



DL CA Power

2CA DL

CA List	PCC										SCC				Power	
	LTE Band	BW	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	DL Antenna Configuration	LTE Band	BW	DL Freq. (MHz)	DL Channel	DL Antenna Configuration	With CA Tx Power (dBm)	Without CA Tx Power (dBm)
	Ant															
CA_12A-48A	Band 12	Ant0	10M	707.5	23095	QPSK	1	0		Band 48	20M	3609	55830		22.03	22.21
	Band 12	Ant1	10M	707.5	23095	QPSK	1	0		Band 48	20M	3609	55830		21.82	21.76
CA_17A-30A	Band 30	Ant0	10M	2310	27710	QPSK	1	0		Band 17	10M	740	5790		24.04	24.20
	Band 30	Ant1	10M	2310	27710	QPSK	1	0		Band 17	10M	740	5790		23.16	23.31
	Band 30	Ant2	10M	2310	27710	QPSK	1	0		Band 17	10M	740	5790		23.55	23.64
	Band 30	Ant3	10M	2310	27710	QPSK	1	0		Band 17	10M	740	5790		22.85	22.86
CA_17A-66A	Band 17	Ant0	10M	710	23790	QPSK	1	0		Band 30	10M	2355	9820		22.01	22.10
	Band 17	Ant1	10M	710	23790	QPSK	1	0		Band 30	10M	2355	9820		21.53	21.70
	Band 66	Ant0	20M	1745	132322	QPSK	1	0	4xMIMO	Band 17	10M	740	5790		23.31	23.37
	Band 66	Ant1	20M	1745	132322	QPSK	1	0	4xMIMO	Band 17	10M	740	5790		23.08	23.12
	Band 66	Ant2	20M	1745	132322	QPSK	1	0	4xMIMO	Band 17	10M	740	5790		23.35	23.41
	Band 66	Ant3	20M	1745	132322	QPSK	1	0	4xMIMO	Band 17	10M	740	5790		23.15	23.27
CA_25A-41A	Band 17	Ant0	10M	710	23790	QPSK	1	0		Band 66	20M	2155	66886	4xMIMO	21.95	22.10
	Band 17	Ant1	10M	710	23790	QPSK	1	0		Band 66	20M	2155	66886	4xMIMO	21.52	21.70
	Band 25	Ant0	20M	1880	26340	QPSK	1	0	4xMIMO	Band 41	20M	2593	40620	4xMIMO	23.18	23.31
	Band 25	Ant1	20M	1880	26340	QPSK	1	0	4xMIMO	Band 41	20M	2593	40620	4xMIMO	22.84	22.80
CA_26A-41A	Band 25	Ant2	20M	1880	26340	QPSK	1	0	4xMIMO	Band 41	20M	2593	40620	4xMIMO	23.30	23.49
	Band 25	Ant3	20M	1880	26340	QPSK	1	0	4xMIMO	Band 41	20M	2593	40620	4xMIMO	23.34	23.43
	Band 26	Ant0	15M	831.5	26865	QPSK	1	0		Band 41	20M	2593	40620	4xMIMO	22.02	22.22
	Band 26	Ant1	15M	831.5	26865	QPSK	1	0		Band 41	20M	2593	40620	4xMIMO	21.72	21.92
CA_28A-38A	Band 2	Ant0	20M	1880	18900	QPSK	1	0	4xMIMO	Band 38	20M	2599.8	38048	4xMIMO	23.21	23.27
	Band 2	Ant1	20M	1880	18900	QPSK	1	0	4xMIMO	Band 38	20M	2599.8	38048	4xMIMO	22.63	22.71
	Band 2	Ant2	20M	1880	18900	QPSK	1	0	4xMIMO	Band 38	20M	2599.8	38048	4xMIMO	23.35	23.41
	Band 2	Ant3	20M	1880	18900	QPSK	1	0	4xMIMO	Band 38	20M	2599.8	38048	4xMIMO	23.28	23.36
	Band 38	Ant0	20M	2595	38000	QPSK	1	0	4xMIMO	Band 2	20M	1960	900	4xMIMO	24.11	24.35
	Band 38	Ant1	20M	2595	38000	QPSK	1	0	4xMIMO	Band 2	20M	1960	900	4xMIMO	23.67	23.73
	Band 38	Ant2	20M	2595	38000	QPSK	1	0	4xMIMO	Band 2	20M	1960	900	4xMIMO	24.04	24.16
	Band 38	Ant3	20M	2595	38000	QPSK	1	0	4xMIMO	Band 2	20M	1960	900	4xMIMO	22.84	23.05
CA_41A-48A	Band 41	Ant0	20M	2593	40620	QPSK	1	0	4xMIMO	Band 48	20M	3609	55830	4xMIMO	24.38	24.52
	Band 41	Ant1	20M	2593	40620	QPSK	1	0	4xMIMO	Band 48	20M	3609	55830	4xMIMO	23.49	23.61
	Band 41	Ant2	20M	2593	40620	QPSK	1	0	4xMIMO	Band 48	20M	3609	55830	4xMIMO	24.11	24.16
	Band 41	Ant3	20M	2593	40620	QPSK	1	0	4xMIMO	Band 48	20M	3609	55830	4xMIMO	22.86	22.93
CA_48B	Band 48	Ant0	10M	3625	55990	QPSK	1	0		Band 48	10M	3644.8	56188		22.94	23.06
	Band 48	Ant4	10M	3625	55990	QPSK	1	0		Band 48	10M	3644.8	56188		23.58	23.73
	Band 48	Ant8	10M	3625	55990	QPSK	1	0		Band 48	10M	3644.8	56188		23.16	23.36
	Band 48	Ant8	10M	3625	55990	QPSK	1	0		Band 48	10M	3644.8	56188		23.22	23.29
CA_4A-48A	Band 4	Ant0	20M	1732.5	20175	QPSK	1	0	4xMIMO	Band 48	20M	3609	55830		23.15	23.31
	Band 4	Ant1	20M	1732.5	20175	QPSK	1	0	4xMIMO	Band 48	20M	3609	55830		22.88	23.06
	Band 4	Ant2	20M	1732.5	20175	QPSK	1	0	4xMIMO	Band 48	20M	3609	55830		23.18	23.24
	Band 4	Ant3	20M	1732.5	20175	QPSK	1	0	4xMIMO	Band 48	20M	3609	55830		22.98	23.12
CA_5A-41A	Band 5	Ant0	10M	836.5	20525	QPSK	1	0		Band 41	20M	2593	40620	4xMIMO	22.11	22.18
	Band 5	Ant1	10M	836.5	20525	QPSK	1	0		Band 41	20M	2593	40620	4xMIMO	21.64	21.82
	Band 41	Ant0	20M	2593	40620	QPSK	1	0	4xMIMO	Band 5	10M	881.5	2525		24.39	24.52
	Band 41	Ant1	20M	2593	40620	QPSK	1	0	4xMIMO	Band 5	10M	881.5	2525		23.51	23.61
	Band 41	Ant2	20M	2593	40620	QPSK	1	0	4xMIMO	Band 5	10M	881.5	2525		23.96	24.16
CA_7A-71A	Band 41	Ant3	20M	2593	40620	QPSK	1	0	4xMIMO	Band 5	10M	881.5	2525		22.77	22.93
	Band 7	Ant0	20M	2535	21100	QPSK	1	0	4xMIMO	Band 71	20M	683	68798		22.03	22.18
	Band 7	Ant1	20M	2535	21100	QPSK	1	0	4xMIMO	Band 71	20M	683	68798		23.52	23.67
	Band 7	Ant2	20M	2535	21100	QPSK	1	0	4xMIMO	Band 71	20M	683	68798		24.04	24.22
	Band 7	Ant3	20M	2535	21100	QPSK	1	0	4xMIMO	Band 71	20M	683	68798		24.04	24.17
CA_7B	Band 71	Ant0	20M	683	133322	QPSK	1	0		Band 7	20M	2655	3100	4xMIMO	22.35	22.54
	Band 71	Ant1	20M	683	133322	QPSK	1	0		Band 7	20M	2655	3100	4xMIMO	22.01	22.15
	Band 7	Ant0	15M	2535	21100	QPSK	1	0	4xMIMO	Band 7	5M	2544.3	3193	4xMIMO	22.05	22.18
	Band 7	Ant1	15M	2535	21100	QPSK	1	0	4xMIMO	Band 7	5M	2544.3	3193	4xMIMO	23.53	23.67
CA_7B	Band 7	Ant2	15M	2535	21100	QPSK	1	0	4xMIMO	Band 7	5M	2544.3	3193	4xMIMO	24.15	24.22
	Band 7	Ant3	15M	2535	21100	QPSK	1	0	4xMIMO	Band 7	5M	2544.3	3193	4xMIMO	24.03	24.17



CA_48A-48A-66A	Band 66	Ant0	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 48	20M	3609	55830		Band 48	EM	3697.5	56715		23.30	23.37
	Band 66	Ant1	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 48	20M	3609	55830		Band 48	EM	3697.5	56715		22.84	23.12
	Band 66	Ant2	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 48	20M	3609	55830		Band 48	EM	3697.5	56715		23.34	23.41
CA_48A-48A-71A	Band 66	Ant3	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 48	20M	3609	55830		Band 48	EM	3697.5	56715		23.15	23.27
	Band 71	Ant0	20M	683	133322	QPSK	1	0		Band 48	20M	3609	55830		Band 48	EM	3697.5	56715		22.48	22.54
	Band 71	Ant1	20M	683	133322	QPSK	1	0		Band 48	20M	3609	55830		Band 48	EM	3697.5	56715		22.03	22.13
CA_48A_48C	Band 48	Ant3	20M	3609	55830	QPSK	1	0		Band 48	20M	3609	55830		Band 48	20M	3628.8	56028		22.89	23.06
	Band 48	Ant4	20M	3609	55830	QPSK	1	0		Band 48	20M	3609	55830		Band 48	20M	3628.8	56028		23.84	23.73
	Band 48	Ant8	20M	3609	55830	QPSK	1	0		Band 48	20M	3609	55830		Band 48	20M	3628.8	56028		23.25	23.36
	Band 48	Ant8	20M	3609	55830	QPSK	1	0		Band 48	20M	3609	55830		Band 48	20M	3628.8	56028		23.12	23.29
	Band 66	Ant0	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	5M	2197.5	67311	4x4MIMO	Band 48	20M	3609	55830		23.28	23.37
CA_48A-66A-66A	Band 66	Ant1	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	5M	2197.5	67311	4x4MIMO	Band 48	20M	3609	55830		22.95	23.12
	Band 66	Ant2	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	5M	2197.5	67311	4x4MIMO	Band 48	20M	3609	55830		23.32	23.41
	Band 66	Ant3	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	5M	2197.5	67311	4x4MIMO	Band 48	20M	3609	55830		23.21	23.27
	Band 66	Ant0	15M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	5M	2154.3	66879	4x4MIMO	Band 48	20M	3609	55830		23.33	23.37
CA_48A-66B	Band 66	Ant1	15M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	5M	2154.3	66879	4x4MIMO	Band 48	20M	3609	55830		23.00	23.12
	Band 66	Ant2	15M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	5M	2154.3	66879	4x4MIMO	Band 48	20M	3609	55830		23.26	23.41
	Band 66	Ant3	15M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	5M	2154.3	66879	4x4MIMO	Band 48	20M	3609	55830		23.13	23.27
CA_48A-68C	Band 66	Ant0	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	20M	2164.8	66984	4x4MIMO	Band 48	20M	3609	55830		23.25	23.37
	Band 66	Ant1	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	20M	2164.8	66984	4x4MIMO	Band 48	20M	3609	55830		22.95	23.12
	Band 66	Ant2	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	20M	2164.8	66984	4x4MIMO	Band 48	20M	3609	55830		23.24	23.41
CA_48C-68A	Band 66	Ant3	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	20M	2164.8	66984	4x4MIMO	Band 48	20M	3609	55830		23.14	23.27
	Band 66	Ant0	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 48	20M	3609	55830		Band 48	20M	3628.8	56028		23.21	23.37
	Band 66	Ant1	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 48	20M	3609	55830		Band 48	20M	3628.8	56028		22.95	23.12
	Band 66	Ant2	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 48	20M	3609	55830		Band 48	20M	3628.8	56028		23.32	23.41
	Band 66	Ant3	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 48	20M	3609	55830		Band 48	20M	3628.8	56028		23.18	23.27
CA_48C-71A	Band 71	Ant0	20M	683	133322	QPSK	1	0		Band 48	20M	3609	55830		Band 48	20M	3628.8	56028		22.99	22.54
	Band 71	Ant1	20M	683	133322	QPSK	1	0		Band 48	20M	3609	55830		Band 48	20M	3628.8	56028		21.99	22.13
	Band 48	Ant3	20M	3609	55830	QPSK	1	0		Band 48	20M	3628.8	56028		Band 48	20M	3648.6	56226		22.99	23.06
CA_48D	Band 48	Ant4	20M	3609	55830	QPSK	1	0		Band 48	20M	3628.8	56028		Band 48	20M	3648.6	56226		23.64	23.73
	Band 48	Ant6	20M	3609	55830	QPSK	1	0		Band 48	20M	3628.8	56028		Band 48	20M	3648.6	56226		23.25	23.36
	Band 48	Ant8	20M	3609	55830	QPSK	1	0		Band 48	20M	3628.8	56028		Band 48	20M	3648.6	56226		23.12	23.29
	Band 12	Ant0	10M	707.5	23095	QPSK	1	0		Band 4	20M	2132.5	2175	4x4MIMO	Band 30	10M	2355	9820		22.09	22.21
CA_4A-12A-30A	Band 12	Ant1	10M	707.5	23095	QPSK	1	0		Band 4	20M	2132.5	2175	4x4MIMO	Band 30	10M	2355	9820		21.86	21.76
	Band 30	Ant0	10M	2310	27710	QPSK	1	0		Band 4	20M	2132.5	2175	4x4MIMO	Band 12	10M	737.5	5095		24.04	24.20
	Band 30	Ant1	10M	2310	27710	QPSK	1	0		Band 4	20M	2132.5	2175	4x4MIMO	Band 12	10M	737.5	5095		23.16	23.31
	Band 30	Ant2	10M	2310	27710	QPSK	1	0		Band 4	20M	2132.5	2175	4x4MIMO	Band 12	10M	737.5	5095		23.55	23.64
	Band 30	Ant3	10M	2310	27710	QPSK	1	0		Band 4	20M	2132.5	2175	4x4MIMO	Band 12	10M	737.5	5095		22.85	22.95
	Band 4	Ant0	20M	1732.5	20175	QPSK	1	0	4x4MIMO	Band 30	10M	2355	9820		Band 2	20M	1960	900	4x4MIMO	23.17	23.31
	Band 4	Ant1	20M	1732.5	20175	QPSK	1	0	4x4MIMO	Band 30	10M	2355	9820		Band 2	20M	1960	900	4x4MIMO	22.91	23.06
	Band 4	Ant2	20M	1732.5	20175	QPSK	1	0	4x4MIMO	Band 30	10M	2355	9820		Band 2	20M	1960	900	4x4MIMO	23.18	23.24
	Band 4	Ant3	20M	1732.5	20175	QPSK	1	0	4x4MIMO	Band 30	10M	2355	9820		Band 2	20M	1960	900	4x4MIMO	22.98	23.12



CA_5A-7A-66A	Band 5	Ant0	10M	836.5	20525	QPSK	1	0		Band 7	20M	2655	3100	4xMIMO	Band 66	20M	2155	66886	4xMIMO	22.10	22.18
	Band 5	Ant1	10M	836.5	20525	QPSK	1	0		Band 7	20M	2655	3100	4xMIMO	Band 66	20M	2155	66886	4xMIMO	21.62	21.82
	Band 7	Ant0	20M	2535	21100	QPSK	1	0	4xMIMO	Band 66	20M	2155	66886	4xMIMO	Band 5	10M	881.5	2525		21.99	22.18
	Band 7	Ant1	20M	2535	21100	QPSK	1	0	4xMIMO	Band 66	20M	2155	66886	4xMIMO	Band 5	10M	881.5	2525		23.54	23.67
	Band 7	Ant2	20M	2535	21100	QPSK	1	0	4xMIMO	Band 66	20M	2155	66886	4xMIMO	Band 5	10M	881.5	2525		24.15	24.22
	Band 7	Ant3	20M	2535	21100	QPSK	1	0	4xMIMO	Band 66	20M	2155	66886	4xMIMO	Band 5	10M	881.5	2525		24.05	24.17
	Band 66	Ant0	20M	1745	132322	QPSK	1	0	4xMIMO	Band 5	10M	881.5	2525		Band 7	20M	2655	3100	4xMIMO	23.20	23.37
	Band 66	Ant1	20M	1745	132322	QPSK	1	0	4xMIMO	Band 5	10M	881.5	2525		Band 7	20M	2655	3100	4xMIMO	22.99	23.12
	Band 66	Ant2	20M	1745	132322	QPSK	1	0	4xMIMO	Band 5	10M	881.5	2525		Band 7	20M	2655	3100	4xMIMO	23.34	23.41
	Band 66	Ant3	20M	1745	132322	QPSK	1	0	4xMIMO	Band 5	10M	881.5	2525		Band 7	20M	2655	3100	4xMIMO	23.20	23.27
CA_5A-7A-7A	Band 5	Ant0	10M	836.5	20525	QPSK	1	0		Band 7	20M	2655	3100	4xMIMO	Band 7	5M	2687.5	3425	4xMIMO	22.04	22.18
	Band 5	Ant1	10M	836.5	20525	QPSK	1	0		Band 7	20M	2655	3100	4xMIMO	Band 7	5M	2687.5	3425	4xMIMO	21.72	21.82
	Band 7	Ant0	20M	2535	21100	QPSK	1	0	4xMIMO	Band 7	5M	2687.5	3425	4xMIMO	Band 5	10M	881.5	2525		22.09	22.18
	Band 7	Ant1	20M	2535	21100	QPSK	1	0	4xMIMO	Band 7	5M	2687.5	3425	4xMIMO	Band 5	10M	881.5	2525		23.57	23.67
	Band 7	Ant2	20M	2535	21100	QPSK	1	0	4xMIMO	Band 7	5M	2687.5	3425	4xMIMO	Band 5	10M	881.5	2525		24.12	24.22
	Band 7	Ant3	20M	2535	21100	QPSK	1	0	4xMIMO	Band 7	5M	2687.5	3425	4xMIMO	Band 5	10M	881.5	2525		24.10	24.17
	Band 5	Ant0	10M	836.5	20525	QPSK	1	0		Band 7	20M	2655	3100	4xMIMO	Band 7	20M	2554.8	3298	4xMIMO	22.04	22.18
	Band 5	Ant1	10M	836.5	20525	QPSK	1	0		Band 7	20M	2655	3100	4xMIMO	Band 7	20M	2554.8	3298	4xMIMO	21.67	21.82
	Band 7	Ant0	20M	1745	132322	QPSK	1	0	4xMIMO	Band 7	20M	2554.8	3298	4xMIMO	Band 5	10M	881.5	2525		22.07	22.18
	Band 7	Ant1	20M	1745	132322	QPSK	1	0	4xMIMO	Band 7	20M	2554.8	3298	4xMIMO	Band 5	10M	881.5	2525		23.63	23.67
CA_5A-7C	Band 7	Ant2	20M	1745	132322	QPSK	1	0	4xMIMO	Band 7	20M	2554.8	3298	4xMIMO	Band 5	10M	881.5	2525		24.16	24.22
	Band 7	Ant3	20M	1745	132322	QPSK	1	0	4xMIMO	Band 7	20M	2554.8	3298	4xMIMO	Band 5	10M	881.5	2525		24.03	24.17
	Band 5	Ant0	10M	836.5	20525	QPSK	1	0		Band 5	5M	888.7	2597		Band 30	10M	2355	8620		21.99	22.18
	Band 5	Ant1	10M	836.5	20525	QPSK	1	0		Band 5	5M	888.7	2597		Band 30	10M	2355	8620		21.65	21.82
	Band 30	Ant0	10M	2310	27710	QPSK	1	0		Band 5	10M	881.5	2525		Band 5	5M	888.7	2597		24.04	24.20
	Band 30	Ant1	10M	2310	27710	QPSK	1	0		Band 5	10M	881.5	2525		Band 5	5M	888.7	2597		23.19	23.31
	Band 30	Ant2	10M	2310	27710	QPSK	1	0		Band 5	10M	881.5	2525		Band 5	5M	888.7	2597		23.51	23.64
	Band 30	Ant3	10M	2310	27710	QPSK	1	0		Band 5	10M	881.5	2525		Band 5	5M	888.7	2597		22.80	22.95
	Band 5	Ant0	10M	836.5	20525	QPSK	1	0		Band 5	5M	888.7	2597		Band 66	20M	2155	66886	4xMIMO	22.10	22.18
	Band 5	Ant1	10M	836.5	20525	QPSK	1	0		Band 5	5M	888.7	2597		Band 66	20M	2155	66886	4xMIMO	21.76	21.82
CA_5B-30A	Band 66	Ant0	20M	1745	132322	QPSK	1	0	4xMIMO	Band 5	10M	881.5	2525		Band 5	5M	888.7	2597		23.21	23.37
	Band 66	Ant1	20M	1745	132322	QPSK	1	0	4xMIMO	Band 5	10M	881.5	2525		Band 5	5M	888.7	2597		22.99	23.12
	Band 66	Ant2	20M	1745	132322	QPSK	1	0	4xMIMO	Band 5	10M	881.5	2525		Band 5	5M	888.7	2597		23.35	23.41
	Band 66	Ant3	20M	1745	132322	QPSK	1	0	4xMIMO	Band 5	10M	881.5	2525		Band 5	5M	888.7	2597		23.10	23.27
	Band 5	Ant0	10M	836.5	20525	QPSK	1	0		Band 66	5M	2197.5	67311	4xMIMO	Band 66	20M	2120	66536	4xMIMO	23.20	23.37
	Band 5	Ant1	10M	836.5	20525	QPSK	1	0		Band 66	5M	2197.5	67311	4xMIMO	Band 66	20M	2120	66536	4xMIMO	22.93	23.12
	Band 66	Ant2	20M	1745	132322	QPSK	1	0	4xMIMO	Band 66	5M	2197.5	67311	4xMIMO	Band 66	20M	2120	66536	4xMIMO	23.37	23.41
	Band 66	Ant3	20M	1745	132322	QPSK	1	0	4xMIMO	Band 66	5M	2197.5	67311	4xMIMO	Band 66	20M	2120	66536	4xMIMO	23.12	23.27
	Band 66	Ant0	20M	1745	132322	QPSK	1	0	4xMIMO	Band 66	5M	2197.5	67311	4xMIMO	Band 71	20M	683	68786		23.24	23.37
	Band 66	Ant1	20M	1745	132322	QPSK	1	0	4xMIMO	Band 66	5M	2197.5	67311	4xMIMO	Band 71	20M	683	68786		22.98	23.12
CA_66A-66A-66A	Band 66	Ant2	20M	1745	132322	QPSK	1	0	4xMIMO	Band 66	5M	2197.5	67311	4xMIMO	Band 71	20M	683	68786		23.33	23.41
	Band 66	Ant3	20M	1745	132322	QPSK	1	0	4xMIMO	Band 66	5M	2197.5	67311	4xMIMO	Band 71	20M	683	68786		23.27	23.37
	Band 66	Ant0	20M	1745	132322	QPSK	1	0	4xMIMO	Band 66	5M	2197.5	67311	4xMIMO	Band 66	5M	2197.5	67311	4xMIMO	22.40	22.54
	Band 66	Ant1	20M	1745	132322	QPSK	1	0	4xMIMO	Band 66	5M	2197.5	67311	4xMIMO	Band 66	5M	2197.5	67311	4xMIMO	22.03	22.13
	Band 66	Ant2	20M	1745	132322	QPSK	1	0	4xMIMO	Band 66	5M	2197.5	67311	4xMIMO	Band 66	5M	2197.5	67311	4xMIMO	22.35	22.41
	Band 66	Ant3	20M	1745	132322	QPSK	1	0	4xMIMO	Band 66	5M	2197.5	67311	4xMIMO	Band 66	5M	2197.5	67311	4xMIMO	22.03	22.13
	Band 66	Ant0	20M	1720	132072	QPSK	1	0	4xMIMO	Band 66	10M	2185.1	67187	4xMIMO	Band 66	10M	2155	67286	4xMIMO	23.30	23.37
	Band 66	Ant1	20M	1720	132072	QPSK	1	0	4xMIMO	Band 66	10M	2185.1	67187	4xMIMO	Band 66	10M	2155	67286	4xMIMO	22.96	23.12
	Band 66	Ant2	20M	1720	132072	QPSK	1	0	4xMIMO	Band 66	10M	2185.1	67187	4xMIMO	Band 66	10M	2155	67286	4xMIMO	23.30	23.41
	Band 66	Ant3	20M	1720	132072	QPSK	1	0	4xMIMO	Band 66	10M	2185.1	67187	4xMIMO	Band 66	10M	2155	67286	4xMIMO	23.11	23.27



UL CA power

CA_66B Ant 2								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132047	132140	QPSK	1	74	1	0	22.95	24.00
132322	132415	QPSK	1	74	1	0	22.81	24.00
132597	132504	QPSK	1	0	1	24	22.86	24.00

CA_66C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132072	132270	QPSK	1	99	1	0	22.86	24.00
132322	132520	QPSK	1	99	1	0	22.83	24.00
132572	132374	QPSK	1	0	1	99	22.85	24.00

CA_5B Ant 0								
Combination 10MHz+10MHz (50RB+50RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20450	20549	QPSK	1	49	1	0	21.8	23.00
20476	20575	QPSK	1	49	1	0	21.99	23.00
20500	20501	QPSK	1	0	1	49	22.01	23.00

CA_66B Ant 3								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132047	132140	QPSK	1	74	1	0	22.92	24.00
132322	132415	QPSK	1	74	1	0	22.99	24.00
132597	132504	QPSK	1	0	1	24	22.87	24.00

CA_66C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132072	132270	QPSK	1	99	1	0	22.88	24.00
132322	132520	QPSK	1	99	1	0	22.97	24.00
132572	132374	QPSK	1	0	1	99	22.94	24.00

CA_5B Ant 1								
Combination 10MHz+10MHz (50RB+50RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20450	20549	QPSK	1	49	1	0	21.53	23.00
20476	20575	QPSK	1	49	1	0	21.72	23.00
20500	20501	QPSK	1	0	1	49	21.63	23.00

CA_66B Ant 0								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132047	132140	QPSK	1	74	1	0	22.85	24.00
132322	132415	QPSK	1	74	1	0	22.76	24.00
132597	132504	QPSK	1	0	1	24	22.73	24.00

CA_66C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132072	132270	QPSK	1	99	1	0	22.80	24.00
132322	132520	QPSK	1	99	1	0	22.69	24.00
132572	132374	QPSK	1	0	1	99	22.66	24.00

CA_66B Ant 1								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132047	132140	QPSK	1	74	1	0	22.95	24.00
132322	132415	QPSK	1	74	1	0	23.04	24.00
132597	132504	QPSK	1	0	1	24	23.03	24.00

CA_66C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132072	132270	QPSK	1	99	1	0	22.81	24.00
132322	132520	QPSK	1	99	1	0	23.02	24.00
132572	132374	QPSK	1	0	1	99	23.01	24.00



CA_7C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	23.07	24.00
21100	21298	QPSK	1	99	1	0	23.19	24.00
21350	21152	QPSK	1	0	1	99	23.11	24.00

CA_7C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	22.78	24.00
21100	21298	QPSK	1	99	1	0	22.84	24.00
21350	21152	QPSK	1	0	1	99	22.81	24.00

CA_7C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	22.62	24.00
21100	21298	QPSK	1	99	1	0	22.66	24.00
21350	21152	QPSK	1	0	1	99	22.57	24.00

CA_7C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	22.57	24.00
21100	21298	QPSK	1	99	1	0	22.63	24.00
21350	21152	QPSK	1	0	1	99	22.59	24.00

CA_41C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	22.8	24.00
40185	40383	QPSK	1	99	1	0	22.78	24.00
40620	40818	QPSK	1	99	1	0	22.87	24.00
41055	41253	QPSK	1	99	1	0	22.82	24.00
41490	41292	QPSK	1	0	1	99	22.73	24.00

CA_41C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	22.92	24.00
40185	40383	QPSK	1	99	1	0	22.88	24.00
40620	40818	QPSK	1	99	1	0	22.97	24.00
41055	41253	QPSK	1	99	1	0	22.93	24.00
41490	41292	QPSK	1	0	1	99	22.86	24.00

CA_41C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	22.81	24.00
40185	40383	QPSK	1	99	1	0	22.76	24.00
40620	40818	QPSK	1	99	1	0	22.85	24.00
41055	41253	QPSK	1	99	1	0	22.8	24.00
41490	41292	QPSK	1	0	1	99	22.73	24.00

CA_41C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	22.57	24.00
40185	40383	QPSK	1	99	1	0	22.52	24.00
40620	40818	QPSK	1	99	1	0	22.61	24.00
41055	41253	QPSK	1	99	1	0	22.54	24.00
41490	41292	QPSK	1	0	1	99	22.51	24.00

CA_41C HPUE Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	25.78	27.00
40185	40383	QPSK	1	99	1	0	25.73	27.00
40620	40818	QPSK	1	99	1	0	25.81	27.00
41055	41253	QPSK	1	99	1	0	25.77	27.00
41490	41292	QPSK	1	0	1	99	22.74	27.00

CA_41C HPUE Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	25.99	27.00
40185	40383	QPSK	1	99	1	0	25.92	27.00
40620	40818	QPSK	1	99	1	0	26.03	27.00
41055	41253	QPSK	1	99	1	0	25.95	27.00
41490	41292	QPSK	1	0	1	99	25.91	27.00

CA_41C HPUE Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	25.86	27.00
40185	40383	QPSK	1	99	1	0	25.8	27.00
40620	40818	QPSK	1	99	1	0	25.91	27.00
41055	41253	QPSK	1	99	1	0	25.88	27.00
41490	41292	QPSK	1	0	1	99	25.82	27.00

CA_41C HPUE Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	25.88	27.00
40185	40383	QPSK	1	99	1	0	25.84	27.00
40620	40818	QPSK	1	99	1	0	25.91	27.00
41055	41253	QPSK	1	99	1	0	25.89	27.00
41490	41292	QPSK	1	0	1	99	25.82	27.00



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CA_48C Ant 4								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	22.82	24.00
55830	56028	QPSK	1	99	1	0	22.91	24.00
56150	56348	QPSK	1	99	1	0	22.84	24.00
56640	56442	QPSK	1	0	1	99	22.79	24.00

CA_48B Ant 4								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55315	55408	QPSK	1	74	1	0	22.8	24.00
55820	55913	QPSK	1	74	1	0	22.86	24.00
56160	56253	QPSK	1	74	1	0	22.74	24.00
56665	56572	QPSK	1	0	1	24	22.82	24.00

CA_nSB Ant 0								
Combination 10MHz+10MHz (75RB+75RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
165800	167780	QPSK	25	27	25	0	22.66	24.00
166300	168280	QPSK	25	27	25	0	22.71	24.00
166820	168800	QPSK	25	27	25	0	22.45	24.00

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CA_48C Ant 6								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	23.1	24.00
55830	56028	QPSK	1	99	1	0	23.20	24.00
56150	56348	QPSK	1	99	1	0	23.15	24.00
56640	56442	QPSK	1	0	1	99	23.04	24.00

CA_48B Ant 6								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55315	55408	QPSK	1	74	1	0	23.02	24.00
55820	55913	QPSK	1	74	1	0	23.11	24.00
56160	56253	QPSK	1	74	1	0	23.07	24.00
56665	56572	QPSK	1	0	1	24	23.06	24.00

CA_nSB Ant 1								
Combination 10MHz+10MHz (75RB+75RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
165800	167780	QPSK	25	27	25	0	22.81	24.00
166300	168280	QPSK	25	27	25	0	22.66	24.00
166820	168800	QPSK	25	27	25	0	22.54	24.00

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CA_48C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	22.87	24.00
55830	56028	QPSK	1	99	1	0	22.92	24.00
56150	56348	QPSK	1	99	1	0	22.8	24.00
56640	56442	QPSK	1	0	1	99	22.88	24.00

CA_48B Ant 3								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55315	55408	QPSK	1	74	1	0	22.81	24.00
55820	55913	QPSK	1	74	1	0	22.88	24.00
56160	56253	QPSK	1	74	1	0	22.74	24.00
56665	56572	QPSK	1	0	1	24	22.84	24.00

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CA_48C Ant 8								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	23.18	24.00
55830	56028	QPSK	1	99	1	0	23.29	24.00
56150	56348	QPSK	1	99	1	0	23.24	24.00
56640	56442	QPSK	1	0	1	99	23.11	24.00

CA_48B Ant 8								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55315	55408	QPSK	1	74	1	0	23.05	24.00
55820	55913	QPSK	1	74	1	0	23.20	24.00
56160	56253	QPSK	1	74	1	0	23.14	24.00
56665	56572	QPSK	1	0	1	24	23.09	24.00



CA_n41C Ant 0										
Combination 100MHz+40MHz (270RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measure d Power (dBm)	Tune up Power (dBm)		
			RB Size	RB offset	RB Size	RB offset				
509202	523146	QPSK	180	93	6	0	21.22	23.00		
514602	528546	QPSK	180	93	6	0	21.61	23.00		
520056	534000	QPSK	180	93	6	0	21.35	23.00		

CA_n41C HPUE Ant 0										
Combination 100MHz+40MHz (270RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measure d Power (dBm)	Tune up Power (dBm)		
			RB Size	RB offset	RB Size	RB offset				
509202	523146	QPSK	180	93	6	0	24.12	26.00		
514602	528546	QPSK	180	93	6	0	24.45	26.00		
520056	534000	QPSK	180	93	6	0	24.31	26.00		

CA_n48B Ant 3										
Combination 20MHz+20MHz (50RB+50RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measure d Power (dBm)	Tune up Power (dBm)		
			RB Size	RB offset	RB Size	RB offset				
637334	638666	QPSK	25	26	25	0	11.31	12.50		
641000	642332	QPSK	25	26	25	0	21.74	23.00		
644668	646000	QPSK	25	26	25	0	11.42	12.50		

CA_n41C Ant 1										
Combination 100MHz+40MHz (270RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measure d Power (dBm)	Tune up Power (dBm)		
			RB Size	RB offset	RB Size	RB offset				
509202	523146	QPSK	180	93	6	0	21.32	23.00		
514602	528546	QPSK	180	93	6	0	21.45	23.00		
520056	534000	QPSK	180	93	6	0	21.28	23.00		

CA_n41C HPUE Ant 1										
Combination 100MHz+40MHz (270RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measure d Power (dBm)	Tune up Power (dBm)		
			RB Size	RB offset	RB Size	RB offset				
509202	523146	QPSK	180	93	6	0	24.32	26.00		
514602	528546	QPSK	180	93	6	0	24.41	26.00		
520056	534000	QPSK	180	93	6	0	24.38	26.00		

CA_n48B Ant 4										
Combination 20MHz+20MHz (50RB+50RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measure d Power (dBm)	Tune up Power (dBm)		
			RB Size	RB offset	RB Size	RB offset				
637334	638666	QPSK	25	26	25	0	11.61	12.50		
641000	642332	QPSK	25	26	25	0	21.74	23.00		
644668	646000	QPSK	25	26	25	0	11.55	12.50		

CA_n41C Ant 2										
Combination 100MHz+40MHz (270RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measure d Power (dBm)	Tune up Power (dBm)		
			RB Size	RB offset	RB Size	RB offset				
509202	523146	QPSK	180	93	6	0	22.89	24.00		
514602	528546	QPSK	180	93	6	0	22.97	24.00		
520056	534000	QPSK	180	93	6	0	22.86	24.00		

CA_n41C HPUE Ant 2										
Combination 100MHz+40MHz (270RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measure d Power (dBm)	Tune up Power (dBm)		
			RB Size	RB offset	RB Size	RB offset				
509202	523146	QPSK	180	93	6	0	24.51	26.00		
514602	528546	QPSK	180	93	6	0	24.73	26.00		
520056	534000	QPSK	180	93	6	0	24.58	26.00		

CA_n48B Ant 6										
Combination 20MHz+20MHz (50RB+50RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measure d Power (dBm)	Tune up Power (dBm)		
			RB Size	RB offset	RB Size	RB offset				
637334	638666	QPSK	25	26	25	0	11.22	12.50		
641000	642332	QPSK	25	26	25	0	21.22	23.00		
644668	646000	QPSK	25	26	25	0	11.34	12.50		

CA_n41C Ant 3										
Combination 100MHz+40MHz (270RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measure d Power (dBm)	Tune up Power (dBm)		
			RB Size	RB offset	RB Size	RB offset				
509202	523146	QPSK	180	93	6	0	21.21	22.00		
514602	528546	QPSK	180	93	6	0	21.45	22.00		
520056	534000	QPSK	180	93	6	0	21.36	22.00		

CA_n41C HPUE Ant 3										
Combination 100MHz+40MHz (270RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measure d Power (dBm)	Tune up Power (dBm)		
			RB Size	RB offset	RB Size	RB offset				
509202	523146	QPSK	180	93	6	0	23.81	25.00		
514602	528546	QPSK	180	93	6	0	23.96	25.00		
520056	534000	QPSK	180	93	6	0	23.84	25.00		

CA_n48B Ant 8										
Combination 20MHz+20MHz (50RB+50RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measure d Power (dBm)	Tune up Power (dBm)		
			RB Size	RB offset	RB Size	RB offset				
637334	638666	QPSK	25	26	25	0	11.22	12.50		
641000	642332	QPSK	25	26	25	0	21.22	23.00		
644668	646000	QPSK	25	26	25	0	11.34	12.50		



CA_66B Ant 2								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132047	132140	QPSK	1	74	1	0	12.29	13.50
132322	132415	QPSK	1	74	1	0	12.36	13.50
132597	132504	QPSK	1	0	1	24	12.32	13.50

CA_66C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132072	132270	QPSK	1	99	1	0	12.93	13.50
132322	132520	QPSK	1	99	1	0	12.41	13.50
132572	132374	QPSK	1	0	1	99	12.29	13.50

CA_5B Ant 0								
Combination 10MHz+10MHz (50RB+50RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20450	20549	QPSK	1	49	1	0	21.8	23.00
20476	20575	QPSK	1	49	1	0	21.99	23.00
20500	20501	QPSK	1	0	1	49	22.01	23.00

CA_66B Ant 3								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132047	132140	QPSK	1	74	1	0	14.16	15.50
132322	132415	QPSK	1	74	1	0	14.21	15.50
132597	132504	QPSK	1	0	1	24	14.17	15.50

CA_66C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132072	132270	QPSK	1	99	1	0	14.11	15.50
132322	132520	QPSK	1	99	1	0	14.25	15.50
132572	132374	QPSK	1	0	1	99	14.19	15.50

CA_5B Ant 1								
Combination 10MHz+10MHz (50RB+50RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20450	20549	QPSK	1	49	1	0	21.53	23.00
20476	20575	QPSK	1	49	1	0	21.72	23.00
20500	20501	QPSK	1	0	1	49	21.63	23.00

CA_66B Ant 0								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132047	132140	QPSK	1	74	1	0	22.60	24.00
132322	132415	QPSK	1	74	1	0	22.69	24.00
132597	132504	QPSK	1	0	1	24	22.66	24.00

CA_66C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132072	132270	QPSK	1	99	1	0	22.65	24.00
132322	132520	QPSK	1	99	1	0	22.76	24.00
132572	132374	QPSK	1	0	1	99	22.73	24.00

CA_66B Ant 1								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132047	132140	QPSK	1	74	1	0	22.81	24.00
132322	132415	QPSK	1	74	1	0	23.02	24.00
132597	132504	QPSK	1	0	1	24	23.01	24.00

CA_66C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132072	132270	QPSK	1	99	1	0	22.95	24.00
132322	132520	QPSK	1	99	1	0	23.04	24.00
132572	132374	QPSK	1	0	1	99	23.03	24.00



CA_7C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	14.14	15.40
21100	21298	QPSK	1	99	1	0	14.22	15.40
21350	21152	QPSK	1	0	1	99	14.2	15.40

CA_7C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	15.18	16.30
21100	21298	QPSK	1	99	1	0	15.21	16.30
21350	21152	QPSK	1	0	1	99	15.19	16.30

CA_7C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	22.62	24.00
21100	21298	QPSK	1	99	1	0	22.66	24.00
21350	21152	QPSK	1	0	1	99	22.57	24.00

CA_7C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	22.57	24.00
21100	21298	QPSK	1	99	1	0	22.63	24.00
21350	21152	QPSK	1	0	1	99	22.59	24.00

CA_41C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	14.66	15.50
40185	40383	QPSK	1	99	1	0	14.7	15.50
40620	40818	QPSK	1	99	1	0	14.72	15.50
41055	41253	QPSK	1	99	1	0	14.69	15.50
41490	41292	QPSK	1	0	1	99	14.7	15.50

CA_41C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	18.01	18.70
40185	40383	QPSK	1	99	1	0	17.97	18.70
40620	40818	QPSK	1	99	1	0	18.09	18.70
41055	41253	QPSK	1	99	1	0	17.98	18.70
41490	41292	QPSK	1	0	1	99	18.01	18.70

CA_41C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	22.81	24.00
40185	40383	QPSK	1	99	1	0	22.76	24.00
40620	40818	QPSK	1	99	1	0	22.85	24.00
41055	41253	QPSK	1	99	1	0	22.8	24.00
41490	41292	QPSK	1	0	1	99	22.73	24.00

CA_41C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	22.57	24.00
40185	40383	QPSK	1	99	1	0	22.52	24.00
40620	40818	QPSK	1	99	1	0	22.61	24.00
41055	41253	QPSK	1	99	1	0	22.54	24.00
41490	41292	QPSK	1	0	1	99	22.51	24.00

CA_41C HPUE Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	15.81	17.10
40185	40383	QPSK	1	99	1	0	15.79	17.10
40620	40818	QPSK	1	99	1	0	15.89	17.10
41055	41253	QPSK	1	99	1	0	15.76	17.10
41490	41292	QPSK	1	0	1	99	15.79	17.10

CA_41C HPUE Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	19.2	20.30
40185	40383	QPSK	1	99	1	0	19.32	20.30
40620	40818	QPSK	1	99	1	0	19.35	20.30
41055	41253	QPSK	1	99	1	0	19.2	20.30
41490	41292	QPSK	1	0	1	99	19.24	20.30

CA_41C HPUE Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	25.86	27.00
40185	40383	QPSK	1	99	1	0	25.8	27.00
40620	40818	QPSK	1	99	1	0	25.91	27.00
41055	41253	QPSK	1	99	1	0	25.88	27.00
41490	41292	QPSK	1	0	1	99	25.82	27.00

CA_41C HPUE Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	25.88	27.00
40185	40383	QPSK	1	99	1	0	25.84	27.00
40620	40818	QPSK	1	99	1	0	25.91	27.00
41055	41253	QPSK	1	99	1	0	25.89	27.00
41490	41292	QPSK	1	0	1	99	25.82	27.00

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CA_48C Ant 4								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	16.47	17.80
55830	56028	QPSK	1	99	1	0	16.54	17.80
56150	56348	QPSK	1	99	1	0	16.43	17.80
56640	56442	QPSK	1	0	1	99	16.46	17.80

CA_48B Ant 4								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55315	55408	QPSK	1	74	1	0	16.42	17.80
55820	55913	QPSK	1	74	1	0	16.52	17.80
56160	56253	QPSK	1	74	1	0	16.45	17.80
56665	56572	QPSK	1	0	1	24	16.39	17.80

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CA_48C Ant 6								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	15.76	17.30
55830	56028	QPSK	1	99	1	0	15.81	17.30
56150	56348	QPSK	1	99	1	0	15.72	17.30
56640	56442	QPSK	1	0	1	99	15.76	17.30

CA_48B Ant 6								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55315	55408	QPSK	1	74	1	0	15.73	17.30
55820	55913	QPSK	1	74	1	0	15.76	17.30
56160	56253	QPSK	1	74	1	0	15.65	17.30
56665	56572	QPSK	1	0	1	24	15.74	17.30

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CA_48C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	16.56	17.80
55830	56028	QPSK	1	99	1	0	16.58	17.80
56150	56348	QPSK	1	99	1	0	16.53	17.80
56640	56442	QPSK	1	0	1	99	16.44	17.80

CA_48B Ant 3								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55315	55408	QPSK	1	74	1	0	16.54	17.80
55820	55913	QPSK	1	74	1	0	16.57	17.80
56160	56253	QPSK	1	74	1	0	16.48	17.80
56665	56572	QPSK	1	0	1	24	16.47	17.80

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CA_48C Ant 8								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	18.49	19.90
55830	56028	QPSK	1	99	1	0	18.57	19.90
56150	56348	QPSK	1	99	1	0	18.55	19.90
56640	56442	QPSK	1	0	1	99	18.4	19.90

CA_48B Ant 8								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55315	55408	QPSK	1	74	1	0	18.52	19.90
55820	55913	QPSK	1	74	1	0	18.55	19.90
56160	56253	QPSK	1	74	1	0	18.5	19.90
56665	56572	QPSK	1	0	1	24	18.41	19.90



CA_66B Ant 2								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132047	132140	QPSK	1	74	1	0	15.09	16.20
132322	132415	QPSK	1	74	1	0	15.14	16.20
132597	132504	QPSK	1	0	1	24	15.13	16.20

CA_66C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132072	132270	QPSK	1	99	1	0	15.07	16.20
132322	132520	QPSK	1	99	1	0	15.19	16.20
132572	132374	QPSK	1	0	1	99	15.14	16.20

CA_5B Ant 0								
Combination 10MHz+10MHz (50RB+50RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20450	20549	QPSK	1	49	1	0	21.8	23.00
20476	20575	QPSK	1	49	1	0	21.99	23.00
20500	20501	QPSK	1	0	1	49	22.01	23.00

CA_66B Ant 3								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132047	132140	QPSK	1	74	1	0	19.06	20.30
132322	132415	QPSK	1	74	1	0	19.09	20.30
132597	132504	QPSK	1	0	1	24	19.00	20.30

CA_66C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132072	132270	QPSK	1	99	1	0	19.09	20.30
132322	132520	QPSK	1	99	1	0	19.14	20.30
132572	132374	QPSK	1	0	1	99	19.09	20.30

CA_5B Ant 1								
Combination 10MHz+10MHz (50RB+50RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20450	20549	QPSK	1	49	1	0	21.53	23.00
20476	20575	QPSK	1	49	1	0	21.72	23.00
20500	20501	QPSK	1	0	1	49	21.63	23.00

CA_66B Ant 0								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132047	132140	QPSK	1	74	1	0	20.60	22.00
132322	132415	QPSK	1	74	1	0	20.62	22.00
132597	132504	QPSK	1	0	1	24	20.52	22.00

CA_66C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132072	132270	QPSK	1	99	1	0	20.58	22.00
132322	132520	QPSK	1	99	1	0	20.64	22.00
132572	132374	QPSK	1	0	1	99	20.57	22.00

CA_66B Ant 1								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132047	132140	QPSK	1	74	1	0	19.82	21.10
132322	132415	QPSK	1	74	1	0	19.90	21.10
132597	132504	QPSK	1	0	1	24	19.81	21.10

CA_66C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132072	132270	QPSK	1	99	1	0	19.85	21.10
132322	132520	QPSK	1	99	1	0	19.91	21.10
132572	132374	QPSK	1	0	1	99	19.80	21.10



CA_7C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	16.65	18.00
21100	21298	QPSK	1	99	1	0	16.78	18.00
21350	21152	QPSK	1	0	1	99	16.75	18.00

CA_7C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	18.19	19.60
21100	21298	QPSK	1	99	1	0	18.35	19.60
21350	21152	QPSK	1	0	1	99	18.22	19.60

CA_7C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	20.83	22.20
21100	21298	QPSK	1	99	1	0	20.96	22.20
21350	21152	QPSK	1	0	1	99	20.83	22.20

CA_7C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	20.64	22.00
21100	21298	QPSK	1	99	1	0	20.78	22.00
21350	21152	QPSK	1	0	1	99	20.68	22.00

CA_41C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	18.08	18.90
40185	40383	QPSK	1	99	1	0	18.01	18.90
40620	40818	QPSK	1	99	1	0	18.09	18.90
41055	41253	QPSK	1	99	1	0	18.07	18.90
41490	41292	QPSK	1	0	1	99	17.97	18.90

CA_41C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	20.57	21.40
40185	40383	QPSK	1	99	1	0	20.54	21.40
40620	40818	QPSK	1	99	1	0	20.65	21.40
41055	41253	QPSK	1	99	1	0	20.57	21.40
41490	41292	QPSK	1	0	1	99	20.49	21.40

CA_41C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	22.21	23.20
40185	40383	QPSK	1	99	1	0	22.22	23.20
40620	40818	QPSK	1	99	1	0	22.29	23.20
41055	41253	QPSK	1	99	1	0	22.18	23.20
41490	41292	QPSK	1	0	1	99	22.1	23.20

CA_41C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	21.14	22.10
40185	40383	QPSK	1	99	1	0	21.24	22.10
40620	40818	QPSK	1	99	1	0	21.3	22.10
41055	41253	QPSK	1	99	1	0	21.23	22.10
41490	41292	QPSK	1	0	1	99	21.19	22.10

CA_41C HPUE Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	19.24	20.50
40185	40383	QPSK	1	99	1	0	19.26	20.50
40620	40818	QPSK	1	99	1	0	19.35	20.50
41055	41253	QPSK	1	99	1	0	19.31	20.50
41490	41292	QPSK	1	0	1	99	19.19	20.50

CA_41C HPUE Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	21.76	23.00
40185	40383	QPSK	1	99	1	0	21.83	23.00
40620	40818	QPSK	1	99	1	0	21.84	23.00
41055	41253	QPSK	1	99	1	0	21.81	23.00
41490	41292	QPSK	1	0	1	99	21.74	23.00

CA_41C HPUE Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	23.43	24.80
40185	40383	QPSK	1	99	1	0	23.42	24.80
40620	40818	QPSK	1	99	1	0	23.53	24.80
41055	41253	QPSK	1	99	1	0	23.51	24.80
41490	41292	QPSK	1	0	1	99	23.45	24.80

CA_41C HPUE Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	22.46	23.70
40185	40383	QPSK	1	99	1	0	22.43	23.70
40620	40818	QPSK	1	99	1	0	22.59	23.70
41055	41253	QPSK	1	99	1	0	22.53	23.70
41490	41292	QPSK	1	0	1	99	22.53	23.70



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CA_48C Ant 4								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	17.96	19.30
55830	56028	QPSK	1	99	1	0	17.99	19.30
56150	56348	QPSK	1	99	1	0	17.91	19.30
56640	56442	QPSK	1	0	1	99	17.93	19.30

CA_48B Ant 4								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55315	55408	QPSK	1	74	1	0	17.94	19.30
55820	55913	QPSK	1	74	1	0	17.96	19.30
56160	56253	QPSK	1	74	1	0	17.88	19.30
56665	56572	QPSK	1	0	1	24	17.93	19.30

CA_n48B Ant 6								
Combination 20MHz+20MHz (50RB+50RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
637334	638866	QPSK	25	26	25	0	11.22	12.50
641000	642332	QPSK	25	26	25	0	19.56	20.70
644668	646000	QPSK	25	26	25	0	11.34	12.50

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CA_48C Ant 6								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	16.35	17.70
55830	56028	QPSK	1	99	1	0	16.40	17.70
56150	56348	QPSK	1	99	1	0	16.39	17.70
56640	56442	QPSK	1	0	1	99	16.41	17.70

CA_48B Ant 6								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55315	55408	QPSK	1	74	1	0	16.41	17.70
55820	55913	QPSK	1	74	1	0	16.48	17.70
56160	56253	QPSK	1	74	1	0	16.37	17.70
56665	56572	QPSK	1	0	1	24	16.37	17.70

CA_n41C HPUE Ant 1								
Combination 100MHz+40MHz (270RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
509202	523146	QPSK	180	93	6	0	18.54	20.30
514602	528546	QPSK	180	93	6	0	18.57	20.30
520056	534000	QPSK	180	93	6	0	18.45	20.30

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CA_48C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	20.54	21.90
55830	56028	QPSK	1	99	1	0	20.58	21.90
56150	56348	QPSK	1	99	1	0	20.57	21.90
56640	56442	QPSK	1	0	1	99	20.53	21.90

CA_48B Ant 3								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55315	55408	QPSK	1	74	1	0	20.52	21.90
55820	55913	QPSK	1	74	1	0	20.57	21.90
56160	56253	QPSK	1	74	1	0	20.49	21.90
56665	56572	QPSK	1	0	1	24	20.54	21.90

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CA_48C Ant 8								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	18.92	20.30
55830	56028	QPSK	1	99	1	0	19.11	20.30
56150	56348	QPSK	1	99	1	0	19.05	20.30
56640	56442	QPSK	1	0	1	99	18.99	20.30

CA_48B Ant 8								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55315	55408	QPSK	1	74	1	0	18.91	20.30
55820	55913	QPSK	1	74	1	0	19.09	20.30
56160	56253	QPSK	1	74	1	0	19.04	20.30
56665	56572	QPSK	1	0	1	24	18.96	20.30



CA_66B Ant 2								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132047	132140	QPSK	1	74	1	0	18.58	19.70
132322	132415	QPSK	1	74	1	0	18.63	19.70
132597	132504	QPSK	1	0	1	24	18.57	19.70

CA_66C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132072	132270	QPSK	1	99	1	0	18.55	19.70
132322	132520	QPSK	1	99	1	0	18.67	19.70
132572	132374	QPSK	1	0	1	99	18.56	19.70

CA_5B Ant 0								
Combination 10MHz+10MHz (50RB+50RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20460	20549	QPSK	1	49	1	0	21.8	23.00
20476	20575	QPSK	1	49	1	0	21.99	23.00
20600	20501	QPSK	1	0	1	49	22.01	23.00

CA_66B Ant 3								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132047	132140	QPSK	1	74	1	0	19.14	20.60
132322	132415	QPSK	1	74	1	0	19.18	20.60
132597	132504	QPSK	1	0	1	24	19.17	20.60

CA_66C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132072	132270	QPSK	1	99	1	0	19.14	20.60
132322	132520	QPSK	1	99	1	0	19.23	20.60
132572	132374	QPSK	1	0	1	99	19.16	20.60

CA_5B Ant 1								
Combination 10MHz+10MHz (50RB+50RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20450	20549	QPSK	1	49	1	0	21.53	23.00
20476	20575	QPSK	1	49	1	0	21.72	23.00
20600	20501	QPSK	1	0	1	49	21.63	23.00

CA_66B Ant 0								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132047	132140	QPSK	1	74	1	0	22.47	23.90
132322	132415	QPSK	1	74	1	0	22.56	23.90
132597	132504	QPSK	1	0	1	24	22.50	23.90

CA_66C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132072	132270	QPSK	1	99	1	0	22.53	23.90
132322	132520	QPSK	1	99	1	0	22.60	23.90
132572	132374	QPSK	1	0	1	99	22.49	23.90

CA_66B Ant 1								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132047	132140	QPSK	1	74	1	0	21.78	23.00
132322	132415	QPSK	1	74	1	0	21.82	23.00
132597	132504	QPSK	1	0	1	24	21.78	23.00

CA_66C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132072	132270	QPSK	1	99	1	0	21.80	23.00
132322	132520	QPSK	1	99	1	0	21.87	23.00
132572	132374	QPSK	1	0	1	99	21.85	23.00



CA_7C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	19.95	21.20
21100	21298	QPSK	1	99	1	0	20.01	21.20
21350	21152	QPSK	1	0	1	99	19.87	21.20

CA_7C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	18.42	19.90
21100	21298	QPSK	1	99	1	0	18.5	19.90
21350	21152	QPSK	1	0	1	99	18.46	19.90

CA_7C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	22.19	23.70
21100	21298	QPSK	1	99	1	0	22.25	23.70
21350	21152	QPSK	1	0	1	99	22.18	23.70

CA_7C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	22.56	23.80
21100	21298	QPSK	1	99	1	0	22.64	23.80
21350	21152	QPSK	1	0	1	99	22.63	23.80

CA_41C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	21.44	23.00
40185	40383	QPSK	1	99	1	0	21.51	23.00
40620	40818	QPSK	1	99	1	0	21.52	23.00
41055	41253	QPSK	1	99	1	0	21.44	23.00
41490	41292	QPSK	1	0	1	99	21.45	23.00

CA_41C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	20.44	22.20
40185	40383	QPSK	1	99	1	0	20.46	22.20
40620	40818	QPSK	1	99	1	0	20.51	22.20
41055	41253	QPSK	1	99	1	0	20.47	22.20
41490	41292	QPSK	1	0	1	99	20.48	22.20

CA_41C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	22.81	24.00
40185	40383	QPSK	1	99	1	0	22.76	24.00
40620	40818	QPSK	1	99	1	0	22.85	24.00
41055	41253	QPSK	1	99	1	0	22.8	24.00
41490	41292	QPSK	1	0	1	99	22.73	24.00

CA_41C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	22.57	24.00
40185	40383	QPSK	1	99	1	0	22.52	24.00
40620	40818	QPSK	1	99	1	0	22.61	24.00
41055	41253	QPSK	1	99	1	0	22.54	24.00
41490	41292	QPSK	1	0	1	99	22.51	24.00

CA_41C HPUE Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	23.78	24.60
40185	40383	QPSK	1	99	1	0	23.75	24.60
40620	40818	QPSK	1	99	1	0	23.9	24.60
41055	41253	QPSK	1	99	1	0	23.76	24.60
41490	41292	QPSK	1	0	1	99	23.74	24.60

CA_41C HPUE Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	22.79	23.80
40185	40383	QPSK	1	99	1	0	22.76	23.80
40620	40818	QPSK	1	99	1	0	22.81	23.80
41055	41253	QPSK	1	99	1	0	22.73	23.80
41490	41292	QPSK	1	0	1	99	22.78	23.80

CA_41C HPUE Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	25.96	27.00
40185	40383	QPSK	1	99	1	0	25.8	27.00
40620	40818	QPSK	1	99	1	0	25.91	27.00
41055	41253	QPSK	1	99	1	0	25.88	27.00
41490	41292	QPSK	1	0	1	99	25.82	27.00

CA_41C HPUE Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	25.88	27.00
40185	40383	QPSK	1	99	1	0	25.84	27.00
40620	40818	QPSK	1	99	1	0	25.91	27.00
41055	41253	QPSK	1	99	1	0	25.89	27.00
41490	41292	QPSK	1	0	1	99	25.82	27.00



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CA_48C Ant 4								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	17.44	18.80
55830	56028	QPSK	1	99	1	0	17.52	18.80
56150	56348	QPSK	1	99	1	0	17.42	18.80
56640	56442	QPSK	1	0	1	99	17.46	18.80

CA_48B Ant 4								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55315	55408	QPSK	1	74	1	0	17.43	18.80
55820	55913	QPSK	1	74	1	0	17.49	18.80
56160	56253	QPSK	1	74	1	0	17.4	18.80
56665	56572	QPSK	1	0	1	24	17.4	18.80

CA_n41C HPUE Ant 1								
Combination 100MHz+40MHz (270RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
509202	523146	QPSK	180	93	6	0	22.57	24.00
514602	528546	QPSK	180	93	6	0	22.76	24.00
520056	534000	QPSK	180	93	6	0	22.69	24.00

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CA_48C Ant 6								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	21.11	22.50
55830	56028	QPSK	1	99	1	0	21.24	22.50
56150	56348	QPSK	1	99	1	0	21.19	22.50
56640	56442	QPSK	1	0	1	99	21.2	22.50

CA_48B Ant 6								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55315	55408	QPSK	1	74	1	0	21.15	22.50
55820	55913	QPSK	1	74	1	0	21.21	22.50
56160	56253	QPSK	1	74	1	0	21.07	22.50
56665	56572	QPSK	1	0	1	24	21.21	22.50

CA_n48B Ant 3								
Combination 20MHz+20MHz (50RB+50RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
637334	638666	QPSK	25	26	25	0	11.31	12.50
641000	642332	QPSK	25	26	25	0	18.73	20.30
644668	646000	QPSK	25	26	25	0	11.42	12.50

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CA_48C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	22.55	23.70
55830	56028	QPSK	1	99	1	0	22.60	23.70
56150	56348	QPSK	1	99	1	0	22.55	23.70
56640	56442	QPSK	1	0	1	99	22.51	23.70

CA_48B Ant 3								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55315	55408	QPSK	1	74	1	0	22.54	23.70
55820	55913	QPSK	1	74	1	0	22.57	23.70
56160	56253	QPSK	1	74	1	0	22.44	23.70
56665	56572	QPSK	1	0	1	24	22.46	23.70

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CA_48C Ant 8								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	21.86	23.40
55830	56028	QPSK	1	99	1	0	21.97	23.40
56150	56348	QPSK	1	99	1	0	21.88	23.40
56640	56442	QPSK	1	0	1	99	21.95	23.40

CA_48B Ant 8								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55315	55408	QPSK	1	74	1	0	21.82	23.40
55820	55913	QPSK	1	74	1	0	21.94	23.40
56160	56253	QPSK	1	74	1	0	21.82	23.40
56665	56572	QPSK	1	0	1	24	21.92	23.40



CA_66B Ant 2							
Combination 15MHz+5MHz (75RB+25RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
132047	132140	QPSK	1	74	1	0	11.30
132322	132415	QPSK	1	74	1	0	11.30
132597	132504	QPSK	1	0	1	24	11.30

CA_66B Ant 3							
Combination 15MHz+5MHz (75RB+25RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
132047	132140	QPSK	1	74	1	0	18.30
132322	132415	QPSK	1	74	1	0	18.30
132597	132504	QPSK	1	0	1	24	18.30

CA_66B Ant 0							
Combination 15MHz+5MHz (75RB+25RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
132047	132140	QPSK	1	74	1	0	22.50
132322	132415	QPSK	1	74	1	0	22.50
132597	132504	QPSK	1	0	1	24	22.50

CA_66B Ant 1							
Combination 15MHz+5MHz (75RB+25RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
132047	132140	QPSK	1	74	1	0	19.80
132322	132415	QPSK	1	74	1	0	19.80
132597	132504	QPSK	1	0	1	24	19.80

CA_66C Ant 2							
Combination 20MHz+20MHz (100RB+100RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
132072	132270	QPSK	1	99	1	0	11.30
132322	132520	QPSK	1	99	1	0	11.30
132572	132374	QPSK	1	0	1	99	11.30

CA_66C Ant 3							
Combination 20MHz+20MHz (100RB+100RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
132072	132270	QPSK	1	99	1	0	18.30
132322	132520	QPSK	1	99	1	0	18.30
132572	132374	QPSK	1	0	1	99	18.30

CA_66C Ant 0							
Combination 20MHz+20MHz (100RB+100RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
132072	132270	QPSK	1	99	1	0	22.50
132322	132520	QPSK	1	99	1	0	22.50
132572	132374	QPSK	1	0	1	99	22.50

CA_66C Ant 1							
Combination 20MHz+20MHz (100RB+100RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
132072	132270	QPSK	1	99	1	0	19.80
132322	132520	QPSK	1	99	1	0	19.80
132572	132374	QPSK	1	0	1	99	19.80

CA_5B Ant 0							
Combination 10MHz+10MHz (50RB+50RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
20460	20549	QPSK	1	49	1	0	23.00
20476	20575	QPSK	1	49	1	0	23.00
20600	20501	QPSK	1	0	1	49	23.00

CA_5B Ant 1							
Combination 10MHz+10MHz (50RB+50RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
20450	20549	QPSK	1	49	1	0	23.00
20476	20575	QPSK	1	49	1	0	23.00
20600	20501	QPSK	1	0	1	49	23.00



CA_7C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	13.59	15.00
21100	21298	QPSK	1	99	1	0	13.6	15.00
21350	21152	QPSK	1	0	1	99	13.54	15.00

CA_7C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	13.69	15.20
21100	21298	QPSK	1	99	1	0	13.76	15.20
21350	21152	QPSK	1	0	1	99	13.62	15.20

CA_7C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	20.28	21.80
21100	21298	QPSK	1	99	1	0	20.34	21.80
21350	21152	QPSK	1	0	1	99	20.28	21.80

CA_7C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	20.12	21.50
21100	21298	QPSK	1	99	1	0	20.18	21.50
21350	21152	QPSK	1	0	1	99	20.11	21.50

CA_41C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	16.47	17.30
40185	40383	QPSK	1	99	1	0	16.49	17.30
40620	40818	QPSK	1	99	1	0	16.5	17.30
41055	41253	QPSK	1	99	1	0	16.48	17.30
41490	41292	QPSK	1	0	1	99	16.49	17.30

CA_41C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	15.95	16.90
40185	40383	QPSK	1	99	1	0	15.88	16.90
40620	40818	QPSK	1	99	1	0	16.08	16.90
41055	41253	QPSK	1	99	1	0	15.98	16.90
41490	41292	QPSK	1	0	1	99	15.95	16.90

CA_41C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	21.83	22.60
40185	40383	QPSK	1	99	1	0	21.89	22.60
40620	40818	QPSK	1	99	1	0	21.76	22.60
41055	41253	QPSK	1	99	1	0	21.68	22.60
41490	41292	QPSK	1	0	1	99	21.61	22.60

CA_41C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	19.6	20.90
40185	40383	QPSK	1	99	1	0	19.62	20.90
40620	40818	QPSK	1	99	1	0	19.69	20.90
41055	41253	QPSK	1	99	1	0	19.57	20.90
41490	41292	QPSK	1	0	1	99	19.64	20.90

CA_41C HPUE Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	17.68	18.90
40185	40383	QPSK	1	99	1	0	17.64	18.90
40620	40818	QPSK	1	99	1	0	17.81	18.90
41055	41253	QPSK	1	99	1	0	17.75	18.90
41490	41292	QPSK	1	0	1	99	17.78	18.90

CA_41C HPUE Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	17.11	18.50
40185	40383	QPSK	1	99	1	0	17.19	18.50
40620	40818	QPSK	1	99	1	0	17.24	18.50
41055	41253	QPSK	1	99	1	0	17.17	18.50
41490	41292	QPSK	1	0	1	99	17.21	18.50

CA_41C HPUE Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	22.91	24.20
40185	40383	QPSK	1	99	1	0	22.84	24.20
40620	40818	QPSK	1	99	1	0	23.01	24.20
41055	41253	QPSK	1	99	1	0	22.91	24.20
41490	41292	QPSK	1	0	1	99	22.93	24.20

CA_41C HPUE Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	20.98	22.50
40185	40383	QPSK	1	99	1	0	20.9	22.50
40620	40818	QPSK	1	99	1	0	21.01	22.50
41055	41253	QPSK	1	99	1	0	20.91	22.50
41490	41292	QPSK	1	0	1	99	20.95	22.50

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CA_48C Ant 4								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	12.32	13.70
55830	56028	QPSK	1	99	1	0	12.40	13.70
56150	56348	QPSK	1	99	1	0	12.35	13.70
56640	56442	QPSK	1	0	1	99	12.38	13.70

CA_48B Ant 4								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55315	55408	QPSK	1	74	1	0	12.32	13.70
55820	55913	QPSK	1	74	1	0	12.38	13.70
56160	56253	QPSK	1	74	1	0	12.36	13.70
56655	56572	QPSK	1	0	1	24	12.36	13.70

CA_nSB Ant 0								
Combination 10MHz+10MHz (75RB+75RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
165800	167780	QPSK	25	27	25	0	22.66	24.00
166300	168280	QPSK	25	27	25	0	22.71	24.00
166820	168800	QPSK	25	27	25	0	22.45	24.00

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CA_48C Ant 6								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	12.41	13.70
55830	56028	QPSK	1	99	1	0	12.47	13.70
56150	56348	QPSK	1	99	1	0	12.38	13.70
56640	56442	QPSK	1	0	1	99	12.33	13.70

CA_48B Ant 6								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55315	55408	QPSK	1	74	1	0	12.4	13.70
55820	55913	QPSK	1	74	1	0	12.45	13.70
56160	56253	QPSK	1	74	1	0	12.34	13.70
56655	56572	QPSK	1	0	1	24	12.35	13.70

CA_n41C HPUE Ant 1								
Combination 100MHz+40MHz (270RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
509202	523146	QPSK	180	93	6	0	18.54	20.30
514602	528546	QPSK	180	93	6	0	18.57	20.30
520056	534000	QPSK	180	93	6	0	18.45	20.30

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CA_48C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	15.11	16.40
55830	56028	QPSK	1	99	1	0	15.16	16.40
56150	56348	QPSK	1	99	1	0	15	16.40
56640	56442	QPSK	1	0	1	99	15.12	16.40

CA_48B Ant 3								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55315	55408	QPSK	1	74	1	0	15.1	16.40
55820	55913	QPSK	1	74	1	0	15.15	16.40
56160	56253	QPSK	1	74	1	0	15.09	16.40
56655	56572	QPSK	1	0	1	24	15.05	16.40

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CA_48C Ant 8								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	15.47	16.70
55830	56028	QPSK	1	99	1	0	15.57	16.70
56150	56348	QPSK	1	99	1	0	15.44	16.70
56640	56442	QPSK	1	0	1	99	15.4	16.70

CA_48B Ant 8								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55315	55408	QPSK	1	74	1	0	15.47	16.70
55820	55913	QPSK	1	74	1	0	15.54	16.70
56160	56253	QPSK	1	74	1	0	15.43	16.70
56655	56572	QPSK	1	0	1	24	15.5	16.70



CA_66B Ant 2								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132047	132140	QPSK	1	74	1	0	17.99	19.20
132322	132415	QPSK	1	74	1	0	18.01	19.20
132597	132504	QPSK	1	0	1	24	17.98	19.20

CA_66C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132072	132270	QPSK	1	99	1	0	18.05	19.20
132322	132520	QPSK	1	99	1	0	18.07	19.20
132572	132374	QPSK	1	0	1	99	17.98	19.20

CA_5B Ant 0								
Combination 10MHz+10MHz (50RB+50RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20450	20549	QPSK	1	49	1	0	21.11	22.30
20476	20575	QPSK	1	49	1	0	21.84	22.30
20500	20501	QPSK	1	0	1	49	21.17	22.30

CA_66B Ant 3								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132047	132140	QPSK	1	74	1	0	22.88	24.00
132322	132415	QPSK	1	74	1	0	22.97	24.00
132597	132504	QPSK	1	0	1	24	22.94	24.00

CA_66C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132072	132270	QPSK	1	99	1	0	22.92	24.00
132322	132520	QPSK	1	99	1	0	22.99	24.00
132572	132374	QPSK	1	0	1	99	22.97	24.00

CA_5B Ant 1								
Combination 10MHz+10MHz (50RB+50RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20450	20549	QPSK	1	49	1	0	21.53	23.00
20476	20575	QPSK	1	49	1	0	21.72	23.00
20500	20501	QPSK	1	0	1	49	21.63	23.00

CA_66B Ant 0								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132047	132140	QPSK	1	74	1	0	19.57	21.30
132322	132415	QPSK	1	74	1	0	19.63	21.30
132597	132504	QPSK	1	0	1	24	19.53	21.30

CA_66C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132072	132270	QPSK	1	99	1	0	19.56	21.30
132322	132520	QPSK	1	99	1	0	19.71	21.30
132572	132374	QPSK	1	0	1	99	19.55	21.30

CA_66B Ant 1								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132047	132140	QPSK	1	74	1	0	18.51	19.90
132322	132415	QPSK	1	74	1	0	18.59	19.90
132597	132504	QPSK	1	0	1	24	18.50	19.90

CA_66C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132072	132270	QPSK	1	99	1	0	18.47	19.90
132322	132520	QPSK	1	99	1	0	18.61	19.90
132572	132374	QPSK	1	0	1	99	18.56	19.90



CA_7C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	18.14	19.50
21100	21298	QPSK	1	99	1	0	18.15	19.50
21350	21152	QPSK	1	0	1	99	18.13	19.50

CA_7C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	19.58	21.10
21100	21298	QPSK	1	99	1	0	19.7	21.10
21350	21152	QPSK	1	0	1	99	19.65	21.10

CA_7C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	19.83	21.20
21100	21298	QPSK	1	99	1	0	20.18	21.20
21350	21152	QPSK	1	0	1	99	20.15	21.20

CA_7C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	19.49	21.00
21100	21298	QPSK	1	99	1	0	19.56	21.00
21350	21152	QPSK	1	0	1	99	19.39	21.00

CA_41C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	19.45	20.80
40185	40383	QPSK	1	99	1	0	19.48	20.80
40620	40818	QPSK	1	99	1	0	19.58	20.80
41055	41253	QPSK	1	99	1	0	19.56	20.80
41490	41292	QPSK	1	0	1	99	19.49	20.80

CA_41C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	21.84	22.90
40185	40383	QPSK	1	99	1	0	21.88	22.90
40620	40818	QPSK	1	99	1	0	21.91	22.90
41055	41253	QPSK	1	99	1	0	21.86	22.90
41490	41292	QPSK	1	0	1	99	21.88	22.90

CA_41C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	22.88	23.90
40185	40383	QPSK	1	99	1	0	22.84	23.90
40620	40818	QPSK	1	99	1	0	22.92	23.90
41055	41253	QPSK	1	99	1	0	22.74	23.90
41490	41292	QPSK	1	0	1	99	22.75	23.90

CA_41C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	22.19	23.60
40185	40383	QPSK	1	99	1	0	22.21	23.60
40620	40818	QPSK	1	99	1	0	22.31	23.60
41055	41253	QPSK	1	99	1	0	22.15	23.60
41490	41292	QPSK	1	0	1	99	22.2	23.60

CA_41C HPUE Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	20.77	22.40
40185	40383	QPSK	1	99	1	0	20.8	22.40
40620	40818	QPSK	1	99	1	0	20.82	22.40
41055	41253	QPSK	1	99	1	0	20.8	22.40
41490	41292	QPSK	1	0	1	99	20.68	22.40

CA_41C HPUE Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	23.13	24.50
40185	40383	QPSK	1	99	1	0	23.13	24.50
40620	40818	QPSK	1	99	1	0	23.22	24.50
41055	41253	QPSK	1	99	1	0	23.18	24.50
41490	41292	QPSK	1	0	1	99	23.12	24.50

CA_41C HPUE Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	23.99	25.50
40185	40383	QPSK	1	99	1	0	23.93	25.50
40620	40818	QPSK	1	99	1	0	24.15	25.50
41055	41253	QPSK	1	99	1	0	23.9	25.50
41490	41292	QPSK	1	0	1	99	24.07	25.50

CA_41C HPUE Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	23.67	25.20
40185	40383	QPSK	1	99	1	0	23.67	25.20
40620	40818	QPSK	1	99	1	0	23.75	25.20
41055	41253	QPSK	1	99	1	0	23.7	25.20
41490	41292	QPSK	1	0	1	99	23.6	25.20

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CA_48C Ant 4								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	19.53	20.80
55830	56028	QPSK	1	99	1	0	19.60	20.80
56150	56348	QPSK	1	99	1	0	19.56	20.80
56640	56442	QPSK	1	0	1	99	19.55	20.80

CA_48B Ant 4								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55315	55408	QPSK	1	74	1	0	19.48	20.80
55820	55913	QPSK	1	74	1	0	19.53	20.80
56160	56253	QPSK	1	74	1	0	19.51	20.80
56665	56572	QPSK	1	0	1	24	19.48	20.80

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CA_48C Ant 6								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	19.13	20.50
55830	56028	QPSK	1	99	1	0	19.20	20.50
56150	56348	QPSK	1	99	1	0	19.06	20.50
56640	56442	QPSK	1	0	1	99	19.16	20.50

CA_48B Ant 6								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55315	55408	QPSK	1	74	1	0	19.17	20.50
55820	55913	QPSK	1	74	1	0	19.18	20.50
56160	56253	QPSK	1	74	1	0	19.06	20.50
56665	56572	QPSK	1	0	1	24	19.14	20.50

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CA_48C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	22.87	24.00
55830	56028	QPSK	1	99	1	0	22.92	24.00
56150	56348	QPSK	1	99	1	0	22.8	24.00
56640	56442	QPSK	1	0	1	99	22.88	24.00

CA_48B Ant 3								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55315	55408	QPSK	1	74	1	0	22.81	24.00
55820	55913	QPSK	1	74	1	0	22.88	24.00
56160	56253	QPSK	1	74	1	0	22.74	24.00
56665	56572	QPSK	1	0	1	24	22.84	24.00

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CA_48C Ant 8								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55340	55538	QPSK	1	99	1	0	21.82	23.60
55830	56028	QPSK	1	99	1	0	21.91	23.60
56150	56348	QPSK	1	99	1	0	21.8	23.60
56640	56442	QPSK	1	0	1	99	21.82	23.60

CA_48B Ant 8								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
55315	55408	QPSK	1	74	1	0	21.83	23.60
55820	55913	QPSK	1	74	1	0	21.85	23.60
56160	56253	QPSK	1	74	1	0	21.75	23.60
56665	56572	QPSK	1	0	1	24	21.81	23.60



CA_66B Ant 2							
Combination 15MHz+5MHz (75RB+25RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
132047	132140	QPSK	1	74	1	0	12.50
132322	132415	QPSK	1	74	1	0	12.53
132597	132504	QPSK	1	0	1	24	12.43

CA_66C Ant 2							
Combination 20MHz+20MHz (100RB+100RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
132072	132270	QPSK	1	99	1	0	12.46
132322	132520	QPSK	1	99	1	0	12.55
132572	132374	QPSK	1	0	1	99	12.48

CA_5B Ant 0							
Combination 10MHz+10MHz (50RB+50RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
20450	20549	QPSK	1	49	1	0	19.64
20476	20575	QPSK	1	49	1	0	19.77
20500	20501	QPSK	1	0	1	49	19.64

CA_66B Ant 3							
Combination 15MHz+5MHz (75RB+25RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
132047	132140	QPSK	1	74	1	0	19.66
132322	132415	QPSK	1	74	1	0	19.67
132597	132504	QPSK	1	0	1	24	19.64

CA_66C Ant 3							
Combination 20MHz+20MHz (100RB+100RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
132072	132270	QPSK	1	99	1	0	19.59
132322	132520	QPSK	1	99	1	0	19.70
132572	132374	QPSK	1	0	1	99	19.67

CA_5B Ant 1							
Combination 10MHz+10MHz (50RB+50RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
20450	20549	QPSK	1	49	1	0	21.53
20476	20575	QPSK	1	49	1	0	21.72
20500	20501	QPSK	1	0	1	49	21.63

CA_66B Ant 0							
Combination 15MHz+5MHz (75RB+25RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
132047	132140	QPSK	1	74	1	0	16.09
132322	132415	QPSK	1	74	1	0	16.18
132597	132504	QPSK	1	0	1	24	16.09

CA_66C Ant 0							
Combination 20MHz+20MHz (100RB+100RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
132072	132270	QPSK	1	99	1	0	16.03
132322	132520	QPSK	1	99	1	0	16.21
132572	132374	QPSK	1	0	1	99	16.18

CA_66B Ant 1							
Combination 15MHz+5MHz (75RB+25RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
132047	132140	QPSK	1	74	1	0	16.42
132322	132415	QPSK	1	74	1	0	16.47
132597	132504	QPSK	1	0	1	24	16.40

CA_66C Ant 1							
Combination 20MHz+20MHz (100RB+100RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
132072	132270	QPSK	1	99	1	0	16.48
132322	132520	QPSK	1	99	1	0	16.51
132572	132374	QPSK	1	0	1	99	16.39



CA_7C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	13.02	14.20
21100	21298	QPSK	1	99	1	0	13.06	14.20
21350	21152	QPSK	1	0	1	99	13	14.20

CA_7C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	15.69	16.80
21100	21298	QPSK	1	99	1	0	15.71	16.80
21350	21152	QPSK	1	0	1	99	15.68	16.80

CA_7C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	19.21	20.60
21100	21298	QPSK	1	99	1	0	19.28	20.60
21350	21152	QPSK	1	0	1	99	19.24	20.60

CA_7C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	17.64	18.70
21100	21298	QPSK	1	99	1	0	17.74	18.70
21350	21152	QPSK	1	0	1	99	17.65	18.70

CA_41C Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	15.02	16.20
40185	40383	QPSK	1	99	1	0	15.05	16.20
40620	40818	QPSK	1	99	1	0	15.07	16.20
41055	41253	QPSK	1	99	1	0	14.95	16.20
41490	41292	QPSK	1	0	1	99	15.06	16.20

CA_41C Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	17.45	18.80
40185	40383	QPSK	1	99	1	0	17.41	18.80
40620	40818	QPSK	1	99	1	0	17.52	18.80
41055	41253	QPSK	1	99	1	0	17.43	18.80
41490	41292	QPSK	1	0	1	99	17.51	18.80

CA_41C Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	22.24	22.80
40185	40383	QPSK	1	99	1	0	22.06	22.80
40620	40818	QPSK	1	99	1	0	22.26	22.80
41055	41253	QPSK	1	99	1	0	22.09	22.80
41490	41292	QPSK	1	0	1	99	22.16	22.80

CA_41C Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	18.78	20.40
40185	40383	QPSK	1	99	1	0	18.77	20.40
40620	40818	QPSK	1	99	1	0	18.86	20.40
41055	41253	QPSK	1	99	1	0	18.82	20.40
41490	41292	QPSK	1	0	1	99	18.73	20.40

CA_41C HPUE Ant 2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	16.24	17.80
40185	40383	QPSK	1	99	1	0	16.27	17.80
40620	40818	QPSK	1	99	1	0	16.29	17.80
41055	41253	QPSK	1	99	1	0	16.25	17.80
41490	41292	QPSK	1	0	1	99	16.16	17.80

CA_41C HPUE Ant 3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	18.62	20.40
40185	40383	QPSK	1	99	1	0	18.78	20.40
40620	40818	QPSK	1	99	1	0	18.79	20.40
41055	41253	QPSK	1	99	1	0	18.66	20.40
41490	41292	QPSK	1	0	1	99	18.65	20.40

CA_41C HPUE Ant 0								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	23.41	24.40
40185	40383	QPSK	1	99	1	0	23.36	24.40
40620	40818	QPSK	1	99	1	0	23.5	24.40
41055	41253	QPSK	1	99	1	0	23.39	24.40
41490	41292	QPSK	1	0	1	99	23.38	24.40

CA_41C HPUE Ant 1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	19.96	22.00
40185	40383	QPSK	1	99	1	0	19.95	22.00
40620	40818	QPSK	1	99	1	0	20.06	22.00
41055	41253	QPSK	1	99	1	0	19.96	22.00
41490	41292	QPSK	1	0	1	99	20.01	22.00



CA_48C Ant 4							
Combination 20MHz+20MHz (100RB+100RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
55340	55538	QPSK	1	99	1	0	11.47
55830	56028	QPSK	1	99	1	0	11.60
56150	56348	QPSK	1	99	1	0	11.49
56640	56442	QPSK	1	0	1	99	11.51

CA_48B Ant 4							
Combination 15MHz+5MHz (75RB+25RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
55315	55408	QPSK	1	74	1	0	11.5
55820	55913	QPSK	1	74	1	0	11.58
56160	56253	QPSK	1	74	1	0	11.43
56665	56572	QPSK	1	0	1	24	11.5

CA_48C Ant 6							
Combination 20MHz+20MHz (100RB+100RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
55340	55538	QPSK	1	99	1	0	17.38
55830	56028	QPSK	1	99	1	0	17.50
56150	56348	QPSK	1	99	1	0	17.33
56640	56442	QPSK	1	0	1	99	17.37

CA_48B Ant 6							
Combination 15MHz+5MHz (75RB+25RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
55315	55408	QPSK	1	74	1	0	17.41
55820	55913	QPSK	1	74	1	0	17.44
56160	56253	QPSK	1	74	1	0	17.32
56665	56572	QPSK	1	0	1	24	17.4

CA_48C Ant 3							
Combination 20MHz+20MHz (100RB+100RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
55340	55538	QPSK	1	99	1	0	16.25
55830	56028	QPSK	1	99	1	0	16.43
56150	56348	QPSK	1	99	1	0	16.35
56640	56442	QPSK	1	0	1	99	16.32

CA_48B Ant 3							
Combination 15MHz+5MHz (75RB+25RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
55315	55408	QPSK	1	74	1	0	16.36
55820	55913	QPSK	1	74	1	0	16.42
56160	56253	QPSK	1	74	1	0	16.35
56665	56572	QPSK	1	0	1	24	16.39

CA_48C Ant 8							
Combination 20MHz+20MHz (100RB+100RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
55340	55538	QPSK	1	99	1	0	20.07
55830	56028	QPSK	1	99	1	0	20.16
56150	56348	QPSK	1	99	1	0	20.09
56640	56442	QPSK	1	0	1	99	20.13

CA_48B Ant 8							
Combination 15MHz+5MHz (75RB+25RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
55315	55408	QPSK	1	74	1	0	20.09
55820	55913	QPSK	1	74	1	0	20.15
56160	56253	QPSK	1	74	1	0	20.09
56665	56572	QPSK	1	0	1	24	20.1



Full&Default& EC14 Power Mode

n2 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel				1870	1880	1890		
Frequency (MHz)								
40	PI2 BPSK	1	1	22.96	23.02	22.90	24.0	0.0
40	PI2 BPSK	1	108	22.80	22.84	22.86		
40	PI2 BPSK	1	214	22.87	22.91	22.78		
40	PI2 BPSK	108	0	22.30	22.45	22.30	23.5	0.5
40	PI2 BPSK	108	54	22.89	22.96	22.85	24.0	0.0
40	PI2 BPSK	108	108	22.25	22.33	22.27	23.5	0.5
40	PI2 BPSK	216	0	22.36	22.40	22.33		
40	QPSK	1	1	23.01	23.07	22.94	24.0	0.0
40	QPSK	1	108	22.88	23.01	22.90		
40	QPSK	1	214	22.86	22.96	22.93		
40	QPSK	108	0	21.84	21.88	21.81	23.0	1.0
40	QPSK	108	54	22.91	23.01	22.87	24.0	0.0
40	QPSK	108	108	21.82	21.87	21.79	23.0	1.0
40	QPSK	216	0	21.89	21.92	21.82		
40	16QAM	1	1	21.53	21.67	21.54	23.0	1.0
40	16QAM	1	1	20.21	20.30	20.23	21.5	2.5
40	256QAM	1	1	18.80	18.83	18.74	19.5	4.5
Channel				373500	376000	378500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1867.5	1880	1892.5		
35	QPSK	1	1	22.09	22.37	22.82	0.0	0.0
Channel				373000	376000	379000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1865	1880	1895		
30	QPSK	1	1	22.95	22.98	22.84	0.0	0.0
Channel				372500	376000	379500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1860	1880	1900		
25	QPSK	1	1	22.88	22.96	22.80	0.0	0.0
Channel				372000	376000	380000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850	1880	1900		
20	QPSK	1	1	22.97	22.93	22.82	0.0	0.0
Channel				371500	376000	380500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1902.5		
15	QPSK	1	1	22.97	22.95	22.82	24.0	0.0
Channel				371000	376000	381000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	1	22.82	22.88	22.81	24.0	0.0
Channel				370500	376000	381500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	1	22.91	23.03	22.90	24.0	0.0

n5 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel				166800	167300	167800		
Frequency (MHz)				834	836.5	839		
20	PI2 BPSK	1	1	23.15	23.22	23.10	24.0	0.0
20	PI2 BPSK	1	53	23.07	23.06	23.14		
20	PI2 BPSK	1	104	23.11	23.13	22.99		
20	PI2 BPSK	50	0	22.54	22.81	22.59	23.5	0.5
20	PI2 BPSK	50	28	23.06	23.15	23.10	24.0	0.0
20	PI2 BPSK	50	56	22.87	22.93	22.41	23.5	0.5
20	PI2 BPSK	100	0	22.58	22.86	22.38		
20	QPSK	1	1	23.23	23.29	23.19	24.0	0.0
20	QPSK	1	53	23.20	23.27	22.96		
20	QPSK	1	104	23.10	23.17	23.06		
20	QPSK	50	0	22.09	22.10	21.88	23.0	1.0
20	QPSK	50	28	23.12	23.26	23.11	24.0	0.0
20	QPSK	50	56	22.02	22.13	21.95	23.0	1.0
20	QPSK	100	0	22.12	22.17	21.86		
20	16QAM	1	1	21.97	22.08	21.93	23.0	1.0
20	16QAM	1	1	20.73	20.76	20.54	21.5	2.5
20	256QAM	1	1	19.29	19.36	19.34	19.5	4.5
Channel				166800	167300	168300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				831.5	836.5	841.5		
15	QPSK	1	1	23.13	23.24	23.11	24.0	0.0
Channel				165500	167000	168500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				829	836.5	844		
10	QPSK	1	1	23.14	23.16	23.16	24.0	0.0
Channel				165000	167300	169000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	1	23.08	23.21	23.14	24.0	0.0

n7 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel				505000	507000	509000		
Frequency (MHz)				2525	2535	2545		
50	PI2 BPSK	1	1	23.17	23.29	23.13	24.0	0.0
50	PI2 BPSK	1	135	23.06	23.14	23.12		
50	PI2 BPSK	1	268	23.10	23.10	22.99		
50	PI2 BPSK	135	0	22.85	22.82	22.57	23.5	0.5
50	PI2 BPSK	135	68	23.12	23.15	23.04	24.0	0.0
50	PI2 BPSK	135	135	22.43	22.57	22.40	23.5	0.5
50	PI2 BPSK	270	0	22.54	22.63	22.47		
50	QPSK	1	1	23.27	23.30	23.19	24.0	0.0
50	QPSK	1	135	23.20	23.29	23.06		
50	QPSK	1	268	23.12	23.19	23.06		
50	QPSK	135	0	22.06	22.12	21.98	23.0	1.0
50	QPSK	135	68	23.16	23.26	23.11	24.0	0.0
50	QPSK	135	135	22.07	22.08	21.87	23.0	1.0
50	QPSK	270	0	22.08	22.20	21.98		
50	16QAM	1	1	21.80	21.85	21.76	23.0	1.0
50	16QAM	1	1	20.49	20.54	20.49	21.5	2.5
50	256QAM	1	1	19.09	19.06	18.91	19.5	4.5
Channel				504000	507000	510000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2520	2535	2550		
40	QPSK	1	1	23.13	23.28	23.07	24.0	0.0
Channel				503500	507000	510500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2517.5	2535	2552.5		
35	QPSK	1	1	23.18	23.26	23.06	0.0	0.0
Channel				503000	507000	511000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2515	2535	2555		
30	QPSK	1	1	23.13	23.20	23.14	24.0	0.0
Channel				502500	507000	511500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2512.5	2535	2557.5		
25	QPSK	1	1	23.23	23.24	23.09	24.0	0.0
Channel				502000	507000	512000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2510	2535	2560		
20	PI2 BPSK	1	1	23.10	23.28	23.12	24.0	0.0
Channel				501500	507000	512500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	1	23.20	23.27	23.07	24.0	0.0
Channel				501000	507000	513000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	1	23.22	23.22	23.12	24.0	0.0
Channel				500500	507000	513500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	1	23.21	23.22	23.12	24.0	0.0



n12 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel				141300	141500	141700		
Frequency (MHz)				701.5	707.5	708.5		
15	PI2 BPSK	1	1	23.07	23.19	23.03	24.0	0.0
15	PI2 BPSK	1	49	23.01	23.05	23.05		
15	PI2 BPSK	1	77	23.01	23.07	22.97		
15	PI2 BPSK	36	9	22.46	22.54	22.51	23.5	0.5
15	PI2 BPSK	36	22	23.05	23.07	22.98	24.0	0.0
15	PI2 BPSK	36	43	22.29	22.43	22.37	23.5	0.5
15	PI2 BPSK	75	0	22.61	22.58	22.37		
15	QPSK	1	1	23.13	23.27	23.08	24.0	0.0
15	QPSK	1	40	23.15	23.17	22.95		
15	QPSK	1	77	23.01	23.10	22.99		
15	QPSK	36	0	22.00	22.05	21.84	23.0	1.0
15	QPSK	36	22	23.04	23.24	23.01	24.0	0.0
15	QPSK	36	43	22.00	22.05	21.58	23.0	1.0
15	QPSK	75	0	22.01	22.11	21.85		
15	16QAM	1	1	21.84	21.88	21.85	23.0	1.0
15	16QAM	1	1	20.61	20.67	20.54	21.5	2.5
15	256QAM	1	1	19.17	19.31	19.20	19.5	4.5
Channel				146800	141500	142200	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				704	707.5	711		
10	QPSK	1	1	23.08	23.16	23.04	24.0	0.0
Channel				142300	141500	142200	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				701.5	707.5	713.5		
5	QPSK	1	1	23.10	23.14	22.95	24.0	0.0

n14 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel					156800			
Frequency (MHz)					793			
10	PI2 BPSK	1	1		23.57		24.0	0.0
10	PI2 BPSK	1	26		23.36			
10	PI2 BPSK	1	50		23.39			
10	PI2 BPSK	25	0		22.86		23.5	0.5
10	PI2 BPSK	25	14		23.43		24.0	0.0
10	PI2 BPSK	25	27		22.81		23.5	0.5
10	PI2 BPSK	50	0		22.89			
10	QPSK	1	1		23.63		24.0	0.0
10	QPSK	1	26		23.49			
10	QPSK	1	50		23.45			
10	QPSK	25	0		22.40		23.0	1.0
10	QPSK	25	14		23.55		24.0	0.0
10	QPSK	25	27		22.40		23.0	1.0
10	QPSK	50	0		22.44			
10	16QAM	1	1		22.39		23.0	1.0
10	16QAM	1	1		21.04		21.5	2.5
10	256QAM	1	1		19.33		19.5	4.5
Channel				158100	156800	159100	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				790.5	793	795.5		
5	QPSK	1	1	23.45	23.48	23.39	24.0	0.0

n25 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel				374000	376500	379000		
Frequency (MHz)				1870	1882.5	1895		
40	PI2 BPSK	1	1	23.20	23.26	23.09	24.0	0.0
40	PI2 BPSK	1	108	23.11	23.21	23.21		
40	PI2 BPSK	1	214	23.09	23.17	23.03		
40	PI2 BPSK	108	9	22.80	22.80	22.66	23.5	0.5
40	PI2 BPSK	108	54	23.10	23.23	23.10	24.0	0.0
40	PI2 BPSK	108	108	22.42	22.55	22.54	23.5	0.5
40	PI2 BPSK	216	0	22.61	22.72	22.47		
40	QPSK	1	1	23.32	23.36	23.15	24.0	0.0
40	QPSK	1	108	23.28	23.30	23.12		
40	QPSK	1	214	23.15	23.18	23.07		
40	QPSK	108	0	22.12	22.20	21.99	23.0	1.0
40	QPSK	108	54	23.10	23.32	23.15	24.0	0.0
40	QPSK	108	108	22.05	22.22	22.08	23.0	1.0
40	QPSK	216	0	22.14	22.19	21.94		
40	16QAM	1	1	22.06	22.05	22.01	23.0	1.0
40	16QAM	1	1	20.70	20.74	20.63	21.5	2.5
40	256QAM	1	1	19.25	19.41	19.34	19.5	4.5
Channel				373000	376500	379500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1867.5	1882.5	1897.5		
35	QPSK	1	1	23.15	23.20	23.13	24.0	0.0
Channel				375300	376500	379500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1885	1882.5	1900		
30	QPSK	1	1	23.18	23.27	23.01	24.0	0.0
Channel				372500	376500	380500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1862.5	1882.5	1905		
25	QPSK	1	1	23.24	23.31	23.08	24.0	0.0
Channel				372000	376500	381000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1860	1882.5	1905		
20	QPSK	1	1	23.18	23.23	23.02	24.0	0.0
Channel				371500	376500	381500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1882.5	1907.5		
15	QPSK	1	1	23.23	23.32	23.10	24.0	0.0
Channel				371000	376500	382000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1882.5	1910		
10	QPSK	1	1	23.26	23.31	23.01	24.0	0.0
Channel				370500	376500	382500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1882.5	1912.5		
5	QPSK	1	1	23.19	23.27	23.08	24.0	0.0



n26 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel				164800	166300	167800		
Frequency (MHz)				824	831.5	839		
20	PI2 BPSK	1	1	23.24	23.39	23.25	24.0	0.0
20	PI2 BPSK	1	53	23.12	23.24	23.21		
20	PI2 BPSK	1	104	23.14	23.18	23.13		
20	PI2 BPSK	50	0	22.85	22.75	22.85	23.5	0.5
20	PI2 BPSK	50	28	23.16	23.28	23.16	24.0	0.0
20	PI2 BPSK	50	56	22.55	22.65	22.54	23.5	0.5
20	PI2 BPSK	100	0	22.83	22.70	22.82		
20	QPSK	1	1	23.34	23.46	23.28	24.0	0.0
20	QPSK	1	53	23.24	23.34	23.16		
20	QPSK	1	104	23.22	23.29	23.19		
20	QPSK	50	0	22.20	22.20	22.12	23.0	1.0
20	QPSK	50	28	23.23	23.36	23.19	24.0	0.0
20	QPSK	50	56	22.17	22.19	22.06	23.0	1.0
20	QPSK	100	0	22.20	22.28	22.10		
20	16QAM	1	1	21.85	21.88	21.86	23.0	1.0
20	16QAM	1	1	20.53	20.59	20.58	21.5	2.5
20	256QAM	1	1	19.12	19.15	19.00	19.5	4.5
Channel				164300	166300	168300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				821.5	831.5	841.5	24.0	0.0
15	QPSK	1	1	23.22	23.36	23.18	24.0	0.0
Channel				163800	165300	166800	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				819	831.5	844	24.0	0.0
10	QPSK	1	1	23.24	23.26	23.15	24.0	0.0
Channel				163300	165300	166300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				816.5	831.5	846.5	24.0	0.0
5	QPSK	1	1	23.25	23.30	23.23	24.0	0.0

n30 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel				462000	462000	462000		
Frequency (MHz)				2310				
10	PI2 BPSK	1	1	23.41			24.0	0.0
10	PI2 BPSK	1	26	23.30				
10	PI2 BPSK	1	50	23.36				
10	PI2 BPSK	25	0	22.78			23.5	0.5
10	PI2 BPSK	25	14	23.33			24.0	0.0
10	PI2 BPSK	25	27	22.70			23.5	0.5
10	PI2 BPSK	50	0	22.84				
10	QPSK	1	1	23.49			24.0	0.0
10	QPSK	1	26	23.44				
10	QPSK	1	50	23.43				
10	QPSK	25	0	22.25			23.0	1.0
10	QPSK	25	14	23.41			24.0	0.0
10	QPSK	25	27	22.28			23.0	1.0
10	QPSK	50	0	22.35				
10	16QAM	1	1	22.13			23.0	1.0
10	16QAM	1	1	20.69			21.5	2.5
10	256QAM	1	1	19.42			19.5	4.5
Channel				461500	462000	462500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2307.5	2310	2312.5	24.0	0.0
5	QPSK	1	1	23.36	23.43	23.32	24.0	0.0

n66 Ant 0

BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel				349000	349000	352000		
Frequency (MHz)				1745	1745	1760		
40	PI2 BPSK	1	1	22.98	23.04	22.91	24.0	0.0
40	PI2 BPSK	1	108	22.88	22.91	22.89		
40	PI2 BPSK	1	214	22.80	22.83	22.77		
40	PI2 BPSK	108	0	22.30	22.39	22.28	23.5	0.5
40	PI2 BPSK	108	54	22.88	22.85	22.81	24.0	0.0
40	PI2 BPSK	108	108	22.10	22.30	22.15	23.5	0.5
40	PI2 BPSK	216	0	22.31	22.42	22.23		
40	QPSK	1	1	23.05	23.13	23.00	24.0	0.0
40	QPSK	1	108	22.98	22.95	22.80		
40	QPSK	1	214	22.83	22.97	22.80		
40	QPSK	108	0	21.85	21.89	21.71	23.0	1.0
40	QPSK	108	54	22.86	23.05	22.80	24.0	0.0
40	QPSK	108	108	21.85	21.87	21.80	23.0	1.0
40	QPSK	216	0	21.77	21.92	21.66		
40	16QAM	1	1	21.78	21.81	21.66	23.0	1.0
40	16QAM	1	1	20.45	20.43	20.30	21.5	2.5
40	256QAM	1	1	19.03	19.10	19.08	19.5	4.5
Channel				348500	349000	352500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1727.5	1745	1762.5	24.0	0.0
35	QPSK	1	1	22.97	23.09	22.91	24.0	0.0
Channel				348000	348500	353000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1725	1745	1765	24.0	0.0
30	QPSK	1	1	23.01	23.07	22.90	24.0	0.0
Channel				347500	348000	353500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1722.5	1745	1767.5	24.0	0.0
25	QPSK	1	1	23.01	23.04	22.89	24.0	0.0
Channel				344000	349000	354000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1720	1745	1770	24.0	0.0
20	QPSK	1	1	22.94	23.09	22.87	24.0	0.0
Channel				343500	349000	354500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5	24.0	0.0
15	QPSK	1	1	22.92	23.08	22.95	24.0	0.0
Channel				343000	349000	355000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775	24.0	0.0
10	QPSK	1	1	22.94	22.99	22.89	24.0	0.0
Channel				342500	349000	355500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5	24.0	0.0
5	QPSK	1	1	23.00	23.07	22.88	24.0	0.0



n70 Ant 0									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq	Tune-up limit (dBm)	MPR (dB)	
Channel				1702.5	340500				
Frequency (MHz)									
15	PI/2 BPSK	1	1		23.18				
15	PI/2 BPSK	1	40		23.09		24.0	0.0	
15	PI/2 BPSK	1	77		23.02				
15	PI/2 BPSK	36	0		22.47		23.5	0.5	
15	PI/2 BPSK	36	22		22.98		24.0	0.0	
15	PI/2 BPSK	36	43		22.41				
15	PI/2 BPSK	75	0		22.53		23.5	0.5	
15	QPSK	1	1		23.38				
15	QPSK	1	40		23.03		24.0	0.0	
15	QPSK	1	77		23.15				
15	QPSK	36	0		21.97		23.0	1.0	
15	QPSK	36	22		23.72		24.0	0.0	
15	QPSK	36	43		21.97				
15	QPSK	75	0		22.05		23.0	1.0	
15	16QAM	1	1		21.96		23.0	1.0	
15	64QAM	1	1		20.52		21.5	2.5	
15	256QAM	1	1		19.05		19.5	4.5	
Channel				340000	340500	341000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1700	1702.5	1705			
10	QPSK	1	1		23.13	23.42	23.18	24.0	0.0
Channel				335000	335500	341500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1697.5	1702.5	1707.5			
5	QPSK	1	1		23.10	23.18	23.09	24.0	0.0

n71 Ant 0									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq	Tune-up limit (dBm)	MPR (dB)	
Channel				1312	134500	136100	688		
Frequency (MHz)									
20	PI/2 BPSK	1	1		23.50	23.57	23.42		
20	PI/2 BPSK	1	53		23.43	23.41	23.46		
20	PI/2 BPSK	1	104		23.28	23.36	23.26		
20	PI/2 BPSK	56	0		22.81	22.93	22.82	23.5	0.5
20	PI/2 BPSK	56	28		23.38	23.34	23.29	24.0	0.0
20	PI/2 BPSK	56	56		22.63	22.85	22.66		
20	PI/2 BPSK	100	0		22.81	22.91	22.77	23.5	0.5
20	QPSK	1	1		23.59	23.69	23.54		
20	QPSK	1	53		23.48	23.46	23.31		
20	QPSK	1	104		23.31	23.49	23.35		
20	QPSK	56	0		22.32	22.38	22.20	23.0	1.0
20	QPSK	56	28		23.34	23.59	23.26	24.0	0.0
20	QPSK	56	56		22.30	22.38	22.30		
20	QPSK	100	0		22.24	22.42	22.20	23.0	1.0
20	16QAM	1	1		22.29	22.36	22.22	23.0	1.0
20	64QAM	1	1		20.96	21.00	20.87	21.5	2.5
20	256QAM	1	1		19.28	19.45	19.40	19.5	4.5
Channel				134100	136100	138100	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				670.5	680.5	690.5			
15	QPSK	1	1		23.48	23.58	23.50	24.0	0.0
Channel				133500	135100	136500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				668	680.5	693			
10	QPSK	1	1		23.56	23.59	23.43	24.0	0.0
Channel				133100	136100	139100	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				665.5	680.5	695.5			
5	QPSK	1	1		23.52	23.60	23.44	24.0	0.0



n2 Ant 1

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel								
Frequency (MHz)				1870	1880	1890		
40	PI2 BPSK	1	1	23.02	23.18	23.04		
40	PI2 BPSK	1	100	22.98	23.06	22.95	24.0	0.0
40	PI2 BPSK	1	214	22.89	22.94	22.89		
40	PI2 BPSK	108	0	22.44	22.46	22.35	23.5	0.5
40	PI2 BPSK	108	54	23.04	22.94	22.98	24.0	0.0
40	PI2 BPSK	108	108	22.18	22.37	22.31		
40	PI2 BPSK	216	0	22.42	22.49	22.29	23.5	0.5
40	QPSK	1	1	23.17	23.19	23.10		
40	QPSK	1	108	23.07	23.06	22.86	24.0	0.0
40	QPSK	1	214	22.93	23.08	22.95		
40	QPSK	108	0	21.95	22.02	21.83	23.0	1.0
40	QPSK	108	54	23.02	23.14	22.86	24.0	0.0
40	QPSK	108	108	21.96	21.92	21.87		
40	QPSK	216	0	21.89	22.08	21.73	23.0	1.0
40	16QAM	1	1	23.84	21.89	21.80	23.0	1.0
40	64QAM	1	1	20.58	20.51	20.42	21.5	2.5
40	256QAM	1	1	19.12	19.24	19.19	19.5	4.5
Channel								
Frequency (MHz)				37300	37600	37900		
35	QPSK	1	1	19.07	19.03	19.05	0.0	0.0
Channel								
Frequency (MHz)				37300	37600	37900		
30	QPSK	1	1	23.09	23.15	22.98	0.0	0.0
Channel								
Frequency (MHz)				37250	37600	37950		
25	QPSK	1	1	18.62	18.80	18.75	0.0	0.0
Channel								
Frequency (MHz)				37200	37600	38000		
20	QPSK	1	1	23.03	23.06	23.05	0.0	0.0
Channel								
Frequency (MHz)				1827.5	1880	1907.5		
15	QPSK	1	1	23.09	23.14	23.03	24.0	0.0
Channel								
Frequency (MHz)				37100	37600	38100		
10	QPSK	1	1	23.11	23.10	22.99	24.0	0.0
Channel								
Frequency (MHz)				37050	37600	38150		
5	QPSK	1	1	18.52	18.80	19.07	24.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel								
Frequency (MHz)				16880	16730	16780		
20	PI2 BPSK	1	1	22.87	22.91	22.82		
20	PI2 BPSK	1	50	22.77	22.80	22.84	24.0	0.0
20	PI2 BPSK	1	104	22.76	22.77	22.82		
20	PI2 BPSK	50	0	22.26	22.28	22.22	23.5	0.5
20	PI2 BPSK	50	28	22.80	22.79	22.74	24.0	0.0
20	PI2 BPSK	50	56	21.97	22.21	22.01		
20	PI2 BPSK	100	0	22.22	22.37	22.20	23.5	0.5
20	QPSK	1	1	22.90	22.99	22.91		
20	QPSK	1	53	22.92	22.85	22.86	24.0	0.0
20	QPSK	1	104	22.74	22.88	22.75		
20	QPSK	50	0	21.74	21.81	21.82	23.0	1.0
20	QPSK	50	28	22.82	22.90	22.77	24.0	0.0
20	QPSK	50	56	21.80	21.77	21.88		
20	QPSK	100	0	21.72	21.80	21.81	23.0	1.0
20	16QAM	1	1	21.84	21.68	21.60	23.0	1.0
20	64QAM	1	1	20.38	20.37	20.23	21.5	2.5
20	256QAM	1	1	18.98	18.99	18.97	19.5	4.5
Channel								
Frequency (MHz)				16830	16730	16830		
15	QPSK	1	1	22.86	22.93	22.79	24.0	0.0
Channel								
Frequency (MHz)				16880	16730	16880		
10	QPSK	1	1	22.81	22.87	22.82	24.0	0.0
Channel								
Frequency (MHz)				16830	16730	16830		
5	QPSK	1	1	22.85	22.89	22.78	24.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel								
Frequency (MHz)				50600	50700	50800		
50	PI2 BPSK	1	1	22.76	22.81	22.69		
50	PI2 BPSK	1	135	22.71	22.87	22.81	24.0	0.0
50	PI2 BPSK	1	268	22.66	22.67	22.52		
50	PI2 BPSK	135	0	22.15	22.17	22.19	23.5	0.5
50	PI2 BPSK	135	68	22.72	22.69	22.69	24.0	0.0
50	PI2 BPSK	135	135	21.83	22.14	21.87		
50	PI2 BPSK	270	0	22.18	22.23	22.14	23.5	0.5
50	QPSK	1	1	22.77	22.88	22.84		
50	QPSK	1	135	22.84	22.75	22.59	24.0	0.0
50	QPSK	1	268	22.81	22.75	22.60		
50	QPSK	135	0	21.83	21.74	21.57	23.0	1.0
50	QPSK	135	68	22.74	22.81	22.68	24.0	0.0
50	QPSK	135	135	21.76	21.70	21.63		
50	QPSK	270	0	21.80	21.86	21.48	23.0	1.0
50	16QAM	1	1	21.47	21.52	21.43	23.0	1.0
50	64QAM	1	1	19.98	20.05	19.90	21.5	2.5
50	256QAM	1	1	18.52	18.59	18.53	19.5	4.5
Channel								
Frequency (MHz)				50600	50700	51000		
40	QPSK	1	1	22.68	22.76	22.75	24.0	0.0
Channel								
Frequency (MHz)				50350	50700	51050		
35	QPSK	1	1	22.68	22.85	22.63	0.0	0.0
Channel								
Frequency (MHz)				50300	50700	51100		
30	QPSK	1	1	22.63	22.70	22.72	24.0	0.0
Channel								
Frequency (MHz)				50250	50700	51150		
25	QPSK	1	1	22.70	22.77	22.75	24.0	0.0
Channel								
Frequency (MHz)				50200	50700	51200		
20	PI2 BPSK	1	1	22.73	22.84	22.79	24.0	0.0
Channel								
Frequency (MHz)				50150	50700	51250		
15	QPSK	1	1	22.67	22.76	22.71	24.0	0.0
Channel								
Frequency (MHz)				50100	50700	51300		
10	QPSK	1	1	22.68	22.76	22.70	24.0	0.0
Channel								
Frequency (MHz)				50050	50700	51350		
5	QPSK	1	1	22.82	22.81	22.78	24.0	0.0



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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				141300	141500	141700		
Frequency (MHz)				706.5	707.5	708.5		
15	PV2 BPSK	1	1	22.83	22.92	22.83	24.0	0.0
15	PV2 BPSK	1	40	22.80	22.78	22.88		
15	PV2 BPSK	1	77	22.79	22.78	22.88		
15	PV2 BPSK	36	0	22.23	22.31	22.27	23.5	0.5
15	PV2 BPSK	36	22	22.82	22.81	22.79	24.0	0.0
15	PV2 BPSK	36	43	21.88	22.29	22.01		
15	PV2 BPSK	75	0	22.29	22.36	22.21	23.5	0.5
15	QPSK	1	1	22.84	23.01	22.94		
15	QPSK	1	40	22.94	22.91	22.72	24.0	0.0
15	QPSK	1	77	22.77	22.83	22.71		
15	QPSK	36	0	21.77	21.88	21.68	23.0	1.0
15	QPSK	36	22	22.83	22.97	22.74	24.0	0.0
15	QPSK	36	43	21.72	21.76	21.57		
15	QPSK	75	0	21.80	21.81	21.77	23.0	1.0
15	16QAM	1	1	21.71	21.75	21.70	23.0	1.0
15	64QAM	1	1	20.19	20.34	20.21	21.5	2.5
15	256QAM	1	1	18.97	19.05	18.94	19.5	4.5
Channel				146500	141500	142200	Tune-up limit	MPR
Frequency (MHz)				704	707.5	711	(dBm)	(dB)
10	QPSK	1	1	22.74	22.91	22.89	24.0	0.0
Channel				140300	141500	142700	Tune-up limit	MPR
Frequency (MHz)				707.5	707.5	713.5	(dBm)	(dB)
5	QPSK	1	1	22.73	22.83	22.83	24.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				158160	158600	159100		
Frequency (MHz)				760.5	763	765.5		
10	PV2 BPSK	1	1	23.25	23.14	23.14	24.0	0.0
10	PV2 BPSK	1	50	23.05	23.05	23.05		
10	PV2 BPSK	25	0	22.60	22.60	22.60	23.5	0.5
10	PV2 BPSK	25	14	23.15	23.15	23.15	24.0	0.0
10	PV2 BPSK	25	27	22.81	22.81	22.81		
10	PV2 BPSK	50	0	22.69	22.69	22.69	23.5	0.5
10	QPSK	1	1	23.34	23.34	23.34		
10	QPSK	1	26	23.21	23.21	23.21	24.0	0.0
10	QPSK	1	50	23.13	23.13	23.13		
10	QPSK	25	0	22.16	22.16	22.16	23.0	1.0
10	QPSK	25	14	23.27	23.27	23.27	24.0	0.0
10	QPSK	25	27	22.08	22.08	22.08	23.0	1.0
10	QPSK	50	0	22.15	22.15	22.15	23.0	1.0
10	16QAM	1	1	22.09	22.09	22.09	23.0	1.0
10	64QAM	1	1	20.69	20.69	20.69	21.5	2.5
10	256QAM	1	1	19.39	19.39	19.39	19.5	4.5
Channel				159160	158600	159100	Tune-up limit	MPR
Frequency (MHz)				760.5	763	765.5	(dBm)	(dB)
5	QPSK	1	1	23.15	23.21	23.17	24.0	0.0

n25 Ant 1

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				374900	376500	378000		
Frequency (MHz)				1870	1882.5	1895		
40	PV2 BPSK	1	1	23.06	23.07	23.01	24.0	0.0
40	PV2 BPSK	1	108	22.90	22.97	22.98		
40	PV2 BPSK	1	214	22.87	22.86	22.88		
40	PV2 BPSK	108	0	22.30	22.42	22.28	23.5	0.5
40	PV2 BPSK	108	54	22.90	22.89	22.89	24.0	0.0
40	PV2 BPSK	108	108	22.16	22.40	22.17		
40	PV2 BPSK	216	0	22.40	22.48	22.29	23.5	0.5
40	QPSK	1	1	23.15	23.20	23.12		
40	QPSK	1	108	23.08	22.96	22.84	24.0	0.0
40	QPSK	1	214	22.85	23.01	22.89		
40	QPSK	108	0	21.93	21.99	21.75	23.0	1.0
40	QPSK	108	54	22.92	23.09	22.80	24.0	0.0
40	QPSK	108	108	21.88	21.88	21.90	23.0	1.0
40	QPSK	216	0	21.82	22.01	21.73		
40	16QAM	1	1	21.88	21.82	21.87	23.0	1.0
40	64QAM	1	1	20.52	20.50	20.30	21.5	2.5
40	256QAM	1	1	19.12	19.19	19.16	19.5	4.5
Channel				378300	376500	379500	Tune-up limit	MPR
Frequency (MHz)				1897.5	1882.5	1907.5	(dBm)	(dB)
35	QPSK	1	1	23.05	23.10	23.04	24.0	0.0
Channel				379000	376500	380000	Tune-up limit	MPR
Frequency (MHz)				1905	1882.5	1900	(dBm)	(dB)
30	QPSK	1	1	23.03	23.11	23.05	24.0	0.0
Channel				372500	376500	380500	Tune-up limit	MPR
Frequency (MHz)				1862.5	1882.5	1902.5	(dBm)	(dB)
25	QPSK	1	1	23.02	23.09	23.03	24.0	0.0
Channel				372000	376500	381000	Tune-up limit	MPR
Frequency (MHz)				1860	1882.5	1905	(dBm)	(dB)
20	QPSK	1	1	23.10	23.15	23.06	24.0	0.0
Channel				371500	376500	381500	Tune-up limit	MPR
Frequency (MHz)				1857.5	1882.5	1907.5	(dBm)	(dB)
15	QPSK	1	1	23.12	23.07	23.07	24.0	0.0
Channel				371000	376500	382000	Tune-up limit	MPR
Frequency (MHz)				1855	1882.5	1910	(dBm)	(dB)
10	QPSK	1	1	23.12	23.16	23.09	24.0	0.0
Channel				370500	376500	382500	Tune-up limit	MPR
Frequency (MHz)				1852.5	1882.5	1912.5	(dBm)	(dB)
5	QPSK	1	1	23.04	23.14	23.00	24.0	0.0



n26 Ant 1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				164800	166300	167800			
Frequency (MHz)				824	831.5	839			
20	PI2 BPSK	1	1	22.92	22.99	22.93	24.0	0.0	
20	PI2 BPSK	1	50	22.77	22.92	22.85			
20	PI2 BPSK	1	104	22.78	22.78	22.84			
20	PI2 BPSK	50	0	22.22	22.36	22.19	23.5	0.5	
20	PI2 BPSK	50	28	22.84	22.86	22.81	24.0	0.0	
20	PI2 BPSK	50	56	22.10	22.28	22.09			
20	PI2 BPSK	100	0	22.32	22.44	22.16	23.5	0.5	
20	QPSK	1	1	23.06	23.13	22.99			
20	QPSK	1	53	23.01	22.82	22.80	24.0	0.0	
20	QPSK	1	104	22.80	22.97	22.78			
20	QPSK	50	0	21.89	21.84	21.87	23.0	1.0	
20	QPSK	50	28	22.82	23.04	22.69	24.0	0.0	
20	QPSK	50	56	21.73	21.85	21.79	23.0	1.0	
20	QPSK	100	0	21.74	21.68	21.82			
20	16QAM	1	1	21.78	21.78	21.53	23.0	1.0	
20	64QAM	1	1	20.44	20.37	20.16	21.5	2.5	
20	256QAM	1	1	19.00	18.15	19.03	19.5	4.5	
Channel				163300	163300	163300	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				811.5	831.5	841.5			
15	QPSK	1	1	22.99	23.05	22.84	24.0	0.0	
Channel				163800	163300	168800	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				810	831.5	841			
10	QPSK	1	1	22.99	23.00	22.92	24.0	0.0	
Channel				163300	163300	169300	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				816.5	831.5	846.5			
5	QPSK	1	1	22.92	23.07	22.85	24.0	0.0	

n30 Ant 1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel					2310				
Frequency (MHz)					2310				
10	PI2 BPSK	1	1		22.90		24.0	0.0	
10	PI2 BPSK	1	28		22.79				
10	PI2 BPSK	1	50		22.66				
10	PI2 BPSK	25	0		22.22		23.5	0.5	
10	PI2 BPSK	25	14		22.76		24.0	0.0	
10	PI2 BPSK	25	27		22.21				
10	PI2 BPSK	50	0		22.35		23.5	0.5	
10	QPSK	1	1		23.04				
10	QPSK	1	28		22.76		24.0	0.0	
10	QPSK	1	50		22.92				
10	QPSK	25	0		21.77		23.0	1.0	
10	QPSK	25	14		22.98		24.0	0.0	
10	QPSK	25	27		21.70		23.0	1.0	
10	QPSK	50	0		21.84		23.0	1.0	
10	16QAM	1	1		21.84		23.0	1.0	
10	64QAM	1	1		20.27		21.5	2.5	
10	256QAM	1	1		19.09		19.5	4.5	
Channel				461500	462000	462500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2307.5	2310	2312.5			
5	QPSK	1	1	22.91	22.98	22.82	24.0	0.0	

n66 Ant 1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				346000	346000	346000			
Frequency (MHz)				1730	1745	1760			
40	PI2 BPSK	1	1	23.22	23.32	23.21	24.0	0.0	
40	PI2 BPSK	1	108	23.21	23.24	23.15			
40	PI2 BPSK	1	214	23.16	23.09	23.07			
40	PI2 BPSK	108	0	22.80	22.89	22.54	23.5	0.5	
40	PI2 BPSK	108	54	23.18	23.17	23.09	24.0	0.0	
40	PI2 BPSK	108	108	22.38	22.56	22.48			
40	PI2 BPSK	216	0	22.58	22.77	22.53	23.5	0.5	
40	QPSK	1	1	23.37	23.36	23.28			
40	QPSK	1	108	23.20	23.23	23.15	24.0	0.0	
40	QPSK	1	214	23.17	23.29	23.06			
40	QPSK	108	0	22.13	22.15	21.98	23.0	1.0	
40	QPSK	108	54	23.22	23.30	23.06	24.0	0.0	
40	QPSK	108	108	22.20	22.18	22.09	23.0	1.0	
40	QPSK	216	0	22.03	22.22	22.01			
40	16QAM	1	1	21.77	21.82	21.87	23.0	1.0	
40	64QAM	1	1	20.32	20.43	20.34	21.5	2.5	
40	256QAM	1	1	18.77	18.91	18.86	19.5	4.5	
Channel				345500	349000	352500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1727.5	1745	1762.5			
35	QPSK	1	1	23.30	23.32	23.19	24.0	0.0	
Channel				349000	349000	353000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1725	1745	1765			
30	QPSK	1	1	23.32	23.28	23.15	24.0	0.0	
Channel				344500	349000	353500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1722.5	1745	1767.5			
25	QPSK	1	1	23.29	23.24	23.21	24.0	0.0	
Channel				344500	349000	354000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1720	1745	1770			
20	QPSK	1	1	23.24	23.28	23.19	24.0	0.0	
Channel				343500	349000	354500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1717.5	1745	1772.5			
15	QPSK	1	1	23.27	23.34	23.21	24.0	0.0	
Channel				343000	349000	355000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1715	1745	1775			
10	QPSK	1	1	23.23	23.24	23.22	24.0	0.0	
Channel				342500	349000	355500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1712.5	1745	1777.5			
5	QPSK	1	1	23.30	23.32	23.13	24.0	0.0	



n70 Ant 1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel					1702.5				
Frequency (MHz)					1702.5				
15	PI2 BPSK	1	1		23.60		24.0	0.0	
15	PI2 BPSK	1	40		23.52				
15	PI2 BPSK	1	77		23.35				
15	PI2 BPSK	36	0		23.05		23.5	0.5	
15	PI2 BPSK	36	22		23.48		24.0	0.0	
15	PI2 BPSK	36	43		22.88				
15	PI2 BPSK	75	0		23.09		23.5	0.5	
15	QPSK	1	1		23.66				
15	QPSK	1	40		23.48		24.0	0.0	
15	QPSK	1	77		23.36				
15	QPSK	36	0		22.47		23.0	1.0	
15	QPSK	36	22		23.60		24.0	0.0	
15	QPSK	36	43		22.52		23.0	1.0	
15	QPSK	75	0		22.57				
15	16QAM	1	1		22.10		23.0	1.0	
15	64QAM	1	1		20.74		21.5	2.5	
15	256QAM	1	1		19.17		19.5	4.5	
Channel				340000	340500	341000			
Frequency (MHz)				1700	1702.5	1705			
10	QPSK	1	1	23.51	23.60	23.57	24.0	0.0	
Channel				339500	340500	341500			
Frequency (MHz)				1697.5	1702.5	1707.5			
5	QPSK	1	1	23.50	23.52	23.50	24.0	0.0	

n71 Ant 1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel					134600				
Frequency (MHz)					673	680.5	688		
20	PI2 BPSK	1	1		23.33	23.49	23.30		
20	PI2 BPSK	1	50		23.26	23.32	23.30	24.0	0.0
20	PI2 BPSK	1	104		23.33	23.19	23.15		
20	PI2 BPSK	50	0		22.75	22.85	22.68	23.5	0.5
20	PI2 BPSK	50	28		23.27	23.32	23.15	24.0	0.0
20	PI2 BPSK	50	56		22.53	22.71	22.63		
20	PI2 BPSK	100	0		22.64	22.91	22.59	23.5	0.5
20	QPSK	1	1		23.47	23.50	23.36		
20	QPSK	1	53		23.28	23.36	23.22	24.0	0.0
20	QPSK	1	104		23.28	23.45	23.21		
20	QPSK	50	0		22.28	22.29	22.08	23.0	1.0
20	QPSK	50	28		23.35	23.39	23.12	24.0	0.0
20	QPSK	50	56		22.28	22.30	22.18	23.0	1.0
20	QPSK	100	0		22.16	22.36	22.18		
20	16QAM	1	1		22.05	22.17	22.02	23.0	1.0
20	64QAM	1	1		20.73	20.86	20.71	21.5	2.5
20	256QAM	1	1		19.40	19.43	19.34	19.5	4.5
Channel				134100	136100	138100			
Frequency (MHz)				670.5	680.5	690.5			
15	QPSK	1	1	23.38	23.44	23.32	24.0	0.0	
Channel				133600	136100	138600			
Frequency (MHz)				686	690.5	695			
10	QPSK	1	1	23.34	23.37	23.23	24.0	0.0	
Channel				133100	136100	139100			
Frequency (MHz)				685.5	680.5	685.5			
5	QPSK	1	1	23.34	23.42	23.30	24.0	0.0	



n2 Ant 2

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 374000	Middle Ch. Freq. 376000	High Ch. Freq. 378000		
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	22.92	22.96	22.84		
40	PI2 BPSK	1	108	22.78	22.83	22.79	24.0	0.0
40	PI2 BPSK	1	214	22.74	22.71	22.65		
40	PI2 BPSK	108	0	22.23	22.34	22.15	23.5	0.5
40	PI2 BPSK	108	54	22.82	22.79	22.72	24.0	0.0
40	PI2 BPSK	108	108	22.07	22.28	22.07		
40	PI2 BPSK	216	0	22.17	22.34	22.20	23.5	0.5
40	QPSK	1	1	22.97	23.04	22.94		
40	QPSK	1	108	22.88	22.88	22.71	24.0	0.0
40	QPSK	1	214	22.74	22.96	22.70		
40	QPSK	108	0	21.71	21.82	21.60	23.0	1.0
40	QPSK	108	54	22.82	22.95	22.67	24.0	0.0
40	QPSK	108	108	21.78	21.80	21.70		
40	QPSK	216	0	21.66	21.67	21.53	23.0	1.0
40	16QAM	1	1	21.66	21.72	21.58	23.0	1.0
40	64QAM	1	1	20.40	20.30	20.22	21.5	2.5
40	256QAM	1	1	18.98	19.05	19.03	19.5	4.5
Channel								
Frequency (MHz)								
35	QPSK	1	1	22.90	22.96	22.88	0.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	22.87	22.95	22.89	0.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	22.92	22.93	22.87	0.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	22.82	23.00	22.87	0.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.84	22.94	22.91	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.91	23.02	22.89	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.93	23.04	22.90	24.0	0.0

n7 Ant 2

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 506000	Middle Ch. Freq. 507000	High Ch. Freq. 508000		
Channel								
Frequency (MHz)								
50	PI2 BPSK	1	1	23.45	23.45	23.32		
50	PI2 BPSK	1	135	23.24	23.31	23.26	24.0	0.0
50	PI2 BPSK	1	268	23.25	23.19	23.15		
50	PI2 BPSK	135	0	22.68	22.89	22.70	23.5	0.5
50	PI2 BPSK	135	68	23.31	23.32	23.20	24.0	0.0
50	PI2 BPSK	135	135	22.53	22.81	22.65		
50	PI2 BPSK	270	0	22.63	22.84	22.70	23.5	0.5
50	QPSK	1	1	23.53	23.61	23.43		
50	QPSK	1	135	23.39	23.35	23.26	24.0	0.0
50	QPSK	1	268	23.26	23.37	23.24		
50	QPSK	135	0	22.18	22.32	22.09	23.0	1.0
50	QPSK	135	68	23.36	23.49	23.21	24.0	0.0
50	QPSK	135	135	22.23	22.38	22.23		
50	QPSK	270	0	22.15	22.35	22.01	23.0	1.0
50	16QAM	1	1	21.69	21.76	21.64	23.0	1.0
50	64QAM	1	1	20.38	20.44	20.38	21.5	2.5
50	256QAM	1	1	18.80	18.87	18.82	19.5	4.5
Channel								
Frequency (MHz)								
40	QPSK	1	1	23.49	23.50	23.38	24.0	0.0
Channel								
Frequency (MHz)								
35	QPSK	1	1	23.45	23.55	23.50	0.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	23.46	23.50	23.29	24.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	23.45	23.52	23.36	24.0	0.0
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	23.49	23.47	23.35	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.39	23.54	23.39	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.50	23.50	23.35	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	23.49	23.57	23.32	24.0	0.0

n25 Ant 2

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 374000	Middle Ch. Freq. 376000	High Ch. Freq. 378000		
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	22.91	22.90	22.77		
40	PI2 BPSK	1	108	22.76	22.82	22.78	24.0	0.0
40	PI2 BPSK	1	214	22.71	22.78	22.72		
40	PI2 BPSK	108	0	22.17	22.26	22.14	23.5	0.5
40	PI2 BPSK	108	54	22.82	22.81	22.68	24.0	0.0
40	PI2 BPSK	108	108	21.99	22.24	21.98		
40	PI2 BPSK	216	0	22.24	22.38	22.15	23.5	0.5
40	QPSK	1	1	22.97	23.07	22.92		
40	QPSK	1	108	22.92	22.90	22.71	24.0	0.0
40	QPSK	1	214	22.77	22.83	22.73		
40	QPSK	108	0	21.71	21.82	21.65	23.0	1.0
40	QPSK	108	54	22.74	23.01	22.72	24.0	0.0
40	QPSK	108	108	21.75	21.78	21.73		
40	QPSK	216	0	21.63	21.67	21.54	23.0	1.0
40	16QAM	1	1	21.63	21.68	21.60	23.0	1.0
40	64QAM	1	1	20.33	20.30	20.17	21.5	2.5
40	256QAM	1	1	18.89	19.03	18.93	19.5	4.5
Channel								
Frequency (MHz)								
35	QPSK	1	1	22.89	22.95	22.91	24.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	22.90	22.93	22.75	24.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	22.88	22.98	22.88	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	22.87	22.92	22.87	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.82	22.91	22.87	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.93	22.89	22.87	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.93	22.96	22.79	24.0	0.0



n30 Ant 2									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				2310					
Frequency (MHz)				2310					
10	PI2 BPSK	1	1	22.97	23.22	23.14	24.0	0.0	
10	PI2 BPSK	1	26	22.78	23.14	23.09			
10	PI2 BPSK	1	50	22.71	23.07	22.99			
10	PI2 BPSK	25	0	22.25	22.88	22.44	23.5	0.5	
10	PI2 BPSK	25	14	22.81	23.08	22.98	24.0	0.0	
10	PI2 BPSK	25	27	22.15	22.59	22.37			
10	PI2 BPSK	50	0	22.37	22.99	22.42	23.5	0.5	
10	QPSK	1	1	23.03					
10	QPSK	1	26	22.90	23.13	23.02	24.0	0.0	
10	QPSK	1	50	22.93	23.13	23.06			
10	QPSK	25	0	21.78	22.14	21.98	23.0	1.0	
10	QPSK	25	14	22.96	22.95	22.95	24.0	0.0	
10	QPSK	25	27	21.72	22.10	21.90			
10	QPSK	50	0	21.78	22.15	21.83	23.0	1.0	
10	16QAM	1	1	21.70	21.96	21.88	23.0	1.0	
10	64QAM	1	1	20.40	20.69	20.48	21.5	2.5	
10	256QAM	1	1	19.02	19.25	19.24	19.5	4.5	
Channel				481500	482000	482500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2307.5	2310	2312.5	24.0	0.0	
5	QPSK	1	1	22.86	22.91	22.85	24.0	0.0	

n66 Ant 2									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				1730 1745 1760					
Frequency (MHz)				1730 1745 1760					
40	PI2 BPSK	1	1	23.22	23.23	23.14			
40	PI2 BPSK	1	109	23.14	23.07	23.09	24.0	0.0	
40	PI2 BPSK	1	214	23.06	23.07	22.99			
40	PI2 BPSK	108	0	22.50	22.88	22.44	23.5	0.5	
40	PI2 BPSK	108	54	23.04	23.08	22.98	24.0	0.0	
40	PI2 BPSK	108	108	22.36	22.59	22.37			
40	PI2 BPSK	216	0	22.51	22.99	22.42	23.5	0.5	
40	QPSK	1	1	23.30	23.35	23.29			
40	QPSK	1	108	23.13	23.13	23.02	24.0	0.0	
40	QPSK	1	214	23.00	23.13	23.06			
40	QPSK	108	0	22.09	22.14	21.98	23.0	1.0	
40	QPSK	108	54	23.04	23.31	22.95	24.0	0.0	
40	QPSK	108	108	22.03	22.10	21.90			
40	QPSK	216	0	21.98	22.15	21.83	23.0	1.0	
40	16QAM	1	1	22.01	21.96	21.88	23.0	1.0	
40	64QAM	1	1	20.81	20.69	20.48	21.5	2.5	
40	256QAM	1	1	19.29	19.25	19.24	19.5	4.5	
Channel				345500	346000	346500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1727.5	1745	1762.5	24.0	0.0	
35	QPSK	1	1	23.18	23.22	23.14	24.0	0.0	
Channel				345000	346000	346000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1725	1745	1762.5	24.0	0.0	
30	QPSK	1	1	23.25	23.30	23.13	24.0	0.0	
Channel				344500	346000	345500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1722.5	1745	1767.5	24.0	0.0	
25	QPSK	1	1	23.23	23.30	23.13	24.0	0.0	
Channel				344000	346000	345000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1720	1745	1770	24.0	0.0	
20	QPSK	1	1	23.17	23.28	23.14	24.0	0.0	
Channel				343500	346000	345000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1717.5	1745	1772.5	24.0	0.0	
15	QPSK	1	1	23.24	23.29	23.09	24.0	0.0	
Channel				343000	346000	345000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1715	1745	1772	24.0	0.0	
10	QPSK	1	1	23.27	23.22	23.14	24.0	0.0	
Channel				342500	346000	345500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1712.5	1745	1777.5	24.0	0.0	
5	QPSK	1	1	23.26	23.31	23.20	24.0	0.0	

n70 Ant 2									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				1702.5					
Frequency (MHz)				1702.5					
15	PI2 BPSK	1	1	23.41	23.41	23.41	24.0	0.0	
15	PI2 BPSK	1	49	23.38	23.38	23.38			
15	PI2 BPSK	1	77	23.18	23.18	23.18			
15	PI2 BPSK	36	0	22.78	22.78	22.78	23.5	0.5	
15	PI2 BPSK	36	22	23.27	23.27	23.27	24.0	0.0	
15	PI2 BPSK	36	43	22.85	22.85	22.85			
15	PI2 BPSK	75	0	22.91	22.91	22.91	23.5	0.5	
15	QPSK	1	1	23.46	23.46	23.46			
15	QPSK	1	49	23.34	23.34	23.34	24.0	0.0	
15	QPSK	1	77	23.35	23.35	23.35			
15	QPSK	36	0	22.24	22.24	22.24	23.0	1.0	
15	QPSK	36	22	23.39	23.39	23.39	24.0	0.0	
15	QPSK	36	43	22.28	22.28	22.28	23.0	1.0	
15	QPSK	75	0	22.32	22.32	22.32	23.0	1.0	
15	16QAM	1	1	21.96	21.96	21.96	23.0	1.0	
15	64QAM	1	1	20.59	20.59	20.59	21.5	2.5	
15	256QAM	1	1	19.96	19.96	19.96	19.5	4.5	
Channel				345000	345500	341000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1700	1702.5	1705	24.0	0.0	
10	QPSK	1	1	23.27	23.35	23.29	24.0	0.0	
Channel				339500	345500	341500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1697.5	1702.5	1707.5	24.0	0.0	
5	QPSK	1	1	23.23	23.37	23.34	24.0	0.0	



n2 Ant 3

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 374000	Middle Ch. / Freq. 376000	High Ch. / Freq. 378000		
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	23.20	23.25	23.13	24.0	0.0
40	PI2 BPSK	1	108	23.10	23.07	23.04		
40	PI2 BPSK	1	214	22.98	23.03	22.93	23.5	0.5
40	PI2 BPSK	108	0	22.86	22.83	22.80		
40	PI2 BPSK	108	54	23.07	23.03	23.07	24.0	0.0
40	PI2 BPSK	108	108	22.31	22.55	22.41		
40	PI2 BPSK	216	0	22.55	22.57	22.41	23.5	0.5
40	QPSK	1	1	23.25	23.28	23.24		
40	QPSK	1	108	23.23	23.20	23.06	24.0	0.0
40	QPSK	1	214	22.99	23.16	23.00		
40	QPSK	108	0	22.05	22.08	21.91	23.0	1.0
40	QPSK	108	54	23.09	23.24	23.07		
40	QPSK	108	108	22.06	22.13	21.88	23.0	1.0
40	QPSK	216	0	22.08	22.17	22.03		
40	16QAM	1	1	23.89	22.02	21.92	23.0	1.0
40	16QAM	1	1	20.66	20.64	20.46		
40	256QAM	1	1	19.19	19.31	19.28	19.5	4.5
Channel								
Frequency (MHz)								
35	QPSK	1	1	23.21	23.28	23.18	24.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	23.18	23.19	23.12	24.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	23.22	23.24	23.17	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.20	23.25	23.16	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.15	23.21	23.17	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.21	23.25	23.19	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	23.17	23.20	23.11	24.0	0.0
Channel								
Frequency (MHz)								

n7 Ant 3

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 505000	Middle Ch. / Freq. 507000	High Ch. / Freq. 509000		
Channel								
Frequency (MHz)								
50	PI2 BPSK	1	1	23.42	23.42	23.34	24.0	0.0
50	PI2 BPSK	1	135	23.30	23.33	23.30		
50	PI2 BPSK	1	268	23.15	23.19	23.16	23.5	0.5
50	PI2 BPSK	135	0	22.73	22.84	22.69		
50	PI2 BPSK	135	68	23.25	23.26	23.23	24.0	0.0
50	PI2 BPSK	135	135	22.51	22.71	22.68		
50	PI2 BPSK	270	0	22.77	22.78	22.60	23.5	0.5
50	QPSK	1	1	23.47	23.54	23.44		
50	QPSK	1	135	23.39	23.38	23.28	24.0	0.0
50	QPSK	1	268	23.18	23.41	23.18		
50	QPSK	135	0	22.27	22.28	22.10	23.0	1.0
50	QPSK	135	68	23.26	23.40	23.34		
50	QPSK	135	135	22.33	22.37	22.14	23.0	1.0
50	QPSK	270	0	22.25	22.43	22.25		
50	16QAM	1	1	22.03	22.18	22.08	23.0	1.0
50	16QAM	1	1	20.50	20.60	20.53		
50	256QAM	1	1	18.96	18.06	18.93	19.5	4.5
Channel								
Frequency (MHz)								
40	QPSK	1	1	23.41	23.49	23.37	24.0	0.0
Channel								
Frequency (MHz)								
35	QPSK	1	1	23.39	23.45	23.34	24.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	23.33	23.31	23.33	24.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	23.40	23.43	23.40	24.0	0.0
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	23.38	23.47	23.36	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.39	23.50	23.37	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.39	23.45	23.35	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	23.37	23.48	23.39	24.0	0.0
Channel								
Frequency (MHz)								

n25 Ant 3

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 374000	Middle Ch. / Freq. 376500	High Ch. / Freq. 379000		
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	23.16	23.16	23.11	24.0	0.0
40	PI2 BPSK	1	108	23.03	23.08	23.01		
40	PI2 BPSK	1	214	22.94	22.99	22.89	23.5	0.5
40	PI2 BPSK	108	0	22.48	22.52	22.38		
40	PI2 BPSK	108	54	23.03	23.01	23.02	24.0	0.0
40	PI2 BPSK	108	108	22.32	22.50	22.29		
40	PI2 BPSK	216	0	22.41	22.62	22.42	23.5	0.5
40	QPSK	1	1	23.23	23.30	23.18		
40	QPSK	1	108	23.12	23.14	22.98	24.0	0.0
40	QPSK	1	214	23.03	23.10	23.00		
40	QPSK	108	0	22.01	22.08	21.84	23.0	1.0
40	QPSK	108	54	23.03	23.19	22.92		
40	QPSK	108	108	21.98	21.99	21.87	23.0	1.0
40	QPSK	216	0	21.89	22.04	21.85		
40	16QAM	1	1	22.00	22.02	21.87	23.0	1.0
40	16QAM	1	1	20.84	20.62	20.47		
40	256QAM	1	1	19.21	19.29	19.28	19.5	4.5
Channel								
Frequency (MHz)								
35	QPSK	1	1	23.16	23.20	23.14	24.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	23.17	23.25	23.15	24.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	23.15	23.23	23.05	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.17	23.21	23.13	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.17	23.18	23.13	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.19	23.22	23.11	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	23.09	23.24	23.10	24.0	0.0
Channel								
Frequency (MHz)								



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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq. 465000	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
10	PI2 BPSK	1	1	23.52	23.10			
10	PI2 BPSK	1	26	23.38			24.0	0.0
10	PI2 BPSK	1	50	23.38				
10	PI2 BPSK	25	0	22.98			23.5	0.5
10	PI2 BPSK	25	14	23.33			24.0	0.0
10	PI2 BPSK	25	27	22.92				
10	PI2 BPSK	50	0	22.84			23.5	0.5
10	QPSK	1	1	23.63				
10	QPSK	1	26	23.46			24.0	0.0
10	QPSK	1	50	23.46				
10	QPSK	25	0	22.37			23.0	1.0
10	QPSK	25	14	23.56			24.0	0.0
10	QPSK	25	27	22.42				
10	QPSK	50	0	22.46			23.0	1.0
10	16QAM	1	1	22.23			23.0	1.0
10	64QAM	1	1	20.78			21.5	2.5
10	256QAM	1	1	19.48			19.5	4.5
Channel								
Frequency (MHz)								
481500				462000	465000		Tune-up limit (dBm)	MPR (dB)
2307.5				2310	2312.5		24.0	0.0
5	QPSK	1	1	23.48	23.50	23.47	24.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 346000	Power Middle Ch. / Freq. 349000	Power High Ch. / Freq. 352000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	22.99	23.12	22.93		
40	PI2 BPSK	1	109	22.96	22.93	22.99	24.0	0.0
40	PI2 BPSK	1	214	22.85	22.91	22.87		
40	PI2 BPSK	108	0	22.39	22.45	22.34	23.5	0.5
40	PI2 BPSK	108	54	22.83	22.89	22.87	24.0	0.0
40	PI2 BPSK	108	108	22.20	22.33	22.18		
40	PI2 BPSK	216	0	22.38	22.53	22.25	23.5	0.5
40	QPSK	1	1	23.14	23.18	23.02		
40	QPSK	1	108	23.09	23.01	22.84	24.0	0.0
40	QPSK	1	214	22.84	22.98	22.89		
40	QPSK	108	0	21.90	21.97	21.78	23.0	1.0
40	QPSK	108	54	22.87	23.11	22.85	24.0	0.0
40	QPSK	108	108	21.96	21.92	21.91		
40	QPSK	216	0	21.87	21.97	21.74	23.0	1.0
40	16QAM	1	1	21.87	21.83	21.88	23.0	1.0
40	64QAM	1	1	20.51	20.51	20.39	21.5	2.5
40	256QAM	1	1	19.08	19.13	19.15	19.5	4.5
Channel								
Frequency (MHz)								
345000				346000	349000	352000	Tune-up limit (dBm)	MPR (dB)
1725				1745	1765		24.0	0.0
35	QPSK	1	1	23.00	23.09	22.90	24.0	0.0
Channel								
Frequency (MHz)								
345000				349000	353000		Tune-up limit (dBm)	MPR (dB)
1725				1745	1765		24.0	0.0
30	QPSK	1	1	23.04	23.03	22.90	24.0	0.0
Channel								
Frequency (MHz)								
344500				349000	353500		Tune-up limit (dBm)	MPR (dB)
1722.5				1745	1767.5		24.0	0.0
25	QPSK	1	1	23.07	23.06	22.90	24.0	0.0
Channel								
Frequency (MHz)								
343000				349000	355000		Tune-up limit (dBm)	MPR (dB)
1720				1745	1770		24.0	0.0
20	QPSK	1	1	23.01	23.11	22.87	24.0	0.0
Channel								
Frequency (MHz)								
343500				349000	349500		Tune-up limit (dBm)	MPR (dB)
1717.5				1745	1772.5		24.0	0.0
15	QPSK	1	1	22.99	23.12	22.97	24.0	0.0
Channel								
Frequency (MHz)								
343000				349000	355000		Tune-up limit (dBm)	MPR (dB)
1715				1745	1775		24.0	0.0
10	QPSK	1	1	23.02	23.09	22.85	24.0	0.0
Channel								
Frequency (MHz)								
342500				349000	355500		Tune-up limit (dBm)	MPR (dB)
1712.5				1745	1777.5		24.0	0.0
5	QPSK	1	1	23.10	23.05	22.99	24.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq. 345500	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
15	PI2 BPSK	1	1	23.39	1702.5			
15	PI2 BPSK	1	40	23.27			24.0	0.0
15	PI2 BPSK	1	77	23.28				
15	PI2 BPSK	36	0	22.94			23.5	0.5
15	PI2 BPSK	36	22	23.23			24.0	0.0
15	PI2 BPSK	36	43	22.72				
15	PI2 BPSK	75	0	22.71			23.5	0.5
15	QPSK	1	1	23.53				
15	QPSK	1	40	23.34			24.0	0.0
15	QPSK	1	77	23.33				
15	QPSK	36	0	22.30			23.0	1.0
15	QPSK	36	22	23.48			24.0	0.0
15	QPSK	36	43	22.33				
15	QPSK	75	0	22.43			23.0	1.0
15	16QAM	1	1	22.21			23.0	1.0
15	64QAM	1	1	20.68			21.5	2.5
15	256QAM	1	1	19.33			19.5	4.5
Channel								
Frequency (MHz)								
345000				345500	341000		Tune-up limit (dBm)	MPR (dB)
1700				1702.5	1705		24.0	0.0
10	QPSK	1	1	23.41	23.48	23.39	24.0	0.0
Channel								
Frequency (MHz)								
339500				345500	341500		Tune-up limit (dBm)	MPR (dB)
1697.5				1702.5	1707.5		24.0	0.0
5	QPSK	1	1	23.32	23.39	23.21	24.0	0.0



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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 638000	Power Middle Ch. Freq. 641666	Power High Ch. Freq. 645332	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	23.19	23.19	23.12	24.0	0.0
40	PI2 BPSK	1	53	23.07	23.09	23.07		
40	PI2 BPSK	1	104	23.03	23.00	22.94	23.5	0.5
40	PI2 BPSK	50	0	22.47	22.57	22.56		
40	PI2 BPSK	50	28	23.10	22.97	23.02	24.0	0.0
40	PI2 BPSK	50	66	22.19	22.57	22.27		
40	PI2 BPSK	100	0	22.47	22.57	22.33	24.0	0.0
40	QPSK	1	1	23.28	23.31	23.18		
40	QPSK	1	53	23.15	23.10	23.01	23.0	1.0
40	QPSK	1	104	23.07	23.17	22.94		
40	QPSK	50	0	22.00	22.10	21.96	23.0	1.0
40	QPSK	50	28	23.04	23.21	22.99		
40	QPSK	50	56	21.98	22.08	21.96	23.0	1.0
40	QPSK	100	0	21.93	22.14	21.86		
40	16QAM	1	1	21.93	22.02	21.89	23.0	1.0
40	16QAM	1	1	20.62	20.62	20.47		
40	256QAM	1	1	19.25	19.32	19.21	19.5	4.5
Channel								
Frequency (MHz)								
30	QPSK	1	1	23.12	23.17	23.11	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.21	23.27	23.19	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.16	23.21	23.12	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.13	23.25	23.05	24.0	0.0
Channel								
Frequency (MHz)								

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 656000	Power High Ch. Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	23.28	23.26	23.13	24.0	0.0
100	PI2 BPSK	1	197	23.17	23.18	23.13		
100	PI2 BPSK	1	271	23.05	23.15	23.03	24.0	0.0
100	PI2 BPSK	135	0	23.02	23.09	23.07		
100	PI2 BPSK	135	69	23.12	23.20	23.10	24.0	0.0
100	PI2 BPSK	135	138	22.98	23.05	23.08		
100	PI2 BPSK	270	0	23.09	23.18	22.95	24.0	0.0
100	QPSK	1	1	23.25	23.32	23.30		
100	QPSK	1	137	23.21	23.26	23.22	24.0	0.0
100	QPSK	1	271	23.07	23.21	23.14		
100	QPSK	135	0	23.17	23.22	23.15	24.0	0.0
100	QPSK	135	69	23.22	23.27	23.18		
100	QPSK	135	138	23.11	23.20	23.13	24.0	0.0
100	QPSK	270	0	23.15	23.25	23.16		
100	16QAM	1	1	23.06	23.18	23.11	24.0	0.0
100	16QAM	1	1	23.03	23.10	23.08		
100	256QAM	1	1	21.86	21.78	21.72	22.5	1.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	23.18	23.19	23.16	24.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	23.17	23.23	23.14	24.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	23.09	23.20	23.17	24.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	23.14	23.15	23.15	24.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	23.09	23.16	23.18	24.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	23.09	23.21	23.12	24.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	23.15	23.26	23.17	24.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	23.14	23.14	23.23	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.17	23.20	23.19	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.09	23.25	23.12	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.19	23.21	23.19	24.0	0.0
Channel								
Frequency (MHz)								

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 656000	Power High Ch. Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	26.03	26.18	26.02	27.0	0.0
100	PI2 BPSK	1	137	26.03	25.99	26.01		
100	PI2 BPSK	1	271	25.86	25.96	25.88	26.5	0.5
100	PI2 BPSK	135	0	25.43	25.51	25.38		
100	PI2 BPSK	135	69	25.92	26.04	25.96	27.0	0.0
100	PI2 BPSK	135	138	25.23	25.42	25.31		
100	PI2 BPSK	270	0	25.47	25.55	25.37	26.5	0.5
100	QPSK	1	1	26.19	26.28	26.10		
100	QPSK	1	137	26.11	26.06	25.97	27.0	0.0
100	QPSK	1	271	25.87	26.17	25.84		
100	QPSK	135	0	24.95	25.11	24.83	26.0	1.0
100	QPSK	135	69	26.03	26.23	26.85		
100	QPSK	135	138	24.97	24.99	24.86	26.0	1.0
100	QPSK	270	0	24.93	25.06	24.75		
100	16QAM	1	1	24.85	24.93	24.79	26.0	1.0
100	16QAM	1	1	23.48	23.56	23.40		
100	256QAM	1	1	21.08	21.17	21.17	22.5	2.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	26.10	26.14	26.00	27.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	26.02	26.13	25.94	27.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	26.08	26.10	26.04	27.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	26.10	26.12	26.02	27.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	26.06	26.11	25.92	27.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	26.04	26.10	25.85	27.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	26.06	26.18	25.97	27.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	26.04	26.10	25.96	27.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	26.06	26.11	25.99	27.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	26.05	26.14	25.84	27.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	26.11	26.14	25.96	27.0	0.0
Channel								
Frequency (MHz)								



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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	23.37	23.37			
100	PI2 BPSK	1	137	23.40	23.40		24.0	0.0
100	PI2 BPSK	1	271	23.28	23.28			
100	PI2 BPSK	135	0	23.25	23.25		24.0	0.0
100	PI2 BPSK	135	69	23.35	23.35		24.0	0.0
100	PI2 BPSK	135	138	23.19	23.19		24.0	0.0
100	PI2 BPSK	270	0	23.32	23.32		24.0	0.0
100	QPSK	1	1	23.45	23.45			
100	QPSK	1	137	23.34	23.34		24.0	0.0
100	QPSK	1	271	23.38	23.38			
100	QPSK	135	0	23.38	23.38		24.0	0.0
100	QPSK	135	69	23.37	23.37		24.0	0.0
100	QPSK	135	138	23.29	23.29		24.0	0.0
100	QPSK	270	0	23.32	23.32		24.0	0.0
100	16QAM	1	1	23.14	23.14		24.0	0.0
100	64QAM	1	1	22.90	22.90		24.0	0.0
100	256QAM	1	1	21.97	21.97		22.5	1.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	23.28	23.38	23.32	24.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	23.14	23.29	23.21	24.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	23.17	23.11	23.25	24.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	23.13	23.23	23.28	24.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	23.12	23.24	23.20	24.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	23.12	23.21	23.17	24.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	23.11	23.23	23.14	24.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	23.20	23.18	23.16	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.16	23.21	23.25	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.13	23.27	23.18	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.21	23.28	23.23	24.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	26.16	26.16			
100	PI2 BPSK	1	137	26.15	26.15		27.0	0.0
100	PI2 BPSK	1	271	25.98	25.98			
100	PI2 BPSK	135	0	25.60	25.60		26.5	0.5
100	PI2 BPSK	135	69	26.08	26.08		27.0	0.0
100	PI2 BPSK	135	138	25.54	25.54		26.5	0.5
100	PI2 BPSK	270	0	25.77	25.77			
100	QPSK	1	1	26.30	26.30			
100	QPSK	1	137	26.13	26.13		27.0	0.0
100	QPSK	1	271	26.10	26.10			
100	QPSK	135	0	25.07	25.07		26.0	1.0
100	QPSK	135	69	26.20	26.20		27.0	0.0
100	QPSK	135	138	25.09	25.09		26.0	1.0
100	QPSK	270	0	25.11	25.11		26.0	1.0
100	16QAM	1	1	24.69	24.69		26.0	1.0
100	64QAM	1	1	23.37	23.37		24.5	2.5
100	256QAM	1	1	21.44	21.44		22.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	26.11	26.20	26.13	27.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	26.01	26.04	26.03	27.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	26.01	26.04	26.05	27.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	25.96	26.10	25.99	27.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	26.03	26.10	25.97	27.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	25.98	26.06	25.97	27.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	26.03	26.05	25.98	27.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	26.03	26.08	26.04	27.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	25.96	26.12	25.99	27.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	25.96	26.04	26.05	27.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	26.01	26.06	25.99	27.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	23.10	23.10			
100	PI2 BPSK	1	137	23.11	23.11		24.0	0.0
100	PI2 BPSK	1	271	22.98	22.98			
100	PI2 BPSK	135	0	22.97	22.97		24.0	0.0
100	PI2 BPSK	135	69	23.13	23.13		24.0	0.0
100	PI2 BPSK	135	138	22.92	22.92		24.0	0.0
100	PI2 BPSK	270	0	23.01	23.01		24.0	0.0
100	QPSK	1	1	23.23	23.23			
100	QPSK	1	137	23.20	23.20		24.0	0.0
100	QPSK	1	271	23.04	23.04			
100	QPSK	135	0	23.13	23.13		24.0	0.0
100	QPSK	135	69	23.16	23.16		24.0	0.0
100	QPSK	135	138	23.08	23.08		24.0	0.0
100	QPSK	270	0	23.11	23.11		24.0	0.0
100	16QAM	1	1	23.06	23.06		24.0	0.0
100	64QAM	1	1	22.97	22.97		24.0	0.0
100	256QAM	1	1	21.78	21.78		22.5	1.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	23.12	23.15	23.09	24.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	23.01	23.08	22.95	24.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	23.02	23.08	22.97	24.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	23.01	23.02	23.02	24.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	22.97	23.00	23.01	24.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	23.04	23.00	22.92	24.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	23.00	23.05	22.93	24.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	22.94	23.03	22.93	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.03	23.06	22.95	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.03	23.09	22.91	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.00	23.06	22.93	24.0	0.0

**Part27O n78 HPUE Ant 3**

Channel	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel					
Frequency (MHz)		3750			
100	PI2 BPSK	1	26.06		
100	PI2 BPSK	1	26.91		27.0
100	PI2 BPSK	1	25.78		0.0
100	PI2 BPSK	135	25.43		26.5
100	PI2 BPSK	135	25.98		27.0
100	PI2 BPSK	135	25.98		26.5
100	PI2 BPSK	270	25.46		26.5
100	QPSK	1	26.13		
100	QPSK	1	26.91		27.0
100	QPSK	1	26.06		0.0
100	QPSK	135	25.03		26.0
100	QPSK	135	26.13		27.0
100	QPSK	135	24.83		26.0
100	QPSK	270	24.96		26.0
100	16QAM	1	24.82		26.0
100	16QAM	1	23.40		24.5
100	256QAM	1	21.05		22.5
Channel	649668	650000	650334	Tune-up limit	MPR
Channel	3745.02	3750	3755.01	(dBm)	(dB)
90	QPSK	1	25.93		27.0
Channel	649334	650000	650668	Tune-up limit	MPR
Channel	3740.01	3750	3760.02	(dBm)	(dB)
80	QPSK	1	25.97		27.0
Channel	648000	650000	651000	Tune-up limit	MPR
Channel	3735	3750	3765	(dBm)	(dB)
70	QPSK	1	25.97		27.0
Channel	646334	650000	651668	Tune-up limit	MPR
Channel	3730.02	3750	3770.01	(dBm)	(dB)
60	QPSK	1	25.99		27.0
Channel	645334	650000	651668	Tune-up limit	MPR
Channel	3725.01	3750	3755.02	(dBm)	(dB)
50	QPSK	1	25.98		27.0
Channel	644000	650000	652000	Tune-up limit	MPR
Channel	3720	3750	3760	(dBm)	(dB)
40	QPSK	1	25.95		27.0
Channel	642668	650000	652334	Tune-up limit	MPR
Channel	3715.02	3750	3765.01	(dBm)	(dB)
30	QPSK	1	26.00		27.0
Channel	641500	650000	653000	Tune-up limit	MPR
Channel	3710.01	3750	3760.02	(dBm)	(dB)
25	QPSK	1	25.93		27.0
Channel	647334	650000	652668	Tune-up limit	MPR
Channel	3705	3750	3765	(dBm)	(dB)
20	QPSK	1	26.02		27.0
Channel	647168	650000	652934	Tune-up limit	MPR
Channel	3702.52	3750	3752.51	(dBm)	(dB)
15	QPSK	1	25.84		27.0
Channel	643000	650000	653500	Tune-up limit	MPR
Channel	3705	3750	3765	(dBm)	(dB)
10	QPSK	1	25.96		27.0

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Channel	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel					
Frequency (MHz)		3500.01			
100	PI2 BPSK	1	23.28		
100	PI2 BPSK	1	23.25		24.0
100	PI2 BPSK	1	23.11		0.0
100	PI2 BPSK	135	23.07		24.0
100	PI2 BPSK	135	23.20		24.0
100	PI2 BPSK	135	23.06		24.0
100	PI2 BPSK	270	23.15		24.0
100	QPSK	1	23.36		
100	QPSK	1	23.22		24.0
100	QPSK	1	23.21		0.0
100	QPSK	135	23.14		24.0
100	QPSK	135	23.30		24.0
100	QPSK	135	23.23		24.0
100	QPSK	270	23.27		24.0
100	16QAM	1	23.13		24.0
100	64QAM	1	22.98		24.0
100	256QAM	1	21.88		22.5
Channel	630000	633334	636668	Tune-up limit	MPR
Channel	3495	3500.01	3505.02	(dBm)	(dB)
90	QPSK	1	23.17		24.0
Channel	632668	633334	634000	Tune-up limit	MPR
Channel	3490.02	3500.01	3510	(dBm)	(dB)
80	QPSK	1	23.11		24.0
Channel	632334	633334	634334	Tune-up limit	MPR
Channel	3485.01	3500.01	3515.01	(dBm)	(dB)
70	QPSK	1	23.21		24.0
Channel	631668	633334	635000	Tune-up limit	MPR
Channel	3480	3500.01	3520.02	(dBm)	(dB)
60	QPSK	1	23.15		24.0
Channel	631000	633334	635000	Tune-up limit	MPR
Channel	3475.02	3500.01	3525	(dBm)	(dB)
50	QPSK	1	23.17		24.0
Channel	631334	633334	635334	Tune-up limit	MPR
Channel	3470.01	3500.01	3530.01	(dBm)	(dB)
40	QPSK	1	23.19		24.0
Channel	631000	633334	635668	Tune-up limit	MPR
Channel	3465	3500.01	3535.02	(dBm)	(dB)
30	QPSK	1	23.18		24.0
Channel	630668	633334	636000	Tune-up limit	MPR
Channel	3462.51	3500.01	3537.51	(dBm)	(dB)
25	QPSK	1	23.19		24.0
Channel	630334	633334	636334	Tune-up limit	MPR
Channel	3457.52	3500.01	3542.52	(dBm)	(dB)
20	QPSK	1	23.12		24.0
Channel	630000	633334	636668	Tune-up limit	MPR
Channel	3455.01	3500.01	3545.01	(dBm)	(dB)
15	QPSK	1	23.20		24.0
Channel	630334	633334	636934	Tune-up limit	MPR
Channel	3452.52	3500.01	3544.52	(dBm)	(dB)
10	QPSK	1	23.18		24.0

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Channel	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel					
Frequency (MHz)		3500.01			
100	PI2 BPSK	1	26.08		
100	PI2 BPSK	1	26.02		27.0
100	PI2 BPSK	1	25.81		0.0
100	PI2 BPSK	135	25.46		26.5
100	PI2 BPSK	135	25.98		27.0
100	PI2 BPSK	135	25.98		26.5
100	PI2 BPSK	270	25.46		26.5
100	QPSK	1	26.14		
100	QPSK	1	26.99		27.0
100	QPSK	1	26.02		0.0
100	QPSK	135	24.99		26.0
100	QPSK	135	26.07		27.0
100	QPSK	135	24.83		26.0
100	QPSK	270	25.00		26.0
100	16QAM	1	24.60		26.0
100	64QAM	1	23.20		24.5
100	256QAM	1	21.27		22.5
Channel	633000	633334	633668	Tune-up limit	MPR
Channel	3495	3500.01	3505.02	(dBm)	(dB)
90	QPSK	1	26.05		26.5
Channel	632668	633334	634000	Tune-up limit	MPR
Channel	3490.02	3500.01	3510	(dBm)	(dB)
80	QPSK	1	26.02		27.0
Channel	632334	633334	634334	Tune-up limit	MPR
Channel	3485.01	3500.01	3515.01	(dBm)	(dB)
70	QPSK	1	25.98		27.0
Channel	631668	633334	635000	Tune-up limit	MPR
Channel	3480	3500.01	3520.02	(dBm)	(dB)
60	QPSK	1	25.99		27.0
Channel	631000	633334	635000	Tune-up limit	MPR
Channel	3475.02	3500.01	3525	(dBm)	(dB)
50	QPSK	1	26.04		27.0
Channel	631334	633334	635334	Tune-up limit	MPR
Channel	3470.01	3500.01	3530.01	(dBm)	(dB)
40	QPSK	1	26.00		27.0
Channel	631000	633334	635668	Tune-up limit	MPR
Channel	3465	3500.01	3535.02	(dBm)	(dB)
30	QPSK	1	25.99		27.0
Channel	630668	633334	636000	Tune-up limit	MPR
Channel	3462.51	3500.01	3537.51	(dBm)	(dB)
25	QPSK	1	25.84		27.0
Channel	630334	633334	636334	Tune-up limit	MPR
Channel	3457.52	3500.01	3542.52	(dBm)	(dB)
20	QPSK	1	26.04		27.0
Channel	630000	633334	636668	Tune-up limit	MPR
Channel	3455.01	3500.01	3545.01	(dBm)	(dB)
15	QPSK	1	25.97		27.0



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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 638000	Power Middle Ch. Freq. 641666	Power High Ch. Freq. 645332	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	P12 BPSK	1	1	23.33	23.48	23.50		
40	P12 BPSK	1	53	23.31	23.33	23.29	25.0	0.0
40	P12 BPSK	1	104	23.21	23.23	23.15		
40	P12 BPSK	50	0	22.75	22.81	22.85	24.5	0.5
40	P12 BPSK	50	28	23.33	23.29	23.24	25.0	0.0
40	P12 BPSK	50	56	22.87	22.73	22.65	24.5	0.5
40	P12 BPSK	100	0	22.72	22.86	22.84		
40	QPSK	1	1	23.43	23.51	23.39		
40	QPSK	1	53	23.44	23.36	23.26	25.0	0.0
40	QPSK	1	104	23.26	23.33	23.20		
40	QPSK	50	0	22.23	22.29	22.07	24.0	1.0
40	QPSK	50	28	23.27	23.50	23.18	25.0	0.0
40	QPSK	50	56	22.26	22.33	22.26	24.0	1.0
40	QPSK	100	0	22.22	22.26	22.18		
40	16QAM	1	1	22.16	22.17	22.08	24.0	1.0
40	64QAM	1	1	20.92	20.86	20.65	22.5	2.5
40	256QAM	1	1	19.39	19.46	19.44	20.5	4.5
Channel								
Frequency (MHz)								
30	QPSK	1	1	23.36	23.37	23.31	25.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.33	23.43	23.24	25.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.40	23.38	23.26	25.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.31	23.43	23.31	25.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 656000	Power High Ch. Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	P12 BPSK	1	1	23.25	23.39	23.31		
100	P12 BPSK	1	137	23.30	23.39	23.27	24.0	0.0
100	P12 BPSK	1	271	23.21	23.25	23.16		
100	P12 BPSK	135	0	23.19	23.23	23.19	24.0	0.0
100	P12 BPSK	135	69	23.18	23.22	23.07	24.0	0.0
100	P12 BPSK	135	138	23.13	23.21	23.09	24.0	0.0
100	P12 BPSK	270	0	23.12	23.21	23.09		
100	QPSK	1	1	23.35	23.44	23.39		
100	QPSK	1	137	23.26	23.32	23.26	24.0	0.0
100	QPSK	1	271	23.16	23.27	23.13		
100	QPSK	135	0	23.19	23.26	23.23	24.0	0.0
100	QPSK	135	69	23.25	23.31	23.24	24.0	0.0
100	QPSK	135	138	23.12	23.24	23.18	24.0	0.0
100	QPSK	270	0	23.20	23.27	23.21		
100	16QAM	1	1	23.12	23.21	23.17	24.0	0.0
100	64QAM	1	1	23.04	23.15	23.09	24.0	0.0
100	256QAM	1	1	21.89	21.98	21.93	22.5	1.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	23.21	23.40	23.25	24.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	23.24	23.41	23.33	24.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	23.21	23.40	23.34	24.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	23.25	23.37	23.28	24.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	23.28	23.40	23.34	24.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	23.23	23.33	23.30	24.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	23.25	23.31	23.26	24.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	23.28	23.34	23.30	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.22	23.30	23.35	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.20	23.37	23.35	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.30	23.30	23.27	24.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 650000	Power Middle Ch. Freq. 656000	Power High Ch. Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	P12 BPSK	1	1	26.25	26.31	26.27		
100	P12 BPSK	1	137	26.16	26.16	26.20	27.0	0.0
100	P12 BPSK	1	271	26.07	26.18	26.12		
100	P12 BPSK	135	0	25.62	25.76	25.63	26.5	0.5
100	P12 BPSK	135	69	26.20	26.22	26.11	27.0	0.0
100	P12 BPSK	135	138	25.63	25.86	25.58	26.5	0.5
100	P12 BPSK	270	0	25.56	25.77	25.57		
100	QPSK	1	1	26.37	26.46	26.33		
100	QPSK	1	137	26.29	26.30	26.15	27.0	0.0
100	QPSK	1	271	26.16	26.26	26.17		
100	QPSK	135	0	25.17	25.18	25.06	26.0	1.0
100	QPSK	135	69	26.13	26.34	26.16	27.0	0.0
100	QPSK	135	138	25.22	25.20	25.14	26.0	1.0
100	QPSK	270	0	25.06	25.25	25.13		
100	16QAM	1	1	25.05	25.08	25.07	26.0	1.0
100	64QAM	1	1	23.75	23.77	23.63	24.5	2.5
100	256QAM	1	1	22.35	22.37	22.42	22.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	26.34	26.33	26.28	27.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	26.22	26.33	26.21	27.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	26.27	26.43	26.20	27.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	26.24	26.34	26.22	27.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	26.30	26.37	26.28	27.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	26.13	26.34	26.20	27.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	26.26	26.38	26.26	27.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	26.28	26.41	26.28	27.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	26.26	26.38	26.23	27.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	26.32	26.42	26.35	27.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	26.30	26.32	26.27	27.0	0.0



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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	26.36	26.36	26.36	27.0	0.0
100	PI2 BPSK	1	137	26.29	26.29	26.29		
100	PI2 BPSK	1	271	26.11	26.11	26.11		
100	PI2 BPSK	135	0	25.74	25.74	25.74	26.5	0.5
100	PI2 BPSK	135	69	26.15	26.15	26.15	27.0	0.0
100	PI2 BPSK	135	138	25.30	25.30	25.30	26.5	0.5
100	PI2 BPSK	270	0	25.88	25.88	25.88	26.5	0.5
100	QPSK	1	1	26.41	26.41	26.41	27.0	0.0
100	QPSK	1	137	26.27	26.27	26.27		
100	QPSK	1	271	26.29	26.29	26.29		
100	QPSK	135	0	25.27	25.27	25.27	26.0	1.0
100	QPSK	135	69	26.34	26.34	26.34	26.0	0.0
100	QPSK	135	138	25.23	25.23	25.23	26.0	1.0
100	QPSK	270	0	25.30	25.30	25.30	26.0	1.0
100	16QAM	1	1	25.05	25.05	25.05	26.0	1.0
100	64QAM	1	1	23.66	23.66	23.66	24.5	2.5
100	256QAM	1	1	22.00	22.00	22.00	22.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	26.16	26.16	26.16	27.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	25.93	25.93	25.93	27.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	26.16	26.16	26.16	27.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	26.15	26.15	26.15	27.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	26.18	26.18	26.18	27.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	26.21	26.21	26.21	27.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	26.25	26.25	26.25	27.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	26.22	26.22	26.22	27.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	26.24	26.24	26.24	27.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	26.20	26.20	26.20	27.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	26.17	26.17	26.17	27.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	23.54	23.54	23.54	24.0	0.0
100	PI2 BPSK	1	137	23.40	23.40	23.40		
100	PI2 BPSK	1	271	23.45	23.45	23.45		
100	PI2 BPSK	135	0	23.17	23.17	23.17	24.0	0.0
100	PI2 BPSK	135	69	23.42	23.42	23.42	24.0	0.0
100	PI2 BPSK	135	138	23.07	23.07	23.07	24.0	0.0
100	PI2 BPSK	270	0	23.15	23.15	23.15	24.0	0.0
100	QPSK	1	1	23.89	23.89	23.89	24.0	0.0
100	QPSK	1	137	23.57	23.57	23.57		
100	QPSK	1	271	23.62	23.62	23.62		
100	QPSK	135	0	23.55	23.55	23.55	24.0	0.0
100	QPSK	135	69	23.58	23.58	23.58	24.0	0.0
100	QPSK	135	138	23.49	23.49	23.49	24.0	0.0
100	QPSK	270	0	23.52	23.52	23.52	24.0	0.0
100	16QAM	1	1	23.45	23.45	23.45	24.0	0.0
100	64QAM	1	1	23.33	23.33	23.33	24.0	0.0
100	256QAM	1	1	22.17	22.17	22.17	22.5	1.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	23.45	23.45	23.45	24.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	23.48	23.48	23.48	24.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	23.50	23.50	23.50	24.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	23.47	23.47	23.47	24.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	23.48	23.48	23.48	24.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	23.45	23.45	23.45	24.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	23.53	23.53	23.53	24.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	23.48	23.48	23.48	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.48	23.48	23.48	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.45	23.45	23.45	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.42	23.42	23.42	24.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	26.65	26.65	26.65	27.0	0.0
100	PI2 BPSK	1	137	26.56	26.56	26.56		
100	PI2 BPSK	1	271	26.30	26.30	26.30		
100	PI2 BPSK	135	0	25.97	25.97	25.97	26.5	0.5
100	PI2 BPSK	135	69	26.44	26.44	26.44	27.0	0.0
100	PI2 BPSK	135	138	25.77	25.77	25.77	26.5	0.5
100	PI2 BPSK	270	0	25.96	25.96	25.96	26.5	0.5
100	QPSK	1	1	26.06	26.06	26.06	27.0	0.0
100	QPSK	1	137	26.48	26.48	26.48		
100	QPSK	1	271	26.56	26.56	26.56		
100	QPSK	135	0	25.35	25.35	25.35	26.0	1.0
100	QPSK	135	69	26.61	26.61	26.61	27.0	0.0
100	QPSK	135	138	25.50	25.50	25.50	26.0	1.0
100	QPSK	270	0	25.44	25.44	25.44	26.0	1.0
100	16QAM	1	1	25.03	25.03	25.03	26.0	1.0
100	64QAM	1	1	23.73	23.73	23.73	24.5	2.5
100	256QAM	1	1	22.10	22.10	22.10	22.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	26.59	26.59	26.59	27.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	26.53	26.53	26.53	27.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	26.57	26.57	26.57	27.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	26.60	26.60	26.60	27.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	26.58	26.58	26.58	27.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	26.61	26.61	26.61	27.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	26.59	26.59	26.59	27.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	26.58	26.58	26.58	27.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	26.55	26.55	26.55	27.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	26.52	26.52	26.52	27.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	26.60	26.60	26.60	27.0	0.0



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Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low, Power Middle, Power High, Tune-up limit (dBm), MPR (dB). Contains data for 40, 20, and 15 MHz channels using various modulations and RB sizes.

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Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low, Power Middle, Power High, Tune-up limit (dBm), MPR (dB). Contains data for 100, 90, 80, 70, 60, 50, 40, 30, 25, 20, 15, and 10 MHz channels.

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Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low, Power Middle, Power High, Tune-up limit (dBm), MPR (dB). Contains data for 100, 90, 80, 70, 60, 50, 40, 30, 25, 20, 15, and 10 MHz channels.



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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	21.37	21.37	21.37	22.0	0.0
100	PI2 BPSK	1	137	21.38	21.38	21.38		
100	PI2 BPSK	1	271	21.28	21.28	21.28	22.0	0.0
100	PI2 BPSK	135	0	21.25	21.25	21.25		
100	PI2 BPSK	135	69	21.18	21.18	21.18	22.0	0.0
100	PI2 BPSK	135	138	21.18	21.18	21.18		
100	PI2 BPSK	270	0	21.17	21.17	21.17	22.0	0.0
100	QPSK	1	1	21.41	21.41	21.41		
100	QPSK	1	137	21.38	21.38	21.38	22.0	0.0
100	QPSK	1	271	21.30	21.30	21.30		
100	QPSK	135	0	21.24	21.24	21.24	22.0	0.0
100	QPSK	135	69	21.34	21.34	21.34		
100	QPSK	135	138	21.21	21.21	21.21	22.0	0.0
100	QPSK	270	0	21.28	21.28	21.28		
100	16QAM	1	1	21.23	21.23	21.23	22.0	0.0
100	16QAM	1	1	21.16	21.16	21.16		
100	256QAM	1	1	19.89	19.89	19.89	20.5	1.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	21.31	21.36	21.26	22.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	21.20	21.32	21.23	22.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	21.29	21.38	21.23	22.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	21.24	21.26	21.26	22.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	21.24	21.33	21.30	22.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	21.29	21.38	21.25	22.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	21.31	21.34	21.25	22.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	21.25	21.27	21.32	22.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	21.29	21.34	21.28	22.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	21.24	21.32	21.29	22.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	21.29	21.35	21.25	22.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	24.10	24.10	24.10	25.0	0.0
100	PI2 BPSK	1	137	24.07	24.07	24.07		
100	PI2 BPSK	1	271	23.93	23.93	23.93	24.5	0.5
100	PI2 BPSK	135	0	23.54	23.54	23.54		
100	PI2 BPSK	135	69	23.94	23.94	23.94	25.0	0.0
100	PI2 BPSK	135	138	23.42	23.42	23.42		
100	PI2 BPSK	270	0	23.55	23.55	23.55	24.5	0.5
100	QPSK	1	1	24.25	24.25	24.25		
100	QPSK	1	137	24.05	24.05	24.05	25.0	0.0
100	QPSK	1	271	24.10	24.10	24.10		
100	QPSK	135	0	23.03	23.03	23.03	24.0	1.0
100	QPSK	135	69	24.20	24.20	24.20		
100	QPSK	135	138	23.07	23.07	23.07	24.0	1.0
100	QPSK	270	0	23.15	23.15	23.15		
100	16QAM	1	1	23.03	23.03	23.03	24.0	1.0
100	16QAM	1	1	21.98	21.98	21.98		
100	256QAM	1	1	19.10	19.10	19.10	20.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	24.09	24.17	24.08	25.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	24.08	24.15	24.08	25.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	24.17	24.21	24.11	25.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	24.09	24.11	24.09	25.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	24.15	24.18	24.12	25.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	24.08	24.18	24.01	25.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	24.12	24.17	24.04	25.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	24.07	24.10	24.11	25.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	24.09	24.18	24.10	25.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	24.11	24.16	24.00	25.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	24.12	24.21	24.03	25.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	20.88	20.88	20.88	22.0	0.0
100	PI2 BPSK	1	137	20.77	20.77	20.77		
100	PI2 BPSK	1	271	20.78	20.78	20.78	22.0	0.0
100	PI2 BPSK	135	0	20.78	20.78	20.78		
100	PI2 BPSK	135	69	20.77	20.77	20.77	22.0	0.0
100	PI2 BPSK	135	138	20.78	20.78	20.78		
100	PI2 BPSK	270	0	20.77	20.77	20.77	22.0	0.0
100	QPSK	1	1	21.02	21.02	21.02		
100	QPSK	1	137	20.92	20.92	20.92	22.0	0.0
100	QPSK	1	271	20.86	20.86	20.86		
100	QPSK	135	0	20.91	20.91	20.91	22.0	0.0
100	QPSK	135	69	20.93	20.93	20.93		
100	QPSK	135	138	20.84	20.84	20.84	22.0	0.0
100	QPSK	270	0	20.89	20.89	20.89		
100	16QAM	1	1	20.81	20.81	20.81	22.0	0.0
100	16QAM	1	1	20.76	20.76	20.76		
100	256QAM	1	1	19.64	19.64	19.64	20.5	1.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	20.91	20.90	20.85	22.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	20.97	20.96	20.88	22.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	20.92	20.93	20.90	22.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	20.90	20.93	20.81	22.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	20.90	20.93	20.89	22.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	20.98	20.98	20.90	22.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	20.91	20.97	20.81	22.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	20.88	20.85	20.87	22.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	20.93	20.85	20.82	22.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	20.92	20.90	20.83	22.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	20.89	20.91	20.84	22.0	0.0



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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 63000	Power Middle Ch. / Freq. 64166	Power High Ch. / Freq. 64532	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	21.30	21.36	21.25		
40	PI2 BPSK	1	53	21.17	21.23	21.25	22.0	0.0
40	PI2 BPSK	1	104	21.07	21.13	21.10		
40	PI2 BPSK	50	0	20.80	20.76	20.52	21.5	0.5
40	PI2 BPSK	50	28	21.23	21.22	21.15	22.0	0.0
40	PI2 BPSK	50	56	20.38	20.67	20.42		
40	PI2 BPSK	100	0	20.67	20.69	20.51	21.5	0.5
40	QPSK	1	1	21.32	21.41	21.27		
40	QPSK	1	53	21.31	21.27	21.07	22.0	0.0
40	QPSK	1	104	21.16	21.27	21.16		
40	QPSK	50	0	20.12	20.21	20.02	21.0	1.0
40	QPSK	50	28	21.20	21.33	21.11	22.0	0.0
40	QPSK	50	56	20.16	20.24	20.17		
40	QPSK	100	0	20.03	20.20	20.00	21.0	1.0
40	16QAM	1	1	20.05	20.14	20.08	21.0	1.0
40	64QAM	1	1	19.15	19.22	19.18	19.5	2.5
40	256QAM	1	1	17.13	17.20	17.08	17.5	4.5
Channel								
Frequency (MHz)								
30	QPSK	1	1	63166	64166	64566	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
20	QPSK	1	1	357.52	357.52	357.52	22.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	637168	641666	646166	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
10	QPSK	1	1	3557.52	3524.99	3492.49	22.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 65000	Power Middle Ch. / Freq. 66000	Power High Ch. / Freq. 66500	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	20.87	20.92	20.81		
100	PI2 BPSK	1	137	20.94	20.96	20.88	22.0	0.0
100	PI2 BPSK	1	271	20.85	20.91	20.86		
100	PI2 BPSK	135	0	20.80	20.88	20.75	22.0	0.0
100	PI2 BPSK	135	69	20.71	20.82	20.72	22.0	0.0
100	PI2 BPSK	135	138	20.72	20.75	20.71	22.0	0.0
100	PI2 BPSK	270	0	20.82	20.88	20.80		
100	QPSK	1	1	20.95	21.05	20.98		
100	QPSK	1	137	20.87	20.93	20.85	22.0	0.0
100	QPSK	1	271	20.76	20.86	20.74		
100	QPSK	135	0	20.81	20.91	20.84	22.0	0.0
100	QPSK	135	69	20.93	20.96	20.90	22.0	0.0
100	QPSK	135	138	20.76	20.85	20.81		
100	QPSK	270	0	20.85	20.92	20.81	22.0	0.0
100	16QAM	1	1	20.75	20.84	20.79	22.0	0.0
100	64QAM	1	1	20.71	20.79	20.75	22.0	0.0
100	256QAM	1	1	19.47	19.56	19.51	20.5	1.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	649334	650000	652968	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
80	QPSK	1	1	3743.01	3840	3940.02	22.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	645000	650000	653000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
60	QPSK	1	1	3735	3840	3945	22.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	648000	650000	654000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	QPSK	1	1	3720.02	3840	3950.01	22.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	647668	650000	654334	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
25	QPSK	1	1	3715.02	3840	3955.01	22.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	647168	650000	654668	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
15	QPSK	1	1	3707.52	3840	3972.51	22.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	647000	650000	655000	Tune-up limit (dBm)	MPR (dB)

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 65000	Power Middle Ch. / Freq. 66000	Power High Ch. / Freq. 66500	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	23.76	23.90	23.75		
100	PI2 BPSK	1	137	23.66	23.67	23.68	25.0	0.0
100	PI2 BPSK	1	271	23.66	23.68	23.56		
100	PI2 BPSK	135	0	23.11	23.17	23.04	24.5	0.5
100	PI2 BPSK	135	69	23.65	23.70	23.60	25.0	0.0
100	PI2 BPSK	135	138	22.90	23.11	23.08		
100	PI2 BPSK	270	0	23.13	23.22	23.02	24.5	0.5
100	QPSK	1	1	23.83	23.92	23.78		
100	QPSK	1	137	23.76	23.76	23.59	25.0	0.0
100	QPSK	1	271	23.66	23.83	23.60		
100	QPSK	135	0	22.81	22.88	22.54	24.0	1.0
100	QPSK	135	69	23.84	23.88	23.80	25.0	0.0
100	QPSK	135	138	22.87	22.72	22.81		
100	QPSK	270	0	22.55	22.66	22.49	24.0	1.0
100	16QAM	1	1	22.82	22.85	22.48	24.0	1.0
100	64QAM	1	1	21.30	21.20	21.08	22.5	2.5
100	256QAM	1	1	19.27	19.29	19.25	20.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	649334	650000	652968	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
80	QPSK	1	1	3743.01	3840	3940.02	22.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	645000	650000	653000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
60	QPSK	1	1	3735	3840	3945	22.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	648000	650000	654000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	QPSK	1	1	3720.02	3840	3950.01	22.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	647668	650000	654334	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
25	QPSK	1	1	3715.02	3840	3955.01	22.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	647168	650000	654668	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
15	QPSK	1	1	3707.52	3840	3972.51	22.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	647000	650000	655000	Tune-up limit (dBm)	MPR (dB)



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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	21.25	21.25			
100	PI2 BPSK	1	137	21.21	21.21		22.0	0.0
100	PI2 BPSK	1	271	21.17	21.17			
100	PI2 BPSK	135	0	21.08	21.08		22.0	0.0
100	PI2 BPSK	135	69	21.09	21.09		22.0	0.0
100	PI2 BPSK	135	138	21.01	21.01		22.0	0.0
100	PI2 BPSK	270	0	21.19	21.19			
100	QPSK	1	1	21.34	21.34			
100	QPSK	1	137	21.31	21.31		22.0	0.0
100	QPSK	1	271	21.14	21.14			
100	QPSK	135	0	21.25	21.25		22.0	0.0
100	QPSK	135	69	21.29	21.29		22.0	0.0
100	QPSK	135	138	21.15	21.15		22.0	0.0
100	QPSK	270	0	21.27	21.27			
100	16QAM	1	1	21.14	21.14		22.0	0.0
100	64QAM	1	1	21.09	21.09		22.0	0.0
100	256QAM	1	1	19.84	19.84		20.5	1.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	21.18	21.21	21.12	22.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	21.18	21.23	21.09	22.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	21.17	21.27	21.13	22.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	21.21	21.23	21.19	22.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	21.18	21.25	21.15	22.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	21.24	21.29	21.17	22.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	21.17	21.26	21.14	22.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	21.19	21.31	21.09	22.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	21.21	21.26	21.10	22.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	21.13	21.24	21.18	22.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	21.12	21.22	21.15	22.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	24.10	24.10			
100	PI2 BPSK	1	137	24.04	24.04		25.0	0.0
100	PI2 BPSK	1	271	23.86	23.86			
100	PI2 BPSK	135	0	23.54	23.54		24.5	0.5
100	PI2 BPSK	135	69	23.96	23.96		25.0	0.0
100	PI2 BPSK	135	138	23.38	23.38		24.5	0.5
100	PI2 BPSK	270	0	23.58	23.58			
100	QPSK	1	1	24.22	24.22			
100	QPSK	1	137	24.00	24.00		25.0	0.0
100	QPSK	1	271	24.06	24.06			
100	QPSK	135	0	22.94	22.94		24.0	1.0
100	QPSK	135	69	24.14	24.14		25.0	0.0
100	QPSK	135	138	23.01	23.01		24.0	1.0
100	QPSK	270	0	23.07	23.07			
100	16QAM	1	1	23.27	23.27		24.0	1.0
100	64QAM	1	1	21.87	21.87		22.5	2.5
100	256QAM	1	1	18.99	18.99		20.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	24.11	24.17	24.08	25.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	24.06	24.19	24.10	25.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	24.02	24.13	24.02	25.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	24.06	24.18	24.08	25.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	24.11	24.14	24.08	25.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	24.09	24.19	24.15	25.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	24.02	24.18	24.08	25.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	24.06	24.14	24.09	25.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	24.01	24.09	24.16	25.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	24.11	24.13	24.17	25.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	24.07	24.07	24.06	25.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	20.85	20.85			
100	PI2 BPSK	1	137	20.91	20.91		22.0	0.0
100	PI2 BPSK	1	271	20.79	20.79			
100	PI2 BPSK	135	0	20.83	20.83		22.0	0.0
100	PI2 BPSK	135	69	20.74	20.74		22.0	0.0
100	PI2 BPSK	135	138	20.81	20.81		22.0	0.0
100	PI2 BPSK	270	0	20.74	20.74			
100	QPSK	1	1	20.99	20.99			
100	QPSK	1	137	20.87	20.87		22.0	0.0
100	QPSK	1	271	20.76	20.76			
100	QPSK	135	0	20.80	20.80		22.0	0.0
100	QPSK	135	69	20.84	20.84		22.0	0.0
100	QPSK	135	138	20.77	20.77		22.0	0.0
100	QPSK	270	0	20.81	20.81			
100	16QAM	1	1	20.76	20.76		22.0	0.0
100	64QAM	1	1	20.69	20.69		22.0	0.0
100	256QAM	1	1	19.38	19.38		20.5	1.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	20.73	20.90	20.80	22.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	20.70	20.87	20.83	22.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	20.71	20.94	20.70	22.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	20.78	20.89	20.78	22.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	20.77	20.91	20.77	22.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	20.78	20.92	20.78	22.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	20.74	20.94	20.86	22.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	20.81	20.94	20.83	22.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	20.78	20.93	20.84	22.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	20.72	20.90	20.81	22.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	20.80	20.89	20.86	22.0	0.0



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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	23.82	23.82	23.82	25.0	0.0
100	PI2 BPSK	1	137	23.84	23.84	23.84		
100	PI2 BPSK	1	271	23.58	23.58	23.58		
100	PI2 BPSK	135	0	23.05	23.05	23.05	24.5	0.5
100	PI2 BPSK	135	69	23.64	23.64	23.64	25.0	0.0
100	PI2 BPSK	135	138	22.99	22.99	22.99	24.5	0.5
100	PI2 BPSK	270	0	23.21	23.21	23.21	25.0	0.0
100	QPSK	1	1	23.86	23.86	23.86	25.0	0.0
100	QPSK	1	137	23.80	23.80	23.80		
100	QPSK	1	271	23.78	23.78	23.78		
100	QPSK	135	0	22.60	22.60	22.60	24.0	1.0
100	QPSK	135	69	23.76	23.76	23.76	25.0	0.0
100	QPSK	135	138	22.63	22.63	22.63	24.0	1.0
100	QPSK	270	0	22.66	22.66	22.66	24.0	1.0
100	16QAM	1	1	22.83	22.83	22.83	24.0	1.0
100	64QAM	1	1	21.35	21.35	21.35	22.5	2.5
100	256QAM	1	1	18.82	18.82	18.82	20.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	23.63	23.70	23.59	25.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	23.71	23.66	23.63	25.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	23.62	23.70	23.60	25.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	23.65	23.75	23.64	25.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	23.65	23.88	23.81	25.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	23.63	23.69	23.59	25.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	23.63	23.73	23.58	25.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	23.68	23.69	23.60	25.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.68	23.73	23.57	25.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.63	23.67	23.65	25.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.64	23.65	23.57	25.0	0.0

Part27Q n78 Ant 8

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	21.16	21.16	21.16	22.0	0.0
100	PI2 BPSK	1	137	21.15	21.15	21.15		
100	PI2 BPSK	1	271	21.07	21.07	21.07		
100	PI2 BPSK	135	0	20.94	20.94	20.94	22.0	0.0
100	PI2 BPSK	135	69	20.98	20.98	20.98	22.0	0.0
100	PI2 BPSK	135	138	20.87	20.87	20.87	22.0	0.0
100	PI2 BPSK	270	0	21.09	21.09	21.09	22.0	0.0
100	QPSK	1	1	21.25	21.25	21.25	22.0	0.0
100	QPSK	1	137	21.16	21.16	21.16		
100	QPSK	1	271	21.06	21.06	21.06		
100	QPSK	135	0	21.19	21.19	21.19	22.0	0.0
100	QPSK	135	69	21.24	21.24	21.24	22.0	0.0
100	QPSK	135	138	21.12	21.12	21.12	22.0	0.0
100	QPSK	270	0	21.19	21.19	21.19	22.0	0.0
100	16QAM	1	1	21.12	21.12	21.12	22.0	0.0
100	64QAM	1	1	21.04	21.04	21.04	22.0	0.0
100	256QAM	1	1	19.67	19.67	19.67	20.5	1.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	21.09	21.18	21.12	22.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	21.18	21.17	21.10	22.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	21.14	21.14	21.02	22.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	21.18	21.22	21.09	22.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	21.14	21.15	21.08	22.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	21.14	21.12	21.01	22.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	21.18	21.14	21.08	22.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	21.09	21.18	21.06	22.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	21.11	21.11	21.10	22.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	21.10	21.22	21.10	22.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	21.14	21.17	21.10	22.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	24.00	24.00	24.00	25.0	0.0
100	PI2 BPSK	1	137	23.98	23.98	23.98		
100	PI2 BPSK	1	271	23.85	23.85	23.85		
100	PI2 BPSK	135	0	23.43	23.43	23.43	24.5	0.5
100	PI2 BPSK	135	69	23.85	23.85	23.85	25.0	0.0
100	PI2 BPSK	135	138	23.33	23.33	23.33	24.5	0.5
100	PI2 BPSK	270	0	23.60	23.60	23.60	25.0	0.0
100	QPSK	1	1	24.18	24.18	24.18	25.0	0.0
100	QPSK	1	137	24.07	24.07	24.07		
100	QPSK	1	271	24.12	24.12	24.12		
100	QPSK	135	0	22.98	22.98	22.98	24.0	1.0
100	QPSK	135	69	24.14	24.14	24.14	25.0	0.0
100	QPSK	135	138	23.03	23.03	23.03	24.0	1.0
100	QPSK	270	0	23.15	23.15	23.15	24.0	1.0
100	16QAM	1	1	23.11	23.11	23.11	22.5	1.0
100	64QAM	1	1	21.93	21.93	21.93	22.5	2.5
100	256QAM	1	1	19.20	19.20	19.20	20.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	24.05	24.12	24.03	25.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	24.09	24.07	24.01	25.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	24.03	24.05	24.05	25.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	24.07	24.15	24.06	25.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	24.03	24.10	24.01	25.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	24.01	24.13	23.92	25.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	23.99	24.09	23.95	25.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	24.10	24.07	24.03	25.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	24.09	24.06	24.05	25.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	24.10	24.11	24.04	25.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	24.08	24.13	24.00	25.0	0.0



Reduced Power Mode for EC12

n2 Ant 0 EC12									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 374000	Power Middle Ch. / Freq. 376000	Power High Ch. / Freq. 378000	Tune-up limit (dBm)	MPR (dB)	
Channel Frequency (MHz)									
40	PI2 BPSK	1	1	22.96	23.02	22.90	24.0	0.0	
40	PI2 BPSK	1	108	22.80	22.94	22.88			
40	PI2 BPSK	1	214	22.87	22.91	22.78	23.5	0.5	
40	PI2 BPSK	108	0	22.32	22.45	22.34			
40	PI2 BPSK	108	54	22.89	22.96	22.85	24.0	0.0	
40	PI2 BPSK	108	108	22.25	22.33	22.27	23.5	0.5	
40	PI2 BPSK	216	0	22.36	22.40	22.33			
40	QPSK	1	1	23.01	23.07	22.94	24.0	0.0	
40	QPSK	1	108	22.88	23.01	22.90			
40	QPSK	1	214	22.86	22.96	22.93	23.0	1.0	
40	QPSK	108	0	21.84	21.88	21.81			
40	QPSK	108	54	22.91	23.01	22.87	24.0	0.0	
40	QPSK	108	108	21.82	21.87	21.79	23.0	1.0	
40	QPSK	216	0	21.89	21.92	21.82			
40	16QAM	1	1	21.53	21.67	21.54	23.0	1.0	
40	64QAM	1	1	20.21	20.30	20.23	21.5	2.5	
40	256QAM	1	1	18.80	18.83	18.74	19.5	4.5	
Channel Frequency (MHz)									
35	QPSK	1	1	22.89	22.97	22.82	0.0	0.0	
Channel Frequency (MHz)									
30	QPSK	1	1	22.95	22.96	22.84	0.0	0.0	
Channel Frequency (MHz)									
25	QPSK	1	1	22.88	22.96	22.80	0.0	0.0	
Channel Frequency (MHz)									
20	QPSK	1	1	22.87	22.93	22.82	0.0	0.0	
Channel Frequency (MHz)									
15	QPSK	1	1	22.91	22.95	22.82	24.0	0.0	
Channel Frequency (MHz)									
10	QPSK	1	1	22.92	22.96	22.81	24.0	0.0	
Channel Frequency (MHz)									
5	QPSK	1	1	22.91	23.03	22.90	24.0	0.0	

n5 Ant 0 EC12									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 168000	Power Middle Ch. / Freq. 169000	Power High Ch. / Freq. 169500	Tune-up limit (dBm)	MPR (dB)	
Channel Frequency (MHz)									
20	PI2 BPSK	1	1	23.15	23.22	23.10	24.0	0.0	
20	PI2 BPSK	1	53	23.07	23.06	23.14			
20	PI2 BPSK	1	104	23.11	23.13	22.99	23.5	0.5	
20	PI2 BPSK	50	0	22.54	22.61	22.59			
20	PI2 BPSK	50	25	23.06	23.15	23.10	24.0	0.0	
20	PI2 BPSK	50	56	22.37	22.53	22.41	23.5	0.5	
20	PI2 BPSK	100	0	22.58	22.66	22.58			
20	QPSK	1	1	23.23	23.29	23.19	24.0	0.0	
20	QPSK	1	83	23.20	23.27	22.96			
20	QPSK	1	104	23.10	23.17	23.06	23.0	1.0	
20	QPSK	50	0	22.69	22.10	21.88			
20	QPSK	50	28	23.12	23.26	23.11	24.0	0.0	
20	QPSK	50	56	22.92	22.13	21.85	23.0	1.0	
20	QPSK	100	0	22.12	22.17	21.86			
20	16QAM	1	1	21.97	22.08	21.93	23.0	1.0	
20	64QAM	1	1	20.72	20.76	20.54	21.5	2.5	
20	256QAM	1	1	19.29	19.36	19.34	19.5	4.5	
Channel Frequency (MHz)									
15	QPSK	1	1	23.13	23.24	23.11	24.0	0.0	
Channel Frequency (MHz)									
10	QPSK	1	1	23.14	23.16	23.16	24.0	0.0	
Channel Frequency (MHz)									
5	QPSK	1	1	23.08	23.21	23.14	24.0	0.0	

n7 Ant 0 EC12									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 505000	Power Middle Ch. / Freq. 507000	Power High Ch. / Freq. 508000	Tune-up limit (dBm)	MPR (dB)	
Channel Frequency (MHz)									
50	PI2 BPSK	1	1	23.17	23.29	23.13	24.0	0.0	
50	PI2 BPSK	1	135	23.06	23.14	23.12			
50	PI2 BPSK	1	268	23.10	23.10	23.09	23.5	0.5	
50	PI2 BPSK	135	0	22.95	22.92	22.97			
50	PI2 BPSK	135	68	23.12	23.15	23.04	24.0	0.0	
50	PI2 BPSK	135	135	22.43	22.57	22.40	23.5	0.5	
50	PI2 BPSK	270	0	22.54	22.63	22.47			
50	QPSK	1	1	23.27	23.32	23.19	24.0	0.0	
50	QPSK	1	135	23.20	23.29	23.09			
50	QPSK	1	268	23.12	23.19	23.06	23.0	1.0	
50	QPSK	135	0	22.06	22.12	21.98			
50	QPSK	135	68	23.16	23.26	23.11	24.0	0.0	
50	QPSK	135	135	22.97	22.96	21.97	23.0	1.0	
50	QPSK	270	0	22.08	22.20	21.98			
50	16QAM	1	1	21.80	21.85	21.78	23.0	1.0	
50	64QAM	1	1	20.48	20.54	20.49	21.5	2.5	
50	256QAM	1	1	19.09	19.08	18.91	19.5	4.5	
Channel Frequency (MHz)									
40	QPSK	1	1	23.00	23.35	23.00	24.0	0.0	
Channel Frequency (MHz)									
35	QPSK	1	1	23.18	23.29	23.07	24.0	0.0	
Channel Frequency (MHz)									
30	QPSK	1	1	23.13	23.20	23.14	24.0	0.0	
Channel Frequency (MHz)									
25	QPSK	1	1	23.23	23.24	23.09	24.0	0.0	
Channel Frequency (MHz)									
20	PI2 BPSK	1	1	23.10	23.29	23.12	24.0	0.0	
Channel Frequency (MHz)									
15	QPSK	1	1	23.20	23.27	23.07	24.0	0.0	
Channel Frequency (MHz)									
10	QPSK	1	1	23.22	23.22	23.12	24.0	0.0	
Channel Frequency (MHz)									
5	QPSK	1	1	23.21	23.22	23.12	24.0	0.0	



n12 Ant 0 EC12									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel Frequency (MHz)				141900	141900	141900			
15	PI2 BPSK	1	1	23.07	23.19	23.03			
15	PI2 BPSK	1	40	23.01	23.05	23.05	24.0	0.0	
15	PI2 BPSK	1	77	23.01	23.07	23.07			
15	PI2 BPSK	36	0	22.46	22.54	22.51	23.5	0.5	
15	PI2 BPSK	36	22	23.05	23.07	22.98	24.0	0.0	
15	PI2 BPSK	36	43	22.29	22.43	22.37	23.5	0.5	
15	PI2 BPSK	75	0	22.51	22.58	22.37			
15	QPSK	1	1	23.13	23.27	23.08			
15	QPSK	1	40	23.15	23.17	22.95	24.0	0.0	
15	QPSK	1	77	23.01	23.10	22.99			
15	QPSK	36	0	22.00	22.05	21.84	23.0	1.0	
15	QPSK	36	22	23.04	23.24	23.01	24.0	0.0	
15	QPSK	36	43	22.00	22.05	21.84	23.0	1.0	
15	QPSK	75	0	22.01	22.11	21.85			
15	16QAM	1	1	21.94	21.98	21.85	23.0	1.0	
15	64QAM	1	1	20.61	20.67	20.84	21.5	2.5	
15	256QAM	1	1	19.17	19.31	19.26	19.5	4.5	
Channel Frequency (MHz)				148000	141500	142200	Tune-up limit (dBm)	MPR (dB)	
10	QPSK	1	1	704	707.5	711	24.0	0.0	
Channel Frequency (MHz)				140200	141500	142200	Tune-up limit (dBm)	MPR (dB)	
5	QPSK	1	1	701.5	707.5	713.5	24.0	0.0	

n14 Ant 0 EC12									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel Frequency (MHz)				158000	158000	158000			
10	PI2 BPSK	1	1	23.57					
10	PI2 BPSK	1	26	23.36			24.0	0.0	
10	PI2 BPSK	1	50	23.39					
10	PI2 BPSK	25	0	22.88			23.5	0.5	
10	PI2 BPSK	25	14	23.43			24.0	0.0	
10	PI2 BPSK	25	27	22.81			23.5	0.5	
10	PI2 BPSK	50	0	22.89					
10	QPSK	1	1	23.63					
10	QPSK	1	26	23.49			24.0	0.0	
10	QPSK	1	50	23.45					
10	QPSK	25	0	22.40			23.0	1.0	
10	QPSK	25	14	23.55			24.0	0.0	
10	QPSK	25	27	22.40			23.0	1.0	
10	QPSK	50	0	22.44					
10	16QAM	1	1	22.39			23.0	1.0	
10	64QAM	1	1	21.04			21.5	2.5	
10	256QAM	1	1	19.33			19.5	4.5	
Channel Frequency (MHz)				158100	158000	158100	Tune-up limit (dBm)	MPR (dB)	
5	QPSK	1	1	730.5	730	735.5	24.0	0.0	

n25 Ant 0 EC12									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel Frequency (MHz)				316000	316000	316000			
40	PI2 BPSK	1	1	23.20	23.26	23.09			
40	PI2 BPSK	1	108	23.11	23.21	23.21	24.0	0.0	
40	PI2 BPSK	1	214	23.09	23.17	23.03			
40	PI2 BPSK	108	0	22.60	22.60	22.60	23.5	0.5	
40	PI2 BPSK	108	54	23.10	23.23	23.10	24.0	0.0	
40	PI2 BPSK	108	108	22.42	22.55	22.54	23.5	0.5	
40	PI2 BPSK	216	0	22.61	22.72	22.47			
40	QPSK	1	1	23.32	23.36	23.15			
40	QPSK	1	108	23.28	23.30	23.12	24.0	0.0	
40	QPSK	1	214	23.16	23.18	23.07			
40	QPSK	108	0	22.12	22.20	21.99	23.0	1.0	
40	QPSK	108	54	23.10	23.32	23.15	24.0	0.0	
40	QPSK	108	108	22.05	22.22	22.08	23.0	1.0	
40	QPSK	216	0	22.14	22.18	21.84			
40	16QAM	1	1	22.06	22.05	22.01	23.0	1.0	
40	64QAM	1	1	20.70	20.74	20.63	21.5	2.5	
40	256QAM	1	1	19.25	19.41	19.34	19.5	4.5	
Channel Frequency (MHz)				315000	316000	316000	Tune-up limit (dBm)	MPR (dB)	
35	QPSK	1	1	1897.5	1892.5	1897.5	24.0	0.0	
Channel Frequency (MHz)				312000	316000	316000	Tune-up limit (dBm)	MPR (dB)	
30	QPSK	1	1	1868	1882.5	1900	24.0	0.0	
Channel Frequency (MHz)				312000	316000	316000	Tune-up limit (dBm)	MPR (dB)	
25	QPSK	1	1	1924	1931	1938	24.0	0.0	
Channel Frequency (MHz)				312000	316000	316000	Tune-up limit (dBm)	MPR (dB)	
20	QPSK	1	1	2318	2323	2302	24.0	0.0	
Channel Frequency (MHz)				311500	316000	316000	Tune-up limit (dBm)	MPR (dB)	
15	QPSK	1	1	1897.5	1892.5	1907.5	24.0	0.0	
Channel Frequency (MHz)				311000	316000	316000	Tune-up limit (dBm)	MPR (dB)	
10	QPSK	1	1	2323	2332	2310	24.0	0.0	
Channel Frequency (MHz)				310500	316000	316000	Tune-up limit (dBm)	MPR (dB)	
5	QPSK	1	1	2319	2327	2308	24.0	0.0	



n26 Ant 0 ECI2									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				165800	166700	167600			
Frequency (MHz)				825	831.5	838			
20	PI2 BPSK	1	1	23.24	23.39	23.25			
20	PI2 BPSK	1	53	23.12	23.24	23.21	24.0	0.0	
20	PI2 BPSK	1	104	23.14	23.18	23.13			
20	PI2 BPSK	50	0	22.85	22.75	22.65	23.5	0.5	
20	PI2 BPSK	50	25	23.16	23.26	23.16	24.0	0.0	
20	PI2 BPSK	50	56	22.55	22.65	22.54			
20	PI2 BPSK	100	0	22.63	22.70	22.62	23.5	0.5	
20	QPSK	1	1	23.34	23.45	23.29			
20	QPSK	1	53	23.24	23.34	23.16	24.0	0.0	
20	QPSK	1	104	23.22	23.28	23.19			
20	QPSK	50	0	22.20	22.20	22.12	23.0	1.0	
20	QPSK	50	25	22.22	22.38	22.19	24.0	0.0	
20	QPSK	50	56	22.17	22.19	22.06			
20	QPSK	100	0	22.20	22.28	22.10	23.0	1.0	
20	16QAM	1	1	21.85	21.98	21.86	23.0	1.0	
20	16QAM	1	1	20.53	20.59	20.58	21.5	2.5	
20	256QAM	1	1	19.12	19.15	19.00	19.5	4.5	
Channel				164500	166300	168300			
Frequency (MHz)				821.5	831.5	841.5			
15	QPSK	1	1	23.42	23.35	23.13	24.0	0.0	
Channel				163500	166300	168900			
Frequency (MHz)				819	831.5	844			
10	QPSK	1	1	23.24	23.26	23.15	24.0	0.0	
Channel				163300	166300	168900			
Frequency (MHz)				816.5	831.5	846.5			
5	QPSK	1	1	23.25	23.30	23.23	24.0	0.0	

n30 Ant 0 ECI2									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				461500	462000	462500			
Frequency (MHz)				2307.5	2310	2312.5			
10	PI2 BPSK	1	1	23.41					
10	PI2 BPSK	1	26	23.30			24.0	0.0	
10	PI2 BPSK	1	50	23.36					
10	PI2 BPSK	25	0	22.75			23.5	0.5	
10	PI2 BPSK	25	14	23.33			24.0	0.0	
10	PI2 BPSK	25	27	22.70			23.5	0.5	
10	PI2 BPSK	50	0	22.84					
10	QPSK	1	1	23.45					
10	QPSK	1	26	23.44			24.0	0.0	
10	QPSK	1	50	23.43					
10	QPSK	25	0	22.25			23.0	1.0	
10	QPSK	25	14	23.41			24.0	0.0	
10	QPSK	25	27	22.28					
10	QPSK	50	0	22.35			23.0	1.0	
10	16QAM	1	1	22.13			23.0	1.0	
10	16QAM	1	1	20.60			21.5	2.5	
10	256QAM	1	1	19.42			19.5	4.5	
Channel				461500	462000	462500			
Frequency (MHz)				2307.5	2310	2312.5			
5	QPSK	1	1	23.30	23.43	23.32	24.0	0.0	

n66 Ant 0 ECI2									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				345500	346000	346500			
Frequency (MHz)				1727.5	1745	1760			
40	PI2 BPSK	1	1	22.96	23.04	22.91			
40	PI2 BPSK	1	108	22.88	22.91	22.89	24.0	0.0	
40	PI2 BPSK	1	214	22.80	22.83	22.77			
40	PI2 BPSK	108	0	22.30	22.29	22.28	23.5	0.5	
40	PI2 BPSK	108	54	22.88	22.85	22.81	24.0	0.0	
40	PI2 BPSK	108	108	22.10	22.30	22.15			
40	PI2 BPSK	216	0	22.31	22.42	22.23	23.5	0.5	
40	QPSK	1	1	23.05	23.13	23.00			
40	QPSK	1	108	22.98	22.95	22.80	24.0	0.0	
40	QPSK	1	214	22.83	22.97	22.80			
40	QPSK	108	0	21.85	21.89	21.71	23.0	1.0	
40	QPSK	108	54	22.86	23.05	22.80	24.0	0.0	
40	QPSK	108	108	21.85	21.87	21.80	23.0	1.0	
40	QPSK	216	0	21.77	21.82	21.66			
40	16QAM	1	1	21.78	21.81	21.68	23.0	1.0	
40	16QAM	1	1	20.45	20.43	20.30	21.5	2.5	
40	256QAM	1	1	19.03	19.10	19.08	19.5	4.5	
Channel				345500	346000	346500			
Frequency (MHz)				1727.5	1745	1762.5			
35	QPSK	1	1	22.97	23.09	22.91	24.0	0.0	
Channel				345500	346000	346500			
Frequency (MHz)				1725	1745	1765			
30	QPSK	1	1	23.01	23.07	22.90	24.0	0.0	
Channel				345500	346000	346500			
Frequency (MHz)				1722.5	1745	1767.5			
25	QPSK	1	1	23.01	23.04	22.89	24.0	0.0	
Channel				344000	346000	346000			
Frequency (MHz)				1725	1745	1765			
20	QPSK	1	1	22.94	23.09	22.87	24.0	0.0	
Channel				345500	346000	346000			
Frequency (MHz)				1717.5	1745	1772.5			
15	QPSK	1	1	22.92	23.09	22.85	24.0	0.0	
Channel				345000	346000	346000			
Frequency (MHz)				1715	1745	1775			
10	QPSK	1	1	22.94	22.99	22.89	24.0	0.0	
Channel				342500	346000	346000			
Frequency (MHz)				1712.5	1745	1777.5			
5	QPSK	1	1	23.00	23.07	22.88	24.0	0.0	



n70 Ant 0 ECI2										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MFR (dB)		
Channel				Frequency (MHz)						
15	PI2 BPSK	1	1	23.18						
15	PI2 BPSK	1	40	23.09			24.0	0.0		
15	PI2 BPSK	1	77	23.02						
15	PI2 BPSK	36	0	22.47			23.5	0.5		
15	PI2 BPSK	36	22	22.98			24.0	0.0		
15	PI2 BPSK	36	43	22.41			23.5	0.5		
15	PI2 BPSK	75	0	22.53						
15	QPSK	1	1	23.30						
15	QPSK	1	40	23.03			24.0	0.0		
15	QPSK	1	77	23.16						
15	QPSK	36	0	21.97			23.0	1.0		
15	QPSK	36	22	23.22			24.0	0.0		
15	QPSK	36	43	21.97			23.0	1.0		
15	QPSK	75	0	22.05						
15	16QAM	1	1	21.96			23.0	1.0		
15	64QAM	1	1	20.52			21.5	2.5		
15	256QAM	1	1	19.05			19.5	4.5		
Channel				34000	34050	34100	Tune-up limit	MFR		
Frequency (MHz)				1700	1702.5	1705	(dBm)	(dB)		
10	QPSK	1	1	23.13	23.25	23.18	24.0	0.0		
Channel				33950	34050	34150	Tune-up limit	MFR		
Frequency (MHz)				1697.5	1702.5	1707.5	(dBm)	(dB)		
5	QPSK	1	1	23.10	23.18	23.09	24.0	0.0		

n71 Ant 0 ECI2										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MFR (dB)		
Channel				Frequency (MHz)						
20	PI2 BPSK	1	1	23.50	23.57	23.42				
20	PI2 BPSK	1	53	23.43	23.41	23.46	24.0	0.0		
20	PI2 BPSK	1	104	23.28	23.36	23.28				
20	PI2 BPSK	50	0	22.81	22.93	22.82	23.5	0.5		
20	PI2 BPSK	50	28	23.38	23.34	23.29	24.0	0.0		
20	PI2 BPSK	50	56	22.63	22.85	22.66				
20	PI2 BPSK	100	0	22.81	22.91	22.77	23.5	0.5		
20	QPSK	1	1	23.59	23.69	23.54				
20	QPSK	1	53	23.48	23.46	23.31	24.0	0.0		
20	QPSK	1	104	23.31	23.49	23.35				
20	QPSK	50	0	22.32	22.38	22.20	23.0	1.0		
20	QPSK	50	28	23.34	23.50	23.28	24.0	0.0		
20	QPSK	50	56	22.36	22.38	22.30				
20	QPSK	100	0	22.24	22.42	22.20	23.0	1.0		
20	16QAM	1	1	22.29	22.38	22.22	23.0	1.0		
20	64QAM	1	1	20.98	21.00	20.87	21.5	2.5		
20	256QAM	1	1	19.28	19.45	19.40	19.5	4.5		
Channel				134100	136100	138100	Tune-up limit	MFR		
Frequency (MHz)				670.5	680.5	690.5	(dBm)	(dB)		
15	QPSK	1	1	23.43	23.53	23.50	24.0	0.0		
Channel				133500	135100	136500	Tune-up limit	MFR		
Frequency (MHz)				668	680.5	693	(dBm)	(dB)		
10	QPSK	1	1	23.56	23.59	23.43	24.0	0.0		
Channel				133100	136100	139100	Tune-up limit	MFR		
Frequency (MHz)				665.5	680.5	695.5	(dBm)	(dB)		
5	QPSK	1	1	23.52	23.60	23.44	24.0	0.0		



n38 Ant 0 EC12

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low Ch. Freq., Power Middle Ch. Freq., Power High Ch. Freq., Tune-up limit (dBm), MPR (dB). Rows include channels for PI2 BPSK, PI2 QPSK, PI2 16QAM, PI2 64QAM, and PI2 256QAM across various modulation rates and RB sizes.

n41 Ant 0 EC12

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low Ch. Freq., Power Middle Ch. Freq., Power High Ch. Freq., Tune-up limit (dBm), MPR (dB). Rows include channels for PI2 BPSK, PI2 QPSK, PI2 16QAM, PI2 64QAM, and PI2 256QAM across various modulation rates and RB sizes.

n41 HPUE Ant 0 EC12

Table with columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low Ch. Freq., Power Middle Ch. Freq., Power High Ch. Freq., Tune-up limit (dBm), MPR (dB). Rows include channels for PI2 BPSK, PI2 QPSK, PI2 16QAM, PI2 64QAM, and PI2 256QAM across various modulation rates and RB sizes.



n2 Ant 1 EC12

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 374000	Middle Ch. Freq. 376000	High Ch. Freq. 378000		
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	23.02	23.18	23.04	24.0	0.0
40	PI2 BPSK	1	108	22.96	23.06	22.95		
40	PI2 BPSK	1	214	22.89	22.94	22.89		
40	PI2 BPSK	108	0	22.44	22.46	22.35	23.5	0.5
40	PI2 BPSK	108	54	23.04	22.94	22.98	24.0	0.0
40	PI2 BPSK	108	108	22.18	22.37	22.31	23.5	0.5
40	PI2 BPSK	216	0	22.42	22.49	22.29		
40	QPSK	1	1	23.17	23.19	23.10		
40	QPSK	1	108	23.07	23.06	22.96	24.0	0.0
40	QPSK	1	214	22.93	23.08	22.95		
40	QPSK	108	0	21.95	22.02	21.83		
40	QPSK	108	54	23.02	23.14	22.86	24.0	0.0
40	QPSK	108	108	21.92	21.87	21.87	23.0	1.0
40	QPSK	216	0	21.89	22.08	21.73	23.0	1.0
40	16QAM	1	1	21.94	21.89	21.80		
40	16QAM	1	1	20.58	20.51	20.42		
40	256QAM	1	1	19.12	19.24	19.15	19.5	2.5
Channel								
Frequency (MHz)								
35	QPSK	1	1	23.03	23.12	22.96	0.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	23.09	23.15	22.98	0.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	23.03	23.14	22.99	0.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.03	23.05	23.05	0.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.09	23.14	23.03	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.11	23.10	22.99	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	23.09	23.15	22.97	24.0	0.0

n5 Ant 1 EC12

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 168800	Middle Ch. Freq. 167300	High Ch. Freq. 167800		
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	22.87	22.91	22.82	24.0	0.0
20	PI2 BPSK	1	83	22.77	22.80	22.84		
20	PI2 BPSK	1	104	22.76	22.77	22.62		
20	PI2 BPSK	80	0	22.26	22.26	22.22	23.5	0.5
20	PI2 BPSK	80	28	22.86	22.78	22.74	24.0	0.0
20	PI2 BPSK	80	56	21.97	22.21	22.01	23.5	0.5
20	PI2 BPSK	100	0	22.22	22.37	22.20		
20	QPSK	1	1	22.90	22.99	22.91		
20	QPSK	1	83	22.92	22.86	22.66	24.0	0.0
20	QPSK	1	104	22.74	22.88	22.75		
20	QPSK	80	0	21.74	21.81	21.62		
20	QPSK	80	28	22.82	22.90	22.77	24.0	0.0
20	QPSK	80	56	21.80	21.77	21.68	23.0	1.0
20	QPSK	100	0	21.72	21.80	21.61	23.0	1.0
20	16QAM	1	1	21.64	21.68	21.60		
20	16QAM	1	1	20.38	20.37	20.23		
20	256QAM	1	1	18.86	18.89	18.67	19.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.86	22.93	22.79	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.81	22.87	22.82	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.85	22.89	22.73	24.0	0.0

n7 Ant 1 EC12

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 506000	Middle Ch. Freq. 507000	High Ch. Freq. 509000		
Channel								
Frequency (MHz)								
50	PI2 BPSK	1	1	22.78	22.81	22.69	24.0	0.0
50	PI2 BPSK	1	135	22.71	22.67	22.51		
50	PI2 BPSK	1	268	22.68	22.67	22.52		
50	PI2 BPSK	135	0	22.15	22.17	22.19	23.5	0.5
50	PI2 BPSK	135	68	22.72	22.69	22.69	24.0	0.0
50	PI2 BPSK	135	135	21.83	22.14	21.87	23.5	0.5
50	PI2 BPSK	270	0	22.18	22.23	22.14		
50	QPSK	1	1	22.77	22.88	22.84		
50	QPSK	1	135	22.84	22.78	22.59	24.0	0.0
50	QPSK	1	268	22.81	22.75	22.60		
50	QPSK	135	0	21.83	21.74	21.57		
50	QPSK	135	68	22.74	22.81	22.68	23.0	0.0
50	QPSK	135	135	21.76	21.70	21.63	23.0	1.0
50	QPSK	270	0	21.60	21.68	21.49	23.0	1.0
50	16QAM	1	1	21.47	21.52	21.43		
50	16QAM	1	1	19.98	20.05	19.90		
50	256QAM	1	1	18.52	18.52	18.52	19.5	4.5
Channel								
Frequency (MHz)								
40	QPSK	1	1	22.68	22.76	22.75	24.0	0.0
Channel								
Frequency (MHz)								
35	QPSK	1	1	22.66	22.85	22.63	24.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	22.66	22.85	22.73	0.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	22.63	22.79	22.72	24.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	22.70	22.77	22.75	24.0	0.0
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	22.73	22.84	22.79	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.67	22.76	22.71	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.68	22.75	22.73	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.62	22.81	22.76	24.0	0.0



n12 Ant 1 ECI2

EW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				141500	141500	141700		
Frequency (MHz)				707.5	707.5	708.5		
15	PI2 BPSK	1	1	22.83	22.92	22.83	24.0	0.0
15	PI2 BPSK	1	40	22.80	22.76	22.86		
15	PI2 BPSK	1	77	22.79	22.78	22.88		
15	PI2 BPSK	36	0	22.23	22.31	22.27	23.5	0.5
15	PI2 BPSK	36	22	22.82	22.81	22.79	24.0	0.0
15	PI2 BPSK	36	43	21.88	22.29	22.01	23.5	0.5
15	PI2 BPSK	75	0	22.29	22.36	22.21		
15	QPSK	1	1	22.84	23.01	22.94	24.0	0.0
15	QPSK	1	40	22.94	22.91	22.72		
15	QPSK	1	77	22.71	22.83	22.71		
15	QPSK	36	0	21.77	21.88	21.68	23.0	1.0
15	QPSK	36	22	22.83	22.97	22.74	24.0	0.0
15	QPSK	36	43	21.72	21.76	21.57	23.0	1.0
15	QPSK	75	0	21.80	21.81	21.77		
15	16QAM	1	1	21.71	21.75	21.70	23.0	1.0
15	16QAM	1	1	20.19	20.34	20.21	21.5	2.5
15	25QAM	1	1	18.97	18.95	18.84	18.5	4.5
Channel				140500	141500	142500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				704	707.5	711		
10	QPSK	1	1	22.74	22.91	22.89	24.0	0.0
Channel				140300	141500	142700	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				707.5	707.5	712.5		
5	QPSK	1	1	22.73	22.88	22.83	24.0	0.0

n14 Ant 1 ECI2

EW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				158100	158600	159100		
Frequency (MHz)				793	793	793		
10	PI2 BPSK	1	1	23.25	23.25	23.25	24.0	0.0
10	PI2 BPSK	1	26	23.14	23.14	23.14		
10	PI2 BPSK	1	50	23.05	23.05	23.05		
10	PI2 BPSK	25	0	22.60	22.60	22.60	23.5	0.5
10	PI2 BPSK	25	14	23.16	23.16	23.16	24.0	0.0
10	PI2 BPSK	25	27	22.81	22.81	22.81	23.5	0.5
10	PI2 BPSK	50	0	22.69	22.69	22.69		
10	QPSK	1	1	23.21	23.24	23.21	24.0	0.0
10	QPSK	1	26	23.21	23.21	23.13		
10	QPSK	1	50	23.13	23.13	23.13		
10	QPSK	25	0	22.16	22.16	22.16	23.0	1.0
10	QPSK	25	14	23.27	23.27	23.27	24.0	0.0
10	QPSK	25	27	22.08	22.08	22.08	23.0	1.0
10	QPSK	50	0	22.15	22.15	22.15		
10	16QAM	1	1	22.09	22.09	22.09	23.0	1.0
10	64QAM	1	1	20.69	20.69	20.69	21.5	2.5
10	25QAM	1	1	18.32	18.32	18.32	18.5	4.5
Channel				158100	158600	159100	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				790.5	793	795.5		
5	QPSK	1	1	23.15	23.21	23.17	24.0	0.0

n25 Ant 1 ECI2

EW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				374000	376500	379000		
Frequency (MHz)				1870	1882.5	1905		
40	PI2 BPSK	1	1	23.08	23.07	23.01	24.0	0.0
40	PI2 BPSK	1	108	22.90	22.88	22.89		
40	PI2 BPSK	1	214	22.87	22.88	22.88		
40	PI2 BPSK	108	0	22.30	22.42	22.28	23.5	0.5
40	PI2 BPSK	108	54	22.90	22.88	22.89	24.0	0.0
40	PI2 BPSK	108	108	22.16	22.40	22.17	23.5	0.5
40	PI2 BPSK	216	0	22.40	22.48	22.29		
40	QPSK	1	1	23.15	23.20	23.12	24.0	0.0
40	QPSK	1	108	23.08	22.96	22.84		
40	QPSK	1	214	22.85	23.01	22.89		
40	QPSK	108	0	21.83	21.99	21.75	23.0	1.0
40	QPSK	108	54	22.92	23.09	22.80	24.0	0.0
40	QPSK	108	108	21.86	21.88	21.80	23.0	1.0
40	QPSK	216	0	21.82	22.01	21.73		
40	16QAM	1	1	21.88	21.82	21.67	23.0	1.0
40	64QAM	1	1	20.52	20.50	20.30	21.5	2.5
40	25QAM	1	1	18.12	18.10	18.10	18.5	4.5
Channel				372500	376500	380500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1867.5	1882.5	1897.5		
35	QPSK	1	1	23.05	23.10	23.04	24.0	0.0
Channel				373000	376500	380000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1868	1882.5	1900		
30	QPSK	1	1	23.03	23.11	23.08	24.0	0.0
Channel				372500	376500	380500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1867.5	1882.5	1902.5		
25	QPSK	1	1	23.02	23.09	23.03	24.0	0.0
Channel				372000	376500	381000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1860	1882.5	1905		
20	QPSK	1	1	23.10	23.15	23.08	24.0	0.0
Channel				371500	376500	381500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1867.5	1882.5	1907.5		
15	QPSK	1	1	23.12	23.07	23.07	24.0	0.0
Channel				371000	376500	382000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1866	1882.5	1910		
10	QPSK	1	1	23.12	23.16	23.08	24.0	0.0
Channel				370500	376500	382500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1862.5	1882.5	1912.5		
5	QPSK	1	1	23.04	23.14	23.00	24.0	0.0



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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				824	831.5	838		
20	PI2 BPSK	1	1	22.92	22.99	22.93		
20	PI2 BPSK	1	53	22.77	22.92	22.85	24.0	0.0
20	PI2 BPSK	1	104	22.78	22.78	22.84		
20	PI2 BPSK	50	0	22.22	22.36	22.19	23.5	0.5
20	PI2 BPSK	50	26	22.34	22.36	22.81	24.0	0.0
20	PI2 BPSK	50	56	22.10	22.25	22.08		
20	PI2 BPSK	100	0	22.32	22.44	22.16	23.5	0.5
20	QPSK	1	1	23.06	23.13	22.99		
20	QPSK	1	53	23.01	22.82	22.89	24.0	0.0
20	QPSK	1	104	22.85	22.97	22.76		
20	QPSK	50	0	21.89	21.84	21.67	23.0	1.0
20	QPSK	50	26	22.82	23.04	22.89	24.0	0.0
20	QPSK	50	56	21.72	21.85	21.79	23.0	1.0
20	QPSK	100	0	21.74	21.68	21.62	23.0	1.0
20	16QAM	1	1	21.79	21.78	21.53	23.0	1.0
20	16QAM	1	1	20.44	20.37	20.16	21.5	2.5
20	256QAM	1	1	19.00	18.15	18.02	18.5	4.5
Channel								
Frequency (MHz)				821.5	831.5	841.5		
15	QPSK	1	1	22.59	23.05	22.84	24.0	0.0
Channel								
Frequency (MHz)				16330	16630	16880		
10	QPSK	1	1	22.96	23.00	22.92	24.0	0.0
Channel								
Frequency (MHz)				16330	16630	16930		
5	QPSK	1	1	22.92	23.07	22.85	24.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)					2310			
10	PI2 BPSK	1	1		22.90			
10	PI2 BPSK	1	26		22.79		24.0	0.0
10	PI2 BPSK	1	50		22.68			
10	PI2 BPSK	25	0		22.22		23.5	0.5
10	PI2 BPSK	25	14		22.76		24.0	0.0
10	PI2 BPSK	25	27		22.21			
10	PI2 BPSK	50	0		22.35		23.5	0.5
10	QPSK	1	1		23.04			
10	QPSK	1	26		22.76		24.0	0.0
10	QPSK	1	50		22.92			
10	QPSK	25	0		21.77		23.0	1.0
10	QPSK	25	14		22.98		24.0	0.0
10	QPSK	25	27		21.76		23.0	1.0
10	QPSK	50	0		21.84		23.0	1.0
10	16QAM	1	1		21.64		23.0	1.0
10	16QAM	1	1		20.27		21.5	2.5
10	256QAM	1	1		18.02		18.5	4.5
Channel								
Frequency (MHz)				48150	48250	48250		
5	QPSK	1	1	22.91	23.00	22.82	24.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				1720	1745	1760		
40	PI2 BPSK	1	1	23.22	23.32	23.21		
40	PI2 BPSK	1	108	23.21	23.24	23.15	24.0	0.0
40	PI2 BPSK	1	214	23.18	23.09	23.07		
40	PI2 BPSK	108	0	22.60	22.69	22.54	23.5	0.5
40	PI2 BPSK	108	54	23.16	23.17	23.09	24.0	0.0
40	PI2 BPSK	108	108	22.36	22.56	22.48		
40	PI2 BPSK	216	0	22.58	22.77	22.53	23.5	0.5
40	QPSK	1	1	23.37	23.39	23.28		
40	QPSK	1	108	23.26	23.23	23.15	24.0	0.0
40	QPSK	1	214	23.17	23.28	23.06		
40	QPSK	108	0	22.13	22.15	21.98	23.0	1.0
40	QPSK	108	54	23.22	23.30	23.06	24.0	0.0
40	QPSK	108	108	22.20	22.18	22.09	23.0	1.0
40	QPSK	216	0	22.03	22.22	22.01	23.0	1.0
40	16QAM	1	1	21.77	21.82	21.67	21.5	2.5
40	16QAM	1	1	20.32	20.43	20.34	21.5	2.5
40	256QAM	1	1	18.77	18.81	18.60	18.5	4.5
Channel								
Frequency (MHz)				34500	34900	35300		
35	QPSK	1	1	23.30	23.32	23.19	24.0	0.0
Channel								
Frequency (MHz)				34500	34900	35300		
30	QPSK	1	1	23.32	23.26	23.15	24.0	0.0
Channel								
Frequency (MHz)				34450	34900	35300		
25	QPSK	1	1	23.29	23.24	23.21	24.0	0.0
Channel								
Frequency (MHz)				34600	34900	35600		
20	QPSK	1	1	23.42	23.20	23.19	24.0	0.0
Channel								
Frequency (MHz)				34550	34900	35600		
15	QPSK	1	1	23.27	23.34	23.21	24.0	0.0
Channel								
Frequency (MHz)				34500	34900	35600		
10	QPSK	1	1	23.23	23.24	23.22	24.0	0.0
Channel								
Frequency (MHz)				34250	34900	35500		
5	QPSK	1	1	23.30	23.32	23.13	24.0	0.0



n70 Ant 1 ECI2							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq	
Channel				345500			
Frequency (MHz)				1702.5			
15	PI2 BPSK	1	1	23.60			
15	PI2 BPSK	1	40	23.52			24.0 0.0
15	PI2 BPSK	1	77	23.35			
15	PI2 BPSK	35	0	23.05			23.5 0.5
15	PI2 BPSK	35	22	23.48			24.0 0.0
15	PI2 BPSK	35	43	22.88			23.5 0.5
15	PI2 BPSK	75	0	23.09			
15	QPSK	1	1	23.55			
15	QPSK	1	40	23.48			24.0 0.0
15	QPSK	1	77	23.55			
15	QPSK	35	0	22.47			23.0 1.0
15	QPSK	35	22	23.59			24.0 0.0
15	QPSK	35	43	22.52			23.0 1.0
15	QPSK	75	0	22.57			
15	16QAM	1	1	22.10			23.0 1.0
15	64QAM	1	1	20.74			21.5 2.5
20	256QAM	1	1	19.17			19.5 4.5
Channel				34000 340500 341000			
Frequency (MHz)				1700 1702.5 1705			
10	QPSK	1	1	23.51	23.60	23.57	24.0 0.0
Channel				339500 340500 341500			
Frequency (MHz)				1697.5 1702.5 1707.5			
5	QPSK	1	1	23.50	23.52	23.50	24.0 0.0

n71 Ant 1 ECI2							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq	
Channel				136500			
Frequency (MHz)				675 680.5 685			
20	PI2 BPSK	1	1	23.33	23.49	23.30	
20	PI2 BPSK	1	53	23.25	23.32	23.30	24.0 0.0
20	PI2 BPSK	1	104	23.33	23.19	23.15	
20	PI2 BPSK	50	0	22.75	22.85	22.68	23.5 0.5
20	PI2 BPSK	50	25	23.27	23.32	23.15	24.0 0.0
20	PI2 BPSK	50	55	22.53	22.71	22.63	
20	PI2 BPSK	100	0	22.64	22.91	22.59	23.5 0.5
20	QPSK	1	1	23.47	23.50	23.36	
20	QPSK	1	53	23.25	23.26	23.22	24.0 0.0
20	QPSK	1	104	23.25	23.45	23.21	
20	QPSK	50	0	22.28	22.29	22.08	23.0 1.0
20	QPSK	50	25	23.35	23.39	23.12	24.0 0.0
20	QPSK	50	55	22.28	22.20	22.18	23.0 1.0
20	QPSK	100	0	22.15	22.20	22.15	
20	16QAM	1	1	22.05	22.17	22.02	23.0 1.0
20	64QAM	1	1	20.73	20.88	20.71	21.5 2.5
20	256QAM	1	1	19.40	19.40	19.34	19.5 4.5
Channel				131500 136500 136500			
Frequency (MHz)				670.5 680.5 690.5			
15	QPSK	1	1	23.38	23.44	23.32	24.0 0.0
Channel				130500 136500 136500			
Frequency (MHz)				668 680.5 690			
10	QPSK	1	1	23.34	23.37	23.23	24.0 0.0
Channel				133100 136100 136100			
Frequency (MHz)				665 680.5 690.5			
5	QPSK	1	1	23.34	23.42	23.30	24.0 0.0



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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. F.Freq	Power Middle Ch. F.Freq	Power High Ch. F.Freq	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	Pi2 BPSK	1	1	22.02	22.97	22.83		
40	Pi2 BPSK	1	53	22.80	22.77	22.76	24.0	0.0
40	Pi2 BPSK	1	104	22.86	22.89	22.88		
40	Pi2 BPSK	50	0	22.19	22.36	22.22	23.5	0.5
40	Pi2 BPSK	50	28	22.76	22.70	22.86	24.0	0.0
40	Pi2 BPSK	50	56	22.01	22.20	22.09		
40	Pi2 BPSK	100	0				23.5	0.5
40	Pi2 BPSK	100	0	22.26	22.28	22.11		
40	QPSK	1	1	22.97	23.01	22.85		
40	QPSK	1	53	22.91	22.83	22.96	24.0	0.0
40	QPSK	1	104	22.77	22.91	22.74		
40	QPSK	50	0	21.81	21.78	21.61	23.0	1.0
40	QPSK	50	28	22.82	22.92	22.73	24.0	0.0
40	QPSK	50	56	21.80	21.80	21.71		
40	QPSK	100	0	21.68	21.84	21.54		
40	16QAM	1	1	21.84	21.76	21.53	23.0	1.0
40	64QAM	1	1	20.38	20.30	20.23	21.5	2.5
40	256QAM	1	1	18.58	19.01	18.97	18.5	4.5
Channel								
Frequency (MHz)								
30	QPSK	1	1	22.90	22.96	22.79	24.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	22.84	22.92	22.75	24.0	0.0
Channel								
Frequency (MHz)								
Channel								
Frequency (MHz)								
20	QPSK	1	1	22.92	22.98	22.72	24.0	0.0
Channel								
Frequency (MHz)								
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.88	22.91	22.73	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.88	22.93	22.76	24.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. F.Freq	Power Middle Ch. F.Freq	Power High Ch. F.Freq	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	Pi2 BPSK	1	1	21.65	21.78	21.73		
100	Pi2 BPSK	1	137	21.80	21.70	21.58	23.0	0.0
100	Pi2 BPSK	1	271	21.81	21.74	21.61		
100	Pi2 BPSK	135	0	21.46	21.80	21.53	23.0	0.0
100	Pi2 BPSK	135	69	21.53	21.84	21.59	23.0	0.0
100	Pi2 BPSK	135	138	21.43	21.55	21.46		
100	Pi2 BPSK	270	0	21.53	21.65	21.54		
100	QPSK	1	1	21.80	21.85	21.70		
100	QPSK	1	137	21.85	21.76	21.64	23.0	0.0
100	QPSK	1	271	21.87	21.70	21.57		
100	QPSK	135	0	21.58	21.66	21.61	23.0	0.0
100	QPSK	135	69	21.68	21.76	21.65	23.0	0.0
100	QPSK	135	138	21.58	21.61	21.52		
100	QPSK	270	0	21.56	21.66	21.54		
100	16QAM	1	1	21.40	21.52	21.43	23.0	0.0
100	64QAM	1	1	21.16	21.20	21.05	23.0	0.0
100	256QAM	1	1	20.51	20.66	20.61	21.5	1.5
Channel								
Frequency (MHz)								
80	QPSK	1	1	21.72	21.76	21.80	23.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	21.70	21.75	21.81	23.0	0.0
Channel								
Frequency (MHz)								
Channel								
Frequency (MHz)								
60	QPSK	1	1	21.70	21.71	21.66	23.0	0.0
Channel								
Frequency (MHz)								
Channel								
Frequency (MHz)								
50	QPSK	1	1	21.73	21.80	21.59	23.0	0.0
Channel								
Frequency (MHz)								
Channel								
Frequency (MHz)								
45	QPSK	1	1	21.67	21.79	21.67	23.0	0.0
Channel								
Frequency (MHz)								
Channel								
Frequency (MHz)								
40	QPSK	1	1	21.75	21.81	21.56	23.0	0.0
Channel								
Frequency (MHz)								
Channel								
Frequency (MHz)								
35	QPSK	1	1	21.73	21.71	21.66	23.0	0.0
Channel								
Frequency (MHz)								
Channel								
Frequency (MHz)								
30	QPSK	1	1	21.70	21.78	21.56	23.0	0.0
Channel								
Frequency (MHz)								
Channel								
Frequency (MHz)								
25	QPSK	1	1	21.77	21.76	21.65	23.0	0.0
Channel								
Frequency (MHz)								
Channel								
Frequency (MHz)								
20	QPSK	1	1	21.69	21.82	21.57	23.0	0.0
Channel								
Frequency (MHz)								
Channel								
Frequency (MHz)								
15	QPSK	1	1	21.70	21.75	21.56	23.0	0.0
Channel								
Frequency (MHz)								
Channel								
Frequency (MHz)								
10	QPSK	1	1	21.76	21.79	21.65	23.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. F.Freq	Power Middle Ch. F.Freq	Power High Ch. F.Freq	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	Pi2 BPSK	1	1	24.59	24.65	24.57		
100	Pi2 BPSK	1	137	24.53	24.51	24.52	26.0	0.0
100	Pi2 BPSK	1	271	24.37	24.48	24.35		
100	Pi2 BPSK	135	0	23.89	24.06	23.91	25.5	0.5
100	Pi2 BPSK	135	69	24.46	24.48	24.37	26.0	0.0
100	Pi2 BPSK	135	138	23.70	23.95	23.74		
100	Pi2 BPSK	270	0	23.94	24.01	23.88		
100	QPSK	1	1	24.61	24.76	24.70		
100	QPSK	1	137	24.84	24.55	24.39	26.0	0.0
100	QPSK	1	271	24.39	24.55	24.37		
100	QPSK	135	0	23.49	23.46	23.26	25.0	1.0
100	QPSK	135	69	24.41	24.64	24.47	26.0	0.0
100	QPSK	135	138	23.40	23.44	23.38		
100	QPSK	270	0	23.37	23.53	23.22		
100	16QAM	1	1	23.58	23.66	23.61	25.0	1.0
100	64QAM	1	1	22.17	22.28	22.23	23.5	2.5
100	256QAM	1	1	19.84	19.97	19.83	21.5	4.5
Channel								
Frequency (MHz)								
80	QPSK	1	1	24.51	24.59	24.56	26.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	24.49	24.70	24.58	26.0	0.0
Channel								
Frequency (MHz)								
Channel								
Frequency (MHz)								
60	QPSK	1	1	24.57	24.69	24.67	26.0	0.0
Channel								
Frequency (MHz)								
Channel								
Frequency (MHz)								
50	QPSK	1	1	24.53	24.66	24.67	26.0	0.0
Channel								
Frequency (MHz)								
Channel								
Frequency (MHz)								
45	QPSK	1	1	24.47	24.67	24.57	26.0	0.0
Channel								
Frequency (MHz)								
Channel								
Frequency (MHz)								
40	QPSK	1	1	24.53	24.61	24.65	26.0	0.0
Channel								
Frequency (MHz)								
Channel								
Frequency (MHz)								
35	QPSK	1	1	24.53	24.68	24.64	26.0	0.0
Channel								
Frequency (MHz)								
Channel								
Frequency (MHz)								
30	QPSK	1	1	24.54	24.72	24.58	26.0	0.0
Channel								
Frequency (MHz)								
Channel								
Frequency (MHz)								
25	QPSK	1	1	24.53	24.71	24.60	26.0	0.0
Channel								
Frequency (MHz)								
Channel								
Frequency (MHz)								
20	QPSK	1	1	24.50	24.65	24.60	26.0	0.0
Channel								
Frequency (MHz)								
Channel								
Frequency (MHz)								
15	QPSK	1	1	24.49	24.61	24.65	26.0	0.0
Channel								
Frequency (MHz)								
Channel								
Frequency (MHz)								
10	QPSK	1	1	24.56	24.63	24.62	26.0	0.0



n2 Ant 2 EC12								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	14.21	14.30	14.34		
40	PI2 BPSK	1	108	14.23	14.32	14.21	15.3	0.0
40	PI2 BPSK	1	214	14.13	14.22	14.24		
40	PI2 BPSK	108	0	14.22	14.20	14.22	15.3	0.0
40	PI2 BPSK	108	54	14.23	14.22	14.20	15.3	0.0
40	PI2 BPSK	108	108	14.18	14.17	14.14	15.3	0.0
40	PI2 BPSK	216	0	14.14	14.23	14.17		
40	QPSK	1	1	14.35	14.42	14.38		
40	QPSK	1	108	14.36	14.36	14.34	15.3	0.0
40	QPSK	1	214	14.27	14.33	14.29		
40	QPSK	108	0	14.29	14.32	14.30	15.3	0.0
40	QPSK	108	54	14.28	14.36	14.25	15.3	0.0
40	QPSK	108	108	14.22	14.25	14.18	15.3	0.0
40	QPSK	216	0	14.18	14.29	14.22		
40	16QAM	1	1	14.21	14.26	14.19	15.3	0.0
40	64QAM	1	1	14.23	14.27	14.17	15.3	0.0
40	256QAM	1	1	14.20	14.24	14.15	15.3	0.0
Channel								
Frequency (MHz)								
35	QPSK	1	1	14.29	14.35	14.30	0.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	14.24	14.32	14.25	0.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	14.21	14.32	14.27	0.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	14.31	14.33	14.29	0.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	14.29	14.34	14.24	15.3	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	14.26	14.36	14.31	15.3	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	14.23	14.33	14.24	15.3	0.0

n7 Ant 2 EC12								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
50	PI2 BPSK	1	1	15.74	15.80	15.85		
50	PI2 BPSK	1	135	15.85	15.89	15.85	16.8	0.0
50	PI2 BPSK	1	269	15.77	15.80	15.83		
50	PI2 BPSK	135	0	15.77	15.84	15.85	16.8	0.0
50	PI2 BPSK	135	68	15.87	15.79	15.82	16.8	0.0
50	PI2 BPSK	135	135	15.79	15.80	15.77	16.8	0.0
50	PI2 BPSK	270	0	15.74	15.79	15.78		
50	QPSK	1	1	15.97	16.01	15.94		
50	QPSK	1	135	15.84	15.86	15.83	16.8	0.0
50	QPSK	1	269	15.87	15.87	15.80		
50	QPSK	135	0	15.84	15.83	15.80	16.8	0.0
50	QPSK	135	68	15.84	15.97	15.86	16.8	0.0
50	QPSK	135	135	15.79	15.86	15.82	16.8	0.0
50	QPSK	270	0	15.71	15.80	15.84		
50	16QAM	1	1	15.76	15.80	15.79	16.8	0.0
50	64QAM	1	1	15.81	15.80	15.70	16.8	0.0
50	256QAM	1	1	15.74	15.87	15.76	16.8	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	15.81	15.91	15.86	16.8	0.0
Channel								
Frequency (MHz)								
35	QPSK	1	1	15.78	15.95	15.90	0.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	15.82	15.84	15.81	16.8	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	15.84	15.87	15.80	16.8	0.0
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	15.80	15.87	15.80	16.8	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	15.81	15.84	15.89	16.8	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	15.74	15.86	15.85	16.8	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	15.82	15.84	15.88	16.8	0.0

n25 Ant 2 EC12								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	14.26	14.40	14.34		
40	PI2 BPSK	1	108	14.27	14.29	14.31	15.3	0.0
40	PI2 BPSK	1	214	14.19	14.32	14.27		
40	PI2 BPSK	108	0	14.24	14.29	14.30	15.3	0.0
40	PI2 BPSK	108	54	14.27	14.29	14.31	15.3	0.0
40	PI2 BPSK	108	108	14.22	14.23	14.15	15.3	0.0
40	PI2 BPSK	216	0	14.17	14.35	14.23		
40	QPSK	1	1	14.39	14.45	14.40		
40	QPSK	1	108	14.34	14.43	14.38	15.3	0.0
40	QPSK	1	214	14.29	14.36	14.33		
40	QPSK	108	0	14.30	14.32	14.27	15.3	0.0
40	QPSK	108	54	14.29	14.41	14.37	15.3	0.0
40	QPSK	108	108	14.23	14.28	14.26	15.3	0.0
40	QPSK	216	0	14.29	14.35	14.31		
40	16QAM	1	1	14.28	14.33	14.27	15.3	0.0
40	64QAM	1	1	14.33	14.38	14.28	15.3	0.0
40	256QAM	1	1	14.20	14.27	14.22	15.3	0.0
Channel								
Frequency (MHz)								
35	QPSK	1	1	14.29	14.36	14.31	15.3	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	14.33	14.37	14.28	15.3	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	14.33	14.39	14.35	15.3	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	14.32	14.40	14.29	15.3	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	14.28	14.38	14.35	15.3	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	14.29	14.41	14.38	15.3	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	14.29	14.35	14.31	15.3	0.0



n30 Ant 2 EC12							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	MPR (dB)
Channel							
Frequency (MHz)				2310			
10	PI2 BPSK	1	1	16.38			
10	PI2 BPSK	1	26	16.35			17.3
10	PI2 BPSK	1	50	16.31			
10	PI2 BPSK	25	0	16.23			17.3
10	PI2 BPSK	25	14	16.35			17.3
10	PI2 BPSK	25	27	16.22			17.3
10	PI2 BPSK	50	0	16.27			17.3
10	QPSK	1	1	16.43			
10	QPSK	1	26	16.40			17.3
10	QPSK	1	50	16.33			
10	QPSK	25	0	16.29			17.3
10	QPSK	25	14	16.38			17.3
10	QPSK	25	27	16.26			17.3
10	QPSK	50	0	16.30			17.3
10	16QAM	1	1	16.25			17.3
10	64QAM	1	1	16.31			17.3
10	256QAM	1	1	16.28			17.3
Channel				461900	462000	462500	
Frequency (MHz)				2307.5	2310	2312.5	
5	QPSK	1	1	16.32	16.36	16.30	17.3

n66 Ant 2 EC12							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	MPR (dB)
Channel							
Frequency (MHz)				1730	1745	1760	
40	PI2 BPSK	1	1	15.09	15.29	15.22	
40	PI2 BPSK	1	108	15.12	15.22	15.17	16.1
40	PI2 BPSK	1	214	15.01	15.14	15.11	
40	PI2 BPSK	108	0	15.10	15.11	15.20	16.1
40	PI2 BPSK	108	54	15.22	15.16	15.09	16.1
40	PI2 BPSK	108	108	15.10	15.08	15.03	16.1
40	PI2 BPSK	216	0	15.08	15.20	15.05	16.1
40	QPSK	1	1	15.33	15.39	15.29	
40	QPSK	1	108	15.25	15.34	15.22	16.1
40	QPSK	1	214	15.19	15.29	15.18	
40	QPSK	108	0	15.20	15.21	15.26	16.1
40	QPSK	108	54	15.28	15.34	15.19	16.1
40	QPSK	108	108	15.14	15.19	15.06	16.1
40	QPSK	216	0	15.22	15.27	15.18	16.1
40	16QAM	1	1	15.15	15.20	15.09	16.1
40	64QAM	1	1	15.08	15.15	15.12	16.1
40	256QAM	1	1	15.09	15.14	15.10	16.1
Channel				345000	349000	352000	
Frequency (MHz)				1727.5	1745	1762.5	
35	QPSK	1	1	15.24	15.27	15.18	16.1
Channel				345000	349000	353000	
Frequency (MHz)				1725	1745	1765	
30	QPSK	1	1	15.21	15.36	15.16	16.1
Channel				344800	349000	353500	
Frequency (MHz)				1722.5	1745	1767.5	
25	QPSK	1	1	15.27	15.30	15.21	16.1
Channel				344800	349000	354000	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	1	15.23	15.34	15.24	16.1
Channel				345000	349000	354500	
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	1	15.23	15.33	15.25	16.1
Channel				345000	349000	355000	
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	1	15.21	15.28	15.19	16.1
Channel				342500	349000	355500	
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	1	15.22	15.25	15.20	16.1

n70 Ant 2 EC12							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	MPR (dB)
Channel							
Frequency (MHz)				1702.5			
15	PI2 BPSK	1	1	15.02			
15	PI2 BPSK	1	40	15.55			16.5
15	PI2 BPSK	1	77	15.49			
15	PI2 BPSK	36	0	15.41			16.5
15	PI2 BPSK	36	22	15.59			16.5
15	PI2 BPSK	36	43	15.53			16.5
15	PI2 BPSK	75	0	15.58			16.5
15	QPSK	1	1	15.08			
15	QPSK	1	40	15.63			16.5
15	QPSK	1	77	15.56			
15	QPSK	36	0	15.47			16.5
15	QPSK	36	22	15.62			16.5
15	QPSK	36	43	15.52			16.5
15	QPSK	75	0	15.57			16.5
15	16QAM	1	1	15.51			16.5
15	64QAM	1	1	15.47			16.5
15	256QAM	1	1	15.50			16.5
Channel				345000	349000	349000	
Frequency (MHz)				1700	1702.5	1705	
10	QPSK	1	1	15.51	15.54	15.52	16.5
Channel				339500	345000	349500	
Frequency (MHz)				1697.5	1702.5	1707.5	
5	QPSK	1	1	15.52	15.62	15.54	16.5



n41 HPUE Ant 2 ECI2

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				2546.01	2592.99	2640		
100	PI2 BPSK	1	1	14.08	15.06	15.04		
100	PI2 BPSK	1	137	14.94	14.93	14.83	15.8	0.0
100	PI2 BPSK	1	271	14.85	14.90	14.95		
100	PI2 BPSK	135	0	14.80	14.85	14.91	15.8	0.0
100	PI2 BPSK	135	69	14.93	15.01	14.85	15.8	0.0
100	PI2 BPSK	135	138	14.86	14.91	14.94		
100	PI2 BPSK	270	0	14.82	14.93	14.90		
100	QPSK	1	1	15.05	15.13	15.09		
100	QPSK	1	197	14.99	15.06	15.07	15.8	0.0
100	QPSK	1	271	15.06	14.93	14.92		
100	QPSK	135	0	14.85	15.03	14.82	15.8	0.0
100	QPSK	135	69	15.02	15.05	14.94	15.8	0.0
100	QPSK	135	138	14.85	14.95	14.81	15.8	0.0
100	QPSK	270	0	14.98	15.01	14.92		
100	16QAM	1	1	14.98	15.00	14.91	15.8	0.0
100	16QAM	1	1	14.86	14.88	14.85	15.8	0.0
100	256QAM	1	1	14.90	14.83	14.78	15.8	0.0
Channel								
Frequency (MHz)				2941	2992.99	2644.98		
90	QPSK	1	1	14.99	15.08	15.03	15.8	0.0
Channel								
Frequency (MHz)				507.04	518.98	529.98	Tune-up limit (dBm)	MPR (dB)
80	QPSK	1	1	15.01	15.03	14.97	15.8	0.0
Channel								
Frequency (MHz)				5062.02	5185.98	5310.00	Tune-up limit (dBm)	MPR (dB)
70	QPSK	1	1	14.94	15.10	15.04	15.8	0.0
Channel								
Frequency (MHz)				5052.00	5185.98	5319.98	Tune-up limit (dBm)	MPR (dB)
60	QPSK	1	1	15.00	15.05	14.95	15.8	0.0
Channel								
Frequency (MHz)				2921.02	2992.99	2664.99		
50	QPSK	1	1	15.02	15.06	15.02	15.8	0.0
Channel								
Frequency (MHz)				5037.00	5185.98	5334.98	Tune-up limit (dBm)	MPR (dB)
45	QPSK	1	1	14.93	15.00	14.97	15.8	0.0
Channel								
Frequency (MHz)				5032.02	5185.98	5340.00	Tune-up limit (dBm)	MPR (dB)
40	QPSK	1	1	14.98	15.09	15.02	15.8	0.0
Channel								
Frequency (MHz)				2513.52	2592.99	2672.49		
35	QPSK	1	1	14.99	15.01	14.96	15.8	0.0
Channel								
Frequency (MHz)				5022.01	5185.98	5359.99	Tune-up limit (dBm)	MPR (dB)
30	QPSK	1	1	14.98	15.03	14.97	15.8	0.0
Channel								
Frequency (MHz)				5017.02	5185.98	5350.00	Tune-up limit (dBm)	MPR (dB)
25	QPSK	1	1	14.91	15.00	14.97	15.8	0.0
Channel								
Frequency (MHz)				5012.04	5185.98	5369.99	Tune-up limit (dBm)	MPR (dB)
20	QPSK	1	1	15.00	15.05	14.99	15.8	0.0
Channel								
Frequency (MHz)				2503.5	2592.99	2682.48		
15	QPSK	1	1	14.97	15.02	14.98	15.8	0.0
Channel								
Frequency (MHz)				5002.02	5185.98	5370.00	Tune-up limit (dBm)	MPR (dB)
10	QPSK	1	1	15.01	15.09	14.99	15.8	0.0



n2 Ant 3 EC12

EW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 374000	Power Middle Ch. / Freq. 376000	Power High Ch. / Freq. 378000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	P1/2 BPSK	1	1	16.90	17.02	16.93	17.9	0.0
40	P1/2 BPSK	1	108	16.87	16.94	16.79		
40	P1/2 BPSK	1	214	16.80	16.88	16.89		
40	P1/2 BPSK	108	0	16.90	16.88	16.87	17.9	0.0
40	P1/2 BPSK	108	54	16.88	16.88	16.80	17.9	0.0
40	P1/2 BPSK	108	108	16.85	16.83	16.73	17.9	0.0
40	P1/2 BPSK	216	0	16.76	16.83	16.79	17.9	0.0
40	QPSK	1	1	17.02	17.06	16.98		
40	QPSK	1	108	16.96	17.01	16.97	17.9	0.0
40	QPSK	1	214	16.92	16.98	16.89	17.9	0.0
40	QPSK	108	0	16.95	17.02	16.98		
40	QPSK	108	54	16.86	16.90	16.88		
40	QPSK	108	108	16.86	16.85	16.78	17.9	0.0
40	QPSK	216	0	16.88	16.93	16.83	17.9	0.0
40	16QAM	1	1	16.84	16.87	16.88		
40	64QAM	1	1	16.89	16.89	16.85	17.9	0.0
40	256QAM	1	1	16.86	16.82	16.80	17.9	0.0
Channel								
Frequency (MHz)								
35	QPSK	1	1	16.95	17.01	16.84	0.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	16.91	16.99	16.89	0.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	16.94	16.96	16.91	0.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	16.87	16.91	16.84	0.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	16.89	16.94	16.91	17.9	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	16.95	16.98	16.94	17.9	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	16.94	17.02	16.93	17.9	0.0

n7 Ant 3 EC12

EW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 505000	Power Middle Ch. / Freq. 507000	Power High Ch. / Freq. 509000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
50	P1/2 BPSK	1	1	15.44	15.53	15.51	16.4	0.0
50	P1/2 BPSK	1	135	15.41	15.46	15.35		
50	P1/2 BPSK	1	269	15.32	15.44	15.42		
50	P1/2 BPSK	135	0	15.46	15.43	15.45	16.4	0.0
50	P1/2 BPSK	135	68	15.46	15.40	15.38	16.4	0.0
50	P1/2 BPSK	135	135	15.31	15.42	15.29	16.4	0.0
50	P1/2 BPSK	270	0	15.33	15.37	15.40	16.4	0.0
50	QPSK	1	1	15.60	15.62	15.57		
50	QPSK	1	135	15.53	15.54	15.54	16.4	0.0
50	QPSK	1	269	15.42	15.56	15.50	16.4	0.0
50	QPSK	135	0	15.46	15.47	15.44		
50	QPSK	135	68	15.50	15.53	15.39		
50	QPSK	135	135	15.40	15.41	15.34	16.4	0.0
50	QPSK	270	0	15.42	15.52	15.39	16.4	0.0
50	16QAM	1	1	15.40	15.43	15.43		
50	64QAM	1	1	15.39	15.48	15.34	16.4	0.0
50	256QAM	1	1	15.41	15.42	15.43	16.4	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	15.57	15.58	15.51	16.4	0.0
Channel								
Frequency (MHz)								
35	QPSK	1	1	15.47	15.55	15.44	0.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	15.49	15.56	15.43	16.4	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	15.40	15.50	15.43	16.4	0.0
Channel								
Frequency (MHz)								
20	P1/2 BPSK	1	1	15.46	15.57	15.48	16.4	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	15.48	15.53	15.49	16.4	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	15.53	15.51	15.45	16.4	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	15.49	15.54	15.51	16.4	0.0

n25 Ant 3 EC12

EW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 374000	Power Middle Ch. / Freq. 376000	Power High Ch. / Freq. 378000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	P1/2 BPSK	1	1	16.94	17.06	17.01	17.9	0.0
40	P1/2 BPSK	1	108	16.88	16.89	16.81		
40	P1/2 BPSK	1	214	16.85	16.89	16.85		
40	P1/2 BPSK	108	0	16.92	16.94	16.92	17.9	0.0
40	P1/2 BPSK	108	54	16.88	16.88	16.79	17.9	0.0
40	P1/2 BPSK	108	108	16.82	16.84	16.69	17.9	0.0
40	P1/2 BPSK	216	0	16.81	16.79	16.81		
40	QPSK	1	1	17.09	17.12	17.06	17.9	0.0
40	QPSK	1	108	16.95	17.01	17.02		
40	QPSK	1	214	16.98	17.04	16.90		
40	QPSK	108	0	17.01	17.02	16.91	17.9	0.0
40	QPSK	108	54	16.91	16.88	16.86	17.9	0.0
40	QPSK	108	108	16.85	17.00	16.85	17.9	0.0
40	QPSK	216	0	16.95	16.98	16.89	17.9	0.0
40	16QAM	1	1	16.81	16.89	16.90		
40	64QAM	1	1	16.90	16.88	16.86	17.9	0.0
40	256QAM	1	1	16.82	16.81	16.73	17.9	0.0
Channel								
Frequency (MHz)								
35	QPSK	1	1	16.98	17.06	17.01	17.9	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	17.03	17.05	16.92	17.9	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	16.95	17.03	17.00	17.9	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	17.02	17.09	16.97	17.9	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	17.04	17.03	16.92	17.9	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	17.06	17.01	16.98	17.9	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	16.94	17.07	16.94	17.9	0.0



n30 Ant 3 EC12							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. F.Freq.	Power Middle Ch. F.Freq.	Power High Ch. F.Freq.	MPR (dB)
Channel							
Frequency (MHz)				2310			
10	PI2 BPSK	1	1	16.96			
10	PI2 BPSK	1	26	16.89			18.0
10	PI2 BPSK	1	50	16.91			
10	PI2 BPSK	25	0	16.82			18.0
10	PI2 BPSK	25	14	16.90			18.0
10	PI2 BPSK	25	27	16.83			18.0
10	PI2 BPSK	50	0	16.88			18.0
10	QPSK	1	1	17.03			
10	QPSK	1	26	16.99			18.0
10	QPSK	1	50	16.96			
10	QPSK	25	0	16.91			18.0
10	QPSK	25	14	16.99			18.0
10	QPSK	25	27	16.88			18.0
10	QPSK	50	0	16.97			18.0
10	16QAM	1	1	16.95			18.0
10	64QAM	1	1	16.90			18.0
10	256QAM	1	1	16.92			18.0
Channel				46190	46200	46250	
Frequency (MHz)				2307.5	2310	2312.5	
5	QPSK	1	1	16.90	16.98	16.92	18.0

n66 Ant 3 EC12							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. F.Freq.	Power Middle Ch. F.Freq.	Power High Ch. F.Freq.	MPR (dB)
Channel							
Frequency (MHz)				1720	1745	1760	
40	PI2 BPSK	1	1	17.46	17.55	17.51	
40	PI2 BPSK	1	108	17.37	17.50	17.33	18.5
40	PI2 BPSK	1	214	17.29	17.38	17.35	
40	PI2 BPSK	108	0	17.36	17.30	17.34	18.5
40	PI2 BPSK	108	54	17.38	17.42	17.36	18.5
40	PI2 BPSK	108	108	17.34	17.25	17.24	18.5
40	PI2 BPSK	216	0	17.27	17.39	17.36	18.5
40	QPSK	1	1	17.53	17.62	17.59	
40	QPSK	1	108	17.45	17.54	17.54	18.5
40	QPSK	1	214	17.43	17.50	17.42	
40	QPSK	108	0	17.44	17.47	17.48	18.5
40	QPSK	108	54	17.48	17.54	17.39	18.5
40	QPSK	108	108	17.33	17.36	17.30	18.5
40	QPSK	216	0	17.34	17.47	17.41	18.5
40	16QAM	1	1	17.31	17.35	17.36	18.5
40	64QAM	1	1	17.35	17.36	17.31	18.5
40	256QAM	1	1	17.28	17.40	17.33	18.5
Channel				34500	34900	35200	
Frequency (MHz)				1727.5	1745	1762.5	
35	QPSK	1	1	17.42	17.55	17.50	18.5
Channel				34500	34900	35300	
Frequency (MHz)				1725	1745	1765	
30	QPSK	1	1	17.39	17.49	17.53	18.5
Channel				34400	34900	35300	
Frequency (MHz)				1722.5	1745	1767.5	
25	QPSK	1	1	17.47	17.51	17.54	18.5
Channel				34400	34900	35400	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	1	17.48	17.49	17.47	18.5
Channel				34300	34900	35500	
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	1	17.45	17.56	17.45	18.5
Channel				34300	34900	35500	
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	1	17.40	17.58	17.50	18.5
Channel				34200	34900	35500	
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	1	17.47	17.45	17.45	18.5

n70 Ant 3 EC12							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. F.Freq.	Power Middle Ch. F.Freq.	Power High Ch. F.Freq.	MPR (dB)
Channel							
Frequency (MHz)				1722.5			
15	PI2 BPSK	1	1	17.50			
15	PI2 BPSK	1	40	17.88			18.9
15	PI2 BPSK	1	77	17.79			
15	PI2 BPSK	36	0	17.81			18.9
15	PI2 BPSK	36	22	17.85			18.9
15	PI2 BPSK	36	43	17.68			18.9
15	PI2 BPSK	75	0	17.73			18.9
15	QPSK	1	1	17.94			
15	QPSK	1	40	17.91			18.9
15	QPSK	1	77	17.87			
15	QPSK	36	0	17.80			18.9
15	QPSK	36	22	17.86			18.9
15	QPSK	36	43	17.89			18.9
15	QPSK	75	0	17.73			18.9
15	16QAM	1	1	17.83			18.9
15	64QAM	1	1	17.86			18.9
15	256QAM	1	1	17.88			18.9
Channel				34500	34900	34900	
Frequency (MHz)				1700	1702.5	1705	
10	QPSK	1	1	17.81	17.89	17.83	18.9
Channel				33500	34000	34500	
Frequency (MHz)				1697.5	1702.5	1707.5	
5	QPSK	1	1	17.80	17.85	17.79	18.9



n48 Part 96 Ant 4 EC12

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	15.10	15.21	15.13		
40	PI2 BPSK	1	53	15.03	15.17	15.05	16.1	0.0
40	PI2 BPSK	1	104	15.05	15.11	15.04		
40	PI2 BPSK	50	0	15.05	15.09	15.02	16.1	0.0
40	PI2 BPSK	50	28	15.03	15.17	15.11	16.1	0.0
40	PI2 BPSK	50	56	15.01	15.06	15.03	16.1	0.0
40	PI2 BPSK	100	0	15.03	15.06	15.03		
40	QPSK	1	1	15.23	15.26	15.21		
40	QPSK	1	53	15.11	15.20	15.14	16.1	0.0
40	QPSK	1	104	15.05	15.22	15.16		
40	QPSK	50	0	15.16	15.18	15.15	16.1	0.0
40	QPSK	50	28	15.17	15.23	15.14	16.1	0.0
40	QPSK	50	56	15.09	15.15	15.02	16.1	0.0
40	QPSK	100	0	15.12	15.16	15.17		
40	16QAM	1	1	15.01	15.06	15.06	16.1	0.0
40	64QAM	1	1	15.04	15.09	15.04		
40	256QAM	1	1	15.01	15.06	15.03	15.1	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	15.19	15.21	15.10	16.1	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	15.17	15.20	15.18	16.1	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	15.16	15.19	15.12	16.1	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	15.19	15.21	15.07	16.1	0.0

Part270 n77 HPUE Ant 4 EC12

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	15.19	15.21	15.21		
100	PI2 BPSK	1	137	15.14	15.19	15.02	16.2	0.0
100	PI2 BPSK	1	271	14.99	15.10	15.17		
100	PI2 BPSK	135	0	14.99	15.00	15.11	16.2	0.0
100	PI2 BPSK	135	69	15.08	15.15	14.96	16.2	0.0
100	PI2 BPSK	135	138	15.05	15.18	15.04	16.2	0.0
100	PI2 BPSK	270	0	15.04	15.19	15.06		
100	QPSK	1	1	15.25	15.31	15.29		
100	QPSK	1	197	15.20	15.23	15.25	16.2	0.0
100	QPSK	1	271	15.04	15.22	15.11		
100	QPSK	135	0	15.08	15.19	15.10	16.2	0.0
100	QPSK	135	69	15.17	15.26	15.22	16.2	0.0
100	QPSK	135	138	15.07	15.12	15.06	16.2	0.0
100	QPSK	270	0	14.96	15.23	15.06	16.2	0.0
100	16QAM	1	1	15.10	15.12	15.03	16.2	0.0
100	64QAM	1	1	15.12	15.16	15.01	16.2	0.0
100	256QAM	1	1	15.01	15.09	15.06	16.2	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	15.20	15.21	15.18	16.2	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	15.19	15.23	15.16	16.2	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	15.14	15.21	15.24	16.2	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	15.13	15.17	15.25	16.2	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	15.19	15.19	15.17	16.2	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	15.15	15.26	15.23	16.2	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	15.13	15.22	15.22	16.2	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	15.18	15.18	15.15	16.2	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	15.21	15.25	15.18	16.2	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	15.11	15.16	15.16	16.2	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	15.17	15.21	15.18	16.2	0.0

Part270 n77 HPUE Ant 4 EC12

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	15.16	15.16	15.16		
100	PI2 BPSK	1	137	15.08	15.18	15.08	16.2	0.0
100	PI2 BPSK	1	271	14.91	15.10	15.17		
100	PI2 BPSK	135	0	14.91	15.11	15.11	16.2	0.0
100	PI2 BPSK	135	69	15.01	15.15	14.96	16.2	0.0
100	PI2 BPSK	135	138	14.96	15.18	14.96	16.2	0.0
100	PI2 BPSK	270	0	15.09	15.19	15.06		
100	QPSK	1	1	15.19	15.19	15.19		
100	QPSK	1	197	15.18	15.18	15.18	16.2	0.0
100	QPSK	1	271	15.08	15.22	15.11		
100	QPSK	135	0	15.03	15.19	15.10	16.2	0.0
100	QPSK	135	69	15.10	15.20	15.22	16.2	0.0
100	QPSK	135	138	14.97	15.12	15.06	16.2	0.0
100	QPSK	270	0	15.05	15.16	15.06	16.2	0.0
100	16QAM	1	1	15.00	15.00	15.00	16.2	0.0
100	64QAM	1	1	15.04	15.04	15.04	16.2	0.0
100	256QAM	1	1	14.93	14.93	14.93	16.2	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	15.07	15.11	14.96	16.2	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	15.09	15.13	15.00	16.2	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	14.99	15.10	15.05	16.2	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	15.09	15.04	15.03	16.2	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	15.18	15.15	15.15	16.2	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	15.01	15.13	14.98	16.2	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	15.04	15.16	14.95	16.2	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	15.04	15.06	15.04	16.2	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	14.99	15.06	15.06	16.2	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	15.01	15.01	15.03	16.2	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	15.08	15.12	14.96	16.2	0.0



Part270 n78 HPUE Ant 4 EC12									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. F.Freq.	Power Mid Ch. F.Freq.	Power High Ch. F.Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	Pl2 BPSK	1	1		3750				
100	Pl2 BPSK	1	1		14.92				
100	Pl2 BPSK	1	137		14.86		16.2	0.0	
100	Pl2 BPSK	1	271		14.88				
100	Pl2 BPSK	135	0		14.86		16.2	0.0	
100	Pl2 BPSK	135	69		14.78		16.2	0.0	
100	Pl2 BPSK	135	138		14.74		16.2	0.0	
100	Pl2 BPSK	270	0		14.80		16.2	0.0	
100	QPSK	1	1		14.95				
100	QPSK	1	137		14.79		16.2	0.0	
100	QPSK	1	271		14.78				
100	QPSK	135	0		14.78		16.2	0.0	
100	QPSK	135	69		14.89		16.2	0.0	
100	QPSK	135	138		14.78		16.2	0.0	
100	QPSK	270	0		14.93		16.2	0.0	
100	16QAM	1	1		14.79		16.2	0.0	
100	64QAM	1	1		14.70		16.2	0.0	
100	256QAM	1	1		14.69		16.2	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	3745.02	3750	3755.01	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
80	QPSK	1	1	14.82	14.85	14.77	16.2	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	14.89	14.90	14.75	16.2	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	14.76	14.88	14.76	16.2	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	14.84	14.88	14.82	16.2	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	14.78	14.90	14.80	16.2	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	14.70	14.91	14.78	16.2	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	14.80	14.85	14.74	16.2	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	14.78	14.88	14.78	16.2	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	14.74	14.90	14.75	16.2	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	14.78	14.82	14.77	16.2	0.0	

Part27Q n78 HPUE Ant 4 EC12									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. F.Freq.	Power Mid Ch. F.Freq.	Power High Ch. F.Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	Pl2 BPSK	1	1		3500.01				
100	Pl2 BPSK	1	1		15.16				
100	Pl2 BPSK	1	137		15.05		16.2	0.0	
100	Pl2 BPSK	1	271		15.00				
100	Pl2 BPSK	135	0		14.85		16.2	0.0	
100	Pl2 BPSK	135	69		15.06		16.2	0.0	
100	Pl2 BPSK	135	138		15.09		16.2	0.0	
100	Pl2 BPSK	270	0		15.01		16.2	0.0	
100	QPSK	1	1		15.22				
100	QPSK	1	137		15.12		16.2	0.0	
100	QPSK	1	271		15.11				
100	QPSK	135	0		15.10		16.2	0.0	
100	QPSK	135	69		15.16		16.2	0.0	
100	QPSK	135	138		15.03		16.2	0.0	
100	QPSK	270	0		15.10		16.2	0.0	
100	16QAM	1	1		14.98		16.2	0.0	
100	64QAM	1	1		15.02		16.2	0.0	
100	256QAM	1	1		15.00		16.2	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	3495	3500.01	3505.02	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
80	QPSK	1	1	15.05	15.06	15.00	16.2	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	15.08	15.17	15.02	16.2	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	15.04	15.11	14.98	16.2	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	15.10	15.16	14.99	16.2	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	15.07	15.16	14.96	16.2	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	15.00	15.16	15.06	16.2	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	15.01	15.09	15.03	16.2	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	15.01	15.11	15.03	16.2	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	15.09	15.12	15.01	16.2	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	15.05	15.17	14.98	16.2	0.0	



Part270 n78 HPUE Ant 6 EC12									
Channel	Power Low Ch./ Freq.	Power High Ch./ Freq.	Power Mid Ch./ Freq.	Tune-up limit (dBm)	MPR (dB)				
Channel									
Frequency (MHz)			3750						
100 P1/2 BPSK	1	1	12.12						
100 P1/2 BPSK	1	137	12.28		13.6				
100 P1/2 BPSK	1	271	12.23		13.6				
100 P1/2 BPSK	135	0	12.19		13.6				
100 P1/2 BPSK	135	89	12.28		13.6				
100 P1/2 BPSK	135	138	12.17		13.6				
100 P1/2 BPSK	270	0	12.27		13.6				
100 QPSK	1	1	12.36		13.6				
100 QPSK	1	137	12.25		13.6				
100 QPSK	1	271	12.28		13.6				
100 QPSK	135	0	12.25		13.6				
100 QPSK	135	89	12.31		13.6				
100 QPSK	135	138	12.23		13.6				
100 QPSK	270	0	12.28		13.6				
100 16QAM	1	1	12.17		13.6				
100 64QAM	1	1	12.14		13.6				
100 256QAM	1	1	12.18		13.6				
Channel	64988	65000	65334	Tune-up limit	MPR				
Frequency (MHz)	3745.02	3750	3755.01	(dBm)	(dB)				
90 QPSK	1	1	12.23	12.31	12.17				
Channel	64934	65000	65068	Tune-up limit	MPR				
Frequency (MHz)	3749.01	3750	3750.02	(dBm)	(dB)				
80 QPSK	1	1	12.14	12.23	12.21				
Channel	64900	65000	65100	Tune-up limit	MPR				
Frequency (MHz)	3735	3750	3765	(dBm)	(dB)				
70 QPSK	1	1	12.18	12.25	12.20				
Channel	64868	65000	65134	Tune-up limit	MPR				
Frequency (MHz)	3730.02	3750	3770.01	(dBm)	(dB)				
60 QPSK	1	1	12.21	12.32	12.25				
Channel	64834	65000	65166	Tune-up limit	MPR				
Frequency (MHz)	3725.01	3750	3775.02	(dBm)	(dB)				
50 QPSK	1	1	12.18	12.30	12.25				
Channel	64800	65000	65200	Tune-up limit	MPR				
Frequency (MHz)	3720	3750	3780	(dBm)	(dB)				
40 QPSK	1	1	12.17	12.27	12.22				
Channel	64768	65000	65234	Tune-up limit	MPR				
Frequency (MHz)	3715.02	3750	3785.01	(dBm)	(dB)				
30 QPSK	1	1	12.19	12.24	12.22				
Channel	64734	65000	65250	Tune-up limit	MPR				
Frequency (MHz)	3712.5	3750	3787.5	(dBm)	(dB)				
25 QPSK	1	1	12.22	12.33	12.20				
Channel	64700	65000	65268	Tune-up limit	MPR				
Frequency (MHz)	3710.02	3750	3792.51	(dBm)	(dB)				
20 QPSK	1	1	12.21	12.24	12.20				
Channel	64768	65000	65284	Tune-up limit	MPR				
Frequency (MHz)	3707.52	3750	3795.01	(dBm)	(dB)				
15 QPSK	1	1	12.21	12.33	12.27				
Channel	64700	65000	65300	Tune-up limit	MPR				
Frequency (MHz)	3705	3750	3795	(dBm)	(dB)				
10 QPSK	1	1	12.23	12.28	12.22				

Part27Q n78 HPUE Ant 6 EC12									
Channel	Power Low Ch./ Freq.	Power High Ch./ Freq.	Power Mid Ch./ Freq.	Tune-up limit (dBm)	MPR (dB)				
Channel									
Frequency (MHz)			3500.01						
100 P1/2 BPSK	1	1	12.54						
100 P1/2 BPSK	1	137	12.59		13.6				
100 P1/2 BPSK	1	271	12.51		13.6				
100 P1/2 BPSK	135	0	12.43		13.6				
100 P1/2 BPSK	135	89	12.61		13.6				
100 P1/2 BPSK	135	138	12.52		13.6				
100 P1/2 BPSK	270	0	12.58		13.6				
100 QPSK	1	1	12.69		13.6				
100 QPSK	1	137	12.61		13.6				
100 QPSK	1	271	12.56		13.6				
100 QPSK	135	0	12.60		13.6				
100 QPSK	135	89	12.64		13.6				
100 QPSK	135	138	12.51		13.6				
100 QPSK	270	0	12.55		13.6				
100 16QAM	1	1	12.48		13.6				
100 64QAM	1	1	12.53		13.6				
100 256QAM	1	1	12.50		13.6				
Channel	63300	63334	63668	Tune-up limit	MPR				
Frequency (MHz)	3495	3500.01	3505.02	(dBm)	(dB)				
90 QPSK	1	1	12.54	12.62	12.45				
Channel	63268	63334	63400	Tune-up limit	MPR				
Frequency (MHz)	3499.02	3500.01	3510	(dBm)	(dB)				
80 QPSK	1	1	12.51	12.55	12.49				
Channel	63234	63334	63434	Tune-up limit	MPR				
Frequency (MHz)	3485.01	3500.01	3515.01	(dBm)	(dB)				
70 QPSK	1	1	12.50	12.59	12.57				
Channel	63200	63334	63468	Tune-up limit	MPR				
Frequency (MHz)	3480	3500.01	3520.02	(dBm)	(dB)				
60 QPSK	1	1	12.53	12.57	12.51				
Channel	63166	63334	63500	Tune-up limit	MPR				
Frequency (MHz)	3475.02	3500.01	3525	(dBm)	(dB)				
50 QPSK	1	1	12.53	12.64	12.53				
Channel	63134	63334	63534	Tune-up limit	MPR				
Frequency (MHz)	3470.01	3500.01	3530.01	(dBm)	(dB)				
40 QPSK	1	1	12.62	12.64	12.56				
Channel	63100	63334	63568	Tune-up limit	MPR				
Frequency (MHz)	3465	3500.01	3535.02	(dBm)	(dB)				
30 QPSK	1	1	12.61	12.61	12.50				
Channel	63068	63334	63600	Tune-up limit	MPR				
Frequency (MHz)	3460.02	3500.01	3540	(dBm)	(dB)				
25 QPSK	1	1	12.51	12.58	12.54				
Channel	63034	63334	63634	Tune-up limit	MPR				
Frequency (MHz)	3455.01	3500.01	3545.01	(dBm)	(dB)				
20 QPSK	1	1	12.58	12.64	12.54				
Channel	63000	63334	63668	Tune-up limit	MPR				
Frequency (MHz)	3450	3500.01	3550.02	(dBm)	(dB)				
15 QPSK	1	1	12.60	12.60	12.52				
Channel	63034	63334	63634	Tune-up limit	MPR				
Frequency (MHz)	3455.01	3500.01	3545.01	(dBm)	(dB)				
10 QPSK	1	1	12.58	12.61	12.48				



n48 Part 96 Ant 8 EC12										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. F.Freq.	Power Middle Ch. F.Freq.	Power High Ch. F.Freq.	Tune-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)										
40	PI2 BPSK	1	1	16.55	16.67	16.61				
40	PI2 BPSK	1	53	16.47	16.53	16.44	17.6	0.0		
40	PI2 BPSK	1	104	16.32	16.48	16.48				
40	PI2 BPSK	50	0	16.50	16.41	16.51	17.6	0.0		
40	PI2 BPSK	50	28	16.46	16.48	16.46				
40	PI2 BPSK	50	56	16.37	16.44	16.33	17.6	0.0		
40	PI2 BPSK	100	0	16.34	16.50	16.46				
40	QPSK	1	1	16.59	16.71	16.66				
40	QPSK	1	53	16.55	16.67	16.60	17.6	0.0		
40	QPSK	1	104	16.56	16.57	16.51				
40	QPSK	50	0	16.53	16.55	16.55	17.6	0.0		
40	QPSK	50	28	16.47	16.62	16.54	17.6	0.0		
40	QPSK	50	56	16.52	16.49	16.47	17.6	0.0		
40	QPSK	100	0	16.38	16.56	16.50				
40	16QAM	1	1	16.43	16.52	16.41	17.6	0.0		
40	64QAM	1	1	16.50	16.55	16.46	17.6	0.0		
40	256QAM	1	1	16.40	16.49	16.45	17.5	0.1		
Channel										
Frequency (MHz)										
30	QPSK	1	1	16.53	16.59	16.54	17.6	0.0		
Channel										
Frequency (MHz)										
20	QPSK	1	1	16.48	16.56	16.54	17.6	0.0		
Channel										
Frequency (MHz)										
16	QPSK	1	1	16.47	16.50	16.57	17.3	0.0		
Channel										
Frequency (MHz)										
10	QPSK	1	1	16.45	16.66	16.59	17.6	0.0		

Part270 n77 HPUE Ant 8 EC12										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. F.Freq.	Power Middle Ch. F.Freq.	Power High Ch. F.Freq.	Tune-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)										
100	PI2 BPSK	1	1	16.42	16.54	16.54				
100	PI2 BPSK	1	137	16.41	16.57	16.33	17.3	0.0		
100	PI2 BPSK	1	271	16.28	16.27	16.32				
100	PI2 BPSK	135	0	16.26	16.36	16.36	17.3	0.0		
100	PI2 BPSK	135	69	16.45	16.41	16.36	17.3	0.0		
100	PI2 BPSK	135	138	16.27	16.29	16.33				
100	PI2 BPSK	270	0	16.29	16.41	16.35	17.3	0.0		
100	QPSK	1	1	16.50	16.59	16.57				
100	QPSK	1	137	16.47	16.53	16.44	17.3	0.0		
100	QPSK	1	271	16.38	16.42	16.47				
100	QPSK	135	0	16.44	16.52	16.40	17.3	0.0		
100	QPSK	135	69	16.44	16.55	16.45	17.3	0.0		
100	QPSK	135	138	16.30	16.34	16.31	17.3	0.0		
100	QPSK	270	0	16.36	16.44	16.36				
100	16QAM	1	1	16.40	16.39	16.37	17.3	0.0		
100	64QAM	1	1	16.40	16.37	16.30	17.3	0.0		
100	256QAM	1	1	16.28	16.39	16.36	17.3	0.0		
Channel										
Frequency (MHz)										
80	QPSK	1	1	16.36	16.50	16.47	17.3	0.0		
Channel										
Frequency (MHz)										
80	QPSK	1	1	16.41	16.50	16.46	17.3	0.0		
Channel										
Frequency (MHz)										
70	QPSK	1	1	16.39	16.51	16.45	17.3	0.0		
Channel										
Frequency (MHz)										
60	QPSK	1	1	16.44	16.44	16.48	17.3	0.0		
Channel										
Frequency (MHz)										
50	QPSK	1	1	16.44	16.45	16.50	17.3	0.0		
Channel										
Frequency (MHz)										
40	QPSK	1	1	16.44	16.49	16.50	17.3	0.0		
Channel										
Frequency (MHz)										
30	QPSK	1	1	16.42	16.50	16.44	17.3	0.0		
Channel										
Frequency (MHz)										
25	QPSK	1	1	16.35	16.55	16.47	17.3	0.0		
Channel										
Frequency (MHz)										
20	QPSK	1	1	16.42	16.49	16.43	17.3	0.0		
Channel										
Frequency (MHz)										
15	QPSK	1	1	16.37	16.55	16.46	17.3	0.0		
Channel										
Frequency (MHz)										
10	QPSK	1	1	16.41	16.53	16.46	17.3	0.0		

Part270Q n77 HPUE Ant 8 EC12										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. F.Freq.	Power Middle Ch. F.Freq.	Power High Ch. F.Freq.	Tune-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)										
100	PI2 BPSK	1	1		16.50					
100	PI2 BPSK	1	137		16.85		17.3	0.0		
100	PI2 BPSK	1	271		16.57					
100	PI2 BPSK	135	0		16.53		17.3	0.0		
100	PI2 BPSK	135	69		16.72		17.3	0.0		
100	PI2 BPSK	135	138		16.49		17.3	0.0		
100	PI2 BPSK	270	0		16.67					
100	QPSK	1	1		16.84					
100	QPSK	1	137		16.80		17.3	0.0		
100	QPSK	1	271		16.78					
100	QPSK	135	0		16.71		17.3	0.0		
100	QPSK	135	69		16.77		17.3	0.0		
100	QPSK	135	138		16.83		17.3	0.0		
100	QPSK	270	0		16.69		17.3	0.0		
100	16QAM	1	1		16.82		17.3	0.0		
100	64QAM	1	1		16.86		17.3	0.0		
100	256QAM	1	1		16.58		17.3	0.0		
Channel										
Frequency (MHz)										
80	QPSK	1	1	16.38	16.50	16.47	17.3	0.0		
Channel										
Frequency (MHz)										
80	QPSK	1	1	16.41	16.50	16.46	17.3	0.0		
Channel										
Frequency (MHz)										
70	QPSK	1	1	16.39	16.51	16.45	17.3	0.0		
Channel										
Frequency (MHz)										
60	QPSK	1	1	16.44	16.44	16.48	17.3	0.0		
Channel										
Frequency (MHz)										
50	QPSK	1	1	16.44	16.45	16.50	17.3	0.0		
Channel										
Frequency (MHz)										
40	QPSK	1	1	16.44	16.49	16.50	17.3	0.0		
Channel										
Frequency (MHz)										
30	QPSK	1	1	16.42	16.50	16.44	17.3	0.0		
Channel										
Frequency (MHz)										
25	QPSK	1	1	16.35	16.55	16.47	17.3	0.0		
Channel										
Frequency (MHz)										
20	QPSK	1	1	16.42	16.49	16.43	17.3	0.0		
Channel										
Frequency (MHz)										
15	QPSK	1	1	16.37	16.55	16.46	17.3	0.0		
Channel										
Frequency (MHz)										
10	QPSK	1	1	16.41	16.53	16.46	17.3	0.0		



Part270 n78 HPUE Ant 8 EC12									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. F. Freq.	Power Mid Ch. F. Freq.	Power High Ch. F. Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	Pl2 BPSK	1	1		3750				
100	Pl2 BPSK	1	1	1627	1627	1627	17.3	0.0	
100	Pl2 BPSK	1	271		1620				
100	Pl2 BPSK	135	0		1613		17.3	0.0	
100	Pl2 BPSK	135	69		1615		17.3	0.0	
100	Pl2 BPSK	135	138		1607		17.3	0.0	
100	Pl2 BPSK	270	0		1624		17.3	0.0	
100	QPSK	1	1		1641				
100	QPSK	1	137		1639		17.3	0.0	
100	QPSK	1	271		1634				
100	QPSK	135	0		1624		17.3	0.0	
100	QPSK	135	69		1637		17.3	0.0	
100	QPSK	135	138		1622		17.3	0.0	
100	QPSK	270	0		1630		17.3	0.0	
100	16QAM	1	1		1621		17.3	0.0	
100	64QAM	1	1		1626		17.3	0.0	
100	256QAM	1	1		1634		17.3	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	3745.02	3750	3750.01	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
80	QPSK	1	1	1620	1631	1619	17.3	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	1627	1627	1629	17.3	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	1620	1636	1618	17.3	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	1621	1629	1626	17.3	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	1630	1628	1627	17.3	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	1629	1628	1628	17.3	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	1625	1629	1621	17.3	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	1629	1636	1629	17.3	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	1628	1632	1621	17.3	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	1620	1637	1619	17.3	0.0	

Part27Q n78 HPUE Ant 8 EC12									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. F. Freq.	Power Mid Ch. F. Freq.	Power High Ch. F. Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	Pl2 BPSK	1	1		3500.01				
100	Pl2 BPSK	1	137		1635				
100	Pl2 BPSK	1	271		1630		17.3	0.0	
100	Pl2 BPSK	135	0		1641		17.3	0.0	
100	Pl2 BPSK	135	69		1642		17.3	0.0	
100	Pl2 BPSK	135	138		1636		17.3	0.0	
100	Pl2 BPSK	270	0		1629		17.3	0.0	
100	Pl2 BPSK	270	0		1636		17.3	0.0	
100	QPSK	1	1		1663				
100	QPSK	1	137		1658		17.3	0.0	
100	QPSK	1	271		1652				
100	QPSK	135	0		1649		17.3	0.0	
100	QPSK	135	69		1656		17.3	0.0	
100	QPSK	135	138		1643		17.3	0.0	
100	QPSK	270	0		1644		17.3	0.0	
100	16QAM	1	1		1636		17.3	0.0	
100	64QAM	1	1		1632		17.3	0.0	
100	256QAM	1	1		1630		17.3	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	3495	3500.01	3500.02	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
80	QPSK	1	1	1641	1652	1650	17.3	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	1649	1651	1643	17.3	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	1643	1649	1650	17.3	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	1653	1658	1643	17.3	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	1645	1656	1638	17.3	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	1652	1660	1646	17.3	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	1644	1653	1638	17.3	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	1652	1657	1646	17.3	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	1652	1653	1645	17.3	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	1643	1649	1641	17.3	0.0	



n2 Ant 0 ECI3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
1870 1880 1890									
40	PI2 BPSK	1	1	21.01	21.07	20.99			
40	PI2 BPSK	1	108	20.96	20.94	20.95	22.1	0.0	
40	PI2 BPSK	1	214	20.90	20.93	20.85			
40	PI2 BPSK	108	0	20.92	21.02	20.82	22.1	0.0	
40	PI2 BPSK	108	54	20.96	20.96	20.88	22.1	0.0	
40	PI2 BPSK	108	108	20.83	20.83	20.84	22.1	0.0	
40	PI2 BPSK	216	0	20.92	20.97	20.90			
40	QPSK	1	1	21.05	21.14	21.11			
40	QPSK	1	108	20.96	21.06	20.99	22.1	0.0	
40	QPSK	1	214	20.85	21.01	20.80			
40	QPSK	108	0	20.91	20.99	20.90	22.1	0.0	
40	QPSK	108	54	20.90	21.08	20.91	22.1	0.0	
40	QPSK	108	108	20.83	20.96	20.85	22.1	0.0	
40	QPSK	216	0	20.93	21.02	20.93			
40	16QAM	1	1	20.88	20.98	20.88	22.1	0.0	
40	64QAM	1	1	20.21	20.36	20.23	21.6	0.5	
40	256QAM	1	1	18.80	18.83	18.74	18.6	2.5	
Channel									
Frequency (MHz)									
1887.5 1880 1892.5									
35	QPSK	1	1	20.93	21.01	20.97	0.0	0.0	
Channel									
Frequency (MHz)									
37300 37600 37900									
30	QPSK	1	1	20.89	21.04	21.00	0.0	0.0	
Channel									
Frequency (MHz)									
37250 37600 37950									
25	QPSK	1	1	20.84	21.00	21.04	0.0	0.0	
Channel									
Frequency (MHz)									
37200 37600 38000									
20	QPSK	1	1	20.89	21.00	21.04	0.0	0.0	
Channel									
Frequency (MHz)									
37150 37600 38050									
15	QPSK	1	1	20.97	21.00	20.99	22.1	0.0	
Channel									
Frequency (MHz)									
37100 37600 38100									
10	QPSK	1	1	20.90	21.05	21.03	22.1	0.0	
Channel									
Frequency (MHz)									
37050 37600 38150									
5	QPSK	1	1	20.91	21.07	21.02	22.1	0.0	

n5 Ant 0 ECI3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
1834 188.5 189									
20	PI2 BPSK	1	1	23.12	23.22	23.10			
20	PI2 BPSK	1	83	23.07	23.06	23.14	24.0	0.0	
20	PI2 BPSK	1	104	23.11	23.13	22.99			
20	PI2 BPSK	50	0	22.54	22.61	22.59	23.5	0.5	
20	PI2 BPSK	50	26	22.08	22.18	22.10	24.0	0.0	
20	PI2 BPSK	50	66	22.27	22.23	22.41			
20	PI2 BPSK	100	0	22.58	22.66	22.38	23.5	0.5	
20	QPSK	1	1	23.23	23.29	23.19			
20	QPSK	1	83	23.26	23.27	22.96	24.0	0.0	
20	QPSK	1	104	23.10	23.17	23.05			
20	QPSK	50	0	22.09	22.10	21.88	23.0	1.0	
20	QPSK	50	26	23.12	23.28	23.11	24.0	0.0	
20	QPSK	50	66	22.02	22.13	21.85	23.0	1.0	
20	QPSK	100	0	22.32	22.17	21.89			
20	16QAM	1	1	21.97	22.08	21.93	23.0	1.0	
20	64QAM	1	1	20.73	20.76	20.54	21.5	2.5	
20	256QAM	1	1	18.20	18.36	18.24	18.5	4.5	
Channel									
Frequency (MHz)									
1839.5 188.5 181.5									
15	QPSK	1	1	23.13	23.24	23.11	24.0	0.0	
Channel									
Frequency (MHz)									
1838 188.5 184									
10	QPSK	1	1	23.14	23.16	23.16	24.0	0.0	
Channel									
Frequency (MHz)									
1836.5 188.5 186.5									
5	QPSK	1	1	23.08	23.21	23.14	24.0	0.0	

n7 Ant 0 ECI3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
2525 2535 2545									
50	PI2 BPSK	1	1	20.63	20.72	20.64			
50	PI2 BPSK	1	135	20.55	20.53	20.51	21.7	0.0	
50	PI2 BPSK	1	268	20.43	20.48	20.46			
50	PI2 BPSK	135	0	20.46	20.59	20.46	21.7	0.0	
50	PI2 BPSK	135	68	20.57	20.52	20.44	21.7	0.0	
50	PI2 BPSK	135	135	20.41	20.35	20.43			
50	PI2 BPSK	270	0	20.47	20.59	20.52	21.7	0.0	
50	QPSK	1	1	20.70	20.78	20.75			
50	QPSK	1	135	20.68	20.72	20.65	21.7	0.0	
50	QPSK	1	268	20.59	20.66	20.63			
50	QPSK	135	0	20.48	20.61	20.44	21.7	0.0	
50	QPSK	135	68	20.35	20.67	20.47	21.7	0.0	
50	QPSK	135	135	20.48	20.58	20.49	21.7	0.0	
50	QPSK	270	0	20.25	20.59	20.51			
50	16QAM	1	1	20.49	20.51	20.48	21.7	0.0	
50	64QAM	1	1	20.37	20.42	20.31	21.5	0.2	
50	256QAM	1	1	18.06	18.06	18.01	18.5	2.2	
Channel									
Frequency (MHz)									
2520 2530 2540									
40	QPSK	1	1	20.63	20.69	20.60	21.7	0.0	
Channel									
Frequency (MHz)									
2517.5 2528 2525.5									
35	QPSK	1	1	20.58	20.72	20.68	0.0	0.0	
Channel									
Frequency (MHz)									
2516 2525 2525.5									
30	QPSK	1	1	20.63	20.67	20.63	21.7	0.0	
Channel									
Frequency (MHz)									
2512.5 2535 2537.5									
25	QPSK	1	1	20.62	20.70	20.64	21.7	0.0	
Channel									
Frequency (MHz)									
2510 2535 2535									
20	PI2 BPSK	1	1	20.60	20.69	20.72	21.7	0.0	
Channel									
Frequency (MHz)									
2507.5 2538 2525.5									
15	QPSK	1	1	20.65	20.68	20.64	21.7	0.0	
Channel									
Frequency (MHz)									
2505 2535 2535									
10	QPSK	1	1	20.81	20.73	20.62	21.7	0.0	
Channel									
Frequency (MHz)									
2502.5 2535 2537.5									
5	QPSK	1	1	20.65	20.71	20.66	21.7	0.0	



n12 Ant 0 ECI3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
15	PI/2 BPSK	1	1	23.07	23.19	23.03			
15	PI/2 BPSK	1	40	23.01	23.05	23.05	24.0	0.0	
15	PI/2 BPSK	1	77	23.01	23.07	22.97			
15	PI/2 BPSK	36	0	22.46	22.54	22.51	23.5	0.5	
15	PI/2 BPSK	36	22	23.85	23.07	22.98	24.0	0.0	
15	PI/2 BPSK	36	43	22.25	22.43	22.37	23.5	0.5	
15	PI/2 BPSK	75	0	22.51	22.58	22.37			
15	QPSK	1	1	23.13	23.27	23.08			
15	QPSK	1	40	23.15	23.17	22.95	24.0	0.0	
15	QPSK	1	77	23.01	23.10	22.99			
15	QPSK	36	0	22.00	22.05	21.84	23.0	1.0	
15	QPSK	36	22	23.04	23.24	23.01	24.0	0.0	
15	QPSK	36	43	22.00	22.05	21.84	23.0	1.0	
15	16QAM	1	1	21.94	21.98	21.85	23.0	1.0	
15	16QAM	1	1	20.67	20.54	20.54	21.5	2.5	
15	256QAM	1	1	18.17	18.31	18.26	18.5	4.5	
Channel									
Frequency (MHz)									
10	QPSK	1	1	23.08	23.16	23.04	24.0	0.0	
Channel									
Frequency (MHz)									
5	QPSK	1	1	23.10	23.14	22.95	24.0	0.0	

n14 Ant 0 ECI3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
10	PI/2 BPSK	1	1	23.57	23.57	23.57			
10	PI/2 BPSK	1	26	23.36	23.36	23.36	24.0	0.0	
10	PI/2 BPSK	1	50	23.39	23.39	23.39			
10	PI/2 BPSK	25	0	22.88	22.88	22.88	23.5	0.5	
10	PI/2 BPSK	25	14	23.43	23.43	23.43	24.0	0.0	
10	PI/2 BPSK	25	27	22.81	22.81	22.81	23.5	0.5	
10	PI/2 BPSK	50	0	22.89	22.89	22.89			
10	QPSK	1	1	23.63	23.63	23.63			
10	QPSK	1	26	23.46	23.46	23.46	24.0	0.0	
10	QPSK	1	50	23.45	23.45	23.45			
10	QPSK	25	0	22.40	22.40	22.40	23.0	1.0	
10	QPSK	25	14	23.55	23.55	23.55	24.0	0.0	
10	QPSK	25	27	22.40	22.40	22.40	23.0	1.0	
10	QPSK	50	0	22.44	22.44	22.44			
10	16QAM	1	1	22.39	22.39	22.39	23.0	1.0	
10	16QAM	1	1	21.04	21.04	21.04	21.5	2.5	
10	256QAM	1	1	18.33	18.33	18.33	18.5	4.5	
Channel									
Frequency (MHz)									
5	QPSK	1	1	23.45	23.48	23.39	24.0	0.0	

n25 Ant 0 ECI3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
40	PI/2 BPSK	1	1	21.12	21.20	21.14			
40	PI/2 BPSK	1	108	21.14	21.07	21.16	22.1	0.0	
40	PI/2 BPSK	1	214	21.01	21.13	20.97			
40	PI/2 BPSK	108	0	21.10	21.20	20.99	22.1	0.0	
40	PI/2 BPSK	108	54	21.06	21.10	21.08	22.1	0.0	
40	PI/2 BPSK	108	108	21.02	21.08	20.97	22.1	0.0	
40	PI/2 BPSK	216	0	21.04	21.08	21.00			
40	QPSK	1	1	21.23	21.29	21.21			
40	QPSK	1	108	21.11	21.21	21.08	22.1	0.0	
40	QPSK	1	214	20.97	21.14	20.95			
40	QPSK	108	0	21.03	21.11	21.02	22.1	0.0	
40	QPSK	108	54	21.08	21.24	21.03	22.1	0.0	
40	QPSK	108	108	20.94	21.09	20.97	22.1	0.0	
40	QPSK	216	0	21.13	21.21	21.05			
40	16QAM	1	1	21.01	21.19	20.98	22.1	0.0	
40	16QAM	1	1	20.70	20.74	20.63	21.5	0.6	
40	256QAM	1	1	18.25	18.41	18.34	18.5	2.6	
Channel									
Frequency (MHz)									
35	QPSK	1	1	21.16	21.20	21.12	22.1	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	21.15	21.21	21.13	22.1	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	21.16	21.25	21.14	22.1	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	21.13	21.13	21.07	22.1	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	21.15	21.23	21.10	22.1	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	21.19	21.21	21.16	22.1	0.0	
Channel									
Frequency (MHz)									
5	QPSK	1	1	21.17	21.27	21.13	22.1	0.0	



n26 Ant 0 ECI3								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
20	PI/2 BPSK	1	1	23.24	23.39	23.25		
Channel				824	831.5	839		
Frequency (MHz)								
20	PI/2 BPSK	1	53	23.12	23.24	23.21	24.0	0.0
20	PI/2 BPSK	1	104	23.14	23.18	23.13		
20	PI/2 BPSK	50	0	22.85	22.75	22.65	23.5	0.5
20	PI/2 BPSK	50	28	23.16	23.26	23.19	24.0	0.0
20	PI/2 BPSK	50	56	22.85	22.85	22.84	23.5	0.5
20	PI/2 BPSK	100	0	22.83	22.70	22.82		
20	QPSK	1	1	23.34	23.40	23.28		
20	QPSK	1	53	23.24	23.34	23.19	24.0	0.0
20	QPSK	1	104	23.22	23.22	23.19		
20	QPSK	50	0	22.20	22.20	22.12	23.0	1.0
20	QPSK	50	28	23.23	23.35	23.19	24.0	0.0
20	QPSK	50	56	22.17	22.19	22.06	23.0	1.0
20	QPSK	100	0	22.20	22.20	22.10		
20	16QAM	1	1	21.85	21.98	21.88	23.0	1.0
20	16QAM	1	1	20.53	20.58	20.58	21.5	2.5
20	256QAM	1	1	18.12	18.15	18.00	19.5	4.5
Channel				16330	16330	16330		
Frequency (MHz)				821.5	831.5	841.5		
15	QPSK	1	1	23.22	23.36	23.18	24.0	0.0
Channel				16330	16630	16890		
Frequency (MHz)				819	831.5	844		
10	QPSK	1	1	23.24	23.26	23.15	24.0	0.0
Channel				16330	16630	16930		
Frequency (MHz)				816.5	831.5	846.5		
5	QPSK	1	1	23.25	23.30	23.25	24.0	0.0

n30 Ant 0 ECI3								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
10	PI/2 BPSK	1	1		23.39			
Channel					2310			
Frequency (MHz)								
10	PI/2 BPSK	1	26		22.30		23.2	0.0
10	PI/2 BPSK	1	50		22.27			
10	PI/2 BPSK	25	0		22.21		23.2	0.0
10	PI/2 BPSK	25	14		22.31		23.2	0.0
10	PI/2 BPSK	25	27		22.28			
10	PI/2 BPSK	50	0		22.30		23.2	0.0
10	QPSK	1	1		22.42			
10	QPSK	1	26		22.38		23.2	0.0
10	QPSK	1	50		22.31			
10	QPSK	25	0		22.14		23.0	0.2
10	QPSK	25	14		22.36		23.2	0.0
10	QPSK	25	27		22.18		23.0	0.2
10	QPSK	50	0		22.24			
10	16QAM	1	1		22.31		23.0	0.2
10	64QAM	1	1		20.69		21.5	1.7
10	256QAM	1	1		18.02		19.5	3.7
Channel				48150	48200	48250		
Frequency (MHz)				2307.5	2310	2312.5		
5	QPSK	1	1	22.31	22.34	22.26	23.2	0.0

n66 Ant 0 ECI3								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
40	PI/2 BPSK	1	1	22.63	22.68	22.60		
Channel				34600	34900	35200		
Frequency (MHz)				1730	1745	1760		
40	PI/2 BPSK	1	108	22.62	22.64	22.59	23.8	0.0
40	PI/2 BPSK	1	214	22.65	22.65	22.61		
40	PI/2 BPSK	108	0	22.30	22.39	22.28	23.5	0.3
40	PI/2 BPSK	108	54	22.26	22.64	22.54	23.8	0.0
40	PI/2 BPSK	108	108	22.10	22.30	22.15		
40	PI/2 BPSK	216	0	22.31	22.42	22.23	23.5	0.3
40	QPSK	1	1	22.69	22.72	22.65		
40	QPSK	1	108	22.26	22.68	22.57	23.8	0.0
40	QPSK	1	214	22.61	22.65	22.54		
40	QPSK	108	0	21.85	21.89	21.71	23.0	0.8
40	QPSK	108	54	22.62	22.68	22.64	23.8	0.0
40	QPSK	108	108	21.85	21.87	21.80	23.0	0.8
40	QPSK	216	0	21.77	21.82	21.68		
40	16QAM	1	1	21.78	21.81	21.68	23.0	0.8
40	64QAM	1	1	20.45	20.43	20.30	21.5	2.3
40	256QAM	1	1	18.03	18.10	18.08	19.5	4.3
Channel				34550	34900	35200		
Frequency (MHz)				1727.5	1745	1762.5		
35	QPSK	1	1	22.65	22.67	22.56	23.8	0.0
Channel				34550	34900	35300		
Frequency (MHz)				1724	1745	1765		
30	QPSK	1	1	22.62	22.63	22.57	23.8	0.0
Channel				34400	34900	35300		
Frequency (MHz)				1722.5	1745	1767.5		
25	QPSK	1	1	22.65	22.65	22.65	23.8	0.0
Channel				34400	34900	35400		
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	1	22.40	22.49	22.41	23.8	0.0
Channel				34300	34900	35500		
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	1	22.60	22.69	22.65	23.8	0.0
Channel				34300	34900	35600		
Frequency (MHz)				1714	1745	1775		
10	QPSK	1	1	22.51	22.68	22.62	23.8	0.0
Channel				34200	34900	35600		
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	1	22.31	22.31	22.25	23.8	0.0



n70 Ant 0 ECI3							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	MPR (dB)
Channel							
Frequency (MHz)							
15	PI2 BPSK	1	1	22.00	1702.5		
15	PI2 BPSK	1	40	21.96		23.1	0.0
15	PI2 BPSK	1	77	22.03			
15	PI2 BPSK	36	0	21.95		23.1	0.0
15	PI2 BPSK	36	22	22.06		23.1	0.0
15	PI2 BPSK	36	43	21.98		23.1	0.0
15	PI2 BPSK	75	0	21.97			
15	QPSK	1	1	22.15			
15	QPSK	1	40	22.10		23.1	0.0
15	QPSK	1	77	22.06			
15	QPSK	36	0	21.98		23.0	0.1
15	QPSK	36	22	22.11		23.1	0.0
15	QPSK	36	43	21.89		23.0	0.1
15	QPSK	72	0	21.92			
15	16QAM	1	1	21.96		23.0	0.1
15	64QAM	1	1	20.52		21.5	1.8
15	256QAM	1	1	19.05		19.5	3.6
Channel							
Frequency (MHz)							
10	QPSK	1	1	22.03	34000	34100	15.9
Channel							
Frequency (MHz)							
5	QPSK	1	1	22.02	33950	34050	15.9
Channel							
Frequency (MHz)							
5	QPSK	1	1	22.02	33925	34025	15.9
Channel							
Frequency (MHz)							
5	QPSK	1	1	22.02	33900	34000	15.9

n71 Ant 0 ECI3							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	MPR (dB)
Channel							
Frequency (MHz)							
20	PI2 BPSK	1	1	23.50	675	680.5	685
20	PI2 BPSK	1	53	23.43	23.41	23.46	
20	PI2 BPSK	1	104	23.28	23.38	23.26	24.0
20	PI2 BPSK	50	0	22.81	22.93	22.82	23.5
20	PI2 BPSK	50	29	23.38	23.24	23.29	24.0
20	PI2 BPSK	50	56	22.83	22.85	22.86	23.5
20	PI2 BPSK	100	0	22.81	22.91	22.77	24.0
20	QPSK	1	1	23.59	23.69	23.54	
20	QPSK	1	53	23.46	23.46	23.31	24.0
20	QPSK	1	104	23.31	23.49	23.35	24.0
20	QPSK	50	0	22.32	22.38	22.20	23.0
20	QPSK	50	28	23.34	23.50	23.26	24.0
20	QPSK	50	56	22.36	22.28	22.30	23.0
20	QPSK	100	0	22.24	22.42	22.20	23.0
20	16QAM	1	1	22.20	22.36	22.22	23.0
20	64QAM	1	1	20.98	21.00	20.87	21.5
20	256QAM	1	1	19.25	19.45	19.40	19.5
Channel							
Frequency (MHz)							
15	QPSK	1	1	23.48	13600	13650	24.0
Channel							
Frequency (MHz)							
10	QPSK	1	1	23.56	13500	13600	24.0
Channel							
Frequency (MHz)							
5	QPSK	1	1	23.52	13400	13500	24.0



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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. [Freq]	Power Middle Ch. [Freq]	Power High Ch. [Freq]	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				2546.01	2592.99	2640		
100	PI2 BPSK	1	1	20.19	20.26	20.17		
100	PI2 BPSK	1	137	20.07	20.16	20.07	21.3	0.0
100	PI2 BPSK	1	271	20.15	20.19	20.01		
100	PI2 BPSK	135	0	20.08	20.12	19.94	21.3	0.0
100	PI2 BPSK	135	69	20.16	20.23	20.11	21.3	0.0
100	PI2 BPSK	135	138	20.05	20.10	20.02		
100	PI2 BPSK	270	0	20.09	20.14	20.07	21.3	0.0
100	QPSK	1	1	20.17	20.34	20.29		
100	QPSK	1	197	20.11	20.21	20.19	21.3	0.0
100	QPSK	1	271	20.17	20.20	20.07		
100	QPSK	135	0	20.08	20.24	20.15	21.3	0.0
100	QPSK	135	69	20.09	20.30	20.13	21.3	0.0
100	QPSK	135	138	20.05	20.14	20.03	21.3	0.0
100	QPSK	270	0	20.14	20.19	20.06		
100	16QAM	1	1	19.95	20.04	20.03	21.3	0.0
100	16QAM	1	1	20.01	20.08	19.86	21.3	0.0
100	256QAM	1	1	20.10	20.16	20.10	21.3	0.0
Channel								
Frequency (MHz)				2941	2992.99	2644.98		
90	QPSK	1	1	20.08	20.29	20.18	21.3	0.0
Channel								
Frequency (MHz)				507.04	516.98	529.98	Tune-up limit (dBm)	MPR (dB)
80	QPSK	1	1	20.09	20.28	20.24	21.3	0.0
Channel								
Frequency (MHz)				5062.02	5189.98	5310.00	Tune-up limit (dBm)	MPR (dB)
70	QPSK	1	1	20.09	20.23	20.17	21.3	0.0
Channel								
Frequency (MHz)				5052.00	5189.98	5319.96	Tune-up limit (dBm)	MPR (dB)
60	QPSK	1	1	20.10	20.27	20.24	21.3	0.0
Channel								
Frequency (MHz)				2521.02	2592.99	2664.99	Tune-up limit (dBm)	MPR (dB)
50	QPSK	1	1	20.12	20.22	20.26	21.3	0.0
Channel								
Frequency (MHz)				5037.00	5189.98	5334.99	Tune-up limit (dBm)	MPR (dB)
45	QPSK	1	1	20.14	20.25	20.22	21.3	0.0
Channel								
Frequency (MHz)				5032.02	5189.98	5340.00	Tune-up limit (dBm)	MPR (dB)
40	QPSK	1	1	20.04	20.30	20.23	21.3	0.0
Channel								
Frequency (MHz)				2513.52	2592.99	2672.49	Tune-up limit (dBm)	MPR (dB)
35	QPSK	1	1	20.12	20.30	20.24	21.3	0.0
Channel								
Frequency (MHz)				5022.00	5189.98	5359.96	Tune-up limit (dBm)	MPR (dB)
30	QPSK	1	1	20.19	20.23	20.17	21.3	0.0
Channel								
Frequency (MHz)				5017.02	5189.98	5350.00	Tune-up limit (dBm)	MPR (dB)
25	QPSK	1	1	20.07	20.25	20.15	21.3	0.0
Channel								
Frequency (MHz)				5012.04	5189.98	5359.96	Tune-up limit (dBm)	MPR (dB)
20	QPSK	1	1	20.10	20.20	20.18	21.3	0.0
Channel								
Frequency (MHz)				2503.5	2592.99	2682.48	Tune-up limit (dBm)	MPR (dB)
15	QPSK	1	1	20.05	20.21	20.21	21.3	0.0
Channel								
Frequency (MHz)				5002.02	5189.98	5370.00	Tune-up limit (dBm)	MPR (dB)
10	QPSK	1	1	20.13	20.29	20.15	21.3	0.0



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BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel				374000	376000	378000		
Frequency (MHz)				1870	1880	1890		
40	P12 BPSK	1	1	23.02	23.14	23.04		
40	P12 BPSK	1	108	22.96	23.06	22.95	24.0	0.0
40	P12 BPSK	1	214	22.89	22.94	22.89		
40	P12 BPSK	108	0	22.44	22.45	22.35	23.5	0.5
40	P12 BPSK	108	54	23.04	22.94	22.98	24.0	0.0
40	P12 BPSK	108	108	22.18	22.37	22.31		
40	P12 BPSK	216	0	22.42	22.49	22.29	23.5	0.5
40	QPSK	1	1	23.17	23.19	23.10		
40	QPSK	1	108	23.07	23.06	22.96		
40	QPSK	1	214	22.93	23.08	22.95	24.0	0.0
40	QPSK	108	0	21.95	22.02	21.83	23.0	1.0
40	QPSK	108	54	23.02	23.14	22.86	24.0	0.0
40	QPSK	108	108	21.92	21.87	21.80	23.0	1.0
40	QPSK	216	0	21.89	22.08	21.73		
40	16QAM	1	1	21.94	21.89	21.80	23.0	1.0
40	64QAM	1	1	20.58	20.51	20.42	21.5	2.5
40	256QAM	1	1	18.12	18.24	18.15	18.5	4.5
Channel				375500	376500	377500		
Frequency (MHz)				1867.5	1880	1892.5		
35	QPSK	1	1	23.03	23.12	22.96	0.0	0.0
Channel				377000	378000	379000		
Frequency (MHz)				1885	1895	1895		
30	QPSK	1	1	23.09	23.15	22.96	0.0	0.0
Channel				378500	379500	379500		
Frequency (MHz)				1892.5	1895	1897.5		
25	QPSK	1	1	23.03	23.14	22.99	0.0	0.0
Channel				379000	379500	380000		
Frequency (MHz)				1890	1890	1900		
20	QPSK	1	1	23.03	23.05	23.05	0.0	0.0
Channel				379500	379500	380500		
Frequency (MHz)				1892.5	1895	1905		
15	QPSK	1	1	23.09	23.14	23.03	24.0	0.0
Channel				379000	379000	381000		
Frequency (MHz)				1895	1895	1905		
10	QPSK	1	1	23.11	23.10	22.99	24.0	0.0
Channel				379500	379500	381500		
Frequency (MHz)				1897.5	1890	1907.5		
5	QPSK	1	1	23.09	23.15	22.97	24.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel				168800	167500	167800		
Frequency (MHz)				834	836.5	835		
20	P12 BPSK	1	1	22.87	22.91	22.82		
20	P12 BPSK	1	83	22.77	22.80	22.84	24.0	0.0
20	P12 BPSK	1	164	22.76	22.77	22.62		
20	P12 BPSK	80	0	22.26	22.26	22.22	23.5	0.5
20	P12 BPSK	80	28	22.86	22.78	22.74	24.0	0.0
20	P12 BPSK	80	56	21.97	22.21	22.01		
20	P12 BPSK	160	0	22.22	22.37	22.20	23.5	0.5
20	QPSK	1	1	22.90	22.99	22.91		
20	QPSK	1	83	22.92	22.86	22.68	24.0	0.0
20	QPSK	1	164	22.74	22.88	22.75		
20	QPSK	80	0	21.74	21.81	21.62	23.0	1.0
20	QPSK	80	28	22.82	22.90	22.77	24.0	0.0
20	QPSK	80	56	21.80	21.77	21.68	23.0	1.0
20	QPSK	160	0	21.72	21.80	21.61		
20	16QAM	1	1	21.64	21.68	21.60	23.0	1.0
20	64QAM	1	1	20.38	20.37	20.23	21.5	2.5
20	256QAM	1	1	18.86	18.89	18.87	19.5	4.5
Channel				169300	167500	168500		
Frequency (MHz)				831.5	836.5	841.5		
15	QPSK	1	1	22.86	22.93	22.79	24.0	0.0
Channel				169800	167500	168800		
Frequency (MHz)				829	836.5	844		
10	QPSK	1	1	22.81	22.87	22.82	24.0	0.0
Channel				169300	167500	169300		
Frequency (MHz)				838.5	836.5	842.5		
5	QPSK	1	1	22.85	22.89	22.73	24.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel				506000	507000	509000		
Frequency (MHz)				2525	2535	2545		
50	P12 BPSK	1	1	21.71	21.78	21.73		
50	P12 BPSK	1	135	21.61	21.64	21.62	22.9	0.0
50	P12 BPSK	1	268	21.57	21.69	21.67		
50	P12 BPSK	135	0	21.56	21.63	21.60	22.9	0.0
50	P12 BPSK	135	68	21.66	21.71	21.61	22.9	0.0
50	P12 BPSK	135	135	21.51	21.58	21.52		
50	P12 BPSK	270	0	21.55	21.75	21.60	22.9	0.0
50	QPSK	1	1	21.73	21.82	21.78		
50	QPSK	1	135	21.66	21.78	21.71	22.9	0.0
50	QPSK	1	268	21.64	21.69	21.67		
50	QPSK	135	0	21.60	21.74	21.65	22.9	0.0
50	QPSK	135	68	21.66	21.79	21.72	22.9	0.0
50	QPSK	135	135	21.61	21.69	21.59	22.9	0.0
50	QPSK	270	0	21.66	21.77	21.64		
50	16QAM	1	1	21.47	21.52	21.43	22.9	0.0
50	64QAM	1	1	19.98	20.05	19.90	21.5	1.4
50	256QAM	1	1	18.02	18.02	18.03	18.5	3.4
Channel				506500	507000	510000		
Frequency (MHz)				2520	2535	2550		
40	QPSK	1	1	21.60	21.76	21.73	22.9	0.0
Channel				507000	507000	510000		
Frequency (MHz)				2517.5	2535	2557.5		
35	QPSK	1	1	21.60	21.71	21.68	22.9	0.0
Channel				507500	507000	511000		
Frequency (MHz)				2515	2535	2555		
30	QPSK	1	1	21.64	21.66	21.63	22.9	0.0
Channel				507500	507000	511500		
Frequency (MHz)				2512.5	2535	2557.5		
25	QPSK	1	1	21.70	21.71	21.74	22.9	0.0
Channel				507500	507000	512500		
Frequency (MHz)				2510	2535	2560		
20	P12 BPSK	1	1	21.57	21.69	21.74	22.9	0.0
Channel				507500	507000	512500		
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	1	21.71	21.77	21.65	22.9	0.0
Channel				507500	507000	513000		
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	1	21.57	21.70	21.62	22.5	0.0
Channel				507500	507000	513500		
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	1	21.62	21.71	21.69	22.9	0.0



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EW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				141500	141500	141700		
Frequency (MHz)				707.5	707.5	708.5		
15	PI2 BPSK	1	1	22.83	22.92	22.83	24.0	0.0
15	PI2 BPSK	1	40	22.80	22.76	22.86		
15	PI2 BPSK	1	77	22.79	22.78	22.88		
15	PI2 BPSK	36	0	22.23	22.31	22.27	23.5	0.5
15	PI2 BPSK	36	22	22.82	22.81	22.79	24.0	0.0
15	PI2 BPSK	36	43	21.88	22.29	22.01	23.5	0.5
15	PI2 BPSK	75	0	22.29	22.36	22.21		
15	QPSK	1	1	22.84	23.01	22.94	24.0	0.0
15	QPSK	1	40	22.94	22.91	22.72		
15	QPSK	1	77	22.71	22.83	22.71		
15	QPSK	36	0	21.77	21.88	21.68	23.0	1.0
15	QPSK	36	22	22.83	22.97	22.74	24.0	0.0
15	QPSK	36	43	21.72	21.76	21.57	23.0	1.0
15	QPSK	75	0	21.80	21.81	21.77	23.0	1.0
15	16QAM	1	1	21.71	21.75	21.70	23.0	1.0
15	16QAM	1	1	20.19	20.34	20.21	21.5	2.5
15	25QAM	1	1	18.97	18.95	18.84	18.5	4.5
Channel				140300	141500	142700	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				704	707.5	711		
10	QPSK	1	1	22.74	22.91	22.89	24.0	0.0
Channel				140300	141500	142700	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				707.5	707.5	712.5		
5	QPSK	1	1	22.73	22.88	22.83	24.0	0.0

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EW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				158100	158100	158600		
Frequency (MHz)				793	793	793		
10	PI2 BPSK	1	1	23.25	23.25	23.25	24.0	0.0
10	PI2 BPSK	1	26	23.14	23.14	23.14		
10	PI2 BPSK	1	50	23.05	23.05	23.05		
10	PI2 BPSK	25	0	22.60	22.60	22.60	23.5	0.5
10	PI2 BPSK	25	14	23.16	23.16	23.16	24.0	0.0
10	PI2 BPSK	25	27	22.81	22.81	22.81	23.5	0.5
10	PI2 BPSK	50	0	22.69	22.69	22.69		
10	QPSK	1	1	23.21	23.24	23.21	24.0	0.0
10	QPSK	1	26	23.21	23.21	23.13		
10	QPSK	1	50	23.13	23.13	23.13		
10	QPSK	25	0	22.16	22.16	22.16	23.0	1.0
10	QPSK	25	14	22.83	23.27	22.74	24.0	0.0
10	QPSK	25	27	22.08	22.08	22.08	23.0	1.0
10	QPSK	50	0	22.15	22.15	22.15	23.0	1.0
10	16QAM	1	1	22.09	22.09	22.09	23.0	1.0
10	64QAM	1	1	20.69	20.69	20.69	21.5	2.5
10	25QAM	1	1	19.32	19.32	19.32	18.5	4.5
Channel				158100	158100	159100	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				790.5	793	795.5		
5	QPSK	1	1	23.15	23.21	23.17	24.0	0.0

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EW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				374000	376500	379000		
Frequency (MHz)				1870	1882.5	1905		
40	PI2 BPSK	1	1	23.08	23.07	23.01	24.0	0.0
40	PI2 BPSK	1	108	22.90	22.88	22.89		
40	PI2 BPSK	1	214	22.87	22.88	22.88		
40	PI2 BPSK	108	0	22.30	22.42	22.28	23.5	0.5
40	PI2 BPSK	108	54	22.90	22.88	22.89	24.0	0.0
40	PI2 BPSK	108	108	22.16	22.40	22.17	23.5	0.5
40	PI2 BPSK	216	0	22.40	22.48	22.29		
40	QPSK	1	1	23.15	23.20	23.12	24.0	0.0
40	QPSK	1	108	23.08	22.96	22.84		
40	QPSK	1	214	22.85	23.01	22.89		
40	QPSK	108	0	21.83	21.99	21.75	23.0	1.0
40	QPSK	108	54	22.92	23.09	22.80	24.0	0.0
40	QPSK	108	108	21.86	21.88	21.80	23.0	1.0
40	QPSK	216	0	21.82	22.01	21.73		
40	16QAM	1	1	21.88	21.82	21.67	23.0	1.0
40	64QAM	1	1	20.52	20.50	20.30	21.5	2.5
40	25QAM	1	1	19.12	19.10	19.10	18.5	4.5
Channel				372500	376500	376500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1867.5	1882.5	1897.5		
35	QPSK	1	1	23.05	23.10	23.04	24.0	0.0
Channel				373000	376500	380000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1868	1882.5	1900		
30	QPSK	1	1	23.03	23.11	23.08	24.0	0.0
Channel				372500	376500	380000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1867.5	1882.5	1902.5		
25	QPSK	1	1	23.02	23.09	23.03	24.0	0.0
Channel				372000	376500	381000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1860	1882.5	1905		
20	QPSK	1	1	23.10	23.15	23.08	24.0	0.0
Channel				371500	376500	381500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1867.5	1882.5	1907.5		
15	QPSK	1	1	23.12	23.07	23.07	24.0	0.0
Channel				371000	376500	382000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1866	1882.5	1910		
10	QPSK	1	1	23.12	23.16	23.08	24.0	0.0
Channel				370500	376500	382500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1862.5	1882.5	1912.5		
5	QPSK	1	1	23.04	23.14	23.00	24.0	0.0



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BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel				164600	166300	167800		
Frequency (MHz)				824	831.5	838		
20	PI2 BPSK	1	1	22.92	22.99	22.93		
20	PI2 BPSK	1	53	22.77	22.92	22.85	24.0	0.0
20	PI2 BPSK	1	104	22.78	22.78	22.84		
20	PI2 BPSK	50	0	22.22	22.36	22.19	23.5	0.5
20	PI2 BPSK	50	26	22.34	22.36	22.81	24.0	0.0
20	PI2 BPSK	50	56	22.10	22.25	22.08		
20	PI2 BPSK	100	0	22.32	22.44	22.16	23.5	0.5
20	QPSK	1	1	23.06	23.13	22.99		
20	QPSK	1	53	23.01	22.42	22.89	24.0	0.0
20	QPSK	1	104	22.85	22.97	22.75		
20	QPSK	50	0	21.89	21.84	21.67	23.0	1.0
20	QPSK	50	26	22.82	23.04	22.89	24.0	0.0
20	QPSK	50	56	21.72	21.85	21.79	23.0	1.0
20	QPSK	100	0	21.74	21.68	21.62		
20	16QAM	1	1	21.79	21.78	21.53	23.0	1.0
20	16QAM	1	1	20.44	20.37	20.16	21.5	2.5
20	256QAM	1	1	19.00	18.15	18.02	18.5	4.5
Channel				165300	166300	168000		
Frequency (MHz)				821.5	831.5	841.5		
15	QPSK	1	1	22.59	23.05	22.84	24.0	0.0
Channel				163300	166300	168800		
Frequency (MHz)				819	831.5	844		
10	QPSK	1	1	22.96	23.00	22.92	24.0	0.0
Channel				163300	166300	169300		
Frequency (MHz)				818.5	831.5	846.5		
5	QPSK	1	1	22.92	23.07	22.85	24.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel				460000	460000	460000		
Frequency (MHz)				2310				
10	PI2 BPSK	1	1	22.06				
10	PI2 BPSK	1	26	22.01			23.3	0.0
10	PI2 BPSK	1	50	21.97				
10	PI2 BPSK	25	0	22.02			23.3	0.0
10	PI2 BPSK	25	14	22.04			23.3	0.0
10	PI2 BPSK	25	27	21.92				
10	PI2 BPSK	50	0	21.97			23.3	0.0
10	QPSK	1	1	22.10				
10	QPSK	1	26	22.05			23.3	0.0
10	QPSK	1	50	22.01				
10	QPSK	25	0	21.77			23.0	0.3
10	QPSK	25	14	22.05			23.3	0.0
10	QPSK	25	27	21.76			23.0	0.3
10	QPSK	50	0	21.84				
10	16QAM	1	1	21.64			23.0	0.3
10	16QAM	1	1	20.27			21.5	1.8
10	256QAM	1	1	18.02			18.5	3.0
Channel				481500	482500	482500		
Frequency (MHz)				2307.5	2310	2312.5		
5	QPSK	1	1	22.01	22.06	22.03	23.3	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel				346000	348000	350000		
Frequency (MHz)				1730	1745	1760		
40	PI2 BPSK	1	1	22.31	22.41	22.33		
40	PI2 BPSK	1	108	22.20	22.28	22.25	23.5	0.0
40	PI2 BPSK	1	214	22.19	22.29	22.22		
40	PI2 BPSK	108	0	22.16	22.24	22.19	23.5	0.0
40	PI2 BPSK	108	54	22.28	22.40	22.30	23.5	0.0
40	PI2 BPSK	108	108	22.13	22.30	22.20		
40	PI2 BPSK	216	0	22.28	22.23	22.31	23.5	0.0
40	QPSK	1	1	22.36	22.47	22.41		
40	QPSK	1	108	22.36	22.23	22.24	23.5	0.0
40	QPSK	1	214	22.21	22.25	22.19		
40	QPSK	108	0	22.13	22.15	21.98	23.0	0.5
40	QPSK	108	54	22.32	22.43	22.36	23.5	0.0
40	QPSK	108	108	22.18	22.20	22.09	23.0	0.5
40	QPSK	216	0	22.03	22.22	22.01		
40	16QAM	1	1	21.77	21.82	21.67	23.0	0.5
40	16QAM	1	1	20.32	20.43	20.34	21.5	2.0
40	256QAM	1	1	18.77	18.81	18.60	18.5	4.0
Channel				345500	348000	352000		
Frequency (MHz)				1727.5	1745	1762.5		
35	QPSK	1	1	22.32	22.38	22.30	23.5	0.0
Channel				345000	348000	353000		
Frequency (MHz)				1725	1745	1765		
30	QPSK	1	1	22.30	22.30	22.39	23.5	0.0
Channel				344500	348000	355000		
Frequency (MHz)				1722.5	1745	1757.5		
25	QPSK	1	1	22.23	22.35	22.31	23.5	0.0
Channel				344000	348000	356000		
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	1	22.42	22.37	22.42	23.5	0.0
Channel				343500	348000	356000		
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	1	22.34	22.38	22.31	23.5	0.0
Channel				343000	348000	356000		
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	1	22.39	22.42	22.34	23.5	0.0
Channel				342500	348000	355000		
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	1	22.32	22.40	22.37	23.5	0.0



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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq	Tune-up limit (dBm)	MPR (dB)	
Channel				1702.5					
Frequency (MHz)									
15	PI2 BPSK	1	1	23.09					
15	PI2 BPSK	1	40	23.02			24.0	0.0	
15	PI2 BPSK	1	77	23.00					
15	PI2 BPSK	36	0	23.05			24.0	0.0	
15	PI2 BPSK	36	22	23.09			24.0	0.0	
15	PI2 BPSK	36	43	22.88			24.0	0.0	
15	PI2 BPSK	75	0	23.09					
15	QPSK	1	1	23.13					
15	QPSK	1	40	23.06			24.0	0.0	
15	QPSK	1	77	23.02					
15	QPSK	36	0	22.47			23.5	0.5	
15	QPSK	36	22	23.06			24.0	0.0	
15	QPSK	36	43	22.82			23.5	0.5	
15	QPSK	75	0	22.87					
15	16QAM	1	1	22.10			23.5	0.5	
15	64QAM	1	1	20.74			22.0	2.0	
15	256QAM	1	1	19.17			20.0	4.0	
Channel				34000	34050	34100	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
10	QPSK	1	1	22.98	23.07	23.03	24.0	0.0	
Channel				33950	34050	34150	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
5	QPSK	1	1	22.94	23.05	23.01	24.0	0.0	

n71 Ant 1 ECI3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq	Tune-up limit (dBm)	MPR (dB)	
Channel				136600					
Frequency (MHz)									
20	PI2 BPSK	1	1	23.33	23.49	23.30			
20	PI2 BPSK	1	53	23.26	23.32	23.30	24.0	0.0	
20	PI2 BPSK	1	104	23.33	23.19	23.15			
20	PI2 BPSK	50	0	22.75	22.85	22.68	23.5	0.5	
20	PI2 BPSK	50	26	23.27	23.32	23.15	24.0	0.0	
20	PI2 BPSK	50	55	22.53	22.71	22.63			
20	PI2 BPSK	100	0	22.64	22.91	22.59	23.5	0.5	
20	QPSK	1	1	23.47	23.50	23.36			
20	QPSK	1	53	23.26	23.26	23.22	24.0	0.0	
20	QPSK	1	104	23.28	23.45	23.21			
20	QPSK	50	0	22.28	22.29	22.08	23.0	1.0	
20	QPSK	50	28	23.35	23.39	23.12	24.0	0.0	
20	QPSK	50	56	22.28	22.20	22.18	23.0	1.0	
20	QPSK	100	0	22.16	22.20	22.18			
20	16QAM	1	1	22.05	22.17	22.02	23.0	1.0	
20	64QAM	1	1	20.73	20.88	20.71	21.5	2.5	
20	256QAM	1	1	19.40	19.40	19.34	19.5	4.5	
Channel				134500	135000	135500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
15	QPSK	1	1	23.38	23.44	23.32	24.0	0.0	
Channel				133000	136000	139000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
10	QPSK	1	1	23.34	23.37	23.23	24.0	0.0	
Channel				133100	136100	139100	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
5	QPSK	1	1	23.34	23.42	23.30	24.0	0.0	



n41 HPUE Ant 1 EC13

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				506202	518598	528000		
Frequency (MHz)				2546.01	2592.99	2640		
100	PI2 BPSK	1	1	19.55	19.02	19.49		0.0
100	PI2 BPSK	1	137	19.38	19.48	19.46	20.6	0.0
100	PI2 BPSK	1	271	19.38	19.45	19.40		
100	PI2 BPSK	135	0	19.40	19.53	19.39	20.6	0.0
100	PI2 BPSK	135	69	19.43	19.46	19.47	20.6	0.0
100	PI2 BPSK	135	138	19.39	19.36	19.34	20.6	0.0
100	PI2 BPSK	270	0	19.42	19.43	19.45		
100	QPSK	1	1	19.64	19.07	19.62		
100	QPSK	1	137	19.39	19.28	19.43	20.6	0.0
100	QPSK	1	271	19.47	19.53	19.40		
100	QPSK	135	0	19.40	19.52	19.57	20.6	0.0
100	QPSK	135	69	19.51	19.59	19.55	20.6	0.0
100	QPSK	135	138	19.47	19.50	19.47	20.6	0.0
100	QPSK	270	0	19.43	19.52	19.48		
100	16QAM	1	1	19.34	19.39	19.37	20.6	0.0
100	16QAM	1	1	19.35	19.48	19.25	20.6	0.0
100	256QAM	1	1	19.28	19.40	19.31	20.6	0.0
Channel				506203	518599	528000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2641	2592.99	2644.98		
90	QPSK	1	1	19.49	19.04	19.53	20.6	0.0
Channel				507204	518598	529998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2628.02	2592.99	2648.98		
80	QPSK	1	1	19.48	19.01	19.46	20.6	0.0
Channel				506202	518598	531000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2531.01	2592.99	2605		
70	QPSK	1	1	19.49	19.02	19.47	20.6	0.0
Channel				505200	518598	531998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2628	2592.99	2629.98		
60	QPSK	1	1	19.54	19.01	19.51	20.6	0.0
Channel				505203	518599	529998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2521.02	2592.99	2604.99		
50	QPSK	1	1	19.46	19.53	19.45	20.6	0.0
Channel				503700	518598	533498	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2518.5	2592.99	2607.48		
45	QPSK	1	1	19.50	19.00	19.54	20.6	0.0
Channel				503202	518598	534000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2516.01	2592.99	2670		
40	QPSK	1	1	19.01	19.57	19.53	20.6	0.0
Channel				505704	518599	534998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2513.52	2592.99	2672.48		
35	QPSK	1	1	19.55	19.05	19.45	20.6	0.0
Channel				502200	518598	535998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2511	2592.99	2674.98		
30	QPSK	1	1	19.53	19.00	19.55	20.6	0.0
Channel				501702	518598	536500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2503.51	2592.99	2677.5		
25	QPSK	1	1	19.59	19.55	19.44	20.6	0.0
Channel				501204	518598	536998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2508.02	2592.99	2679.98		
20	QPSK	1	1	19.61	19.53	19.47	20.6	0.0
Channel				503703	518599	535998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2503.5	2592.99	2682.48		
15	QPSK	1	1	19.54	19.05	19.55	20.6	0.0
Channel				500202	518598	537000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2501.01	2592.99	2685		
10	QPSK	1	1	19.56	19.59	19.49	20.6	0.0



n2 Ant 2 ECI3								
BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel				374000	376000	378000		
Frequency (MHz)				1870	1890	1910		
40	PI2 BPSK	1	1	18.79	18.86	18.81		
40	PI2 BPSK	1	108	18.68	18.79	18.75	17.8	0.0
40	PI2 BPSK	1	214	18.64	18.71	18.74		
40	PI2 BPSK	108	0	18.72	18.80	18.75	17.8	0.0
40	PI2 BPSK	108	54	18.78	18.83	18.70	17.8	0.0
40	PI2 BPSK	108	108	18.72	18.82	18.68		
40	PI2 BPSK	216	0	18.70	18.77	18.71	17.8	0.0
40	QPSK	1	1	18.88	18.91	18.90		
40	QPSK	1	108	18.79	18.85	18.81	17.8	0.0
40	QPSK	1	214	18.77	18.80	18.85		
40	QPSK	108	0	18.80	18.83	18.78	17.8	0.0
40	QPSK	108	54	18.82	18.88	18.74	17.8	0.0
40	QPSK	108	108	18.72	18.75	18.65	17.8	0.0
40	QPSK	216	0	18.83	18.81	18.71	17.8	0.0
40	16QAM	1	1	18.86	18.76	18.65	17.8	0.0
40	64QAM	1	1	18.71	18.84	18.67	17.8	0.0
40	256QAM	1	1	18.70	18.77	18.65	17.8	0.0
Channel				375500	379500	379500	Tune-up limit (dBm)	MPR
Frequency (MHz)				1867.5	1880	1892.5	(dB)	(dB)
35	QPSK	1	1	18.74	18.85	18.76	0.0	0.0
Channel				373000	376000	379000	Tune-up limit (dBm)	MPR
Frequency (MHz)				1868	1884	1898	(dB)	(dB)
30	QPSK	1	1	18.74	18.84	18.78	0.0	0.0
Channel				372500	376000	379500	Tune-up limit (dBm)	MPR
Frequency (MHz)				1867.5	1880	1897.5	(dB)	(dB)
25	QPSK	1	1	18.83	18.82	18.79	0.0	0.0
Channel				372000	376000	380000	Tune-up limit (dBm)	MPR
Frequency (MHz)				1860	1880	1900	(dB)	(dB)
20	QPSK	1	1	18.74	18.80	18.79	0.0	0.0
Channel				371500	376000	380500	Tune-up limit (dBm)	MPR
Frequency (MHz)				1867.5	1880	1902.5	(dB)	(dB)
15	QPSK	1	1	18.77	18.80	18.81	17.8	0.0
Channel				371000	376000	381000	Tune-up limit (dBm)	MPR
Frequency (MHz)				1865	1884	1904	(dB)	(dB)
10	QPSK	1	1	18.79	18.83	18.76	17.8	0.0
Channel				370500	376000	381500	Tune-up limit (dBm)	MPR
Frequency (MHz)				1862.5	1880	1907.5	(dB)	(dB)
5	QPSK	1	1	18.74	18.76	18.75	17.8	0.0

n7 Ant 2 ECI3								
BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel				505000	507000	509000		
Frequency (MHz)				2525	2535	2545		
50	PI2 BPSK	1	1	18.90	18.90	18.85		
50	PI2 BPSK	1	135	18.83	18.87	18.82	20.0	0.0
50	PI2 BPSK	1	268	18.85	18.89	18.82		
50	PI2 BPSK	135	0	18.83	18.88	18.82	20.0	0.0
50	PI2 BPSK	135	68	18.92	18.96	18.88	20.0	0.0
50	PI2 BPSK	135	135	18.90	18.99	18.88	20.0	0.0
50	PI2 BPSK	270	0	18.83	18.90	18.80	20.0	0.0
50	QPSK	1	1	18.90	18.95	18.97		
50	QPSK	1	135	18.83	18.90	18.84	20.0	0.0
50	QPSK	1	268	18.87	18.98	18.90		
50	QPSK	135	0	18.84	18.97	18.85	20.0	0.0
50	QPSK	135	68	18.86	18.99	18.89	20.0	0.0
50	QPSK	135	135	18.88	18.97	18.83	20.0	0.0
50	QPSK	270	0	18.87	18.95	18.84	20.0	0.0
50	16QAM	1	1	18.91	18.91	18.81	20.0	0.0
50	64QAM	1	1	18.84	18.91	18.80	20.0	0.0
50	256QAM	1	1	18.45	18.50	18.37	18.5	0.5
Channel				509500	507000	510500	Tune-up limit (dBm)	MPR
Frequency (MHz)				2520	2535	2550	(dB)	(dB)
40	QPSK	1	1	18.86	18.97	18.83	20.0	0.0
Channel				503500	507000	510500	Tune-up limit (dBm)	MPR
Frequency (MHz)				2517.5	2535	2552.5	(dB)	(dB)
35	QPSK	1	1	18.82	18.95	18.80	0.0	0.0
Channel				503000	507000	511000	Tune-up limit (dBm)	MPR
Frequency (MHz)				2515	2535	2555	(dB)	(dB)
30	QPSK	1	1	18.83	18.96	18.83	20.0	0.0
Channel				502500	507000	511500	Tune-up limit (dBm)	MPR
Frequency (MHz)				2512.5	2535	2557.5	(dB)	(dB)
25	QPSK	1	1	18.82	18.82	18.80	20.0	0.0
Channel				502000	507000	512000	Tune-up limit (dBm)	MPR
Frequency (MHz)				2510	2535	2560	(dB)	(dB)
20	PI2 BPSK	1	1	18.87	18.94	18.86	20.0	0.0
Channel				501500	507000	512500	Tune-up limit (dBm)	MPR
Frequency (MHz)				2507.5	2535	2562.5	(dB)	(dB)
15	QPSK	1	1	18.91	18.88	18.79	20.0	0.0
Channel				501000	507000	513000	Tune-up limit (dBm)	MPR
Frequency (MHz)				2505	2535	2565	(dB)	(dB)
10	QPSK	1	1	18.82	18.87	18.82	20.0	0.0
Channel				500500	507000	513500	Tune-up limit (dBm)	MPR
Frequency (MHz)				2502.5	2535	2567.5	(dB)	(dB)
5	QPSK	1	1	18.84	18.84	18.83	20.0	0.0

n25 Ant 2 ECI3								
BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel				374000	376000	379000		
Frequency (MHz)				1870	1892.5	1905		
40	PI2 BPSK	1	1	18.92	18.99	18.90		
40	PI2 BPSK	1	108	18.81	18.95	18.90	17.8	0.0
40	PI2 BPSK	1	214	18.80	18.83	18.89		
40	PI2 BPSK	108	0	18.88	18.97	18.87	17.8	0.0
40	PI2 BPSK	108	54	18.84	18.88	18.80	17.8	0.0
40	PI2 BPSK	108	108	18.79	18.78	18.79	17.8	0.0
40	PI2 BPSK	216	0	18.84	18.94	18.77	17.8	0.0
40	QPSK	1	1	18.99	17.06	18.96		
40	QPSK	1	108	18.93	18.99	18.90	17.8	0.0
40	QPSK	1	214	18.88	18.92	18.85		
40	QPSK	108	0	18.89	18.90	18.88	17.8	0.0
40	QPSK	108	54	18.87	18.94	18.87	17.8	0.0
40	QPSK	108	108	18.78	18.82	18.70	17.8	0.0
40	QPSK	216	0	18.79	18.85	18.80	17.8	0.0
40	16QAM	1	1	18.77	18.83	18.80	17.8	0.0
40	64QAM	1	1	18.84	18.99	18.84	17.8	0.0
40	256QAM	1	1	18.85	18.87	18.72	17.8	0.0
Channel				372500	376000	380000	Tune-up limit (dBm)	MPR
Frequency (MHz)				1867.5	1882.5	1897.5	(dB)	(dB)
35	QPSK	1	1	18.91	18.95	18.96	17.8	0.0
Channel				373000	376000	380000	Tune-up limit (dBm)	MPR
Frequency (MHz)				1868	1882.5	1900	(dB)	(dB)
30	QPSK	1	1	18.92	18.99	18.82	17.8	0.0
Channel				372500	376000	380500	Tune-up limit (dBm)	MPR
Frequency (MHz)				1867.5	1882.5	1902.5	(dB)	(dB)
25	QPSK	1	1	18.90	17.02	18.85	17.8	0.0
Channel				372000	376000	381000	Tune-up limit (dBm)	MPR
Frequency (MHz)				1860	1882.5	1905	(dB)	(dB)
20	QPSK	1	1	18.91	18.93	18.85	17.8	0.0
Channel				371500	376000	381500	Tune-up limit (dBm)	MPR
Frequency (MHz)				1867.5	1882.5	1907.5	(dB)	(dB)
15	QPSK	1	1	18.85	18.95	18.83	17.8	0.0
Channel				371000	376000	382000	Tune-up limit (dBm)	MPR
Frequency (MHz)				1865	1882.5	1910	(dB)	(dB)
10	QPSK	1	1	18.89	18.99	18.90	17.8	0.0
Channel				370500	376000	382500	Tune-up limit (dBm)	MPR
Frequency (MHz)				1862.5	1892.5	1912.5	(dB)	(dB)
5	QPSK	1	1	18.88	18.84	18.85	17.8	0.0



n30 Ant 2 EC13							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	MPR (dB)
Channel							
Frequency (MHz)				2310			
10	PI2 BPSK	1	1	18.84			
10	PI2 BPSK	1	26	18.91			19.8
10	PI2 BPSK	1	50	18.84			
10	PI2 BPSK	25	0	18.75			19.8
10	PI2 BPSK	25	14	18.87			19.8
10	PI2 BPSK	25	27	18.70			19.8
10	PI2 BPSK	50	0	18.81			19.8
10	QPSK	1	1	18.98			
10	QPSK	1	26	18.91			19.8
10	QPSK	1	50	18.82			
10	QPSK	25	0	18.83			19.8
10	QPSK	25	14	18.91			19.8
10	QPSK	25	27	18.77			19.8
10	QPSK	50	0	18.85			19.8
10	16QAM	1	1	18.77			19.8
10	64QAM	1	1	18.69			19.8
10	256QAM	1	1	18.68			19.8
Channel				461900	462000	462500	
Frequency (MHz)				2307.5	2310	2312.5	
5	QPSK	1	1	18.84	18.92	18.89	19.8

n66 Ant 2 EC13							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	MPR (dB)
Channel							
Frequency (MHz)				1730	1745	1760	
40	PI2 BPSK	1	1	18.15	18.32	18.25	
40	PI2 BPSK	1	108	18.22	18.30	18.16	19.3
40	PI2 BPSK	1	214	18.18	18.24	18.08	
40	PI2 BPSK	108	0	18.24	18.27	18.14	19.3
40	PI2 BPSK	108	54	18.30	18.36	18.21	19.3
40	PI2 BPSK	108	108	18.10	18.21	18.15	19.3
40	PI2 BPSK	216	0	18.27	18.31	18.28	19.3
40	QPSK	1	1	18.30	18.42	18.33	
40	QPSK	1	108	18.26	18.28	18.25	19.3
40	QPSK	1	214	18.20	18.22	18.09	
40	QPSK	108	0	18.22	18.28	18.24	19.3
40	QPSK	108	54	18.26	18.35	18.28	19.3
40	QPSK	108	108	18.17	18.22	18.08	19.3
40	QPSK	216	0	18.25	18.28	18.19	19.3
40	16QAM	1	1	18.19	18.21	18.22	19.3
40	64QAM	1	1	18.12	18.24	18.18	19.3
40	256QAM	1	1	18.11	18.19	18.16	19.3
Channel				345000	349000	352500	
Frequency (MHz)				1727.5	1745	1762.5	
35	QPSK	1	1	18.19	18.37	18.25	19.3
Channel				345000	349000	353000	
Frequency (MHz)				1725	1745	1765	
30	QPSK	1	1	18.22	18.28	18.26	19.3
Channel				344800	349000	353500	
Frequency (MHz)				1722.5	1745	1767.5	
25	QPSK	1	1	18.18	18.31	18.30	19.3
Channel				344800	349000	354000	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	1	18.24	18.30	18.26	19.3
Channel				345000	349000	354500	
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	1	18.22	18.39	18.22	19.3
Channel				345000	349000	355000	
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	1	18.20	18.30	18.25	19.3
Channel				342500	349000	355500	
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	1	18.22	18.35	18.24	19.3

n70 Ant 2 EC13							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	MPR (dB)
Channel							
Frequency (MHz)				1702.5			
15	PI2 BPSK	1	1	18.18			
15	PI2 BPSK	1	40	18.13			19.4
15	PI2 BPSK	1	77	18.11			
15	PI2 BPSK	36	0	18.10			19.4
15	PI2 BPSK	36	22	18.16			19.4
15	PI2 BPSK	36	43	17.97			19.4
15	PI2 BPSK	75	0	18.09			19.4
15	QPSK	1	1	18.24			
15	QPSK	1	40	18.07			19.4
15	QPSK	1	77	18.10			
15	QPSK	36	0	18.11			19.4
15	QPSK	36	22	18.21			19.4
15	QPSK	36	43	18.01			19.4
15	QPSK	75	0	18.05			19.4
15	16QAM	1	1	18.03			19.4
15	64QAM	1	1	18.01			19.4
15	256QAM	1	1	17.99			19.4
Channel				345000	349000	349000	
Frequency (MHz)				1700	1702.5	1705	
10	QPSK	1	1	18.09	18.17	18.14	19.4
Channel				335000	345000	347500	
Frequency (MHz)				1697.5	1702.5	1707.5	
5	QPSK	1	1	18.10	18.13	18.06	19.4



n41 HPUE Ant 2 ECI3

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. [Freq]	Power Middle Ch. [Freq]	Power High Ch. [Freq]	Tune-up limit (dBm)	MPR (dB)
Channel				2546.01	2552.39	2540		
Frequency (MHz)								
100	Pl2 BPSK	1	1	17.54	17.71	17.57		
100	Pl2 BPSK	1	137	17.57	17.67	17.52	19.0	0.0
100	Pl2 BPSK	1	271	17.52	17.60	17.55		
100	Pl2 BPSK	135	0	17.42	17.61	17.50	19.0	0.0
100	Pl2 BPSK	135	69	17.52	17.66	17.56	19.0	0.0
100	Pl2 BPSK	135	138	17.49	17.57	17.42		
100	Pl2 BPSK	270	0	17.45	17.59	17.54	19.0	0.0
100	QPSK	1	1	17.69	17.78	17.74		
100	QPSK	1	197	17.56	17.61	17.53	19.0	0.0
100	QPSK	1	271	17.68	17.61	17.55		
100	QPSK	135	0	17.52	17.57	17.38	19.0	0.0
100	QPSK	135	69	17.59	17.73	17.55	19.0	0.0
100	QPSK	135	138	17.51	17.63	17.46	19.0	0.0
100	QPSK	270	0	17.56	17.66	17.46		
100	16QAM	1	1	17.52	17.48	17.52	19.0	0.0
100	64QAM	1	1	17.56	17.52	17.37	19.0	0.0
100	256QAM	1	1	17.41	17.46	17.39	19.0	0.0
Channel				5050.0	5169.9	5299.9	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2941	2952.99	2944.98		
90	QPSK	1	1	17.60	17.68	17.69	19.0	0.0
Channel				5072.4	5169.9	5299.9	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2928.02	2952.99	2949.99		
80	QPSK	1	1	17.63	17.70	17.69	19.0	0.0
Channel				5062.02	5169.9	5310.00	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2931.01	2952.99	2955		
70	QPSK	1	1	17.59	17.71	17.70	19.0	0.0
Channel				5052.00	5169.9	5319.95	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2926	2952.99	2929.98		
60	QPSK	1	1	17.63	17.72	17.70	19.0	0.0
Channel				5042.0	5169.9	5329.9	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2921.02	2952.99	2964.99		
50	QPSK	1	1	17.65	17.68	17.62	19.0	0.0
Channel				5037.00	5169.9	5334.95	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2918.5	2952.99	2927.49		
45	QPSK	1	1	17.61	17.74	17.70	19.0	0.0
Channel				5032.02	5169.9	5340.00	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2916.01	2952.99	2970		
40	QPSK	1	1	17.62	17.70	17.67	19.0	0.0
Channel				5027.04	5169.9	5345.00	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2913.52	2952.99	2972.49		
35	QPSK	1	1	17.63	17.67	17.67	19.0	0.0
Channel				5022.00	5169.9	5350.00	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2911	2952.99	2977.5		
30	QPSK	1	1	17.56	17.70	17.61	19.0	0.0
Channel				5017.02	5169.9	5355.00	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2908.51	2952.99	2977.5		
25	QPSK	1	1	17.55	17.64	17.62	19.0	0.0
Channel				5012.04	5169.9	5359.95	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2906.02	2952.99	2979.99		
20	QPSK	1	1	17.55	17.73	17.65	19.0	0.0
Channel				5007.00	5169.9	5365.00	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2903.5	2952.99	2982.48		
15	QPSK	1	1	17.58	17.68	17.62	19.0	0.0
Channel				5002.02	5169.9	5370.00	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2901.01	2952.99	2985		
10	QPSK	1	1	17.64	17.67	17.59	19.0	0.0



n2 Ant 3 ECI3

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. / 374000	Middle Ch. / Freq. / 376000	High Ch. / Freq. / 378000		
Channel								
Frequency (MHz)								
40	P1/2 BPSK	1	1	20.06	20.13	20.04	21.1	0.0
40	P1/2 BPSK	1	108	20.00	20.10	20.02		
40	P1/2 BPSK	1	214	19.93	20.11	19.92	21.1	0.0
40	P1/2 BPSK	108	0	20.03	20.15	19.97		
40	P1/2 BPSK	108	54	20.06	20.11	19.98	21.1	0.0
40	P1/2 BPSK	108	108	19.94	20.06	19.94		
40	P1/2 BPSK	216	0	20.08	20.13	20.12	21.1	0.0
40	QPSK	1	1	20.06	20.18	20.11		
40	QPSK	1	108	20.00	20.15	20.05	21.1	0.0
40	QPSK	1	214	20.11	20.09	19.92		
40	QPSK	108	0	20.02	20.10	20.08	21.1	0.0
40	QPSK	108	54	20.12	20.15	20.07		
40	QPSK	108	108	20.00	20.05	20.01	21.1	0.0
40	QPSK	216	0	20.01	20.12	20.00		
40	16QAM	1	1	20.00	20.10	20.01	21.1	0.0
40	64QAM	1	1	19.92	20.00	20.00		
40	256QAM	1	1	19.16	19.31	19.23	19.5	1.0
Channel								
Frequency (MHz)								
35	QPSK	1	1	20.02	20.16	20.07	0.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	20.02	20.06	19.96	0.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	19.94	20.10	20.04	0.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	19.91	20.05	19.98	0.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	19.95	20.11	20.03	21.1	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	19.91	20.08	19.97	21.1	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	19.91	20.04	19.92	21.1	0.0

n7 Ant 3 ECI3

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. / 505000	Middle Ch. / Freq. / 507000	High Ch. / Freq. / 509000		
Channel								
Frequency (MHz)								
50	P1/2 BPSK	1	1	18.61	18.73	18.68	19.9	0.0
50	P1/2 BPSK	1	268	18.50	18.66	18.53		
50	P1/2 BPSK	1	268	18.50	18.55	18.53	19.9	0.0
50	P1/2 BPSK	135	0	18.63	18.56	18.62		
50	P1/2 BPSK	135	68	18.57	18.56	18.48	19.9	0.0
50	P1/2 BPSK	135	135	18.48	18.59	18.43		
50	P1/2 BPSK	270	0	18.43	18.45	18.51	19.9	0.0
50	QPSK	1	1	18.71	18.80	18.70		
50	QPSK	1	135	18.70	18.65	18.68	19.9	0.0
50	QPSK	1	268	18.61	18.67	18.68		
50	QPSK	135	0	18.55	18.63	18.55	19.9	0.0
50	QPSK	135	68	18.67	18.70	18.48		
50	QPSK	135	135	18.50	18.50	18.43	19.9	0.0
50	QPSK	270	0	18.53	18.60	18.51		
50	16QAM	1	1	18.50	18.61	18.54	19.9	0.0
50	64QAM	1	1	18.57	18.63	18.51		
50	256QAM	1	1	18.60	18.67	18.51	19.5	1.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	18.57	18.76	18.64	19.9	0.0
Channel								
Frequency (MHz)								
35	QPSK	1	1	18.59	18.69	18.63	0.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	18.65	18.75	18.65	19.9	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	18.67	18.72	18.60	19.7	0.0
Channel								
Frequency (MHz)								
20	P1/2 BPSK	1	1	18.65	18.75	18.60	19.9	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	18.66	18.68	18.64	19.9	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	18.67	18.71	18.61	19.9	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	18.64	18.67	18.60	19.9	0.0

n25 Ant 3 ECI3

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. / 374000	Middle Ch. / Freq. / 376000	High Ch. / Freq. / 378000		
Channel								
Frequency (MHz)								
40	P1/2 BPSK	1	1	20.09	20.18	20.08	21.1	0.0
40	P1/2 BPSK	1	108	20.02	20.13	20.12		
40	P1/2 BPSK	1	214	20.04	20.12	20.04	21.1	0.0
40	P1/2 BPSK	108	0	20.14	20.17	20.08		
40	P1/2 BPSK	108	54	20.16	20.18	20.05	21.1	0.0
40	P1/2 BPSK	108	108	20.06	20.17	19.98		
40	P1/2 BPSK	216	0	20.18	20.20	20.12	21.1	0.0
40	QPSK	1	1	20.14	20.23	20.19		
40	QPSK	1	108	20.12	20.16	20.11	21.1	0.0
40	QPSK	1	214	20.07	20.20	20.14		
40	QPSK	108	0	20.09	20.12	20.08	21.1	0.0
40	QPSK	108	54	20.17	20.19	20.08		
40	QPSK	108	108	20.05	20.09	20.02	21.1	0.0
40	QPSK	216	0	20.12	20.14	20.10		
40	16QAM	1	1	20.09	20.15	20.00	21.1	0.0
40	64QAM	1	1	19.98	20.01	20.00		
40	256QAM	1	1	19.21	19.22	19.23	19.5	1.0
Channel								
Frequency (MHz)								
35	QPSK	1	1	20.12	20.19	20.16	21.1	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	20.01	20.14	20.13	21.1	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	20.02	20.10	20.05	21.1	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	20.11	20.10	20.10	21.1	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	20.06	20.13	20.15	21.1	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	20.09	20.16	20.10	21.1	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	20.08	20.15	20.07	21.1	0.0



n30 Ant 3 EC13							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	MPR (dB)
Channel							
Frequency (MHz)				2310			
10	PI2 BPSK	1	1	21.04			22.2
10	PI2 BPSK	1	26	20.91			0.0
10	PI2 BPSK	1	50	20.97			
10	PI2 BPSK	25	0	21.03			22.2
10	PI2 BPSK	25	14	20.94			0.0
10	PI2 BPSK	25	27	20.89			22.2
10	PI2 BPSK	50	0	20.94			0.0
10	QPSK	1	1	21.07			22.2
10	QPSK	1	26	21.03			0.0
10	QPSK	1	50	20.98			
10	QPSK	25	0	21.00			22.2
10	QPSK	25	14	21.03			0.0
10	QPSK	25	27	20.91			22.2
10	QPSK	50	0	20.98			0.0
10	16QAM	1	1	20.87			22.2
10	16QAM	1	1	20.87			21.5
10	256QAM	1	1	19.48			19.5
Channel				461900	462000	462500	
Frequency (MHz)				2307.5	2310	2312.5	
5	QPSK	1	1	20.95	21.02	20.98	22.2

n66 Ant 3 EC13							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	MPR (dB)
Channel							
Frequency (MHz)				1720	1745	1760	
40	PI2 BPSK	1	1	20.49	20.55	20.46	
40	PI2 BPSK	1	108	20.43	20.54	20.46	21.6
40	PI2 BPSK	1	214	20.28	20.42	20.40	
40	PI2 BPSK	108	0	20.43	20.52	20.37	21.6
40	PI2 BPSK	108	54	20.43	20.51	20.31	21.6
40	PI2 BPSK	108	108	20.29	20.43	20.38	21.6
40	PI2 BPSK	216	0	20.47	20.51	20.47	21.6
40	QPSK	1	1	20.50	20.63	20.54	
40	QPSK	1	108	20.45	20.58	20.47	21.6
40	QPSK	1	214	20.41	20.53	20.34	
40	QPSK	108	0	20.46	20.43	20.45	21.6
40	QPSK	108	54	20.48	20.56	20.45	21.6
40	QPSK	108	108	20.28	20.41	20.37	21.6
40	QPSK	216	0	20.35	20.46	20.36	21.6
40	16QAM	1	1	20.43	20.44	20.36	21.6
40	16QAM	1	1	20.41	20.42	20.30	21.5
40	256QAM	1	1	19.08	19.13	19.16	19.5
Channel				345000	349000	352000	
Frequency (MHz)				1727.5	1745	1762.5	
35	QPSK	1	1	20.37	20.59	20.48	21.6
Channel				345000	349000	353000	
Frequency (MHz)				1725	1745	1765	
30	QPSK	1	1	20.46	20.50	20.41	21.6
Channel				344800	349000	353500	
Frequency (MHz)				1722.5	1745	1767.5	
25	QPSK	1	1	20.38	20.52	20.42	21.6
Channel				344800	349000	354000	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	1	20.35	20.49	20.44	21.6
Channel				345000	349000	354500	
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	1	20.40	20.48	20.46	21.6
Channel				345000	349000	355000	
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	1	20.42	20.50	20.41	21.6
Channel				342500	349000	355500	
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	1	20.44	20.53	20.51	21.6

n70 Ant 3 EC13							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	MPR (dB)
Channel							
Frequency (MHz)				1702.5			
15	PI2 BPSK	1	1	21.52			
15	PI2 BPSK	1	40	21.87			23.2
15	PI2 BPSK	1	77	21.80			
15	PI2 BPSK	36	0	21.76			23.2
15	PI2 BPSK	36	22	21.88			23.2
15	PI2 BPSK	36	43	21.76			23.2
15	PI2 BPSK	75	0	21.81			23.2
15	QPSK	1	1	21.98			
15	QPSK	1	40	21.83			23.2
15	QPSK	1	77	21.85			
15	QPSK	36	0	21.80			23.0
15	QPSK	36	22	21.94			23.2
15	QPSK	36	43	21.81			23.0
15	QPSK	75	0	21.93			23.0
15	16QAM	1	1	21.71			23.0
15	16QAM	1	1	20.88			21.5
15	256QAM	1	1	19.33			19.5
Channel				345000	349000	341000	
Frequency (MHz)				1700	1702.5	1705	
10	QPSK	1	1	21.73	21.85	21.79	23.2
Channel				335000	340000	341500	
Frequency (MHz)				1697.5	1702.5	1707.5	
5	QPSK	1	1	21.80	21.90	21.74	23.2



Part27Q n77 HPUE Ant 3 EC13

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	18.63	3500.01			
100	PI2 BPSK	1	137	18.79			19.7	0.0
100	PI2 BPSK	1	271	18.72				
100	PI2 BPSK	135	0	18.66			19.7	0.0
100	PI2 BPSK	135	69	18.69			19.7	0.0
100	PI2 BPSK	135	138	18.46			19.7	0.0
100	PI2 BPSK	270	0	18.63			19.7	0.0
100	QPSK	1	1	18.67				
100	QPSK	1	137	18.56			19.7	0.0
100	QPSK	1	271	18.72				
100	QPSK	135	0	18.58			19.7	0.0
100	QPSK	135	69	18.77			19.7	0.0
100	QPSK	135	138	18.61			19.7	0.0
100	QPSK	270	0	18.66			19.7	0.0
100	16QAM	1	1	18.65			19.7	0.0
100	64QAM	1	1	18.44			19.7	0.0
100	256QAM	1	1	18.59			19.7	0.0
Channel								
90	QPSK	1	1	18.69	3500.01	3505.02	19.7	0.0
Channel								
80	QPSK	1	1	18.65	3500.01	3505.02	19.7	0.0
Channel								
70	QPSK	1	1	18.69	3500.01	3505.02	19.7	0.0
Channel								
60	QPSK	1	1	18.64	3500.01	3505.02	19.7	0.0
Channel								
50	QPSK	1	1	18.78	3500.01	3505.02	19.7	0.0
Channel								
40	QPSK	1	1	18.76	3500.01	3505.02	19.7	0.0
Channel								
30	QPSK	1	1	18.55	3500.01	3505.02	19.7	0.0
Channel								
25	QPSK	1	1	18.75	3500.01	3505.02	19.7	0.0
Channel								
20	QPSK	1	1	18.73	3500.01	3505.02	19.7	0.0
Channel								
15	QPSK	1	1	18.68	3500.01	3505.02	19.7	0.0
Channel								
10	QPSK	1	1	18.69	3500.01	3505.02	19.7	0.0

Part27Q n78 HPUE Ant 3 EC13

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	18.42	3750	3750		
100	PI2 BPSK	1	137	18.59			19.7	0.0
100	PI2 BPSK	1	271	18.56				
100	PI2 BPSK	135	0	18.48			19.7	0.0
100	PI2 BPSK	135	69	18.55			19.7	0.0
100	PI2 BPSK	135	138	18.48			19.7	0.0
100	PI2 BPSK	270	0	18.52			19.7	0.0
100	QPSK	1	1	18.66				
100	QPSK	1	137	18.61			19.7	0.0
100	QPSK	1	271	18.56				
100	QPSK	135	0	18.58			19.7	0.0
100	QPSK	135	69	18.60			19.7	0.0
100	QPSK	135	138	18.52			19.7	0.0
100	QPSK	270	0	18.57			19.7	0.0
100	16QAM	1	1	18.52			19.7	0.0
100	64QAM	1	1	18.43			19.7	0.0
100	256QAM	1	1	18.33			19.7	0.0
Channel								
90	QPSK	1	1	18.46	6500.00	6505.00	19.7	0.0
Channel								
80	QPSK	1	1	18.60	6500.00	6505.00	19.7	0.0
Channel								
70	QPSK	1	1	18.44	6500.00	6505.00	19.7	0.0
Channel								
60	QPSK	1	1	18.54	6500.00	6505.00	19.7	0.0
Channel								
50	QPSK	1	1	18.46	6500.00	6505.00	19.7	0.0
Channel								
40	QPSK	1	1	18.48	6500.00	6505.00	19.7	0.0
Channel								
30	QPSK	1	1	18.55	6500.00	6505.00	19.7	0.0
Channel								
25	QPSK	1	1	18.48	6500.00	6505.00	19.7	0.0
Channel								
20	QPSK	1	1	18.49	6500.00	6505.00	19.7	0.0
Channel								
15	QPSK	1	1	18.44	6500.00	6505.00	19.7	0.0
Channel								
10	QPSK	1	1	18.50	6500.00	6505.00	19.7	0.0

Part27Q n78 HPUE Ant 3 EC13

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	18.62	3500.01			
100	PI2 BPSK	1	137	18.52			19.7	0.0
100	PI2 BPSK	1	271	18.44				
100	PI2 BPSK	135	0	18.49			19.7	0.0
100	PI2 BPSK	135	69	18.55			19.7	0.0
100	PI2 BPSK	135	138	18.46			19.7	0.0
100	PI2 BPSK	270	0	18.50			19.7	0.0
100	QPSK	1	1	18.68				
100	QPSK	1	137	18.54			19.7	0.0
100	QPSK	1	271	18.53				
100	QPSK	135	0	18.51			19.7	0.0
100	QPSK	135	69	18.62			19.7	0.0
100	QPSK	135	138	18.51			19.7	0.0
100	QPSK	270	0	18.57			19.7	0.0
100	16QAM	1	1	18.42			19.7	0.0
100	64QAM	1	1	18.55			19.7	0.0
100	256QAM	1	1	18.46			19.7	0.0
Channel								
90	QPSK	1	1	18.49	6500.00	6505.00	19.7	0.0
Channel								
80	QPSK	1	1	18.52	6500.00	6505.00	19.7	0.0
Channel								
70	QPSK	1	1	18.49	6500.00	6505.00	19.7	0.0
Channel								
60	QPSK	1	1	18.49	6500.00	6505.00	19.7	0.0
Channel								
50	QPSK	1	1	18.44	6500.00	6505.00	19.7	0.0
Channel								
40	QPSK	1	1	18.53	6500.00	6505.00	19.7	0.0
Channel								
30	QPSK	1	1	18.51	6500.00	6505.00	19.7	0.0
Channel								
25	QPSK	1	1	18.49	6500.00	6505.00	19.7	0.0
Channel								
20	QPSK	1	1	18.51	6500.00	6505.00	19.7	0.0
Channel								
15	QPSK	1	1	18.52	6500.00	6505.00	19.7	0.0
Channel								
10	QPSK	1	1	18.46	6500.00	6505.00	19.7	0.0



Part270 n78 HPUE Ant 4 ECI3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	17.80	3750				
100	PI2 BPSK	1	137	17.73			19.3	0.0	
100	PI2 BPSK	1	271	17.72					
100	PI2 BPSK	135	0	17.67			19.3	0.0	
100	PI2 BPSK	135	69	17.87			19.3	0.0	
100	PI2 BPSK	135	138	17.71			19.3	0.0	
100	PI2 BPSK	270	0	17.71					
100	QPSK	1	1	17.93					
100	QPSK	1	137	17.82			19.3	0.0	
100	QPSK	1	271	17.78					
100	QPSK	135	0	17.72			19.3	0.0	
100	QPSK	135	69	17.90			19.3	0.0	
100	QPSK	135	138	17.77			19.3	0.0	
100	QPSK	270	0	17.84					
100	16QAM	1	1	17.72			19.3	0.0	
100	64QAM	1	1	17.83			19.3	0.0	
100	256QAM	1	1	17.64			19.3	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	17.82	17.69	17.73	19.3	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	17.79	17.84	17.74	19.3	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	17.77	17.85	17.81	19.3	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	17.78	17.86	17.82	19.3	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	17.73	17.82	17.80	19.3	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	17.74	17.85	17.77	19.3	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	17.75	17.87	17.70	19.3	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	17.78	17.80	17.71	19.3	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	17.85	17.90	17.77	19.3	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	17.82	17.81	17.80	19.3	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	17.83	17.88	17.71	19.3	0.0	

Part27Q n78 HPUE Ant 4 ECI3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	18.18	3600.01				
100	PI2 BPSK	1	137	18.02			19.3	0.0	
100	PI2 BPSK	1	271	18.10					
100	PI2 BPSK	135	0	17.91			19.3	0.0	
100	PI2 BPSK	135	69	18.11			19.3	0.0	
100	PI2 BPSK	135	138	18.08			19.3	0.0	
100	PI2 BPSK	270	0	17.98					
100	QPSK	1	1	18.25					
100	QPSK	1	137	18.02			19.3	0.0	
100	QPSK	1	271	18.01					
100	QPSK	135	0	18.10			19.3	0.0	
100	QPSK	135	69	18.20			19.3	0.0	
100	QPSK	135	138	18.01			19.3	0.0	
100	QPSK	270	0	18.11					
100	16QAM	1	1	18.05			19.3	0.0	
100	64QAM	1	1	18.15			19.3	0.0	
100	256QAM	1	1	18.04			19.3	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	18.11	18.14	18.04	19.3	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	18.15	18.20	18.02	19.3	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	18.14	18.18	18.01	19.3	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	18.10	18.22	18.03	19.3	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	18.09	18.16	18.02	19.3	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	18.11	18.15	18.02	19.3	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	18.07	18.14	18.08	19.3	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	18.17	18.19	18.02	19.3	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	18.15	18.20	18.04	19.3	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	18.07	18.13	18.01	19.3	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	18.08	18.16	18.11	19.3	0.0	



n48 Part 96 Ant 6 EC13									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
40	PI2 BPSK	1	1	19.54	19.67	19.59			
40	PI2 BPSK	1	53	19.55	19.65	19.47	20.7	0.0	
40	PI2 BPSK	1	104	19.49	19.52	19.40			
40	PI2 BPSK	50	0	19.51	19.65	19.50	20.7	0.0	
40	PI2 BPSK	50	28	19.61	19.62	19.52	20.7	0.0	
40	PI2 BPSK	50	56	19.41	19.57	19.45	20.7	0.0	
40	PI2 BPSK	100	0	19.53	19.52	19.52			
40	QPSK	1	1	19.62	19.69	19.60			
40	QPSK	1	53	19.57	19.60	19.54	20.7	0.0	
40	QPSK	1	104	19.47	19.54	19.50			
40	QPSK	50	0	19.48	19.61	19.51	20.7	0.0	
40	QPSK	50	28	19.60	19.65	19.51	20.7	0.0	
40	QPSK	50	56	19.39	19.51	19.40	20.7	0.0	
40	QPSK	100	0	19.52	19.57	19.47			
40	16QAM	1	1	19.50	19.50	19.48	20.7	0.0	
40	64QAM	1	1	19.40	19.44	19.35	19.5	1.2	
40	256QAM	1	1	19.68	19.67	19.63	17.5	3.2	
Channel									
Frequency (MHz)									
30	QPSK	1	1	19.55	19.61	19.56	20.7	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	19.58	19.60	19.48	20.7	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	19.53	19.59	19.55	20.7	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	19.54	19.65	19.48	20.7	0.0	

Part270 n77 HPUE Ant 6 EC13									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	16.33	16.37	16.30			
100	PI2 BPSK	1	137	16.18	16.32	16.24	17.5	0.0	
100	PI2 BPSK	1	271	16.11	16.23	16.25			
100	PI2 BPSK	135	0	16.18	16.17	16.20	17.5	0.0	
100	PI2 BPSK	135	69	16.21	16.11	16.19	17.5	0.0	
100	PI2 BPSK	135	138	16.11	16.11	16.18	17.5	0.0	
100	PI2 BPSK	270	0	16.05	16.16	16.14			
100	QPSK	1	1	16.37	16.46	16.35			
100	QPSK	1	137	16.22	16.36	16.31	17.5	0.0	
100	QPSK	1	271	16.23	16.31	16.28			
100	QPSK	135	0	16.26	16.23	16.18	17.5	0.0	
100	QPSK	135	69	16.29	16.35	16.16	17.5	0.0	
100	QPSK	135	138	16.13	16.20	16.06	17.5	0.0	
100	QPSK	270	0	16.06	16.26	16.10			
100	16QAM	1	1	16.26	16.21	16.14	17.5	0.0	
100	64QAM	1	1	16.21	16.26	16.15	17.5	0.0	
100	256QAM	1	1	16.10	16.21	16.08	17.5	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	16.29	16.36	16.24	17.5	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	16.28	16.32	16.26	17.5	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	16.30	16.37	16.30	17.5	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	16.27	16.35	16.32	17.5	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	16.26	16.31	16.27	17.5	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	16.25	16.32	16.30	17.5	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	16.26	16.30	16.27	17.5	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	16.25	16.30	16.31	17.5	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	16.31	16.29	16.23	17.5	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	16.23	16.36	16.22	17.5	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	16.33	16.34	16.26	17.5	0.0	

Part270 n77 HPUE Ant 6 EC13									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	16.81	16.81	16.81			
100	PI2 BPSK	1	137	16.76	16.76	16.76	17.5	0.0	
100	PI2 BPSK	1	271	16.76	16.76	16.76			
100	PI2 BPSK	135	0	16.83	16.83	16.83	17.5	0.0	
100	PI2 BPSK	135	69	16.76	16.76	16.76	17.5	0.0	
100	PI2 BPSK	135	138	16.57	16.57	16.57	17.5	0.0	
100	PI2 BPSK	270	0	16.65	16.65	16.65			
100	QPSK	1	1	16.85	16.85	16.85			
100	QPSK	1	137	16.81	16.81	16.81	17.5	0.0	
100	QPSK	1	271	16.76	16.76	16.76			
100	QPSK	135	0	16.71	16.71	16.71	17.5	0.0	
100	QPSK	135	69	16.79	16.79	16.79	17.5	0.0	
100	QPSK	135	138	16.71	16.71	16.71	17.5	0.0	
100	QPSK	270	0	16.75	16.75	16.75			
100	16QAM	1	1	16.66	16.66	16.66	17.5	0.0	
100	64QAM	1	1	16.70	16.70	16.70	17.5	0.0	
100	256QAM	1	1	16.81	16.81	16.81	17.5	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	16.72	16.84	16.71	17.5	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	16.71	16.81	16.70	17.5	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	16.75	16.80	16.70	17.5	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	16.71	16.80	16.76	17.5	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	16.76	16.79	16.74	17.5	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	16.71	16.75	16.70	17.5	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	16.70	16.84	16.73	17.5	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	16.72	16.79	16.76	17.5	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	16.77	16.75	16.71	17.5	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	16.73	16.79	16.73	17.5	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	16.72	16.76	16.76	17.5	0.0	



Part270 n78 HPUE Ant 6 EC13									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. F. Freq.	Power Middle Ch. F. Freq.	Power High Ch. F. Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	Pl2 BPSK	1	1		3750				
100	Pl2 BPSK	1	137		1644				
100	Pl2 BPSK	1	271		1644		17.5	0.0	
100	Pl2 BPSK	135	0		1623		17.5	0.0	
100	Pl2 BPSK	135	69		1643		17.5	0.0	
100	Pl2 BPSK	135	138		1632		17.5	0.0	
100	Pl2 BPSK	270	0		1636		17.5	0.0	
100	QPSK	1	1		1653				
100	QPSK	1	137		1632		17.5	0.0	
100	QPSK	1	271		1643				
100	QPSK	135	0		1637		17.5	0.0	
100	QPSK	135	69		1650		17.5	0.0	
100	QPSK	135	138		1634		17.5	0.0	
100	QPSK	270	0		1652		17.5	0.0	
100	16QAM	1	1		1634		17.5	0.0	
100	16QAM	1	1		1635		17.5	0.0	
100	256QAM	1	1		1628		17.5	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	3745.02	3750	3750.01	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
80	QPSK	1	1	1638	1640	1634	17.5	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	1639	1648	1638	17.5	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	1643	1644	1630	17.5	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	1637	1645	1638	17.5	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	1635	1647	1636	17.5	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	1638	1643	1632	17.5	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	1633	1644	1630	17.5	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	1635	1649	1629	17.5	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	1637	1644	1628	17.5	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	1636	1639	1632	17.5	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	1643	1648	1636	17.5	0.0	

Part27Q n78 HPUE Ant 6 EC13									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. F. Freq.	Power Middle Ch. F. Freq.	Power High Ch. F. Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	Pl2 BPSK	1	1		3500.01				
100	Pl2 BPSK	1	137		1681				
100	Pl2 BPSK	1	271		1672		17.5	0.0	
100	Pl2 BPSK	135	0		1681		17.5	0.0	
100	Pl2 BPSK	135	69		1677		17.5	0.0	
100	Pl2 BPSK	135	138		1681		17.5	0.0	
100	Pl2 BPSK	270	0		1686		17.5	0.0	
100	QPSK	1	1		1684				
100	QPSK	1	137		1681		17.5	0.0	
100	QPSK	1	271		1672				
100	QPSK	135	0		1682		17.5	0.0	
100	QPSK	135	69		1676		17.5	0.0	
100	QPSK	135	138		1681		17.5	0.0	
100	QPSK	270	0		1673		17.5	0.0	
100	16QAM	1	1		1688		17.5	0.0	
100	16QAM	1	1		1685		17.5	0.0	
100	256QAM	1	1		1680		17.5	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	3495	3500.01	3505.02	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
80	QPSK	1	1	1608	1673	1671	17.5	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	1670	1681	1689	17.5	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	1676	1677	1673	17.5	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	1671	1679	1683	17.5	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	1607	1674	1684	17.5	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	1672	1676	1684	17.5	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	1671	1681	1684	17.5	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	1608	1679	1674	17.5	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	1678	1680	1684	17.5	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	1607	1670	1686	17.5	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	1667	1678	1686	17.5	0.0	



n48 Part 96 Ant 8 ECI3

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	19.68	19.80	19.76		
40	PI2 BPSK	1	53	19.59	19.74	19.60	20.8	0.0
40	PI2 BPSK	1	104	19.53	19.81	19.58		
40	PI2 BPSK	50	0	19.69	19.77	19.81	20.8	0.0
40	PI2 BPSK	50	28	19.69	19.71	19.64	20.8	0.0
40	PI2 BPSK	50	56	19.60	19.68	19.56	20.8	0.0
40	PI2 BPSK	100	0	19.65	19.68	19.68		
40	QPSK	1	1	19.73	19.85	19.78		
40	QPSK	1	53	19.66	19.69	19.67	20.8	0.0
40	QPSK	1	104	19.62	19.72	19.57		
40	QPSK	50	0	19.65	19.69	19.60	20.8	0.0
40	QPSK	50	28	19.64	19.81	19.63	20.8	0.0
40	QPSK	50	56	19.60	19.67	19.56	20.8	0.0
40	QPSK	100	0	19.59	19.73	19.62		
40	16QAM	1	1	19.65	19.62	19.56	20.8	1.0
40	64QAM	1	1	19.02	19.09	19.05	19.8	1.0
40	256QAM	1	1	17.00	17.07	16.96	17.8	3.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	19.61	19.81	19.74	20.8	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	19.66	19.74	19.66	20.8	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	19.63	19.79	19.64	20.8	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	19.64	19.78	19.65	20.8	0.0

Part270 n77 Ant 8 ECI3

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	13.35	13.54	13.53		
100	PI2 BPSK	1	137	13.40	13.50	13.34	14.5	0.0
100	PI2 BPSK	1	271	13.32	13.31	13.34		
100	PI2 BPSK	135	0	13.30	13.37	13.31	14.5	0.0
100	PI2 BPSK	135	69	13.42	13.42	13.34	14.5	0.0
100	PI2 BPSK	135	138	13.30	13.27	13.30	14.5	0.0
100	PI2 BPSK	270	0	13.31	13.37	13.29		
100	QPSK	1	1	13.45	13.57	13.55		
100	QPSK	1	137	13.41	13.46	13.48	14.5	0.0
100	QPSK	1	271	13.43	13.42	13.40		
100	QPSK	135	0	13.41	13.48	13.45	14.5	0.0
100	QPSK	135	69	13.40	13.54	13.44	14.5	0.0
100	QPSK	135	138	13.36	13.36	13.34	14.5	0.0
100	QPSK	270	0	13.34	13.44	13.34		
100	16QAM	1	1	13.36	13.37	13.37	14.5	0.0
100	64QAM	1	1	13.43	13.35	13.27	14.5	0.0
100	256QAM	1	1	13.29	13.42	13.34	14.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	13.36	13.47	13.43	14.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	13.30	13.54	13.42	14.5	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	13.31	13.48	13.45	14.5	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	13.41	13.53	13.42	14.5	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	13.34	13.50	13.47	14.5	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	13.33	13.48	13.42	14.5	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	13.30	13.54	13.46	14.5	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	13.39	13.52	13.43	14.5	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	13.42	13.48	13.48	14.5	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	13.33	13.53	13.40	14.5	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	13.33	13.45	13.47	14.5	0.0

Part270 n77 HPUE Ant 8 ECI3

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	16.29	16.41	16.38		
100	PI2 BPSK	1	137	16.28	16.44	16.20	17.5	0.0
100	PI2 BPSK	1	271	16.15	16.14	16.19		
100	PI2 BPSK	135	0	16.13	16.23	16.23	17.5	0.0
100	PI2 BPSK	135	69	16.32	16.28	16.23	17.5	0.0
100	PI2 BPSK	135	138	16.14	16.16	16.20	17.5	0.0
100	PI2 BPSK	270	0	16.16	16.28	16.22		
100	QPSK	1	1	16.37	16.46	16.44		
100	QPSK	1	137	16.34	16.40	16.31	17.5	0.0
100	QPSK	1	271	16.25	16.25	16.34		
100	QPSK	135	0	16.31	16.39	16.27	17.5	0.0
100	QPSK	135	69	16.31	16.42	16.32	17.5	0.0
100	QPSK	135	138	16.17	16.21	16.18	17.5	0.0
100	QPSK	270	0	16.25	16.31	16.23		
100	16QAM	1	1	16.27	16.28	16.24	17.5	0.0
100	64QAM	1	1	16.27	16.24	16.17	17.5	0.0
100	256QAM	1	1	16.15	16.26	16.22	17.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	16.23	16.37	16.34	17.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	16.28	16.37	16.33	17.5	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	16.29	16.39	16.32	17.5	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	16.23	16.31	16.25	17.5	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	16.31	16.32	16.27	17.5	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	16.33	16.36	16.30	17.5	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	16.29	16.37	16.31	17.5	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	16.22	16.42	16.29	17.5	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	16.29	16.36	16.30	17.5	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	16.24	16.42	16.33	17.5	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	16.28	16.40	16.37	17.5	0.0



Part27Q n77 HPUE Ant 8 ECI3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	16.80	3500.01				
100	PI2 BPSK	1	137	16.81			17.5	0.0	
100	PI2 BPSK	1	271	16.83					
100	PI2 BPSK	135	0	16.49			17.5	0.0	
100	PI2 BPSK	135	69	16.88			17.5	0.0	
100	PI2 BPSK	135	138	16.45			17.5	0.0	
100	PI2 BPSK	270	0	16.63					
100	QPSK	1	1	16.83					
100	QPSK	1	137	16.76			17.5	0.0	
100	QPSK	1	271	16.75					
100	QPSK	135	0	16.67			17.5	0.0	
100	QPSK	135	69	16.73			17.5	0.0	
100	QPSK	135	138	16.59			17.5	0.0	
100	QPSK	270	0	16.65					
100	16QAM	1	1	16.58			17.5	0.0	
100	64QAM	1	1	16.62			17.5	0.0	
100	25QAM	1	1	16.84			17.5	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	63300	63334	63368	Tune-up limit (dBm)	MPR (dB)	
90	QPSK	1	1	3495	3500.01	3505.02			
Channel									
Frequency (MHz)									
80	QPSK	1	1	16.64	16.78	16.67	17.5	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	16.65	16.69	16.64	17.5	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	16.65	16.72	16.64	17.5	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	16.64	16.78	16.67	17.5	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	16.65	16.75	16.60	17.5	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	16.86	16.70	16.64	17.5	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	16.86	16.70	16.64	17.5	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	16.82	16.77	16.63	17.5	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	16.84	16.75	16.59	17.5	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	16.83	16.70	16.62	17.5	0.0	

Part27Q n78 HPUE Ant 8 ECI3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	16.31	3750				
100	PI2 BPSK	1	137	16.29			17.5	0.0	
100	PI2 BPSK	1	271	16.20					
100	PI2 BPSK	135	0	16.13			17.5	0.0	
100	PI2 BPSK	135	69	16.15			17.5	0.0	
100	PI2 BPSK	135	138	16.07			17.5	0.0	
100	PI2 BPSK	270	0	16.24					
100	QPSK	1	1	16.41					
100	QPSK	1	137	16.39			17.5	0.0	
100	QPSK	1	271	16.34					
100	QPSK	135	0	16.24			17.5	0.0	
100	QPSK	135	69	16.37			17.5	0.0	
100	QPSK	135	138	16.22			17.5	0.0	
100	QPSK	270	0	16.30					
100	16QAM	1	1	16.21			17.5	0.0	
100	64QAM	1	1	16.28			17.5	0.0	
100	25QAM	1	1	16.44			17.5	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	64968	65000	65034	Tune-up limit (dBm)	MPR (dB)	
90	QPSK	1	1	3745.02	3750	3755.01			
Channel									
Frequency (MHz)									
80	QPSK	1	1	16.20	16.29	16.18	17.5	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	16.27	16.27	16.29	17.5	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	16.20	16.36	16.18	17.5	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	16.21	16.29	16.26	17.5	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	16.30	16.30	16.27	17.5	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	16.25	16.29	16.29	17.5	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	16.25	16.29	16.21	17.5	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	16.29	16.36	16.29	17.5	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	16.29	16.32	16.21	17.5	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	16.20	16.37	16.19	17.5	0.0	

Part27Q n78 HPUE Ant 8 ECI3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	16.53	3500.01				
100	PI2 BPSK	1	137	16.50			17.5	0.0	
100	PI2 BPSK	1	271	16.41					
100	PI2 BPSK	135	0	16.42			17.5	0.0	
100	PI2 BPSK	135	69	16.36			17.5	0.0	
100	PI2 BPSK	135	138	16.29			17.5	0.0	
100	PI2 BPSK	270	0	16.56					
100	QPSK	1	1	16.63					
100	QPSK	1	137	16.58			17.5	0.0	
100	QPSK	1	271	16.52					
100	QPSK	135	0	16.49			17.5	0.0	
100	QPSK	135	69	16.56			17.5	0.0	
100	QPSK	135	138	16.43			17.5	0.0	
100	QPSK	270	0	16.64					
100	16QAM	1	1	16.38			17.5	0.0	
100	64QAM	1	1	16.32			17.5	0.0	
100	25QAM	1	1	16.40			17.5	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	63300	63334	63368	Tune-up limit (dBm)	MPR (dB)	
90	QPSK	1	1	3495	3500.01	3505.02			
Channel									
Frequency (MHz)									
80	QPSK	1	1	16.51	16.58	16.46	17.5	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	16.44	16.51	16.43	17.5	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	16.43	16.49	16.50	17.5	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	16.53	16.58	16.43	17.5	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	16.45	16.55	16.38	17.5	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	16.44	16.53	16.38	17.5	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	16.44	16.53	16.38	17.5	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	16.52	16.57	16.46	17.5	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	16.50	16.53	16.45	17.5	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	16.43	16.49	16.41	17.5	0.0	



Reduced Power Mode for EC15

n2 Ant 0 EC15

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	20.40	20.59	20.51		
40	PI2 BPSK	1	108	20.40	20.45	20.43	21.8	0.0
40	PI2 BPSK	1	214	20.35	20.43	20.38		
40	PI2 BPSK	168	0	20.38	20.55	20.39	21.8	0.0
40	PI2 BPSK	108	54	20.47	20.45	20.31	21.8	0.0
40	PI2 BPSK	108	108	20.31	20.43	20.36		
40	PI2 BPSK	216	0	20.37	20.50	20.40	21.8	0.0
40	QPSK	1	1	20.52	20.60	20.56		
40	QPSK	1	108	20.39	20.48	20.41	21.8	0.0
40	QPSK	1	214	20.45	20.46	20.28		
40	QPSK	168	0	20.44	20.44	20.42	21.8	0.0
40	QPSK	108	54	20.43	20.55	20.42	21.8	0.0
40	QPSK	108	108	20.29	20.42	20.30		
40	QPSK	216	0	20.42	20.46	20.32		
40	16QAM	1	1	20.41	20.40	20.44	21.8	0.0
40	64QAM	1	1	20.21	20.30	20.23	21.5	0.0
40	256QAM	1	1	18.80	18.83	18.74	19.5	2.3
Channel								
Frequency (MHz)								
35	QPSK	1	1	20.37	20.55	20.47	21.8	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	20.43	20.51	20.48	21.8	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	20.43	20.54	20.45	21.8	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	20.43	20.46	20.42	21.8	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	20.46	20.52	20.50	21.8	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	20.38	20.52	20.47	21.8	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	20.45	20.57	20.48	21.8	0.0

n5 Ant 0 EC15

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	22.59	22.74	22.62		
20	PI2 BPSK	1	50	22.68	22.86	22.58	24.0	0.0
20	PI2 BPSK	1	104	22.58	22.71	22.66		
20	PI2 BPSK	50	0	22.54	22.61	22.59	23.5	0.5
20	PI2 BPSK	50	28	22.84	22.69	22.58	24.0	0.0
20	PI2 BPSK	50	56	22.37	22.53	22.41		
20	PI2 BPSK	100	0	22.58	22.66	22.38	23.5	0.5
20	QPSK	1	1	22.72	22.78	22.69		
20	QPSK	1	50	22.70	22.74	22.65	24.0	0.0
20	QPSK	1	104	22.57	22.64	22.60		
20	QPSK	50	0	22.09	22.10	21.89	23.0	1.0
20	QPSK	50	28	22.84	22.70	22.57	24.0	0.0
20	QPSK	50	56	22.02	22.13	21.95	23.0	1.0
20	QPSK	100	0	22.12	22.17	21.86		
20	16QAM	1	1	21.97	22.08	21.93	23.0	1.0
20	64QAM	1	1	20.73	20.78	20.54	21.5	2.5
20	256QAM	1	1	19.29	19.36	19.34	19.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.57	22.74	22.62	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.63	22.67	22.65	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.80	22.72	22.55	24.0	0.0

n7 Ant 0 EC15

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
50	PI2 BPSK	1	1	19.91	20.01	19.87		
50	PI2 BPSK	1	135	19.76	19.84	19.80	21.1	0.0
50	PI2 BPSK	1	268	19.79	19.76	19.85		
50	PI2 BPSK	135	0	19.80	19.85	19.78	21.1	0.0
50	PI2 BPSK	135	68	19.86	19.91	19.78	21.1	0.0
50	PI2 BPSK	135	135	19.86	19.79	19.83	21.1	0.0
50	PI2 BPSK	270	0	19.86	19.85	19.73		
50	QPSK	1	1	20.02	20.07	19.95		
50	QPSK	1	135	19.88	19.97	19.83	21.1	0.0
50	QPSK	1	268	19.82	19.95	19.77		
50	QPSK	135	0	19.72	19.77	19.67	21.1	0.0
50	QPSK	135	68	19.84	19.97	19.77	21.1	0.0
50	QPSK	135	135	19.82	19.76	19.71	21.1	0.0
50	QPSK	270	0	19.78	19.94	19.63		
50	16QAM	1	1	19.52	19.52	19.41	21.1	0.0
50	64QAM	1	1	19.72	19.78	19.74	21.1	0.0
50	256QAM	1	1	19.09	19.06	18.91	19.5	1.6
Channel								
Frequency (MHz)								
40	QPSK	1	1	20.01	20.01	19.93	21.1	0.0
Channel								
Frequency (MHz)								
35	QPSK	1	1	19.53	20.09	19.85	21.1	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	20.00	20.05	19.90	21.1	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	19.95	19.99	19.98	21.1	0.0
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	20.01	20.01	19.88	21.1	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	19.57	19.99	19.86	21.1	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	19.95	20.05	19.90	21.1	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	20.03	20.01	19.89	21.1	0.0



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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				14330	14150	14170		
				706.5	707.5	708.5		
15	PI2 BPSK	1	1	23.07	23.19	23.03		
15	PI2 BPSK	1	40	23.01	23.05	23.05	24.0	0.0
15	PI2 BPSK	1	77	23.01	23.07	22.97		
15	PI2 BPSK	36	0	22.46	22.54	22.51	23.5	0.5
15	PI2 BPSK	36	22	23.05	23.07	22.98	24.0	0.0
15	PI2 BPSK	36	43	22.29	22.43	22.27	23.5	0.5
15	PI2 BPSK	75	0	22.51	22.58	22.37		
15	QPSK	1	1	23.13	23.27	23.08		
15	QPSK	1	40	23.15	23.17	22.95	24.0	0.0
15	QPSK	1	77	23.01	23.10	22.99		
15	QPSK	36	0	22.00	22.05	21.84	23.0	1.0
15	QPSK	36	22	23.04	23.24	23.01	24.0	0.0
15	QPSK	36	43	22.00	22.05	21.94	23.0	1.0
15	QPSK	75	0	22.01	22.11	21.85		
15	16QAM	1	1	21.94	21.98	21.85	23.0	1.0
15	64QAM	1	1	20.61	20.67	20.54	21.5	2.5
15	256QAM	1	1	19.17	19.31	18.26	19.5	4.5
Channel				14800	14150	14200	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				704	707.5	711		
10	QPSK	1	1	23.08	23.15	23.04	24.0	0.0
Channel				140300	141500	142700	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				701.5	707.5	713.5		
5	QPSK	1	1	23.10	23.14	22.95	24.0	0.0

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				15850				
10	PI2 BPSK	1	1		23.57			
10	PI2 BPSK	1	26		23.36		24.0	0.0
10	PI2 BPSK	1	50		23.39			
10	PI2 BPSK	25	0		23.88		23.5	0.5
10	PI2 BPSK	25	14		23.43		24.0	0.0
10	PI2 BPSK	25	27		22.81		23.5	0.5
10	PI2 BPSK	50	0		22.95			
10	QPSK	1	1		23.63			
10	QPSK	1	26		23.49		24.0	0.0
10	QPSK	1	50		23.45			
10	QPSK	25	0		22.40		23.0	1.0
10	QPSK	25	14		23.55		24.0	0.0
10	QPSK	25	27		22.40		23.0	1.0
10	QPSK	50	0		22.44			
10	16QAM	1	1		22.39		23.0	1.0
10	64QAM	1	1		21.04		21.5	2.5
10	256QAM	1	1		19.33		19.5	4.5
Channel				158100	158000	159100	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				700.5	703	705.5		
5	QPSK	1	1	23.45	23.46	23.39	24.0	0.0

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				1870			1882.5	1896
40	PI2 BPSK	1	1	20.58	20.73	20.69		
40	PI2 BPSK	1	109	20.56	20.60	20.56	21.8	0.0
40	PI2 BPSK	1	214	20.54	20.55	20.54		
40	PI2 BPSK	108	0	20.60	20.68	20.52	21.8	0.0
40	PI2 BPSK	108	54	20.63	20.80	20.50	21.8	0.0
40	PI2 BPSK	108	108	20.50	20.63	20.50	21.8	0.0
40	PI2 BPSK	216	0	20.58	20.70	20.58		
40	QPSK	1	1	20.65	20.80	20.67		
40	QPSK	1	108	20.50	20.82	20.53	21.8	0.0
40	QPSK	1	214	20.57	20.81	20.45		
40	QPSK	108	0	20.64	20.55	20.62	21.8	0.0
40	QPSK	108	54	20.55	20.79	20.61	21.8	0.0
40	QPSK	108	108	20.46	20.60	20.52	21.8	0.0
40	QPSK	216	0	20.67	20.63	20.53		
40	16QAM	1	1	20.52	20.57	20.58	21.8	0.0
40	64QAM	1	1	20.70	20.74	20.63	21.5	0.3
40	256QAM	1	1	19.25	19.41	19.34	19.5	2.3
Channel				373500	376500	379500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1887.5	1892.5	1897.5		
35	QPSK	1	1	20.65	20.71	20.68	21.8	0.0
Channel				373000	376500	380000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1865	1892.5	1900		
30	QPSK	1	1	20.52	20.70	20.60	21.8	0.0
Channel				372500	376500	380500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1862.5	1892.5	1902.5		
25	QPSK	1	1	20.55	20.68	20.53	21.8	0.0
Channel				372000	376500	381000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1860	1892.5	1905		
20	QPSK	1	1	20.60	20.77	20.61	21.8	0.0
Channel				371500	376500	381500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1892.5	1897.5		
15	QPSK	1	1	20.61	20.71	20.64	21.8	0.0
Channel				371000	376500	382000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1892.5	1910		
10	QPSK	1	1	20.54	20.72	20.59	21.8	0.0
Channel				370500	376500	382500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1892.5	1912.5		
5	QPSK	1	1	20.50	20.67	20.63	21.8	0.0



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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				169300	169300	169300		
				824	831.5	839		
20	PI2 BPSK	1	1	22.74	22.89	22.81		
20	PI2 BPSK	1	50	22.70	22.82	22.74	24.0	0.0
20	PI2 BPSK	1	104	22.67	22.84	22.74		
20	PI2 BPSK	50	0	22.65	22.75	22.65	23.5	0.5
20	PI2 BPSK	50	28	22.75	22.87	22.77	24.0	0.0
20	PI2 BPSK	50	56	22.55	22.65	22.54		
20	PI2 BPSK	100	0	22.63	22.70	22.62	23.5	0.5
20	QPSK	1	1	22.81	22.93	22.87		
20	QPSK	1	53	22.78	22.85	22.81	24.0	0.0
20	QPSK	1	104	22.67	22.83	22.77		
20	QPSK	50	0	22.20	22.20	22.12	23.0	1.0
20	QPSK	50	28	22.74	22.82	22.79	24.0	0.0
20	QPSK	50	56	22.17	22.19	22.06	23.0	1.0
20	QPSK	100	0	22.20	22.28	22.10		
20	16QAM	1	1	21.85	21.96	21.86	23.0	1.0
20	64QAM	1	1	20.53	20.59	20.58	21.5	2.5
20	256QAM	1	1	19.12	19.15	19.00	19.5	4.5
Channel				164300	168300	168300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				811.5	831.5	841.5		
15	QPSK	1	1	22.67	22.79	22.74	24.0	0.0
Channel				163800	168300	168800	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				819	831.5	844		
10	QPSK	1	1	22.78	22.81	22.81	24.0	0.0
Channel				163300	168300	169300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				816.5	831.5	846.5		
5	QPSK	1	1	22.67	22.85	22.80	24.0	0.0

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				462000				
10	PI2 BPSK	1	1		21.95			
10	PI2 BPSK	1	20		21.92		23.3	0.0
10	PI2 BPSK	1	50		21.79			
10	PI2 BPSK	25	0		21.87		23.3	0.0
10	PI2 BPSK	25	14		21.95		23.3	0.0
10	PI2 BPSK	25	27		21.82		23.3	0.0
10	PI2 BPSK	50	0		21.88			
10	QPSK	1	1		21.96			
10	QPSK	1	20		21.94		23.3	0.0
10	QPSK	1	50		21.92			
10	QPSK	25	0		21.81		23.0	0.3
10	QPSK	25	14		21.94		23.3	0.0
10	QPSK	25	27		21.85		23.0	0.3
10	QPSK	50	0		21.93			
10	16QAM	1	1		21.78		23.0	0.3
10	64QAM	1	1		20.69		21.5	1.8
10	256QAM	1	1		19.42		19.5	3.8
Channel				461500	462000	462500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2307.5	2310	2312.5		
5	QPSK	1	1	21.88	21.93	21.92	23.3	0.0

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				346000	349000	352000		
				1730	1745	1760		
40	PI2 BPSK	1	1	19.85	20.00	19.87		
40	PI2 BPSK	1	100	19.81	19.86	19.77	21.2	0.0
40	PI2 BPSK	1	214	19.79	19.83	19.75		
40	PI2 BPSK	100	0	19.79	19.87	19.81	21.2	0.0
40	PI2 BPSK	100	54	19.86	19.92	19.79	21.2	0.0
40	PI2 BPSK	100	108	19.73	19.80	19.71	21.2	0.0
40	PI2 BPSK	216	0	19.78	19.83	19.81		
40	QPSK	1	1	19.88	20.03	19.95		
40	QPSK	1	108	19.77	19.92	19.81	21.2	0.0
40	QPSK	1	214	19.81	19.88	19.72	21.2	0.0
40	QPSK	100	0	19.84	19.90	19.78	21.2	0.0
40	QPSK	100	54	19.83	19.97	19.88	21.2	0.0
40	QPSK	100	108	19.70	19.85	19.70	21.2	0.0
40	QPSK	216	0	19.75	19.90	19.81		
40	16QAM	1	1	19.78	19.78	19.82	21.2	0.0
40	64QAM	1	1	19.73	19.85	19.70	21.2	0.0
40	256QAM	1	1	18.93	19.00	18.98	19.5	1.7
Channel				345500	349000	352500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1727.5	1745	1762.5		
35	QPSK	1	1	19.89	20.02	20.00	21.2	0.0
Channel				345000	349000	353000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1725	1745	1765		
30	QPSK	1	1	19.95	20.00	19.89	21.2	0.0
Channel				344500	349000	353500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1722.5	1745	1767.5		
25	QPSK	1	1	19.85	20.00	19.90	21.2	0.0
Channel				344000	349000	354000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	1	19.85	20.00	19.91	21.2	0.0
Channel				343500	349000	354500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	1	19.84	19.95	19.84	21.2	0.0
Channel				343000	349000	355000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	1	19.85	19.99	19.97	21.2	0.0
Channel				342500	349000	355500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	1	19.93	20.00	19.96	21.2	0.0



n70 Ant 0 ECI5									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				340500					
Frequency (MHz)				1702.5					
15	PI/2 BPSK	1	1		20.11				
15	PI/2 BPSK	1	40		20.03		21.0	0.0	
15	PI/2 BPSK	1	77		19.98				
15	PI/2 BPSK	36	0		20.05		21.0	0.0	
15	PI/2 BPSK	36	22		20.10				
15	PI/2 BPSK	36	43		20.02		21.0	0.0	
15	PI/2 BPSK	75	0		20.04				
15	QPSK	1	1		20.14				
15	QPSK	1	40		20.05		21.0	0.0	
15	QPSK	1	77		20.08				
15	QPSK	36	0		20.04		21.0	0.0	
15	QPSK	36	22		20.10				
15	QPSK	36	43		19.97		21.0	0.0	
15	QPSK	75	0		20.02				
15	16QAM	1	1		19.95		21.0	0.0	
15	16QAM	1	1		19.92				
15	256QAM	1	1		19.05		21.0	1.5	
Channel				340000	340500	341000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1700	1702.5	1705			
10	QPSK	1	1		20.10	20.13	20.11	21.0	0.0
Channel				339500	340500	341500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1697.5	1702.5	1707.5			
5	QPSK	1	1		20.11	20.13	20.08	21.0	0.0

n71 Ant 0 ECI5									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				134000					
Frequency (MHz)				675					
20	PI/2 BPSK	1	1		23.50	23.57	23.42		
20	PI/2 BPSK	1	50		23.43	23.41	23.46	24.0	0.0
20	PI/2 BPSK	1	104		23.28	23.28	23.28		
20	PI/2 BPSK	50	0		22.81	22.93	22.82	23.5	0.5
20	PI/2 BPSK	50	28		23.38	23.34	23.29	24.0	0.0
20	PI/2 BPSK	50	56		22.63	22.85	22.68		
20	PI/2 BPSK	100	0		22.81	22.91	22.77	23.5	0.5
20	QPSK	1	1		23.59	23.69	23.54		
20	QPSK	1	53		23.48	23.46	23.31	24.0	0.0
20	QPSK	1	104		23.31	23.49	23.35		
20	QPSK	50	0		22.32	22.38	22.20	23.0	1.0
20	QPSK	50	28		23.34	23.50	23.28	24.0	0.0
20	QPSK	50	56		22.36	22.38	22.30	23.0	1.0
20	QPSK	100	0		22.24	22.42	22.20		
20	16QAM	1	1		22.29	22.36	22.22	23.0	1.0
20	64QAM	1	1		20.98	21.00	20.87	21.5	2.5
20	256QAM	1	1		19.28	19.45	19.40	19.5	4.5
Channel				134100	136100	138100	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				670.5	680.5	690.5			
15	QPSK	1	1		23.48	23.58	23.50	24.0	0.0
Channel				133600	136100	138600	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				668	680.5	693			
10	QPSK	1	1		23.58	23.59	23.43	24.0	0.0
Channel				133100	136100	139100	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				665.5	680.5	695.5			
5	QPSK	1	1		23.52	23.60	23.44	24.0	0.0



n41 HPUE Ant 0 EC15									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 506202	Power Middle Ch. Freq. 518598	Power High Ch. Freq. 528000	Tune-up limit (dBm)	MPR (dB)	
Channel				2546.01	2592.99	2640			
Frequency (MHz)									
100	PI2 BPSK	1	1	19.66	19.77	19.71			
100	PI2 BPSK	1	137	19.66	19.73	19.67	20.8	0.0	
100	PI2 BPSK	1	271	19.63	19.56	19.55			
100	PI2 BPSK	135	0	19.51	19.74	19.41	20.8	0.0	
100	PI2 BPSK	135	69	19.54	19.81	19.53	20.8	0.0	
100	PI2 BPSK	135	138	19.45	19.74	19.55	20.8	0.0	
100	PI2 BPSK	270	0	19.57	19.77	19.55			
100	QPSK	1	1	19.68	19.80	19.78			
100	QPSK	1	137	19.61	19.65	19.55	20.8	0.0	
100	QPSK	1	271	19.54	19.65	19.47			
100	QPSK	135	0	19.61	19.57	19.55	20.8	0.0	
100	QPSK	135	69	19.67	19.78	19.58	20.8	0.0	
100	QPSK	135	138	19.45	19.63	19.48	20.8	0.0	
100	QPSK	270	0	19.55	19.71	19.55			
100	16QAM	1	1	19.58	19.59	19.63	20.8	0.0	
100	64QAM	1	1	19.50	19.65	19.48	20.8	0.0	
100	256QAM	1	1	19.51	19.67	19.62	20.8	0.0	
Channel				506200	518598	528000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2541	2592.99	2644.88			
90	QPSK	1	1	19.55	19.68	19.66	20.8	0.0	
Channel				507204	518598	528000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2532.02	2592.99	2643.99			
80	QPSK	1	1	19.55	19.78	19.63	20.8	0.0	
Channel				508202	518598	531000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2531.01	2592.99	2655			
70	QPSK	1	1	19.63	19.69	19.55	20.8	0.0	
Channel				509200	518598	531000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2526	2592.99	2659.88			
60	QPSK	1	1	19.61	19.73	19.70	20.8	0.0	
Channel				504204	518598	529000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2621.02	2622.96	2644.86			
50	QPSK	1	1	19.57	19.75	19.67	20.8	0.0	
Channel				503700	518598	533496	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2513.3	2592.99	2637.43			
45	QPSK	1	1	19.58	19.72	19.61	20.8	0.0	
Channel				503202	518598	534000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2518.01	2592.99	2670			
40	QPSK	1	1	19.55	19.65	19.69	20.8	0.0	
Channel				502704	518598	534496	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2513.52	2592.99	2672.49			
35	QPSK	1	1	19.61	19.69	19.60	20.8	0.0	
Channel				502200	518598	534996	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2511	2592.99	2674.89			
30	QPSK	1	1	19.58	19.65	19.65	20.8	0.0	
Channel				501702	518598	535500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2508.51	2592.99	2677.5			
25	QPSK	1	1	19.58	19.77	19.60	20.8	0.0	
Channel				501204	518598	535996	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2508.02	2592.99	2679.99			
20	QPSK	1	1	19.62	19.74	19.66	20.8	0.0	
Channel				500700	518598	536496	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2503.5	2592.99	2682.43			
15	QPSK	1	1	19.64	19.67	19.68	20.8	0.0	
Channel				500202	518598	537000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2501.01	2592.99	2685			
10	QPSK	1	1	19.55	19.72	19.61	20.8	0.0	



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BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel								
Frequency (MHz)				1870	1880	1890		
40	PI2 BPSK	1	1	19.89	20.04	20.00		
40	PI2 BPSK	1	108	19.98	19.99	19.98	21.0	0.0
40	PI2 BPSK	1	214	19.81	19.91	19.83		
40	PI2 BPSK	108	0	19.90	20.03	19.82	21.0	0.0
40	PI2 BPSK	108	54	19.92	20.03	19.89	21.0	0.0
40	PI2 BPSK	108	108	19.87	19.90	19.82	21.0	0.0
40	PI2 BPSK	216	0	19.94	19.98	19.93	21.0	0.0
40	QPSK	1	1	19.93	20.05	20.03		
40	QPSK	1	108	19.87	20.04	19.84	21.0	0.0
40	QPSK	1	214	19.96	19.90	19.80		
40	QPSK	108	0	19.97	19.94	19.95	21.0	0.0
40	QPSK	108	54	19.89	20.00	19.96	21.0	0.0
40	QPSK	108	108	19.81	19.90	19.78	21.0	0.0
40	QPSK	216	0	19.91	19.94	19.85	21.0	0.0
40	16QAM	1	1	19.86	19.89	19.87	21.0	0.0
40	64QAM	1	1	19.81	19.85	19.77	21.0	0.0
40	256QAM	1	1	19.12	19.24	19.19	19.5	1.5
Channel								
Frequency (MHz)				37350	37600	37650	Tune-up limit (dBm)	MPR (dB)
35	QPSK	1	1	19.88	20.03	19.96	21.0	0.0
Channel								
Frequency (MHz)				37300	37600	37900	Tune-up limit (dBm)	MPR (dB)
30	QPSK	1	1	19.84	19.88	19.93	21.0	0.0
Channel								
Frequency (MHz)				37250	37600	37950	Tune-up limit (dBm)	MPR (dB)
25	QPSK	1	1	19.79	19.90	19.88	21.0	0.0
Channel								
Frequency (MHz)				1867.5	1880	1900	Tune-up limit (dBm)	MPR (dB)
20	QPSK	1	1	19.87	19.96	19.97	21.0	0.0
Channel								
Frequency (MHz)				37150	37600	38050	Tune-up limit (dBm)	MPR (dB)
15	QPSK	1	1	19.87	20.02	19.98	21.0	0.0
Channel								
Frequency (MHz)				37100	37600	38100	Tune-up limit (dBm)	MPR (dB)
10	QPSK	1	1	19.85	19.94	19.95	21.0	0.0
Channel								
Frequency (MHz)				37050	37600	38150	Tune-up limit (dBm)	MPR (dB)
5	QPSK	1	1	19.79	20.00	19.94	21.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel								
Frequency (MHz)				834	836.5	839		
20	PI2 BPSK	1	1	22.87	22.91	22.82		
20	PI2 BPSK	1	59	22.77	22.80	22.84	24.0	0.0
20	PI2 BPSK	1	104	22.76	22.77	22.82		
20	PI2 BPSK	50	0	22.26	22.28	22.22	23.5	0.5
20	PI2 BPSK	50	28	22.80	22.79	22.74	24.0	0.0
20	PI2 BPSK	50	56	21.97	22.21	22.01	23.5	0.5
20	PI2 BPSK	100	0	22.22	22.37	22.20		
20	QPSK	1	1	22.90	22.99	22.91		
20	QPSK	1	53	22.92	22.85	22.66	24.0	0.0
20	QPSK	1	104	22.74	22.88	22.75		
20	QPSK	50	0	21.74	21.81	21.82	23.0	1.0
20	QPSK	50	28	22.82	22.90	22.77	24.0	0.0
20	QPSK	50	56	21.80	21.77	21.68	23.0	1.0
20	QPSK	100	0	21.72	21.80	21.81		
20	16QAM	1	1	21.64	21.68	21.60	23.0	1.0
20	64QAM	1	1	20.38	20.37	20.23	21.5	2.5
20	256QAM	1	1	18.88	18.99	18.97	19.5	4.5
Channel								
Frequency (MHz)				168300	167300	168300	Tune-up limit (dBm)	MPR (dB)
15	QPSK	1	1	22.86	22.93	22.79	24.0	0.0
Channel								
Frequency (MHz)				168600	167300	168600	Tune-up limit (dBm)	MPR (dB)
10	QPSK	1	1	22.81	22.87	22.82	24.0	0.0
Channel								
Frequency (MHz)				168300	167300	168300	Tune-up limit (dBm)	MPR (dB)
5	QPSK	1	1	22.85	22.89	22.78	24.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel								
Frequency (MHz)				2525	2535	2545		
50	PI2 BPSK	1	1	20.73	20.87	20.84		
50	PI2 BPSK	1	135	20.82	20.77	20.78	21.7	0.0
50	PI2 BPSK	1	268	20.62	20.69	20.67		
50	PI2 BPSK	135	0	20.69	20.88	20.86	21.7	0.0
50	PI2 BPSK	135	68	20.68	20.86	20.73	21.7	0.0
50	PI2 BPSK	135	135	20.63	20.76	20.68	21.7	0.0
50	PI2 BPSK	270	0	20.80	20.82	20.73	21.7	0.0
50	QPSK	1	1	20.77	20.94	20.86		
50	QPSK	1	135	20.72	20.87	20.79	21.7	0.0
50	QPSK	1	268	20.78	20.72	20.65		
50	QPSK	135	0	20.73	20.76	20.80	21.7	0.0
50	QPSK	135	68	20.75	20.86	20.77	21.7	0.0
50	QPSK	135	135	20.59	20.74	20.55	21.7	0.0
50	QPSK	270	0	20.87	20.81	20.81	21.7	0.0
50	16QAM	1	1	20.71	20.67	20.64	21.7	0.0
50	64QAM	1	1	20.67	20.62	20.62	21.5	0.2
50	256QAM	1	1	18.52	18.59	18.53	19.5	2.2
Channel								
Frequency (MHz)				504000	507000	510000	Tune-up limit (dBm)	MPR (dB)
40	QPSK	1	1	20.87	20.89	20.73	21.7	0.0
Channel								
Frequency (MHz)				503500	507000	510500	Tune-up limit (dBm)	MPR (dB)
35	QPSK	1	1	20.71	20.87	20.73	21.7	0.0
Channel								
Frequency (MHz)				503000	507000	511000	Tune-up limit (dBm)	MPR (dB)
30	QPSK	1	1	20.72	20.84	20.73	21.7	0.0
Channel								
Frequency (MHz)				2512.5	2535	2557.5	Tune-up limit (dBm)	MPR (dB)
25	QPSK	1	1	20.65	20.89	20.75	21.7	0.0
Channel								
Frequency (MHz)				502500	507000	512500	Tune-up limit (dBm)	MPR (dB)
20	PI2 BPSK	1	1	20.65	20.87	20.78	21.7	0.0
Channel								
Frequency (MHz)				501500	507000	512500	Tune-up limit (dBm)	MPR (dB)
15	QPSK	1	1	20.67	20.81	20.83	21.7	0.0
Channel								
Frequency (MHz)				501000	507000	513000	Tune-up limit (dBm)	MPR (dB)
10	QPSK	1	1	20.68	20.83	20.72	21.7	0.0
Channel								
Frequency (MHz)				2502.5	2535	2567.5	Tune-up limit (dBm)	MPR (dB)
5	QPSK	1	1	20.73	20.90	20.80	21.7	0.0



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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				706.5	707.5	708.5		
Frequency (MHz)				706.5	707.5	708.5		
15	PI/2 BPSK	1	1	22.83	22.92	22.83	24.0	0.0
15	PI/2 BPSK	1	40	22.80	22.78	22.88		
15	PI/2 BPSK	1	77	22.79	22.78	22.88		
15	PI/2 BPSK	36	0	22.23	22.31	22.27	23.5	0.5
15	PI/2 BPSK	36	22	22.82	22.81	22.79	24.0	0.0
15	PI/2 BPSK	36	43	21.88	22.29	22.01		
15	PI/2 BPSK	75	0	22.29	22.38	22.21	23.5	0.5
15	QPSK	1	1	22.84	23.01	22.84		
15	QPSK	1	40	22.94	22.91	22.72	24.0	0.0
15	QPSK	1	77	22.77	22.83	22.71		
15	QPSK	36	0	21.77	21.88	21.68	23.0	1.0
15	QPSK	36	22	22.83	22.97	22.74	24.0	0.0
15	QPSK	36	43	21.72	21.76	21.57		
15	QPSK	75	0	21.80	21.91	21.77	23.0	1.0
15	16QAM	1	1	21.71	21.75	21.70	23.0	1.0
15	16QAM	1	1	20.19	20.34	20.21	21.5	2.5
15	256QAM	1	1	18.97	19.05	18.94	19.5	4.5
Channel				140300	141500	142200	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				140300	141500	142200		
10	QPSK	1	1	22.74	22.91	22.89	24.0	0.0
Channel				140300	141500	142700	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				140300	141500	142700		
5	QPSK	1	1	22.73	22.88	22.83	24.0	0.0

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				793				
Frequency (MHz)				793				
10	PI/2 BPSK	1	1	23.25			24.0	0.0
10	PI/2 BPSK	1	86	23.14				
10	PI/2 BPSK	1	50	23.05				
10	PI/2 BPSK	25	0	22.80			23.5	0.5
10	PI/2 BPSK	25	14	23.15			24.0	0.0
10	PI/2 BPSK	25	27	22.81				
10	PI/2 BPSK	50	0	22.69			23.5	0.5
10	QPSK	1	1	23.34				
10	QPSK	1	26	23.21			24.0	0.0
10	QPSK	1	50	23.13				
10	QPSK	25	0	22.16			23.0	1.0
10	QPSK	25	14	23.27			24.0	0.0
10	QPSK	25	27	22.08			23.0	1.0
10	QPSK	50	0	22.15			23.0	1.0
10	16QAM	1	1	22.09			23.0	1.0
10	16QAM	1	1	20.89			21.5	2.5
10	256QAM	1	1	19.39			19.5	4.5
Channel				158100	158500	159100	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				158100	158500	159100		
5	QPSK	1	1	23.15	23.21	23.17	24.0	0.0

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				1870	1882.5	1895		
Frequency (MHz)				1870	1882.5	1895		
40	PI/2 BPSK	1	1	19.86	20.04	19.99		
40	PI/2 BPSK	1	168	19.91	19.93	19.94	21.0	0.0
40	PI/2 BPSK	1	214	19.72	19.80	19.80		
40	PI/2 BPSK	108	0	19.79	19.97	19.74	21.0	0.0
40	PI/2 BPSK	108	54	19.82	19.98	19.77	21.0	0.0
40	PI/2 BPSK	108	108	19.78	19.79	19.73		
40	PI/2 BPSK	216	0	19.82	19.97	19.86	21.0	0.0
40	QPSK	1	1	19.96	20.07	20.03		
40	QPSK	1	108	19.83	20.01	19.92	21.0	0.0
40	QPSK	1	214	19.96	19.88	19.79		
40	QPSK	108	0	19.84	19.87	19.87	21.0	0.0
40	QPSK	108	54	19.78	20.01	19.86	21.0	0.0
40	QPSK	108	108	19.79	19.84	19.71	21.0	0.0
40	QPSK	216	0	19.86	19.91	19.73		
40	16QAM	1	1	19.80	19.79	19.75	21.0	0.0
40	16QAM	1	1	19.74	19.82	19.89	21.0	0.0
40	256QAM	1	1	18.94	19.01	18.98	19.5	1.5
Channel				373500	376500	379500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				373500	376500	379500		
35	QPSK	1	1	19.90	19.95	19.92	21.0	0.0
Channel				373000	376500	380000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				373000	376500	380000		
30	QPSK	1	1	19.89	20.00	20.01	21.0	0.0
Channel				372500	376500	380500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				372500	376500	380500		
25	QPSK	1	1	19.85	19.92.5	19.92.5	21.0	0.0
Channel				1860	1882.5	1895	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1860	1882.5	1895		
20	QPSK	1	1	19.96	20.00	19.96	21.0	0.0
Channel				371500	376500	381500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				371500	376500	381500		
15	QPSK	1	1	19.87	20.05	20.00	21.0	0.0
Channel				371000	376500	382000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				371000	376500	382000		
10	QPSK	1	1	19.89	19.99	19.97	21.0	0.0
Channel				370500	376500	382500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				370500	376500	382500		
5	QPSK	1	1	19.92	20.03	19.99	21.0	0.0



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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				164800	166300	167800		
Frequency (MHz)				824	831.5	839		
20	PI2 BPSK	1	1	22.92	22.99	22.93	24.0	0.0
20	PI2 BPSK	1	53	22.77	22.92	22.85		
20	PI2 BPSK	1	104	22.78	22.78	22.84		
20	PI2 BPSK	50	0	22.22	22.36	22.19	23.5	0.5
20	PI2 BPSK	50	28	22.84	22.86	22.81	24.0	0.0
20	PI2 BPSK	50	56	22.10	22.28	22.09		
20	PI2 BPSK	100	0	22.32	22.44	22.16	23.5	0.5
20	QPSK	1	1	23.06	23.13	22.99		
20	QPSK	1	53	23.01	22.82	22.80	24.0	0.0
20	QPSK	1	104	22.80	22.97	22.78		
20	QPSK	50	0	21.89	21.84	21.87	23.0	1.0
20	QPSK	50	28	22.82	23.04	22.69	24.0	0.0
20	QPSK	50	56	21.73	21.85	21.79		
20	QPSK	100	0	21.74	21.68	21.82	23.0	1.0
20	16QAM	1	1	21.78	21.78	21.53	23.0	1.0
20	64QAM	1	1	20.44	20.37	20.16	21.5	2.5
20	256QAM	1	1	19.00	18.15	19.03	19.5	4.5
Channel				163300	163300	163300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				815	831.5	848		
15	QPSK	1	1	22.99	23.05	22.84	24.0	0.0
Channel				163800	163300	168800	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				810	831.5	848		
10	QPSK	1	1	22.99	23.00	22.92	24.0	0.0
Channel				163300	163300	169300	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				816.5	831.5	846.5		
5	QPSK	1	1	22.92	23.07	22.85	24.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				462000	462000	462000		
Frequency (MHz)				2310				
10	PI2 BPSK	1	1	20.06			21.3	0.0
10	PI2 BPSK	1	28	19.94				
10	PI2 BPSK	1	50	19.97				
10	PI2 BPSK	25	0	19.96			21.3	0.0
10	PI2 BPSK	25	14	20.03			21.3	0.0
10	PI2 BPSK	25	27	19.92			21.3	0.0
10	PI2 BPSK	50	0	19.97				
10	QPSK	1	1	20.10				
10	QPSK	1	28	20.06			21.3	0.0
10	QPSK	1	50	19.93				
10	QPSK	25	0	19.97			21.3	0.0
10	QPSK	25	14	20.07			21.3	0.0
10	QPSK	25	27	19.97			21.3	0.0
10	QPSK	50	0	20.00			21.3	0.0
10	16QAM	1	1	19.89			21.3	0.0
10	64QAM	1	1	19.94			21.3	0.0
10	256QAM	1	1	19.09			19.5	1.8
Channel				461500	462000	462500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2307.5	2310	2312.5		
5	QPSK	1	1	19.89	20.02	19.98	21.3	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				346000	346000	346000		
Frequency (MHz)				1730	1745	1760		
40	PI2 BPSK	1	1	20.69	20.78	20.72	22.0	0.0
40	PI2 BPSK	1	108	20.84	20.71	20.83		
40	PI2 BPSK	1	214	20.50	20.60	20.57		
40	PI2 BPSK	108	0	20.68	20.85	20.54	22.0	0.0
40	PI2 BPSK	108	54	20.71	20.87	20.59	22.0	0.0
40	PI2 BPSK	108	108	20.58	20.83	20.51	22.0	0.0
40	PI2 BPSK	216	0	20.63	20.73	20.62		
40	QPSK	1	1	20.70	20.85	20.77		
40	QPSK	1	108	20.67	20.72	20.82	22.0	0.0
40	QPSK	1	214	20.83	20.66	20.48		
40	QPSK	108	0	20.84	20.81	20.83	22.0	0.0
40	QPSK	108	54	20.87	20.76	20.72	22.0	0.0
40	QPSK	108	108	20.55	20.71	20.52	22.0	0.0
40	QPSK	216	0	20.82	20.89	20.58		
40	16QAM	1	1	20.87	20.80	20.56	22.0	0.0
40	64QAM	1	1	20.32	20.43	20.34	21.5	0.5
40	256QAM	1	1	18.77	18.91	18.86	19.5	2.5
Channel				345500	346000	346500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1727.5	1745	1762.5		
35	QPSK	1	1	20.83	20.79	20.70	22.0	0.0
Channel				345000	346000	353000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1725	1745	1765		
30	QPSK	1	1	20.89	20.71	20.67	22.0	0.0
Channel				344500	346000	353500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1722.5	1745	1767.5		
25	QPSK	1	1	20.59	20.74	20.89	22.0	0.0
Channel				344000	346000	354000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	1	20.80	20.70	20.66	22.0	0.0
Channel				343500	346000	354500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	1	20.58	20.73	20.71	22.0	0.0
Channel				343000	346000	355000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	1	20.59	20.81	20.44	22.0	0.0
Channel				342500	346000	355500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	1	20.62	20.71	20.62	22.0	0.0



n70 Ant 1 ECI5								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				340500	340500	341000		
Frequency (MHz)				1702.5	1702.5	1705		
15	PI2 BPSK	1	1	20.68	20.68	20.68		
15	PI2 BPSK	1	40	20.52	20.52	20.52	22.0	0.0
15	PI2 BPSK	1	77	20.45	20.45	20.45		
15	PI2 BPSK	36	0	20.54	20.54	20.54	22.0	0.0
15	PI2 BPSK	36	22	20.48	20.48	20.48	22.0	0.0
15	PI2 BPSK	36	43	20.48	20.48	20.48	22.0	0.0
15	PI2 BPSK	75	0	20.60	20.60	20.60	22.0	0.0
15	QPSK	1	1	20.72	20.72	20.72		
15	QPSK	1	40	20.62	20.62	20.62	22.0	0.0
15	QPSK	1	77	20.56	20.56	20.56		
15	QPSK	36	0	20.44	20.44	20.44	22.0	0.0
15	QPSK	36	22	20.65	20.65	20.65	22.0	0.0
15	QPSK	36	43	20.55	20.55	20.55	22.0	0.0
15	QPSK	75	0	20.66	20.66	20.66	22.0	0.0
15	16QAM	1	1	20.45	20.45	20.45	22.0	0.0
15	64QAM	1	1	20.24	20.24	20.24	21.5	2.5
15	256QAM	1	1	19.17	19.17	19.17	19.5	2.5
Channel				340500	340500	341000		
Frequency (MHz)				1700	1702.5	1705		
10	QPSK	1	1	20.53	20.62	20.58	22.0	0.0
Channel				339500	340500	341500		
Frequency (MHz)				1697.5	1702.5	1707.5		
5	QPSK	1	1	23.49	23.59	23.52	22.0	0.0

n71 Ant 1 ECI5								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				134600	134600	136100		
Frequency (MHz)				673	680.5	688		
20	PI2 BPSK	1	1	23.33	23.49	23.30		
20	PI2 BPSK	1	50	23.26	23.32	23.30	24.0	0.0
20	PI2 BPSK	1	104	23.33	23.19	23.15		
20	PI2 BPSK	50	0	22.75	22.85	22.68	23.5	0.5
20	PI2 BPSK	50	28	23.27	23.32	23.15	24.0	0.0
20	PI2 BPSK	50	56	22.53	22.71	22.63	23.5	0.5
20	PI2 BPSK	100	0	22.64	22.91	22.59		
20	QPSK	1	1	23.47	23.50	23.36		
20	QPSK	1	53	23.28	23.36	23.22	24.0	0.0
20	QPSK	1	104	23.28	23.45	23.21		
20	QPSK	50	0	22.28	22.29	22.08	23.0	1.0
20	QPSK	50	28	23.35	23.39	23.12	24.0	0.0
20	QPSK	50	56	22.28	22.30	22.18	23.0	1.0
20	QPSK	100	0	22.16	22.36	22.16	23.0	1.0
20	16QAM	1	1	22.05	22.17	22.02	23.0	1.0
20	64QAM	1	1	20.73	20.86	20.71	21.5	2.5
20	256QAM	1	1	19.40	19.43	19.34	19.5	4.5
Channel				134100	136100	138100		
Frequency (MHz)				670.5	680.5	690.5		
15	QPSK	1	1	23.38	23.44	23.32	24.0	0.0
Channel				133600	136100	138600		
Frequency (MHz)				668	680.5	692		
10	QPSK	1	1	23.34	23.37	23.23	24.0	0.0
Channel				133100	136100	139100		
Frequency (MHz)				665.5	680.5	695.5		
5	QPSK	1	1	23.34	23.42	23.30	24.0	0.0



n41 HPUE Ant 1 EC15									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. 506202	Power Middle Ch. Freq. 518598	Power High Ch. Freq. 528000	Tune-up limit (dBm)	MPR (dB)	
Channel				2546.01	2592.99	2640			
Frequency (MHz)									
100	PI2 BPSK	1	1	20.45	20.86	20.56			
100	PI2 BPSK	1	137	20.58	20.51	20.58	22.1	0.0	
100	PI2 BPSK	1	271	20.34	20.47	20.43			
100	PI2 BPSK	135	0	20.59	20.62	20.43	22.1	0.0	
100	PI2 BPSK	135	69	20.57	20.54	20.43	22.1	0.0	
100	PI2 BPSK	135	138	20.42	20.51	20.38			
100	PI2 BPSK	270	0	20.52	20.56	20.57	22.1	0.0	
100	QPSK	1	1	20.60	20.71	20.62			
100	QPSK	1	137	20.49	20.63	20.56	22.1	0.0	
100	QPSK	1	271	20.66	20.58	20.42			
100	QPSK	135	0	20.56	20.57	20.49	22.1	0.0	
100	QPSK	135	69	20.65	20.66	20.52	22.1	0.0	
100	QPSK	135	138	20.50	20.63	20.58			
100	QPSK	270	0	20.58	20.61	20.54	22.1	0.0	
100	16QAM	1	1	20.50	20.44	20.45	22.1	0.0	
100	64QAM	1	1	20.50	20.61	20.37	22.1	0.0	
100	256QAM	1	1	19.69	19.82	19.68	21.5	0.6	
Channel				506200	518598	528000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2541	2592.99	2644.88			
90	QPSK	1	1	20.53	20.66	20.54	22.1	0.0	
Channel				507204	518598	528000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2532.02	2592.99	2643.99			
80	QPSK	1	1	20.50	20.64	20.50	22.1	0.0	
Channel				508202	518598	531000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2531.01	2592.99	2655			
70	QPSK	1	1	20.58	20.59	20.52	22.1	0.0	
Channel				509200	518598	531000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2526	2592.99	2659.98			
60	QPSK	1	1	20.52	20.57	20.47	22.1	0.0	
Channel				509204	518598	532000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2521.02	2602.98	2664.98			
50	QPSK	1	1	20.52	20.65	20.52	22.1	0.0	
Channel				503700	518598	533498	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2513.3	2592.99	2637.48			
45	QPSK	1	1	20.48	20.58	20.52	22.1	0.0	
Channel				503202	518598	534000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2518.01	2592.99	2670			
40	QPSK	1	1	20.53	20.64	20.52	22.1	0.0	
Channel				502704	518598	534498	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2513.52	2592.99	2672.49			
35	QPSK	1	1	20.48	20.66	20.57	22.1	0.0	
Channel				502200	518598	534998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2511	2592.99	2674.99			
30	QPSK	1	1	20.50	20.64	20.54	22.1	0.0	
Channel				501702	518598	535500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2508.51	2592.99	2677.5			
25	QPSK	1	1	20.48	20.53	20.50	22.1	0.0	
Channel				501204	518598	535998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2508.02	2592.99	2679.99			
20	QPSK	1	1	20.52	20.60	20.53	22.1	0.0	
Channel				500700	518598	536498	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2503.5	2592.99	2682.48			
15	QPSK	1	1	20.53	20.61	20.57	22.1	0.0	
Channel				500202	518598	537000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2501.01	2592.99	2685			
10	QPSK	1	1	20.49	20.59	20.54	22.1	0.0	



n2 Ant 2 ECIS

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 374000	Middle Ch. / Freq. 376000	High Ch. / Freq. 378000		
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	17.57	17.77	17.72		
40	PI2 BPSK	1	108	17.68	17.73	17.64	18.9	0.0
40	PI2 BPSK	1	214	17.48	17.65	17.64		
40	PI2 BPSK	108	0	17.57	17.60	17.58	18.9	0.0
40	PI2 BPSK	108	54	17.82	17.57	17.83	18.9	0.0
40	PI2 BPSK	108	108	17.83	17.62	17.57	18.9	0.0
40	PI2 BPSK	216	0	17.52	17.57	17.61	18.9	0.0
40	QPSK	1	1	17.78	17.85	17.79		
40	QPSK	1	108	17.77	17.83	17.71	18.9	0.0
40	QPSK	1	214	17.66	17.77	17.71		
40	QPSK	108	0	17.71	17.75	17.75	18.9	0.0
40	QPSK	108	54	17.63	17.70	17.65	18.9	0.0
40	QPSK	108	108	17.65	17.71	17.62	18.9	0.0
40	QPSK	216	0	17.56	17.74	17.62	18.9	0.0
40	16QAM	1	1	17.57	17.68	17.59	18.9	0.0
40	64QAM	1	1	17.69	17.62	17.57	18.9	0.0
40	256QAM	1	1	17.59	17.59	17.56	18.9	0.0
Channel								
Frequency (MHz)								
35	QPSK	1	1	17.73	17.72	17.74	0.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	17.72	17.76	17.69	0.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	17.83	17.81	17.73	0.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	17.73	17.77	17.72	0.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	17.65	17.70	17.72	18.9	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	17.75	17.61	17.65	18.9	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	17.68	17.73	17.64	18.9	0.0

n7 Ant 2 ECIS

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 505000	Middle Ch. / Freq. 507000	High Ch. / Freq. 509000		
Channel								
Frequency (MHz)								
50	PI2 BPSK	1	1	18.61	18.72	18.77		
50	PI2 BPSK	1	135	18.66	18.75	18.69	19.8	0.0
50	PI2 BPSK	1	268	18.51	18.63	18.62		
50	PI2 BPSK	135	0	18.58	18.60	18.57	19.8	0.0
50	PI2 BPSK	135	68	18.65	18.63	18.65	19.8	0.0
50	PI2 BPSK	135	135	18.62	18.64	18.61	19.8	0.0
50	PI2 BPSK	270	0	18.49	18.55	18.57	19.8	0.0
50	QPSK	1	1	18.75	18.87	18.77		
50	QPSK	1	135	18.79	18.85	18.77	19.8	0.0
50	QPSK	1	268	18.64	18.78	18.72		
50	QPSK	135	0	18.74	18.72	18.74	19.8	0.0
50	QPSK	135	68	18.65	18.65	18.62	19.8	0.0
50	QPSK	135	135	18.66	18.75	18.56	19.8	0.0
50	QPSK	270	0	18.58	18.79	18.59	19.8	0.0
50	16QAM	1	1	18.57	18.67	18.61	19.8	0.0
50	64QAM	1	1	18.71	18.58	18.60	19.8	0.0
50	256QAM	1	1	18.64	18.61	18.58	19.5	0.3
Channel								
Frequency (MHz)								
40	QPSK	1	1	18.71	18.78	18.74	19.8	0.0
Channel								
Frequency (MHz)								
35	QPSK	1	1	18.11	18.73	18.65	0.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	18.66	18.77	18.73	19.8	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	18.70	18.75	18.64	19.8	0.0
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	18.64	18.77	18.69	19.8	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	18.64	18.83	18.71	19.8	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	18.65	18.80	18.63	19.8	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	18.72	18.78	18.73	19.8	0.0

n25 Ant 2 ECIS

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 374000	Middle Ch. / Freq. 376000	High Ch. / Freq. 378000		
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	17.69	17.83	17.75		
40	PI2 BPSK	1	108	17.72	17.83	17.69	18.9	0.0
40	PI2 BPSK	1	214	17.54	17.66	17.65		
40	PI2 BPSK	108	0	17.61	17.84	17.69	18.9	0.0
40	PI2 BPSK	108	54	17.63	17.87	17.73	18.9	0.0
40	PI2 BPSK	108	108	17.67	17.87	17.64	18.9	0.0
40	PI2 BPSK	216	0	17.58	17.62	17.72	18.9	0.0
40	QPSK	1	1	17.82	17.91	17.86		
40	QPSK	1	108	17.79	17.86	17.72	18.9	0.0
40	QPSK	1	214	17.76	17.81	17.78		
40	QPSK	108	0	17.71	17.85	17.75	18.9	0.0
40	QPSK	108	54	17.68	17.89	17.75	18.9	0.0
40	QPSK	108	108	17.71	17.72	17.62	18.9	0.0
40	QPSK	216	0	17.66	17.69	17.68	18.9	0.0
40	16QAM	1	1	17.58	17.70	17.69	18.9	0.0
40	64QAM	1	1	17.72	17.69	17.68	18.9	0.0
40	256QAM	1	1	17.64	17.70	17.56	18.9	0.0
Channel								
Frequency (MHz)								
35	QPSK	1	1	17.81	17.85	17.78	18.9	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	17.73	17.81	17.76	18.9	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	17.79	17.83	17.72	18.9	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	17.75	17.86	17.78	18.9	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	17.72	17.76	17.74	18.9	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	17.70	17.87	17.77	18.9	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	17.73	17.82	17.74	18.9	0.0



n30 Ant 2 ECIS

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
10	PI2 BPSK	1	1	18.49	2310			
10	PI2 BPSK	1	26	18.51			19.4	0.0
10	PI2 BPSK	1	50	18.47				
10	PI2 BPSK	25	0	18.38			19.4	0.0
10	PI2 BPSK	25	14	18.51				
10	PI2 BPSK	25	27	18.36			19.4	0.0
10	PI2 BPSK	50	0	18.45				
10	QPSK	1	1	18.52				
10	QPSK	1	26	18.50			19.4	0.0
10	QPSK	1	50	18.44				
10	QPSK	25	0	18.40			19.4	0.0
10	QPSK	25	14	18.49				
10	QPSK	25	27	18.36			19.4	0.0
10	QPSK	50	0	18.42				
10	16QAM	1	1	18.41			19.4	0.0
10	64QAM	1	1	18.45			19.4	0.0
10	256QAM	1	1	18.43			19.4	0.0
Channel								
Frequency (MHz)								
481500				462000	462000		Tune-up limit (dBm)	MPR (dB)
2307.5				2310	2312.5			
5	QPSK	1	1	18.48	18.50	18.49	19.4	0.0

n66 Ant 2 ECIS

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	19.61	19.75	19.66		
40	PI2 BPSK	1	109	19.56	19.65	19.60	20.8	0.0
40	PI2 BPSK	1	214	19.57	19.60	19.48		
40	PI2 BPSK	108	0	19.60	19.71	19.58	20.8	0.0
40	PI2 BPSK	108	54	19.65	19.67	19.58	20.8	0.0
40	PI2 BPSK	108	108	19.51	19.62	19.55	20.8	0.0
40	PI2 BPSK	216	0	19.67	19.71	19.62		
40	QPSK	1	1	19.73	19.78	19.71		
40	QPSK	1	108	19.67	19.73	19.61	20.8	0.0
40	QPSK	1	214	19.61	19.63	19.58		
40	QPSK	108	0	19.63	19.62	19.58	20.8	0.0
40	QPSK	108	54	19.59	19.67	19.62	20.8	0.0
40	QPSK	108	108	19.54	19.60	19.49	20.8	0.0
40	QPSK	216	0	19.58	19.66	19.58		
40	16QAM	1	1	19.61	19.64	19.53	20.8	0.0
40	64QAM	1	1	19.56	19.67	19.55	20.8	0.0
40	256QAM	1	1	19.29	19.25	19.24	19.5	1.3
Channel								
Frequency (MHz)								
345000				345000	345000	345000	Tune-up limit (dBm)	MPR (dB)
1725				1725	1745	1725		
35	QPSK	1	1	19.58	19.69	19.58	20.8	0.0
Channel								
Frequency (MHz)								
345000				345000	345000	345000	Tune-up limit (dBm)	MPR (dB)
1725				1725	1745	1725		
30	QPSK	1	1	19.51	19.70	19.67	20.8	0.0
Channel								
Frequency (MHz)								
344500				344500	344500	344500	Tune-up limit (dBm)	MPR (dB)
1722.5				1745	1767.5	1767.5		
25	QPSK	1	1	19.51	19.68	19.64	20.8	0.0
Channel								
Frequency (MHz)								
344000				344000	344000	344000	Tune-up limit (dBm)	MPR (dB)
1720				1745	1770	1770		
20	QPSK	1	1	19.54	19.67	19.66	20.8	0.0
Channel								
Frequency (MHz)								
343500				343500	343500	343500	Tune-up limit (dBm)	MPR (dB)
1717.5				1745	1772.5	1772.5		
15	QPSK	1	1	19.57	19.72	19.67	20.8	0.0
Channel								
Frequency (MHz)								
343000				343000	343000	343000	Tune-up limit (dBm)	MPR (dB)
1715				1745	1775	1775		
10	QPSK	1	1	19.49	19.75	19.66	20.8	0.0
Channel								
Frequency (MHz)								
342500				342500	342500	342500	Tune-up limit (dBm)	MPR (dB)
1712.5				1745	1777.5	1777.5		
5	QPSK	1	1	19.53	19.70	19.56	20.8	0.0

n70 Ant 2 ECIS

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
15	PI2 BPSK	1	1	19.73	1702.5			
15	PI2 BPSK	1	40	19.70			20.9	0.0
15	PI2 BPSK	1	77	19.60				
15	PI2 BPSK	36	0	19.67			20.9	0.0
15	PI2 BPSK	36	22	19.69			20.9	0.0
15	PI2 BPSK	36	43	19.56			20.9	0.0
15	PI2 BPSK	75	0	19.66				
15	QPSK	1	1	19.78				
15	QPSK	1	40	19.88			20.9	0.0
15	QPSK	1	77	19.64				
15	QPSK	36	0	19.69			20.9	0.0
15	QPSK	36	22	19.74			20.9	0.0
15	QPSK	36	43	19.60			20.9	0.0
15	QPSK	75	0	19.64				
15	16QAM	1	1	19.57			20.9	0.0
15	64QAM	1	1	19.51			20.9	0.0
15	256QAM	1	1	19.96			19.5	1.4
Channel								
Frequency (MHz)								
340000				340000	341000		Tune-up limit (dBm)	MPR (dB)
1700				1700	1705			
10	QPSK	1	1	19.80	19.71	19.67	20.9	0.0
Channel								
Frequency (MHz)								
339500				345500	341500		Tune-up limit (dBm)	MPR (dB)
1697.5				1702.5	1707.5			
5	QPSK	1	1	19.60	19.68	19.62	20.9	0.0



n41 HPUE Ant 2 EC15											
BW (MHz)	Modulation	RB Size	RB Offset	Power Low		Power Middle		Power High		Tune-up limit (dBm)	MPR (dB)
				Ch. Freq.	508202	Ch. Freq.	518598	Ch. Freq.	528994		
Channel				2546.01	2592.99	2640					
Frequency (MHz)											
100	PI2 BPSK	1	1	17.52	17.57	17.54					
100	PI2 BPSK	1	137	17.40	17.41	17.47		19.1		0.0	
100	PI2 BPSK	1	271	17.42	17.50	17.53					
100	PI2 BPSK	135	0	17.52	17.38	17.41				19.1	0.0
100	PI2 BPSK	135	69	17.49	17.51	17.51		19.1		0.0	
100	PI2 BPSK	135	138	17.48	17.35	17.37				19.1	0.0
100	PI2 BPSK	270	0	17.44	17.49	17.44					
100	QPSK	1	1	17.56	17.73	17.67					
100	QPSK	1	137	17.50	17.67	17.50		19.1		0.0	
100	QPSK	1	271	17.57	17.54	17.51					
100	QPSK	135	0	17.55	17.46	17.41		19.1		0.0	
100	QPSK	135	69	17.52	17.68	17.55		19.1		0.0	
100	QPSK	135	138	17.39	17.50	17.38				19.1	0.0
100	QPSK	270	0	17.45	17.61	17.48				19.1	0.0
100	16QAM	1	1	17.54	17.58	17.42				19.1	0.0
100	64QAM	1	1	17.52	17.54	17.53		19.1		0.0	
100	256QAM	1	1	17.37	17.49	17.42		19.1		0.0	
Channel				508200	518598	528998		Tune-up limit		MPR	
Frequency (MHz)				2541	2592.99	2644.88		(dBm)		(dB)	
90	QPSK	1	1	17.48	17.69	17.56		19.1		0.0	
Channel				507204	518598	529998		Tune-up limit		MPR	
Frequency (MHz)				2532.02	2592.99	2643.99		(dBm)		(dB)	
80	QPSK	1	1	17.51	17.59	17.62		19.1		0.0	
Channel				508202	518598	531000		Tune-up limit		MPR	
Frequency (MHz)				2531.01	2592.99	2655		(dBm)		(dB)	
70	QPSK	1	1	17.48	17.67	17.61		19.1		0.0	
Channel				508200	518598	531998		Tune-up limit		MPR	
Frequency (MHz)				2526	2592.99	2659.98		(dBm)		(dB)	
60	QPSK	1	1	17.41	17.66	17.55		19.1		0.0	
Channel				504204	518598	532998		Tune-up limit		MPR	
Frequency (MHz)				2521.02	2592.99	2664.98		(dBm)		(dB)	
50	QPSK	1	1	17.41	17.61	17.56		19.1		0.0	
Channel				503700	518598	533498		Tune-up limit		MPR	
Frequency (MHz)				2516.5	2592.99	2670.48		(dBm)		(dB)	
45	QPSK	1	1	17.41	17.54	17.62		19.1		0.0	
Channel				503202	518598	534000		Tune-up limit		MPR	
Frequency (MHz)				2516.01	2592.99	2670		(dBm)		(dB)	
40	QPSK	1	1	17.52	17.62	17.62		19.1		0.0	
Channel				502704	518598	534498		Tune-up limit		MPR	
Frequency (MHz)				2513.52	2592.99	2672.49		(dBm)		(dB)	
35	QPSK	1	1	17.45	17.58	17.64		19.1		0.0	
Channel				502200	518598	534998		Tune-up limit		MPR	
Frequency (MHz)				2511	2592.99	2674.98		(dBm)		(dB)	
30	QPSK	1	1	17.47	17.60	17.58		19.1		0.0	
Channel				501702	518598	535500		Tune-up limit		MPR	
Frequency (MHz)				2508.51	2592.99	2677.5		(dBm)		(dB)	
25	QPSK	1	1	17.41	17.69	17.59		19.1		0.0	
Channel				501204	518598	535998		Tune-up limit		MPR	
Frequency (MHz)				2508.02	2592.99	2678.99		(dBm)		(dB)	
20	QPSK	1	1	17.48	17.67	17.60		19.1		0.0	
Channel				500700	518598	536498		Tune-up limit		MPR	
Frequency (MHz)				2503.5	2592.99	2682.48		(dBm)		(dB)	
15	QPSK	1	1	17.49	17.65	17.56		19.1		0.0	
Channel				500202	518598	537000		Tune-up limit		MPR	
Frequency (MHz)				2501.01	2592.99	2685		(dBm)		(dB)	
10	QPSK	1	1	17.44	17.63	17.53		19.1		0.0	



n2 Ant 3 ECI5

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 374000	Middle Ch. Freq. 376000	High Ch. Freq. 378000		
Channel								
Frequency (MHz)								
40	PV2 BPSK	1	1	21.32	21.49	21.42	22.7	0.0
40	PV2 BPSK	1	109	21.43	21.50	21.41		
40	PV2 BPSK	1	214	21.27	21.46	21.27	22.7	0.0
40	PV2 BPSK	108	0	21.38	21.48	21.37		
40	PV2 BPSK	108	54	21.43	21.42	21.32	22.7	0.0
40	PV2 BPSK	108	108	21.30	21.35	21.33		
40	PV2 BPSK	216	0	21.38	21.44	21.39	22.7	0.0
40	QPSK	1	1	21.41	21.57	21.53		
40	QPSK	1	108	21.37	21.52	21.40	22.7	0.0
40	QPSK	1	214	21.35	21.48	21.29		
40	QPSK	108	0	21.39	21.46	21.42	22.7	0.0
40	QPSK	108	54	21.37	21.50	21.41		
40	QPSK	108	108	21.34	21.42	21.33	22.7	0.0
40	QPSK	216	0	21.36	21.46	21.38		
40	16QAM	1	1	21.38	21.36	21.42	22.7	0.0
40	64QAM	1	1	20.37	20.43	20.33		
40	256QAM	1	1	18.96	19.08	19.05	19.5	3.2
Channel								
Frequency (MHz)								
35	QPSK	1	1	21.43	21.56	21.54	22.7	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	21.42	21.58	21.51	22.7	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	21.37	21.58	21.56	22.7	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	21.35	21.55	21.52	22.7	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	21.39	21.58	21.48	22.7	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	21.44	21.55	21.45	22.7	0.0
Channel								
Frequency (MHz)								

n7 Ant 3 ECI5

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 505000	Middle Ch. Freq. 507000	High Ch. Freq. 509000		
Channel								
Frequency (MHz)								
50	PV2 BPSK	1	1	20.39	20.46	20.32	21.7	0.0
50	PV2 BPSK	1	158	20.34	20.40	20.30		
50	PV2 BPSK	1	268	20.21	20.36	20.28	21.7	0.0
50	PV2 BPSK	135	0	20.30	20.38	20.31		
50	PV2 BPSK	135	68	20.33	20.30	20.22	21.7	0.0
50	PV2 BPSK	135	135	20.24	20.34	20.27		
50	PV2 BPSK	270	0	20.29	20.34	20.28	21.7	0.0
50	QPSK	1	1	20.41	20.48	20.45		
50	QPSK	1	135	20.36	20.44	20.38	21.7	0.0
50	QPSK	1	268	20.34	20.36	20.21		
50	QPSK	135	0	20.29	20.37	20.31	21.7	0.0
50	QPSK	135	68	20.30	20.46	20.35		
50	QPSK	135	135	20.22	20.36	20.32	21.7	0.0
50	QPSK	270	0	20.31	20.39	20.27		
50	16QAM	1	1	20.30	20.34	20.26	21.7	0.0
50	64QAM	1	1	20.28	20.32	20.21		
50	256QAM	1	1	18.98	19.06	18.93	19.5	2.2
Channel								
Frequency (MHz)								
40	QPSK	1	1	20.37	20.45	20.31	21.7	0.0
Channel								
Frequency (MHz)								
35	QPSK	1	1	20.33	20.42	20.35	21.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	20.31	20.35	20.32	21.7	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	20.30	20.40	20.31	21.7	0.0
Channel								
Frequency (MHz)								
20	PV2 BPSK	1	1	20.26	20.37	20.30	21.7	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	20.32	20.41	20.32	21.7	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	20.36	20.39	20.35	21.7	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	20.29	20.45	20.39	21.7	0.0
Channel								
Frequency (MHz)								

n25 Ant 3 ECI5

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 374000	Middle Ch. Freq. 376000	High Ch. Freq. 378000		
Channel								
Frequency (MHz)								
40	PV2 BPSK	1	1	21.48	21.64	21.49	22.7	0.0
40	PV2 BPSK	1	108	21.49	21.65	21.55		
40	PV2 BPSK	1	214	21.41	21.59	21.38	22.7	0.0
40	PV2 BPSK	108	0	21.45	21.63	21.50		
40	PV2 BPSK	108	54	21.57	21.50	21.48	22.7	0.0
40	PV2 BPSK	108	108	21.43	21.49	21.45		
40	PV2 BPSK	216	0	21.45	21.53	21.50	22.7	0.0
40	QPSK	1	1	21.49	21.68	21.60		
40	QPSK	1	108	21.53	21.58	21.52	22.7	0.0
40	QPSK	1	214	21.48	21.60	21.45		
40	QPSK	108	0	21.52	21.59	21.51	22.7	0.0
40	QPSK	108	54	21.53	21.63	21.55		
40	QPSK	108	108	21.46	21.47	21.44	22.7	0.0
40	QPSK	216	0	21.48	21.54	21.51		
40	16QAM	1	1	21.46	21.48	21.43	22.7	0.0
40	64QAM	1	1	20.61	20.64	20.57		
40	256QAM	1	1	19.21	19.29	19.28	19.5	3.2
Channel								
Frequency (MHz)								
35	QPSK	1	1	21.56	21.60	21.55	22.7	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	21.42	21.52	21.62	22.7	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	21.49	21.68	21.61	22.7	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	21.47	21.64	21.59	22.7	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	21.47	21.66	21.58	22.7	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	21.47	21.63	21.57	22.7	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	21.49	21.64	21.61	22.7	0.0
Channel								
Frequency (MHz)								



n30 Ant 3 ECIS

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
10	PI2 BPSK	1	1	20.87	2310			
10	PI2 BPSK	1	26	20.84			22.2	0.0
10	PI2 BPSK	1	50	20.76				
10	PI2 BPSK	25	0	20.89			22.2	0.0
10	PI2 BPSK	25	14	20.84			22.2	0.0
10	PI2 BPSK	25	27	20.74				
10	PI2 BPSK	50	0	20.80			22.2	0.0
10	QPSK	1	1	21.01				
10	QPSK	1	26	20.93			22.2	0.0
10	QPSK	1	50	20.84				
10	QPSK	25	0	20.85			22.2	0.0
10	QPSK	25	14	20.92			22.2	0.0
10	QPSK	25	27	20.79				
10	QPSK	50	0	20.94			22.2	0.0
10	16QAM	1	1	20.77			22.2	0.0
10	64QAM	1	1	20.64			21.5	0.7
10	256QAM	1	1	19.48			19.5	2.7
Channel								
Frequency (MHz)								
481500				462000	462000	462000	Tune-up limit (dBm)	MPR (dB)
				2307.5	2310	2312.5		
5	QPSK	1	1	20.86	20.95	20.89	22.2	0.0

n66 Ant 3 ECIS

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	22.99	23.12	22.93		
40	PI2 BPSK	1	109	22.96	22.93	22.99	24.0	0.0
40	PI2 BPSK	1	214	22.85	22.91	22.87		
40	PI2 BPSK	108	0	22.39	22.45	22.34	23.5	0.5
40	PI2 BPSK	108	54	22.83	22.89	22.87	24.0	0.0
40	PI2 BPSK	108	108	22.20	22.33	22.18		
40	PI2 BPSK	216	0	22.38	22.53	22.25	23.5	0.5
40	QPSK	1	1	23.14	23.18	23.02		
40	QPSK	1	108	23.09	23.01	22.84	24.0	0.0
40	QPSK	1	214	22.84	22.98	22.89		
40	QPSK	108	0	21.90	21.97	21.78	23.0	1.0
40	QPSK	108	54	22.87	23.11	22.85	24.0	0.0
40	QPSK	108	108	21.96	21.92	21.91		
40	QPSK	216	0	21.87	21.97	21.74	23.0	1.0
40	16QAM	1	1	21.87	21.83	21.88	23.0	1.0
40	64QAM	1	1	20.51	20.51	20.39	21.5	2.5
40	256QAM	1	1	19.08	19.13	19.15	19.5	4.5
Channel								
Frequency (MHz)								
345000				345000	349000	352500	Tune-up limit (dBm)	MPR (dB)
				1727.5	1745	1762.5		
35	QPSK	1	1	23.00	23.09	22.90	24.0	0.0
Channel								
Frequency (MHz)								
345000				349000	353000		Tune-up limit (dBm)	MPR (dB)
				1725	1745	1765		
30	QPSK	1	1	23.04	23.03	22.90	24.0	0.0
Channel								
Frequency (MHz)								
344500				349000	353500		Tune-up limit (dBm)	MPR (dB)
				1722.5	1745	1767.5		
25	QPSK	1	1	23.07	23.06	22.90	24.0	0.0
Channel								
Frequency (MHz)								
343000				349000	355000		Tune-up limit (dBm)	MPR (dB)
				1717.5	1745	1772.5		
20	QPSK	1	1	23.01	23.11	22.87	24.0	0.0
Channel								
Frequency (MHz)								
343500				349000	354500		Tune-up limit (dBm)	MPR (dB)
				1715	1745	1775		
15	QPSK	1	1	22.99	23.12	22.97	24.0	0.0
Channel								
Frequency (MHz)								
343000				349000	355000		Tune-up limit (dBm)	MPR (dB)
				1715	1745	1775		
10	QPSK	1	1	23.02	23.09	22.85	24.0	0.0
Channel								
Frequency (MHz)								
342500				349000	355500		Tune-up limit (dBm)	MPR (dB)
				1712.5	1745	1777.5		
5	QPSK	1	1	23.10	23.05	22.99	24.0	0.0

n70 Ant 3 ECIS

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
15	PI2 BPSK	1	1		1762.5			
15	PI2 BPSK	1	40		22.43		23.9	0.0
15	PI2 BPSK	1	77		22.38			
15	PI2 BPSK	36	0		22.40		23.5	0.4
15	PI2 BPSK	36	22		22.46		23.9	0.0
15	PI2 BPSK	36	43		22.30			
15	PI2 BPSK	75	0		22.41		23.5	0.4
15	QPSK	1	1		22.51			
15	QPSK	1	40		22.40		23.9	0.0
15	QPSK	1	77		22.34			
15	QPSK	36	0		21.55		23.0	0.9
15	QPSK	36	22		22.41		23.9	0.0
15	QPSK	36	43		21.48			
15	QPSK	75	0		21.56		23.0	0.9
15	16QAM	1	1		21.50		23.0	0.9
15	64QAM	1	1		20.68		21.5	2.4
15	256QAM	1	1		19.33		19.5	4.4
Channel								
Frequency (MHz)								
345000				345000	341000		Tune-up limit (dBm)	MPR (dB)
				1700	1705			
10	QPSK	1	1	22.34	22.46	22.40	23.9	0.0
Channel								
Frequency (MHz)								
339500				345500	341500		Tune-up limit (dBm)	MPR (dB)
				1697.5	1702.5	1707.5		
5	QPSK	1	1	22.32	22.41	22.34	23.9	0.0



n41 HPUE Ant 3 ECIS

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				2546.01	2592.99	2640		
100	PI2 BPSK	1	1	18.70	18.72	18.64		
100	PI2 BPSK	1	137	18.51	18.56	18.65	20.2	0.0
100	PI2 BPSK	1	271	18.52	18.57	18.51		
100	PI2 BPSK	135	0	18.53	18.67	18.51	20.2	0.0
100	PI2 BPSK	135	69	18.58	18.67	18.59	20.2	0.0
100	PI2 BPSK	135	138	18.57	18.56	18.56	20.2	0.0
100	PI2 BPSK	270	0	18.60	18.61	18.55		
100	QPSK	1	1	18.80	18.86	18.81		
100	QPSK	1	137	18.71	18.79	18.69	20.2	0.0
100	QPSK	1	271	18.66	18.72	18.71		
100	QPSK	135	0	18.68	18.71	18.60	20.2	0.0
100	QPSK	135	69	18.75	18.76	18.80	20.2	0.0
100	QPSK	135	138	18.45	18.60	18.44	20.2	0.0
100	QPSK	270	0	18.47	18.65	18.59		
100	16QAM	1	1	18.45	18.68	18.58	20.2	0.0
100	64QAM	1	1	18.54	18.58	18.49	20.2	0.0
100	256QAM	1	1	18.48	18.56	18.44	20.2	0.0
Channel				503000	518598	526996	Tune-up limit	MPR
Frequency (MHz)				2541	2592.99	2643.98	(dBm)	(dB)
90	QPSK	1	1	18.66	18.82	18.87	20.2	0.0
Channel				507204	516598	529998	Tune-up limit	MPR
Frequency (MHz)				2538.02	2592.99	2649.99	(dBm)	(dB)
80	QPSK	1	1	18.69	18.73	18.69	20.2	0.0
Channel				508202	518598	531000	Tune-up limit	MPR
Frequency (MHz)				2531.01	2592.99	2655	(dBm)	(dB)
70	QPSK	1	1	18.71	18.82	18.79	20.2	0.0
Channel				504204	518598	532998	Tune-up limit	MPR
Frequency (MHz)				2526	2592.99	2659.98	(dBm)	(dB)
60	QPSK	1	1	18.69	18.72	18.73	20.2	0.0
Channel				504204	518598	532998	Tune-up limit	MPR
Frequency (MHz)				2511.02	2592.99	2664.98	(dBm)	(dB)
50	QPSK	1	1	18.74	18.81	18.69	20.2	0.0
Channel				503700	518598	533496	Tune-up limit	MPR
Frequency (MHz)				2511.5	2592.99	2667.48	(dBm)	(dB)
45	QPSK	1	1	18.72	18.77	18.77	20.2	0.0
Channel				503202	518598	534000	Tune-up limit	MPR
Frequency (MHz)				2516.01	2592.99	2670	(dBm)	(dB)
40	QPSK	1	1	18.70	18.74	18.67	20.2	0.0
Channel				502704	518598	534496	Tune-up limit	MPR
Frequency (MHz)				2513.52	2592.99	2672.49	(dBm)	(dB)
35	QPSK	1	1	18.77	18.82	18.71	20.2	0.0
Channel				502200	518598	534996	Tune-up limit	MPR
Frequency (MHz)				2511	2592.99	2674.98	(dBm)	(dB)
30	QPSK	1	1	18.74	18.80	18.69	20.2	0.0
Channel				501702	518598	535500	Tune-up limit	MPR
Frequency (MHz)				2508.51	2592.99	2677.5	(dBm)	(dB)
25	QPSK	1	1	18.82	18.77	18.73	20.2	0.0
Channel				501204	518598	535998	Tune-up limit	MPR
Frequency (MHz)				2506.02	2592.99	2679.99	(dBm)	(dB)
20	QPSK	1	1	18.85	18.75	18.71	20.2	0.0
Channel				500700	518598	536496	Tune-up limit	MPR
Frequency (MHz)				2503.5	2592.99	2682.48	(dBm)	(dB)
15	QPSK	1	1	18.82	18.71	18.67	20.2	0.0
Channel				500202	518598	537000	Tune-up limit	MPR
Frequency (MHz)				2501.01	2592.99	2685	(dBm)	(dB)
10	QPSK	1	1	18.74	18.82	18.74	20.2	0.0

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				3270	3624.99	3679.98		
40	PI2 BPSK	1	1	21.20	21.22	21.10		
40	PI2 BPSK	1	53	20.99	21.04	21.11	22.5	0.0
40	PI2 BPSK	1	104	20.95	21.13	21.04		
40	PI2 BPSK	50	0	21.08	21.15	21.07	22.5	0.0
40	PI2 BPSK	50	28	21.11	21.12	21.13	22.5	0.0
40	PI2 BPSK	50	56	21.14	21.02	21.00	22.5	0.0
40	PI2 BPSK	100	0	21.11	21.10	21.05		
40	QPSK	1	1	21.28	21.35	21.34		
40	QPSK	1	53	21.23	21.29	21.28	22.5	0.0
40	QPSK	1	104	21.20	21.23	21.18		
40	QPSK	50	0	21.24	21.13	21.16	22.5	0.0
40	QPSK	50	28	21.22	21.32	21.16	22.5	0.0
40	QPSK	50	56	21.03	21.18	21.09		
40	QPSK	100	0	21.16	21.27	21.21	22.5	0.0
40	16QAM	1	1	20.95	21.15	21.09	22.5	0.0
40	64QAM	1	1	20.80	20.82	20.57	21.5	1.0
40	256QAM	1	1	19.25	19.32	19.21	19.5	3.0
Channel				637698	641696	645596	Tune-up limit	MPR
Frequency (MHz)				3555.02	3624.99	3694.99	(dBm)	(dB)
30	QPSK	1	1	21.13	21.32	21.27	22.5	0.0
Channel				637334	641696	646000	Tune-up limit	MPR
Frequency (MHz)				3550.01	3624.99	3691	(dBm)	(dB)
20	QPSK	1	1	21.20	21.24	21.23	22.5	0.0
Channel				637168	641696	646196	Tune-up limit	MPR
Frequency (MHz)				3557.52	3624.99	3692.49	(dBm)	(dB)
15	QPSK	1	1	21.24	21.25	21.27	22.5	0.0
Channel				637000	641696	646332	Tune-up limit	MPR
Frequency (MHz)				3555	3624.99	3694.98	(dBm)	(dB)
10	QPSK	1	1	21.25	21.26	21.23	22.5	0.0

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				3750	3840	3930		
100	PI2 BPSK	1	1	18.57	18.68	18.53		
100	PI2 BPSK	1	137	18.53	18.48	18.49	19.9	0.0
100	PI2 BPSK	1	271	18.30	18.41	18.35		
100	PI2 BPSK	135	0	18.43	18.51	18.42	19.9	0.0
100	PI2 BPSK	135	69	18.43	18.50	18.40	19.9	0.0
100	PI2 BPSK	135	138	18.26	18.45	18.34	19.9	0.0
100	PI2 BPSK	270	0	18.47	18.54	18.40		
100	QPSK	1	1	18.70	18.82	18.59		
100	QPSK	1	137	18.58	18.82	18.53	19.9	0.0
100	QPSK	1	271	18.36	18.67	18.59		
100	QPSK	135	0	18.46	18.61	18.48	19.9	0.0
100	QPSK	135	69	18.57	18.80	18.51	19.9	0.0
100	QPSK	135	138	18.48	18.45	18.32	19.9	0.0
100	QPSK	270	0	18.43	18.60	18.23		
100	16QAM	1	1	18.31	18.45	18.34	19.9	0.0
100	64QAM	1	1	18.48	18.56	18.45	19.9	0.0
100	256QAM	1	1	18.07	18.23	18.14	19.9	0.0
Channel				646598	650000	653434	Tune-up limit	MPR
Frequency (MHz)				3745.02	3840	3935.01	(dBm)	(dB)
90	QPSK	1	1	18.65	18.76	18.58	19.9	0.0
Channel				649334	650000	652998	Tune-up limit	MPR
Frequency (MHz)				3742.01	3840	3930.02	(dBm)	(dB)
80	QPSK	1	1	18.55	18.70	18.59	19.9	0.0
Channel				649000	650000	653000	Tune-up limit	MPR
Frequency (MHz)				3735	3840	3945	(dBm)	(dB)
70	QPSK	1	1	18.67	18.73	18.53	19.9	0.0
Channel				647000	650000	653334	Tune-up limit	MPR
Frequency (MHz)				3730.02	3840	3950.01	(dBm)	(dB)
60	QPSK	1	1	18.72	18.76	18.58	19.9	0.0
Channel				646334	650000	653696	Tune-up limit	MPR
Frequency (MHz)				3725.01	3840	3955.02	(dBm)	(dB)
50	QPSK	1	1	18.66	18.80	18.52	19.9	0.0
Channel				646000	650000	654000	Tune-up limit	MPR
Frequency (MHz)				3720	3840	3960	(dBm)	(dB)
40	QPSK	1	1	18.68	18.77	18.59	19.9	0.0
Channel				647698	650000	654334	Tune-up limit	MPR
Frequency (MHz)				3715.02	3840	3965.01	(dBm)	(dB)
30	QPSK	1	1	18.61	18.77	18.50	19.9	0.0
Channel				647334	650000	654696	Tune-up limit	MPR
Frequency (MHz)				3712.5	3840	3970.02	(dBm)	(dB)
25	QPSK	1	1	18.66	18.77	18.54	19.9	0.0
Channel				647334	650000	654696	Tune-up limit	MPR
Frequency (MHz)				3712.5	3840	3975.01	(dBm)	(dB)
20	QPSK	1	1	18.93	18.73	18.54	19.9	0.0
Channel				647168	650000	654834	Tune-up limit	MPR
Frequency (MHz)				3707.52	3840	3972.51	(dBm)	(dB)
15	QPSK	1	1	18.24	18.76	18.57	19.9	0.0
Channel				647000	650000	655000	Tune-up limit	MPR
Frequency (MHz)				3705	3840	3975	(dBm)	(dB)
10	QPSK	1	1	18.71	18.81	18.61	19.9	0.0



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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	18.62	3500.01				
100	PI2 BPSK	1	137	18.59			19.9	0.0	
100	PI2 BPSK	1	271	18.49					
100	PI2 BPSK	135	0	18.56			19.9	0.0	
100	PI2 BPSK	135	69	18.56			19.9	0.0	
100	PI2 BPSK	135	138	18.57			19.9	0.0	
100	PI2 BPSK	270	0	18.74			19.9	0.0	
100	QPSK	1	1	18.86					
100	QPSK	1	137	18.87			19.9	0.0	
100	QPSK	1	271	18.64					
100	QPSK	135	0	18.58			19.9	0.0	
100	QPSK	135	69	18.65			19.9	0.0	
100	QPSK	135	138	18.61			19.9	0.0	
100	QPSK	270	0	18.96			19.9	0.0	
100	16QAM	1	1	18.16			19.9	0.0	
100	64QAM	1	1	18.39			19.9	0.0	
100	256QAM	1	1	18.42			19.9	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	18.60	63334	63368	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
80	QPSK	1	1	18.57	3500.01	3505.02	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
70	QPSK	1	1	18.59	18.67	18.65	19.9	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	18.63	3500.01	3520.02	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
50	QPSK	1	1	18.58	18.67	18.60	19.9	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	18.63	18.71	18.59	19.9	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	18.61	18.72	18.60	19.9	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	18.57	18.72	18.66	19.9	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	18.56	18.67	18.59	19.9	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	18.56	18.74	18.65	19.9	0.0	

Part27O n78 HPUE Ant 3 ECIS									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	18.35	3750				
100	PI2 BPSK	1	137	18.42			19.9	0.0	
100	PI2 BPSK	1	271	18.22					
100	PI2 BPSK	135	0	18.39			19.9	0.0	
100	PI2 BPSK	135	69	18.53			19.9	0.0	
100	PI2 BPSK	135	138	18.41			19.9	0.0	
100	PI2 BPSK	270	0	18.47			19.9	0.0	
100	QPSK	1	1	18.65					
100	QPSK	1	137	18.35			19.9	0.0	
100	QPSK	1	271	18.59					
100	QPSK	135	0	18.55			19.9	0.0	
100	QPSK	135	69	18.62			19.9	0.0	
100	QPSK	135	138	18.38			19.9	0.0	
100	QPSK	270	0	18.46			19.9	0.0	
100	16QAM	1	1	18.31			19.9	0.0	
100	64QAM	1	1	18.42			19.9	0.0	
100	256QAM	1	1	18.03			19.9	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	18.40	65000	65034	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
80	QPSK	1	1	18.43	3750	3755.01	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
70	QPSK	1	1	18.42	18.44	18.42	19.9	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	18.39	18.52	18.45	19.9	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	18.42	18.44	18.40	19.9	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	18.43	18.53	18.43	19.9	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	18.41	18.48	18.47	19.9	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	18.41	18.44	18.47	19.9	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	18.47	18.43	18.45	19.9	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	18.48	18.44	18.42	19.9	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	18.40	18.48	18.40	19.9	0.0	

Part27Q n78 HPUE Ant 3 ECIS									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	18.54	3500.01				
100	PI2 BPSK	1	137	18.55			19.9	0.0	
100	PI2 BPSK	1	271	18.33					
100	PI2 BPSK	135	0	18.46			19.9	0.0	
100	PI2 BPSK	135	69	18.49			19.9	0.0	
100	PI2 BPSK	135	138	18.48			19.9	0.0	
100	PI2 BPSK	270	0	18.62			19.9	0.0	
100	QPSK	1	1	18.64					
100	QPSK	1	137	18.49			19.9	0.0	
100	QPSK	1	271	18.55					
100	QPSK	135	0	18.44			19.9	0.0	
100	QPSK	135	69	18.61			19.9	0.0	
100	QPSK	135	138	18.48			19.9	0.0	
100	QPSK	270	0	18.53			19.9	0.0	
100	16QAM	1	1	18.06			19.9	0.0	
100	64QAM	1	1	18.23			19.9	0.0	
100	256QAM	1	1	18.25			19.9	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	18.53	63300	63368	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
80	QPSK	1	1	18.59	3500.01	3505.02	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
70	QPSK	1	1	18.55	18.59	18.51	19.9	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	18.50	18.54	18.44	19.9	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	18.52	18.53	18.46	19.9	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	18.60	18.59	18.43	19.9	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	18.51	18.57	18.48	19.9	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	18.54	18.53	18.43	19.9	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	18.54	18.58	18.51	19.9	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	18.55	18.59	18.46	19.9	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	18.57	18.61	18.43	19.9	0.0	



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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				3570	3624.99	3679.98		
40	PI2 BPSK	1	1	20.23	20.30	20.25	21.2	0.0
40	PI2 BPSK	1	59	20.22	20.24	20.19		
40	PI2 BPSK	1	104	20.08	20.25	20.15		
40	PI2 BPSK	50	0	20.13	20.22	20.16	21.2	0.0
40	PI2 BPSK	50	28	20.20	20.26	20.14	21.2	0.0
40	PI2 BPSK	50	58	20.16	20.20	20.15		
40	PI2 BPSK	100	0	20.18	20.27	20.24	21.2	0.0
40	QPSK	1	1	20.30	20.39	20.34		
40	QPSK	1	53	20.25	20.34	20.22	21.2	0.0
40	QPSK	1	104	20.23	20.21	20.12		
40	QPSK	50	0	20.18	20.20	20.24	21.2	0.0
40	QPSK	50	28	20.25	20.33	20.30	21.2	0.0
40	QPSK	50	58	20.13	20.17	20.04		
40	QPSK	100	0	20.19	20.24	20.11	21.2	0.0
40	16QAM	1	1	20.13	20.23	20.18	21.2	0.0
40	64QAM	1	1	20.13	20.15	20.10	21.2	0.0
40	256QAM	1	1	19.39	19.46	19.44	20.5	0.7
Channel								
Frequency (MHz)				637668	641666	645666		
30	QPSK	1	1	20.29	20.33	20.29	21.2	0.0
Channel								
Frequency (MHz)				637334	641666	646000		
20	QPSK	1	1	20.32	20.33	20.25	21.2	0.0
Channel								
Frequency (MHz)				637168	641666	646166		
15	QPSK	1	1	20.23	20.36	20.27	21.2	0.0
Channel								
Frequency (MHz)				3555.09	3624.99	3694.98		
10	QPSK	1	1	20.26	20.31	20.32	21.2	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				3750	3840	3930		
100	PI2 BPSK	1	1	19.59	19.64	19.63	21.0	0.0
100	PI2 BPSK	1	137	19.48	19.58	19.60		
100	PI2 BPSK	1	271	19.46	19.50	19.52		
100	PI2 BPSK	135	0	19.45	19.67	19.51	21.0	0.0
100	PI2 BPSK	135	69	19.63	19.80	19.45	21.0	0.0
100	PI2 BPSK	135	138	19.47	19.57	19.49		
100	PI2 BPSK	270	0	19.42	19.68	19.49	21.0	0.0
100	QPSK	1	1	19.69	19.87	19.76		
100	QPSK	1	137	19.71	19.66	19.53	21.0	0.0
100	QPSK	1	271	19.54	19.66	19.58		
100	QPSK	135	0	19.49	19.51	19.46	21.0	0.0
100	QPSK	135	69	19.44	19.69	19.52	21.0	0.0
100	QPSK	135	138	19.55	19.52	19.52		
100	QPSK	270	0	19.44	19.59	19.47	21.0	0.0
100	16QAM	1	1	19.42	19.48	19.38	21.0	0.0
100	64QAM	1	1	19.57	19.60	19.47	21.0	0.0
100	256QAM	1	1	19.75	19.70	19.81	21.0	0.0
Channel								
Frequency (MHz)				646968	650000	653034		
90	QPSK	1	1	19.61	19.81	19.70	21.0	0.0
Channel								
Frequency (MHz)				646334	650000	652668		
80	QPSK	1	1	19.68	19.78	19.69	21.0	0.0
Channel								
Frequency (MHz)				646000	650000	653000		
70	QPSK	1	1	19.02	19.83	19.75	21.0	0.0
Channel								
Frequency (MHz)				3743.01	3840	3940.02		
60	QPSK	1	1	19.68	19.81	19.74	21.0	0.0
Channel								
Frequency (MHz)				646334	650000	653668		
50	QPSK	1	1	19.68	19.79	19.75	21.0	0.0
Channel								
Frequency (MHz)				646000	650000	654000		
40	QPSK	1	1	19.62	19.84	19.77	21.0	0.0
Channel								
Frequency (MHz)				647968	650000	654334		
30	QPSK	1	1	19.66	19.78	19.72	21.0	0.0
Channel								
Frequency (MHz)				3742.01	3840	3937.5		
25	QPSK	1	1	19.63	19.83	19.76	21.0	0.0
Channel								
Frequency (MHz)				647334	650000	654668		
20	QPSK	1	1	19.62	19.83	19.72	21.0	0.0
Channel								
Frequency (MHz)				647168	650000	654334		
15	QPSK	1	1	19.63	19.83	19.66	21.0	0.0
Channel								
Frequency (MHz)				3705	3840	3975		
10	QPSK	1	1	19.64	19.81	19.71	21.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)					3500.01			
100	PI2 BPSK	1	1		19.95		21.0	0.0
100	PI2 BPSK	1	137		19.97			
100	PI2 BPSK	1	271		19.65			
100	PI2 BPSK	135	0		19.74		21.0	0.0
100	PI2 BPSK	135	69		19.79		21.0	0.0
100	PI2 BPSK	135	138		19.79			
100	PI2 BPSK	270	0		19.84		21.0	0.0
100	QPSK	1	1		20.02			
100	QPSK	1	137		19.90		21.0	0.0
100	QPSK	1	271		19.90			
100	QPSK	135	0		19.78		21.0	0.0
100	QPSK	135	69		19.87		21.0	0.0
100	QPSK	135	138		19.74			
100	QPSK	270	0		19.83		21.0	0.0
100	16QAM	1	1		19.41		21.0	0.0
100	64QAM	1	1		19.49		21.0	0.0
100	256QAM	1	1		19.57		21.0	0.0
Channel								
Frequency (MHz)				633000	633334	633668		
90	QPSK	1	1	19.99	19.91	19.93	21.0	0.0
Channel								
Frequency (MHz)				632668	633334	634000		
80	QPSK	1	1	20.00	19.91	19.92	21.0	0.0
Channel								
Frequency (MHz)				632334	633334	634334		
70	QPSK	1	1	19.05	20.00	19.86	21.0	0.0
Channel								
Frequency (MHz)				3480	3500.01	3520.02		
60	QPSK	1	1	19.98	20.00	19.97	21.0	0.0
Channel								
Frequency (MHz)				631668	633334	635000		
50	QPSK	1	1	19.91	19.92	19.87	21.0	0.0
Channel								
Frequency (MHz)				631334	633334	635334		
40	QPSK	1	1	19.99	20.00	19.93	21.0	0.0
Channel								
Frequency (MHz)				631000	633334	635668		
30	QPSK	1	1	19.98	19.95	19.91	21.0	0.0
Channel								
Frequency (MHz)				3482.51	3500.01	3537.51		
25	QPSK	1	1	19.98	20.01	19.94	21.0	0.0
Channel								
Frequency (MHz)				630668	633334	636000		
20	QPSK	1	1	19.92	19.93	19.90	21.0	0.0
Channel								
Frequency (MHz)				630500	633334	636168		
15	QPSK	1	1	20.01	19.98	19.93	21.0	0.0
Channel								
Frequency (MHz)				3455.01	3500.01	3545.01		
10	QPSK	1	1	19.93	20.00	19.93	21.0	0.0



Part270 n78 HPUE Ant 4 ECI5									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1		19.72				
100	PI2 BPSK	1	137		19.84		21.0	0.0	
100	PI2 BPSK	1	271		19.49				
100	PI2 BPSK	135	0		19.63		21.0	0.0	
100	PI2 BPSK	135	69		19.61		21.0	0.0	
100	PI2 BPSK	135	138		19.59		21.0	0.0	
100	PI2 BPSK	270	0		19.78		21.0	0.0	
100	QPSK	1	1		19.81				
100	QPSK	1	137		19.64		21.0	0.0	
100	QPSK	1	271		19.85				
100	QPSK	135	0		19.85		21.0	0.0	
100	QPSK	135	69		19.78		21.0	0.0	
100	QPSK	135	138		19.68		21.0	0.0	
100	QPSK	270	0		19.65		21.0	0.0	
100	16QAM	1	1		19.49		21.0	0.0	
100	64QAM	1	1		19.52		21.0	0.0	
100	256QAM	1	1		19.44		21.0	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	649868	650000	650334		MPR	
Channel									
Frequency (MHz)									
90	QPSK	1	1	3745.02	3750	3755.01		MPR	
Channel									
Frequency (MHz)									
80	QPSK	1	1	19.71	19.69	19.64	21.0	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	649334	650000	650668		MPR	
Channel									
Frequency (MHz)									
80	QPSK	1	1	3740.02	3750	3740.02		MPR	
Channel									
Frequency (MHz)									
70	QPSK	1	1	19.68	19.65	19.71	21.0	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	19.81	19.65	19.68	21.0	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	649334	650000	651668		MPR	
Channel									
Frequency (MHz)									
40	QPSK	1	1	3726.01	3750	3726.02		MPR	
Channel									
Frequency (MHz)									
30	QPSK	1	1	649000	650000	652000		MPR	
Channel									
Frequency (MHz)									
25	QPSK	1	1	3720	3750	3720		MPR	
Channel									
Frequency (MHz)									
20	QPSK	1	1	19.82	19.87	19.63	21.0	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	19.71	19.73	19.66	21.0	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	64750	650000	652000		MPR	
Channel									
Frequency (MHz)									
10	QPSK	1	1	3705	3750	3795		MPR	
Channel									
Frequency (MHz)									
10	QPSK	1	1	19.64	19.74	19.60	21.0	0.0	

Part27Q n78 HPUE Ant 4 ECI5									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1		19.96				
100	PI2 BPSK	1	137		19.95		21.0	0.0	
100	PI2 BPSK	1	271		19.76				
100	PI2 BPSK	135	0		19.86		21.0	0.0	
100	PI2 BPSK	135	69		19.79		21.0	0.0	
100	PI2 BPSK	135	138		19.66		21.0	0.0	
100	PI2 BPSK	270	0		19.87		21.0	0.0	
100	QPSK	1	1		20.00				
100	QPSK	1	137		19.89		21.0	0.0	
100	QPSK	1	271		19.93				
100	QPSK	135	0		19.73		21.0	0.0	
100	QPSK	135	69		19.96		21.0	0.0	
100	QPSK	135	138		19.89		21.0	0.0	
100	QPSK	270	0		19.96		21.0	0.0	
100	16QAM	1	1		19.44		21.0	0.0	
100	64QAM	1	1		19.60		21.0	0.0	
100	256QAM	1	1		19.58		21.0	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	639500	633334	639668		MPR	
Channel									
Frequency (MHz)									
90	QPSK	1	1	3495	3500.01	3505.02		MPR	
Channel									
Frequency (MHz)									
80	QPSK	1	1	19.90	19.95	19.90	21.0	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	632668	633334	634000		MPR	
Channel									
Frequency (MHz)									
70	QPSK	1	1	3480.02	3500.01	3510		MPR	
Channel									
Frequency (MHz)									
70	QPSK	1	1	19.94	19.97	19.94	21.0	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	632334	633334	634334		MPR	
Channel									
Frequency (MHz)									
60	QPSK	1	1	3485.01	3500.01	3515.01		MPR	
Channel									
Frequency (MHz)									
60	QPSK	1	1	19.92	19.90	19.92	21.0	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	631000	633334	635668		MPR	
Channel									
Frequency (MHz)									
50	QPSK	1	1	3480	3500.01	3520.02		MPR	
Channel									
Frequency (MHz)									
40	QPSK	1	1	19.87	19.87	19.88	21.0	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	631334	633334	635334		MPR	
Channel									
Frequency (MHz)									
30	QPSK	1	1	3470.01	3500.01	3530.01		MPR	
Channel									
Frequency (MHz)									
30	QPSK	1	1	19.88	19.96	19.93	21.0	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	630500	633334	636168		MPR	
Channel									
Frequency (MHz)									
25	QPSK	1	1	3462.51	3500.01	3537.51		MPR	
Channel									
Frequency (MHz)									
25	QPSK	1	1	19.85	19.96	19.88	21.0	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	630668	633334	638000		MPR	
Channel									
Frequency (MHz)									
20	QPSK	1	1	3460.02	3500.01	3540		MPR	
Channel									
Frequency (MHz)									
20	QPSK	1	1	19.87	19.91	19.89	21.0	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	630500	633334	638168		MPR	
Channel									
Frequency (MHz)									
15	QPSK	1	1	3457.5	3500.01	3542.52		MPR	
Channel									
Frequency (MHz)									
15	QPSK	1	1	19.86	19.97	19.84	21.0	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	630334	633334	638334		MPR	
Channel									
Frequency (MHz)									
10	QPSK	1	1	3455.01	3500.01	3545.01		MPR	
Channel									
Frequency (MHz)									
10	QPSK	1	1	19.91	19.92	19.91	21.0	0.0	



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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				3570	3624.99	3679.98		
40	PI2 BPSK	1	1	20.39	20.32	20.27		
40	PI2 BPSK	1	59	20.30	20.21	20.35	21.5	0.0
40	PI2 BPSK	1	104	20.18	20.18	20.07		
40	PI2 BPSK	50	0	20.18	20.28	20.17	21.5	0.0
40	PI2 BPSK	50	28	20.29	20.19	20.14	21.5	0.0
40	PI2 BPSK	50	56	19.95	20.13	20.04	21.5	0.0
40	PI2 BPSK	100	0	20.21	20.33	20.11		
40	QPSK	1	1	20.38	20.49	20.39		
40	QPSK	1	53	20.38	20.34	20.17	21.5	0.0
40	QPSK	1	104	20.20	20.23	20.16		
40	QPSK	50	0	19.76	19.84	19.82	21.0	0.5
40	QPSK	50	28	20.20	20.41	20.14	21.5	0.0
40	QPSK	50	56	19.70	19.82	19.76		
40	QPSK	100	0	19.68	19.91	19.56	21.0	0.5
40	16QAM	1	1	19.76	19.72	19.58	21.0	0.5
40	64QAM	1	1	18.73	18.69	18.64	19.5	2.0
40	256QAM	1	1	17.37	17.36	17.42	17.5	4.0
Channel								
Frequency (MHz)				637856	641666	645000	Tune-up limit (dBm)	MPR (dB)
Channel				3565.99	3624.99	3684.99		
30	QPSK	1	1	20.34	20.48	20.35	21.5	0.0
Channel								
Frequency (MHz)				637334	641666	645000	Tune-up limit (dBm)	MPR (dB)
Channel				3567.01	3624.99	3690		
20	QPSK	1	1	20.40	20.45	20.33	21.5	0.0
Channel								
Frequency (MHz)				637168	641666	646168	Tune-up limit (dBm)	MPR (dB)
Channel				3557.52	3624.99	3692.49		
15	QPSK	1	1	20.39	20.45	20.37	21.5	0.0
Channel								
Frequency (MHz)				637000	641666	646332	Tune-up limit (dBm)	MPR (dB)
Channel				3555	3624.99	3694.98		
10	QPSK	1	1	20.40	20.41	20.35	21.5	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				3750	3840	3930		
100	PI2 BPSK	1	1	16.87	16.94	16.80		
100	PI2 BPSK	1	137	16.82	16.74	16.68	18.1	0.0
100	PI2 BPSK	1	271	16.77	16.67	16.59		
100	PI2 BPSK	135	0	16.63	16.71	16.68	18.1	0.0
100	PI2 BPSK	135	69	16.74	16.76	16.58	18.1	0.0
100	PI2 BPSK	135	138	16.66	16.69	16.53		
100	PI2 BPSK	270	0	16.68	16.81	16.62	18.1	0.0
100	QPSK	1	1	16.87	16.96	16.86		
100	QPSK	1	137	16.85	16.77	16.71	18.1	0.0
100	QPSK	1	271	16.71	16.82	16.70		
100	QPSK	135	0	16.71	16.73	16.56	18.1	0.0
100	QPSK	135	69	16.72	16.88	16.68	18.1	0.0
100	QPSK	135	138	16.72	16.68	16.66		
100	QPSK	270	0	16.69	16.78	16.47	18.1	0.0
100	16QAM	1	1	16.65	16.74	16.44	18.1	0.0
100	64QAM	1	1	16.87	16.79	16.75	18.1	0.0
100	256QAM	1	1	16.89	16.91	16.79	18.1	0.0
Channel								
Frequency (MHz)				646968	650000	662000	Tune-up limit (dBm)	MPR (dB)
Channel				3745.02	3840	3935.01		
90	QPSK	1	1	16.75	16.83	16.75	18.1	0.0
Channel								
Frequency (MHz)				646934	650000	662068	Tune-up limit (dBm)	MPR (dB)
Channel				3743.01	3840	3940.02		
80	QPSK	1	1	16.79	16.81	16.72	18.1	0.0
Channel								
Frequency (MHz)				646900	650000	663000	Tune-up limit (dBm)	MPR (dB)
Channel				3735	3840	3945		
70	QPSK	1	1	16.80	16.78	16.72	18.1	0.0
Channel								
Frequency (MHz)				646866	650000	663334	Tune-up limit (dBm)	MPR (dB)
Channel				3730.02	3840	3950.01		
60	QPSK	1	1	16.72	16.80	16.71	18.1	0.0
Channel								
Frequency (MHz)				646834	650000	663068	Tune-up limit (dBm)	MPR (dB)
Channel				3725.02	3840	3955.02		
50	QPSK	1	1	16.82	16.74	16.74	18.1	0.0
Channel								
Frequency (MHz)				646800	650000	664000	Tune-up limit (dBm)	MPR (dB)
Channel				3720	3840	3960		
40	QPSK	1	1	16.75	16.74	16.70	18.1	0.0
Channel								
Frequency (MHz)				647968	650000	664334	Tune-up limit (dBm)	MPR (dB)
Channel				3718.02	3840	3965.01		
30	QPSK	1	1	16.80	16.74	16.80	18.1	0.0
Channel								
Frequency (MHz)				647800	650000	664500	Tune-up limit (dBm)	MPR (dB)
Channel				3712.5	3840	3967.5		
25	QPSK	1	1	16.83	16.83	16.79	18.1	0.0
Channel								
Frequency (MHz)				647334	650000	664668	Tune-up limit (dBm)	MPR (dB)
Channel				3710.01	3840	3970.02		
20	QPSK	1	1	16.83	16.77	16.70	18.1	0.0
Channel								
Frequency (MHz)				647168	650000	664834	Tune-up limit (dBm)	MPR (dB)
Channel				3707.52	3840	3972.51		
15	QPSK	1	1	16.83	16.79	16.75	18.1	0.0
Channel								
Frequency (MHz)				647100	650000	665000	Tune-up limit (dBm)	MPR (dB)
Channel				3705	3840	3975		
10	QPSK	1	1	16.76	16.79	16.75	18.1	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
Channel							3500.01	
100	PI2 BPSK	1	1			17.08		
100	PI2 BPSK	1	137			17.06	18.1	0.0
100	PI2 BPSK	1	271			16.91		
100	PI2 BPSK	135	0			17.04	18.1	0.0
100	PI2 BPSK	135	69			16.96	18.1	0.0
100	PI2 BPSK	135	138			16.88		
100	PI2 BPSK	270	0			17.05	18.1	0.0
100	QPSK	1	1			17.28		
100	QPSK	1	137			17.04	18.1	0.0
100	QPSK	1	271			17.06		
100	QPSK	135	0			16.97	18.1	0.0
100	QPSK	135	69			17.25	18.1	0.0
100	QPSK	135	138			17.08		
100	QPSK	270	0			17.16	18.1	0.0
100	16QAM	1	1			17.04	18.1	0.0
100	64QAM	1	1			17.16	18.1	0.0
100	256QAM	1	1			16.72	18.1	0.0
Channel								
Frequency (MHz)				633000	633334	633668	Tune-up limit (dBm)	MPR (dB)
Channel				3495	3500.01	3505.02		
90	QPSK	1	1	17.12	17.11	17.11	18.1	0.0
Channel								
Frequency (MHz)				632668	633334	634000	Tune-up limit (dBm)	MPR (dB)
Channel				3490.02	3500.01	3510		
80	QPSK	1	1	17.10	17.22	17.11	18.1	0.0
Channel								
Frequency (MHz)				632334	633334	634334	Tune-up limit (dBm)	MPR (dB)
Channel				3485.01	3500.01	3515.01		
70	QPSK	1	1	17.05	17.13	17.02	18.1	0.0
Channel								
Frequency (MHz)				632000	633334	634668	Tune-up limit (dBm)	MPR (dB)
Channel				3480	3500.01	3520.02		
60	QPSK	1	1	17.09	17.19	17.07	18.1	0.0
Channel								
Frequency (MHz)				631668	633334	635000	Tune-up limit (dBm)	MPR (dB)
Channel				3475.02	3500.01	3525		
50	QPSK	1	1	17.12	17.14	17.09	18.1	0.0
Channel								
Frequency (MHz)				631334	633334	635334	Tune-up limit (dBm)	MPR (dB)
Channel				3470.01	3500.01	3530.01		
40	QPSK	1	1	17.12	17.18	17.07	18.1	0.0
Channel								
Frequency (MHz)				631000	633334	635668	Tune-up limit (dBm)	MPR (dB)
Channel				3465	3500.01	3535.02		
30	QPSK	1	1	17.07	17.11	17.09	18.1	0.0
Channel								
Frequency (MHz)				630668	633334	636000	Tune-up limit (dBm)	MPR (dB)
Channel				3460.02	3500.01	3540		
25	QPSK	1	1	17.04	17.17	17.09	18.1	0.0
Channel								
Frequency (MHz)				630334	633334	636334	Tune-up limit (dBm)	MPR (dB)
Channel				3455.02	3500.01	3545		
20	QPSK	1	1	17.09	17.14	17.01	18.1	0.0
Channel								
Frequency (MHz)				630000	633334	636668	Tune-up limit (dBm)	MPR (dB)
Channel				3450	3500.01	3545.01		
15	QPSK	1	1	17.10	17.14	17.09	18.1	0.0
Channel								
Frequency (MHz)				629668	633334	637000	Tune-up limit (dBm)	MPR (dB)
Channel				3445.01	3500.01	3545.01		
10	QPSK	1	1	17.12	17.17	17.12	18.1	0.0



Part270 n78 HPUE Ant 6 ECI5									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1		16.77				
100	PI2 BPSK	1	137		16.74		18.1	0.0	
100	PI2 BPSK	1	271		16.64				
100	PI2 BPSK	135	0		16.59		18.1	0.0	
100	PI2 BPSK	135	69		16.48		18.1	0.0	
100	PI2 BPSK	135	138		16.57		18.1	0.0	
100	PI2 BPSK	270	0		16.67		18.1	0.0	
100	QPSK	1	1		16.89				
100	QPSK	1	137		16.72		18.1	0.0	
100	QPSK	1	271		16.71				
100	QPSK	135	0		16.68		18.1	0.0	
100	QPSK	135	69		16.82		18.1	0.0	
100	QPSK	135	138		16.78		18.1	0.0	
100	QPSK	270	0		16.81		18.1	0.0	
100	16QAM	1	1		16.87		18.1	0.0	
100	64QAM	1	1		16.86		18.1	0.0	
100	256QAM	1	1		16.82		18.1	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	649868	650000	650334		MPR	
Channel									
Frequency (MHz)									
80	QPSK	1	1	3745.02	3750	3750.01		MPR	
Channel									
Frequency (MHz)									
70	QPSK	1	1	16.71	16.77	16.67	18.1	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	649334	650000	651668		MPR	
Channel									
Frequency (MHz)									
50	QPSK	1	1	3730.02	3750	3770.01		MPR	
Channel									
Frequency (MHz)									
40	QPSK	1	1	16.73	16.78	16.67	18.1	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	649334	650000	651668		MPR	
Channel									
Frequency (MHz)									
25	QPSK	1	1	3725.01	3750	3775.02		MPR	
Channel									
Frequency (MHz)									
20	QPSK	1	1	16.77	16.70	16.61	18.1	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	647168	650000	652000		MPR	
Channel									
Frequency (MHz)									
10	QPSK	1	1	3705	3750	3795		MPR	
Channel									
Frequency (MHz)									
10	QPSK	1	1	16.75	16.72	16.63	18.1	0.0	

Part27Q n78 HPUE Ant 6 ECI5									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1		17.13				
100	PI2 BPSK	1	137		17.04		18.1	0.0	
100	PI2 BPSK	1	271		16.81				
100	PI2 BPSK	135	0		16.96		18.1	0.0	
100	PI2 BPSK	135	69		16.88		18.1	0.0	
100	PI2 BPSK	135	138		17.01		18.1	0.0	
100	PI2 BPSK	270	0		16.92		18.1	0.0	
100	QPSK	1	1		17.26				
100	QPSK	1	137		17.01		18.1	0.0	
100	QPSK	1	271		17.11				
100	QPSK	135	0		16.96		18.1	0.0	
100	QPSK	135	69		17.08		18.1	0.0	
100	QPSK	135	138		17.00		18.1	0.0	
100	QPSK	270	0		17.07		18.1	0.0	
100	16QAM	1	1		17.09		18.1	0.0	
100	64QAM	1	1		17.20		18.1	0.0	
100	256QAM	1	1		16.98		18.1	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	633600	633334	633668		MPR	
Channel									
Frequency (MHz)									
80	QPSK	1	1	3485	3500.01	3505.02		MPR	
Channel									
Frequency (MHz)									
70	QPSK	1	1	16.97	17.06	16.94	18.1	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	632668	633334	634000		MPR	
Channel									
Frequency (MHz)									
50	QPSK	1	1	3480.02	3500.01	3510		MPR	
Channel									
Frequency (MHz)									
40	QPSK	1	1	16.99	17.07	16.90	18.1	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	632334	633334	634334		MPR	
Channel									
Frequency (MHz)									
25	QPSK	1	1	3485.01	3500.01	3515.01		MPR	
Channel									
Frequency (MHz)									
20	QPSK	1	1	17.04	17.05	16.91	18.1	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	631668	633334	633000		MPR	
Channel									
Frequency (MHz)									
10	QPSK	1	1	3480	3500.01	3520		MPR	
Channel									
Frequency (MHz)									
10	QPSK	1	1	16.98	17.09	16.95	18.1	0.0	



n48 Part 96 Ant 8 ECIS

Channel	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
40	3570	3624.99	3679.98		
40	20.39	20.45	20.34		
40	20.23	20.35	20.37	21.9	0.0
40	20.14	20.27	20.18		
40	20.16	20.36	20.09	21.5	0.4
40	20.26	20.33	20.27	21.9	0.0
40	19.92	20.23	20.01	21.5	0.4
40	20.23	20.27	20.13		
40	20.35	20.46	20.37		
40	20.36	20.37	20.20	21.9	0.0
40	20.14	20.32	20.25		
40	20.12	20.21	20.02	21.0	0.9
40	20.32	20.41	20.16	21.9	0.0
40	20.16	20.24	20.17		
40	20.03	20.20	20.06	21.0	0.9
40	20.05	20.14	20.08	21.0	0.9
40	19.15	19.22	19.18	19.5	2.4
40	17.13	17.20	17.08	17.5	4.4
Channel	637168	641666	645996	Tune-up limit (dBm)	MPR (dB)
30	3565.99	3624.99	3684.99		
30	20.12	20.28	20.19	21.9	0.0
Channel	637334	641666	645996	Tune-up limit (dBm)	MPR (dB)
20	3560.01	3624.99	3680		
20	20.17	20.31	20.25	21.9	0.0
Channel	637168	641666	646168	Tune-up limit (dBm)	MPR (dB)
15	3557.52	3624.99	3692.49		
15	20.22	20.26	20.16	21.9	0.0
Channel	633000	631666	646332	Tune-up limit (dBm)	MPR (dB)
10	3555	3624.99	3694.98		
10	20.17	20.22	20.23	21.9	0.0

Part270 n77 HPUE Ant 8 ECIS

Channel	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
100	3750	3840	3930		
100	19.33	19.40	19.33		
100	19.17	19.18	19.15	20.6	0.0
100	19.13	19.18	19.03		
100	19.09	19.21	19.08	20.6	0.0
100	19.23	19.24	19.08	20.6	0.0
100	19.19	19.08	19.08		
100	19.21	19.19	19.07	20.6	0.0
100	19.34	19.46	19.28		
100	19.32	19.24	19.14	20.6	0.0
100	19.22	19.32	19.10		
100	19.12	19.22	19.10	20.6	0.0
100	19.34	19.42	19.31	20.6	0.0
100	19.24	19.21	19.11		
100	19.14	19.19	19.09	20.6	0.0
100	19.08	19.18	19.02	20.6	0.0
100	19.07	19.34	19.28	20.6	0.0
100	19.30	19.32	19.28	20.5	0.1
Channel	646968	650000	662688	Tune-up limit (dBm)	MPR (dB)
90	3745.02	3840	3935.01		
90	19.24	19.30	19.16	20.6	0.0
Channel	646934	650000	662688	Tune-up limit (dBm)	MPR (dB)
80	3740.01	3840	3940.02		
80	19.31	19.23	19.19	20.5	0.0
Channel	646900	650000	663000	Tune-up limit (dBm)	MPR (dB)
70	3735	3840	3945		
70	19.27	19.24	19.14	20.6	0.0
Channel	646968	650000	663334	Tune-up limit (dBm)	MPR (dB)
60	3730.02	3840	3950.01		
60	19.21	19.24	19.18	20.6	0.0
Channel	646334	650000	663668	Tune-up limit (dBm)	MPR (dB)
50	3725.01	3840	3955.02		
50	19.23	19.26	19.14	20.6	0.0
Channel	646900	650000	664000	Tune-up limit (dBm)	MPR (dB)
40	3720	3840	3960		
40	19.25	19.24	19.10	20.5	0.0
Channel	647968	650000	664334	Tune-up limit (dBm)	MPR (dB)
30	3715.02	3840	3965.01		
30	19.21	19.28	19.17	20.6	0.0
Channel	647334	650000	664668	Tune-up limit (dBm)	MPR (dB)
25	3712.5	3840	3967.5		
25	19.31	19.28	19.14	20.6	0.0
Channel	647334	650000	664668	Tune-up limit (dBm)	MPR (dB)
20	3710.01	3840	3970.02		
20	19.20	19.25	19.17	20.6	0.0
Channel	647168	650000	664834	Tune-up limit (dBm)	MPR (dB)
15	3707.52	3840	3972.51		
15	19.27	19.25	19.22	20.9	0.0
Channel	647000	650000	665000	Tune-up limit (dBm)	MPR (dB)
10	3705	3840	3975		
10	19.32	19.22	19.23	20.6	0.0

Part27Q n77 HPUE Ant 8 ECIS

Channel	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
100	3500.01				
100	19.46				
100	19.17			20.6	0.0
100	19.27				
100	19.42			20.6	0.0
100	19.37			20.6	0.0
100	19.30				
100	19.42			20.6	0.0
100	19.08				
100	19.44			20.6	0.0
100	19.21				
100	19.35			20.6	0.0
100	19.35				
100	19.00			20.6	0.0
100	19.38				
100	19.49			20.6	0.0
100	19.06			20.6	0.0
100	19.35				
100	19.38			20.6	0.0
100	19.40				
100	19.05			20.6	0.0
100	19.05				
100	19.89			20.5	0.1
Channel	633000	633334	636668	Tune-up limit (dBm)	MPR (dB)
90	3495	3500.01	3505.02		
90	19.86	19.60	19.61	20.6	0.0
Channel	632668	633334	634000	Tune-up limit (dBm)	MPR (dB)
80	3490.02	3500.01	3510		
80	19.65	19.60	19.54	20.6	0.0
Channel	632334	633334	634334	Tune-up limit (dBm)	MPR (dB)
70	3485.01	3500.01	3515.01		
70	19.58	19.64	19.66	20.6	0.0
Channel	632000	633334	634668	Tune-up limit (dBm)	MPR (dB)
60	3480	3500.01	3520.02		
60	19.60	19.60	19.55	20.6	0.0
Channel	631668	633334	635000	Tune-up limit (dBm)	MPR (dB)
50	3475.02	3500.01	3525		
50	19.82	19.65	19.50	20.6	0.0
Channel	631334	633334	635334	Tune-up limit (dBm)	MPR (dB)
40	3470.01	3500.01	3530.01		
40	19.59	19.65	19.64	20.6	0.0
Channel	631000	633334	635668	Tune-up limit (dBm)	MPR (dB)
30	3465	3500.01	3535.02		
30	19.59	19.62	19.55	20.6	0.0
Channel	630668	633334	636000	Tune-up limit (dBm)	MPR (dB)
25	3462.51	3500.01	3537.51		
25	19.57	19.61	19.62	20.6	0.0
Channel	630334	633334	636334	Tune-up limit (dBm)	MPR (dB)
20	3460.02	3500.01	3540		
20	19.88	19.61	19.55	20.6	0.0
Channel	630000	633334	636668	Tune-up limit (dBm)	MPR (dB)
15	3457.5	3500.01	3542.52		
15	19.65	19.62	19.69	20.6	0.0
Channel	630334	633334	636334	Tune-up limit (dBm)	MPR (dB)
10	3455.01	3500.01	3545.01		
10	19.67	19.63	19.56	20.6	0.0



Part270 n78 HPUE Ant 8 ECI5									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1		19.27				
100	PI2 BPSK	1	137		19.15		20.6	0.0	
100	PI2 BPSK	1	271		19.02				
100	PI2 BPSK	135	0		19.00		20.6	0.0	
100	PI2 BPSK	135	69		19.19		20.6	0.0	
100	PI2 BPSK	135	138		19.07		20.6	0.0	
100	PI2 BPSK	270	0		19.22		20.6	0.0	
100	QPSK	1	1		19.38				
100	QPSK	1	137		19.29		20.6	0.0	
100	QPSK	1	271		19.24				
100	QPSK	135	0		19.13		20.6	0.0	
100	QPSK	135	69		19.33		20.6	0.0	
100	QPSK	135	138		19.11		20.6	0.0	
100	QPSK	270	0		19.31		20.6	0.0	
100	16QAM	1	1		19.30		20.6	0.0	
100	64QAM	1	1		19.30		20.6	0.0	
100	256QAM	1	1		19.62	650334	20.5	0.1	
Channel									
Frequency (MHz)									
90	QPSK	1	1	649668	650000	650334	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
80	QPSK	1	1	3745.02	3750	3750.01	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
70	QPSK	1	1	19.08	19.14	19.12	20.6	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	649668	650000	650334	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
50	QPSK	1	1	19.12	19.21	19.08	20.6	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	649668	650000	650334	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
30	QPSK	1	1	19.08	19.25	19.06	20.6	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	19.08	19.19	19.09	20.6	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	19.14	19.24	19.12	20.6	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	647168	650000	650334	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
10	QPSK	1	1	19.11	19.24	19.07	20.6	0.0	

Part27Q n78 HPUE Ant 8 ECI5									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1		19.50				
100	PI2 BPSK	1	137		19.54		20.6	0.0	
100	PI2 BPSK	1	271		19.30				
100	PI2 BPSK	135	0		19.43		20.6	0.0	
100	PI2 BPSK	135	69		19.30		20.6	0.0	
100	PI2 BPSK	135	138		19.31		20.6	0.0	
100	PI2 BPSK	270	0		19.61		20.6	0.0	
100	QPSK	1	1		19.64				
100	QPSK	1	137		19.59		20.6	0.0	
100	QPSK	1	271		19.63				
100	QPSK	135	0		19.53		20.6	0.0	
100	QPSK	135	69		19.62		20.6	0.0	
100	QPSK	135	138		19.58		20.6	0.0	
100	QPSK	270	0		19.66		20.6	0.0	
100	16QAM	1	1		19.62		20.6	0.0	
100	64QAM	1	1		19.63		20.6	0.0	
100	256QAM	1	1		19.20	633600	20.5	0.1	
Channel									
Frequency (MHz)									
90	QPSK	1	1	632668	633334	634000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
80	QPSK	1	1	3485.01	3490	3500.01	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
70	QPSK	1	1	19.57	19.63	19.52	20.6	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	631868	633334	635000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
50	QPSK	1	1	19.56	19.63	19.51	20.6	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	631000	633334	635668	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
30	QPSK	1	1	19.50	19.60	19.50	20.6	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	19.55	19.62	19.53	20.6	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	19.57	19.59	19.54	20.6	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	630668	633334	636000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
10	QPSK	1	1	19.61	19.59	19.52	20.6	0.0	



Reduced Power Mode for EC16

n2 Ant 0 EC16

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	Pi/2 BPSK	1	1	22.96	23.02	22.90	24.0	0.0
40	Pi/2 BPSK	1	108	22.80	22.94	22.88		
40	Pi/2 BPSK	1	214	22.87	22.91	22.78		
40	Pi/2 BPSK	108	0	22.32	22.45	22.38	23.5	0.5
40	Pi/2 BPSK	108	54	22.89	22.96	22.85	24.0	0.0
40	Pi/2 BPSK	108	108	22.25	22.33	22.27	23.5	0.5
40	Pi/2 BPSK	216	0	22.36	22.40	22.33		
40	QPSK	1	1	23.01	23.07	22.94		
40	QPSK	1	108	22.88	23.01	22.90	24.0	0.0
40	QPSK	1	214	22.86	22.96	22.93	23.0	1.0
40	QPSK	108	0	21.84	21.88	21.81		
40	QPSK	108	54	22.91	23.01	22.87		
40	QPSK	108	108	21.82	21.87	21.79	24.0	0.0
40	QPSK	216	0	21.89	21.92	21.82	23.0	1.0
40	16QAM	1	1	21.53	21.67	21.54		
40	16QAM	1	1	20.21	20.30	20.23		
40	256QAM	1	1	18.80	18.83	18.74	19.5	4.5
Channel								
Frequency (MHz)								
35	QPSK	1	1	1867.5	1880	1892.5	0.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	22.95	22.98	22.84	0.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	22.88	22.96	22.80	0.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	22.87	22.93	22.82	0.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.97	22.95	22.82	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.92	22.98	22.81	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.91	23.03	22.90	24.0	0.0

n5 Ant 0 EC16

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
20	Pi/2 BPSK	1	1	23.15	23.22	23.10	24.0	0.0
20	Pi/2 BPSK	1	53	23.07	23.06	23.14		
20	Pi/2 BPSK	1	104	23.11	23.13	22.99		
20	Pi/2 BPSK	50	0	22.54	22.61	22.59	23.5	0.5
20	Pi/2 BPSK	50	28	23.06	23.15	23.10	24.0	0.0
20	Pi/2 BPSK	50	56	22.97	22.53	22.41	23.5	0.5
20	Pi/2 BPSK	100	0	22.58	22.66	22.38		
20	QPSK	1	1	23.23	23.26	23.19		
20	QPSK	1	53	23.20	23.27	22.96	24.0	0.0
20	QPSK	1	104	23.10	23.17	23.06	23.0	1.0
20	QPSK	50	0	22.69	22.10	21.88		
20	QPSK	50	28	23.12	23.26	23.11		
20	QPSK	50	56	22.92	22.13	21.95	24.0	0.0
20	QPSK	100	0	22.42	22.17	21.86	23.0	1.0
20	16QAM	1	1	21.97	22.08	21.93		
20	16QAM	1	1	20.73	20.76	20.54		
20	256QAM	1	1	19.29	19.36	19.34	19.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.13	23.24	23.11	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.14	23.16	23.16	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	23.08	23.21	23.14	24.0	0.0

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
50	Pi/2 BPSK	1	1	23.17	23.29	23.13	24.0	0.0
50	Pi/2 BPSK	1	135	23.06	23.14	23.12		
50	Pi/2 BPSK	1	268	23.10	23.10	23.09		
50	Pi/2 BPSK	135	0	22.55	22.62	22.57	23.5	0.5
50	Pi/2 BPSK	135	68	23.12	23.15	23.04	24.0	0.0
50	Pi/2 BPSK	135	135	22.43	22.57	22.40	23.5	0.5
50	Pi/2 BPSK	270	0	22.54	22.63	22.47		
50	QPSK	1	1	23.27	23.32	23.19		
50	QPSK	1	135	23.20	23.29	23.09	24.0	0.0
50	QPSK	1	268	23.12	23.19	23.06	23.0	1.0
50	QPSK	135	0	22.06	22.12	21.98		
50	QPSK	135	68	23.16	23.26	23.11		
50	QPSK	135	135	22.07	22.06	21.97	24.0	0.0
50	QPSK	270	0	22.08	22.20	21.98	23.0	1.0
50	16QAM	1	1	21.80	21.85	21.76		
50	16QAM	1	1	20.49	20.54	20.49		
50	256QAM	1	1	19.09	19.06	18.91	19.5	4.5
Channel								
Frequency (MHz)								
40	QPSK	1	1	2520	2535	2550	0.0	0.0
Channel								
Frequency (MHz)								
35	QPSK	1	1	23.18	23.28	23.07	24.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	23.18	23.26	23.06	0.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	23.13	23.20	23.14	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.23	23.24	23.09	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.18	23.28	23.12	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.22	23.22	23.12	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	23.21	23.22	23.12	24.0	0.0



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BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit	MPR
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel				141300	141500	141700		
Frequency (MHz)				706.5	707.5	708.5		
15	PI2 BPSK	1	1	23.07	23.19	23.03	24.0	0.0
15	PI2 BPSK	1	40	23.01	23.05	23.05		
15	PI2 BPSK	1	77	23.01	23.07	22.97		
15	PI2 BPSK	36	0	22.46	22.54	22.51	23.5	0.5
15	PI2 BPSK	36	22	23.05	23.07	22.98	24.0	0.0
15	PI2 BPSK	36	43	22.29	22.43	22.37	23.5	0.5
15	PI2 BPSK	75	0	22.51	22.58	22.37		
15	QPSK	1	1	23.13	23.27	23.08		
15	QPSK	1	40	23.15	23.17	22.95	24.0	0.0
15	QPSK	1	77	23.01	23.10	22.99		
15	QPSK	36	0	22.00	22.05	21.84	23.0	1.0
15	QPSK	36	22	23.04	23.24	23.01	24.0	0.0
15	QPSK	36	43	22.00	22.05	21.84	23.0	1.0
15	QPSK	75	0	22.01	22.11	21.85		
15	16QAM	1	1	21.84	21.88	21.85	23.0	1.0
15	16QAM	1	1	20.81	20.87	20.84	21.5	2.5
15	256QAM	1	1	19.17	19.31	19.26	19.5	4.5
Channel				140800	141500	142200	Tune-up limit	MPR
Frequency (MHz)				704	707.5	711	(dBm)	(dB)
10	QPSK	1	1	23.08	23.16	23.04	24.0	0.0
Channel				141000	141500	142000	Tune-up limit	MPR
Frequency (MHz)				701.5	707.5	713.5	(dBm)	(dB)
5	QPSK	1	1	23.10	23.14	22.95	24.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit	MPR
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel				158800	159000	159200		
Frequency (MHz)				793	793	793		
10	PI2 BPSK	1	1	23.57	23.36	23.05	24.0	0.0
10	PI2 BPSK	1	26	23.36	23.36	23.36		
10	PI2 BPSK	1	50	23.39	23.39	23.39		
10	PI2 BPSK	25	0	22.88	22.88	22.88	23.5	0.5
10	PI2 BPSK	25	14	23.43	23.43	23.43	24.0	0.0
10	PI2 BPSK	25	27	22.81	22.81	22.81	23.5	0.5
10	PI2 BPSK	50	0	22.89	22.89	22.89		
10	QPSK	1	1	23.63	23.63	23.63		
10	QPSK	1	26	23.49	23.49	23.49	24.0	0.0
10	QPSK	1	50	23.45	23.45	23.45		
10	QPSK	25	0	22.40	22.40	22.40	23.0	1.0
10	QPSK	25	14	23.55	23.55	23.55	24.0	0.0
10	QPSK	25	27	22.40	22.40	22.40	23.0	1.0
10	QPSK	50	0	22.44	22.44	22.44		
10	16QAM	1	1	22.39	22.39	22.39	23.0	1.0
10	16QAM	1	1	21.04	21.04	21.04	21.5	2.5
10	256QAM	1	1	19.33	19.33	19.33	19.5	4.5
Channel				158100	158800	159100	Tune-up limit	MPR
Frequency (MHz)				790.5	793	795.5	(dBm)	(dB)
5	QPSK	1	1	23.45	23.48	23.39	24.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit	MPR
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel				374000	375500	376000		
Frequency (MHz)				1870	1892.5	1895		
40	PI2 BPSK	1	1	23.20	23.26	23.09	24.0	0.0
40	PI2 BPSK	1	108	23.11	23.21	23.21		
40	PI2 BPSK	1	214	23.09	23.17	23.03		
40	PI2 BPSK	108	0	22.60	22.60	22.66	23.5	0.5
40	PI2 BPSK	108	54	23.10	23.23	23.10	24.0	0.0
40	PI2 BPSK	108	108	22.42	22.55	22.54	23.5	0.5
40	PI2 BPSK	216	0	22.81	22.72	22.47		
40	QPSK	1	1	23.32	23.36	23.15		
40	QPSK	1	108	23.28	23.30	23.12	24.0	0.0
40	QPSK	1	214	23.15	23.18	23.07		
40	QPSK	108	0	22.12	22.20	21.99	23.0	1.0
40	QPSK	108	54	23.10	23.32	23.15	24.0	0.0
40	QPSK	108	108	22.05	22.22	22.08	23.0	1.0
40	QPSK	216	0	22.14	22.16	21.94		
40	16QAM	1	1	22.08	22.05	22.01	23.0	1.0
40	16QAM	1	1	20.76	20.74	20.63	21.5	2.5
40	256QAM	1	1	19.25	19.41	19.34	19.5	4.5
Channel				373500	376500	379500	Tune-up limit	MPR
Frequency (MHz)				1867.5	1892.5	1897.5	(dBm)	(dB)
35	QPSK	1	1	23.15	23.20	23.15	24.0	0.0
Channel				373000	376500	380000	Tune-up limit	MPR
Frequency (MHz)				1865	1892.5	1900	(dBm)	(dB)
30	QPSK	1	1	23.18	23.27	23.01	24.0	0.0
Channel				372500	376500	380500	Tune-up limit	MPR
Frequency (MHz)				1862.5	1892.5	1902.5	(dBm)	(dB)
25	QPSK	1	1	23.24	23.31	23.08	24.0	0.0
Channel				372000	376500	381000	Tune-up limit	MPR
Frequency (MHz)				1860	1892.5	1906	(dBm)	(dB)
20	QPSK	1	1	23.18	23.23	23.02	24.0	0.0
Channel				371500	376500	381500	Tune-up limit	MPR
Frequency (MHz)				1857.5	1892.5	1907.5	(dBm)	(dB)
15	QPSK	1	1	23.23	23.32	23.10	24.0	0.0
Channel				371000	376500	382000	Tune-up limit	MPR
Frequency (MHz)				1855	1892.5	1910	(dBm)	(dB)
10	QPSK	1	1	23.28	23.31	23.01	24.0	0.0
Channel				370500	376500	382500	Tune-up limit	MPR
Frequency (MHz)				1852.5	1892.5	1912.5	(dBm)	(dB)
5	QPSK	1	1	23.19	23.27	23.08	24.0	0.0



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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	23.24	23.39	23.25	24.0	0.0
20	PI2 BPSK	1	53	23.12	23.24	23.21		
20	PI2 BPSK	1	104	23.14	23.16	23.13		
20	PI2 BPSK	50	0	22.65	22.75	22.65	23.5	0.5
20	PI2 BPSK	50	28	23.16	23.26	23.16	24.0	0.0
20	PI2 BPSK	50	56	22.55	22.65	22.54	23.5	0.5
20	PI2 BPSK	100	0	22.63	22.70	22.62		
20	QPSK	1	1	23.34	23.43	23.28		
20	QPSK	1	53	23.24	23.34	23.16	24.0	0.0
20	QPSK	1	104	23.22	23.29	23.19	23.0	1.0
20	QPSK	50	0	22.20	22.20	22.12		
20	QPSK	50	28	23.23	23.36	23.19		
20	QPSK	50	56	22.17	22.19	22.06	23.0	1.0
20	QPSK	100	0	22.20	22.28	22.10		
20	16QAM	1	1	21.85	21.98	21.86		
20	16QAM	1	1	20.53	20.59	20.58	21.5	2.5
20	25QAM	1	1	19.12	19.15	19.00	19.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	821.5	831.5	841.5	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.24	23.26	23.15	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	816.5	831.5	846.5	24.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
10	PI2 BPSK	1	1	23.41			24.0	0.0
10	PI2 BPSK	1	28	23.30				
10	PI2 BPSK	1	50	23.36				
10	PI2 BPSK	25	0	22.78			23.5	0.5
10	PI2 BPSK	25	14	23.33			24.0	0.0
10	PI2 BPSK	25	27	22.70			23.5	0.5
10	PI2 BPSK	50	0	22.84				
10	QPSK	1	1	23.49				
10	QPSK	1	28	23.44			24.0	0.0
10	QPSK	1	50	23.43			23.0	1.0
10	QPSK	25	0	22.25				
10	QPSK	25	14	23.41				
10	QPSK	25	27	22.28			23.0	1.0
10	QPSK	50	0	22.35				
10	16QAM	1	1	22.13				
10	16QAM	1	1	20.69			21.5	2.5
10	25QAM	1	1	19.42			19.5	4.5
Channel								
Frequency (MHz)								
5	QPSK	1	1	237.5	2310	2312.5	24.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	22.96	23.04	22.91	24.0	0.0
40	PI2 BPSK	1	108	22.88	22.91	22.89		
40	PI2 BPSK	1	214	22.80	22.83	22.77		
40	PI2 BPSK	108	0	22.30	22.38	22.28	23.5	0.5
40	PI2 BPSK	108	54	22.88	22.85	22.81	24.0	0.0
40	PI2 BPSK	108	108	22.10	22.30	22.15	23.5	0.5
40	PI2 BPSK	216	0	22.31	22.42	22.23		
40	QPSK	1	1	23.35	23.13	23.00		
40	QPSK	1	108	22.98	22.95	22.80	24.0	0.0
40	QPSK	1	214	22.83	22.97	22.80	23.0	1.0
40	QPSK	108	0	21.85	21.88	21.71		
40	QPSK	108	54	22.98	23.05	22.83		
40	QPSK	108	108	21.85	21.87	21.80	23.0	1.0
40	QPSK	216	0	21.77	21.92	21.66		
40	16QAM	1	1	21.78	21.81	21.66		
40	16QAM	1	1	20.45	20.43	20.38	21.5	2.5
40	25QAM	1	1	19.03	19.10	19.08	19.5	4.5
Channel								
Frequency (MHz)								
35	QPSK	1	1	1727.5	1745	1762.5	24.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	23.01	23.07	22.90	24.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	23.01	23.04	22.89	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	344000	349000	354000	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	1729	1745	1774	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.94	22.99	22.87	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	1715	1745	1775	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	23.00	23.07	22.88	24.0	0.0



n70 Ant 0 ECI6									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
15	PI2 BPSK	1	1		23.18				
15	PI2 BPSK	1	40		23.09		24.0	0.0	
15	PI2 BPSK	1	77		23.02				
15	PI2 BPSK	36	0		22.47		23.5	0.5	
15	PI2 BPSK	36	22		22.98		24.0	0.0	
15	PI2 BPSK	36	43		22.41				
15	PI2 BPSK	75	0		22.53		23.5	0.5	
15	QPSK	1	1		23.33				
15	QPSK	1	40		23.03		24.0	0.0	
15	QPSK	1	77		23.15				
15	QPSK	36	0		21.97		23.0	1.0	
15	QPSK	36	22		23.23		24.0	0.0	
15	QPSK	36	43		21.97				
15	QPSK	75	0		22.05		23.0	1.0	
15	16QAM	1	1		21.96		23.0	1.0	
15	64QAM	1	1		20.52		21.5	2.5	
15	256QAM	1	1		19.05		19.5	4.5	
Channel									
				340000	340500	341000	Tune-up limit	MPR	
Frequency (MHz)				1700	1702.5	1705	(dBm)	(dB)	
10	QPSK	1	1		23.13	23.25	23.18	24.0	0.0
Channel									
				335500	340500	341500	Tune-up limit	MPR	
Frequency (MHz)				1697.5	1702.5	1707.5	(dBm)	(dB)	
5	QPSK	1	1		23.10	23.18	23.09	24.0	0.0

n71 Ant 0 ECI6									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	PI2 BPSK	1	1		23.50	23.57	23.42		
20	PI2 BPSK	1	53		23.43	23.41	23.48		
20	PI2 BPSK	1	104		23.28	23.36	23.28		
20	PI2 BPSK	50	0		22.81	22.93	22.82	23.5	
20	PI2 BPSK	50	28		23.38	23.34	23.29	24.0	
20	PI2 BPSK	50	56		22.63	22.85	22.68		
20	PI2 BPSK	100	0		22.81	22.91	22.77	23.5	
20	QPSK	1	1		23.50	23.69	23.54		
20	QPSK	1	53		23.48	23.46	23.31		
20	QPSK	1	104		23.31	23.49	23.35		
20	QPSK	50	0		22.32	22.38	22.20	23.0	
20	QPSK	50	28		23.34	23.50	23.25	24.0	
20	QPSK	50	56		22.36	22.38	22.30		
20	QPSK	100	0		22.24	22.42	22.20	23.0	
20	16QAM	1	1		22.29	22.36	22.22	23.0	
20	64QAM	1	1		20.98	21.00	20.87	21.5	
20	256QAM	1	1		19.28	19.45	19.40	19.5	
Channel									
				134100	138100	138100	Tune-up limit	MPR	
Frequency (MHz)				670.5	680.5	690.5	(dBm)	(dB)	
15	QPSK	1	1		23.48	23.53	23.50	24.0	0.0
Channel									
				133600	138100	138600	Tune-up limit	MPR	
Frequency (MHz)				668	680.5	693	(dBm)	(dB)	
10	QPSK	1	1		23.58	23.59	23.43	24.0	0.0
Channel									
				133100	138100	138100	Tune-up limit	MPR	
Frequency (MHz)				665.5	680.5	695.5	(dBm)	(dB)	
5	QPSK	1	1		23.52	23.60	23.44	24.0	0.0



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Power	Power	Power				
Low	Middle	High				
Ch. / Freq.	Ch. / Freq.	Ch. / Freq.	Tune-up limit	MPR		
374000	376000	376000	(dBm)	(dB)		
Channel						
Frequency (MHz)						
40	PI2 BPSK	1	1	23.02	23.18	23.04
40	PI2 BPSK	1	108	22.98	23.08	22.95
40	PI2 BPSK	1	214	22.89	22.94	22.89
40	PI2 BPSK	108	0	22.44	22.46	22.35
40	PI2 BPSK	108	54	23.04	22.94	22.98
40	PI2 BPSK	108	108	22.18	22.37	22.21
40	PI2 BPSK	216	0	22.42	22.49	22.29
40	QPSK	1	1	23.17	23.19	23.10
40	QPSK	1	108	23.07	23.06	22.96
40	QPSK	1	214	22.93	23.08	22.95
40	QPSK	108	0	21.95	22.02	21.83
40	QPSK	108	54	23.02	23.14	22.86
40	QPSK	108	108	21.86	21.92	21.87
40	QPSK	216	0	21.89	22.08	21.73
40	16QAM	1	1	21.94	21.89	21.80
40	64QAM	1	1	20.58	20.51	20.42
40	256QAM	1	1	19.12	19.24	19.19
Channel						
Frequency (MHz)						
35	QPSK	1	1	23.03	23.12	22.96
Channel						
Frequency (MHz)						
30	QPSK	1	1	23.09	23.15	22.96
Channel						
Frequency (MHz)						
25	QPSK	1	1	23.03	23.14	22.99
Channel						
Frequency (MHz)						
20	QPSK	1	1	23.03	23.06	23.05
Channel						
Frequency (MHz)						
15	QPSK	1	1	23.09	23.14	23.03
Channel						
Frequency (MHz)						
10	QPSK	1	1	23.11	23.10	22.99
Channel						
Frequency (MHz)						
5	QPSK	1	1	23.09	23.15	22.97

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Power	Power	Power				
Low	Middle	High				
Ch. / Freq.	Ch. / Freq.	Ch. / Freq.	Tune-up limit	MPR		
168800	167500	167600	(dBm)	(dB)		
Channel						
Frequency (MHz)						
20	PI2 BPSK	1	1	22.87	22.91	22.82
20	PI2 BPSK	1	50	22.77	22.80	22.84
20	PI2 BPSK	1	104	22.76	22.77	22.82
20	PI2 BPSK	50	0	22.26	22.26	22.22
20	PI2 BPSK	50	28	22.80	22.79	22.74
20	PI2 BPSK	50	56	21.97	22.21	22.01
20	PI2 BPSK	100	0	22.22	22.37	22.20
20	QPSK	1	1	22.90	22.99	22.91
20	QPSK	1	50	22.92	22.85	22.86
20	QPSK	1	104	22.74	22.88	22.75
20	QPSK	50	0	21.74	21.81	21.62
20	QPSK	50	28	22.82	22.90	22.77
20	QPSK	50	56	21.80	21.77	21.68
20	QPSK	100	0	21.72	21.86	21.61
20	16QAM	1	1	21.64	21.68	21.60
20	64QAM	1	1	20.38	20.37	20.23
20	256QAM	1	1	18.98	18.99	18.97
Channel						
Frequency (MHz)						
15	QPSK	1	1	22.86	22.93	22.79
Channel						
Frequency (MHz)						
10	QPSK	1	1	22.81	22.87	22.82
Channel						
Frequency (MHz)						
5	QPSK	1	1	22.85	22.89	22.78

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Power	Power	Power				
Low	Middle	High				
Ch. / Freq.	Ch. / Freq.	Ch. / Freq.	Tune-up limit	MPR		
505000	507000	506000	(dBm)	(dB)		
Channel						
Frequency (MHz)						
50	PI2 BPSK	1	1	22.76	22.81	22.69
50	PI2 BPSK	1	135	22.71	22.87	22.81
50	PI2 BPSK	1	268	22.66	22.67	22.52
50	PI2 BPSK	135	0	22.15	22.17	22.19
50	PI2 BPSK	135	68	22.72	22.89	22.69
50	PI2 BPSK	135	135	21.83	22.14	21.87
50	PI2 BPSK	270	0	22.18	22.23	22.14
50	QPSK	1	1	22.77	22.88	22.84
50	QPSK	1	135	22.84	22.75	22.99
50	QPSK	1	268	22.81	22.75	22.90
50	QPSK	135	0	21.83	21.74	21.57
50	QPSK	135	68	22.74	22.81	22.68
50	QPSK	135	135	21.78	21.70	21.63
50	QPSK	270	0	21.89	21.86	21.46
50	16QAM	1	1	21.47	21.52	21.43
50	64QAM	1	1	19.98	20.05	19.90
50	256QAM	1	1	18.52	18.59	18.53
Channel						
Frequency (MHz)						
40	QPSK	1	1	22.88	22.76	22.75
Channel						
Frequency (MHz)						
35	QPSK	1	1	22.94	22.85	22.85
Channel						
Frequency (MHz)						
30	QPSK	1	1	22.93	22.79	22.72
Channel						
Frequency (MHz)						
25	QPSK	1	1	22.70	22.77	22.75
Channel						
Frequency (MHz)						
20	PI2 BPSK	1	1	22.73	22.84	22.79
Channel						
Frequency (MHz)						
15	QPSK	1	1	22.07	22.78	22.71
Channel						
Frequency (MHz)						
10	QPSK	1	1	22.88	22.76	22.75
Channel						
Frequency (MHz)						
5	QPSK	1	1	22.82	22.81	22.76



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BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel				141300	141500	141700		
Frequency (MHz)				706.5	707.5	708.5		
15	PI2 BPSK	1	1	22.83	22.92	22.83		
15	PI2 BPSK	1	40	22.80	22.78	22.86	24.0	0.0
15	PI2 BPSK	1	77	22.79	22.78	22.68		
15	PI2 BPSK	36	0	22.23	22.31	22.27	23.5	0.5
15	PI2 BPSK	36	22	22.82	22.81	22.79	24.0	0.0
15	PI2 BPSK	36	43	21.88	22.29	22.01		
15	PI2 BPSK	75	0	22.29	22.36	22.21	23.5	0.5
15	QPSK	1	1	22.84	23.01	22.94		
15	QPSK	1	40	22.94	22.91	22.72	24.0	0.0
15	QPSK	1	77	22.77	22.83	22.71		
15	QPSK	36	0	21.77	21.88	21.68	23.0	1.0
15	QPSK	36	22	22.83	22.97	22.74	24.0	0.0
15	QPSK	36	43	21.72	21.76	21.57		
15	QPSK	75	0	21.86	21.81	21.77	23.0	1.0
15	16QAM	1	1	21.71	21.75	21.70	23.0	1.0
15	64QAM	1	1	20.19	20.34	20.21	21.5	2.5
15	256QAM	1	1	18.97	19.05	18.94	19.5	4.5
Channel				140800	141500	142200	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				704	707.5	711		
10	QPSK	1	1	22.74	22.81	22.89	24.0	0.0
Channel				140300	141500	142700	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				701.5	707.5	713.5		
5	QPSK	1	1	22.73	22.83	22.83	24.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel				158100	158600	159100		
Frequency (MHz)				790.5	793	795.5		
10	PI2 BPSK	1	1	23.25	23.14	23.05		
10	PI2 BPSK	1	26	23.14	23.05	22.96	24.0	0.0
10	PI2 BPSK	1	50	23.05	22.96	22.87		
10	PI2 BPSK	25	0	22.60	22.60	22.60	23.5	0.5
10	PI2 BPSK	25	14	23.15	23.15	23.15	24.0	0.0
10	PI2 BPSK	25	27	22.81	22.81	22.81		
10	PI2 BPSK	50	0	22.69	22.69	22.69	23.5	0.5
10	QPSK	1	1	23.34	23.34	23.34		
10	QPSK	1	26	23.21	23.21	23.21	24.0	0.0
10	QPSK	1	50	23.14	23.14	23.14		
10	QPSK	25	0	22.16	22.16	22.16	23.0	1.0
10	QPSK	25	14	23.27	23.27	23.27	24.0	0.0
10	QPSK	25	27	22.08	22.08	22.08		
10	QPSK	50	0	22.15	22.15	22.15	23.0	1.0
10	16QAM	1	1	22.09	22.09	22.09	23.0	1.0
10	64QAM	1	1	20.69	20.69	20.69	21.5	2.5
10	256QAM	1	1	19.39	19.39	19.39	19.5	4.5
Channel				158100	158600	159100	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				790.5	793	795.5		
5	QPSK	1	1	23.15	23.21	23.17	24.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel				374000	376500	379000		
Frequency (MHz)				1870	1882.5	1895		
40	PI2 BPSK	1	1	23.06	23.07	23.01		
40	PI2 BPSK	1	109	22.90	22.97	22.98	24.0	0.0
40	PI2 BPSK	1	214	22.87	22.86	22.88		
40	PI2 BPSK	108	0	22.30	22.42	22.28	23.5	0.5
40	PI2 BPSK	108	54	22.90	22.89	22.89	24.0	0.0
40	PI2 BPSK	108	108	22.16	22.40	22.17		
40	PI2 BPSK	216	0	22.40	22.48	22.29	23.5	0.5
40	QPSK	1	1	23.15	23.20	23.12		
40	QPSK	1	108	23.08	22.96	22.84	24.0	0.0
40	QPSK	1	214	22.85	23.01	22.86		
40	QPSK	108	0	21.93	21.95	21.75	23.0	1.0
40	QPSK	108	54	22.92	23.09	22.80	24.0	0.0
40	QPSK	108	108	21.86	21.88	21.90		
40	QPSK	216	0	21.82	22.01	21.78	23.0	1.0
40	16QAM	1	1	21.88	21.82	21.67	23.0	1.0
40	64QAM	1	1	20.52	20.50	20.30	21.5	2.5
40	256QAM	1	1	19.12	19.19	19.16	19.5	4.5
Channel				372500	376500	376500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1862.5	1882.5	1892.5		
35	QPSK	1	1	23.05	23.10	23.04	24.0	0.0
Channel				373000	376500	380000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1865	1882.5	1900		
30	QPSK	1	1	23.03	23.11	23.08	24.0	0.0
Channel				372500	376500	380500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1862.5	1882.5	1892.5		
25	QPSK	1	1	23.02	23.06	1902.5	24.0	0.0
Channel				372000	376500	381000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1860	1882.5	1895		
20	QPSK	1	1	23.10	23.15	23.06	24.0	0.0
Channel				371500	376500	381500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1882.5	1910		
15	QPSK	1	1	23.12	23.07	23.07	24.0	0.0
Channel				371000	376500	382000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850	1882.5	1915		
10	QPSK	1	1	23.12	23.16	23.08	24.0	0.0
Channel				370500	376500	382500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1882.5	1912.5		
5	QPSK	1	1	23.04	23.14	23.00	24.0	0.0



n26 Ant 1 EC16									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				164800	166300	167800			
Frequency (MHz)				824	831.5	839			
20	PI2 BPSK	1	1	22.92	22.99	22.93	24.0	0.0	
20	PI2 BPSK	1	59	22.77	22.92	22.85			
20	PI2 BPSK	1	104	22.78	22.78	22.84			
20	PI2 BPSK	50	0	22.22	22.38	22.19	23.5	0.5	
20	PI2 BPSK	50	28	22.84	22.86	22.81	24.0	0.0	
20	PI2 BPSK	50	56	22.10	22.28	22.09			
20	PI2 BPSK	100	0	22.32	22.44	22.16	23.5	0.5	
20	QPSK	1	1	23.06	23.13	22.99			
20	QPSK	1	53	23.01	22.82	22.80	24.0	0.0	
20	QPSK	1	104	22.80	22.97	22.78			
20	QPSK	50	0	21.89	21.84	21.87	23.0	1.0	
20	QPSK	50	28	22.82	23.04	22.69	24.0	0.0	
20	QPSK	50	56	21.73	21.85	21.79			
20	QPSK	100	0	21.74	21.68	21.82	23.0	1.0	
20	16QAM	1	1	21.78	21.78	21.53	23.0	1.0	
20	64QAM	1	1	20.44	20.37	20.16	21.5	2.5	
20	256QAM	1	1	19.00	18.15	19.03	19.5	4.5	
Channel				163300	163300	163300	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				811.5	831.5	841.5			
15	QPSK	1	1	22.99	23.05	22.84	24.0	0.0	
Channel				163800	163300	168800	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				819	831.5	841			
10	QPSK	1	1	22.99	23.00	22.92	24.0	0.0	
Channel				163300	163300	169300	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				816.5	831.5	846.5			
5	QPSK	1	1	22.92	23.07	22.85	24.0	0.0	

n30 Ant 1 EC16									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				462000	462000	462000			
Frequency (MHz)				2310					
10	PI2 BPSK	1	1	22.41	22.27	22.41	23.4	0.0	
10	PI2 BPSK	1	28	22.27	22.27	22.27			
10	PI2 BPSK	1	50	22.22	22.22	22.22			
10	PI2 BPSK	25	0	22.22	22.22	22.22	23.4	0.0	
10	PI2 BPSK	25	14	22.24	22.24	22.24			
10	PI2 BPSK	25	27	22.21	22.21	22.21	23.4	0.0	
10	PI2 BPSK	50	0	22.35	22.35	22.35			
10	QPSK	1	1	22.45	22.45	22.45			
10	QPSK	1	28	22.32	22.32	22.32	23.4	0.0	
10	QPSK	1	50	22.43	22.43	22.43			
10	QPSK	25	0	21.77	21.77	21.77	23.0	0.4	
10	QPSK	25	14	22.40	22.40	22.40	23.4	0.0	
10	QPSK	25	27	21.76	21.76	21.76			
10	QPSK	50	0	21.84	21.84	21.84	23.0	0.4	
10	16QAM	1	1	21.84	21.84	21.84	23.0	0.4	
10	64QAM	1	1	20.27	20.27	20.27	21.5	1.9	
10	256QAM	1	1	19.09	19.09	19.09	19.5	3.9	
Channel				461500	462000	462500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2307.5	2310	2312.5			
5	QPSK	1	1	22.39	22.41	22.37	23.4	0.0	

n66 Ant 1 EC16									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				346000	346000	346000			
Frequency (MHz)				1730	1745	1760			
40	PI2 BPSK	1	1	23.22	23.32	23.21	24.0	0.0	
40	PI2 BPSK	1	108	23.21	23.24	23.15			
40	PI2 BPSK	1	214	23.16	23.09	23.07			
40	PI2 BPSK	108	0	22.80	22.89	22.54	23.5	0.5	
40	PI2 BPSK	108	54	23.18	23.17	23.09	24.0	0.0	
40	PI2 BPSK	108	108	22.38	22.56	22.48			
40	PI2 BPSK	216	0	22.58	22.77	22.53	23.5	0.5	
40	QPSK	1	1	23.37	23.36	23.28			
40	QPSK	1	108	23.20	23.23	23.15	24.0	0.0	
40	QPSK	1	214	23.17	23.29	23.06			
40	QPSK	108	0	22.13	22.15	21.98	23.0	1.0	
40	QPSK	108	54	23.22	23.30	23.06	24.0	0.0	
40	QPSK	108	108	22.20	22.18	22.09			
40	QPSK	216	0	22.03	22.22	22.01	23.0	1.0	
40	16QAM	1	1	21.77	21.82	21.87	23.0	1.0	
40	64QAM	1	1	20.32	20.43	20.34	21.5	2.5	
40	256QAM	1	1	18.77	18.91	18.86	19.5	4.5	
Channel				345500	346000	345500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1727.5	1745	1762.5			
35	QPSK	1	1	23.30	23.32	23.19	24.0	0.0	
Channel				345000	349000	353000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1725	1745	1765			
30	QPSK	1	1	23.32	23.28	23.15	24.0	0.0	
Channel				344500	349000	353500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1722.5	1745	1767.5			
25	QPSK	1	1	23.29	23.24	23.21	24.0	0.0	
Channel				344000	349000	349000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1720	1745	1770			
20	QPSK	1	1	23.24	23.28	23.19	24.0	0.0	
Channel				343500	349000	354500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1717.5	1745	1772.5			
15	QPSK	1	1	23.27	23.34	23.21	24.0	0.0	
Channel				343000	349000	355000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1715	1745	1775			
10	QPSK	1	1	23.23	23.24	23.22	24.0	0.0	
Channel				342500	349000	355500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1712.5	1745	1777.5			
5	QPSK	1	1	23.30	23.32	23.13	24.0	0.0	



n70 Ant 1 ECI6							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	MPR (dB)
Channel				340500	340500	341000	MPR (dB)
Frequency (MHz)				1702.5	1705	1705	Tune-up limit (dBm)
15	PI2 BPSK	1	1	23.60			24.0
15	PI2 BPSK	1	40	23.52			0.0
15	PI2 BPSK	1	77	23.35			
15	PI2 BPSK	36	0	23.05			23.5
15	PI2 BPSK	36	22	23.48			24.0
15	PI2 BPSK	36	43	22.88			23.5
15	PI2 BPSK	75	0	23.09			23.5
15	QPSK	1	1	23.66			
15	QPSK	1	40	23.48			24.0
15	QPSK	1	77	23.36			
15	QPSK	36	0	22.47			23.0
15	QPSK	36	22	23.60			24.0
15	QPSK	36	43	22.52			23.0
15	DPSK	75	0	22.57			23.0
15	16QAM	1	1	22.10			23.0
15	64QAM	1	1	20.74			21.5
15	256QAM	1	1	19.17			19.5
Channel				340500	340500	341000	MPR (dB)
Frequency (MHz)				1700	1702.5	1705	Tune-up limit (dBm)
10	QPSK	1	1	23.51	23.60	23.57	24.0
Channel				339500	340500	341500	Tune-up limit (dBm)
Frequency (MHz)				1697.5	1702.5	1707.5	MPR (dB)
5	QPSK	1	1	23.50	23.52	23.50	24.0

n71 Ant 1 ECI6							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	MPR (dB)
Channel				134600	136100	137600	MPR (dB)
Frequency (MHz)				673	680.5	688	Tune-up limit (dBm)
20	PI2 BPSK	1	1	23.33	23.49	23.30	24.0
20	PI2 BPSK	1	50	23.26	23.32	23.30	0.0
20	PI2 BPSK	1	104	23.33	23.19	23.15	
20	PI2 BPSK	50	0	22.75	22.85	22.68	23.5
20	PI2 BPSK	50	28	23.27	23.32	23.15	24.0
20	PI2 BPSK	50	56	22.53	22.71	22.63	23.5
20	PI2 BPSK	100	0	22.64	22.91	22.59	23.5
20	QPSK	1	1	23.47	23.50	23.36	
20	QPSK	1	53	23.28	23.36	23.22	24.0
20	QPSK	1	104	23.28	23.45	23.21	
20	QPSK	50	0	22.28	22.29	22.08	23.0
20	QPSK	50	28	23.35	23.39	23.12	24.0
20	QPSK	50	56	22.28	22.30	22.18	23.0
20	DPSK	100	0	22.16	22.36	22.18	23.0
20	16QAM	1	1	22.05	22.17	22.02	23.0
20	64QAM	1	1	20.73	20.86	20.71	21.5
20	256QAM	1	1	19.40	19.43	19.34	19.5
Channel				134100	136100	138100	MPR (dB)
Frequency (MHz)				670.5	680.5	690.5	Tune-up limit (dBm)
15	QPSK	1	1	23.38	23.44	23.32	24.0
Channel				133600	136100	138600	Tune-up limit (dBm)
Frequency (MHz)				668	680.5	692	MPR (dB)
10	QPSK	1	1	23.34	23.37	23.23	24.0
Channel				133100	136100	139100	Tune-up limit (dBm)
Frequency (MHz)				665.5	680.5	695.5	MPR (dB)
5	QPSK	1	1	23.34	23.42	23.30	24.0



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BW (MHz)	Modulation	RB Size	RB Offset	Power Low	Power Middle	Power High	Tune-up limit	MPR
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	19.85	19.86	19.72		
40	PI2 BPSK	1	168	19.72	19.79	19.73	21.1	0.0
40	PI2 BPSK	1	214	19.62	19.66	19.52		
40	PI2 BPSK	108	0	19.82	19.72	19.61	21.1	0.0
40	PI2 BPSK	108	54	19.77	19.65	19.62	21.1	0.0
40	PI2 BPSK	108	108	19.48	19.51	19.22	21.1	0.0
40	PI2 BPSK	216	0	19.63	19.74	19.57		
40	QPSK	1	1	19.91	19.99	19.81		
40	QPSK	1	168	19.77	19.79	19.66	21.1	0.0
40	QPSK	1	214	19.59	19.60	19.66		
40	QPSK	108	0	19.68	19.71	19.48	21.1	0.0
40	QPSK	108	54	19.78	19.89	19.80	21.1	0.0
40	QPSK	108	108	19.68	19.65	19.56	21.1	0.0
40	QPSK	216	0	19.52	19.79	19.38		
40	16QAM	1	1	19.51	19.67	19.52	21.1	0.0
40	64QAM	1	1	19.84	19.78	19.69	21.1	0.0
40	256QAM	1	1	19.98	19.05	19.03	19.5	1.6
Channel								
Frequency (MHz)								
35	QPSK	1	1	19.78	19.84	19.82	0.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	19.70	19.75	19.77	0.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	19.84	18.80	18.97	0.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	19.80	19.85	19.79	0.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	19.79	19.81	19.82	21.1	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	19.73	19.83	19.77	21.1	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	19.76	19.80	19.76	21.1	0.0

n7 Ant 2 ECI 6

BW (MHz)	Modulation	RB Size	RB Offset	Power Low	Power Middle	Power High	Tune-up limit	MPR
Channel								
Frequency (MHz)								
50	PI2 BPSK	1	1	21.30	21.34	21.20		
50	PI2 BPSK	1	136	21.09	21.12	21.13	22.6	0.0
50	PI2 BPSK	1	268	21.09	21.00	21.01		
50	PI2 BPSK	136	0	21.09	21.29	21.08	22.6	0.0
50	PI2 BPSK	136	68	21.22	21.24	21.01	22.6	0.0
50	PI2 BPSK	136	136	20.95	21.13	20.92	22.6	0.0
50	PI2 BPSK	270	0	21.02	21.25	21.12		
50	QPSK	1	1	21.42	21.43	21.24		
50	QPSK	1	136	21.30	21.17	21.13	22.6	0.0
50	QPSK	1	268	21.08	21.28	21.09		
50	QPSK	136	0	20.99	21.18	20.95	22.6	0.0
50	QPSK	136	68	21.27	21.38	21.08	22.6	0.0
50	QPSK	136	136	21.10	21.23	21.14	22.6	0.0
50	QPSK	270	0	21.00	21.16	20.98		
50	16QAM	1	1	20.90	20.96	20.82	22.6	0.0
50	64QAM	1	1	20.74	20.80	20.72	21.5	1.1
50	256QAM	1	1	19.80	18.87	18.82	19.5	3.1
Channel								
Frequency (MHz)								
40	QPSK	1	1	21.41	21.40	21.25	22.6	0.0
Channel								
Frequency (MHz)								
35	QPSK	1	1	21.38	21.35	21.25	0.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	21.37	21.40	21.21	22.6	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	21.38	21.39	21.21	22.6	0.0
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	21.42	21.36	21.26	22.6	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	21.39	21.35	21.17	22.6	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	21.38	21.38	21.17	22.6	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	21.37	21.36	21.24	22.6	0.0

n25 Ant 2 ECI 6

BW (MHz)	Modulation	RB Size	RB Offset	Power Low	Power Middle	Power High	Tune-up limit	MPR
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	19.89	19.86	19.72		
40	PI2 BPSK	1	109	19.77	19.79	19.71	21.1	0.0
40	PI2 BPSK	1	214	19.76	19.82	19.76		
40	PI2 BPSK	108	0	19.61	19.71	19.61	21.1	0.0
40	PI2 BPSK	108	54	19.88	19.79	19.71	21.1	0.0
40	PI2 BPSK	108	108	19.54	19.75	19.52	21.1	0.0
40	PI2 BPSK	216	0	19.72	19.92	19.68		
40	QPSK	1	1	20.00	20.01	19.99		
40	QPSK	1	108	19.94	19.85	19.70	21.1	0.0
40	QPSK	1	214	19.74	19.87	19.70		
40	QPSK	108	0	19.78	19.81	19.62	21.1	0.0
40	QPSK	108	54	19.78	20.00	19.82	21.1	0.0
40	QPSK	108	108	19.75	19.82	19.70	21.1	0.0
40	QPSK	216	0	19.76	19.88	19.68		
40	16QAM	1	1	19.68	19.70	19.64	21.1	0.0
40	64QAM	1	1	19.89	19.77	19.65	21.1	0.0
40	256QAM	1	1	19.89	19.03	18.93	19.5	1.6
Channel								
Frequency (MHz)								
35	QPSK	1	1	19.80	19.85	19.81	21.1	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	19.94	19.88	19.84	21.1	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	19.81	18.97	19.70	21.1	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	19.89	19.96	19.76	21.1	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	19.89	19.88	19.80	21.1	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	19.98	19.89	19.81	21.1	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	19.92	19.92	19.76	21.1	0.0



n30 Ant 2 ECI 6

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq. 465000	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
10	PI2 BPSK	1	1	21.29	21.29		22.5	0.0
10	PI2 BPSK	1	26	21.07	21.07			
10	PI2 BPSK	1	50	21.03	21.03			
10	PI2 BPSK	25	0	21.17	21.17		22.5	0.0
10	PI2 BPSK	25	14	21.13	21.13		22.5	0.0
10	PI2 BPSK	25	27	21.00	21.00			
10	PI2 BPSK	50	0	21.24	21.24		22.5	0.0
10	QPSK	1	1	21.42	21.42			
10	QPSK	1	26	21.30	21.30		22.5	0.0
10	QPSK	1	50	21.32	21.32			
10	QPSK	25	0	21.15	21.15		22.5	0.0
10	QPSK	25	14	21.37	21.37		22.5	0.0
10	QPSK	25	27	21.04	21.04		22.5	0.0
10	QPSK	50	0	21.17	21.17		22.5	0.0
10	16QAM	1	1	21.05	21.05		22.5	1.0
10	64QAM	1	1	20.40	20.40		21.5	1.0
10	256QAM	1	1	19.02	19.02		19.5	3.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	21.37	21.37	21.32	22.5	0.0

n66 Ant 2 ECI 6

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 346000	Power Middle Ch. / Freq. 349000	Power High Ch. / Freq. 352000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	20.76	20.67	20.68		
40	PI2 BPSK	1	109	20.65	20.51	20.59	21.9	0.0
40	PI2 BPSK	1	214	20.60	20.58	20.54		
40	PI2 BPSK	108	0	20.47	20.58	20.41	21.9	0.0
40	PI2 BPSK	108	54	20.59	20.61	20.46	21.9	0.0
40	PI2 BPSK	108	108	20.33	20.53	20.32		
40	PI2 BPSK	216	0	20.56	20.59	20.45	21.9	0.0
40	QPSK	1	1	20.73	20.79	20.68		
40	QPSK	1	108	20.58	20.68	20.57	21.9	0.0
40	QPSK	1	214	20.52	20.58	20.54		
40	QPSK	108	0	20.61	20.61	20.52	21.9	0.0
40	QPSK	108	54	20.69	20.78	20.58	21.9	0.0
40	QPSK	108	108	20.53	20.61	20.42		
40	QPSK	216	0	20.46	20.60	20.38	21.9	0.0
40	16QAM	1	1	20.46	20.52	20.38	21.9	0.0
40	64QAM	1	1	20.61	20.69	20.48	21.5	0.4
40	256QAM	1	1	19.29	19.25	19.24	19.5	2.4
Channel								
Frequency (MHz)								
35	QPSK	1	1	20.73	20.76	20.60	21.9	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	20.97	20.71	20.67	21.9	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	20.72	20.77	20.60	21.9	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	20.69	20.76	20.71	21.9	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	20.74	20.73	20.70	21.9	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	20.75	20.72	20.62	21.9	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	20.73	20.73	20.64	21.9	0.0

n70 Ant 2 ECI 6

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq. 345500	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
15	PI2 BPSK	1	1	20.80	20.80			
15	PI2 BPSK	1	49	20.80	20.80		22.0	0.0
15	PI2 BPSK	1	77	20.57	20.57			
15	PI2 BPSK	36	0	20.72	20.72		22.0	0.0
15	PI2 BPSK	36	22	20.71	20.71		22.0	0.0
15	PI2 BPSK	36	43	20.50	20.50			
15	PI2 BPSK	75	0	20.81	20.81		22.0	0.0
15	QPSK	1	1	20.84	20.84			
15	QPSK	1	49	20.71	20.71		22.0	0.0
15	QPSK	1	77	20.77	20.77			
15	QPSK	36	0	20.62	20.62		22.0	0.0
15	QPSK	36	22	20.75	20.75		22.0	0.0
15	QPSK	36	43	20.73	20.73		22.0	0.0
15	QPSK	75	0	20.66	20.66		22.0	0.0
15	16QAM	1	1	20.47	20.47		22.0	0.0
15	64QAM	1	1	20.59	20.59		21.5	0.5
15	256QAM	1	1	18.96	18.96		18.5	2.5
Channel								
Frequency (MHz)								
10	QPSK	1	1	20.65	20.76	20.65	22.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	20.68	20.77	20.64	22.0	0.0



n41 HPUE Ant 2 ECI 6								
BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 506202	Middle Ch. Freq. 518598	High Ch. Freq. 528000		
Channel				2546.01	2592.99	2640		
Frequency (MHz)								
100	PI2 BPSK	1	1	20.51	20.65	20.46		
100	PI2 BPSK	1	137	20.51	20.50	20.57	21.6	0.0
100	PI2 BPSK	1	271	20.36	20.46	20.33		
100	PI2 BPSK	135	0	20.52	20.61	20.34		21.6 0.0
100	PI2 BPSK	135	69	20.51	20.50	20.44		21.6 0.0
100	PI2 BPSK	135	138	20.31	20.39	20.33		21.6 0.0
100	PI2 BPSK	270	0	20.45	20.57	20.33		21.6 0.0
100	QPSK	1	1	20.70	20.73	20.59		
100	QPSK	1	137	20.62	20.53	20.43	21.6	0.0
100	QPSK	1	271	20.51	20.52	20.45		
100	QPSK	135	0	20.55	20.41	20.37	21.6	0.0
100	QPSK	135	69	20.49	20.59	20.43		21.6 0.0
100	QPSK	135	138	20.56	20.58	20.47		21.6 0.0
100	QPSK	270	0	20.64	20.65	20.55		21.6 0.0
100	16QAM	1	1	20.59	20.61	20.51		21.6 0.0
100	64QAM	1	1	20.34	20.44	20.43		21.6 0.0
100	256QAM	1	1	19.76	19.89	19.76		21.6 0.0
Channel				506200	518598	528000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2541	2592.99	2644.88		
90	QPSK	1	1	20.53	20.65	20.58		21.6 0.0
Channel				507204	518598	528000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2532.02	2592.99	2643.99		
80	QPSK	1	1	20.67	20.68	20.51		21.6 0.0
Channel				508202	518598	531000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2531.01	2592.99	2655		
70	QPSK	1	1	20.70	20.69	20.53		21.6 0.0
Channel				509200	518598	531000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2526	2592.99	2659.98		
60	QPSK	1	1	20.62	20.69	20.60		21.6 0.0
Channel				509204	518598	532000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2521.02	2602.98	2664.98		
50	QPSK	1	1	20.63	20.67	20.58		21.6 0.0
Channel				503700	518598	533498	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2513.5	2592.99	2637.48		
45	QPSK	1	1	20.65	20.71	20.61		21.6 0.0
Channel				503202	518598	534000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2518.01	2592.99	2670		
40	QPSK	1	1	20.64	20.65	20.56		21.6 0.0
Channel				502704	518598	534498	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2513.52	2592.99	2672.49		
35	QPSK	1	1	20.69	20.69	20.67		21.6 0.0
Channel				502200	518598	534998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2511	2592.99	2674.99		
30	QPSK	1	1	20.64	20.69	20.55		21.6 0.0
Channel				501702	518598	535500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2508.51	2592.99	2677.5		
25	QPSK	1	1	20.62	20.70	20.61		21.6 0.0
Channel				501204	518598	535998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2506.02	2592.99	2679.99		
20	QPSK	1	1	20.66	20.72	20.59		21.6 0.0
Channel				500700	518598	536498	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2503.5	2592.98	2682.48		
15	QPSK	1	1	20.63	20.72	20.59		21.6 0.0
Channel				500202	518598	537000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2501.01	2592.99	2685		
10	QPSK	1	1	20.65	20.67	20.50		21.6 0.0



n2 Ant 3 ECI 6

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 374000	Power Middle Ch. / Freq. 376000	Power High Ch. / Freq. 378000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	22.70	22.72	22.65		
40	PI2 BPSK	1	108	22.54	22.61	22.54	23.6	0.0
40	PI2 BPSK	1	214	22.44	22.54	22.45		
40	PI2 BPSK	108	0	22.86	22.83	22.50	23.5	0.1
40	PI2 BPSK	108	54	22.35	22.54	22.56	23.6	0.0
40	PI2 BPSK	108	108	22.31	22.55	22.41	23.5	0.1
40	PI2 BPSK	216	0	22.55	22.57	22.41		
40	QPSK	1	1	22.70	22.74	22.71		
40	QPSK	1	108	22.71	22.72	22.62	23.6	0.0
40	QPSK	1	214	22.55	22.66	22.46		
40	QPSK	108	0	22.05	22.08	21.91	23.0	0.6
40	QPSK	108	54	22.57	22.70	22.81	23.6	0.0
40	QPSK	108	108	22.06	22.13	21.88	23.0	0.6
40	QPSK	216	0	22.06	22.17	22.03	23.0	0.6
40	16QAM	1	1	21.95	22.02	21.92	23.0	0.6
40	64QAM	1	1	20.66	20.64	20.46	21.5	2.1
40	256QAM	1	1	19.19	19.31	19.28	19.5	4.1
Channel								
Frequency (MHz)								
35	QPSK	1	1	22.71	22.78	22.72	0.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	22.69	22.76	22.68	0.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	22.61	22.70	22.66	0.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	22.70	22.85	22.72	0.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.65	22.67	22.70	23.6	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.69	22.66	22.67	23.6	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.63	22.68	22.69	23.6	0.0

n7 Ant 3 ECI 6

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 506000	Power Middle Ch. / Freq. 507000	Power High Ch. / Freq. 508000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
50	PI2 BPSK	1	1	18.13	18.19	18.11		
50	PI2 BPSK	1	135	18.00	18.12	18.00	19.3	0.0
50	PI2 BPSK	1	268	17.90	17.90	17.93		
50	PI2 BPSK	135	0	17.98	18.11	17.90	19.3	0.0
50	PI2 BPSK	135	68	17.98	18.04	17.95	19.3	0.0
50	PI2 BPSK	135	135	17.78	17.98	17.83	19.3	0.0
50	PI2 BPSK	270	0	18.03	17.98	17.79		
50	QPSK	1	1	18.18	18.29	18.21		
50	QPSK	1	135	18.19	18.13	17.88	19.3	0.0
50	QPSK	1	268	17.92	18.11	17.90		
50	QPSK	135	0	18.00	18.08	17.80	19.3	0.0
50	QPSK	135	68	17.99	18.19	18.04	19.3	0.0
50	QPSK	135	135	18.03	18.09	17.85	19.3	0.0
50	QPSK	270	0	17.97	18.12	18.05		
50	16QAM	1	1	17.73	17.91	17.83	19.3	0.0
50	64QAM	1	1	17.73	17.87	17.78	19.3	0.0
50	256QAM	1	1	18.24	18.26	18.14	19.3	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	18.18	18.21	18.16	19.3	0.0
Channel								
Frequency (MHz)								
35	QPSK	1	1	18.15	18.33	18.14	0.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	18.21	18.32	18.17	19.3	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	18.09	18.28	18.18	19.3	0.0
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	18.16	18.26	18.19	19.3	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	18.15	18.21	18.17	19.3	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	18.14	18.24	18.19	19.3	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	18.15	18.26	18.16	19.3	0.0

n25 Ant 3 ECI 6

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 374000	Power Middle Ch. / Freq. 376000	Power High Ch. / Freq. 378000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	22.68	22.62	22.64		
40	PI2 BPSK	1	108	22.50	22.62	22.48	23.6	0.0
40	PI2 BPSK	1	214	22.48	22.54	22.38		
40	PI2 BPSK	108	0	22.48	22.52	22.38	23.5	0.1
40	PI2 BPSK	108	54	22.54	22.50	22.57	23.6	0.0
40	PI2 BPSK	108	108	22.32	22.50	22.29	23.5	0.1
40	PI2 BPSK	216	0	22.41	22.62	22.42		
40	QPSK	1	1	22.74	22.76	22.84		
40	QPSK	1	108	22.60	22.80	22.51	23.6	0.0
40	QPSK	1	214	22.56	22.86	22.38		
40	QPSK	108	0	22.01	22.06	21.84	23.0	0.6
40	QPSK	108	54	22.52	22.63	22.42	23.6	0.0
40	QPSK	108	108	21.98	21.99	21.87	23.0	0.6
40	QPSK	216	0	21.89	22.04	21.85	23.0	0.6
40	16QAM	1	1	22.00	22.02	21.87	23.0	0.6
40	64QAM	1	1	20.84	20.62	20.47	21.5	2.1
40	256QAM	1	1	19.28	19.29	19.28	19.5	4.1
Channel								
Frequency (MHz)								
35	QPSK	1	1	22.64	22.66	22.61	23.6	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	22.68	22.72	22.59	23.6	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	22.73	22.69	22.65	23.6	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	22.66	22.69	22.67	23.6	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.74	22.73	22.57	23.6	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.69	22.69	22.61	23.6	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.70	22.67	22.57	23.6	0.0



n30 Ant 3 ECI 6

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
10	PI2 BPSK	1	1	20.96	2310			
10	PI2 BPSK	1	26	20.83		21.47	21.43	
10	PI2 BPSK	1	50	20.82		21.41	21.53	22.9
10	PI2 BPSK	25	0	20.94		21.38	21.38	22.9
10	PI2 BPSK	25	14	20.79		21.38	21.32	22.9
10	PI2 BPSK	25	27	20.68		21.15	21.39	22.9
10	PI2 BPSK	50	0	20.73		21.41	21.55	22.9
10	QPSK	1	1	21.07		21.67	21.71	21.56
10	QPSK	1	26	20.92		21.67	21.50	21.36
10	QPSK	1	50	20.86		21.26	21.47	21.38
10	QPSK	25	0	20.82		21.42	21.52	21.23
10	QPSK	25	14	21.02		21.39	21.63	21.31
10	QPSK	25	27	20.85		21.44	21.40	21.46
10	QPSK	50	0	20.65		21.43	21.50	21.19
10	16QAM	1	1	20.77		21.34	21.36	21.22
10	64QAM	1	1	20.78		20.51	20.51	20.39
10	256QAM	1	1	19.48		19.08	19.13	19.15
Channel								
Frequency (MHz)								
481500				462000		345000		
2307.5				2310		2312.5		
20.95				20.99		20.98		21.9

n66 Ant 3 ECI 6

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	21.47	1730	1745	1760	
40	PI2 BPSK	1	109	21.41		21.41	21.53	22.9
40	PI2 BPSK	1	214	21.33		21.46	21.40	22.9
40	PI2 BPSK	108	0	21.40		21.41	21.38	22.9
40	PI2 BPSK	108	54	21.38		21.38	21.32	22.9
40	PI2 BPSK	108	108	21.15		21.36	21.19	22.9
40	PI2 BPSK	216	0	21.41		21.55	21.24	22.9
40	QPSK	1	1	21.67		21.71	21.56	
40	QPSK	1	108	21.67		21.50	21.36	22.9
40	QPSK	1	214	21.26		21.47	21.38	22.9
40	QPSK	108	0	21.42		21.52	21.23	22.9
40	QPSK	108	54	21.39		21.63	21.31	22.9
40	QPSK	108	108	21.44		21.40	21.46	22.9
40	QPSK	216	0	21.43		21.50	21.19	22.9
40	16QAM	1	1	21.34		21.36	21.22	22.9
40	64QAM	1	1	20.51		20.51	20.39	21.5
40	256QAM	1	1	19.08		19.13	19.15	19.5
Channel								
Frequency (MHz)								
345000				345000		345000		
1727.5				1727.5		1745		1762.5
21.63				21.63		21.63		21.57
345000				345000		353000		
1725				1745		1762.5		
21.68				21.68		21.55		22.9
Channel								
Frequency (MHz)								
344500				345000		353500		
1722.5				1745		1767.5		
21.68				21.68		21.52		22.9
Channel								
Frequency (MHz)								
343000				345000		345000		
1717.5				1745		1772.5		
21.65				21.65		21.64		21.50
Channel								
Frequency (MHz)								
343000				349000		355000		
1715				1745		1775		
21.63				21.64		21.50		22.9
Channel								
Frequency (MHz)								
342500				349000		355500		
1712.5				1745		1777.5		
21.65				21.66		21.57		22.9

n70 Ant 3 ECI 6

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
15	PI2 BPSK	1	1	21.93	1702.5			
15	PI2 BPSK	1	49	21.78		21.87	21.82	23.0
15	PI2 BPSK	1	77	21.77		21.87	21.82	23.0
15	PI2 BPSK	36	0	21.89		21.86	21.86	23.0
15	PI2 BPSK	36	22	21.75		21.86	21.86	23.0
15	PI2 BPSK	36	43	21.73		21.86	21.86	23.0
15	PI2 BPSK	75	0	21.72		21.86	21.86	23.0
15	QPSK	1	1	21.98		21.98		
15	QPSK	1	49	21.89		21.89		
15	QPSK	1	77	21.86		21.86		
15	QPSK	36	0	21.75		21.86		
15	QPSK	36	22	21.93		21.86		
15	QPSK	36	43	21.84		21.84		
15	QPSK	75	0	21.93		21.93		
15	16QAM	1	1	21.71		21.71		
15	64QAM	1	1	20.68		20.68		
15	256QAM	1	1	19.33		19.33		
Channel								
Frequency (MHz)								
345000				345000		341000		
1700				1702.5		1705		
21.87				21.87		21.82		23.0
Channel								
Frequency (MHz)								
339500				345500		341500		
1697.5				1702.5		1707.5		
21.95				21.98		21.92		23.0



Part27Q n77 HPUE Ant 3 ECI 6

Table with 10 columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low Ch. / Freq., Power Middle Ch. / Freq., Power High Ch. / Freq., Tune-up limit (dBm), MPR (dB). Contains channel data for frequencies 100 MHz down to 10 MHz.

Part27O n78 HPUE Ant 3 ECI 6

Table with 10 columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low Ch. / Freq., Power Middle Ch. / Freq., Power High Ch. / Freq., Tune-up limit (dBm), MPR (dB). Contains channel data for frequencies 100 MHz down to 10 MHz.

Part27Q n78 HPUE Ant 3 ECI 6

Table with 10 columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low Ch. / Freq., Power Middle Ch. / Freq., Power High Ch. / Freq., Tune-up limit (dBm), MPR (dB). Contains channel data for frequencies 100 MHz down to 10 MHz.



n48 Part 96 Ant 4 ECI 6

Channel	BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 638000	Power Middle Ch. / Freq. 641666	Power High Ch. / Freq. 645332	Tune-up limit (dBm)	MPR (dB)
Channel	40	PI2 BPSK	1	1	18.27	18.35	18.25		
Channel	40	PI2 BPSK	1	59	18.26	18.21	18.23	19.1	0.0
Channel	40	PI2 BPSK	1	104	18.08	18.08	18.01		
Channel	40	PI2 BPSK	50	0	18.20	18.17	18.03	19.1	0.0
Channel	40	PI2 BPSK	50	28	18.20	18.22	18.18	19.1	0.0
Channel	40	PI2 BPSK	50	56	18.12	18.07	18.09	19.1	0.0
Channel	40	PI2 BPSK	100	0	18.09	18.29	18.03		
Channel	40	QPSK	1	1	18.29	18.37	18.29		
Channel	40	QPSK	1	53	18.35	18.29	18.18	19.1	0.0
Channel	40	QPSK	1	104	18.13	18.18	18.06		
Channel	40	QPSK	50	0	18.16	18.15	18.00	19.1	0.0
Channel	40	QPSK	50	28	18.23	18.30	18.08	19.1	0.0
Channel	40	QPSK	50	56	18.11	18.23	18.15		
Channel	40	QPSK	100	0	18.09	18.25	17.84	19.1	0.0
Channel	40	16QAM	1	1	18.04	18.03	17.93	19.1	0.0
Channel	40	64QAM	1	1	18.32	18.36	18.11	19.1	0.0
Channel	40	256QAM	1	1	18.33	18.31	18.32	19.1	0.0
Channel	30	QPSK	1	1	18.21	18.34	18.31	19.1	0.0
Channel	20	QPSK	1	1	18.34	18.31	18.32	19.1	0.0
Channel	15	QPSK	1	1	18.27	18.33	18.27	19.1	0.0
Channel	10	QPSK	1	1	18.28	18.31	18.29	19.1	0.0

Part27Q n77 HPUE Ant 4 ECI 6

Channel	BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 656000	Power High Ch. / Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel	100	PI2 BPSK	1	1	18.24	18.29	18.18		
Channel	100	PI2 BPSK	1	137	18.12	18.14	18.14	19.1	0.0
Channel	100	PI2 BPSK	1	271	18.03	18.10	18.08		
Channel	100	PI2 BPSK	135	0	18.04	18.23	18.03	19.1	0.0
Channel	100	PI2 BPSK	135	69	18.19	18.17	18.10	19.1	0.0
Channel	100	PI2 BPSK	135	138	18.15	18.09	18.04		
Channel	100	PI2 BPSK	270	0	18.00	18.28	17.97	19.1	0.0
Channel	100	QPSK	1	1	18.29	18.38	18.31		
Channel	100	QPSK	1	137	18.28	18.21	18.16	19.1	0.0
Channel	100	QPSK	1	271	18.11	18.25	18.12		
Channel	100	QPSK	135	0	18.07	18.08	18.05	19.1	0.0
Channel	100	QPSK	135	69	18.05	18.25	18.07	19.1	0.0
Channel	100	QPSK	135	138	18.16	18.21	18.07		
Channel	100	QPSK	270	0	17.88	18.16	18.05	19.1	0.0
Channel	100	16QAM	1	1	18.03	18.06	17.97	19.1	0.0
Channel	100	64QAM	1	1	18.20	18.24	18.08	19.1	0.0
Channel	100	256QAM	1	1	18.31	18.32	18.30	19.1	0.0
Channel	90	QPSK	1	1	18.27	18.36	18.22	19.1	0.0
Channel	80	QPSK	1	1	18.28	18.33	18.32	19.1	0.0
Channel	70	QPSK	1	1	18.23	18.33	18.24	19.1	0.0
Channel	60	QPSK	1	1	18.25	18.35	18.24	19.1	0.0
Channel	50	QPSK	1	1	18.26	18.33	18.31	19.1	0.0
Channel	40	QPSK	1	1	18.29	18.32	18.24	19.1	0.0
Channel	30	QPSK	1	1	18.24	18.30	18.24	19.1	0.0
Channel	25	QPSK	1	1	18.24	18.34	18.23	19.1	0.0
Channel	20	QPSK	1	1	18.31	18.30	18.30	19.1	0.0
Channel	15	QPSK	1	1	18.23	18.31	18.22	19.1	0.0
Channel	10	QPSK	1	1	18.25	18.34	18.30	19.1	0.0

Part27Q n77 HPUE Ant 4 ECI 6

Channel	BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 639000	Power Middle Ch. / Freq. 633334	Power High Ch. / Freq. 639668	Tune-up limit (dBm)	MPR (dB)
Channel	100	PI2 BPSK	1	1	18.51				
Channel	100	PI2 BPSK	1	137	18.51			19.1	0.0
Channel	100	PI2 BPSK	1	271	18.19				
Channel	100	PI2 BPSK	135	0	18.31			19.1	0.0
Channel	100	PI2 BPSK	135	69	18.38			19.1	0.0
Channel	100	PI2 BPSK	135	138	18.34				
Channel	100	PI2 BPSK	270	0	18.44			19.1	0.0
Channel	100	QPSK	1	1	18.53				
Channel	100	QPSK	1	137	18.44			19.1	0.0
Channel	100	QPSK	1	271	18.43				
Channel	100	QPSK	135	0	18.33			19.1	0.0
Channel	100	QPSK	135	69	18.47			19.1	0.0
Channel	100	QPSK	135	138	18.33				
Channel	100	QPSK	270	0	18.48			19.1	0.0
Channel	100	16QAM	1	1	18.18			19.1	0.0
Channel	100	64QAM	1	1	18.19			19.1	0.0
Channel	100	256QAM	1	1	18.27			19.1	0.0
Channel	90	QPSK	1	1	18.53	633334	639668	Tune-up limit (dBm)	MPR (dB)
Channel	80	QPSK	1	1	18.53	633334	634000	Tune-up limit (dBm)	MPR (dB)
Channel	70	QPSK	1	1	18.59	633334	634000	Tune-up limit (dBm)	MPR (dB)
Channel	60	QPSK	1	1	18.58	633334	634334	Tune-up limit (dBm)	MPR (dB)
Channel	50	QPSK	1	1	18.57	633334	635000	Tune-up limit (dBm)	MPR (dB)
Channel	40	QPSK	1	1	18.54	633334	634668	Tune-up limit (dBm)	MPR (dB)
Channel	30	QPSK	1	1	18.53	633334	634334	Tune-up limit (dBm)	MPR (dB)
Channel	25	QPSK	1	1	18.51	633334	635000	Tune-up limit (dBm)	MPR (dB)
Channel	20	QPSK	1	1	18.57	633334	635000	Tune-up limit (dBm)	MPR (dB)
Channel	15	QPSK	1	1	18.59	633334	635000	Tune-up limit (dBm)	MPR (dB)
Channel	10	QPSK	1	1	18.55	633334	634500	Tune-up limit (dBm)	MPR (dB)



Part270 n78 HPUE Ant 4 ECI 6									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	18.31	18.31				
100	PI2 BPSK	1	137	18.24	18.24		19.1	0.0	
100	PI2 BPSK	1	271	18.09	18.09				
100	PI2 BPSK	135	0	18.23	18.23		19.1	0.0	
100	PI2 BPSK	135	69	18.17	18.17		19.1	0.0	
100	PI2 BPSK	135	138	18.17	18.17		19.1	0.0	
100	PI2 BPSK	270	0	18.31	18.31		19.1	0.0	
100	QPSK	1	1	18.35					
100	QPSK	1	137	18.33	18.33		19.1	0.0	
100	QPSK	1	271	18.33	18.33				
100	QPSK	135	0	18.28	18.28		19.1	0.0	
100	QPSK	135	69	18.32	18.32		19.1	0.0	
100	QPSK	135	138	18.25	18.25		19.1	0.0	
100	QPSK	270	0	18.28	18.28		19.1	0.0	
100	16QAM	1	1	18.11	18.11		19.1	0.0	
100	64QAM	1	1	18.18	18.18		19.1	0.0	
100	256QAM	1	1	18.17	18.17		19.1	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	18.11	18.11	18.15	19.1	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	18.17	18.23	18.13	19.1	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	18.12	18.22	18.21	19.1	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	18.19	18.24	18.13	19.1	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	18.14	18.25	18.20	19.1	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	18.17	18.17	18.12	19.1	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	18.17	18.24	18.18	19.1	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	18.19	18.19	18.16	19.1	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	18.11	18.24	18.11	19.1	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	18.17	18.16	18.18	19.1	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	18.14	18.23	18.20	19.1	0.0	

Part27Q n78 HPUE Ant 4 ECI 6									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	18.52	18.52				
100	PI2 BPSK	1	137	18.59	18.59		19.1	0.0	
100	PI2 BPSK	1	271	18.29	18.29				
100	PI2 BPSK	135	0	18.48	18.48		19.1	0.0	
100	PI2 BPSK	135	69	18.42	18.42		19.1	0.0	
100	PI2 BPSK	135	138	18.28	18.28		19.1	0.0	
100	PI2 BPSK	270	0	18.48	18.48		19.1	0.0	
100	QPSK	1	1	18.60					
100	QPSK	1	137	18.43	18.43		19.1	0.0	
100	QPSK	1	271	18.52	18.52				
100	QPSK	135	0	18.37	18.37		19.1	0.0	
100	QPSK	135	69	18.56	18.56		19.1	0.0	
100	QPSK	135	138	18.50	18.50		19.1	0.0	
100	QPSK	270	0	18.48	18.48		19.1	0.0	
100	16QAM	1	1	18.05	18.05		19.1	0.0	
100	64QAM	1	1	18.23	18.23		19.1	0.0	
100	256QAM	1	1	18.15	18.15		19.1	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	18.50	18.53	18.51	19.1	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	18.57	18.43	18.52	19.1	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	18.50	18.53	18.46	19.1	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	18.58	18.49	18.48	19.1	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	18.58	18.51	18.52	19.1	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	18.58	18.45	18.47	19.1	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	18.53	18.49	18.44	19.1	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	18.54	18.50	18.53	19.1	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	18.54	18.48	18.44	19.1	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	18.41	18.45	18.53	19.1	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	18.57	18.48	18.52	19.1	0.0	



n48 Part 96 Ant 6 ECI 6

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 638000	Power Middle Ch. / Freq. 641666	Power High Ch. / Freq. 645332	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	19.49	19.55	19.48	20.9	0.0
40	PI2 BPSK	1	59	19.41	19.38	19.44		
40	PI2 BPSK	1	104	19.38	19.36	19.27		
40	PI2 BPSK	50	0	19.31	19.40	19.32		
40	PI2 BPSK	50	28	19.40	19.36	19.30	20.9	0.0
40	PI2 BPSK	50	56	19.10	19.24	19.18	20.9	0.0
40	PI2 BPSK	100	0	19.33	19.47	19.29	20.9	0.0
40	QPSK	1	1	19.81	19.69	19.49	20.9	0.0
40	QPSK	1	53	19.52	19.49	19.27		
40	QPSK	1	104	19.29	19.48	19.38		
40	QPSK	50	0	19.32	19.44	19.22		
40	QPSK	50	28	19.36	19.62	19.36	20.9	0.0
40	QPSK	50	56	19.29	19.38	19.33	20.9	0.0
40	QPSK	100	0	19.32	19.44	19.20	20.9	0.0
40	16QAM	1	1	19.38	19.41	19.21	20.9	0.0
40	64QAM	1	1	18.73	18.69	18.64	19.5	1.4
40	256QAM	1	1	17.37	17.36	17.42	17.5	3.4
Channel								
Frequency (MHz)								
30	QPSK	1	1	19.62	19.61	19.42	20.9	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	19.55	19.60	19.45	20.9	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	19.62	19.68	19.42	20.9	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	19.58	19.66	19.40	20.9	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 656000	Power High Ch. / Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	18.30	18.37	18.16	19.9	0.0
100	PI2 BPSK	1	137	18.17	18.21	18.10		
100	PI2 BPSK	1	271	18.16	18.17	18.01		
100	PI2 BPSK	135	0	18.04	18.23	18.08		
100	PI2 BPSK	135	69	18.20	18.24	18.09		
100	PI2 BPSK	135	138	18.00	18.16	17.98		
100	PI2 BPSK	270	0	18.09	18.22	18.00		
100	QPSK	1	1	18.42	18.48	18.32		
100	QPSK	1	137	18.28	18.20	18.14		
100	QPSK	1	271	18.13	18.28	18.13		
100	QPSK	135	0	18.11	18.10	17.98		
100	QPSK	135	69	18.11	18.29	18.13		
100	QPSK	135	138	18.19	18.14	18.10		
100	QPSK	270	0	18.08	18.27	18.00		
100	16QAM	1	1	18.04	18.21	18.15		
100	64QAM	1	1	18.36	18.29	18.18		
100	256QAM	1	1	18.27	18.37	18.18		
Channel								
Frequency (MHz)								
90	QPSK	1	1	18.42	18.44	18.29	19.9	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	18.43	18.47	18.32	19.9	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	18.41	18.41	18.34	19.9	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	18.33	18.40	18.29	19.9	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	18.37	18.44	18.34	19.9	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	18.39	18.43	18.25	19.9	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	18.34	18.47	18.24	19.9	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	18.40	18.42	18.23	19.9	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	18.42	18.42	18.27	19.9	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	18.45	18.40	18.34	19.9	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	18.40	18.45	18.20	19.9	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 633000	Power Middle Ch. / Freq. 633334	Power High Ch. / Freq. 633334	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	18.72	18.72	18.72	19.9	0.0
100	PI2 BPSK	1	137	18.66	18.66	18.66		
100	PI2 BPSK	1	271	18.54	18.54	18.54		
100	PI2 BPSK	135	0	18.64	18.64	18.64		
100	PI2 BPSK	135	69	18.54	18.54	18.54		
100	PI2 BPSK	135	138	18.58	18.58	18.58		
100	PI2 BPSK	270	0	18.67	18.67	18.67		
100	QPSK	1	1	18.82	18.82	18.82		
100	QPSK	1	137	18.89	18.89	18.89		
100	QPSK	1	271	18.77	18.77	18.77		
100	QPSK	135	0	18.68	18.68	18.68		
100	QPSK	135	69	18.78	18.78	18.78		
100	QPSK	135	138	18.70	18.70	18.70		
100	QPSK	270	0	18.82	18.82	18.82		
100	16QAM	1	1	18.84	18.84	18.84		
100	64QAM	1	1	18.59	18.59	18.59		
100	256QAM	1	1	18.23	18.23	18.23		
Channel								
Frequency (MHz)								
90	QPSK	1	1	18.89	18.86	18.54	19.9	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	18.82	18.81	18.53	19.9	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	18.60	18.65	18.47	19.9	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	18.65	18.73	18.61	19.9	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	18.81	18.66	18.61	19.9	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	18.61	18.72	18.59	19.9	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	18.55	18.62	18.51	19.9	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	18.54	18.66	18.62	19.9	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	18.54	18.84	18.51	19.9	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	18.58	18.58	18.51	19.9	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	18.62	18.68	18.60	19.9	0.0



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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	18.33	18.33				
100	PI2 BPSK	1	137	18.28	18.28		19.9	0.0	
100	PI2 BPSK	1	271	18.08	18.08				
100	PI2 BPSK	135	0	18.12	18.12		19.9	0.0	
100	PI2 BPSK	135	69	18.00	18.00		19.9	0.0	
100	PI2 BPSK	135	138	18.03	18.03		19.9	0.0	
100	PI2 BPSK	270	0	18.20	18.20		19.9	0.0	
100	QPSK	1	1	18.38	18.38				
100	QPSK	1	137	18.19	18.19		19.9	0.0	
100	QPSK	1	271	18.25	18.25				
100	QPSK	135	0	18.19	18.19		19.9	0.0	
100	QPSK	135	69	18.27	18.27		19.9	0.0	
100	QPSK	135	138	18.23	18.23		19.9	0.0	
100	QPSK	270	0	18.31	18.31		19.9	0.0	
100	16QAM	1	1	18.34	18.34				
100	64QAM	1	1	18.28	18.28		19.9	0.0	
100	256QAM	1	1	18.32	18.32		19.9	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	18.19	18.20	18.12	19.9	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	18.23	18.25	18.11	19.9	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	18.20	18.25	18.11	19.9	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	18.25	18.21	18.08	19.9	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	18.17	18.28	18.08	19.9	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	18.23	18.10	18.11	19.9	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	18.28	18.24	18.13	19.9	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	18.24	18.24	18.16	19.9	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	18.20	18.23	18.09	19.9	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	18.17	18.23	18.17	19.9	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	18.24	18.21	18.16	19.9	0.0	

Part27Q n78 HPUE Ant 6 ECI 6									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	18.57	18.57				
100	PI2 BPSK	1	137	18.63	18.63		19.9	0.0	
100	PI2 BPSK	1	271	18.24	18.24				
100	PI2 BPSK	135	0	18.44	18.44		19.9	0.0	
100	PI2 BPSK	135	69	18.34	18.34		19.9	0.0	
100	PI2 BPSK	135	138	18.43	18.43		19.9	0.0	
100	PI2 BPSK	270	0	18.44	18.44		19.9	0.0	
100	QPSK	1	1	18.72	18.72				
100	QPSK	1	137	18.51	18.51		19.9	0.0	
100	QPSK	1	271	18.53	18.53				
100	QPSK	135	0	18.46	18.46		19.9	0.0	
100	QPSK	135	69	18.52	18.52		19.9	0.0	
100	QPSK	135	138	18.49	18.49		19.9	0.0	
100	QPSK	270	0	18.59	18.59		19.9	0.0	
100	16QAM	1	1	18.57	18.57				
100	64QAM	1	1	18.66	18.66		19.9	0.0	
100	256QAM	1	1	18.18	18.18		19.9	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	18.52	18.57	18.40	19.9	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	18.45	18.64	18.41	19.9	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	18.45	18.60	18.41	19.9	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	18.54	18.60	18.50	19.9	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	18.44	18.57	18.40	19.9	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	18.51	18.57	18.45	19.9	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	18.53	18.58	18.42	19.9	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	18.48	18.64	18.43	19.9	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	18.48	18.61	18.45	19.9	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	18.45	18.59	18.40	19.9	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	18.43	18.58	18.48	19.9	0.0	



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Channel	BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
40	PI2 BPSK	1	1		18.77	18.83	18.73		
Channel									
Frequency (MHz)									
40	PI2 BPSK	1	1		18.72	18.73	18.80	19.7	0.0
40	PI2 BPSK	1	104		18.55	18.58	18.65		
40	PI2 BPSK	50	0		18.55	18.79	18.49	19.7	0.0
40	PI2 BPSK	50	28		18.72	18.73	18.66	19.7	0.0
40	PI2 BPSK	50	56		18.36	18.66	18.36	19.7	0.0
40	PI2 BPSK	100	0		18.82	18.70	18.52	19.7	0.0
40	QPSK	1	1		18.81	18.85	18.81		
40	QPSK	1	53		18.82	18.75	18.52	19.7	0.0
40	QPSK	1	104		18.64	18.77	18.86		
40	QPSK	50	0		18.57	18.74	18.53	19.7	0.0
40	QPSK	50	28		18.69	18.75	18.65	19.7	0.0
40	QPSK	50	56		18.70	18.68	18.66		
40	QPSK	100	0		18.50	18.74	18.51	19.7	0.0
40	16QAM	1	1		18.59	18.69	18.62	19.7	0.0
40	64QAM	1	1		18.64	18.74	18.68	19.5	0.2
40	256QAM	1	1		17.13	17.20	17.08	17.5	2.2
Channel									
Frequency (MHz)									
30	QPSK	1	1		18.63	18.84	18.72	19.7	0.0
Channel									
Frequency (MHz)									
20	QPSK	1	1		18.73	18.83	18.79	19.7	0.0
Channel									
Frequency (MHz)									
15	QPSK	1	1		18.66	18.83	18.76	19.7	0.0
Channel									
Frequency (MHz)									
10	QPSK	1	1		18.65	18.80	18.71	19.7	0.0

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Channel	BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1		17.77	17.85	17.70		
100	PI2 BPSK	1	137		17.70	17.89	17.69	19.1	0.0
100	PI2 BPSK	1	271		17.62	17.69	17.54		
100	PI2 BPSK	135	0		17.80	17.72	17.51	19.1	0.0
100	PI2 BPSK	135	69		17.64	17.85	17.81	19.1	0.0
100	PI2 BPSK	135	138		17.38	17.82	17.43	19.1	0.0
100	PI2 BPSK	270	0		17.69	17.72	17.47	19.1	0.0
100	QPSK	1	1		17.85	17.99	17.76		
100	QPSK	1	137		17.72	17.71	17.62	19.1	0.0
100	QPSK	1	271		17.81	17.78	17.69		
100	QPSK	135	0		17.82	17.70	17.55	19.1	0.0
100	QPSK	135	69		17.81	17.88	17.78	19.1	0.0
100	QPSK	135	138		17.72	17.72	17.58		
100	QPSK	270	0		17.58	17.73	17.44	19.1	0.0
100	16QAM	1	1		17.58	17.60	17.50	19.1	0.0
100	64QAM	1	1		17.81	17.70	17.62	19.1	0.0
100	256QAM	1	1		17.78	17.83	17.79	19.1	0.0
Channel									
Frequency (MHz)									
90	QPSK	1	1		17.75	17.75	17.69	19.1	0.0
Channel									
Frequency (MHz)									
80	QPSK	1	1		17.74	17.79	17.69	19.1	0.0
Channel									
Frequency (MHz)									
70	QPSK	1	1		17.70	17.82	17.65	19.1	0.0
Channel									
Frequency (MHz)									
60	QPSK	1	1		17.81	17.76	17.67	19.1	0.0
Channel									
Frequency (MHz)									
50	QPSK	1	1		17.77	17.80	17.65	19.1	0.0
Channel									
Frequency (MHz)									
40	QPSK	1	1		17.80	17.82	17.69	19.1	0.0
Channel									
Frequency (MHz)									
30	QPSK	1	1		17.72	17.74	17.67	19.1	0.0
Channel									
Frequency (MHz)									
25	QPSK	1	1		17.80	17.73	17.64	19.1	0.0
Channel									
Frequency (MHz)									
20	QPSK	1	1		17.79	17.80	17.65	19.1	0.0
Channel									
Frequency (MHz)									
15	QPSK	1	1		17.73	17.82	17.60	19.1	0.0
Channel									
Frequency (MHz)									
10	QPSK	1	1		17.79	17.78	17.83	19.1	0.0

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Channel	BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1					19.1	0.0
100	PI2 BPSK	1	137						
100	PI2 BPSK	1	271						
100	PI2 BPSK	135	0						
100	PI2 BPSK	135	69						
100	PI2 BPSK	135	138						
100	PI2 BPSK	270	0						
100	QPSK	1	1						
100	QPSK	1	137						
100	QPSK	1	271						
100	QPSK	135	0						
100	QPSK	135	69						
100	QPSK	135	138						
100	QPSK	270	0						
100	16QAM	1	1						
100	64QAM	1	1						
100	256QAM	1	1						
Channel									
Frequency (MHz)									
90	QPSK	1	1						
Channel									
Frequency (MHz)									
80	QPSK	1	1						
Channel									
Frequency (MHz)									
70	QPSK	1	1						
Channel									
Frequency (MHz)									
60	QPSK	1	1						
Channel									
Frequency (MHz)									
50	QPSK	1	1						
Channel									
Frequency (MHz)									
40	QPSK	1	1						
Channel									
Frequency (MHz)									
30	QPSK	1	1						
Channel									
Frequency (MHz)									
25	QPSK	1	1						
Channel									
Frequency (MHz)									
20	QPSK	1	1						
Channel									
Frequency (MHz)									
15	QPSK	1	1						
Channel									
Frequency (MHz)									
10	QPSK	1	1						



Part270 n78 HPUE Ant 8 ECI 6									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	17.86	17.86		19.1	0.0	
100	PI2 BPSK	1	137	17.59	17.59				
100	PI2 BPSK	1	271	17.61	17.61				
100	PI2 BPSK	135	0	17.56	17.56		19.1	0.0	
100	PI2 BPSK	135	69	17.62	17.62		19.1	0.0	
100	PI2 BPSK	135	138	17.48	17.48		19.1	0.0	
100	PI2 BPSK	270	0	17.73	17.73		19.1	0.0	
100	QPSK	1	1	17.89	17.89				
100	QPSK	1	137	17.82	17.82		19.1	0.0	
100	QPSK	1	271	17.76	17.76				
100	QPSK	135	0	17.55	17.55		19.1	0.0	
100	QPSK	135	69	17.70	17.70		19.1	0.0	
100	QPSK	135	138	17.58	17.58		19.1	0.0	
100	QPSK	270	0	17.56	17.56		19.1	0.0	
100	16QAM	1	1	17.80	17.80		19.1	0.0	
100	64QAM	1	1	17.82	17.82		19.1	0.0	
100	256QAM	1	1	17.62	17.62		19.1	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	17.57	17.76	17.57	19.1	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	17.65	17.65	17.59	19.1	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	17.66	17.64	17.43	19.1	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	17.57	17.64	17.55	19.1	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	17.67	17.66	17.58	19.1	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	17.69	17.71	17.62	19.1	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	17.88	17.76	17.61	19.1	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	17.66	17.74	17.58	19.1	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	17.81	17.71	17.62	19.1	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	17.60	17.72	17.64	19.1	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	17.88	17.76	17.63	19.1	0.0	

Part27Q n78 HPUE Ant 8 ECI 6									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	18.06	18.06		19.1	0.0	
100	PI2 BPSK	1	137	17.99	17.99				
100	PI2 BPSK	1	271	17.83	17.83				
100	PI2 BPSK	135	0	17.86	17.86		19.1	0.0	
100	PI2 BPSK	135	69	17.89	17.89		19.1	0.0	
100	PI2 BPSK	135	138	17.94	17.94		19.1	0.0	
100	PI2 BPSK	270	0	17.78	17.78		19.1	0.0	
100	QPSK	1	1	18.22	18.22				
100	QPSK	1	137	18.01	18.01		19.1	0.0	
100	QPSK	1	271	18.06	18.06				
100	QPSK	135	0	17.96	17.96		19.1	0.0	
100	QPSK	135	69	18.17	18.17		19.1	0.0	
100	QPSK	135	138	18.08	18.08		19.1	0.0	
100	QPSK	270	0	18.19	18.19		19.1	0.0	
100	16QAM	1	1	18.17	18.17		19.1	0.0	
100	64QAM	1	1	18.13	18.13		19.1	0.0	
100	256QAM	1	1	17.95	17.95		19.1	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	18.05	18.13	18.02	19.1	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	18.10	18.13	17.98	19.1	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	18.01	18.16	18.05	19.1	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	18.08	18.08	17.99	19.1	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	18.07	18.17	18.07	19.1	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	18.01	18.16	18.01	19.1	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	18.08	18.15	18.02	19.1	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	18.00	18.15	18.01	19.1	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	18.11	18.14	17.98	19.1	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	18.07	18.16	18.04	19.1	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	18.07	18.11	18.06	19.1	0.0	



Reduced Power Mode for ECI9

n2 Ant 0 ECI 9								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	19.95	20.04	19.98	21.3	0.0
40	PI2 BPSK	1	108	19.81	19.92	19.88		
40	PI2 BPSK	1	214	19.84	19.86	19.79		
40	PI2 BPSK	108	8	19.80	19.98	19.83	21.3	0.0
40	PI2 BPSK	108	54	19.89	19.95	19.91	21.3	0.0
40	PI2 BPSK	108	108	19.70	19.89	19.79	21.3	0.0
40	PI2 BPSK	216	0	19.81	19.91	19.87		
40	QPSK	1	1	20.11	20.30	20.04		
40	QPSK	1	108	19.87	19.96	19.85	21.3	0.0
40	QPSK	1	214	19.82	19.93	19.87	21.3	0.0
40	QPSK	108	0	19.89	20.00	19.89		
40	QPSK	108	54	20.17	20.24	20.04		
40	QPSK	108	108	20.08	20.17	19.92	21.3	0.0
40	QPSK	216	0	20.11	20.22	20.09	21.3	0.0
40	16QAM	1	1	20.11	20.02	19.85		
40	64QAM	1	1	19.70	19.79	19.69		
40	256QAM	1	1	18.80	18.83	18.74	19.5	1.8
Channel								
Frequency (MHz)								
35	QPSK	1	1	18.72	18.80	18.75	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
30	QPSK	1	1	18.88	19.98	19.77	0.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	18.86	18.92	18.87	0.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	19.84	19.95	19.78	0.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	19.85	19.89	19.80	21.3	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	19.84	19.99	19.79	21.3	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	18.93	19.92	19.86	21.3	0.0

n5 Ant 0 ECI 9								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	23.15	23.22	23.10	24.0	0.0
20	PI2 BPSK	1	53	23.07	23.06	23.14		
20	PI2 BPSK	1	104	23.11	23.13	22.98		
20	PI2 BPSK	50	0	22.54	22.61	22.59	23.5	0.5
20	PI2 BPSK	50	28	23.06	23.15	23.10	24.0	0.0
20	PI2 BPSK	50	56	22.37	22.53	22.41	23.5	0.5
20	PI2 BPSK	100	0	22.58	22.56	22.38		
20	QPSK	1	1	23.23	23.25	23.19		
20	QPSK	1	53	23.20	23.27	22.98	24.0	0.0
20	QPSK	1	104	23.10	23.17	23.06	24.0	0.0
20	QPSK	50	0	22.09	22.10	21.86		
20	QPSK	50	28	23.12	23.26	23.11		
20	QPSK	50	56	22.02	22.13	21.85	23.0	1.0
20	QPSK	100	0	22.12	22.17	21.86	24.0	0.0
20	16QAM	1	1	21.97	22.08	21.93		
20	64QAM	1	1	20.73	20.76	20.54		
20	256QAM	1	1	19.29	19.36	19.34	19.5	4.5
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.13	23.24	23.11	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.14	23.16	23.16	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	23.08	23.21	23.14	24.0	0.0

n7 Ant 0 ECI 9								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
50	PI2 BPSK	1	1	20.12	20.22	20.14	21.3	0.0
50	PI2 BPSK	1	135	20.04	20.11	20.07		
50	PI2 BPSK	1	268	20.04	20.15	20.14		
50	PI2 BPSK	135	0	20.01	20.17	20.04	21.3	0.0
50	PI2 BPSK	135	68	20.17	20.12	19.99	21.3	0.0
50	PI2 BPSK	135	135	19.98	20.01	19.92	21.3	0.0
50	PI2 BPSK	270	0	20.03	20.12	20.01		
50	QPSK	1	1	20.24	20.25	20.17		
50	QPSK	1	135	20.19	20.21	20.04	21.3	0.0
50	QPSK	1	268	20.14	20.13	20.12	21.3	0.0
50	QPSK	135	0	20.04	20.12	20.04		
50	QPSK	135	68	20.15	20.23	20.15		
50	QPSK	135	135	20.03	20.00	19.94	21.3	0.0
50	QPSK	270	0	20.02	20.23	20.02	21.3	0.0
50	16QAM	1	1	19.80	19.84	19.74		
50	64QAM	1	1	19.88	20.03	20.03		
50	256QAM	1	1	19.09	19.08	18.91	19.5	1.8
Channel								
Frequency (MHz)								
40	QPSK	1	1	20.20	20.35	20.20	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
35	QPSK	1	1	20.18	20.28	20.05	0.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	20.23	20.23	20.09	21.3	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	20.16	20.24	20.04	21.3	0.0
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	20.18	20.23	20.09	21.3	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	20.23	20.23	20.02	21.3	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	20.13	20.22	20.12	21.3	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	20.21	20.23	20.06	21.3	0.0



n12 Ant 0 ECI 9

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel				141300	141500	141700		
Frequency (MHz)				706.5	707.5	708.5		
15	PI2 BPSK	1	1	23.07	23.19	23.03	24.0	0.0
15	PI2 BPSK	1	40	23.01	23.05	23.05		
15	PI2 BPSK	1	77	23.01	23.07	22.97		
15	PI2 BPSK	36	0	22.46	22.54	22.51	23.5	0.5
15	PI2 BPSK	36	22	23.05	23.07	22.98	24.0	0.0
15	PI2 BPSK	36	43	22.29	22.43	22.37	23.5	0.5
15	PI2 BPSK	75	0	22.51	22.56	22.37		
15	QPSK	1	1	23.13	23.27	23.08	24.0	0.0
15	QPSK	1	40	23.15	23.17	22.95		
15	QPSK	1	77	23.01	23.10	22.99		
15	QPSK	36	0	22.00	22.05	21.84	23.0	1.0
15	QPSK	36	22	23.04	23.24	23.01	24.0	0.0
15	QPSK	36	43	22.00	22.05	21.84	23.0	1.0
15	QPSK	75	0	22.01	22.11	21.85		
15	16QAM	1	1	21.84	21.88	21.85	23.0	1.0
15	64QAM	1	1	20.61	20.67	20.54	21.5	2.5
15	256QAM	1	1	19.17	19.31	19.26	19.5	4.5
Channel				140800	141500	142200	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				714	707.5	711		
10	QPSK	1	1	23.05	23.10	23.04	24.0	0.0
Channel				140300	141500	142700	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				701.5	707.5	713.5		
5	QPSK	1	1	23.10	23.14	22.95	24.0	0.0

n14 Ant 0 ECI 9

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel				158600	158600	158600		
Frequency (MHz)				793	793	793		
10	PI2 BPSK	1	1	23.57	23.57	23.57	24.0	0.0
10	PI2 BPSK	1	26	23.39	23.39	23.39		
10	PI2 BPSK	25	0	22.88	22.88	22.88	23.5	0.5
10	PI2 BPSK	25	14	23.43	23.43	23.43	24.0	0.0
10	PI2 BPSK	25	27	22.81	22.81	22.81	23.5	0.5
10	PI2 BPSK	50	0	22.85	22.85	22.85		
10	QPSK	1	1	23.53	23.53	23.53	24.0	0.0
10	QPSK	1	26	23.49	23.49	23.49		
10	QPSK	1	50	23.45	23.45	23.45		
10	QPSK	25	0	22.40	22.40	22.40	23.0	1.0
10	QPSK	25	14	23.55	23.55	23.55	26.0	0.0
10	QPSK	25	27	22.40	22.40	22.40	23.0	1.0
10	QPSK	50	0	22.44	22.44	22.44		
10	16QAM	1	1	22.38	22.38	22.38	23.0	1.0
10	64QAM	1	1	21.08	21.08	21.08	21.5	2.5
10	256QAM	1	1	19.33	19.33	19.33	19.5	4.5
Channel				158100	158600	159100	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				790.5	793	795.5		
5	QPSK	1	1	23.45	23.45	23.39	24.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel				376500	376500	376500		
Frequency (MHz)				1870	1870	1882.5		
40	PI2 BPSK	1	1	20.25	20.20	20.07	21.3	0.0
40	PI2 BPSK	1	108	20.09	20.20	20.18		
40	PI2 BPSK	1	214	20.07	20.12	20.03		
40	PI2 BPSK	108	0	20.08	20.04	20.11	21.3	0.0
40	PI2 BPSK	108	54	20.11	20.17	20.12	21.3	0.0
40	PI2 BPSK	108	108	19.86	20.07	20.05	21.3	0.0
40	PI2 BPSK	216	0	20.16	20.16	20.16		
40	QPSK	1	1	20.27	20.31	20.19	21.3	0.0
40	QPSK	1	108	20.27	20.28	20.08		
40	QPSK	1	214	20.20	20.15	20.09		
40	QPSK	108	0	20.11	20.15	20.01	21.3	0.0
40	QPSK	108	54	20.11	20.28	20.15	21.3	0.0
40	QPSK	108	108	20.05	20.19	20.13	21.3	0.0
40	QPSK	216	0	20.14	20.19	19.90		
40	16QAM	1	1	20.07	20.06	19.98	21.3	0.0
40	64QAM	1	1	20.25	20.26	20.12	21.3	0.0
40	256QAM	1	1	19.25	19.41	19.34	19.5	1.8
Channel				373500	376500	379500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1872.5	1882.5	1892.5		
35	QPSK	1	1	20.23	20.23	20.21	21.3	0.0
Channel				373000	376500	380000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1865	1882.5	1900		
30	QPSK	1	1	20.13	20.24	20.03	21.3	0.0
Channel				372500	376500	380000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1862.5	1882.5	1902.5		
25	QPSK	1	1	20.20	20.28	19.99	21.3	0.0
Channel				372000	376500	381000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1860	1882.5	1905		
20	QPSK	1	1	20.12	20.28	20.08	21.3	0.0
Channel				371500	376500	381500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1882.5	1907.5		
15	QPSK	1	1	20.14	20.22	20.01	21.3	0.0
Channel				371000	376500	382000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1882.5	1910		
10	QPSK	1	1	20.16	20.21	20.06	21.3	0.0
Channel				370500	376500	382500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1882.5	1912.5		
5	QPSK	1	1	20.24	20.29	19.96	21.3	0.0



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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				164500	168300	167800		
				824	831.5	838		
20	PI2 BPSK	1	1	23.24	23.39	23.25		
20	PI2 BPSK	1	53	23.12	23.24	23.21	24.0	0.0
20	PI2 BPSK	1	104	23.14	23.18	23.13		
20	PI2 BPSK	50	0	22.85	22.75	22.85	23.5	0.5
20	PI2 BPSK	50	28	23.16	23.26	23.18	24.0	0.0
20	PI2 BPSK	50	56	22.85	22.85	22.84		
20	PI2 BPSK	100	0	22.83	22.70	22.82	23.5	0.5
20	QPSK	1	1	23.34	23.43	23.28		
20	QPSK	1	53	23.24	23.34	23.16	24.0	0.0
20	QPSK	1	104	23.22	23.29	23.19		
20	QPSK	50	0	22.20	22.20	22.12	23.0	1.0
20	QPSK	50	28	23.23	23.35	23.19	24.0	0.0
20	QPSK	50	56	22.17	22.19	22.08	23.0	1.0
20	QPSK	100	0	22.20	22.28	22.10		
20	16QAM	1	1	21.85	21.98	21.88	23.0	1.0
20	64QAM	1	1	20.53	20.59	20.59	21.5	2.5
20	256QAM	1	1	19.12	19.15	19.00	19.5	4.5
Channel								
Frequency (MHz)				164300	168300	168300	Tune-up limit (dBm)	MPR (dB)
				821.5	831.5	841.5		
15	QPSK	1	1	23.22	23.36	23.19	24.0	0.0
Channel								
Frequency (MHz)				163800	168300	168800	Tune-up limit (dBm)	MPR (dB)
				819	831.5	844		
10	QPSK	1	1	23.24	23.26	23.15	24.0	0.0
Channel								
Frequency (MHz)				163300	168300	169300	Tune-up limit (dBm)	MPR (dB)
				816.5	831.5	846.5		
5	QPSK	1	1	23.25	23.30	23.23	24.0	0.0

n30 Ant 0 ECI 9

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				462000	462000	462000		
				2310	2310	2310		
10	PI2 BPSK	1	1		22.26			
10	PI2 BPSK	1	26		22.21		23.3	0.0
10	PI2 BPSK	1	50		22.21			
10	PI2 BPSK	25	0		22.32		23.3	0.0
10	PI2 BPSK	25	14		22.28		23.3	0.0
10	PI2 BPSK	25	27		22.30		23.3	0.0
10	PI2 BPSK	50	0		22.34			
10	QPSK	1	1		22.37			
10	QPSK	1	26		22.35		23.3	0.0
10	QPSK	1	50		22.36			
10	QPSK	25	0		22.19		23.0	0.3
10	QPSK	25	14		22.31		23.3	0.0
10	QPSK	25	27		22.18		23.0	0.3
10	QPSK	50	0		22.25			
10	16QAM	1	1		22.13		23.0	0.3
10	64QAM	1	1		20.69		21.5	1.8
10	256QAM	1	1		19.42		19.5	3.8
Channel								
Frequency (MHz)				461600	462000	462500	Tune-up limit (dBm)	MPR (dB)
				2307.5	2310	2312.5		
5	QPSK	1	1	22.25	22.32	22.28	23.3	0.0

n66 Ant 0 ECI 9

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				345900	349000	352000		
				1730	1745	1760		
40	PI2 BPSK	1	1	19.80	19.72	19.56		
40	PI2 BPSK	1	108	19.53	19.51	19.56	20.4	0.0
40	PI2 BPSK	1	214	19.46	19.46	19.45		
40	PI2 BPSK	108	0	19.48	19.52	19.42	20.4	0.0
40	PI2 BPSK	108	54	19.59	19.46	19.43	20.4	0.0
40	PI2 BPSK	108	108	19.28	19.45	19.27	20.4	0.0
40	PI2 BPSK	216	0	19.40	19.61	19.43		
40	QPSK	1	1	19.85	19.74	19.87		
40	QPSK	1	108	19.85	19.59	19.40	20.4	0.0
40	QPSK	1	214	19.53	19.68	19.51		
40	QPSK	108	0	19.49	19.59	19.37	20.4	0.0
40	QPSK	108	54	19.46	19.67	19.46	20.4	0.0
40	QPSK	108	108	19.47	19.52	19.46	20.4	0.0
40	QPSK	216	0	19.37	19.59	19.28		
40	16QAM	1	1	19.40	19.41	19.36	20.4	0.0
40	64QAM	1	1	18.55	19.62	19.50	20.4	0.0
40	256QAM	1	1	19.03	19.10	19.08	19.5	0.9
Channel								
Frequency (MHz)				345500	349000	352500	Tune-up limit (dBm)	MPR (dB)
				1727.5	1745	1762.5		
35	QPSK	1	1	19.57	19.73	19.65	20.4	0.0
Channel								
Frequency (MHz)				345000	348000	351000	Tune-up limit (dBm)	MPR (dB)
				1725	1745	1765		
30	QPSK	1	1	19.63	19.70	19.61	20.4	0.0
Channel								
Frequency (MHz)				344500	348000	350500	Tune-up limit (dBm)	MPR (dB)
				1722.5	1745	1767.5		
25	QPSK	1	1	19.68	19.69	19.58	20.4	0.0
Channel								
Frequency (MHz)				344000	348000	350000	Tune-up limit (dBm)	MPR (dB)
				1720	1745	1770		
20	QPSK	1	1	19.81	19.87	19.65	20.4	0.0
Channel								
Frequency (MHz)				343500	349000	354500	Tune-up limit (dBm)	MPR (dB)
				1717.5	1745	1772.5		
15	QPSK	1	1	19.59	19.69	19.63	20.4	0.0
Channel								
Frequency (MHz)				343000	348000	353000	Tune-up limit (dBm)	MPR (dB)
				1715	1745	1775		
10	QPSK	1	1	19.64	19.71	19.69	20.4	0.0
Channel								
Frequency (MHz)				342500	349000	353500	Tune-up limit (dBm)	MPR (dB)
				1712.5	1745	1777.5		
5	QPSK	1	1	19.69	19.72	19.61	20.4	0.0



n70 Ant 0 ECI 9									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				340500	341000				
Frequency (MHz)				1702.5					
15	PI2 BPSK	1	1	18.67					
15	PI2 BPSK	1	40	18.56			20.2	0.0	
15	PI2 BPSK	1	77	18.48					
15	PI2 BPSK	36	0	18.42			20.2	0.0	
15	PI2 BPSK	36	22	18.52			20.2	0.0	
15	PI2 BPSK	36	43	18.44			20.2	0.0	
15	PI2 BPSK	75	0	18.45					
15	QPSK	1	1	18.75					
15	QPSK	1	40	18.52			20.2	0.0	
15	QPSK	1	77	18.66					
15	QPSK	36	0	18.42			20.2	0.0	
15	QPSK	36	22	18.74			20.2	0.0	
15	QPSK	36	43	18.49			20.2	0.0	
15	QPSK	75	0	18.60					
15	16QAM	1	1	18.48			20.2	0.0	
15	64QAM	1	1	18.52			20.2	0.0	
15	256QAM	1	1	18.55			19.5	0.7	
Channel				340000	340500	341000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1700	1702.5	1705			
10	QPSK	1	1	18.60	18.69	18.62	20.2	0.0	
Channel				339500	340500	341500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1697.5	1702.5	1707.5			
5	QPSK	1	1	18.63	18.70	18.69	20.2	0.0	

n71 Ant 0 ECI 9									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				137600	138100	137600			
Frequency (MHz)				673	680.5	688			
20	PI2 BPSK	1	1	23.50	23.57	23.42			
20	PI2 BPSK	1	53	23.43	23.41	23.46			
20	PI2 BPSK	1	104	23.26	23.36	23.26	24.0	0.0	
20	PI2 BPSK	50	0	22.81	22.93	22.82	23.5	0.5	
20	PI2 BPSK	50	28	23.38	23.34	23.29	24.0	0.0	
20	PI2 BPSK	50	56	22.63	22.85	22.66			
20	PI2 BPSK	100	0	22.81	22.91	22.77	23.5	0.5	
20	QPSK	1	1	23.59	23.69	23.54			
20	QPSK	1	53	23.48	23.46	23.31	24.0	0.0	
20	QPSK	1	104	23.31	23.49	23.35			
20	QPSK	50	0	22.32	22.38	22.20	23.0	1.0	
20	QPSK	50	28	23.34	23.50	23.26	24.0	0.0	
20	QPSK	50	56	22.36	22.38	22.30	23.0	1.0	
20	QPSK	100	0	22.24	22.42	22.20			
20	16QAM	1	1	22.29	22.36	22.22	23.0	1.0	
20	64QAM	1	1	20.98	21.00	20.87	21.5	2.5	
20	256QAM	1	1	19.28	19.45	19.40	19.5	4.5	
Channel				134100	136100	138100	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				670.5	680.5	690.5			
15	QPSK	1	1	23.48	23.53	23.50	24.0	0.0	
Channel				133600	136100	138600	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				668	680.5	693			
10	QPSK	1	1	23.56	23.59	23.43	24.0	0.0	
Channel				133100	135100	137100	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				665.5	680.5	695.5			
5	QPSK	1	1	23.52	23.60	23.44	24.0	0.0	



n41 HPUE Ant 0 ECI 9									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low		Power Middle		Power High	
				Ch. Freq.	Ch. Freq.	Ch. Freq.	Ch. Freq.	Ch. Freq.	Ch. Freq.
Channel				506202	518598	529299	541695	553091	564487
Frequency (MHz)				2546.01	2592.99	2640	2687	2734	2781
100	PI2 BPSK	1	1	20.16	20.16	20.12	20.12	20.12	20.12
100	PI2 BPSK	1	137	20.11	20.08	20.04	20.04	20.04	20.04
100	PI2 BPSK	1	271	19.90	19.92	19.97	19.97	19.97	19.97
100	PI2 BPSK	135	0	19.91	20.10	19.94	19.94	19.94	19.94
100	PI2 BPSK	135	69	20.09	20.02	19.95	19.95	19.95	19.95
100	PI2 BPSK	135	138	19.76	19.96	19.87	19.87	19.87	19.87
100	PI2 BPSK	270	0	20.03	20.05	19.98	19.98	19.98	19.98
100	QPSK	1	1	20.24	20.34	20.29	20.29	20.29	20.29
100	QPSK	1	137	20.13	20.08	19.93	19.93	19.93	19.93
100	QPSK	1	271	20.01	20.06	19.94	19.94	19.94	19.94
100	QPSK	135	0	19.99	20.07	19.76	19.76	19.76	19.76
100	QPSK	135	69	20.13	20.21	20.00	20.00	20.00	20.00
100	QPSK	135	138	19.99	20.03	20.09	20.09	20.09	20.09
100	QPSK	270	0	20.12	20.14	20.06	20.06	20.06	20.06
100	16QAM	1	1	20.05	20.05	20.00	20.00	20.00	20.00
100	64QAM	1	1	20.17	20.24	20.25	20.25	20.25	20.25
100	256QAM	1	1	19.68	19.76	19.71	19.71	19.71	19.71
Channel				506200	518596	529596	541992	553388	564784
Frequency (MHz)				2544	2592.99	2644.88	2693.87	2742.86	2791.85
90	QPSK	1	1	20.23	20.25	20.22	20.22	20.22	20.22
Channel				507204	518598	529598	541994	553390	564786
Frequency (MHz)				2533.02	2592.99	2643.99	2692.98	2741.97	2790.96
80	QPSK	1	1	20.24	20.32	20.23	20.23	20.23	20.23
Channel				506202	518598	531000	543400	555800	568200
Frequency (MHz)				2531.01	2592.99	2655	2719	2783	2847
70	QPSK	1	1	20.18	20.33	20.31	20.31	20.31	20.31
Channel				505200	518596	529596	541996	554396	566796
Frequency (MHz)				2526	2592.99	2659.96	2719	2778	2837
60	QPSK	1	1	20.20	20.33	20.31	20.31	20.31	20.31
Channel				504204	518596	529596	541996	554396	566796
Frequency (MHz)				2521.02	2592.99	2644.96	2693.95	2742.94	2791.93
50	QPSK	1	1	20.21	20.26	20.25	20.25	20.25	20.25
Channel				503700	518598	533496	545896	558296	570696
Frequency (MHz)				2513.5	2592.99	2697.46	2756.45	2815.44	2874.43
45	QPSK	1	1	20.20	20.31	20.31	20.31	20.31	20.31
Channel				503202	518598	534000	546400	558800	571200
Frequency (MHz)				2516.01	2592.99	2670	2734	2798	2862
40	QPSK	1	1	20.19	20.27	20.26	20.26	20.26	20.26
Channel				502704	518596	534496	546896	559296	571696
Frequency (MHz)				2513.52	2592.99	2672.49	2731.48	2790.47	2849.46
35	QPSK	1	1	20.25	20.25	20.21	20.21	20.21	20.21
Channel				502200	518598	534996	547396	559796	572196
Frequency (MHz)				2511	2592.99	2674.96	2733.95	2792.94	2851.93
30	QPSK	1	1	20.21	20.32	20.24	20.24	20.24	20.24
Channel				501702	518598	535500	547900	560300	572700
Frequency (MHz)				2508.51	2592.99	2677.5	2736.49	2795.48	2854.47
25	QPSK	1	1	20.21	20.31	20.25	20.25	20.25	20.25
Channel				501204	518596	535996	548396	560796	573196
Frequency (MHz)				2506.02	2592.99	2678.99	2737.98	2796.97	2855.96
20	QPSK	1	1	20.17	20.30	20.24	20.24	20.24	20.24
Channel				500700	518596	536496	548896	561296	573696
Frequency (MHz)				2503.5	2592.99	2682.48	2741.47	2800.46	2859.45
15	QPSK	1	1	20.19	20.26	20.23	20.23	20.23	20.23
Channel				500202	518598	537000	549400	561800	574200
Frequency (MHz)				2501.01	2592.99	2685	2744	2803	2862
10	QPSK	1	1	20.22	20.29	20.23	20.23	20.23	20.23



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BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel				1870	1880	1890		
40	PI2 BPSK	1	1	23.02	23.18	23.04		
40	PI2 BPSK	1	108	22.98	23.08	22.95	24.0	0.0
40	PI2 BPSK	1	214	22.89	22.94	22.89		
40	PI2 BPSK	108	0	22.44	22.46	22.35	23.5	0.5
40	PI2 BPSK	108	54	23.04	22.94	22.98	24.0	0.0
40	PI2 BPSK	108	108	22.18	22.37	22.21		
40	PI2 BPSK	216	0	22.42	22.49	22.29	23.5	0.5
40	QPSK	1	1	23.17	23.19	23.10		
40	QPSK	1	108	23.07	23.06	22.96	24.0	0.0
40	QPSK	1	214	22.93	23.08	22.95		
40	QPSK	108	0	21.95	22.02	21.83	23.0	1.0
40	QPSK	108	54	23.02	23.14	22.86	24.0	0.0
40	QPSK	108	108	21.86	21.92	21.87		
40	QPSK	216	0	21.89	22.06	21.73	23.0	1.0
40	16QAM	1	1	23.84	21.89	21.80	23.0	1.0
40	64QAM	1	1	20.58	20.51	20.42	21.5	2.5
40	256QAM	1	1	19.12	19.24	19.19	19.5	4.5
Channel				37350	37600	37650		
35	QPSK	1	1	23.03	23.12	22.96	0.0	0.0
Channel				37300	37600	37900		
30	QPSK	1	1	23.09	23.15	22.96	0.0	0.0
Channel				37250	37600	37950		
25	QPSK	1	1	23.03	23.14	22.99	0.0	0.0
Channel				1882.5	1880	1897.5		
20	QPSK	1	1	23.03	23.06	23.05	0.0	0.0
Channel				37150	37600	38050		
15	QPSK	1	1	23.09	23.14	23.03	24.0	0.0
Channel				37100	37600	38100		
10	QPSK	1	1	23.11	23.10	22.99	24.0	0.0
Channel				37050	37600	38150		
5	QPSK	1	1	23.09	23.15	22.97	24.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel				16880	16750	16780		
20	PI2 BPSK	1	1	22.87	22.91	22.82		
20	PI2 BPSK	1	59	22.77	22.80	22.84	24.0	0.0
20	PI2 BPSK	1	104	22.76	22.77	22.82		
20	PI2 BPSK	50	0	22.26	22.28	22.22	23.5	0.5
20	PI2 BPSK	50	28	22.80	22.79	22.74	24.0	0.0
20	PI2 BPSK	50	56	21.97	22.21	22.01		
20	PI2 BPSK	100	0	22.22	22.37	22.20	23.5	0.5
20	QPSK	1	1	22.90	22.99	22.91		
20	QPSK	1	53	22.92	22.85	22.86	24.0	0.0
20	QPSK	1	104	22.74	22.86	22.75		
20	QPSK	50	0	21.74	21.81	21.82	23.0	1.0
20	QPSK	50	28	22.82	22.90	22.77	24.0	0.0
20	QPSK	50	56	21.80	21.77	21.88		
20	QPSK	100	0	21.72	21.80	21.81	23.0	1.0
20	16QAM	1	1	21.84	21.68	21.60	23.0	1.0
20	64QAM	1	1	20.38	20.37	20.23	21.5	2.5
20	256QAM	1	1	18.88	18.99	18.97	19.5	4.5
Channel				16830	16730	16830		
15	QPSK	1	1	22.86	22.93	22.79	24.0	0.0
Channel				16580	16730	16880		
10	QPSK	1	1	22.81	22.97	22.92	24.0	0.0
Channel				16530	16730	16930		
5	QPSK	1	1	22.85	22.89	22.78	24.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel				50500	50700	50900		
50	PI2 BPSK	1	1	20.74	20.81	20.65		
50	PI2 BPSK	1	135	20.76	20.69	20.82	21.8	0.0
50	PI2 BPSK	1	268	20.63	20.67	20.48		
50	PI2 BPSK	135	0	20.63	20.68	20.74	21.8	0.0
50	PI2 BPSK	135	68	20.70	20.88	20.69	21.8	0.0
50	PI2 BPSK	135	135	20.33	20.61	20.41	21.8	0.0
50	PI2 BPSK	270	0	20.67	20.71	20.68		
50	QPSK	1	1	20.80	20.92	20.82		
50	QPSK	1	135	20.86	20.74	20.57	21.8	0.0
50	QPSK	1	268	20.57	20.71	20.68		
50	QPSK	135	0	20.69	20.73	20.62	21.8	0.0
50	QPSK	135	68	20.75	20.85	20.67	21.8	0.0
50	QPSK	135	135	20.71	20.71	20.67		
50	QPSK	270	0	20.61	20.65	20.42	21.8	0.0
50	16QAM	1	1	20.43	20.51	20.45	21.8	0.0
50	64QAM	1	1	19.98	20.05	19.90	21.5	0.0
50	256QAM	1	1	18.52	18.59	18.53	19.5	2.3
Channel				50400	50700	51000		
40	QPSK	1	1	20.84	20.77	20.75	21.8	0.0
Channel				50300	50700	51050		
35	QPSK	1	1	20.71	20.73	20.70	0.0	0.0
Channel				50300	50700	51100		
30	QPSK	1	1	20.70	20.74	20.77	21.8	0.0
Channel				50250	50700	51150		
25	QPSK	1	1	20.63	20.81	20.69	21.8	0.0
Channel				50200	50700	51200		
20	PI2 BPSK	1	1	20.71	20.82	20.77	21.8	0.0
Channel				50100	50700	51250		
15	QPSK	1	1	20.71	20.81	20.78	21.8	0.0
Channel				50100	50700	51300		
10	QPSK	1	1	20.68	20.78	20.74	21.8	0.0
Channel				50050	50700	51350		
5	QPSK	1	1	20.67	20.79	20.73	21.8	0.0



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BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel				141900	141500	141700		
Frequency (MHz)				706.5	707.5	708.5		
15	PI2 BPSK	1	1	22.83	22.92	22.83	24.0	0.0
15	PI2 BPSK	1	40	22.90	22.78	22.86		
15	PI2 BPSK	1	77	22.79	22.78	22.68		
15	PI2 BPSK	36	0	22.23	22.31	22.27	23.5	0.5
15	PI2 BPSK	36	22	22.82	22.81	22.79	24.0	0.0
15	PI2 BPSK	36	43	21.88	22.29	22.01	23.5	0.5
15	PI2 BPSK	75	0	22.29	22.38	22.21		
15	QPSK	1	1	22.84	23.01	22.94		
15	QPSK	1	40	22.94	22.91	22.72	24.0	0.0
15	QPSK	1	77	22.77	22.83	22.71		
15	QPSK	36	0	21.77	21.88	21.68	23.0	1.0
15	QPSK	36	22	22.83	22.97	22.74	24.0	0.0
15	QPSK	36	43	21.72	21.78	21.57	23.0	1.0
15	QPSK	75	0	21.80	21.81	21.77		
15	16QAM	1	1	21.71	21.75	21.70	23.0	1.0
15	64QAM	1	1	20.19	20.34	20.21	21.5	2.5
15	256QAM	1	1	18.97	19.05	18.94	19.5	4.5
Channel				142000	141500	142200	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				704	707.5	711		
10	QPSK	1	1	22.74	22.91	22.89	24.0	0.0
Channel				143300	141500	142700	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				701.5	707.5	713.5		
5	QPSK	1	1	22.73	22.83	22.83	24.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel				158600	158600	158600		
Frequency (MHz)				793				
10	PI2 BPSK	1	1	23.25			24.0	0.0
10	PI2 BPSK	1	26	23.14				
10	PI2 BPSK	1	50	23.05				
10	PI2 BPSK	25	0	22.80			23.5	0.5
10	PI2 BPSK	25	14	23.15			24.0	0.0
10	PI2 BPSK	25	27	22.81			23.5	0.5
10	PI2 BPSK	50	0	22.69				
10	QPSK	1	1	23.34				
10	QPSK	1	26	23.21			24.0	0.0
10	QPSK	1	50	23.19				
10	QPSK	25	0	22.16			23.0	1.0
10	QPSK	25	14	23.27			24.0	0.0
10	QPSK	25	27	22.08			23.0	1.0
10	QPSK	50	0	22.15			23.0	1.0
10	16QAM	1	1	22.09			23.0	1.0
10	64QAM	1	1	20.69			21.5	2.5
10	256QAM	1	1	19.39			19.5	4.5
Channel				159100	158600	159100	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				793.5	793	795.5		
5	QPSK	1	1	23.15	23.21	23.17	24.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel				374000	376500	376500		
Frequency (MHz)				1870	1882.5	1895		
40	PI2 BPSK	1	1	23.06	23.07	23.01		
40	PI2 BPSK	1	108	22.90	22.97	22.98	24.0	0.0
40	PI2 BPSK	1	214	22.87	22.86	22.88		
40	PI2 BPSK	108	0	22.30	22.42	22.28	23.5	0.5
40	PI2 BPSK	108	54	22.50	22.89	22.89	24.0	0.0
40	PI2 BPSK	108	108	22.16	22.40	22.17		
40	PI2 BPSK	216	0	22.40	22.48	22.29	23.5	0.5
40	QPSK	1	1	23.15	23.20	23.12		
40	QPSK	1	108	23.08	22.98	22.84	24.0	0.0
40	QPSK	1	214	22.85	23.01	22.99		
40	QPSK	108	0	21.93	21.99	21.75	23.0	1.0
40	QPSK	108	54	22.92	23.09	22.80	24.0	0.0
40	QPSK	108	108	21.86	21.88	21.90		
40	QPSK	216	0	21.82	22.01	21.73	23.0	1.0
40	16QAM	1	1	21.88	21.82	21.87	23.0	1.0
40	64QAM	1	1	20.52	20.50	20.30	21.5	2.5
40	256QAM	1	1	19.12	19.19	19.16	19.5	4.5
Channel				375500	376500	376500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1875	1882.5	1890		
35	QPSK	1	1	23.05	23.10	23.04	24.0	0.0
Channel				373000	376500	380000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1865	1882.5	1900		
30	QPSK	1	1	23.03	23.11	23.08	24.0	0.0
Channel				372500	376500	380500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1862.5	1882.5	1902.5		
25	QPSK	1	1	23.02	23.09	23.03	24.0	0.0
Channel				372000	376500	381000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1860	1882.5	1905		
20	QPSK	1	1	23.10	23.15	23.06	24.0	0.0
Channel				371500	376500	381500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1882.5	1907.5		
15	QPSK	1	1	23.12	23.07	23.07	24.0	0.0
Channel				371000	376500	382000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1882.5	1910		
10	QPSK	1	1	23.12	23.16	23.09	24.0	0.0
Channel				370500	376500	382500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1882.5	1912.5		
5	QPSK	1	1	23.04	23.14	23.00	24.0	0.0



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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				164800	166300	167800		
Frequency (MHz)				824	831.5	839		
20	PI/2 BPSK	1	1	22.92	22.99	22.93	24.0	0.0
20	PI/2 BPSK	1	53	22.77	22.92	22.85		
20	PI/2 BPSK	1	104	22.78	22.78	22.84		
20	PI/2 BPSK	50	0	22.22	22.36	22.19	23.5	0.5
20	PI/2 BPSK	50	28	22.84	22.86	22.81	24.0	0.0
20	PI/2 BPSK	50	56	22.10	22.26	22.08	23.5	0.5
20	PI/2 BPSK	100	0	22.32	22.44	22.16		
20	QPSK	1	1	23.06	23.13	22.99		
20	QPSK	1	53	23.01	22.82	22.80	24.0	0.0
20	QPSK	1	104	22.80	22.97	22.78		
20	QPSK	50	0	21.89	21.84	21.87	23.0	1.0
20	QPSK	50	28	22.82	23.04	22.69	24.0	0.0
20	QPSK	50	56	21.73	21.85	21.79		
20	QPSK	100	0	21.74	21.88	21.62	23.0	1.0
20	16QAM	1	1	21.78	21.78	21.53	23.0	1.0
20	84QAM	1	1	20.44	20.37	20.16	21.5	2.5
20	256QAM	1	1	19.00	19.15	19.03	19.5	4.5
Channel				163300	163300	163300	Tune-up limit	MPR
Frequency (MHz)				831.5	831.5	831.5	(dBm)	(dB)
15	QPSK	1	1	22.99	23.05	22.84	24.0	0.0
Channel				163800	166300	168800	Tune-up limit	MPR
Frequency (MHz)				839	831.5	844	(dBm)	(dB)
10	QPSK	1	1	22.98	23.00	22.92	24.0	0.0
Channel				163300	166300	169300	Tune-up limit	MPR
Frequency (MHz)				831.5	831.5	846.5	(dBm)	(dB)
5	QPSK	1	1	22.92	23.07	22.85	24.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel					462000				
Frequency (MHz)					2310				
10	PI/2 BPSK	1	1		19.89		21.1	0.0	
10	PI/2 BPSK	1	26		19.79				
10	PI/2 BPSK	1	50		19.68				
10	PI/2 BPSK	25	0		19.78		21.1	0.0	
10	PI/2 BPSK	25	14		19.78				
10	PI/2 BPSK	25	27		19.85		21.1	0.0	
10	PI/2 BPSK	50	0		19.84				
10	QPSK	1	1		20.01				
10	QPSK	1	26		19.75		21.1	0.0	
10	QPSK	1	50		19.93				
10	QPSK	25	0		19.80		21.1	0.0	
10	QPSK	25	14		19.97		21.1	0.0	
10	QPSK	25	27		19.77				
10	QPSK	50	0		19.80		21.1	0.0	
10	16QAM	1	1		19.81		21.1	0.0	
10	84QAM	1	1		19.77				
10	256QAM	1	1		19.09		19.5	1.6	
Channel				461500	462000	462500	Tune-up limit	MPR	
Frequency (MHz)				2307.5	2310	2312.5	(dBm)	(dB)	
5	QPSK	1	1		19.91	19.96	19.86	21.1	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel					346000	349000	352000	
Frequency (MHz)					1730	1745	1760	
40	PI/2 BPSK	1	1		21.67	21.82	21.88	
40	PI/2 BPSK	1	108		21.69	21.77	21.87	22.9
40	PI/2 BPSK	1	214		21.69	21.96	21.51	
40	PI/2 BPSK	108	0		21.63	21.75	21.80	22.9
40	PI/2 BPSK	108	54		21.66	21.62	21.55	22.9
40	PI/2 BPSK	108	108		21.39	21.54	21.46	22.9
40	PI/2 BPSK	216	0		21.54	21.78	21.59	
40	QPSK	1	1		21.85	21.91	21.79	
40	QPSK	1	108		21.88	21.73	21.71	22.9
40	QPSK	1	214		21.73	21.83	21.50	
40	QPSK	108	0		21.67	21.65	21.45	22.9
40	QPSK	108	54		21.78	21.88	21.60	22.9
40	QPSK	108	108		21.75	21.88	21.55	22.9
40	QPSK	216	0		21.56	21.76	21.45	
40	16QAM	1	1		21.28	21.38	21.17	22.9
40	84QAM	1	1		20.32	20.43	20.34	21.5
40	256QAM	1	1		18.77	18.91	18.86	19.5
Channel				345500	349000	352500	Tune-up limit	MPR
Frequency (MHz)				1727.5	1745	1762.5	(dBm)	(dB)
35	QPSK	1	1		21.75	21.83	21.71	22.9
Channel				345000	349000	353000	Tune-up limit	MPR
Frequency (MHz)				1725	1745	1763	(dBm)	(dB)
30	QPSK	1	1		21.85	21.92	21.71	22.9
Channel				344500	349000	353500	Tune-up limit	MPR
Frequency (MHz)				1722.5	1745	1767.5	(dBm)	(dB)
25	QPSK	1	1		21.40	21.78	21.65	22.9
Channel				344000	349000	354000	Tune-up limit	MPR
Frequency (MHz)				1720	1745	1770	(dBm)	(dB)
20	QPSK	1	1		21.84	21.82	21.75	22.9
Channel				343500	349000	354500	Tune-up limit	MPR
Frequency (MHz)				1717.5	1745	1772.5	(dBm)	(dB)
15	QPSK	1	1		21.80	21.81	21.71	22.9
Channel				343000	349000	355000	Tune-up limit	MPR
Frequency (MHz)				1715	1745	1775	(dBm)	(dB)
10	QPSK	1	1		21.74	21.79	21.72	22.9
Channel				342500	349000	355500	Tune-up limit	MPR
Frequency (MHz)				1712.5	1745	1777.5	(dBm)	(dB)
5	QPSK	1	1		21.88	21.77	21.71	22.9



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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				1702.5				
Frequency (MHz)				1702.5				
15	PI/2 BPSK	1	1	22.04			23.0	0.0
15	PI/2 BPSK	1	40	21.95				
15	PI/2 BPSK	1	77	21.78				
15	PI/2 BPSK	36	0	21.98			23.0	0.0
15	PI/2 BPSK	36	22	21.89			23.0	0.0
15	PI/2 BPSK	36	43	21.85				
15	PI/2 BPSK	75	0	21.99			23.0	0.0
15	QPSK	1	1	22.11				
15	QPSK	1	40	21.90			23.0	0.0
15	QPSK	1	77	22.02				
15	QPSK	36	0	21.88			23.0	0.0
15	QPSK	36	22	22.08			23.0	0.0
15	QPSK	36	43	21.88			23.0	0.0
15	QPSK	75	0	22.05			23.0	0.0
15	16QAM	1	1	21.99			23.0	0.0
15	64QAM	1	1	20.74			21.5	1.5
20	256QAM	1	1	19.17			19.5	3.5
Channel				34000				
Frequency (MHz)				1700				
10	QPSK	1	1	22.07	22.09	22.07	23.0	0.0
Channel				33950				
Frequency (MHz)				1697.5				
5	QPSK	1	1	21.92	22.03	22.05	23.0	0.0

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				134600				
Frequency (MHz)				673				
20	PI/2 BPSK	1	1	23.33	23.49	23.30	24.0	0.0
20	PI/2 BPSK	1	53	23.28	23.32	23.30		
20	PI/2 BPSK	1	104	23.33	23.19	23.15		
20	PI/2 BPSK	50	0	22.75	22.85	22.68	23.5	0.5
20	PI/2 BPSK	50	28	23.27	23.32	23.15	24.0	0.0
20	PI/2 BPSK	50	86	22.53	22.71	22.63		
20	PI/2 BPSK	100	0	22.64	22.91	22.59	23.5	0.5
20	QPSK	1	1	23.47	23.50	23.36		
20	QPSK	1	53	23.28	23.36	23.22	24.0	0.0
20	QPSK	1	104	23.28	23.45	23.21		
20	QPSK	50	0	22.28	22.29	22.08	23.0	1.0
20	QPSK	50	28	23.35	23.39	23.12	24.0	0.0
20	QPSK	50	66	22.28	22.30	22.18	23.0	1.0
20	QPSK	100	0	22.16	22.39	22.16		
20	16QAM	1	1	22.05	22.17	22.02	23.0	1.0
20	64QAM	1	1	20.73	20.88	20.71	21.5	2.5
20	256QAM	1	1	19.40	19.43	19.34	19.5	4.5
Channel				134100				
Frequency (MHz)				670.5				
15	QPSK	1	1	23.38	23.44	23.32	24.0	0.0
Channel				133600				
Frequency (MHz)				668				
10	QPSK	1	1	23.34	23.37	23.33	24.0	0.0
Channel				133100				
Frequency (MHz)				665.5				
5	QPSK	1	1	23.34	23.42	23.30	24.0	0.0



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BW (MHz)	Modulation	RB Size	RB Offset	Power Low		Power Middle		Power High	
				Ch. F.Freq.	506202	Ch. F.Freq.	518598	Ch. F.Freq.	528000
Channel				2546.01	2592.99	2640			
100	PI2 BPSK	1	1	18.68	18.70	18.73			
100	PI2 BPSK	1	137	18.60	18.58	18.54	20.3	0.0	
100	PI2 BPSK	1	271	18.51	18.57	18.48			
100	PI2 BPSK	135	0	18.46	18.88	18.53	20.3	0.0	
100	PI2 BPSK	135	69	18.54	18.58	18.44	20.3	0.0	
100	PI2 BPSK	135	138	18.45	18.54	18.32	20.3	0.0	
100	PI2 BPSK	270	0	18.53	18.65	18.44			
100	QPSK	1	1	18.76	18.82	18.80			
100	QPSK	1	137	18.69	18.67	18.46	20.3	0.0	
100	QPSK	1	271	18.49	18.62	18.49			
100	QPSK	135	0	18.64	18.52	18.38	20.3	0.0	
100	QPSK	135	69	18.52	18.77	18.59	20.3	0.0	
100	QPSK	135	138	18.49	18.54	18.51	20.3	0.0	
100	QPSK	270	0	18.47	18.62	18.36			
100	16QAM	1	1	18.65	18.77	18.74	20.3	0.0	
100	64QAM	1	1	18.79	18.81	18.80	20.3	0.0	
100	256QAM	1	1	18.34	18.44	18.34	20.3	0.0	
Channel				506200	518598	528000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2541	2592.99	2644.88			
90	QPSK	1	1	18.47	18.61	18.71	20.3	0.0	
Channel				507204	518598	528000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2532.02	2592.99	2643.99			
80	QPSK	1	1	18.47	18.67	18.70	20.3	0.0	
Channel				506202	518598	531000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2531.01	2592.99	2655			
70	QPSK	1	1	18.49	18.70	18.64	20.3	0.0	
Channel				2526	2592.99	2659.98	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2526	2592.99	2659.98			
60	QPSK	1	1	18.47	18.65	18.63	20.3	0.0	
Channel				504204	518598	52998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2521.02	2592.98	2648.98			
50	QPSK	1	1	18.46	18.65	18.69	20.3	0.0	
Channel				503700	518598	53398	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2513.5	2592.99	2637.48			
45	QPSK	1	1	18.55	18.65	18.62	20.3	0.0	
Channel				503202	518598	534000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2518.01	2592.99	2670			
40	QPSK	1	1	18.58	18.68	18.68	20.3	0.0	
Channel				502704	518598	53498	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2513.52	2592.99	2672.49			
35	QPSK	1	1	18.51	18.66	18.72	20.3	0.0	
Channel				502200	518598	53498	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2511	2592.99	2674.99			
30	QPSK	1	1	18.48	18.71	18.61	20.3	0.0	
Channel				501702	518598	535000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2508.51	2592.99	2677.5			
25	QPSK	1	1	18.50	18.68	18.60	20.3	0.0	
Channel				501204	518598	53598	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2508.02	2592.99	2678.99			
20	QPSK	1	1	18.53	18.66	18.69	20.3	0.0	
Channel				500700	518598	53698	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2503.5	2592.98	2682.48			
15	QPSK	1	1	18.54	18.62	18.61	20.3	0.0	
Channel				500202	518598	537000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2501.01	2592.99	2685			
10	QPSK	1	1	18.48	18.67	18.71	20.3	0.0	



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BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 374000	Middle Ch. / Freq. 376000	High Ch. / Freq. 378000		
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	12.39	12.47	12.31		
40	PI2 BPSK	1	108	12.27	12.35	12.30	13.6	0.0
40	PI2 BPSK	1	214	12.20	12.24	12.13		
40	PI2 BPSK	108	0	12.35	12.38	12.30	13.6	0.0
40	PI2 BPSK	108	54	12.30	12.28	12.22	13.6	0.0
40	PI2 BPSK	108	108	12.30	12.38	12.38		
40	PI2 BPSK	216	0	12.37	12.38	12.31	13.6	0.0
40	QPSK	1	1	12.45	12.48	12.44		
40	QPSK	1	108	12.34	12.32	12.16	13.6	0.0
40	QPSK	1	214	12.29	12.38	12.17		
40	QPSK	108	0	12.28	12.43	12.30	13.6	0.0
40	QPSK	108	54	12.33	12.46	12.15	13.6	0.0
40	QPSK	108	108	12.27	12.28	12.20		
40	QPSK	216	0	12.19	12.42	12.03	13.6	0.0
40	16QAM	1	1	12.18	12.25	12.14	13.6	0.0
40	64QAM	1	1	12.38	12.28	12.27	13.6	0.0
40	256QAM	1	1	12.44	12.45	12.42	13.6	0.0
Channel								
Frequency (MHz)								
35	QPSK	1	1	12.38	12.45	12.44	0.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	12.33	12.44	12.43	0.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	12.38	12.45	12.33	0.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	12.40	12.41	12.35	0.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	12.43	12.44	12.32	13.6	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	12.46	12.47	12.41	13.6	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	12.37	12.45	12.33	13.6	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 505000	Middle Ch. / Freq. 507000	High Ch. / Freq. 509000		
Channel								
Frequency (MHz)								
50	PI2 BPSK	1	1	14.19	14.22	14.10		
50	PI2 BPSK	1	135	14.07	14.11	14.10	15.7	0.0
50	PI2 BPSK	1	268	14.00	13.99	13.90		
50	PI2 BPSK	135	0	13.99	14.14	13.96	15.7	0.0
50	PI2 BPSK	135	68	14.10	14.08	13.97	15.7	0.0
50	PI2 BPSK	135	135	13.95	14.16	13.87		
50	PI2 BPSK	270	0	13.94	14.14	13.93	15.7	0.0
50	QPSK	1	1	14.33	14.45	14.20		
50	QPSK	1	135	14.17	14.16	14.08	15.7	0.0
50	QPSK	1	268	14.08	14.13	13.99		
50	QPSK	135	0	13.98	14.10	13.87	15.7	0.0
50	QPSK	135	68	14.10	14.28	14.04	15.7	0.0
50	QPSK	135	135	14.08	14.20	14.07		
50	QPSK	270	0	14.05	14.25	14.06	15.7	0.0
50	16QAM	1	1	13.95	13.91	13.90	15.7	0.0
50	64QAM	1	1	13.85	13.98	13.91	15.7	0.0
50	256QAM	1	1	14.28	14.41	14.37	15.7	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	14.33	14.38	14.11	15.7	0.0
Channel								
Frequency (MHz)								
35	QPSK	1	1	14.25	14.44	14.23	0.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	14.25	14.40	14.18	15.7	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	14.25	14.40	14.17	15.7	0.0
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	14.27	14.43	14.14	15.7	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	14.30	14.39	14.17	15.7	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	14.36	14.40	14.19	15.7	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	14.35	14.44	14.14	15.7	0.0

n25 Ant 2 ECI 9

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 374000	Middle Ch. / Freq. 376500	High Ch. / Freq. 379000		
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	12.40	12.42	12.25		
40	PI2 BPSK	1	108	12.23	12.32	12.21	13.6	0.0
40	PI2 BPSK	1	214	12.18	12.32	12.25		
40	PI2 BPSK	108	0	12.23	12.30	12.10	13.6	0.0
40	PI2 BPSK	108	54	12.34	12.30	12.17	13.6	0.0
40	PI2 BPSK	108	108	12.03	12.24	12.13		
40	PI2 BPSK	216	0	12.19	12.37	12.20	13.6	0.0
40	QPSK	1	1	12.46	12.52	12.38		
40	QPSK	1	108	12.42	12.42	12.17	13.6	0.0
40	QPSK	1	214	12.22	12.31	12.28		
40	QPSK	108	0	12.25	12.37	12.11	13.6	0.0
40	QPSK	108	54	12.21	12.46	12.22	13.6	0.0
40	QPSK	108	108	12.28	12.24	12.21		
40	QPSK	216	0	12.16	12.32	12.06	13.6	0.0
40	16QAM	1	1	12.08	12.23	12.08	13.6	0.0
40	64QAM	1	1	12.34	12.27	12.17	13.6	0.0
40	256QAM	1	1	12.44	12.51	12.45	13.6	0.0
Channel								
Frequency (MHz)								
35	QPSK	1	1	12.34	12.42	12.38	13.6	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	12.33	12.39	12.26	13.6	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	12.38	12.46	12.25	13.6	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	12.36	12.39	12.32	13.6	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	12.45	12.40	12.34	13.6	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	12.38	12.41	12.35	13.6	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	12.38	12.40	12.29	13.6	0.0



n30 Ant 2 ECI 9							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	MPR (dB)
Channel				462000			
Frequency (MHz)				2310			
10	PI2 BPSK	1	1	14.35			
10	PI2 BPSK	1	26	14.15			15.5
10	PI2 BPSK	1	50	14.09			0.0
10	PI2 BPSK	25	0	14.17			15.5
10	PI2 BPSK	25	14	14.21			15.5
10	PI2 BPSK	25	27	14.07			15.5
10	PI2 BPSK	50	0	14.28			15.5
10	QPSK	1	1	14.44			
10	QPSK	1	26	14.35			15.5
10	QPSK	1	50	14.29			15.5
10	QPSK	25	0	14.16			15.5
10	QPSK	25	14	14.36			15.5
10	QPSK	25	27	14.18			15.5
10	QPSK	50	0	14.17			15.5
10	16QAM	1	1	14.14			15.5
10	64QAM	1	1	14.31			15.5
10	256QAM	1	1	14.43			15.5
Channel				461500	462500		
Frequency (MHz)				2307.5	2312.5		
5	QPSK	1	1	14.34	14.37	14.32	15.5

n66 Ant 2 ECI 9							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	MPR (dB)
Channel				346000			
Frequency (MHz)				1730			
40	PI2 BPSK	1	1	13.29	13.23	13.23	
40	PI2 BPSK	1	108	13.17	13.14	13.11	14.4
40	PI2 BPSK	1	214	13.00	13.14	13.00	0.0
40	PI2 BPSK	108	0	13.00	13.11	12.96	14.4
40	PI2 BPSK	108	54	13.03	13.09	13.00	14.4
40	PI2 BPSK	108	108	12.89	13.05	12.95	14.4
40	PI2 BPSK	216	0	13.02	13.11	12.96	14.4
40	QPSK	1	1	13.31	13.36	13.32	
40	QPSK	1	108	13.24	13.12	13.02	14.4
40	QPSK	1	214	12.99	13.16	13.15	14.4
40	QPSK	108	0	13.14	13.14	13.01	14.4
40	QPSK	108	54	13.08	13.30	13.02	14.4
40	QPSK	108	108	13.06	13.13	12.89	14.4
40	QPSK	216	0	12.98	13.22	12.85	14.4
40	16QAM	1	1	13.10	13.00	12.91	14.4
40	64QAM	1	1	13.16	13.29	12.97	14.4
40	256QAM	1	1	13.30	13.27	13.33	14.4
Channel				345500	346500		
Frequency (MHz)				1722.5	1745	1762.5	
35	QPSK	1	1	13.33	13.34	13.24	14.4
Channel				345000	349000		
Frequency (MHz)				1725	1745	1765	
30	QPSK	1	1	13.31	13.32	13.27	14.4
Channel				344500	349000		
Frequency (MHz)				1722.5	1745	1767.5	
25	QPSK	1	1	13.35	13.32	13.24	14.4
Channel				344000	349000		
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	1	13.26	13.28	13.33	14.4
Channel				343500	349000		
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	1	13.32	13.35	13.30	14.4
Channel				343000	349000		
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	1	13.35	13.33	13.33	14.4
Channel				342500	349000		
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	1	13.33	13.28	13.24	14.4

n70 Ant 2 ECI 9							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	MPR (dB)
Channel				340000			
Frequency (MHz)				1702.5			
15	PI2 BPSK	1	1		14.23		
15	PI2 BPSK	1	40		14.15		15.2
15	PI2 BPSK	1	77		14.02		0.0
15	PI2 BPSK	36	0		14.10		15.2
15	PI2 BPSK	36	22		14.07		15.2
15	PI2 BPSK	36	43		13.89		15.2
15	PI2 BPSK	75	0		14.21		15.2
15	QPSK	1	1		14.27		
15	QPSK	1	40		14.17		15.2
15	QPSK	1	77		14.11		15.2
15	QPSK	36	0		14.00		15.2
15	QPSK	36	22		14.19		15.2
15	QPSK	36	43		14.10		15.2
15	QPSK	75	0		14.12		15.2
15	16QAM	1	1		13.90		15.2
15	64QAM	1	1		14.09		15.2
15	256QAM	1	1		13.96		15.2
Channel				340500	340500	341800	
Frequency (MHz)				1700	1702.5	1705	
10	QPSK	1	1		14.01	14.14	14.13
Channel				339500	340500	341500	
Frequency (MHz)				1697.5	1702.5	1707.5	
5	QPSK	1	1		14.00	14.15	14.08



n41 HPUE Ant 2 ECI 9									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low		Power Middle		Power High	
				Ch. Freq.	506202	Ch. Freq.	518598	Ch. Freq.	528000
Channel				2546.01	2592.99	2640			
Frequency (MHz)									
100	PI2 BPSK	1	1	13.46	13.96	13.46			
100	PI2 BPSK	1	137	13.46	13.45	13.52	14.7	0.0	
100	PI2 BPSK	1	271	13.33	13.31	13.29			
100	PI2 BPSK	135	0	13.36	13.48	13.28	14.7	0.0	
100	PI2 BPSK	135	69	13.35	13.43	13.46	14.7	0.0	
100	PI2 BPSK	135	139	13.18	13.35	13.24	14.7	0.0	
100	PI2 BPSK	270	0	13.38	13.53	13.25			
100	QPSK	1	1	13.54	13.69	13.54			
100	QPSK	1	137	13.45	13.58	13.37	14.7	0.0	
100	QPSK	1	271	13.50	13.52	13.39			
100	QPSK	135	0	13.42	13.47	13.25	14.7	0.0	
100	QPSK	135	69	13.41	13.57	13.43	14.7	0.0	
100	QPSK	135	138	13.42	13.53	13.44	14.7	0.0	
100	QPSK	270	0	13.58	13.60	13.53			
100	16QAM	1	1	13.51	13.54	13.46	14.7	0.0	
100	64QAM	1	1	13.47	13.67	13.41	14.7	0.0	
100	256QAM	1	1	12.81	12.83	12.71	14.7	0.0	
Channel				506200	518598	528000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2541	2592.99	2644.88			
90	QPSK	1	1	13.50	13.61	13.38	14.7	0.0	
Channel				507204	518598	528000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2533.02	2592.99	2641.99			
80	QPSK	1	1	13.48	13.67	13.43	14.7	0.0	
Channel				508202	518598	531000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2531.01	2592.99	2655			
70	QPSK	1	1	13.48	13.59	13.43	14.7	0.0	
Channel				509200	518598	531000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2526	2592.99	2659.86			
60	QPSK	1	1	13.48	13.63	13.40	14.7	0.0	
Channel				509204	518598	532000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2521.02	2592.99	2664.86			
50	QPSK	1	1	13.58	13.59	13.42	14.7	0.0	
Channel				503700	518598	533496	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2513.3	2592.99	2637.43			
45	QPSK	1	1	13.52	13.63	13.41	14.7	0.0	
Channel				503202	518598	534000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2518.01	2592.99	2670			
40	QPSK	1	1	13.47	13.65	13.46	14.7	0.0	
Channel				502704	518598	534496	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2513.52	2592.99	2672.49			
35	QPSK	1	1	13.53	13.64	13.43	14.7	0.0	
Channel				502200	518598	534996	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2511	2592.99	2674.89			
30	QPSK	1	1	13.55	13.68	13.42	14.7	0.0	
Channel				501702	518598	535500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2508.51	2592.99	2677.5			
25	QPSK	1	1	13.49	13.68	13.47	14.7	0.0	
Channel				501204	518598	535996	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2506.02	2592.99	2679.99			
20	QPSK	1	1	13.56	13.60	13.45	14.7	0.0	
Channel				500700	518598	536496	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2503.5	2592.99	2682.43			
15	QPSK	1	1	13.46	13.62	13.46	14.7	0.0	
Channel				500202	518598	537000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2501.01	2592.99	2685			
10	QPSK	1	1	13.51	13.60	13.46	14.7	0.0	



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BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel								
Frequency (MHz)				1870	1880	1890		
40	P12 BPSK	1	1	16.97	17.02	16.96		
40	P12 BPSK	1	108	16.91	16.85	16.85	18.1	0.0
40	P12 BPSK	1	214	16.80	16.78	16.76		
40	P12 BPSK	108	0	16.78	16.95	16.75	18.1	0.0
40	P12 BPSK	108	54	16.79	16.75	16.80	18.1	0.0
40	P12 BPSK	108	108	16.54	16.84	16.65	18.1	0.0
40	P12 BPSK	216	0	16.84	16.89	16.64		
40	QPSK	1	1	17.02	17.06	16.99		
40	QPSK	1	108	17.01	16.99	16.79	18.1	0.0
40	QPSK	1	214	16.77	16.98	16.73		
40	QPSK	108	0	16.86	16.85	16.69	18.1	0.0
40	QPSK	108	54	16.86	17.04	16.79	18.1	0.0
40	QPSK	108	108	16.85	16.95	16.73		
40	QPSK	216	0	16.86	17.00	16.77	18.1	0.0
40	16QAM	1	1	16.78	16.83	16.65	18.1	0.0
40	64QAM	1	1	16.95	16.87	16.79	18.1	0.0
40	256QAM	1	1	16.98	17.03	17.02	18.1	0.0
Channel				37300	37600	37600	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1697.5	1890	1925.5		
35	QPSK	1	1	17.03	17.00	16.95	0.0	0.0
Channel				373000	376000	379000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1895	1930	1935		
30	QPSK	1	1	16.97	16.98	16.99	0.0	0.0
Channel				372500	376000	379500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1882.5	1880	1897.5		
25	QPSK	1	1	17.02	17.03	16.83	0.0	0.0
Channel				372000	376000	380000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	1	17.04	16.98	16.95	0.0	0.0
Channel				371500	376000	380500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1637.5	1880	1925.5		
15	QPSK	1	1	16.94	17.02	16.99	18.1	0.0
Channel				371000	376000	381000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1853	1850	1900		
10	QPSK	1	1	16.98	17.05	16.91	18.1	0.0
Channel				370500	376000	381500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	1	16.98	17.01	16.62	18.1	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel								
Frequency (MHz)				2525	2535	2545		
50	P12 BPSK	1	1	14.63	14.64	14.25		
50	P12 BPSK	1	135	14.46	14.57	14.40	15.4	0.0
50	P12 BPSK	1	268	14.37	14.42	14.42		
50	P12 BPSK	135	0	14.39	14.60	14.45	15.4	0.0
50	P12 BPSK	135	68	14.46	14.43	14.45	15.4	0.0
50	P12 BPSK	135	135	14.25	14.37	14.35	15.4	0.0
50	P12 BPSK	270	0	14.51	14.41	14.28		
50	QPSK	1	1	14.66	14.76	14.65		
50	QPSK	1	135	14.80	14.81	14.53	15.4	0.0
50	QPSK	1	268	14.39	14.59	14.33		
50	QPSK	135	0	14.45	14.45	14.30	15.4	0.0
50	QPSK	135	68	14.43	14.67	14.56	15.4	0.0
50	QPSK	135	135	14.56	14.59	14.29		
50	QPSK	270	0	14.39	14.62	14.47	15.4	0.0
50	16QAM	1	1	14.17	14.43	14.32	15.4	0.0
50	64QAM	1	1	14.19	14.36	14.24	15.4	0.0
50	256QAM	1	1	14.25	14.32	14.26	15.4	0.0
Channel				50800	507000	510000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2500	2535	2550		
40	QPSK	1	1	14.62	14.70	14.58	15.4	0.0
Channel				503500	507000	510500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2517.5	2535	2557.5		
35	QPSK	1	1	14.59	14.72	14.60	0.0	0.0
Channel				503000	507000	511000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2515	2535	2555		
30	QPSK	1	1	14.80	14.86	14.59	15.4	0.0
Channel				502500	507000	511500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2512.5	2535	2557.5		
25	QPSK	1	1	14.57	14.73	14.52	15.4	0.0
Channel				502000	507000	512000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2510	2535	2560		
20	P12 BPSK	1	1	14.60	14.71	14.57	15.4	0.0
Channel				501500	507000	512500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	1	14.69	14.70	14.53	15.4	0.0
Channel				501000	507000	513000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	1	14.62	14.75	14.60	15.4	0.0
Channel				500500	507000	513500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	1	14.82	14.66	14.53	15.4	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel								
Frequency (MHz)				1670	1682.5	1695		
40	P12 BPSK	1	1	16.99	16.88	16.92		
40	P12 BPSK	1	108	16.76	16.86	16.79	18.1	0.0
40	P12 BPSK	1	214	16.75	16.73	16.69		
40	P12 BPSK	108	0	16.73	16.75	16.70	18.1	0.0
40	P12 BPSK	108	54	16.81	16.75	16.81	18.1	0.0
40	P12 BPSK	108	108	16.59	16.82	16.53	18.1	0.0
40	P12 BPSK	216	0	16.69	16.91	16.69		
40	QPSK	1	1	17.01	17.12	16.92		
40	QPSK	1	108	16.85	16.87	16.79	18.1	0.0
40	QPSK	1	214	16.76	16.91	16.72		
40	QPSK	108	0	16.81	16.87	16.64	18.1	0.0
40	QPSK	108	54	16.84	16.92	16.72	18.1	0.0
40	QPSK	108	108	16.79	16.78	16.70		
40	QPSK	216	0	16.70	16.85	16.68	18.1	0.0
40	16QAM	1	1	16.77	16.79	16.76	18.1	0.0
40	64QAM	1	1	16.97	16.90	16.73	18.1	0.0
40	256QAM	1	1	17.03	17.09	17.09	18.1	0.0
Channel				372500	376500	379500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1697.5	1692.5	1697.5		
35	QPSK	1	1	16.98	17.05	17.03	18.1	0.0
Channel				373000	376500	380000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1695	1692.5	1700		
30	QPSK	1	1	17.01	17.10	16.95	18.1	0.0
Channel				372500	376500	380500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1682.5	1682.5	1692.5		
25	QPSK	1	1	16.95	17.04	16.84	18.1	0.0
Channel				372000	376500	381000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1680	1682.5	1695		
20	QPSK	1	1	16.94	17.03	16.93	18.1	0.0
Channel				371500	376500	381500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1682.5	1682.5	1697.5		
15	QPSK	1	1	17.03	17.10	16.85	18.1	0.0
Channel				371000	376500	382000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1683	1692.5	1710		
10	QPSK	1	1	16.98	17.10	16.93	18.1	0.0
Channel				370500	376500	382500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1682.5	1682.5	1712.5		
5	QPSK	1	1	17.00	17.04	16.84	18.1	0.0



n30 Ant 3 ECI 9									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				462000					
Frequency (MHz)				2310					
10	PV2 BPSK	1	1	18.26			19.3	0.0	
10	PV2 BPSK	1	60	18.25					
10	PV2 BPSK	1	60	18.21					
10	PV2 BPSK	25	0	18.42					
10	PV2 BPSK	25	14	18.18					
10	PV2 BPSK	25	27	18.21			19.3	0.0	
10	PV2 BPSK	50	0	18.24					
10	QPSK	1	1	18.49					
10	QPSK	1	28	18.33			19.3	0.0	
10	QPSK	1	60	18.35					
10	QPSK	25	0	18.22			19.3	0.0	
10	QPSK	25	14	18.45					
10	QPSK	25	27	18.33					
10	QPSK	50	0	18.32			19.3	0.0	
10	16QAM	1	1	18.29					
10	64QAM	1	1	18.28			19.3	0.0	
10	256QAM	1	1	18.48			19.3	0.0	
Channel				461500	462000	462500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2307.5	2310	2312.5			
5	QPSK	1	1	18.47	18.43	18.3	19.3	0.0	

n66 Ant 3 ECI 9									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				346000					
Frequency (MHz)				1730					
40	PV2 BPSK	1	1	16.48	16.58	16.42			
40	PV2 BPSK	1	108	16.40	16.42	16.47	17.8	0.0	
40	PV2 BPSK	1	214	16.29	16.35	16.32			
40	PV2 BPSK	108	0	16.38	16.46	16.35	17.8	0.0	
40	PV2 BPSK	108	54	16.44	16.41	16.34	17.8	0.0	
40	PV2 BPSK	108	108	16.19	16.30	16.17			
40	PV2 BPSK	216	0	16.34	16.52	16.25	17.8	0.0	
40	QPSK	1	1	16.53	16.60	16.56			
40	QPSK	1	108	16.50	16.48	16.25	17.8	0.0	
40	QPSK	1	214	16.29	16.43	16.40			
40	QPSK	108	0	16.41	16.48	16.23	17.8	0.0	
40	QPSK	108	54	16.34	16.53	16.29	17.8	0.0	
40	QPSK	108	108	16.42	16.37	16.33			
40	QPSK	216	0	16.35	16.36	16.16	17.8	0.0	
40	16QAM	1	1	16.33	16.28	16.11	17.8	0.0	
40	64QAM	1	1	16.44	16.45	16.35	17.8	0.0	
40	256QAM	1	1	16.57	16.59	16.56	17.8	0.0	
Channel				345500	346000	352500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1727.5	1745	1762.5			
35	QPSK	1	1	16.56	16.59	16.48	17.8	0.0	
Channel				345000	349000	353000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1725	1745	1765			
30	QPSK	1	1	16.57	16.54	16.58	17.8	0.0	
Channel				344500	349000	353500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1722.5	1745	1767.5			
25	QPSK	1	1	16.55	16.35	16.50	17.8	0.0	
Channel				344000	349000	354000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1720	1745	1770			
20	QPSK	1	1	16.58	16.59	16.51	17.8	0.0	
Channel				343500	349000	354500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1717.5	1745	1772.5			
15	QPSK	1	1	16.54	16.59	16.49	17.8	0.0	
Channel				343000	349000	355000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1715	1745	1775			
10	QPSK	1	1	16.59	16.59	16.59	17.8	0.0	
Channel				342500	349000	355500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1712.5	1745	1777.5			
5	QPSK	1	1	16.59	16.53	16.58	17.8	0.0	

n70 Ant 3 ECI 9									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				340000					
Frequency (MHz)				1702.5					
15	PV2 BPSK	1	1	17.29					
15	PV2 BPSK	1	40	17.19			18.3	0.0	
15	PV2 BPSK	1	77	17.24					
15	PV2 BPSK	36	0	17.38			18.3	0.0	
15	PV2 BPSK	36	22	17.16			18.3	0.0	
15	PV2 BPSK	36	43	17.18					
15	PV2 BPSK	75	0	17.13			18.3	0.0	
15	QPSK	1	1	17.45					
15	QPSK	1	40	17.29			18.3	0.0	
15	QPSK	1	77	17.28					
15	QPSK	36	0	17.22			18.3	0.0	
15	QPSK	36	22	17.42			18.3	0.0	
15	QPSK	36	43	17.31			18.3	0.0	
15	QPSK	75	0	17.32			18.3	0.0	
15	16QAM	1	1	17.18			18.3	0.0	
15	64QAM	1	1	17.18			18.3	0.0	
15	256QAM	1	1	17.33			18.3	0.0	
Channel				340000	340500	341000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1700	1702.5	1705			
10	QPSK	1	1	17.34	17.39	17.34	18.3	0.0	
Channel				339500	340500	341500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1697.5	1702.5	1707.5			
5	QPSK	1	1	17.20	17.42	17.29	18.3	0.0	



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BW (MHz)	Modulation	RB Size	RB Offset	Power		Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.			
Channel								
Frequency (MHz)				2546.01	2592.99	2640		
100	PI2 BPSK	1	1	14.53	14.60	14.55		
100	PI2 BPSK	1	137	14.50	14.56	14.48	16.1	0.0
100	PI2 BPSK	1	271	14.34	14.49	14.47		
100	PI2 BPSK	135	0	14.48	14.49	14.45	16.1	0.0
100	PI2 BPSK	135	69	14.61	14.43	14.41	16.1	0.0
100	PI2 BPSK	135	188	14.26	14.49	14.29		
100	PI2 BPSK	270	0	14.45	14.57	14.36	16.1	0.0
100	QPSK	1	1	14.74	14.75	14.59		
100	QPSK	1	137	14.68	14.68	14.45	16.1	0.0
100	QPSK	1	271	14.46	14.65	14.39		
100	QPSK	135	0	14.54	14.50	14.33	16.1	0.0
100	QPSK	135	69	14.44	14.67	14.39	16.1	0.0
100	QPSK	135	138	14.41	14.45	14.48		
100	QPSK	270	0	14.33	14.64	14.32	16.1	0.0
100	16QAM	1	1	14.60	14.70	14.61	16.1	0.0
100	64QAM	1	1	14.68	14.73	14.68	16.1	0.0
100	256QAM	1	1	14.34	14.50	14.42	16.1	0.0
Channel								
Frequency (MHz)				506000	518598	526996		
90	QPSK	1	1	14.67	14.73	14.58	16.1	0.0
Channel								
Frequency (MHz)				507204	518598	529996		
80	QPSK	1	1	14.65	14.67	14.54	16.1	0.0
Channel								
Frequency (MHz)				506202	518598	531000		
70	QPSK	1	1	14.67	14.74	14.57	16.1	0.0
Channel								
Frequency (MHz)				2526	2592.99	2659.98		
60	QPSK	1	1	14.66	14.71	14.52	16.1	0.0
Channel								
Frequency (MHz)				504204	518598	532996		
50	QPSK	1	1	14.69	14.68	14.59	16.1	0.0
Channel								
Frequency (MHz)				503700	518598	533496		
45	QPSK	1	1	14.66	14.73	14.59	16.1	0.0
Channel								
Frequency (MHz)				503202	518598	534000		
40	QPSK	1	1	14.67	14.74	14.53	16.1	0.0
Channel								
Frequency (MHz)				2511.02	2592.99	2670		
35	QPSK	1	1	14.74	14.68	14.53	16.1	0.0
Channel								
Frequency (MHz)				502200	518598	534896		
30	QPSK	1	1	14.73	14.72	14.59	16.1	0.0
Channel								
Frequency (MHz)				501702	518598	535500		
25	QPSK	1	1	14.72	14.71	14.52	16.1	0.0
Channel								
Frequency (MHz)				2506.02	2592.99	2679.98		
20	QPSK	1	1	14.71	14.74	14.52	16.1	0.0
Channel								
Frequency (MHz)				500700	518598	536496		
15	QPSK	1	1	14.73	14.74	14.51	16.1	0.0
Channel								
Frequency (MHz)				500202	518598	537000		
10	QPSK	1	1	14.69	14.73	14.58	16.1	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power		Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.			
Channel								
Frequency (MHz)				3270	3624.99	3679.98		
40	PI2 BPSK	1	1	14.23	14.23	14.12		
40	PI2 BPSK	1	53	14.12	14.09	14.09	15.3	0.0
40	PI2 BPSK	1	104	14.04	13.97	13.95		
40	PI2 BPSK	50	0	13.99	14.06	14.10	15.3	0.0
40	PI2 BPSK	50	28	14.08	14.00	14.02	15.3	0.0
40	PI2 BPSK	50	56	13.75	14.13	13.80		
40	PI2 BPSK	100	0	14.03	14.09	13.84	15.3	0.0
40	QPSK	1	1	14.23	14.36	14.14		
40	QPSK	1	53	14.17	14.12	14.03	15.3	0.0
40	QPSK	1	104	14.11	14.11	13.88		
40	QPSK	50	0	14.04	14.05	13.94	15.3	0.0
40	QPSK	50	28	14.08	14.25	13.97	15.3	0.0
40	QPSK	50	56	13.98	14.06	13.97		
40	QPSK	100	0	13.98	14.16	13.92	15.3	0.0
40	16QAM	1	1	13.95	13.95	13.88	15.3	0.0
40	64QAM	1	1	14.09	14.09	14.03	15.3	0.0
40	256QAM	1	1	14.20	14.31	14.25	15.3	0.0
Channel								
Frequency (MHz)				637800	641666	652566		
30	QPSK	1	1	14.26	14.31	14.09	15.3	0.0
Channel								
Frequency (MHz)				637334	641666	646000		
20	QPSK	1	1	14.25	14.23	14.05	15.3	0.0
Channel								
Frequency (MHz)				637168	641666	646166		
15	QPSK	1	1	14.22	14.30	14.17	15.3	0.0
Channel								
Frequency (MHz)				3557.52	3624.99	3694.98		
10	QPSK	1	1	14.23	14.33	14.11	15.3	0.0

Part270 n77 HPUE Ant 3 ECI 9

BW (MHz)	Modulation	RB Size	RB Offset	Power		Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.			
Channel								
Frequency (MHz)				3750	3840	3930		
100	PI2 BPSK	1	1	12.03	12.29	12.12		
100	PI2 BPSK	1	137	12.15	12.21	12.07	13.8	0.0
100	PI2 BPSK	1	271	11.93	12.06	11.97		
100	PI2 BPSK	135	0	11.99	12.09	11.99	13.8	0.0
100	PI2 BPSK	135	69	12.00	12.14	11.99	13.8	0.0
100	PI2 BPSK	135	138	11.88	11.99	11.88		
100	PI2 BPSK	270	0	12.06	12.15	11.97	13.8	0.0
100	QPSK	1	1	12.27	12.34	12.13		
100	QPSK	1	137	12.22	12.09	11.98	13.8	0.0
100	QPSK	1	271	11.89	12.26	11.89		
100	QPSK	135	0	12.02	12.21	11.88	13.8	0.0
100	QPSK	135	69	12.14	12.27	11.85	13.8	0.0
100	QPSK	135	138	12.01	12.02	11.86		
100	QPSK	270	0	12.04	12.10	11.81	13.8	0.0
100	16QAM	1	1	11.93	11.97	11.87	13.8	0.0
100	64QAM	1	1	12.04	12.13	11.84	13.8	0.0
100	256QAM	1	1	12.08	12.20	12.20	13.8	0.0
Channel								
Frequency (MHz)				649668	656000	662334		
90	QPSK	1	1	12.19	12.30	12.07	13.8	0.0
Channel								
Frequency (MHz)				649334	656000	662668		
80	QPSK	1	1	12.24	12.30	12.14	13.8	0.0
Channel								
Frequency (MHz)				649000	656000	663000		
70	QPSK	1	1	12.26	12.26	12.03	13.8	0.0
Channel								
Frequency (MHz)				3730.02	3840	3950.01		
60	QPSK	1	1	12.26	12.29	12.13	13.8	0.0
Channel								
Frequency (MHz)				648334	656000	663668		
50	QPSK	1	1	12.18	12.30	12.14	13.8	0.0
Channel								
Frequency (MHz)				3720	3840	3920		
40	QPSK	1	1	12.19	12.23	12.15	13.8	0.0
Channel								
Frequency (MHz)				647668	656000	664334		
30	QPSK	1	1	12.17	12.29	12.07	13.8	0.0
Channel								
Frequency (MHz)				3715.02	3840	3965.01		
25	QPSK	1	1	12.29	12.30	12.06	13.8	0.0
Channel								
Frequency (MHz)				647334	656000	664668		
20	QPSK	1	1	12.29	12.32	12.09	13.8	0.0
Channel								
Frequency (MHz)				3707.52	3840	3972.51		
15	QPSK	1	1	12.30	12.30	12.03	13.8	0.0
Channel								
Frequency (MHz)				647000	656000	665000		
10	QPSK	1	1	12.28	12.33	12.09	13.8	0.0



Part27Q n77 HPUE Ant 3 ECI 9								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
				3500.01				
100	PI2 BPSK	1	1	12.23	12.23			
100	PI2 BPSK	1	137	12.17	12.17		13.8	0.0
100	PI2 BPSK	1	271	12.05	12.05			
100	PI2 BPSK	135	0	12.17	12.17		13.8	0.0
100	PI2 BPSK	135	69	12.10	12.10		13.8	0.0
100	PI2 BPSK	135	138	12.14	12.14		13.8	0.0
100	PI2 BPSK	270	0	12.30	12.30		13.8	0.0
100	QPSK	1	1	12.38				
100	QPSK	1	137	12.24	12.24		13.8	0.0
100	QPSK	1	271	12.17	12.17			
100	QPSK	135	0	12.17	12.17		13.8	0.0
100	QPSK	135	69	12.13	12.13		13.8	0.0
100	QPSK	135	138	12.11	12.11		13.8	0.0
100	QPSK	270	0	12.23	12.23		13.8	0.0
100	16QAM	1	1	11.90	11.90		13.8	0.0
100	64QAM	1	1	11.95	11.95		13.8	0.0
100	256QAM	1	1	12.02	12.02		13.8	0.0
Channel								
Frequency (MHz)								
				63300	63334	63368	Tune-up limit (dBm)	MPR (dB)
				3495	3500.01	3505.02		
90	QPSK	1	1	12.16	12.25	12.18	13.8	0.0
Channel								
Frequency (MHz)								
				632668	633334	634000	Tune-up limit (dBm)	MPR (dB)
				3489.02	3500.01	3510		
80	QPSK	1	1	12.09	12.15	12.09	13.8	0.0
Channel								
Frequency (MHz)								
				632334	633334	634334	Tune-up limit (dBm)	MPR (dB)
				3485.01	3500.01	3515.01		
70	QPSK	1	1	12.07	12.24	12.10	13.8	0.0
Channel								
Frequency (MHz)								
				3480	3500.01	3520.02	Tune-up limit (dBm)	MPR (dB)
60	QPSK	1	1	12.16	12.14	12.17	13.8	0.0
Channel								
Frequency (MHz)								
				631668	633334	635000	Tune-up limit (dBm)	MPR (dB)
				3475.02	3500.01	3505		
50	QPSK	1	1	12.15	12.16	12.14	13.8	0.0
Channel								
Frequency (MHz)								
				631334	633334	635334	Tune-up limit (dBm)	MPR (dB)
				3470.01	3500.01	3530.01		
40	QPSK	1	1	12.09	12.21	12.11	13.8	0.0
Channel								
Frequency (MHz)								
				631000	633334	635668	Tune-up limit (dBm)	MPR (dB)
				3465	3500.01	3535.02		
30	QPSK	1	1	12.13	12.24	12.09	13.8	0.0
Channel								
Frequency (MHz)								
				3462.51	3500.01	3537.51	Tune-up limit (dBm)	MPR (dB)
25	QPSK	1	1	12.09	12.20	12.17	13.8	0.0
Channel								
Frequency (MHz)								
				630668	633334	636000	Tune-up limit (dBm)	MPR (dB)
				3458.02	3500.01	3540		
20	QPSK	1	1	12.07	12.25	12.07	13.8	0.0
Channel								
Frequency (MHz)								
				630500	633334	636168	Tune-up limit (dBm)	MPR (dB)
				3457.5	3500.01	3542.52		
15	QPSK	1	1	12.16	12.25	12.16	13.8	0.0
Channel								
Frequency (MHz)								
				630334	633334	636334	Tune-up limit (dBm)	MPR (dB)
				3455.01	3500.01	3545.01		
10	QPSK	1	1	12.12	12.17	12.18	13.8	0.0

Part27O n78 HPUE Ant 3 ECI 9								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
				3750				
100	PI2 BPSK	1	1	12.06	12.06			
100	PI2 BPSK	1	137	11.95	11.95		13.8	0.0
100	PI2 BPSK	1	271	11.99	11.99			
100	PI2 BPSK	135	0	11.98	11.98		13.8	0.0
100	PI2 BPSK	135	69	11.99	11.99		13.8	0.0
100	PI2 BPSK	135	138	11.97	11.97		13.8	0.0
100	PI2 BPSK	270	0	11.92	11.92		13.8	0.0
100	QPSK	1	1	12.17				
100	QPSK	1	137	11.87	11.87		13.8	0.0
100	QPSK	1	271	12.03	12.03			
100	QPSK	135	0	12.03	12.03		13.8	0.0
100	QPSK	135	69	12.14	12.14		13.8	0.0
100	QPSK	135	138	11.88	11.88		13.8	0.0
100	QPSK	270	0	12.00	12.00		13.8	0.0
100	16QAM	1	1	11.81	11.81		13.8	0.0
100	64QAM	1	1	11.90	11.90		13.8	0.0
100	256QAM	1	1	11.95	11.95		13.8	0.0
Channel								
Frequency (MHz)								
				650668	650000	650334	Tune-up limit (dBm)	MPR (dB)
				3745.02	3750	3755.01		
90	QPSK	1	1	11.96	12.02	11.93	13.8	0.0
Channel								
Frequency (MHz)								
				649334	650000	650668	Tune-up limit (dBm)	MPR (dB)
				3740.01	3750	3750.02		
80	QPSK	1	1	11.99	11.99	11.99	13.8	0.0
Channel								
Frequency (MHz)								
				648000	650000	651000	Tune-up limit (dBm)	MPR (dB)
				3735	3750	3765		
70	QPSK	1	1	11.95	11.97	11.92	13.8	0.0
Channel								
Frequency (MHz)								
				646668	650000	651334	Tune-up limit (dBm)	MPR (dB)
				3730.02	3750	3770.01		
60	QPSK	1	1	11.88	12.00	11.91	13.8	0.0
Channel								
Frequency (MHz)								
				645334	650000	651668	Tune-up limit (dBm)	MPR (dB)
				3725.01	3750	3755.02		
50	QPSK	1	1	11.88	11.88	11.93	13.8	0.0
Channel								
Frequency (MHz)								
				644000	650000	652000	Tune-up limit (dBm)	MPR (dB)
				3720	3750	3760		
40	QPSK	1	1	11.91	11.95	11.80	13.8	0.0
Channel								
Frequency (MHz)								
				642668	650000	652334	Tune-up limit (dBm)	MPR (dB)
				3715.02	3750	3765.01		
30	QPSK	1	1	11.90	12.04	11.92	13.8	0.0
Channel								
Frequency (MHz)								
				641334	650000	652668	Tune-up limit (dBm)	MPR (dB)
				3710.01	3750	3785.02		
25	QPSK	1	1	11.94	11.93	11.95	13.8	0.0
Channel								
Frequency (MHz)								
				640000	650000	652999	Tune-up limit (dBm)	MPR (dB)
				3705	3750	3795		
20	QPSK	1	1	11.92	11.95	11.92	13.8	0.0
Channel								
Frequency (MHz)								
				638668	650000	653334	Tune-up limit (dBm)	MPR (dB)
				3700	3750	3795		
15	QPSK	1	1	11.99	12.04	11.97	13.8	0.0
Channel								
Frequency (MHz)								
				637000	650000	653668	Tune-up limit (dBm)	MPR (dB)
				3695	3750	3795		
10	QPSK	1	1	11.92	11.95	11.92	13.8	0.0

Part27Q n78 HPUE Ant 3 ECI 9								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
				3500.01				
100	PI2 BPSK	1	1	12.09	12.09			
100	PI2 BPSK	1	137	12.07	12.07		13.8	0.0
100	PI2 BPSK	1	271	11.94	11.94			
100	PI2 BPSK	135	0	11.97	11.97		13.8	0.0
100	PI2 BPSK	135	69	11.91	11.91		13.8	0.0
100	PI2 BPSK	135	138	11.93	11.93		13.8	0.0
100	PI2 BPSK	270	0	12.11	12.11		13.8	0.0
100	QPSK	1	1	12.16				
100	QPSK	1	137	11.96	11.96		13.8	0.0
100	QPSK	1	271	12.06	12.06			
100	QPSK	135	0	11.95	11.95		13.8	0.0
100	QPSK	135	69	12.03	12.03		13.8	0.0
100	QPSK	135	138	11.88	11.88		13.8	0.0
100	QPSK	270	0	12.02	12.02		13.8	0.0
100	16QAM	1	1	11.95	11.95		13.8	0.0
100	64QAM	1	1	11.90	11.90		13.8	0.0
100	256QAM	1	1	11.97	11.97		13.8	0.0
Channel								
Frequency (MHz)								
				63300	63334	63368	Tune-up limit (dBm)	MPR (dB)
				3495	3500.01	3505.02		
90	QPSK	1	1	12.00	12.08	11.95	13.8	0.0
Channel								
Frequency (MHz)								
				632668	633334	634000	Tune-up limit (dBm)	MPR (dB)
				3490.02	3500.01	3510		
80	QPSK	1	1	12.03	12.10	12.00	13.8	0.0
Channel								
Frequency (MHz)								
				632334	633334	634334	Tune-up limit (dBm)	MPR (dB)
				3485.01	3500.01	3515.01		
70	QPSK	1	1	12.02	12.12	11.93	13.8	0.0
Channel								
Frequency (MHz)								
				632000	633334	634668	Tune-up limit (dBm)	MPR (dB)
				3480	3500.01	3520.02		
60	QPSK	1	1	12.09	12.12	12.02	13.8	0.0
Channel								
Frequency (MHz)								
				631668	633334	635000	Tune-up limit (dBm)	MPR (dB)
				3475.02	3500.01	3505		
50	QPSK	1	1	12.04	12.08	11.94	13.8	0.0
Channel								
Frequency (MHz)								
				631334	633334	635334	Tune-up limit (dBm)	MPR (dB)
				3470.01	3500.01	3530.01		
40	QPSK	1	1	12.09	12.14	12.02	13.8	0.0
Channel								
Frequency (MHz)								
				631000	633334	635668	Tune-up limit (dBm)	MPR (dB)
				3465	3500.01	3535.02		
30	QPSK	1	1	12.08	12.11	11.98	13.8	0.0
Channel								
Frequency (MHz)								
				630668	633334	636000	Tune-up limit (dBm)	MPR (dB)
				3462.51	3500.01	3537.51		
25	QPSK	1	1	12.07	12.11	11.96	13.8	0.0
Channel								
Frequency (MHz)								
				630334	633334	636334	Tune-up limit (dBm)	MPR (dB)
				3458.02	3500.01	3540		
20	QPSK	1	1	12.06	12.03	11.92	13.8	0.0
Channel								
Frequency (MHz)								
				630000	633334	636168	Tune-up limit (dBm)	MPR (dB)
				3457.5	3500.01	3542.52		
15	QPSK	1	1	12.08	12.05	11.96	13.8	0.0
Channel								
Frequency (MHz)								
				629668	633334	636500	Tune-up limit (dBm)	MPR (dB)
				3455.01	3500.01	3545.01		
10	QPSK	1	1	12.04	12.05	11.93	13.8	0.0



n48 Part 96 Ant 4 ECI 9									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
40	PI2 BPSK	1	1	12.77	12.88	12.77			
40	PI2 BPSK	1	59	12.71	12.82	12.74	14.5	0.0	
40	PI2 BPSK	1	104	12.62	12.85	12.82			
40	PI2 BPSK	50	0	12.69	12.73	12.64	14.5	0.0	
40	PI2 BPSK	50	28	12.83	12.71	12.63	14.5	0.0	
40	PI2 BPSK	50	56	12.83	12.84	12.85	14.5	0.0	
40	PI2 BPSK	100	0	12.62	12.77	12.55			
40	QPSK	1	1	12.90	12.99	12.89			
40	QPSK	1	53	12.83	12.78	12.70	14.5	0.0	
40	QPSK	1	104	12.76	12.72	12.86			
40	QPSK	50	0	12.69	12.75	12.51	14.5	0.0	
40	QPSK	50	28	12.71	12.94	12.63	14.5	0.0	
40	QPSK	50	56	12.72	12.77	12.72			
40	QPSK	100	0	12.71	12.74	12.80	14.5	0.0	
40	16QAM	1	1	12.58	12.55	12.55	14.5	0.0	
40	64QAM	1	1	12.82	12.82	12.80	14.5	0.0	
40	256QAM	1	1	12.89	12.95	12.94	14.5	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	12.90	12.98	12.90	14.5	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	12.88	12.81	12.89	14.5	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	12.87	12.85	12.83	14.5	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	12.83	12.83	12.85	14.5	0.0	

Part270 n77 HPUE Ant 4 ECI 9									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	12.88	12.92	12.92			
100	PI2 BPSK	1	137	12.71	12.78	12.79	13.8	0.0	
100	PI2 BPSK	1	271	12.70	12.74	12.69			
100	PI2 BPSK	135	0	12.71	12.84	12.68	13.8	0.0	
100	PI2 BPSK	135	69	12.80	12.77	12.73	13.8	0.0	
100	PI2 BPSK	135	138	12.88	12.73	12.69			
100	PI2 BPSK	270	0	12.62	12.92	12.65	13.8	0.0	
100	QPSK	1	1	13.03	13.11	12.96			
100	QPSK	1	137	12.91	12.87	12.73	13.8	0.0	
100	QPSK	1	271	12.71	12.92	12.74			
100	QPSK	135	0	12.71	12.78	12.69	13.8	0.0	
100	QPSK	135	69	12.68	12.74	12.74	13.8	0.0	
100	QPSK	135	138	12.80	12.84	12.80			
100	QPSK	270	0	12.73	12.69	12.74	13.8	0.0	
100	16QAM	1	1	12.64	12.88	12.70	13.8	0.0	
100	64QAM	1	1	12.82	12.85	12.74	13.8	0.0	
100	256QAM	1	1	12.97	12.95	13.05	13.8	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	12.85	12.81	12.78	13.8	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	12.94	12.82	12.73	13.8	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	12.88	12.84	12.74	13.8	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	12.81	12.81	12.78	13.8	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	12.83	12.79	12.79	13.8	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	12.84	12.81	12.73	13.8	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	12.82	12.84	12.76	13.8	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	12.86	12.86	12.78	13.8	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	12.80	12.87	12.73	13.8	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	12.87	12.86	12.81	13.8	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	12.79	12.88	12.79	13.8	0.0	

Part27Q n77 HPUE Ant 4 ECI 9									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	12.93	12.92	12.93			
100	PI2 BPSK	1	137	12.94	12.94	12.94	13.8	0.0	
100	PI2 BPSK	1	271	12.69	12.69	12.69			
100	PI2 BPSK	135	0	12.81	12.81	12.81	13.8	0.0	
100	PI2 BPSK	135	69	12.86	12.86	12.86	13.8	0.0	
100	PI2 BPSK	135	138	12.86	12.86	12.86			
100	PI2 BPSK	270	0	12.92	12.92	12.92	13.8	0.0	
100	QPSK	1	1	13.13	13.13	13.13			
100	QPSK	1	137	12.95	12.95	12.95	13.8	0.0	
100	QPSK	1	271	12.95	12.95	12.95			
100	QPSK	135	0	12.84	12.84	12.84	13.8	0.0	
100	QPSK	135	69	12.93	12.93	12.93	13.8	0.0	
100	QPSK	135	138	12.76	12.76	12.76			
100	QPSK	270	0	12.82	12.82	12.82	13.8	0.0	
100	16QAM	1	1	12.66	12.66	12.66	13.8	0.0	
100	64QAM	1	1	12.69	12.69	12.69	13.8	0.0	
100	256QAM	1	1	12.87	12.87	12.87	13.8	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	13.01	12.99	12.95	13.8	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	13.02	12.96	12.93	13.8	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	12.98	12.91	12.92	13.8	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	12.90	12.99	12.96	13.8	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	13.00	12.98	12.94	13.8	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	12.97	12.98	12.92	13.8	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	12.96	12.98	12.88	13.8	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	12.92	12.93	12.86	13.8	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	12.98	12.93	12.87	13.8	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	12.98	12.99	12.88	13.8	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	13.00	12.93	12.88	13.8	0.0	



Part270 n78 HPUE Ant 4 ECI 9									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1		12.81				
100	PI2 BPSK	1	137		12.80		13.8	0.0	
100	PI2 BPSK	1	271		12.57				
100	PI2 BPSK	135	0		12.74		13.8	0.0	
100	PI2 BPSK	135	69		12.68		13.8	0.0	
100	PI2 BPSK	135	138		12.68		13.8	0.0	
100	PI2 BPSK	270	0		12.81		13.8	0.0	
100	QPSK	1	1		12.52				
100	QPSK	1	137		12.77		13.8	0.0	
100	QPSK	1	271		12.81				
100	QPSK	135	0		12.72		13.8	0.0	
100	QPSK	135	69		12.90		13.8	0.0	
100	QPSK	135	138		12.70		13.8	0.0	
100	QPSK	270	0		12.86		13.8	0.0	
100	16QAM	1	1		12.55				
100	64QAM	1	1		12.86		13.8	0.0	
100	256QAM	1	1		12.89		13.8	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	649868	650000	650334	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
80	QPSK	1	1	12.63	12.71	12.71	13.8	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	649334	650000	650668	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
60	QPSK	1	1	12.61	12.70	12.70	13.8	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	649334	650000	651668	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
40	QPSK	1	1	12.82	12.86	12.81	13.8	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	649000	650000	652000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
25	QPSK	1	1	12.71	12.85	12.84	13.8	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	12.61	12.75	12.71	13.8	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	647168	650000	652834	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
10	QPSK	1	1	12.70	12.71	12.84	13.8	0.0	
Channel									
Frequency (MHz)									

Part27Q n78 HPUE Ant 4 ECI 9									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1		13.11				
100	PI2 BPSK	1	137		13.09		13.8	0.0	
100	PI2 BPSK	1	271		12.81				
100	PI2 BPSK	135	0		13.02		13.8	0.0	
100	PI2 BPSK	135	69		12.90		13.8	0.0	
100	PI2 BPSK	135	138		12.81		13.8	0.0	
100	PI2 BPSK	270	0		12.93		13.8	0.0	
100	QPSK	1	1		13.12				
100	QPSK	1	137		12.96		13.8	0.0	
100	QPSK	1	271		13.10				
100	QPSK	135	0		12.88		13.8	0.0	
100	QPSK	135	69		13.10		13.8	0.0	
100	QPSK	135	138		13.04		13.8	0.0	
100	QPSK	270	0		12.95		13.8	0.0	
100	16QAM	1	1		12.52				
100	64QAM	1	1		12.73		13.8	0.0	
100	256QAM	1	1		13.10		13.8	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	633600	633334	633668	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
80	QPSK	1	1	13.09	13.00	12.94	13.8	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	632668	633334	634000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
60	QPSK	1	1	3485.01	3500.01	3515.01	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
50	QPSK	1	1	13.08	13.05	13.02	13.8	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	633000	633334	633668	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
30	QPSK	1	1	13.07	13.00	13.03	13.8	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	632334	633334	634334	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	1	13.04	13.06	13.06	13.8	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	631668	633334	633600	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
10	QPSK	1	1	13.05	13.07	13.02	13.8	0.0	
Channel									
Frequency (MHz)									
5	QPSK	1	1	631000	633334	633668	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
0	QPSK	1	1	3485	3500.01	3535.02	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
0	QPSK	1	1	13.04	12.96	12.99	13.8	0.0	
Channel									
Frequency (MHz)									
0	QPSK	1	1	630668	633334	633600	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
0	QPSK	1	1	13.05	13.07	13.02	13.8	0.0	
Channel									
Frequency (MHz)									
0	QPSK	1	1	630000	633334	633668	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
0	QPSK	1	1	3482.51	3500.01	3537.51	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
0	QPSK	1	1	13.08	13.05	13.05	13.8	0.0	
Channel									
Frequency (MHz)									
0	QPSK	1	1	629500	633334	633668	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
0	QPSK	1	1	13.07	13.02	12.83	13.8	0.0	
Channel									
Frequency (MHz)									
0	QPSK	1	1	628834	633334	633668	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
0	QPSK	1	1	3455.01	3500.01	3545.01	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
0	QPSK	1	1	13.10	13.03	12.95	13.8	0.0	



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Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low Ch. / Freq., Power Middle Ch. / Freq., Power High Ch. / Freq., Tune-up limit (dBm), MPR (dB). Rows include various modulation schemes like PI2 BPSK, BPSK, QPSK, and 64QAM with their respective parameters.

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Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low Ch. / Freq., Power Middle Ch. / Freq., Power High Ch. / Freq., Tune-up limit (dBm), MPR (dB). Rows include various modulation schemes like PI2 BPSK, BPSK, QPSK, and 64QAM with their respective parameters.

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Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low Ch. / Freq., Power Middle Ch. / Freq., Power High Ch. / Freq., Tune-up limit (dBm), MPR (dB). Rows include various modulation schemes like PI2 BPSK, BPSK, QPSK, and 64QAM with their respective parameters.



Part270 n78 HPUE Ant 6 ECI 9							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	MPR (dB)
Channel							
Frequency (MHz)							
100	PI2 BPSK	1	1	12.81	12.81		
100	PI2 BPSK	1	137	12.80	12.80	14.4	0.0
100	PI2 BPSK	1	271	12.81	12.81		
100	PI2 BPSK	135	0	12.70	12.70	14.4	0.0
100	PI2 BPSK	135	69	12.46	12.46	14.4	0.0
100	PI2 BPSK	135	138	12.53	12.53	14.4	0.0
100	PI2 BPSK	270	0	12.87	12.87	14.4	0.0
100	QPSK	1	1	13.00	13.00		
100	QPSK	1	137	12.71	12.71	14.4	0.0
100	QPSK	1	271	12.75	12.75		
100	QPSK	135	0	12.83	12.83	14.4	0.0
100	QPSK	135	69	12.82	12.82	14.4	0.0
100	QPSK	135	138	12.77	12.77	14.4	0.0
100	QPSK	270	0	12.91	12.91	14.4	0.0
100	16QAM	1	1	12.95	12.95	14.4	0.0
100	64QAM	1	1	12.98	12.98	14.4	0.0
100	256QAM	1	1	12.82	12.82	14.4	0.0
Channel							
Frequency (MHz)							
90	QPSK	1	1	649868	650000	650334	MPR
Channel							
Frequency (MHz)							
90	QPSK	1	1	3745.02	3750	3750.01	MPR
Channel							
Frequency (MHz)							
80	QPSK	1	1	12.76	12.77	12.69	14.4
Channel							
Frequency (MHz)							
70	QPSK	1	1	649000	650000	651000	MPR
Channel							
Frequency (MHz)							
70	QPSK	1	1	3735	3750	3765	MPR
Channel							
Frequency (MHz)							
60	QPSK	1	1	649334	650000	650668	MPR
Channel							
Frequency (MHz)							
60	QPSK	1	1	3730.02	3750	3770.01	MPR
Channel							
Frequency (MHz)							
60	QPSK	1	1	12.76	12.78	12.67	14.4
Channel							
Frequency (MHz)							
50	QPSK	1	1	649334	650000	650668	MPR
Channel							
Frequency (MHz)							
50	QPSK	1	1	12.75	12.76	12.65	14.4
Channel							
Frequency (MHz)							
40	QPSK	1	1	649000	650000	650000	MPR
Channel							
Frequency (MHz)							
40	QPSK	1	1	3720	3750	3780	MPR
Channel							
Frequency (MHz)							
30	QPSK	1	1	647868	650000	652334	MPR
Channel							
Frequency (MHz)							
30	QPSK	1	1	3715.02	3750	3785.01	MPR
Channel							
Frequency (MHz)							
25	QPSK	1	1	12.72	12.72	12.63	14.4
Channel							
Frequency (MHz)							
25	QPSK	1	1	647334	650000	652668	MPR
Channel							
Frequency (MHz)							
20	QPSK	1	1	3710.01	3750	3790.02	MPR
Channel							
Frequency (MHz)							
20	QPSK	1	1	12.75	12.73	12.59	14.4
Channel							
Frequency (MHz)							
15	QPSK	1	1	647168	650000	652834	MPR
Channel							
Frequency (MHz)							
15	QPSK	1	1	3707.52	3750	3792.51	MPR
Channel							
Frequency (MHz)							
10	QPSK	1	1	12.74	12.70	12.63	14.4
Channel							
Frequency (MHz)							
10	QPSK	1	1	647000	650000	653000	MPR
Channel							
Frequency (MHz)							
10	QPSK	1	1	3705	3750	3795	MPR
Channel							
Frequency (MHz)							
10	QPSK	1	1	12.68	12.73	12.68	14.4

Part27Q n78 HPUE Ant 6 ECI 9							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	MPR (dB)
Channel							
Frequency (MHz)							
100	PI2 BPSK	1	1	13.06	13.06		
100	PI2 BPSK	1	137	13.06	13.06	14.4	0.0
100	PI2 BPSK	1	271	12.74	12.74		
100	PI2 BPSK	135	0	13.02	13.02	14.4	0.0
100	PI2 BPSK	135	69	12.86	12.86	14.4	0.0
100	PI2 BPSK	135	138	12.96	12.96	14.4	0.0
100	PI2 BPSK	270	0	12.93	12.93	14.4	0.0
100	QPSK	1	1	13.20	13.20		
100	QPSK	1	137	13.02	13.02	14.4	0.0
100	QPSK	1	271	13.07	13.07		
100	QPSK	135	0	12.85	12.85	14.4	0.0
100	QPSK	135	69	13.08	13.08	14.4	0.0
100	QPSK	135	138	13.04	13.04	14.4	0.0
100	QPSK	270	0	13.01	13.01	14.4	0.0
100	16QAM	1	1	13.11	13.11	14.4	0.0
100	64QAM	1	1	12.96	12.96	14.4	0.0
100	256QAM	1	1	12.98	12.98	14.4	0.0
Channel							
Frequency (MHz)							
90	QPSK	1	1	633600	633334	633868	MPR
Channel							
Frequency (MHz)							
90	QPSK	1	1	3495	3500.01	3505.02	MPR
Channel							
Frequency (MHz)							
80	QPSK	1	1	12.95	13.14	12.98	14.4
Channel							
Frequency (MHz)							
70	QPSK	1	1	632868	633334	634000	MPR
Channel							
Frequency (MHz)							
70	QPSK	1	1	3485.01	3500.01	3515.01	MPR
Channel							
Frequency (MHz)							
60	QPSK	1	1	632000	633334	633668	MPR
Channel							
Frequency (MHz)							
60	QPSK	1	1	3480	3500.01	3520.02	MPR
Channel							
Frequency (MHz)							
60	QPSK	1	1	13.00	13.11	12.96	14.4
Channel							
Frequency (MHz)							
50	QPSK	1	1	631868	633334	633600	MPR
Channel							
Frequency (MHz)							
50	QPSK	1	1	12.97	13.12	12.97	14.4
Channel							
Frequency (MHz)							
40	QPSK	1	1	631334	633334	633334	MPR
Channel							
Frequency (MHz)							
40	QPSK	1	1	3470.01	3500.01	3530.01	MPR
Channel							
Frequency (MHz)							
30	QPSK	1	1	631000	633334	633668	MPR
Channel							
Frequency (MHz)							
30	QPSK	1	1	3465	3500.01	3535.02	MPR
Channel							
Frequency (MHz)							
25	QPSK	1	1	12.93	13.11	12.95	14.4
Channel							
Frequency (MHz)							
25	QPSK	1	1	630668	633334	633600	MPR
Channel							
Frequency (MHz)							
20	QPSK	1	1	3460.02	3500.01	3540.02	MPR
Channel							
Frequency (MHz)							
20	QPSK	1	1	12.99	13.15	12.91	14.4
Channel							
Frequency (MHz)							
15	QPSK	1	1	630000	633334	633668	MPR
Channel							
Frequency (MHz)							
15	QPSK	1	1	3457.5	3500.01	3542.52	MPR
Channel							
Frequency (MHz)							
10	QPSK	1	1	12.93	13.14	12.92	14.4
Channel							
Frequency (MHz)							
10	QPSK	1	1	630334	633334	633334	MPR
Channel							
Frequency (MHz)							
10	QPSK	1	1	3455.01	3500.01	3545.01	MPR
Channel							
Frequency (MHz)							
10	QPSK	1	1	12.95	13.12	12.92	14.4



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Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low Ch./Freq., Power Middle Ch./Freq., Power High Ch./Freq., Tune-up limit (dBm), MPR (dB). Rows include various modulation schemes like PI2 BPSK, QPSK, 16QAM, 64QAM, 256QAM.

Part270 n77 HPUE Ant 8 ECI 9

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low Ch./Freq., Power Middle Ch./Freq., Power High Ch./Freq., Tune-up limit (dBm), MPR (dB). Rows include various modulation schemes like PI2 BPSK, QPSK, 16QAM, 64QAM, 256QAM.

Part27Q n77 HPUE Ant 8 ECI 9

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low Ch./Freq., Power Middle Ch./Freq., Power High Ch./Freq., Tune-up limit (dBm), MPR (dB). Rows include various modulation schemes like PI2 BPSK, QPSK, 16QAM, 64QAM, 256QAM.



Part270 n78 HPUE Ant 8 ECI 9									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	12.80	12.80				
100	PI2 BPSK	1	137	12.70	12.70		14.0	0.0	
100	PI2 BPSK	1	271	12.53	12.53				
100	PI2 BPSK	135	0	12.51	12.51		14.0	0.0	
100	PI2 BPSK	135	69	12.68	12.68		14.0	0.0	
100	PI2 BPSK	135	138	12.48	12.48		14.0	0.0	
100	PI2 BPSK	270	0	12.70	12.70		14.0	0.0	
100	QPSK	1	1	12.81	12.81				
100	QPSK	1	137	12.80	12.80		14.0	0.0	
100	QPSK	1	271	12.72	12.72				
100	QPSK	135	0	12.64	12.64		14.0	0.0	
100	QPSK	135	69	12.74	12.74		14.0	0.0	
100	QPSK	135	138	12.68	12.68		14.0	0.0	
100	QPSK	270	0	12.55	12.55		14.0	0.0	
100	16QAM	1	1	12.78	12.78		14.0	0.0	
100	64QAM	1	1	12.80	12.80		14.0	0.0	
100	256QAM	1	1	12.72	12.72		14.0	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	12.61	12.75	12.58	14.0	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	12.59	12.63	12.59	14.0	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	12.67	12.70	12.67	14.0	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	12.64	12.67	12.61	14.0	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	12.66	12.71	12.56	14.0	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	12.60	12.65	12.59	14.0	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	12.66	12.73	12.59	14.0	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	12.65	12.71	12.54	14.0	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	12.66	12.67	12.58	14.0	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	12.64	12.70	12.55	14.0	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	12.80	12.66	12.64	14.0	0.0	

Part27Q n78 HPUE Ant 8 ECI 9									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	13.00	13.00				
100	PI2 BPSK	1	137	13.01	13.01		14.0	0.0	
100	PI2 BPSK	1	271	12.83	12.83				
100	PI2 BPSK	135	0	12.93	12.93		14.0	0.0	
100	PI2 BPSK	135	69	12.86	12.86		14.0	0.0	
100	PI2 BPSK	135	138	12.79	12.79		14.0	0.0	
100	PI2 BPSK	270	0	13.13	13.13		14.0	0.0	
100	QPSK	1	1	13.17	13.17				
100	QPSK	1	137	13.03	13.03		14.0	0.0	
100	QPSK	1	271	13.11	13.11				
100	QPSK	135	0	12.97	12.97		14.0	0.0	
100	QPSK	135	69	13.10	13.10		14.0	0.0	
100	QPSK	135	138	13.09	13.09		14.0	0.0	
100	QPSK	270	0	13.12	13.12		14.0	0.0	
100	16QAM	1	1	13.15	13.15		14.0	0.0	
100	64QAM	1	1	13.13	13.13		14.0	0.0	
100	256QAM	1	1	13.07	13.07		14.0	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	13.08	13.12	13.05	14.0	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	13.04	13.15	13.01	14.0	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	13.03	13.10	13.03	14.0	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	13.06	13.07	13.01	14.0	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	13.03	13.09	13.01	14.0	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	13.11	13.15	13.07	14.0	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	13.08	13.14	13.06	14.0	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	13.09	13.07	13.02	14.0	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	13.09	13.14	13.08	14.0	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	13.01	13.13	13.07	14.0	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	12.99	13.13	13.08	14.0	0.0	



Reduced Power Mode for EC110

n2 Ant 0 ECI 10									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
40	PI2 BPSK	1	1	18.42	18.51	18.38			
40	PI2 BPSK	1	108	18.34	18.49	18.42	20.3	0.0	
40	PI2 BPSK	1	214	18.34	18.47	18.33			
40	PI2 BPSK	108	0	18.37	18.43	18.32	20.3	0.0	
40	PI2 BPSK	108	84	18.39	18.50	18.35	20.3	0.0	
40	PI2 BPSK	108	108	18.32	18.37	18.31			
40	PI2 BPSK	216	0	18.34	18.40	18.34	20.3	0.0	
40	QPSK	1	1	18.52	18.55	18.39			
40	QPSK	1	108	18.42	18.52	18.44	20.3	0.0	
40	QPSK	1	214	18.34	18.48	18.46			
40	QPSK	108	0	18.31	18.43	18.38	20.3	0.0	
40	QPSK	108	84	18.44	18.49	18.37	20.3	0.0	
40	QPSK	108	108	18.34	18.37	18.38	20.3	0.0	
40	QPSK	216	0	18.41	18.44	18.34			
40	16QAM	1	1	18.31	18.34	18.35	20.3	0.0	
40	64QAM	1	1	18.32	18.33	18.32	20.3	0.0	
40	256QAM	1	1	18.34	18.31	18.32	19.5	0.0	
Channel									
Frequency (MHz)									
35	QPSK	1	1	18.40	18.50	18.32	20.3	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	18.34	18.50	18.33	20.3	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	18.38	18.44	18.35	20.3	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	18.38	18.43	18.31	20.3	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	18.41	18.51	18.37	20.3	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	18.34	18.42	18.37	20.3	0.0	
Channel									
Frequency (MHz)									
5	QPSK	1	1	18.41	18.50	18.37	20.3	0.0	

n5 Ant 0 ECI 10									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	PI2 BPSK	1	1	21.60	21.72	21.56			
20	PI2 BPSK	1	53	21.56	21.53	21.64	23.1	0.0	
20	PI2 BPSK	1	104	21.68	21.66	21.49			
20	PI2 BPSK	50	0	21.58	21.65	21.58	23.1	0.0	
20	PI2 BPSK	50	28	21.56	21.61	21.62	23.1	0.0	
20	PI2 BPSK	50	56	21.32	21.50	21.42			
20	PI2 BPSK	100	0	21.58	21.68	21.43	23.1	0.0	
20	QPSK	1	1	21.78	21.79	21.69			
20	QPSK	1	53	21.71	21.72	21.44	23.1	0.0	
20	QPSK	1	104	21.85	21.71	21.61			
20	QPSK	50	0	21.62	21.57	21.41	23.0	0.1	
20	QPSK	50	28	21.63	21.71	21.57	23.1	0.0	
20	QPSK	50	56	21.51	21.61	21.45	23.0	0.1	
20	QPSK	100	0	21.59	21.66	21.34			
20	16QAM	1	1	21.49	21.57	21.41	23.0	0.1	
20	64QAM	1	1	20.73	20.76	20.54	21.5	1.6	
20	256QAM	1	1	19.29	19.36	19.34	19.5	3.8	
Channel									
Frequency (MHz)									
15	QPSK	1	1	21.62	21.73	21.63	23.1	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	21.62	21.75	21.62	23.1	0.0	
Channel									
Frequency (MHz)									
5	QPSK	1	1	21.60	21.70	21.63	23.1	0.0	

n7 Ant 0 ECI 10									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
50	PI2 BPSK	1	1	18.66	18.76	18.65			
50	PI2 BPSK	1	135	18.53	18.67	18.68	20.0	0.0	
50	PI2 BPSK	1	268	18.64	18.54	18.59			
50	PI2 BPSK	135	0	18.54	18.58	18.56	20.0	0.0	
50	PI2 BPSK	135	68	18.67	18.69	18.52	20.0	0.0	
50	PI2 BPSK	135	135	18.47	18.54	18.40			
50	PI2 BPSK	270	0	18.59	18.64	18.43	20.0	0.0	
50	QPSK	1	1	18.75	18.57	18.68			
50	QPSK	1	135	18.75	18.74	18.62	20.0	0.0	
50	QPSK	1	268	18.56	18.71	18.58			
50	QPSK	135	0	18.66	18.68	18.56	20.0	0.0	
50	QPSK	135	68	18.63	18.75	18.58	20.0	0.0	
50	QPSK	135	135	18.60	18.55	18.48	20.0	0.0	
50	QPSK	270	0	18.57	18.69	18.47			
50	16QAM	1	1	18.27	18.40	18.30	20.0	0.0	
50	64QAM	1	1	18.44	18.57	18.43	20.0	0.0	
50	256QAM	1	1	18.59	18.62	18.42	19.5	0.5	
Channel									
Frequency (MHz)									
40	QPSK	1	1	18.62	18.81	18.55	20.0	0.0	
Channel									
Frequency (MHz)									
35	QPSK	1	1	18.66	18.76	18.60	0.0	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	18.68	18.63	18.63	20.0	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	18.68	18.77	18.57	20.0	0.0	
Channel									
Frequency (MHz)									
20	PI2 BPSK	1	1	18.62	18.76	18.59	20.0	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	18.66	18.75	18.55	20.0	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	18.62	18.64	18.52	20.0	0.0	
Channel									
Frequency (MHz)									
5	QPSK	1	1	18.66	18.80	18.53	20.0	0.0	



n12 Ant 0 ECI 10									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq.	Power Middle Ch / Freq.	Power High Ch / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)				141500	141500	141700			
Frequency (MHz)				707.5	707.5	708.5			
15	PI2 BPSK	1	1	22.10	22.22	22.04			
15	PI2 BPSK	1	40	22.04	22.03	22.08	23.3	0.0	
15	PI2 BPSK	1	77	22.07	22.06	21.96			
15	PI2 BPSK	36	0	21.91	22.00	22.05	23.3	0.0	
15	PI2 BPSK	36	22	22.08	22.12	21.92	23.3	0.0	
15	PI2 BPSK	36	43	21.83	21.95	21.91	23.3	0.0	
15	PI2 BPSK	75	0	22.06	22.06	21.87			
15	QPSK	1	1	22.09	22.31	22.10			
15	QPSK	1	40	22.18	22.21	21.95	23.3	0.0	
15	QPSK	1	77	22.04	22.14	22.04			
15	QPSK	36	0	22.00	22.05	21.84	23.0	0.3	
15	QPSK	36	22	22.05	22.22	22.02	23.3	0.0	
15	QPSK	36	43	22.00	22.05	21.84	23.0	0.3	
15	QPSK	75	0	22.01	22.11	21.85			
15	16QAM	1	1	21.94	21.98	21.85	23.0	0.3	
15	64QAM	1	1	20.81	20.87	20.54	21.5	1.8	
15	256QAM	1	1	19.17	19.31	19.26	19.5	3.8	
Channel									
Frequency (MHz)				140800	141500	142200	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				704	707.5	711	23.3	0.0	
Channel									
Frequency (MHz)				140300	141500	142700	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				701.5	707.5	713.5	23.3	0.0	

n14 Ant 0 ECI 10									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq.	Power Middle Ch / Freq.	Power High Ch / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)				158600	158600	158600			
Frequency (MHz)				793	793	793			
10	PI2 BPSK	1	1	22.56					
10	PI2 BPSK	1	26	22.31			23.8	0.0	
10	PI2 BPSK	1	50	22.43					
10	PI2 BPSK	25	0	22.34			23.5	0.3	
10	PI2 BPSK	25	14	22.40			23.8	0.0	
10	PI2 BPSK	25	27	22.27			23.5	0.3	
10	PI2 BPSK	50	0	22.37					
10	QPSK	1	1	22.50					
10	QPSK	1	26	22.46			23.8	0.0	
10	QPSK	1	50	22.41					
10	QPSK	25	0	22.40			23.0	0.8	
10	QPSK	25	14	22.32			23.8	0.0	
10	QPSK	25	27	22.40			23.0	0.8	
10	QPSK	50	0	22.44					
10	16QAM	1	1	22.38			23.0	0.8	
10	64QAM	1	1	21.04			21.5	2.3	
10	256QAM	1	1	19.33			19.5	4.3	
Channel									
Frequency (MHz)				158100	158600	159100	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				790.5	793	795.5	23.8	0.0	

n25 Ant 0 ECI 10									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq.	Power Middle Ch / Freq.	Power High Ch / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)				314200	316500	319000			
Frequency (MHz)				1570	1582.5	1595			
40	PI2 BPSK	1	1	18.64	18.64	18.45			
40	PI2 BPSK	1	108	18.53	18.61	18.66	20.3	0.0	
40	PI2 BPSK	1	214	18.51	18.64	18.48			
40	PI2 BPSK	108	0	18.51	18.53	18.59	20.3	0.0	
40	PI2 BPSK	108	54	18.55	18.65	18.54	20.3	0.0	
40	PI2 BPSK	108	108	18.33	18.42	18.49	20.3	0.0	
40	PI2 BPSK	216	0	18.51	18.61	18.40			
40	QPSK	1	1	18.70	18.75	18.57			
40	QPSK	1	108	18.64	18.68	18.58	20.3	0.0	
40	QPSK	1	214	18.59	18.62	18.47			
40	QPSK	108	0	18.47	18.56	18.37	20.3	0.0	
40	QPSK	108	54	18.40	18.77	18.52	20.3	0.0	
40	QPSK	108	108	18.49	18.68	18.53	20.3	0.0	
40	QPSK	216	0	18.54	18.62	18.40			
40	16QAM	1	1	18.42	18.45	18.45	20.3	0.0	
40	64QAM	1	1	18.58	18.67	18.55	20.3	0.0	
40	256QAM	1	1	18.65	18.71	18.70	19.5	0.8	
Channel									
Frequency (MHz)				313500	316500	319500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1567.5	1582.5	1597.5	20.3	0.0	
Channel									
Frequency (MHz)				313000	316500	316500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1565	1582.5	1590	20.3	0.0	
30	QPSK	1	1	18.64	18.69	18.49	20.3	0.0	
Channel									
Frequency (MHz)				312500	316500	316500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1562.5	1582.5	1592.5	20.3	0.0	
25	QPSK	1	1	18.66	18.75	18.58	20.3	0.0	
Channel									
Frequency (MHz)				312000	316500	316500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1559	1582.5	1595	20.3	0.0	
20	QPSK	1	1	18.63	18.72	18.57	20.3	0.0	
Channel									
Frequency (MHz)				311500	316500	316500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1557.5	1582.5	1597.5	20.3	0.0	
15	QPSK	1	1	18.68	18.69	18.50	20.3	0.0	
Channel									
Frequency (MHz)				311000	316500	316500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1555	1582.5	1590	20.3	0.0	
10	QPSK	1	1	18.64	18.70	18.50	20.3	0.0	
Channel									
Frequency (MHz)				310500	316500	316500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1552.5	1582.5	1592.5	20.3	0.0	
5	QPSK	1	1	18.66	18.70	18.60	20.3	0.0	



n26 Ant 0 ECI 10									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	PI2 BPSK	1	1	21.68	21.84	21.80			
20	PI2 BPSK	1	53	21.67	21.77	21.71	23.1	0.0	
20	PI2 BPSK	1	104	21.65	21.68	21.69			
20	PI2 BPSK	50	0	21.71	21.73	21.60	23.1	0.0	
20	PI2 BPSK	50	26	21.65	21.81	21.64	23.1	0.0	
20	PI2 BPSK	50	56	21.59	21.67	21.56			
20	PI2 BPSK	100	0	21.59	21.66	21.63	23.1	0.0	
20	QPSK	1	1	21.90	21.93	21.72			
20	QPSK	1	53	21.88	21.86	21.67	23.1	0.0	
20	QPSK	1	104	21.76	21.80	21.71			
20	QPSK	50	0	21.67	21.70	21.62	23.0	0.1	
20	QPSK	50	26	21.75	21.85	21.65	23.1	0.0	
20	QPSK	50	56	21.66	21.67	21.52	23.0	0.1	
20	QPSK	100	0	21.68	21.78	21.59			
20	16QAM	1	1	21.35	21.50	21.32	23.0	0.1	
20	64QAM	1	1	20.53	20.59	20.26	21.5	1.6	
20	256QAM	1	1	19.12	19.15	19.00	19.5	3.6	
Channel									
Frequency (MHz)									
15	QPSK	1	1	163.90	163.90	163.90	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
10	QPSK	1	1	21.71	21.89	21.70	23.1	0.0	
Channel									
Frequency (MHz)									
5	QPSK	1	1	21.71	21.82	21.72	23.1	0.0	

n30 Ant 0 ECI 10									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
10	PI2 BPSK	1	1	20.45					
10	PI2 BPSK	1	26	20.35			21.6	0.0	
10	PI2 BPSK	1	50	20.36					
10	PI2 BPSK	25	0	20.34			21.6	0.0	
10	PI2 BPSK	25	14	20.35			21.6	0.0	
10	PI2 BPSK	25	27	20.18			21.6	0.0	
10	PI2 BPSK	50	0	20.35					
10	QPSK	1	1	20.48					
10	QPSK	1	26	20.42			21.6	0.0	
10	QPSK	1	50	20.42					
10	QPSK	25	0	20.30			21.6	0.0	
10	QPSK	25	14	20.35			21.6	0.0	
10	QPSK	25	27	20.34			21.6	0.0	
10	QPSK	50	0	20.29					
10	16QAM	1	1	20.11			21.6	0.0	
10	64QAM	1	1	20.29			21.5	0.1	
10	256QAM	1	1	19.42			19.5	2.1	
Channel									
Frequency (MHz)									
5	QPSK	1	1	20.33	20.43	20.33	21.6	0.0	

n66 Ant 0 ECI 10									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
40	PI2 BPSK	1	1	17.94	18.07	17.93			
40	PI2 BPSK	1	108	17.91	17.82	17.86	19.1	0.0	
40	PI2 BPSK	1	214	17.81	17.87	17.74			
40	PI2 BPSK	108	0	17.85	17.93	17.72	19.1	0.0	
40	PI2 BPSK	108	54	17.93	17.88	17.75	19.1	0.0	
40	PI2 BPSK	108	108	17.96	17.85	17.85			
40	PI2 BPSK	216	0	17.78	17.80	17.68	19.1	0.0	
40	QPSK	1	1	18.05	18.11	18.03			
40	QPSK	1	108	18.02	18.00	17.76	19.1	0.0	
40	QPSK	1	214	17.86	18.00	17.76			
40	QPSK	108	0	17.85	17.89	17.86	19.1	0.0	
40	QPSK	108	54	17.89	17.93	17.76	19.1	0.0	
40	QPSK	108	108	17.85	17.87	17.82	19.1	0.0	
40	QPSK	216	0	17.82	17.86	17.62			
40	16QAM	1	1	17.78	17.77	17.69	19.1	0.0	
40	64QAM	1	1	18.01	17.89	17.84	19.1	0.0	
40	256QAM	1	1	17.99	18.10	18.08	19.1	0.0	
Channel									
Frequency (MHz)									
35	QPSK	1	1	17.23	17.45	17.23	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
30	QPSK	1	1	17.95	18.10	17.94	19.1	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	17.97	18.05	17.88	19.1	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	17.94	18.07	17.96	19.1	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	17.85	18.04	17.85	19.1	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	17.95	18.05	17.87	19.1	0.0	
Channel									
Frequency (MHz)									
5	QPSK	1	1	17.96	18.06	17.86	19.1	0.0	



n70 Ant 0 ECI 10								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				340000				
Frequency (MHz)				1702.5				
15	PI2 BPSK	1	1	17.04			18.4	0.0
15	PI2 BPSK	1	40	17.04				
15	PI2 BPSK	1	77	16.90				
15	PI2 BPSK	36	0	16.85			18.4	0.0
15	PI2 BPSK	36	22	16.85			18.4	0.0
15	PI2 BPSK	36	43	16.77			18.4	0.0
15	PI2 BPSK	75	0	16.96				
15	QPSK	1	1	17.16				
15	QPSK	1	40	16.98			18.4	0.0
15	QPSK	1	77	17.04				
15	QPSK	36	0	16.85			18.4	0.0
15	QPSK	36	22	17.00			18.4	0.0
15	QPSK	36	43	16.83			18.4	0.0
15	QPSK	75	0	16.94				
15	16QAM	1	1	16.89			18.4	0.0
15	64QAM	1	1	16.93			18.4	0.0
15	256QAM	1	1	17.06			18.4	0.0
Channel				340000	340500	341000	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				1702	1702.5	1703		
10	QPSK	1	1	16.95	17.04	16.92	18.4	0.0
Channel				336500	340500	341500	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				1697.5	1702.5	1707.5		
5	QPSK	1	1	16.93	17.00	17.00	18.4	0.0

n71 Ant 0 ECI 10								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				134600	136100	137600		
Frequency (MHz)				673	680.5	688		
20	PI2 BPSK	1	1	22.80	22.82	22.73		
20	PI2 BPSK	1	53	22.74	22.79	22.74	23.8	0.0
20	PI2 BPSK	1	104	22.73	22.86	22.81		
20	PI2 BPSK	50	0	22.60	22.58	22.48	23.5	0.3
20	PI2 BPSK	50	26	22.78	22.78	22.70	23.8	0.0
20	PI2 BPSK	50	56	22.50	22.50	22.67		
20	PI2 BPSK	100	0	22.56	22.62	22.49	23.5	0.3
20	QPSK	1	1	22.94	23.00	22.98		
20	QPSK	1	53	22.82	22.86	22.70	23.8	0.0
20	QPSK	1	104	22.78	22.86	22.71		
20	QPSK	50	0	22.06	22.09	22.06	23.0	0.8
20	QPSK	50	26	22.00	22.05	22.09	23.8	0.0
20	QPSK	50	56	22.08	22.13	21.99	23.0	0.8
20	QPSK	100	0	22.07	22.15	22.05		
20	16QAM	1	1	22.04	22.12	22.03	23.0	0.8
20	64QAM	1	1	20.60	20.57	20.55	21.5	2.3
20	256QAM	1	1	18.57	18.61	18.54	19.5	4.3
Channel				134100	136100	138100	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				673	680.5	687.5		
15	QPSK	1	1	22.75	22.80	22.70	23.8	0.0
Channel				133600	136100	138600	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				668	680.5	693		
10	QPSK	1	1	22.81	22.85	22.74	23.8	0.0
Channel				133100	135100	137100	Tune-up limit (dB)	MPR (dB)
Frequency (MHz)				665.5	680.5	695.5		
5	QPSK	1	1	22.85	22.84	22.70	23.8	0.0



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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				2546.01	2592.99	2640		
100	PI2 BPSK	1	1	18.27	18.35	18.34		
100	PI2 BPSK	1	137	18.29	18.22	18.23	19.7	0.0
100	PI2 BPSK	1	271	18.14	18.14	18.08		
100	PI2 BPSK	135	0	18.15	18.15	18.01	19.7	0.0
100	PI2 BPSK	135	69	18.17	18.06	18.19	19.7	0.0
100	PI2 BPSK	135	138	17.88	18.22	18.06		
100	PI2 BPSK	270	0	18.19	18.17	17.98		
100	QPSK	1	1	18.42	18.52	18.46		
100	QPSK	1	197	18.35	18.24	18.08		
100	QPSK	1	271	18.09	18.22	18.16	19.7	0.0
100	QPSK	135	0	18.13	18.17	17.97	19.7	0.0
100	QPSK	135	69	18.20	18.31	18.13	19.7	0.0
100	QPSK	135	138	18.26	18.27	18.21	19.7	0.0
100	QPSK	270	0	18.21	18.36	18.17		
100	16QAM	1	1	18.19	18.25	18.20	19.7	0.0
100	16QAM	1	1	18.34	18.43	18.30	19.7	0.0
100	256QAM	1	1	17.74	17.77	17.71	19.7	0.0
Channel								
Frequency (MHz)				2941	2992.99	2944.98		
90	QPSK	1	1	18.35	18.33	18.40	19.7	0.0
Channel								
Frequency (MHz)				507.04	518.98	529.98	Tune-up limit (dBm)	MPR (dB)
80	QPSK	1	1	18.37	18.39	18.35	19.7	0.0
Channel								
Frequency (MHz)				5062.02	5189.98	5310.00	Tune-up limit (dBm)	MPR (dB)
70	QPSK	1	1	18.29	18.39	18.40	19.7	0.0
Channel								
Frequency (MHz)				5052.00	5189.98	5319.98	Tune-up limit (dBm)	MPR (dB)
60	QPSK	1	1	18.30	18.44	18.34	19.7	0.0
Channel								
Frequency (MHz)				2521.02	2592.99	2664.99	Tune-up limit (dBm)	MPR (dB)
50	QPSK	1	1	18.30	18.43	18.33	19.7	0.0
Channel								
Frequency (MHz)				5037.00	5189.98	5334.98	Tune-up limit (dBm)	MPR (dB)
45	QPSK	1	1	18.16	18.29	18.27	19.7	0.0
Channel								
Frequency (MHz)				5032.02	5189.98	5340.00	Tune-up limit (dBm)	MPR (dB)
40	QPSK	1	1	18.31	18.45	18.42	19.7	0.0
Channel								
Frequency (MHz)				2513.52	2592.99	2672.49	Tune-up limit (dBm)	MPR (dB)
35	QPSK	1	1	18.33	18.44	18.32	19.7	0.0
Channel								
Frequency (MHz)				5022.00	5189.98	5359.98	Tune-up limit (dBm)	MPR (dB)
30	QPSK	1	1	18.28	18.39	18.37	19.7	0.0
Channel								
Frequency (MHz)				5017.02	5189.98	5365.00	Tune-up limit (dBm)	MPR (dB)
25	QPSK	1	1	18.37	18.44	18.35	19.7	0.0
Channel								
Frequency (MHz)				5012.04	5189.98	5369.98	Tune-up limit (dBm)	MPR (dB)
20	QPSK	1	1	18.34	18.43	18.37	19.7	0.0
Channel								
Frequency (MHz)				2503.5	2592.99	2682.48	Tune-up limit (dBm)	MPR (dB)
15	QPSK	1	1	18.31	18.36	18.37	19.7	0.0
Channel								
Frequency (MHz)				5002.02	5189.98	5370.00	Tune-up limit (dBm)	MPR (dB)
10	QPSK	1	1	18.36	18.37	18.35	19.7	0.0



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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				1870	1880	1890		
Frequency (MHz)				1870	1880	1890		
40	P12 BPSK	1	1	18.01	18.10	18.00		
40	P12 BPSK	1	108	17.99	18.04	18.00	19.2	0.0
40	P12 BPSK	1	214	17.86	17.93	17.93		
40	P12 BPSK	108	0	17.88	17.91	17.87	19.2	0.0
40	P12 BPSK	108	54	18.02	17.97	17.97	19.2	0.0
40	P12 BPSK	108	108	17.71	17.91	17.76		
40	P12 BPSK	216	0	17.96	17.86	17.84	19.2	0.0
40	QPSK	1	1	18.12	18.15	18.14		
40	QPSK	1	108	18.05	18.02	18.06	19.2	0.0
40	QPSK	1	214	17.85	18.12	18.00		
40	QPSK	108	0	18.01	18.02	17.85	19.2	0.0
40	QPSK	108	54	17.98	18.11	17.83	19.2	0.0
40	QPSK	108	108	18.01	17.85	17.83	19.2	0.0
40	QPSK	216	0	17.86	18.07	17.75		
40	16QAM	1	1	17.93	17.85	17.83	19.2	0.0
40	16QAM	1	1	18.05	18.00	17.87	19.2	0.0
40	256QAM	1	1	18.06	18.10	18.05	19.2	0.0
Channel				1895.5	1890	1895.5		
Frequency (MHz)				1895.5	1890	1895.5		
35	QPSK	1	1	18.03	18.17	18.02	0.0	0.0
Channel				37300	37600	37900		
Frequency (MHz)				37300	37600	37900		
30	QPSK	1	1	18.04	18.13	17.91	0.0	0.0
Channel				37250	37600	37950		
Frequency (MHz)				37250	37600	37950		
25	QPSK	1	1	18.03	18.11	17.84	0.0	0.0
Channel				37050	37600	38000		
Frequency (MHz)				37050	37600	38000		
20	QPSK	1	1	17.99	18.14	17.99	0.0	0.0
Channel				31550	31650	31650		
Frequency (MHz)				31550	31650	31650		
15	QPSK	1	1	18.05	18.12	17.99	19.2	0.0
Channel				37100	37600	38100		
Frequency (MHz)				37100	37600	38100		
10	QPSK	1	1	18.04	18.12	17.97	19.2	0.0
Channel				37050	37600	38150		
Frequency (MHz)				37050	37600	38150		
5	QPSK	1	1	17.99	18.00	17.93	19.2	0.0

n5 Ant 1 ECI 10								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				16880	16730	16780		
Frequency (MHz)				16880	16730	16780		
20	P12 BPSK	1	1	22.87	22.91	22.82		
20	P12 BPSK	1	83	22.77	22.80	22.84	24.0	0.0
20	P12 BPSK	1	104	22.76	22.77	22.62		
20	P12 BPSK	80	0	22.26	22.26	22.22	23.5	0.5
20	P12 BPSK	50	28	22.86	22.78	22.74	24.0	0.0
20	P12 BPSK	50	56	21.97	22.21	22.01		
20	P12 BPSK	100	0	22.22	22.37	22.20	23.5	0.5
20	QPSK	1	1	22.90	22.99	22.91		
20	QPSK	1	83	22.92	22.85	22.68	24.0	0.0
20	QPSK	1	104	22.74	22.88	22.75		
20	QPSK	80	0	21.74	21.81	21.62	23.0	1.0
20	QPSK	50	28	22.82	22.90	22.77	24.0	0.0
20	QPSK	50	56	21.80	21.77	21.68	23.0	1.0
20	QPSK	100	0	21.72	21.80	21.61		
20	16QAM	1	1	21.64	21.68	21.60	23.0	1.0
20	16QAM	1	1	20.38	20.37	20.23	21.5	2.5
20	256QAM	1	1	18.86	18.89	18.87	19.5	4.5
Channel				16530	16730	16930		
Frequency (MHz)				16530	16730	16930		
15	QPSK	1	1	22.86	22.93	22.79	24.0	0.0
Channel				16580	16730	16880		
Frequency (MHz)				16580	16730	16880		
10	QPSK	1	1	22.81	22.87	22.82	24.0	0.0
Channel				16530	16730	16930		
Frequency (MHz)				16530	16730	16930		
5	QPSK	1	1	22.83	22.89	22.73	24.0	0.0

n7 Ant 1 ECI 10								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				50600	50700	50800		
Frequency (MHz)				50600	50700	50800		
50	P12 BPSK	1	1	19.88	19.80	19.84		
50	P12 BPSK	1	135	19.87	19.86	19.83	20.8	0.0
50	P12 BPSK	1	268	19.73	19.82	19.69		
50	P12 BPSK	135	0	19.73	19.85	19.86	20.8	0.0
50	P12 BPSK	135	68	19.84	19.83	19.87	20.8	0.0
50	P12 BPSK	135	135	19.48	19.71	19.55	20.8	0.0
50	P12 BPSK	270	0	19.88	19.82	19.73		
50	QPSK	1	1	19.96	20.06	19.91		
50	QPSK	1	135	19.85	19.87	19.74	20.8	0.0
50	QPSK	1	268	19.70	19.82	19.76		
50	QPSK	135	0	19.77	19.84	19.71	20.8	0.0
50	QPSK	135	68	19.82	19.92	19.82	20.8	0.0
50	QPSK	135	135	19.86	19.80	19.74	20.8	0.0
50	QPSK	270	0	19.77	19.83	19.56		
50	16QAM	1	1	19.65	19.63	19.52	20.8	0.0
50	16QAM	1	1	19.58	19.68	19.51	20.8	0.0
50	256QAM	1	1	18.82	18.82	18.83	19.5	4.5
Channel				50500	50700	51000		
Frequency (MHz)				50500	50700	51000		
40	QPSK	1	1	19.99	19.99	19.86	20.8	0.0
Channel				50350	50700	51050		
Frequency (MHz)				50350	50700	51050		
35	QPSK	1	1	19.91	19.99	19.88	0.0	0.0
Channel				50300	50700	51100		
Frequency (MHz)				50300	50700	51100		
30	QPSK	1	1	19.91	20.01	19.83	20.5	0.5
Channel				50250	50700	51150		
Frequency (MHz)				50250	50700	51150		
25	QPSK	1	1	19.95	20.00	19.87	20.8	0.0
Channel				50200	50700	51200		
Frequency (MHz)				50200	50700	51200		
20	P12 BPSK	1	1	19.90	20.04	19.87	20.8	0.0
Channel				50150	50700	51250		
Frequency (MHz)				50150	50700	51250		
15	QPSK	1	1	19.92	19.98	19.92	20.8	0.0
Channel				50100	50700	51300		
Frequency (MHz)				50100	50700	51300		
10	QPSK	1	1	19.97	19.99	19.92	20.5	0.0
Channel				50050	50700	51350		
Frequency (MHz)				50050	50700	51350		
5	QPSK	1	1	19.83	20.01	19.89	20.8	0.0



n12 Ant 1 ECI 10									
EW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				141500	141500	141700			
Frequency (MHz)				706.5	707.5	708.5			
15	PI2 BPSK	1	1	22.83	22.92	22.83			
15	PI2 BPSK	1	40	22.80	22.76	22.86	24.0	0.0	
15	PI2 BPSK	1	77	22.79	22.78	22.88			
15	PI2 BPSK	36	0	22.23	22.31	22.27	23.5	0.5	
15	PI2 BPSK	36	22	22.82	22.81	22.79	24.0	0.0	
15	PI2 BPSK	36	43	21.88	22.29	22.01			
15	PI2 BPSK	75	0	22.29	22.36	22.21	23.5	0.5	
15	QPSK	1	1	22.84	23.01	22.94			
15	QPSK	1	40	22.94	22.91	22.72	24.0	0.0	
15	QPSK	1	77	22.71	22.83	22.71			
15	QPSK	36	0	21.77	21.88	21.68	23.0	1.0	
15	QPSK	36	22	22.83	22.97	22.74	24.0	0.0	
15	QPSK	36	43	21.72	21.76	21.57	23.0	1.0	
15	QPSK	75	0	21.80	21.81	21.77	23.0	1.0	
15	16QAM	1	1	21.71	21.75	21.70	23.0	1.0	
15	16QAM	1	1	20.19	20.34	20.21	21.5	2.5	
15	256QAM	1	1	18.97	18.95	18.84	19.5	4.5	
Channel				140500	141500	142500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				704	707.5	711			
10	QPSK	1	1	22.74	22.91	22.89	24.0	0.0	
Channel				140300	141500	142700	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				703.5	707.5	712.5			
5	QPSK	1	1	22.73	22.88	22.83	24.0	0.0	

n14 Ant 1 ECI 10									
EW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				158100	158600	159100			
Frequency (MHz)				793	793	793			
10	PI2 BPSK	1	1	23.25	23.25	23.25			
10	PI2 BPSK	1	26	23.14	23.14	23.14	24.0	0.0	
10	PI2 BPSK	1	50	23.05	23.05	23.05			
10	PI2 BPSK	25	0	22.60	22.60	22.60	23.5	0.5	
10	PI2 BPSK	25	14	23.16	23.16	23.16	24.0	0.0	
10	PI2 BPSK	25	27	22.91	22.91	22.91			
10	PI2 BPSK	50	0	22.69	22.69	22.69	23.5	0.5	
10	QPSK	1	1	23.21	23.21	23.21			
10	QPSK	1	26	23.21	23.21	23.21	24.0	0.0	
10	QPSK	1	50	23.13	23.13	23.13			
10	QPSK	25	0	22.16	22.16	22.16	23.0	1.0	
10	QPSK	25	14	22.83	22.83	22.83	24.0	0.0	
10	QPSK	25	27	22.08	22.08	22.08	23.0	1.0	
10	QPSK	50	0	22.15	22.15	22.15	23.0	1.0	
10	16QAM	1	1	22.09	22.09	22.09	23.0	1.0	
10	64QAM	1	1	20.69	20.69	20.69	21.5	2.5	
10	256QAM	1	1	19.32	19.32	19.32	19.5	4.5	
Channel				158100	158600	159100	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				790.5	793	795.5			
5	QPSK	1	1	23.15	23.21	23.17	24.0	0.0	

n25 Ant 1 ECI 10									
EW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				374000	376500	379000			
Frequency (MHz)				1870	1882.5	1905			
40	PI2 BPSK	1	1	18.10	18.02	17.98			
40	PI2 BPSK	1	108	17.95	17.99	17.92	19.2	0.0	
40	PI2 BPSK	1	214	17.85	17.87	17.91			
40	PI2 BPSK	108	0	17.79	17.97	17.76	19.2	0.0	
40	PI2 BPSK	108	54	17.92	17.86	17.94	19.2	0.0	
40	PI2 BPSK	108	108	17.72	17.91	17.69			
40	PI2 BPSK	216	0	17.87	18.02	17.73	19.2	0.0	
40	QPSK	1	1	18.20	18.22	18.11			
40	QPSK	1	108	18.10	17.96	17.87	19.2	0.0	
40	QPSK	1	214	17.90	18.03	17.87			
40	QPSK	108	0	17.91	17.97	17.70	19.2	0.0	
40	QPSK	108	54	17.91	18.11	17.76	19.2	0.0	
40	QPSK	108	108	17.86	17.82	17.83	19.2	0.0	
40	QPSK	216	0	17.84	18.01	17.69	19.2	0.0	
40	16QAM	1	1	17.92	17.86	17.69	19.2	0.0	
40	64QAM	1	1	18.02	17.99	17.82	19.2	0.0	
40	256QAM	1	1	18.10	18.17	18.14	19.2	0.0	
Channel				372500	376500	379500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1867.5	1882.5	1897.5			
35	QPSK	1	1	18.09	18.15	18.12	19.2	0.0	
Channel				373000	376500	380000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1865	1882.5	1900			
30	QPSK	1	1	18.04	18.11	18.08	19.2	0.0	
Channel				372500	376500	380500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1827.5	1882.5	1927.5			
25	QPSK	1	1	17.98	18.09	18.07	19.2	0.0	
Channel				372000	376500	381000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1860	1882.5	1905			
20	QPSK	1	1	18.01	18.05	18.05	19.2	0.0	
Channel				371500	376500	381500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1867.5	1882.5	1907.5			
15	QPSK	1	1	18.05	18.10	18.12	19.2	0.0	
Channel				371000	376500	382000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1865	1882.5	1910			
10	QPSK	1	1	17.99	18.11	18.13	19.2	0.0	
Channel				370500	376500	382500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				1827.5	1882.5	1927.5			
5	QPSK	1	1	18.07	18.07	18.03	19.2	0.0	



n26 Ant 1 ECI 10							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	MPR (dB)
Channel				164800	166300	167800	
Frequency (MHz)				824	831.5	839	
20	PI2 BPSK	1	1	22.92	22.99	22.93	
20	PI2 BPSK	1	53	22.77	22.92	22.85	24.0
20	PI2 BPSK	1	104	22.78	22.78	22.84	
20	PI2 BPSK	50	0	22.22	22.36	22.19	23.5
20	PI2 BPSK	50	26	22.34	22.36	22.81	24.0
20	PI2 BPSK	50	56	22.10	22.25	22.08	
20	PI2 BPSK	100	0	22.32	22.44	22.16	23.5
20	QPSK	1	1	23.06	23.13	22.99	
20	QPSK	1	53	23.01	22.82	22.89	24.0
20	QPSK	1	104	22.89	22.97	22.76	
20	QPSK	50	0	21.89	21.84	21.67	23.0
20	QPSK	50	26	22.82	23.04	22.89	24.0
20	QPSK	50	56	21.72	21.85	21.79	23.0
20	QPSK	100	0	21.74	21.68	21.62	
20	16QAM	1	1	21.79	21.76	21.53	23.0
20	16QAM	1	1	20.44	20.37	20.16	21.5
20	256QAM	1	1	19.00	18.15	18.02	18.5
Channel				165300	166300	166300	
Frequency (MHz)				821.5	831.5	841.5	
15	QPSK	1	1	22.99	23.05	22.84	24.0
Channel				163300	166300	168800	
Frequency (MHz)				819	831.5	844	
10	QPSK	1	1	22.96	23.00	22.92	24.0
Channel				163300	166300	169300	
Frequency (MHz)				816.5	831.5	846.5	
5	QPSK	1	1	22.92	23.07	22.85	24.0

n30 Ant 1 ECI 10							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	MPR (dB)
Channel				460000	460000		
Frequency (MHz)				2310			
10	PI2 BPSK	1	1	16.96			
10	PI2 BPSK	1	26	16.81			17.8
10	PI2 BPSK	1	50	16.65			
10	PI2 BPSK	25	0	16.75			17.8
10	PI2 BPSK	25	14	16.77			17.8
10	PI2 BPSK	25	27	16.70			
10	PI2 BPSK	50	0	16.89			17.8
10	QPSK	1	1	17.05			
10	QPSK	1	26	16.79			17.8
10	QPSK	1	50	16.98			
10	QPSK	25	0	16.79			17.8
10	QPSK	25	14	17.04			17.8
10	QPSK	25	27	16.76			17.8
10	QPSK	50	0	16.81			17.8
10	16QAM	1	1	16.69			17.8
10	16QAM	1	1	16.77			17.8
10	256QAM	1	1	16.89			17.8
Channel				481500	482500		
Frequency (MHz)				2307.5	2310	2312.5	
5	QPSK	1	1	16.94	17.01	16.78	17.8

n66 Ant 1 ECI 10							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	MPR (dB)
Channel				346000	348000	350000	
Frequency (MHz)				1720	1745	1760	
40	PI2 BPSK	1	1	16.57	16.63	16.58	
40	PI2 BPSK	1	108	16.66	16.62	16.58	17.8
40	PI2 BPSK	1	214	16.63	16.68	16.63	
40	PI2 BPSK	108	0	16.59	16.62	16.60	17.8
40	PI2 BPSK	108	54	16.66	16.62	16.58	17.8
40	PI2 BPSK	108	108	16.67	16.68	16.60	
40	PI2 BPSK	216	0	16.62	16.65	16.61	17.8
40	QPSK	1	1	16.74	16.80	16.76	
40	QPSK	1	108	16.61	16.79	16.62	17.8
40	QPSK	1	214	16.62	16.62	16.65	
40	QPSK	108	0	16.61	16.72	16.63	17.8
40	QPSK	108	54	16.71	16.75	16.70	17.8
40	QPSK	108	108	16.62	16.68	16.61	17.8
40	QPSK	216	0	16.67	16.71	16.63	17.8
40	16QAM	1	1	16.58	16.68	16.61	17.8
40	16QAM	1	1	16.84	16.67	16.58	17.8
40	256QAM	1	1	16.62	16.69	16.50	17.8
Channel				345500	349000	352000	
Frequency (MHz)				1722.5	1745	1762.5	
35	QPSK	1	1	16.59	16.62	16.62	17.8
Channel				345000	349000	353000	
Frequency (MHz)				1725	1745	1765	
30	QPSK	1	1	16.59	16.68	16.60	17.8
Channel				344500	349000	355000	
Frequency (MHz)				1727.5	1745	1772.5	
25	QPSK	1	1	16.59	16.62	16.62	17.5
Channel				344000	349000	356000	
Frequency (MHz)				1720	1745	1770	
20	QPSK	1	1	16.50	16.69	16.69	17.0
Channel				343500	349000	356500	
Frequency (MHz)				1717.5	1745	1772.5	
15	QPSK	1	1	16.63	16.70	16.63	17.8
Channel				343000	349000	357000	
Frequency (MHz)				1715	1745	1775	
10	QPSK	1	1	16.61	16.72	16.61	17.8
Channel				342500	349000	358000	
Frequency (MHz)				1712.5	1745	1777.5	
5	QPSK	1	1	16.65	16.69	16.55	17.4



n70 Ant 1 ECI 10							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq	MPR (dB)
Channel							
Frequency (MHz)							
15	PI2 BPSK	1	1	20.07	1702.5		
15	PI2 BPSK	1	40	20.03			21.1
15	PI2 BPSK	1	77	19.99			0.0
15	PI2 BPSK	36	0	19.99			21.1
15	PI2 BPSK	36	22	20.03			0.0
15	PI2 BPSK	36	43	19.92			21.1
15	PI2 BPSK	75	0	20.10			0.0
15	QPSK	1	1	20.11			
15	QPSK	1	40	19.99			21.1
15	QPSK	1	77	20.04			0.0
15	QPSK	36	0	19.95			21.1
15	QPSK	36	22	20.06			0.0
15	QPSK	36	43	20.04			21.1
15	QPSK	75	0	20.07			0.0
15	16QAM	1	1	19.96			21.1
15	16QAM	1	1	20.04			0.0
15	256QAM	1	1	19.17	19.5	19.5	19.5
Channel							
Frequency (MHz)							
10	QPSK	1	1	19.99	20.10	20.09	21.1
Channel							
Frequency (MHz)							
5	QPSK	1	1	19.96	20.05	20.04	21.1

n71 Ant 1 ECI 10							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq	Power Middle Ch. / Freq	Power High Ch. / Freq	MPR (dB)
Channel							
Frequency (MHz)							
20	PI2 BPSK	1	1	22.28	13660	13610	
20	PI2 BPSK	1	53	22.23	13650	13600	23.8
20	PI2 BPSK	1	104	22.27	13655	13605	0.0
20	PI2 BPSK	50	0	22.28	13610	13560	0.3
20	PI2 BPSK	50	26	22.24	13610	13560	0.0
20	PI2 BPSK	50	55	22.04	13610	13560	0.3
20	PI2 BPSK	100	0	22.20	13610	13560	0.0
20	QPSK	1	1	22.42	13610	13560	
20	QPSK	1	53	22.25	13610	13560	23.8
20	QPSK	1	104	22.25	13610	13560	0.0
20	QPSK	50	0	22.28	13610	13560	0.8
20	QPSK	50	28	22.40	13610	13560	0.0
20	QPSK	50	56	22.28	13610	13560	0.8
20	QPSK	100	0	22.16	13610	13560	0.0
20	16QAM	1	1	22.05	13610	13560	23.0
20	16QAM	1	1	20.73	13610	13560	2.3
20	256QAM	1	1	19.40	13610	13560	19.5
Channel							
Frequency (MHz)							
15	QPSK	1	1	22.41	13610	13560	23.8
Channel							
Frequency (MHz)							
10	QPSK	1	1	22.42	13610	13560	23.8
Channel							
Frequency (MHz)							
5	QPSK	1	1	22.44	13610	13560	23.8



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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. (Freq)	Power Middle Ch. (Freq)	Power High Ch. (Freq)	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				2546.01	2592.99	2640		
100	PI2 BPSK	1	1	18.16	18.17	18.15		
100	PI2 BPSK	1	137	18.03	18.04	18.13	19.3	0.0
100	PI2 BPSK	1	271	17.90	18.09	17.88		
100	PI2 BPSK	135	0	17.97	18.07	18.02	19.3	0.0
100	PI2 BPSK	135	69	18.04	18.10	17.99	19.3	0.0
100	PI2 BPSK	135	138	17.72	17.97	17.85		
100	PI2 BPSK	270	0	17.85	18.02	17.91		
100	QPSK	1	1	18.23	18.30	18.28		
100	QPSK	1	197	18.20	18.16	17.94	19.3	0.0
100	QPSK	1	271	17.90	18.05	17.94		
100	QPSK	135	0	18.09	17.98	17.85	19.3	0.0
100	QPSK	135	69	18.01	18.21	18.08	19.3	0.0
100	QPSK	135	138	18.02	18.06	17.99	19.3	0.0
100	QPSK	270	0	17.98	18.15	17.73		
100	16QAM	1	1	18.15	18.19	18.22	19.3	0.0
100	16QAM	1	1	18.28	18.25	18.27	19.3	0.0
100	256QAM	1	1	17.51	18.07	17.88	19.3	0.0
Channel								
Frequency (MHz)				2641	2592.99	2644.98		
80	QPSK	1	1	18.00	18.10	18.18	19.3	0.0
Channel								
Frequency (MHz)				507.04	518.98	529.98		
80	QPSK	1	1	18.01	18.14	18.18	19.3	0.0
Channel								
Frequency (MHz)				506.02	518.98	531.00		
70	QPSK	1	1	18.01	18.17	18.21	19.3	0.0
Channel								
Frequency (MHz)				505.00	518.98	531.98		
60	QPSK	1	1	2526	2592.99	2629.68		
Channel								
Frequency (MHz)				2521.02	2592.99	2624.99		
50	QPSK	1	1	18.06	18.09	18.15	19.3	0.0
Channel								
Frequency (MHz)				503.00	518.98	533.98		
45	QPSK	1	1	2518.5	2592.99	2627.48		
Channel								
Frequency (MHz)				18.00	18.13	18.20	19.3	0.0
Channel								
Frequency (MHz)				503.02	518.98	534.00		
40	QPSK	1	1	2516.01	2592.99	2670		
Channel								
Frequency (MHz)				17.98	18.11	18.10	19.3	0.0
Channel								
Frequency (MHz)				502.04	518.98	534.98		
35	QPSK	1	1	2513.52	2592.99	2672.48		
Channel								
Frequency (MHz)				18.05	18.15	18.11	19.3	0.0
Channel								
Frequency (MHz)				502.00	518.98	535.98		
30	QPSK	1	1	2511	2592.99	2674.58		
Channel								
Frequency (MHz)				18.00	18.19	18.21	19.3	0.0
Channel								
Frequency (MHz)				501.02	518.98	535.00		
25	QPSK	1	1	2508.02	2592.99	2677.5		
Channel								
Frequency (MHz)				17.97	18.20	18.10	19.3	0.0
Channel								
Frequency (MHz)				501.04	518.98	535.98		
20	QPSK	1	1	2506.02	2592.99	2679.68		
Channel								
Frequency (MHz)				17.99	18.17	18.14	19.3	0.0
Channel								
Frequency (MHz)				500.00	518.98	535.98		
15	QPSK	1	1	2503.5	2592.99	2682.48		
Channel								
Frequency (MHz)				18.02	18.11	18.20	19.3	0.0
Channel								
Frequency (MHz)				500.02	518.98	537.00		
10	QPSK	1	1	2501.01	2592.99	2685		
Channel								
Frequency (MHz)				17.97	18.14	18.21	19.3	0.0



n2 Ant 2 ECI 10

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel								
Frequency (MHz)								
40	P1/2 BPSK	1	1	1240	1241	1240		
40	P1/2 BPSK	1	108	1222	1228	1224	13.7	0.0
40	P1/2 BPSK	1	214	1223	1222	1217		
40	P1/2 BPSK	108	0	1221	1238	1211	13.7	0.0
40	P1/2 BPSK	108	54	1238	1232	1227	13.7	0.0
40	P1/2 BPSK	108	108	1204	1229	1201		
40	P1/2 BPSK	216	0	1217	1239	1219		
40	QPSK	1	1	1249	1250	1238		
40	QPSK	1	108	1238	1236	1218	13.7	0.0
40	QPSK	1	214	1225	1238	1221		
40	QPSK	108	0	1221	1238	1204	13.7	0.0
40	QPSK	108	54	1231	1248	1220	13.7	0.0
40	QPSK	108	108	1224	1229	1215	13.7	0.0
40	QPSK	216	0	1217	1238	1198		
40	16QAM	1	1	1215	1223	1208	13.7	0.0
40	64QAM	1	1	1218	1229	1219	13.7	0.0
40	256QAM	1	1	1247	1246	1242	13.7	0.0
Channel								
Frequency (MHz)								
35	QPSK	1	1	1247	1246	1242	13.7	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	1238	1244	1238	0.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	1239	1245	1237	0.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	1244	1243	1243	0.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	1240	1248	1238	13.7	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	1239	1243	1233	13.7	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	1240	1245	1244	13.7	0.0

n7 Ant 2 ECI 10

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel								
Frequency (MHz)								
50	P1/2 BPSK	1	1	1483	1482	1468		
50	P1/2 BPSK	1	135	1457	1463	1465	16.0	0.0
50	P1/2 BPSK	1	268	1464	1453	1457		
50	P1/2 BPSK	135	0	1455	1475	1452	16.0	0.0
50	P1/2 BPSK	135	68	1476	1468	1460	16.0	0.0
50	P1/2 BPSK	135	135	1437	1469	1442	16.0	0.0
50	P1/2 BPSK	270	0	1450	1472	1454		
50	QPSK	1	1	1485	1484	1477		
50	QPSK	1	135	1471	1472	1462	16.0	0.0
50	QPSK	1	268	1465	1472	1463		
50	QPSK	135	0	1463	1468	1451	16.0	0.0
50	QPSK	135	68	1471	1483	1463	16.0	0.0
50	QPSK	135	135	1438	1479	1465	16.0	0.0
50	QPSK	270	0	1448	1467	1439		
50	16QAM	1	1	1406	1413	1402	16.0	0.0
50	64QAM	1	1	1430	1431	1428	16.0	0.0
50	256QAM	1	1	1488	1485	1476	16.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	1478	1486	1470	16.0	0.0
Channel								
Frequency (MHz)								
35	QPSK	1	1	1482	1492	1478	0.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	1485	1491	1478	0.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	1485	1489	1470	16.0	0.0
Channel								
Frequency (MHz)								
20	P1/2 BPSK	1	1	1484	1490	1476	16.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	1477	1492	1478	16.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	1485	1487	1470	16.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	1481	1489	1477	16.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.		
Channel								
Frequency (MHz)								
40	P1/2 BPSK	1	1	1229	1237	1217		
40	P1/2 BPSK	1	108	1224	1229	1219	13.7	0.0
40	P1/2 BPSK	1	214	1211	1221	1218		
40	P1/2 BPSK	108	0	1216	1223	1207	13.7	0.0
40	P1/2 BPSK	108	54	1228	1228	1218	13.7	0.0
40	P1/2 BPSK	108	108	1190	1222	1188		
40	P1/2 BPSK	216	0	1212	1232	1211	13.7	0.0
40	QPSK	1	1	1245	1251	1232		
40	QPSK	1	108	1238	1236	1212	13.7	0.0
40	QPSK	1	214	1216	1226	1213		
40	QPSK	108	0	1218	1227	1205	13.7	0.0
40	QPSK	108	54	1223	1244	1220	13.7	0.0
40	QPSK	108	108	1222	1221	1212	13.7	0.0
40	QPSK	216	0	1203	1231	1182		
40	16QAM	1	1	1204	1218	1208	13.7	0.0
40	64QAM	1	1	1229	1228	1205	13.7	0.0
40	256QAM	1	1	1282	1242	1242	13.7	0.0
Channel								
Frequency (MHz)								
35	QPSK	1	1	1238	1241	1235	13.7	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	1248	1247	1233	13.7	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	1245	1249	1230	13.7	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	1253	1242	1223	13.7	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	1237	1244	1228	13.7	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	1238	1249	1234	13.7	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	1242	1247	1233	13.7	0.0



n30 Ant 2 ECI 10							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	MPR (dB)
Channel							
Frequency (MHz)							
10	PI/2 BPSK	1	1	14.02	2310		
10	PI/2 BPSK	1	26	13.74			15.0
10	PI/2 BPSK	1	50	13.66			
10	PI/2 BPSK	25	0	13.72			15.0
10	PI/2 BPSK	25	14	13.78			15.0
10	PI/2 BPSK	25	27	13.64			15.0
10	PI/2 BPSK	50	0	13.84			15.0
10	QPSK	1	1	14.06			
10	QPSK	1	26	13.90			15.0
10	QPSK	1	50	13.99			
10	QPSK	25	0	13.83			15.0
10	QPSK	25	14	13.99			15.0
10	QPSK	25	27	13.71			15.0
10	QPSK	50	0	13.90			15.0
10	16QAM	1	1	13.65			15.0
10	64QAM	1	1	13.90			15.0
10	256QAM	1	1	14.02			15.0
Channel							
Frequency (MHz)							
5	QPSK	1	1	13.85	2307.5	2310	2312.5
				13.85	13.95	13.91	15.0

n66 Ant 2 ECI 10							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	MPR (dB)
Channel							
Frequency (MHz)							
40	PI/2 BPSK	1	1	14.22	1730	1745	1760
40	PI/2 BPSK	1	108	14.17	14.10	14.06	15.6
40	PI/2 BPSK	1	214	14.09	14.13	13.94	
40	PI/2 BPSK	108	0	13.96	14.06	13.91	15.6
40	PI/2 BPSK	108	54	14.06	14.06	13.93	15.6
40	PI/2 BPSK	108	108	13.83	14.03	13.89	15.6
40	PI/2 BPSK	216	0	13.99	14.14	13.91	15.6
40	QPSK	1	1	14.28	14.33	14.25	
40	QPSK	1	108	14.06	14.06	14.06	15.6
40	QPSK	1	214	14.04	14.13	14.10	
40	QPSK	108	0	14.14	14.09	13.99	15.6
40	QPSK	108	54	14.06	14.21	13.93	15.6
40	QPSK	108	108	14.07	14.06	13.86	15.6
40	QPSK	216	0	14.05	14.20	13.92	15.6
40	16QAM	1	1	13.99	13.92	13.90	15.6
40	64QAM	1	1	14.11	14.23	13.93	15.6
40	256QAM	1	1	14.15	14.22	14.18	15.6
Channel							
Frequency (MHz)							
35	QPSK	1	1	17.27.5	1745	1762.5	1780
35	QPSK	1	1	14.18	14.26	14.14	15.6
Channel							
Frequency (MHz)							
25	QPSK	1	1	14.14	14.19	14.08	15.6
Channel							
Frequency (MHz)							
20	QPSK	1	1	14.13	14.19	14.16	15.6
Channel							
Frequency (MHz)							
15	QPSK	1	1	14.18	14.27	14.12	15.6
Channel							
Frequency (MHz)							
10	QPSK	1	1	14.20	14.21	14.17	15.6
Channel							
Frequency (MHz)							
5	QPSK	1	1	14.16	14.17	14.12	15.6

n70 Ant 2 ECI 10							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	MPR (dB)
Channel							
Frequency (MHz)							
15	PI/2 BPSK	1	1	14.20	1722.5		
15	PI/2 BPSK	1	40	14.17			15.4
15	PI/2 BPSK	1	77	14.03			
15	PI/2 BPSK	36	0	14.11			15.4
15	PI/2 BPSK	36	22	14.08			15.4
15	PI/2 BPSK	36	43	13.95			15.4
15	PI/2 BPSK	75	0	14.22			15.4
15	QPSK	1	1	14.26			
15	QPSK	1	40	14.13			15.4
15	QPSK	1	77	14.18			
15	QPSK	36	0	14.05			15.4
15	QPSK	36	22	14.20			15.4
15	QPSK	36	43	14.13			15.4
15	QPSK	75	0	14.05			15.4
15	16QAM	1	1	13.70			15.4
15	64QAM	1	1	14.08			15.4
15	256QAM	1	1	14.06			15.4
Channel							
Frequency (MHz)							
10	QPSK	1	1	14.03	14.11	14.04	15.4
Channel							
Frequency (MHz)							
5	QPSK	1	1	14.11	14.14	14.05	15.4



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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				2546.01	2592.99	2640		
100	PI2 BPSK	1	1	13.38	13.53	13.44		
100	PI2 BPSK	1	137	13.37	13.42	13.47	14.7	0.0
100	PI2 BPSK	1	271	13.22	13.32	13.28		
100	PI2 BPSK	135	0	13.41	13.44	13.19	14.7	0.0
100	PI2 BPSK	135	69	13.42	13.38	13.41	14.7	0.0
100	PI2 BPSK	135	138	13.16	13.38	13.17		
100	PI2 BPSK	270	0	13.35	13.41	13.29		
100	QPSK	1	1	13.54	13.09	13.42		
100	QPSK	1	197	13.48	13.49	13.38	14.7	0.0
100	QPSK	1	271	13.47	13.50	13.35		
100	QPSK	135	0	13.38	13.33	13.24	14.7	0.0
100	QPSK	135	69	13.35	13.58	13.36	14.7	0.0
100	QPSK	135	138	13.44	13.52	13.41	14.7	0.0
100	QPSK	270	0	13.48	13.56	13.48		
100	16QAM	1	1	13.41	13.54	13.42	14.7	0.0
100	64QAM	1	1	13.83	13.07	13.84	14.7	0.0
100	256QAM	1	1	12.92	12.92	12.83	14.7	0.0
Channel								
Frequency (MHz)				2941	2992.99	2644.98		
90	QPSK	1	1	13.50	13.03	13.43	14.7	0.0
Channel								
Frequency (MHz)				507.04	518.98	529.98	Tune-up limit (dBm)	MPR (dB)
80	QPSK	1	1	13.47	13.06	13.45	14.7	0.0
Channel								
Frequency (MHz)				5062.02	5189.98	5310.00	Tune-up limit (dBm)	MPR (dB)
70	QPSK	1	1	13.55	13.54	13.43	14.7	0.0
Channel								
Frequency (MHz)				5052.00	5189.98	5319.98	Tune-up limit (dBm)	MPR (dB)
60	QPSK	1	1	13.54	13.08	13.43	14.7	0.0
Channel								
Frequency (MHz)				2521.02	2592.99	2664.99	Tune-up limit (dBm)	MPR (dB)
50	QPSK	1	1	13.47	13.02	13.37	14.7	0.0
Channel								
Frequency (MHz)				5077.00	5189.98	5334.99	Tune-up limit (dBm)	MPR (dB)
45	QPSK	1	1	13.49	13.03	13.43	14.7	0.0
Channel								
Frequency (MHz)				5032.02	5189.98	5340.00	Tune-up limit (dBm)	MPR (dB)
40	QPSK	1	1	13.51	13.07	13.39	14.7	0.0
Channel								
Frequency (MHz)				2513.52	2592.99	2672.49	Tune-up limit (dBm)	MPR (dB)
35	QPSK	1	1	13.53	13.01	13.40	14.7	0.0
Channel								
Frequency (MHz)				5022.00	5189.98	5350.00	Tune-up limit (dBm)	MPR (dB)
30	QPSK	1	1	13.53	13.06	13.40	14.7	0.0
Channel								
Frequency (MHz)				5017.02	5189.98	5355.00	Tune-up limit (dBm)	MPR (dB)
25	QPSK	1	1	13.48	13.53	13.42	14.7	0.0
Channel								
Frequency (MHz)				5012.04	5189.98	5369.98	Tune-up limit (dBm)	MPR (dB)
20	QPSK	1	1	13.53	13.03	13.33	14.7	0.0
Channel								
Frequency (MHz)				2503.5	2592.99	2682.48	Tune-up limit (dBm)	MPR (dB)
15	QPSK	1	1	13.46	13.03	13.36	14.7	0.0
Channel								
Frequency (MHz)				5002.02	5189.98	5370.00	Tune-up limit (dBm)	MPR (dB)
10	QPSK	1	1	13.56	13.04	13.42	14.7	0.0



n2 Ant 3 ECI 10

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 374000	Middle Ch. Freq. 376000	High Ch. Freq. 378000		
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	21.66	21.71	21.69	22.8	0.0
40	PI2 BPSK	1	108	21.61	21.54	21.56		
40	PI2 BPSK	1	214	21.51	21.48	21.45		
40	PI2 BPSK	108	0	21.57	21.58	21.49	22.8	0.0
40	PI2 BPSK	108	54	21.63	21.52	21.46	22.8	0.0
40	PI2 BPSK	108	108	21.26	21.57	21.46	22.8	0.0
40	PI2 BPSK	216	0	21.60	21.60	21.40	22.8	0.0
40	QPSK	1	1	21.69	21.76	21.72	22.8	0.0
40	QPSK	1	108	21.72	21.71	21.54		
40	QPSK	1	214	21.44	21.60	21.55		
40	QPSK	108	0	21.60	21.56	21.48	22.8	0.0
40	QPSK	108	54	21.64	21.68	21.54	22.8	0.0
40	QPSK	108	108	21.55	21.57	21.43	22.8	0.0
40	QPSK	216	0	21.55	21.68	21.55	22.8	0.0
40	16QAM	1	1	21.51	21.52	21.47	22.8	0.0
40	64QAM	1	1	20.66	20.64	20.48	21.5	1.3
40	256QAM	1	1	18.16	18.31	19.23	18.5	3.3
Channel								
Frequency (MHz)								
35	QPSK	1	1	21.69	21.72	21.73	0.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	21.74	21.73	21.68	0.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	21.68	21.72	21.63	0.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	21.69	21.74	21.65	0.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	21.67	21.72	21.72	22.8	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	21.76	21.74	21.73	22.8	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	21.66	21.74	21.64	22.8	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 505000	Middle Ch. Freq. 507000	High Ch. Freq. 509000		
Channel								
Frequency (MHz)								
50	PI2 BPSK	1	1	18.41	18.47	18.33	17.8	0.0
50	PI2 BPSK	1	135	18.34	18.34	18.25		
50	PI2 BPSK	1	268	18.13	18.23	18.21		
50	PI2 BPSK	135	0	18.22	18.30	18.20	17.8	0.0
50	PI2 BPSK	135	68	18.31	18.28	18.28	17.8	0.0
50	PI2 BPSK	135	135	15.98	18.24	18.24	17.8	0.0
50	PI2 BPSK	270	0	18.26	18.31	18.06	17.8	0.0
50	QPSK	1	1	18.46	18.54	18.41	17.8	0.0
50	QPSK	1	135	18.38	18.39	18.34		
50	QPSK	1	268	18.21	18.42	18.17		
50	QPSK	135	0	18.25	18.32	18.05	17.8	0.0
50	QPSK	135	68	18.25	18.49	18.32	17.8	0.0
50	QPSK	135	135	18.28	18.38	18.19	17.8	0.0
50	QPSK	270	0	18.23	18.47	18.21	17.8	0.0
50	16QAM	1	1	15.97	18.17	18.11	17.8	0.0
50	64QAM	1	1	15.01	18.07	18.03	17.8	0.0
50	256QAM	1	1	16.45	18.31	18.41	17.8	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	18.41	18.46	18.34	17.8	0.0
Channel								
Frequency (MHz)								
35	QPSK	1	1	18.41	18.49	18.37	0.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	18.39	18.50	18.32	17.8	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	18.42	18.50	18.30	17.8	0.0
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	18.41	18.46	18.41	17.8	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	18.38	18.52	18.39	17.8	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	18.35	18.44	18.43	17.8	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	18.37	18.46	18.43	17.8	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 374000	Middle Ch. Freq. 376000	High Ch. Freq. 378000		
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	21.66	21.61	21.57	22.8	0.0
40	PI2 BPSK	1	108	21.58	21.53	21.48		
40	PI2 BPSK	1	214	21.47	21.47	21.35		
40	PI2 BPSK	108	0	21.48	21.48	21.37	22.8	0.0
40	PI2 BPSK	108	54	21.50	21.62	21.50	22.8	0.0
40	PI2 BPSK	108	108	21.32	21.52	21.27	22.8	0.0
40	PI2 BPSK	216	0	21.39	21.66	21.47	22.8	0.0
40	QPSK	1	1	21.78	21.85	21.66	22.8	0.0
40	QPSK	1	108	21.65	21.61	21.46		
40	QPSK	1	214	21.49	21.64	21.56		
40	QPSK	108	0	21.52	21.58	21.29	22.8	0.0
40	QPSK	108	54	21.49	21.63	21.43	22.8	0.0
40	QPSK	108	108	21.48	21.48	21.46	22.8	0.0
40	QPSK	216	0	21.38	21.50	21.35	22.8	0.0
40	16QAM	1	1	21.47	21.48	21.34	22.8	0.0
40	64QAM	1	1	20.64	20.62	20.47	21.5	1.3
40	256QAM	1	1	19.21	19.22	19.23	18.5	3.3
Channel								
Frequency (MHz)								
35	QPSK	1	1	21.71	21.78	21.75	22.8	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	21.61	21.73	21.69	22.8	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	21.67	21.70	21.67	22.8	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	21.67	21.77	21.62	22.8	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	21.71	21.71	21.60	22.8	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	21.71	21.77	21.66	22.8	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	21.70	21.73	21.63	22.8	0.0



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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
10	PI2 BPSK	1	1	18.53	2310			
10	PI2 BPSK	1	26	18.40			19.7	0.0
10	PI2 BPSK	1	50	18.36				
10	PI2 BPSK	25	0	18.52			19.7	0.0
10	PI2 BPSK	25	14	18.36			19.7	0.0
10	PI2 BPSK	25	27	18.30			19.7	0.0
10	PI2 BPSK	50	0	18.39				
10	QPSK	1	1	18.59			19.7	0.0
10	QPSK	1	26	18.40				
10	QPSK	1	50	18.41				
10	QPSK	25	0	18.34			19.7	0.0
10	QPSK	25	14	18.55			19.7	0.0
10	QPSK	25	27	18.44			19.7	0.0
10	QPSK	50	0	18.51				
10	16QAM	1	1	18.28			19.7	0.0
10	64QAM	1	1	18.28			19.5	0.2
10	256QAM	1	1	18.48			19.5	0.2
Channel								
Frequency (MHz)								
5	QPSK	1	1	18.48	18.51	18.51	19.7	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	19.45	19.56	19.46		
40	PI2 BPSK	1	108	19.48	19.41	19.54	20.9	0.0
40	PI2 BPSK	1	214	19.34	19.45	19.37		
40	PI2 BPSK	108	0	19.41	19.42	19.28	20.9	0.0
40	PI2 BPSK	108	54	19.46	19.34	19.33	20.9	0.0
40	PI2 BPSK	108	108	19.24	19.39	19.15	20.9	0.0
40	PI2 BPSK	216	0	19.35	19.53	19.31		
40	QPSK	1	1	19.59	19.07	19.48		
40	QPSK	1	108	19.54	19.54	19.29	20.9	0.0
40	QPSK	1	214	19.33	19.49	19.41		
40	QPSK	108	0	19.50	19.51	19.47	20.9	0.0
40	QPSK	108	54	19.52	19.66	19.58	20.9	0.0
40	QPSK	108	108	19.43	19.47	19.44	20.9	0.0
40	QPSK	216	0	19.35	19.62	19.20		
40	16QAM	1	1	19.35	19.38	19.12	20.9	0.0
40	64QAM	1	1	19.52	19.56	19.38	20.9	0.0
40	256QAM	1	1	19.08	19.13	19.16	19.5	1.4
Channel								
Frequency (MHz)								
35	QPSK	1	1	19.44	19.00	19.35	20.9	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	19.62	19.61	19.38	20.9	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	19.51	19.56	19.42	20.9	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	19.51	19.53	19.45	20.9	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	19.46	19.55	19.36	20.9	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	19.55	19.53	19.34	20.9	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
15	PI2 BPSK	1	1	17.52	1722.5			
15	PI2 BPSK	1	40	17.30			18.6	0.0
15	PI2 BPSK	1	77	17.39				
15	PI2 BPSK	36	0	17.50			18.6	0.0
15	PI2 BPSK	36	22	17.30			18.6	0.0
15	PI2 BPSK	36	43	17.32			18.6	0.0
15	PI2 BPSK	75	0	17.33				
15	QPSK	1	1	17.56				
15	QPSK	1	40	17.41			18.6	0.0
15	QPSK	1	77	17.44				
15	QPSK	36	0	17.35			18.6	0.0
15	QPSK	36	22	17.52			18.6	0.0
15	QPSK	36	43	17.44			18.6	0.0
15	QPSK	75	0	17.54				
15	16QAM	1	1	17.28			18.6	0.0
15	64QAM	1	1	17.27			18.6	0.0
15	256QAM	1	1	17.42			18.6	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	17.37	17.44	17.37	18.6	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	17.37	17.50	17.36	18.6	0.0



n41 HPUE Ant 3 ECI 10										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	Channel	
									Frequency (MHz)	Frequency (MHz)
100	PI2 BPSK	1	1	15.32	15.32	15.05				
100	PI2 BPSK	1	137	15.14	15.06	15.10	16.1	0.0		
100	PI2 BPSK	1	271	14.96	15.02	14.98				
100	PI2 BPSK	135	0	14.98	15.10	14.99	16.1	0.0		
100	PI2 BPSK	135	69	15.16	15.08	14.91				
100	PI2 BPSK	135	138	14.78	15.00	14.88	16.1	0.0		
100	PI2 BPSK	270	0	14.96	15.06	14.88				
100	QPSK	1	1	15.32	15.37	15.17				
100	QPSK	1	137	15.18	15.17	15.08	16.1	0.0		
100	QPSK	1	271	15.08	15.16	14.98				
100	QPSK	135	0	15.11	15.09	14.93	16.1	0.0		
100	QPSK	135	69	14.99	15.25	14.89	16.1	0.0		
100	QPSK	135	138	15.07	14.95	14.83	16.1	0.0		
100	QPSK	270	0	14.98	15.07	14.87	16.1	0.0		
100	16QAM	1	1	15.22	15.28	15.17	16.1	0.0		
100	16QAM	1	1	15.24	15.31	15.25	16.1	0.0		
100	256QAM	1	1	14.77	14.96	14.86	16.1	0.0		
Channel										
Frequency (MHz)				2501	2592.99	2644.98	Tune-up limit (dB)	MPR		
90	QPSK	1	1	15.21	15.23	15.20	16.1	0.0		
Channel										
Frequency (MHz)				5072.04	5185.98	5299.98	Tune-up limit (dB)	MPR		
80	QPSK	1	1	15.22	15.24	15.11	16.1	0.0		
Channel										
Frequency (MHz)				5060.02	5185.98	5310.00	Tune-up limit (dB)	MPR		
70	QPSK	1	1	15.20	15.26	15.22	16.1	0.0		
Channel										
Frequency (MHz)				5050.00	5185.98	5319.98	Tune-up limit (dB)	MPR		
60	QPSK	1	1	15.19	15.31	15.13	16.1	0.0		
Channel										
Frequency (MHz)				2521.02	2592.99	2684.99	Tune-up limit (dB)	MPR		
50	QPSK	1	1	15.17	15.20	15.20	16.1	0.0		
Channel										
Frequency (MHz)				5037.00	5185.98	5334.98	Tune-up limit (dB)	MPR		
45	QPSK	1	1	15.28	15.28	15.14	16.1	0.0		
Channel										
Frequency (MHz)				5030.02	5185.98	5340.00	Tune-up limit (dB)	MPR		
40	QPSK	1	1	15.21	15.26	15.16	16.1	0.0		
Channel										
Frequency (MHz)				2513.52	2592.99	2672.49	Tune-up limit (dB)	MPR		
35	QPSK	1	1	15.21	15.32	15.14	16.1	0.0		
Channel										
Frequency (MHz)				5020.00	5185.98	5349.98	Tune-up limit (dB)	MPR		
30	QPSK	1	1	15.21	15.23	15.19	16.1	0.0		
Channel										
Frequency (MHz)				5017.02	5185.98	5350.00	Tune-up limit (dB)	MPR		
25	QPSK	1	1	15.17	15.23	15.21	16.1	0.0		
Channel										
Frequency (MHz)				2508.02	2592.99	2679.99	Tune-up limit (dB)	MPR		
20	QPSK	1	1	15.18	15.23	15.14	16.1	0.0		
Channel										
Frequency (MHz)				2503.00	2592.99	2682.48	Tune-up limit (dB)	MPR		
15	QPSK	1	1	15.17	15.31	15.20	16.1	0.0		
Channel										
Frequency (MHz)				5020.02	5185.98	5370.00	Tune-up limit (dB)	MPR		
10	QPSK	1	1	15.21	15.32	15.19	16.1	0.0		

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	Channel	
									Frequency (MHz)	Frequency (MHz)
40	PI2 BPSK	1	1	14.22	14.10	14.15				
40	PI2 BPSK	1	83	14.08	14.05	14.08	15.7	0.0		
40	PI2 BPSK	1	104	14.01	13.98	13.91				
40	PI2 BPSK	50	0	13.91	14.13	14.07	15.7	0.0		
40	PI2 BPSK	50	28	14.16	13.99	13.99	15.7	0.0		
40	PI2 BPSK	50	56	13.74	14.04	13.77	15.7	0.0		
40	PI2 BPSK	100	0	14.02	14.02	13.80				
40	QPSK	1	1	14.31	14.30	14.22				
40	QPSK	1	53	14.26	14.14	14.04	15.7	0.0		
40	QPSK	1	104	14.11	14.22	13.80				
40	QPSK	50	0	13.96	14.04	13.96	15.7	0.0		
40	QPSK	50	28	13.98	14.25	13.88	15.7	0.0		
40	QPSK	50	56	13.99	14.05	14.00	15.7	0.0		
40	QPSK	100	0	13.89	14.10	13.83	15.7	0.0		
40	16QAM	1	1	13.96	14.00	13.86	15.7	0.0		
40	16QAM	1	1	14.18	14.14	14.00	15.7	0.0		
40	256QAM	1	1	14.24	14.26	14.23	15.7	0.0		
Channel										
Frequency (MHz)				6376.00	6416.66	6456.66	Tune-up limit (dB)	MPR		
30	QPSK	1	1	14.19	14.25	14.14	15.7	0.0		
Channel										
Frequency (MHz)				6373.34	6416.66	6460.00	Tune-up limit (dB)	MPR		
20	QPSK	1	1	14.23	14.26	14.15	15.7	0.0		
Channel										
Frequency (MHz)				6371.68	6416.66	6461.66	Tune-up limit (dB)	MPR		
15	QPSK	1	1	14.20	14.19	14.10	15.7	0.0		
Channel										
Frequency (MHz)				6370.00	6416.66	6463.32	Tune-up limit (dB)	MPR		
10	QPSK	1	1	14.28	14.29	14.14	15.7	0.0		

Part270 n77 HPUE Ant 3 ECI 10										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	Channel	
									Frequency (MHz)	Frequency (MHz)
100	PI2 BPSK	1	1	14.06	14.14	13.88				
100	PI2 BPSK	1	137	13.99	14.01	13.98	15.9	0.0		
100	PI2 BPSK	1	271	14.00	14.01	13.91				
100	PI2 BPSK	135	0	14.01	14.03	13.93	15.9	0.0		
100	PI2 BPSK	135	69	13.98	14.04	13.91				
100	PI2 BPSK	135	138	13.91	13.98	13.95	15.9	0.0		
100	PI2 BPSK	270	0	13.98	14.07	14.04				
100	QPSK	1	1	14.18	14.27	14.10				
100	QPSK	1	137	14.17	14.06	13.97	15.9	0.0		
100	QPSK	1	271	13.98	14.16	13.88				
100	QPSK	135	0	13.94	14.07	14.02	15.9	0.0		
100	QPSK	135	69	14.01	14.26	13.91	15.9	0.0		
100	QPSK	135	138	14.01	13.94	13.83	15.9	0.0		
100	QPSK	270	0	13.89	14.09	13.89				
100	16QAM	1	1	13.92	14.05	13.98	15.9	0.0		
100	16QAM	1	1	13.97	14.08	13.92	15.9	0.0		
100	256QAM	1	1	13.91	13.82	13.84	15.9	0.0		
Channel										
Frequency (MHz)				6595.00	6590.00	6585.00	Tune-up limit (dB)	MPR		
90	QPSK	1	1	14.14	14.18	14.04	15.9	0.0		
Channel										
Frequency (MHz)				6493.34	6590.00	6596.66	Tune-up limit (dB)	MPR		
80	QPSK	1	1	14.08	14.20	13.99	15.9	0.0		
Channel										
Frequency (MHz)				6490.00	6590.00	6600.00	Tune-up limit (dB)	MPR		
70	QPSK	1	1	14.06	14.11	14.00	15.9	0.0		
Channel										
Frequency (MHz)				6488.68	6590.00	6603.34	Tune-up limit (dB)	MPR		
60	QPSK	1	1	14.10	14.14	14.04	15.9	0.0		
Channel										
Frequency (MHz)				3725.01	3840	3955.02	Tune-up limit (dB)	MPR		
50	QPSK	1	1	14.11	14.19	14.06	15.9	0.0		
Channel										
Frequency (MHz)				6490.00	6590.00	6640.00	Tune-up limit (dB)	MPR		
40	QPSK	1	1	14.16	14.15	13.96	15.9	0.0		
Channel										
Frequency (MHz)				6476.68	6590.00	6643.34	Tune-up limit (dB)	MPR		
30	QPSK	1	1	14.04	14.10	14.01	15.9	0.0		
Channel										
Frequency (MHz)				6475.00	6590.00	6645.00	Tune-up limit (dB)	MPR		
25	QPSK	1	1	14.16	14.12	13.95	15.9	0.0		
Channel										
Frequency (MHz)				6473.34	6590.00	6646.66	Tune-up limit (dB)	MPR		
20	QPSK	1	1	14.05	14.19	14.03	15.9	0.0		
Channel										
Frequency (MHz)				3077.52	3840	3972.51	Tune-up limit (dB)	MPR		
15	QPSK	1	1	14.13	14.14	14.05	15.9	0.0		
Channel										
Frequency (MHz)				6470.00	6590.00	6650.00	Tune-up limit (dB)	MPR		
10	QPSK	1	1	14.05	14.14	14.02	15.9	0.0		



Part27Q n77 HPUE Ant 3 ECI 10									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
3500.01									
100	PI2 BPSK	1	1	14.15					
100	PI2 BPSK	1	137	14.10			15.9	0.0	
100	PI2 BPSK	1	271	13.94					
100	PI2 BPSK	135	0	14.16			15.9	0.0	
100	PI2 BPSK	135	69	14.07			15.9	0.0	
100	PI2 BPSK	135	138	14.01			15.9	0.0	
100	PI2 BPSK	270	0	14.21			15.9	0.0	
100	QPSK	1	1	14.32					
100	QPSK	1	137	14.12			15.9	0.0	
100	QPSK	1	271	14.06					
100	QPSK	135	0	14.05			15.9	0.0	
100	QPSK	135	69	14.25			15.9	0.0	
100	QPSK	135	138	14.10			15.9	0.0	
100	QPSK	270	0	14.06			15.9	0.0	
100	16QAM	1	1	13.91			15.9	0.0	
100	64QAM	1	1	13.97			15.9	0.0	
100	256QAM	1	1	13.94			15.9	0.0	
Channel									
Frequency (MHz)									
633000									
90	QPSK	1	1	3495	3500.01	3505.02			
90	QPSK	1	1	14.07	14.15	14.17	15.9	0.0	
Channel									
Frequency (MHz)									
633000									
80	QPSK	1	1	14.16	14.15	14.13	15.9	0.0	
Channel									
Frequency (MHz)									
633334									
633334									
634334									
Tune-up limit									
MPR									
(dB)									
70	QPSK	1	1	14.09	14.25	14.13	15.9	0.0	
Channel									
Frequency (MHz)									
632000									
633334									
634668									
Tune-up limit									
MPR									
(dB)									
60	QPSK	1	1	3480	3500.01	3520.02			
60	QPSK	1	1	14.13	14.21	14.07	15.9	0.0	
Channel									
Frequency (MHz)									
3475.02									
3500.01									
3525.02									
Tune-up limit									
MPR									
(dB)									
50	QPSK	1	1	14.12	14.25	14.18	15.9	0.0	
Channel									
Frequency (MHz)									
631334									
633334									
635334									
Tune-up limit									
MPR									
(dB)									
40	QPSK	1	1	14.13	14.16	14.12	15.9	0.0	
Channel									
Frequency (MHz)									
631000									
633334									
636668									
Tune-up limit									
MPR									
(dB)									
30	QPSK	1	1	3465	3500.01	3535.02			
30	QPSK	1	1	14.17	14.21	14.09	15.9	0.0	
Channel									
Frequency (MHz)									
630534									
633334									
636534									
Tune-up limit									
MPR									
(dB)									
25	QPSK	1	1	3462.51	3500.01	3537.51			
25	QPSK	1	1	14.15	14.14	14.10	15.9	0.0	
Channel									
Frequency (MHz)									
631668									
633334									
636000									
Tune-up limit									
MPR									
(dB)									
20	QPSK	1	1	3459.02	3500.01	3540			
20	QPSK	1	1	14.16	14.18	14.11	15.9	0.0	
Channel									
Frequency (MHz)									
630000									
633334									
638168									
Tune-up limit									
MPR									
(dB)									
15	QPSK	1	1	3456.51	3500.01	3545.01			
15	QPSK	1	1	14.11	14.26	14.12	15.9	0.0	
Channel									
Frequency (MHz)									
630334									
633334									
636334									
Tune-up limit									
MPR									
(dB)									
10	QPSK	1	1	3450.01	3500.01	3545.01			
10	QPSK	1	1	14.08	14.21	14.16	15.9	0.0	

Part27Q n78 HPUE Ant 3 ECI 10									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
3750									
3750									
3750									
100	PI2 BPSK	1	1	14.08					
100	PI2 BPSK	1	137	14.08			15.9	0.0	
100	PI2 BPSK	1	271	13.94					
100	PI2 BPSK	135	0	13.96			15.9	0.0	
100	PI2 BPSK	135	69	14.03			15.9	0.0	
100	PI2 BPSK	135	138	13.93			15.9	0.0	
100	PI2 BPSK	270	0	13.91			15.9	0.0	
100	QPSK	1	1	14.17					
100	QPSK	1	137	14.08			15.9	0.0	
100	QPSK	1	271	14.08					
100	QPSK	135	0	13.99			15.9	0.0	
100	QPSK	135	69	14.13			15.9	0.0	
100	QPSK	135	138	13.99			15.9	0.0	
100	QPSK	270	0	13.91			15.9	0.0	
100	16QAM	1	1	13.98			15.9	0.0	
100	64QAM	1	1	14.00			15.9	0.0	
100	256QAM	1	1	14.06			15.9	0.0	
Channel									
Frequency (MHz)									
640000									
650000									
651334									
Tune-up limit									
MPR									
(dB)									
90	QPSK	1	1	3745.02	3750	3755.01			
90	QPSK	1	1	13.91	14.02	13.91	15.9	0.0	
Channel									
Frequency (MHz)									
640334									
650000									
650668									
Tune-up limit									
MPR									
(dB)									
80	QPSK	1	1	13.98	14.00	13.97	15.9	0.0	
Channel									
Frequency (MHz)									
640000									
650000									
651000									
Tune-up limit									
MPR									
(dB)									
70	QPSK	1	1	3735	3750	3765			
70	QPSK	1	1	13.92	14.01	13.95	15.9	0.0	
Channel									
Frequency (MHz)									
640668									
650000									
651334									
Tune-up limit									
MPR									
(dB)									
60	QPSK	1	1	3730.02	3750	3770.01			
60	QPSK	1	1	13.94	14.01	13.92	15.9	0.0	
Channel									
Frequency (MHz)									
640334									
650000									
651668									
Tune-up limit									
MPR									
(dB)									
50	QPSK	1	1	3715.02	3750	3775.01			
50	QPSK	1	1	13.95	13.97	13.91	15.9	0.0	
Channel									
Frequency (MHz)									
640000									
650000									
652000									
Tune-up limit									
MPR									
(dB)									
40	QPSK	1	1	3705	3750	3765			
40	QPSK	1	1	13.96	14.03	13.93	15.9	0.0	
Channel									
Frequency (MHz)									
640668									
650000									
652334									
Tune-up limit									
MPR									
(dB)									
30	QPSK	1	1	3715.02	3750	3765.01			
30	QPSK	1	1	13.94	14.00	13.92	15.9	0.0	
Channel									
Frequency (MHz)									
641000									
650000									
652668									
Tune-up limit									
MPR									
(dB)									
25	QPSK	1	1	3712.5	3750	3767.5			
25	QPSK	1	1	13.93	13.97	13.98	15.9	0.0	
Channel									
Frequency (MHz)									
641334									
650000									
653000									
Tune-up limit									
MPR									
(dB)									
20	QPSK	1	1	3710.01	3750	3760.02			
20	QPSK	1	1	13.94	14.02	13.98	15.9	0.0	
Channel									
Frequency (MHz)									
641668									
650000									
653334									
Tune-up limit									
MPR									
(dB)									
15	QPSK	1	1	3707.52	3750	3762.51			
15	QPSK	1	1	13.91	14.00	13.97	15.9	0.0	
Channel									
Frequency (MHz)									
642000									
650000									
653668									
Tune-up limit									
MPR									
(dB)									
10	QPSK	1	1	3705	3750	3795			
10	QPSK	1	1	13.91	13.93	13.96	15.9	0.0	

Part27Q n78 HPUE Ant 3 ECI 10									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
3500.01									
100	PI2 BPSK	1	1	14.07					
100	PI2 BPSK	1	137	14.06			15.9	0.0	
100	PI2 BPSK	1	271	14.08					
100	PI2 BPSK	135	0	13.99			15.9	0.0	
100	PI2 BPSK	135	69	14.00			15.9	0.0	
100	PI2 BPSK	135	138	13.92			15.9	0.0	
100	PI2 BPSK	270	0	14.06			15.9	0.0	
100	QPSK	1	1	14.10					
100	QPSK	1	137	14.03			15.9	0.0	
100	QPSK	1	271	13.97					
100	QPSK	135	0	13.96			15.9	0.0	
100	QPSK	135	69	14.08			15.9	0.0	
100	QPSK	135	138	13.95			15.9	0.0	
100	QPSK	270	0	14.05			15.9	0.0	
100	16QAM	1	1	13.93			15.9	0.0	
100	64QAM	1	1	14.00			15.9	0.0	
100	256QAM	1	1	13.97			15.9	0.0	
Channel									
Frequency (MHz)									
633000									
633334									
6350.02									
3505.02									
3505.02									
3505.02									
Tune-up limit									
MPR									
(dB)									
90	QPSK	1	1	14.00	14.04	13.98	15.9	0.0	
Channel									
Frequency (MHz)									
630668									
633334									
634000									
Tune-up limit									
MPR									
(dB)									
80	QPSK	1	1	14.00	14.03	13.99	15.9	0.0	
Channel									
Frequency (MHz)									
632334									
633334									
634334									
Tune-up limit									
MPR									
(dB)									
70	QPSK	1	1	14.05	14.06	13.92	15.9	0.0	
Channel									
Frequency (MHz)									
630000									
633334									
634668									
Tune-up limit									
MPR									
(dB)									
60	QPSK	1	1	14.08	14.08	14.02	15.9	0.0	
Channel									
Frequency (MHz)									
3475.02									
3500.01									
3525.02									
Tune-up limit									
MPR									
(dB)									
50	QPSK	1	1	14.07	14.04	13.91	15.9	0.0	
Channel									
Frequency (MHz)									
631334									
633334									
635334									
Tune-up limit									
MPR									
(dB)									
40	QPSK	1	1	14.07	14.03	13.93	15.9	0.0	
Channel									
Frequency (MHz)									
631000									
633334									
636668									
Tune-up limit									
MPR									
(dB)									
30	QPSK	1	1	3465	3500.01	3535.02			
30	QPSK	1	1	14.06	14.08	13.97	15.9	0.0	
Channel									
Frequency (MHz)									
630534									
633334									
636534									
Tune-up limit									



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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. [Freq]	Power Middle Ch. [Freq]	Power High Ch. [Freq]	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	12.79	12.80	12.77		
40	PI2 BPSK	1	53	12.80	12.81	12.88	14.2	0.0
40	PI2 BPSK	1	104	12.86	12.82	12.84		
40	PI2 BPSK	50	0	12.85	12.74	12.81	14.2	0.0
40	PI2 BPSK	50	28	12.72	12.77	12.84	14.2	0.0
40	PI2 BPSK	50	56	12.55	12.63	12.56	14.2	0.0
40	PI2 BPSK	100	0	12.89	12.78	12.81	14.2	0.0
40	QPSK	1	1	12.91	12.93	12.85		
40	QPSK	1	53	12.84	12.76	12.73	14.2	0.0
40	QPSK	1	104	12.73	12.78	12.92		
40	QPSK	50	0	12.85	12.78	12.47	14.2	0.0
40	QPSK	50	28	12.85	12.89	12.85	14.2	0.0
40	QPSK	50	56	12.75	12.71	12.67	14.2	0.0
40	QPSK	100	0	12.84	12.77	12.48	14.2	0.0
40	16QAM	1	1	12.86	12.62	12.48	14.2	0.0
40	64QAM	1	1	12.85	12.77	12.57	14.2	0.0
40	256QAM	1	1	12.98	12.02	12.89	14.2	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	12.82	12.91	12.87	14.2	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	12.88	12.84	12.80	14.2	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	12.95	12.91	12.92	14.2	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	12.93	12.87	12.83	14.2	0.0

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. [Freq]	Power Middle Ch. [Freq]	Power High Ch. [Freq]	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	12.12	12.14	12.15		
100	PI2 BPSK	1	137	12.05	12.01	12.08	13.3	0.0
100	PI2 BPSK	1	271	11.93	12.05	12.00		
100	PI2 BPSK	135	0	11.95	12.08	11.98	13.3	0.0
100	PI2 BPSK	135	69	12.05	12.04	11.92	13.3	0.0
100	PI2 BPSK	135	138	11.97	12.03	11.96	13.3	0.0
100	PI2 BPSK	270	0	11.93	12.06	11.98	13.3	0.0
100	QPSK	1	1	12.24	12.31	12.19		
100	QPSK	1	197	12.10	12.16	12.03	13.3	0.0
100	QPSK	1	271	11.97	12.05	12.05		
100	QPSK	135	0	11.99	11.98	11.96	13.3	0.0
100	QPSK	135	69	12.00	12.18	11.95	13.3	0.0
100	QPSK	135	138	12.04	12.09	12.03	13.3	0.0
100	QPSK	270	0	11.91	12.13	12.01	13.3	0.0
100	16QAM	1	1	11.91	11.89	11.95	13.3	0.0
100	64QAM	1	1	12.13	12.14	12.00	13.3	0.0
100	256QAM	1	1	12.22	12.20	12.22	13.3	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	12.27	12.27	12.20	13.3	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	12.15	12.26	12.17	13.3	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	12.26	12.24	12.19	13.3	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	12.21	12.26	12.18	13.3	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	12.17	12.26	12.21	13.3	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	12.22	12.23	12.13	13.3	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	12.19	12.25	12.19	13.3	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	12.26	12.24	12.22	13.3	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	12.23	12.26	12.15	13.3	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	12.21	12.25	12.15	13.3	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	12.23	12.30	12.21	13.3	0.0

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. [Freq]	Power Middle Ch. [Freq]	Power High Ch. [Freq]	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1		3500.01			
100	PI2 BPSK	1	137				13.3	0.0
100	PI2 BPSK	1	271					
100	PI2 BPSK	135	0				13.3	0.0
100	PI2 BPSK	135	69				13.3	0.0
100	PI2 BPSK	135	138				13.3	0.0
100	PI2 BPSK	270	0				13.3	0.0
100	QPSK	1	1		12.85			
100	QPSK	1	197				13.3	0.0
100	QPSK	1	271					
100	QPSK	135	0				13.3	0.0
100	QPSK	135	69				13.3	0.0
100	QPSK	135	138				13.3	0.0
100	QPSK	270	0				13.3	0.0
100	64QAM	1	1		12.08		13.3	0.0
100	64QAM	1	1		12.20		13.3	0.0
100	256QAM	1	1		12.28		13.3	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	633000	633968		Tune-up limit	MPR
Channel								
Frequency (MHz)								
80	QPSK	1	1	3495	3500.01	3505.02	13.3	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	12.58	12.50	12.53	13.3	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	632688	633334	634000	Tune-up limit	MPR
Channel								
Frequency (MHz)								
80	QPSK	1	1	632688	633334	634000	Tune-up limit	MPR
Channel								
Frequency (MHz)								
80	QPSK	1	1	632688	633334	634000	Tune-up limit	MPR
Channel								
Frequency (MHz)								
60	QPSK	1	1	3490	3500.01	3510.02	13.3	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	12.53	12.52	12.52	13.3	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	12.62	12.61	12.46	13.3	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	631668	632554	633000	Tune-up limit	MPR
Channel								
Frequency (MHz)								
40	QPSK	1	1	631668	632554	633000	Tune-up limit	MPR
Channel								
Frequency (MHz)								
30	QPSK	1	1	3465	3500.01	3535.02	13.3	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	631668	632554	633000	Tune-up limit	MPR
Channel								
Frequency (MHz)								
25	QPSK	1	1	3462.51	3500.01	3537.51	13.3	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	12.57	12.54	12.51	13.3	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	630998	631668	632000	Tune-up limit	MPR
Channel								
Frequency (MHz)								
20	QPSK	1	1	630998	631668	632000	Tune-up limit	MPR
Channel								
Frequency (MHz)								
15	QPSK	1	1	630998	631668	632000	Tune-up limit	MPR
Channel								
Frequency (MHz)								
15	QPSK	1	1	12.59	12.51	12.55	13.3	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	630334	633334	636334	Tune-up limit	MPR
Channel								
Frequency (MHz)								
10	QPSK	1	1	3455.01	3500.01	3545.01	13.3	0.0



Part270 n78 HPUE Ant 4 ECI 10									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. F. Freq.	Power Middle Ch. F. Freq.	Power High Ch. F. Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	Pl2 BPSK	1	1		3750				
100	Pl2 BPSK	1	1		1224				
100	Pl2 BPSK	1	137		1216		13.3	0.0	
100	Pl2 BPSK	1	271		1199				
100	Pl2 BPSK	135	0		1222		13.3	0.0	
100	Pl2 BPSK	135	69		1203		13.3	0.0	
100	Pl2 BPSK	135	138		1205		13.3	0.0	
100	Pl2 BPSK	270	0		1228		13.3	0.0	
100	QPSK	1	1		1229				
100	QPSK	1	137		1223		13.3	0.0	
100	QPSK	1	271		1221				
100	QPSK	135	0		1222		13.3	0.0	
100	QPSK	135	69		1227		13.3	0.0	
100	QPSK	135	138		1211		13.3	0.0	
100	QPSK	270	0		1226		13.3	0.0	
100	16QAM	1	1		1194		13.3	0.0	
100	64QAM	1	1		1209		13.3	0.0	
100	256QAM	1	1		1223		13.3	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	3745.02	3750	3755.01	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
80	QPSK	1	1	1214	1216	1214	13.3	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	3735	3750	3765	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
60	QPSK	1	1	3730.02	3750	3770.01	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
50	QPSK	1	1	1216	1224	1212	13.3	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	3725.01	3750	3775.02	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
30	QPSK	1	1	3715.02	3750	3785.01	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
25	QPSK	1	1	1212	1222	1216	13.3	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	1219	1222	1220	13.3	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	1216	1222	1221	13.3	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	1211	1225	1222	13.3	0.0	

Part27Q n78 HPUE Ant 4 ECI 10									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. F. Freq.	Power Middle Ch. F. Freq.	Power High Ch. F. Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	Pl2 BPSK	1	1		3500.01				
100	Pl2 BPSK	1	1		1240				
100	Pl2 BPSK	1	137		1237		13.3	0.0	
100	Pl2 BPSK	1	271		1234				
100	Pl2 BPSK	135	0		1230		13.3	0.0	
100	Pl2 BPSK	135	69		1240		13.3	0.0	
100	Pl2 BPSK	135	138		1230		13.3	0.0	
100	Pl2 BPSK	270	0		1247		13.3	0.0	
100	QPSK	1	1		1242				
100	QPSK	1	137		1236		13.3	0.0	
100	QPSK	1	271		1241				
100	QPSK	135	0		1233		13.3	0.0	
100	QPSK	135	69		1236		13.3	0.0	
100	QPSK	135	138		1246		13.3	0.0	
100	QPSK	270	0		1250		13.3	0.0	
100	16QAM	1	1		1223		13.3	0.0	
100	64QAM	1	1		1243		13.3	0.0	
100	256QAM	1	1		1240		13.3	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	3495	3500.01	3505.02	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
80	QPSK	1	1	1254	1256	1248	13.3	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	3485.01	3500.01	3515.01	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
60	QPSK	1	1	3480	3500.01	3520.02	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
50	QPSK	1	1	1244	1256	1248	13.3	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	3475.02	3500.01	3525	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
30	QPSK	1	1	3465	3500.01	3535.02	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
25	QPSK	1	1	1240	1248	1244	13.3	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	1259	1254	1244	13.3	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	1240	1244	1244	13.3	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	1238	1249	1246	13.3	0.0	



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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				3570	3624.99	3679.98		
40	Pi2 BPSK	1	1	16.41	16.41	16.43		
40	Pi2 BPSK	1	53	16.31	16.29	16.40	17.8	0.0
40	Pi2 BPSK	1	104	16.19	16.26	16.19		
40	Pi2 BPSK	50	0	16.27	16.38	16.20	17.8	0.0
40	Pi2 BPSK	50	28	16.35	16.34	16.16	17.8	0.0
40	Pi2 BPSK	50	56	15.96	16.15	16.04	17.8	0.0
40	Pi2 BPSK	100	0	16.32	16.36	16.21	17.8	0.0
40	QPSK	1	1	16.46	16.50	16.48		
40	QPSK	1	53	16.34	16.41	16.17	17.8	0.0
40	QPSK	1	104	16.26	16.41	16.22		
40	QPSK	50	0	16.22	16.38	16.11	17.8	0.0
40	QPSK	50	28	16.27	16.48	16.23	17.8	0.0
40	QPSK	50	56	16.17	16.38	16.25	17.8	0.0
40	QPSK	100	0	16.20	16.36	16.06	17.8	0.0
40	16QAM	1	1	16.20	16.30	16.02	17.8	0.0
40	64QAM	1	1	16.35	16.34	16.23	17.8	0.0
40	256QAM	1	1	16.42	16.47	16.40	17.8	0.0
Channel								
Frequency (MHz)				3565.02	3624.99	3684.99		
30	QPSK	1	1	16.28	16.33	16.19	17.8	0.0
Channel								
Frequency (MHz)				637168	641666	646166		
20	QPSK	1	1	16.29	16.36	16.26	17.8	0.0
Channel								
Frequency (MHz)				637168	641666	646166		
15	QPSK	1	1	16.23	16.39	16.17	17.8	0.0
Channel								
Frequency (MHz)				637000	641666	646332		
10	QPSK	1	1	16.32	16.43	16.19	17.8	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				3750	3840	3930		
100	Pi2 BPSK	1	1	12.89	12.96	12.90		
100	Pi2 BPSK	1	137	12.79	12.85	12.79	14.2	0.0
100	Pi2 BPSK	1	271	12.80	12.75	12.72		
100	Pi2 BPSK	135	0	12.77	12.87	12.74	14.2	0.0
100	Pi2 BPSK	135	69	12.81	12.80	12.86	14.2	0.0
100	Pi2 BPSK	135	138	12.82	12.76	12.84	14.2	0.0
100	Pi2 BPSK	270	0	12.71	12.77	12.60	14.2	0.0
100	QPSK	1	1	13.00	13.05	12.94		
100	QPSK	1	137	12.97	12.88	12.77	14.2	0.0
100	QPSK	1	271	12.77	12.85	12.73		
100	QPSK	135	0	12.83	12.85	12.84	14.2	0.0
100	QPSK	135	69	12.77	12.92	12.75	14.2	0.0
100	QPSK	135	138	12.76	12.84	12.88	14.2	0.0
100	QPSK	270	0	12.67	12.90	12.65	14.2	0.0
100	16QAM	1	1	12.76	12.75	12.49	14.2	0.0
100	64QAM	1	1	12.85	12.85	12.81	14.2	0.0
100	256QAM	1	1	12.84	12.92	12.88	14.2	0.0
Channel								
Frequency (MHz)				3745.02	3840	3935.01		
80	QPSK	1	1	12.77	12.78	12.80	14.2	0.0
Channel								
Frequency (MHz)				646334	650000	653666		
80	QPSK	1	1	12.76	12.83	12.75	14.2	0.0
Channel								
Frequency (MHz)				646000	650000	653000		
70	QPSK	1	1	12.82	12.76	12.74	14.2	0.0
Channel								
Frequency (MHz)				646968	650000	653334		
60	QPSK	1	1	12.73	12.78	12.70	14.2	0.0
Channel								
Frequency (MHz)				3725.01	3840	3955.02		
50	QPSK	1	1	12.79	12.83	12.81	14.2	0.0
Channel								
Frequency (MHz)				648000	650000	654000		
40	QPSK	1	1	12.78	12.80	12.71	14.2	0.0
Channel								
Frequency (MHz)				647868	650000	654334		
30	QPSK	1	1	12.72	12.78	12.70	14.2	0.0
Channel								
Frequency (MHz)				647600	650000	654500		
25	QPSK	1	1	12.73	12.76	12.72	14.2	0.0
Channel								
Frequency (MHz)				647334	650000	654666		
20	QPSK	1	1	12.82	12.79	12.76	14.2	0.0
Channel								
Frequency (MHz)				647168	650000	654832		
15	QPSK	1	1	12.74	12.83	12.80	14.2	0.0
Channel								
Frequency (MHz)				3705	3840	3975		
10	QPSK	1	1	12.82	12.77	12.78	14.2	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)						3500.01		
100	Pi2 BPSK	1	1			13.12		
100	Pi2 BPSK	1	137			13.03	14.2	0.0
100	Pi2 BPSK	1	271			12.91		
100	Pi2 BPSK	135	0			13.08	14.2	0.0
100	Pi2 BPSK	135	69			12.96	14.2	0.0
100	Pi2 BPSK	135	138			12.95	14.2	0.0
100	Pi2 BPSK	270	0			13.03	14.2	0.0
100	QPSK	1	1			13.30		
100	QPSK	1	137			13.00	14.2	0.0
100	QPSK	1	271			13.13		
100	QPSK	135	0			13.06	14.2	0.0
100	QPSK	135	69			13.22	14.2	0.0
100	QPSK	135	138			13.06	14.2	0.0
100	QPSK	270	0			13.12	14.2	0.0
100	16QAM	1	1			13.01	14.2	0.0
100	64QAM	1	1			13.26	14.2	0.0
100	256QAM	1	1			12.90	14.2	0.0
Channel								
Frequency (MHz)				633000	633334	633666		
80	QPSK	1	1	13.04	13.14	13.10	14.2	0.0
Channel								
Frequency (MHz)				632668	633334	634000		
80	QPSK	1	1	13.13	13.22	13.09	14.2	0.0
Channel								
Frequency (MHz)				632334	633334	634334		
70	QPSK	1	1	13.07	13.16	13.01	14.2	0.0
Channel								
Frequency (MHz)				632000	633334	634668		
60	QPSK	1	1	13.05	13.14	13.02	14.2	0.0
Channel								
Frequency (MHz)				3475.02	3500.01	3525.02		
50	QPSK	1	1	13.09	13.22	13.11	14.2	0.0
Channel								
Frequency (MHz)				631334	633334	635334		
40	QPSK	1	1	13.11	13.16	13.11	14.2	0.0
Channel								
Frequency (MHz)				631000	633334	635668		
30	QPSK	1	1	13.11	13.16	13.11	14.2	0.0
Channel								
Frequency (MHz)				630668	633334	636000		
25	QPSK	1	1	13.13	13.12	13.11	14.2	0.0
Channel								
Frequency (MHz)				630334	633334	636332		
20	QPSK	1	1	13.06	13.19	13.08	14.2	0.0
Channel								
Frequency (MHz)				630000	633334	636668		
15	QPSK	1	1	13.11	13.16	13.07	14.2	0.0
Channel								
Frequency (MHz)				630334	633334	636334		
10	QPSK	1	1	13.06	13.22	13.09	14.2	0.0



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Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low Ch. F. Freq., Power High Ch. F. Freq., Power Mid Ch. F. Freq., Tune-up limit (dBm), MPR (dB). Rows include various modulation schemes like Pi/2 BPSK, QPSK, 16QAM, 64QAM, and 256QAM across multiple frequency channels.

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Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low Ch. F. Freq., Power High Ch. F. Freq., Power Mid Ch. F. Freq., Tune-up limit (dBm), MPR (dB). Rows include various modulation schemes like Pi/2 BPSK, QPSK, 16QAM, 64QAM, and 256QAM across multiple frequency channels.



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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	15.31	15.42	15.31		
40	PI2 BPSK	1	53	15.24	15.32	15.37	16.2	0.0
40	PI2 BPSK	1	104	15.14	15.25	15.12		
40	PI2 BPSK	50	0	15.12	15.31	15.02	16.2	0.0
40	PI2 BPSK	50	28	15.33	15.34	15.26	16.2	0.0
40	PI2 BPSK	50	56	14.95	15.18	14.99	16.2	0.0
40	PI2 BPSK	100	0	15.28	15.21	15.11	16.2	0.0
40	QPSK	1	1	15.33	15.43	15.36		
40	QPSK	1	53	15.33	15.36	15.18	16.2	0.0
40	QPSK	1	104	15.18	15.30	15.18		
40	QPSK	50	0	15.12	15.22	15.09	16.2	0.0
40	QPSK	50	28	15.27	15.39	15.21	16.2	0.0
40	QPSK	50	56	15.25	15.26	15.20	16.2	0.0
40	QPSK	100	0	15.05	15.26	15.03	16.2	0.0
40	16QAM	1	1	15.08	15.18	15.19	16.2	0.0
40	64QAM	1	1	15.23	15.31	15.22	16.2	0.0
40	256QAM	1	1	15.13	15.21	15.08	16.2	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	15.20	15.33	15.18	16.2	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	15.12	15.33	15.24	16.2	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	15.14	15.29	15.20	16.2	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	15.15	15.27	15.20	16.2	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	14.27	14.39	14.19		
100	PI2 BPSK	1	137	14.16	14.22	14.16	15.5	0.0
100	PI2 BPSK	1	271	14.21	14.15	14.07		
100	PI2 BPSK	135	0	14.06	14.22	14.06	15.5	0.0
100	PI2 BPSK	135	69	14.12	14.25	14.11	15.5	0.0
100	PI2 BPSK	135	138	13.86	14.15	14.02	15.5	0.0
100	PI2 BPSK	270	0	14.12	14.16	14.08	15.5	0.0
100	QPSK	1	1	14.36	14.47	14.30		
100	QPSK	1	137	14.25	14.20	14.06	15.5	0.0
100	QPSK	1	271	14.20	14.37	14.10		
100	QPSK	135	0	14.12	14.23	14.06	15.5	0.0
100	QPSK	135	69	14.30	14.45	14.34	15.5	0.0
100	QPSK	135	138	14.15	14.18	14.10	15.5	0.0
100	QPSK	270	0	14.07	14.16	13.93	15.5	0.0
100	16QAM	1	1	14.17	14.12	13.96	15.5	0.0
100	64QAM	1	1	14.26	14.26	14.08	15.5	0.0
100	256QAM	1	1	14.28	14.33	14.26	15.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	14.32	14.29	14.18	15.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	14.26	14.29	14.22	15.5	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	14.21	14.23	14.19	15.5	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	14.26	14.33	14.22	15.5	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	14.22	14.25	14.14	15.5	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	14.25	14.34	14.18	15.5	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	14.28	14.29	14.19	15.5	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	14.25	14.25	14.20	15.5	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	14.25	14.33	14.23	15.5	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	14.22	14.33	14.12	15.5	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	14.30	14.26	14.13	15.5	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1		3500.01			
100	PI2 BPSK	1	137		3482.01		15.5	0.0
100	PI2 BPSK	1	271		3464.01			
100	PI2 BPSK	135	0		3446.01		15.5	0.0
100	PI2 BPSK	135	69		3428.01		15.5	0.0
100	PI2 BPSK	135	138		3410.01		15.5	0.0
100	PI2 BPSK	270	0		3392.01		15.5	0.0
100	QPSK	1	1		3374.01			
100	QPSK	1	137		3356.01		15.5	0.0
100	QPSK	1	271		3338.01			
100	QPSK	135	0		3320.01		15.5	0.0
100	QPSK	135	69		3302.01		15.5	0.0
100	QPSK	135	138		3284.01		15.5	0.0
100	QPSK	270	0		3266.01		15.5	0.0
100	16QAM	1	1		3248.01		15.5	0.0
100	64QAM	1	1		3230.01		15.5	0.0
100	256QAM	1	1		3212.01		15.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	633000	633350	633660	Tune-up limit	MPR
Channel								
Frequency (MHz)								
80	QPSK	1	1	633000	633350	633660	Tune-up limit	MPR
Channel								
Frequency (MHz)								
80	QPSK	1	1	633000	633350	633660	Tune-up limit	MPR
Channel								
Frequency (MHz)								
70	QPSK	1	1	633000	633350	633660	Tune-up limit	MPR
Channel								
Frequency (MHz)								
60	QPSK	1	1	633000	633350	633660	Tune-up limit	MPR
Channel								
Frequency (MHz)								
50	QPSK	1	1	633000	633350	633660	Tune-up limit	MPR
Channel								
Frequency (MHz)								
40	QPSK	1	1	633000	633350	633660	Tune-up limit	MPR
Channel								
Frequency (MHz)								
30	QPSK	1	1	633000	633350	633660	Tune-up limit	MPR
Channel								
Frequency (MHz)								
25	QPSK	1	1	633000	633350	633660	Tune-up limit	MPR
Channel								
Frequency (MHz)								
20	QPSK	1	1	633000	633350	633660	Tune-up limit	MPR
Channel								
Frequency (MHz)								
15	QPSK	1	1	633000	633350	633660	Tune-up limit	MPR
Channel								
Frequency (MHz)								
10	QPSK	1	1	633000	633350	633660	Tune-up limit	MPR



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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. F. Freq.	Power Middle Ch. F. Freq.	Power High Ch. F. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	Pl2 BPSK	1	1		3750			
100	Pl2 BPSK	1	1		14.27			
100	Pl2 BPSK	1	137		14.12		15.5	0.0
100	Pl2 BPSK	1	271		14.04			
100	Pl2 BPSK	135	0		13.99		15.5	0.0
100	Pl2 BPSK	135	69		14.10		15.5	0.0
100	Pl2 BPSK	135	138		13.94		15.5	0.0
100	Pl2 BPSK	270	0		14.23		15.5	0.0
100	QPSK	1	1		14.33			
100	QPSK	1	137		14.26		15.5	0.0
100	QPSK	1	271		14.19			
100	QPSK	135	0		14.10		15.5	0.0
100	QPSK	135	69		14.29		15.5	0.0
100	QPSK	135	138		14.17		15.5	0.0
100	QPSK	270	0		14.14		15.5	0.0
100	16QAM	1	1		14.32		15.5	0.0
100	16QAM	1	1		14.30		15.5	0.0
100	256QAM	1	1		14.81		15.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	64969	65000	65034	Tune-up limit	MPR
				3745.02	3750	3750.01	(dBm)	(dB)
				14.16	14.21	14.12	15.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	64934	65000	65068	Tune-up limit	MPR
				3749.01	3750	3750.02	(dBm)	(dB)
				14.14	14.25	14.06	15.5	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	64900	65000	65100	Tune-up limit	MPR
				3735	3750	3765	(dBm)	(dB)
				14.10	14.20	14.14	15.5	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	64868	65000	65134	Tune-up limit	MPR
				3730.02	3750	3770.01	(dBm)	(dB)
				14.12	14.17	14.08	15.5	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	64800	65000	65200	Tune-up limit	MPR
				3725.01	3750	3775.02	(dBm)	(dB)
				14.13	14.22	14.07	15.5	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	64768	65000	65234	Tune-up limit	MPR
				3715.02	3750	3765.01	(dBm)	(dB)
				14.18	14.19	14.12	15.5	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	64734	65000	65268	Tune-up limit	MPR
				3710.01	3750	3760.02	(dBm)	(dB)
				14.19	14.24	14.07	15.5	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	64700	65000	65300	Tune-up limit	MPR
				3705	3750	3795	(dBm)	(dB)
				14.19	14.19	14.09	15.5	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. F. Freq.	Power Middle Ch. F. Freq.	Power High Ch. F. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	Pl2 BPSK	1	1		3500.01			
100	Pl2 BPSK	1	1		14.48			
100	Pl2 BPSK	1	137		14.42		15.5	0.0
100	Pl2 BPSK	1	271		14.35			
100	Pl2 BPSK	135	0		14.45		15.5	0.0
100	Pl2 BPSK	135	69		14.30		15.5	0.0
100	Pl2 BPSK	135	138		14.37		15.5	0.0
100	Pl2 BPSK	270	0		14.63		15.5	0.0
100	QPSK	1	1		14.64			
100	QPSK	1	137		14.61		15.5	0.0
100	QPSK	1	271		14.62			
100	QPSK	135	0		14.51		15.5	0.0
100	QPSK	135	69		14.62		15.5	0.0
100	QPSK	135	138		14.58		15.5	0.0
100	QPSK	270	0		14.60		15.5	0.0
100	16QAM	1	1		14.58		15.5	0.0
100	16QAM	1	1		14.53		15.5	0.0
100	256QAM	1	1		14.20		15.5	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	63300	63334	63368	Tune-up limit	MPR
				3495	3500.01	3505.02	(dBm)	(dB)
				14.52	14.59	14.56	15.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	63268	63334	63400	Tune-up limit	MPR
				3490.02	3500.01	3510	(dBm)	(dB)
				14.56	14.61	14.59	15.5	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	63234	63334	63434	Tune-up limit	MPR
				3485.01	3500.01	3515.01	(dBm)	(dB)
				14.50	14.61	14.58	15.5	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	63200	63334	63468	Tune-up limit	MPR
				3480	3500.01	3520.02	(dBm)	(dB)
				14.51	14.60	14.53	15.5	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	63168	63334	63500	Tune-up limit	MPR
				3475.02	3500.01	3525	(dBm)	(dB)
				14.53	14.58	14.56	15.5	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	63134	63334	63534	Tune-up limit	MPR
				3470.01	3500.01	3530.01	(dBm)	(dB)
				14.51	14.62	14.53	15.5	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	63100	63334	63568	Tune-up limit	MPR
				3465	3500.01	3535.02	(dBm)	(dB)
				14.61	14.61	14.58	15.5	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	63068	63334	63600	Tune-up limit	MPR
				3460.02	3500.01	3540	(dBm)	(dB)
				14.52	14.56	14.58	15.5	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	63034	63334	63634	Tune-up limit	MPR
				3455	3500.01	3545.01	(dBm)	(dB)
				14.51	14.58	14.53	15.5	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	63000	63334	63668	Tune-up limit	MPR
				3450.01	3500.01	3550.02	(dBm)	(dB)
				14.50	14.58	14.51	15.5	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	62968	63334	63700	Tune-up limit	MPR
				3445.01	3500.01	3555.01	(dBm)	(dB)
				14.50	14.62	14.51	15.5	0.0



Full&Default&EC14 Power Mode Other PA

n7 Ant 3										
Power	Power	Power	Tune-up limit (dBm)	MPR (dB)	Channel					
Low Ch. / Freq. 505000	Middle Ch. / Freq. 507000	High Ch. / Freq. 509000			Low Ch. / Freq. 505000	Middle Ch. / Freq. 507000	High Ch. / Freq. 509000	RB Size	RB Offset	Modulation
Channel										
Frequency (MHz)										
50	PI2 BPSK	1	1	23.42	23.42	23.34				
50	PI2 BPSK	1	135	23.30	23.33	23.30			24.0	0.0
50	PI2 BPSK	1	268	23.15	23.19	23.16				
50	PI2 BPSK	135	0	22.73	22.84	22.69			23.5	0.5
50	PI2 BPSK	135	68	23.25	23.26	23.23			24.0	0.0
50	PI2 BPSK	135	135	22.51	22.71	22.68			23.5	0.5
50	PI2 BPSK	270	0	22.77	22.78	22.60				
50	QPSK	1	1	23.47	23.54	23.44				
50	QPSK	1	135	23.39	23.38	23.28			24.0	0.0
50	QPSK	1	268	23.18	23.41	23.18				
50	QPSK	135	0	22.77	22.28	22.10			23.0	1.0
50	QPSK	135	68	23.26	23.49	23.34			24.0	0.0
50	QPSK	135	135	22.33	22.37	22.14			23.0	1.0
50	QPSK	270	0	22.25	22.43	22.25				
50	16QAM	1	1	22.03	22.18	22.08			23.0	1.0
50	64QAM	1	1	20.50	20.60	20.53			21.5	2.5
50	256QAM	1	1	18.96	19.06	18.83			19.5	4.5
Channel										
Frequency (MHz)										
40	QPSK	1	1	22.41	23.40	23.37			24.0	0.0
Channel										
Frequency (MHz)										
35	QPSK	1	1	23.39	23.45	23.34			0.0	0.0
Channel										
Frequency (MHz)										
30	QPSK	1	1	23.33	23.51	23.33			24.0	0.0
Channel										
Frequency (MHz)										
25	QPSK	1	1	23.40	23.43	23.40			24.0	0.0
Channel										
Frequency (MHz)										
20	PI2 BPSK	1	1	23.38	23.47	23.36			24.0	0.0
Channel										
Frequency (MHz)										
15	QPSK	1	1	23.39	23.50	23.37			24.0	0.0
Channel										
Frequency (MHz)										
10	QPSK	1	1	23.39	23.45	23.35			24.0	0.0
Channel										
Frequency (MHz)										
5	QPSK	1	1	23.37	23.48	23.39			24.0	0.0

n25 Ant 3										
Power	Power	Power	Tune-up limit (dBm)	MPR (dB)	Channel					
Low Ch. / Freq. 374000	Middle Ch. / Freq. 376500	High Ch. / Freq. 379000			Low Ch. / Freq. 374000	Middle Ch. / Freq. 376500	High Ch. / Freq. 379000	RB Size	RB Offset	Modulation
Channel										
Frequency (MHz)										
40	PI2 BPSK	1	1	23.16	23.18	23.11				
40	PI2 BPSK	1	108	23.03	23.08	23.01			24.0	0.0
40	PI2 BPSK	1	214	22.94	22.99	22.89				
40	PI2 BPSK	108	0	22.48	22.52	22.38			23.5	0.5
40	PI2 BPSK	108	54	23.03	23.01	23.02			24.0	0.0
40	PI2 BPSK	108	108	22.32	22.50	22.29			23.5	0.5
40	PI2 BPSK	216	0	22.41	22.62	22.42				
40	QPSK	1	1	23.23	23.30	23.18				
40	QPSK	1	108	23.12	23.14	22.98			24.0	0.0
40	QPSK	1	214	23.03	23.10	23.00				
40	QPSK	108	0	22.01	22.09	21.84			23.0	1.0
40	QPSK	108	54	23.03	23.19	22.92			24.0	0.0
40	QPSK	108	108	21.98	21.99	21.97			23.0	1.0
40	QPSK	216	0	21.89	22.04	21.85				
40	16QAM	1	1	22.00	22.02	21.87			23.0	1.0
40	64QAM	1	1	20.94	20.92	20.47			21.5	2.5
40	256QAM	1	1	19.21	19.29	19.28			19.5	4.5
Channel										
Frequency (MHz)										
35	QPSK	1	1	18.75	18.92	18.75			24.0	0.0
Channel										
Frequency (MHz)										
30	QPSK	1	1	23.17	23.25	23.15			24.0	0.0
Channel										
Frequency (MHz)										
25	QPSK	1	1	23.15	23.23	23.05			24.0	0.0
Channel										
Frequency (MHz)										
20	QPSK	1	1	23.17	23.21	23.13			24.0	0.0
Channel										
Frequency (MHz)										
15	QPSK	1	1	23.17	23.18	23.13			24.0	0.0
Channel										
Frequency (MHz)										
10	QPSK	1	1	23.19	23.22	23.11			24.0	0.0
Channel										
Frequency (MHz)										
5	QPSK	1	1	23.09	23.24	23.10			24.0	0.0

n66 Ant 3										
Power	Power	Power	Tune-up limit (dBm)	MPR (dB)	Channel					
Low Ch. / Freq. 346000	Middle Ch. / Freq. 349000	High Ch. / Freq. 352000			Low Ch. / Freq. 346000	Middle Ch. / Freq. 349000	High Ch. / Freq. 352000	RB Size	RB Offset	Modulation
Channel										
Frequency (MHz)										
40	PI2 BPSK	1	1	22.99	23.12	22.93				
40	PI2 BPSK	1	108	22.96	22.93	22.99			24.0	0.0
40	PI2 BPSK	1	214	22.85	22.91	22.87				
40	PI2 BPSK	108	0	22.39	22.45	22.34			23.5	0.5
40	PI2 BPSK	108	54	22.93	22.89	22.87			24.0	0.0
40	PI2 BPSK	108	108	22.30	22.33	22.16			23.5	0.5
40	PI2 BPSK	216	0	22.38	22.53	22.25				
40	QPSK	1	1	23.14	23.18	23.02				
40	QPSK	1	108	23.09	23.01	22.84			24.0	0.0
40	QPSK	1	214	22.84	22.98	22.89				
40	QPSK	108	0	21.90	21.97	21.78			23.0	1.0
40	QPSK	108	54	22.87	23.11	22.85			24.0	0.0
40	QPSK	108	108	21.96	21.92	21.91			23.0	1.0
40	QPSK	216	0	21.87	21.97	21.74				
40	16QAM	1	1	21.87	21.83	21.66			23.0	1.0
40	64QAM	1	1	20.51	20.51	20.38			21.5	2.5
40	256QAM	1	1	19.08	19.13	19.15			19.5	4.5
Channel										
Frequency (MHz)										
35	QPSK	1	1	17.75	17.45	17.62			24.0	0.0
Channel										
Frequency (MHz)										
30	QPSK	1	1	23.04	23.03	22.90			24.0	0.0
Channel										
Frequency (MHz)										
25	QPSK	1	1	23.07	23.06	22.96			24.0	0.0
Channel										
Frequency (MHz)										
20	QPSK	1	1	23.01	23.11	22.87			24.0	0.0
Channel										
Frequency (MHz)										
15	QPSK	1	1	22.99	23.12	22.97			24.0	0.0
Channel										
Frequency (MHz)										
10	QPSK	1	1	23.02	23.09	22.89			24.0	0.0
Channel										
Frequency (MHz)										
5	QPSK	1	1	23.10	23.05	22.99			24.0	0.0



n41 Ant 3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 50202	Power Middle Ch. / Freq. 51898	Power High Ch. / Freq. 52900	Tune-up limit (dBm)	MPR (dB)	
Channel				2546.01	2592.99	2640			
Frequency (MHz)				2546.01	2592.99	2640			
100	PI2 BPSK	1	1	22.50	22.62	22.44			
100	PI2 BPSK	1	137	22.49	22.58	22.45			
100	PI2 BPSK	1	271	22.48	22.55	22.46	24.0	0.0	
100	PI2 BPSK	135	0	22.15	22.12	22.07	23.5	0.5	
100	PI2 BPSK	135	69	22.51	22.65	22.51	24.0	0.0	
100	PI2 BPSK	135	138	22.12	22.20	22.08	23.5	0.5	
100	PI2 BPSK	270	0	22.16	22.16	22.06	24.0	0.0	
100	QPSK	1	1	22.60	22.65	22.57			
100	QPSK	1	137	22.50	22.52	22.45	24.0	0.0	
100	QPSK	1	271	22.51	22.57	22.53			
100	QPSK	135	0	21.58	21.69	21.55	23.0	1.0	
100	QPSK	135	69	22.52	22.61	22.50	24.0	0.0	
100	QPSK	135	138	21.58	21.63	21.63	23.0	1.0	
100	QPSK	270	0	21.65	21.70	21.58	23.0	1.0	
100	16QAM	1	1	21.58	21.64	21.62	23.0	1.0	
100	16QAM	1	1	20.08	20.14	20.05	21.5	2.5	
100	256QAM	1	1	18.13	18.19	18.06	19.5	4.5	
Channel				50200	51898	53998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2541	2592.99	2644.98			
90	QPSK	1	1	22.52	22.51	22.44	24.0	0.0	
Channel				50704	51898	52998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2536.02	2592.99	2648.99			
80	QPSK	1	1	22.54	22.59	22.43	24.0	0.0	
Channel				50202	51898	53100	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2531.01	2592.99	2655			
70	QPSK	1	1	22.44	22.54	22.42	24.0	0.0	
Channel				50200	51898	53198	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2524	2592.99	2659.98			
60	QPSK	1	1	22.49	22.59	22.47	24.0	0.0	
Channel				50404	51898	53998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2521.02	2592.99	2664.99			
50	QPSK	1	1	22.45	22.50	22.48	24.0	0.0	
Channel				50700	51898	53498	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2518.5	2592.99	2667.48			
45	QPSK	1	1	22.49	22.57	22.43	24.0	0.0	
Channel				50302	51898	53400	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2510.01	2592.99	2670			
40	QPSK	1	1	22.40	22.40	22.48	24.0	0.0	
Channel				50204	51898	53498	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2513.52	2592.99	2672.49			
35	QPSK	1	1	22.48	22.51	22.47	24.0	0.0	
Channel				50200	51898	53498	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2511	2592.99	2674.98			
30	QPSK	1	1	22.53	22.60	22.42	24.0	0.0	
Channel				50102	51898	53500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2508.51	2592.99	2677.5			
25	QPSK	1	1	22.52	22.51	22.44	24.0	0.0	
Channel				50704	51898	53598	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2506.02	2592.99	2679.99			
20	QPSK	1	1	22.50	22.51	22.51	24.0	0.0	
Channel				50000	52999	53898	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2503.5	2592.99	2682.48			
15	QPSK	1	1	22.55	22.65	22.50	24.0	0.0	
Channel				50202	51898	53700	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2501.01	2592.99	2685			
10	QPSK	1	1	22.52	22.58	22.46	24.0	0.0	

n41 HPUE Ant 3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 50202	Power Middle Ch. / Freq. 51898	Power High Ch. / Freq. 52900	Tune-up limit (dBm)	MPR (dB)	
Channel				2546.01	2592.99	2640			
Frequency (MHz)				2546.01	2592.99	2640			
100	PI2 BPSK	1	1	25.69	25.81	25.60			
100	PI2 BPSK	1	137	25.73	25.75	25.61	27.0	0.0	
100	PI2 BPSK	1	271	25.61	25.78	25.64			
100	PI2 BPSK	135	0	25.37	25.28	25.28	26.5	0.5	
100	PI2 BPSK	135	69	25.66	25.74	25.72	27.0	0.0	
100	PI2 BPSK	135	138	25.27	25.40	25.30	26.5	0.5	
100	PI2 BPSK	270	0	25.35	25.32	25.31			
100	QPSK	1	1	25.81	25.80	25.72			
100	QPSK	1	137	25.70	25.69	25.61	27.0	0.0	
100	QPSK	1	271	25.69	25.75	25.75			
100	QPSK	135	0	24.72	24.90	24.75	26.0	1.0	
100	QPSK	135	69	25.73	25.81	25.85	27.0	0.0	
100	QPSK	135	138	24.78	24.87	24.84	26.0	1.0	
100	QPSK	270	0	24.90	24.91	24.83	26.0	1.0	
100	16QAM	1	1	24.75	24.87	24.80	26.0	1.0	
100	16QAM	1	1	23.30	23.33	23.20	24.5	2.5	
100	256QAM	1	1	21.35	21.38	21.32	22.5	4.5	
Channel				50200	51898	53998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2541	2592.99	2644.98			
90	QPSK	1	1	25.73	25.86	25.58	27.0	0.0	
Channel				50704	51898	52998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2536.02	2592.99	2648.99			
80	QPSK	1	1	25.71	25.80	25.64	27.0	0.0	
Channel				50202	51898	53100	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2531.01	2592.99	2655			
70	QPSK	1	1	25.77	25.88	25.59	27.0	0.0	
Channel				50200	51898	53198	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2524	2592.99	2659.98			
60	QPSK	1	1	25.72	25.81	25.68	27.0	0.0	
Channel				50404	51898	53998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2521.02	2592.99	2664.99			
50	QPSK	1	1	25.74	25.82	25.61	27.0	0.0	
Channel				50700	51898	53498	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2518.5	2592.99	2667.48			
45	QPSK	1	1	25.69	25.79	25.68	27.0	0.0	
Channel				50302	51898	53400	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2510.01	2592.99	2670			
40	QPSK	1	1	25.71	25.77	25.59	27.0	0.0	
Channel				50204	51898	53498	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2513.52	2592.99	2672.49			
35	QPSK	1	1	25.74	25.82	25.60	27.0	0.0	
Channel				50200	51898	53498	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2511	2592.99	2674.98			
30	QPSK	1	1	25.78	25.81	25.70	27.0	0.0	
Channel				50102	51898	53500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2508.51	2592.99	2677.5			
25	QPSK	1	1	25.70	25.80	25.58	27.0	0.0	
Channel				50704	51898	53598	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2506.02	2592.99	2679.99			
20	QPSK	1	1	25.70	25.87	25.58	27.0	0.0	
Channel				50000	51898	53898	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2503.5	2592.99	2682.48			
15	QPSK	1	1	25.65	25.80	25.67	27.0	0.0	
Channel				50202	51898	53700	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2501.01	2592.99	2685			
10	QPSK	1	1	25.76	25.87	25.59	27.0	0.0	



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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	3370	3624.99	3679.98		
40	PI2 BPSK	1	53	22.68	22.83	22.65	24.0	0.0
40	PI2 BPSK	1	164	22.80	22.75	22.81		
40	PI2 BPSK	50	0	22.40	22.37	22.33	23.5	0.5
40	PI2 BPSK	50	28	22.65	22.70	22.67	24.0	0.0
40	PI2 BPSK	50	58	22.27	22.45	22.26	23.5	0.5
40	PI2 BPSK	100	0	22.39	22.39	22.22		
40	QPSK	1	1	22.74	22.86	22.78		
40	QPSK	1	53	22.70	22.78	22.80	24.0	0.0
40	QPSK	1	104	22.68	22.81	22.79		
40	QPSK	50	0	21.74	21.91	21.77	23.0	1.0
40	QPSK	50	28	22.75	22.82	22.71	24.0	0.0
40	QPSK	50	58	21.74	21.82	21.83	23.0	1.0
40	QPSK	100	0	21.87	21.94	21.72		
40	16QAM	1	1	21.76	21.80	21.81	23.0	1.0
40	16QAM	1	1	20.32	20.31	20.28	21.5	2.5
40	256QAM	1	1	18.32	18.45	18.29	19.5	4.5
Channel								
Frequency (MHz)								
30	QPSK	1	1	3355.02	3624.99	3684.99		
Channel								
Frequency (MHz)								
30	QPSK	1	1	22.68	22.81	22.71	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	3370	3624.99	3680		
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.59	22.73	22.75	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.66	22.83	22.75	24.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	23.03	23.12	23.03		
100	PI2 BPSK	1	137	23.04	23.09	23.04	24.0	0.0
100	PI2 BPSK	1	271	23.11	23.09	23.08		
100	PI2 BPSK	135	0	22.72	22.69	22.59	23.5	0.5
100	PI2 BPSK	135	69	23.12	23.12	22.99	24.0	0.0
100	PI2 BPSK	135	138	22.64	22.64	22.63	23.5	0.5
100	PI2 BPSK	270	0	22.70	22.71	22.63		
100	QPSK	1	1	23.16	23.20	23.13		
100	QPSK	1	137	23.05	23.05	23.00	24.0	0.0
100	QPSK	1	271	23.05	23.12	23.04		
100	QPSK	135	0	22.10	22.17	22.11	23.0	1.0
100	QPSK	135	69	23.11	23.17	23.09	24.0	0.0
100	QPSK	135	138	22.20	22.22	22.12	23.0	1.0
100	QPSK	270	0	22.20	22.25	22.10		
100	16QAM	1	1	22.20	22.24	22.14	23.0	1.0
100	16QAM	1	1	20.69	20.73	20.68	21.5	2.5
100	256QAM	1	1	18.61	18.68	18.61	19.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	3358.93	3630	3693.91		
Channel								
Frequency (MHz)								
80	QPSK	1	1	23.09	23.12	23.02	24.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	23.06	23.10	22.99	24.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	23.02	23.16	23.01	24.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	23.05	23.06	23.02	24.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	23.07	23.10	23.00	24.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	23.11	23.09	23.07	24.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	23.09	23.07	23.04	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.08	23.14	23.09	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.03	23.06	22.99	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.10	23.07	23.10	24.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	26.01	26.15	26.08		
100	PI2 BPSK	1	137	26.14	26.23	26.08	27.0	0.0
100	PI2 BPSK	1	271	26.05	26.21	26.07		
100	PI2 BPSK	135	0	25.70	25.78	25.72	26.5	0.5
100	PI2 BPSK	135	69	26.10	26.20	26.09	27.0	0.0
100	PI2 BPSK	135	138	25.76	25.84	25.75	26.5	0.5
100	PI2 BPSK	270	0	25.69	25.84	25.74		
100	QPSK	1	1	26.22	26.30	26.29		
100	QPSK	1	137	26.08	26.16	26.06	27.0	0.0
100	QPSK	1	271	26.14	26.19	26.12		
100	QPSK	135	0	25.17	25.33	25.28	26.0	1.0
100	QPSK	135	69	26.17	26.26	26.18	27.0	0.0
100	QPSK	135	138	25.25	25.34	25.28	26.0	1.0
100	QPSK	270	0	25.28	25.35	25.22		
100	16QAM	1	1	25.19	25.28	25.14	26.0	1.0
100	16QAM	1	1	23.66	23.82	23.75	24.5	2.5
100	256QAM	1	1	21.68	21.76	21.83	22.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	3611.93	3900	3963.91		
Channel								
Frequency (MHz)								
80	QPSK	1	1	26.07	26.14	26.09	27.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	26.02	26.07	26.10	27.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	25.97	26.15	26.03	27.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	26.02	26.16	26.12	27.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	26.03	26.17	26.03	27.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	26.09	26.06	26.07	27.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	25.97	26.13	26.10	27.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	25.99	26.13	26.04	27.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	25.97	26.13	26.09	27.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	25.98	26.11	26.04	27.0	0.0



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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	23.02	3500.01			
100	PI2 BPSK	1	137	23.04			24.0	0.0
100	PI2 BPSK	1	271	23.06				
100	PI2 BPSK	135	0	22.56			23.5	0.5
100	PI2 BPSK	135	69	22.96			24.0	0.0
100	PI2 BPSK	135	138	22.56			23.5	0.5
100	PI2 BPSK	270	0	22.56				
100	QPSK	1	1	22.12			24.0	0.0
100	QPSK	1	137	22.95				
100	QPSK	1	271	23.06				
100	QPSK	135	0	22.06			23.0	1.0
100	QPSK	135	69	23.08			24.0	0.0
100	QPSK	135	138	22.12			23.0	1.0
100	QPSK	270	0	22.14				
100	16QAM	1	1	22.17			23.0	1.0
100	16QAM	1	1	20.67			21.5	2.5
100	256QAM	1	1	18.60			19.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	22.98	33.04	22.91	24.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	22.00	33.00	22.95	24.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	22.97	33.00	35.15	24.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	23.02	33.00	22.92	24.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	22.99	33.01	23.01	24.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	23.03	33.02	22.94	24.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	22.95	33.01	33.01	24.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	22.95	33.00	33.01	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.00	33.00	22.99	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	23.06	33.01	22.99	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.04	33.01	23.01	24.0	0.0

Part27Q n77 HPUE Ant 6

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	28.01	3500.01			
100	PI2 BPSK	1	137	26.16			27.0	0.0
100	PI2 BPSK	1	271	26.16				
100	PI2 BPSK	135	0	25.66			26.5	0.5
100	PI2 BPSK	135	69	26.16			27.0	0.0
100	PI2 BPSK	135	138	25.73			26.5	0.5
100	PI2 BPSK	270	0	25.79				
100	QPSK	1	1	26.18			27.0	0.0
100	QPSK	1	137	26.09				
100	QPSK	1	271	26.09				
100	QPSK	135	0	25.31			26.0	1.0
100	QPSK	135	69	26.13			27.0	0.0
100	QPSK	135	138	25.22			26.0	1.0
100	QPSK	270	0	25.24				
100	16QAM	1	1	25.18			26.0	1.0
100	16QAM	1	1	23.76			24.5	2.5
100	256QAM	1	1	21.69			22.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	26.01	26.15	26.07	27.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	26.00	26.08	26.07	27.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	26.07	26.14	26.10	27.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	26.09	26.06	26.06	27.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	26.06	26.09	26.09	27.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	26.03	26.06	26.03	27.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	26.06	26.09	26.09	27.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	26.01	26.14	26.05	27.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	26.02	26.11	26.07	27.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	25.98	26.15	26.07	27.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	26.07	26.10	26.06	27.0	0.0

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	22.97	3750			
100	PI2 BPSK	1	137	22.94			24.0	0.0
100	PI2 BPSK	1	271	22.96				
100	PI2 BPSK	135	0	22.58			23.5	0.5
100	PI2 BPSK	135	69	22.96			24.0	0.0
100	PI2 BPSK	135	138	22.49			23.5	0.5
100	PI2 BPSK	270	0	22.57				
100	QPSK	1	1	22.06			24.0	0.0
100	QPSK	1	137	22.94				
100	QPSK	1	271	22.98				
100	QPSK	135	0	22.08			23.0	1.0
100	QPSK	135	69	23.03			24.0	0.0
100	QPSK	135	138	22.13			23.0	1.0
100	QPSK	270	0	22.10				
100	16QAM	1	1	22.11			23.0	1.0
100	16QAM	1	1	20.61			21.5	2.5
100	256QAM	1	1	18.50			19.5	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	22.96	22.91	22.86	24.0	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	22.98	22.91	22.85	24.0	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	22.94	22.94	22.90	24.0	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	22.96	22.89	22.92	24.0	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	22.90	22.88	22.84	24.0	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	22.97	22.89	22.84	24.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	22.98	22.91	22.89	24.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	22.95	22.95	22.84	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	22.91	22.88	22.84	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.92	22.88	22.83	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.89	22.97	22.94	24.0	0.0



Part270 n78 HPUe Ant 6									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
3750									
100	PI2 BPSK	1	1	25.95					
100	PI2 BPSK	1	137	26.12			27.0	0.0	
100	PI2 BPSK	1	271	26.07					
100	PI2 BPSK	135	0	25.88			26.5	0.5	
100	PI2 BPSK	135	69	26.05			27.0	0.0	
100	PI2 BPSK	135	138	25.69			26.5	0.5	
100	PI2 BPSK	270	0	25.86			27.0	0.0	
100	QPSK	1	1	26.14					
100	QPSK	1	137	26.05			27.0	0.0	
100	QPSK	1	271	26.03					
100	QPSK	135	0	25.20			28.0	1.0	
100	QPSK	135	69	26.09			27.0	0.0	
100	QPSK	135	138	26.25			28.0	1.0	
100	QPSK	270	0	25.24					
100	16QAM	1	1	25.13			28.0	1.0	
100	16QAM	1	1	23.66			24.5	2.5	
100	256QAM	1	1	21.61			22.5	4.5	
Channel									
Frequency (MHz)									
649688									
650000									
650334									
650668									
651000									
651334									
651668									
652000									
652334									
652668									
653000									
653334									
653668									
654000									
654334									
654668									
655000									
655334									
655668									
656000									
656334									
656668									
657000									
657334									
657668									
658000									
658334									
658668									
659000									
659334									
659668									
660000									
660334									
660668									
661000									
661334									
661668									
662000									
662334									
662668									
663000									
663334									
663668									
664000									
664334									
664668									
665000									
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673334									
673668									
674000									
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689334									
689668									
690000									
690334									
690668									
691000									
691334									
691668									
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693000									
693334									
693668									
694000									
694334									
694668									
695000									
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698668									
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699334									
699668									
700000									
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700668									
701000									
701334									
701668									
702000									
702334									
702668									
703000									
703334									
703668									
704000									
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709668									
710000									
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710668									
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711668									
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712668									
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719334									
719668									
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720668									
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722668									
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725000									
725334									
725668									
726000									
726334									
726668									
727000									
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729000									
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730000									
730334									
730668									
731000									
731334									
731668									
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740668									
741000									
741334									
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749334									
749668									
750000									
750334									
750668									
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n7 Ant 3 ECI 2									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
50	PI2 BPSK	1	1	15.48	15.53	15.51	16.4	0.0	
50	PI2 BPSK	1	135	15.41	15.46	15.35	16.4	0.0	
50	PI2 BPSK	1	268	15.32	15.44	15.42	16.4	0.0	
50	PI2 BPSK	135	0	15.46	15.43	15.45	16.4	0.0	
50	PI2 BPSK	135	68	15.45	15.40	15.38	16.4	0.0	
50	PI2 BPSK	135	135	15.31	15.42	15.29	16.4	0.0	
50	PI2 BPSK	270	0	15.33	15.37	15.40	16.4	0.0	
50	QPSK	1	1	15.80	15.82	15.57	16.4	0.0	
50	QPSK	1	135	15.53	15.54	15.54	16.4	0.0	
50	QPSK	1	268	15.42	15.39	15.20	16.4	0.0	
50	QPSK	135	0	15.46	15.47	15.44	16.4	0.0	
50	QPSK	135	68	15.50	15.53	15.39	16.4	0.0	
50	QPSK	135	135	15.40	15.41	15.34	16.4	0.0	
50	QPSK	270	0	15.42	15.52	15.38	16.4	0.0	
50	16QAM	1	1	15.40	15.43	15.43	16.4	0.0	
50	64QAM	1	1	15.39	15.48	15.34	16.4	0.0	
50	256QAM	1	1	15.41	15.48	15.43	16.4	0.0	
Channel									
40	QPSK	1	1	15.57	15.58	15.51	16.4	0.0	
Channel									
35	QPSK	1	1	15.47	15.55	15.44	0.0	0.0	
Channel									
35	QPSK	1	1	15.49	15.58	15.43	16.4	0.0	
Channel									
25	QPSK	1	1	15.50	15.59	15.45	16.4	0.0	
Channel									
20	PI2 BPSK	1	1	15.46	15.57	15.48	16.4	0.0	
Channel									
15	QPSK	1	1	15.49	15.53	15.49	16.4	0.0	
Channel									
10	QPSK	1	1	15.53	15.51	15.45	16.4	0.0	
Channel									
5	QPSK	1	1	15.49	15.54	15.51	16.4	0.0	

Reduced Power Mode for Other PA ECI2

n25 Ant 3 ECI 2									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
40	PI2 BPSK	1	1	16.94	17.06	17.01	17.9	0.0	
40	PI2 BPSK	1	108	16.86	16.89	16.81	17.9	0.0	
40	PI2 BPSK	1	214	16.85	16.89	16.85	17.9	0.0	
40	PI2 BPSK	108	0	16.92	16.94	16.92	17.9	0.0	
40	PI2 BPSK	108	54	16.86	16.88	16.79	17.9	0.0	
40	PI2 BPSK	108	108	16.82	16.84	16.69	17.9	0.0	
40	PI2 BPSK	216	0	16.91	16.78	16.81	17.9	0.0	
40	QPSK	1	1	17.09	17.12	17.08	17.9	0.0	
40	QPSK	1	108	16.95	17.01	17.02	17.9	0.0	
40	QPSK	1	214	16.96	17.04	16.96	17.9	0.0	
40	QPSK	108	0	17.01	17.02	16.91	17.9	0.0	
40	QPSK	108	54	16.91	16.88	16.88	17.9	0.0	
40	QPSK	108	108	16.85	17.00	16.85	17.9	0.0	
40	QPSK	216	0	16.95	16.98	16.89	17.9	0.0	
40	16QAM	1	1	16.91	16.89	16.90	17.9	0.0	
40	64QAM	1	1	16.90	16.86	16.86	17.9	0.0	
40	256QAM	1	1	16.82	16.84	16.79	17.9	0.0	
Channel									
35	QPSK	1	1	16.98	17.02	16.95	17.9	0.0	
Channel									
30	QPSK	1	1	17.03	17.05	16.92	17.9	0.0	
Channel									
25	QPSK	1	1	16.98	17.08	17.00	17.9	0.0	
Channel									
20	QPSK	1	1	17.02	17.08	16.97	17.9	0.0	
Channel									
15	QPSK	1	1	17.04	17.03	16.92	17.9	0.0	
Channel									
10	QPSK	1	1	17.08	17.01	16.90	17.9	0.0	
Channel									
5	QPSK	1	1	16.94	17.07	16.94	17.9	0.0	

n66 Ant 3 ECI 2									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
40	PI2 BPSK	1	1	17.48	17.55	17.51	18.5	0.0	
40	PI2 BPSK	1	108	17.37	17.50	17.33	18.5	0.0	
40	PI2 BPSK	1	214	17.29	17.38	17.35	18.5	0.0	
40	PI2 BPSK	108	0	17.36	17.30	17.34	18.5	0.0	
40	PI2 BPSK	108	54	17.38	17.42	17.35	18.5	0.0	
40	PI2 BPSK	108	108	17.34	17.25	17.28	18.5	0.0	
40	PI2 BPSK	216	0	17.27	17.38	17.36	18.5	0.0	
40	QPSK	1	1	17.53	17.62	17.56	18.5	0.0	
40	QPSK	1	108	17.45	17.54	17.54	18.5	0.0	
40	QPSK	1	214	17.43	17.50	17.42	18.5	0.0	
40	QPSK	108	0	17.44	17.47	17.46	18.5	0.0	
40	QPSK	108	54	17.48	17.54	17.39	18.5	0.0	
40	QPSK	108	108	17.33	17.36	17.30	18.5	0.0	
40	QPSK	216	0	17.34	17.47	17.41	18.5	0.0	
40	16QAM	1	1	17.31	17.35	17.36	18.5	0.0	
40	64QAM	1	1	17.35	17.38	17.31	18.5	0.0	
40	256QAM	1	1	17.28	17.40	17.33	18.5	0.0	
Channel									
35	QPSK	1	1	17.42	17.55	17.50	18.5	0.0	
Channel									
30	QPSK	1	1	17.39	17.43	17.63	18.5	0.0	
Channel									
25	QPSK	1	1	17.47	17.51	17.54	18.5	0.0	
Channel									
20	QPSK	1	1	17.48	17.49	17.47	18.5	0.0	
Channel									
15	QPSK	1	1	17.45	17.56	17.45	18.5	0.0	
Channel									
10	QPSK	1	1	17.40	17.53	17.50	18.5	0.0	
Channel									
5	QPSK	1	1	17.47	17.48	17.46	18.5	0.0	



n41 HPUE Ant 3 ECI 2									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				2546.01	2592.99	2640			
Frequency (MHz)									
100	PI2 BPSK	1	1	15.81	15.85	15.89			
100	PI2 BPSK	1	137	15.74	15.78	15.75	16.8	0.0	
100	PI2 BPSK	1	271	15.58	15.70	15.73			
100	PI2 BPSK	135	0	15.65	15.76	15.59	16.8	0.0	
100	PI2 BPSK	135	69	15.65	15.86	15.68	16.8	0.0	
100	PI2 BPSK	135	138	15.79	15.59	15.52			
100	PI2 BPSK	270	0	15.63	15.62	15.59	16.8	0.0	
100	QPSK	1	1	15.90	15.97	15.93			
100	QPSK	1	137	15.79	15.79	15.87	16.8	0.0	
100	QPSK	1	271	15.68	15.83	15.71			
100	QPSK	135	0	15.82	15.84	15.77	16.8	0.0	
100	QPSK	135	69	15.90	15.94	15.87	16.8	0.0	
100	QPSK	135	138	15.77	15.79	15.67			
100	QPSK	270	0	15.76	15.62	15.68	16.8	0.0	
100	16QAM	1	1	15.83	15.85	15.67	16.8	0.0	
100	64QAM	1	1	15.75	15.79	15.65	16.8	0.0	
100	256QAM	1	1	15.76	15.79	15.72	16.8	0.0	
Channel				506200	518598	529598	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2541	2592.99	2644.88			
90	QPSK	1	1	15.81	15.87	15.82	16.8	0.0	
Channel				507204	518598	529598	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2533.02	2592.99	2643.99			
80	QPSK	1	1	15.83	15.83	15.73	16.8	0.0	
Channel				508202	518598	531000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2531.01	2592.99	2655			
70	QPSK	1	1	15.75	15.93	15.85	16.8	0.0	
Channel				509200	518598	531996	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2526	2592.99	2659.98			
60	QPSK	1	1	15.83	15.90	15.78	16.8	0.0	
Channel				504204	518598	532998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2521.02	2592.99	2648.99			
50	QPSK	1	1	15.85	15.89	15.82	16.8	0.0	
Channel				503700	518598	533496	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2513.3	2592.99	2637.43			
45	QPSK	1	1	15.78	15.85	15.82	16.8	0.0	
Channel				503202	518598	534000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2518.01	2592.99	2670			
40	QPSK	1	1	15.83	15.90	15.84	16.8	0.0	
Channel				502704	518598	534496	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2513.52	2592.99	2672.49			
35	QPSK	1	1	15.77	15.85	15.90	16.8	0.0	
Channel				502200	518598	534996	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2511	2592.99	2674.99			
30	QPSK	1	1	15.83	15.87	15.78	16.8	0.0	
Channel				501702	518598	535500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2508.51	2592.99	2677.15			
25	QPSK	1	1	15.81	15.83	15.85	16.8	0.0	
Channel				501204	518598	535998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2508.02	2592.99	2679.99			
20	QPSK	1	1	15.80	15.87	15.80	16.8	0.0	
Channel				500700	518598	536496	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2503.5	2592.99	2682.43			
15	QPSK	1	1	15.79	15.87	15.81	16.8	0.0	
Channel				500202	518598	537000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2501.01	2592.99	2682			
10	QPSK	1	1	15.81	15.92	15.81	16.8	0.0	

**n48 Part 96 Ant 6 ECI 2**

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	13.56	13.84	13.52		0.0
40	PI2 BPSK	1	59	13.56	13.88	13.56	14.7	0.0
40	PI2 BPSK	1	104	13.60	13.85	13.58		0.0
40	PI2 BPSK	50	0	13.54	13.66	13.64	14.7	0.0
40	PI2 BPSK	50	28	13.54	13.84	13.59	14.7	0.0
40	PI2 BPSK	50	56	13.56	13.80	13.82	14.7	0.0
40	PI2 BPSK	100	0	13.57	13.68	13.64	14.7	0.0
40	QPSK	1	1	13.74	13.80	13.77		0.0
40	QPSK	1	53	13.58	13.81	13.57	14.7	0.0
40	QPSK	1	104	13.58	13.70	13.81		0.0
40	QPSK	50	0	13.85	13.87	13.80	14.7	0.0
40	QPSK	50	28	13.70	13.75	13.88	14.7	0.0
40	QPSK	50	56	13.84	13.86	13.84		0.0
40	QPSK	100	0	13.58	13.71	13.82	14.7	0.0
40	16QAM	1	1	13.80	13.87	13.80	14.7	0.0
40	64QAM	1	1	13.59	13.89	13.57	14.7	0.0
40	256QAM	1	1	13.57	13.70	13.55	14.7	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	13.57	13.83	13.63	14.7	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	13.57	13.85	13.62	14.7	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	13.58	13.87	13.61	14.7	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	13.56	13.81	13.60	14.7	0.0

Part270 n77 HPUE Ant 6 ECI 2

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	14.01	14.11	14.03		0.0
100	PI2 BPSK	1	137	14.06	14.08	14.07	15.3	0.0
100	PI2 BPSK	1	271	13.97	14.08	14.02		0.0
100	PI2 BPSK	135	0	14.17	14.19	14.12	15.3	0.0
100	PI2 BPSK	135	69	14.08	14.12	14.10	15.3	0.0
100	PI2 BPSK	135	138	14.05	14.13	14.08	15.3	0.0
100	PI2 BPSK	270	0	14.04	14.13	14.08		0.0
100	QPSK	1	1	14.20	14.25	14.18		0.0
100	QPSK	1	137	14.02	14.09	13.98	15.3	0.0
100	QPSK	1	271	14.11	14.17	14.12		0.0
100	QPSK	135	0	14.13	14.16	14.07	15.3	0.0
100	QPSK	135	69	14.20	14.21	14.20	15.3	0.0
100	QPSK	135	138	14.09	14.11	14.09		0.0
100	QPSK	270	0	14.08	14.18	14.11	15.3	0.0
100	16QAM	1	1	14.13	14.19	14.13	15.3	0.0
100	64QAM	1	1	14.11	14.14	14.07	15.3	0.0
100	256QAM	1	1	14.04	14.08	14.03	15.3	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	13.96	14.12	14.02	15.3	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	14.01	14.13	14.04	15.3	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	13.98	14.08	14.04	15.3	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	14.01	14.07	14.08	15.3	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	14.08	14.07	14.05	15.3	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	14.09	14.13	14.09	15.3	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	14.05	14.17	14.05	15.3	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	14.05	14.08	13.99	15.3	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	13.98	14.14	14.03	15.3	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	14.00	14.15	14.04	15.3	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	14.07	14.12	14.01	15.3	0.0

Part27Q n77 HPUE Ant 6 ECI 2

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	14.06				0.0
100	PI2 BPSK	1	137	14.11			15.3	0.0
100	PI2 BPSK	1	271	14.06				0.0
100	PI2 BPSK	135	0	14.10			15.3	0.0
100	PI2 BPSK	135	69	14.08			15.3	0.0
100	PI2 BPSK	135	138	14.08			15.3	0.0
100	PI2 BPSK	270	0	14.06				0.0
100	QPSK	1	1	14.15				0.0
100	QPSK	1	137	14.08			15.3	0.0
100	QPSK	1	271	14.11				0.0
100	QPSK	135	0	14.04			15.3	0.0
100	QPSK	135	69	14.12			15.3	0.0
100	QPSK	135	138	14.04			15.3	0.0
100	QPSK	270	0	14.06				0.0
100	16QAM	1	1	14.07			15.3	0.0
100	64QAM	1	1	14.06			15.3	0.0
100	256QAM	1	1	14.05			15.3	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	14.05	14.10	14.08	15.3	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	13.93	14.08	13.99	15.3	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	13.97	14.06	14.01	15.3	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	13.98	14.06	14.03	15.3	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	13.99	14.09	14.02	15.3	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	14.02	14.07	13.99	15.3	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	14.03	14.06	13.96	15.3	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	13.94	14.01	14.00	15.3	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	13.94	14.05	14.04	15.3	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	14.04	14.06	14.07	15.3	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	14.02	14.05	13.96	15.3	0.0



Part270 n78 HPUE Ant 6 ECI 2									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	14.07	14.07				
100	PI2 BPSK	1	137	14.02	14.02		15.3	0.0	
100	PI2 BPSK	1	271	14.04	14.04				
100	PI2 BPSK	135	0	14.17	14.17		15.3	0.0	
100	PI2 BPSK	135	69	14.01	14.01		15.3	0.0	
100	PI2 BPSK	135	138	14.08	14.08		15.3	0.0	
100	PI2 BPSK	270	0	14.07	14.07		15.3	0.0	
100	QPSK	1	1	14.21	14.21				
100	QPSK	1	137	14.04	14.04		15.3	0.0	
100	QPSK	1	271	14.15	14.15				
100	QPSK	135	0	14.10	14.10		15.3	0.0	
100	QPSK	135	69	14.13	14.13		15.3	0.0	
100	QPSK	135	138	14.03	14.03		15.3	0.0	
100	QPSK	270	0	14.11	14.11		15.3	0.0	
100	16QAM	1	1	14.14	14.14		15.3	0.0	
100	64QAM	1	1	14.05	14.05		15.3	0.0	
100	256QAM	1	1	14.02	14.02		15.3	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	649688	650000	650334	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
80	QPSK	1	1	3745.02	3750	3755.01	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
70	QPSK	1	1	649000	650000	651000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
60	QPSK	1	1	3735	3750	3765	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
50	QPSK	1	1	648688	650000	651334	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
40	QPSK	1	1	3728.01	3750	3778.02	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
30	QPSK	1	1	648000	650000	651668	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
25	QPSK	1	1	3728.01	3750	3787.5	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	1	647334	650000	652688	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
15	QPSK	1	1	3718.01	3750	3799.02	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
10	QPSK	1	1	647168	650000	652834	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
10	QPSK	1	1	3705	3750	3795	Tune-up limit (dBm)	MPR (dB)	

Part27Q n78 HPUE Ant 6 ECI 2									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	13.97	13.97				
100	PI2 BPSK	1	137	14.04	14.04		15.3	0.0	
100	PI2 BPSK	1	271	14.02	14.02				
100	PI2 BPSK	135	0	13.99	13.99		15.3	0.0	
100	PI2 BPSK	135	69	14.03	14.03		15.3	0.0	
100	PI2 BPSK	135	138	14.01	14.01		15.3	0.0	
100	PI2 BPSK	270	0	14.04	14.04		15.3	0.0	
100	QPSK	1	1	14.09	14.09				
100	QPSK	1	137	14.06	14.06		15.3	0.0	
100	QPSK	1	271	14.08	14.08				
100	QPSK	135	0	14.02	14.02		15.3	0.0	
100	QPSK	135	69	14.03	14.03		15.3	0.0	
100	QPSK	135	138	13.97	13.97		15.3	0.0	
100	QPSK	270	0	14.07	14.07		15.3	0.0	
100	16QAM	1	1	14.06	14.06		15.3	0.0	
100	64QAM	1	1	14.02	14.02		15.3	0.0	
100	256QAM	1	1	13.99	13.99		15.3	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	633600	633334	633968	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
80	QPSK	1	1	3495	3500.01	3505.02	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
70	QPSK	1	1	632334	633334	634334	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
60	QPSK	1	1	3485.01	3500.01	3515.01	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
50	QPSK	1	1	631668	633334	635000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
40	QPSK	1	1	3470.01	3500.01	3530.01	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
30	QPSK	1	1	631000	633334	635668	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
25	QPSK	1	1	3465	3500.01	3535.02	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	1	630334	633334	636334	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
15	QPSK	1	1	3462.51	3500.01	3537.51	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
10	QPSK	1	1	629688	633334	637000	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
10	QPSK	1	1	3455.01	3500.01	3545.01	Tune-up limit (dBm)	MPR (dB)	



Reduced Power Mode for Other PA ECI3

n7 Ant 3 ECI 3

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 507000	Middle Ch. / Freq. 507000	High Ch. / Freq. 509000		
Channel								
Frequency (MHz)								
50	PI2 BPSK	1	1	18.81	18.73	18.68	19.9	0.0
50	PI2 BPSK	1	135	18.50	18.66	18.53	19.9	0.0
50	PI2 BPSK	1	268	18.50	18.55	18.53	19.9	0.0
50	PI2 BPSK	135	0	18.63	18.56	18.62	19.9	0.0
50	PI2 BPSK	135	68	18.57	18.56	18.46	19.9	0.0
50	PI2 BPSK	135	135	18.48	18.59	18.43	19.9	0.0
50	PI2 BPSK	270	0	18.43	18.45	18.51	19.9	0.0
50	QPSK	1	1	18.71	18.80	18.70	19.9	0.0
50	QPSK	1	135	18.70	18.65	18.66	19.9	0.0
50	QPSK	1	268	18.61	18.67	18.68	19.9	0.0
50	QPSK	135	0	18.55	18.63	18.55	19.9	0.0
50	QPSK	135	68	18.67	18.70	18.48	19.9	0.0
50	QPSK	135	135	18.50	18.59	18.43	19.9	0.0
50	QPSK	270	0	18.53	18.66	18.51	19.9	0.0
50	16QAM	1	1	18.50	18.61	18.54	19.9	0.0
50	64QAM	1	1	18.57	18.63	18.51	19.9	0.0
50	256QAM	1	1	18.80	18.67	18.51	19.5	0.4
Channel								
Frequency (MHz)								
40	QPSK	1	1	18.57	18.78	18.64	19.9	0.0
Channel								
Frequency (MHz)								
35	QPSK	1	1	18.59	18.69	18.63	0.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	18.65	18.75	18.65	19.9	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	18.57	18.72	18.60	19.9	0.0
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	18.65	18.75	18.60	19.9	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	18.66	18.68	18.64	19.9	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	18.67	18.71	18.61	19.9	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	18.84	18.67	18.60	19.9	0.0

n25 Ant 3 ECI 3

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 374000	Middle Ch. / Freq. 376500	High Ch. / Freq. 379000		
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	20.09	20.18	20.06	21.1	0.0
40	PI2 BPSK	1	108	20.02	20.13	20.12	21.1	0.0
40	PI2 BPSK	1	214	20.04	20.12	20.04	21.1	0.0
40	PI2 BPSK	108	0	20.14	20.17	20.08	21.1	0.0
40	PI2 BPSK	108	54	20.15	20.16	20.05	21.1	0.0
40	PI2 BPSK	108	108	20.06	20.17	19.88	21.1	0.0
40	PI2 BPSK	216	0	20.18	20.20	20.12	21.1	0.0
40	QPSK	1	1	20.14	20.23	20.19	21.1	0.0
40	QPSK	1	108	20.12	20.16	20.11	21.1	0.0
40	QPSK	1	214	20.07	20.20	20.14	21.1	0.0
40	QPSK	108	0	20.09	20.12	20.08	21.1	0.0
40	QPSK	108	54	20.17	20.19	20.08	21.1	0.0
40	QPSK	108	108	20.06	20.09	20.02	21.1	0.0
40	QPSK	216	0	20.12	20.14	20.10	21.1	0.0
40	16QAM	1	1	20.09	20.15	20.06	21.1	0.0
40	64QAM	1	1	19.98	20.01	20.00	21.1	0.0
40	256QAM	1	1	19.21	19.29	19.29	19.5	1.6
Channel								
Frequency (MHz)								
35	QPSK	1	1	20.06	20.12	20.08	21.1	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	20.01	20.14	20.13	21.1	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	20.02	20.10	20.06	21.1	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	20.11	20.16	20.10	21.1	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	20.06	20.13	20.15	21.1	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	20.09	20.16	20.10	21.1	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	20.08	20.19	20.07	21.1	0.0

n66 Ant 3 ECI 3

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 349000	Middle Ch. / Freq. 349000	High Ch. / Freq. 352000		
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	20.49	20.55	20.46	21.6	0.0
40	PI2 BPSK	1	108	20.43	20.54	20.46	21.6	0.0
40	PI2 BPSK	1	214	20.28	20.42	20.40	21.6	0.0
40	PI2 BPSK	108	0	20.43	20.52	20.37	21.6	0.0
40	PI2 BPSK	108	54	20.43	20.51	20.31	21.6	0.0
40	PI2 BPSK	108	108	20.29	20.43	20.38	21.6	0.0
40	PI2 BPSK	216	0	20.47	20.51	20.47	21.6	0.0
40	QPSK	1	1	20.59	20.53	20.54	21.6	0.0
40	QPSK	1	108	20.45	20.58	20.47	21.6	0.0
40	QPSK	1	214	20.41	20.53	20.34	21.6	0.0
40	QPSK	108	0	20.46	20.43	20.45	21.6	0.0
40	QPSK	108	54	20.48	20.56	20.45	21.6	0.0
40	QPSK	108	108	20.28	20.41	20.37	21.6	0.0
40	QPSK	216	0	20.35	20.46	20.38	21.6	0.0
40	16QAM	1	1	20.43	20.44	20.36	21.6	0.0
40	64QAM	1	1	20.41	20.42	20.30	21.5	0.1
40	256QAM	1	1	19.08	19.13	19.15	19.5	2.1
Channel								
Frequency (MHz)								
35	QPSK	1	1	20.37	20.58	20.48	21.6	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	20.46	20.50	20.41	21.6	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	20.38	20.52	20.42	21.6	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	20.35	20.49	20.44	21.6	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	20.40	20.48	20.46	21.6	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	20.42	20.50	20.41	21.6	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	20.44	20.53	20.51	21.6	0.0



n41 HPUE Ant 3 ECI 3

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 506202	Middle Ch. Freq. 518598	High Ch. Freq. 528000		
Channel				2546.01	2592.99	2640		
Frequency (MHz)								
100	PI2 BPSK	1	1	19.68	19.80	19.73		
100	PI2 BPSK	1	137	19.74	19.78	19.82	21.1	0.0
100	PI2 BPSK	1	271	19.72	19.77	19.72		
100	PI2 BPSK	135	0	19.72	19.72	19.67	21.1	0.0
100	PI2 BPSK	135	69	19.66	19.76	19.62	21.1	0.0
100	PI2 BPSK	135	138	19.73	19.75	19.65	21.1	0.0
100	PI2 BPSK	270	0	19.67	19.79	19.70		
100	QPSK	1	1	19.82	19.86	19.80		
100	QPSK	1	137	19.69	19.78	19.63	21.1	0.0
100	QPSK	1	271	19.68	19.80	19.68		
100	QPSK	135	0	19.75	19.72	19.73	21.1	0.0
100	QPSK	135	69	19.76	19.81	19.74	21.1	0.0
100	QPSK	135	138	19.71	19.70	19.72		
100	QPSK	270	0	19.75	19.76	19.71	21.1	0.0
100	16QAM	1	1	19.72	19.75	19.67	21.1	0.0
100	64QAM	1	1	19.72	19.72	19.69	21.1	0.0
100	256QAM	1	1	19.67	19.73	19.84	21.1	0.0
Channel				506200	518598	528000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2541	2592.99	2644.88		
90	QPSK	1	1	19.68	19.69	19.65	21.1	0.0
Channel				507204	518598	528000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2533.02	2592.99	2643.99		
80	QPSK	1	1	19.78	19.79	19.63	21.1	0.0
Channel				508202	518598	531000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2531.01	2592.99	2655		
70	QPSK	1	1	19.72	19.80	19.62	21.1	0.0
Channel				509200	518598	533000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2526	2592.99	2659.88		
60	QPSK	1	1	19.67	19.76	19.69	21.1	0.0
Channel				509204	518598	532998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2521.02	2592.99	2644.88		
50	QPSK	1	1	19.66	19.70	19.69	21.1	0.0
Channel				503700	518598	533498	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2513.5	2592.99	2637.48		
45	QPSK	1	1	19.69	19.80	19.67	21.1	0.0
Channel				503202	518598	534000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2518.01	2592.99	2670		
40	QPSK	1	1	19.65	19.76	19.68	21.1	0.0
Channel				502704	518598	534498	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2513.52	2592.99	2672.49		
35	QPSK	1	1	19.72	19.77	19.71	21.1	0.0
Channel				502200	518598	534998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2511	2592.99	2674.89		
30	QPSK	1	1	19.65	19.79	19.65	21.1	0.0
Channel				501702	518598	535500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2508.51	2592.99	2677.5		
25	QPSK	1	1	19.64	19.74	19.69	21.1	0.0
Channel				501204	518598	535998	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2508.02	2592.99	2679.99		
20	QPSK	1	1	19.70	19.70	19.84	21.1	0.0
Channel				500700	518598	536498	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2503.5	2592.99	2682.48		
15	QPSK	1	1	19.69	19.77	19.63	21.1	0.0
Channel				500202	518598	537000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2501.01	2592.99	2685		
10	QPSK	1	1	19.73	19.74	19.70	21.1	0.0



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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. (dBm)	Power Middle Ch. / Freq. (dBm)	Power High Ch. / Freq. (dBm)	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				3570	3624.99	3679.98		
40	PI2 BPSK	1	1	18.69	18.74	18.68		
40	PI2 BPSK	1	59	18.70	18.80	18.77	20.0	0.0
40	PI2 BPSK	1	104	18.73	18.75	18.68		
40	PI2 BPSK	50	0	18.71	18.73	18.75	20.0	0.0
40	PI2 BPSK	50	28	18.78	18.80	18.77	20.0	0.0
40	PI2 BPSK	50	56	18.79	18.74	18.77	20.0	0.0
40	PI2 BPSK	100	0	18.72	18.77	18.76		
40	QPSK	1	1	18.85	18.89	18.84		
40	QPSK	1	53	18.76	18.79	18.73	20.0	0.0
40	QPSK	1	104	18.73	18.77	18.70		
40	QPSK	50	0	18.78	18.73	18.78	20.0	0.0
40	QPSK	50	28	18.78	18.80	18.76	20.0	0.0
40	QPSK	50	56	18.78	18.74	18.78	20.0	0.0
40	16QAM	1	1	18.68	18.84	18.68	20.0	0.0
40	64QAM	1	1	18.74	18.83	18.72	20.0	0.0
40	256QAM	1	1	18.37	18.44	18.38	19.5	0.5
Channel								
Frequency (MHz)				637856	641666	645000		
30	QPSK	1	1	18.78	18.83	18.73	20.0	0.0
Channel								
Frequency (MHz)				637334	641666	645000		
20	QPSK	1	1	18.73	18.80	18.75	20.0	0.0
Channel								
Frequency (MHz)				637168	641666	645168		
15	QPSK	1	1	18.76	18.80	18.75	20.0	0.0
Channel								
Frequency (MHz)				3555	3624.99	3694.98		
10	QPSK	1	1	18.76	18.78	18.77	20.0	0.0

Part270 n77 HPUE Ant 6 ECI 3

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. (dBm)	Power Middle Ch. / Freq. (dBm)	Power High Ch. / Freq. (dBm)	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				3750	3840	3930		
100	PI2 BPSK	1	1	18.10	18.13	18.06		
100	PI2 BPSK	1	137	18.10	18.08	18.09	19.3	0.0
100	PI2 BPSK	1	271	18.02	18.17	18.10		
100	PI2 BPSK	135	0	18.11	18.16	18.08	19.3	0.0
100	PI2 BPSK	135	69	18.11	18.14	18.13	19.3	0.0
100	PI2 BPSK	135	138	18.08	18.17	18.08	19.3	0.0
100	PI2 BPSK	270	0	18.01	18.09	18.08		
100	QPSK	1	1	18.18	18.23	18.20		
100	QPSK	1	137	18.11	18.07	18.08	19.3	0.0
100	QPSK	1	271	18.08	18.08	18.14		
100	QPSK	135	0	18.11	18.16	18.09	19.3	0.0
100	QPSK	135	69	18.12	18.21	18.08	19.3	0.0
100	QPSK	135	138	18.00	18.08	18.05		
100	QPSK	270	0	18.10	18.19	18.15	19.3	0.0
100	16QAM	1	1	18.08	18.17	18.08	19.3	0.0
100	64QAM	1	1	18.04	18.17	18.12	19.3	0.0
100	256QAM	1	1	18.02	18.11	18.07	19.3	0.0
Channel								
Frequency (MHz)				645968	650000	652000		
90	QPSK	1	1	18.04	18.12	18.12	19.3	0.0
Channel								
Frequency (MHz)				648334	650000	652000		
80	QPSK	1	1	18.08	18.08	18.13	19.3	0.0
Channel								
Frequency (MHz)				3735	3840	3945		
70	QPSK	1	1	18.05	18.12	18.02	19.3	0.0
Channel								
Frequency (MHz)				3740.01	3840	3940.02		
60	QPSK	1	1	18.06	18.12	18.07	19.3	0.0
Channel								
Frequency (MHz)				648334	650000	650000		
50	QPSK	1	1	18.08	18.11	18.02	19.3	0.0
Channel								
Frequency (MHz)				648000	650000	664000		
40	QPSK	1	1	18.04	18.08	18.00	19.3	0.0
Channel								
Frequency (MHz)				647968	650000	654334		
30	QPSK	1	1	18.02	18.14	18.11	19.3	0.0
Channel								
Frequency (MHz)				3718.02	3840	3965.01		
25	QPSK	1	1	18.08	18.13	18.10	19.3	0.0
Channel								
Frequency (MHz)				647334	650000	654668		
20	QPSK	1	1	18.10	18.06	18.00	19.3	0.0
Channel								
Frequency (MHz)				647168	650000	654834		
15	QPSK	1	1	18.11	18.15	18.00	19.3	0.0
Channel								
Frequency (MHz)				3705	3840	3975		
10	QPSK	1	1	18.07	18.13	18.11	19.3	0.0

Part27Q n77 HPUE Ant 6 ECI 3

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. (dBm)	Power Middle Ch. / Freq. (dBm)	Power High Ch. / Freq. (dBm)	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)					3500.01			
100	PI2 BPSK	1	1		18.15			
100	PI2 BPSK	1	137		18.12		19.3	0.0
100	PI2 BPSK	1	271		18.11			
100	PI2 BPSK	135	0		18.15		19.3	0.0
100	PI2 BPSK	135	69		18.05		19.3	0.0
100	PI2 BPSK	135	138		18.15		19.3	0.0
100	PI2 BPSK	270	0		18.04			
100	QPSK	1	1		18.25			
100	QPSK	1	137		18.07		19.3	0.0
100	QPSK	1	271		18.05			
100	QPSK	135	0		18.11		19.3	0.0
100	QPSK	135	69		18.19		19.3	0.0
100	QPSK	135	138		18.05		19.3	0.0
100	QPSK	270	0		18.16			
100	16QAM	1	1		18.15		19.3	0.0
100	64QAM	1	1		18.08		19.3	0.0
100	256QAM	1	1		18.08		19.3	0.0
Channel								
Frequency (MHz)				633000	633334	633668		
90	QPSK	1	1	18.14	18.20	18.18	19.3	0.0
Channel								
Frequency (MHz)				632668	633334	634000		
80	QPSK	1	1	18.04	18.19	18.15	19.3	0.0
Channel								
Frequency (MHz)				632334	633334	634334		
70	QPSK	1	1	18.08	18.13	18.09	19.3	0.0
Channel								
Frequency (MHz)				3480	3500.01	3520.02		
60	QPSK	1	1	18.13	18.15	18.11	19.3	0.0
Channel								
Frequency (MHz)				631668	633334	635000		
50	QPSK	1	1	18.03	18.09	18.09	19.3	0.0
Channel								
Frequency (MHz)				631334	633334	635334		
40	QPSK	1	1	18.10	18.12	18.10	19.3	0.0
Channel								
Frequency (MHz)				631000	633334	635668		
30	QPSK	1	1	18.10	18.09	18.07	19.3	0.0
Channel								
Frequency (MHz)				3482.51	3500.01	3537.51		
25	QPSK	1	1	18.02	18.15	18.10	19.3	0.0
Channel								
Frequency (MHz)				630668	633334	636000		
20	QPSK	1	1	18.09	18.11	18.13	19.3	0.0
Channel								
Frequency (MHz)				630500	633334	636168		
15	QPSK	1	1	18.08	18.15	18.10	19.3	0.0
Channel								
Frequency (MHz)				3455.01	3500.01	3545.01		
10	QPSK	1	1	18.12	18.11	18.10	19.3	0.0



Part270 n78 HPUE Ant 6 ECI 3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1		18.01				
100	PI2 BPSK	1	137		17.93		19.3	0.0	
100	PI2 BPSK	1	271		18.06				
100	PI2 BPSK	135	0		18.05		19.3	0.0	
100	PI2 BPSK	135	69		18.06		19.3	0.0	
100	PI2 BPSK	135	138		18.03		19.3	0.0	
100	PI2 BPSK	270	0		17.92		19.3	0.0	
100	QPSK	1	1		18.07				
100	QPSK	1	137		17.89		19.3	0.0	
100	QPSK	1	271		17.93				
100	QPSK	135	0		18.00		19.3	0.0	
100	QPSK	135	69		18.04		19.3	0.0	
100	QPSK	135	138		17.99		19.3	0.0	
100	QPSK	270	0		18.05		19.3	0.0	
100	16QAM	1	1		18.05		19.3	0.0	
100	64QAM	1	1		17.99		19.3	0.0	
100	256QAM	1	1		17.98		19.3	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	17.95	18.00	18.01	19.3	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	17.89	18.01	17.95	19.3	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	17.98	17.95	17.97	19.3	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	17.90	18.04	17.97	19.3	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	17.97	18.03	17.99	19.3	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	17.91	17.97	18.04	19.3	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	17.95	17.95	18.02	19.3	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	17.96	18.02	17.97	19.3	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	17.91	17.95	17.94	19.3	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	17.88	17.99	18.02	19.3	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	17.91	17.99	17.95	19.3	0.0	

Part27Q n78 HPUE Ant 6 ECI 3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1		18.09				
100	PI2 BPSK	1	137		18.07		19.3	0.0	
100	PI2 BPSK	1	271		18.09				
100	PI2 BPSK	135	0		18.05		19.3	0.0	
100	PI2 BPSK	135	69		17.99		19.3	0.0	
100	PI2 BPSK	135	138		18.12		19.3	0.0	
100	PI2 BPSK	270	0		17.95		19.3	0.0	
100	QPSK	1	1		18.24				
100	QPSK	1	137		17.98		19.3	0.0	
100	QPSK	1	271		18.04				
100	QPSK	135	0		18.05		19.3	0.0	
100	QPSK	135	69		18.10		19.3	0.0	
100	QPSK	135	138		17.99		19.3	0.0	
100	QPSK	270	0		18.11		19.3	0.0	
100	16QAM	1	1		18.12		19.3	0.0	
100	64QAM	1	1		18.08		19.3	0.0	
100	256QAM	1	1		18.00		19.3	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	18.10	18.14	18.07	19.3	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	18.14	18.09	18.11	19.3	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	18.03	18.10	18.02	19.3	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	18.10	18.19	18.15	19.3	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	18.07	18.16	18.16	19.3	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	18.04	18.09	18.09	19.3	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	18.14	18.14	18.06	19.3	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	18.04	18.15	18.11	19.3	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	18.08	18.11	18.07	19.3	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	18.09	18.09	18.09	19.3	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	18.03	18.16	18.14	19.3	0.0	



Reduced Power Mode for Other PA ECIS

n7 Ant 3 ECI 5

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 509500	Middle Ch. / Freq. 507000	High Ch. / Freq. 509500		
Channel								
Frequency (MHz)								
50	PI2 BPSK	1	1	20.33	20.45	20.32	21.7	0.0
50	PI2 BPSK	1	135	20.34	20.40	20.30		
50	PI2 BPSK	1	268	20.21	20.36	20.28		
50	PI2 BPSK	135	0	20.30	20.38	20.31	21.7	0.0
50	PI2 BPSK	135	69	20.33	20.30	20.22	21.7	0.0
50	PI2 BPSK	135	135	20.24	20.34	20.27	21.7	0.0
50	PI2 BPSK	270	0	20.28	20.34	20.28	21.7	0.0
50	QPSK	1	1	20.41	20.48	20.45		
50	QPSK	1	135	20.36	20.44	20.38		
50	QPSK	1	268	20.34	20.38	20.21	21.7	0.0
50	QPSK	135	0	20.29	20.37	20.31	21.7	0.0
50	QPSK	135	68	20.30	20.46	20.35	21.7	0.0
50	QPSK	135	135	20.22	20.36	20.32	21.7	0.0
50	QPSK	270	0	20.31	20.35	20.27	21.7	0.0
50	16QAM	1	1	20.30	20.34	20.26	21.7	0.0
50	64QAM	1	1	20.28	20.32	20.21	21.5	0.2
50	256QAM	1	1	18.96	19.06	18.83	19.5	2.2
Channel								
Frequency (MHz)								
40	QPSK	1	1	20.37	20.45	20.31	21.7	0.0
Channel								
Frequency (MHz)								
35	QPSK	1	1	20.33	20.42	20.35	0.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	20.31	20.35	20.32	21.7	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	20.35	20.32	20.32	21.7	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	20.30	20.40	20.31	21.7	0.0
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	20.26	20.37	20.30	21.7	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	20.32	20.41	20.38	21.7	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	20.36	20.35	20.35	21.7	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	20.29	20.45	20.39	21.7	0.0

n25 Ant 3 ECI 5

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 374000	Middle Ch. / Freq. 376500	High Ch. / Freq. 379000		
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	21.48	21.64	21.45	22.7	0.0
40	PI2 BPSK	1	108	21.49	21.65	21.55		
40	PI2 BPSK	1	214	21.41	21.59	21.38		
40	PI2 BPSK	108	0	21.45	21.63	21.50	22.7	0.0
40	PI2 BPSK	108	54	21.57	21.50	21.48	22.7	0.0
40	PI2 BPSK	108	108	21.43	21.49	21.45	22.7	0.0
40	PI2 BPSK	216	0	21.45	21.63	21.50	22.7	0.0
40	QPSK	1	1	21.49	21.68	21.60		
40	QPSK	1	108	21.53	21.58	21.52		
40	QPSK	1	214	21.48	21.60	21.45	22.7	0.0
40	QPSK	108	0	21.52	21.59	21.51	22.7	0.0
40	QPSK	108	54	21.53	21.63	21.55	22.7	0.0
40	QPSK	108	108	21.46	21.47	21.44	22.7	0.0
40	QPSK	216	0	21.48	21.54	21.51	22.7	0.0
40	16QAM	1	1	21.46	21.48	21.43	22.7	0.0
40	64QAM	1	1	20.61	20.64	20.57	21.5	1.2
40	256QAM	1	1	18.21	18.29	18.28	18.5	3.2
Channel								
Frequency (MHz)								
35	QPSK	1	1	21.52	21.58	21.55	22.7	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	21.42	21.62	21.62	22.7	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	21.48	21.66	21.61	22.7	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	21.47	21.64	21.59	22.7	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	21.47	21.66	21.59	22.7	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	21.47	21.63	21.57	22.7	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	21.48	21.64	21.61	22.7	0.0

n66 Ant 3 ECI 5

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq. 346000	Middle Ch. / Freq. 349500	High Ch. / Freq. 352000		
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	22.99	23.12	22.93	24.0	0.0
40	PI2 BPSK	1	108	22.98	22.93	22.99		
40	PI2 BPSK	1	214	22.85	22.91	22.87		
40	PI2 BPSK	108	0	22.99	22.45	22.34	23.5	0.5
40	PI2 BPSK	108	54	22.93	22.89	22.87	24.0	0.0
40	PI2 BPSK	108	108	22.20	22.33	22.18	23.5	0.5
40	PI2 BPSK	216	0	22.38	22.53	22.25	24.0	0.0
40	QPSK	1	1	23.14	23.18	23.02		
40	QPSK	1	108	23.09	23.01	22.94		
40	QPSK	1	214	22.84	22.98	22.89	24.0	0.0
40	QPSK	108	0	21.90	21.97	21.78	23.0	1.0
40	QPSK	108	54	22.87	23.11	22.85	24.0	0.0
40	QPSK	108	108	21.96	21.92	21.91	23.0	1.0
40	QPSK	216	0	21.87	21.97	21.74	23.0	1.0
40	16QAM	1	1	21.87	21.83	21.66	23.0	1.0
40	64QAM	1	1	20.51	20.51	20.39	21.5	2.5
40	256QAM	1	1	18.08	18.13	18.15	18.5	4.5
Channel								
Frequency (MHz)								
35	QPSK	1	1	23.00	23.09	22.90	24.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	23.04	23.03	22.90	24.0	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	23.07	23.06	22.95	24.0	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	23.01	23.11	22.97	24.0	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.99	23.12	22.97	24.0	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	23.02	23.09	22.89	24.0	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	23.10	23.05	22.99	24.0	0.0



n41 HPUE Ant 3 ECI 5

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 506202	Middle Ch. Freq. 518598	High Ch. Freq. 528000		
Channel				2546.01	2592.99	2640		
Frequency (MHz)								
100	PI2 BPSK	1	1	20.24	20.30	20.19	22.0	0.0
100	PI2 BPSK	1	137	20.23	20.28	20.20		
100	PI2 BPSK	1	271	20.28	20.32	20.21		
100	PI2 BPSK	135	0	20.21	20.30	20.20	22.0	0.0
100	PI2 BPSK	135	69	20.26	20.30	20.25	22.0	0.0
100	PI2 BPSK	135	138	20.26	20.33	20.25	22.0	0.0
100	PI2 BPSK	270	0	20.28	20.31	20.19		
100	QPSK	1	1	20.44	20.50	20.46		
100	QPSK	1	137	20.31	20.30	20.19	22.0	0.0
100	QPSK	1	271	20.26	20.27	20.23	22.0	0.0
100	QPSK	135	0	20.26	20.35	20.23		
100	QPSK	135	69	20.40	20.45	20.38		
100	QPSK	135	138	20.29	20.28	20.18	22.0	0.0
100	QPSK	270	0	20.35	20.36	20.26		
100	16QAM	1	1	20.27	20.25	20.24		
100	64QAM	1	1	20.26	20.36	20.19	22.0	0.0
100	256QAM	1	1	20.26	20.25	20.19	22.0	0.0
Channel				506200	518598	528000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2541	2592.99	2644.88		
90	QPSK	1	1	20.24	20.30	20.22	22.0	0.0
Channel				507204	518598	528000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2530.02	2592.99	2643.99		
80	QPSK	1	1	20.28	20.34	20.17	22.0	0.0
Channel				508202	518598	531000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2531.01	2592.99	2655		
70	QPSK	1	1	20.29	20.34	20.15	22.0	0.0
Channel				509200	518598	531000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2526	2592.99	2659.98		
60	QPSK	1	1	20.24	20.31	20.24	22.0	0.0
Channel				509204	518598	532000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2521.02	2602.98	2664.98		
50	QPSK	1	1	20.23	20.32	20.21	22.0	0.0
Channel				503700	518598	533496	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2513.3	2592.99	2670.48		
45	QPSK	1	1	20.22	20.38	20.22	22.0	0.0
Channel				503202	518598	534000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2516.01	2592.99	2670		
40	QPSK	1	1	20.31	20.34	20.25	22.0	0.0
Channel				502704	518598	534496	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2513.52	2592.99	2672.49		
35	QPSK	1	1	20.29	20.35	20.25	22.0	0.0
Channel				502200	518598	534996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2511	2592.99	2674.99		
30	QPSK	1	1	20.27	20.33	20.27	22.0	0.0
Channel				501702	518598	535500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2506.51	2592.99	2677.5		
25	QPSK	1	1	20.28	20.29	20.19	22.0	0.0
Channel				501204	518598	535596	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2506.02	2592.99	2678.99		
20	QPSK	1	1	20.29	20.34	20.17	22.0	0.0
Channel				500700	518598	536496	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2503.5	2592.99	2682.48		
15	QPSK	1	1	20.24	20.27	20.28	22.0	0.0
Channel				500202	518598	537000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2501.01	2592.99	2682		
10	QPSK	1	1	20.28	20.31	20.15	22.0	0.0



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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 638000	Power Middle Ch. / Freq. 641666	Power High Ch. / Freq. 645332	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	17.50	17.63	17.60		
40	PI2 BPSK	1	59	17.53	17.63	17.56	19.1	0.0
40	PI2 BPSK	1	104	17.57	17.58	17.58		
40	PI2 BPSK	50	0	17.54	17.66	17.60	19.1	0.0
40	PI2 BPSK	50	28	17.51	17.61	17.59	19.1	0.0
40	PI2 BPSK	50	56	17.47	17.58	17.58	19.1	0.0
40	PI2 BPSK	100	0	17.54	17.62	17.57		
40	QPSK	1	1	17.75	17.79	17.72		
40	QPSK	1	53	17.51	17.58	17.64	19.1	0.0
40	QPSK	1	104	17.56	17.64	17.60		
40	QPSK	50	0	17.55	17.59	17.58	19.1	0.0
40	QPSK	50	28	17.71	17.74	17.63	19.1	0.0
40	QPSK	50	56	17.48	17.57	17.57		
40	QPSK	100	0	17.61	17.71	17.70	19.1	0.0
40	16QAM	1	1	17.54	17.66	17.58	19.1	0.0
40	64QAM	1	1	17.52	17.66	17.59	19.1	0.0
40	256QAM	1	1	17.53	17.69	17.58	19.1	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	17.57	17.60	17.66	19.1	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	17.54	17.63	17.61	19.1	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	17.58	17.66	17.60	19.1	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	17.50	17.60	17.60	19.1	0.0

Part270 n77 HPUE Ant 6 ECI 5

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 650000	Power High Ch. / Freq. 652000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	17.68	17.72	17.55		
100	PI2 BPSK	1	137	17.74	17.74	17.63	19.2	0.0
100	PI2 BPSK	1	271	17.65	17.65	17.58		
100	PI2 BPSK	135	0	17.74	17.87	17.65	19.2	0.0
100	PI2 BPSK	135	69	17.72	17.75	17.56	19.2	0.0
100	PI2 BPSK	135	138	17.68	17.72	17.67	19.2	0.0
100	PI2 BPSK	270	0	17.69	17.66	17.58		
100	QPSK	1	1	17.80	17.85	17.79		
100	QPSK	1	137	17.64	17.75	17.64	19.2	0.0
100	QPSK	1	271	17.73	17.72	17.66		
100	QPSK	135	0	17.68	17.68	17.55	19.2	0.0
100	QPSK	135	69	17.67	17.80	17.77	19.2	0.0
100	QPSK	135	138	17.68	17.75	17.64		
100	QPSK	270	0	17.76	17.76	17.69	19.2	0.0
100	16QAM	1	1	17.71	17.66	17.58	19.2	0.0
100	64QAM	1	1	17.67	17.68	17.58	19.2	0.0
100	256QAM	1	1	17.65	17.73	17.63	19.2	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	17.70	17.72	17.57	19.2	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	17.64	17.65	17.63	19.2	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	17.73	17.71	17.66	19.2	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	17.68	17.66	17.65	19.2	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	17.63	17.72	17.62	19.2	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	17.65	17.72	17.57	19.2	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	17.73	17.69	17.66	19.2	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	17.67	17.76	17.66	19.2	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	17.64	17.72	17.55	19.2	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	17.65	17.64	17.60	19.2	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	17.73	17.68	17.65	19.2	0.0

Part27Q n77 HPUE Ant 6 ECI 5

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 633000	Power Middle Ch. / Freq. 633334	Power High Ch. / Freq. 633334	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1		3500.01			
100	PI2 BPSK	1	137		17.49		19.2	0.0
100	PI2 BPSK	1	271		17.51			
100	PI2 BPSK	135	0		17.55		19.2	0.0
100	PI2 BPSK	135	69		17.56		19.2	0.0
100	PI2 BPSK	135	138		17.55		19.2	0.0
100	PI2 BPSK	270	0		17.54			
100	QPSK	1	1		17.70			
100	QPSK	1	137		17.54		19.2	0.0
100	QPSK	1	271		17.59			
100	QPSK	135	0		17.54		19.2	0.0
100	QPSK	135	69		17.66		19.2	0.0
100	QPSK	135	138		17.53		19.2	0.0
100	QPSK	270	0		17.62		19.2	0.0
100	16QAM	1	1		17.60		19.2	0.0
100	64QAM	1	1		17.54		19.2	0.0
100	256QAM	1	1		17.59		19.2	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	633000	633334	633668	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
80	QPSK	1	1	3495	3500.01	3505.02	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
70	QPSK	1	1	17.63	17.66	17.61	19.2	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	632668	633334	634000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
50	QPSK	1	1	3495.02	3500.01	3505.02	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	QPSK	1	1	17.52	17.54	17.51	19.2	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	632334	633334	634334	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
25	QPSK	1	1	3485.01	3500.01	3515.01	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
20	QPSK	1	1	17.54	17.52	17.51	19.2	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	631668	633334	635000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
10	QPSK	1	1	17.53	17.63	17.58	19.2	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	631668	633334	635000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	QPSK	1	1	631000	633334	635668	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
30	QPSK	1	1	3485.01	3500.01	3515.01	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
25	QPSK	1	1	17.50	17.60	17.54	19.2	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	630668	633334	635000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
15	QPSK	1	1	3482.51	3500.01	3542.51	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
10	QPSK	1	1	17.57	17.53	17.53	19.2	0.0



Part270 n78 HPUE Ant 6 ECI 5									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./ Freq.	Power Middle Ch./ Freq.	Power High Ch./ Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	17.61	17.61	17.61	19.2	0.0	
100	PI2 BPSK	1	137	17.60	17.60	17.60	19.2	0.0	
100	PI2 BPSK	1	271	17.52	17.52	17.52	19.2	0.0	
100	PI2 BPSK	135	0	17.60	17.60	17.60	19.2	0.0	
100	PI2 BPSK	135	69	17.68	17.68	17.68	19.2	0.0	
100	PI2 BPSK	135	138	17.68	17.68	17.68	19.2	0.0	
100	PI2 BPSK	270	0	17.57	17.57	17.57	19.2	0.0	
100	QPSK	1	1	17.78	17.78	17.78	19.2	0.0	
100	QPSK	1	137	17.66	17.66	17.66	19.2	0.0	
100	QPSK	1	271	17.68	17.68	17.68	19.2	0.0	
100	QPSK	135	0	17.62	17.62	17.62	19.2	0.0	
100	QPSK	135	69	17.73	17.73	17.73	19.2	0.0	
100	QPSK	135	138	17.63	17.63	17.63	19.2	0.0	
100	QPSK	270	0	17.64	17.64	17.64	19.2	0.0	
100	16QAM	1	1	17.54	17.54	17.54	19.2	0.0	
100	64QAM	1	1	17.58	17.58	17.58	19.2	0.0	
100	256QAM	1	1	17.66	17.66	17.66	19.2	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	17.63	17.60	17.48	19.2	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	17.66	17.63	17.47	19.2	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	17.60	17.60	17.43	19.2	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	17.61	17.64	17.52	19.2	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	17.58	17.61	17.55	19.2	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	17.57	17.63	17.47	19.2	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	17.63	17.64	17.46	19.2	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	17.67	17.62	17.47	19.2	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	17.66	17.65	17.54	19.2	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	17.68	17.64	17.47	19.2	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	17.62	17.67	17.47	19.2	0.0	

Part27Q n78 HPUE Ant 6 ECI 5									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./ Freq.	Power Middle Ch./ Freq.	Power High Ch./ Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	17.45	17.45	17.45	19.2	0.0	
100	PI2 BPSK	1	137	17.37	17.37	17.37	19.2	0.0	
100	PI2 BPSK	1	271	17.38	17.38	17.38	19.2	0.0	
100	PI2 BPSK	135	0	17.47	17.47	17.47	19.2	0.0	
100	PI2 BPSK	135	69	17.52	17.52	17.52	19.2	0.0	
100	PI2 BPSK	135	138	17.47	17.47	17.47	19.2	0.0	
100	PI2 BPSK	270	0	17.41	17.41	17.41	19.2	0.0	
100	QPSK	1	1	17.64	17.64	17.64	19.2	0.0	
100	QPSK	1	137	17.49	17.49	17.49	19.2	0.0	
100	QPSK	1	271	17.53	17.53	17.53	19.2	0.0	
100	QPSK	135	0	17.40	17.40	17.40	19.2	0.0	
100	QPSK	135	69	17.64	17.64	17.64	19.2	0.0	
100	QPSK	135	138	17.48	17.48	17.48	19.2	0.0	
100	QPSK	270	0	17.66	17.66	17.66	19.2	0.0	
100	16QAM	1	1	17.56	17.56	17.56	19.2	0.0	
100	64QAM	1	1	17.49	17.49	17.49	19.2	0.0	
100	256QAM	1	1	17.49	17.49	17.49	19.2	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	17.52	17.57	17.59	19.2	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	17.57	17.54	17.57	19.2	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	17.61	17.63	17.54	19.2	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	17.59	17.54	17.48	19.2	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	17.49	17.62	17.48	19.2	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	17.59	17.63	17.54	19.2	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	17.57	17.59	17.56	19.2	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	17.57	17.60	17.52	19.2	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	17.55	17.53	17.54	19.2	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	17.54	17.55	17.51	19.2	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	17.56	17.57	17.55	19.2	0.0	



Reduced Power Mode for Other PA ECI6

n7 Ant 3 ECI 6

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
50	PI2 BPSK	1	1	18.13	18.19	18.11	19.3	0.0
50	PI2 BPSK	1	135	18.00	18.12	18.00		
50	PI2 BPSK	1	268	17.90	17.90	17.93		
50	PI2 BPSK	135	0	17.98	18.11	17.90	19.3	0.0
50	PI2 BPSK	135	68	17.98	18.04	17.95	19.3	0.0
50	PI2 BPSK	135	135	17.78	17.98	17.93	19.3	0.0
50	PI2 BPSK	270	0	18.03	17.96	17.79	19.3	0.0
50	QPSK	1	1	18.16	18.22	18.21	19.3	0.0
50	QPSK	1	268	17.92	18.11	17.90		
50	QPSK	135	0	18.00	18.08	17.80		
50	QPSK	135	68	17.98	18.04	18.04	19.3	0.0
50	QPSK	135	135	18.03	18.09	17.85	19.3	0.0
50	QPSK	270	0	17.97	18.12	18.05	19.3	0.0
50	15QAM	1	1	17.73	17.91	17.83	19.3	0.0
50	15QAM	1	1	17.73	17.87	17.78	19.3	0.0
50	25QAM	1	1	18.24	18.28	18.14	19.3	0.0
Channel								
Frequency (MHz)								
49	QPSK	1	1	23.20	23.55	23.50	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
35	QPSK	1	1	18.15	18.30	18.14	0.0	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	18.21	18.22	18.17	19.3	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	18.09	18.28	18.18	19.3	0.0
Channel								
Frequency (MHz)								
20	PI2 BPSK	1	1	18.16	18.20	18.19	19.3	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	18.15	18.21	18.17	19.3	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	18.14	18.24	18.19	19.3	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	18.15	18.20	18.16	19.3	0.0

n25 Ant 3 ECI 6

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
49	PI2 BPSK	1	1	22.88	22.82	22.84	23.6	0.0
49	PI2 BPSK	1	108	22.50	22.82	22.48		
49	PI2 BPSK	1	214	22.48	22.54	22.38		
49	PI2 BPSK	108	0	22.48	22.92	22.38	23.5	0.1
49	PI2 BPSK	108	54	22.54	22.50	22.57	23.6	0.0
49	PI2 BPSK	108	108	22.32	22.50	22.29	23.5	0.1
49	PI2 BPSK	216	0	22.41	22.82	22.42	23.6	0.0
49	QPSK	1	1	22.74	22.78	22.64	23.6	0.0
49	QPSK	1	108	22.80	22.80	22.51		
49	QPSK	1	214	22.56	22.86	22.52		
49	QPSK	108	0	22.01	22.09	21.84	23.0	0.6
49	QPSK	108	54	22.52	22.63	22.42	23.6	0.0
49	QPSK	108	108	21.98	21.99	21.97	23.0	0.6
49	QPSK	216	0	21.89	22.04	21.85	23.0	0.6
49	15QAM	1	1	22.00	22.02	21.87	23.0	0.6
49	15QAM	1	1	20.94	20.62	20.47	21.5	2.1
49	25QAM	1	1	19.21	19.29	19.28	19.5	4.1
Channel								
Frequency (MHz)								
38	QPSK	1	1	187.7	182.2	187.5	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
30	QPSK	1	1	22.68	22.72	22.59	23.6	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	22.73	22.69	22.55	23.6	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	22.66	22.69	22.67	23.6	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.74	22.73	22.57	23.6	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.69	22.69	22.61	23.6	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	22.70	22.67	22.57	23.6	0.0

n66 Ant 3 ECI 6

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
49	PI2 BPSK	1	1	21.47	21.58	21.43	22.9	0.0
49	PI2 BPSK	1	108	21.41	21.41	21.53		
49	PI2 BPSK	1	214	21.33	21.48	21.40		
49	PI2 BPSK	108	0	21.40	21.41	21.38	22.9	0.0
49	PI2 BPSK	108	54	21.38	21.38	21.32	22.9	0.0
49	PI2 BPSK	108	108	21.15	21.36	21.19	22.9	0.0
49	PI2 BPSK	216	0	21.41	21.55	21.24	22.9	0.0
49	QPSK	1	1	21.67	21.71	21.55	22.9	0.0
49	QPSK	1	108	21.57	21.50	21.36		
49	QPSK	1	214	21.28	21.47	21.38		
49	QPSK	108	0	21.42	21.52	21.23	22.9	0.0
49	QPSK	108	54	21.38	21.63	21.31	22.9	0.0
49	QPSK	108	108	21.44	21.40	21.46	22.9	0.0
49	QPSK	216	0	21.43	21.50	21.19	22.9	0.0
49	15QAM	1	1	21.34	21.36	21.22	22.9	0.0
49	15QAM	1	1	20.51	20.51	20.38	21.5	1.4
49	25QAM	1	1	19.08	19.13	19.15	19.5	3.4
Channel								
Frequency (MHz)								
35	QPSK	1	1	172.5	1745	172.5	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
30	QPSK	1	1	21.65	21.68	21.55	22.9	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	21.68	21.68	21.52	22.9	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	21.59	21.63	21.52	22.9	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	21.65	21.64	21.50	22.9	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	21.63	21.64	21.50	22.9	0.0
Channel								
Frequency (MHz)								
5	QPSK	1	1	21.65	21.66	21.57	22.9	0.0



n41 HPUE Ant 3 ECI 6									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low		Power Middle		Power High	
				Ch. F.Freq.	506202	Ch. F.Freq.	518598	Ch. F.Freq.	528000
Channel				2546.01	2592.99	2640			
Frequency (MHz)									
100	PI2 BPSK	1	1	19.24	19.33	19.26			
100	PI2 BPSK	1	137	19.31	19.31	19.21	20.4	0.0	
100	PI2 BPSK	1	271	19.32	19.23	19.26			
100	PI2 BPSK	135	0	19.30	19.26	19.27	20.4	0.0	
100	PI2 BPSK	135	69	19.23	19.29	19.27	20.4	0.0	
100	PI2 BPSK	135	138	19.26	19.30	19.26	20.4	0.0	
100	PI2 BPSK	270	0	19.31	19.31	19.27	20.4	0.0	
100	QPSK	1	1	19.40	19.44	19.38			
100	QPSK	1	137	19.31	19.23	19.25	20.4	0.0	
100	QPSK	1	271	19.33	19.33	19.23			
100	QPSK	135	0	19.26	19.26	19.23	20.4	0.0	
100	QPSK	135	69	19.38	19.41	19.31	20.4	0.0	
100	QPSK	135	138	19.27	19.29	19.29	20.4	0.0	
100	QPSK	270	0	19.34	19.35	19.30	20.4	0.0	
100	16QAM	1	1	19.33	19.31	19.27	20.4	0.0	
100	64QAM	1	1	19.23	19.31	19.19	20.4	0.0	
100	256QAM	1	1	19.24	19.30	19.25	20.4	0.0	
Channel				506200	518598	528000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2541	2592.99	2644.88			
90	QPSK	1	1	19.25	19.24	19.25	20.4	0.0	
Channel				507204	518598	528000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2533.02	2592.99	2643.99			
80	QPSK	1	1	19.28	19.35	19.27	20.4	0.0	
Channel				508202	518598	531000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2531.01	2592.99	2655			
70	QPSK	1	1	19.23	19.26	19.25	20.4	0.0	
Channel				2526	2592.99	2659.86	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)									
60	QPSK	1	1	19.27	19.31	19.28	20.4	0.0	
Channel				504204	518598	529598	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2521.02	2602.96	2644.86			
50	QPSK	1	1	19.32	19.33	19.24	20.4	0.0	
Channel				503700	518598	533496	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2515.5	2592.99	2637.45			
45	QPSK	1	1	19.24	19.23	19.25	20.4	0.0	
Channel				503202	518598	534000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2516.01	2592.99	2670			
40	QPSK	1	1	19.33	19.28	19.23	20.4	0.0	
Channel				502704	518598	534496	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2513.52	2592.99	2672.49			
35	QPSK	1	1	19.28	19.32	19.26	20.4	0.0	
Channel				502200	518598	534996	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2511	2592.99	2674.86			
30	QPSK	1	1	19.30	19.34	19.19	20.4	0.0	
Channel				501702	518598	535500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2508.51	2592.99	2677.5			
25	QPSK	1	1	19.30	19.24	19.16	20.4	0.0	
Channel				501204	518598	535996	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2506.02	2592.99	2679.99			
20	QPSK	1	1	19.31	19.27	19.27	20.4	0.0	
Channel				500700	518598	536496	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2503.5	2592.99	2682.43			
15	QPSK	1	1	19.29	19.31	19.19	20.4	0.0	
Channel				500202	518598	537000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2501.01	2592.99	2685			
10	QPSK	1	1	19.28	19.29	19.24	20.4	0.0	



n48 Part 96 Ant 6 ECI 6

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low Ch./Freq., Power Middle Ch./Freq., Power High Ch./Freq., Tune-up limit (dBm), MPR (dB). Includes rows for Pi2 BPSK, QPSK, and 16QAM/64QAM/256QAM modulation schemes.

Part270 n77 HPUE Ant 6 ECI 6

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low Ch./Freq., Power Middle Ch./Freq., Power High Ch./Freq., Tune-up limit (dBm), MPR (dB). Includes rows for Pi2 BPSK, QPSK, and 16QAM/64QAM/256QAM modulation schemes.

Part27Q n77 HPUE Ant 6 ECI 6

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low Ch./Freq., Power Middle Ch./Freq., Power High Ch./Freq., Tune-up limit (dBm), MPR (dB). Includes rows for Pi2 BPSK, QPSK, and 16QAM/64QAM/256QAM modulation schemes.



Part270 n78 HPUE Ant 6 ECI 6									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	19.74	19.74				
100	PI2 BPSK	1	137	19.83			21.1	0.0	
100	PI2 BPSK	1	271	19.86					
100	PI2 BPSK	135	0	19.69			21.1	0.0	
100	PI2 BPSK	135	69	19.66			21.1	0.0	
100	PI2 BPSK	135	138	19.66			21.1	0.0	
100	PI2 BPSK	270	0	19.78			21.1	0.0	
100	QPSK	1	1	19.83					
100	QPSK	1	137	19.82			21.1	0.0	
100	QPSK	1	271	19.74					
100	QPSK	135	0	19.87			21.1	0.0	
100	QPSK	135	69	19.79			21.1	0.0	
100	QPSK	135	138	19.77			21.1	0.0	
100	QPSK	270	0	19.76			21.1	0.0	
100	16QAM	1	1	19.69			21.1	0.0	
100	64QAM	1	1	19.69			21.1	0.0	
100	256QAM	1	1	19.67			21.1	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	19.54	19.69	19.54	21.1	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	19.57	19.70	19.55	21.1	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	19.57	19.70	19.52	21.1	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	19.65	19.67	19.57	21.1	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	19.66	19.74	19.54	21.1	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	19.59	19.69	19.54	21.1	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	19.58	19.66	19.57	21.1	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	19.60	19.77	19.49	21.1	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	19.83	19.69	19.51	21.1	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	19.59	19.74	19.53	21.1	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	19.83	19.71	19.49	21.1	0.0	

Part27Q n78 HPUE Ant 6 ECI 6									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	19.49	19.49				
100	PI2 BPSK	1	137	19.51			21.1	0.0	
100	PI2 BPSK	1	271	19.40					
100	PI2 BPSK	135	0	19.50			21.1	0.0	
100	PI2 BPSK	135	69	19.49			21.1	0.0	
100	PI2 BPSK	135	138	19.50			21.1	0.0	
100	PI2 BPSK	270	0	19.55			21.1	0.0	
100	QPSK	1	1	19.67					
100	QPSK	1	137	19.49			21.1	0.0	
100	QPSK	1	271	19.52					
100	QPSK	135	0	19.56			21.1	0.0	
100	QPSK	135	69	19.58			21.1	0.0	
100	QPSK	135	138	19.49			21.1	0.0	
100	QPSK	270	0	19.56			21.1	0.0	
100	16QAM	1	1	19.46			21.1	0.0	
100	64QAM	1	1	19.51			21.1	0.0	
100	256QAM	1	1	19.42			21.1	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	19.59	19.64	19.60	21.1	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	19.48	19.62	19.51	21.1	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	19.56	19.63	19.54	21.1	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	19.48	19.59	19.52	21.1	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	19.48	19.59	19.55	21.1	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	19.55	19.64	19.57	21.1	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	19.48	19.60	19.52	21.1	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	19.52	19.65	19.58	21.1	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	19.57	19.62	19.57	21.1	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	19.49	19.54	19.52	21.1	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	19.53	19.59	19.61	21.1	0.0	



Reduced Power Mode for Other PA ECI9

n7 Ant 3 ECI 9

Table with 9 columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low Ch / Freq, Power Middle Ch / Freq, Power High Ch / Freq, Tune-up limit (dBm), MPR (dB). Contains data for various modulation schemes like Pi2 BPSK, QPSK, 16QAM, 64QAM, 256QAM across different frequency channels.

n25 Ant 3 ECI 9

Table with 9 columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low Ch / Freq, Power Middle Ch / Freq, Power High Ch / Freq, Tune-up limit (dBm), MPR (dB). Contains data for various modulation schemes like Pi2 BPSK, QPSK, 16QAM, 64QAM, 256QAM across different frequency channels.

n66 Ant 3 ECI 9

Table with 9 columns: BW [MHz], Modulation, RB Size, RB Offset, Power Low Ch / Freq, Power Middle Ch / Freq, Power High Ch / Freq, Tune-up limit (dBm), MPR (dB). Contains data for various modulation schemes like Pi2 BPSK, QPSK, 16QAM, 64QAM, 256QAM across different frequency channels.



n41 HPUE Ant 3 ECI 9									
BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)	
				Low Ch. Freq.	Middle Ch. Freq.	High Ch. Freq.			
Channel				506202	518598	528000			
Frequency (MHz)				2546.01	2592.99	2640			
100	PI2 BPSK	1	1	14.53	14.60	14.55	16.1	0.0	
100	PI2 BPSK	1	137	14.50	14.56	14.48			
100	PI2 BPSK	1	271	14.34	14.49	14.47			
100	PI2 BPSK	135	0	14.48	14.49	14.45	16.1	0.0	
100	PI2 BPSK	135	69	14.61	14.43	14.41	16.1	0.0	
100	PI2 BPSK	135	138	14.28	14.49	14.29	16.1	0.0	
100	PI2 BPSK	270	0	14.45	14.57	14.38			
100	QPSK	1	1	14.74	14.75	14.59			
100	QPSK	1	137	14.68	14.68	14.45	16.1	0.0	
100	QPSK	1	271	14.46	14.65	14.39	16.1	0.0	
100	QPSK	135	0	14.54	14.50	14.33			
100	QPSK	135	69	14.44	14.67	14.39			
100	QPSK	135	138	14.41	14.45	14.46	16.1	0.0	
100	QPSK	270	0	14.33	14.64	14.36	16.1	0.0	
100	16QAM	1	1	14.60	14.70	14.61			
100	64QAM	1	1	14.68	14.73	14.68			
100	256QAM	1	1	14.34	14.50	14.42	16.1	0.0	
Channel				506200	518598	528000	Tune-up limit	MPR	
Frequency (MHz)				2541	2592.99	2644.88	(dBm)	(dB)	
90	QPSK	1	1	14.67	14.73	14.58	16.1	0.0	
Channel				507204	518598	528000	Tune-up limit	MPR	
Frequency (MHz)				2532.02	2592.99	2643.99	(dBm)	(dB)	
80	QPSK	1	1	14.65	14.67	14.54	16.1	0.0	
Channel				506202	518598	531000	Tune-up limit	MPR	
Frequency (MHz)				2531.01	2592.99	2655	(dBm)	(dB)	
70	QPSK	1	1	14.07	14.74	14.57	16.1	0.0	
Channel				505200	518598	528000	Tune-up limit	MPR	
Frequency (MHz)				2526	2592.99	2659.88	(dBm)	(dB)	
60	QPSK	1	1	14.66	14.71	14.52	16.1	0.0	
Channel				504204	518598	528000	Tune-up limit	MPR	
Frequency (MHz)				2521.02	2592.99	2648.89	(dBm)	(dB)	
50	QPSK	1	1	14.69	14.68	14.59	16.1	0.0	
Channel				503700	518598	533496	Tune-up limit	MPR	
Frequency (MHz)				2515.5	2592.99	2637.43	(dBm)	(dB)	
45	QPSK	1	1	14.68	14.73	14.53	16.1	0.0	
Channel				503202	518598	534000	Tune-up limit	MPR	
Frequency (MHz)				2516.01	2592.99	2670	(dBm)	(dB)	
40	QPSK	1	1	14.67	14.74	14.53	16.1	0.0	
Channel				502704	518598	534496	Tune-up limit	MPR	
Frequency (MHz)				2513.52	2592.99	2672.49	(dBm)	(dB)	
35	QPSK	1	1	14.74	14.68	14.53	16.1	0.0	
Channel				502200	518598	534996	Tune-up limit	MPR	
Frequency (MHz)				2511	2592.99	2674.89	(dBm)	(dB)	
30	QPSK	1	1	14.73	14.72	14.50	16.1	0.0	
Channel				501702	518598	535500	Tune-up limit	MPR	
Frequency (MHz)				2506.51	2592.99	2677.5	(dBm)	(dB)	
25	QPSK	1	1	14.72	14.71	14.42	16.1	0.0	
Channel				501204	518598	535996	Tune-up limit	MPR	
Frequency (MHz)				2506.02	2592.99	2679.99	(dBm)	(dB)	
20	QPSK	1	1	14.71	14.74	14.52	16.1	0.0	
Channel				500700	518598	536496	Tune-up limit	MPR	
Frequency (MHz)				2503.5	2592.99	2682.43	(dBm)	(dB)	
15	QPSK	1	1	14.73	14.74	14.51	16.1	0.0	
Channel				500202	518598	537000	Tune-up limit	MPR	
Frequency (MHz)				2501.01	2592.99	2685	(dBm)	(dB)	
10	QPSK	1	1	14.69	14.73	14.55	16.1	0.0	



n48 Part 96 Ant 6 ECI 9

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				3570	3624.99	3679.98		
40	PI2 BPSK	1	1	15.31	15.30	15.22	16.7	0.0
40	PI2 BPSK	1	59	15.28	15.29	15.23		
40	PI2 BPSK	1	104	15.21	15.27	15.21		
40	PI2 BPSK	50	0	15.26	15.32	15.27	16.7	0.0
40	PI2 BPSK	50	28	15.29	15.36	15.24	16.7	0.0
40	PI2 BPSK	50	58	15.25	15.31	15.26		
40	PI2 BPSK	100	0	15.25	15.30	15.26	16.7	0.0
40	QPSK	1	1	15.40	15.43	15.38		
40	QPSK	1	53	15.20	15.36	15.21	16.7	0.0
40	QPSK	1	104	15.19	15.32	15.26		
40	QPSK	50	0	15.25	15.33	15.23	16.7	0.0
40	QPSK	50	28	15.39	15.41	15.27	16.7	0.0
40	QPSK	50	58	15.27	15.36	15.17		
40	QPSK	100	0	15.31	15.37	15.28	16.7	0.0
40	16QAM	1	1	15.24	15.27	15.18	16.7	0.0
40	64QAM	1	1	15.26	15.32	15.25	16.7	0.0
40	256QAM	1	1	15.29	15.29	15.20	16.7	0.0
Channel								
Frequency (MHz)				637166	641666	646000	Tune-up limit (dBm)	MPR (dB)
30	QPSK	1	1	15.23	15.35	15.17	16.7	0.0
Channel								
Frequency (MHz)				637334	641666	646000	Tune-up limit (dBm)	MPR (dB)
20	QPSK	1	1	15.22	15.29	15.21	16.7	0.0
Channel								
Frequency (MHz)				637168	641666	646168	Tune-up limit (dBm)	MPR (dB)
15	QPSK	1	1	15.31	15.35	15.21	16.7	0.0
Channel								
Frequency (MHz)				3555.09	3624.99	3694.98	Tune-up limit (dBm)	MPR (dB)
10	QPSK	1	1	15.22	15.25	15.23	16.7	0.0

Part270 n77 HPUE Ant 6 ECI 9

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				3750	3840	3930		
100	PI2 BPSK	1	1	12.53	12.83	12.66		
100	PI2 BPSK	1	137	12.52	12.84	12.58	14.1	0.0
100	PI2 BPSK	1	271	12.62	12.88	12.65		
100	PI2 BPSK	135	0	12.60	12.88	12.57	14.1	0.0
100	PI2 BPSK	135	69	12.55	12.89	12.66	14.1	0.0
100	PI2 BPSK	135	138	12.58	12.83	12.65		
100	PI2 BPSK	270	0	12.62	12.99	12.60	14.1	0.0
100	QPSK	1	1	12.74	12.76	12.72		
100	QPSK	1	137	12.61	12.85	12.58	14.1	0.0
100	QPSK	1	271	12.54	12.84	12.67		
100	QPSK	135	0	12.53	12.61	12.65	14.1	0.0
100	QPSK	135	69	12.66	12.73	12.60	14.1	0.0
100	QPSK	135	138	12.60	12.84	12.68		
100	QPSK	270	0	12.63	12.71	12.66	14.1	0.0
100	16QAM	1	1	12.56	12.67	12.61	14.1	0.0
100	64QAM	1	1	12.52	12.66	12.64	14.1	0.0
100	256QAM	1	1	12.52	12.66	12.64	14.1	0.0
Channel								
Frequency (MHz)				646968	650000	652634	Tune-up limit (dBm)	MPR (dB)
90	QPSK	1	1	12.63	12.63	12.59	14.1	0.0
Channel								
Frequency (MHz)				646934	650000	652668	Tune-up limit (dBm)	MPR (dB)
80	QPSK	1	1	12.58	12.82	12.67	14.1	0.0
Channel								
Frequency (MHz)				3735	3840	3945	Tune-up limit (dBm)	MPR (dB)
70	QPSK	1	1	12.57	12.88	12.65	14.1	0.0
Channel								
Frequency (MHz)				3740.01	3840	3940.02	Tune-up limit (dBm)	MPR (dB)
60	QPSK	1	1	12.52	12.84	12.68	14.1	0.0
Channel								
Frequency (MHz)				646334	650000	653068	Tune-up limit (dBm)	MPR (dB)
50	QPSK	1	1	12.59	12.67	12.59	14.1	0.0
Channel								
Frequency (MHz)				3720	3840	3960	Tune-up limit (dBm)	MPR (dB)
40	QPSK	1	1	12.53	12.68	12.65	14.1	0.0
Channel								
Frequency (MHz)				647968	650000	654334	Tune-up limit (dBm)	MPR (dB)
30	QPSK	1	1	12.60	12.69	12.56	14.1	0.0
Channel								
Frequency (MHz)				3742.5	3840	3967.5	Tune-up limit (dBm)	MPR (dB)
25	QPSK	1	1	12.61	12.70	12.61	14.1	0.0
Channel								
Frequency (MHz)				647334	650000	654668	Tune-up limit (dBm)	MPR (dB)
20	QPSK	1	1	12.58	12.70	12.61	14.1	0.0
Channel								
Frequency (MHz)				647168	650000	654834	Tune-up limit (dBm)	MPR (dB)
15	QPSK	1	1	12.57	12.60	12.55	14.1	0.0
Channel								
Frequency (MHz)				3705	3840	3975	Tune-up limit (dBm)	MPR (dB)
10	QPSK	1	1	12.57	12.62	12.68	14.1	0.0

Part27Q n77 HPUE Ant 6 ECI 9

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				3500.01				
100	PI2 BPSK	1	1				14.1	0.0
100	PI2 BPSK	1	137					
100	PI2 BPSK	1	271					
100	PI2 BPSK	135	0				14.1	0.0
100	PI2 BPSK	135	69				14.1	0.0
100	PI2 BPSK	135	138					
100	PI2 BPSK	270	0				14.1	0.0
100	QPSK	1	1					
100	QPSK	1	137				14.1	0.0
100	QPSK	1	271					
100	QPSK	135	0				14.1	0.0
100	QPSK	135	69				14.1	0.0
100	QPSK	135	138				14.1	0.0
100	QPSK	270	0				14.1	0.0
100	16QAM	1	1				14.1	0.0
100	64QAM	1	1				14.1	0.0
100	256QAM	1	1				14.1	0.0
Channel								
Frequency (MHz)				633000	633334	633668	Tune-up limit (dBm)	MPR (dB)
90	QPSK	1	1	12.61	12.66	12.63	14.1	0.0
Channel								
Frequency (MHz)				632668	633334	634000	Tune-up limit (dBm)	MPR (dB)
80	QPSK	1	1	12.51	12.65	12.61	14.1	0.0
Channel								
Frequency (MHz)				632334	633334	634334	Tune-up limit (dBm)	MPR (dB)
70	QPSK	1	1	12.53	12.61	12.60	14.1	0.0
Channel								
Frequency (MHz)				3480.02	3500.01	3520.02	Tune-up limit (dBm)	MPR (dB)
60	QPSK	1	1	12.52	12.56	12.53	14.1	0.0
Channel								
Frequency (MHz)				631668	633334	635000	Tune-up limit (dBm)	MPR (dB)
50	QPSK	1	1	12.60	12.60	12.57	14.1	0.0
Channel								
Frequency (MHz)				631334	633334	635334	Tune-up limit (dBm)	MPR (dB)
40	QPSK	1	1	12.54	12.61	12.55	14.1	0.0
Channel								
Frequency (MHz)				631000	633334	635668	Tune-up limit (dBm)	MPR (dB)
30	QPSK	1	1	12.55	12.61	12.54	14.1	0.0
Channel								
Frequency (MHz)				3482.51	3500.01	3537.51	Tune-up limit (dBm)	MPR (dB)
25	QPSK	1	1	12.55	12.56	12.59	14.1	0.0
Channel								
Frequency (MHz)				630668	633334	636000	Tune-up limit (dBm)	MPR (dB)
20	QPSK	1	1	12.52	12.63	12.55	14.1	0.0
Channel								
Frequency (MHz)				630000	633334	636168	Tune-up limit (dBm)	MPR (dB)
15	QPSK	1	1	12.52	12.64	12.63	14.1	0.0
Channel								
Frequency (MHz)				3455.01	3500.01	3545.01	Tune-up limit (dBm)	MPR (dB)
10	QPSK	1	1	12.58	12.64	12.56	14.1	0.0



Part270 n78 HPUE Ant 6 ECI 9							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	MPR (dB)
Channel							
Frequency (MHz)							
100	PI2 BPSK	1	1	12.53	12.53		
100	PI2 BPSK	1	137	12.61	12.61	14.1	0.0
100	PI2 BPSK	1	271	12.65	12.65		
100	PI2 BPSK	135	0	12.65	12.65	14.1	0.0
100	PI2 BPSK	135	69	12.66	12.66	14.1	0.0
100	PI2 BPSK	135	138	12.62	12.62	14.1	0.0
100	PI2 BPSK	270	0	12.48	12.48	14.1	0.0
100	QPSK	1	1	12.74	12.74		
100	QPSK	1	137	12.54	12.54	14.1	0.0
100	QPSK	1	271	12.61	12.61		
100	QPSK	135	0	12.56	12.56	14.1	0.0
100	QPSK	135	69	12.67	12.67	14.1	0.0
100	QPSK	135	138	12.61	12.61	14.1	0.0
100	QPSK	270	0	12.64	12.64	14.1	0.0
100	16QAM	1	1	12.57	12.57	14.1	0.0
100	64QAM	1	1	12.59	12.59	14.1	0.0
100	256QAM	1	1	12.62	12.62	14.1	0.0
Channel							
Frequency (MHz)							
90	QPSK	1	1	649688	650000	650334	MPR (dB)
Channel							
Frequency (MHz)							
80	QPSK	1	1	3740.01	3750	3760.02	14.1 0.0
Channel							
Frequency (MHz)							
70	QPSK	1	1	649000	650000	651000	14.1 0.0
Channel							
Frequency (MHz)							
60	QPSK	1	1	648688	650000	651334	MPR (dB)
Channel							
Frequency (MHz)							
50	QPSK	1	1	3726.01	3750	3776.02	14.1 0.0
Channel							
Frequency (MHz)							
40	QPSK	1	1	649000	650000	652000	MPR (dB)
Channel							
Frequency (MHz)							
30	QPSK	1	1	647688	650000	652334	MPR (dB)
Channel							
Frequency (MHz)							
25	QPSK	1	1	647500	650000	652680	MPR (dB)
Channel							
Frequency (MHz)							
20	QPSK	1	1	3712.5	3750	3787.5	14.1 0.0
Channel							
Frequency (MHz)							
15	QPSK	1	1	647168	650000	652834	MPR (dB)
Channel							
Frequency (MHz)							
10	QPSK	1	1	3707.52	3750	3792.51	14.1 0.0
Channel							
Frequency (MHz)							
10	QPSK	1	1	647000	650000	653000	MPR (dB)
Channel							
Frequency (MHz)							
10	QPSK	1	1	3705	3750	3795	14.1 0.0

Part27Q n78 HPUE Ant 6 ECI 9							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	MPR (dB)
Channel							
Frequency (MHz)							
100	PI2 BPSK	1	1	12.45	12.45		
100	PI2 BPSK	1	137	12.47	12.47	14.1	0.0
100	PI2 BPSK	1	271	12.48	12.48		
100	PI2 BPSK	135	0	12.57	12.57	14.1	0.0
100	PI2 BPSK	135	69	12.49	12.49	14.1	0.0
100	PI2 BPSK	135	138	12.47	12.47	14.1	0.0
100	PI2 BPSK	270	0	12.48	12.48	14.1	0.0
100	QPSK	1	1	12.68	12.68		
100	QPSK	1	137	12.43	12.43	14.1	0.0
100	QPSK	1	271	12.52	12.52		
100	QPSK	135	0	12.56	12.56	14.1	0.0
100	QPSK	135	69	12.65	12.65	14.1	0.0
100	QPSK	135	138	12.41	12.41	14.1	0.0
100	QPSK	270	0	12.56	12.56	14.1	0.0
100	16QAM	1	1	12.61	12.61	14.1	0.0
100	64QAM	1	1	12.42	12.42	14.1	0.0
100	256QAM	1	1	12.48	12.48	14.1	0.0
Channel							
Frequency (MHz)							
90	QPSK	1	1	633600	633334	633668	MPR (dB)
Channel							
Frequency (MHz)							
80	QPSK	1	1	3480.02	3500.01	3510	14.1 0.0
Channel							
Frequency (MHz)							
70	QPSK	1	1	632334	633334	634334	MPR (dB)
Channel							
Frequency (MHz)							
60	QPSK	1	1	3485.01	3500.01	3515.01	14.1 0.0
Channel							
Frequency (MHz)							
50	QPSK	1	1	632000	633334	634668	MPR (dB)
Channel							
Frequency (MHz)							
40	QPSK	1	1	3480	3500.01	3520.02	14.1 0.0
Channel							
Frequency (MHz)							
30	QPSK	1	1	631668	633334	635000	MPR (dB)
Channel							
Frequency (MHz)							
25	QPSK	1	1	3476.02	3500.01	3526	14.1 0.0
Channel							
Frequency (MHz)							
20	QPSK	1	1	631334	633334	635334	MPR (dB)
Channel							
Frequency (MHz)							
15	QPSK	1	1	3470.01	3500.01	3530.01	14.1 0.0
Channel							
Frequency (MHz)							
10	QPSK	1	1	631000	633334	635668	MPR (dB)
Channel							
Frequency (MHz)							
10	QPSK	1	1	3465	3500.01	3555.02	14.1 0.0
Channel							
Frequency (MHz)							
10	QPSK	1	1	630834	633334	635834	MPR (dB)
Channel							
Frequency (MHz)							
10	QPSK	1	1	3462.51	3500.01	3537.51	14.1 0.0
Channel							
Frequency (MHz)							
10	QPSK	1	1	630668	633334	636000	MPR (dB)
Channel							
Frequency (MHz)							
10	QPSK	1	1	3460.02	3500.01	3540	14.1 0.0
Channel							
Frequency (MHz)							
10	QPSK	1	1	630500	633334	636168	MPR (dB)
Channel							
Frequency (MHz)							
10	QPSK	1	1	3457.5	3500.01	3542.52	14.1 0.0
Channel							
Frequency (MHz)							
10	QPSK	1	1	630334	633334	636334	MPR (dB)
Channel							
Frequency (MHz)							
10	QPSK	1	1	3455.01	3500.01	3545.01	14.1 0.0



Reduced Power Mode for Other PA EC10

n7 Ant 3 ECI 10									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
50	PI2 BPSK	1	1	16.41	16.47	16.33			
50	PI2 BPSK	1	135	16.34	16.34	16.25	17.8	0.0	
50	PI2 BPSK	1	268	16.13	16.23	16.21			
50	PI2 BPSK	135	0	16.22	16.30	16.20	17.8	0.0	
50	PI2 BPSK	135	68	16.31	16.26	16.28	17.8	0.0	
50	PI2 BPSK	135	135	15.98	16.24	16.24	17.8	0.0	
50	PI2 BPSK	270	0	16.26	16.31	16.26			
50	QPSK	1	1	16.46	16.54	16.41			
50	QPSK	1	135	16.39	16.39	16.34	17.8	0.0	
50	QPSK	1	268	16.21	16.42	16.17			
50	QPSK	135	0	16.25	16.32	16.05	17.8	0.0	
50	QPSK	135	68	16.25	16.45	16.32	17.8	0.0	
50	QPSK	135	135	16.28	16.38	16.19	17.8	0.0	
50	QPSK	270	0	16.23	16.47	16.21			
50	16QAM	1	1	16.57	16.17	16.11	17.8	0.0	
50	64QAM	1	1	16.01	16.07	16.03	17.8	0.0	
50	256QAM	1	1	16.45	16.51	16.44	17.8	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	16.41	16.46	16.34	17.8	0.0	
Channel									
Frequency (MHz)									
35	QPSK	1	1	16.38	16.40	16.37	0.0	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	16.39	16.50	16.32	17.8	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	16.42	16.50	16.36	17.8	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	16.41	16.46	16.41	17.8	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	16.44	16.46	16.41	17.8	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	16.35	16.44	16.43	17.8	0.0	
Channel									
Frequency (MHz)									
5	QPSK	1	1	16.37	16.46	16.43	17.8	0.0	

n25 Ant 3 ECI 10									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
40	PI2 BPSK	1	1	21.89	21.81	21.57			
40	PI2 BPSK	1	108	21.58	21.53	21.48	22.8	0.0	
40	PI2 BPSK	1	214	21.47	21.47	21.35			
40	PI2 BPSK	108	0	21.48	21.48	21.37	22.8	0.0	
40	PI2 BPSK	108	54	21.50	21.52	21.50	22.8	0.0	
40	PI2 BPSK	108	108	21.32	21.52	21.27	22.8	0.0	
40	PI2 BPSK	216	0	21.36	21.66	21.47			
40	QPSK	1	1	21.76	21.85	21.66			
40	QPSK	1	108	21.65	21.81	21.46	22.8	0.0	
40	QPSK	1	214	21.49	21.64	21.56			
40	QPSK	108	0	21.52	21.58	21.29	22.8	0.0	
40	QPSK	108	54	21.49	21.83	21.43	22.8	0.0	
40	QPSK	108	108	21.46	21.46	21.46	22.8	0.0	
40	QPSK	216	0	21.38	21.50	21.35			
40	16QAM	1	1	21.47	21.48	21.34	22.8	0.0	
40	64QAM	1	1	20.84	20.82	20.47	21.5	1.3	
40	256QAM	1	1	19.21	19.29	19.28	19.5	3.3	
Channel									
Frequency (MHz)									
35	QPSK	1	1	21.74	21.76	21.72	22.8	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	21.01	21.73	21.69	22.8	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	21.67	21.70	21.67	22.8	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	21.67	21.77	21.60	22.8	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	21.74	21.71	21.69	22.8	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	21.71	21.77	21.60	22.8	0.0	
Channel									
Frequency (MHz)									
5	QPSK	1	1	21.70	21.73	21.68	22.8	0.0	

n66 Ant 3 ECI 10									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
40	PI2 BPSK	1	1	19.45	19.56	19.46			
40	PI2 BPSK	1	108	19.48	19.41	19.54	20.9	0.0	
40	PI2 BPSK	1	214	19.34	19.45	19.37			
40	PI2 BPSK	108	0	19.41	19.42	19.28	20.9	0.0	
40	PI2 BPSK	108	54	19.46	19.34	19.33	20.9	0.0	
40	PI2 BPSK	108	108	19.24	19.39	19.15	20.9	0.0	
40	PI2 BPSK	216	0	19.35	19.53	19.31			
40	QPSK	1	1	19.59	19.07	19.48			
40	QPSK	1	108	19.54	19.54	19.39	20.9	0.0	
40	QPSK	1	214	19.33	19.49	19.41			
40	QPSK	108	0	19.55	19.51	19.47	20.9	0.0	
40	QPSK	108	54	19.52	19.06	19.58	20.9	0.0	
40	QPSK	108	108	19.43	19.47	19.44	20.9	0.0	
40	QPSK	216	0	19.35	19.42	19.20			
40	16QAM	1	1	19.35	19.36	19.12	20.9	0.0	
40	64QAM	1	1	19.52	19.56	19.38	20.9	0.0	
40	256QAM	1	1	19.08	19.13	19.15	19.5	1.4	
Channel									
Frequency (MHz)									
35	QPSK	1	1	19.44	19.00	19.35	20.9	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	19.52	19.81	19.38	20.9	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	19.49	19.55	19.42	20.9	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	19.51	19.56	19.42	20.9	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	19.51	19.53	19.45	20.9	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	19.48	19.55	19.38	20.9	0.0	
Channel									
Frequency (MHz)									
5	QPSK	1	1	19.55	19.53	19.34	20.9	0.0	



n41 HPUE Ant 3 ECI 10

BW (MHz)	Modulation	RB Size	RB Offset	Power	Power	Power	Tune-up limit (dBm)	MPR (dB)
				Low Ch. Freq. 506202	Middle Ch. Freq. 518598	High Ch. Freq. 528000		
Channel				2546.01	2592.99	2640		
Frequency (MHz)								
100	PI2 BPSK	1	1	15.30	15.27	15.28	16.4	0.0
100	PI2 BPSK	1	137	15.22	15.31	15.20		
100	PI2 BPSK	1	271	15.20	15.31	15.22		
100	PI2 BPSK	135	0	15.30	15.26	15.19	16.4	0.0
100	PI2 BPSK	135	69	15.29	15.26	15.20	16.4	0.0
100	PI2 BPSK	135	138	15.28	15.23	15.21	16.4	0.0
100	PI2 BPSK	270	0	15.21	15.23	15.20		
100	QPSK	1	1	15.32	15.40	15.36		
100	QPSK	1	137	15.20	15.31	15.21	16.4	0.0
100	QPSK	1	271	15.26	15.24	15.26	16.4	0.0
100	QPSK	135	0	15.26	15.26	15.29		
100	QPSK	135	69	15.36	15.38	15.34		
100	QPSK	135	138	15.25	15.23	15.24	16.4	0.0
100	QPSK	270	0	15.33	15.35	15.32	16.4	0.0
100	16QAM	1	1	15.28	15.26	15.24		
100	64QAM	1	1	15.27	15.24	15.21		
100	256QAM	1	1	15.20	15.24	15.21	16.4	0.0
Channel				506200	518598	528000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2541	2592.99	2644.88		
90	QPSK	1	1	15.23	15.32	15.28	16.4	0.0
Channel				507204	518598	528000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2530.02	2592.99	2649.99		
80	QPSK	1	1	15.28	15.30	15.20	16.4	0.0
Channel				508202	518598	531000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2531.01	2592.99	2655		
70	QPSK	1	1	15.27	15.28	15.25	16.4	0.0
Channel				2526	2592.99	2659.86	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)								
60	QPSK	1	1	15.23	15.25	15.28	16.4	0.0
Channel				504204	518598	529000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2521.02	2602.96	2644.86		
50	QPSK	1	1	15.26	15.24	15.21	16.4	0.0
Channel				503700	518598	533496	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2513.5	2592.99	2637.48		
45	QPSK	1	1	15.24	15.27	15.30	16.4	0.0
Channel				503202	518598	534000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2516.01	2592.99	2670		
40	QPSK	1	1	15.30	15.23	15.22	16.4	0.0
Channel				502704	518598	534496	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2513.52	2592.99	2672.49		
35	QPSK	1	1	15.28	15.29	15.24	16.4	0.0
Channel				502200	518598	534996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2511	2592.99	2674.89		
30	QPSK	1	1	15.24	15.25	15.25	16.4	0.0
Channel				501702	518598	535500	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2508.51	2592.99	2677.5		
25	QPSK	1	1	15.20	15.22	15.27	16.4	0.0
Channel				501204	518598	535996	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2506.02	2592.99	2679.99		
20	QPSK	1	1	15.23	15.23	15.26	16.4	0.0
Channel				500700	518598	536496	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2503.5	2592.99	2682.48		
15	QPSK	1	1	15.19	15.22	15.23	16.4	0.0
Channel				500202	518598	537000	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2501.01	2592.99	2685		
10	QPSK	1	1	15.25	15.21	15.25	16.4	0.0



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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 658000	Power Middle Ch. / Freq. 641666	Power High Ch. / Freq. 645532	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	PI2 BPSK	1	1	14.21	14.28	14.21		
40	PI2 BPSK	1	59	14.22	14.28	14.23	15.4	0.0
40	PI2 BPSK	1	104	14.28	14.32	14.25		
40	PI2 BPSK	50	0	14.21	14.23	14.21	15.4	0.0
40	PI2 BPSK	50	28	14.21	14.33	14.24	15.4	0.0
40	PI2 BPSK	50	56	14.19	14.29	14.19	15.4	0.0
40	PI2 BPSK	100	0	14.20	14.25	14.15		
40	QPSK	1	1	14.40	14.42	14.38		
40	QPSK	1	53	14.28	14.24	14.23	15.4	0.0
40	QPSK	1	104	14.24	14.33	14.17		
40	QPSK	50	0	14.18	14.25	14.13	15.4	0.0
40	QPSK	50	28	14.37	14.40	14.27	15.4	0.0
40	QPSK	50	56	14.28	14.24	14.15		
40	QPSK	100	0	14.32	14.36	14.27	15.4	0.0
40	16QAM	1	1	14.23	14.25	14.24	15.4	0.0
40	64QAM	1	1	14.23	14.29	14.22	15.4	0.0
40	256QAM	1	1	14.30	14.31	14.17	15.4	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	14.29	14.23	14.22	15.4	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	14.25	14.33	14.25	15.4	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	14.20	14.25	14.22	15.4	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	14.19	14.29	14.16	15.4	0.0

Part27O n77 HPUE Ant 6 ECI 10

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 660000	Power High Ch. / Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	12.64	12.76	12.73		
100	PI2 BPSK	1	137	12.61	12.85	12.73	14.2	0.0
100	PI2 BPSK	1	271	12.64	12.84	12.66		
100	PI2 BPSK	135	0	12.66	12.81	12.69	14.2	0.0
100	PI2 BPSK	135	69	12.63	12.85	12.64	14.2	0.0
100	PI2 BPSK	135	138	12.66	12.85	12.65		
100	PI2 BPSK	270	0	12.60	12.75	12.68	14.2	0.0
100	QPSK	1	1	12.88	12.95	12.91		
100	QPSK	1	137	12.62	12.83	12.64	14.2	0.0
100	QPSK	1	271	12.71	12.84	12.62		
100	QPSK	135	0	12.62	12.77	12.67	14.2	0.0
100	QPSK	135	69	12.65	12.92	12.68	14.2	0.0
100	QPSK	135	138	12.65	12.80	12.63		
100	QPSK	270	0	12.74	12.86	12.75	14.2	0.0
100	16QAM	1	1	12.71	12.84	12.70	14.2	0.0
100	64QAM	1	1	12.64	12.80	12.73	14.2	0.0
100	256QAM	1	1	12.67	12.84	12.70	14.2	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	12.69	12.74	12.65	14.2	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	12.67	12.85	12.69	14.2	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	12.65	12.82	12.64	14.2	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	12.67	12.79	12.71	14.2	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	12.63	12.86	12.70	14.2	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	12.71	12.75	12.67	14.2	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	12.64	12.74	12.69	14.2	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	12.71	12.77	12.68	14.2	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	12.68	12.76	12.68	14.2	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	12.68	12.78	12.70	14.2	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	12.67	12.76	12.62	14.2	0.0

Part27Q n77 HPUE Ant 6 ECI 10

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 633000	Power Middle Ch. / Freq. 633334	Power High Ch. / Freq. 633334	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1		3500.01			
100	PI2 BPSK	1	137		3315		14.2	0.0
100	PI2 BPSK	1	271		3310			
100	PI2 BPSK	135	0		3312		14.2	0.0
100	PI2 BPSK	135	69		3306		14.2	0.0
100	PI2 BPSK	135	138		3309			
100	PI2 BPSK	270	0		3317		14.2	0.0
100	QPSK	1	1		3325			
100	QPSK	1	137		3314		14.2	0.0
100	QPSK	1	271		3315			
100	QPSK	135	0		3317		14.2	0.0
100	QPSK	135	69		3322		14.2	0.0
100	QPSK	135	138		3308		14.2	0.0
100	QPSK	270	0		3320			
100	16QAM	1	1		3314		14.2	0.0
100	64QAM	1	1		3316		14.2	0.0
100	256QAM	1	1		3315		14.2	0.0
Channel								
Frequency (MHz)								
90	QPSK	1	1	633000	633334	633668	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
80	QPSK	1	1	633000	633334	634000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
70	QPSK	1	1	633000	633334	634000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
60	QPSK	1	1	633000	633334	634000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
50	QPSK	1	1	633000	633334	634000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	QPSK	1	1	633000	633334	634000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
30	QPSK	1	1	633000	633334	634000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
25	QPSK	1	1	633000	633334	634000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
20	QPSK	1	1	633000	633334	634000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
15	QPSK	1	1	633000	633334	634000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
10	QPSK	1	1	633000	633334	634000	Tune-up limit (dBm)	MPR (dB)



Part270 n78 HPUE Ant 6 ECI 10									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	12.66	12.66				
100	PI2 BPSK	1	137	12.70	12.70		14.2	0.0	
100	PI2 BPSK	1	271	12.70	12.70				
100	PI2 BPSK	135	0	12.74	12.74		14.2	0.0	
100	PI2 BPSK	135	69	12.80	12.80		14.2	0.0	
100	PI2 BPSK	135	138	12.78	12.78				
100	PI2 BPSK	270	0	12.70	12.70		14.2	0.0	
100	QPSK	1	1	12.83	12.83				
100	QPSK	1	137	12.78	12.78		14.2	0.0	
100	QPSK	1	271	12.78	12.78				
100	QPSK	135	0	12.74	12.74		14.2	0.0	
100	QPSK	135	69	12.80	12.80		14.2	0.0	
100	QPSK	135	138	12.75	12.75		14.2	0.0	
100	QPSK	270	0	12.85	12.85		14.2	0.0	
100	16QAM	1	1	12.80	12.80		14.2	0.0	
100	64QAM	1	1	12.74	12.74		14.2	0.0	
100	256QAM	1	1	12.77	12.77		14.2	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	12.66	12.63	12.52	14.2	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	12.59	12.63	12.69	14.2	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	12.59	12.65	12.52	14.2	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	12.56	12.68	12.57	14.2	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	12.55	12.68	12.54	14.2	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	12.68	12.63	12.54	14.2	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	12.55	12.68	12.58	14.2	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	12.64	12.63	12.53	14.2	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	12.84	12.68	12.54	14.2	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	12.50	12.70	12.58	14.2	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	12.55	12.67	12.54	14.2	0.0	

Part27Q n78 HPUE Ant 6 ECI 10									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	13.05	13.05				
100	PI2 BPSK	1	137	13.05	13.05		14.2	0.0	
100	PI2 BPSK	1	271	12.98	12.98				
100	PI2 BPSK	135	0	13.07	13.07		14.2	0.0	
100	PI2 BPSK	135	69	13.02	13.02		14.2	0.0	
100	PI2 BPSK	135	138	12.96	12.96				
100	PI2 BPSK	270	0	13.08	13.08		14.2	0.0	
100	QPSK	1	1	13.23	13.23				
100	QPSK	1	137	13.11	13.11		14.2	0.0	
100	QPSK	1	271	13.09	13.09				
100	QPSK	135	0	13.06	13.06		14.2	0.0	
100	QPSK	135	69	13.12	13.12		14.2	0.0	
100	QPSK	135	138	12.99	12.99		14.2	0.0	
100	QPSK	270	0	13.06	13.06		14.2	0.0	
100	16QAM	1	1	13.11	13.11		14.2	0.0	
100	64QAM	1	1	13.13	13.13		14.2	0.0	
100	256QAM	1	1	13.03	13.03		14.2	0.0	
Channel									
Frequency (MHz)									
90	QPSK	1	1	13.01	13.09	13.05	14.2	0.0	
Channel									
Frequency (MHz)									
80	QPSK	1	1	12.96	13.03	13.07	14.2	0.0	
Channel									
Frequency (MHz)									
70	QPSK	1	1	13.03	13.10	13.02	14.2	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	12.97	13.06	13.08	14.2	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	13.06	13.12	13.04	14.2	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	12.98	13.07	13.02	14.2	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	12.99	13.10	13.09	14.2	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	13.02	13.07	13.06	14.2	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	12.97	13.05	13.03	14.2	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	13.00	13.09	13.00	14.2	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	13.06	13.04	13.04	14.2	0.0	



BT_2.0 Ant 7 Full power

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			Min	Max	Avg
RF / EDR	CH 02	2402	16.10	15.50	15.50
	CH 10	2441	18.00	15.50	15.50
	CH 11	2465	18.10	15.50	15.50
Time-up Limit			18.5	17	17

BT_2.0 Ant 7 For open Body-worn Stationaries Use Body-worn Capacity Stationaries

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			Min	Max	Avg
RF / EDR	CH 02	2402	12.30	9.70	9.70
	CH 10	2441	12.30	9.70	9.70
	CH 11	2465	12.30	9.60	9.60
Time-up Limit			13.5	11	11

BT_2.0 For Ant 7 Head Stationaries

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			Min	Max	Avg
RF / EDR	CH 02	2402	8.40	5.40	5.40
	CH 10	2441	8.40	5.40	5.40
	CH 11	2465	8.40	5.20	5.20
Time-up Limit			9.5	7	7

BT_2.0 For Ant 7 Head Stationaries open Body-worn Stationaries open/Close Helmet Capacity Stationaries

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			Min	Max	Avg
RF / EDR	CH 02	2402	7.40	4.40	4.40
	CH 10	2441	7.50	4.70	4.70
	CH 11	2465	7.50	4.50	4.50
Time-up Limit			8.5	6	6

BLE_1M Ant 7 Full power

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			Min	Max	Avg
LE	CH 02	2402	16.30		
	CH 10	2440	18.30		
	CH 11	2460	18.20		
Time-up Limit			18.5		

BLE_1M Ant 7 For open Body-worn Stationaries Use Body-worn Capacity Stationaries

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			Min	Max	Avg
LE	CH 02	2402	12.10		
	CH 10	2440	12.10		
	CH 11	2460	12.10		
Time-up Limit			13.5		

BLE_1M For Ant 7 Head Stationaries

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			Min	Max	Avg
LE	CH 02	2402	8.30		
	CH 10	2440	8.30		
	CH 11	2460	8.20		
Time-up Limit			9.5		

BLE_1M For Ant 7 Head Stationaries open Body-worn Stationaries open/Close Helmet Capacity Stationaries

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			Min	Max	Avg
LE	CH 02	2402	7.30		
	CH 10	2440	7.40		
	CH 11	2460	7.30		
Time-up Limit			8.5		

BLE_2M Ant 7 Full power

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			Min	Max	Avg
LE	CH 02	2402	18.10		
	CH 10	2440	18.00		
	CH 11	2460	18.10		
Time-up Limit			19.50		

BLE_2M Ant 7 For open Body-worn Stationaries Use Body-worn Capacity Stationaries

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			Min	Max	Avg
LE	CH 02	2402	12.06		
	CH 10	2440	12.14		
	CH 11	2460	12.08		
Time-up Limit			13.50		

BLE_2M For Ant 7 Head Stationaries

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			Min	Max	Avg
LE	CH 02	2402	8.30		
	CH 10	2440	8.30		
	CH 11	2460	8.20		
Time-up Limit			9.50		

BLE_2M For Ant 7 Head Stationaries open Body-worn Stationaries open/Close Helmet Capacity Stationaries

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			Min	Max	Avg
LE	CH 02	2402	7.30		
	CH 10	2440	7.40		
	CH 11	2460	7.30		
Time-up Limit			8.50		