



Channel				18607	18900	19193	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1909.3		
1.4	QPSK	1	0	23.18	23.07	23.07	24	0
1.4	QPSK	1	3	23.19	23.05	23.05		
1.4	QPSK	1	5	23.20	23.17	23.17		
1.4	QPSK	3	0	23.08	22.93	22.96		
1.4	QPSK	3	1	23.07	22.92	22.94		
1.4	QPSK	3	3	23.07	23.05	23.09		
1.4	QPSK	6	0	21.94	21.96	22.08	23	1
1.4	16QAM	1	0	22.53	22.36	22.57	23.3	0.7
1.4	16QAM	1	3	22.46	22.30	22.57		
1.4	16QAM	1	5	22.62	22.37	22.58		
1.4	16QAM	3	0	22.09	21.91	22.18		
1.4	16QAM	3	1	22.00	21.77	22.10		
1.4	16QAM	3	3	22.02	22.17	22.26		
1.4	16QAM	6	0	21.01	21.01	21.18	22.3	1.7
1.4	64QAM	1	0	21.14	21.07	21.27	22.3	1.7
1.4	64QAM	1	3	21.16	20.96	21.13		
1.4	64QAM	1	5	21.15	21.01	21.27		
1.4	64QAM	3	0	20.97	20.96	20.94		
1.4	64QAM	3	1	21.00	20.90	21.00		
1.4	64QAM	3	3	21.08	20.94	21.06		
1.4	64QAM	6	0	19.95	19.92	19.95	21.3	2.7



<LTE Band 4>

Full Power								
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				20050	20175	20300		
Frequency (MHz)				1720	1732.5	1745		
20	QPSK	1	0	23.00	22.92	22.79	24	0
20	QPSK	1	49	22.66	22.83	22.71		
20	QPSK	1	99	22.99	22.90	22.88		
20	QPSK	50	0	22.07	21.91	22.04	23	1
20	QPSK	50	24	21.96	21.98	22.00		
20	QPSK	50	50	22.07	22.00	21.89		
20	QPSK	100	0	22.03	22.06	22.04	23.3	0.7
20	16QAM	1	0	22.16	22.12	22.22		
20	16QAM	1	49	21.91	21.79	22.10		
20	16QAM	1	99	22.23	22.19	22.16	22.3	1.7
20	16QAM	50	0	20.99	20.91	20.95		
20	16QAM	50	24	20.87	20.93	20.90		
20	16QAM	50	50	21.05	21.01	20.85		
20	16QAM	100	0	20.96	20.98	20.95		
20	64QAM	1	0	21.00	21.10	21.07	22.3	1.7
20	64QAM	1	49	20.82	20.93	20.99		
20	64QAM	1	99	20.87	20.96	20.94		
20	64QAM	50	0	19.97	19.93	19.97	21.3	2.7
20	64QAM	50	24	19.88	19.90	19.91		
20	64QAM	50	50	19.99	19.92	19.88		
20	64QAM	100	0	19.95	19.97	19.96		



Channel				20025	20175	20325	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1732.5	1747.5		
15	QPSK	1	0	22.95	22.90	22.82	24	0
15	QPSK	1	37	22.80	22.95	22.87		
15	QPSK	1	74	22.91	22.87	22.79		
15	QPSK	36	0	22.02	21.92	22.00	23	1
15	QPSK	36	20	21.97	21.97	21.94		
15	QPSK	36	39	21.97	21.92	21.89		
15	QPSK	75	0	21.96	21.99	22.00	23.3	0.7
15	16QAM	1	0	22.17	22.06	22.22		
15	16QAM	1	37	22.04	21.91	21.93		
15	16QAM	1	74	22.09	22.17	22.13	22.3	1.7
15	16QAM	36	0	20.95	20.92	20.95		
15	16QAM	36	20	20.90	20.77	20.91		
15	16QAM	36	39	20.89	20.93	20.85	21.3	2.7
15	16QAM	75	0	20.89	20.93	20.93		
15	64QAM	1	0	20.87	20.81	21.05		
15	64QAM	1	37	20.76	20.75	21.04	22.3	1.7
15	64QAM	1	74	21.05	20.91	20.87		
15	64QAM	36	0	19.94	19.90	19.93		
15	64QAM	36	20	19.88	19.95	19.92	21.3	2.7
15	64QAM	36	39	19.91	19.98	19.86		
15	64QAM	75	0	19.89	19.94	19.94		
Channel				20000	20175	20350	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1732.5	1750		
10	QPSK	1	0	22.91	22.82	22.83	24	0
10	QPSK	1	25	22.67	22.76	22.68		
10	QPSK	1	49	22.89	22.86	22.91		
10	QPSK	25	0	21.97	21.87	22.00	23	1
10	QPSK	25	12	21.96	21.98	21.99		
10	QPSK	25	25	21.90	21.90	21.94		
10	QPSK	50	0	21.94	21.98	22.00	23.3	0.7
10	16QAM	1	0	22.05	22.21	22.20		
10	16QAM	1	25	21.94	21.71	22.11		
10	16QAM	1	49	22.03	22.10	22.18	22.3	1.7
10	16QAM	25	0	20.91	20.91	20.94		
10	16QAM	25	12	20.90	20.92	20.95		
10	16QAM	25	25	20.97	20.93	20.90	22.3	1.7
10	16QAM	50	0	20.88	20.95	20.92		
10	64QAM	1	0	20.87	20.94	20.87		
10	64QAM	1	25	20.65	20.68	20.72	22.3	1.7
10	64QAM	1	49	21.02	20.87	20.87		
10	64QAM	25	0	19.89	19.87	19.93		
10	64QAM	25	12	19.89	19.95	19.91	21.3	2.7
10	64QAM	25	25	19.97	19.97	19.89		
10	64QAM	50	0	19.87	19.95	19.92		



Channel				19975	20175	20375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1732.5	1752.5		
5	QPSK	1	0	22.88	22.78	22.85	24	0
5	QPSK	1	12	22.67	22.57	22.70		
5	QPSK	1	24	22.69	22.79	22.91		
5	QPSK	12	0	21.93	22.00	21.97	23	1
5	QPSK	12	7	21.89	21.98	21.95		
5	QPSK	12	13	21.98	21.95	21.98		
5	QPSK	25	0	21.92	21.99	21.98		
5	16QAM	1	0	22.00	22.18	22.08	23.3	0.7
5	16QAM	1	12	21.97	22.00	22.19		
5	16QAM	1	24	22.10	22.18	22.00		
5	16QAM	12	0	20.82	20.95	20.93	22.3	1.7
5	16QAM	12	7	20.79	20.95	20.90		
5	16QAM	12	13	20.89	20.92	20.95		
5	16QAM	25	0	20.83	20.92	20.93		
5	64QAM	1	0	20.88	20.85	20.95	22.3	1.7
5	64QAM	1	12	20.66	20.66	20.83		
5	64QAM	1	24	21.07	20.77	20.87		
5	64QAM	12	0	19.82	19.80	19.92	21.3	2.7
5	64QAM	12	7	19.80	19.76	19.81		
5	64QAM	12	13	19.90	19.97	19.95		
5	64QAM	25	0	19.82	19.89	19.92		
Channel				19965	20175	20385	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1732.5	1753.5		
3	QPSK	1	0	22.70	22.88	22.87	24	0
3	QPSK	1	8	22.76	22.94	22.96		
3	QPSK	1	14	22.74	22.85	22.75		
3	QPSK	8	0	21.93	21.92	21.90	23	1
3	QPSK	8	4	21.71	21.93	21.93		
3	QPSK	8	7	21.69	21.96	21.82		
3	QPSK	15	0	21.79	21.91	21.89		
3	16QAM	1	0	21.99	22.21	22.14	23.3	0.7
3	16QAM	1	8	21.94	22.16	22.12		
3	16QAM	1	14	22.04	22.16	21.99		
3	16QAM	8	0	20.72	20.93	20.89	22.3	1.7
3	16QAM	8	4	20.76	20.88	20.89		
3	16QAM	8	7	20.93	20.86	20.84		
3	16QAM	15	0	20.71	20.88	20.83		
3	64QAM	1	0	20.92	21.06	20.95	22.3	1.7
3	64QAM	1	8	21.12	21.01	20.99		
3	64QAM	1	14	20.84	20.93	20.88		
3	64QAM	8	0	19.85	19.89	19.81	21.3	2.7
3	64QAM	8	4	19.80	19.93	19.87		
3	64QAM	8	7	19.82	19.85	19.85		
3	64QAM	15	0	19.72	19.89	19.78		



Channel				19957	20175	20393	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1732.5	1754.3		
1.4	QPSK	1	0	22.92	22.91	22.96	24	0
1.4	QPSK	1	3	22.97	22.93	22.99		
1.4	QPSK	1	5	23.02	22.86	22.94		
1.4	QPSK	3	0	22.78	22.95	22.90		
1.4	QPSK	3	1	23.00	22.95	22.97		
1.4	QPSK	3	3	23.04	22.90	22.95		
1.4	QPSK	6	0	21.89	21.92	21.93	23	1
1.4	16QAM	1	0	22.07	21.98	22.13	23.3	0.7
1.4	16QAM	1	3	22.21	22.26	22.30		
1.4	16QAM	1	5	22.01	21.96	22.27		
1.4	16QAM	3	0	21.89	21.83	21.89		
1.4	16QAM	3	1	21.90	21.91	21.90		
1.4	16QAM	3	3	21.91	21.87	21.97	22.3	1.7
1.4	16QAM	6	0	20.85	20.88	20.83	22.3	1.7
1.4	64QAM	1	0	21.04	20.92	20.94		
1.4	64QAM	1	3	21.25	21.04	20.96		
1.4	64QAM	1	5	21.15	20.93	20.96		
1.4	64QAM	3	0	20.82	20.91	20.93		
1.4	64QAM	3	1	20.76	20.95	20.92		
1.4	64QAM	3	3	20.94	20.91	20.99		
1.4	64QAM	6	0	19.87	19.92	19.90	21.3	2.7



<LTE Band 5>

Full Power								
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			20450	20525	20600			
Frequency (MHz)			829	836.5	844			
10	QPSK	1	0	24.10	23.99	24.00	25	0
10	QPSK	1	25	24.02	23.88	23.79		
10	QPSK	1	49	23.87	23.78	23.71		
10	QPSK	25	0	23.10	23.05	23.06	24	1
10	QPSK	25	12	23.05	22.98	23.02		
10	QPSK	25	25	23.07	22.92	22.95		
10	QPSK	50	0	23.04	23.03	23.02	24.3	0.7
10	16QAM	1	0	23.06	23.03	23.06		
10	16QAM	1	25	23.03	22.74	22.78		
10	16QAM	1	49	23.08	22.93	22.81	23.3	1.7
10	16QAM	25	0	22.02	21.97	22.05		
10	16QAM	25	12	21.98	22.14	22.03		
10	16QAM	25	25	22.06	21.93	21.96	23.3	1.7
10	16QAM	50	0	22.03	21.97	22.00		
10	64QAM	1	0	22.15	22.21	22.16		
10	64QAM	1	25	22.09	21.82	21.84	22.3	2.7
10	64QAM	1	49	21.96	21.84	21.77		
10	64QAM	25	0	20.98	20.98	21.02		
10	64QAM	25	12	20.95	21.02	21.00	22.3	2.7
10	64QAM	25	25	21.04	21.05	20.93		
10	64QAM	50	0	21.02	21.06	20.96		



Channel				20425	20525	20625	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	0	23.97	23.94	24.04	25	0
5	QPSK	1	12	23.81	23.92	23.84		
5	QPSK	1	24	24.01	23.99	24.02		
5	QPSK	12	0	23.08	23.04	23.12	24	1
5	QPSK	12	7	23.06	23.06	22.93		
5	QPSK	12	13	22.97	23.11	22.99		
5	QPSK	25	0	23.03	23.01	22.97	24.3	0.7
5	16QAM	1	0	23.27	23.27	23.37		
5	16QAM	1	12	23.24	23.27	23.18		
5	16QAM	1	24	23.41	23.28	23.34	23.3	1.7
5	16QAM	12	0	22.03	22.04	22.13		
5	16QAM	12	7	22.03	22.02	21.95		
5	16QAM	12	13	22.15	22.00	22.01	23.3	1.7
5	16QAM	25	0	21.96	21.95	21.93		
5	64QAM	1	0	22.11	22.09	22.12		
5	64QAM	1	12	22.06	22.04	22.00	23.3	1.7
5	64QAM	1	24	22.02	22.12	22.14		
5	64QAM	12	0	21.00	21.00	21.09		
5	64QAM	12	7	20.99	20.99	20.90	22.3	2.7
5	64QAM	12	13	20.91	20.98	21.12		
5	64QAM	25	0	20.96	20.94	20.87		
Channel				20415	20525	20635	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				825.5	836.5	847.5		
3	QPSK	1	0	23.93	23.98	23.89	25	0
3	QPSK	1	8	24.04	24.06	23.90		
3	QPSK	1	14	24.01	23.98	23.95		
3	QPSK	8	0	23.02	23.03	22.97	24	1
3	QPSK	8	4	23.05	23.02	22.89		
3	QPSK	8	7	23.07	22.97	23.07		
3	QPSK	15	0	23.05	23.05	23.04	24.3	0.7
3	16QAM	1	0	23.29	23.25	23.15		
3	16QAM	1	8	23.25	23.30	23.38		
3	16QAM	1	14	23.23	23.23	23.23	23.3	1.7
3	16QAM	8	0	21.99	21.98	21.97		
3	16QAM	8	4	21.96	22.16	21.89		
3	16QAM	8	7	22.00	22.11	22.00	23.3	1.7
3	16QAM	15	0	21.98	22.00	21.93		
3	64QAM	1	0	22.06	22.10	22.05		
3	64QAM	1	8	22.05	22.20	22.14	23.3	1.7
3	64QAM	1	14	22.04	22.10	22.10		
3	64QAM	8	0	20.99	20.97	20.96		
3	64QAM	8	4	20.97	21.18	20.89	22.3	2.7
3	64QAM	8	7	21.00	21.11	21.06		
3	64QAM	15	0	20.97	20.98	20.95		



Channel				20407	20525	20643	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				824.7	836.5	848.3		
1.4	QPSK	1	0	23.97	24.02	24.00	25	0
1.4	QPSK	1	3	23.97	24.00	24.07		
1.4	QPSK	1	5	23.97	23.93	24.02		
1.4	QPSK	3	0	24.06	24.03	24.01		
1.4	QPSK	3	1	24.00	24.00	23.96		
1.4	QPSK	3	3	24.05	23.96	23.95		
1.4	QPSK	6	0	23.02	23.09	22.98	24	1
1.4	16QAM	1	0	23.36	23.33	23.22	24.3	0.7
1.4	16QAM	1	3	23.36	23.31	23.26		
1.4	16QAM	1	5	23.26	23.47	23.28		
1.4	16QAM	3	0	23.12	23.22	22.97		
1.4	16QAM	3	1	23.13	23.22	23.07		
1.4	16QAM	3	3	22.94	23.03	23.01		
1.4	16QAM	6	0	21.98	22.04	21.99	23.3	1.7
1.4	64QAM	1	0	22.19	22.11	22.07	23.3	1.7
1.4	64QAM	1	3	22.04	22.13	22.07		
1.4	64QAM	1	5	22.16	22.09	22.04		
1.4	64QAM	3	0	22.03	22.11	22.03		
1.4	64QAM	3	1	22.02	22.11	21.99		
1.4	64QAM	3	3	21.97	22.07	22.08		
1.4	64QAM	6	0	20.95	20.97	20.97	22.3	2.7



<LTE Band 7>

Full Power / Receiver on / Receiver on+BT								
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			20850	21100	21350			
Frequency (MHz)			2510	2535	2560			
20	QPSK	1	0	23.06	23.09	23.18	24.7	0
20	QPSK	1	49	23.16	23.15	23.02		
20	QPSK	1	99	23.04	23.39	22.98		
20	QPSK	50	0	22.52	22.53	22.50	23.7	1
20	QPSK	50	24	22.37	22.44	22.41		
20	QPSK	50	50	22.50	22.46	22.40		
20	QPSK	100	0	22.41	22.49	22.42	24	0.7
20	16QAM	1	0	22.11	22.27	22.15		
20	16QAM	1	49	22.16	22.42	22.28		
20	16QAM	1	99	22.45	22.53	22.26	23	1.7
20	16QAM	50	0	21.35	21.43	21.39		
20	16QAM	50	24	21.28	21.30	21.28		
20	16QAM	50	50	21.31	21.43	21.20	23	1.7
20	16QAM	100	0	21.26	21.39	21.34		
20	64QAM	1	0	21.24	21.36	21.41		
20	64QAM	1	49	21.43	21.68	21.39	23	1.7
20	64QAM	1	99	21.58	21.58	21.53		
20	64QAM	50	0	20.57	20.73	20.72		
20	64QAM	50	24	20.53	20.50	20.56	22	2.7
20	64QAM	50	50	20.55	20.73	20.45		
20	64QAM	100	0	20.62	20.72	20.50		



Channel				20825	21100	21375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	22.98	23.23	23.20	24.7	0
15	QPSK	1	37	23.15	23.29	23.23		
15	QPSK	1	74	23.01	23.17	22.85		
15	QPSK	36	0	22.37	22.48	22.43	23.7	1
15	QPSK	36	20	22.40	22.44	22.34		
15	QPSK	36	39	22.45	22.41	22.35		
15	QPSK	75	0	22.35	22.44	22.39	24	0.7
15	16QAM	1	0	22.17	22.47	22.39		
15	16QAM	1	37	22.35	22.34	22.15		
15	16QAM	1	74	22.24	22.28	22.20	23	1.7
15	16QAM	36	0	21.27	21.24	21.21		
15	16QAM	36	20	21.28	21.21	21.02		
15	16QAM	36	39	21.36	21.41	21.33	23	1.7
15	16QAM	75	0	21.24	21.31	21.28		
15	64QAM	1	0	21.29	21.43	21.62		
15	64QAM	1	37	21.37	21.46	21.42	23	1.7
15	64QAM	1	74	21.35	21.39	21.29		
15	64QAM	36	0	20.57	20.53	20.65		
15	64QAM	36	20	20.53	20.49	20.59	22	2.7
15	64QAM	36	39	20.52	20.51	20.61		
15	64QAM	75	0	20.56	20.56	20.60		
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	23.02	22.99	23.13	24.7	0
10	QPSK	1	25	23.26	23.32	23.13		
10	QPSK	1	49	23.00	23.11	22.98		
10	QPSK	25	0	22.34	22.45	22.35	23.7	1
10	QPSK	25	12	22.37	22.47	22.25		
10	QPSK	25	25	22.38	22.40	22.15		
10	QPSK	50	0	22.28	22.42	22.31	24	0.7
10	16QAM	1	0	22.19	22.45	22.31		
10	16QAM	1	25	22.34	22.53	22.39		
10	16QAM	1	49	22.24	22.33	22.26	23	1.7
10	16QAM	25	0	21.25	21.40	21.35		
10	16QAM	25	12	21.29	21.32	21.28		
10	16QAM	25	25	21.26	21.42	21.36	23	1.7
10	16QAM	50	0	21.22	21.37	21.29		
10	64QAM	1	0	21.24	21.29	21.25		
10	64QAM	1	25	21.50	21.16	21.60	23	1.7
10	64QAM	1	49	21.29	21.39	21.26		
10	64QAM	25	0	20.54	20.57	20.55		
10	64QAM	25	12	20.57	20.50	20.54	22	2.7
10	64QAM	25	25	20.57	20.56	20.49		
10	64QAM	50	0	20.48	20.65	20.50		



Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	23.04	23.10	23.00	24.7	0
5	QPSK	1	12	22.81	22.85	22.72		
5	QPSK	1	24	23.02	23.11	22.73		
5	QPSK	12	0	22.34	22.46	22.36	23.7	1
5	QPSK	12	7	22.30	22.42	22.32		
5	QPSK	12	13	22.24	22.43	22.23		
5	QPSK	25	0	22.35	22.47	22.32		
5	16QAM	1	0	22.29	22.44	22.23	24	0.7
5	16QAM	1	12	22.56	22.44	22.31		
5	16QAM	1	24	22.19	22.37	22.21		
5	16QAM	12	0	21.26	21.39	21.33	23	1.7
5	16QAM	12	7	21.28	21.43	21.30		
5	16QAM	12	13	21.25	21.44	21.30		
5	16QAM	25	0	21.25	21.39	21.25		
5	64QAM	1	0	21.14	21.52	21.52	23	1.7
5	64QAM	1	12	21.46	21.37	21.29		
5	64QAM	1	24	21.40	21.25	21.02		
5	64QAM	12	0	20.55	20.38	20.60	22	2.7
5	64QAM	12	7	20.53	20.44	20.58		
5	64QAM	12	13	20.48	20.55	20.52		
5	64QAM	25	0	20.50	20.68	20.53		



Receiver off / Receiver off+BT								
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			20850	21100	21350			
Frequency (MHz)			2510	2535	2560			
20	QPSK	1	0	21.35	21.43	21.39	23.2	0
20	QPSK	1	49	21.67	21.81	21.79		
20	QPSK	1	99	21.69	21.71	21.72		
20	QPSK	50	0	21.72	21.90	21.95	23.2	0
20	QPSK	50	24	21.66	21.79	21.84		
20	QPSK	50	50	21.76	21.99	21.93		
20	QPSK	100	0	21.26	21.38	21.33	23.2	0
20	16QAM	1	0	21.56	21.62	21.84		
20	16QAM	1	49	21.65	21.95	21.88		
20	16QAM	1	99	21.87	22.06	22.04	22.7	0.5
20	16QAM	50	0	21.16	21.33	21.34		
20	16QAM	50	24	21.10	21.26	21.24		
20	16QAM	50	50	21.31	21.44	21.36	23	0.2
20	16QAM	100	0	21.10	21.32	21.36		
20	64QAM	1	0	21.34	21.34	21.49		
20	64QAM	1	49	21.39	21.57	21.48	22	1.2
20	64QAM	1	99	21.63	21.83	21.76		
20	64QAM	50	0	20.45	20.61	20.66		
20	64QAM	50	24	20.40	20.56	20.61	22	1.2
20	64QAM	50	50	20.62	20.75	20.69		
20	64QAM	100	0	20.39	20.64	20.67		



Channel				20825	21100	21375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2507.5	2535	2562.5		
15	QPSK	1	0	21.47	21.52	21.52	23.2	0
15	QPSK	1	37	21.56	21.64	21.59		
15	QPSK	1	74	21.45	21.53	21.54		
15	QPSK	36	0	21.62	21.87	21.91	23.2	0
15	QPSK	36	20	21.65	21.88	21.88		
15	QPSK	36	39	21.66	21.98	21.97		
15	QPSK	75	0	21.63	21.88	21.93	23.2	0
15	16QAM	1	0	21.60	21.71	21.90		
15	16QAM	1	37	21.81	21.93	21.87		
15	16QAM	1	74	21.70	21.88	21.74	22.7	0.5
15	16QAM	36	0	21.11	21.32	21.39		
15	16QAM	36	20	21.07	21.24	21.34		
15	16QAM	36	39	21.25	21.29	21.43	22	1.2
15	16QAM	75	0	21.08	21.25	21.38		
15	64QAM	1	0	21.39	21.45	21.77		
15	64QAM	1	37	21.44	21.69	21.62	23	0.2
15	64QAM	1	74	21.45	21.68	21.62		
15	64QAM	36	0	20.33	20.61	20.69		
15	64QAM	36	20	20.39	20.56	20.64	22	1.2
15	64QAM	36	39	20.56	20.59	20.71		
15	64QAM	75	0	20.39	20.55	20.67		
Channel				20800	21100	21400	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2505	2535	2565		
10	QPSK	1	0	21.44	21.59	21.61	23.2	0
10	QPSK	1	25	21.65	21.77	21.90		
10	QPSK	1	49	21.55	21.47	21.59		
10	QPSK	25	0	21.68	21.79	21.83	23.2	0
10	QPSK	25	12	21.80	21.91	21.85		
10	QPSK	25	25	21.79	21.96	21.99		
10	QPSK	50	0	21.70	21.83	21.91	23.2	0
10	16QAM	1	0	21.58	21.76	21.88		
10	16QAM	1	25	22.02	22.06	22.04		
10	16QAM	1	49	21.62	21.95	21.72	22.7	0.5
10	16QAM	25	0	21.15	21.27	21.31		
10	16QAM	25	12	21.19	21.33	21.34		
10	16QAM	25	25	21.16	21.28	21.35	23	0.2
10	16QAM	50	0	21.13	21.30	21.33		
10	64QAM	1	0	21.36	21.51	21.75		
10	64QAM	1	25	21.65	21.70	21.77	22	1.2
10	64QAM	1	49	21.44	21.69	21.65		
10	64QAM	25	0	20.36	20.42	20.61		
10	64QAM	25	12	20.51	20.64	20.63	22	1.2
10	64QAM	25	25	20.48	20.58	20.61		
10	64QAM	50	0	20.33	20.59	20.65		



Channel				20775	21100	21425	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2502.5	2535	2567.5		
5	QPSK	1	0	21.43	21.61	21.49	23.2	0
5	QPSK	1	12	21.56	21.67	21.69		
5	QPSK	1	24	21.51	21.36	21.56		
5	QPSK	12	0	21.74	21.90	21.91	23.2	0
5	QPSK	12	7	21.70	21.88	21.90		
5	QPSK	12	13	21.77	21.75	21.98		
5	QPSK	25	0	21.78	21.77	21.87	23.2	0
5	16QAM	1	0	21.50	21.81	21.88		
5	16QAM	1	12	21.70	21.84	21.82		
5	16QAM	1	24	21.60	21.80	21.81	22.7	0.5
5	16QAM	12	0	21.10	21.28	21.30		
5	16QAM	12	7	21.33	21.33	21.27		
5	16QAM	12	13	21.38	21.33	21.33	23	0.2
5	16QAM	25	0	21.15	21.28	21.31		
5	64QAM	1	0	21.37	21.53	21.67		
5	64QAM	1	12	21.27	21.73	21.24	22	1.2
5	64QAM	1	24	21.57	21.52	21.24		
5	64QAM	12	0	20.42	20.57	20.62		
5	64QAM	12	7	20.47	20.63	20.64	22	1.2
5	64QAM	12	13	20.44	20.63	20.59		
5	64QAM	25	0	20.47	20.58	20.62		



<LTE Band 26>

Full Power								
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			26765	26865	26965			
Frequency (MHz)			821.5	831.5	841.5			
15	QPSK	1	0	23.52	23.52	23.53	24.5	0
15	QPSK	1	37	23.75	23.68	23.65		
15	QPSK	1	74	23.64	23.54	23.57		
15	QPSK	36	0	22.64	22.53	22.70	23.5	1
15	QPSK	36	20	22.63	22.53	22.59		
15	QPSK	36	39	22.51	22.58	22.63		
15	QPSK	75	0	22.60	22.57	22.57	23.8	0.7
15	16QAM	1	0	22.81	22.78	22.83		
15	16QAM	1	37	22.93	22.81	22.81		
15	16QAM	1	74	22.91	22.72	22.86	22.8	1.7
15	16QAM	36	0	21.56	21.56	21.56		
15	16QAM	36	20	21.54	21.50	21.53		
15	16QAM	36	39	21.56	21.60	21.64	22.8	1.7
15	16QAM	75	0	21.56	21.49	21.57		
15	64QAM	1	0	21.70	21.59	21.62		
15	64QAM	1	37	21.67	21.65	21.70	22.8	1.7
15	64QAM	1	74	21.60	21.60	21.74		
15	64QAM	36	0	20.60	20.59	20.57		
15	64QAM	36	20	20.58	20.50	20.52	21.8	2.7
15	64QAM	36	39	20.58	20.39	20.66		
15	64QAM	75	0	20.50	20.48	20.57		



Channel				26740	26865	26990	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				819	831.5	844		
10	QPSK	1	0	23.67	23.56	23.63	24.5	0
10	QPSK	1	25	23.57	23.63	23.57		
10	QPSK	1	49	23.55	23.56	23.64		
10	QPSK	25	0	22.58	22.58	22.66	23.5	1
10	QPSK	25	12	22.60	22.56	22.53		
10	QPSK	25	25	22.57	22.61	22.69		
10	QPSK	50	0	22.58	22.53	22.63	23.8	0.7
10	16QAM	1	0	22.84	22.77	22.80		
10	16QAM	1	25	22.94	22.76	22.85		
10	16QAM	1	49	22.81	22.84	22.68	22.8	1.7
10	16QAM	25	0	21.54	21.54	21.53		
10	16QAM	25	12	21.53	21.49	21.50		
10	16QAM	25	25	21.45	21.53	21.45	22.8	1.7
10	16QAM	50	0	21.51	21.43	21.51		
10	64QAM	1	0	21.73	21.69	21.59		
10	64QAM	1	25	21.64	21.76	21.60	22.8	1.7
10	64QAM	1	49	21.62	21.72	21.78		
10	64QAM	25	0	20.55	20.54	20.53		
10	64QAM	25	12	20.53	20.46	20.48	21.8	2.7
10	64QAM	25	25	20.45	20.52	20.46		
10	64QAM	50	0	20.53	20.43	20.48		
Channel				26715	26865	27015	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				816.5	831.5	846.5		
5	QPSK	1	0	23.56	23.55	23.57	24.5	0
5	QPSK	1	12	23.47	23.45	23.41		
5	QPSK	1	24	23.57	23.66	23.62		
5	QPSK	12	0	22.59	22.58	22.65	23.5	1
5	QPSK	12	7	22.61	22.52	22.63		
5	QPSK	12	13	22.62	22.61	22.69		
5	QPSK	25	0	22.58	22.53	22.65	23.8	0.7
5	16QAM	1	0	22.84	22.80	22.75		
5	16QAM	1	12	22.78	22.81	22.80		
5	16QAM	1	24	22.83	22.95	22.75	22.8	1.7
5	16QAM	12	0	21.63	21.49	21.56		
5	16QAM	12	7	21.59	21.48	21.65		
5	16QAM	12	13	21.53	21.55	21.59	22.8	1.7
5	16QAM	25	0	21.53	21.46	21.53		
5	64QAM	1	0	21.72	21.65	21.58		
5	64QAM	1	12	21.58	21.48	21.50	22.8	1.7
5	64QAM	1	24	21.71	21.55	21.64		
5	64QAM	12	0	20.57	20.49	20.53		
5	64QAM	12	7	20.54	20.44	20.64	21.8	2.7
5	64QAM	12	13	20.51	20.54	20.55		
5	64QAM	25	0	20.52	20.45	20.53		



Channel				26705	26865	27025	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				815.5	831.5	847.5		
3	QPSK	1	0	23.60	23.47	23.62	24.5	0
3	QPSK	1	8	23.75	23.69	23.72		
3	QPSK	1	14	23.57	23.65	23.58		
3	QPSK	8	0	22.60	22.51	22.71	23.5	1
3	QPSK	8	4	22.50	22.61	22.45		
3	QPSK	8	7	22.59	22.50	22.66		
3	QPSK	15	0	22.60	22.58	22.69		
3	16QAM	1	0	22.87	22.77	22.94	23.8	0.7
3	16QAM	1	8	22.86	22.87	22.90		
3	16QAM	1	14	22.84	22.76	22.80		
3	16QAM	8	0	21.58	21.51	21.64	22.8	1.7
3	16QAM	8	4	21.54	21.43	21.61		
3	16QAM	8	7	21.52	21.43	21.55		
3	16QAM	15	0	21.55	21.46	21.57		
3	64QAM	1	0	21.64	21.56	21.67	22.8	1.7
3	64QAM	1	8	21.66	21.52	21.67		
3	64QAM	1	14	21.69	21.72	21.52		
3	64QAM	8	0	20.54	20.47	20.61	21.8	2.7
3	64QAM	8	4	20.53	20.54	20.56		
3	64QAM	8	7	20.60	20.44	20.62		
3	64QAM	15	0	20.51	20.40	20.54		
Channel				26697	26865	27033	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				814.7	831.5	848.3		
1.4	QPSK	1	0	23.59	23.50	23.72	24.5	0
1.4	QPSK	1	3	23.72	23.46	23.68		
1.4	QPSK	1	5	23.54	23.49	23.71		
1.4	QPSK	3	0	23.61	23.62	23.59		
1.4	QPSK	3	1	23.73	23.48	23.59		
1.4	QPSK	3	3	23.58	23.41	23.60		
1.4	QPSK	6	0	22.74	22.49	22.65	23.5	1
1.4	16QAM	1	0	22.98	22.87	22.87	23.8	0.7
1.4	16QAM	1	3	22.73	22.79	22.95		
1.4	16QAM	1	5	22.86	22.92	22.99		
1.4	16QAM	3	0	22.61	22.56	22.75		
1.4	16QAM	3	1	22.55	22.50	22.74		
1.4	16QAM	3	3	22.82	22.66	22.74		
1.4	16QAM	6	0	21.61	21.49	21.68	22.8	1.7
1.4	64QAM	1	0	21.62	21.56	21.72	22.8	1.7
1.4	64QAM	1	3	21.66	21.55	21.82		
1.4	64QAM	1	5	21.86	21.68	21.76		
1.4	64QAM	3	0	21.61	21.50	21.76		
1.4	64QAM	3	1	21.73	21.61	21.60		
1.4	64QAM	3	3	21.55	21.52	21.66		
1.4	64QAM	6	0	20.54	20.44	20.49	21.8	2.7

<TDD LTE SAR Measurement>

TDD LTE configuration setup for SAR measurement

SAR was tested with a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by 3GPP.

- a. 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table 4.2-2 for uplink-downlink configurations
- b. "special subframe S" contains both uplink and downlink transmissions, it has been taken into consideration to determine the transmission duty factor according to the worst case uplink and downlink cyclic prefix requirements for UpPTS
- c. Establishing connections with base station simulators ensure a consistent means for testing SAR and recommended for evaluating SAR. The Anritsu MT8820C (firmware: #22.52#004) was used for LTE output power measurements and SAR testing.

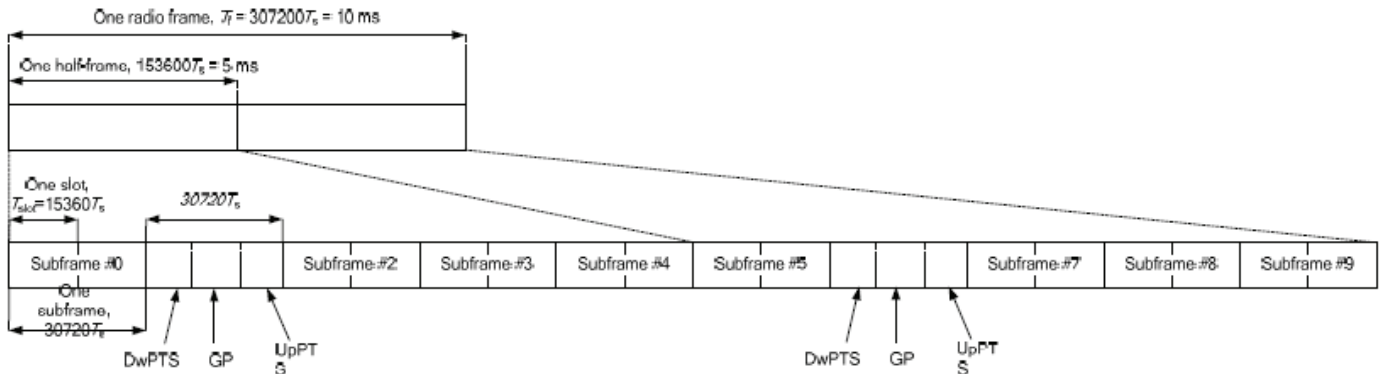


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

Table 4.2-2: Uplink-downlink configurations.

Uplink-downlink configuration	Downlink-to-Uplink Switch-point periodicity	Subframe number									
		0	1	2	3	4	5	6	7	8	9
0	5 ms	D	S	U	U	U	D	S	U	U	U
1	5 ms	D	S	U	U	D	D	S	U	U	D
2	5 ms	D	S	U	D	D	D	S	U	D	D
3	10 ms	D	S	U	U	U	D	D	D	D	D
4	10 ms	D	S	U	U	D	D	D	D	D	D
5	10 ms	D	S	U	D	D	D	D	D	D	D
6	5 ms	D	S	U	U	U	D	S	U	U	D

Table 4.2-1: Configuration of special subframe (lengths of DwPTS/GP/UpPTS).

Special subframe configuration	Normal cyclic prefix in downlink			Extended cyclic prefix in downlink		
	DwPTS	UpPTS		DwPTS	UpPTS	
		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
0	6592 · Ts	2192 · Ts	2560 · Ts	7680 · Ts	2192 · Ts	2560 · Ts
1	19760 · Ts			20480 · Ts		
2	21952 · Ts			23040 · Ts		
3	24144 · Ts			25600 · Ts		
4	26336 · Ts			7680 · Ts	4384 · Ts	5120 · Ts
5	6592 · Ts	4384 · Ts	5120 · Ts	20480 · Ts		
6	19760 · Ts			23040 · Ts		
7	21952 · Ts			12800 · Ts		
8	24144 · Ts			-	-	-
9	13168 · Ts			-		

Special subframe (30720·T_s): Normal cyclic prefix in downlink (UpPTS)			
	Special subframe configuration	Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
Uplink duty factor in one special subframe	0~4	7.13%	8.33%
	5~9	14.3%	16.7%

Special subframe(30720·T_s): Extended cyclic prefix in downlink (UpPTS)			
	Special subframe configuration	Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
Uplink duty factor in one special subframe	0~3	7.13%	8.33%
	4~7	14.3%	16.7%

The highest duty factor is resulted from:

- i. Uplink-downlink configuration: 0. In a half-frame consisted of 5 subframes, uplink operation is in 3 uplink subframes and 1 special subframe.
- ii. special subframe configuration: 5-9 for normal cyclic prefix in downlink, 4-7 for extended cyclic prefix in downlink
- iii. for special subframe with extended cyclic prefix in uplink, the total uplink duty factor in one half-frame is: $(3+0.167)/5 = 63.3\%$
- iv. for special subframe with normal cyclic prefix in uplink, the total uplink duty factor in one half-frame is: $(3+0.143)/5 = 62.9\%$
- v. For TDD LTE SAR measurement, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix $63.3\%/62.9\% = 1.006$ is applied to scale-up the measured SAR result. The scaled TDD LTE SAR = measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.



<WWAN Top Antenna>

<LTE Band 38>

Full Power / Receiver off / Receiver off+BT								
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				37850	38000	38150		
Frequency (MHz)				2580	2595	2610		
20	QPSK	1	0	23.01	22.99	22.99	24.2	0
20	QPSK	1	49	22.95	22.87	22.94		
20	QPSK	1	99	23.25	23.27	23.28		
20	QPSK	50	0	21.95	22.07	22.10	23.2	1
20	QPSK	50	24	22.04	22.03	22.04		
20	QPSK	50	50	22.04	22.14	21.97		
20	QPSK	100	0	21.89	22.08	22.08	23.5	0.7
20	16QAM	1	0	21.92	22.04	22.01		
20	16QAM	1	49	21.94	21.88	21.84		
20	16QAM	1	99	22.28	22.27	22.25	22.5	1.7
20	16QAM	50	0	20.85	21.03	21.07		
20	16QAM	50	24	20.93	20.91	21.02		
20	16QAM	50	50	20.94	21.03	20.96	22.5	1.7
20	16QAM	100	0	20.94	21.03	20.98		
20	64QAM	1	0	21.01	21.02	20.96		
20	64QAM	1	49	20.83	20.86	20.82	22.5	1.7
20	64QAM	1	99	21.06	21.07	21.16		
20	64QAM	50	0	19.81	19.95	20.04		
20	64QAM	50	24	19.81	19.91	20.01	21.5	2.7
20	64QAM	50	50	19.95	20.03	20.08		
20	64QAM	100	0	19.95	19.99	19.99		



Channel				37825	38000	38175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2577.5	2595	2612.5		
15	QPSK	1	0	23.09	22.93	23.09	24.2	0
15	QPSK	1	37	22.96	23.00	22.91		
15	QPSK	1	74	23.03	23.09	23.08		
15	QPSK	36	0	21.98	22.09	22.12	23.2	1
15	QPSK	36	20	22.11	22.04	22.10		
15	QPSK	36	39	22.04	22.18	21.97		
15	QPSK	75	0	22.11	22.08	22.12	23.5	0.7
15	16QAM	1	0	21.90	22.16	22.11		
15	16QAM	1	37	21.93	21.91	21.84		
15	16QAM	1	74	22.13	22.21	22.10	22.5	1.7
15	16QAM	36	0	20.91	21.06	21.05		
15	16QAM	36	20	21.03	21.07	21.06		
15	16QAM	36	39	20.97	21.09	20.96	21.5	2.7
15	16QAM	75	0	21.01	21.06	21.04		
15	64QAM	1	0	20.77	20.85	21.03		
15	64QAM	1	37	20.72	20.62	20.61	22.5	1.7
15	64QAM	1	74	20.94	21.01	21.01		
15	64QAM	36	0	19.87	20.07	20.04		
15	64QAM	36	20	20.06	20.07	20.04	21.5	2.7
15	64QAM	36	39	19.99	20.10	19.95		
15	64QAM	75	0	20.03	20.01	20.04		
Channel				37800	38000	38200	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2575	2595	2615		
10	QPSK	1	0	22.91	22.96	23.12	24.2	0
10	QPSK	1	25	22.99	23.01	23.00		
10	QPSK	1	49	23.01	23.10	23.11		
10	QPSK	25	0	21.90	22.11	22.11	23.2	1
10	QPSK	25	12	21.90	22.07	22.09		
10	QPSK	25	25	22.03	22.12	21.95		
10	QPSK	50	0	21.89	22.08	22.07	23.5	0.7
10	16QAM	1	0	21.90	21.89	22.15		
10	16QAM	1	25	21.95	22.01	21.99		
10	16QAM	1	49	21.91	22.13	22.14	22.5	1.7
10	16QAM	25	0	20.95	21.02	21.03		
10	16QAM	25	12	20.87	20.92	20.99		
10	16QAM	25	25	20.93	20.81	21.05	22.5	1.7
10	16QAM	50	0	20.95	20.98	21.05		
10	64QAM	1	0	20.84	21.01	20.86		
10	64QAM	1	25	20.94	20.92	20.93	21.5	2.7
10	64QAM	1	49	21.00	21.04	21.09		
10	64QAM	25	0	20.01	19.98	20.00		
10	64QAM	25	12	19.94	19.95	19.98	21.5	2.7
10	64QAM	25	25	19.94	19.93	20.04		
10	64QAM	50	0	19.95	19.98	20.04		



Channel				37775	38000	38225	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2572.5	2595	2617.5		
5	QPSK	1	0	23.02	23.05	23.12	24.2	0
5	QPSK	1	12	22.84	22.88	23.11		
5	QPSK	1	24	22.88	23.07	23.04		
5	QPSK	12	0	21.95	22.12	22.12	23.2	1
5	QPSK	12	7	21.93	22.12	22.10		
5	QPSK	12	13	21.96	22.18	22.06		
5	QPSK	25	0	22.00	22.11	22.06		
5	16QAM	1	0	22.11	22.00	22.14	23.5	0.7
5	16QAM	1	12	21.82	21.90	21.80		
5	16QAM	1	24	21.87	22.13	21.93		
5	16QAM	12	0	20.84	21.00	21.05	22.5	1.7
5	16QAM	12	7	20.82	20.93	21.02		
5	16QAM	12	13	20.86	21.10	21.08		
5	16QAM	25	0	20.90	21.03	21.03		
5	64QAM	1	0	20.81	20.90	20.99	22.5	1.7
5	64QAM	1	12	20.79	20.68	20.72		
5	64QAM	1	24	20.82	21.01	20.99		
5	64QAM	12	0	19.85	20.01	20.05	21.5	2.7
5	64QAM	12	7	19.83	19.98	20.04		
5	64QAM	12	13	19.88	20.03	20.10		
5	64QAM	25	0	19.84	19.98	19.98		



Receiver on / Receiver on+BT								
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			37850	38000	38150			
Frequency (MHz)			2580	2595	2610			
20	QPSK	1	0	21.97	21.86	22.09	23.2	0
20	QPSK	1	49	21.78	21.94	21.91		
20	QPSK	1	99	22.21	22.20	22.26		
20	QPSK	50	0	21.89	22.02	22.07	23.2	0
20	QPSK	50	24	21.92	21.97	22.05		
20	QPSK	50	50	21.95	22.09	21.87		
20	QPSK	100	0	22.05	22.02	22.02	23.2	0
20	16QAM	1	0	22.04	22.00	21.99		
20	16QAM	1	49	21.88	21.71	21.70		
20	16QAM	1	99	22.11	22.20	22.18	22.2	1
20	16QAM	50	0	20.78	21.00	21.03		
20	16QAM	50	24	20.90	20.84	20.96		
20	16QAM	50	50	20.93	21.07	20.84	22.2	1
20	16QAM	100	0	20.90	21.02	20.98		
20	64QAM	1	0	21.06	21.03	21.07		
20	64QAM	1	49	20.92	20.94	20.82	22.2	1
20	64QAM	1	99	21.12	21.23	21.22		
20	64QAM	50	0	19.88	19.96	20.13		
20	64QAM	50	24	19.96	19.92	20.06	21.2	2
20	64QAM	50	50	20.00	20.16	19.93		
20	64QAM	100	0	19.98	20.10	20.06		



Channel				37825	38000	38175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2577.5	2595	2612.5		
15	QPSK	1	0	22.05	21.89	22.06	23.2	0
15	QPSK	1	37	21.91	21.82	21.88		
15	QPSK	1	74	21.99	21.92	22.05		
15	QPSK	36	0	21.86	22.01	21.79	23.2	0
15	QPSK	36	20	21.94	21.99	21.93		
15	QPSK	36	39	21.99	22.13	22.03		
15	QPSK	75	0	21.94	22.02	22.00	23.2	0
15	16QAM	1	0	21.98	21.92	21.89		
15	16QAM	1	37	21.73	21.82	21.79		
15	16QAM	1	74	21.96	21.97	21.93	22.2	1
15	16QAM	36	0	20.77	20.94	20.82		
15	16QAM	36	20	20.84	20.98	20.92		
15	16QAM	36	39	20.89	21.01	20.97	22.2	1
15	16QAM	75	0	20.96	20.97	20.89		
15	64QAM	1	0	20.87	21.03	21.10		
15	64QAM	1	37	20.85	20.83	20.68	22.2	1
15	64QAM	1	74	21.06	21.13	21.06		
15	64QAM	36	0	19.88	20.08	20.11		
15	64QAM	36	20	19.80	19.83	20.10	21.2	2
15	64QAM	36	39	20.02	20.13	20.02		
15	64QAM	75	0	19.96	20.07	19.98		
Channel				37800	38000	38200	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2575	2595	2615		
10	QPSK	1	0	21.83	21.88	21.80	23.2	0
10	QPSK	1	25	21.79	21.84	21.73		
10	QPSK	1	49	21.88	21.92	21.85		
10	QPSK	25	0	22.01	22.05	21.94	23.2	0
10	QPSK	25	12	22.00	21.99	21.93		
10	QPSK	25	25	21.90	21.95	21.83		
10	QPSK	50	0	21.89	21.97	21.82	23.2	0
10	16QAM	1	0	22.03	22.07	22.03		
10	16QAM	1	25	21.96	21.99	21.89		
10	16QAM	1	49	22.10	22.12	22.03	22.2	1
10	16QAM	25	0	20.92	20.95	20.85		
10	16QAM	25	12	20.79	20.81	20.72		
10	16QAM	25	25	20.88	20.91	20.81	22.2	1
10	16QAM	50	0	20.90	20.94	20.83		
10	64QAM	1	0	20.97	21.03	20.93		
10	64QAM	1	25	21.00	20.98	20.93	22.2	1
10	64QAM	1	49	20.83	20.83	20.76		
10	64QAM	25	0	19.99	20.03	19.92		
10	64QAM	25	12	20.01	19.98	19.94	21.2	2
10	64QAM	25	25	20.08	19.86	20.01		
10	64QAM	50	0	19.83	20.01	19.76		



Channel				37775	38000	38225	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2572.5	2595	2617.5		
5	QPSK	1	0	21.87	21.92	21.98	23.2	0
5	QPSK	1	12	21.78	21.80	21.94		
5	QPSK	1	24	21.86	21.95	21.98		
5	QPSK	12	0	21.90	22.02	22.05	23.2	0
5	QPSK	12	7	21.87	22.00	22.06		
5	QPSK	12	13	21.86	22.08	21.93		
5	QPSK	25	0	21.97	21.96	22.01	23.2	0
5	16QAM	1	0	21.85	21.88	22.00		
5	16QAM	1	12	21.80	21.77	21.78		
5	16QAM	1	24	21.92	22.00	21.82	22.2	1
5	16QAM	12	0	20.90	20.97	20.96		
5	16QAM	12	7	20.86	20.96	20.93		
5	16QAM	12	13	20.84	20.74	20.77	22.2	1
5	16QAM	25	0	20.83	20.97	20.95		
5	64QAM	1	0	21.00	21.00	21.06		
5	64QAM	1	12	20.85	20.76	20.84	22.2	1
5	64QAM	1	24	20.86	21.11	21.07		
5	64QAM	12	0	19.91	20.07	20.06		
5	64QAM	12	7	19.89	20.06	20.06	21.2	2
5	64QAM	12	13	19.94	19.98	19.89		
5	64QAM	25	0	19.95	20.04	20.00		



Top antenna+WiFi 2.4G(Receiver off) / Top antenna+WiFi 2.4G(Receiver off)+BT / Top antenna+WiFi 5G(Receiver off) / Top antenna+WiFi 5G(Receiver off)+BT								
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				37850	38000	38150		
Frequency (MHz)				2580	2595	2610		
20	QPSK	1	0	22.30	22.21	22.20	23.2	0
20	QPSK	1	49	22.15	22.02	22.09		
20	QPSK	1	99	22.24	22.23	22.34		
20	QPSK	50	0	22.04	22.12	22.27	23.2	0
20	QPSK	50	24	22.02	22.17	22.19		
20	QPSK	50	50	22.09	22.14	22.25		
20	QPSK	100	0	22.13	22.23	22.23	23.2	0
20	16QAM	1	0	22.16	21.99	22.15		
20	16QAM	1	49	21.93	21.87	21.80		
20	16QAM	1	99	22.22	21.98	22.12	22.2	1
20	16QAM	50	0	20.94	21.10	21.21		
20	16QAM	50	24	20.91	20.97	21.15		
20	16QAM	50	50	20.99	21.13	20.96	22.5	0.7
20	16QAM	100	0	21.03	21.14	21.14		
20	64QAM	1	0	21.07	21.23	21.11		
20	64QAM	1	49	20.89	21.01	20.94	21.5	1.7
20	64QAM	1	99	20.99	21.21	21.32		
20	64QAM	50	0	19.95	20.13	20.24		
20	64QAM	50	24	19.95	20.00	20.15	21.5	1.7
20	64QAM	50	50	19.93	20.06	20.00		
20	64QAM	100	0	19.98	20.07	20.14		



Channel				37825	38000	38175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2577.5	2595	2612.5		
15	QPSK	1	0	22.01	22.15	22.23	23.2	0
15	QPSK	1	37	21.97	21.84	21.87		
15	QPSK	1	74	22.09	22.03	22.12		
15	QPSK	36	0	22.00	22.20	22.24	23.2	0
15	QPSK	36	20	22.09	22.11	22.21		
15	QPSK	36	39	21.99	22.18	22.05		
15	QPSK	75	0	22.08	22.14	22.22	23.2	0
15	16QAM	1	0	22.06	22.09	22.15		
15	16QAM	1	37	21.91	21.92	21.81		
15	16QAM	1	74	21.82	22.01	22.05	22.2	1
15	16QAM	36	0	20.92	21.13	21.18		
15	16QAM	36	20	20.96	21.08	21.14		
15	16QAM	36	39	20.99	21.16	21.01	22.5	0.7
15	16QAM	75	0	20.95	21.12	21.14		
15	64QAM	1	0	20.87	20.96	20.98		
15	64QAM	1	37	20.75	20.91	20.93	21.5	1.7
15	64QAM	1	74	20.91	20.90	20.92		
15	64QAM	36	0	19.94	20.08	20.19		
15	64QAM	36	20	20.01	20.01	20.16	21.5	1.7
15	64QAM	36	39	20.03	20.08	20.16		
15	64QAM	75	0	19.97	20.04	20.17		
Channel				37800	38000	38200	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2575	2595	2615		
10	QPSK	1	0	21.97	22.15	22.13	23.2	0
10	QPSK	1	25	21.88	21.90	22.00		
10	QPSK	1	49	22.08	21.99	22.10		
10	QPSK	25	0	21.95	22.13	22.23	23.2	0
10	QPSK	25	12	21.92	22.04	22.19		
10	QPSK	25	25	22.02	22.06	22.23		
10	QPSK	50	0	21.92	22.15	22.20	23.2	0
10	16QAM	1	0	22.02	22.04	22.09		
10	16QAM	1	25	21.98	21.77	21.85		
10	16QAM	1	49	21.91	22.02	22.03	22.2	1
10	16QAM	25	0	20.96	21.10	21.12		
10	16QAM	25	12	20.89	21.01	21.09		
10	16QAM	25	25	20.88	21.04	20.94	22.5	0.7
10	16QAM	50	0	20.82	21.02	21.15		
10	64QAM	1	0	21.02	21.19	21.14		
10	64QAM	1	25	20.93	20.74	20.80	21.5	1.7
10	64QAM	1	49	20.97	21.09	21.08		
10	64QAM	25	0	19.84	19.99	20.12		
10	64QAM	25	12	19.91	20.01	20.11	21.5	1.7
10	64QAM	25	25	19.78	20.03	20.08		
10	64QAM	50	0	19.92	20.04	20.17		



Channel				37775	38000	38225	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2572.5	2595	2617.5		
5	QPSK	1	0	22.11	22.06	22.05	23.2	0
5	QPSK	1	12	21.90	22.03	22.19		
5	QPSK	1	24	21.92	22.10	22.11		
5	QPSK	12	0	22.00	22.10	22.24	23.2	0
5	QPSK	12	7	21.97	22.17	22.23		
5	QPSK	12	13	22.02	22.22	22.06		
5	QPSK	25	0	22.03	22.12	22.22	23.2	0
5	16QAM	1	0	22.10	21.93	22.11		
5	16QAM	1	12	22.02	21.78	22.02		
5	16QAM	1	24	22.01	21.97	22.09	22.2	1
5	16QAM	12	0	20.95	21.11	21.14		
5	16QAM	12	7	20.91	21.03	21.13		
5	16QAM	12	13	20.87	21.01	21.11	22.5	0.7
5	16QAM	25	0	21.01	21.09	21.11		
5	64QAM	1	0	20.97	20.88	21.04		
5	64QAM	1	12	20.77	20.85	20.96	21.5	1.7
5	64QAM	1	24	20.93	20.94	21.10		
5	64QAM	12	0	19.90	20.06	20.17		
5	64QAM	12	7	19.89	20.04	20.13	21.5	1.7
5	64QAM	12	13	19.86	20.00	20.14		
5	64QAM	25	0	19.89	20.00	20.11		



Top antenna+WiFi 2.4G(Receiver on) / Top antenna+WiFi 2.4G(Receiver on)+BT / Top antenna+WiFi 5G(Receiver on) / Top antenna+WiFi 5G(Receiver on)+BT								
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				37850	38000	38150		
Frequency (MHz)				2580	2595	2610		
20	QPSK	1	0	21.07	21.01	21.15	22.2	0
20	QPSK	1	49	20.85	20.86	20.96		
20	QPSK	1	99	21.25	21.13	21.29		
20	QPSK	50	0	21.04	21.15	21.23	22.2	0
20	QPSK	50	24	21.07	21.08	21.15		
20	QPSK	50	50	21.15	21.04	21.19		
20	QPSK	100	0	21.19	21.14	21.21	22.2	0
20	16QAM	1	0	21.10	21.15	21.22		
20	16QAM	1	49	20.98	20.97	21.17		
20	16QAM	1	99	20.99	21.07	21.31	22.2	0
20	16QAM	50	0	20.95	21.14	21.23		
20	16QAM	50	24	20.95	21.02	21.17		
20	16QAM	50	50	20.92	21.05	20.97	22.2	0
20	16QAM	100	0	21.09	21.09	21.15		
20	64QAM	1	0	20.98	21.00	20.98		
20	64QAM	1	49	20.76	20.85	20.87	22.2	0
20	64QAM	1	99	20.95	20.93	21.02		
20	64QAM	50	0	20.08	20.15	20.30		
20	64QAM	50	24	20.08	20.03	20.22	21.2	1
20	64QAM	50	50	20.06	20.18	20.10		
20	64QAM	100	0	20.08	20.12	20.23		



Channel				37825	38000	38175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2577.5	2595	2612.5		
15	QPSK	1	0	21.00	21.07	21.09	22.2	0
15	QPSK	1	37	20.95	20.90	20.86		
15	QPSK	1	74	20.95	20.98	21.04		
15	QPSK	36	0	20.97	21.19	21.25	22.2	0
15	QPSK	36	20	21.08	21.05	21.22		
15	QPSK	36	39	21.10	21.05	21.14		
15	QPSK	75	0	21.07	21.08	21.25	22.2	0
15	16QAM	1	0	21.12	21.04	21.19		
15	16QAM	1	37	20.84	20.77	20.98		
15	16QAM	1	74	20.98	20.83	21.09	22.2	0
15	16QAM	36	0	20.93	21.08	21.18		
15	16QAM	36	20	20.98	21.00	21.16		
15	16QAM	36	39	21.01	21.07	21.18	22.2	0
15	16QAM	75	0	20.96	21.04	21.14		
15	64QAM	1	0	20.71	21.01	20.82		
15	64QAM	1	37	20.66	20.68	20.83	22.2	0
15	64QAM	1	74	20.74	20.81	20.81		
15	64QAM	36	0	20.01	20.08	20.27		
15	64QAM	36	20	20.12	20.12	20.26	21.2	1
15	64QAM	36	39	20.03	20.19	20.30		
15	64QAM	75	0	20.05	20.15	20.26		
Channel				37800	38000	38200	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2575	2595	2615		
10	QPSK	1	0	20.98	20.93	21.02	22.2	0
10	QPSK	1	25	20.92	20.76	20.98		
10	QPSK	1	49	20.98	20.99	21.12		
10	QPSK	25	0	21.14	21.20	21.18	22.2	0
10	QPSK	25	12	21.10	21.05	21.07		
10	QPSK	25	25	20.97	21.01	21.15		
10	QPSK	50	0	21.11	21.06	21.21	22.2	0
10	16QAM	1	0	21.01	21.03	21.25		
10	16QAM	1	25	20.87	20.78	20.99		
10	16QAM	1	49	21.04	20.88	21.24	22.2	0
10	16QAM	25	0	20.82	21.08	21.14		
10	16QAM	25	12	20.80	20.98	21.09		
10	16QAM	25	25	20.84	21.00	20.93	22.2	0
10	16QAM	50	0	20.81	21.00	21.11		
10	64QAM	1	0	20.66	20.93	20.91		
10	64QAM	1	25	20.61	20.55	20.71	22.2	0
10	64QAM	1	49	20.86	20.79	20.98		
10	64QAM	25	0	20.08	20.08	20.18		
10	64QAM	25	12	19.99	20.10	20.07	21.2	1
10	64QAM	25	25	19.85	20.12	20.16		
10	64QAM	50	0	20.00	20.14	20.24		



Channel				37775	38000	38225	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2572.5	2595	2617.5		
5	QPSK	1	0	20.87	21.04	20.97	22.2	0
5	QPSK	1	12	20.87	20.73	20.80		
5	QPSK	1	24	20.86	20.98	21.09		
5	QPSK	12	0	20.99	21.16	21.16	22.2	0
5	QPSK	12	7	20.98	21.07	21.19		
5	QPSK	12	13	21.06	21.05	21.24		
5	QPSK	25	0	21.08	21.03	21.16	22.2	0
5	16QAM	1	0	21.01	21.11	21.15		
5	16QAM	1	12	20.94	20.97	21.11		
5	16QAM	1	24	21.04	21.06	21.16	22.2	0
5	16QAM	12	0	20.95	21.12	21.22		
5	16QAM	12	7	20.91	21.09	21.17		
5	16QAM	12	13	20.97	21.07	21.17	22.2	0
5	16QAM	25	0	20.97	21.07	21.09		
5	64QAM	1	0	20.84	20.75	20.81		
5	64QAM	1	12	20.51	20.75	20.69	22.2	0
5	64QAM	1	24	20.85	20.75	20.78		
5	64QAM	12	0	19.98	20.15	20.16		
5	64QAM	12	7	19.95	20.10	20.16	21.2	1
5	64QAM	12	13	19.87	20.09	20.10		
5	64QAM	25	0	19.98	20.06	20.18		



Top antenna+WIFI 2.4G+5G(Receiver off) / Top antenna+WIFI 2.4G+5G(Receiver off)+BT								
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				37850	38000	38150		
Frequency (MHz)				2580	2595	2610		
20	QPSK	1	0	21.17	21.12	21.19	22.2	0
20	QPSK	1	49	21.00	21.04	21.09		
20	QPSK	1	99	21.25	21.23	21.31		
20	QPSK	50	0	21.04	21.26	21.22	22.2	0
20	QPSK	50	24	21.17	21.08	21.16		
20	QPSK	50	50	21.13	21.14	21.20		
20	QPSK	100	0	21.18	21.13	21.21	22.2	0
20	16QAM	1	0	21.35	21.27	21.31		
20	16QAM	1	49	21.15	21.10	20.96		
20	16QAM	1	99	21.33	21.22	21.35	22.2	0
20	16QAM	50	0	20.98	21.15	21.24		
20	16QAM	50	24	20.95	21.02	21.19		
20	16QAM	50	50	20.92	21.17	20.98	22.2	0
20	16QAM	100	0	21.08	21.07	21.17		
20	64QAM	1	0	21.18	21.25	21.11		
20	64QAM	1	49	20.93	20.91	20.98	22.2	0
20	64QAM	1	99	21.15	21.23	21.35		
20	64QAM	50	0	20.13	20.06	20.27		
20	64QAM	50	24	19.99	20.05	20.18	21.2	1
20	64QAM	50	50	19.96	20.08	20.00		
20	64QAM	100	0	20.01	20.10	20.13		



Channel				37825	38000	38175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2577.5	2595	2612.5		
15	QPSK	1	0	21.04	21.08	21.15	22.2	0
15	QPSK	1	37	20.98	20.88	21.01		
15	QPSK	1	74	20.98	21.03	21.12		
15	QPSK	36	0	21.02	21.16	21.21	22.2	0
15	QPSK	36	20	21.13	21.14	21.19		
15	QPSK	36	39	21.16	21.14	21.24		
15	QPSK	75	0	21.13	21.18	21.21	22.2	0
15	16QAM	1	0	21.26	21.19	21.16		
15	16QAM	1	37	20.98	20.88	20.85		
15	16QAM	1	74	21.13	21.04	21.05	22.2	0
15	16QAM	36	0	20.95	21.06	21.26		
15	16QAM	36	20	21.05	21.09	21.24		
15	16QAM	36	39	20.97	21.16	21.04	22.2	0
15	16QAM	75	0	21.05	21.14	21.20		
15	64QAM	1	0	21.09	20.98	20.93		
15	64QAM	1	37	20.82	20.96	20.69	22.2	0
15	64QAM	1	74	20.93	20.97	20.96		
15	64QAM	36	0	19.97	20.10	20.14		
15	64QAM	36	20	20.00	20.14	20.19	21.2	1
15	64QAM	36	39	20.02	20.09	20.18		
15	64QAM	75	0	19.97	20.04	20.18		
Channel				37800	38000	38200	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2575	2595	2615		
10	QPSK	1	0	21.03	20.97	21.07	22.2	0
10	QPSK	1	25	21.01	20.98	20.84		
10	QPSK	1	49	21.10	20.99	21.08		
10	QPSK	25	0	20.97	21.19	21.15	22.2	0
10	QPSK	25	12	21.09	21.09	21.18		
10	QPSK	25	25	21.07	21.00	21.13		
10	QPSK	50	0	21.08	21.10	21.19	22.2	0
10	16QAM	1	0	21.15	21.00	21.16		
10	16QAM	1	25	20.77	20.78	20.90		
10	16QAM	1	49	21.02	20.92	21.03	22.2	0
10	16QAM	25	0	21.03	21.09	21.17		
10	16QAM	25	12	20.95	21.00	21.14		
10	16QAM	25	25	20.94	21.15	21.03	22.2	0
10	16QAM	50	0	20.97	21.14	21.19		
10	64QAM	1	0	20.80	20.95	20.83		
10	64QAM	1	25	20.82	20.95	21.02	22.2	0
10	64QAM	1	49	20.84	20.89	20.90		
10	64QAM	25	0	20.07	20.00	20.08		
10	64QAM	25	12	19.99	20.01	20.14	21.2	1
10	64QAM	25	25	19.86	19.97	20.18		
10	64QAM	50	0	19.99	20.05	20.16		



Channel				37775	38000	38225	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2572.5	2595	2617.5		
5	QPSK	1	0	20.95	21.02	21.08	22.2	0
5	QPSK	1	12	20.98	21.09	21.15		
5	QPSK	1	24	21.02	21.09	21.08		
5	QPSK	12	0	21.09	21.14	21.26	22.2	0
5	QPSK	12	7	21.06	21.09	21.17		
5	QPSK	12	13	21.13	21.02	21.21		
5	QPSK	25	0	21.16	21.13	21.14	22.2	0
5	16QAM	1	0	21.15	21.00	21.09		
5	16QAM	1	12	21.09	20.86	20.94		
5	16QAM	1	24	21.05	20.94	20.99	22.2	0
5	16QAM	12	0	20.99	21.06	21.21		
5	16QAM	12	7	20.96	21.02	21.20		
5	16QAM	12	13	20.92	21.12	21.25	22.2	0
5	16QAM	25	0	20.92	21.09	21.15		
5	64QAM	1	0	20.83	20.88	20.99		
5	64QAM	1	12	20.79	20.87	20.82	22.2	0
5	64QAM	1	24	20.88	20.78	20.96		
5	64QAM	12	0	20.02	20.02	20.15		
5	64QAM	12	7	19.96	20.04	20.13	21.2	1
5	64QAM	12	13	19.95	20.01	20.13		
5	64QAM	25	0	19.93	19.98	20.14		



Top antenna+WIFI 2.4G+5G(Receiver on) / Top antenna+WIFI 2.4G+5G(Receiver on)+BT								
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			37850	38000	38150			
Frequency (MHz)			2580	2595	2610			
20	QPSK	1	0	20.28	20.13	20.23	21.2	0
20	QPSK	1	49	19.85	19.82	19.87		
20	QPSK	1	99	20.23	20.21	20.23		
20	QPSK	50	0	20.04	20.16	20.24	21.2	0
20	QPSK	50	24	20.04	20.13	20.16		
20	QPSK	50	50	20.01	20.06	20.07		
20	QPSK	100	0	20.05	20.23	20.23	21.2	0
20	16QAM	1	0	20.17	20.05	20.23		
20	16QAM	1	49	19.75	19.73	19.92		
20	16QAM	1	99	20.11	20.10	20.13	21.2	0
20	16QAM	50	0	20.13	20.08	20.17		
20	16QAM	50	24	19.99	20.00	20.10		
20	16QAM	50	50	20.07	19.96	20.01	21.2	0
20	16QAM	100	0	20.13	20.08	20.15		
20	64QAM	1	0	20.12	19.91	20.05		
20	64QAM	1	49	19.93	19.86	19.74	21.2	0
20	64QAM	1	99	19.88	20.01	20.10		
20	64QAM	50	0	20.19	20.12	20.19		
20	64QAM	50	24	20.05	19.98	20.12	21.2	0
20	64QAM	50	50	20.01	20.01	20.04		
20	64QAM	100	0	20.05	20.04	20.05		



Channel				37825	38000	38175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2577.5	2595	2612.5		
15	QPSK	1	0	20.01	20.16	20.12	21.2	0
15	QPSK	1	37	19.89	20.01	19.91		
15	QPSK	1	74	20.10	20.01	20.06		
15	QPSK	36	0	20.05	20.17	20.26	21.2	0
15	QPSK	36	20	20.03	20.20	20.11		
15	QPSK	36	39	19.99	20.06	20.12		
15	QPSK	75	0	20.03	20.25	20.25	21.2	0
15	16QAM	1	0	20.09	20.07	20.12		
15	16QAM	1	37	19.92	19.88	19.78		
15	16QAM	1	74	19.92	19.98	19.89	21.2	0
15	16QAM	36	0	20.10	20.14	20.21		
15	16QAM	36	20	20.13	20.13	20.06		
15	16QAM	36	39	20.04	19.99	20.12	21.2	0
15	16QAM	75	0	20.12	20.01	20.19		
15	64QAM	1	0	20.03	19.86	20.05		
15	64QAM	1	37	19.82	19.56	19.69	21.2	0
15	64QAM	1	74	19.83	19.81	19.88		
15	64QAM	36	0	20.15	20.17	20.10		
15	64QAM	36	20	20.06	20.02	20.09	21.2	0
15	64QAM	36	39	20.10	20.02	20.13		
15	64QAM	75	0	20.05	20.06	20.10		
Channel				37800	38000	38200	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2575	2595	2615		
10	QPSK	1	0	20.06	20.27	20.14	21.2	0
10	QPSK	1	25	19.86	19.99	20.07		
10	QPSK	1	49	20.21	20.10	20.23		
10	QPSK	25	0	20.11	20.13	20.21	21.2	0
10	QPSK	25	12	19.99	20.05	20.22		
10	QPSK	25	25	20.01	20.09	20.16		
10	QPSK	50	0	19.98	20.20	20.24	21.2	0
10	16QAM	1	0	20.09	19.98	20.02		
10	16QAM	1	25	20.04	19.85	19.76		
10	16QAM	1	49	20.15	19.93	20.02	21.2	0
10	16QAM	25	0	20.08	20.04	20.11		
10	16QAM	25	12	19.98	20.00	20.11		
10	16QAM	25	25	19.96	19.96	20.10	21.2	0
10	16QAM	50	0	19.99	20.05	20.18		
10	64QAM	1	0	19.99	20.02	19.89		
10	64QAM	1	25	19.88	19.87	19.91	21.2	0
10	64QAM	1	49	19.79	19.95	19.85		
10	64QAM	25	0	20.04	20.06	20.15		
10	64QAM	25	12	20.01	20.04	20.06	21.2	0
10	64QAM	25	25	19.99	19.99	20.01		
10	64QAM	50	0	20.02	20.01	20.08		



Channel				37775	38000	38225	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2572.5	2595	2617.5		
5	QPSK	1	0	20.09	20.13	20.13	21.2	0
5	QPSK	1	12	20.08	20.16	20.05		
5	QPSK	1	24	20.17	20.08	20.21		
5	QPSK	12	0	20.06	20.08	20.22	21.2	0
5	QPSK	12	7	20.02	20.06	20.19		
5	QPSK	12	13	19.91	20.24	20.14		
5	QPSK	25	0	20.01	20.20	20.19		
5	16QAM	1	0	20.05	20.09	20.07	21.2	0
5	16QAM	1	12	19.97	19.92	20.02		
5	16QAM	1	24	19.99	20.04	20.04		
5	16QAM	12	0	20.17	20.19	20.17	21.2	0
5	16QAM	12	7	20.13	20.09	20.21		
5	16QAM	12	13	20.08	20.08	20.13		
5	16QAM	25	0	20.04	20.00	20.10		
5	64QAM	1	0	19.95	19.90	19.88	21.2	0
5	64QAM	1	12	19.59	19.82	19.81		
5	64QAM	1	24	19.80	19.96	19.94		
5	64QAM	12	0	20.01	19.98	20.09	21.2	0
5	64QAM	12	7	20.09	20.01	20.12		
5	64QAM	12	13	19.93	19.86	20.05		
5	64QAM	25	0	20.07	20.02	20.01		



<LTE Band 41>

Full Power / Receiver off / Receiver off+BT									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Low Ch. / Freq.	Power Middle High Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				40240	40540	40840	41140		
Frequency (MHz)				2555	2585	2615	2645		
20	QPSK	1	0	22.95	22.96	23.02	22.89	24.2	0
20	QPSK	1	49	22.90	22.88	22.97	22.80		
20	QPSK	1	99	22.89	22.88	23.12	22.97		
20	QPSK	50	0	22.18	22.16	22.25	22.15	23.2	1
20	QPSK	50	24	22.16	22.18	22.22	22.10		
20	QPSK	50	50	22.14	22.14	22.26	22.17		
20	16QAM	1	0	21.97	22.02	22.15	21.91	23.5	0.7
20	16QAM	1	49	21.92	21.93	21.99	21.80		
20	16QAM	1	99	21.87	21.97	22.02	21.77		
20	16QAM	50	0	21.05	21.08	21.11	20.97	22.5	1.7
20	16QAM	50	24	21.05	21.10	21.25	21.04		
20	16QAM	50	50	21.05	21.08	21.17	21.00		
20	16QAM	100	0	20.98	21.00	21.10	20.85	22.5	1.7
20	64QAM	1	0	20.98	21.11	21.28	21.04		
20	64QAM	1	49	20.93	21.00	21.23	20.97		
20	64QAM	1	99	20.91	21.02	21.16	20.92	21.5	2.7
20	64QAM	50	0	20.23	20.28	20.30	20.16		
20	64QAM	50	24	20.28	20.30	20.34	20.23		
20	64QAM	50	50	20.22	20.29	20.36	20.18	21.5	2.7
20	64QAM	100	0	20.17	20.12	20.21	20.02		



Channel				40215	40525	40845	41165	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2552.5	2583.5	2615.5	2647.5		
15	QPSK	1	0	22.98	22.89	22.99	22.92	24.2	0
15	QPSK	1	37	22.90	22.79	22.87	22.77		
15	QPSK	1	74	22.93	22.94	23.04	22.75		
15	QPSK	36	0	21.95	21.91	22.00	21.88	23.2	1
15	QPSK	36	20	21.93	22.07	22.06	21.90		
15	QPSK	36	39	21.85	22.05	22.12	21.96		
15	QPSK	75	0	21.89	21.92	22.02	21.77	23.5	0.7
15	16QAM	1	0	21.99	21.97	21.97	21.87		
15	16QAM	1	37	21.76	21.96	21.90	21.77		
15	16QAM	1	74	21.99	22.03	22.07	21.89	22.5	1.7
15	16QAM	36	0	20.91	20.87	21.00	20.82		
15	16QAM	36	20	20.80	20.95	20.98	20.86		
15	16QAM	36	39	20.89	20.89	21.01	20.83	21.5	2.7
15	16QAM	75	0	20.80	20.77	20.96	20.77		
15	16QAM	36	20	20.02	20.16	20.18	20.06		
15	64QAM	1	0	21.01	21.01	21.10	20.87	22.5	1.7
15	64QAM	1	37	20.82	20.80	20.72	20.76		
15	64QAM	1	74	21.05	21.17	21.13	20.94		
15	64QAM	36	0	20.11	20.06	20.21	19.99	21.5	2.7
15	64QAM	36	20	20.02	20.16	20.18	20.06		
15	64QAM	36	39	20.09	20.11	20.22	20.03		
15	64QAM	75	0	20.02	20.01	20.18	20.08	24.2	0
Channel				40190	40520	40850	41190		
Frequency (MHz)				2550	2583	2616	2650	Tune-up limit (dBm)	MPR (dB)
10	QPSK	1	0	22.86	22.90	23.02	23.02		
10	QPSK	1	25	22.87	22.99	23.01	22.75	23.2	1
10	QPSK	1	49	22.83	22.96	23.01	22.76		
10	QPSK	25	0	21.91	21.93	22.08	21.92		
10	QPSK	25	12	21.86	21.88	22.07	21.84	23.5	0.7
10	QPSK	25	25	21.94	22.02	22.03	21.87		
10	QPSK	50	0	21.89	21.87	22.02	21.86		
10	16QAM	1	0	21.98	22.09	21.87	21.88	22.5	1.7
10	16QAM	1	25	21.97	22.14	21.96	21.82		
10	16QAM	1	49	21.94	22.17	22.05	21.86		
10	16QAM	25	0	20.87	20.85	20.97	20.76	22.5	1.7
10	16QAM	25	12	20.82	20.97	20.94	20.79		
10	16QAM	25	25	20.77	20.84	20.92	20.73		
10	16QAM	50	0	20.80	20.98	21.00	20.84	22.5	1.7
10	64QAM	1	0	21.02	21.09	21.03	21.07		
10	64QAM	1	25	21.15	21.17	21.15	21.15		
10	64QAM	1	49	21.00	21.16	21.18	21.03	21.5	2.7
10	64QAM	25	0	20.02	20.01	20.17	19.94		
10	64QAM	25	12	20.01	20.17	20.15	19.97		
10	64QAM	25	25	19.97	20.04	19.99	19.91	21.5	2.7
10	64QAM	50	0	19.98	20.18	20.16	20.03		



Channel				40165	40515	40865	41215	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2547.5	2582.5	2617.5	2652.5		
5	QPSK	1	0	22.82	22.84	23.00	22.83	24.2	0
5	QPSK	1	12	22.97	22.98	22.95	22.67		
5	QPSK	1	24	22.96	22.89	22.97	22.75		
5	QPSK	12	0	21.90	21.89	22.05	22.00	23.2	1
5	QPSK	12	7	21.87	21.87	22.01	21.85		
5	QPSK	12	13	21.87	21.89	22.06	21.82		
5	QPSK	25	0	21.92	21.96	22.02	21.94	23.5	0.7
5	16QAM	1	0	21.90	22.09	22.11	21.96		
5	16QAM	1	12	21.89	22.01	21.80	21.78		
5	16QAM	1	24	21.88	22.10	22.04	21.91	22.5	1.7
5	16QAM	12	0	20.84	20.85	20.97	20.95		
5	16QAM	12	7	20.85	20.98	20.97	20.80		
5	16QAM	12	13	20.94	20.92	20.98	20.77	22.5	1.7
5	16QAM	25	0	20.80	20.96	20.97	20.91		
5	64QAM	1	0	20.99	21.02	21.04	21.06		
5	64QAM	1	12	20.79	20.92	20.79	20.85	22.5	1.7
5	64QAM	1	24	20.92	21.10	21.12	21.05		
5	64QAM	12	0	20.00	19.97	20.14	20.13		
5	64QAM	12	7	20.01	20.19	20.15	19.99	21.5	2.7
5	64QAM	12	13	20.08	20.10	20.14	19.96		
5	64QAM	25	0	19.99	20.18	20.14	19.99		



Receiver on / Receiver on+BT									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Low Ch. / Freq.	Power Middle High Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				40240	40540	40840	41140		
Frequency (MHz)				2555	2585	2615	2645		
20	QPSK	1	0	21.48	21.37	21.43	21.31	22.7	0
20	QPSK	1	49	21.32	21.33	21.48	21.32		
20	QPSK	1	99	21.59	21.65	21.77	21.49		
20	QPSK	50	0	21.41	21.40	21.51	21.29	22.7	0
20	QPSK	50	24	21.39	21.41	21.37	21.44		
20	QPSK	50	50	21.47	21.40	21.58	21.48		
20	QPSK	100	0	21.37	21.34	21.40	21.31	22.7	0
20	16QAM	1	0	21.46	21.44	21.62	21.47		
20	16QAM	1	49	21.29	21.39	21.26	21.39		
20	16QAM	1	99	21.62	21.61	21.74	21.75	22.2	0.5
20	16QAM	50	0	20.80	20.78	20.96	20.72		
20	16QAM	50	24	20.75	20.84	20.89	20.64		
20	16QAM	50	50	20.84	20.78	20.92	20.69	22.2	0.5
20	16QAM	100	0	20.86	20.89	20.95	20.85		
20	64QAM	1	0	20.89	20.81	21.03	20.85		
20	64QAM	1	49	20.75	20.86	20.86	20.94	22.2	0.5
20	64QAM	1	99	21.04	21.04	21.15	21.00		
20	64QAM	50	0	19.74	19.80	19.95	19.68		
20	64QAM	50	24	19.76	19.75	19.85	19.80	21.2	1.5
20	64QAM	50	50	19.85	19.81	19.92	19.68		
20	64QAM	100	0	19.74	19.89	19.94	19.84		



Channel				40215	40525	40845	41165	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2552.5	2583.5	2615.5	2647.5		
15	QPSK	1	0	21.37	21.34	21.41	21.25	22.7	0
15	QPSK	1	37	21.16	21.32	21.21	21.25		
15	QPSK	1	74	21.39	21.39	21.47	21.32		
15	QPSK	36	0	21.37	21.40	21.51	21.31	22.7	0
15	QPSK	36	20	21.36	21.52	21.50	21.32		
15	QPSK	36	39	21.38	21.50	21.43	21.37		
15	QPSK	75	0	21.34	21.34	21.51	21.42	22.7	0
15	16QAM	1	0	21.41	21.47	21.59	21.34		
15	16QAM	1	37	21.27	21.51	21.29	21.31		
15	16QAM	1	74	21.37	21.60	21.60	21.40	22.2	0.5
15	16QAM	36	0	20.76	20.77	20.94	20.71		
15	16QAM	36	20	20.75	20.82	20.90	20.79		
15	16QAM	36	39	20.74	20.83	20.96	20.76	22.2	0.5
15	16QAM	75	0	20.79	20.74	20.93	20.82		
15	64QAM	1	0	20.95	21.03	20.99	20.82		
15	64QAM	1	37	20.87	21.03	20.82	20.73	22.2	0.5
15	64QAM	1	74	20.98	21.05	21.10	20.87		
15	64QAM	36	0	19.77	19.80	19.95	19.70		
15	64QAM	36	20	19.76	19.84	19.93	19.80	21.2	1.5
15	64QAM	36	39	19.74	19.84	19.95	19.66		
15	64QAM	75	0	19.80	19.76	19.94	19.84		
Channel				40190	40520	40850	41190	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2550	2583	2616	2650		
10	QPSK	1	0	21.37	21.36	21.49	21.26	22.7	0
10	QPSK	1	25	21.25	21.44	21.42	21.41		
10	QPSK	1	49	21.40	21.48	21.44	21.38		
10	QPSK	25	0	21.35	21.37	21.48	21.26	22.7	0
10	QPSK	25	12	21.35	21.31	21.38	21.36		
10	QPSK	25	25	21.28	21.47	21.46	21.30		
10	QPSK	50	0	21.35	21.30	21.40	21.47	22.7	0
10	16QAM	1	0	21.43	21.36	21.39	21.39		
10	16QAM	1	25	21.38	21.37	21.51	21.41		
10	16QAM	1	49	21.29	21.42	21.56	21.39	22.2	0.5
10	16QAM	25	0	20.76	20.77	20.94	20.70		
10	16QAM	25	12	20.74	20.86	20.92	20.73		
10	16QAM	25	25	20.87	20.81	20.88	20.67	22.2	0.5
10	16QAM	50	0	20.75	20.87	20.91	20.76		
10	64QAM	1	0	20.92	21.03	20.93	20.92		
10	64QAM	1	25	20.82	21.11	21.15	20.97	22.2	0.5
10	64QAM	1	49	20.89	21.09	21.07	20.90		
10	64QAM	25	0	19.72	19.74	19.90	19.66		
10	64QAM	25	12	19.70	19.85	19.87	19.70	21.2	1.5
10	64QAM	25	25	19.72	19.78	19.85	19.64		
10	64QAM	50	0	19.74	19.88	19.91	19.76		



Channel				40165	40515	40865	41215	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2547.5	2582.5	2617.5	2652.5		
5	QPSK	1	0	21.31	21.31	21.41	21.41	22.7	0
5	QPSK	1	12	21.32	21.55	21.37	21.34		
5	QPSK	1	24	21.29	21.46	21.41	21.38		
5	QPSK	12	0	21.37	21.32	21.45	21.25	22.7	0
5	QPSK	12	7	21.34	21.30	21.46	21.35		
5	QPSK	12	13	21.30	21.47	21.37	21.24		
5	QPSK	25	0	21.33	21.30	21.45	21.36	22.7	0
5	16QAM	1	0	21.32	21.47	21.56	21.29		
5	16QAM	1	12	21.31	21.47	21.29	21.23		
5	16QAM	1	24	21.33	21.63	21.58	21.38	22.2	0.5
5	16QAM	12	0	20.69	20.68	20.86	20.74		
5	16QAM	12	7	20.68	20.83	20.83	20.70		
5	16QAM	12	13	20.61	20.75	20.87	20.67	22.2	0.5
5	16QAM	25	0	20.76	20.86	20.87	20.74		
5	64QAM	1	0	20.85	20.88	21.06	20.84		
5	64QAM	1	12	20.79	20.95	21.00	20.97	22.2	0.5
5	64QAM	1	24	20.85	20.88	21.06	20.90		
5	64QAM	12	0	19.69	19.76	19.86	19.76		
5	64QAM	12	7	19.67	19.74	19.83	19.71	21.2	1.5
5	64QAM	12	13	19.62	19.75	19.86	19.69		
5	64QAM	25	0	19.70	19.85	19.84	19.71		



Top antenna+WiFi 2.4G(Receiver off) / Top antenna+WiFi 2.4G(Receiver off)+BT / Top antenna+WiFi 5G(Receiver off) / Top antenna+WiFi 5G(Receiver off)+BT									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Low Ch. / Freq.	Power Middle High Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				40240	40540	40840	41140		
Frequency (MHz)				2555	2585	2615	2645		
20	QPSK	1	0	22.71	22.59	22.69	22.67	23.7	0
20	QPSK	1	49	22.40	22.47	22.50	22.43		
20	QPSK	1	99	22.65	22.63	22.79	22.62		
20	QPSK	50	0	22.09	22.07	22.24	22.25	23.2	0.5
20	QPSK	50	24	22.00	22.00	22.15	22.05		
20	QPSK	50	50	21.98	21.99	22.18	22.10		
20	QPSK	100	0	22.07	22.13	22.20	22.06	23.2	0.5
20	16QAM	1	0	22.13	22.03	22.11	21.93		
20	16QAM	1	49	21.86	21.78	21.77	21.77		
20	16QAM	1	99	22.07	22.10	22.16	21.93	22.2	1.5
20	16QAM	50	0	20.97	20.97	21.17	20.92		
20	16QAM	50	24	20.89	20.94	21.03	21.05		
20	16QAM	50	50	20.97	20.88	21.15	20.91	22.2	1.5
20	16QAM	100	0	20.97	21.00	21.10	21.10		
20	64QAM	1	0	21.00	21.00	20.96	21.02		
20	64QAM	1	49	20.70	20.66	20.70	20.69	22.2	1.5
20	64QAM	1	99	21.01	20.94	21.09	21.01		
20	64QAM	50	0	19.97	19.96	20.18	20.12		
20	64QAM	50	24	19.90	19.95	20.02	19.96	21.2	2.5
20	64QAM	50	50	19.87	19.89	20.05	19.93		
20	64QAM	100	0	19.98	20.02	20.10	20.00		



Channel				40215	40525	40845	41165	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2552.5	2583.5	2615.5	2647.5		
15	QPSK	1	0	22.68	22.52	22.58	22.53	23.7	0
15	QPSK	1	37	22.44	22.34	22.45	22.44		
15	QPSK	1	74	22.43	22.45	22.61	22.39		
15	QPSK	36	0	22.08	22.01	22.19	22.03	23.2	0.5
15	QPSK	36	20	22.01	21.92	22.14	22.06		
15	QPSK	36	39	21.90	21.96	22.16	22.10		
15	QPSK	75	0	22.02	21.94	22.15	22.06	23.2	0.5
15	16QAM	1	0	21.99	21.94	21.96	22.08		
15	16QAM	1	37	21.85	21.88	21.66	21.87		
15	16QAM	1	74	21.81	22.00	21.86	21.88	22.2	1.5
15	16QAM	36	0	20.96	20.93	21.14	21.12		
15	16QAM	36	20	20.88	20.96	21.09	20.96		
15	16QAM	36	39	20.88	20.97	20.91	20.91	22.2	1.5
15	16QAM	75	0	20.92	21.01	21.12	20.97		
15	64QAM	1	0	21.13	20.80	20.87	20.82		
15	64QAM	1	37	20.98	20.91	20.88	20.84	22.2	1.5
15	64QAM	1	74	20.84	20.91	20.91	20.81		
15	64QAM	36	0	19.98	19.93	20.13	19.91		
15	64QAM	36	20	19.91	20.00	20.09	19.94	21.2	2.5
15	64QAM	36	39	19.91	19.89	19.93	20.00		
15	64QAM	75	0	19.91	19.84	20.08	19.97		
Channel				40190	40520	40850	41190	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2550	2583	2616	2650		
10	QPSK	1	0	22.51	22.37	22.53	22.39	23.7	0
10	QPSK	1	25	22.42	22.42	22.56	22.39		
10	QPSK	1	49	22.40	22.41	22.55	22.35		
10	QPSK	25	0	22.04	21.97	22.17	21.98	23.2	0.5
10	QPSK	25	12	22.01	22.04	22.14	21.92		
10	QPSK	25	25	22.07	21.94	22.09	21.99		
10	QPSK	50	0	22.00	22.04	22.17	21.94	23.2	0.5
10	16QAM	1	0	22.00	21.88	22.14	21.96		
10	16QAM	1	25	21.97	21.88	21.96	21.86		
10	16QAM	1	49	21.88	21.83	22.04	22.00	22.2	1.5
10	16QAM	25	0	20.96	20.87	21.10	20.90		
10	16QAM	25	12	20.92	20.99	21.05	20.83		
10	16QAM	25	25	20.89	20.83	21.06	20.93	22.2	1.5
10	16QAM	50	0	20.96	21.02	21.06	20.98		
10	64QAM	1	0	21.01	20.94	21.12	20.87		
10	64QAM	1	25	21.04	20.97	21.03	20.86	21.2	2.5
10	64QAM	1	49	20.87	20.82	20.83	20.99		
10	64QAM	25	0	19.93	19.81	20.06	19.87		
10	64QAM	25	12	19.91	19.88	20.02	19.83	21.2	2.5
10	64QAM	25	25	19.78	19.84	19.93	19.92		
10	64QAM	50	0	19.93	19.91	20.04	20.00		



Channel				40165	40515	22.55	41215	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2547.5	2582.5	2617.5	2652.5		
5	QPSK	1	0	22.53	22.42	22.56	22.52	23.7	0
5	QPSK	1	12	22.35	22.41	22.38	22.44		
5	QPSK	1	24	22.46	22.36	22.52	22.41		
5	QPSK	12	0	22.03	22.04	22.18	22.02	23.2	0.5
5	QPSK	12	7	22.03	21.98	22.13	21.93		
5	QPSK	12	13	22.08	22.00	22.10	21.92		
5	QPSK	25	0	22.03	21.91	22.16	21.95	23.2	0.5
5	16QAM	1	0	22.08	21.84	22.13	21.97		
5	16QAM	1	12	21.84	21.83	21.90	21.93		
5	16QAM	1	24	21.90	21.76	22.08	21.92	22.2	1.5
5	16QAM	12	0	20.93	20.92	21.10	21.01		
5	16QAM	12	7	20.91	20.86	21.04	20.86		
5	16QAM	12	13	20.88	20.94	21.07	20.92	22.2	1.5
5	16QAM	25	0	20.96	21.06	21.07	20.92		
5	64QAM	1	0	20.94	21.07	21.12	20.93		
5	64QAM	1	12	20.79	20.91	20.88	20.67	22.2	1.5
5	64QAM	1	24	20.89	21.03	20.83	20.83		
5	64QAM	12	0	19.91	19.86	20.10	19.89		
5	64QAM	12	7	19.89	19.81	20.05	19.84	21.2	2.5
5	64QAM	12	13	19.88	19.87	20.08	19.86		
5	64QAM	25	0	19.92	19.81	20.02	19.86		



Top antenna+WiFi 2.4G(Receiver on) / Top antenna+WiFi 2.4G(Receiver on)+BT / Top antenna+WiFi 2.4G+5G(Receiver on) / Top antenna+WiFi 2.4G+5G(Receiver on)+BT									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Low Ch. / Freq.	Power Middle High Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				40240	40540	40840	41140		
Frequency (MHz)				2555	2585	2615	2645		
20	QPSK	1	0	21.15	21.15	21.13	21.03	22.2	0
20	QPSK	1	49	20.72	20.85	20.79	20.87		
20	QPSK	1	99	21.06	21.09	21.16	21.11		
20	QPSK	50	0	21.12	21.07	21.19	21.27	22.2	0
20	QPSK	50	24	21.03	21.07	21.02	21.07		
20	QPSK	50	50	21.10	21.05	21.04	21.03		
20	QPSK	100	0	21.11	21.16	21.18	21.20	22.2	0
20	16QAM	1	0	21.16	21.09	21.12	21.09		
20	16QAM	1	49	20.68	20.77	20.70	20.75		
20	16QAM	1	99	21.02	21.13	21.08	21.16	22.2	0
20	16QAM	50	0	21.01	20.95	21.18	20.93		
20	16QAM	50	24	20.91	20.93	21.04	21.01		
20	16QAM	50	50	20.94	20.93	21.15	20.86	22.2	0
20	16QAM	100	0	20.94	20.96	21.08	21.06		
20	64QAM	1	0	20.92	20.84	20.92	21.02		
20	64QAM	1	49	20.74	20.75	20.71	20.84	22.2	0
20	64QAM	1	99	21.01	20.82	20.88	20.98		
20	64QAM	50	0	19.97	19.97	20.19	20.12		
20	64QAM	50	24	19.89	19.91	20.05	19.92	21.2	1
20	64QAM	50	50	19.86	19.86	20.06	20.00		
20	64QAM	100	0	19.93	19.99	20.08	19.96		



Channel				40215	40525	40845	41165	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2552.5	2583.5	2615.5	2647.5		
15	QPSK	1	0	21.07	21.12	21.05	21.15	22.2	0
15	QPSK	1	37	20.92	20.95	21.04	20.95		
15	QPSK	1	74	20.90	20.89	21.10	21.13		
15	QPSK	36	0	21.12	21.03	21.09	21.22	22.2	0
15	QPSK	36	20	21.00	20.90	21.06	21.11		
15	QPSK	36	39	21.07	21.07	21.11	21.01		
15	QPSK	75	0	21.09	20.93	21.08	21.10	22.2	0
15	16QAM	1	0	21.04	20.83	21.05	20.94		
15	16QAM	1	37	20.85	20.79	20.82	20.72		
15	16QAM	1	74	20.90	20.88	21.01	20.79	22.2	0
15	16QAM	36	0	20.99	20.93	21.10	20.94		
15	16QAM	36	20	20.90	20.82	21.08	21.00		
15	16QAM	36	39	20.82	20.95	21.09	20.84	22.2	0
15	16QAM	75	0	20.94	20.85	21.10	21.03		
15	64QAM	1	0	20.86	20.74	20.80	20.82		
15	64QAM	1	37	20.67	20.72	20.75	20.63	22.2	0
15	64QAM	1	74	20.77	20.68	20.80	20.68		
15	64QAM	36	0	19.96	19.96	20.13	19.92		
15	64QAM	36	20	19.91	19.96	20.06	19.92	21.2	1
15	64QAM	36	39	19.80	19.96	20.10	19.88		
15	64QAM	75	0	19.86	19.85	20.07	19.94		
Channel				40190	40520	40850	41190	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2550	2583	2616	2650		
10	QPSK	1	0	21.04	20.96	21.05	21.20	22.2	0
10	QPSK	1	25	20.94	21.04	20.89	21.01		
10	QPSK	1	49	20.91	20.93	21.02	21.10		
10	QPSK	25	0	21.15	20.98	21.15	21.14	22.2	0
10	QPSK	25	12	21.07	21.10	21.04	21.12		
10	QPSK	25	25	21.03	21.00	21.09	21.06		
10	QPSK	50	0	21.07	21.09	21.04	21.01	22.2	0
10	16QAM	1	0	21.03	20.91	21.08	21.00		
10	16QAM	1	25	20.94	20.89	20.93	20.77		
10	16QAM	1	49	20.87	20.88	20.95	20.79	22.2	0
10	16QAM	25	0	20.97	20.87	21.01	21.00		
10	16QAM	25	12	20.91	20.98	21.05	20.87		
10	16QAM	25	25	20.83	20.88	21.04	20.82	22.2	0
10	16QAM	50	0	20.87	20.98	21.05	20.92		
10	64QAM	1	0	20.95	20.82	21.00	21.06		
10	64QAM	1	25	20.89	20.88	20.89	20.85	22.2	0
10	64QAM	1	49	20.78	20.77	20.87	20.87		
10	64QAM	25	0	19.92	19.83	19.99	19.98		
10	64QAM	25	12	19.87	19.97	20.06	19.85	21.2	1
10	64QAM	25	25	19.80	19.87	20.04	19.91		
10	64QAM	50	0	19.88	19.88	19.99	19.89		



Channel				40165	40515	40865	41215	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2547.5	2582.5	2617.5	2652.5		
5	QPSK	1	0	21.00	20.97	21.03	21.16	22.2	0
5	QPSK	1	12	20.90	20.91	20.92	20.97		
5	QPSK	1	24	20.90	21.04	21.06	21.06		
5	QPSK	12	0	21.19	20.95	21.18	21.10	22.2	0
5	QPSK	12	7	21.19	21.14	21.05	21.08		
5	QPSK	12	13	21.12	21.02	21.07	21.02		
5	QPSK	25	0	21.17	21.10	21.14	20.97	22.2	0
5	16QAM	1	0	21.20	20.88	21.00	20.96		
5	16QAM	1	12	20.98	20.95	20.96	20.73		
5	16QAM	1	24	20.99	20.83	20.96	20.75	22.2	0
5	16QAM	12	0	21.00	21.01	21.07	20.96		
5	16QAM	12	7	20.96	20.90	21.02	20.83		
5	16QAM	12	13	21.05	20.90	21.00	20.78	22.2	0
5	16QAM	25	0	20.90	21.00	21.08	20.88		
5	64QAM	1	0	20.91	20.97	20.98	21.02		
5	64QAM	1	12	21.01	20.93	20.85	20.81	22.2	0
5	64QAM	1	24	20.91	21.02	20.93	20.83		
5	64QAM	12	0	19.94	19.80	20.06	19.94		
5	64QAM	12	7	19.86	19.93	19.96	19.81	21.2	1
5	64QAM	12	13	19.99	19.91	19.98	19.87		
5	64QAM	25	0	19.93	19.99	19.95	19.85		



Top antenna+WiFi 2.4G+5G(Receiver off) / Top antenna+WiFi 2.4G+5G(Receiver off)+BT									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Low Ch. / Freq.	Power Middle High Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				40240	40540	40840	41140		
Frequency (MHz)				2555	2585	2615	2645		
20	QPSK	1	0	22.18	22.09	22.29	22.28	23.2	0
20	QPSK	1	49	21.81	21.92	21.99	21.87		
20	QPSK	1	99	22.18	22.11	22.22	22.10		
20	QPSK	50	0	22.13	22.12	22.34	22.29	23.2	0
20	QPSK	50	24	22.04	22.07	22.18	22.10		
20	QPSK	50	50	22.06	22.05	22.19	22.16		
20	QPSK	100	0	22.04	22.20	22.20	22.14	23.2	0
20	16QAM	1	0	22.05	22.00	22.08	21.89		
20	16QAM	1	49	21.67	21.86	21.75	21.65		
20	16QAM	1	99	22.00	22.00	22.10	21.86	22.2	1
20	16QAM	50	0	21.05	21.05	21.23	21.19		
20	16QAM	50	24	20.98	20.98	21.09	21.05		
20	16QAM	50	50	20.95	20.98	21.19	20.91	22.2	1
20	16QAM	100	0	20.97	21.01	21.14	21.10		
20	64QAM	1	0	21.08	20.89	20.94	20.81		
20	64QAM	1	49	20.78	20.82	20.88	20.73	22.2	1
20	64QAM	1	99	20.96	20.99	20.99	20.82		
20	64QAM	50	0	20.04	20.01	20.21	20.16		
20	64QAM	50	24	19.94	19.97	20.07	19.97	21.2	2
20	64QAM	50	50	19.98	19.92	19.97	20.06		
20	64QAM	100	0	19.98	20.05	20.15	20.01		



Channel				40215	40525	40845	41165	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2552.5	2583.5	2615.5	2647.5		
15	QPSK	1	0	22.13	22.04	22.23	22.24	23.2	0
15	QPSK	1	37	21.89	21.99	21.89	21.78		
15	QPSK	1	74	21.99	22.05	22.06	21.98		
15	QPSK	36	0	22.14	22.01	22.24	22.04	23.2	0
15	QPSK	36	20	22.02	22.12	22.18	22.00		
15	QPSK	36	39	22.02	22.05	22.18	22.10		
15	QPSK	75	0	22.03	21.97	22.19	22.01	23.2	0
15	16QAM	1	0	21.96	21.89	22.29	22.17		
15	16QAM	1	37	21.88	21.81	21.98	21.95		
15	16QAM	1	74	21.83	21.83	22.18	21.87	22.2	1
15	16QAM	36	0	21.01	20.99	21.18	20.97		
15	16QAM	36	20	20.95	20.88	21.13	21.01		
15	16QAM	36	39	20.96	20.99	20.94	20.96	21.2	2
15	16QAM	75	0	20.97	21.04	21.14	21.04		
15	64QAM	1	0	20.99	20.76	20.86	20.72		
15	64QAM	1	37	20.57	20.76	20.71	20.59	22.2	1
15	64QAM	1	74	20.69	20.64	20.81	20.67		
15	64QAM	36	0	20.06	19.99	20.18	20.19		
15	64QAM	36	20	19.95	20.03	20.15	19.95	21.2	2
15	64QAM	36	39	19.88	19.94	20.09	19.90		
15	64QAM	75	0	20.00	19.87	20.10	19.96		
Channel				40190	40520	40850	41190	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2550	2583	2616	2650		
10	QPSK	1	0	22.09	22.01	22.12	21.98	23.2	0
10	QPSK	1	25	22.15	22.06	22.08	21.92		
10	QPSK	1	49	21.92	22.01	21.97	21.92		
10	QPSK	25	0	22.09	22.03	22.23	21.97	23.2	0
10	QPSK	25	12	22.07	21.94	22.18	22.04		
10	QPSK	25	25	22.08	22.04	22.21	22.10		
10	QPSK	50	0	22.02	21.94	22.16	22.00	23.2	0
10	16QAM	1	0	22.00	21.94	21.91	22.24		
10	16QAM	1	25	21.91	21.94	21.94	21.96		
10	16QAM	1	49	21.87	21.91	21.90	21.96	22.2	1
10	16QAM	25	0	20.97	20.94	21.10	20.91		
10	16QAM	25	12	20.93	20.86	21.07	20.92		
10	16QAM	25	25	20.90	20.85	21.06	21.05	22.2	1
10	16QAM	50	0	20.96	21.03	21.06	20.96		
10	64QAM	1	0	20.78	20.75	20.89	20.74		
10	64QAM	1	25	20.80	20.66	20.77	20.79	21.2	2
10	64QAM	1	49	20.68	20.71	20.61	20.67		
10	64QAM	25	0	19.97	19.86	20.10	19.86		
10	64QAM	25	12	19.94	19.92	20.07	19.92	21.2	2
10	64QAM	25	25	19.82	19.87	20.10	19.84		
10	64QAM	50	0	19.96	19.94	20.09	19.95		



Channel				40165	40515	40865	41215	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2547.5	2582.5	2617.5	2652.5		
5	QPSK	1	0	22.08	21.96	22.13	22.11	23.2	0
5	QPSK	1	12	22.05	21.98	21.97	21.87		
5	QPSK	1	24	22.00	21.88	22.01	21.96		
5	QPSK	12	0	22.07	22.09	22.18	22.06	23.2	0
5	QPSK	12	7	22.06	22.00	22.16	22.01		
5	QPSK	12	13	22.13	21.95	22.18	21.97		
5	QPSK	25	0	22.07	22.04	22.17	22.00	23.2	0
5	16QAM	1	0	21.97	22.04	22.06	21.95		
5	16QAM	1	12	22.08	21.88	21.90	21.92		
5	16QAM	1	24	21.91	21.82	22.01	21.90	22.2	1
5	16QAM	12	0	21.05	21.05	21.14	21.09		
5	16QAM	12	7	20.98	20.97	21.13	20.95		
5	16QAM	12	13	20.91	21.03	21.20	20.91	22.2	1
5	16QAM	25	0	20.98	21.02	21.12	20.91		
5	64QAM	1	0	20.81	20.73	21.00	20.78		
5	64QAM	1	12	20.71	20.74	20.80	20.68	22.2	1
5	64QAM	1	24	20.75	20.80	20.81	20.55		
5	64QAM	12	0	20.01	19.88	20.12	19.98		
5	64QAM	12	7	19.96	20.03	20.03	19.95	21.2	2
5	64QAM	12	13	20.02	19.96	20.07	19.93		
5	64QAM	25	0	19.97	19.84	20.06	19.94		



Top antenna+WiFi 2.4G+5G(Receiver on) / Top antenna+WiFi 2.4G+5G(Receiver on)+BT									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Low Ch. / Freq.	Power Middle High Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				40240	40540	40840	41140		
Frequency (MHz)				2555	2585	2615	2645		
20	QPSK	1	0	20.86	20.68	20.76	20.68	21.7	0
20	QPSK	1	49	20.41	20.43	20.42	20.53		
20	QPSK	1	99	20.65	20.70	20.84	20.79		
20	QPSK	50	0	20.69	20.57	20.78	20.54	21.7	0
20	QPSK	50	24	20.64	20.64	20.58	20.66		
20	QPSK	50	50	20.68	20.52	20.61	20.58		
20	QPSK	100	0	20.69	20.67	20.62	20.70	21.7	0
20	16QAM	1	0	20.67	20.63	20.77	20.52		
20	16QAM	1	49	20.34	20.36	20.47	20.41		
20	16QAM	1	99	20.75	20.70	20.72	20.59	21.7	0
20	16QAM	50	0	20.58	20.50	20.68	20.47		
20	16QAM	50	24	20.51	20.47	20.51	20.48		
20	16QAM	50	50	20.51	20.44	20.61	20.52	21.7	0
20	16QAM	100	0	20.59	20.61	20.65	20.60		
20	64QAM	1	0	20.59	20.51	20.54	20.47		
20	64QAM	1	49	20.40	20.25	20.35	20.31	21.7	0
20	64QAM	1	99	20.55	20.46	20.66	20.47		
20	64QAM	50	0	19.91	19.94	20.10	19.85		
20	64QAM	50	24	19.94	19.92	19.94	19.91	21.2	0.5
20	64QAM	50	50	19.80	19.89	20.03	19.84		
20	64QAM	100	0	19.93	19.81	19.97	19.96		



Channel				40215	40525	40845	41165	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2552.5	2583.5	2615.5	2647.5		
15	QPSK	1	0	20.64	20.50	20.66	20.50	21.7	0
15	QPSK	1	37	20.36	20.51	20.42	20.50		
15	QPSK	1	74	20.44	20.43	20.62	20.61		
15	QPSK	36	0	20.65	20.51	20.75	20.55	21.7	0
15	QPSK	36	20	20.57	20.65	20.70	20.65		
15	QPSK	36	39	20.68	20.64	20.63	20.68		
15	QPSK	75	0	20.60	20.69	20.73	20.68	21.7	0
15	16QAM	1	0	20.60	20.50	20.66	20.43		
15	16QAM	1	37	20.33	20.41	20.33	20.38		
15	16QAM	1	74	20.58	20.53	20.49	20.42	21.7	0
15	16QAM	36	0	20.56	20.48	20.66	20.48		
15	16QAM	36	20	20.47	20.55	20.63	20.61		
15	16QAM	36	39	20.40	20.48	20.63	20.52	21.7	0
15	16QAM	75	0	20.50	20.39	20.65	20.37		
15	64QAM	1	0	20.39	20.35	20.41	20.49		
15	64QAM	1	37	20.17	20.08	20.10	20.10	21.7	0
15	64QAM	1	74	20.31	20.27	20.35	20.31		
15	64QAM	36	0	19.91	19.90	20.08	19.88		
15	64QAM	36	20	19.92	19.99	19.93	19.93	21.2	0.5
15	64QAM	36	39	19.85	19.93	20.06	19.83		
15	64QAM	75	0	19.94	19.81	19.96	19.95		
Channel				40190	40520	40850	41190	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2550	2583	2616	2650		
10	QPSK	1	0	20.72	20.71	20.59	20.54	21.7	0
10	QPSK	1	25	20.61	20.51	20.67	20.64		
10	QPSK	1	49	20.56	20.52	20.65	20.59		
10	QPSK	25	0	20.59	20.47	20.68	20.45	21.7	0
10	QPSK	25	12	20.57	20.60	20.55	20.62		
10	QPSK	25	25	20.55	20.61	20.63	20.54		
10	QPSK	50	0	20.70	20.61	20.56	20.65	21.7	0
10	16QAM	1	0	20.51	20.54	20.57	20.47		
10	16QAM	1	25	20.32	20.66	20.50	20.55		
10	16QAM	1	49	20.38	20.62	20.53	20.48	21.7	0
10	16QAM	25	0	20.50	20.38	20.57	20.35		
10	16QAM	25	12	20.44	20.52	20.59	20.42		
10	16QAM	25	25	20.33	20.41	20.62	20.38	21.7	0
10	16QAM	50	0	20.49	20.55	20.61	20.49		
10	64QAM	1	0	20.47	20.46	20.37	20.33		
10	64QAM	1	25	20.50	20.38	20.44	20.39	21.7	0
10	64QAM	1	49	20.34	20.36	20.32	20.36		
10	64QAM	25	0	19.87	19.82	19.98	20.00		
10	64QAM	25	12	19.88	19.76	19.88	19.83	21.2	0.5
10	64QAM	25	25	19.78	19.77	19.83	19.79		
10	64QAM	50	0	19.83	19.90	19.94	19.82		



Channel				40165	40515	40865	41215	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2547.5	2582.5	2617.5	2652.5		
5	QPSK	1	0	20.71	20.64	20.57	20.67	21.7	0
5	QPSK	1	12	20.58	20.35	20.65	20.52		
5	QPSK	1	24	20.52	20.52	20.64	20.61		
5	QPSK	12	0	20.65	20.46	20.66	20.70	21.7	0
5	QPSK	12	7	20.57	20.64	20.68	20.65		
5	QPSK	12	13	20.60	20.64	20.59	20.64		
5	QPSK	25	0	20.56	20.62	20.66	20.63	21.7	0
5	16QAM	1	0	20.53	20.41	20.55	20.53		
5	16QAM	1	12	20.40	20.39	20.40	20.44		
5	16QAM	1	24	20.44	20.57	20.54	20.48	21.7	0
5	16QAM	12	0	20.58	20.40	20.60	20.57		
5	16QAM	12	7	20.50	20.59	20.61	20.52		
5	16QAM	12	13	20.42	20.50	20.53	20.52	21.7	0
5	16QAM	25	0	20.46	20.55	20.56	20.43		
5	64QAM	1	0	20.51	20.41	20.51	20.54		
5	64QAM	1	12	20.43	20.36	20.15	20.24	21.7	0
5	64QAM	1	24	20.39	20.55	20.47	20.50		
5	64QAM	12	0	19.86	19.75	19.96	19.90		
5	64QAM	12	7	19.90	19.72	19.86	19.79	21.2	0.5
5	64QAM	12	13	19.83	19.89	19.91	19.75		
5	64QAM	25	0	19.91	19.75	19.88	19.86		



<WWAN Bottom Antenna>

<LTE Band 38>

Full Power								
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				37850	38000	38150		
Frequency (MHz)				2580	2595	2610		
20	QPSK	1	0	23.19	23.09	23.04	24.2	0
20	QPSK	1	49	22.87	22.94	22.96		
20	QPSK	1	99	23.15	23.27	23.20		
20	QPSK	50	0	22.01	22.20	22.20	23.2	1
20	QPSK	50	24	22.05	22.12	22.13		
20	QPSK	50	50	22.03	22.01	22.05		
20	QPSK	100	0	21.94	22.17	22.16	23.5	0.7
20	16QAM	1	0	22.19	22.33	22.23		
20	16QAM	1	49	21.96	21.98	21.93		
20	16QAM	1	99	22.16	22.20	22.16	22.5	1.7
20	16QAM	50	0	20.91	21.08	21.12		
20	16QAM	50	24	20.90	21.01	21.03		
20	16QAM	50	50	20.90	21.02	20.86	22.5	1.7
20	16QAM	100	0	21.06	21.15	21.03		
20	64QAM	1	0	21.14	21.09	20.96		
20	64QAM	1	49	20.97	21.09	20.97	22.5	1.7
20	64QAM	1	99	21.04	21.27	21.06		
20	64QAM	50	0	20.11	20.06	20.03		
20	64QAM	50	24	19.96	19.99	19.95	21.5	2.7
20	64QAM	50	50	19.91	19.99	19.99		
20	64QAM	100	0	20.02	20.04	20.04		



Channel				37825	38000	38175	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2577.5	2595	2612.5		
15	QPSK	1	0	22.85	22.78	23.00	24.2	0
15	QPSK	1	37	22.59	22.66	22.75		
15	QPSK	1	74	22.94	23.02	22.80		
15	QPSK	36	0	21.84	21.95	21.86	23.2	1
15	QPSK	36	20	21.80	21.96	21.85		
15	QPSK	36	39	21.94	21.99	22.04		
15	QPSK	75	0	21.77	21.96	21.99	23.5	0.7
15	16QAM	1	0	21.90	21.91	21.98		
15	16QAM	1	37	21.72	21.71	21.79		
15	16QAM	1	74	21.95	21.97	21.82	22.5	1.7
15	16QAM	36	0	20.72	20.85	20.78		
15	16QAM	36	20	20.89	20.94	20.97		
15	16QAM	36	39	20.84	20.99	21.03	21.5	2.7
15	16QAM	75	0	20.90	20.96	20.94		
15	64QAM	1	0	21.80	21.88	22.13		
15	64QAM	1	37	21.81	21.79	21.79	22.5	1.7
15	64QAM	1	74	22.02	22.04	22.08		
15	64QAM	36	0	20.04	20.23	20.21		
15	64QAM	36	20	20.12	20.26	20.28	21.5	2.7
15	64QAM	36	39	20.18	20.32	20.25		
15	64QAM	75	0	20.22	20.26	20.22		
Channel				37800	38000	38200	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2575	2595	2615		
10	QPSK	1	0	22.75	22.87	23.00	24.2	0
10	QPSK	1	25	22.83	22.95	23.02		
10	QPSK	1	49	22.85	22.99	22.92		
10	QPSK	25	0	21.78	21.96	21.79	23.2	1
10	QPSK	25	12	21.78	21.94	21.98		
10	QPSK	25	25	21.91	22.01	22.02		
10	QPSK	50	0	21.78	21.95	21.98	23.5	0.7
10	16QAM	1	0	21.79	21.81	21.74		
10	16QAM	1	25	21.91	21.97	21.91		
10	16QAM	1	49	21.88	22.01	21.96	22.5	1.7
10	16QAM	25	0	20.81	20.91	20.90		
10	16QAM	25	12	20.81	20.93	20.90		
10	16QAM	25	25	20.79	20.81	20.83	22.5	1.7
10	16QAM	50	0	20.84	20.93	20.96		
10	64QAM	1	0	21.82	21.98	21.76		
10	64QAM	1	25	21.89	21.93	21.84	22.5	1.7
10	64QAM	1	49	21.92	21.95	21.75		
10	64QAM	25	0	20.13	20.18	20.05		
10	64QAM	25	12	20.13	20.20	19.97	21.5	2.7
10	64QAM	25	25	20.11	20.11	20.06		
10	64QAM	50	0	20.16	20.16	20.26		



Channel				37775	38000	38225	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2572.5	2595	2617.5		
5	QPSK	1	0	22.96	22.88	22.96	24.2	0
5	QPSK	1	12	22.89	23.00	22.84		
5	QPSK	1	24	22.86	22.99	22.82		
5	QPSK	12	0	21.76	21.99	21.99	23.2	1
5	QPSK	12	7	21.95	21.93	21.88		
5	QPSK	12	13	21.89	21.91	21.92		
5	QPSK	25	0	21.93	21.92	21.88	23.5	0.7
5	16QAM	1	0	21.68	21.92	22.08		
5	16QAM	1	12	21.65	21.71	22.06		
5	16QAM	1	24	21.87	21.98	21.95	22.5	1.7
5	16QAM	12	0	20.87	20.92	20.83		
5	16QAM	12	7	20.83	20.95	20.75		
5	16QAM	12	13	20.77	20.91	20.91	22.5	1.7
5	16QAM	25	0	20.79	20.90	20.89		
5	64QAM	1	0	21.96	21.84	21.93		
5	64QAM	1	12	21.66	21.77	21.62	22.5	1.7
5	64QAM	1	24	21.99	22.03	21.68		
5	64QAM	12	0	20.22	20.24	20.07		
5	64QAM	12	7	20.18	20.27	20.23	21.5	2.7
5	64QAM	12	13	20.13	20.26	20.13		
5	64QAM	25	0	20.10	20.22	20.20		



<LTE Band 41>

Full Power									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Low Ch. / Freq.	Power Middle High Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				40240	40540	40840	41140		
Frequency (MHz)				2555	2585	2615	2645		
20	QPSK	1	0	22.86	22.86	23.08	22.82	24.2	0
20	QPSK	1	49	22.85	22.92	22.84	22.85		
20	QPSK	1	99	23.04	23.10	23.17	23.00		
20	QPSK	50	0	21.91	21.87	21.85	21.81	23.2	1
20	QPSK	50	24	21.80	21.73	21.90	21.74		
20	QPSK	50	50	21.84	21.86	21.97	21.81		
20	QPSK	100	0	21.87	21.84	21.92	21.78	23.5	0.7
20	16QAM	1	0	21.91	21.87	21.76	21.72		
20	16QAM	1	49	21.72	21.68	21.72	21.67		
20	16QAM	1	99	21.93	21.88	22.04	21.84	22.5	1.7
20	16QAM	50	0	20.88	20.82	20.76	20.73		
20	16QAM	50	24	20.76	20.82	20.78	20.86		
20	16QAM	50	50	20.83	20.86	20.98	20.87	22.5	1.7
20	16QAM	100	0	20.83	20.96	20.92	20.90		
20	64QAM	1	0	20.92	20.77	20.79	20.83		
20	64QAM	1	49	20.72	20.66	20.65	20.60	22.5	1.7
20	64QAM	1	99	21.09	21.04	21.10	20.93		
20	64QAM	50	0	19.89	19.78	19.77	19.72		
20	64QAM	50	24	19.73	19.82	19.79	19.86	21.5	2.7
20	64QAM	50	50	19.80	19.87	19.97	19.75		
20	64QAM	100	0	19.81	19.96	19.90	19.88		



Channel				40215	40525	40845	41165	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2552.5	2583.5	2615.5	2647.5		
15	QPSK	1	0	22.70	22.82	22.96	22.92	24.2	0
15	QPSK	1	37	22.81	22.93	22.82	22.79		
15	QPSK	1	74	22.80	22.85	22.96	22.77		
15	QPSK	36	0	21.87	21.84	21.81	21.80	23.2	1
15	QPSK	36	20	21.78	21.79	21.92	21.89		
15	QPSK	36	39	21.82	21.92	22.02	21.77		
15	QPSK	75	0	21.78	21.84	21.93	21.91	23.5	0.7
15	16QAM	1	0	21.90	21.95	21.89	21.99		
15	16QAM	1	37	21.78	21.98	21.86	21.88		
15	16QAM	1	74	21.89	22.06	22.11	22.00	22.5	1.7
15	16QAM	36	0	20.79	20.76	20.79	20.75		
15	16QAM	36	20	20.69	20.86	20.92	20.82		
15	16QAM	36	39	20.73	20.82	20.84	20.78	21.5	2.7
15	16QAM	75	0	20.71	20.73	20.93	20.84		
15	16QAM	36	20	19.69	19.91	19.93	19.83		
15	64QAM	1	0	20.72	20.76	20.85	20.99	22.5	1.7
15	64QAM	1	37	20.57	20.74	20.69	20.78		
15	64QAM	1	74	20.69	20.85	21.03	20.86		
15	64QAM	36	0	19.81	19.78	19.95	19.75	21.5	2.7
15	64QAM	36	20	19.69	19.91	19.93	19.83		
15	64QAM	36	39	19.75	19.87	19.86	19.80		
15	64QAM	75	0	19.72	19.76	19.93	19.86	24.2	0
Channel				40190	40520	40850	41190		
Frequency (MHz)				2550	2583	2616	2650		
10	QPSK	1	0	22.71	22.78	22.80	22.75	24.2	0
10	QPSK	1	25	22.84	22.84	22.82	22.73		
10	QPSK	1	49	22.71	22.87	22.89	22.79		
10	QPSK	25	0	21.84	21.81	21.85	21.80	23.2	1
10	QPSK	25	12	21.79	21.79	21.92	21.75		
10	QPSK	25	25	21.74	21.86	21.86	21.80		
10	QPSK	50	0	21.75	21.80	21.94	21.76	23.5	0.7
10	16QAM	1	0	21.81	21.94	21.91	21.86		
10	16QAM	1	25	21.81	21.94	21.96	21.95		
10	16QAM	1	49	21.77	21.98	22.04	21.77	22.5	1.7
10	16QAM	25	0	20.76	20.72	20.73	20.88		
10	16QAM	25	12	20.66	20.88	20.80	20.85		
10	16QAM	25	25	20.65	20.82	20.87	20.73	22.5	1.7
10	16QAM	50	0	20.67	20.92	20.84	20.71		
10	64QAM	1	0	20.88	20.89	20.92	20.83		
10	64QAM	1	25	20.84	21.08	20.87	20.82	21.5	2.7
10	64QAM	1	49	20.83	21.04	20.93	20.88		
10	64QAM	25	0	19.76	19.73	19.71	19.70		
10	64QAM	25	12	19.69	19.91	19.82	19.66	21.5	2.7
10	64QAM	25	25	19.68	19.85	19.88	19.73		
10	64QAM	50	0	19.69	19.93	19.85	19.69		



Channel				40165	40515	40865	41215	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2547.5	2582.5	2617.5	2652.5		
5	QPSK	1	0	22.68	22.78	22.87	22.91	24.2	0
5	QPSK	1	12	22.55	22.66	22.60	22.65		
5	QPSK	1	24	22.72	22.88	22.91	22.81		
5	QPSK	12	0	21.79	21.81	21.96	21.80	23.2	1
5	QPSK	12	7	21.77	21.80	21.72	21.73		
5	QPSK	12	13	21.88	21.90	21.85	21.77		
5	QPSK	25	0	21.78	21.97	21.87	21.83	23.5	0.7
5	16QAM	1	0	21.90	22.03	21.99	21.83		
5	16QAM	1	12	21.77	21.95	21.69	21.70		
5	16QAM	1	24	21.82	21.88	21.95	21.82	22.5	1.7
5	16QAM	12	0	20.74	20.89	20.88	20.73		
5	16QAM	12	7	20.70	20.77	20.88	20.86		
5	16QAM	12	13	20.83	20.85	20.79	20.82	22.5	1.7
5	16QAM	25	0	20.71	20.90	20.88	20.80		
5	64QAM	1	0	20.74	20.80	20.71	20.74		
5	64QAM	1	12	20.67	20.73	20.66	20.65	22.5	1.7
5	64QAM	1	24	20.75	20.92	20.68	20.80		
5	64QAM	12	0	19.71	19.71	19.72	19.71		
5	64QAM	12	7	19.67	19.68	19.70	19.65	21.5	2.7
5	64QAM	12	13	19.59	19.85	19.81	19.81		
5	64QAM	25	0	19.68	19.92	19.87	19.81		



<LTE Carrier Aggregation combinations>

General Note:

- 1. This device supports Carrier Aggregation on downlink only for inter and intra band, Uplink CA is not supported. For the device supports combination bands and configurations are according to 3GPP.
- 2. In applying the existing power measurement procedure of KDB 941225 D05A for DL CA SAR test exclusion, only the subset with the largest number of combinations of the frequency band and CCs in each row need consideration, and that configurations require power measurement should be highlighted in the below table.
- 3. All permutations exist. No restrictions on Pcell & SCell combinations. Only LTE Band 29A is limited to SCell.

Index	2CC	Restriction	Completely Covered by Measurement Superset
2CC #1	CA_2A-5A		No
2CC #2	CA_4A-5A		No
2CC #3	CA_4A-7A		No
2CC #4	CA_5A-7A		No
2CC #5	CA_5B		No
2CC #6	CA_7C		No
2CC #7	CA_7A-7A		No
2CC #8	CA_38C		No
2CC #9	CA_41C		No

LTE Carrier Aggregation Conducted Power (Downlink)

General Note:

- i. According to KDB941225 D05A v01r02, Uplink maximum output power measurement with downlink carrier aggregation active should be measured, using the highest output channel measured without downlink carrier aggregation, to confirm that uplink maximum output power with downlink carrier aggregation active remains within the specified tune-up tolerance limits and not more than ¼ dB higher than the maximum output measured without downlink carrier aggregation active.
- ii. Uplink maximum output power with downlink carrier aggregation active does not show more than ¼ dB higher than the maximum output power without downlink carrier aggregation active, therefore SAR evaluation with downlink carrier aggregation active can be excluded.
- iii. Selected highest measured power when downlink carrier aggregation is inactive for conducted power comparison with downlink carrier aggregation is active, to confirm that when downlink carrier aggregation is active uplink maximum output power remains within the specified tune-up tolerance limits and not more than ¼ dB higher than the maximum output power measured when downlink carrier aggregation inactive.
- iv. For non-contiguous intra-band CA, the SCC selected to provide maximum separation from the PCC and must remain fully within the downlink transmission band.
- v. For Intra-band, contiguous CA, the downlink channels selected to perform the uplink power measurement must satisfy 3GPP channel spacing (5.4.1A of 3GPP TS 36.521 or equivalent) and channel bandwidth (5.4.2A) requirements.

$$\text{Nominal channel spacing} = \left\lceil \frac{BW_{\text{Channel}(1)} + BW_{\text{Channel}(2)} - 0.1|BW_{\text{Channel}(1)} - BW_{\text{Channel}(2)}|}{0.6} \right\rceil 0.3 \text{ [MHz]}$$



<WWAN Top Antenna>

Full Power / Receiver off/Receiver off+BT													
Configure	CA List	PCC						SCC			Power		
		LTE	BW	UL	Mod.	UL	UL	LTE	BW	DL	With CA	Without CA	
		Band	(MHz)	Channel		RB	RB	Band	(MHz)	Channel	Tx. Power (dBm)	Tx. Power (dBm)	
	CA_2A-5A	Band 2	20M	19100	QPSK	1	0	Band 5	10M	2525	23.11	23.15	
		Band 5	10M	20450	QPSK	1	0	Band 2	20M	900	23.92	24.03	
	CA_4A-5A	Band 4	20M	20050	QPSK	1	0	Band 5	10M	2525	22.98	23.39	
		Band 5	10M	20450	QPSK	1	0	Band 4	20M	2175	23.87	24.03	
	CA_4A-7A	Band 4	20M	20050	QPSK	1	0	Band 7	20M	3100	22.99	23.39	
		Band 7	20M	21100	QPSK	1	99	Band 4	20M	2175	23.23	23.49	
	CA_5A-7A	Band 5	10M	20450	QPSK	1	0	Band 7	20M	3100	23.92	24.03	
Band 7		20M	21100	QPSK	1	99	Band 5	10M	2525	23.09	23.49		
Intra-Band	Contiguous	CA_5B	Band 5	10M	20450	QPSK	1	0	Band 5	10M	2549	23.72	24.03
		CA_7C	Band 7	20M	21100	QPSK	1	99	Band 7	20M	3298	23.22	23.49
		CA_38C	Band 38	20M	38150	QPSK	1	99	Band 38	20M	37952	23.16	23.28
		CA_41C	Band 41	20M	40840	QPSK	1	99	Band 41	20M	41038	22.95	23.12
	Non-Contiguous	CA_7A-7A	Band 7	20M	21100	QPSK	1	99	Band 7	5M	3425	23.31	23.49

Receiver on / Receiver on+BT													
Configure	CA List	PCC						SCC			Power		
		LTE	BW	UL	Mod.	UL#	UL	LTE	BW	DL	With CA	Without CA	
		Band	(MHz)	Channel		RB	RB	Band	(MHz)	Channel	Tx. Power (dBm)	Tx. Power (dBm)	
	CA_2A-5A	Band 2	20M	19100	16QAM	1	0	Band 5	10M	2525	20.97	21.29	
		Band 5	10M	20450	16QAM	1	49	Band 2	20M	900	20.73	20.93	
	CA_4A-5A	Band 4	20M	20050	QPSK	1	0	Band 5	10M	2525	19.61	19.89	
		Band 5	10M	20450	16QAM	1	49	Band 4	20M	2175	20.71	20.93	
	CA_4A-7A	Band 4	20M	20050	QPSK	1	0	Band 7	20M	3100	19.71	19.89	
		Band 7	20M	20850	16QAM	50	0	Band 4	20M	2175	20.17	20.48	
	CA_5A-7A	Band 5	10M	20450	16QAM	1	49	Band 7	20M	3100	20.73	20.93	
Band 7		20M	20850	16QAM	50	0	Band 5	10M	2525	20.51	20.48		
Intra-Band	Contiguous	CA_5B	Band 5	10M	20450	16QAM	1	49	Band 5	10M	2549	20.81	20.93
		CA_7C	Band 7	20M	20850	16QAM	50	0	Band 7	20M	3048	20.37	20.48
		CA_38C	Band 38	20M	38150	QPSK	1	99	Band 38	20M	37952	22.50	22.26
		CA_41C	Band 41	20M	40840	QPSK	1	99	Band 41	20M	41038	21.87	21.77
	Non-Contiguous	CA_7A-7A	Band 7	20M	20850	16QAM	50	0	Band 7	5M	3425	20.50	20.48



Top Ant+WiFi 2.4G(Receiver off)/+WiFi 2.4G(Receiver off)+BT/+WiFi 5G(Receiver off)/+WiFi 5G(Receiver off)+BT														
Configure	CA List	PCC						SCC			Power			
		LTE	BW	UL	Mod.	UL	UL	LTE	BW	DL	With CA	Without CA		
		Band	(MHz)	Channel		RB	RB	Band	(MHz)	Channel	Tx. Power	Tx. Power		
										(dBm)	(dBm)			
	CA_2A-5A	Band 2	20M	19100	16QAM	1	0	Band 5	10M	2525	22.41	22.64		
		Band 5	10M	20600	QPSK	1	0	Band 2	20M	900	23.26	23.36		
	CA_4A-5A	Band 4	20M	20050	16QAM	1	0	Band 5	10M	2525	21.95	22.24		
		Band 5	10M	20600	QPSK	1	0	Band 4	20M	2175	23.22	23.36		
	CA_4A-7A	Band 4	20M	20050	QPSK	1	0	Band 7	20M	3100	22.01	22.24		
		Band 7	20M	21100	16QAM	1	0	Band 4	20M	2175	22.57	22.84		
	CA_5A-7A	Band 5	10M	20600	QPSK	1	0	Band 7	20M	3100	23.26	23.36		
		Band 7	20M	21100	16QAM	1	0	Band 5	10M	2525	22.61	22.84		
	Intra-Band	Contiguous	CA_5B	Band 5	10M	20600	QPSK	1	0	Band 5	10M	2501	23.11	23.36
			CA_7C	Band 7	20M	21100	16QAM	1	0	Band 7	20M	3298	22.71	22.84
			CA_38C	Band 38	20M	38150	QPSK	1	99	Band 38	20M	37952	22.10	22.34
			CA_41C	Band 41	20M	40840	QPSK	1	99	Band 41	20M	41038	22.57	22.79
Non-Contiguous		CA_7A-7A	Band 7	20M	21100	16QAM	1	0	Band 7	5M	3425	22.82	22.84	

Top Ant+WiFi 2.4G(Receiver on)/+WiFi 2.4G(Receiver on)+BT/+WiFi 5G(Receiver on)/+WiFi 5G(Receiver on)+BT														
Configure	CA List	PCC						SCC			Power			
		LTE	BW	UL	Mod.	UL	UL	LTE	BW	DL	With CA	Without CA		
		Band	(MHz)	Channel		RB	RB	Band	(MHz)	Channel	Tx. Power	Tx. Power		
										(dBm)	(dBm)			
	CA_2A-5A	Band 2	20M	19100	16QAM	1	0	Band 5	10M	2525	20.42	20.52		
		Band 5	10M	20600	16QAM	1	49	Band 2	20M	900	20.27	20.34		
	CA_4A-5A	Band 4	20M	20300	16QAM	1	0	Band 5	10M	2525	18.57	18.81		
		Band 5	10M	20600	16QAM	1	49	Band 4	20M	2175	20.02	20.34		
	CA_4A-7A	Band 4	20M	20300	16QAM	1	0	Band 7	20M	3100	18.52	18.81		
		Band 7	20M	20850	16QAM	1	99	Band 4	20M	2175	19.02	19.40		
	CA_5A-7A	Band 5	10M	20600	16QAM	1	49	Band 7	20M	3100	20.27	20.34		
		Band 7	20M	20850	16QAM	1	99	Band 5	10M	2525	19.03	19.40		
	Intra-Band	Contiguous	CA_5B	Band 5	10M	20600	16QAM	1	49	Band 5	10M	2501	20.10	20.34
			CA_7C	Band 7	20M	20850	16QAM	1	99	Band 7	20M	3048	19.13	19.40
			CA_38C	Band 38	20M	38150	16QAM	1	99	Band 38	20M	37952	21.22	21.31
			CA_41C	Band 41	20M	41140	QPSK	50	0	Band 41	20M	40942	21.06	21.27
Non-Contiguous		CA_7A-7A	Band 7	20M	20850	16QAM	1	99	Band 7	5M	3425	19.23	19.40	



Top Ant+WiFi 2.4G+5G(Receiver off)/+WiFi 2.4G+5G(Receiver off)+BT														
Configure	CA List	PCC						SCC			Power			
		LTE	BW	UL	Mod.	UL	UL	LTE	BW	DL	With CA	Without CA		
		Band	(MHz)	Channel		RB	RB	Band	(MHz)	Channel	Tx. Power	Tx. Power		
									Offset			(dBm)	(dBm)	
	CA_2A-5A	Band 2	20M	19100	16QAM	1	0	Band 5	10M	2525	21.34	21.54		
		Band 5	10M	20600	QPSK	25	0	Band 2	20M	900	22.81	23.03		
	CA_4A-5A	Band 4	20M	20300	64QAM	1	99	Band 5	10M	2525	20.89	21.29		
		Band 5	10M	20600	QPSK	25	0	Band 4	20M	2175	22.77	23.03		
	CA_4A-7A	Band 4	20M	20300	64QAM	1	99	Band 7	20M	3100	20.91	21.29		
		Band 7	20M	21350	16QAM	1	49	Band 4	20M	2175	21.70	21.91		
	CA_5A-7A	Band 5	10M	20600	QPSK	25	0	Band 7	20M	3100	22.81	23.03		
		Band 7	20M	21350	16QAM	1	49	Band 5	10M	2525	21.77	21.91		
	Intra-Band	Contiguous	CA_5B	Band 5	10M	20600	QPSK	25	0	Band 5	10M	2501	22.70	23.03
			CA_7C	Band 7	20M	21100	16QAM	1	49	Band 7	20M	3298	21.71	21.91
			CA_38C	Band 38	20M	37850	16QAM	1	0	Band 38	20M	38048	21.11	21.35
			CA_41C	Band 41	20M	40840	QPSK	50	0	Band 41	20M	41038	21.98	22.34
Non-Contiguous		CA_7A-7A	Band 7	20M	21100	16QAM	1	49	Band 7	5M	3425	21.67	21.91	

Top Ant+WiFi 2.4G+5G(Receiver on)/+WiFi 2.4G+5G(Receiver on)+BT														
Configure	CA List	PCC						SCC			Power			
		LTE	BW	UL	Mod.	UL	UL	LTE	BW	DL	With CA	Without CA		
		Band	(MHz)	Channel		RB	RB	Band	(MHz)	Channel	Tx. Power	Tx. Power		
									Offset			(dBm)	(dBm)	
	CA_2A-5A	Band 2	20M	19100	64QAM	1	99	Band 5	10M	2525	19.71	19.66		
		Band 5	10M	20600	16QAM	1	0	Band 2	20M	900	19.88	19.89		
	CA_4A-5A	Band 4	20M	20050	16QAM	1	99	Band 5	10M	2525	17.66	17.81		
		Band 5	10M	20600	16QAM	1	0	Band 4	20M	2175	19.71	19.89		
	CA_4A-7A	Band 4	20M	20050	16QAM	1	99	Band 7	20M	3100	17.61	17.81		
		Band 7	20M	20850	16QAM	1	99	Band 4	20M	2175	18.48	18.40		
	CA_5A-7A	Band 5	10M	20600	16QAM	1	0	Band 7	20M	3100	19.88	19.89		
		Band 7	20M	20850	16QAM	1	99	Band 5	10M	2525	18.48	18.40		
	Intra-Band	Contiguous	CA_5B	Band 5	10M	20600	16QAM	1	0	Band 5	10M	2501	19.72	19.89
			CA_7C	Band 7	20M	20850	16QAM	1	99	Band 7	20M	3048	18.21	18.40
			CA_38C	Band 38	20M	37850	QPSK	1	0	Band 38	20M	38048	19.95	20.28
			CA_41C	Band 41	20M	40240	QPSK	1	0	Band 41	20M	40438	20.43	20.86
Non-Contiguous		CA_7A-7A	Band 7	20M	20850	16QAM	1	99	Band 7	5M	3425	18.34	18.40	

<WWAN Bottom Antenna>

Full Power / Receiver on													
Configure	CA List	PCC						SCC			Power		
		LTE	BW	UL	Mod.	UL	UL	LTE	BW	DL	With CA	Without CA	
		Band	(MHz)	Channel		RB	RB	Band	(MHz)	Channel	Tx. Power (dBm)	Tx. Power (dBm)	
Inter-Band	CA_2A-5A	Band 2	20M	19100	QPSK	1	0	Band 5	10M	2525	23.15	23.24	
		Band 5	10M	20450	QPSK	1	0	Band 2	20M	900	23.98	24.10	
	CA_4A-5A	Band 4	20M	20050	QPSK	1	0	Band 5	10M	2525	22.96	23.00	
		Band 5	10M	20450	QPSK	1	0	Band 4	20M	2175	23.84	24.10	
	CA_4A-7A	Band 4	20M	20050	QPSK	1	0	Band 7	20M	3100	22.91	23.22	
		Band 7	20M	21100	QPSK	1	99	Band 4	20M	2175	23.17	23.39	
	CA_5A-7A	Band 5	10M	20450	QPSK	1	0	Band 7	20M	3100	23.88	24.10	
		Band 7	20M	21100	QPSK	1	99	Band 5	10M	2525	23.17	23.39	
Intra-Band	Contiguous	CA_5B	Band 5	10M	20450	QPSK	1	0	Band 5	10M	2549	23.69	24.10
		CA_7C	Band 7	20M	21100	QPSK	1	99	Band 7	20M	3298	23.01	23.39
		CA_38C	Band 38	20M	38000	QPSK	1	99	Band 38	20M	38198	22.82	23.27
		CA_41C	Band 41	20M	40840	QPSK	1	99	Band 41	20M	41038	22.84	23.17
	Non-Contiguous	CA_7A-7A	Band 7	20M	21100	QPSK	1	99	Band 7	5M	3425	23.19	23.39

Receiver off													
Configure	CA List	PCC						SCC			Power		
		LTE	BW	UL	Mod.	UL	UL	LTE	BW	DL	With CA	Without CA	
		Band	(MHz)	Channel		RB	RB	Band	(MHz)	Channel	Tx. Power (dBm)	Tx. Power (dBm)	
Inter-Band	CA_4A-7A	Band 4	20M	20050	QPSK	1	0	Band 7	20M	3100	22.91	23.22	
		Band 7	20M	21100	16QAM	1	99	Band 4	20M	2175	22.00	22.06	
	CA_5A-7A	Band 5	10M	20450	QPSK	1	0	Band 7	20M	3100	23.88	24.10	
		Band 7	20M	21100	16QAM	1	99	Band 5	10M	2525	21.94	22.06	
Intra-Band	Contiguous	CA_7C	Band 7	20M	21100	16QAM	1	99	Band 7	20M	3298	22.03	22.06
	Non-Contiguous	CA_7A-7A	Band 7	20M	21100	16QAM	1	99	Band 7	5M	3425	21.83	22.06



<WLAN Conducted Power>

General Note:

1. For each antenna, transmit power in SISO operation is larger than (or equal to) the power in MIMO operation, RF exposure compliance of MIMO mode can be deduced from the compliance simultaneous transmission of antennas operating in SISO mode.
2. Per KDB 248227 D01v02r02, the simultaneous SAR provisions in KDB publication 447498 should be applied to determine simultaneous transmission SAR test exclusion for WiFi MIMO. If the sum of 1g single transmission chain SAR measurements is < 1.6W/kg and SAR peak to location ratio ≤ 0.04 , no additional SAR measurements for MIMO.
3. Per KDB 248227 D01v02r02, SAR test reduction is determined according to 802.11 transmission mode configurations and certain exposure conditions with multiple test positions. In the 2.4 GHz band, separate SAR procedures are applied to DSSS and OFDM configurations to simplify DSSS test requirements. For OFDM, in both 2.4 and 5 GHz bands, an initial test configuration must be determined for each standalone and aggregated frequency band, according to the transmission mode configuration with the highest maximum output power specified for production units to perform SAR measurements. If the same highest maximum output power applies to different combinations of channel bandwidths, modulations and data rates, additional procedures are applied to determine which test configurations require SAR measurement. When applicable, an initial test position may be applied to reduce the number of SAR measurements required for next to the ear, UMPC mini-tablet or hotspot mode configurations with multiple test positions.
4. For 2.4 GHz 802.11b DSSS, either the initial test position procedure for multiple exposure test positions or the DSSS procedure for fixed exposure position is applied; these are mutually exclusive. For 2.4 GHz and 5 GHz OFDM configurations, the initial test configuration is applied to measure SAR using either the initial test position procedure for multiple exposure test position configurations or the initial test configuration procedures for fixed exposure test conditions. Based on the reported SAR of the measured configurations and maximum output power of the transmission mode configurations that are not included in the initial test configuration, the subsequent test configuration and initial test position procedures are applied to determine if SAR measurements are required for the remaining OFDM transmission configurations. In general, the number of test channels that require SAR measurement is minimized based on maximum output power measured for the test sample(s).
5. For OFDM transmission configurations in the 2.4 GHz and 5 GHz bands, When the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel for each frequency band.
6. DSSS and OFDM configurations are considered separately according to the required SAR procedures. SAR is measured in the initial test position using the 802.11 transmission mode configuration required by the DSSS procedure or initial test configuration and subsequent test configuration(s) according to the OFDM procedures.18 The initial test position procedure is described in the following:
 - a. When the reported SAR of the initial test position is ≤ 0.4 W/kg, further SAR measurement is not required for the other test positions in that exposure configuration and 802.11 transmission mode combinations within the frequency band or aggregated band.
 - b. When the reported SAR of the test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is ≤ 0.8 W/kg or all required test position are tested.
 - c. For all positions/configurations, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.
7. In applying the test guidance, the IEEE 802.11 mode with the maximum output power (out of all modes) should be considered for testing



<2.4GHz WLAN ANT 1>

Power Level	Full Power wifi only(Receiver off)					
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
2.4GHz WLAN	802.11b 1Mbps	1	2412	16.70	18.00	100.00
		6	2437	16.90	18.00	
		11	2462	16.60	18.00	
	802.11b 2Mbps	1	2412	16.70	18.00	100.00
		6	2437	16.90	18.00	
		11	2462	16.60	18.00	
	802.11b 5.5Mbps	1	2412	17.20	19.00	98.90
		6	2437	17.50	19.00	
		11	2462	17.20	19.00	
	802.11b 11Mbps	1	2412	17.20	19.00	98.90
		6	2437	17.50	19.00	
		11	2462	17.20	19.00	
	802.11g 6Mbps	1	2412	12.90	14.00	99.05
		2	2417	17.20	18.50	
		6	2437	16.90	18.50	
		10	2457	16.70	18.50	
		11	2462	12.60	14.00	
	802.11n-HT20 MCS0	1	2412	12.70	14.00	98.98
		2	2417	16.60	18.00	
		6	2437	16.30	18.00	
		10	2457	16.10	18.00	
		11	2462	12.30	14.00	
	802.11n-HT40 MCS0	3	2422	10.30	12.00	97.28
		4	2427	14.60	16.00	
		5	2432	16.20	18.00	
		6	2437	14.40	16.00	
		7	2442	12.40	14.00	
		8	2447	10.50	12.00	
9		2452	10.40	12.00		



Power Level	Full Power wifi only(Receiver on):					
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
2.4GHz WLAN	802.11b 1Mbps	1	2412	10.60	12.10	100.00
		6	2437	10.70	12.10	
		11	2462	10.10	12.10	
	802.11g 6Mbps	1	2412	10.70	12.00	99.05
		6	2437	10.80	12.00	
		11	2462	10.50	12.00	
	802.11n-HT20 MCS0	1	2412	10.60	12.00	98.98
		6	2437	10.70	12.00	
		11	2462	10.30	12.00	
	802.11n-HT40 MCS0	3	2422	10.30	12.00	97.28
		6	2437	10.40	12.00	
		9	2452	10.40	12.00	



<2.4GHz WLAN ANT 4>

Power Level	Full Power wifi only(Receiver off)					
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
2.4GHz WLAN	802.11b 1Mbps	1	2412	16.40	18.00	100.00
		6	2437	16.50	18.00	
		11	2462	16.20	18.00	
	802.11b 2Mbps	1	2412	16.40	18.00	100.00
		6	2437	16.50	18.00	
		11	2462	16.20	18.00	
	802.11b 5.5Mbps	1	2412	17.00	19.00	98.91
		6	2437	17.20	19.00	
		11	2462	17.10	19.00	
	802.11b 11Mbps	1	2412	17.00	19.00	98.91
		6	2437	17.20	19.00	
		11	2462	17.10	19.00	
	802.11g 6Mbps	1	2412	12.80	14.00	99.05
		2	2417	16.50	18.50	
		6	2437	16.70	18.50	
		10	2457	17.10	18.50	
		11	2462	12.60	14.00	
	802.11n-HT20 MCS0	1	2412	12.60	14.00	98.98
		2	2417	16.50	18.00	
		6	2437	16.10	18.00	
		10	2457	16.00	18.00	
		11	2462	12.40	14.00	
	802.11n-HT40 MCS0	3	2422	10.30	12.00	97.28
		4	2427	14.00	16.00	
		5	2432	16.00	18.00	
		6	2437	14.00	16.00	
		7	2442	12.10	14.00	
		8	2447	10.30	12.00	
9		2452	10.20	12.00		



Power Level	Full Power wifi only(Receiver on)					
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
2.4GHz WLAN	802.11b 1Mbps	1	2412	10.40	12.10	100.00
		6	2437	10.10	12.10	
		11	2462	10.30	12.10	
	802.11g 6Mbps	1	2412	10.80	12.00	99.05
		6	2437	10.60	12.00	
		11	2462	10.50	12.00	
	802.11n-HT20 MCS0	1	2412	10.60	12.00	98.98
		6	2437	10.40	12.00	
		11	2462	10.40	12.00	
	802.11n-HT40 MCS0	3	2422	10.20	12.00	97.28
		6	2437	10.10	12.00	
		9	2452	10.30	12.00	



<2.4GHz WLAN ANT 1+4>

Power Level	Full Power wifi only(Receiver off)					
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
2.4GHz WLAN	802.11g 6Mbps	1	2412	15.96	17.00	99.05
		2	2417	19.66	21.50	
		6	2437	19.91	21.50	
		10	2457	19.91	21.50	
		11	2462	15.71	17.00	
	802.11n-HT20 MCS8	1	2412	15.81	17.00	98.34
		2	2417	19.66	21.00	
		6	2437	19.26	21.00	
		10	2457	19.16	21.00	
		11	2462	15.46	17.00	
	802.11n-HT40 MCS8	3	2422	13.21	15.00	97.38
		4	2427	17.33	19.00	
		5	2432	19.06	21.00	
		6	2437	17.22	19.00	
		7	2442	15.31	17.00	
8		2447	13.37	15.00		
9		2452	13.31	15.00		

Power Level	Full Power wifi only(Receiver on)					
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
2.4GHz WLAN	802.11g 6Mbps	1	2412	13.86	15.00	99.05
		6	2437	13.81	15.00	
		11	2462	13.61	15.00	
	802.11n-HT20 MCS8	1	2412	13.71	15.00	98.98
		6	2437	13.71	15.00	
		11	2462	13.46	15.00	
	802.11n-HT40 MCS8	3	2422	13.21	15.00	97.38
		6	2437	13.18	15.00	
		9	2452	13.31	15.00	



<5GHz WLAN ANT 4>

Power Level	Full Power wifi only(Receiver off)						1、wifi only(Receiver on) 2、 Top antenna +WiFi 2.4G/5G station/WiFi (Receiver on) or Top antenna+2.4G/5G Hotspot (Receiver on) or Top antenna+ 2.4G/5G P2P (Receiver on)				
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.2GHz WLAN	802.11a 6Mbps	36	5180	9.87	12.00	99.13	36	5180	9.85	12.10	99.13
		40	5200	16.30	18.00		40	5200	10.15	12.10	
		44	5220	16.34	18.00		44	5220	10.12	12.10	
		48	5240	16.39	18.00		48	5240	10.13	12.10	
	802.11n-HT20 MCS0	36	5180	8.95	12.00	99.06	36	5180	8.89	12.00	99.06
		40	5200	15.03	17.00		40	5200	8.95	12.00	
		44	5220	15.05	17.00		44	5220	9.06	12.00	
		48	5240	15.07	17.00		48	5240	9.09	12.00	
	802.11n-HT40 MCS0	38	5190	9.72	12.00	98.11	38	5190	9.68	12.00	98.11
		46	5230	15.22	17.00		46	5230	9.81	12.00	
	802.11ac-VHT20 MCS0	36	5180	8.43	12.00	99.07	36	5180	8.84	12.00	99.07
		40	5200	14.62	17.00		40	5200	8.94	12.00	
		44	5220	14.72	17.00		44	5220	9.02	12.00	
		48	5240	14.82	17.00		48	5240	9.04	12.00	
	802.11ac-VHT40 MCS0	38	5190	9.23	12.00	98.12	38	5190	9.62	12.00	98.12
		46	5230	15.16	17.00		46	5230	9.78	12.00	
	802.11ac-VHT80 MCS0	42	5210	9.47	12.00	97.19	42	5210	10.48	12.00	97.19



Power Level	Full Power wifi only(Receiver off)						1、wifi only(Receiver on) 2、 Top antenna +WiFi 2.4G/5G station/WiFi (Receiver on) orTop antenna+2.4G/5G Hotspot (Receiver on) orTop antenna+ 2.4G/5G P2P (Receiver on)				
5.3GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
	802.11a 6Mbps	52	5260	16.42	18.00	99.13	52	5260	9.85	12.10	99.13
		56	5280	16.48	18.00		56	5280	10.17	12.10	
		60	5300	16.60	18.00		60	5300	10.27	12.10	
		64	5320	10.37	12.00		64	5320	10.19	12.10	
	802.11n-HT20 MCS0	52	5260	15.01	17.00	99.06	52	5260	9.16	12.00	99.06
		56	5280	15.05	17.00		56	5280	9.22	12.00	
		60	5300	15.26	17.00		60	5300	9.37	12.00	
		64	5320	9.69	12.00		64	5320	9.55	12.00	
	802.11n-HT40 MCS0	54	5270	15.32	17.00	98.11	54	5270	10.03	12.00	98.11
62		5310	10.17	12.00	62		5310	10.17	12.00		
802.11ac-VHT20 MCS0	52	5260	14.91	17.00	99.07	52	5260	9.09	12.00	99.07	
	56	5280	14.95	17.00		56	5280	9.20	12.00		
	60	5300	15.20	17.00		60	5300	9.32	12.00		
	64	5320	9.44	12.00		64	5320	9.44	12.00		
802.11ac-VHT40 MCS0	54	5270	15.29	17.00	98.12	54	5270	9.99	12.00	98.12	
	62	5310	10.15	12.00		62	5310	10.15	12.00		
802.11ac-VHT80 MCS0	58	5290	10.03	12.00	97.19	58	5290	10.76	12.00	97.19	
802.11ac-VHT160 MCS0	50	5250	9.15	12.00	94.43	50	5250	9.15	12.00	94.43	



Power Level	Full Power wifi only(Receiver off)						1、wifi only(Receiver on) 2、 Top antenna +WiFi 2.4G/5G station/WiFi (Receiver on) or Top antenna+2.4G/5G Hotspot (Receiver on) or Top antenna+ 2.4G/5G P2P (Receiver on)				
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.5GHz WLAN	802.11a 6Mbps	100	5500	10.27	12.00	99.13	100	5500	10.11	12.10	99.13
		116	5580	16.68	18.00		116	5580	10.12	12.10	
		124	5620	16.42	18.00		124	5620	9.71	12.10	
		132	5660	16.58	18.00		132	5660	10.11	12.10	
		140	5700	9.56	12.00		140	5700	9.66	12.10	
		144	5720	16.06	18.00		144	5720	9.51	12.10	
	802.11n-HT20 MCS0	100	5500	9.23	12.00	99.06	100	5500	9.27	12.00	99.06
		116	5580	15.20	17.00		116	5580	8.69	12.00	
		124	5620	14.88	17.00		124	5620	8.79	12.00	
		132	5660	15.15	17.00		132	5660	8.85	12.00	
		140	5700	8.78	12.00		140	5700	9.09	12.00	
		144	5720	14.88	17.00		144	5720	9.10	12.00	
	802.11n-HT40 MCS0	102	5510	8.73	12.00	98.11	102	5510	8.73	12.00	98.11
		110	5550	14.79	17.00		110	5550	8.46	12.00	
		126	5630	14.00	17.00		126	5630	8.53	12.00	
		134	5670	8.40	12.00		134	5670	8.63	12.00	
		142	5710	14.06	17.00		142	5710	8.58	12.00	
	802.11ac-VHT20 MCS0	100	5500	9.19	12.00	99.07	100	5500	9.19	12.00	99.07
		116	5580	15.16	17.00		116	5580	8.64	12.00	
		124	5620	14.81	17.00		124	5620	8.73	12.00	
		132	5660	14.84	17.00		132	5660	8.80	12.00	
		140	5700	8.12	12.00		140	5700	9.02	12.00	
		144	5720	14.28	17.00		144	5720	9.03	12.00	
	802.11ac-VHT40 MCS0	102	5510	8.71	12.00	98.12	102	5510	8.71	12.00	98.12
		110	5550	14.74	17.00		110	5550	8.42	12.00	
		126	5630	13.95	17.00		126	5630	8.50	12.00	
		134	5670	7.97	12.00		134	5670	8.58	12.00	
		142	5710	13.73	17.00		142	5710	8.54	12.00	
	802.11ac-VHT80 MCS0	106	5530	8.73	12.00	97.19	106	5530	9.77	12.00	97.19
		122	5610	8.09	12.00		122	5610	9.47	12.00	
138		5690	13.89	17.00		138	5690	9.30	12.00		
802.11ac-VHT160 MCS0	114	5570	8.00	12.00	94.43	114	5570	8.00	12.00	94.43	



Power Level	Full Power wifi only(Receiver off)						1、wifi only(Receiver on) 2、 Top antenna +WiFi 2.4G/5G station/WiFi (Receiver on) or Top antenna+2.4G/5G Hotspot (Receiver on) or Top antenna+ 2.4G/5G P2P (Receiver on)				
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.8GHz WLAN	802.11a 6Mbps	149	5745	9.24	12.00	99.13	149	5745	9.10	11.10	99.13
		153	5765	16.08	18.00						
		157	5785	16.12	18.00		157	5785	9.12	11.10	
		161	5805	16.03	18.00						
		165	5825	8.66	12.00		165	5825	9.09	11.10	
	802.11n-HT20 MCS0	149	5745	8.60	12.00	99.06	149	5745	9.15	11.00	99.06
		153	5765	15.00	17.00						
		157	5785	15.02	17.00		157	5785	9.09	11.00	
		161	5805	14.98	17.00						
		165	5825	8.52	12.00		165	5825	8.99	11.00	
	802.11n-HT40 MCS0	151	5755	8.97	12.00	98.11	151	5755	8.97	11.00	98.11
		159	5795	8.96	12.00		159	5795	8.96	11.00	
	802.11ac-VHT20 MCS0	149	5745	8.79	12.00	99.07	149	5745	9.09	11.00	99.07
		153	5765	14.98	17.00						
		157	5785	15.01	17.00		157	5785	9.04	11.00	
		161	5805	14.95	17.00						
		165	5825	8.81	12.00		165	5825	8.94	11.00	
	802.11ac-VHT40 MCS0	151	5755	8.93	12.00	98.12	151	5755	8.93	11.00	98.12
		159	5795	8.94	12.00		159	5795	8.94	11.00	
	802.11ac-VHT80 MCS0	155	5775	9.09	12.00	97.19	155	5775	9.09	11.00	97.19



<2.4GHz Bluetooth>

General Note:

- For 2.4GHz Bluetooth SAR testing was selected 1Mbps, due to its highest average power.
- The Bluetooth duty cycle is 76.90 %, according to 2016 Oct. TCB workshop for Bluetooth SAR scaling need further consideration and the theoretical duty cycle is 100%, therefore the actual duty cycle will be scaled up to the theoretical value of Bluetooth reported SAR calculation.

BT	Channel		Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit
			DH5		2DH5		3DH5	
Low Power Level B	0-37	0	8.10	10.50	6.60	8.50	6.60	8.50
		18	7.40		5.70		5.70	
		37	8.50		6.90		6.90	
	38-52	38	9.40	11.00	9.10	9.00	9.10	9.00
		45	9.30		9.10		9.10	
		52	9.30		9.10		9.00	
	53-68	53	7.90	10.00	6.20	8.00	6.20	8.00
		60	7.70		6.00		6.00	
		68	8.00		6.30		6.30	
	69-78	69	8.40	10.50	6.80	8.50	6.80	8.50
		73	8.10		6.50		6.50	
		78	8.30		6.70		6.70	

BT	Channel		Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit
			DH5		2DH5		3DH5	
High Power Level A	0-45	0	14.60	17.00	13.20	15.20	13.20	15.20
		22	15.50		14.00		14.00	
		45	14.70		13.30		13.30	
	46-66	46	14.60	16.00	13.20	14.20	13.20	14.20
		56	14.20		12.80		12.80	
		66	13.70		12.20		12.20	
	67-70	67	13.60	15.00	12.10	13.20	12.10	13.20
		68	13.50		12.10		12.10	
		70	13.30		11.80		11.80	
	71-78	71	13.10	14.00	11.60	12.20	11.60	12.20
		74	12.40		10.90		10.90	
		78	11.70		10.20		10.20	

BT	Channel	Average power (dBm)	Tune-Up Limit
BLE v4.0	1-5	1	6.00
		3	5.50
		5	5.00
	6-31	6	5.10
		18	6.20
		31	5.80
	32-39	32	5.80
		35	6.10
		39	5.80

BT	Channel	Average power (dBm)	Tune-Up Limit
BLE v5.0	1-5	1	5.90
		3	5.50
		5	4.90
	6-31	6	5.00
		18	6.20
		31	5.80
	32-39	32	5.80
		35	6.00
		39	5.80

BT UHD: Low Power Level B

Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune Up Limit (dBm)
UHD GFSK 1M	0 - 9	0	2404	7.03
	10 - 19	18	2440	6.83
	20 - 37	37	2478	6.73
UHD GFSK 2M	0 - 9	0	2404	6.57
	10 - 19	18	2440	6.75
	20 - 37	37	2478	6.39
UHD 2M	0 - 9	0	2404	7.45
	10 - 19	18	2440	7.03
	20 - 37	37	2478	7.65
UHD 2M 8DPSK	0 - 9	0	2404	8.00
	10 - 19	18	2440	7.40
	20 - 37	37	2478	6.41
UHD 4M	0 - 8	0	2404	6.72
	10 - 18	18	2440	7.09
	20 - 36	36	2476	6.82



BT UHD: High Power Level A

Mode	Channel	Channel	Frequency (MHz)	Average power (dBm)	Tune Up Limit (dBm)
UHD GFSK 1M	0 - 9	0	2404	13.98	16.00
	10 - 19	18	2440	14.18	16.50
	20 - 30	30	2464	12.88	15.00
	31 - 34	34	2472	12.27	14.00
	35 - 37	37	2478	11.30	13.00
UHD GFSK 2M	0 - 9	0	2404	13.25	15.80
	10 - 19	18	2440	13.77	16.30
	20 - 30	30	2464	13.20	14.80
	31 - 34	34	2472	12.78	13.80
	35 - 37	37	2478	11.81	12.80
UHD 2M	0 - 9	0	2404	13.89	16.50
	10 - 19	18	2440	14.28	16.70
	20 - 30	30	2464	13.01	15.50
	31 - 34	34	2472	12.25	15.00
	35 - 37	37	2478	11.73	14.00
UHD 2M 8DPSK	0 - 9	0	2404	14.09	15.60
	10 - 19	18	2440	14.61	16.10
	20 - 30	30	2464	13.71	14.60
	31 - 34	34	2472	11.90	13.60
	35 - 37	37	2478	11.38	12.60
UHD 4M	0 - 8	0	2404	14.48	16.50
	10 - 18	18	2440	13.81	16.70
	20 - 30	30	2464	13.31	15.50
	32 - 36	36	2476	12.12	14.00



17. Antenna Location

The detail antenna location information please refers to appendix E submitted separately.

18. SAR Test Results

General Note:

1. Per KDB 447498 D01v06, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
 - a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
 - b. For SAR testing of WLAN signal with non-100% duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle)"
 - c. For WWAN: Reported SAR(W/kg)= Measured SAR(W/kg)*Tune-up Scaling Factor
 - d. For WLAN/Bluetooth: Reported SAR(W/kg)= Measured SAR(W/kg)* Duty Cycle scaling factor * Tune-up scaling factor
 - e. For TDD LTE SAR measurement, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix 63.3%/62.9% = 1.006 is applied to scale-up the measured SAR result.
The Reported TDD LTE SAR = measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.
2. Per KDB 447498 D01v06, for each exposure position, testing of other required channels within the operating mode of a frequency band is not required when the *reported* 1-g or 10-g SAR for the mid-band or highest output power channel is:
 - ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
 - ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
 - ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz
3. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is ≥ 0.8 W/kg.
4. Per KDB 648474 D04v01r03, when the reported SAR for a body-worn accessory measured without a headset connected to the handset is ≤ 1.2 W/kg, SAR testing with a headset connected to the handset is not required.
5. For 5.3GHz / 5.5GHz WLAN product specific SAR is necessary, due to an overall diagonal dimension is > 16 cm and it has no hotspot mode.
6. This device has two WWAN transmit antennas. WWAN bottom antenna is located at the bottom edge of the device, and WWAN top antenna is located at the top edge of the device which can refer to antenna location chapter. Top and Bottom antenna support the same WWAN frequency bands, and they can't transmit simultaneously.
7. When the phone is in talking mode and receiver worked, the EUT will invoke corresponding work scenarios power level.
8. When the phone away from head and near to body and receiver not worked, the EUT will invoke corresponding work scenarios power level.
9. The device has two SIM slots and supports dual SIM dual standby. The WWAN radio transmission will be enabled by either one SIM at a time (single active). After pre-scan two SIM cards power, we found test result of the SIM1 was the worse, so we chose SIM1 slot to perform all tests, SIM2 only verified the worst case of SIM1 for each position.
10. There are two batteries which with the same capacity, they are only with different suppliers. We only chose battery 1 for full test, and battery 2 only verified the worst case of battery 1 for each position.

**GSM Note:**

1. Per KDB 941225 D01v03r01, for SAR test reduction for GSM / GPRS / EDGE modes is determined by the source-based time-averaged output power including tune-up tolerance. The mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested. Therefore, GSM voice for GSM850/GSM1900 is chose to perform head SAR, GPRS 1Tx slots for GSM850 and GPRS 4Tx slots for GSM1900 are considered as the primary mode for hotspot/body SAR.
2. Other configurations of GSM / GPRS / EDGE are considered as secondary modes. The 3G SAR test reduction procedure is applied, when the maximum output power and tune-up tolerance specified for production units in a secondary mode is $\leq 1/4$ dB higher than the primary mode, SAR measurement is not required for the secondary mode.

UMTS Note:

1. Per KDB 941225 D01v03r01, for SAR testing is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".
2. Per KDB 941225 D01v03r01, RMC 12.2kbps setting is used to evaluate SAR. The maximum output power and tune-up tolerance specified for production units in HSDPA / HSUPA / DC-HSDPA is $\leq 1/4$ dB higher than RMC 12.2Kbps or when the highest reported SAR of the RMC12.2Kbps is scaled by the ratio of specified maximum output power and tune-up tolerance of HSDPA / HSUPA / DC-HSDPA to RMC12.2Kbps and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA, and according to the following RF output power, the output power results of the secondary modes (HSDPA / HSUPA / DC-HSDPA) are less than $1/4$ dB higher than the primary modes; therefore, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA.

LTE Note:

1. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
2. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
3. Per KDB 941225 D05v02r05, For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
4. Per KDB 941225 D05v02r05, 16QAM output power for each RB allocation configuration is $>$ not $1/2$ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, 16QAM SAR testing is not required.
5. Per KDB 941225 D05v02r05, Smaller bandwidth output power for each RB allocation configuration is $>$ not $1/2$ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
6. For LTE B4 / B5 / B26 / B38 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

WLAN Note:

1. Per KDB 248227 D01v02r02, for 2.4GHz 802.11g/n SAR testing is not required when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.
2. Per KDB 248227 D01v02r02, U-NII-1 SAR testing is not required when the U-NII-2A band highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band.
3. When the reported SAR of the test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is ≤ 0.8 W/kg or all required test position are tested.
4. For all positions / configurations, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions / configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.
5. For WLAN SAR testing was performed on single antenna RF power in SISO mode is larger or equal to the single antenna RF power in MIMO mode, and for RF exposure assessment of MIMO mode simultaneous transmission exclusion analysis was performed with SAR test results of each antenna in SISO mode.



6. Per KDB 248227 D01v02r02, the simultaneous SAR provisions in KDB publication 447498 should be applied to determine simultaneous transmission SAR test exclusion for WiFi MIMO. If the sum of 1g single transmission chain SAR measurements is < 1.6W/kg and SAR peak to location ratio ≤ 0.04, no additional SAR measurements for MIMO.
7. During SAR testing the WLAN transmission was verified using a spectrum analyzer.

18.1 Head SAR

<GSM SAR>

Plot No.	SIM	Battery	Band	Mode	Test Position	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
01	1	1	GSM850	GSM Voice	Right Cheek	Top	Receiver ON	189	836.4	30.19	31.50	1.352	-0.02	0.590	0.798
	1	1	GSM850	GSM Voice	Right Tilted	Top	Receiver ON	189	836.4	30.19	31.50	1.352	0.04	0.552	0.746
	1	1	GSM850	GSM Voice	Left Cheek	Top	Receiver ON	189	836.4	30.19	31.50	1.352	0.12	0.537	0.726
	1	1	GSM850	GSM Voice	Left Tilted	Top	Receiver ON	189	836.4	30.19	31.50	1.352	0.04	0.478	0.646
	2	1	GSM850	GSM Voice	Right Cheek	Top	Receiver ON	189	836.4	30.19	31.50	1.352	0.05	0.571	0.772
	1	2	GSM850	GSM Voice	Right Cheek	Top	Receiver ON	189	836.4	30.19	31.50	1.352	-0.06	0.580	0.784
	1	1	GSM850	GSM Voice	Right Cheek	Bottom	Receiver ON	251	848.8	32.12	33.20	1.282	-0.06	0.039	0.049
	1	1	GSM850	GSM Voice	Right Tilted	Bottom	Receiver ON	251	848.8	32.12	33.20	1.282	0.16	0.015	0.019
	1	1	GSM850	GSM Voice	Left Cheek	Bottom	Receiver ON	251	848.8	32.12	33.20	1.282	0.02	0.025	0.032
	1	1	GSM850	GSM Voice	Left Tilted	Bottom	Receiver ON	251	848.8	32.12	33.20	1.282	0.01	0.016	0.020
	2	1	GSM850	GSM Voice	Right Cheek	Bottom	Receiver ON	251	848.8	32.12	33.20	1.282	0.07	0.037	0.047
	1	2	GSM850	GSM Voice	Right Cheek	Bottom	Receiver ON	251	848.8	32.12	33.20	1.282	0.16	0.043	0.055
	1	1	GSM1900	GSM Voice	Right Cheek	Top	Receiver ON	661	1880	29.36	30.20	1.213	-0.02	0.484	0.587
	1	1	GSM1900	GSM Voice	Right Tilted	Top	Receiver ON	661	1880	29.36	30.20	1.213	-0.06	0.552	0.670
	1	1	GSM1900	GSM Voice	Left Cheek	Top	Receiver ON	661	1880	29.36	30.20	1.213	0.06	0.130	0.158
	1	1	GSM1900	GSM Voice	Left Tilted	Top	Receiver ON	661	1880	29.36	30.20	1.213	0.08	0.165	0.200
02	2	1	GSM1900	GSM Voice	Right Tilted	Top	Receiver ON	661	1880	29.36	30.20	1.213	0.18	0.561	0.681
	2	2	GSM1900	GSM Voice	Right Tilted	Top	Receiver ON	661	1880	29.36	30.20	1.213	-0.07	0.503	0.610
	1	1	GSM1900	GSM Voice	Right Cheek	Bottom	Receiver ON	810	1909.8	30.25	31.20	1.245	-0.16	0.079	0.098
	1	1	GSM1900	GSM Voice	Right Tilted	Bottom	Receiver ON	810	1909.8	30.25	31.20	1.245	0.12	0.055	0.068
	1	1	GSM1900	GSM Voice	Left Cheek	Bottom	Receiver ON	810	1909.8	30.25	31.20	1.245	0.12	0.113	0.141
	1	1	GSM1900	GSM Voice	Left Tilted	Bottom	Receiver ON	810	1909.8	30.25	31.20	1.245	-0.02	0.052	0.064
	2	1	GSM1900	GSM Voice	Left Cheek	Bottom	Receiver ON	810	1909.8	30.25	31.20	1.245	0.12	0.114	0.142
	2	2	GSM1900	GSM Voice	Left Cheek	Bottom	Receiver ON	810	1909.8	30.25	31.20	1.245	-0.13	0.090	0.112



<WCDMA SAR>

Plot No.	SIM	Battery	Band	Mode	Test Position	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	1	1	WCDMA Band V	RMC 12.2Kbps	Right Cheek	Top	Receiver ON	4182	836.4	21.43	22.50	1.279	-0.05	0.634	0.811
	1	1	WCDMA Band V	RMC 12.2Kbps	Right Cheek	Top	Receiver ON	4132	826.4	21.32	22.50	1.312	-0.02	0.646	0.848
	1	1	WCDMA Band V	RMC 12.2Kbps	Right Cheek	Top	Receiver ON	4233	846.6	21.29	22.50	1.321	-0.04	0.600	0.793
	1	1	WCDMA Band V	RMC 12.2Kbps	Right Tilted	Top	Receiver ON	4182	836.4	21.43	22.50	1.279	0.01	0.589	0.754
	1	1	WCDMA Band V	RMC 12.2Kbps	Left Cheek	Top	Receiver ON	4182	836.4	21.43	22.50	1.279	0.02	0.590	0.755
	1	1	WCDMA Band V	RMC 12.2Kbps	Left Tilted	Top	Receiver ON	4182	836.4	21.43	22.50	1.279	0.07	0.543	0.695
	2	1	WCDMA Band V	RMC 12.2Kbps	Right Cheek	Top	Receiver ON	4132	826.4	21.32	22.50	1.312	0.04	0.627	0.823
	2	1	WCDMA Band V	RMC 12.2Kbps	Right Cheek	Top	Receiver ON	4182	836.4	21.43	22.50	1.279	0.12	0.662	0.847
	2	1	WCDMA Band V	RMC 12.2Kbps	Right Cheek	Top	Receiver ON	4233	846.6	21.29	22.50	1.321	-0.02	0.612	0.809
	1	2	WCDMA Band V	RMC 12.2Kbps	Right Cheek	Top	Receiver ON	4132	826.4	21.32	22.50	1.312	-0.06	0.655	0.859
03	1	2	WCDMA Band V	RMC 12.2Kbps	Right Cheek	Top	Receiver ON	4182	836.4	21.43	22.50	1.279	0.01	0.732	0.937
	1	2	WCDMA Band V	RMC 12.2Kbps	Right Cheek	Top	Receiver ON	4233	846.6	21.29	22.50	1.321	0.01	0.667	0.881
	1	1	WCDMA Band V	RMC 12.2Kbps	Right Cheek	Bottom	Receiver ON	4182	836.4	24.08	25.00	1.236	0.01	0.054	0.067
	1	1	WCDMA Band V	RMC 12.2Kbps	Right Tilted	Bottom	Receiver ON	4182	836.4	24.08	25.00	1.236	-0.02	0.033	0.041
	1	1	WCDMA Band V	RMC 12.2Kbps	Left Cheek	Bottom	Receiver ON	4182	836.4	24.08	25.00	1.236	-0.01	0.034	0.042
	1	1	WCDMA Band V	RMC 12.2Kbps	Left Tilted	Bottom	Receiver ON	4182	836.4	24.08	25.00	1.236	0.03	0.039	0.049
	2	1	WCDMA Band V	RMC 12.2Kbps	Right Cheek	Bottom	Receiver ON	4182	836.4	24.08	25.00	1.236	0.09	0.050	0.061
	1	2	WCDMA Band V	RMC 12.2Kbps	Right Cheek	Bottom	Receiver ON	4182	836.4	24.08	25.00	1.236	-0.01	0.053	0.066
	1	1	WCDMA Band IV	RMC 12.2Kbps	Right Cheek	Top	Receiver ON	1413	1732.6	20.63	21.50	1.222	-0.01	0.746	0.911
	1	1	WCDMA Band IV	RMC 12.2Kbps	Right Cheek	Top	Receiver ON	1312	1712.4	20.42	21.50	1.282	0.02	0.779	0.999
	1	1	WCDMA Band IV	RMC 12.2Kbps	Right Cheek	Top	Receiver ON	1513	1752.6	20.47	21.50	1.268	0.04	0.665	0.843
	1	1	WCDMA Band IV	RMC 12.2Kbps	Right Tilted	Top	Receiver ON	1413	1732.6	20.63	21.50	1.222	0.02	0.796	0.973
04	1	1	WCDMA Band IV	RMC 12.2Kbps	Right Tilted	Top	Receiver ON	1312	1712.4	20.42	21.50	1.282	-0.01	0.821	1.053
	1	1	WCDMA Band IV	RMC 12.2Kbps	Right Tilted	Top	Receiver ON	1513	1752.6	20.47	21.50	1.268	0.06	0.757	0.960
	1	1	WCDMA Band IV	RMC 12.2Kbps	Left Cheek	Top	Receiver ON	1413	1732.6	20.63	21.50	1.222	-0.07	0.321	0.392
	1	1	WCDMA Band IV	RMC 12.2Kbps	Left Tilted	Top	Receiver ON	1413	1732.6	20.63	21.50	1.222	-0.01	0.283	0.346
	2	1	WCDMA Band IV	RMC 12.2Kbps	Right Tilted	Top	Receiver ON	1312	1712.4	20.42	21.50	1.282	0.02	0.814	1.044
	2	1	WCDMA Band IV	RMC 12.2Kbps	Right Tilted	Top	Receiver ON	1413	1732.6	20.63	21.50	1.222	0.03	0.706	0.863
	2	1	WCDMA Band IV	RMC 12.2Kbps	Right Tilted	Top	Receiver ON	1513	1752.6	20.47	21.50	1.268	-0.01	0.717	0.909
	1	2	WCDMA Band IV	RMC 12.2Kbps	Right Tilted	Top	Receiver ON	1312	1712.4	20.42	21.50	1.282	0.01	0.699	0.896
	1	2	WCDMA Band IV	RMC 12.2Kbps	Right Tilted	Top	Receiver ON	1413	1732.6	20.63	21.50	1.222	0.03	0.708	0.865
	1	2	WCDMA Band IV	RMC 12.2Kbps	Right Tilted	Top	Receiver ON	1513	1752.6	20.47	21.50	1.268	0.01	0.704	0.892
	1	1	WCDMA Band IV	RMC 12.2Kbps	Right Cheek	Bottom	Receiver ON	1413	1732.6	23.08	24.00	1.236	0.05	0.157	0.194
	1	1	WCDMA Band IV	RMC 12.2Kbps	Right Tilted	Bottom	Receiver ON	1413	1732.6	23.08	24.00	1.236	-0.02	0.087	0.107
	1	1	WCDMA Band IV	RMC 12.2Kbps	Left Cheek	Bottom	Receiver ON	1413	1732.6	23.08	24.00	1.236	-0.05	0.162	0.200
	1	1	WCDMA Band IV	RMC 12.2Kbps	Left Tilted	Bottom	Receiver ON	1413	1732.6	23.08	24.00	1.236	-0.13	0.077	0.095
	2	1	WCDMA Band IV	RMC 12.2Kbps	Left Cheek	Bottom	Receiver ON	1413	1732.6	23.08	24.00	1.236	0.08	0.184	0.227
	2	2	WCDMA Band IV	RMC 12.2Kbps	Left Cheek	Bottom	Receiver ON	1413	1732.6	23.08	24.00	1.236	-0.04	0.226	0.279



Plot No.	SIM	Battery	Band	Mode	Test Position	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	1	1	WCDMA Band II	RMC 12.2Kbps	Right Cheek	Top	Receiver ON	9262	1852.4	21.03	22.00	1.250	-0.01	0.671	0.839
	1	1	WCDMA Band II	RMC 12.2Kbps	Right Cheek	Top	Receiver ON	9400	1880	20.96	22.00	1.271	0.03	0.663	0.842
	1	1	WCDMA Band II	RMC 12.2Kbps	Right Cheek	Top	Receiver ON	9538	1907.6	20.98	22.00	1.265	0.11	0.652	0.825
	1	1	WCDMA Band II	RMC 12.2Kbps	Right Tilted	Top	Receiver ON	9262	1852.4	21.03	22.00	1.250	0.03	0.660	0.825
	1	1	WCDMA Band II	RMC 12.2Kbps	Right Tilted	Top	Receiver ON	9400	1880	20.96	22.00	1.271	0.01	0.676	0.859
	1	1	WCDMA Band II	RMC 12.2Kbps	Right Tilted	Top	Receiver ON	9538	1907.6	20.98	22.00	1.265	0.03	0.694	0.878
	1	1	WCDMA Band II	RMC 12.2Kbps	Left Cheek	Top	Receiver ON	9262	1852.4	21.03	22.00	1.250	-0.05	0.251	0.314
	1	1	WCDMA Band II	RMC 12.2Kbps	Left Tilted	Top	Receiver ON	9262	1852.4	21.03	22.00	1.250	0.05	0.215	0.269
	2	1	WCDMA Band II	RMC 12.2Kbps	Right Tilted	Top	Receiver ON	9538	1907.6	20.98	22.00	1.265	0.01	0.670	0.847
	2	1	WCDMA Band II	RMC 12.2Kbps	Right Tilted	Top	Receiver ON	9262	1852.4	21.03	22.00	1.250	0.06	0.707	0.884
05	2	1	WCDMA Band II	RMC 12.2Kbps	Right Tilted	Top	Receiver ON	9400	1880	20.96	22.00	1.271	-0.01	0.708	0.900
	1	2	WCDMA Band II	RMC 12.2Kbps	Right Tilted	Top	Receiver ON	9538	1907.6	20.98	22.00	1.265	0.06	0.668	0.845
	1	2	WCDMA Band II	RMC 12.2Kbps	Right Tilted	Top	Receiver ON	9262	1852.4	21.03	22.00	1.250	0.01	0.716	0.895
	1	2	WCDMA Band II	RMC 12.2Kbps	Right Tilted	Top	Receiver ON	9400	1880	20.96	22.00	1.271	0.01	0.674	0.856
	1	1	WCDMA Band II	RMC 12.2Kbps	Right Cheek	Bottom	Receiver ON	9262	1852.4	23.54	24.50	1.247	-0.06	0.133	0.166
	1	1	WCDMA Band II	RMC 12.2Kbps	Right Tilted	Bottom	Receiver ON	9262	1852.4	23.54	24.50	1.247	-0.11	0.091	0.113
	1	1	WCDMA Band II	RMC 12.2Kbps	Left Cheek	Bottom	Receiver ON	9262	1852.4	23.54	24.50	1.247	0.08	0.195	0.243
	1	1	WCDMA Band II	RMC 12.2Kbps	Left Tilted	Bottom	Receiver ON	9262	1852.4	23.54	24.50	1.247	0.01	0.089	0.111
	2	1	WCDMA Band II	RMC 12.2Kbps	Left Cheek	Bottom	Receiver ON	9262	1852.4	23.54	24.50	1.247	0.09	0.220	0.274
	2	2	WCDMA Band II	RMC 12.2Kbps	Left Cheek	Bottom	Receiver ON	9262	1852.4	23.54	24.50	1.247	0.01	0.215	0.268



<FDD LTE SAR>

Plot No.	SIM	Battery	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
06	1	1	LTE Band 5	10M	QPSK	1	0	Right Cheek	Top	Receiver ON	20525	836.5	20.56	21.50	1.242	0.01	0.533	0.662
	1	1	LTE Band 5	10M	QPSK	25	0	Right Cheek	Top	Receiver ON	20525	836.5	20.62	21.50	1.225	0.03	0.518	0.634
	1	1	LTE Band 5	10M	QPSK	1	0	Right Tilted	Top	Receiver ON	20525	836.5	20.56	21.50	1.242	0.01	0.484	0.601
	1	1	LTE Band 5	10M	QPSK	25	0	Right Tilted	Top	Receiver ON	20525	836.5	20.62	21.50	1.225	0.06	0.484	0.593
	1	1	LTE Band 5	10M	QPSK	1	0	Left Cheek	Top	Receiver ON	20525	836.5	20.56	21.50	1.242	-0.02	0.510	0.633
	1	1	LTE Band 5	10M	QPSK	25	0	Left Cheek	Top	Receiver ON	20525	836.5	20.62	21.50	1.225	-0.03	0.506	0.620
	1	1	LTE Band 5	10M	QPSK	1	0	Left Tilted	Top	Receiver ON	20525	836.5	20.56	21.50	1.242	-0.08	0.428	0.531
	1	1	LTE Band 5	10M	QPSK	25	0	Left Tilted	Top	Receiver ON	20525	836.5	20.62	21.50	1.225	0.1	0.431	0.528
	2	1	LTE Band 5	10M	QPSK	1	0	Right Cheek	Top	Receiver ON	20525	836.5	20.56	21.50	1.242	-0.09	0.529	0.657
	1	2	LTE Band 5	10M	QPSK	1	0	Right Cheek	Top	Receiver ON	20525	836.5	20.56	21.50	1.242	0.01	0.533	0.662
	1	1	LTE Band 5	10M	QPSK	1	0	Right Cheek	Bottom	Receiver ON	20525	836.5	23.99	25.00	1.262	0.08	0.049	0.062
	1	1	LTE Band 5	10M	QPSK	25	0	Right Cheek	Bottom	Receiver ON	20525	836.5	23.05	24.00	1.245	0.02	0.047	0.058
	1	1	LTE Band 5	10M	QPSK	1	0	Right Tilted	Bottom	Receiver ON	20525	836.5	23.99	25.00	1.262	0.08	0.039	0.049
	1	1	LTE Band 5	10M	QPSK	25	0	Right Tilted	Bottom	Receiver ON	20525	836.5	23.05	24.00	1.245	-0.11	0.031	0.038
	1	1	LTE Band 5	10M	QPSK	1	0	Left Cheek	Bottom	Receiver ON	20525	836.5	23.99	25.00	1.262	0.06	0.042	0.053
	1	1	LTE Band 5	10M	QPSK	25	0	Left Cheek	Bottom	Receiver ON	20525	836.5	23.05	24.00	1.245	0.02	0.033	0.041
	1	1	LTE Band 5	10M	QPSK	1	0	Left Tilted	Bottom	Receiver ON	20525	836.5	23.99	25.00	1.262	0.14	0.044	0.056
	1	1	LTE Band 5	10M	QPSK	25	0	Left Tilted	Bottom	Receiver ON	20525	836.5	23.05	24.00	1.245	0.04	0.033	0.041
	2	1	LTE Band 5	10M	QPSK	1	0	Right Cheek	Bottom	Receiver ON	20525	836.5	23.99	25.00	1.262	0.01	0.060	0.075
	2	2	LTE Band 5	10M	QPSK	1	0	Right Cheek	Bottom	Receiver ON	20525	836.5	23.99	25.00	1.262	0.03	0.046	0.058
07	1	1	LTE Band 26	15M	QPSK	1	37	Right Cheek	Top	Receiver ON	26865	831.5	21.37	22.50	1.297	0.05	0.587	0.761
	1	1	LTE Band 26	15M	QPSK	36	0	Right Cheek	Top	Receiver ON	26865	831.5	21.45	22.50	1.274	-0.04	0.586	0.746
	1	1	LTE Band 26	15M	QPSK	1	37	Right Tilted	Top	Receiver ON	26865	831.5	21.37	22.50	1.297	-0.08	0.524	0.680
	1	1	LTE Band 26	15M	QPSK	36	0	Right Tilted	Top	Receiver ON	26865	831.5	21.45	22.50	1.274	-0.01	0.531	0.676
	1	1	LTE Band 26	15M	QPSK	1	37	Left Cheek	Top	Receiver ON	26865	831.5	21.37	22.50	1.297	-0.06	0.525	0.681
	1	1	LTE Band 26	15M	QPSK	36	0	Left Cheek	Top	Receiver ON	26865	831.5	21.45	22.50	1.274	-0.02	0.520	0.662
	1	1	LTE Band 26	15M	QPSK	1	37	Left Tilted	Top	Receiver ON	26865	831.5	21.37	22.50	1.297	-0.07	0.481	0.624
	1	1	LTE Band 26	15M	QPSK	36	0	Left Tilted	Top	Receiver ON	26865	831.5	21.45	22.50	1.274	-0.06	0.480	0.611
	2	1	LTE Band 26	15M	QPSK	1	37	Right Cheek	Top	Receiver ON	26865	831.5	21.37	22.50	1.297	-0.05	0.578	0.750
	1	2	LTE Band 26	15M	QPSK	1	37	Right Cheek	Top	Receiver ON	26865	831.5	21.37	22.50	1.274	-0.01	0.563	0.717
	1	1	LTE Band 26	15M	QPSK	1	37	Right Cheek	Bottom	Receiver ON	26865	831.5	23.68	24.50	1.208	0.09	0.036	0.043
	1	1	LTE Band 26	15M	QPSK	36	0	Right Cheek	Bottom	Receiver ON	26865	831.5	22.53	23.50	1.250	0.05	0.030	0.038
	1	1	LTE Band 26	15M	QPSK	1	37	Right Tilted	Bottom	Receiver ON	26865	831.5	23.68	24.50	1.208	0.08	0.035	0.042
	1	1	LTE Band 26	15M	QPSK	36	0	Right Tilted	Bottom	Receiver ON	26865	831.5	22.53	23.50	1.250	0.01	0.026	0.032
	1	1	LTE Band 26	15M	QPSK	1	37	Left Cheek	Bottom	Receiver ON	26865	831.5	23.68	24.50	1.208	0.07	0.031	0.037
	1	1	LTE Band 26	15M	QPSK	36	0	Left Cheek	Bottom	Receiver ON	26865	831.5	22.53	23.50	1.250	0.03	0.023	0.029
	1	1	LTE Band 26	15M	QPSK	1	37	Left Tilted	Bottom	Receiver ON	26865	831.5	23.68	24.50	1.208	-0.13	0.040	0.049
	1	1	LTE Band 26	15M	QPSK	36	0	Left Tilted	Bottom	Receiver ON	26865	831.5	22.53	23.50	1.250	0.02	0.030	0.038
	2	1	LTE Band 26	15M	QPSK	1	37	Left Tilted	Bottom	Receiver ON	26865	831.5	23.68	24.50	1.208	0.19	0.040	0.049
	2	2	LTE Band 26	15M	QPSK	1	37	Left Tilted	Bottom	Receiver ON	26865	831.5	23.68	24.50	1.208	0.05	0.043	0.052



Plot No.	SIM	Battery	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	1	1	LTE Band 4	20M	QPSK	1	0	Right Cheek	Top	Receiver ON	20175	1732.5	19.65	20.50	1.216	0.04	0.645	0.784
	1	1	LTE Band 4	20M	QPSK	50	0	Right Cheek	Top	Receiver ON	20175	1732.5	19.79	20.50	1.178	0.01	0.645	0.760
	1	1	LTE Band 4	20M	QPSK	1	0	Right Tilted	Top	Receiver ON	20175	1732.5	19.65	20.50	1.216	0.01	0.670	0.815
08	1	1	LTE Band 4	20M	QPSK	50	0	Right Tilted	Top	Receiver ON	20175	1732.5	19.79	20.50	1.178	0.17	0.695	0.818
	1	1	LTE Band 4	20M	QPSK	100	0	Right Tilted	Top	Receiver ON	20175	1732.5	19.77	20.50	1.183	0.08	0.672	0.795
	1	1	LTE Band 4	20M	QPSK	1	0	Left Cheek	Top	Receiver ON	20175	1732.5	19.65	20.50	1.216	0.08	0.257	0.313
	1	1	LTE Band 4	20M	QPSK	50	0	Left Cheek	Top	Receiver ON	20175	1732.5	19.79	20.50	1.178	0.13	0.260	0.306
	1	1	LTE Band 4	20M	QPSK	1	0	Left Tilted	Top	Receiver ON	20175	1732.5	19.65	20.50	1.216	-0.03	0.271	0.330
	1	1	LTE Band 4	20M	QPSK	50	0	Left Tilted	Top	Receiver ON	20175	1732.5	19.79	20.50	1.178	0.05	0.265	0.312
	2	1	LTE Band 4	20M	QPSK	50	0	Right Tilted	Top	Receiver ON	20175	1732.5	19.79	20.50	1.178	-0.16	0.634	0.747
	1	2	LTE Band 4	20M	QPSK	50	0	Right Tilted	Top	Receiver ON	20175	1732.5	19.79	20.50	1.178	-0.01	0.632	0.744
	1	1	LTE Band 4	20M	QPSK	1	0	Right Cheek	Bottom	Receiver ON	20175	1732.5	22.92	24.00	1.282	0.06	0.142	0.182
	1	1	LTE Band 4	20M	QPSK	50	0	Right Cheek	Bottom	Receiver ON	20175	1732.5	21.91	23.00	1.285	0.15	0.107	0.138
	1	1	LTE Band 4	20M	QPSK	1	0	Right Tilted	Bottom	Receiver ON	20175	1732.5	22.92	24.00	1.282	0.11	0.092	0.118
	1	1	LTE Band 4	20M	QPSK	50	0	Right Tilted	Bottom	Receiver ON	20175	1732.5	21.91	23.00	1.285	0.03	0.072	0.092
	1	1	LTE Band 4	20M	QPSK	1	0	Left Cheek	Bottom	Receiver ON	20175	1732.5	22.92	24.00	1.282	0.08	0.162	0.208
	1	1	LTE Band 4	20M	QPSK	50	0	Left Cheek	Bottom	Receiver ON	20175	1732.5	21.91	23.00	1.285	0.07	0.129	0.166
	1	1	LTE Band 4	20M	QPSK	1	0	Left Tilted	Bottom	Receiver ON	20175	1732.5	22.92	24.00	1.282	-0.01	0.089	0.114
	1	1	LTE Band 4	20M	QPSK	50	0	Left Tilted	Bottom	Receiver ON	20175	1732.5	21.91	23.00	1.285	0.02	0.070	0.090
	2	1	LTE Band 4	20M	QPSK	1	0	Left Cheek	Bottom	Receiver ON	20175	1732.5	22.92	24.00	1.282	0.09	0.151	0.194
	1	2	LTE Band 4	20M	QPSK	1	0	Left Cheek	Bottom	Receiver ON	20175	1732.5	22.92	24.00	1.282	0.02	0.178	0.228



Plot No.	SIM	Battery	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	1	1	LTE Band 2	20M	QPSK	1	0	Right Cheek	Top	Receiver ON	19100	1900	21.03	22.00	1.250	-0.08	0.751	0.939
	1	1	LTE Band 2	20M	QPSK	1	0	Right Cheek	Top	Receiver ON	18700	1860	21.00	22.00	1.259	0.01	0.735	0.925
	1	1	LTE Band 2	20M	QPSK	1	0	Right Cheek	Top	Receiver ON	18900	1880	20.91	22.00	1.285	-0.01	0.701	0.901
	1	1	LTE Band 2	20M	QPSK	50	0	Right Cheek	Top	Receiver ON	19100	1900	21.01	22.00	1.256	-0.05	0.736	0.924
	1	1	LTE Band 2	20M	QPSK	50	0	Right Cheek	Top	Receiver ON	18700	1860	20.83	22.00	1.309	-0.1	0.720	0.943
	1	1	LTE Band 2	20M	QPSK	50	0	Right Cheek	Top	Receiver ON	18900	1880	20.82	22.00	1.312	-0.08	0.721	0.946
	1	1	LTE Band 2	20M	QPSK	100	0	Right Cheek	Top	Receiver ON	19100	1900	20.98	22.00	1.265	-0.05	0.752	0.951
	1	1	LTE Band 2	20M	QPSK	1	0	Right Tilted	Top	Receiver ON	19100	1900	21.03	22.00	1.250	0.01	0.767	0.959
	1	1	LTE Band 2	20M	QPSK	1	0	Right Tilted	Top	Receiver ON	18700	1860	21.00	22.00	1.259	0.04	0.730	0.919
	1	1	LTE Band 2	20M	QPSK	1	0	Right Tilted	Top	Receiver ON	18900	1880	20.91	22.00	1.285	0.02	0.720	0.925
	1	1	LTE Band 2	20M	QPSK	50	0	Right Tilted	Top	Receiver ON	19100	1900	21.01	22.00	1.256	0.06	0.784	0.985
	1	1	LTE Band 2	20M	QPSK	50	0	Right Tilted	Top	Receiver ON	18700	1860	20.83	22.00	1.309	0.02	0.725	0.949
	1	1	LTE Band 2	20M	QPSK	50	0	Right Tilted	Top	Receiver ON	18900	1880	20.82	22.00	1.312	0.18	0.749	0.983
09	1	1	LTE Band 2	20M	QPSK	100	0	Right Tilted	Top	Receiver ON	19100	1900	20.98	22.00	1.265	0.14	0.786	0.994
	1	1	LTE Band 2	20M	QPSK	1	0	Left Cheek	Top	Receiver ON	19100	1900	21.03	22.00	1.250	-0.04	0.211	0.264
	1	1	LTE Band 2	20M	QPSK	50	0	Left Cheek	Top	Receiver ON	19100	1900	21.01	22.00	1.256	-0.01	0.214	0.269
	1	1	LTE Band 2	20M	QPSK	1	0	Left Tilted	Top	Receiver ON	19100	1900	21.03	22.00	1.250	0.09	0.281	0.351
	1	1	LTE Band 2	20M	QPSK	50	0	Left Tilted	Top	Receiver ON	19100	1900	21.01	22.00	1.256	0.08	0.287	0.360
	2	1	LTE Band 2	20M	QPSK	100	0	Right Tilted	Top	Receiver ON	19100	1900	20.98	22.00	1.265	-0.04	0.724	0.916
	1	2	LTE Band 2	20M	QPSK	100	0	Right Tilted	Top	Receiver ON	19100	1900	20.98	22.00	1.265	0.03	0.731	0.925
	1	1	LTE Band 2	20M	QPSK	1	0	Right Cheek	Bottom	Receiver ON	19100	1900	23.24	24.00	1.191	0.03	0.114	0.136
	1	1	LTE Band 2	20M	QPSK	50	50	Right Cheek	Bottom	Receiver ON	19100	1900	22.30	23.00	1.175	0.03	0.093	0.109
	1	1	LTE Band 2	20M	QPSK	1	0	Right Tilted	Bottom	Receiver ON	19100	1900	23.24	24.00	1.191	0.1	0.079	0.094
	1	1	LTE Band 2	20M	QPSK	50	50	Right Tilted	Bottom	Receiver ON	19100	1900	22.30	23.00	1.175	0.14	0.063	0.074
	1	1	LTE Band 2	20M	QPSK	1	0	Left Cheek	Bottom	Receiver ON	19100	1900	23.24	24.00	1.191	0.03	0.170	0.203
	1	1	LTE Band 2	20M	QPSK	50	50	Left Cheek	Bottom	Receiver ON	19100	1900	22.30	23.00	1.175	0.05	0.135	0.159
	1	1	LTE Band 2	20M	QPSK	1	0	Left Tilted	Bottom	Receiver ON	19100	1900	23.24	24.00	1.191	0.02	0.074	0.088
	1	1	LTE Band 2	20M	QPSK	50	50	Left Tilted	Bottom	Receiver ON	19100	1900	22.30	23.00	1.175	-0.02	0.059	0.069
	2	1	LTE Band 2	20M	QPSK	1	0	Left Cheek	Bottom	Receiver ON	19100	1900	23.24	24.00	1.191	0.02	0.196	0.233
	2	2	LTE Band 2	20M	QPSK	1	0	Left Cheek	Bottom	Receiver ON	19100	1900	23.24	24.00	1.191	0.02	0.174	0.207



FCC SAR Test Report

Report No. : FA951002-02

Plot No.	SIM	Battery	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	1	1	LTE Band 7	20M	QPSK	1	99	Right Cheek	Top	Receiver ON	21100	2535	20.33	21.20	1.222	-0.03	0.699	0.854
	1	1	LTE Band 7	20M	QPSK	1	99	Right Cheek	Top	Receiver ON	20850	2510	20.31	21.20	1.227	0.11	0.823	1.010
	1	1	LTE Band 7	20M	QPSK	1	99	Right Cheek	Top	Receiver ON	21350	2560	20.24	21.20	1.247	0.19	0.816	1.018
	1	1	LTE Band 7	20M	QPSK	50	50	Right Cheek	Top	Receiver ON	21100	2535	20.44	21.20	1.191	0.18	0.754	0.898
	1	1	LTE Band 7	20M	QPSK	50	50	Right Cheek	Top	Receiver ON	20850	2510	20.42	21.20	1.197	0.16	0.840	1.005
	1	1	LTE Band 7	20M	QPSK	50	50	Right Cheek	Top	Receiver ON	21350	2560	20.31	21.20	1.227	0.05	0.755	0.927
10	1	1	LTE Band 7	20M	QPSK	100	0	Right Cheek	Top	Receiver ON	20850	2510	20.32	21.20	1.225	0.04	0.866	1.061
	1	1	LTE Band 7	20M	QPSK	1	99	Right Tilted	Top	Receiver ON	21100	2535	20.33	21.20	1.222	-0.02	0.790	0.965
	1	1	LTE Band 7	20M	QPSK	1	99	Right Tilted	Top	Receiver ON	20850	2510	20.31	21.20	1.227	0.07	0.723	0.887
	1	1	LTE Band 7	20M	QPSK	1	99	Right Tilted	Top	Receiver ON	21350	2560	20.24	21.20	1.247	-0.03	0.694	0.866
	1	1	LTE Band 7	20M	QPSK	50	50	Right Tilted	Top	Receiver ON	21100	2535	20.44	21.20	1.191	-0.02	0.814	0.970
	1	1	LTE Band 7	20M	QPSK	50	50	Right Tilted	Top	Receiver ON	20850	2510	20.42	21.20	1.197	-0.16	0.711	0.851
	1	1	LTE Band 7	20M	QPSK	50	50	Right Tilted	Top	Receiver ON	21350	2560	20.31	21.20	1.227	-0.19	0.751	0.922
	1	1	LTE Band 7	20M	QPSK	100	0	Right Tilted	Top	Receiver ON	20850	2510	20.32	21.20	1.225	-0.03	0.785	0.961
	1	1	LTE Band 7	20M	QPSK	1	99	Left Cheek	Top	Receiver ON	21100	2535	20.33	21.20	1.222	-0.08	0.266	0.325
	1	1	LTE Band 7	20M	QPSK	50	50	Left Cheek	Top	Receiver ON	21100	2535	20.44	21.20	1.191	-0.01	0.258	0.307
	1	1	LTE Band 7	20M	QPSK	1	99	Left Tilted	Top	Receiver ON	21100	2535	20.33	21.20	1.222	-0.06	0.540	0.660
	1	1	LTE Band 7	20M	QPSK	50	50	Left Tilted	Top	Receiver ON	21100	2535	20.44	21.20	1.191	0.06	0.485	0.578
	2	1	LTE Band 7	20M	QPSK	100	0	Right Cheek	Top	Receiver ON	20850	2510	20.32	21.20	1.225	-0.02	0.851	1.042
	1	2	LTE Band 7	20M	QPSK	100	0	Right Cheek	Top	Receiver ON	20850	2510	20.32	21.20	1.225	0.09	0.825	1.010
	1	1	LTE Band 7	20M	QPSK	1	99	Right Cheek	Bottom	Receiver ON	21100	2535	23.39	24.70	1.352	0.06	0.205	0.277
	1	1	LTE Band 7	20M	QPSK	50	0	Right Cheek	Bottom	Receiver ON	21100	2535	22.53	23.70	1.309	0.02	0.178	0.233
	1	1	LTE Band 7	20M	QPSK	1	99	Right Tilted	Bottom	Receiver ON	21100	2535	23.39	24.70	1.352	0.01	0.270	0.365
	1	1	LTE Band 7	20M	QPSK	50	0	Right Tilted	Bottom	Receiver ON	21100	2535	22.53	23.70	1.309	-0.02	0.212	0.278
	1	1	LTE Band 7	20M	QPSK	1	99	Left Cheek	Bottom	Receiver ON	21100	2535	23.39	24.70	1.352	0.01	0.328	0.443
	1	1	LTE Band 7	20M	QPSK	50	0	Left Cheek	Bottom	Receiver ON	21100	2535	22.53	23.70	1.309	0.01	0.276	0.361
	1	1	LTE Band 7	20M	QPSK	1	99	Left Tilted	Bottom	Receiver ON	21100	2535	23.39	24.70	1.352	0.02	0.151	0.204
	1	1	LTE Band 7	20M	QPSK	50	0	Left Tilted	Bottom	Receiver ON	21100	2535	22.53	23.70	1.309	-0.02	0.128	0.168
	2	1	LTE Band 7	20M	QPSK	1	99	Left Cheek	Bottom	Receiver ON	21100	2535	23.39	24.70	1.352	0.012	0.302	0.408
	1	2	LTE Band 7	20M	QPSK	1	99	Left Cheek	Bottom	Receiver ON	21100	2535	23.39	24.70	1.352	0.02	0.334	0.452



<TDD LTE SAR>

Plot No.	SIM	Battery	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	1	1	LTE Band 38	20M	QPSK	1	99	Right Cheek	Top	Receiver ON	38000	2595	22.20	23.20	1.259	62.9	1.006	0.01	0.710	0.899
	1	1	LTE Band 38	20M	QPSK	50	50	Right Cheek	Top	Receiver ON	38000	2595	22.09	23.20	1.291	62.9	1.006	-0.02	0.702	0.912
	1	1	LTE Band 38	20M	QPSK	100	0	Right Cheek	Top	Receiver ON	38000	2595	22.02	23.20	1.312	62.9	1.006	-0.01	0.725	0.957
	1	1	LTE Band 38	20M	QPSK	1	99	Right Tilted	Top	Receiver ON	38000	2595	22.20	23.20	1.259	62.9	1.006	-0.09	0.631	0.799
	1	1	LTE Band 38	20M	QPSK	50	50	Right Tilted	Top	Receiver ON	38000	2595	22.09	23.20	1.291	62.9	1.006	-0.02	0.624	0.811
	1	1	LTE Band 38	20M	QPSK	100	0	Right Tilted	Top	Receiver ON	38000	2595	22.02	23.20	1.312	62.9	1.006	0.01	0.690	0.911
	1	1	LTE Band 38	20M	QPSK	1	99	Left Cheek	Top	Receiver ON	38000	2595	22.20	23.20	1.259	62.9	1.006	0.12	0.390	0.494
	1	1	LTE Band 38	20M	QPSK	50	50	Left Cheek	Top	Receiver ON	38000	2595	22.09	23.20	1.291	62.9	1.006	0.02	0.385	0.500
	1	1	LTE Band 38	20M	QPSK	1	99	Left Tilted	Top	Receiver ON	38000	2595	22.20	23.20	1.259	62.9	1.006	0.01	0.351	0.445
	1	1	LTE Band 38	20M	QPSK	50	50	Left Tilted	Top	Receiver ON	38000	2595	22.09	23.20	1.291	62.9	1.006	0.03	0.336	0.436
11	2	1	LTE Band 38	20M	QPSK	100	0	Right Cheek	Top	Receiver ON	38000	2595	22.02	23.20	1.312	62.9	1.006	-0.09	0.796	1.051
	2	2	LTE Band 38	20M	QPSK	100	0	Right Cheek	Top	Receiver ON	38000	2595	22.02	23.20	1.312	62.9	1.006	0.01	0.751	0.991
	1	1	LTE Band 38	20M	QPSK	1	99	Right Cheek	Bottom	Receiver ON	38000	2595	23.27	24.20	1.239	62.9	1.006	0.01	0.137	0.171
	1	1	LTE Band 38	20M	QPSK	50	0	Right Cheek	Bottom	Receiver ON	38000	2595	22.20	23.20	1.259	62.9	1.006	-0.02	0.106	0.134
	1	1	LTE Band 38	20M	QPSK	1	99	Right Tilted	Bottom	Receiver ON	38000	2595	23.27	24.20	1.239	62.9	1.006	-0.02	0.172	0.214
	1	1	LTE Band 38	20M	QPSK	50	0	Right Tilted	Bottom	Receiver ON	38000	2595	22.20	23.20	1.259	62.9	1.006	0.02	0.142	0.180
	1	1	LTE Band 38	20M	QPSK	1	99	Left Cheek	Bottom	Receiver ON	38000	2595	23.27	24.20	1.239	62.9	1.006	0.07	0.195	0.243
	1	1	LTE Band 38	20M	QPSK	50	0	Left Cheek	Bottom	Receiver ON	38000	2595	22.20	23.20	1.259	62.9	1.006	0.01	0.160	0.203
	1	1	LTE Band 38	20M	QPSK	1	99	Left Tilted	Bottom	Receiver ON	38000	2595	23.27	24.20	1.239	62.9	1.006	-0.09	0.103	0.128
	1	1	LTE Band 38	20M	QPSK	50	0	Left Tilted	Bottom	Receiver ON	38000	2595	22.20	23.20	1.259	62.9	1.006	0.02	0.081	0.103
	2	1	LTE Band 38	20M	QPSK	1	99	Left Cheek	Bottom	Receiver ON	38000	2595	23.27	24.20	1.239	62.9	1.006	-0.04	0.188	0.234
	1	2	LTE Band 38	20M	QPSK	1	99	Left Cheek	Bottom	Receiver ON	38000	2595	23.27	24.20	1.239	62.9	1.006	-0.05	0.251	0.313



FCC SAR Test Report

Report No. : FA951002-02

Plot No.	SIM	Battery	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
1	1	1	LTE Band 41	20M	QPSK	1	99	Right Cheek	Top	Receiver ON	40840	2615	21.77	22.70	1.239	62.9	1.006	0.05	0.648	0.808
1	1	1	LTE Band 41	20M	QPSK	1	99	Right Cheek	Top	Receiver ON	40240	2555	21.59	22.70	1.291	62.9	1.006	0.11	0.615	0.799
1	1	1	LTE Band 41	20M	QPSK	1	99	Right Cheek	Top	Receiver ON	40540	2585	21.65	22.70	1.274	62.9	1.006	0.03	0.631	0.808
1	1	1	LTE Band 41	20M	QPSK	1	99	Right Cheek	Top	Receiver ON	41140	2645	21.49	22.70	1.321	62.9	1.006	0.04	0.664	0.883
1	1	1	LTE Band 41	20M	QPSK	50	50	Right Cheek	Top	Receiver ON	40840	2615	21.58	22.70	1.294	62.9	1.006	-0.14	0.636	0.828
1	1	1	LTE Band 41	20M	QPSK	50	50	Right Cheek	Top	Receiver ON	40240	2555	21.47	22.70	1.327	62.9	1.006	0.13	0.609	0.813
1	1	1	LTE Band 41	20M	QPSK	50	50	Right Cheek	Top	Receiver ON	40540	2585	21.40	22.70	1.349	62.9	1.006	0.02	0.576	0.782
1	1	1	LTE Band 41	20M	QPSK	50	50	Right Cheek	Top	Receiver ON	41140	2645	21.48	22.70	1.324	62.9	1.006	0.07	0.615	0.819
1	1	1	LTE Band 41	20M	QPSK	100	0	Right Cheek	Top	Receiver ON	40840	2615	21.40	22.70	1.349	62.9	1.006	0.02	0.607	0.824
1	1	1	LTE Band 41	20M	QPSK	1	99	Right Tilted	Top	Receiver ON	40840	2615	21.77	22.70	1.239	62.9	1.006	-0.05	0.668	0.832
1	1	1	LTE Band 41	20M	QPSK	1	99	Right Tilted	Top	Receiver ON	40240	2555	21.59	22.70	1.291	62.9	1.006	-0.01	0.637	0.827
1	1	1	LTE Band 41	20M	QPSK	1	99	Right Tilted	Top	Receiver ON	40540	2585	21.65	22.70	1.274	62.9	1.006	-0.07	0.575	0.737
1	1	1	LTE Band 41	20M	QPSK	1	99	Right Tilted	Top	Receiver ON	41140	2645	21.49	22.70	1.321	62.9	1.006	0.01	0.685	0.911
1	1	1	LTE Band 41	20M	QPSK	50	50	Right Tilted	Top	Receiver ON	40840	2615	21.58	22.70	1.294	62.9	1.006	0.12	0.662	0.862
1	1	1	LTE Band 41	20M	QPSK	50	50	Right Tilted	Top	Receiver ON	40240	2555	21.47	22.70	1.327	62.9	1.006	0.06	0.648	0.865
1	1	1	LTE Band 41	20M	QPSK	50	50	Right Tilted	Top	Receiver ON	40540	2585	21.40	22.70	1.349	62.9	1.006	0.04	0.673	0.913
1	1	1	LTE Band 41	20M	QPSK	50	50	Right Tilted	Top	Receiver ON	41140	2645	21.48	22.70	1.324	62.9	1.006	-0.03	0.690	0.919
1	1	1	LTE Band 41	20M	QPSK	100	0	Right Tilted	Top	Receiver ON	40840	2615	21.40	22.70	1.349	62.9	1.006	-0.02	0.628	0.852
1	1	1	LTE Band 41	20M	QPSK	1	99	Left Cheek	Top	Receiver ON	40840	2615	21.77	22.70	1.239	62.9	1.006	-0.13	0.577	0.719
1	1	1	LTE Band 41	20M	QPSK	1	99	Left Cheek	Top	Receiver ON	40240	2555	21.59	22.70	1.291	62.9	1.006	-0.05	0.403	0.523
1	1	1	LTE Band 41	20M	QPSK	1	99	Left Cheek	Top	Receiver ON	40540	2585	21.65	22.70	1.274	62.9	1.006	-0.07	0.510	0.653
1	1	1	LTE Band 41	20M	QPSK	1	99	Left Cheek	Top	Receiver ON	41140	2645	21.49	22.70	1.321	62.9	1.006	0.02	0.610	0.811
1	1	1	LTE Band 41	20M	QPSK	50	50	Left Cheek	Top	Receiver ON	40840	2615	21.58	22.70	1.294	62.9	1.006	0.08	0.461	0.600
1	1	1	LTE Band 41	20M	QPSK	50	50	Left Cheek	Top	Receiver ON	40240	2555	21.47	22.70	1.327	62.9	1.006	-0.04	0.317	0.423
1	1	1	LTE Band 41	20M	QPSK	50	50	Left Cheek	Top	Receiver ON	40540	2585	21.40	22.70	1.349	62.9	1.006	0.1	0.395	0.536
1	1	1	LTE Band 41	20M	QPSK	50	50	Left Cheek	Top	Receiver ON	41140	2645	21.48	22.70	1.324	62.9	1.006	0.03	0.466	0.621
1	1	1	LTE Band 41	20M	QPSK	100	0	Left Cheek	Top	Receiver ON	40840	2615	21.40	22.70	1.349	62.9	1.006	0.06	0.435	0.590
1	1	1	LTE Band 41	20M	QPSK	1	99	Left Tilted	Top	Receiver ON	40840	2615	21.77	22.70	1.239	62.9	1.006	0.02	0.333	0.415
1	1	1	LTE Band 41	20M	QPSK	50	50	Left Tilted	Top	Receiver ON	40840	2615	21.58	22.70	1.294	62.9	1.006	-0.06	0.317	0.413
2	1	1	LTE Band 41	20M	QPSK	50	50	Right Tilted	Top	Receiver ON	41140	2645	21.48	22.70	1.324	62.9	1.006	0.03	0.707	0.942
2	1	1	LTE Band 41	20M	QPSK	50	50	Right Tilted	Top	Receiver ON	40840	2615	21.58	22.70	1.294	62.9	1.006	0.02	0.615	0.801
2	1	1	LTE Band 41	20M	QPSK	50	50	Right Tilted	Top	Receiver ON	40240	2555	21.47	22.70	1.327	62.9	1.006	0.03	0.631	0.843
2	1	1	LTE Band 41	20M	QPSK	50	50	Right Tilted	Top	Receiver ON	40540	2585	21.40	22.70	1.349	62.9	1.006	0.01	0.669	0.908
2	2	2	LTE Band 41	20M	QPSK	50	50	Right Tilted	Top	Receiver ON	41140	2645	21.48	22.70	1.324	62.9	1.006	0.15	0.710	0.946
2	2	2	LTE Band 41	20M	QPSK	50	50	Right Tilted	Top	Receiver ON	40840	2615	21.58	22.70	1.294	62.9	1.006	0.01	0.666	0.867
12	2	2	LTE Band 41	20M	QPSK	50	50	Right Tilted	Top	Receiver ON	40240	2555	21.47	22.70	1.327	62.9	1.006	0.1	0.710	0.948
2	2	2	LTE Band 41	20M	QPSK	50	50	Right Tilted	Top	Receiver ON	40540	2585	21.40	22.70	1.349	62.9	1.006	0.1	0.674	0.915
1	1	1	LTE Band 41	20M	QPSK	1	99	Right Cheek	Bottom	Receiver ON	40840	2615	23.17	24.20	1.268	62.9	1.006	0.04	0.138	0.176
1	1	1	LTE Band 41	20M	QPSK	50	50	Right Cheek	Bottom	Receiver ON	40840	2615	21.97	23.20	1.327	62.9	1.006	0.02	0.109	0.146
1	1	1	LTE Band 41	20M	QPSK	1	99	Right Tilted	Bottom	Receiver ON	40840	2615	23.17	24.20	1.268	62.9	1.006	-0.14	0.190	0.242
1	1	1	LTE Band 41	20M	QPSK	50	50	Right Tilted	Bottom	Receiver ON	40840	2615	21.97	23.20	1.327	62.9	1.006	-0.11	0.148	0.198
1	1	1	LTE Band 41	20M	QPSK	1	99	Left Cheek	Bottom	Receiver ON	40840	2615	23.17	24.20	1.268	62.9	1.006	0.18	0.192	0.245
1	1	1	LTE Band 41	20M	QPSK	50	50	Left Cheek	Bottom	Receiver ON	40840	2615	21.97	23.20	1.327	62.9	1.006	-0.16	0.151	0.202
1	1	1	LTE Band 41	20M	QPSK	1	99	Left Tilted	Bottom	Receiver ON	40840	2615	23.17	24.20	1.268	62.9	1.006	-0.15	0.108	0.138
1	1	1	LTE Band 41	20M	QPSK	50	50	Left Tilted	Bottom	Receiver ON	40840	2615	21.97	23.20	1.327	62.9	1.006	-0.05	0.084	0.113
2	1	1	LTE Band 41	20M	QPSK	1	99	Left Cheek	Bottom	Receiver ON	40840	2615	23.17	24.20	1.268	62.9	1.006	0.02	0.187	0.238
1	1	2	LTE Band 41	20M	QPSK	1	99	Left Cheek	Bottom	Receiver ON	40840	2615	23.17	24.20	1.268	62.9	1.006	0.14	0.253	0.323



<WLAN 2.4GHz SAR>

Plot No.	Battery	Antenna	Band	Mode	Test Position	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Max Area Scan SAR	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
1	1	1	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	Receiver ON	6	2437	10.70	12.10	1.380	100	1.000		0.138		
1	1	1	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	Receiver ON	6	2437	10.70	12.10	1.380	100	1.000		0.181		
1	1	1	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Receiver ON	6	2437	10.70	12.10	1.380	100	1.000		0.260		
1	1	1	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	Receiver ON	6	2437	10.70	12.10	1.380	100	1.000	0.02	0.298	0.202	0.279
2	1	1	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	Receiver ON	6	2437	10.70	12.10	1.380	100	1.000	-0.04		0.191	0.264
1	4	1	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	Receiver ON	1	2412	10.40	12.10	1.479	100	1.000		0.039		
1	4	1	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	Receiver ON	1	2412	10.40	12.10	1.479	100	1.000		0.035		
1	4	1	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Receiver ON	1	2412	10.40	12.10	1.479	100	1.000	0.01	0.111	0.082	0.121
1	4	1	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	Receiver ON	1	2412	10.40	12.10	1.479	100	1.000		0.049		
2	4	1	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Receiver ON	1	2412	10.40	12.10	1.479	100	1.000	0.17		0.078	0.115
1	1	1	WLAN2.4GHz	802.11n-HT40 MCS0	Right Cheek	Receiver ON	9	2452	10.40	12.00	1.445	97.28	1.028	-0.02		0.100	0.149
1	1	1	WLAN2.4GHz	802.11n-HT40 MCS0	Right Tilted	Receiver ON	9	2452	10.40	12.00	1.445	97.28	1.028	0.01		0.121	0.180
1	1	1	WLAN2.4GHz	802.11n-HT40 MCS0	Left Cheek	Receiver ON	9	2452	10.40	12.00	1.445	97.28	1.028	0.03		0.227	0.337
13	1	1	WLAN2.4GHz	802.11n-HT40 MCS0	Left Tilted	Receiver ON	9	2452	10.40	12.00	1.445	97.28	1.028	0.01		0.234	0.348
2	1	1	WLAN2.4GHz	802.11n-HT40 MCS0	Left Tilted	Receiver ON	9	2452	10.40	12.00	1.445	97.28	1.028	0.02		0.194	0.288
1	4	1	WLAN2.4GHz	802.11n-HT40 MCS0	Right Cheek	Receiver ON	9	2452	10.30	12.00	1.479	97.28	1.028	0.02		0.046	0.069
1	4	1	WLAN2.4GHz	802.11n-HT40 MCS0	Right Tilted	Receiver ON	9	2452	10.30	12.00	1.479	97.28	1.028	0.03		0.027	0.040
1	4	1	WLAN2.4GHz	802.11n-HT40 MCS0	Left Cheek	Receiver ON	9	2452	10.30	12.00	1.479	97.28	1.028	-0.01		0.149	0.227
1	4	1	WLAN2.4GHz	802.11n-HT40 MCS0	Left Tilted	Receiver ON	9	2452	10.30	12.00	1.479	97.28	1.028	-0.03		0.066	0.100
2	4	1	WLAN2.4GHz	802.11n-HT40 MCS0	Left Cheek	Receiver ON	9	2452	10.30	12.00	1.479	97.28	1.028	0.02		0.159	0.242

<Bluetooth SAR>

Plot No.	Battery	Band	Mode	Test Position	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
1	1	Bluetooth	1Mbps	Right Cheek	Receiver ON	38	2440	9.40	11.00	1.445	76.9	1.300	0.05	0.026	0.049
1	1	Bluetooth	1Mbps	Right Tilted	Receiver ON	38	2440	9.40	11.00	1.445	76.9	1.300	0.08	0.030	0.057
1	1	Bluetooth	1Mbps	Left Cheek	Receiver ON	38	2440	9.40	11.00	1.445	76.9	1.300	0.06	0.045	0.085
14	1	Bluetooth	1Mbps	Left Tilted	Receiver ON	38	2440	9.40	11.00	1.445	76.9	1.300	-0.06	0.052	0.097
2	2	Bluetooth	1Mbps	Left Tilted	Receiver ON	38	2440	9.40	11.00	1.445	76.9	1.300	0.07	0.045	0.085



<WLAN5GHz SAR>

Plot No.	Battery	Antenna	Band	Mode	Test Position	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Max Area Scan SAR	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	1	4	WLAN5.3GHz	802.11a 6Mbps	Right Cheek	Receiver ON	60	5300	10.27	12.10	1.524	99.13	1.009		0.095		
	1	4	WLAN5.3GHz	802.11a 6Mbps	Right Tilted	Receiver ON	60	5300	10.27	12.10	1.524	99.13	1.009		0.085		
	1	4	WLAN5.3GHz	802.11a 6Mbps	Left Cheek	Receiver ON	60	5300	10.27	12.10	1.524	99.13	1.009		0.304		
15	1	4	WLAN5.3GHz	802.11a 6Mbps	Left Tilted	Receiver ON	60	5300	10.27	12.10	1.524	99.13	1.009	0.01	0.473	0.078	0.120
	2	4	WLAN5.3GHz	802.11a 6Mbps	Left Tilted	Receiver ON	60	5300	10.27	12.10	1.524	99.13	1.009	-0.06		0.052	0.079
	1	4	WLAN5.5GHz	802.11a 6Mbps	Right Cheek	Receiver ON	116	5580	10.12	12.10	1.578	99.13	1.009		0.00196		
	1	4	WLAN5.5GHz	802.11a 6Mbps	Right Tilted	Receiver ON	116	5580	10.12	12.10	1.578	99.13	1.009		0.022		
	1	4	WLAN5.5GHz	802.11a 6Mbps	Left Cheek	Receiver ON	116	5580	10.12	12.10	1.578	99.13	1.009	0.09	0.122	0.025	0.039
	1	4	WLAN5.5GHz	802.11a 6Mbps	Left Tilted	Receiver ON	116	5580	10.12	12.10	1.578	99.13	1.009		0.069		
16	2	4	WLAN5.5GHz	802.11a 6Mbps	Left Cheek	Receiver ON	116	5580	10.12	12.10	1.578	99.13	1.009	0.09		0.028	0.045
	1	4	WLAN 5.8GHz	802.11a 6Mbps	Right Cheek	Receiver ON	157	5785	9.12	12.10	1.987	99.13	1.009		0		
	1	4	WLAN 5.8GHz	802.11a 6Mbps	Right Tilted	Receiver ON	157	5785	9.12	12.10	1.987	99.13	1.009		0.051		
	1	4	WLAN 5.8GHz	802.11a 6Mbps	Left Cheek	Receiver ON	157	5785	9.12	12.10	1.987	99.13	1.009	0.09	0.213	0.045	0.091
	1	4	WLAN 5.8GHz	802.11a 6Mbps	Left Tilted	Receiver ON	157	5785	9.12	12.10	1.987	99.13	1.009		0.127		
17	2	4	WLAN 5.8GHz	802.11a 6Mbps	Left Cheek	Receiver ON	157	5785	9.12	12.10	1.987	99.13	1.009	-0.01		0.061	0.122



18.2 Hotspot SAR

<GSM SAR>

Plot No.	SIM	Battery	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	1	1	GSM850	GPRS 1 Tx slot	Front	10	Top	Receiver Off	189	836.4	33.24	34.20	1.247	0.08	0.364	0.454
	1	1	GSM850	GPRS 1 Tx slot	Back	10	Top	Receiver Off	189	836.4	33.24	34.20	1.247	-0.03	0.446	0.556
	1	1	GSM850	GPRS 1 Tx slot	Left Side	10	Top	Receiver Off	189	836.4	33.24	34.20	1.247	-0.05	0.389	0.485
	1	1	GSM850	GPRS 1 Tx slot	Top Side	10	Top	Receiver Off	189	836.4	33.24	34.20	1.247	-0.17	0.375	0.468
18	2	1	GSM850	GPRS 1 Tx slot	Back	10	Top	Receiver Off	189	836.4	33.24	34.20	1.247	-0.07	0.449	0.560
	2	2	GSM850	GPRS 1 Tx slot	Back	10	Top	Receiver Off	189	836.4	33.24	34.20	1.247	-0.04	0.429	0.535
	1	1	GSM850	GPRS 1 Tx slot	Front	10	Bottom	Receiver Off	251	848.8	32.11	33.20	1.285	0.01	0.265	0.341
	1	1	GSM850	GPRS 1 Tx slot	Back	10	Bottom	Receiver Off	251	848.8	32.11	33.20	1.285	-0.1	0.301	0.387
	1	1	GSM850	GPRS 1 Tx slot	Left Side	10	Bottom	Receiver Off	251	848.8	32.11	33.20	1.285	-0.05	0.203	0.261
	1	1	GSM850	GPRS 1 Tx slot	Right Side	10	Bottom	Receiver Off	251	848.8	32.11	33.20	1.285	-0.06	0.055	0.071
	1	1	GSM850	GPRS 1 Tx slot	Bottom Side	10	Bottom	Receiver Off	251	848.8	32.11	33.20	1.285	-0.04	0.149	0.192
	2	1	GSM850	GPRS 1 Tx slot	Back	10	Bottom	Receiver Off	251	848.8	32.11	33.20	1.285	-0.1	0.289	0.371
	1	2	GSM850	GPRS 1 Tx slot	Back	10	Bottom	Receiver Off	251	848.8	32.11	33.20	1.285	-0.14	0.364	0.468
	1	1	GSM1900	GPRS 4 Tx slots	Front	10	Top	Receiver Off	661	1880	22.74	24.20	1.400	0.16	0.074	0.103
	1	1	GSM1900	GPRS 4 Tx slots	Back	10	Top	Receiver Off	661	1880	22.74	24.20	1.400	-0.18	0.119	0.167
	1	1	GSM1900	GPRS 4 Tx slots	Left Side	10	Top	Receiver Off	661	1880	22.74	24.20	1.400	-0.04	0.165	0.231
	1	1	GSM1900	GPRS 4 Tx slots	Top Side	10	Top	Receiver Off	661	1880	22.74	24.20	1.400	0.05	0.109	0.153
	2	1	GSM1900	GPRS 4 Tx slots	Left Side	10	Top	Receiver Off	661	1880	22.74	24.20	1.400	-0.05	0.169	0.237
	2	2	GSM1900	GPRS 4 Tx slots	Left Side	10	Top	Receiver Off	661	1880	22.74	24.20	1.400	-0.11	0.155	0.217
	1	1	GSM1900	GPRS 4 Tx slots	Front	10	Bottom	Receiver Off	810	1909.8	23.79	25.20	1.384	0.15	0.216	0.299
	1	1	GSM1900	GPRS 4 Tx slots	Back	10	Bottom	Receiver Off	810	1909.8	23.79	25.20	1.384	0.01	0.259	0.358
	1	1	GSM1900	GPRS 4 Tx slots	Left Side	10	Bottom	Receiver Off	810	1909.8	23.79	25.20	1.384	0.11	0.158	0.219
	1	1	GSM1900	GPRS 4 Tx slots	Right Side	10	Bottom	Receiver Off	810	1909.8	23.79	25.20	1.384	-0.11	0.111	0.154
	1	1	GSM1900	GPRS 4 Tx slots	Bottom Side	10	Bottom	Receiver Off	810	1909.8	23.79	25.20	1.384	0.16	0.401	0.555
	2	1	GSM1900	GPRS 4 Tx slots	Bottom Side	10	Bottom	Receiver Off	810	1909.8	23.79	25.20	1.384	-0.02	0.411	0.569
19	2	2	GSM1900	GPRS 4 Tx slots	Bottom Side	10	Bottom	Receiver Off	810	1909.8	23.79	25.20	1.384	0.08	0.428	0.592



<WCDMA SAR>

Plot No.	SIM	Battery	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	1	1	WCDMA Band V	RMC 12.2Kbps	Front	10	Top	Receiver Off	4182	836.4	23.82	25.00	1.312	0.1	0.417	0.547
	1	1	WCDMA Band V	RMC 12.2Kbps	Back	10	Top	Receiver Off	4182	836.4	23.82	25.00	1.312	-0.06	0.487	0.639
	1	1	WCDMA Band V	RMC 12.2Kbps	Left Side	10	Top	Receiver Off	4182	836.4	23.82	25.00	1.312	0.01	0.459	0.602
	1	1	WCDMA Band V	RMC 12.2Kbps	Top Side	10	Top	Receiver Off	4182	836.4	23.82	25.00	1.312	0.07	0.421	0.552
	2	1	WCDMA Band V	RMC 12.2Kbps	Back	10	Top	Receiver Off	4182	836.4	23.82	25.00	1.312	0.03	0.489	0.642
	2	2	WCDMA Band V	RMC 12.2Kbps	Back	10	Top	Receiver Off	4182	836.4	23.82	25.00	1.312	0.02	0.481	0.631
	1	1	WCDMA Band V	RMC 12.2Kbps	Front	10	Bottom	Receiver Off	4182	836.4	24.08	25.00	1.236	0.09	0.395	0.488
	1	1	WCDMA Band V	RMC 12.2Kbps	Back	10	Bottom	Receiver Off	4182	836.4	24.08	25.00	1.236	-0.13	0.449	0.555
	1	1	WCDMA Band V	RMC 12.2Kbps	Left Side	10	Bottom	Receiver Off	4182	836.4	24.08	25.00	1.236	-0.02	0.314	0.388
	1	1	WCDMA Band V	RMC 12.2Kbps	Right Side	10	Bottom	Receiver Off	4182	836.4	24.08	25.00	1.236	-0.03	0.069	0.085
	1	1	WCDMA Band V	RMC 12.2Kbps	Bottom Side	10	Bottom	Receiver Off	4182	836.4	24.08	25.00	1.236	-0.11	0.217	0.268
	2	1	WCDMA Band V	RMC 12.2Kbps	Back	10	Bottom	Receiver Off	4182	836.4	24.08	25.00	1.236	-0.19	0.451	0.557
20	2	2	WCDMA Band V	RMC 12.2Kbps	Back	10	Bottom	Receiver Off	4182	836.4	24.08	25.00	1.236	-0.11	0.531	0.656
	1	1	WCDMA Band IV	RMC 12.2Kbps	Front	10	Top	Receiver Off	1413	1732.6	22.74	24.00	1.337	0.01	0.260	0.348
	1	1	WCDMA Band IV	RMC 12.2Kbps	Back	10	Top	Receiver Off	1413	1732.6	22.74	24.00	1.337	0.08	0.346	0.462
	1	1	WCDMA Band IV	RMC 12.2Kbps	Left Side	10	Top	Receiver Off	1413	1732.6	22.74	24.00	1.337	0.12	0.357	0.477
	1	1	WCDMA Band IV	RMC 12.2Kbps	Top Side	10	Top	Receiver Off	1413	1732.6	22.74	24.00	1.337	0.15	0.375	0.501
	2	1	WCDMA Band IV	RMC 12.2Kbps	Top Side	10	Top	Receiver Off	1413	1732.6	22.74	24.00	1.337	0.01	0.348	0.465
	1	2	WCDMA Band IV	RMC 12.2Kbps	Top Side	10	Top	Receiver Off	1413	1732.6	22.74	24.00	1.337	0.07	0.389	0.520
	1	1	WCDMA Band IV	RMC 12.2Kbps	Front	10	Bottom	Receiver Off	1413	1732.6	23.08	24.00	1.236	0.07	0.417	0.515
	1	1	WCDMA Band IV	RMC 12.2Kbps	Back	10	Bottom	Receiver Off	1413	1732.6	23.08	24.00	1.236	0.06	0.502	0.620
	1	1	WCDMA Band IV	RMC 12.2Kbps	Left Side	10	Bottom	Receiver Off	1413	1732.6	23.08	24.00	1.236	0.09	0.307	0.379
	1	1	WCDMA Band IV	RMC 12.2Kbps	Right Side	10	Bottom	Receiver Off	1413	1732.6	23.08	24.00	1.236	0.06	0.161	0.199
	1	1	WCDMA Band IV	RMC 12.2Kbps	Bottom Side	10	Bottom	Receiver Off	1413	1732.6	23.08	24.00	1.236	0.05	0.783	0.968
	1	1	WCDMA Band IV	RMC 12.2Kbps	Bottom Side	10	Bottom	Receiver Off	1312	1712.4	23.05	24.00	1.245	-0.05	0.739	0.920
	1	1	WCDMA Band IV	RMC 12.2Kbps	Bottom Side	10	Bottom	Receiver Off	1513	1752.6	22.88	24.00	1.294	0.17	0.784	1.015
	2	1	WCDMA Band IV	RMC 12.2Kbps	Bottom Side	10	Bottom	Receiver Off	1513	1752.6	22.88	24.00	1.294	0.09	0.762	0.986
	2	1	WCDMA Band IV	RMC 12.2Kbps	Bottom Side	10	Bottom	Receiver Off	1312	1712.4	23.05	24.00	1.245	0.03	0.744	0.926
	2	1	WCDMA Band IV	RMC 12.2Kbps	Bottom Side	10	Bottom	Receiver Off	1413	1732.6	23.08	24.00	1.236	0.05	0.765	0.945
21	1	2	WCDMA Band IV	RMC 12.2Kbps	Bottom Side	10	Bottom	Receiver Off	1513	1752.6	22.88	24.00	1.294	0.05	0.798	1.033
	1	2	WCDMA Band IV	RMC 12.2Kbps	Bottom Side	10	Bottom	Receiver Off	1312	1712.4	23.05	24.00	1.245	0.1	0.792	0.986
	1	2	WCDMA Band IV	RMC 12.2Kbps	Bottom Side	10	Bottom	Receiver Off	1413	1732.6	23.08	24.00	1.236	0.02	0.833	1.030



FCC SAR Test Report

Report No. : FA951002-02

Plot No.	SIM	Battery	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
1	1	1	WCDMA Band II	RMC 12.2Kbps	Front	10	Top	Receiver Off	9262	1852.4	23.31	24.50	1.315	0.02	0.217	0.285
1	1	1	WCDMA Band II	RMC 12.2Kbps	Back	10	Top	Receiver Off	9262	1852.4	23.31	24.50	1.315	0.03	0.334	0.439
1	1	1	WCDMA Band II	RMC 12.2Kbps	Left Side	10	Top	Receiver Off	9262	1852.4	23.31	24.50	1.315	0.08	0.399	0.525
1	1	1	WCDMA Band II	RMC 12.2Kbps	Top Side	10	Top	Receiver Off	9262	1852.4	23.31	24.50	1.315	0.04	0.280	0.368
2	1	1	WCDMA Band II	RMC 12.2Kbps	Left Side	10	Top	Receiver Off	9262	1852.4	23.31	24.50	1.315	0.01	0.429	0.564
2	2	2	WCDMA Band II	RMC 12.2Kbps	Left Side	10	Top	Receiver Off	9262	1852.4	23.31	24.50	1.315	0.04	0.426	0.560
1	1	1	WCDMA Band II	RMC 12.2Kbps	Front	10	Bottom	Receiver Off	9262	1852.4	23.54	24.50	1.247	0.05	0.396	0.494
1	1	1	WCDMA Band II	RMC 12.2Kbps	Back	10	Bottom	Receiver Off	9262	1852.4	23.54	24.50	1.247	-0.03	0.553	0.690
1	1	1	WCDMA Band II	RMC 12.2Kbps	Left Side	10	Bottom	Receiver Off	9262	1852.4	23.54	24.50	1.247	0.06	0.303	0.378
1	1	1	WCDMA Band II	RMC 12.2Kbps	Right Side	10	Bottom	Receiver Off	9262	1852.4	23.54	24.50	1.247	-0.01	0.216	0.269
1	1	1	WCDMA Band II	RMC 12.2Kbps	Bottom Side	10	Bottom	Receiver Off	9262	1852.4	23.54	24.50	1.247	0.08	0.793	0.989
22	1	1	WCDMA Band II	RMC 12.2Kbps	Bottom Side	10	Bottom	Receiver Off	9400	1880	23.53	24.50	1.250	0.03	0.839	1.049
1	1	1	WCDMA Band II	RMC 12.2Kbps	Bottom Side	10	Bottom	Receiver Off	9538	1907.6	23.52	24.50	1.253	0.16	0.824	1.033
2	1	1	WCDMA Band II	RMC 12.2Kbps	Bottom Side	10	Bottom	Receiver Off	9400	1880	23.53	24.50	1.250	0.17	0.779	0.974
1	1	1	WCDMA Band II	RMC 12.2Kbps	Bottom Side	10	Bottom	Receiver Off	9262	1852.4	23.54	24.50	1.247	0.13	0.796	0.993
1	1	1	WCDMA Band II	RMC 12.2Kbps	Bottom Side	10	Bottom	Receiver Off	9538	1907.6	23.52	24.50	1.253	0.04	0.822	1.030
1	2	2	WCDMA Band II	RMC 12.2Kbps	Bottom Side	10	Bottom	Receiver Off	9400	1880	23.53	24.50	1.250	0.08	0.809	1.011
1	1	1	WCDMA Band II	RMC 12.2Kbps	Bottom Side	10	Bottom	Receiver Off	9262	1852.4	23.54	24.50	1.247	0.07	0.826	1.030
1	1	1	WCDMA Band II	RMC 12.2Kbps	Bottom Side	10	Bottom	Receiver Off	9538	1907.6	23.52	24.50	1.253	0.1	0.822	1.030

<FDD LTE SAR>

Plot No.	SIM	Battery	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
1	1	1	LTE Band 5	10M	QPSK	1	0	Front	10	Top	Receiver Off	20525	836.5	23.85	25.00	1.303	-0.05	0.372	0.485
1	1	1	LTE Band 5	10M	QPSK	25	0	Front	10	Top	Receiver Off	20525	836.5	22.89	24.00	1.291	0.14	0.320	0.413
1	1	1	LTE Band 5	10M	QPSK	1	0	Back	10	Top	Receiver Off	20525	836.5	23.85	25.00	1.303	-0.18	0.474	0.618
1	1	1	LTE Band 5	10M	QPSK	25	0	Back	10	Top	Receiver Off	20525	836.5	22.89	24.00	1.291	-0.12	0.405	0.523
1	1	1	LTE Band 5	10M	QPSK	1	0	Left Side	10	Top	Receiver Off	20525	836.5	23.85	25.00	1.303	-0.01	0.458	0.597
1	1	1	LTE Band 5	10M	QPSK	25	0	Left Side	10	Top	Receiver Off	20525	836.5	22.89	24.00	1.291	0.01	0.382	0.493
1	1	1	LTE Band 5	10M	QPSK	1	0	Top Side	10	Top	Receiver Off	20525	836.5	23.85	25.00	1.303	0.05	0.383	0.499
1	1	1	LTE Band 5	10M	QPSK	25	0	Top Side	10	Top	Receiver Off	20525	836.5	22.89	24.00	1.291	0.08	0.322	0.416
2	1	1	LTE Band 5	10M	QPSK	1	0	Back	10	Top	Receiver Off	20525	836.5	23.85	25.00	1.303	-0.12	0.473	0.616
1	2	2	LTE Band 5	10M	QPSK	1	0	Back	10	Top	Receiver Off	20525	836.5	23.85	25.00	1.303	-0.06	0.441	0.575
1	1	1	LTE Band 5	10M	QPSK	1	0	Front	10	Bottom	Receiver Off	20525	836.5	23.99	25.00	1.262	-0.11	0.392	0.495
1	1	1	LTE Band 5	10M	QPSK	25	0	Front	10	Bottom	Receiver Off	20525	836.5	23.05	24.00	1.245	-0.01	0.308	0.383
1	1	1	LTE Band 5	10M	QPSK	1	0	Back	10	Bottom	Receiver Off	20525	836.5	23.99	25.00	1.262	0.07	0.502	0.633
1	1	1	LTE Band 5	10M	QPSK	25	0	Back	10	Bottom	Receiver Off	20525	836.5	23.05	24.00	1.245	0.15	0.399	0.497
1	1	1	LTE Band 5	10M	QPSK	1	0	Left Side	10	Bottom	Receiver Off	20525	836.5	23.99	25.00	1.262	0.1	0.357	0.450
1	1	1	LTE Band 5	10M	QPSK	25	0	Left Side	10	Bottom	Receiver Off	20525	836.5	23.05	24.00	1.245	0.06	0.280	0.348
1	1	1	LTE Band 5	10M	QPSK	1	0	Right Side	10	Bottom	Receiver Off	20525	836.5	23.99	25.00	1.262	-0.01	0.072	0.091
1	1	1	LTE Band 5	10M	QPSK	25	0	Right Side	10	Bottom	Receiver Off	20525	836.5	23.05	24.00	1.245	-0.03	0.058	0.072
1	1	1	LTE Band 5	10M	QPSK	1	0	Bottom Side	10	Bottom	Receiver Off	20525	836.5	23.99	25.00	1.262	-0.02	0.221	0.279
1	1	1	LTE Band 5	10M	QPSK	25	0	Bottom Side	10	Bottom	Receiver Off	20525	836.5	23.05	24.00	1.245	-0.01	0.174	0.217
2	1	1	LTE Band 5	10M	QPSK	1	0	Back	10	Bottom	Receiver Off	20525	836.5	23.99	25.00	1.262	0.09	0.447	0.564
23	1	2	LTE Band 5	10M	QPSK	1	0	Back	10	Bottom	Receiver Off	20525	836.5	23.99	25.00	1.262	0.03	0.520	0.656



FCC SAR Test Report

Report No. : FA951002-02

Plot No.	SIM	Battery	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	1	1	LTE Band 26	15M	QPSK	1	37	Front	10	Top	Receiver Off	26865	831.5	23.48	24.50	1.265	0.11	0.346	0.438
	1	1	LTE Band 26	15M	QPSK	36	0	Front	10	Top	Receiver Off	26865	831.5	22.50	23.50	1.259	0.11	0.266	0.335
24	1	1	LTE Band 26	15M	QPSK	1	37	Back	10	Top	Receiver Off	26865	831.5	23.48	24.50	1.265	-0.02	0.438	0.554
	1	1	LTE Band 26	15M	QPSK	36	0	Back	10	Top	Receiver Off	26865	831.5	22.50	23.50	1.259	0.01	0.338	0.426
	1	1	LTE Band 26	15M	QPSK	1	37	Left Side	10	Top	Receiver Off	26865	831.5	23.48	24.50	1.265	-0.01	0.411	0.520
	1	1	LTE Band 26	15M	QPSK	36	0	Left Side	10	Top	Receiver Off	26865	831.5	22.50	23.50	1.259	0.01	0.341	0.429
	1	1	LTE Band 26	15M	QPSK	1	37	Top Side	10	Top	Receiver Off	26865	831.5	23.48	24.50	1.265	0.05	0.338	0.427
	1	1	LTE Band 26	15M	QPSK	36	0	Top Side	10	Top	Receiver Off	26865	831.5	22.50	23.50	1.259	0.04	0.275	0.346
	2	1	LTE Band 26	15M	QPSK	1	37	Back	10	Top	Receiver Off	26865	831.5	23.48	24.50	1.265	-0.08	0.428	0.541
	1	2	LTE Band 26	15M	QPSK	1	37	Back	10	Top	Receiver Off	26865	831.5	23.48	24.50	1.265	-0.08	0.395	0.500
	1	1	LTE Band 26	15M	QPSK	1	37	Front	10	Bottom	Receiver Off	26865	831.5	23.68	24.50	1.208	-0.03	0.339	0.409
	1	1	LTE Band 26	15M	QPSK	36	0	Front	10	Bottom	Receiver Off	26865	831.5	22.53	23.50	1.250	0.01	0.287	0.359
	1	1	LTE Band 26	15M	QPSK	1	37	Back	10	Bottom	Receiver Off	26865	831.5	23.68	24.50	1.208	0.16	0.447	0.540
	1	1	LTE Band 26	15M	QPSK	36	0	Back	10	Bottom	Receiver Off	26865	831.5	22.53	23.50	1.250	0.1	0.375	0.469
	1	1	LTE Band 26	15M	QPSK	1	37	Left Side	10	Bottom	Receiver Off	26865	831.5	23.68	24.50	1.208	0.03	0.316	0.382
	1	1	LTE Band 26	15M	QPSK	36	0	Left Side	10	Bottom	Receiver Off	26865	831.5	22.53	23.50	1.250	0.08	0.270	0.338
	1	1	LTE Band 26	15M	QPSK	1	37	Right Side	10	Bottom	Receiver Off	26865	831.5	23.68	24.50	1.208	0.05	0.063	0.076
	1	1	LTE Band 26	15M	QPSK	36	0	Right Side	10	Bottom	Receiver Off	26865	831.5	22.53	23.50	1.250	-0.02	0.053	0.066
	1	1	LTE Band 26	15M	QPSK	1	37	Bottom Side	10	Bottom	Receiver Off	26865	831.5	23.68	24.50	1.208	-0.03	0.196	0.237
	1	1	LTE Band 26	15M	QPSK	36	0	Bottom Side	10	Bottom	Receiver Off	26865	831.5	22.53	23.50	1.250	-0.03	0.169	0.211
	2	1	LTE Band 26	15M	QPSK	1	37	Back	10	Bottom	Receiver Off	26865	831.5	23.68	24.50	1.208	0.08	0.401	0.484
	1	2	LTE Band 26	15M	QPSK	1	37	Back	10	Bottom	Receiver Off	26865	831.5	23.68	24.50	1.208	0.16	0.441	0.533
	1	1	LTE Band 4	20M	QPSK	1	0	Front	10	Top	Receiver Off	20175	1732.5	23.25	24.00	1.189	0.03	0.273	0.324
	1	1	LTE Band 4	20M	QPSK	50	0	Front	10	Top	Receiver Off	20175	1732.5	22.25	23.00	1.189	-0.02	0.221	0.263
	1	1	LTE Band 4	20M	QPSK	1	0	Back	10	Top	Receiver Off	20175	1732.5	23.25	24.00	1.189	0.07	0.391	0.465
	1	1	LTE Band 4	20M	QPSK	50	0	Back	10	Top	Receiver Off	20175	1732.5	22.25	23.00	1.189	0.06	0.305	0.362
	1	1	LTE Band 4	20M	QPSK	1	0	Left Side	10	Top	Receiver Off	20175	1732.5	23.25	24.00	1.189	0.17	0.363	0.431
	1	1	LTE Band 4	20M	QPSK	50	0	Left Side	10	Top	Receiver Off	20175	1732.5	22.25	23.00	1.189	0.18	0.299	0.355
	1	1	LTE Band 4	20M	QPSK	1	0	Top Side	10	Top	Receiver Off	20175	1732.5	23.25	24.00	1.189	0.05	0.253	0.301
	1	1	LTE Band 4	20M	QPSK	50	0	Top Side	10	Top	Receiver Off	20175	1732.5	22.25	23.00	1.189	0.03	0.208	0.247
	2	1	LTE Band 4	20M	QPSK	1	0	Back	10	Top	Receiver Off	20175	1732.5	23.25	24.00	1.189	-0.03	0.382	0.454
	1	2	LTE Band 4	20M	QPSK	1	0	Back	10	Top	Receiver Off	20175	1732.5	23.25	24.00	1.189	-0.01	0.373	0.443
	1	1	LTE Band 4	20M	QPSK	1	0	Front	10	Bottom	Receiver Off	20175	1732.5	22.92	24.00	1.282	-0.14	0.438	0.562
	1	1	LTE Band 4	20M	QPSK	50	0	Front	10	Bottom	Receiver Off	20175	1732.5	21.91	23.00	1.285	0.08	0.359	0.461
	1	1	LTE Band 4	20M	QPSK	1	0	Back	10	Bottom	Receiver Off	20175	1732.5	22.92	24.00	1.282	-0.11	0.496	0.636
	1	1	LTE Band 4	20M	QPSK	50	0	Back	10	Bottom	Receiver Off	20175	1732.5	21.91	23.00	1.285	0.01	0.387	0.497
	1	1	LTE Band 4	20M	QPSK	1	0	Left Side	10	Bottom	Receiver Off	20175	1732.5	22.92	24.00	1.282	0.02	0.307	0.394
	1	1	LTE Band 4	20M	QPSK	50	0	Left Side	10	Bottom	Receiver Off	20175	1732.5	21.91	23.00	1.285	0.06	0.249	0.320
	1	1	LTE Band 4	20M	QPSK	1	0	Right Side	10	Bottom	Receiver Off	20175	1732.5	22.92	24.00	1.282	0.01	0.161	0.206
	1	1	LTE Band 4	20M	QPSK	50	0	Right Side	10	Bottom	Receiver Off	20175	1732.5	21.91	23.00	1.285	0.04	0.129	0.166
	1	1	LTE Band 4	20M	QPSK	1	0	Bottom Side	10	Bottom	Receiver Off	20175	1732.5	22.92	24.00	1.282	0.12	0.797	1.022
	1	1	LTE Band 4	20M	QPSK	50	0	Bottom Side	10	Bottom	Receiver Off	20175	1732.5	21.91	23.00	1.285	0.02	0.653	0.839
	1	1	LTE Band 4	20M	QPSK	100	0	Bottom Side	10	Bottom	Receiver Off	20175	1732.5	22.06	23.00	1.242	0.08	0.615	0.764
	2	1	LTE Band 4	20M	QPSK	1	0	Bottom Side	10	Bottom	Receiver Off	20175	1732.5	22.92	24.00	1.282	0.01	0.753	0.966
25	1	2	LTE Band 4	20M	QPSK	1	0	Bottom Side	10	Bottom	Receiver Off	20175	1732.5	22.92	24.00	1.282	0.03	0.802	1.028



FCC SAR Test Report

Report No. : FA951002-02

Plot No.	SIM	Battery	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
1	1	1	LTE Band 2	20M	QPSK	1	0	Front	10	Top	Receiver Off	19100	1900	23.15	24.00	1.216	-0.15	0.200	0.243
1	1	1	LTE Band 2	20M	QPSK	50	0	Front	10	Top	Receiver Off	19100	1900	22.14	23.00	1.219	0.03	0.163	0.199
1	1	1	LTE Band 2	20M	QPSK	1	0	Back	10	Top	Receiver Off	19100	1900	23.15	24.00	1.216	0.18	0.317	0.386
1	1	1	LTE Band 2	20M	QPSK	50	0	Back	10	Top	Receiver Off	19100	1900	22.14	23.00	1.219	0.15	0.261	0.318
1	1	1	LTE Band 2	20M	QPSK	1	0	Left Side	10	Top	Receiver Off	19100	1900	23.15	24.00	1.216	0.09	0.381	0.463
1	1	1	LTE Band 2	20M	QPSK	50	0	Left Side	10	Top	Receiver Off	19100	1900	22.14	23.00	1.219	0.12	0.311	0.379
1	1	1	LTE Band 2	20M	QPSK	1	0	Top Side	10	Top	Receiver Off	19100	1900	23.15	24.00	1.216	-0.05	0.283	0.344
1	1	1	LTE Band 2	20M	QPSK	50	0	Top Side	10	Top	Receiver Off	19100	1900	22.14	23.00	1.219	0.04	0.232	0.283
2	1	1	LTE Band 2	20M	QPSK	1	0	Left Side	10	Top	Receiver Off	19100	1900	23.15	24.00	1.216	0.05	0.431	0.524
2	2	2	LTE Band 2	20M	QPSK	1	0	Left Side	10	Top	Receiver Off	19100	1900	23.15	24.00	1.216	-0.02	0.442	0.538
1	1	1	LTE Band 2	20M	QPSK	1	0	Front	10	Bottom	Receiver Off	19100	1900	23.24	24.00	1.191	0.08	0.434	0.517
1	1	1	LTE Band 2	20M	QPSK	50	50	Front	10	Bottom	Receiver Off	19100	1900	22.30	23.00	1.175	0.07	0.344	0.404
1	1	1	LTE Band 2	20M	QPSK	1	0	Back	10	Bottom	Receiver Off	19100	1900	23.24	24.00	1.191	-0.12	0.528	0.629
1	1	1	LTE Band 2	20M	QPSK	50	50	Back	10	Bottom	Receiver Off	19100	1900	22.30	23.00	1.175	-0.04	0.416	0.489
1	1	1	LTE Band 2	20M	QPSK	1	0	Left Side	10	Bottom	Receiver Off	19100	1900	23.24	24.00	1.191	-0.09	0.308	0.367
1	1	1	LTE Band 2	20M	QPSK	50	50	Left Side	10	Bottom	Receiver Off	19100	1900	22.30	23.00	1.175	0.03	0.233	0.274
1	1	1	LTE Band 2	20M	QPSK	1	0	Right Side	10	Bottom	Receiver Off	19100	1900	23.24	24.00	1.191	-0.06	0.193	0.230
1	1	1	LTE Band 2	20M	QPSK	50	50	Right Side	10	Bottom	Receiver Off	19100	1900	22.30	23.00	1.175	0.06	0.151	0.177
26	1	1	LTE Band 2	20M	QPSK	1	0	Bottom Side	10	Bottom	Receiver Off	19100	1900	23.24	24.00	1.191	0.12	0.820	0.977
1	1	1	LTE Band 2	20M	QPSK	1	0	Bottom Side	10	Bottom	Receiver Off	18700	1860	23.22	24.00	1.197	0.19	0.683	0.817
1	1	1	LTE Band 2	20M	QPSK	1	0	Bottom Side	10	Bottom	Receiver Off	18900	1880	23.17	24.00	1.211	0.19	0.690	0.835
1	1	1	LTE Band 2	20M	QPSK	50	50	Bottom Side	10	Bottom	Receiver Off	19100	1900	22.30	23.00	1.175	0.1	0.660	0.775
1	1	1	LTE Band 2	20M	QPSK	100	0	Bottom Side	10	Bottom	Receiver Off	19100	1900	22.26	23.00	1.186	0.18	0.634	0.752
2	1	1	LTE Band 2	20M	QPSK	1	0	Bottom Side	10	Bottom	Receiver Off	19100	1900	23.24	24.00	1.191	0.02	0.735	0.876
2	1	1	LTE Band 2	20M	QPSK	1	0	Bottom Side	10	Bottom	Receiver Off	18700	1860	23.22	24.00	1.197	0.1	0.703	0.841
2	1	1	LTE Band 2	20M	QPSK	1	0	Bottom Side	10	Bottom	Receiver Off	18900	1880	23.17	24.00	1.211	0.08	0.706	0.855
1	2	2	LTE Band 2	20M	QPSK	1	0	Bottom Side	10	Bottom	Receiver Off	19100	1900	23.24	24.00	1.191	0.03	0.780	0.929
1	2	2	LTE Band 2	20M	QPSK	1	0	Bottom Side	10	Bottom	Receiver Off	18700	1860	23.22	24.00	1.197	0.01	0.814	0.974
1	2	2	LTE Band 2	20M	QPSK	1	0	Bottom Side	10	Bottom	Receiver Off	18900	1880	23.17	24.00	1.211	0.16	0.766	0.927



Plot No.	SIM	Battery	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
1	1	1	LTE Band 7	20M	QPSK	1	99	Front	10	Top	Receiver Off	21100	2535	23.49	24.70	1.321	0.13	0.332	0.439
1	1	1	LTE Band 7	20M	QPSK	50	50	Front	10	Top	Receiver Off	21100	2535	22.67	23.70	1.268	0.01	0.264	0.335
1	1	1	LTE Band 7	20M	QPSK	1	99	Back	10	Top	Receiver Off	21100	2535	23.49	24.70	1.321	-0.03	0.361	0.477
1	1	1	LTE Band 7	20M	QPSK	50	50	Back	10	Top	Receiver Off	21100	2535	22.67	23.70	1.268	0.11	0.289	0.366
1	1	1	LTE Band 7	20M	QPSK	1	99	Left Side	10	Top	Receiver Off	21100	2535	23.49	24.70	1.321	-0.06	0.111	0.147
1	1	1	LTE Band 7	20M	QPSK	50	50	Left Side	10	Top	Receiver Off	21100	2535	22.67	23.70	1.268	-0.14	0.106	0.134
1	1	1	LTE Band 7	20M	QPSK	1	99	Top Side	10	Top	Receiver Off	21100	2535	23.49	24.70	1.321	0.12	0.259	0.342
1	1	1	LTE Band 7	20M	QPSK	50	50	Top Side	10	Top	Receiver Off	21100	2535	22.67	23.70	1.268	-0.08	0.218	0.276
2	1	1	LTE Band 7	20M	QPSK	1	99	Back	10	Top	Receiver Off	21100	2535	23.49	24.70	1.321	-0.07	0.305	0.403
1	2	1	LTE Band 7	20M	QPSK	1	99	Back	10	Top	Receiver Off	21100	2535	23.49	24.70	1.321	0.07	0.363	0.480
1	1	1	LTE Band 7	20M	QPSK	1	49	Front	10	Bottom	Receiver Off	21100	2535	21.81	23.20	1.377	0.15	0.362	0.499
1	1	1	LTE Band 7	20M	QPSK	50	50	Front	10	Bottom	Receiver Off	21100	2535	21.99	23.20	1.321	0.07	0.376	0.497
1	1	1	LTE Band 7	20M	QPSK	1	49	Back	10	Bottom	Receiver Off	21100	2535	21.81	23.20	1.377	-0.04	0.393	0.541
1	1	1	LTE Band 7	20M	QPSK	50	50	Back	10	Bottom	Receiver Off	21100	2535	21.99	23.20	1.321	-0.03	0.418	0.552
1	1	1	LTE Band 7	20M	QPSK	1	49	Left Side	10	Bottom	Receiver Off	21100	2535	21.81	23.20	1.377	0.02	0.176	0.242
1	1	1	LTE Band 7	20M	QPSK	50	50	Left Side	10	Bottom	Receiver Off	21100	2535	21.99	23.20	1.321	0.03	0.181	0.239
1	1	1	LTE Band 7	20M	QPSK	1	49	Right Side	10	Bottom	Receiver Off	21100	2535	21.81	23.20	1.377	-0.12	0.074	0.102
1	1	1	LTE Band 7	20M	QPSK	50	50	Right Side	10	Bottom	Receiver Off	21100	2535	21.99	23.20	1.321	0.04	0.077	0.102
1	1	1	LTE Band 7	20M	QPSK	1	49	Bottom Side	10	Bottom	Receiver Off	21100	2535	21.81	23.20	1.377	0.16	0.610	0.840
1	1	1	LTE Band 7	20M	QPSK	1	49	Bottom Side	10	Bottom	Receiver Off	20850	2510	21.67	23.20	1.422	0.02	0.592	0.842
1	1	1	LTE Band 7	20M	QPSK	1	49	Bottom Side	10	Bottom	Receiver Off	21350	2560	21.79	23.20	1.384	0.19	0.588	0.814
1	1	1	LTE Band 7	20M	QPSK	50	50	Bottom Side	10	Bottom	Receiver Off	21100	2535	21.99	23.20	1.321	0.05	0.621	0.821
1	1	1	LTE Band 7	20M	QPSK	50	50	Bottom Side	10	Bottom	Receiver Off	20850	2510	21.76	23.20	1.393	0.04	0.621	0.865
1	1	1	LTE Band 7	20M	QPSK	50	50	Bottom Side	10	Bottom	Receiver Off	21350	2560	21.93	23.20	1.340	0.03	0.600	0.804
27	1	1	LTE Band 7	20M	QPSK	100	0	Bottom Side	10	Bottom	Receiver Off	21100	2535	21.38	23.20	1.521	0.05	0.573	0.871
2	1	1	LTE Band 7	20M	QPSK	100	0	Bottom Side	10	Bottom	Receiver Off	21100	2535	21.38	23.20	1.521	0.04	0.538	0.818
1	2	1	LTE Band 7	20M	QPSK	100	0	Bottom Side	10	Bottom	Receiver Off	21100	2535	21.38	23.20	1.521	0.07	0.556	0.845



<TDD LTE SAR>

Plot No.	SIM	Battery	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
1	1	1	LTE Band 38	20M	QPSK	1	99	Front	10	Top	Receiver Off	38000	2595	23.27	24.20	1.239	62.9	1.006	0.05	0.237	0.295
1	1	1	LTE Band 38	20M	QPSK	50	50	Front	10	Top	Receiver Off	38000	2595	22.14	23.20	1.276	62.9	1.006	0.19	0.178	0.229
1	1	1	LTE Band 38	20M	QPSK	1	99	Back	10	Top	Receiver Off	38000	2595	23.27	24.20	1.239	62.9	1.006	0.05	0.228	0.284
1	1	1	LTE Band 38	20M	QPSK	50	50	Back	10	Top	Receiver Off	38000	2595	22.14	23.20	1.276	62.9	1.006	-0.07	0.172	0.221
1	1	1	LTE Band 38	20M	QPSK	1	99	Left Side	10	Top	Receiver Off	38000	2595	23.27	24.20	1.239	62.9	1.006	-0.06	0.089	0.111
1	1	1	LTE Band 38	20M	QPSK	50	50	Left Side	10	Top	Receiver Off	38000	2595	22.14	23.20	1.276	62.9	1.006	-0.06	0.071	0.091
1	1	1	LTE Band 38	20M	QPSK	1	99	Top Side	10	Top	Receiver Off	38000	2595	23.27	24.20	1.239	62.9	1.006	0.04	0.128	0.160
1	1	1	LTE Band 38	20M	QPSK	50	50	Top Side	10	Top	Receiver Off	38000	2595	22.14	23.20	1.276	62.9	1.006	0.02	0.095	0.122
2	1	1	LTE Band 38	20M	QPSK	1	99	Front	10	Top	Receiver Off	38000	2595	23.27	24.20	1.239	62.9	1.006	0.04	0.221	0.275
1	2	1	LTE Band 38	20M	QPSK	1	99	Front	10	Top	Receiver Off	38000	2595	23.27	24.20	1.239	62.9	1.006	0.01	0.238	0.297
1	1	1	LTE Band 38	20M	QPSK	1	99	Front	10	Bottom	Receiver Off	38000	2595	23.27	24.20	1.239	62.9	1.006	0.03	0.238	0.297
1	1	1	LTE Band 38	20M	QPSK	50	0	Front	10	Bottom	Receiver Off	38000	2595	22.20	23.20	1.259	62.9	1.006	-0.06	0.194	0.246
1	1	1	LTE Band 38	20M	QPSK	1	99	Back	10	Bottom	Receiver Off	38000	2595	23.27	24.20	1.239	62.9	1.006	-0.03	0.304	0.379
1	1	1	LTE Band 38	20M	QPSK	50	0	Back	10	Bottom	Receiver Off	38000	2595	22.20	23.20	1.259	62.9	1.006	-0.05	0.235	0.298
1	1	1	LTE Band 38	20M	QPSK	1	99	Left Side	10	Bottom	Receiver Off	38000	2595	23.27	24.20	1.239	62.9	1.006	0.06	0.170	0.212
1	1	1	LTE Band 38	20M	QPSK	50	0	Left Side	10	Bottom	Receiver Off	38000	2595	22.20	23.20	1.259	62.9	1.006	0.01	0.134	0.170
1	1	1	LTE Band 38	20M	QPSK	1	99	Right Side	10	Bottom	Receiver Off	38000	2595	23.27	24.20	1.239	62.9	1.006	0.01	0.061	0.077
1	1	1	LTE Band 38	20M	QPSK	50	0	Right Side	10	Bottom	Receiver Off	38000	2595	22.20	23.20	1.259	62.9	1.006	0.01	0.050	0.064
1	1	1	LTE Band 38	20M	QPSK	1	99	Bottom Side	10	Bottom	Receiver Off	38000	2595	23.27	24.20	1.239	62.9	1.006	0.01	0.384	0.479
1	1	1	LTE Band 38	20M	QPSK	50	0	Bottom Side	10	Bottom	Receiver Off	38000	2595	22.20	23.20	1.259	62.9	1.006	0.03	0.361	0.457
2	1	1	LTE Band 38	20M	QPSK	1	99	Bottom Side	10	Bottom	Receiver Off	38000	2595	23.27	24.20	1.239	62.9	1.006	0.09	0.440	0.548
28	2	2	LTE Band 38	20M	QPSK	1	99	Bottom Side	10	Bottom	Receiver Off	38000	2595	23.27	24.20	1.239	62.9	1.006	0.07	0.487	0.607
1	1	1	LTE Band 41	20M	QPSK	1	99	Front	10	Top	Receiver Off	40840	2615	23.12	24.20	1.282	62.9	1.006	0.05	0.243	0.313
1	1	1	LTE Band 41	20M	QPSK	50	50	Front	10	Top	Receiver Off	40840	2615	22.26	23.20	1.242	62.9	1.006	-0.16	0.191	0.239
1	1	1	LTE Band 41	20M	QPSK	1	99	Back	10	Top	Receiver Off	40840	2615	23.12	24.20	1.282	62.9	1.006	0.03	0.245	0.316
1	1	1	LTE Band 41	20M	QPSK	50	50	Back	10	Top	Receiver Off	40840	2615	22.26	23.20	1.242	62.9	1.006	-0.01	0.195	0.244
1	1	1	LTE Band 41	20M	QPSK	1	99	Left Side	10	Top	Receiver Off	40840	2615	23.12	24.20	1.282	62.9	1.006	-0.01	0.088	0.113
1	1	1	LTE Band 41	20M	QPSK	50	50	Left Side	10	Top	Receiver Off	40840	2615	22.26	23.20	1.242	62.9	1.006	-0.04	0.070	0.087
1	1	1	LTE Band 41	20M	QPSK	1	99	Top Side	10	Top	Receiver Off	40840	2615	23.12	24.20	1.282	62.9	1.006	-0.17	0.132	0.170
1	1	1	LTE Band 41	20M	QPSK	50	50	Top Side	10	Top	Receiver Off	40840	2615	22.26	23.20	1.242	62.9	1.006	0.13	0.097	0.121
2	1	1	LTE Band 41	20M	QPSK	1	99	Back	10	Top	Receiver Off	40840	2615	23.12	24.20	1.282	62.9	1.006	0.05	0.229	0.295
1	2	1	LTE Band 41	20M	QPSK	1	99	Back	10	Top	Receiver Off	40840	2615	23.12	24.20	1.282	62.9	1.006	0.18	0.244	0.315
1	1	1	LTE Band 41	20M	QPSK	1	99	Front	10	Bottom	Receiver Off	40840	2615	23.17	24.20	1.268	62.9	1.006	0.01	0.230	0.293
1	1	1	LTE Band 41	20M	QPSK	50	50	Front	10	Bottom	Receiver Off	40840	2615	21.97	23.20	1.327	62.9	1.006	-0.04	0.184	0.246
1	1	1	LTE Band 41	20M	QPSK	1	99	Back	10	Bottom	Receiver Off	40840	2615	23.17	24.20	1.268	62.9	1.006	-0.11	0.308	0.393
1	1	1	LTE Band 41	20M	QPSK	50	50	Back	10	Bottom	Receiver Off	40840	2615	21.97	23.20	1.327	62.9	1.006	-0.02	0.240	0.320
1	1	1	LTE Band 41	20M	QPSK	1	99	Left Side	10	Bottom	Receiver Off	40840	2615	23.17	24.20	1.268	62.9	1.006	0.03	0.154	0.196
1	1	1	LTE Band 41	20M	QPSK	50	50	Left Side	10	Bottom	Receiver Off	40840	2615	21.97	23.20	1.327	62.9	1.006	0.05	0.122	0.163
1	1	1	LTE Band 41	20M	QPSK	1	99	Right Side	10	Bottom	Receiver Off	40840	2615	23.17	24.20	1.268	62.9	1.006	0.02	0.053	0.067
1	1	1	LTE Band 41	20M	QPSK	50	50	Right Side	10	Bottom	Receiver Off	40840	2615	21.97	23.20	1.327	62.9	1.006	0.12	0.042	0.056
1	1	1	LTE Band 41	20M	QPSK	1	99	Bottom Side	10	Bottom	Receiver Off	40840	2615	23.17	24.20	1.268	62.9	1.006	0.06	0.454	0.579
1	1	1	LTE Band 41	20M	QPSK	50	50	Bottom Side	10	Bottom	Receiver Off	40840	2615	21.97	23.20	1.327	62.9	1.006	0.02	0.356	0.475
2	1	1	LTE Band 41	20M	QPSK	1	99	Bottom Side	10	Bottom	Receiver Off	40840	2615	23.17	24.20	1.268	62.9	1.006	0.03	0.456	0.582
29	2	2	LTE Band 41	20M	QPSK	1	99	Bottom Side	10	Bottom	Receiver Off	40840	2615	23.17	24.20	1.268	62.9	1.006	0.07	0.465	0.593



<WLAN 2.4GHz SAR>

Plot No.	Battery	Antenna	Band	Mode	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Max Area Scan SAR	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	1	1	WLAN2.4GHz	802.11b 5.5Mbps	Front	10	Receiver Off	6	2437	17.50	19.00	1.413	98.9	1.011		0.192		
	1	1	WLAN2.4GHz	802.11b 5.5Mbps	Back	10	Receiver Off	6	2437	17.50	19.00	1.413	98.9	1.011	-0.11	0.285	0.205	0.293
30	1	1	WLAN2.4GHz	802.11b 5.5Mbps	Top Side	10	Receiver Off	6	2437	17.50	19.00	1.413	98.9	1.011	0.05	0.584	0.432	0.617
	1	1	WLAN2.4GHz	802.11b 5.5Mbps	Right Side	10	Receiver Off	6	2437	17.50	19.00	1.413	98.9	1.011		0.077		
	2	1	WLAN2.4GHz	802.11b 5.5Mbps	Top Side	10	Receiver Off	6	2437	17.50	19.00	1.413	98.9	1.011	0.06		0.422	0.603
	1	4	WLAN2.4GHz	802.11b 5.5Mbps	Front	10	Receiver Off	6	2437	17.20	19.00	1.514	98.91	1.011		0.153		
	1	4	WLAN2.4GHz	802.11b 5.5Mbps	Back	10	Receiver Off	6	2437	17.20	19.00	1.514	98.91	1.011		0.191		
	1	4	WLAN2.4GHz	802.11b 5.5Mbps	Top Side	10	Receiver Off	6	2437	17.20	19.00	1.514	98.91	1.011		0.066		
	1	4	WLAN2.4GHz	802.11b 5.5Mbps	Right Side	10	Receiver Off	6	2437	17.20	19.00	1.514	98.91	1.011	0.01	0.270	0.212	0.324
	2	4	WLAN2.4GHz	802.11b 5.5Mbps	Right Side	10	Receiver Off	6	2437	17.20	19.00	1.514	98.91	1.011	-0.01		0.219	0.335

<Bluetooth SAR>

Plot No.	Battery	Band	Mode	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	1	Bluetooth	1Mbps	Front	10	Receiver Off	22	2424	15.50	17.00	1.413	76.9	1.300	0.02	0.016	0.029
	1	Bluetooth	1Mbps	Back	10	Receiver Off	22	2424	15.50	17.00	1.413	76.9	1.300	0.01	0.021	0.038
31	1	Bluetooth	1Mbps	Top Side	10	Receiver Off	22	2424	15.50	17.00	1.413	76.9	1.300	-0.11	0.043	0.079
	1	Bluetooth	1Mbps	Right Side	10	Receiver Off	22	2424	15.50	17.00	1.413	76.9	1.300	0.01	0.006	0.011
	2	Bluetooth	1Mbps	Top Side	10	Receiver Off	22	2424	15.50	17.00	1.413	76.9	1.300	-0.05	0.037	0.067

<WLAN 5GHz SAR>

Plot No.	Battery	Antenna	Band	Mode	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Max Area Scan SAR	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	1	4	WLAN5.2GHz	802.11a 6Mbps	Front	10	Receiver Off	48	5240	16.39	18.00	1.449	99.13	1.009		0.243		
	1	4	WLAN5.2GHz	802.11a 6Mbps	Back	10	Receiver Off	48	5240	16.39	18.00	1.449	99.13	1.009		0.218		
	1	4	WLAN5.2GHz	802.11a 6Mbps	Top Side	10	Receiver Off	48	5240	16.39	18.00	1.449	99.13	1.009		0.212		
	1	4	WLAN5.2GHz	802.11a 6Mbps	Right Side	10	Receiver Off	48	5240	16.39	18.00	1.449	99.13	1.009	0.05	0.403	0.216	0.316
32	2	4	WLAN5.2GHz	802.11a 6Mbps	Right Side	10	Receiver Off	48	5240	16.39	18.00	1.449	99.13	1.009	0.14		0.257	0.376
	1	4	WLAN5.8GHz	802.11a 6Mbps	Front	10	Receiver Off	157	5785	16.12	18.00	1.542	99.13	1.009		0.173		
	1	4	WLAN5.8GHz	802.11a 6Mbps	Back	10	Receiver Off	157	5785	16.12	18.00	1.542	99.13	1.009		0.324		
	1	4	WLAN5.8GHz	802.11a 6Mbps	Top Side	10	Receiver Off	157	5785	16.12	18.00	1.542	99.13	1.009		0.339		
33	1	4	WLAN5.8GHz	802.11a 6Mbps	Right Side	10	Receiver Off	157	5785	16.12	18.00	1.542	99.13	1.009	-0.03	0.466	0.250	0.389
	2	4	WLAN5.8GHz	802.11a 6Mbps	Right Side	10	Receiver Off	157	5785	16.12	18.00	1.542	99.13	1.009	-0.01		0.221	0.344



18.3 Body Worn Accessory SAR

<GSM SAR>

Table with 17 columns: Plot No., SIM, Battery, Band, Mode, Test Position, Gap (mm), Antenna, Power State, Ch., Freq. (MHz), Average Power (dBm), Tune-Up Limit (dBm), Tune-up Scaling Factor, Power Drift (dB), Measured 1g SAR (W/kg), Reported 1g SAR (W/kg). Rows include GSM850 and GSM1900 configurations.

<WCDMA SAR>

Table with 17 columns: Plot No., SIM, Battery, Band, Mode, Test Position, Gap (mm), Antenna, Power State, Ch., Freq. (MHz), Average Power (dBm), Tune-Up Limit (dBm), Tune-up Scaling Factor, Power Drift (dB), Measured 1g SAR (W/kg), Reported 1g SAR (W/kg). Rows include WCDMA Band V, WCDMA Band IV, and WCDMA Band II configurations.



<FDD LTE SAR>

Plot No.	SIM	Battery	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	1	1	LTE Band 5	10M	QPSK	1	0	Front	15	Top	Receiver Off	20525	836.5	23.85	25.00	1.303	0.02	0.188	0.245
	1	1	LTE Band 5	10M	QPSK	25	0	Front	15	Top	Receiver Off	20525	836.5	22.89	24.00	1.291	0.03	0.156	0.201
	1	1	LTE Band 5	10M	QPSK	1	0	Back	15	Top	Receiver Off	20525	836.5	23.85	25.00	1.303	0.04	0.223	0.291
	1	1	LTE Band 5	10M	QPSK	25	0	Back	15	Top	Receiver Off	20525	836.5	22.89	24.00	1.291	-0.05	0.179	0.231
	2	1	LTE Band 5	10M	QPSK	1	0	Back	15	Top	Receiver Off	20525	836.5	23.85	25.00	1.303	-0.06	0.213	0.278
	1	2	LTE Band 5	10M	QPSK	1	0	Back	15	Top	Receiver Off	20525	836.5	23.85	25.00	1.303	-0.09	0.227	0.296
	1	1	LTE Band 5	10M	QPSK	1	0	Front	15	Bottom	Receiver Off	20525	836.5	23.99	25.00	1.262	-0.16	0.167	0.211
	1	1	LTE Band 5	10M	QPSK	25	0	Front	15	Bottom	Receiver Off	20525	836.5	23.05	24.00	1.245	-0.03	0.137	0.170
	1	1	LTE Band 5	10M	QPSK	1	0	Back	15	Bottom	Receiver Off	20525	836.5	23.99	25.00	1.262	-0.11	0.226	0.285
	1	1	LTE Band 5	10M	QPSK	25	0	Back	15	Bottom	Receiver Off	20525	836.5	23.05	24.00	1.245	-0.02	0.181	0.225
	2	1	LTE Band 5	10M	QPSK	1	0	Back	15	Bottom	Receiver Off	20525	836.5	23.99	25.00	1.262	-0.03	0.233	0.294
39	2	2	LTE Band 5	10M	QPSK	1	0	Back	15	Bottom	Receiver Off	20525	836.5	23.99	25.00	1.262	-0.03	0.293	0.370
	1	1	LTE Band 26	15M	QPSK	1	37	Front	15	Top	Receiver Off	26865	831.5	23.48	24.50	1.265	0.02	0.189	0.239
	1	1	LTE Band 26	15M	QPSK	36	0	Front	15	Top	Receiver Off	26865	831.5	22.50	23.50	1.259	-0.07	0.149	0.188
	1	1	LTE Band 26	15M	QPSK	1	37	Back	15	Top	Receiver Off	26865	831.5	23.48	24.50	1.265	-0.06	0.213	0.269
	1	1	LTE Band 26	15M	QPSK	36	0	Back	15	Top	Receiver Off	26865	831.5	22.50	23.50	1.259	-0.05	0.164	0.206
	2	1	LTE Band 26	15M	QPSK	1	37	Back	15	Top	Receiver Off	26865	831.5	23.48	24.50	1.265	-0.09	0.212	0.268
	1	2	LTE Band 26	15M	QPSK	1	37	Back	15	Top	Receiver Off	26865	831.5	23.48	24.50	1.265	-0.14	0.209	0.264
	1	1	LTE Band 26	15M	QPSK	1	37	Front	15	Bottom	Receiver Off	26865	831.5	23.68	24.50	1.208	-0.07	0.152	0.184
	1	1	LTE Band 26	15M	QPSK	36	0	Front	15	Bottom	Receiver Off	26865	831.5	22.53	23.50	1.250	-0.01	0.127	0.159
	1	1	LTE Band 26	15M	QPSK	1	37	Back	15	Bottom	Receiver Off	26865	831.5	23.68	24.50	1.208	-0.01	0.209	0.252
	1	1	LTE Band 26	15M	QPSK	36	0	Back	15	Bottom	Receiver Off	26865	831.5	22.53	23.50	1.250	-0.13	0.177	0.221
	2	1	LTE Band 26	15M	QPSK	1	37	Back	15	Bottom	Receiver Off	26865	831.5	23.68	24.50	1.208	0.04	0.212	0.256
40	2	2	LTE Band 26	15M	QPSK	1	37	Back	15	Bottom	Receiver Off	26865	831.5	23.68	24.50	1.208	-0.13	0.250	0.302
	1	1	LTE Band 4	20M	QPSK	1	0	Front	15	Top	Receiver Off	20175	1732.5	23.25	24.00	1.189	-0.14	0.199	0.237
	1	1	LTE Band 4	20M	QPSK	50	0	Front	15	Top	Receiver Off	20175	1732.5	22.25	23.00	1.189	-0.16	0.158	0.188
	1	1	LTE Band 4	20M	QPSK	1	0	Back	15	Top	Receiver Off	20175	1732.5	23.25	24.00	1.189	-0.01	0.215	0.256
	1	1	LTE Band 4	20M	QPSK	50	0	Back	15	Top	Receiver Off	20175	1732.5	22.25	23.00	1.189	-0.04	0.172	0.204
	2	1	LTE Band 4	20M	QPSK	1	0	Back	15	Top	Receiver Off	20175	1732.5	23.25	24.00	1.189	-0.07	0.213	0.253
	1	2	LTE Band 4	20M	QPSK	1	0	Back	15	Top	Receiver Off	20175	1732.5	23.25	24.00	1.189	-0.07	0.225	0.267
	1	1	LTE Band 4	20M	QPSK	1	0	Front	15	Bottom	Receiver Off	20175	1732.5	22.92	24.00	1.282	-0.18	0.212	0.272
	1	1	LTE Band 4	20M	QPSK	50	0	Front	15	Bottom	Receiver Off	20175	1732.5	21.91	23.00	1.285	-0.13	0.168	0.216
	1	1	LTE Band 4	20M	QPSK	1	0	Back	15	Bottom	Receiver Off	20175	1732.5	22.92	24.00	1.282	-0.03	0.243	0.312
	1	1	LTE Band 4	20M	QPSK	50	0	Back	15	Bottom	Receiver Off	20175	1732.5	21.91	23.00	1.285	-0.18	0.196	0.252
	2	1	LTE Band 4	20M	QPSK	1	0	Back	15	Bottom	Receiver Off	20175	1732.5	22.92	24.00	1.282	-0.02	0.239	0.306
41	1	2	LTE Band 4	20M	QPSK	1	0	Back	15	Bottom	Receiver Off	20175	1732.5	22.92	24.00	1.282	-0.02	0.253	0.324



FCC SAR Test Report

Report No. : FA951002-02

Plot No.	SIM	Battery	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
1	1	1	LTE Band 2	20M	QPSK	1	0	Front	15	Top	Receiver Off	19100	1900	23.15	24.00	1.216	-0.04	0.103	0.125
1	1	1	LTE Band 2	20M	QPSK	50	0	Front	15	Top	Receiver Off	19100	1900	22.14	23.00	1.219	-0.02	0.084	0.103
1	1	1	LTE Band 2	20M	QPSK	1	0	Back	15	Top	Receiver Off	19100	1900	23.15	24.00	1.216	-0.03	0.168	0.204
1	1	1	LTE Band 2	20M	QPSK	50	0	Back	15	Top	Receiver Off	19100	1900	22.14	23.00	1.219	-0.13	0.133	0.162
2	1	1	LTE Band 2	20M	QPSK	1	0	Back	15	Top	Receiver Off	19100	1900	23.15	24.00	1.216	-0.16	0.162	0.197
1	2	1	LTE Band 2	20M	QPSK	1	0	Back	15	Top	Receiver Off	19100	1900	23.15	24.00	1.216	-0.11	0.177	0.215
1	1	1	LTE Band 2	20M	QPSK	1	0	Front	15	Bottom	Receiver Off	19100	1900	23.24	24.00	1.191	-0.14	0.193	0.230
1	1	1	LTE Band 2	20M	QPSK	50	0	Front	15	Bottom	Receiver Off	19100	1900	22.30	23.00	1.175	-0.06	0.149	0.175
1	1	1	LTE Band 2	20M	QPSK	1	0	Back	15	Bottom	Receiver Off	19100	1900	23.24	24.00	1.191	-0.14	0.250	0.298
1	1	1	LTE Band 2	20M	QPSK	50	0	Back	15	Bottom	Receiver Off	19100	1900	22.30	23.00	1.175	-0.01	0.197	0.231
2	1	1	LTE Band 2	20M	QPSK	1	0	Back	15	Bottom	Receiver Off	19100	1900	23.24	24.00	1.191	-0.14	0.237	0.282
42	1	2	LTE Band 2	20M	QPSK	1	0	Back	15	Bottom	Receiver Off	19100	1900	23.24	24.00	1.191	0.02	0.253	0.301
1	1	1	LTE Band 7	20M	QPSK	1	99	Front	15	Top	Receiver Off	21100	2535	23.49	24.70	1.321	-0.03	0.130	0.172
1	1	1	LTE Band 7	20M	QPSK	50	50	Front	15	Top	Receiver Off	21100	2535	22.67	23.70	1.268	0.09	0.108	0.137
1	1	1	LTE Band 7	20M	QPSK	1	99	Back	15	Top	Receiver Off	21100	2535	23.49	24.70	1.321	0.03	0.124	0.164
1	1	1	LTE Band 7	20M	QPSK	50	50	Back	15	Top	Receiver Off	21100	2535	22.67	23.70	1.268	0.01	0.099	0.125
2	1	1	LTE Band 7	20M	QPSK	1	99	Front	15	Top	Receiver Off	21100	2535	23.49	24.70	1.321	-0.16	0.126	0.166
1	2	1	LTE Band 7	20M	QPSK	1	99	Front	15	Top	Receiver Off	21100	2535	23.49	24.70	1.321	-0.11	0.123	0.163
1	1	1	LTE Band 7	20M	QPSK	1	49	Front	15	Bottom	Receiver Off	21100	2535	21.81	23.20	1.377	-0.12	0.179	0.247
1	1	1	LTE Band 7	20M	QPSK	50	50	Front	15	Bottom	Receiver Off	21100	2535	21.99	23.20	1.321	-0.18	0.187	0.247
1	1	1	LTE Band 7	20M	QPSK	1	49	Back	15	Bottom	Receiver Off	21100	2535	21.81	23.20	1.377	-0.02	0.206	0.284
1	1	1	LTE Band 7	20M	QPSK	50	50	Back	15	Bottom	Receiver Off	21100	2535	21.99	23.20	1.321	-0.04	0.211	0.279
2	1	1	LTE Band 7	20M	QPSK	1	49	Back	15	Bottom	Receiver Off	21100	2535	21.81	23.20	1.377	-0.06	0.230	0.317
43	2	2	LTE Band 7	20M	QPSK	1	49	Back	15	Bottom	Receiver Off	21100	2535	21.81	23.20	1.377	0.03	0.250	0.344



<TDD LTE SAR>

Plot No.	SIM	Battery	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	1	1	LTE Band 38	20M	QPSK	1	99	Front	15	Top	Receiver Off	38000	2595	23.27	24.20	1.239	62.9	1.006	-0.08	0.090	0.112
	1	1	LTE Band 38	20M	QPSK	50	50	Front	15	Top	Receiver Off	38000	2595	22.14	23.20	1.276	62.9	1.006	0.08	0.068	0.088
	1	1	LTE Band 38	20M	QPSK	1	99	Back	15	Top	Receiver Off	38000	2595	23.27	24.20	1.239	62.9	1.006	0.11	0.088	0.109
	1	1	LTE Band 38	20M	QPSK	50	50	Back	15	Top	Receiver Off	38000	2595	22.14	23.20	1.276	62.9	1.006	0.01	0.067	0.086
	2	1	LTE Band 38	20M	QPSK	1	99	Front	15	Top	Receiver Off	38000	2595	23.27	24.20	1.239	62.9	1.006	0.01	0.089	0.111
	1	2	LTE Band 38	20M	QPSK	1	99	Front	15	Top	Receiver Off	38000	2595	23.27	24.20	1.239	62.9	1.006	-0.11	0.090	0.112
	1	1	LTE Band 38	20M	QPSK	1	99	Front	15	Bottom	Receiver Off	38000	2595	23.27	24.20	1.239	62.9	1.006	-0.13	0.132	0.165
	1	1	LTE Band 38	20M	QPSK	50	0	Front	15	Bottom	Receiver Off	38000	2595	22.20	23.20	1.259	62.9	1.006	-0.03	0.110	0.139
	1	1	LTE Band 38	20M	QPSK	1	99	Back	15	Bottom	Receiver Off	38000	2595	23.27	24.20	1.239	62.9	1.006	-0.07	0.155	0.193
	1	1	LTE Band 38	20M	QPSK	50	0	Back	15	Bottom	Receiver Off	38000	2595	22.20	23.20	1.259	62.9	1.006	-0.13	0.122	0.155
	2	1	LTE Band 38	20M	QPSK	1	99	Back	15	Bottom	Receiver Off	38000	2595	23.27	24.20	1.239	62.9	1.006	-0.07	0.182	0.227
44	2	2	LTE Band 38	20M	QPSK	1	99	Back	15	Bottom	Receiver Off	38000	2595	23.27	24.20	1.239	62.9	1.006	-0.03	0.207	0.258
	1	1	LTE Band 41	20M	QPSK	1	99	Front	15	Top	Receiver Off	40840	2615	23.12	24.20	1.282	62.9	1.006	-0.05	0.096	0.124
	1	1	LTE Band 41	20M	QPSK	50	50	Front	15	Top	Receiver Off	40840	2615	22.26	23.20	1.242	62.9	1.006	0.09	0.076	0.095
	1	1	LTE Band 41	20M	QPSK	1	99	Back	15	Top	Receiver Off	40840	2615	23.12	24.20	1.282	62.9	1.006	0.02	0.098	0.126
	1	1	LTE Band 41	20M	QPSK	50	50	Back	15	Top	Receiver Off	40840	2615	22.26	23.20	1.242	62.9	1.006	0.03	0.078	0.097
	2	1	LTE Band 41	20M	QPSK	1	99	Back	15	Top	Receiver Off	40840	2615	23.12	24.20	1.282	62.9	1.006	0.1	0.090	0.116
	1	2	LTE Band 41	20M	QPSK	1	99	Back	15	Top	Receiver Off	40840	2615	23.12	24.20	1.282	62.9	1.006	0.04	0.104	0.134
	1	1	LTE Band 41	20M	QPSK	1	99	Front	15	Bottom	Receiver Off	40840	2615	23.17	24.20	1.268	62.9	1.006	-0.04	0.129	0.165
	1	1	LTE Band 41	20M	QPSK	50	50	Front	15	Bottom	Receiver Off	40840	2615	21.97	23.20	1.327	62.9	1.006	-0.04	0.103	0.138
	1	1	LTE Band 41	20M	QPSK	1	99	Back	15	Bottom	Receiver Off	40840	2615	23.17	24.20	1.268	62.9	1.006	0.01	0.159	0.203
	1	1	LTE Band 41	20M	QPSK	50	50	Back	15	Bottom	Receiver Off	40840	2615	21.97	23.20	1.327	62.9	1.006	-0.07	0.123	0.164
	2	1	LTE Band 41	20M	QPSK	1	99	Back	15	Bottom	Receiver Off	40840	2615	23.17	24.20	1.268	62.9	1.006	0.02	0.199	0.254
45	2	2	LTE Band 41	20M	QPSK	1	99	Back	15	Bottom	Receiver Off	40840	2615	23.17	24.20	1.268	62.9	1.006	-0.1	0.204	0.260



<WLAN 2.4GHz SAR>

Plot No.	Battery	Antenna	Band	Mode	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Max Area Scan SAR	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	1	1	WLAN2.4GHz	802.11b 5.5Mbps	Front	15	Receiver Off	6	2437	17.50	19.00	1.413	98.9	1.011		0.095		
46	1	1	WLAN2.4GHz	802.11b 5.5Mbps	Back	15	Receiver Off	6	2437	17.50	19.00	1.413	98.9	1.011	0.01	0.116	0.108	0.154
	2	1	WLAN2.4GHz	802.11b 5.5Mbps	Back	15	Receiver Off	6	2437	17.50	19.00	1.413	98.9	1.011	-0.04		0.093	0.132
	1	4	WLAN2.4GHz	802.11b 5.5Mbps	Front	15	Receiver Off	6	2437	17.20	19.00	1.514	98.91	1.011		0.0847		
	1	4	WLAN2.4GHz	802.11b 5.5Mbps	Back	15	Receiver Off	6	2437	17.20	19.00	1.514	98.91	1.011	0.01	0.0884	0.067	0.102
	2	4	WLAN2.4GHz	802.11b 5.5Mbps	Back	15	Receiver Off	6	2437	17.20	19.00	1.514	98.91	1.011	-0.1		0.067	0.103
	1	1+4	WLAN2.4GHz	802.11g 6Mbps	Front	15	Receiver Off	6	2437	19.91	21.50	1.442	99.05	1.010		0.093		
	1	1+4	WLAN2.4GHz	802.11g 6Mbps	Back	15	Receiver Off	6	2437	19.91	21.50	1.442	99.05	1.010	-0.12	0.121	0.101	0.147
	2	1+4	WLAN2.4GHz	802.11g 6Mbps	Back	15	Receiver Off	6	2437	19.91	21.50	1.442	99.05	1.010	-0.17		0.098	0.142

<Bluetooth SAR>

Plot No.	Battery	Band	Mode	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	1	Bluetooth	1Mbps	Front	15	Receiver Off	22	2424	15.50	17.00	1.413	76.9	1.300	0.06	0.008	0.015
47	1	Bluetooth	1Mbps	Back	15	Receiver Off	22	2424	15.50	17.00	1.413	76.9	1.300	-0.04	0.011	0.019
	2	Bluetooth	1Mbps	Back	15	Receiver Off	22	2424	15.50	17.00	1.413	76.9	1.300	-0.02	0.008	0.015

<WLAN 5GHz SAR>

Plot No.	Battery	Antenna	Band	Mode	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Max Area Scan SAR	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	1	4	WLAN5.3GHz	802.11a 6Mbps	Front	15	Receiver Off	60	5300	16.60	18.00	1.380	99.13	1.009		0.098		
	1	4	WLAN5.3GHz	802.11a 6Mbps	Back	15	Receiver Off	60	5300	16.60	18.00	1.380	99.13	1.009	-0.01	0.13	0.046	0.064
48	2	4	WLAN5.3GHz	802.11a 6Mbps	Back	15	Receiver Off	60	5300	16.60	18.00	1.380	99.13	1.009	-0.09		0.074	0.103
	1	4	WLAN5.5GHz	802.11a 6Mbps	Front	15	Receiver Off	116	5580	16.68	18.00	1.355	99.13	1.009		0.081		
49	1	4	WLAN5.5GHz	802.11a 6Mbps	Back	15	Receiver Off	116	5580	16.68	18.00	1.355	99.13	1.009	-0.03	0.131	0.051	0.070
	2	4	WLAN5.5GHz	802.11a 6Mbps	Back	15	Receiver Off	116	5580	16.68	18.00	1.355	99.13	1.009	-0.09		0.039	0.053
	1	4	WLAN5.8GHz	802.11a 6Mbps	Front	15	Receiver Off	157	5785	16.12	18.00	1.542	99.13	1.009		0.131		
50	1	4	WLAN5.8GHz	802.11a 6Mbps	Back	15	Receiver Off	157	5785	16.12	18.00	1.542	99.13	1.009	-0.08	0.250	0.100	0.156
	2	4	WLAN5.8GHz	802.11a 6Mbps	Back	15	Receiver Off	157	5785	16.12	18.00	1.542	99.13	1.009	-0.19		0.091	0.142



18.4 Product specific 10g SAR

<WLAN 5GHz SAR>

Plot No.	Battery	Antenna	Band	Mode	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Max Area Scan SAR	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
	1	4	WLAN5.3GHz	802.11a 6Mbps	Front	0	Receiver Off	60	5300	16.60	18.00	1.380	99.13	1.009		2.36		
	1	4	WLAN5.3GHz	802.11a 6Mbps	Back	0	Receiver Off	60	5300	16.60	18.00	1.380	99.13	1.009		2.12		
	1	4	WLAN5.3GHz	802.11a 6Mbps	Top Side	0	Receiver Off	60	5300	16.60	18.00	1.380	99.13	1.009		2.55	0.506	0.705
	1	4	WLAN5.3GHz	802.11a 6Mbps	Right Side	0	Receiver Off	60	5300	16.60	18.00	1.380	99.13	1.009	0.12	6.51	0.722	1.006
51	2	4	WLAN5.3GHz	802.11a 6Mbps	Right Side	0	Receiver Off	60	5300	16.60	18.00	1.380	99.13	1.009	0.02		0.788	1.098
	1	4	WLAN5.5GHz	802.11a 6Mbps	Front	0	Receiver Off	116	5580	16.68	18.00	1.355	99.13	1.009		1.3		
	1	4	WLAN5.5GHz	802.11a 6Mbps	Back	0	Receiver Off	116	5580	16.68	18.00	1.355	99.13	1.009		1.14		
	1	4	WLAN5.5GHz	802.11a 6Mbps	Top Side	0	Receiver Off	116	5580	16.68	18.00	1.355	99.13	1.009		1.77		
	1	4	WLAN5.5GHz	802.11a 6Mbps	Right Side	0	Receiver Off	116	5580	16.68	18.00	1.355	99.13	1.009	0.09	5.49	0.565	0.773
52	2	4	WLAN5.5GHz	802.11a 6Mbps	Right Side	0	Receiver Off	116	5580	16.68	18.00	1.355	99.13	1.009	0.02		0.608	0.831



18.5 Repeated SAR Measurement

No.	Band	Mode	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Antenna	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Ratio	Reported 1g SAR (W/kg)
1st	WCDMA Band IV	RMC 12.2Kbps	-	-	-	-	Right Tilted	Top	0	Receiver ON	1312	1712.4	20.42	21.50	1.282	-	-	-0.01	0.821	1	1.053
2nd	WCDMA Band IV	RMC 12.2Kbps	-	-	-	-	Right Tilted	Top	0	Receiver ON	1312	1712.4	20.42	21.50	1.282	-	-	0.03	0.817	1.005	1.048
1st	LTE Band 7	-	20M	QPSK	100	0	Right Cheek	Top	0	Receiver ON	20850	2510	20.32	21.20	1.225	-	-	0.04	0.866	1	1.061
2nd	LTE Band 7	-	20M	QPSK	100	0	Right Cheek	Top	0	Receiver ON	20850	2510	20.32	21.20	1.225	-	-	-0.01	0.849	1.020	1.040
1st	WCDMA Band II	RMC 12.2Kbps	-	-	-	-	Bottom Side	Bottom	10	Receiver Off	9400	1880	23.53	24.50	1.250	-	-	0.03	0.839	1	1.049
2nd	WCDMA Band II	RMC 12.2Kbps	-	-	-	-	Bottom Side	Bottom	10	Receiver Off	9400	1880	23.53	24.50	1.250	-	-	-0.11	0.809	1.038	1.011

General Note:

1. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is $\geq 0.8W/kg$.
2. Per KDB 865664 D01v01r04, if the ratio among the repeated measurement is ≤ 1.2 and the measured SAR $< 1.45W/kg$, only one repeated measurement is required.
3. The ratio is the difference in percentage between original and repeated *measured SAR*.
4. All measurement SAR result is scaled-up to account for tune-up tolerance and is compliant.

19. Simultaneous Transmission Analysis

Simultaneous Transmission Possibilities (BT is at normal power level B):

NO.	Simultaneous TX Combination	Head	Body-worn	Hotspot	Product Specific 10-g (0mm)
1	GSM Voice(Ant 2) + BT	Yes	Yes	N/A	Yes
2	GSM DATA(Ant 2) + BT	N/A	Yes	Yes	Yes
3	GSM Voice(Ant 3) + BT	Yes	Yes	N/A	Yes
4	GSM DATA (Ant 3)+ BT	N/A	Yes	Yes	Yes
5	UMTS (Ant 2) + BT	Yes	Yes	Yes	Yes
6	UMTS (Ant 3) + BT	Yes	Yes	Yes	Yes
7	LTE(Ant 2) + BT	Yes	Yes	Yes	Yes
8	LTE (Ant 3) + BT	Yes	Yes	Yes	Yes
9	GSM Voice(Ant 2) + BT+ WiFi 5G	Yes	Yes	N/A	Yes
10	GSM DATA(Ant 2) + BT+ WiFi 5G	N/A	Yes	Yes	Yes
11	GSM Voice(Ant 3) + BT+ WiFi 5G	Yes	Yes	N/A	Yes
12	GSM DATA (Ant 3)+ BT+ WiFi 5G	N/A	Yes	Yes	Yes
13	UMTS (Ant 2) + BT+ WiFi 5G	Yes	Yes	Yes	Yes
14	UMTS (Ant 3) + BT+ WiFi 5G	Yes	Yes	Yes	Yes
15	LTE (Ant 2) + BT+ WiFi 5G	Yes	Yes	Yes	Yes
16	LTE (Ant 3) + BT+ WiFi 5G	Yes	Yes	Yes	Yes
17	GSM Voice(Ant 2) + BT+ WiFi 2.4G (Ant 4)	Yes	Yes	N/A	Yes
18	GSM DATA(Ant 2) + BT+ WiFi 2.4G (Ant 4)	N/A	Yes	Yes	Yes
19	GSM Voice(Ant 3) + BT+ WiFi 2.4G (Ant 4)	Yes	Yes	N/A	Yes
20	GSM DATA (Ant 3)+ BT+ WiFi 2.4G (Ant 4)	N/A	Yes	Yes	Yes
21	UMTS (Ant 2) + BT+ WiFi 2.4G (Ant 4)	Yes	Yes	Yes	Yes
22	UMTS (Ant 3) + BT+ WiFi 2.4G (Ant 4)	Yes	Yes	Yes	Yes
23	LTE (Ant 2) + BT+ WiFi 2.4G (Ant 4)	Yes	Yes	Yes	Yes
24	LTE (Ant 3) + BT+ WiFi 2.4G (Ant 4)	Yes	Yes	Yes	Yes
25	GSM DATA(Ant 2) + WiFi 2.4G (Ant 4) +WiFi 5G+ BT	N/A	Yes	Yes	Yes
26	GSM DATA(Ant 3) + WiFi 2.4G (Ant 4) +WiFi 5G+BT	N/A	Yes	Yes	Yes
27	GSM Voice(Ant 2) + WiFi 2.4G (Ant 4) +WiFi 5G+ BT	Yes	Yes	N/A	Yes
28	GSM Voice(Ant 3) + WiFi 2.4G (Ant 4) +WiFi 5G+BT	Yes	Yes	N/A	Yes
29	UMTS (Ant 2) + WiFi 2.4G (Ant 4) +WiFi 5G+BT	Yes	Yes	Yes	Yes
30	UMTS (Ant 3) + WiFi 2.4G (Ant 4) +WiFi 5G+BT	Yes	Yes	Yes	Yes
31	LTE (Ant 2) + WiFi 2.4G (Ant 4) +WiFi 5G+BT	Yes	Yes	Yes	Yes
32	LTE (Ant 3) + WiFi 2.4G (Ant 4) +WiFi 5G+BT	Yes	Yes	Yes	Yes

Simultaneous Transmission Possibilities (BT is at high power level A):

NO.	Simultaneous TX Combination	Head	Body-worn	Hotspot	Product Specific 10-g (0mm)
1	GSM Voice(Ant 2) + BT	N/A	Yes	N/A	Yes
2	GSM DATA(Ant 2) + BT	N/A	Yes	Yes	Yes
3	GSM Voice(Ant 3) + BT	N/A	Yes	N/A	Yes
4	GSM DATA(Ant 3)+ BT	N/A	Yes	Yes	Yes
5	UMTS (Ant 2) + BT	N/A	Yes	Yes	Yes
6	UMTS (Ant 3) + BT	N/A	Yes	Yes	Yes
7	LTE(Ant 2) + BT	N/A	Yes	Yes	Yes
8	LTE (Ant 3) + BT	N/A	Yes	Yes	Yes
9	GSM Voice(Ant 2) + BT+ WiFi 2.4G (Ant 4)	N/A	Yes	N/A	Yes
10	GSM DATA(Ant 2) + BT+ WiFi 2.4G (Ant 4)	N/A	Yes	Yes	Yes
11	GSM Voice(Ant 3) + BT+ WiFi 2.4G (Ant 4)	N/A	Yes	N/A	Yes
12	GSM DATA(Ant 3)+ BT+ WiFi 2.4G (Ant 4)	N/A	Yes	Yes	Yes
13	UMTS (Ant 2) + BT+ WiFi 2.4G (Ant 4)	N/A	Yes	Yes	Yes
14	UMTS (Ant 3) + BT+ WiFi 2.4G (Ant 4)	N/A	Yes	Yes	Yes
15	LTE (Ant 2) + BT+ WiFi 2.4G (Ant 4)	N/A	Yes	Yes	Yes
16	LTE (Ant 3) + BT+ WiFi 2.4G (Ant 4)	N/A	Yes	Yes	Yes
17	GSM Voice(Ant 2) + BT+ WiFi 5G	N/A	Yes	N/A	Yes
18	GSM DATA(Ant 2) + BT+ WiFi 5G	N/A	Yes	Yes	Yes
19	GSM Voice(Ant 3) + BT+ WiFi 5G	N/A	Yes	N/A	Yes
20	GSM DATA(Ant 3)+ BT+ WiFi 5G	N/A	Yes	Yes	Yes
21	UMTS (Ant 2) + BT+ WiFi 5G	N/A	Yes	Yes	Yes
22	UMTS (Ant 3) + BT+ WiFi 5G	N/A	Yes	Yes	Yes
23	LTE (Ant 2) + BT+ WiFi 5G	N/A	Yes	Yes	Yes
24	LTE (Ant 3) + BT+ WiFi 5G	N/A	Yes	Yes	Yes

General Note:

1. This device supports VoIP in GPRS, WCDMA and LTE (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.
2. The device supports Vo-WIFI function.
3. EUT will choose each GSM, WCDMA and LTE according to the network signal condition; therefore, they will not operate simultaneously at any moment.
4. The Main Antenna (Ant3) and Second Antenna (Ant 2) can't transmit simultaneously.
5. This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
6. This device 2.4GHz WLAN/ 5.2GHz WLAN/5.8GHz WLAN support hotspot operation, and 5.2GHz WLAN/5.8GHz WLAN supports WLAN Direct (GC/GO), and 5.3GHz / 5.5GHz supports WLAN Direct (GC only).
7. Wi-Fi 2.4G Ant.1 cannot transmit simultaneously with Bluetooth. While Wi-Fi 2.4G Ant.4 can transmit simultaneously with Bluetooth.
8. Wi-Fi 5G can transmit simultaneously with Bluetooth.
9. Wi-Fi 2.4G& Wi-Fi 5G can't work at same mode, but they can transmit simultaneously at different modes (Wi-Fi station/P-to-P) by using different Wi-Fi antennas.
10. WIFI 2.4GHz hotspot does not support CDD/MIMO mode.
11. When WiFi 2.4G and 5G are both on at the same time, Bluetooth can only work at normal power B. Bluetooth High Power A will be limited by design.
12. The worst case 5 GHz WLAN SAR for each configuration was used for SAR summation.
13. Chose the worst zoom scan SAR of WLAN correspondingly for co-located with WWAN analysis.
14. The reported SAR summation is calculated based on the same configuration and test position.



15. Per KDB 447498 D01v06, simultaneous transmission SAR is compliant if,
- i) Scalar SAR summation $< 1.6\text{W/kg}$.
 - ii) $\text{SPLSR} = (\text{SAR1} + \text{SAR2})^{1.5} / (\text{min. separation distance, mm})$, and the peak separation distance is determined from the square root of $[(x1-x2)^2 + (y1-y2)^2 + (z1-z2)^2]$, where $(x1, y1, z1)$ and $(x2, y2, z2)$ are the coordinates of the extrapolated peak SAR locations in the zoom scan.
 - iii) If $\text{SPLSR} \leq 0.04$, simultaneously transmission SAR measurement is not necessary.
 - iv) Simultaneously transmission SAR measurement, and the reported multi-band SAR $< 1.6\text{W/kg}$.



19.1 Head Exposure Conditions

<Top Antenna>

WWAN Band		Exposure Position	1	2	3	4	5	6	1+2 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	1+3+5+6 Summed 1g SAR (W/kg)
			WWAN 1g SAR (W/kg)	2.4GHz WLAN Ant 1 1g SAR (W/kg)	2.4GHz WLAN Ant 2 1g SAR (W/kg)	2.4GHz WLAN Ant 1+2 1g SAR (W/kg)	5GHz WLAN 1g SAR (W/kg)	Bluetooth 1g SAR (W/kg)			
GSM	GSM850	Right Cheek	0.798	0.149	0.069	0.218	0.120	0.049	0.95	1.02	1.04
		Right Tilted	0.746	0.180	0.040	0.220	0.120	0.057	0.93	0.97	0.96
		Left Cheek	0.726	0.337	0.242	0.579	0.120	0.085	1.06	1.31	1.17
		Left Tilted	0.646	0.348	0.100	0.448	0.120	0.097	0.99	1.09	0.96
	GSM1900	Right Cheek	0.587	0.149	0.069	0.218	0.120	0.049	0.74	0.81	0.83
		Right Tilted	0.681	0.180	0.040	0.220	0.120	0.057	0.86	0.90	0.90
		Left Cheek	0.158	0.337	0.242	0.579	0.120	0.085	0.50	0.74	0.61
		Left Tilted	0.200	0.348	0.100	0.448	0.120	0.097	0.55	0.65	0.52
WCDMA	Band V	Right Cheek	0.937	0.149	0.069	0.218	0.120	0.049	1.09	1.16	1.18
		Right Tilted	0.754	0.180	0.040	0.220	0.120	0.057	0.93	0.97	0.97
		Left Cheek	0.755	0.337	0.242	0.579	0.120	0.085	1.09	1.33	1.20
		Left Tilted	0.695	0.348	0.100	0.448	0.120	0.097	1.04	1.14	1.01
	Band IV	Right Cheek	0.999	0.149	0.069	0.218	0.120	0.049	1.15	1.22	1.24
		Right Tilted	1.053	0.180	0.040	0.220	0.120	0.057	1.23	1.27	1.27
		Left Cheek	0.392	0.337	0.242	0.579	0.120	0.085	0.73	0.97	0.84
		Left Tilted	0.346	0.348	0.100	0.448	0.120	0.097	0.69	0.79	0.66
	Band II	Right Cheek	0.842	0.149	0.069	0.218	0.120	0.049	0.99	1.06	1.08
		Right Tilted	0.900	0.180	0.040	0.220	0.120	0.057	1.08	1.12	1.12
		Left Cheek	0.314	0.337	0.242	0.579	0.120	0.085	0.65	0.89	0.76
		Left Tilted	0.269	0.348	0.100	0.448	0.120	0.097	0.62	0.72	0.59



WWAN Band	Exposure Position	1	2	3	4	5	6	1+2 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	1+3+5+6 Summed 1g SAR (W/kg)	
		WWAN	2.4GHz WLAN Ant 1	2.4GHz WLAN Ant 2	2.4GHz WLAN Ant 1+2	5GHz WLAN	Bluetooth				
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)				
LTE	Band 5	Right Cheek	0.662	0.149	0.069	0.218	0.120	0.049	0.81	0.88	0.90
		Right Tilted	0.601	0.180	0.040	0.220	0.120	0.057	0.78	0.82	0.82
		Left Cheek	0.633	0.337	0.242	0.579	0.120	0.085	0.97	1.21	1.08
		Left Tilted	0.531	0.348	0.100	0.448	0.120	0.097	0.88	0.98	0.85
	Band 26	Right Cheek	0.761	0.149	0.069	0.218	0.120	0.049	0.91	0.98	1.00
		Right Tilted	0.680	0.180	0.040	0.220	0.120	0.057	0.86	0.90	0.90
		Left Cheek	0.681	0.337	0.242	0.579	0.120	0.085	1.02	1.26	1.13
		Left Tilted	0.624	0.348	0.100	0.448	0.120	0.097	0.97	1.07	0.94
	Band 4	Right Cheek	0.784	0.149	0.069	0.218	0.120	0.049	0.93	1.00	1.02
		Right Tilted	0.818	0.180	0.040	0.220	0.120	0.057	1.00	1.04	1.04
		Left Cheek	0.313	0.337	0.242	0.579	0.120	0.085	0.65	0.89	0.76
		Left Tilted	0.330	0.348	0.100	0.448	0.120	0.097	0.68	0.78	0.65
	Band 2	Right Cheek	0.951	0.149	0.069	0.218	0.120	0.049	1.10	1.17	1.19
		Right Tilted	0.994	0.180	0.040	0.220	0.120	0.057	1.17	1.21	1.21
		Left Cheek	0.269	0.337	0.242	0.579	0.120	0.085	0.61	0.85	0.72
		Left Tilted	0.360	0.348	0.100	0.448	0.120	0.097	0.71	0.81	0.68
	Band 7	Right Cheek	1.061	0.149	0.069	0.218	0.120	0.049	1.21	1.28	1.30
		Right Tilted	0.970	0.180	0.040	0.220	0.120	0.057	1.15	1.19	1.19
		Left Cheek	0.325	0.337	0.242	0.579	0.120	0.085	0.66	0.90	0.77
		Left Tilted	0.660	0.348	0.100	0.448	0.120	0.097	1.01	1.11	0.98
	Band 38	Right Cheek	1.051	0.149	0.069	0.218	0.120	0.049	1.20	1.27	1.29
		Right Tilted	0.911	0.180	0.040	0.220	0.120	0.057	1.09	1.13	1.13
		Left Cheek	0.500	0.337	0.242	0.579	0.120	0.085	0.84	1.08	0.95
		Left Tilted	0.445	0.348	0.100	0.448	0.120	0.097	0.79	0.89	0.76
	Band 41	Right Cheek	0.883	0.149	0.069	0.218	0.120	0.049	1.03	1.10	1.12
		Right Tilted	0.948	0.180	0.040	0.220	0.120	0.057	1.13	1.17	1.17
		Left Cheek	0.811	0.337	0.242	0.579	0.120	0.085	1.15	1.39	1.26
		Left Tilted	0.415	0.348	0.100	0.448	0.120	0.097	0.76	0.86	0.73



<Bottom Antenna>

WWAN Band		Exposure Position	1	2	3	4	5	6	1+2 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	1+3+5+6 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1	2.4GHz WLAN Ant 2	2.4GHz WLAN Ant 1+2	5GHz WLAN	Bluetooth			
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)			
GSM	GSM850	Right Cheek	0.055	0.149	0.069	0.218	0.120	0.049	0.20	0.27	0.29
		Right Tilted	0.019	0.180	0.040	0.220	0.120	0.057	0.20	0.24	0.24
		Left Cheek	0.032	0.337	0.242	0.579	0.120	0.085	0.37	0.61	0.48
		Left Tilted	0.020	0.348	0.100	0.448	0.120	0.097	0.37	0.47	0.34
	GSM1900	Right Cheek	0.098	0.149	0.069	0.218	0.120	0.049	0.25	0.32	0.34
		Right Tilted	0.068	0.180	0.040	0.220	0.120	0.057	0.25	0.29	0.29
		Left Cheek	0.142	0.337	0.242	0.579	0.120	0.085	0.48	0.72	0.59
		Left Tilted	0.064	0.348	0.100	0.448	0.120	0.097	0.41	0.51	0.38
WCDMA	Band V	Right Cheek	0.067	0.149	0.069	0.218	0.120	0.049	0.22	0.29	0.31
		Right Tilted	0.041	0.180	0.040	0.220	0.120	0.057	0.22	0.26	0.26
		Left Cheek	0.042	0.337	0.242	0.579	0.120	0.085	0.38	0.62	0.49
		Left Tilted	0.049	0.348	0.100	0.448	0.120	0.097	0.40	0.50	0.37
	Band IV	Right Cheek	0.194	0.149	0.069	0.218	0.120	0.049	0.34	0.41	0.43
		Right Tilted	0.107	0.180	0.040	0.220	0.120	0.057	0.29	0.33	0.32
		Left Cheek	0.279	0.337	0.242	0.579	0.120	0.085	0.62	0.86	0.73
		Left Tilted	0.095	0.348	0.100	0.448	0.120	0.097	0.44	0.54	0.41
	Band II	Right Cheek	0.166	0.149	0.069	0.218	0.120	0.049	0.32	0.38	0.40
		Right Tilted	0.113	0.180	0.040	0.220	0.120	0.057	0.29	0.33	0.33
		Left Cheek	0.274	0.337	0.242	0.579	0.120	0.085	0.61	0.85	0.72
		Left Tilted	0.111	0.348	0.100	0.448	0.120	0.097	0.46	0.56	0.43



WWAN Band	Exposure Position	1	2	3	4	5	6	1+2 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	1+3+5+6 Summed 1g SAR (W/kg)	
		WWAN	2.4GHz WLAN Ant 1	2.4GHz WLAN Ant 2	2.4GHz WLAN Ant 1+2	5GHz WLAN	Bluetooth				
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)				
LTE	Band 5	Right Cheek	0.075	0.149	0.069	0.218	0.120	0.049	0.22	0.29	0.31
		Right Tilted	0.049	0.180	0.040	0.220	0.120	0.057	0.23	0.27	0.27
		Left Cheek	0.053	0.337	0.242	0.579	0.120	0.085	0.39	0.63	0.50
		Left Tilted	0.056	0.348	0.100	0.448	0.120	0.097	0.40	0.50	0.37
	Band 26	Right Cheek	0.043	0.149	0.069	0.218	0.120	0.049	0.19	0.26	0.28
		Right Tilted	0.042	0.180	0.040	0.220	0.120	0.057	0.22	0.26	0.26
		Left Cheek	0.037	0.337	0.242	0.579	0.120	0.085	0.37	0.62	0.48
		Left Tilted	0.052	0.348	0.100	0.448	0.120	0.097	0.40	0.50	0.37
	Band 4	Right Cheek	0.182	0.149	0.069	0.218	0.120	0.049	0.33	0.40	0.42
		Right Tilted	0.118	0.180	0.040	0.220	0.120	0.057	0.30	0.34	0.34
		Left Cheek	0.228	0.337	0.242	0.579	0.120	0.085	0.57	0.81	0.68
		Left Tilted	0.114	0.348	0.100	0.448	0.120	0.097	0.46	0.56	0.43
	Band 2	Right Cheek	0.136	0.149	0.069	0.218	0.120	0.049	0.29	0.35	0.37
		Right Tilted	0.094	0.180	0.040	0.220	0.120	0.057	0.27	0.31	0.31
		Left Cheek	0.233	0.337	0.242	0.579	0.120	0.085	0.57	0.81	0.68
		Left Tilted	0.088	0.348	0.100	0.448	0.120	0.097	0.44	0.54	0.41
	Band 7	Right Cheek	0.277	0.149	0.069	0.218	0.120	0.049	0.43	0.50	0.52
		Right Tilted	0.365	0.180	0.040	0.220	0.120	0.057	0.55	0.59	0.58
		Left Cheek	0.452	0.337	0.242	0.579	0.120	0.085	0.79	1.03	0.90
		Left Tilted	0.204	0.348	0.100	0.448	0.120	0.097	0.55	0.65	0.52
	Band 38	Right Cheek	0.171	0.149	0.069	0.218	0.120	0.049	0.32	0.39	0.41
		Right Tilted	0.214	0.180	0.040	0.220	0.120	0.057	0.39	0.43	0.43
		Left Cheek	0.313	0.337	0.242	0.579	0.120	0.085	0.65	0.89	0.76
		Left Tilted	0.128	0.348	0.100	0.448	0.120	0.097	0.48	0.58	0.45
	Band 41	Right Cheek	0.176	0.149	0.069	0.218	0.120	0.049	0.33	0.39	0.41
		Right Tilted	0.242	0.180	0.040	0.220	0.120	0.057	0.42	0.46	0.46
		Left Cheek	0.323	0.337	0.242	0.579	0.120	0.085	0.66	0.90	0.77
		Left Tilted	0.138	0.348	0.100	0.448	0.120	0.097	0.49	0.59	0.46



19.2 Hotspot Exposure Conditions

<Top Antenna >

WWAN Band		Exposure Position	1	2	3	4	5	1+2 Summed 1g SAR (W/kg)	1+3+4+5 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant.1	2.4GHz WLAN Ant.2	5GHz WLAN	Bluetooth		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
GSM	GSM850	Front	0.454	0.617	0.335	0.389	0.029	1.07	1.21
		Back	0.560	0.617	0.335	0.389	0.038	1.18	1.32
		Left Side	0.485					0.49	0.49
		Right Side		0.617	0.335	0.389	0.011	0.62	0.74
		Top Side	0.468	0.617	0.335	0.389	0.079	1.09	1.27
	GSM1900	Front	0.103	0.617	0.335	0.389	0.029	0.72	0.86
		Back	0.167	0.617	0.335	0.389	0.038	0.78	0.93
		Left Side	0.237					0.24	0.24
		Right Side		0.617	0.335	0.389	0.011	0.62	0.74
		Top Side	0.153	0.617	0.335	0.389	0.079	0.77	0.96
WCDMA	Band V	Front	0.547	0.617	0.335	0.389	0.029	1.16	1.30
		Back	0.642	0.617	0.335	0.389	0.038	1.26	1.40
		Left Side	0.602					0.60	0.60
		Right Side		0.617	0.335	0.389	0.011	0.62	0.74
		Top Side	0.552	0.617	0.335	0.389	0.079	1.17	1.36
	Band IV	Front	0.348	0.617	0.335	0.389	0.029	0.97	1.10
		Back	0.462	0.617	0.335	0.389	0.038	1.08	1.22
		Left Side	0.477					0.48	0.48
		Right Side		0.617	0.335	0.389	0.011	0.62	0.74
		Top Side	0.520	0.617	0.335	0.389	0.079	1.14	1.32
	Band II	Front	0.285	0.617	0.335	0.389	0.029	0.90	1.04
		Back	0.439	0.617	0.335	0.389	0.038	1.06	1.20
		Left Side	0.564					0.56	0.56
		Right Side		0.617	0.335	0.389	0.011	0.62	0.74
		Top Side	0.368	0.617	0.335	0.389	0.079	0.99	1.17



WWAN Band		Exposure Position	1	2	3	4	5	1+2 Summed 1g SAR (W/kg)	1+3+4+5 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant.1	2.4GHz WLAN Ant.2	5GHz WLAN	Bluetooth		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
LTE	Band 5	Front	0.485	0.617	0.335	0.389	0.029	1.10	1.24
		Back	0.618	0.617	0.335	0.389	0.038	1.24	1.38
		Left Side	0.597					0.60	0.60
		Right Side		0.617	0.335	0.389	0.011	0.62	0.74
		Top Side	0.499	0.617	0.335	0.389	0.079	1.12	1.30
	Band 26	Front	0.438	0.617	0.335	0.389	0.029	1.06	1.19
		Back	0.554	0.617	0.335	0.389	0.038	1.17	1.32
		Left Side	0.520					0.52	0.52
		Right Side		0.617	0.335	0.389	0.011	0.62	0.74
		Top Side	0.427	0.617	0.335	0.389	0.079	1.04	1.23
	Band 4	Front	0.324	0.617	0.335	0.389	0.029	0.94	1.08
		Back	0.465	0.617	0.335	0.389	0.038	1.08	1.23
		Left Side	0.431					0.43	0.43
		Right Side		0.617	0.335	0.389	0.011	0.62	0.74
		Top Side	0.301	0.617	0.335	0.389	0.079	0.92	1.10
	Band 2	Front	0.243	0.617	0.335	0.389	0.029	0.86	1.00
		Back	0.386	0.617	0.335	0.389	0.038	1.00	1.15
		Left Side	0.538					0.54	0.54
		Right Side		0.617	0.335	0.389	0.011	0.62	0.74
		Top Side	0.344	0.617	0.335	0.389	0.079	0.96	1.15
	Band 7	Front	0.439	0.617	0.335	0.389	0.029	1.06	1.19
		Back	0.480	0.617	0.335	0.389	0.038	1.10	1.24
		Left Side	0.147					0.15	0.15
		Right Side		0.617	0.335	0.389	0.011	0.62	0.74
		Top Side	0.342	0.617	0.335	0.389	0.079	0.96	1.15
	Band 38	Front	0.297	0.617	0.335	0.389	0.029	0.91	1.05
		Back	0.284	0.617	0.335	0.389	0.038	0.90	1.05
		Left Side	0.111					0.11	0.11
		Right Side		0.617	0.335	0.389	0.011	0.62	0.74
		Top Side	0.160	0.617	0.335	0.389	0.079	0.78	0.96
	Band 41	Front	0.313	0.617	0.335	0.389	0.029	0.93	1.07
		Back	0.316	0.617	0.335	0.389	0.038	0.93	1.08
		Left Side	0.113					0.11	0.11
		Right Side		0.617	0.335	0.389	0.011	0.62	0.74
		Top Side	0.170	0.617	0.335	0.389	0.079	0.79	0.97

<Bottom Antenna >

WWAN Band		Exposure Position	1	2	3	4	5	1+2 Summed 1g SAR (W/kg)	1+3+4+5 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant.1	2.4GHz WLAN Ant.2	5GHz WLAN	Bluetooth		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
GSM	GSM850	Front	0.341	0.617	0.335	0.389	0.029	0.96	1.09
		Back	0.468	0.617	0.335	0.389	0.038	1.09	1.23
		Left side	0.261					0.26	0.26
		Right side	0.071	0.617	0.335	0.389	0.011	0.69	0.81
		Top side		0.617	0.335	0.389	0.079	0.62	0.80
		Bottom side	0.192					0.19	0.19
	GSM1900	Front	0.299	0.617	0.335	0.389	0.029	0.92	1.05
		Back	0.358	0.617	0.335	0.389	0.038	0.98	1.12
		Left side	0.219					0.22	0.22
		Right side	0.154	0.617	0.335	0.389	0.011	0.77	0.89
		Top side		0.617	0.335	0.389	0.079	0.62	0.80
		Bottom side	0.592					0.59	0.59
WCDMA	Band V	Front	0.488	0.617	0.335	0.389	0.029	1.11	1.24
		Back	0.656	0.617	0.335	0.389	0.038	1.27	1.42
		Left side	0.388					0.39	0.39
		Right side	0.085	0.617	0.335	0.389	0.011	0.70	0.82
		Top side		0.617	0.335	0.389	0.079	0.62	0.80
		Bottom side	0.268					0.27	0.27
	Band IV	Front	0.515	0.617	0.335	0.389	0.029	1.13	1.27
		Back	0.620	0.617	0.335	0.389	0.038	1.24	1.38
		Left side	0.379					0.38	0.38
		Right side	0.199	0.617	0.335	0.389	0.011	0.82	0.93
		Top side		0.617	0.335	0.389	0.079	0.62	0.80
		Bottom side	1.033					1.03	1.03
	Band II	Front	0.494	0.617	0.335	0.389	0.029	1.11	1.25
		Back	0.690	0.617	0.335	0.389	0.038	1.31	1.45
		Left side	0.378					0.38	0.38
		Right side	0.269	0.617	0.335	0.389	0.011	0.89	1.00
		Top side		0.617	0.335	0.389	0.079	0.62	0.80
		Bottom side	1.049					1.05	1.05



WWAN Band		Exposure Position	1	2	3	4	5	1+2 Summed 1g SAR (W/kg)	1+3+4+5 Summed 1g SAR (W/kg)
			WWAN 1g SAR (W/kg)	2.4GHz WLAN Ant.1 1g SAR (W/kg)	2.4GHz WLAN Ant.2 1g SAR (W/kg)	5GHz WLAN 1g SAR (W/kg)	Bluetooth 1g SAR (W/kg)		
LTE	Band 5	Front	0.495	0.617	0.335	0.389	0.029	1.11	1.25
		Back	0.656	0.617	0.335	0.389	0.038	1.27	1.42
		Left side	0.450					0.45	0.45
		Right side	0.091	0.617	0.335	0.389	0.011	0.71	0.83
		Top side		0.617	0.335	0.389	0.079	0.62	0.80
		Bottom side	0.279					0.28	0.28
	Band 26	Front	0.409	0.617	0.335	0.389	0.029	1.03	1.16
		Back	0.540	0.617	0.335	0.389	0.038	1.16	1.30
		Left side	0.382					0.38	0.38
		Right side	0.076	0.617	0.335	0.389	0.011	0.69	0.81
		Top side		0.617	0.335	0.389	0.079	0.62	0.80
		Bottom side	0.237					0.24	0.24
	Band 4	Front	0.562	0.617	0.335	0.389	0.029	1.18	1.32
		Back	0.636	0.617	0.335	0.389	0.038	1.25	1.40
		Left side	0.394					0.39	0.39
		Right side	0.206	0.617	0.335	0.389	0.011	0.82	0.94
		Top side		0.617	0.335	0.389	0.079	0.62	0.80
		Bottom side	1.028					1.03	1.03
	Band 2	Front	0.517	0.617	0.335	0.389	0.029	1.13	1.27
		Back	0.629	0.617	0.335	0.389	0.038	1.25	1.39
		Left side	0.367					0.37	0.37
		Right side	0.230	0.617	0.335	0.389	0.011	0.85	0.97
		Top side		0.617	0.335	0.389	0.079	0.62	0.80
		Bottom side	0.977					0.98	0.98
	Band 7	Front	0.499	0.617	0.335	0.389	0.029	1.12	1.25
		Back	0.552	0.617	0.335	0.389	0.038	1.17	1.31
		Left side	0.242					0.24	0.24
		Right side	0.102	0.617	0.335	0.389	0.011	0.72	0.84
		Top side		0.617	0.335	0.389	0.079	0.62	0.80
		Bottom side	0.871					0.87	0.87
	Band 38	Front	0.297	0.617	0.335	0.389	0.029	0.91	1.05
		Back	0.379	0.617	0.335	0.389	0.038	1.00	1.14
		Left side	0.212					0.21	0.21
		Right side	0.077	0.617	0.335	0.389	0.011	0.69	0.81
		Top side		0.617	0.335	0.389	0.079	0.62	0.80
		Bottom side	0.607					0.61	0.61
Band 41	Front	0.293	0.617	0.335	0.389	0.029	0.91	1.05	
	Back	0.393	0.617	0.335	0.389	0.038	1.01	1.16	
	Left side	0.196					0.20	0.20	
	Right side	0.067	0.617	0.335	0.389	0.011	0.68	0.80	
	Top side		0.617	0.335	0.389	0.079	0.62	0.80	
	Bottom side	0.593					0.59	0.59	



19.3 Body-Worn Accessory Exposure Conditions

<Top Antenna>

WWAN Band		Exposure Position	1	2	3	4	5	6	1+2 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	1+3+5+6 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1	2.4GHz WLAN Ant 2	2.4GHz WLAN Ant 1+2	5GHz WLAN	Bluetooth			
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)			
GSM	GSM850	Front	0.203	0.154	0.103	0.147	0.156	0.015	0.36	0.35	0.48
		Back	0.225	0.154	0.103	0.147	0.156	0.019	0.38	0.37	0.50
	GSM1900	Front	0.032	0.154	0.103	0.147	0.156	0.015	0.19	0.18	0.31
		Back	0.055	0.154	0.103	0.147	0.156	0.019	0.21	0.20	0.33
WCDMA	Band V	Front	0.277	0.154	0.103	0.147	0.156	0.015	0.43	0.42	0.55
		Back	0.356	0.154	0.103	0.147	0.156	0.019	0.51	0.50	0.63
	Band IV	Front	0.257	0.154	0.103	0.147	0.156	0.015	0.41	0.40	0.53
		Back	0.289	0.154	0.103	0.147	0.156	0.019	0.44	0.44	0.57
	Band II	Front	0.159	0.154	0.103	0.147	0.156	0.015	0.31	0.31	0.43
		Back	0.249	0.154	0.103	0.147	0.156	0.019	0.40	0.40	0.53
LTE	Band 5	Front	0.245	0.154	0.103	0.147	0.156	0.015	0.40	0.39	0.52
		Back	0.296	0.154	0.103	0.147	0.156	0.019	0.45	0.44	0.57
	Band 26	Front	0.239	0.154	0.103	0.147	0.156	0.015	0.39	0.39	0.51
		Back	0.269	0.154	0.103	0.147	0.156	0.019	0.42	0.42	0.55
	Band 4	Front	0.237	0.154	0.103	0.147	0.156	0.015	0.39	0.38	0.51
		Back	0.267	0.154	0.103	0.147	0.156	0.019	0.42	0.41	0.55
	Band 2	Front	0.125	0.154	0.103	0.147	0.156	0.015	0.28	0.27	0.40
		Back	0.215	0.154	0.103	0.147	0.156	0.019	0.37	0.36	0.49
	Band 7	Front	0.172	0.154	0.103	0.147	0.156	0.015	0.33	0.32	0.45
		Back	0.164	0.154	0.103	0.147	0.156	0.019	0.32	0.31	0.44
	Band 38	Front	0.112	0.154	0.103	0.147	0.156	0.015	0.27	0.26	0.39
		Back	0.109	0.154	0.103	0.147	0.156	0.019	0.26	0.26	0.39
	Band 41	Front	0.124	0.154	0.103	0.147	0.156	0.015	0.28	0.27	0.40
		Back	0.134	0.154	0.103	0.147	0.156	0.019	0.29	0.28	0.41



<Bottom Antenna>

WWAN Band		Exposure Position	1	2	3	4	5	6	1+2 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	1+3+5+6 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1	2.4GHz WLAN Ant 2	2.4GHz WLAN Ant 1+2	5GHz WLAN	Bluetooth			
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)			
GSM	GSM850	Front	0.153	0.154	0.103	0.147	0.156	0.015	0.31	0.30	0.43
		Back	0.217	0.154	0.103	0.147	0.156	0.019	0.37	0.36	0.50
	GSM1900	Front	0.124	0.154	0.103	0.147	0.156	0.015	0.28	0.27	0.40
		Back	0.155	0.154	0.103	0.147	0.156	0.019	0.31	0.30	0.43
WCDMA	Band V	Front	0.215	0.154	0.103	0.147	0.156	0.015	0.37	0.36	0.49
		Back	0.366	0.154	0.103	0.147	0.156	0.019	0.52	0.51	0.64
	Band IV	Front	0.246	0.154	0.103	0.147	0.156	0.015	0.40	0.39	0.52
		Back	0.286	0.154	0.103	0.147	0.156	0.019	0.44	0.43	0.56
	Band II	Front	0.248	0.154	0.103	0.147	0.156	0.015	0.40	0.40	0.52
		Back	0.313	0.154	0.103	0.147	0.156	0.019	0.47	0.46	0.59
LTE	Band 5	Front	0.211	0.154	0.103	0.147	0.156	0.015	0.37	0.36	0.49
		Back	0.370	0.154	0.103	0.147	0.156	0.019	0.52	0.52	0.65
	Band 26	Front	0.184	0.154	0.103	0.147	0.156	0.015	0.34	0.33	0.46
		Back	0.302	0.154	0.103	0.147	0.156	0.019	0.46	0.45	0.58
	Band 4	Front	0.272	0.154	0.103	0.147	0.156	0.015	0.43	0.42	0.55
		Back	0.324	0.154	0.103	0.147	0.156	0.019	0.48	0.47	0.60
	Band 2	Front	0.230	0.154	0.103	0.147	0.156	0.015	0.38	0.38	0.50
		Back	0.301	0.154	0.103	0.147	0.156	0.019	0.46	0.45	0.58
	Band 7	Front	0.247	0.154	0.103	0.147	0.156	0.015	0.40	0.39	0.52
		Back	0.344	0.154	0.103	0.147	0.156	0.019	0.50	0.49	0.62
	Band 38	Front	0.165	0.154	0.103	0.147	0.156	0.015	0.32	0.31	0.44
		Back	0.258	0.154	0.103	0.147	0.156	0.019	0.41	0.41	0.54
	Band 41	Front	0.165	0.154	0.103	0.147	0.156	0.015	0.32	0.31	0.44
		Back	0.260	0.154	0.103	0.147	0.156	0.019	0.41	0.41	0.54



20. Uncertainty Assessment

Per KDB 865664 D01 SAR measurement 100MHz to 6GHz, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg and the measured 10-g SAR within a frequency band is < 3.75 W/kg. The expanded SAR measurement uncertainty must be $\leq 30\%$, for a confidence interval of $k = 2$. If these conditions are met, extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2013 is not required in SAR reports submitted for equipment approval. For this device, the highest measured 1-g SAR is less 1.5W/kg and highest measured 10-g SAR is less 3.75W/kg. Therefore, the measurement uncertainty table is not required in this report.

21. References

- [1] FCC 47 CFR Part 2 "Frequency Allocations and Radio Treaty Matters; General Rules and Regulations"
- [2] ANSI/IEEE Std. C95.1-1992, "IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz", September 1992
- [3] IEEE Std. 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", Sep 2013
- [4] SPEAG DASY System Handbook
- [5] FCC KDB 865664 D01 v01r04, "SAR Measurement Requirements for 100 MHz to 6 GHz", Aug 2015.
- [6] FCC KDB 865664 D02 v01r02, "RF Exposure Compliance Reporting and Documentation Considerations" Oct 2015.
- [7] FCC KDB 447498 D01 v06, "Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies", Oct 2015
- [8] FCC KDB 648474 D04 v01r03, "SAR Evaluation Considerations for Wireless Handsets", Oct 2015.
- [9] FCC KDB 248227 D01 v02r02, "SAR Guidance for IEEE 802.11 (WiFi) Transmitters", Oct 2015.
- [10] FCC KDB 941225 D01 v03r01, "3G SAR MEAUREMENT PROCEDURES", Oct 2015
- [11] FCC KDB 941225 D05 v02r05, "SAR Evaluation Considerations for LTE Devices", Dec 2015
- [12] FCC KDB 941225 D06 v02r01, "SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities", Oct 2015.
- [13] FCC KDB 941225 D05A v01r02, "Rel. 10 LTE SAR Test Guidance and KDB Inquiries", Oct 2015



Appendix A. Plots of System Performance Check

The plots are submitted separately.



Appendix B. Plots of High SAR Measurement

The plots are submitted separately.



Appendix C. DASYS Calibration Certificate

The DASYS calibration certificates submitted separately.



Appendix D. Test Setup Photos

The test setup photos are submitted separately.



Appendix E. Antenna Location

Antenna location file is submitted separately.