



<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	22.96	22.95	22.96	22.89	23.92	24	0
20	QPSK	1	49	23.14	23.14	23.21	23.10	23.13		
20	QPSK	1	99	23.03	23.15	23.26	23.14	23.26		
20	QPSK	50	0	21.56	21.55	21.65	21.55	21.57	23	1
20	QPSK	50	24	21.58	21.57	21.75	21.64	21.68		
20	QPSK	50	50	21.63	21.63	21.79	21.66	21.67		
20	QPSK	100	0	21.54	21.53	21.70	21.61	21.60	23	1
20	16QAM	1	0	22.08	22.09	22.09	22.04	23.00		
20	16QAM	1	49	22.24	22.26	22.32	22.25	22.24		
20	16QAM	1	99	22.12	22.24	22.36	22.27	22.38	22	2
20	16QAM	50	0	20.67	20.65	20.75	20.64	20.64		
20	16QAM	50	24	20.70	20.69	20.87	20.76	20.75		
20	16QAM	50	50	20.72	20.74	20.87	20.78	20.75	22	2
20	16QAM	100	0	20.61	20.64	20.80	20.70	20.71		
20	64QAM	1	0	20.82	20.82	20.82	20.78	21.83		
20	64QAM	1	49	21.00	21.01	21.08	20.98	21.00	22	2
20	64QAM	1	99	20.88	21.00	21.12	21.01	21.10		
20	64QAM	50	0	19.67	19.63	19.73	19.66	19.63		
20	64QAM	50	24	19.65	19.66	19.82	19.75	19.77	21	3
20	64QAM	50	50	19.70	19.74	19.88	19.76	19.76		
20	64QAM	100	0	19.63	19.65	19.79	19.73	19.73		
Channel				39725	40173	40620	41068	41515	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5		
15	QPSK	1	0	23.03	23.03	23.05	22.96	22.89	24	0
15	QPSK	1	37	23.09	23.13	23.21	23.11	23.15		
15	QPSK	1	74	23.09	23.10	23.28	23.13	23.15		
15	QPSK	36	0	21.55	21.55	21.63	21.56	21.57	23	1
15	QPSK	36	20	21.67	21.68	21.74	21.68	21.69		
15	QPSK	36	39	21.57	21.60	21.75	21.66	21.70		
15	QPSK	75	0	21.61	21.63	21.70	21.61	21.68	23	1
15	16QAM	1	0	22.12	22.17	22.17	22.10	22.00		
15	16QAM	1	37	22.21	22.26	22.34	22.23	22.25		
15	16QAM	1	74	22.19	22.24	22.41	22.27	22.28	22	2
15	16QAM	36	0	20.61	20.60	20.73	20.63	20.64		
15	16QAM	36	20	20.75	20.70	20.82	20.71	20.75		
15	16QAM	36	39	20.63	20.64	20.81	20.68	20.78	22	2
15	16QAM	75	0	20.73	20.70	20.78	20.71	20.76		
15	64QAM	1	0	20.87	20.90	20.90	20.83	20.75		
15	64QAM	1	37	20.98	21.00	21.09	21.01	21.02	22	2
15	64QAM	1	74	20.92	21.00	21.12	21.05	21.02		
15	64QAM	36	0	19.64	19.62	19.76	19.62	19.66		
15	64QAM	36	20	19.75	19.71	19.84	19.76	19.77	21	3
15	64QAM	36	39	19.69	19.65	19.83	19.72	19.82		
15	64QAM	75	0	19.71	19.71	19.80	19.71	19.73		



Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2501	2547	2593	2639	2685		
10	QPSK	1	0	23.04	23.04	23.07	22.99	23.68	24	0
10	QPSK	1	25	23.17	23.09	23.20	23.12	23.19		
10	QPSK	1	49	23.10	23.16	23.24	23.16	23.78		
10	QPSK	25	0	21.65	21.52	21.65	21.57	21.79	23	1
10	QPSK	25	12	21.62	21.65	21.74	21.65	21.74		
10	QPSK	25	25	21.64	21.62	21.73	21.63	21.89		
10	QPSK	50	0	21.62	21.61	21.73	21.64	21.87	23	1
10	16QAM	1	0	22.15	22.17	22.25	22.15	22.84		
10	16QAM	1	25	22.27	22.22	22.35	22.24	22.33		
10	16QAM	1	49	22.19	22.26	22.36	22.25	22.91	22	2
10	16QAM	25	0	20.74	20.64	20.78	20.68	20.95		
10	16QAM	25	12	20.73	20.75	20.86	20.80	20.86		
10	16QAM	25	25	20.73	20.72	20.84	20.74	21.01	22	2
10	16QAM	50	0	20.71	20.73	20.83	20.74	20.96		
10	64QAM	1	0	20.92	20.95	20.98	20.90	21.57		
10	64QAM	1	25	21.05	20.97	21.11	21.01	21.06	22	2
10	64QAM	1	49	20.95	20.99	21.09	21.00	21.67		
10	64QAM	25	0	19.76	19.67	19.82	19.75	19.96		
10	64QAM	25	12	19.80	19.74	19.91	19.82	19.91	21	3
10	64QAM	25	25	19.79	19.78	19.90	19.78	20.03		
10	64QAM	50	0	19.73	19.68	19.82	19.77	19.99		
Channel				39675	40148	40620	41093	41565	Tune-up limit (dBm)	MPR (dB)
Frequency (MHz)				2498.5	2545.8	2593	2640.30	2687.5		
5	QPSK	1	0	23.06	23.09	23.13	23.06	23.16	24	0
5	QPSK	1	12	23.12	23.16	23.19	23.13	23.19		
5	QPSK	1	24	23.11	23.05	23.17	23.11	23.18		
5	QPSK	12	0	21.63	21.70	21.72	21.60	21.69	23	1
5	QPSK	12	7	21.70	21.61	21.73	21.69	21.75		
5	QPSK	12	13	21.71	21.65	21.75	21.65	21.72		
5	QPSK	25	0	21.66	21.59	21.72	21.67	21.70	23	1
5	16QAM	1	0	22.16	22.21	22.24	22.16	22.25		
5	16QAM	1	12	22.23	22.29	22.32	22.25	22.29		
5	16QAM	1	24	22.25	22.21	22.34	22.27	22.30	22	2
5	16QAM	12	0	20.68	20.73	20.76	20.68	20.72		
5	16QAM	12	7	20.76	20.68	20.81	20.71	20.81		
5	16QAM	12	13	20.75	20.69	20.83	20.74	20.80	22	2
5	16QAM	25	0	20.79	20.69	20.85	20.76	20.82		
5	64QAM	1	0	20.94	20.98	21.04	20.96	21.01		
5	64QAM	1	12	21.00	21.05	21.07	21.00	21.08	22	2
5	64QAM	1	24	21.02	20.96	21.12	21.02	21.09		
5	64QAM	12	0	19.77	19.79	19.81	19.77	19.79		
5	64QAM	12	7	19.82	19.72	19.89	19.77	19.85	21	3
5	64QAM	12	13	19.82	19.70	19.83	19.79	19.88		
5	64QAM	25	0	19.81	19.70	19.84	19.78	19.88		



<LTE Carrier Aggregation>

General Note:

1. This device supports Carrier Aggregation on downlink for inter and intra band, on uplink for 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 procedure of KDB 941225 D05A for DL CA SAR test exclusion, only the subset with the largest number of combinations of the frequency band and CCs in each row need consideration, and that configurations require power measurement should be highlighted in the below table.

2 bands / 2 CC	2 bands / 3 CC	3 bands / 3 CC
CA_2A_4A	CA_2A-4A-4A	CA_2A-4A-5A
	CA_2A-2A-5A	
CA_2A_7A	CA_2A-7A-7A	CA_2A-4A-7A
		CA_2A-4A-12A
CA_4A_13A	CA_4A_4A_13A	CA_2A-4A-13A
CA_2A-13A	CA_2A-2A-13A	
CA_2A-29A		CA_2A-4A-29A
CA_4A_30A		CA_2A-4A-30A
CA_4A-71A		CA_2A-4A-71A
CA_2A-71A		
CA_2A-5A	CA_2A-2A-5A	CA_2A-5A-30A
CA_5A_30A		
CA_5A_66A	CA_5A_66A_66A	CA_2A-5A-66A
	CA_5A_66B	
	CA_5A_66C	
CA_7A_12A		CA_2A-7A-12A
CA_2A-12A	CA_2A-2A-12A	CA_2A-12A-30A
CA_12A_30A		
	CA_2A_12B	
CA_12A_66A	CA_12A_66A_66A	CA_2A_12A_66A
	CA_12A_66C	
CA_13A_66A	CA_13A_66A_66A	CA_2A_13A_66A
	CA_13A_66B	
	CA_13A_66C	
CA_2A-30A	CA_2A-2A-30A	CA_2A_29A_30A
CA_2A-66A	CA_2A-2A-66A	CA_2A-66A-71A
	CA_2A-66A-66A	
	CA_2A_66C	
CA_4A_5A	CA_4A_4A_5A	CA_4A_5A_30A
CA_4A_7A		CA_4A-7A-12A
CA_4A_12A	CA_4A_4A_12A	CA_4A-12A-30A
	CA_4A_12B	
CA_4A_29A	CA_4A_4A_29A	CA_4A-29A-30A
CA_30A_66A		CA_5A_30A_66A
CA_25A-26A		
CA_25A-41A	CA_25A-41C	
CA_26A-41A	CA_26A-41C	

	Intra-Band Contiguous	Intra-Band non-Contiguous
Band 2	CA_2C	CA_2A_2A
Band 4		CA_4A_4A
Band 5	CA_5B	CA_5A_5A
Band 7		CA_7A_7A
Band 12	CA_12B	
Band 25		CA_25A_25A
Band 41	CA_41C	CA_41A_41A
	CA_41D	CA_41C_41A
Band 66	CA_66B	CA_66A_66A
	CA_66C	

**<Power verification when LTE Carrier Aggregation Active>**

**General Note:**

- i. According to KDB941225 D05A v01r02, Uplink maximum output power measurement with downlink carrier aggregation active should be measured, using the highest output channel measured without downlink carrier aggregation, to confirm that uplink maximum output power with downlink carrier aggregation active remains within the specified tune-up tolerance limits and not more than ¼ dB higher than the maximum output measured without downlink carrier aggregation active.
- ii. Uplink maximum output power with downlink carrier aggregation active does not show more than ¼ dB higher than the maximum output power without downlink carrier aggregation active, therefore SAR evaluation with downlink carrier aggregation active can be excluded.
- iii. The device supports downlink two carrier aggregation. 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. 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.
- vi. 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.
- vii. According TCB workshop, the output power with uplink CA active was measured for the configuration with the highest reported SAR with single carrier for each exposure condition. The power was measured with wideband signal integration over both component carriers.
- viii. Uplink CA is only operating with power class 3 for LTE B41, and additional SAR measurement for TLE UL CA whit other DL CA combinations active were not required since the maximum output power for this configuration was not > 0.25dB higher than the maximum output power for UL CA\_41C active.
- ix. For inter-band CA, the SCC selected highest bandwidth and near the middle of its transmission band.
- x. 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.

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



<Two Carrier power verification>

Configure	CA Configuration (BCS)	PCC							SCC				Power		
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx.Power (dBm)	W/O CA Tx.Power (dBm)	
Inter-Band	CA_25A-26A	25	20	1860	26140	QPSK	1	0	26	15	876.5	8865	23.24	23.26	
		26	15	831.5	26865	QPSK	1	37	25	20	1960	8340	22.72	22.73	
Intra-Band	Non-Contiguous	CA_2A-2A	2	20	1860	18700	QPSK	1	0	2	5	1987.5	1175	23.26	23.25
		CA_4A-4A	4	20	1732.5	20175	QPSK	1	0	4	5	2152.5	2375	22.83	22.84
		CA_5A-5A	5	10	829	20450	QPSK	1	0	5	5	891.5	2625	22.84	22.84
		CA_7A-7A	7	20	2560	21350	QPSK	1	99	7	5	2622.5	2775	22.81	22.83
		CA_25A-25A	25	20	1860	26140	QPSK	1	0	25	5	1992.5	8665	23.24	23.26
		CA_41A-41A	41	20	2680	41490	QPSK	1	0	41	5	2545.8	40148	23.91	23.92
	Contiguous	CA_66A-66A	66	20	1770	132572	QPSK	1	0	66	5	2112.5	66461	22.92	22.93
		CA_2C	2	20	1860	18700	QPSK	1	0	2	20	1959.8	898	23.26	23.25
		CA_5B	5	10	829	20450	QPSK	1	0	5	10	883.9	2549	22.84	22.84
		CA_12B	12	10	711	23130	QPSK	1	49	12	5	733.8	5058	22.79	22.78
	CA_41C	41	20	2680	41490	QPSK	1	0	41	20	2660.2	41292	23.91	23.92	
	CA_66B	66	15	1745	132322	QPSK	1	0	66	5	2154.3	66879	22.92	22.92	
	CA_66C	66	20	1770	132572	QPSK	1	0	66	20	2170.2	67038	22.92	22.93	

<Three Carrier power verification>

Configure	CA Configuration (BCS)	PCC							SCC				SCC2				Power	
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx.Power (dBm)	W/O CA Tx.Power (dBm)
Inter-Band	CA_2A-12B	2	20	1860	18700	QPSK	1	0	12	10	740	5120	12	5	732.8	5048	23.26	23.25
		12	10	711	23130	QPSK	1	49	12	5	733.8	5058	2	20	1960	900	22.79	22.78
	CA_2A-66C	2	20	1860	18700	QPSK	1	0	66	20	2155	66886	66	20	2174.8	67084	23.26	23.25
		66	20	1770	132572	QPSK	1	0	66	20	2170.2	67038	2	20	1960	900	22.92	22.93
	CA_5A-66B	5	10	829	20450	QPSK	1	0	66	15	2155	66886	66	5	2154.3	66879	22.84	22.84
		66	15	1745	132322	QPSK	1	0	66	5	2154.3	66879	5	10	881.5	2525	22.92	22.92
	CA_5A-66C	5	10	829	20450	QPSK	1	0	66	20	2155	66886	66	20	2174.8	67084	22.84	22.84
		66	20	1770	132572	QPSK	1	0	66	20	2170.2	67038	5	10	881.5	2525	22.92	22.93
	CA_12A-66C	12	10	711	23130	QPSK	1	49	66	20	2155	66886	66	20	2174.8	67084	22.79	22.78
		66	20	1770	132572	QPSK	1	0	66	20	2170.2	67038	12	10	737.5	5095	22.92	22.93
	CA_13A-66B	13	10	782	23230	QPSK	1	0	66	15	2155	66886	66	5	2154.3	66879	22.74	22.72
		66	15	1745	132322	QPSK	1	0	66	5	2154.3	66879	13	10	751	5230	22.92	22.92
	CA_13A-66C	13	10	782	23230	QPSK	1	0	66	20	2155	66886	66	20	2174.8	67084	22.74	22.72
		66	20	1770	132572	QPSK	1	0	66	20	2170.2	67038	13	10	751	5230	22.92	22.93
	CA_25A-41C	25	20	1860	26140	QPSK	1	0	41	20	2593	40620	41	20	2593	40620	23.24	23.26
		41	20	2680	41490	QPSK	1	0	41	20	2593	40620	25	20	1960	8340	23.91	23.92
	CA_26A-41C	26	15	831.5	26865	QPSK	1	37	41	20	2593	40620	41	20	2593	40620	22.72	22.73
		41	20	2680	41490	QPSK	1	0	41	20	2593	40620	26	15	876.5	8865	23.91	23.92
	CA_2A-4A-5A	2	20	1860	18700	QPSK	1	0	4	20	2132.5	2175	5	10	881.5	2525	23.26	23.25
		4	20	1732.5	20175	QPSK	1	0	2	20	1960	900	5	10	881.5	2525	22.83	22.84
		5	10	829	20450	QPSK	1	0	2	20	1960	900	4	20	2132.5	2175	22.84	22.84
	CA_2A-4A-7A	2	20	1860	18700	QPSK	1	0	4	20	2132.5	2175	7	20	2655	3100	23.26	23.25
		4	20	1732.5	20175	QPSK	1	0	2	20	1960	900	7	20	2655	3100	22.83	22.84
		7	20	2560	21350	QPSK	1	99	2	20	1960	900	4	20	2132.5	2175	22.81	22.83
CA_2A-4A-12A	2	20	1860	18700	QPSK	1	0	4	20	2132.5	2175	12	10	737.5	5095	23.26	23.25	
	4	20	1732.5	20175	QPSK	1	0	2	20	1960	900	12	10	737.5	5095	22.83	22.84	
	12	10	711	23130	QPSK	1	49	2	20	1960	900	4	20	2132.5	2175	22.79	22.78	



Configure	CA Configuration (BCS)	PCC						SCC				SCC2				Power			
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx.Power (dBm)	W/O CA Tx.Power (dBm)	
Inter-Band	CA_2A-4A-13A	2	20	1860	18700	QPSK	1	0	4	20	2132.5	2175	13	10	751	5230	23.26	23.25	
		4	20	1732.5	20175	QPSK	1	0	2	20	1960	900	13	10	751	5230	22.83	22.84	
		13	10	782	23230	QPSK	1	0	2	20	1960	900	4	20	2132.5	2175	22.74	22.72	
	CA_2A-4A-29A	2	20	1860	18700	QPSK	1	0	4	20	2132.5	2175	29	10	722.5	9715	23.26	23.25	
		4	20	1732.5	20175	QPSK	1	0	2	20	1960	900	29	10	722.5	9715	22.83	22.84	
	CA_2A-4A-30A	2	20	1860	18700	QPSK	1	0	4	20	2132.5	2175	30	10	2355	9820	23.26	23.25	
		4	20	1732.5	20175	QPSK	1	0	2	20	1960	900	30	10	2355	9820	22.83	22.84	
		30	10	2310	27710	QPSK	1	0	2	20	1960	900	4	20	2132.5	2175	22.73	22.71	
	CA_2A-4A-71A	2	20	1860	18700	QPSK	1	0	4	20	2132.5	2175	71	20	637	68786	23.26	23.25	
		4	20	1732.5	20175	QPSK	1	0	2	20	1960	900	71	20	637	68786	22.83	22.84	
		71	20	683	133322	QPSK	1	0	2	20	1960	900	4	20	2132.5	2175	23.19	23.18	
	CA_2A-5A-30A	2	20	1860	18700	QPSK	1	0	5	10	881.5	2525	30	10	2355	9820	23.26	23.25	
		5	10	829	20450	QPSK	1	0	2	20	1960	900	30	10	2355	9820	22.84	22.84	
		30	10	2310	27710	QPSK	1	0	2	20	1960	900	5	10	881.5	2525	22.73	22.71	
	CA_2A-5A-66A	2	20	1860	18700	QPSK	1	0	5	10	881.5	2525	66	20	2155	66886	23.26	23.25	
		5	10	829	20450	QPSK	1	0	2	20	1960	900	66	20	2155	66886	22.84	22.84	
		66	20	1770	132572	QPSK	1	0	2	20	1960	900	5	10	881.5	2525	22.92	22.92	
	CA_2A-7A-12A	2	20	1860	18700	QPSK	1	0	7	20	2655	3100	12	10	737.5	5095	23.26	23.25	
		7	20	2560	21350	QPSK	1	99	2	20	1960	900	12	10	737.5	5095	22.81	22.83	
		12	10	711	23130	QPSK	1	49	2	20	1960	900	7	20	2655	3100	22.79	22.78	
	CA_2A-12A-30A	2	20	1860	18700	QPSK	1	0	12	10	737.5	5095	30	10	2355	9820	23.26	23.25	
		12	10	711	23130	QPSK	1	49	2	20	1960	900	30	10	2355	9820	22.79	22.78	
		30	10	2310	27710	QPSK	1	0	2	20	1960	900	12	10	737.5	5095	22.73	22.71	
	CA_2A-12A-66A	2	20	1860	18700	QPSK	1	0	12	10	737.5	5095	66	20	2155	66886	23.26	23.25	
		12	10	711	23130	QPSK	1	49	2	20	1960	900	66	20	2155	66886	22.79	22.78	
		66	20	1770	132572	QPSK	1	0	2	20	1960	900	12	10	737.5	5095	22.92	22.92	
	CA_2A-13A-66A	2	20	1860	18700	QPSK	1	0	13	10	751	5230	66	20	2155	66886	23.26	23.25	
		13	10	782	23230	QPSK	1	0	2	20	1960	900	66	20	2155	66886	22.74	22.72	
		66	20	1770	132572	QPSK	1	0	2	20	1960	900	13	10	751	5230	22.92	22.92	
	CA_2A-29A-30A	2	20	1860	18700	QPSK	1	0	29	10	722.5	9715	30	10	2355	9820	23.26	23.25	
		30	10	2310	27710	QPSK	1	0	2	20	1960	900	29	10	722.5	9715	22.73	22.71	
	CA_2A-66A-71A	2	20	1860	18700	QPSK	1	0	66	20	2155	66886	71	20	637	68786	23.26	23.25	
		66	20	1770	132572	QPSK	1	0	2	20	1960	900	71	20	637	68786	22.92	22.92	
		71	20	683	133322	QPSK	1	0	2	20	1960	900	66	20	2155	66886	23.19	23.18	
	CA_4A-5A-30A	4	20	1732.5	20175	QPSK	1	0	5	10	881.5	2525	30	10	2355	9820	22.83	22.84	
		5	10	829	20450	QPSK	1	0	4	20	2132.5	2175	30	10	2355	9820	22.84	22.84	
		30	10	2310	27710	QPSK	1	0	4	20	2132.5	2175	5	10	881.5	2525	22.73	22.71	
	CA_4A-7A-12A	4	20	1732.5	20175	QPSK	1	0	7	20	2655	3100	12	10	737.5	5095	22.83	22.84	
		7	20	2560	21350	QPSK	1	99	4	20	2132.5	2175	12	10	737.5	5095	22.81	22.83	
		12	10	711	23130	QPSK	1	49	4	20	2132.5	2175	7	20	2655	3100	22.79	22.78	
	CA_4A-12A-30A	4	20	1732.5	20175	QPSK	1	0	12	10	737.5	5095	30	10	2355	9820	22.83	22.84	
		12	10	711	23130	QPSK	1	49	4	20	2132.5	2175	30	10	2355	9820	22.79	22.78	
30		10	2310	27710	QPSK	1	0	4	20	2132.5	2175	12	10	737.5	5095	22.73	22.71		
CA_4A-29A-30A	4	20	1732.5	20175	QPSK	1	0	29	10	722.5	9715	30	10	2355	9820	22.83	22.84		
	30	10	2310	27710	QPSK	1	0	4	20	2132.5	2175	4	20	2132.5	2175	22.73	22.71		
CA_5A-30A-66A	5	10	836.5	20525	QPSK	1	0	30	10	2355	9820	66	20	2155	66886	22.84	22.84		
	30	10	2310	27710	QPSK	1	0	5	10	881.5	2525	66	20	2155	66886	22.73	22.71		
	66	20	1770	132572	QPSK	1	0	5	10	881.5	2525	30	10	2355	9820	22.92	22.92		
Intra-Band	Contiguous	CA_41D	41	20	2680	41490	QPSK	1	0	41	20	2593	40620	41	20	2593	40620	23.91	23.92



<Uplink carrier aggregation power measurement>

CA_41C Full Power										
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	0	0	0	1	0	23.04	24
40185	39987	QPSK	1	0	1	99	2	0	23.14	24
40620	40422	QPSK	1	0	1	99	2	0	22.99	24
41055	40857	QPSK	1	0	1	99	2	0	23.13	24
41490	41292	QPSK	1	0	1	99	2	0	23.1	24

CA_41C Reduced Power										
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	0	0	0	1	0	19.53	20
40185	39987	QPSK	1	0	1	99	2	0	19.64	20
40620	40422	QPSK	1	0	1	99	2	0	19.33	20
41055	40857	QPSK	1	0	1	99	2	0	19.39	20
41490	41292	QPSK	1	0	1	99	2	0	19.6	20



**<WLAN Conducted Power>****General Note:**

3. Per KDB 248227 D01v02r02, SAR test reduction is determined according to 802.11 transmission mode configurations and certain exposure conditions with multiple test positions. In the 2.4 GHz band, separate SAR procedures are applied to DSSS and OFDM configurations to simplify DSSS test requirements. For OFDM, in both 2.4 and 5 GHz bands, an initial test configuration must be determined for each standalone and aggregated frequency band, according to the transmission mode configuration with the highest maximum output power specified for production units to perform SAR measurements. If the same highest maximum output power applies to different combinations of channel bandwidths, modulations and data rates, additional procedures are applied to determine which test configurations require SAR measurement. When applicable, an initial test position may be applied to reduce the number of SAR measurements required for next to the ear, UMPC mini-tablet or hotspot mode configurations with multiple test positions.
4. For 2.4 GHz 802.11b DSSS, either the initial test position procedure for multiple exposure test positions or the DSSS procedure for fixed exposure position is applied; these are mutually exclusive. For 2.4 GHz and 5 GHz OFDM configurations, the initial test configuration is applied to measure SAR using either the initial test position procedure for multiple exposure test position configurations or the initial test configuration procedures for fixed exposure test conditions. Based on the reported SAR of the measured configurations and maximum output power of the transmission mode configurations that are not included in the initial test configuration, the subsequent test configuration and initial test position procedures are applied to determine if SAR measurements are required for the remaining OFDM transmission configurations. In general, the number of test channels that require SAR measurement is minimized based on maximum output power measured for the test sample(s).
5. For OFDM transmission configurations in the 2.4 GHz and 5 GHz bands, When the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel for each frequency band.
6. DSSS and OFDM configurations are considered separately according to the required SAR procedures. SAR is measured in the initial test position using the 802.11 transmission mode configuration required by the DSSS procedure or initial test configuration and subsequent test configuration(s) according to the OFDM procedures.<sup>18</sup> The initial test position procedure is described in the following:
  - a. When the reported SAR of the initial test position is  $\leq 0.4$  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  $\leq 0.8$  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  $\leq 1.2$  W/kg or all required channels are tested.





**<Default 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	20.81	21.00	99.42
		6	2437	19.74	21.00	
		11	2462	20.70	21.00	
	802.11g 6Mbps	1	2412	18.70	19.00	94.95
		6	2437	18.80	19.00	
		11	2462	18.60	19.00	
	802.11n-HT20 MCS0	1	2412	18.96	19.00	95.89
		6	2437	18.62	19.00	
		11	2462	18.88	19.00	

**<5GHz WLAN>**

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.2GHz WLAN	802.11a 6Mbps	36	5180	19.99	20.00	93.64
		40	5200	19.90	20.00	
		44	5220	19.87	20.00	
		48	5240	19.97	20.00	
	802.11n-HT20 MCS0	36	5180	19.93	20.00	96.33
		40	5200	19.77	20.00	
		44	5220	19.72	20.00	
		48	5240	19.74	20.00	
	802.11n-HT40 MCS0	38	5190	18.95	19.00	93.90
		46	5230	18.71	19.00	
	802.11ac-VHT20 MCS0	36	5180	19.84	20.00	96.33
		40	5200	19.75	20.00	
		44	5220	19.71	20.00	
		48	5240	19.72	20.00	
	802.11ac-VHT40 MCS0	38	5190	18.94	19.00	93.90
		46	5230	18.69	19.00	
802.11ac-VHT80 MCS0	42	5210	17.83	18.00	87.06	



	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.3GHz WLAN	802.11a 6Mbps	52	5260	19.95	20.00	93.64
		56	5280	19.80	20.00	
		60	5300	19.97	20.00	
		64	5320	19.98	20.00	
	802.11n-HT20 MCS0	52	5260	19.74	20.00	96.33
		56	5280	19.71	20.00	
		60	5300	19.68	20.00	
		64	5320	19.80	20.00	
	802.11n-HT40 MCS0	54	5270	18.82	19.00	93.90
		62	5310	18.84	19.00	
	802.11ac-VHT20 MCS0	52	5260	19.73	20.00	96.33
		56	5280	19.65	20.00	
		60	5300	19.66	20.00	
		64	5320	19.79	20.00	
	802.11ac-VHT40 MCS0	54	5270	18.81	19.00	93.90
		62	5310	18.82	19.00	
802.11ac-VHT80 MCS0	58	5290	17.93	18.00	87.06	



5.5GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
	802.11a 6Mbps	100	5500	19.96	20.00	93.64
		116	5580	19.75	20.00	
		132	5660	19.61	20.00	
		144	5720	19.95	20.00	
	802.11n-HT20 MCS0	100	5500	19.77	20.00	96.33
		116	5580	19.97	20.00	
		132	5660	19.91	20.00	
		144	5720	19.96	20.00	
	802.11n-HT40 MCS0	102	5510	18.97	19.00	93.90
110		5550	18.99	19.00		
134		5670	18.99	19.00		
142		5710	18.97	19.00		
802.11ac-VHT20 MCS0	100	5500	19.73	20.00	96.33	
	116	5580	19.91	20.00		
	132	5660	19.90	20.00		
	144	5720	19.93	20.00		
802.11ac-VHT40 MCS0	102	5510	18.96	19.00	93.90	
	110	5550	18.93	19.00		
	134	5670	18.71	19.00		
	142	5710	18.96	19.00		
802.11ac-VHT80 MCS0	106	5530	17.72	18.00	87.06	
	138	5690	17.80	18.00		

5.8GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
	802.11a MCS0	149	5745	19.89	20.00	93.64
		157	5785	19.99	20.00	
		165	5825	19.98	20.00	
	802.11n-HT20 MCS0	149	5745	19.99	20.00	96.33
		157	5785	19.81	20.00	
		165	5825	19.77	20.00	
	802.11n-HT40 MCS0	151	5755	18.76	19.00	93.90
		159	5795	18.98	19.00	
	802.11ac-VHT20 MCS0	149	5745	19.66	20.00	96.33
157		5785	19.78	20.00		
165		5825	19.73	20.00		
802.11ac-VHT40 MCS0	151	5755	18.71	19.00	93.90	
	159	5795	18.87	19.00		
802.11ac-VHT80 MCS0	155	5775	17.89	18.00	87.06	



**<At-Head 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	16.48	18.00	99.42
		6	2437	16.49	18.00	
		11	2462	16.49	18.00	
	802.11g 6Mbps	1	2412	16.14	18.00	94.95
		6	2437	16.09	18.00	
		11	2462	16.13	18.00	
	802.11n-HT20 MCS0	1	2412	16.41	18.00	95.89
		6	2437	16.39	18.00	
		11	2462	16.36	18.00	

**<5GHz WLAN>**

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.2GHz WLAN	802.11a 6Mbps	36	5180	15.70	16.00	93.64
		40	5200	15.69	16.00	
		44	5220	15.67	16.00	
		48	5240	15.64	16.00	
	802.11n-HT20 MCS0	36	5180	15.98	16.00	96.33
		40	5200	15.91	16.00	
		44	5220	15.89	16.00	
		48	5240	15.82	16.00	
	802.11n-HT40 MCS0	38	5190	15.79	16.00	93.90
		46	5230	15.71	16.00	
	802.11ac-VHT20 MCS0	36	5180	15.93	16.00	96.33
		40	5200	15.88	16.00	
		44	5220	15.82	16.00	
		48	5240	15.73	16.00	
	802.11ac-VHT40 MCS0	38	5190	15.76	16.00	93.90
		46	5230	15.69	16.00	
802.11ac-VHT80 MCS0	42	5210	15.99	16.00	87.06	



5.3GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
	802.11a 6Mbps	52	5260	15.80	16.00	93.64
		56	5280	15.70	16.00	
		60	5300	15.71	16.00	
		64	5320	15.73	16.00	
	802.11n-HT20 MCS0	52	5260	15.91	16.00	96.33
		56	5280	15.86	16.00	
		60	5300	15.87	16.00	
		64	5320	15.88	16.00	
	802.11n-HT40 MCS0	54	5270	15.75	16.00	93.90
62		5310	15.91	16.00		
802.11ac-VHT20 MCS0	52	5260	15.82	16.00	96.33	
	56	5280	15.77	16.00		
	60	5300	15.79	16.00		
	64	5320	15.80	16.00		
802.11ac-VHT40 MCS0	54	5270	15.72	16.00	93.90	
	62	5310	15.89	16.00		
802.11ac-VHT80 MCS0	58	5290	15.70	16.00	87.06	

5.5GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
	802.11a 6Mbps	100	5500	15.85	16.00	93.64
		116	5580	15.91	16.00	
		132	5660	15.87	16.00	
		144	5720	15.97	16.00	
	802.11n-HT20 MCS0	100	5500	15.89	16.00	96.33
		116	5580	15.67	16.00	
		132	5660	15.75	16.00	
		144	5720	15.68	16.00	
	802.11n-HT40 MCS0	102	5510	15.75	16.00	93.90
110		5550	15.93	16.00		
134		5670	15.82	16.00		
142		5710	15.75	16.00		
802.11ac-VHT20 MCS0	100	5500	15.78	16.00	96.33	
	116	5580	15.61	16.00		
	132	5660	15.63	16.00		
	144	5720	15.60	16.00		
802.11ac-VHT40 MCS0	102	5510	15.73	16.00	93.90	
	110	5550	15.92	16.00		
	134	5670	15.80	16.00		
	142	5710	15.73	16.00		
802.11ac-VHT80 MCS0	106	5530	15.60	16.00	87.06	
	138	5690	15.81	16.00		



	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.8GHz WLAN	802.11a MCS0	149	5745	15.75	16.00	93.64
		157	5785	15.95	16.00	
		165	5825	15.81	16.00	
	802.11n-HT20 MCS0	149	5745	15.88	16.00	96.33
		157	5785	15.67	16.00	
		165	5825	15.59	16.00	
	802.11n-HT40 MCS0	151	5755	15.73	16.00	93.90
		159	5795	15.65	16.00	
	802.11ac-VHT20 MCS0	149	5745	15.85	16.00	96.33
		157	5785	15.61	16.00	
		165	5825	15.57	16.00	
	802.11ac-VHT40 MCS0	151	5755	15.71	16.00	93.90
159		5795	15.64	16.00		
802.11ac-VHT80 MCS0	155	5775	15.95	16.00	87.06	

**<Hotspot Power Mode>**

**<2.4GHz WLAN>**

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
2.4GHz WLAN	802.11b 1Mbps	1	2412	18.85	20.50	99.42
		6	2437	18.87	20.50	
		11	2462	18.96	20.50	
	802.11g 6Mbps	1	2412	18.66	19.00	94.95
		6	2437	18.74	19.00	
		11	2462	18.61	19.00	
	802.11n-HT20 MCS0	1	2412	18.54	19.00	95.89
		6	2437	18.52	19.00	
		11	2462	18.51	19.00	





<5GHz WLAN>

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.2GHz WLAN	802.11a 6Mbps	36	5180	14.60	15.00	93.64
		40	5200	14.54	15.00	
		44	5220	14.58	15.00	
		48	5240	14.53	15.00	
	802.11n-HT20 MCS0	36	5180	14.67	15.00	96.33
		40	5200	14.69	15.00	
		44	5220	14.70	15.00	
		48	5240	14.62	15.00	
	802.11n-HT40 MCS0	38	5190	14.85	15.00	93.90
		46	5230	14.56	15.00	
	802.11ac-VHT20 MCS0	36	5180	14.65	15.00	96.33
		40	5200	14.67	15.00	
		44	5220	14.64	15.00	
		48	5240	14.59	15.00	
	802.11ac-VHT40 MCS0	38	5190	14.82	15.00	93.90
		46	5230	14.52	15.00	
802.11ac-VHT80 MCS0	42	5210	14.99	15.00	87.06	

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.8GHz WLAN	802.11a MCS0	149	5745	14.60	15.00	93.64
		157	5785	14.90	15.00	
		165	5825	14.81	15.00	
	802.11n-HT20 MCS0	149	5745	14.89	15.00	96.33
		157	5785	14.61	15.00	
		165	5825	14.82	15.00	
	802.11n-HT40 MCS0	151	5755	14.69	15.00	93.90
		159	5795	14.65	15.00	
	802.11ac-VHT20 MCS0	149	5745	14.85	15.00	96.33
		157	5785	14.56	15.00	
		165	5825	14.78	15.00	
	802.11ac-VHT40 MCS0	151	5755	14.66	15.00	93.90
		159	5795	14.62	15.00	
	802.11ac-VHT80 MCS0	155	5775	14.88	15.00	87.06



**<Near-body Power Mode>**

**<2.4GHz WLAN>**

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
2.4GHz WLAN	802.11b 1Mbps	1	2412	18.85	20.50	99.42
		6	2437	18.87	20.50	
		11	2462	18.96	20.50	
	802.11g 6Mbps	1	2412	18.66	19.00	94.95
		6	2437	18.74	19.00	
		11	2462	18.61	19.00	
	802.11n-HT20 MCS0	1	2412	18.54	19.00	95.89
		6	2437	18.52	19.00	
		11	2462	18.51	19.00	

**<5GHz WLAN>**

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.2GHz WLAN	802.11a 6Mbps	36	5180	17.37	17.50	93.64
		40	5200	17.35	17.50	
		44	5220	17.33	17.50	
		48	5240	17.28	17.50	
	802.11n-HT20 MCS0	36	5180	17.44	17.50	96.33
		40	5200	17.42	17.50	
		44	5220	17.41	17.50	
		48	5240	17.39	17.50	
	802.11n-HT40 MCS0	38	5190	17.30	17.50	93.90
		46	5230	17.25	17.50	
	802.11ac-VHT20 MCS0	36	5180	17.42	17.50	96.33
		40	5200	17.41	17.50	
		44	5220	17.38	17.50	
		48	5240	17.37	17.50	
	802.11ac-VHT40 MCS0	38	5190	17.26	17.50	93.90
		46	5230	17.22	17.50	
802.11ac-VHT80 MCS0	42	5210	17.20	17.50	87.06	



	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.3GHz WLAN	802.11a 6Mbps	52	5260	17.35	17.50	93.64
		56	5280	17.26	17.50	
		60	5300	17.23	17.50	
		64	5320	17.32	17.50	
	802.11n-HT20 MCS0	52	5260	17.43	17.50	96.33
		56	5280	17.36	17.50	
		60	5300	17.27	17.50	
		64	5320	17.43	17.50	
	802.11n-HT40 MCS0	54	5270	17.48	17.50	93.90
		62	5310	17.28	17.50	
	802.11ac-VHT20 MCS0	52	5260	17.41	17.50	96.33
		56	5280	17.34	17.50	
		60	5300	17.26	17.50	
		64	5320	17.39	17.50	
	802.11ac-VHT40 MCS0	54	5270	17.45	17.50	93.90
		62	5310	17.25	17.50	
802.11ac-VHT80 MCS0	58	5290	17.32	17.50	87.06	

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
5.5GHz WLAN	802.11a 6Mbps	100	5500	17.35	17.50	93.64
		116	5580	17.42	17.50	
		132	5660	17.32	17.50	
		144	5720	17.44	17.50	
	802.11n-HT20 MCS0	100	5500	17.41	17.50	96.33
		116	5580	17.19	17.50	
		132	5660	17.37	17.50	
		144	5720	17.14	17.50	
	802.11n-HT40 MCS0	102	5510	17.45	17.50	93.90
		110	5550	17.20	17.50	
		134	5670	17.45	17.50	
		142	5710	17.31	17.50	
	802.11ac-VHT20 MCS0	100	5500	17.38	17.50	96.33
		116	5580	17.15	17.50	
		132	5660	17.34	17.50	
		144	5720	17.12	17.50	
	802.11ac-VHT40 MCS0	102	5510	17.42	17.50	93.90
		110	5550	17.19	17.50	
		134	5670	17.42	17.50	
		142	5710	17.29	17.50	
802.11ac-VHT80 MCS0	106	5530	17.40	17.50	87.06	
	138	5690	17.44	17.50		

5.8GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
	802.11a MCS0	149	5745	17.11	17.50	93.64
		157	5785	17.31	17.50	
		165	5825	17.27	17.50	
	802.11n-HT20 MCS0	149	5745	17.27	17.50	96.33
		157	5785	17.09	17.50	
		165	5825	17.42	17.50	
	802.11n-HT40 MCS0	151	5755	17.15	17.50	93.90
		159	5795	17.39	17.50	
802.11ac-VHT20 MCS0	149	5745	17.25	17.50	96.33	
	157	5785	17.07	17.50		
	165	5825	17.38	17.50		
802.11ac-VHT40 MCS0	151	5755	17.09	17.50	93.90	
	159	5795	17.36	17.50		
802.11ac-VHT80 MCS0	155	5775	17.49	17.50	87.06	

**<2.4GHz Bluetooth>**

Mode	Channel	Frequency (MHz)	Average power (dBm)		
			1Mbps	2Mbps	3Mbps
BR / EDR	CH 00	2402	9.76	7.60	7.62
	CH 39	2441	8.86	6.12	6.14
	CH 78	2480	8.28	6.11	6.11
Tune-up Limit			10	10	10

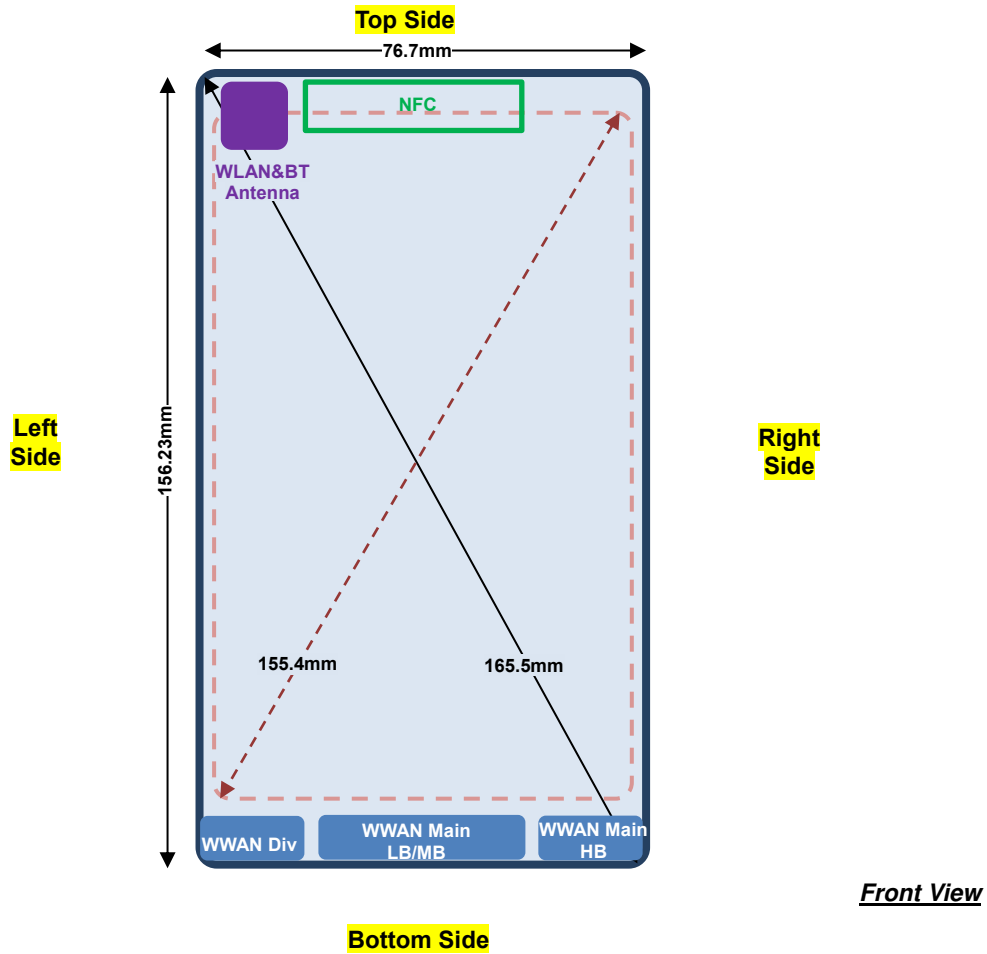
Mode	Channel	Frequency (MHz)	Average power (dBm)	
			1Mbps	2Mbps
LE	CH 00	2402	9.36	9.33
	CH 19	2440	8.33	8.27
	CH 39	2480	7.89	7.84
Tune-up Limit			10	10

**General Note:**

- For 2.4GHz Bluetooth SAR testing was selected 1Mbps due to its highest average power and duty cycle is 77.13% considered in SAR testing.

### 13. Antenna Location

<Mobile Phone>



**Front View**

Distance of the Antenna to the EUT surface/edge						
Antennas	Back	Front	Top Side	Bottom Side	Right Side	Left Side
WWAN Main_LB/MB	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	≤ 25mm	≤ 25mm
WWAN Main_HB	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	>25mm	≤ 25mm
WWAN Div	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	≤ 25mm	>25mm
BT&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 Main_LB/MB	Yes	Yes	No	Yes	Yes	Yes
WWAN Main_HB	Yes	Yes	No	Yes	No	Yes
WWAN Div	Yes	Yes	No	Yes	Yes	No
BT&WLAN	Yes	Yes	Yes	No	No	Yes

**General Note:**

- Referring to KDB 941225 D06 v02r01, when the overall device length and width are < 9cm\*5cm, the test distance is 5 mm. SAR must be measured for all sides and surfaces.
- The WWAN Div antenna only supports LTE B7/B30/B38/B41.
- LB: Low Band as 1GHz below, MB: middle band as 2GHz below, HB: high band as 2GHz above.



## 14. SAR Test Results

### General Note:

1. Per KDB 447498 D01v06, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
  - a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
  - b. For SAR testing of WLAN signal with non-100% duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle)"
  - c. For WWAN: Reported SAR(W/kg)= Measured SAR(W/kg)\*Tune-up Scaling Factor
  - d. For WLAN/Bluetooth: Reported SAR(W/kg)= Measured SAR(W/kg)\* Duty Cycle scaling factor \* Tune-up scaling factor
  - e. For TDD LTE SAR measurement, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix 63.3%/62.9% = 1.006 is applied to scale-up the measured SAR result. The Reported TDD LTE SAR = measured SAR (W/kg)\* Tune-up Scaling Factor\* scaling factor for extended cyclic prefix.
2. Per KDB 447498 D01v06, for each exposure position, testing of other required channels within the operating mode of a frequency band is not required when the *reported* 1-g or 10-g SAR for the mid-band or highest output power channel is:
  - $\leq 0.8$  W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is  $\leq 100$  MHz
  - $\leq 0.6$  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
  - $\leq 0.4$  W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is  $\geq 200$  MHz
3. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is  $\geq 0.8$ W/kg.
4. Pre KDB648474 D04v01r03, when the reported SAR for a body-worn accessory, measured without a headset connected to the headset, 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 headset.
5. While the device operating in near-body condition by end user, the device will limit different maximum output powers on the GSM1900, WCDMA B2 / B4 / B5, CDMA BC0 / BC1 / BC10 and LTE B2 / B4 / B5 / B7 / B14 / B25 / B26 / B30 / B66 / B38 / B41 transmitter and detail descriptions of the power reduction mechanism are included in the operational description.
6. While the device operating in mobile hotspot session, the device will reduced output powers on the GSM1900, WCDMA B2 / B4 / B5, CDMA BC0 / BC1 / BC10 and LTE B2 / B4 / B5 / B7 / B14 / B25 / B26 / B30 / B66 / B38 / B41 transmitter and detail descriptions of the power reduction mechanism are included in the operational description.
7. While the device operating in handheld condition, the device will limit different maximum output powers on the WCDMA B2 / B4, CDMA BC1 and LTE B2 / B4 / B5 / B7 / B14 / B25 / B26 / B30 / B66 transmitter and detail descriptions of the power reduction mechanism are included in the operational description.
8. While the device operating in Held to head, near-body and mobile hotspot session, the device will limit different maximum output powers on the WLAN transmitter and detail descriptions of the power reduction mechanism are included in the operational description.
9. Per KDB648474 D04v01r03, for smart phones with a display diagonal dimension  $> 15.0$  cm or an overall diagonal dimension  $> 16.0$  cm, when hotspot mode applies, 10-g product specific SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR  $> 1.2$  W/kg, however, when power reduction applies to hotspot mode the measured SAR must be scaled to the maximum output power, including tolerance, allowed for phablet modes to compare with the 1.2 W/kg SAR test reduction threshold.
10. For 5.3GHz / 5.5GHz WLAN product specific SAR is necessary too, due to an overall diagonal dimension is  $> 16$ cm.

### 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 (2Tx slots) for GSM850 and GPRS (3Tx slots) for 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  $\leq 1/4$  dB higher than the primary mode, SAR measurement is not required for the secondary mode.



**UMTS Note:**

1. Per KDB 941225 D01v03r01, for SAR testing is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".
2. Per KDB 941225 D01v03r01, RMC 12.2kbps setting is used to evaluate SAR. The maximum output power and tune-up tolerance specified for production units in HSDPA / HSUPA / DC-HSDPA is  $\leq \frac{1}{4}$  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  $\leq 1.2$  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 (HSUPA, HSDPA, 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  $\leq 0.8$  W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is  $> 1.45$  W/kg, the remaining required test channels must also be tested.
4. Per KDB 941225 D05v02r05, 16QAM output power for each RB allocation configuration is  $>$  not  $\frac{1}{2}$  dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is  $\leq 1.45$  W/kg; Per KDB 941225 D05v02r05, 16QAM SAR testing is not required.
5. Per KDB 941225 D05v02r05, Smaller bandwidth output power for each RB allocation configuration is  $>$  not  $\frac{1}{2}$  dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is  $\leq 1.45$  W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
6. For LTE B12 / B26 / B71 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
7. LTE band 2 / 4 / 5 / 17 / 38 SAR test was covered by Band 12 / 25 / 26 / 41 / 66; according to TCB workshop, SAR test for overlapping LTE bands can be reduced if
  - a. The maximum output power, including tolerance, for the smaller band is  $\leq$  the larger band to qualify for the SAR test exclusion.
  - b. 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  $\leq 1.2$  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  $\leq 1.2$  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  $\leq 0.8$  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  $\leq 1.2$  W/kg or all required channels are tested.
5. During SAR testing the WLAN transmission was verified using a spectrum analyzer.



**14.1 Head SAR**

**<GSM SAR>**

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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 (2 Tx slots)	Right Cheek	0mm	OFF	251	848.8	31.55	32.00	1.109	-0.19	0.075	0.083
	GSM850	GPRS (2 Tx slots)	Right Tilted	0mm	OFF	251	848.8	31.55	32.00	1.109	0.01	0.033	0.037
	GSM850	GPRS (2 Tx slots)	Left Cheek	0mm	OFF	251	848.8	31.55	32.00	1.109	0.16	0.102	0.113
1	GSM850	GPRS (2 Tx slots)	Left Cheek	0mm	OFF	128	824.2	30.31	32.00	1.476	0.03	0.123	0.182
	GSM850	GPRS (2 Tx slots)	Left Cheek	0mm	OFF	189	836.4	31.04	32.00	1.247	-0.03	0.125	0.156
	GSM850	GPRS (2 Tx slots)	Left Tilted	0mm	OFF	251	848.8	31.55	32.00	1.109	0.02	0.039	0.043
2	GSM1900	GPRS (3 Tx slots)	Right Cheek	0mm	OFF	810	1909.8	26.87	28.00	1.297	0	0.099	0.128
	GSM1900	GPRS (3 Tx slots)	Right Cheek	0mm	OFF	512	1850.2	26.74	28.00	1.337	-0.13	0.093	0.124
	GSM1900	GPRS (3 Tx slots)	Right Cheek	0mm	OFF	661	1880	26.82	28.00	1.312	0	0.096	0.126
	GSM1900	GPRS (3 Tx slots)	Right Tilted	0mm	OFF	810	1909.8	26.87	28.00	1.297	-0.17	0.025	0.032
	GSM1900	GPRS (3 Tx slots)	Left Cheek	0mm	OFF	810	1909.8	26.87	28.00	1.297	0.01	0.050	0.065
	GSM1900	GPRS (3 Tx slots)	Left Tilted	0mm	OFF	810	1909.8	26.87	28.00	1.297	-0.08	0.039	0.051

**<WCDMA SAR>**

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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 II	RMC 12.2Kbps	Right Cheek	0mm	OFF	9262	1852.4	22.76	23.50	1.186	-0.15	0.218	0.258
	WCDMA II	RMC 12.2Kbps	Right Cheek	0mm	OFF	9400	1880	22.71	23.50	1.199	0.16	0.212	0.254
3	WCDMA II	RMC 12.2Kbps	Right Cheek	0mm	OFF	9538	1907.6	22.73	23.50	1.194	0.04	0.233	0.278
	WCDMA II	RMC 12.2Kbps	Right Tilted	0mm	OFF	9262	1852.4	22.76	23.50	1.186	-0.11	0.074	0.088
	WCDMA II	RMC 12.2Kbps	Left Cheek	0mm	OFF	9262	1852.4	22.76	23.50	1.186	0.01	0.095	0.113
	WCDMA II	RMC 12.2Kbps	Left Tilted	0mm	OFF	9262	1852.4	22.76	23.50	1.186	-0.15	0.102	0.121
	WCDMA IV	RMC 12.2Kbps	Right Cheek	0mm	OFF	1513	1752.6	22.74	23.50	1.191	0.03	0.225	0.268
4	WCDMA IV	RMC 12.2Kbps	Right Cheek	0mm	OFF	1312	1712.4	22.62	23.50	1.225	0.1	0.251	0.307
	WCDMA IV	RMC 12.2Kbps	Right Cheek	0mm	OFF	1413	1732.6	22.60	23.50	1.230	0.05	0.229	0.282
	WCDMA IV	RMC 12.2Kbps	Right Tilted	0mm	OFF	1513	1752.6	22.74	23.50	1.191	-0.12	0.077	0.092
	WCDMA IV	RMC 12.2Kbps	Left Cheek	0mm	OFF	1513	1752.6	22.74	23.50	1.191	-0.16	0.120	0.143
	WCDMA IV	RMC 12.2Kbps	Left Tilted	0mm	OFF	1513	1752.6	22.74	23.50	1.191	0.09	0.076	0.091
	WCDMA V	RMC 12.2Kbps	Right Cheek	0mm	OFF	4182	836.4	22.76	24.00	1.330	-0.13	0.232	0.309
	WCDMA V	RMC 12.2Kbps	Right Tilted	0mm	OFF	4182	836.4	22.76	24.00	1.330	-0.03	0.103	0.137
	WCDMA V	RMC 12.2Kbps	Left Cheek	0mm	OFF	4182	836.4	22.76	24.00	1.330	0.01	0.288	0.383
5	WCDMA V	RMC 12.2Kbps	Left Cheek	0mm	OFF	4132	826.4	22.64	24.00	1.368	-0.02	0.298	0.408
	WCDMA V	RMC 12.2Kbps	Left Cheek	0mm	OFF	4233	846.6	22.60	24.00	1.380	-0.02	0.292	0.403
	WCDMA V	RMC 12.2Kbps	Left Tilted	0mm	OFF	4182	836.4	22.76	24.00	1.330	0.01	0.110	0.146



<CDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
	CDMA BC0	RC3 SO55	Right Cheek	0mm	OFF	777	848.31	23.99	25.00	1.262	-0.14	0.213	0.269
6	CDMA BC0	RC3 SO55	Right Cheek	0mm	OFF	1013	824.7	23.86	25.00	1.300	-0.02	0.229	0.298
	CDMA BC0	RC3 SO55	Right Cheek	0mm	OFF	384	836.52	23.96	25.00	1.271	-0.01	0.227	0.288
	CDMA BC0	RC3 SO55	Right Tilted	0mm	OFF	777	848.31	23.99	25.00	1.262	-0.08	0.082	0.103
	CDMA BC0	RC3 SO55	Left Cheek	0mm	OFF	777	848.31	23.99	25.00	1.262	-0.15	0.170	0.215
	CDMA BC0	RC3 SO55	Left Tilted	0mm	OFF	777	848.31	23.99	25.00	1.262	0.11	0.091	0.115
	CDMA BC1	1xRTT RC3 SO55	Right Cheek	0mm	OFF	25	1851.25	23.75	25.00	1.334	0.04	0.202	0.269
	CDMA BC1	1xRTT RC3 SO55	Right Cheek	0mm	OFF	600	1880	23.63	25.00	1.371	0.06	0.221	0.303
7	CDMA BC1	1xRTT RC3 SO55	Right Cheek	0mm	OFF	1175	1908.75	23.52	25.00	1.406	0.04	0.248	0.349
	CDMA BC1	1xRTT RC3 SO55	Right Tilted	0mm	OFF	25	1851.25	23.75	25.00	1.334	-0.07	0.057	0.076
	CDMA BC1	1xRTT RC3 SO55	Left Cheek	0mm	OFF	25	1851.25	23.75	25.00	1.334	-0.04	0.164	0.219
	CDMA BC1	1xRTT RC3 SO55	Left Tilted	0mm	OFF	25	1851.25	23.75	25.00	1.334	0.04	0.134	0.179
	CDMA BC10	RC3 SO55	Right Cheek	0mm	OFF	580	820.5	23.83	25.00	1.309	0.04	0.196	0.257
	CDMA BC10	RC3 SO55	Right Tilted	0mm	OFF	580	820.5	23.83	25.00	1.309	0.09	0.065	0.085
8	CDMA BC10	RC3 SO55	Left Cheek	0mm	OFF	580	820.5	23.83	25.00	1.309	-0.03	0.276	0.361
	CDMA BC10	RC3 SO55	Left Cheek	0mm	OFF	476	817.9	23.74	25.00	1.337	-0.03	0.243	0.325
	CDMA BC10	RC3 SO55	Left Cheek	0mm	OFF	684	823.1	23.81	25.00	1.315	-0.18	0.270	0.355
	CDMA BC10	RC3 SO55	Left Tilted	0mm	OFF	580	820.5	23.83	25.00	1.309	0.06	0.088	0.115

<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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)
9	LTE Band 7_Main	20M	QPSK	1	99	Right Cheek	0mm	OFF	21350	2560	22.83	24.00	1.309	-0.15	0.610	0.799
	LTE Band 7_Main	20M	QPSK	1	99	Right Cheek	0mm	OFF	20850	2510	22.66	24.00	1.361	-0.12	0.552	0.752
	LTE Band 7_Main	20M	QPSK	1	99	Right Cheek	0mm	OFF	21100	2535	22.70	24.00	1.349	-0.15	0.590	0.796
	LTE Band 7_Main	20M	QPSK	50	50	Right Cheek	0mm	OFF	21350	2560	21.77	23.00	1.327	-0.11	0.357	0.474
	LTE Band 7_Main	20M	QPSK	1	99	Right Tilted	0mm	OFF	21350	2560	22.83	24.00	1.309	-0.12	0.297	0.389
	LTE Band 7_Main	20M	QPSK	50	50	Right Tilted	0mm	OFF	21350	2560	21.77	23.00	1.327	-0.07	0.167	0.222
	LTE Band 7_Main	20M	QPSK	1	99	Left Cheek	0mm	OFF	21350	2560	22.83	24.00	1.309	0.06	0.266	0.348
	LTE Band 7_Main	20M	QPSK	50	50	Left Cheek	0mm	OFF	21350	2560	21.77	23.00	1.327	0	0.186	0.247
	LTE Band 7_Main	20M	QPSK	1	99	Left Tilted	0mm	OFF	21350	2560	22.83	24.00	1.309	0.04	0.323	0.423
	LTE Band 7_Main	20M	QPSK	50	50	Left Tilted	0mm	OFF	21350	2560	21.77	23.00	1.327	0.17	0.190	0.252
	LTE Band 7_Aux	20M	QPSK	1	99	Right Cheek	0mm	OFF	21350	2560	22.83	24.00	1.309	-0.01	0.274	0.359
	LTE Band 7_Aux	20M	QPSK	50	50	Right Cheek	0mm	OFF	21350	2560	21.77	23.00	1.327	0.01	0.153	0.203
	LTE Band 7_Aux	20M	QPSK	1	99	Right Tilted	0mm	OFF	21350	2560	22.83	24.00	1.309	-0.12	0.202	0.264
	LTE Band 7_Aux	20M	QPSK	50	50	Right Tilted	0mm	OFF	21350	2560	21.77	23.00	1.327	0.12	0.116	0.154
	LTE Band 7_Aux	20M	QPSK	1	99	Left Cheek	0mm	OFF	21350	2560	22.83	24.00	1.309	-0.01	0.491	0.643
	LTE Band 7_Aux	20M	QPSK	1	99	Left Cheek	0mm	OFF	20850	2510	22.66	24.00	1.361	-0.09	0.431	0.587
	LTE Band 7_Aux	20M	QPSK	1	99	Left Cheek	0mm	OFF	21100	2535	22.70	24.00	1.349	-0.07	0.474	0.639
	LTE Band 7_Aux	20M	QPSK	50	50	Left Cheek	0mm	OFF	21350	2560	21.77	23.00	1.327	-0.03	0.305	0.405
	LTE Band 7_Aux	20M	QPSK	1	99	Left Tilted	0mm	OFF	21350	2560	22.83	24.00	1.309	-0.09	0.150	0.196
	LTE Band 7_Aux	20M	QPSK	50	50	Left Tilted	0mm	OFF	21350	2560	21.77	23.00	1.327	0.1	0.091	0.121



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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 12	10M	QPSK	1	49	Right Cheek	0mm	OFF	23095	707.5	22.77	24.00	1.327	-0.01	0.188	0.250
	LTE Band 12	10M	QPSK	25	0	Right Cheek	0mm	OFF	23095	707.5	21.65	23.00	1.365	0.01	0.123	0.168
	LTE Band 12	10M	QPSK	1	49	Right Tilted	0mm	OFF	23095	707.5	22.77	24.00	1.327	-0.12	0.087	0.115
	LTE Band 12	10M	QPSK	25	0	Right Tilted	0mm	OFF	23095	707.5	21.65	23.00	1.365	0.08	0.068	0.093
10	LTE Band 12	10M	QPSK	1	49	Left Cheek	0mm	OFF	23095	707.5	22.77	24.00	1.327	0.05	0.239	0.317
	LTE Band 12	10M	QPSK	25	0	Left Cheek	0mm	OFF	23095	707.5	21.65	23.00	1.365	-0.09	0.140	0.191
	LTE Band 12	10M	QPSK	1	49	Left Tilted	0mm	OFF	23095	707.5	22.77	24.00	1.327	0.05	0.107	0.142
	LTE Band 12	10M	QPSK	25	0	Left Tilted	0mm	OFF	23095	707.5	21.65	23.00	1.365	0.08	0.058	0.079
	LTE Band 13	10M	QPSK	1	0	Right Cheek	0mm	OFF	23230	782	22.72	24.00	1.343	0.01	0.152	0.204
	LTE Band 13	10M	QPSK	25	0	Right Cheek	0mm	OFF	23230	782	21.73	23.00	1.340	0.04	0.114	0.153
	LTE Band 13	10M	QPSK	1	0	Right Tilted	0mm	OFF	23230	782	22.72	24.00	1.343	-0.12	0.076	0.102
	LTE Band 13	10M	QPSK	25	0	Right Tilted	0mm	OFF	23230	782	21.73	23.00	1.340	0	0.060	0.080
11	LTE Band 13	10M	QPSK	1	0	Left Cheek	0mm	OFF	23230	782	22.72	24.00	1.343	0	0.178	0.239
	LTE Band 13	10M	QPSK	25	0	Left Cheek	0mm	OFF	23230	782	21.73	23.00	1.340	0.06	0.136	0.182
	LTE Band 13	10M	QPSK	1	0	Left Tilted	0mm	OFF	23230	782	22.72	24.00	1.343	-0.03	0.064	0.086
	LTE Band 13	10M	QPSK	25	0	Left Tilted	0mm	OFF	23230	782	21.73	23.00	1.340	0.05	0.053	0.071
	LTE Band 14	10M	QPSK	1	0	Right Cheek	0mm	OFF	23330	793	22.71	24.00	1.346	0	0.211	0.284
	LTE Band 14	10M	QPSK	25	0	Right Cheek	0mm	OFF	23330	793	21.67	23.00	1.358	0.1	0.119	0.162
	LTE Band 14	10M	QPSK	1	0	Right Tilted	0mm	OFF	23330	793	22.71	24.00	1.346	0.04	0.131	0.176
	LTE Band 14	10M	QPSK	25	0	Right Tilted	0mm	OFF	23330	793	21.67	23.00	1.358	0.06	0.076	0.103
12	LTE Band 14	10M	QPSK	1	0	Left Cheek	0mm	OFF	23330	793	22.71	24.00	1.346	0.04	0.268	0.361
	LTE Band 14	10M	QPSK	25	0	Left Cheek	0mm	OFF	23330	793	21.67	23.00	1.358	0.02	0.152	0.206
	LTE Band 14	10M	QPSK	1	0	Left Tilted	0mm	OFF	23330	793	22.71	24.00	1.346	0.02	0.107	0.144
	LTE Band 14	10M	QPSK	25	0	Left Tilted	0mm	OFF	23330	793	21.67	23.00	1.358	0.09	0.062	0.084
13	LTE Band 25	20M	QPSK	1	0	Right Cheek	0mm	OFF	26140	1860	23.26	23.50	1.057	-0.19	0.245	0.259
	LTE Band 25	20M	QPSK	1	0	Right Cheek	0mm	OFF	26340	1880	23.15	23.50	1.084	-0.09	0.206	0.223
	LTE Band 25	20M	QPSK	1	0	Right Cheek	0mm	OFF	26590	1905	22.99	23.50	1.125	-0.03	0.202	0.227
	LTE Band 25	20M	QPSK	50	0	Right Cheek	0mm	OFF	26140	1860	22.07	22.50	1.104	-0.16	0.141	0.156
	LTE Band 25	20M	QPSK	1	0	Right Tilted	0mm	OFF	26140	1860	23.26	23.50	1.057	-0.03	0.066	0.070
	LTE Band 25	20M	QPSK	50	0	Right Tilted	0mm	OFF	26140	1860	22.07	22.50	1.104	-0.1	0.037	0.041
	LTE Band 25	20M	QPSK	1	0	Left Cheek	0mm	OFF	26140	1860	23.26	23.50	1.057	-0.06	0.128	0.135
	LTE Band 25	20M	QPSK	50	0	Left Cheek	0mm	OFF	26140	1860	22.07	22.50	1.104	-0.03	0.070	0.077
	LTE Band 25	20M	QPSK	1	0	Left Tilted	0mm	OFF	26140	1860	23.26	23.50	1.057	-0.12	0.087	0.092
	LTE Band 25	20M	QPSK	50	0	Left Tilted	0mm	OFF	26140	1860	22.07	22.50	1.104	-0.18	0.047	0.052
	LTE Band 26	15M	QPSK	1	37	Right Cheek	0mm	OFF	26865	831.5	22.73	24.00	1.340	-0.12	0.216	0.289
	LTE Band 26	15M	QPSK	36	0	Right Cheek	0mm	OFF	26865	831.5	21.64	23.00	1.368	0.02	0.119	0.163
	LTE Band 26	15M	QPSK	1	37	Right Tilted	0mm	OFF	26865	831.5	22.73	24.00	1.340	-0.04	0.091	0.122
	LTE Band 26	15M	QPSK	36	0	Right Tilted	0mm	OFF	26865	831.5	21.64	23.00	1.368	0.05	0.053	0.072
14	LTE Band 26	15M	QPSK	1	37	Left Cheek	0mm	OFF	26865	831.5	22.73	24.00	1.340	-0.03	0.269	0.360
	LTE Band 26	15M	QPSK	36	0	Left Cheek	0mm	OFF	26865	831.5	21.64	23.00	1.368	0.01	0.150	0.205
	LTE Band 26	15M	QPSK	1	37	Left Tilted	0mm	OFF	26865	831.5	22.73	24.00	1.340	-0.06	0.121	0.162
	LTE Band 26	15M	QPSK	36	0	Left Tilted	0mm	OFF	26865	831.5	21.64	23.00	1.368	-0.01	0.068	0.093



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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)
15	LTE Band 30_Main	10M	QPSK	1	0	Right Cheek	0mm	OFF	27710	2310	22.71	24.00	1.346	0.03	0.255	0.343
	LTE Band 30_Main	10M	QPSK	25	0	Right Cheek	0mm	OFF	27710	2310	21.77	23.00	1.327	0.11	0.193	0.256
	LTE Band 30_Main	10M	QPSK	1	0	Right Tilted	0mm	OFF	27710	2310	22.71	24.00	1.346	-0.16	0.124	0.167
	LTE Band 30_Main	10M	QPSK	25	0	Right Tilted	0mm	OFF	27710	2310	21.77	23.00	1.327	0.04	0.097	0.129
	LTE Band 30_Main	10M	QPSK	1	0	Left Cheek	0mm	OFF	27710	2310	22.71	24.00	1.346	0.07	0.129	0.174
	LTE Band 30_Main	10M	QPSK	25	0	Left Cheek	0mm	OFF	27710	2310	21.77	23.00	1.327	0.11	0.094	0.125
	LTE Band 30_Main	10M	QPSK	1	0	Left Tilted	0mm	OFF	27710	2310	22.71	24.00	1.346	-0.08	0.139	0.187
	LTE Band 30_Main	10M	QPSK	25	0	Left Tilted	0mm	OFF	27710	2310	21.77	23.00	1.327	0.06	0.091	0.121
	LTE Band 30_Aux	10M	QPSK	1	0	Right Cheek	0mm	OFF	27710	2310	22.71	24.00	1.346	-0.17	0.095	0.128
	LTE Band 30_Aux	10M	QPSK	25	0	Right Cheek	0mm	OFF	27710	2310	21.77	23.00	1.327	0.11	0.055	0.073
	LTE Band 30_Aux	10M	QPSK	1	0	Right Tilted	0mm	OFF	27710	2310	22.71	24.00	1.346	-0.18	0.124	0.167
	LTE Band 30_Aux	10M	QPSK	25	0	Right Tilted	0mm	OFF	27710	2310	21.77	23.00	1.327	0.13	0.072	0.096
	LTE Band 30_Aux	10M	QPSK	1	0	Left Cheek	0mm	OFF	27710	2310	22.71	24.00	1.346	0	0.147	0.198
	LTE Band 30_Aux	10M	QPSK	25	0	Left Cheek	0mm	OFF	27710	2310	21.77	23.00	1.327	0.01	0.111	0.147
	LTE Band 30_Aux	10M	QPSK	1	0	Left Tilted	0mm	OFF	27710	2310	22.71	24.00	1.346	-0.11	0.086	0.116
	LTE Band 30_Aux	10M	QPSK	25	0	Left Tilted	0mm	OFF	27710	2310	21.77	23.00	1.327	0.05	0.048	0.064
	LTE Band 66	20M	QPSK	1	0	Right Cheek	0mm	OFF	132572	1770	22.93	23.50	1.140	0.03	0.110	0.125
	LTE Band 66	20M	QPSK	50	0	Right Cheek	0mm	OFF	132572	1770	21.85	22.50	1.161	0	0.089	0.103
	LTE Band 66	20M	QPSK	1	0	Right Tilted	0mm	OFF	132572	1770	22.93	23.50	1.140	0.02	0.067	0.076
	LTE Band 66	20M	QPSK	50	0	Right Tilted	0mm	OFF	132572	1770	21.85	22.50	1.161	0.07	0.036	0.042
	LTE Band 66	20M	QPSK	1	0	Left Cheek	0mm	OFF	132572	1770	22.93	23.50	1.140	-0.03	0.155	0.177
16	LTE Band 66	20M	QPSK	1	0	Left Cheek	0mm	OFF	132072	1720	22.83	23.50	1.167	-0.03	0.213	0.249
	LTE Band 66	20M	QPSK	1	0	Left Cheek	0mm	OFF	132322	1745	22.87	23.50	1.156	-0.05	0.086	0.099
	LTE Band 66	20M	QPSK	50	0	Left Cheek	0mm	OFF	132572	1770	21.85	22.50	1.161	0.15	0.080	0.093
	LTE Band 66	20M	QPSK	1	0	Left Tilted	0mm	OFF	132572	1770	22.93	23.50	1.140	-0.02	0.057	0.065
	LTE Band 66	20M	QPSK	50	0	Left Tilted	0mm	OFF	132572	1770	21.85	22.50	1.161	0.18	0.032	0.037
	LTE Band 71	20M	QPSK	1	0	Right Cheek	0mm	OFF	133322	683	23.18	24.00	1.208	-0.03	0.145	0.175
	LTE Band 71	20M	QPSK	50	0	Right Cheek	0mm	OFF	133322	683	22.10	23.00	1.230	0.06	0.086	0.106
	LTE Band 71	20M	QPSK	1	0	Right Tilted	0mm	OFF	133322	683	23.18	24.00	1.208	0.03	0.074	0.089
	LTE Band 71	20M	QPSK	50	0	Right Tilted	0mm	OFF	133322	683	22.10	23.00	1.230	-0.02	0.027	0.033
17	LTE Band 71	20M	QPSK	1	0	Left Cheek	0mm	OFF	133322	683	23.18	24.00	1.208	0	0.167	0.202
	LTE Band 71	20M	QPSK	50	0	Left Cheek	0mm	OFF	133322	683	22.10	23.00	1.230	0.03	0.099	0.122
	LTE Band 71	20M	QPSK	1	0	Left Tilted	0mm	OFF	133322	683	23.18	24.00	1.208	0.02	0.088	0.106
	LTE Band 71	20M	QPSK	50	0	Left Tilted	0mm	OFF	133322	683	22.10	23.00	1.230	0.02	0.054	0.066



<TDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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_Main	20M	QPSK	1	0	Right Cheek	0mm	OFF	41490	2680	23.92	24.00	1.019	62.90	1.006	-0.08	0.489	0.501
	LTE Band 41_Main	20M	QPSK	1	49	Right Cheek	0mm	OFF	39750	2506	23.14	24.00	1.219	62.90	1.006	-0.06	0.259	0.318
	LTE Band 41_Main	20M	QPSK	1	99	Right Cheek	0mm	OFF	40185	2549.5	23.15	24.00	1.216	62.90	1.006	-0.03	0.299	0.366
	LTE Band 41_Main	20M	QPSK	1	99	Right Cheek	0mm	OFF	40620	2593	23.26	24.00	1.186	62.90	1.006	-0.02	0.366	0.437
	LTE Band 41_Main	20M	QPSK	1	99	Right Cheek	0mm	OFF	41055	2636.5	23.14	24.00	1.219	62.90	1.006	-0.11	0.381	0.467
	LTE Band 41_Main	20M	QPSK	50	50	Right Cheek	0mm	OFF	40620	2593	21.79	23.00	1.321	62.90	1.006	-0.16	0.256	0.340
	LTE Band 41_Main	20M	QPSK	1	0	Right Tilted	0mm	OFF	41490	2680	23.92	24.00	1.019	62.90	1.006	0.01	0.197	0.202
	LTE Band 41_Main	20M	QPSK	50	50	Right Tilted	0mm	OFF	40620	2593	21.79	23.00	1.321	62.90	1.006	-0.16	0.106	0.141
	LTE Band 41_Main	20M	QPSK	1	0	Left Cheek	0mm	OFF	41490	2680	23.92	24.00	1.019	62.90	1.006	0.04	0.209	0.214
	LTE Band 41_Main	20M	QPSK	50	50	Left Cheek	0mm	OFF	40620	2593	21.79	23.00	1.321	62.90	1.006	-0.03	0.110	0.146
	LTE Band 41_Main	20M	QPSK	1	0	Left Tilted	0mm	OFF	41490	2680	23.92	24.00	1.019	62.90	1.006	0.01	0.254	0.260
	LTE Band 41_Main	20M	QPSK	50	50	Left Tilted	0mm	OFF	40620	2593	21.79	23.00	1.321	62.90	1.006	0.07	0.136	0.181
18	LTE Band 41_PC2_Main	20M	QPSK	1	99	Right Cheek	0mm	OFF	40620	2593	26.18	27.00	1.208	42.90	1.009	-0.04	0.507	0.618
	LTE Band 41_UL_CA_Main	20M	QPSK	1	0	Right Cheek	0mm	OFF	40185+39987	2680	23.14	24.00	1.219	62.90	1.006	-0.11	0.274	0.336
	LTE Band 41_Aux	20M	QPSK	1	0	Right Cheek	0mm	OFF	41490	2680	23.92	24.00	1.019	62.90	1.006	-0.11	0.152	0.156
	LTE Band 41_Aux	20M	QPSK	50	50	Right Cheek	0mm	OFF	40620	2593	21.79	23.00	1.321	62.90	1.006	0.06	0.078	0.104
	LTE Band 41_Aux	20M	QPSK	1	0	Right Tilted	0mm	OFF	41490	2680	23.92	24.00	1.019	62.90	1.006	-0.02	0.095	0.097
	LTE Band 41_Aux	20M	QPSK	50	50	Right Tilted	0mm	OFF	40620	2593	21.79	23.00	1.321	62.90	1.006	-0.02	0.050	0.066
	LTE Band 41_Aux	20M	QPSK	1	0	Left Cheek	0mm	OFF	41490	2680	23.92	24.00	1.019	62.90	1.006	-0.09	0.275	0.282
	LTE Band 41_Aux	20M	QPSK	1	49	Left Cheek	0mm	OFF	39750	2506	23.14	24.00	1.219	62.90	1.006	-0.07	0.201	0.246
	LTE Band 41_Aux	20M	QPSK	1	99	Left Cheek	0mm	OFF	40185	2549.5	23.15	24.00	1.216	62.90	1.006	0.06	0.238	0.291
	LTE Band 41_Aux	20M	QPSK	1	99	Left Cheek	0mm	OFF	40620	2593	23.26	24.00	1.186	62.90	1.006	0.04	0.230	0.274
	LTE Band 41_Aux	20M	QPSK	1	99	Left Cheek	0mm	OFF	41055	2636.5	23.14	24.00	1.219	62.90	1.006	-0.02	0.239	0.293
	LTE Band 41_Aux	20M	QPSK	50	50	Left Cheek	0mm	OFF	40620	2593	21.79	23.00	1.321	62.90	1.006	-0.12	0.142	0.189
	LTE Band 41_Aux	20M	QPSK	1	0	Left Tilted	0mm	OFF	41490	2680	23.92	24.00	1.019	62.90	1.006	-0.16	0.064	0.066
	LTE Band 41_Aux	20M	QPSK	50	50	Left Tilted	0mm	OFF	40620	2593	21.79	23.00	1.321	62.90	1.006	-0.11	0.059	0.078
	LTE Band 41_PC2_Aux	20M	QPSK	1	99	Left Cheek	0mm	OFF	40620	2593	26.18	27.00	1.208	42.90	1.009	-0.02	0.323	0.394
	LTE Band 41_UL_CA_Aux	20M	QPSK	1	0	Left Cheek	0mm	OFF	40185+39987	2549.5	23.14	24.00	1.219	62.90	1.006	-0.03	0.235	0.288





< Bluetooth SAR >

Plot No.	Band	Mode	Test Position	Gap (mm)	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)
	Bluetooth	1Mbps	Right Cheek	0mm	0	2402	9.76	10.00	1.057	0.01	0.114	0.120
19	Bluetooth	1Mbps	Right Cheek	0mm	39	2441	8.86	10.00	1.300	-0.06	0.110	0.143
	Bluetooth	1Mbps	Right Cheek	0mm	78	2480	8.28	10.00	1.486	0.06	0.078	0.116
	Bluetooth	1Mbps	Right Tilted	0mm	0	2402	9.76	10.00	1.057	0.09	0.062	0.066
	Bluetooth	1Mbps	Left Cheek	0mm	0	2402	9.76	10.00	1.057	0.15	0.032	0.034
	Bluetooth	1Mbps	Left Tilted	0mm	0	2402	9.76	10.00	1.057	0.02	0.032	0.034

< WLAN SAR >

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	ON	11	2462	16.49	18.00	1.416	99.42	1.006	0.13	0.789	1.124
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	ON	1	2412	16.48	18.00	1.419	99.42	1.006	0.14	0.728	1.039
20	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	ON	6	2437	16.49	18.00	1.416	99.42	1.006	0.04	0.796	1.134
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	ON	11	2462	16.49	18.00	1.416	99.42	1.006	-0.11	0.516	0.735
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	ON	11	2462	16.49	18.00	1.416	99.42	1.006	-0.07	0.277	0.395
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	ON	11	2462	16.49	18.00	1.416	99.42	1.006	-0.02	0.231	0.329
21	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	ON	58	5290	15.70	16.00	1.071	87.06	1.149	0.1	0.847	1.042
	WLAN5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	ON	62	5310	15.91	16.00	1.020	93.90	1.065	0.17	0.829	0.901
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	ON	58	5290	15.70	16.00	1.071	87.06	1.149	0.12	0.556	0.684
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	ON	58	5290	15.70	16.00	1.071	87.06	1.149	-0.16	0.190	0.234
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	ON	58	5290	15.70	16.00	1.071	87.06	1.149	-0.18	0.184	0.226
22	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	ON	138	5690	15.81	16.00	1.044	87.06	1.149	0.09	0.980	1.176
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	ON	106	5530	15.60	16.00	1.096	87.06	1.149	0.18	0.901	1.135
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	ON	138	5690	15.81	16.00	1.044	87.06	1.149	0.17	0.632	0.758
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	ON	138	5690	15.81	16.00	1.044	87.06	1.149	-0.11	0.325	0.390
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	ON	138	5690	15.81	16.00	1.044	87.06	1.149	0.13	0.336	0.403
23	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	ON	155	5775	15.95	16.00	1.011	87.06	1.149	0.13	0.863	1.003
	WLAN5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	ON	151	5755	15.73	16.00	1.063	93.90	1.065	0.14	0.884	1.001
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	ON	155	5775	15.95	16.00	1.011	87.06	1.149	0.12	0.558	0.648
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	ON	155	5775	15.95	16.00	1.011	87.06	1.149	0.07	0.270	0.314
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	ON	155	5775	15.95	16.00	1.011	87.06	1.149	-0.1	0.281	0.326



**14.2 Hotspot SAR**

**<GSM SAR>**

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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 (2 Tx slots)	Front	5mm	OFF	251	848.8	31.55	32.00	1.109	0.18	0.324	0.359
	GSM850	GPRS (2 Tx slots)	Back	5mm	OFF	251	848.8	31.55	32.00	1.109	0.09	0.421	0.467
24	GSM850	GPRS (2 Tx slots)	Back	5mm	OFF	128	824.2	30.31	32.00	1.476	-0.15	0.460	0.679
	GSM850	GPRS (2 Tx slots)	Back	5mm	OFF	189	836.4	31.04	32.00	1.247	-0.14	0.429	0.535
	GSM850	GPRS (2 Tx slots)	Left Side	5mm	OFF	251	848.8	31.55	32.00	1.109	0	0.220	0.244
	GSM850	GPRS (2 Tx slots)	Right Side	5mm	OFF	251	848.8	31.55	32.00	1.109	-0.02	0.131	0.145
	GSM850	GPRS (2 Tx slots)	Bottom Side	5mm	OFF	251	848.8	31.55	32.00	1.109	0.13	0.183	0.203
	GSM1900	GPRS (3 Tx slots)	Front	5mm	ON	810	1909.8	19.68	20.50	1.208	0.02	0.640	0.773
	GSM1900	GPRS (3 Tx slots)	Back	5mm	ON	810	1909.8	19.68	20.50	1.208	0.1	0.621	0.750
	GSM1900	GPRS (3 Tx slots)	Left Side	5mm	ON	810	1909.8	19.68	20.50	1.208	-0.04	0.022	0.027
	GSM1900	GPRS (3 Tx slots)	Right Side	5mm	ON	810	1909.8	19.68	20.50	1.208	0.06	0.062	0.075
25	GSM1900	GPRS (3 Tx slots)	Bottom Side	5mm	ON	810	1909.8	19.68	20.50	1.208	0.07	0.944	1.140
	GSM1900	GPRS (3 Tx slots)	Bottom Side	5mm	ON	512	1850.2	19.58	20.50	1.236	0.16	0.911	1.126
	GSM1900	GPRS (3 Tx slots)	Bottom Side	5mm	ON	661	1880	19.60	20.50	1.230	0.06	0.926	1.139

**<WCDMA SAR>**

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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 II	RMC 12.2Kbps	Front	5mm	ON	9262	1852.4	13.95	15.50	1.429	0.12	0.556	0.794
	WCDMA II	RMC 12.2Kbps	Back	5mm	ON	9262	1852.4	13.95	15.50	1.429	0.11	0.467	0.667
	WCDMA II	RMC 12.2Kbps	Left Side	5mm	ON	9262	1852.4	13.95	15.50	1.429	-0.02	0.017	0.024
	WCDMA II	RMC 12.2Kbps	Right Side	5mm	ON	9262	1852.4	13.95	15.50	1.429	-0.01	0.051	0.073
26	WCDMA II	RMC 12.2Kbps	Bottom Side	5mm	ON	9262	1852.4	13.95	15.50	1.429	0.07	0.786	1.123
	WCDMA II	RMC 12.2Kbps	Bottom Side	5mm	ON	9400	1880	13.83	15.50	1.469	0.02	0.735	1.080
	WCDMA II	RMC 12.2Kbps	Bottom Side	5mm	ON	9538	1907.6	13.79	15.50	1.483	-0.02	0.698	1.035
	WCDMA IV	RMC 12.2Kbps	Front	5mm	ON	1513	1752.6	15.53	16.50	1.250	-0.1	0.704	0.880
	WCDMA IV	RMC 12.2Kbps	Front	5mm	ON	1312	1712.4	15.45	16.50	1.274	-0.03	0.631	0.804
	WCDMA IV	RMC 12.2Kbps	Front	5mm	ON	1413	1732.6	15.44	16.50	1.276	-0.04	0.650	0.830
	WCDMA IV	RMC 12.2Kbps	Back	5mm	ON	1513	1752.6	15.53	16.50	1.250	0.14	0.653	0.816
	WCDMA IV	RMC 12.2Kbps	Back	5mm	ON	1312	1712.4	15.45	16.50	1.274	-0.05	0.596	0.759
	WCDMA IV	RMC 12.2Kbps	Back	5mm	ON	1413	1732.6	15.44	16.50	1.276	-0.05	0.606	0.774
	WCDMA IV	RMC 12.2Kbps	Left Side	5mm	ON	1513	1752.6	15.53	16.50	1.250	0.05	0.038	0.048
	WCDMA IV	RMC 12.2Kbps	Right Side	5mm	ON	1513	1752.6	15.53	16.50	1.250	-0.01	0.070	0.088
27	WCDMA IV	RMC 12.2Kbps	Bottom Side	5mm	ON	1513	1752.6	15.53	16.50	1.250	0.17	0.940	1.175
	WCDMA IV	RMC 12.2Kbps	Bottom Side	5mm	ON	1312	1712.4	15.45	16.50	1.274	0.17	0.790	1.006
	WCDMA IV	RMC 12.2Kbps	Bottom Side	5mm	ON	1413	1732.6	15.44	16.50	1.276	0.15	0.843	1.076
	WCDMA V	RMC 12.2Kbps	Front	5mm	ON	4182	836.4	22.26	23.50	1.330	-0.05	0.527	0.701
	WCDMA V	RMC 12.2Kbps	Back	5mm	ON	4182	836.4	22.26	23.50	1.330	-0.06	0.665	0.885
	WCDMA V	RMC 12.2Kbps	Back	5mm	ON	4132	826.4	22.20	23.50	1.349	-0.08	0.619	0.835
28	WCDMA V	RMC 12.2Kbps	Back	5mm	ON	4233	846.6	22.15	23.50	1.365	-0.08	0.658	0.898
	WCDMA V	RMC 12.2Kbps	Left Side	5mm	ON	4182	836.4	22.26	23.50	1.330	0.03	0.331	0.440
	WCDMA V	RMC 12.2Kbps	Right Side	5mm	ON	4182	836.4	22.26	23.50	1.330	0.04	0.215	0.286
	WCDMA V	RMC 12.2Kbps	Bottom Side	5mm	ON	4182	836.4	22.26	23.50	1.330	0.16	0.290	0.386



<CDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
	CDMA BC0	RTAP 153.6Kbps	Front	5mm	ON	777	848.31	22.78	23.50	1.180	-0.13	0.553	0.653
29	CDMA BC0	RTAP 153.6Kbps	Back	5mm	ON	777	848.31	22.78	23.50	1.180	0.19	0.831	0.981
	CDMA BC0	RTAP 153.6Kbps	Back	5mm	ON	1013	824.7	22.71	23.50	1.199	-0.06	0.755	0.906
	CDMA BC0	RTAP 153.6Kbps	Back	5mm	ON	384	836.52	22.77	23.50	1.183	-0.15	0.774	0.916
	CDMA BC0	RTAP 153.6Kbps	Left Side	5mm	ON	777	848.31	22.78	23.50	1.180	0.18	0.278	0.328
	CDMA BC0	RTAP 153.6Kbps	Right Side	5mm	ON	777	848.31	22.78	23.50	1.180	0.01	0.133	0.157
	CDMA BC0	RTAP 153.6Kbps	Bottom Side	5mm	ON	777	848.31	22.78	23.50	1.180	-0.18	0.441	0.521
	CDMA BC1	RTAP 153.6Kbps	Front	5mm	ON	25	1851.25	14.65	15.50	1.216	-0.11	0.484	0.589
	CDMA BC1	RTAP 153.6Kbps	Back	5mm	ON	25	1851.25	14.65	15.50	1.216	-0.06	0.494	0.601
	CDMA BC1	RTAP 153.6Kbps	Left Side	5mm	ON	25	1851.25	14.65	15.50	1.216	0.13	0.019	0.023
	CDMA BC1	RTAP 153.6Kbps	Right Side	5mm	ON	25	1851.25	14.65	15.50	1.216	0.12	0.058	0.071
	CDMA BC1	RTAP 153.6Kbps	Bottom Side	5mm	ON	25	1851.25	14.65	15.50	1.216	0.08	0.705	0.857
	CDMA BC1	RTAP 153.6Kbps	Bottom Side	5mm	ON	600	1880	14.65	15.50	1.216	0.09	0.769	0.935
30	CDMA BC1	RTAP 153.6Kbps	Bottom Side	5mm	ON	1175	1908.75	14.63	15.50	1.222	0.1	0.820	1.002
	CDMA BC10	RTAP 153.6Kbps	Front	5mm	ON	580	820.5	22.62	23.50	1.225	-0.11	0.607	0.743
31	CDMA BC10	RTAP 153.6Kbps	Back	5mm	ON	580	820.5	22.62	23.50	1.225	-0.1	0.793	0.971
	CDMA BC10	RTAP 153.6Kbps	Left Side	5mm	ON	580	820.5	22.62	23.50	1.225	0.13	0.339	0.415
	CDMA BC10	RTAP 153.6Kbps	Right Side	5mm	ON	580	820.5	22.62	23.50	1.225	0.14	0.243	0.298
	CDMA BC10	RTAP 153.6Kbps	Bottom Side	5mm	ON	580	820.5	22.62	23.50	1.225	-0.12	0.382	0.468



<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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_Main	20M	QPSK	1	49	Front	5mm	ON	21350	2560	16.85	18.00	1.303	0.1	0.482	0.628
	LTE Band 7_Main	20M	QPSK	50	50	Front	5mm	ON	21350	2560	16.82	18.00	1.312	0.13	0.489	0.642
	LTE Band 7_Main	20M	QPSK	1	49	Back	5mm	ON	21350	2560	16.85	18.00	1.303	0.11	0.785	1.023
	LTE Band 7_Main	20M	QPSK	1	49	Back	5mm	ON	20850	2510	16.81	18.00	1.315	0.18	0.809	1.064
	LTE Band 7_Main	20M	QPSK	1	49	Back	5mm	ON	21100	2535	16.83	18.00	1.309	0.17	0.791	1.036
	LTE Band 7_Main	20M	QPSK	50	50	Back	5mm	ON	21350	2560	16.82	18.00	1.312	0.11	0.801	1.051
32	LTE Band 7_Main	20M	QPSK	50	50	Back	5mm	ON	20850	2510	16.66	18.00	1.361	0.11	0.804	1.095
	LTE Band 7_Main	20M	QPSK	50	50	Back	5mm	ON	21100	2535	16.81	18.00	1.315	0.13	0.759	0.998
	LTE Band 7_Main	20M	QPSK	100	0	Back	5mm	ON	21350	2560	16.71	18.00	1.346	0.14	0.729	0.981
	LTE Band 7_Main	20M	QPSK	1	49	Right Side	5mm	ON	21350	2560	16.85	18.00	1.303	-0.13	0.647	0.843
	LTE Band 7_Main	20M	QPSK	1	49	Right Side	5mm	ON	20850	2510	16.81	18.00	1.315	0.02	0.599	0.788
	LTE Band 7_Main	20M	QPSK	1	49	Right Side	5mm	ON	21100	2535	16.83	18.00	1.309	0.05	0.625	0.818
	LTE Band 7_Main	20M	QPSK	50	50	Right Side	5mm	ON	21350	2560	16.82	18.00	1.312	-0.14	0.655	0.859
	LTE Band 7_Main	20M	QPSK	50	50	Right Side	5mm	ON	20850	2510	16.66	18.00	1.361	0	0.600	0.817
	LTE Band 7_Main	20M	QPSK	50	50	Right Side	5mm	ON	21100	2535	16.81	18.00	1.315	0	0.641	0.843
	LTE Band 7_Main	20M	QPSK	100	0	Right Side	5mm	ON	21350	2560	16.71	18.00	1.346	0.03	0.674	0.907
	LTE Band 7_Main	20M	QPSK	1	49	Bottom Side	5mm	ON	21350	2560	16.85	18.00	1.303	-0.13	0.203	0.265
	LTE Band 7_Main	20M	QPSK	50	50	Bottom Side	5mm	ON	21350	2560	16.82	18.00	1.312	-0.15	0.202	0.265
	LTE Band 7_Aux	20M	QPSK	1	49	Front	5mm	ON	21350	2560	16.85	18.00	1.303	0.14	0.382	0.498
	LTE Band 7_Aux	20M	QPSK	50	50	Front	5mm	ON	21350	2560	16.82	18.00	1.312	0.16	0.390	0.512
	LTE Band 7_Aux	20M	QPSK	1	49	Back	5mm	ON	21350	2560	16.85	18.00	1.303	-0.18	0.663	0.864
	LTE Band 7_Aux	20M	QPSK	1	49	Back	5mm	ON	20850	2510	16.81	18.00	1.315	-0.11	0.523	0.688
	LTE Band 7_Aux	20M	QPSK	1	49	Back	5mm	ON	21100	2535	16.83	18.00	1.309	-0.16	0.625	0.818
	LTE Band 7_Aux	20M	QPSK	50	50	Back	5mm	ON	21350	2560	16.82	18.00	1.312	-0.1	0.610	0.800
	LTE Band 7_Aux	20M	QPSK	50	50	Back	5mm	ON	20850	2510	16.66	18.00	1.361	-0.18	0.582	0.792
	LTE Band 7_Aux	20M	QPSK	50	50	Back	5mm	ON	21100	2535	16.81	18.00	1.315	-0.11	0.631	0.830
	LTE Band 7_Aux	20M	QPSK	100	0	Back	5mm	ON	21350	2560	16.71	18.00	1.346	-0.18	0.641	0.863
	LTE Band 7_Aux	20M	QPSK	1	49	Left Side	5mm	ON	21350	2560	16.85	18.00	1.303	-0.05	0.430	0.560
	LTE Band 7_Aux	20M	QPSK	50	50	Left Side	5mm	ON	21350	2560	16.82	18.00	1.312	-0.11	0.434	0.569
	LTE Band 7_Aux	20M	QPSK	1	49	Bottom Side	5mm	ON	21350	2560	16.85	18.00	1.303	0.12	0.072	0.094
	LTE Band 7_Aux	20M	QPSK	50	50	Bottom Side	5mm	ON	21350	2560	16.82	18.00	1.312	0.06	0.075	0.098



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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 12	10M	QPSK	1	49	Front	5mm	OFF	23095	707.5	22.77	24.00	1.327	-0.02	0.666	0.884
	LTE Band 12	10M	QPSK	25	0	Front	5mm	OFF	23095	707.5	21.65	23.00	1.365	-0.15	0.384	0.524
	LTE Band 12	10M	QPSK	50	0	Front	5mm	OFF	23095	707.5	21.64	23.00	1.368	-0.02	0.374	0.512
33	LTE Band 12	10M	QPSK	1	49	Back	5mm	OFF	23095	707.5	22.77	24.00	1.327	0.1	0.872	1.157
	LTE Band 12	10M	QPSK	25	0	Back	5mm	OFF	23095	707.5	21.65	23.00	1.365	0.12	0.512	0.699
	LTE Band 12	10M	QPSK	50	0	Back	5mm	OFF	23095	707.5	21.64	23.00	1.368	0.11	0.515	0.704
	LTE Band 12	10M	QPSK	1	49	Left Side	5mm	OFF	23095	707.5	22.77	24.00	1.327	-0.01	0.430	0.571
	LTE Band 12	10M	QPSK	25	0	Left Side	5mm	OFF	23095	707.5	21.65	23.00	1.365	0.04	0.257	0.351
	LTE Band 12	10M	QPSK	1	49	Right Side	5mm	OFF	23095	707.5	22.77	24.00	1.327	-0.02	0.368	0.488
	LTE Band 12	10M	QPSK	25	0	Right Side	5mm	OFF	23095	707.5	21.65	23.00	1.365	0	0.214	0.292
	LTE Band 12	10M	QPSK	1	49	Bottom Side	5mm	OFF	23095	707.5	22.77	24.00	1.327	0.03	0.318	0.422
	LTE Band 12	10M	QPSK	25	0	Bottom Side	5mm	OFF	23095	707.5	21.65	23.00	1.365	-0.09	0.184	0.251
	LTE Band 13	10M	QPSK	1	0	Front	5mm	OFF	23230	782	22.72	24.00	1.343	-0.03	0.734	0.986
	LTE Band 13	10M	QPSK	25	0	Front	5mm	OFF	23230	782	21.73	23.00	1.340	-0.15	0.423	0.567
	LTE Band 13	10M	QPSK	50	0	Front	5mm	OFF	23230	782	21.71	23.00	1.346	-0.07	0.412	0.554
34	LTE Band 13	10M	QPSK	1	0	Back	5mm	OFF	23230	782	22.72	24.00	1.343	-0.13	0.846	1.136
	LTE Band 13	10M	QPSK	25	0	Back	5mm	OFF	23230	782	21.73	23.00	1.340	0.12	0.564	0.756
	LTE Band 13	10M	QPSK	50	0	Back	5mm	OFF	23230	782	21.71	23.00	1.346	0.12	0.567	0.763
	LTE Band 13	10M	QPSK	1	0	Left Side	5mm	OFF	23230	782	22.72	24.00	1.343	0	0.344	0.462
	LTE Band 13	10M	QPSK	25	0	Left Side	5mm	OFF	23230	782	21.73	23.00	1.340	0.04	0.283	0.379
	LTE Band 13	10M	QPSK	1	0	Right Side	5mm	OFF	23230	782	22.72	24.00	1.343	-0.08	0.406	0.545
	LTE Band 13	10M	QPSK	25	0	Right Side	5mm	OFF	23230	782	21.73	23.00	1.340	-0.02	0.236	0.316
	LTE Band 13	10M	QPSK	1	0	Bottom Side	5mm	OFF	23230	782	22.72	24.00	1.343	0.03	0.351	0.471
	LTE Band 13	10M	QPSK	25	0	Bottom Side	5mm	OFF	23230	782	21.73	23.00	1.340	-0.09	0.203	0.272
	LTE Band 14	10M	QPSK	1	0	Front	5mm	ON	23330	793	22.34	23.50	1.306	-0.05	0.574	0.750
	LTE Band 14	10M	QPSK	25	0	Front	5mm	ON	23330	793	21.74	23.50	1.500	-0.1	0.516	0.774
	LTE Band 14	10M	QPSK	1	0	Back	5mm	ON	23330	793	22.34	23.50	1.306	0.09	0.760	0.993
	LTE Band 14	10M	QPSK	25	0	Back	5mm	ON	23330	793	21.74	23.50	1.500	0.13	0.703	1.054
35	LTE Band 14	10M	QPSK	50	0	Back	5mm	ON	23330	793	21.66	23.50	1.528	0.13	0.700	1.069
	LTE Band 14	10M	QPSK	1	0	Left Side	5mm	ON	23330	793	22.34	23.50	1.306	0	0.349	0.456
	LTE Band 14	10M	QPSK	25	0	Left Side	5mm	ON	23330	793	21.74	23.50	1.500	0.04	0.287	0.430
	LTE Band 14	10M	QPSK	1	0	Right Side	5mm	ON	23330	793	22.34	23.50	1.306	-0.02	0.411	0.537
	LTE Band 14	10M	QPSK	25	0	Right Side	5mm	ON	23330	793	21.74	23.50	1.500	0	0.240	0.360
	LTE Band 14	10M	QPSK	1	0	Bottom Side	5mm	ON	23330	793	22.34	23.50	1.306	-0.15	0.308	0.402
	LTE Band 14	10M	QPSK	25	0	Bottom Side	5mm	ON	23330	793	21.74	23.50	1.500	-0.11	0.274	0.411



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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	0	Front	5mm	ON	26140	1860	16.05	16.50	1.109	0.19	0.801	0.888
	LTE Band 25	20M	QPSK	1	0	Front	5mm	ON	26340	1880	15.87	16.50	1.156	0.15	0.869	1.005
	LTE Band 25	20M	QPSK	1	0	Front	5mm	ON	26590	1905	15.71	16.50	1.199	0.14	0.879	1.054
	LTE Band 25	20M	QPSK	50	0	Front	5mm	ON	26140	1860	15.75	16.50	1.189	0.15	0.833	0.990
	LTE Band 25	20M	QPSK	50	0	Front	5mm	ON	26340	1880	15.58	16.50	1.236	0.15	0.857	1.059
	LTE Band 25	20M	QPSK	50	0	Front	5mm	ON	26590	1905	15.60	16.50	1.230	0.14	0.879	1.081
	LTE Band 25	20M	QPSK	100	0	Front	5mm	ON	26140	1860	15.56	16.50	1.242	0.15	0.811	1.007
	LTE Band 25	20M	QPSK	1	0	Back	5mm	ON	26140	1860	16.05	16.50	1.109	0.12	0.657	0.729
	LTE Band 25	20M	QPSK	50	0	Back	5mm	ON	26140	1860	15.75	16.50	1.189	0.1	0.623	0.740
	LTE Band 25	20M	QPSK	1	0	Left Side	5mm	ON	26140	1860	16.05	16.50	1.109	0	0.018	0.020
	LTE Band 25	20M	QPSK	50	0	Left Side	5mm	ON	26140	1860	15.75	16.50	1.189	0.05	0.019	0.023
	LTE Band 25	20M	QPSK	1	0	Right Side	5mm	ON	26140	1860	16.05	16.50	1.109	-0.04	0.037	0.041
	LTE Band 25	20M	QPSK	50	0	Right Side	5mm	ON	26140	1860	15.75	16.50	1.189	0.01	0.038	0.045
	LTE Band 25	20M	QPSK	1	0	Bottom Side	5mm	ON	26140	1860	16.05	16.50	1.109	0.03	0.915	1.015
	LTE Band 25	20M	QPSK	1	0	Bottom Side	5mm	ON	26340	1880	15.87	16.50	1.156	-0.09	0.960	1.110
	LTE Band 25	20M	QPSK	1	0	Bottom Side	5mm	ON	26590	1905	15.71	16.50	1.199	0.01	0.942	1.130
	LTE Band 25	20M	QPSK	50	0	Bottom Side	5mm	ON	26140	1860	15.75	16.50	1.189	0.06	0.857	1.019
	LTE Band 25	20M	QPSK	50	0	Bottom Side	5mm	ON	26340	1880	15.58	16.50	1.236	0.02	0.905	1.119
36	LTE Band 25	20M	QPSK	50	0	Bottom Side	5mm	ON	26590	1905	15.60	16.50	1.230	0	0.934	1.149
	LTE Band 25	20M	QPSK	100	0	Bottom Side	5mm	ON	26140	1860	15.56	16.50	1.242	0.01	0.860	1.068
	LTE Band 26	15M	QPSK	1	0	Front	5mm	ON	26865	831.5	21.99	23.50	1.416	-0.09	0.524	0.742
	LTE Band 26	15M	QPSK	36	0	Front	5mm	ON	26865	831.5	21.98	23.50	1.419	-0.09	0.541	0.768
	LTE Band 26	15M	QPSK	1	0	Back	5mm	ON	26865	831.5	21.99	23.50	1.416	-0.01	0.627	0.888
37	LTE Band 26	15M	QPSK	36	0	Back	5mm	ON	26865	831.5	21.98	23.50	1.419	-0.02	0.646	0.917
	LTE Band 26	15M	QPSK	75	0	Back	5mm	ON	26865	831.5	21.92	23.50	1.439	-0.03	0.630	0.906
	LTE Band 26	15M	QPSK	1	0	Left Side	5mm	ON	26865	831.5	21.99	23.50	1.416	0.03	0.316	0.447
	LTE Band 26	15M	QPSK	36	0	Left Side	5mm	ON	26865	831.5	21.98	23.50	1.419	-0.04	0.308	0.437
	LTE Band 26	15M	QPSK	1	0	Right Side	5mm	ON	26865	831.5	21.99	23.50	1.416	0.04	0.219	0.310
	LTE Band 26	15M	QPSK	36	0	Right Side	5mm	ON	26865	831.5	21.98	23.50	1.419	-0.01	0.215	0.305
	LTE Band 26	15M	QPSK	1	0	Bottom Side	5mm	ON	26865	831.5	21.99	23.50	1.416	0.11	0.295	0.418
	LTE Band 26	15M	QPSK	36	0	Bottom Side	5mm	ON	26865	831.5	21.98	23.50	1.419	0.03	0.299	0.424
	LTE Band 30_Main	10M	QPSK	1	0	Front	5mm	ON	27710	2310	20.33	21.00	1.167	0.02	0.537	0.627
	LTE Band 30_Main	10M	QPSK	25	0	Front	5mm	ON	27710	2310	20.11	21.00	1.227	-0.04	0.549	0.674
	LTE Band 30_Main	10M	QPSK	1	0	Back	5mm	ON	27710	2310	20.33	21.00	1.167	0.11	0.849	0.991
38	LTE Band 30_Main	10M	QPSK	25	0	Back	5mm	ON	27710	2310	20.11	21.00	1.227	0.06	0.869	1.067
	LTE Band 30_Main	10M	QPSK	50	0	Back	5mm	ON	27710	2310	20.03	21.00	1.250	0.07	0.839	1.049
	LTE Band 30_Main	10M	QPSK	1	0	Right Side	5mm	ON	27710	2310	20.33	21.00	1.167	0.01	0.554	0.646
	LTE Band 30_Main	10M	QPSK	25	0	Right Side	5mm	ON	27710	2310	20.11	21.00	1.227	-0.02	0.566	0.695
	LTE Band 30_Main	10M	QPSK	1	0	Bottom Side	5mm	ON	27710	2310	20.33	21.00	1.167	0.03	0.343	0.400
	LTE Band 30_Main	10M	QPSK	25	0	Bottom Side	5mm	ON	27710	2310	20.11	21.00	1.227	0.13	0.359	0.441
	LTE Band 30_Aux	10M	QPSK	1	0	Front	5mm	ON	27710	2310	20.33	21.00	1.167	0.16	0.367	0.428
	LTE Band 30_Aux	10M	QPSK	25	0	Front	5mm	ON	27710	2310	20.11	21.00	1.227	0.01	0.374	0.459
	LTE Band 30_Aux	10M	QPSK	1	0	Back	5mm	ON	27710	2310	20.33	21.00	1.167	-0.08	0.765	0.893
	LTE Band 30_Aux	10M	QPSK	25	0	Back	5mm	ON	27710	2310	20.11	21.00	1.227	-0.06	0.757	0.929
	LTE Band 30_Aux	10M	QPSK	50	0	Back	5mm	ON	27710	2310	20.03	21.00	1.250	-0.03	0.781	0.976
	LTE Band 30_Aux	10M	QPSK	1	0	Left Side	5mm	ON	27710	2310	20.33	21.00	1.167	-0.15	0.342	0.399
	LTE Band 30_Aux	10M	QPSK	25	0	Left Side	5mm	ON	27710	2310	20.11	21.00	1.227	-0.16	0.344	0.422
	LTE Band 30_Aux	10M	QPSK	1	0	Bottom Side	5mm	ON	27710	2310	20.33	21.00	1.167	-0.17	0.119	0.139
	LTE Band 30_Aux	10M	QPSK	25	0	Bottom Side	5mm	ON	27710	2310	20.11	21.00	1.227	-0.15	0.117	0.144



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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	0	Front	5mm	ON	132572	1770	15.70	16.50	1.202	0.18	0.517	0.622
	LTE Band 66	20M	QPSK	50	0	Front	5mm	ON	132572	1770	15.40	16.50	1.288	0.07	0.394	0.508
	LTE Band 66	20M	QPSK	1	0	Back	5mm	ON	132572	1770	15.70	16.50	1.202	-0.1	0.489	0.588
	LTE Band 66	20M	QPSK	50	0	Back	5mm	ON	132572	1770	15.40	16.50	1.288	0.04	0.413	0.532
	LTE Band 66	20M	QPSK	1	0	Left Side	5mm	ON	132572	1770	15.70	16.50	1.202	0.12	0.037	0.044
	LTE Band 66	20M	QPSK	50	0	Left Side	5mm	ON	132572	1770	15.40	16.50	1.288	0.01	0.035	0.045
	LTE Band 66	20M	QPSK	1	0	Right Side	5mm	ON	132072	1770	15.70	16.50	1.202	0.17	0.091	0.109
	LTE Band 66	20M	QPSK	50	0	Right Side	5mm	ON	132572	1770	15.40	16.50	1.288	-0.05	0.086	0.111
	LTE Band 66	20M	QPSK	1	0	Bottom Side	5mm	ON	132572	1770	15.70	16.50	1.202	0.16	0.857	1.030
	LTE Band 66	20M	QPSK	1	0	Bottom Side	5mm	ON	132072	1720	15.58	16.50	1.236	-0.05	0.753	0.931
	LTE Band 66	20M	QPSK	1	0	Bottom Side	5mm	ON	132322	1745	15.69	16.50	1.205	0.06	0.467	0.563
	LTE Band 66	20M	QPSK	50	0	Bottom Side	5mm	ON	132572	1770	15.40	16.50	1.288	0.17	0.820	1.056
	LTE Band 66	20M	QPSK	50	0	Bottom Side	5mm	ON	132072	1720	15.38	16.50	1.294	-0.05	0.753	0.975
	LTE Band 66	20M	QPSK	50	0	Bottom Side	5mm	ON	132322	1745	15.39	16.50	1.291	0.12	0.661	0.853
39	LTE Band 66	20M	QPSK	100	0	Bottom Side	5mm	ON	132572	1770	15.37	16.50	1.297	0.17	0.819	1.062
	LTE Band 71	20M	QPSK	1	0	Front	5mm	OFF	133322	683	23.18	24.00	1.208	-0.02	0.645	0.779
	LTE Band 71	20M	QPSK	50	0	Front	5mm	OFF	133322	683	22.10	23.00	1.230	-0.07	0.343	0.422
40	LTE Band 71	20M	QPSK	1	0	Back	5mm	OFF	133322	683	23.18	24.00	1.208	0.04	0.716	0.865
	LTE Band 71	20M	QPSK	50	0	Back	5mm	OFF	133322	683	22.10	23.00	1.230	0.12	0.496	0.610
	LTE Band 71	20M	QPSK	100	0	Back	5mm	OFF	133322	683	22.01	23.00	1.256	0.12	0.469	0.589
	LTE Band 71	20M	QPSK	1	0	Left Side	5mm	OFF	133322	683	23.18	24.00	1.208	0	0.302	0.365
	LTE Band 71	20M	QPSK	50	0	Left Side	5mm	OFF	133322	683	22.10	23.00	1.230	0.04	0.249	0.306
	LTE Band 71	20M	QPSK	1	0	Right Side	5mm	OFF	133322	683	23.18	24.00	1.208	0	0.278	0.336
	LTE Band 71	20M	QPSK	50	0	Right Side	5mm	OFF	133322	683	22.10	23.00	1.230	0.01	0.176	0.217
	LTE Band 71	20M	QPSK	1	0	Bottom Side	5mm	OFF	133322	683	23.18	24.00	1.208	-0.17	0.224	0.271
	LTE Band 71	20M	QPSK	50	0	Bottom Side	5mm	OFF	133322	683	22.10	23.00	1.230	-0.13	0.139	0.171





<TDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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_Main	20M	QPSK	1	0	Front	5mm	ON	41490	2680	19.92	20.00	1.019	62.90	1.006	0.02	0.551	0.565
	LTE Band 41_Main	20M	QPSK	50	0	Front	5mm	ON	41490	2680	19.42	20.00	1.143	62.90	1.006	0.11	0.439	0.505
41	LTE Band 41_Main	20M	QPSK	1	0	Back	5mm	ON	41490	2680	19.92	20.00	1.019	62.90	1.006	0.07	1.090	1.117
	LTE Band 41_Main	20M	QPSK	1	0	Back	5mm	ON	39750	2506	19.26	20.00	1.186	62.90	1.006	0.09	0.756	0.902
	LTE Band 41_Main	20M	QPSK	1	0	Back	5mm	ON	40185	2549.5	19.35	20.00	1.161	62.90	1.006	0.12	0.719	0.840
	LTE Band 41_Main	20M	QPSK	1	0	Back	5mm	ON	40620	2593	19.26	20.00	1.186	62.90	1.006	0.12	0.749	0.893
	LTE Band 41_Main	20M	QPSK	1	0	Back	5mm	ON	41055	2636.5	19.24	20.00	1.191	62.90	1.006	0.11	0.733	0.878
	LTE Band 41_Main	20M	QPSK	50	0	Back	5mm	ON	41490	2680	19.42	20.00	1.143	62.90	1.006	-0.02	0.520	0.598
	LTE Band 41_Main	20M	QPSK	100	0	Back	5mm	ON	41490	2680	19.45	20.00	1.135	62.90	1.006	0.04	0.521	0.595
	LTE Band 41_Main	20M	QPSK	1	0	Right Side	5mm	ON	41490	2680	19.92	20.00	1.019	62.90	1.006	-0.08	0.821	0.841
	LTE Band 41_Main	20M	QPSK	1	0	Right Side	5mm	ON	39750	2506	19.26	20.00	1.186	62.90	1.006	0.17	0.597	0.712
	LTE Band 41_Main	20M	QPSK	1	0	Right Side	5mm	ON	40185	2549.5	19.35	20.00	1.161	62.90	1.006	-0.11	0.650	0.759
	LTE Band 41_Main	20M	QPSK	1	0	Right Side	5mm	ON	40620	2593	19.26	20.00	1.186	62.90	1.006	-0.15	0.671	0.800
	LTE Band 41_Main	20M	QPSK	1	0	Right Side	5mm	ON	41055	2636.5	19.24	20.00	1.191	62.90	1.006	-0.13	0.731	0.876
	LTE Band 41_Main	20M	QPSK	50	0	Right Side	5mm	ON	41490	2680	19.42	20.00	1.143	62.90	1.006	0.11	0.843	0.969
	LTE Band 41_Main	20M	QPSK	50	0	Right Side	5mm	ON	39750	2506	19.27	20.00	1.183	62.90	1.006	-0.02	0.702	0.835
	LTE Band 41_Main	20M	QPSK	50	0	Right Side	5mm	ON	40185	2549.5	19.37	20.00	1.156	62.90	1.006	-0.03	0.777	0.904
	LTE Band 41_Main	20M	QPSK	50	0	Right Side	5mm	ON	40620	2593	19.37	20.00	1.156	62.90	1.006	-0.04	0.838	0.975
	LTE Band 41_Main	20M	QPSK	50	0	Right Side	5mm	ON	41055	2636.5	19.29	20.00	1.178	62.90	1.006	-0.12	0.821	0.973
	LTE Band 41_Main	20M	QPSK	100	0	Right Side	5mm	ON	41490	2680	19.45	20.00	1.135	62.90	1.006	-0.19	0.494	0.564
	LTE Band 41_Main	20M	QPSK	1	0	Bottom Side	5mm	ON	41490	2680	19.92	20.00	1.019	62.90	1.006	-0.11	0.201	0.206
	LTE Band 41_Main	20M	QPSK	50	0	Bottom Side	5mm	ON	41490	2680	19.42	20.00	1.143	62.90	1.006	-0.06	0.159	0.183
	LTE Band 41_PC2_Main	20M	QPSK	1	0	Back	5mm	ON	41490	2680	20.53	21.00	1.114	42.90	1.009	0.13	0.724	0.814
	LTE Band 41_PC2_Main	20M	QPSK	1	0	Back	5mm	ON	39750	2506	19.75	21.00	1.334	42.90	1.009	0.13	0.612	0.823
	LTE Band 41_PC2_Main	20M	QPSK	1	0	Back	5mm	ON	40185	2549.5	19.76	21.00	1.330	42.90	1.009	0.11	0.609	0.818
	LTE Band 41_PC2_Main	20M	QPSK	1	0	Back	5mm	ON	40620	2593	19.77	21.00	1.327	42.90	1.009	0.05	0.654	0.876
	LTE Band 41_PC2_Main	20M	QPSK	1	0	Back	5mm	ON	41055	2636.5	19.75	21.00	1.334	42.90	1.009	0.13	0.638	0.858
	LTE Band 41_UL_CA_Main	20M	QPSK	1	0	Back	5mm	ON	40185+39987	2549.5	19.64	20.00	1.086	62.90	1.006	0.08	0.725	0.792
	LTE Band 41_Aux	20M	QPSK	1	0	Front	5mm	ON	41490	2680	19.92	20.00	1.019	62.90	1.006	0.1	0.506	0.518
	LTE Band 41_Aux	20M	QPSK	50	0	Front	5mm	ON	41490	2680	19.42	20.00	1.143	62.90	1.006	-0.11	0.402	0.462
	LTE Band 41_Aux	20M	QPSK	1	0	Back	5mm	ON	41490	2680	19.92	20.00	1.019	62.90	1.006	-0.05	0.788	0.807
	LTE Band 41_Aux	20M	QPSK	1	0	Back	5mm	ON	39750	2506	19.26	20.00	1.186	62.90	1.006	-0.17	0.734	0.876
	LTE Band 41_Aux	20M	QPSK	1	0	Back	5mm	ON	40185	2549.5	19.35	20.00	1.161	62.90	1.006	-0.18	0.721	0.842
	LTE Band 41_Aux	20M	QPSK	1	0	Back	5mm	ON	40620	2593	19.26	20.00	1.186	62.90	1.006	-0.1	0.739	0.882
	LTE Band 41_Aux	20M	QPSK	1	0	Back	5mm	ON	41055	2636.5	19.24	20.00	1.191	62.90	1.006	-0.12	0.704	0.844
	LTE Band 41_Aux	20M	QPSK	50	0	Back	5mm	ON	41490	2680	19.42	20.00	1.143	62.90	1.006	-0.12	0.662	0.761
	LTE Band 41_Aux	20M	QPSK	50	0	Back	5mm	ON	39750	2506	19.27	20.00	1.183	62.90	1.006	-0.14	0.731	0.870
	LTE Band 41_Aux	20M	QPSK	50	0	Back	5mm	ON	40185	2549.5	19.37	20.00	1.156	62.90	1.006	-0.19	0.707	0.822
	LTE Band 41_Aux	20M	QPSK	50	0	Back	5mm	ON	40620	2593	19.37	20.00	1.156	62.90	1.006	-0.14	0.672	0.782
	LTE Band 41_Aux	20M	QPSK	50	0	Back	5mm	ON	41055	2636.5	19.29	20.00	1.178	62.90	1.006	-0.13	0.689	0.816
	LTE Band 41_Aux	20M	QPSK	100	0	Back	5mm	ON	41490	2680	19.45	20.00	1.135	62.90	1.006	-0.1	0.632	0.722
	LTE Band 41_Aux	20M	QPSK	1	0	Left Side	5mm	ON	41490	2680	19.92	20.00	1.019	62.90	1.006	0.03	0.564	0.578
	LTE Band 41_Aux	20M	QPSK	50	0	Left Side	5mm	ON	41490	2680	19.42	20.00	1.143	62.90	1.006	-0.01	0.459	0.528
	LTE Band 41_Aux	20M	QPSK	1	0	Bottom Side	5mm	ON	41490	2680	19.92	20.00	1.019	62.90	1.006	0.01	0.137	0.140
	LTE Band 41_Aux	20M	QPSK	50	0	Bottom Side	5mm	ON	41490	2680	19.42	20.00	1.143	62.90	1.006	0.01	0.111	0.128
	LTE Band 41_PC2_Aux	20M	QPSK	1	0	Back	5mm	ON	41490	2680	20.53	21.00	1.114	42.90	1.009	0.07	0.433	0.487
	LTE Band 41_UL_CA_Aux	20M	QPSK	1	0	Back	5mm	ON	40185+39987	2549.5	19.64	20.00	1.086	62.90	1.006	-0.19	0.631	0.690





<Bluetooth SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
	Bluetooth	1Mbps	Front	5mm	ON	0	2402	9.76	10.00	1.057	-0.02	0.033	0.035
	Bluetooth	1Mbps	Back	5mm	ON	0	2402	9.76	10.00	1.057	-0.01	0.043	0.045
	Bluetooth	1Mbps	Left Side	5mm	ON	0	2402	9.76	10.00	1.057	0.03	0.067	0.071
42	Bluetooth	1Mbps	Left Side	5mm	ON	39	2441	8.86	10.00	1.300	0.06	0.062	0.081
	Bluetooth	1Mbps	Left Side	5mm	ON	78	2480	8.28	10.00	1.486	0.09	0.044	0.065
	Bluetooth	1Mbps	Top Side	5mm	ON	0	2402	9.76	10.00	1.057	0.17	0.011	0.012

<WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	ON	11	2462	18.96	20.50	1.426	99.42	1.006	0.12	0.583	0.836
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	ON	1	2412	18.85	20.50	1.462	99.42	1.006	0.09	0.533	0.784
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	ON	6	2437	18.87	20.50	1.455	99.42	1.006	0.07	0.589	0.862
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	ON	11	2462	18.96	20.50	1.426	99.42	1.006	-0.12	0.661	0.948
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	ON	1	2412	18.85	20.50	1.462	99.42	1.006	0.04	0.644	0.947
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	ON	6	2437	18.87	20.50	1.455	99.42	1.006	-0.18	0.689	1.009
	WLAN2.4GHz	802.11b 1Mbps	Left Side	5mm	ON	11	2462	18.96	20.50	1.426	99.42	1.006	-0.17	0.736	1.056
	WLAN2.4GHz	802.11b 1Mbps	Left Side	5mm	ON	1	2412	18.85	20.50	1.462	99.42	1.006	-0.16	0.708	1.041
43	WLAN2.4GHz	802.11b 1Mbps	Left Side	5mm	ON	6	2437	18.87	20.50	1.455	99.42	1.006	-0.16	0.816	1.195
	WLAN2.4GHz	802.11b 1Mbps	Top Side	5mm	ON	11	2462	18.96	20.50	1.426	99.42	1.006	-0.17	0.192	0.275
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	5mm	ON	42	5210	14.99	15.00	1.002	87.06	1.149	-0.19	0.369	0.425
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	5mm	ON	42	5210	14.99	15.00	1.002	87.06	1.149	0.13	0.451	0.519
44	WLAN5GHz	802.11ac-VHT80 MCS0	Left Side	5mm	ON	42	5210	14.99	15.00	1.002	87.06	1.149	-0.15	0.565	0.650
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	5mm	ON	42	5210	14.99	15.00	1.002	87.06	1.149	0.03	0.116	0.134
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	5mm	ON	155	5775	14.88	15.00	1.028	87.06	1.149	-0.19	0.403	0.476
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	5mm	ON	155	5775	14.88	15.00	1.028	87.06	1.149	0.18	0.482	0.569
45	WLAN5GHz	802.11ac-VHT80 MCS0	Left Side	5mm	ON	155	5775	14.88	15.00	1.028	87.06	1.149	0.01	0.619	0.731
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	5mm	ON	155	5775	14.88	15.00	1.028	87.06	1.149	-0.02	0.096	0.113



**14.3 Product Specific SAR**

**<GSM SAR>**

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
46	GSM1900	GPRS (3 Tx slots)	Bottom Side	0mm	OFF	810	1909.8	26.87	28.00	1.297	0.02	1.060	1.375

**<WCDMA SAR>**

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
	WCDMA II	RMC 12.2Kbps	Bottom Side	0mm	ON	9538	1907.6	22.31	23.00	1.172	-0.14	2.440	2.860
47	WCDMA II	RMC 12.2Kbps	Bottom Side	0mm	ON	9262	1852.4	22.23	23.00	1.194	-0.17	2.530	3.021
	WCDMA II	RMC 12.2Kbps	Bottom Side	0mm	ON	9400	1880	22.21	23.00	1.199	-0.15	2.470	2.963
	WCDMA IV	RMC 12.2Kbps	Bottom Side	0mm	ON	1513	1752.6	22.00	22.00	1.000	-0.03	3.030	3.030
48	WCDMA IV	RMC 12.2Kbps	Bottom Side	0mm	ON	1312	1712.4	21.87	22.00	1.030	-0.03	3.060	3.153
	WCDMA IV	RMC 12.2Kbps	Bottom Side	0mm	ON	1413	1732.6	21.82	22.00	1.042	-0.07	2.830	2.950

**<CDMA SAR>**

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
	CDMA BC1	RTAP 153.6Kbps	Bottom Side	0mm	ON	25	1851.25	21.22	23.00	1.507	0.16	1.810	2.727
49	CDMA BC1	RTAP 153.6Kbps	Bottom Side	0mm	ON	600	1880	21.17	23.00	1.524	0.06	1.840	2.804
	CDMA BC1	RTAP 153.6Kbps	Bottom Side	0mm	ON	1175	1908.75	21.19	23.00	1.517	0.04	1.830	2.776

**<FDD LTE SAR>**

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
	LTE Band 7_Main	20M	QPSK	1	49	Right Side	0mm	ON	21350	2560	20.99	21.50	1.125	-0.07	2.810	3.160
	LTE Band 7_Main	20M	QPSK	1	49	Right Side	0mm	ON	20850	2510	20.88	21.50	1.153	0.02	2.680	3.091
50	LTE Band 7_Main	20M	QPSK	1	49	Right Side	0mm	ON	21100	2535	20.84	21.50	1.164	-0.11	2.740	3.190
	LTE Band 7_Aux	20M	QPSK	1	49	Left Side	0mm	ON	21350	2560	20.99	21.50	1.125	-0.05	2.420	2.722
	LTE Band 7_Aux	20M	QPSK	1	49	Left Side	0mm	ON	20850	2510	20.88	21.50	1.153	-0.09	2.250	2.595
	LTE Band 7_Aux	20M	QPSK	1	49	Left Side	0mm	ON	21100	2535	20.84	21.50	1.164	-0.08	2.270	2.643
	LTE Band 25	20M	QPSK	50	0	Bottom Side	0mm	ON	26140	1860	20.71	22.50	1.510	-0.12	1.720	2.597
51	LTE Band 25	20M	QPSK	50	0	Bottom Side	0mm	ON	26340	1880	20.66	22.50	1.528	-0.17	1.720	2.627
	LTE Band 25	20M	QPSK	50	0	Bottom Side	0mm	ON	26590	1905	20.62	22.50	1.542	-0.19	1.680	2.590
52	LTE Band 30_Main	10M	QPSK	1	0	Right Side	0mm	ON	27710	2310	22.66	23.50	1.213	0.05	2.520	3.058
53	LTE Band 66	20M	QPSK	1	0	Bottom Side	0mm	ON	132572	1770	22.28	23.00	1.180	-0.11	2.660	3.140
	LTE Band 66	20M	QPSK	1	0	Bottom Side	0mm	ON	132072	1720	22.09	23.00	1.233	0.14	2.530	3.120
	LTE Band 66	20M	QPSK	1	0	Bottom Side	0mm	ON	132322	1745	22.20	23.00	1.202	0.12	2.600	3.126



<TDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
	LTE Band 41_Main	20M	QPSK	1	0	Right Side	0mm	ON	41490	2680	23.92	24.00	1.019	62.90	1.006	-0.08	3.100	3.177
	LTE Band 41_Main	20M	QPSK	1	0	Right Side	0mm	ON	39750	2506	22.96	24.00	1.271	62.90	1.006	0.05	2.230	2.850
	LTE Band 41_Main	20M	QPSK	1	0	Right Side	0mm	ON	40185	2549.5	22.95	24.00	1.274	62.90	1.006	0.03	2.260	2.895
	LTE Band 41_Main	20M	QPSK	1	0	Right Side	0mm	ON	40620	2593	22.96	24.00	1.271	62.90	1.006	0.06	2.350	3.004
54	LTE Band 41_Main	20M	QPSK	1	0	Right Side	0mm	ON	41055	2636.5	22.89	24.00	1.291	62.90	1.006	-0.05	2.460	3.195
	LTE Band 41_PC2_Main	20M	QPSK	1	0	Right Side	0mm	ON	41490	2680	24.60	25.50	1.230	42.90	1.009	-0.04	2.210	2.743
	LTE Band 41_PC2_Main	20M	QPSK	1	0	Right Side	0mm	ON	39750	2506	23.75	25.50	1.496	42.90	1.009	-0.07	1.790	2.702
	LTE Band 41_PC2_Main	20M	QPSK	1	0	Right Side	0mm	ON	40185	2549.5	23.70	25.50	1.514	42.90	1.009	-0.06	1.720	2.627
	LTE Band 41_PC2_Main	20M	QPSK	1	0	Right Side	0mm	ON	40620	2593	23.56	25.50	1.563	42.90	1.009	-0.07	1.810	2.855
	LTE Band 41_PC2_Main	20M	QPSK	1	0	Right Side	0mm	ON	41055	2636.5	23.52	25.50	1.578	42.90	1.009	-0.02	1.780	2.833
	LTE Band 41_UL_CA_Main	20M	QPSK	1	0	Right Side	0mm	ON	40185+39987	2549.5	23.14	24.00	1.219	62.90	1.006	0.13	2.250	2.759
	LTE Band 41_Aux	20M	QPSK	1	0	Left Side	0mm	ON	41490	2680	23.92	24.00	1.019	62.90	1.006	-0.1	2.550	2.613
	LTE Band 41_Aux	20M	QPSK	1	0	Left Side	0mm	ON	39750	2506	22.96	24.00	1.271	62.90	1.006	-0.16	1.770	2.262
	LTE Band 41_Aux	20M	QPSK	1	0	Left Side	0mm	ON	40185	2549.5	22.95	24.00	1.274	62.90	1.006	-0.1	1.950	2.498
	LTE Band 41_Aux	20M	QPSK	1	0	Left Side	0mm	ON	40620	2593	22.96	24.00	1.271	62.90	1.006	-0.03	2.020	2.582
	LTE Band 41_Aux	20M	QPSK	1	0	Left Side	0mm	ON	41055	2636.5	22.89	24.00	1.291	62.90	1.006	-0.05	2.100	2.728
	LTE Band 41_Aux	20M	QPSK	1	0	Left Side	0mm	ON	41490	2680	24.60	25.50	1.230	42.90	1.009	-0.04	1.800	2.234
	LTE Band 41_Aux	20M	QPSK	1	0	Left Side	0mm	ON	39750	2506	23.75	25.50	1.496	42.90	1.009	-0.19	1.480	2.234
	LTE Band 41_Aux	20M	QPSK	1	0	Left Side	0mm	ON	40185	2549.5	23.70	25.50	1.514	42.90	1.009	-0.09	1.400	2.138
	LTE Band 41_Aux	20M	QPSK	1	0	Left Side	0mm	ON	40620	2593	23.56	25.50	1.563	42.90	1.009	0.02	1.550	2.445
	LTE Band 41_PC2_Aux	20M	QPSK	1	0	Left Side	0mm	ON	41055	2636.5	23.52	25.50	1.578	42.90	1.009	0.1	1.520	2.420
	LTE Band 41_UL_CA_Aux	20M	QPSK	1	0	Left Side	0mm	ON	40185+39987	2549.5	23.14	24.00	1.219	62.90	1.006	0.02	1.880	2.305



<WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
55	WLAN2.4GHz	802.11b 1Mbps	Left Side	0mm	OFF	6	2437	19.74	21.00	1.337	99.42	1.006	0.02	1.100	1.479
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	ON	58	5290	17.20	17.50	1.071	87.06	1.149	-0.13	0.947	1.165
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	0mm	ON	58	5290	17.20	17.50	1.071	87.06	1.149	0.15	0.433	0.533
	WLAN5GHz	802.11a 6Mbps	Top Side	0mm	OFF	64	5320	19.98	20.00	1.005	93.64	1.068	-0.05	0.276	0.296
56	WLAN5GHz	802.11a 6Mbps	Left Side	0mm	OFF	64	5320	19.98	20.00	1.005	93.64	1.068	0.12	2.670	2.865
	WLAN5GHz	802.11a 6Mbps	Left Side	0mm	OFF	60	5300	19.97	20.00	1.007	93.64	1.068	-0.11	2.520	2.710
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	ON	138	5690	17.44	17.50	1.014	87.06	1.149	-0.18	0.763	0.889
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	0mm	ON	138	5690	17.44	17.50	1.014	87.06	1.149	0.11	0.555	0.647
	WLAN5GHz	802.11a 6Mbps	Top Side	0mm	OFF	100	5500	19.96	20.00	1.009	93.64	1.068	-0.09	0.246	0.265
	WLAN5GHz	802.11a 6Mbps	Left Side	0mm	OFF	100	5500	19.96	20.00	1.009	93.64	1.068	-0.15	1.580	1.703
57	WLAN5GHz	802.11a 6Mbps	Left Side	0mm	OFF	144	5720	19.95	20.00	1.012	93.64	1.068	-0.11	2.290	2.474
	WLAN5GHz	802.11a 6Mbps	Left Side	0mm	OFF	157	5785	19.99	20.00	1.002	93.64	1.068	-0.18	2.000	2.141
58	WLAN5GHz	802.11a 6Mbps	Left Side	0mm	OFF	165	5825	19.98	20.00	1.005	93.64	1.068	-0.11	2.520	2.704

14.4 Body Worn Accessory SAR

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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 (2 Tx slots)	Front	5mm	OFF	251	848.8	31.55	32.00	1.109	0.18	0.324	0.359
	GSM850	GPRS (2 Tx slots)	Back	5mm	OFF	251	848.8	31.55	32.00	1.109	0.09	0.421	0.467
59	GSM850	GPRS (2 Tx slots)	Back	5mm	OFF	128	824.2	30.31	32.00	1.476	-0.15	0.460	0.679
	GSM850	GPRS (2 Tx slots)	Back	5mm	OFF	189	836.4	31.04	32.00	1.247	-0.14	0.429	0.535
	GSM1900	GPRS (3 Tx slots)	Front	5mm	ON	810	1909.8	21.05	21.50	1.109	-0.09	0.963	1.068
	GSM1900	GPRS (3 Tx slots)	Front	5mm	ON	512	1850.2	20.93	21.50	1.140	-0.12	0.903	1.030
	GSM1900	GPRS (3 Tx slots)	Front	5mm	ON	661	1880	20.95	21.50	1.135	0.11	0.934	1.060
60	GSM1900	GPRS (3 Tx slots)	Back	5mm	ON	810	1909.8	21.05	21.50	1.109	-0.04	1.040	1.154
	GSM1900	GPRS (3 Tx slots)	Back	5mm	ON	512	1850.2	20.93	21.50	1.140	-0.01	0.944	1.076
	GSM1900	GPRS (3 Tx slots)	Back	5mm	ON	661	1880	20.95	21.50	1.135	-0.02	0.993	1.127



<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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 II	RMC 12.2Kbps	Front	5mm	ON	9262	1852.4	16.46	17.50	1.271	0.18	0.806	1.024
61	WCDMA II	RMC 12.2Kbps	Front	5mm	ON	9400	1880	16.33	17.50	1.309	0.17	0.899	1.177
	WCDMA II	RMC 12.2Kbps	Front	5mm	ON	9538	1907.6	16.30	17.50	1.318	0.12	0.789	1.040
	WCDMA II	RMC 12.2Kbps	Back	5mm	ON	9262	1852.4	16.46	17.50	1.271	0.14	0.734	0.933
	WCDMA II	RMC 12.2Kbps	Back	5mm	ON	9400	1880	16.33	17.50	1.309	0.03	0.706	0.924
	WCDMA II	RMC 12.2Kbps	Back	5mm	ON	9538	1907.6	16.30	17.50	1.318	0.1	0.764	1.007
62	WCDMA IV	RMC 12.2Kbps	Front	5mm	ON	1513	1752.6	15.53	17.00	1.403	-0.1	0.704	0.988
	WCDMA IV	RMC 12.2Kbps	Front	5mm	ON	1312	1712.4	15.45	17.00	1.429	-0.03	0.631	0.902
	WCDMA IV	RMC 12.2Kbps	Front	5mm	ON	1413	1732.6	15.44	17.00	1.432	-0.04	0.650	0.931
	WCDMA IV	RMC 12.2Kbps	Back	5mm	ON	1513	1752.6	15.53	17.00	1.403	0.14	0.653	0.916
	WCDMA IV	RMC 12.2Kbps	Back	5mm	ON	1312	1712.4	15.45	17.00	1.429	-0.05	0.596	0.852
	WCDMA IV	RMC 12.2Kbps	Back	5mm	ON	1413	1732.6	15.44	17.00	1.432	-0.05	0.606	0.868
	WCDMA V	RMC 12.2Kbps	Front	5mm	ON	4182	836.4	22.26	23.50	1.330	-0.05	0.527	0.701
	WCDMA V	RMC 12.2Kbps	Back	5mm	ON	4182	836.4	22.26	23.50	1.330	-0.06	0.665	0.885
	WCDMA V	RMC 12.2Kbps	Back	5mm	ON	4132	826.4	22.20	23.50	1.349	-0.08	0.619	0.835
63	WCDMA V	RMC 12.2Kbps	Back	5mm	ON	4233	846.6	22.15	23.50	1.365	-0.08	0.658	0.898

<CDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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)
	CDMA BC0	1xRTT RC3 SO32	Front	5mm	ON	777	848.31	22.87	23.50	1.156	-0.15	0.670	0.775
64	CDMA BC0	1xRTT RC3 SO32	Back	5mm	ON	777	848.31	22.87	23.50	1.156	-0.18	0.890	1.029
	CDMA BC0	1xRTT RC3 SO32	Back	5mm	ON	1013	824.7	22.68	23.50	1.208	-0.13	0.775	0.936
	CDMA BC0	1xRTT RC3 SO32	Back	5mm	ON	384	836.52	22.79	23.50	1.178	-0.12	0.792	0.933
	CDMA BC1	1xRTT RC3 SO32	Front	5mm	ON	25	1851.25	16.67	18.00	1.358	-0.07	0.718	0.975
	CDMA BC1	1xRTT RC3 SO32	Front	5mm	ON	600	1880	16.65	18.00	1.365	0.14	0.708	0.966
	CDMA BC1	1xRTT RC3 SO32	Front	5mm	ON	1175	1908.75	16.63	18.00	1.371	0.01	0.710	0.973
65	CDMA BC1	1xRTT RC3 SO32	Back	5mm	ON	25	1851.25	16.67	18.00	1.358	0.03	0.789	1.072
	CDMA BC1	1xRTT RC3 SO32	Back	5mm	ON	600	1880	16.65	18.00	1.365	-0.11	0.661	0.902
	CDMA BC1	1xRTT RC3 SO32	Back	5mm	ON	1175	1908.75	16.63	18.00	1.371	-0.16	0.776	1.064
	CDMA BC10	1xRTT RC3 SO32	Front	5mm	ON	580	820.5	22.67	23.50	1.211	-0.11	0.576	0.697
	CDMA BC10	1xRTT RC3 SO32	Back	5mm	ON	580	820.5	22.67	23.50	1.211	-0.07	0.767	0.929
66	CDMA BC10	1xRTT RC3 SO32	Back	5mm	ON	476	817.9	22.60	23.50	1.230	-0.12	0.785	0.966
	CDMA BC10	1xRTT RC3 SO32	Back	5mm	ON	684	823.1	22.64	23.50	1.219	-0.1	0.741	0.903



<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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_Main	20M	QPSK	1	49	Front	5mm	ON	21350	2560	16.85	18.00	1.303	0.1	0.482	0.628
	LTE Band 7_Main	20M	QPSK	50	50	Front	5mm	ON	21350	2560	16.82	18.00	1.312	0.13	0.489	0.642
	LTE Band 7_Main	20M	QPSK	1	49	Back	5mm	ON	21350	2560	16.85	18.00	1.303	0.11	0.785	1.023
	LTE Band 7_Main	20M	QPSK	1	49	Back	5mm	ON	20850	2510	16.81	18.00	1.315	0.18	0.809	1.064
	LTE Band 7_Main	20M	QPSK	1	49	Back	5mm	ON	21100	2535	16.83	18.00	1.309	0.17	0.791	1.036
	LTE Band 7_Main	20M	QPSK	50	50	Back	5mm	ON	21350	2560	16.82	18.00	1.312	0.11	0.801	1.051
67	LTE Band 7_Main	20M	QPSK	50	50	Back	5mm	ON	20850	2510	16.66	18.00	1.361	0.11	0.804	1.095
	LTE Band 7_Main	20M	QPSK	50	50	Back	5mm	ON	21100	2535	16.73	18.00	1.340	0.13	0.759	1.017
	LTE Band 7_Main	20M	QPSK	100	0	Back	5mm	ON	21350	2560	16.71	18.00	1.346	0.14	0.729	0.981
	LTE Band 7_Aux	20M	QPSK	1	49	Front	5mm	ON	21350	2560	16.85	18.00	1.303	0.14	0.382	0.498
	LTE Band 7_Aux	20M	QPSK	50	50	Front	5mm	ON	21350	2560	16.82	18.00	1.312	0.16	0.390	0.512
	LTE Band 7_Aux	20M	QPSK	1	49	Back	5mm	ON	21350	2560	16.85	18.00	1.303	-0.18	0.663	0.864
	LTE Band 7_Aux	20M	QPSK	1	49	Back	5mm	ON	20850	2510	16.81	18.00	1.315	-0.11	0.523	0.688
	LTE Band 7_Aux	20M	QPSK	1	49	Back	5mm	ON	21100	2535	16.83	18.00	1.309	-0.16	0.625	0.818
	LTE Band 7_Aux	20M	QPSK	50	50	Back	5mm	ON	21350	2560	16.82	18.00	1.312	-0.1	0.610	0.800
	LTE Band 7_Aux	20M	QPSK	50	50	Back	5mm	ON	20850	2510	16.66	18.00	1.361	-0.18	0.582	0.792
	LTE Band 7_Aux	20M	QPSK	50	50	Back	5mm	ON	21100	2535	16.73	18.00	1.340	-0.11	0.631	0.845
	LTE Band 7_Aux	20M	QPSK	100	0	Back	5mm	ON	21350	2560	16.71	18.00	1.346	-0.18	0.641	0.863
	LTE Band 12	10M	QPSK	1	49	Front	5mm	OFF	23095	707.5	22.77	24.00	1.327	-0.02	0.666	0.884
	LTE Band 12	10M	QPSK	25	0	Front	5mm	OFF	23095	707.5	21.65	23.00	1.365	-0.15	0.384	0.524
	LTE Band 12	10M	QPSK	50	0	Front	5mm	OFF	23095	707.5	21.64	23.00	1.368	-0.02	0.374	0.512
68	LTE Band 12	10M	QPSK	1	49	Back	5mm	OFF	23095	707.5	22.77	24.00	1.327	0.1	0.872	1.157
	LTE Band 12	10M	QPSK	25	0	Back	5mm	OFF	23095	707.5	21.65	23.00	1.365	0.12	0.512	0.699
	LTE Band 12	10M	QPSK	50	0	Back	5mm	OFF	23095	707.5	21.64	23.00	1.368	0.11	0.515	0.704



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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 13	10M	QPSK	1	0	Front	5mm	OFF	23230	782	22.72	24.00	1.343	-0.03	0.734	0.986
	LTE Band 13	10M	QPSK	25	0	Front	5mm	OFF	23230	782	21.73	23.00	1.340	-0.15	0.423	0.567
	LTE Band 13	10M	QPSK	50	0	Front	5mm	OFF	23230	782	21.71	23.00	1.346	-0.07	0.412	0.554
69	LTE Band 13	10M	QPSK	1	0	Back	5mm	OFF	23230	782	22.72	24.00	1.343	-0.13	0.846	1.136
	LTE Band 13	10M	QPSK	25	0	Back	5mm	OFF	23230	782	21.73	23.00	1.340	0.12	0.564	0.756
	LTE Band 13	10M	QPSK	50	0	Back	5mm	OFF	23230	782	21.71	23.00	1.346	0.12	0.567	0.763
	LTE Band 14	10M	QPSK	1	0	Front	5mm	ON	23330	793	22.34	23.50	1.306	-0.05	0.574	0.750
	LTE Band 14	10M	QPSK	25	0	Front	5mm	ON	23330	793	21.74	23.50	1.500	-0.1	0.516	0.774
	LTE Band 14	10M	QPSK	1	0	Back	5mm	ON	23330	793	22.34	23.50	1.306	0.09	0.760	0.993
	LTE Band 14	10M	QPSK	25	0	Back	5mm	ON	23330	793	21.74	23.50	1.500	0.13	0.703	1.054
70	LTE Band 14	10M	QPSK	50	0	Back	5mm	ON	23330	793	21.66	23.50	1.528	0.13	0.700	1.069
	LTE Band 25	20M	QPSK	1	0	Front	5mm	ON	26140	1860	16.05	16.50	1.109	0.19	0.801	0.888
	LTE Band 25	20M	QPSK	1	0	Front	5mm	ON	26340	1880	15.87	16.50	1.156	0.15	0.869	1.005
	LTE Band 25	20M	QPSK	1	0	Front	5mm	ON	26590	1905	15.71	16.50	1.199	0.14	0.879	1.054
	LTE Band 25	20M	QPSK	50	0	Front	5mm	ON	26140	1860	15.75	16.50	1.189	0.15	0.833	0.990
	LTE Band 25	20M	QPSK	50	0	Front	5mm	ON	26340	1880	15.58	16.50	1.236	0.15	0.857	1.059
71	LTE Band 25	20M	QPSK	50	0	Front	5mm	ON	26590	1905	15.60	16.50	1.230	0.14	0.879	1.081
	LTE Band 25	20M	QPSK	100	0	Front	5mm	ON	26140	1860	15.56	16.50	1.242	0.15	0.811	1.007
	LTE Band 25	20M	QPSK	1	0	Back	5mm	ON	26140	1860	16.05	16.50	1.109	0.12	0.657	0.729
	LTE Band 25	20M	QPSK	50	0	Back	5mm	ON	26140	1860	15.75	16.50	1.189	0.1	0.623	0.740
	LTE Band 26	15M	QPSK	1	0	Front	5mm	ON	26865	831.5	21.99	23.50	1.416	-0.09	0.524	0.742
	LTE Band 26	15M	QPSK	36	0	Front	5mm	ON	26865	831.5	21.98	23.50	1.419	-0.09	0.541	0.768
	LTE Band 26	15M	QPSK	1	0	Back	5mm	ON	26865	831.5	21.99	23.50	1.416	-0.01	0.627	0.888
72	LTE Band 26	15M	QPSK	36	0	Back	5mm	ON	26865	831.5	21.98	23.50	1.419	-0.02	0.646	0.917
	LTE Band 26	15M	QPSK	75	0	Back	5mm	ON	26865	831.5	21.92	23.50	1.439	-0.03	0.630	0.906
	LTE Band 30_Main	10M	QPSK	1	0	Front	5mm	ON	27710	2310	20.33	21.00	1.167	0.02	0.537	0.627
	LTE Band 30_Main	10M	QPSK	25	0	Front	5mm	ON	27710	2310	20.11	21.00	1.227	-0.04	0.549	0.674
	LTE Band 30_Main	10M	QPSK	1	0	Back	5mm	ON	27710	2310	20.33	21.00	1.167	0.11	0.849	0.991
73	LTE Band 30_Main	10M	QPSK	25	0	Back	5mm	ON	27710	2310	20.11	21.00	1.227	0.06	0.869	1.067
	LTE Band 30_Main	10M	QPSK	50	0	Back	5mm	ON	27710	2310	20.03	21.00	1.250	0.07	0.839	1.049
	LTE Band 30_Aux	10M	QPSK	1	0	Front	5mm	ON	27710	2310	20.33	21.00	1.167	0.16	0.367	0.428
	LTE Band 30_Aux	10M	QPSK	25	0	Front	5mm	ON	27710	2310	20.11	21.00	1.227	0.01	0.374	0.459
	LTE Band 30_Aux	10M	QPSK	1	0	Back	5mm	ON	27710	2310	20.33	21.00	1.167	-0.08	0.765	0.893
	LTE Band 30_Aux	10M	QPSK	25	0	Back	5mm	ON	27710	2310	20.11	21.00	1.227	-0.06	0.757	0.929
	LTE Band 30_Aux	10M	QPSK	50	0	Back	5mm	ON	27710	2310	20.03	21.00	1.250	-0.03	0.781	0.976
74	LTE Band 66	20M	QPSK	1	0	Front	5mm	ON	132572	1770	15.70	17.00	1.349	-0.02	0.523	0.706
	LTE Band 66	20M	QPSK	1	0	Front	5mm	ON	132072	1720	15.58	17.00	1.387	-0.01	0.359	0.498
	LTE Band 66	20M	QPSK	1	0	Front	5mm	ON	132322	1745	15.69	17.00	1.352	0.09	0.372	0.503
	LTE Band 66	20M	QPSK	50	0	Front	5mm	ON	132572	1770	15.40	17.00	1.445	0.07	0.394	0.570
	LTE Band 66	20M	QPSK	1	0	Back	5mm	ON	132572	1770	15.70	17.00	1.349	-0.1	0.489	0.660
	LTE Band 66	20M	QPSK	50	0	Back	5mm	ON	132572	1770	15.40	17.00	1.445	0.04	0.413	0.597
	LTE Band 71	20M	QPSK	1	0	Front	5mm	OFF	133322	683	23.18	24.00	1.208	-0.02	0.645	0.779
	LTE Band 71	20M	QPSK	50	0	Front	5mm	OFF	133322	683	22.10	23.00	1.230	-0.07	0.343	0.422
75	LTE Band 71	20M	QPSK	1	0	Back	5mm	OFF	133322	683	23.18	24.00	1.208	0.04	0.716	0.865
	LTE Band 71	20M	QPSK	50	0	Back	5mm	OFF	133322	683	22.10	23.00	1.230	0.12	0.496	0.610
	LTE Band 71	20M	QPSK	100	0	Back	5mm	OFF	133322	683	22.01	23.00	1.256	0.12	0.469	0.589





<TDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	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_Main	20M	QPSK	1	0	Front	5mm	ON	41490	2680	19.92	20.00	1.019	62.90	1.006	0.02	0.551	0.565
	LTE Band 41_Main	20M	QPSK	50	0	Front	5mm	ON	41490	2680	19.42	20.00	1.143	62.90	1.006	0.11	0.439	0.505
76	LTE Band 41_Main	20M	QPSK	1	0	Back	5mm	ON	41490	2680	19.92	20.00	1.019	62.90	1.006	0.07	1.090	1.117
	LTE Band 41_Main	20M	QPSK	1	0	Back	5mm	ON	39750	2506	19.26	20.00	1.186	62.90	1.006	0.09	0.756	0.902
	LTE Band 41_Main	20M	QPSK	1	0	Back	5mm	ON	40185	2549.5	19.35	20.00	1.161	62.90	1.006	0.12	0.719	0.840
	LTE Band 41_Main	20M	QPSK	1	0	Back	5mm	ON	40620	2593	19.26	20.00	1.186	62.90	1.006	0.12	0.749	0.893
	LTE Band 41_Main	20M	QPSK	1	0	Back	5mm	ON	41055	2636.5	19.24	20.00	1.191	62.90	1.006	0.11	0.733	0.878
	LTE Band 41_Main	20M	QPSK	50	0	Back	5mm	ON	41490	2680	19.42	20.00	1.143	62.90	1.006	-0.02	0.520	0.598
	LTE Band 41_Main	20M	QPSK	100	0	Back	5mm	ON	41490	2680	19.45	20.00	1.135	62.90	1.006	0.04	0.521	0.595
	LTE Band 41_PC2_Main	20M	QPSK	1	0	Back	5mm	ON	41490	2680	20.53	21.00	1.114	42.90	1.009	0.13	0.724	0.814
	LTE Band 41_PC2_Main	20M	QPSK	1	0	Back	5mm	ON	39750	2506	19.75	21.00	1.334	42.90	1.009	0.13	0.612	0.823
	LTE Band 41_PC2_Main	20M	QPSK	1	0	Back	5mm	ON	40185	2549.5	19.76	21.00	1.330	42.90	1.009	0.11	0.609	0.818
	LTE Band 41_PC2_Main	20M	QPSK	1	0	Back	5mm	ON	40620	2593	19.77	21.00	1.327	42.90	1.009	0.05	0.654	0.876
	LTE Band 41_PC2_Main	20M	QPSK	1	0	Back	5mm	ON	41055	2636.5	19.75	21.00	1.334	42.90	1.009	0.13	0.638	0.858
	LTE Band 41_UL CA_Main	20M	QPSK	1	0	Back	5mm	ON	40185+39987	2549.5	19.64	20.00	1.086	62.90	1.006	0.08	0.725	0.792
	LTE Band 41_Aux	20M	QPSK	1	0	Front	5mm	ON	41490	2680	19.92	20.00	1.019	62.90	1.006	0.1	0.506	0.518
	LTE Band 41_Aux	20M	QPSK	50	0	Front	5mm	ON	41490	2680	19.42	20.00	1.143	62.90	1.006	-0.11	0.402	0.462
	LTE Band 41_Aux	20M	QPSK	1	0	Back	5mm	ON	41490	2680	19.92	20.00	1.019	62.90	1.006	-0.05	0.788	0.807
	LTE Band 41_Aux	20M	QPSK	1	0	Back	5mm	ON	39750	2506	19.26	20.00	1.186	62.90	1.006	-0.17	0.734	0.876
	LTE Band 41_Aux	20M	QPSK	1	0	Back	5mm	ON	40185	2549.5	19.35	20.00	1.161	62.90	1.006	-0.18	0.721	0.842
	LTE Band 41_Aux	20M	QPSK	1	0	Back	5mm	ON	40620	2593	19.26	20.00	1.186	62.90	1.006	-0.1	0.739	0.882
	LTE Band 41_Aux	20M	QPSK	1	0	Back	5mm	ON	41055	2636.5	19.24	20.00	1.191	62.90	1.006	-0.12	0.704	0.844
	LTE Band 41_Aux	20M	QPSK	50	0	Back	5mm	ON	41490	2680	19.42	20.00	1.143	62.90	1.006	-0.12	0.662	0.761
	LTE Band 41_Aux	20M	QPSK	50	0	Back	5mm	ON	39750	2506	19.27	20.00	1.183	62.90	1.006	-0.14	0.731	0.870
	LTE Band 41_Aux	20M	QPSK	50	0	Back	5mm	ON	40185	2549.5	19.37	20.00	1.156	62.90	1.006	-0.19	0.707	0.822
	LTE Band 41_Aux	20M	QPSK	50	0	Back	5mm	ON	40620	2593	19.37	20.00	1.156	62.90	1.006	-0.14	0.672	0.782
	LTE Band 41_Aux	20M	QPSK	50	0	Back	5mm	ON	41055	2636.5	19.29	20.00	1.178	62.90	1.006	-0.13	0.689	0.816
	LTE Band 41_Aux	20M	QPSK	100	0	Back	5mm	ON	41490	2680	19.45	20.00	1.135	62.90	1.006	-0.1	0.632	0.722
	LTE Band 41_PC2_Aux	20M	QPSK	1	0	Back	5mm	ON	41490	2680	20.53	21.00	1.114	42.90	1.009	0.07	0.433	0.487
	LTE Band 41_UL CA_Aux	20M	QPSK	1	0	Back	5mm	ON	40185+39987	2549.5	19.64	20.00	1.086	62.90	1.006	-0.19	0.631	0.690





<Bluetooth SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	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)
	Bluetooth	1Mbps	Front	5mm	0	2402	9.76	10.00	1.057	-0.02	0.033	0.035
	Bluetooth	1Mbps	Back	5mm	0	2402	9.76	10.00	1.057	-0.01	0.043	0.045
77	Bluetooth	1Mbps	Back	5mm	39	2441	8.86	10.00	1.300	-0.05	0.042	0.055
	Bluetooth	1Mbps	Back	5mm	78	2480	8.28	10.00	1.486	-0.12	0.031	0.046

<WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	ON	11	2462	18.96	20.50	1.426	99.42	1.006	0.12	0.583	0.836
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	ON	1	2412	18.85	20.50	1.462	99.42	1.006	0.09	0.533	0.784
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	ON	6	2437	18.87	20.50	1.455	99.42	1.006	0.07	0.589	0.862
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	ON	11	2462	18.96	20.50	1.426	99.42	1.006	-0.12	0.661	0.948
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	ON	1	2412	18.85	20.50	1.462	99.42	1.006	0.04	0.644	0.947
78	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	ON	6	2437	18.87	20.50	1.455	99.42	1.006	-0.18	0.689	1.009
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	5mm	ON	58	5290	17.32	17.50	1.042	87.06	1.149	-0.16	0.570	0.682
79	WLAN5GHz	802.11ac-VHT80 MCS0	Back	5mm	ON	58	5290	17.32	17.50	1.042	87.06	1.149	0.03	0.846	1.013
	WLAN5GHz	802.11n-HT40 MCS0	Back	5mm	ON	54	5270	17.48	17.50	1.004	93.90	1.065	0.13	0.810	0.866
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	5mm	ON	138	5690	17.44	17.50	1.013	87.06	1.149	-0.11	0.651	0.758
80	WLAN5GHz	802.11ac-VHT80 MCS0	Back	5mm	ON	138	5690	17.44	17.50	1.013	87.06	1.149	0.18	0.772	0.899
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	5mm	ON	106	5530	17.40	17.50	1.023	87.06	1.149	0.02	0.667	0.784
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	5mm	ON	155	5775	17.49	17.50	1.002	87.06	1.149	-0.11	0.565	0.650
81	WLAN5GHz	802.11ac-VHT80 MCS0	Back	5mm	ON	155	5775	17.49	17.50	1.002	87.06	1.149	0.11	0.882	1.015
	WLAN5GHz	802.11n-HT40 MCS0	Back	5mm	ON	159	5795	17.39	17.50	1.025	93.90	1.065	0.13	0.815	0.890



**14.5 Repeated SAR Measurement**

No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	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	GSM1900	GPRS (3 Tx slots)	Back	5mm	ON	810	1909.8	21.05	21.50	1.109		1.000	-0.04	1.040	-	1.154
2nd	GSM1900	GPRS (3 Tx slots)	Back	5mm	ON	810	1909.8	21.05	21.50	1.109		1.000	-0.06	0.970	1.07	1.076
1st	WCDMA IV	RMC 12.2Kbps	Bottom Side	5mm	ON	1513	1752.6	15.53	16.50	1.250		1.000	0.17	0.940	-	1.175
2nd	WCDMA IV	RMC 12.2Kbps	Bottom Side	5mm	ON	1513	1752.6	15.53	16.50	1.250		1.000	0.12	0.926	1.02	1.158
1st	CDMA BC0	1xRTT RC3 SO32	Back	5mm	ON	777	848.31	22.87	23.50	1.156		1.000	-0.18	0.890	-	1.029
2nd	CDMA BC0	1xRTT RC3 SO32	Back	5mm	ON	777	848.31	22.87	23.50	1.156		1.000	-0.11	0.887	1.00	1.025
1st	LTE Band 12	10M_QPSK_1_49	Back	5mm	OFF	23095	707.5	22.77	24.00	1.327		1.000	0.1	0.872	-	1.157
2nd	LTE Band 12	10M_QPSK_1_49	Back	5mm	OFF	23095	707.5	22.77	24.00	1.327		1.000	0.09	0.865	1.00	1.148
1st	LTE Band 30_Main	10M_QPSK_25_0	Back	5mm	ON	27710	2310	20.11	21.00	1.227		1.000	0.06	0.869	-	1.067
2nd	LTE Band 30_Main	10M_QPSK_25_0	Back	5mm	ON	27710	2310	20.11	21.00	1.227		1.000	0.1	0.846	1.03	1.038
1st	LTE Band 41_Main	20M_QPSK_1_0	Back	5mm	ON	41490	2680	19.92	20.00	1.019	62.90	1.006	0.07	1.090	-	1.117
2nd	LTE Band 41_Main	20M_QPSK_1_0	Back	5mm	ON	41490	2680	19.92	20.00	1.019	62.90	1.006	0.11	1.030	1.06	1.055
1st	WLAN2.4GHz	802.11b 1Mbps	Left Side	5mm	ON	6	2437	18.87	20.50	1.455	99.42	1.006	-0.16	0.816	-	1.195
2nd	WLAN2.4GHz	802.11b 1Mbps	Left Side	5mm	ON	6	2437	18.87	20.50	1.455	99.42	1.006	-0.16	0.795	1.03	1.164
1st	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	ON	58	5290	15.70	16.00	1.071	87.06	1.149	0.1	0.847	-	1.042
2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	ON	58	5290	15.70	16.00	1.071	87.06	1.149	0.16	0.838	1.02	1.031
1st	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	ON	138	5690	15.81	16.00	1.044	87.06	1.149	0.09	0.980	-	1.176
2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	ON	138	5690	15.81	16.00	1.044	87.06	1.149	0.11	0.952	1.03	1.142
1st	WLAN5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	ON	151	5755	15.73	16.00	1.063	93.90	1.065	0.14	0.884	-	1.001
2nd	WLAN5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	ON	151	5755	15.73	16.00	1.063	93.90	1.065	0.11	0.852	1.04	0.965

No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Ratio	Reported 10g SAR (W/kg)
1st	WCDMA II	RMC 12.2Kbps	Bottom Side	0mm	ON	9262	1852.4	22.23	23.00	1.194		1.000	-0.17	2.530	-	3.021
2nd	WCDMA II	RMC 12.2Kbps	Bottom Side	0mm	ON	9262	1852.4	22.23	23.00	1.194		1.000	-0.15	2.390	1.06	2.854
1st	WCDMA IV	RMC 12.2Kbps	Bottom Side	0mm	ON	1312	1712.4	21.87	22.00	1.030		1.000	-0.03	3.060	-	3.153
2nd	WCDMA IV	RMC 12.2Kbps	Bottom Side	0mm	ON	1312	1712.4	21.87	22.00	1.030		1.000	0.02	2.770	1.10	2.854
1st	LTE Band 30_Main	10M_QPSK_1_0	Right Side	0mm	ON	27710	2310	22.66	23.50	1.213		1.000	0.05	2.520	-	3.058
2nd	LTE Band 30_Main	10M_QPSK_1_0	Right Side	0mm	ON	27710	2310	22.66	23.50	1.213		1.000	0.11	2.480	1.02	3.009
1st	LTE Band 41_Main	20M_QPSK_1_0	Right Side	0mm	ON	41490	2680	23.92	24.00	1.019	62.90	1.006	-0.08	3.100	-	3.177
2nd	LTE Band 41_Main	20M_QPSK_1_0	Right Side	0mm	ON	41490	2680	23.92	24.00	1.019	62.90	1.006	0.12	2.900	1.07	2.972
1st	WLAN5GHz	802.11a 6Mbps	Left Side	0mm	OFF	64	5320	19.98	20.00	1.005	93.64	1.068	0.12	2.670	-	2.865
2nd	WLAN5GHz	802.11a 6Mbps	Left Side	0mm	OFF	64	5320	19.98	20.00	1.005	93.64	1.068	0.05	2.570	1.04	2.757
1st	WLAN5GHz	802.11a 6Mbps	Left Side	0mm	OFF	144	5720	19.95	20.00	1.012	93.64	1.068	-0.11	2.290	-	2.474
2nd	WLAN5GHz	802.11a 6Mbps	Left Side	0mm	OFF	144	5720	19.95	20.00	1.012	93.64	1.068	-0.03	2.190	1.05	2.366
1st	WLAN5GHz	802.11a 6Mbps	Left Side	0mm	OFF	165	5825	19.98	20.00	1.005	93.64	1.068	-0.11	2.520	-	2.704
2nd	WLAN5GHz	802.11a 6Mbps	Left Side	0mm	OFF	165	5825	19.98	20.00	1.005	93.64	1.068	0.02	2.440	1.03	2.618

**General Note:**

1. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is  $\geq 0.8W/kg$ .
2. Per KDB 865664 D01v01r04, if the ratio among the repeated measurement is  $\leq 1.2$  and the measured SAR  $< 1.45W/kg$ , only one repeated measurement is required.
3. Per KDB 865664 D01v01r04, if the extremity repeated SAR is necessary, the same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.
4. The ratio is the difference in percentage between original and repeated *measured SAR*.
5. All measurement SAR result is scaled-up to account for tune-up tolerance and is compliant.



**14.6 LTE Band 41 Power Class 2 and Power Class 3 Linearity**

This device support Power Class 2 and Power Class 3 operations for LTE Band 41. The highest available duty cycle for Power Class 2 operation is 43.3% using UL-DL configuration 1. Per FCC Guidance based on the device behavior, all SAR tests were performed using Power Class 3. Power Class 2 is tested using the highest SAR test configuration in Power Class 3 for each LTE configuration and exposure condition combination, according to the highest time averaged power for all applicable uplink-downlink configurations in Power Class 2. When the reported SAR vs. output power is linearly scaled with < 10% discrepancy between power classes and all reported SAR are < 1.4 W/kg, Separate SAR testing for Power Class 2 is not required

**<LTE Band 41 Linearity Data for Head>**

	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	24	27
Reported 1g SAR (W/kg)	0.501	0.618
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	159.00	217.01
Linearity SAR(W/kg)	0.68	
% deviation from expected linearity		-9.62%

**<LTE Band 41 Linearity Data for Hotspot and Body-worn>**

	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	20	21
Reported 1g SAR (W/kg)	1.117	0.876
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	63.30	54.51
Linearity SAR(W/kg)	0.96	
% deviation from expected linearity		-8.93%

**<LTE Band 41 Linearity Data for Product Specific>**

	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	24	25.5
Reported 1g SAR (W/kg)	3.195	2.855
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	159.00	153.63
Linearity SAR(W/kg)	3.09	
% deviation from expected linearity		-7.52%

### 15. Simultaneous Transmission Analysis

NO.	Simultaneous Transmission Configurations	Portable Handset			
		Head	Body-worn	Hotspot	Product Specific
1.	GSM Voice + WLAN2.4GHz	Yes	Yes		Yes
2.	GPRS/EDGE + WLAN2.4GHz	Yes	Yes	Yes	Yes
3.	WCDMA + WLAN2.4GHz	Yes	Yes	Yes	Yes
4.	LTE + WLAN2.4GHz	Yes	Yes	Yes	Yes
5.	GSM Voice + Bluetooth	Yes	Yes		Yes
6.	GPRS/EDGE + Bluetooth	Yes	Yes	Yes	Yes
7.	WCDMA+ Bluetooth	Yes	Yes	Yes	Yes
8.	LTE + Bluetooth	Yes	Yes	Yes	Yes
9.	GSM Voice + WLAN5GHz	Yes	Yes		Yes
10.	GPRS/EDGE + WLAN5GHz	Yes	Yes	Yes	Yes
11.	WCDMA + WLAN5GHz	Yes	Yes	Yes	Yes
12.	LTE + WLAN5GHz	Yes	Yes	Yes	Yes

**General Note:**

1. This device WLAN 2.4GHz / 5.2GHz / 5.8GHz supports Hotspot operation and Bluetooth support tethering applications.
2. WLAN and Bluetooth share the same antenna, and cannot transmit simultaneously.
3. 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.
4. The Scaled SAR summation is calculated based on the same configuration and test position.
5. Per KDB 447498 D01v06, simultaneous transmission SAR is compliant if,
  - i) Scalar SAR summation < 1.6W/kg.
  - ii)  $SPLSR = (SAR1 + SAR2)^{1.5} / (\text{min. separation distance, mm})$ , 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.
  - iii) If  $SPLSR \leq 0.04$  for 1g SAR, if  $SPLSR < 0.1$  for 10g SAR, simultaneously transmission SAR measurement is not necessary.
  - iv) Simultaneously transmission SAR measurement, and the reported multi-band SAR < 1.6W/kg.
  - v) The SPLSR calculated results please refer to section 15.2.



**15.1 Head Exposure Conditions**

WWAN Band		Exposure Position	1	2	3	4	1+2 Summed 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	SPLSR	Case No
			WWAN 1g SAR (W/kg)	2.4GHz WLAN 1g SAR (W/kg)	5GHz WLAN 1g SAR (W/kg)	Bluetooth 1g SAR (W/kg)					
GSM	GSM850	Right Cheek	0.083	1.134	1.176	0.143	1.217	1.259	0.226		
		Right Tilted	0.037	0.735	0.758	0.066	0.772	0.795	0.103		
		Left Cheek	0.182	0.395	0.390	0.034	0.577	0.572	0.216		
		Left Tilted	0.043	0.329	0.403	0.034	0.372	0.446	0.077		
	GSM1900	Right Cheek	0.128	1.134	1.176	0.143	1.262	1.304	0.271		
		Right Tilted	0.032	0.735	0.758	0.066	0.767	0.790	0.098		
		Left Cheek	0.065	0.395	0.390	0.034	0.460	0.455	0.099		
		Left Tilted	0.051	0.329	0.403	0.034	0.380	0.454	0.085		
WCDMA	WCDMA II	Right Cheek	0.278	1.134	1.176	0.143	1.412	1.454	0.421		
		Right Tilted	0.088	0.735	0.758	0.066	0.823	0.846	0.154		
		Left Cheek	0.113	0.395	0.390	0.034	0.508	0.503	0.147		
		Left Tilted	0.121	0.329	0.403	0.034	0.450	0.524	0.155		
	WCDMA IV	Right Cheek	0.307	1.134	1.176	0.143	1.441	1.483	0.450		
		Right Tilted	0.092	0.735	0.758	0.066	0.827	0.850	0.158		
		Left Cheek	0.143	0.395	0.390	0.034	0.538	0.533	0.177		
		Left Tilted	0.091	0.329	0.403	0.034	0.420	0.494	0.125		
	WCDMA V	Right Cheek	0.309	1.134	1.176	0.143	1.443	1.485	0.452		
		Right Tilted	0.137	0.735	0.758	0.066	0.872	0.895	0.203		
		Left Cheek	0.408	0.395	0.390	0.034	0.803	0.798	0.442		
		Left Tilted	0.146	0.329	0.403	0.034	0.475	0.549	0.180		
CDMA	CDMA BC0	Right Cheek	0.298	1.134	1.176	0.143	1.432	1.474	0.441		
		Right Tilted	0.103	0.735	0.758	0.066	0.838	0.861	0.169		
		Left Cheek	0.215	0.395	0.390	0.034	0.610	0.605	0.249		
		Left Tilted	0.115	0.329	0.403	0.034	0.444	0.518	0.149		
	CDMA BC1	Right Cheek	0.349	1.134	1.176	0.143	1.483	1.525	0.492		
		Right Tilted	0.076	0.735	0.758	0.066	0.811	0.834	0.142		
		Left Cheek	0.219	0.395	0.390	0.034	0.614	0.609	0.253		
		Left Tilted	0.179	0.329	0.403	0.034	0.508	0.582	0.213		
	CDMA BC10	Right Cheek	0.257	1.134	1.176	0.143	1.391	1.433	0.400		
		Right Tilted	0.085	0.735	0.758	0.066	0.820	0.843	0.151		
		Left Cheek	0.361	0.395	0.390	0.034	0.756	0.751	0.395		
		Left Tilted	0.115	0.329	0.403	0.034	0.444	0.518	0.149		
LTE	LTE Band 7_Main	Right Cheek	0.799	1.134	1.176	0.143	1.933	1.975	0.942	0.03	Case 1
		Right Tilted	0.389	0.735	0.758	0.066	1.124	1.147	0.455		
		Left Cheek	0.348	0.395	0.390	0.034	0.743	0.738	0.382		
		Left Tilted	0.423	0.329	0.403	0.034	0.752	0.826	0.457		
	LTE Band 7_Aux	Right Cheek	0.359	1.134	1.176	0.143	1.493	1.535	0.502		
		Right Tilted	0.264	0.735	0.758	0.066	0.999	1.022	0.330		
		Left Cheek	0.643	0.395	0.390	0.034	1.038	1.033	0.677		
		Left Tilted	0.196	0.329	0.403	0.034	0.525	0.599	0.230		
	LTE Band 12	Right Cheek	0.250	1.134	1.176	0.143	1.384	1.426	0.393		
		Right Tilted	0.115	0.735	0.758	0.066	0.850	0.873	0.181		
		Left Cheek	0.317	0.395	0.390	0.034	0.712	0.707	0.351		
		Left Tilted	0.142	0.329	0.403	0.034	0.471	0.545	0.176		



WWAN Band	Exposure Position	1	2	3	4	1+2 Summed 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	SPLSR	Case No	
		WWAN 1g SAR (W/kg)	2.4GHz WLAN 1g SAR (W/kg)	5GHz WLAN 1g SAR (W/kg)	Bluetooth 1g SAR (W/kg)						
LTE	LTE Band 13	Right Cheek	0.204	1.134	1.176	0.143	1.338	1.380	0.347		
		Right Tilted	0.102	0.735	0.758	0.066	0.837	0.860	0.168		
		Left Cheek	0.239	0.395	0.390	0.034	0.634	0.629	0.273		
		Left Tilted	0.086	0.329	0.403	0.034	0.415	0.489	0.120		
	LTE Band 14	Right Cheek	0.284	1.134	1.176	0.143	1.418	1.460	0.427		
		Right Tilted	0.176	0.735	0.758	0.066	0.911	0.934	0.242		
		Left Cheek	0.361	0.395	0.390	0.034	0.756	0.751	0.395		
		Left Tilted	0.144	0.329	0.403	0.034	0.473	0.547	0.178		
	LTE Band 25	Right Cheek	0.259	1.134	1.176	0.143	1.393	1.435	0.402		
		Right Tilted	0.070	0.735	0.758	0.066	0.805	0.828	0.136		
		Left Cheek	0.135	0.395	0.390	0.034	0.530	0.525	0.169		
		Left Tilted	0.092	0.329	0.403	0.034	0.421	0.495	0.126		
	LTE Band 26	Right Cheek	0.289	1.134	1.176	0.143	1.423	1.465	0.432		
		Right Tilted	0.122	0.735	0.758	0.066	0.857	0.880	0.188		
		Left Cheek	0.360	0.395	0.390	0.034	0.755	0.750	0.394		
		Left Tilted	0.162	0.329	0.403	0.034	0.491	0.565	0.196		
	LTE Band 30_Main	Right Cheek	0.343	1.134	1.176	0.143	1.477	1.519	0.486		
		Right Tilted	0.167	0.735	0.758	0.066	0.902	0.925	0.233		
		Left Cheek	0.174	0.395	0.390	0.034	0.569	0.564	0.208		
		Left Tilted	0.187	0.329	0.403	0.034	0.516	0.590	0.221		
	LTE Band 30_Aux	Right Cheek	0.128	1.134	1.176	0.143	1.262	1.304	0.271		
		Right Tilted	0.167	0.735	0.758	0.066	0.902	0.925	0.233		
		Left Cheek	0.198	0.395	0.390	0.034	0.593	0.588	0.232		
		Left Tilted	0.116	0.329	0.403	0.034	0.445	0.519	0.150		
	LTE Band 41_Main	Right Cheek	0.501	1.134	1.176	0.143	1.635	1.677	0.644	0.02	Case 2
		Right Tilted	0.202	0.735	0.758	0.066	0.937	0.960	0.268		
		Left Cheek	0.214	0.395	0.390	0.034	0.609	0.604	0.248		
		Left Tilted	0.260	0.329	0.403	0.034	0.589	0.663	0.294		
	LTE Band 41_Aux	Right Cheek	0.156	1.134	1.176	0.143	1.290	1.332	0.299		
		Right Tilted	0.097	0.735	0.758	0.066	0.832	0.855	0.163		
		Left Cheek	0.293	0.395	0.390	0.034	0.688	0.683	0.327		
		Left Tilted	0.078	0.329	0.403	0.034	0.407	0.481	0.112		
LTE Band 66	Right Cheek	0.125	1.134	1.176	0.143	1.259	1.301	0.268			
	Right Tilted	0.076	0.735	0.758	0.066	0.811	0.834	0.142			
	Left Cheek	0.249	0.395	0.390	0.034	0.644	0.639	0.283			
	Left Tilted	0.065	0.329	0.403	0.034	0.394	0.468	0.099			
LTE Band 71	Right Cheek	0.175	1.134	1.176	0.143	1.309	1.351	0.318			
	Right Tilted	0.089	0.735	0.758	0.066	0.824	0.847	0.155			
	Left Cheek	0.202	0.395	0.390	0.034	0.597	0.592	0.236			
	Left Tilted	0.106	0.329	0.403	0.034	0.435	0.509	0.140			



15.2 Hotspot Exposure Conditions

WWAN Band	Exposure Position	1	2	3	4	1+2 Summed 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	SPLSR	Case No	
		WWAN 1g SAR (W/kg)	2.4GHz WLAN 1g SAR (W/kg)	5GHz WLAN 1g SAR (W/kg)	Bluetooth 1g SAR (W/kg)						
GSM	GSM850	Front	0.359	0.862	0.476	0.035	1.221	0.835	0.394		
		Back	0.679	1.009	0.569	0.045	1.688	1.248	0.724	0.01	Case 3
		Left side	0.244	1.195	0.731	0.081	1.439	0.975	0.325		
		Right side	0.145				0.145	0.145	0.145		
		Top side		0.275	0.134	0.012	0.275	0.134	0.012		
		Bottom side	0.203				0.203	0.203	0.203		
	GSM1900	Front	0.773	0.862	0.476	0.035	1.635	1.249	0.808	0.01	Case 4
		Back	0.750	1.009	0.569	0.045	1.759	1.319	0.795	0.02	Case 5
		Left side	0.027	1.195	0.731	0.081	1.222	0.758	0.108		
		Right side	0.075				0.075	0.075	0.075		
		Top side		0.275	0.134	0.012	0.275	0.134	0.012		
		Bottom side	1.140				1.140	1.140	1.140		
WCDMA	WCDMA II	Front	0.794	0.862	0.476	0.035	1.656	1.270	0.829	0.01	Case 6
		Back	0.667	1.009	0.569	0.045	1.676	1.236	0.712	0.01	Case 7
		Left side	0.024	1.195	0.731	0.081	1.219	0.755	0.105		
		Right side	0.073				0.073	0.073	0.073		
		Top side		0.275	0.134	0.012	0.275	0.134	0.012		
		Bottom side	1.123				1.123	1.123	1.123		
	WCDMA IV	Front	0.880	0.862	0.476	0.035	1.742	1.356	0.915	0.02	Case 8
		Back	0.816	1.009	0.569	0.045	1.825	1.385	0.861	0.02	Case 9
		Left side	0.048	1.195	0.731	0.081	1.243	0.779	0.129		
		Right side	0.088				0.088	0.088	0.088		
		Top side		0.275	0.134	0.012	0.275	0.134	0.012		
		Bottom side	1.175				1.175	1.175	1.175		
	WCDMA V	Front	0.701	0.862	0.476	0.035	1.563	1.177	0.736		
		Back	0.898	1.009	0.569	0.045	1.907	1.467	0.943	0.02	Case 10
		Left side	0.440	1.195	0.731	0.081	1.635	1.171	0.521	0.04	Case 11
		Right side	0.286				0.286	0.286	0.286		
		Top side		0.275	0.134	0.012	0.275	0.134	0.012		
		Bottom side	0.386				0.386	0.386	0.386		
CDMA	CDMA BC0	Front	0.653	0.862	0.476	0.035	1.515	1.129	0.688		
		Back	0.981	1.009	0.569	0.045	1.990	1.550	1.026	0.02	Case 12
		Left side	0.328	1.195	0.731	0.081	1.523	1.059	0.409		
		Right side	0.157				0.157	0.157	0.157		
		Top side		0.275	0.134	0.012	0.275	0.134	0.012		
		Bottom side	0.521				0.521	0.521	0.521		
	CDMA BC1	Front	0.589	0.862	0.476	0.035	1.451	1.065	0.624		
		Back	0.601	1.009	0.569	0.045	1.610	1.170	0.646	0.01	Case 13
		Left side	0.023	1.195	0.731	0.081	1.218	0.754	0.104		
		Right side	0.071				0.071	0.071	0.071		
		Top side		0.275	0.134	0.012	0.275	0.134	0.012		
		Bottom side	1.002				1.002	1.002	1.002		
	CDMA BC10	Front	0.743	0.862	0.476	0.035	1.605	1.219	0.778	0.01	Case 14
		Back	0.971	1.009	0.569	0.045	1.980	1.540	1.016	0.02	Case 15
		Left side	0.415	1.195	0.731	0.081	1.610	1.146	0.496	0.04	Case 16
		Right side	0.298				0.298	0.298	0.298		
		Top side		0.275	0.134	0.012	0.275	0.134	0.012		
		Bottom side	0.468				0.468	0.468	0.468		





WWAN Band	Exposure Position	1	2	3	4	1+2	1+3	1+4	SPLSR	Case No	
		WWAN	2.4GHz WLAN	5GHz WLAN	Bluetooth	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)			
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)						
LTE	LTE Band 7_Main	Front	0.642	0.862	0.476	0.035	1.504	1.118	0.677		
		Back	1.095	1.009	0.569	0.045	2.104	1.664	1.140	0.02	Case 17
		Left side		1.195	0.731	0.081	1.195	0.731	0.081		
		Right side	0.907				0.907	0.907	0.907		
		Top side		0.275	0.134	0.012	0.275	0.134	0.012		
		Bottom side	0.265				0.265	0.265	0.265		
	LTE Band 7_Aux	Front	0.512	0.862	0.476	0.035	1.374	0.988	0.547		
		Back	0.864	1.009	0.569	0.045	1.873	1.433	0.909	0.02	Case 18
		Left side	0.569	1.195	0.731	0.081	1.764	1.300	0.650	0.02	Case 19
		Right side					0.000	0.000	0.000		
		Top side		0.275	0.134	0.012	0.275	0.134	0.012		
		Bottom side	0.098				0.098	0.098	0.098		
	LTE Band 12	Front	0.884	0.862	0.476	0.035	1.746	1.360	0.919	0.02	Case 20
		Back	1.157	1.009	0.569	0.045	2.166	1.726	1.202	0.02	Case 21
		Left side	0.571	1.195	0.731	0.081	1.766	1.302	0.652	0.04	Case 22
		Right side	0.488				0.488	0.488	0.488		
		Top side		0.275	0.134	0.012	0.275	0.134	0.012		
		Bottom side	0.422				0.422	0.422	0.422		
	LTE Band 13	Front	0.986	0.862	0.476	0.035	1.848	1.462	1.021	0.02	Case 23
		Back	1.136	1.009	0.569	0.045	2.145	1.705	1.181	0.02	Case 24
		Left side	0.462	1.195	0.731	0.081	1.657	1.193	0.543	0.03	Case 25
		Right side	0.545				0.545	0.545	0.545		
		Top side		0.275	0.134	0.012	0.275	0.134	0.012		
		Bottom side	0.471				0.471	0.471	0.471		
	LTE Band 14	Front	0.774	0.862	0.476	0.035	1.636	1.250	0.809	0.01	Case 26
		Back	1.069	1.009	0.569	0.045	2.078	1.638	1.114	0.02	Case 27
		Left side	0.456	1.195	0.731	0.081	1.651	1.187	0.537	0.03	Case 28
		Right side	0.537				0.537	0.537	0.537		
		Top side		0.275	0.134	0.012	0.275	0.134	0.012		
		Bottom side	0.411				0.411	0.411	0.411		
LTE Band 25	Front	1.081	0.862	0.476	0.035	1.943	1.557	1.116	0.02	Case 29	
	Back	0.740	1.009	0.569	0.045	1.749	1.309	0.785	0.02	Case 30	
	Left side	0.023	1.195	0.731	0.081	1.218	0.754	0.104			
	Right side	0.045				0.045	0.045	0.045			
	Top side		0.275	0.134	0.012	0.275	0.134	0.012			
	Bottom side	1.149				1.149	1.149	1.149			
LTE Band 26	Front	0.768	0.862	0.476	0.035	1.630	1.244	0.803	0.01	Case 31	
	Back	0.917	1.009	0.569	0.045	1.926	1.486	0.962	0.02	Case 32	
	Left side	0.447	1.195	0.731	0.081	1.642	1.178	0.528	0.04	Case 33	
	Right side	0.310				0.310	0.310	0.310			
	Top side		0.275	0.134	0.012	0.275	0.134	0.012			
	Bottom side	0.424				0.424	0.424	0.424			





WWAN Band	Exposure Position	1	2	3	4	1+2	1+3	1+4	SPLSR	Case No	
		WWAN 1g SAR (W/kg)	2.4GHz WLAN 1g SAR (W/kg)	5GHz WLAN 1g SAR (W/kg)	Bluetooth 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)			
LTE	LTE Band 30_Main	Front	0.674	0.862	0.476	0.035	1.536	1.150	0.709		
		Back	1.067	1.009	0.569	0.045	2.076	1.636	1.112	0.02	Case 34
		Left side		1.195	0.731	0.081	1.195	0.731	0.081		
		Right side	0.695				0.695	0.695	0.695		
		Top side		0.275	0.134	0.012	0.275	0.134	0.012		
		Bottom side	0.441				0.441	0.441	0.441		
	LTE Band 30_Aux	Front	0.459	0.862	0.476	0.035	1.321	0.935	0.494		
		Back	0.976	1.009	0.569	0.045	1.985	1.545	1.021	0.02	Case 35
		Left side	0.422	1.195	0.731	0.081	1.617	1.153	0.503	0.02	Case 36
		Top side		0.275	0.134	0.012	0.275	0.134	0.012		
		Bottom side	0.144				0.144	0.144	0.144		
	LTE Band 41_Main	Front	0.565	0.862	0.476	0.035	1.427	1.041	0.600		
		Back	1.117	1.009	0.569	0.045	2.126	1.686	1.162	0.02	Case 37
		Left side		1.195	0.731	0.081	1.195	0.731	0.081		
		Right side	0.975				0.975	0.975	0.975		
		Top side		0.275	0.134	0.012	0.275	0.134	0.012		
		Bottom side	0.206				0.206	0.206	0.206		
	LTE Band 41_Aux	Front	0.518	0.862	0.476	0.035	1.380	0.994	0.553		
		Back	0.882	1.009	0.569	0.045	1.891	1.451	0.927	0.02	Case 38
		Left side	0.578	1.195	0.731	0.081	1.773	1.309	0.659	0.02	Case 39
		Right side					0.000	0.000	0.000		
		Top side		0.275	0.134	0.012	0.275	0.134	0.012		
		Bottom side	0.140				0.140	0.140	0.140		
	LTE Band 66	Front	0.622	0.862	0.476	0.035	1.484	1.098	0.657		
		Back	0.588	1.009	0.569	0.045	1.597	1.157	0.633	0.01	Case 40
		Left side	0.045	1.195	0.731	0.081	1.240	0.776	0.126		
		Right side	0.111				0.111	0.111	0.111		
Top side			0.275	0.134	0.012	0.275	0.134	0.012			
Bottom side		1.062				1.062	1.062	1.062			
LTE Band 71	Front	0.779	0.862	0.476	0.035	1.641	1.255	0.814	0.01	Case 41	
	Back	0.865	1.009	0.569	0.045	1.874	1.434	0.910	0.02	Case 42	
	Left side	0.365	1.195	0.731	0.081	1.560	1.096	0.446			
	Right side	0.336				0.336	0.336	0.336			
	Top side		0.275	0.134	0.012	0.275	0.134	0.012			
	Bottom side	0.271				0.271	0.271	0.271			



**15.3 Body-Worn Accessory Exposure Conditions**

WWAN Band		Exposure Position	1	2	3	4	1+2 Summed 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	SPLSR	Case No
			WWAN 1g SAR (W/kg)	2.4GHz WLAN 1g SAR (W/kg)	5GHz WLAN 1g SAR (W/kg)	Bluetooth 1g SAR (W/kg)					
GSM	GSM850	Front	0.359	0.862	0.758	0.035	1.221	1.117	0.394		
		Back	0.679	1.009	1.015	0.055	1.688	1.694	0.734	0.01	Case 43
	GSM1900	Front	1.068	0.862	0.758	0.035	1.930	1.826	1.103	0.02	Case 44
		Back	1.154	1.009	1.015	0.055	2.163	2.169	1.209	0.02	Case 45
WCDMA	WCDMA II	Front	1.177	0.862	0.758	0.035	2.039	1.935	1.212	0.02	Case 46
		Back	1.007	1.009	1.015	0.055	2.016	2.022	1.062	0.02	Case 47
	WCDMA IV	Front	0.988	0.862	0.758	0.035	1.850	1.746	1.023	0.02	Case 48
		Back	0.916	1.009	1.015	0.055	1.925	1.931	0.971	0.02	Case 49
	WCDMA V	Front	0.701	0.862	0.758	0.035	1.563	1.459	0.736		
		Back	0.898	1.009	1.015	0.055	1.907	1.913	0.953	0.02	Case 50
CDMA	CDMA BC0	Front	0.775	0.862	0.758	0.035	1.637	1.533	0.810	0.01	Case 51
		Back	1.029	1.009	1.015	0.055	2.038	2.044	1.084	0.02	Case 52
	CDMA BC1	Front	0.975	0.862	0.758	0.035	1.837	1.733	1.010	0.02	Case 53
		Back	1.072	1.009	1.015	0.055	2.081	2.087	1.127	0.02	Case 54
	CDMA BC10	Front	0.697	0.862	0.758	0.035	1.559	1.455	0.732		
		Back	0.966	1.009	1.015	0.055	1.975	1.981	1.021	0.02	Case 55
LTE	LTE Band 7_Main	Front	0.642	0.862	0.758	0.035	1.504	1.400	0.677		
		Back	1.095	1.009	1.015	0.055	2.104	2.110	1.150	0.02	Case 56
	LTE Band 7_Aux	Front	0.512	0.862	0.758	0.035	1.374	1.270	0.547		
		Back	0.864	1.009	1.015	0.055	1.873	1.879	0.919	0.02	Case 57
	LTE Band 12	Front	0.884	0.862	0.758	0.035	1.746	1.642	0.919	0.01	Case 58
		Back	1.157	1.009	1.015	0.055	2.166	2.172	1.212	0.02	Case 59
	LTE Band 13	Front	0.986	0.862	0.758	0.035	1.848	1.744	1.021	0.01	Case 60
		Back	1.136	1.009	1.015	0.055	2.145	2.151	1.191	0.02	Case 61
	LTE Band 14	Front	0.774	0.862	0.758	0.035	1.636	1.532	0.809	0.01	Case 62
		Back	1.069	1.009	1.015	0.055	2.078	2.084	1.124	0.02	Case 63
	LTE Band 25	Front	1.081	0.862	0.758	0.035	1.943	1.839	1.116	0.02	Case 64
		Back	0.740	1.009	1.015	0.055	1.749	1.755	0.795	0.02	Case 65
	LTE Band 26	Front	0.768	0.862	0.758	0.035	1.630	1.526	0.803	0.01	Case 66
		Back	0.917	1.009	1.015	0.055	1.926	1.932	0.972	0.02	Case 67
	LTE Band 30_Main	Front	0.674	0.862	0.758	0.035	1.536	1.432	0.709		
		Back	1.067	1.009	1.015	0.055	2.076	2.082	1.122	0.02	Case 68
	LTE Band 30_Aux	Front	0.459	0.862	0.758	0.035	1.321	1.217	0.494		
		Back	0.976	1.009	1.015	0.055	1.985	1.991	1.031	0.02	Case 69
	LTE Band 41_Main	Front	0.565	0.862	0.758	0.035	1.427	1.323	0.600		
		Back	1.117	1.009	1.015	0.055	2.126	2.132	1.172	0.02	Case 70
LTE Band 41_Aux	Front	0.518	0.862	0.758	0.035	1.380	1.276	0.553			
	Back	0.882	1.009	1.015	0.055	1.891	1.897	0.937	0.02	Case 71	
LTE Band 66	Front	0.706	0.862	0.758	0.035	1.568	1.464	0.741			
	Back	0.660	1.009	1.015	0.055	1.669	1.675	0.715	0.01	Case 72	
LTE Band 71	Front	0.779	0.862	0.758	0.035	1.641	1.537	0.814	0.01	Case 73	
	Back	0.865	1.009	1.015	0.055	1.874	1.880	0.920	0.02	Case 74	



**15.4 Product Specific Conditions**

**Remark:**

- According to KDB 941225 D06 v02r01 and KDB 648474 D04v01r03, for WWAN / 2.4GHz WLAN / Bluetooth and 5GHz WLAN SAR ("-") was excluded, due to transmitting antenna located larger 25mm from that surface or edge and Hotspot SAR was < 1.2W/Kg.

WWAN Band		Exposure Position	1	2	3	4	1+2 Summed 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	SPLSR	Case No
			WWAN 10g SAR (W/kg)	2.4GHz WLAN 10g SAR (W/kg)	5GHz WLAN 10g SAR (W/kg)	Bluetooth 10g SAR (W/kg)					
GSM	GSM1900	Front	-	-	1.165	-		1.165			
		Back	-	-	0.647	-		0.647			
		Left side	-	1.479	2.865	-	1.479	2.865			
		Right side	-	-	-	-					
		Top side	-	-	0.296	-		0.296			
		Bottom side	1.375	-	-	-	1.375	1.375	1.375		
WCDMA	WCDMA II	Front	-	-	1.165	-		1.165			
		Back	-	-	0.647	-		0.647			
		Left side	-	1.479	2.865	-	1.479	2.865			
		Right side	-	-	-	-					
		Top side	-	-	0.296	-		0.296			
		Bottom side	3.021	-	-	-	3.021	3.021	3.021		
	WCDMA IV	Front	-	-	1.165	-		1.165			
		Back	-	-	0.647	-		0.647			
		Left side	-	1.479	2.865	-	1.479	2.865			
		Right side	-	-	-	-					
		Top side	-	-	0.296	-		0.296			
		Bottom side	3.153	-	-	-	3.153	3.153	3.153		
CDMA	CDMA BC1	Front	-	-	1.165	-		1.165			
		Back	-	-	0.647	-		0.647			
		Left side	-	1.479	2.865	-	1.479	2.865			
		Right side	-	-	-	-					
		Top side	-	-	0.296	-		0.296			
		Bottom side	2.804	-	-	-	2.804	2.804	2.804		
LTE	LTE Band 7_Main	Front	-	-	1.165	-		1.165			
		Back	-	-	0.647	-		0.647			
		Left side	-	1.479	2.865	-	1.479	2.865			
		Right side	3.190	-	-	-	3.190	3.190			
		Top side	-	-	0.296	-		0.296			
		Bottom side	-	-	-	-					
	LTE Band 7_Aux	Front	-	-	1.165	-		1.165			
		Back	-	-	0.647	-		0.647			
		Left side	2.722	1.479	2.865	-	4.201	5.587	2.722	0.1	Case 75
		Right side	-	-	-	-					
		Top side	-	-	0.296	-		0.296			
		Bottom side	-	-	-	-					



WWAN Band	Exposure Position	1	2	3	4	1+2 Summed 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	SPLSR	Case No	
		WWAN 10g SAR (W/kg)	2.4GHz WLAN 10g SAR (W/kg)	5GHz WLAN 10g SAR (W/kg)	Bluetooth 10g SAR (W/kg)						
LTE	LTE 25	Front	-	-	1.165	-		1.165			
		Back	-	-	0.647	-		0.647			
		Left side	-	1.479	2.865	-	1.479	2.865			
		Right side	-	-	-	-					
		Top side	-	-	0.296	-		0.296			
	Bottom side	2.627	-	-	-	2.627	2.627	2.627			
	LTE Band 30_Main	Front	-	-	1.165	-		1.165			
		Back	-	-	0.647	-		0.647			
		Left side	-	1.479	2.865	-	1.479	2.865			
		Right side	3.058	-	-	-	3.058	3.058	3.058		
		Top side	-	-	0.296	-		0.296			
	Bottom side	-	-	-	-						
	LTE Band 41_Main	Front	-	-	1.165	-		1.165			
		Back	-	-	0.647	-		0.647			
		Left side	-	1.479	2.865	-	1.479	2.865			
		Right side	3.195	-	-	-	3.195	3.195	3.195		
		Top side	-	-	0.296	-		0.296			
	Bottom side	-	-	-	-						
	LTE Band 41_Aux	Front	-	-	1.165	-		1.165			
		Back	-	-	0.647	-		0.647			
Left side		2.728	1.479	2.865	-	4.207	5.593	2.728	0.1	Case 76	
Right side		-	-	-	-						
Top side		-	-	0.296	-		0.296				
Bottom side	-	-	-	-							

**15.5 SPLSR Evaluation and Analysis**

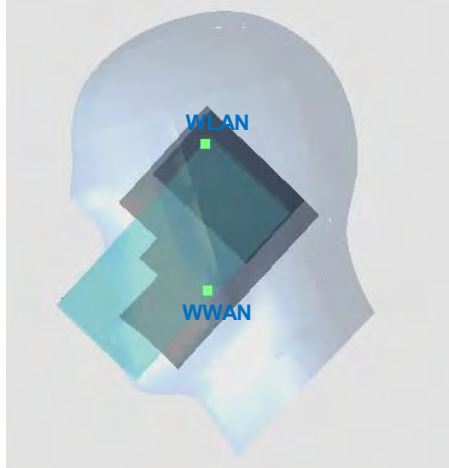
**General Note:**

- SPLSR =  $(SAR_1 + SAR_2)^{1.5} / (min. \text{ separation distance, mm})$ . If  $SPLSR \leq 0.04$ , simultaneously transmission SAR measurement is not necessary

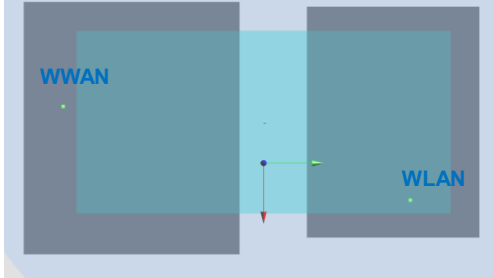
Case 1	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Case 1	LTE Band 7	Right Cheek	0.799	0	49.01	70.41	0.35	103.8	1.93	0.03	Not required
	2.4GHz WLAN		1.134	0	16.97	-28.34	-1.64				
	LTE Band 7	Right Cheek	0.799	0	49.01	70.41	0.35	107.0	1.98	0.03	Not required
	5GHz WLAN		1.176	0	17.1	-31.7	-0.77				



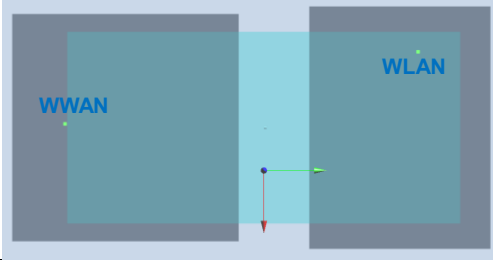
Case 2	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Case 2	LTE Band 41	Right Cheek	0.501	0	43.64	66.17	-0.93	98.2	1.64	0.02	Not required
	2.4GHz WLAN		1.134	0	16.97	-28.34	-1.64				
	LTE Band 41	Right Cheek	0.501	0	43.64	66.17	-0.93	101.4	1.68	0.02	Not required
	5GHz WLAN		1.176	0	17.1	-31.7	-0.77				



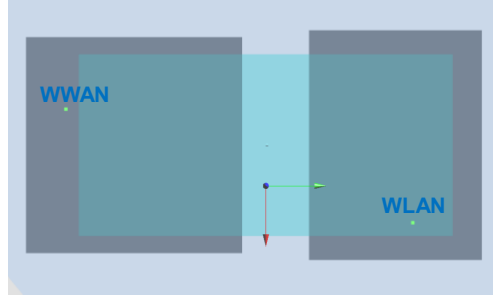
Case 3	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	GSM850				X	Y	Z				
	2.4GHz WLAN	Back	1.009	5	36.4	60.2	-1.62	151.3	1.69	0.01	Not required



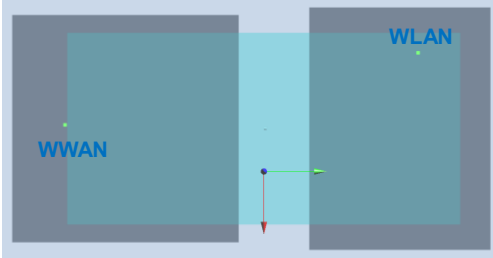
Case 4	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	GSM1900				X	Y	Z				
	2.4GHz WLAN	Front	0.862	5	-29	64.2	-1.84	145.6	1.64	0.01	Not required



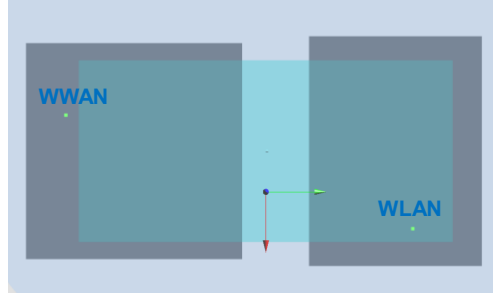
Case 5	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	GSM1900				X	Y	Z				
	2.4GHz WLAN	Back	1.009	5	36.4	60.2	-1.62	153.0	1.76	0.02	Not required



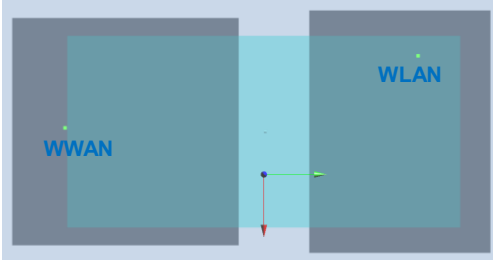
Case 6	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA II				X	Y	Z				
	2.4GHz WLAN <td>Front</td> <td>0.794</td> <td>5</td> <td>0.8</td> <td>-77.8</td> <td>-2.69</td> <td rowspan="2">145.1</td> <td rowspan="2">1.66</td> <td rowspan="2">0.01</td> <td rowspan="2">Not required</td>	Front	0.794	5	0.8	-77.8	-2.69	145.1	1.66	0.01	Not required
			0.862	5	-29	64.2	-1.84				



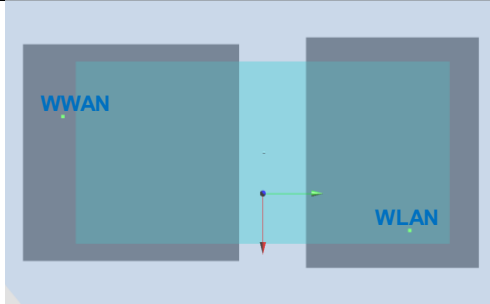
Case 7	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA II				X	Y	Z				
	2.4GHz WLAN <td>Back</td> <td>0.667</td> <td>5</td> <td>-9.8</td> <td>-77.8</td> <td>-2.68</td> <td rowspan="2">145.5</td> <td rowspan="2">1.68</td> <td rowspan="2">0.01</td> <td rowspan="2">Not required</td>	Back	0.667	5	-9.8	-77.8	-2.68	145.5	1.68	0.01	Not required
			1.009	5	36.4	60.2	-1.62				



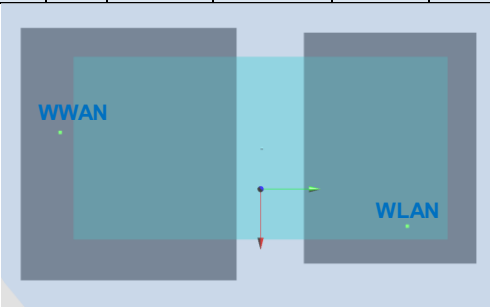
Case 8	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA IV				X	Y	Z				
	2.4GHz WLAN <td>Front</td> <td>0.88</td> <td>5</td> <td>0.2</td> <td>-79.4</td> <td>-1.14</td> <td rowspan="2">146.5</td> <td rowspan="2">1.74</td> <td rowspan="2">0.02</td> <td rowspan="2">Not required</td>	Front	0.88	5	0.2	-79.4	-1.14	146.5	1.74	0.02	Not required
			0.862	5	-29	64.2	-1.84				



Case 9	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA IV				X	Y	Z				
	2.4GHz WLAN	Back	1.009	5	36.4	60.2	-1.62	145.7	1.83	0.02	Not required



Case 10	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA V				X	Y	Z				
	2.4GHz WLAN	Back	1.009	5	36.4	60.2	-1.62	146.8	1.91	0.02	Not required

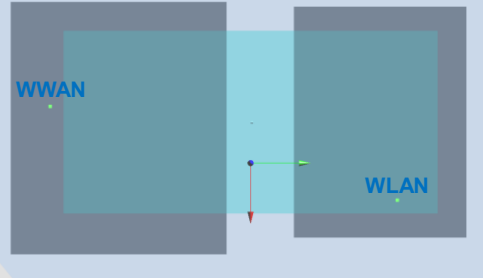


Case 11	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA V				X	Y	Z				
	2.4GHz WLAN	Left Side	1.195	5	2.4	56.6	-1.77	55.8	1.64	0.04	Not required

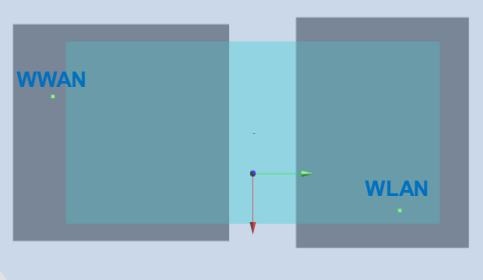




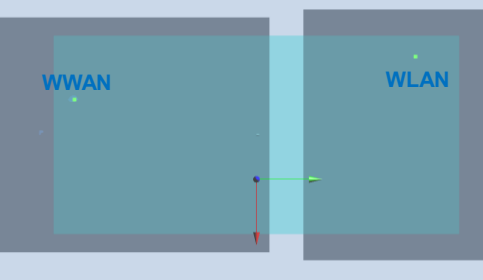
Case 12	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	CDMA BC0				X	Y	Z				
	2.4GHz WLAN <td>Back</td> <td>1.009</td> <td>5</td> <td>36.4</td> <td>60.2</td> <td>-1.62</td> <td>144.8</td> <td>1.99</td> <td>0.02</td> <td>Not required</td>	Back	1.009	5	36.4	60.2	-1.62	144.8	1.99	0.02	Not required



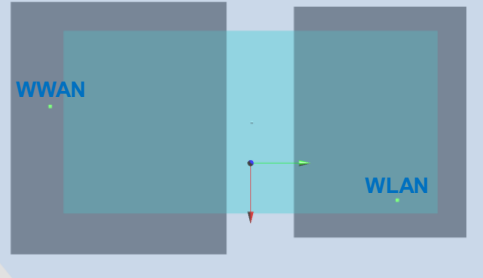
Case 13	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	CDMA BC1				X	Y	Z				
	2.4GHz WLAN <td>Back</td> <td>1.009</td> <td>5</td> <td>36.4</td> <td>60.2</td> <td>-1.62</td> <td>148.7</td> <td>1.61</td> <td>0.01</td> <td>Not required</td>	Back	1.009	5	36.4	60.2	-1.62	148.7	1.61	0.01	Not required



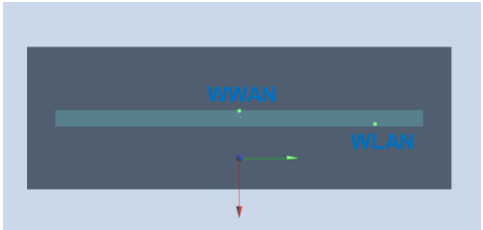
Case 14	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	CDMA BC10				X	Y	Z				
	2.4GHz WLAN <td>Front</td> <td>0.862</td> <td>5</td> <td>-29</td> <td>64.2</td> <td>-1.84</td> <td>149.6</td> <td>1.61</td> <td>0.01</td> <td>Not required</td>	Front	0.862	5	-29	64.2	-1.84	149.6	1.61	0.01	Not required



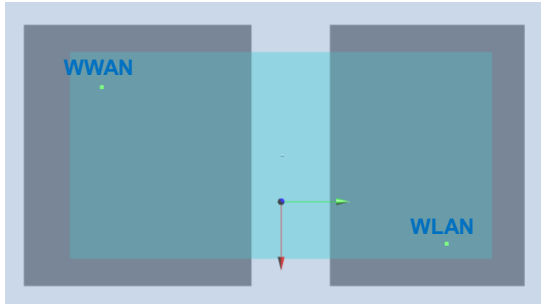
Case 15	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	CDMA BC10	Back	0.971	5	-9.7	-77	-6.18	144.8	1.98	0.02	Not required



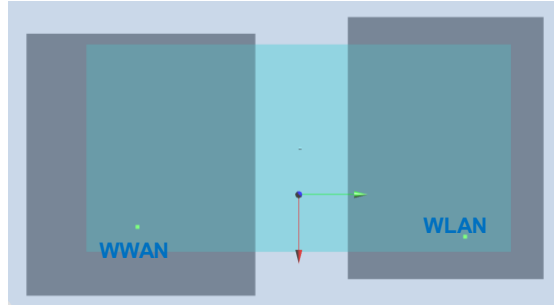
Case 16	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	CDMA BC10	Left Side	0.415	5	3.6	0.4	-6.9	56.4	1.61	0.04	Not required
	2.4GHz WLAN			1.195	5	2.4	56.6				



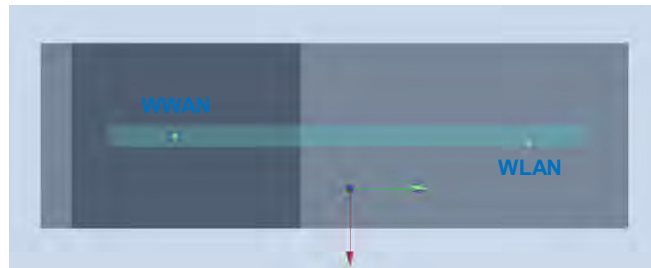
Case 17	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR	
					X	Y	Z					
		LTE Band 7_Main	Back	1.095	5	-28.2	-67.2	-6.03	142.9	2.10	0.02	Not required
		2.4GHz WLAN			1.009	5	36.4	60.2				
	LTE Band 7_Main	Back	1.064	5	-28.2	-67.2	-6.03	150.3	1.63	0.01	Not required	
	5GHz WLAN			0.569	5	37.2	68					-0.92



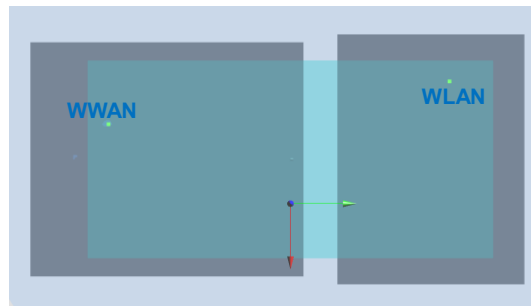
Case 18	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 7_Aux				X	Y	Z				
	2.4GHz WLAN <td>Back</td> <td>0.864</td> <td>5</td> <td>26.8</td> <td>-60.2</td> <td>0.09</td> <td rowspan="2">120.8</td> <td rowspan="2">1.87</td> <td rowspan="2">0.02</td> <td rowspan="2">Not required</td>	Back	0.864	5	26.8	-60.2	0.09	120.8	1.87	0.02	Not required
			1.009	5	36.4	60.2	-1.62				



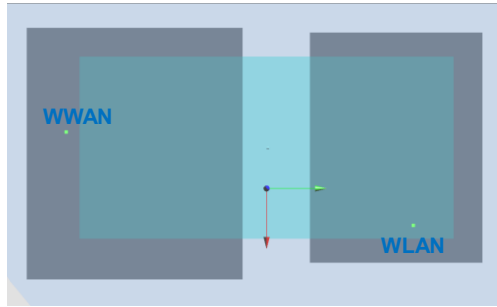
Case 19	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 7_Aux				X	Y	Z				
	2.4GHz WLAN <td>Left Side</td> <td>0.569</td> <td>5</td> <td>0</td> <td>-54.8</td> <td>-0.1</td> <td rowspan="2">111.4</td> <td rowspan="2">1.76</td> <td rowspan="2">0.02</td> <td rowspan="2">Not required</td>	Left Side	0.569	5	0	-54.8	-0.1	111.4	1.76	0.02	Not required
			1.195	5	2.4	56.6	-1.77				



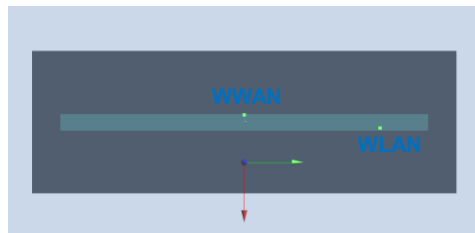
Case 20	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 12				X	Y	Z				
	2.4GHz WLAN <td>Front</td> <td>0.882</td> <td>5</td> <td>12.5</td> <td>-82</td> <td>-2.17</td> <td rowspan="2">152.0</td> <td rowspan="2">1.74</td> <td rowspan="2">0.02</td> <td rowspan="2">Not required</td>	Front	0.882	5	12.5	-82	-2.17	152.0	1.74	0.02	Not required
			0.862	5	-29	64.2	-1.84				



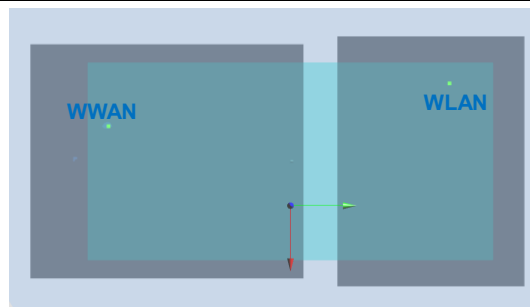
Case	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
21	LTE Band 12	Back	1.155	5	-12.9	-80.4	-2.25	149.0	2.16	0.02	Not required
	2.4GHz WLAN		1.009	5	36.4	60.2	-1.62				
	LTE Band 12	Back	0.349	5	-12.9	-80.4	-2.25	156.6	0.92	0.01	Not required
	5GHz WLAN		0.569	5	37.2	68	-0.92				



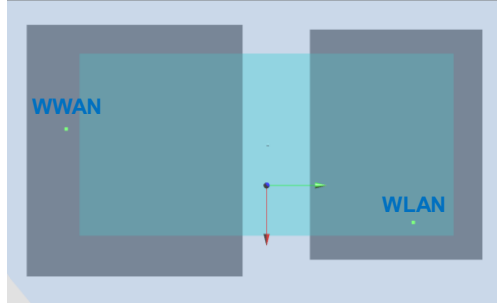
Case	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
22	LTE Band 12	Left Side	0.571	5	0.6	-8.4	-2.65	65.0	1.77	0.04	Not required
	2.4GHz WLAN		1.195	5	2.4	56.6	-1.77				



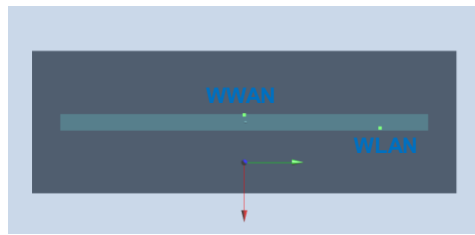
Case	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
23	LTE Band 13	Front	0.986	5	12.5	-82	-2.17	152.0	1.85	0.02	Not required
	2.4GHz WLAN		0.862	5	-29	64.2	-1.84				



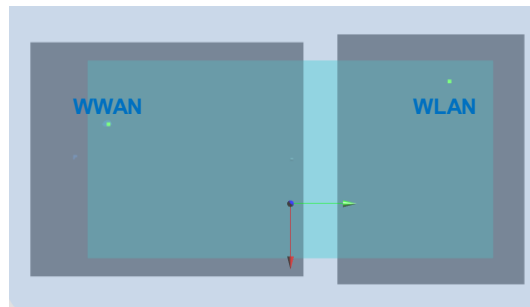
Case	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Case 24	LTE Band 13	Back	1.136	5	-12.9	-80.4	-2.19	149.0	2.15	0.02	Not required
	2.4GHz WLAN		1.009	5	36.4	60.2	-1.62				
	LTE Band 13	Back	1.136	5	-12.9	-80.4	-2.19	156.6	1.71	0.01	Not required
	5GHz WLAN		0.569	5	37.2	68	-0.92				



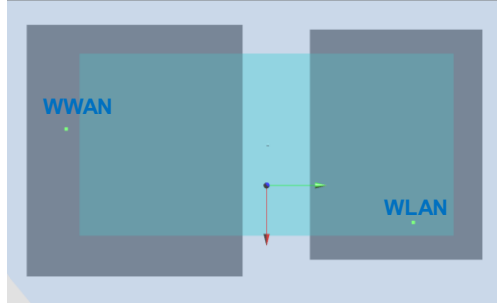
Case	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Case 25	LTE Band 13	Left Side	0.462	5	-1	-14.4	-2.61	71.1	1.66	0.03	Not required
	2.4GHz WLAN		1.195	5	2.4	56.6	-1.77				



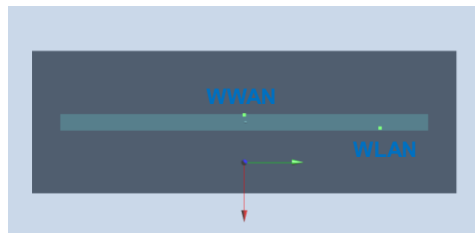
Case	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Case 26	LTE Band 14	Front	0.774	5	10.9	-80.5	-2.16	150.1	1.64	0.01	Not required
	2.4GHz WLAN		0.862	5	-29	64.2	-1.84				



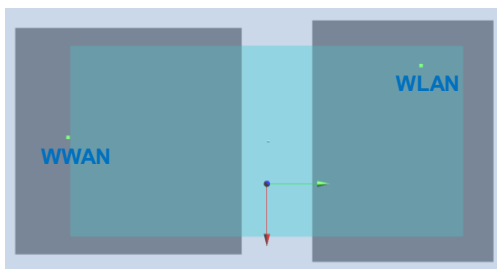
Case	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
27	LTE Band 14	Back	1.069	5	-9.6	-82	-2.22	149.5	2.08	0.02	Not required
	2.4GHz WLAN		1.009	5	36.4	60.2	-1.62				
	LTE Band 14	Back	1.069	5	-9.6	-82	-2.22	157.1	1.64	0.01	Not required
	5GHz WLAN		0.569	5	37.2	68	-0.92				



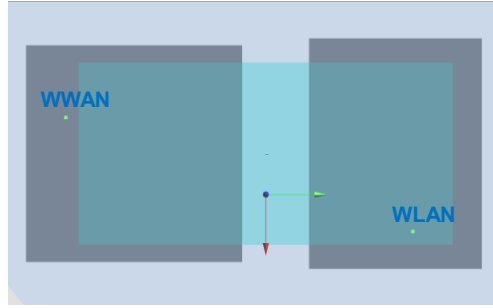
Case	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
28	LTE Band 14	Left Side	0.456	5	-1	-14.4	-2.61	71.1	1.65	0.03	Not required
	2.4GHz WLAN		1.195	5	2.4	56.6	-1.77				



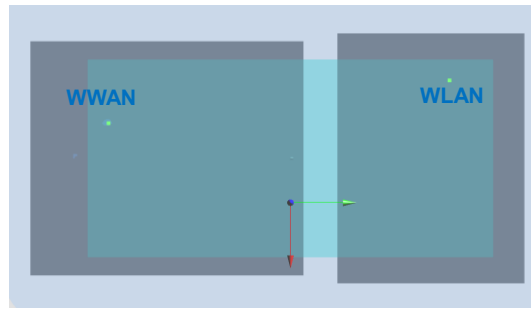
Case	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
29	LTE Band 25	Front	1.081	5	2.3	-79.5	-2.6	147.1	1.94	0.02	Not required
	2.4GHz WLAN		0.862	5	-29	64.2	-1.84				



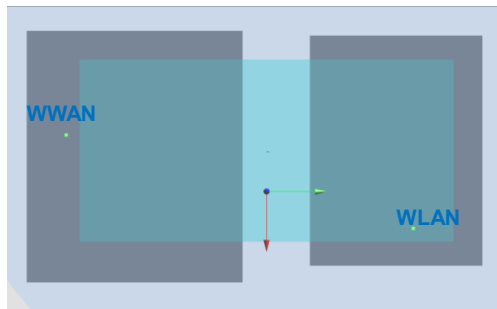
Case 30	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 25				X	Y	Z				
	2.4GHz WLAN	Back	0.74	5	-8.9	-77.8	-2.69	145.2	1.75	0.02	Not required
			1.009	5	36.4	60.2	-1.62				



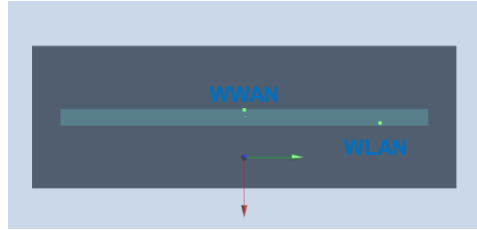
Case 31	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 26				X	Y	Z				
	2.4GHz WLAN	Front	0.768	5	6	-79.5	-1.29	147.9	1.63	0.01	Not required
			0.862	5	-29	64.2	-1.84				



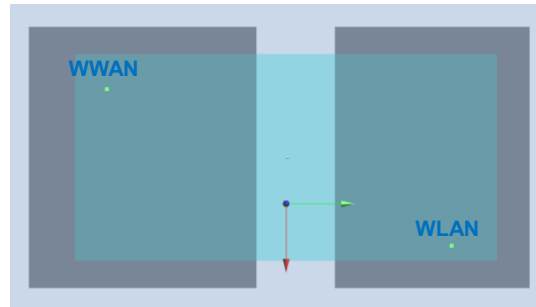
Case 32	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 26				X	Y	Z				
	2.4GHz WLAN	Back	0.917	5	-13.9	-79.4	-1.36	148.4	1.93	0.02	Not required
			1.009	5	36.4	60.2	-1.62				



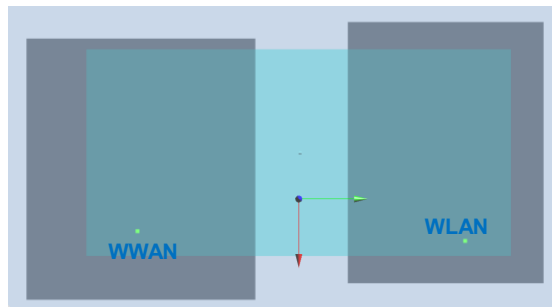
Case 33	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 26				X	Y	Z				
	2.4GHz WLAN	Left Side	0.447	5	0.6	-2.1	-1.67	58.7	1.64	0.04	Not required
			1.195	5	2.4	56.6	-1.77				



Case 34	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 30_Main				X	Y	Z				
	2.4GHz WLAN	Back	1.067	5	-35.6	-62.8	-1.14	142.5	2.08	0.02	Not required
			1.009	5	36.4	60.2	-1.62				
	5GHz WLAN	Back	1.067	5	-35.6	-62.8	-1.14	149.7	1.64	0.01	Not required
			0.569	5	37.2	68	-0.92				

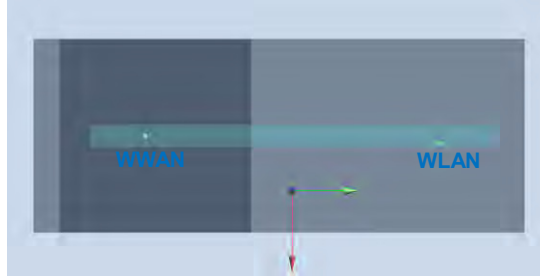


Case 35	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 30_Aux				X	Y	Z				
	2.4GHz WLAN	Back	0.976	5	29	-64.4	-0.46	124.8	1.99	0.02	Not required
			1.009	5	36.4	60.2	-1.62				

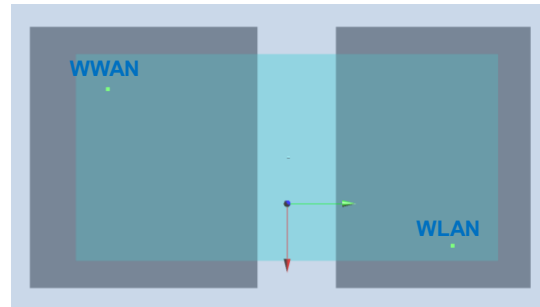




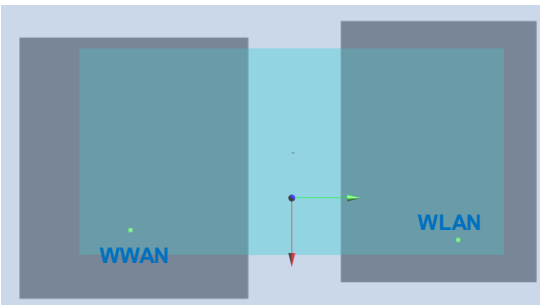
Case 36	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 30_Aux				X	Y	Z				
	2.4GHz WLAN	Left Side	0.422	5	1.2	-54.2	-0.7	110.8	1.62	0.02	Not required
			1.195	5	2.4	56.6	-1.77				



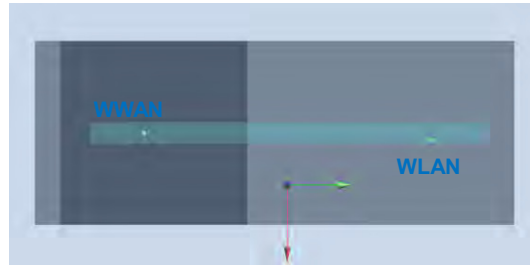
Case 37	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 41_Main				X	Y	Z				
	2.4GHz WLAN	Back	1.117	5	-31.6	-58	-0.75	136.4	2.13	0.02	Not required
			1.009	5	36.4	60.2	-1.62				
	LTE Band 41_Main	Back	1.117	5	-31.6	-58	-0.75	143.6	1.69	0.02	Not required
	5GHz WLAN		0.569	5	37.2	68	-0.92				



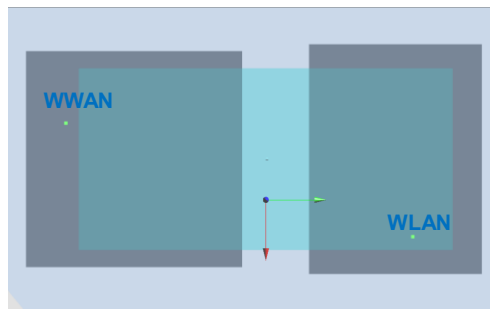
Case 38	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 41_Aux				X	Y	Z				
	2.4GHz WLAN	Back	0.882	5	26.6	-60.2	0.09	120.8	1.89	0.02	Not required
			1.009	5	36.4	60.2	-1.62				



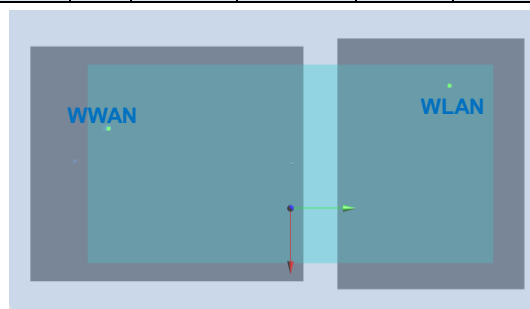
Case 39	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 41_Aux				X	Y	Z				
	2.4GHz WLAN	Left Side	0.578	5	0	-55.4	-0.68	112.0	1.77	0.02	Not required
			1.195	5	2.4	56.6	-1.77				



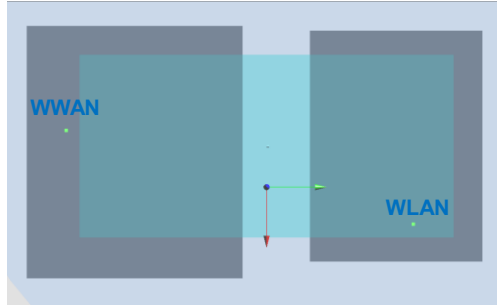
Case 40	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 66				X	Y	Z				
	2.4GHz WLAN	Back	0.588	5	1.5	-80.6	-1.2	145.1	1.60	0.01	Not required
			1.009	5	36.4	60.2	-1.62				



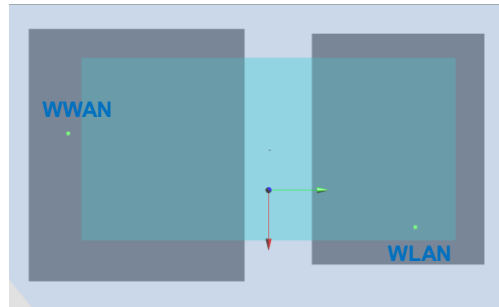
Case 41	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 71				X	Y	Z				
	2.4GHz WLAN	Front	0.779	5	12.5	-82	-2.17	152.0	1.64	0.01	Not required
			0.862	5	-29	64.2	-1.84				



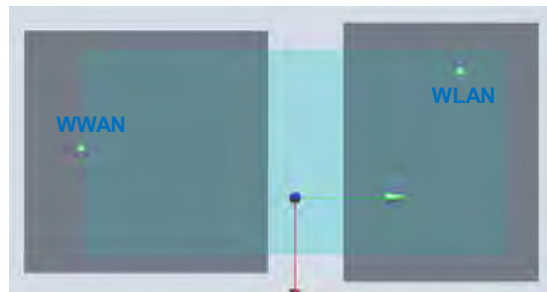
Case 42	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 71				X	Y	Z				
	2.4GHz WLAN	Back	0.865	5	-14.5	-77.3	-2.27	146.6	1.87	0.02	Not required
			1.009	5	36.4	60.2	-1.62				



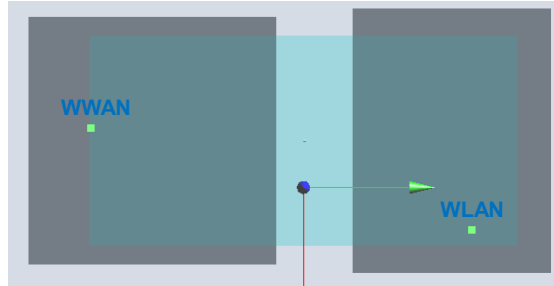
Case 43	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	GSM850				X	Y	Z				
	2.4GHz WLAN	Back	0.679	5	-13.9	-82.5	-1.21	151.3	1.69	0.01	Not required
			1.009	5	36.4	60.2	-1.62				
	GSM850	Back	0.679	5	-13.9	-82.5	-1.21	157.5	1.69	0.01	Not required
	5GHz WLAN			1.015	5	36.2	66.8				



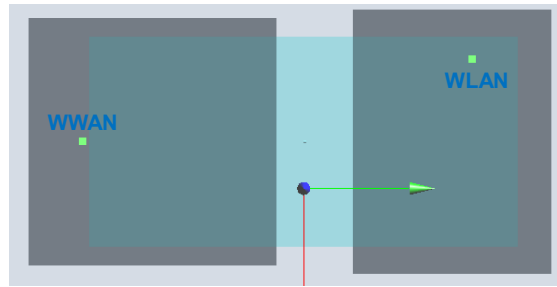
Case 44	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	GSM1900				X	Y	Z				
	2.4GHz WLAN	Front	1.13	5	-0.9	-78	-1.75	144.9	1.99	0.02	Not required
			0.862	5	-29	64.2	-1.84				
	GSM1900	Front	1.13	5	-0.9	-78	-1.75	155.2	1.89	0.02	Not required
	5GHz WLAN			0.758	5	-37.4	72.8				



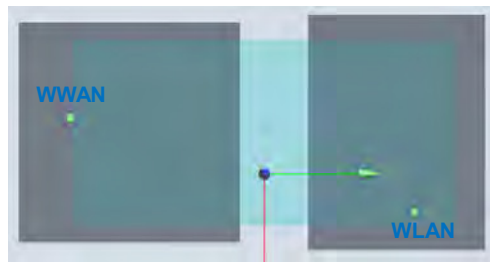
Case	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Case 45	GSM1900	Back	1.109	5	-11.9	-76.5	-1.77	145.0	2.12	0.02	Not required
	2.4GHz WLAN		1.009	5	36.4	60.2	-1.62				
	GSM1900	Back	0.695	5	-11.9	-76.5	-1.77	151.2	1.71	0.01	Not required
	5GHz WLAN		1.015	5	36.2	66.8	-0.87				



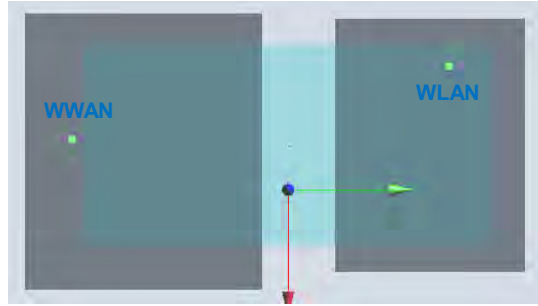
Case	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Case 46	WCDMA II	Front	1.177	5	2.2	-77.9	-1.72	145.5	2.04	0.02	Not required
	2.4GHz WLAN		0.862	5	-29	64.2	-1.84				
	WCDMA II	Front	1.177	5	2.2	-77.9	-1.72	155.8	1.94	0.02	Not required
	5GHz WLAN		0.758	5	-37.4	72.8	-1.3				



Case	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 47	WCDMA II	Back	1.007	5	-13.4	-78	-1.78	146.9	2.02	0.02	Not required
	2.4GHz WLAN		1.009	5	36.4	60.2	-1.62				
	WCDMA II	Back	1.007	5	-13.4	-78	-1.78	153.1	2.02	0.02	Not required
	5GHz WLAN		1.015	5	36.2	66.8	-0.87				



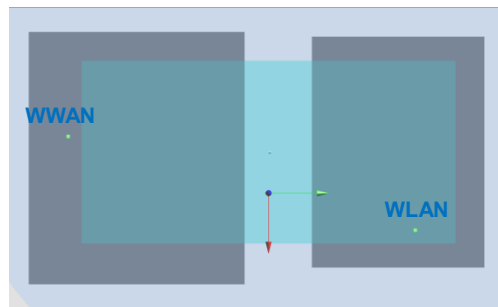
Case	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
48	WCDMA IV	Front	0.988	5	0.2	-79.4	-1.14	146.5	1.85	0.02	Not required
	2.4GHz WLAN		0.862	5	-29	64.2	-1.84				
	WCDMA IV	Front	0.988	5	0.2	-79.4	-1.14	156.8	1.75	0.01	Not required
	5GHz WLAN		0.758	5	-37.4	72.8	-1.3				



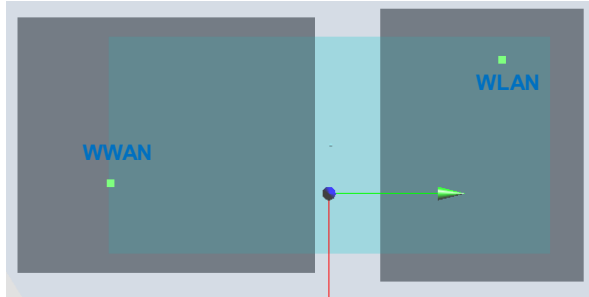
Case	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
49	WCDMA IV	Back	0.916	5	0.3	-81	-1.13	145.7	1.93	0.02	Not required
	2.4GHz WLAN		1.009	5	36.4	60.2	-1.62				
	WCDMA IV	Back	0.916	5	0.3	-81	-1.13	152.1	1.93	0.02	Not required
	5GHz WLAN		1.015	5	36.2	66.8	-0.87				



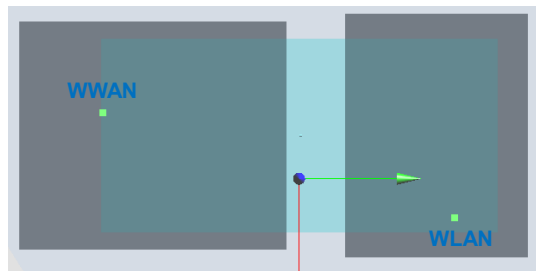
Case	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
50	WCDMA V	Back	0.898	5	-14	-77.7	-1.32	146.8	1.91	0.02	Not required
	2.4GHz WLAN		1.009	5	36.4	60.2	-1.62				
	WCDMA V	Back	0.898	5	-14	-77.7	-1.32	153.0	1.91	0.02	Not required
	5GHz WLAN		1.015	5	36.2	66.8	-0.87				



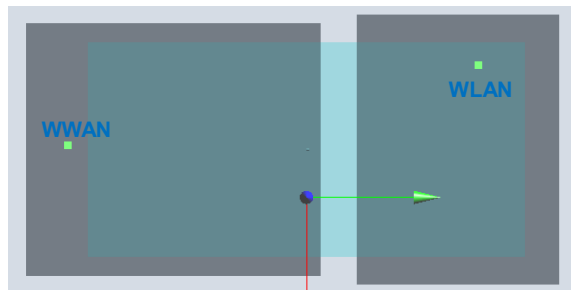
Case 51	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	CDMA BC0	Front	0.775	5	10.9	-82.4	-5.94	152.0	1.64	0.01	Not required
	2.4GHz WLAN		0.862	5	-29	64.2	-1.84				



Case 52	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				
	CDMA BC0	Back	1.029	5	-10	-77.6	-6.13	145.5	2.04	0.02	Not required
	2.4GHz WLAN		1.009	5	36.4	60.2	-1.62				
	CDMA BC0	Back	1.029	5	-10	-77.6	-6.13	151.7	2.04	0.02	Not required
	5GHz WLAN		1.015	5	36.2	66.8	-0.87				



Case 53	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				
	CDMA BC1	Front	0.975	5	-0.9	-82.4	-1.16	149.3	1.84	0.02	Not required
	2.4GHz WLAN		0.862	5	-29	64.2	-1.84				
	CDMA BC1	Front	0.975	5	-0.9	-82.4	-1.16	159.4	1.73	0.01	Not required
	5GHz WLAN		0.758	5	-37.4	72.8	-1.3				



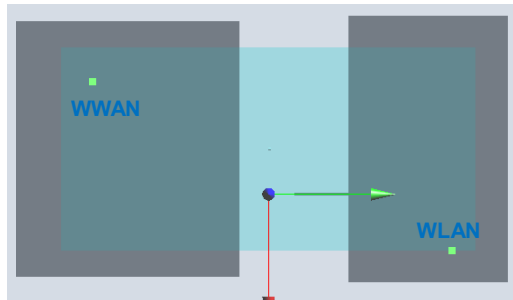
Case	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
54	CDMA BC1	Back	1.072	5	-11.9	-79.3	-1.19	147.6	2.08	0.02	Not required
	2.4GHz WLAN		1.009	5	36.4	60.2	-1.62				
	CDMA BC1	Back	1.072	5	-11.9	-79.3	-1.19	153.8	2.09	0.02	Not required
	5GHz WLAN		1.015	5	36.2	66.8	-0.87				



Case	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				
55	CDMA BC10	Back	0.966	5	-10	-76	-6.15	144.0	1.98	0.02	Not required
	2.4GHz WLAN		1.009	5	36.4	60.2	-1.62				
	CDMA BC10	Back	0.966	5	-10	-76	-6.15	150.2	1.98	0.02	Not required
	5GHz WLAN		1.015	5	36.2	66.8	-0.87				



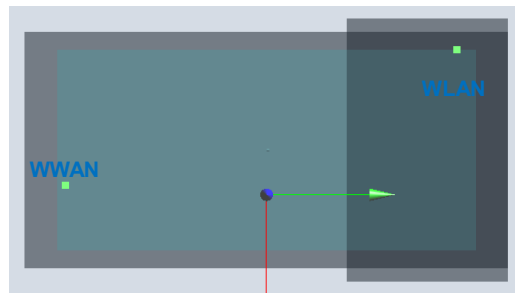
Case	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
56	LTE Band 7_Main	Back	1.095	5	-28.2	-67.2	-6.03	142.9	2.10	0.02	Not required
	2.4GHz WLAN		1.009	5	36.4	60.2	-1.62				
	LTE Band 7	Back	1.095	5	-28.2	-67.2	-6.03	148.8	2.11	0.02	Not required
	5GHz WLAN		1.015	5	36.2	66.8	-0.87				



Case	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				
57	LTE Band 7_Aux	Back	0.864	5	26.8	-60.2	0.09	120.8	1.87	0.02	Not required
	2.4GHz WLAN		1.009	5	36.4	60.2	-1.62				
	LTE Band 7	Back	0.864	5	26.8	-60.2	0.09	127.4	1.88	0.02	Not required
	5GHz WLAN		1.015	5	36.2	66.8	-0.87				



Case	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				
58	LTE Band 12	Front	0.882	5	12.5	-82	-2.17	152.0	1.74	0.02	Not required
	2.4GHz WLAN		0.862	5	-29	64.2	-1.84				
	LTE Band 12	Front	0.882	5	12.5	-82	-2.17	162.6	1.64	0.01	Not required
	5GHz WLAN		0.758	5	-37.4	72.8	-1.3				



Case	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				
59	LTE Band 12	Back	1.155	5	-12.9	-80.4	-2.25	149.0	2.16	0.02	Not required
	2.4GHz WLAN		1.009	5	36.4	60.2	-1.62				
	LTE Band 12	Back	1.155	5	-12.9	-80.4	-2.25	155.2	2.17	0.02	Not required
	5GHz WLAN		1.015	5	36.2	66.8	-0.87				

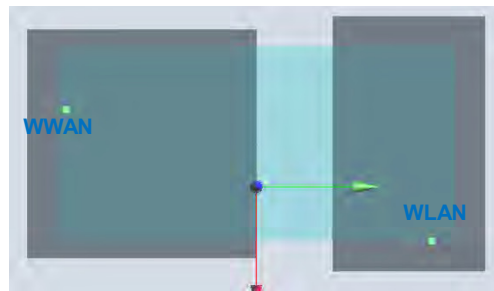




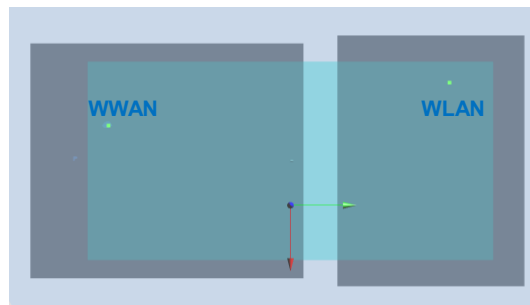
Case	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
60	LTE Band 13	Front	0.986	5	12.5	-82	-2.17	152.0	1.85	0.02	Not required
	2.4GHz WLAN		0.862	5	-29	64.2	-1.84				
	LTE Band 13	Front	0.986	5	12.5	-82	-2.17	162.6	1.74	0.01	Not required
	5GHz WLAN		0.758	5	-37.4	72.8	-1.3				



Case	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				
61	LTE Band 13	Back	1.136	5	-12.9	-80.4	-2.19	149.0	2.15	0.02	Not required
	2.4GHz WLAN		1.009	5	36.4	60.2	-1.62				
	LTE Band 13	Back	1.136	5	-12.9	-80.4	-2.19	155.2	2.15	0.02	Not required
	5GHz WLAN		1.015	5	36.2	66.8	-0.87				



Case	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				
62	LTE Band 14	Front	0.774	5	10.9	-80.5	-2.16	150.1	1.64	0.01	Not required
	2.4GHz WLAN		0.862	5	-29	64.2	-1.84				



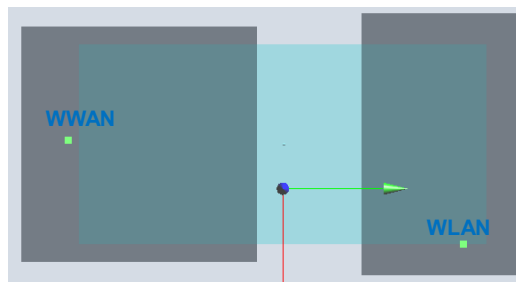
Case	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
63	LTE Band 14	Back	1.069	5	-9.6	-82	-2.22	149.5	2.08	0.02	Not required
	2.4GHz WLAN		1.009	5	36.4	60.2	-1.62				
	LTE Band 14	Back	1.069	5	-9.6	-82	-2.22	155.7	2.08	0.02	Not required
	5GHz WLAN		1.015	5	36.2	66.8	-0.87				



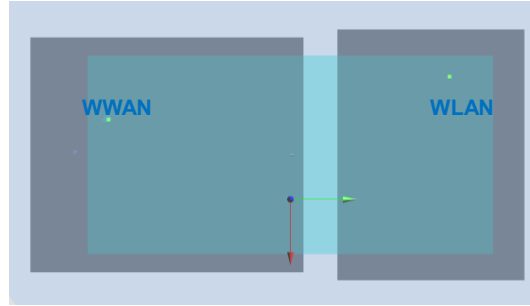
Case	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
64	LTE Band 25	Front	1.081	5	2.3	-79.5	-2.6	147.1	1.94	0.02	Not required
	2.4GHz WLAN		0.862	5	-29	64.2	-1.84				
	LTE Band 25	Front	1.081	5	2.3	-79.5	-2.6	157.4	1.84	0.02	Not required
	5GHz WLAN		0.758	5	-37.4	72.8	-1.3				



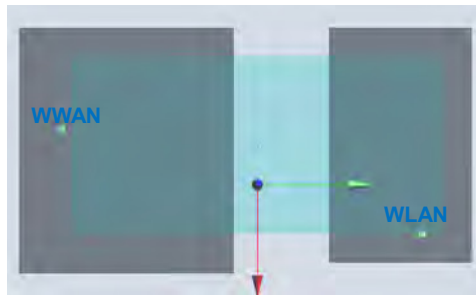
Case	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
65	LTE Band 25	Back	0.74	5	-8.9	-77.8	-2.69	145.2	1.75	0.02	Not required
	2.4GHz WLAN		1.009	5	36.4	60.2	-1.62				
	LTE Band 25	Back	0.74	5	-8.9	-77.8	-2.69	151.5	1.76	0.02	Not required
	5GHz WLAN		1.015	5	36.2	66.8	-0.87				



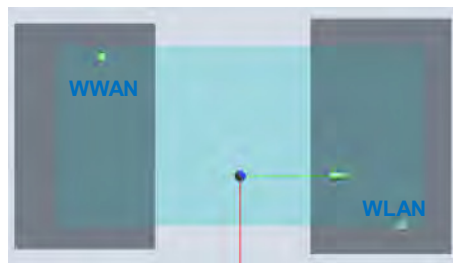
Case 66	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	LTE Band 26	Front	0.768	5	6	-79.5	-1.29	147.9	1.63	0.01	Not required
	2.4GHz WLAN		0.862	5	-29	64.2	-1.84				



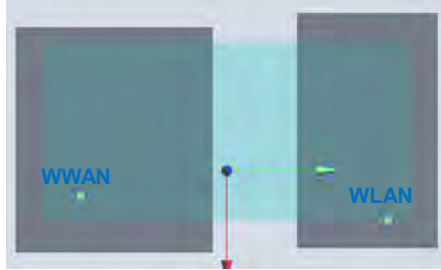
Case 67	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	LTE Band 26	Back	0.993	5	-13.9	-79.4	-1.36	148.4	1.93	0.02	Not required
	2.4GHz WLAN		1.009	5	36.4	60.2	-1.62				
	LTE Band 26	Back	0.930	5	-13.9	-79.4	-1.36	154.5	1.93	0.02	Not required
	5GHz WLAN		1.015	5	36.2	66.8	-0.87				



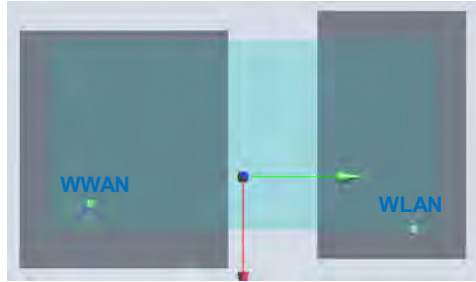
Case 68	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	LTE Band 30_Main	Back	1.067	5	-35.6	-62.8	-1.14	142.5	2.08	0.02	Not required
	2.4GHz WLAN		1.009	5	36.4	60.2	-1.62				
	LTE Band 30	Back	1.067	5	-35.6	-62.8	-1.14	148.2	2.08	0.02	Not required
	5GHz WLAN		1.015	5	36.2	66.8	-0.87				



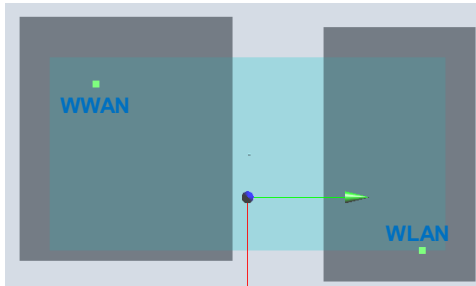
Case	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
69	LTE Band 30_Aux	Back	0.976	5	29	-64.4	-0.46	124.8	1.99	0.02	Not required
	2.4GHz WLAN		1.009	5	36.4	60.2	-1.62				
	LTE Band 30	Back	0.976	5	29	-64.4	-0.46	131.4	1.99	0.02	Not required
	5GHz WLAN		1.015	5	36.2	66.8	-0.87				



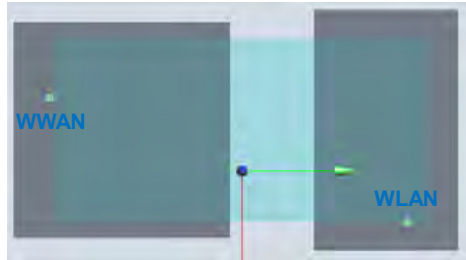
Case	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
70	LTE Band 41_Main	Back	1.117	5	-31.6	-58	-0.75	136.4	2.13	0.02	Not required
	2.4GHz WLAN		1.009	5	36.4	60.2	-1.62				
	LTE Band 41	Back	1.117	5	26.6	-60.2	0.09	127.4	2.13	0.02	Not required
	5GHz WLAN		1.015	5	36.2	66.8	-0.87				



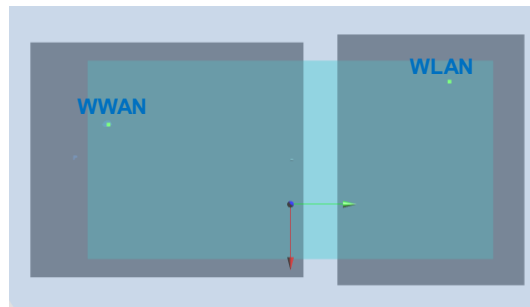
Case	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
71	LTE Band 41_Aux	Back	0	5	26.6	-60.2	0.09	120.8	1.89	0.02	120.8
	2.4GHz WLAN		1.009	5	36.4	60.2	-1.62				
	LTE Band 41	Back	0.882	5	-31.6	-58	-0.75	142.0	1.90	0.02	Not required
	5GHz WLAN		1.015	5	36.2	66.8	-0.87				



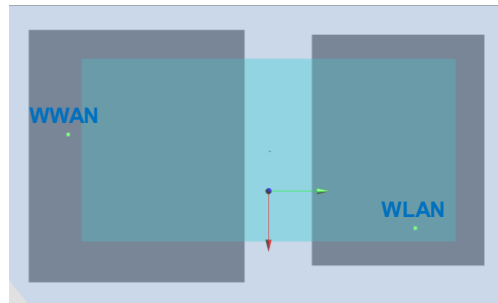
Case	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
72	LTE Band 66	Back	0.66	5	1.5	-80.6	-1.2	145.1	1.67	0.01	Not required
	2.4GHz WLAN		1.009	5	36.4	60.2	-1.62				
	LTE Band 66	Back	0.66	5	1.5	-80.6	-1.2	151.4	1.68	0.01	Not required
	5GHz WLAN		1.015	5	36.2	66.8	-0.87				



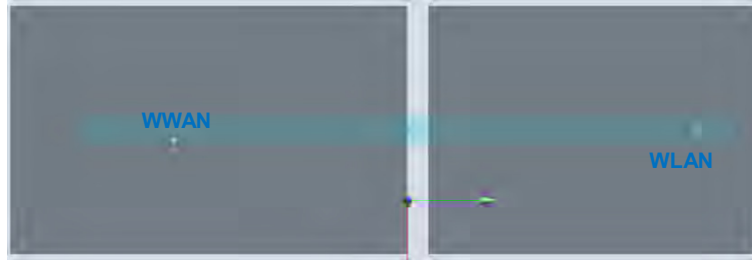
Case	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
73	LTE Band 71	Front	0.779	5	12.5	-82	-2.17	152.0	1.64	0.01	Not required
	2.4GHz WLAN		0.862	5	-29	64.2	-1.84				



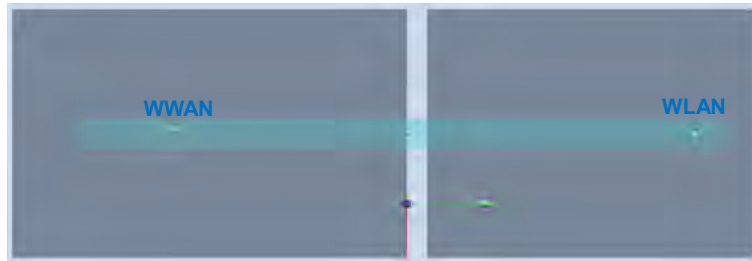
Case	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
74	LTE Band 71	Back	0.865	5	-14.5	-77.3	-2.27	146.6	1.87	0.02	Not required
	2.4GHz WLAN		1.009	5	36.4	60.2	-1.62				
	LTE Band 71	Back	0.865	5	-14.5	-77.3	-2.27	152.8	1.88	0.02	Not required
	5GHz WLAN		1.015	5	36.2	66.8	-0.87				



Case	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				
75	LTE Band 7_Aux	Left Side	2.722	0	1.4	-60.4	0.61	120.8	4.20	0.07	Not required
	2.4GHz WLAN		1.479	0	0	60.4	-1.62				
	LTE Band 7_Aux	Left Side	2.722	0	1.4	-60.4	0.61	129.0	5.59	0.10	Not required
	5GHz WLAN		2.865	0	0.6	68.6	-0.83				



Case	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				
76	LTE Band 41_Aux	Left Side	2.728	0	-1.2	-60.4	-0.54	120.8	4.21	0.07	Not required
	2.4GHz WLAN		1.479	0	0	60.4	-1.62				
	LTE Band 41_Aux	Left Side	2.728	0	-1.2	-60.4	-0.54	129.0	5.59	0.10	Not required
	5GHz WLAN		2.865	0	0.6	68.6	-0.83				





### 16. 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.

#### 16.1 Supplemental Head SAR results

Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)									
									Auto-Tune (State 116)	Default (State 14)	0	19	38	57	76	95	114	133
GSM850	GPRS (2 Tx slots)	824.2	128	N/A	N/A	Left Cheek	0 mm	0.123	0.147	0.1	0.015	0.018	0.011	0.021	0.031	0.028	0.033	0.037
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)									
									Auto-Tune (State 2)	Default (State 14)	1	20	39	58	77	96	115	134
GSM1900	GPRS (3 Tx slots)	1909.8	810	N/A	N/A	Right Cheek	0 mm	0.091	0.128		0.122	0.111	0.109	0.082	0.103	0.081	0.071	0.058
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)									
									Auto-Tune (State 2)	Default (State 123)	2	21	40	59	78	97	116	135
WCDMA B2	RMC12.2K	1907.6	9538	N/A	N/A	Right Cheek	0 mm	0.233	0.341		0.339	0.195	0.239	0.139	0.231	0.124	0.169	0.085
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)									
									Auto-Tune (State 27)	Default (State 81)	3	22	41	60	79	98	117	136
WCDMA B4	RMC12.2K	1712.4	1312	N/A	N/A	Right Cheek	0 mm	0.251	0.312		0.219	0.279	0.275	0.294	0.299	0.303	0.297	0.281
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)									
									Auto-Tune (State 119)	Default (State 33)	4	23	42	61	80	99	118	137
WCDMA B5	RMC12.2K	826.4	4132	N/A	N/A	Left Cheek	0 mm	0.298	0.342		0.026	0.033	0.023	0.045	0.151	0.279	0.322	0.319
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)									
									Auto-Tune (State 116)	Default (State 81)	5	24	43	62	81	100	119	138
CDMA BC0	1xRTT RC3 SO55	824.7	1013	N/A	N/A	Right Cheek	0 mm	0.229	0.253		0.017	0.023	0.037	0.046	0.222	0.201	0.223	0.126
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)									
									Auto-Tune (State 1)	Default (State 14)	6	25	44	63	82	101	120	139
CDMA BC1	1xRTT RC3 SO55	1908.75	1175	N/A	N/A	Right Cheek	0 mm	0.248	0.238	0.15	0.235	0.23	0.228	0.209	0.226	0.214	0.207	0.221
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)									
									Auto-Tune (State 118)	Default (State 14)	7	26	45	64	83	102	121	140
CDMA BC10	1xRTT RC3 SO55	820.5	580	N/A	N/A	Left Cheek	0 mm	0.276	0.311	0.03	0.158	0.176	0.301	0.295	0.303	0.196	0.209	0.182



Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)									
									Auto-Tune (State 38)	Default (State 33)	8	27	46	65	84	103	122	141
LTE B2	QPSK	1860	18700	1	0	Right Cheek	0 mm	0.195	0.269		0.224	0.177	0.168	0.137	0.167	0.141	0.131	0.113
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)									
									Auto-Tune (State 79)	Default (State 81)	9	28	47	66	85	104	123	142
LTE B4	QPSK	1732.5	20175	1	0	Right Cheek	0 mm	0.182	0.251		0.246	0.249	0.244	0.223	0.225	0.229	0.205	0.218
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)									
									Auto-Tune (State 117)	Default (State 14)	10	29	48	67	86	105	124	143
LTE B5	QPSK	836.5	20525	1	0	Left Cheek	0 mm	0.28	0.324		0.224	0.184	0.155	0.135	0.144	0.121	0.116	0.069
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)									
									Auto-Tune (State 34)	Default (State 14)	11	30	49	68	87	106	125	
LTE B12	QPSK	707.5	23095	1	49	Left Cheek	0 mm	0.239	0.246		0.122	0.185	0.123	0.144	0.197	0.226	0.051	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)									
									Auto-Tune (State 47)	Default (State 33)	12	31	50	69	88	107	126	
LTE B13	QPSK	782	23230	1	0	Left Cheek	0 mm	0.178	0.153		0.107	0.099	0.118	0.095	0.086	0.009	0.001	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)									
									Auto-Tune (State x)	Default (State 81)	13	32	51	70	89	108	127	
LTE B14	QPSK	793	23330	1	0	Left Cheek	0 mm	0.268	0.259		0.135	0.116	0.122	0.012	0.043	0	0	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)									
									Auto-Tune (State 34)	Default (State 14)	14	33	52	71	90	109	128	
LTE B17	QPSK	710	23790	1	0	Left Cheek	0 mm	0.25	0.258	0.01	0.195	0.242	0.183	0.031	0.001	0.001	0.001	0.002
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)									
									Auto-Tune (State x)	Default (State 14)	15	34	53	72	91	110	129	
LTE B25	QPSK	1860	26140	1	0	Right Cheek	0 mm	0.245	0.324		0.221	0.209	0.189	0.168	0.225	0.321	0.28	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)									
									Auto-Tune (State 117)	Default (State 33)	16	35	54	73	92	111	130	
LTE B26	QPSK	831.5	26865	1	0	Left Cheek	0 mm	0.269	0.287		0.08	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)									
									Auto-Tune (State x)	Default (State 81)	17	36	55	74	93	112	131	
LTE B66	QPSK	1720	132072	1	0	Left Cheek	0 mm	0.11	0.265		0.245	0.0656	0.118	0.184	0.245	0.247	0.251	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)									
									Auto-Tune (State 16)	Default (State 14)	18	37	56	75	94	113	132	
LTE B71	QPSK	683	133322	1	0	Left Cheek	0 mm	0.167	0.172		0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001





16.2 Supplemental Body SAR results

Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)								
									Auto-Tune (State 117)	0	19	38	57	76	95	114	133
GSM850	GPRS 2TX	824.2	128	N/A	N/A	Back	5mm	0.46	0.802	0.001	0.0028	0.004	0.0068	0.027	0.0324	0.0367	0.069
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)								
GSM1900	GPRS (3 Tx slots)	1909.8	810	N/A	N/A	Bottom Side	5mm	0.732	1.33	1.234	1.25	1.305	1.217	1.199	1.112	0.998	0.911
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)								
WCDMA B2	RMC12.2K	1852.4	9262	N/A	N/A	Bottom Side	5mm	0.786	1.22	1.18	1.159	1.005	0.884	0.981	0.795	0.774	0.582
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)								
WCDMA B4	RMC12.2K	1752.6	1513	N/A	N/A	Bottom Side	5mm	0.94	1.53	1.381	1.493	1.362	1.295	1.416	1.311	1.194	1.018
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)								
WCDMA B5	RMC12.2K	846.6	4233	N/A	N/A	Back	5mm	0.658	1.093	0.161	0.177	0.213	0.376	0.947	0.909	0.972	0.851
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)								
CDMA BC0	RTAP 155.6K	848.31	777	N/A	N/A	Back	5mm	0.831	1.23	0.394	0.389	0.947	0.812	0.926	0.744	0.706	0.341
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)								
CDMA BC1	RTAP 155.6K	1908.75	1175	N/A	N/A	Bottom Side	5mm	0.82	1.314	1.251	1.171	1.159	0.882	1.165	0.938	0.903	0.689
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)								
CDMA BC10	RTAP 155.6K	820.5	580	N/A	N/A	Back	5mm	0.793	1.305	0.907	0.835	1.3	1.113	1.004	0.51	0.507	0.412
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)								
LTE B2	QPSK	1860	18700	1	0	Bottom Side	5mm	0.94	1.447	1.395	1.128	1.104	0.903	1.133	0.918	0.899	0.729
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)								
LTE B4	QPSK	1732.5	20175	100	0	Bottom Side	5mm	0.565	1.13	0.96	0.88	1	0.985	1.02	1.06	1.023	0.905
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)								
LTE B5	QPSK	836.5	20525	1	0	Back	5mm	0.685	1.006	0.754	0.605	0.461	0.387	0.409	0.319	0.299	0.056
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)								
LTE B12	QPSK	707.5	23095	1	49	Back	5mm	0.872	1.438	0.769	1.216	0.798	0.975	1.31	1.428	0.097	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)								
LTE B13	QPSK	782	23230	1	0	Back	5mm	0.846	1.415	0.918	0.821	0.926	0.736	0.71	0.105	0.0002	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)								
LTE B14	QPSK	793	23330	1	0	Back	5mm	0.7	1.213	0.627	0.535	0.539	0.433	0.096	0.0006	0.001	



Mode	Service/Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)								
									Auto-Tune (State 33)	14	33	52	71	90	109	128	
LTE B17	QPSK	710	23790	1	0	Back	5mm	0.728	1.313	1.133	1.302	1.119	0.117	0.0007	0.0002	0.002	
Mode	Service/Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)								
									Auto-Tune (State 18)	15	34	53	72	91	110	129	
LTE B25	QPSK	1905	26590	50	0	Bottom Side	5mm	0.934	1.32	1.18	1.072	1.03	1.31	1.318	1.314	1.281	
Mode	Service/Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)								
									Auto-Tune (State 45)	16	35	54	73	92	111	130	
LTE B26	QPSK	831.5	26865	36	0	Back	5mm	0.646	1.041	0.375	0.101	0.001	0.005	0.009	0.014	0.019	
Mode	Service/Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)								
									Auto-Tune (State 90)	17	36	55	74	93	112	131	
LTE B66	QPSK	1770	132572	100	0	Bottom Side	5mm	0.819	1.26	1.22	1.045	1.14	1.16	1.06	1.01	1.182	
Mode	Service/Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)								
									Auto-Tune (State 34)	18	37	56	75	94	113	132	
LTE B71	QPSK	683	133322	1	0	Back	5mm	0.716	1.152	0.002	0.0003	0.004	0.006	0.016	0.007	0.016	

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### 17. Uncertainty Assessment

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

## **18. References**

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