Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
20 MHz	QPSK	673.0	H	127	3	2.99	1 / 99	14.98	17.97	0.063	36.99	-19.02	15.82	0.038	34.77	-18.95
	QPSK	680.5	H	129	4	3.09	1 / 99	14.99	18.08	0.064	36.99	-18.91	15.93	0.039	34.77	-18.85
	QPSK	688.0	H	135	359	3.08	1 / 50	15.15	**18.23**	0.067	36.99	-18.76	**16.08**	0.041	34.77	-18.69
	16-QAM	688.0	H	135	359	3.08	1 / 50	14.47	17.55	0.057	36.99	-19.44	15.40	0.035	34.77	-19.37
15 MHz	QPSK	670.5	H	127	3	2.96	1 / 74	14.88	17.84	0.061	36.99	-19.15	15.69	0.037	34.77	-19.09
	QPSK	680.5	H	129	4	3.09	1 / 0	14.96	18.05	0.064	36.99	-18.94	15.90	0.039	34.77	-18.87
	QPSK	690.5	H	135	359	3.11	1 / 0	15.03	**18.14**	0.065	36.99	-18.85	**15.99**	0.040	34.77	-18.78
	16-QAM	690.5	H	135	359	3.11	1 / 74	14.40	17.51	0.056	36.99	-19.48	15.36	0.034	34.77	-19.41
10 MHz	QPSK	668.0	H	127	3	2.92	1 / 25	14.94	17.87	0.061	36.99	-19.12	15.72	0.037	34.77	-19.05
	QPSK	680.5	H	129	4	3.09	1 / 0	15.15	**18.23**	0.067	36.99	-18.76	**16.08**	0.041	34.77	-18.69
	QPSK	693.0	H	135	359	3.14	1 / 25	14.93	18.07	0.064	36.99	-18.92	15.92	0.039	34.77	-18.85
	16-QAM	693.0	H	135	359	3.14	1 / 25	14.69	17.84	0.061	36.99	-19.15	15.69	0.037	34.77	-19.08
5 MHz	QPSK	665.5	H	127	3	2.94	1 / 0	15.09	18.03	0.064	36.99	-18.96	15.88	0.039	34.77	-18.89
	QPSK	680.5	H	129	4	3.09	1 / 12	15.05	18.14	0.065	36.99	-18.85	15.99	0.040	34.77	-18.78
	QPSK	695.5	H	135	359	3.18	1 / 24	14.98	**18.16**	0.065	36.99	-18.83	**16.01**	0.040	34.77	-18.76
	16-QAM	695.5	H	135	359	3.18	1 / 12	14.48	17.65	0.058	36.99	-19.34	15.50	0.036	34.77	-19.27
20 MHz	Opposite Pol.	688.0	V	135	217	3.09	1/50	13.39	16.48	0.044	36.99	-20.51	14.33	0.027	34.77	-20.45
	WCP	688.0	H	135	359	3.08	1/50	14.84	17.92	0.062	36.99	-19.07	15.77	0.038	34.77	-19.00

Table 7-5. ERP Data (LTE Band 71)

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
10 MHz	QPSK	704.0	H	111	274	3.48	1 / 49	14.79	18.27	0.067	36.99	-18.72	16.12	0.041	34.77	-18.65
	QPSK	707.5	H	118	280	3.52	1 / 49	15.08	18.60	0.073	36.99	-18.39	16.45	0.044	34.77	-18.32
	QPSK	711.0	H	122	276	3.57	1 / 49	16.52	**20.09**	0.102	36.99	-16.90	**17.94**	0.062	34.77	-16.83
	16-QAM	711.0	H	122	276	3.57	1 / 49	15.60	19.17	0.083	36.99	-17.82	17.02	0.050	34.77	-17.75
5 MHz	QPSK	701.5	H	111	274	3.45	1 / 12	14.95	18.40	0.069	36.99	-18.59	16.25	0.042	34.77	-18.52
	QPSK	707.5	H	118	280	3.52	1 / 12	15.36	18.89	0.077	36.99	-18.10	16.74	0.047	34.77	-18.04
	QPSK	713.5	H	122	276	3.70	1 / 12	16.40	**20.10**	0.102	36.99	-16.89	**17.95**	0.062	34.77	-16.82
	16-QAM	713.5	H	122	276	3.70	1 / 12	15.27	18.96	0.079	36.99	-18.02	16.81	0.048	34.77	-17.96
3 MHz	QPSK	700.5	H	111	274	3.39	1 / 7	14.89	18.28	0.067	36.99	-18.71	16.13	0.041	34.77	-18.64
	QPSK	707.5	H	118	280	3.52	1 / 7	15.31	18.83	0.076	36.99	-18.15	16.68	0.047	34.77	-18.09
	QPSK	714.5	H	122	276	3.71	1 / 7	16.31	**20.02**	0.100	36.99	-16.97	**17.87**	0.061	34.77	-16.90
	16-QAM	714.5	H	122	276	3.71	1 / 7	15.13	18.83	0.076	36.99	-18.15	16.68	0.047	34.77	-18.09
1.4 MHz	QPSK	699.7	H	111	274	3.33	1 / 3	14.87	18.20	0.066	36.99	-18.79	16.05	0.040	34.77	-18.72
	QPSK	707.5	H	118	280	3.52	1 / 3	15.23	18.75	0.075	36.99	-18.24	16.60	0.046	34.77	-18.17
	QPSK	715.3	H	122	276	3.72	1 / 3	16.27	**19.99**	0.100	36.99	-17.00	**17.84**	0.061	34.77	-16.93
	16-QAM	715.3	H	122	276	3.72	1 / 3	15.19	18.90	0.078	36.99	-18.08	16.75	0.047	34.77	-18.02
10 MHz	Opposite Pol.	711.0	V	199	300	3.62	1/0	14.89	18.51	0.071	36.99	-18.48	16.36	0.043	34.77	-18.41
	WCP	711.0	H	109	277	3.57	1/49	12.52	16.09	0.041	36.99	-20.90	13.94	0.025	34.77	-20.83

Table 7-6. ERP Data (LTE Band 12)

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
10 MHz	QPSK	782.0	H	240	285	6.09	1 / 0	16.19	**22.28**	0.169	36.99	-14.71	**20.13**	0.103	34.77	-14.64
	16-QAM	782.0	H	240	285	6.09	1 / 0	15.35	21.44	0.139	36.99	-15.55	19.29	0.085	34.77	-15.48
5 MHz	QPSK	779.5	H	240	285	5.97	1 / 12	16.29	22.26	0.168	36.99	-14.73	20.11	0.102	34.77	-14.67
	QPSK	782.0	H	240	285	6.09	1 / 0	16.24	**22.34**	0.171	36.99	-14.65	**20.19**	0.104	34.77	-14.59
	QPSK	784.5	H	240	285	6.17	1 / 0	16.12	22.29	0.170	36.99	-14.70	20.14	0.103	34.77	-14.63
	16-QAM	779.5	H	240	285	5.97	1 / 12	15.47	21.43	0.139	36.99	-15.56	19.28	0.085	34.77	-15.49
10 MHz	Opposite Pol.	782.0	V	150	190	5.99	1/49	14.29	20.28	0.107	36.99	-16.71	18.13	0.065	34.77	-16.64
	WCP	782.0	H	228	284	6.09	1/0	12.63	18.72	0.075	36.99	-18.27	16.57	0.045	34.77	-18.20

Table 7-7. ERP Data (LTE Band 13)

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
20 MHz	π/2 BPSK	673.0	H	137	64	2.99	1 / 79	16.01	19.00	0.079	36.99	-17.99	16.85	0.048	34.77	-17.92
	π/2 BPSK	680.5	H	137	62	3.09	1 / 79	16.76	19.85	0.097	36.99	-17.14	17.70	0.059	34.77	-17.08
	π/2 BPSK	688.0	H	142	65	3.08	1 / 53	16.73	19.81	0.096	36.99	-17.18	17.66	0.058	34.77	-17.11
	QPSK	680.5	H	137	62	3.09	1 / 79	16.91	**20.00**	0.100	36.99	-16.99	**17.85**	0.061	34.77	-16.93
	16-QAM	680.5	H	137	62	3.09	1 / 79	15.88	18.97	0.079	36.99	-18.02	16.82	0.048	34.77	-17.96
15 MHz	π/2 BPSK	670.5	H	137	64	2.96	1 / 39	15.82	18.78	0.076	36.99	-18.21	16.63	0.046	34.77	-18.14
	π/2 BPSK	680.5	H	137	62	3.09	1 / 20	16.70	19.79	0.095	36.99	-17.20	17.64	0.058	34.77	-17.13
	π/2 BPSK	690.5	H	142	65	3.11	1 / 20	16.71	**19.82**	0.096	36.99	-17.17	**17.67**	0.058	34.77	-17.10
	QPSK	680.5	H	137	62	3.09	1 / 20	16.69	19.78	0.095	36.99	-17.21	17.63	0.058	34.77	-17.14
	16-QAM	690.5	H	142	65	3.11	1 / 20	15.74	18.86	0.077	36.99	-18.13	16.71	0.047	34.77	-18.06
10 MHz	π/2 BPSK	668.0	H	137	64	2.92	1 / 13	15.96	18.88	0.077	36.99	-18.11	16.73	0.047	34.77	-18.04
	π/2 BPSK	680.5	H	137	62	3.09	1 / 13	16.66	19.75	0.094	36.99	-17.24	17.60	0.057	34.77	-17.18
	π/2 BPSK	693.0	H	142	65	3.14	1 / 13	16.66	19.80	0.096	36.99	-17.19	17.65	0.058	34.77	-17.12
	QPSK	680.5	H	137	62	3.09	1 / 13	16.78	**19.87**	0.097	36.99	-17.12	**17.72**	0.059	34.77	-17.05
	16-QAM	693.0	H	142	65	3.14	1 / 13	15.75	18.89	0.077	36.99	-18.10	16.74	0.047	34.77	-18.03
5 MHz	π/2 BPSK	665.5	H	137	64	2.94	1 / 18	15.74	18.69	0.074	36.99	-18.30	16.54	0.045	34.77	-18.24
	π/2 BPSK	680.5	H	137	62	3.09	1 / 12	16.73	19.82	0.096	36.99	-17.17	17.67	0.058	34.77	-17.10
	π/2 BPSK	695.5	H	142	65	3.18	1 / 6	16.49	19.67	0.093	36.99	-17.32	17.52	0.056	34.77	-17.25
	QPSK	680.5	H	137	62	3.09	1 / 12	16.77	**19.86**	0.097	36.99	-17.13	**17.71**	0.059	34.77	-17.06
	16-QAM	695.5	H	142	65	3.18	1 / 6	15.67	18.84	0.077	36.99	-18.15	16.69	0.047	34.77	-18.08
20 MHz	QPSK (CP-OFDM)	680.5	H	137	62	3.09	1/53	15.25	18.34	0.068	36.99	-18.65	16.19	0.042	34.77	-18.59
	QPSK (Opposite Pol.)	680.5	V	100	214	3.09	1/53	15.00	18.09	0.064	36.99	-18.90	15.94	0.039	34.77	-18.84
	QPSK (WCP)	680.5	H	137	62	3.09	1/53	13.71	16.80	0.048	36.99	-20.19	14.65	0.029	34.77	-20.13

Table 7-8. EIRP Data (NR Band n71)

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]	ERP [dBm]	ERP [Watts]	ERP Limit [dBm]	Margin [dB]
15 MHz	π/2 BPSK	706.5	H	122	177	3.51	1 / 58	15.48	18.99	0.079	36.99	-18.00	16.84	0.048	34.77	-17.93
	π/2 BPSK	707.5	H	134	172	3.52	1 / 58	14.96	18.48	0.071	36.99	-18.51	16.33	0.043	34.77	-18.44
	π/2 BPSK	708.5	H	122	188	3.54	1 / 58	15.70	19.24	0.084	36.99	-17.75	17.09	0.051	34.77	-17.69
	QPSK	708.5	H	122	188	3.54	1 / 58	15.84	**19.38**	0.087	36.99	-17.61	**17.23**	0.053	34.77	-17.55
	16-QAM	708.5	H	122	188	3.54	1 / 39	15.23	18.77	0.075	36.99	-18.22	16.62	0.046	34.77	-18.16
10 MHz	π/2 BPSK	704.0	H	122	177	3.48	1 / 26	15.57	19.05	0.080	36.99	-17.94	16.90	0.049	34.77	-17.87
	π/2 BPSK	707.5	H	134	172	3.52	1 / 26	14.70	18.22	0.066	36.99	-18.77	16.07	0.040	34.77	-18.70
	π/2 BPSK	711.0	H	122	188	3.57	1 / 38	15.73	19.29	0.085	36.99	-17.70	17.14	0.052	34.77	-17.63
	QPSK	711.0	H	122	188	3.57	1 / 38	15.76	**19.33**	0.086	36.99	-17.66	**17.18**	0.052	34.77	-17.59
	16-QAM	711.0	H	122	188	3.57	1 / 38	15.20	18.76	0.075	36.99	-18.23	16.61	0.046	34.77	-18.16
5 MHz	π/2 BPSK	701.5	H	122	177	3.45	1 / 12	15.52	18.97	0.079	36.99	-18.02	16.82	0.048	34.77	-17.95
	π/2 BPSK	707.5	H	134	172	3.52	1 / 12	14.74	18.26	0.067	36.99	-18.73	16.11	0.041	34.77	-18.66
	π/2 BPSK	713.5	H	122	188	3.70	1 / 12	15.73	19.43	0.088	36.99	-17.56	17.28	0.053	34.77	-17.49
	QPSK	713.5	H	122	188	3.70	1 / 12	15.82	**19.51**	0.089	36.99	-17.48	**17.36**	0.054	34.77	-17.41
	16-QAM	713.5	H	122	188	3.70	1 / 12	15.17	18.87	0.077	36.99	-18.12	16.72	0.047	34.77	-18.05
15 MHz	QPSK (CP-OFDM)	708.5	H	122	188	3.54	1/58	14.60	18.14	0.065	36.99	-18.85	15.99	0.040	34.77	-18.79
	QPSK (Opposite Pol.)	708.5	V	196	251	3.64	1/20	15.10	18.74	0.075	36.99	-18.25	16.59	0.046	34.77	-18.19
	QPSK (WCP)	708.5	H	122	188	3.54	1/58	15.66	19.20	0.083	36.99	-17.79	17.05	0.051	34.77	-17.73

Table 7-9. EIRP Data (NR Band n12)

Frequency [MHz]	Mode	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Substitute Level [dBm]	Ant. Gain [dBi]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
1712.40	WCDMA1700	V	190	312	15.33	9.47	**24.80**	**0.302**	30.00	-5.20
1732.60	WCDMA1700	V	177	319	15.28	9.15	24.43	0.278	30.00	-5.57
1752.60	WCDMA1700	V	186	305	13.65	9.05	22.70	0.186	30.00	-7.30
1712.40	WCDMA1700	H	132	168	15.15	9.54	24.69	0.294	30.00	-5.31
1712.40	WCDMA1700 (WCP)	V	190	299	10.73	9.47	20.20	0.105	30.00	-9.80

Table 7-10. EIRP Data (WCDMA AWS)

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
20 MHz	QPSK	1720.0	H	135	177	9.47	1 / 50	15.29	**24.76**	0.299	30.00	-5.24
	QPSK	1745.0	H	101	166	9.48	1 / 50	13.41	22.89	0.195	30.00	-7.11
	QPSK	1770.0	H	124	168	9.39	1 / 0	14.55	23.94	0.248	30.00	-6.06
	16-QAM	1720.0	H	135	177	9.47	1 / 50	13.90	23.37	0.217	30.00	-6.63
15 MHz	QPSK	1717.5	H	135	177	9.49	1 / 74	15.27	**24.77**	0.300	30.00	-5.23
	QPSK	1745.0	H	101	166	9.48	1 / 37	13.39	22.87	0.194	30.00	-7.13
	QPSK	1772.5	H	124	168	9.36	1 / 74	14.61	23.98	0.250	30.00	-6.02
	16-QAM	1717.5	H	135	177	9.49	1 / 37	14.14	23.63	0.231	30.00	-6.37
10 MHz	QPSK	1715.0	H	135	177	9.52	1 / 25	15.50	**25.02**	0.318	30.00	-4.98
	QPSK	1745.0	H	101	166	9.48	1 / 25	13.59	23.07	0.203	30.00	-6.93
	QPSK	1775.0	H	124	168	9.34	1 / 25	14.69	24.03	0.253	30.00	-5.97
	16-QAM	1715.0	H	135	177	9.52	1 / 25	13.95	23.47	0.222	30.00	-6.53
5 MHz	QPSK	1712.5	H	135	177	9.54	1 / 12	15.41	**24.95**	0.313	30.00	-5.05
	QPSK	1745.0	H	101	166	9.48	1 / 12	13.82	23.30	0.214	30.00	-6.70
	QPSK	1777.5	H	124	168	9.31	1 / 0	14.88	24.20	0.263	30.00	-5.80
	16-QAM	1712.5	H	135	177	9.54	1 / 12	14.14	23.69	0.234	30.00	-6.31
3 MHz	QPSK	1711.5	H	135	177	9.55	1 / 7	15.34	**24.90**	0.309	30.00	-5.10
	QPSK	1745.0	H	101	166	9.48	1 / 14	13.51	22.99	0.199	30.00	-7.01
	QPSK	1778.5	H	124	168	9.30	1 / 7	14.79	24.10	0.257	30.00	-5.90
	16-QAM	1711.5	H	135	177	9.55	1 / 7	14.15	23.70	0.234	30.00	-6.30
1.4 MHz	QPSK	1710.7	H	135	177	9.56	1 / 0	15.36	**24.92**	0.310	30.00	-5.08
	QPSK	1745.0	H	101	166	9.48	1 / 5	13.54	23.02	0.200	30.00	-6.98
	QPSK	1779.3	H	124	168	9.29	1 / 3	14.72	24.02	0.252	30.00	-5.98
	16-QAM	1710.7	H	135	177	9.56	1 / 0	14.16	23.72	0.236	30.00	-6.28
20 MHz	Opposite Pol.	1720.0	V	149	275	9.33	1/99	15.13	24.46	0.279	30.00	-5.54
	WCP	1720.0	H	135	179	9.47	1/50	13.03	22.50	0.178	30.00	-7.50

Table 7-11. EIRP Data (LTE Band 66/4)

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
40 MHz	π/2 BPSK	1730.0	H	133	147	9.48	1 / 54	16.90	**26.38**	0.435	30.00	-3.62
	π/2 BPSK	1745.0	H	177	149	9.48	1 / 54	16.47	25.95	0.394	30.00	-4.05
	π/2 BPSK	1760.0	H	174	151	9.44	1 / 161	15.83	25.27	0.337	30.00	-4.73
	QPSK	1730.0	H	133	147	9.48	1 / 54	16.83	26.31	0.428	30.00	-3.69
	16-QAM	1730.0	H	133	147	9.48	1 / 54	16.28	25.76	0.377	30.00	-4.24
30 MHz	π/2 BPSK	1725.0	H	133	147	9.48	1 / 80	16.77	**26.24**	0.421	30.00	-3.76
	π/2 BPSK	1745.0	H	177	149	9.48	1 / 40	16.37	25.85	0.385	30.00	-4.15
	π/2 BPSK	1765.0	H	174	151	9.42	1 / 80	15.88	25.29	0.338	30.00	-4.71
	QPSK	1725.0	H	133	147	9.48	1 / 80	16.53	26.01	0.399	30.00	-3.99
	16-QAM	1725.0	H	133	147	9.48	1 / 80	15.96	25.44	0.350	30.00	-4.56
20 MHz	π/2 BPSK	1720.0	H	133	147	9.47	1 / 53	17.05	**26.51**	0.448	30.00	-3.49
	π/2 BPSK	1745.0	H	177	149	9.48	1 / 79	16.59	26.07	0.405	30.00	-3.93
	QPSK	1720.0	H	133	147	9.47	1 / 53	16.95	26.42	0.439	30.00	-3.58
	16-QAM	1720.0	H	133	147	9.47	1 / 53	16.10	25.57	0.360	30.00	-4.43
15 MHz	π/2 BPSK	1717.5	H	133	147	9.49	1 / 20	17.06	**26.55**	0.452	30.00	-3.45
	π/2 BPSK	1745.0	H	177	149	9.48	1 / 58	16.45	25.93	0.392	30.00	-4.07
	π/2 BPSK	1772.5	H	174	151	9.36	1 / 20	16.02	25.39	0.346	30.00	-4.61
	QPSK	1717.5	H	133	147	9.49	1 / 20	16.81	26.30	0.427	30.00	-3.70
	16-QAM	1717.5	H	133	147	9.49	1 / 20	16.15	25.65	0.367	30.00	-4.35
10 MHz	π/2 BPSK	1715.0	H	133	147	9.52	1 / 13	17.14	**26.65**	0.463	30.00	-3.35
	π/2 BPSK	1745.0	H	177	149	9.48	1 / 26	16.56	26.04	0.402	30.00	-3.96
	π/2 BPSK	1775.0	H	174	151	9.34	1 / 26	16.11	25.44	0.350	30.00	-4.56
	QPSK	1715.0	H	133	147	9.52	1 / 13	16.93	26.45	0.441	30.00	-3.55
	16-QAM	1715.0	H	133	147	9.52	1 / 13	16.43	25.94	0.393	30.00	-4.06
5 MHz	π/2 BPSK	1712.5	H	133	147	9.54	1 / 6	16.96	**26.50**	0.447	30.00	-3.50
	π/2 BPSK	1745.0	H	177	149	9.48	1 / 12	16.57	26.05	0.403	30.00	-3.95
	π/2 BPSK	1777.5	H	174	151	9.31	1 / 12	16.35	25.66	0.368	30.00	-4.34
	QPSK	1712.5	H	133	147	9.54	1 / 6	16.87	26.41	0.438	30.00	-3.59
	16-QAM	1712.5	H	133	147	9.54	1 / 6	15.99	25.54	0.358	30.00	-4.46
40 MHz	BPSK (CP-OFDM)	1730.0	H	135	148	9.48	1/54	16.59	26.07	0.405	30.00	-3.93
	BPSK (Opposite Pol.)	1730.0	V	145	242	9.48	1/108	16.37	25.85	0.385	30.00	-4.15
	BPSK (WCP)	1730.0	H	129	150	9.48	1/54	16.39	25.87	0.386	30.00	-4.13

Table 7-12. EIRP Data (NR Band n66 – ANT A)

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
40 MHz	π/2 BPSK	1730.0	H	140	15	9.48	1 / 108	12.02	**21.50**	0.141	30.00	-8.50
	π/2 BPSK	1745.0	H	140	36	9.48	1 / 54	11.20	20.68	0.117	30.00	-9.32
	π/2 BPSK	1760.0	H	176	21	9.44	1 / 54	11.78	21.22	0.133	30.00	-8.78
	QPSK	1730.0	H	140	15	9.48	1 / 108	12.01	21.49	0.141	30.00	-8.51
	16-QAM	1730.0	H	140	15	9.48	1 / 108	11.14	20.62	0.115	30.00	-9.38
30 MHz	π/2 BPSK	1725.0	H	140	15	9.48	1 / 119	12.12	**21.59**	0.144	30.00	-8.41
	π/2 BPSK	1745.0	H	140	36	9.48	1 / 119	11.18	20.66	0.117	30.00	-9.34
	π/2 BPSK	1765.0	H	176	21	9.42	1 / 80	11.31	20.73	0.118	30.00	-9.27
	QPSK	1725.0	H	140	15	9.48	1 / 119	12.03	21.51	0.142	30.00	-8.49
	16-QAM	1725.0	H	140	15	9.48	1 / 119	11.09	20.56	0.114	30.00	-9.44
20 MHz	π/2 BPSK	1720.0	H	140	15	9.47	1 / 79	11.99	**21.46**	0.140	30.00	-8.54
	π/2 BPSK	1745.0	H	140	36	9.48	1 / 26	11.41	20.89	0.123	30.00	-9.11
	π/2 BPSK	1770.0	H	176	21	9.39	1 / 26	11.63	21.02	0.126	30.00	-8.98
	QPSK	1770.0	H	176	21	9.39	1 / 26	11.67	21.06	0.128	30.00	-8.94
	16-QAM	1770.0	H	176	21	9.39	1 / 26	11.01	20.40	0.110	30.00	-9.60
15 MHz	π/2 BPSK	1717.5	H	140	15	9.49	1 / 20	12.08	21.57	0.144	30.00	-8.43
	π/2 BPSK	1745.0	H	140	36	9.48	1 / 20	11.23	20.71	0.118	30.00	-9.29
	π/2 BPSK	1772.5	H	176	21	9.36	1 / 20	11.79	21.16	0.131	30.00	-8.84
	QPSK	1717.5	H	140	15	9.49	1 / 20	12.10	**21.60**	0.144	30.00	-8.40
	16-QAM	1717.5	H	140	15	9.49	1 / 20	11.23	20.72	0.118	30.00	-9.28
10 MHz	π/2 BPSK	1715.0	H	140	15	9.52	1 / 38	11.73	**21.25**	0.133	30.00	-8.75
	π/2 BPSK	1745.0	H	140	36	9.48	1 / 13	11.43	20.92	0.123	30.00	-9.08
	π/2 BPSK	1775.0	H	176	21	9.34	1 / 13	11.83	21.17	0.131	30.00	-8.83
	QPSK	1775.0	H	176	21	9.34	1 / 13	11.87	21.21	0.132	30.00	-8.79
	16-QAM	1775.0	H	176	21	9.34	1 / 13	10.85	20.19	0.105	30.00	-9.81
5 MHz	π/2 BPSK	1712.5	H	140	15	9.54	1 / 12	12.17	**21.71**	0.148	30.00	-8.29
	π/2 BPSK	1745.0	H	140	36	9.48	1 / 18	11.37	20.85	0.122	30.00	-9.15
	π/2 BPSK	1777.5	H	176	21	9.31	1 / 12	11.89	21.20	0.132	30.00	-8.80
	QPSK	1777.5	H	176	21	9.31	1 / 12	12.23	21.54	0.143	30.00	-8.46
	16-QAM	1777.5	H	176	21	9.31	1 / 12	11.85	21.16	0.131	30.00	-8.84
40 MHz	BPSK (CP-OFDM)	1730.0	H	135	12	9.48	1/108	11.88	21.36	0.137	30.00	-8.64
	BPSK (Opposite Pol.)	1730.0	V	149	130	9.20	1/108	12.04	21.24	0.133	30.00	-8.76
	BPSK (WCP)	1730.0	H	135	18	9.48	1/108	11.66	21.14	0.130	30.00	-8.86

Table 7-13. EIRP Data (NR Band n66 – ANT F)

7.8 Radiated Spurious Emissions Measurements

Test Overview

Radiated spurious emissions measurements are performed using the field conversion method described in KDB 971168 with the EUT transmitting into an integral antenna. Measurements on signals operating below 1GHz are performed using horizontally and vertically polarized tuned dipole antennas. Measurements on signals operating above 1GHz are performed using vertically and horizontally polarized broadband horn antennas. All measurements are performed as RMS measurements while the EUT is operating at maximum power, and at the appropriate frequencies.

Test Procedures Used

KDB 971168 D01 v03r01 – Section 5.8

Test Settings

1. RBW = 100kHz for emissions below 1GHz and 1MHz for emissions above 1GHz
2. VBW ≥ 3 x RBW
3. Span = 1.5 times the OBW
4. No. of sweep points ≥ 2 x span / RBW
5. Detector = RMS
6. Trace mode = Average (Max Hold for pulsed emissions)
7. The trace was allowed to stabilize

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

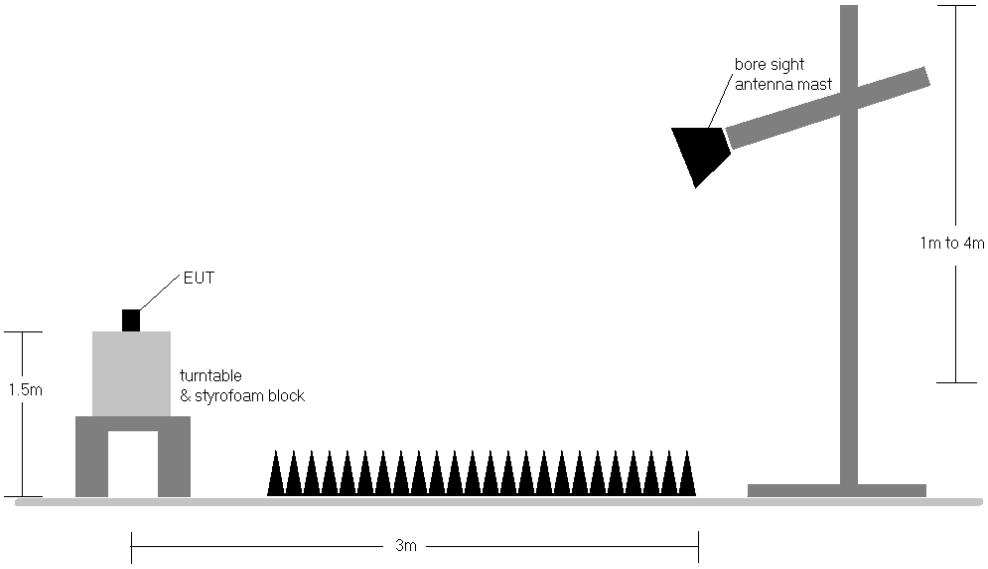


Figure 7-8. Test Instrument & Measurement Setup

Test Notes

1. Field strengths are calculated using the Measurement quantity conversions in KDB 971168 Section 5.8.4.
   a) E(dBµV/m) = Measured amplitude level (dBm) + 107 + Cable Loss (dB) + Antenna Factor (dB/m)
   b) EIRP (dBm) = E(dBµV/m) + 20logD – 104.8; where D is the measurement distance in meters.

2. The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case emissions are reported with the EUT positioning, modulations, RB sizes and offsets, and channel bandwidth configurations shown in the tables below.

3. This unit was tested with its standard battery.

4. The spectrum is measured from 9kHz to the 10th harmonic of the fundamental frequency of the transmitter. The worst-case emissions are reported.

5. Emissions below 18GHz were measured at a 3 meter test distance while emissions above 18GHz were measured at a 1 meter test distance with the application of a distance correction factor.

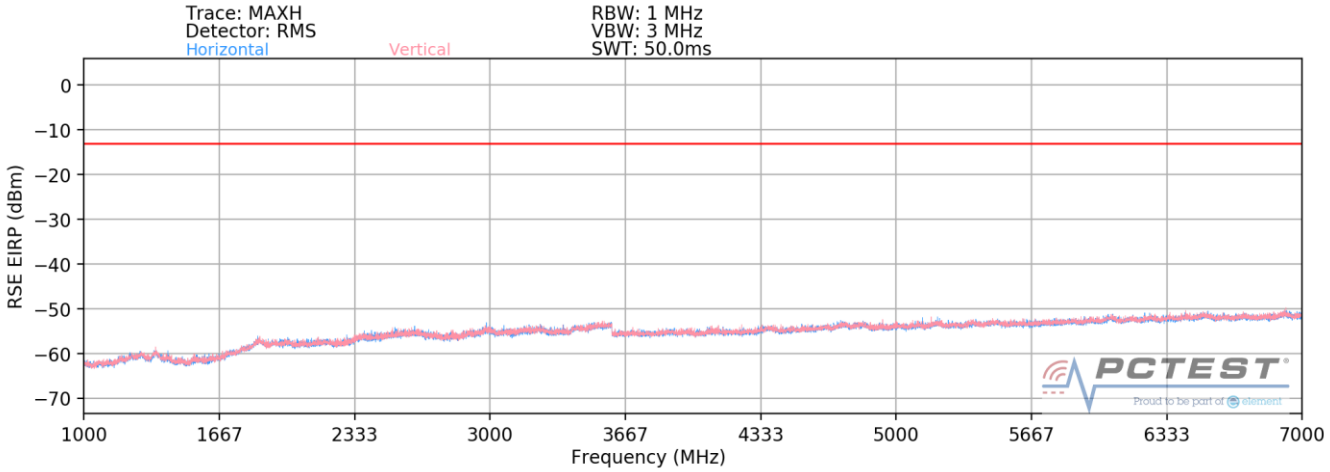
6. The "-" shown in the following RSE tables are used to denote a noise floor measurement.

7. For NR operation, all subcarrier spacings (SCS) and transmission schemes (e.g. CP-OFDM and DFT-s-OFDM) were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

8. Spurious emissions shown in this section are measured while operating in EN-DC mode with Sub 6GHz NR carrier as well as an LTE carrier (anchor). Spurious emissions from the NR carrier device, is subject to the rules under which the NR carrier operates. Spurious emission caused by the LTE carrier must meet the requirements of the rules under which the LTE carrier operates.

9. Spurious emissions measurements are included in this section to address compliance of the NR FR1 ULCA capability. The EUT was set to transmit at the widest bandwidth and on the middle channel of each band.

LTE Band 71



Plot 7-339. Radiated Spurious Plot (LTE Band 71)

Bandwidth (MHz):	20
Frequency (MHz):	673
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1346.00	H	-	-	-76.87	-1.31	28.82	-66.43	-13.00	-53.43
2019.00	H	-	-	-77.38	1.06	30.68	-64.57	-13.00	-51.57
2692.00	H	-	-	-77.85	2.46	31.61	-63.64	-13.00	-50.64

Table 7-14. Radiated Spurious Data (LTE Band 71 – Low Channel)

Bandwidth (MHz):	20
Frequency (MHz):	680.5
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1361.00	H	-	-	-76.85	-1.30	28.85	-66.41	-13.00	-53.41
2041.50	H	-	-	-77.76	0.77	30.01	-65.25	-13.00	-52.25
2722.00	H	-	-	-77.68	2.35	31.67	-63.59	-13.00	-50.59

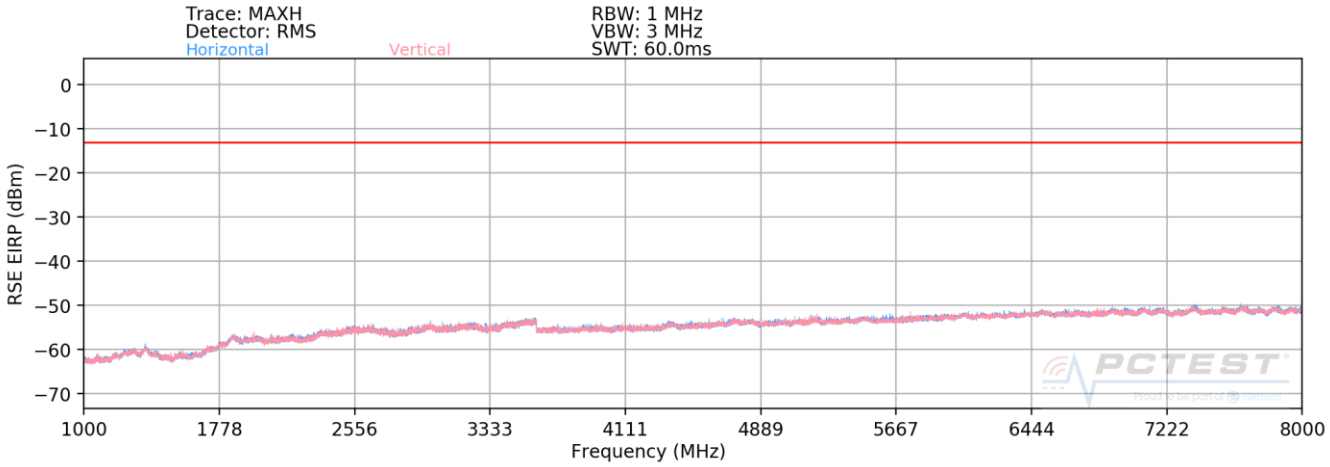
Table 7-15. Radiated Spurious Data (LTE Band 71 – Mid Channel)

Bandwidth (MHz):	20
Frequency (MHz):	688
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1376.00	H	152	139	-76.71	-1.63	28.66	-66.60	-13.00	-53.60
2064.00	H	-	-	-77.42	0.75	30.33	-64.92	-13.00	-51.92
2752.00	H	-	-	-77.81	1.94	31.13	-64.13	-13.00	-51.13
3440.00	H	-	-	-78.07	3.05	31.98	-63.28	-13.00	-50.28

Table 7-16. Radiated Spurious Data (LTE Band 71 – High Channel)

LTE Band 12



Plot 7-340. Radiated Spurious Plot (LTE Band 12)

Bandwidth (MHz):	10
Frequency (MHz):	704
RB / Offset:	1 / 25

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1408.00	H	247	130	-76.55	-2.31	28.14	-67.11	-13.00	-54.11
2112.00	H	-	-	-77.88	0.99	30.11	-65.15	-13.00	-52.15
2816.00	H	-	-	-77.82	2.24	31.42	-63.84	-13.00	-50.84
3520.00	H	-	-	-78.23	3.67	32.44	-62.82	-13.00	-49.82

Table 7-17. Radiated Spurious Data (LTE Band 12 – Low Channel)

Bandwidth (MHz):	10
Frequency (MHz):	707.5
RB / Offset:	1 / 25

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1415.00	H	148	275	-76.06	-2.37	28.57	-66.68	-13.00	-53.68
2122.50	H	-	-	-77.72	1.04	30.32	-64.94	-13.00	-51.94
2830.00	H	-	-	-78.01	2.14	31.13	-64.12	-13.00	-51.12
3537.50	H	-	-	-78.64	3.77	32.13	-63.13	-13.00	-50.13

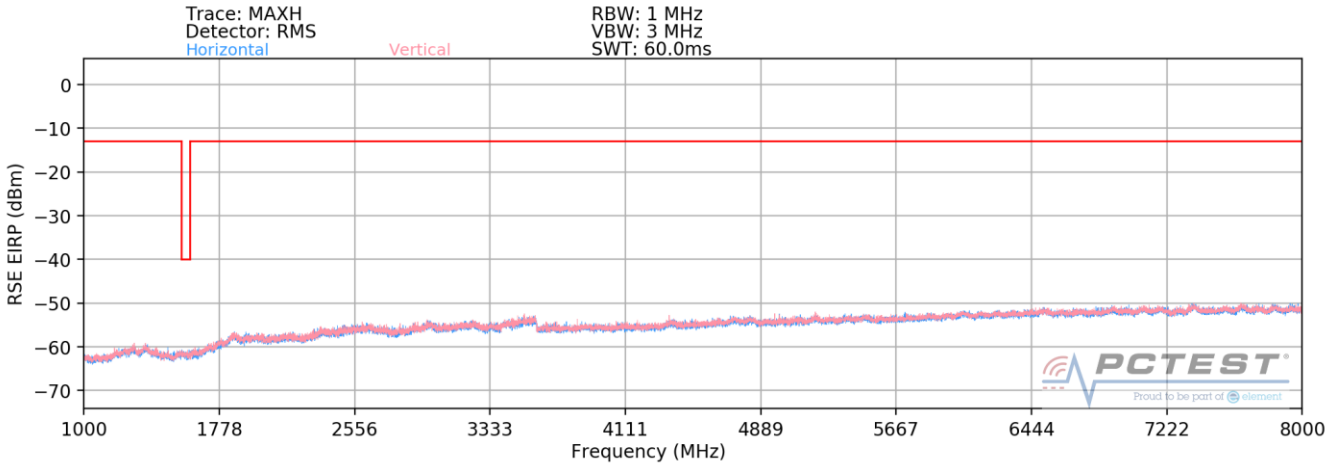
Table 7-18. Radiated Spurious Data (LTE Band 12 – Mid Channel)

Bandwidth (MHz):	10
Frequency (MHz):	711
RB / Offset:	1 / 25

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1422.00	H	152	281	-76.53	-2.45	28.02	-67.24	-13.00	-54.24
2133.00	H	-	-	-77.68	1.09	30.41	-64.84	-13.00	-51.84
2844.00	H	-	-	-78.01	2.20	31.19	-64.07	-13.00	-51.07
3555.00	H	-	-	-78.58	3.70	32.12	-63.14	-13.00	-50.14

Table 7-19. Radiated Spurious Data (LTE Band 12 – High Channel)

LTE Band 13



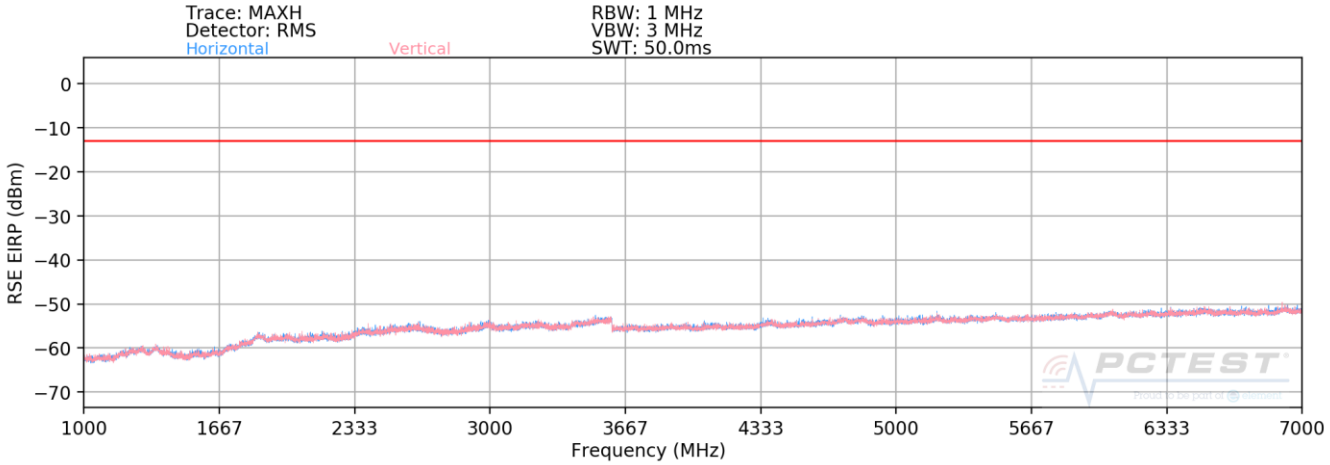
Plot 7-341. Radiated Spurious Plot (LTE Band 13)

Bandwidth (MHz):	10
Frequency (MHz):	782
RB / Offset:	1 / 25

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1564.00	H	-	-	-77.38	-2.53	27.09	-68.17	-40.00	-28.17
2346.00	H	-	-	-77.84	1.88	31.04	-64.22	-13.00	-51.22
3128.00	H	-	-	-78.28	3.14	31.86	-63.40	-13.00	-50.40

Table 7-20. Radiated Spurious Data (LTE Band 13 – Mid Channel)

NR Band n71



Plot 7-342. Radiated Spurious Plot (NR Band n71)

Bandwidth (MHz):	20
Frequency (MHz):	673
RB / Offset:	1 / 53
Mode:	Stand Alone

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1346.00	H	127	17	-73.71	-1.31	31.98	-63.27	-13.00	-50.27
2019.00	H	-	-	-77.02	1.06	31.04	-64.21	-13.00	-51.21
2692.00	H	-	-	-77.91	2.46	31.55	-63.70	-13.00	-50.70
3365.00	H	-	-	-77.63	3.17	32.54	-62.72	-13.00	-49.72

Table 7-21. Radiated Spurious Data (NR Band n71 – Low Channel)

Bandwidth (MHz):	20
Frequency (MHz):	680.5
RB / Offset:	1 / 53
Mode:	Stand Alone

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1361.00	H	157	191	-76.35	-1.30	29.35	-65.91	-13.00	-52.91
2041.50	H	-	-	-77.72	0.77	30.05	-65.21	-13.00	-52.21
2722.00	H	-	-	-77.71	2.35	31.64	-63.62	-13.00	-50.62
3402.50	H	-	-	-77.72	3.01	32.29	-62.97	-13.00	-49.97

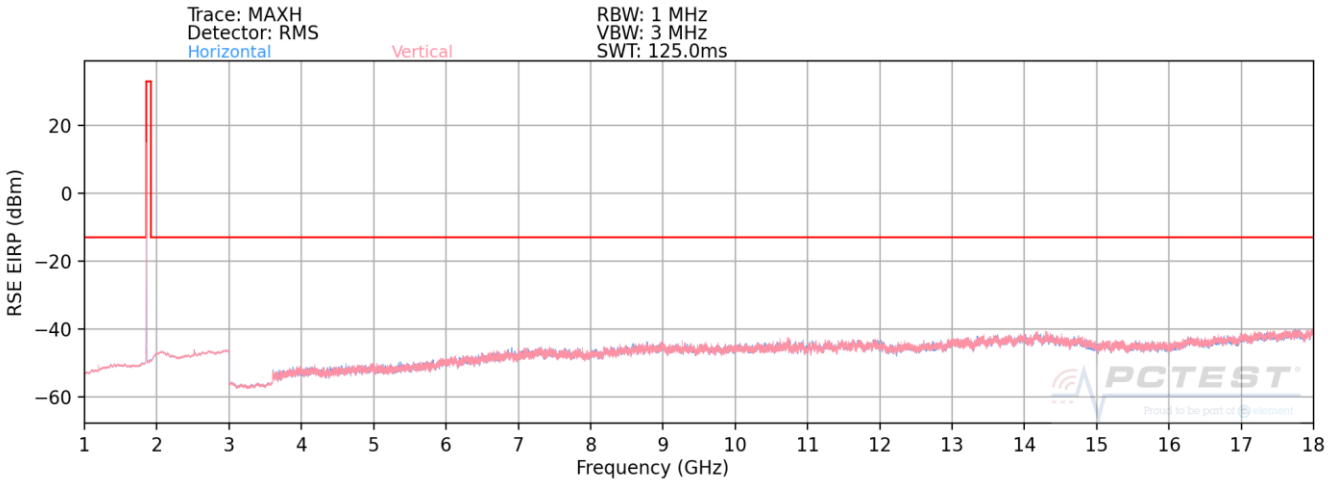
Table 7-22. Radiated Spurious Data (NR Band n71 – Mid Channel)

Bandwidth (MHz):	20
Frequency (MHz):	688
RB / Offset:	1 / 53
Mode:	Stand Alone

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1376.00	H	-	-	-76.75	-1.63	28.62	-66.64	-13.00	-53.64
2064.00	H	-	-	-77.47	0.75	30.28	-64.97	-13.00	-51.97
2752.00	H	-	-	-77.60	1.94	31.34	-63.92	-13.00	-50.92

Table 7-23. Radiated Spurious Data (NR Band n71 – High Channel)

EN-DC n71 + B2



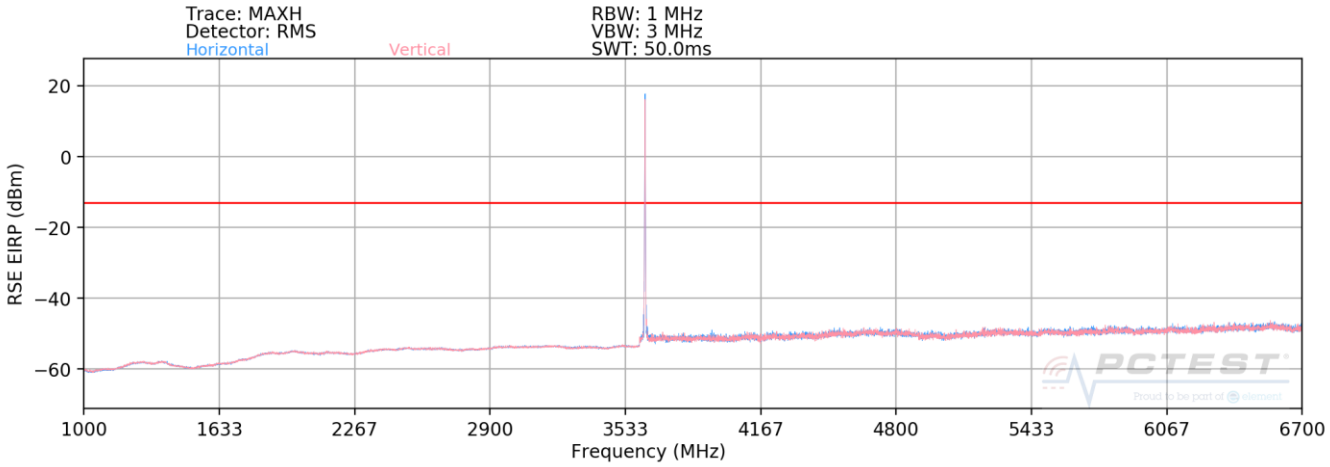
Plot 7-343. Radiated Spurious Plot (EN-DC n71 + B2)

Bandwidth (MHz):	20 & 20
Frequency (MHz):	680.5 & 1880
RB / Offset:	1/53 & 1/50
Mode:	EN-DC
Anchor Band:	B2

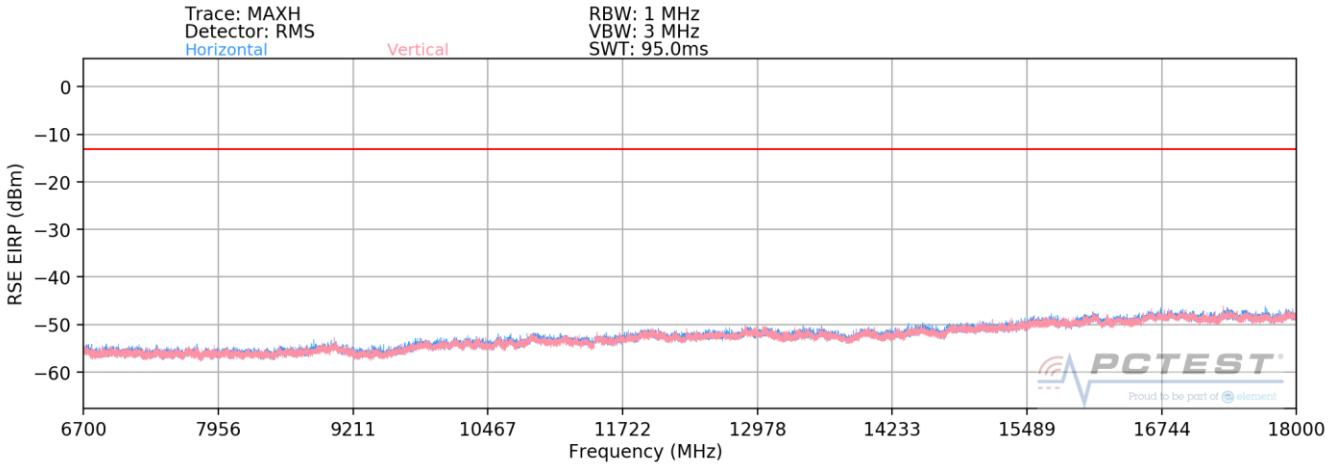
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1718.5	H	-	-	-77.02	6.70	36.68	-58.58	-13.00	-45.58
2408.0	H	400	204	-76.98	10.32	40.34	-54.92	-13.00	-41.92
2918.0	H	-	-	-77.85	11.15	40.30	-54.96	-13.00	-41.96
3079.5	H	-	-	-77.74	11.51	40.77	-54.49	-13.00	-41.49
4117.5	H	-	-	-78.64	12.74	41.10	-54.16	-13.00	-41.16

Table 7-24. Radiated Spurious Data (EN-DC n71 + B2)

EN-DC n71 + B48



Plot 7-344. Radiated Spurious Plot (EN-DC n71 + B48)



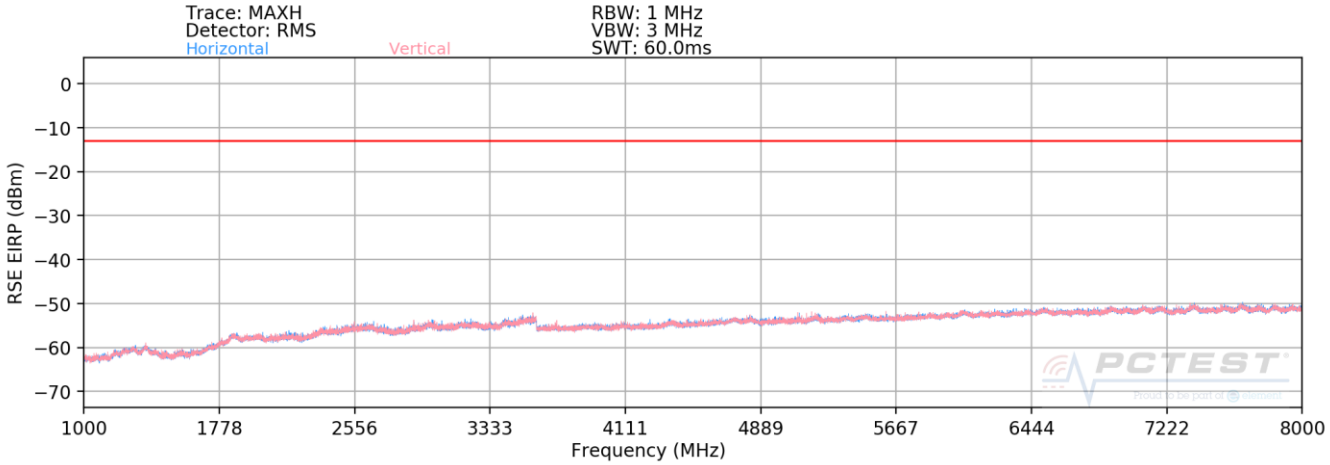
Plot 7-345. Radiated Spurious Plot (EN-DC n71 + B48)

Bandwidth (MHz):	20 & 20
Frequency (MHz):	680.5 & 3625
RB / Offset:	1/53 & 1/50
Mode:	EN-DC
Anchor Band:	48

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
6569.50	V	-	-	-77.42	16.70	46.28	-48.97	-13.00	-35.97
9514.00	V	-	-	-79.75	10.58	37.83	-57.43	-13.00	-44.43
12458.50	V	-	-	-80.18	13.73	40.55	-54.71	-13.00	-41.71

Table 7-25. Radiated Spurious Data (EN-DC n71 + B48)

NR Band n12



Plot 7-346. Radiated Spurious Plot (NR Band n12)

Bandwidth (MHz):	15
Frequency (MHz):	706.5
RB / Offset:	1 / 39
Mode:	Stand Alone

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1413.00	H	116	121	-76.21	-2.35	28.44	-66.81	-13.00	-53.81
2119.50	H	-	-	-77.87	1.02	30.15	-65.10	-13.00	-52.10
2826.00	H	-	-	-77.67	2.18	31.51	-63.75	-13.00	-50.75
3532.50	H	-	-	-78.44	3.77	32.33	-62.93	-13.00	-49.93

Table 7-26. Radiated Spurious Data (NR Band n12 – Low Channel)

Bandwidth (MHz):	15
Frequency (MHz):	707.5
RB / Offset:	1 / 39
Mode:	Stand Alone

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1415.00	H	241	123	-76.51	-2.37	28.12	-67.13	-13.00	-54.13
2122.50	H	-	-	-77.65	1.04	30.39	-64.87	-13.00	-51.87
2830.00	H	-	-	-77.66	2.14	31.48	-63.77	-13.00	-50.77
3537.50	H	-	-	-78.49	3.77	32.28	-62.98	-13.00	-49.98

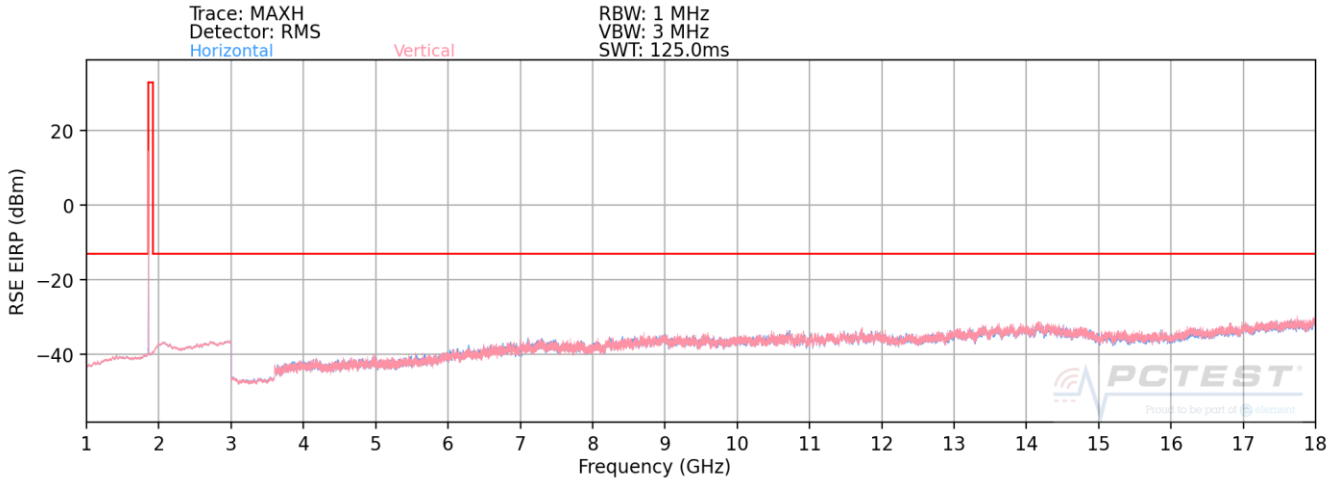
Table 7-27. Radiated Spurious Data (NR Band n12 – Mid Channel)

Bandwidth (MHz):	15
Frequency (MHz):	708.5
RB / Offset:	1 / 39
Mode:	Stand Alone

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1417.00	H	203	178	-76.66	-2.39	27.95	-67.31	-13.00	-54.31
2125.50	H	-	-	-77.67	1.05	30.38	-64.88	-13.00	-51.88
2834.00	H	-	-	-77.75	2.14	31.39	-63.87	-13.00	-50.87
3542.50	H	-	-	-78.49	3.76	32.27	-62.99	-13.00	-49.99

Table 7-28. Radiated Spurious Data (NR Band n12 – High Channel)

EN-DC n12 + B2



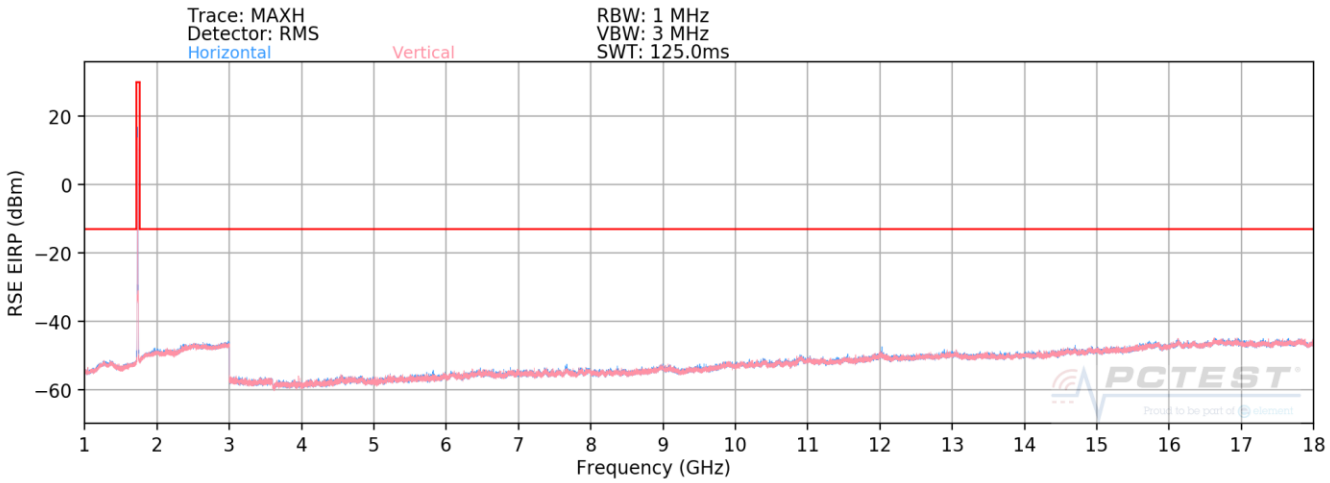
Plot 7-347. Radiated Spurious Plot (EN-DC n12 + B2)

Bandwidth (MHz):	15 & 20
Frequency (MHz):	707.5 & 1880
RB / Offset:	1 / 39 & 1 / 50
Mode:	EN-DC
Anchor Band:	B2

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1637.50	H	-	-	-77.21	5.99	35.78	-59.48	-13.00	-46.48
2810.00	H	-	-	-77.64	10.65	40.01	-55.25	-13.00	-42.25
3052.50	H	-	-	-77.85	11.54	40.69	-54.57	-13.00	-41.57

Table 7-29. Radiated Spurious Data (EN-DC n12 + B2)

WCDMA AWS



Plot 7-348. Radiated Spurious Plot (WCDMA AWS)

Mode:	WCDMA RMC
Channel:	1312
Frequency (MHz):	1712.4

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3424.80	H	-	-	-78.56	4.11	32.55	-62.70	-13.00	-49.70
5137.20	H	-	-	-79.95	5.96	33.01	-62.25	-13.00	-49.25
6849.60	H	-	-	-80.76	9.03	35.27	-59.99	-13.00	-46.99
8562.00	H	-	-	-81.73	9.14	34.41	-60.85	-13.00	-47.85
10274.40	H	-	-	-81.82	11.56	36.74	-58.52	-13.00	-45.52
11986.80	H	-	-	-81.92	13.83	38.91	-56.35	-13.00	-43.35
13699.20	H	-	-	-82.70	14.27	38.57	-56.69	-13.00	-43.69
15411.60	H	-	-	-82.60	16.48	40.88	-54.38	-13.00	-41.38

7-30. Radiated Spurious Data (WCDMA AWS – Low Channel)

Mode:	WCDMA RMC
Channel:	1413
Frequency (MHz):	1732.6

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3465.20	H	-	-	-78.55	3.65	32.10	-63.15	-13.00	-50.15
5197.80	H	-	-	-79.95	6.66	33.71	-61.55	-13.00	-48.55
6930.40	H	-	-	-79.99	8.21	35.22	-60.04	-13.00	-47.04
8663.00	H	-	-	-81.92	9.60	34.68	-60.58	-13.00	-47.58
10395.60	H	-	-	-82.39	12.55	37.16	-58.10	-13.00	-45.10
12128.20	H	-	-	-82.03	13.84	38.81	-56.45	-13.00	-43.45
13860.80	H	-	-	-82.74	14.94	39.20	-56.06	-13.00	-43.06
15593.40	H	-	-	-82.57	16.79	41.22	-54.04	-13.00	-41.04

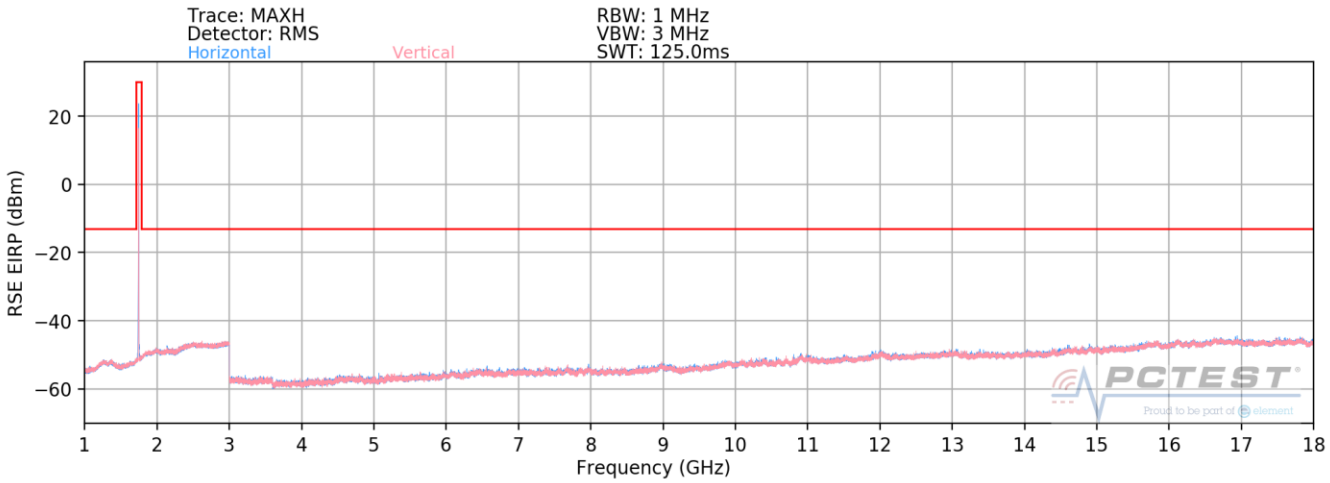
Table 7-31. Radiated Spurious Data (WCDMA AWS – Mid Channel)

Mode:	WCDMA RMC
Channel:	1513
Frequency (MHz):	1752.6

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3505.20	H	-	-	-78.36	3.82	32.46	-62.80	-13.00	-49.80
5257.80	H	-	-	-79.50	6.00	33.50	-61.76	-13.00	-48.76
7010.40	H	-	-	-79.47	8.00	35.53	-59.73	-13.00	-46.73
8763.00	H	-	-	-81.05	9.30	35.25	-60.01	-13.00	-47.01
10515.60	H	-	-	-82.39	12.02	36.63	-58.63	-13.00	-45.63
12268.20	H	-	-	-82.17	13.86	38.69	-56.57	-13.00	-43.57
14020.80	H	-	-	-82.44	14.49	39.05	-56.21	-13.00	-43.21
15773.40	H	-	-	-83.60	17.84	41.24	-54.02	-13.00	-41.02

Table 7-32. Radiated Spurious Data (WCDMA AWS – High Channel)

LTE Band 66/4



Plot 7-349. Radiated Spurious Plot (LTE Band 66/4)

Bandwidth (MHz):	20
Frequency (MHz):	1720
RB / Offset:	2 / 49

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3440.00	H	-	-	-78.51	4.00	32.49	-62.76	-13.00	-49.76
5160.00	H	-	-	-79.85	6.13	33.28	-61.98	-13.00	-48.98
6880.00	H	-	-	-80.77	9.27	35.50	-59.75	-13.00	-46.75

Table 7-33. Radiated Spurious Data (LTE Band 66/4 – Low Channel)

Bandwidth (MHz):	20
Frequency (MHz):	1745
RB / Offset:	2 / 49

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3490.00	H	-	-	-79.51	3.69	31.18	-64.08	-13.00	-51.08
5235.00	H	-	-	-79.47	6.14	33.67	-61.59	-13.00	-48.59
6980.00	H	-	-	-79.74	8.20	35.46	-59.80	-13.00	-46.80

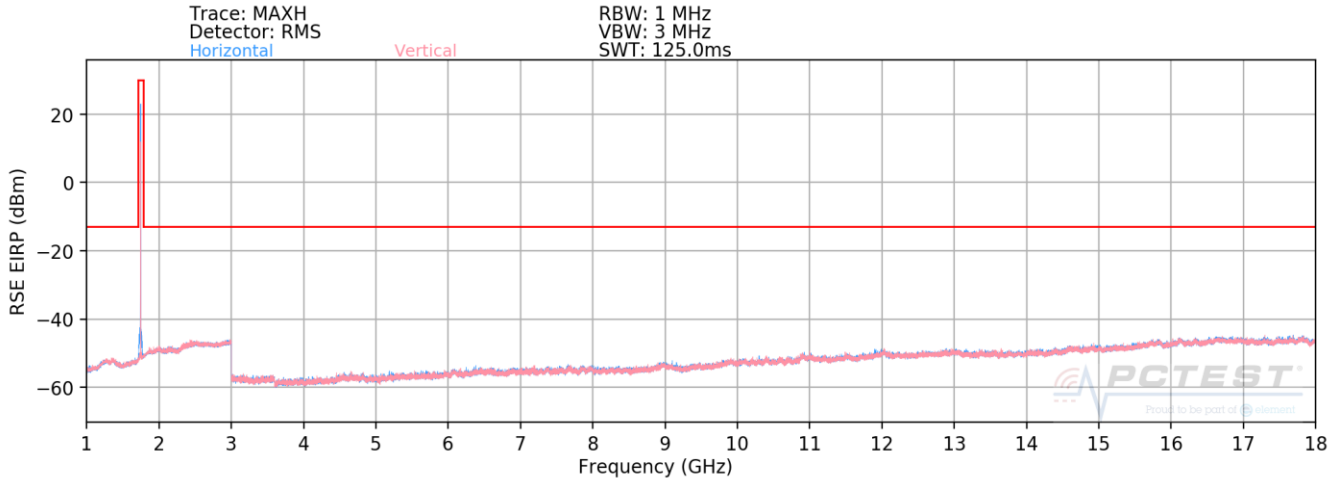
Table 7-34. Radiated Spurious Data (LTE Band 66/4 – Mid Channel)

Bandwidth (MHz):	20
Frequency (MHz):	1770
RB / Offset:	2 / 49

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3540.00	H	-	-	-78.01	3.67	32.66	-62.60	-13.00	-49.60
5310.00	H	-	-	-79.76	6.30	33.54	-61.72	-13.00	-48.72
7080.00	H	-	-	-79.53	8.39	35.86	-59.39	-13.00	-46.39

Table 7-35. Radiated Spurious Data (LTE Band 66/4 – High Channel)

NR Band n66 – ANT A



Plot 7-350. Radiated Spurious Plot (NR Band n66 – ANT A)

Bandwidth (MHz):	40
Frequency (MHz):	1730
RB / Offset:	1 / 108
Mode:	ANT A

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3460.00	H	-	-	-78.24	3.71	32.47	-62.79	-13.00	-49.79
5190.00	H	-	-	-79.85	6.62	33.77	-61.48	-13.00	-48.48
6920.00	H	-	-	-80.40	8.44	35.04	-60.22	-13.00	-47.22

Table 7-36. Radiated Spurious Data (NR Band n66 – Low Channel – ANT A)

Bandwidth (MHz):	40
Frequency (MHz):	1745
RB / Offset:	1 / 108
Mode:	ANT A

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3490.00	H	155	86	-77.93	3.69	32.76	-62.50	-13.00	-49.50
5235.00	H	-	-	-79.55	6.14	33.59	-61.67	-13.00	-48.67
6980.00	H	-	-	-79.85	8.20	35.35	-59.91	-13.00	-46.91
8725.00	H	-	-	-80.91	8.96	35.05	-60.20	-13.00	-47.20

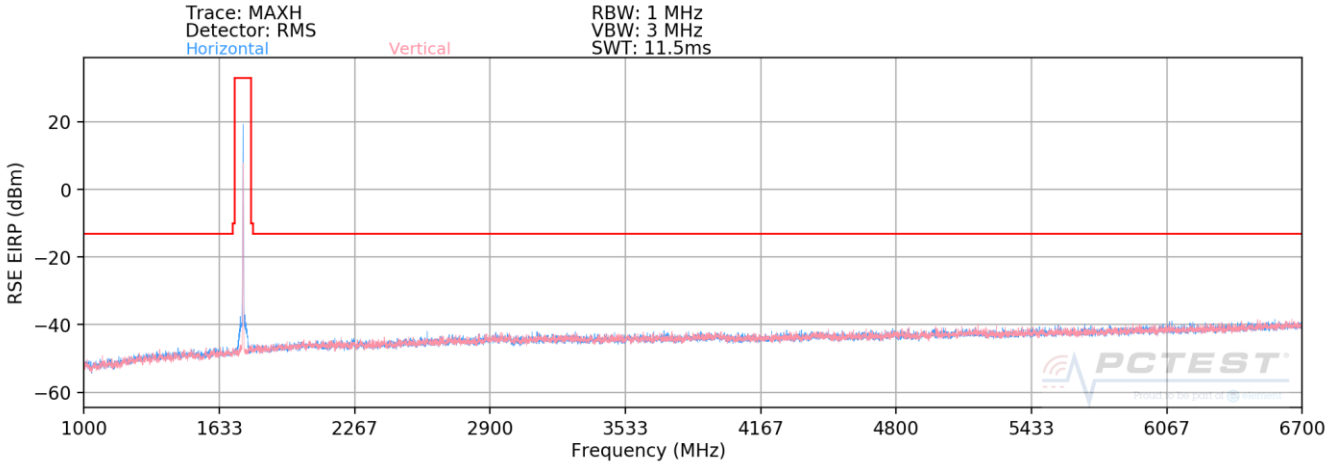
Table 7-37. Radiated Spurious Data (NR Band n66 – Mid Channel – ANT A)

Bandwidth (MHz):	40
Frequency (MHz):	1760
RB / Offset:	1 / 108
Mode:	ANT A

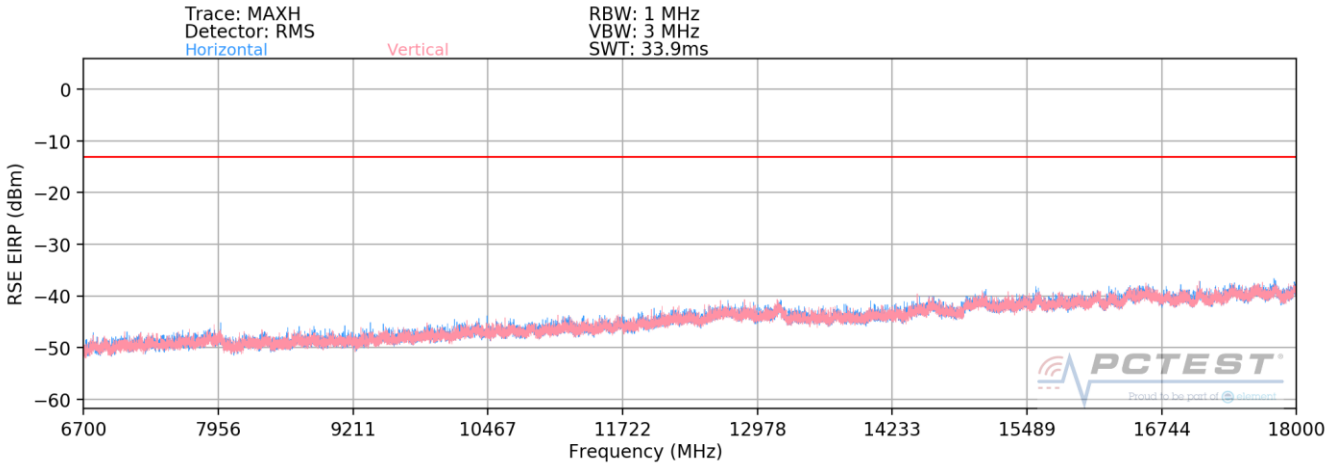
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3520.00	H	-	-	-77.91	3.84	32.93	-62.32	-13.00	-49.32
5280.00	H	-	-	-79.58	6.30	33.72	-61.53	-13.00	-48.53
7040.00	H	-	-	-79.84	8.29	35.45	-59.81	-13.00	-46.81

Table 7-38. Radiated Spurious Data (NR Band n66 – High Channel – ANT A)

EN-DC n66-ANT A + B5



Plot 7-351. Radiated Spurious Plot (EN-DC n66-ANT A + B5)



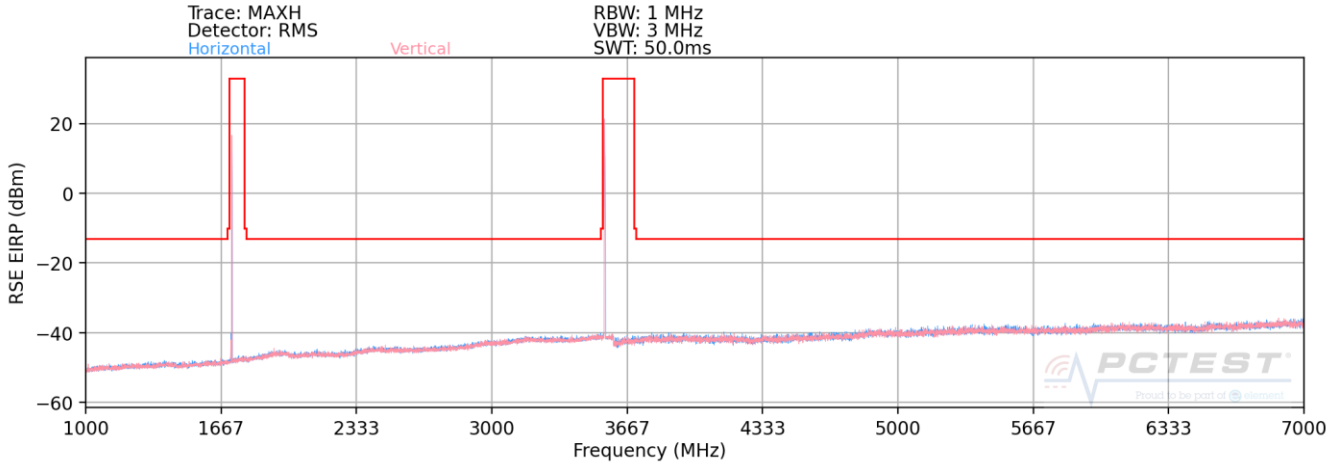
Plot 7-352. Radiated Spurious Plot (EN-DC n66-ANT A + B5)

Bandwidth (MHz):	40 & 10
Frequency (MHz):	1745 & 836.5
RB / Offset:	1/108 & 1/25
Mode:	EN-DC
Anchor Band:	LTE Band 5

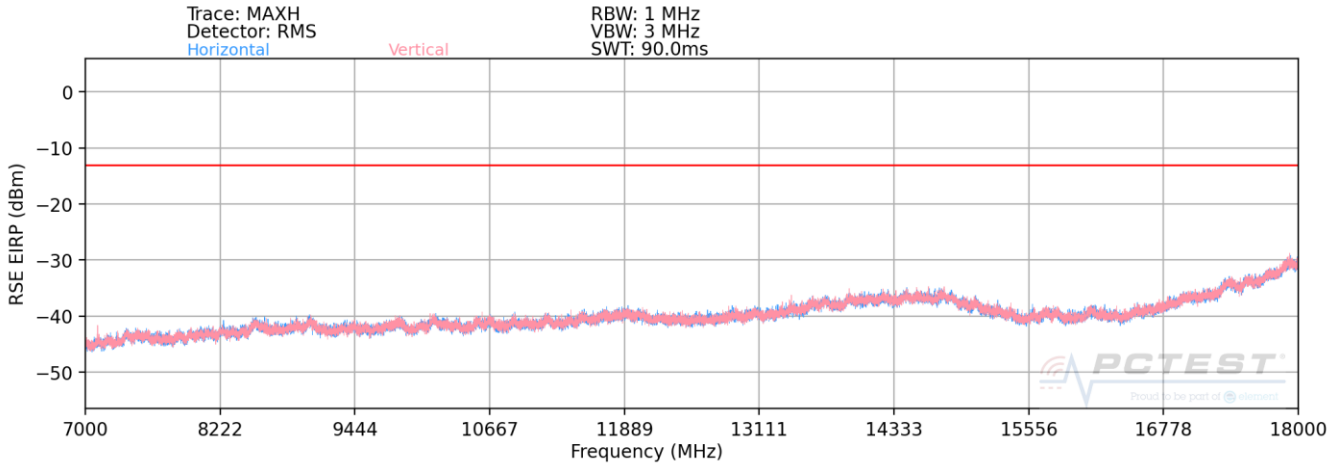
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
2653.50	H	-	-	-77.93	13.57	42.64	-52.62	-13.00	-39.62
7978.50	H	-	-	-80.81	14.41	40.60	-54.65	-13.00	-41.65
8104.50	H	-	-	-80.91	13.71	39.80	-55.46	-13.00	-42.46
9013.00	H	-	-	-80.85	14.84	40.99	-54.27	-13.00	-41.27
9921.50	H	-	-	-81.59	16.42	41.83	-53.43	-13.00	-40.43

Table 7-39. Radiated Spurious Data (EN-DC n66-ANT A + B5)

EN-DC n66-ANT A + B48



Plot 7-353. Radiated Spurious Plot (EN-DC n66-ANT A + B48)



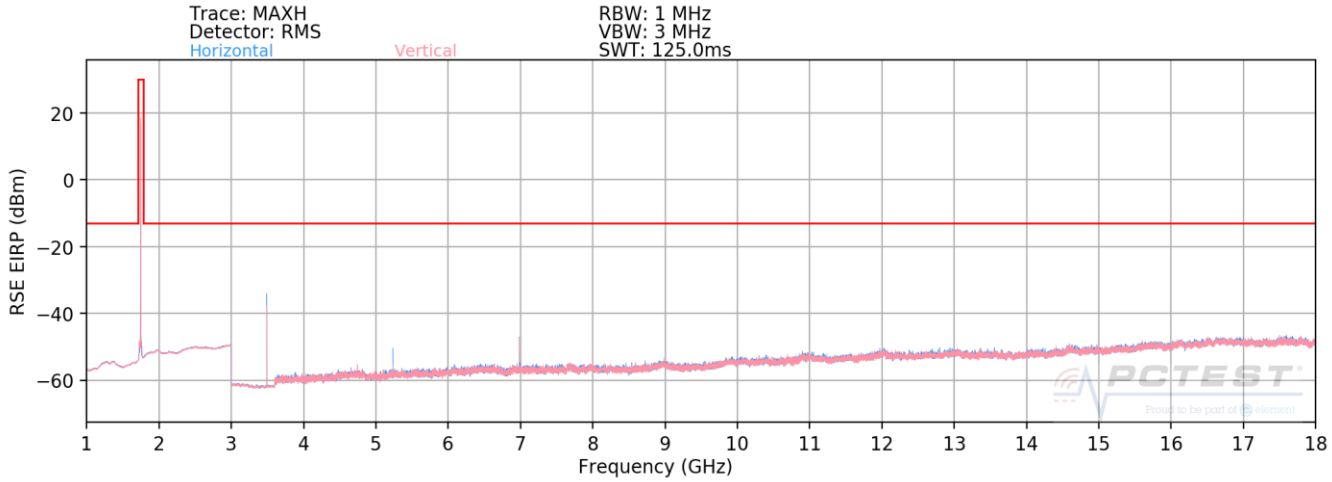
Plot 7-354. Radiated Spurious Plot (EN-DC n66-ANT A + B48)

Bandwidth (MHz):	20 & 20
Frequency (MHz):	680.5 & 3625
RB / Offset:	1/53 & 1/50
Mode:	EN-DC
Anchor Band:	48

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level	Limit [dBm]	Margin [dB]
1960.00	H	-	-	-69.53	5.61	43.08	-52.18	-13.00	-39.18
3800.00	H	-	-	-73.66	11.80	45.14	-50.12	-13.00	-37.12
5400.00	H	-	-	-74.71	14.73	47.02	-48.24	-13.00	-35.24
7240.00	H	-	-	-73.86	9.43	42.57	-52.68	-13.00	-39.68
10920.00	H	-	-	-73.78	12.81	46.03	-49.23	-13.00	-36.23

Table 7-40. Radiated Spurious Data (EN-DC n66-ANT A + B48)

NR Band n66 – ANT F



Plot 7-355. Radiated Spurious Plot (NR Band n66 – ANT F)

Bandwidth (MHz):	40
Frequency (MHz):	1730
RB / Offset:	1 / 108
Anchor Band:	ANT F

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3460.00	H	203	33	-49.38	3.71	61.33	-33.93	-13.00	-20.93
5190.00	H	194	338	-71.16	6.62	42.46	-52.79	-13.00	-39.79
6920.00	H	220	293	-67.68	8.44	47.76	-47.50	-13.00	-34.50
8650.00	H	-	-	-81.32	9.56	35.24	-60.01	-13.00	-47.01
10380.00	H	-	-	-82.04	12.33	37.29	-57.97	-13.00	-44.97
12110.00	H	-	-	-82.25	13.90	38.65	-56.61	-13.00	-43.61

Table 7-41. Radiated Spurious Data (NR Band n66 – Low Channel – ANT F)

Bandwidth (MHz):	40
Frequency (MHz):	1745
RB / Offset:	1 / 108
Anchor Band:	ANT F

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3490.00	H	219	26	-46.88	3.69	63.81	-31.45	-13.00	-18.45
5235.00	H	193	228	-74.81	6.14	38.33	-56.93	-13.00	-43.93
6980.00	H	147	4	-67.93	8.20	47.27	-47.99	-13.00	-34.99
8725.00	H	118	328	-78.45	8.96	37.51	-57.74	-13.00	-44.74
10470.00	H	127	341	-79.07	12.04	39.97	-55.29	-13.00	-42.29
12215.00	H	-	-	-81.91	14.25	39.34	-55.92	-13.00	-42.92
13960.00	H	-	-	-82.03	14.21	39.18	-56.08	-13.00	-43.08
15705.00	H	-	-	-82.65	17.81	42.16	-53.10	-13.00	-40.10

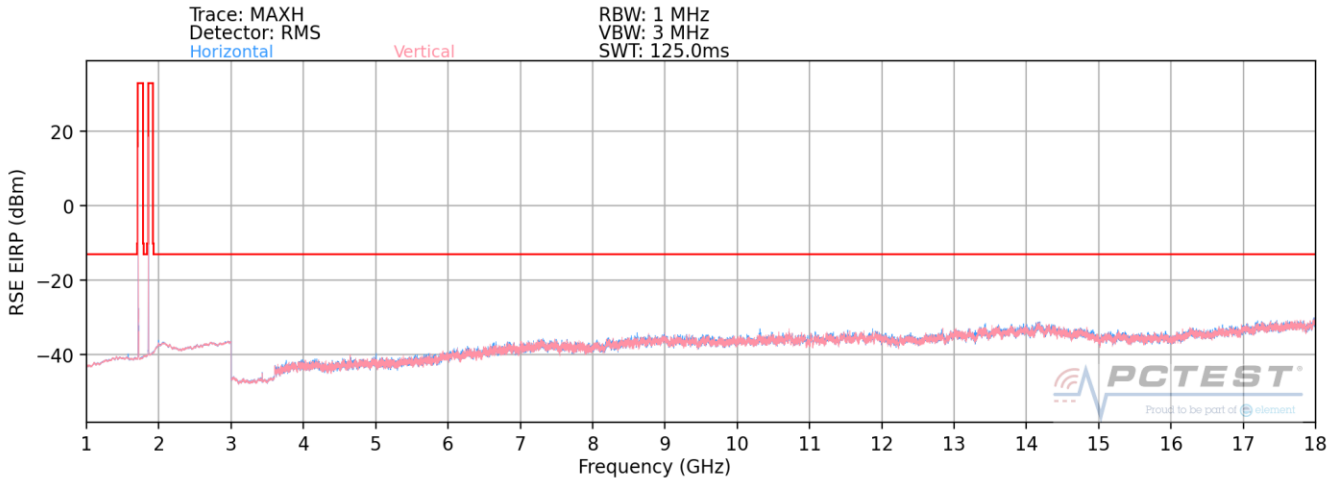
Table 7-42. Radiated Spurious Data (NR Band n66 – Mid Channel – ANT F)

Bandwidth (MHz):	40
Frequency (MHz):	1760
RB / Offset:	1 / 108
Anchor Band:	ANT F

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3520.00	H	195	26	-44.45	3.84	66.39	-28.86	-13.00	-15.86
5280.00	H	195	154	-74.16	6.30	39.14	-56.11	-13.00	-43.11
7040.00	H	126	3	-66.25	8.29	49.04	-46.22	-13.00	-33.22
8800.00	H	141	331	-77.75	8.97	38.22	-57.04	-13.00	-44.04
10560.00	H	122	345	-79.98	12.32	39.34	-55.92	-13.00	-42.92
12320.00	H	-	-	-82.09	13.87	38.78	-56.48	-13.00	-43.48
14080.00	H	-	-	-82.65	14.61	38.96	-56.30	-13.00	-43.30
15840.00	H	-	-	-82.91	18.36	42.45	-52.81	-13.00	-39.81

Table 7-43. Radiated Spurious Data (NR Band n66 – High Channel – ANT F)

EN-DC n66-ANT F + B2



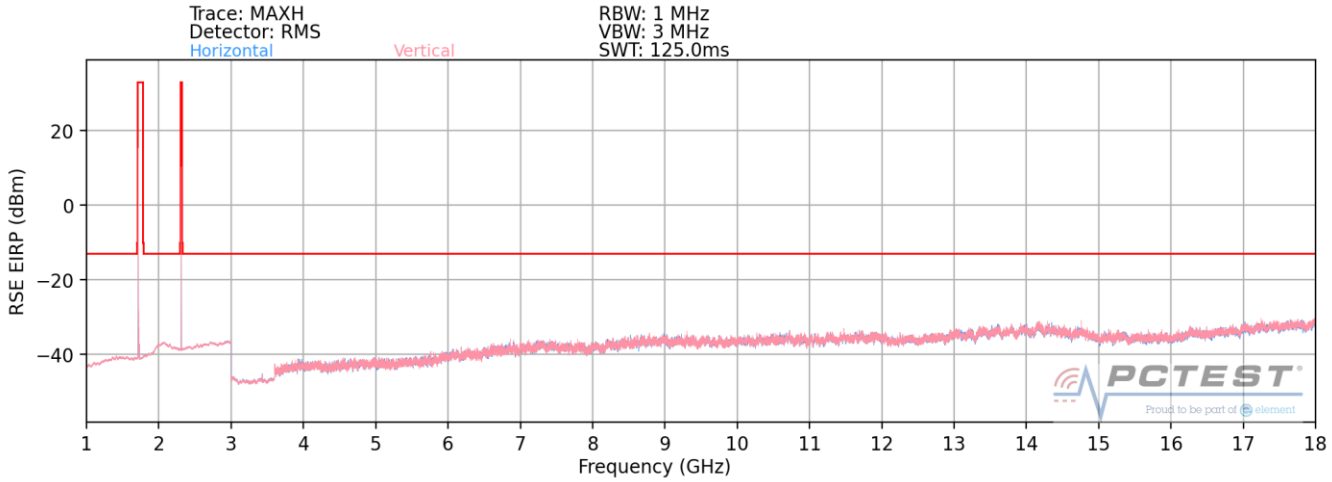
Plot 7-356. Radiated Spurious Plot (EN-DC n66-ANT F + B2)

Bandwidth (MHz):	40 & 20
Frequency (MHz):	1745 & 1880
RB / Offset:	1 / 108 & 1 / 50
Mode:	EN-DC
Anchor Band:	B2

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1475.0	H	-	-	-77.06	4.83	34.77	-60.49	-13.00	-47.49
2015.0	H	-	-	-77.37	9.47	39.10	-56.16	-13.00	-43.16
2420.0	H	262	345	-78.17	10.31	39.14	-56.12	-13.00	-43.12
3490.0	H	119	33	-66.94	11.55	51.61	-43.65	-13.00	-30.65
3760.0	H	112	217	-76.46	12.38	42.92	-52.34	-13.00	-39.34
5235.0	H	34	-20	34.28	-99.20	42.08	-53.18	-13.00	-40.18

Table 7-44. Radiated Spurious Data (EN-DC n66-ANT F + B2)

EN-DC n66-ANT F + B30



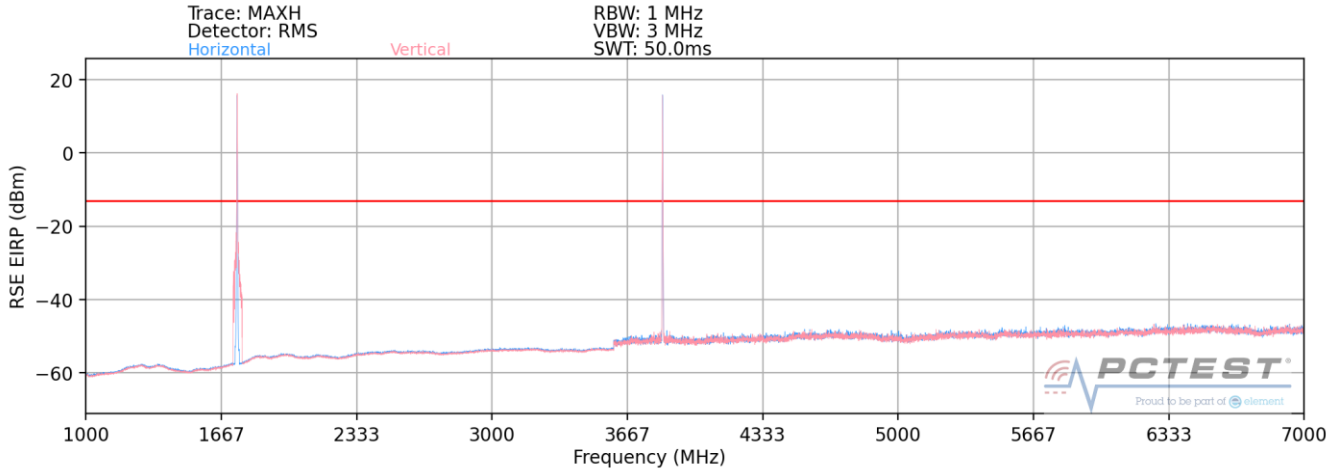
Plot 7-357. Radiated Spurious Plot (EN-DC n66-ANT F + B30)

Bandwidth (MHz):	40 & 10
Frequency (MHz):	1745 & 2310
RB / Offset:	1 / 108 & 1 / 25
Mode:	EN-DC
Anchor Band:	B30

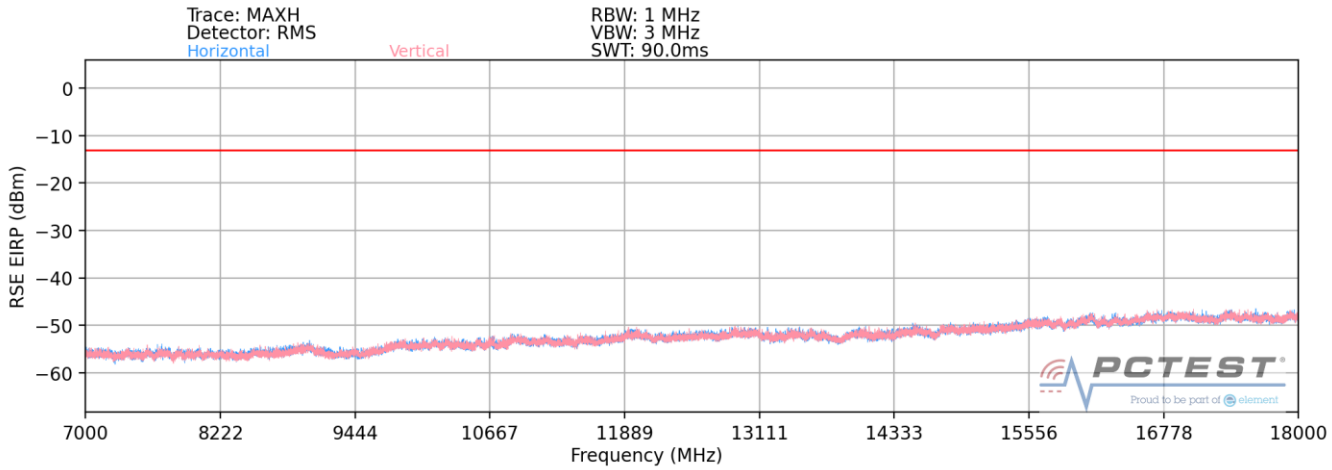
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
1180.0	H	-	-	-76.95	4.89	34.94	-60.32	-13.00	-47.32
3490.0	H	146	49	-70.54	11.55	48.01	-47.25	-13.00	-34.25
4005.0	H	-	-	-78.82	12.38	40.56	-54.70	-13.00	-41.70
4570.0	H	-	-	-78.38	13.59	42.21	-53.05	-13.00	-40.05
4620.0	H	-	-	-78.67	13.77	42.10	-53.16	-13.00	-40.16

Table 7-45. Radiated Spurious Data (EN-DC n66-ANT F + B30)

NR FR1 ULCA: NR n66 - n77



Plot 7-358. Radiated Spurious Plot (ULCA n66-n77)



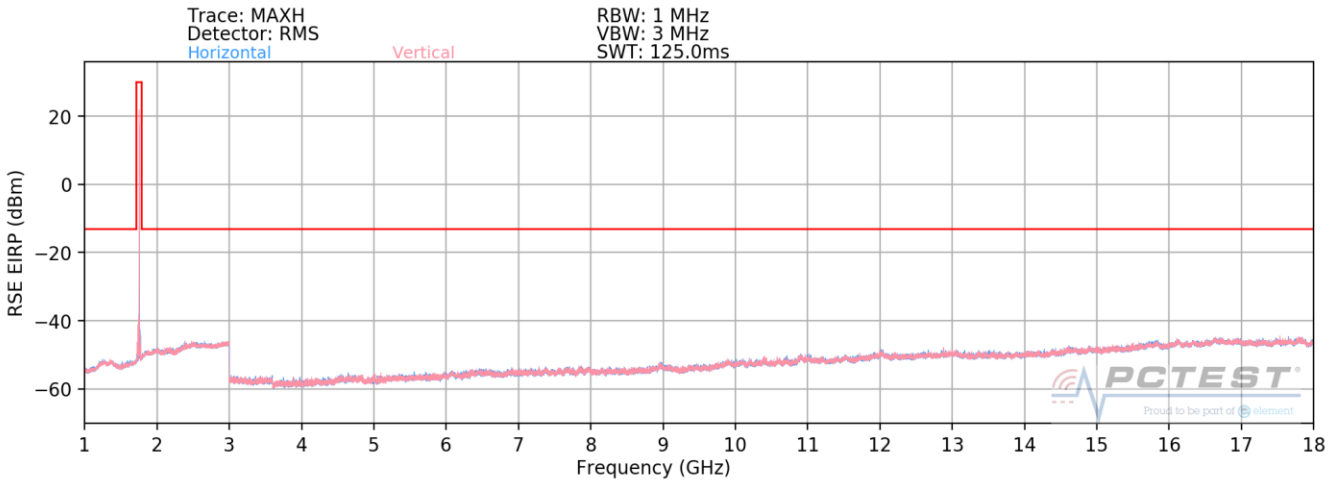
Plot 7-359. Radiated Spurious Plot (ULCA n66-n77)

Bandwidth (MHz):	40 & 100
Frequency (MHz):	1745 & 3840
RB / Offset:	1 / 108 & 1 / 137
Mode:	InterBand ULCA

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
2445.0	H	-	-	-77.34	10.34	40.00	-55.26	-13.00	-42.26
4540.0	H	-	-	-78.42	13.71	42.29	-52.97	-13.00	-39.97
5935.0	H	-	-	-79.85	15.43	42.58	-52.68	-13.00	-39.68

Table 7-46. Radiated Spurious Data (ULCA n66-n77)

Uplink CA LTE Band 66B/C



Plot 7-360. Radiated Spurious Plot (ULCA LTE Band 66)

PCC Bandwidth (MHz):	20
PCC Frequency (MHz):	1720.0
PCC RB / Offset:	1 / 99
SCC Bandwidth (MHz):	20
SCC Frequency (MHz):	1739.8
SCC RB / Offset:	1 / 0

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3440.00	H	-	-	-78.25	7.31	36.06	-59.20	-13.00	-46.20
5160.00	H	-	-	-79.15	9.32	37.17	-58.08	-13.00	-45.08
6880.00	H	-	-	-79.69	12.67	39.98	-55.27	-13.00	-42.27
8600.00	H	-	-	-80.59	13.82	40.23	-55.03	-13.00	-42.03

7-47. Radiated Spurious Data (ULCA LTE66 – Low Channel)

PCC Bandwidth (MHz):	20
PCC Frequency (MHz):	1745.0
PCC RB / Offset:	1 / 99
SCC Bandwidth (MHz):	20
SCC Frequency (MHz):	1764.8
SCC RB / Offset:	1 / 0

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3490.00	H	-	-	-78.21	7.30	36.09	-59.17	-13.00	-46.17
5235.00	H	-	-	-79.51	9.01	36.50	-58.76	-13.00	-45.76
6980.00	H	-	-	-79.83	12.45	39.62	-55.63	-13.00	-42.63
8725.00	H	-	-	-80.75	14.24	40.49	-54.77	-13.00	-41.77

Table 7-48. Radiated Spurious Data (ULCA LTE66 – Mid Channel)

PCC Bandwidth (MHz):	20
PCC Frequency (MHz):	1770.0
PCC RB / Offset:	1 / 0
SCC Bandwidth (MHz):	20
SCC Frequency (MHz):	1750.2
SCC RB / Offset:	1 / 99

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
3540.00	H	-	-	-78.57	7.47	35.90	-59.36	-13.00	-46.36
5310.00	H	-	-	-79.33	9.27	36.94	-58.32	-13.00	-45.32
7080.00	H	-	-	-79.46	13.10	40.64	-54.62	-13.00	-41.62
8850.00	H	-	-	-80.62	14.70	41.08	-54.18	-13.00	-41.18

Table 7-49. Radiated Spurious Data (ULCA LTE66 – High Channel)

7.9 Frequency Stability / Temperature Variation

Test Overview and Limit

Frequency stability testing is performed in accordance with the guidelines of ANSI/TIA-603-E-2016. The frequency stability of the transmitter is measured by:

a.) **Temperature:** The temperature is varied from -30°C to +50°C in 10°C increments using an environmental chamber.

b.) **Primary Supply Voltage:** The primary supply voltage is varied from 85% to 115% of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

For Part 27, the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

Test Procedure Used

ANSI/TIA-603-E-2016

Test Settings

1. The carrier frequency of the transmitter is measured at room temperature (20°C to provide a reference).
2. The equipment is turned on in a "standby" condition for fifteen minutes before applying power to the transmitter. Measurement of the carrier frequency of the transmitter is made within one minute after applying power to the transmitter.
3. Frequency measurements are made at 10°C intervals ranging from -30°C to +50°C. A period of at least one half-hour is provided to allow stabilization of the equipment at each temperature level.

Test Setup

The EUT was connected via an RF cable to a spectrum analyzer with the EUT placed inside an environmental chamber.

Test Notes

None

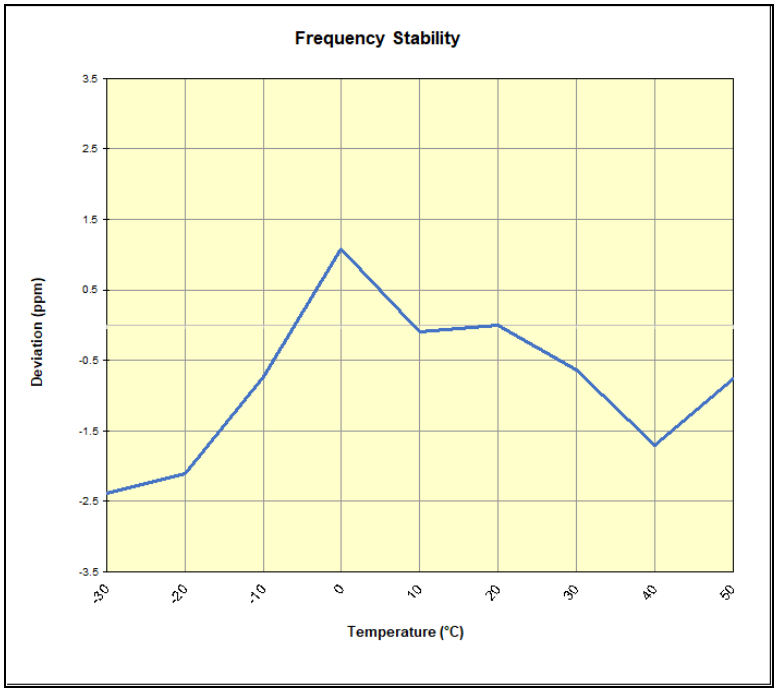
Frequency Stability / Temperature Variation

LTE Band 71

Operating Frequency (Hz):	680,500,000
Ref. Voltage (VDC):	4.43

Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.44	- 30	680,515,091	-1,627	-0.0002391
		- 20	680,515,289	-1,429	-0.0002100
		- 10	680,516,227	-491	-0.0000722
		0	680,517,458	740	0.0001087
		+ 10	680,516,658	-60	-0.0000088
		+ 20 (Ref)	680,516,718	0	0.0000000
		+ 30	680,516,284	-434	-0.0000638
		+ 40	680,515,558	-1,160	-0.0001705
		+ 50	680,516,207	-511	-0.0000751
Battery Endpoint	3.36	+ 20	680,516,543	-175	-0.0000257

Table 7-50. LTE Band 71 Frequency Stability Data



Plot 7-361. LTE Band 71 Frequency Stability Chart

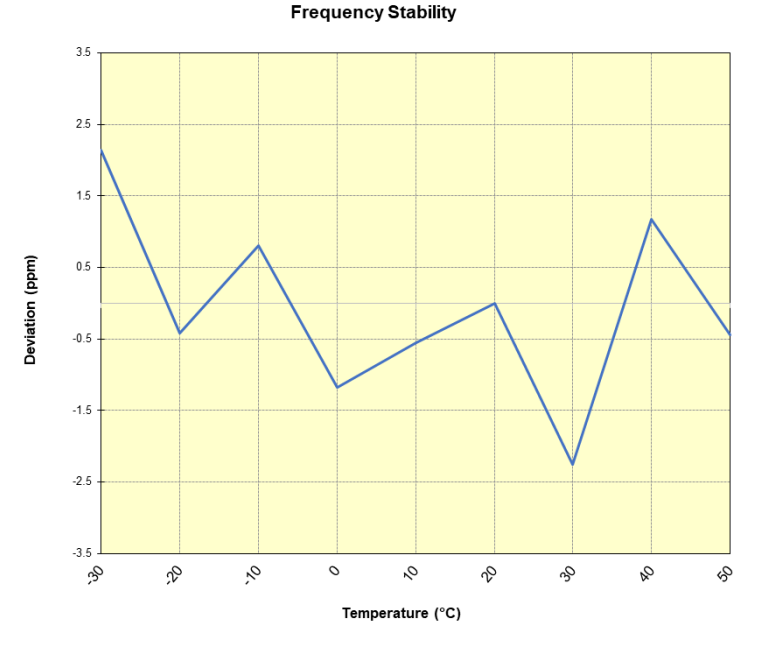
Frequency Stability / Temperature Variation

LTE Band 12

Operating Frequency (Hz):	707,500,000
Ref. Voltage (VDC):	4.43

Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.44	- 30	707,503,898	1,519	0.0002147
		- 20	707,502,086	-293	-0.0000414
		- 10	707,502,947	568	0.0000803
		0	707,501,547	-832	-0.0001176
		+ 10	707,501,989	-390	-0.0000551
		+ 20 (Ref)	707,502,379	0	0.0000000
		+ 30	707,500,787	-1,592	-0.0002250
		+ 40	707,503,208	829	0.0001172
		+ 50	707,502,068	-311	-0.0000440
Battery Endpoint	3.36	+ 20	707,502,118	-261	-0.0000369

Table 7-51. LTE Band 12 Frequency Stability Data



Plot 7-362. LTE Band 12 Frequency Stability Chart

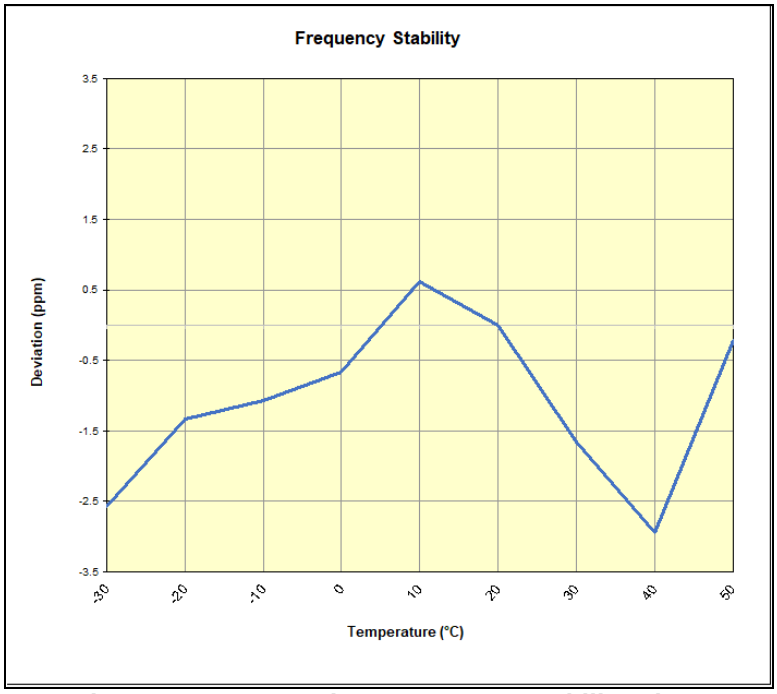
Frequency Stability / Temperature Variation

LTE Band 13

Operating Frequency (Hz):	782,000,000
Ref. Voltage (VDC):	4.43

Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.44	- 30	782,246,025	-2,011	-0.0002571
		- 20	782,246,996	-1,040	-0.0001330
		- 10	782,247,195	-841	-0.0001075
		0	782,247,516	-520	-0.0000665
		+ 10	782,248,526	490	0.0000626
		+ 20 (Ref)	782,248,036	0	0.0000000
		+ 30	782,246,735	-1,301	-0.0001663
		+ 40	782,245,734	-2,302	-0.0002943
		+ 50	782,247,865	-171	-0.0000219
Battery Endpoint	3.36	+ 20	782,247,403	-633	-0.0000809

Table 7-52. LTE Band 13 Frequency Stability Data



Plot 7-363. LTE Band 13 Frequency Stability Chart

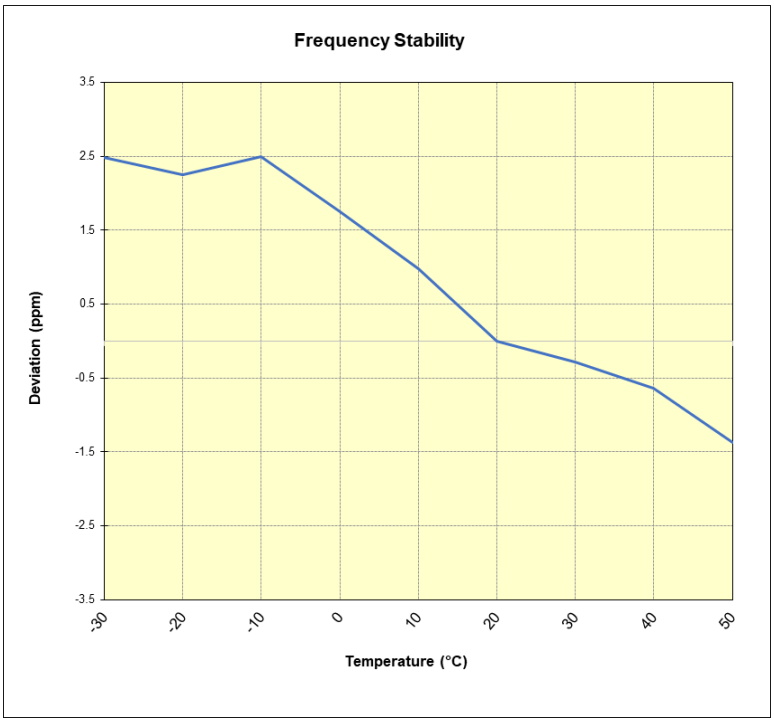
Frequency Stability / Temperature Variation

NR Band n71

Operating Frequency (Hz):	680,500,000
Ref. Voltage (VDC):	4.43

Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.43	- 30	680,597,012	1,693	0.0002488
		- 20	680,596,851	1,532	0.0002251
		- 10	680,597,018	1,699	0.0002496
		0	680,596,507	1,188	0.0001746
		+ 10	680,595,989	670	0.0000984
		+ 20 (Ref)	680,595,319	0	0.0000000
		+ 30	680,595,124	-195	-0.0000287
		+ 40	680,594,882	-437	-0.0000642
		+ 50	680,594,384	-935	-0.0001374
Battery Endpoint	3.36	+ 20	680,595,284	-35	-0.0000051

Table 7-53. NR Band n71 Frequency Stability Data



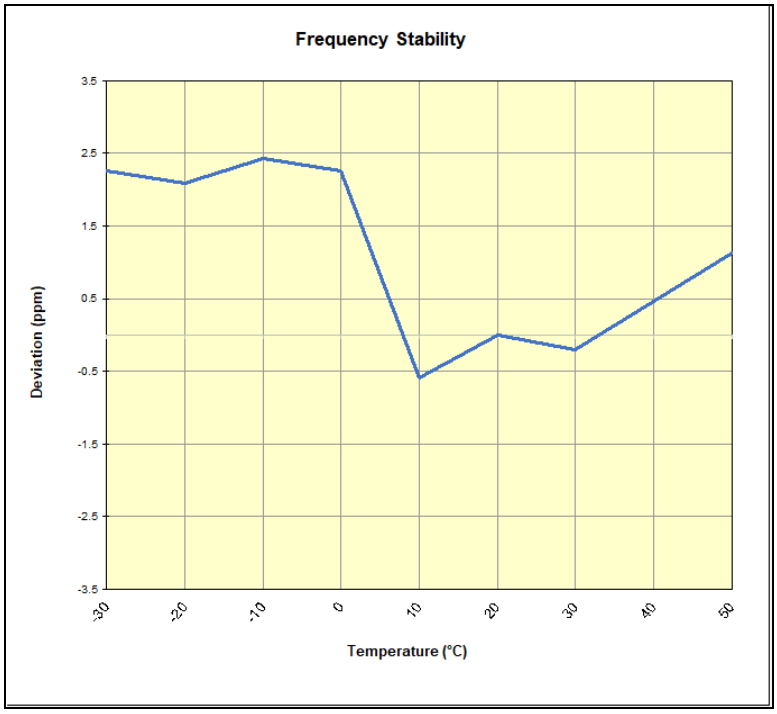
Plot 7-364. NR Band n71 Frequency Stability Chart

Frequency Stability / Temperature Variation

NR Band n12	
Operating Frequency (Hz):	707,500,000
Ref. Voltage (VDC):	4.43

Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.43	- 30	707,146,339	1,603	0.0002267
		- 20	707,146,218	1,482	0.0002096
		- 10	707,146,452	1,716	0.0002427
		0	707,146,335	1,599	0.0002261
		+ 10	707,144,323	-413	-0.0000584
		+ 20 (Ref)	707,144,736	0	0.0000000
		+ 30	707,144,593	-143	-0.0000202
		+ 40	707,145,066	330	0.0000467
		+ 50	707,145,535	799	0.0001130
Battery Endpoin	3.36	+ 20	707,144,474	-262	-0.0000371

Table 7-54. NR Band n12 Frequency Stability Data



Plot 7-365. NR Band n12 Frequency Stability Chart

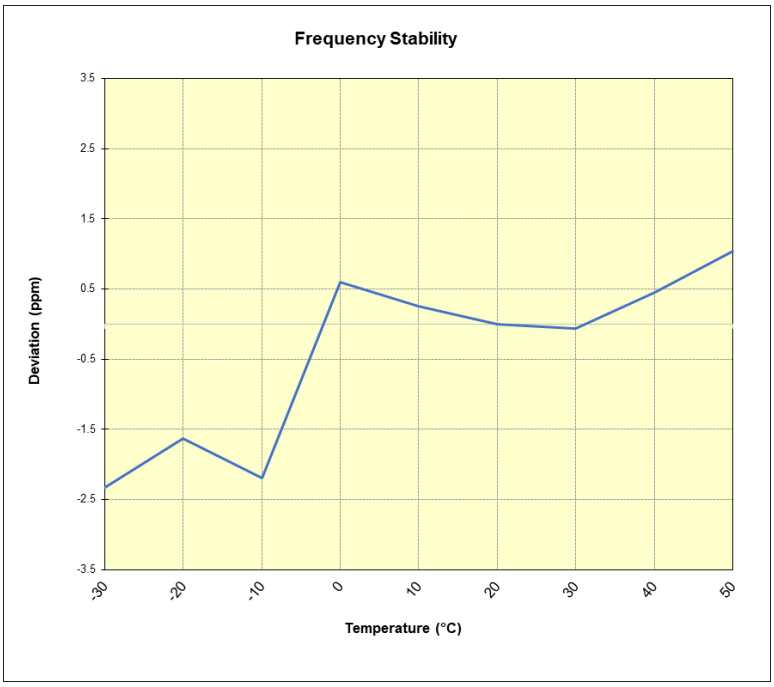
Frequency Stability / Temperature Variation

WCDMA AWS

Operating Frequency (Hz):	1,732,600,000
Ref. Voltage (VDC):	4.43

Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.43	- 30	1,732,608,012	-4,029	-0.0002325
		- 20	1,732,609,217	-2,824	-0.0001630
		- 10	1,732,608,252	-3,789	-0.0002187
		0	1,732,613,086	1,045	0.0000603
		+ 10	1,732,612,493	452	0.0000261
		+ 20 (Ref)	1,732,612,041	0	0.0000000
		+ 30	1,732,611,925	-116	-0.0000067
		+ 40	1,732,612,814	773	0.0000446
		+ 50	1,732,613,841	1,800	0.0001039
Battery Endpoint	3.36	+ 20	1,732,612,129	88	0.0000051

Table 7-55. WCDMA AWS Frequency Stability Data



Plot 7-366. WCDMA AWS Frequency Stability Chart

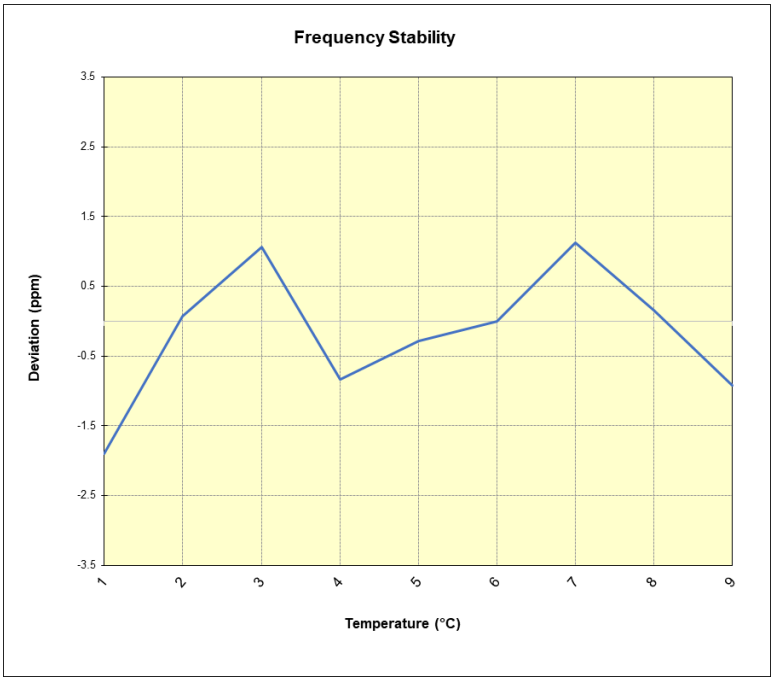
Frequency Stability / Temperature Variation

LTE Band 66/4

Operating Frequency (Hz):	1,745,000,000
Ref. Voltage (VDC):	4.43

Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.44	- 30	1,745,030,198	-3,319	-0.0001902
		- 20	1,745,033,654	137	0.0000079
		- 10	1,745,035,381	1,864	0.0001068
		0	1,745,032,061	-1,456	-0.0000834
		+ 10	1,745,033,025	-492	-0.0000282
		+ 20 (Ref)	1,745,033,517	0	0.0000000
		+ 30	1,745,035,487	1,970	0.0001129
		+ 40	1,745,033,783	266	0.0000152
		+ 50	1,745,031,905	-1,612	-0.0000924
Battery Endpoint	3.36	+ 20	1,745,033,558	41	0.0000023

Table 7-56. LTE Band 66/4 Frequency Stability Data



Plot 7-367. LTE Band 66/4 Frequency Stability Chart

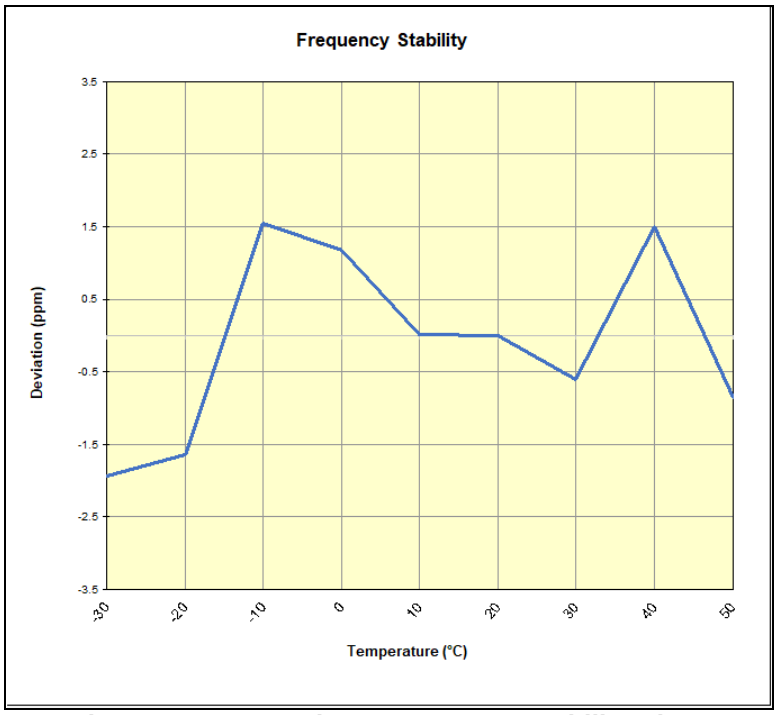
Frequency Stability / Temperature Variation

NR Band n66

Operating Frequency (Hz):	1,745,000,000
Ref. Voltage (VDC):	4.43
Deviation Limit:	± 0.00025% or 2.5 ppm

Voltage (%)	Power (VDC)	Temp (°C)	Frequency (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	4.43	- 30	1,745,082,681	-3,390	-0.0001943
		- 20	1,745,083,214	-2,857	-0.0001637
		- 10	1,745,088,774	2,703	0.0001549
		0	1,745,088,115	2,044	0.0001171
		+ 10	1,745,086,095	24	0.0000014
		+ 20 (Ref)	1,745,086,071	0	0.0000000
		+ 30	1,745,085,020	-1,051	-0.0000602
		+ 40	1,745,088,697	2,626	0.0001505
		+ 50	1,745,084,574	-1,497	-0.0000858
Battery Endpoin	3.36	+ 20	1,745,086,612	541	0.0000310

Table 7-57. NR Band n66 Frequency Stability Data



Plot 7-368. NR Band n66 Frequency Stability Chart

8.0 CONCLUSION

The data collected relate only to the item(s) tested and show that the **Samsung Portable Handset FCC ID: A3LSMS901U** complies with all the requirements of Part 27 of the FCC rules.