



<WWAN Antenna 1/3 -- Full Power>

<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)	Without CA Tx. Power (dBm)
Inter-Band		CA_4A-17A	Band 4	10M	1750	20350	QPSK	1	0	Band 17	10M	740	5790	23.33	23.35
			Band 17	10M	711	23800	QPSK	1	49	Band 4	10M	2132.5	2175	23.48	23.47
		CA_25A-26A	Band 25	20M	1905	26590	QPSK	1	0	Band 26	15M	876.5	8865	22.93	23.36
			Band 26	15M	841.5	26965	QPSK	1	0	Band 25	20M	1962.5	8365	23.22	23.49
Intra-Band	Contiguous	CA_2C	Band 2	20M	1900	19100	QPSK	1	0	Band 2	20M	1960.2	902	23.31	23.23
		CA_7C	Band 7	20M	2560	21350	QPSK	1	0	Band 7	20M	2660.2	3152	22.72	22.98
		CA_38C	Band 38	20M	2580	37850	QPSK	1	0	Band 38	20M	2599.8	38048	23.15	23.08
		CA_41C	Band 41	20M	2636.5	41055	QPSK	1	0	Band 41	20M	2656.3	41253	23.04	22.91
		CA_66B	Band 66	15M	1772.5	132597	QPSK	1	0	Band 66	5M	2188.2	67218	23.21	23.34
		CA_66C	Band 66	20M	1745	132322	QPSK	1	0	Band 66	20M	2174.8	67084	23.24	23.48
	Non-Contiguous	CA_2A_2A	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1932.5	625	23.21	23.23
		CA_4A_4A	Band 4	20M	1745	20300	QPSK	1	0	Band 4	5M	2112.5	1975	23.54	23.59
		CA_7A_7A	Band 7	20M	2560	21350	QPSK	1	0	Band 7	5M	2622.5	2775	22.95	22.98
		CA_41A_41A	Band 41	20M	2636.5	41055	QPSK	1	0	Band 41	5M	2498.5	39675	22.79	22.91
		CA_66A_66A	Band 66	20M	1745	132322	QPSK	1	0	Band 66	5M	2197.5	67311	23.21	23.48

<Three Carrier power verification>

Configure	CA Configuration (BCS)	PCC							SCC1				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)	Without CA Tx. Power (dBm)
Inter-Band	CA_2A-2A-4A	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1932.5	625	Band 4	20M	2132.5	2175	23.18	23.23
		Band 4	20M	1745	20300	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	23.51	23.59
	CA_2A-4A-4A	Band 2	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 4	5M	2152.5	2375	23.33	23.23
		Band 4	20M	1745	20300	QPSK	1	0	Band 4	5M	2112.5	1975	Band 2	20M	1960	900	23.62	23.59
	CA_2A-2A-71A	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1932.5	625	Band 71	20M	637	68786	23.28	23.23
		Band 71	20M	688	133372	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	23.38	23.34
	CA_4A-4A-5A	Band 4	20M	1745	20300	QPSK	1	0	Band 4	5M	2112.5	1975	Band 5	10M	881.5	2525	23.62	23.59
		Band 5	10M	844	20600	QPSK	1	0	Band 4	20M	2132.5	2175	Band 4	5M	2152.5	2375	23.49	23.45
	CA_4A-7A-7A	Band 4	20M	1745	20300	QPSK	1	0	Band 7	20M	2655	3100	Band 7	5M	2687.5	3425	23.65	23.59
		Band 7	20M	2560	21350	QPSK	1	0	Band 7	5M	2622.5	2775	Band 4	20M	2132.5	2175	22.9	22.98
	CA_4A-4A-7A	Band 4	20M	1745	20300	QPSK	1	0	Band 4	5M	2112.5	1975	Band 7	20M	2655	3100	23.62	23.59
		Band 7	20M	2560	21350	QPSK	1	0	Band 4	20M	2132.5	2175	Band 4	5M	2152.5	2375	22.91	22.98
	CA_4A-4A-71A	Band 4	20M	1745	20300	QPSK	1	0	Band 4	5M	2112.5	1975	Band 71	20M	637	68786	23.42	23.59
		Band 71	20M	688	133372	QPSK	1	0	Band 4	20M	2132.5	2175	Band 4	5M	2152.5	2375	23.39	23.34
	CA_5A-66C	Band 5	10M	844	20600	QPSK	1	0	Band 66	20M	2155	66886	Band 66	20M	2174.8	67084	23.49	23.45
		Band 66	20M	1745	132322	QPSK	1	0	Band 66	20M	2174.8	67084	Band 5	10M	881.5	2525	23.42	23.48
	CA_12A-66A-66A	Band 12	10M	704	23060	QPSK	1	49	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	23.5	23.42
		Band 66	20M	1745	132322	QPSK	1	0	Band 66	5M	2197.5	67311	Band 12	10M	737.5	5095	23.56	23.48
	CA_66A-66A-71A	Band 66	20M	1745	132322	QPSK	1	0	Band 66	5M	2197.5	67311	Band 71	20M	637	68786	23.52	23.48
		Band 71	20M	688	133372	QPSK	1	0	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	23.54	23.34
	CA_4A-4A-12A	Band 4	20M	1745	20300	QPSK	1	0	Band 4	5M	2112.5	1975	Band 12	10M	737.5	5095	23.52	23.59
		Band 12	10M	704	23060	QPSK	1	49	Band 4	20M	2132.5	2175	Band 4	5M	2152.5	2375	23.32	23.42
	CA_66C-71A	Band 66	20M	1745	132322	QPSK	1	0	Band 66	20M	2174.8	67084	Band 71	20M	637	68786	23.4	23.48
		Band 71	20M	688	133372	QPSK	1	0	Band 66	20M	2155	66886	Band 66	20M	2174.8	67084	23.31	23.34



Configure		CA Configuration (BCS)	PCC						SCC1				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)	Without CA Tx. Power (dBm)
Inter-Band	CA_2A-4A-12A	Band 2	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 12	10M	737.5	5095	22.91	23.23	
		Band 4	20M	1745	20300	QPSK	1	0	Band 12	10M	737.5	5095	Band 2	20M	1960	900	23.65	23.59	
		Band 12	10M	704	23060	QPSK	1	49	Band 2	20M	1960	900	Band 4	20M	2132.5	2175	23.45	23.42	
	CA_2A-4A-29A	Band 2	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 29	10M	722.5	9715	22.89	23.23	
		Band 4	20M	1745	20300	QPSK	1	0	Band 29	10M	722.5	9715	Band 2	20M	1960	900	23.44	23.59	
	CA_2A-4A-71A	Band 2	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 71	20M	637	68786	22.88	23.23	
		Band 4	20M	1745	20300	QPSK	1	0	Band 71	20M	637	68786	Band 2	20M	1960	900	23.52	23.59	
		Band 71	20M	688	133372	QPSK	1	0	Band 2	20M	1960	900	Band 4	20M	2132.5	2175	23.32	23.34	
	CA_2A-4A-5A	Band 2	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 5	10M	881.5	2525	22.88	23.23	
		Band 4	20M	1745	20300	QPSK	1	0	Band 5	10M	881.5	2525	Band 2	20M	1960	900	23.44	23.59	
		Band 5	10M	844	20600	QPSK	1	0	Band 2	20M	1960	900	Band 4	20M	2132.5	2175	23.42	23.45	
	CA_2A-29A-30A	Band 2	20M	1900	19100	QPSK	1	0	Band 29	10M	722.5	9715	Band 30	10M	2355	9820	23.26	23.23	
		Band 30	10M	2310	27710	QPSK	1	0	Band 2	20M	1960	900	Band 29	10M	722.5	9715	23.39	23.33	
	CA_2A-66A-71A	Band 2	20M	1900	19100	QPSK	1	0	Band 66	20M	2155	66886	Band 71	20M	637	68786	23.41	23.23	
		Band 66	20M	1745	132322	QPSK	1	0	Band 71	20M	637	68786	Band 2	20M	1960	900	23.42	23.48	
		Band 71	20M	688	133372	QPSK	1	0	Band 2	20M	1960	900	Band 66	20M	2155	66886	23.39	23.34	
	CA_4A-5A-30A	Band 4	20M	1745	20300	QPSK	1	0	Band 5	10M	881.5	2525	Band 30	10M	2355	9820	23.5	23.59	
		Band 5	10M	844	20600	QPSK	1	0	Band 30	10M	2355	9820	Band 4	20M	2132.5	2175	23.42	23.45	
		Band 30	10M	2310	27710	QPSK	1	0	Band 4	20M	2132.5	2175	Band 5	10M	881.5	2525	23.39	23.33	
	CA_4A-7A-12A	Band 4	20M	1745	20300	QPSK	1	0	Band 7	20M	2655	3100	Band 12	10M	737.5	5095	23.58	23.59	
		Band 7	20M	2560	21350	QPSK	1	0	Band 12	10M	737.5	5095	Band 4	20M	2132.5	2175	22.98	22.98	
		Band 12	10M	704	23060	QPSK	1	49	Band 4	20M	2132.5	2175	Band 7	20M	2655	3100	23.48	23.42	
	CA_4A-12A-30A	Band 4	20M	1745	20300	QPSK	1	0	Band 12	10M	737.5	5095	Band 30	10M	2355	9820	23.62	23.59	
		Band 12	10M	704	23060	QPSK	1	49	Band 30	10M	2355	9820	Band 4	20M	2132.5	2175	23.4	23.42	
		Band 30	10M	2310	27710	QPSK	1	0	Band 4	20M	2132.5	2175	Band 12	10M	737.5	5095	22.93	22.90	
	CA_4A-29A-30A	Band 4	20M	1745	20300	QPSK	1	0	Band 29	10M	722.5	9715	Band 30	10M	2355	9820	23.5	23.59	
		Band 30	10M	2310	27710	QPSK	1	0	Band 4	20M	2132.5	2175	Band 29	10M	722.5	9715	23.89	22.90	
	CA_12A-30A-66A	Band 12	10M	704	23060	QPSK	1	49	Band 30	10M	2355	9820	Band 66	20M	2155	66886	23.4	23.42	
		Band 30	10M	2310	27710	QPSK	1	0	Band 66	20M	2155	66886	Band 12	10M	737.5	5095	23.01	22.90	
		Band 66	20M	1745	132322	QPSK	1	0	Band 12	10M	737.5	5095	Band 30	10M	2355	9820	23.42	23.48	
Intra-Band	Contiguous	CA_41D	Band 41	20M	2636.5	41055	QPSK	1	0	Band 41	20M	2656.3	41253	Band 41	20M	2676.1	41451	22.98	22.91
		Non-Contiguous	CA_41A-41C	Band 41	20M	2636.5	41055	QPSK	1	0	Band 41	5M	2498.5	39675	Band 41	20M	2510.2	39792	22.99
	Band 41			20M	2636.5	41055	QPSK	1	0	Band 41	20M	2656.3	41253	Band 41	5M	2498.5	39675	23.02	22.91
	CA_66A-66C		Band 66	20M	1745	132322	QPSK	1	0	Band 66	5M	2197.5	67311	Band 66	20M	2185.8	67194	23.32	23.48
		Band 66	20M	1745	132322	QPSK	1	0	Band 66	20M	2174.8	67084	Band 66	5M	2197.5	67311	23.30	23.48	



<Four Carrier power verification>

Configure	CA Configuration (BCS)	PCC							SCC1				SCC2				SCC3				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	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx. Power (dBm)	Without CA Tx. Power (dBm)
Inter-Band	CA_2A-2A-66A-66A	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1932.5	625	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	23.2	23.23
		Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1932.5	625	Band 66	5M	2197.5	67311	23.46	23.48
	CA_2A-2A-66C	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1932.5	625	Band 66	20M	2155	66886	Band 66	20M	2174.8	67084	23.2	23.23
		Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1932.5	625	Band 66	20M	2174.8	67084	23.45	23.48
	CA_2A-4A-7A-7A	Band 2	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 7	20M	2655	3100	Band 7	5M	2687.5	3425	23.2	23.23
		Band 4	20M	1745	20300	QPSK	1	0	Band 2	20M	1960	900	Band 7	20M	2655	3100	Band 7	5M	2687.5	3425	23.55	23.59
		Band 7	20M	2560	21350	QPSK	1	0	Band 2	20M	1960	900	Band 4	20M	2132.5	2175	Band 7	5M	2622.5	2775	22.98	22.98
	CA_2A-5A-66A-66A	Band 2	20M	1900	19100	QPSK	1	0	Band 5	10M	881.5	2525	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	23.21	23.23
		Band 5	10M	844	20600	QPSK	1	0	Band 2	20M	1960	900	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	23.44	23.45
	CA_2A-5A-66A-66A	Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 5	10M	881.5	2525	Band 66	5M	2197.5	67311	23.46	23.48
		Band 2	20M	1900	19100	QPSK	1	0	Band 12	10M	737.5	5095	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	23.2	23.23
	CA_2A-12A-66A-66A	Band 12	10M	704	23060	QPSK	1	49	Band 2	20M	1960	900	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	23.39	23.42
		Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 12	10M	737.5	5095	Band 66	5M	2197.5	67311	23.42	23.48
	CA_5A-30A-66A-66A	Band 5	10M	844	20600	QPSK	1	0	Band 30	10M	2355	9820	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	23.45	23.45
		Band 30	10M	2310	27710	QPSK	1	0	Band 5	10M	881.5	2525	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	23.3	23.33
		Band 66	20M	1745	132322	QPSK	1	0	Band 5	10M	881.5	2525	Band 30	10M	2355	9820	Band 66	5M	2197.5	67311	23.47	23.48
	CA_2A-12A-66C	Band 2	20M	1900	19100	QPSK	1	0	Band 12	10M	737.5	5095	Band 66	20M	2155	66886	Band 66	20M	2174.8	67084	23.22	23.23
		Band 12	10M	704	23060	QPSK	1	49	Band 2	20M	1960	900	Band 66	20M	2155	66886	Band 66	20M	2174.8	67084	23.42	23.42
		Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 12	10M	737.5	5095	Band 66	20M	2174.8	67084	23.46	23.48
	CA_2A-2A-12A-30A	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1932.5	625	Band 12	10M	737.5	5095	Band 30	10M	2355	9820	23.19	23.23
		Band 12	10M	704	23060	QPSK	1	49	Band 2	20M	1960	900	Band 2	5M	1932.5	625	Band 30	10M	2355	9820	23.38	23.42
		Band 30	10M	2310	27710	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1932.5	625	Band 12	10M	737.5	5095	23.3	23.33
	CA_2A-2A-12A-66A	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1932.5	625	Band 12	10M	737.5	5095	Band 66	20M	2155	66886	23.2	23.23
		Band 12	10M	704	23060	QPSK	1	49	Band 2	20M	1960	900	Band 2	5M	1932.5	625	Band 66	20M	2155	66886	23.41	23.42
		Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1932.5	625	Band 12	10M	737.5	5095	23.43	23.48
	CA_2A-2A-5A-30A	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1932.5	625	Band 5	10M	881.5	2525	Band 30	10M	2355	9820	23.2	23.23
		Band 5	10M	844	20600	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1932.5	625	Band 30	10M	2355	9820	23.39	23.45
		Band 30	10M	2310	27710	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1932.5	625	Band 5	10M	881.5	2525	23.3	23.33
	CA_2A-5A-30A-66A	Band 2	20M	1900	19100	QPSK	1	0	Band 5	10M	881.5	2525	Band 30	10M	2355	9820	Band 66	20M	2155	66886	23.2	23.23
		Band 5	10M	844	20600	QPSK	1	0	Band 2	20M	1960	900	Band 30	10M	2355	9820	Band 66	20M	2155	66886	23.4	23.45
		Band 30	10M	2310	27710	QPSK	1	0	Band 2	20M	1960	900	Band 5	10M	881.5	2525	Band 66	20M	2155	66886	23.33	23.33
	CA_2A-12A-30A-66A	Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 5	10M	881.5	2525	Band 30	10M	2355	9820	23.45	23.48
		Band 2	20M	1900	19100	QPSK	1	0	Band 12	10M	737.5	5095	Band 30	10M	2355	9820	Band 66	20M	2155	66886	23.21	23.23
		Band 12	10M	704	23060	QPSK	1	49	Band 2	20M	1960	900	Band 30	10M	2355	9820	Band 66	20M	2155	66886	23.41	23.42
		Band 30	10M	2310	27710	QPSK	1	0	Band 2	20M	1960	900	Band 12	10M	737.5	5095	Band 66	20M	2155	66886	23.32	23.33
		Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 12	10M	737.5	5095	Band 30	10M	2355	9820	23.46	23.48

<WWAN Antenna 2/3 -- Full Power>

<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)	Without CA Tx. Power (dBm)
Inter-Band		CA_4A-17A	Band 4	10M	1750	20350	QPSK	1	0	Band 17	10M	740	5790	22.75	22.65
			Band 17	10M	711	23800	QPSK	1	49	Band 4	10M	2132.5	2175	22.08	22.88
		CA_25A-26A	Band 25	20M	1905	26590	QPSK	1	0	Band 26	15M	876.5	8865	22.59	22.64
			Band 26	15M	841.5	26965	QPSK	1	0	Band 25	20M	1962.5	8365	23.16	23.33
Intra-Band	Contiguous	CA_2C	Band 2	20M	1900	19100	QPSK	1	0	Band 2	20M	1960.2	902	22.74	22.65
		CA_7C	Band 7	20M	2560	21350	QPSK	1	0	Band 7	20M	2660.2	3152	22.72	22.98
		CA_38C	Band 38	20M	2580	37850	QPSK	1	0	Band 38	20M	2599.8	38048	23.15	23.08
		CA_41C	Band 41	20M	2636.5	41055	QPSK	1	0	Band 41	20M	2656.3	41253	23.04	22.91
		CA_66B	Band 66	15M	1745	132322	QPSK	1	0	Band 66	5M	2164.3	66979	22.67	22.75
		CA_66C	Band 66	20M	1745	132322	QPSK	1	0	Band 66	20M	2174.8	67084	22.81	22.78
	Non-Contiguous	CA_2A_2A	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1932.5	625	22.75	22.65
		CA_4A_4A	Band 4	20M	1745	20300	QPSK	1	0	Band 4	5M	2112.5	1975	22.72	22.77
		CA_7A_7A	Band 7	20M	2560	21350	QPSK	1	0	Band 7	5M	2622.5	2775	22.95	22.98
		CA_41A_41A	Band 41	20M	2636.5	41055	QPSK	1	0	Band 41	5M	2498.5	39675	22.79	22.91
		CA_66A_66A	Band 66	20M	1745	132322	QPSK	1	0	Band 66	5M	2197.5	67311	22.73	22.78

<Three Carrier power verification>

Configure	CA Configuration (BCS)	PCC							SCC1				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)	Without CA Tx. Power (dBm)
Inter-Band	CA_2A-2A-4A	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1932.5	625	Band 4	20M	2132.5	2175	22.79	22.65
		Band 4	20M	1745	20300	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	22.89	22.77
	CA_2A-4A-4A	Band 2	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 4	5M	2152.5	2375	22.73	22.65
		Band 4	20M	1745	20300	QPSK	1	0	Band 4	5M	2112.5	1975	Band 2	20M	1960	900	22.81	22.77
	CA_2A-2A-71A	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1932.5	625	Band 71	20M	637	68786	22.72	22.65
		Band 71	20M	688	133372	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1987.5	1175	23.2	23.16
	CA_4A-4A-5A	Band 4	20M	1745	20300	QPSK	1	0	Band 4	5M	2112.5	1975	Band 5	10M	881.5	2525	22.83	22.77
		Band 5	10M	844	20600	QPSK	1	0	Band 4	20M	2132.5	2175	Band 4	5M	2152.5	2375	23.11	23
	CA_4A-7A-7A	Band 4	20M	1745	20300	QPSK	1	0	Band 7	20M	2655	3100	Band 7	5M	2687.5	3425	22.75	22.77
		Band 7	20M	2560	21350	QPSK	1	0	Band 7	5M	2622.5	2775	Band 4	20M	2132.5	2175	22.95	22.98
	CA_4A-4A-7A	Band 4	20M	1745	20300	QPSK	1	0	Band 4	5M	2112.5	1975	Band 7	20M	2655	3100	22.83	22.77
		Band 7	20M	2560	21350	QPSK	1	0	Band 4	20M	2132.5	2175	Band 4	5M	2152.5	2375	23.03	22.98
	CA_4A-4A-71A	Band 4	20M	1745	20300	QPSK	1	0	Band 4	5M	2112.5	1975	Band 71	20M	637	68786	22.83	22.77
		Band 71	20M	688	133372	QPSK	1	0	Band 4	20M	2132.5	2175	Band 4	5M	2152.5	2375	23.25	23.16
	CA_5A-66C	Band 5	10M	844	20600	QPSK	1	0	Band 66	20M	2155	66886	Band 66	20M	2174.8	67084	23.05	23
		Band 66	20M	1745	132322	QPSK	1	0	Band 66	20M	2174.8	67084	Band 5	10M	881.5	2525	22.86	22.78
	CA_12A-66A-66A	Band 12	10M	704	23060	QPSK	1	49	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	23.11	23.01
		Band 66	20M	1745	132322	QPSK	1	0	Band 66	5M	2197.5	67311	Band 12	10M	737.5	5095	22.85	22.78
	CA_66A-66A-71A	Band 66	20M	1745	132322	QPSK	1	0	Band 66	5M	2197.5	67311	Band 71	20M	637	68786	22.84	22.78
		Band 71	20M	688	133372	QPSK	1	0	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	23.25	23.16
	CA_4A-4A-12A	Band 4	20M	1745	20300	QPSK	1	0	Band 4	5M	2112.5	1975	Band 12	10M	737.5	5095	22.84	22.77
		Band 12	10M	704	23060	QPSK	1	49	Band 4	20M	2132.5	2175	Band 4	5M	2152.5	2375	23.11	23.01
	CA_66C-71A	Band 66	20M	1745	132322	QPSK	1	0	Band 66	20M	2174.8	67084	Band 71	20M	637	68786	22.88	22.78
		Band 71	20M	688	133372	QPSK	1	0	Band 66	20M	2155	66886	Band 66	20M	2174.8	67084	23.23	23.16



Configure		CA Configuration (BCS)	PCC						SCC1				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)	Without CA Tx. Power (dBm)
Inter-Band	CA_2A-4A-12A	Band 2	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 12	10M	737.5	5095	22.75	22.65	
		Band 4	20M	1745	20300	QPSK	1	0	Band 12	10M	737.5	5095	Band 2	20M	1960	900	22.81	22.77	
		Band 12	10M	704	23060	QPSK	1	49	Band 2	20M	1960	900	Band 4	20M	2132.5	2175	23.07	23.01	
	CA_2A-4A-29A	Band 2	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 29	10M	722.5	9715	22.71	22.65	
		Band 4	20M	1745	20300	QPSK	1	0	Band 29	10M	722.5	9715	Band 2	20M	1960	900	22.81	22.77	
	CA_2A-4A-71A	Band 2	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 71	20M	637	68786	22.83	22.65	
		Band 4	20M	1745	20300	QPSK	1	0	Band 71	20M	637	68786	Band 2	20M	1960	900	22.82	22.77	
		Band 71	20M	688	133372	QPSK	1	0	Band 2	20M	1960	900	Band 4	20M	2132.5	2175	23.09	23.16	
	CA_2A-4A-5A	Band 2	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 5	10M	881.5	2525	22.73	22.65	
		Band 4	20M	1745	20300	QPSK	1	0	Band 5	10M	881.5	2525	Band 2	20M	1960	900	22.86	22.77	
		Band 5	10M	844	20600	QPSK	1	0	Band 2	20M	1960	900	Band 4	20M	2132.5	2175	22.89	23	
	CA_2A-29A-30A	Band 2	20M	1900	19100	QPSK	1	0	Band 29	10M	722.5	9715	Band 30	10M	2355	9820	22.71	22.65	
		Band 30	10M	2310	27710	QPSK	1	0	Band 2	20M	1960	900	Band 29	10M	722.5	9715	22.91	22.90	
	CA_2A-66A-71A	Band 2	20M	1900	19100	QPSK	1	0	Band 66	20M	2155	66886	Band 71	20M	637	68786	22.73	22.65	
		Band 66	20M	1745	132322	QPSK	1	0	Band 71	20M	637	68786	Band 2	20M	1960	900	22.81	22.78	
		Band 71	20M	688	133372	QPSK	1	0	Band 2	20M	1960	900	Band 66	20M	2155	66886	23.23	23.16	
	CA_4A-5A-30A	Band 4	20M	1745	20300	QPSK	1	0	Band 5	10M	881.5	2525	Band 30	10M	2355	9820	22.83	22.77	
		Band 5	10M	844	20600	QPSK	1	0	Band 30	10M	2355	9820	Band 4	20M	2132.5	2175	23.05	23	
		Band 30	10M	2310	27710	QPSK	1	0	Band 4	20M	2132.5	2175	Band 5	10M	881.5	2525	22.88	22.90	
	CA_4A-7A-12A	Band 4	20M	1745	20300	QPSK	1	0	Band 7	20M	2655	3100	Band 12	10M	737.5	5095	22.86	22.77	
		Band 7	20M	2560	21350	QPSK	1	0	Band 12	10M	737.5	5095	Band 4	20M	2132.5	2175	22.99	22.98	
		Band 12	10M	704	23060	QPSK	1	49	Band 4	20M	2132.5	2175	Band 7	20M	2655	3100	23.12	23.01	
	CA_4A-12A-30A	Band 4	20M	1745	20300	QPSK	1	0	Band 12	10M	737.5	5095	Band 30	10M	2355	9820	22.83	22.77	
		Band 12	10M	704	23060	QPSK	1	49	Band 30	10M	2355	9820	Band 4	20M	2132.5	2175	23.12	23.01	
		Band 30	10M	2310	27710	QPSK	1	0	Band 4	20M	2132.5	2175	Band 12	10M	737.5	5095	22.95	22.90	
	CA_4A-29A-30A	Band 4	20M	1745	20300	QPSK	1	0	Band 29	10M	722.5	9715	Band 30	10M	2355	9820	22.86	22.77	
		Band 30	10M	2310	27710	QPSK	1	0	Band 4	20M	2132.5	2175	Band 29	10M	722.5	9715	22.91	22.90	
	CA_12A-30A-66A	Band 12	10M	704	23060	QPSK	1	49	Band 30	10M	2355	9820	Band 66	20M	2155	66886	23.05	23.01	
		Band 30	10M	2310	27710	QPSK	1	0	Band 66	20M	2155	66886	Band 12	10M	737.5	5095	23.01	22.9	
		Band 66	20M	1745	132322	QPSK	1	0	Band 12	10M	737.5	5095	Band 30	10M	2355	9820	22.83	22.78	
Intra-Band	Contiguous	CA_41D	Band 41	20M	2636.5	41055	QPSK	1	0	Band 41	20M	2656.3	41253	Band 41	20M	2676.1	41451	22.98	22.91
		CA_41A-41C	Band 41	20M	2636.5	41055	QPSK	1	0	Band 41	5M	2498.5	39675	Band 41	20M	2510.2	39792	22.99	22.91
			Band 41	20M	2636.5	41055	QPSK	1	0	Band 41	20M	2656.3	41253	Band 41	5M	2498.5	39675	23.02	22.91
			CA_66A-66C	Band 66	20M	1745	132322	QPSK	1	0	Band 66	5M	2197.5	67311	Band 66	20M	2185.8	67194	22.81
		Band 66		20M	1745	132322	QPSK	1	0	Band 66	20M	2174.8	67084	Band 66	5M	2197.5	67311	22.78	22.78



<Four Carrier power verification>

Configure	CA Configuration (BCS)	PCC							SCC1				SCC2				SCC3				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	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx. Power (dBm)	Without CA Tx. Power (dBm)
Inter-Band	CA_2A-2A-66A-66A	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1932.5	625	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	22.63	22.65
		Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1932.5	625	Band 66	5M	2197.5	67311	22.75	22.78
	CA_2A-2A-66C	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1932.5	625	Band 66	20M	2155	66886	Band 66	20M	2174.8	67084	22.65	22.65
		Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1932.5	625	Band 66	20M	2174.8	67084	22.77	22.78
	CA_2A-4A-7A-7A	Band 2	20M	1900	19100	QPSK	1	0	Band 4	20M	2132.5	2175	Band 7	20M	2655	3100	Band 7	5M	2687.5	3425	22.64	22.65
		Band 4	20M	1745	20300	QPSK	1	0	Band 2	20M	1960	900	Band 7	20M	2655	3100	Band 7	5M	2687.5	3425	22.74	22.77
		Band 7	20M	2560	21350	QPSK	1	0	Band 2	20M	1960	900	Band 4	20M	2132.5	2175	Band 7	5M	2622.5	2775	22.95	22.98
	CA_2A-5A-66A-66A	Band 2	20M	1900	19100	QPSK	1	0	Band 5	10M	881.5	2525	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	22.64	22.65
		Band 5	10M	844	20600	QPSK	1	0	Band 2	20M	1960	900	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	23	23
	CA_2A-5A-66A-66A	Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 5	10M	881.5	2525	Band 66	5M	2197.5	67311	22.78	22.78
		Band 2	20M	1900	19100	QPSK	1	0	Band 12	10M	737.5	5095	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	22.64	22.65
	CA_2A-12A-66A-66A	Band 12	10M	704	23060	QPSK	1	49	Band 2	20M	1960	900	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	23	23.01
		Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 12	10M	737.5	5095	Band 66	5M	2197.5	67311	22.76	22.78
	CA_5A-30A-66A-66A	Band 5	10M	844	20600	QPSK	1	0	Band 30	10M	2355	9820	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	23	23
		Band 30	10M	2310	27710	QPSK	1	0	Band 5	10M	881.5	2525	Band 66	20M	2155	66886	Band 66	5M	2197.5	67311	23.32	23.33
		Band 66	20M	1745	132322	QPSK	1	0	Band 5	10M	881.5	2525	Band 30	10M	2355	9820	Band 66	5M	2197.5	67311	22.76	22.78
	CA_2A-12A-66C	Band 2	20M	1900	19100	QPSK	1	0	Band 12	10M	737.5	5095	Band 66	20M	2155	66886	Band 66	20M	2174.8	67084	22.63	22.65
		Band 12	10M	704	23060	QPSK	1	49	Band 2	20M	1960	900	Band 66	20M	2155	66886	Band 66	20M	2174.8	67084	23	23.01
		Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 12	10M	737.5	5095	Band 66	20M	2174.8	67084	22.75	22.78
	CA_2A-2A-12A-30A	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1932.5	625	Band 12	10M	737.5	5095	Band 30	10M	2355	9820	22.64	22.65
		Band 12	10M	704	23060	QPSK	1	49	Band 2	20M	1960	900	Band 2	5M	1932.5	625	Band 30	10M	2355	9820	23	23.01
		Band 30	10M	2310	27710	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1932.5	625	Band 12	10M	737.5	5095	23.3	23.33
	CA_2A-2A-12A-66A	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1932.5	625	Band 12	10M	737.5	5095	Band 66	20M	2155	66886	22.63	22.65
		Band 12	10M	704	23060	QPSK	1	49	Band 2	20M	1960	900	Band 2	5M	1932.5	625	Band 66	20M	2155	66886	22.98	23.01
		Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1932.5	625	Band 12	10M	737.5	5095	22.75	22.78
	CA_2A-2A-5A-30A	Band 2	20M	1900	19100	QPSK	1	0	Band 2	5M	1932.5	625	Band 5	10M	881.5	2525	Band 30	10M	2355	9820	22.65	22.65
		Band 5	10M	844	20600	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1932.5	625	Band 30	10M	2355	9820	23	23
		Band 30	10M	2310	27710	QPSK	1	0	Band 2	20M	1960	900	Band 2	5M	1932.5	625	Band 5	10M	881.5	2525	23.32	23.33
	CA_2A-5A-30A-66A	Band 2	20M	1900	19100	QPSK	1	0	Band 5	10M	881.5	2525	Band 30	10M	2355	9820	Band 66	20M	2155	66886	22.63	22.65
		Band 5	10M	844	20600	QPSK	1	0	Band 2	20M	1960	900	Band 30	10M	2355	9820	Band 66	20M	2155	66886	22.98	23
		Band 30	10M	2310	27710	QPSK	1	0	Band 2	20M	1960	900	Band 5	10M	881.5	2525	Band 30	10M	2355	9820	22.75	22.78
	CA_2A-12A-30A-66A	Band 2	20M	1900	19100	QPSK	1	0	Band 12	10M	737.5	5095	Band 30	10M	2355	9820	Band 66	20M	2155	66886	22.64	22.65
		Band 12	10M	704	23060	QPSK	1	49	Band 2	20M	1960	900	Band 30	10M	2355	9820	Band 66	20M	2155	66886	23	23.01
		Band 30	10M	2310	27710	QPSK	1	0	Band 2	20M	1960	900	Band 12	10M	737.5	5095	Band 66	20M	2155	66886	23.3	23.33
		Band 66	20M	1745	132322	QPSK	1	0	Band 2	20M	1960	900	Band 12	10M	737.5	5095	Band 30	10M	2355	9820	22.75	22.78

LTE Carrier Aggregation 4x4 DL MIMO Conducted Power (Downlink)

1. This device supports downlink 4x4 MIMO operations. Uplink transmission is limited to a single output stream. Power measurements were performed with downlink 4x4 MIMO active for the configuration with highest measured maximum conducted power with 4x4 downlink MIMO inactive measured among the channel bandwidth, modulation, and RB combinations in each frequency band. Per FCC Guidance, SAR for downlink 4x4 MIMO was not needed since the maximum average output power in 4x4 downlink MIMO mode was not > 0.25 dB higher than the maximum output power with downlink 4x4 MIMO inactive. When carrier aggregation is applicable, power measurements were performed with the downlink carrier aggregation and 4x4 DL MIMO active for the configuration with highest measured maximum conducted power with downlink carrier aggregation inactive measured among the channel bandwidth, modulation, and RB combinations in each frequency band.
2. Only the conducted powers of downlink 4x4 MIMO which were boldface marked were reported.

<Inter-Band Carrier Combination>

2 bands / 2 CC	2 bands / 3 CC	3 bands / 3 CC
CA_4A4-2A2	CA_4A4-2A2-2A2	CA_4A4-2A2-5A2
CA_4A4-5A2	CA_4A4-4A2-5A2	
CA_4A4-7A2	CA_4A4-2A2-4A2	
		CA_4A4-2A2-12A2
CA_4A4-29A2		CA_4A4-2A2-29A2
CA_4A4-71A2	CA_4A4-4A2-71A2	CA_4A4-2A2-71A2
CA_2A4-4A2		CA_2A4-4A2-5A2
	CA_2A4-4A2-4A2	CA_2A4-4A2-29A2
	CA_2A4-2A2-4A2	CA_2A4-4A2-71A2
		CA_2A4-4A2-12A2
CA_2A4-5A2		CA_2A4-5A2-66A2
CA_7A4-2A2	CA_7A4-7A2-2A2	
CA_2A4-12A2	CA_2A4-2A2-12A2	CA_2A4-12A2-66A2
CA_2A4-29A2		
CA_66A4-2A2	CA_66A4-66A2-2A2	CA_66A4-2A2-5A2
	CA_66A4-2A2-2A2	CA_66A4-2A2-12A2
		CA_66A4-2A2-71A2
CA_2A4-66A2	CA_2A4-66A2-66A2	CA_2A4-66A2-71A2
	CA_2A4-2A2-66A2	
CA_2A4-71A2	CA_2A4-2A2-71A2	
CA_7A4-4A2		CA_7A4-7A2-4A2
CA_7A4-12A2		CA_7A4-12A2-4A2
		CA_4A4-7A2-7A2
CA_4A4-12A2	CA_4A4-4A2-12A2	CA_4A4-7A2-12A2
CA_66A4-5A2	CA_66A4-66A-5A2	
CA_66A4-12A2	CA_66A4-66A-12A2	
CA_66A4-71A2	CA_66A4-66A2-71A2	
CA_2A4-66A4		
CA_2A4-4A4		
CA_4A4-17A2		
	CA_2A4-66C2	
	CA_66C4-2A2	
	CA_66C4-5A2	
	CA_66C4-12A2	
	CA_41A4-41C2	
	CA_41C4-41A2	
	CA_66C4-71A2	
	CA_66A4-66C2	
	CA_66C4-66A2	

<Intra-Band Carrier Combination>

Contiguous	Non-Contiguous
CA_2C4	CA_2A4-2A2
CA_7C4	CA_2A4-2A4
CA_38C4	CA_4A4-4A2
CA_41C4	CA_4A4-4A4
CA_66B4	CA_7A4-7A2
CA_66C4	CA_7A4-7A4
	CA_41A4-41A2
	CA_41A4-41A4
	CA_66A4-66A2
	CA_66A4-66A4

<WWAN Antenna 1/3 -- Full Power>

<Two Carrier with 4x4 Downlink MIMO power verification>

Configure		CA MIMO Configuration (BCS)	PCC							SCC					Power		
			LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	DL Antenna Configuration	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	DL Antenna Configuration	With CA MIMO Tx. Power (dBm)	Without CA MIMO Tx. Power (dBm)
Inter-Band		CA_2A4-66A4	Band 2	20M	1900	19100	QPSK	1	0	4x4MIMO	Band 66	20M	2155	66886	4x4MIMO	23.09	23.23
		CA_2A4-4A4	Band 2	20M	1900	19100	QPSK	1	0	4x4MIMO	Band 4	20M	2132.5	2175	4x4MIMO	23.08	23.23
		CA_4A4-17A2	Band 4	10M	1750	20350	QPSK	1	0	4x4MIMO	Band 17	10M	740	5790	2x2MIMO	23.33	23.35
Intra-Band	Contiguous	CA_2C4	Band 2	20M	1900	19100	QPSK	1	0	4x4MIMO	Band 2	20M	1960.2	902	4x4MIMO	23.21	23.23
		CA_7C4	Band 7	20M	2560	21350	QPSK	1	0	4x4MIMO	Band 7	20M	2660.2	3152	4x4MIMO	22.71	22.98
		CA_38C4	Band 38	20M	2580	37850	QPSK	1	0	4x4MIMO	Band 38	20M	2599.8	38048	4x4MIMO	23.09	23.08
		CA_41C4	Band 41	20M	2636.5	41055	QPSK	1	0	4x4MIMO	Band 41	20M	2656.3	41253	4x4MIMO	23.02	22.91
		CA_66B4	Band 66	15M	1772.5	132597	QPSK	1	0	4x4MIMO	Band 66	5M	2188.2	67218	4x4MIMO	23.13	23.34
		CA_66C4	Band 66	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	20M	2174.8	67084	4x4MIMO	23.20	23.48
	Non-Contiguous	CA_2A4_2A2	Band 2	20M	1900	19100	QPSK	1	0	4x4MIMO	Band 2	5M	1932.5	625	2x2MIMO	23.30	23.23
		CA_2A4_2A4	Band 2	20M	1900	19100	QPSK	1	0	4x4MIMO	Band 2	5M	1932.5	625	4x4MIMO	23.19	23.23
		CA_4A4_4A2	Band 4	20M	1745	20300	QPSK	1	0	4x4MIMO	Band 4	5M	2112.5	1975	2x2MIMO	23.55	23.59
		CA_4A4_4A4	Band 4	20M	1745	20300	QPSK	1	0	4x4MIMO	Band 4	5M	2112.5	1975	4x4MIMO	23.57	23.59
		CA_7A4_7A2	Band 7	20M	2560	21350	QPSK	1	0	4x4MIMO	Band 7	5M	2622.5	2775	2x2MIMO	22.87	22.98
		CA_7A4_7A4	Band 7	20M	2560	21350	QPSK	1	0	4x4MIMO	Band 7	5M	2622.5	2775	4x4MIMO	22.71	22.98
		CA_41A4_41A2	Band 41	20M	2636.5	41055	QPSK	1	0	4x4MIMO	Band 41	5M	2498.5	39675	2x2MIMO	22.96	22.91
		CA_41A4_41A4	Band 41	20M	2636.5	41055	QPSK	1	0	4x4MIMO	Band 41	5M	2498.5	39675	4x4MIMO	23.02	22.91
		CA_66A4_66A2	Band 66	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	5M	2197.5	67311	2x2MIMO	23.35	23.48
		CA_66A4_66A4	Band 66	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	5M	2197.5	67311	4x4MIMO	23.13	23.48

<WWAN Antenna 2/3 -- Full Power>

<Two Carrier with 4x4 Downlink MIMO power verification>

Configure		CA MIMO Configuration (BCS)	PCC							SCC					Power		
			LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	DL Antenna Configuration	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	DL Antenna Configuration	With CA MIMO Tx. Power (dBm)	Without CA MIMO Tx. Power (dBm)
Inter-Band		CA_2A4-66A4	Band 2	20M	1900	19100	QPSK	1	0	4x4MIMO	Band 66	20M	2155	66886	4x4MIMO	22.63	22.65
		CA_2A4-4A4	Band 2	20M	1900	19100	QPSK	1	0	4x4MIMO	Band 4	20M	2132.5	2175	4x4MIMO	22.63	22.65
		CA_4A4-17A2	Band 4	10M	1750	20350	QPSK	1	0	4x4MIMO	Band 17	10M	740	5790	2x2MIMO	22.74	22.65
Intra-Band	Contiguous	CA_2C4	Band 2	20M	1900	19100	QPSK	1	0	4x4MIMO	Band 2	20M	1960.2	902	4x4MIMO	22.63	22.65
		CA_7C4	Band 7	20M	2560	21350	QPSK	1	0	4x4MIMO	Band 7	20M	2660.2	3152	4x4MIMO	22.71	22.98
		CA_38C4	Band 38	20M	2580	37850	QPSK	1	0	4x4MIMO	Band 38	20M	2599.8	38048	4x4MIMO	23.09	23.08
		CA_41C4	Band 41	20M	2636.5	41055	QPSK	1	0	4x4MIMO	Band 41	20M	2656.3	41253	4x4MIMO	23.02	22.91
		CA_66B4	Band 66	15M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	5M	2164.3	66979	4x4MIMO	22.66	22.75
		CA_66C4	Band 66	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	20M	2174.8	67084	4x4MIMO	22.77	22.78
	Non-Contiguous	CA_2A4_2A2	Band 2	20M	1900	19100	QPSK	1	0	4x4MIMO	Band 2	5M	1932.5	625	2x2MIMO	22.63	22.65
		CA_2A4_2A4	Band 2	20M	1900	19100	QPSK	1	0	4x4MIMO	Band 2	5M	1932.5	625	4x4MIMO	22.59	22.65
		CA_4A4_4A2	Band 4	20M	1745	20300	QPSK	1	0	4x4MIMO	Band 4	5M	2112.5	1975	2x2MIMO	22.89	22.91
		CA_4A4_4A4	Band 4	20M	1745	20300	QPSK	1	0	4x4MIMO	Band 4	5M	2112.5	1975	4x4MIMO	22.90	22.91
		CA_7A4_7A2	Band 7	20M	2560	21350	QPSK	1	0	4x4MIMO	Band 7	5M	2622.5	2775	2x2MIMO	22.87	22.98
		CA_7A4_7A4	Band 7	20M	2560	21350	QPSK	1	0	4x4MIMO	Band 7	5M	2622.5	2775	4x4MIMO	22.71	22.98
		CA_41A4_41A2	Band 41	20M	2636.5	41055	QPSK	1	0	4x4MIMO	Band 41	5M	2498.5	39675	2x2MIMO	22.96	22.91
		CA_41A4_41A4	Band 41	20M	2636.5	41055	QPSK	1	0	4x4MIMO	Band 41	5M	2498.5	39675	4x4MIMO	23.02	22.91
		CA_66A4_66A2	Band 66	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	5M	2197.5	67311	2x2MIMO	22.68	22.78
CA_66A4_66A4	Band 66	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	5M	2197.5	67311	4x4MIMO	22.70	22.78		

LTE Carrier Aggregation Conducted Power (Uplink)

1. This device supports uplink carrier aggregation for LTE CA_7C, CA_41C with a maximum of two 20MHz component carriers. For intra band contiguous carrier aggregation scenarios, 3GPP 36.101 Table 6.2.2A-1 specifies that the aggregate maximum allowed output power is equivalent to the single carrier scenario. For the non-contiguously allocated resource blocks which the MPR level is determined by various RB separation and RB sizes requirement, and the allowed MPR levels, settings and the conducted powers are permanently implemented in this device per the 3GPP 36.36.101 section 6.2.3A.1.3 requirements.
2. According to FCC guidance, the output power with uplink CA active was measured for the high / middle / low channel configuration with the highest reported SAR for each exposure condition, the power was measured with wideband signal integration over both component carriers.
3. In applying the power measurement procedures of KDB 941225 D05A for DL CA to qualify for UL SAR test exclusion, power measurement is required only for the subset in each row with the largest combination of frequency bands and CCs
4. Maximum output power measurement is required for each UL CA configuration for the required test channels described in KDB 941225 D05. The required test channel should be associated with the UL PCC. For channels at the ends of a frequency band, the SCC and subsequent CCs are added to the side within the transmission band. Otherwise, the CCs should be added alternatively to either side of the PCC.



<WWAN Antenna 3 -- Full Power>

<LTE Band 7>

CA_7C										
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				
20850	21048	QPSK	1	0	0	0	1	0	22.76	23.50
21100	20902	QPSK	1	0	0	0	1	0	23.22	23.50
21350	21152	QPSK	1	0	0	0	1	0	23.26	23.50

<LTE Band 41>

CA_41C										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
39750	39948	QPSK	1	0	0	0	1	0	23.15	23.80
40185	40383	QPSK	1	0	0	0	1	0	23.09	23.80
40620	40422	QPSK	1	0	0	0	1	0	23.29	23.80
41055	40875	QPSK	1	0	0	0	1	0	23.16	23.80
41490	41292	QPSK	1	0	0	0	1	0	23.33	23.80

<WWAN Antenna 3 -- Reduced Power Level 1 for WWAN Only>

<LTE Band 7>

CA_7C										
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				
20850	21048	QPSK	50	24	0	0	50	0	18.63	19.00
21100	20902	QPSK	50	24	0	0	50	0	18.76	19.00
21350	21152	QPSK	50	24	0	0	50	0	18.78	19.00

<LTE Band 41>

CA_41C										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
39750	39948	QPSK	1	0	0	0	1	0	20.07	20.50
40185	40383	QPSK	1	0	0	0	1	0	20.01	20.50
40620	40422	QPSK	1	0	0	0	1	0	20.07	20.50
41055	40875	QPSK	1	0	0	0	1	0	19.83	20.50
41490	41292	QPSK	1	0	0	0	1	0	20.17	20.50

<WWAN Antenna 3 -- Reduced Power Level 3 for WWAN + WLAN 5GHz Simultaneous Transmission>

<LTE Band 7>

CA_7C										
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				
20850	21048	QPSK	50	24	0	0	50	0	18.11	18.50
21100	20902	QPSK	50	24	0	0	50	0	18.24	18.50
21350	21152	QPSK	50	24	0	0	50	0	18.28	18.50

<WWAN Antenna 3 -- Reduced Power Level 4 for Hotspot On>

<LTE Band 7>

CA_7C										
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				
20850	21048	QPSK	1	0	0	0	1	0	21.71	22.50
21100	20902	QPSK	1	0	0	0	1	0	22.22	22.50
21350	21152	QPSK	1	0	0	0	1	0	22.28	22.50

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

1. For 2.4GHz WLAN each antenna, transmit power in SISO operation is larger than (or equal to) the power in MIMO operation, RF exposure compliance of MIMO mode can be deduced from the compliance simultaneous transmission of antennas operating in SISO mode.
2. For 5GHz WLAN, SAR testing was performed on MIMO mode since it can't transmit in SISO mode, so only evaluate MIMO mode power.
3. Per KDB 248227 D01v02r02, SAR test reduction is determined according to 802.11 transmission mode configurations and certain exposure conditions with multiple test positions. In the 2.4 GHz band, separate SAR procedures are applied to DSSS and OFDM configurations to simplify DSSS test requirements. For OFDM, in both 2.4 and 5 GHz bands, an initial test configuration must be determined for each standalone and aggregated frequency band, according to the transmission mode configuration with the highest maximum output power specified for production units to perform SAR measurements. If the same highest maximum output power applies to different combinations of channel bandwidths, modulations and data rates, additional procedures are applied to determine which test configurations require SAR measurement. When applicable, an initial test position may be applied to reduce the number of SAR measurements required for next to the ear, UMPC mini-tablet or hotspot mode configurations with multiple test positions.
4. For 2.4 GHz 802.11b DSSS, either the initial test position procedure for multiple exposure test positions or the DSSS procedure for fixed exposure position is applied; these are mutually exclusive. For 2.4 GHz and 5 GHz OFDM configurations, the initial test configuration is applied to measure SAR using either the initial test position procedure for multiple exposure test position configurations or the initial test configuration procedures for fixed exposure test conditions. Based on the reported SAR of the measured configurations and maximum output power of the transmission mode configurations that are not included in the initial test configuration, the subsequent test configuration and initial test position procedures are applied to determine if SAR measurements are required for the remaining OFDM transmission configurations. In general, the number of test channels that require SAR measurement is minimized based on maximum output power measured for the test sample(s).
5. For OFDM transmission configurations in the 2.4 GHz and 5 GHz bands, When the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel for each frequency band.
6. DSSS and OFDM configurations are considered separately according to the required SAR procedures. SAR is measured in the initial test position using the 802.11 transmission mode configuration required by the DSSS procedure or initial test configuration and subsequent test configuration(s) according to the OFDM procedures.18 The initial test position procedure is described in the following:
 - a. When the reported SAR of the initial test position is ≤ 0.4 W/kg, further SAR measurement is not required for the other test positions in that exposure configuration and 802.11 transmission mode combinations within the frequency band or aggregated band.
 - b. When the reported SAR of the test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is ≤ 0.8 W/kg or all required test position are tested.
 - c. For all positions/configurations, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.

<Full Power>

<2.4GHz WLAN Ant.1>

2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
	802.11b 1Mbps	1	2412	18.53	19.50	98.96
		6	2437	18.90	19.50	
		11	2462	18.96	19.50	
	802.11g 6Mbps	1	2412	17.50	18.00	98.28
		6	2437	17.67	18.00	
		11	2462	17.51	18.00	
	802.11n-HT20 MCS0	1	2412	17.31	18.00	98.16
		6	2437	17.58	18.00	
		11	2462	17.27	18.00	
	802.11n-HT40 MCS0	3	2422	15.91	17.00	95.22
		6	2437	15.53	17.00	
		9	2452	15.65	17.00	
	802.11ac-VHT20 MCS0	1	2412	17.20	18.00	98.15
		6	2437	17.48	18.00	
		11	2462	17.18	18.00	
	802.11ac-VHT40 MCS0	3	2422	15.71	17.00	94.80
		6	2437	15.32	17.00	
		9	2452	15.40	17.00	

<2.4GHz WLAN Ant.2>

2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
	802.11b 1Mbps	1	2412	15.64	16.50	98.96
		6	2437	15.84	16.50	
		11	2462	15.40	16.50	
	802.11g 6Mbps	1	2412	14.27	15.00	98.28
		6	2437	14.28	15.00	
		11	2462	13.98	15.00	
	802.11n-HT20 MCS0	1	2412	14.11	15.00	97.79
		6	2437	14.20	15.00	
		11	2462	13.85	15.00	
	802.11n-HT40 MCS0	3	2422	12.33	14.00	94.78
		6	2437	12.31	14.00	
		9	2452	12.37	14.00	
	802.11ac-VHT20 MCS0	1	2412	14.02	15.00	98.16
		6	2437	14.09	15.00	
		11	2462	13.73	15.00	
	802.11ac-VHT40 MCS0	3	2422	12.12	14.00	94.80
		6	2437	12.08	14.00	
		9	2452	12.16	14.00	

<2.4GHz WLAN Ant.1+2>

2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
	802.11b 1Mbps	1	2412	20.35	21.00	98.96
		6	2437	20.72	21.00	
		11	2462	20.56	21.00	
	802.11g 6Mbps	1	2412	16.91	18.00	97.93
		6	2437	19.35	20.00	
		11	2462	17.20	18.00	
	802.11n-HT20 MCS0	1	2412	17.84	18.00	98.16
		6	2437	19.25	20.00	
		11	2462	16.92	18.00	
	802.11n-HT40 MCS0	3	2422	14.46	15.00	95.22
		6	2437	16.10	17.00	
		9	2452	15.22	16.00	
	802.11ac-VHT20 MCS0	1	2412	17.79	18.00	96.20
		6	2437	19.22	20.00	
		11	2462	16.89	18.00	
	802.11ac-VHT40 MCS0	3	2422	14.38	15.00	90.58
		6	2437	16.04	17.00	
		9	2452	15.12	16.00	

<5GHz WLAN Ant.1+2>

5.2GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
	802.11a 6Mbps	36	5180	19.95	20.50	97.95
		40	5200	19.79	20.50	
		44	5220	19.89	20.50	
		48	5240	19.92	20.50	
	802.11n-HT20 MCS0	36	5180	19.74	20.00	98.16
		40	5200	19.65	20.00	
		44	5220	19.68	20.00	
		48	5240	19.74	20.00	
	802.11n-HT40 MCS0	38	5190	19.20	20.00	96.04
		46	5230	19.13	20.00	
	802.11ac-VHT20 MCS0	36	5180	19.73	20.00	96.62
		40	5200	19.63	20.00	
		44	5220	19.66	20.00	
		48	5240	19.70	20.00	
	802.11ac-VHT40 MCS0	38	5190	19.18	20.00	93.51
		46	5230	19.09	20.00	
	802.11ac-VHT80 MCS0	42	5210	18.94	20.00	87.13

5.3GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
	802.11a 6Mbps	52	5260	19.90	20.50	97.95
		56	5280	19.87	20.50	
		60	5300	19.90	20.50	
		64	5320	19.89	20.50	
	802.11n-HT20 MCS0	52	5260	19.63	20.00	98.16
		56	5280	19.61	20.00	
		60	5300	19.68	20.00	
		64	5320	19.60	20.00	
	802.11n-HT40 MCS0	54	5270	19.11	20.00	96.04
		62	5310	16.94	18.00	
	802.11ac-VHT20 MCS0	52	5260	19.61	20.00	96.62
		56	5280	19.56	20.00	
		60	5300	19.66	20.00	
		64	5320	19.57	20.00	
	802.11ac-VHT40 MCS0	54	5270	19.07	20.00	93.51
		62	5310	16.89	18.00	
	802.11ac-VHT80 MCS0	58	5290	16.78	18.00	87.13

5.5GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
	802.11a 6Mbps	100	5500	19.71	20.50	97.95
		116	5580	19.75	20.50	
		124	5620	19.45	20.50	
		132	5660	19.46	20.50	
		140	5700	19.50	20.50	
		144	5720	19.47	20.50	
	802.11n-HT20 MCS0	100	5500	19.42	20.00	98.16
		116	5580	19.55	20.00	
		124	5620	19.26	20.00	
		132	5660	19.25	20.00	
		140	5700	19.33	20.00	
		144	5720	19.27	20.00	
	802.11n-HT40 MCS0	102	5510	18.08	20.00	96.04
		110	5550	19.01	20.00	
		126	5630	18.69	20.00	
		134	5670	18.91	20.00	
		142	5710	18.72	20.00	
		144	5720	18.72	20.00	
	802.11ac-VHT20 MCS0	100	5500	19.41	20.00	96.62
		116	5580	19.53	20.00	
		124	5620	19.22	20.00	
		132	5660	19.20	20.00	
		140	5700	19.31	20.00	
		144	5720	19.26	20.00	
	802.11ac-VHT40 MCS0	102	5510	18.04	20.00	93.51
		110	5550	18.98	20.00	
		126	5630	18.65	20.00	
		134	5670	18.88	20.00	
		142	5710	18.67	20.00	
		144	5720	18.67	20.00	
	802.11ac-VHT80 MCS0	106	5530	16.66	18.00	87.13
		122	5610	18.78	19.00	
		138	5690	18.67	19.00	

5.8GHz WLAN	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
	802.11a MCS0	149	5745	19.81	20.50	97.95
		157	5785	19.83	20.50	
		165	5825	19.80	20.50	
	802.11n-HT20 MCS0	149	5745	19.63	20.00	98.16
		157	5785	19.62	20.00	
		165	5825	19.72	20.00	
	802.11n-HT40 MCS0	151	5755	19.05	20.00	96.04
		159	5795	19.13	20.00	
	802.11ac-VHT20 MCS0	149	5745	19.61	20.00	96.62
		157	5785	19.61	20.00	
		165	5825	19.71	20.00	
	802.11ac-VHT40 MCS0	151	5755	19.05	20.00	93.51
		159	5795	19.13	20.00	
	802.11ac-VHT80 MCS0	155	5775	18.89	20.00	87.13

<Reduced Power>

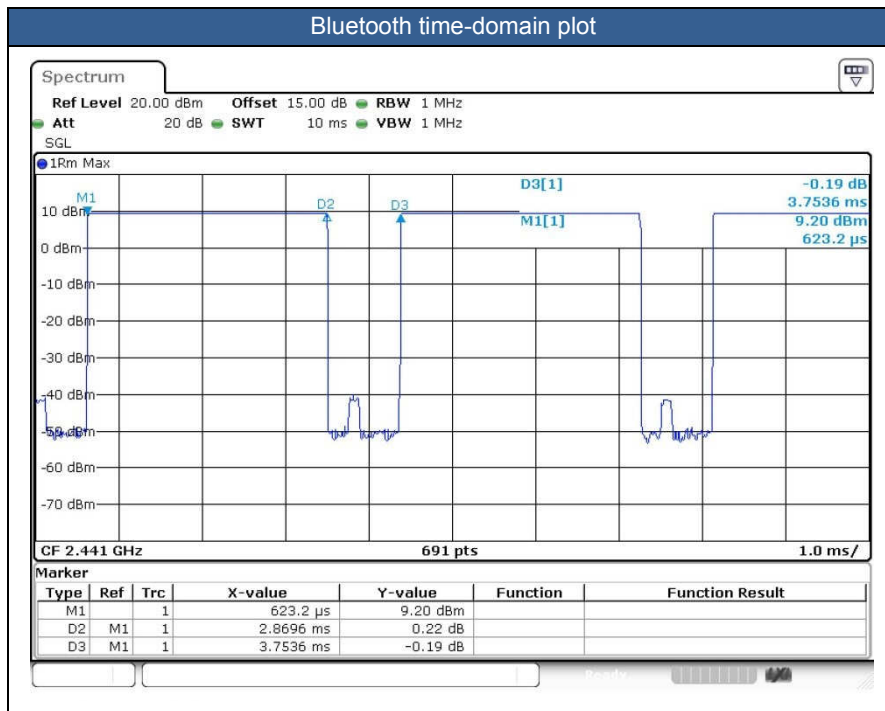
<2.4GHz WLAN Ant.1>

	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Duty Cycle %
2.4GHz WLAN	802.11b 1Mbps	1	2412	15.57	16.50	98.96
		6	2437	15.95	16.50	
		11	2462	16.02	16.50	
	802.11g 6Mbps	1	2412	15.19	16.00	98.28
		6	2437	15.58	16.00	
		11	2462	15.70	16.00	
	802.11n-HT20 MCS0	1	2412	15.34	16.00	98.16
		6	2437	15.45	16.00	
		11	2462	15.32	16.00	
	802.11n-HT40 MCS0	3	2412	12.74	14.00	95.22
		6	2437	14.48	15.00	
		9	2462	13.37	14.00	
	802.11ac-VHT20 MCS0	1	2422	15.23	16.00	98.15
		6	2437	15.30	16.00	
		11	2452	15.20	16.00	
	802.11ac-VHT40 MCS0	3	2422	12.44	13.00	94.80
		6	2437	14.18	15.00	
		9	2452	13.09	14.00	

<2.4GHz Bluetooth>

General Note:

1. For 2.4GHz Bluetooth SAR testing was selected 1Mbps, due to its highest average power.
2. The Bluetooth duty cycle is 76.45 % as following figure, according to 2016 Oct. TCB workshop for Bluetooth SAR scaling need further consideration and the theoretical duty cycle is 83.3%, therefore the actual duty cycle will be scaled up to the theoretical value of Bluetooth reported SAR calculation.

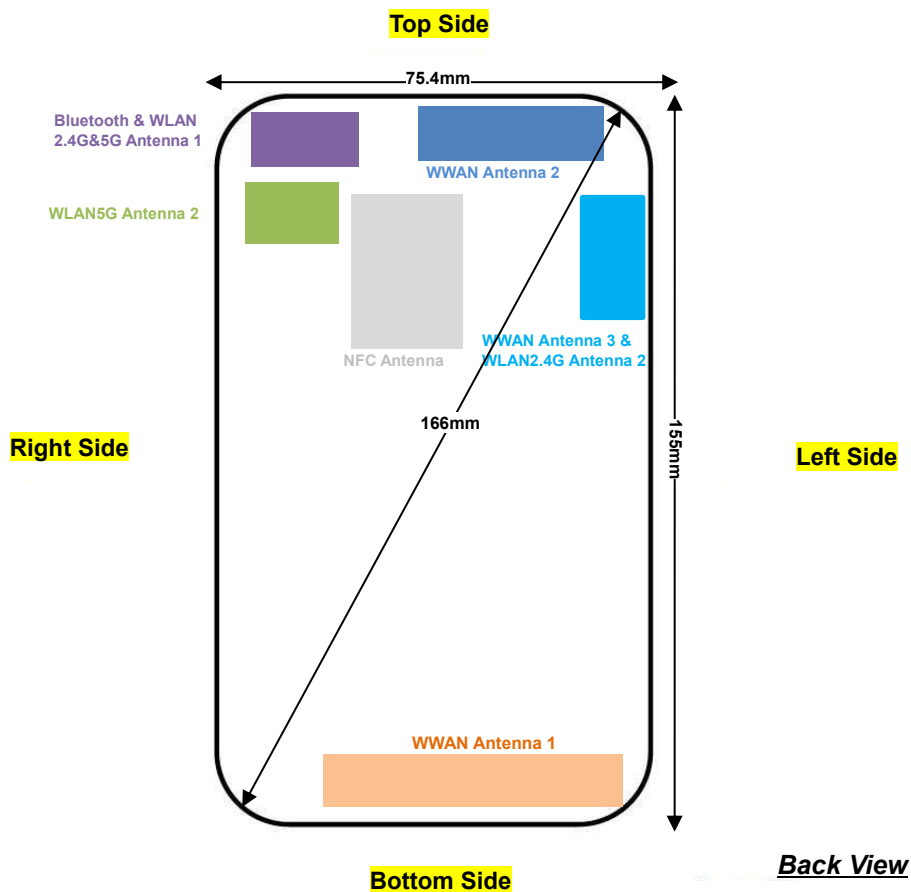


Mode	Channel	Frequency (MHz)	Average power (dBm)
			1Mbps
v3.0 with EDR	CH 00	2402	11.37
	CH 39	2441	11.13
	CH 78	2480	10.80
Tune-up limit (dBm)			12.00

Mode	Channel	Frequency (MHz)	Average power (dBm)
			GFSK
v4.0/4.1/4.2 with LE	CH 00	2402	5.05
	CH 19	2440	5.22
	CH 39	2480	5.61
Tune-up limit (dBm)			6.00

Mode	Channel	Frequency (MHz)	Average power (dBm)
			GFSK
v5.0 with LE	CH 00	2402	5.07
	CH 19	2440	5.25
	CH 39	2480	5.70
Tune-up limit (dBm)			6.00

13. Antenna Location



Antenna	Support Band
WWAN Antenna 1	GSM: 850 / 1900 WCDMA: B2 / B4 / B5 CDMA: BC0/BC1 LTE: B2 / B4 / B5 / B12 / B17 / B25 / B26 / B66 / B71
WWAN Antenna 2	GSM: 850 / 1900 WCDMA: B2 / B4 / B5 CDMA: BC0/BC1 LTE: B2 / B4 / B5 / B12 / B17 / B25 / B26 / B66 / B71
WWAN Antenna 3 & WLAN2.4G Antenna 2	LTE: B7 / B30 / B38 / B41 WLAN 2.4GHz
Bluetooth & WLAN2.4G&5G Antenna 1	Bluetooth WLAN 2.4GHz WLAN 5GHz
WLAN 5G Antenna 2	WLAN 5GHz

Distance of the Antenna to the EUT surface/edge						
Antennas	Back	Front	Top Side	Bottom Side	Right Side	Left Side
WWAN Antenna 1	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	≤ 25mm	≤ 25mm
WWAN Antenna 2	≤ 25mm	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	≤ 25mm
WWAN Antenna 3 & WLAN2.4G Antenna 2	≤ 25mm	≤ 25mm	≤ 25mm	>25mm	>25mm	≤ 25mm
Bluetooth & WLAN2.4G&5G Antenna 1	≤ 25mm	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	>25mm
WLAN 5G Antenna 2	≤ 25mm	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	>25mm

Positions for SAR tests; Hotspot mode						
Antennas	Back	Front	Top Side	Bottom Side	Right Side	Left Side
WWAN Antenna 1	Yes	Yes	No	Yes	Yes	Yes
WWAN Antenna 2	Yes	Yes	Yes	No	Yes	Yes
WWAN Antenna 3 & WLAN2.4G Antenna 2	Yes	Yes	Yes	No	No	Yes
Bluetooth & WLAN2.4G&5G Antenna 1	Yes	Yes	Yes	No	Yes	No
WLAN 5G Antenna 2	Yes	Yes	Yes	No	Yes	No

General Note:

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

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 BT/WLAN signal with non-100% duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle)"
 - c. For WWAN: Reported SAR(W/kg)= Measured SAR(W/kg)*Tune-up Scaling Factor
 - d. For WLAN/Bluetooth: Reported SAR(W/kg)= Measured SAR(W/kg)* Duty Cycle scaling factor * Tune-up scaling factor
 - e. For TDD LTE SAR measurement, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix 63.3%/62.9% = 1.006 is applied to scale-up the measured SAR result.
The Reported TDD LTE SAR = measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.
2. Per KDB 447498 D01v06, for each exposure position, testing of other required channels within the operating mode of a frequency band is not required when the *reported* 1-g or 10-g SAR for the mid-band or highest output power channel is:
 - ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
 - ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
 - ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz
3. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is ≥ 0.8 W/kg.
4. Per KDB 648474 D04v01r03, when the reported SAR for a body-worn accessory measured without a headset connected to the handset is ≤ 1.2 W/kg, SAR testing with a headset connected to the handset is not required.
5. This device has two antennas. The primary cellular antenna is located on the bottom edge of the device and the secondary cellular antenna is located on the top edge of the device and can't transmit simultaneously.
6. For WLAN transmitter
Head exposure conditions:
Power reduction for WLAN 2.4GHz Ant.1: While the device WLAN is transmitting simultaneously with the WWAN antenna 2/3, and the audio is actively routed through the earpiece receiver, and the proximity sensor is triggered which indicating the next-to-head condition and the LCD display is off.
7. There are totally two power reduction levels of WWAN antenna 1, four power reduction levels of WWAN antenna 2/3.
More detail descriptions of the power reduction mechanism could refer as below:
 - 1) For WWAN antenna 1 (2 sets of power reduction levels).
 - a) Hotspot exposure condition:
Reduced power level 1 – GSM1900, WCDMA B2 / B4, CDMA BC1, LTE B2 / B4 / B25 / B66
While the device WWAN is transmitting at the WWAN antenna 1, and hotspot mode is enabled, power reduction enabled for those bands.
 - b) Product specific 10g SAR exposure conditions – WCDMA B2 / B4, CDMA BC1, LTE B2 / B4 / B25 / B66
P-sensor can detect handheld state, for product specific 10g SAR condition, reduced powers will be active for those bands.
 - 2) For WWAN antenna 2/3 (4 sets of power reduction levels).
 - a) Head exposure conditions:
Reduced power level 1 – GSM1900, WCDMA B2 / B4 / B5, CDMA BC0 / BC1, LTE B2 / B4 / B5 / B7 / B25 / B26 / B30 / B38 / B41 / B66, LTE Uplink CA CA_7C and CA_41C. While the device is transmitting at the WWAN antenna 2/3, and the audio is actively routed through the earpiece receiver, and the proximity sensor is triggered which indicating the next-to-head condition and the LCD display is off, power reduction enabled for those bands.

Reduced power level 2 – GSM 850/1900, WCDMA B2 / B4 / B5, CDMA BC0 / BC1, LTE B2 / B4 / B5 / B7 / B12 / B17 / B25 / B26 / B30 / B38 / B41 / B66 / B71, LTE Uplink CA CA_7C and CA_41C.
While the device WLAN 2.4GHz is transmitting simultaneously with the WWAN antenna 2/3, and the audio is actively routed through the earpiece receiver, and the proximity sensor is triggered which indicating the next-to-head condition and the LCD display is off, power reduction enabled for those bands.

Reduced power level 3 – GSM 850/1900, WCDMA B2 / B4 / B5, CDMA BC0 / BC1, LTE B2 / B4 / B5 / B7 / B12 / B17 / B25 / B26 / B30 / B38 / B41 / B66 / B71, LTE Uplink CA CA_7C and CA_41C.
While the device WLAN 5GHz is transmitting simultaneously with the WWAN antenna 2/3, and the audio is actively routed through the earpiece receiver, and the proximity sensor is triggered which indicating the next-to-head condition and the LCD display is off, power reduction enabled for those bands.

GSM1900, LTE B38 / B41, LTE Uplink CA_41C: reduced power level 2/3 is the same as the reduced power level 1 configuration.

LTE B7, LTE Uplink CA_7C: reduced power level 2 is the same as the reduced power level 1 configuration.

WCDMA B4, CDMA BC1, LTE B4 / B26 / B30 / B66: reduced power level 3 is the same as the reduced power level 2 configuration.

b) Hotspot exposure condition:

Reduced power level 4 – LTE B7, LTE Uplink CA CA_7C

While the device WWAN is transmitting at the WWAN antenna 3, and hotspot mode is enabled, power reduction enabled for those bands.

8. 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 extremity 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.
- a. For this device, WWAN transmitter scaled to reduced power mode for product specific 10g SAR is higher than 1.2W/kg of GSM 1900, WCDMA B2 / B4, CDMA BC1 and LTE B2 / B4 / B25 / B66, therefore product specific SAR is necessary.
 - b. WLAN 5.3/5.5GHz tested the product specific 10g SAR since it has no hotspot mode.
 - c. When 10-g product specific 10g SAR is considered, SAR thresholds is specified in the procedures for SAR test reduction and exclusion should be multiplied by 2.5.

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 (4Tx slots) for GSM850/GSM1900 when EUT operating with power back-off or without power back-off is considered as the primary mode.
2. Other configurations of GSM / GPRS / EDGE are considered as secondary modes. The 3G SAR test reduction procedure is applied, when the maximum output power and tune-up tolerance specified for production units in a secondary mode is $\leq \frac{1}{4}$ dB higher than the primary mode, SAR measurement is not required for the secondary mode.
3. Power reduction which is triggered by hotspot mode is implemented in GSM1900 band for WWAN antenna 1, for hotspot mode SAR testing EUT was set in reduced mode and GPRS (3Tx slots) due to its highest frame-average power.

WCDMA Note:

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

CDMA2000 Note:

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

LTE Note:

1. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
2. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
3. Per KDB 941225 D05v02r05, for QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
4. Per KDB 941225 D05v02r05, 16QAM/64QAM output power for each RB allocation configuration is $> \text{not } \frac{1}{2}$ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, 16QAM/64QAM SAR testing is not required.
5. Per KDB 941225 D05v02r05, smaller bandwidth output power for each RB allocation configuration is $> \text{not } \frac{1}{2}$ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
6. Per FCC KDB inquiry guidance, the following applied to intra-band contiguous UL CA only;
 - a. Maximum output power measurement is required for each UL CA configuration for the required test channels described in KDB 941225 D05. The required test channel should be associated with the UL PCC. For channels at the ends of a frequency band, the SCC and subsequent CCs are added to the side within the transmission band. Otherwise, the CCs should be added alternatively to either side of the PCC
 - b. UL CA SAR is measured for each exposure condition in each frequency band using the highest SAR configuration tested in standalone LTE mode to establish the UL CA PCC. The SCC and subsequent CC must use configurations similar to the PCC to establish conservative or worst case equivalent SAR test conditions.
 - c. When the SAR configuration tested in step b) has a maximum output power specification more than $\frac{1}{4}$ dB lower than the highest maximum output power conditions measured in the power measurements in step a) above and the reported

SAR in step b) is larger than 1.2 W/kg, SAR measurement is also required for the configuration in step a)

d. All standalone SAR configurations with SAR > 1.2 W/kg must also be tested by applying the procedures in step b)

7. For LTE B4 / B5 / B12 / B17 / B71 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
8. LTE B17 / B4 / B2 / B38 SAR test was covered by B12 / B66 / B25 / B41; 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. For 2.4GHz WLAN each antenna, transmit power in SISO operation is larger than (or equal to) the power in MIMO operation, RF exposure compliance of MIMO mode can be deduced from the compliance simultaneous transmission of antennas operating in SISO mode.
2. For 5GHz WLAN, SAR testing was performed on MIMO mode since it can't transmit in SISO mode, so only evaluate MIMO mode SAR.
3. 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.
4. 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.
5. 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.
6. 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.
7. During SAR testing the WLAN transmission was verified using a spectrum analyzer.



14.1 Head SAR

<GSM SAR>

Plot No.	SIM	Antenna	Band	Mode	Test Position	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)
	1	2	GSM850	GPRS(4 Tx slots)	Right Cheek	Full	189	836.4	27.51	28.00	1.119	0.06	0.764	0.855
	1	2	GSM850	GPRS(4 Tx slots)	Right Tilted	Full	189	836.4	27.51	28.00	1.119	0.01	0.950	1.063
	1	2	GSM850	GPRS(4 Tx slots)	Left Cheek	Full	189	836.4	27.51	28.00	1.119	0.05	0.829	0.928
	1	2	GSM850	GPRS(4 Tx slots)	Left Tilted	Full	189	836.4	27.51	28.00	1.119	0.05	0.609	0.682
	1	2	GSM850	GPRS(4 Tx slots)	Right Cheek	Full	128	824.2	27.35	28.00	1.161	0.09	0.985	1.144
#01	1	2	GSM850	GPRS(4 Tx slots)	Right Cheek	Full	251	848.8	27.34	28.00	1.164	0.08	1.080	1.257
	1	2	GSM850	GPRS(4 Tx slots)	Right Tilted	Full	128	824.2	27.35	28.00	1.161	0.01	0.926	1.076
	1	2	GSM850	GPRS(4 Tx slots)	Right Tilted	Full	251	848.8	27.34	28.00	1.164	-0.01	1.070	1.246
	1	2	GSM850	GPRS(4 Tx slots)	Left Cheek	Full	128	824.2	27.35	28.00	1.161	0.15	1.080	1.254
	1	2	GSM850	GPRS(4 Tx slots)	Left Cheek	Full	251	848.8	27.34	28.00	1.164	0.01	0.857	0.998
	2	2	GSM850	GPRS(4 Tx slots)	Right Cheek	Full	251	848.8	27.34	28.00	1.164	0.05	0.993	1.156
	2	2	GSM850	GPRS(4 Tx slots)	Right Cheek	Full	128	824.2	27.35	28.00	1.161	0.01	0.861	1.000
	2	2	GSM850	GPRS(4 Tx slots)	Right Cheek	Full	189	836.4	27.51	28.00	1.119	0.07	1.050	1.175
	1	2	GSM850	GPRS(4 Tx slots)	Right Cheek	Reduced Level 2	189	836.4	25.83	26.50	1.167	0.04	0.586	0.684
	1	2	GSM850	GPRS(4 Tx slots)	Right Tilted	Reduced Level 2	189	836.4	25.83	26.50	1.167	0.01	0.574	0.670
	1	2	GSM850	GPRS(4 Tx slots)	Left Cheek	Reduced Level 2	189	836.4	25.83	26.50	1.167	0.09	0.513	0.599
	1	2	GSM850	GPRS(4 Tx slots)	Left Tilted	Reduced Level 2	189	836.4	25.83	26.50	1.167	0.05	0.443	0.517
	1	2	GSM850	GPRS(4 Tx slots)	Right Cheek	Reduced Level 2	128	824.2	25.80	26.50	1.175	0.11	0.689	0.810
	1	2	GSM850	GPRS(4 Tx slots)	Right Cheek	Reduced Level 2	251	848.8	25.82	26.50	1.169	0.06	0.844	0.987
	1	2	GSM850	GPRS(4 Tx slots)	Right Cheek	Reduced Level 3	189	836.4	25.31	26.00	1.172	0.08	0.510	0.598
	1	2	GSM850	GPRS(4 Tx slots)	Right Tilted	Reduced Level 3	189	836.4	25.31	26.00	1.172	0.05	0.572	0.670
	1	2	GSM850	GPRS(4 Tx slots)	Left Cheek	Reduced Level 3	189	836.4	25.31	26.00	1.172	0.06	0.462	0.542
	1	2	GSM850	GPRS(4 Tx slots)	Left Tilted	Reduced Level 3	189	836.4	25.31	26.00	1.172	0.04	0.413	0.484
	1	2	GSM850	GPRS(4 Tx slots)	Right Tilted	Reduced Level 3	128	824.2	25.27	26.00	1.183	0.04	0.637	0.754
	1	2	GSM850	GPRS(4 Tx slots)	Right Tilted	Reduced Level 3	251	848.8	25.30	26.00	1.175	0.08	0.622	0.731
	1	1	GSM850	GPRS(4 Tx slots)	Right Cheek	Full	189	836.4	27.92	28.50	1.143	0.07	0.217	0.248
	1	1	GSM850	GPRS(4 Tx slots)	Right Tilted	Full	189	836.4	27.92	28.50	1.143	0.01	0.137	0.157
	1	1	GSM850	GPRS(4 Tx slots)	Left Cheek	Full	189	836.4	27.92	28.50	1.143	0.03	0.241	0.275
	1	1	GSM850	GPRS(4 Tx slots)	Left Tilted	Full	189	836.4	27.92	28.50	1.143	0.05	0.135	0.154
	1	1	GSM850	GPRS(4 Tx slots)	Left Cheek	Full	128	824.2	27.78	28.50	1.180	0.03	0.240	0.283
	1	1	GSM850	GPRS(4 Tx slots)	Left Cheek	Full	251	848.8	27.88	28.50	1.153	0.03	0.287	0.331
	1	2	GSM1900	GPRS(4 Tx slots)	Right Cheek	Reduced Level 1	512	1850.2	21.78	22.00	1.052	0.05	0.728	0.766
	1	2	GSM1900	GPRS(4 Tx slots)	Right Tilted	Reduced Level 1	512	1850.2	21.78	22.00	1.052	0.02	0.754	0.793
	1	2	GSM1900	GPRS(4 Tx slots)	Left Cheek	Reduced Level 1	512	1850.2	21.78	22.00	1.052	0.07	0.273	0.287
	1	2	GSM1900	GPRS(4 Tx slots)	Left Tilted	Reduced Level 1	512	1850.2	21.78	22.00	1.052	0.04	0.265	0.279
	1	2	GSM1900	GPRS(4 Tx slots)	Right Tilted	Reduced Level 1	661	1880	21.71	22.00	1.069	0.05	0.843	0.901
#02	1	2	GSM1900	GPRS(4 Tx slots)	Right Tilted	Reduced Level 1	810	1909.8	21.65	22.00	1.084	0.09	0.993	1.076
	1	1	GSM1900	GPRS(4 Tx slots)	Right Cheek	Full	661	1880	24.55	25.00	1.109	0.01	0.051	0.057
	1	1	GSM1900	GPRS(4 Tx slots)	Right Tilted	Full	661	1880	24.55	25.00	1.109	0.05	0.028	0.031
	1	1	GSM1900	GPRS(4 Tx slots)	Left Cheek	Full	661	1880	24.55	25.00	1.109	0.06	0.105	0.116
	1	1	GSM1900	GPRS(4 Tx slots)	Left Tilted	Full	661	1880	24.55	25.00	1.109	0.03	0.030	0.033
	1	1	GSM1900	GPRS(4 Tx slots)	Left Cheek	Full	512	1850.2	24.29	25.00	1.178	0.08	0.128	0.151
	1	1	GSM1900	GPRS(4 Tx slots)	Left Cheek	Full	810	1909.8	24.54	25.00	1.112	-0.02	0.121	0.135



<WCDMA SAR>

Plot No.	SIM	Antenna	Band	Mode	Test Position	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)
	1	2	WCDMA Band V	RMC 12.2Kbps	Right Cheek	Reduced Level 1	4132	826.4	22.56	23.00	1.107	0.05	0.839	0.928
	1	2	WCDMA Band V	RMC 12.2Kbps	Right Tilted	Reduced Level 1	4132	826.4	22.56	23.00	1.107	0.09	0.885	0.979
	1	2	WCDMA Band V	RMC 12.2Kbps	Left Cheek	Reduced Level 1	4132	826.4	22.56	23.00	1.107	0.04	0.792	0.876
	1	2	WCDMA Band V	RMC 12.2Kbps	Left Tilted	Reduced Level 1	4132	826.4	22.56	23.00	1.107	0.13	0.679	0.751
	1	2	WCDMA Band V	RMC 12.2Kbps	Right Cheek	Reduced Level 1	4182	836.4	22.53	23.00	1.114	0.08	0.880	0.981
#03	1	2	WCDMA Band V	RMC 12.2Kbps	Right Cheek	Reduced Level 1	4233	846.6	22.52	23.00	1.117	0.04	0.942	1.052
	1	2	WCDMA Band V	RMC 12.2Kbps	Right Tilted	Reduced Level 1	4182	836.4	22.53	23.00	1.114	0.02	0.882	0.983
	1	2	WCDMA Band V	RMC 12.2Kbps	Right Tilted	Reduced Level 1	4233	846.6	22.52	23.00	1.117	0.09	0.857	0.957
	1	2	WCDMA Band V	RMC 12.2Kbps	Left Cheek	Reduced Level 1	4182	836.4	22.53	23.00	1.114	0.05	0.804	0.896
	1	2	WCDMA Band V	RMC 12.2Kbps	Left Cheek	Reduced Level 1	4233	846.6	22.52	23.00	1.117	0.03	0.773	0.863
	1	2	WCDMA Band V	RMC 12.2Kbps	Right Cheek	Reduced Level 2	4233	846.6	21.00	21.50	1.122	0.04	0.661	0.742
	1	2	WCDMA Band V	RMC 12.2Kbps	Right Tilted	Reduced Level 2	4233	846.6	21.00	21.50	1.122	0.05	0.708	0.794
	1	2	WCDMA Band V	RMC 12.2Kbps	Left Cheek	Reduced Level 2	4233	846.6	21.00	21.50	1.122	0.09	0.573	0.643
	1	2	WCDMA Band V	RMC 12.2Kbps	Left Tilted	Reduced Level 2	4233	846.6	21.00	21.50	1.122	0.03	0.547	0.614
	1	2	WCDMA Band V	RMC 12.2Kbps	Right Tilted	Reduced Level 2	4132	826.4	20.93	21.50	1.140	0.04	0.537	0.612
	1	2	WCDMA Band V	RMC 12.2Kbps	Right Tilted	Reduced Level 2	4182	836.4	20.96	21.50	1.132	0.17	0.576	0.652
	1	2	WCDMA Band V	RMC 12.2Kbps	Right Cheek	Reduced Level 3	4233	846.6	20.49	21.00	1.125	0.08	0.520	0.585
	1	2	WCDMA Band V	RMC 12.2Kbps	Right Tilted	Reduced Level 3	4233	846.6	20.49	21.00	1.125	-0.05	0.505	0.568
	1	2	WCDMA Band V	RMC 12.2Kbps	Left Cheek	Reduced Level 3	4233	846.6	20.49	21.00	1.125	0.04	0.450	0.506
	1	2	WCDMA Band V	RMC 12.2Kbps	Left Tilted	Reduced Level 3	4233	846.6	20.49	21.00	1.125	0.06	0.347	0.390
	1	2	WCDMA Band V	RMC 12.2Kbps	Right Cheek	Reduced Level 3	4132	826.4	20.45	21.00	1.135	-0.05	0.546	0.620
	1	2	WCDMA Band V	RMC 12.2Kbps	Right Cheek	Reduced Level 3	4182	836.4	20.45	21.00	1.135	0.03	0.523	0.594
	1	1	WCDMA Band V	RMC 12.2Kbps	Right Cheek	Full	4132	826.4	23.65	23.80	1.035	0.06	0.191	0.198
	1	1	WCDMA Band V	RMC 12.2Kbps	Right Tilted	Full	4132	826.4	23.65	23.80	1.035	0.02	0.133	0.138
	1	1	WCDMA Band V	RMC 12.2Kbps	Left Cheek	Full	4132	826.4	23.65	23.80	1.035	0.01	0.230	0.238
	1	1	WCDMA Band V	RMC 12.2Kbps	Left Tilted	Full	4132	826.4	23.65	23.80	1.035	-0.03	0.139	0.144
	1	1	WCDMA Band V	RMC 12.2Kbps	Left Cheek	Full	4182	836.4	23.63	23.80	1.040	0.04	0.219	0.228
	1	1	WCDMA Band V	RMC 12.2Kbps	Left Cheek	Full	4233	846.6	23.53	23.80	1.064	0.04	0.233	0.248



FCC SAR Test Report

Report No. : FA812508-01

Plot No.	SIM	Antenna	Band	Mode	Test Position	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)
	1	2	WCDMA Band IV	RMC 12.2Kbps	Right Cheek	Reduced Level 1	1413	1732.6	20.87	21.00	1.030	0.05	0.974	1.004
	1	2	WCDMA Band IV	RMC 12.2Kbps	Right Tilted	Reduced Level 1	1413	1732.6	20.87	21.00	1.030	0.09	0.942	0.971
	1	2	WCDMA Band IV	RMC 12.2Kbps	Left Cheek	Reduced Level 1	1413	1732.6	20.87	21.00	1.030	0.04	0.410	0.422
	1	2	WCDMA Band IV	RMC 12.2Kbps	Left Tilted	Reduced Level 1	1413	1732.6	20.87	21.00	1.030	0.01	0.417	0.430
	1	2	WCDMA Band IV	RMC 12.2Kbps	Right Cheek	Reduced Level 1	1312	1712.4	20.71	21.00	1.069	0.05	0.964	1.031
#04	1	2	WCDMA Band IV	RMC 12.2Kbps	Right Cheek	Reduced Level 1	1513	1752.6	20.86	21.00	1.033	0.02	1.200	1.239
	1	2	WCDMA Band IV	RMC 12.2Kbps	Right Tilted	Reduced Level 1	1312	1712.4	20.71	21.00	1.069	0.02	0.922	0.986
	1	2	WCDMA Band IV	RMC 12.2Kbps	Right Tilted	Reduced Level 1	1513	1752.6	20.86	21.00	1.033	0.04	1.120	1.157
	2	2	WCDMA Band IV	RMC 12.2Kbps	Right Cheek	Reduced Level 1	1513	1752.6	20.86	21.00	1.033	0.06	1.180	1.219
	2	2	WCDMA Band IV	RMC 12.2Kbps	Right Cheek	Reduced Level 1	1413	1732.6	20.87	21.00	1.030	0.01	0.889	0.916
	2	2	WCDMA Band IV	RMC 12.2Kbps	Right Cheek	Reduced Level 1	1312	1712.4	20.71	21.00	1.069	0.02	0.857	0.916
	1	2	WCDMA Band IV	RMC 12.2Kbps	Right Cheek	Reduced Level 2	1413	1732.6	18.80	19.00	1.047	0.05	0.536	0.561
	1	2	WCDMA Band IV	RMC 12.2Kbps	Right Tilted	Reduced Level 2	1413	1732.6	18.80	19.00	1.047	0.01	0.526	0.551
	1	2	WCDMA Band IV	RMC 12.2Kbps	Left Cheek	Reduced Level 2	1413	1732.6	18.80	19.00	1.047	0.07	0.265	0.277
	1	2	WCDMA Band IV	RMC 12.2Kbps	Left Tilted	Reduced Level 2	1413	1732.6	18.80	19.00	1.047	0.09	0.275	0.288
	1	2	WCDMA Band IV	RMC 12.2Kbps	Right Cheek	Reduced Level 2	1312	1712.4	18.59	19.00	1.099	0.11	0.459	0.504
	1	2	WCDMA Band IV	RMC 12.2Kbps	Right Cheek	Reduced Level 2	1513	1752.6	18.68	19.00	1.076	0.15	0.643	0.692
	1	1	WCDMA Band IV	RMC 12.2Kbps	Right Cheek	Full	1413	1732.6	23.64	23.80	1.038	0.05	0.104	0.108
	1	1	WCDMA Band IV	RMC 12.2Kbps	Right Tilted	Full	1413	1732.6	23.64	23.80	1.038	0.01	0.069	0.072
	1	1	WCDMA Band IV	RMC 12.2Kbps	Left Cheek	Full	1413	1732.6	23.64	23.80	1.038	-0.01	0.191	0.198
	1	1	WCDMA Band IV	RMC 12.2Kbps	Left Tilted	Full	1413	1732.6	23.64	23.80	1.038	0.06	0.070	0.073
	1	1	WCDMA Band IV	RMC 12.2Kbps	Left Cheek	Full	1312	1712.4	23.50	23.80	1.072	0.07	0.211	0.226
	1	1	WCDMA Band IV	RMC 12.2Kbps	Left Cheek	Full	1513	1752.6	23.60	23.80	1.047	-0.02	0.139	0.146
	1	2	WCDMA Band II	RMC 12.2Kbps	Right Cheek	Reduced Level 1	9262	1852.4	19.35	19.50	1.035	0.06	0.992	1.027
	1	2	WCDMA Band II	RMC 12.2Kbps	Right Tilted	Reduced Level 1	9262	1852.4	19.35	19.50	1.035	0.05	1.010	1.045
	1	2	WCDMA Band II	RMC 12.2Kbps	Left Cheek	Reduced Level 1	9262	1852.4	19.35	19.50	1.035	0.03	0.341	0.353
	1	2	WCDMA Band II	RMC 12.2Kbps	Left Tilted	Reduced Level 1	9262	1852.4	19.35	19.50	1.035	0.05	0.374	0.387
	1	2	WCDMA Band II	RMC 12.2Kbps	Right Cheek	Reduced Level 1	9400	1880	19.28	19.50	1.052	0.05	1.010	1.062
	1	2	WCDMA Band II	RMC 12.2Kbps	Right Cheek	Reduced Level 1	9538	1907.6	19.25	19.50	1.059	0.08	1.060	1.123
	1	2	WCDMA Band II	RMC 12.2Kbps	Right Tilted	Reduced Level 1	9400	1880	19.28	19.50	1.052	0.05	0.992	1.044
#05	1	2	WCDMA Band II	RMC 12.2Kbps	Right Tilted	Reduced Level 1	9538	1907.6	19.25	19.50	1.059	0.08	1.170	1.239
	2	2	WCDMA Band II	RMC 12.2Kbps	Right Tilted	Reduced Level 1	9538	1907.6	19.25	19.50	1.059	0.07	0.989	1.048
	2	2	WCDMA Band II	RMC 12.2Kbps	Right Tilted	Reduced Level 1	9262	1852.4	19.35	19.50	1.035	0.05	0.948	0.981
	2	2	WCDMA Band II	RMC 12.2Kbps	Right Tilted	Reduced Level 1	9400	1880	19.28	19.50	1.052	0.01	0.932	0.980
	1	2	WCDMA Band II	RMC 12.2Kbps	Right Cheek	Reduced Level 2	9262	1852.4	17.75	18.00	1.059	-0.06	0.626	0.663
	1	2	WCDMA Band II	RMC 12.2Kbps	Right Tilted	Reduced Level 2	9262	1852.4	17.75	18.00	1.059	0.05	0.734	0.777
	1	2	WCDMA Band II	RMC 12.2Kbps	Left Cheek	Reduced Level 2	9262	1852.4	17.75	18.00	1.059	0.03	0.204	0.216
	1	2	WCDMA Band II	RMC 12.2Kbps	Left Tilted	Reduced Level 2	9262	1852.4	17.75	18.00	1.059	-0.08	0.230	0.244
	1	2	WCDMA Band II	RMC 12.2Kbps	Right Tilted	Reduced Level 2	9400	1880	17.64	18.00	1.086	0.02	0.761	0.827
	1	2	WCDMA Band II	RMC 12.2Kbps	Right Tilted	Reduced Level 2	9538	1907.6	17.56	18.00	1.107	0.09	0.725	0.802
	1	2	WCDMA Band II	RMC 12.2Kbps	Right Cheek	Reduced Level 3	9262	1852.4	17.25	17.50	1.059	0.01	0.503	0.533
	1	2	WCDMA Band II	RMC 12.2Kbps	Right Tilted	Reduced Level 3	9262	1852.4	17.25	17.50	1.059	0.05	0.596	0.631
	1	2	WCDMA Band II	RMC 12.2Kbps	Left Cheek	Reduced Level 3	9262	1852.4	17.25	17.50	1.059	0.08	0.175	0.185
	1	2	WCDMA Band II	RMC 12.2Kbps	Left Tilted	Reduced Level 3	9262	1852.4	17.25	17.50	1.059	-0.11	0.201	0.213
	1	2	WCDMA Band II	RMC 12.2Kbps	Right Tilted	Reduced Level 3	9400	1880	17.14	17.50	1.086	0.06	0.648	0.704
	1	2	WCDMA Band II	RMC 12.2Kbps	Right Tilted	Reduced Level 3	9538	1907.6	17.01	17.50	1.119	0.07	0.610	0.683
	1	1	WCDMA Band II	RMC 12.2Kbps	Right Cheek	Full	9262	1852.4	23.71	23.80	1.021	0.02	0.111	0.113
	1	1	WCDMA Band II	RMC 12.2Kbps	Right Tilted	Full	9262	1852.4	23.71	23.80	1.021	-0.06	0.055	0.056
	1	1	WCDMA Band II	RMC 12.2Kbps	Left Cheek	Full	9262	1852.4	23.71	23.80	1.021	0.04	0.242	0.247
	1	1	WCDMA Band II	RMC 12.2Kbps	Left Tilted	Full	9262	1852.4	23.71	23.80	1.021	0.01	0.085	0.086
	1	1	WCDMA Band II	RMC 12.2Kbps	Left Cheek	Full	9400	1880	23.51	23.80	1.069	0.02	0.250	0.267
	1	1	WCDMA Band II	RMC 12.2Kbps	Left Cheek	Full	9538	1907.6	23.52	23.80	1.067	0.07	0.236	0.252



<CDMA2000 SAR>

Plot No.	SIM	Antenna	Band	Mode	Test Position	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)
	1	2	CDMA2000 BC0	RC3+SO55	Right Cheek	Reduced Level 1	1013	824.7	21.33	21.50	1.040	0.01	0.775	0.806
	1	2	CDMA2000 BC0	RC3+SO55	Right Tilted	Reduced Level 1	1013	824.7	21.33	21.50	1.040	0.06	0.709	0.737
	1	2	CDMA2000 BC0	RC3+SO55	Left Cheek	Reduced Level 1	1013	824.7	21.33	21.50	1.040	0.11	0.662	0.688
	1	2	CDMA2000 BC0	RC3+SO55	Left Tilted	Reduced Level 1	1013	824.7	21.33	21.50	1.040	0.08	0.587	0.610
#06	1	2	CDMA2000 BC0	RC3+SO55	Right Cheek	Reduced Level 1	384	836.52	21.31	21.50	1.045	0.03	0.801	0.837
	1	2	CDMA2000 BC0	RC3+SO55	Right Cheek	Reduced Level 1	777	848.31	21.30	21.50	1.047	0.09	0.694	0.727
	1	2	CDMA2000 BC0	RC3+SO55	Right Cheek	Reduced Level 2	1013	824.7	19.96	20.50	1.132	0.04	0.603	0.683
	1	2	CDMA2000 BC0	RC3+SO55	Right Tilted	Reduced Level 2	1013	824.7	19.96	20.50	1.132	-0.05	0.572	0.648
	1	2	CDMA2000 BC0	RC3+SO55	Left Cheek	Reduced Level 2	1013	824.7	19.96	20.50	1.132	0.11	0.518	0.587
	1	2	CDMA2000 BC0	RC3+SO55	Left Tilted	Reduced Level 2	1013	824.7	19.96	20.50	1.132	0.08	0.447	0.506
	1	2	CDMA2000 BC0	RC3+SO55	Right Cheek	Reduced Level 2	384	836.52	19.95	20.50	1.135	0.01	0.614	0.697
	1	2	CDMA2000 BC0	RC3+SO55	Right Cheek	Reduced Level 2	777	848.31	19.93	20.50	1.140	0.03	0.602	0.686
	1	2	CDMA2000 BC0	RC3+SO55	Right Cheek	Reduced Level 3	1013	824.7	19.34	20.00	1.164	0.09	0.588	0.685
	1	2	CDMA2000 BC0	RC3+SO55	Right Tilted	Reduced Level 3	1013	824.7	19.34	20.00	1.164	0.01	0.461	0.537
	1	2	CDMA2000 BC0	RC3+SO55	Left Cheek	Reduced Level 3	1013	824.7	19.34	20.00	1.164	0.11	0.495	0.576
	1	2	CDMA2000 BC0	RC3+SO55	Left Tilted	Reduced Level 3	1013	824.7	19.34	20.00	1.164	-0.05	0.425	0.495
	1	2	CDMA2000 BC0	RC3+SO55	Right Cheek	Reduced Level 3	384	836.52	19.30	20.00	1.175	0.06	0.533	0.626
	1	2	CDMA2000 BC0	RC3+SO55	Right Cheek	Reduced Level 3	777	848.31	19.33	20.00	1.167	0.07	0.559	0.652
	1	1	CDMA2000 BC0	RC3+SO55	Right Cheek	Full	1013	824.7	24.43	24.80	1.089	0.03	0.233	0.254
	1	1	CDMA2000 BC0	RC3+SO55	Right Tilted	Full	1013	824.7	24.43	24.80	1.089	0.05	0.158	0.172
	1	1	CDMA2000 BC0	RC3+SO55	Left Cheek	Full	1013	824.7	24.43	24.80	1.089	0.02	0.277	0.302
	1	1	CDMA2000 BC0	RC3+SO55	Left Tilted	Full	1013	824.7	24.43	24.80	1.089	0.01	0.169	0.184
	1	1	CDMA2000 BC0	RC3+SO55	Left Cheek	Full	384	836.52	24.32	24.80	1.117	0.09	0.261	0.292
	1	1	CDMA2000 BC0	RC3+SO55	Left Cheek	Full	777	848.31	24.33	24.80	1.114	0.02	0.285	0.318
	1	2	CDMA2000 BC1	RC3+SO55	Right Cheek	Reduced Level 1	1175	1908.75	18.01	18.50	1.119	0.03	0.997	1.116
#07	1	2	CDMA2000 BC1	RC3+SO55	Right Tilted	Reduced Level 1	1175	1908.75	18.01	18.50	1.119	0.02	1.000	1.119
	1	2	CDMA2000 BC1	RC3+SO55	Left Cheek	Reduced Level 1	1175	1908.75	18.01	18.50	1.119	0.01	0.313	0.350
	1	2	CDMA2000 BC1	RC3+SO55	Left Tilted	Reduced Level 1	1175	1908.75	18.01	18.50	1.119	0.07	0.381	0.427
	1	2	CDMA2000 BC1	RC3+SO55	Right Cheek	Reduced Level 1	25	1851.25	17.89	18.50	1.151	0.05	0.917	1.055
	1	2	CDMA2000 BC1	RC3+SO55	Right Cheek	Reduced Level 1	600	1880	18.00	18.50	1.122	0.05	0.924	1.037
	1	2	CDMA2000 BC1	RC3+SO55	Right Tilted	Reduced Level 1	25	1851.25	17.89	18.50	1.151	0.1	0.936	1.077
	1	2	CDMA2000 BC1	RC3+SO55	Right Tilted	Reduced Level 1	600	1880	18.00	18.50	1.122	0.06	0.980	1.100
	1	2	CDMA2000 BC1	RC3+SO55	Right Cheek	Reduced Level 2	600	1880	16.02	16.50	1.117	0.05	0.742	0.829
	1	2	CDMA2000 BC1	RC3+SO55	Right Tilted	Reduced Level 2	600	1880	16.02	16.50	1.117	0.01	0.740	0.826
	1	2	CDMA2000 BC1	RC3+SO55	Left Cheek	Reduced Level 2	600	1880	16.02	16.50	1.117	-0.06	0.222	0.248
	1	2	CDMA2000 BC1	RC3+SO55	Left Tilted	Reduced Level 2	600	1880	16.02	16.50	1.117	0.08	0.123	0.137
	1	2	CDMA2000 BC1	RC3+SO55	Right Cheek	Reduced Level 2	25	1851.25	15.91	16.50	1.146	0.04	0.736	0.843
	1	2	CDMA2000 BC1	RC3+SO55	Right Cheek	Reduced Level 2	1175	1908.75	15.95	16.50	1.135	0.08	0.801	0.909
	1	2	CDMA2000 BC1	RC3+SO55	Right Tilted	Reduced Level 2	25	1851.25	15.91	16.50	1.146	-0.11	0.702	0.804
	1	2	CDMA2000 BC1	RC3+SO55	Right Tilted	Reduced Level 2	1175	1908.75	15.95	16.50	1.135	0.06	0.760	0.863
	1	1	CDMA2000 BC1	RC3+SO55	Right Cheek	Full	1175	1908.75	24.43	24.80	1.089	0.06	0.145	0.158
	1	1	CDMA2000 BC1	RC3+SO55	Right Tilted	Full	1175	1908.75	24.43	24.80	1.089	0.02	0.092	0.100
	1	1	CDMA2000 BC1	RC3+SO55	Left Cheek	Full	1175	1908.75	24.43	24.80	1.089	0.08	0.262	0.285
	1	1	CDMA2000 BC1	RC3+SO55	Left Tilted	Full	1175	1908.75	24.43	24.80	1.089	0.03	0.088	0.096
	1	1	CDMA2000 BC1	RC3+SO55	Left Cheek	Full	25	1851.25	24.27	24.80	1.130	0.05	0.241	0.272
	1	1	CDMA2000 BC1	RC3+SO55	Left Cheek	Full	600	1880	24.31	24.80	1.119	0.01	0.259	0.290



<FDD LTE SAR>

Plot No.	SIM	Antenna	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	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)
#08	1	2	LTE Band 71	20M	QPSK	1	0	Right Cheek	Full	133322	683	23.15	23.80	1.161	0.02	0.899	1.044
	1	2	LTE Band 71	20M	QPSK	1	0	Right Tilted	Full	133322	683	23.15	23.80	1.161	0.03	0.816	0.948
	1	2	LTE Band 71	20M	QPSK	1	0	Left Cheek	Full	133322	683	23.15	23.80	1.161	0.09	0.684	0.794
	1	2	LTE Band 71	20M	QPSK	1	0	Left Tilted	Full	133322	683	23.15	23.80	1.161	0.07	0.602	0.699
	1	2	LTE Band 71	20M	QPSK	50	50	Right Cheek	Full	133322	683	22.14	22.80	1.164	0.02	0.692	0.806
	1	2	LTE Band 71	20M	QPSK	50	50	Right Tilted	Full	133322	683	22.14	22.80	1.164	0.01	0.653	0.760
	1	2	LTE Band 71	20M	QPSK	50	50	Left Cheek	Full	133322	683	22.14	22.80	1.164	0.12	0.611	0.711
	1	2	LTE Band 71	20M	QPSK	50	50	Left Tilted	Full	133322	683	22.14	22.80	1.164	0.06	0.514	0.598
	1	2	LTE Band 71	20M	QPSK	100	0	Right Cheek	Full	133322	683	22.11	22.80	1.172	0.01	0.760	0.891
	1	2	LTE Band 71	20M	QPSK	100	0	Right Tilted	Full	133322	683	22.11	22.80	1.172	0.05	0.660	0.774
	1	2	LTE Band 71	20M	QPSK	1	0	Right Cheek	Reduced Level 2	133322	683	22.35	22.50	1.035	0.09	0.632	0.654
	1	2	LTE Band 71	20M	QPSK	1	0	Right Tilted	Reduced Level 2	133322	683	22.35	22.50	1.035	0.01	0.593	0.614
	1	2	LTE Band 71	20M	QPSK	1	0	Left Cheek	Reduced Level 2	133322	683	22.35	22.50	1.035	-0.05	0.547	0.566
	1	2	LTE Band 71	20M	QPSK	1	0	Left Tilted	Reduced Level 2	133322	683	22.35	22.50	1.035	0.11	0.477	0.494
	1	2	LTE Band 71	20M	QPSK	50	0	Right Cheek	Reduced Level 2	133322	683	22.22	22.50	1.067	0.06	0.667	0.711
	1	2	LTE Band 71	20M	QPSK	50	0	Right Tilted	Reduced Level 2	133322	683	22.22	22.50	1.067	0.03	0.631	0.673
	1	2	LTE Band 71	20M	QPSK	50	0	Left Cheek	Reduced Level 2	133322	683	22.22	22.50	1.067	0.05	0.583	0.622
	1	2	LTE Band 71	20M	QPSK	50	0	Left Tilted	Reduced Level 2	133322	683	22.22	22.50	1.067	0.11	0.511	0.545
	1	2	LTE Band 71	20M	QPSK	1	0	Right Cheek	Reduced Level 3	133322	683	21.82	22.00	1.042	0.01	0.577	0.601
	1	2	LTE Band 71	20M	QPSK	1	0	Right Tilted	Reduced Level 3	133322	683	21.82	22.00	1.042	0.13	0.534	0.557
	1	2	LTE Band 71	20M	QPSK	1	0	Left Cheek	Reduced Level 3	133322	683	21.82	22.00	1.042	0.15	0.486	0.507
	1	2	LTE Band 71	20M	QPSK	1	0	Left Tilted	Reduced Level 3	133322	683	21.82	22.00	1.042	0.08	0.430	0.448
	1	2	LTE Band 71	20M	QPSK	50	0	Right Cheek	Reduced Level 3	133322	683	21.85	22.00	1.035	0.05	0.607	0.628
	1	2	LTE Band 71	20M	QPSK	50	0	Right Tilted	Reduced Level 3	133322	683	21.85	22.00	1.035	0.07	0.566	0.586
	1	2	LTE Band 71	20M	QPSK	50	0	Left Cheek	Reduced Level 3	133322	683	21.85	22.00	1.035	0.09	0.520	0.538
	1	2	LTE Band 71	20M	QPSK	50	0	Left Tilted	Reduced Level 3	133322	683	21.85	22.00	1.035	0.01	0.464	0.480
	1	1	LTE Band 71	20M	QPSK	1	0	Right Cheek	Full	133322	683	23.27	23.80	1.130	0.06	0.102	0.115
	1	1	LTE Band 71	20M	QPSK	1	0	Right Tilted	Full	133322	683	23.27	23.80	1.130	0.03	0.071	0.081
	1	1	LTE Band 71	20M	QPSK	1	0	Left Cheek	Full	133322	683	23.27	23.80	1.130	0.01	0.102	0.115
	1	1	LTE Band 71	20M	QPSK	1	0	Left Tilted	Full	133322	683	23.27	23.80	1.130	0.05	0.048	0.054
	1	1	LTE Band 71	20M	QPSK	50	50	Right Cheek	Full	133322	683	22.31	22.80	1.119	-0.07	0.076	0.085
	1	1	LTE Band 71	20M	QPSK	50	50	Right Tilted	Full	133322	683	22.31	22.80	1.119	0.05	0.043	0.048
	1	1	LTE Band 71	20M	QPSK	50	50	Left Cheek	Full	133322	683	22.31	22.80	1.119	0.02	0.090	0.101
	1	1	LTE Band 71	20M	QPSK	50	50	Left Tilted	Full	133322	683	22.31	22.80	1.119	0.01	0.045	0.050



FCC SAR Test Report

Report No. : FA812508-01

Plot No.	SIM	Antenna	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	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)
#09	1	2	LTE Band 12	10M	QPSK	1	49	Right Cheek	Full	23095	707.5	22.98	23.80	1.208	0.09	0.932	1.126
	1	2	LTE Band 12	10M	QPSK	1	49	Right Tilted	Full	23095	707.5	22.98	23.80	1.208	0.08	0.962	1.162
	1	2	LTE Band 12	10M	QPSK	1	49	Left Cheek	Full	23095	707.5	22.98	23.80	1.208	0.05	0.761	0.919
	1	2	LTE Band 12	10M	QPSK	1	49	Left Tilted	Full	23095	707.5	22.98	23.80	1.208	0.07	0.660	0.797
	2	2	LTE Band 12	10M	QPSK	1	49	Right Tilted	Full	23095	707.5	22.98	23.80	1.208	0.06	0.819	0.989
	1	2	LTE Band 12	10M	QPSK	25	12	Right Cheek	Full	23095	707.5	22.04	22.80	1.191	0.09	0.770	0.917
	1	2	LTE Band 12	10M	QPSK	25	12	Right Tilted	Full	23095	707.5	22.04	22.80	1.191	0.04	0.781	0.930
	1	2	LTE Band 12	10M	QPSK	25	12	Left Cheek	Full	23095	707.5	22.04	22.80	1.191	-0.05	0.634	0.755
	1	2	LTE Band 12	10M	QPSK	25	12	Left Tilted	Full	23095	707.5	22.04	22.80	1.191	0.09	0.563	0.671
	1	2	LTE Band 12	10M	QPSK	50	0	Right Cheek	Full	23095	707.5	22.01	22.80	1.199	0.09	0.753	0.903
	1	2	LTE Band 12	10M	QPSK	50	0	Right Tilted	Full	23095	707.5	22.01	22.80	1.199	0.04	0.777	0.932
	1	2	LTE Band 12	10M	QPSK	50	0	Left Cheek	Full	23095	707.5	22.01	22.80	1.199	0.01	0.633	0.759
	1	2	LTE Band 12	10M	QPSK	1	49	Right Cheek	Reduced Level 2	23095	707.5	21.75	22.00	1.059	0.07	0.669	0.709
	1	2	LTE Band 12	10M	QPSK	1	49	Right Tilted	Reduced Level 2	23095	707.5	21.75	22.00	1.059	0.05	0.679	0.719
	1	2	LTE Band 12	10M	QPSK	1	49	Left Cheek	Reduced Level 2	23095	707.5	21.75	22.00	1.059	0.01	0.606	0.642
	1	2	LTE Band 12	10M	QPSK	1	49	Left Tilted	Reduced Level 2	23095	707.5	21.75	22.00	1.059	0.03	0.580	0.614
	1	2	LTE Band 12	10M	QPSK	25	0	Right Cheek	Reduced Level 2	23095	707.5	21.84	22.00	1.038	0.11	0.707	0.734
	1	2	LTE Band 12	10M	QPSK	25	0	Right Tilted	Reduced Level 2	23095	707.5	21.84	22.00	1.038	0.08	0.685	0.711
	1	2	LTE Band 12	10M	QPSK	25	0	Left Cheek	Reduced Level 2	23095	707.5	21.84	22.00	1.038	-0.05	0.623	0.646
	1	2	LTE Band 12	10M	QPSK	25	0	Left Tilted	Reduced Level 2	23095	707.5	21.84	22.00	1.038	0.06	0.520	0.540
	1	2	LTE Band 12	10M	QPSK	1	49	Right Cheek	Reduced Level 3	23095	707.5	21.34	21.50	1.038	0.05	0.548	0.569
	1	2	LTE Band 12	10M	QPSK	1	49	Right Tilted	Reduced Level 3	23095	707.5	21.34	21.50	1.038	0.14	0.598	0.620
	1	2	LTE Band 12	10M	QPSK	1	49	Left Cheek	Reduced Level 3	23095	707.5	21.34	21.50	1.038	0.05	0.537	0.557
	1	2	LTE Band 12	10M	QPSK	1	49	Left Tilted	Reduced Level 3	23095	707.5	21.34	21.50	1.038	0.08	0.449	0.466
	1	2	LTE Band 12	10M	QPSK	25	12	Right Cheek	Reduced Level 3	23095	707.5	21.29	21.50	1.050	0.11	0.606	0.636
	1	2	LTE Band 12	10M	QPSK	25	12	Right Tilted	Reduced Level 3	23095	707.5	21.29	21.50	1.050	0.01	0.610	0.640
	1	2	LTE Band 12	10M	QPSK	25	12	Left Cheek	Reduced Level 3	23095	707.5	21.29	21.50	1.050	-0.01	0.548	0.575
	1	2	LTE Band 12	10M	QPSK	25	12	Left Tilted	Reduced Level 3	23095	707.5	21.29	21.50	1.050	0.03	0.450	0.472
	1	1	LTE Band 12	10M	QPSK	1	49	Right Cheek	Full	23095	707.5	23.29	23.80	1.125	0.04	0.112	0.126
	1	1	LTE Band 12	10M	QPSK	1	49	Right Tilted	Full	23095	707.5	23.29	23.80	1.125	0.02	0.074	0.083
	1	1	LTE Band 12	10M	QPSK	1	49	Left Cheek	Full	23095	707.5	23.29	23.80	1.125	0.09	0.131	0.147
	1	1	LTE Band 12	10M	QPSK	1	49	Left Tilted	Full	23095	707.5	23.29	23.80	1.125	0.03	0.086	0.096
	1	1	LTE Band 12	10M	QPSK	25	25	Right Cheek	Full	23095	707.5	22.37	22.80	1.104	0.09	0.077	0.085
	1	1	LTE Band 12	10M	QPSK	25	25	Right Tilted	Full	23095	707.5	22.37	22.80	1.104	0.02	0.072	0.079
	1	1	LTE Band 12	10M	QPSK	25	25	Left Cheek	Full	23095	707.5	22.37	22.80	1.104	0.05	0.090	0.099
	1	1	LTE Band 12	10M	QPSK	25	25	Left Tilted	Full	23095	707.5	22.37	22.80	1.104	0.08	0.080	0.088



FCC SAR Test Report

Report No. : FA812508-01

Plot No.	SIM	Antenna	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	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)
	1	2	LTE Band 5	10M	QPSK	1	0	Right Cheek	Reduced Level 1	20525	836.5	22.27	23.00	1.183	0.02	0.841	0.995
#10	1	2	LTE Band 5	10M	QPSK	1	0	Right Tilted	Reduced Level 1	20525	836.5	22.27	23.00	1.183	0.08	0.856	1.013
	1	2	LTE Band 5	10M	QPSK	1	0	Left Cheek	Reduced Level 1	20525	836.5	22.27	23.00	1.183	0.05	0.661	0.782
	1	2	LTE Band 5	10M	QPSK	1	0	Left Tilted	Reduced Level 1	20525	836.5	22.27	23.00	1.183	0.03	0.578	0.684
	1	2	LTE Band 5	10M	QPSK	25	12	Right Cheek	Reduced Level 1	20525	836.5	21.85	22.00	1.035	0.02	0.772	0.799
	1	2	LTE Band 5	10M	QPSK	25	12	Right Tilted	Reduced Level 1	20525	836.5	21.85	22.00	1.035	0.09	0.784	0.812
	1	2	LTE Band 5	10M	QPSK	25	12	Left Cheek	Reduced Level 1	20525	836.5	21.85	22.00	1.035	0.05	0.609	0.630
	1	2	LTE Band 5	10M	QPSK	25	12	Left Tilted	Reduced Level 1	20525	836.5	21.85	22.00	1.035	0.02	0.532	0.551
	1	2	LTE Band 5	10M	QPSK	50	0	Right Cheek	Reduced Level 1	20525	836.5	21.80	22.00	1.047	0.02	0.764	0.800
	1	2	LTE Band 5	10M	QPSK	50	0	Right Tilted	Reduced Level 1	20525	836.5	21.80	22.00	1.047	0.02	0.793	0.830
	1	2	LTE Band 5	10M	QPSK	1	0	Right Cheek	Reduced Level 2	20525	836.5	20.84	21.50	1.164	0.06	0.600	0.698
	1	2	LTE Band 5	10M	QPSK	1	0	Right Tilted	Reduced Level 2	20525	836.5	20.84	21.50	1.164	0.07	0.553	0.644
	1	2	LTE Band 5	10M	QPSK	1	0	Left Cheek	Reduced Level 2	20525	836.5	20.84	21.50	1.164	-0.08	0.496	0.577
	1	2	LTE Band 5	10M	QPSK	1	0	Left Tilted	Reduced Level 2	20525	836.5	20.84	21.50	1.164	0.06	0.421	0.490
	1	2	LTE Band 5	10M	QPSK	25	12	Right Cheek	Reduced Level 2	20525	836.5	20.91	21.50	1.146	0.09	0.628	0.719
	1	2	LTE Band 5	10M	QPSK	25	12	Right Tilted	Reduced Level 2	20525	836.5	20.91	21.50	1.146	0.04	0.559	0.640
	1	2	LTE Band 5	10M	QPSK	25	12	Left Cheek	Reduced Level 2	20525	836.5	20.91	21.50	1.146	0.01	0.478	0.548
	1	2	LTE Band 5	10M	QPSK	25	12	Left Tilted	Reduced Level 2	20525	836.5	20.91	21.50	1.146	0.09	0.432	0.495
	1	2	LTE Band 5	10M	QPSK	1	0	Right Cheek	Reduced Level 3	20525	836.5	20.44	21.00	1.138	0.09	0.519	0.590
	1	2	LTE Band 5	10M	QPSK	1	0	Right Tilted	Reduced Level 3	20525	836.5	20.44	21.00	1.138	-0.11	0.487	0.554
	1	2	LTE Band 5	10M	QPSK	1	0	Left Cheek	Reduced Level 3	20525	836.5	20.44	21.00	1.138	0.05	0.423	0.481
	1	2	LTE Band 5	10M	QPSK	1	0	Left Tilted	Reduced Level 3	20525	836.5	20.44	21.00	1.138	0.17	0.379	0.431
	1	2	LTE Band 5	10M	QPSK	25	0	Right Cheek	Reduced Level 3	20525	836.5	20.33	21.00	1.167	0.05	0.540	0.630
	1	2	LTE Band 5	10M	QPSK	25	0	Right Tilted	Reduced Level 3	20525	836.5	20.33	21.00	1.167	0.09	0.505	0.589
	1	2	LTE Band 5	10M	QPSK	25	0	Left Cheek	Reduced Level 3	20525	836.5	20.33	21.00	1.167	0.01	0.434	0.506
	1	2	LTE Band 5	10M	QPSK	25	0	Left Tilted	Reduced Level 3	20525	836.5	20.33	21.00	1.167	-0.06	0.378	0.441
	1	1	LTE Band 5	10M	QPSK	1	0	Right Cheek	Full	20525	836.5	23.34	23.80	1.112	0.04	0.162	0.180
	1	1	LTE Band 5	10M	QPSK	1	0	Right Tilted	Full	20525	836.5	23.34	23.80	1.112	0.02	0.104	0.116
	1	1	LTE Band 5	10M	QPSK	1	0	Left Cheek	Full	20525	836.5	23.34	23.80	1.112	0.04	0.162	0.180
	1	1	LTE Band 5	10M	QPSK	1	0	Left Tilted	Full	20525	836.5	23.34	23.80	1.112	0.01	0.107	0.119
	1	1	LTE Band 5	10M	QPSK	25	0	Right Cheek	Full	20525	836.5	22.38	22.80	1.102	0.07	0.100	0.110
	1	1	LTE Band 5	10M	QPSK	25	0	Right Tilted	Full	20525	836.5	22.38	22.80	1.102	-0.05	0.076	0.084
	1	1	LTE Band 5	10M	QPSK	25	0	Left Cheek	Full	20525	836.5	22.38	22.80	1.102	0.06	0.093	0.102
	1	1	LTE Band 5	10M	QPSK	25	0	Left Tilted	Full	20525	836.5	22.38	22.80	1.102	0.08	0.082	0.090



Plot No.	SIM	Antenna	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	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)
#11	1	2	LTE Band 26	15M	QPSK	1	0	Right Cheek	Reduced Level 1	26965	841.5	22.75	23.00	1.059	0.05	0.841	0.891
	1	2	LTE Band 26	15M	QPSK	1	0	Right Tilted	Reduced Level 1	26965	841.5	22.75	23.00	1.059	0.07	0.809	0.857
	1	2	LTE Band 26	15M	QPSK	1	0	Left Cheek	Reduced Level 1	26965	841.5	22.75	23.00	1.059	0.02	0.686	0.727
	1	2	LTE Band 26	15M	QPSK	1	0	Left Tilted	Reduced Level 1	26965	841.5	22.75	23.00	1.059	0.04	0.600	0.636
	1	2	LTE Band 26	15M	QPSK	1	0	Right Cheek	Reduced Level 1	26765	821.5	22.72	23.00	1.067	0.02	0.835	0.891
	1	2	LTE Band 26	15M	QPSK	1	0	Right Cheek	Reduced Level 1	26865	831.5	22.73	23.00	1.064	0.09	0.792	0.843
	1	2	LTE Band 26	15M	QPSK	1	0	Right Tilted	Reduced Level 1	26765	821.5	22.72	23.00	1.067	0.05	0.747	0.797
	1	2	LTE Band 26	15M	QPSK	1	0	Right Tilted	Reduced Level 1	26865	831.5	22.73	23.00	1.064	0.07	0.700	0.745
	1	2	LTE Band 26	15M	QPSK	36	0	Right Cheek	Reduced Level 1	26965	841.5	21.89	22.00	1.026	0.02	0.772	0.792
	1	2	LTE Band 26	15M	QPSK	36	0	Right Tilted	Reduced Level 1	26965	841.5	21.89	22.00	1.026	0.1	0.755	0.774
	1	2	LTE Band 26	15M	QPSK	36	0	Left Cheek	Reduced Level 1	26965	841.5	21.89	22.00	1.026	0.03	0.638	0.654
	1	2	LTE Band 26	15M	QPSK	36	0	Left Tilted	Reduced Level 1	26965	841.5	21.89	22.00	1.026	0.06	0.548	0.562
	1	2	LTE Band 26	15M	QPSK	75	0	Right Cheek	Reduced Level 1	26965	841.5	21.86	22.00	1.033	0.05	0.747	0.771
	1	2	LTE Band 26	15M	QPSK	75	0	Right Tilted	Reduced Level 1	26965	841.5	21.86	22.00	1.033	0.02	0.788	0.814
	1	2	LTE Band 26	15M	QPSK	1	0	Right Cheek	Reduced Level 2	26965	841.5	20.87	21.00	1.030	0.01	0.599	0.617
	1	2	LTE Band 26	15M	QPSK	1	0	Right Tilted	Reduced Level 2	26965	841.5	20.87	21.00	1.030	0.08	0.559	0.576
	1	2	LTE Band 26	15M	QPSK	1	0	Left Cheek	Reduced Level 2	26965	841.5	20.87	21.00	1.030	0.09	0.490	0.505
	1	2	LTE Band 26	15M	QPSK	1	0	Left Tilted	Reduced Level 2	26965	841.5	20.87	21.00	1.030	0.11	0.430	0.443
	1	2	LTE Band 26	15M	QPSK	1	0	Right Cheek	Reduced Level 2	26765	821.5	20.85	21.00	1.035	0.05	0.608	0.629
	1	2	LTE Band 26	15M	QPSK	1	0	Right Cheek	Reduced Level 2	26865	831.5	20.82	21.00	1.042	0.12	0.596	0.621
	1	2	LTE Band 26	15M	QPSK	36	0	Right Cheek	Reduced Level 2	26965	841.5	20.56	21.00	1.107	0.07	0.554	0.613
	1	2	LTE Band 26	15M	QPSK	36	0	Right Tilted	Reduced Level 2	26965	841.5	20.56	21.00	1.107	0.08	0.524	0.580
	1	2	LTE Band 26	15M	QPSK	36	0	Left Cheek	Reduced Level 2	26965	841.5	20.56	21.00	1.107	0.02	0.461	0.510
	1	2	LTE Band 26	15M	QPSK	36	0	Left Tilted	Reduced Level 2	26965	841.5	20.56	21.00	1.107	0.16	0.394	0.436
	1	1	LTE Band 26	15M	QPSK	1	0	Right Cheek	Full	26965	841.5	23.49	23.80	1.074	0.03	0.184	0.198
	1	1	LTE Band 26	15M	QPSK	1	0	Right Tilted	Full	26965	841.5	23.49	23.80	1.074	0.01	0.121	0.130
	1	1	LTE Band 26	15M	QPSK	1	0	Left Cheek	Full	26965	841.5	23.49	23.80	1.074	0.06	0.220	0.236
	1	1	LTE Band 26	15M	QPSK	1	0	Left Tilted	Full	26965	841.5	23.49	23.80	1.074	0.02	0.131	0.141
	1	1	LTE Band 26	15M	QPSK	1	0	Left Cheek	Full	26765	821.5	23.42	23.80	1.091	0.01	0.228	0.249
	1	1	LTE Band 26	15M	QPSK	1	0	Left Cheek	Full	26865	831.5	23.43	23.80	1.089	0.08	0.202	0.220
	1	1	LTE Band 26	15M	QPSK	36	0	Right Cheek	Full	26965	841.5	22.49	22.80	1.074	0.09	0.099	0.106
	1	1	LTE Band 26	15M	QPSK	36	0	Right Tilted	Full	26965	841.5	22.49	22.80	1.074	0.04	0.078	0.084
	1	1	LTE Band 26	15M	QPSK	36	0	Left Cheek	Full	26965	841.5	22.49	22.80	1.074	0.05	0.121	0.130
	1	1	LTE Band 26	15M	QPSK	36	0	Left Tilted	Full	26965	841.5	22.49	22.80	1.074	0.01	0.078	0.084



FCC SAR Test Report

Report No. : FA812508-01

Plot No.	SIM	Antenna	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	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)
	1	2	LTE Band 66	20M	QPSK	1	0	Right Cheek	Reduced Level 1	132322	1745	20.33	20.50	1.040	0.05	0.871	0.906
	1	2	LTE Band 66	20M	QPSK	1	0	Right Tilted	Reduced Level 1	132322	1745	20.33	20.50	1.040	0.04	0.914	0.950
	1	2	LTE Band 66	20M	QPSK	1	0	Left Cheek	Reduced Level 1	132322	1745	20.33	20.50	1.040	0.09	0.375	0.390
	1	2	LTE Band 66	20M	QPSK	1	0	Left Tilted	Reduced Level 1	132322	1745	20.33	20.50	1.040	0.07	0.392	0.408
	1	2	LTE Band 66	20M	QPSK	1	0	Right Cheek	Reduced Level 1	132072	1720	19.90	20.50	1.148	0.09	0.649	0.745
	1	2	LTE Band 66	20M	QPSK	1	0	Right Cheek	Reduced Level 1	132572	1770	20.04	20.50	1.112	0.12	1.030	1.145
	1	2	LTE Band 66	20M	QPSK	1	0	Right Tilted	Reduced Level 1	132072	1720	19.90	20.50	1.148	0.07	0.616	0.707
	1	2	LTE Band 66	20M	QPSK	1	0	Right Tilted	Reduced Level 1	132572	1770	20.04	20.50	1.112	0.04	0.981	1.091
	1	2	LTE Band 66	20M	QPSK	50	0	Right Cheek	Reduced Level 1	132322	1745	20.18	20.50	1.076	0.03	0.968	1.042
	1	2	LTE Band 66	20M	QPSK	50	0	Right Tilted	Reduced Level 1	132322	1745	20.18	20.50	1.076	0.02	0.935	1.006
	1	2	LTE Band 66	20M	QPSK	50	0	Left Cheek	Reduced Level 1	132322	1745	20.18	20.50	1.076	0.04	0.382	0.411
	1	2	LTE Band 66	20M	QPSK	50	0	Left Tilted	Reduced Level 1	132322	1745	20.18	20.50	1.076	0.05	0.394	0.424
	1	2	LTE Band 66	20M	QPSK	50	0	Right Cheek	Reduced Level 1	132072	1720	19.91	20.50	1.146	0.02	0.643	0.737
#12	1	2	LTE Band 66	20M	QPSK	50	0	Right Cheek	Reduced Level 1	132572	1770	19.89	20.50	1.151	0.01	1.020	1.174
	1	2	LTE Band 66	20M	QPSK	50	0	Right Tilted	Reduced Level 1	132072	1720	19.91	20.50	1.146	0.05	0.620	0.710
	1	2	LTE Band 66	20M	QPSK	50	0	Right Tilted	Reduced Level 1	132572	1770	19.89	20.50	1.151	0.06	0.967	1.113
	1	2	LTE Band 66	20M	QPSK	100	0	Right Cheek	Reduced Level 1	132322	1745	20.06	20.50	1.107	0.05	0.962	1.065
	1	2	LTE Band 66	20M	QPSK	100	0	Right Tilted	Reduced Level 1	132322	1745	20.06	20.50	1.107	0.08	0.949	1.050
	1	2	LTE Band 66	20M	QPSK	1	0	Right Cheek	Reduced Level 2	132322	1745	18.32	18.50	1.042	0.06	0.546	0.569
	1	2	LTE Band 66	20M	QPSK	1	0	Right Tilted	Reduced Level 2	132322	1745	18.32	18.50	1.042	0.08	0.651	0.679
	1	2	LTE Band 66	20M	QPSK	1	0	Left Cheek	Reduced Level 2	132322	1745	18.32	18.50	1.042	-0.01	0.175	0.182
	1	2	LTE Band 66	20M	QPSK	1	0	Left Tilted	Reduced Level 2	132322	1745	18.32	18.50	1.042	0.06	0.217	0.226
	1	2	LTE Band 66	20M	QPSK	1	0	Right Tilted	Reduced Level 2	132072	1720	18.00	18.50	1.122	-0.11	0.404	0.453
	1	2	LTE Band 66	20M	QPSK	1	0	Right Tilted	Reduced Level 2	132572	1770	18.15	18.50	1.084	0.08	0.709	0.769
	1	2	LTE Band 66	20M	QPSK	50	0	Right Cheek	Reduced Level 2	132322	1745	18.31	18.50	1.045	0.09	0.495	0.517
	1	2	LTE Band 66	20M	QPSK	50	0	Right Tilted	Reduced Level 2	132322	1745	18.31	18.50	1.045	0.01	0.640	0.669
	1	2	LTE Band 66	20M	QPSK	50	0	Left Cheek	Reduced Level 2	132322	1745	18.31	18.50	1.045	0.15	0.107	0.112
	1	2	LTE Band 66	20M	QPSK	50	0	Left Tilted	Reduced Level 2	132322	1745	18.31	18.50	1.045	0.13	0.114	0.119
	1	1	LTE Band 66	20M	QPSK	1	0	Right Cheek	Full	132322	1745	23.48	23.80	1.076	0.02	0.068	0.073
	1	1	LTE Band 66	20M	QPSK	1	0	Right Tilted	Full	132322	1745	23.48	23.80	1.076	0.06	0.030	0.033
	1	1	LTE Band 66	20M	QPSK	1	0	Left Cheek	Full	132322	1745	23.48	23.80	1.076	-0.03	0.067	0.072
	1	1	LTE Band 66	20M	QPSK	1	0	Left Tilted	Full	132322	1745	23.48	23.80	1.076	0.05	0.028	0.030
	1	1	LTE Band 66	20M	QPSK	1	0	Right Cheek	Full	132072	1720	23.22	23.80	1.143	0.02	0.082	0.094
	1	1	LTE Band 66	20M	QPSK	1	0	Right Cheek	Full	132572	1770	23.43	23.80	1.089	0.03	0.107	0.117
	1	1	LTE Band 66	20M	QPSK	50	0	Right Cheek	Full	132322	1745	22.43	22.80	1.089	0.06	0.047	0.051
	1	1	LTE Band 66	20M	QPSK	50	0	Right Tilted	Full	132322	1745	22.43	22.80	1.089	0.07	0.022	0.024
	1	1	LTE Band 66	20M	QPSK	50	0	Left Cheek	Full	132322	1745	22.43	22.80	1.089	0.01	0.044	0.048
	1	1	LTE Band 66	20M	QPSK	50	0	Left Tilted	Full	132322	1745	22.43	22.80	1.089	-0.05	0.020	0.022



FCC SAR Test Report

Report No. : FA812508-01

Plot No.	SIM	Antenna	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	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)
	1	2	LTE Band 25	20M	QPSK	1	0	Right Cheek	Reduced Level 1	26590	1905	19.30	19.50	1.047	0.02	0.950	0.995
	1	2	LTE Band 25	20M	QPSK	1	0	Right Tilted	Reduced Level 1	26590	1905	19.30	19.50	1.047	0.04	0.965	1.010
	1	2	LTE Band 25	20M	QPSK	1	0	Left Cheek	Reduced Level 1	26590	1905	19.30	19.50	1.047	0.02	0.322	0.337
	1	2	LTE Band 25	20M	QPSK	1	0	Left Tilted	Reduced Level 1	26590	1905	19.30	19.50	1.047	0.04	0.332	0.348
	1	2	LTE Band 25	20M	QPSK	1	0	Right Cheek	Reduced Level 1	26140	1860	18.91	19.50	1.146	0.07	0.910	1.042
	1	2	LTE Band 25	20M	QPSK	1	0	Right Cheek	Reduced Level 1	26340	1880	18.96	19.50	1.132	0.09	0.889	1.007
	1	2	LTE Band 25	20M	QPSK	1	0	Right Tilted	Reduced Level 1	26140	1860	18.91	19.50	1.146	0.08	0.881	1.009
	1	2	LTE Band 25	20M	QPSK	1	0	Right Tilted	Reduced Level 1	26340	1880	18.96	19.50	1.132	0.08	0.867	0.982
	1	2	LTE Band 25	20M	QPSK	50	24	Right Cheek	Reduced Level 1	26590	1905	18.92	19.50	1.143	0.07	0.934	1.067
	1	2	LTE Band 25	20M	QPSK	50	24	Right Tilted	Reduced Level 1	26590	1905	18.92	19.50	1.143	0.04	0.947	1.082
	1	2	LTE Band 25	20M	QPSK	50	24	Left Cheek	Reduced Level 1	26590	1905	18.92	19.50	1.143	0.01	0.307	0.351
	1	2	LTE Band 25	20M	QPSK	50	24	Left Tilted	Reduced Level 1	26590	1905	18.92	19.50	1.143	0.07	0.329	0.376
	1	2	LTE Band 25	20M	QPSK	50	24	Right Cheek	Reduced Level 1	26140	1860	18.86	19.50	1.159	0.02	0.892	1.034
	1	2	LTE Band 25	20M	QPSK	50	24	Right Cheek	Reduced Level 1	26340	1880	18.75	19.50	1.189	0.03	0.868	1.032
	1	2	LTE Band 25	20M	QPSK	50	24	Right Tilted	Reduced Level 1	26140	1860	18.86	19.50	1.159	0.08	0.924	1.071
	1	2	LTE Band 25	20M	QPSK	50	24	Right Tilted	Reduced Level 1	26340	1880	18.75	19.50	1.189	0.06	0.874	1.039
	1	2	LTE Band 25	20M	QPSK	100	0	Right Cheek	Reduced Level 1	26590	1905	18.91	19.50	1.146	0.09	0.919	1.053
#13	1	2	LTE Band 25	20M	QPSK	100	0	Right Tilted	Reduced Level 1	26590	1905	18.91	19.50	1.146	0.02	0.962	1.102
	1	2	LTE Band 25	20M	QPSK	1	0	Right Cheek	Reduced Level 2	26590	1905	17.60	18.00	1.096	0.07	0.670	0.735
	1	2	LTE Band 25	20M	QPSK	1	0	Right Tilted	Reduced Level 2	26590	1905	17.60	18.00	1.096	0.01	0.720	0.789
	1	2	LTE Band 25	20M	QPSK	1	0	Left Cheek	Reduced Level 2	26590	1905	17.60	18.00	1.096	0.06	0.198	0.217
	1	2	LTE Band 25	20M	QPSK	1	0	Left Tilted	Reduced Level 2	26590	1905	17.60	18.00	1.096	0.11	0.229	0.251
	1	2	LTE Band 25	20M	QPSK	1	0	Right Tilted	Reduced Level 2	26140	1860	17.50	18.00	1.122	0.09	0.604	0.678
	1	2	LTE Band 25	20M	QPSK	1	0	Right Tilted	Reduced Level 2	26340	1880	17.31	18.00	1.172	-0.09	0.598	0.701
	1	2	LTE Band 25	20M	QPSK	50	24	Right Cheek	Reduced Level 2	26590	1905	17.50	18.00	1.122	0.08	0.693	0.778
	1	2	LTE Band 25	20M	QPSK	50	24	Right Tilted	Reduced Level 2	26590	1905	17.50	18.00	1.122	0.04	0.702	0.788
	1	2	LTE Band 25	20M	QPSK	50	24	Left Cheek	Reduced Level 2	26590	1905	17.50	18.00	1.122	0.05	0.203	0.228
	1	2	LTE Band 25	20M	QPSK	50	24	Left Tilted	Reduced Level 2	26590	1905	17.50	18.00	1.122	-0.01	0.228	0.256
	1	2	LTE Band 25	20M	QPSK	1	0	Right Cheek	Reduced Level 3	26590	1905	17.04	17.50	1.112	0.06	0.569	0.633
	1	2	LTE Band 25	20M	QPSK	1	0	Right Tilted	Reduced Level 3	26590	1905	17.04	17.50	1.112	0.07	0.571	0.635
	1	2	LTE Band 25	20M	QPSK	1	0	Left Cheek	Reduced Level 3	26590	1905	17.04	17.50	1.112	0.08	0.133	0.148
	1	2	LTE Band 25	20M	QPSK	1	0	Left Tilted	Reduced Level 3	26590	1905	17.04	17.50	1.112	-0.07	0.156	0.173
	1	2	LTE Band 25	20M	QPSK	1	0	Right Tilted	Reduced Level 3	26140	1860	16.96	17.50	1.132	-0.11	0.462	0.523
	1	2	LTE Band 25	20M	QPSK	1	0	Right Tilted	Reduced Level 3	26340	1880	16.90	17.50	1.148	0.06	0.496	0.569
	1	2	LTE Band 25	20M	QPSK	50	24	Right Cheek	Reduced Level 3	26590	1905	16.74	17.50	1.191	0.07	0.521	0.621
	1	2	LTE Band 25	20M	QPSK	50	24	Right Tilted	Reduced Level 3	26590	1905	16.74	17.50	1.191	0.05	0.530	0.631
	1	2	LTE Band 25	20M	QPSK	50	24	Left Cheek	Reduced Level 3	26590	1905	16.74	17.50	1.191	0.09	0.126	0.150
	1	2	LTE Band 25	20M	QPSK	50	24	Left Tilted	Reduced Level 3	26590	1905	16.74	17.50	1.191	-0.11	0.162	0.193
	1	1	LTE Band 25	20M	QPSK	1	0	Right Cheek	Full	26590	1905	23.36	23.80	1.107	0.07	0.031	0.034
	1	1	LTE Band 25	20M	QPSK	1	0	Right Tilted	Full	26590	1905	23.36	23.80	1.107	0.01	0.012	0.013
	1	1	LTE Band 25	20M	QPSK	1	0	Left Cheek	Full	26590	1905	23.36	23.80	1.107	0.06	0.212	0.235
	1	1	LTE Band 25	20M	QPSK	1	0	Left Tilted	Full	26590	1905	23.36	23.80	1.107	0.04	0.064	0.071
	1	1	LTE Band 25	20M	QPSK	1	0	Left Cheek	Full	26140	1860	22.94	23.80	1.219	-0.07	0.163	0.199
	1	1	LTE Band 25	20M	QPSK	1	0	Left Cheek	Full	26340	1880	23.00	23.80	1.202	0.08	0.186	0.224
	1	1	LTE Band 25	20M	QPSK	50	0	Right Cheek	Full	26590	1905	22.28	22.80	1.127	0.06	0.070	0.079
	1	1	LTE Band 25	20M	QPSK	50	0	Right Tilted	Full	26590	1905	22.28	22.80	1.127	0.01	0.061	0.069
	1	1	LTE Band 25	20M	QPSK	50	0	Left Cheek	Full	26590	1905	22.28	22.80	1.127	0.05	0.137	0.154
	1	1	LTE Band 25	20M	QPSK	50	0	Left Tilted	Full	26590	1905	22.28	22.80	1.127	0.09	0.046	0.052

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Form version. : 170509



Plot No.	SIM	Antenna	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	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)
	1	3	LTE Band 30	10M	QPSK	1	0	Right Cheek	Reduced Level 1	27710	2310	18.77	19.00	1.054	0.07	1.100	1.160
	1	3	LTE Band 30	10M	QPSK	1	0	Right Tilted	Reduced Level 1	27710	2310	18.77	19.00	1.054	0.01	0.296	0.312
	1	3	LTE Band 30	10M	QPSK	1	0	Left Cheek	Reduced Level 1	27710	2310	18.77	19.00	1.054	-0.15	0.249	0.263
	1	3	LTE Band 30	10M	QPSK	1	0	Left Tilted	Reduced Level 1	27710	2310	18.77	19.00	1.054	0.06	0.100	0.105
	1	3	LTE Band 30	10M	QPSK	25	12	Right Cheek	Reduced Level 1	27710	2310	18.67	19.00	1.079	0.12	1.110	1.198
	1	3	LTE Band 30	10M	QPSK	25	12	Right Tilted	Reduced Level 1	27710	2310	18.67	19.00	1.079	0.01	0.293	0.316
	1	3	LTE Band 30	10M	QPSK	25	12	Left Cheek	Reduced Level 1	27710	2310	18.67	19.00	1.079	0.06	0.249	0.269
	1	3	LTE Band 30	10M	QPSK	25	12	Left Tilted	Reduced Level 1	27710	2310	18.67	19.00	1.079	0.07	0.103	0.111
#14	1	3	LTE Band 30	10M	QPSK	50	0	Right Cheek	Reduced Level 1	27710	2310	18.65	19.00	1.084	0.12	1.110	1.203
	2	3	LTE Band 30	10M	QPSK	50	0	Right Cheek	Reduced Level 1	27710	2310	18.65	19.00	1.084	0.07	1.100	1.192
	1	3	LTE Band 30	10M	QPSK	1	0	Right Cheek	Reduced Level 2	27710	2310	17.45	18.00	1.135	0.09	0.958	1.087
	1	3	LTE Band 30	10M	QPSK	1	0	Right Tilted	Reduced Level 2	27710	2310	17.45	18.00	1.135	0.05	0.243	0.276
	1	3	LTE Band 30	10M	QPSK	1	0	Left Cheek	Reduced Level 2	27710	2310	17.45	18.00	1.135	0.06	0.183	0.208
	1	3	LTE Band 30	10M	QPSK	1	0	Left Tilted	Reduced Level 2	27710	2310	17.45	18.00	1.135	0.07	0.080	0.091
	1	3	LTE Band 30	10M	QPSK	25	12	Right Cheek	Reduced Level 2	27710	2310	17.35	18.00	1.161	-0.011	0.960	1.115
	1	3	LTE Band 30	10M	QPSK	25	12	Right Tilted	Reduced Level 2	27710	2310	17.35	18.00	1.161	0.09	0.249	0.289
	1	3	LTE Band 30	10M	QPSK	25	12	Left Cheek	Reduced Level 2	27710	2310	17.35	18.00	1.161	0.08	0.190	0.221
	1	3	LTE Band 30	10M	QPSK	25	12	Left Tilted	Reduced Level 2	27710	2310	17.35	18.00	1.161	0.04	0.091	0.106
	1	3	LTE Band 30	10M	QPSK	50	0	Right Cheek	Reduced Level 2	27710	2310	17.31	18.00	1.172	0.06	0.930	1.090



FCC SAR Test Report

Report No. : FA812508-01

Plot No.	SIM	Antenna	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	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)
	1	3	LTE Band 7	20M	QPSK	1	0	Right Cheek	Reduced Level 1	21100	2535	18.82	19.00	1.042	0.02	1.000	1.042
	1	3	LTE Band 7	20M	QPSK	1	0	Right Tilted	Reduced Level 1	21100	2535	18.82	19.00	1.042	0.06	0.268	0.279
	1	3	LTE Band 7	20M	QPSK	1	0	Left Cheek	Reduced Level 1	21100	2535	18.82	19.00	1.042	0.01	0.198	0.206
	1	3	LTE Band 7	20M	QPSK	1	0	Left Tilted	Reduced Level 1	21100	2535	18.82	19.00	1.042	0.08	0.086	0.089
	1	3	LTE Band 7	20M	QPSK	1	0	Right Cheek	Reduced Level 1	20850	2510	18.64	19.00	1.086	0.07	1.010	1.097
	1	3	LTE Band 7	20M	QPSK	1	0	Right Cheek	Reduced Level 1	21350	2560	18.70	19.00	1.072	0.09	0.927	0.993
	1	3	LTE Band 7	20M	QPSK	50	24	Right Cheek	Reduced Level 1	21100	2535	18.63	19.00	1.089	0.02	1.020	1.111
	1	3	LTE Band 7	20M	QPSK	50	24	Right Tilted	Reduced Level 1	21100	2535	18.63	19.00	1.089	0.06	0.270	0.294
	1	3	LTE Band 7	20M	QPSK	50	24	Left Cheek	Reduced Level 1	21100	2535	18.63	19.00	1.089	0.01	0.190	0.207
	1	3	LTE Band 7	20M	QPSK	50	24	Left Tilted	Reduced Level 1	21100	2535	18.63	19.00	1.089	0.06	0.089	0.097
#15	1	3	LTE Band 7	20M	QPSK	50	24	Right Cheek	Reduced Level 1	20850	2510	18.41	19.00	1.146	0.03	1.020	1.168
	1	3	LTE Band 7	20M	QPSK	50	24	Right Cheek	Reduced Level 1	21350	2560	18.60	19.00	1.096	0.14	0.934	1.024
	2	3	LTE Band 7	20M	QPSK	50	24	Right Cheek	Reduced Level 1	20850	2510	18.41	19.00	1.146	0.05	0.905	1.037
	2	3	LTE Band 7	20M	QPSK	50	24	Right Cheek	Reduced Level 1	21100	2535	18.63	19.00	1.089	0.01	0.868	0.945
	2	3	LTE Band 7	20M	QPSK	50	24	Right Cheek	Reduced Level 1	21350	2560	18.60	19.00	1.096	-0.03	0.862	0.945
	1	3	LTE Band 7	20M	QPSK	100	0	Right Cheek	Reduced Level 1	21100	2535	18.54	19.00	1.112	0.09	1.000	1.112
	1	3	LTE Band 7	20M	QPSK	50	24	Right Cheek	Reduced Level 1	20850(PCC) + 21048(SCC)	2510(PCC) + 2529.8(SCC)	18.63	19.00	1.089	0.10	1.010	1.100
	1	3	LTE Band 7	20M	QPSK	50	24	Right Cheek	Reduced Level 1	21100(PCC) + 20902(SCC)	2535(PCC) + 2515.2(SCC)	18.76	19.00	1.057	0.07	1.000	1.057
	1	3	LTE Band 7	20M	QPSK	50	24	Right Cheek	Reduced Level 1	21350(PCC) + 21152(SCC)	2560(PCC) + 2540.2(SCC)	18.78	19.00	1.052	0.04	0.959	1.009
	1	3	LTE Band 7	20M	QPSK	1	0	Right Cheek	Reduced Level 3	21350	2560	18.24	18.50	1.062	0.08	0.857	0.910
	1	3	LTE Band 7	20M	QPSK	1	0	Right Tilted	Reduced Level 3	21350	2560	18.24	18.50	1.062	0.09	0.214	0.227
	1	3	LTE Band 7	20M	QPSK	1	0	Left Cheek	Reduced Level 3	21350	2560	18.24	18.50	1.062	0.01	0.157	0.167
	1	3	LTE Band 7	20M	QPSK	1	0	Left Tilted	Reduced Level 3	21350	2560	18.24	18.50	1.062	-0.15	0.071	0.075
	1	3	LTE Band 7	20M	QPSK	1	0	Right Cheek	Reduced Level 3	20850	2510	17.93	18.50	1.140	0.11	0.911	1.039
	1	3	LTE Band 7	20M	QPSK	1	0	Right Cheek	Reduced Level 3	21100	2535	18.04	18.50	1.112	0.08	0.903	1.004
	1	3	LTE Band 7	20M	QPSK	50	24	Right Cheek	Reduced Level 3	21350	2560	18.03	18.50	1.114	0.06	0.855	0.953
	1	3	LTE Band 7	20M	QPSK	50	24	Right Tilted	Reduced Level 3	21350	2560	18.03	18.50	1.114	0.07	0.203	0.226
	1	3	LTE Band 7	20M	QPSK	50	24	Left Cheek	Reduced Level 3	21350	2560	18.03	18.50	1.114	-0.15	0.151	0.168
	1	3	LTE Band 7	20M	QPSK	50	24	Left Tilted	Reduced Level 3	21350	2560	18.03	18.50	1.114	0.01	0.071	0.079
	1	3	LTE Band 7	20M	QPSK	50	24	Right Cheek	Reduced Level 3	20850	2510	17.90	18.50	1.148	0.06	0.952	1.093
	1	3	LTE Band 7	20M	QPSK	50	24	Right Cheek	Reduced Level 3	21100	2535	17.94	18.50	1.138	0.08	0.950	1.081
	1	3	LTE Band 7	20M	QPSK	100	0	Right Cheek	Reduced Level 3	21350	2560	17.94	18.50	1.138	0.07	0.881	1.002
	1	3	LTE Band 7	20M	QPSK	50	24	Right Cheek	Reduced Level 3	20850(PCC) + 21048(SCC)	2510(PCC) + 2529.8(SCC)	18.11	18.50	1.094	0.09	0.930	1.017
	1	3	LTE Band 7	20M	QPSK	50	24	Right Cheek	Reduced Level 3	21100(PCC) + 20902(SCC)	2535(PCC) + 2515.2(SCC)	18.24	18.50	1.062	0.05	0.920	0.977
	1	3	LTE Band 7	20M	QPSK	50	24	Right Cheek	Reduced Level 3	21350(PCC) + 21152(SCC)	2560(PCC) + 2540.2(SCC)	18.28	18.50	1.052	0.06	0.882	0.928



<TDD LTE SAR>

Plot No.	SIM	Antenna	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	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)
	1	3	LTE Band 41	20M	QPSK	1	0	Right Cheek	Reduced Level 1	41055	2636.5	20.42	20.50	1.019	62.9	1.006	0.06	0.703	0.720
	1	3	LTE Band 41	20M	QPSK	1	0	Right Tilted	Reduced Level 1	41055	2636.5	20.42	20.50	1.019	62.9	1.006	0.05	0.181	0.185
	1	3	LTE Band 41	20M	QPSK	1	0	Left Cheek	Reduced Level 1	41055	2636.5	20.42	20.50	1.019	62.9	1.006	0.06	0.080	0.082
	1	3	LTE Band 41	20M	QPSK	1	0	Left Tilted	Reduced Level 1	41055	2636.5	20.42	20.50	1.019	62.9	1.006	0.07	0.041	0.042
#16	1	3	LTE Band 41	20M	QPSK	1	0	Right Cheek	Reduced Level 1	39750	2506	20.06	20.50	1.107	62.9	1.006	0.05	0.934	1.040
	1	3	LTE Band 41	20M	QPSK	1	0	Right Cheek	Reduced Level 1	40185	2549.5	20.08	20.50	1.102	62.9	1.006	0.09	0.908	1.006
	1	3	LTE Band 41	20M	QPSK	1	0	Right Cheek	Reduced Level 1	40620	2593	20.15	20.50	1.084	62.9	1.006	0.01	0.852	0.929
	1	3	LTE Band 41	20M	QPSK	1	0	Right Cheek	Reduced Level 1	41490	2680	20.29	20.50	1.050	62.9	1.006	0.04	0.427	0.451
	1	3	LTE Band 41	20M	QPSK	50	24	Right Cheek	Reduced Level 1	41055	2636.5	20.26	20.50	1.057	62.9	1.006	0.06	0.698	0.742
	1	3	LTE Band 41	20M	QPSK	50	24	Right Tilted	Reduced Level 1	41055	2636.5	20.26	20.50	1.057	62.9	1.006	0.08	0.176	0.187
	1	3	LTE Band 41	20M	QPSK	50	24	Left Cheek	Reduced Level 1	41055	2636.5	20.26	20.50	1.057	62.9	1.006	0.09	0.076	0.080
	1	3	LTE Band 41	20M	QPSK	50	24	Left Tilted	Reduced Level 1	41055	2636.5	20.26	20.50	1.057	62.9	1.006	-0.07	0.037	0.040
	1	3	LTE Band 41	20M	QPSK	50	24	Right Cheek	Reduced Level 1	39750	2506	20.08	20.50	1.102	62.9	1.006	0.07	0.925	1.025
	1	3	LTE Band 41	20M	QPSK	50	24	Right Cheek	Reduced Level 1	40185	2549.5	20.12	20.50	1.091	62.9	1.006	0.11	0.902	0.990
	1	3	LTE Band 41	20M	QPSK	50	24	Right Cheek	Reduced Level 1	40620	2593	20.16	20.50	1.081	62.9	1.006	0.08	0.838	0.912
	1	3	LTE Band 41	20M	QPSK	50	24	Right Cheek	Reduced Level 1	41490	2680	20.25	20.50	1.059	62.9	1.006	-0.16	0.567	0.604
	1	3	LTE Band 41	20M	QPSK	100	0	Right Cheek	Reduced Level 1	41055	2636.5	20.24	20.50	1.062	62.9	1.006	0.11	0.424	0.453
	1	3	LTE Band 41	20M	QPSK	1	0	Right Cheek	Reduced Level 1	39750(PCC) + 39948(SCC)	2506(PCC) + 2525.8(SCC)	20.07	20.50	1.104	62.9	1.006	0.02	0.853	0.947
	1	3	LTE Band 41	20M	QPSK	1	0	Right Cheek	Reduced Level 1	40185(PCC) + 40383(SCC)	2549.5(PCC) + 2569.3(SCC)	20.01	20.50	1.119	62.9	1.006	0.07	0.887	0.999
	1	3	LTE Band 41	20M	QPSK	1	0	Right Cheek	Reduced Level 1	40620(PCC) + 40818(SCC)	2593(PCC) + 2612.8(SCC)	20.07	20.50	1.104	62.9	1.006	0.11	0.863	0.959
	1	3	LTE Band 41	20M	QPSK	1	0	Right Cheek	Reduced Level 1	41055(PCC) + 41253(SCC)	2636.5(PCC) + 2656.3(SCC)	19.83	20.50	1.167	62.9	1.006	0.06	0.747	0.877
	1	3	LTE Band 41	20M	QPSK	1	0	Right Cheek	Reduced Level 1	41490(PCC) + 41292(SCC)	2680(PCC) + 2660.2(SCC)	20.17	20.50	1.079	62.9	1.006	0.04	0.497	0.539



<WLAN 2.4GHz SAR>

Plot No.	Antenna	Band	Mode	Test Position	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)
	1	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	Full	11	2462	18.96	19.50	1.132	98.96	1.011	0.06	0.194	0.222
	1	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	Full	11	2462	18.96	19.50	1.132	98.96	1.011	0.01	0.205	0.235
	1	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Full	11	2462	18.96	19.50	1.132	98.96	1.011	0.07	0.594	0.680
	1	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	Full	11	2462	18.96	19.50	1.132	98.96	1.011	0.13	0.610	0.698
#17	1	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	Full	1	2412	18.53	19.50	1.250	98.96	1.011	-0.04	0.913	1.154
	1	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	Full	6	2437	18.90	19.50	1.148	98.96	1.011	0.01	0.833	0.967
	1	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	Reduced	11	2462	16.02	16.50	1.118	98.96	1.011	0.03	0.087	0.098
	1	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	Reduced	11	2462	16.02	16.50	1.118	98.96	1.011	0.02	0.095	0.107
	1	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Reduced	11	2462	16.02	16.50	1.118	98.96	1.011	0.11	0.444	0.502
	1	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	Reduced	11	2462	16.02	16.50	1.118	98.96	1.011	-0.15	0.461	0.521
	1	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	Reduced	1	2412	15.57	16.50	1.240	98.96	1.011	0.06	0.566	0.710
	1	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	Reduced	6	2437	15.95	16.50	1.136	98.96	1.011	0.04	0.566	0.650
#18	2	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	Full	6	2437	15.84	16.50	1.164	98.96	1.011	0.06	0.654	0.770
	2	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	Full	6	2437	15.84	16.50	1.164	98.96	1.011	0.01	0.225	0.265
	2	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Full	6	2437	15.84	16.50	1.164	98.96	1.011	0.05	0.179	0.211
	2	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	Full	6	2437	15.84	16.50	1.164	98.96	1.011	-0.05	0.061	0.072
	2	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	Full	1	2412	15.64	16.50	1.219	98.96	1.011	0.13	0.588	0.725
	2	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	Full	11	2462	15.40	16.50	1.288	98.96	1.011	0.02	0.548	0.714



<WLAN 5GHz SAR>

Plot No.	Antenna	Band	Mode	Test Position	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)
	1+2	WLAN5.3GHz	802.11a 6Mbps	Right Cheek	Full	52	5260	19.90	20.50	1.148	97.95	1.021	0.04	0.045	0.052
	1+2	WLAN5.3GHz	802.11a 6Mbps	Right Tilted	Full	52	5260	19.90	20.50	1.148	97.95	1.021	0.01	0.046	0.054
	1+2	WLAN5.3GHz	802.11a 6Mbps	Left Cheek	Full	52	5260	19.90	20.50	1.148	97.95	1.021	-0.05	0.050	0.059
	1+2	WLAN5.3GHz	802.11a 6Mbps	Left Tilted	Full	52	5260	19.90	20.50	1.148	97.95	1.021	0.05	0.087	0.102
	1+2	WLAN5.3GHz	802.11a 6Mbps	Left Tilted	Full	60	5300	19.90	20.50	1.148	97.95	1.021	0.12	0.132	0.155
#19	1+2	WLAN5.3GHz	802.11a 6Mbps	Left Tilted	Full	64	5320	19.89	20.50	1.151	97.95	1.021	0.1	0.134	0.157
	1+2	WLAN5.5GHz	802.11a 6Mbps	Right Cheek	Full	116	5580	19.75	20.50	1.189	97.95	1.021	0.07	0.091	0.111
	1+2	WLAN5.5GHz	802.11a 6Mbps	Right Tilted	Full	116	5580	19.75	20.50	1.189	97.95	1.021	0.06	0.100	0.121
	1+2	WLAN5.5GHz	802.11a 6Mbps	Left Cheek	Full	116	5580	19.75	20.50	1.189	97.95	1.021	0.03	0.170	0.206
	1+2	WLAN5.5GHz	802.11a 6Mbps	Left Tilted	Full	116	5580	19.75	20.50	1.189	97.95	1.021	0.09	0.174	0.211
	1+2	WLAN5.5GHz	802.11a 6Mbps	Left Tilted	Full	100	5500	19.71	20.50	1.199	97.95	1.021	0.11	0.128	0.157
#20	1+2	WLAN5.5GHz	802.11a 6Mbps	Left Tilted	Full	144	5720	19.47	20.50	1.268	97.95	1.021	0.03	0.231	0.299
	1+2	WLAN5.8GHz	802.11a 6Mbps	Right Cheek	Full	157	5785	19.83	20.50	1.167	97.95	1.021	0.11	0.092	0.109
	1+2	WLAN5.8GHz	802.11a 6Mbps	Right Tilted	Full	157	5785	19.83	20.50	1.167	97.95	1.021	-0.05	0.106	0.126
	1+2	WLAN5.8GHz	802.11a 6Mbps	Left Cheek	Full	157	5785	19.83	20.50	1.167	97.95	1.021	0.06	0.172	0.205
	1+2	WLAN5.8GHz	802.11a 6Mbps	Left Tilted	Full	157	5785	19.83	20.50	1.167	97.95	1.021	0.18	0.174	0.207
#21	1+2	WLAN5.8GHz	802.11a 6Mbps	Left Tilted	Full	149	5745	19.81	20.50	1.172	97.95	1.021	0.01	0.180	0.215
	1+2	WLAN5.8GHz	802.11a 6Mbps	Left Tilted	Full	165	5825	19.80	20.50	1.175	97.95	1.021	0.04	0.174	0.209



14.2 Hotspot SAR

<GSM SAR>

Plot No.	SIM	Antenna	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)
	1	2	GSM850	GPRS(4 Tx slots)	Front	10	Full	189	836.4	27.51	28.00	1.119	0.02	0.386	0.432
	1	2	GSM850	GPRS(4 Tx slots)	Back	10	Full	189	836.4	27.51	28.00	1.119	0.07	0.439	0.491
	1	2	GSM850	GPRS(4 Tx slots)	Left Side	10	Full	189	836.4	27.51	28.00	1.119	0.06	0.156	0.175
	1	2	GSM850	GPRS(4 Tx slots)	Right Side	10	Full	189	836.4	27.51	28.00	1.119	0.09	0.022	0.024
	1	2	GSM850	GPRS(4 Tx slots)	Top Side	10	Full	189	836.4	27.51	28.00	1.119	0.11	0.251	0.281
#22	1	2	GSM850	GPRS(4 Tx slots)	Back	10	Full	128	824.2	27.35	28.00	1.161	0.04	0.461	0.535
	1	2	GSM850	GPRS(4 Tx slots)	Back	10	Full	251	848.8	27.34	28.00	1.164	0.04	0.365	0.425
	1	1	GSM850	GPRS(4 Tx slots)	Front	10	Full	189	836.4	27.92	28.50	1.143	0.09	0.184	0.210
	1	1	GSM850	GPRS(4 Tx slots)	Back	10	Full	189	836.4	27.92	28.50	1.143	0.01	0.210	0.240
	1	1	GSM850	GPRS(4 Tx slots)	Left Side	10	Full	189	836.4	27.92	28.50	1.143	0.05	0.209	0.239
	1	1	GSM850	GPRS(4 Tx slots)	Right Side	10	Full	189	836.4	27.92	28.50	1.143	-0.04	0.130	0.149
	1	1	GSM850	GPRS(4 Tx slots)	Bottom Side	10	Full	189	836.4	27.92	28.50	1.143	0.06	0.151	0.173
	1	1	GSM850	GPRS(4 Tx slots)	Back	10	Full	128	824.2	27.78	28.50	1.180	0.07	0.325	0.384
	1	1	GSM850	GPRS(4 Tx slots)	Back	10	Full	251	848.8	27.88	28.50	1.153	0.01	0.266	0.307
	1	2	GSM1900	GPRS(4 Tx slots)	Front	10	Full	661	1880	23.77	24.50	1.183	0.06	0.180	0.213
	1	2	GSM1900	GPRS(4 Tx slots)	Back	10	Full	661	1880	23.77	24.50	1.183	0.1	0.217	0.257
	1	2	GSM1900	GPRS(4 Tx slots)	Left Side	10	Full	661	1880	23.77	24.50	1.183	0.09	0.175	0.207
	1	2	GSM1900	GPRS(4 Tx slots)	Right Side	10	Full	661	1880	23.77	24.50	1.183	0.1	0.012	0.014
	1	2	GSM1900	GPRS(4 Tx slots)	Top Side	10	Full	661	1880	23.77	24.50	1.183	0.03	0.199	0.235
	1	2	GSM1900	GPRS(4 Tx slots)	Back	10	Full	512	1850.2	23.74	24.50	1.191	0.09	0.210	0.250
	1	2	GSM1900	GPRS(4 Tx slots)	Back	10	Full	810	1909.8	23.76	24.50	1.186	0.03	0.295	0.350
	1	1	GSM1900	GPRS(3 Tx slots)	Front	10	Reduced Level 1	661	1880	24.18	24.50	1.076	0.07	0.483	0.520
	1	1	GSM1900	GPRS(3 Tx slots)	Back	10	Reduced Level 1	661	1880	24.18	24.50	1.076	0.05	0.613	0.660
	1	1	GSM1900	GPRS(3 Tx slots)	Left Side	10	Reduced Level 1	661	1880	24.18	24.50	1.076	0.04	0.071	0.076
	1	1	GSM1900	GPRS(3 Tx slots)	Right Side	10	Reduced Level 1	661	1880	24.18	24.50	1.076	0.11	0.012	0.013
	1	1	GSM1900	GPRS(3 Tx slots)	Bottom Side	10	Reduced Level 1	661	1880	24.18	24.50	1.076	0.06	0.974	1.048
#23	1	1	GSM1900	GPRS(3 Tx slots)	Bottom Side	10	Reduced Level 1	512	1850.2	24.08	24.50	1.102	0.07	1.150	1.267
	1	1	GSM1900	GPRS(3 Tx slots)	Bottom Side	10	Reduced Level 1	810	1909.8	24.13	24.50	1.089	0.03	0.333	0.363
	2	1	GSM1900	GPRS(3 Tx slots)	Bottom Side	10	Reduced Level 1	512	1850.2	24.08	24.50	1.102	0.05	1.100	1.212
	2	1	GSM1900	GPRS(3 Tx slots)	Bottom Side	10	Reduced Level 1	661	1880	24.18	24.50	1.076	0.07	0.960	1.033
	2	1	GSM1900	GPRS(3 Tx slots)	Bottom Side	10	Reduced Level 1	810	1909.8	24.13	24.50	1.089	0.02	0.313	0.341



<WCDMA SAR>

Plot No.	SIM	Antenna	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)
#24	1	2	WCDMA Band V	RMC 12.2Kbps	Front	10	Full	4132	826.4	23.18	23.80	1.153	0.04	0.453	0.523
	1	2	WCDMA Band V	RMC 12.2Kbps	Back	10	Full	4132	826.4	23.18	23.80	1.153	0.07	0.469	0.541
	1	2	WCDMA Band V	RMC 12.2Kbps	Left Side	10	Full	4132	826.4	23.18	23.80	1.153	0.03	0.228	0.263
	1	2	WCDMA Band V	RMC 12.2Kbps	Right Side	10	Full	4132	826.4	23.18	23.80	1.153	0.11	0.062	0.071
	1	2	WCDMA Band V	RMC 12.2Kbps	Top Side	10	Full	4132	826.4	23.18	23.80	1.153	0.06	0.341	0.393
	1	2	WCDMA Band V	RMC 12.2Kbps	Back	10	Full	4182	836.4	23.17	23.80	1.156	0.08	0.398	0.460
	1	2	WCDMA Band V	RMC 12.2Kbps	Back	10	Full	4233	846.6	23.08	23.80	1.180	0.02	0.422	0.498
	1	1	WCDMA Band V	RMC 12.2Kbps	Front	10	Full	4132	826.4	23.65	23.80	1.035	0.08	0.200	0.207
	1	1	WCDMA Band V	RMC 12.2Kbps	Back	10	Full	4132	826.4	23.65	23.80	1.035	0.04	0.246	0.255
	1	1	WCDMA Band V	RMC 12.2Kbps	Left Side	10	Full	4132	826.4	23.65	23.80	1.035	0.11	0.244	0.253
	1	1	WCDMA Band V	RMC 12.2Kbps	Right Side	10	Full	4132	826.4	23.65	23.80	1.035	0.05	0.181	0.187
	1	1	WCDMA Band V	RMC 12.2Kbps	Bottom Side	10	Full	4132	826.4	23.65	23.80	1.035	0.06	0.139	0.144
#25	1	1	WCDMA Band V	RMC 12.2Kbps	Back	10	Full	4182	836.4	23.63	23.80	1.040	-0.11	0.237	0.246
	1	1	WCDMA Band V	RMC 12.2Kbps	Back	10	Full	4233	846.6	23.53	23.80	1.064	0.05	0.254	0.270
	1	2	WCDMA Band IV	RMC 12.2Kbps	Front	10	Full	1413	1732.6	22.95	23.80	1.216	0.01	0.336	0.409
	1	2	WCDMA Band IV	RMC 12.2Kbps	Back	10	Full	1413	1732.6	22.95	23.80	1.216	0.13	0.338	0.411
	1	2	WCDMA Band IV	RMC 12.2Kbps	Left Side	10	Full	1413	1732.6	22.95	23.80	1.216	0.09	0.332	0.404
	1	2	WCDMA Band IV	RMC 12.2Kbps	Right Side	10	Full	1413	1732.6	22.95	23.80	1.216	0.07	0.002	0.003
	1	2	WCDMA Band IV	RMC 12.2Kbps	Top Side	10	Full	1413	1732.6	22.95	23.80	1.216	0.11	0.024	0.029
	1	2	WCDMA Band IV	RMC 12.2Kbps	Back	10	Full	1312	1712.4	22.76	23.80	1.271	0.03	0.350	0.445
	1	2	WCDMA Band IV	RMC 12.2Kbps	Back	10	Full	1513	1752.6	22.88	23.80	1.236	0.05	0.549	0.679
	1	1	WCDMA Band IV	RMC 12.2Kbps	Front	10	Reduced Level 1	1413	1732.6	19.75	20.00	1.059	0.11	0.341	0.361
	1	1	WCDMA Band IV	RMC 12.2Kbps	Back	10	Reduced Level 1	1413	1732.6	19.75	20.00	1.059	0.05	0.534	0.566
	1	1	WCDMA Band IV	RMC 12.2Kbps	Left Side	10	Reduced Level 1	1413	1732.6	19.75	20.00	1.059	0.03	0.108	0.114
#26	1	1	WCDMA Band IV	RMC 12.2Kbps	Right Side	10	Reduced Level 1	1413	1732.6	19.75	20.00	1.059	0.09	0.067	0.071
	1	1	WCDMA Band IV	RMC 12.2Kbps	Bottom Side	10	Reduced Level 1	1413	1732.6	19.75	20.00	1.059	0.03	0.705	0.747
	1	1	WCDMA Band IV	RMC 12.2Kbps	Bottom Side	10	Reduced Level 1	1312	1712.4	19.63	20.00	1.089	0.06	0.664	0.723
	2	1	WCDMA Band IV	RMC 12.2Kbps	Bottom Side	10	Reduced Level 1	1513	1752.6	19.72	20.00	1.067	0.05	1.210	1.291
	2	1	WCDMA Band IV	RMC 12.2Kbps	Bottom Side	10	Reduced Level 1	1513	1752.6	19.72	20.00	1.067	0.01	1.200	1.280
	2	1	WCDMA Band IV	RMC 12.2Kbps	Bottom Side	10	Reduced Level 1	1413	1732.6	19.75	20.00	1.059	0.11	0.788	0.835
	2	1	WCDMA Band IV	RMC 12.2Kbps	Bottom Side	10	Reduced Level 1	1312	1712.4	19.63	20.00	1.089	0.08	0.710	0.773
	1	2	WCDMA Band II	RMC 12.2Kbps	Front	10	Full	9262	1852.4	22.96	23.80	1.213	0.04	0.414	0.502
	1	2	WCDMA Band II	RMC 12.2Kbps	Back	10	Full	9262	1852.4	22.96	23.80	1.213	0.04	0.522	0.633
	1	2	WCDMA Band II	RMC 12.2Kbps	Left Side	10	Full	9262	1852.4	22.96	23.80	1.213	0.09	0.437	0.530
	1	2	WCDMA Band II	RMC 12.2Kbps	Right Side	10	Full	9262	1852.4	22.96	23.80	1.213	0.12	0.002	0.003
	1	2	WCDMA Band II	RMC 12.2Kbps	Top Side	10	Full	9262	1852.4	22.96	23.80	1.213	0.09	0.032	0.039
#26	1	2	WCDMA Band II	RMC 12.2Kbps	Back	10	Full	9400	1880	22.85	23.80	1.245	0.04	0.542	0.675
	1	2	WCDMA Band II	RMC 12.2Kbps	Back	10	Full	9538	1907.6	22.81	23.80	1.256	0.08	0.544	0.683
	1	1	WCDMA Band II	RMC 12.2Kbps	Front	10	Reduced Level 1	9262	1852.4	18.77	19.00	1.054	0.06	0.354	0.373
	1	1	WCDMA Band II	RMC 12.2Kbps	Back	10	Reduced Level 1	9262	1852.4	18.77	19.00	1.054	0.05	0.534	0.563
	1	1	WCDMA Band II	RMC 12.2Kbps	Left Side	10	Reduced Level 1	9262	1852.4	18.77	19.00	1.054	0.07	0.130	0.137
	1	1	WCDMA Band II	RMC 12.2Kbps	Right Side	10	Reduced Level 1	9262	1852.4	18.77	19.00	1.054	0.01	0.047	0.050
	1	1	WCDMA Band II	RMC 12.2Kbps	Bottom Side	10	Reduced Level 1	9262	1852.4	18.77	19.00	1.054	0.08	0.933	0.984
	1	1	WCDMA Band II	RMC 12.2Kbps	Bottom Side	10	Reduced Level 1	9400	1880	18.63	19.00	1.089	0.07	0.952	1.037
	1	1	WCDMA Band II	RMC 12.2Kbps	Bottom Side	10	Reduced Level 1	9538	1907.6	18.70	19.00	1.072	-0.02	0.279	0.299



<CDMA2000 SAR>

Plot No.	SIM	Antenna	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)
	1	2	CDMA2000 BC0	RTAP 153.6Kbps	Front	10	Full	1013	824.7	23.96	24.80	1.213	0.06	0.543	0.659
#27	1	2	CDMA2000 BC0	RTAP 153.6Kbps	Back	10	Full	1013	824.7	23.96	24.80	1.213	0.01	0.549	0.666
	1	2	CDMA2000 BC0	RTAP 153.6Kbps	Left Side	10	Full	1013	824.7	23.96	24.80	1.213	0.1	0.256	0.311
	1	2	CDMA2000 BC0	RTAP 153.6Kbps	Right Side	10	Full	1013	824.7	23.96	24.80	1.213	0.13	0.073	0.089
	1	2	CDMA2000 BC0	RTAP 153.6Kbps	Top Side	10	Full	1013	824.7	23.96	24.80	1.213	0.14	0.422	0.512
	1	2	CDMA2000 BC0	RTAP 153.6Kbps	Back	10	Full	384	836.52	23.89	24.80	1.233	0.1	0.488	0.602
	1	2	CDMA2000 BC0	RTAP 153.6Kbps	Back	10	Full	777	848.31	23.90	24.80	1.230	-0.05	0.503	0.619
	2	2	CDMA2000 BC0	RTAP 153.6Kbps	Back	10	Full	1013	824.7	23.96	24.80	1.213	0.05	0.533	0.647
	1	1	CDMA2000 BC0	RTAP 153.6Kbps	Front	10	Full	1013	824.7	24.49	24.80	1.074	0.06	0.219	0.235
	1	1	CDMA2000 BC0	RTAP 153.6Kbps	Back	10	Full	1013	824.7	24.49	24.80	1.074	0.04	0.282	0.303
	1	1	CDMA2000 BC0	RTAP 153.6Kbps	Left Side	10	Full	1013	824.7	24.49	24.80	1.074	-0.1	0.210	0.226
	1	1	CDMA2000 BC0	RTAP 153.6Kbps	Right Side	10	Full	1013	824.7	24.49	24.80	1.074	0.07	0.170	0.183
	1	1	CDMA2000 BC0	RTAP 153.6Kbps	Bottom Side	10	Full	1013	824.7	24.49	24.80	1.074	0.09	0.163	0.175
	1	1	CDMA2000 BC0	RTAP 153.6Kbps	Back	10	Full	384	836.52	24.35	24.80	1.109	-0.09	0.328	0.364
	1	1	CDMA2000 BC0	RTAP 153.6Kbps	Back	10	Full	777	848.31	24.34	24.80	1.112	0.07	0.312	0.347
	1	2	CDMA2000 BC1	RTAP 153.6Kbps	Front	10	Full	1175	1908.75	23.76	24.80	1.271	0.04	0.675	0.858
	1	2	CDMA2000 BC1	RTAP 153.6Kbps	Back	10	Full	1175	1908.75	23.76	24.80	1.271	0.01	0.760	0.966
	1	2	CDMA2000 BC1	RTAP 153.6Kbps	Left Side	10	Full	1175	1908.75	23.76	24.80	1.271	0.06	0.300	0.381
	1	2	CDMA2000 BC1	RTAP 153.6Kbps	Right Side	10	Full	1175	1908.75	23.76	24.80	1.271	-0.06	0.108	0.137
	1	2	CDMA2000 BC1	RTAP 153.6Kbps	Top Side	10	Full	1175	1908.75	23.76	24.80	1.271	0.15	0.612	0.778
	1	2	CDMA2000 BC1	RTAP 153.6Kbps	Front	10	Full	25	1851.25	23.69	24.80	1.291	0.09	0.596	0.770
	1	2	CDMA2000 BC1	RTAP 153.6Kbps	Front	10	Full	600	1880	23.73	24.80	1.279	0.04	0.574	0.734
	1	2	CDMA2000 BC1	RTAP 153.6Kbps	Back	10	Full	25	1851.25	23.69	24.80	1.291	0.17	0.669	0.864
	1	2	CDMA2000 BC1	RTAP 153.6Kbps	Back	10	Full	600	1880	23.73	24.80	1.279	-0.05	0.684	0.875
	1	1	CDMA2000 BC1	RTAP 153.6Kbps	Front	10	Reduced Level 1	1175	1908.75	18.71	19.00	1.069	0.08	0.131	0.140
	1	1	CDMA2000 BC1	RTAP 153.6Kbps	Back	10	Reduced Level 1	1175	1908.75	18.71	19.00	1.069	0.01	0.190	0.203
	1	1	CDMA2000 BC1	RTAP 153.6Kbps	Left Side	10	Reduced Level 1	1175	1908.75	18.71	19.00	1.069	-0.05	0.124	0.133
	1	1	CDMA2000 BC1	RTAP 153.6Kbps	Right Side	10	Reduced Level 1	1175	1908.75	18.71	19.00	1.069	0.08	0.042	0.045
	1	1	CDMA2000 BC1	RTAP 153.6Kbps	Bottom Side	10	Reduced Level 1	1175	1908.75	18.71	19.00	1.069	0.07	0.282	0.301
#28	1	1	CDMA2000 BC1	RTAP 153.6Kbps	Bottom Side	10	Reduced Level 1	25	1851.25	18.43	19.00	1.140	0.02	0.966	1.101
	1	1	CDMA2000 BC1	RTAP 153.6Kbps	Bottom Side	10	Reduced Level 1	600	1880	18.49	19.00	1.125	0.09	0.882	0.992



<FDD LTE SAR>

Plot No.	SIM	Antenna	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)
#29	1	2	LTE Band 71	20M	QPSK	1	0	Front	10	Full	133322	683	23.15	23.80	1.161	0.09	0.480	0.557
	1	2	LTE Band 71	20M	QPSK	1	0	Back	10	Full	133322	683	23.15	23.80	1.161	0.02	0.387	0.449
	1	2	LTE Band 71	20M	QPSK	1	0	Left Side	10	Full	133322	683	23.15	23.80	1.161	0.05	0.193	0.224
	1	2	LTE Band 71	20M	QPSK	1	0	Right Side	10	Full	133322	683	23.15	23.80	1.161	0.03	0.100	0.116
	1	2	LTE Band 71	20M	QPSK	1	0	Top Side	10	Full	133322	683	23.15	23.80	1.161	0.04	0.322	0.374
	2	2	LTE Band 71	20M	QPSK	1	0	Front	10	Full	133322	683	23.15	23.80	1.161	0.08	0.452	0.525
	1	2	LTE Band 71	20M	QPSK	50	50	Front	10	Full	133322	683	22.14	22.80	1.164	0.07	0.302	0.352
	1	2	LTE Band 71	20M	QPSK	50	50	Back	10	Full	133322	683	22.14	22.80	1.164	0.05	0.245	0.285
	1	2	LTE Band 71	20M	QPSK	50	50	Left Side	10	Full	133322	683	22.14	22.80	1.164	0.01	0.136	0.158
	1	2	LTE Band 71	20M	QPSK	50	50	Right Side	10	Full	133322	683	22.14	22.80	1.164	0.08	0.066	0.076
	1	2	LTE Band 71	20M	QPSK	50	50	Top Side	10	Full	133322	683	22.14	22.80	1.164	0.03	0.207	0.241
	1	1	LTE Band 71	20M	QPSK	1	0	Front	10	Full	133322	683	23.27	23.80	1.130	0.01	0.145	0.164
	1	1	LTE Band 71	20M	QPSK	1	0	Back	10	Full	133322	683	23.27	23.80	1.130	0.12	0.198	0.224
	1	1	LTE Band 71	20M	QPSK	1	0	Left Side	10	Full	133322	683	23.27	23.80	1.130	0.08	0.235	0.266
	1	1	LTE Band 71	20M	QPSK	1	0	Right Side	10	Full	133322	683	23.27	23.80	1.130	0.04	0.118	0.133
	1	1	LTE Band 71	20M	QPSK	1	0	Bottom Side	10	Full	133322	683	23.27	23.80	1.130	0.06	0.105	0.119
	1	1	LTE Band 71	20M	QPSK	50	50	Front	10	Full	133322	683	22.31	22.80	1.119	0.09	0.117	0.131
	1	1	LTE Band 71	20M	QPSK	50	50	Back	10	Full	133322	683	22.31	22.80	1.119	0.05	0.157	0.176
	1	1	LTE Band 71	20M	QPSK	50	50	Left Side	10	Full	133322	683	22.31	22.80	1.119	0.03	0.215	0.241
	1	1	LTE Band 71	20M	QPSK	50	50	Right Side	10	Full	133322	683	22.31	22.80	1.119	0.02	0.117	0.131
	1	1	LTE Band 71	20M	QPSK	50	50	Bottom Side	10	Full	133322	683	22.31	22.80	1.119	0.07	0.092	0.103
	1	2	LTE Band 12	10M	QPSK	1	49	Front	10	Full	23095	707.5	22.98	23.80	1.208	0.02	0.423	0.511
#30	1	2	LTE Band 12	10M	QPSK	1	49	Back	10	Full	23095	707.5	22.98	23.80	1.208	0.09	0.424	0.512
	1	2	LTE Band 12	10M	QPSK	1	49	Left Side	10	Full	23095	707.5	22.98	23.80	1.208	0.01	0.221	0.267
	1	2	LTE Band 12	10M	QPSK	1	49	Right Side	10	Full	23095	707.5	22.98	23.80	1.208	0.11	0.088	0.106
	1	2	LTE Band 12	10M	QPSK	1	49	Top Side	10	Full	23095	707.5	22.98	23.80	1.208	0.06	0.315	0.380
	1	2	LTE Band 12	10M	QPSK	25	12	Front	10	Full	23095	707.5	22.04	22.80	1.191	0.05	0.333	0.397
	1	2	LTE Band 12	10M	QPSK	25	12	Back	10	Full	23095	707.5	22.04	22.80	1.191	0.03	0.309	0.368
	1	2	LTE Band 12	10M	QPSK	25	12	Left Side	10	Full	23095	707.5	22.04	22.80	1.191	0.01	0.198	0.236
	1	2	LTE Band 12	10M	QPSK	25	12	Right Side	10	Full	23095	707.5	22.04	22.80	1.191	0.07	0.081	0.097
	1	2	LTE Band 12	10M	QPSK	25	12	Top Side	10	Full	23095	707.5	22.04	22.80	1.191	0.09	0.251	0.299
	1	1	LTE Band 12	10M	QPSK	1	49	Front	10	Full	23095	707.5	23.29	23.80	1.125	-0.08	0.169	0.190
	1	1	LTE Band 12	10M	QPSK	1	49	Back	10	Full	23095	707.5	23.29	23.80	1.125	0.09	0.183	0.206
	1	1	LTE Band 12	10M	QPSK	1	49	Left Side	10	Full	23095	707.5	23.29	23.80	1.125	0.01	0.180	0.202
	1	1	LTE Band 12	10M	QPSK	1	49	Right Side	10	Full	23095	707.5	23.29	23.80	1.125	0.08	0.164	0.184
	1	1	LTE Band 12	10M	QPSK	1	49	Bottom Side	10	Full	23095	707.5	23.29	23.80	1.125	0.01	0.101	0.114
	1	1	LTE Band 12	10M	QPSK	25	25	Front	10	Full	23095	707.5	22.37	22.80	1.104	-0.03	0.138	0.152
	1	1	LTE Band 12	10M	QPSK	25	25	Back	10	Full	23095	707.5	22.37	22.80	1.104	0.04	0.146	0.161
	1	1	LTE Band 12	10M	QPSK	25	25	Left Side	10	Full	23095	707.5	22.37	22.80	1.104	-0.15	0.141	0.156
	1	1	LTE Band 12	10M	QPSK	25	25	Right Side	10	Full	23095	707.5	22.37	22.80	1.104	0.05	0.130	0.144
	1	1	LTE Band 12	10M	QPSK	25	25	Bottom Side	10	Full	23095	707.5	22.37	22.80	1.104	0.09	0.077	0.085



FCC SAR Test Report

Report No. : FA812508-01

Plot No.	SIM	Antenna	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)
#31	1	2	LTE Band 5	10M	QPSK	1	0	Front	10	Full	20525	836.5	22.89	23.80	1.233	0.07	0.441	0.544
	1	2	LTE Band 5	10M	QPSK	1	0	Back	10	Full	20525	836.5	22.89	23.80	1.233	0.01	0.439	0.541
	1	2	LTE Band 5	10M	QPSK	1	0	Left Side	10	Full	20525	836.5	22.89	23.80	1.233	0.04	0.172	0.212
	1	2	LTE Band 5	10M	QPSK	1	0	Right Side	10	Full	20525	836.5	22.89	23.80	1.233	0.05	0.042	0.051
	1	2	LTE Band 5	10M	QPSK	1	0	Top Side	10	Full	20525	836.5	22.89	23.80	1.233	0.02	0.303	0.374
	1	2	LTE Band 5	10M	QPSK	25	25	Front	10	Full	20525	836.5	21.83	22.80	1.250	0.05	0.322	0.403
	1	2	LTE Band 5	10M	QPSK	25	25	Back	10	Full	20525	836.5	21.83	22.80	1.250	0.06	0.323	0.404
	1	2	LTE Band 5	10M	QPSK	25	25	Left Side	10	Full	20525	836.5	21.83	22.80	1.250	0.02	0.139	0.174
	1	2	LTE Band 5	10M	QPSK	25	25	Right Side	10	Full	20525	836.5	21.83	22.80	1.250	0.07	0.027	0.034
	1	2	LTE Band 5	10M	QPSK	25	25	Top Side	10	Full	20525	836.5	21.83	22.80	1.250	0.04	0.237	0.296
	1	1	LTE Band 5	10M	QPSK	1	0	Front	10	Full	20525	836.5	23.34	23.80	1.112	-0.15	0.178	0.198
	1	1	LTE Band 5	10M	QPSK	1	0	Back	10	Full	20525	836.5	23.34	23.80	1.112	0.08	0.239	0.266
	1	1	LTE Band 5	10M	QPSK	1	0	Left Side	10	Full	20525	836.5	23.34	23.80	1.112	0.12	0.169	0.188
	1	1	LTE Band 5	10M	QPSK	1	0	Right Side	10	Full	20525	836.5	23.34	23.80	1.112	0.07	0.126	0.140
	1	1	LTE Band 5	10M	QPSK	1	0	Bottom Side	10	Full	20525	836.5	23.34	23.80	1.112	0.01	0.163	0.181
	1	1	LTE Band 5	10M	QPSK	25	0	Front	10	Full	20525	836.5	22.38	22.80	1.102	0.06	0.146	0.161
	1	1	LTE Band 5	10M	QPSK	25	0	Back	10	Full	20525	836.5	22.38	22.80	1.102	0.07	0.182	0.200
	1	1	LTE Band 5	10M	QPSK	25	0	Left Side	10	Full	20525	836.5	22.38	22.80	1.102	-0.08	0.140	0.154
	1	1	LTE Band 5	10M	QPSK	25	0	Right Side	10	Full	20525	836.5	22.38	22.80	1.102	0.01	0.100	0.110
	1	1	LTE Band 5	10M	QPSK	25	0	Bottom Side	10	Full	20525	836.5	22.38	22.80	1.102	0.16	0.133	0.147
	1	2	LTE Band 26	15M	QPSK	1	0	Front	10	Full	26965	841.5	23.33	23.80	1.114	0.02	0.476	0.530
#32	1	2	LTE Band 26	15M	QPSK	1	0	Back	10	Full	26965	841.5	23.33	23.80	1.114	0.09	0.515	0.574
	1	2	LTE Band 26	15M	QPSK	1	0	Left Side	10	Full	26965	841.5	23.33	23.80	1.114	0.06	0.213	0.237
	1	2	LTE Band 26	15M	QPSK	1	0	Right Side	10	Full	26965	841.5	23.33	23.80	1.114	0.07	0.044	0.049
	1	2	LTE Band 26	15M	QPSK	1	0	Top Side	10	Full	26965	841.5	23.33	23.80	1.114	0.03	0.348	0.388
	1	2	LTE Band 26	15M	QPSK	1	0	Back	10	Full	26765	821.5	23.26	23.80	1.132	0.04	0.480	0.544
	1	2	LTE Band 26	15M	QPSK	1	0	Back	10	Full	26865	831.5	23.27	23.80	1.130	0.05	0.460	0.520
	1	2	LTE Band 26	15M	QPSK	36	0	Front	10	Full	26965	841.5	21.95	22.80	1.216	0.02	0.352	0.428
	1	2	LTE Band 26	15M	QPSK	36	0	Back	10	Full	26965	841.5	21.95	22.80	1.216	0.01	0.377	0.459
	1	2	LTE Band 26	15M	QPSK	36	0	Left Side	10	Full	26965	841.5	21.95	22.80	1.216	0.08	0.156	0.190
	1	2	LTE Band 26	15M	QPSK	36	0	Right Side	10	Full	26965	841.5	21.95	22.80	1.216	0.04	0.030	0.037
	1	2	LTE Band 26	15M	QPSK	36	0	Top Side	10	Full	26965	841.5	21.95	22.80	1.216	0.02	0.256	0.311
	1	1	LTE Band 26	15M	QPSK	1	0	Front	10	Full	26965	841.5	23.49	23.80	1.074	0.02	0.179	0.192
	1	1	LTE Band 26	15M	QPSK	1	0	Back	10	Full	26965	841.5	23.49	23.80	1.074	0.01	0.231	0.248
	1	1	LTE Band 26	15M	QPSK	1	0	Left Side	10	Full	26965	841.5	23.49	23.80	1.074	-0.02	0.154	0.165
	1	1	LTE Band 26	15M	QPSK	1	0	Right Side	10	Full	26965	841.5	23.49	23.80	1.074	0.12	0.121	0.130
	1	1	LTE Band 26	15M	QPSK	1	0	Bottom Side	10	Full	26965	841.5	23.49	23.80	1.074	0.11	0.149	0.160
	1	1	LTE Band 26	15M	QPSK	1	0	Back	10	Full	26765	821.5	23.42	23.80	1.091	-0.08	0.208	0.227
	1	1	LTE Band 26	15M	QPSK	1	0	Back	10	Full	26865	831.5	23.43	23.80	1.089	0.14	0.213	0.232
	1	1	LTE Band 26	15M	QPSK	36	0	Front	10	Full	26965	841.5	22.49	22.80	1.074	0.01	0.137	0.147
	1	1	LTE Band 26	15M	QPSK	36	0	Back	10	Full	26965	841.5	22.49	22.80	1.074	-0.15	0.177	0.190
	1	1	LTE Band 26	15M	QPSK	36	0	Left Side	10	Full	26965	841.5	22.49	22.80	1.074	-0.01	0.115	0.124
	1	1	LTE Band 26	15M	QPSK	36	0	Right Side	10	Full	26965	841.5	22.49	22.80	1.074	0.08	0.089	0.096
	1	1	LTE Band 26	15M	QPSK	36	0	Bottom Side	10	Full	26965	841.5	22.49	22.80	1.074	0.09	0.113	0.121



FCC SAR Test Report

Report No. : FA812508-01

Plot No.	SIM	Antenna	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)
	1	3	LTE Band 30	10M	QPSK	1	0	Front	10	Full	27710	2310	22.90	23.50	1.148	-0.07	0.732	0.840
#35	1	3	LTE Band 30	10M	QPSK	1	0	Back	10	Full	27710	2310	22.90	23.50	1.148	0.12	1.010	1.160
	1	3	LTE Band 30	10M	QPSK	1	0	Left Side	10	Full	27710	2310	22.90	23.50	1.148	0.05	1.000	1.148
	1	3	LTE Band 30	10M	QPSK	1	0	Right Side	10	Full	27710	2310	22.90	23.50	1.148	0.11	0.049	0.056
	1	3	LTE Band 30	10M	QPSK	1	0	Top Side	10	Full	27710	2310	22.90	23.50	1.148	0.13	0.123	0.141
	2	3	LTE Band 30	10M	QPSK	1	0	Back	10	Full	27710	2310	22.90	23.50	1.148	0.01	1.000	1.148
	1	3	LTE Band 30	10M	QPSK	25	0	Front	10	Full	27710	2310	21.86	22.50	1.159	0.07	0.556	0.644
	1	3	LTE Band 30	10M	QPSK	25	0	Back	10	Full	27710	2310	21.86	22.50	1.159	0.05	0.814	0.943
	1	3	LTE Band 30	10M	QPSK	25	0	Left Side	10	Full	27710	2310	21.86	22.50	1.159	0.1	0.811	0.940
	1	3	LTE Band 30	10M	QPSK	25	0	Right Side	10	Full	27710	2310	21.86	22.50	1.159	0.15	0.024	0.028
	1	3	LTE Band 30	10M	QPSK	25	0	Top Side	10	Full	27710	2310	21.86	22.50	1.159	0.07	0.099	0.115
	1	3	LTE Band 30	10M	QPSK	50	0	Front	10	Full	27710	2310	21.84	22.50	1.164	0.01	0.550	0.640
	1	3	LTE Band 30	10M	QPSK	50	0	Back	10	Full	27710	2310	21.84	22.50	1.164	0.18	0.788	0.917
	1	3	LTE Band 30	10M	QPSK	50	0	Left Side	10	Full	27710	2310	21.84	22.50	1.164	0.06	0.776	0.903
	1	3	LTE Band 7	20M	QPSK	1	0	Front	10	Reduced Level 4	21350	2560	22.19	22.50	1.074	0.08	0.364	0.391
	1	3	LTE Band 7	20M	QPSK	1	0	Back	10	Reduced Level 4	21350	2560	22.19	22.50	1.074	0.04	0.732	0.786
	1	3	LTE Band 7	20M	QPSK	1	0	Left Side	10	Reduced Level 4	21350	2560	22.19	22.50	1.074	-0.05	0.714	0.767
	1	3	LTE Band 7	20M	QPSK	1	0	Right Side	10	Reduced Level 4	21350	2560	22.19	22.50	1.074	0.06	0.051	0.055
	1	3	LTE Band 7	20M	QPSK	1	0	Top Side	10	Reduced Level 4	21350	2560	22.19	22.50	1.074	0.01	0.106	0.114
	1	3	LTE Band 7	20M	QPSK	1	0	Back	10	Reduced Level 4	20850	2510	22.05	22.50	1.109	0.02	0.818	0.907
#36	1	3	LTE Band 7	20M	QPSK	1	0	Back	10	Reduced Level 4	21100	2535	22.18	22.50	1.076	0.02	0.878	0.945
	2	3	LTE Band 7	20M	QPSK	1	0	Back	10	Reduced Level 4	21100	2535	22.18	22.50	1.076	0.01	0.833	0.897
	2	3	LTE Band 7	20M	QPSK	1	0	Back	10	Reduced Level 4	21350	2560	22.19	22.50	1.074	0.05	0.868	0.932
	2	3	LTE Band 7	20M	QPSK	1	0	Back	10	Reduced Level 4	20850	2510	22.05	22.50	1.109	0.02	0.847	0.939
	1	3	LTE Band 7	20M	QPSK	50	50	Front	10	Reduced Level 4	21350	2560	22.16	22.50	1.081	0.06	0.364	0.394
	1	3	LTE Band 7	20M	QPSK	50	50	Back	10	Reduced Level 4	21350	2560	22.16	22.50	1.081	-0.06	0.725	0.784
	1	3	LTE Band 7	20M	QPSK	50	50	Left Side	10	Reduced Level 4	21350	2560	22.16	22.50	1.081	0.02	0.711	0.769
	1	3	LTE Band 7	20M	QPSK	50	50	Right Side	10	Reduced Level 4	21350	2560	22.16	22.50	1.081	0.05	0.050	0.054
	1	3	LTE Band 7	20M	QPSK	50	50	Top Side	10	Reduced Level 4	21350	2560	22.16	22.50	1.081	0.01	0.092	0.099
	1	3	LTE Band 7	20M	QPSK	1	0	Back	10	Reduced Level 4	21100(PCC) + 20902(SCC)	2535(PCC) + 2515.2(SCC)	22.22	22.50	1.067	0.02	0.884	0.943
	1	3	LTE Band 7	20M	QPSK	1	0	Back	10	Reduced Level 4	20850(PCC) + 21048(SCC)	2510(PCC) + 2529.8(SCC)	21.71	22.50	1.199	0.05	0.785	0.942
	1	3	LTE Band 7	20M	QPSK	1	0	Back	10	Reduced Level 4	21350(PCC) + 21152(SCC)	2560(PCC) + 2540.2(SCC)	22.28	22.50	1.052	0.04	0.769	0.809



<TDD LTE SAR>

Plot No.	SIM	Antenna	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)
	1	3	LTE Band 41	20M	QPSK	1	0	Front	10	Full	41055	2636.5	22.91	23.80	1.227	62.9	1.006	0.11	0.180	0.222
	1	3	LTE Band 41	20M	QPSK	1	0	Back	10	Full	41055	2636.5	22.91	23.80	1.227	62.9	1.006	0.05	0.388	0.479
	1	3	LTE Band 41	20M	QPSK	1	0	Left Side	10	Full	41055	2636.5	22.91	23.80	1.227	62.9	1.006	0.11	0.352	0.435
	1	3	LTE Band 41	20M	QPSK	1	0	Right Side	10	Full	41055	2636.5	22.91	23.80	1.227	62.9	1.006	0.1	0.023	0.028
	1	3	LTE Band 41	20M	QPSK	1	0	Top Side	10	Full	41055	2636.5	22.91	23.80	1.227	62.9	1.006	-0.15	0.034	0.042
#37	1	3	LTE Band 41	20M	QPSK	1	0	Back	10	Full	39750	2506	22.60	23.80	1.318	62.9	1.006	0.01	0.655	0.869
	1	3	LTE Band 41	20M	QPSK	1	0	Back	10	Full	40185	2549.5	22.85	23.80	1.245	62.9	1.006	0.18	0.668	0.836
	1	3	LTE Band 41	20M	QPSK	1	0	Back	10	Full	40620	2593	22.76	23.80	1.271	62.9	1.006	0.1	0.632	0.808
	1	3	LTE Band 41	20M	QPSK	1	0	Back	10	Full	41490	2680	21.96	23.80	1.528	62.9	1.006	-0.06	0.350	0.538
	1	3	LTE Band 41	20M	QPSK	50	24	Front	10	Full	41055	2636.5	22.18	22.80	1.153	62.9	1.006	0.07	0.129	0.150
	1	3	LTE Band 41	20M	QPSK	50	24	Back	10	Full	41055	2636.5	22.18	22.80	1.153	62.9	1.006	0.08	0.270	0.313
	1	3	LTE Band 41	20M	QPSK	50	24	Left Side	10	Full	41055	2636.5	22.18	22.80	1.153	62.9	1.006	0.04	0.262	0.304
	1	3	LTE Band 41	20M	QPSK	50	24	Right Side	10	Full	41055	2636.5	22.18	22.80	1.153	62.9	1.006	0.06	0.015	0.017
	1	3	LTE Band 41	20M	QPSK	50	24	Top Side	10	Full	41055	2636.5	22.18	22.80	1.153	62.9	1.006	0.04	0.028	0.032
	1	3	LTE Band 41	20M	QPSK	100	0	Back	10	Full	41055	2636.5	22.16	22.80	1.159	62.9	1.006	-0.01	0.282	0.329
	1	3	LTE Band 41	20M	QPSK	1	0	Back	10	Full	39750(PCC) + 39948(SCC)	2506(PCC) + 2525.8(SCC)	23.15	23.80	1.161	62.9	1.006	0.11	0.674	0.788
	1	3	LTE Band 41	20M	QPSK	1	0	Back	10	Full	40185(PCC) + 40383(SCC)	2549.5(PCC) + 2569.3(SCC)	23.09	23.80	1.178	62.9	1.006	0.05	0.634	0.751
	1	3	LTE Band 41	20M	QPSK	1	0	Back	10	Full	40620(PCC) + 40818(SCC)	2593(PCC) + 2612.8(SCC)	23.29	23.80	1.125	62.9	1.006	0.04	0.629	0.712
	1	3	LTE Band 41	20M	QPSK	1	0	Back	10	Full	41055(PCC) + 41253(SCC)	2636.5(PCC) + 2656.3(SCC)	23.16	23.80	1.159	62.9	1.006	0.08	0.374	0.436
	1	3	LTE Band 41	20M	QPSK	1	0	Back	10	Full	41490(PCC) + 41292(SCC)	2680(PCC) + 2660.2(SCC)	23.33	23.80	1.114	62.9	1.006	0.04	0.421	0.472



<WLAN 2.4GHz SAR>

Plot No.	Antenna	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)
	1	WLAN2.4GHz	802.11b 1Mbps	Front	10	Full	11	2462	18.96	19.50	1.132	98.96	1.011	0.04	0.138	0.158
	1	WLAN2.4GHz	802.11b 1Mbps	Back	10	Full	11	2462	18.96	19.50	1.132	98.96	1.011	0.05	0.201	0.230
	1	WLAN2.4GHz	802.11b 1Mbps	Right Side	10	Full	11	2462	18.96	19.50	1.132	98.96	1.011	0.07	0.182	0.208
	1	WLAN2.4GHz	802.11b 1Mbps	Top Side	10	Full	11	2462	18.96	19.50	1.132	98.96	1.011	-0.05	0.140	0.160
#38	1	WLAN2.4GHz	802.11b 1Mbps	Back	10	Full	1	2412	18.53	19.50	1.250	98.96	1.011	0.1	0.277	0.350
	1	WLAN2.4GHz	802.11b 1Mbps	Back	10	Full	6	2437	18.90	19.50	1.148	98.96	1.011	0.05	0.257	0.298
	2	WLAN2.4GHz	802.11b 1Mbps	Front	10	Full	6	2437	15.84	16.50	1.164	98.96	1.011	0.01	0.113	0.133
#39	2	WLAN2.4GHz	802.11b 1Mbps	Back	10	Full	6	2437	15.84	16.50	1.164	98.96	1.011	0.05	0.208	0.245
	2	WLAN2.4GHz	802.11b 1Mbps	Left Side	10	Full	6	2437	15.84	16.50	1.164	98.96	1.011	0.01	0.207	0.244
	2	WLAN2.4GHz	802.11b 1Mbps	Top Side	10	Full	6	2437	15.84	16.50	1.164	98.96	1.011	-0.05	0.026	0.030
	2	WLAN2.4GHz	802.11b 1Mbps	Back	10	Full	1	2412	15.64	16.50	1.219	98.96	1.011	0.08	0.186	0.229
	2	WLAN2.4GHz	802.11b 1Mbps	Back	10	Full	11	2462	15.40	16.50	1.288	98.96	1.011	0.01	0.178	0.232

<WLAN 5GHz SAR>

Plot No.	Antenna	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)
	1+2	WLAN5.2GHz	802.11a 6Mbps	Front	10	Full	36	5180	19.95	20.50	1.135	97.95	1.021	0.05	0.009	0.011
#40	1+2	WLAN5.2GHz	802.11a 6Mbps	Back	10	Full	36	5180	19.95	20.50	1.135	97.95	1.021	0.04	0.511	0.592
	1+2	WLAN5.2GHz	802.11a 6Mbps	Right Side	10	Full	36	5180	19.95	20.50	1.135	97.95	1.021	0.02	0.171	0.198
	1+2	WLAN5.2GHz	802.11a 6Mbps	Top Side	10	Full	36	5180	19.95	20.50	1.135	97.95	1.021	-0.01	0.075	0.087
	1+2	WLAN5.2GHz	802.11a 6Mbps	Back	10	Full	44	5220	19.89	20.50	1.151	97.95	1.021	0.09	0.476	0.559
	1+2	WLAN5.2GHz	802.11a 6Mbps	Back	10	Full	48	5240	19.92	20.50	1.143	97.95	1.021	0.12	0.462	0.539
	1+2	WLAN5.8GHz	802.11a 6Mbps	Front	10	Full	157	5785	19.83	20.50	1.167	97.95	1.021	0.01	0.016	0.019
	1+2	WLAN5.8GHz	802.11a 6Mbps	Back	10	Full	157	5785	19.83	20.50	1.167	97.95	1.021	0.19	0.419	0.499
	1+2	WLAN5.8GHz	802.11a 6Mbps	Right Side	10	Full	157	5785	19.83	20.50	1.167	97.95	1.021	0.05	0.165	0.197
	1+2	WLAN5.8GHz	802.11a 6Mbps	Top Side	10	Full	157	5785	19.83	20.50	1.167	97.95	1.021	0.04	0.116	0.138
#41	1+2	WLAN5.8GHz	802.11a 6Mbps	Back	10	Full	149	5745	19.81	20.50	1.172	97.95	1.021	0.1	0.516	0.618
	1+2	WLAN5.8GHz	802.11a 6Mbps	Back	10	Full	165	5825	19.80	20.50	1.175	97.95	1.021	0.02	0.395	0.474

<Bluetooth SAR>

Plot No.	Antenna	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)
	1	Bluetooth	1Mbps	Front	10	Full	0	2402	11.37	12.00	1.157	76.45	1.090	0.01	0.022	0.028
#42	1	Bluetooth	1Mbps	Back	10	Full	0	2402	11.37	12.00	1.157	76.45	1.090	0.09	0.037	0.047
	1	Bluetooth	1Mbps	Right Side	10	Full	0	2402	11.37	12.00	1.157	76.45	1.090	0.09	0.033	0.042
	1	Bluetooth	1Mbps	Top Side	10	Full	0	2402	11.37	12.00	1.157	76.45	1.090	0.01	0.008	0.011
	1	Bluetooth	1Mbps	Back	10	Full	39	2441	11.13	12.00	1.223	76.45	1.090	0.15	0.026	0.034
	1	Bluetooth	1Mbps	Back	10	Full	78	2480	10.80	12.00	1.319	76.45	1.090	0.08	0.007	0.010



14.3 Body Worn Accessory SAR

<GSM SAR>

Plot No.	SIM	Antenna	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)
	1	2	GSM850	GPRS(4 Tx slots)	Front	15	Full	189	836.4	27.51	28.00	1.119	0.06	0.097	0.109
	1	2	GSM850	GPRS(4 Tx slots)	Back	15	Full	189	836.4	27.51	28.00	1.119	0.04	0.096	0.107
	1	2	GSM850	GPRS(4 Tx slots)	Front	15	Full	128	824.2	27.35	28.00	1.161	-0.05	0.124	0.144
	1	2	GSM850	GPRS(4 Tx slots)	Front	15	Full	251	848.8	27.34	28.00	1.164	0.06	0.142	0.165
	1	1	GSM850	GPRS(4 Tx slots)	Front	15	Full	189	836.4	27.92	28.50	1.143	0.05	0.162	0.185
	1	1	GSM850	GPRS(4 Tx slots)	Back	15	Full	189	836.4	27.92	28.50	1.143	0.06	0.182	0.208
#43	1	1	GSM850	GPRS(4 Tx slots)	Back	15	Full	128	824.2	27.78	28.50	1.180	0.1	0.256	0.302
	1	1	GSM850	GPRS(4 Tx slots)	Back	15	Full	251	848.8	27.88	28.50	1.153	0.07	0.205	0.236
	2	1	GSM850	GPRS(4 Tx slots)	Back	15	Full	128	824.2	27.78	28.50	1.180	0.12	0.225	0.266
	1	2	GSM1900	GPRS(4 Tx slots)	Front	15	Full	661	1880	23.77	24.50	1.183	0.09	0.096	0.114
	1	2	GSM1900	GPRS(4 Tx slots)	Back	15	Full	661	1880	23.77	24.50	1.183	0.01	0.101	0.119
	1	2	GSM1900	GPRS(4 Tx slots)	Back	15	Full	512	1850.2	23.74	24.50	1.191	-0.05	0.150	0.179
	1	2	GSM1900	GPRS(4 Tx slots)	Back	15	Full	810	1909.8	23.76	24.50	1.186	0.04	0.126	0.149
	1	1	GSM1900	GPRS(4 Tx slots)	Front	15	Full	661	1880	24.55	25.00	1.109	0.09	0.202	0.224
	1	1	GSM1900	GPRS(4 Tx slots)	Back	15	Full	661	1880	24.55	25.00	1.109	0.04	0.281	0.312
#44	1	1	GSM1900	GPRS(4 Tx slots)	Back	15	Full	512	1850.2	24.29	25.00	1.178	0.03	0.350	0.412
	1	1	GSM1900	GPRS(4 Tx slots)	Back	15	Full	810	1909.8	24.54	25.00	1.112	-0.08	0.130	0.145



<WCDMA SAR>

Plot No.	SIM	Antenna	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)
	1	2	WCDMA Band V	RMC 12.2Kbps	Front	15	Full	4132	826.4	23.18	23.80	1.153	0.06	0.174	0.201
	1	2	WCDMA Band V	RMC 12.2Kbps	Back	15	Full	4132	826.4	23.18	23.80	1.153	0.05	0.185	0.213
	1	2	WCDMA Band V	RMC 12.2Kbps	Back	15	Full	4182	836.4	23.17	23.80	1.156	-0.01	0.151	0.175
	1	2	WCDMA Band V	RMC 12.2Kbps	Back	15	Full	4233	846.6	23.08	23.80	1.180	-0.04	0.162	0.191
	1	1	WCDMA Band V	RMC 12.2Kbps	Front	15	Full	4132	826.4	23.65	23.80	1.035	0.06	0.176	0.182
#45	1	1	WCDMA Band V	RMC 12.2Kbps	Back	15	Full	4132	826.4	23.65	23.80	1.035	0.03	0.256	0.265
	1	1	WCDMA Band V	RMC 12.2Kbps	Back	15	Full	4182	836.4	23.63	23.80	1.040	-0.08	0.169	0.176
	1	1	WCDMA Band V	RMC 12.2Kbps	Back	15	Full	4233	846.6	23.53	23.80	1.064	0.06	0.197	0.210
	1	2	WCDMA Band IV	RMC 12.2Kbps	Front	15	Full	1413	1732.6	22.95	23.80	1.216	0.01	0.156	0.190
	1	2	WCDMA Band IV	RMC 12.2Kbps	Back	15	Full	1413	1732.6	22.95	23.80	1.216	0.05	0.138	0.168
	1	2	WCDMA Band IV	RMC 12.2Kbps	Front	15	Full	1312	1712.4	22.76	23.80	1.271	0.08	0.164	0.208
	1	2	WCDMA Band IV	RMC 12.2Kbps	Front	15	Full	1513	1752.6	22.88	23.80	1.236	-0.11	0.176	0.218
	1	1	WCDMA Band IV	RMC 12.2Kbps	Front	15	Full	1413	1732.6	23.64	23.80	1.038	0.06	0.377	0.391
	1	1	WCDMA Band IV	RMC 12.2Kbps	Back	15	Full	1413	1732.6	23.64	23.80	1.038	0.01	0.497	0.516
	1	1	WCDMA Band IV	RMC 12.2Kbps	Back	15	Full	1312	1712.4	23.50	23.80	1.072	0.07	0.466	0.499
#46	1	1	WCDMA Band IV	RMC 12.2Kbps	Back	15	Full	1513	1752.6	23.60	23.80	1.047	0.01	0.758	0.794
	1	2	WCDMA Band II	RMC 12.2Kbps	Front	15	Full	9262	1852.4	22.96	23.80	1.213	0.08	0.160	0.194
	1	2	WCDMA Band II	RMC 12.2Kbps	Back	15	Full	9262	1852.4	22.96	23.80	1.213	-0.11	0.185	0.224
	1	2	WCDMA Band II	RMC 12.2Kbps	Back	15	Full	9400	1880	22.85	23.80	1.245	0.06	0.188	0.234
	1	2	WCDMA Band II	RMC 12.2Kbps	Back	15	Full	9538	1907.6	22.81	23.80	1.256	-0.04	0.215	0.270
	1	1	WCDMA Band II	RMC 12.2Kbps	Front	15	Full	9262	1852.4	23.71	23.80	1.021	0.08	0.505	0.516
	1	1	WCDMA Band II	RMC 12.2Kbps	Back	15	Full	9262	1852.4	23.71	23.80	1.021	-0.04	0.627	0.640
#47	1	1	WCDMA Band II	RMC 12.2Kbps	Back	15	Full	9400	1880	23.51	23.80	1.069	0.05	0.605	0.647
	1	1	WCDMA Band II	RMC 12.2Kbps	Back	15	Full	9538	1907.6	23.52	23.80	1.067	0.06	0.219	0.234

<CDMA2000 SAR>

Plot No.	SIM	Antenna	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)
	1	2	CDMA2000 BC0	RC3 SO32 (F+SCH)	Front	15	Full	1013	824.7	23.98	24.80	1.208	0.07	0.221	0.267
#48	1	2	CDMA2000 BC0	RC3 SO32 (F+SCH)	Back	15	Full	1013	824.7	23.98	24.80	1.208	0.02	0.241	0.291
	1	2	CDMA2000 BC0	RC3 SO32 (F+SCH)	Back	15	Full	384	836.52	23.89	24.80	1.233	-0.09	0.192	0.237
	1	2	CDMA2000 BC0	RC3 SO32 (F+SCH)	Back	15	Full	777	848.31	23.90	24.80	1.230	0.04	0.187	0.230
	1	1	CDMA2000 BC0	RC3 SO32 (F+SCH)	Front	15	Full	1013	824.7	24.48	24.80	1.076	0.06	0.211	0.227
	1	1	CDMA2000 BC0	RC3 SO32 (F+SCH)	Back	15	Full	1013	824.7	24.48	24.80	1.076	0.07	0.233	0.251
	1	1	CDMA2000 BC0	RC3 SO32 (F+SCH)	Back	15	Full	384	836.52	24.41	24.80	1.094	0.08	0.216	0.236
	1	1	CDMA2000 BC0	RC3 SO32 (F+SCH)	Back	15	Full	777	848.31	24.30	24.80	1.122	-0.11	0.257	0.288
	1	2	CDMA2000 BC1	RC3 SO32 (F+SCH)	Front	15	Full	1175	1908.75	23.69	24.80	1.291	0.06	0.280	0.362
	1	2	CDMA2000 BC1	RC3 SO32 (F+SCH)	Back	15	Full	1175	1908.75	23.69	24.80	1.291	0.07	0.285	0.368
	1	2	CDMA2000 BC1	RC3 SO32 (F+SCH)	Back	15	Full	25	1851.25	23.66	24.80	1.300	0.08	0.275	0.358
	1	2	CDMA2000 BC1	RC3 SO32 (F+SCH)	Back	15	Full	600	1880	23.68	24.80	1.294	-0.04	0.269	0.348
	1	1	CDMA2000 BC1	RC3 SO32 (F+SCH)	Front	15	Full	1175	1908.75	24.45	24.80	1.084	0.09	0.240	0.260
	1	1	CDMA2000 BC1	RC3 SO32 (F+SCH)	Back	15	Full	1175	1908.75	24.45	24.80	1.084	-0.05	0.365	0.396
#49	1	1	CDMA2000 BC1	RC3 SO32 (F+SCH)	Back	15	Full	25	1851.25	24.30	24.80	1.122	0.01	0.799	0.896
	2	1	CDMA2000 BC1	RC3 SO32 (F+SCH)	Back	15	Full	25	1851.25	24.30	24.80	1.122	0.02	0.641	0.719
	1	1	CDMA2000 BC1	RC3 SO32 (F+SCH)	Back	15	Full	600	1880	24.34	24.80	1.112	0.06	0.772	0.858



<FDD LTE SAR>

Plot No.	SIM	Antenna	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)
	1	2	LTE Band 71	20M	QPSK	1	0	Front	15	Full	133322	683	23.15	23.80	1.161	0.09	0.147	0.171
#50	1	2	LTE Band 71	20M	QPSK	1	0	Back	15	Full	133322	683	23.15	23.80	1.161	0.01	0.158	0.184
	1	2	LTE Band 71	20M	QPSK	50	50	Front	15	Full	133322	683	22.14	22.80	1.164	0.03	0.128	0.149
	1	2	LTE Band 71	20M	QPSK	50	50	Back	15	Full	133322	683	22.14	22.80	1.164	0.08	0.137	0.159
	1	1	LTE Band 71	20M	QPSK	1	0	Front	15	Full	133322	683	23.27	23.80	1.130	0.09	0.126	0.142
	1	1	LTE Band 71	20M	QPSK	1	0	Back	15	Full	133322	683	23.27	23.80	1.130	0.02	0.145	0.164
	1	1	LTE Band 71	20M	QPSK	50	50	Front	15	Full	133322	683	22.31	22.80	1.119	0.03	0.100	0.112
	1	1	LTE Band 71	20M	QPSK	50	50	Back	15	Full	133322	683	22.31	22.80	1.119	0.02	0.123	0.138
	1	2	LTE Band 12	10M	QPSK	1	49	Front	15	Full	23095	707.5	22.98	23.80	1.208	0.04	0.155	0.187
#51	1	2	LTE Band 12	10M	QPSK	1	49	Back	15	Full	23095	707.5	22.98	23.80	1.208	0.05	0.158	0.191
	2	2	LTE Band 12	10M	QPSK	1	49	Back	15	Full	23095	707.5	22.98	23.80	1.208	-0.03	0.152	0.184
	1	2	LTE Band 12	10M	QPSK	25	12	Front	15	Full	23095	707.5	22.04	22.80	1.191	0.06	0.121	0.144
	1	2	LTE Band 12	10M	QPSK	25	12	Back	15	Full	23095	707.5	22.04	22.80	1.191	0.08	0.134	0.160
	1	1	LTE Band 12	10M	QPSK	1	49	Front	15	Full	23095	707.5	23.29	23.80	1.125	0.07	0.156	0.175
	1	1	LTE Band 12	10M	QPSK	1	49	Back	15	Full	23095	707.5	23.29	23.80	1.125	0.03	0.165	0.186
	1	1	LTE Band 12	10M	QPSK	25	25	Front	15	Full	23095	707.5	22.37	22.80	1.104	0.09	0.137	0.151
	1	1	LTE Band 12	10M	QPSK	25	25	Back	15	Full	23095	707.5	22.37	22.80	1.104	0.06	0.145	0.160
	1	2	LTE Band 5	10M	QPSK	1	0	Front	15	Full	20525	836.5	22.89	23.80	1.233	-0.11	0.136	0.168
	1	2	LTE Band 5	10M	QPSK	1	0	Back	15	Full	20525	836.5	22.89	23.80	1.233	0.03	0.162	0.200
	1	2	LTE Band 5	10M	QPSK	25	25	Front	15	Full	20525	836.5	21.83	22.80	1.250	0.01	0.103	0.129
	1	2	LTE Band 5	10M	QPSK	25	25	Back	15	Full	20525	836.5	21.83	22.80	1.250	-0.03	0.126	0.158
	1	1	LTE Band 5	10M	QPSK	1	0	Front	15	Full	20525	836.5	23.34	23.80	1.112	0.04	0.108	0.120
#52	1	1	LTE Band 5	10M	QPSK	1	0	Back	15	Full	20525	836.5	23.34	23.80	1.112	0.02	0.185	0.206
	1	1	LTE Band 5	10M	QPSK	25	0	Front	15	Full	20525	836.5	22.38	22.80	1.102	0.09	0.094	0.104
	1	1	LTE Band 5	10M	QPSK	25	0	Back	15	Full	20525	836.5	22.38	22.80	1.102	0.01	0.131	0.144
	1	2	LTE Band 26	15M	QPSK	1	0	Front	15	Full	26965	841.5	23.33	23.80	1.114	0.1	0.157	0.175
	1	2	LTE Band 26	15M	QPSK	1	0	Back	15	Full	26965	841.5	23.33	23.80	1.114	0.15	0.188	0.209
	1	2	LTE Band 26	15M	QPSK	1	0	Back	15	Full	26765	821.5	23.26	23.80	1.132	-0.05	0.182	0.206
	1	2	LTE Band 26	15M	QPSK	1	0	Back	15	Full	26865	831.5	23.27	23.80	1.130	0.09	0.203	0.229
	1	2	LTE Band 26	15M	QPSK	36	0	Front	15	Full	26965	841.5	21.95	22.80	1.216	0.03	0.127	0.154
	1	2	LTE Band 26	15M	QPSK	36	0	Back	15	Full	26965	841.5	21.95	22.80	1.216	0.01	0.133	0.162
	1	1	LTE Band 26	15M	QPSK	1	0	Front	15	Full	26965	841.5	23.49	23.80	1.074	0.07	0.154	0.165
	1	1	LTE Band 26	15M	QPSK	1	0	Back	15	Full	26965	841.5	23.49	23.80	1.074	0.09	0.158	0.170
	1	1	LTE Band 26	15M	QPSK	1	0	Back	15	Full	26765	821.5	23.42	23.80	1.091	-0.07	0.175	0.191
#53	1	1	LTE Band 26	15M	QPSK	1	0	Back	15	Full	26865	831.5	23.43	23.80	1.089	0.04	0.218	0.237
	1	1	LTE Band 26	15M	QPSK	36	0	Front	15	Full	26965	841.5	22.49	22.80	1.074	0.08	0.115	0.124
	1	1	LTE Band 26	15M	QPSK	36	0	Back	15	Full	26965	841.5	22.49	22.80	1.074	0.04	0.118	0.127



Plot No.	SIM	Antenna	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)
	1	2	LTE Band 66	20M	QPSK	1	0	Front	15	Full	132322	1745	22.78	23.80	1.265	0.06	0.141	0.178
	1	2	LTE Band 66	20M	QPSK	1	0	Back	15	Full	132322	1745	22.78	23.80	1.265	0.07	0.143	0.181
	1	2	LTE Band 66	20M	QPSK	1	0	Back	15	Full	132072	1720	22.48	23.80	1.355	-0.01	0.109	0.148
	1	2	LTE Band 66	20M	QPSK	1	0	Back	15	Full	132572	1770	22.67	23.80	1.297	0.08	0.183	0.237
	1	2	LTE Band 66	20M	QPSK	50	0	Front	15	Full	132322	1745	21.76	22.80	1.271	0.01	0.116	0.147
	1	2	LTE Band 66	20M	QPSK	50	0	Back	15	Full	132322	1745	21.76	22.80	1.271	0.05	0.116	0.147
	1	1	LTE Band 66	20M	QPSK	1	0	Front	15	Full	132322	1745	23.48	23.80	1.076	0.06	0.501	0.539
#54	1	1	LTE Band 66	20M	QPSK	1	0	Back	15	Full	132322	1745	23.48	23.80	1.076	0.08	0.739	0.796
	2	1	LTE Band 66	20M	QPSK	1	0	Back	15	Full	132322	1745	23.48	23.80	1.076	0.04	0.668	0.719
	1	1	LTE Band 66	20M	QPSK	1	0	Back	15	Full	132072	1720	23.22	23.80	1.143	0.06	0.415	0.474
	1	1	LTE Band 66	20M	QPSK	1	0	Back	15	Full	132572	1770	23.43	23.80	1.089	-0.05	0.452	0.492
	1	1	LTE Band 66	20M	QPSK	50	0	Front	15	Full	132322	1745	22.43	22.80	1.089	0.06	0.399	0.434
	1	1	LTE Band 66	20M	QPSK	50	0	Back	15	Full	132322	1745	22.43	22.80	1.089	0.04	0.554	0.603
	1	2	LTE Band 25	20M	QPSK	1	0	Front	15	Full	26590	1905	22.64	23.80	1.306	0.07	0.171	0.223
	1	2	LTE Band 25	20M	QPSK	1	0	Back	15	Full	26590	1905	22.64	23.80	1.306	0.01	0.200	0.261
	1	2	LTE Band 25	20M	QPSK	1	0	Back	15	Full	26140	1860	22.35	23.80	1.396	-0.01	0.181	0.253
	1	2	LTE Band 25	20M	QPSK	1	0	Back	15	Full	26340	1880	22.40	23.80	1.380	0.05	0.183	0.253
	1	2	LTE Band 25	20M	QPSK	50	0	Front	15	Full	26590	1905	21.55	22.80	1.334	0.06	0.137	0.183
	1	2	LTE Band 25	20M	QPSK	50	0	Back	15	Full	26590	1905	21.55	22.80	1.334	-0.04	0.159	0.212
	1	1	LTE Band 25	20M	QPSK	1	0	Front	15	Full	26590	1905	23.36	23.80	1.107	0.01	0.203	0.225
	1	1	LTE Band 25	20M	QPSK	1	0	Back	15	Full	26590	1905	23.36	23.80	1.107	-0.11	0.213	0.236
#55	1	1	LTE Band 25	20M	QPSK	1	0	Back	15	Full	26140	1860	22.94	23.80	1.219	0.04	0.586	0.714
	1	1	LTE Band 25	20M	QPSK	1	0	Back	15	Full	26340	1880	23.00	23.80	1.202	0.08	0.586	0.705
	1	1	LTE Band 25	20M	QPSK	50	0	Front	15	Full	26590	1905	22.28	22.80	1.127	0.01	0.159	0.179
	1	1	LTE Band 25	20M	QPSK	50	0	Back	15	Full	26590	1905	22.28	22.80	1.127	0.09	0.169	0.190
	1	3	LTE Band 30	10M	QPSK	1	0	Front	15	Full	27710	2310	22.90	23.50	1.148	0.07	0.307	0.352
#56	1	3	LTE Band 30	10M	QPSK	1	0	Back	15	Full	27710	2310	22.90	23.50	1.148	0.01	0.436	0.501
	2	3	LTE Band 30	10M	QPSK	1	0	Back	15	Full	27710	2310	22.90	23.50	1.148	0.09	0.421	0.483
	1	3	LTE Band 30	10M	QPSK	25	0	Front	15	Full	27710	2310	21.86	22.50	1.159	0.09	0.243	0.282
	1	3	LTE Band 30	10M	QPSK	25	0	Back	15	Full	27710	2310	21.86	22.50	1.159	0.03	0.349	0.404
	1	3	LTE Band 7	20M	QPSK	1	0	Front	15	Full	21350	2560	22.98	23.50	1.127	-0.05	0.212	0.239
	1	3	LTE Band 7	20M	QPSK	1	0	Back	15	Full	21350	2560	22.98	23.50	1.127	0.02	0.429	0.484
#57	1	3	LTE Band 7	20M	QPSK	1	0	Back	15	Full	20850	2510	22.78	23.50	1.180	0.09	0.431	0.509
	1	3	LTE Band 7	20M	QPSK	1	0	Back	15	Full	21100	2535	22.95	23.50	1.135	0.04	0.418	0.474
	2	3	LTE Band 7	20M	QPSK	1	0	Back	15	Full	20850	2510	22.78	23.50	1.180	0.07	0.430	0.508
	1	3	LTE Band 7	20M	QPSK	50	50	Front	15	Full	21350	2560	22.04	22.50	1.112	0.02	0.153	0.170
	1	3	LTE Band 7	20M	QPSK	50	50	Back	15	Full	21350	2560	22.04	22.50	1.112	0.05	0.317	0.352
	1	3	LTE Band 7	20M	QPSK	1	0	Back	15	Full	20850(PCC) + 21048(SCC)	2510(PCC) + 2529.8(SCC)	22.76	23.50	1.186	0.03	0.402	0.477



<TDD LTE SAR>

Plot No.	SIM	Antenna	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)
	1	3	LTE Band 41	20M	QPSK	1	0	Front	15	Full	41055	2636.5	22.91	23.80	1.227	62.9	1.006	0.01	0.070	0.087
	1	3	LTE Band 41	20M	QPSK	1	0	Back	15	Full	41055	2636.5	22.91	23.80	1.227	62.9	1.006	0.02	0.152	0.188
#58	1	3	LTE Band 41	20M	QPSK	1	0	Back	15	Full	39750	2506	22.60	23.80	1.318	62.9	1.006	0.08	0.280	0.371
	1	3	LTE Band 41	20M	QPSK	1	0	Back	15	Full	40185	2549.5	22.85	23.80	1.245	62.9	1.006	0.07	0.267	0.334
	1	3	LTE Band 41	20M	QPSK	1	0	Back	15	Full	40620	2593	22.76	23.80	1.271	62.9	1.006	0.03	0.261	0.334
	1	3	LTE Band 41	20M	QPSK	1	0	Back	15	Full	41490	2680	21.96	23.80	1.528	62.9	1.006	0.02	0.124	0.191
	1	3	LTE Band 41	20M	QPSK	50	24	Front	15	Full	41055	2636.5	22.18	22.80	1.153	62.9	1.006	0.04	0.052	0.061
	1	3	LTE Band 41	20M	QPSK	50	24	Back	15	Full	41055	2636.5	22.18	22.80	1.153	62.9	1.006	0.02	0.111	0.129
	1	3	LTE Band 41	20M	QPSK	1	0	Back	15	Full	39750(PCC) + 39948(SCC)	2506(PCC) + 2525.8(SCC)	23.15	23.80	1.161	62.9	1.006	0.07	0.268	0.313



<WLAN 2.4GHz SAR>

Plot No.	Antenna	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)
	1	WLAN2.4GHz	802.11b 1Mbps	Front	15	Full	11	2462	18.96	19.50	1.132	98.96	1.011	0.02	0.047	0.053
	1	WLAN2.4GHz	802.11b 1Mbps	Back	15	Full	11	2462	18.96	19.50	1.132	98.96	1.011	0.12	0.052	0.060
#59	1	WLAN2.4GHz	802.11b 1Mbps	Back	15	Full	1	2412	18.53	19.50	1.250	98.96	1.011	0.17	0.087	0.110
	1	WLAN2.4GHz	802.11b 1Mbps	Back	15	Full	6	2437	18.90	19.50	1.148	98.96	1.011	0.11	0.075	0.087
	2	WLAN2.4GHz	802.11b 1Mbps	Front	15	Full	6	2437	15.84	16.50	1.164	98.96	1.011	-0.04	0.051	0.060
#60	2	WLAN2.4GHz	802.11b 1Mbps	Back	15	Full	6	2437	15.84	16.50	1.164	98.96	1.011	0.04	0.104	0.122
	2	WLAN2.4GHz	802.11b 1Mbps	Back	15	Full	1	2412	15.64	16.50	1.219	98.96	1.011	0.05	0.083	0.102
	2	WLAN2.4GHz	802.11b 1Mbps	Back	15	Full	11	2462	15.40	16.50	1.288	98.96	1.011	0.03	0.083	0.109

<WLAN 5GHz SAR>

Plot No.	Antenna	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)
	1+2	WLAN5.3GHz	802.11a 6Mbps	Front	15	Full	52	5260	19.90	20.50	1.148	97.95	1.021	0.11	0.004	0.005
#61	1+2	WLAN5.3GHz	802.11a 6Mbps	Back	15	Full	52	5260	19.90	20.50	1.148	97.95	1.021	0.05	0.250	0.293
	1+2	WLAN5.3GHz	802.11a 6Mbps	Back	15	Full	60	5300	19.90	20.50	1.148	97.95	1.021	0.09	0.244	0.286
	1+2	WLAN5.3GHz	802.11a 6Mbps	Back	15	Full	64	5320	19.89	20.50	1.151	97.95	1.021	0.08	0.248	0.291
	1+2	WLAN5.5GHz	802.11a 6Mbps	Front	15	Full	116	5580	19.75	20.50	1.189	97.95	1.021	0.08	0.013	0.016
#62	1+2	WLAN5.5GHz	802.11a 6Mbps	Back	15	Full	116	5580	19.75	20.50	1.189	97.95	1.021	0.01	0.306	0.371
	1+2	WLAN5.5GHz	802.11a 6Mbps	Back	15	Full	100	5500	19.71	20.50	1.199	97.95	1.021	0.09	0.260	0.318
	1+2	WLAN5.5GHz	802.11a 6Mbps	Back	15	Full	144	5720	19.47	20.50	1.268	97.95	1.021	0.1	0.236	0.305
	1+2	WLAN5.8GHz	802.11a 6Mbps	Front	15	Full	157	5785	19.83	20.50	1.167	97.95	1.021	0.05	0.012	0.014
#63	1+2	WLAN5.8GHz	802.11a 6Mbps	Back	15	Full	157	5785	19.83	20.50	1.167	97.95	1.021	0.15	0.216	0.257
	1+2	WLAN5.8GHz	802.11a 6Mbps	Back	15	Full	149	5745	19.81	20.50	1.172	97.95	1.021	0.1	0.210	0.251
	1+2	WLAN5.8GHz	802.11a 6Mbps	Back	15	Full	165	5825	19.80	20.50	1.175	97.95	1.021	0.11	0.198	0.238

<Bluetooth SAR>

Plot No.	Antenna	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)
	1	Bluetooth	1Mbps	Front	15	Full	0	2402	11.37	12.00	1.157	76.45	1.090	0.02	0.003	0.004
#64	1	Bluetooth	1Mbps	Back	15	Full	0	2402	11.37	12.00	1.157	76.45	1.090	-0.03	0.00684	0.009
	1	Bluetooth	1Mbps	Back	15	Full	39	2441	11.13	12.00	1.223	76.45	1.090	0.08	0.003	0.005
	1	Bluetooth	1Mbps	Back	15	Full	78	2480	10.80	12.00	1.319	76.45	1.090	0.09	<0.001	<0.001



14.4 Product specific 10g SAR

<GSM SAR>

Plot No.	SIM	Antenna	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)
	1	1	GSM1900	GPRS(4 Tx slots)	Bottom Side	0	Full	661	1880	24.55	25.00	1.109	0.06	1.340	1.486
#65	1	1	GSM1900	GPRS(4 Tx slots)	Bottom Side	0	Full	512	1850.2	24.29	25.00	1.178	0.05	1.300	1.531
	1	1	GSM1900	GPRS(4 Tx slots)	Bottom Side	0	Full	810	1909.8	24.54	25.00	1.112	0.09	1.180	1.312

<WCDMA SAR>

Plot No.	SIM	Antenna	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)
	1	1	WCDMA Band IV	RMC 12.2Kbps	Back	0	Reduced Level 2	1413	1732.6	22.79	23.00	1.050	0.01	2.660	2.792
	1	1	WCDMA Band IV	RMC 12.2Kbps	Back	0	Reduced Level 2	1312	1712.4	22.65	23.00	1.084	0.09	2.920	3.165
	1	1	WCDMA Band IV	RMC 12.2Kbps	Back	0	Reduced Level 2	1513	1752.6	22.72	23.00	1.067	0.05	2.550	2.720
	1	1	WCDMA Band IV	RMC 12.2Kbps	Bottom Side	0	Reduced Level 2	1413	1732.6	22.79	23.00	1.050	-0.07	3.320	3.484
	1	1	WCDMA Band IV	RMC 12.2Kbps	Bottom Side	0	Reduced Level 2	1312	1712.4	22.65	23.00	1.084	0.17	3.090	3.349
#66	1	1	WCDMA Band IV	RMC 12.2Kbps	Bottom Side	0	Reduced Level 2	1513	1752.6	22.72	23.00	1.067	0.08	3.280	3.498
	2	1	WCDMA Band IV	RMC 12.2Kbps	Bottom Side	0	Reduced Level 2	1513	1752.6	22.72	23.00	1.067	0.04	3.000	3.200
	2	1	WCDMA Band IV	RMC 12.2Kbps	Bottom Side	0	Reduced Level 2	1413	1732.6	22.79	23.00	1.050	0.06	2.990	3.138
	2	1	WCDMA Band IV	RMC 12.2Kbps	Bottom Side	0	Reduced Level 2	1312	1712.4	22.65	23.00	1.084	0.09	2.880	3.122
	1	1	WCDMA Band II	RMC 12.2Kbps	Back	0	Reduced Level 2	9262	1852.4	22.30	22.50	1.047	0.05	2.610	2.733
	1	1	WCDMA Band II	RMC 12.2Kbps	Back	0	Reduced Level 2	9400	1880	22.14	22.50	1.086	-0.11	2.730	2.966
	1	1	WCDMA Band II	RMC 12.2Kbps	Back	0	Reduced Level 2	9538	1907.6	22.19	22.50	1.074	0.15	1.760	1.890
#67	1	1	WCDMA Band II	RMC 12.2Kbps	Bottom Side	0	Reduced Level 2	9262	1852.4	22.30	22.50	1.047	0.03	2.930	3.068
	1	1	WCDMA Band II	RMC 12.2Kbps	Bottom Side	0	Reduced Level 2	9400	1880	22.14	22.50	1.086	0.06	2.530	2.749
	1	1	WCDMA Band II	RMC 12.2Kbps	Bottom Side	0	Reduced Level 2	9538	1907.6	22.19	22.50	1.074	0.08	2.470	2.653

<CDMA2000 SAR>

Plot No.	SIM	Antenna	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)
	1	1	CDMA2000 BC1	RTAP 153.6Kbps	Bottom Side	0	Reduced Level 2	1175	1908.75	22.65	23.00	1.084	0.08	2.210	2.395
#68	1	1	CDMA2000 BC1	RTAP 153.6Kbps	Bottom Side	0	Reduced Level 2	25	1851.25	22.60	23.00	1.096	0.01	3.100	3.399
	1	1	CDMA2000 BC1	RTAP 153.6Kbps	Bottom Side	0	Reduced Level 2	600	1880	22.63	23.00	1.089	0.01	3.060	3.332
	2	1	CDMA2000 BC1	RTAP 153.6Kbps	Bottom Side	0	Reduced Level 2	25	1851.25	22.60	23.00	1.096	0.05	3.080	3.377
	2	1	CDMA2000 BC1	RTAP 153.6Kbps	Bottom Side	0	Reduced Level 2	1175	1908.75	22.65	23.00	1.084	0.07	2.360	2.558
	2	1	CDMA2000 BC1	RTAP 153.6Kbps	Bottom Side	0	Reduced Level 2	600	1880	22.63	23.00	1.089	-0.11	2.770	3.016



<FDD LTE SAR>

Plot No.	SIM	Antenna	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)
	1	1	LTE Band 66	20M	QPSK	1	0	Front	0	Reduced Level 2	132322	1745	22.38	22.50	1.028	0.09	1.270	1.306
	1	1	LTE Band 66	20M	QPSK	1	0	Back	0	Reduced Level 2	132322	1745	22.38	22.50	1.028	0.01	1.920	1.974
	1	1	LTE Band 66	20M	QPSK	1	0	Bottom Side	0	Reduced Level 2	132322	1745	22.38	22.50	1.028	0.14	2.380	2.447
	1	1	LTE Band 66	20M	QPSK	1	0	Bottom Side	0	Reduced Level 2	132072	1720	22.27	22.50	1.054	0.05	2.230	2.351
	1	1	LTE Band 66	20M	QPSK	1	0	Bottom Side	0	Reduced Level 2	132572	1770	22.33	22.50	1.040	0.09	2.590	2.693
	1	1	LTE Band 66	20M	QPSK	50	0	Front	0	Reduced Level 2	132322	1745	22.07	22.50	1.104	0.07	1.280	1.413
	1	1	LTE Band 66	20M	QPSK	50	0	Back	0	Reduced Level 2	132322	1745	22.07	22.50	1.104	-0.07	2.000	2.208
	1	1	LTE Band 66	20M	QPSK	50	0	Back	0	Reduced Level 2	132072	1720	21.91	22.50	1.146	0.05	2.130	2.440
	1	1	LTE Band 66	20M	QPSK	50	0	Back	0	Reduced Level 2	132572	1770	21.95	22.50	1.135	0.06	2.220	2.520
	1	1	LTE Band 66	20M	QPSK	50	0	Bottom Side	0	Reduced Level 2	132322	1745	22.07	22.50	1.104	0.08	2.500	2.760
	1	1	LTE Band 66	20M	QPSK	50	0	Bottom Side	0	Reduced Level 2	132072	1720	21.91	22.50	1.146	0.09	2.290	2.623
#69	1	1	LTE Band 66	20M	QPSK	50	0	Bottom Side	0	Reduced Level 2	132572	1770	21.95	22.50	1.135	0.13	2.610	2.962
	1	1	LTE Band 66	20M	QPSK	100	0	Back	0	Reduced Level 2	132322	1745	21.99	22.50	1.125	0.04	1.960	2.204
	1	1	LTE Band 66	20M	QPSK	100	0	Bottom Side	0	Reduced Level 2	132322	1745	21.99	22.50	1.125	0.09	2.480	2.789
	1	1	LTE Band 25	20M	QPSK	1	0	Bottom Side	0	Reduced Level 2	26590	1905	22.43	22.50	1.016	0.07	2.530	2.571
	1	1	LTE Band 25	20M	QPSK	1	0	Bottom Side	0	Reduced Level 2	26140	1860	22.18	22.50	1.076	0.07	2.350	2.530
#70	1	1	LTE Band 25	20M	QPSK	1	0	Bottom Side	0	Reduced Level 2	26340	1880	22.16	22.50	1.081	0.03	2.410	2.606
	1	1	LTE Band 25	20M	QPSK	50	0	Bottom Side	0	Reduced Level 2	26590	1905	21.98	22.50	1.127	0.05	2.250	2.536
	1	1	LTE Band 25	20M	QPSK	50	0	Bottom Side	0	Reduced Level 2	26140	1860	21.73	22.50	1.194	0.06	2.150	2.567
	1	1	LTE Band 25	20M	QPSK	50	0	Bottom Side	0	Reduced Level 2	26340	1880	21.74	22.50	1.191	0.07	2.180	2.597
	1	1	LTE Band 25	20M	QPSK	100	0	Bottom Side	0	Reduced Level 2	26590	1905	21.98	22.50	1.127	0.01	2.250	2.536

**<WLAN 5GHz SAR>**

Plot No.	Antenna	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)
	1+2	WLAN5.3GHz	802.11a 6Mbps	Front	0	Full	52	5260	19.90	20.50	1.148	97.95	1.021	0.02	0.059	0.069
#71	1+2	WLAN5.3GHz	802.11a 6Mbps	Back	0	Full	52	5260	19.90	20.50	1.148	97.95	1.021	0.12	1.990	2.333
	1+2	WLAN5.3GHz	802.11a 6Mbps	Right Side	0	Full	52	5260	19.90	20.50	1.148	97.95	1.021	0.01	0.355	0.416
	1+2	WLAN5.3GHz	802.11a 6Mbps	Top Side	0	Full	52	5260	19.90	20.50	1.148	97.95	1.021	0.15	0.147	0.172
	1+2	WLAN5.3GHz	802.11a 6Mbps	Back	0	Full	60	5300	19.90	20.50	1.148	97.95	1.021	0.12	1.600	1.876
	1+2	WLAN5.3GHz	802.11a 6Mbps	Back	0	Full	64	5320	19.89	20.50	1.151	97.95	1.021	0.12	1.660	1.950
	1+2	WLAN5.5GHz	802.11a 6Mbps	Front	0	Full	116	5580	19.75	20.50	1.189	97.95	1.021	0.16	0.083	0.101
	1+2	WLAN5.5GHz	802.11a 6Mbps	Back	0	Full	116	5580	19.75	20.50	1.189	97.95	1.021	0.17	1.730	2.099
	1+2	WLAN5.5GHz	802.11a 6Mbps	Right Side	0	Full	116	5580	19.75	20.50	1.189	97.95	1.021	0.1	0.356	0.432
	1+2	WLAN5.5GHz	802.11a 6Mbps	Top Side	0	Full	116	5580	19.75	20.50	1.189	97.95	1.021	0.09	0.280	0.340
#72	1+2	WLAN5.5GHz	802.11a 6Mbps	Back	0	Full	100	5500	19.71	20.50	1.199	97.95	1.021	0.08	1.940	2.376
	1+2	WLAN5.5GHz	802.11a 6Mbps	Back	0	Full	144	5720	19.47	20.50	1.268	97.95	1.021	0.09	1.730	2.239

14.5 Repeated SAR Measurement

<1g SAR>

No.	Antenna	Band	BW (MHz)	Modulation	RB Size	RB Offset	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	2	GSM850	-	-	-	-	GPRS (4Tx slots)	Right Cheek	0	Full	251	848.8	27.34	28.00	1.164	-	-	0.08	1.080	1	1.257
2nd	2	GSM850	-	-	-	-	GPRS (4Tx slots)	Right Cheek	0	Full	251	848.8	27.34	28.00	1.164	-	-	0.07	0.982	1.100	1.143
1st	2	WCDMA Band II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0	Reduced Level 1	9538	1907.6	19.25	19.50	1.059	-	-	0.08	1.170	1	1.239
2nd	2	WCDMA Band II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0	Reduced Level 1	9538	1907.6	19.25	19.50	1.059	-	-	0.17	1.070	1.093	1.133
1st	1	WCDMA Band IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	10	Reduced Level 1	1513	1752.6	19.72	20	1.067	-	-	0.05	1.210	1	1.291
2nd	1	WCDMA Band IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	10	Reduced Level 1	1513	1752.6	19.72	20	1.067	-	-	0.08	1.180	1.025	1.259
1st	2	LTE Band 12	10M	QPSK	1	49	-	Right Tilted	0	Full	23095	707.5	22.98	23.80	1.208	-	-	0.08	0.962	1	1.162
2nd	2	LTE Band 12	10M	QPSK	1	49	-	Right Tilted	0	Full	23095	707.5	22.98	23.80	1.208	-	-	0.08	0.869	1.107	1.050
1st	3	LTE Band 30	10M	QPSK	50	0	-	Right Cheek	0	Reduced Level 1	27710	2310	18.65	19.00	1.084	-	-	0.12	1.110	1	1.203
2nd	3	LTE Band 30	10M	QPSK	50	0	-	Right Cheek	0	Reduced Level 1	27710	2310	18.65	19.00	1.084	-	-	0.04	1.090	1.018	1.181
1st	3	LTE Band 7	20M	QPSK	50	24	-	Right Cheek	0	Reduced Level 1	20850	2510	18.41	19.00	1.146	-	-	0.03	1.020	1	1.168
2nd	3	LTE Band 7	20M	QPSK	50	24	-	Right Cheek	0	Reduced Level 1	20850	2510	18.41	19.00	1.146	-	-	0.08	0.989	1.031	1.133
1st	1	WLAN2.4GHz	-	-	-	-	802.11b 1Mbps	Left Tilted	0	Full	1	2412	18.53	19.50	1.250	98.96	1.011	-0.04	0.913	1	1.154
2nd	1	WLAN2.4GHz	-	-	-	-	802.11b 1Mbps	Left Tilted	0	Full	1	2412	18.53	19.50	1.250	98.96	1.011	0.09	0.881	1.036	1.114

<10g SAR>

No.	Antenna	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)	Ratio	Reported 10g SAR (W/kg)
1st	1	WCDMA Band IV	RMC 12.2Kbps	Bottom Side	0	Reduced Level 2	1413	1732.6	22.79	23.00	1.050	-0.07	3.320	1	3.484
2nd	1	WCDMA Band IV	RMC 12.2Kbps	Bottom Side	0	Reduced Level 2	1413	1732.6	22.79	23.00	1.050	0.08	3.210	1.034	3.369
1st	1	CDMA2000 BC1	RTAP 153.6Kbps	Bottom Side	0	Reduced Level 2	25	1851.25	22.60	23.00	1.096	0.01	3.100	1	3.399
2nd	1	CDMA2000 BC1	RTAP 153.6Kbps	Bottom Side	0	Reduced Level 2	25	1851.25	22.60	23.00	1.096	0.01	2.970	1.044	3.257

General Note:

1. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is ≥ 0.8 W/kg.
2. Per KDB 865664 D01v01r04, if the ratio among the repeated measurement is ≤ 1.2 and the measured SAR < 1.45 W/kg, only one repeated measurement is required.
3. 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.

15. Simultaneous Transmission Analysis

No.	Simultaneous Transmission Configurations	Portable Handset				Note
		Head	Body-worn	Hotspot	Product specific 10g SAR	
1.	GSM Voice + WLAN2.4GHz (SISO)	Yes	Yes			
2.	GPRS/EDGE + WLAN2.4GHz (SISO)	Yes	Yes	Yes	Yes	WWAN VoIP
3.	WCDMA + WLAN2.4GHz (SISO)	Yes	Yes	Yes	Yes	WWAN VoIP
4.	CDMA + WLAN2.4GHz (SISO)	Yes	Yes	Yes	Yes	WWAN VoIP
5.	LTE + WLAN2.4GHz (SISO)	Yes	Yes	Yes	Yes	WWAN VoIP
6.	GSM Voice + WLAN5.3/5.5GHz (MIMO)	Yes	Yes			
7.	GPRS/EDGE + WLAN5.3/5.5GHz (MIMO)	Yes	Yes		Yes	WWAN VoIP
8.	WCDMA + WLAN5.3/5.5GHz (MIMO)	Yes	Yes		Yes	WWAN VoIP
9.	CDMA + WLAN5.3/5.5GHz (MIMO)	Yes	Yes		Yes	WWAN VoIP
10.	LTE + WLAN5.3/5.5GHz (MIMO)	Yes	Yes		Yes	WWAN VoIP
11.	GSM Voice + WLAN5.2/5.8GHz (MIMO)	Yes	Yes			
12.	GPRS/EDGE + WLAN5.2/5.8GHz (MIMO)	Yes	Yes	Yes	Yes	WWAN VoIP
13.	WCDMA + WLAN5.2/5.8GHz (MIMO)	Yes	Yes	Yes	Yes	WWAN VoIP
14.	CDMA + WLAN5.2/5.8GHz (MIMO)	Yes	Yes	Yes	Yes	WWAN VoIP
15.	LTE + WLAN5.2/5.8GHz (MIMO)	Yes	Yes	Yes	Yes	WWAN VoIP
16.	GSM Voice + Bluetooth		Yes			
17.	GPRS/EDGE + Bluetooth		Yes	Yes	Yes	WWAN VoIP
18.	WCDMA + Bluetooth		Yes	Yes	Yes	WWAN VoIP
19.	CDMA + Bluetooth		Yes	Yes	Yes	WWAN VoIP
20.	LTE + Bluetooth		Yes	Yes	Yes	WWAN VoIP
21.	GSM Voice + WLAN5.2/5.8GHz (MIMO) + Bluetooth		Yes			
22.	GPRS/EDGE + WLAN5.2/5.8GHz (MIMO) + Bluetooth		Yes	Yes	Yes	WWAN VoIP
23.	WCDMA + WLAN5.2/5.8GHz (MIMO) + Bluetooth		Yes	Yes	Yes	WWAN VoIP
24.	CDMA + WLAN5.2/5.8GHz (MIMO) + Bluetooth		Yes	Yes	Yes	WWAN VoIP
25.	LTE + WLAN5.2/5.8GHz (MIMO) + Bluetooth		Yes	Yes	Yes	WWAN VoIP
26.	2.4GHz WLAN Ant.1+ 2.4GHz WLAN Ant.2	Yes	Yes	Yes	Yes	

General Note:

- This device supports VoIP in GPRS, EGPRS, WCDMA and LTE (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.
- EUT will choose each GSM, CDMA, WCDMA and LTE according to the network signal condition; therefore, they will not operate simultaneously at any moment.
- WLAN 2.4GHz Antenna 1 and Bluetooth share the same antenna so can't transmit simultaneously.
- According to the character of EUT, WLAN 2.4GHz Antenna 2 and Bluetooth can't transmit simultaneously.
- This device 2.4GHz WLAN/ 5.2GHz WLAN/5.8GHz WLAN support hotspot operation, and 5.2GHz WLAN/5.8GHz WLAN supports WiFi Direct (GC/GO), and 5.3GHz / 5.5GHz supports WiFi Direct (GC only).
- EUT will choose either WLAN 2.4GHz or WLAN 5GHz according to the network signal condition; therefore, 2.4GHz WLAN and 5GHz WLAN will not operate simultaneously at any moment though they have independent antenna.
- The worst case 5 GHz WLAN reported SAR for each configuration was used for SAR summation, regardless of whether the WLAN channel has WiFi Direct and Hotspot capability. Therefore, the following summations represent the absolute worst cases for simultaneous transmission with 5 GHz WLAN.
- According to the character of EUT, WLAN 2.4G Ant.2 and WWAN antenna 1/2/3 and can't transmit simultaneously.
- WLAN 2.4GHz can transmit in SISO antenna mode only when transmit simultaneously with WWAN.
- For 2.4GHz WLAN each antenna, transmit power in SISO operation is larger than (or equal to) the power in MIMO operation, RF exposure compliance of MIMO mode can be deduced from the compliance simultaneous transmission of antennas operating in SISO mode.
- For 5GHz WLAN, SAR testing was performed on MIMO mode since it can't transmit in SISO mode, so only evaluate MIMO mode SAR.
- This device has three WWAN transmitter antennas. WWAN antenna 1 is located at the bottom edge of the device, WWAN antenna 2 is located at the left side of top edge of the device, WWAN antenna 3 is located under WWAN antenna 2, and which can refer to antenna location chapter. The device is capable of switching between the WWAN antenna 2 and WWAN antenna 3 based on signal strength. All of them couldn't transmit simultaneously.
- For hotspot/body-worn simultaneously analysis, since the SAR summation of 3 transmitters can cover others combination of 2 transmitters, therefore in the follow section would not additional to evaluate 2Tx combination of simultaneously transmission.
- Per KDB 447498 D01v06, simultaneous transmission SAR is compliant if,
 - 1g Scalar SAR summation < 1.6W/kg and 10g Scalar SAR summation < 4.0W/kg.



- 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, $SPLSR \leq 0.10$ for 10g SAR simultaneously transmission SAR measurement is not necessary.
- iv) The SPLSR calculated results please refer to section 15.5.

15.1 Head Exposure Conditions
<WWAN Antenna 1>

WWAN Band		Exposure Position	1	2	3	4	1+2 Summed 1g SAR	1+4 Summed 1g SAR	2+3 Summed 1g SAR (W/kg)
			WWAN Ant.1	2.4GHz WLAN Ant.1	2.4GHz WLAN Ant.2	5GHz WLAN Ant.1+2			
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)			
GSM	GSM850	Right Cheek	0.248	0.222	0.770	0.111	0.47	0.36	0.99
		Right Tilted	0.157	0.235	0.265	0.126	0.39	0.28	0.50
		Left Cheek	0.331	0.680	0.211	0.206	1.01	0.54	0.89
		Left Tilted	0.154	1.154	0.072	0.299	1.31	0.45	1.23
	GSM1900	Right Cheek	0.057	0.222	0.770	0.111	0.28	0.17	0.99
		Right Tilted	0.031	0.235	0.265	0.126	0.27	0.16	0.50
		Left Cheek	0.151	0.680	0.211	0.206	0.83	0.36	0.89
		Left Tilted	0.033	1.154	0.072	0.299	1.19	0.33	1.23
WCDMA	Band V	Right Cheek	0.198	0.222	0.770	0.111	0.42	0.31	0.99
		Right Tilted	0.138	0.235	0.265	0.126	0.37	0.26	0.50
		Left Cheek	0.248	0.680	0.211	0.206	0.93	0.45	0.89
		Left Tilted	0.144	1.154	0.072	0.299	1.30	0.44	1.23
	Band IV	Right Cheek	0.108	0.222	0.770	0.111	0.33	0.22	0.99
		Right Tilted	0.072	0.235	0.265	0.126	0.31	0.20	0.50
		Left Cheek	0.226	0.680	0.211	0.206	0.91	0.43	0.89
		Left Tilted	0.073	1.154	0.072	0.299	1.23	0.37	1.23
	Band II	Right Cheek	0.113	0.222	0.770	0.111	0.34	0.22	0.99
		Right Tilted	0.056	0.235	0.265	0.126	0.29	0.18	0.50
		Left Cheek	0.267	0.680	0.211	0.206	0.95	0.47	0.89
		Left Tilted	0.086	1.154	0.072	0.299	1.24	0.39	1.23
CDMA2000	BC0	Right Cheek	0.254	0.222	0.770	0.111	0.48	0.37	0.99
		Right Tilted	0.172	0.235	0.265	0.126	0.41	0.30	0.50
		Left Cheek	0.318	0.680	0.211	0.206	1.00	0.52	0.89
		Left Tilted	0.184	1.154	0.072	0.299	1.34	0.48	1.23
	BC1	Right Cheek	0.158	0.222	0.770	0.111	0.38	0.27	0.99
		Right Tilted	0.100	0.235	0.265	0.126	0.34	0.23	0.50
		Left Cheek	0.290	0.680	0.211	0.206	0.97	0.50	0.89
		Left Tilted	0.096	1.154	0.072	0.299	1.25	0.40	1.23



WWAN Band		Exposure Position	1	2	3	4	1+2 Summed 1g SAR	1+4 Summed 1g SAR	2+3 Summed 1g SAR
			WWAN Ant.1	2.4GHz WLAN Ant.1	2.4GHz WLAN Ant.2	5GHz WLAN Ant.1+2			
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)			
LTE	Band 71	Right Cheek	0.115	0.222	0.770	0.111	0.34	0.23	0.99
		Right Tilted	0.081	0.235	0.265	0.126	0.32	0.21	0.50
		Left Cheek	0.115	0.680	0.211	0.206	0.80	0.32	0.89
		Left Tilted	0.054	1.154	0.072	0.299	1.21	0.35	1.23
	Band 12	Right Cheek	0.126	0.222	0.770	0.111	0.35	0.24	0.99
		Right Tilted	0.083	0.235	0.265	0.126	0.32	0.21	0.50
		Left Cheek	0.147	0.680	0.211	0.206	0.83	0.35	0.89
		Left Tilted	0.096	1.154	0.072	0.299	1.25	0.40	1.23
	Band 5	Right Cheek	0.180	0.222	0.770	0.111	0.40	0.29	0.99
		Right Tilted	0.116	0.235	0.265	0.126	0.35	0.24	0.50
		Left Cheek	0.180	0.680	0.211	0.206	0.86	0.39	0.89
		Left Tilted	0.119	1.154	0.072	0.299	1.27	0.42	1.23
	Band 26	Right Cheek	0.198	0.222	0.770	0.111	0.42	0.31	0.99
		Right Tilted	0.130	0.235	0.265	0.126	0.37	0.26	0.50
		Left Cheek	0.249	0.680	0.211	0.206	0.93	0.46	0.89
		Left Tilted	0.141	1.154	0.072	0.299	1.30	0.44	1.23
	Band 66	Right Cheek	0.117	0.222	0.770	0.111	0.34	0.23	0.99
		Right Tilted	0.033	0.235	0.265	0.126	0.27	0.16	0.50
		Left Cheek	0.072	0.680	0.211	0.206	0.75	0.28	0.89
		Left Tilted	0.030	1.154	0.072	0.299	1.18	0.33	1.23
	Band 25	Right Cheek	0.079	0.222	0.770	0.111	0.30	0.19	0.99
		Right Tilted	0.069	0.235	0.265	0.126	0.30	0.20	0.50
		Left Cheek	0.235	0.680	0.211	0.206	0.92	0.44	0.89
		Left Tilted	0.071	1.154	0.072	0.299	1.23	0.37	1.23

<WWAN Antenna 2>

WWAN Band		Exposure Position	1	2	1+2 Summed 1g SAR
			WWAN Ant.2	2.4GHz WLAN Ant.1	
			1g SAR (W/kg)	1g SAR (W/kg)	
GSM	GSM850	Right Cheek	0.987	0.098	1.09
		Right Tilted	0.670	0.107	0.78
		Left Cheek	0.599	0.502	1.10
		Left Tilted	0.517	0.710	1.23
	GSM1900	Right Cheek	0.766	0.098	0.86
		Right Tilted	1.076	0.107	1.18
		Left Cheek	0.287	0.502	0.79
		Left Tilted	0.279	0.710	0.99
WCDMA	Band V	Right Cheek	0.742	0.098	0.84
		Right Tilted	0.794	0.107	0.90
		Left Cheek	0.643	0.502	1.15
		Left Tilted	0.614	0.710	1.32
	Band IV	Right Cheek	0.692	0.098	0.79
		Right Tilted	0.551	0.107	0.66
		Left Cheek	0.277	0.502	0.78
		Left Tilted	0.288	0.710	1.00
	Band II	Right Cheek	0.663	0.098	0.76
		Right Tilted	0.827	0.107	0.93
		Left Cheek	0.216	0.502	0.72
		Left Tilted	0.244	0.710	0.95
CDMA2000	BC0	Right Cheek	0.697	0.098	0.80
		Right Tilted	0.648	0.107	0.76
		Left Cheek	0.587	0.502	1.09
		Left Tilted	0.506	0.710	1.22
	BC1	Right Cheek	0.909	0.098	1.01
		Right Tilted	0.863	0.107	0.97
		Left Cheek	0.248	0.502	0.75
		Left Tilted	0.137	0.710	0.85

WWAN Band		Exposure Position	1	2	1+2 Summed 1g SAR
			WWAN Ant.2	2.4GHz WLAN Ant.1	
			1g SAR (W/kg)	1g SAR (W/kg)	
LTE	Band 71	Right Cheek	0.711	0.098	0.81
		Right Tilted	0.673	0.107	0.78
		Left Cheek	0.622	0.502	1.12
		Left Tilted	0.545	0.710	1.26
	Band 12	Right Cheek	0.734	0.098	0.83
		Right Tilted	0.719	0.107	0.83
		Left Cheek	0.646	0.502	1.15
		Left Tilted	0.614	0.710	1.32
	Band 5	Right Cheek	0.719	0.098	0.82
		Right Tilted	0.644	0.107	0.75
		Left Cheek	0.577	0.502	1.08
		Left Tilted	0.495	0.710	1.21
	Band 26	Right Cheek	0.629	0.098	0.73
		Right Tilted	0.580	0.107	0.69
		Left Cheek	0.510	0.502	1.01
		Left Tilted	0.443	0.710	1.15
	Band 66	Right Cheek	0.569	0.098	0.67
		Right Tilted	0.769	0.107	0.88
		Left Cheek	0.182	0.502	0.68
		Left Tilted	0.226	0.710	0.94
	Band 25	Right Cheek	0.778	0.098	0.88
		Right Tilted	0.789	0.107	0.90
		Left Cheek	0.228	0.502	0.73
		Left Tilted	0.256	0.710	0.97

WWAN Band		Exposure Position	1	4	1+4 Summed 1g SAR (W/kg)
			WWAN Ant.2	5GHz WLAN Ant.1+2	
			1g SAR (W/kg)	1g SAR (W/kg)	
GSM	GSM850	Right Cheek	0.598	0.111	0.71
		Right Tilted	0.754	0.126	0.88
		Left Cheek	0.542	0.206	0.75
		Left Tilted	0.484	0.299	0.78
	GSM1900	Right Cheek	0.766	0.111	0.88
		Right Tilted	1.076	0.126	1.20
		Left Cheek	0.287	0.206	0.49
		Left Tilted	0.279	0.299	0.58
WCDMA	Band V	Right Cheek	0.620	0.111	0.73
		Right Tilted	0.568	0.126	0.69
		Left Cheek	0.506	0.206	0.71
		Left Tilted	0.390	0.299	0.69
	Band IV	Right Cheek	0.692	0.111	0.80
		Right Tilted	0.551	0.126	0.68
		Left Cheek	0.277	0.206	0.48
		Left Tilted	0.288	0.299	0.59
	Band II	Right Cheek	0.533	0.111	0.64
		Right Tilted	0.704	0.126	0.83
		Left Cheek	0.185	0.206	0.39
		Left Tilted	0.213	0.299	0.51
CDMA2000	BC0	Right Cheek	0.685	0.111	0.80
		Right Tilted	0.537	0.126	0.66
		Left Cheek	0.576	0.206	0.78
		Left Tilted	0.495	0.299	0.79
	BC1	Right Cheek	0.909	0.111	1.02
		Right Tilted	0.863	0.126	0.99
		Left Cheek	0.248	0.206	0.45
		Left Tilted	0.137	0.299	0.44

WWAN Band		Exposure Position	1	4	1+4 Summed 1g SAR (W/kg)
			WWAN Ant.2	5GHz WLAN Ant.1+2	
			1g SAR (W/kg)	1g SAR (W/kg)	
LTE	Band 71	Right Cheek	0.628	0.111	0.74
		Right Tilted	0.586	0.126	0.71
		Left Cheek	0.538	0.206	0.74
		Left Tilted	0.480	0.299	0.78
	Band 12	Right Cheek	0.636	0.111	0.75
		Right Tilted	0.640	0.126	0.77
		Left Cheek	0.575	0.206	0.78
		Left Tilted	0.472	0.299	0.77
	Band 5	Right Cheek	0.630	0.111	0.74
		Right Tilted	0.589	0.126	0.72
		Left Cheek	0.506	0.206	0.71
		Left Tilted	0.441	0.299	0.74
	Band 26	Right Cheek	0.629	0.111	0.74
		Right Tilted	0.580	0.126	0.71
		Left Cheek	0.510	0.206	0.72
		Left Tilted	0.443	0.299	0.74
	Band 66	Right Cheek	0.569	0.111	0.68
		Right Tilted	0.769	0.126	0.90
		Left Cheek	0.182	0.206	0.39
		Left Tilted	0.226	0.299	0.53
	Band 25	Right Cheek	0.633	0.111	0.74
		Right Tilted	0.635	0.126	0.76
		Left Cheek	0.150	0.206	0.36
		Left Tilted	0.193	0.299	0.49

<WWAN Antenna 3>

WWAN Band		Exposure Position	1	2	1+2 Summed 1g SAR
			WWAN Ant.3	2.4GHz WLAN Ant.1	
			1g SAR (W/kg)	1g SAR (W/kg)	
LTE	Band 30	Right Cheek	1.115	0.098	1.21
		Right Tilted	0.289	0.107	0.40
		Left Cheek	0.221	0.502	0.72
		Left Tilted	0.106	0.710	0.82
	Band 7	Right Cheek	1.168	0.098	1.27
		Right Tilted	0.294	0.107	0.40
		Left Cheek	0.207	0.502	0.71
		Left Tilted	0.097	0.710	0.81
	Band 41	Right Cheek	1.040	0.098	1.14
		Right Tilted	0.187	0.107	0.29
		Left Cheek	0.082	0.502	0.58
		Left Tilted	0.042	0.710	0.75

WWAN Band		Exposure Position	1	4	1+4 Summed 1g SAR (W/kg)
			WWAN Ant.3	5GHz WLAN Ant.1+2	
			1g SAR (W/kg)	1g SAR (W/kg)	
LTE	Band 30	Right Cheek	1.115	0.111	1.23
		Right Tilted	0.289	0.126	0.42
		Left Cheek	0.221	0.206	0.43
		Left Tilted	0.106	0.299	0.41
	Band 7	Right Cheek	1.093	0.111	1.20
		Right Tilted	0.227	0.126	0.35
		Left Cheek	0.168	0.206	0.37
		Left Tilted	0.079	0.299	0.38
	Band 41	Right Cheek	1.040	0.111	1.15
		Right Tilted	0.187	0.126	0.31
		Left Cheek	0.082	0.206	0.29
		Left Tilted	0.042	0.299	0.34

15.2 Hotspot Exposure Conditions

<WWAN Antenna 1>

WWAN Band		Exposure Position	1	2	3	4	5	1+2 Summed 1g SAR (W/kg)	1+4+5 Summed 1g SAR (W/kg)	2+3 Summed 1g SAR (W/kg)
			WWAN Ant. 1	2.4GHz WLAN Ant. 1	2.4GHz WLAN Ant. 2	5GHz WLAN Ant. 1+2	Bluetooth Ant. 1			
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)			
GSM	GSM850	Front	0.210	0.158	0.133	0.019	0.028	0.37	0.26	0.29
		Back	0.384	0.350	0.245	0.618	0.047	0.73	1.05	0.60
		Left Side	0.239		0.244			0.24	0.24	0.24
		Right Side	0.149	0.208		0.198	0.042	0.36	0.39	0.21
		Top Side		0.160	0.030	0.138	0.011	0.16	0.15	0.19
		Bottom Side	0.173					0.17	0.17	
	GSM1900	Front	0.520	0.158	0.133	0.019	0.028	0.68	0.57	0.29
		Back	0.660	0.350	0.245	0.618	0.047	1.01	1.33	0.60
		Left Side	0.076		0.244			0.08	0.08	0.24
		Right Side	0.013	0.208		0.198	0.042	0.22	0.25	0.21
		Top Side		0.160	0.030	0.138	0.011	0.16	0.15	0.19
		Bottom Side	1.267					1.27	1.27	
WCDMA	Band V	Front	0.207	0.158	0.133	0.019	0.028	0.37	0.25	0.29
		Back	0.270	0.350	0.245	0.618	0.047	0.62	0.94	0.60
		Left Side	0.253		0.244			0.25	0.25	0.24
		Right Side	0.187	0.208		0.198	0.042	0.40	0.43	0.21
		Top Side		0.160	0.030	0.138	0.011	0.16	0.15	0.19
		Bottom Side	0.144					0.14	0.14	
	Band IV	Front	0.361	0.158	0.133	0.019	0.028	0.52	0.41	0.29
		Back	0.566	0.350	0.245	0.618	0.047	0.92	1.23	0.60
		Left Side	0.114		0.244			0.11	0.11	0.24
		Right Side	0.071	0.208		0.198	0.042	0.28	0.31	0.21
		Top Side		0.160	0.030	0.138	0.011	0.16	0.15	0.19
		Bottom Side	1.291					1.29	1.29	
	Band II	Front	0.373	0.158	0.133	0.019	0.028	0.53	0.42	0.29
		Back	0.563	0.350	0.245	0.618	0.047	0.91	1.23	0.60
		Left Side	0.137		0.244			0.14	0.14	0.24
		Right Side	0.050	0.208		0.198	0.042	0.26	0.29	0.21
		Top Side		0.160	0.030	0.138	0.011	0.16	0.15	0.19
		Bottom Side	1.037					1.04	1.04	
CDMA2000	BC0	Front	0.235	0.158	0.133	0.019	0.028	0.39	0.28	0.29
		Back	0.364	0.350	0.245	0.618	0.047	0.71	1.03	0.60
		Left Side	0.226		0.244			0.23	0.23	0.24
		Right Side	0.183	0.208		0.198	0.042	0.39	0.42	0.21
		Top Side		0.160	0.030	0.138	0.011	0.16	0.15	0.19
		Bottom Side	0.175					0.18	0.18	
	BC1	Front	0.140	0.158	0.133	0.019	0.028	0.30	0.19	0.29
		Back	0.203	0.350	0.245	0.618	0.047	0.55	0.87	0.60
		Left Side	0.133		0.244			0.13	0.13	0.24
		Right Side	0.045	0.208		0.198	0.042	0.25	0.29	0.21
		Top Side		0.160	0.030	0.138	0.011	0.16	0.15	0.19
		Bottom Side	1.101					1.10	1.10	

WWAN Band		Exposure Position	1	2	3	4	5	1+2 Summed 1g SAR (W/kg)	1+4+5 Summed 1g SAR (W/kg)	2+3 Summed 1g SAR (W/kg)
			WWAN Ant.1	2.4GHz WLAN Ant.1	2.4GHz WLAN Ant.2	5GHz WLAN Ant.1+2	Bluetooth Ant.1			
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)			
LTE	Band 71	Front	0.164	0.158	0.133	0.019	0.028	0.32	0.21	0.29
		Back	0.224	0.350	0.245	0.618	0.047	0.57	0.89	0.60
		Left Side	0.266		0.244			0.27	0.27	0.24
		Right Side	0.133	0.208		0.198	0.042	0.34	0.37	0.21
		Top Side		0.160	0.030	0.138	0.011	0.16	0.15	0.19
		Bottom Side	0.119					0.12	0.12	
	Band 12	Front	0.190	0.158	0.133	0.019	0.028	0.35	0.24	0.29
		Back	0.206	0.350	0.245	0.618	0.047	0.56	0.87	0.60
		Left Side	0.202		0.244			0.20	0.20	0.24
		Right Side	0.184	0.208		0.198	0.042	0.39	0.42	0.21
		Top Side		0.160	0.030	0.138	0.011	0.16	0.15	0.19
		Bottom Side	0.114					0.11	0.11	
	Band 5	Front	0.198	0.158	0.133	0.019	0.028	0.36	0.25	0.29
		Back	0.266	0.350	0.245	0.618	0.047	0.62	0.93	0.60
		Left Side	0.188		0.244			0.19	0.19	0.24
		Right Side	0.140	0.208		0.198	0.042	0.35	0.38	0.21
		Top Side		0.160	0.030	0.138	0.011	0.16	0.15	0.19
		Bottom Side	0.181					0.18	0.18	
	Band 26	Front	0.192	0.158	0.133	0.019	0.028	0.35	0.24	0.29
		Back	0.232	0.350	0.245	0.618	0.047	0.58	0.90	0.60
		Left Side	0.165		0.244			0.17	0.17	0.24
		Right Side	0.130	0.208		0.198	0.042	0.34	0.37	0.21
		Top Side		0.160	0.030	0.138	0.011	0.16	0.15	0.19
		Bottom Side	0.160					0.16	0.16	
	Band 66	Front	0.531	0.158	0.133	0.019	0.028	0.69	0.58	0.29
		Back	0.759	0.350	0.245	0.618	0.047	1.11	1.42	0.60
		Left Side	0.160		0.244			0.16	0.16	0.24
		Right Side	0.066	0.208		0.198	0.042	0.27	0.31	0.21
		Top Side		0.160	0.030	0.138	0.011	0.16	0.15	0.19
		Bottom Side	1.052					1.05	1.05	
	Band 25	Front	0.155	0.158	0.133	0.019	0.028	0.31	0.20	0.29
		Back	0.248	0.350	0.245	0.618	0.047	0.60	0.91	0.60
		Left Side	0.260		0.244			0.26	0.26	0.24
		Right Side	0.059	0.208		0.198	0.042	0.27	0.30	0.21
		Top Side		0.160	0.030	0.138	0.011	0.16	0.15	0.19
		Bottom Side	1.188					1.19	1.19	

<WWAN Antenna 2>

WWAN Band		Exposure Position	1	2	4	5	1+2 Summed 1g SAR (W/kg)	1+4+5		
			WWAN Ant.1	2.4GHz WLAN Ant.1	5GHz WLAN Ant.1+2	Bluetooth Ant.1		Summed 1g SAR	SPLSR	Case No
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)				
GSM	GSM850	Front	0.432	0.158	0.019	0.028	0.59	0.48		
		Back	0.535	0.350	0.618	0.047	0.89	1.20		
		Left Side	0.175				0.18	0.18		
		Right Side	0.024	0.208	0.198	0.042	0.23	0.26		
		Top Side	0.281	0.160	0.138	0.011	0.44	0.43		
	GSM1900	Front	0.213	0.158	0.019	0.028	0.37	0.26		
		Back	0.350	0.350	0.618	0.047	0.70	1.02		
		Left Side	0.207				0.21	0.21		
		Right Side	0.014	0.208	0.198	0.042	0.22	0.25		
		Top Side	0.235	0.160	0.138	0.011	0.40	0.38		
WCDMA	Band V	Front	0.523	0.158	0.019	0.028	0.68	0.57		
		Back	0.541	0.350	0.618	0.047	0.89	1.21		
		Left Side	0.263				0.26	0.26		
		Right Side	0.071	0.208	0.198	0.042	0.28	0.31		
		Top Side	0.393	0.160	0.138	0.011	0.55	0.54		
	Band IV	Front	0.409	0.158	0.019	0.028	0.57	0.46		
		Back	0.679	0.350	0.618	0.047	1.03	1.34		
		Left Side	0.404				0.40	0.40		
		Right Side	0.003	0.208	0.198	0.042	0.21	0.24		
		Top Side	0.029	0.160	0.138	0.011	0.19	0.18		
	Band II	Front	0.502	0.158	0.019	0.028	0.66	0.55		
		Back	0.683	0.350	0.618	0.047	1.03	1.35		
		Left Side	0.530				0.53	0.53		
		Right Side	0.003	0.208	0.198	0.042	0.21	0.24		
		Top Side	0.039	0.160	0.138	0.011	0.20	0.19		
CDMA2000	BC0	Front	0.659	0.158	0.019	0.028	0.82	0.71		
		Back	0.666	0.350	0.618	0.047	1.02	1.33		
		Left Side	0.311				0.31	0.31		
		Right Side	0.089	0.208	0.198	0.042	0.30	0.33		
		Top Side	0.512	0.160	0.138	0.011	0.67	0.66		
	BC1	Front	0.858	0.158	0.019	0.028	1.02	0.91		
		Back	0.966	0.350	0.618	0.047	1.32	1.63	0.04	#01
		Left Side	0.381				0.38	0.38		
		Right Side	0.137	0.208	0.198	0.042	0.35	0.38		
		Top Side	0.778	0.160	0.138	0.011	0.94	0.93		

WWAN Band		Exposure Position	1	2	4	5	1+2 Summed 1g SAR (W/kg)	1+4+5 Summed 1g SAR (W/kg)
			WWAN Ant.1	2.4GHz WLAN Ant. 1	5GHz WLAN Ant. 1+2	Bluetooth Ant. 1		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
LTE	Band 71	Front	0.557	0.158	0.019	0.028	0.72	0.60
		Back	0.449	0.350	0.618	0.047	0.80	1.11
		Left Side	0.224				0.22	0.22
		Right Side	0.116	0.208	0.198	0.042	0.32	0.36
		Top Side	0.374	0.160	0.138	0.011	0.53	0.52
	Band 12	Front	0.511	0.158	0.019	0.028	0.67	0.56
		Back	0.512	0.350	0.618	0.047	0.86	1.18
		Left Side	0.267				0.27	0.27
		Right Side	0.106	0.208	0.198	0.042	0.31	0.35
		Top Side	0.380	0.160	0.138	0.011	0.54	0.53
	Band 5	Front	0.544	0.158	0.019	0.028	0.70	0.59
		Back	0.541	0.350	0.618	0.047	0.89	1.21
		Left Side	0.212				0.21	0.21
		Right Side	0.051	0.208	0.198	0.042	0.26	0.29
		Top Side	0.374	0.160	0.138	0.011	0.53	0.52
	Band 26	Front	0.530	0.158	0.019	0.028	0.69	0.58
		Back	0.574	0.350	0.618	0.047	0.92	1.24
		Left Side	0.237				0.24	0.24
		Right Side	0.049	0.208	0.198	0.042	0.26	0.29
		Top Side	0.388	0.160	0.138	0.011	0.55	0.54
	Band 66	Front	0.569	0.158	0.019	0.028	0.73	0.62
		Back	0.796	0.350	0.618	0.047	1.15	1.46
		Left Side	0.267				0.27	0.27
		Right Side	0.044	0.208	0.198	0.042	0.25	0.28
		Top Side	0.798	0.160	0.138	0.011	0.96	0.95
	Band 25	Front	0.626	0.158	0.019	0.028	0.78	0.67
		Back	0.765	0.350	0.618	0.047	1.12	1.43
		Left Side	0.413				0.41	0.41
		Right Side	0.035	0.208	0.198	0.042	0.24	0.28
		Top Side	0.696	0.160	0.138	0.011	0.86	0.85

<WWAN Antenna 3>

WWAN Band		Exposure Position	1	2	4	5	1+2 Summed 1g SAR (W/kg)	1+4+5		
			WWAN Ant.3	2.4GHz WLAN Ant.1	5GHz WLAN Ant.1+2	Bluetooth Ant.1		Summed 1g SAR (W/kg)	SPLSR	Case No
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)				
LTE	Band 30	Front	0.840	0.158	0.019	0.028	1.00	0.89		
		Back	1.160	0.350	0.618	0.047	1.51	1.83	0.04	#02
		Left Side	1.148				1.15	1.15		
		Right Side	0.056	0.208	0.198	0.042	0.26	0.30		
		Top Side	0.141	0.160	0.138	0.011	0.30	0.29		
	Band 7	Front	0.394	0.158	0.019	0.028	0.55	0.44		
		Back	0.945	0.350	0.618	0.047	1.30	1.61	0.03	#03
		Left Side	0.769				0.77	0.77		
		Right Side	0.055	0.208	0.198	0.042	0.26	0.30		
		Top Side	0.114	0.160	0.138	0.011	0.27	0.26		
	Band 41	Front	0.222	0.158	0.019	0.028	0.38	0.27		
		Back	0.869	0.350	0.618	0.047	1.22	1.53		
		Left Side	0.435				0.44	0.44		
		Right Side	0.028	0.208	0.198	0.042	0.24	0.27		
		Top Side	0.042	0.160	0.138	0.011	0.20	0.19		

15.3 Body-Worn Accessory Exposure Conditions

<WWAN Antenna 1>

WWAN Band		Exposure Position	1	2	3	4	5	1+2 Summed 1g SAR (W/kg)	1+4+5 Summed 1g SAR (W/kg)	2+3 Summed 1g SAR (W/kg)
			WWAN Ant.1	2.4GHz WLAN Ant.1	2.4GHz WLAN Ant.2	5GHz WLAN Ant.1+2	Bluetooth Ant.1			
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)			
GSM	GSM850	Front	0.185	0.053	0.060	0.016	0.004	0.24	0.21	0.11
		Back	0.302	0.110	0.122	0.371	0.009	0.41	0.68	0.23
	GSM1900	Front	0.224	0.053	0.060	0.016	0.004	0.28	0.24	0.11
		Back	0.412	0.110	0.122	0.371	0.009	0.52	0.79	0.23
WCDMA	Band V	Front	0.182	0.053	0.060	0.016	0.004	0.24	0.20	0.11
		Back	0.265	0.110	0.122	0.371	0.009	0.38	0.65	0.23
	Band IV	Front	0.391	0.053	0.060	0.016	0.004	0.44	0.41	0.11
		Back	0.794	0.110	0.122	0.371	0.009	0.90	1.17	0.23
	Band II	Front	0.516	0.053	0.060	0.016	0.004	0.57	0.54	0.11
		Back	0.647	0.110	0.122	0.371	0.009	0.76	1.03	0.23
CDMA2000	BC0	Front	0.227	0.053	0.060	0.016	0.004	0.28	0.25	0.11
		Back	0.288	0.110	0.122	0.371	0.009	0.40	0.67	0.23
	BC1	Front	0.260	0.053	0.060	0.016	0.004	0.31	0.28	0.11
		Back	0.896	0.110	0.122	0.371	0.009	1.01	1.28	0.23
LTE	Band 71	Front	0.142	0.053	0.060	0.016	0.004	0.20	0.16	0.11
		Back	0.164	0.110	0.122	0.371	0.009	0.27	0.54	0.23
	Band 12	Front	0.175	0.053	0.060	0.016	0.004	0.23	0.20	0.11
		Back	0.186	0.110	0.122	0.371	0.009	0.30	0.57	0.23
	Band 5	Front	0.120	0.053	0.060	0.016	0.004	0.17	0.14	0.11
		Back	0.206	0.110	0.122	0.371	0.009	0.32	0.59	0.23
	Band 26	Front	0.165	0.053	0.060	0.016	0.004	0.22	0.19	0.11
		Back	0.237	0.110	0.122	0.371	0.009	0.35	0.62	0.23
	Band 66	Front	0.539	0.053	0.060	0.016	0.004	0.59	0.56	0.11
		Back	0.796	0.110	0.122	0.371	0.009	0.91	1.18	0.23
	Band 25	Front	0.225	0.053	0.060	0.016	0.004	0.28	0.25	0.11
		Back	0.714	0.110	0.122	0.371	0.009	0.82	1.09	0.23

<WWAN Antenna 2>

WWAN Band		Exposure Position	1	2	4	5	1+2 Summed 1g SAR (W/kg)	1+4+5 Summed 1g SAR (W/kg)
			WWAN Ant.1	2.4GHz WLAN Ant.1	5GHz WLAN Ant.1+2	Bluetooth Ant.1		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
GSM	GSM850	Front	0.185	0.053	0.016	0.004	0.24	0.21
		Back	0.107	0.110	0.371	0.009	0.22	0.49
	GSM1900	Front	0.114	0.053	0.016	0.004	0.17	0.13
		Back	0.179	0.110	0.371	0.009	0.29	0.56
WCDMA	Band V	Front	0.201	0.053	0.016	0.004	0.25	0.22
		Back	0.213	0.110	0.371	0.009	0.32	0.59
	Band IV	Front	0.218	0.053	0.016	0.004	0.27	0.24
		Back	0.168	0.110	0.371	0.009	0.28	0.55
	Band II	Front	0.194	0.053	0.016	0.004	0.25	0.21
		Back	0.270	0.110	0.371	0.009	0.38	0.65
CDMA2000	BC0	Front	0.267	0.053	0.016	0.004	0.32	0.29
		Back	0.291	0.110	0.371	0.009	0.40	0.67
	BC1	Front	0.362	0.053	0.016	0.004	0.42	0.38
		Back	0.368	0.110	0.371	0.009	0.48	0.75
LTE	Band 71	Front	0.171	0.053	0.016	0.004	0.22	0.19
		Back	0.184	0.110	0.371	0.009	0.29	0.56
	Band 12	Front	0.187	0.053	0.016	0.004	0.24	0.21
		Back	0.191	0.110	0.371	0.009	0.30	0.57
	Band 5	Front	0.168	0.053	0.016	0.004	0.22	0.19
		Back	0.200	0.110	0.371	0.009	0.31	0.58
	Band 26	Front	0.175	0.053	0.016	0.004	0.23	0.20
		Back	0.229	0.110	0.371	0.009	0.34	0.61
	Band 66	Front	0.178	0.053	0.016	0.004	0.23	0.20
		Back	0.237	0.110	0.371	0.009	0.35	0.62
	Band 25	Front	0.223	0.053	0.016	0.004	0.28	0.24
		Back	0.261	0.110	0.371	0.009	0.37	0.64

<WWAN Antenna 3>

WWAN Band		Exposure Position	1	2	4	5	1+2 Summed 1g SAR (W/kg)	1+4+5 Summed 1g SAR (W/kg)
			WWAN Ant.3	2.4GHz WLAN Ant.1	5GHz WLAN Ant.1+2	Bluetooth Ant.1		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
LTE	Band 30	Front	0.352	0.053	0.016	0.004	0.41	0.37
		Back	0.501	0.110	0.371	0.009	0.61	0.88
	Band 7	Front	0.239	0.053	0.016	0.004	0.29	0.26
		Back	0.509	0.110	0.371	0.009	0.62	0.89
	Band 41	Front	0.087	0.053	0.016	0.004	0.14	0.11
		Back	0.371	0.110	0.371	0.009	0.48	0.75

15.4 Product specific 10g SAR Exposure Conditions

WWAN Band		Exposure Position	1	2	1+2		
			WWAN Antenna 1	5GHz WLAN Ant.1+2	Summed 10g SAR (W/kg)	SPLSR	Case No
			10g SAR (W/kg)	10g SAR (W/kg)			
GSM	GSM1900	Bottom Side	1.531		1.53		
WCDMA	Band IV	Back	3.165	2.376	5.54	0.08	#04
		Bottom Side	3.498		3.50		
	Band II	Back	2.966	2.376	5.34	0.08	#05
		Bottom Side	3.068		3.07		
CDMA	BC1	Bottom Side	3.399		3.40		
LTE	Band 66	Front	1.413	0.101	1.51		
		Back	2.520	2.376	4.90	0.07	#06
		Bottom Side	2.962		2.96		
	Band 25	Bottom Side	2.606		2.61		

Remark:

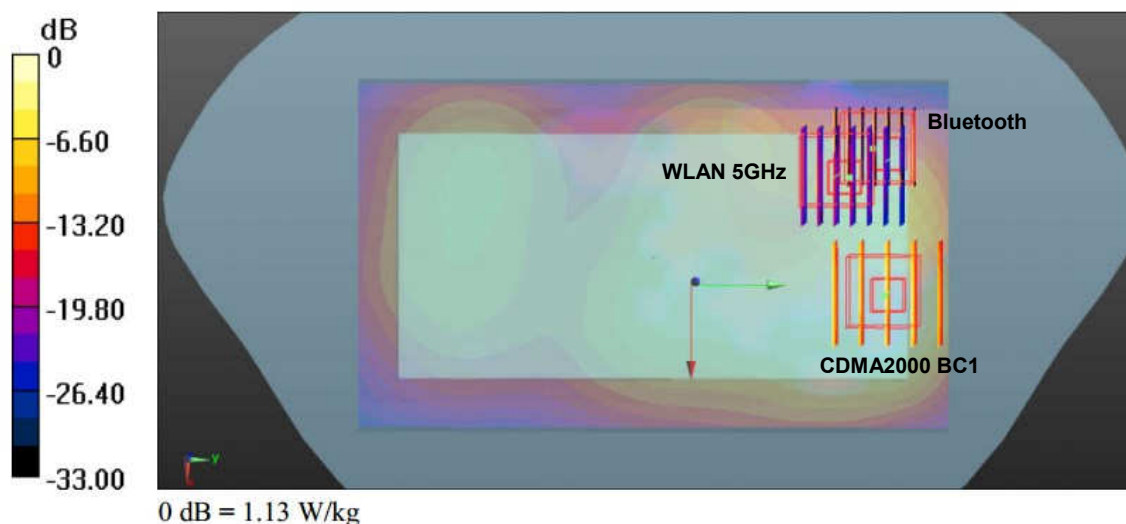
- For Bluetooth/WLAN 2.4GHz Product specific 10g stand-alone SAR is not required for a transmitter or antenna, due to 1g hotspot SAR is <1.2W/kg.
- SPLSR ≤ 0.10 for 10g SAR, simultaneously transmission SAR measurement is not necessary.

15.5 SPLSR Evaluation and Analysis

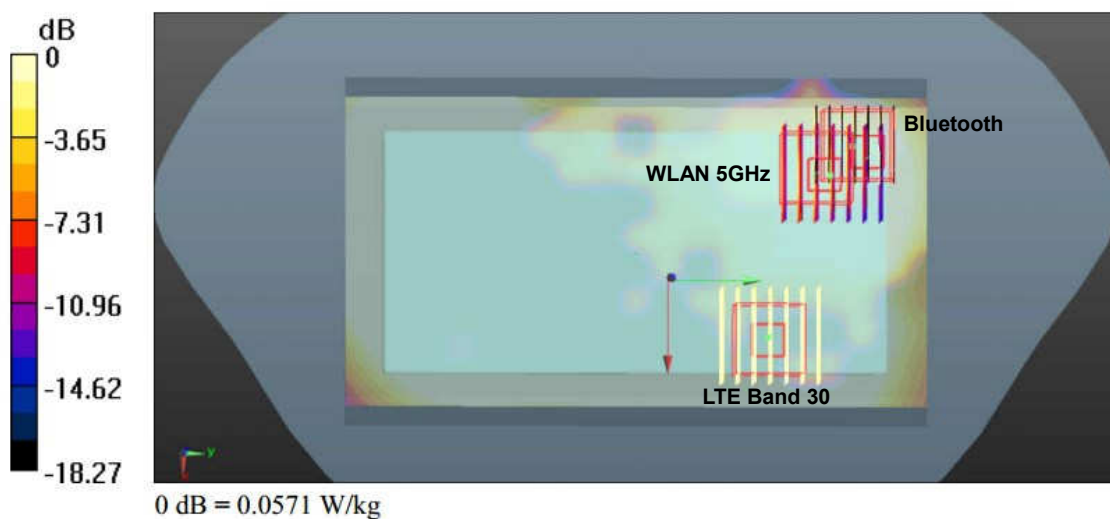
General Note:

1. When standalone SAR is measured for both antennas in the pair, the peak location separation distance is computed by the square root of $[(x_1-x_2)^2 + (y_1-y_2)^2 + (z_1-z_2)^2]$, where (x_1, y_1, z_1) and (x_2, y_2, z_2) are the coordinates in the area scans or extrapolated peak SAR locations in the zoom scans, as appropriate..
2. $SPLSR = (SAR_1 + SAR_2)^{1.5} / (min. \text{ separation distance, mm})$. If $SPLSR \leq 0.04$ for 1g SAR and $SPLSR \leq 0.10$ for 10g SAR, simultaneously transmission SAR measurement is not necessary.

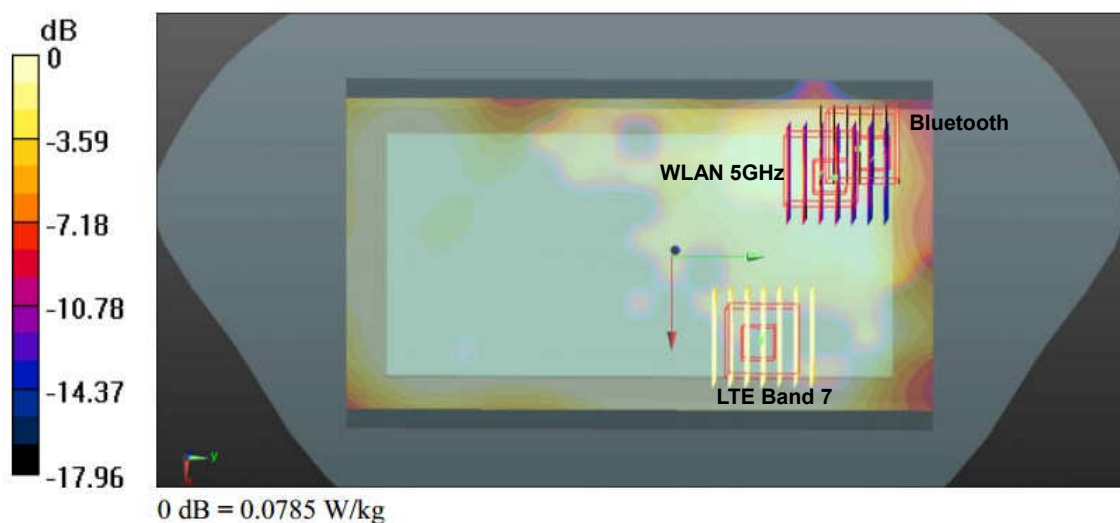
Case #01	Band	Position	1g SAR (W/kg)	Gap (mm)	SAR peak location (m)			3D distance (mm)	Summed 1g SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	CDMA2000 BC1	Back	0.966	10	-0.004	0.0705	-0.204	45.05	1.58	0.04	Not required
	WLAN 5GHz		0.618	10	-0.049	0.071	-0.206				
	CDMA2000 BC1		0.966	10	-0.004	0.0705	-0.204	40.13	1.01	0.03	Not required
	Bluetooth		0.047	10	-0.041	0.055	-0.205				
	WLAN 5GHz		0.618	10	-0.049	0.071	-0.206	17.92	0.67	0.03	Not required
	Bluetooth		0.047	10	-0.041	0.055	-0.205				



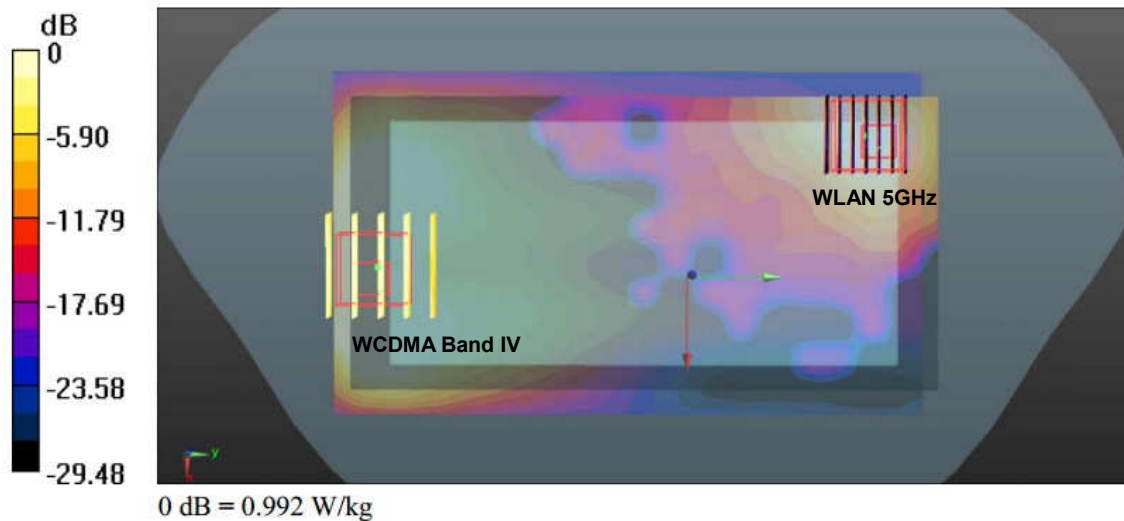
Case #02	Band	Position	1g SAR (W/kg)	Gap (mm)	SAR peak location (m)			3D distance (mm)	Summed 1g SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	LTE Band 30	Back	1.160	10	0.0094	0.0408	-0.205	65.75	1.78	0.04	Not required
	WLAN 5GHz		0.618	10	-0.049	0.071	-0.206				
	LTE Band 30		1.160	10	0.0094	0.0408	-0.205	52.36	1.21	0.03	Not required
	Bluetooth		0.047	10	-0.041	0.055	-0.205				
	WLAN 5GHz		0.618	10	-0.049	0.071	-0.206	17.92	0.67	0.03	Not required
	Bluetooth		0.047	10	-0.041	0.055	-0.205				



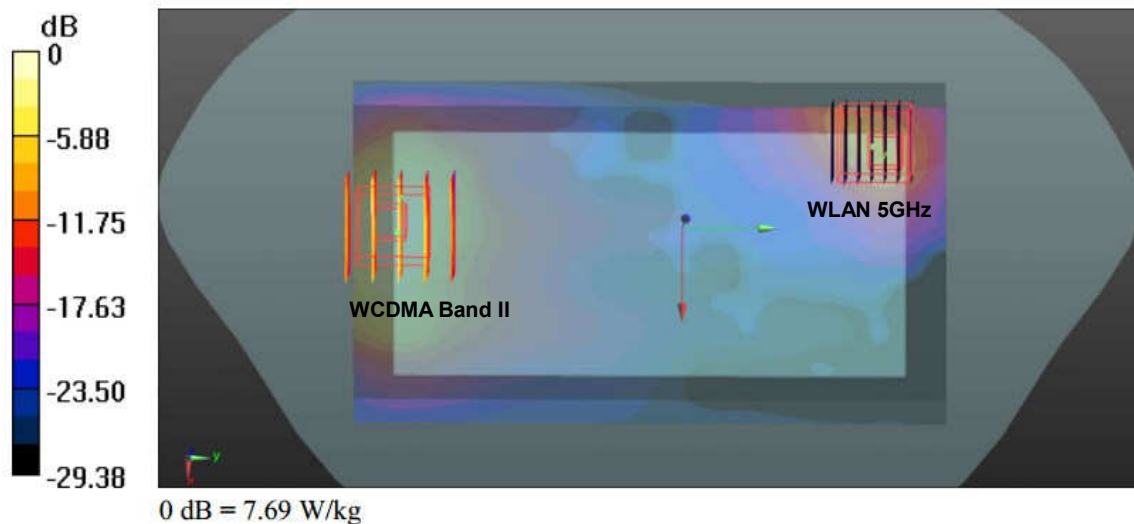
Case #03	Band	Position	1g SAR (W/kg)	Gap (mm)	SAR peak location (m)			3D distance (mm)	Summed 1g SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	LTE Band 7	Back	0.945	10	0.0094	0.0372	-0.204	67.51	1.56	0.03	Not required
	WLAN 5GHz		0.618	10	-0.049	0.071	-0.206				
	LTE Band 7		0.945	10	0.0094	0.0372	-0.204	53.46	0.99	0.02	Not required
	Bluetooth		0.047	10	-0.041	0.055	-0.205				
	WLAN 5GHz		0.618	10	-0.049	0.071	-0.206	17.92	0.67	0.03	Not required
	Bluetooth		0.047	10	-0.041	0.055	-0.205				



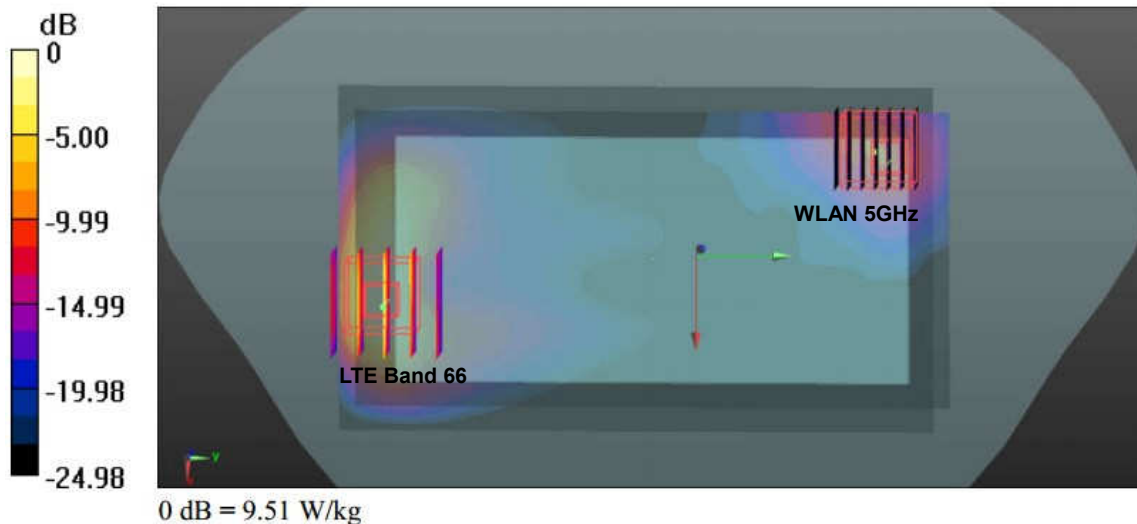
Case #04	Band	Position	10g SAR (W/kg)	Gap (mm)	SAR peak location (m)			3D distance (mm)	Summed 10g SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	WCDMA Band IV	Back	3.165	0	-0.0015	-0.0815	-0.204	158.40	5.54	0.08	Not required
	WLAN 5GHz		2.376	0	-0.045	0.0708	-0.206				



Case #05	Band	Position	10g SAR (W/kg)	Gap (mm)	SAR peak location (m)			3D distance (mm)	Summed 10g SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	WCDMA Band II	Back	2.966	0	-0.031	-0.0765	-0.205	147.97	5.34	0.08	Not required
	WLAN 5GHz		2.376	0	-0.045	0.0708	-0.206				



Case #06	Band	Position	10g SAR (W/kg)	Gap (mm)	SAR peak location (m)			3D distance (mm)	Summed 10g SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	LTE Band 66	Back	2.520	0	-0.002	-0.0815	-0.204	158.27	4.90	0.07	Not required
	WLAN 5GHz		2.376	0	-0.045	0.0708	-0.206				



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 96 tuner states for each WWAN antenna 1 and each WWAN antenna 2 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 96 tuner states for each WWAN antenna 1 and each WWAN antenna 2.
3. The operational decryption contains more information about the design and implementation of the dynamic antenna tuning.
4. The device supports both LTE B12 / B17 and B25 / B2. Since the supported frequency span for LTE B17, and B2 fall completely within the supported frequency span for LTE B12 and B25, and both bands have the same target power and both LTE bands share the same transmission path, therefore standalone SAR and antenna tuner single point SAR measurement was only assessed for LTE B12 and B25.



16.1 Supplemental Head SAR Results

<WWAN Antenna 1>

Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									0	13	26	39	52	65	78	91
GSM850	GPRS (4 Tx slots)	848.8	251	-	-	Left Cheek	0	0.287	0.248	0.247	0.269	0.242	0.243	0.241	0.263	0.25
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									1	17	33	49	65	81	79	92
GSM1900	GPRS (4 Tx slots)	1850.2	512	-	-	Left Cheek	0	0.128	0.001	0.002	0.004	0.001	0.002	0.005	0.003	0.001
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									2	18	34	50	66	82	80	93
CDMA200 BC0	RC3+SO55	848.31	777	-	-	Right Cheek	0	0.285	0.001	0.003	0.007	0.002	0.001	0.004	0.02	0.001
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									3	19	35	51	67	83	81	94
CDMA2000 BC1	RC3+SO55	1908.75	1175	-	-	Left Cheek	0	0.262	0.001	0.003	0.053	0.001	0.005	0.057	0.048	0.051
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									4	20	36	52	68	84	82	95
WCDMA Band V	RMC 12.2Kbps	846.6	4233	-	-	Left Cheek	0	0.233	0.003	0.001	0.004	0.007	0.002	0.006	0.001	0.001
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									5	21	37	53	69	85	83	
WCDMA Band IV	RMC 12.2Kbps	1712.4	1312	-	-	Left Cheek	0	0.211	0.147	0.129	0.126	0.17	0.143	0.001	0.161	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									6	22	38	54	70	86	84	
WCDMA Band II	RMC 12.2Kbps	1880	9400	-	-	Left Cheek	0	0.250	0.001	0.042	0.001	0.045	0.054	0.053	0.001	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									7	23	39	55	71	87	85	
LTE Band 12	10M_QPSK	707.5	23095	1	49	Left Cheek	0	0.131	0.001	0.09	0.001	0.067	0.116	0.001	0.001	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									8	24	40	56	72	88	86	
LTE Band 26	15M_QPSK	821.5	26765	1	0	Left Cheek	0	0.228	0.001	0.005	0.003	0.001	0.002	0.001	0.006	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									9	25	41	57	73	89	87	
LTE Band 5	10M_QPSK	836.5	20525	1	0	Right Cheek	0	0.162	0.001	0.002	0.001	0.003	0.001	0.004	0.001	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									10	26	42	58	74	90	88	
LTE Band 71	20M_QPSK	683	133322	1	0	Right Cheek	0	0.102	0.001	0.002	0.001	0.032	0.011	0.001	0.004	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									11	27	43	59	75	91	89	
LTE Band 25	20M_QPSK	1905	26590	1	0	Left Cheek	0	0.212	0.051	0.002	0.001	0.053	0.001	0.005	0.003	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									12	28	44	60	76	92	90	
LTE Band 66	20M_QPSK	132572	1770	1	0	Right Cheek	0	0.107	0.001	0.068	0.064	0.043	0.079	0.071	0.072	



<WWAN Antenna 2>

Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									0	13	26	39	52	65	78	91
GSM850	GPRS(4 Tx slots)	848.8	251	-	-	Right Cheek	0	1.080	0.298	0.001	0.055	0.001	0.266	0.001	0.195	0.001
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									1	14	27	40	53	66	79	92
GSM1900	GPRS(4 Tx slots)	1909.8	810	-	-	Right Tilted	0	0.993	0.882	0.346	0.722	0.461	0.922	0.476	0.906	0.91
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									2	15	28	41	54	67	80	93
CDMA200 BC0	RC3+SO55	836.52	384	-	-	Right Cheek	0	0.801	0.059	0.001	0.06	0.001	0.194	0.001	0.18	0.001
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									3	16	29	42	55	68	81	94
CDMA2000 BC1	RC3+SO55	1908.75	1175	-	-	Right Tilted	0	1.000	0.787	0.805	0.258	0.414	0.628	0.355	0.336	0.644
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									4	17	30	43	56	69	82	95
WCDMA Band V	RMC 12.2Kbps	846.6	4233	-	-	Right Cheek	0	0.942	0.38	0.118	0.366	0.138	0.256	0.076	0.356	0.117
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									5	18	31	44	57	70	83	
WCDMA Band IV	RMC 12.2Kbps	1752.6	1513	-	-	Right Cheek	0	1.200	0.502	0.151	0.529	0.204	0.335	0.09	0.516	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									6	19	32	45	58	71	84	
WCDMA Band II	RMC 12.2Kbps	1907.6	9538	-	-	Right Tilted	0	1.170	0.74	0.435	0.395	0.73	0.856	0.432	0.487	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									7	20	33	46	59	72	85	
LTE Band 12	10M_QPSK	707.5	23095	1	49	Right Tilted	0	0.962	0.417	0.001	0.473	0.001	0.426	0.516	0.001	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									8	21	34	47	60	73	86	
LTE Band 26	15M_QPSK	841.5	26965	1	0	Right Cheek	0	0.841	0.156	0.001	0.207	0.043	0.001	0.059	0.001	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									9	22	35	48	61	74	87	
LTE Band 5	10M_QPSK	836.5	20525	1	0	Right Tilted	0	0.856	0.175	0.001	0.188	0.127	0.001	0.07	0.001	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									10	23	36	49	62	75	88	
LTE Band 71	20M_QPSK	683	133322	1	0	Right Cheek	0	0.899	0.311	0.001	0.119	0.001	0.343	0.381	0.001	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									11	24	37	50	63	76	89	
LTE Band 25	20M_QPSK	1905	26590	1	0	Right Tilted	0	0.965	0.754	0.134	0.131	0.589	0.287	0.283	0.37	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									12	25	38	51	64	77	90	
LTE Band 66	20M_QPSK	1770	132572	1	0	Right Cheek	0	1.030	0.603	0.459	0.193	0.562	0.199	0.538	0.202	



16.2 Supplemental Body SAR Results

<WWAN Antenna 1>

Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									0	13	26	39	52	65	78	88
GSM850	GPRS(4 Tx slots)	824.2	128	-	-	Back	10	0.325	0.293	0.321	0.309	0.301	0.318	0.31	0.282	0.296
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									1	14	27	40	53	66	79	89
GSM1900	GPRS(3 Tx slots)	1850.2	512	-	-	Bottom Side	10	1.15	0.803	0.764	1.03	0.987	0.993	0.998	1.05	1.08
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									2	15	28	41	54	67	80	89
CDMA200 BC0	RTAP 153.6Kbps	836.52	384	-	-	Back	10	0.328	0.001	0.001	0.001	0.045	0.065	0.079	0.104	0.042
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									3	16	29	42	55	68	81	90
CDMA2000 BC1	RTAP 153.6Kbps	1851.25	25	-	-	Bottom Side	10	0.966	0.357	0.361	0.604	0.52	0.686	0.593	0.73	0.609
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									4	17	30	43	56	69	82	91
WCDMA Band V	RMC 12.2Kbps	846.6	4233	-	-	Back	10	0.254	0.003	0.001	0.004	0.047	0.047	0.047	0.044	0.010
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									5	18	31	44	57	70	83	92
WCDMA Band IV	RMC 12.2Kbps	1752.6	1513	-	-	Bottom Side	10	1.21	1.2	1.19	1.09	1.04	1.12	1.11	1.15	1.18
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									6	19	32	45	58	71	84	93
WCDMA Band II	RMC 12.2Kbps	1880	9400	-	-	Bottom Side	10	0.952	0.866	0.868	0.83	0.947	0.945	0.95	0.501	0.944
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									7	20	33	46	59	72	85	94
LTE Band 12	10M_QPSK	707.5	23095	1	49	Back	10	0.183	0.05	0.082	0.182	0.18	0.171	0.01	0.001	0.179
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									8	21	34	47	60	73	86	95
LTE Band 26	15M_QPSK	841.5	26965	1	0	Back	10	0.231	0.078	0.095	0.086	0.092	0.001	0.001	0.001	0.086
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									9	22	35	48	61	74	87	
LTE Band 5	10M_QPSK	836.5	20525	1	0	Back	10	0.239	0.088	0.046	0.098	0.01	0.002	0.001	0.01	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									10	23	36	49	62	75	88	
LTE Band 71	20M_QPSK	683	133322	1	0	Left Side	10	0.235	0.06	0.001	0.065	0.042	0.001	0.003	0.001	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									11	24	37	50	63	76	89	
LTE Band 25	20M_QPSK	1880	26340	50	0	Bottom Side	10	0.995	0.889	0.987	0.498	0.716	0.644	0.988	0.978	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									12	25	38	51	64	77	90	
LTE Band 66	20M_QPSK	1745	132322	1	0	Bottom Side	10	0.986	0.636	0.943	0.869	0.985	0.911	0.984	0.93	



<WWAN Antenna 2>

Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									0	13	26	39	52	65	78	91
GSM850	GPRS(4 Tx slots)	824.2	128	-	-	Back	10	0.461	0.105	0.001	0.001	0.001	0.089	0.001	0.001	0.001
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									1	14	27	40	53	66	79	92
GSM1900	GPRS(4 Tx slots)	1909.8	810	-	-	Back	10	0.295	0.216	0.054	0.131	0.068	0.245	0.069	0.153	0.165
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									2	15	28	41	54	67	80	93
CDMA200 BC0	RTAP 153.6Kbps	824.7	1013	-	-	Back	10	0.549	0.001	0.001	0.001	0.001	0.084	0.001	0.069	0.001
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									3	16	29	42	55	68	81	94
CDMA2000 BC1	RTAP 153.6Kbps	1908.75	1175	-	-	Back	10	0.76	0.35	0.223	0.168	0.295	0.456	0.265	0.226	0.236
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									4	17	30	43	56	69	82	95
WCDMA Band V	RMC 12.2Kbps	826.4	4132	-	-	Back	10	0.469	0.001	0.001	0.001	0.001	0.073	0.001	0.075	0.001
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									5	18	31	44	57	70	83	
WCDMA Band IV	RMC 12.2Kbps	1752.6	1513	-	-	Back	10	0.549	0.256	0.076	0.262	0.106	0.176	0.046	0.256	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									6	19	32	45	58	71	84	
WCDMA Band II	RMC 12.2Kbps	1907.6	9538	-	-	Back	10	0.544	0.369	0.205	0.159	0.327	0.385	0.204	0.056	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									7	20	33	46	59	72	85	
LTE Band 12	10M_QPSK	707.5	23095	1	49	Back	10	0.424	0.077	0	0.114	0.001	0.075	0.098	0.001	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									8	21	34	47	60	73	86	
LTE Band 26	15M_QPSK	841.5	26965	1	0	Back	10	0.515	0.042	0.001	0.052	0.001	0.001	0.001	0.001	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									9	22	35	48	61	74	87	
LTE Band 5	10M_QPSK	836.5	20525	1	0	Front	10	0.441	0.051	0.001	0.06	0.045	0.001	0.001	0.002	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									10	23	36	49	62	75	88	
LTE Band 71	20M_QPSK	683	133322	1	0	Front	10	0.48	0.01	0.001	0.12	0.001	0.091	0.044	0.001	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									11	24	37	50	63	76	89	
LTE Band 25	20M_QPSK	1905	26590	1	0	Back	10	0.586	0.309	0.066	0.052	0.232	0.12	0.099	0.151	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing (mm)	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									12	25	38	51	64	77	90	
LTE Band 66	20M_QPSK	1770	132572	1	0	Top Side	10	0.615	0.078	0.053	0.001	0.068	0.001	0.063	0.001	

Test Engineer : Johnny Chen



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 $\leq 30\%$, for a confidence interval of $k = 2$. If these conditions are met, extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2013 is not required in SAR reports submitted for equipment approval. For this device, the highest measured 1-g SAR is less 1.5W/kg and highest measured 10-g SAR is less 3.75W/kg. Therefore, the measurement uncertainty table is not required in this report.

18. References

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



Appendix A. Plots of System Performance Check

The plots are shown as follows.

System Check_Head_750MHz_180218**DUT: D750V3-SN:1099**

Communication System: UID 0, CW (0); Frequency: 750 MHz; Duty Cycle: 1:1

Medium: HSL_750_180218 Medium parameters used: $f = 750$ MHz; $\sigma = 0.878$ S/m; $\epsilon_r = 40.673$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C; Liquid Temperature : 22.4 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3911; ConvF(11.04, 11.04, 11.04); Calibrated: 2017.11.28;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1386; Calibrated: 2017.07.20
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.96 W/kg

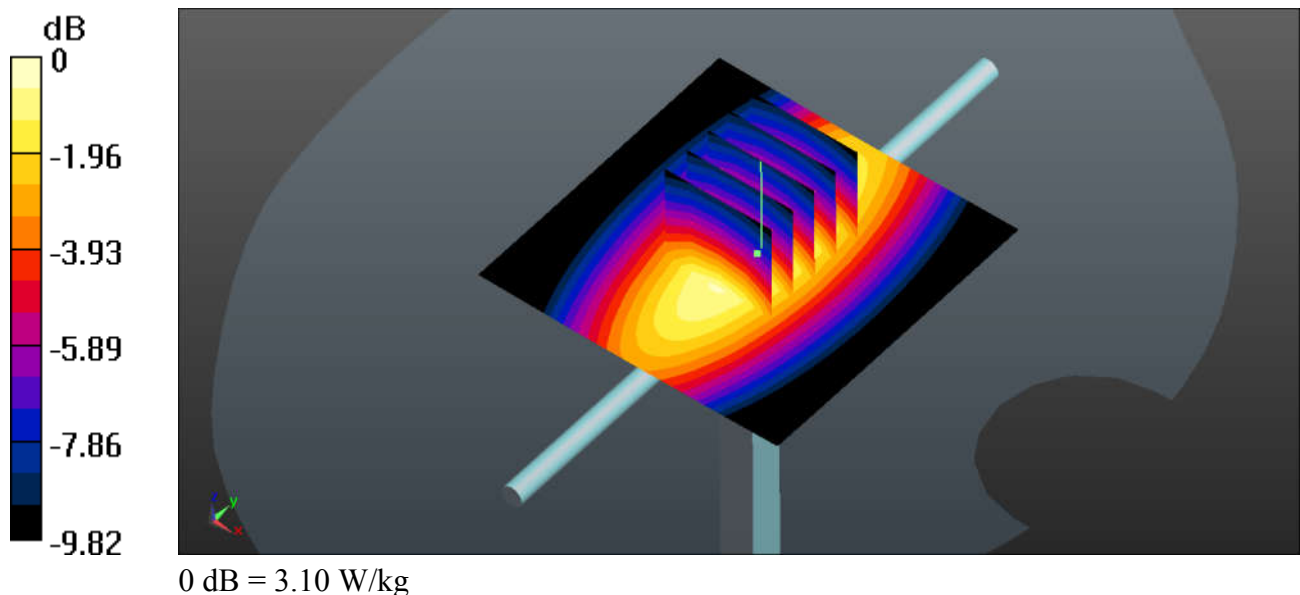
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 59.57 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 3.59 W/kg

SAR(1 g) = 2.24 W/kg; SAR(10 g) = 1.46 W/kg

Maximum value of SAR (measured) = 3.10 W/kg



System Check_Head_835MHz_180218**DUT: D835V2-SN:4d162**

Communication System: UID 0, CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL_835_180218 Medium parameters used: $f = 835$ MHz; $\sigma = 0.915$ S/m; $\epsilon_r = 41.98$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3911; ConvF(10.3, 10.3, 10.3); Calibrated: 2017.11.28;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1386; Calibrated: 2017.07.20
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 3.27 W/kg

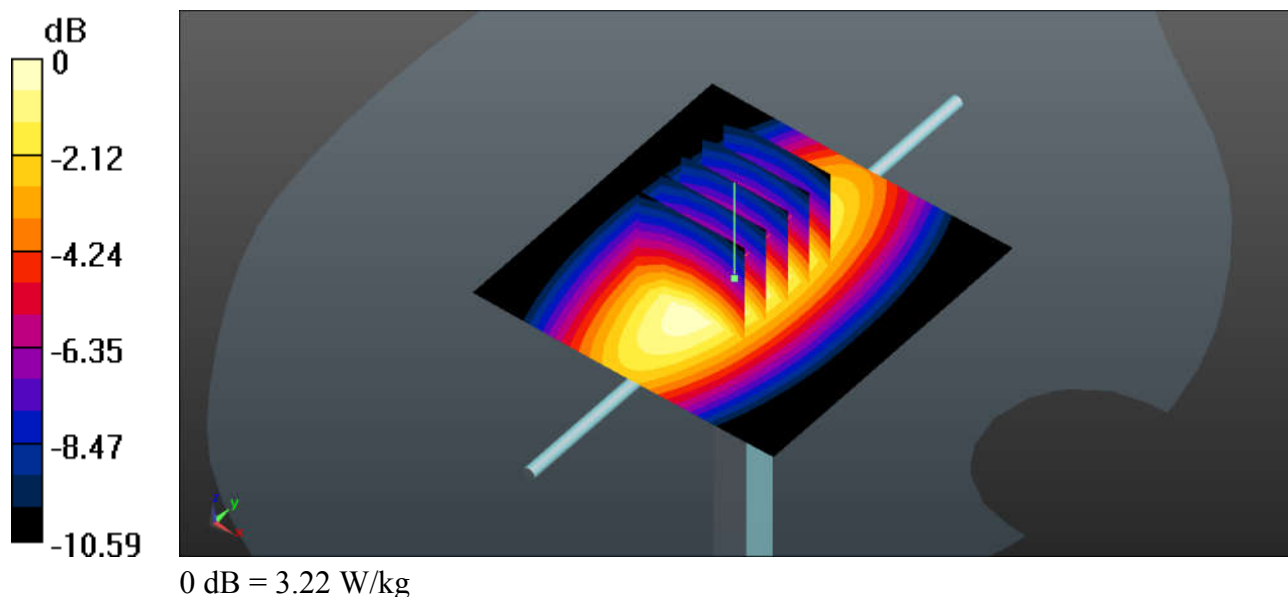
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 60.82 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 3.77 W/kg

SAR(1 g) = 2.55 W/kg; SAR(10 g) = 1.68 W/kg

Maximum value of SAR (measured) = 3.22 W/kg



System Check_Head_1750MHz_180217**DUT: D1750V2-SN:1137**

Communication System: UID 0, CW (0); Frequency: 1750 MHz; Duty Cycle: 1:1

Medium: HSL_1750_180217 Medium parameters used: $f = 1750$ MHz; $\sigma = 1.378$ S/m; $\epsilon_r = 41.34$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C; Liquid Temperature : 22.6 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3911; ConvF(8.61, 8.61, 8.61); Calibrated: 2017.11.28;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1386; Calibrated: 2017.07.20
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 12.6 W/kg

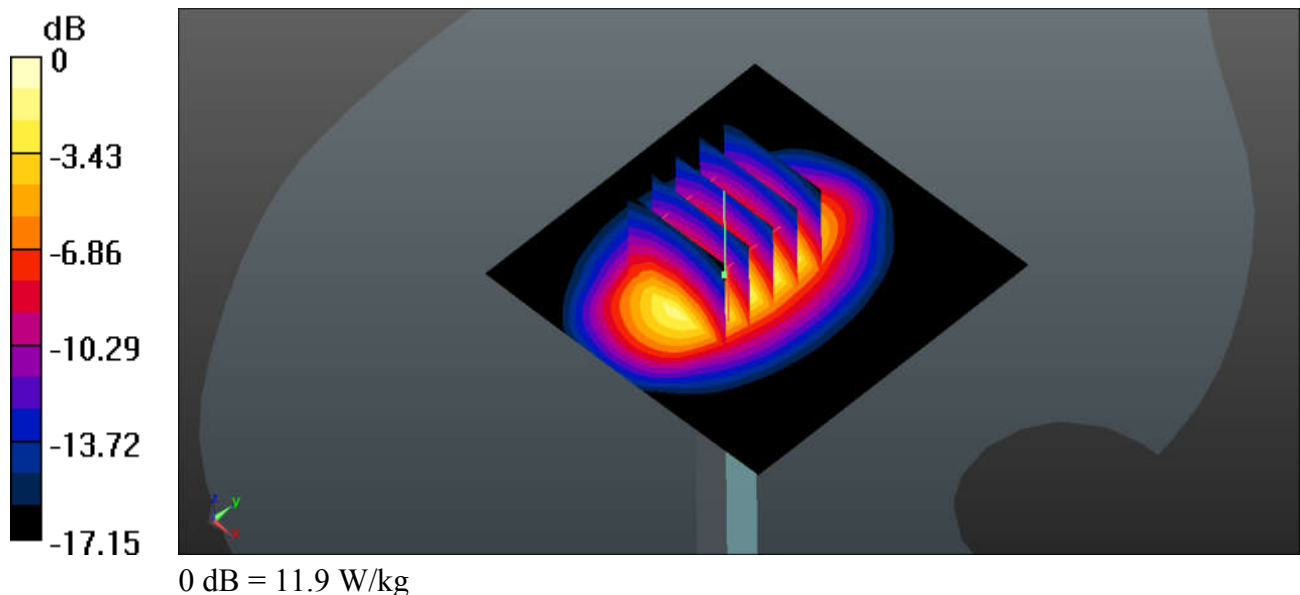
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 86.61 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 15.0 W/kg

SAR(1 g) = 8.45 W/kg; SAR(10 g) = 4.48 W/kg

Maximum value of SAR (measured) = 11.9 W/kg



System Check_Head_1750MHz_180302**DUT: D1750V2-SN:1137**

Communication System: UID 0, CW (0); Frequency: 1750 MHz; Duty Cycle: 1:1

Medium: HSL_1750_180302 Medium parameters used: $f = 1750$ MHz; $\sigma = 1.392$ S/m; $\epsilon_r = 40.573$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C; Liquid Temperature : 22.8 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3911; ConvF(8.61, 8.61, 8.61); Calibrated: 2017.11.28;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1386; Calibrated: 2017.07.20
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 12.7 W/kg

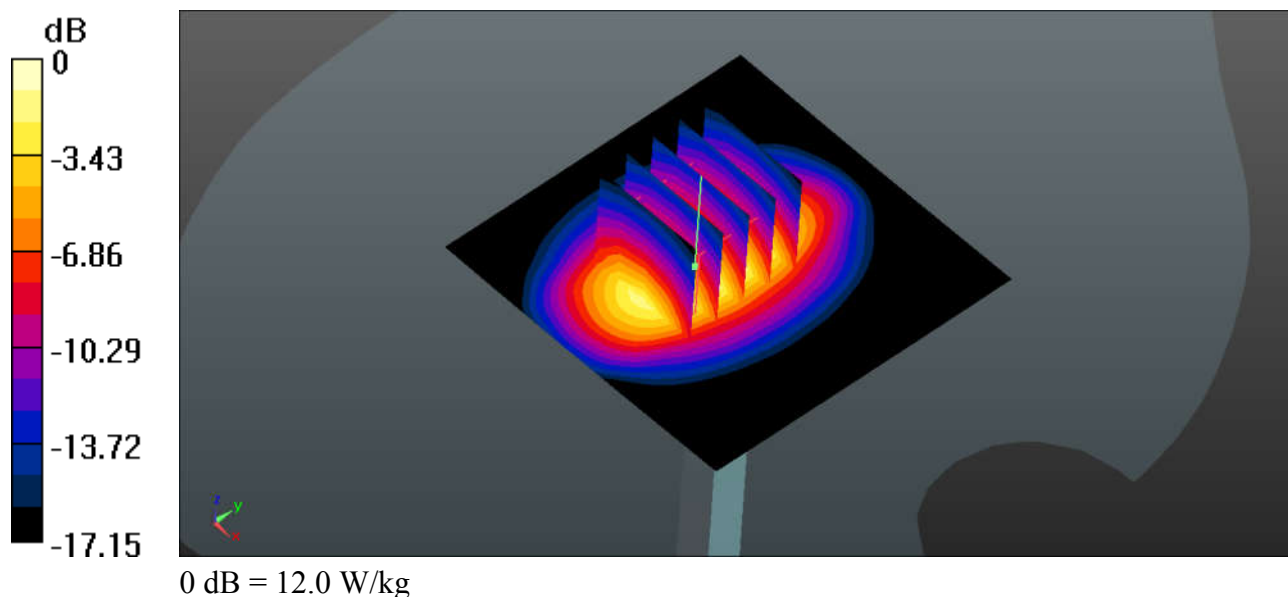
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 86.61 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 15.2 W/kg

SAR(1 g) = 8.73 W/kg; SAR(10 g) = 4.77 W/kg

Maximum value of SAR (measured) = 12.0 W/kg



System Check_Head_1750MHz_180311**DUT: D1750V2-SN:1137**

Communication System: UID 0, CW (0); Frequency: 1750 MHz; Duty Cycle: 1:1

Medium: HSL_1750_180311 Medium parameters used: $f = 1750$ MHz; $\sigma = 1.375$ S/m; $\epsilon_r = 41.541$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.3 °C; Liquid Temperature : 22.8 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3911; ConvF(8.61, 8.61, 8.61); Calibrated: 2017.11.28;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1386; Calibrated: 2017.07.20
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 13.2 W/kg

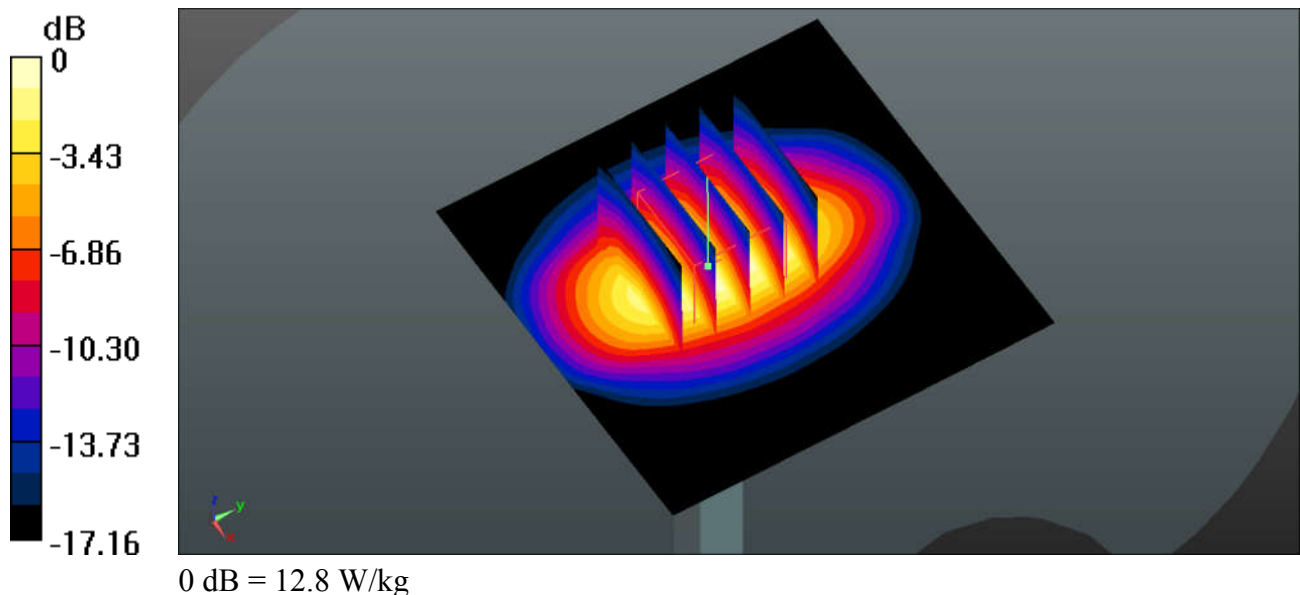
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 86.88 V/m; Power Drift = 0.13 dB

Peak SAR (extrapolated) = 15.5 W/kg

SAR(1 g) = 8.53 W/kg; SAR(10 g) = 4.59 W/kg

Maximum value of SAR (measured) = 12.8 W/kg



System Check_Head_1900MHz_180217**DUT: D1900V2-SN:5d182**

Communication System: UID 0, CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: HSL_1900_180217 Medium parameters used: $f = 1900$ MHz; $\sigma = 1.42$ S/m; $\epsilon_r = 41.133$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C; Liquid Temperature : 22.7 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3911; ConvF(8.31, 8.31, 8.31); Calibrated: 2017.11.28;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1386; Calibrated: 2017.07.20
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 13.8 W/kg

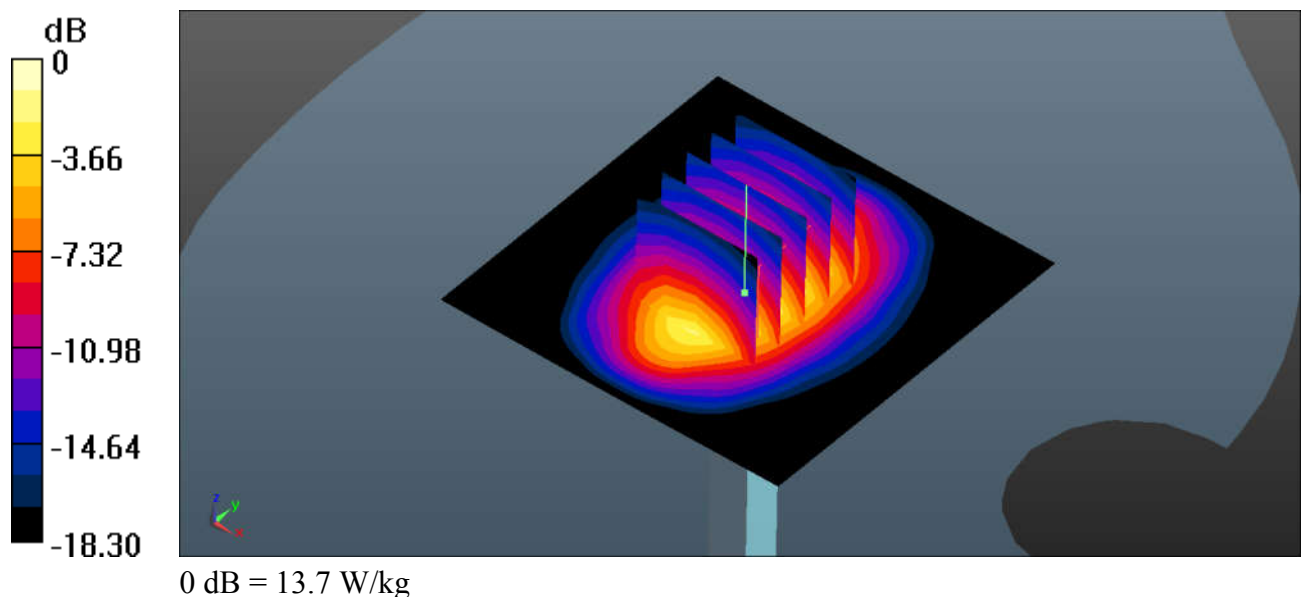
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 99.30 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 17.4 W/kg

SAR(1 g) = 9.47 W/kg; SAR(10 g) = 4.91 W/kg

Maximum value of SAR (measured) = 13.7 W/kg



System Check_Head_1900MHz_180302**DUT: D1900V2-SN:5d182**

Communication System: UID 0, CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: HSL_1900_180302 Medium parameters used: $f = 1900$ MHz; $\sigma = 1.447$ S/m; $\epsilon_r = 40.017$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C; Liquid Temperature : 22.9 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3911; ConvF(8.31, 8.31, 8.31); Calibrated: 2017.11.28;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1386; Calibrated: 2017.07.20
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 13.7 W/kg

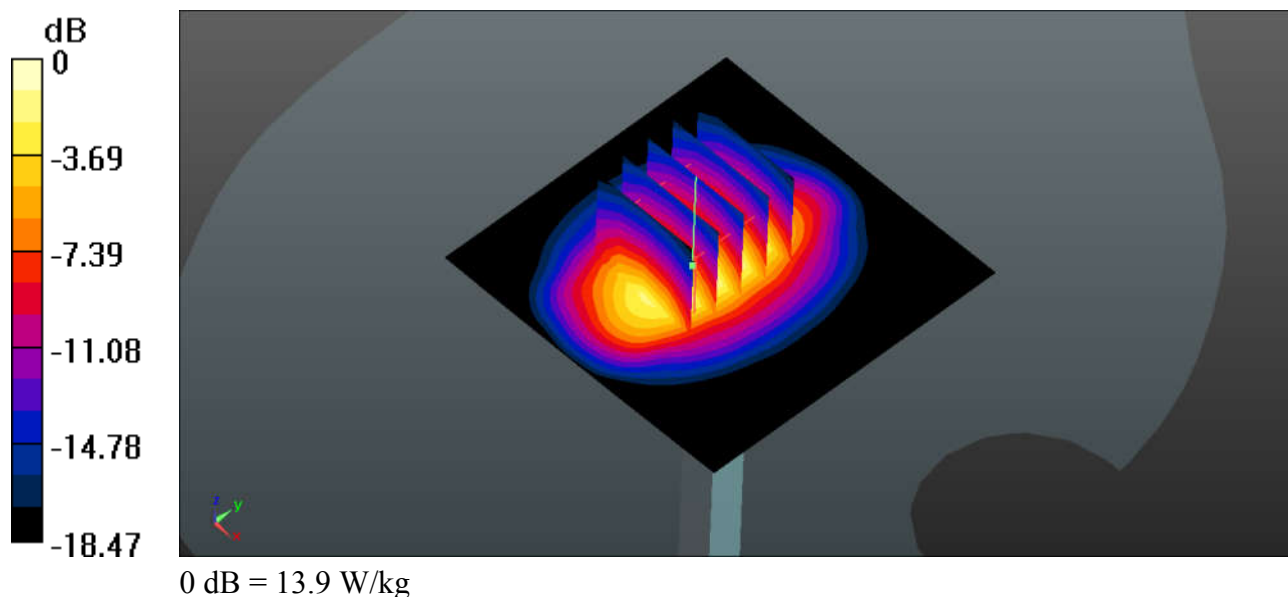
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 91.46 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 18.0 W/kg

SAR(1 g) = 9.65 W/kg; SAR(10 g) = 4.95 W/kg

Maximum value of SAR (measured) = 13.9 W/kg



System Check_Head_1900MHz_180311**DUT: D1900V2-SN:5d182**

Communication System: UID 0, CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: HSL_1900_180311 Medium parameters used: $f = 1900$ MHz; $\sigma = 1.455$ S/m; $\epsilon_r = 40.068$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C; Liquid Temperature : 22.7 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3911; ConvF(8.31, 8.31, 8.31); Calibrated: 2017.11.28;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1386; Calibrated: 2017.07.20
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 14.3 W/kg

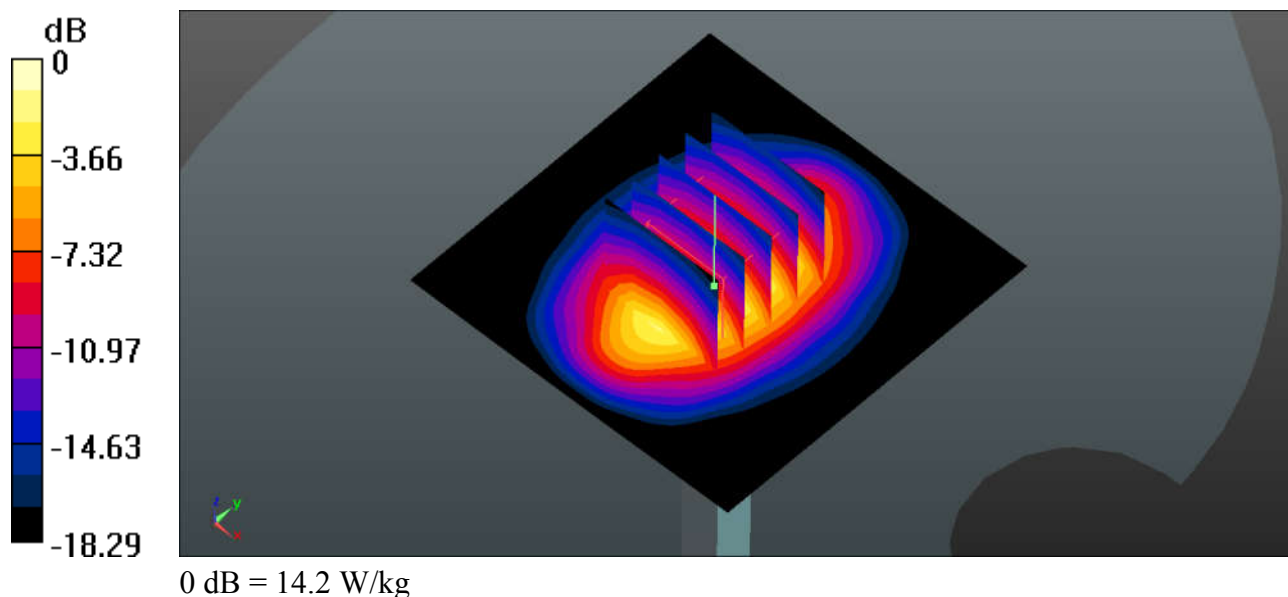
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 99.22 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 18 W/kg

SAR(1 g) = 9.7 W/kg; SAR(10 g) = 5.03 W/kg

Maximum value of SAR (measured) = 14.2 W/kg



System Check_Head_2300MHz_180309**DUT: D2300V2-SN:1056**

Communication System: UID 0, CW (0); Frequency: 2300 MHz; Duty Cycle: 1:1

Medium: HSL_2300_180309 Medium parameters used: $f = 2300$ MHz; $\sigma = 1.601$ S/m; $\epsilon_r = 39.084$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.3 °C; Liquid Temperature : 22.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3911; ConvF(7.86, 7.86, 7.86); Calibrated: 2017.11.28;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1386; Calibrated: 2017.07.20
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (81x81x1): Interpolated grid: dx=12mm, dy=12mm

Maximum value of SAR (interpolated) = 18.5 W/kg

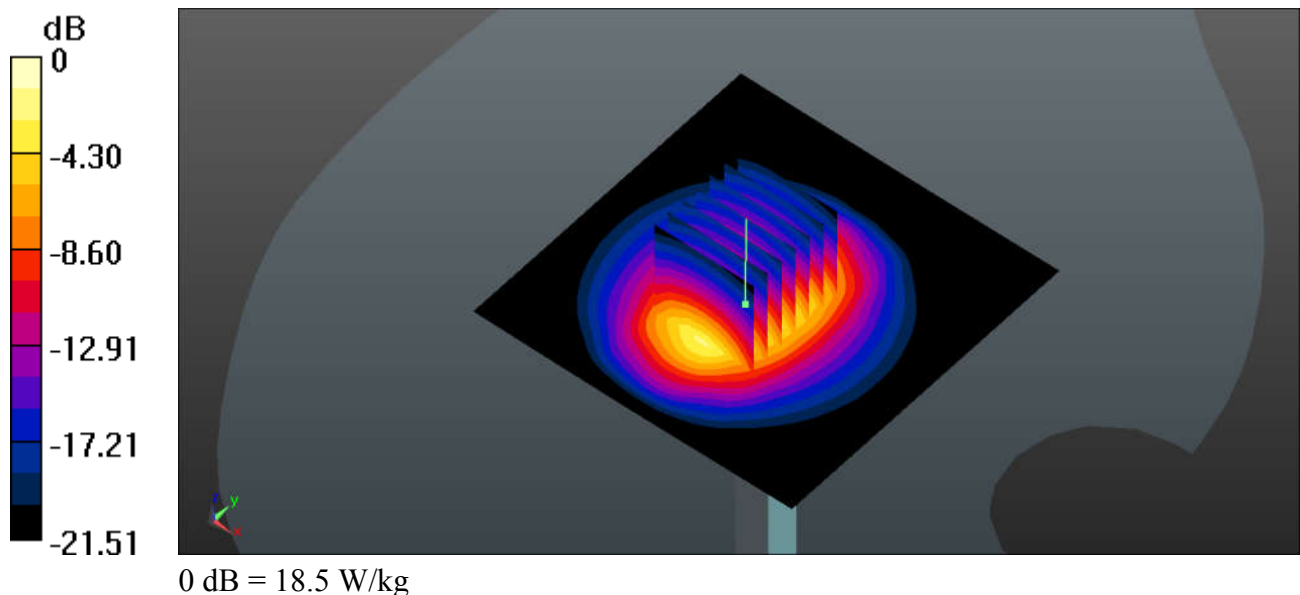
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 103.5 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 25.2 W/kg

SAR(1 g) = 11.9 W/kg; SAR(10 g) = 5.58 W/kg

Maximum value of SAR (measured) = 18.5 W/kg



System Check_Head_2450MHz**DUT: D2450V2 - SN:840**

Communication System: UID 0, CW (0); Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: HSL_2450 Medium parameters used: $f = 2450$ MHz; $\sigma = 1.868$ S/m; $\epsilon_r = 38.676$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C ; Liquid Temperature : 22.6 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(7.71, 7.71, 7.71); Calibrated: 2017.5.26;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2017.5.25
- Phantom: SAM3; Type: SAM; Serial: TP-1542
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (71x71x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 22.6 W/kg

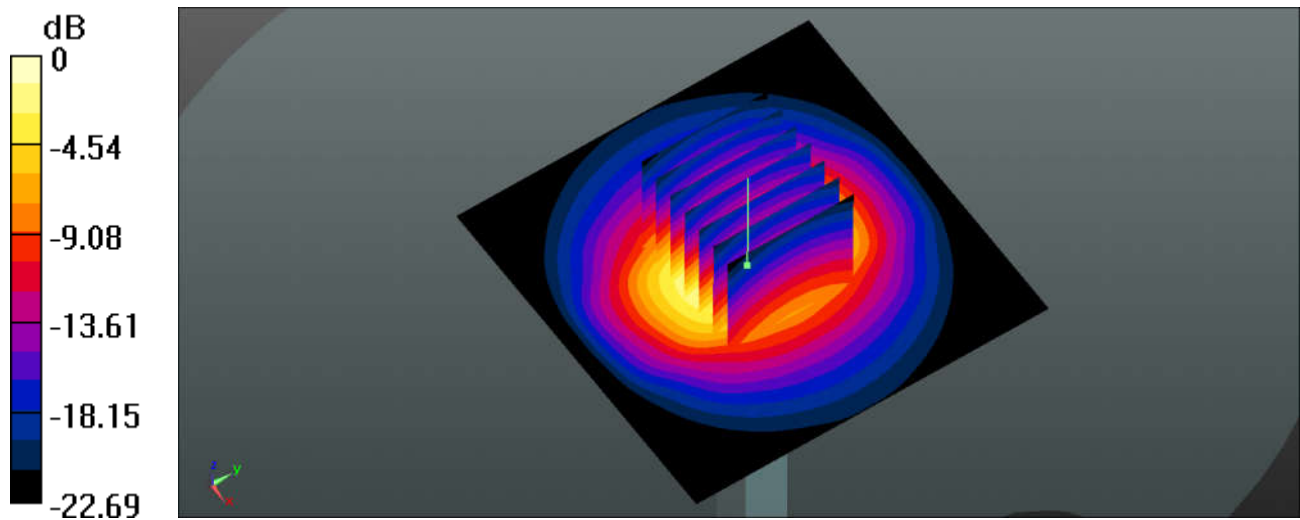
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 93.18 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 30.5 W/kg

SAR(1 g) = 12.4 W/kg; SAR(10 g) = 6.01 W/kg

Maximum value of SAR (measured) = 22.3 W/kg



0 dB = 22.3 W/kg = 13.48 dBW/kg

System Check_Head_2600MHz_180226**DUT: D2600V2-SN:1070**

Communication System: UID 0, CW (0); Frequency: 2600 MHz; Duty Cycle: 1:1

Medium: HSL_2600_180226 Medium parameters used: $f = 2600$ MHz; $\sigma = 1.995$ S/m; $\epsilon_r = 40.438$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.2 °C; Liquid Temperature : 22.4 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3911; ConvF(7.32, 7.32, 7.32); Calibrated: 2017.11.28;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1386; Calibrated: 2017.07.20
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (71x71x1): Interpolated grid: dx=12mm, dy=12mm

Maximum value of SAR (interpolated) = 22.0 W/kg

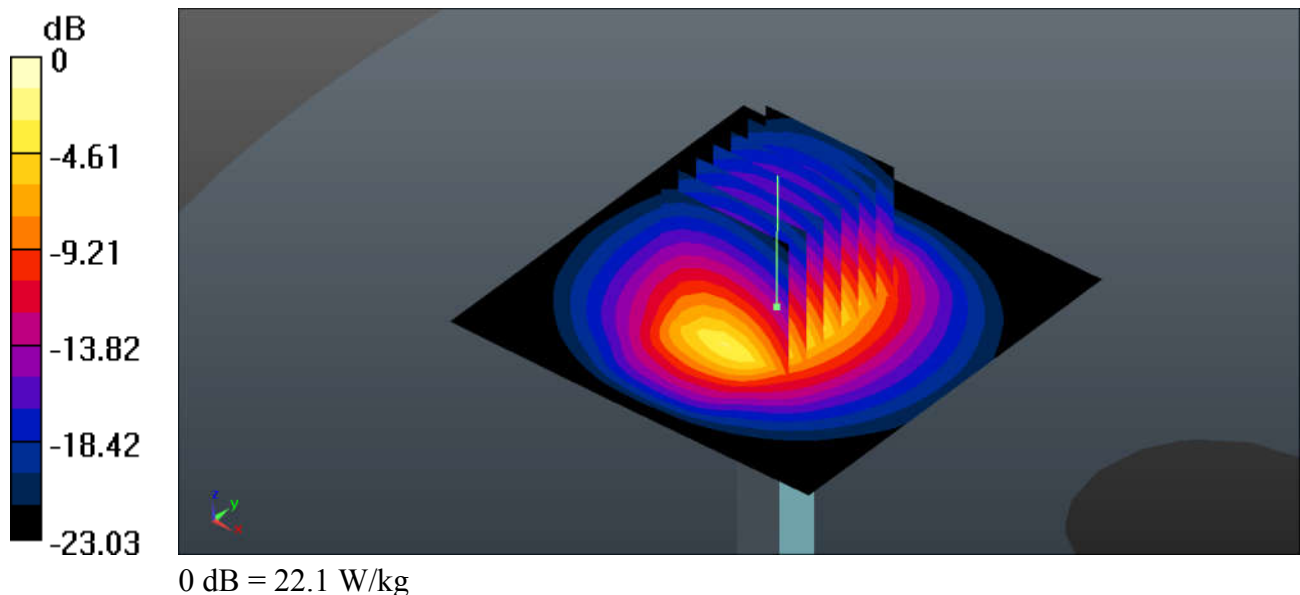
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 104.8 V/m; Power Drift = -0.17 dB

Peak SAR (extrapolated) = 30.0 W/kg

SAR(1 g) = 14.2 W/kg; SAR(10 g) = 6.34 W/kg

Maximum value of SAR (measured) = 22.1 W/kg



System Check_Head_5250MHz**DUT: D5GHzV2-SN:1006**

Communication System: UID 0, CW (0); Frequency: 5250 MHz; Duty Cycle: 1:1

Medium: HSL_5000 Medium parameters used: $f = 5250$ MHz; $\sigma = 4.867$ S/m; $\epsilon_r = 37.114$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.2 °C ; Liquid Temperature : 22.7 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(5.39, 5.39, 5.39); Calibrated: 2017.5.26;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2017.5.25
- Phantom: SAM2; Type: SAM; Serial: TP-1644
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW/Area Scan (71x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 18.7 W/kg

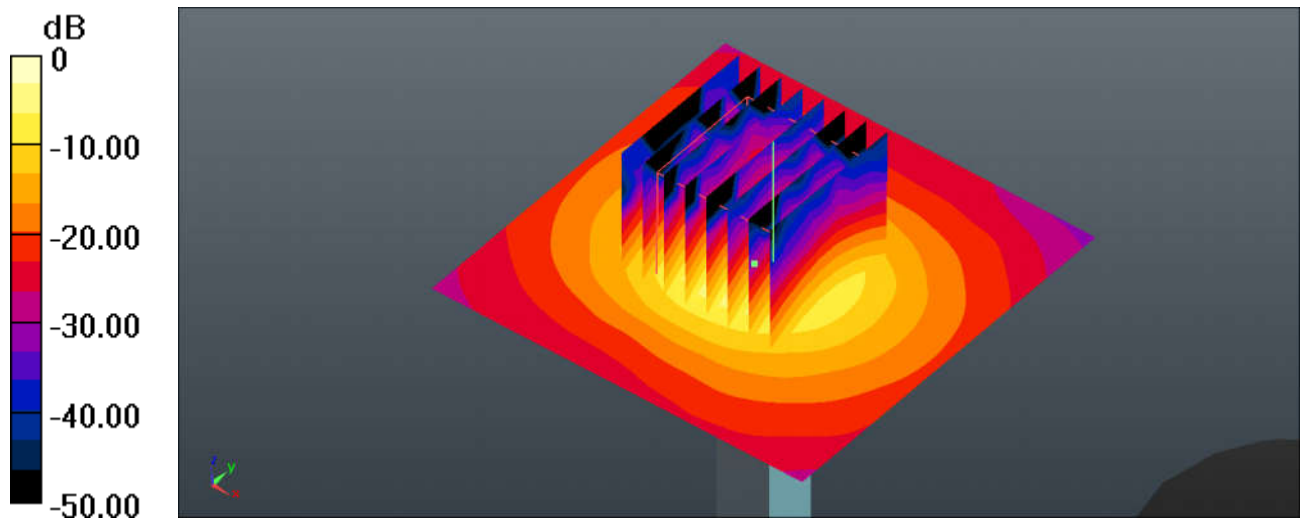
CW/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 42.91 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 32.7 W/kg

SAR(1 g) = 7.7 W/kg; SAR(10 g) = 2.18 W/kg

Maximum value of SAR (measured) = 18.7 W/kg



0 dB = 18.7 W/kg = 12.72 dBW/kg

System Check_Head_5600MHz**DUT: D5GHzV2-SN:1006**

Communication System: UID 0, CW (0); Frequency: 5600 MHz; Duty Cycle: 1:1

Medium: HSL_5000 Medium parameters used: $f = 5600$ MHz; $\sigma = 5.211$ S/m; $\epsilon_r = 36.588$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.2 °C ; Liquid Temperature : 22.7 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(5.04, 5.04, 5.04); Calibrated: 2017.5.26;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2017.5.25
- Phantom: SAM2; Type: SAM; Serial: TP-1644
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW/Area Scan (71x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 18.6 W/kg

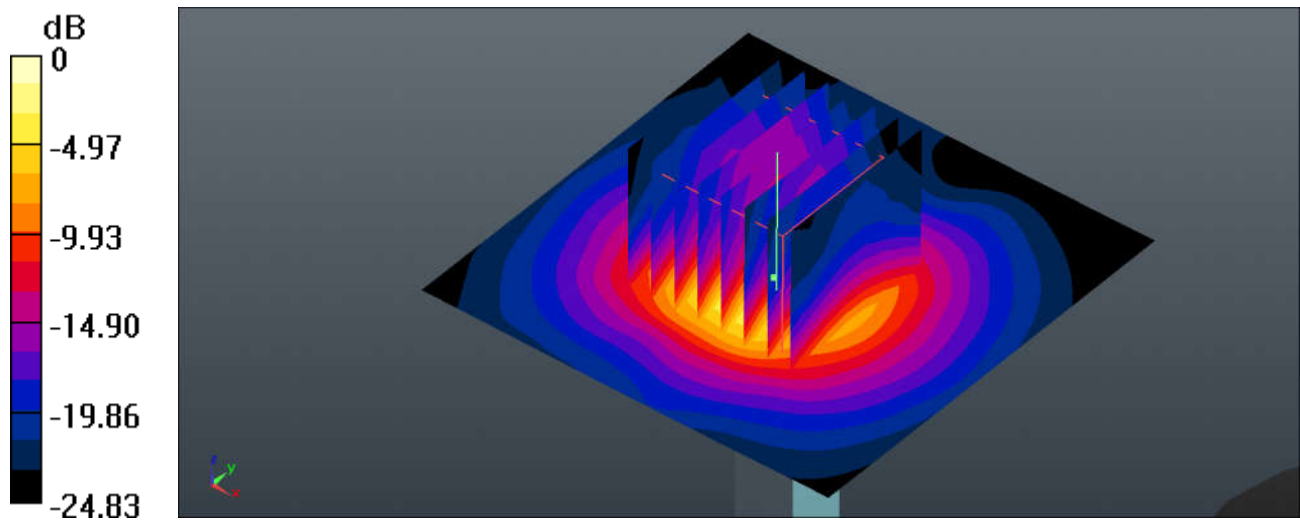
CW/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 39.44 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 29.6 W/kg

SAR(1 g) = 8.04 W/kg; SAR(10 g) = 2.51 W/kg

Maximum value of SAR (measured) = 18.3 W/kg



0 dB = 18.3 W/kg = 12.62 dBW/kg

System Check_Head_5750MHz**DUT: D5GHzV2-SN:1006**

Communication System: UID 0, CW (0); Frequency: 5750 MHz; Duty Cycle: 1:1

Medium: HSL_5000 Medium parameters used: $f = 5750$ MHz; $\sigma = 5.364$ S/m; $\epsilon_r = 36.369$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.2 °C ; Liquid Temperature : 22.7 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3857; ConvF(5.34, 5.34, 5.34); Calibrated: 2017.5.26;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2017.5.25
- Phantom: SAM2; Type: SAM; Serial: TP-1644
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

CW/Area Scan (71x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 17.0 W/kg

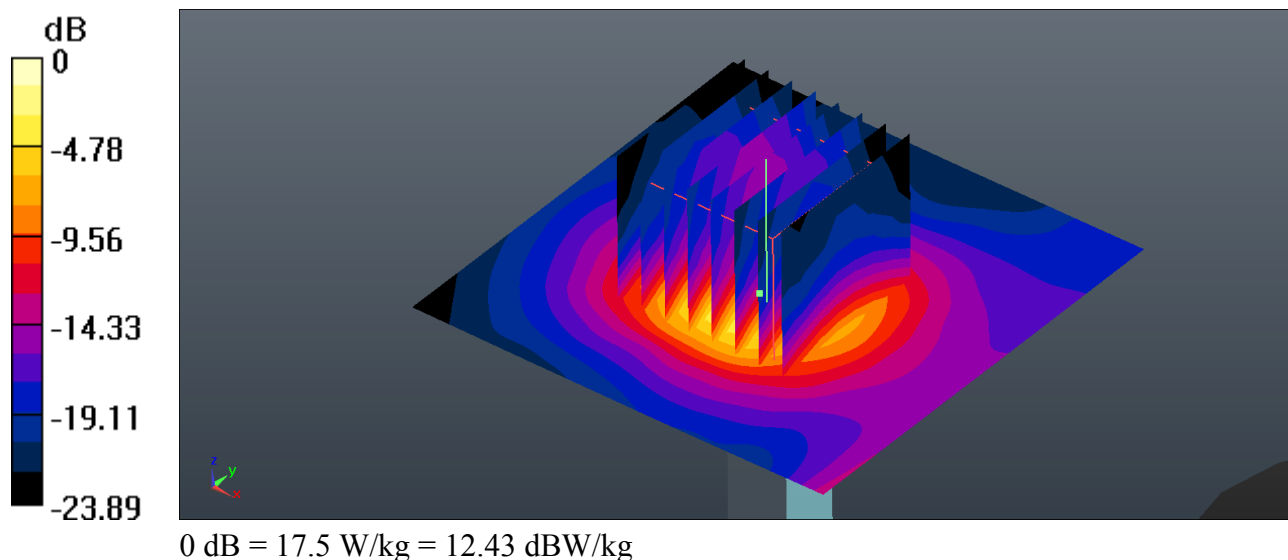
CW/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 36.93 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 28.8 W/kg

SAR(1 g) = 7.55 W/kg; SAR(10 g) = 2.36 W/kg

Maximum value of SAR (measured) = 17.5 W/kg



System Check_Body_750MHz_180220**DUT: D750V3-SN:1099**

Communication System: UID 0, CW (0); Frequency: 750 MHz; Duty Cycle: 1:1

Medium: MSL_750_180220 Medium parameters used: $f = 750$ MHz; $\sigma = 0.961$ S/m; $\epsilon_r = 53.931$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.6 °C; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3911; ConvF(10.27, 10.27, 10.27); Calibrated: 2017.11.28;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1386; Calibrated: 2017.07.20
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 2.57 W/kg

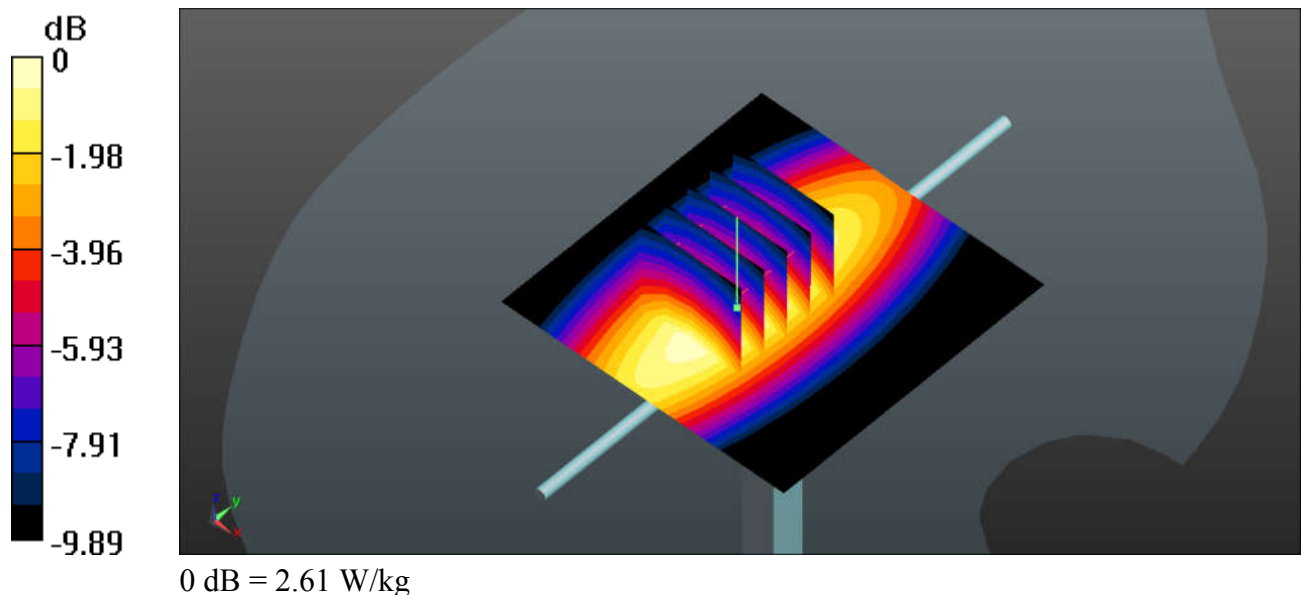
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 50.59 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 3.05 W/kg

SAR(1 g) = 2.08 W/kg; SAR(10 g) = 1.39 W/kg

Maximum value of SAR (measured) = 2.61 W/kg



System Check_Body_835MHz_180219**DUT: D835V2-SN:4d162**

Communication System: UID 0, CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium: MSL_835_180219 Medium parameters used: $f = 835$ MHz; $\sigma = 0.977$ S/m; $\epsilon_r = 54.379$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C; Liquid Temperature : 22.4 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3911; ConvF(10.09, 10.09, 10.09); Calibrated: 2017.11.28;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1386; Calibrated: 2017.07.20
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 3.12 W/kg

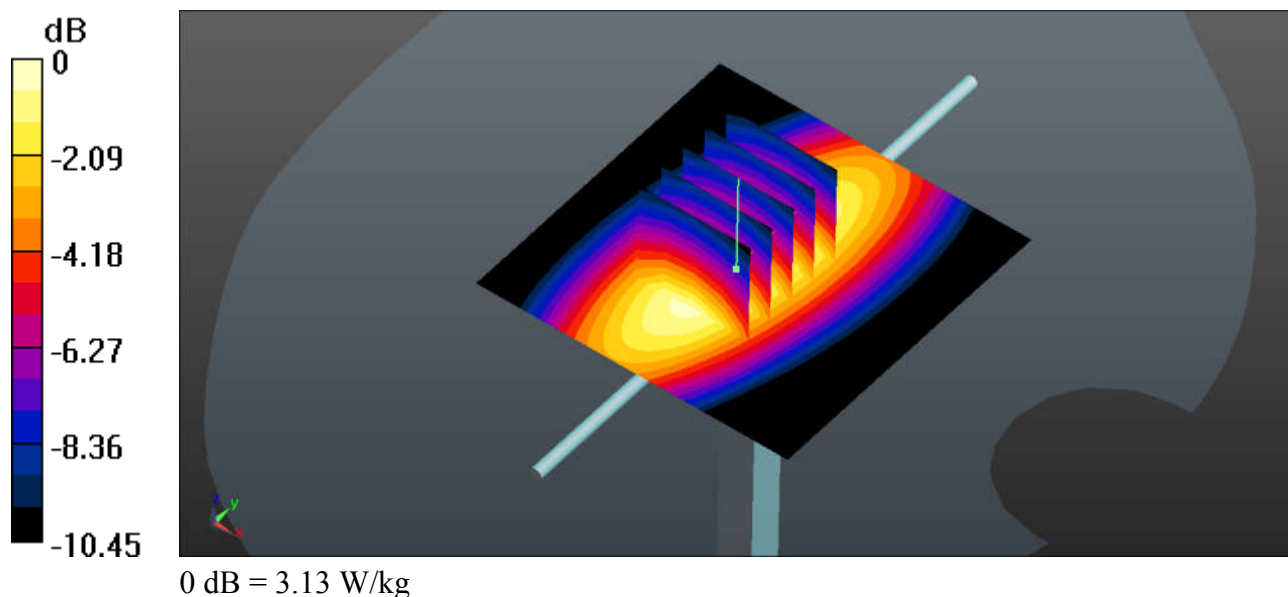
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 57.52 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 3.65 W/kg

SAR(1 g) = 2.48 W/kg; SAR(10 g) = 1.64 W/kg

Maximum value of SAR (measured) = 3.13 W/kg



System Check_Body_1750MHz_180223**DUT: D1750V2-SN:1137**

Communication System: UID 0, CW; Frequency: 1750 MHz; Duty Cycle: 1:1

Medium: MSL_1750_180223 Medium parameters used: $f = 1750$ MHz; $\sigma = 1.539$ S/m; $\epsilon_r = 54.578$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C; Liquid Temperature : 22.9 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3911; ConvF(8.28, 8.28, 8.28); Calibrated: 2017.11.28;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1386; Calibrated: 2017.07.20
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 12.5 W/kg

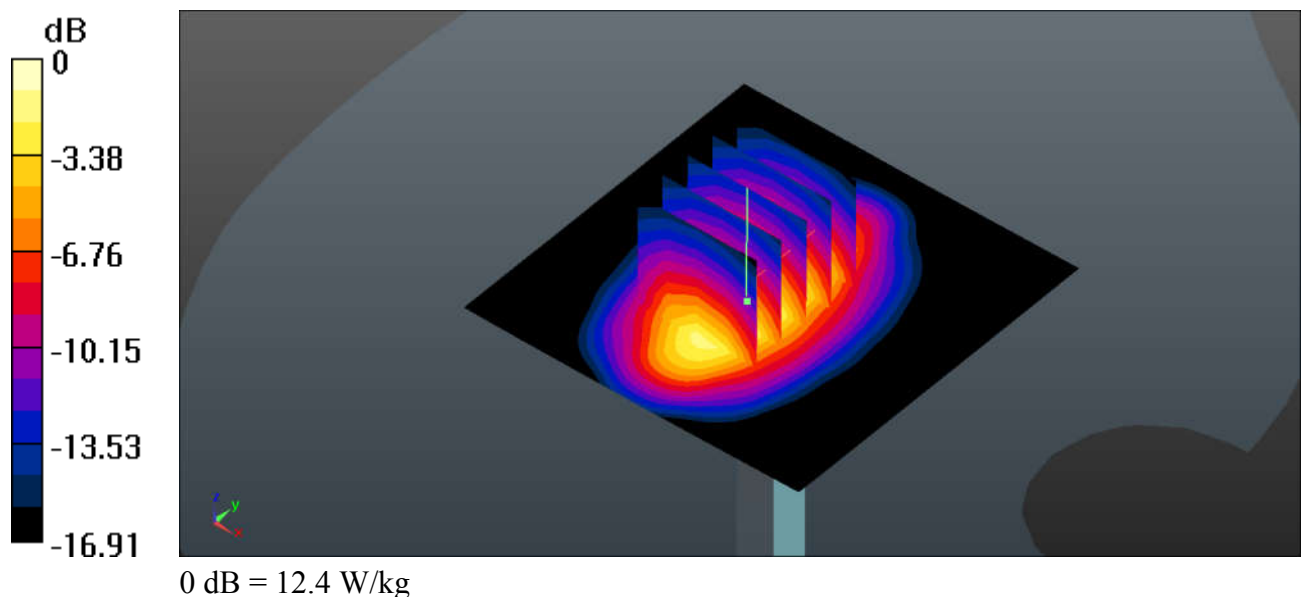
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 87.43 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 15.7 W/kg

SAR(1 g) = 8.79 W/kg; SAR(10 g) = 4.64 W/kg

Maximum value of SAR (measured) = 12.4 W/kg



System Check_Body_1750MHz_180309**DUT: D1750V2-SN:1137**

Communication System: UID 0, CW; Frequency: 1750 MHz; Duty Cycle: 1:1

Medium: MSL_1750_180309 Medium parameters used: $f = 1750$ MHz; $\sigma = 1.512$ S/m; $\epsilon_r = 55.273$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.2 °C; Liquid Temperature : 22.7 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3911; ConvF(8.28, 8.28, 8.28); Calibrated: 2017.11.28;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1386; Calibrated: 2017.07.20
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 12.2 W/kg

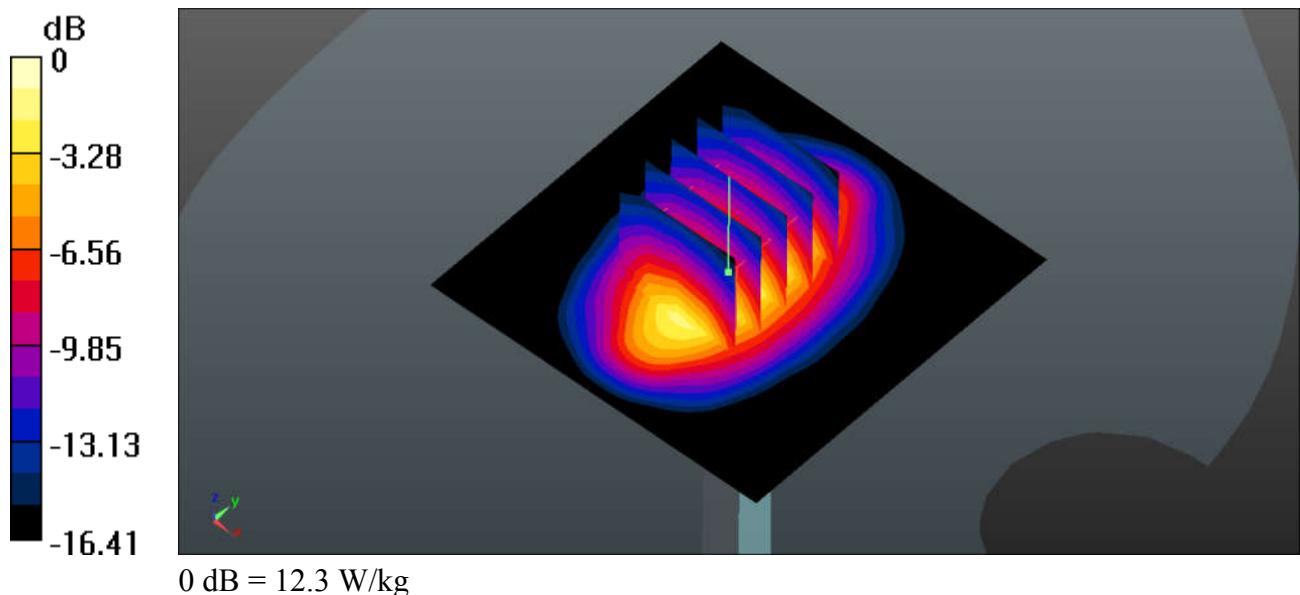
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 91.84 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 15.2 W/kg

SAR(1 g) = 8.8 W/kg; SAR(10 g) = 4.72 W/kg

Maximum value of SAR (measured) = 12.3 W/kg



System Check_Body_1900MHz_180223**DUT: D1900V2-SN:5d182**

Communication System: UID 0, CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: MSL_1900_180223 Medium parameters used: $f = 1900$ MHz; $\sigma = 1.528$ S/m; $\epsilon_r = 53.974$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.5 °C; Liquid Temperature : 22.7 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3911; ConvF(8.02, 8.02, 8.02); Calibrated: 2017.11.28;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1386; Calibrated: 2017.07.20
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 14.3 W/kg

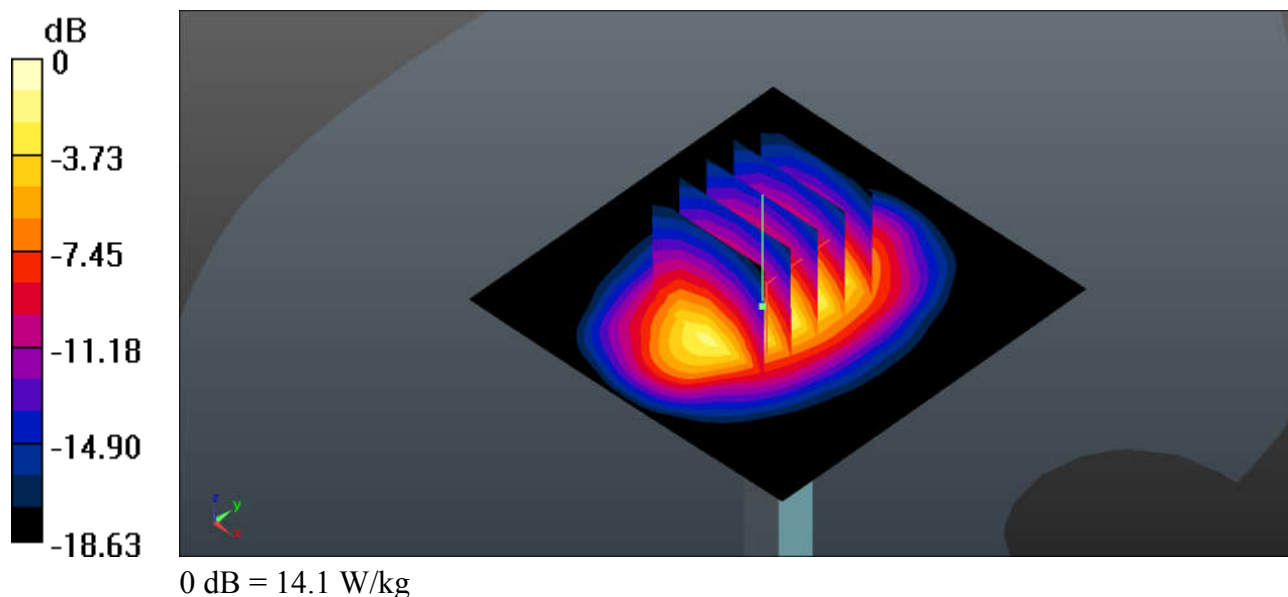
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 85.13 V/m; Power Drift = -0.12 dB

Peak SAR (extrapolated) = 17.9 W/kg

SAR(1 g) = 9.81 W/kg; SAR(10 g) = 4.99 W/kg

Maximum value of SAR (measured) = 14.1 W/kg



System Check_Body_1900MHz_180309**DUT: D1900V2-SN:5d182**

Communication System: UID 0, CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: MSL_1900_180309 Medium parameters used: $f = 1900$ MHz; $\sigma = 1.577$ S/m; $\epsilon_r = 54.205$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.2 °C; Liquid Temperature : 22.6 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3911; ConvF(8.02, 8.02, 8.02); Calibrated: 2017.11.28;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1386; Calibrated: 2017.07.20
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 14.9 W/kg

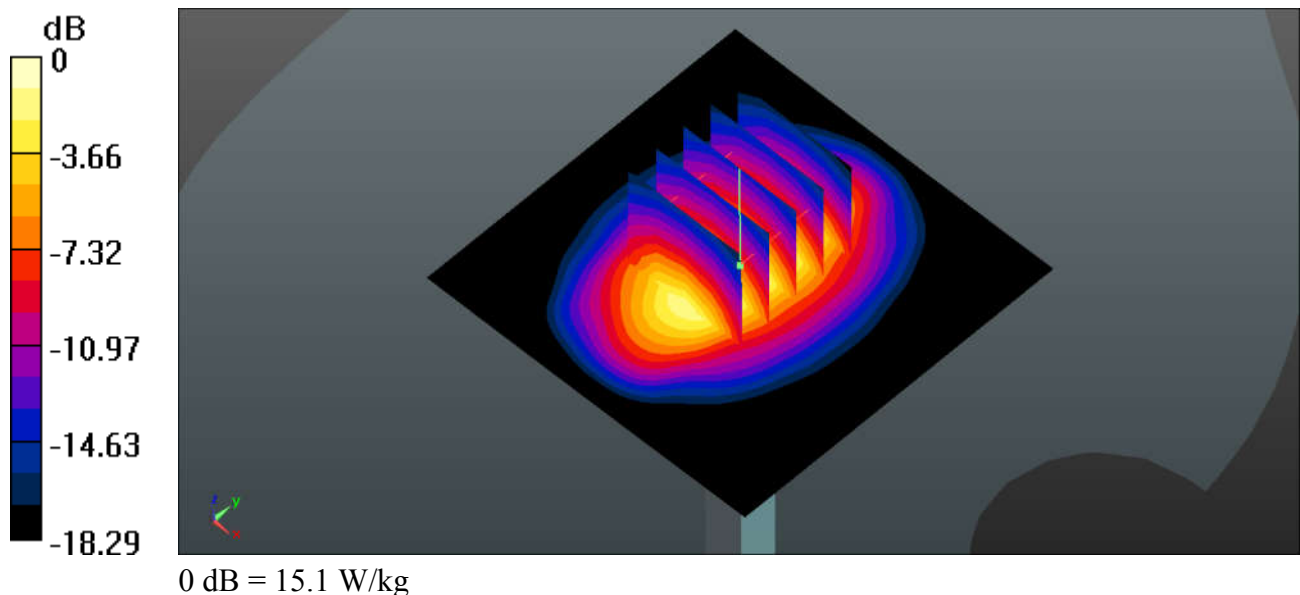
Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 85.87 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 19.0 W/kg

SAR(1 g) = 10.5 W/kg; SAR(10 g) = 5.44 W/kg

Maximum value of SAR (measured) = 15.1 W/kg



System Check_Body_2300MHz_180307**DUT: D2300V2-SN:1056**

Communication System: UID 0, CW ; Frequency: 2300 MHz;Duty Cycle: 1:1

Medium: MSL_2300_180307 Medium parameters used: $f = 2300$ MHz; $\sigma = 1.764$ S/m; $\epsilon_r = 53.765$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.3 °C ; Liquid Temperature : 22.7 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3911; ConvF(7.78, 7.78, 7.78); Calibrated: 2017.11.28;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1386; Calibrated: 2017.07.20
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (81x81x1): Interpolated grid: dx=12mm, dy=12mm

Maximum value of SAR (interpolated) = 15.5 W/kg

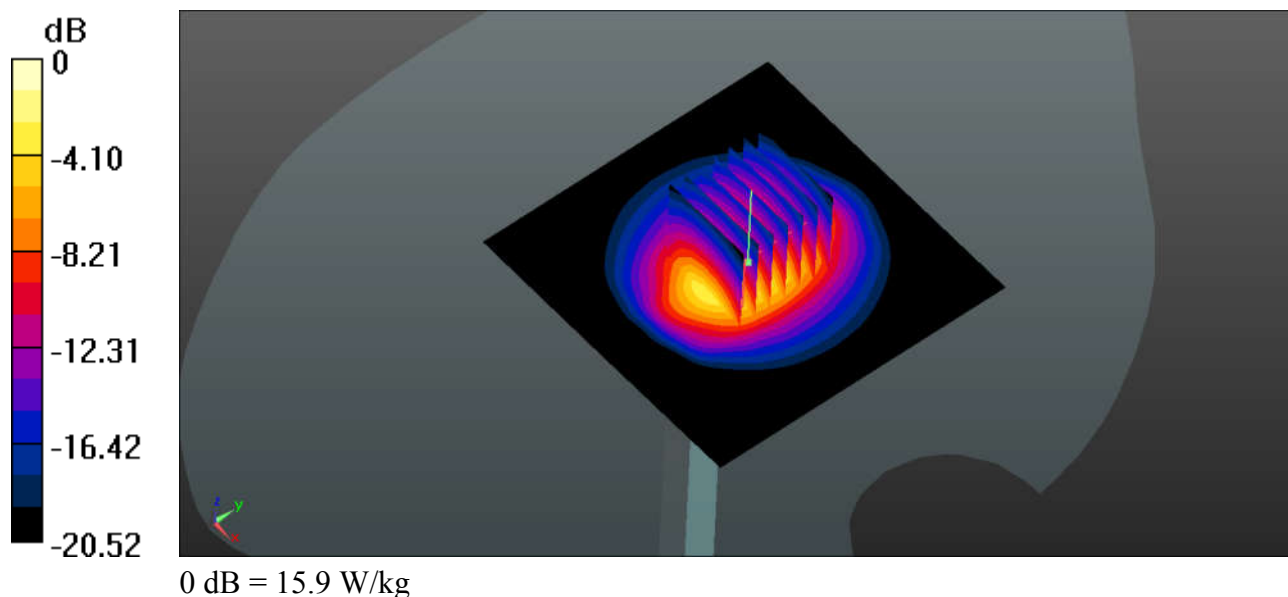
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 94.12 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 21.1 W/kg

SAR(1 g) = 11.5 W/kg; SAR(10 g) = 5.51 W/kg

Maximum value of SAR (measured) = 15.9 W/kg



System Check_Body_2450MHz**DUT: D2450V2 - SN:840**

Communication System: UID 0, CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: MSL_2450 Medium parameters used: $f = 2450$ MHz; $\sigma = 2.026$ S/m; $\epsilon_r = 52.75$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C; Liquid Temperature : 22.6 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3753; ConvF(7.27, 7.27, 7.27); Calibrated: 2017.5.5;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1279; Calibrated: 2018.1.3
- Phantom: SAM3; Type: SAM; Serial: TP-1839
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (81x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm

Maximum value of SAR (interpolated) = 20.4 W/kg

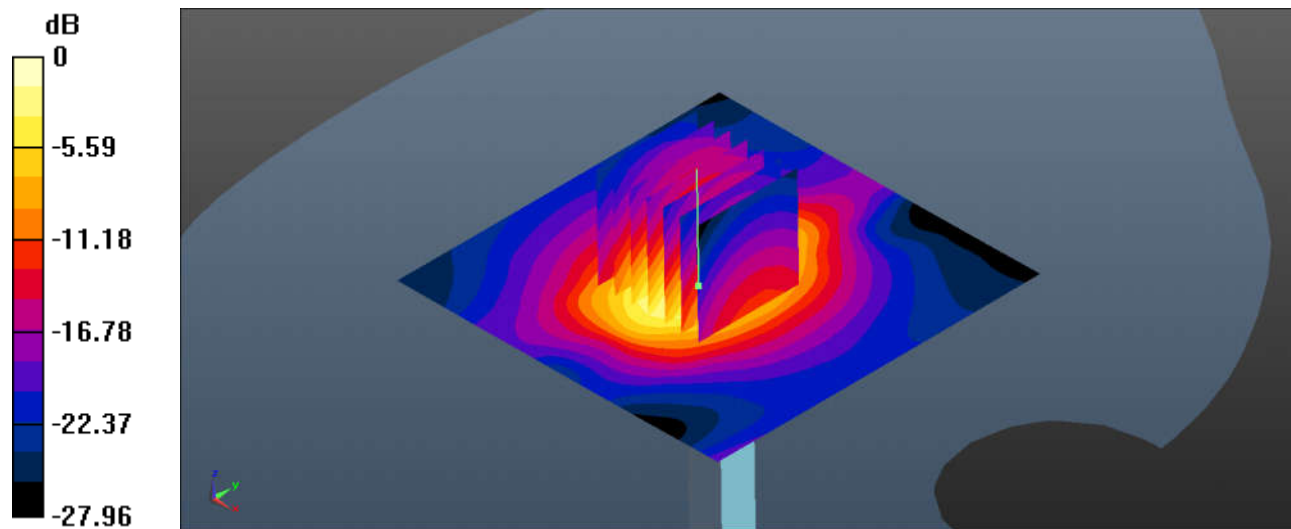
Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 79.50 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 23.4 W/kg

SAR(1 g) = 12.3 W/kg; SAR(10 g) = 6.24 W/kg

Maximum value of SAR (measured) = 19.9 W/kg



0 dB = 20.4 W/kg = 13.10 dBW/kg

System Check_Body_2450MHz_180322**DUT: D2450V2-SN:840**

Communication System: UID 0, CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: MSL_2450_180322 Medium parameters used: $f = 2450$ MHz; $\sigma = 1.949$ S/m; $\epsilon_r = 51.667$; $\rho = 1000$ kg/m³

Ambient Temperature : 23.4 °C; Liquid Temperature : 22.9 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3911; ConvF(7.68, 7.68, 7.68); Calibrated: 2017.11.28;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1386; Calibrated: 2017.07.20
- Phantom: SAM2; Type: QD000P40CD; Serial: TP:1671
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

Pin=250mW/Area Scan (81x81x1): Interpolated grid: dx=12mm, dy=12mm

Maximum value of SAR (interpolated) = 18.1 W/kg

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 81.33 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 25.3 W/kg

SAR(1 g) = 12 W/kg; SAR(10 g) = 5.48 W/kg

Maximum value of SAR (measured) = 18.5 W/kg

