



<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	20.53	20.36	20.56	20.44	20.83	21	0
20	QPSK	1	49	20.30	20.35	20.47	20.39	20.82		
20	QPSK	1	99	20.60	20.90	20.61	20.47	20.88		
20	QPSK	50	0	20.58	20.73	20.61	20.59	20.62	21	0
20	QPSK	50	24	20.51	20.54	20.55	20.57	20.70		
20	QPSK	50	50	20.52	20.60	20.55	20.55	20.63		
20	QPSK	100	0	20.50	20.71	20.58	20.58	20.69	21	0
20	16QAM	1	0	20.60	20.47	20.68	20.66	20.83		
20	16QAM	1	49	20.57	20.52	20.74	20.70	20.83		
20	16QAM	1	99	20.48	20.51	20.65	20.75	20.85	21	0
20	16QAM	50	0	20.55	20.38	20.67	20.55	20.67		
20	16QAM	50	24	20.54	20.60	20.59	20.61	20.76		
20	16QAM	50	50	20.56	20.63	20.59	20.65	20.74	21	0
20	16QAM	100	0	20.53	20.50	20.60	20.62	20.73		
20	64QAM	1	0	20.44	20.16	20.61	20.72	20.85		
20	64QAM	1	49	20.26	20.23	20.59	20.73	20.81	21	0
20	64QAM	1	99	20.19	20.23	20.56	20.80	20.76		
20	64QAM	50	0	20.45	20.36	20.62	20.53	20.64		
20	64QAM	50	24	20.49	20.57	20.50	20.52	20.67	21	0
20	64QAM	50	50	20.55	20.60	20.51	20.57	20.66		
20	64QAM	100	0	20.59	20.57	20.65	20.66	20.77		
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	20.10	20.08	20.51	20.41	20.54	21	0
15	QPSK	1	37	20.41	20.51	20.46	20.16	20.26		
15	QPSK	1	74	20.42	20.52	20.52	20.48	20.61		
15	QPSK	36	0	20.59	20.52	20.64	20.55	20.61	21	0
15	QPSK	36	20	20.54	20.57	20.54	20.60	20.73		
15	QPSK	36	39	20.40	20.42	20.61	20.64	20.75		
15	QPSK	75	0	20.54	20.37	20.65	20.58	20.62	21	0
15	16QAM	1	0	20.29	20.22	20.65	20.68	20.78		
15	16QAM	1	37	20.28	20.23	20.61	20.80	20.82		
15	16QAM	1	74	20.55	20.66	20.71	20.86	20.88	21	0
15	16QAM	36	0	20.61	20.57	20.61	20.51	20.60		
15	16QAM	36	20	20.61	20.53	20.61	20.64	20.73		
15	16QAM	36	39	20.40	20.43	20.63	20.62	20.72	21	0
15	16QAM	75	0	20.56	20.43	20.66	20.67	20.70		
15	64QAM	1	0	20.14	20.11	20.55	20.73	20.80		
15	64QAM	1	37	20.19	20.08	20.56	20.81	20.84	21	0
15	64QAM	1	74	20.36	20.30	20.69	20.86	20.78		
15	64QAM	36	0	20.62	20.58	20.64	20.59	20.63		
15	64QAM	36	20	20.64	20.56	20.60	20.66	20.73	21	0
15	64QAM	36	39	20.41	20.44	20.66	20.65	20.72		
15	64QAM	75	0	20.64	20.45	20.65	20.61	20.65		



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Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	20.64	20.47	20.55	20.59	20.77	21	0
10	QPSK	1	25	20.34	20.33	20.32	20.45	20.55		
10	QPSK	1	49	20.42	20.43	20.45	20.56	20.60		
10	QPSK	25	0	20.42	20.49	20.56	20.65	20.76	21	0
10	QPSK	25	12	20.53	20.54	20.53	20.64	20.69		
10	QPSK	25	25	20.56	20.56	20.53	20.64	20.70		
10	QPSK	50	0	20.50	20.50	20.53	20.64	20.66	21	0
10	16QAM	1	0	20.73	20.67	20.76	20.80	20.81		
10	16QAM	1	25	20.59	20.64	20.62	20.72	20.85		
10	16QAM	1	49	20.62	20.84	20.72	20.85	20.89	21	0
10	16QAM	25	0	20.52	20.53	20.62	20.70	20.84		
10	16QAM	25	12	20.57	20.64	20.58	20.68	20.77		
10	16QAM	25	25	20.64	20.67	20.56	20.72	20.77	21	0
10	16QAM	50	0	20.52	20.58	20.55	20.65	20.65		
10	64QAM	1	0	20.58	20.44	20.59	20.76	20.87		
10	64QAM	1	25	20.47	20.49	20.57	20.73	20.81	21	0
10	64QAM	1	49	20.48	20.51	20.66	20.88	20.85		
10	64QAM	25	0	20.46	20.44	20.52	20.61	20.73		
10	64QAM	25	12	20.53	20.55	20.53	20.68	20.69	21	0
10	64QAM	25	25	20.56	20.62	20.47	20.68	20.74		
10	64QAM	50	0	20.47	20.54	20.47	20.60	20.67		
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	20.36	20.45	20.58	20.41	20.66	21	0
5	QPSK	1	12	20.24	20.28	20.42	20.30	20.47		
5	QPSK	1	24	20.34	20.36	20.43	20.36	20.57		
5	QPSK	12	0	20.52	20.48	20.67	20.52	20.80	21	0
5	QPSK	12	7	20.46	20.48	20.64	20.56	20.66		
5	QPSK	12	13	20.52	20.52	20.68	20.51	20.67		
5	QPSK	25	0	20.51	20.49	20.64	20.60	20.69	21	0
5	16QAM	1	0	20.66	20.81	20.84	20.67	20.86		
5	16QAM	1	12	20.68	20.65	20.79	20.60	20.75		
5	16QAM	1	24	20.67	20.85	20.70	20.59	20.83	21	0
5	16QAM	12	0	20.58	20.65	20.74	20.44	20.79		
5	16QAM	12	7	20.46	20.58	20.73	20.52	20.70		
5	16QAM	12	13	20.59	20.61	20.73	20.53	20.76	21	0
5	16QAM	25	0	20.59	20.53	20.73	20.58	20.73		
5	64QAM	1	0	20.61	20.52	20.81	20.72	20.87		
5	64QAM	1	12	20.52	20.56	20.67	20.68	20.74	21	0
5	64QAM	1	24	20.53	20.51	20.67	20.67	20.77		
5	64QAM	12	0	20.58	20.52	20.63	20.55	20.79		
5	64QAM	12	7	20.57	20.62	20.75	20.59	20.73	21	0
5	64QAM	12	13	20.51	20.54	20.67	20.50	20.72		
5	64QAM	25	0	20.47	20.51	20.64	20.50	20.66		

<LTE Carrier Aggregation>
General Note:

1. This device supports Carrier Aggregation on downlink for inter and intra band. For the device supports bands and bandwidths and configurations are provided as follow table was according to 3GPP.
2. In applying the existing power measurement procedures of KDB 941225 D05A for DL CA SAR test exclusion, only the subset with the largest number of combinations of frequency bands and CCs in each row need combination, and for this device that all the configurations were choose to power measurement.

Index	2CC
2CC #1	CA_2A-4A
2CC #2	CA_2A-5A
2CC #3	CA_2A-7A
2CC #4	CA_2A-12A
2CC #5	CA_2A-13A
2CC #6	CA_2A-17A
2CC #7	CA_2A-66A
2CC #8	CA_2A-71A
2CC #9	CA_4A-5A
2CC #10	CA_4A-7A
2CC #11	CA_4A-12A
2CC #12	CA_4A-13A
2CC #13	CA_4A-17A
2CC #14	CA_4A-71A
2CC #15	CA_5A-7A
2CC #16	CA_5A-66A
2CC #17	CA_7A-12A
2CC #18	CA_7A-66A
2CC #19	CA_12A-66A
2CC #20	CA_13A-66A
2CC #21	CA_25A-26A
2CC #22	CA_66A-71A
2CC #23	CA_2C
2CC #24	CA_5B
2CC #25	CA_7C
2CC #26	CA_12B
2CC #27	CA_38C
2CC #28	CA_41C
2CC #29	CA_66B
2CC #30	CA_66C
2CC #31	CA_2A-2A
2CC #32	CA_4A-4A
2CC #33	CA_7A-7A
2CC #34	CA_25A-25A
2CC #35	CA_41A-41A
2CC #36	CA_66A-66A

LTE Carrier Aggregation Conducted Power (Downlink)

- i. According to KDB941225 D05A v01r02, Uplink maximum output power measurement with downlink carrier aggregation active should be measured, using the highest output channel measured without downlink carrier aggregation, to confirm that uplink maximum output power with downlink carrier aggregation active remains within the specified tune-up tolerance limits and not more than ¼ dB higher than the maximum output measured without downlink carrier aggregation active.
- ii. Uplink maximum output power with downlink carrier aggregation active does not show more than ¼ dB higher than the maximum output power without downlink carrier aggregation active, therefore SAR evaluation with downlink carrier aggregation active can be excluded.
- iii. For power measurement were control and acknowledge data is sent on uplink channels that operate identical to specifications when downlink carrier aggregation is inactive.
- iv. Selected highest measured power when downlink carrier aggregation is inactive for conducted power comparison with downlink carrier aggregation is active, to confirm that when downlink carrier aggregation is active uplink maximum output power remains within the specified tune-up tolerance limits and not more than ¼ dB higher than the maximum output power measured when downlink carrier aggregation inactive.
- v. The device supports uplink carrier aggregation for LTE B41C with a maximum of two 20MHz component carriers. For intra band contiguous carrier aggregation scenarios, 3GPP 36.101 table 6.2.2A-1 specifies that the aggregate maximum allowed output power is equivalent to the single carrier scenario. 3GPP 36.101 6.2.3A allows for several dB of MPR to be applied when not-contiguous RB allocation is implemented. The conducted power and MPR setting in this device are permanently implemented pre the above 3GPP requirement.
- vi. For inter-band CA, the SCC selected highest bandwidth and near the middle of its transmission band. For SCC DL RB size and offset will base on the PCC corresponding RB allocation.
- vii. For non-contiguous intra-band CA, the SCC selected to provide maximum separation from the PCC and must remain fully within the downlink transmission band.
- viii. For Intra-band, contiguous CA, the downlink channels selected to perform the uplink power measurement must satisfy 3GPP channel spacing (5.4.1A of 3GPP TS 36.521 or equivalent) and channel bandwidth (5.4.2A) requirements.

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

<Full Power Mode>

Configure		PCC							SCC				Power	
		LTE	BW	UL	UL	Mod.	UL#	UL	LTE	BW	DL	DL	With CA	Without CA
		Band	(MHz)	Freq.			RB	RB	Band	(MHz)	Freq.	Channel	Tx. Power	Tx. Power
				(MHz)				Channel			(MHz)			
Inter-Band	Band 2	20M	1880	18900	QPSK	1	49	Band 4	20M	2132.5	2175	22.60	22.67	
	Band 4	20M	1732.5	20175	QPSK	1	49	Band 2	20M	1960	900	22.52	22.64	
	Band 2	20M	1880	18900	QPSK	1	49	Band 5	10M	881.5	2525	22.61	22.67	
	Band 5	10M	844	20600	QPSK	1	49	Band 2	20M	1960	900	22.58	22.65	
	Band 2	20M	1880	18900	QPSK	1	49	Band 7	20M	2655	3100	22.58	22.67	
	Band 7	20M	2535	21100	QPSK	1	49	Band 2	20M	1960	900	22.84	22.90	
	Band 2	20M	1880	18900	QPSK	1	49	Band 12	10M	737.5	5095	22.59	22.67	
	Band 12	10M	707.5	23095	QPSK	1	49	Band 2	20M	1960	900	23.11	23.16	
	Band 2	20M	1880	18900	QPSK	1	49	Band 13	10M	751	5230	22.60	22.67	
	Band 13	10M	782	23230	QPSK	1	49	Band 2	20M	1960	900	22.79	22.87	
	Band 2	20M	1880	18900	QPSK	1	49	Band 66	20M	2155	66886	22.55	22.67	
	Band 66	20M	1745	132322	QPSK	1	49	Band 2	20M	1960	900	22.48	22.58	
	Band 2	20M	1880	18900	QPSK	1	49	Band 71	20M	637	68786	22.60	22.67	
	Band 71	20M	683	133322	QPSK	1	0	Band 2	20M	1960	900	23.39	23.48	
	Band 4	20M	1732.5	20175	QPSK	1	49	Band 5	10M	881.5	2525	22.60	22.64	
	Band 5	10M	844	20600	QPSK	1	49	Band 4	20M	2132.5	2175	22.54	22.65	
	Band 4	20M	1732.5	20175	QPSK	1	49	Band 12	10M	737.5	5095	22.51	22.64	
	Band 12	10M	707.5	23095	QPSK	1	49	Band 4	20M	2132.5	2175	22.99	23.16	
	Band 4	20M	1732.5	20175	QPSK	1	49	Band 13	10M	751	5230	22.45	22.64	
	Band 13	10M	782	23230	QPSK	1	49	Band 4	20M	2132.5	2175	22.81	22.87	
	Band 4	20M	1732.5	20175	16QAM	1	49	Band 71	20M	637	68786	22.51	22.64	
	Band 71	20M	782	133322	QPSK	1	0	Band 4	20M	2132.5	2175	23.24	23.48	
	Band 5	10M	844	20600	QPSK	1	49	Band 66	20M	2155	66886	22.44	22.65	
	Band 66	20M	1745	132322	QPSK	1	49	Band 5	10M	881.5	2525	22.26	22.58	
	Band 66	20M	1745	132322	QPSK	1	49	Band 71	20M	637	68786	22.38	22.58	
	Band 71	20M	1745	132322	QPSK	1	49	Band 5	10M	881.5	2525	23.21	23.48	
	Band 12	10M	707.5	23095	QPSK	1	49	Band 66	20M	2155	66886	23.04	23.16	
	Band 66	20M	1745	132322	QPSK	1	49	Band 12	10M	737.5	5095	22.49	22.58	
	Band 13	10M	782	23230	QPSK	1	49	Band 66	20M	2155	66886	22.67	22.87	
	Band 66	20M	1745	132322	QPSK	1	49	Band 13	10M	751	5230	22.49	22.58	
	Band 25	20M	1800	26340	QPSK	1	49	Band 26	15M	876.5	8865	22.61	22.74	
	Band 26	15M	821.5	26765	QPSK	1	74	Band 25	20M	1962.5	8365	22.72	22.86	
Intra-Band	Contiguous	Band 2	20M	1880	18900	QPSK	1	49	Band 2	20M	1979.8	1098	22.58	22.67
		Band 5	10M	844	20600	QPSK	1	49	Band 5	10M	891.4	2624	22.59	22.65
		Band 7	20M	2535	21100	QPSK	1	49	Band 7	5M	2687.5	3425	22.75	22.90
		Band 12	5M	713.5	23155	QPSK	1	24	Band 12	10M	744.7	5167	22.70	22.86
		Band 38	20M	2595	38000	QPSK	1	99	Band 38	20M	2614.8	38198	22.86	23.05
		Band 41	20M	2549.5	40185	QPSK	1	99	Band 41	20M	2569.3	40383	22.82	23.02
		Band 66	15M	1717.5	132047	QPSK	1	37	Band 66	5M	2121.8	66554	22.32	22.47
		Band 66	20M	1745	132322	QPSK	1	49	Band 66	20M	2174.8	67084	22.49	22.58
	Non-Contiguous	Band 2	20M	1880	18900	QPSK	1	49	Band 2	5M	1987.5	1175	22.40	22.67



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		Band 4	20M	1732.5	20175	QPSK	1	49	Band 4	5M	2152.5	2375	22.53	22.64
		Band 7	20M	2535	21100	QPSK	1	49	Band 7	5M	2622.5	2775	22.75	22.90
		Band 25	20M	1880	26340	QPSK	1	49	Band 25	5M	1992.5	8665	22.71	22.74
		Band 41	20M	2549.5	40185	QPSK	1	99	Band 41	5M	2687.5	41565	22.84	23.02
		Band 66	20M	1745	132322	QPSK	1	49	Band 66	5M	2197.5	67311	22.34	22.58



<Reduced Power Mode for P-Sensor On>

Configure		PCC							SCC				Power	
		LTE	BW	UL	UL	Mod.	UL#	UL	LTE	BW	DL	DL	With CA	Without CA
		Band	(MHz)	Freq.			RB	RB	Band	(MHz)	Freq.	Channel	Tx. Power	Tx. Power
				(MHz)				Channel			Offset		(MHz)	(dBm)
Inter-Band		Band 2	20M	1880	18900	QPSK	1	49	Band 4	20M	2132.5	2175	17.41	17.60
		Band 4	20M	1732.5	20175	16QAM	1	49	Band 2	20M	1960	900	16.51	16.63
		Band 2	20M	1880	18900	QPSK	1	49	Band 5	10M	881.5	2525	17.42	17.60
		Band 5	10M	844	20600	QPSK	1	49	Band 2	20M	1960	900	22.46	22.65
		Band 2	20M	1880	18900	QPSK	1	49	Band 7	20M	2655	3100	17.43	17.60
		Band 7	20M	2510	20850	64QAM	1	49	Band 2	20M	1960	900	18.84	18.95
		Band 2	20M	1880	18900	QPSK	1	49	Band 12	10M	737.5	5095	17.43	17.60
		Band 12	10M	707.5	23095	QPSK	1	49	Band 2	20M	1960	900	22.99	23.16
		Band 2	20M	1880	18900	QPSK	1	49	Band 13	10M	751	5230	17.43	17.60
		Band 13	10M	782	23230	QPSK	1	49	Band 2	20M	1960	900	22.69	22.87
		Band 2	20M	1880	18900	QPSK	1	49	Band 66	20M	2155	66886	17.42	17.60
		Band 66	20M	1745	132322	QPSK	1	49	Band 2	20M	1960	900	17.02	17.13
		Band 2	20M	1880	18900	QPSK	1	49	Band 71	20M	637	68786	17.43	17.60
		Band 71	20M	683	133322	QPSK	1	0	Band 2	20M	1960	900	23.21	23.48
		Band 4	20M	1732.5	20175	16QAM	1	99	Band 5	10M	881.5	2525	16.15	16.36
		Band 5	10M	844	20600	QPSK	1	49	Band 4	20M	2132.5	2175	22.43	22.65
		Band 4	20M	1732.5	20175	16QAM	1	49	Band 12	10M	737.5	5095	16.41	16.63
		Band 12	10M	707.5	23095	QPSK	1	49	Band 4	20M	2132.5	2175	22.98	23.16
		Band 4	20M	1732.5	20175	16QAM	1	49	Band 13	10M	751	5230	16.48	16.63
		Band 13	10M	782	23230	QPSK	1	49	Band 4	20M	2132.5	2175	22.64	22.87
		Band 4	20M	1732.5	20175	16QAM	1	49	Band 71	20M	637	68786	22.51	22.64
		Band 71	20M	782	133322	QPSK	1	0	Band 4	20M	2132.5	2175	23.24	23.48
		Band 5	10M	844	20600	QPSK	1	49	Band 66	20M	2155	66886	22.39	22.65
		Band 66	20M	1745	132322	QPSK	1	49	Band 5	10M	881.5	2525	17.02	17.13
		Band 66	20M	1745	132322	QPSK	1	49	Band 71	20M	637	68786	16.99	17.13
		Band 71	20M	1745	132322	QPSK	1	49	Band 5	10M	881.5	2525	23.21	23.48
		Band 12	10M	707.5	23095	QPSK	1	49	Band 66	20M	2155	66886	22.96	23.16
		Band 66	20M	1745	132322	QPSK	1	49	Band 12	10M	737.5	5095	16.99	17.13
		Band 13	10M	782	23230	QPSK	1	49	Band 66	20M	2155	66886	22.69	22.87
		Band 66	20M	1745	132322	QPSK	1	49	Band 13	10M	751	5230	16.97	17.13
		Band 25	20M	1800	26340	QPSK	1	49	Band 26	15M	876.5	8865	17.42	17.69
		Band 26	15M	821.5	26765	QPSK	1	74	Band 25	20M	1962.5	8365	22.61	22.86
Intra-Band	Contiguous	Band 2	20M	1880	18900	QPSK	1	49	Band 2	20M	1979.8	1098	17.43	17.60
		Band 5	10M	844	20600	QPSK	1	49	Band 5	10M	891.4	2624	22.41	22.65
		Band 7	20M	2510	20850	64QAM	1	49	Band 7	5M	2687.5	3425	18.82	18.95
		Band 12	5M	713.5	23155	QPSK	1	24	Band 12	10M	744.7	5167	22.64	22.86
		Band 38	20M	2610	38150	QPSK	1	99	Band 38	20M	2590.2	37952	20.25	20.44
		Band 41	20M	2549.5	40185	QPSK	1	99	Band 41	20M	2569.3	40383	20.72	20.90
		Band 66	15M	1717.5	132047	QPSK	36	20	Band 66	5M	2121.8	66554	16.84	16.99
		Band 66	20M	1745	132322	QPSK	1	49	Band 66	20M	2174.8	67084	17.01	17.13
	Non-Contiguous	Band 2	20M	1880	18900	QPSK	1	49	Band 2	5M	1987.5	1175	17.47	17.60
		Band 4	20M	1732.5	20175	16QAM	1	49	Band 4	5M	2152.5	2375	16.48	16.63



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		Band 7	20M	2510	20850	64QAM	1	49	Band 7	5M	2687.5	3425	18.82	18.95
		Band 25	20M	1880	26340	QPSK	1	49	Band 25	5M	1992.5	8665	17.51	17.69
		Band 41	20M	2549.5	40185	QPSK	1	99	Band 41	5M	2687.5	41565	20.73	20.90
		Band 66	20M	1745	132322	QPSK	1	49	Band 66	5M	2197.5	67311	16.95	17.13



<Reduced Power Mode for Hotspot On>

Configure		PCC							SCC				Power	
		LTE	BW	UL	UL	Mod.	UL#	UL	LTE	BW	DL	DL	With CA	Without CA
		Band	(MHz)	Freq.			RB	RB	Band	(MHz)	Freq.	Channel	Tx. Power	Tx. Power
				(MHz)				Channel			Offset		(MHz)	(dBm)
Inter-Band		Band 2	20M	1860	18700	16QAM	1	99	Band 4	20M	2132.5	2175	15.82	15.94
		Band 4	20M	1732.5	20175	16QAM	1	49	Band 2	20M	1960	900	16.51	16.63
		Band 2	20M	1860	18700	16QAM	1	99	Band 5	10M	881.5	2525	15.81	15.94
		Band 5	10M	844	20600	QPSK	1	49	Band 2	20M	1960	900	22.45	22.65
		Band 2	20M	1860	18700	16QAM	1	99	Band 7	20M	2655	3100	15.80	15.94
		Band 7	20M	2510	20850	64QAM	1	49	Band 2	20M	1960	900	18.79	18.95
		Band 2	20M	1860	18700	16QAM	1	99	Band 12	10M	737.5	5095	15.84	15.94
		Band 12	10M	707.5	23095	QPSK	1	49	Band 2	20M	1960	900	23.02	23.16
		Band 2	20M	1860	18700	16QAM	1	99	Band 13	10M	751	5230	15.82	15.94
		Band 13	10M	782	23230	QPSK	1	49	Band 2	20M	1960	900	22.71	22.87
		Band 2	20M	1860	18700	16QAM	1	99	Band 66	20M	2155	66886	15.86	15.94
		Band 66	20M	1745	132322	QPSK	1	49	Band 2	20M	1960	900	17.06	17.13
		Band 2	20M	1860	18700	16QAM	1	99	Band 71	20M	637	68786	15.80	15.94
		Band 71	20M	683	133322	QPSK	1	0	Band 2	20M	1960	900	23.38	23.48
		Band 4	20M	1732.5	20175	16QAM	1	49	Band 5	10M	881.5	2525	16.50	16.63
		Band 5	10M	844	20600	QPSK	1	49	Band 4	20M	2132.5	2175	22.43	22.65
		Band 4	20M	1732.5	20175	16QAM	1	49	Band 12	10M	737.5	5095	16.51	16.63
		Band 12	10M	707.5	23095	QPSK	1	49	Band 4	20M	2132.5	2175	23.03	23.16
		Band 4	20M	1732.5	20175	16QAM	1	49	Band 13	10M	751	5230	16.49	16.63
		Band 13	10M	782	23230	QPSK	1	49	Band 4	20M	2132.5	2175	22.68	22.87
		Band 4	20M	1732.5	20175	16QAM	1	49	Band 71	20M	637	68786	22.51	22.64
		Band 71	20M	782	133322	QPSK	1	0	Band 4	20M	2132.5	2175	23.24	23.48
		Band 5	10M	844	20600	QPSK	1	49	Band 66	20M	2155	66886	22.46	22.65
		Band 66	20M	1745	132322	QPSK	1	49	Band 5	10M	881.5	2525	17.02	17.13
		Band 66	20M	1745	132322	QPSK	1	49	Band 71	20M	637	68786	17.02	17.13
		Band 71	20M	1745	132322	QPSK	1	49	Band 5	10M	881.5	2525	23.21	23.48
		Band 12	10M	707.5	23095	QPSK	1	49	Band 66	20M	2155	66886	23.02	23.16
		Band 66	20M	1745	132322	QPSK	1	49	Band 12	10M	737.5	5095	17.04	17.13
		Band 13	10M	782	23230	QPSK	1	49	Band 66	20M	2155	66886	22.64	22.87
		Band 66	20M	1745	132322	QPSK	1	49	Band 13	10M	751	5230	17.05	17.13
		Band 25	20M	1800	26340	QPSK	1	49	Band 26	15M	876.5	8865	15.76	15.95
		Band 26	15M	821.5	26765	QPSK	1	74	Band 25	20M	1962.5	8365	22.64	22.86
Intra-Band	Contiguous	Band 2	20M	1860	18700	16QAM	1	99	Band 2	20M	1959.8	898	15.76	15.94
		Band 5	10M	844	20600	QPSK	1	49	Band 5	10M	891.4	2624	22.46	22.65
		Band 7	20M	2510	20850	64QAM	1	49	Band 7	5M	2687.5	3425	18.84	18.95
		Band 12	5M	713.5	23155	QPSK	1	24	Band 12	10M	744.7	5167	22.71	22.86
		Band 38	20M	2610	38150	QPSK	1	99	Band 38	20M	2590.2	37952	20.21	20.44
		Band 41	20M	2549.5	40185	QPSK	1	99	Band 41	20M	2569.3	40383	20.78	20.90
		Band 66	15M	1717.5	132047	64QAM	36	20	Band 66	5M	2121.8	66554	16.76	16.99
		Band 66	20M	1745	132322	QPSK	1	49	Band 66	20M	2174.8	67084	17.04	17.13
	Non-Contiguous	Band 2	20M	1860	18700	16QAM	1	99	Band 2	5M	1987.5	1175	15.81	15.94
		Band 4	20M	1732.5	20175	16QAM	1	49	Band 4	5M	2152.5	2375	16.41	16.63



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		Band 7	20M	2510	20850	64QAM	1	49	Band 7	5M	2687.5	3425	18.81	18.95
		Band 25	20M	1880	26340	QPSK	1	49	Band 25	5M	1992.5	8665	15.79	15.95
		Band 41	20M	2549.5	40185	QPSK	1	99	Band 41	5M	2687.5	41565	20.76	20.90
		Band 66	20M	1745	132322	QPSK	1	49	Band 66	5M	2197.5	67311	17.01	17.13

LTE Carrier Aggregation Conducted Power (Uplink)

1. This device supports uplink carrier aggregation for LTE CA_41C only for power class 3 with a maximum of two 20MHz component carriers. For intra band contiguous carrier aggregation scenarios, 3GPP 36.101 Table 6.2.2A-1 specifies that the aggregate maximum allowed output power is equivalent to the single carrier scenario. For the non-contiguously allocated resource blocks which the MPR level is determined by various RB separation and RB sizes requirement, and the allowed MPR levels, settings and the conducted powers are permanently implemented in this device per the 3GPP 36.36.101 section 6.2.3A.1.3 requirements.
2. According to FCC guidance, the output power with uplink CA active was measured for the high / middle / low channel configuration with the highest reported SAR for each exposure condition, the power was measured with wideband signal integration over both component carriers.
3. In applying the power measurement procedures of KDB 941225 D05A for DL CA to qualify for UL SAR test exclusion, power measurement is required only for the subset in each row with the largest combination of frequency bands and CCs
4. 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.



<Full Power>

<LTE Band 41 Power Class 3>

CA_41C										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
39750	39948	QPSK	1	99	0	0	1	0	22.41	24.00
40185	40383	QPSK	1	99	0	0	1	0	22.70	24.00
40620	40422	QPSK	1	99	0	0	1	0	22.46	24.00
41055	40857	QPSK	1	99	0	0	1	0	22.98	24.00
41490	41292	QPSK	1	99	0	0	1	0	22.58	24.00

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

<LTE Band 41 Power Class 3>

CA_41C										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
39750	39948	QPSK	50	0	0	0	1	0	20.10	21.00
40185	40383	QPSK	50	0	0	0	1	0	20.63	21.00
40620	40422	QPSK	50	0	0	0	1	0	20.64	21.00
41055	40857	QPSK	50	0	0	0	1	0	20.52	21.00
41490	41292	QPSK	50	0	0	0	1	0	20.60	21.00

<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	17.86	19.50	97.59
		6	2437	18.32	19.50	
		11	2462	18.45	19.50	
	802.11g 6Mbps	1	2412	15.87	17.50	87.44
		6	2437	17.47	19.00	
		11	2462	14.54	16.50	
	802.11n-HT20 MCS0	1	2412	14.88	16.50	86.76
		6	2437	15.37	16.50	
		11	2462	13.64	15.50	

<5GHz WLAN>

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.2GHz WLAN	802.11a 6Mbps	36	5180	17.95	19.50	87.04
		40	5200	17.84	19.50	
		44	5220	17.82	19.50	
		48	5240	18.02	19.50	
	802.11n-HT20 MCS0	36	5180	16.93	18.50	86.70
		40	5200	17.77	19.50	
		44	5220	17.76	19.50	
		48	5240	17.94	19.50	
	802.11n-HT40 MCS0	38	5190	15.89	17.50	85.79
		46	5230	16.09	17.50	

5.3GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
	802.11a 6Mbps	52	5260	17.89	19.50	87.04
		56	5280	17.96	19.50	
		60	5300	17.83	19.50	
		64	5320	17.78	19.50	
	802.11n-HT20 MCS0	52	5260	17.85	19.50	86.70
		56	5280	17.91	19.50	
		60	5300	17.60	19.50	
		64	5320	17.64	19.50	
	802.11n-HT40 MCS0	54	5270	16.13	17.50	85.79
		62	5310	16.23	17.50	

5.5GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
	802.11a 6Mbps	100	5500	17.97	19.50	87.04
		116	5580	18.17	19.50	
		132	5660	18.03	19.50	
		140	5700	17.17	19.00	
	802.11n-HT20 MCS0	100	5500	17.81	19.00	86.70
		116	5580	18.09	19.00	
		132	5660	18.04	19.00	
		140	5700	15.24	16.50	
	802.11n-HT40 MCS0	102	5510	15.72	17.50	85.79
		110	5550	15.81	17.50	
		134	5670	16.11	17.50	

5.8GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
	802.11a 6Mbps	149	5745	18.09	19.50	87.04
		157	5785	18.12	19.50	
		165	5825	18.01	19.50	
	802.11n-HT20 MCS0	149	5745	17.94	19.50	86.70
		157	5785	17.96	19.50	
		165	5825	17.97	19.50	
	802.11n-HT40 MCS0	151	5755	15.93	17.50	85.79
		159	5795	16.06	17.50	

<Reduced Power Mode for P-Sensor On>
<5GHz WLAN>

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.2GHz WLAN	802.11a 6Mbps	36	5180	16.73	17.50	87.04
		40	5200	16.65	17.50	
		44	5220	16.74	17.50	
		48	5240	16.81	17.50	
	802.11n-HT20 MCS0	36	5180	15.75	16.00	86.70
		40	5200	16.64	17.50	
		44	5220	16.71	17.50	
		48	5240	16.78	17.50	
	802.11n-HT40 MCS0	38	5190	14.80	15.50	85.79
		46	5230	14.89	15.50	

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.3GHz WLAN	802.11a 6Mbps	52	5260	16.59	17.50	87.04
		56	5280	16.76	17.50	
		60	5300	16.69	17.50	
		64	5320	16.61	17.50	
	802.11n-HT20 MCS0	52	5260	16.57	17.50	86.70
		56	5280	16.75	17.50	
		60	5300	16.58	17.50	
		64	5320	16.59	17.50	
	802.11n-HT40 MCS0	54	5270	15.02	16.00	85.79
		62	5310	15.08	16.00	

5.5GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
	802.11a 6Mbps	100	5500	16.31	17.50	87.04
		116	5580	16.52	17.50	
		132	5660	16.45	17.50	
		140	5700	15.56	17.00	
	802.11n-HT20 MCS0	100	5500	16.27	17.00	86.70
		116	5580	16.05	17.00	
		132	5660	16.43	17.00	
		140	5700	13.44	14.00	
	802.11n-HT40 MCS0	102	5510	14.20	14.50	85.79
		110	5550	14.11	14.50	
		134	5670	14.31	14.50	

5.8GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
	802.11a 6Mbps	149	5745	15.42	16.00	87.04
		157	5785	15.43	16.00	
		165	5825	15.36	16.00	
	802.11n-HT20 MCS0	149	5745	15.38	16.00	86.70
		157	5785	15.41	16.00	
		165	5825	15.35	16.00	
	802.11n-HT40 MCS0	151	5755	13.35	14.00	85.79
		159	5795	13.45	14.00	

<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	16.73	17.50	87.04
		40	5200	16.65	17.50	
		44	5220	16.74	17.50	
		48	5240	16.81	17.50	
	802.11n-HT20 MCS0	36	5180	15.75	16.00	86.70
		40	5200	16.64	17.50	
		44	5220	16.71	17.50	
		48	5240	16.78	17.50	
	802.11n-HT40 MCS0	38	5190	14.80	15.50	85.79
		46	5230	14.89	15.50	

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.8GHz WLAN	802.11a 6Mbps	149	5745	15.42	16.00	87.04
		157	5785	15.43	16.00	
		165	5825	15.36	16.00	
	802.11n-HT20 MCS0	149	5745	15.38	16.00	86.70
		157	5785	15.41	16.00	
		165	5825	15.35	16.00	
	802.11n-HT40 MCS0	151	5755	13.35	14.00	85.79
		159	5795	13.45	14.00	

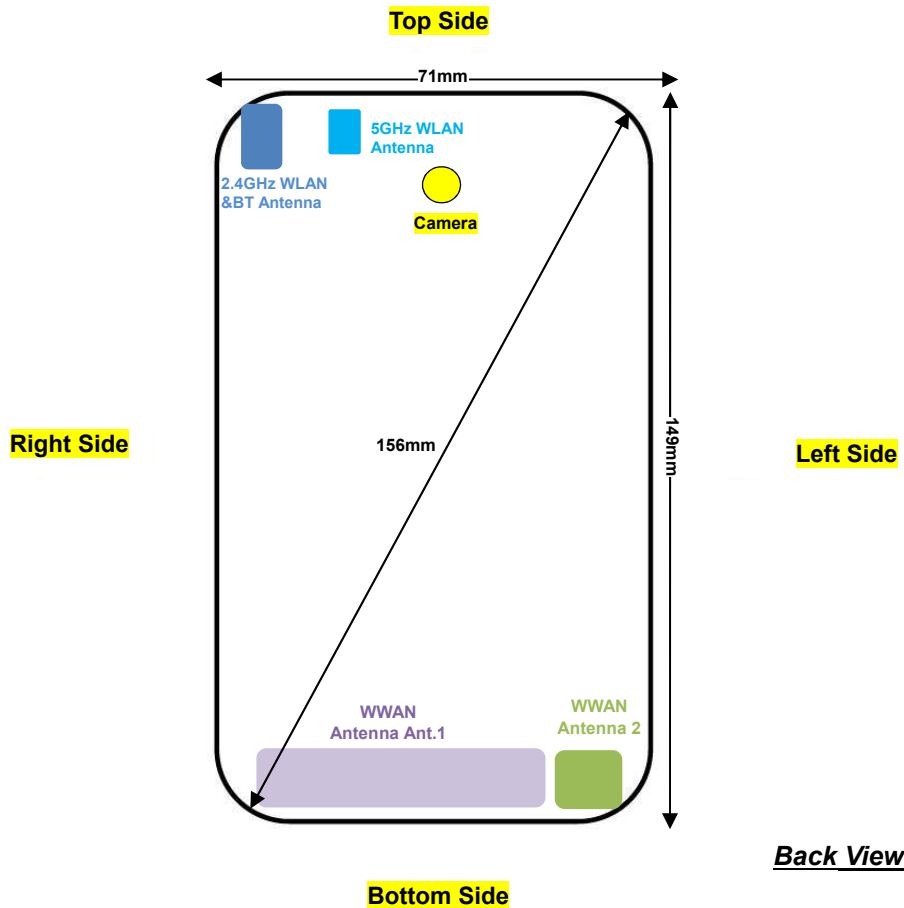
<2.4GHz Bluetooth>
General Note:

1. For 2.4GHz Bluetooth SAR testing was selected 1Mbps, due to its highest average power.
2. The Bluetooth duty cycle is 76.69 %, 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	11.10
	CH 39	2441	11.50
	CH 78	2480	9.80
Tune-up limit (dBm)			12.00

Mode	Channel	Frequency (MHz)	Average power (dBm)
			GFSK
LE	CH 00	2402	1.71
	CH 19	2440	2.26
	CH 39	2480	0.70
Tune-up Limit			2.50

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 1	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	≤ 25mm	≤ 25mm
WWAN Antenna 2	≤ 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 1	Yes	Yes	No	Yes	Yes	Yes
WWAN Antenna 2	Yes	Yes	No	Yes	No	Yes
2.4GHz WLAN & BT	Yes	Yes	Yes	No	Yes	No
5GHz WLAN	Yes	Yes	Yes	No	Yes	No

General Note:

- This device has two WWAN transmitter antennas. WWAN antenna 1 is located at the Right side of bottom edge of the device and WWAN antenna 2 is located at the left side of bottom edge of the device which can refer to antenna location chapter. WWAN antenna 1 frequency bands include GSM850/1900, WCDMA Band II/IV/V, CDMA2000 BC0/1/10, LTE Band 2/4/5/12/13/17/25/26/66/71, WWAN antenna 2 frequency bands include LTE Band 7/38/41.
- Referring to KDB 941225 D06 v02r01, when the overall device length and width are $\geq 9\text{cm} \times 5\text{cm}$, 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 ≥ 0.8 W/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 2/4/7/25/38/41/66, and 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 2/4/7/25/38/41/66 and WLAN5GHz.
7. This device hotspot reduced power and P-sensor reduced power level are the same for LTE band 4/7/38/41/66, and WLAN5GHz. And for other Bands are different.
8. This device has two WWAN transmitter antennas. WWAN antenna 1 is located at the Right side of bottom edge of the device and WWAN antenna 2 is located at the left side of bottom edge of the device which can refer to antenna location chapter. WWAN antenna 1 frequency bands include GSM850/1900, WCDMA Band II/IV/V, CDMA2000 BC0/1/10, LTE Band 2/4/5/12/13/17/25/26/66/71, WWAN antenna 2 frequency bands include LTE Band 7/38/41.
9. 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 $\leq \frac{1}{4}$ 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 $\leq \frac{1}{4}$ dB higher than RMC 12.2Kbps or when the highest reported SAR of the RMC12.2Kbps is scaled by the ratio of specified maximum output power and tune-up tolerance of HSDPA / HSUPA / DC-HSDPA to RMC12.2Kbps and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA, and according to the following RF output power, the output power results of the secondary modes (HSDPA / HSUPA / DC-HSDPA) are less than $\frac{1}{4}$ 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 $\frac{1}{2}$ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, 16QAM/64QAM SAR testing is not required.
5. Per KDB 941225 D05v02r05, smaller bandwidth output power for each RB allocation configuration is $>$ not $\frac{1}{2}$ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
6. 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 $\frac{1}{4}$ 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 / B17 / B26 / B38 / 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 B17 / B2 / B5 / B38 / B4 SAR test was covered by B12 / B25 / B26 / B41 / 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 $\leq$ 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)
01	GSM850	GPRS (4 Tx slots)	Right Cheek	Full	128	824.2	26.91	28.50	1.442	0.01	0.252	0.363
	GSM850	GPRS (4 Tx slots)	Right Tilted	Full	128	824.2	26.91	28.50	1.442	-0.02	0.138	0.199
	GSM850	GPRS (4 Tx slots)	Left Cheek	Full	128	824.2	26.91	28.50	1.442	0.06	0.160	0.231
	GSM850	GPRS (4 Tx slots)	Left Tilted	Full	128	824.2	26.91	28.50	1.442	0.04	0.116	0.167
	GSM1900	GPRS (4 Tx slots)	Right Cheek	Full	810	1909.8	23.76	25.50	1.493	-0.05	0.095	0.141
	GSM1900	GPRS (4 Tx slots)	Right Tilted	Full	810	1909.8	23.76	25.50	1.493	0.02	0.069	0.103
02	GSM1900	GPRS (4 Tx slots)	Left Cheek	Full	810	1909.8	23.76	25.50	1.493	0.05	0.159	0.237
	GSM1900	GPRS (4 Tx slots)	Left Tilted	Full	810	1909.8	23.76	25.50	1.493	0.07	0.045	0.067

<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	4182	836.4	23.02	24.00	1.253	0.01	0.204	0.256
	WCDMA Band V	RMC 12.2Kbps	Right Tilted	Full	4182	836.4	23.02	24.00	1.253	-0.06	0.114	0.143
	WCDMA Band V	RMC 12.2Kbps	Left Cheek	Full	4182	836.4	23.02	24.00	1.253	0.01	0.167	0.209
	WCDMA Band V	RMC 12.2Kbps	Left Tilted	Full	4182	836.4	23.02	24.00	1.253	0.09	0.114	0.143
	WCDMA Band IV	RMC 12.2Kbps	Right Cheek	Full	1312	1712.4	22.96	24.00	1.271	0.03	0.249	0.316
	WCDMA Band IV	RMC 12.2Kbps	Right Tilted	Full	1312	1712.4	22.96	24.00	1.271	-0.02	0.187	0.238
04	WCDMA Band IV	RMC 12.2Kbps	Left Cheek	Full	1312	1712.4	22.96	24.00	1.271	-0.01	0.475	0.604
	WCDMA Band IV	RMC 12.2Kbps	Left Tilted	Full	1312	1712.4	22.96	24.00	1.271	0.09	0.201	0.255
	WCDMA Band II	RMC 12.2Kbps	Right Cheek	Full	9262	1852.4	22.88	24.00	1.294	0.04	0.222	0.287
	WCDMA Band II	RMC 12.2Kbps	Right Tilted	Full	9262	1852.4	22.88	24.00	1.294	-0.02	0.197	0.255
05	WCDMA Band II	RMC 12.2Kbps	Left Cheek	Full	9262	1852.4	22.88	24.00	1.294	-0.17	0.456	0.590
	WCDMA Band II	RMC 12.2Kbps	Left Tilted	Full	9262	1852.4	22.88	24.00	1.294	-0.01	0.156	0.202

<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	777	848.31	23.66	25.00	1.361	-0.03	0.227	0.309
	CDMA2000 BC0	RC3 SO55	Right Tilted	Full	777	848.31	23.66	25.00	1.361	0.05	0.122	0.166
	CDMA2000 BC0	RC3 SO55	Left Cheek	Full	777	848.31	23.66	25.00	1.361	0.08	0.159	0.216
	CDMA2000 BC0	RC3 SO55	Left Tilted	Full	777	848.31	23.66	25.00	1.361	0.04	0.106	0.144
07	CDMA2000 BC10	RC3 SO55	Right Cheek	Full	684	823.1	24.66	25.00	1.081	0.02	0.237	0.256
	CDMA2000 BC10	RC3 SO55	Right Tilted	Full	684	823.1	24.66	25.00	1.081	0.1	0.142	0.154
	CDMA2000 BC10	RC3 SO55	Left Cheek	Full	684	823.1	24.66	25.00	1.081	0.05	0.166	0.180
	CDMA2000 BC10	RC3 SO55	Left Tilted	Full	684	823.1	24.66	25.00	1.081	0.01	0.122	0.132
	CDMA2000 BC1	RC3 SO55	Right Cheek	Full	600	1880	24.68	25.00	1.076	0.01	0.188	0.202
	CDMA2000 BC1	RC3 SO55	Right Tilted	Full	600	1880	24.68	25.00	1.076	0.09	0.102	0.110
08	CDMA2000 BC1	RC3 SO55	Left Cheek	Full	600	1880	24.68	25.00	1.076	-0.03	0.217	0.234
	CDMA2000 BC1	RC3 SO55	Left Tilted	Full	600	1880	24.68	25.00	1.076	0.02	0.080	0.086



<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	0	Right Cheek	Full	133322	683	23.48	24.50	1.265	-0.02	0.300	0.379
	LTE Band 71	20M	QPSK	50	0	Right Cheek	Full	133322	683	21.80	23.50	1.479	0.1	0.166	0.246
	LTE Band 71	20M	QPSK	1	0	Right Tilted	Full	133322	683	23.48	24.50	1.265	-0.03	0.159	0.201
	LTE Band 71	20M	QPSK	50	0	Right Tilted	Full	133322	683	21.80	23.50	1.479	-0.05	0.087	0.129
	LTE Band 71	20M	QPSK	1	0	Left Cheek	Full	133322	683	23.48	24.50	1.265	0.04	0.290	0.367
	LTE Band 71	20M	QPSK	50	0	Left Cheek	Full	133322	683	21.80	23.50	1.479	-0.16	0.162	0.240
	LTE Band 71	20M	QPSK	1	0	Left Tilted	Full	133322	683	23.48	24.50	1.265	-0.15	0.178	0.225
	LTE Band 71	20M	QPSK	50	0	Left Tilted	Full	133322	683	21.80	23.50	1.479	0.01	0.093	0.137
10	LTE Band 12	10M	QPSK	1	49	Right Cheek	Full	23095	707.5	23.16	24.00	1.213	0.02	0.275	0.334
	LTE Band 12	10M	QPSK	25	0	Right Cheek	Full	23095	707.5	21.92	23.00	1.282	0.03	0.163	0.209
	LTE Band 12	10M	QPSK	1	49	Right Tilted	Full	23095	707.5	23.16	24.00	1.213	-0.01	0.123	0.149
	LTE Band 12	10M	QPSK	25	0	Right Tilted	Full	23095	707.5	21.92	23.00	1.282	0.04	0.092	0.117
	LTE Band 12	10M	QPSK	1	49	Left Cheek	Full	23095	707.5	23.16	24.00	1.213	0.05	0.265	0.322
	LTE Band 12	10M	QPSK	25	0	Left Cheek	Full	23095	707.5	21.92	23.00	1.282	0.05	0.157	0.201
	LTE Band 12	10M	QPSK	1	49	Left Tilted	Full	23095	707.5	23.16	24.00	1.213	0.03	0.158	0.192
	LTE Band 12	10M	QPSK	25	0	Left Tilted	Full	23095	707.5	21.92	23.00	1.282	0.02	0.078	0.100
11	LTE Band 13	10M	QPSK	1	49	Right Cheek	Full	23230	782	22.87	24.00	1.297	0.03	0.202	0.262
	LTE Band 13	10M	QPSK	25	0	Right Cheek	Full	23230	782	21.70	23.00	1.349	0.01	0.116	0.156
	LTE Band 13	10M	QPSK	1	49	Right Tilted	Full	23230	782	22.87	24.00	1.297	0.02	0.127	0.165
	LTE Band 13	10M	QPSK	25	0	Right Tilted	Full	23230	782	21.70	23.00	1.349	0.01	0.085	0.115
	LTE Band 13	10M	QPSK	1	49	Left Cheek	Full	23230	782	22.87	24.00	1.297	0.05	0.143	0.185
	LTE Band 13	10M	QPSK	25	0	Left Cheek	Full	23230	782	21.70	23.00	1.349	0.06	0.098	0.132
	LTE Band 13	10M	QPSK	1	49	Left Tilted	Full	23230	782	22.87	24.00	1.297	0.01	0.115	0.149
	LTE Band 13	10M	QPSK	25	0	Left Tilted	Full	23230	782	21.70	23.00	1.349	0.05	0.077	0.104
12	LTE Band 26	15M	QPSK	1	74	Right Cheek	Full	26865	831.5	22.85	24.00	1.303	0.09	0.220	0.287
	LTE Band 26	15M	QPSK	36	0	Right Cheek	Full	26865	831.5	21.79	23.00	1.321	0.05	0.087	0.115
	LTE Band 26	15M	QPSK	1	74	Right Tilted	Full	26865	831.5	22.85	24.00	1.303	0.09	0.130	0.169
	LTE Band 26	15M	QPSK	36	0	Right Tilted	Full	26865	831.5	21.79	23.00	1.321	0.03	0.052	0.069
	LTE Band 26	15M	QPSK	1	74	Left Cheek	Full	26865	831.5	22.85	24.00	1.303	0.02	0.181	0.236
	LTE Band 26	15M	QPSK	36	0	Left Cheek	Full	26865	831.5	21.79	23.00	1.321	0.01	0.067	0.089
	LTE Band 26	15M	QPSK	1	74	Left Tilted	Full	26865	831.5	22.85	24.00	1.303	0.05	0.136	0.177
	LTE Band 26	15M	QPSK	36	0	Left Tilted	Full	26865	831.5	21.79	23.00	1.321	0.03	0.051	0.068
	LTE Band 66	20M	QPSK	1	49	Right Cheek	Full	132322	1745	22.58	24.00	1.387	0.05	0.181	0.251
	LTE Band 66	20M	QPSK	50	0	Right Cheek	Full	132322	1745	21.63	23.00	1.371	0.11	0.109	0.149
	LTE Band 66	20M	QPSK	1	49	Right Tilted	Full	132322	1745	22.58	24.00	1.387	0.03	0.111	0.154
	LTE Band 66	20M	QPSK	50	0	Right Tilted	Full	132322	1745	21.63	23.00	1.371	-0.02	0.097	0.132
13	LTE Band 66	20M	QPSK	1	49	Left Cheek	Full	132322	1745	22.58	24.00	1.387	0.08	0.263	0.365
	LTE Band 66	20M	QPSK	50	0	Left Cheek	Full	132322	1745	21.63	23.00	1.371	-0.05	0.178	0.244
	LTE Band 66	20M	QPSK	1	49	Left Tilted	Full	132322	1745	22.58	24.00	1.387	0.03	0.118	0.164
	LTE Band 66	20M	QPSK	50	0	Left Tilted	Full	132322	1745	21.63	23.00	1.371	0.04	0.084	0.116
	LTE Band 25	20M	QPSK	1	49	Right Cheek	Full	26340	1880	22.74	24.00	1.337	0.01	0.139	0.186
	LTE Band 25	20M	QPSK	50	0	Right Cheek	Full	26340	1880	21.51	23.00	1.409	0.01	0.092	0.130
	LTE Band 25	20M	QPSK	1	49	Right Tilted	Full	26340	1880	22.74	24.00	1.337	0.09	0.090	0.121
	LTE Band 25	20M	QPSK	50	0	Right Tilted	Full	26340	1880	21.51	23.00	1.409	-0.06	0.052	0.073
14	LTE Band 25	20M	QPSK	1	49	Left Cheek	Full	26340	1880	22.74	24.00	1.337	0.09	0.259	0.346
	LTE Band 25	20M	QPSK	50	0	Left Cheek	Full	26340	1880	21.51	23.00	1.409	0.04	0.147	0.207
	LTE Band 25	20M	QPSK	1	49	Left Tilted	Full	26340	1880	22.74	24.00	1.337	0.03	0.083	0.110
	LTE Band 25	20M	QPSK	50	0	Left Tilted	Full	26340	1880	21.51	23.00	1.409	0.08	0.057	0.080



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)
	LTE Band 7	20M	QPSK	1	49	Right Cheek	Full	21100	2535	22.90	24.00	1.288	0.04	0.167	0.215
	LTE Band 7	20M	QPSK	50	0	Right Cheek	Full	21100	2535	21.76	23.00	1.330	0.01	0.103	0.137
	LTE Band 7	20M	QPSK	1	49	Right Tilted	Full	21100	2535	22.90	24.00	1.288	0.03	0.142	0.183
	LTE Band 7	20M	QPSK	50	0	Right Tilted	Full	21100	2535	21.76	23.00	1.330	0.05	0.091	0.121
15	LTE Band 7	20M	QPSK	1	49	Left Cheek	Full	21100	2535	22.90	24.00	1.288	0.02	0.276	0.356
	LTE Band 7	20M	QPSK	50	0	Left Cheek	Full	21100	2535	21.76	23.00	1.330	0.06	0.175	0.233
	LTE Band 7	20M	QPSK	1	49	Left Tilted	Full	21100	2535	22.90	24.00	1.288	-0.04	0.134	0.173
	LTE Band 7	20M	QPSK	50	0	Left Tilted	Full	21100	2535	21.76	23.00	1.330	0.08	0.082	0.110

<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)
	LTE Band 41	20M	QPSK	1	99	Right Cheek	Full	3	40185	2549.5	23.02	24.00	1.253	62.9	1.006	0.02	0.063	0.080
	LTE Band 41	20M	QPSK	50	0	Right Cheek	Full	3	40185	2549.5	22.01	23.00	1.256	62.9	1.006	0.04	0.027	0.033
	LTE Band 41	20M	QPSK	1	99	Right Tilted	Full	3	40185	2549.5	23.02	24.00	1.253	62.9	1.006	0.01	0.018	0.022
	LTE Band 41	20M	QPSK	50	0	Right Tilted	Full	3	40185	2549.5	22.01	23.00	1.256	62.9	1.006	0.04	0.015	0.019
	LTE Band 41	20M	QPSK	1	99	Left Cheek	Full	3	40185	2549.5	23.02	24.00	1.253	62.9	1.006	-0.04	0.118	0.149
	LTE Band 41	20M	QPSK	1	99	Left Cheek	Full	3	40185(PCC) + 40383(SCC)	2549.5(PCC) + 2569.3(SCC)	22.70	24.00	1.349	62.9	1.006	-0.02	0.091	0.123
	LTE Band 41	20M	QPSK	50	0	Left Cheek	Full	3	40185	2549.5	22.01	23.00	1.256	62.9	1.006	0.04	0.046	0.059
	LTE Band 41	20M	QPSK	1	99	Left Tilted	Full	3	40185	2549.5	23.02	24.00	1.253	62.9	1.006	0.02	0.076	0.096
	LTE Band 41	20M	QPSK	50	0	Left Tilted	Full	3	40185	2549.5	22.01	23.00	1.256	62.9	1.006	0.06	0.030	0.037
16	LTE Band 41	20M	QPSK	1	99	Left Cheek	Full	2	40620	2593	25.39	26.00	1.151	42.9	1.009	0.01	0.129	0.150

<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	Full	11	2462	18.45	19.50	1.274	97.59	1.025		0.355		
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	Full	11	2462	18.45	19.50	1.274	97.59	1.025		0.418		
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Full	11	2462	18.45	19.50	1.274	97.59	1.025	-0.02	1.056	0.539	0.704
17	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	Full	11	2462	18.45	19.50	1.274	97.59	1.025	0.01	1.042	0.544	0.710

<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	17.96	19.50	1.425	87.04	1.149		0.607		
	WLAN5.3GHz	802.11a 6Mbps	Right Tilted	Full	56	5280	17.96	19.50	1.425	87.04	1.149		0.600		
	WLAN5.3GHz	802.11a 6Mbps	Left Cheek	Full	56	5280	17.96	19.50	1.425	87.04	1.149	-0.07	0.692	0.291	0.476
18	WLAN5.3GHz	802.11a 6Mbps	Left Tilted	Full	56	5280	17.96	19.50	1.425	87.04	1.149	-0.06	0.788	0.305	0.499
	WLAN5.5GHz	802.11a 6Mbps	Right Cheek	Full	116	5580	18.17	19.50	1.358	87.04	1.149		0.223		
	WLAN5.5GHz	802.11a 6Mbps	Right Tilted	Full	116	5580	18.17	19.50	1.358	87.04	1.149		0.593		
	WLAN5.5GHz	802.11a 6Mbps	Left Cheek	Full	116	5580	18.17	19.50	1.358	87.04	1.149		0.729		
19	WLAN5.5GHz	802.11a 6Mbps	Left Tilted	Full	116	5580	18.17	19.50	1.358	87.04	1.149	0.07	0.731	0.254	0.396
	WLAN 5.8GHz	802.11a 6Mbps	Right Cheek	Full	157	5785	18.12	19.50	1.373	87.04	1.149	-0.05	0.702	0.219	0.346
	WLAN 5.8GHz	802.11a 6Mbps	Right Tilted	Full	157	5785	18.12	19.50	1.373	87.04	1.149		0.540		
	WLAN 5.8GHz	802.11a 6Mbps	Left Cheek	Full	157	5785	18.12	19.50	1.373	87.04	1.149		0.563		
20	WLAN 5.8GHz	802.11a 6Mbps	Left Tilted	Full	157	5785	18.12	19.50	1.373	87.04	1.149	0.12	0.727	0.268	0.423

<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	11.50	12.00	1.122	76.69	1.086	0.01	0.061	0.074
	Bluetooth	1Mbps	Right Tilted	Full	39	2441	11.50	12.00	1.122	76.69	1.086	0.01	0.066	0.080
21	Bluetooth	1Mbps	Left Cheek	Full	39	2441	11.50	12.00	1.122	76.69	1.086	0.01	0.122	0.149
	Bluetooth	1Mbps	Left Tilted	Full	39	2441	11.50	12.00	1.122	76.69	1.086	0.01	0.100	0.122

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	128	824.2	26.91	28.50	1.442	-0.05	0.802	1.157
	GSM850	GPRS (4 Tx slot)	Front	5	Full	189	836.4	26.84	28.50	1.466	-0.12	0.803	1.177
22	GSM850	GPRS (4 Tx slot)	Front	5	Full	251	848.8	26.85	28.50	1.462	-0.06	0.801	1.171
	GSM850	GPRS (4 Tx slot)	Back	5	Full	128	824.2	26.91	28.50	1.442	-0.05	0.529	0.763
	GSM850	GPRS (4 Tx slot)	Left Side	5	Full	128	824.2	26.91	28.50	1.442	0.03	0.222	0.320
	GSM850	GPRS (4 Tx slot)	Right Side	5	Full	128	824.2	26.91	28.50	1.442	0.02	0.502	0.724
	GSM850	GPRS (4 Tx slot)	Bottom Side	5	Full	128	824.2	26.91	28.50	1.442	0.09	0.524	0.756
	GSM1900	GPRS (4 Tx slot)	Front	5	Hotspot On	810	1909.8	19.75	20.50	1.189	-0.08	0.981	1.166
	GSM1900	GPRS (4 Tx slot)	Front	5	Hotspot On	512	1850.2	19.86	20.50	1.159	0.04	1.010	1.170
	GSM1900	GPRS (4 Tx slot)	Front	5	Hotspot On	661	1880	19.81	20.50	1.172	0.03	0.896	1.050
	GSM1900	GPRS (4 Tx slot)	Back	5	Hotspot On	810	1909.8	19.75	20.50	1.189	0.06	0.984	1.169
	GSM1900	GPRS (4 Tx slot)	Back	5	Hotspot On	512	1850.2	19.86	20.50	1.159	0.05	0.993	1.151
	GSM1900	GPRS (4 Tx slot)	Back	5	Hotspot On	661	1880	19.81	20.50	1.172	0.01	0.982	1.151
	GSM1900	GPRS (4 Tx slot)	Left Side	5	Hotspot On	810	1909.8	16.94	18.50	1.432	0.07	0.097	0.139
	GSM1900	GPRS (4 Tx slot)	Right Side	5	Hotspot On	810	1909.8	16.94	18.50	1.432	0.02	0.126	0.180
23	GSM1900	GPRS (4 Tx slot)	Bottom Side	5	Hotspot On	810	1909.8	16.94	18.50	1.432	0.07	0.864	1.237
	GSM1900	GPRS (4 Tx slot)	Bottom Side	5	Hotspot On	512	1850.2	16.84	18.50	1.466	0.01	0.742	1.087
	GSM1900	GPRS (4 Tx slot)	Bottom Side	5	Hotspot On	661	1880	16.74	18.50	1.500	-0.01	0.754	1.131

<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	4182	836.4	23.02	24.00	1.253	-0.03	0.800	1.003
	WCDMA Band V	RMC12.2Kbps	Front	5	Full	4132	826.4	22.88	24.00	1.294	-0.05	0.728	0.942
24	WCDMA Band V	RMC12.2Kbps	Front	5	Full	4233	846.6	22.90	24.00	1.288	0.02	0.823	1.060
	WCDMA Band V	RMC12.2Kbps	Back	5	Full	4182	836.4	23.02	24.00	1.253	0.07	0.632	0.792
	WCDMA Band V	RMC12.2Kbps	Left Side	5	Full	4182	836.4	23.02	24.00	1.253	0.02	0.173	0.217
	WCDMA Band V	RMC12.2Kbps	Right Side	5	Full	4182	836.4	23.02	24.00	1.253	0.01	0.533	0.668
	WCDMA Band V	RMC12.2Kbps	Bottom Side	5	Full	4182	836.4	23.02	24.00	1.253	-0.03	0.457	0.573
	WCDMA Band IV	RMC12.2Kbps	Front	5	Hotspot On	1312	1712.4	16.38	16.50	1.028	-0.01	1.010	1.038
25	WCDMA Band IV	RMC12.2Kbps	Front	5	Hotspot On	1413	1732.6	16.34	16.50	1.038	0.08	1.240	1.287
	WCDMA Band IV	RMC12.2Kbps	Front	5	Hotspot On	1513	1752.6	16.17	16.50	1.079	0.06	1.160	1.252
	WCDMA Band IV	RMC12.2Kbps	Back	5	Hotspot On	1312	1712.4	16.38	16.50	1.028	-0.02	1.030	1.059
	WCDMA Band IV	RMC12.2Kbps	Back	5	Hotspot On	1413	1732.6	16.34	16.50	1.038	0.02	1.190	1.235
	WCDMA Band IV	RMC12.2Kbps	Back	5	Hotspot On	1513	1752.6	16.17	16.50	1.079	0	1.070	1.154
	WCDMA Band IV	RMC12.2Kbps	Left Side	5	Hotspot On	1312	1712.4	15.44	16.50	1.276	0.02	0.084	0.107
	WCDMA Band IV	RMC12.2Kbps	Right Side	5	Hotspot On	1312	1712.4	15.44	16.50	1.276	0.04	0.135	0.172
	WCDMA Band IV	RMC12.2Kbps	Bottom Side	5	Hotspot On	1312	1712.4	15.44	16.50	1.276	0.02	0.936	1.195
	WCDMA Band IV	RMC12.2Kbps	Bottom Side	5	Hotspot On	1413	1732.6	15.44	16.50	1.276	0.03	0.893	1.140
	WCDMA Band IV	RMC12.2Kbps	Bottom Side	5	Hotspot On	1513	1752.6	15.21	16.50	1.346	0.04	0.808	1.087
	WCDMA Band II	RMC12.2Kbps	Front	5	Hotspot On	9262	1852.4	16.43	16.50	1.016	0.01	1.150	1.169
	WCDMA Band II	RMC12.2Kbps	Front	5	Hotspot On	9400	1880	16.33	16.50	1.040	-0.02	0.990	1.030
	WCDMA Band II	RMC12.2Kbps	Front	5	Hotspot On	9538	1907.6	16.28	16.50	1.052	-0.01	1.000	1.052
	WCDMA Band II	RMC12.2Kbps	Back	5	Hotspot On	9262	1852.4	16.43	16.50	1.016	0.03	1.010	1.026
	WCDMA Band II	RMC12.2Kbps	Back	5	Hotspot On	9400	1880	16.33	16.50	1.040	0.03	0.919	0.956
	WCDMA Band II	RMC12.2Kbps	Back	5	Hotspot On	9538	1907.6	16.28	16.50	1.052	-0.05	0.925	0.973
	WCDMA Band II	RMC12.2Kbps	Left Side	5	Hotspot On	9262	1852.4	13.43	14.50	1.279	0.07	0.061	0.078
	WCDMA Band II	RMC12.2Kbps	Right Side	5	Hotspot On	9262	1852.4	13.43	14.50	1.279	0.06	0.086	0.110
	WCDMA Band II	RMC12.2Kbps	Bottom Side	5	Hotspot On	9262	1852.4	13.43	14.50	1.279	0.05	0.801	1.025
	WCDMA Band II	RMC12.2Kbps	Bottom Side	5	Hotspot On	9400	1880	13.34	14.50	1.306	0.05	0.793	1.036
26	WCDMA Band II	RMC12.2Kbps	Bottom Side	5	Hotspot On	9538	1907.6	13.27	14.50	1.327	0.05	0.945	1.254



<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	777	848.31	23.63	25.00	1.371	0.06	0.837	1.147
27	CDMA2000 BC0	RTAP 153.6Kbps	Front	5	Full	1013	824.7	23.29	25.00	1.483	0.19	0.777	1.152
	CDMA2000 BC0	RTAP 153.6Kbps	Front	5	Full	384	836.52	23.40	25.00	1.445	0.04	0.782	1.130
	CDMA2000 BC0	RTAP 153.6Kbps	Back	5	Full	777	848.31	23.63	25.00	1.371	0.03	0.751	1.030
	CDMA2000 BC0	RTAP 153.6Kbps	Back	5	Full	1013	824.7	23.29	25.00	1.483	0.02	0.682	1.011
	CDMA2000 BC0	RTAP 153.6Kbps	Back	5	Full	384	836.52	23.40	25.00	1.445	0.06	0.698	1.009
	CDMA2000 BC0	RTAP 153.6Kbps	Left Side	5	Full	777	848.31	23.63	25.00	1.371	0.01	0.139	0.191
	CDMA2000 BC0	RTAP 153.6Kbps	Right Side	5	Full	777	848.31	23.63	25.00	1.371	0.03	0.466	0.639
	CDMA2000 BC0	RTAP 153.6Kbps	Bottom Side	5	Full	777	848.31	23.63	25.00	1.371	0.05	0.580	0.795
28	CDMA2000 BC10	RTAP 153.6Kbps	Front	5	Full	684	823.1	24.57	25.00	1.104	0.06	0.849	0.937
	CDMA2000 BC10	RTAP 153.6Kbps	Front	5	Full	476	817.9	24.47	25.00	1.130	0.07	0.810	0.915
	CDMA2000 BC10	RTAP 153.6Kbps	Front	5	Full	580	820.5	24.49	25.00	1.125	0.15	0.813	0.914
	CDMA2000 BC10	RTAP 153.6Kbps	Back	5	Full	684	823.1	24.57	25.00	1.104	0.01	0.776	0.857
	CDMA2000 BC10	RTAP 153.6Kbps	Back	5	Full	476	817.9	24.47	25.00	1.130	0.03	0.758	0.856
	CDMA2000 BC10	RTAP 153.6Kbps	Back	5	Full	580	820.5	24.49	25.00	1.125	0.06	0.750	0.843
	CDMA2000 BC10	RTAP 153.6Kbps	Left Side	5	Full	684	823.1	24.57	25.00	1.104	0.02	0.215	0.237
	CDMA2000 BC10	RTAP 153.6Kbps	Right Side	5	Full	684	823.1	24.57	25.00	1.104	0.02	0.573	0.633
	CDMA2000 BC10	RTAP 153.6Kbps	Bottom Side	5	Full	684	823.1	24.57	25.00	1.104	0.05	0.533	0.588
	CDMA2000 BC1	RTAP 153.6Kbps	Front	5	Hotspot On	600	1880	17.27	17.50	1.054	-0.08	0.693	0.731
	CDMA2000 BC1	RTAP 153.6Kbps	Back	5	Hotspot On	600	1880	17.27	17.50	1.054	0.03	0.874	0.922
	CDMA2000 BC1	RTAP 153.6Kbps	Back	5	Hotspot On	25	1851.25	17.26	17.50	1.057	0.04	0.820	0.867
	CDMA2000 BC1	RTAP 153.6Kbps	Back	5	Hotspot On	1175	1908.75	16.97	17.50	1.130	0.03	0.802	0.906
	CDMA2000 BC1	RTAP 153.6Kbps	Left Side	5	Hotspot On	600	1880	17.27	17.50	1.054	0.02	0.066	0.069
	CDMA2000 BC1	RTAP 153.6Kbps	Right Side	5	Hotspot On	600	1880	17.27	17.50	1.054	0.05	0.092	0.097
	CDMA2000 BC1	RTAP 153.6Kbps	Bottom Side	5	Hotspot On	600	1880	17.27	17.50	1.054	0.03	1.260	1.329
29	CDMA2000 BC1	RTAP 153.6Kbps	Bottom Side	5	Hotspot On	25	1851.25	17.26	17.50	1.057	0.01	1.280	1.353
	CDMA2000 BC1	RTAP 153.6Kbps	Bottom Side	5	Hotspot On	1175	1908.75	16.97	17.50	1.130	0.09	1.190	1.344



<FDD LTE SAR>

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)
30	LTE Band 71	20M	QPSK	1	0	Front	5	Full	133322	683	23.48	24.50	1.265	0.01	0.842	1.065
	LTE Band 71	20M	QPSK	50	0	Front	5	Full	133322	683	21.80	23.50	1.479	-0.02	0.654	0.967
	LTE Band 71	20M	QPSK	100	0	Front	5	Full	133322	683	21.73	23.50	1.503	-0.03	0.459	0.690
	LTE Band 71	20M	QPSK	1	0	Back	5	Full	133322	683	23.48	24.50	1.265	-0.04	0.792	1.002
	LTE Band 71	20M	QPSK	50	0	Back	5	Full	133322	683	21.80	23.50	1.479	-0.02	0.479	0.708
	LTE Band 71	20M	QPSK	100	0	Back	5	Full	133322	683	21.73	23.50	1.503	-0.11	0.388	0.583
	LTE Band 71	20M	QPSK	1	0	Left Side	5	Full	133322	683	23.48	24.50	1.265	-0.03	0.465	0.588
	LTE Band 71	20M	QPSK	50	0	Left Side	5	Full	133322	683	21.80	23.50	1.479	-0.01	0.261	0.386
	LTE Band 71	20M	QPSK	1	0	Right Side	5	Full	133322	683	23.48	24.50	1.265	0.09	0.594	0.751
	LTE Band 71	20M	QPSK	50	0	Right Side	5	Full	133322	683	21.80	23.50	1.479	0.03	0.343	0.507
	LTE Band 71	20M	QPSK	1	0	Bottom Side	5	Full	133322	683	23.48	24.50	1.265	0.03	0.501	0.634
	LTE Band 71	20M	QPSK	50	0	Bottom Side	5	Full	133322	683	21.80	23.50	1.479	0.01	0.296	0.438
	LTE Band 12	10M	QPSK	1	49	Front	5	Full	23095	707.5	23.16	24.00	1.213	0.04	0.666	0.808
	LTE Band 12	10M	QPSK	25	0	Front	5	Full	23095	707.5	21.92	23.00	1.282	-0.13	0.485	0.622
	LTE Band 12	10M	QPSK	50	0	Front	5	Full	23095	707.5	21.89	23.00	1.291	-0.13	0.478	0.617
31	LTE Band 12	10M	QPSK	1	49	Back	5	Full	23095	707.5	23.16	24.00	1.213	0.02	0.674	0.818
	LTE Band 12	10M	QPSK	25	0	Back	5	Full	23095	707.5	21.92	23.00	1.282	0.01	0.390	0.500
	LTE Band 12	10M	QPSK	50	0	Back	5	Full	23095	707.5	21.89	23.00	1.291	0.01	0.381	0.492
	LTE Band 12	10M	QPSK	1	49	Left Side	5	Full	23095	707.5	23.16	24.00	1.213	0.04	0.252	0.306
	LTE Band 12	10M	QPSK	25	0	Left Side	5	Full	23095	707.5	21.92	23.00	1.282	0.02	0.187	0.240
	LTE Band 12	10M	QPSK	1	49	Right Side	5	Full	23095	707.5	23.16	24.00	1.213	0.02	0.327	0.397
	LTE Band 12	10M	QPSK	25	0	Right Side	5	Full	23095	707.5	21.92	23.00	1.282	0.06	0.237	0.304
	LTE Band 12	10M	QPSK	1	49	Bottom Side	5	Full	23095	707.5	23.16	24.00	1.213	-0.07	0.469	0.569
	LTE Band 12	10M	QPSK	25	0	Bottom Side	5	Full	23095	707.5	21.92	23.00	1.282	0.12	0.271	0.348
32	LTE Band 13	10M	QPSK	1	49	Front	5	Full	23230	782	22.87	24.00	1.297	0.08	0.698	0.905
	LTE Band 13	10M	QPSK	25	0	Front	5	Full	23230	782	21.70	23.00	1.349	-0.18	0.413	0.557
	LTE Band 13	10M	QPSK	50	0	Front	5	Full	23230	782	21.67	23.00	1.358	-0.18	0.415	0.564
	LTE Band 13	10M	QPSK	1	49	Back	5	Full	23230	782	22.87	24.00	1.297	0.08	0.608	0.789
	LTE Band 13	10M	QPSK	25	0	Back	5	Full	23230	782	21.70	23.00	1.349	0.11	0.336	0.453
	LTE Band 13	10M	QPSK	1	49	Left Side	5	Full	23230	782	22.87	24.00	1.297	0.03	0.290	0.376
	LTE Band 13	10M	QPSK	25	0	Left Side	5	Full	23230	782	21.70	23.00	1.349	0.09	0.218	0.294
	LTE Band 13	10M	QPSK	1	49	Right Side	5	Full	23230	782	22.87	24.00	1.297	-0.09	0.540	0.700
	LTE Band 13	10M	QPSK	25	0	Right Side	5	Full	23230	782	21.70	23.00	1.349	-0.03	0.367	0.495
	LTE Band 13	10M	QPSK	1	49	Bottom Side	5	Full	23230	782	22.87	24.00	1.297	0.02	0.463	0.601
	LTE Band 13	10M	QPSK	25	0	Bottom Side	5	Full	23230	782	21.70	23.00	1.349	0.02	0.273	0.368
33	LTE Band 26	15M	QPSK	1	74	Front	5	Full	26865	831.5	22.85	24.00	1.303	-0.05	0.737	0.960
	LTE Band 26	15M	QPSK	36	0	Front	5	Full	26865	831.5	21.79	23.00	1.321	0.08	0.320	0.423
	LTE Band 26	15M	QPSK	75	0	Front	5	Full	26865	831.5	21.62	23.00	1.374	0.13	0.309	0.425
	LTE Band 26	15M	QPSK	1	74	Back	5	Full	26865	831.5	22.85	24.00	1.303	0.05	0.608	0.792
	LTE Band 26	15M	QPSK	36	0	Back	5	Full	26865	831.5	21.79	23.00	1.321	0.12	0.269	0.355
	LTE Band 26	15M	QPSK	1	74	Left Side	5	Full	26865	831.5	22.85	24.00	1.303	0.03	0.195	0.254
	LTE Band 26	15M	QPSK	36	0	Left Side	5	Full	26865	831.5	21.79	23.00	1.321	0.12	0.077	0.102
	LTE Band 26	15M	QPSK	1	74	Right Side	5	Full	26865	831.5	22.85	24.00	1.303	-0.01	0.515	0.671
	LTE Band 26	15M	QPSK	36	0	Right Side	5	Full	26865	831.5	21.79	23.00	1.321	0.06	0.208	0.275
	LTE Band 26	15M	QPSK	1	74	Bottom Side	5	Full	26865	831.5	22.85	24.00	1.303	0.01	0.488	0.636
	LTE Band 26	15M	QPSK	36	0	Bottom Side	5	Full	26865	831.5	21.79	23.00	1.321	0.1	0.212	0.280



FCC SAR Test Report

Report No. : FA913102

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	49	Front	5	Hotspot On	132322	1745	17.13	17.50	1.089	0.01	1.050	1.143
	LTE Band 66	20M	QPSK	1	49	Front	5	Hotspot On	132072	1720	16.96	17.50	1.132	-0.07	1.010	1.144
	LTE Band 66	20M	QPSK	1	49	Front	5	Hotspot On	132572	1770	16.87	17.50	1.156	0.01	0.989	1.143
	LTE Band 66	20M	QPSK	50	0	Front	5	Hotspot On	132322	1745	17.11	17.50	1.094	0.08	1.220	1.335
	LTE Band 66	20M	QPSK	50	0	Front	5	Hotspot On	132072	1720	16.93	17.50	1.140	0.01	1.140	1.300
	LTE Band 66	20M	QPSK	50	0	Front	5	Hotspot On	132572	1770	17.10	17.50	1.096	0.08	1.060	1.162
34	LTE Band 66	20M	QPSK	100	0	Front	5	Hotspot On	132322	1745	16.95	17.50	1.135	0.01	1.220	1.385
	LTE Band 66	20M	QPSK	1	49	Back	5	Hotspot On	132322	1745	17.13	17.50	1.089	0.07	1.190	1.296
	LTE Band 66	20M	QPSK	1	49	Back	5	Hotspot On	132072	1720	16.96	17.50	1.132	0.05	1.040	1.178
	LTE Band 66	20M	QPSK	1	49	Back	5	Hotspot On	132572	1770	16.87	17.50	1.156	0.08	1.090	1.260
	LTE Band 66	20M	QPSK	50	0	Back	5	Hotspot On	132322	1745	17.11	17.50	1.094	0.02	1.150	1.258
	LTE Band 66	20M	QPSK	50	0	Back	5	Hotspot On	132072	1720	16.93	17.50	1.140	0.01	1.070	1.220
	LTE Band 66	20M	QPSK	50	0	Back	5	Hotspot On	132572	1770	17.10	17.50	1.096	0.08	1.030	1.129
	LTE Band 66	20M	QPSK	100	0	Back	5	Hotspot On	132322	1745	16.95	17.50	1.135	-0.11	1.180	1.339
	LTE Band 66	20M	QPSK	1	49	Left Side	5	Hotspot On	132322	1745	17.13	17.50	1.089	0.02	0.111	0.121
	LTE Band 66	20M	QPSK	50	0	Left Side	5	Hotspot On	132322	1745	17.11	17.50	1.094	0.01	0.106	0.116
	LTE Band 66	20M	QPSK	1	49	Right Side	5	Hotspot On	132322	1745	17.13	17.50	1.089	0.02	0.112	0.122
	LTE Band 66	20M	QPSK	50	0	Right Side	5	Hotspot On	132322	1745	17.11	17.50	1.094	-0.03	0.119	0.130
	LTE Band 66	20M	QPSK	1	49	Bottom Side	5	Hotspot On	132322	1745	17.13	17.50	1.089	0.01	0.927	1.009
	LTE Band 66	20M	QPSK	1	49	Bottom Side	5	Hotspot On	132072	1720	16.96	17.50	1.132	0.02	0.854	0.967
	LTE Band 66	20M	QPSK	1	49	Bottom Side	5	Hotspot On	132572	1770	16.87	17.50	1.156	0.03	1.050	1.214
	LTE Band 66	20M	QPSK	50	0	Bottom Side	5	Hotspot On	132322	1745	17.11	17.50	1.094	0.07	0.989	1.082
	LTE Band 66	20M	QPSK	50	0	Bottom Side	5	Hotspot On	132072	1720	16.93	17.50	1.140	0.03	1.060	1.209
	LTE Band 66	20M	QPSK	50	0	Bottom Side	5	Hotspot On	132572	1770	17.10	17.50	1.096	0.03	0.994	1.090
	LTE Band 66	20M	QPSK	100	0	Bottom Side	5	Hotspot On	132322	1745	16.95	17.50	1.135	0.18	0.895	1.016



FCC SAR Test Report

Report No. : FA913102

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 25	20M	QPSK	1	49	Front	5	Hotspot On	26340	1880	17.69	18.50	1.205	-0.06	0.908	1.094
	LTE Band 25	20M	QPSK	1	49	Front	5	Hotspot On	26140	1860	17.38	18.50	1.294	0.05	0.889	1.151
	LTE Band 25	20M	QPSK	1	49	Front	5	Hotspot On	26590	1905	17.48	18.50	1.265	0.02	0.697	0.882
	LTE Band 25	20M	QPSK	50	0	Front	5	Hotspot On	26340	1880	17.68	18.50	1.208	0.11	0.859	1.038
	LTE Band 25	20M	QPSK	50	0	Front	5	Hotspot On	26140	1860	17.61	18.50	1.227	0.01	0.963	1.182
	LTE Band 25	20M	QPSK	50	0	Front	5	Hotspot On	26590	1905	17.47	18.50	1.268	-0.13	0.773	0.980
	LTE Band 25	20M	QPSK	100	0	Front	5	Hotspot On	26340	1880	17.41	18.50	1.285	0.03	0.872	1.121
	LTE Band 25	20M	QPSK	1	49	Back	5	Hotspot On	26340	1880	17.69	18.50	1.205	0.09	0.916	1.104
	LTE Band 25	20M	QPSK	1	49	Back	5	Hotspot On	26140	1860	17.38	18.50	1.294	0.02	1.010	1.307
	LTE Band 25	20M	QPSK	1	49	Back	5	Hotspot On	26590	1905	17.48	18.50	1.265	0.06	0.719	0.909
	LTE Band 25	20M	QPSK	50	0	Back	5	Hotspot On	26340	1880	17.68	18.50	1.208	0.04	0.878	1.060
	LTE Band 25	20M	QPSK	50	0	Back	5	Hotspot On	26140	1860	17.61	18.50	1.227	0.09	0.988	1.213
	LTE Band 25	20M	QPSK	50	0	Back	5	Hotspot On	26590	1905	17.47	18.50	1.268	-0.01	0.779	0.988
	LTE Band 25	20M	QPSK	100	0	Back	5	Hotspot On	26140	1860	17.41	18.50	1.285	0.12	1.020	1.311
	LTE Band 25	20M	QPSK	1	49	Left Side	5	Hotspot On	26340	1880	15.95	16.50	1.135	0.01	0.071	0.080
	LTE Band 25	20M	QPSK	50	0	Left Side	5	Hotspot On	26340	1880	15.44	16.50	1.276	0.03	0.069	0.089
	LTE Band 25	20M	QPSK	1	49	Right Side	5	Hotspot On	26340	1880	15.95	16.50	1.135	0.01	0.061	0.069
	LTE Band 25	20M	QPSK	50	0	Right Side	5	Hotspot On	26340	1880	15.44	16.50	1.276	0.02	0.062	0.079
	LTE Band 25	20M	QPSK	1	49	Bottom Side	5	Hotspot On	26340	1880	15.95	16.50	1.135	0.03	1.070	1.214
	LTE Band 25	20M	QPSK	1	49	Bottom Side	5	Hotspot On	26140	1860	15.53	16.50	1.250	0.06	1.050	1.313
35	LTE Band 25	20M	QPSK	1	49	Bottom Side	5	Hotspot On	26590	1905	15.57	16.50	1.239	-0.02	1.110	1.375
	LTE Band 25	20M	QPSK	50	0	Bottom Side	5	Hotspot On	26340	1880	15.44	16.50	1.276	0.03	1.070	1.366
	LTE Band 25	20M	QPSK	50	0	Bottom Side	5	Hotspot On	26140	1860	15.42	16.50	1.282	0.05	1.010	1.295
	LTE Band 25	20M	QPSK	50	0	Bottom Side	5	Hotspot On	26590	1905	15.34	16.50	1.306	-0.04	1.020	1.332
	LTE Band 25	20M	QPSK	100	0	Bottom Side	5	Hotspot On	26340	1880	15.45	16.50	1.274	0.02	1.050	1.337



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 7	20M	QPSK	1	49	Front	5	Hotspot On	21100	2535	18.89	19.50	1.151	0.01	1.010	1.162
	LTE Band 7	20M	QPSK	1	49	Front	5	Hotspot On	20850	2510	18.65	19.50	1.216	0.06	0.944	1.148
	LTE Band 7	20M	QPSK	1	49	Front	5	Hotspot On	21350	2560	18.64	19.50	1.219	-0.02	0.971	1.184
	LTE Band 7	20M	QPSK	50	0	Front	5	Hotspot On	21100	2535	18.80	19.50	1.175	0.03	0.978	1.149
	LTE Band 7	20M	QPSK	50	0	Front	5	Hotspot On	20850	2510	18.75	19.50	1.189	-0.05	0.945	1.123
	LTE Band 7	20M	QPSK	50	0	Front	5	Hotspot On	21350	2560	18.79	19.50	1.178	0.07	0.956	1.126
	LTE Band 7	20M	QPSK	100	0	Front	5	Hotspot On	20850	2535	18.83	19.50	1.167	0.03	1.020	1.190
	LTE Band 7	20M	QPSK	1	49	Back	5	Hotspot On	21100	2535	18.89	19.50	1.151	0.01	1.080	1.243
	LTE Band 7	20M	QPSK	1	49	Back	5	Hotspot On	20850	2510	18.65	19.50	1.216	-0.06	1.040	1.265
36	LTE Band 7	20M	QPSK	1	49	Back	5	Hotspot On	21350	2560	18.64	19.50	1.219	0.06	1.130	1.377
	LTE Band 7	20M	QPSK	50	0	Back	5	Hotspot On	21100	2535	18.80	19.50	1.175	0.02	1.120	1.316
	LTE Band 7	20M	QPSK	50	0	Back	5	Hotspot On	20850	2510	18.75	19.50	1.189	0.03	1.130	1.343
	LTE Band 7	20M	QPSK	50	0	Back	5	Hotspot On	21350	2560	18.79	19.50	1.178	0.07	1.130	1.331
	LTE Band 7	20M	QPSK	100	0	Back	5	Hotspot On	20850	2535	18.83	19.50	1.167	-0.01	1.110	1.295
	LTE Band 7	20M	QPSK	1	49	Left Side	5	Hotspot On	21100	2535	18.89	19.50	1.151	-0.05	0.704	0.810
	LTE Band 7	20M	QPSK	1	49	Left Side	5	Hotspot On	20850	2510	18.65	19.50	1.216	0.06	0.792	0.963
	LTE Band 7	20M	QPSK	1	49	Left Side	5	Hotspot On	21350	2560	18.64	19.50	1.219	0.02	0.808	0.985
	LTE Band 7	20M	QPSK	50	0	Left Side	5	Hotspot On	21100	2535	18.80	19.50	1.175	0.01	0.811	0.953
	LTE Band 7	20M	QPSK	50	0	Left Side	5	Hotspot On	20850	2510	18.75	19.50	1.189	0.02	0.801	0.952
	LTE Band 7	20M	QPSK	50	0	Left Side	5	Hotspot On	21350	2560	18.79	19.50	1.178	0.06	0.839	0.988
	LTE Band 7	20M	QPSK	100	0	Left Side	5	Hotspot On	20850	2535	18.83	19.50	1.167	0.05	0.801	0.935
	LTE Band 7	20M	QPSK	1	49	Bottom Side	5	Hotspot On	21100	2535	18.89	19.50	1.151	0.07	1.000	1.151
	LTE Band 7	20M	QPSK	1	49	Bottom Side	5	Hotspot On	20850	2510	18.65	19.50	1.216	0.01	0.933	1.135
	LTE Band 7	20M	QPSK	1	49	Bottom Side	5	Hotspot On	21350	2560	18.64	19.50	1.219	0.08	0.905	1.103
	LTE Band 7	20M	QPSK	50	0	Bottom Side	5	Hotspot On	21100	2535	18.80	19.50	1.175	-0.04	1.040	1.222
	LTE Band 7	20M	QPSK	50	0	Bottom Side	5	Hotspot On	20850	2510	18.75	19.50	1.189	0.01	0.958	1.139
	LTE Band 7	20M	QPSK	50	0	Bottom Side	5	Hotspot On	21350	2560	18.79	19.50	1.178	0.03	0.938	1.105
	LTE Band 7	20M	QPSK	100	0	Bottom Side	5	Hotspot On	20850	2535	18.83	19.50	1.167	-0.04	0.988	1.153



<TDD LTE SAR>

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	99	Front	5	Hotspot On	3	40185	2549.5	20.90	21.00	1.023	62.9	1.006	0.01	0.822	0.846
	LTE Band 41	20M	QPSK	1	99	Front	5	Hotspot On	3	39750	2506	20.60	21.00	1.096	62.9	1.006	0.02	0.880	0.971
	LTE Band 41	20M	QPSK	1	99	Front	5	Hotspot On	3	40620	2593	20.61	21.00	1.094	62.9	1.006	-0.04	0.759	0.835
	LTE Band 41	20M	QPSK	1	99	Front	5	Hotspot On	3	41055	2636.5	20.47	21.00	1.130	62.9	1.006	-0.19	0.560	0.636
	LTE Band 41	20M	QPSK	1	99	Front	5	Hotspot On	3	41490	2680	20.88	21.00	1.028	62.9	1.006	0.04	0.772	0.798
	LTE Band 41	20M	QPSK	50	0	Front	5	Hotspot On	3	40185	2549.5	20.73	21.00	1.064	62.9	1.006	-0.03	0.862	0.923
	LTE Band 41	20M	QPSK	50	0	Front	5	Hotspot On	3	39750	2506	20.58	21.00	1.102	62.9	1.006	0.02	0.895	0.992
	LTE Band 41	20M	QPSK	50	0	Front	5	Hotspot On	3	40620	2593	20.61	21.00	1.094	62.9	1.006	0.01	0.826	0.909
	LTE Band 41	20M	QPSK	50	0	Front	5	Hotspot On	3	41055	2636.5	20.59	21.00	1.099	62.9	1.006	0.05	0.649	0.718
	LTE Band 41	20M	QPSK	50	0	Front	5	Hotspot On	3	41490	2680	20.62	21.00	1.091	62.9	1.006	0.02	0.854	0.938
	LTE Band 41	20M	QPSK	100	0	Front	5	Hotspot On	3	40185	2549.5	20.71	21.00	1.069	62.9	1.006	0.05	0.899	0.967
	LTE Band 41	20M	QPSK	1	99	Back	5	Hotspot On	3	40185	2549.5	20.90	21.00	1.023	62.9	1.006	-0.02	1.080	1.112
	LTE Band 41	20M	QPSK	1	99	Back	5	Hotspot On	3	39750	2506	20.60	21.00	1.096	62.9	1.006	0.06	1.070	1.180
	LTE Band 41	20M	QPSK	1	99	Back	5	Hotspot On	3	40620	2593	20.61	21.00	1.094	62.9	1.006	-0.01	1.030	1.134
	LTE Band 41	20M	QPSK	1	99	Back	5	Hotspot On	3	41055	2636.5	20.47	21.00	1.130	62.9	1.006	-0.05	0.971	1.104
	LTE Band 41	20M	QPSK	1	99	Back	5	Hotspot On	3	41490	2680	20.88	21.00	1.028	62.9	1.006	0.02	1.050	1.086
37	LTE Band 41	20M	QPSK	50	0	Back	5	Hotspot On	3	40185	2549.5	20.73	21.00	1.064	62.9	1.006	0.17	1.190	1.274
	LTE Band 41	20M	QPSK	50	0	Back	5	Hotspot On	3	39750	2506	20.58	21.00	1.102	62.9	1.006	-0.1	1.120	1.241
	LTE Band 41	20M	QPSK	50	0	Back	5	Hotspot On	3	40620	2593	20.61	21.00	1.094	62.9	1.006	-0.15	1.140	1.255
	LTE Band 41	20M	QPSK	50	0	Back	5	Hotspot On	3	41055	2636.5	20.59	21.00	1.099	62.9	1.006	-0.03	0.921	1.018
	LTE Band 41	20M	QPSK	50	0	Back	5	Hotspot On	3	41490	2680	20.62	21.00	1.091	62.9	1.006	0.09	1.120	1.230
	LTE Band 41	20M	QPSK	50	0	Back	5	Hotspot On	3	40185(PCC) + 40383(SCC)	2549.5(PCC) + 2569.3(SCC)	20.63	21.00	1.089	62.9	1.006	0.16	1.140	1.249
	LTE Band 41	20M	QPSK	50	0	Back	5	Hotspot On	3	39750(PCC) + 39948(SCC)	2506(PCC) + 2525.8(SCC)	20.10	21.00	1.230	62.9	1.006	0.06	1.010	1.250
	LTE Band 41	20M	QPSK	50	0	Back	5	Hotspot On	3	40620(PCC) + 40422(SCC)	2593(PCC) + 2573.2(SCC)	20.64	21.00	1.086	62.9	1.006	-0.07	1.110	1.213
	LTE Band 41	20M	QPSK	50	0	Back	5	Hotspot On	3	40155(PCC) + 40857(SCC)	2636.5(PCC) + 2656.3(SCC)	20.52	21.00	1.117	62.9	1.006	0.09	0.849	0.954
	LTE Band 41	20M	QPSK	50	0	Back	5	Hotspot On	3	41490(PCC) + 41292(SCC)	2680(PCC) + 2660.2(SCC)	20.60	21.00	1.096	62.9	1.006	0.06	1.060	1.169
	LTE Band 41	20M	QPSK	100	0	Back	5	Hotspot On	3	40185	2549.5	20.71	21.00	1.069	62.9	1.006	0.05	1.080	1.162
	LTE Band 41	20M	QPSK	1	99	Left Side	5	Hotspot On	3	40185	2549.5	20.90	21.00	1.023	62.9	1.006	0.05	0.472	0.486
	LTE Band 41	20M	QPSK	50	0	Left Side	5	Hotspot On	3	40185	2549.5	20.73	21.00	1.064	62.9	1.006	-0.01	0.492	0.527
	LTE Band 41	20M	QPSK	1	99	Bottom Side	5	Hotspot On	3	40185	2549.5	20.90	21.00	1.023	62.9	1.006	0.05	0.491	0.505
	LTE Band 41	20M	QPSK	50	0	Bottom Side	5	Hotspot On	3	40185	2549.5	20.73	21.00	1.064	62.9	1.006	-0.07	0.542	0.580
	LTE Band 41	20M	QPSK	50	0	Back	5	Hotspot On	2	40185	2549.5	20.73	21.00	1.064	42.9	1.009	0.15	0.743	0.798
	LTE Band 41	20M	QPSK	50	0	Back	5	Hotspot On	2	39750	2506	20.58	21.00	1.102	42.9	1.009	0.02	0.751	0.835
	LTE Band 41	20M	QPSK	50	0	Back	5	Hotspot On	2	40620	2593	20.61	21.00	1.094	42.9	1.009	0.07	0.747	0.825
	LTE Band 41	20M	QPSK	50	0	Back	5	Hotspot On	2	41055	2636.5	20.59	21.00	1.099	42.9	1.009	0.06	0.550	0.610
	LTE Band 41	20M	QPSK	50	0	Back	5	Hotspot On	2	41490	2680	20.62	21.00	1.091	42.9	1.009	-0.01	0.727	0.801

<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	Full	11	2462	18.45	19.50	1.274	97.59	1.025	0.03	0.331	0.204	0.266
38	WLAN2.4GHz	802.11b 1Mbps	Back	5	Full	11	2462	18.45	19.50	1.274	97.59	1.025	-0.03	0.552	0.324	0.423
	WLAN2.4GHz	802.11b 1Mbps	Right Side	5	Full	11	2462	18.45	19.50	1.274	97.59	1.025		0.319		
	WLAN2.4GHz	802.11b 1Mbps	Top Side	5	Full	11	2462	18.45	19.50	1.274	97.59	1.025	0.02	0.438	0.237	0.309

<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	48	5240	16.81	17.50	1.172	87.04	1.149	0.03	0.333	0.124	0.167
39	WLAN5.2GHz	802.11a 6Mbps	Back	5	Hotspot On	48	5240	16.81	17.50	1.172	87.04	1.149	-0.03	1.16	0.473	0.637
	WLAN5.2GHz	802.11a 6Mbps	Right Side	5	Hotspot On	48	5240	16.81	17.50	1.172	87.04	1.149		0.128		
	WLAN5.2GHz	802.11a 6Mbps	Top Side	5	Hotspot On	48	5240	16.81	17.50	1.172	87.04	1.149	-0.03	0.471	0.180	0.242
	WLAN 5.8GHz	802.11a 6Mbps	Front	5	Hotspot On	157	5785	15.43	16.00	1.140	87.04	1.149	0.05	0.312	0.073	0.096
	WLAN 5.8GHz	802.11a 6Mbps	Back	5	Hotspot On	157	5785	15.43	16.00	1.140	87.04	1.149	0.07	1.806	0.622	0.815
40	WLAN 5.8GHz	802.11a 6Mbps	Back	5	Hotspot On	149	5745	15.42	16.00	1.143	87.04	1.149	0.08		0.732	0.961
	WLAN 5.8GHz	802.11a 6Mbps	Right Side	5	Hotspot On	157	5785	15.43	16.00	1.140	87.04	1.149	0.03	0.135	0.045	0.059
	WLAN 5.8GHz	802.11a 6Mbps	Top Side	5	Hotspot On	157	5785	15.43	16.00	1.140	87.04	1.149	-0.04	0.729	0.284	0.372

**<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	11.50	12.00	1.122	76.69	1.086	-0.06	0.051	0.063
41	Bluetooth	1Mbps	Back	5	Full	39	2441	11.50	12.00	1.122	76.69	1.086	0.02	0.068	0.083
	Bluetooth	1Mbps	Right Side	5	Full	39	2441	11.50	12.00	1.122	76.69	1.086	0.02	0.046	0.056
	Bluetooth	1Mbps	Top Side	5	Full	39	2441	11.50	12.00	1.122	76.69	1.086	0.02	0.055	0.067

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	128	824.2	26.91	28.50	1.442	-0.05	0.802	1.157
42	GSM850	GPRS (4 Tx slot)	Front	5	-	Full	189	836.4	26.84	28.50	1.466	-0.12	0.803	1.177
	GSM850	GPRS (4 Tx slot)	Front	5	-	Full	251	848.8	26.85	28.50	1.462	-0.06	0.801	1.171
	GSM850	GPRS (4 Tx slot)	Back	5	-	Full	128	824.2	26.91	28.50	1.442	-0.05	0.529	0.763
	GSM1900	GPRS (4 Tx slot)	Front	5	-	P-Sensor On	810	1909.8	19.75	20.50	1.189	-0.08	0.981	1.166
43	GSM1900	GPRS (4 Tx slot)	Front	5	-	P-Sensor On	512	1850.2	19.86	20.50	1.159	0.04	1.010	1.170
	GSM1900	GPRS (4 Tx slot)	Front	5	-	P-Sensor On	661	1880	19.81	20.50	1.172	0.03	0.896	1.050
	GSM1900	GPRS (4 Tx slot)	Back	5	-	P-Sensor On	810	1909.8	19.75	20.50	1.189	0.06	0.984	1.169
	GSM1900	GPRS (4 Tx slot)	Back	5	-	P-Sensor On	512	1850.2	19.86	20.50	1.159	0.05	0.993	1.151
	GSM1900	GPRS (4 Tx slot)	Back	5	-	P-Sensor On	661	1880	19.81	20.50	1.172	0.01	0.982	1.151

<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	4182	836.4	23.02	24.00	1.253	-0.03	0.800	1.003
	WCDMA Band V	RMC12.2Kbps	Front	5	-	Full	4132	826.4	22.88	24.00	1.294	-0.05	0.728	0.942
44	WCDMA Band V	RMC12.2Kbps	Front	5	-	Full	4233	846.6	22.90	24.00	1.288	0.02	0.823	1.060
	WCDMA Band V	RMC12.2Kbps	Back	5	-	Full	4182	836.4	23.02	24.00	1.253	0.07	0.632	0.792
	WCDMA Band IV	RMC12.2Kbps	Front	5	-	P-Sensor On	1312	1712.4	16.38	16.50	1.028	-0.01	1.010	1.038
	WCDMA Band IV	RMC12.2Kbps	Front	5	-	P-Sensor On	1413	1732.6	16.34	16.50	1.038	0.08	1.240	1.287
	WCDMA Band IV	RMC12.2Kbps	Front	5	-	P-Sensor On	1513	1752.6	16.17	16.50	1.079	0.06	1.160	1.252
	WCDMA Band IV	RMC12.2Kbps	Back	5	-	P-Sensor On	1312	1712.4	16.38	16.50	1.028	-0.02	1.030	1.059
	WCDMA Band IV	RMC12.2Kbps	Back	5	-	P-Sensor On	1413	1732.6	16.34	16.50	1.038	0.02	1.190	1.235
	WCDMA Band IV	RMC12.2Kbps	Back	5	-	P-Sensor On	1513	1752.6	16.17	16.50	1.079	0	1.070	1.154
	WCDMA Band IV	RMC12.2Kbps	Front	5	Headset	P-Sensor On	1413	1732.6	16.34	16.50	1.038	0.03	1.260	1.307
	WCDMA Band IV	RMC12.2Kbps	Front	5	Headset	P-Sensor On	1312	1712.4	16.38	16.50	1.028	0.07	1.220	1.254
45	WCDMA Band IV	RMC12.2Kbps	Front	5	Headset	P-Sensor On	1513	1752.6	16.17	16.50	1.079	0.03	1.250	1.349
	WCDMA Band IV	RMC12.2Kbps	Back	5	Headset	P-Sensor On	1413	1732.6	16.34	16.50	1.038	0.13	1.130	1.172
	WCDMA Band IV	RMC12.2Kbps	Back	5	Headset	P-Sensor On	1312	1712.4	16.38	16.50	1.028	0.05	1.200	1.234
	WCDMA Band IV	RMC12.2Kbps	Back	5	Headset	P-Sensor On	1513	1752.6	16.17	16.50	1.079	0.08	1.100	1.187
46	WCDMA Band II	RMC12.2Kbps	Front	5	-	P-Sensor On	9262	1852.4	16.43	16.50	1.016	0.01	1.150	1.169
	WCDMA Band II	RMC12.2Kbps	Front	5	-	P-Sensor On	9400	1880	16.33	16.50	1.040	-0.02	0.990	1.030
	WCDMA Band II	RMC12.2Kbps	Front	5	-	P-Sensor On	9538	1907.6	16.28	16.50	1.052	-0.01	1.000	1.052
	WCDMA Band II	RMC12.2Kbps	Back	5	-	P-Sensor On	9262	1852.4	16.43	16.50	1.016	0.03	1.010	1.026
	WCDMA Band II	RMC12.2Kbps	Back	5	-	P-Sensor On	9400	1880	16.33	16.50	1.040	0.03	0.919	0.956
	WCDMA Band II	RMC12.2Kbps	Back	5	-	P-Sensor On	9538	1907.6	16.28	16.50	1.052	-0.05	0.925	0.973



<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)
47	CDMA2000 BC0	RC3 SO32 (F+SCH)	Front	5	-	Full	777	848.31	23.62	25.00	1.374	-0.18	0.825	1.134
	CDMA2000 BC0	RC3 SO32 (F+SCH)	Front	5	-	Full	1013	824.7	23.18	25.00	1.521	-0.02	0.723	1.099
	CDMA2000 BC0	RC3 SO32 (F+SCH)	Front	5	-	Full	384	836.52	23.33	25.00	1.469	0.13	0.765	1.124
	CDMA2000 BC0	RC3 SO32 (F+SCH)	Back	5	-	Full	777	848.31	23.62	25.00	1.374	-0.09	0.753	1.035
	CDMA2000 BC0	RC3 SO32 (F+SCH)	Back	5	-	Full	1013	824.7	23.18	25.00	1.521	-0.04	0.617	0.938
	CDMA2000 BC0	RC3 SO32 (F+SCH)	Back	5	-	Full	384	836.52	23.33	25.00	1.469	0.09	0.626	0.920
	CDMA2000 BC10	RC3 SO32 (F+SCH)	Front	5	-	Full	684	823.1	24.64	25.00	1.086	-0.05	0.800	0.869
48	CDMA2000 BC10	RC3 SO32 (F+SCH)	Front	5	-	Full	476	817.9	24.52	25.00	1.117	0.04	0.795	0.888
	CDMA2000 BC10	RC3 SO32 (F+SCH)	Front	5	-	Full	580	820.5	24.62	25.00	1.091	-0.07	0.799	0.872
	CDMA2000 BC10	RC3 SO32 (F+SCH)	Back	5	-	Full	684	823.1	24.64	25.00	1.086	-0.05	0.709	0.770
	CDMA2000 BC1	RC3 SO32 (F+SCH)	Front	5	-	P-Sensor On	600	1880	18.75	19.00	1.059	0.01	1.200	1.271
	CDMA2000 BC1	RC3 SO32 (F+SCH)	Front	5	-	P-Sensor On	25	1851.25	18.72	19.00	1.067	-0.1	1.210	1.291
	CDMA2000 BC1	RC3 SO32 (F+SCH)	Front	5	-	P-Sensor On	1175	1908.75	18.45	19.00	1.135	-0.05	1.130	1.283
	CDMA2000 BC1	RC3 SO32 (F+SCH)	Front	5	Headset	P-Sensor On	600	1880	18.75	19.00	1.059	0.01	1.250	1.324
	CDMA2000 BC1	RC3 SO32 (F+SCH)	Front	5	Headset	P-Sensor On	25	1851.25	18.72	19.00	1.067	-0.1	1.160	1.237
49	CDMA2000 BC1	RC3 SO32 (F+SCH)	Front	5	Headset	P-Sensor On	1175	1908.75	18.45	19.00	1.135	-0.05	1.180	1.339
	CDMA2000 BC1	RC3 SO32 (F+SCH)	Back	5	-	P-Sensor On	600	1880	18.75	19.00	1.059	0.03	1.210	1.282
	CDMA2000 BC1	RC3 SO32 (F+SCH)	Back	5	-	P-Sensor On	25	1851.25	18.72	19.00	1.067	0.18	1.210	1.291
	CDMA2000 BC1	RC3 SO32 (F+SCH)	Back	5	-	P-Sensor On	1175	1908.75	18.45	19.00	1.135	0.02	1.160	1.317
	CDMA2000 BC1	RC3 SO32 (F+SCH)	Back	5	Headset	P-Sensor On	600	1880	18.75	19.00	1.059	0.18	1.040	1.102
	CDMA2000 BC1	RC3 SO32 (F+SCH)	Back	5	Headset	P-Sensor On	25	1851.25	18.72	19.00	1.067	0.03	1.190	1.269
	CDMA2000 BC1	RC3 SO32 (F+SCH)	Back	5	Headset	P-Sensor On	1175	1908.75	18.45	19.00	1.135	0.02	1.150	1.305



<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)
50	LTE Band 71	20M	QPSK	1	0	Front	5	-	Full	133322	683	23.48	24.50	1.265	0.01	0.842	1.065
	LTE Band 71	20M	QPSK	50	0	Front	5	-	Full	133322	683	21.80	23.50	1.479	-0.02	0.654	0.967
	LTE Band 71	20M	QPSK	100	0	Front	5	-	Full	133322	683	21.73	23.50	1.503	-0.03	0.459	0.690
	LTE Band 71	20M	QPSK	1	0	Back	5	-	Full	133322	683	23.48	24.50	1.265	-0.04	0.792	1.002
	LTE Band 71	20M	QPSK	50	0	Back	5	-	Full	133322	683	21.80	23.50	1.479	-0.02	0.479	0.708
	LTE Band 71	20M	QPSK	100	0	Back	5	-	Full	133322	683	21.73	23.50	1.503	-0.11	0.388	0.583
	LTE Band 12	10M	QPSK	1	49	Front	5	-	Full	23095	707.5	23.16	24.00	1.213	0.04	0.666	0.808
	LTE Band 12	10M	QPSK	25	0	Front	5	-	Full	23095	707.5	21.92	23.00	1.282	-0.13	0.485	0.622
	LTE Band 12	10M	QPSK	50	0	Front	5	-	Full	23095	707.5	21.89	23.00	1.291	-0.13	0.478	0.617
51	LTE Band 12	10M	QPSK	1	49	Back	5	-	Full	23095	707.5	23.16	24.00	1.213	0.02	0.674	0.818
	LTE Band 12	10M	QPSK	25	0	Back	5	-	Full	23095	707.5	21.92	23.00	1.282	0.01	0.390	0.500
	LTE Band 12	10M	QPSK	50	0	Back	5	-	Full	23095	707.5	21.89	23.00	1.291	0.01	0.381	0.492
52	LTE Band 13	10M	QPSK	1	49	Front	5	-	Full	23230	782	22.87	24.00	1.297	0.08	0.698	0.905
	LTE Band 13	10M	QPSK	25	0	Front	5	-	Full	23230	782	21.70	23.00	1.349	-0.18	0.413	0.557
	LTE Band 13	10M	QPSK	50	0	Front	5	-	Full	23230	782	21.67	23.00	1.358	-0.18	0.415	0.564
	LTE Band 13	10M	QPSK	1	49	Back	5	-	Full	23230	782	22.87	24.00	1.297	0.08	0.608	0.789
	LTE Band 13	10M	QPSK	25	0	Back	5	-	Full	23230	782	21.70	23.00	1.349	0.11	0.336	0.453
53	LTE Band 26	15M	QPSK	1	74	Front	5	-	Full	26865	831.5	22.85	24.00	1.303	-0.05	0.737	0.960
	LTE Band 26	15M	QPSK	36	0	Front	5	-	Full	26865	831.5	21.79	23.00	1.321	0.08	0.320	0.423
	LTE Band 26	15M	QPSK	75	0	Front	5	-	Full	26865	831.5	21.62	23.00	1.374	0.13	0.309	0.425
	LTE Band 26	15M	QPSK	1	74	Back	5	-	Full	26865	831.5	22.85	24.00	1.303	0.05	0.608	0.792
	LTE Band 26	15M	QPSK	36	0	Back	5	-	Full	26865	831.5	21.79	23.00	1.321	0.12	0.269	0.355
	LTE Band 66	20M	QPSK	1	49	Front	5	-	P-Sensor On	132322	1745	17.13	17.50	1.089	0.01	1.050	1.143
	LTE Band 66	20M	QPSK	1	49	Front	5	-	P-Sensor On	132072	1720	16.96	17.50	1.132	-0.07	1.010	1.144
	LTE Band 66	20M	QPSK	1	49	Front	5	-	P-Sensor On	132572	1770	16.87	17.50	1.156	0.01	0.989	1.143
	LTE Band 66	20M	QPSK	50	0	Front	5	-	P-Sensor On	132322	1745	17.11	17.50	1.094	0.08	1.220	1.335
	LTE Band 66	20M	QPSK	50	0	Front	5	-	P-Sensor On	132072	1720	16.93	17.50	1.140	0.01	1.140	1.300
	LTE Band 66	20M	QPSK	50	0	Front	5	-	P-Sensor On	132572	1770	17.10	17.50	1.096	0.08	1.060	1.162
54	LTE Band 66	20M	QPSK	100	0	Front	5	-	P-Sensor On	132322	1745	16.95	17.50	1.135	0.01	1.220	1.385
	LTE Band 66	20M	QPSK	100	0	Front	5	Headset	P-Sensor On	132572	1770	16.86	17.50	1.159	0.02	1.030	1.194
	LTE Band 66	20M	QPSK	100	0	Front	5	Headset	P-Sensor On	132072	1720	16.91	17.50	1.146	0.02	1.120	1.283
	LTE Band 66	20M	QPSK	100	0	Front	5	Headset	P-Sensor On	132322	1745	16.95	17.50	1.135	0.05	1.200	1.362
	LTE Band 66	20M	QPSK	1	49	Back	5	-	P-Sensor On	132322	1745	17.13	17.50	1.089	0.07	1.190	1.296
	LTE Band 66	20M	QPSK	1	49	Back	5	-	P-Sensor On	132072	1720	16.96	17.50	1.132	0.05	1.040	1.178
	LTE Band 66	20M	QPSK	1	49	Back	5	-	P-Sensor On	132572	1770	16.87	17.50	1.156	0.08	1.090	1.260
	LTE Band 66	20M	QPSK	50	0	Back	5	-	P-Sensor On	132322	1745	17.11	17.50	1.094	0.02	1.150	1.258
	LTE Band 66	20M	QPSK	50	0	Back	5	-	P-Sensor On	132072	1720	16.93	17.50	1.140	0.01	1.070	1.220
	LTE Band 66	20M	QPSK	50	0	Back	5	-	P-Sensor On	132572	1770	17.10	17.50	1.096	0.08	1.030	1.129
	LTE Band 66	20M	QPSK	100	0	Back	5	-	P-Sensor On	132322	1745	16.95	17.50	1.135	-0.11	1.180	1.339
	LTE Band 66	20M	QPSK	100	0	Back	5	Headset	P-Sensor On	132322	1745	16.95	17.50	1.135	-0.11	1.110	1.260
	LTE Band 66	20M	QPSK	100	0	Back	5	Headset	P-Sensor On	132072	1720	16.91	17.50	1.146	0.02	1.010	1.157
	LTE Band 66	20M	QPSK	100	0	Back	5	Headset	P-Sensor On	132572	1770	16.86	17.50	1.159	-0.06	1.050	1.217



FCC SAR Test Report

Report No. : FA913102

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 25	20M	QPSK	1	49	Front	5	-	P-Sensor On	26340	1880	17.69	18.50	1.205	-0.06	0.908	1.094
	LTE Band 25	20M	QPSK	1	49	Front	5	-	P-Sensor On	26140	1860	17.38	18.50	1.294	0.05	0.889	1.151
	LTE Band 25	20M	QPSK	1	49	Front	5	-	P-Sensor On	26590	1905	17.48	18.50	1.265	0.02	0.697	0.882
	LTE Band 25	20M	QPSK	50	0	Front	5	-	P-Sensor On	26340	1880	17.68	18.50	1.208	0.11	0.859	1.038
	LTE Band 25	20M	QPSK	50	0	Front	5	-	P-Sensor On	26140	1860	17.61	18.50	1.227	0.01	0.963	1.182
	LTE Band 25	20M	QPSK	50	0	Front	5	-	P-Sensor On	26590	1905	17.47	18.50	1.268	-0.13	0.773	0.980
	LTE Band 25	20M	QPSK	100	0	Front	5	-	P-Sensor On	26340	1880	17.41	18.50	1.285	0.03	0.872	1.121
	LTE Band 25	20M	QPSK	1	49	Back	5	-	P-Sensor On	26340	1880	17.69	18.50	1.205	0.09	0.916	1.104
	LTE Band 25	20M	QPSK	1	49	Back	5	-	P-Sensor On	26140	1860	17.38	18.50	1.294	0.02	1.010	1.307
	LTE Band 25	20M	QPSK	1	49	Back	5	-	P-Sensor On	26590	1905	17.48	18.50	1.265	0.06	0.719	0.909
	LTE Band 25	20M	QPSK	50	0	Back	5	-	P-Sensor On	26340	1880	17.68	18.50	1.208	0.04	0.878	1.060
	LTE Band 25	20M	QPSK	50	0	Back	5	-	P-Sensor On	26140	1860	17.61	18.50	1.227	0.09	0.988	1.213
	LTE Band 25	20M	QPSK	50	0	Back	5	-	P-Sensor On	26590	1905	17.47	18.50	1.268	-0.01	0.779	0.988
55	LTE Band 25	20M	QPSK	100	0	Back	5	-	P-Sensor On	26140	1860	17.41	18.50	1.285	0.12	1.020	1.311
	LTE Band 25	20M	QPSK	100	0	Back	5	Headset	P-Sensor On	26140	1860	17.38	18.50	1.294	0.03	0.995	1.288
	LTE Band 25	20M	QPSK	100	0	Back	5	Headset	P-Sensor On	26340	1880	17.41	18.50	1.285	0.03	0.854	1.098
	LTE Band 25	20M	QPSK	100	0	Back	5	Headset	P-Sensor On	26590	1905	17.25	18.50	1.334	0.06	0.706	0.941
	LTE Band 7	20M	QPSK	1	49	Front	5	-	P-Sensor On	21100	2535	18.89	19.50	1.151	0.01	1.010	1.162
	LTE Band 7	20M	QPSK	1	49	Front	5	-	P-Sensor On	20850	2510	18.65	19.50	1.216	0.06	0.944	1.148
	LTE Band 7	20M	QPSK	1	49	Front	5	-	P-Sensor On	21350	2560	18.64	19.50	1.219	-0.02	0.971	1.184
	LTE Band 7	20M	QPSK	50	0	Front	5	-	P-Sensor On	21100	2535	18.80	19.50	1.175	0.03	0.978	1.149
	LTE Band 7	20M	QPSK	50	0	Front	5	-	P-Sensor On	20850	2510	18.75	19.50	1.189	-0.05	0.945	1.123
	LTE Band 7	20M	QPSK	50	0	Front	5	-	P-Sensor On	21350	2560	18.79	19.50	1.178	0.07	0.956	1.126
	LTE Band 7	20M	QPSK	100	0	Front	5	-	P-Sensor On	20850	2535	18.83	19.50	1.167	0.03	1.020	1.190
	LTE Band 7	20M	QPSK	1	49	Back	5	-	P-Sensor On	21100	2535	18.89	19.50	1.151	0.01	1.080	1.243
	LTE Band 7	20M	QPSK	1	49	Back	5	-	P-Sensor On	20850	2510	18.65	19.50	1.216	-0.06	1.040	1.265
	LTE Band 7	20M	QPSK	1	49	Back	5	-	P-Sensor On	21350	2560	18.64	19.50	1.219	0.06	1.130	1.377
	LTE Band 7	20M	QPSK	50	0	Back	5	-	P-Sensor On	21100	2535	18.80	19.50	1.175	0.02	1.120	1.316
	LTE Band 7	20M	QPSK	50	0	Back	5	-	P-Sensor On	20850	2510	18.75	19.50	1.189	0.03	1.130	1.343
	LTE Band 7	20M	QPSK	50	0	Back	5	-	P-Sensor On	21350	2560	18.79	19.50	1.178	0.07	1.130	1.331
	LTE Band 7	20M	QPSK	100	0	Back	5	-	P-Sensor On	20850	2535	18.83	19.50	1.167	-0.01	1.110	1.295
	LTE Band 7	20M	QPSK	1	49	Back	5	Headset	P-Sensor On	20850	2510	18.65	19.50	1.216	0.01	1.050	1.277
	LTE Band 7	20M	QPSK	1	49	Back	5	Headset	P-Sensor On	21100	2535	18.89	19.50	1.151	0.07	1.090	1.254
56	LTE Band 7	20M	QPSK	1	49	Back	5	Headset	P-Sensor On	21350	2560	18.64	19.50	1.219	0.01	1.140	1.390



<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	99	Front	5	-	P-Sensor On	3	40185	2549.5	20.90	21.00	1.023	62.9	1.006	0.01	0.822	0.846
	LTE Band 41	20M	QPSK	1	99	Front	5	-	P-Sensor On	3	39750	2506	20.60	21.00	1.096	62.9	1.006	0.02	0.880	0.971
	LTE Band 41	20M	QPSK	1	99	Front	5	-	P-Sensor On	3	40620	2593	20.61	21.00	1.094	62.9	1.006	-0.04	0.759	0.835
	LTE Band 41	20M	QPSK	1	99	Front	5	-	P-Sensor On	3	41055	2636.5	20.47	21.00	1.130	62.9	1.006	-0.19	0.560	0.636
	LTE Band 41	20M	QPSK	1	99	Front	5	-	P-Sensor On	3	41490	2680	20.88	21.00	1.028	62.9	1.006	0.04	0.772	0.798
	LTE Band 41	20M	QPSK	50	0	Front	5	-	P-Sensor On	3	40185	2549.5	20.73	21.00	1.064	62.9	1.006	-0.03	0.862	0.923
	LTE Band 41	20M	QPSK	50	0	Front	5	-	P-Sensor On	3	39750	2506	20.58	21.00	1.102	62.9	1.006	0.02	0.895	0.992
	LTE Band 41	20M	QPSK	50	0	Front	5	-	P-Sensor On	3	40620	2593	20.61	21.00	1.094	62.9	1.006	0.01	0.826	0.909
	LTE Band 41	20M	QPSK	50	0	Front	5	-	P-Sensor On	3	41055	2636.5	20.59	21.00	1.099	62.9	1.006	0.05	0.649	0.718
	LTE Band 41	20M	QPSK	50	0	Front	5	-	P-Sensor On	3	41490	2680	20.62	21.00	1.091	62.9	1.006	0.02	0.854	0.938
	LTE Band 41	20M	QPSK	100	0	Front	5	-	P-Sensor On	3	40185	2549.5	20.71	21.00	1.069	62.9	1.006	0.05	0.899	0.967
	LTE Band 41	20M	QPSK	1	99	Back	5	-	P-Sensor On	3	40185	2549.5	20.90	21.00	1.023	62.9	1.006	-0.02	1.080	1.112
	LTE Band 41	20M	QPSK	1	99	Back	5	-	P-Sensor On	3	39750	2506	20.60	21.00	1.096	62.9	1.006	0.06	1.070	1.180
	LTE Band 41	20M	QPSK	1	99	Back	5	-	P-Sensor On	3	40620	2593	20.61	21.00	1.094	62.9	1.006	-0.01	1.030	1.134
	LTE Band 41	20M	QPSK	1	99	Back	5	-	P-Sensor On	3	41055	2636.5	20.47	21.00	1.130	62.9	1.006	-0.05	0.971	1.104
	LTE Band 41	20M	QPSK	1	99	Back	5	-	P-Sensor On	3	41490	2680	20.88	21.00	1.028	62.9	1.006	0.02	1.050	1.086
57	LTE Band 41	20M	QPSK	50	0	Back	5	-	P-Sensor On	3	40185	2549.5	20.73	21.00	1.064	62.9	1.006	0.17	1.190	1.274
	LTE Band 41	20M	QPSK	50	0	Back	5	-	P-Sensor On	3	39750	2506	20.58	21.00	1.102	62.9	1.006	-0.1	1.120	1.241
	LTE Band 41	20M	QPSK	50	0	Back	5	-	P-Sensor On	3	40620	2593	20.61	21.00	1.094	62.9	1.006	-0.15	1.140	1.255
	LTE Band 41	20M	QPSK	50	0	Back	5	-	P-Sensor On	3	41055	2636.5	20.59	21.00	1.099	62.9	1.006	-0.03	0.921	1.018
	LTE Band 41	20M	QPSK	50	0	Back	5	-	P-Sensor On	3	41490	2680	20.62	21.00	1.091	62.9	1.006	0.09	1.120	1.230
	LTE Band 41	20M	QPSK	50	0	Back	5	-	P-Sensor On	3	40185(PCC) + 40383(SCC)	2549.5(PCC) + 2569.3(SCC)	20.63	21.00	1.089	62.9	1.006	0.16	1.140	1.249
	LTE Band 41	20M	QPSK	50	0	Back	5	-	P-Sensor On	3	39750(PCC) + 39948(SCC)	2506(PCC) + 2525.8(SCC)	20.10	21.00	1.230	62.9	1.006	0.06	1.010	1.250
	LTE Band 41	20M	QPSK	50	0	Back	5	-	P-Sensor On	3	40620(PCC) + 40422(SCC)	2593(PCC) + 2573.2(SCC)	20.64	21.00	1.086	62.9	1.006	-0.07	1.110	1.213
	LTE Band 41	20M	QPSK	50	0	Back	5	-	P-Sensor On	3	40155(PCC) + 40857(SCC)	2636.5(PCC) + 2656.3(SCC)	20.52	21.00	1.117	62.9	1.006	0.09	0.849	0.954
	LTE Band 41	20M	QPSK	50	0	Back	5	-	P-Sensor On	3	41490(PCC) + 41292(SCC)	2680(PCC) + 2660.2(SCC)	20.60	21.00	1.096	62.9	1.006	0.06	1.060	1.169
	LTE Band 41	20M	QPSK	100	0	Back	5	-	P-Sensor On	3	40185	2549.5	20.71	21.00	1.069	62.9	1.006	0.05	1.080	1.162
	LTE Band 41	20M	QPSK	50	0	Back	5	Headset	P-Sensor On	3	40185	2549.5	20.73	21.00	1.064	62.9	1.006	0.01	1.110	1.188
	LTE Band 41	20M	QPSK	50	0	Back	5	Headset	P-Sensor On	3	39750	2506	20.58	21.00	1.102	62.9	1.006	-0.14	1.010	1.119
	LTE Band 41	20M	QPSK	50	0	Back	5	Headset	P-Sensor On	3	40620	2593	20.61	21.00	1.094	62.9	1.006	0.1	1.070	1.178
	LTE Band 41	20M	QPSK	50	0	Back	5	Headset	P-Sensor On	3	41055	2636.5	20.59	21.00	1.099	62.9	1.006	0.03	0.835	0.923
	LTE Band 41	20M	QPSK	50	0	Back	5	Headset	P-Sensor On	3	41490	2680	20.62	21.00	1.091	62.9	1.006	-0.06	1.040	1.142
	LTE Band 41	20M	QPSK	50	0	Back	5	-	P-Sensor On	2	40185	2549.5	20.73	21.00	1.064	42.9	1.009	0.15	0.743	0.798
	LTE Band 41	20M	QPSK	50	0	Back	5	-	P-Sensor On	2	39750	2506	20.58	21.00	1.102	42.9	1.009	0.02	0.751	0.835
	LTE Band 41	20M	QPSK	50	0	Back	5	-	P-Sensor On	2	40620	2593	20.61	21.00	1.094	42.9	1.009	0.07	0.747	0.825
	LTE Band 41	20M	QPSK	50	0	Back	5	-	P-Sensor On	2	41055	2636.5	20.59	21.00	1.099	42.9	1.009	0.06	0.550	0.610
	LTE Band 41	20M	QPSK	50	0	Back	5	-	P-Sensor On	2	41490	2680	20.62	21.00	1.091	42.9	1.009	-0.01	0.727	0.801

<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)	Max Area Scan SAR	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Front	5	-	Full	11	2462	18.45	19.50	1.274	97.59	1.025	0.03	0.331	0.204	0.266
58	WLAN2.4GHz	802.11b 1Mbps	Back	5	-	Full	11	2462	18.45	19.50	1.274	97.59	1.025	-0.03	0.552	0.324	0.423

<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)
	WLAN5.3GHz	802.11a 6Mbps	Front	5	-	P-Sensor On	56	5280	16.76	17.50	1.186	87.04	1.149	0.01	0.257	0.104	0.142
59	WLAN5.3GHz	802.11a 6Mbps	Back	5	-	P-Sensor On	56	5280	16.76	17.50	1.186	87.04	1.149	-0.09	1.840	0.511	0.696
	WLAN5.5GHz	802.11a 6Mbps	Front	5	-	P-Sensor On	116	5580	16.52	17.50	1.253	87.04	1.149	-0.03	0.325	0.072	0.104
60	WLAN5.5GHz	802.11a 6Mbps	Back	5	-	P-Sensor On	116	5580	16.52	17.50	1.253	87.04	1.149	0.01	1.307	0.517	0.744
	WLAN 5.8GHz	802.11a 6Mbps	Front	5	-	P-Sensor On	157	5785	15.43	16.00	1.140	87.04	1.149	0.05	0.312	0.073	0.096
	WLAN 5.8GHz	802.11a 6Mbps	Back	5	-	P-Sensor On	157	5785	15.43	16.00	1.140	87.04	1.149	0.07	1.806	0.622	0.815
61	WLAN 5.8GHz	802.11a 6Mbps	Back	5	-	P-Sensor On	149	5745	15.42	16.00	1.143	87.04	1.149	0.08		0.732	0.961

<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	11.50	12.00	1.122	76.69	1.086	-0.06	0.051	0.063
62	Bluetooth	1Mbps	Back	5	-	Full	39	2441	11.50	12.00	1.122	76.69	1.086	0.02	0.068	0.083

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)	24.00	26.00
Reported 1g SAR (W/kg)	0.149	0.150
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	159.00	172.38
Linearity SAR (W/kg)	0.162	
% deviation from expected linearity		-7.14%

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)	21.00	21.00
Reported 1g SAR (W/kg)	1.274	0.835
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	79.69	54.51
Linearity SAR (W/kg)	0.871	
% deviation from expected linearity		-4.19%

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)	21.00	21.00
Reported 1g SAR (W/kg)	1.274	0.835
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	79.69	54.51
Linearity SAR (W/kg)	0.871	
% deviation from expected linearity		-4.19%

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 IV	RMC 12.2Kbps	-	-	-	-	Front	5	Headset	P-Sensor On	-	1413	1732.6	16.34	16.50	1.038	-	-	0.03	1.260	1	1.307
2nd	WCDMA Band IV	RMC 12.2Kbps	-	-	-	-	Front	5	Headset	P-Sensor On	-	1413	1732.6	16.34	16.50	1.038	-	-	-0.09	1.240	1.016	1.287
1st	CDMA2000 BC10	RTAP 153.6Kbps	-	-	-	-	Front	5	-	Full	-	684	823.1	24.57	25.00	1.104	-	-	0.06	0.849	1	0.937
2nd	CDMA2000 BC10	RTAP 153.6Kbps	-	-	-	-	Front	5	-	Full	-	684	823.1	24.57	25.00	1.104	-	-	-0.02	0.833	1.019	0.920
1st	CDMA2000 BC1	RTAP 153.6Kbps	-	-	-	-	Bottom Side	5	-	Hotspot On	-	25	1851.25	17.26	17.50	1.057	-	-	0.01	1.280	1	1.353
2nd	CDMA2000 BC1	RTAP 153.6Kbps	-	-	-	-	Bottom Side	5	-	Hotspot On	-	25	1851.25	17.26	17.50	1.057	-	-	0.01	1.240	1.032	1.310
1st	LTE Band 71	-	20M	QPSK	1	0	Front	5	-	Full	-	133322	683	23.48	24.50	1.265	-	-	0.01	0.842	1	1.065
2nd	LTE Band 71	-	20M	QPSK	1	0	Front	5	-	Full	-	133322	683	23.48	24.50	1.265	-	-	0.02	0.811	1.038	1.026
1st	LTE Band 41	-	20M	QPSK	50	0	Back	5	-	Hotspot On / P-Sensor On	3	40185	2549.5	20.73	21.00	1.064	62.9	1.006	0.17	1.190	1	1.274
2nd	LTE Band 41	-	20M	QPSK	50	0	Back	5	-	Hotspot On / P-Sensor On	3	40185	2549.5	20.73	21.00	1.064	62.9	1.006	-0.02	1.130	1.053	1.210

General Note:

1. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is ≥ 0.8 W/kg.
2. Per KDB 865664 D01v01r04, if the ratio among the repeated measurement is ≤ 1.2 and the measured SAR < 1.45 W/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
21.	Bluetooth + WLAN5.3/5.5GHz	Yes	Yes	
22.	Bluetooth + WLAN5.2/5.8GHz	Yes	Yes	Yes
23.	GSM Voice + Bluetooth + WLAN5.3/5.5GHz	Yes	Yes	
24.	GPRS/EDGE + Bluetooth + WLAN5.3/5.5GHz	Yes	Yes	
25.	WCDMA + Bluetooth + WLAN5.3/5.5GHz	Yes	Yes	
26.	CDMA + Bluetooth + WLAN5.3/5.5GHz	Yes	Yes	
27.	LTE + Bluetooth + WLAN5.3/5.5GHz	Yes	Yes	
28.	GSM Voice + Bluetooth + WLAN5.2/5.8GHz	Yes	Yes	
29.	GPRS/EDGE + Bluetooth + WLAN5.2/5.8GHz	Yes	Yes	Yes
30.	WCDMA + Bluetooth + WLAN5.2/5.8GHz	Yes	Yes	Yes
31.	CDMA + Bluetooth + WLAN5.2/5.8GHz	Yes	Yes	Yes
32.	LTE + Bluetooth + WLAN5.2/5.8GHz	Yes	Yes	Yes

General Note:

- This device supports VoIP in GPRS, EGPRS, WCDMA and LTE (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.
- EUT will choose each GSM, WCDMA and LTE according to the network signal condition; therefore, they will not operate simultaneously at any moment.
- This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
- 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).
- 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.
- WLAN 2.4GHz and Bluetooth share the same antenna so can't transmit simultaneously.
- 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.
- Chose the worst zoom scan SAR of WLAN correspondingly for co-located with WWAN analysis.
- The reported SAR summation is calculated based on the same configuration and test position.
- Per KDB 447498 D01v06, simultaneous transmission SAR is compliant if,
 - 1g Scalar SAR summation < 1.6W/kg and 10g Scalar SAR summation < 4.0W/kg.
 - $SPLSR = (SAR1 + SAR2)^{1.5} / (\text{min. separation distance, mm})$, and the peak separation distance is determined from the square root of $[(x1-x2)^2 + (y1-y2)^2 + (z1-z2)^2]$, where (x1, y1, z1) and (x2, y2, z2) are the coordinates of the extrapolated peak SAR locations in the zoom scan.
 - If $SPLSR \leq 0.04$, simultaneously transmission SAR measurement is not necessary.
 - Simultaneously transmission SAR measurement, and the reported multi-band 1g SAR < 1.6W/kg and 10g SAR < 4.0W/kg.
 - 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 Summed 1g SAR (W/kg)	1+3+4 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN	5GHz WLAN	Bluetooth		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
GSM	GSM850	Right Cheek	0.363	0.710	0.499	0.074	1.07	0.94
		Right Tilted	0.199	0.710	0.499	0.080	0.91	0.78
		Left Cheek	0.231	0.704	0.476	0.149	0.94	0.86
		Left Tilted	0.167	0.710	0.499	0.122	0.88	0.79
	GSM1900	Right Cheek	0.141	0.710	0.499	0.074	0.85	0.71
		Right Tilted	0.103	0.710	0.499	0.080	0.81	0.68
		Left Cheek	0.237	0.704	0.476	0.149	0.94	0.86
		Left Tilted	0.067	0.710	0.499	0.122	0.78	0.69
WCDMA	Band V	Right Cheek	0.256	0.710	0.499	0.074	0.97	0.83
		Right Tilted	0.143	0.710	0.499	0.080	0.85	0.72
		Left Cheek	0.209	0.704	0.476	0.149	0.91	0.83
		Left Tilted	0.143	0.710	0.499	0.122	0.85	0.76
	Band IV	Right Cheek	0.316	0.710	0.499	0.074	1.03	0.89
		Right Tilted	0.238	0.710	0.499	0.080	0.95	0.82
		Left Cheek	0.604	0.704	0.476	0.149	1.31	1.23
		Left Tilted	0.255	0.710	0.499	0.122	0.97	0.88
	Band II	Right Cheek	0.287	0.710	0.499	0.074	1.00	0.86
		Right Tilted	0.255	0.710	0.499	0.080	0.97	0.83
		Left Cheek	0.590	0.704	0.476	0.149	1.29	1.22
		Left Tilted	0.202	0.710	0.499	0.122	0.91	0.82
CDMA2000	BC0	Right Cheek	0.309	0.710	0.499	0.074	1.02	0.88
		Right Tilted	0.166	0.710	0.499	0.080	0.88	0.75
		Left Cheek	0.216	0.704	0.476	0.149	0.92	0.84
		Left Tilted	0.144	0.710	0.499	0.122	0.85	0.77
	BC10	Right Cheek	0.256	0.710	0.499	0.074	0.97	0.83
		Right Tilted	0.154	0.710	0.499	0.080	0.86	0.73
		Left Cheek	0.180	0.704	0.476	0.149	0.88	0.81
		Left Tilted	0.132	0.710	0.499	0.122	0.84	0.75
	BC1	Right Cheek	0.202	0.710	0.499	0.074	0.91	0.78
		Right Tilted	0.110	0.710	0.499	0.080	0.82	0.69
		Left Cheek	0.234	0.704	0.476	0.149	0.94	0.86
		Left Tilted	0.086	0.710	0.499	0.122	0.80	0.71



WWAN Band		Exposure Position	1	2	3	4	1+2 Summed 1g SAR (W/kg)	1+3+4 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN	5GHz WLAN	Bluetooth		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
LTE	Band 71	Right Cheek	0.379	0.710	0.499	0.074	1.09	0.95
		Right Tilted	0.201	0.710	0.499	0.080	0.91	0.78
		Left Cheek	0.367	0.704	0.476	0.149	1.07	0.99
		Left Tilted	0.225	0.710	0.499	0.122	0.94	0.85
	Band 12	Right Cheek	0.334	0.710	0.499	0.074	1.04	0.91
		Right Tilted	0.149	0.710	0.499	0.080	0.86	0.73
		Left Cheek	0.322	0.704	0.476	0.149	1.03	0.95
		Left Tilted	0.192	0.710	0.499	0.122	0.90	0.81
	Band 13	Right Cheek	0.262	0.710	0.499	0.074	0.97	0.84
		Right Tilted	0.165	0.710	0.499	0.080	0.88	0.74
		Left Cheek	0.185	0.704	0.476	0.149	0.89	0.81
		Left Tilted	0.149	0.710	0.499	0.122	0.86	0.77
	Band 26	Right Cheek	0.287	0.710	0.499	0.074	1.00	0.86
		Right Tilted	0.169	0.710	0.499	0.080	0.88	0.75
		Left Cheek	0.236	0.704	0.476	0.149	0.94	0.86
		Left Tilted	0.177	0.710	0.499	0.122	0.89	0.80
	Band 66	Right Cheek	0.251	0.710	0.499	0.074	0.96	0.82
		Right Tilted	0.154	0.710	0.499	0.080	0.86	0.73
		Left Cheek	0.365	0.704	0.476	0.149	1.07	0.99
		Left Tilted	0.164	0.710	0.499	0.122	0.87	0.79
	Band 25	Right Cheek	0.186	0.710	0.499	0.074	0.90	0.76
		Right Tilted	0.121	0.710	0.499	0.080	0.83	0.70
		Left Cheek	0.346	0.704	0.476	0.149	1.05	0.97
		Left Tilted	0.110	0.710	0.499	0.122	0.82	0.73
	Band 7	Right Cheek	0.215	0.710	0.499	0.074	0.93	0.79
		Right Tilted	0.183	0.710	0.499	0.080	0.89	0.76
		Left Cheek	0.356	0.704	0.476	0.149	1.06	0.98
		Left Tilted	0.173	0.710	0.499	0.122	0.88	0.79
	Band 41	Right Cheek	0.080	0.710	0.499	0.074	0.79	0.65
		Right Tilted	0.022	0.710	0.499	0.080	0.73	0.60
		Left Cheek	0.150	0.704	0.476	0.149	0.85	0.78
		Left Tilted	0.096	0.710	0.499	0.122	0.81	0.72

16.2 Hotspot Exposure Conditions

WWAN Band		Exposure Position	1	2	3	4	1+2			1+3+4		
			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	1.177	0.266	0.167	0.063	1.44			1.41		
		Back	0.763	0.423	0.961	0.083	1.19			1.81	0.02	#1
		Left Side	0.320				0.32			0.32		
		Right Side	0.724	0.423	0.059	0.056	1.15			0.84		
		Top Side		0.309	0.372	0.067	0.31			0.44		
	GSM1900	Bottom Side	0.756				0.76			0.76		
		Front	1.170	0.266	0.167	0.063	1.44			1.40		
		Back	1.169	0.423	0.961	0.083	1.59			2.21	0.03	#2
		Left Side	0.139				0.14			0.14		
		Right Side	0.180	0.423	0.059	0.056	0.60			0.30		
WCDMA	Band V	Top Side		0.309	0.372	0.067	0.31			0.44		
		Bottom Side	1.237				1.24			1.24		
		Front	1.060	0.266	0.167	0.063	1.33			1.29		
		Back	0.792	0.423	0.961	0.083	1.22			1.84	0.03	#3
		Left Side	0.217				0.22			0.22		
	Band IV	Right Side	0.668	0.423	0.059	0.056	1.09			0.78		
		Top Side		0.309	0.372	0.067	0.31			0.44		
		Bottom Side	0.573				0.57			0.57		
		Front	1.287	0.266	0.167	0.063	1.55			1.52		
		Back	1.235	0.423	0.961	0.083	1.66	0.02	#4	2.28	0.03	#5
	Band II	Left Side	0.107				0.11			0.11		
		Right Side	0.172	0.423	0.059	0.056	0.60			0.29		
		Top Side		0.309	0.372	0.067	0.31			0.44		
		Bottom Side	1.195				1.20			1.20		
		Front	1.169	0.266	0.167	0.063	1.44			1.40		
		Back	1.026	0.423	0.961	0.083	1.45			2.07	0.03	#6
		Left Side	0.078				0.08			0.08		
		Right Side	0.110	0.423	0.059	0.056	0.53			0.23		
CDMA2000	BC0	Top Side		0.309	0.372	0.067	0.31			0.44		
		Bottom Side	0.795				0.83			0.80		
		Front	1.152	0.266	0.167	0.063	1.42			1.38		
		Back	1.030	0.423	0.961	0.083	1.45			2.07	0.03	#7
		Left Side	0.191				0.19			0.19		
	BC10	Right Side	0.639	0.423	0.059	0.056	1.06			0.75		
		Top Side		0.309	0.372	0.067	0.31			0.44		
		Bottom Side	0.588				0.59			0.59		
		Front	0.937	0.266	0.167	0.063	1.20			1.17		
		Back	0.857	0.423	0.961	0.083	1.28			1.90	0.03	#8
	BC1	Left Side	0.237				0.24			0.24		
		Right Side	0.633	0.423	0.059	0.056	1.06			0.75		
		Top Side		0.309	0.372	0.067	0.31			0.44		
		Bottom Side	0.588				0.59			0.59		
		Front	0.731	0.266	0.167	0.063	1.00			0.96		
		Back	0.922	0.423	0.961	0.083	1.35			1.97	0.02	#9
		Left Side	0.069				0.07			0.07		
		Right Side	0.097	0.423	0.059	0.056	0.52			0.21		
		Top Side		0.309	0.372	0.067	0.31			0.44		
		Bottom Side	1.353				1.35			1.35		



WWAN Band		Exposure Position	1	2	3	4	1+2			1+3+4		
			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)						
LTE	Band 71	Front	1.065	0.266	0.167	0.063	1.33			1.30		
		Back	1.002	0.423	0.961	0.083	1.43			2.05	0.03	#10
		Left Side	0.588				0.59			0.59		
		Right Side	0.751	0.423	0.059	0.056	1.17			0.87		
		Top Side		0.309	0.372	0.067	0.31			0.44		
		Bottom Side	0.634				0.63			0.63		
	Band 12	Front	0.808	0.266	0.167	0.063	1.07			1.04		
		Back	0.818	0.423	0.961	0.083	1.24			1.86	0.02	#11
		Left Side	0.306				0.31			0.31		
		Right Side	0.397	0.423	0.059	0.056	0.82			0.51		
		Top Side		0.309	0.372	0.067	0.31			0.44		
		Bottom Side	0.569				0.57			0.57		
	Band 13	Front	0.905	0.266	0.167	0.063	1.17			1.14		
		Back	0.789	0.423	0.961	0.083	1.21			1.83	0.02	#12
		Left Side	0.376				0.38			0.38		
		Right Side	0.700	0.423	0.059	0.056	1.12			0.82		
		Top Side		0.309	0.372	0.067	0.31			0.44		
		Bottom Side	0.601				0.60			0.60		
	Band 26	Front	0.960	0.266	0.167	0.063	1.23			1.19		
		Back	0.792	0.423	0.961	0.083	1.22			1.84	0.02	#13
		Left Side	0.254				0.25			0.25		
		Right Side	0.671	0.423	0.059	0.056	1.09			0.79		
		Top Side		0.309	0.372	0.067	0.31			0.44		
		Bottom Side	0.636				0.64			0.64		
	Band 66	Front	1.385	0.266	0.167	0.063	1.65	0.02	#14	1.62	0.02	#15
		Back	1.339	0.423	0.961	0.083	1.76	0.02	#16	2.38	0.03	#17
		Left Side	0.121				0.12			0.12		
		Right Side	0.130	0.423	0.059	0.056	0.55			0.25		
		Top Side		0.309	0.372	0.067	0.31			0.44		
		Bottom Side	1.214				1.21			1.21		
	Band 25	Front	1.182	0.266	0.167	0.063	1.45			1.41		
		Back	1.311	0.423	0.961	0.083	1.73	0.02	#18	2.36	0.03	#19
		Left Side	0.089				0.09			0.09		
		Right Side	0.079	0.423	0.059	0.056	0.50			0.19		
		Top Side		0.309	0.372	0.067	0.31			0.44		
		Bottom Side	1.375				1.38			1.38		
	Band 7	Front	1.190	0.266	0.167	0.063	1.46			1.42		
		Back	1.377	0.423	0.961	0.083	1.80	0.02	#20	2.42	0.04	#21
		Left Side	0.988				0.99			0.99		
		Right Side		0.423	0.059	0.056	0.42			0.12		
		Top Side		0.309	0.372	0.067	0.31			0.44		
		Bottom Side	1.222				1.22			1.22		
	Band 41	Front	0.992	0.266	0.167	0.063	1.26			1.22		
		Back	1.274	0.423	0.961	0.083	1.70	0.02	#22	2.32	0.04	#23
		Left Side	0.527				0.53			0.53		
		Right Side		0.423	0.059	0.056	0.42			0.12		
		Top Side		0.309	0.372	0.067	0.31			0.44		
		Bottom Side	0.580				0.58			0.58		

16.3 Body-Worn Accessory Exposure Conditions

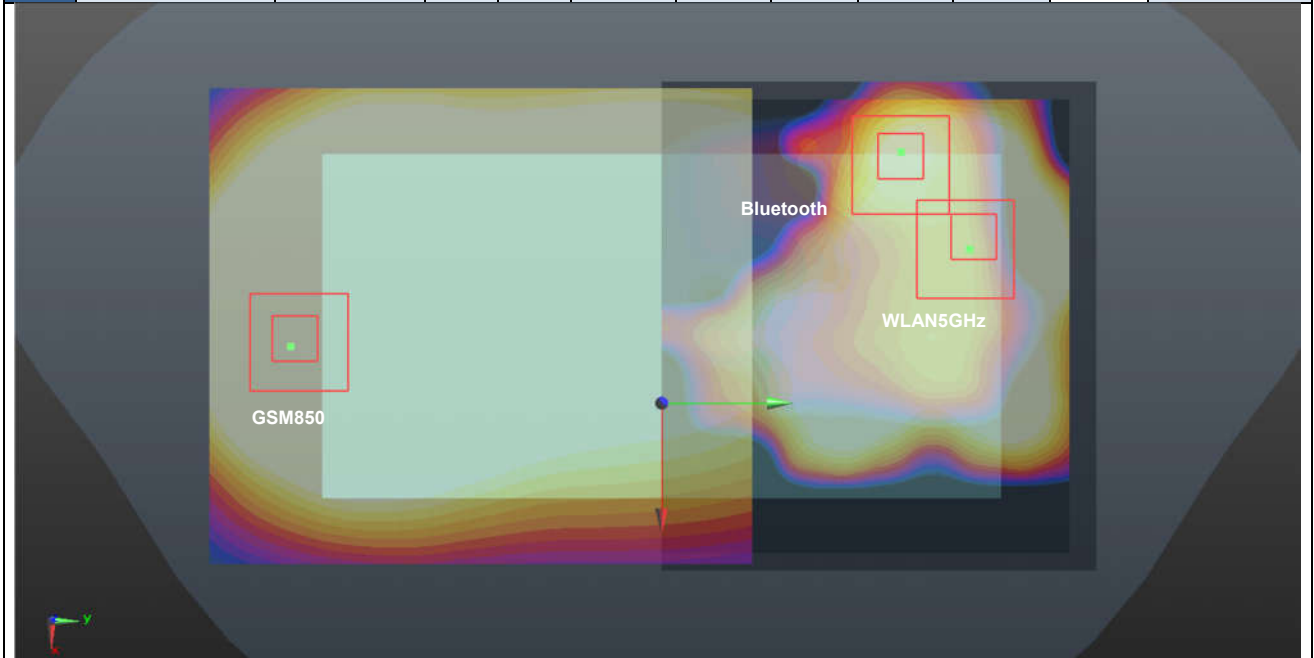
WWAN Band		Exposure Position	1	2	3	4	1+2			1+3+4			
			WWAN	2.4GHz WLAN	5GHz WLAN	Bluetooth	Summed 1g SAR (W/kg)	SPLSR	Case No	Summed 1g SAR (W/kg)	SPLSR	Case No	
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)							
GSM	GSM850	Front	1.177	0.266	0.142	0.063	1.44			1.38			
		Back	0.763	0.423	0.961	0.083	1.19			1.81	0.02	#1	
	GSM1900	Front	1.170	0.266	0.142	0.063	1.44			1.38			
		Back	1.169	0.423	0.961	0.083	1.59			2.21	0.03	#2	
WCDMA	Band V	Front	1.060	0.266	0.142	0.063	1.33			1.27			
		Back	0.792	0.423	0.961	0.083	1.22			1.84	0.03	#3	
	Band IV	Front	1.287	0.266	0.142	0.063	1.55			1.49			
		Back	1.235	0.423	0.961	0.083	1.66	0.02	#4	2.28	0.03	#5	
		Front with Headset	1.349				1.35			1.35			
		Back with Headset	1.234				1.23			1.23			
	Band II	Front	1.169	0.266	0.142	0.063	1.44			1.37			
		Back	1.026	0.423	0.961	0.083	1.45			2.07	0.03	#6	
	CDMA2000	BC0	Front	1.134	0.266	0.142	0.063	1.40			1.34		
			Back	1.035	0.423	0.961	0.083	1.46			2.08	0.03	#24
BC10		Front	0.888	0.266	0.142	0.063	1.15			1.09			
		Back	0.770	0.423	0.961	0.083	1.19			1.81	0.02	#25	
BC1		Front	1.291	0.266	0.142	0.063	1.56			1.50			
		Back	1.317	0.423	0.961	0.083	1.74	0.02	#26	2.36	0.03	#27	
		Front with Headset	1.339				1.34			1.34			
		Back with Headset	1.305				1.31			1.31			
LTE	Band 71	Front	1.065	0.266	0.142	0.063	1.33			1.27			
		Back	1.002	0.423	0.961	0.083	1.43			2.05	0.03	#10	
	Band 12	Front	0.808	0.266	0.142	0.063	1.07			1.01			
		Back	0.818	0.423	0.961	0.083	1.24			1.86	0.02	#11	
	Band 13	Front	0.905	0.266	0.142	0.063	1.17			1.11			
		Back	0.789	0.423	0.961	0.083	1.21			1.83	0.02	#12	
	Band 26	Front	0.960	0.266	0.142	0.063	1.23			1.17			
		Back	0.792	0.423	0.961	0.083	1.22			1.84	0.02	#13	
	Band 66	Front	1.385	0.266	0.142	0.063	1.65	0.02	#14	1.59			
		Back	1.339	0.423	0.961	0.083	1.76	0.02	#16	2.38	0.03	#17	
		Front with Headset	1.362				1.36			1.36			
		Back with Headset	1.260				1.26			1.26			
	Band 25	Front	1.182	0.266	0.142	0.063	1.45			1.39			
		Back	1.311	0.423	0.961	0.083	1.73	0.02	#18	2.36	0.03	#19	
		Back with Headset	1.288				1.29			1.29			
	Band 7	Front	1.190	0.266	0.142	0.063	1.46			1.40			
		Back	1.377	0.423	0.961	0.083	1.80	0.02	#20	2.42	0.04	#21	
		Back with Headset	1.390				1.39			1.39			
	Band 41	Front	0.992	0.266	0.142	0.063	1.26			1.20			
		Back	1.274	0.423	0.961	0.083	1.70	0.02	#22	2.32	0.04	#23	
		Back with Headset	1.188				1.19			1.19			

16.4 SPLSR Evaluation and Analysis

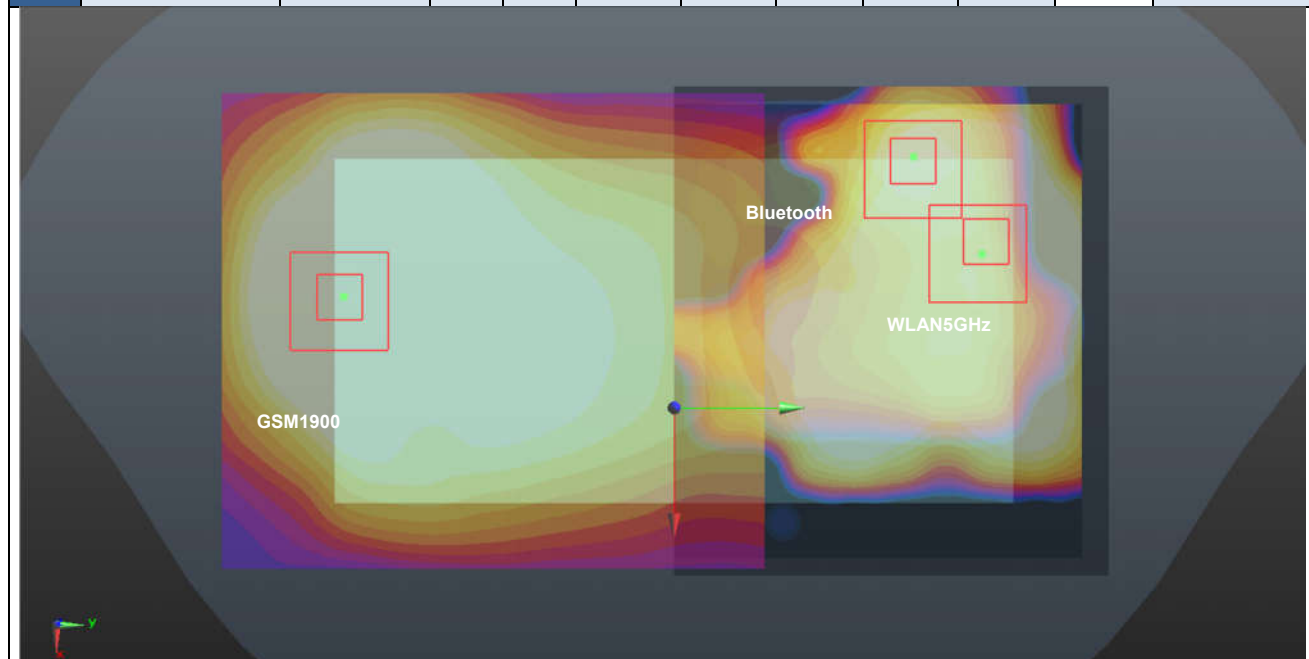
General Note:

- When standalone SAR is measured for both antennas in the pair, the peak location separation distance is computed by the square root of $[(x_1 - x_2)^2 + (y_1 - y_2)^2 + (z_1 - z_2)^2]$, where (x_1, y_1, z_1) and (x_2, y_2, z_2) are the coordinates in the area scans or extrapolated peak SAR locations in the zoom scans, as appropriate.
- $SPLSR = (SAR_1 + SAR_2)1.5 / (\text{min. separation distance, mm})$. If $SPLSR \leq 0.04$, simultaneously transmission SAR measurement is not necessary.

Case #1	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				
	GSM850	Back	0.763	5	4.5	-80.4	-2.26	140.9	1.81	0.02	Not required
	WLAN5GHz		0.961	5	63	11.4	3.34				
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	GSM850	Back	0.763	5	4.5	-80.4	-2.26	109.0	1.81	0.02	Not required
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	WLAN5GHz		0.961	5	63	11.4	3.34				



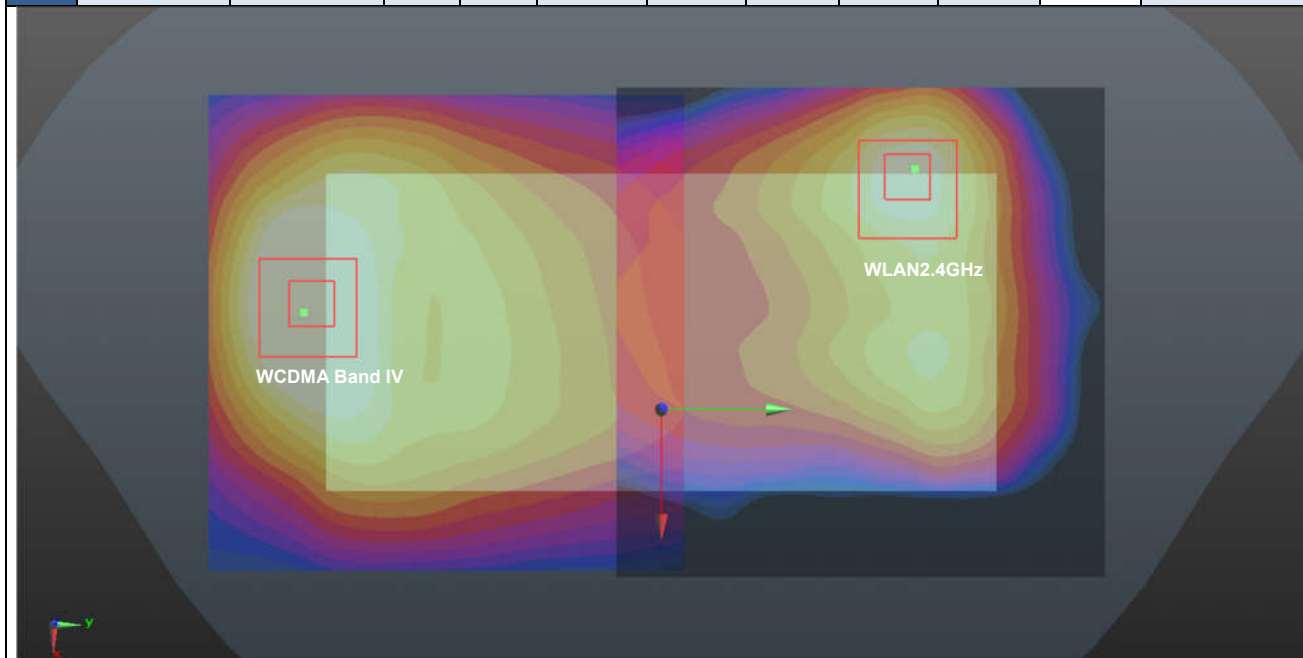
Case #2	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	GSM1900	Back	1.169	5	-7.5	-73	-3.26	130.5	2.21	0.03	Not required
	WLAN5GHz		0.961	5	63	11.4	3.34				
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	GSM1900	Back	1.169	5	-7.5	-73	-3.26	110.2	2.21	0.03	Not required
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	WLAN5GHz		0.961	5	63	11.4	3.34				



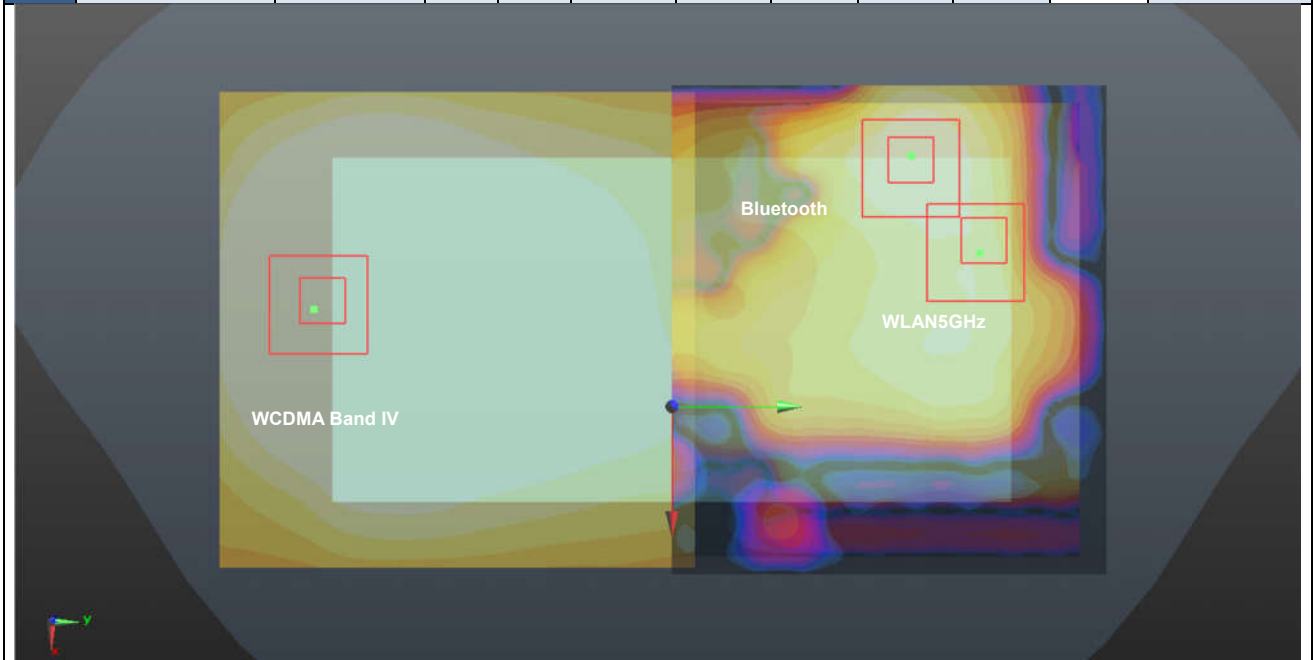
Case #3	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	WCDMA Band V	Back	0.792	5	10	-72.3	-2.89	135.1	1.84	0.02	Not required
	WLAN5GHz		0.961	5	63	11.4	3.34				
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	WCDMA Band V	Back	0.792	5	10	-72.3	-2.89	99.3	1.84	0.03	Not required
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	WLAN5GHz		0.961	5	63	11.4	3.34				



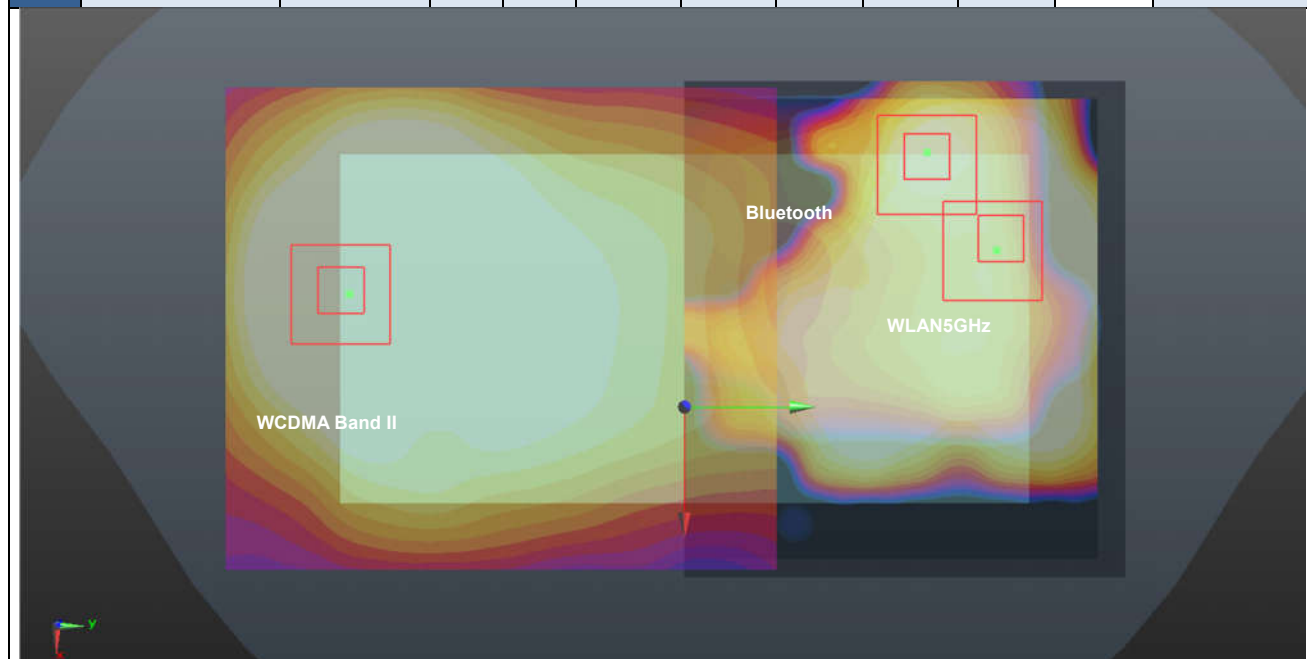
Case #4	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	WCDMA Band IV	Back	1.235	5	-7.7	-77.4	-2.61	135.4	1.66	0.02	Not required
	WLAN2.4GHz		0.423	5	-36	55	-2.94				



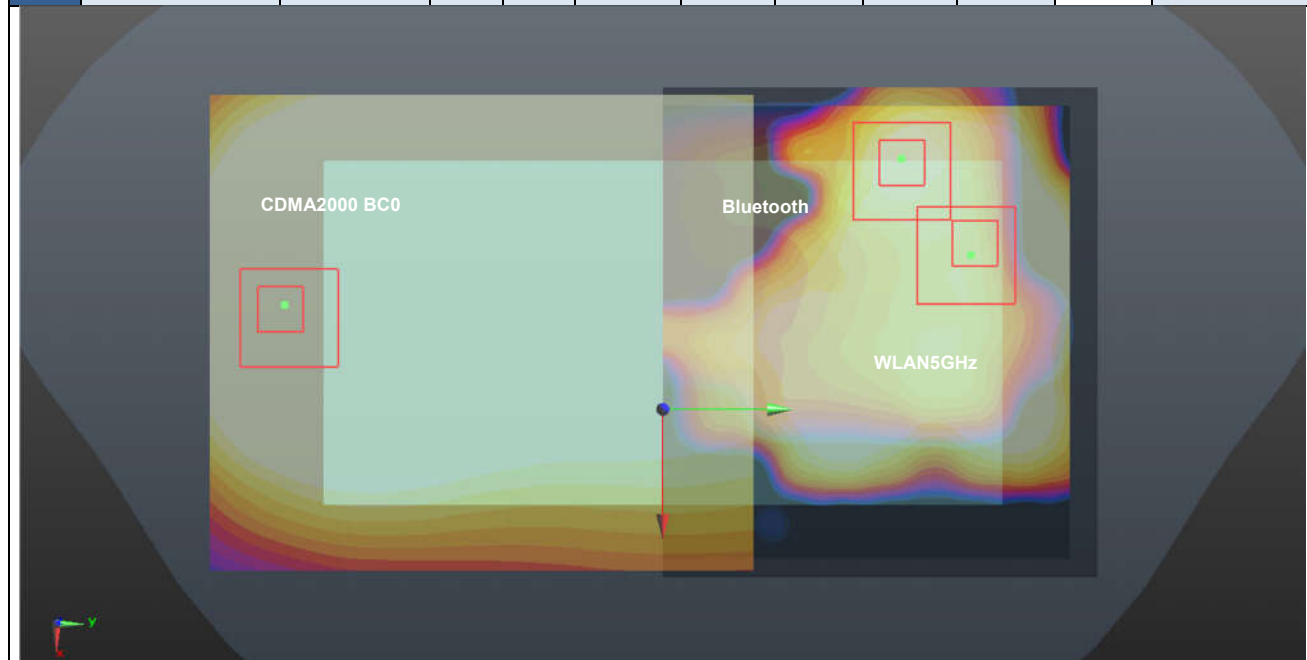
Case #5	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	WCDMA Band IV	Back	1.235	5	-7.7	-77.4	-2.61	134.7	2.28	0.03	Not required
	WLAN5GHz		0.961	5	63	11.4	3.34				
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	WCDMA Band IV	Back	1.235	5	-7.7	-77.4	-2.61	113.7	2.28	0.03	Not required
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	WLAN5GHz		0.961	5	63	11.4	3.34				



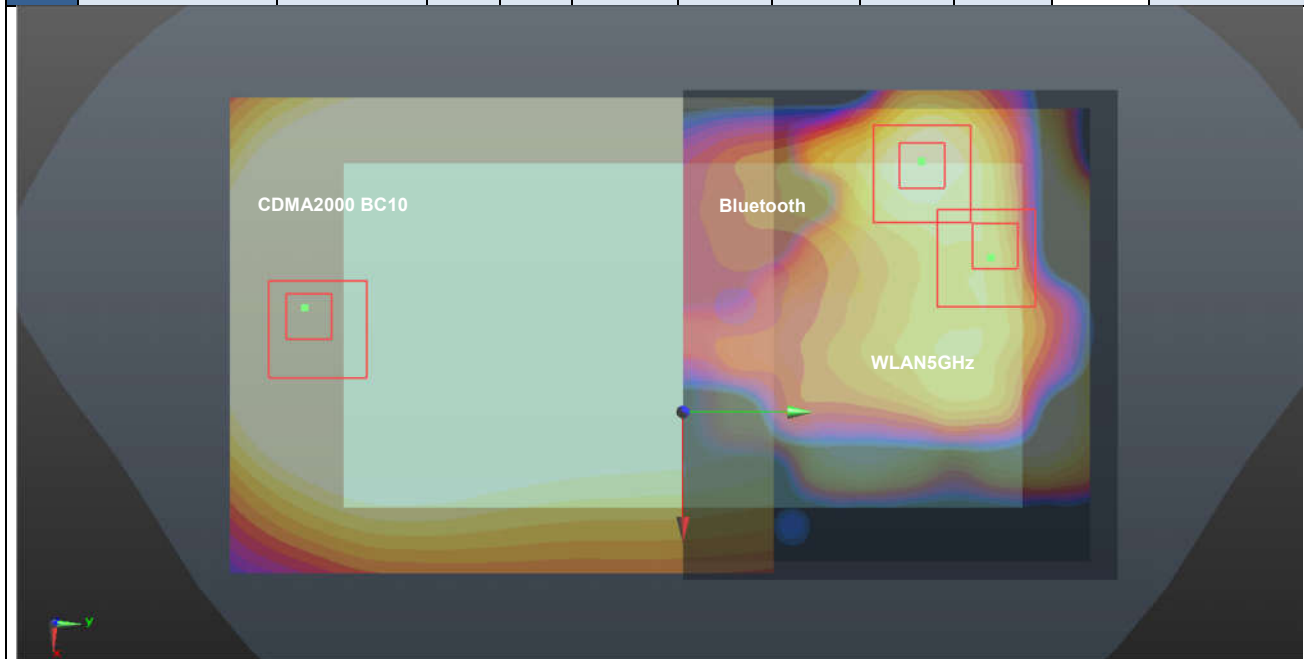
Case #6	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	WCDMA Band II	Back	1.026	5	-9.1	-74.6	-2.59	131.7	2.07	0.02	Not required
	WLAN5GHz		0.961	5	63	11.4	3.34				
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	WCDMA Band II	Back	1.026	5	-9.1	-74.6	-2.59	112.4	2.07	0.03	Not required
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	WLAN5GHz		0.961	5	63	11.4	3.34				



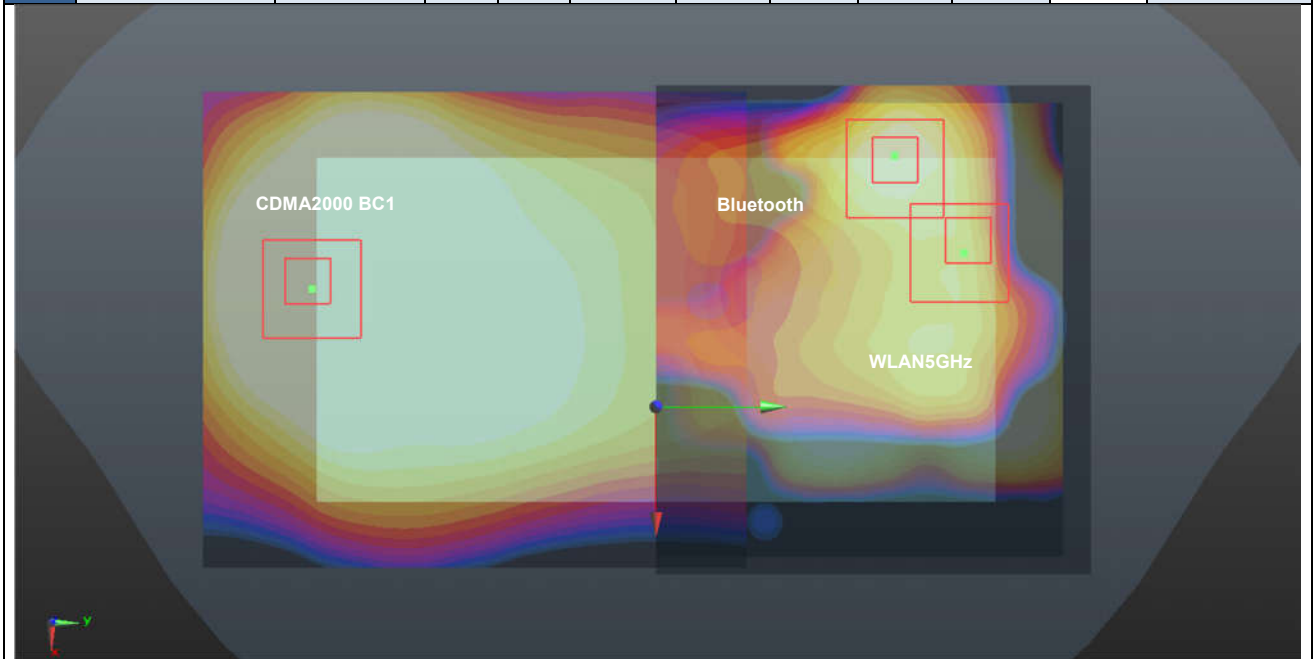
Case #7	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	CDMA2000 BC0	Back	1.03	5	-4.4	-83.5	-2.47	141.4	2.07	0.02	Not required
	WLAN5GHz		0.961	5	63	11.4	3.34				
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	CDMA2000 BC0	Back	1.03	5	-4.4	-83.5	-2.47	116.5	2.07	0.03	Not required
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	WLAN5GHz		0.961	5	63	11.4	3.34				



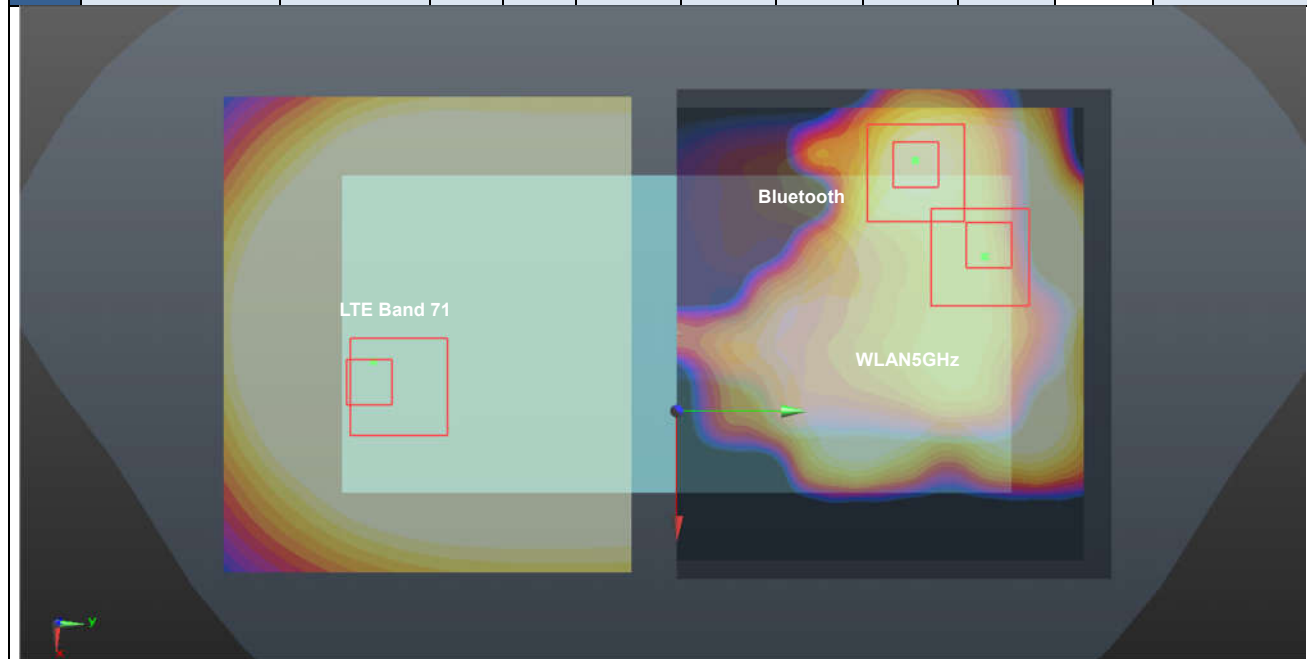
Case #8	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	CDMA2000 BC10	Back	0.857	5	10	-72.3	-2.49	135.1	1.90	0.02	Not required
	WLAN5GHz		0.961	5	63	11.4	3.34				
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	CDMA2000 BC10	Back	0.857	5	10	-72.3	-2.49	99.2	1.90	0.03	Not required
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	WLAN5GHz		0.961	5	63	11.4	3.34				



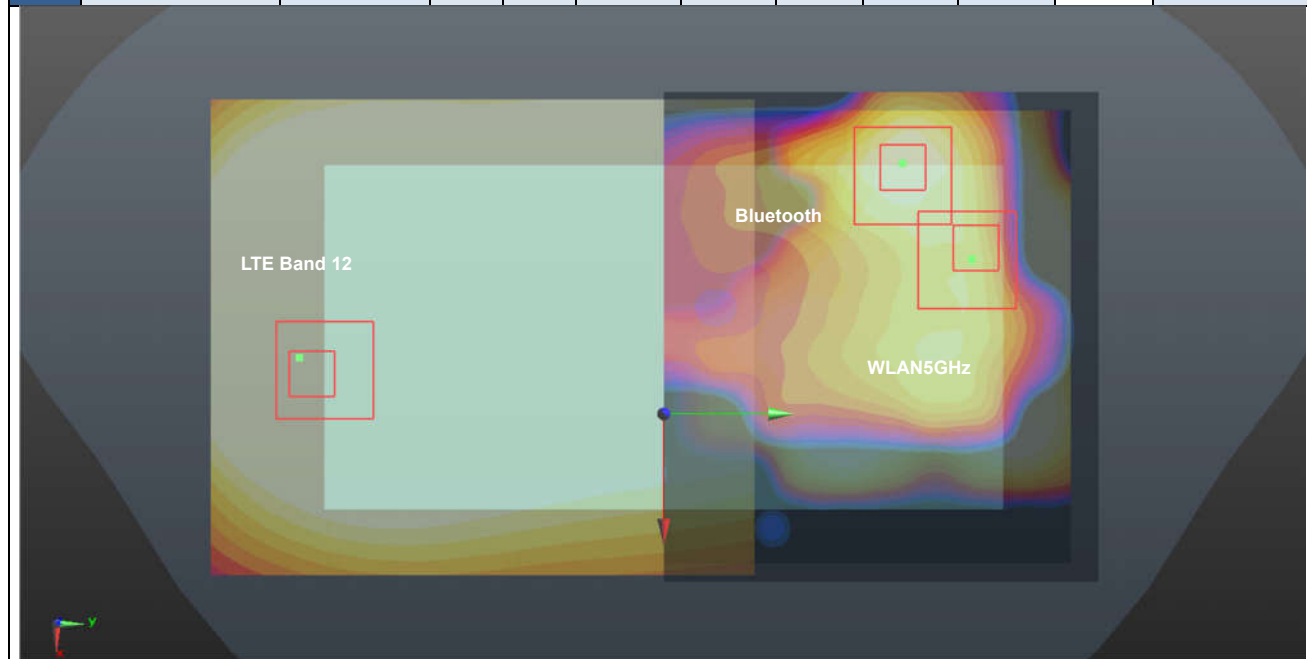
	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Case #9	CDMA2000 BC1	Back	0.922	5	-10.6	-76	-2.66	132.7	1.97	0.02	Not required
	WLAN5GHz		0.961	5	63	11.4	3.34				
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	CDMA2000 BC1	Back	0.922	5	-10.6	-76	-2.66	114.4	1.97	0.02	Not required
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	WLAN5GHz		0.961	5	63	11.4	3.34				



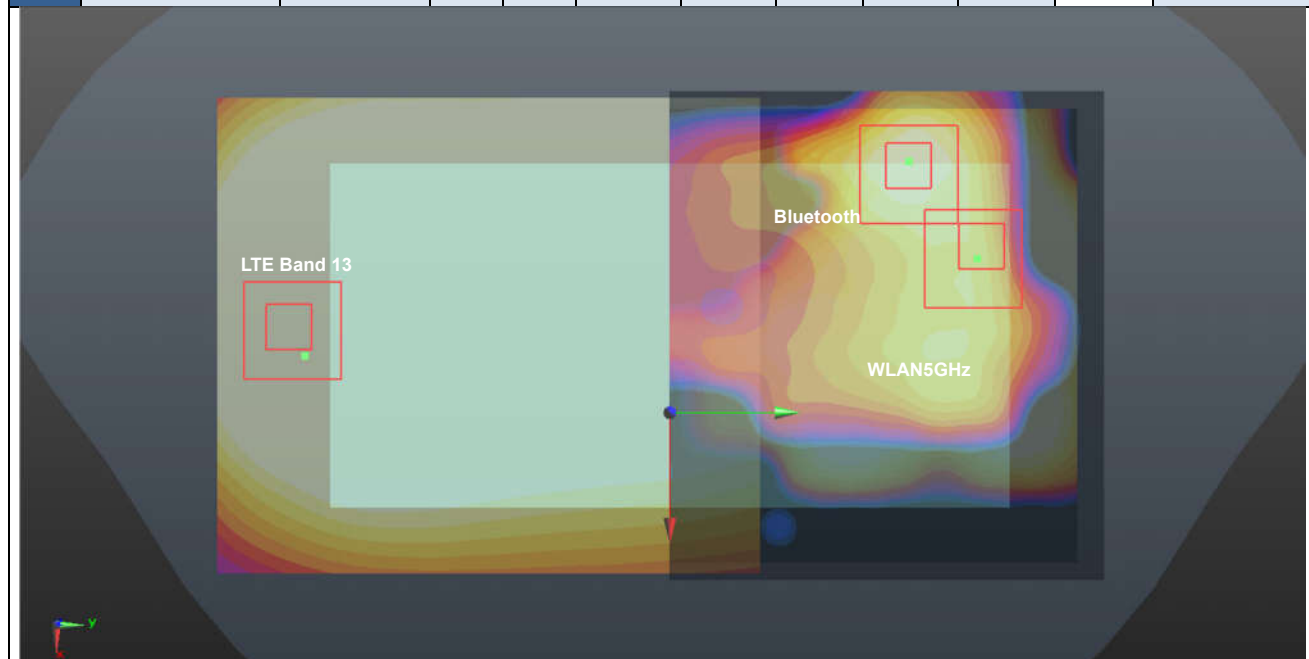
	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Case #10	LTE Band 71	Back	1.002	5	-3.5	-75	-0.92	133.5	2.05	0.02	Not required
	WLAN5GHz		0.961	5	63	11.4	3.34				
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	LTE Band 71	Back	1.002	5	-3.5	-75	-0.92	109.1	2.05	0.03	Not required
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	WLAN5GHz		0.961	5	63	11.4	3.34				



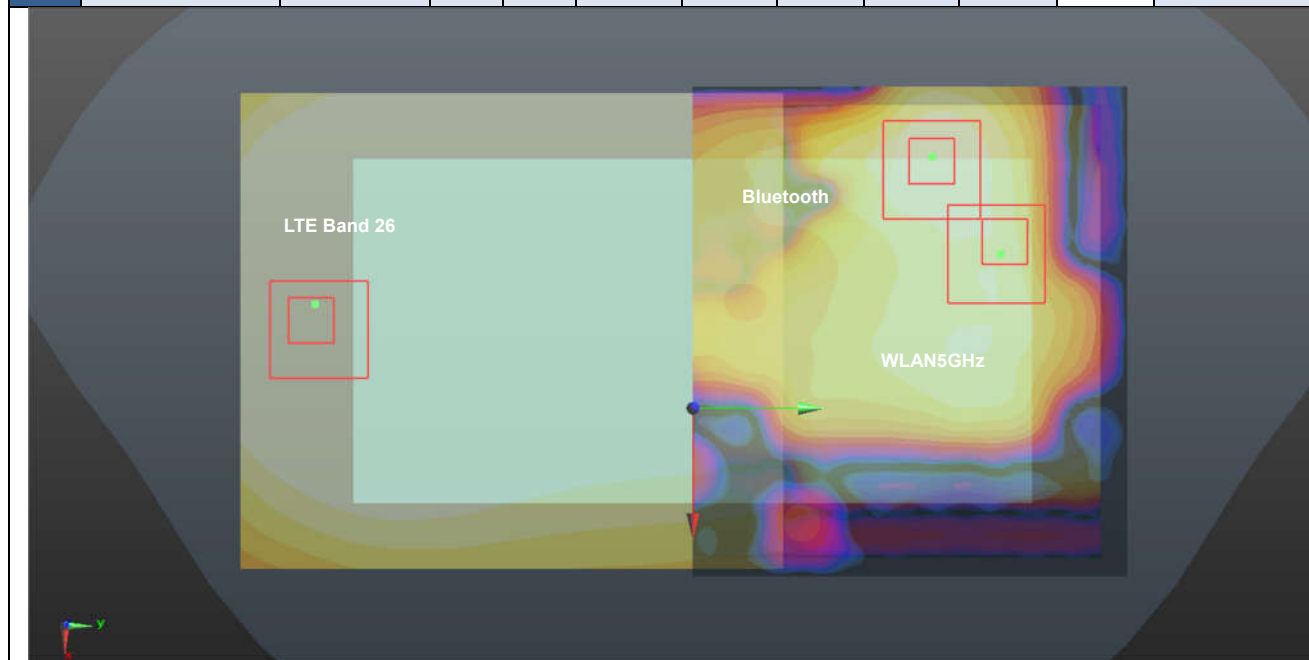
Case #11	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	LTE Band 12	Back	0.818	5	7.7	-78.9	-2.88	140.5	1.86	0.02	Not required
	WLAN5GHz		0.961	5	63	11.4	3.34				
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	LTE Band 12	Back	0.818	5	7.7	-78.9	-2.88	106.1	1.86	0.02	Not required
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	WLAN5GHz		0.961	5	63	11.4	3.34				



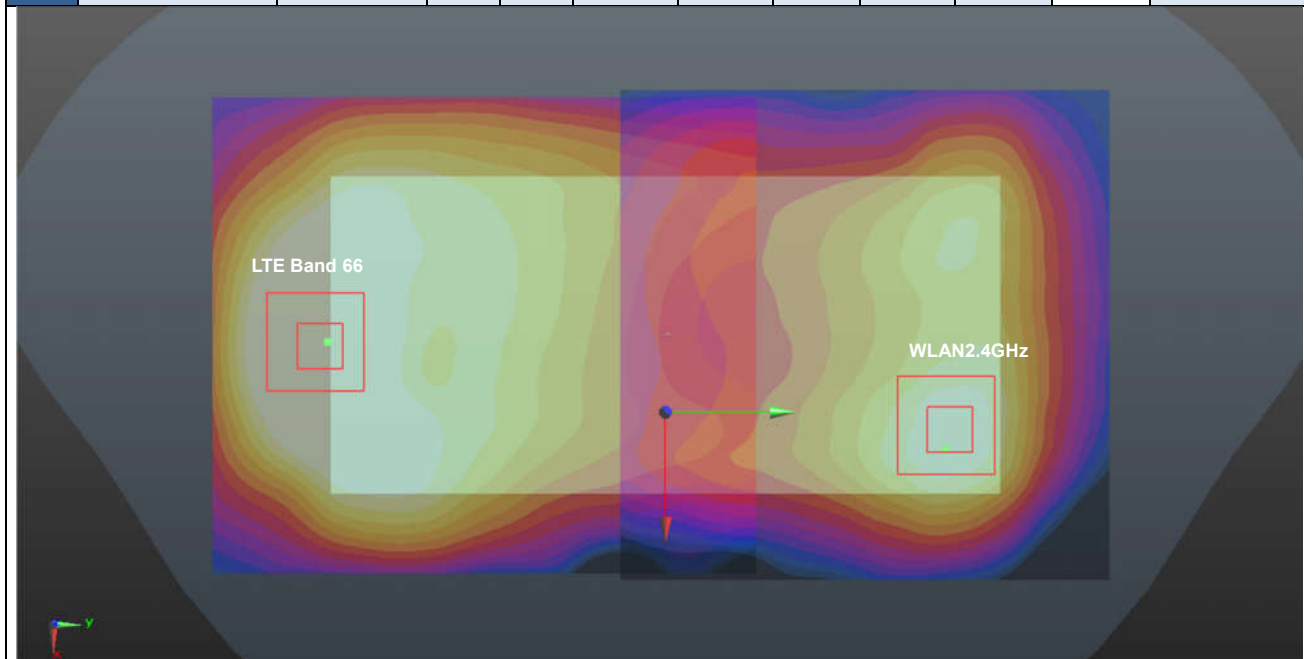
Case #12	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Case #12	LTE Band 13	Back	0.789	5	4.5	-80.5	-2.9	141.0	1.83	0.02	Not required
	WLAN5GHz		0.961	5	63	11.4	3.34				
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	LTE Band 13	Back	0.789	5	4.5	-80.5	-2.9	109.1	1.83	0.02	Not required
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	WLAN5GHz		0.961	5	63	11.4	3.34				



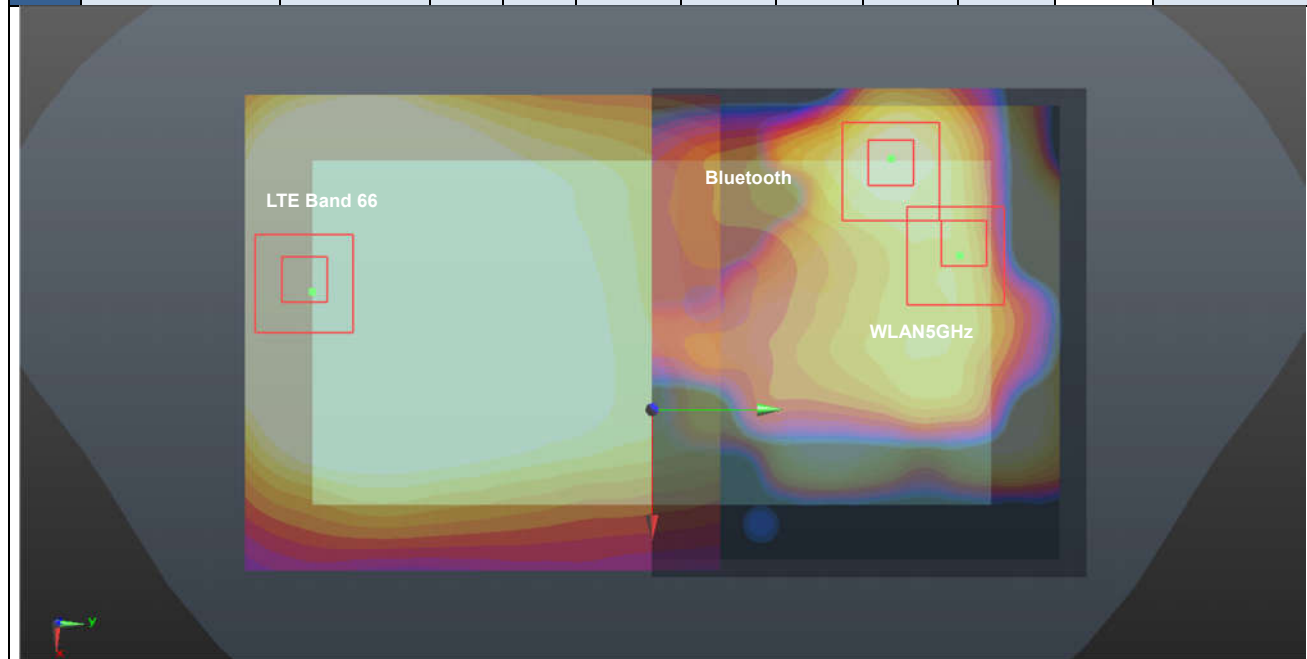
Case #13	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	LTE Band 26	Back	0.792	5	0.4	-83.5	-2.59	142.7	1.84	0.02	Not required
	WLAN5GHz		0.961	5	63	11.4	3.34				
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	LTE Band 26	Back	0.792	5	0.4	-83.5	-2.59	113.8	1.84	0.02	Not required
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	WLAN5GHz		0.961	5	63	11.4	3.34				



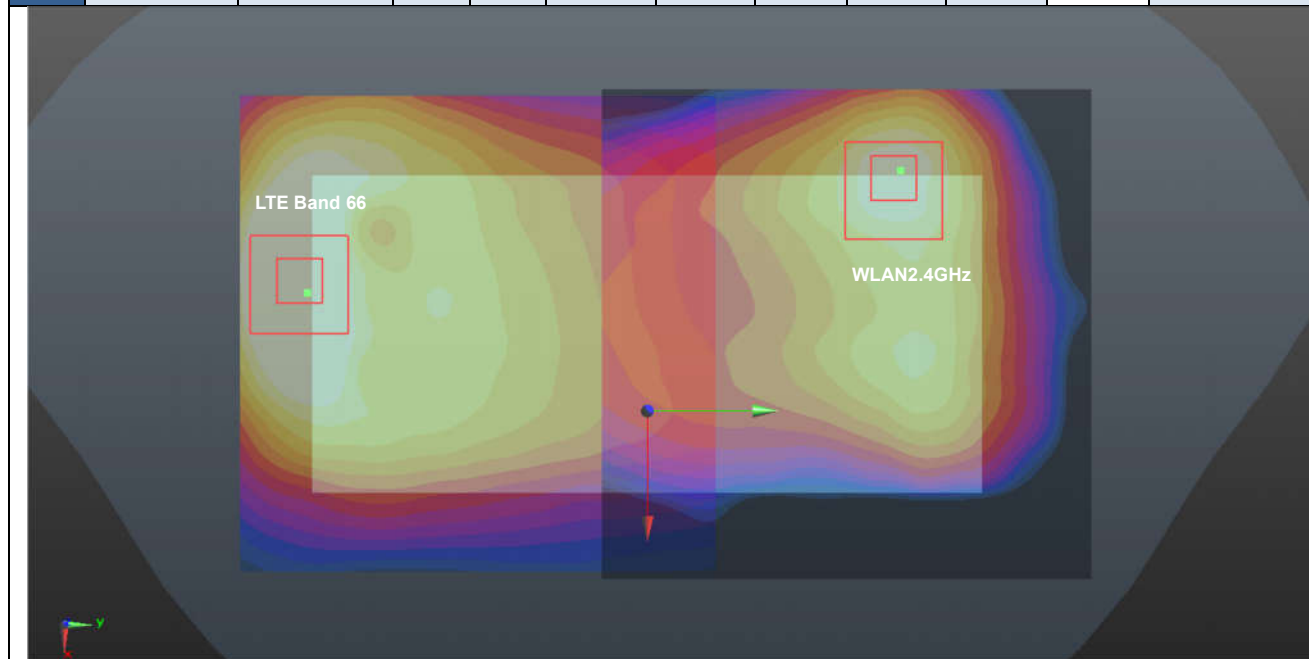
Case #14	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	LTE Band 66	Front	1.385	5	-1.6	-74.8	-1.53	137.6	1.65	0.02	Not required
	WLAN2.4GHz		0.266	5	26	60	-1.58				



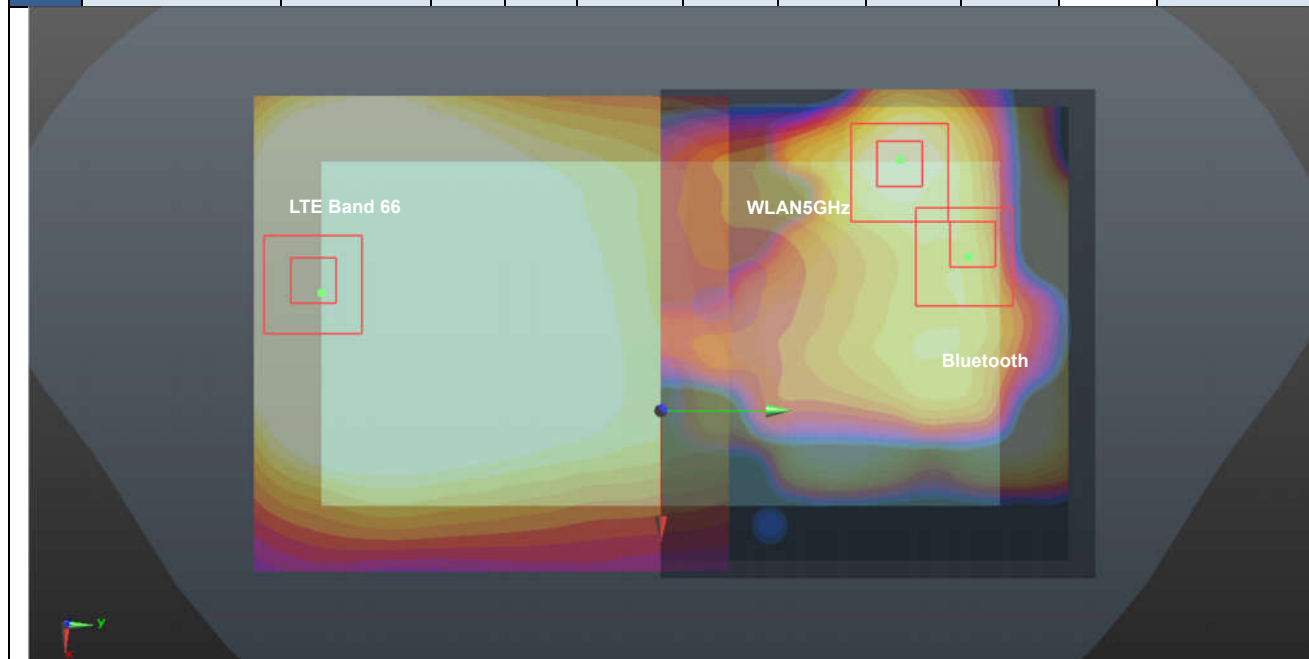
	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Case #15	LTE Band 66	Front	1.385	5	-13.8	-76.6	-1.64	132.7	1.62	0.02	Not required
	WLAN5GHz		0.167	5	63	11.4	3.34				
	Bluetooth		0.063	5	-38.4	53.8	-2.86				
	LTE Band 66	Front	1.385	5	-13.8	-76.6	-1.64	116.9	1.62	0.02	Not required
	Bluetooth		0.063	5	-38.4	53.8	-2.86				
	WLAN5GHz		0.167	5	63	11.4	3.34				



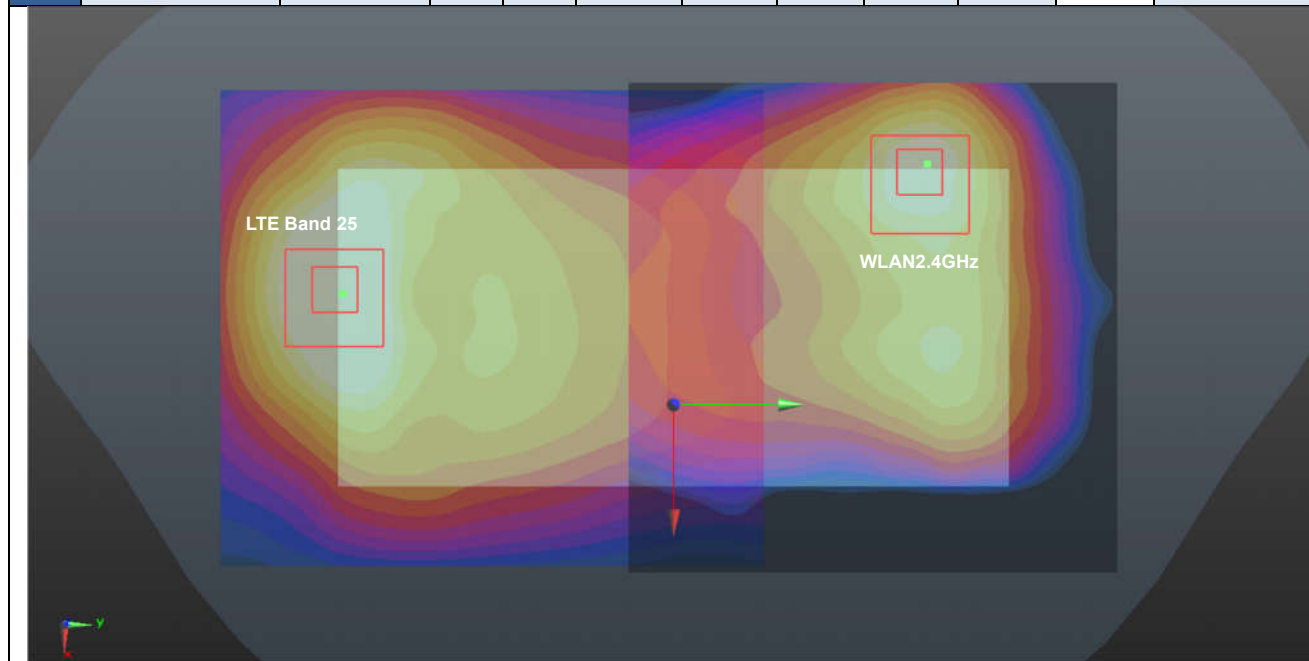
Case #16	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	LTE Band 66	Back	1.339	5	-13.8	-76.6	-1.64	133.5	1.76	0.02	Not required
	WLAN2.4GHz		0.423	5	-36	55	-2.94				



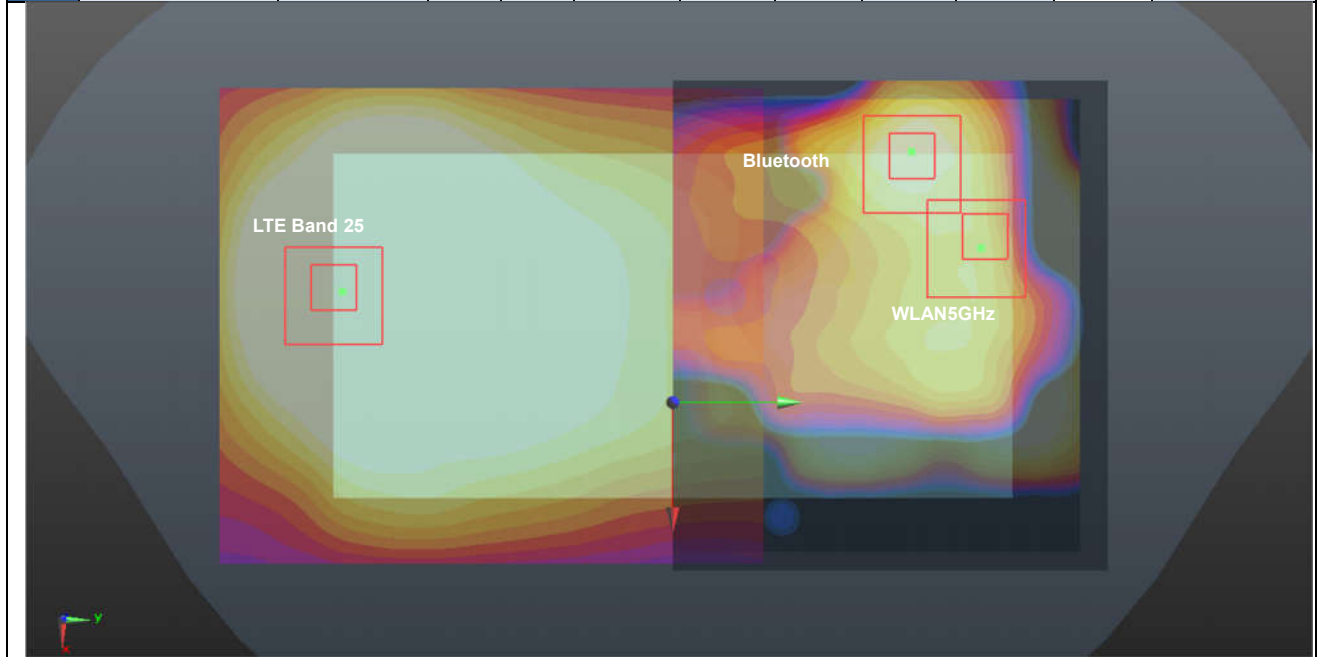
Case #17	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Case #17	LTE Band 66	Back	1.339	5	-13.8	-76.6	-1.64	132.7	2.38	0.03	Not required
	WLAN5GHz		0.961	5	63	11.4	3.34				
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	LTE Band 66	Back	1.339	5	-13.8	-76.6	-1.64	116.9	2.38	0.03	Not required
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	WLAN5GHz		0.961	5	63	11.4	3.34				

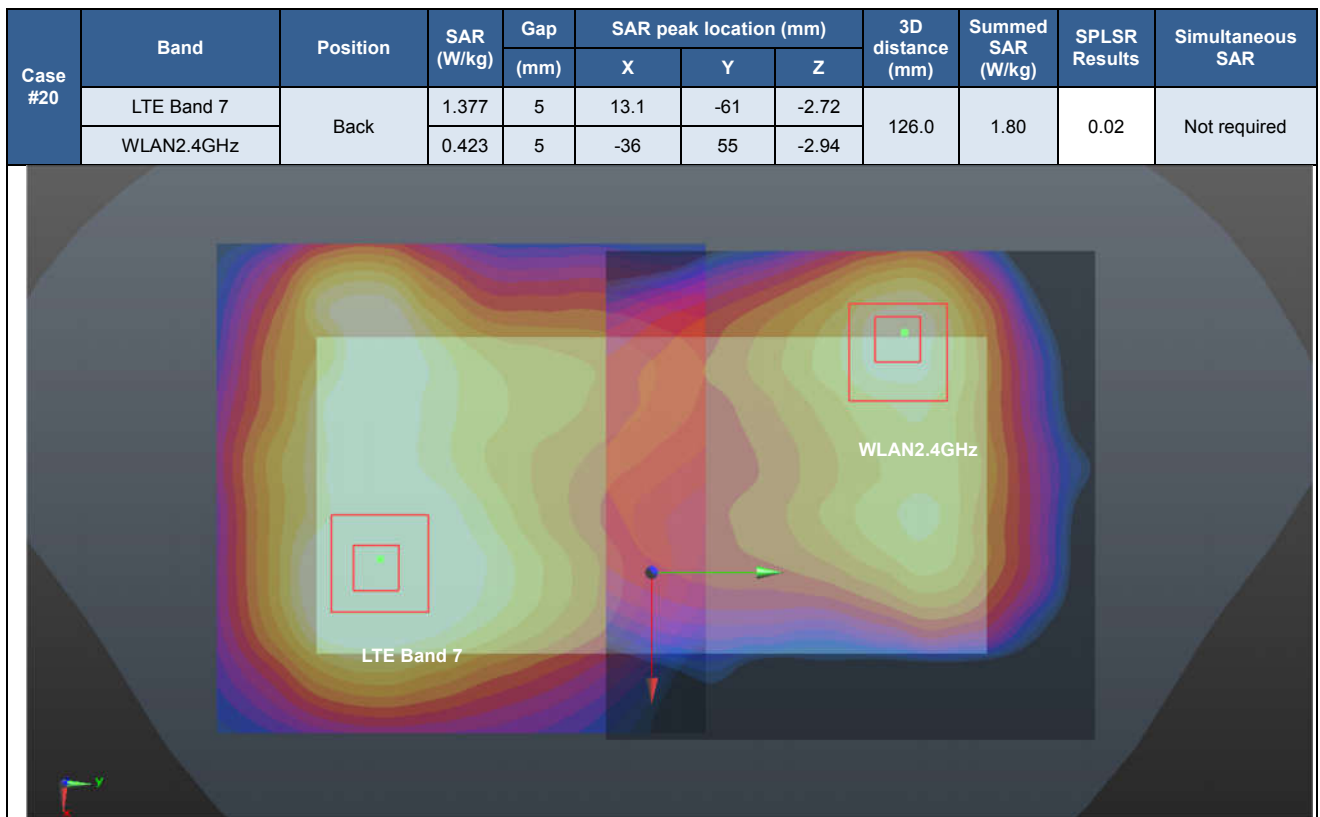


Case #18	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	LTE Band 25	Back	1.311	5	-9.1	-74.6	-2.57	132.4	1.73	0.02	Not required
	WLAN2.4GHz		0.423	5	-36	55	-2.94				

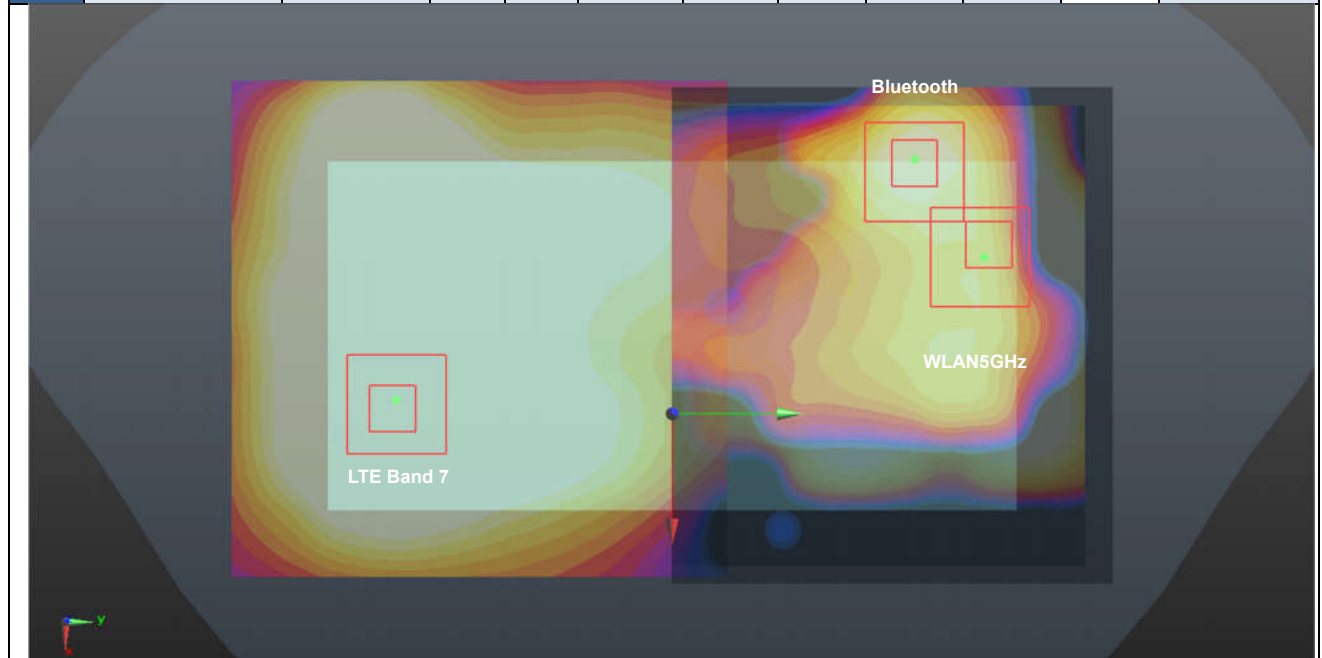


Case #19	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	LTE Band 25	Back	1.311	5	-9.1	-74.6	-2.57	131.7	2.36	0.03	Not required
	WLAN5GHz		0.961	5	63	11.4	3.34				
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	LTE Band 25	Back	1.311	5	-9.1	-74.6	-2.57	112.4	2.36	0.03	Not required
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	WLAN5GHz		0.961	5	63	11.4	3.34				

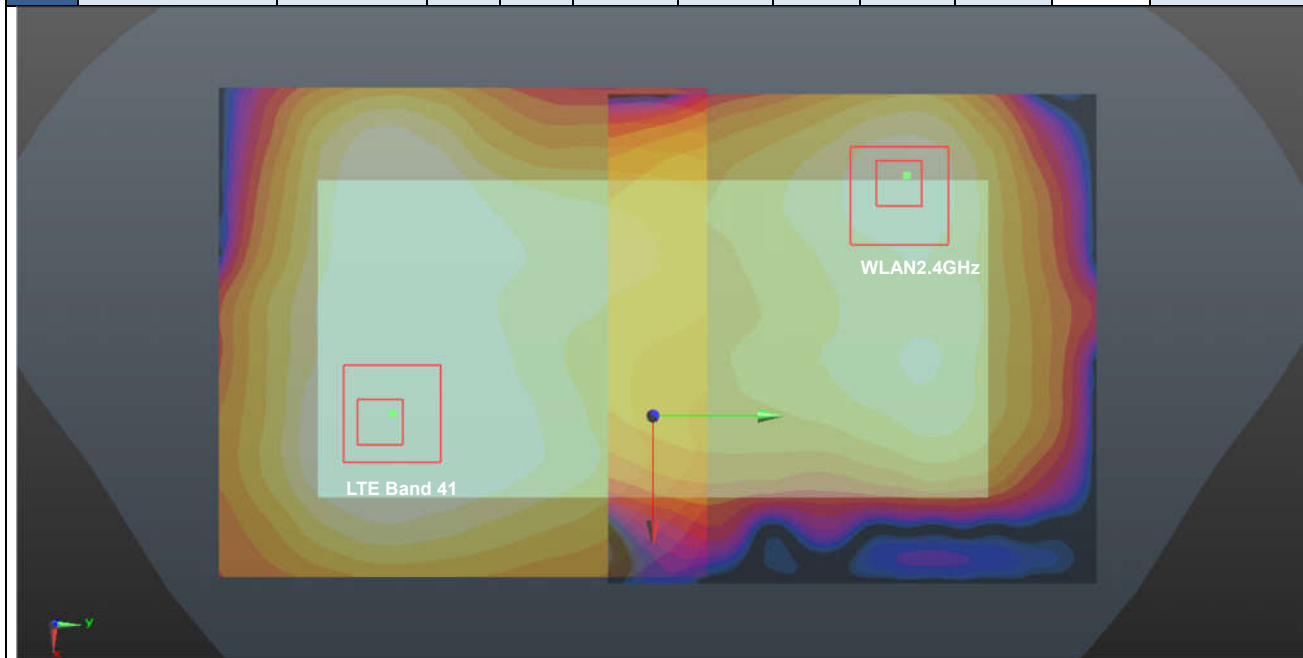




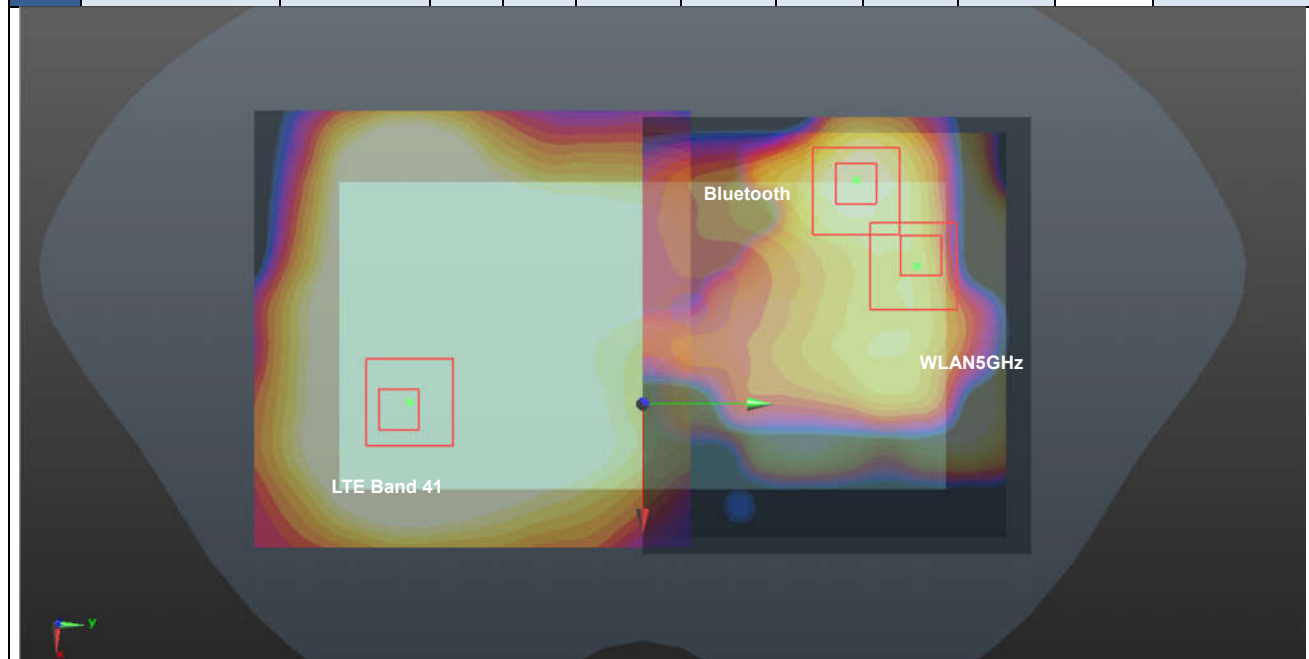
Case #21	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	LTE Band 7	Back	1.377	5	13.1	-61	-2.72	125.8	2.42	0.03	Not required
	WLAN5GHz		0.961	5	63	11.4	3.34				
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	LTE Band 7	Back	1.377	5	13.1	-61	-2.72	88.1	2.42	0.04	Not required
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	WLAN5GHz		0.961	5	63	11.4	3.34				



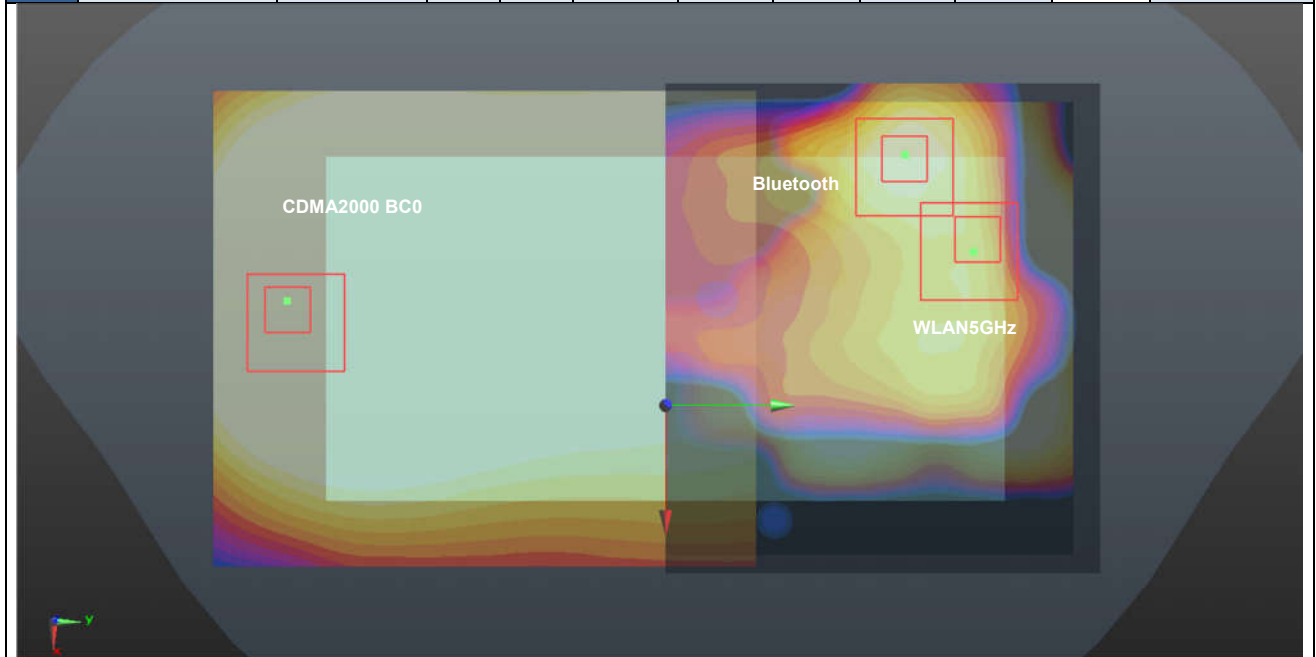
Case #22	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	LTE Band 41	Back	1.274	5	17.5	-60.6	-2.45	127.4	1.70	0.02	Not required
	WLAN2.4GHz		0.423	5	-36	55	-2.94				



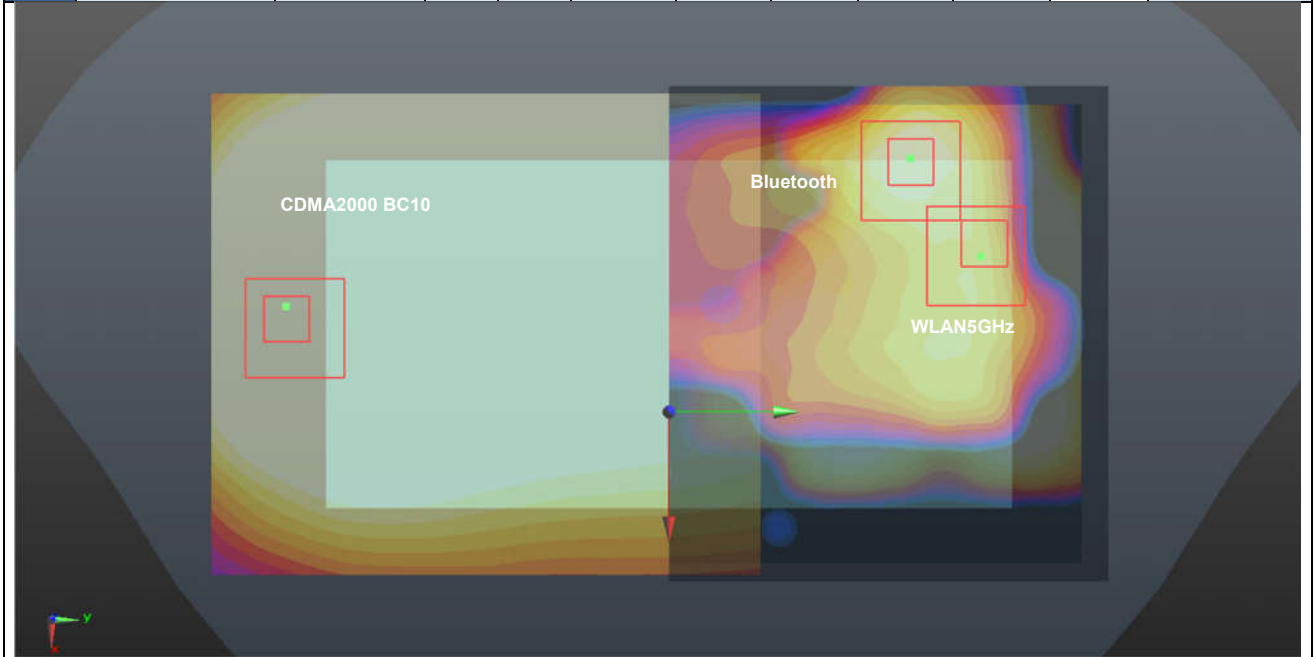
Case #23	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	LTE Band 41	Back	1.274	5	17.5	-60.6	-2.45	127.3	2.32	0.03	Not required
	WLAN5GHz		0.961	5	63	11.4	3.34				
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	LTE Band 41	Back	1.274	5	17.5	-60.6	-2.45	85.4	2.32	0.04	Not required
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	WLAN5GHz		0.961	5	63	11.4	3.34				



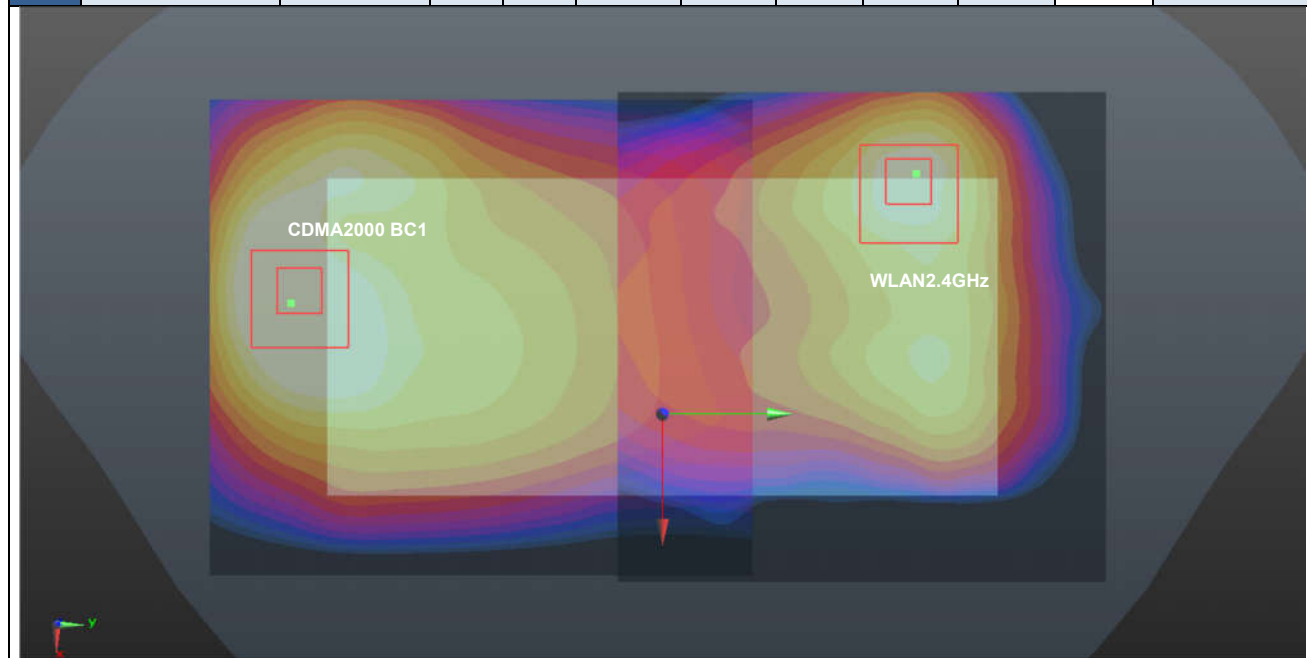
Case #24	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	CDMA2000 BC0	Back	1.035	5	10	-72.3	-2.6	135.1	2.08	0.02	Not required
	WLAN5GHz		0.961	5	63	11.4	3.34				
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	CDMA2000 BC0	Back	1.035	5	10	-72.3	-2.6	99.2	2.08	0.03	Not required
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	WLAN5GHz		0.961	5	63	11.4	3.34				



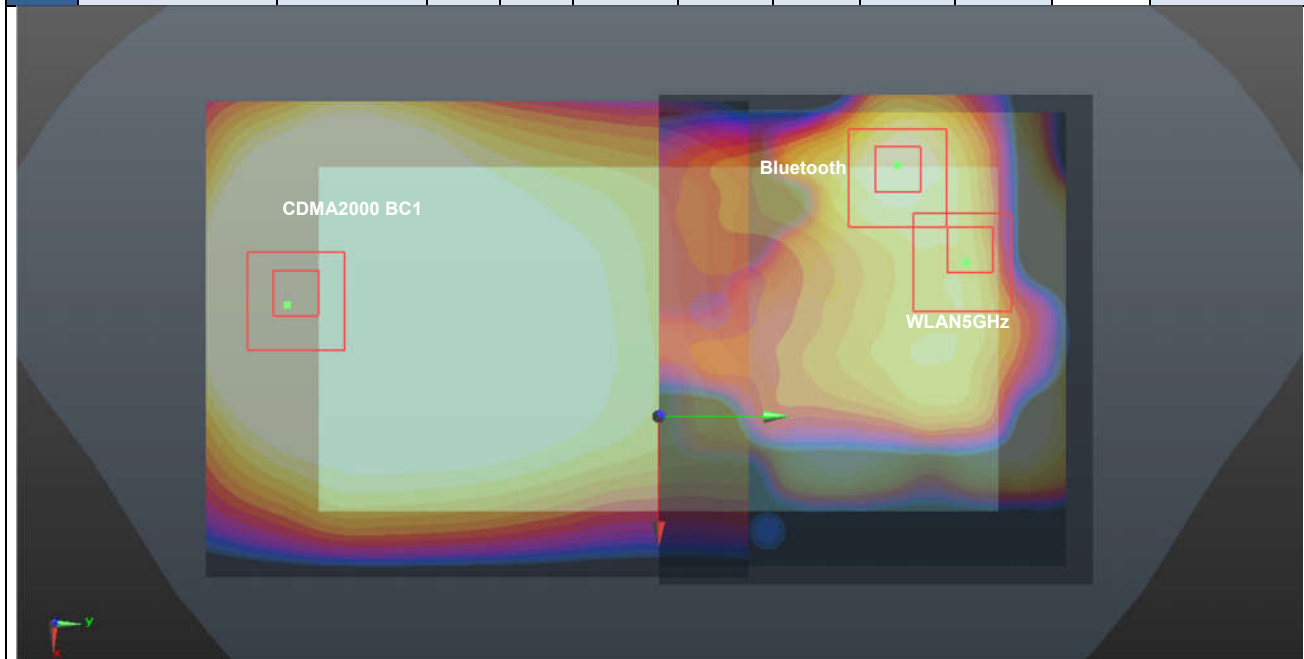
Case #25	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	CDMA2000 BC10	Back	0.77	5	0.4	-81.9	-2.52	141.1	1.81	0.02	Not required
	WLAN5GHz		0.961	5	63	11.4	3.34				
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	CDMA2000 BC10	Back	0.77	5	0.4	-81.9	-2.52	112.5	1.81	0.02	Not required
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	WLAN5GHz		0.961	5	63	11.4	3.34				



Case #26	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 BC1	Back	1.317	5	-12.3	-80.4	-2.65	137.5	1.74	0.02	Not required
	WLAN2.4GHz		0.423	5	-36	55	-2.94				



Case #27	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 BC1	Back	1.317	5	-12.3	-80.4	-2.65	136.7	2.36	0.03	Not required
	WLAN5GHz		0.961	5	63	11.4	3.34				
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	CDMA2000 BC1	Back	1.317	5	-12.3	-80.4	-2.65	118.9	2.36	0.03	Not required
	Bluetooth		0.083	5	-38.4	53.8	-2.86				
	WLAN5GHz		0.961	5	63	11.4	3.34				



17. Supplemental Tuner Tests Results

General Note:

1. The following test procedure was followed to demonstrate that the SAR results in this report represent the appropriate SAR test conditions. For bands with dynamic tuning implemented, SAR will be measured according to the required FCC SAR test procedures with the dynamic tuner active to allow the device to automatically tune to the antenna state for the respective RF exposure test configurations. Additional single point SAR time-sweep measurements will be evaluated for other tuner states to determine that the other tuner configurations would result in equivalent or lower SAR values. The additional tuner hardware has no influence to the antenna characteristics, other than impedance matching.
2. To evaluate all of the tuner states, the 144 tuner states are divided evenly among band, mode and exposure combinations so that at least one single point SAR measurement is measured in each configuration. Single point time-sweep measurements will be performed at the peak SAR location determined by the zoom scan of the configuration with the highest reported SAR for each combination. The tuner state will be established remotely so that the device is not moved for the entire series of single point SAR for the tuner states in each combination. The SAR probe will remain stationary at the same position throughout the entire series of single point measurements for each combination. The bands which are dynamically tuned are split into two separate antennas, so each antenna system will have its own test plan to cover the corresponding 144 tuner states.
3. The operational decryption contains more information about the design and implementation of the dynamic antenna tuning.

17.1 Supplemental Tuner Head & Body SAR Results

Please refer to Appendix C.

Test Engineer: Nick Hu

18. Uncertainty Assessment

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

19. 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. Supplemental Tuner Head & Body SAR Results

The results are shown as follows.



Appendix D. DASYS Calibration Certificate

The DASYS calibration certificates are shown as follows.