Channel				18607	18900	19193	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1909.3		
1.4	QPSK	1	0	18.70	18.19	18.17	20	0
1.4	QPSK	1	3	18.73	18.62	18.67		
1.4	QPSK	1	5	18.65	18.54	18.53		
1.4	QPSK	3	0	18.72	18.57	18.63		
1.4	QPSK	3	1	18.77	18.62	18.64		
1.4	QPSK	3	3	18.70	18.57	18.64		
1.4	QPSK	6	0	18.74	18.58	18.66	20	0
1.4	16QAM	1	0	19.04	18.78	18.94	20	0
1.4	16QAM	1	3	18.98	18.84	18.95		
1.4	16QAM	1	5	18.94	18.85	18.84		
1.4	16QAM	3	0	18.77	18.63	18.68		
1.4	16QAM	3	1	18.85	18.67	18.75		
1.4	16QAM	3	3	18.76	18.60	18.58		
1.4	16QAM	6	0	18.87	18.71	18.67	20	0
1.4	64QAM	1	0	18.85	18.78	18.81	20	0
1.4	64QAM	1	3	18.89	18.79	18.99		
1.4	64QAM	1	5	18.79	18.54	18.72		
1.4	64QAM	3	0	18.78	18.67	18.76		
1.4	64QAM	3	1	18.78	18.69	18.73		
1.4	64QAM	3	3	18.74	18.64	18.71		
1.4	64QAM	6	0	18.76	18.65	18.59	20	0

<LTE Band 4>

BW [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	14.15	13.69	13.58	15	0
20	QPSK	1	49	14.27	14.29	14.14		
20	QPSK	1	99	14.38	14.16	14.07		
20	QPSK	50	0	14.18	14.25	14.27	15	0
20	QPSK	50	24	14.16	14.15	14.18		
20	QPSK	50	50	14.08	14.18	14.22		
20	QPSK	100	0	14.19	14.12	14.19		
20	16QAM	1	0	14.53	14.57	14.60	15	0
20	16QAM	1	49	14.57	14.55	14.44		
20	16QAM	1	99	14.64	14.49	14.44		
20	16QAM	50	0	14.18	14.10	14.25	15	0
20	16QAM	50	24	14.21	14.29	14.23		
20	16QAM	50	50	14.03	14.09	14.09		
20	16QAM	100	0	14.21	14.20	14.12		
20	64QAM	1	0	14.46	14.37	14.44	15	0
20	64QAM	1	49	14.36	14.28	14.46		
20	64QAM	1	99	14.30	14.30	14.29		
20	64QAM	50	0	14.15	14.34	14.25	15	0
20	64QAM	50	24	14.18	14.17	14.25		
20	64QAM	50	50	14.09	14.13	14.18		
20	64QAM	100	0	14.19	14.11	14.12		

Channel				20025	20175	20325	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1732.5	1747.5		
15	QPSK	1	0	14.07	14.08	13.94	15	0
15	QPSK	1	37	14.21	14.39	14.19		
15	QPSK	1	74	14.36	14.14	14.01		
15	QPSK	36	0	14.21	14.24	14.19	15	0
15	QPSK	36	20	14.32	14.22	14.25		
15	QPSK	36	39	14.23	14.15	14.14		
15	QPSK	75	0	14.18	14.25	14.14		
15	16QAM	1	0	14.59	14.81	14.53	15	0
15	16QAM	1	37	14.39	14.16	14.21		
15	16QAM	1	74	14.61	14.45	14.47		
15	16QAM	36	0	14.21	14.16	14.18	15	0
15	16QAM	36	20	14.31	14.23	14.30		
15	16QAM	36	39	14.16	14.19	14.14		
15	16QAM	75	0	14.18	14.24	14.19		
15	64QAM	1	0	14.51	14.48	14.59	15	0
15	64QAM	1	37	14.61	14.44	14.35		
15	64QAM	1	74	14.56	14.39	14.38		
15	64QAM	36	0	14.28	14.28	14.19	15	0
15	64QAM	36	20	14.30	14.17	14.21		
15	64QAM	36	39	14.14	14.25	14.12		
15	64QAM	75	0	14.12	14.15	14.28		
Channel				20000	20175	20350	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1732.5	1750		
10	QPSK	1	0	13.85	13.99	13.83	15	0
10	QPSK	1	25	13.93	14.05	13.91		
10	QPSK	1	49	14.60	14.56	14.59		
10	QPSK	25	0	14.39	14.43	14.31	15	0
10	QPSK	25	12	14.43	14.33	14.31		
10	QPSK	25	25	14.46	14.43	14.34		
10	QPSK	50	0	14.41	14.37	14.51		
10	16QAM	1	0	14.63	14.69	14.66	15	0
10	16QAM	1	25	14.46	14.28	14.20		
10	16QAM	1	49	14.82	14.83	14.84		
10	16QAM	25	0	14.39	14.32	14.36	15	0
10	16QAM	25	12	14.43	14.28	14.29		
10	16QAM	25	25	14.44	14.50	14.40		
10	16QAM	50	0	14.52	14.41	14.38		
10	64QAM	1	0	14.65	14.59	14.63	15	0
10	64QAM	1	25	14.33	14.52	14.11		
10	64QAM	1	49	14.76	14.66	14.73		
10	64QAM	25	0	14.35	14.32	14.36	15	0
10	64QAM	25	12	14.37	14.38	14.26		
10	64QAM	25	25	14.55	14.49	14.48		
10	64QAM	50	0	14.48	14.40	14.47		

Channel				19975	20175	20375	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1732.5	1752.5		
5	QPSK	1	0	14.08	13.99	14.01	15	0
5	QPSK	1	12	14.24	14.20	14.17		
5	QPSK	1	24	14.31	14.31	14.19		
5	QPSK	12	0	14.35	14.36	14.27	15	0
5	QPSK	12	7	14.29	14.25	14.21		
5	QPSK	12	13	14.31	14.33	14.28		
5	QPSK	25	0	14.41	14.26	14.25		
5	16QAM	1	0	14.78	14.74	14.58	15	0
5	16QAM	1	12	14.26	14.43	14.54		
5	16QAM	1	24	14.62	14.65	14.41		
5	16QAM	12	0	14.41	14.34	14.25	15	0
5	16QAM	12	7	14.42	14.31	14.31		
5	16QAM	12	13	14.30	14.28	14.25		
5	16QAM	25	0	14.34	14.23	14.23		
5	64QAM	1	0	14.79	14.60	14.70	15	0
5	64QAM	1	12	14.72	14.54	14.33		
5	64QAM	1	24	14.38	14.44	14.39		
5	64QAM	12	0	14.38	14.38	14.36	15	0
5	64QAM	12	7	14.40	14.31	14.28		
5	64QAM	12	13	14.29	14.32	14.35		
5	64QAM	25	0	14.28	14.31	14.28		
Channel				19965	20175	20385	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1732.5	1753.5		
3	QPSK	1	0	14.13	14.01	14.00	15	0
3	QPSK	1	8	14.32	14.22	14.21		
3	QPSK	1	14	14.29	14.22	14.21		
3	QPSK	8	0	14.21	14.27	14.26	15	0
3	QPSK	8	4	14.31	14.23	14.19		
3	QPSK	8	7	14.21	14.29	14.16		
3	QPSK	15	0	14.27	14.24	14.24		
3	16QAM	1	0	14.57	14.54	14.54	15	0
3	16QAM	1	8	14.59	14.49	14.59		
3	16QAM	1	14	14.52	14.45	14.44		
3	16QAM	8	0	14.41	14.38	14.41	15	0
3	16QAM	8	4	14.38	14.30	14.34		
3	16QAM	8	7	14.38	14.38	14.23		
3	16QAM	15	0	14.30	14.24	14.24		
3	64QAM	1	0	14.47	14.51	14.46	15	0
3	64QAM	1	8	14.73	14.49	14.47		
3	64QAM	1	14	14.47	14.39	14.48		
3	64QAM	8	0	14.37	14.45	14.40	15	0
3	64QAM	8	4	14.34	14.31	14.25		
3	64QAM	8	7	14.35	14.40	14.19		
3	64QAM	15	0	14.31	14.33	14.16		

Channel				19957	20175	20393	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1732.5	1754.3		
1.4	QPSK	1	0	14.05	14.04	14.08	15	0
1.4	QPSK	1	3	14.24	14.32	14.26		
1.4	QPSK	1	5	14.23	14.04	14.12		
1.4	QPSK	3	0	14.22	14.23	14.14		
1.4	QPSK	3	1	14.18	14.22	14.27		
1.4	QPSK	3	3	14.09	14.19	14.24		
1.4	QPSK	6	0	14.15	14.19	14.23	15	0
1.4	16QAM	1	0	14.44	14.55	14.52	15	0
1.4	16QAM	1	3	14.46	14.47	14.60		
1.4	16QAM	1	5	14.45	14.50	14.48		
1.4	16QAM	3	0	14.38	14.34	14.24		
1.4	16QAM	3	1	14.30	14.40	14.36		
1.4	16QAM	3	3	14.20	14.16	14.23		
1.4	16QAM	6	0	14.28	14.21	14.22	15	0
1.4	64QAM	1	0	14.31	14.28	14.33	15	0
1.4	64QAM	1	3	14.31	14.30	14.57		
1.4	64QAM	1	5	14.30	14.28	14.39		
1.4	64QAM	3	0	14.31	14.23	14.24		
1.4	64QAM	3	1	14.32	14.31	14.40		
1.4	64QAM	3	3	14.29	14.17	14.27		
1.4	64QAM	6	0	14.24	14.24	14.16	15	0

<LTE Band 25>

BW [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				26140	26340	26590		
Frequency (MHz)				1860	1880	1905		
20	QPSK	1	0	18.79	18.76	18.80	20	0
20	QPSK	1	49	18.87	18.87	18.92		
20	QPSK	1	99	18.92	19.02	18.99		
20	QPSK	50	0	18.94	19.03	19.00	20	0
20	QPSK	50	24	18.90	18.80	18.88		
20	QPSK	50	50	18.91	18.86	18.89		
20	QPSK	100	0	19.03	19.05	19.02		
20	16QAM	1	0	19.25	19.25	19.21	20	0
20	16QAM	1	49	18.94	19.00	19.12		
20	16QAM	1	99	18.86	18.98	18.88		
20	16QAM	50	0	18.82	18.81	18.82	20	0
20	16QAM	50	24	18.80	18.73	18.79		
20	16QAM	50	50	18.81	18.74	18.68		
20	16QAM	100	0	18.84	18.82	18.87		
20	64QAM	1	0	19.27	19.11	19.19	20	0
20	64QAM	1	49	18.92	18.94	19.03		
20	64QAM	1	99	18.77	18.81	18.81		
20	64QAM	50	0	18.91	18.81	18.83	20	0
20	64QAM	50	24	18.83	18.78	18.85		
20	64QAM	50	50	18.81	18.74	18.83		
20	64QAM	100	0	18.84	18.81	18.79		

Channel				26115	26340	26615	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1907.5		
15	QPSK	1	0	18.81	18.75	18.81	20	0
15	QPSK	1	37	18.79	18.72	18.73		
15	QPSK	1	74	18.86	18.90	18.88		
15	QPSK	36	0	18.94	18.84	18.92	20	0
15	QPSK	36	20	18.82	18.81	18.84		
15	QPSK	36	39	18.87	18.83	18.74		
15	QPSK	75	0	18.92	18.80	18.83		
15	16QAM	1	0	19.20	19.11	19.12	20	0
15	16QAM	1	37	19.03	18.86	19.11		
15	16QAM	1	74	19.17	18.99	19.18		
15	16QAM	36	0	18.99	18.85	18.94	20	0
15	16QAM	36	20	18.92	18.83	18.87		
15	16QAM	36	39	18.93	18.86	18.86		
15	16QAM	75	0	18.95	18.82	18.95		
15	64QAM	1	0	19.25	19.19	19.07	20	0
15	64QAM	1	37	18.75	18.75	18.79		
15	64QAM	1	74	19.07	19.07	18.95		
15	64QAM	36	0	18.94	18.82	18.92	20	0
15	64QAM	36	20	18.88	18.80	18.84		
15	64QAM	36	39	18.82	18.73	18.88		
15	64QAM	75	0	18.91	18.85	18.96		
Channel				26090	26340	26640	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1910		
10	QPSK	1	0	18.68	18.57	18.66	20	0
10	QPSK	1	25	18.86	18.70	18.73		
10	QPSK	1	49	19.05	19.07	18.68		
10	QPSK	25	0	18.96	18.89	18.85	20	0
10	QPSK	25	12	18.93	18.84	18.83		
10	QPSK	25	25	18.94	18.79	18.88		
10	QPSK	50	0	18.87	18.82	18.83		
10	16QAM	1	0	19.30	19.22	19.20	20	0
10	16QAM	1	25	19.16	19.11	19.07		
10	16QAM	1	49	19.29	19.28	18.74		
10	16QAM	25	0	18.90	18.82	18.87	20	0
10	16QAM	25	12	18.88	18.76	18.88		
10	16QAM	25	25	18.95	18.85	18.88		
10	16QAM	50	0	18.91	18.85	18.87		
10	64QAM	1	0	19.30	19.18	19.26	20	0
10	64QAM	1	25	19.02	18.95	18.92		
10	64QAM	1	49	19.14	19.15	18.76		
10	64QAM	25	0	18.92	18.84	18.89	20	0
10	64QAM	25	12	18.92	18.81	18.90		
10	64QAM	25	25	19.00	18.86	18.89		
10	64QAM	50	0	18.97	18.79	18.87		

Channel				26065	26340	26665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1912.5		
5	QPSK	1	0	18.54	18.50	18.57	20	0
5	QPSK	1	12	18.97	18.80	18.79		
5	QPSK	1	24	19.09	18.80	18.86		
5	QPSK	12	0	19.07	18.95	18.93	20	0
5	QPSK	12	7	19.13	18.85	18.82		
5	QPSK	12	13	18.97	18.78	18.86		
5	QPSK	25	0	19.06	18.85	18.93		
5	16QAM	1	0	19.30	19.12	19.15	20	0
5	16QAM	1	12	19.16	19.03	19.12		
5	16QAM	1	24	19.24	19.02	18.97		
5	16QAM	12	0	19.13	18.91	19.03	20	0
5	16QAM	12	7	19.08	18.87	18.95		
5	16QAM	12	13	19.03	18.83	18.98		
5	16QAM	25	0	19.01	18.88	18.94		
5	64QAM	1	0	19.21	19.15	19.09	20	0
5	64QAM	1	12	19.18	18.99	18.97		
5	64QAM	1	24	19.20	18.97	18.96		
5	64QAM	12	0	19.12	18.88	19.04	20	0
5	64QAM	12	7	19.13	18.96	18.95		
5	64QAM	12	13	19.03	18.91	18.91		
5	64QAM	25	0	19.04	18.97	18.93		
Channel				26055	26340	26675	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1913.5		
3	QPSK	1	0	18.67	18.30	18.47	20	0
3	QPSK	1	8	18.86	18.86	18.91		
3	QPSK	1	14	18.84	18.76	18.85		
3	QPSK	8	0	18.90	18.83	18.91	20	0
3	QPSK	8	4	18.94	18.85	18.96		
3	QPSK	8	7	18.85	18.79	18.88		
3	QPSK	15	0	19.00	18.81	18.95		
3	16QAM	1	0	19.22	19.06	19.09	20	0
3	16QAM	1	8	19.31	19.21	19.09		
3	16QAM	1	14	19.16	18.92	19.00		
3	16QAM	8	0	19.12	18.89	18.96	20	0
3	16QAM	8	4	19.12	18.91	19.04		
3	16QAM	8	7	19.07	18.87	18.95		
3	16QAM	15	0	19.01	18.84	18.87		
3	64QAM	1	0	19.24	19.13	19.23	20	0
3	64QAM	1	8	19.17	19.09	19.12		
3	64QAM	1	14	19.15	18.96	19.04		
3	64QAM	8	0	19.19	18.91	18.89	20	0
3	64QAM	8	4	19.15	18.95	18.89		
3	64QAM	8	7	19.07	18.86	18.92		
3	64QAM	15	0	18.93	18.89	18.83		

Channel				26047	26340	26683	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1914.3		
1.4	QPSK	1	0	18.40	18.31	18.48	20	0
1.4	QPSK	1	3	18.75	18.69	18.78		
1.4	QPSK	1	5	18.83	18.63	18.70		
1.4	QPSK	3	0	18.89	18.75	18.70		
1.4	QPSK	3	1	18.95	18.69	18.69		
1.4	QPSK	3	3	18.90	18.65	18.76		
1.4	QPSK	6	0	18.87	18.65	18.70	20	0
1.4	16QAM	1	0	19.00	18.86	18.77	20	0
1.4	16QAM	1	3	19.18	18.86	19.09		
1.4	16QAM	1	5	19.03	18.97	18.97		
1.4	16QAM	3	0	18.89	18.75	18.79		
1.4	16QAM	3	1	18.98	18.87	18.89		
1.4	16QAM	3	3	18.82	18.71	18.86		
1.4	16QAM	6	0	19.00	18.76	18.90	20	0
1.4	64QAM	1	0	19.05	18.93	18.94	20	0
1.4	64QAM	1	3	19.11	18.95	18.96		
1.4	64QAM	1	5	18.99	18.88	19.00		
1.4	64QAM	3	0	18.88	18.82	18.82		
1.4	64QAM	3	1	19.03	18.83	18.87		
1.4	64QAM	3	3	18.91	18.75	18.82		
1.4	64QAM	6	0	18.86	18.75	18.77	20	0

<LTE Band 66>

BW [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				132072	132322	132572		
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	0	13.72	14.15	13.72	15	0
20	QPSK	1	49	14.09	13.99	14.03		
20	QPSK	1	99	14.22	14.33	13.97		
20	QPSK	50	0	13.87	13.99	13.91	15	0
20	QPSK	50	24	13.75	13.97	13.88		
20	QPSK	50	50	13.79	13.93	13.94		
20	QPSK	100	0	13.70	14.09	14.08		
20	16QAM	1	0	14.38	14.46	14.51	15	0
20	16QAM	1	49	14.30	14.41	14.42		
20	16QAM	1	99	14.62	14.72	14.66		
20	16QAM	50	0	13.76	13.99	14.00	15	0
20	16QAM	50	24	13.76	14.10	13.96		
20	16QAM	50	50	13.81	14.16	14.13		
20	16QAM	100	0	13.82	13.98	13.99		
20	64QAM	1	0	14.07	14.30	14.32	15	0
20	64QAM	1	49	14.35	14.08	14.15		
20	64QAM	1	99	14.45	14.55	14.41		
20	64QAM	50	0	13.91	14.01	14.03	15	0
20	64QAM	50	24	13.71	14.01	13.94		
20	64QAM	50	50	13.85	14.14	14.08		
20	64QAM	100	0	13.85	14.00	14.02		

Channel				132047	132322	132597	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	0	13.67	13.68	13.88	15	0
15	QPSK	1	37	13.97	13.96	14.15		
15	QPSK	1	74	14.20	14.35	13.88		
15	QPSK	36	0	13.84	14.06	13.98	15	0
15	QPSK	36	20	13.83	14.05	13.80		
15	QPSK	36	39	13.77	14.01	14.05		
15	QPSK	75	0	13.81	14.04	13.97		
15	16QAM	1	0	14.46	14.52	14.62	15	0
15	16QAM	1	37	14.08	14.13	14.01		
15	16QAM	1	74	14.71	14.76	14.61		
15	16QAM	36	0	13.89	14.08	13.97	15	0
15	16QAM	36	20	13.87	13.97	13.91		
15	16QAM	36	39	13.89	13.98	14.01		
15	16QAM	75	0	13.75	14.05	14.03		
15	64QAM	1	0	14.34	14.30	14.51	15	0
15	64QAM	1	37	14.32	14.28	14.38		
15	64QAM	1	74	14.30	14.62	14.13		
15	64QAM	36	0	13.87	14.12	14.02	15	0
15	64QAM	36	20	13.86	14.00	13.78		
15	64QAM	36	39	13.87	14.07	13.99		
15	64QAM	75	0	13.79	14.05	14.00		
Channel				132022	132322	132622	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	0	13.70	13.90	13.95	15	0
10	QPSK	1	25	13.84	13.95	13.91		
10	QPSK	1	49	14.15	14.31	14.23		
10	QPSK	25	0	13.99	14.07	14.03	15	0
10	QPSK	25	12	13.94	14.05	13.99		
10	QPSK	25	25	13.97	14.04	13.96		
10	QPSK	50	0	13.94	14.05	14.08		
10	16QAM	1	0	14.55	14.43	14.48	15	0
10	16QAM	1	25	14.26	14.33	14.36		
10	16QAM	1	49	14.71	14.67	14.52		
10	16QAM	25	0	13.86	14.01	13.99	15	0
10	16QAM	25	12	13.90	14.09	13.95		
10	16QAM	25	25	13.92	14.07	13.90		
10	16QAM	50	0	13.88	14.09	14.03		
10	64QAM	1	0	14.26	14.36	14.42	15	0
10	64QAM	1	25	14.04	14.31	14.26		
10	64QAM	1	49	14.48	14.47	14.37		
10	64QAM	25	0	13.92	14.02	14.04	15	0
10	64QAM	25	12	13.86	14.12	13.99		
10	64QAM	25	25	13.98	14.11	13.94		
10	64QAM	50	0	13.96	14.11	14.08		

Channel				131997	132322	132647	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	0	13.61	13.76	13.79	15	0
5	QPSK	1	12	13.72	13.98	13.90		
5	QPSK	1	24	13.81	14.05	13.87		
5	QPSK	12	0	13.87	14.10	14.01	15	0
5	QPSK	12	7	13.88	14.05	13.93		
5	QPSK	12	13	13.92	14.00	13.89		
5	QPSK	25	0	13.83	14.07	13.97		
5	16QAM	1	0	14.17	14.51	14.44	15	0
5	16QAM	1	12	13.78	14.09	14.01		
5	16QAM	1	24	14.13	14.42	14.08		
5	16QAM	12	0	13.92	14.05	14.07	15	0
5	16QAM	12	7	13.85	14.09	14.00		
5	16QAM	12	13	13.89	14.06	13.96		
5	16QAM	25	0	13.78	14.00	13.93		
5	64QAM	1	0	14.33	14.38	14.25	15	0
5	64QAM	1	12	14.28	14.28	14.28		
5	64QAM	1	24	13.95	14.23	14.06		
5	64QAM	12	0	13.95	14.08	14.05	15	0
5	64QAM	12	7	13.86	14.05	13.97		
5	64QAM	12	13	13.86	14.11	14.02		
5	64QAM	25	0	13.86	14.14	13.97		
Channel				131987	132322	132657	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1745	1778.5		
3	QPSK	1	0	13.58	13.65	13.68	15	0
3	QPSK	1	8	13.83	13.99	13.88		
3	QPSK	1	14	13.80	13.97	13.89		
3	QPSK	8	0	13.85	14.04	13.89	15	0
3	QPSK	8	4	13.83	14.00	13.94		
3	QPSK	8	7	13.83	13.91	13.86		
3	QPSK	15	0	13.79	13.98	13.92		
3	16QAM	1	0	13.90	14.21	14.15	15	0
3	16QAM	1	8	13.99	14.30	14.22		
3	16QAM	1	14	13.96	14.24	13.90		
3	16QAM	8	0	13.96	14.12	13.99	15	0
3	16QAM	8	4	13.93	14.05	14.04		
3	16QAM	8	7	13.95	13.99	14.04		
3	16QAM	15	0	13.87	14.01	13.98		
3	64QAM	1	0	14.08	14.21	14.13	15	0
3	64QAM	1	8	14.18	14.20	14.11		
3	64QAM	1	14	14.23	14.26	13.99		
3	64QAM	8	0	14.01	14.20	13.99	15	0
3	64QAM	8	4	13.90	14.07	13.97		
3	64QAM	8	7	13.89	13.96	13.98		
3	64QAM	15	0	13.82	13.99	14.02		

Channel				131979	132322	132665	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1745	1779.3		
1.4	QPSK	1	0	13.62	13.60	13.46	15	0
1.4	QPSK	1	3	13.72	14.02	13.72		
1.4	QPSK	1	5	13.86	13.90	13.72		
1.4	QPSK	3	0	13.81	14.01	13.90		
1.4	QPSK	3	1	13.84	14.03	13.93		
1.4	QPSK	3	3	13.84	13.95	13.87		
1.4	QPSK	6	0	13.79	13.98	13.86	15	0
1.4	16QAM	1	0	13.80	14.22	14.13	15	0
1.4	16QAM	1	3	14.06	14.20	14.04		
1.4	16QAM	1	5	13.92	14.34	14.17		
1.4	16QAM	3	0	13.80	14.02	14.08		
1.4	16QAM	3	1	13.87	13.96	14.06		
1.4	16QAM	3	3	13.84	13.95	13.97		
1.4	16QAM	6	0	13.79	14.04	14.12	15	0
1.4	64QAM	1	0	13.91	14.17	13.97	15	0
1.4	64QAM	1	3	13.87	14.17	14.08		
1.4	64QAM	1	5	14.08	13.95	14.01		
1.4	64QAM	3	0	13.83	14.01	14.03		
1.4	64QAM	3	1	13.96	14.07	14.09		
1.4	64QAM	3	3	13.93	13.95	14.00		
1.4	64QAM	6	0	13.87	13.96	13.95	15	0

<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.

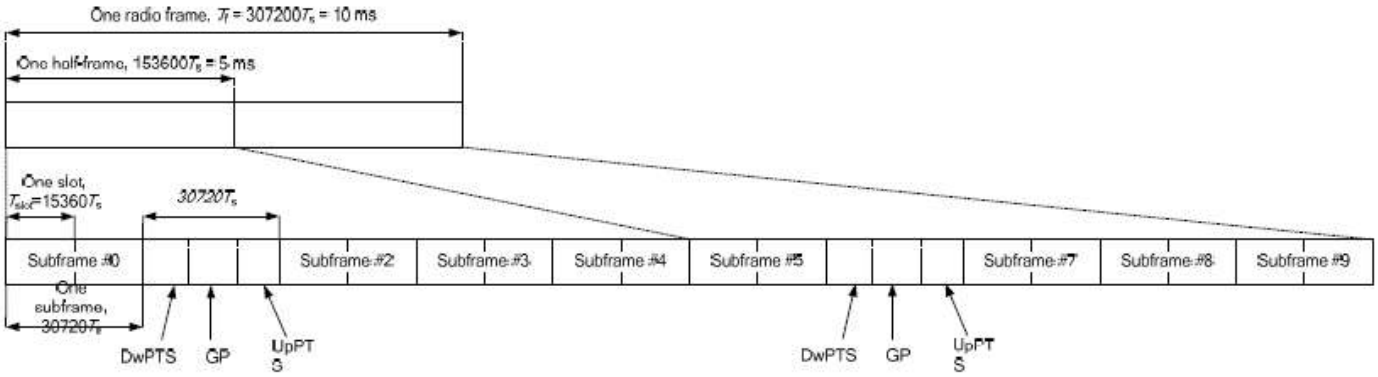


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

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	$6592 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$	$7680 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$
1	$19760 \cdot T_s$			$20480 \cdot T_s$		
2	$21952 \cdot T_s$			$23040 \cdot T_s$		
3	$24144 \cdot T_s$			$25600 \cdot T_s$		
4	$26336 \cdot T_s$			$7680 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
5	$6592 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$20480 \cdot T_s$		
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			$12800 \cdot T_s$		
8	$24144 \cdot T_s$			-	-	-
9	$13168 \cdot T_s$			-	-	-

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:

For LTE Band 41 Power class 2

i. Uplink-downlink configuration: 1. In a half-frame consisted of 5 subfames, uplink operation is in 2 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: (2+0.167)/5 = 43.3%
iv. for special subframe with normal cyclic prefix in uplink, the total uplink duty factor in one half-frame is: (2+0.143)/5 = 42.9%
v. For TDD LTE SAR measurement, the duty cycle 1:2.33 (42.9 %) was used perform testing and considering the theoretical duty cycle of 43.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 42.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix 43.3%/42.9% = 1.009 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.

For LTE Band 41 Power class 3

i. Uplink-downlink configuration: 0. In a half-frame consisted of 5 subfames, 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.

The device can adjust uplink/downlink configuration automatically according to the transmitting power class level for LTE band 41.

<Full Power Mode>

<LTE Band 41 Power Class 2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	25.98	25.93	25.57	25.75	25.83	27	0
20	QPSK	1	49	26.19	26.17	25.87	26.12	26.21		
20	QPSK	1	99	25.72	25.76	25.55	25.75	25.76		
20	QPSK	50	0	25.20	25.25	24.90	25.11	25.16	26	1
20	QPSK	50	24	25.27	25.26	24.92	25.22	25.32		
20	QPSK	50	50	25.13	25.15	24.89	25.12	25.21		
20	QPSK	100	0	25.20	25.18	24.90	25.15	25.21		
20	16QAM	1	0	25.52	25.23	24.70	24.89	24.56	26	1
20	16QAM	1	49	25.33	25.17	24.88	25.20	25.20		
20	16QAM	1	99	24.70	24.67	24.55	24.65	24.56		
20	16QAM	50	0	24.27	24.30	23.91	24.20	24.28	25	2
20	16QAM	50	24	24.32	24.29	23.96	24.29	24.36		
20	16QAM	50	50	24.18	24.18	23.84	24.17	24.30		
20	16QAM	100	0	24.25	24.23	23.88	24.18	24.28		
20	64QAM	1	0	25.12	25.10	25.01	24.75	24.49	26	1
20	64QAM	1	49	25.16	25.06	25.06	25.02	25.13		
20	64QAM	1	99	24.56	24.56	24.31	24.57	24.58		
20	64QAM	50	0	24.20	24.23	23.78	24.11	24.20	25	2
20	64QAM	50	24	24.26	24.21	23.87	24.20	24.27		
20	64QAM	50	50	24.12	24.12	23.78	24.12	24.24		
20	64QAM	100	0	24.28	24.28	23.93	24.23	24.31		

Channel				39725	40173	40620	41068	41515	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5		
15	QPSK	1	0	25.47	25.46	25.02	25.04	25.23	27	0
15	QPSK	1	37	26.02	26.04	25.95	26.02	26.06		
15	QPSK	1	74	25.67	25.62	25.53	25.61	25.61		
15	QPSK	36	0	25.27	25.28	24.99	25.02	25.27	26	1
15	QPSK	36	20	25.26	25.34	25.22	25.28	25.34		
15	QPSK	36	39	25.40	25.42	25.32	25.29	25.48		
15	QPSK	75	0	25.28	25.39	25.14	25.18	25.32		
15	16QAM	1	0	25.07	24.87	24.40	24.39	24.68	26	1
15	16QAM	1	37	25.55	25.23	25.00	25.18	25.08		
15	16QAM	1	74	24.62	24.51	24.42	24.50	24.45		
15	16QAM	36	0	24.29	24.30	23.97	23.99	24.22	25	2
15	16QAM	36	20	24.27	24.32	24.13	24.22	24.32		
15	16QAM	36	39	24.40	24.42	24.23	24.27	24.46		
15	16QAM	75	0	24.34	24.39	24.17	24.23	24.36		
15	64QAM	1	0	24.85	24.70	24.35	24.30	24.58	26	1
15	64QAM	1	37	25.01	24.89	24.73	24.69	24.99		
15	64QAM	1	74	24.51	24.45	24.40	24.44	24.48		
15	64QAM	36	0	24.29	24.31	24.01	24.03	24.25	25	2
15	64QAM	36	20	24.28	24.35	24.17	24.25	24.34		
15	64QAM	36	39	24.40	24.45	24.26	24.30	24.49		
15	64QAM	75	0	24.34	24.39	24.18	24.20	24.34		
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	25.63	25.65	25.66	25.60	25.55	27	0
10	QPSK	1	25	26.08	26.05	26.09	26.09	26.07		
10	QPSK	1	49	26.06	26.04	26.17	26.11	26.08		
10	QPSK	25	0	25.21	25.12	25.31	25.21	25.15	26	1
10	QPSK	25	12	25.20	25.23	25.31	25.25	25.22		
10	QPSK	25	25	25.21	25.12	25.31	25.18	25.20		
10	QPSK	50	0	25.17	25.20	25.22	25.15	25.12		
10	16QAM	1	0	25.35	25.07	25.18	25.11	24.93	26	1
10	16QAM	1	25	25.18	24.99	25.16	25.15	25.03		
10	16QAM	1	49	25.22	24.97	25.22	25.15	24.96		
10	16QAM	25	0	24.24	24.15	24.34	24.26	24.19	25	2
10	16QAM	25	12	24.27	24.24	24.30	24.29	24.28		
10	16QAM	25	25	24.29	24.13	24.37	24.21	24.26		
10	16QAM	50	0	24.23	24.18	24.26	24.18	24.19		
10	64QAM	1	0	25.02	24.92	24.98	24.91	24.85	26	1
10	64QAM	1	25	24.92	24.86	25.03	24.94	24.98		
10	64QAM	1	49	24.98	24.85	25.08	25.02	24.93		
10	64QAM	25	0	24.17	24.11	24.29	24.21	24.14	25	2
10	64QAM	25	12	24.15	24.14	24.25	24.24	24.23		
10	64QAM	25	25	24.25	24.07	24.32	24.16	24.22		
10	64QAM	50	0	24.12	24.12	24.20	24.12	24.10		

Channel				39675	40148	40620	41093	41565	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	25.60	25.58	25.71	25.63	25.65	27	0
5	QPSK	1	12	26.08	25.90	26.09	25.98	26.04		
5	QPSK	1	24	26.10	26.00	26.15	25.97	26.06		
5	QPSK	12	0	25.31	25.17	25.29	25.17	25.18	26	1
5	QPSK	12	7	25.24	25.10	25.27	25.18	25.20		
5	QPSK	12	13	25.26	25.20	25.24	25.13	25.22		
5	QPSK	25	0	25.28	25.14	25.23	25.13	25.22		
5	16QAM	1	0	25.40	25.04	25.25	25.20	25.12	26	1
5	16QAM	1	12	25.21	24.81	25.10	25.02	24.99		
5	16QAM	1	24	25.20	24.92	25.16	25.01	25.00		
5	16QAM	12	0	24.31	24.22	24.32	24.35	24.30	25	2
5	16QAM	12	7	24.29	24.14	24.30	24.29	24.29		
5	16QAM	12	13	24.23	24.24	24.27	24.20	24.27		
5	16QAM	25	0	24.34	24.10	24.28	24.19	24.26		
5	64QAM	1	0	25.21	24.96	25.16	25.02	25.03	26	1
5	64QAM	1	12	24.98	24.76	24.95	24.87	24.91		
5	64QAM	1	24	25.08	24.91	25.06	24.90	24.97		
5	64QAM	12	0	24.24	24.08	24.28	24.22	24.24	25	2
5	64QAM	12	7	24.26	24.11	24.23	24.15	24.26		
5	64QAM	12	13	24.19	24.11	24.18	24.17	24.24		
5	64QAM	25	0	24.23	24.06	24.24	24.13	24.19		

<LTE Band 41 Power Class 3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	24.17	23.92	24.00	24.05	24.11	25	0
20	QPSK	1	49	24.40	24.37	24.29	24.39	24.43		
20	QPSK	1	99	23.94	23.94	23.93	23.93	23.99		
20	QPSK	50	0	22.40	22.39	22.23	22.26	22.38	24	1
20	QPSK	50	24	22.46	22.40	22.28	22.38	22.50		
20	QPSK	50	50	22.32	22.34	22.25	22.22	22.42		
20	QPSK	100	0	22.38	22.32	22.20	22.31	22.37		
20	16QAM	1	0	22.37	22.33	22.45	22.45	22.49	24	1
20	16QAM	1	49	22.29	22.23	22.36	22.36	22.50		
20	16QAM	1	99	22.24	22.28	22.37	22.28	22.44		
20	16QAM	50	0	21.42	21.36	21.27	21.29	21.43	23	2
20	16QAM	50	24	21.44	21.40	21.34	21.42	21.53		
20	16QAM	50	50	21.38	21.33	21.25	21.27	21.48		
20	16QAM	100	0	21.44	21.38	21.25	21.33	21.43		
20	64QAM	1	0	21.91	21.93	21.62	21.54	21.32	23	2
20	64QAM	1	49	21.91	21.89	21.77	21.87	21.96		
20	64QAM	1	99	21.37	21.45	21.44	21.43	21.50		
20	64QAM	50	0	21.37	21.31	21.17	21.19	21.38	22	3
20	64QAM	50	24	21.44	21.33	21.27	21.34	21.42		
20	64QAM	50	50	21.31	21.27	21.20	21.22	21.34		
20	64QAM	100	0	21.46	21.43	21.30	21.37	21.48		

Channel				39725	40173	40620	41068	41515	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5		
15	QPSK	1	0	23.76	23.73	24.08	24.02	24.13	25	0
15	QPSK	1	37	24.19	24.23	24.14	24.15	24.27		
15	QPSK	1	74	23.86	23.82	23.72	23.80	23.82		
15	QPSK	36	0	22.40	22.48	22.18	22.18	22.41	24	1
15	QPSK	36	20	22.41	22.53	22.34	22.42	22.50		
15	QPSK	36	39	22.55	22.63	22.43	22.47	22.67		
15	QPSK	75	0	22.41	22.53	22.31	22.34	22.52		
15	16QAM	1	0	22.37	22.33	22.45	22.45	22.49	24	1
15	16QAM	1	37	22.29	22.23	22.36	22.36	22.50		
15	16QAM	1	74	22.24	22.28	22.37	22.28	22.44		
15	16QAM	36	0	21.35	21.43	21.10	21.10	21.38	23	2
15	16QAM	36	20	21.34	21.47	21.26	21.33	21.49		
15	16QAM	36	39	21.48	21.54	21.36	21.38	21.56		
15	16QAM	75	0	21.39	21.55	21.32	21.37	21.52		
15	64QAM	1	0	21.65	21.57	21.20	21.24	21.41	23	2
15	64QAM	1	37	21.67	21.75	21.64	21.67	21.77		
15	64QAM	1	74	21.33	21.31	21.27	21.36	21.34		
15	64QAM	36	0	21.38	21.48	21.16	21.16	21.43	22	3
15	64QAM	36	20	21.39	21.51	21.32	21.38	21.53		
15	64QAM	36	39	21.52	21.59	21.40	21.43	21.60		
15	64QAM	75	0	21.40	21.55	21.33	21.33	21.53		
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	24.11	23.96	23.98	24.12	24.22	25	0
10	QPSK	1	25	24.31	24.31	24.28	24.35	24.37		
10	QPSK	1	49	24.39	24.32	24.32	24.40	24.35		
10	QPSK	25	0	22.31	22.30	22.36	22.35	22.35	24	1
10	QPSK	25	12	22.33	22.42	22.32	22.39	22.44		
10	QPSK	25	25	22.39	22.32	22.37	22.33	22.36		
10	QPSK	50	0	22.28	22.32	22.28	22.35	22.34		
10	16QAM	1	0	22.20	22.16	22.05	22.02	22.08	24	1
10	16QAM	1	25	22.08	22.10	22.06	22.08	22.13		
10	16QAM	1	49	22.11	22.08	22.04	22.12	22.07		
10	16QAM	25	0	21.34	21.31	21.35	21.40	21.35	23	2
10	16QAM	25	12	21.38	21.41	21.39	21.37	21.43		
10	16QAM	25	25	21.41	21.31	21.36	21.37	21.43		
10	16QAM	50	0	21.28	21.38	21.27	21.35	21.39		
10	64QAM	1	0	21.88	21.87	21.76	21.76	21.78	23	2
10	64QAM	1	25	21.77	21.84	21.82	21.81	21.89		
10	64QAM	1	49	21.87	21.82	21.81	21.87	21.85		
10	64QAM	25	0	21.28	21.26	21.32	21.30	21.32	22	3
10	64QAM	25	12	21.31	21.38	21.27	21.31	21.39		
10	64QAM	25	25	21.38	21.28	21.33	21.32	21.39		
10	64QAM	50	0	21.23	21.27	21.23	21.29	21.34		

Channel				39675	40148	40620	41093	41565	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	23.74	23.79	23.89	23.85	23.95	25	0
5	QPSK	1	12	24.00	24.03	24.12	24.18	24.26		
5	QPSK	1	24	24.02	24.11	24.14	24.13	24.28		
5	QPSK	12	0	22.13	22.12	22.27	22.24	22.33	24	1
5	QPSK	12	7	22.10	22.10	22.19	22.24	22.32		
5	QPSK	12	13	22.07	22.17	22.15	22.20	22.33		
5	QPSK	25	0	22.09	22.08	22.22	22.22	22.33		
5	16QAM	1	0	22.17	22.13	22.25	22.25	22.29	24	1
5	16QAM	1	12	22.09	22.03	22.16	22.16	22.30		
5	16QAM	1	24	22.04	22.08	22.17	22.08	22.24		
5	16QAM	12	0	21.14	21.14	21.23	21.24	21.36	23	2
5	16QAM	12	7	21.07	21.06	21.18	21.17	21.34		
5	16QAM	12	13	21.04	21.13	21.12	21.19	21.30		
5	16QAM	25	0	21.09	21.07	21.22	21.19	21.35		
5	64QAM	1	0	21.72	21.74	21.81	21.84	21.91	23	2
5	64QAM	1	12	21.59	21.53	21.63	21.65	21.77		
5	64QAM	1	24	21.60	21.65	21.73	21.74	21.80		
5	64QAM	12	0	21.05	21.06	21.24	21.21	21.26	22	3
5	64QAM	12	7	21.08	21.08	21.14	21.19	21.31		
5	64QAM	12	13	21.01	21.09	21.14	21.11	21.28		
5	64QAM	25	0	21.05	21.03	21.14	21.15	21.30		

<Reduced Power Mode for P-Sensor On/Hotspot On>

<LTE Band 41 Power Class 2/3>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				39750	40185	40620	41055	41490		
Frequency (MHz)				2506	2549.5	2593	2636.5	2680		
20	QPSK	1	0	19.18	19.06	19.01	19.03	18.70	20	0
20	QPSK	1	49	19.10	19.13	19.27	19.26	19.38		
20	QPSK	1	99	18.70	18.79	18.81	18.80	18.81		
20	QPSK	50	0	19.18	19.25	19.02	19.07	19.14	20	0
20	QPSK	50	24	19.23	19.24	19.12	19.19	19.26		
20	QPSK	50	50	19.08	19.14	19.03	19.03	19.20		
20	QPSK	100	0	19.15	19.15	19.08	19.11	19.21		
20	16QAM	1	0	19.21	19.23	19.05	18.86	18.76	20	0
20	16QAM	1	49	19.16	19.24	19.16	19.10	19.08		
20	16QAM	1	99	18.68	18.80	18.72	18.71	18.61		
20	16QAM	50	0	19.22	19.23	19.09	19.13	19.16	20	0
20	16QAM	50	24	19.27	19.26	19.17	19.22	19.32		
20	16QAM	50	50	19.13	19.18	19.09	19.09	19.23		
20	16QAM	100	0	19.19	19.19	19.11	19.17	19.22		
20	64QAM	1	0	19.24	19.29	19.09	18.84	18.66	20	0
20	64QAM	1	49	19.18	19.18	19.20	19.09	19.10		
20	64QAM	1	99	18.72	18.86	18.81	18.69	18.69		
20	64QAM	50	0	19.08	19.18	19.04	19.01	19.01	20	0
20	64QAM	50	24	19.18	19.19	19.11	19.10	19.12		
20	64QAM	50	50	19.05	19.15	19.07	18.94	19.04		
20	64QAM	100	0	19.20	19.27	19.14	19.13	19.15		

Channel				39725	40173	40620	41068	41515	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5		
15	QPSK	1	0	18.45	18.43	18.13	18.08	18.13	20	0
15	QPSK	1	37	18.98	19.17	19.06	19.04	19.04		
15	QPSK	1	74	18.64	18.62	18.61	18.60	18.57		
15	QPSK	36	0	19.21	19.26	19.00	18.90	19.04	20	0
15	QPSK	36	20	19.21	19.29	19.17	19.13	19.15		
15	QPSK	36	39	19.35	19.46	19.28	19.18	19.30		
15	QPSK	75	0	19.24	19.34	19.09	19.09	19.14		
15	16QAM	1	0	19.01	19.02	18.82	18.75	18.83	20	0
15	16QAM	1	37	19.05	19.16	19.31	18.97	19.06		
15	16QAM	1	74	18.73	18.74	18.85	18.58	18.61		
15	16QAM	36	0	19.21	19.28	18.95	18.87	19.06	20	0
15	16QAM	36	20	19.21	19.30	19.13	19.09	19.13		
15	16QAM	36	39	19.36	19.41	19.20	19.11	19.26		
15	16QAM	75	0	19.28	19.39	19.14	19.15	19.23		
15	64QAM	1	0	18.90	18.94	18.72	18.64	18.72	20	0
15	64QAM	1	37	18.91	19.09	19.21	18.90	18.89		
15	64QAM	1	74	18.65	18.68	18.74	18.58	18.53		
15	64QAM	36	0	19.24	19.29	18.97	18.91	19.07	20	0
15	64QAM	36	20	19.23	19.32	19.15	19.11	19.15		
15	64QAM	36	39	19.39	19.43	19.24	19.14	19.27		
15	64QAM	75	0	19.28	19.38	19.14	19.15	19.20		
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	18.82	18.72	18.67	18.51	18.46	20	0
10	QPSK	1	25	19.09	19.19	19.23	19.08	19.04		
10	QPSK	1	49	19.17	19.16	19.25	19.16	19.03		
10	QPSK	25	0	19.27	19.25	19.27	19.18	19.09	20	0
10	QPSK	25	12	19.25	19.32	19.31	19.19	19.18		
10	QPSK	25	25	19.28	19.24	19.39	19.18	19.13		
10	QPSK	50	0	19.23	19.25	19.21	19.19	19.07		
10	16QAM	1	0	19.44	19.47	19.36	19.25	19.06	20	0
10	16QAM	1	25	19.33	19.41	19.36	19.22	19.11		
10	16QAM	1	49	19.39	19.41	19.36	19.30	19.14		
10	16QAM	25	0	19.27	19.28	19.30	19.22	19.14	20	0
10	16QAM	25	12	19.29	19.35	19.27	19.22	19.16		
10	16QAM	25	25	19.35	19.25	19.34	19.21	19.17		
10	16QAM	50	0	19.21	19.28	19.24	19.20	19.10		
10	64QAM	1	0	19.28	19.31	19.24	19.13	18.99	20	0
10	64QAM	1	25	19.21	19.22	19.31	19.22	19.09		
10	64QAM	1	49	19.24	19.28	19.39	19.25	19.11		
10	64QAM	25	0	19.28	19.24	19.30	19.16	19.10	20	0
10	64QAM	25	12	19.25	19.30	19.28	19.17	19.11		
10	64QAM	25	25	19.27	19.20	19.29	19.16	19.15		
10	64QAM	50	0	19.20	19.19	19.14	19.14	19.05		

Channel				39675	40148	40620	41093	41565	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	18.66	18.62	18.65	18.54	18.48	20	0
5	QPSK	1	12	19.22	19.07	19.11	18.93	18.94		
5	QPSK	1	24	19.17	19.11	19.26	19.00	19.01		
5	QPSK	12	0	19.33	19.21	19.41	19.16	19.13	20	0
5	QPSK	12	7	19.32	19.19	19.32	19.15	19.10		
5	QPSK	12	13	19.31	19.26	19.29	19.12	19.13		
5	QPSK	25	0	19.28	19.16	19.31	19.11	19.13		
5	16QAM	1	0	19.56	19.41	19.55	19.26	19.22	20	0
5	16QAM	1	12	19.44	19.27	19.45	19.21	19.10		
5	16QAM	1	24	19.41	19.37	19.39	19.20	19.10		
5	16QAM	12	0	19.40	19.27	19.42	19.24	19.25	20	0
5	16QAM	12	7	19.39	19.24	19.28	19.18	19.19		
5	16QAM	12	13	19.36	19.30	19.31	19.14	19.20		
5	16QAM	25	0	19.36	19.20	19.32	19.15	19.17		
5	64QAM	1	0	19.40	19.31	19.45	19.25	19.23	20	0
5	64QAM	1	12	19.28	19.19	19.31	19.14	19.08		
5	64QAM	1	24	19.31	19.28	19.38	19.07	19.13		
5	64QAM	12	0	19.35	19.20	19.37	19.15	19.18	20	0
5	64QAM	12	7	19.36	19.20	19.25	19.14	19.18		
5	64QAM	12	13	19.33	19.26	19.28	19.12	19.13		
5	64QAM	25	0	19.29	19.15	19.33	19.09	19.12		

<WLAN Conducted Power>

General Note:

1. 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.
2. 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).
3. 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.
4. 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.

<Full Power Mode>

<2.4GHz WLAN>

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
2.4GHz WLAN	802.11b 1Mbps	1	2412	18.85	20.00	97.63
		6	2437	19.47	20.00	
		11	2462	19.00	20.00	
	802.11g 6Mbps	1	2412	14.83	15.50	87.48
		6	2437	18.76	19.00	
		11	2462	13.81	15.50	
	802.11n-HT20 MCS0	1	2412	15.24	16.00	86.67
		6	2437	18.36	19.00	
		11	2462	13.00	14.50	
	802.11n-HT40 MCS0	3	2422	14.57	16.50	86.27
		6	2437	15.26	17.00	
		9	2452	10.71	12.50	

<5GHz WLAN>

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.2GHz WLAN	802.11a 6Mbps	36	5180	18.14	20.00	87.22
		40	5200	18.05	20.00	
		44	5220	18.11	20.00	
		48	5240	18.07	20.00	
	802.11n-HT20 MCS0	36	5180	18.40	18.50	85.98
		40	5200	18.28	18.50	
		44	5220	18.23	18.50	
		48	5240	18.15	18.50	
	802.11n-HT40 MCS0	38	5190	14.95	15.50	85.56
		46	5230	14.57	15.50	

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.3GHz WLAN	802.11a 6Mbps	52	5260	18.20	20.00	87.22
		56	5280	18.12	20.00	
		60	5300	18.13	20.00	
		64	5320	18.27	20.00	
	802.11n-HT20 MCS0	52	5260	18.22	18.50	85.98
		56	5280	18.28	18.50	
		60	5300	18.40	18.50	
		64	5320	18.45	18.50	
	802.11n-HT40 MCS0	54	5270	14.92	15.50	85.56
		62	5310	14.93	15.50	

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.5GHz WLAN	802.11a 6Mbps	100	5500	18.21	20.00	87.22
		116	5580	18.53	20.00	
		132	5660	17.12	18.50	
		140	5700	14.71	16.50	
	802.11n-HT20 MCS0	100	5500	17.77	18.50	85.98
		116	5580	18.04	18.50	
		132	5660	16.65	18.50	
		140	5700	14.88	16.50	
	802.11n-HT40 MCS0	102	5510	15.06	16.00	85.56
		110	5550	15.24	16.00	
		134	5670	13.49	15.00	

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.8GHz WLAN	802.11a 6Mbps	149	5745	17.93	19.50	87.22
		157	5785	18.82	20.00	
		165	5825	19.10	20.00	
	802.11n-HT20 MCS0	149	5745	17.95	19.50	85.98
		157	5785	18.94	19.50	
		165	5825	19.16	19.50	
	802.11n-HT40 MCS0	151	5755	14.96	16.00	85.56
		159	5795	15.46	16.00	

<Reduced Power Mode for Receiver On>

<2.4GHz WLAN>

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
2.4GHz WLAN	802.11b 1Mbps	1	2412	16.27	17.50	97.63
		6	2437	16.94	17.50	
		11	2462	16.45	17.50	
	802.11g 6Mbps	1	2412	13.05	14.00	87.48
		6	2437	16.46	16.50	
		11	2462	12.36	14.00	
	802.11n-HT20 MCS0	1	2412	14.11	14.50	86.67
		6	2437	16.69	17.50	
		11	2462	11.94	13.00	
	802.11n-HT40 MCS0	3	2422	14.57	15.00	86.27
		6	2437	15.26	15.50	
		9	2452	10.71	11.00	

<Reduced Power Mode for P-Sensor On>

<2.4GHz WLAN>

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
2.4GHz WLAN	802.11b 1Mbps	1	2412	16.59	18.50	97.63
		6	2437	17.90	18.50	
		11	2462	17.69	18.50	
	802.11g 6Mbps	1	2412	13.05	14.00	87.48
		6	2437	16.46	16.50	
		11	2462	12.36	14.00	
	802.11n-HT20 MCS0	1	2412	14.11	14.50	86.67
		6	2437	16.69	17.50	
		11	2462	11.94	13.00	
	802.11n-HT40 MCS0	3	2422	14.57	15.00	86.27
		6	2437	15.26	15.50	
		9	2452	10.71	11.00	

<5GHz WLAN>

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.2GHz WLAN	802.11a 6Mbps	36	5180	11.68	13.00	87.22
		40	5200	11.75	13.00	
		44	5220	11.76	13.00	
		48	5240	11.64	13.00	
	802.11n-HT20 MCS0	36	5180	11.61	13.00	85.98
		40	5200	11.38	13.00	
		44	5220	11.26	13.00	
		48	5240	11.19	13.00	
	802.11n-HT40 MCS0	38	5190	11.25	12.00	85.56
		46	5230	11.09	12.00	

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.3GHz WLAN	802.11a 6Mbps	52	5260	12.15	13.00	87.22
		56	5280	12.40	13.00	
		60	5300	12.52	13.00	
		64	5320	12.39	13.00	
	802.11n-HT20 MCS0	52	5260	11.85	13.00	85.98
		56	5280	12.25	13.00	
		60	5300	12.15	13.00	
		64	5320	12.37	13.00	
	802.11n-HT40 MCS0	54	5270	11.83	12.50	85.56
		62	5310	12.16	12.50	

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.5GHz WLAN	802.11a 6Mbps	100	5500	8.90	9.00	87.22
		116	5580	8.98	9.00	
		132	5660	7.08	8.00	
		140	5700	6.66	8.00	
	802.11n-HT20 MCS0	100	5500	8.65	9.00	85.98
		116	5580	8.73	9.00	
		132	5660	6.95	8.00	
		140	5700	6.25	8.00	
	802.11n-HT40 MCS0	102	5510	8.49	8.50	85.56
		110	5550	8.42	8.50	
		134	5670	6.66	8.00	

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.8GHz WLAN	802.11a 6Mbps	149	5745	9.41	11.00	87.22
		157	5785	10.44	11.00	
		165	5825	10.90	11.00	
	802.11n-HT20 MCS0	149	5745	9.07	11.00	85.98
		157	5785	10.03	11.00	
		165	5825	10.58	11.00	
	802.11n-HT40 MCS0	151	5755	9.19	10.50	85.56
		159	5795	9.93	10.50	

<Reduced Power Mode for Hotspot On>

<5GHz WLAN>

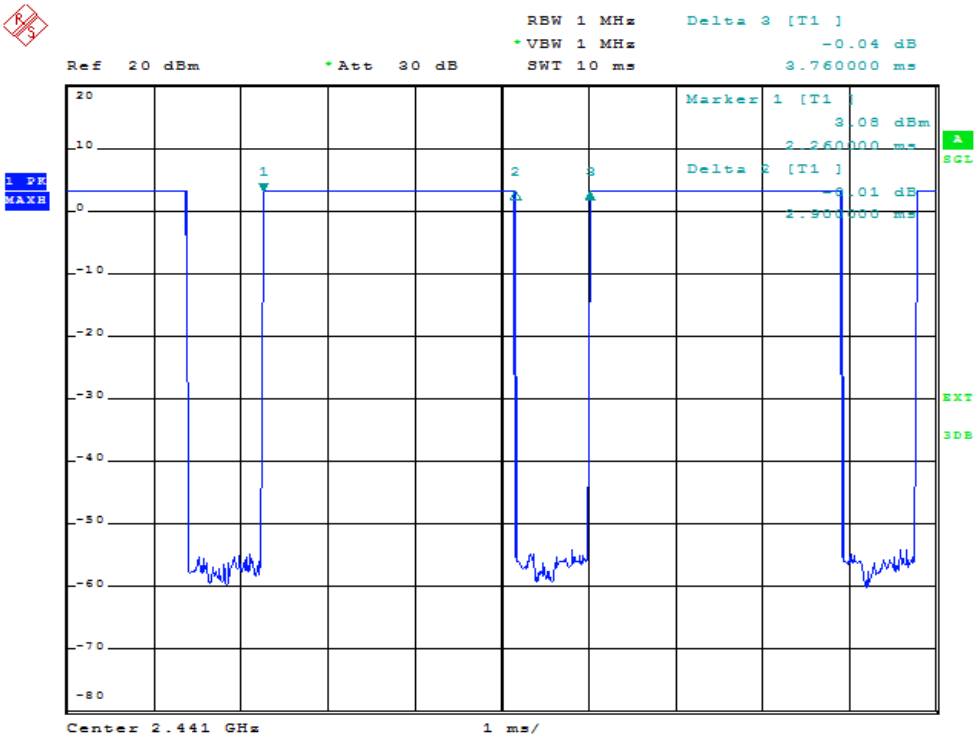
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.2GHz WLAN	802.11a 6Mbps	36	5180	11.68	13.00	87.22
		40	5200	11.75	13.00	
		44	5220	11.76	13.00	
		48	5240	11.64	13.00	
	802.11n-HT20 MCS0	36	5180	11.61	13.00	85.98
		40	5200	11.38	13.00	
		44	5220	11.26	13.00	
		48	5240	11.19	13.00	
	802.11n-HT40 MCS0	38	5190	11.25	12.00	85.56
		46	5230	11.09	12.00	

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.8GHz WLAN	802.11a 6Mbps	149	5745	9.41	11.00	87.22
		157	5785	10.44	11.00	
		165	5825	10.90	11.00	
	802.11n-HT20 MCS0	149	5745	9.07	11.00	85.98
		157	5785	10.03	11.00	
		165	5825	10.58	11.00	
	802.11n-HT40 MCS0	151	5755	9.19	10.50	85.56
		159	5795	9.93	10.50	

<2.4GHz Bluetooth>

General Note:

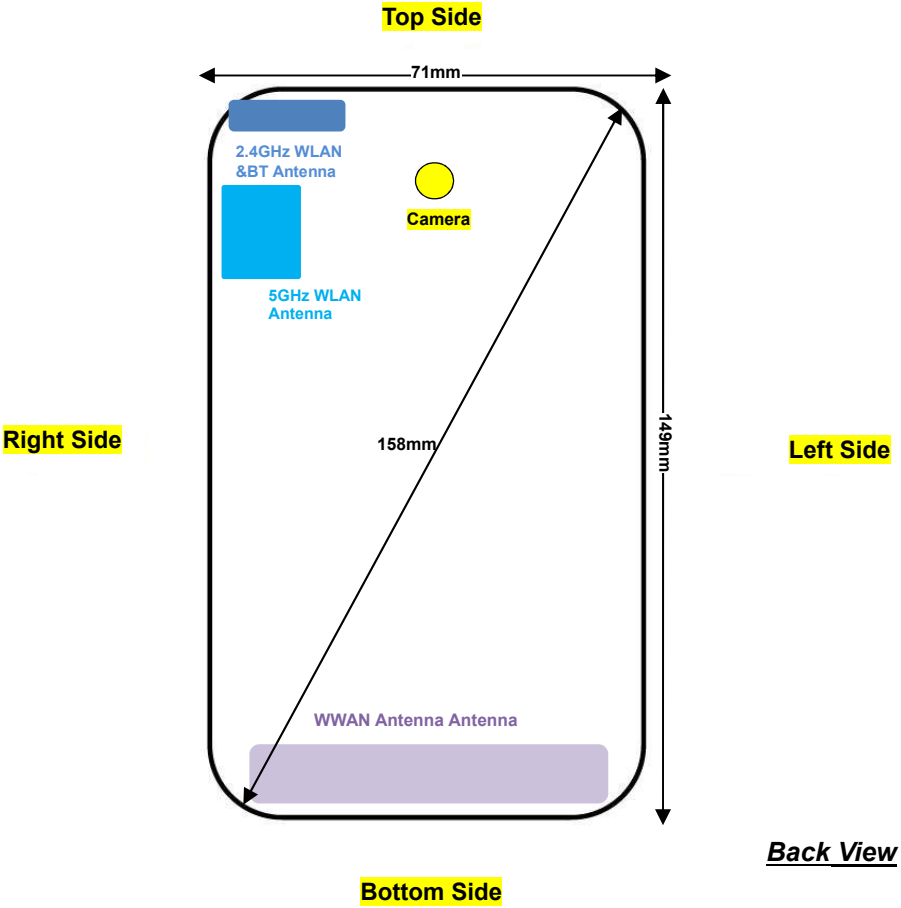
1. For 2.4GHz Bluetooth SAR testing was selected 1Mbps, due to its highest average power.
2. The Bluetooth duty cycle is 77.13 % as following picture, according to 2016 Oct. TCB workshop for Bluetooth SAR scaling need further consideration and the theoretical duty cycle is 83.3%, therefore the actual duty cycle will be scaled up to the theoretical value of Bluetooth reported SAR calculation.



Mode	Channel	Frequency (MHz)	Average power (dBm)
			1Mbps
BR/EDR	CH 00	2402	7.72
	CH 39	2441	8.13
	CH 78	2480	8.03
Tune-up limit (dBm)			9.50

Mode	Channel	Frequency (MHz)	Average power (dBm)
			GFSK
LE	CH 00	2402	-1.73
	CH 19	2440	-1.14
	CH 39	2480	-1.52
Tune-up Limit			0

14. Antenna Location



Distance of the Antenna to the EUT surface/edge						
Antennas	Back	Front	Top Side	Bottom Side	Right Side	Left Side
WWAN Antenna	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	≤ 25mm	≤ 25mm
2.4GHz WLAN & BT	≤ 25mm	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	>25mm
5GHz WLAN	≤ 25mm	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	>25mm

Positions for SAR tests; Hotspot mode						
Antennas	Back	Front	Top Side	Bottom Side	Right Side	Left Side
WWAN Antenna	Yes	Yes	No	Yes	Yes	Yes
2.4GHz WLAN & BT	Yes	Yes	Yes	No	Yes	No
5GHz WLAN	Yes	Yes	Yes	No	Yes	No

General Note:

1. Referring to KDB 941225 D06 v02r01, when the overall device length and width are ≥ 9cm*5cm, the test distance is 10 mm. SAR must be measured for all sides and surfaces with a transmitting antenna located within 25mm from that surface or edge.

15. 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 BT/WLAN: 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 1:2.33 (42.9 %) for power class 2 and 1:1.59 (62.9 %) for power class 3 were used perform testing and considering the theoretical duty cycle of 43.3% for power class 2 and 63.3% for power class 3 for extended cyclic prefix in the uplink, and the theoretical duty cycle of 42.9% for power class 2 and 62.9% for power class 3 for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix 43.3%/42.9% = 1.009 for power class 2 and 63.3%/62.9% = 1.006 for power class 3 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 when the measured SAR is ≥ 0.8W/kg.
4. Pre KDB648474 D04v01r03, when the reported SAR for a body-worn accessory, measured without a headset connected to the handset, is > 1.2 W/kg, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a headset attached to the handset.
5. The device employs proximity sensors that detect the presence of the user's body at the front or back faces of the device. When front or back body worn condition is detected, GSM1900, WCDMA band II/IV, CDMA2000 BC1, and LTE band 2/4/25/41/66, and WLAN2.4GHz/WLAN5GHz reduced power will be active. (P-sensor can't work at detecting presence of the user's body at the four edges of the device.)
6. When hotspot mode is enabled, power reduction will be activated to limit the maximum power of GSM1900, WCDMA band II/IV, CDMA2000 BC1, LTE band 2/4/25/41/66 and WLAN2.4GHz/WLAN5GHz.
7. This device hotspot reduced power and P-sensor reduced power level are the same for GSM1900, WCDMA band II, CDMA2000 BC1, LTE band 2/25/41, and WLAN2.4GHz/WLAN5GHz. And for other Bands are different.
8. For P-sensor reduced power level is higher than hotspot reduced power, so for front/back P-sensor SAR can represent conservatively for front/back hotspot SAR.

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, the GPRS 4 Tx slots for GSM850/GSM1900 are considered as the primary mode.
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 ≤ ¼ dB higher than the primary mode, SAR measurement is not required for the secondary mode.
3. Power reduction which is triggered by hotspot mode/p-sensor on are implemented in GSM1900 band, for SAR testing EUT was set in reduced power mode and GPRS 4 Tx slots due to its highest frame-average power.

WCDMA 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 ≤ ¼ 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 ¼ dB higher than the primary modes; therefore, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA.

CDMA Note:

1. Per KDB 941225 D01v03r01, SAR for next to the ear head exposure is measured in RC3 with the handset configured to transmit at full rate in SO55.
2. Per KDB 941225 D01v03r01, in Hotspot mode EUT is treated as data device and SAR is tested with Ev-Do Rev 0 (RTAP 153.6kbps) as the primary mode.
3. Per KDB 941225 D01v03r01, for Body-worn accessory SAR is measured in RC3 with the handset configured in TDSO/SO32 to transmit at full rate on FCH only with all other code channels disabled. The body-worn accessory procedures in KDB Publication 447498 are applied. The 3G SAR test reduction procedure is applied to the multiple code channel configuration (FCH+SCH), with FCH only as the primary mode.

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/64QAM output power for each RB allocation configuration is > not ½ 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/64QAM SAR testing is not required.
5. Per KDB 941225 D05v02r05, smaller bandwidth output power for each RB allocation configuration is > not ½ 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. According to November 2017 TCB workshop, the following applied to intra-band contiguous UL CA only;
   a. Maximum output power measurement is required for each UL CA configuration for the required test channels described in KDB 941225 D05. The required test channel should be associated with the UL PCC. For channels at the ends of a frequency band, the SCC and subsequent CCs are added to the side within the transmission band. Otherwise, the CCs should be added alternatively to either side of the PCC.
   b. UL CA SAR is measured for each exposure condition in each frequency band using the highest SAR configuration tested in standalone LTE mode to establish the UL CA PCC. The SCC and subsequent CC must use configurations similar to the PCC to establish conservative or worst case equivalent SAR test conditions.
   c. When the SAR configuration tested in step b) has a maximum output power specification more than ¼ dB lower than the highest maximum output power conditions measured in the power measurements in step a) above and the reported SAR in step b) is larger than 1.2 W/kg, SAR measurement is also required for the configuration in step a)
   d. All standalone SAR configurations with SAR > 1.2 W/kg must also be tested by applying the procedures in step b)
7. For LTE B4 / B5 / B12 / B26 / B71 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.
8. LTE band B2 / B5 / B4 SAR test was covered by B25 / B26 / B66; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
   c. the maximum output power, including tolerance, for the smaller band is ≤ the larger band to qualify for the SAR test exclusion
   d. the channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band

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. During SAR testing the WLAN transmission was verified using a spectrum analyzer.

15.1 Head SAR

<GSM SAR>

Plot No.	Band	Mode	Test Position	Power Mode	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)
	GSM850	GPRS (4 Tx slots)	Right Cheek	Full	251	848.8	26.20	27.50	1.349	0.11	0.542	0.731
	GSM850	GPRS (4 Tx slots)	Right Tilted	Full	251	848.8	26.20	27.50	1.349	0.01	0.321	0.433
01	GSM850	GPRS (4 Tx slots)	Left Cheek	Full	251	848.8	26.20	27.50	1.349	-0.03	0.558	**0.753**
	GSM850	GPRS (4 Tx slots)	Left Tilted	Full	251	848.8	26.20	27.50	1.349	-0.03	0.293	0.395
	GSM1900	GPRS (4 Tx slots)	Right Cheek	Full	512	1850.2	23.87	24.50	1.156	0.12	0.257	0.297
	GSM1900	GPRS (4 Tx slots)	Right Tilted	Full	512	1850.2	23.87	24.50	1.156	0.02	0.173	0.200
02	GSM1900	GPRS (4 Tx slots)	Left Cheek	Full	512	1850.2	23.87	24.50	1.156	0.05	0.283	**0.327**
	GSM1900	GPRS (4 Tx slots)	Left Tilted	Full	512	1850.2	23.87	24.50	1.156	0.01	0.204	0.236

<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Power Mode	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)
03	WCDMA Band V	RMC 12.2Kbps	Right Cheek	Full	4132	826.4	22.80	24.00	1.318	-0.09	0.544	**0.717**
	WCDMA Band V	RMC 12.2Kbps	Right Tilted	Full	4132	826.4	22.80	24.00	1.318	0.03	0.332	0.438
	WCDMA Band V	RMC 12.2Kbps	Left Cheek	Full	4132	826.4	22.80	24.00	1.318	-0.02	0.530	0.699
	WCDMA Band V	RMC 12.2Kbps	Left Tilted	Full	4132	826.4	22.80	24.00	1.318	-0.08	0.319	0.421
04	WCDMA Band IV	RMC 12.2Kbps	Right Cheek	Full	1513	1752.6	22.42	24.00	1.439	0.11	0.363	**0.522**
	WCDMA Band IV	RMC 12.2Kbps	Right Tilted	Full	1513	1752.6	22.42	24.00	1.439	0.03	0.245	0.353
	WCDMA Band IV	RMC 12.2Kbps	Left Cheek	Full	1513	1752.6	22.42	24.00	1.439	0.02	0.305	0.439
	WCDMA Band IV	RMC 12.2Kbps	Left Tilted	Full	1513	1752.6	22.42	24.00	1.439	0.02	0.250	0.360
	WCDMA Band II	RMC 12.2Kbps	Right Cheek	Full	9262	1852.4	22.39	24.00	1.449	0.08	0.572	0.829
	WCDMA Band II	RMC 12.2Kbps	Right Cheek	Full	9400	1880	22.35	24.00	1.462	-0.09	0.438	0.640
	WCDMA Band II	RMC 12.2Kbps	Right Cheek	Full	9538	1907.6	22.25	24.00	1.496	0.06	0.422	0.631
	WCDMA Band II	RMC 12.2Kbps	Right Tilted	Full	9262	1852.4	22.39	24.00	1.449	0.03	0.367	0.532
05	WCDMA Band II	RMC 12.2Kbps	Left Cheek	Full	9262	1852.4	22.39	24.00	1.449	0.01	0.590	**0.855**
	WCDMA Band II	RMC 12.2Kbps	Left Cheek	Full	9400	1880	22.35	24.00	1.462	0.04	0.530	0.775
	WCDMA Band II	RMC 12.2Kbps	Left Cheek	Full	9538	1907.6	22.25	24.00	1.496	0.01	0.551	0.824
	WCDMA Band II	RMC 12.2Kbps	Left Tilted	Full	9262	1852.4	22.39	24.00	1.449	0.04	0.453	0.656

<CDMA2000 SAR>

Plot No.	Band	Mode	Test Position	Power Mode	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	CDMA2000 BC0	RC3 SO55	Right Cheek	Full	384	836.52	24.57	25.00	1.104	0.06	0.553	**0.611**
	CDMA2000 BC0	RC3 SO55	Right Tilted	Full	384	836.52	24.57	25.00	1.104	0.02	0.367	0.405
	CDMA2000 BC0	RC3 SO55	Left Cheek	Full	384	836.52	24.57	25.00	1.104	0.01	0.438	0.484
	CDMA2000 BC0	RC3 SO55	Left Tilted	Full	384	836.52	24.57	25.00	1.104	0.02	0.191	0.211
	CDMA2000 BC10	RC3 SO55	Right Cheek	Full	580	820.5	24.60	25.00	1.096	0.07	0.491	0.538
	CDMA2000 BC10	RC3 SO55	Right Tilted	Full	580	820.5	24.60	25.00	1.096	0.02	0.375	0.411
07	CDMA2000 BC10	RC3 SO55	Left Cheek	Full	580	820.5	24.60	25.00	1.096	0.01	0.609	**0.668**
	CDMA2000 BC10	RC3 SO55	Left Tilted	Full	580	820.5	24.60	25.00	1.096	-0.14	0.363	0.398
	CDMA2000 BC1	RC3 SO55	Right Cheek	Full	600	1880	24.74	25.00	1.062	-0.05	0.515	0.547
	CDMA2000 BC1	RC3 SO55	Right Tilted	Full	600	1880	24.74	25.00	1.062	-0.06	0.305	0.324
08	CDMA2000 BC1	RC3 SO55	Left Cheek	Full	600	1880	24.74	25.00	1.062	-0.06	0.631	**0.670**
	CDMA2000 BC1	RC3 SO55	Left Tilted	Full	600	1880	24.74	25.00	1.062	-0.08	0.391	0.415

<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Power Mode	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)
09	LTE Band 71	20M	QPSK	1	49	Right Cheek	Full	133322	683	23.01	24.00	1.256	0.02	0.296	**0.372**
	LTE Band 71	20M	QPSK	50	24	Right Cheek	Full	133322	683	22.03	23.00	1.250	0.04	0.155	0.194
	LTE Band 71	20M	QPSK	1	49	Right Tilted	Full	133322	683	23.01	24.00	1.256	0.06	0.175	0.220
	LTE Band 71	20M	QPSK	50	24	Right Tilted	Full	133322	683	22.03	23.00	1.250	0.05	0.091	0.114
	LTE Band 71	20M	QPSK	1	49	Left Cheek	Full	133322	683	23.01	24.00	1.256	0.04	0.270	0.339
	LTE Band 71	20M	QPSK	50	24	Left Cheek	Full	133322	683	22.03	23.00	1.250	-0.01	0.138	0.173
	LTE Band 71	20M	QPSK	1	49	Left Tilted	Full	133322	683	23.01	24.00	1.256	0.03	0.144	0.181
	LTE Band 71	20M	QPSK	50	24	Left Tilted	Full	133322	683	22.03	23.00	1.250	0.06	0.075	0.093
10	LTE Band 12	10M	QPSK	1	49	Right Cheek	Full	23095	707.5	23.13	24.00	1.222	-0.16	0.475	**0.580**
	LTE Band 12	10M	QPSK	25	0	Right Cheek	Full	23095	707.5	21.97	23.00	1.268	0.04	0.229	0.290
	LTE Band 12	10M	QPSK	1	49	Right Tilted	Full	23095	707.5	23.13	24.00	1.222	0.1	0.243	0.297
	LTE Band 12	10M	QPSK	25	0	Right Tilted	Full	23095	707.5	21.97	23.00	1.268	0.05	0.130	0.165
	LTE Band 12	10M	QPSK	1	49	Left Cheek	Full	23095	707.5	23.13	24.00	1.222	-0.03	0.460	0.562
	LTE Band 12	10M	QPSK	25	0	Left Cheek	Full	23095	707.5	21.97	23.00	1.268	-0.03	0.228	0.289
	LTE Band 12	10M	QPSK	1	49	Left Tilted	Full	23095	707.5	23.13	24.00	1.222	-0.06	0.244	0.298
	LTE Band 12	10M	QPSK	25	0	Left Tilted	Full	23095	707.5	21.97	23.00	1.268	0.04	0.131	0.166
	LTE Band 26	15M	QPSK	1	74	Right Cheek	Full	26865	831.5	23.07	24.00	1.239	0.13	0.500	0.619
	LTE Band 26	15M	QPSK	36	0	Right Cheek	Full	26865	831.5	21.80	23.00	1.318	0.18	0.271	0.357
	LTE Band 26	15M	QPSK	1	74	Right Tilted	Full	26865	831.5	23.07	24.00	1.239	0.02	0.308	0.382
	LTE Band 26	15M	QPSK	36	0	Right Tilted	Full	26865	831.5	21.80	23.00	1.318	-0.12	0.170	0.224
11	LTE Band 26	15M	QPSK	1	74	Left Cheek	Full	26865	831.5	23.07	24.00	1.239	-0.03	0.538	**0.666**
	LTE Band 26	15M	QPSK	36	0	Left Cheek	Full	26865	831.5	21.80	23.00	1.318	0.17	0.286	0.377
	LTE Band 26	15M	QPSK	1	74	Left Tilted	Full	26865	831.5	23.07	24.00	1.239	-0.11	0.298	0.369
	LTE Band 26	15M	QPSK	36	0	Left Tilted	Full	26865	831.5	21.80	23.00	1.318	0.02	0.167	0.220
12	LTE Band 66	20M	QPSK	1	99	Right Cheek	Full	132322	1745	22.85	24.00	1.303	0.01	0.465	**0.606**
	LTE Band 66	20M	QPSK	50	50	Right Cheek	Full	132322	1745	21.75	23.00	1.334	-0.12	0.231	0.308
	LTE Band 66	20M	QPSK	1	99	Right Tilted	Full	132322	1745	22.85	24.00	1.303	0.02	0.284	0.370
	LTE Band 66	20M	QPSK	50	50	Right Tilted	Full	132322	1745	21.75	23.00	1.334	0.05	0.112	0.149
	LTE Band 66	20M	QPSK	1	99	Left Cheek	Full	132322	1745	22.85	24.00	1.303	-0.07	0.407	0.530
	LTE Band 66	20M	QPSK	50	50	Left Cheek	Full	132322	1745	21.75	23.00	1.334	0.09	0.157	0.209
	LTE Band 66	20M	QPSK	1	99	Left Tilted	Full	132322	1745	22.85	24.00	1.303	0.03	0.280	0.365
	LTE Band 66	20M	QPSK	50	50	Left Tilted	Full	132322	1745	21.75	23.00	1.334	0.03	0.113	0.151
	LTE Band 25	20M	QPSK	1	99	Right Cheek	Full	26340	1880	22.94	24.00	1.276	0.01	0.428	0.546
	LTE Band 25	20M	QPSK	50	0	Right Cheek	Full	26340	1880	21.90	23.00	1.288	0.02	0.313	0.403
	LTE Band 25	20M	QPSK	1	99	Right Tilted	Full	26340	1880	22.94	24.00	1.276	0.02	0.371	0.474
	LTE Band 25	20M	QPSK	50	0	Right Tilted	Full	26340	1880	21.90	23.00	1.288	0.05	0.208	0.268
13	LTE Band 25	20M	QPSK	1	99	Left Cheek	Full	26340	1880	22.94	24.00	1.276	0.11	0.572	**0.730**
	LTE Band 25	20M	QPSK	50	0	Left Cheek	Full	26340	1880	21.90	23.00	1.288	0.19	0.369	0.475
	LTE Band 25	20M	QPSK	1	99	Left Tilted	Full	26340	1880	22.94	24.00	1.276	0.04	0.345	0.440
	LTE Band 25	20M	QPSK	50	0	Left Tilted	Full	26340	1880	21.90	23.00	1.288	0.03	0.250	0.322

<TDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Power Mode	Power Class	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)
14	LTE Band 41	20M	QPSK	1	49	Right Cheek	Full	3	41490	2680	24.43	25.00	1.140	62.9	1.006	0.02	0.211	**0.242**
	LTE Band 41	20M	QPSK	50	24	Right Cheek	Full	3	41490	2680	22.50	24.00	1.413	62.9	1.006	0.05	0.134	0.190
	LTE Band 41	20M	QPSK	1	49	Right Tilted	Full	3	41490	2680	24.43	25.00	1.140	62.9	1.006	0.01	0.044	0.050
	LTE Band 41	20M	QPSK	50	24	Right Tilted	Full	3	41490	2680	22.50	24.00	1.413	62.9	1.006	0.01	0.027	0.038
	LTE Band 41	20M	QPSK	1	49	Left Cheek	Full	3	41490	2680	24.43	25.00	1.140	62.9	1.006	0.03	0.109	0.125
	LTE Band 41	20M	QPSK	50	24	Left Cheek	Full	3	41490	2680	22.50	24.00	1.413	62.9	1.006	0.01	0.069	0.098
	LTE Band 41	20M	QPSK	1	49	Left Tilted	Full	3	41490	2680	24.43	25.00	1.140	62.9	1.006	0.01	0.059	0.067
	LTE Band 41	20M	QPSK	50	24	Left Tilted	Full	3	41490	2680	22.50	24.00	1.413	62.9	1.006	0.02	0.038	0.054
	LTE Band 41	20M	QPSK	1	49	Right Cheek	Full	2	41490	2680	26.21	27.00	1.199	42.9	1.009	0.08	0.199	0.241

<WLAN 2.4GHz SAR>

Plot No.	Band	Mode	Test Position	Power Mode	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)
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	Receiver on	6	2437	16.94	17.50	1.138	97.63	1.024	0.06	0.596	0.348	0.405
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	Receiver on	6	2437	16.94	17.50	1.138	97.63	1.024	-0.03	0.620	0.372	0.433
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Receiver on	6	2437	16.94	17.50	1.138	97.63	1.024	0.01	1.009	0.693	0.807
15	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Receiver on	11	2462	16.45	17.50	1.274	97.63	1.024	-0.07		0.907	**1.183**
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	Receiver on	6	2437	16.94	17.50	1.138	97.63	1.024	0.06	0.838	0.465	0.542

<WLAN 5GHz SAR>

Plot No.	Band	Mode	Test Position	Power Mode	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)
	WLAN5.3GHz	802.11a 6Mbps	Right Cheek	Full	56	5280	18.12	20.00	1.540	87.22	1.147		0.124		
	WLAN5.3GHz	802.11a 6Mbps	Right Tilted	Full	56	5280	18.12	20.00	1.540	87.22	1.147		0.138		
16	WLAN5.3GHz	802.11a 6Mbps	Left Cheek	Full	56	5280	18.12	20.00	1.540	87.22	1.147	0.14	0.167	0.052	**0.092**
	WLAN5.3GHz	802.11a 6Mbps	Left Tilted	Full	56	5280	18.12	20.00	1.540	87.22	1.147		0.133		
	WLAN5.5GHz	802.11a 6Mbps	Right Cheek	Full	116	5580	18.53	20.00	1.402	87.22	1.147		0.632		
	WLAN5.5GHz	802.11a 6Mbps	Right Tilted	Full	116	5580	18.53	20.00	1.402	87.22	1.147		0.715		
	WLAN5.5GHz	802.11a 6Mbps	Left Cheek	Full	116	5580	18.53	20.00	1.402	87.22	1.147	0.03	0.773	0.109	0.175
17	WLAN5.5GHz	802.11a 6Mbps	Left Tilted	Full	116	5580	18.53	20.00	1.402	87.22	1.147	-0.04	0.853	0.307	**0.494**
	WLAN 5.8GHz	802.11a 6Mbps	Right Cheek	Full	165	5825	19.10	20.00	1.229	87.22	1.147		0.718		
	WLAN 5.8GHz	802.11a 6Mbps	Right Tilted	Full	165	5825	19.10	20.00	1.229	87.22	1.147		0.525		
	WLAN 5.8GHz	802.11a 6Mbps	Left Cheek	Full	165	5825	19.10	20.00	1.229	87.22	1.147		0.757		
18	WLAN 5.8GHz	802.11a 6Mbps	Left Tilted	Full	165	5825	19.10	20.00	1.229	87.22	1.147	-0.03	0.662	0.207	**0.292**

<Bluetooth SAR>

Plot No.	Band	Mode	Test Position	Power Mode	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)
	Bluetooth	1Mbps	Right Cheek	Full	39	2441	8.13	9.50	1.371	77.13	1.080	0.06	0.053	0.078
	Bluetooth	1Mbps	Right Tilted	Full	39	2441	8.13	9.50	1.371	77.13	1.080	0.01	0.049	0.072
19	Bluetooth	1Mbps	Left Cheek	Full	39	2441	8.13	9.50	1.371	77.13	1.080	-0.13	0.093	**0.138**
	Bluetooth	1Mbps	Left Tilted	Full	39	2441	8.13	9.50	1.371	77.13	1.080	0.06	0.069	0.102

15.2 Hotspot SAR

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Mode	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)
	GSM850	GPRS (4 Tx slot)	Front	5	Full	251	848.8	26.20	27.50	1.349	0.03	0.617	0.832
	GSM850	GPRS (4 Tx slot)	Front	5	Full	128	824.2	25.87	27.50	1.455	-0.08	0.546	0.795
	GSM850	GPRS (4 Tx slot)	Front	5	Full	189	836.4	25.90	27.50	1.445	0.05	0.691	0.999
20	GSM850	GPRS (4 Tx slot)	Back	5	Full	251	848.8	26.20	27.50	1.349	0.09	0.765	**1.032**
	GSM850	GPRS (4 Tx slot)	Back	5	Full	128	824.2	25.87	27.50	1.455	0.02	0.606	0.882
	GSM850	GPRS (4 Tx slot)	Back	5	Full	189	836.4	25.90	27.50	1.445	0.01	0.695	1.005
	GSM850	GPRS (4 Tx slot)	Left Side	5	Full	251	848.8	26.20	27.50	1.349	0.02	0.731	0.986
	GSM850	GPRS (4 Tx slot)	Left Side	5	Full	128	824.2	25.87	27.50	1.455	0.05	0.590	0.859
	GSM850	GPRS (4 Tx slot)	Left Side	5	Full	189	836.4	25.90	27.50	1.445	-0.03	0.662	0.957
	GSM850	GPRS (4 Tx slot)	Right Side	5	Full	251	848.8	26.20	27.50	1.349	0.01	0.704	0.950
	GSM850	GPRS (4 Tx slot)	Right Side	5	Full	128	824.2	25.87	27.50	1.455	0.06	0.610	0.888
	GSM850	GPRS (4 Tx slot)	Right Side	5	Full	189	836.4	25.90	27.50	1.445	0.08	0.648	0.937
	GSM850	GPRS (4 Tx slot)	Bottom Side	5	Full	251	848.8	26.20	27.50	1.349	-0.04	0.189	0.255
	GSM1900	GPRS (4 Tx slot)	Front	5	Hotspot On	512	1850.2	22.61	23.50	1.227	-0.02	0.783	0.961
	GSM1900	GPRS (4 Tx slot)	Front	5	Hotspot On	661	1880	22.32	23.50	1.312	0.05	0.831	1.090
	GSM1900	GPRS (4 Tx slot)	Front	5	Hotspot On	810	1909.8	22.41	23.50	1.285	0.03	0.805	1.035
	GSM1900	GPRS (4 Tx slot)	Back	5	Hotspot On	512	1850.2	22.61	23.50	1.227	-0.15	0.830	1.019
	GSM1900	GPRS (4 Tx slot)	Back	5	Hotspot On	661	1880	22.32	23.50	1.312	-0.15	0.968	1.270
21	GSM1900	GPRS (4 Tx slot)	Back	5	Hotspot On	810	1909.8	22.41	23.50	1.285	-0.03	1.050	**1.350**
	GSM1900	GPRS (4 Tx slot)	Left Side	5	Hotspot On	512	1850.2	22.61	23.50	1.227	-0.02	0.374	0.459
	GSM1900	GPRS (4 Tx slot)	Right Side	5	Hotspot On	512	1850.2	22.61	23.50	1.227	0.05	0.199	0.244
	GSM1900	GPRS (4 Tx slot)	Bottom Side	5	Hotspot On	512	1850.2	22.61	23.50	1.227	0.06	0.932	1.144
	GSM1900	GPRS (4 Tx slot)	Bottom Side	5	Hotspot On	661	1880	22.32	23.50	1.312	0.01	0.747	0.980
	GSM1900	GPRS (4 Tx slot)	Bottom Side	5	Hotspot On	810	1909.8	22.41	23.50	1.285	0.02	0.870	1.118

<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Mode	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)
	WCDMA Band V	RMC12.2Kbps	Front	5	Full	4132	826.4	22.80	24.00	1.318	-0.05	0.610	0.804
	WCDMA Band V	RMC12.2Kbps	Front	5	Full	4182	836.4	22.70	24.00	1.349	-0.11	0.659	0.889
	WCDMA Band V	RMC12.2Kbps	Front	5	Full	4233	846.6	22.73	24.00	1.340	-0.1	0.726	0.973
	WCDMA Band V	RMC12.2Kbps	Back	5	Full	4132	826.4	22.80	24.00	1.318	0.07	0.758	0.999
	WCDMA Band V	RMC12.2Kbps	Back	5	Full	4182	836.4	22.70	24.00	1.349	-0.02	0.885	1.194
	WCDMA Band V	RMC12.2Kbps	Back	5	Full	4233	846.6	22.73	24.00	1.340	-0.03	0.942	1.262
	WCDMA Band V	RMC12.2Kbps	Left Side	5	Full	4132	826.4	22.80	24.00	1.318	-0.01	1.020	1.345
22	WCDMA Band V	RMC12.2Kbps	Left Side	5	Full	4182	836.4	22.70	24.00	1.349	-0.04	1.020	**1.376**
	WCDMA Band V	RMC12.2Kbps	Left Side	5	Full	4233	846.6	22.73	24.00	1.340	-0.07	1.020	1.366
	WCDMA Band V	RMC12.2Kbps	Right Side	5	Full	4132	826.4	22.80	24.00	1.318	0.03	0.828	1.092
	WCDMA Band V	RMC12.2Kbps	Right Side	5	Full	4182	836.4	22.70	24.00	1.349	0.03	0.818	1.103
	WCDMA Band V	RMC12.2Kbps	Right Side	5	Full	4233	846.6	22.73	24.00	1.340	0.02	0.810	1.085
	WCDMA Band V	RMC12.2Kbps	Bottom Side	5	Full	4132	826.4	22.80	24.00	1.318	0.06	0.258	0.340
	WCDMA Band IV	RMC12.2Kbps	Front	5	Hotspot On	1513	1752.6	15.62	16.00	1.091	-0.02	0.583	0.636
	WCDMA Band IV	RMC12.2Kbps	Back	5	Hotspot On	1513	1752.6	15.62	16.00	1.091	0.01	1.050	1.146
	WCDMA Band IV	RMC12.2Kbps	Back	5	Hotspot On	1312	1712.4	15.54	16.00	1.112	-0.14	1.050	1.167
	WCDMA Band IV	RMC12.2Kbps	Back	5	Hotspot On	1413	1732.6	15.51	16.00	1.119	-0.16	1.020	1.142
	WCDMA Band IV	RMC12.2Kbps	Left Side	5	Hotspot On	1513	1752.6	14.66	15.50	1.213	0.03	0.053	0.065
	WCDMA Band IV	RMC12.2Kbps	Right Side	5	Hotspot On	1513	1752.6	14.66	15.50	1.213	-0.06	0.037	0.045
	WCDMA Band IV	RMC12.2Kbps	Bottom Side	5	Hotspot On	1513	1752.6	14.66	15.50	1.213	0.04	0.871	1.057
23	WCDMA Band IV	RMC12.2Kbps	Bottom Side	5	Hotspot On	1312	1712.4	14.50	15.50	1.259	0.07	0.988	**1.244**
	WCDMA Band IV	RMC12.2Kbps	Bottom Side	5	Hotspot On	1413	1732.6	14.47	15.50	1.268	0.02	0.947	1.200
	WCDMA Band II	RMC12.2Kbps	Front	5	Hotspot On	9262	1852.4	18.66	19.00	1.081	0.06	0.949	1.026
	WCDMA Band II	RMC12.2Kbps	Front	5	Hotspot On	9400	1880	18.63	19.00	1.089	0.08	0.933	1.016
	WCDMA Band II	RMC12.2Kbps	Front	5	Hotspot On	9538	1907.6	18.64	19.00	1.086	0.04	1.010	1.097
	WCDMA Band II	RMC12.2Kbps	Back	5	Hotspot On	9262	1852.4	18.66	19.00	1.081	-0.01	1.060	1.146
	WCDMA Band II	RMC12.2Kbps	Back	5	Hotspot On	9400	1880	18.63	19.00	1.089	-0.13	1.080	1.176
	WCDMA Band II	RMC12.2Kbps	Back	5	Hotspot On	9538	1907.6	18.64	19.00	1.086	-0.04	1.240	1.347
	WCDMA Band II	RMC12.2Kbps	Left Side	5	Hotspot On	9262	1852.4	18.66	19.00	1.081	0.09	0.309	0.334
	WCDMA Band II	RMC12.2Kbps	Right Side	5	Hotspot On	9262	1852.4	18.66	19.00	1.081	0.07	0.191	0.207
24	WCDMA Band II	RMC12.2Kbps	Bottom Side	5	Hotspot On	9262	1852.4	18.66	19.00	1.081	0.02	1.310	**1.417**
	WCDMA Band II	RMC12.2Kbps	Bottom Side	5	Hotspot On	9400	1880	18.63	19.00	1.089	0.08	1.080	1.176
	WCDMA Band II	RMC12.2Kbps	Bottom Side	5	Hotspot On	9538	1907.6	18.64	19.00	1.086	0.03	0.931	1.011

<CDMA2000 SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Mode	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)
	CDMA2000 BC0	RTAP 153.6Kbps	Front	5	Full	384	836.52	24.48	25.00	1.127	-0.03	0.716	0.807
	CDMA2000 BC0	RTAP 153.6Kbps	Front	5	Full	1013	824.7	24.44	25.00	1.138	0.02	0.640	0.728
	CDMA2000 BC0	RTAP 153.6Kbps	Front	5	Full	777	848.31	24.46	25.00	1.132	-0.01	0.746	0.845
	CDMA2000 BC0	RTAP 153.6Kbps	Back	5	Full	384	836.52	24.48	25.00	1.127	0.05	0.926	1.044
	CDMA2000 BC0	RTAP 153.6Kbps	Back	5	Full	1013	824.7	24.44	25.00	1.138	-0.16	0.864	0.983
25	CDMA2000 BC0	RTAP 153.6Kbps	Back	5	Full	777	848.31	24.46	25.00	1.132	-0.08	1.010	**1.144**
	CDMA2000 BC0	RTAP 153.6Kbps	Left Side	5	Full	384	836.52	24.48	25.00	1.127	0.03	0.975	1.099
	CDMA2000 BC0	RTAP 153.6Kbps	Left Side	5	Full	1013	824.7	24.44	25.00	1.138	0.02	0.996	1.133
	CDMA2000 BC0	RTAP 153.6Kbps	Left Side	5	Full	777	848.31	24.46	25.00	1.132	0.01	0.803	0.909
	CDMA2000 BC0	RTAP 153.6Kbps	Right Side	5	Full	384	836.52	24.48	25.00	1.127	0.06	0.726	0.818
	CDMA2000 BC0	RTAP 153.6Kbps	Right Side	5	Full	1013	824.7	24.44	25.00	1.138	0.05	0.817	0.929
	CDMA2000 BC0	RTAP 153.6Kbps	Right Side	5	Full	777	848.31	24.46	25.00	1.132	0.07	0.637	0.721
	CDMA2000 BC0	RTAP 153.6Kbps	Bottom Side	5	Full	384	836.52	24.48	25.00	1.127	0.04	0.228	0.257
	CDMA2000 BC10	RTAP 153.6Kbps	Front	5	Full	580	820.5	24.59	25.00	1.099	0.02	0.668	0.734
	CDMA2000 BC10	RTAP 153.6Kbps	Back	5	Full	580	820.5	24.59	25.00	1.099	0.02	0.902	0.991
	CDMA2000 BC10	RTAP 153.6Kbps	Back	5	Full	476	817.9	24.38	25.00	1.153	-0.01	0.863	0.995
	CDMA2000 BC10	RTAP 153.6Kbps	Back	5	Full	684	823.1	24.58	25.00	1.102	-0.01	0.959	1.056
	CDMA2000 BC10	RTAP 153.6Kbps	Left Side	5	Full	580	820.5	24.59	25.00	1.099	-0.04	1.110	1.220
26	CDMA2000 BC10	RTAP 153.6Kbps	Left Side	5	Full	476	817.9	24.38	25.00	1.153	-0.03	1.070	**1.234**
	CDMA2000 BC10	RTAP 153.6Kbps	Left Side	5	Full	684	823.1	24.58	25.00	1.102	-0.04	1.110	1.223
	CDMA2000 BC10	RTAP 153.6Kbps	Right Side	5	Full	580	820.5	24.59	25.00	1.099	0.02	0.911	1.001
	CDMA2000 BC10	RTAP 153.6Kbps	Right Side	5	Full	476	817.9	24.38	25.00	1.153	0.12	0.894	1.031
	CDMA2000 BC10	RTAP 153.6Kbps	Right Side	5	Full	684	823.1	24.58	25.00	1.102	-0.01	0.903	0.995
	CDMA2000 BC10	RTAP 153.6Kbps	Bottom Side	5	Full	580	820.5	24.59	25.00	1.099	0.12	0.238	0.262
	CDMA2000 BC1	RTAP 153.6Kbps	Front	5	Hotspot On	600	1880	19.09	19.50	1.099	-0.03	0.861	0.946
	CDMA2000 BC1	RTAP 153.6Kbps	Front	5	Hotspot On	25	1851.25	18.99	19.50	1.125	0.06	0.871	0.980
	CDMA2000 BC1	RTAP 153.6Kbps	Front	5	Hotspot On	1175	1908.75	19.06	19.50	1.107	-0.19	0.837	0.926
	CDMA2000 BC1	RTAP 153.6Kbps	Back	5	Hotspot On	600	1880	19.09	19.50	1.099	0.06	1.130	1.242
	CDMA2000 BC1	RTAP 153.6Kbps	Back	5	Hotspot On	25	1851.25	18.99	19.50	1.125	-0.02	1.090	1.226
27	CDMA2000 BC1	RTAP 153.6Kbps	Back	5	Hotspot On	1175	1908.75	19.06	19.50	1.107	-0.04	1.240	**1.372**
	CDMA2000 BC1	RTAP 153.6Kbps	Left Side	5	Hotspot On	600	1880	19.09	19.50	1.099	-0.03	0.441	0.485
	CDMA2000 BC1	RTAP 153.6Kbps	Right Side	5	Hotspot On	600	1880	19.09	19.50	1.099	-0.02	0.191	0.210
	CDMA2000 BC1	RTAP 153.6Kbps	Bottom Side	5	Hotspot On	600	1880	19.09	19.50	1.099	0.09	1.110	1.220
	CDMA2000 BC1	RTAP 153.6Kbps	Bottom Side	5	Hotspot On	25	1851.25	18.99	19.50	1.125	0.09	1.120	1.260
	CDMA2000 BC1	RTAP 153.6Kbps	Bottom Side	5	Hotspot On	1175	1908.75	19.06	19.50	1.107	-0.01	0.966	1.069

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Plot No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Power Mode	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)
	LTE Band 71	20M	QPSK	1	49	Front	5	Full	133322	683	23.01	24.00	1.256	-0.07	0.342	0.430
	LTE Band 71	20M	QPSK	50	24	Front	5	Full	133322	683	22.03	23.00	1.250	0.01	0.197	0.246
28	LTE Band 71	20M	QPSK	1	49	Back	5	Full	133322	683	23.01	24.00	1.256	-0.08	0.490	**0.615**
	LTE Band 71	20M	QPSK	50	24	Back	5	Full	133322	683	22.03	23.00	1.250	0.02	0.304	0.380
	LTE Band 71	20M	QPSK	1	49	Left Side	5	Full	133322	683	23.01	24.00	1.256	0.03	0.438	0.550
	LTE Band 71	20M	QPSK	50	24	Left Side	5	Full	133322	683	22.03	23.00	1.250	-0.02	0.242	0.303
	LTE Band 71	20M	QPSK	1	49	Right Side	5	Full	133322	683	23.01	24.00	1.256	-0.15	0.464	0.583
	LTE Band 71	20M	QPSK	50	24	Right Side	5	Full	133322	683	22.03	23.00	1.250	0.06	0.268	0.335
	LTE Band 71	20M	QPSK	1	49	Bottom Side	5	Full	133322	683	23.01	24.00	1.256	0.08	0.093	0.116
	LTE Band 71	20M	QPSK	50	24	Bottom Side	5	Full	133322	683	22.03	23.00	1.250	0.13	0.048	0.059
	LTE Band 12	10M	QPSK	1	49	Front	5	Full	23095	707.5	23.13	24.00	1.222	0.06	0.541	0.661
	LTE Band 12	10M	QPSK	25	0	Front	5	Full	23095	707.5	21.97	23.00	1.268	0.03	0.283	0.359
	LTE Band 12	10M	QPSK	1	49	Back	5	Full	23095	707.5	23.13	24.00	1.222	0.04	0.703	0.859
	LTE Band 12	10M	QPSK	25	0	Back	5	Full	23095	707.5	21.97	23.00	1.268	-0.1	0.451	0.572
	LTE Band 12	10M	QPSK	50	0	Back	5	Full	23095	707.5	21.90	23.00	1.288	-0.1	0.416	0.536
	LTE Band 12	10M	QPSK	1	49	Left Side	5	Full	23095	707.5	23.13	24.00	1.222	-0.07	0.725	0.886
	LTE Band 12	10M	QPSK	25	0	Left Side	5	Full	23095	707.5	21.97	23.00	1.268	0.03	0.416	0.527
	LTE Band 12	10M	QPSK	50	0	Left Side	5	Full	23095	707.5	21.90	23.00	1.288	-0.04	0.381	0.491
29	LTE Band 12	10M	QPSK	1	49	Right Side	5	Full	23095	707.5	23.13	24.00	1.222	-0.06	0.727	**0.888**
	LTE Band 12	10M	QPSK	25	0	Right Side	5	Full	23095	707.5	21.97	23.00	1.268	-0.02	0.392	0.497
	LTE Band 12	10M	QPSK	50	0	Right Side	5	Full	23095	707.5	21.90	23.00	1.288	-0.01	0.420	0.541
	LTE Band 12	10M	QPSK	1	49	Bottom Side	5	Full	23095	707.5	23.13	24.00	1.222	0.1	0.147	0.180
	LTE Band 12	10M	QPSK	25	0	Bottom Side	5	Full	23095	707.5	21.97	23.00	1.268	0.04	0.073	0.092
	LTE Band 26	15M	QPSK	1	74	Front	5	Full	26865	831.5	23.07	24.00	1.239	0.05	0.603	0.747
	LTE Band 26	15M	QPSK	36	0	Front	5	Full	26865	831.5	21.80	23.00	1.318	0.12	0.318	0.419
	LTE Band 26	15M	QPSK	1	74	Back	5	Full	26865	831.5	23.07	24.00	1.239	-0.01	0.840	1.041
	LTE Band 26	15M	QPSK	36	0	Back	5	Full	26865	831.5	21.80	23.00	1.318	0.02	0.462	0.609
	LTE Band 26	15M	QPSK	75	0	Back	5	Full	26865	831.5	21.59	23.00	1.384	-0.03	0.447	0.618
30	LTE Band 26	15M	QPSK	1	74	Left Side	5	Full	26865	831.5	23.07	24.00	1.239	-0.02	1.010	**1.251**
	LTE Band 26	15M	QPSK	36	0	Left Side	5	Full	26865	831.5	21.80	23.00	1.318	0.06	0.594	0.783
	LTE Band 26	15M	QPSK	75	0	Left Side	5	Full	26865	831.5	21.59	23.00	1.384	-0.02	0.526	0.728
	LTE Band 26	15M	QPSK	1	74	Right Side	5	Full	26865	831.5	23.07	24.00	1.239	-0.13	0.800	0.991
	LTE Band 26	15M	QPSK	36	0	Right Side	5	Full	26865	831.5	21.80	23.00	1.318	-0.07	0.478	0.630
	LTE Band 26	15M	QPSK	75	0	Right Side	5	Full	26865	831.5	21.59	23.00	1.384	-0.02	0.421	0.582
	LTE Band 26	15M	QPSK	1	74	Bottom Side	5	Full	26865	831.5	23.07	24.00	1.239	0.03	0.281	0.348
	LTE Band 26	15M	QPSK	36	0	Bottom Side	5	Full	26865	831.5	21.80	23.00	1.318	0.02	0.133	0.175

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Power Mode	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)
	LTE Band 66	20M	QPSK	1	99	Front	5	Hotspot On	132322	1745	14.76	15.50	1.186	0.01	0.591	0.701
	LTE Band 66	20M	QPSK	50	0	Front	5	Hotspot On	132322	1745	14.38	15.50	1.294	-0.02	0.493	0.638
	LTE Band 66	20M	QPSK	1	99	Back	5	Hotspot On	132322	1745	14.76	15.50	1.186	-0.05	1.090	1.292
31	LTE Band 66	20M	QPSK	1	99	Back	5	Hotspot On	132072	1745	14.71	15.50	1.199	0.15	1.140	**1.367**
	LTE Band 66	20M	QPSK	1	99	Back	5	Hotspot On	132572	1745	14.44	15.50	1.276	-0.03	0.852	1.088
	LTE Band 66	20M	QPSK	50	0	Back	5	Hotspot On	132322	1745	14.56	15.50	1.242	-0.02	0.953	1.183
	LTE Band 66	20M	QPSK	50	0	Back	5	Hotspot On	132072	1745	14.43	15.50	1.279	0.05	1.050	1.343
	LTE Band 66	20M	QPSK	50	0	Back	5	Hotspot On	132572	1745	14.36	15.50	1.300	-0.13	0.794	1.032
	LTE Band 66	20M	QPSK	100	0	Back	5	Hotspot On	132322	1745	14.59	15.50	1.233	-0.06	0.973	1.200
	LTE Band 66	20M	QPSK	1	99	Left Side	5	Hotspot On	132322	1745	14.33	15.00	1.167	-0.03	0.077	0.090
	LTE Band 66	20M	QPSK	50	0	Left Side	5	Hotspot On	132322	1745	13.99	15.00	1.262	0.02	0.047	0.059
	LTE Band 66	20M	QPSK	1	99	Right Side	5	Hotspot On	132322	1745	14.33	15.00	1.167	0.05	0.065	0.076
	LTE Band 66	20M	QPSK	50	0	Right Side	5	Hotspot On	132322	1745	13.99	15.00	1.262	0.09	0.047	0.059
	LTE Band 66	20M	QPSK	1	99	Bottom Side	5	Hotspot On	132322	1745	14.33	15.00	1.167	0.03	0.998	1.164
	LTE Band 66	20M	QPSK	1	99	Bottom Side	5	Hotspot On	132072	1720	14.22	15.00	1.197	0.01	1.040	1.245
	LTE Band 66	20M	QPSK	1	99	Bottom Side	5	Hotspot On	132572	1770	13.97	15.00	1.268	0.08	0.833	1.056
	LTE Band 66	20M	QPSK	50	0	Bottom Side	5	Hotspot On	132322	1745	13.99	15.00	1.262	0.03	0.865	1.091
	LTE Band 66	20M	QPSK	50	0	Bottom Side	5	Hotspot On	132072	1720	13.87	15.00	1.297	0.07	0.879	1.140
	LTE Band 66	20M	QPSK	50	0	Bottom Side	5	Hotspot On	132572	1770	13.91	15.00	1.285	0.03	0.738	0.949
	LTE Band 66	20M	QPSK	100	0	Bottom Side	5	Hotspot On	132322	1745	14.09	15.00	1.233	0.09	0.862	1.063
	LTE Band 25	20M	QPSK	1	99	Front	5	Hotspot On	26340	1880	19.02	20.00	1.253	0.05	0.789	0.989
	LTE Band 25	20M	QPSK	1	99	Front	5	Hotspot On	26140	1860	18.92	20.00	1.282	0.1	0.757	0.971
	LTE Band 25	20M	QPSK	1	99	Front	5	Hotspot On	26590	1905	18.99	20.00	1.262	0.07	0.768	0.969
	LTE Band 25	20M	QPSK	50	0	Front	5	Hotspot On	26340	1880	19.03	20.00	1.250	0.09	0.859	1.074
	LTE Band 25	20M	QPSK	50	0	Front	5	Hotspot On	26140	1860	18.94	20.00	1.276	0.11	0.794	1.013
	LTE Band 25	20M	QPSK	50	0	Front	5	Hotspot On	26590	1905	19.00	20.00	1.259	0.02	0.844	1.063
	LTE Band 25	20M	QPSK	100	0	Front	5	Hotspot On	26340	1880	19.05	20.00	1.245	0.07	0.834	1.038
	LTE Band 25	20M	QPSK	1	99	Back	5	Hotspot On	26340	1880	19.02	20.00	1.253	-0.05	1.070	1.341
	LTE Band 25	20M	QPSK	1	99	Back	5	Hotspot On	26140	1860	18.92	20.00	1.282	-0.09	0.910	1.167
	LTE Band 25	20M	QPSK	1	99	Back	5	Hotspot On	26590	1905	18.99	20.00	1.262	-0.04	1.100	1.388
	LTE Band 25	20M	QPSK	50	0	Back	5	Hotspot On	26340	1880	19.03	20.00	1.250	-0.13	1.020	1.275
	LTE Band 25	20M	QPSK	50	0	Back	5	Hotspot On	26140	1860	18.94	20.00	1.276	-0.13	0.928	1.185
32	LTE Band 25	20M	QPSK	50	0	Back	5	Hotspot On	26590	1905	19.00	20.00	1.259	-0.02	1.130	**1.423**
	LTE Band 25	20M	QPSK	100	0	Back	5	Hotspot On	26340	1880	19.05	20.00	1.245	-0.08	1.060	1.319
	LTE Band 25	20M	QPSK	1	99	Left Side	5	Hotspot On	26340	1880	19.02	20.00	1.253	0.03	0.420	0.526
	LTE Band 25	20M	QPSK	50	0	Left Side	5	Hotspot On	26340	1880	19.03	20.00	1.250	0.09	0.440	0.550
	LTE Band 25	20M	QPSK	1	99	Right Side	5	Hotspot On	26340	1880	19.02	20.00	1.253	0.05	0.170	0.213
	LTE Band 25	20M	QPSK	50	0	Right Side	5	Hotspot On	26340	1880	19.03	20.00	1.250	0.03	0.187	0.234
	LTE Band 25	20M	QPSK	1	99	Bottom Side	5	Hotspot On	26340	1880	19.02	20.00	1.253	0.04	0.826	1.035
	LTE Band 25	20M	QPSK	1	99	Bottom Side	5	Hotspot On	26140	1860	18.92	20.00	1.282	0.14	0.904	1.159
	LTE Band 25	20M	QPSK	1	99	Bottom Side	5	Hotspot On	26590	1905	18.99	20.00	1.262	0.05	0.722	0.911
	LTE Band 25	20M	QPSK	50	0	Bottom Side	5	Hotspot On	26340	1880	19.03	20.00	1.250	0.04	0.952	1.190
	LTE Band 25	20M	QPSK	50	0	Bottom Side	5	Hotspot On	26140	1860	18.94	20.00	1.276	0.06	1.070	1.366
	LTE Band 25	20M	QPSK	50	0	Bottom Side	5	Hotspot On	26590	1905	19.00	20.00	1.259	0.03	0.835	1.051
	LTE Band 25	20M	QPSK	100	0	Bottom Side	5	Hotspot On	26340	1880	19.05	20.00	1.245	0.04	0.909	1.131

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Plot No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Power Mode	Power Class	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)
	LTE Band 41	20M	QPSK	1	49	Front	5	Hotspot On	3	41490	2680	19.38	20.00	1.153	62.9	1.006	0.02	0.565	0.656
	LTE Band 41	20M	QPSK	1	49	Front	5	Hotspot On	3	39750	2506	19.10	20.00	1.230	62.9	1.006	0.05	0.567	0.702
	LTE Band 41	20M	QPSK	1	49	Front	5	Hotspot On	3	40185	2549.5	19.13	20.00	1.222	62.9	1.006	0.08	0.569	0.699
	LTE Band 41	20M	QPSK	1	49	Front	5	Hotspot On	3	40620	2593	19.27	20.00	1.183	62.9	1.006	-0.04	0.511	0.608
	LTE Band 41	20M	QPSK	1	49	Front	5	Hotspot On	3	41055	2636.5	19.26	20.00	1.186	62.9	1.006	-0.06	0.537	0.641
	LTE Band 41	20M	QPSK	50	24	Front	5	Hotspot On	3	41490	2680	19.26	20.00	1.186	62.9	1.006	0.01	0.586	0.699
	LTE Band 41	20M	QPSK	50	24	Front	5	Hotspot On	3	39750	2506	19.23	20.00	1.194	62.9	1.006	-0.05	0.595	0.715
	LTE Band 41	20M	QPSK	50	24	Front	5	Hotspot On	3	40185	2549.5	19.24	20.00	1.191	62.9	1.006	0.06	0.559	0.670
	LTE Band 41	20M	QPSK	50	24	Front	5	Hotspot On	3	40620	2593	19.12	20.00	1.225	62.9	1.006	0.05	0.540	0.665
	LTE Band 41	20M	QPSK	50	24	Front	5	Hotspot On	3	41055	2636.5	19.19	20.00	1.205	62.9	1.006	-0.08	0.559	0.678
	LTE Band 41	20M	QPSK	100	0	Front	5	Hotspot On	3	41490	2680	19.21	20.00	1.199	62.9	1.006	-0.04	0.563	0.679
	LTE Band 41	20M	QPSK	1	49	Back	5	Hotspot On	3	41490	2680	19.38	20.00	1.153	62.9	1.006	0.02	0.901	1.045
	LTE Band 41	20M	QPSK	1	49	Back	5	Hotspot On	3	39750	2506	19.10	20.00	1.230	62.9	1.006	0.04	1.050	1.300
	LTE Band 41	20M	QPSK	1	49	Back	5	Hotspot On	3	40185	2549.5	19.13	20.00	1.222	62.9	1.006	0.01	0.964	1.185
	LTE Band 41	20M	QPSK	1	49	Back	5	Hotspot On	3	40620	2593	19.27	20.00	1.183	62.9	1.006	0.03	0.891	1.060
	LTE Band 41	20M	QPSK	1	49	Back	5	Hotspot On	3	41055	2636.5	19.26	20.00	1.186	62.9	1.006	0.03	0.828	0.988
	LTE Band 41	20M	QPSK	50	24	Back	5	Hotspot On	3	41490	2680	19.26	20.00	1.186	62.9	1.006	0.03	0.905	1.080
33	LTE Band 41	20M	QPSK	50	24	Back	5	Hotspot On	3	39750	2506	19.23	20.00	1.194	62.9	1.006	-0.03	1.150	**1.381**
	LTE Band 41	20M	QPSK	50	24	Back	5	Hotspot On	3	40185	2549.5	19.24	20.00	1.191	62.9	1.006	0.12	0.978	1.172
	LTE Band 41	20M	QPSK	50	24	Back	5	Hotspot On	3	40620	2593	19.12	20.00	1.225	62.9	1.006	-0.01	0.892	1.099
	LTE Band 41	20M	QPSK	50	24	Back	5	Hotspot On	3	41055	2636.5	19.19	20.00	1.205	62.9	1.006	0.02	0.911	1.104
	LTE Band 41	20M	QPSK	100	0	Back	5	Hotspot On	3	41490	2680	19.21	20.00	1.199	62.9	1.006	0.03	0.891	1.075
	LTE Band 41	20M	QPSK	1	49	Left Side	5	Hotspot On	3	41490	2680	19.38	20.00	1.153	62.9	1.006	0.03	0.072	0.084
	LTE Band 41	20M	QPSK	50	24	Left Side	5	Hotspot On	3	41490	2680	19.26	20.00	1.186	62.9	1.006	-0.08	0.074	0.088
	LTE Band 41	20M	QPSK	1	49	Right Side	5	Hotspot On	3	41490	2680	19.38	20.00	1.153	62.9	1.006	-0.03	0.154	0.179
	LTE Band 41	20M	QPSK	50	24	Right Side	5	Hotspot On	3	41490	2680	19.26	20.00	1.186	62.9	1.006	-0.02	0.163	0.194
	LTE Band 41	20M	QPSK	1	49	Bottom Side	5	Hotspot On	3	41490	2680	19.38	20.00	1.153	62.9	1.006	0.06	0.795	0.922
	LTE Band 41	20M	QPSK	1	49	Bottom Side	5	Hotspot On	3	39750	2506	19.10	20.00	1.230	62.9	1.006	-0.09	0.840	1.040
	LTE Band 41	20M	QPSK	1	49	Bottom Side	5	Hotspot On	3	40185	2549.5	19.13	20.00	1.222	62.9	1.006	0.01	0.849	1.044
	LTE Band 41	20M	QPSK	1	49	Bottom Side	5	Hotspot On	3	40620	2593	19.27	20.00	1.183	62.9	1.006	0.02	0.754	0.897
	LTE Band 41	20M	QPSK	1	49	Bottom Side	5	Hotspot On	3	41055	2636.5	19.26	20.00	1.186	62.9	1.006	-0.06	0.774	0.923
	LTE Band 41	20M	QPSK	50	24	Bottom Side	5	Hotspot On	3	41490	2680	19.26	20.00	1.186	62.9	1.006	0.08	0.818	0.976
	LTE Band 41	20M	QPSK	50	24	Bottom Side	5	Hotspot On	3	39750	2506	19.23	20.00	1.194	62.9	1.006	-0.01	0.872	1.047
	LTE Band 41	20M	QPSK	50	24	Bottom Side	5	Hotspot On	3	40185	2549.5	19.24	20.00	1.191	62.9	1.006	0.08	0.847	1.015
	LTE Band 41	20M	QPSK	50	24	Bottom Side	5	Hotspot On	3	40620	2593	19.12	20.00	1.225	62.9	1.006	0.06	0.778	0.958
	LTE Band 41	20M	QPSK	50	24	Bottom Side	5	Hotspot On	3	41055	2636.5	19.19	20.00	1.205	62.9	1.006	0.04	0.815	0.988
	LTE Band 41	20M	QPSK	100	0	Bottom Side	5	Hotspot On	3	41490	2680	19.21	20.00	1.199	62.9	1.006	0.04	0.876	1.057
	LTE Band 41	20M	QPSK	50	24	Back	5	Hotspot On	2	39750	2506	19.23	20.00	1.194	42.9	1.009	0.02	0.730	0.879
	LTE Band 41	20M	QPSK	50	24	Back	5	Hotspot On	2	40185	2549.5	19.24	20.00	1.191	42.9	1.009	-0.03	0.574	0.690
	LTE Band 41	20M	QPSK	50	24	Back	5	Hotspot On	2	40620	2593	19.12	20.00	1.225	42.9	1.009	0.05	0.565	0.698
	LTE Band 41	20M	QPSK	50	24	Back	5	Hotspot On	2	41055	2636.5	19.19	20.00	1.205	42.9	1.009	0.01	0.511	0.621
	LTE Band 41	20M	QPSK	50	24	Back	5	Hotspot On	2	41490	2680	19.26	20.00	1.186	42.9	1.009	0.05	0.524	0.627

<WLAN 2.4GHz SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Mode	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)
	WLAN2.4GHz	802.11b 1Mbps	Front	5	Hotspot On	6	2437	17.90	18.50	1.148	97.63	1.024	0.04	0.389	0.304	0.357
	WLAN2.4GHz	802.11b 1Mbps	Back	5	Hotspot On	6	2437	17.90	18.50	1.148	97.63	1.024	-0.02	0.877	0.688	0.809
34	WLAN2.4GHz	802.11b 1Mbps	Back	5	Hotspot On	11	2462	17.69	18.50	1.205	97.63	1.024	0.03		0.967	**1.193**
	WLAN2.4GHz	802.11b 1Mbps	Right Side	5	Hotspot On	6	2437	17.90	18.50	1.148	97.63	1.024	-0.09	0.167	0.125	0.147
	WLAN2.4GHz	802.11b 1Mbps	Top Side	5	Hotspot On	6	2437	17.90	18.50	1.148	97.63	1.024	0.05	0.837	0.601	0.707

<WLAN 5GHz SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Mode	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)
	WLAN5.2GHz	802.11a 6Mbps	Front	5	Hotspot On	44	5220	11.76	13.00	1.330	87.22	1.147	0.03	0.117	0.022	0.034
35	WLAN5.2GHz	802.11a 6Mbps	Back	5	Hotspot On	44	5220	11.76	13.00	1.330	87.22	1.147	0.02	1.847	0.767	**1.170**
	WLAN5.2GHz	802.11a 6Mbps	Back	5	Hotspot On	40	5200	11.75	13.00	1.334	87.22	1.147	0.04		0.670	1.025
	WLAN5.2GHz	802.11a 6Mbps	Right Side	5	Hotspot On	44	5220	11.76	13.00	1.330	87.22	1.147	-0.01	0.423	0.164	0.250
	WLAN5.2GHz	802.11a 6Mbps	Top Side	5	Hotspot On	44	5220	11.76	13.00	1.330	87.22	1.147		0.127		
	WLAN 5.8GHz	802.11a 6Mbps	Front	5	Hotspot On	165	5825	10.90	11.00	1.023	87.22	1.147		0		
36	WLAN 5.8GHz	802.11a 6Mbps	Back	5	Hotspot On	165	5825	10.90	11.00	1.023	87.22	1.147	0.01	2.724	0.894	**1.049**
	WLAN 5.8GHz	802.11a 6Mbps	Back	5	Hotspot On	157	5785	10.44	11.00	1.138	87.22	1.147	0.02		0.724	0.945
	WLAN 5.8GHz	802.11a 6Mbps	Right Side	5	Hotspot On	165	5825	10.90	11.00	1.023	87.22	1.147	0.01	0.472	0.042	0.049
	WLAN 5.8GHz	802.11a 6Mbps	Top Side	5	Hotspot On	165	5825	10.90	11.00	1.023	87.22	1.147		0.157		

<Bluetooth SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Mode	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)
	Bluetooth	1Mbps	Front	5	Full	39	2441	8.13	9.50	1.371	77.13	1.080	0.01	<0.001	<0.001
37	Bluetooth	1Mbps	Back	5	Full	39	2441	8.13	9.50	1.371	77.13	1.080	0.02	0.061	**0.090**
	Bluetooth	1Mbps	Back	5	Full	0	2402	7.72	9.50	1.507	77.13	1.080	0.09	0.054	0.088
	Bluetooth	1Mbps	Back	5	Full	78	2480	8.03	9.50	1.403	77.13	1.080	-0.05	0.051	0.077
	Bluetooth	1Mbps	Right Side	5	Full	39	2441	8.13	9.50	1.371	77.13	1.080	0.01	<0.001	<0.001
	Bluetooth	1Mbps	Top Side	5	Full	39	2441	8.13	9.50	1.371	77.13	1.080	0.01	<0.001	<0.001

15.3 Body Worn Accessory SAR

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Headset	Power Mode	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)
	GSM850	GPRS (4 Tx slot)	Front	5	-	Full	251	848.8	26.20	27.50	1.349	0.03	0.617	0.832
	GSM850	GPRS (4 Tx slot)	Front	5	-	Full	128	824.2	25.87	27.50	1.455	-0.08	0.546	0.795
	GSM850	GPRS (4 Tx slot)	Front	5	-	Full	189	836.4	25.90	27.50	1.445	0.05	0.691	0.999
38	GSM850	GPRS (4 Tx slot)	Back	5	-	Full	251	848.8	26.20	27.50	1.349	0.09	0.765	**1.032**
	GSM850	GPRS (4 Tx slot)	Back	5	-	Full	128	824.2	25.87	27.50	1.455	0.02	0.606	0.882
	GSM850	GPRS (4 Tx slot)	Back	5	-	Full	189	836.4	25.90	27.50	1.445	0.01	0.695	1.005
	GSM1900	GPRS (4 Tx slot)	Front	5	-	P-Sensor On	512	1850.2	22.61	23.50	1.227	-0.02	0.783	0.961
	GSM1900	GPRS (4 Tx slot)	Front	5	-	P-Sensor On	661	1880	22.32	23.50	1.312	0.05	0.831	1.090
	GSM1900	GPRS (4 Tx slot)	Front	5	-	P-Sensor On	810	1909.8	22.41	23.50	1.285	0.03	0.805	1.035
	GSM1900	GPRS (4 Tx slot)	Back	5	-	P-Sensor On	512	1850.2	22.61	23.50	1.227	-0.15	0.830	1.019
	GSM1900	GPRS (4 Tx slot)	Back	5	-	P-Sensor On	661	1880	22.32	23.50	1.312	-0.15	0.968	1.270
39	GSM1900	GPRS (4 Tx slot)	Back	5	-	P-Sensor On	810	1909.8	22.41	23.50	1.285	-0.03	1.050	**1.350**
	GSM1900	GPRS (4 Tx slot)	Back	5	Headset	P-Sensor On	512	1850.2	22.61	23.50	1.227	-0.11	0.815	1.000
	GSM1900	GPRS (4 Tx slot)	Back	5	Headset	P-Sensor On	661	1880	22.32	23.50	1.312	0.01	0.878	1.152
	GSM1900	GPRS (4 Tx slot)	Back	5	Headset	P-Sensor On	810	1909.8	22.41	23.50	1.285	-0.08	0.888	1.141

<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Headset	Power Mode	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)
	WCDMA Band V	RMC12.2Kbps	Front	5	-	Full	4132	826.4	22.80	24.00	1.318	-0.05	0.610	0.804
	WCDMA Band V	RMC12.2Kbps	Front	5	-	Full	4182	836.4	22.70	24.00	1.349	-0.11	0.659	0.889
	WCDMA Band V	RMC12.2Kbps	Front	5	-	Full	4233	846.6	22.73	24.00	1.340	-0.1	0.726	0.973
	WCDMA Band V	RMC12.2Kbps	Back	5	-	Full	4132	826.4	22.80	24.00	1.318	0.07	0.758	0.999
	WCDMA Band V	RMC12.2Kbps	Back	5	-	Full	4182	836.4	22.70	24.00	1.349	-0.02	0.885	1.194
40	WCDMA Band V	RMC12.2Kbps	Back	5	-	Full	4233	846.6	22.73	24.00	1.340	-0.03	0.942	**1.262**
	WCDMA Band V	RMC12.2Kbps	Back	5	Headset	Full	4132	826.4	22.80	24.00	1.318	0.01	0.748	0.986
	WCDMA Band V	RMC12.2Kbps	Back	5	Headset	Full	4182	836.4	22.70	24.00	1.349	-0.08	0.881	1.188
	WCDMA Band V	RMC12.2Kbps	Back	5	Headset	Full	4233	846.6	22.73	24.00	1.340	0.03	0.931	1.247
	WCDMA Band IV	RMC12.2Kbps	Front	5	-	P-Sensor On	1513	1752.6	15.62	16.00	1.091	-0.02	0.583	0.636
	WCDMA Band IV	RMC12.2Kbps	Back	5	-	P-Sensor On	1513	1752.6	15.62	16.00	1.091	0.01	1.050	1.146
41	WCDMA Band IV	RMC12.2Kbps	Back	5	-	P-Sensor On	1312	1712.4	15.54	16.00	1.112	-0.14	1.050	**1.167**
	WCDMA Band IV	RMC12.2Kbps	Back	5	-	P-Sensor On	1413	1732.6	15.51	16.00	1.119	-0.16	1.020	1.142
	WCDMA Band II	RMC12.2Kbps	Front	5	-	P-Sensor On	9262	1852.4	18.66	19.00	1.081	0.06	0.949	1.026
	WCDMA Band II	RMC12.2Kbps	Front	5	-	P-Sensor On	9400	1880	18.63	19.00	1.089	0.08	0.933	1.016
	WCDMA Band II	RMC12.2Kbps	Front	5	-	P-Sensor On	9538	1907.6	18.64	19.00	1.086	0.04	1.010	1.097
	WCDMA Band II	RMC12.2Kbps	Back	5	-	P-Sensor On	9262	1852.4	18.66	19.00	1.081	-0.01	1.060	1.146
	WCDMA Band II	RMC12.2Kbps	Back	5	-	P-Sensor On	9400	1880	18.63	19.00	1.089	-0.13	1.080	1.176
	WCDMA Band II	RMC12.2Kbps	Back	5	-	P-Sensor On	9538	1907.6	18.64	19.00	1.086	-0.04	1.240	1.347
	WCDMA Band II	RMC12.2Kbps	Back	5	Headset	P-Sensor On	9262	1852.4	18.66	19.00	1.081	-0.08	1.140	1.233
	WCDMA Band II	RMC12.2Kbps	Back	5	Headset	P-Sensor On	9400	1880	18.63	19.00	1.089	-0.04	1.210	1.318
42	WCDMA Band II	RMC12.2Kbps	Back	5	Headset	P-Sensor On	9538	1907.6	18.64	19.00	1.086	0.06	1.300	**1.412**

<CDMA2000 SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Headset	Power Mode	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)
	CDMA2000 BC0	RC3 SO32 (F+SCH)	Front	5	-	Full	384	836.52	24.56	25.00	1.107	0.08	0.705	0.780
	CDMA2000 BC0	RC3 SO32 (F+SCH)	Back	5	-	Full	384	836.52	24.56	25.00	1.107	0.05	1.110	1.228
	CDMA2000 BC0	RC3 SO32 (F+SCH)	Back	5	-	Full	1013	824.7	24.51	25.00	1.119	-0.01	1.010	1.131
	CDMA2000 BC0	RC3 SO32 (F+SCH)	Back	5	-	Full	777	848.31	24.51	25.00	1.119	-0.01	1.110	1.243
43	CDMA2000 BC0	RC3 SO32 (F+SCH)	Back	5	Headset	Full	777	848.31	24.51	25.00	1.119	-0.01	1.180	**1.321**
	CDMA2000 BC0	RC3 SO32 (F+SCH)	Back	5	Headset	Full	384	836.52	24.56	25.00	1.107	-0.08	1.130	1.250
	CDMA2000 BC0	RC3 SO32 (F+SCH)	Back	5	Headset	Full	1013	824.7	24.51	25.00	1.119	-0.1	1.050	1.175
	CDMA2000 BC10	RC3 SO32 (F+SCH)	Front	5	-	Full	580	820.5	24.55	25.00	1.109	-0.03	0.642	0.712
	CDMA2000 BC10	RC3 SO32 (F+SCH)	Back	5	-	Full	580	820.5	24.55	25.00	1.109	0.03	0.889	0.986
	CDMA2000 BC10	RC3 SO32 (F+SCH)	Back	5	-	Full	476	817.9	24.38	25.00	1.153	-0.09	0.968	1.117
44	CDMA2000 BC10	RC3 SO32 (F+SCH)	Back	5	-	Full	684	823.1	24.54	25.00	1.112	-0.12	1.050	**1.167**
	CDMA2000 BC1	RC3 SO32 (F+SCH)	Front	5	-	P-Sensor On	600	1880	18.96	19.50	1.132	0.01	0.840	0.951
	CDMA2000 BC1	RC3 SO32 (F+SCH)	Front	5	-	P-Sensor On	25	1851.25	18.90	19.50	1.148	-0.02	0.861	0.989
	CDMA2000 BC1	RC3 SO32 (F+SCH)	Front	5	-	P-Sensor On	1175	1908.75	18.95	19.50	1.135	-0.11	0.824	0.935
	CDMA2000 BC1	RC3 SO32 (F+SCH)	Back	5	-	P-Sensor On	600	1880	18.96	19.50	1.132	0.02	1.250	1.416
	CDMA2000 BC1	RC3 SO32 (F+SCH)	Back	5	-	P-Sensor On	25	1851.25	18.90	19.50	1.148	-0.13	1.190	1.366
	CDMA2000 BC1	RC3 SO32 (F+SCH)	Back	5	-	P-Sensor On	1175	1908.75	18.95	19.50	1.135	-0.03	1.250	1.419
	CDMA2000 BC1	RC3 SO32 (F+SCH)	Back	5	Headset	P-Sensor On	600	1880	18.96	19.50	1.132	-0.09	1.120	1.268
	CDMA2000 BC1	RC3 SO32 (F+SCH)	Back	5	Headset	P-Sensor On	25	1851.25	18.90	19.50	1.148	-0.06	1.090	1.251
45	CDMA2000 BC1	RC3 SO32 (F+SCH)	Back	5	Headset	P-Sensor On	1175	1908.75	18.95	19.50	1.135	-0.06	1.250	**1.419**

<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Headset	Power Mode	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)
	LTE Band 71	20M	QPSK	1	49	Front	5	-	Full	133322	683	23.01	24.00	1.256	-0.07	0.342	0.430
	LTE Band 71	20M	QPSK	50	24	Front	5	-	Full	133322	683	22.03	23.00	1.250	0.01	0.197	0.246
46	LTE Band 71	20M	QPSK	1	49	Back	5	-	Full	133322	683	23.01	24.00	1.256	-0.08	0.490	**0.615**
	LTE Band 71	20M	QPSK	50	24	Back	5	-	Full	133322	683	22.03	23.00	1.250	0.02	0.304	0.380
	LTE Band 12	10M	QPSK	1	49	Front	5	5	Full	23095	707.5	23.13	24.00	1.222	0.06	0.541	0.661
	LTE Band 12	10M	QPSK	25	0	Front	5	5	Full	23095	707.5	21.97	23.00	1.268	0.03	0.283	0.359
47	LTE Band 12	10M	QPSK	1	49	Back	5	5	Full	23095	707.5	23.13	24.00	1.222	0.04	0.703	**0.859**
	LTE Band 12	10M	QPSK	25	0	Back	5	5	Full	23095	707.5	21.97	23.00	1.268	-0.1	0.451	0.572
	LTE Band 12	10M	QPSK	50	0	Back	5	5	Full	23095	707.5	21.90	23.00	1.288	-0.1	0.416	0.536
	LTE Band 26	15M	QPSK	1	74	Front	5	5	Full	26865	831.5	23.07	24.00	1.239	0.05	0.603	0.747
	LTE Band 26	15M	QPSK	36	0	Front	5	5	Full	26865	831.5	21.80	23.00	1.318	0.12	0.318	0.419
48	LTE Band 26	15M	QPSK	1	74	Back	5	5	Full	26865	831.5	23.07	24.00	1.239	-0.01	0.840	**1.041**
	LTE Band 26	15M	QPSK	36	0	Back	5	5	Full	26865	831.5	21.80	23.00	1.318	0.02	0.462	0.609
	LTE Band 26	15M	QPSK	75	0	Back	5	5	Full	26865	831.5	21.59	23.00	1.384	-0.03	0.447	0.618

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Headset	Power Mode	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)
	LTE Band 66	20M	QPSK	1	99	Front	5	-	P-Sensor On	132322	1745	14.76	15.50	1.186	0.01	0.591	0.701
	LTE Band 66	20M	QPSK	50	0	Front	5	-	P-Sensor On	132322	1745	14.38	15.50	1.294	-0.02	0.493	0.638
	LTE Band 66	20M	QPSK	1	99	Back	5	-	P-Sensor On	132322	1745	14.76	15.50	1.186	-0.05	1.090	1.292
	LTE Band 66	20M	QPSK	1	99	Back	5	-	P-Sensor On	132072	1745	14.71	15.50	1.199	0.15	1.140	1.367
	LTE Band 66	20M	QPSK	1	99	Back	5	-	P-Sensor On	132572	1745	14.44	15.50	1.276	-0.03	0.852	1.088
	LTE Band 66	20M	QPSK	50	0	Back	5	-	P-Sensor On	132322	1745	14.56	15.50	1.242	-0.02	0.953	1.183
	LTE Band 66	20M	QPSK	50	0	Back	5	-	P-Sensor On	132072	1745	14.43	15.50	1.279	0.05	1.050	1.343
	LTE Band 66	20M	QPSK	50	0	Back	5	-	P-Sensor On	132572	1745	14.36	15.50	1.300	-0.13	0.794	1.032
	LTE Band 66	20M	QPSK	100	0	Back	5	-	P-Sensor On	132322	1745	14.59	15.50	1.233	-0.06	0.973	1.200
	LTE Band 66	20M	QPSK	1	99	Back	5	Headset	P-Sensor On	132322	1745	14.76	15.50	1.186	-0.07	1.080	1.281
49	LTE Band 66	20M	QPSK	1	99	Back	5	Headset	P-Sensor On	132072	1745	14.71	15.50	1.199	-0.01	1.200	**1.439**
	LTE Band 66	20M	QPSK	1	99	Back	5	Headset	P-Sensor On	132572	1745	14.44	15.50	1.276	-0.09	0.470	0.600
	LTE Band 25	20M	QPSK	1	99	Front	5	-	P-Sensor On	26340	1880	19.02	20.00	1.253	0.05	0.789	0.989
	LTE Band 25	20M	QPSK	1	99	Front	5	-	P-Sensor On	26140	1860	18.92	20.00	1.282	0.1	0.757	0.971
	LTE Band 25	20M	QPSK	1	99	Front	5	-	P-Sensor On	26590	1905	18.99	20.00	1.262	0.07	0.768	0.969
	LTE Band 25	20M	QPSK	50	0	Front	5	-	P-Sensor On	26340	1880	19.03	20.00	1.250	0.09	0.859	1.074
	LTE Band 25	20M	QPSK	50	0	Front	5	-	P-Sensor On	26140	1860	18.94	20.00	1.276	0.11	0.794	1.013
	LTE Band 25	20M	QPSK	50	0	Front	5	-	P-Sensor On	26590	1905	19.00	20.00	1.259	0.02	0.844	1.063
	LTE Band 25	20M	QPSK	100	0	Front	5	-	P-Sensor On	26340	1880	19.05	20.00	1.245	0.07	0.834	1.038
	LTE Band 25	20M	QPSK	1	99	Back	5	-	P-Sensor On	26340	1880	19.02	20.00	1.253	-0.05	1.070	1.341
	LTE Band 25	20M	QPSK	1	99	Back	5	-	P-Sensor On	26140	1860	18.92	20.00	1.282	-0.09	0.910	1.167
	LTE Band 25	20M	QPSK	1	99	Back	5	-	P-Sensor On	26590	1905	18.99	20.00	1.262	-0.04	1.100	1.388
	LTE Band 25	20M	QPSK	50	0	Back	5	-	P-Sensor On	26340	1880	19.03	20.00	1.250	-0.13	1.020	1.275
	LTE Band 25	20M	QPSK	50	0	Back	5	-	P-Sensor On	26140	1860	18.94	20.00	1.276	-0.13	0.928	1.185
50	LTE Band 25	20M	QPSK	50	0	Back	5	-	P-Sensor On	26590	1905	19.00	20.00	1.259	-0.02	1.130	**1.423**
	LTE Band 25	20M	QPSK	100	0	Back	5	-	P-Sensor On	26340	1880	19.05	20.00	1.245	-0.08	1.060	1.319
	LTE Band 25	20M	QPSK	50	0	Back	5	Headset	P-Sensor On	26590	1905	19.00	20.00	1.259	-0.07	1.110	1.397
	LTE Band 25	20M	QPSK	50	0	Back	5	Headset	P-Sensor On	26140	1860	18.94	20.00	1.276	-0.12	0.948	1.210
	LTE Band 25	20M	QPSK	50	0	Back	5	Headset	P-Sensor On	26340	1880	19.03	20.00	1.250	-0.1	1.030	1.288

<TDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Headset	Power Mode	Power Class	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)
	LTE Band 41	20M	QPSK	1	49	Front	5	-	P-Sensor On	3	41490	2680	19.38	20.00	1.153	62.9	1.006	0.02	0.565	0.656
	LTE Band 41	20M	QPSK	1	49	Front	5	-	P-Sensor On	3	39750	2506	19.10	20.00	1.230	62.9	1.006	0.05	0.567	0.702
	LTE Band 41	20M	QPSK	1	49	Front	5	-	P-Sensor On	3	40185	2549.5	19.13	20.00	1.222	62.9	1.006	0.08	0.569	0.699
	LTE Band 41	20M	QPSK	1	49	Front	5	-	P-Sensor On	3	40620	2593	19.27	20.00	1.183	62.9	1.006	-0.04	0.511	0.608
	LTE Band 41	20M	QPSK	1	49	Front	5	-	P-Sensor On	3	41055	2636.5	19.26	20.00	1.186	62.9	1.006	-0.06	0.537	0.641
	LTE Band 41	20M	QPSK	50	24	Front	5	-	P-Sensor On	3	41490	2680	19.26	20.00	1.186	62.9	1.006	0.01	0.586	0.699
	LTE Band 41	20M	QPSK	50	24	Front	5	-	P-Sensor On	3	39750	2506	19.23	20.00	1.194	62.9	1.006	-0.05	0.595	0.715
	LTE Band 41	20M	QPSK	50	24	Front	5	-	P-Sensor On	3	40185	2549.5	19.24	20.00	1.191	62.9	1.006	0.06	0.559	0.670
	LTE Band 41	20M	QPSK	50	24	Front	5	-	P-Sensor On	3	40620	2593	19.12	20.00	1.225	62.9	1.006	0.05	0.540	0.665
	LTE Band 41	20M	QPSK	50	24	Front	5	-	P-Sensor On	3	41055	2636.5	19.19	20.00	1.205	62.9	1.006	-0.08	0.559	0.678
	LTE Band 41	20M	QPSK	100	0	Front	5	-	P-Sensor On	3	41490	2680	19.21	20.00	1.199	62.9	1.006	-0.04	0.563	0.679
	LTE Band 41	20M	QPSK	1	49	Back	5	-	P-Sensor On	3	41490	2680	19.38	20.00	1.153	62.9	1.006	0.02	0.901	1.045
	LTE Band 41	20M	QPSK	1	49	Back	5	-	P-Sensor On	3	39750	2506	19.10	20.00	1.230	62.9	1.006	0.04	1.050	1.300
	LTE Band 41	20M	QPSK	1	49	Back	5	-	P-Sensor On	3	40185	2549.5	19.13	20.00	1.222	62.9	1.006	0.01	0.964	1.185
	LTE Band 41	20M	QPSK	1	49	Back	5	-	P-Sensor On	3	40620	2593	19.27	20.00	1.183	62.9	1.006	0.03	0.891	1.060
	LTE Band 41	20M	QPSK	1	49	Back	5	-	P-Sensor On	3	41055	2636.5	19.26	20.00	1.186	62.9	1.006	0.03	0.828	0.988
	LTE Band 41	20M	QPSK	50	24	Back	5	-	P-Sensor On	3	41490	2680	19.26	20.00	1.186	62.9	1.006	0.03	0.905	1.080
51	LTE Band 41	20M	QPSK	50	24	Back	5	-	P-Sensor On	3	39750	2506	19.23	20.00	1.194	62.9	1.006	-0.03	1.150	**1.381**
	LTE Band 41	20M	QPSK	50	24	Back	5	-	P-Sensor On	3	40185	2549.5	19.24	20.00	1.191	62.9	1.006	0.12	0.978	1.172
	LTE Band 41	20M	QPSK	50	24	Back	5	-	P-Sensor On	3	40620	2593	19.12	20.00	1.225	62.9	1.006	-0.01	0.892	1.099
	LTE Band 41	20M	QPSK	50	24	Back	5	-	P-Sensor On	3	41055	2636.5	19.19	20.00	1.205	62.9	1.006	0.02	0.911	1.104
	LTE Band 41	20M	QPSK	100	0	Back	5	-	P-Sensor On	3	41490	2680	19.21	20.00	1.199	62.9	1.006	0.03	0.891	1.075
	LTE Band 41	20M	QPSK	50	24	Back	5	Headset	P-Sensor On	3	39750	2506	19.23	20.00	1.194	62.9	1.006	0.05	1.040	1.249
	LTE Band 41	20M	QPSK	50	24	Back	5	Headset	P-Sensor On	3	40185	2549.5	19.24	20.00	1.191	62.9	1.006	-0.12	0.965	1.156
	LTE Band 41	20M	QPSK	50	24	Back	5	Headset	P-Sensor On	3	40620	2593	19.12	20.00	1.225	62.9	1.006	0.06	0.885	1.090
	LTE Band 41	20M	QPSK	50	24	Back	5	Headset	P-Sensor On	3	41055	2636.5	19.19	20.00	1.205	62.9	1.006	0.01	0.894	1.084
	LTE Band 41	20M	QPSK	50	24	Back	5	Headset	P-Sensor On	3	41490	2680	19.26	20.00	1.186	62.9	1.006	0.06	0.907	1.082
	LTE Band 41	20M	QPSK	50	24	Back	5	-	P-Sensor On	2	40185	2549.5	19.24	20.00	1.191	42.9	1.009	-0.03	0.574	0.690
	LTE Band 41	20M	QPSK	50	24	Back	5	-	P-Sensor On	2	40620	2593	19.12	20.00	1.225	42.9	1.009	0.05	0.565	0.698
	LTE Band 41	20M	QPSK	50	24	Back	5	-	P-Sensor On	2	41055	2636.5	19.19	20.00	1.205	42.9	1.009	0.01	0.511	0.621
	LTE Band 41	20M	QPSK	50	24	Back	5	-	P-Sensor On	2	41490	2680	19.26	20.00	1.186	42.9	1.009	0.05	0.524	0.627

<WLAN 2.4GHz SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Headset	Power Mode	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)
	WLAN2.4GHz	802.11b 1Mbps	Front	5	-	P-Sensor On	6	2437	17.90	18.50	1.148	97.63	1.024	0.04	0.304	0.357
	WLAN2.4GHz	802.11b 1Mbps	Back	5	-	P-Sensor On	6	2437	17.90	18.50	1.148	97.63	1.024	-0.02	0.688	0.809
52	WLAN2.4GHz	802.11b 1Mbps	Back	5	-	P-Sensor On	11	2462	17.69	18.50	1.205	97.63	1.024	0.03	0.967	**1.193**

<WLAN 5GHz SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Headset	Power Mode	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)
	WLAN5.2GHz	802.11a 6Mbps	Front	5	-	P-Sensor On	44	5220	11.76	13.00	1.330	87.22	1.147	0.03	0.117	0.022	0.034
53	WLAN5.2GHz	802.11a 6Mbps	Back	5	-	P-Sensor On	44	5220	11.76	13.00	1.330	87.22	1.147	0.02	1.85	0.767	**1.170**
	WLAN5.2GHz	802.11a 6Mbps	Back	5	-	P-Sensor On	40	5200	11.75	13.00	1.334	87.22	1.147	0.04		0.670	1.025
	WLAN5.3GHz	802.11a 6Mbps	Front	5	-	P-Sensor On	60	5300	12.52	13.00	1.117	87.22	1.147		0		
54	WLAN5.3GHz	802.11a 6Mbps	Back	5	-	P-Sensor On	60	5300	12.52	13.00	1.117	87.22	1.147	0.07	2.31	0.910	**1.166**
	WLAN5.3GHz	802.11a 6Mbps	Back	5	-	P-Sensor On	56	5280	12.40	13.00	1.148	87.22	1.147	-0.01		0.781	1.029
	WLAN5.5GHz	802.11a 6Mbps	Front	5	-	P-Sensor On	116	5580	8.98	9.00	1.005	87.22	1.147		0		
55	WLAN5.5GHz	802.11a 6Mbps	Back	5	-	P-Sensor On	116	5580	8.98	9.00	1.005	87.22	1.147	0.04	2.84	0.993	**1.144**
	WLAN5.5GHz	802.11a 6Mbps	Back	5	-	P-Sensor On	100	5500	8.90	9.00	1.023	87.22	1.147	0.06		0.850	0.998
	WLAN 5.8GHz	802.11a 6Mbps	Front	5	-	P-Sensor On	165	5825	10.90	11.00	1.023	87.22	1.147		0		
56	WLAN 5.8GHz	802.11a 6Mbps	Back	5	-	P-Sensor On	165	5825	10.90	11.00	1.023	87.22	1.147	0.01	2.72	0.894	**1.049**
	WLAN 5.8GHz	802.11a 6Mbps	Back	5	-	P-Sensor On	157	5785	10.44	11.00	1.138	87.22	1.147	0.02		0.724	0.945

<Bluetooth SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Headset	Power Mode	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)
	Bluetooth	1Mbps	Front	5	-	Full	39	2441	8.13	9.50	1.371	77.13	1.080	0.01	<0.001	<0.001
57	Bluetooth	1Mbps	Back	5	-	Full	39	2441	8.13	9.50	1.371	77.13	1.080	0.02	0.061	**0.090**
	Bluetooth	1Mbps	Back	5	-	Full	0	2402	7.72	9.50	1.507	77.13	1.080	0.09	0.054	0.088
	Bluetooth	1Mbps	Back	5	-	Full	78	2480	8.03	9.50	1.403	77.13	1.080	-0.05	0.051	0.077

15.4 TDD LTE Band 41(HPUE) Linearity Data Analysis

LTE Band 41(HPUE)-Linearity Data for Head		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	25.00	27.00
Reported 1g SAR (W/kg)	0.242	0.241
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	200.17	217.01
Linearity SAR (W/kg)	0.262	
% deviation from expected linearity		-8.14%

LTE Band 41(HPUE)-Linearity Data for Hotspot		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	20.00	20.00
Reported 1g SAR (W/kg)	1.381	0.879
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	63.30	43.30
Linearity SAR (W/kg)	0.945	
% deviation from expected linearity		-6.95%

LTE Band 41(HPUE)-Linearity Data for Body-worn		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	20.00	20.00
Reported 1g SAR (W/kg)	1.381	0.879
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	63.30	43.30
Linearity SAR (W/kg)	0.945	
% deviation from expected linearity		-6.95%

General Note:

1. The device can adjust uplink/downlink configuration automatically according to the transmitting power class level for LTE band 41.
2. According to TCB Workshop May 2017, Rel. 14 has introduced HPUE Power Class 2 for Band 41. HPUE Power Class 2 does not support uplink downlink configurations 0 and 6.
3. Power class 3 is expected to be the dominant use configuration; therefore, SAR should be tested as normally required.
4. Power class 2 is tested using the highest SAR test configuration in power class 3 of each LTE configuration and exposure condition combination, according to the highest time averaged power for all applicable uplink-downlink configurations in power class 2.
5. Separate SAR testing for Power Class 2 is not required when
   – the reported SAR vs. output power can be linearly scaled with < 10%
   – discrepancy between power classes and all *reported* 1g SAR are < 1.4 W/kg (The same procedures should be adapted for measurements according to extremity limits by applying a factor of 2.5 for extremity exposure.)

15.5 Repeated SAR Measurement

No.	Band	Mode	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Headset	Power Mode	Power Class	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 II	RMC 12.2Kbps	-	-	-	-	Bottom Side	5	-	Hotspot On	-	9262	1852.4	18.66	19.00	1.081	-	-	0.02	1.310	1	1.417
2nd	WCDMA Band II	RMC 12.2Kbps	-	-	-	-	Bottom Side	5	-	Hotspot On	-	9262	1852.4	18.66	19.00	1.081	-	-	-0.05	1.300	1.008	1.406
1st	CDMA2000 BC0	RC3 SO32 (F+SCH)	-	-	-	-	Back	5	Headset	Full	-	777	848.31	24.51	25.00	1.119	-	-	-0.01	1.180	1	1.321
2nd	CDMA2000 BC0	RC3 SO32 (F+SCH)	-	-	-	-	Back	5	Headset	Full	-	777	848.31	24.51	25.00	1.119	-	-	0.02	1.160	1.017	1.299
1st	LTE Band 66	-	20M	QPSK	1	99	Back	5	Headset	P-Sensor On	-	132072	1745	14.71	15.50	1.199	-	-	-0.01	1.200	1	1.439
2nd	LTE Band 66	-	20M	QPSK	1	99	Back	5	Headset	P-Sensor On	-	132072	1745	14.71	15.50	1.199	-	-	-0.05	1.170	1.026	1.403
1st	LTE Band 41	-	20M	QPSK	50	24	Back	5	-	Hotspot On / P-Sensor On	3	39750	2506	19.23	20.00	1.194	62.9	1.006	-0.03	1.150	1	1.381
2nd	LTE Band 41	-	20M	QPSK	50	24	Back	5	-	Hotspot On / P-Sensor On	3	39750	2506	19.23	20.00	1.194	62.9	1.006	0.06	1.120	1.027	1.345
1st	WLAN 2.4GHz	802.11b 1Mbps	-	-	-	-	Back	5	-	Hotspot On / P-Sensor On	-	11	2462	17.69	18.50	1.205	97.63	1.024	0.03	0.967	1	1.193
2nd	WLAN 2.4GHz	802.11b 1Mbps	-	-	-	-	Back	5	-	Hotspot On / P-Sensor On	-	11	2462	17.69	18.50	1.205	97.63	1.024	0.01	0.953	1.015	1.176
1st	WLAN5.3GHz	802.11a 6Mbps	-	-	-	-	Back	5	-	Hotspot On / P-Sensor On	-	60	5300	12.52	13.00	1.117	87.22	1.147	0.07	0.910	1	1.166
2nd	WLAN5.3GHz	802.11a 6Mbps	-	-	-	-	Back	5	-	Hotspot On / P-Sensor On	-	60	5300	12.52	13.00	1.117	87.22	1.147	0.03	0.906	1.004	1.161
1st	WLAN5.5GHz	802.11a 6Mbps	-	-	-	-	Back	5	-	Hotspot On / P-Sensor On	-	116	5580	8.98	9.00	1.005	87.22	1.147	0.04	0.993	1	1.144
2nd	WLAN5.5GHz	802.11a 6Mbps	-	-	-	-	Back	5	-	Hotspot On / P-Sensor On	-	116	5580	8.98	9.00	1.005	87.22	1.147	-0.01	0.988	1.005	1.138
1st	WLAN5.8GHz	802.11a 6Mbps	-	-	-	-	Back	5	-	Hotspot On / P-Sensor On	-	165	5825	10.90	11.00	1.023	87.22	1.147	0.01	0.894	1	1.049
2nd	WLAN5.8GHz	802.11a 6Mbps	-	-	-	-	Back	5	-	Hotspot On / P-Sensor On	-	165	5825	10.90	11.00	1.023	87.22	1.147	-0.05	0.873	1.024	1.025

General Note:

1. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is ≥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.

16. Simultaneous Transmission Analysis

No.	Simultaneous Transmission Configurations	Portable Handset		
		Head	Body-worn	Hotspot
1.	GSM Voice + WLAN2.4GHz	Yes	Yes	
2.	GPRS/EDGE + WLAN2.4GHz	Yes	Yes	Yes
3.	WCDMA + WLAN2.4GHz	Yes	Yes	Yes
4.	CDMA + WLAN2.4GHz	Yes	Yes	Yes
5.	LTE + WLAN2.4GHz	Yes	Yes	Yes
6.	GSM Voice + WLAN5.3/5.5GHz	Yes	Yes	
7.	GPRS/EDGE + WLAN5.3/5.5GHz	Yes	Yes	
8.	WCDMA + WLAN5.3/5.5GHz	Yes	Yes	
9.	CDMA + WLAN5.3/5.5GHz	Yes	Yes	
10.	LTE + WLAN5.3/5.5GHz	Yes	Yes	
11.	GSM Voice + WLAN5.2/5.8GHz	Yes	Yes	
12.	GPRS/EDGE + WLAN5.2/5.8GHz	Yes	Yes	Yes
13.	WCDMA + WLAN5.2/5.8GHz	Yes	Yes	Yes
14.	CDMA + WLAN5.2/5.8GHz	Yes	Yes	Yes
15.	LTE + WLAN5.2/5.8GHz	Yes	Yes	Yes
16.	GSM Voice + Bluetooth	Yes	Yes	
17.	GPRS/EDGE + Bluetooth	Yes	Yes	Yes
18.	WCDMA + Bluetooth	Yes	Yes	Yes
19.	CDMA + Bluetooth	Yes	Yes	Yes
20.	LTE + Bluetooth	Yes	Yes	Yes

General Note:

1. This device supports VoIP in GPRS, EGPRS, WCDMA, CDMA and LTE (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.
2. EUT will choose each GSM, WCDMA, CDMA and LTE according to the network signal condition; therefore, they will not operate simultaneously at any moment.
3. This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
4. 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).
5. EUT will choose either WLAN 2.4GHz or WLAN 5GHz according to the network signal condition; therefore, 2.4GHz WLAN and 5GHz WLAN will not operate simultaneously at any moment though they have independent antenna.
6. WLAN 2.4GHz and Bluetooth share the same antenna so can't transmit simultaneously.
7. For simultaneously analysis, since the SAR summation of 3 transmitters can cover others combination of 2 transmitters, therefore in this section did not additional to evaluate 2TX combination of simultaneously transmission.
8. Chose the worst zoom scan SAR of WLAN correspondingly for co-located with WWAN analysis.
9. The reported SAR summation is calculated based on the same configuration and test position.
10. Per KDB 447498 D01v06, simultaneous transmission SAR is compliant if,
    i) 1g Scalar SAR summation < 1.6W/kg and 10g Scalar SAR summation < 4.0W/kg.
    ii) SPLSR = (SAR1 + SAR2)^1.5 / (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 SPLSR ≤ 0.04, simultaneously transmission SAR measurement is not necessary.
    iv) Simultaneously transmission SAR measurement, and the reported multi-band 1g SAR < 1.6W/kg and 10g SAR < 4.0W/kg.
    v) The SPLSR calculated results please refer to section 16.4.

16.1 Head Exposure Conditions

WWAN Band		Exposure Position	1	2	3	4	1+2			1+3	1+4
			WWAN	2.4GHz WLAN	5GHz WLAN	Bluetooth	Summed 1g SAR (W/kg)	SPLSR	Case No	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)					
GSM	GSM850	Right Cheek	0.731	0.405	0.494	0.078	1.14			1.23	0.81
		Right Tilted	0.433	0.433	0.494	0.072	0.87			0.93	0.51
		Left Cheek	0.753	1.183	0.175	0.138	**1.94**	**0.03**	**#1**	0.93	0.89
		Left Tilted	0.395	0.542	0.494	0.102	0.94			0.89	0.50
	GSM1900	Right Cheek	0.297	0.405	0.494	0.078	0.70			0.79	0.38
		Right Tilted	0.200	0.433	0.494	0.072	0.63			0.69	0.27
		Left Cheek	0.327	1.183	0.175	0.138	1.51			0.50	0.47
		Left Tilted	0.236	0.542	0.494	0.102	0.78			0.73	0.34
WCDMA	Band V	Right Cheek	0.717	0.405	0.494	0.078	1.12			1.21	0.80
		Right Tilted	0.438	0.433	0.494	0.072	0.87			0.93	0.51
		Left Cheek	0.699	1.183	0.175	0.138	**1.88**	**0.03**	**#2**	0.87	0.84
		Left Tilted	0.421	0.542	0.494	0.102	0.96			0.92	0.52
	Band IV	Right Cheek	0.522	0.405	0.494	0.078	0.93			1.02	0.60
		Right Tilted	0.353	0.433	0.494	0.072	0.79			0.85	0.43
		Left Cheek	0.439	1.183	0.175	0.138	**1.62**	**0.02**	**#3**	0.61	0.58
		Left Tilted	0.360	0.542	0.494	0.102	0.90			0.85	0.46
	Band II	Right Cheek	0.829	0.405	0.494	0.078	1.23			1.32	0.91
		Right Tilted	0.532	0.433	0.494	0.072	0.97			1.03	0.60
		Left Cheek	0.855	1.183	0.175	0.138	**2.04**	**0.03**	**#4**	1.03	0.99
		Left Tilted	0.656	0.542	0.494	0.102	1.20			1.15	0.76
CDMA2000	BC0	Right Cheek	0.611	0.405	0.494	0.078	1.02			1.11	0.69
		Right Tilted	0.405	0.433	0.494	0.072	0.84			0.90	0.48
		Left Cheek	0.484	1.183	0.175	0.138	**1.67**	**0.03**	**#5**	0.66	0.62
		Left Tilted	0.211	0.542	0.494	0.102	0.75			0.71	0.31
	BC10	Right Cheek	0.538	0.405	0.494	0.078	0.94			1.03	0.62
		Right Tilted	0.411	0.433	0.494	0.072	0.84			0.91	0.48
		Left Cheek	0.668	1.183	0.175	0.138	**1.85**	**0.03**	**#6**	0.84	0.81
		Left Tilted	0.398	0.542	0.494	0.102	0.94			0.89	0.50
	BC1	Right Cheek	0.547	0.405	0.494	0.078	0.95			1.04	0.63
		Right Tilted	0.324	0.433	0.494	0.072	0.76			0.82	0.40
		Left Cheek	0.670	1.183	0.175	0.138	**1.85**	**0.03**	**#7**	0.85	0.81
		Left Tilted	0.415	0.542	0.494	0.102	0.96			0.91	0.52

WWAN Band		Exposure Position	1	2	3	4	1+2			1+3 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)
			WWAN 1g SAR (W/kg)	2.4GHz WLAN 1g SAR (W/kg)	5GHz WLAN 1g SAR (W/kg)	Bluetooth 1g SAR (W/kg)	Summed 1g SAR (W/kg)	SPLSR	Case No		
LTE	Band 71	Right Cheek	0.372	0.405	0.494	0.078	0.78			0.87	0.45
		Right Tilted	0.220	0.433	0.494	0.072	0.65			0.71	0.29
		Left Cheek	0.339	1.183	0.175	0.138	**1.52**			0.51	0.48
		Left Tilted	0.181	0.542	0.494	0.102	0.72			0.68	0.28
	Band 12	Right Cheek	0.580	0.405	0.494	0.078	0.99			1.07	0.66
		Right Tilted	0.297	0.433	0.494	0.072	0.73			0.79	0.37
		Left Cheek	0.562	1.183	0.175	0.138	**1.75**	**0.03**	**#8**	0.74	0.70
		Left Tilted	0.298	0.542	0.494	0.102	0.84			0.79	0.40
	Band 26	Right Cheek	0.619	0.405	0.494	0.078	1.02			1.11	0.70
		Right Tilted	0.382	0.433	0.494	0.072	0.82			0.88	0.45
		Left Cheek	0.666	1.183	0.175	0.138	**1.85**	**0.03**	**#9**	0.84	0.80
		Left Tilted	0.369	0.542	0.494	0.102	0.91			0.86	0.47
	Band 66	Right Cheek	0.606	0.405	0.494	0.078	1.01			1.10	0.68
		Right Tilted	0.370	0.433	0.494	0.072	0.80			0.86	0.44
		Left Cheek	0.530	1.183	0.175	0.138	**1.71**	**0.03**	**#10**	0.71	0.67
		Left Tilted	0.365	0.542	0.494	0.102	0.91			0.86	0.47
	Band 25	Right Cheek	0.546	0.405	0.494	0.078	0.95			1.04	0.62
		Right Tilted	0.474	0.433	0.494	0.072	0.91			0.97	0.55
		Left Cheek	0.730	1.183	0.175	0.138	**1.91**	**0.03**	**#11**	0.91	0.87
		Left Tilted	0.440	0.542	0.494	0.102	0.98			0.93	0.54
	Band 41	Right Cheek	0.242	0.405	0.494	0.078	0.65			0.74	0.32
		Right Tilted	0.050	0.433	0.494	0.072	0.48			0.54	0.12
		Left Cheek	0.125	1.183	0.175	0.138	1.31			0.30	0.26
		Left Tilted	0.067	0.542	0.494	0.102	0.61			0.56	0.17

16.2 Hotspot Exposure Conditions

WWAN Band		Exposure Position	1	2	3	4	1+2			1+3			1+4 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN	5GHz WLAN	Bluetooth	Summed 1g SAR (W/kg)	SPLSR	Case No	Summed 1g SAR (W/kg)	SPLSR	Case No	
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)							
GSM	GSM850	Front	0.999	0.357	0.034	<0.001	1.36			1.03			1.00
		Back	1.032	1.193	1.170	0.090	**2.23**	**0.03**	**#12**	**2.20**	**0.03**	**#13**	1.12
		Left Side	0.986				0.99			0.99			0.99
		Right Side	0.950	0.147	0.250	<0.001	1.10			1.20			0.95
		Bottom Side	0.255				0.26			0.26			0.26
	GSM1900	Front	1.090	0.357	0.034	<0.001	1.45			1.12			1.09
		Back	1.350	1.193	1.170	0.090	**2.54**	**0.03**	**#14**	**2.52**	**0.03**	**#15**	1.44
		Left Side	0.459				0.46			0.46			0.46
		Right Side	0.244	0.147	0.250	<0.001	0.39			0.49			0.25
		Bottom Side	1.144				1.14			1.14			1.14
WCDMA	Band V	Front	0.973	0.357	0.034	<0.001	1.33			1.01			0.97
		Back	1.262	1.193	1.170	0.090	**2.46**	**0.03**	**#16**	**2.43**	**0.03**	**#17**	1.35
		Left Side	1.376				1.38			1.38			1.38
		Right Side	1.103	0.147	0.250	<0.001	1.25			1.35			1.10
		Bottom Side	0.340				0.34			0.34			0.34
	Band IV	Front	0.636	0.357	0.034	<0.001	0.99			0.67			0.64
		Back	1.167	1.193	1.170	0.090	**2.36**	**0.03**	**#18**	**2.34**	**0.03**	**#19**	1.26
		Left Side	0.065				0.07			0.07			0.07
		Right Side	0.045	0.147	0.250	<0.001	0.19			0.30			0.05
		Bottom Side	1.244				1.24			1.24			1.24
	Band II	Front	1.097	0.357	0.034	<0.001	1.45			1.13			1.10
		Back	1.347	1.193	1.170	0.090	**2.54**	**0.03**	**#20**	**2.52**	**0.03**	**#21**	1.44
		Left Side	0.334				0.33			0.33			0.33
		Right Side	0.207	0.147	0.250	<0.001	0.35			0.46			0.21
		Bottom Side	1.417				1.42			1.42			1.42
CDMA2000	BC0	Front	0.845	0.357	0.034	<0.001	1.20			0.88			0.85
		Back	1.144	1.193	1.170	0.090	**2.34**	**0.03**	**#22**	**2.31**	**0.03**	**#23**	1.23
		Left Side	1.133				1.13			1.13			1.13
		Right Side	0.929	0.147	0.250	<0.001	1.08			1.18			0.93
		Bottom Side	0.257				0.26			0.26			0.26
	BC10	Front	0.734	0.357	0.034	<0.001	1.09			0.77			0.74
		Back	1.056	1.193	1.170	0.090	**2.25**	**0.03**	**#24**	**2.23**	**0.03**	**#25**	1.15
		Left Side	1.234				1.23			1.23			1.23
		Right Side	1.031	0.147	0.250	<0.001	1.18			1.28			1.03
		Bottom Side	0.262				0.26			0.26			0.26
	BC1	Front	0.980	0.357	0.034	<0.001	1.34			1.01			0.98
		Back	1.372	1.193	1.170	0.090	**2.57**	**0.03**	**#26**	**2.54**	**0.03**	**#27**	1.46
		Left Side	0.485				0.49			0.49			0.49
		Right Side	0.210	0.147	0.250	<0.001	0.36			0.46			0.21
		Bottom Side	1.260				1.26			1.26			1.26

WWAN Band		Exposure Position	1	2	3	4	1+2			1+3			1+4 Summed 1g SAR (W/kg)
			WWAN 1g SAR (W/kg)	2.4GHz WLAN 1g SAR (W/kg)	5GHz WLAN 1g SAR (W/kg)	Bluetooth 1g SAR (W/kg)	Summed 1g SAR (W/kg)	SPLSR	Case No	Summed 1g SAR (W/kg)	SPLSR	Case No	
LTE	Band 71	Front	0.430	0.357	0.034	<0.001	0.79			0.46			0.43
		Back	0.615	1.193	1.170	0.090	**1.81**	**0.02**	**#28**	**1.79**	**0.02**	**#29**	0.71
		Left Side	0.550				0.55			0.55			0.55
		Right Side	0.583	0.147	0.250	<0.001	0.73			0.83			0.58
		Bottom Side	0.116				0.12			0.12			0.12
	Band 12	Front	0.661	0.357	0.034	<0.001	1.02			0.70			0.66
		Back	0.859	1.193	1.170	0.090	**2.05**	**0.02**	**#30**	**2.03**	**0.02**	**#31**	0.95
		Left Side	0.886				0.89			0.89			0.89
		Right Side	0.888	0.147	0.250	<0.001	1.04			1.14			0.89
		Bottom Side	0.180				0.18			0.18			0.18
	Band 26	Front	0.747	0.357	0.034	<0.001	1.10			0.78			0.75
		Back	1.041	1.193	1.170	0.090	**2.23**	**0.03**	**#32**	**2.21**	**0.03**	**#33**	1.13
		Left Side	1.251				1.25			1.25			1.25
		Right Side	0.991	0.147	0.250	<0.001	1.14			1.24			0.99
		Bottom Side	0.348				0.35			0.35			0.35
	Band 66	Front	0.701	0.357	0.034	<0.001	1.06			0.74			0.70
		Back	1.367	1.193	1.170	0.090	**2.56**	**0.03**	**#34**	**2.54**	**0.03**	**#35**	1.46
		Left Side	0.090				0.09			0.09			0.09
		Right Side	0.076	0.147	0.250	<0.001	0.22			0.33			0.08
		Bottom Side	1.245				1.25			1.25			1.25
	Band 25	Front	1.074	0.357	0.034	<0.001	1.43			1.11			1.08
		Back	1.423	1.193	1.170	0.090	**2.62**	**0.03**	**#36**	**2.59**	**0.03**	**#37**	**1.51**
		Left Side	0.550				0.55			0.55			0.55
		Right Side	0.234	0.147	0.250	<0.001	0.38			0.48			0.24
		Bottom Side	1.366				1.37			1.37			1.37
	Band 41	Front	0.715	0.357	0.034	<0.001	1.07			0.75			0.72
		Back	1.381	1.193	1.170	0.090	**2.57**	**0.03**	**#38**	**2.55**	**0.03**	**#39**	1.47
		Left Side	0.088				0.09			0.09			0.09
		Right Side	0.194	0.147	0.250	<0.001	0.34			0.44			0.20
		Bottom Side	1.057				1.06			1.06			1.06

16.3 Body-Worn Accessory Exposure Conditions

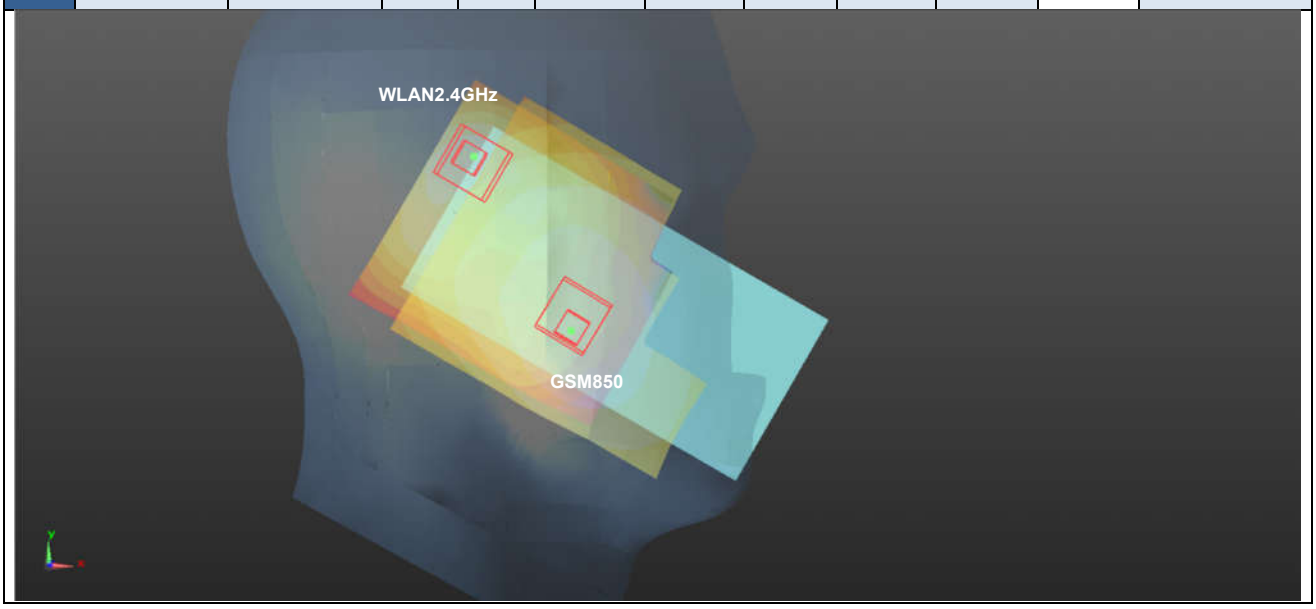
WWAN Band		Exposure Position	1	2	3	4	1+2			1+3			1+4 Summed 1g SAR (W/kg)
			WWAN 1g SAR (W/kg)	2.4GHz WLAN 1g SAR (W/kg)	5GHz WLAN 1g SAR (W/kg)	Bluetooth 1g SAR (W/kg)	Summed 1g SAR (W/kg)	SPLSR	Case No	Summed 1g SAR (W/kg)	SPLSR	Case No	
GSM	GSM850	Front	0.999	0.357	0.034	<0.001	1.36			1.03			1.00
		Back	1.032	1.193	1.170	0.090	**2.23**	**0.03**	**#12**	**2.20**	**0.03**	**#13**	1.12
	GSM1900	Front	1.090	0.357	0.034	<0.001	1.45			1.12			1.09
		Back	1.350	1.193	1.170	0.090	**2.54**	**0.03**	**#14**	**2.52**	**0.03**	**#15**	1.44
		Back with Headset	1.152				1.15			1.15			1.15
WCDMA	Band V	Front	0.973	0.357	0.034	<0.001	1.33			1.01			0.97
		Back	1.262	1.193	1.170	0.090	**2.46**	**0.03**	**#16**	**2.43**	**0.03**	**#17**	1.35
		Back with Headset	1.247				1.25			1.25			1.25
	Band IV	Front	0.636	0.357	0.034	<0.001	0.99			0.67			0.64
		Back	1.167	1.193	1.170	0.090	**2.36**	**0.03**	**#18**	**2.34**	**0.03**	**#19**	1.26
	Band II	Front	1.097	0.357	0.034	<0.001	1.45			1.13			1.10
		Back	1.347	1.193	1.170	0.090	**2.54**	**0.03**	**#20**	**2.52**	**0.03**	**#21**	1.44
		Back with Headset	1.412				1.41			1.41			1.41
CDMA2000	BC0	Front	0.780	0.357	0.034	<0.001	1.14			0.81			0.78
		Back	1.243	1.193	1.170	0.090	**2.44**	**0.03**	**#40**	**2.41**	**0.03**	**#41**	1.33
		Back with Headset	1.321				1.32			1.32			1.32
	BC10	Front	0.712	0.357	0.034	<0.001	1.07			0.75			0.71
		Back	1.167	1.193	1.170	0.090	**2.36**	**0.03**	**#42**	**2.34**	**0.03**	**#43**	1.26
	BC1	Front	0.989	0.357	0.034	<0.001	1.35			1.02			0.99
		Back	1.419	1.193	1.170	0.090	**2.61**	**0.03**	**#44**	**2.59**	**0.03**	**#45**	1.51
		Back with Headset	1.419				1.42			1.42			1.42
LTE	Band 71	Front	0.430	0.357	0.034	<0.001	0.79			0.46			0.43
		Back	0.615	1.193	1.170	0.090	**1.81**	**0.02**	**#28**	**1.79**	**0.02**	**#29**	0.71
	Band 12	Front	0.661	0.357	0.034	<0.001	1.02			0.70			0.66
		Back	0.859	1.193	1.170	0.090	**2.05**	**0.02**	**#30**	**2.03**	**0.02**	**#31**	0.95
	Band 26	Front	0.747	0.357	0.034	<0.001	1.10			0.78			0.75
		Back	1.041	1.193	1.170	0.090	**2.23**	**0.03**	**#32**	**2.21**	**0.03**	**#33**	1.13
	Band 66	Front	0.701	0.357	0.034	<0.001	1.06			0.74			0.70
		Back	1.367	1.193	1.170	0.090	**2.56**	**0.03**	**#34**	**2.54**	**0.03**	**#35**	1.46
		Back with Headset	1.439				1.44			**1.44**			1.44
	Band 25	Front	1.074	0.357	0.034	<0.001	1.43			1.11			1.08
		Back	1.423	1.193	1.170	0.090	**2.62**	**0.03**	**#36**	**2.59**	**0.03**	**#37**	1.51
		Back with Headset	1.397				1.40			1.40			1.40
	Band 41	Front	0.715	0.357	0.034	<0.001	1.07			0.75			0.72
		Back	1.381	1.193	1.170	0.090	**2.57**	**0.03**	**#38**	**2.55**	**0.03**	**#39**	1.47
		Back with Headset	1.249				1.25			1.25			1.25

16.4 SPLSR Evaluation and Analysis

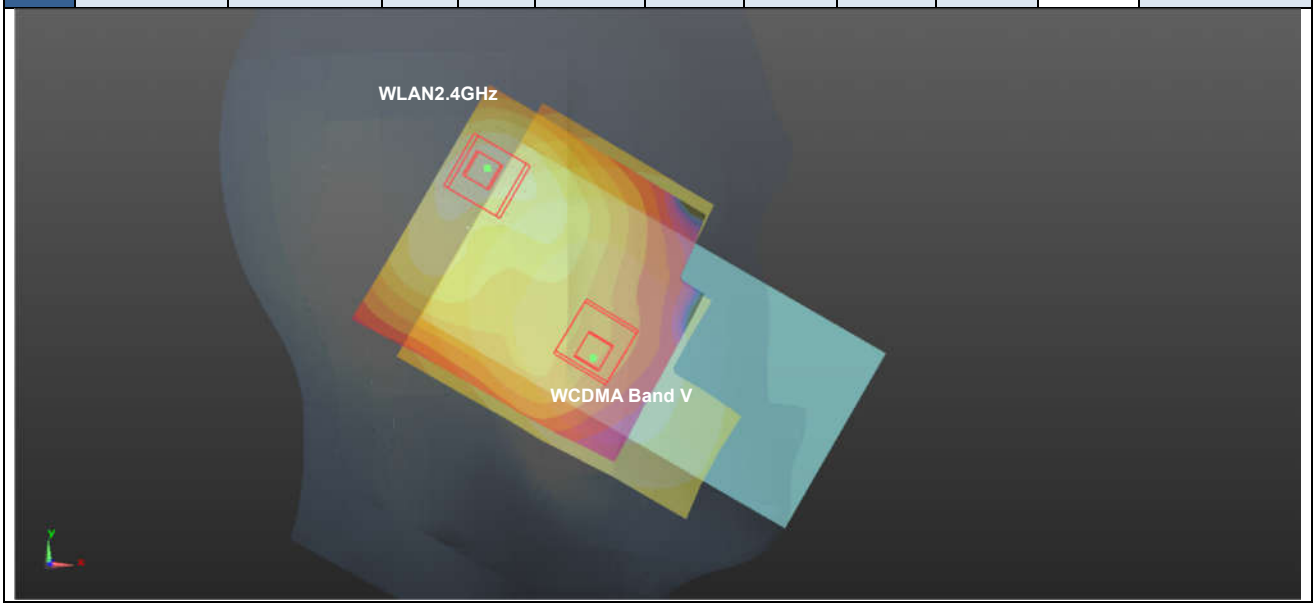
General Note:

1. When standalone SAR is measured for both antennas in the pair, the peak location separation distance is computed by the square root of [(x1−x2)2 + (y1−y2)2 + (z1−z2)2], where (x1, y1, z1) and (x2, y2, z2) are the coordinates in the area scans or extrapolated peak SAR locations in the zoom scans, as appropriate.
2. SPLSR = (SAR1 + SAR2)1.5 / (min. separation distance, mm). If SPLSR ≤ 0.04, simultaneously transmission SAR measurement is not necessary.

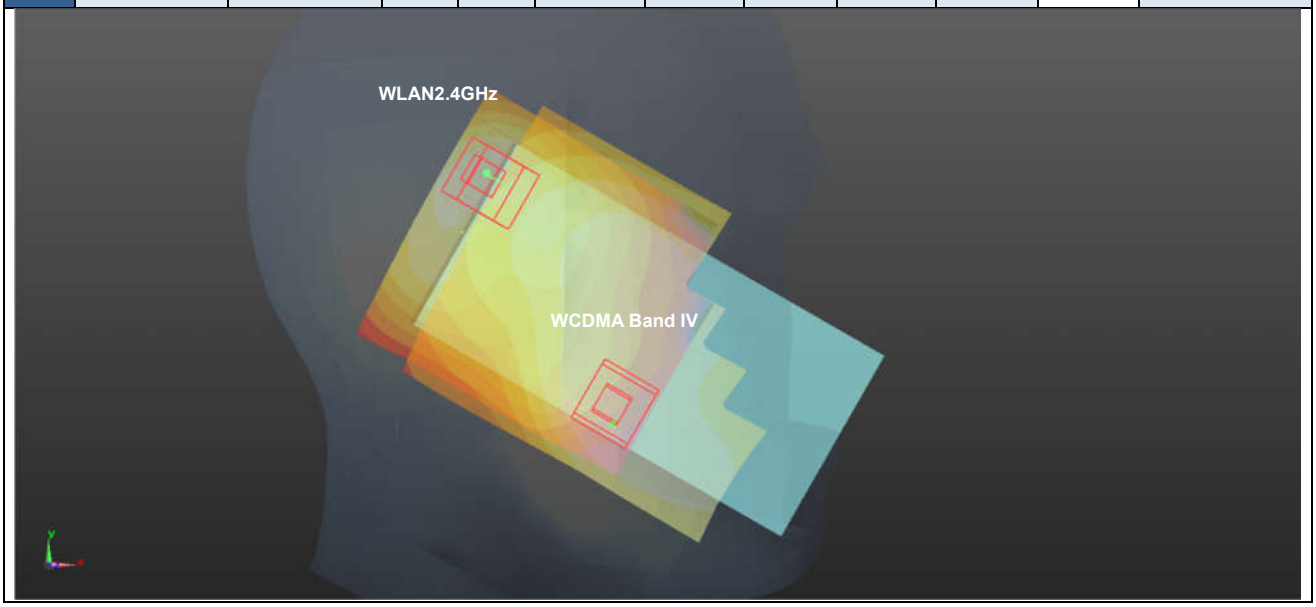
Case #1	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	GSM850	Left Cheek	0.753	0	44.19	-46.37	-2.76	80.1	1.94	0.03	Not required
	WLAN2.4GHz		1.183	0	0.82	20.94	-1.58				



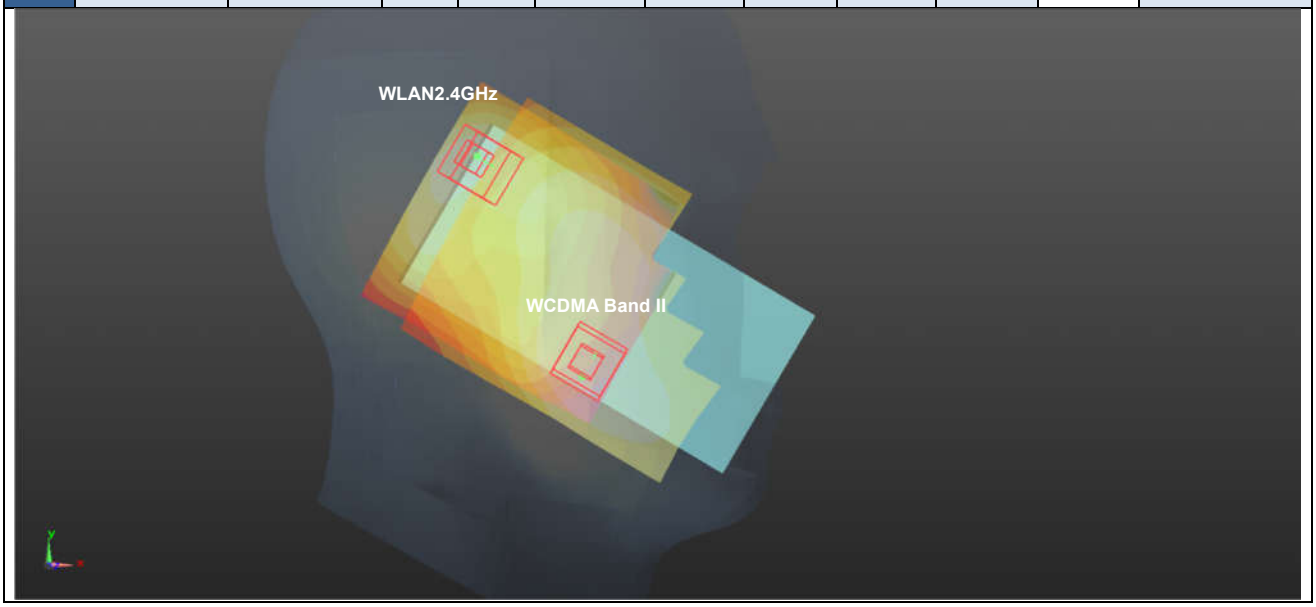
Case #2	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA Band V	Left Cheek	0.699	0	44.19	-46.37	-2.75	80.1	1.88	0.03	Not required
	WLAN2.4GHz		1.183	0	0.82	20.94	-1.58				



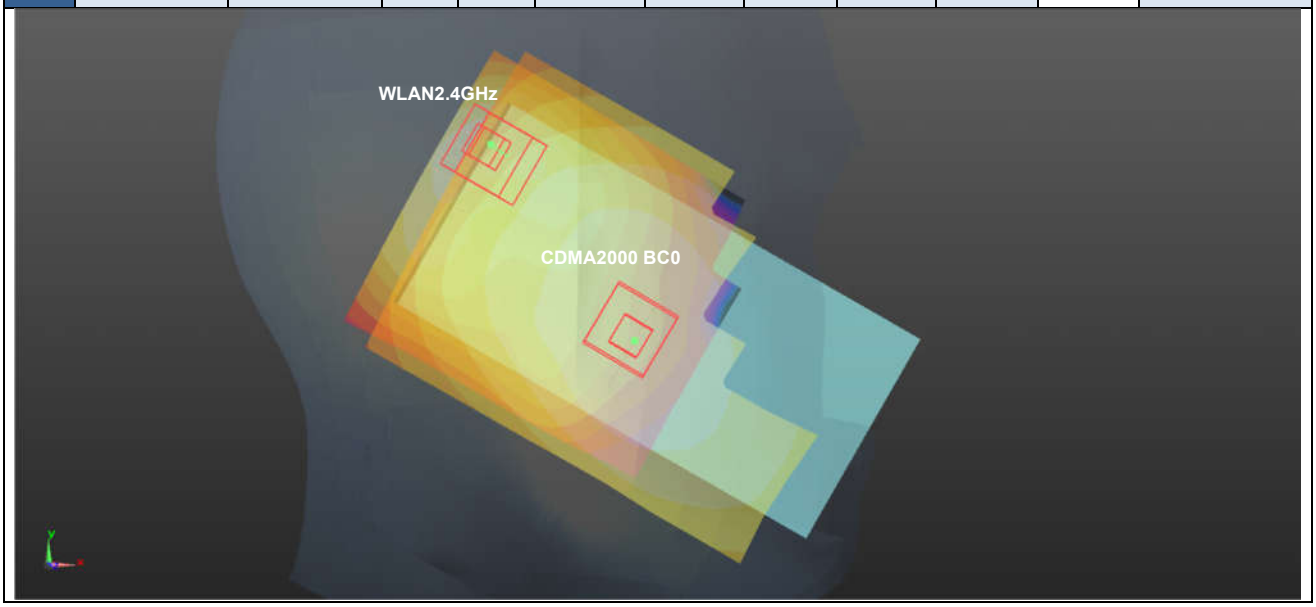
Case #3	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA Band IV	Left Cheek	0.439	0	51.46	-64.39	-0.84	99.2	1.62	0.02	Not required
	WLAN2.4GHz		1.183	0	0.82	20.94	-1.58				



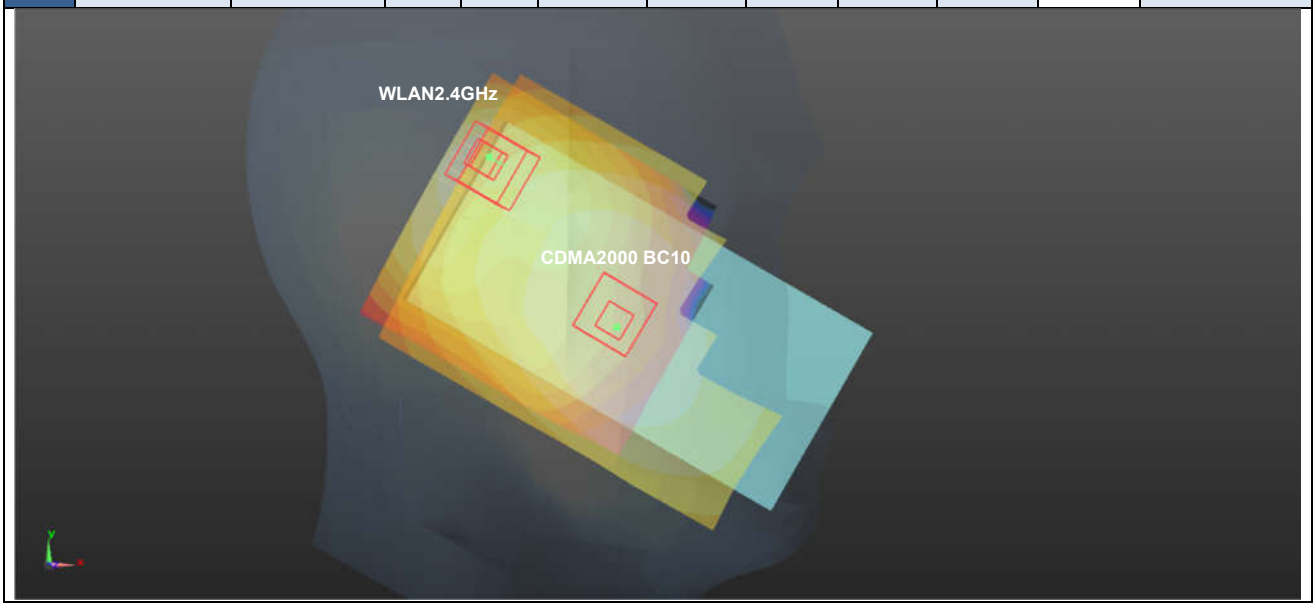
Case #4	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA Band II	Left Cheek	0.855	0	52.34	-63.03	-1.05	98.5	2.04	0.03	Not required
	WLAN2.4GHz		1.183	0	0.82	20.94	-1.58				



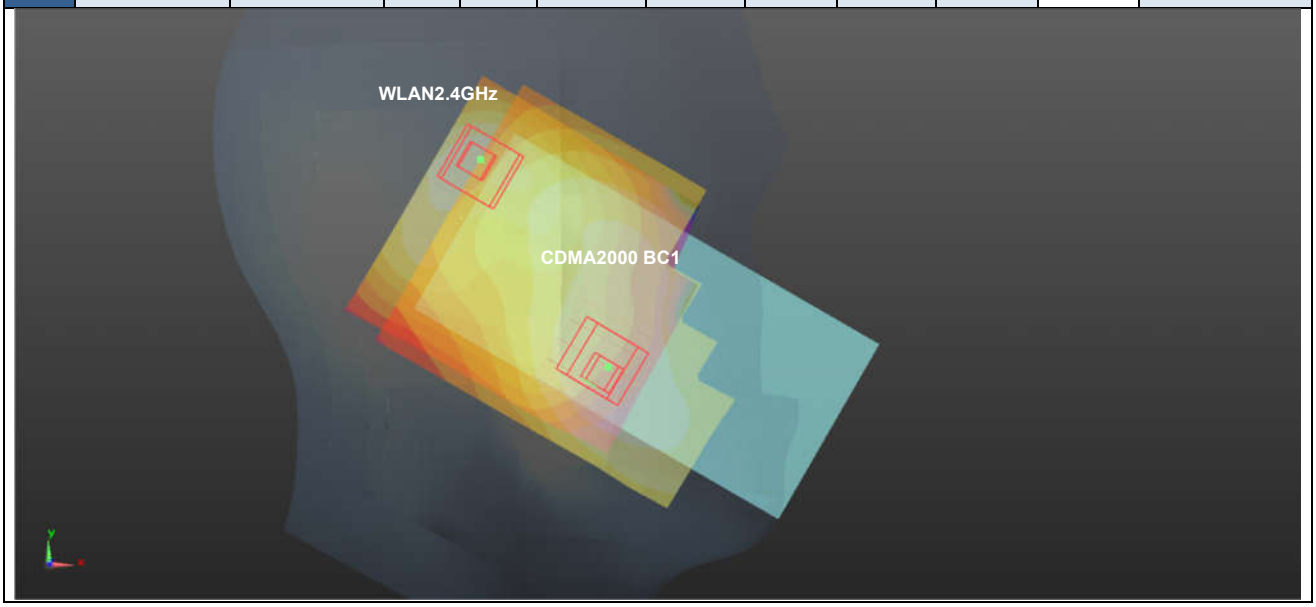
Case #5	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	CDMA2000 BC0	Left Cheek	0.484	0	51.02	-45.36	-3.89	83.2	1.67	0.03	Not required
	WLAN2.4GHz		1.183	0	0.82	20.94	-1.58				



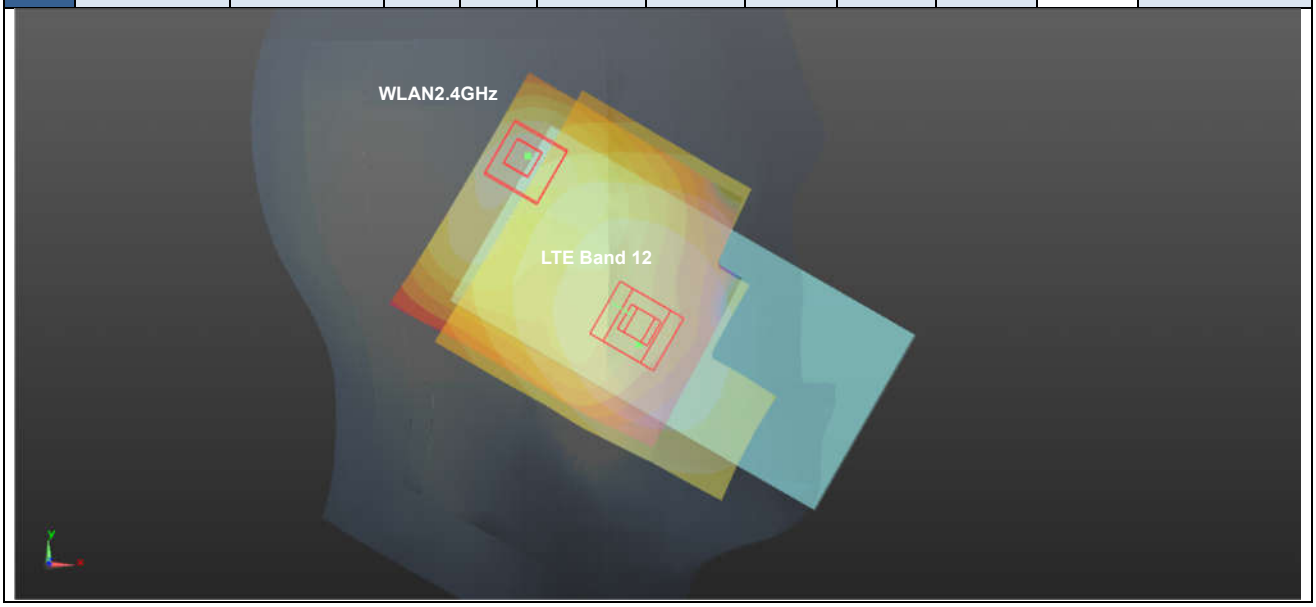
Case #6	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	CDMA2000 BC10	Left Cheek	0.668	0	52.06	-40.51	-4.12	80.1	1.85	0.03	Not required
	WLAN2.4GHz		1.183	0	0.82	20.94	-1.58				



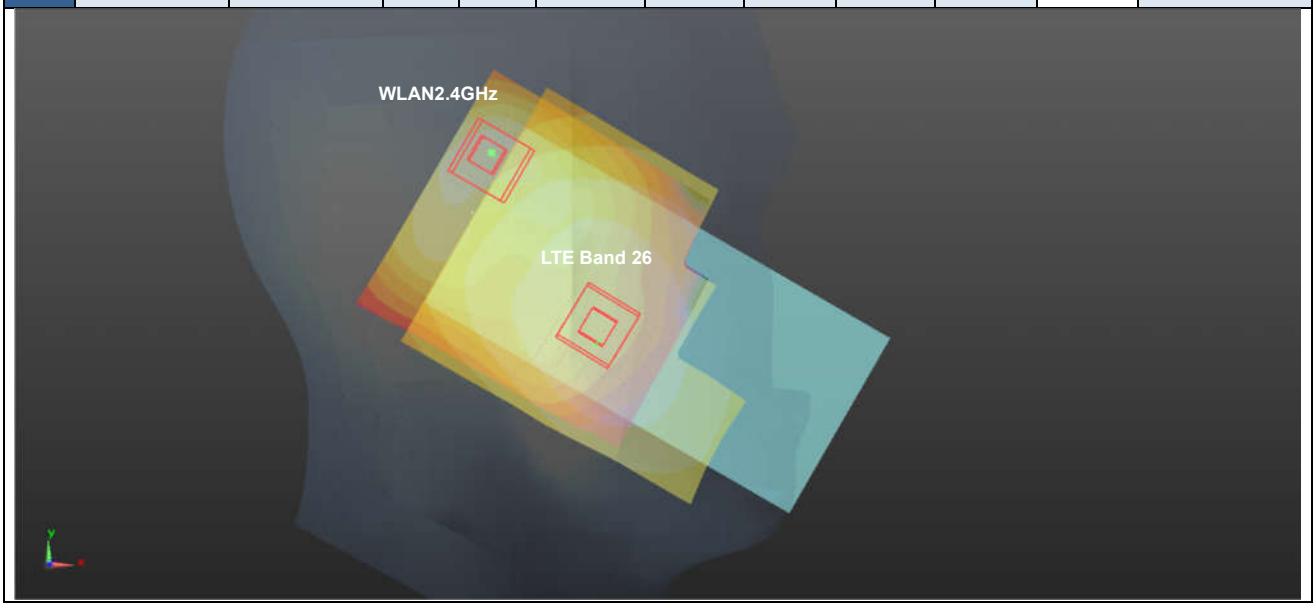
Case #7	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	CDMA2000 BC1	Left Cheek	0.67	0	50.61	-59.26	-2.47	94.4	1.85	0.03	Not required
	WLAN2.4GHz		1.183	0	0.82	20.94	-1.58				



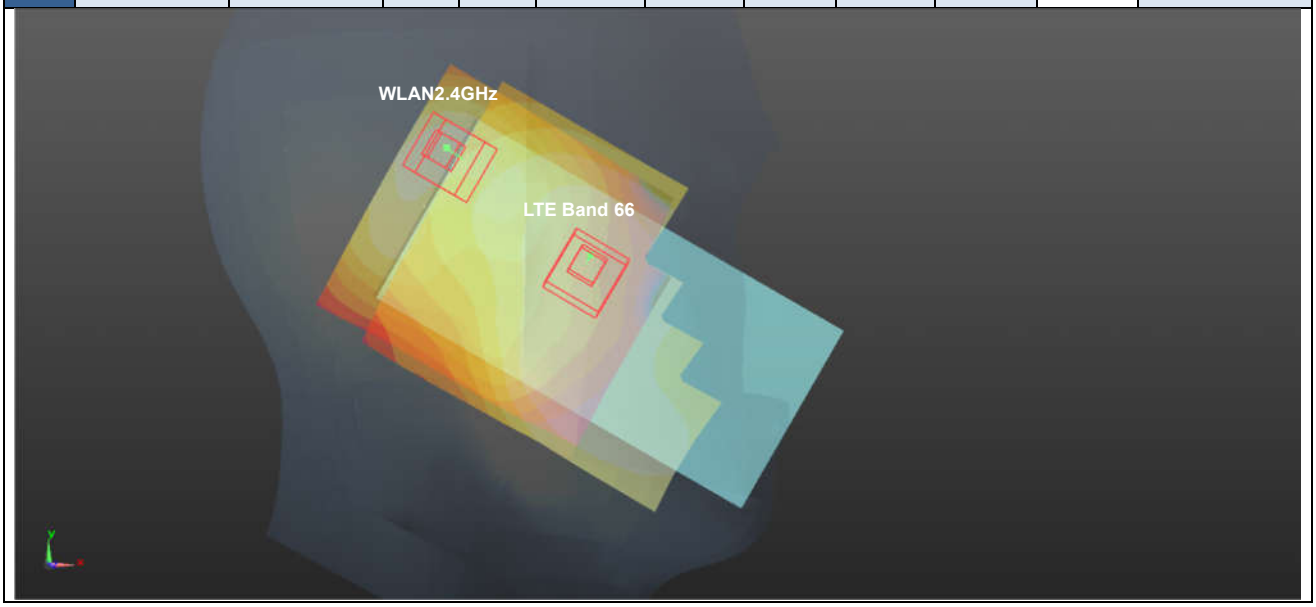
Case #8	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 12	Left Cheek	0.562	0	45.18	-50.74	-1.94	84.3	1.75	0.03	Not required
	WLAN2.4GHz		1.183	0	0.82	20.94	-1.58				



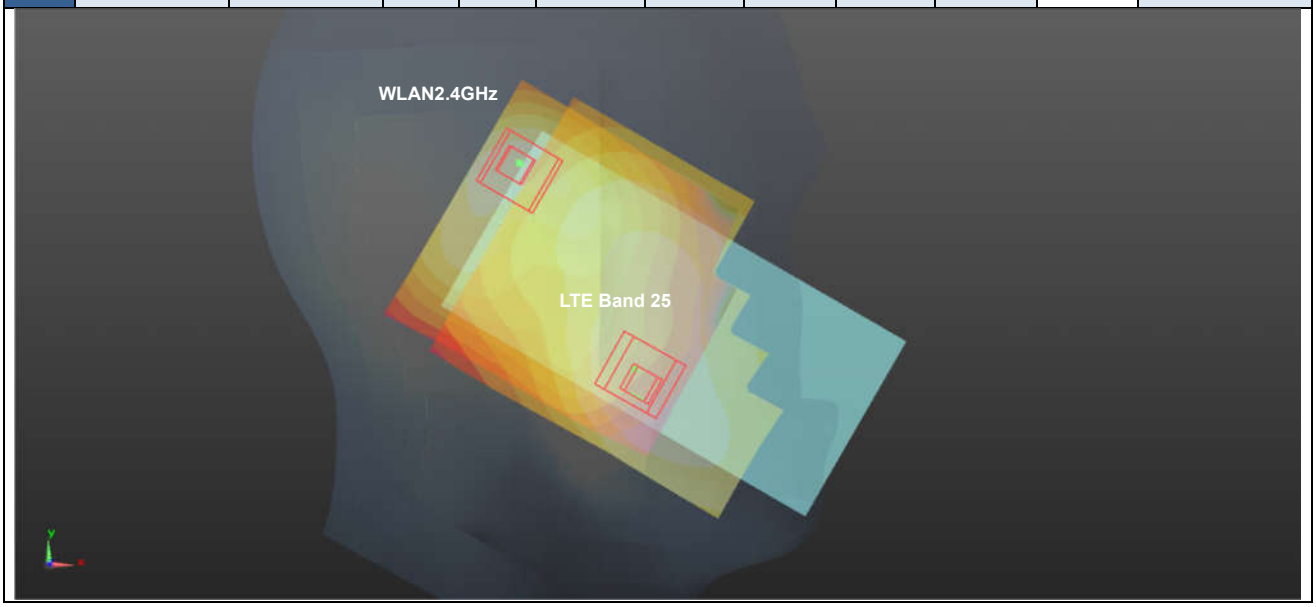
Case #9	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 26	Left Cheek	0.666	0	44.19	-46.37	-2.78	80.1	1.85	0.03	Not required
	WLAN2.4GHz		1.183	0	0.82	20.94	-1.58				



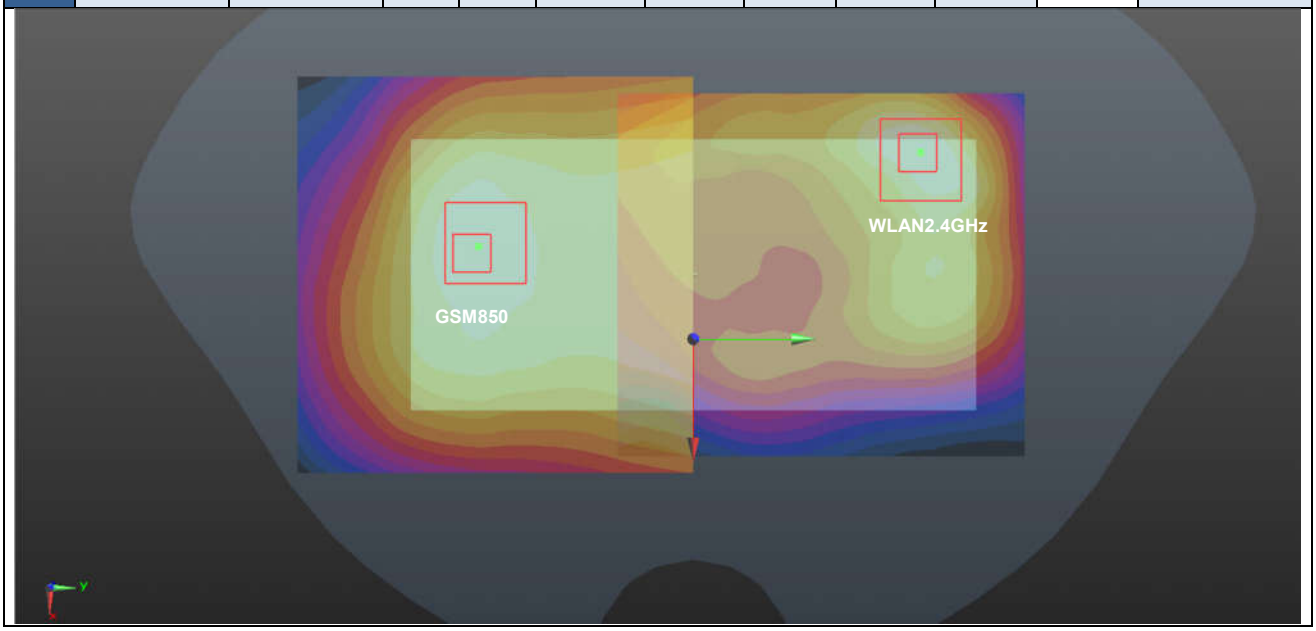
Case #10	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 66	Left Cheek	0.53	0	57.63	-17.61	-2.56	68.7	1.71	0.03	Not required
	WLAN2.4GHz		1.183	0	0.82	20.94	-1.58				



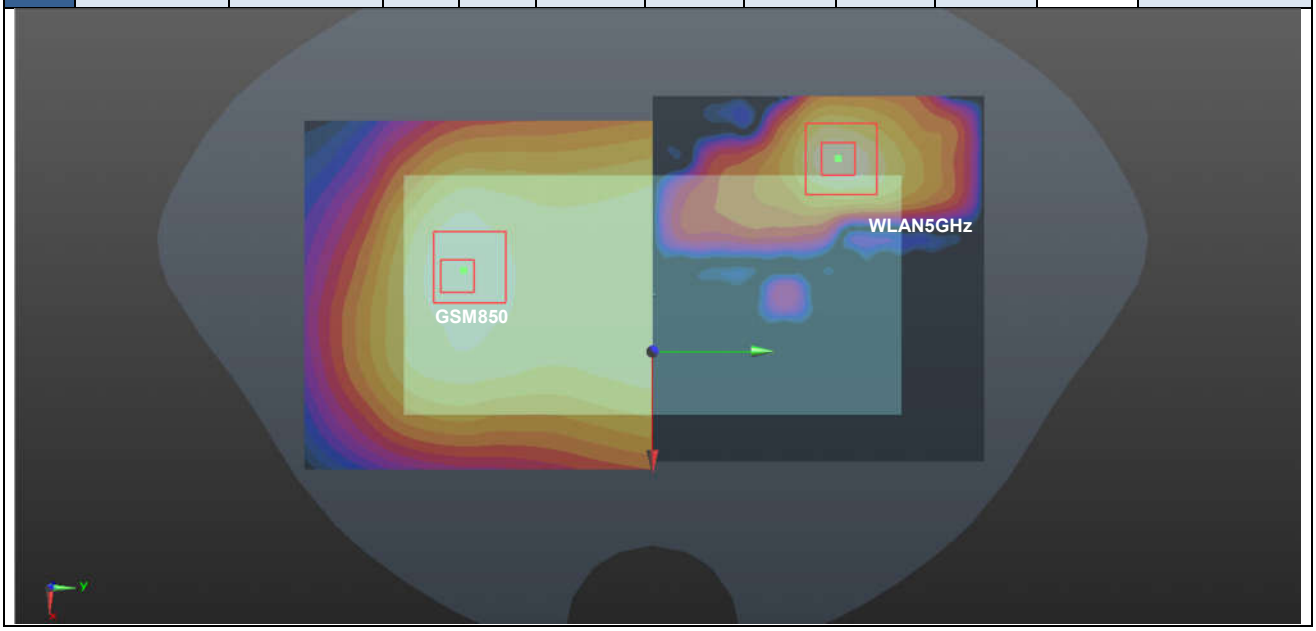
Case #11	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 25	Left Cheek	0.73	0	51.22	-59.43	-1.63	94.9	1.91	0.03	Not required
	WLAN2.4GHz		1.183	0	0.82	20.94	-1.58				



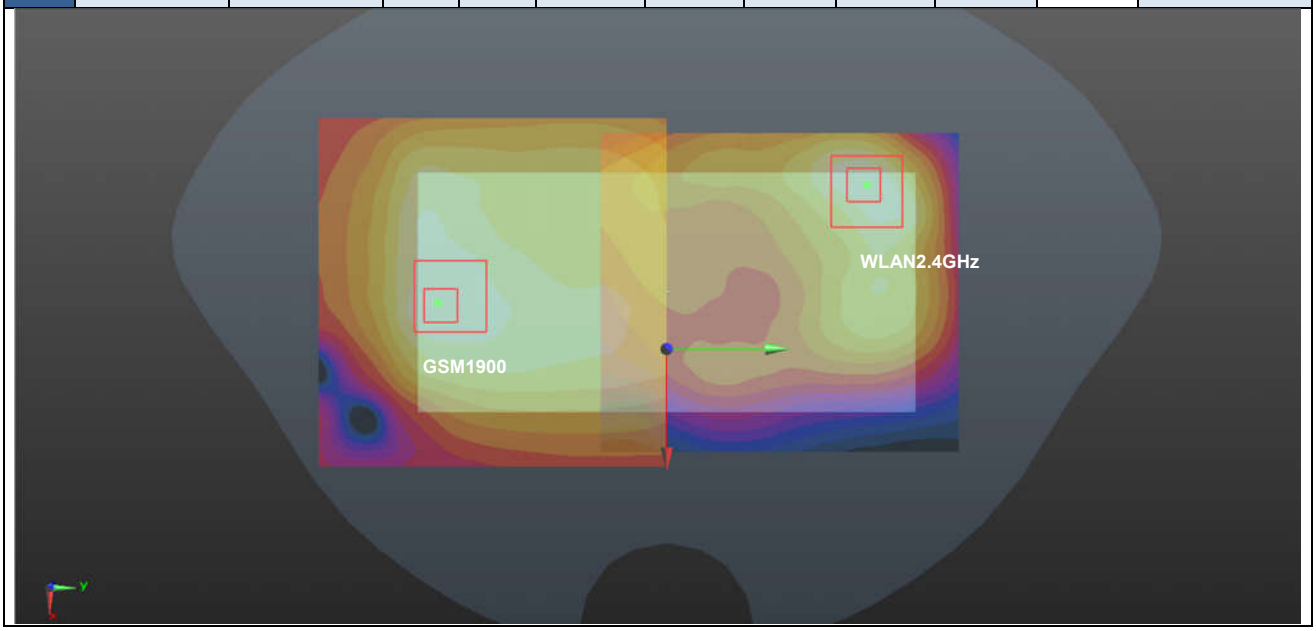
Case #12	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	GSM850	Back	1.032	5	-1.1	-61.8	-3.46	126.1	2.23	0.03	Not required
	WLAN2.4GHz		1.193	5	-32.4	60.4	-2.42				



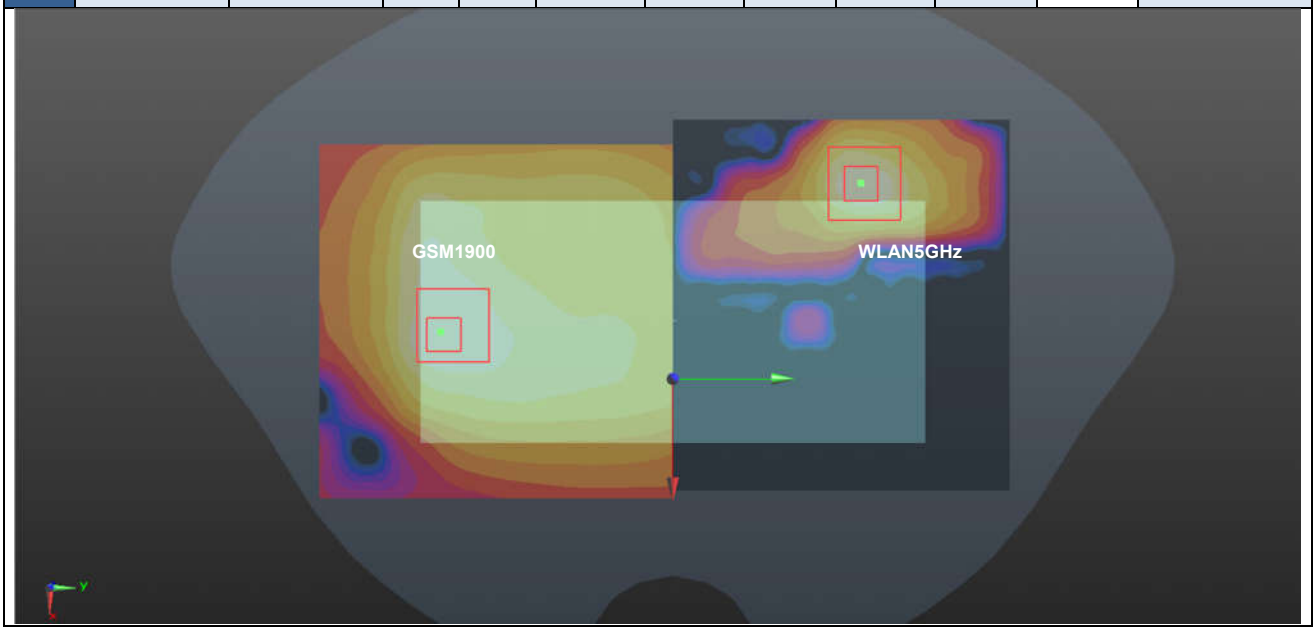
Case #13	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	GSM850	Back	1.032	5	-1.1	-61.8	-3.46	125.2	2.20	0.03	Not required
	WLAN5GHz		1.17	5	-41	56.8	-1.12				



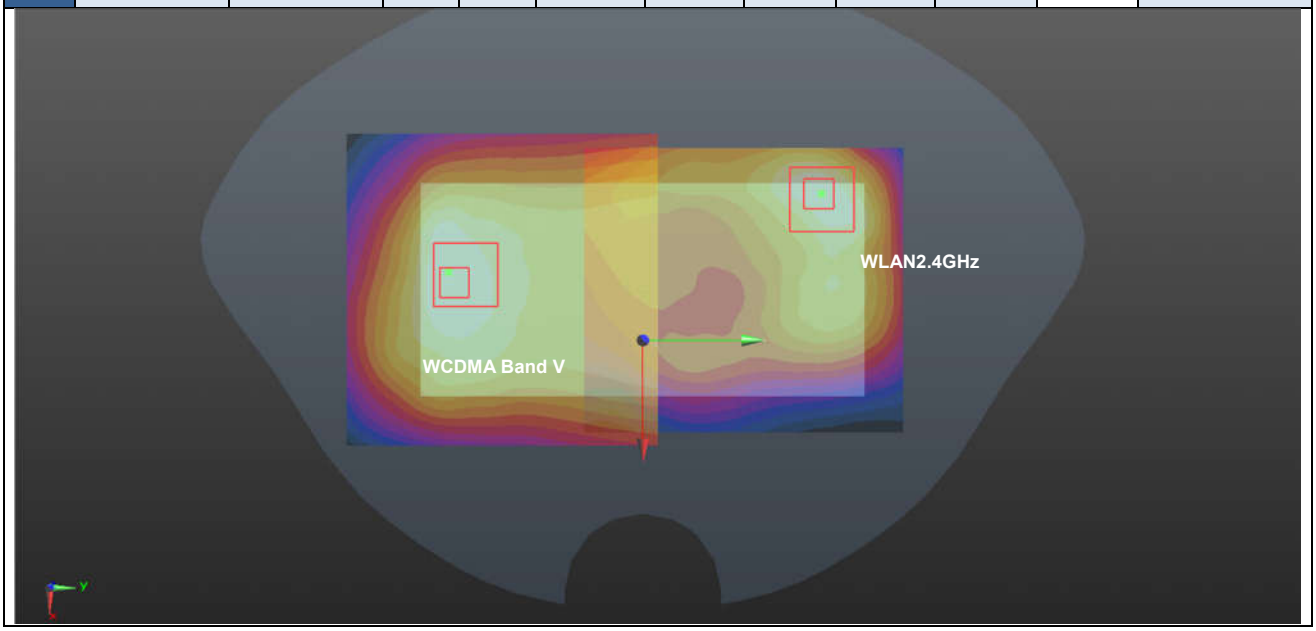
Case #14	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	GSM1900	Back	1.35	5	-1.1	-61.8	-3.46	126.1	2.54	0.03	Not required
	WLAN2.4GHz		1.193	5	-32.4	60.4	-2.42				



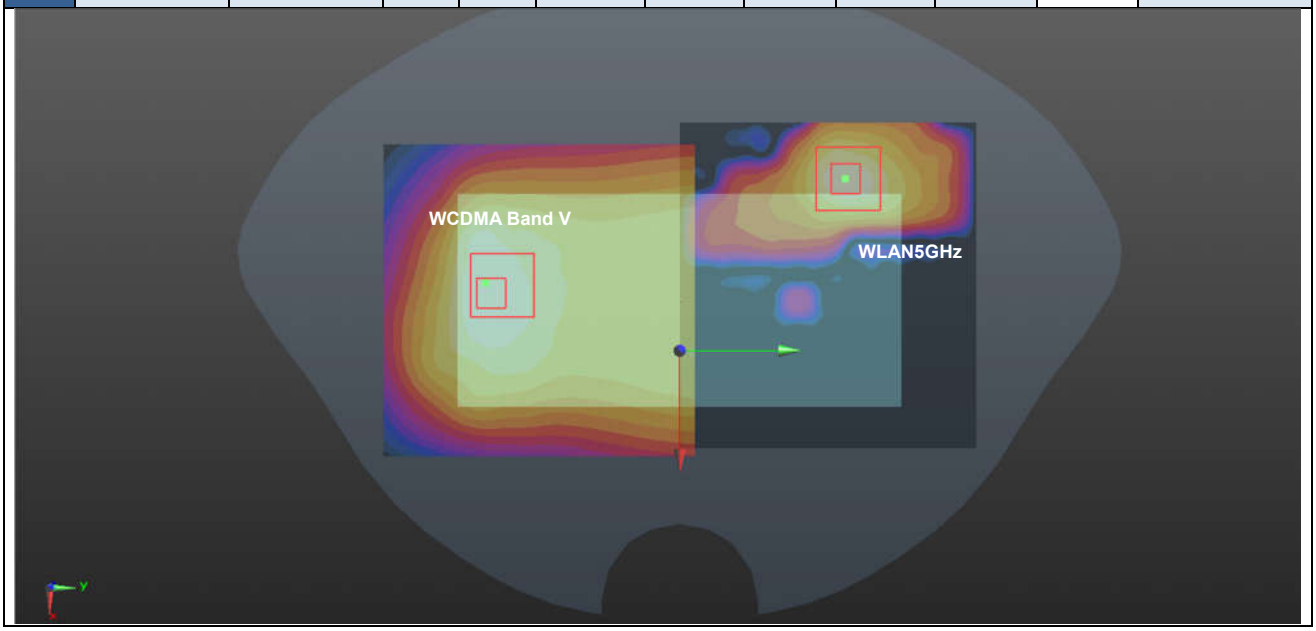
Case #15	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	GSM1900	Back	1.35	5	4.6	-67.4	-0.92	132.3	2.52	0.03	Not required
	WLAN5GHz		1.17	5	-41	56.8	-1.12				



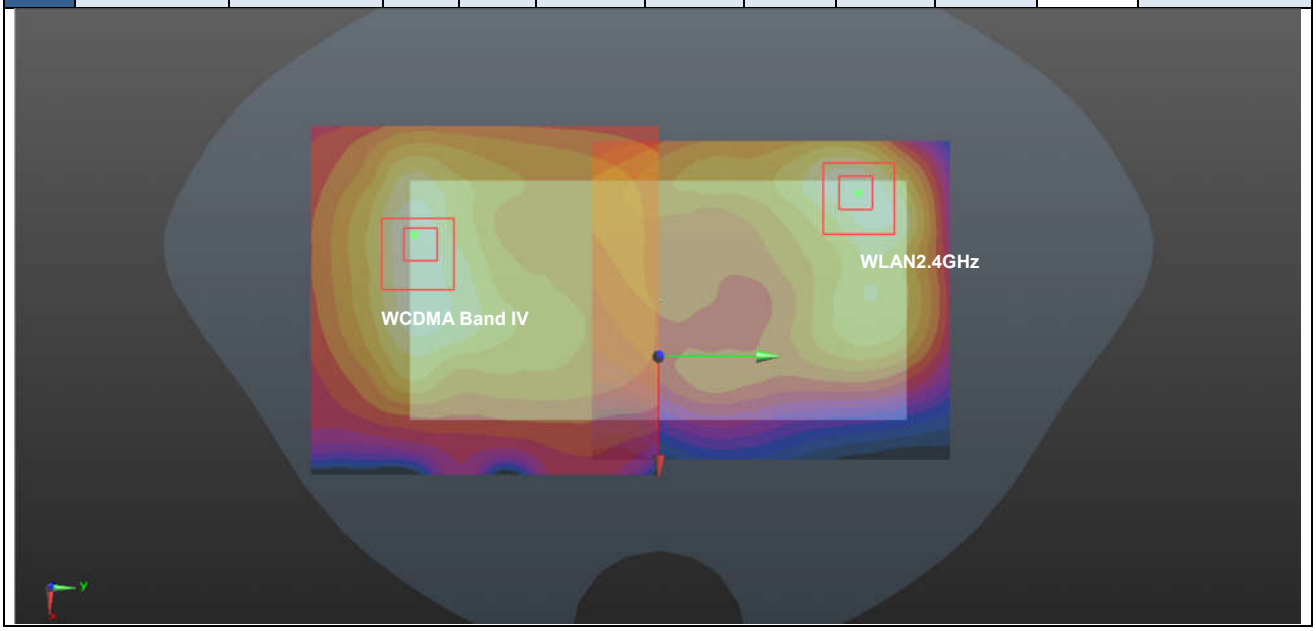
Case #16	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA Band V	Back	1.262	5	2	-65.5	-2.31	130.5	2.46	0.03	Not required
	WLAN2.4GHz		1.193	5	-32.4	60.4	-2.42				



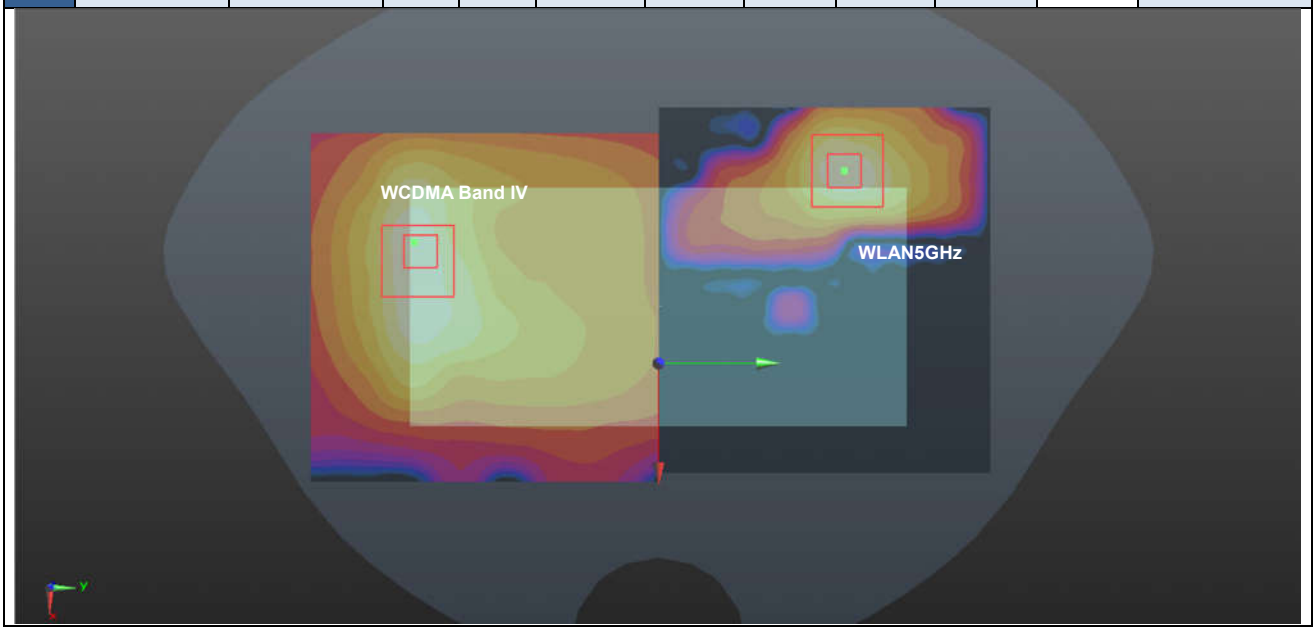
Case #17	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA Band V	Back	1.262	5	2	-65.5	-2.31	129.6	2.43	0.03	Not required
	WLAN5GHz		1.17	5	-41	56.8	-1.12				



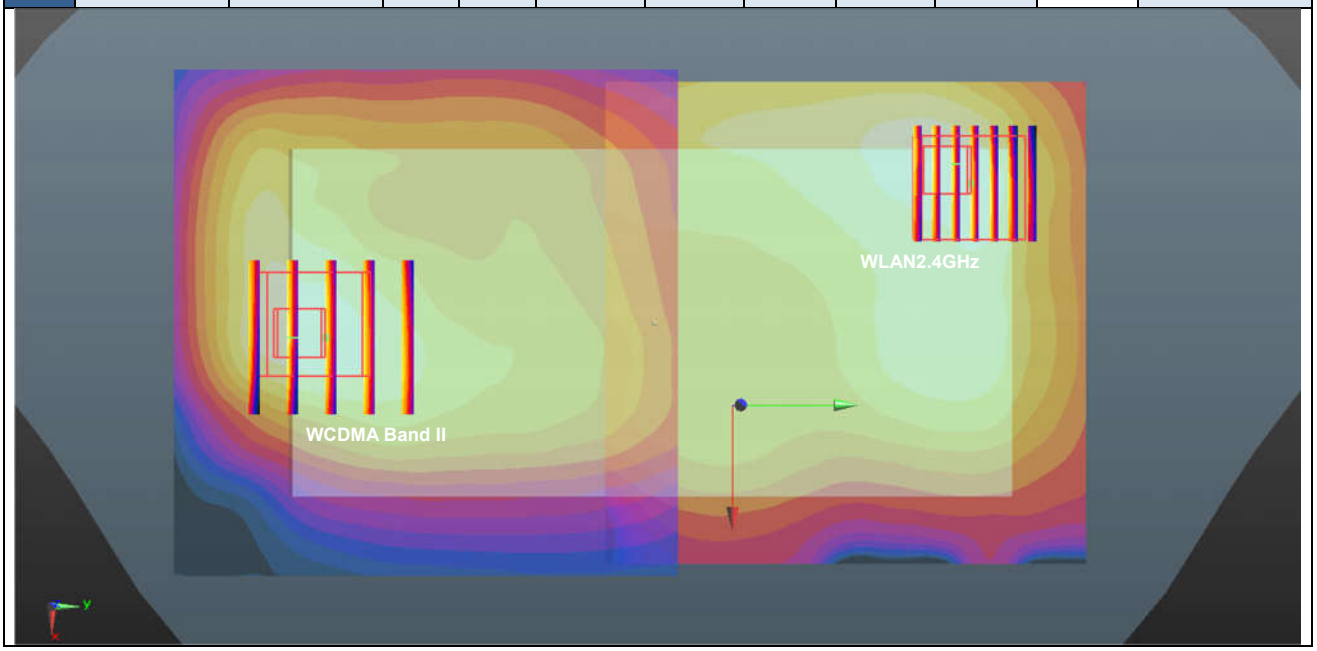
Case #18	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA Band IV	Back	1.167	5	-17.9	-70.3	-1.04	131.5	2.36	0.03	Not required
	WLAN2.4GHz		1.193	5	-32.4	60.4	-2.42				



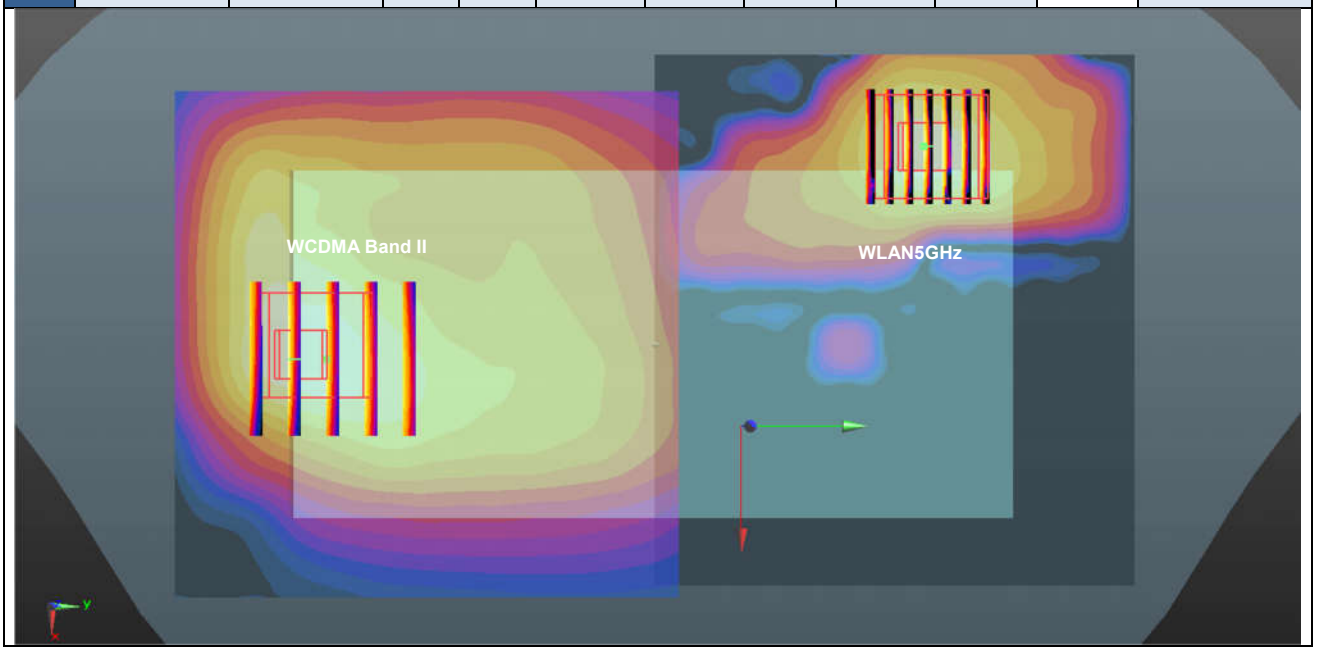
Case #19	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA Band IV	Back	1.167	5	-17.9	-70.3	-1.04	129.2	2.34	0.03	Not required
	WLAN5GHz		1.17	5	-41	56.8	-1.12				



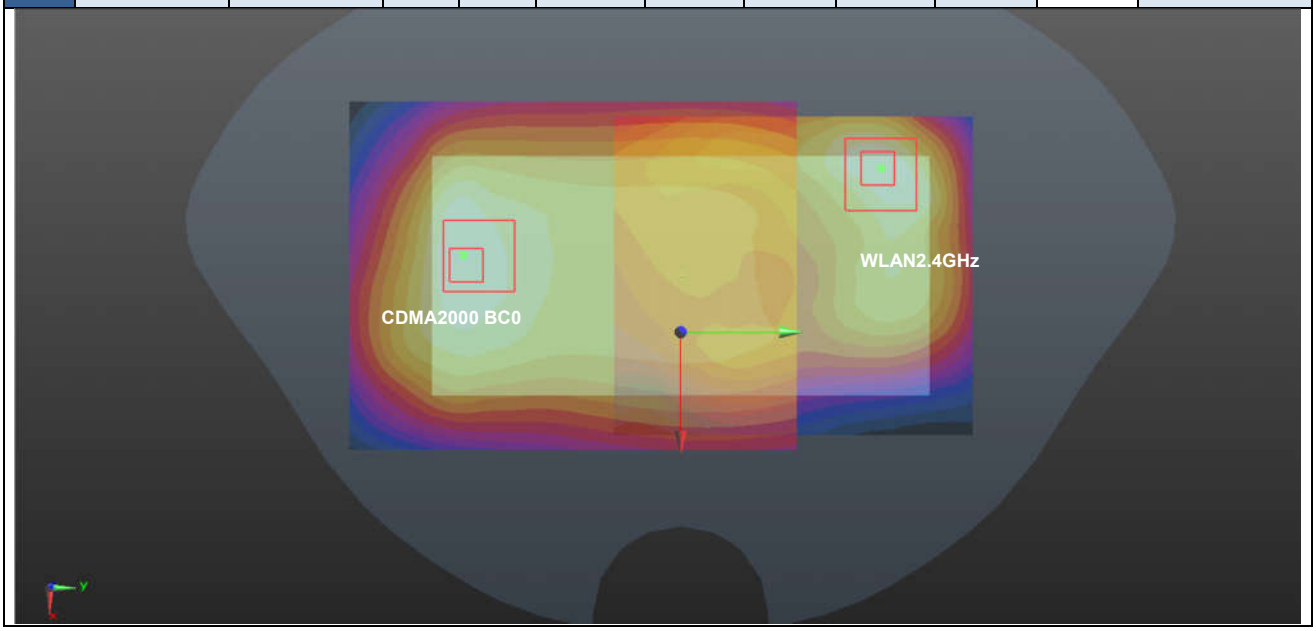
Case #20	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA Band II	Back	1.347	5	3	-74.9	-0.95	139.9	2.54	0.03	Not required
	WLAN2.4GHz		1.193	5	-32.4	60.4	-2.42				



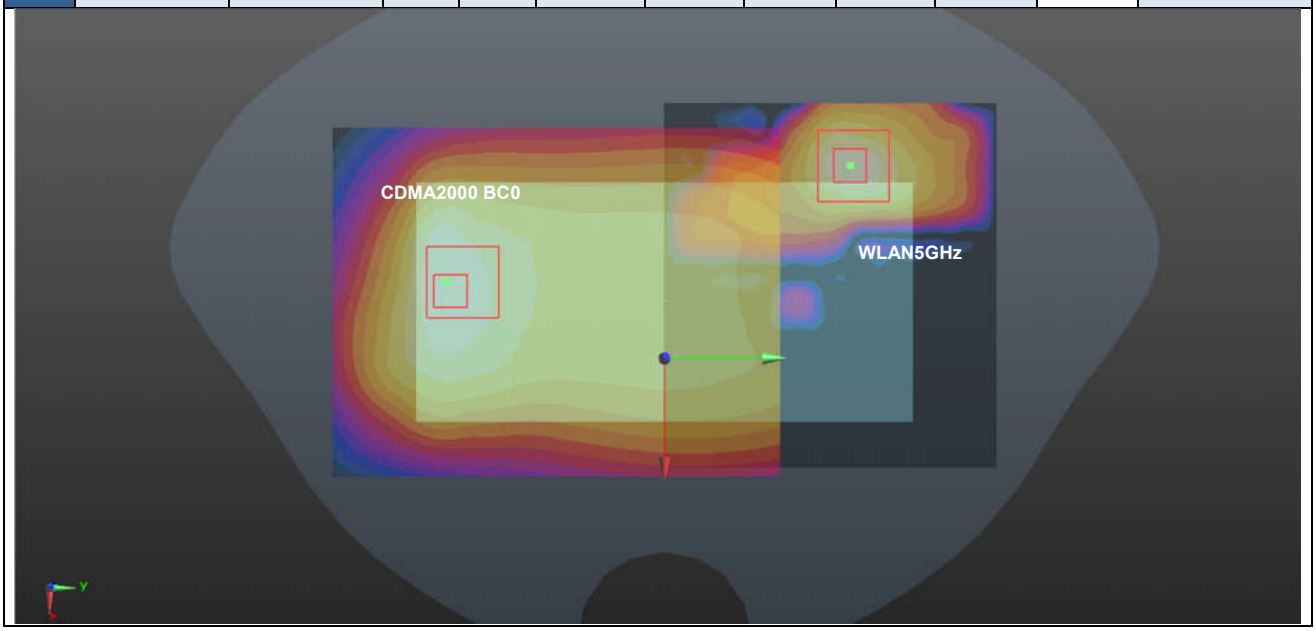
Case #21	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA Band II	Back	1.347	5	3	-74.9	-0.95	138.9	2.52	0.03	Not required
	WLAN5GHz		1.17	5	-41	56.8	-1.12				



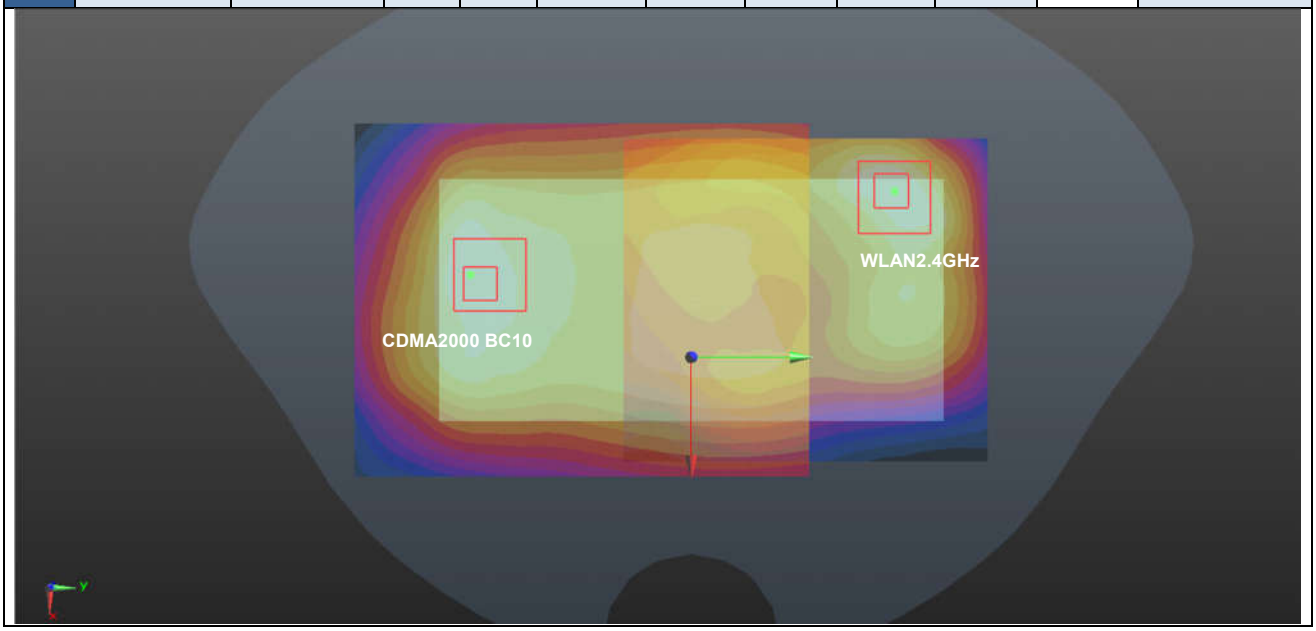
Case #22	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	CDMA2000 BC0	Back	1.144	5	0.4	-67.1	-2.36	131.7	2.34	0.03	Not required
	WLAN2.4GHz		1.193	5	-32.4	60.4	-2.42				



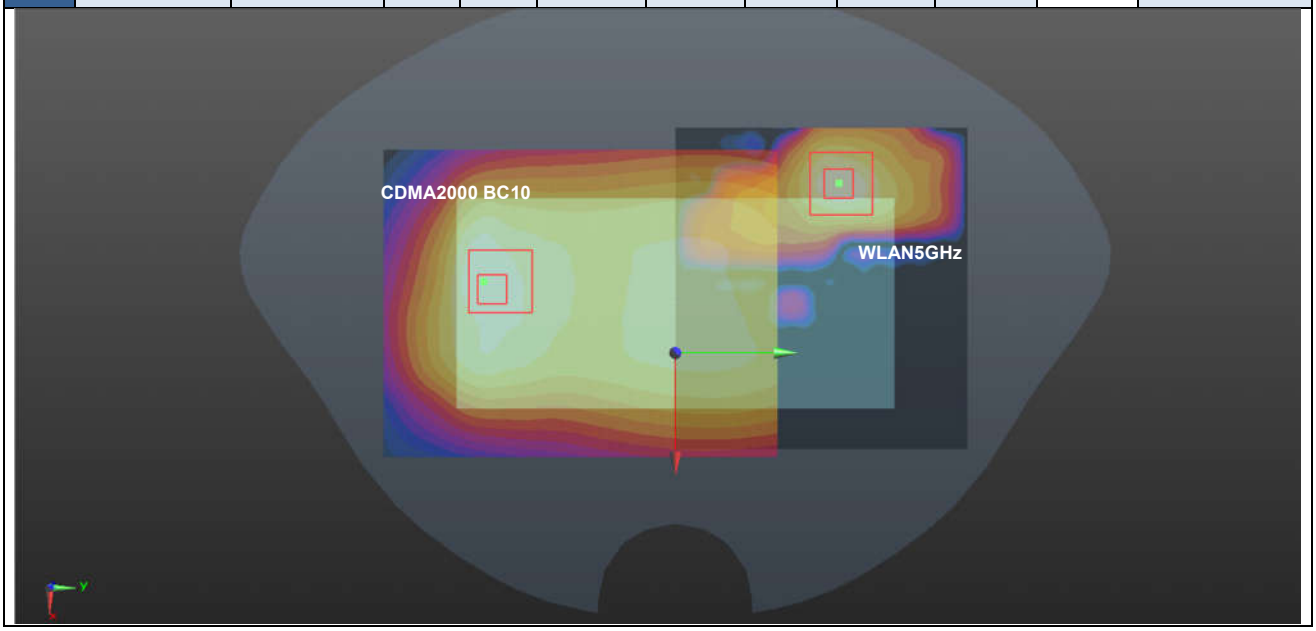
Case #23	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	CDMA2000 BC0	Back	1.144	5	0.4	-67.1	-2.36	130.6	2.31	0.03	Not required
	WLAN5GHz		1.17	5	-41	56.8	-1.12				



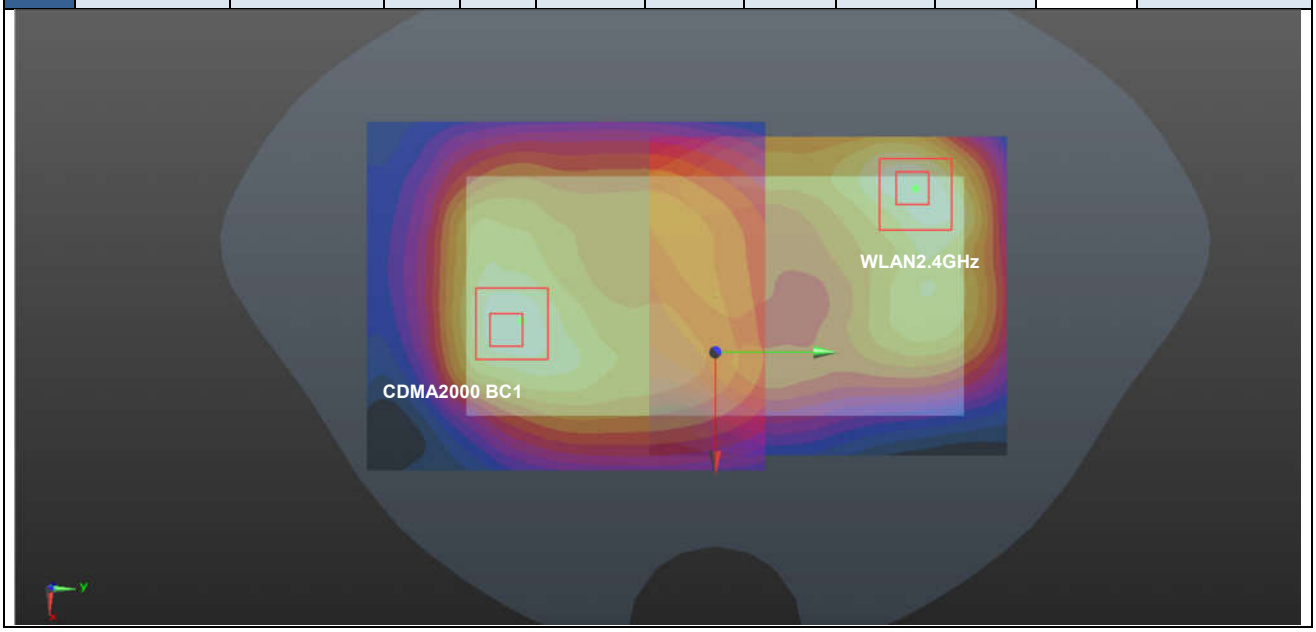
Case #24	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	CDMA2000 BC10	Back	1.056	5	-1.1	-65.5	-2.35	129.7	2.25	0.03	Not required
	WLAN2.4GHz		1.193	5	-32.4	60.4	-2.42				



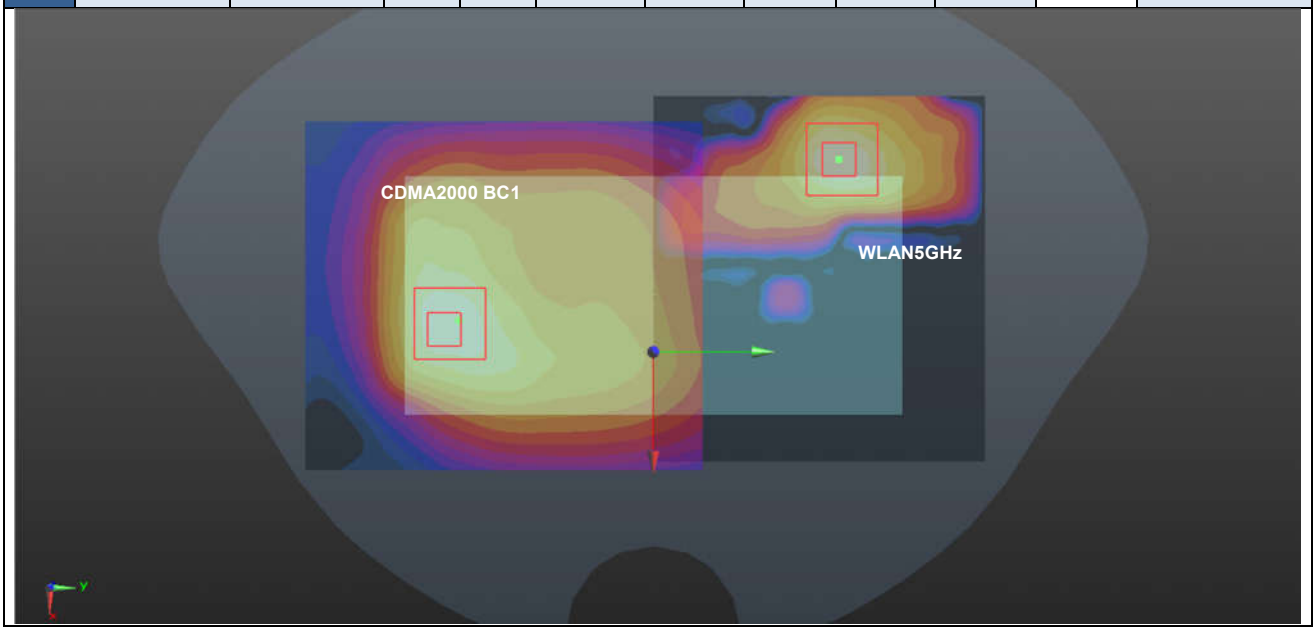
Case #25	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	CDMA2000 BC10	Back	1.056	5	-1.1	-65.5	-2.35	128.6	2.23	0.03	Not required
	WLAN5GHz		1.17	5	-41	56.8	-1.12				



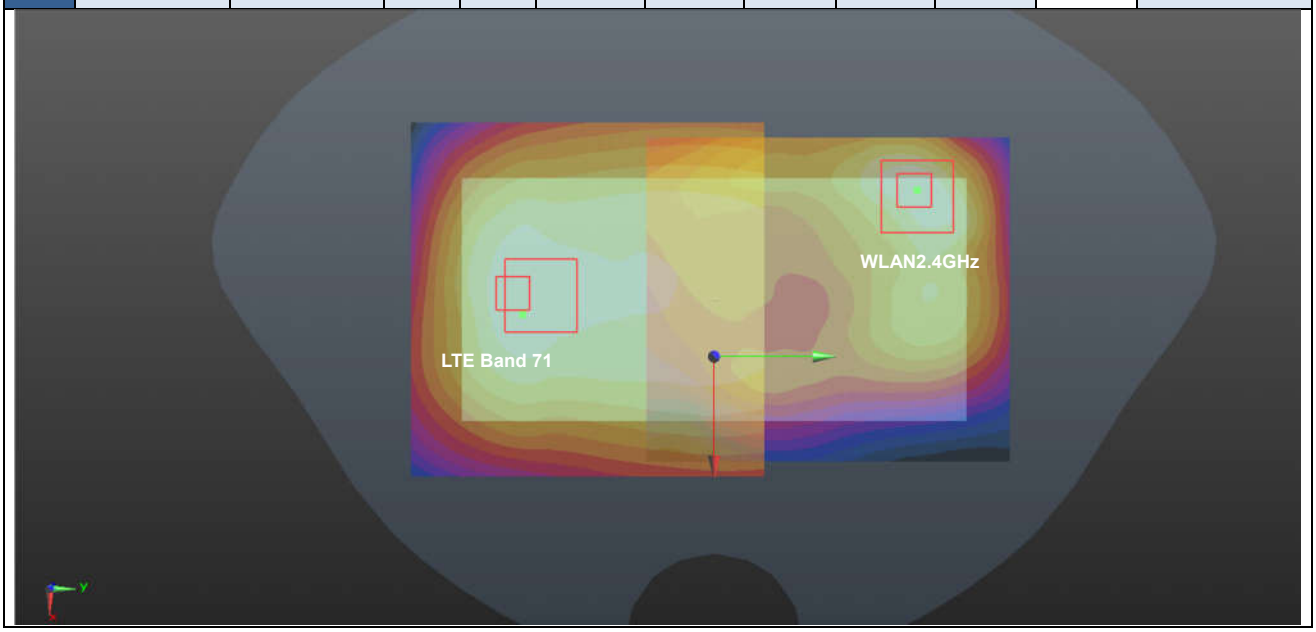
Case #26	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	CDMA2000 BC1	Back	1.372	5	12.3	-63.3	-2.13	131.5	2.57	0.03	Not required
	WLAN2.4GHz		1.193	5	-32.4	60.4	-2.42				



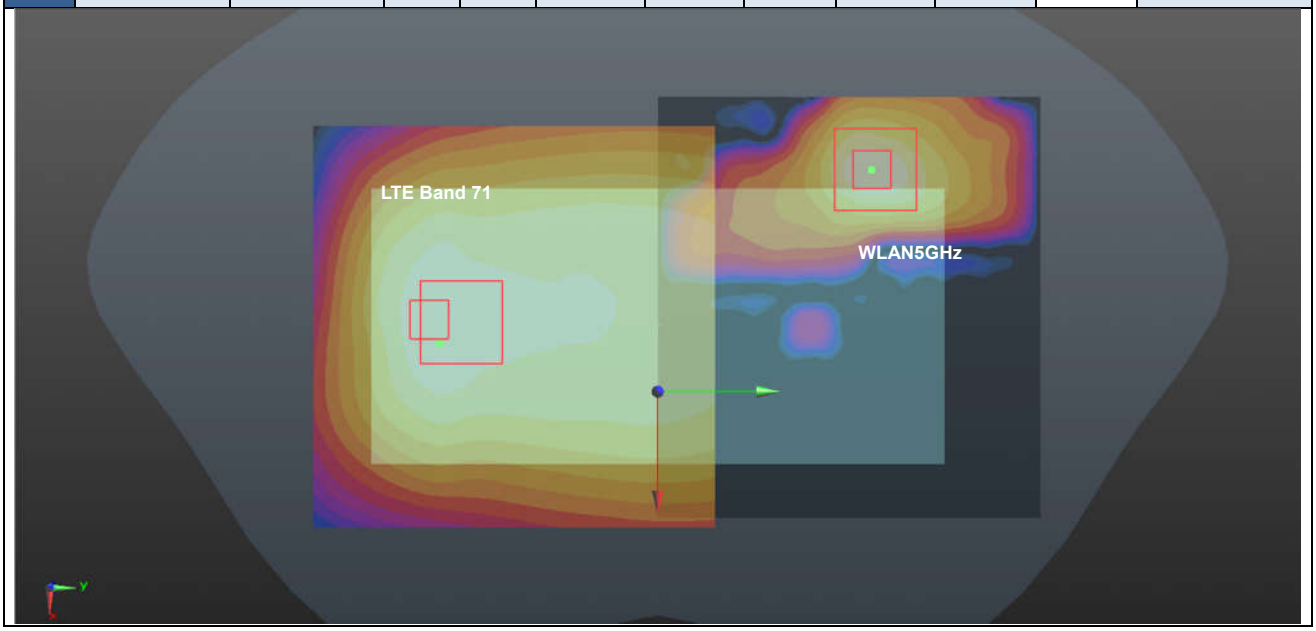
Case #27	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	CDMA2000 BC1	Back	1.372	5	12.3	-63.3	-2.13	131.4	2.54	0.03	Not required
	WLAN5GHz		1.17	5	-41	56.8	-1.12				



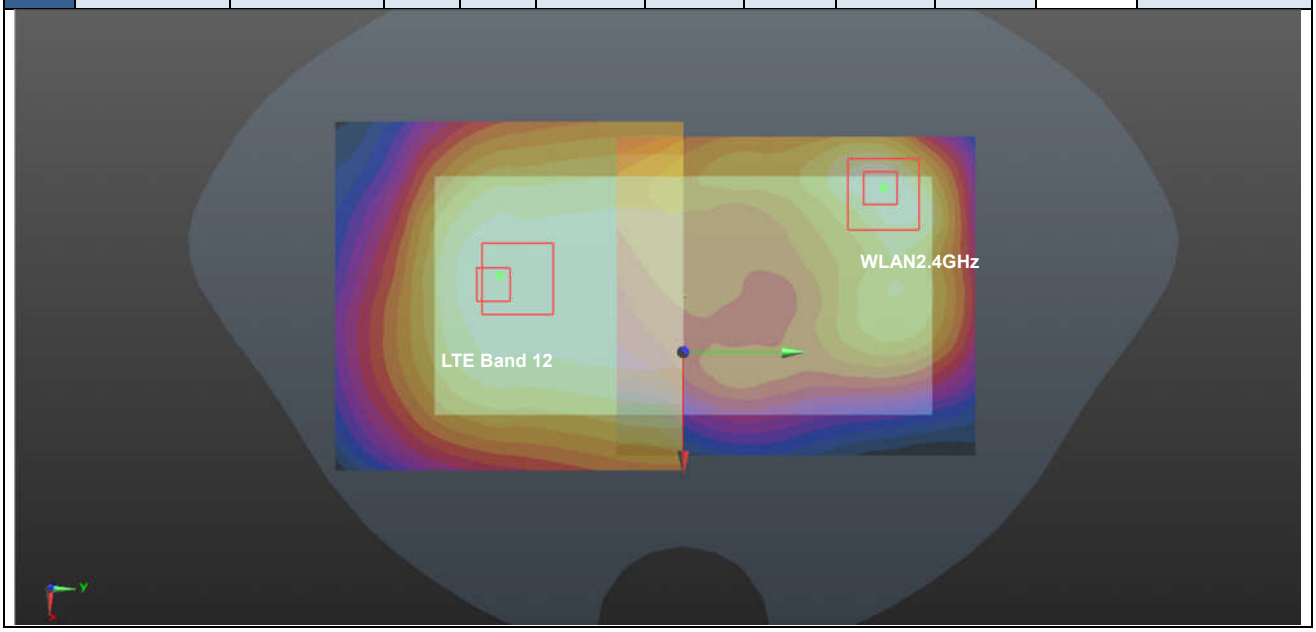
Case #28	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 71	Back	0.615	5	-0.3	-63.4	-2.6	127.9	1.81	0.02	Not required
	WLAN2.4GHz		1.193	5	-32.4	60.4	-2.42				



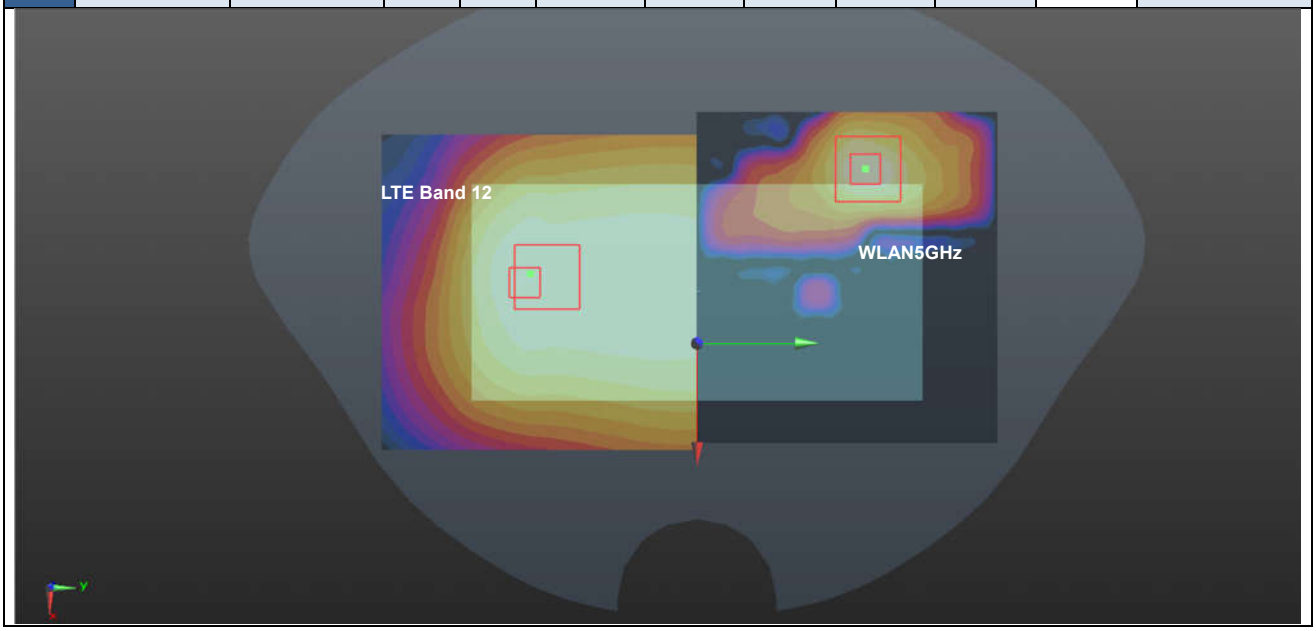
Case #29	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 71	Back	0.615	5	-0.3	-63.4	-2.6	126.9	1.79	0.02	Not required
	WLAN5GHz		1.17	5	-41	56.8	-1.12				



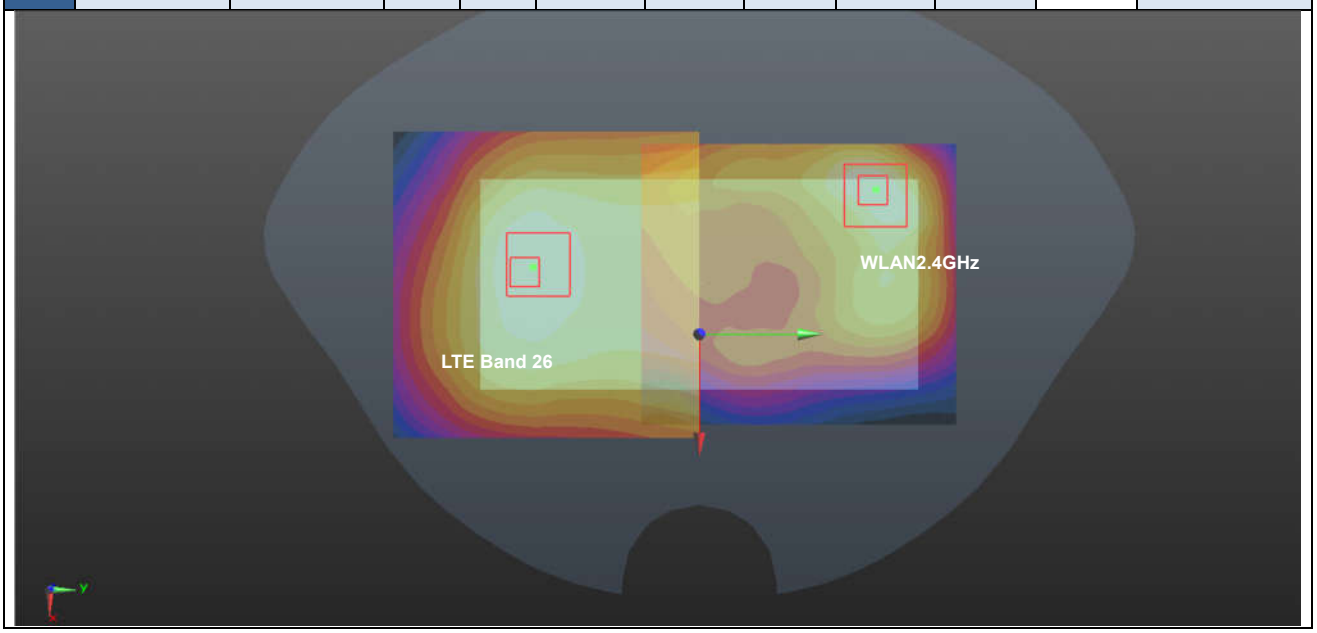
Case #30	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	LTE Band 12	Back	0.859	5	0.4	-61.9	-3.5	126.6	2.05	0.02	Not required
	WLAN2.4GHz		1.193	5	-32.4	60.4	-2.42				



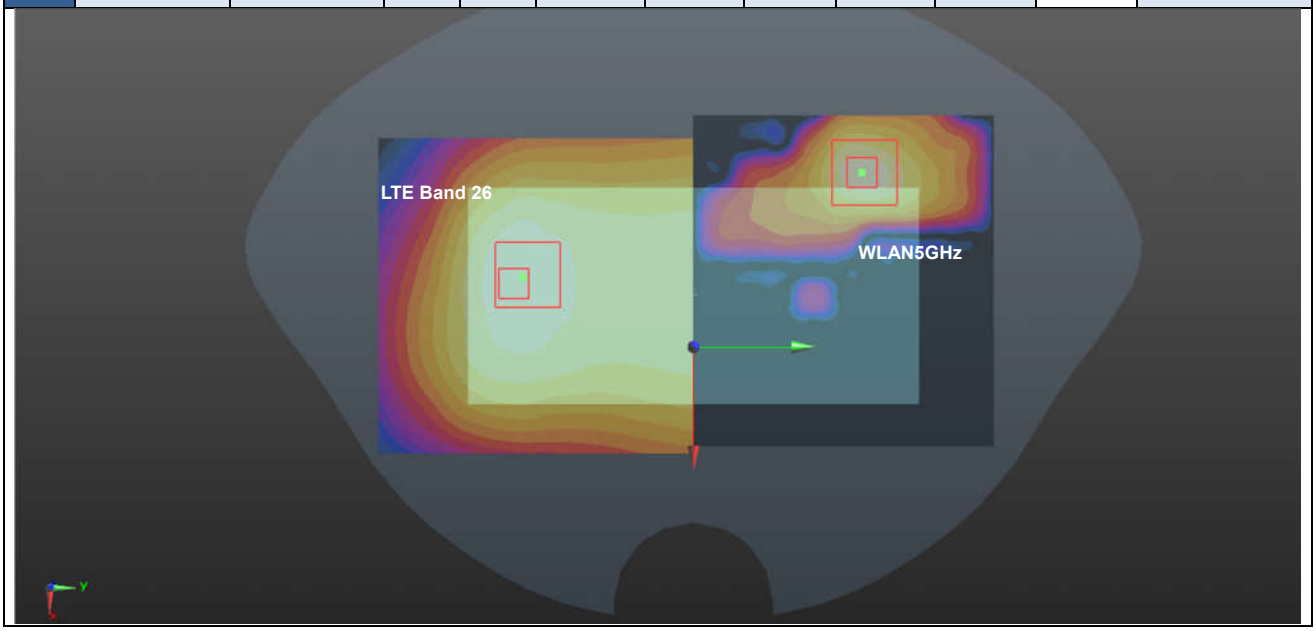
Case #31	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 12	Back	0.859	5	0.4	-61.9	-3.5	125.7	2.03	0.02	Not required
	WLAN5GHz		1.17	5	-41	56.8	-1.12				



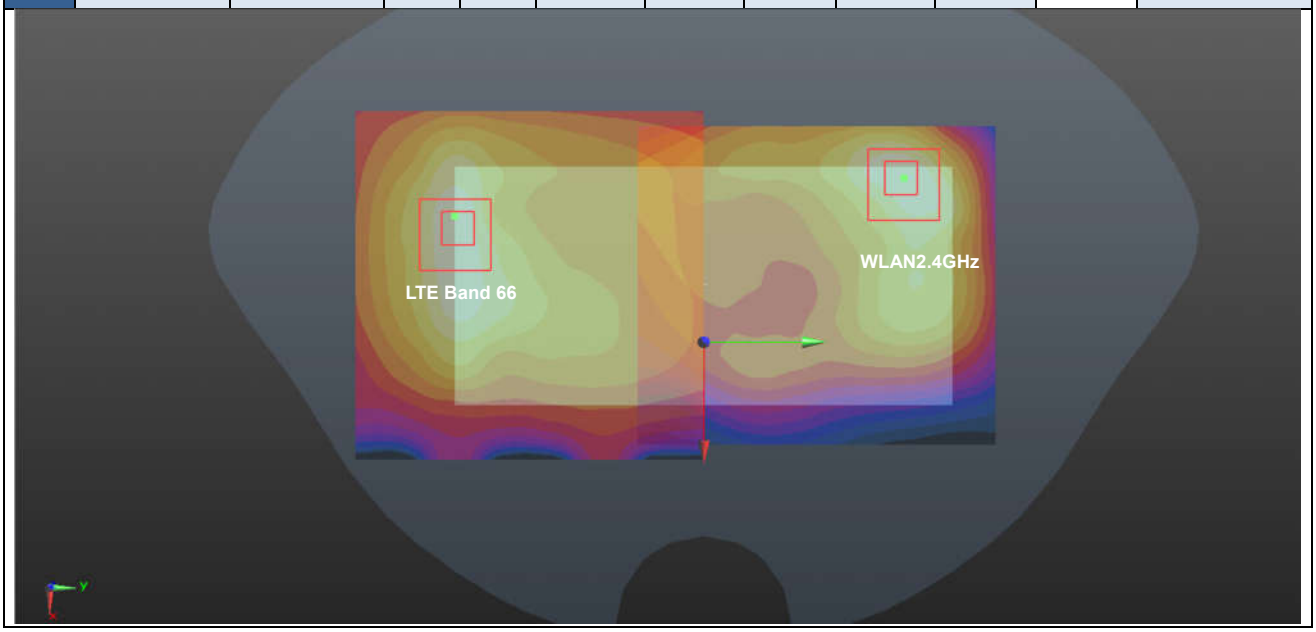
Case #32	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	LTE Band 26	Back	1.041	5	0.4	-61.8	-3.5	126.5	2.23	0.03	Not required
	WLAN2.4GHz		1.193	5	-32.4	60.4	-2.42				



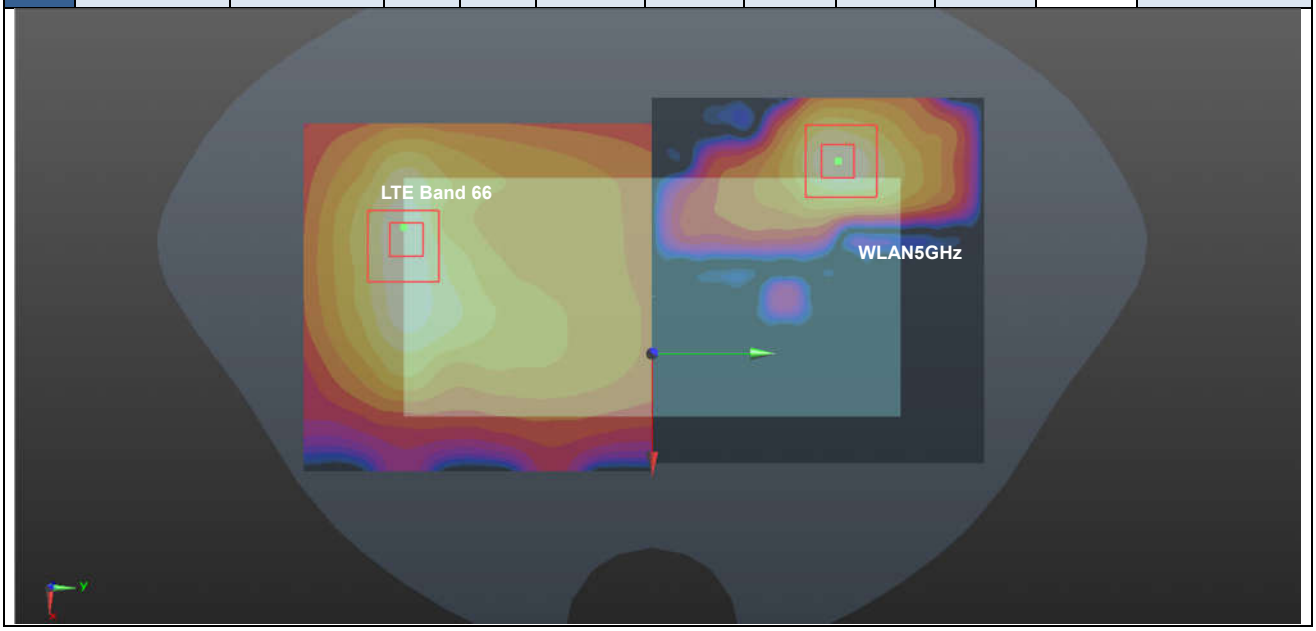
Case #33	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 26	Back	1.041	5	0.4	-61.8	-3.5	125.6	2.21	0.03	Not required
	WLAN5GHz		1.17	5	-41	56.8	-1.12				



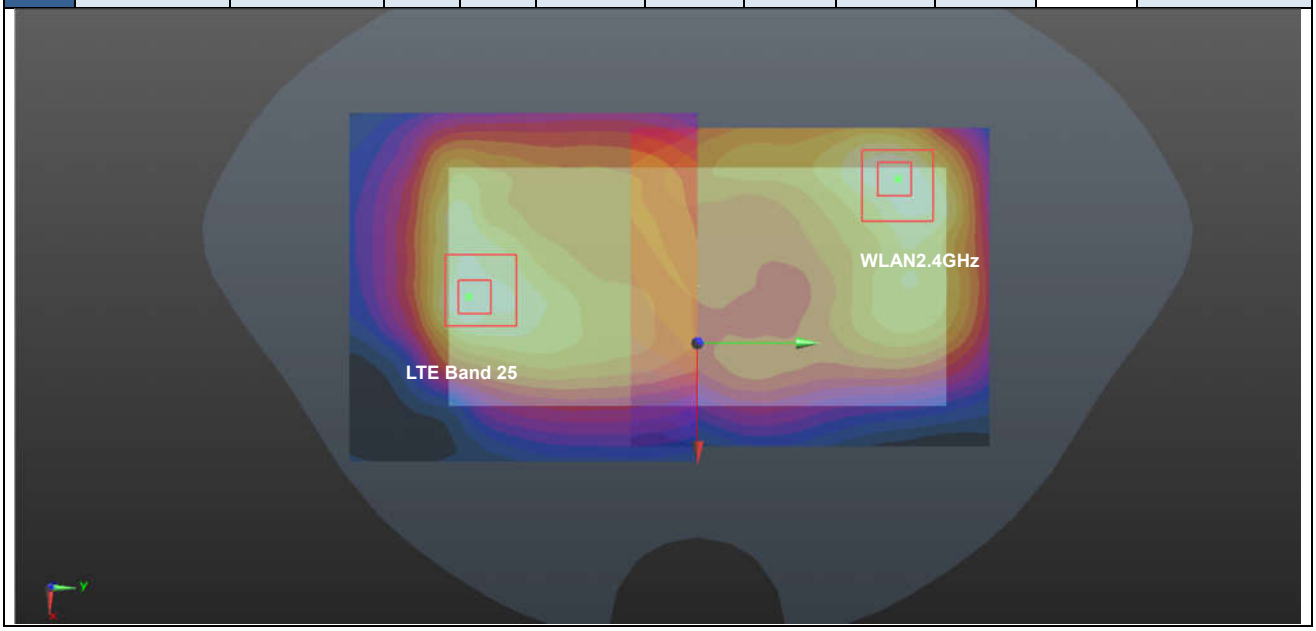
Case #34	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 66	Back	1.367	5	-19.4	-73.4	-0.98	134.4	2.56	0.03	Not required
	WLAN2.4GHz		1.193	5	-32.4	60.4	-2.42				



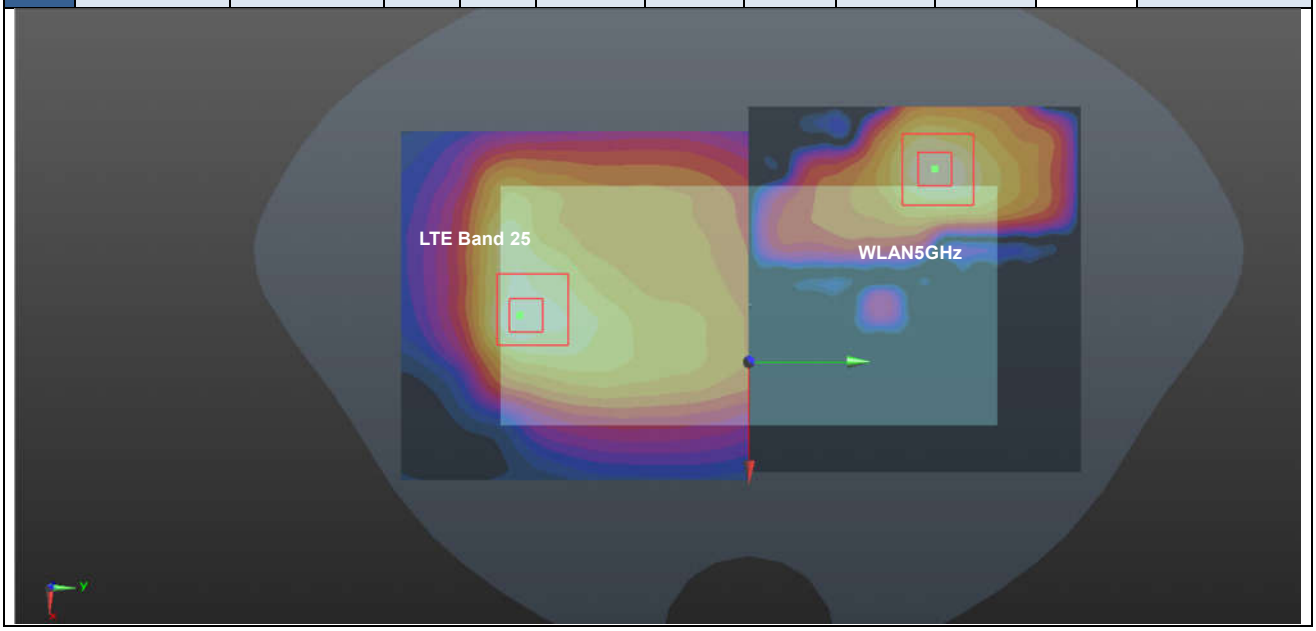
Case #35	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 66	Back	1.367	5	-19.4	-73.4	-0.98	132.0	2.54	0.03	Not required
	WLAN5GHz		1.17	5	-41	56.8	-1.12				



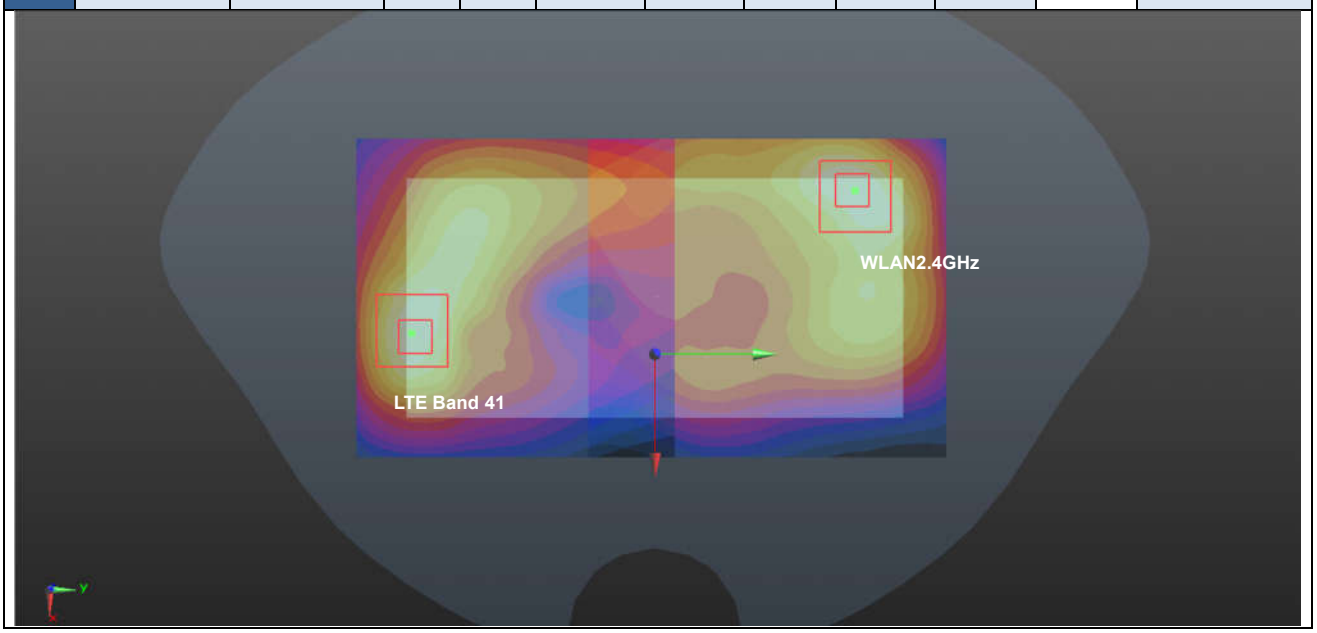
Case #36	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	LTE Band 25	Back	1.423	5	4.6	-67.4	-0.92	133.1	2.62	0.03	Not required
	WLAN2.4GHz		1.193	5	-32.4	60.4	-2.42				



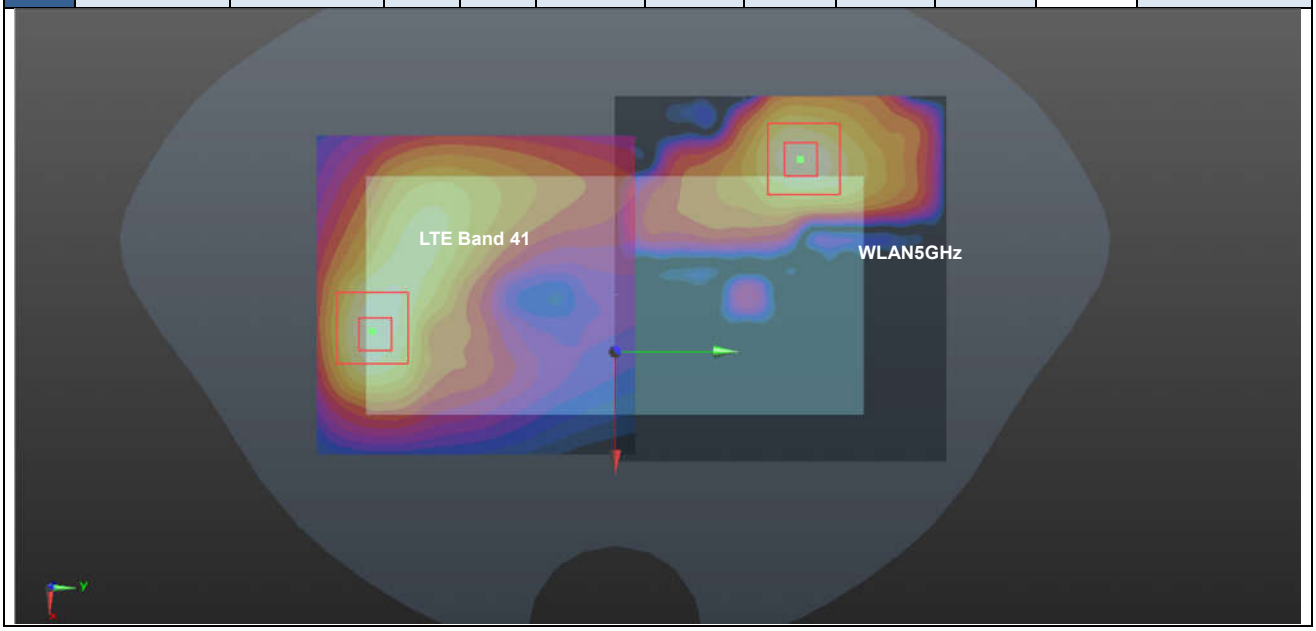
Case #37	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 25	Back	1.423	5	4.6	-67.4	-0.92	132.3	2.59	0.03	Not required
	WLAN5GHz		1.17	5	-41	56.8	-1.12				



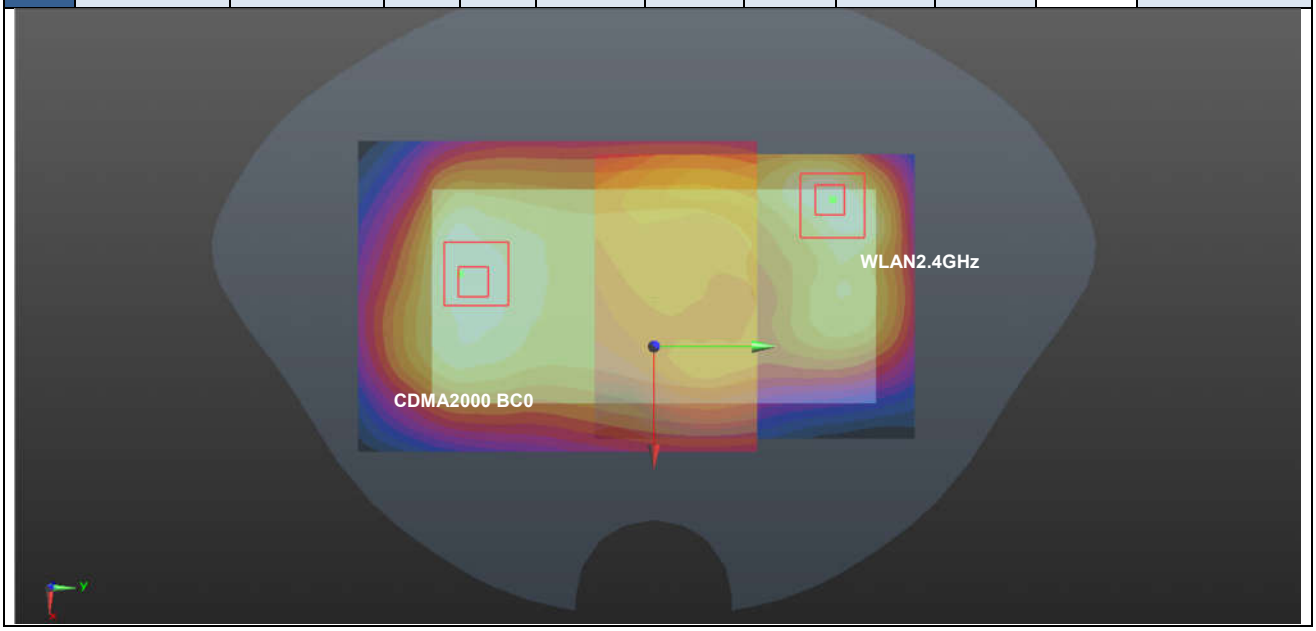
Case #38	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	LTE Band 41	Back	1.381	5	12.8	-71.2	-2.77	139.1	2.57	0.03	Not required
	WLAN2.4GHz		1.193	5	-32.4	60.4	-2.42				



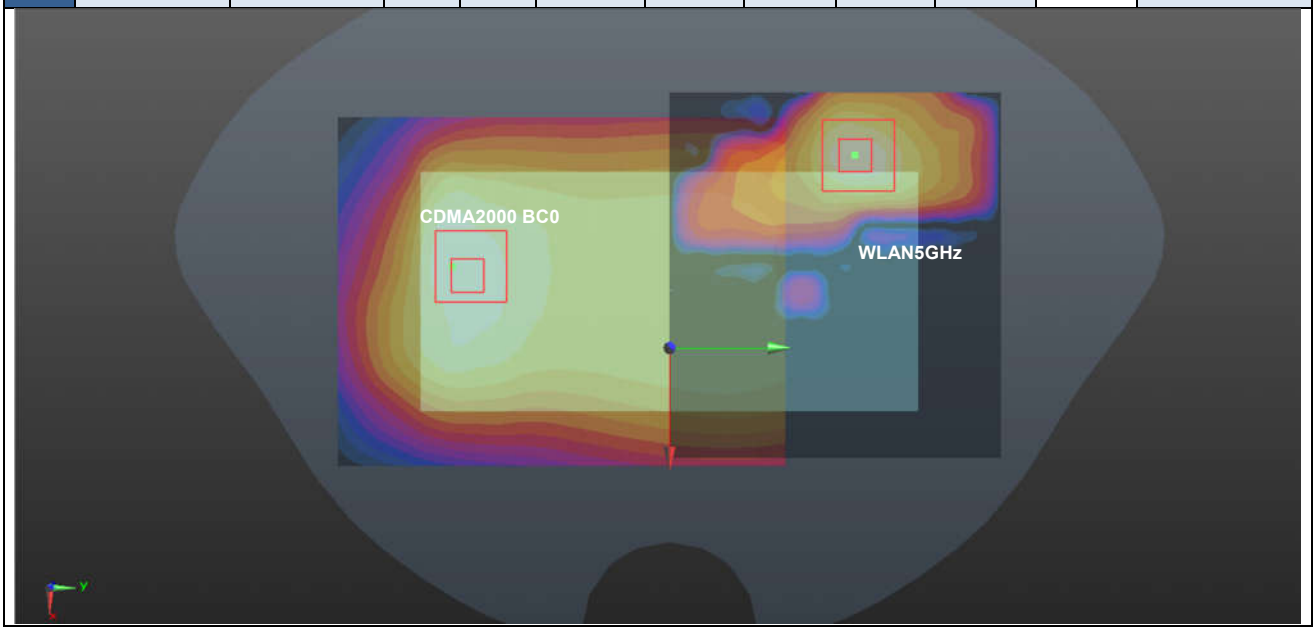
Case #39	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	LTE Band 41	Back	1.381	5	12.8	-71.2	-2.77	138.9	2.55	0.03	Not required
	WLAN5GHz		1.17	5	-41	56.8	-1.12				



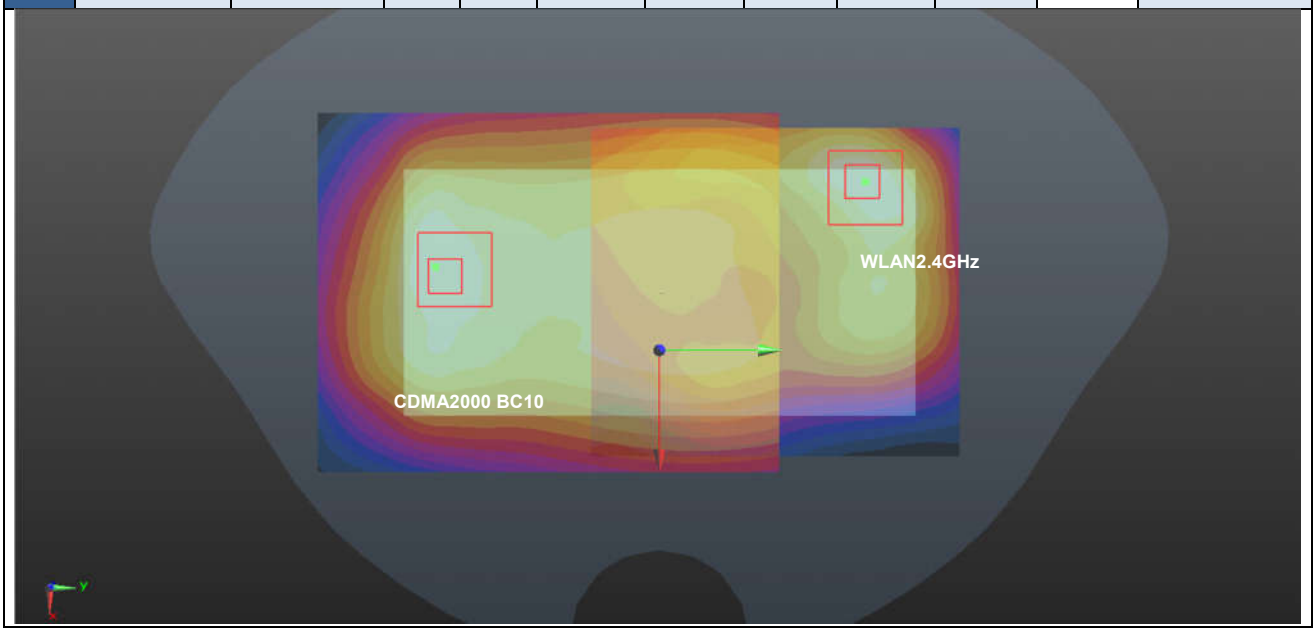
Case #40	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	CDMA2000 BC0	Back	1.243	5	0.5	-63.9	-2.36	128.6	2.44	0.03	Not required
	WLAN2.4GHz		1.193	5	-32.4	60.4	-2.42				



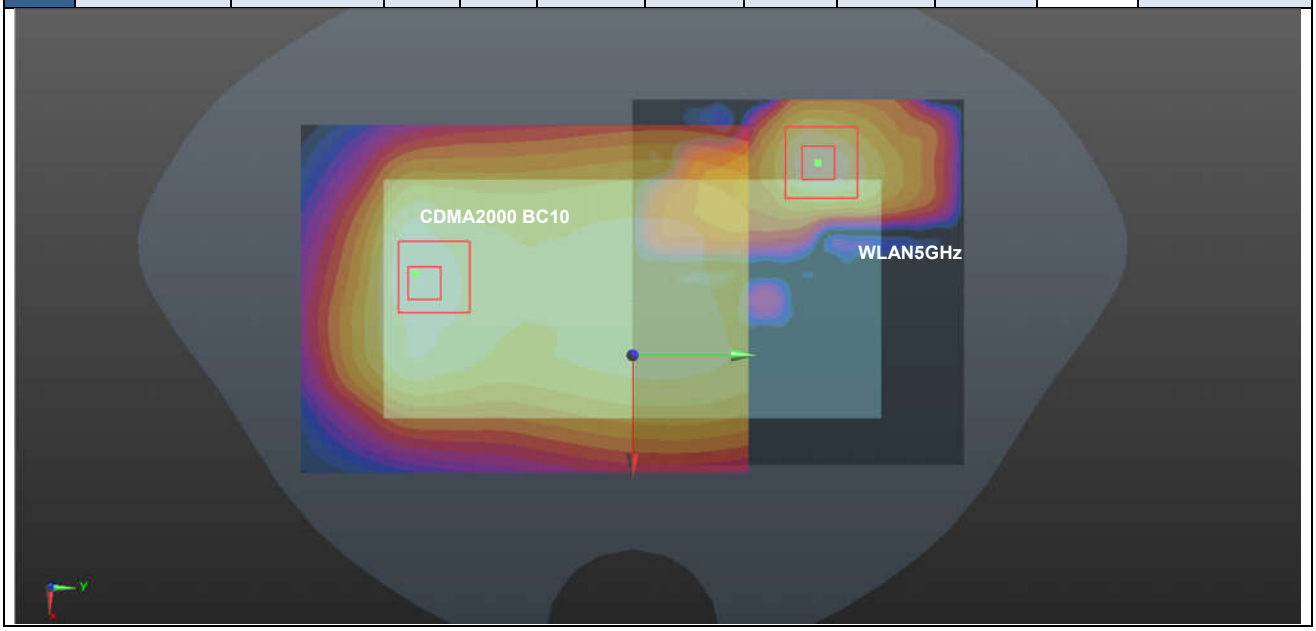
Case #41	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	CDMA2000 BC0	Back	1.243	5	0.5	-63.9	-2.36	127.6	2.41	0.03	Not required
	WLAN5GHz		1.17	5	-41	56.8	-1.12				



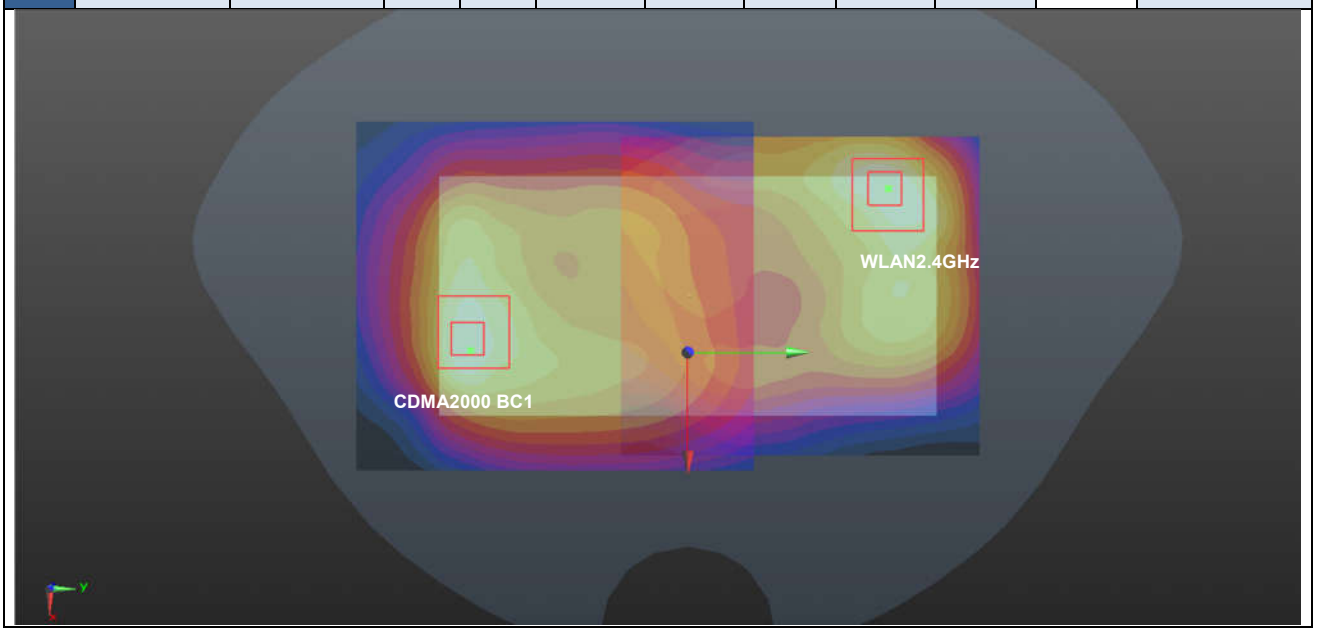
Case #42	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	CDMA2000 BC10	Back	1.167	5	-1.1	-65.5	-2.35	129.7	2.36	0.03	Not required
	WLAN2.4GHz		1.193	5	-32.4	60.4	-2.42				



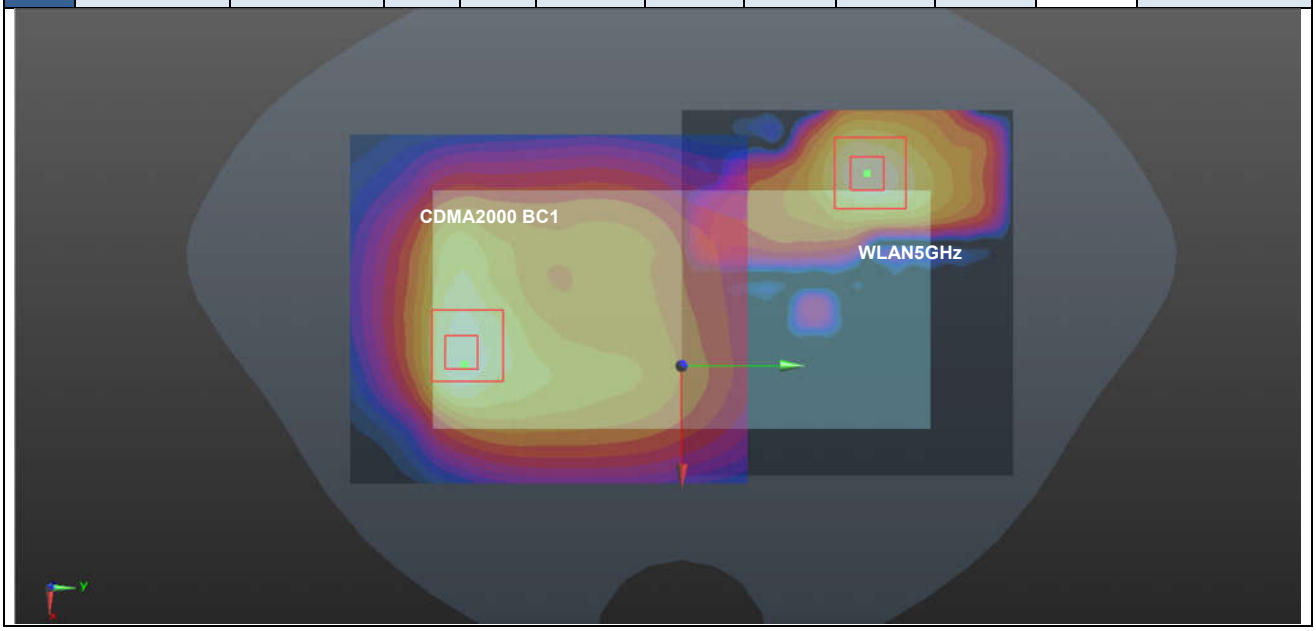
Case #43	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	CDMA2000 BC10	Back	1.167	5	-1.1	-65.5	-2.35	128.6	2.34	0.03	Not required
	WLAN5GHz		1.17	5	-41	56.8	-1.12				



Case #44	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	CDMA2000 BC1	Back	1.419	5	14.9	-65.5	-2.17	134.5	2.61	0.03	Not required
	WLAN2.4GHz		1.193	5	-32.4	60.4	-2.42				



Case #45	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	CDMA2000 BC1	Back	1.419	5	14.9	-65.5	-2.17	134.5	2.59	0.03	Not required
	WLAN5GHz		1.17	5	-41	56.8	-1.12				



Test Engineer: Nick Hu

17. 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 ≤ 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.

18. 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 616217 D04 v01r02, “SAR Evaluation Considerations for Laptop, Notebook, Netbook and Tablet Computers”, Oct 2015

[11] FCC KDB 941225 D01 v03r01, “3G SAR MEAUREMENT PROCEDURES”, Oct 2015

[12] FCC KDB 941225 D05 v02r05, “SAR Evaluation Considerations for LTE Devices”, Dec 2015

[13] FCC KDB 941225 D05A v01r02, “Rel. 10 LTE SAR Test Guidance and KDB Inquiries”, Oct 2015

[14] FCC KDB 941225 D06 v02r01, "SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities", Oct 2015.

Appendix A. Plots of System Performance Check

The plots are shown as follows.

Appendix B. Plots of High SAR Measurement

The plots are shown as follows.

Appendix C. DASY Calibration Certificate

The results are shown as follows.