



14.1 Head SAR

<GSM SAR>

Plot No.	Band	Mode	Test Position	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	GSM850	GPRS(3 Tx slots)	Right Cheek	Top	Reduced Level 1	189	836.4	28.71	29.00	1.069	-0.04	1.130	1.208
	GSM850	GPRS(3 Tx slots)	Right Tilted	Top	Reduced Level 1	189	836.4	28.71	29.00	1.069	-0.19	0.997	1.066
	GSM850	GPRS(3 Tx slots)	Left Cheek	Top	Reduced Level 1	189	836.4	28.71	29.00	1.069	-0.01	0.622	0.665
	GSM850	GPRS(3 Tx slots)	Left Tilted	Top	Reduced Level 1	189	836.4	28.71	29.00	1.069	-0.12	0.563	0.602
	GSM850	GPRS(3 Tx slots)	Right Cheek	Top	Reduced Level 1	128	824.2	28.32	29.00	1.169	-0.05	1.020	1.193
01	GSM850	GPRS(3 Tx slots)	Right Cheek	Top	Reduced Level 1	251	848.8	28.70	29.00	1.072	-0.04	1.140	1.222
	GSM850	GPRS(3 Tx slots)	Right Tilted	Top	Reduced Level 1	128	824.2	28.32	29.00	1.169	-0.01	0.892	1.043
	GSM850	GPRS(3 Tx slots)	Right Tilted	Top	Reduced Level 1	251	848.8	28.70	29.00	1.072	-0.08	1.010	1.082
	GSM850	GPRS(3 Tx slots)	Right Cheek	Top	Reduced Level 2	189	836.4	26.52	27.00	1.117	-0.06	0.833	0.930
	GSM850	GPRS(3 Tx slots)	Right Tilted	Top	Reduced Level 2	189	836.4	26.52	27.00	1.117	-0.03	0.711	0.794
	GSM850	GPRS(3 Tx slots)	Left Cheek	Top	Reduced Level 2	189	836.4	26.52	27.00	1.117	-0.07	0.455	0.508
	GSM850	GPRS(3 Tx slots)	Left Tilted	Top	Reduced Level 2	189	836.4	26.52	27.00	1.117	-0.16	0.404	0.451
	GSM850	GPRS(3 Tx slots)	Right Cheek	Top	Reduced Level 2	128	824.2	26.45	27.00	1.135	-0.03	0.731	0.830
	GSM850	GPRS(3 Tx slots)	Right Cheek	Top	Reduced Level 2	251	848.8	26.50	27.00	1.122	-0.02	0.784	0.880
	GSM850	GPRS(3 Tx slots)	Right Cheek	Bottom	Full	189	836.4	29.01	29.50	1.119	0.07	0.275	0.308
	GSM850	GPRS(3 Tx slots)	Right Tilted	Bottom	Full	189	836.4	29.01	29.50	1.119	0.03	0.168	0.188
	GSM850	GPRS(3 Tx slots)	Left Cheek	Bottom	Full	189	836.4	29.01	29.50	1.119	0.01	0.296	0.331
	GSM850	GPRS(3 Tx slots)	Left Tilted	Bottom	Full	189	836.4	29.01	29.50	1.119	0.09	0.175	0.196
	GSM850	GPRS(3 Tx slots)	Left Cheek	Bottom	Full	128	824.2	28.81	29.50	1.172	0.06	0.301	0.353
	GSM850	GPRS(3 Tx slots)	Left Cheek	Bottom	Full	251	848.8	28.85	29.50	1.161	0.03	0.395	0.459
	GSM1900	GPRS(3 Tx slots)	Right Cheek	Top	Reduced Level 1	661	1880	26.03	26.50	1.114	0.02	0.977	1.089
	GSM1900	GPRS(3 Tx slots)	Right Tilted	Top	Reduced Level 1	661	1880	26.03	26.50	1.114	-0.16	0.810	0.903
	GSM1900	GPRS(3 Tx slots)	Left Cheek	Top	Reduced Level 1	661	1880	26.03	26.50	1.114	-0.04	0.287	0.320
	GSM1900	GPRS(3 Tx slots)	Left Tilted	Top	Reduced Level 1	661	1880	26.03	26.50	1.114	-0.07	0.264	0.294
	GSM1900	GPRS(3 Tx slots)	Right Cheek	Top	Reduced Level 1	512	1850.2	26.02	26.50	1.117	-0.06	0.851	0.950
02	GSM1900	GPRS(3 Tx slots)	Right Cheek	Top	Reduced Level 1	810	1909.8	25.95	26.50	1.135	-0.03	1.190	1.351
	GSM1900	GPRS(3 Tx slots)	Right Tilted	Top	Reduced Level 1	512	1850.2	26.02	26.50	1.117	-0.12	0.729	0.814
	GSM1900	GPRS(3 Tx slots)	Right Tilted	Top	Reduced Level 1	810	1909.8	25.95	26.50	1.135	-0.16	0.966	1.096
	GSM1900	GPRS(3 Tx slots)	Right Cheek	Top	Reduced Level 2	661	1880	24.13	24.50	1.089	0.05	0.794	0.865
	GSM1900	GPRS(3 Tx slots)	Right Tilted	Top	Reduced Level 2	661	1880	24.13	24.50	1.089	-0.11	0.685	0.746
	GSM1900	GPRS(3 Tx slots)	Left Cheek	Top	Reduced Level 2	661	1880	24.13	24.50	1.089	-0.03	0.252	0.274
	GSM1900	GPRS(3 Tx slots)	Left Tilted	Top	Reduced Level 2	661	1880	24.13	24.50	1.089	-0.04	0.230	0.250
	GSM1900	GPRS(3 Tx slots)	Right Cheek	Top	Reduced Level 2	512	1850.2	23.99	24.50	1.125	0.15	0.703	0.791
	GSM1900	GPRS(3 Tx slots)	Right Cheek	Top	Reduced Level 2	810	1909.8	23.96	24.50	1.132	-0.05	0.981	1.111
	GSM1900	GPRS(3 Tx slots)	Right Cheek	Bottom	Full	661	1880	26.74	27.00	1.062	0.09	0.049	0.052
	GSM1900	GPRS(3 Tx slots)	Right Tilted	Bottom	Full	661	1880	26.74	27.00	1.062	-0.08	0.025	0.027
	GSM1900	GPRS(3 Tx slots)	Left Cheek	Bottom	Full	661	1880	26.74	27.00	1.062	0.04	0.095	0.101
	GSM1900	GPRS(3 Tx slots)	Left Tilted	Bottom	Full	661	1880	26.74	27.00	1.062	0.06	0.023	0.024
	GSM1900	GPRS(3 Tx slots)	Left Cheek	Bottom	Full	512	1850.2	26.62	27.00	1.091	0.07	0.064	0.070
	GSM1900	GPRS(3 Tx slots)	Left Cheek	Bottom	Full	810	1909.8	26.72	27.00	1.067	0.03	0.020	0.021



<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA Band V	RMC 12.2Kbps	Right Cheek	Top	Reduced Level 1	4233	846.6	20.79	21.00	1.050	-0.02	0.912	0.957
	WCDMA Band V	RMC 12.2Kbps	Right Tilted	Top	Reduced Level 1	4233	846.6	20.79	21.00	1.050	0.01	0.863	0.906
	WCDMA Band V	RMC 12.2Kbps	Left Cheek	Top	Reduced Level 1	4233	846.6	20.79	21.00	1.050	-0.05	0.528	0.554
	WCDMA Band V	RMC 12.2Kbps	Left Tilted	Top	Reduced Level 1	4233	846.6	20.79	21.00	1.050	-0.04	0.491	0.515
03	WCDMA Band V	RMC 12.2Kbps	Right Cheek	Top	Reduced Level 1	4132	826.4	20.49	21.00	1.125	-0.01	1.050	1.181
	WCDMA Band V	RMC 12.2Kbps	Right Cheek	Top	Reduced Level 1	4182	836.4	20.62	21.00	1.091	-0.04	0.995	1.086
	WCDMA Band V	RMC 12.2Kbps	Right Tilted	Top	Reduced Level 1	4132	826.4	20.49	21.00	1.125	0.01	0.977	1.099
	WCDMA Band V	RMC 12.2Kbps	Right Tilted	Top	Reduced Level 1	4182	836.4	20.62	21.00	1.091	-0.04	0.935	1.020
	WCDMA Band V	RMC 12.2Kbps	Right Cheek	Top	Reduced Level 2	4233	846.6	19.21	19.50	1.069	-0.02	0.839	0.897
	WCDMA Band V	RMC 12.2Kbps	Right Tilted	Top	Reduced Level 2	4233	846.6	19.21	19.50	1.069	-0.01	0.733	0.784
	WCDMA Band V	RMC 12.2Kbps	Left Cheek	Top	Reduced Level 2	4233	846.6	19.21	19.50	1.069	-0.06	0.491	0.525
	WCDMA Band V	RMC 12.2Kbps	Left Tilted	Top	Reduced Level 2	4233	846.6	19.21	19.50	1.069	-0.05	0.443	0.474
	WCDMA Band V	RMC 12.2Kbps	Right Cheek	Top	Reduced Level 2	4132	826.4	18.98	19.50	1.127	-0.03	0.956	1.078
	WCDMA Band V	RMC 12.2Kbps	Right Cheek	Top	Reduced Level 2	4182	836.4	19.09	19.50	1.099	-0.04	0.905	0.995
	WCDMA Band V	RMC 12.2Kbps	Right Cheek	Bottom	Full	4233	846.6	23.15	23.50	1.084	0.09	0.205	0.222
	WCDMA Band V	RMC 12.2Kbps	Right Tilted	Bottom	Full	4233	846.6	23.15	23.50	1.084	0.06	0.134	0.145
	WCDMA Band V	RMC 12.2Kbps	Left Cheek	Bottom	Full	4233	846.6	23.15	23.50	1.084	0.04	0.245	0.266
	WCDMA Band V	RMC 12.2Kbps	Left Tilted	Bottom	Full	4233	846.6	23.15	23.50	1.084	0.11	0.133	0.144
	WCDMA Band V	RMC 12.2Kbps	Left Cheek	Bottom	Full	4132	826.4	22.96	23.50	1.132	0.08	0.194	0.220
	WCDMA Band V	RMC 12.2Kbps	Left Cheek	Bottom	Full	4182	836.4	23.07	23.50	1.104	0.03	0.206	0.227
	WCDMA Band IV	RMC 12.2Kbps	Right Cheek	Top	Reduced Level 1	1413	1732.6	18.18	18.50	1.076	0.04	0.972	1.046
	WCDMA Band IV	RMC 12.2Kbps	Right Tilted	Top	Reduced Level 1	1413	1732.6	18.18	18.50	1.076	-0.06	0.843	0.907
	WCDMA Band IV	RMC 12.2Kbps	Left Cheek	Top	Reduced Level 1	1413	1732.6	18.18	18.50	1.076	-0.09	0.366	0.394
	WCDMA Band IV	RMC 12.2Kbps	Left Tilted	Top	Reduced Level 1	1413	1732.6	18.18	18.50	1.076	-0.06	0.362	0.390
	WCDMA Band IV	RMC 12.2Kbps	Right Cheek	Top	Reduced Level 1	1312	1712.4	18.06	18.50	1.107	0.02	0.998	1.104
04	WCDMA Band IV	RMC 12.2Kbps	Right Cheek	Top	Reduced Level 1	1513	1752.6	18.09	18.50	1.099	0.04	1.020	1.121
	WCDMA Band IV	RMC 12.2Kbps	Right Tilted	Top	Reduced Level 1	1312	1712.4	18.06	18.50	1.107	-0.08	0.943	1.044
	WCDMA Band IV	RMC 12.2Kbps	Right Tilted	Top	Reduced Level 1	1513	1752.6	18.09	18.50	1.099	-0.09	0.972	1.068
	WCDMA Band IV	RMC 12.2Kbps	Right Cheek	Top	Reduced Level 2	1413	1732.6	16.67	17.00	1.079	-0.13	0.736	0.794
	WCDMA Band IV	RMC 12.2Kbps	Right Tilted	Top	Reduced Level 2	1413	1732.6	16.67	17.00	1.079	-0.07	0.622	0.671
	WCDMA Band IV	RMC 12.2Kbps	Left Cheek	Top	Reduced Level 2	1413	1732.6	16.67	17.00	1.079	-0.04	0.310	0.334
	WCDMA Band IV	RMC 12.2Kbps	Left Tilted	Top	Reduced Level 2	1413	1732.6	16.67	17.00	1.079	-0.13	0.276	0.298
	WCDMA Band IV	RMC 12.2Kbps	Right Cheek	Top	Reduced Level 2	1312	1712.4	16.55	17.00	1.109	-0.06	0.719	0.797
	WCDMA Band IV	RMC 12.2Kbps	Right Cheek	Top	Reduced Level 2	1513	1752.6	16.56	17.00	1.107	-0.01	0.750	0.830
	WCDMA Band IV	RMC 12.2Kbps	Right Cheek	Bottom	Full	1413	1732.6	23.14	23.50	1.086	0.05	0.089	0.097
	WCDMA Band IV	RMC 12.2Kbps	Right Tilted	Bottom	Full	1413	1732.6	23.14	23.50	1.086	0.02	0.044	0.048
	WCDMA Band IV	RMC 12.2Kbps	Left Cheek	Bottom	Full	1413	1732.6	23.14	23.50	1.086	-0.08	0.135	0.147
	WCDMA Band IV	RMC 12.2Kbps	Left Tilted	Bottom	Full	1413	1732.6	23.14	23.50	1.086	-0.04	0.040	0.043
	WCDMA Band IV	RMC 12.2Kbps	Left Cheek	Bottom	Full	1312	1712.4	23.04	23.50	1.112	-0.03	0.116	0.129
	WCDMA Band IV	RMC 12.2Kbps	Left Cheek	Bottom	Full	1513	1752.6	23.06	23.50	1.107	-0.05	0.168	0.186



FCC SAR Test Report

Report No. : FA782510-01

Plot No.	Band	Mode	Test Position	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA Band II	RMC 12.2Kbps	Right Cheek	Top	Reduced Level 1	9400	1880	19.12	19.50	1.091	-0.01	1.000	1.091
	WCDMA Band II	RMC 12.2Kbps	Right Tilted	Top	Reduced Level 1	9400	1880	19.12	19.50	1.091	-0.04	0.993	1.084
	WCDMA Band II	RMC 12.2Kbps	Left Cheek	Top	Reduced Level 1	9400	1880	19.12	19.50	1.091	-0.13	0.382	0.417
	WCDMA Band II	RMC 12.2Kbps	Left Tilted	Top	Reduced Level 1	9400	1880	19.12	19.50	1.091	-0.09	0.348	0.380
	WCDMA Band II	RMC 12.2Kbps	Right Cheek	Top	Reduced Level 1	9262	1852.4	19.10	19.50	1.096	0.04	0.997	1.093
05	WCDMA Band II	RMC 12.2Kbps	Right Cheek	Top	Reduced Level 1	9538	1907.6	19.00	19.50	1.122	0.07	0.993	1.114
	WCDMA Band II	RMC 12.2Kbps	Right Tilted	Top	Reduced Level 1	9262	1852.4	19.10	19.50	1.096	-0.14	0.992	1.088
	WCDMA Band II	RMC 12.2Kbps	Right Tilted	Top	Reduced Level 1	9538	1907.6	19.00	19.50	1.122	-0.04	0.924	1.037
	WCDMA Band II	RMC 12.2Kbps	Right Cheek	Top	Reduced Level 2	9400	1880	17.59	18.00	1.099	0.01	0.796	0.875
	WCDMA Band II	RMC 12.2Kbps	Right Tilted	Top	Reduced Level 2	9400	1880	17.59	18.00	1.099	-0.09	0.636	0.699
	WCDMA Band II	RMC 12.2Kbps	Left Cheek	Top	Reduced Level 2	9400	1880	17.59	18.00	1.099	-0.17	0.289	0.318
	WCDMA Band II	RMC 12.2Kbps	Left Tilted	Top	Reduced Level 2	9400	1880	17.59	18.00	1.099	-0.18	0.289	0.318
	WCDMA Band II	RMC 12.2Kbps	Right Cheek	Top	Reduced Level 2	9262	1852.4	17.57	18.00	1.104	-0.08	0.803	0.887
	WCDMA Band II	RMC 12.2Kbps	Right Cheek	Top	Reduced Level 2	9538	1907.6	17.48	18.00	1.127	-0.05	0.759	0.856
	WCDMA Band II	RMC 12.2Kbps	Right Cheek	Bottom	Full	9400	1880	23.04	23.50	1.112	0.04	0.072	0.080
	WCDMA Band II	RMC 12.2Kbps	Right Tilted	Bottom	Full	9400	1880	23.04	23.50	1.112	0.03	0.022	0.024
	WCDMA Band II	RMC 12.2Kbps	Left Cheek	Bottom	Full	9400	1880	23.04	23.50	1.112	0.08	0.048	0.053
	WCDMA Band II	RMC 12.2Kbps	Left Tilted	Bottom	Full	9400	1880	23.04	23.50	1.112	0.05	0.024	0.027
	WCDMA Band II	RMC 12.2Kbps	Right Cheek	Bottom	Full	9262	1852.4	23.02	23.50	1.117	0.07	0.056	0.063
	WCDMA Band II	RMC 12.2Kbps	Right Cheek	Bottom	Full	9538	1907.6	22.89	23.50	1.151	0.05	0.043	0.049



<CDMA2000 SAR>

Plot No.	Band	Mode	Test Position	Antenna	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)
	CDMA2000 BC0	RC3+SO55	Right Cheek	Top	Reduced Level 1	384	836.52	20.28	20.50	1.052	-0.03	1.280	1.347
	CDMA2000 BC0	RC3+SO55	Right Tilted	Top	Reduced Level 1	384	836.52	20.28	20.50	1.052	-0.04	1.210	1.273
	CDMA2000 BC0	RC3+SO55	Left Cheek	Top	Reduced Level 1	384	836.52	20.28	20.50	1.052	0.02	0.788	0.829
	CDMA2000 BC0	RC3+SO55	Left Tilted	Top	Reduced Level 1	384	836.52	20.28	20.50	1.052	-0.04	0.712	0.749
06	CDMA2000 BC0	RC3+SO55	Right Cheek	Top	Reduced Level 1	1013	824.7	20.17	20.50	1.079	-0.03	1.280	1.381
	CDMA2000 BC0	RC3+SO55	Right Cheek	Top	Reduced Level 1	777	848.31	20.27	20.50	1.054	-0.05	1.120	1.181
	CDMA2000 BC0	RC3+SO55	Right Tilted	Top	Reduced Level 1	1013	824.7	20.17	20.50	1.079	-0.05	1.200	1.295
	CDMA2000 BC0	RC3+SO55	Right Tilted	Top	Reduced Level 1	777	848.31	20.27	20.50	1.054	-0.06	1.050	1.107
	CDMA2000 BC0	RC3+SO55	Left Cheek	Top	Reduced Level 1	1013	824.7	20.17	20.50	1.079	-0.02	0.779	0.840
	CDMA2000 BC0	RC3+SO55	Left Cheek	Top	Reduced Level 1	777	848.31	20.27	20.50	1.054	-0.1	0.696	0.734
	CDMA2000 BC0	RC3+SO55	Right Cheek	Top	Reduced Level 2	384	836.52	19.27	19.50	1.054	0.01	1.100	1.160
	CDMA2000 BC0	RC3+SO55	Right Tilted	Top	Reduced Level 2	384	836.52	19.27	19.50	1.054	-0.06	0.946	0.997
	CDMA2000 BC0	RC3+SO55	Left Cheek	Top	Reduced Level 2	384	836.52	19.27	19.50	1.054	-0.03	0.514	0.542
	CDMA2000 BC0	RC3+SO55	Left Tilted	Top	Reduced Level 2	384	836.52	19.27	19.50	1.054	-0.04	0.493	0.520
	CDMA2000 BC0	RC3+SO55	Right Cheek	Top	Reduced Level 2	1013	824.7	19.17	19.50	1.079	-0.06	1.060	1.144
	CDMA2000 BC0	RC3+SO55	Right Cheek	Top	Reduced Level 2	777	848.31	19.26	19.50	1.057	-0.09	0.917	0.969
	CDMA2000 BC0	RC3+SO55	Right Tilted	Top	Reduced Level 2	1013	824.7	19.17	19.50	1.079	-0.08	0.947	1.022
	CDMA2000 BC0	RC3+SO55	Right Tilted	Top	Reduced Level 2	777	848.31	19.26	19.50	1.057	-0.08	0.829	0.876
	CDMA2000 BC0	RC3+SO55	Right Cheek	Bottom	Full	384	836.52	22.29	23.00	1.178	0.08	0.110	0.130
	CDMA2000 BC0	RC3+SO55	Right Tilted	Bottom	Full	384	836.52	22.29	23.00	1.178	0.04	0.073	0.086
	CDMA2000 BC0	RC3+SO55	Left Cheek	Bottom	Full	384	836.52	22.29	23.00	1.178	0.07	0.138	0.163
	CDMA2000 BC0	RC3+SO55	Left Tilted	Bottom	Full	384	836.52	22.29	23.00	1.178	0.03	0.069	0.081
	CDMA2000 BC0	RC3+SO55	Left Cheek	Bottom	Full	1013	824.7	22.21	23.00	1.199	-0.06	0.133	0.160
	CDMA2000 BC0	RC3+SO55	Left Cheek	Bottom	Full	777	848.31	22.25	23.00	1.189	0.03	0.146	0.174



<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Antenna	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)
07	LTE Band 12	10M	QPSK	1RB	0Offset	Right Cheek	Top	Reduced Level 1	23095	707.5	21.48	22.00	1.127	-0.01	1.040	1.172
	LTE Band 12	10M	QPSK	1RB	0Offset	Right Tilted	Top	Reduced Level 1	23095	707.5	21.48	22.00	1.127	0.01	0.931	1.049
	LTE Band 12	10M	QPSK	1RB	0Offset	Left Cheek	Top	Reduced Level 1	23095	707.5	21.48	22.00	1.127	-0.06	0.591	0.666
	LTE Band 12	10M	QPSK	1RB	0Offset	Left Tilted	Top	Reduced Level 1	23095	707.5	21.48	22.00	1.127	0.03	0.502	0.566
	LTE Band 12	10M	QPSK	25RB	25Offset	Right Cheek	Top	Reduced Level 1	23095	707.5	21.35	21.50	1.035	-0.01	1.070	1.108
	LTE Band 12	10M	QPSK	25RB	25Offset	Right Tilted	Top	Reduced Level 1	23095	707.5	21.35	21.50	1.035	-0.01	0.975	1.009
	LTE Band 12	10M	QPSK	25RB	25Offset	Left Cheek	Top	Reduced Level 1	23095	707.5	21.35	21.50	1.035	-0.03	0.637	0.659
	LTE Band 12	10M	QPSK	25RB	25Offset	Left Tilted	Top	Reduced Level 1	23095	707.5	21.35	21.50	1.035	-0.04	0.546	0.565
	LTE Band 12	10M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 1	23095	707.5	21.23	21.50	1.064	-0.01	1.060	1.128
	LTE Band 12	10M	QPSK	50RB	0Offset	Right Tilted	Top	Reduced Level 1	23095	707.5	21.23	21.50	1.064	0.05	0.970	1.032
	LTE Band 12	10M	QPSK	1RB	0Offset	Right Cheek	Top	Reduced Level 2	23095	707.5	19.46	19.50	1.009	0.01	0.779	0.786
	LTE Band 12	10M	QPSK	1RB	0Offset	Right Tilted	Top	Reduced Level 2	23095	707.5	19.46	19.50	1.009	-0.01	0.681	0.687
	LTE Band 12	10M	QPSK	1RB	0Offset	Left Cheek	Top	Reduced Level 2	23095	707.5	19.46	19.50	1.009	-0.07	0.419	0.423
	LTE Band 12	10M	QPSK	1RB	0Offset	Left Tilted	Top	Reduced Level 2	23095	707.5	19.46	19.50	1.009	-0.09	0.399	0.403
	LTE Band 12	10M	QPSK	25RB	25Offset	Right Cheek	Top	Reduced Level 2	23095	707.5	19.21	19.50	1.069	0.03	0.811	0.867
	LTE Band 12	10M	QPSK	25RB	25Offset	Right Tilted	Top	Reduced Level 2	23095	707.5	19.21	19.50	1.069	-0.01	0.720	0.770
	LTE Band 12	10M	QPSK	25RB	25Offset	Left Cheek	Top	Reduced Level 2	23095	707.5	19.21	19.50	1.069	-0.07	0.448	0.479
	LTE Band 12	10M	QPSK	25RB	25Offset	Left Tilted	Top	Reduced Level 2	23095	707.5	19.21	19.50	1.069	-0.05	0.427	0.456
	LTE Band 12	10M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 2	23095	707.5	19.25	19.50	1.059	0.02	0.807	0.855
	LTE Band 12	10M	QPSK	1RB	0Offset	Right Cheek	Bottom	Full	23095	707.5	23.25	23.50	1.059	0.02	0.095	0.101
	LTE Band 12	10M	QPSK	1RB	0Offset	Right Tilted	Bottom	Full	23095	707.5	23.25	23.50	1.059	0.02	0.066	0.070
	LTE Band 12	10M	QPSK	1RB	0Offset	Left Cheek	Bottom	Full	23095	707.5	23.25	23.50	1.059	0.03	0.123	0.130
	LTE Band 12	10M	QPSK	1RB	0Offset	Left Tilted	Bottom	Full	23095	707.5	23.25	23.50	1.059	0.05	0.072	0.076
	LTE Band 12	10M	QPSK	25RB	25Offset	Right Cheek	Bottom	Full	23095	707.5	22.25	22.50	1.059	0.03	0.088	0.093
	LTE Band 12	10M	QPSK	25RB	25Offset	Right Tilted	Bottom	Full	23095	707.5	22.25	22.50	1.059	0.03	0.054	0.057
	LTE Band 12	10M	QPSK	25RB	25Offset	Left Cheek	Bottom	Full	23095	707.5	22.25	22.50	1.059	0.08	0.109	0.115
	LTE Band 12	10M	QPSK	25RB	25Offset	Left Tilted	Bottom	Full	23095	707.5	22.25	22.50	1.059	0.14	0.058	0.061



FCC SAR Test Report

Report No. : FA782510-01

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 5	10M	QPSK	1RB	49Offset	Right Cheek	Top	Reduced Level 1	20525	836.5	19.90	20.50	1.148	0.08	1.060	1.217
	LTE Band 5	10M	QPSK	1RB	49Offset	Right Tilted	Top	Reduced Level 1	20525	836.5	19.90	20.50	1.148	0.06	1.030	1.183
	LTE Band 5	10M	QPSK	1RB	49Offset	Left Cheek	Top	Reduced Level 1	20525	836.5	19.90	20.50	1.148	-0.02	0.677	0.777
	LTE Band 5	10M	QPSK	1RB	49Offset	Left Tilted	Top	Reduced Level 1	20525	836.5	19.90	20.50	1.148	0.05	0.601	0.690
08	LTE Band 5	10M	QPSK	25RB	0Offset	Right Cheek	Top	Reduced Level 1	20525	836.5	20.05	20.50	1.109	-0.03	1.150	1.276
	LTE Band 5	10M	QPSK	25RB	0Offset	Right Tilted	Top	Reduced Level 1	20525	836.5	20.05	20.50	1.109	-0.09	1.060	1.176
	LTE Band 5	10M	QPSK	25RB	0Offset	Left Cheek	Top	Reduced Level 1	20525	836.5	20.05	20.50	1.109	0.05	0.695	0.771
	LTE Band 5	10M	QPSK	25RB	0Offset	Left Tilted	Top	Reduced Level 1	20525	836.5	20.05	20.50	1.109	0.12	0.654	0.725
	LTE Band 5	10M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 1	20525	836.5	20.02	20.50	1.117	0.02	1.120	1.251
	LTE Band 5	10M	QPSK	50RB	0Offset	Right Tilted	Top	Reduced Level 1	20525	836.5	20.02	20.50	1.117	0.09	1.020	1.139
	LTE Band 5	10M	QPSK	1RB	49Offset	Right Cheek	Top	Reduced Level 2	20525	836.5	19.42	19.50	1.019	0.04	0.835	0.851
	LTE Band 5	10M	QPSK	1RB	49Offset	Right Tilted	Top	Reduced Level 2	20525	836.5	19.42	19.50	1.019	0.06	0.740	0.754
	LTE Band 5	10M	QPSK	1RB	49Offset	Left Cheek	Top	Reduced Level 2	20525	836.5	19.42	19.50	1.019	0.02	0.478	0.487
	LTE Band 5	10M	QPSK	1RB	49Offset	Left Tilted	Top	Reduced Level 2	20525	836.5	19.42	19.50	1.019	0.06	0.412	0.420
	LTE Band 5	10M	QPSK	25RB	0Offset	Right Cheek	Top	Reduced Level 2	20525	836.5	19.11	19.50	1.094	-0.06	0.893	0.977
	LTE Band 5	10M	QPSK	25RB	0Offset	Right Tilted	Top	Reduced Level 2	20525	836.5	19.11	19.50	1.094	0.08	0.833	0.911
	LTE Band 5	10M	QPSK	25RB	0Offset	Left Cheek	Top	Reduced Level 2	20525	836.5	19.11	19.50	1.094	0.04	0.525	0.574
	LTE Band 5	10M	QPSK	25RB	0Offset	Left Tilted	Top	Reduced Level 2	20525	836.5	19.11	19.50	1.094	0.02	0.454	0.497
	LTE Band 5	10M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 2	20525	836.5	18.99	19.50	1.125	0.09	0.902	1.014
	LTE Band 5	10M	QPSK	50RB	0Offset	Right Tilted	Top	Reduced Level 2	20525	836.5	18.99	19.50	1.125	0.11	0.799	0.899
	LTE Band 5	10M	QPSK	1RB	49Offset	Right Cheek	Bottom	Full	20525	836.5	22.93	23.50	1.140	0.04	0.197	0.225
	LTE Band 5	10M	QPSK	1RB	49Offset	Right Tilted	Bottom	Full	20525	836.5	22.93	23.50	1.140	-0.03	0.122	0.139
	LTE Band 5	10M	QPSK	1RB	49Offset	Left Cheek	Bottom	Full	20525	836.5	22.93	23.50	1.140	-0.06	0.228	0.260
	LTE Band 5	10M	QPSK	1RB	49Offset	Left Tilted	Bottom	Full	20525	836.5	22.93	23.50	1.140	0.03	0.110	0.125
	LTE Band 5	10M	QPSK	25RB	0Offset	Right Cheek	Bottom	Full	20525	836.5	22.05	22.50	1.109	0.05	0.150	0.166
	LTE Band 5	10M	QPSK	25RB	0Offset	Right Tilted	Bottom	Full	20525	836.5	22.05	22.50	1.109	0.07	0.090	0.100
	LTE Band 5	10M	QPSK	25RB	0Offset	Left Cheek	Bottom	Full	20525	836.5	22.05	22.50	1.109	-0.11	0.172	0.191
	LTE Band 5	10M	QPSK	25RB	0Offset	Left Tilted	Bottom	Full	20525	836.5	22.05	22.50	1.109	0.01	0.082	0.091



FCC SAR Test Report

Report No. : FA782510-01

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 26	15M	QPSK	1RB	0Offset	Right Cheek	Top	Reduced Level 1	26965	841.5	21.11	21.50	1.094	-0.01	1.010	1.105
	LTE Band 26	15M	QPSK	1RB	0Offset	Right Tilted	Top	Reduced Level 1	26965	841.5	21.11	21.50	1.094	-0.07	0.924	1.011
	LTE Band 26	15M	QPSK	1RB	0Offset	Left Cheek	Top	Reduced Level 1	26965	841.5	21.11	21.50	1.094	-0.02	0.598	0.654
	LTE Band 26	15M	QPSK	1RB	0Offset	Left Tilted	Top	Reduced Level 1	26965	841.5	21.11	21.50	1.094	-0.01	0.551	0.603
09	LTE Band 26	15M	QPSK	1RB	0Offset	Right Cheek	Top	Reduced Level 1	26765	821.5	20.67	21.50	1.211	-0.06	1.120	1.356
	LTE Band 26	15M	QPSK	1RB	0Offset	Right Cheek	Top	Reduced Level 1	26865	831.5	20.71	21.50	1.199	-0.01	1.110	1.331
	LTE Band 26	15M	QPSK	1RB	0Offset	Right Tilted	Top	Reduced Level 1	26765	821.5	20.67	21.50	1.211	0.01	0.960	1.162
	LTE Band 26	15M	QPSK	1RB	0Offset	Right Tilted	Top	Reduced Level 1	26865	831.5	20.71	21.50	1.199	-0.01	0.968	1.161
	LTE Band 26	15M	QPSK	36RB	0Offset	Right Cheek	Top	Reduced Level 1	26965	841.5	21.01	21.50	1.119	-0.03	1.040	1.164
	LTE Band 26	15M	QPSK	36RB	0Offset	Right Tilted	Top	Reduced Level 1	26965	841.5	21.01	21.50	1.119	0.02	0.916	1.025
	LTE Band 26	15M	QPSK	36RB	0Offset	Left Cheek	Top	Reduced Level 1	26965	841.5	21.01	21.50	1.119	-0.02	0.587	0.657
	LTE Band 26	15M	QPSK	36RB	0Offset	Left Tilted	Top	Reduced Level 1	26965	841.5	21.01	21.50	1.119	-0.03	0.541	0.606
	LTE Band 26	15M	QPSK	36RB	0Offset	Right Cheek	Top	Reduced Level 1	26765	821.5	20.73	21.50	1.194	-0.05	1.130	1.349
	LTE Band 26	15M	QPSK	36RB	0Offset	Right Cheek	Top	Reduced Level 1	26865	831.5	20.75	21.50	1.189	-0.05	1.110	1.319
	LTE Band 26	15M	QPSK	36RB	0Offset	Right Tilted	Top	Reduced Level 1	26765	821.5	20.73	21.50	1.194	-0.04	0.973	1.162
	LTE Band 26	15M	QPSK	36RB	0Offset	Right Tilted	Top	Reduced Level 1	26865	831.5	20.75	21.50	1.189	-0.02	0.974	1.158
	LTE Band 26	15M	QPSK	75RB	0Offset	Right Cheek	Top	Reduced Level 1	26965	841.5	20.84	21.50	1.164	-0.02	0.950	1.106
	LTE Band 26	15M	QPSK	75RB	0Offset	Right Tilted	Top	Reduced Level 1	26965	841.5	20.84	21.50	1.164	-0.03	0.898	1.045
	LTE Band 26	15M	QPSK	1RB	0Offset	Right Cheek	Top	Reduced Level 2	26965	841.5	18.93	19.00	1.016	-0.02	0.779	0.792
	LTE Band 26	15M	QPSK	1RB	0Offset	Right Tilted	Top	Reduced Level 2	26965	841.5	18.93	19.00	1.016	-0.07	0.704	0.715
	LTE Band 26	15M	QPSK	1RB	0Offset	Left Cheek	Top	Reduced Level 2	26965	841.5	18.93	19.00	1.016	0.05	0.467	0.475
	LTE Band 26	15M	QPSK	1RB	0Offset	Left Tilted	Top	Reduced Level 2	26965	841.5	18.93	19.00	1.016	-0.04	0.457	0.464
	LTE Band 26	15M	QPSK	1RB	0Offset	Right Cheek	Top	Reduced Level 2	26765	821.5	18.68	19.00	1.076	0.01	0.825	0.888
	LTE Band 26	15M	QPSK	1RB	0Offset	Right Cheek	Top	Reduced Level 2	26865	831.5	18.73	19.00	1.064	0.02	0.821	0.874
	LTE Band 26	15M	QPSK	36RB	0Offset	Right Cheek	Top	Reduced Level 2	26965	841.5	18.89	19.00	1.026	-0.01	0.765	0.785
	LTE Band 26	15M	QPSK	36RB	0Offset	Right Tilted	Top	Reduced Level 2	26965	841.5	18.89	19.00	1.026	-0.02	0.692	0.710
	LTE Band 26	15M	QPSK	36RB	0Offset	Left Cheek	Top	Reduced Level 2	26965	841.5	18.89	19.00	1.026	0.09	0.461	0.473
	LTE Band 26	15M	QPSK	36RB	0Offset	Left Tilted	Top	Reduced Level 2	26965	841.5	18.89	19.00	1.026	0.04	0.450	0.462
	LTE Band 26	15M	QPSK	36RB	0Offset	Right Cheek	Top	Reduced Level 2	26765	821.5	18.72	19.00	1.067	0.01	0.835	0.891
	LTE Band 26	15M	QPSK	36RB	0Offset	Right Cheek	Top	Reduced Level 2	26865	831.5	18.79	19.00	1.050	0.01	0.820	0.861
	LTE Band 26	15M	QPSK	75RB	0Offset	Right Cheek	Top	Reduced Level 2	26965	841.5	18.80	19.00	1.047	-0.02	0.777	0.814
	LTE Band 26	15M	QPSK	1RB	0Offset	Right Cheek	Bottom	Full	26965	841.5	23.25	23.50	1.059	0.08	0.196	0.208
	LTE Band 26	15M	QPSK	1RB	0Offset	Right Tilted	Bottom	Full	26965	841.5	23.25	23.50	1.059	0.08	0.115	0.122
	LTE Band 26	15M	QPSK	1RB	0Offset	Left Cheek	Bottom	Full	26965	841.5	23.25	23.50	1.059	0.02	0.228	0.242
	LTE Band 26	15M	QPSK	1RB	0Offset	Left Tilted	Bottom	Full	26965	841.5	23.25	23.50	1.059	0.11	0.114	0.121
	LTE Band 26	15M	QPSK	1RB	0Offset	Left Cheek	Bottom	Full	26765	821.5	23.07	23.50	1.104	0.06	0.201	0.222
	LTE Band 26	15M	QPSK	1RB	0Offset	Left Cheek	Bottom	Full	26865	831.5	23.13	23.50	1.089	0.09	0.206	0.224
	LTE Band 26	15M	QPSK	36RB	0Offset	Right Cheek	Bottom	Full	26965	841.5	22.31	22.50	1.045	0.05	0.161	0.168
	LTE Band 26	15M	QPSK	36RB	0Offset	Right Tilted	Bottom	Full	26965	841.5	22.31	22.50	1.045	0.04	0.096	0.100
	LTE Band 26	15M	QPSK	36RB	0Offset	Left Cheek	Bottom	Full	26965	841.5	22.31	22.50	1.045	0.08	0.186	0.194
	LTE Band 26	15M	QPSK	36RB	0Offset	Left Tilted	Bottom	Full	26965	841.5	22.31	22.50	1.045	0.15	0.095	0.099



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 4	20M	QPSK	1RB	0Offset	Right Cheek	Top	Reduced Level 1	20175	1732.5	20.74	21.00	1.062	-0.03	1.090	1.157
	LTE Band 4	20M	QPSK	1RB	0Offset	Right Tilted	Top	Reduced Level 1	20175	1732.5	20.74	21.00	1.062	-0.11	0.902	0.958
	LTE Band 4	20M	QPSK	1RB	0Offset	Left Cheek	Top	Reduced Level 1	20175	1732.5	20.74	21.00	1.062	-0.1	0.359	0.381
	LTE Band 4	20M	QPSK	1RB	0Offset	Left Tilted	Top	Reduced Level 1	20175	1732.5	20.74	21.00	1.062	-0.11	0.351	0.373
	LTE Band 4	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 1	20175	1732.5	20.28	20.50	1.052	-0.02	1.110	1.168
	LTE Band 4	20M	QPSK	50RB	0Offset	Right Tilted	Top	Reduced Level 1	20175	1732.5	20.28	20.50	1.052	-0.05	0.920	0.968
	LTE Band 4	20M	QPSK	50RB	0Offset	Left Cheek	Top	Reduced Level 1	20175	1732.5	20.28	20.50	1.052	-0.11	0.367	0.386
	LTE Band 4	20M	QPSK	50RB	0Offset	Left Tilted	Top	Reduced Level 1	20175	1732.5	20.28	20.50	1.052	-0.09	0.355	0.373
10	LTE Band 4	20M	QPSK	100RB	0Offset	Right Cheek	Top	Reduced Level 1	20175	1732.5	20.25	20.50	1.059	-0.09	1.150	1.218
	LTE Band 4	20M	QPSK	100RB	0Offset	Right Tilted	Top	Reduced Level 1	20175	1732.5	20.25	20.50	1.059	-0.09	1.050	1.112
	LTE Band 4	20M	QPSK	1RB	0Offset	Right Cheek	Top	Reduced Level 2	20175	1732.5	17.69	18.00	1.074	0.03	0.889	0.955
	LTE Band 4	20M	QPSK	1RB	0Offset	Right Tilted	Top	Reduced Level 2	20175	1732.5	17.69	18.00	1.074	-0.05	0.736	0.790
	LTE Band 4	20M	QPSK	1RB	0Offset	Left Cheek	Top	Reduced Level 2	20175	1732.5	17.69	18.00	1.074	-0.01	0.322	0.346
	LTE Band 4	20M	QPSK	1RB	0Offset	Left Tilted	Top	Reduced Level 2	20175	1732.5	17.69	18.00	1.074	-0.03	0.320	0.344
	LTE Band 4	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 2	20175	1732.5	17.34	18.00	1.164	0.02	0.918	1.069
	LTE Band 4	20M	QPSK	50RB	0Offset	Right Tilted	Top	Reduced Level 2	20175	1732.5	17.34	18.00	1.164	-0.05	0.758	0.882
	LTE Band 4	20M	QPSK	50RB	0Offset	Left Cheek	Top	Reduced Level 2	20175	1732.5	17.34	18.00	1.164	-0.05	0.332	0.386
	LTE Band 4	20M	QPSK	50RB	0Offset	Left Tilted	Top	Reduced Level 2	20175	1732.5	17.34	18.00	1.164	-0.07	0.329	0.383
	LTE Band 4	20M	QPSK	100RB	0Offset	Right Cheek	Top	Reduced Level 2	20175	1732.5	17.29	18.00	1.178	-0.01	0.902	1.062
	LTE Band 4	20M	QPSK	100RB	0Offset	Right Tilted	Top	Reduced Level 2	20175	1732.5	17.29	18.00	1.178	0.01	0.752	0.886
	LTE Band 4	20M	QPSK	1RB	0Offset	Right Cheek	Bottom	Full	20175	1732.5	23.37	23.50	1.030	0.01	0.088	0.091
	LTE Band 4	20M	QPSK	1RB	0Offset	Right Tilted	Bottom	Full	20175	1732.5	23.37	23.50	1.030	0.08	0.055	0.057
	LTE Band 4	20M	QPSK	1RB	0Offset	Left Cheek	Bottom	Full	20175	1732.5	23.37	23.50	1.030	-0.02	0.145	0.149
	LTE Band 4	20M	QPSK	1RB	0Offset	Left Tilted	Bottom	Full	20175	1732.5	23.37	23.50	1.030	0.04	0.025	0.026
	LTE Band 4	20M	QPSK	50RB	0Offset	Right Cheek	Bottom	Full	20175	1732.5	22.32	22.50	1.042	0.04	0.071	0.074
	LTE Band 4	20M	QPSK	50RB	0Offset	Right Tilted	Bottom	Full	20175	1732.5	22.32	22.50	1.042	0.06	0.050	0.052
	LTE Band 4	20M	QPSK	50RB	0Offset	Left Cheek	Bottom	Full	20175	1732.5	22.32	22.50	1.042	-0.09	0.120	0.125
	LTE Band 4	20M	QPSK	50RB	0Offset	Left Tilted	Bottom	Full	20175	1732.5	22.32	22.50	1.042	0.02	0.044	0.046



FCC SAR Test Report

Report No. : FA782510-01

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 66	20M	QPSK	1RB	0Offset	Right Cheek	Top	Reduced Level 1	132322	1745	18.60	19.00	1.096	-0.05	1.120	1.228
	LTE Band 66	20M	QPSK	1RB	0Offset	Right Tilted	Top	Reduced Level 1	132322	1745	18.60	19.00	1.096	-0.07	1.060	1.162
	LTE Band 66	20M	QPSK	1RB	0Offset	Left Cheek	Top	Reduced Level 1	132322	1745	18.60	19.00	1.096	-0.13	0.380	0.417
	LTE Band 66	20M	QPSK	1RB	0Offset	Left Tilted	Top	Reduced Level 1	132322	1745	18.60	19.00	1.096	-0.08	0.362	0.397
	LTE Band 66	20M	QPSK	1RB	0Offset	Right Cheek	Top	Reduced Level 1	132072	1720	18.05	19.00	1.245	0.02	1.040	1.294
11	LTE Band 66	20M	QPSK	1RB	0Offset	Right Cheek	Top	Reduced Level 1	132572	1770	18.14	19.00	1.219	0.03	1.100	1.341
	LTE Band 66	20M	QPSK	1RB	0Offset	Right Tilted	Top	Reduced Level 1	132072	1720	18.05	19.00	1.245	-0.08	0.978	1.217
	LTE Band 66	20M	QPSK	1RB	0Offset	Right Tilted	Top	Reduced Level 1	132572	1770	18.14	19.00	1.219	-0.11	1.050	1.280
	LTE Band 66	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 1	132322	1745	18.31	18.50	1.045	-0.12	1.190	1.243
	LTE Band 66	20M	QPSK	50RB	0Offset	Right Tilted	Top	Reduced Level 1	132322	1745	18.31	18.50	1.045	-0.12	1.050	1.097
	LTE Band 66	20M	QPSK	50RB	0Offset	Left Cheek	Top	Reduced Level 1	132322	1745	18.31	18.50	1.045	-0.08	0.381	0.398
	LTE Band 66	20M	QPSK	50RB	0Offset	Left Tilted	Top	Reduced Level 1	132322	1745	18.31	18.50	1.045	-0.05	0.363	0.379
	LTE Band 66	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 1	132072	1720	18.13	18.50	1.089	0.07	1.040	1.132
	LTE Band 66	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 1	132572	1770	18.16	18.50	1.081	0.02	1.090	1.179
	LTE Band 66	20M	QPSK	50RB	0Offset	Right Tilted	Top	Reduced Level 1	132072	1720	18.13	18.50	1.089	-0.09	0.991	1.079
	LTE Band 66	20M	QPSK	50RB	0Offset	Right Tilted	Top	Reduced Level 1	132572	1770	18.16	18.50	1.081	-0.07	1.040	1.125
	LTE Band 66	20M	QPSK	100RB	0Offset	Right Cheek	Top	Reduced Level 1	132322	1745	18.20	18.50	1.072	0.01	1.100	1.179
	LTE Band 66	20M	QPSK	100RB	0Offset	Right Tilted	Top	Reduced Level 1	132322	1745	18.20	18.50	1.072	0.06	1.040	1.114
	LTE Band 66	20M	QPSK	1RB	0Offset	Right Cheek	Top	Reduced Level 2	132322	1745	16.32	16.50	1.042	0.05	0.714	0.744
	LTE Band 66	20M	QPSK	1RB	0Offset	Right Tilted	Top	Reduced Level 2	132322	1745	16.32	16.50	1.042	-0.06	0.604	0.630
	LTE Band 66	20M	QPSK	1RB	0Offset	Left Cheek	Top	Reduced Level 2	132322	1745	16.32	16.50	1.042	0.02	0.267	0.278
	LTE Band 66	20M	QPSK	1RB	0Offset	Left Tilted	Top	Reduced Level 2	132322	1745	16.32	16.50	1.042	0.02	0.260	0.271
	LTE Band 66	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 2	132322	1745	16.25	16.50	1.059	0.08	0.708	0.750
	LTE Band 66	20M	QPSK	50RB	0Offset	Right Tilted	Top	Reduced Level 2	132322	1745	16.25	16.50	1.059	0.04	0.594	0.629
	LTE Band 66	20M	QPSK	50RB	0Offset	Left Cheek	Top	Reduced Level 2	132322	1745	16.25	16.50	1.059	-0.07	0.265	0.281
	LTE Band 66	20M	QPSK	50RB	0Offset	Left Tilted	Top	Reduced Level 2	132322	1745	16.25	16.50	1.059	-0.07	0.262	0.278
	LTE Band 66	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 2	132072	1745	16.16	16.50	1.081	0.08	0.704	0.761
	LTE Band 66	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 2	132572	1770	16.14	16.50	1.086	0.03	0.711	0.772
	LTE Band 66	20M	QPSK	1RB	0Offset	Right Cheek	Bottom	Full	132322	1745	23.23	23.50	1.064	0.03	0.104	0.111
	LTE Band 66	20M	QPSK	1RB	0Offset	Right Tilted	Bottom	Full	132322	1745	23.23	23.50	1.064	0.02	0.054	0.057
	LTE Band 66	20M	QPSK	1RB	0Offset	Left Cheek	Bottom	Full	132322	1745	23.23	23.50	1.064	-0.06	0.145	0.154
	LTE Band 66	20M	QPSK	1RB	0Offset	Left Tilted	Bottom	Full	132322	1745	23.23	23.50	1.064	0.17	0.052	0.055
	LTE Band 66	20M	QPSK	1RB	0Offset	Left Cheek	Bottom	Full	132072	1720	23.03	23.50	1.114	0.06	0.124	0.138
	LTE Band 66	20M	QPSK	1RB	0Offset	Left Cheek	Bottom	Full	132572	1770	23.13	23.50	1.089	0.12	0.195	0.212
	LTE Band 66	20M	QPSK	50RB	0Offset	Right Cheek	Bottom	Full	132322	1745	22.19	22.50	1.074	0.01	0.084	0.090
	LTE Band 66	20M	QPSK	50RB	0Offset	Right Tilted	Bottom	Full	132322	1745	22.19	22.50	1.074	0.06	0.036	0.039
	LTE Band 66	20M	QPSK	50RB	0Offset	Left Cheek	Bottom	Full	132322	1745	22.19	22.50	1.074	-0.01	0.124	0.133
	LTE Band 66	20M	QPSK	50RB	0Offset	Left Tilted	Bottom	Full	132322	1745	22.19	22.50	1.074	0.08	0.039	0.042



FCC SAR Test Report

Report No. : FA782510-01

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Antenna	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)
12	LTE Band 25	20M	QPSK	1RB	0Offset	Right Cheek	Top	Reduced Level 1	26590	1905	19.90	20.50	1.148	-0.02	1.020	1.171
	LTE Band 25	20M	QPSK	1RB	0Offset	Right Tilted	Top	Reduced Level 1	26590	1905	19.90	20.50	1.148	-0.03	0.884	1.015
	LTE Band 25	20M	QPSK	1RB	0Offset	Left Cheek	Top	Reduced Level 1	26590	1905	19.90	20.50	1.148	-0.07	0.324	0.372
	LTE Band 25	20M	QPSK	1RB	0Offset	Left Tilted	Top	Reduced Level 1	26590	1905	19.90	20.50	1.148	0.02	0.314	0.361
	LTE Band 25	20M	QPSK	1RB	0Offset	Right Cheek	Top	Reduced Level 1	26140	1860	19.78	20.50	1.180	-0.05	0.967	1.141
	LTE Band 25	20M	QPSK	1RB	0Offset	Right Cheek	Top	Reduced Level 1	26340	1880	19.75	20.50	1.189	-0.05	0.974	1.158
	LTE Band 25	20M	QPSK	1RB	0Offset	Right Tilted	Top	Reduced Level 1	26140	1860	19.78	20.50	1.180	-0.06	0.896	1.058
	LTE Band 25	20M	QPSK	1RB	0Offset	Right Tilted	Top	Reduced Level 1	26340	1880	19.75	20.50	1.189	-0.07	0.885	1.052
	LTE Band 25	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 1	26590	1905	19.66	20.00	1.081	-0.05	1.010	1.092
	LTE Band 25	20M	QPSK	50RB	0Offset	Right Tilted	Top	Reduced Level 1	26590	1905	19.66	20.00	1.081	-0.04	0.886	0.958
	LTE Band 25	20M	QPSK	50RB	0Offset	Left Cheek	Top	Reduced Level 1	26590	1905	19.66	20.00	1.081	-0.07	0.323	0.349
	LTE Band 25	20M	QPSK	50RB	0Offset	Left Tilted	Top	Reduced Level 1	26590	1905	19.66	20.00	1.081	-0.08	0.310	0.335
	LTE Band 25	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 1	26140	1860	19.34	20.00	1.164	-0.06	0.925	1.077
	LTE Band 25	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 1	26340	1880	19.33	20.00	1.167	0.03	0.937	1.093
	LTE Band 25	20M	QPSK	50RB	0Offset	Right Tilted	Top	Reduced Level 1	26140	1860	19.34	20.00	1.164	-0.04	0.852	0.992
	LTE Band 25	20M	QPSK	50RB	0Offset	Right Tilted	Top	Reduced Level 1	26340	1880	19.33	20.00	1.167	-0.01	0.845	0.986
	LTE Band 25	20M	QPSK	100RB	0Offset	Right Cheek	Top	Reduced Level 1	26590	1905	19.49	20.00	1.125	-0.03	1.000	1.125
	LTE Band 25	20M	QPSK	100RB	0Offset	Right Tilted	Top	Reduced Level 1	26590	1905	19.49	20.00	1.125	-0.05	0.842	0.947
	LTE Band 25	20M	QPSK	1RB	0Offset	Right Cheek	Top	Reduced Level 2	26590	1905	18.60	19.00	1.096	-0.01	0.954	1.046
	LTE Band 25	20M	QPSK	1RB	0Offset	Right Tilted	Top	Reduced Level 2	26590	1905	18.60	19.00	1.096	0.02	0.683	0.749
	LTE Band 25	20M	QPSK	1RB	0Offset	Left Cheek	Top	Reduced Level 2	26590	1905	18.60	19.00	1.096	0.05	0.262	0.287
	LTE Band 25	20M	QPSK	1RB	0Offset	Left Tilted	Top	Reduced Level 2	26590	1905	18.60	19.00	1.096	-0.03	0.241	0.264
	LTE Band 25	20M	QPSK	1RB	0Offset	Right Cheek	Top	Reduced Level 2	26140	1860	17.98	19.00	1.265	0.01	0.878	1.110
	LTE Band 25	20M	QPSK	1RB	0Offset	Right Cheek	Top	Reduced Level 2	26340	1880	17.97	19.00	1.268	-0.11	0.881	1.117
	LTE Band 25	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 2	26590	1905	18.15	18.50	1.084	-0.03	0.923	1.000
	LTE Band 25	20M	QPSK	50RB	0Offset	Right Tilted	Top	Reduced Level 2	26590	1905	18.15	18.50	1.084	0.05	0.671	0.727
	LTE Band 25	20M	QPSK	50RB	0Offset	Left Cheek	Top	Reduced Level 2	26590	1905	18.15	18.50	1.084	-0.07	0.260	0.282
	LTE Band 25	20M	QPSK	50RB	0Offset	Left Tilted	Top	Reduced Level 2	26590	1905	18.15	18.50	1.084	0.03	0.236	0.256
	LTE Band 25	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 2	26140	1860	17.75	18.50	1.189	0.08	0.840	0.998
	LTE Band 25	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 2	26340	1880	17.82	18.50	1.169	-0.01	0.842	0.985
	LTE Band 25	20M	QPSK	100RB	0Offset	Right Cheek	Top	Reduced Level 2	26590	1905	17.99	18.50	1.125	0.02	0.843	0.948
	LTE Band 25	20M	QPSK	1RB	0Offset	Right Cheek	Bottom	Full	26590	1905	23.11	23.5	1.094	0.04	0.072	0.078
	LTE Band 25	20M	QPSK	1RB	0Offset	Right Tilted	Bottom	Full	26590	1905	23.11	23.5	1.094	0.02	0.039	0.043
	LTE Band 25	20M	QPSK	1RB	0Offset	Left Cheek	Bottom	Full	26590	1905	23.11	23.5	1.094	0.07	0.092	0.101
	LTE Band 25	20M	QPSK	1RB	0Offset	Left Tilted	Bottom	Full	26590	1905	23.11	23.5	1.094	0.01	0.045	0.050
	LTE Band 25	20M	QPSK	1RB	0Offset	Left Cheek	Bottom	Full	26140	1860	23.04	23.5	1.112	0.07	0.066	0.074
	LTE Band 25	20M	QPSK	1RB	0Offset	Left Cheek	Bottom	Full	26340	1880	23.08	23.5	1.102	0.01	0.065	0.071
	LTE Band 25	20M	QPSK	50RB	0Offset	Right Cheek	Bottom	Full	26590	1905	22.07	22.50	1.104	0.04	0.055	0.061
	LTE Band 25	20M	QPSK	50RB	0Offset	Right Tilted	Bottom	Full	26590	1905	22.07	22.50	1.104	0.07	0.029	0.032
	LTE Band 25	20M	QPSK	50RB	0Offset	Left Cheek	Bottom	Full	26590	1905	22.07	22.50	1.104	0.02	0.069	0.076
	LTE Band 25	20M	QPSK	50RB	0Offset	Left Tilted	Bottom	Full	26590	1905	22.07	22.50	1.104	0.06	0.034	0.038



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 30	10M	QPSK	1RB	25Offset	Right Cheek	Top	Reduced Level 1	27710	2310	18.83	19.00	1.040	0.07	1.120	1.165
	LTE Band 30	10M	QPSK	1RB	25Offset	Right Tilted	Top	Reduced Level 1	27710	2310	18.83	19.00	1.040	0.03	0.867	0.902
	LTE Band 30	10M	QPSK	1RB	25Offset	Left Cheek	Top	Reduced Level 1	27710	2310	18.83	19.00	1.040	0.01	0.307	0.319
	LTE Band 30	10M	QPSK	1RB	25Offset	Left Tilted	Top	Reduced Level 1	27710	2310	18.83	19.00	1.040	0.04	0.262	0.272
	LTE Band 30	10M	QPSK	25RB	0Offset	Right Cheek	Top	Reduced Level 1	27710	2310	18.65	19.00	1.084	0.01	1.160	1.257
	LTE Band 30	10M	QPSK	25RB	0Offset	Right Tilted	Top	Reduced Level 1	27710	2310	18.65	19.00	1.084	0.07	0.892	0.967
	LTE Band 30	10M	QPSK	25RB	0Offset	Left Cheek	Top	Reduced Level 1	27710	2310	18.65	19.00	1.084	0.06	0.288	0.312
	LTE Band 30	10M	QPSK	25RB	0Offset	Left Tilted	Top	Reduced Level 1	27710	2310	18.65	19.00	1.084	0.03	0.256	0.277
13	LTE Band 30	10M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 1	27710	2310	18.57	19.00	1.104	0.04	1.150	1.270
	LTE Band 30	10M	QPSK	50RB	0Offset	Right Tilted	Top	Reduced Level 1	27710	2310	18.57	19.00	1.104	0.02	0.861	0.951
	LTE Band 30	10M	QPSK	1RB	25Offset	Right Cheek	Top	Reduced Level 2	27710	2310	16.89	17.00	1.026	0.01	0.877	0.899
	LTE Band 30	10M	QPSK	1RB	25Offset	Right Tilted	Top	Reduced Level 2	27710	2310	16.89	17.00	1.026	0.05	0.652	0.669
	LTE Band 30	10M	QPSK	1RB	25Offset	Left Cheek	Top	Reduced Level 2	27710	2310	16.89	17.00	1.026	0.09	0.255	0.262
	LTE Band 30	10M	QPSK	1RB	25Offset	Left Tilted	Top	Reduced Level 2	27710	2310	16.89	17.00	1.026	0.07	0.189	0.194
	LTE Band 30	10M	QPSK	25RB	0Offset	Right Cheek	Top	Reduced Level 2	27710	2310	16.69	17.00	1.074	0.06	0.903	0.970
	LTE Band 30	10M	QPSK	25RB	0Offset	Right Tilted	Top	Reduced Level 2	27710	2310	16.69	17.00	1.074	0.04	0.674	0.724
	LTE Band 30	10M	QPSK	25RB	0Offset	Left Cheek	Top	Reduced Level 2	27710	2310	16.69	17.00	1.074	0.02	0.264	0.284
	LTE Band 30	10M	QPSK	25RB	0Offset	Left Tilted	Top	Reduced Level 2	27710	2310	16.69	17.00	1.074	0.07	0.193	0.207
	LTE Band 30	10M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 2	27710	2310	16.60	17.00	1.096	0.02	0.899	0.986
	LTE Band 30	10M	QPSK	1RB	25Offset	Right Cheek	Bottom	Full	27710	2310	22.51	23.00	1.119	0.06	0.012	0.014
	LTE Band 30	10M	QPSK	1RB	25Offset	Right Tilted	Bottom	Full	27710	2310	22.51	23.00	1.119	0.03	0.023	0.026
	LTE Band 30	10M	QPSK	1RB	25Offset	Left Cheek	Bottom	Full	27710	2310	22.51	23.00	1.119	0.04	0.115	0.129
	LTE Band 30	10M	QPSK	1RB	25Offset	Left Tilted	Bottom	Full	27710	2310	22.51	23.00	1.119	0.07	0.035	0.039
	LTE Band 30	10M	QPSK	25RB	0Offset	Right Cheek	Bottom	Full	27710	2310	21.53	22.00	1.114	0.11	<0.001	<0.001
	LTE Band 30	10M	QPSK	25RB	0Offset	Right Tilted	Bottom	Full	27710	2310	21.53	22.00	1.114	-0.02	<0.001	<0.001
	LTE Band 30	10M	QPSK	25RB	0Offset	Left Cheek	Bottom	Full	27710	2310	21.53	22.00	1.114	-0.06	0.094	0.104
	LTE Band 30	10M	QPSK	25RB	0Offset	Left Tilted	Bottom	Full	27710	2310	21.53	22.00	1.114	0.03	0.030	0.033



FCC SAR Test Report

Report No. : FA782510-01

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 7	20M	QPSK	1RB	0Offset	Right Cheek	Top	Reduced Level 1	21350	2560	17.93	18.00	1.016	0.07	0.991	1.007
	LTE Band 7	20M	QPSK	1RB	0Offset	Right Tilted	Top	Reduced Level 1	21350	2560	17.93	18.00	1.016	0.05	0.973	0.989
	LTE Band 7	20M	QPSK	1RB	0Offset	Left Cheek	Top	Reduced Level 1	21350	2560	17.93	18.00	1.016	0.04	0.277	0.282
	LTE Band 7	20M	QPSK	1RB	0Offset	Left Tilted	Top	Reduced Level 1	21350	2560	17.93	18.00	1.016	0.08	0.314	0.319
	LTE Band 7	20M	QPSK	1RB	0Offset	Right Cheek	Top	Reduced Level 1	20850	2510	17.55	18.00	1.109	0.02	1.070	1.187
	LTE Band 7	20M	QPSK	1RB	0Offset	Right Cheek	Top	Reduced Level 1	21100	2535	17.60	18.00	1.096	0.13	1.030	1.129
	LTE Band 7	20M	QPSK	1RB	0Offset	Right Tilted	Top	Reduced Level 1	20850	2510	17.55	18.00	1.109	0.05	1.030	1.142
	LTE Band 7	20M	QPSK	1RB	0Offset	Right Tilted	Top	Reduced Level 1	21100	2535	17.60	18.00	1.096	-0.13	1.010	1.107
	LTE Band 7	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 1	21350	2560	17.64	18.00	1.086	0.05	0.975	1.059
	LTE Band 7	20M	QPSK	50RB	0Offset	Right Tilted	Top	Reduced Level 1	21350	2560	17.64	18.00	1.086	0.05	0.957	1.040
	LTE Band 7	20M	QPSK	50RB	0Offset	Left Cheek	Top	Reduced Level 1	21350	2560	17.64	18.00	1.086	0.06	0.263	0.286
	LTE Band 7	20M	QPSK	50RB	0Offset	Left Tilted	Top	Reduced Level 1	21350	2560	17.64	18.00	1.086	0.08	0.302	0.328
14	LTE Band 7	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 1	20850	2510	17.42	18.00	1.143	0.05	1.070	1.223
	LTE Band 7	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 1	21100	2535	17.62	18.00	1.091	0.06	1.040	1.135
	LTE Band 7	20M	QPSK	50RB	0Offset	Right Tilted	Top	Reduced Level 1	20850	2510	17.42	18.00	1.143	0.03	0.996	1.138
	LTE Band 7	20M	QPSK	50RB	0Offset	Right Tilted	Top	Reduced Level 1	21100	2535	17.62	18.00	1.091	0.14	1.010	1.102
	LTE Band 7	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 1	20850(PCC) + 21048(SCC)	2510(PCC) + 2529.8(SCC)	17.58	18.00	1.102	-0.05	1.020	1.124
	LTE Band 7	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 1	21100(PCC) + 20902(SCC)	2535(PCC) + 2515.2(SCC)	17.90	18.00	1.023	0.12	1.070	1.095
	LTE Band 7	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 1	21152(PCC) + 21350(SCC)	2540.2(PCC) + 2560(SCC)	17.83	18.00	1.040	0.05	1.030	1.071
	LTE Band 7	20M	QPSK	100RB	0Offset	Right Cheek	Top	Reduced Level 1	21350	2560	17.65	18.00	1.084	0.01	1.010	1.095
	LTE Band 7	20M	QPSK	100RB	0Offset	Right Tilted	Top	Reduced Level 1	21350	2560	17.65	18.00	1.084	0.06	0.958	1.038



FCC SAR Test Report

Report No. : FA782510-01

LTE Band 7	20M	QPSK	1RB	0Offset	Right Cheek	Top	Reduced Level 2	21350	2560	15.79	16.00	1.050	0.03	0.917	0.962
LTE Band 7	20M	QPSK	1RB	0Offset	Right Tilted	Top	Reduced Level 2	21350	2560	15.79	16.00	1.050	0.04	0.754	0.791
LTE Band 7	20M	QPSK	1RB	0Offset	Left Cheek	Top	Reduced Level 2	21350	2560	15.79	16.00	1.050	0.02	0.199	0.209
LTE Band 7	20M	QPSK	1RB	0Offset	Left Tilted	Top	Reduced Level 2	21350	2560	15.79	16.00	1.050	0.08	0.288	0.302
LTE Band 7	20M	QPSK	1RB	0Offset	Right Cheek	Top	Reduced Level 2	20850	2510	15.50	16.00	1.122	0.04	0.911	1.022
LTE Band 7	20M	QPSK	1RB	0Offset	Right Cheek	Top	Reduced Level 2	21100	2535	15.74	16.00	1.062	0.05	0.872	0.926
LTE Band 7	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 2	21350	2560	15.70	16.00	1.072	0.03	0.807	0.865
LTE Band 7	20M	QPSK	50RB	0Offset	Right Tilted	Top	Reduced Level 2	21350	2560	15.70	16.00	1.072	0.02	0.636	0.681
LTE Band 7	20M	QPSK	50RB	0Offset	Left Cheek	Top	Reduced Level 2	21350	2560	15.70	16.00	1.072	0.08	0.204	0.219
LTE Band 7	20M	QPSK	50RB	0Offset	Left Tilted	Top	Reduced Level 2	21350	2560	15.70	16.00	1.072	0.03	0.219	0.235
LTE Band 7	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 2	20850	2510	15.41	16.00	1.146	0.05	0.897	1.028
LTE Band 7	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 2	21100	2535	15.68	16.00	1.076	0.02	0.874	0.941
LTE Band 7	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 2	20850(PCC) + 21048(SCC)	2510(PCC) + 2529.8(SCC)	15.67	16.00	1.079	0.07	0.942	1.016
LTE Band 7	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 2	21100(PCC) + 20902(SCC)	2535(PCC) + 2515.2(SCC)	15.30	16.00	1.175	-0.01	0.791	0.929
LTE Band 7	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 2	21152(PCC) + 21350(SCC)	2540.2(PCC) + 2560 (SCC)	15.97	16.00	1.007	0.08	1.010	1.017
LTE Band 7	20M	QPSK	100RB	0Offset	Right Cheek	Top	Reduced Level 2	21350	2560	15.57	16.00	1.104	0.03	0.863	0.953
LTE Band 7	20M	QPSK	1RB	0Offset	Right Cheek	Bottom	Full	21350	2560	23.17	23.50	1.079	0.04	0.033	0.035
LTE Band 7	20M	QPSK	1RB	0Offset	Right Tilted	Bottom	Full	21350	2560	23.17	23.50	1.079	0.02	0.023	0.025
LTE Band 7	20M	QPSK	1RB	0Offset	Left Cheek	Bottom	Full	21350	2560	23.17	23.50	1.079	0.08	0.063	0.068
LTE Band 7	20M	QPSK	1RB	0Offset	Left Tilted	Bottom	Full	21350	2560	23.17	23.50	1.079	0.09	0.019	0.021
LTE Band 7	20M	QPSK	1RB	0Offset	Left Cheek	Bottom	Full	20850	2510	22.92	23.50	1.143	0.08	0.077	0.088
LTE Band 7	20M	QPSK	1RB	0Offset	Left Cheek	Bottom	Full	21100	2535	23.13	23.50	1.089	0.06	0.089	0.097
LTE Band 7	20M	QPSK	1RB	0Offset	Left Cheek	Bottom	Full	21100(PCC) + 20902(SCC)	2535(PCC) + 2515.2(SCC)	23.42	23.50	1.019	0.08	0.086	0.088
LTE Band 7	20M	QPSK	50RB	0Offset	Right Cheek	Bottom	Full	21350	2560	22.19	22.50	1.074	0.04	0.028	0.030
LTE Band 7	20M	QPSK	50RB	0Offset	Right Tilted	Bottom	Full	21350	2560	22.19	22.50	1.074	0.03	0.011	0.012
LTE Band 7	20M	QPSK	50RB	0Offset	Left Cheek	Bottom	Full	21350	2560	22.19	22.50	1.074	0.07	0.050	0.053
LTE Band 7	20M	QPSK	50RB	0Offset	Left Tilted	Bottom	Full	21350	2560	22.19	22.50	1.074	0.06	0.013	0.014



<TDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 41	20M	QPSK	1RB	49Offset	Right Cheek	Top	Reduced Level 1	41490	2680	19.38	19.50	1.028	62.9	1.006	0.04	0.819	0.847
	LTE Band 41	20M	QPSK	1RB	49Offset	Right Tilted	Top	Reduced Level 1	41490	2680	19.38	19.50	1.028	62.9	1.006	0.05	0.782	0.809
	LTE Band 41	20M	QPSK	1RB	49Offset	Left Cheek	Top	Reduced Level 1	41490	2680	19.38	19.50	1.028	62.9	1.006	0.07	0.411	0.425
	LTE Band 41	20M	QPSK	1RB	49Offset	Left Tilted	Top	Reduced Level 1	41490	2680	19.38	19.50	1.028	62.9	1.006	0.03	0.506	0.523
	LTE Band 41	20M	QPSK	1RB	49Offset	Right Cheek	Top	Reduced Level 1	39750	2506	18.93	19.50	1.140	62.9	1.006	0.08	1.170	1.342
	LTE Band 41	20M	QPSK	1RB	49Offset	Right Cheek	Top	Reduced Level 1	40185	2549.5	19.21	19.50	1.069	62.9	1.006	0.05	1.090	1.172
	LTE Band 41	20M	QPSK	1RB	49Offset	Right Cheek	Top	Reduced Level 1	40620	2593	18.92	19.50	1.143	62.9	1.006	0.04	1.020	1.173
	LTE Band 41	20M	QPSK	1RB	49Offset	Right Cheek	Top	Reduced Level 1	41055	2636.5	18.99	19.50	1.125	62.9	1.006	0.07	0.810	0.916
	LTE Band 41	20M	QPSK	1RB	49Offset	Right Tilted	Top	Reduced Level 1	39750	2506	18.93	19.50	1.140	62.9	1.006	-0.11	1.040	1.193
	LTE Band 41	20M	QPSK	1RB	49Offset	Right Tilted	Top	Reduced Level 1	40185	2549.5	19.21	19.50	1.069	62.9	1.006	-0.02	1.040	1.118
	LTE Band 41	20M	QPSK	1RB	49Offset	Right Tilted	Top	Reduced Level 1	40620	2593	18.92	19.50	1.143	62.9	1.006	0.07	0.964	1.108
	LTE Band 41	20M	QPSK	1RB	49Offset	Right Tilted	Top	Reduced Level 1	41055	2636.5	18.99	19.50	1.125	62.9	1.006	0.06	0.852	0.964
	LTE Band 41	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 1	41490	2680	19.19	19.50	1.074	62.9	1.006	-0.05	0.850	0.918
	LTE Band 41	20M	QPSK	50RB	0Offset	Right Tilted	Top	Reduced Level 1	41490	2680	19.19	19.50	1.074	62.9	1.006	0.01	0.799	0.863
	LTE Band 41	20M	QPSK	50RB	0Offset	Left Cheek	Top	Reduced Level 1	41490	2680	19.19	19.50	1.074	62.9	1.006	0.07	0.370	0.400
	LTE Band 41	20M	QPSK	50RB	0Offset	Left Tilted	Top	Reduced Level 1	41490	2680	19.19	19.50	1.074	62.9	1.006	0.02	0.413	0.446
15	LTE Band 41	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 1	39750	2506	19.01	19.50	1.119	62.9	1.006	0.02	1.220	1.374
	LTE Band 41	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 1	40185	2549.5	19.18	19.50	1.076	62.9	1.006	0.02	1.130	1.224
	LTE Band 41	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 1	40620	2593	18.92	19.50	1.143	62.9	1.006	-0.18	1.070	1.230
	LTE Band 41	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 1	41055	2636.5	19.08	19.50	1.102	62.9	1.006	-0.01	0.946	1.048
	LTE Band 41	20M	QPSK	50RB	0Offset	Right Tilted	Top	Reduced Level 1	39750	2506	19.01	19.50	1.119	62.9	1.006	0.08	1.065	1.199
	LTE Band 41	20M	QPSK	50RB	0Offset	Right Tilted	Top	Reduced Level 1	40185	2549.5	19.18	19.50	1.076	62.9	1.006	0.06	1.040	1.126
	LTE Band 41	20M	QPSK	50RB	0Offset	Right Tilted	Top	Reduced Level 1	40620	2593	18.92	19.50	1.143	62.9	1.006	0.02	0.974	1.120
	LTE Band 41	20M	QPSK	50RB	0Offset	Right Tilted	Top	Reduced Level 1	41055	2636.5	19.08	19.50	1.102	62.9	1.006	0.04	0.882	0.977
	LTE Band 41	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 1	39750(PCC) + 39948(SCC)	2506(PCC) + 2525.8(SCC)	19.47	19.50	1.007	62.9	1.006	0.02	1.180	1.195
	LTE Band 41	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 1	40185(PCC) + 40383(SCC)	2549.5(PCC) + 2569.3(SCC)	19.46	19.50	1.009	62.9	1.006	0.09	1.180	1.198
	LTE Band 41	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 1	40620(PCC) + 40818(SCC)	2593(PCC) + 2612.8(SCC)	19.45	19.50	1.012	62.9	1.006	-0.07	0.879	0.895
	LTE Band 41	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 1	41055(PCC) + 41253(SCC)	2636.5(PCC) + 2656.3(SCC)	19.20	19.50	1.072	62.9	1.006	0.04	0.645	0.695
	LTE Band 41	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 1	41292(PCC) + 41490(SCC)	2660.2(PCC) + 2680(SCC)	18.89	19.50	1.151	62.9	1.006	0.11	0.624	0.722
	LTE Band 41	20M	QPSK	100RB	0Offset	Right Cheek	Top	Reduced Level 1	41490	2680	19.07	19.50	1.104	62.9	1.006	-0.08	0.843	0.936
	LTE Band 41	20M	QPSK	100RB	0Offset	Right Tilted	Top	Reduced Level 1	41490	2680	19.07	19.50	1.104	62.9	1.006	0.05	0.801	0.890



FCC SAR Test Report

Report No. : FA782510-01

LTE Band 41	20M	QPSK	1RB	49Offset	Right Cheek	Top	Reduced Level 2	41490	2680	18.25	18.50	1.059	62.9	1.006	0.01	0.579	0.617
LTE Band 41	20M	QPSK	1RB	49Offset	Right Tilted	Top	Reduced Level 2	41490	2680	18.25	18.50	1.059	62.9	1.006	0.06	0.550	0.586
LTE Band 41	20M	QPSK	1RB	49Offset	Left Cheek	Top	Reduced Level 2	41490	2680	18.25	18.50	1.059	62.9	1.006	0.08	0.114	0.121
LTE Band 41	20M	QPSK	1RB	49Offset	Left Tilted	Top	Reduced Level 2	41490	2680	18.25	18.50	1.059	62.9	1.006	0.04	0.135	0.144
LTE Band 41	20M	QPSK	1RB	49Offset	Right Cheek	Top	Reduced Level 2	39750	2506	17.48	18.50	1.265	62.9	1.006	-0.02	0.799	1.017
LTE Band 41	20M	QPSK	1RB	49Offset	Right Cheek	Top	Reduced Level 2	40185	2549.5	17.54	18.50	1.247	62.9	1.006	0.01	0.759	0.952
LTE Band 41	20M	QPSK	1RB	49Offset	Right Cheek	Top	Reduced Level 2	40620	2593	17.46	18.50	1.271	62.9	1.006	0.08	0.693	0.886
LTE Band 41	20M	QPSK	1RB	49Offset	Right Cheek	Top	Reduced Level 2	41055	2636.5	17.51	18.50	1.256	62.9	1.006	-0.05	0.629	0.795
LTE Band 41	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 2	41490	2680	18.32	18.50	1.042	62.9	1.006	0.01	0.608	0.638
LTE Band 41	20M	QPSK	50RB	0Offset	Right Tilted	Top	Reduced Level 2	41490	2680	18.32	18.50	1.042	62.9	1.006	0.03	0.570	0.598
LTE Band 41	20M	QPSK	50RB	0Offset	Left Cheek	Top	Reduced Level 2	41490	2680	18.32	18.50	1.042	62.9	1.006	0.04	0.121	0.127
LTE Band 41	20M	QPSK	50RB	0Offset	Left Tilted	Top	Reduced Level 2	41490	2680	18.32	18.50	1.042	62.9	1.006	0.07	0.137	0.144
LTE Band 41	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 2	39750	2506	17.54	18.50	1.247	62.9	1.006	-0.01	0.832	1.044
LTE Band 41	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 2	40185	2549.5	17.78	18.50	1.180	62.9	1.006	0.04	0.760	0.902
LTE Band 41	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 2	40620	2593	17.50	18.50	1.259	62.9	1.006	0.03	0.722	0.914
LTE Band 41	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 2	41055	2636.5	17.62	18.50	1.225	62.9	1.006	0.05	0.658	0.811
LTE Band 41	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 2	39750(PCC) + 39948(SCC)	2506(PCC) + 2525.8(SCC)	17.62	18.50	1.225	62.9	1.006	-0.06	0.847	1.043
LTE Band 41	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 2	40185(PCC) + 40383(SCC)	2549.5(PCC) + 2569.3(SCC)	17.58	18.50	1.236	62.9	1.006	0.13	0.839	1.043
LTE Band 41	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 2	40620(PCC) + 40818(SCC)	2593(PCC) + 2612.8(SCC)	17.57	18.50	1.239	62.9	1.006	0.04	0.670	0.835
LTE Band 41	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 2	41055(PCC) + 41253(SCC)	2636.5(PCC) + 2656.3(SCC)	17.30	18.50	1.318	62.9	1.006	-0.02	0.484	0.642
LTE Band 41	20M	QPSK	50RB	0Offset	Right Cheek	Top	Reduced Level 2	41292(PCC) + 41490(SCC)	2660.2(PCC) + 2680(SCC)	17.16	18.50	1.361	62.9	1.006	0.07	0.473	0.648
LTE Band 41	20M	QPSK	100RB	0Offset	Right Cheek	Top	Reduced Level 2	41490	2680	17.73	18.50	1.250	62.9	1.006	0.04	0.589	0.707
LTE Band 41	20M	QPSK	1RB	49Offset	Right Cheek	Bottom	Full	41490	2680	23.30	23.50	1.047	62.9	1.006	0.03	0.018	0.019
LTE Band 41	20M	QPSK	1RB	49Offset	Right Tilted	Bottom	Full	41490	2680	23.30	23.50	1.047	62.9	1.006	0.02	0.011	0.012
LTE Band 41	20M	QPSK	1RB	49Offset	Left Cheek	Bottom	Full	41490	2680	23.30	23.50	1.047	62.9	1.006	0.07	0.053	0.055
LTE Band 41	20M	QPSK	1RB	49Offset	Left Tilted	Bottom	Full	41490	2680	23.30	23.50	1.047	62.9	1.006	0.06	0.017	0.018
LTE Band 41	20M	QPSK	1RB	49Offset	Left Cheek	Bottom	Full	39750	2506	23.04	23.50	1.112	62.9	1.006	-0.04	0.064	0.072
LTE Band 41	20M	QPSK	1RB	49Offset	Left Cheek	Bottom	Full	40185	2549.5	23.17	23.50	1.079	62.9	1.006	0.03	0.058	0.063
LTE Band 41	20M	QPSK	1RB	49Offset	Left Cheek	Bottom	Full	40620	2593	22.86	23.50	1.159	62.9	1.006	0.09	0.052	0.061
LTE Band 41	20M	QPSK	1RB	49Offset	Left Cheek	Bottom	Full	41055	2636.5	22.82	23.50	1.169	62.9	1.006	0.07	0.031	0.037
LTE Band 41	20M	QPSK	50RB	0Offset	Right Cheek	Bottom	Full	41490	2680	22.19	22.50	1.074	62.9	1.006	0.03	0.019	0.020
LTE Band 41	20M	QPSK	50RB	0Offset	Right Tilted	Bottom	Full	41490	2680	22.19	22.50	1.074	62.9	1.006	0.05	0.010	0.010
LTE Band 41	20M	QPSK	50RB	0Offset	Left Cheek	Bottom	Full	41490	2680	22.19	22.50	1.074	62.9	1.006	0.07	0.050	0.054
LTE Band 41	20M	QPSK	50RB	0Offset	Left Tilted	Bottom	Full	41490	2680	22.19	22.50	1.074	62.9	1.006	0.09	0.015	0.016
LTE Band 41	20M	QPSK	1RB	49Offset	Left Cheek	Bottom	Full	39750(PCC) + 39948(SCC)	2506(PCC) + 2525.8(SCC)	23.06	23.50	1.107	62.9	1.006	0.04	0.064	0.071



<WLAN 2.4GHz SAR>

Plot No.	Band	Mode	Test Position	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	Ant.1	Full	11	2462	17.26	17.50	1.057	99.31	1.007	0.14	0.236	0.251
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	Ant.1	Full	11	2462	17.26	17.50	1.057	99.31	1.007	0.12	0.280	0.298
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Ant.1	Full	11	2462	17.26	17.50	1.057	99.31	1.007	0.17	0.954	1.015
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	Ant.1	Full	11	2462	17.26	17.50	1.057	99.31	1.007	0.03	0.944	1.005
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Ant.1	Full	1	2412	16.91	17.50	1.146	99.31	1.007	0.14	0.927	1.069
16	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Ant.1	Full	6	2437	16.92	17.50	1.143	99.31	1.007	0.04	1.000	1.151
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	Ant.1	Full	1	2412	16.91	17.50	1.146	99.31	1.007	0.04	0.901	1.039
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	Ant.1	Full	6	2437	16.92	17.50	1.143	99.31	1.007	0.01	0.954	1.098
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	Ant.1	Reduced	11	2462	12.32	12.50	1.042	99.31	1.007	0.09	0.067	0.071
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	Ant.1	Reduced	11	2462	12.32	12.50	1.042	99.31	1.007	0.09	0.073	0.077
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Ant.1	Reduced	11	2462	12.32	12.50	1.042	99.31	1.007	0.01	0.295	0.310
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	Ant.1	Reduced	11	2462	12.32	12.50	1.042	99.31	1.007	0.05	0.284	0.298
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Ant.1	Reduced	1	2412	11.75	12.50	1.189	99.31	1.007	0.01	0.260	0.311
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Ant.1	Reduced	6	2437	11.79	12.50	1.178	99.31	1.007	0.06	0.283	0.336
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	Ant.2	Full	11	2462	14.48	15.00	1.127	99.10	1.009	-0.01	0.377	0.429
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	Ant.2	Full	11	2462	14.48	15.00	1.127	99.10	1.009	0.12	0.364	0.414
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Ant.2	Full	11	2462	14.48	15.00	1.127	99.10	1.009	0.15	0.132	0.150
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	Ant.2	Full	11	2462	14.48	15.00	1.127	99.10	1.009	0.17	0.144	0.164
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	Ant.2	Full	1	2412	13.93	15.00	1.279	99.10	1.009	0.07	0.290	0.374
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	Ant.2	Full	6	2437	14.41	15.00	1.146	99.10	1.009	0.06	0.304	0.351



<WLAN 5GHz SAR>

Plot No.	Band	Mode	Test Position	Antenna	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)
	WLAN5.3GHz	802.11a 6Mbps	Right Cheek	Ant. 1+2	Full	52	5260	17.93	18.50	1.140	95.00	1.053	-0.15	0.601	0.722
	WLAN5.3GHz	802.11a 6Mbps	Right Tilted	Ant. 1+2	Full	52	5260	17.93	18.50	1.140	95.00	1.053	0.08	0.536	0.644
	WLAN5.3GHz	802.11a 6Mbps	Left Cheek	Ant. 1+2	Full	52	5260	17.93	18.50	1.140	95.00	1.053	-0.06	0.821	0.986
	WLAN5.3GHz	802.11a 6Mbps	Left Tilted	Ant. 1+2	Full	52	5260	17.93	18.50	1.140	95.00	1.053	-0.02	0.715	0.858
17	WLAN5.3GHz	802.11a 6Mbps	Left Cheek	Ant. 1+2	Full	56	5280	17.85	18.50	1.161	95.00	1.053	-0.07	0.863	1.055
	WLAN5.3GHz	802.11a 6Mbps	Left Cheek	Ant. 1+2	Full	60	5300	17.70	18.50	1.202	95.00	1.053	-0.08	0.756	0.957
	WLAN5.3GHz	802.11a 6Mbps	Left Cheek	Ant. 1+2	Full	64	5320	17.59	18.50	1.233	95.00	1.053	0.01	0.673	0.874
	WLAN5.3GHz	802.11a 6Mbps	Left Tilted	Ant. 1+2	Full	56	5280	17.85	18.50	1.161	95.00	1.053	-0.12	0.575	0.703
	WLAN5.3GHz	802.11a 6Mbps	Left Tilted	Ant. 1+2	Full	60	5300	17.70	18.50	1.202	95.00	1.053	-0.12	0.633	0.801
	WLAN5.3GHz	802.11a 6Mbps	Left Tilted	Ant. 1+2	Full	64	5320	17.59	18.50	1.233	95.00	1.053	-0.15	0.591	0.767
	WLAN5.3GHz	802.11a 6Mbps	Right Cheek	Ant. 1+2	Reduced	52	5260	13.80	14.00	1.047	95.00	1.053	0.09	0.166	0.183
	WLAN5.3GHz	802.11a 6Mbps	Right Tilted	Ant. 1+2	Reduced	52	5260	13.80	14.00	1.047	95.00	1.053	-0.04	0.148	0.163
	WLAN5.3GHz	802.11a 6Mbps	Left Cheek	Ant. 1+2	Reduced	52	5260	13.80	14.00	1.047	95.00	1.053	0.13	0.239	0.264
	WLAN5.3GHz	802.11a 6Mbps	Left Tilted	Ant. 1+2	Reduced	52	5260	13.80	14.00	1.047	95.00	1.053	0.09	0.236	0.260
	WLAN5.3GHz	802.11a 6Mbps	Left Cheek	Ant. 1+2	Reduced	56	5280	13.72	14.00	1.067	95.00	1.053	0.01	0.233	0.262
	WLAN5.3GHz	802.11a 6Mbps	Left Cheek	Ant. 1+2	Reduced	60	5300	13.67	14.00	1.079	95.00	1.053	0.18	0.264	0.300
	WLAN5.3GHz	802.11a 6Mbps	Left Cheek	Ant. 1+2	Reduced	64	5320	13.44	14.00	1.138	95.00	1.053	0.17	0.231	0.277
	WLAN5.5GHz	802.11a 6Mbps	Right Cheek	Ant. 1+2	Full	100	5500	17.90	18.50	1.148	95.00	1.053	-0.14	0.403	0.487
	WLAN5.5GHz	802.11a 6Mbps	Right Tilted	Ant. 1+2	Full	100	5500	17.90	18.50	1.148	95.00	1.053	-0.07	0.454	0.549
	WLAN5.5GHz	802.11a 6Mbps	Left Cheek	Ant. 1+2	Full	100	5500	17.90	18.50	1.148	95.00	1.053	-0.11	0.918	1.110
	WLAN5.5GHz	802.11a 6Mbps	Left Tilted	Ant. 1+2	Full	100	5500	17.90	18.50	1.148	95.00	1.053	-0.07	0.780	0.943
	WLAN5.5GHz	802.11a 6Mbps	Left Cheek	Ant. 1+2	Full	116	5580	17.70	18.50	1.204	95.00	1.053	-0.14	0.906	1.148
	WLAN5.5GHz	802.11a 6Mbps	Left Cheek	Ant. 1+2	Full	132	5660	17.60	18.50	1.230	95.00	1.053	-0.07	0.924	1.197
18	WLAN5.5GHz	802.11a 6Mbps	Left Cheek	Ant. 1+2	Full	140	5700	17.54	18.50	1.246	95.00	1.053	-0.08	0.913	1.198
	WLAN5.5GHz	802.11a 6Mbps	Left Tilted	Ant. 1+2	Full	116	5580	17.70	18.50	1.204	95.00	1.053	-0.09	0.793	1.005
	WLAN5.5GHz	802.11a 6Mbps	Left Tilted	Ant. 1+2	Full	132	5660	17.60	18.50	1.230	95.00	1.053	-0.06	0.721	0.934
	WLAN5.5GHz	802.11a 6Mbps	Left Tilted	Ant. 1+2	Full	140	5700	17.54	18.50	1.246	95.00	1.053	0.08	0.792	1.039
	WLAN5.5GHz	802.11a 6Mbps	Right Cheek	Ant. 1+2	Reduced	100	5500	13.81	14.00	1.045	95.00	1.053	-0.05	0.084	0.092
	WLAN5.5GHz	802.11a 6Mbps	Right Tilted	Ant. 1+2	Reduced	100	5500	13.81	14.00	1.045	95.00	1.053	0.02	0.084	0.092
	WLAN5.5GHz	802.11a 6Mbps	Left Cheek	Ant. 1+2	Reduced	100	5500	13.81	14.00	1.045	95.00	1.053	0.07	0.197	0.217
	WLAN5.5GHz	802.11a 6Mbps	Left Tilted	Ant. 1+2	Reduced	100	5500	13.81	14.00	1.045	95.00	1.053	0.04	0.184	0.202
	WLAN5.5GHz	802.11a 6Mbps	Left Cheek	Ant. 1+2	Reduced	116	5580	13.70	14.00	1.072	95.00	1.053	-0.17	0.252	0.284
	WLAN5.5GHz	802.11a 6Mbps	Left Cheek	Ant. 1+2	Reduced	132	5660	13.60	14.00	1.096	95.00	1.053	-0.06	0.238	0.275
	WLAN5.5GHz	802.11a 6Mbps	Left Cheek	Ant. 1+2	Reduced	140	5700	13.59	14.00	1.099	95.00	1.053	-0.02	0.258	0.299



Plot No.	Band	Mode	Test Position	Antenna	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)
	WLAN5.8GHz	802.11a 6Mbps	Right Cheek	Ant.1+2	Full	165	5825	17.97	18.50	1.130	95.00	1.053	-0.15	0.314	0.374
	WLAN5.8GHz	802.11a 6Mbps	Right Tilted	Ant.1+2	Full	165	5825	17.97	18.50	1.130	95.00	1.053	0.18	0.317	0.377
19	WLAN5.8GHz	802.11a 6Mbps	Left Cheek	Ant.1+2	Full	165	5825	17.97	18.50	1.130	95.00	1.053	-0.06	1.040	1.237
	WLAN5.8GHz	802.11a 6Mbps	Left Tilted	Ant.1+2	Full	165	5825	17.97	18.50	1.130	95.00	1.053	-0.11	0.873	1.039
	WLAN5.8GHz	802.11a 6Mbps	Left Cheek	Ant.1+2	Full	149	5745	17.65	18.50	1.216	95.00	1.053	-0.14	0.929	1.190
	WLAN5.8GHz	802.11a 6Mbps	Left Cheek	Ant.1+2	Full	157	5785	17.95	18.50	1.135	95.00	1.053	-0.05	0.801	0.957
	WLAN5.8GHz	802.11a 6Mbps	Left Tilted	Ant.1+2	Full	149	5745	17.65	18.50	1.216	95.00	1.053	-0.01	0.855	1.095
	WLAN5.8GHz	802.11a 6Mbps	Left Tilted	Ant.1+2	Full	157	5785	17.95	18.50	1.135	95.00	1.053	-0.1	0.943	1.127
	WLAN5.8GHz	802.11a 6Mbps	Right Cheek	Ant.1+2	Reduced	157	5785	13.79	14.00	1.050	95.00	1.053	0.07	0.039	0.043
	WLAN5.8GHz	802.11a 6Mbps	Right Tilted	Ant.1+2	Reduced	157	5785	13.79	14.00	1.050	95.00	1.053	0.13	0.071	0.078
	WLAN5.8GHz	802.11a 6Mbps	Left Cheek	Ant.1+2	Reduced	157	5785	13.79	14.00	1.050	95.00	1.053	-0.07	0.274	0.303
	WLAN5.8GHz	802.11a 6Mbps	Left Tilted	Ant.1+2	Reduced	157	5785	13.79	14.00	1.050	95.00	1.053	-0.16	0.205	0.227
	WLAN5.8GHz	802.11a 6Mbps	Left Cheek	Ant.1+2	Reduced	149	5745	13.22	14.00	1.197	95.00	1.053	0.01	0.241	0.304
	WLAN5.8GHz	802.11a 6Mbps	Left Cheek	Ant.1+2	Reduced	165	5825	13.36	14.00	1.159	95.00	1.053	-0.05	0.221	0.270



14.2 Hotspot SAR

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	GSM850	GPRS(3 Tx slots)	Front	10	Top	Full	189	836.4	29.01	29.50	1.119	0.08	0.545	0.610
	GSM850	GPRS(3 Tx slots)	Back	10	Top	Full	189	836.4	29.01	29.50	1.119	0.06	0.520	0.582
	GSM850	GPRS(3 Tx slots)	Left Side	10	Top	Full	189	836.4	29.01	29.50	1.119	0.07	0.205	0.229
20	GSM850	GPRS(3 Tx slots)	Top Side	10	Top	Full	189	836.4	29.01	29.50	1.119	-0.06	0.563	0.630
	GSM850	GPRS(3 Tx slots)	Top Side	10	Top	Full	128	824.2	28.81	29.50	1.172	-0.03	0.385	0.451
	GSM850	GPRS(3 Tx slots)	Top Side	10	Top	Full	251	848.8	28.85	29.50	1.161	-0.04	0.473	0.549
	GSM850	GPRS(3 Tx slots)	Front	10	Bottom	Full	189	836.4	29.01	29.50	1.119	0.13	0.313	0.350
	GSM850	GPRS(3 Tx slots)	Back	10	Bottom	Full	189	836.4	29.01	29.50	1.119	0.04	0.357	0.400
	GSM850	GPRS(3 Tx slots)	Left Side	10	Bottom	Full	189	836.4	29.01	29.50	1.119	0.01	0.383	0.429
	GSM850	GPRS(3 Tx slots)	Right Side	10	Bottom	Full	189	836.4	29.01	29.50	1.119	-0.05	0.261	0.292
	GSM850	GPRS(3 Tx slots)	Bottom Side	10	Bottom	Full	189	836.4	29.01	29.50	1.119	-0.06	0.310	0.347
	GSM850	GPRS(3 Tx slots)	Left Side	10	Bottom	Full	128	824.2	28.81	29.50	1.172	-0.08	0.302	0.354
	GSM850	GPRS(3 Tx slots)	Left Side	10	Bottom	Full	251	848.8	28.85	29.50	1.161	0.05	0.333	0.387
	GSM1900	GPRS(3 Tx slots)	Front	10	Top	Full	661	1880	26.74	27.00	1.062	0.07	0.407	0.432
	GSM1900	GPRS(3 Tx slots)	Back	10	Top	Full	661	1880	26.74	27.00	1.062	0.03	0.275	0.292
	GSM1900	GPRS(3 Tx slots)	Left Side	10	Top	Full	661	1880	26.74	27.00	1.062	0.06	0.321	0.341
	GSM1900	GPRS(3 Tx slots)	Top Side	10	Top	Full	661	1880	26.74	27.00	1.062	-0.05	0.409	0.434
	GSM1900	GPRS(3 Tx slots)	Top Side	10	Top	Full	512	1850.2	26.62	27.00	1.091	-0.05	0.399	0.435
	GSM1900	GPRS(3 Tx slots)	Top Side	10	Top	Full	810	1909.8	26.72	27.00	1.067	-0.02	0.443	0.473
	GSM1900	GPRS(3 Tx slots)	Front	10	Bottom	Hotspot On	661	1880	25.74	26.00	1.062	-0.07	0.580	0.616
	GSM1900	GPRS(3 Tx slots)	Back	10	Bottom	Hotspot On	661	1880	25.74	26.00	1.062	-0.02	0.535	0.568
	GSM1900	GPRS(3 Tx slots)	Left Side	10	Bottom	Hotspot On	661	1880	25.74	26.00	1.062	0.05	0.071	0.075
	GSM1900	GPRS(3 Tx slots)	Right Side	10	Bottom	Hotspot On	661	1880	25.74	26.00	1.062	0.09	0.056	0.059
	GSM1900	GPRS(3 Tx slots)	Bottom Side	10	Bottom	Hotspot On	661	1880	25.74	26.00	1.062	-0.02	0.596	0.633
21	GSM1900	GPRS(3 Tx slots)	Bottom Side	10	Bottom	Hotspot On	512	1850.2	25.61	26.00	1.094	-0.06	0.872	0.954
	GSM1900	GPRS(3 Tx slots)	Bottom Side	10	Bottom	Hotspot On	810	1909.8	25.72	26.00	1.067	-0.03	0.743	0.792



<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA Band V	RMC 12.2Kbps	Front	10	Top	Full	4233	846.6	23.15	23.50	1.084	-0.01	0.676	0.733
	WCDMA Band V	RMC 12.2Kbps	Back	10	Top	Full	4233	846.6	23.15	23.50	1.084	-0.01	0.613	0.664
	WCDMA Band V	RMC 12.2Kbps	Left Side	10	Top	Full	4233	846.6	23.15	23.50	1.084	0.01	0.264	0.286
	WCDMA Band V	RMC 12.2Kbps	Top Side	10	Top	Full	4233	846.6	23.15	23.50	1.084	0.02	0.592	0.642
22	WCDMA Band V	RMC 12.2Kbps	Front	10	Top	Full	4132	826.4	22.96	23.50	1.132	0.01	0.681	0.771
	WCDMA Band V	RMC 12.2Kbps	Front	10	Top	Full	4182	836.4	23.07	23.50	1.104	-0.06	0.673	0.743
	WCDMA Band V	RMC 12.2Kbps	Front	10	Bottom	Full	4233	846.6	23.15	23.50	1.084	-0.09	0.238	0.258
	WCDMA Band V	RMC 12.2Kbps	Back	10	Bottom	Full	4233	846.6	23.15	23.50	1.084	-0.04	0.263	0.285
	WCDMA Band V	RMC 12.2Kbps	Left Side	10	Bottom	Full	4233	846.6	23.15	23.50	1.084	-0.07	0.368	0.399
	WCDMA Band V	RMC 12.2Kbps	Right Side	10	Bottom	Full	4233	846.6	23.15	23.50	1.084	-0.03	0.225	0.244
	WCDMA Band V	RMC 12.2Kbps	Bottom Side	10	Bottom	Full	4233	846.6	23.15	23.50	1.084	0.01	0.251	0.272
	WCDMA Band V	RMC 12.2Kbps	Left Side	10	Bottom	Full	4132	826.4	22.96	23.50	1.132	-0.08	0.282	0.319
	WCDMA Band V	RMC 12.2Kbps	Left Side	10	Bottom	Full	4182	836.4	23.07	23.50	1.104	-0.07	0.320	0.353
	WCDMA Band IV	RMC 12.2Kbps	Front	10	Top	Full	1413	1732.6	23.14	23.50	1.086	0.06	0.665	0.722
	WCDMA Band IV	RMC 12.2Kbps	Back	10	Top	Full	1413	1732.6	23.14	23.50	1.086	-0.03	0.469	0.510
	WCDMA Band IV	RMC 12.2Kbps	Left Side	10	Top	Full	1413	1732.6	23.14	23.50	1.086	0.06	0.389	0.423
23	WCDMA Band IV	RMC 12.2Kbps	Top Side	10	Top	Full	1413	1732.6	23.14	23.50	1.086	-0.04	0.953	1.035
	WCDMA Band IV	RMC 12.2Kbps	Top Side	10	Top	Full	1312	1712.4	23.04	23.50	1.112	-0.05	0.885	0.984
	WCDMA Band IV	RMC 12.2Kbps	Top Side	10	Top	Full	1513	1752.6	23.06	23.50	1.107	-0.06	0.934	1.034
	WCDMA Band IV	RMC 12.2Kbps	Front	10	Bottom	Hotspot On	1413	1732.6	18.12	18.50	1.091	0.17	0.586	0.640
	WCDMA Band IV	RMC 12.2Kbps	Back	10	Bottom	Hotspot On	1413	1732.6	18.12	18.50	1.091	0.09	0.447	0.488
	WCDMA Band IV	RMC 12.2Kbps	Left Side	10	Bottom	Hotspot On	1413	1732.6	18.12	18.50	1.091	0.1	0.099	0.108
	WCDMA Band IV	RMC 12.2Kbps	Right Side	10	Bottom	Hotspot On	1413	1732.6	18.12	18.50	1.091	-0.01	0.028	0.031
	WCDMA Band IV	RMC 12.2Kbps	Bottom Side	10	Bottom	Hotspot On	1413	1732.6	18.12	18.50	1.091	-0.09	0.668	0.729
	WCDMA Band IV	RMC 12.2Kbps	Bottom Side	10	Bottom	Hotspot On	1312	1712.4	18.01	18.50	1.119	-0.02	0.584	0.654
	WCDMA Band IV	RMC 12.2Kbps	Bottom Side	10	Bottom	Hotspot On	1513	1752.6	18.09	18.50	1.099	-0.06	0.780	0.857



FCC SAR Test Report

Report No. : FA782510-01

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA Band II	RMC 12.2Kbps	Front	10	Top	Full	9400	1880	23.04	23.50	1.112	0.03	0.562	0.625
	WCDMA Band II	RMC 12.2Kbps	Back	10	Top	Full	9400	1880	23.04	23.50	1.112	-0.06	0.388	0.431
	WCDMA Band II	RMC 12.2Kbps	Left Side	10	Top	Full	9400	1880	23.04	23.50	1.112	0.05	0.448	0.498
	WCDMA Band II	RMC 12.2Kbps	Top Side	10	Top	Full	9400	1880	23.04	23.50	1.112	0.12	0.586	0.651
	WCDMA Band II	RMC 12.2Kbps	Top Side	10	Top	Full	9262	1852.4	23.02	23.50	1.117	0.03	0.631	0.705
	WCDMA Band II	RMC 12.2Kbps	Top Side	10	Top	Full	9538	1907.6	22.89	23.50	1.151	0.06	0.503	0.579
	WCDMA Band II	RMC 12.2Kbps	Front	10	Bottom	Hotspot On	9400	1880	20.08	20.50	1.102	0.05	0.857	0.944
	WCDMA Band II	RMC 12.2Kbps	Back	10	Bottom	Hotspot On	9400	1880	20.08	20.50	1.102	-0.03	0.654	0.720
	WCDMA Band II	RMC 12.2Kbps	Left Side	10	Bottom	Hotspot On	9400	1880	20.08	20.50	1.102	-0.05	0.154	0.170
	WCDMA Band II	RMC 12.2Kbps	Right Side	10	Bottom	Hotspot On	9400	1880	20.08	20.50	1.102	0.02	0.056	0.062
	WCDMA Band II	RMC 12.2Kbps	Bottom Side	10	Bottom	Hotspot On	9400	1880	20.08	20.50	1.102	-0.05	1.050	1.157
	WCDMA Band II	RMC 12.2Kbps	Front	10	Bottom	Hotspot On	9262	1852.4	20.05	20.50	1.109	0.04	0.936	1.038
	WCDMA Band II	RMC 12.2Kbps	Front	10	Bottom	Hotspot On	9538	1907.6	19.87	20.50	1.156	0.08	0.828	0.957
24	WCDMA Band II	RMC 12.2Kbps	Bottom Side	10	Bottom	Hotspot On	9262	1852.4	20.05	20.50	1.109	-0.03	1.130	1.253
	WCDMA Band II	RMC 12.2Kbps	Bottom Side	10	Bottom	Hotspot On	9538	1907.6	19.87	20.50	1.156	-0.07	0.794	0.918



<CDMA2000 SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	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)
25	CDMA2000 BC0	RTAP 153.6Kbps	Front	10	Top	Full	384	836.52	22.77	23.00	1.054	0.03	0.336	0.354
	CDMA2000 BC0	RTAP 153.6Kbps	Back	10	Top	Full	384	836.52	22.77	23.00	1.054	0.04	0.306	0.323
	CDMA2000 BC0	RTAP 153.6Kbps	Left Side	10	Top	Full	384	836.52	22.77	23.00	1.054	-0.05	0.137	0.144
	CDMA2000 BC0	RTAP 153.6Kbps	Top Side	10	Top	Full	384	836.52	22.77	23.00	1.054	0.01	0.308	0.325
	CDMA2000 BC0	RTAP 153.6Kbps	Front	10	Top	Full	1013	824.7	22.68	23.00	1.076	-0.02	0.325	0.350
	CDMA2000 BC0	RTAP 153.6Kbps	Front	10	Top	Full	777	848.31	22.34	23.00	1.164	0.03	0.298	0.347
	CDMA2000 BC0	RTAP 153.6Kbps	Front	10	Bottom	Full	384	836.52	22.77	23.00	1.054	-0.02	0.161	0.170
	CDMA2000 BC0	RTAP 153.6Kbps	Back	10	Bottom	Full	384	836.52	22.77	23.00	1.054	-0.01	0.183	0.193
	CDMA2000 BC0	RTAP 153.6Kbps	Left Side	10	Bottom	Full	384	836.52	22.77	23.00	1.054	-0.06	0.224	0.236
	CDMA2000 BC0	RTAP 153.6Kbps	Right Side	10	Bottom	Full	384	836.52	22.77	23.00	1.054	-0.06	0.128	0.135
	CDMA2000 BC0	RTAP 153.6Kbps	Bottom Side	10	Bottom	Full	384	836.52	22.77	23.00	1.052	-0.03	0.129	0.136
	CDMA2000 BC0	RTAP 153.6Kbps	Left Side	10	Bottom	Full	1013	824.7	22.68	23.00	1.076	-0.04	0.238	0.256
	CDMA2000 BC0	RTAP 153.6Kbps	Left Side	10	Bottom	Full	777	848.31	22.34	23.00	1.164	-0.05	0.230	0.248



<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	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)
26	LTE Band 12	10M	QPSK	1RB	0Offset	Front	10	Top	Full	23095	707.5	23.25	23.50	1.059	0.06	0.460	0.487
	LTE Band 12	10M	QPSK	1RB	0Offset	Back	10	Top	Full	23095	707.5	23.25	23.50	1.059	0.03	0.466	0.494
	LTE Band 12	10M	QPSK	1RB	0Offset	Left Side	10	Top	Full	23095	707.5	23.25	23.50	1.059	0.04	0.213	0.226
	LTE Band 12	10M	QPSK	1RB	0Offset	Top Side	10	Top	Full	23095	707.5	23.25	23.50	1.059	0.01	0.416	0.441
	LTE Band 12	10M	QPSK	25RB	25Offset	Front	10	Top	Full	23095	707.5	22.25	22.50	1.059	0.13	0.456	0.483
	LTE Band 12	10M	QPSK	25RB	25Offset	Back	10	Top	Full	23095	707.5	22.25	22.50	1.059	0.17	0.463	0.490
	LTE Band 12	10M	QPSK	25RB	25Offset	Left Side	10	Top	Full	23095	707.5	22.25	22.50	1.059	-0.03	0.209	0.221
	LTE Band 12	10M	QPSK	25RB	25Offset	Top Side	10	Top	Full	23095	707.5	22.25	22.50	1.059	0.04	0.411	0.435
	LTE Band 12	10M	QPSK	1RB	0Offset	Front	10	Bottom	Full	23095	707.5	23.25	23.50	1.059	-0.13	0.135	0.151
	LTE Band 12	10M	QPSK	1RB	0Offset	Back	10	Bottom	Full	23095	707.5	23.25	23.50	1.059	0.05	0.143	0.160
	LTE Band 12	10M	QPSK	1RB	0Offset	Left Side	10	Bottom	Full	23095	707.5	23.25	23.50	1.059	0.04	0.206	0.218
	LTE Band 12	10M	QPSK	1RB	0Offset	Right Side	10	Bottom	Full	23095	707.5	23.25	23.50	1.059	0.03	0.172	0.182
	LTE Band 12	10M	QPSK	1RB	0Offset	Bottom Side	10	Bottom	Full	23095	707.5	23.25	23.50	1.059	0.05	0.123	0.130
	LTE Band 12	10M	QPSK	25RB	25Offset	Front	10	Bottom	Full	23095	707.5	22.25	22.50	1.059	0.07	0.114	0.129
	LTE Band 12	10M	QPSK	25RB	25Offset	Back	10	Bottom	Full	23095	707.5	22.25	22.50	1.059	0.08	0.119	0.134
27	LTE Band 12	10M	QPSK	25RB	25Offset	Left Side	10	Bottom	Full	23095	707.5	22.25	22.50	1.059	0.01	0.161	0.171
	LTE Band 12	10M	QPSK	25RB	25Offset	Right Side	10	Bottom	Full	23095	707.5	22.25	22.50	1.059	0.06	0.140	0.148
	LTE Band 12	10M	QPSK	25RB	25Offset	Bottom Side	10	Bottom	Full	23095	707.5	22.25	22.50	1.059	0.03	0.105	0.111
	LTE Band 5	10M	QPSK	1RB	49Offset	Front	10	Top	Full	20525	836.5	22.93	23.50	1.140	0.01	0.682	0.778
	LTE Band 5	10M	QPSK	1RB	49Offset	Back	10	Top	Full	20525	836.5	22.93	23.50	1.140	-0.03	0.703	0.802
	LTE Band 5	10M	QPSK	1RB	49Offset	Left Side	10	Top	Full	20525	836.5	22.93	23.50	1.140	0.05	0.260	0.296
	LTE Band 5	10M	QPSK	1RB	49Offset	Top Side	10	Top	Full	20525	836.5	22.93	23.50	1.140	0.03	0.704	0.803
	LTE Band 5	10M	QPSK	25RB	0Offset	Front	10	Top	Full	20525	836.5	22.05	22.50	1.109	0.04	0.552	0.612
	LTE Band 5	10M	QPSK	25RB	0Offset	Back	10	Top	Full	20525	836.5	22.05	22.50	1.109	0.05	0.570	0.632
	LTE Band 5	10M	QPSK	25RB	0Offset	Left Side	10	Top	Full	20525	836.5	22.05	22.50	1.109	0.06	0.195	0.216
	LTE Band 5	10M	QPSK	25RB	0Offset	Top Side	10	Top	Full	20525	836.5	22.05	22.50	1.109	0.07	0.557	0.618
	LTE Band 5	10M	QPSK	50RB	0Offset	Back	10	Top	Full	20525	836.5	21.90	22.50	1.148	0.07	0.569	0.653
	LTE Band 5	10M	QPSK	50RB	0Offset	Top Side	10	Top	Full	20525	836.5	21.90	22.50	1.148	0.09	0.518	0.595
	LTE Band 5	10M	QPSK	1RB	49Offset	Front	10	Bottom	Full	20525	836.5	22.93	23.50	1.140	0.06	0.208	0.237
	LTE Band 5	10M	QPSK	1RB	49Offset	Back	10	Bottom	Full	20525	836.5	22.93	23.50	1.140	0.08	0.262	0.299
	LTE Band 5	10M	QPSK	1RB	49Offset	Left Side	10	Bottom	Full	20525	836.5	22.93	23.50	1.140	-0.11	0.294	0.335
	LTE Band 5	10M	QPSK	1RB	49Offset	Right Side	10	Bottom	Full	20525	836.5	22.93	23.50	1.140	0.13	0.204	0.233
	LTE Band 5	10M	QPSK	1RB	49Offset	Bottom Side	10	Bottom	Full	20525	836.5	22.93	23.50	1.140	0.05	0.220	0.251
	LTE Band 5	10M	QPSK	25RB	0Offset	Front	10	Bottom	Full	20525	836.5	22.05	22.50	1.109	-0.02	0.172	0.191
	LTE Band 5	10M	QPSK	25RB	0Offset	Back	10	Bottom	Full	20525	836.5	22.05	22.50	1.109	0.04	0.215	0.238
	LTE Band 5	10M	QPSK	25RB	0Offset	Left Side	10	Bottom	Full	20525	836.5	22.05	22.50	1.109	0.01	0.242	0.268
	LTE Band 5	10M	QPSK	25RB	0Offset	Right Side	10	Bottom	Full	20525	836.5	22.05	22.50	1.109	0.05	0.168	0.186
	LTE Band 5	10M	QPSK	25RB	0Offset	Bottom Side	10	Bottom	Full	20525	836.5	22.05	22.50	1.109	0.07	0.185	0.205



FCC SAR Test Report

Report No. : FA782510-01

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 26	15M	QPSK	1RB	0Offset	Front	10	Top	Full	26965	841.5	23.25	23.50	1.059	-0.09	0.702	0.744
	LTE Band 26	15M	QPSK	1RB	0Offset	Back	10	Top	Full	26965	841.5	23.25	23.50	1.059	-0.02	0.602	0.638
	LTE Band 26	15M	QPSK	1RB	0Offset	Left Side	10	Top	Full	26965	841.5	23.25	23.50	1.059	-0.01	0.294	0.311
	LTE Band 26	15M	QPSK	1RB	0Offset	Top Side	10	Top	Full	26965	841.5	23.25	23.50	1.059	0.05	0.800	0.847
	LTE Band 26	15M	QPSK	1RB	0Offset	Top Side	10	Top	Full	26765	821.5	23.07	23.50	1.104	0.06	0.771	0.851
28	LTE Band 26	15M	QPSK	1RB	0Offset	Top Side	10	Top	Full	26865	831.5	23.13	23.50	1.089	0.06	0.794	0.865
	LTE Band 26	15M	QPSK	36RB	0Offset	Front	10	Top	Full	26965	841.5	22.31	22.50	1.045	-0.01	0.551	0.576
	LTE Band 26	15M	QPSK	36RB	0Offset	Back	10	Top	Full	26965	841.5	22.31	22.50	1.045	-0.06	0.499	0.521
	LTE Band 26	15M	QPSK	36RB	0Offset	Left Side	10	Top	Full	26965	841.5	22.31	22.50	1.045	-0.01	0.220	0.230
	LTE Band 26	15M	QPSK	36RB	0Offset	Top Side	10	Top	Full	26965	841.5	22.31	22.50	1.045	0.03	0.530	0.554
	LTE Band 26	15M	QPSK	75RB	0Offset	Top Side	10	Top	Full	26965	841.5	22.32	22.50	1.042	0.01	0.522	0.544
	LTE Band 26	15M	QPSK	1RB	0Offset	Front	10	Bottom	Full	26965	841.5	23.25	23.50	1.059	-0.03	0.266	0.282
	LTE Band 26	15M	QPSK	1RB	0Offset	Back	10	Bottom	Full	26965	841.5	23.25	23.50	1.059	-0.02	0.289	0.306
	LTE Band 26	15M	QPSK	1RB	0Offset	Left Side	10	Bottom	Full	26965	841.5	23.25	23.50	1.059	-0.01	0.406	0.430
	LTE Band 26	15M	QPSK	1RB	0Offset	Right Side	10	Bottom	Full	26965	841.5	23.25	23.50	1.059	-0.06	0.245	0.260
	LTE Band 26	15M	QPSK	1RB	0Offset	Bottom Side	10	Bottom	Full	26965	841.5	23.25	23.50	1.059	0.06	0.214	0.227
	LTE Band 26	15M	QPSK	1RB	0Offset	Left Side	10	Bottom	Full	26765	821.5	23.07	23.50	1.104	-0.02	0.344	0.380
	LTE Band 26	15M	QPSK	1RB	0Offset	Left Side	10	Bottom	Full	26865	831.5	23.13	23.50	1.089	-0.06	0.328	0.357
	LTE Band 26	15M	QPSK	36RB	0Offset	Front	10	Bottom	Full	26965	841.5	22.31	22.50	1.045	-0.04	0.211	0.220
	LTE Band 26	15M	QPSK	36RB	0Offset	Back	10	Bottom	Full	26965	841.5	22.31	22.50	1.045	-0.06	0.231	0.241
	LTE Band 26	15M	QPSK	36RB	0Offset	Left Side	10	Bottom	Full	26965	841.5	22.31	22.50	1.045	-0.04	0.327	0.342
	LTE Band 26	15M	QPSK	36RB	0Offset	Right Side	10	Bottom	Full	26965	841.5	22.31	22.50	1.045	-0.03	0.196	0.205
	LTE Band 26	15M	QPSK	36RB	0Offset	Bottom Side	10	Bottom	Full	26965	841.5	22.31	22.50	1.045	0.06	0.180	0.188
	LTE Band 4	20M	QPSK	1RB	0Offset	Front	10	Top	Full	20175	1732.5	23.37	23.50	1.030	0.06	0.635	0.654
	LTE Band 4	20M	QPSK	1RB	0Offset	Back	10	Top	Full	20175	1732.5	23.37	23.50	1.030	0.12	0.489	0.504
	LTE Band 4	20M	QPSK	1RB	0Offset	Left Side	10	Top	Full	20175	1732.5	23.37	23.50	1.030	0.07	0.421	0.434
	LTE Band 4	20M	QPSK	1RB	0Offset	Top Side	10	Top	Full	20175	1732.5	23.37	23.50	1.030	0.1	0.822	0.847
	LTE Band 4	20M	QPSK	50RB	0Offset	Front	10	Top	Full	20175	1732.5	22.32	22.50	1.042	0.15	0.521	0.543
	LTE Band 4	20M	QPSK	50RB	0Offset	Back	10	Top	Full	20175	1732.5	22.32	22.50	1.042	-0.04	0.400	0.417
	LTE Band 4	20M	QPSK	50RB	0Offset	Left Side	10	Top	Full	20175	1732.5	22.32	22.50	1.042	0.05	0.344	0.359
	LTE Band 4	20M	QPSK	50RB	0Offset	Top Side	10	Top	Full	20175	1732.5	22.32	22.50	1.042	0.1	0.678	0.707
	LTE Band 4	20M	QPSK	100RB	0Offset	Top Side	10	Top	Full	20175	1732.5	22.19	22.50	1.074	0.03	0.655	0.703
	LTE Band 4	20M	QPSK	1RB	0Offset	Front	10	Bottom	Hotspot On	20175	1732.5	18.54	19.00	1.112	-0.14	0.573	0.637
	LTE Band 4	20M	QPSK	1RB	0Offset	Back	10	Bottom	Hotspot On	20175	1732.5	18.54	19.00	1.112	0.07	0.486	0.540
	LTE Band 4	20M	QPSK	1RB	0Offset	Left Side	10	Bottom	Hotspot On	20175	1732.5	18.54	19.00	1.112	0.02	0.059	0.066
	LTE Band 4	20M	QPSK	1RB	0Offset	Right Side	10	Bottom	Hotspot On	20175	1732.5	18.54	19.00	1.112	0.09	0.046	0.051
29	LTE Band 4	20M	QPSK	1RB	0Offset	Bottom Side	10	Bottom	Hotspot On	20175	1732.5	18.54	19.00	1.112	-0.09	0.775	0.862
	LTE Band 4	20M	QPSK	50RB	0Offset	Front	10	Bottom	Hotspot On	20175	1732.5	18.31	18.50	1.045	0.03	0.560	0.585
	LTE Band 4	20M	QPSK	50RB	0Offset	Back	10	Bottom	Hotspot On	20175	1732.5	18.31	18.50	1.045	0.02	0.516	0.539
	LTE Band 4	20M	QPSK	50RB	0Offset	Left Side	10	Bottom	Hotspot On	20175	1732.5	18.31	18.50	1.045	0.02	0.060	0.063
	LTE Band 4	20M	QPSK	50RB	0Offset	Right Side	10	Bottom	Hotspot On	20175	1732.5	18.31	18.50	1.045	0.04	0.036	0.038
	LTE Band 4	20M	QPSK	50RB	0Offset	Bottom Side	10	Bottom	Hotspot On	20175	1732.5	18.31	18.50	1.045	-0.07	0.798	0.834
	LTE Band 4	20M	QPSK	100RB	0Offset	Bottom Side	10	Bottom	Hotspot On	20175	1732.5	18.18	18.50	1.076	0.05	0.741	0.798



FCC SAR Test Report

Report No. : FA782510-01

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	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)
30	LTE Band 66	20M	QPSK	1RB	0Offset	Front	10	Top	Full	132322	1745	23.23	23.50	1.064	0.08	0.680	0.724
	LTE Band 66	20M	QPSK	1RB	0Offset	Back	10	Top	Full	132322	1745	23.23	23.50	1.064	-0.06	0.514	0.547
	LTE Band 66	20M	QPSK	1RB	0Offset	Left Side	10	Top	Full	132322	1745	23.23	23.50	1.064	0.11	0.361	0.384
	LTE Band 66	20M	QPSK	1RB	0Offset	Top Side	10	Top	Full	132322	1745	23.23	23.50	1.064	-0.18	1.070	1.139
	LTE Band 66	20M	QPSK	1RB	0Offset	Top Side	10	Top	Full	132072	1720	23.03	23.50	1.114	-0.08	1.010	1.125
	LTE Band 66	20M	QPSK	1RB	0Offset	Top Side	10	Top	Full	132572	1770	23.13	23.50	1.089	-0.07	0.930	1.013
	LTE Band 66	20M	QPSK	50RB	0Offset	Front	10	Top	Full	132322	1745	22.19	22.50	1.074	0.05	0.536	0.576
	LTE Band 66	20M	QPSK	50RB	0Offset	Back	10	Top	Full	132322	1745	22.19	22.50	1.074	-0.02	0.408	0.438
	LTE Band 66	20M	QPSK	50RB	0Offset	Left Side	10	Top	Full	132322	1745	22.19	22.50	1.074	0.03	0.358	0.384
	LTE Band 66	20M	QPSK	50RB	0Offset	Top Side	10	Top	Full	132322	1745	22.19	22.50	1.074	-0.02	0.850	0.913
	LTE Band 66	20M	QPSK	50RB	0Offset	Top Side	10	Top	Full	132072	1720	22.06	22.50	1.107	-0.02	0.645	0.714
	LTE Band 66	20M	QPSK	50RB	0Offset	Top Side	10	Top	Full	132572	1770	22.07	22.50	1.104	0.07	0.639	0.706
	LTE Band 66	20M	QPSK	100RB	0Offset	Top Side	10	Top	Full	132322	1745	22.18	22.50	1.076	0.05	0.655	0.705
	LTE Band 66	20M	QPSK	1RB	0Offset	Front	10	Bottom	Hotspot On	132322	1745	18.46	18.50	1.009	0.11	0.627	0.633
	LTE Band 66	20M	QPSK	1RB	0Offset	Back	10	Bottom	Hotspot On	132322	1745	18.46	18.50	1.009	-0.04	0.544	0.549
	LTE Band 66	20M	QPSK	1RB	0Offset	Left Side	10	Bottom	Hotspot On	132322	1745	18.46	18.50	1.009	0.14	0.066	0.067
	LTE Band 66	20M	QPSK	1RB	0Offset	Right Side	10	Bottom	Hotspot On	132322	1745	18.46	18.50	1.009	0.03	0.030	0.030
	LTE Band 66	20M	QPSK	1RB	0Offset	Bottom Side	10	Bottom	Hotspot On	132322	1745	18.46	18.50	1.009	-0.11	0.815	0.823
	LTE Band 66	20M	QPSK	1RB	0Offset	Bottom Side	10	Bottom	Hotspot On	132072	1720	18.03	18.50	1.114	-0.09	0.653	0.728
	LTE Band 66	20M	QPSK	1RB	0Offset	Bottom Side	10	Bottom	Hotspot On	132572	1770	17.90	18.50	1.148	-0.02	0.988	1.134
	LTE Band 66	20M	QPSK	50RB	0Offset	Front	10	Bottom	Hotspot On	132322	1745	18.17	18.50	1.079	0.09	0.639	0.689
	LTE Band 66	20M	QPSK	50RB	0Offset	Back	10	Bottom	Hotspot On	132322	1745	18.17	18.50	1.079	0.04	0.548	0.591
	LTE Band 66	20M	QPSK	50RB	0Offset	Left Side	10	Bottom	Hotspot On	132322	1745	18.17	18.50	1.079	0.16	0.067	0.072
	LTE Band 66	20M	QPSK	50RB	0Offset	Right Side	10	Bottom	Hotspot On	132322	1745	18.17	18.50	1.079	-0.03	0.031	0.033
	LTE Band 66	20M	QPSK	50RB	0Offset	Bottom Side	10	Bottom	Hotspot On	132322	1745	18.17	18.50	1.079	-0.09	0.843	0.910
	LTE Band 66	20M	QPSK	50RB	0Offset	Bottom Side	10	Bottom	Hotspot On	132072	1720	18.04	18.50	1.112	-0.11	0.678	0.754
	LTE Band 66	20M	QPSK	50RB	0Offset	Bottom Side	10	Bottom	Hotspot On	132572	1770	18.08	18.50	1.102	-0.09	1.010	1.113
	LTE Band 66	20M	QPSK	100RB	0Offset	Bottom Side	10	Bottom	Hotspot On	132322	1745	18.08	18.50	1.102	0.01	0.773	0.851
31	LTE Band 25	20M	QPSK	1RB	0Offset	Front	10	Top	Full	26590	1905	23.11	23.50	1.094	0.05	0.439	0.480
	LTE Band 25	20M	QPSK	1RB	0Offset	Back	10	Top	Full	26590	1905	23.11	23.50	1.094	-0.08	0.319	0.349
	LTE Band 25	20M	QPSK	1RB	0Offset	Left Side	10	Top	Full	26590	1905	23.11	23.50	1.094	-0.05	0.416	0.455
	LTE Band 25	20M	QPSK	1RB	0Offset	Top Side	10	Top	Full	26590	1905	23.11	23.50	1.094	-0.13	0.527	0.577
	LTE Band 25	20M	QPSK	1RB	0Offset	Top Side	10	Top	Full	26140	1860	23.04	23.50	1.112	-0.09	0.508	0.565
	LTE Band 25	20M	QPSK	1RB	0Offset	Top Side	10	Top	Full	26340	1880	23.08	23.50	1.102	-0.02	0.494	0.544
	LTE Band 25	20M	QPSK	50RB	0Offset	Front	10	Top	Full	26590	1905	22.07	22.50	1.104	0.06	0.487	0.538
	LTE Band 25	20M	QPSK	50RB	0Offset	Back	10	Top	Full	26590	1905	22.07	22.50	1.104	-0.03	0.307	0.339
	LTE Band 25	20M	QPSK	50RB	0Offset	Left Side	10	Top	Full	26590	1905	22.07	22.50	1.104	-0.06	0.394	0.435
	LTE Band 25	20M	QPSK	50RB	0Offset	Top Side	10	Top	Full	26590	1905	22.07	22.50	1.104	-0.03	0.473	0.522
	LTE Band 25	20M	QPSK	1RB	0Offset	Front	10	Bottom	Hotspot On	26590	1905	19.27	19.50	1.054	0.02	0.502	0.529
	LTE Band 25	20M	QPSK	1RB	0Offset	Back	10	Bottom	Hotspot On	26590	1905	19.27	19.50	1.054	0.03	0.384	0.405
	LTE Band 25	20M	QPSK	1RB	0Offset	Left Side	10	Bottom	Hotspot On	26590	1905	19.27	19.50	1.054	0.07	0.037	0.039
	LTE Band 25	20M	QPSK	1RB	0Offset	Right Side	10	Bottom	Hotspot On	26590	1905	19.27	19.50	1.054	-0.01	0.042	0.045
	LTE Band 25	20M	QPSK	1RB	0Offset	Bottom Side	10	Bottom	Hotspot On	26590	1905	19.27	19.50	1.054	-0.04	0.985	1.039
	LTE Band 25	20M	QPSK	1RB	0Offset	Bottom Side	10	Bottom	Hotspot On	26140	1860	19.03	19.50	1.114	-0.08	1.030	1.148
	LTE Band 25	20M	QPSK	1RB	0Offset	Bottom Side	10	Bottom	Hotspot On	26340	1880	19.08	19.50	1.102	-0.05	0.967	1.065
	LTE Band 25	20M	QPSK	50RB	0Offset	Front	10	Bottom	Hotspot On	26590	1905	19.09	19.50	1.099	-0.02	0.458	0.503
	LTE Band 25	20M	QPSK	50RB	0Offset	Back	10	Bottom	Hotspot On	26590	1905	19.09	19.50	1.099	0.03	0.278	0.306
	LTE Band 25	20M	QPSK	50RB	0Offset	Left Side	10	Bottom	Hotspot On	26590	1905	19.09	19.50	1.099	0.01	0.036	0.040
	LTE Band 25	20M	QPSK	50RB	0Offset	Right Side	10	Bottom	Hotspot On	26590	1905	19.09	19.50	1.099	0.09	0.077	0.085
	LTE Band 25	20M	QPSK	50RB	0Offset	Bottom Side	10	Bottom	Hotspot On	26590	1905	19.09	19.50	1.099	-0.01	0.981	1.078
	LTE Band 25	20M	QPSK	50RB	0Offset	Bottom Side	10	Bottom	Hotspot On	26140	1860	18.81	19.50	1.172	-0.04	0.985	1.155
	LTE Band 25	20M	QPSK	50RB	0Offset	Bottom Side	10	Bottom	Hotspot On	26340	1880	18.83	19.50	1.167	-0.04	0.931	1.086
	LTE Band 25	20M	QPSK	100RB	0Offset	Bottom Side	10	Bottom	Hotspot On	26590	1905	18.94	19.50	1.138	0.04	0.900	1.024



FCC SAR Test Report

Report No. : FA782510-01

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 30	10M	QPSK	1RB	25Offset	Front	10	Top	Full	27710	2310	22.51	23.00	1.119	-0.08	0.644	0.721
	LTE Band 30	10M	QPSK	1RB	25Offset	Back	10	Top	Full	27710	2310	22.51	23.00	1.119	0.03	0.558	0.625
	LTE Band 30	10M	QPSK	1RB	25Offset	Left Side	10	Top	Full	27710	2310	22.51	23.00	1.119	0.01	0.426	0.477
	LTE Band 30	10M	QPSK	1RB	25Offset	Top Side	10	Top	Full	27710	2310	22.51	23.00	1.119	0.03	0.389	0.435
	LTE Band 30	10M	QPSK	25RB	0Offset	Front	10	Top	Full	27710	2310	21.53	22.00	1.114	0.04	0.518	0.577
	LTE Band 30	10M	QPSK	25RB	0Offset	Back	10	Top	Full	27710	2310	21.53	22.00	1.114	0.04	0.447	0.498
	LTE Band 30	10M	QPSK	25RB	0Offset	Left Side	10	Top	Full	27710	2310	21.53	22.00	1.114	-0.18	0.423	0.471
	LTE Band 30	10M	QPSK	25RB	0Offset	Top Side	10	Top	Full	27710	2310	21.53	22.00	1.114	-0.01	0.317	0.353
	LTE Band 30	10M	QPSK	1RB	25Offset	Front	10	Bottom	Hotspot On	27710	2310	21.79	22.00	1.050	0.06	0.396	0.416
	LTE Band 30	10M	QPSK	1RB	25Offset	Back	10	Bottom	Hotspot On	27710	2310	21.79	22.00	1.050	0.03	0.239	0.251
	LTE Band 30	10M	QPSK	1RB	25Offset	Left Side	10	Bottom	Hotspot On	27710	2310	21.79	22.00	1.050	0.05	0.058	0.061
	LTE Band 30	10M	QPSK	1RB	25Offset	Right Side	10	Bottom	Hotspot On	27710	2310	21.79	22.00	1.050	-0.03	0.046	0.048
32	LTE Band 30	10M	QPSK	1RB	25Offset	Bottom Side	10	Bottom	Hotspot On	27710	2310	21.79	22.00	1.050	-0.06	0.706	0.741
	LTE Band 30	10M	QPSK	25RB	0Offset	Front	10	Bottom	Hotspot On	27710	2310	21.62	22.00	1.091	-0.08	0.316	0.345
	LTE Band 30	10M	QPSK	25RB	0Offset	Back	10	Bottom	Hotspot On	27710	2310	21.62	22.00	1.091	0.07	0.250	0.273
	LTE Band 30	10M	QPSK	25RB	0Offset	Left Side	10	Bottom	Hotspot On	27710	2310	21.62	22.00	1.091	-0.02	0.055	0.060
	LTE Band 30	10M	QPSK	25RB	0Offset	Right Side	10	Bottom	Hotspot On	27710	2310	21.62	22.00	1.091	-0.04	0.045	0.049
	LTE Band 30	10M	QPSK	25RB	0Offset	Bottom Side	10	Bottom	Hotspot On	27710	2310	21.62	22.00	1.091	-0.01	0.518	0.565



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 7	20M	QPSK	1RB	0Offset	Front	10	Top	Full	21350	2560	23.17	23.50	1.079	0.12	0.826	0.891
	LTE Band 7	20M	QPSK	1RB	0Offset	Back	10	Top	Full	21350	2560	23.17	23.50	1.079	-0.08	0.712	0.768
	LTE Band 7	20M	QPSK	1RB	0Offset	Left Side	10	Top	Full	21350	2560	23.17	23.50	1.079	-0.1	0.796	0.859
	LTE Band 7	20M	QPSK	1RB	0Offset	Top Side	10	Top	Full	21350	2560	23.17	23.50	1.079	-0.08	0.631	0.681
	LTE Band 7	20M	QPSK	1RB	0Offset	Front	10	Top	Full	20850	2510	22.92	23.50	1.143	-0.1	0.929	1.062
	LTE Band 7	20M	QPSK	1RB	0Offset	Front	10	Top	Full	21100	2535	23.13	23.50	1.089	-0.02	0.900	0.980
33	LTE Band 7	20M	QPSK	1RB	0Offset	Left Side	10	Top	Full	20850	2510	22.92	23.50	1.143	-0.13	0.995	1.137
	LTE Band 7	20M	QPSK	1RB	0Offset	Left Side	10	Top	Full	21100	2535	23.13	23.50	1.089	-0.04	0.989	1.077
	LTE Band 7	20M	QPSK	1RB	0Offset	Left Side	10	Top	Full	20850(PCC) + 21048(SCC)	2510(PCC) + 2529.8(SCC)	23.12	23.50	1.091	-0.13	0.941	1.027
	LTE Band 7	20M	QPSK	1RB	0Offset	Left Side	10	Top	Full	21100(PCC) + 20902(SCC)	2535(PCC) + 2515.2(SCC)	23.42	23.50	1.019	-0.15	0.965	0.983
	LTE Band 7	20M	QPSK	1RB	0Offset	Left Side	10	Top	Full	21152(PCC) + 21350(SCC)	2540.2(PCC) + 2560(SCC)	23.09	23.50	1.099	0.01	0.832	0.914
	LTE Band 7	20M	QPSK	50RB	0Offset	Front	10	Top	Full	21350	2560	22.19	22.50	1.074	0.09	0.632	0.679
	LTE Band 7	20M	QPSK	50RB	0Offset	Back	10	Top	Full	21350	2560	22.19	22.50	1.074	-0.06	0.553	0.594
	LTE Band 7	20M	QPSK	50RB	0Offset	Left Side	10	Top	Full	21350	2560	22.19	22.50	1.074	0.04	0.727	0.781
	LTE Band 7	20M	QPSK	50RB	0Offset	Top Side	10	Top	Full	21350	2560	22.19	22.50	1.074	0.05	0.484	0.520
	LTE Band 7	20M	QPSK	100RB	0Offset	Front	10	Top	Full	21350	2560	22.03	22.50	1.114	0.01	0.586	0.653
	LTE Band 7	20M	QPSK	100RB	0Offset	Left Side	10	Top	Full	21350	2560	22.03	22.50	1.114	0.03	0.796	0.887
	LTE Band 7	20M	QPSK	1RB	0Offset	Front	10	Bottom	Hotspot On	21350	2560	22.43	22.50	1.016	0.01	0.541	0.550
	LTE Band 7	20M	QPSK	1RB	0Offset	Back	10	Bottom	Hotspot On	21350	2560	22.43	22.50	1.016	-0.05	0.365	0.371
	LTE Band 7	20M	QPSK	1RB	0Offset	Left Side	10	Bottom	Hotspot On	21350	2560	22.43	22.50	1.016	-0.05	0.047	0.048
	LTE Band 7	20M	QPSK	1RB	0Offset	Right Side	10	Bottom	Hotspot On	21350	2560	22.43	22.50	1.016	0.04	0.135	0.137
	LTE Band 7	20M	QPSK	1RB	0Offset	Bottom Side	10	Bottom	Hotspot On	21350	2560	22.43	22.50	1.016	0.01	0.943	0.958
	LTE Band 7	20M	QPSK	1RB	0Offset	Bottom Side	10	Bottom	Hotspot On	20850	2510	21.95	22.50	1.135	-0.08	0.921	1.045
	LTE Band 7	20M	QPSK	1RB	0Offset	Bottom Side	10	Bottom	Hotspot On	21100	2535	22.04	22.50	1.112	-0.06	0.940	1.045
	LTE Band 7	20M	QPSK	1RB	0Offset	Bottom Side	10	Bottom	Hotspot On	20850(PCC) + 21048(SCC)	2510(PCC) + 2529.8(SCC)	22.35	22.50	1.035	0.05	0.850	0.880
	LTE Band 7	20M	QPSK	1RB	0Offset	Bottom Side	10	Bottom	Hotspot On	21100(PCC) + 20902(SCC)	2535(PCC) + 2515.2(SCC)	22.00	22.50	1.122	0.01	0.921	1.033
	LTE Band 7	20M	QPSK	1RB	0Offset	Bottom Side	10	Bottom	Hotspot On	21152(PCC) + 21350(SCC)	2540.2(PCC) + 2560(SCC)	22.48	22.50	1.005	0.03	0.732	0.735
	LTE Band 7	20M	QPSK	50RB	0Offset	Front	10	Bottom	Hotspot On	21350	2560	22.16	22.50	1.081	0.01	0.413	0.447
	LTE Band 7	20M	QPSK	50RB	0Offset	Back	10	Bottom	Hotspot On	21350	2560	22.16	22.50	1.081	0.06	0.365	0.395
	LTE Band 7	20M	QPSK	50RB	0Offset	Left Side	10	Bottom	Hotspot On	21350	2560	22.16	22.50	1.081	-0.01	0.048	0.052
	LTE Band 7	20M	QPSK	50RB	0Offset	Right Side	10	Bottom	Hotspot On	21350	2560	22.16	22.50	1.081	0.02	0.122	0.132
	LTE Band 7	20M	QPSK	50RB	0Offset	Bottom Side	10	Bottom	Hotspot On	21350	2560	22.16	22.50	1.081	-0.03	0.925	1.000
	LTE Band 7	20M	QPSK	50RB	0Offset	Bottom Side	10	Bottom	Hotspot On	20850	2510	21.96	22.50	1.132	-0.02	0.928	1.051
	LTE Band 7	20M	QPSK	50RB	0Offset	Bottom Side	10	Bottom	Hotspot On	21100	2535	22.15	22.50	1.084	-0.06	0.973	1.055
	LTE Band 7	20M	QPSK	100RB	0Offset	Bottom Side	10	Bottom	Hotspot On	21350	2560	22.09	22.50	1.099	0.06	0.947	1.041



<TDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 41	20M	QPSK	1RB	49Offset	Front	10	Top	Full	41490	2680	23.30	23.50	1.047	62.9	1.006	-0.01	0.272	0.287
	LTE Band 41	20M	QPSK	1RB	49Offset	Back	10	Top	Full	41490	2680	23.30	23.50	1.047	62.9	1.006	-0.03	0.243	0.256
	LTE Band 41	20M	QPSK	1RB	49Offset	Left Side	10	Top	Full	41490	2680	23.30	23.50	1.047	62.9	1.006	0.02	0.447	0.471
	LTE Band 41	20M	QPSK	1RB	49Offset	Top Side	10	Top	Full	41490	2680	23.30	23.50	1.047	62.9	1.006	0.08	0.261	0.275
	LTE Band 41	20M	QPSK	1RB	49Offset	Left Side	10	Top	Full	39750	2506	23.04	23.50	1.112	62.9	1.006	-0.07	0.556	0.622
	LTE Band 41	20M	QPSK	1RB	49Offset	Left Side	10	Top	Full	40185	2549.5	23.17	23.50	1.079	62.9	1.006	-0.11	0.557	0.605
	LTE Band 41	20M	QPSK	1RB	49Offset	Left Side	10	Top	Full	40620	2593	22.86	23.50	1.159	62.9	1.006	-0.02	0.553	0.645
	LTE Band 41	20M	QPSK	1RB	49Offset	Left Side	10	Top	Full	41055	2636.5	22.82	23.50	1.169	62.9	1.006	-0.02	0.494	0.581
	LTE Band 41	20M	QPSK	1RB	49Offset	Left Side	10	Top	Full	39750(PCC) + 39948(SCC)	2506(PCC) + 2525.8(SCC)	23.19	23.50	1.074	62.9	1.006	0.1	0.401	0.433
	LTE Band 41	20M	QPSK	1RB	49Offset	Left Side	10	Top	Full	40185(PCC) + 40383(SCC)	2549.5(PCC) + 2569.3(SCC)	23.33	23.50	1.040	62.9	1.006	0.08	0.400	0.418
	LTE Band 41	20M	QPSK	1RB	49Offset	Left Side	10	Top	Full	40620(PCC) + 40818(SCC)	2593(PCC) + 2612.8(SCC)	22.84	23.50	1.164	62.9	1.006	-0.02	0.545	0.638
	LTE Band 41	20M	QPSK	1RB	49Offset	Left Side	10	Top	Full	41055(PCC) + 41253(SCC)	2636.5(PCC) + 2656.3(SCC)	23.10	23.50	1.096	62.9	1.006	-0.09	0.511	0.564
	LTE Band 41	20M	QPSK	1RB	49Offset	Left Side	10	Top	Full	41292(PCC) + 41490(SCC)	2660.2(PCC) + 2680(SCC)	23.46	23.50	1.009	62.9	1.006	0.04	0.279	0.283
	LTE Band 41	20M	QPSK	50RB	0Offset	Front	10	Top	Full	41490	2680	22.19	22.50	1.074	62.9	1.006	-0.03	0.225	0.243
	LTE Band 41	20M	QPSK	50RB	0Offset	Back	10	Top	Full	41490	2680	22.19	22.50	1.074	62.9	1.006	0.06	0.202	0.218
	LTE Band 41	20M	QPSK	50RB	0Offset	Left Side	10	Top	Full	41490	2680	22.19	22.50	1.074	62.9	1.006	-0.09	0.382	0.413
	LTE Band 41	20M	QPSK	50RB	0Offset	Top Side	10	Top	Full	41490	2680	22.19	22.50	1.074	62.9	1.006	0.01	0.221	0.239
	LTE Band 41	20M	QPSK	100RB	0Offset	Left Side	10	Top	Full	40185	2549.5	22.16	22.50	1.081	62.9	1.006	0.04	0.423	0.460
	LTE Band 41	20M	QPSK	1RB	49Offset	Front	10	Bottom	Full	41490	2680	23.30	23.50	1.047	62.9	1.006	0.04	0.236	0.249
	LTE Band 41	20M	QPSK	1RB	49Offset	Back	10	Bottom	Full	41490	2680	23.30	23.50	1.047	62.9	1.006	-0.06	0.166	0.175
	LTE Band 41	20M	QPSK	1RB	49Offset	Left Side	10	Bottom	Full	41490	2680	23.30	23.50	1.047	62.9	1.006	0.02	0.041	0.043
	LTE Band 41	20M	QPSK	1RB	49Offset	Right Side	10	Bottom	Full	41490	2680	23.30	23.50	1.047	62.9	1.006	-0.02	0.119	0.125
	LTE Band 41	20M	QPSK	1RB	49Offset	Bottom Side	10	Bottom	Full	41490	2680	23.30	23.50	1.047	62.9	1.006	-0.07	0.349	0.368
34	LTE Band 41	20M	QPSK	1RB	49Offset	Bottom Side	10	Bottom	Full	39750	2506	23.04	23.50	1.112	62.9	1.006	-0.03	0.706	0.790
	LTE Band 41	20M	QPSK	1RB	49Offset	Bottom Side	10	Bottom	Full	40185	2549.5	23.17	23.50	1.079	62.9	1.006	-0.05	0.671	0.728
	LTE Band 41	20M	QPSK	1RB	49Offset	Bottom Side	10	Bottom	Full	40620	2593	22.86	23.50	1.159	62.9	1.006	-0.02	0.574	0.669
	LTE Band 41	20M	QPSK	1RB	49Offset	Bottom Side	10	Bottom	Full	41055	2636.5	22.82	23.50	1.169	62.9	1.006	-0.09	0.359	0.422
	LTE Band 41	20M	QPSK	1RB	49Offset	Bottom Side	10	Bottom	Full	39750(PCC) + 39948(SCC)	2506(PCC) + 2525.8(SCC)	23.19	23.50	1.074	62.9	1.006	-0.03	0.635	0.686
	LTE Band 41	20M	QPSK	1RB	49Offset	Bottom Side	10	Bottom	Full	40185(PCC) + 40383(SCC)	2549.5(PCC) + 2569.3(SCC)	23.33	23.50	1.040	62.9	1.006	-0.06	0.412	0.431
	LTE Band 41	20M	QPSK	1RB	49Offset	Bottom Side	10	Bottom	Full	40620(PCC) + 40818(SCC)	2593(PCC) + 2612.8(SCC)	22.84	23.50	1.164	62.9	1.006	0.05	0.360	0.422
	LTE Band 41	20M	QPSK	1RB	49Offset	Bottom Side	10	Bottom	Full	41055(PCC) + 41253(SCC)	2636.5(PCC) + 2656.3(SCC)	23.10	23.50	1.096	62.9	1.006	-0.07	0.349	0.385
	LTE Band 41	20M	QPSK	1RB	49Offset	Bottom Side	10	Bottom	Full	41292(PCC) + 41490(SCC)	2660.2(PCC) + 2680(SCC)	23.46	23.50	1.009	62.9	1.006	0.08	0.259	0.263
	LTE Band 41	20M	QPSK	50RB	0Offset	Front	10	Bottom	Full	41490	2680	22.19	22.50	1.074	62.9	1.006	0.02	0.193	0.209
	LTE Band 41	20M	QPSK	50RB	0Offset	Back	10	Bottom	Full	41490	2680	22.19	22.50	1.074	62.9	1.006	0.01	0.136	0.147
	LTE Band 41	20M	QPSK	50RB	0Offset	Left Side	10	Bottom	Full	41490	2680	22.19	22.50	1.074	62.9	1.006	-0.08	0.031	0.033
	LTE Band 41	20M	QPSK	50RB	0Offset	Right Side	10	Bottom	Full	41490	2680	22.19	22.50	1.074	62.9	1.006	0.04	0.097	0.105
	LTE Band 41	20M	QPSK	50RB	0Offset	Bottom Side	10	Bottom	Full	41490	2680	22.19	22.50	1.074	62.9	1.006	-0.04	0.291	0.314
	LTE Band 41	20M	QPSK	100RB	0Offset	Bottom Side	10	Bottom	Full	40185	2549.5	22.16	22.50	1.081	62.9	1.006	-0.05	0.523	0.569



<WLAN 2.4GHz SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Front	10	Ant.1	Full	11	2462	17.26	17.50	1.057	99.31	1.007	0.05	0.164	0.175
	WLAN2.4GHz	802.11b 1Mbps	Back	10	Ant.1	Full	11	2462	17.26	17.50	1.057	99.31	1.007	-0.01	0.203	0.216
35	WLAN2.4GHz	802.11b 1Mbps	Right side	10	Ant.1	Full	11	2462	17.26	17.50	1.057	99.31	1.007	-0.06	0.218	0.232
	WLAN2.4GHz	802.11b 1Mbps	Top side	10	Ant.1	Full	11	2462	17.26	17.50	1.057	99.31	1.007	-0.06	0.166	0.177
	WLAN2.4GHz	802.11b 1Mbps	Right side	10	Ant.1	Full	1	2412	16.91	17.50	1.146	99.31	1.007	0.02	0.179	0.206
	WLAN2.4GHz	802.11b 1Mbps	Right side	10	Ant.1	Full	6	2437	16.92	17.50	1.143	99.31	1.007	0.03	0.201	0.231
	WLAN2.4GHz	802.11b 1Mbps	Front	10	Ant.2	Full	11	2462	14.48	15.00	1.127	99.10	1.009	0.15	0.089	0.101
	WLAN2.4GHz	802.11b 1Mbps	Back	10	Ant.2	Full	11	2462	14.48	15.00	1.127	99.10	1.009	0.06	0.070	0.080
	WLAN2.4GHz	802.11b 1Mbps	Left side	10	Ant.2	Full	11	2462	14.48	15.00	1.127	99.10	1.009	0.02	0.090	0.102
	WLAN2.4GHz	802.11b 1Mbps	Top side	10	Ant.2	Full	11	2462	14.48	15.00	1.127	99.10	1.009	0.14	0.074	0.084
	WLAN2.4GHz	802.11b 1Mbps	Left side	10	Ant.2	Full	1	2412	13.93	15.00	1.279	99.10	1.009	0.03	0.049	0.063
	WLAN2.4GHz	802.11b 1Mbps	Left side	10	Ant.2	Full	6	2437	14.41	15.00	1.146	99.10	1.009	0.10	0.063	0.073

<WLAN 5GHz SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	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)
	WLAN5.2GHz	802.11a 6Mbps	Front	10	Ant.1+2	Full	40	5200	18.03	18.50	1.114	95.00	1.053	0.15	0.102	0.120
	WLAN5.2GHz	802.11a 6Mbps	Back	10	Ant.1+2	Full	40	5200	18.03	18.50	1.114	95.00	1.053	0.16	0.079	0.093
	WLAN5.2GHz	802.11a 6Mbps	Left side	10	Ant.1+2	Full	40	5200	18.03	18.50	1.114	95.00	1.053	-0.08	0.114	0.134
	WLAN5.2GHz	802.11a 6Mbps	Right side	10	Ant.1+2	Full	40	5200	18.03	18.50	1.114	95.00	1.053	-0.16	0.110	0.129
	WLAN5.2GHz	802.11a 6Mbps	Top side	10	Ant.1+2	Full	40	5200	18.03	18.50	1.114	95.00	1.053	-0.03	0.071	0.083
	WLAN5.2GHz	802.11a 6Mbps	Left side	10	Ant.1+2	Full	36	5180	17.89	18.50	1.151	95.00	1.053	0.19	0.116	0.141
	WLAN5.2GHz	802.11a 6Mbps	Left side	10	Ant.1+2	Full	44	5220	18.04	18.50	1.112	95.00	1.053	0.05	0.117	0.137
36	WLAN5.2GHz	802.11a 6Mbps	Left side	10	Ant.1+2	Full	48	5240	17.98	18.50	1.127	95.00	1.053	0.12	0.119	0.141
	WLAN5.8GHz	802.11a 6Mbps	Front	10	Ant.1+2	Full	165	5825	17.97	18.50	1.130	95.00	1.053	-0.14	0.145	0.173
	WLAN5.8GHz	802.11a 6Mbps	Back	10	Ant.1+2	Full	165	5825	17.97	18.50	1.130	95.00	1.053	-0.18	0.121	0.144
	WLAN5.8GHz	802.11a 6Mbps	Left side	10	Ant.1+2	Full	165	5825	17.97	18.50	1.130	95.00	1.053	0.18	0.062	0.074
	WLAN5.8GHz	802.11a 6Mbps	Right side	10	Ant.1+2	Full	165	5825	17.97	18.50	1.130	95.00	1.053	-0.19	0.284	0.338
	WLAN5.8GHz	802.11a 6Mbps	Top side	10	Ant.1+2	Full	165	5825	17.97	18.50	1.130	95.00	1.053	-0.17	0.098	0.117
37	WLAN5.8GHz	802.11a 6Mbps	Right side	10	Ant.1+2	Full	149	5745	17.65	18.50	1.216	95.00	1.053	-0.16	0.275	0.352
	WLAN5.8GHz	802.11a 6Mbps	Right side	10	Ant.1+2	Full	157	5785	17.95	18.50	1.135	95.00	1.053	-0.12	0.278	0.332

<Bluetooth SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	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)
	Bluetooth	1Mbps	Front	10	Ant.1	Full	78	2480	11.04	11.50	1.112	76.84	1.084	0.08	0.014	0.017
38	Bluetooth	1Mbps	Back	10	Ant.1	Full	78	2480	11.04	11.50	1.112	76.84	1.084	0.17	0.016	0.019
	Bluetooth	1Mbps	Right side	10	Ant.1	Full	78	2480	11.04	11.50	1.112	76.84	1.084	0.01	0.015	0.018
	Bluetooth	1Mbps	Top side	10	Ant.1	Full	78	2480	11.04	11.50	1.112	76.84	1.084	0.18	0.015	0.018
	Bluetooth	1Mbps	Back	10	Ant.1	Full	0	2402	10.95	11.50	1.135	76.84	1.084	-0.17	0.014	0.017
	Bluetooth	1Mbps	Back	10	Ant.1	Full	39	2441	10.82	11.50	1.169	76.84	1.084	-0.04	0.014	0.018



14.3 Body Worn Accessory SAR

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	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)
39	GSM850	GPRS(3 Tx slots)	Front	15	Top	Full	189	836.4	29.01	29.50	1.119	0.07	0.553	0.619
	GSM850	GPRS(3 Tx slots)	Back	15	Top	Full	189	836.4	29.01	29.50	1.119	0.06	0.494	0.553
	GSM850	GPRS(3 Tx slots)	Front	15	Top	Full	128	824.2	28.81	29.50	1.172	-0.04	0.397	0.465
	GSM850	GPRS(3 Tx slots)	Front	15	Top	Full	251	848.8	28.85	29.50	1.161	-0.07	0.260	0.302
	GSM850	GPRS(3 Tx slots)	Front	15	Bottom	Full	189	836.4	29.01	29.50	1.119	0.06	0.327	0.366
	GSM850	GPRS(3 Tx slots)	Back	15	Bottom	Full	189	836.4	29.01	29.50	1.119	0.07	0.376	0.421
	GSM850	GPRS(3 Tx slots)	Back	15	Bottom	Full	128	824.2	28.81	29.50	1.172	0.08	0.381	0.447
	GSM850	GPRS(3 Tx slots)	Back	15	Bottom	Full	251	848.8	28.85	29.50	1.161	0.01	0.429	0.498
	GSM1900	GPRS(3 Tx slots)	Front	15	Top	Full	661	1880	26.74	27.00	1.062	0.02	0.161	0.171
	GSM1900	GPRS(3 Tx slots)	Back	15	Top	Full	661	1880	26.74	27.00	1.062	-0.09	0.117	0.124
	GSM1900	GPRS(3 Tx slots)	Front	15	Top	Full	512	1850.2	26.62	27.00	1.091	0.15	0.146	0.159
	GSM1900	GPRS(3 Tx slots)	Front	15	Top	Full	810	1909.8	26.72	27.00	1.067	0.01	0.196	0.209
	GSM1900	GPRS(3 Tx slots)	Front	15	Bottom	Full	661	1880	26.74	27.00	1.062	0.04	0.315	0.334
	GSM1900	GPRS(3 Tx slots)	Back	15	Bottom	Full	661	1880	26.74	27.00	1.062	0.07	0.264	0.280
40	GSM1900	GPRS(3 Tx slots)	Front	15	Bottom	Full	512	1850.2	26.62	27.00	1.091	0.05	0.337	0.368
	GSM1900	GPRS(3 Tx slots)	Front	15	Bottom	Full	810	1909.8	26.72	27.00	1.067	0.06	0.277	0.295



<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA Band V	RMC 12.2Kbps	Front	15	Top	Full	4233	846.6	23.15	23.50	1.084	-0.05	0.266	0.288
	WCDMA Band V	RMC 12.2Kbps	Back	15	Top	Full	4233	846.6	23.15	23.50	1.084	-0.04	0.249	0.270
41	WCDMA Band V	RMC 12.2Kbps	Front	15	Top	Full	4132	826.4	22.96	23.50	1.132	-0.04	0.322	0.365
	WCDMA Band V	RMC 12.2Kbps	Front	15	Top	Full	4182	836.4	23.07	23.50	1.104	-0.02	0.317	0.350
	WCDMA Band V	RMC 12.2Kbps	Front	15	Bottom	Full	4233	846.6	23.15	23.50	1.084	-0.01	0.224	0.243
	WCDMA Band V	RMC 12.2Kbps	Back	15	Bottom	Full	4233	846.6	23.15	23.50	1.084	-0.04	0.258	0.280
	WCDMA Band V	RMC 12.2Kbps	Back	15	Bottom	Full	4132	826.4	22.96	23.50	1.132	-0.05	0.247	0.280
	WCDMA Band V	RMC 12.2Kbps	Back	15	Bottom	Full	4182	836.4	23.07	23.50	1.104	-0.01	0.248	0.274
	WCDMA Band IV	RMC 12.2Kbps	Front	15	Top	Full	1413	1732.6	23.14	23.50	1.086	0.11	0.274	0.298
	WCDMA Band IV	RMC 12.2Kbps	Back	15	Top	Full	1413	1732.6	23.14	23.50	1.086	-0.1	0.205	0.223
	WCDMA Band IV	RMC 12.2Kbps	Front	15	Top	Full	1312	1712.4	23.04	23.50	1.112	0.01	0.250	0.278
	WCDMA Band IV	RMC 12.2Kbps	Front	15	Top	Full	1513	1752.6	23.06	23.50	1.107	0.09	0.276	0.305
	WCDMA Band IV	RMC 12.2Kbps	Front	15	Bottom	Full	1413	1732.6	23.14	23.50	1.086	0.05	0.527	0.573
	WCDMA Band IV	RMC 12.2Kbps	Back	15	Bottom	Full	1413	1732.6	23.14	23.50	1.086	0.01	0.419	0.455
	WCDMA Band IV	RMC 12.2Kbps	Front	15	Bottom	Full	1312	1712.4	23.04	23.50	1.112	0.07	0.489	0.544
42	WCDMA Band IV	RMC 12.2Kbps	Front	15	Bottom	Full	1513	1752.6	23.06	23.50	1.107	0.04	0.617	0.683
	WCDMA Band II	RMC 12.2Kbps	Front	15	Top	Full	9400	1880	23.04	23.50	1.112	0.04	0.259	0.288
	WCDMA Band II	RMC 12.2Kbps	Back	15	Top	Full	9400	1880	23.04	23.50	1.112	0.04	0.177	0.197
	WCDMA Band II	RMC 12.2Kbps	Front	15	Top	Full	9262	1852.4	23.02	23.50	1.117	0.13	0.257	0.287
	WCDMA Band II	RMC 12.2Kbps	Front	15	Top	Full	9538	1907.6	22.89	23.50	1.151	0.03	0.240	0.276
	WCDMA Band II	RMC 12.2Kbps	Front	15	Bottom	Full	9400	1880	23.04	23.50	1.112	-0.13	0.405	0.450
	WCDMA Band II	RMC 12.2Kbps	Back	15	Bottom	Full	9400	1880	23.04	23.50	1.112	0.04	0.327	0.364
43	WCDMA Band II	RMC 12.2Kbps	Front	15	Bottom	Full	9262	1852.4	23.02	23.50	1.117	0.08	0.428	0.478
	WCDMA Band II	RMC 12.2Kbps	Front	15	Bottom	Full	9538	1852.4	22.89	23.50	1.151	0.06	0.365	0.420

<CDMA2000 SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	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)
	CDMA2000 BC0	RC3+SO32 (F+SCH)	Front	15	Top	Full	384	836.52	22.20	23.00	1.202	-0.02	0.154	0.185
	CDMA2000 BC0	RC3+SO32 (F+SCH)	Back	15	Top	Full	384	836.52	22.20	23.00	1.202	-0.01	0.145	0.174
	CDMA2000 BC0	RC3+SO32 (F+SCH)	Front	15	Top	Full	1013	824.7	22.18	23.00	1.208	0.05	0.154	0.186
	CDMA2000 BC0	RC3+SO32 (F+SCH)	Front	15	Top	Full	777	848.31	22.19	23.00	1.205	0.05	0.143	0.172
	CDMA2000 BC0	RC3+SO32 (F+SCH)	Front	15	Bottom	Full	384	836.52	22.20	23.00	1.202	-0.03	0.134	0.161
	CDMA2000 BC0	RC3+SO32 (F+SCH)	Back	15	Bottom	Full	384	836.52	22.20	23.00	1.202	-0.02	0.157	0.189
	CDMA2000 BC0	RC3+SO32 (F+SCH)	Back	15	Bottom	Full	1013	824.7	22.18	23.00	1.208	-0.04	0.156	0.188
44	CDMA2000 BC0	RC3+SO32 (F+SCH)	Back	15	Bottom	Full	777	848.31	22.19	23.00	1.205	-0.01	0.158	0.190



<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 12	10M	QPSK	1RB	0Offset	Front	15	Top	Full	23095	707.5	23.25	23.50	1.059	-0.04	0.230	0.244
45	LTE Band 12	10M	QPSK	1RB	0Offset	Back	15	Top	Full	23095	707.5	23.25	23.50	1.059	-0.01	0.232	0.246
	LTE Band 12	10M	QPSK	25RB	25Offset	Front	15	Top	Full	23095	707.5	22.25	22.50	1.059	0.07	0.230	0.244
	LTE Band 12	10M	QPSK	25RB	25Offset	Back	15	Top	Full	23095	707.5	22.25	22.50	1.059	0	0.231	0.245
	LTE Band 12	10M	QPSK	1RB	0Offset	Front	15	Bottom	Full	23095	707.5	23.25	23.50	1.059	0.01	0.144	0.153
	LTE Band 12	10M	QPSK	1RB	0Offset	Back	15	Bottom	Full	23095	707.5	23.25	23.50	1.059	0.05	0.159	0.168
	LTE Band 12	10M	QPSK	25RB	25Offset	Front	15	Bottom	Full	23095	707.5	22.25	22.50	1.059	0.03	0.118	0.125
	LTE Band 12	10M	QPSK	25RB	25Offset	Back	15	Bottom	Full	23095	707.5	22.25	22.50	1.059	-0.01	0.130	0.138
46	LTE Band 5	10M	QPSK	1RB	49Offset	Front	15	Top	Full	20525	836.5	22.93	23.50	1.140	0.01	0.344	0.392
	LTE Band 5	10M	QPSK	1RB	49Offset	Back	15	Top	Full	20525	836.5	22.93	23.50	1.140	0.06	0.318	0.363
	LTE Band 5	10M	QPSK	25RB	0Offset	Front	15	Top	Full	20525	836.5	22.05	22.50	1.109	0.05	0.280	0.311
	LTE Band 5	10M	QPSK	25RB	0Offset	Back	15	Top	Full	20525	836.5	22.05	22.50	1.109	0.01	0.260	0.288
	LTE Band 5	10M	QPSK	1RB	49Offset	Front	15	Bottom	Full	20525	836.5	22.93	23.50	1.140	0.05	0.236	0.269
	LTE Band 5	10M	QPSK	1RB	49Offset	Back	15	Bottom	Full	20525	836.5	22.93	23.50	1.140	0.01	0.259	0.295
	LTE Band 5	10M	QPSK	25RB	0Offset	Front	15	Bottom	Full	20525	836.5	22.05	22.50	1.109	0.13	0.184	0.204
	LTE Band 5	10M	QPSK	25RB	0Offset	Back	15	Bottom	Full	20525	836.5	22.05	22.50	1.109	0.01	0.212	0.235
	LTE Band 26	15M	QPSK	1RB	0Offset	Front	15	Top	Full	26965	841.5	23.25	23.50	1.059	-0.01	0.322	0.341
	LTE Band 26	15M	QPSK	1RB	0Offset	Back	15	Top	Full	26965	841.5	23.25	23.50	1.059	-0.01	0.256	0.271
	LTE Band 26	15M	QPSK	1RB	0Offset	Front	15	Top	Full	26765	821.5	23.07	23.50	1.104	0.03	0.307	0.339
47	LTE Band 26	15M	QPSK	1RB	0Offset	Front	15	Top	Full	26865	831.5	23.13	23.50	1.089	-0.01	0.338	0.368
	LTE Band 26	15M	QPSK	36RB	0Offset	Front	15	Top	Full	26965	841.5	22.31	22.50	1.045	-0.04	0.263	0.275
	LTE Band 26	15M	QPSK	36RB	0Offset	Back	15	Top	Full	26965	841.5	22.31	22.50	1.045	-0.03	0.262	0.274
	LTE Band 26	15M	QPSK	1RB	0Offset	Front	15	Bottom	Full	26965	841.5	23.25	23.50	1.059	-0.04	0.242	0.256
	LTE Band 26	15M	QPSK	1RB	0Offset	Back	15	Bottom	Full	26965	841.5	23.25	23.50	1.059	-0.02	0.306	0.324
	LTE Band 26	15M	QPSK	1RB	0Offset	Back	15	Bottom	Full	26765	821.5	23.07	23.50	1.104	-0.08	0.275	0.304
	LTE Band 26	15M	QPSK	1RB	0Offset	Back	15	Bottom	Full	26865	831.5	23.13	23.50	1.089	-0.03	0.306	0.333
	LTE Band 26	15M	QPSK	36RB	0Offset	Front	15	Bottom	Full	26965	841.5	22.31	22.50	1.045	0.01	0.139	0.145
	LTE Band 26	15M	QPSK	36RB	0Offset	Back	15	Bottom	Full	26965	841.5	22.31	22.50	1.045	-0.05	0.242	0.253
	LTE Band 4	20M	QPSK	1RB	0Offset	Front	15	Top	Full	20175	1732.5	23.37	23.50	1.030	0.09	0.271	0.279
	LTE Band 4	20M	QPSK	1RB	0Offset	Back	15	Top	Full	20175	1732.5	23.37	23.50	1.030	0.1	0.197	0.203
	LTE Band 4	20M	QPSK	50RB	0Offset	Front	15	Top	Full	20175	1732.5	22.32	22.50	1.042	0.16	0.222	0.231
	LTE Band 4	20M	QPSK	50RB	0Offset	Back	15	Top	Full	20175	1732.5	22.32	22.50	1.042	-0.03	0.159	0.166
48	LTE Band 4	20M	QPSK	1RB	0Offset	Front	15	Bottom	Full	20175	1732.5	23.37	23.50	1.030	0.02	0.653	0.673
	LTE Band 4	20M	QPSK	1RB	0Offset	Back	15	Bottom	Full	20175	1732.5	23.37	23.50	1.030	-0.06	0.552	0.569
	LTE Band 4	20M	QPSK	50RB	0Offset	Front	15	Bottom	Full	20175	1732.5	22.32	22.50	1.042	0.03	0.548	0.571
	LTE Band 4	20M	QPSK	50RB	0Offset	Back	15	Bottom	Full	20175	1732.5	22.32	22.50	1.042	0.04	0.453	0.472



FCC SAR Test Report

Report No. : FA782510-01

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 66	20M	QPSK	1RB	0Offset	Front	15	Top	Full	132322	1745	23.23	23.50	1.064	0.02	0.259	0.276
	LTE Band 66	20M	QPSK	1RB	0Offset	Back	15	Top	Full	132322	1745	23.23	23.50	1.064	-0.02	0.213	0.227
	LTE Band 66	20M	QPSK	1RB	0Offset	Front	15	Top	Full	132072	1720	23.03	23.50	1.114	0.07	0.223	0.248
	LTE Band 66	20M	QPSK	1RB	0Offset	Front	15	Top	Full	132572	1770	23.13	23.50	1.089	0.06	0.263	0.286
	LTE Band 66	20M	QPSK	50RB	0Offset	Front	15	Top	Full	132322	1745	22.19	22.50	1.074	0.06	0.196	0.211
	LTE Band 66	20M	QPSK	50RB	0Offset	Back	15	Top	Full	132322	1745	22.19	22.50	1.074	-0.07	0.153	0.164
	LTE Band 66	20M	QPSK	1RB	0Offset	Front	15	Bottom	Full	132322	1745	23.23	23.50	1.064	0.07	0.603	0.642
	LTE Band 66	20M	QPSK	1RB	0Offset	Back	15	Bottom	Full	132322	1745	23.23	23.50	1.064	0.09	0.519	0.552
	LTE Band 66	20M	QPSK	1RB	0Offset	Front	15	Bottom	Full	132072	1720	23.03	23.50	1.114	0.04	0.488	0.544
49	LTE Band 66	20M	QPSK	1RB	0Offset	Front	15	Bottom	Full	132572	1770	23.13	23.50	1.089	0.06	0.698	0.760
	LTE Band 66	20M	QPSK	50RB	0Offset	Front	15	Bottom	Full	132322	1745	22.19	22.50	1.074	0.02	0.600	0.644
	LTE Band 66	20M	QPSK	50RB	0Offset	Back	15	Bottom	Full	132322	1745	22.19	22.50	1.074	-0.07	0.472	0.507
	LTE Band 25	20M	QPSK	1RB	0Offset	Front	15	Top	Full	26590	1905	23.11	23.50	1.094	-0.02	0.154	0.168
	LTE Band 25	20M	QPSK	1RB	0Offset	Back	15	Top	Full	26590	1905	23.11	23.50	1.094	-0.02	0.127	0.139
	LTE Band 25	20M	QPSK	1RB	0Offset	Front	15	Top	Full	26140	1860	23.04	23.50	1.112	-0.04	0.166	0.185
	LTE Band 25	20M	QPSK	1RB	0Offset	Front	15	Top	Full	26340	1880	23.08	23.50	1.102	-0.03	0.165	0.182
	LTE Band 25	20M	QPSK	50RB	0Offset	Front	15	Top	Full	26590	1905	22.07	22.50	1.104	-0.05	0.124	0.137
	LTE Band 25	20M	QPSK	50RB	0Offset	Back	15	Top	Full	26590	1905	22.07	22.50	1.104	-0.04	0.077	0.085
	LTE Band 25	20M	QPSK	1RB	0Offset	Front	15	Bottom	Full	26590	1905	23.11	23.50	1.094	0.01	0.401	0.439
	LTE Band 25	20M	QPSK	1RB	0Offset	Back	15	Bottom	Full	26590	1905	23.11	23.50	1.094	0.02	0.320	0.350
50	LTE Band 25	20M	QPSK	1RB	0Offset	Front	15	Bottom	Full	26140	1860	23.04	23.50	1.112	0.07	0.557	0.619
	LTE Band 25	20M	QPSK	1RB	0Offset	Front	15	Bottom	Full	26340	1880	23.08	23.50	1.102	0.19	0.484	0.533
	LTE Band 25	20M	QPSK	50RB	0Offset	Front	15	Bottom	Full	26590	1905	22.07	22.50	1.104	0.16	0.321	0.354
	LTE Band 25	20M	QPSK	50RB	0Offset	Back	15	Bottom	Full	26590	1905	22.07	22.50	1.104	-0.04	0.230	0.254
51	LTE Band 30	10M	QPSK	1RB	25Offset	Front	15	Top	Full	27710	2310	22.51	23.00	1.119	-0.05	0.317	0.355
	LTE Band 30	10M	QPSK	1RB	25Offset	Back	15	Top	Full	27710	2310	22.51	23.00	1.119	0.16	0.291	0.326
	LTE Band 30	10M	QPSK	25RB	0Offset	Front	15	Top	Full	27710	2310	21.53	22.00	1.114	0.13	0.249	0.277
	LTE Band 30	10M	QPSK	25RB	0Offset	Back	15	Top	Full	27710	2310	21.53	22.00	1.114	0.03	0.203	0.226
	LTE Band 30	10M	QPSK	1RB	25Offset	Front	15	Bottom	Full	27710	2310	22.51	23.00	1.119	0.09	0.224	0.251
	LTE Band 30	10M	QPSK	1RB	25Offset	Back	15	Bottom	Full	27710	2310	22.51	23.00	1.119	0.01	0.190	0.213
	LTE Band 30	10M	QPSK	25RB	0Offset	Front	15	Bottom	Full	27710	2310	21.53	22.00	1.114	-0.09	0.115	0.128
	LTE Band 30	10M	QPSK	25RB	0Offset	Back	15	Bottom	Full	27710	2310	21.53	22.00	1.114	-0.14	0.153	0.170
	LTE Band 7	20M	QPSK	1RB	0Offset	Front	15	Top	Full	21350	2560	23.17	23.50	1.079	-0.08	0.392	0.423
	LTE Band 7	20M	QPSK	1RB	0Offset	Back	15	Top	Full	21350	2560	23.17	23.50	1.079	0.06	0.343	0.370
52	LTE Band 7	20M	QPSK	1RB	0Offset	Front	15	Top	Full	20850	2510	22.92	23.50	1.143	-0.01	0.439	0.502
	LTE Band 7	20M	QPSK	1RB	0Offset	Front	15	Top	Full	21100	2535	23.13	23.50	1.089	-0.01	0.432	0.470
	LTE Band 7	20M	QPSK	1RB	0Offset	Front	15	Top	Full	20850(PCC) + 21048(SCC)	2510(PCC) + 2529.8(SCC)	23.12	23.50	1.091	0.11	0.421	0.459
	LTE Band 7	20M	QPSK	50RB	0Offset	Front	15	Top	Full	21350	2560	22.19	22.50	1.074	-0.01	0.319	0.343
	LTE Band 7	20M	QPSK	50RB	0Offset	Back	15	Top	Full	21350	2560	22.19	22.50	1.074	0.09	0.252	0.271
	LTE Band 7	20M	QPSK	1RB	0Offset	Front	15	Bottom	Full	21350	2560	23.17	23.50	1.079	0.09	0.298	0.322
	LTE Band 7	20M	QPSK	1RB	0Offset	Back	15	Bottom	Full	21350	2560	23.17	23.50	1.079	-0.04	0.258	0.278
	LTE Band 7	20M	QPSK	1RB	0Offset	Front	15	Bottom	Full	20850	2510	22.92	23.50	1.143	0.06	0.302	0.345
	LTE Band 7	20M	QPSK	1RB	0Offset	Front	15	Bottom	Full	21100	2535	23.13	23.50	1.089	0.02	0.308	0.335
	LTE Band 7	20M	QPSK	1RB	0Offset	Front	15	Bottom	Full	20850(PCC) + 21048(SCC)	2510(PCC) + 2529.8(SCC)	23.12	23.50	1.091	0.04	0.315	0.344
	LTE Band 7	20M	QPSK	50RB	0Offset	Front	15	Bottom	Full	21350	2560	22.19	22.50	1.074	0.08	0.228	0.245
	LTE Band 7	20M	QPSK	50RB	0Offset	Back	15	Bottom	Full	21350	2560	22.19	22.50	1.074	0.05	0.204	0.219

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Page 214 of 246

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<TDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 41	20M	QPSK	1RB	49Offset	Front	15	Top	Full	41490	2680	23.30	23.50	1.047	62.9	1.006	-0.04	0.111	0.117
	LTE Band 41	20M	QPSK	1RB	49Offset	Back	15	Top	Full	41490	2680	23.30	23.50	1.047	62.9	1.006	-0.01	0.117	0.123
53	LTE Band 41	20M	QPSK	1RB	49Offset	Back	15	Top	Full	39750	2506	23.04	23.50	1.112	62.9	1.006	-0.09	0.217	0.243
	LTE Band 41	20M	QPSK	1RB	49Offset	Back	15	Top	Full	40185	2549.5	23.17	23.50	1.079	62.9	1.006	-0.01	0.202	0.219
	LTE Band 41	20M	QPSK	1RB	49Offset	Back	15	Top	Full	40620	2593	22.86	23.50	1.159	62.9	1.006	-0.03	0.176	0.205
	LTE Band 41	20M	QPSK	1RB	49Offset	Back	15	Top	Full	41055	2636.5	22.82	23.50	1.169	62.9	1.006	-0.04	0.173	0.204
	LTE Band 41	20M	QPSK	1RB	49Offset	Back	15	Top	Full	39750(PCC) + 39948(SCC)	2506(PCC) + 2525.8(SCC)	23.19	23.50	1.074	62.9	1.006	0.06	0.200	0.216
	LTE Band 41	20M	QPSK	50RB	0Offset	Front	15	Top	Full	41490	2680	22.19	22.50	1.074	62.9	1.006	0.01	0.109	0.118
	LTE Band 41	20M	QPSK	50RB	0Offset	Back	15	Top	Full	41490	2680	22.19	22.50	1.074	62.9	1.006	0.09	0.086	0.093
	LTE Band 41	20M	QPSK	1RB	49Offset	Front	15	Bottom	Full	41490	2680	23.30	23.50	1.047	62.9	1.006	0.08	0.161	0.170
	LTE Band 41	20M	QPSK	1RB	49Offset	Back	15	Bottom	Full	41490	2680	23.30	23.50	1.047	62.9	1.006	-0.07	0.114	0.120
	LTE Band 41	20M	QPSK	1RB	49Offset	Front	15	Bottom	Full	39750	2506	23.04	23.50	1.112	62.9	1.006	0.08	0.203	0.227
	LTE Band 41	20M	QPSK	1RB	49Offset	Front	15	Bottom	Full	40185	2549.5	23.17	23.50	1.079	62.9	1.006	-0.05	0.202	0.219
	LTE Band 41	20M	QPSK	1RB	49Offset	Front	15	Bottom	Full	40620	2593	22.86	23.50	1.159	62.9	1.006	0.06	0.182	0.212
	LTE Band 41	20M	QPSK	1RB	49Offset	Front	15	Bottom	Full	41055	2636.5	22.82	23.50	1.169	62.9	1.006	0.02	0.191	0.225
	LTE Band 41	20M	QPSK	1RB	49Offset	Front	15	Bottom	Full	39750(PCC) + 39948(SCC)	2506(PCC) + 2525.8(SCC)	23.19	23.5	1.074	62.9	1.006	0.07	0.177	0.191
	LTE Band 41	20M	QPSK	50RB	0Offset	Front	15	Bottom	Full	41490	2680	22.19	22.50	1.074	62.9	1.006	-0.05	0.094	0.102
	LTE Band 41	20M	QPSK	50RB	0Offset	Back	15	Bottom	Full	41490	2680	22.19	22.50	1.074	62.9	1.006	-0.07	0.069	0.075

**<WLAN 2.4GHz SAR>**

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Front	15	Ant.1	Full	11	2462	17.26	17.50	1.057	99.31	1.007	-0.01	0.090	0.096
	WLAN2.4GHz	802.11b 1Mbps	Back	15	Ant.1	Full	11	2462	17.26	17.50	1.057	99.31	1.007	-0.01	0.096	0.102
	WLAN2.4GHz	802.11b 1Mbps	Back	15	Ant.1	Full	1	2412	16.91	17.50	1.146	99.31	1.007	0.02	0.093	0.108
54	WLAN2.4GHz	802.11b 1Mbps	Back	15	Ant.1	Full	6	2437	16.92	17.50	1.143	99.31	1.007	0.07	0.105	0.121
	WLAN2.4GHz	802.11b 1Mbps	Front	15	Ant.2	Full	11	2462	14.48	15.00	1.127	99.10	1.009	0.13	0.047	0.053
	WLAN2.4GHz	802.11b 1Mbps	Back	15	Ant.2	Full	11	2462	14.48	15.00	1.127	99.10	1.009	0.16	0.039	0.045
	WLAN2.4GHz	802.11b 1Mbps	Front	15	Ant.2	Full	1	2412	13.93	15.00	1.279	99.10	1.009	0.01	0.028	0.035
	WLAN2.4GHz	802.11b 1Mbps	Front	15	Ant.2	Full	6	2437	14.41	15.00	1.146	99.10	1.009	0.09	0.032	0.037

<WLAN 5GHz SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	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)
	WLAN5.3GHz	802.11a 6Mbps	Front	15	Ant.1+2	Full	52	5260	17.93	18.50	1.140	95.00	1.053	-0.13	0.057	0.068
	WLAN5.3GHz	802.11a 6Mbps	Back	15	Ant.1+2	Full	52	5260	17.93	18.50	1.140	95.00	1.053	-0.13	0.039	0.047
	WLAN5.3GHz	802.11a 6Mbps	Front	15	Ant.1+2	Full	56	5280	17.85	18.50	1.161	95.00	1.053	-0.05	0.055	0.067
55	WLAN5.3GHz	802.11a 6Mbps	Front	15	Ant.1+2	Full	60	5300	17.70	18.50	1.202	95.00	1.053	0.07	0.063	0.080
	WLAN5.3GHz	802.11a 6Mbps	Front	15	Ant.1+2	Full	64	5320	17.59	18.50	1.233	95.00	1.053	0.06	0.061	0.079
	WLAN5.5GHz	802.11a 6Mbps	Front	15	Ant.1+2	Full	100	5500	17.90	18.50	1.148	95.00	1.053	0.07	0.082	0.099
	WLAN5.5GHz	802.11a 6Mbps	Back	15	Ant.1+2	Full	100	5500	17.90	18.50	1.148	95.00	1.053	0.01	0.059	0.071
	WLAN5.5GHz	802.11a 6Mbps	Front	15	Ant.1+2	Full	116	5580	17.70	18.50	1.202	95.00	1.053	0.11	0.079	0.100
	WLAN5.5GHz	802.11a 6Mbps	Front	15	Ant.1+2	Full	132	5660	17.60	18.50	1.230	95.00	1.053	0.08	0.087	0.113
56	WLAN5.5GHz	802.11a 6Mbps	Front	15	Ant.1+2	Full	140	5700	17.54	18.50	1.247	95.00	1.053	0.06	0.092	0.121
57	WLAN5.8GHz	802.11a 6Mbps	Front	15	Ant.1+2	Full	165	5825	17.97	18.50	1.130	95.00	1.053	-0.15	0.091	0.108
	WLAN5.8GHz	802.11a 6Mbps	Back	15	Ant.1+2	Full	165	5825	17.97	18.50	1.130	95.00	1.053	-0.11	0.063	0.074
	WLAN5.8GHz	802.11a 6Mbps	Front	15	Ant.1+2	Full	149	5745	17.65	18.50	1.216	95.00	1.053	0.08	0.080	0.102
	WLAN5.8GHz	802.11a 6Mbps	Front	15	Ant.1+2	Full	157	5785	17.95	18.50	1.135	95.00	1.053	0.04	0.086	0.103

<Bluetooth SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	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)
	Bluetooth	1Mbps	Front	15	Ant.1	Full	78	2480	11.04	11.50	1.112	76.84	1.084	-0.06	0.013	0.016
58	Bluetooth	1Mbps	Back	15	Ant.1	Full	78	2480	11.04	11.50	1.112	76.84	1.084	-0.01	0.014	0.017
	Bluetooth	1Mbps	Back	15	Ant.1	Full	0	2402	10.95	11.50	1.135	76.84	1.084	-0.04	0.008	0.010
	Bluetooth	1Mbps	Back	15	Ant.1	Full	39	2441	10.82	11.50	1.169	76.84	1.084	-0.08	0.008	0.011



14.4 Product specific 10g SAR

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	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)
59	GSM1900	GPRS(3 Tx slots)	Bottom Side	0	Bottom	Full	661	1880	26.74	27.00	1.062	0.1	2.850	3.026
	GSM1900	GPRS(3 Tx slots)	Bottom Side	0	Bottom	Full	512	1850.2	26.62	27.00	1.091	0.16	2.240	2.445
	GSM1900	GPRS(3 Tx slots)	Bottom Side	0	Bottom	Full	810	1909.8	26.72	27.00	1.067	0.09	2.500	2.666

<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
	WCDMA Band IV	RMC 12.2Kbps	Front	0	Bottom	Full	1413	1732.6	23.14	23.50	1.086	0.02	3.140	3.411
	WCDMA Band IV	RMC 12.2Kbps	Front	0	Bottom	Full	1312	1712.4	23.04	23.50	1.112	-0.02	2.980	3.313
	WCDMA Band IV	RMC 12.2Kbps	Front	0	Bottom	Full	1513	1752.6	23.06	23.50	1.107	0.08	3.000	3.320
	WCDMA Band IV	RMC 12.2Kbps	Back	0	Bottom	Full	1413	1732.6	23.14	23.50	1.086	0.06	3.030	3.292
	WCDMA Band IV	RMC 12.2Kbps	Back	0	Bottom	Full	1312	1712.4	23.04	23.50	1.112	0.06	2.890	3.213
	WCDMA Band IV	RMC 12.2Kbps	Back	0	Bottom	Full	1513	1752.6	23.06	23.50	1.107	0.06	2.990	3.309
	WCDMA Band IV	RMC 12.2Kbps	Bottom Side	0	Bottom	Full	1413	1732.6	23.14	23.50	1.086	0.04	2.820	3.064
60	WCDMA Band IV	RMC 12.2Kbps	Bottom Side	0	Bottom	Full	1312	1712.4	23.04	23.50	1.112	0.03	3.100	3.446
	WCDMA Band IV	RMC 12.2Kbps	Bottom Side	0	Bottom	Full	1513	1752.6	23.06	23.50	1.107	0.15	2.670	2.955
	WCDMA Band II	RMC 12.2Kbps	Front	0	Bottom	Full	9400	1880	23.04	23.50	1.112	0.06	1.910	2.123
	WCDMA Band II	RMC 12.2Kbps	Front	0	Bottom	Full	9262	1852.4	23.02	23.50	1.117	0.06	2.000	2.234
	WCDMA Band II	RMC 12.2Kbps	Front	0	Bottom	Full	9538	1907.6	22.89	23.50	1.151	-0.04	1.810	2.083
	WCDMA Band II	RMC 12.2Kbps	Back	0	Bottom	Full	9400	1880	23.04	23.50	1.112	0.03	1.970	2.190
	WCDMA Band II	RMC 12.2Kbps	Back	0	Bottom	Full	9262	1852.4	23.02	23.50	1.117	0.03	2.100	2.345
	WCDMA Band II	RMC 12.2Kbps	Back	0	Bottom	Full	9538	1907.6	22.89	23.50	1.151	0.05	1.780	2.048
	WCDMA Band II	RMC 12.2Kbps	Bottom Side	0	Bottom	Full	9400	1880	23.04	23.50	1.112	0.19	3.130	3.480
	WCDMA Band II	RMC 12.2Kbps	Bottom Side	0	Bottom	Full	9262	1852.4	23.02	23.50	1.117	0.18	3.090	3.451
61	WCDMA Band II	RMC 12.2Kbps	Bottom Side	0	Bottom	Full	9538	1907.6	22.89	23.50	1.151	0.17	3.140	3.614



<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
	LTE Band 4	20M	QPSK	1RB	0Offset	Front	0	Bottom	Full	20175	1732.5	23.37	23.50	1.030	0.07	2.790	2.875
62	LTE Band 4	20M	QPSK	1RB	0Offset	Back	0	Bottom	Full	20175	1732.5	23.37	23.50	1.030	0.07	2.920	3.009
	LTE Band 4	20M	QPSK	1RB	0Offset	Bottom Side	0	Bottom	Full	20175	1732.5	23.37	23.50	1.030	0.05	1.480	1.525
	LTE Band 4	20M	QPSK	50RB	0Offset	Front	0	Bottom	Full	20175	1732.5	22.32	22.50	1.042	0.04	2.290	2.387
	LTE Band 4	20M	QPSK	50RB	0Offset	Back	0	Bottom	Full	20175	1732.5	22.32	22.50	1.042	-0.03	2.400	2.502
	LTE Band 4	20M	QPSK	50RB	0Offset	Bottom Side	0	Bottom	Full	20175	1732.5	22.32	22.50	1.042	0.03	1.580	1.647
	LTE Band 4	20M	QPSK	100RB	0Offset	Front	0	Bottom	Full	20175	1732.5	22.19	22.50	1.074	0.02	2.240	2.406
	LTE Band 4	20M	QPSK	100RB	0Offset	Back	0	Bottom	Full	20175	1732.5	22.19	22.50	1.074	-0.04	2.360	2.535
	LTE Band 4	20M	QPSK	100RB	0Offset	Bottom Side	0	Bottom	Full	20175	1732.5	22.19	22.50	1.074	0.02	1.830	1.965
	LTE Band 66	20M	QPSK	1RB	0Offset	Front	0	Bottom	Full	132322	1745	23.23	23.50	1.064	0.08	2.880	3.065
	LTE Band 66	20M	QPSK	1RB	0Offset	Back	0	Bottom	Full	132322	1745	23.23	23.50	1.064	0.05	2.910	3.097
	LTE Band 66	20M	QPSK	1RB	0Offset	Bottom Side	0	Bottom	Full	132322	1745	23.23	23.50	1.064	0.02	2.690	2.863
	LTE Band 66	20M	QPSK	1RB	0Offset	Front	0	Bottom	Full	132072	1720	23.03	23.50	1.114	-0.11	2.760	3.075
	LTE Band 66	20M	QPSK	1RB	0Offset	Front	0	Bottom	Full	132572	1770	23.13	23.50	1.089	-0.03	2.640	2.875
63	LTE Band 66	20M	QPSK	1RB	0Offset	Back	0	Bottom	Full	132072	1720	23.03	23.50	1.114	0.04	2.790	3.109
	LTE Band 66	20M	QPSK	1RB	0Offset	Back	0	Bottom	Full	132572	1770	23.13	23.50	1.089	-0.02	2.640	2.875
	LTE Band 66	20M	QPSK	1RB	0Offset	Bottom Side	0	Bottom	Full	132072	1720	23.03	23.50	1.114	0.05	2.210	2.463
	LTE Band 66	20M	QPSK	1RB	0Offset	Bottom Side	0	Bottom	Full	132572	1770	23.13	23.50	1.089	0.06	2.450	2.668
	LTE Band 66	20M	QPSK	50RB	0Offset	Front	0	Bottom	Full	132322	1745	22.19	22.50	1.074	-0.05	2.340	2.513
	LTE Band 66	20M	QPSK	50RB	0Offset	Back	0	Bottom	Full	132322	1745	22.19	22.50	1.074	0.03	2.330	2.502
	LTE Band 66	20M	QPSK	50RB	0Offset	Bottom Side	0	Bottom	Full	132322	1745	22.19	22.50	1.074	0.02	2.080	2.234
	LTE Band 66	20M	QPSK	50RB	0Offset	Front	0	Bottom	Full	132072	1720	22.06	22.50	1.107	-0.06	2.220	2.457
	LTE Band 66	20M	QPSK	50RB	0Offset	Front	0	Bottom	Full	132572	1770	22.07	22.50	1.104	0.04	2.060	2.274
	LTE Band 66	20M	QPSK	50RB	0Offset	Back	0	Bottom	Full	132072	1720	22.06	22.50	1.107	0.01	2.240	2.479
	LTE Band 66	20M	QPSK	50RB	0Offset	Back	0	Bottom	Full	132572	1770	22.07	22.50	1.104	0.06	2.050	2.263
	LTE Band 66	20M	QPSK	50RB	0Offset	Bottom Side	0	Bottom	Full	132072	1720	22.06	22.50	1.107	0.07	1.700	1.881
	LTE Band 66	20M	QPSK	50RB	0Offset	Bottom Side	0	Bottom	Full	132572	1770	22.07	22.50	1.104	0.09	1.920	2.120
	LTE Band 66	20M	QPSK	100RB	0Offset	Front	0	Bottom	Full	132322	1745	22.18	22.50	1.076	-0.02	2.300	2.476
	LTE Band 66	20M	QPSK	100RB	0Offset	Back	0	Bottom	Full	132322	1745	22.18	22.50	1.076	-0.04	2.320	2.497
	LTE Band 66	20M	QPSK	100RB	0Offset	Bottom Side	0	Bottom	Full	132322	1745	22.18	22.50	1.076	-0.02	2.030	2.185
	LTE Band 25	20M	QPSK	1RB	0Offset	Front	0	Bottom	Full	26590	1905	23.11	23.50	1.094	0.06	2.740	2.997
	LTE Band 25	20M	QPSK	1RB	0Offset	Bottom Side	0	Bottom	Full	26590	1905	23.11	23.50	1.094	0.02	2.480	2.713
	LTE Band 25	20M	QPSK	1RB	0Offset	Front	0	Bottom	Full	26140	1860	23.04	23.50	1.112	0.03	2.600	2.891
	LTE Band 25	20M	QPSK	1RB	0Offset	Front	0	Bottom	Full	26340	1880	23.08	23.50	1.102	0.02	2.580	2.842
	LTE Band 25	20M	QPSK	1RB	0Offset	Bottom Side	0	Bottom	Full	26140	1860	23.04	23.50	1.112	0.15	2.440	2.713
64	LTE Band 25	20M	QPSK	1RB	0Offset	Bottom Side	0	Bottom	Full	26340	1880	23.08	23.50	1.102	0.14	3.030	3.338
	LTE Band 25	20M	QPSK	50RB	0Offset	Front	0	Bottom	Full	26590	1905	22.07	22.50	1.104	0.01	2.010	2.219
	LTE Band 25	20M	QPSK	50RB	0Offset	Front	0	Bottom	Full	26140	1860	21.73	22.50	1.194	-0.03	1.950	2.328
	LTE Band 25	20M	QPSK	50RB	0Offset	Front	0	Bottom	Full	26340	1880	21.76	22.50	1.186	0.06	2.050	2.431
	LTE Band 25	20M	QPSK	50RB	0Offset	Bottom Side	0	Bottom	Full	26590	1905	22.07	22.50	1.104	0.08	2.300	2.539
	LTE Band 25	20M	QPSK	50RB	0Offset	Bottom Side	0	Bottom	Full	26140	1860	21.73	22.50	1.194	0.06	1.780	2.125
	LTE Band 25	20M	QPSK	50RB	0Offset	Bottom Side	0	Bottom	Full	26340	1880	21.76	22.50	1.186	0.04	2.250	2.668
	LTE Band 25	20M	QPSK	100RB	0Offset	Front	0	Bottom	Full	26590	1905	21.92	22.50	1.143	-0.02	1.730	1.977
	LTE Band 25	20M	QPSK	100RB	0Offset	Bottom Side	0	Bottom	Full	26590	1905	21.92	22.50	1.143	0.02	2.260	2.583
	LTE Band 7	20M	QPSK	1RB	0Offset	Bottom Side	0	Bottom	Full	21350	2560	23.17	23.50	1.079	-0.04	1.340	1.446
65	LTE Band 7	20M	QPSK	1RB	0Offset	Bottom Side	0	Bottom	Full	20850	2510	22.92	23.50	1.143	-0.04	1.360	1.554



FCC SAR Test Report

Report No. : FA782510-01

LTE Band 7	20M	QPSK	1RB	0Offset	Bottom Side	0	Bottom	Full	21100	2535	23.13	23.50	1.089	-0.03	1.260	1.372
LTE Band 7	20M	QPSK	1RB	0Offset	Bottom Side	0	Bottom	Full	20850(PCC) + 21048(SCC)	2510(PCC) + 2529.8(SCC)	23.12	23.50	1.091	-0.01	1.330	1.452
LTE Band 7	20M	QPSK	50RB	0Offset	Bottom Side	0	Bottom	Full	21350	2560	22.19	22.50	1.074	0.09	1.020	1.095

<WLAN 5GHz SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	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)
66	WLAN5.3GHz	802.11a 6Mbps	Front	0	Ant. 1+2	Full	52	5260	17.93	18.50	1.140	95.00	1.053	0.06	0.663	0.796
	WLAN5.3GHz	802.11a 6Mbps	Back	0	Ant. 1+2	Full	52	5260	17.93	18.50	1.140	95.00	1.053	0.11	0.216	0.259
	WLAN5.3GHz	802.11a 6Mbps	Left side	0	Ant. 1+2	Full	52	5260	17.93	18.50	1.140	95.00	1.053	0.16	0.363	0.436
	WLAN5.3GHz	802.11a 6Mbps	Right side	0	Ant. 1+2	Full	52	5260	17.93	18.50	1.140	95.00	1.053	0.16	0.469	0.563
	WLAN5.3GHz	802.11a 6Mbps	Top side	0	Ant. 1+2	Full	52	5260	17.93	18.50	1.140	95.00	1.053	-0.01	0.279	0.335
	WLAN5.3GHz	802.11a 6Mbps	Front	0	Ant. 1+2	Full	56	5280	17.85	18.50	1.161	95.00	1.053	0.14	0.481	0.588
	WLAN5.3GHz	802.11a 6Mbps	Front	0	Ant. 1+2	Full	60	5300	17.70	18.50	1.202	95.00	1.053	0.02	0.526	0.666
	WLAN5.3GHz	802.11a 6Mbps	Front	0	Ant. 1+2	Full	64	5320	17.59	18.50	1.233	95.00	1.053	0.09	0.559	0.726
	WLAN5.5GHz	802.11a 6Mbps	Front	0	Ant. 1+2	Full	100	5500	17.90	18.50	1.148	95.00	1.053	0.06	0.700	0.846
	WLAN5.5GHz	802.11a 6Mbps	Back	0	Ant. 1+2	Full	100	5500	17.90	18.50	1.148	95.00	1.053	0.02	0.248	0.300
	WLAN5.5GHz	802.11a 6Mbps	Left side	0	Ant. 1+2	Full	100	5500	17.90	18.50	1.148	95.00	1.053	0.18	0.307	0.371
	WLAN5.5GHz	802.11a 6Mbps	Right side	0	Ant. 1+2	Full	100	5500	17.90	18.50	1.148	95.00	1.053	0.13	0.663	0.802
	WLAN5.5GHz	802.11a 6Mbps	Top side	0	Ant. 1+2	Full	100	5500	17.90	18.50	1.148	95.00	1.053	0.03	0.477	0.577
	WLAN5.5GHz	802.11a 6Mbps	Front	0	Ant. 1+2	Full	116	5580	17.70	18.50	1.202	95.00	1.053	0.09	0.678	0.858
67	WLAN5.5GHz	802.11a 6Mbps	Front	0	Ant. 1+2	Full	132	5660	17.60	18.50	1.230	95.00	1.053	0.14	0.783	1.014
	WLAN5.5GHz	802.11a 6Mbps	Front	0	Ant. 1+2	Full	140	5700	17.54	18.50	1.247	95.00	1.053	0.05	0.742	0.975

**14.5 Repeated SAR Measurement****<1g SAR>**

No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Mode	Test Position	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Ratio	Reported 1g SAR (W/kg)
1st	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Right Cheek	Top	Reduced Level 1	810	1909.8	25.95	26.50	1.135	-	-	-0.03	1.190		1.351
2nd	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Right Cheek	Top	Reduced Level 1	810	1909.8	25.95	26.50	1.135	-	-	0.01	1.160		1.317
1st	CDMA2000 BC0	-	-	-	-	RC3+SO55	Right Cheek	Top	Reduced Level 1	1013	824.7	20.17	20.50	1.079	-	-	-0.03	1.280		1.381
2nd	CDMA2000 BC0	-	-	-	-	RC3+SO55	Right Cheek	Top	Reduced Level 1	1013	824.7	20.17	20.50	1.079	-	-	0.04	1.260		1.359
1st	LTE Band 12	10M	QPSK	25RB	25Offset	-	Right Cheek	Top	Reduced Level 1	23095	707.5	21.35	21.50	1.035	-	-	-0.01	1.070		1.108
2nd	LTE Band 12	10M	QPSK	25RB	25Offset	-	Right Cheek	Top	Reduced Level 1	23095	707.5	21.35	21.50	1.035	-	-	-0.06	0.964		0.998
1st	LTE Band 66	20M	QPSK	50RB	0Offset	-	Right Cheek	Top	Reduced Level 1	132322	1745	18.31	18.50	1.045	-	-	-0.12	1.190		1.243
2nd	LTE Band 66	20M	QPSK	50RB	0Offset	-	Right Cheek	Top	Reduced Level 1	132322	1745	18.31	18.50	1.045	-	-	-0.09	1.150		1.201
1st	LTE Band 30	10M	QPSK	25RB	0Offset	-	Right Cheek	Top	Reduced Level 1	27710	2310	18.65	19.00	1.084	-	-	0.01	1.160		1.257
2nd	LTE Band 30	10M	QPSK	25RB	0Offset	-	Right Cheek	Top	Reduced Level 1	27710	2310	18.65	19.00	1.084	-	-	0.03	1.140		1.236
1st	LTE Band 41	20M	QPSK	50RB	0Offset	-	Right Cheek	Top	Reduced Level 1	39750	2506	19.01	19.50	1.119	62.9	1.006	0.02	1.220		1.374
2nd	LTE Band 41	20M	QPSK	50RB	0Offset	-	Right Cheek	Top	Reduced Level 1	39750	2506	19.01	19.50	1.119	62.9	1.006	0.05	1.210		1.363
1st	WLAN2.4GHz	-	-	-	-	802.11b 1Mbps	Left Cheek	Ant.1	Full	6	2437	16.92	17.50	1.143	99.31	1.007	0.04	1.000		1.151
2nd	WLAN2.4GHz	-	-	-	-	802.11b 1Mbps	Left Cheek	Ant.1	Full	6	2437	16.92	17.50	1.143	99.31	1.007	0.11	0.992		1.142
1st	WLAN5.3GHz	-	-	-	-	802.11a 6Mbps	Left Cheek	Ant.1+2	Full	56	5280	17.85	18.50	1.161	95.00	1.053	-0.07	0.863		1.055
2nd	WLAN5.3GHz	-	-	-	-	802.11a 6Mbps	Left Cheek	Ant.1+2	Full	56	5280	17.85	18.50	1.161	95.00	1.053	0.18	0.792		0.969
1st	WLAN5.5GHz	-	-	-	-	802.11a 6Mbps	Left Cheek	Ant.1+2	Full	132	5660	17.60	18.50	1.230	95.00	1.053	-0.07	0.924		1.197
2nd	WLAN5.5GHz	-	-	-	-	802.11a 6Mbps	Left Cheek	Ant.1+2	Full	132	5660	17.60	18.50	1.230	95.00	1.053	-0.05	0.832		1.078
1st	WLAN5.8GHz	-	-	-	-	802.11a 6Mbps	Left Cheek	Ant.1+2	Full	165	5825	17.97	18.50	1.130	95.00	1.053	-0.06	1.040		1.237
2nd	WLAN5.8GHz	-	-	-	-	802.11a 6Mbps	Left Cheek	Ant.1+2	Full	165	5825	17.97	18.50	1.130	95.00	1.053	-0.06	0.907		1.079

<10g SAR>

No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Ratio	Reported 10g SAR (W/kg)
1st	WCDMA Band IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	0	Bottom	Full	1413	1732.6	23.14	23.50	1.086	-	-	0.02	3.140		3.411
2nd	WCDMA Band IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	0	Bottom	Full	1413	1732.6	23.14	23.50	1.086	-	-	0.08	3.040		3.303
1st	WCDMA Band II	-	-	-	-	RMC 12.2Kbps	Bottom Side	0	Bottom	Full	9538	1907.6	22.89	23.50	1.151			0.17	3.140		3.614
2nd	WCDMA Band II	-	-	-	-	RMC 12.2Kbps	Bottom Side	0	Bottom	Full	9538	1907.6	22.89	23.50	1.151			0.04	3.050		3.510

General Note:

- Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is ≥ 0.8 W/kg.
- 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.
- 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.
- The ratio is the difference in percentage between original and repeated *measured SAR*.
- 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	
1.	GSM Voice + WLAN2.4GHz (SISO)	Yes	Yes		
2.	GPRS/EDGE + WLAN2.4GHz (SISO)	Yes	Yes	Yes	WWAN VoIP
3.	WCDMA + WLAN2.4GHz (SISO)	Yes	Yes	Yes	WWAN VoIP
4.	CDMA + WLAN2.4GHz (SISO)	Yes	Yes	Yes	WWAN VoIP
5.	LTE + WLAN2.4GHz (SISO)	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		WWAN VoIP
8.	WCDMA + WLAN5.3/5.5GHz (MIMO)	Yes	Yes		WWAN VoIP
9.	CDMA + WLAN5.3/5.5GHz (MIMO)	Yes	Yes		WWAN VoIP
10.	LTE + WLAN5.3/5.5GHz (MIMO)	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	WWAN VoIP
13.	WCDMA + WLAN5.2/5.8GHz (MIMO)	Yes	Yes	Yes	WWAN VoIP
14.	CDMA + WLAN5.2/5.8GHz (MIMO)	Yes	Yes	Yes	WWAN VoIP
15.	LTE + WLAN5.2/5.8GHz (MIMO)	Yes	Yes	Yes	WWAN VoIP
16.	GSM Voice + Bluetooth		Yes		
17.	GPRS/EDGE + Bluetooth		Yes	Yes	WWAN VoIP
18.	WCDMA + Bluetooth		Yes	Yes	WWAN VoIP
19.	CDMA + Bluetooth		Yes	Yes	WWAN VoIP
20.	LTE + Bluetooth		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	WWAN VoIP
23.	WCDMA + WLAN5.2/5.8GHz (MIMO) + Bluetooth		Yes	Yes	WWAN VoIP
24.	CDMA + WLAN5.2/5.8GHz (MIMO) + Bluetooth		Yes	Yes	WWAN VoIP
25.	LTE + WLAN5.2/5.8GHz (MIMO) + Bluetooth		Yes	Yes	WWAN VoIP
26.	2.4GHz WLAN Ant.1+ 2.4GHz WLAN Ant.2	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.
- WLAN 2.4G Ant.2 share the same antenna with Top WWAN antenna 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 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.
- 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.
 - $SPLSR = (SAR1 + SAR2)^{1.5} / (\min. \text{ separation distance, mm})$, and the peak separation distance is determined from the square root of $[(x1-x2)^2 + (y1-y2)^2 + (z1-z2)^2]$, where (x1, y1, z1) and (x2, y2, z2) are the coordinates of the extrapolated peak SAR locations in the zoom scan.
 - If $SPLSR \leq 0.04$ 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

<Top Antenna>

WWAN Band		Exposure Position	1	2	4	1+2 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant.1	5GHz WLAN Ant.1+2		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
GSM	GSM850	Right Cheek	0.930	0.071	0.183	1.00	1.11
		Right Tilted	0.794	0.077	0.163	0.87	0.96
		Left Cheek	0.508	0.336	0.304	0.84	0.81
		Left Tilted	0.451	0.298	0.260	0.75	0.71
	GSM1900	Right Cheek	1.111	0.071	0.183	1.18	1.29
		Right Tilted	0.746	0.077	0.163	0.82	0.91
		Left Cheek	0.274	0.336	0.304	0.61	0.58
		Left Tilted	0.250	0.298	0.260	0.55	0.51
WCDMA	Band V	Right Cheek	1.078	0.071	0.183	1.15	1.26
		Right Tilted	0.784	0.077	0.163	0.86	0.95
		Left Cheek	0.525	0.336	0.304	0.86	0.83
		Left Tilted	0.474	0.298	0.260	0.77	0.73
	Band IV	Right Cheek	0.830	0.071	0.183	0.90	1.01
		Right Tilted	0.671	0.077	0.163	0.75	0.83
		Left Cheek	0.334	0.336	0.304	0.67	0.64
		Left Tilted	0.298	0.298	0.260	0.60	0.56
	Band II	Right Cheek	0.887	0.071	0.183	0.96	1.07
		Right Tilted	0.699	0.077	0.163	0.78	0.86
		Left Cheek	0.318	0.336	0.304	0.65	0.62
		Left Tilted	0.318	0.298	0.260	0.62	0.58
CDMA2000	BC0	Right Cheek	1.160	0.071	0.183	1.23	1.34
		Right Tilted	1.022	0.077	0.163	1.10	1.19
		Left Cheek	0.542	0.336	0.304	0.88	0.85
		Left Tilted	0.520	0.298	0.260	0.82	0.78



WWAN Band		Exposure Position	1	2	4	1+2 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant.1	5GHz WLAN Ant.1+2		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
LTE	Band 12	Right Cheek	0.867	0.071	0.183	0.94	1.05
		Right Tilted	0.770	0.077	0.163	0.85	0.93
		Left Cheek	0.479	0.336	0.304	0.82	0.78
		Left Tilted	0.456	0.298	0.260	0.75	0.72
	Band 5	Right Cheek	1.014	0.071	0.183	1.09	1.20
		Right Tilted	0.911	0.077	0.163	0.99	1.07
		Left Cheek	0.574	0.336	0.304	0.91	0.88
		Left Tilted	0.497	0.298	0.260	0.80	0.76
	Band 26	Right Cheek	0.891	0.071	0.183	0.96	1.07
		Right Tilted	0.715	0.077	0.163	0.79	0.88
		Left Cheek	0.475	0.336	0.304	0.81	0.78
		Left Tilted	0.464	0.298	0.260	0.76	0.72
	Band 4	Right Cheek	1.069	0.071	0.183	1.14	1.25
		Right Tilted	0.886	0.077	0.163	0.96	1.05
		Left Cheek	0.386	0.336	0.304	0.72	0.69
		Left Tilted	0.383	0.298	0.260	0.68	0.64
	Band 66	Right Cheek	0.772	0.071	0.183	0.84	0.96
		Right Tilted	0.630	0.077	0.163	0.71	0.79
		Left Cheek	0.281	0.336	0.304	0.62	0.59
		Left Tilted	0.278	0.298	0.260	0.58	0.54
	Band 25	Right Cheek	1.117	0.071	0.183	1.19	1.30
		Right Tilted	0.749	0.077	0.163	0.83	0.91
		Left Cheek	0.287	0.336	0.304	0.62	0.59
		Left Tilted	0.264	0.298	0.260	0.56	0.52
	Band 30	Right Cheek	0.986	0.071	0.183	1.06	1.17
		Right Tilted	0.724	0.077	0.163	0.80	0.89
		Left Cheek	0.284	0.336	0.304	0.62	0.59
		Left Tilted	0.207	0.298	0.260	0.51	0.47
	Band 7	Right Cheek	1.028	0.071	0.183	1.10	1.21
		Right Tilted	0.791	0.077	0.163	0.87	0.95
		Left Cheek	0.219	0.336	0.304	0.56	0.52
		Left Tilted	0.302	0.298	0.260	0.60	0.56
	Band 41	Right Cheek	1.044	0.071	0.183	1.12	1.23
		Right Tilted	0.598	0.077	0.163	0.68	0.76
		Left Cheek	0.127	0.336	0.304	0.46	0.43
		Left Tilted	0.144	0.298	0.260	0.44	0.40



<Bottom Antenna>

WWAN Band		Exposure Position	1	2	3	4	1+2			1+3 Summed 1g SAR (W/kg)	1+4			2+3 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant. 1	2.4GHz WLAN Ant. 2	5GHz WLAN Ant. 1+2	Summed 1g SAR	SPLSR	Case No		Summed 1g SAR	SPLSR	Case No	
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)								
GSM	GSM850	Right Cheek	0.308	0.251	0.429	0.722	0.56			0.74	1.03			0.68
		Right Tilted	0.188	0.298	0.414	0.644	0.49			0.60	0.83			0.71
		Left Cheek	0.459	1.151	0.150	1.237	1.61	0.02	#1	0.61	1.70	0.03	#2	1.30
		Left Tilted	0.196	1.098	0.164	1.127	1.29			0.36	1.32			1.26
	GSM1900	Right Cheek	0.052	0.251	0.429	0.722	0.30			0.48	0.77			0.68
		Right Tilted	0.027	0.298	0.414	0.644	0.33			0.44	0.67			0.71
		Left Cheek	0.101	1.151	0.150	1.237	1.25			0.25	1.34			1.30
		Left Tilted	0.024	1.098	0.164	1.127	1.12			0.19	1.15			1.26
WCDMA	Band V	Right Cheek	0.222	0.251	0.429	0.722	0.47			0.65	0.94			0.68
		Right Tilted	0.145	0.298	0.414	0.644	0.44			0.56	0.79			0.71
		Left Cheek	0.266	1.151	0.150	1.237	1.42			0.42	1.50			1.30
		Left Tilted	0.144	1.098	0.164	1.127	1.24			0.31	1.27			1.26
	Band IV	Right Cheek	0.097	0.251	0.429	0.722	0.35			0.53	0.82			0.68
		Right Tilted	0.048	0.298	0.414	0.644	0.35			0.46	0.69			0.71
		Left Cheek	0.186	1.151	0.150	1.237	1.34			0.34	1.42			1.30
		Left Tilted	0.043	1.098	0.164	1.127	1.14			0.21	1.17			1.26
	Band II	Right Cheek	0.080	0.251	0.429	0.722	0.33			0.51	0.80			0.68
		Right Tilted	0.024	0.298	0.414	0.644	0.32			0.44	0.67			0.71
		Left Cheek	0.053	1.151	0.150	1.237	1.20			0.20	1.29			1.30
		Left Tilted	0.027	1.098	0.164	1.127	1.13			0.19	1.15			1.26
CDMA 2000	BC0	Right Cheek	0.130	0.251	0.429	0.722	0.38			0.56	0.85			0.68
		Right Tilted	0.086	0.298	0.414	0.644	0.38			0.50	0.73			0.71
		Left Cheek	0.174	1.151	0.150	1.237	1.33			0.32	1.41			1.30
		Left Tilted	0.081	1.098	0.164	1.127	1.18			0.25	1.21			1.26



WWAN Band		Exposure Position	1	2	3	4	1+2 Summed 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	2+3 Summed 1g SAR (W/kg)
			WWAN	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 12	Right Cheek	0.101	0.251	0.429	0.722	0.35	0.53	0.82	0.68
		Right Tilted	0.070	0.298	0.414	0.644	0.37	0.48	0.71	0.71
		Left Cheek	0.130	1.151	0.150	1.237	1.28	0.28	1.37	1.30
		Left Tilted	0.076	1.098	0.164	1.127	1.17	0.24	1.20	1.26
	Band 5	Right Cheek	0.225	0.251	0.429	0.722	0.48	0.65	0.95	0.68
		Right Tilted	0.139	0.298	0.414	0.644	0.44	0.55	0.78	0.71
		Left Cheek	0.260	1.151	0.150	1.237	1.41	0.41	1.50	1.30
		Left Tilted	0.125	1.098	0.164	1.127	1.22	0.29	1.25	1.26
	Band 26	Right Cheek	0.208	0.251	0.429	0.722	0.46	0.64	0.93	0.68
		Right Tilted	0.122	0.298	0.414	0.644	0.42	0.54	0.77	0.71
		Left Cheek	0.242	1.151	0.150	1.237	1.39	0.39	1.48	1.30
		Left Tilted	0.121	1.098	0.164	1.127	1.22	0.29	1.25	1.26
	Band 4	Right Cheek	0.091	0.251	0.429	0.722	0.34	0.52	0.81	0.68
		Right Tilted	0.057	0.298	0.414	0.644	0.36	0.47	0.70	0.71
		Left Cheek	0.149	1.151	0.150	1.237	1.30	0.30	1.39	1.30
		Left Tilted	0.046	1.098	0.164	1.127	1.14	0.21	1.17	1.26
	Band 66	Right Cheek	0.111	0.251	0.429	0.722	0.36	0.54	0.83	0.68
		Right Tilted	0.057	0.298	0.414	0.644	0.36	0.47	0.70	0.71
		Left Cheek	0.212	1.151	0.150	1.237	1.36	0.36	1.45	1.30
		Left Tilted	0.055	1.098	0.164	1.127	1.15	0.22	1.18	1.26
	Band 25	Right Cheek	0.078	0.251	0.429	0.722	0.33	0.51	0.80	0.68
		Right Tilted	0.043	0.298	0.414	0.644	0.34	0.46	0.69	0.71
		Left Cheek	0.101	1.151	0.150	1.237	1.25	0.25	1.34	1.30
		Left Tilted	0.050	1.098	0.164	1.127	1.15	0.21	1.18	1.26
	Band 30	Right Cheek	0.014	0.251	0.429	0.722	0.27	0.44	0.74	0.68
		Right Tilted	0.026	0.298	0.414	0.644	0.32	0.44	0.67	0.71
		Left Cheek	0.129	1.151	0.150	1.237	1.28	0.28	1.37	1.30
		Left Tilted	0.039	1.098	0.164	1.127	1.14	0.20	1.17	1.26
	Band 7	Right Cheek	0.035	0.251	0.429	0.722	0.29	0.46	0.76	0.68
		Right Tilted	0.025	0.298	0.414	0.644	0.32	0.44	0.67	0.71
		Left Cheek	0.097	1.151	0.150	1.237	1.25	0.25	1.33	1.30
		Left Tilted	0.021	1.098	0.164	1.127	1.12	0.19	1.15	1.26
	Band 41	Right Cheek	0.020	0.251	0.429	0.722	0.27	0.45	0.74	0.68
		Right Tilted	0.012	0.298	0.414	0.644	0.31	0.43	0.66	0.71
		Left Cheek	0.072	1.151	0.150	1.237	1.22	0.22	1.31	1.30
		Left Tilted	0.018	1.098	0.164	1.127	1.12	0.18	1.15	1.26

15.2 Hotspot Exposure Conditions

<Top Antenna>

WWAN Band		Exposure Position	1	2	4	5	1+2 Summed 1g SAR (W/kg)	1+4+5 Summed 1g SAR (W/kg)
			WWAN	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	0.610	0.175	0.173	0.017	0.79	0.80
		Back	0.582	0.216	0.144	0.019	0.80	0.75
		Left side	0.229		0.141		0.23	0.37
		Right side		0.232	0.352	0.018	0.23	0.37
		Top side	0.630	0.177	0.117	0.018	0.81	0.77
	GSM1900	Front	0.432	0.175	0.173	0.017	0.61	0.62
		Back	0.292	0.216	0.144	0.019	0.51	0.46
		Left side	0.341		0.141		0.34	0.48
		Right side		0.232	0.352	0.018	0.23	0.37
		Top side	0.473	0.177	0.117	0.018	0.65	0.61
WCDMA	Band V	Front	0.771	0.175	0.173	0.017	0.95	0.96
		Back	0.664	0.216	0.144	0.019	0.88	0.83
		Left side	0.286		0.141		0.29	0.43
		Right side		0.232	0.352	0.018	0.23	0.37
		Top side	0.642	0.177	0.117	0.018	0.82	0.78
	Band IV	Front	0.722	0.175	0.173	0.017	0.90	0.91
		Back	0.510	0.216	0.144	0.019	0.73	0.67
		Left side	0.423		0.141		0.42	0.56
		Right side		0.232	0.352	0.018	0.23	0.37
		Top side	1.035	0.177	0.117	0.018	1.21	1.17
	Band II	Front	0.625	0.175	0.173	0.017	0.80	0.82
		Back	0.431	0.216	0.144	0.019	0.65	0.59
		Left side	0.498		0.141		0.50	0.64
		Right side		0.232	0.352	0.018	0.23	0.37
		Top side	0.705	0.177	0.117	0.018	0.88	0.84
CDMA2000	BC0	Front	0.354	0.175	0.173	0.017	0.53	0.54
		Back	0.323	0.216	0.144	0.019	0.54	0.49
		Left side	0.144		0.141		0.14	0.29
		Right side		0.232	0.352	0.018	0.23	0.37
		Top side	0.325	0.177	0.117	0.018	0.50	0.46



WWAN Band		Exposure Position	1	2	4	5	1+2 Summed 1g SAR (W/kg)	1+4+5 Summed 1g SAR (W/kg)
			WWAN	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 12	Front	0.487	0.175	0.173	0.017	0.66	0.68
		Back	0.494	0.216	0.144	0.019	0.71	0.66
		Left side	0.226		0.141		0.23	0.37
		Right side		0.232	0.352	0.018	0.23	0.37
		Top side	0.441	0.177	0.117	0.018	0.62	0.58
	Band 5	Front	0.778	0.175	0.173	0.017	0.95	0.97
		Back	0.802	0.216	0.144	0.019	1.02	0.97
		Left side	0.296		0.141		0.30	0.44
		Right side		0.232	0.352	0.018	0.23	0.37
		Top side	0.803	0.177	0.117	0.018	0.98	0.94
	Band 26	Front	0.744	0.175	0.173	0.017	0.92	0.93
		Back	0.638	0.216	0.144	0.019	0.85	0.80
		Left side	0.311		0.141		0.31	0.45
		Right side		0.232	0.352	0.018	0.23	0.37
		Top side	0.865	0.177	0.117	0.018	1.04	1.00
	Band 4	Front	0.654	0.175	0.173	0.017	0.83	0.84
		Back	0.504	0.216	0.144	0.019	0.72	0.67
		Left side	0.434		0.141		0.43	0.58
		Right side		0.232	0.352	0.018	0.23	0.37
		Top side	0.847	0.177	0.117	0.018	1.02	0.98
	Band 66	Front	0.724	0.175	0.173	0.017	0.90	0.91
		Back	0.547	0.216	0.144	0.019	0.76	0.71
		Left side	0.384		0.141		0.38	0.53
		Right side		0.232	0.352	0.018	0.23	0.37
		Top side	1.139	0.177	0.117	0.018	1.32	1.27
	Band 25	Front	0.538	0.175	0.173	0.017	0.71	0.73
		Back	0.349	0.216	0.144	0.019	0.57	0.51
		Left side	0.455		0.141		0.46	0.60
		Right side		0.232	0.352	0.018	0.23	0.37
		Top side	0.577	0.177	0.117	0.018	0.75	0.71
	Band 30	Front	0.721	0.175	0.173	0.017	0.90	0.91
		Back	0.625	0.216	0.144	0.019	0.84	0.79
		Left side	0.477		0.141		0.48	0.62
		Right side		0.232	0.352	0.018	0.23	0.37
		Top side	0.435	0.177	0.117	0.018	0.61	0.57
	Band 7	Front	1.062	0.175	0.173	0.017	1.24	1.25
		Back	0.768	0.216	0.144	0.019	0.98	0.93
		Left side	1.137		0.141		1.14	1.28
		Right side		0.232	0.352	0.018	0.23	0.37
		Top side	0.681	0.177	0.117	0.018	0.86	0.82
	Band 41	Front	0.287	0.175	0.173	0.017	0.46	0.48
		Back	0.256	0.216	0.144	0.019	0.47	0.42
		Left side	0.471		0.141		0.47	0.61
		Right side		0.232	0.352	0.018	0.23	0.37
		Top side	0.645	0.177	0.117	0.018	0.82	0.78

<Bottom Antenna>

WWAN Band		Exposure Position	1	2	3	4	5	1+2 Summed 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)	1+4+5 Summed 1g SAR (W/kg)	2+3 Summed 1g SAR (W/kg)
			WWAN	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	0.350	0.175	0.101	0.173	0.017	0.53	0.45	0.54	0.28
		Back	0.400	0.216	0.080	0.144	0.019	0.62	0.48	0.56	0.30
		Left side	0.429		0.102	0.141		0.43	0.53	0.57	0.10
		Right side	0.292	0.232		0.352	0.018	0.52	0.29	0.66	0.23
		Top side		0.177	0.084	0.117	0.018	0.18	0.08	0.14	0.26
		Bottom side	0.347					0.35	0.35	0.35	
	GSM1900	Front	0.616	0.175	0.101	0.173	0.017	0.79	0.72	0.81	0.28
		Back	0.568	0.216	0.080	0.144	0.019	0.78	0.65	0.73	0.30
		Left side	0.075		0.102	0.141		0.08	0.18	0.22	0.10
		Right side	0.059	0.232		0.352	0.018	0.29	0.06	0.43	0.23
		Top side		0.177	0.084	0.117	0.018	0.18	0.08	0.14	0.26
		Bottom side	0.954					0.95	0.95	0.95	
WCDMA	Band V	Front	0.258	0.175	0.101	0.173	0.017	0.43	0.36	0.45	0.28
		Back	0.285	0.216	0.080	0.144	0.019	0.50	0.37	0.45	0.30
		Left side	0.399		0.102	0.141		0.40	0.50	0.54	0.10
		Right side	0.244	0.232		0.352	0.018	0.48	0.24	0.61	0.23
		Top side		0.177	0.084	0.117	0.018	0.18	0.08	0.14	0.26
		Bottom side	0.272					0.27	0.27	0.27	
	Band IV	Front	0.640	0.175	0.101	0.173	0.017	0.82	0.74	0.83	0.28
		Back	0.488	0.216	0.080	0.144	0.019	0.70	0.57	0.65	0.30
		Left side	0.108		0.102	0.141		0.11	0.21	0.25	0.10
		Right side	0.031	0.232		0.352	0.018	0.26	0.03	0.40	0.23
		Top side		0.177	0.084	0.117	0.018	0.18	0.08	0.14	0.26
		Bottom side	0.857					0.86	0.86	0.86	
	Band II	Front	1.038	0.175	0.101	0.173	0.017	1.21	1.14	1.23	0.28
		Back	0.720	0.216	0.080	0.144	0.019	0.94	0.80	0.88	0.30
		Left side	0.170		0.102	0.141		0.17	0.27	0.31	0.10
		Right side	0.062	0.232		0.352	0.018	0.29	0.06	0.43	0.23
		Top side		0.177	0.084	0.117	0.018	0.18	0.08	0.14	0.26
		Bottom side	1.253					1.25	1.25	1.25	
CDMA2000	BC0	Front	0.170	0.175	0.101	0.173	0.017	0.35	0.27	0.36	0.28
		Back	0.193	0.216	0.080	0.144	0.019	0.41	0.27	0.36	0.30
		Left side	0.256		0.102	0.141		0.26	0.36	0.40	0.10
		Right side	0.135	0.232		0.352	0.018	0.37	0.14	0.51	0.23
		Top side		0.177	0.084	0.117	0.018	0.18	0.08	0.14	0.26
		Bottom side	0.136					0.14	0.14	0.14	



WWAN Band		Exposure Position	1	2	3	4	5	1+2 Summed 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)	1+4+5 Summed 1g SAR (W/kg)	2+3 Summed 1g SAR (W/kg)
			WWAN	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 12	Front	0.151	0.175	0.101	0.173	0.017	0.33	0.25	0.34	0.28
		Back	0.160	0.216	0.080	0.144	0.019	0.38	0.24	0.32	0.30
		Left side	0.218		0.102	0.141		0.22	0.32	0.36	0.10
		Right side	0.182	0.232		0.352	0.018	0.41	0.18	0.55	0.23
		Top side		0.177	0.084	0.117	0.018	0.18	0.08	0.14	0.26
		Bottom side	0.130					0.13	0.13	0.13	
	Band 5	Front	0.237	0.175	0.101	0.173	0.017	0.41	0.34	0.43	0.28
		Back	0.299	0.216	0.080	0.144	0.019	0.52	0.38	0.46	0.30
		Left side	0.335		0.102	0.141		0.34	0.44	0.48	0.10
		Right side	0.233	0.232		0.352	0.018	0.47	0.23	0.60	0.23
		Top side		0.177	0.084	0.117	0.018	0.18	0.08	0.14	0.26
		Bottom side	0.251					0.25	0.25	0.25	
	Band 26	Front	0.282	0.175	0.101	0.173	0.017	0.46	0.38	0.47	0.28
		Back	0.306	0.216	0.080	0.144	0.019	0.52	0.39	0.47	0.30
		Left side	0.430		0.102	0.141		0.43	0.53	0.57	0.10
		Right side	0.260	0.232		0.352	0.018	0.49	0.26	0.63	0.23
		Top side		0.177	0.084	0.117	0.018	0.18	0.08	0.14	0.26
		Bottom side	0.227					0.23	0.23	0.23	
	Band 4	Front	0.637	0.175	0.101	0.173	0.017	0.81	0.74	0.83	0.28
		Back	0.540	0.216	0.080	0.144	0.019	0.76	0.62	0.70	0.30
		Left side	0.066		0.102	0.141		0.07	0.17	0.21	0.10
		Right side	0.051	0.232		0.352	0.018	0.28	0.05	0.42	0.23
		Top side		0.177	0.084	0.117	0.018	0.18	0.08	0.14	0.26
		Bottom side	0.862					0.86	0.86	0.86	
	Band 66	Front	0.689	0.175	0.101	0.173	0.017	0.86	0.79	0.88	0.28
		Back	0.591	0.216	0.080	0.144	0.019	0.81	0.67	0.75	0.30
		Left side	0.072		0.102	0.141		0.07	0.17	0.21	0.10
		Right side	0.033	0.232		0.352	0.018	0.27	0.03	0.40	0.23
		Top side		0.177	0.084	0.117	0.018	0.18	0.08	0.14	0.26
		Bottom side	1.134					1.13	1.13	1.13	
	Band 25	Front	0.529	0.175	0.101	0.173	0.017	0.70	0.63	0.72	0.28
		Back	0.405	0.216	0.080	0.144	0.019	0.62	0.49	0.57	0.30
		Left side	0.040		0.102	0.141		0.04	0.14	0.18	0.10
		Right side	0.085	0.232		0.352	0.018	0.32	0.09	0.46	0.23
		Top side		0.177	0.084	0.117	0.018	0.18	0.08	0.14	0.26
		Bottom side	1.155					1.16	1.16	1.16	
	Band 30	Front	0.416	0.175	0.101	0.173	0.017	0.59	0.52	0.61	0.28
		Back	0.273	0.216	0.080	0.144	0.019	0.49	0.35	0.44	0.30
		Left side	0.061		0.102	0.141		0.06	0.16	0.20	0.10
		Right side	0.049	0.232		0.352	0.018	0.28	0.05	0.42	0.23
		Top side		0.177	0.084	0.117	0.018	0.18	0.08	0.14	0.26
		Bottom side	0.741					0.74	0.74	0.74	
	Band 7	Front	0.550	0.175	0.101	0.173	0.017	0.73	0.65	0.74	0.28
		Back	0.395	0.216	0.080	0.144	0.019	0.61	0.48	0.56	0.30
		Left side	0.052		0.102	0.141		0.05	0.15	0.19	0.10
		Right side	0.137	0.232		0.352	0.018	0.37	0.14	0.51	0.23
		Top side		0.177	0.084	0.117	0.018	0.18	0.08	0.14	0.26
		Bottom side	1.055					1.06	1.06	1.06	
	Band 41	Front	0.249	0.175	0.101	0.173	0.017	0.42	0.35	0.44	0.28
		Back	0.175	0.216	0.080	0.144	0.019	0.39	0.26	0.34	0.30
		Left side	0.043		0.102	0.141		0.04	0.15	0.18	0.10
		Right side	0.125	0.232		0.352	0.018	0.36	0.13	0.50	0.23
		Top side		0.177	0.084	0.117	0.018	0.18	0.08	0.14	0.26
		Bottom side	0.790					0.79	0.79	0.79	

15.3 Body-Worn Accessory Exposure Conditions

<Top Antenna>

WWAN Band		Exposure Position	1	2	4	5	1+2 Summed 1g SAR (W/kg)	1+4+5 Summed 1g SAR (W/kg)
			WWAN	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	0.619	0.096	0.121	0.016	0.72	0.76
		Back	0.553	0.121	0.074	0.017	0.67	0.64
	GSM1900	Front	0.209	0.096	0.121	0.016	0.31	0.35
		Back	0.124	0.121	0.074	0.017	0.25	0.22
WCDMA	Band V	Front	0.365	0.096	0.121	0.016	0.46	0.50
		Back	0.270	0.121	0.074	0.017	0.39	0.36
	Band IV	Front	0.305	0.096	0.121	0.016	0.40	0.44
		Back	0.223	0.121	0.074	0.017	0.34	0.31
	Band II	Front	0.288	0.096	0.121	0.016	0.38	0.43
		Back	0.197	0.121	0.074	0.017	0.32	0.29
CDMA2000	BC0	Front	0.186	0.096	0.121	0.016	0.28	0.32
		Back	0.174	0.121	0.074	0.017	0.30	0.27
LTE	Band 12	Front	0.244	0.096	0.121	0.016	0.34	0.38
		Back	0.246	0.121	0.074	0.017	0.37	0.34
	Band 5	Front	0.392	0.096	0.121	0.016	0.49	0.53
		Back	0.363	0.121	0.074	0.017	0.48	0.45
	Band 26	Front	0.368	0.096	0.121	0.016	0.46	0.51
		Back	0.274	0.121	0.074	0.017	0.40	0.37
	Band 4	Front	0.279	0.096	0.121	0.016	0.38	0.42
		Back	0.203	0.121	0.074	0.017	0.32	0.29
	Band 66	Front	0.286	0.096	0.121	0.016	0.38	0.42
		Back	0.227	0.121	0.074	0.017	0.35	0.32
	Band 25	Front	0.185	0.096	0.121	0.016	0.28	0.32
		Back	0.139	0.121	0.074	0.017	0.26	0.23
	Band 30	Front	0.355	0.096	0.121	0.016	0.45	0.49
		Back	0.326	0.121	0.074	0.017	0.45	0.42
	Band 7	Front	0.502	0.096	0.121	0.016	0.60	0.64
		Back	0.370	0.121	0.074	0.017	0.49	0.46
	Band 41	Front	0.118	0.096	0.121	0.016	0.21	0.26
		Back	0.243	0.121	0.074	0.017	0.36	0.33



<Bottom Antenna>

WWAN Band		Exposure Position	1	2	3	4	5	1+2 Summed 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)	1+4+5 Summed 1g SAR (W/kg)	2+3 Summed 1g SAR (W/kg)
			WWAN	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	0.366	0.096	0.053	0.121	0.016	0.46	0.42	0.50	0.15
		Back	0.498	0.121	0.045	0.074	0.017	0.62	0.54	0.59	0.17
	GSM1900	Front	0.368	0.096	0.053	0.121	0.016	0.46	0.42	0.51	0.15
		Back	0.280	0.121	0.045	0.074	0.017	0.40	0.33	0.37	0.17
WCDMA	Band V	Front	0.243	0.096	0.053	0.121	0.016	0.34	0.30	0.38	0.15
		Back	0.280	0.121	0.045	0.074	0.017	0.40	0.33	0.37	0.17
	Band IV	Front	0.683	0.096	0.053	0.121	0.016	0.78	0.74	0.82	0.15
		Back	0.455	0.121	0.045	0.074	0.017	0.58	0.50	0.55	0.17
	Band II	Front	0.478	0.096	0.053	0.121	0.016	0.57	0.53	0.62	0.15
		Back	0.364	0.121	0.045	0.074	0.017	0.49	0.41	0.46	0.17
CDMA2000	BC0	Front	0.161	0.096	0.053	0.121	0.016	0.26	0.21	0.30	0.15
		Back	0.190	0.121	0.045	0.074	0.017	0.31	0.24	0.28	0.17
LTE	Band 12	Front	0.153	0.096	0.053	0.121	0.016	0.25	0.21	0.29	0.15
		Back	0.168	0.121	0.045	0.074	0.017	0.29	0.21	0.26	0.17
	Band 5	Front	0.269	0.096	0.053	0.121	0.016	0.37	0.32	0.41	0.15
		Back	0.295	0.121	0.045	0.074	0.017	0.42	0.34	0.39	0.17
	Band 26	Front	0.256	0.096	0.053	0.121	0.016	0.35	0.31	0.39	0.15
		Back	0.333	0.121	0.045	0.074	0.017	0.45	0.38	0.42	0.17
	Band 4	Front	0.673	0.096	0.053	0.121	0.016	0.77	0.73	0.81	0.15
		Back	0.569	0.121	0.045	0.074	0.017	0.69	0.61	0.66	0.17
	Band 66	Front	0.760	0.096	0.053	0.121	0.016	0.86	0.81	0.90	0.15
		Back	0.552	0.121	0.045	0.074	0.017	0.67	0.60	0.64	0.17
	Band 25	Front	0.619	0.096	0.053	0.121	0.016	0.72	0.67	0.76	0.15
		Back	0.350	0.121	0.045	0.074	0.017	0.47	0.40	0.44	0.17
	Band 30	Front	0.251	0.096	0.053	0.121	0.016	0.35	0.30	0.39	0.15
		Back	0.213	0.121	0.045	0.074	0.017	0.33	0.26	0.30	0.17
	Band 7	Front	0.345	0.096	0.053	0.121	0.016	0.44	0.40	0.48	0.15
		Back	0.278	0.121	0.045	0.074	0.017	0.40	0.32	0.37	0.17
	Band 41	Front	0.227	0.096	0.053	0.121	0.016	0.32	0.28	0.36	0.15
		Back	0.120	0.121	0.045	0.074	0.017	0.24	0.17	0.21	0.17

15.4 Product specific 10g SAR Exposure Conditions

WWAN Band		Exposure Position	1	2	1+2		
			WWAN Bottom	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	3.026		3.03		
WCDMA	Band IV	Front	3.411	1.014	4.43	0.06	#3
		Back	3.309	0.300	3.61		
		Bottom Side	3.446		3.45		
	Band II	Front	2.234	1.014	3.25		
		Back	2.345	0.300	2.65		
		Bottom Side	3.614		3.61		
LTE	Band 4	Front	2.875	1.014	3.89		
		Back	3.009	0.300	3.31		
		Bottom Side	1.965		1.97		
	Band 66	Front	3.075	1.014	4.09	0.05	#4
		Back	3.109	0.300	3.41		
		Bottom Side	2.863		2.86		
	Band 25	Front	2.997	1.014	4.01	0.05	#5
		Bottom Side	3.338		3.34		
	Band 7	Bottom Side	1.554		1.55		

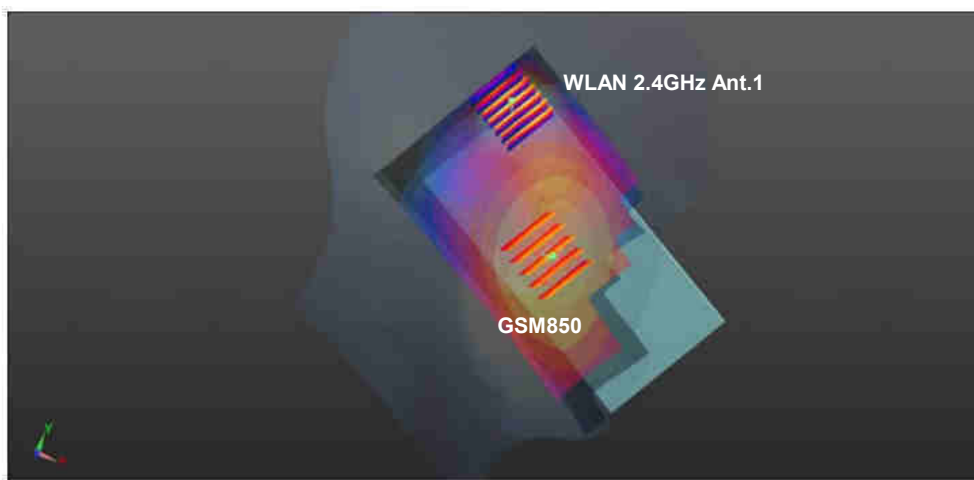
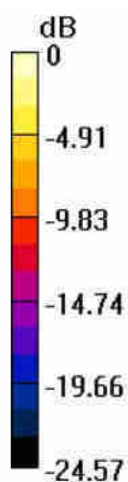
Remark: For Bluetooth Product specific 10g stand-alone SAR is not required for a transmitter or antenna, due to 1g hotspot SAR is <1.2W/kg.

15.5 SPLSR Evaluation and Analysis

General Note:

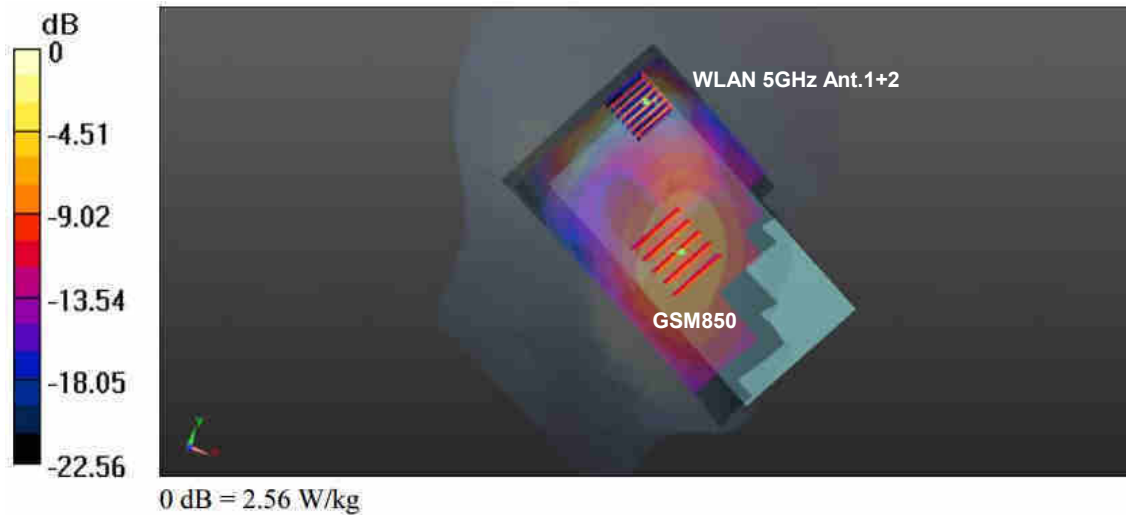
1. When standalone SAR is measured for both antennas in the pair, the peak location separation distance is computed by the square root of $[(x_1-x_2)^2 + (y_1-y_2)^2 + (z_1-z_2)^2]$, where (x_1, y_1, z_1) and (x_2, y_2, z_2) are the coordinates in the area scans or extrapolated peak SAR locations in 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 #1	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				
	GSM850	Left Cheek	0.459	0	0.0678	0.268	-0.173	83.6	1.61	0.02	Not required
	WLAN 2.4GHz Ant.1		1.151	0	0.0192	0.336	-0.174				

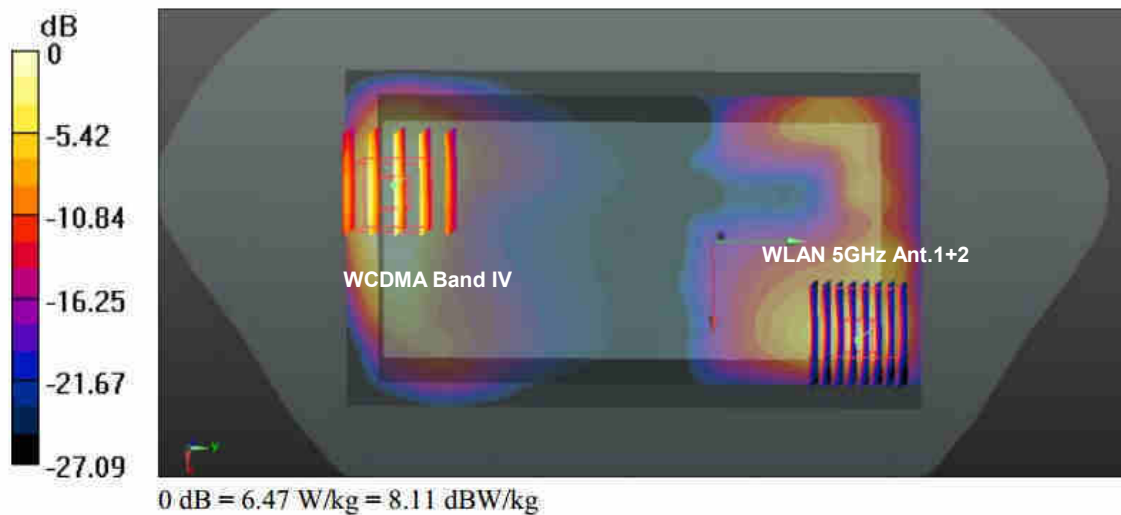


0 dB = 1.94 W/kg = 2.88 dBW/kg

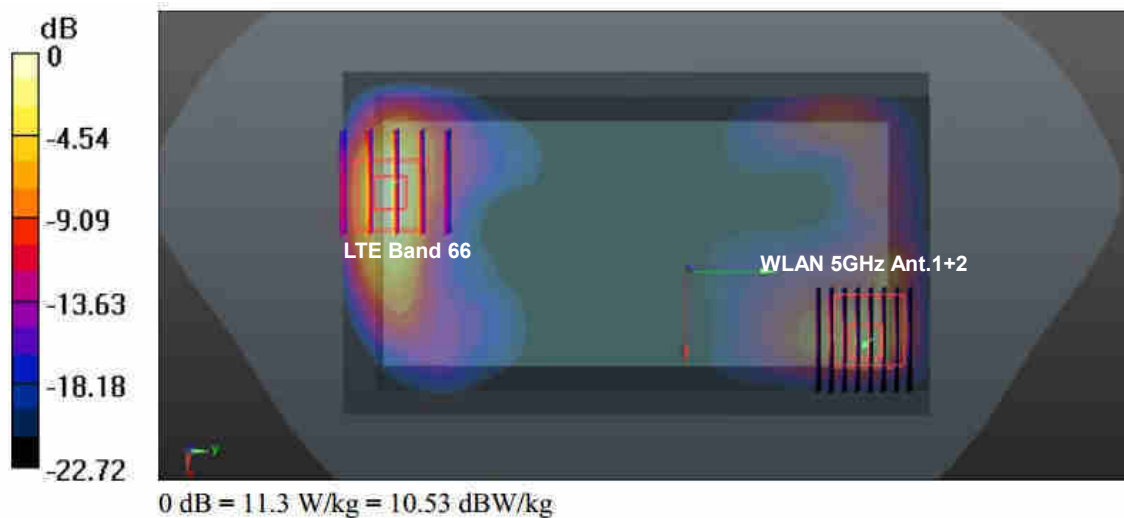
Case #2	Band	Position	1g SAR (W/kg)	Gap (mm)	SAR peak location (m)			3D distance (mm)	Summed 1g SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	GSM850	Left Cheek	0.459	0	0.0678	0.268	-0.173	81.6	1.70	0.03	Not required
	WLAN 5GHz Ant. 1+2		1.237	0	0.0294	0.34	-0.174				



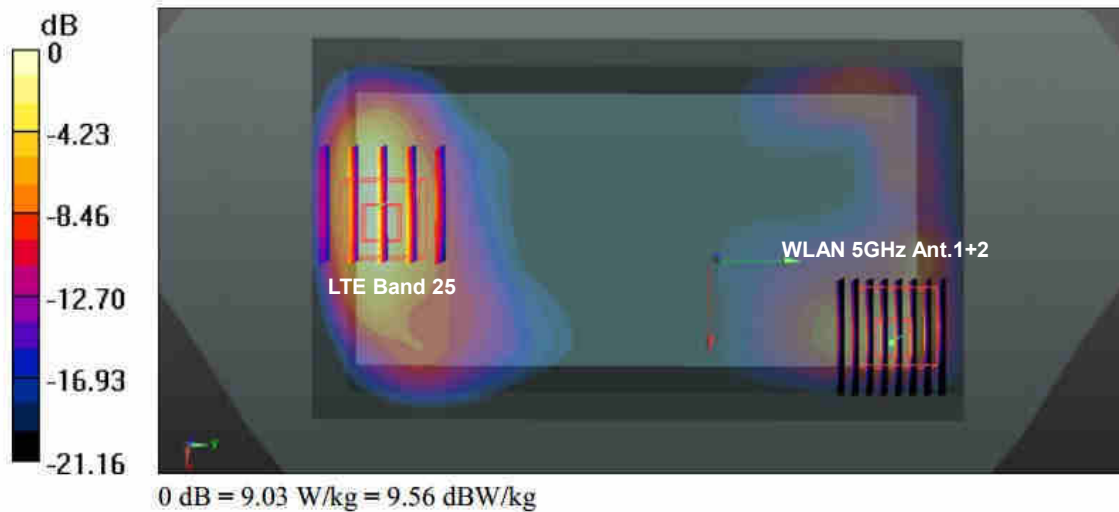
Case #3	Band	Position	10g SAR (W/kg)	Gap (mm)	SAR peak location (m)			3D distance (mm)	Summed 10g SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	WCDMA Band IV	Front	3.411	0	-0.0335	-0.075	-0.205	153.2	4.43	0.06	Not required
	WLAN 5GHz Ant. 1+2		1.014	0	0.013	0.071	-0.207				



Case #4	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	Front	3.075	0	-0.035	-0.075	-0.205	153.7	4.09	0.05	Not required
	WLAN 5GHz Ant. 1+2		1.014	0	0.013	0.071	-0.207				



Case #5	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 25	Front	2.997	0	-0.023	-0.072	-0.205	147.5	4.01	0.05	Not required
	WLAN 5GHz Ant. 1+2		1.014	0	0.013	0.071	-0.207				



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 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.
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, B25 / B2 and B41 / B38. Since the supported frequency span for LTE B17, B2, and B38 fall completely within the supported frequency span for LTE B12, B25 and B41, 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, B25 and B41.



16.1 Supplemental Head SAR Results

Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									Auto-Tune (State 93)	1	16	31	46	61	76	91
GSM850	GPRS (3Tx slots)	848.8	251	N/A	N/A	Left Cheek	0 mm	0.395	0.475	0.134	0.317	0.322	0.352	0.34	0.342	0.164
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									Auto-Tune (State 17)	2	17	32	47	62	77	92
GSM1900	GPRS (3Tx slots)	1880	661	N/A	N/A	Left Cheek	0 mm	0.095	0.122	0.076	0.0101	0.0406	0.0747	0.1142	0.1192	0.1201
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									Auto-Tune (State 19)	3	18	33	48	63	78	93
CDMA2000 BC0	1xRTT RC3 SO55	848.31	777	N/A	N/A	Left Cheek	0 mm	0.146	0.179	0.024	0.0105	0.0125	0.0287	0.008	0.027	0.07
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									Auto-Tune (State 21)	4	19	34	49	64	79	94
WCDMA Band V	RMC12.2Kbps	846.6	4233	N/A	N/A	Left Cheek	0 mm	0.245	0.302	0.054	0.091	0.14	0.24	0.291	0.076	0.09
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									Auto-Tune (State 39)	5	20	35	50	65	80	95
WCDMA Band IV	RMC12.2Kbps	1752.6	1513	N/A	N/A	Left Cheek	0 mm	0.168	0.23	0.18	0.21	0.221	0.208	0.2	0.158	0.197
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									Auto-Tune (State 40)	6	21	36	51	66	81	0
WCDMA Band II	RMC12.2Kbps	1880	9400	N/A	N/A	Right Cheek	0 mm	0.072	0.107	0.055	0.094	0.062	0.069	0.055	0.051	0.093
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									Auto-Tune (State 10)	7	22	37	52	67	82	
LTE Band 12	10M_QPSK	707.5	23095	1	0	Left Cheek	0 mm	0.123	0.144	0.113	0.079	0.139	0.126	0.02	0.092	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									Auto-Tune (State 21)	8	23	38	53	68	83	
LTE Band 26	15M_QPSK	841.5	26965	1	0Offset	Left Cheek	0 mm	0.228	0.277	0.163	0.24	0.267	0.103	0.13	0.245	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									Auto-Tune (State 21)	9	24	39	54	69	84	
LTE B5	10M_QPSK	836.5	20525	1RB	49Offset	Left Cheek	0 mm	0.228	0.279	0.176	0.252	0.275	0.119	0.146	0.249	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									Auto-Tune (State 20)	10	25	40	55	70	85	
LTE Band 4	20M_QPSK	1732.5	20175	1RB	0Offset	Left Cheek	0 mm	0.145	0.199	0.122	0.041	0.0258	0.105	0.112	0.119	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									Auto-Tune (State 64)	11	26	41	56	71	86	



FCC SAR Test Report

Report No. : FA782510-01

LTE Band 25	20M_QPSK	1905	26590	1RB	0Offset	Left Cheek	0 mm	0.092	0.142	0.088	0.081	0.062	0.075	0.12	0.087	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									Auto-Tune (State 20)	12	27	42	57	72	87	
LTE Band 66	20M_QPSK	1770	132572	1RB	0Offset	Left Cheek	0 mm	0.195	0.268	0.0486	0.031	0.243	0.129	0.149	0.145	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									Auto-Tune (State2)	13	28	43	58	73	88	
LTE Band 30	10M_QPSK	2310	27710	1RB	25Offset	Left Cheek	0 mm	0.115	0.193	0.136	0.18	0.16	0.123	0.082	0.142	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									Auto-Tune (State1)	14	29	44	59	74	89	
LTE Band 7	20M_QPSK	2535	21100	1RB	0Offset	Left Cheek	0 mm	0.089	0.159	0.127	0.054	0.081	0.11	0.086	0.132	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									Auto-Tune (State 1)	15	30	45	60	75	90	
LTE Band 41	20M_QPSK	2506	39750	1RB	49Offset	Left Cheek	0 mm	0.064	0.124	0.056	0.044	0.055	0.046	0.029	0.0613	



16.2 Supplemental Body SAR Results

Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									Auto-Tune (State22)	1	16	31	46	61	76	91
GSM850	GPRS(3Tx slots)	836.4	189	N/A	N/A	Left Side	10mm	0.383	0.539	0.095	0.247	0.411	0.419	0.399	0.406	0.236
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									Auto-Tune (State 66)	2	17	32	47	62	77	92
GSM1900	GPRS(3Tx slots)	1850.2	512	N/A	N/A	Bottom Side	10mm	0.872	1.33	0.805	1.095	0.845	1.041	1.193	1.313	1.148
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									Auto-Tune (State82)	3	18	33	48	63	78	93
CDMA2000 BC0	RTAP 153.6Kbps	824.7	1013	N/A	N/A	Left Side	10mm	0.238	0.335	0.091	0.103	0.195	0.217	0.327	0.148	0.11
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									Auto-Tune (State 20)	4	19	34	49	64	79	94
WCDMA Band V	RMC12.2Kbps	846.6	4233	N/A	N/A	Left Side	10mm	0.368	0.519	0.157	0.23	0.186	0.147	0.041	0.008	0.02
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									Auto-Tune (State 21)	5	20	35	50	65	80	95
WCDMA Band IV	RMC12.2Kbps	1752.6	1513	N/A	N/A	Bottom Side	10mm	0.78	1.18	0.744	1.052	0.961	1.096	1.172	0.778	0.864
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									Auto-Tune (State42)	6	21	36	51	66	81	0
WCDMA Band II	RMC12.2Kbps	1852.4	9262	N/A	N/A	Bottom Side	10mm	1.13	1.72	0.983	1.33	0.973	1.07	1.66	1.32	1.42
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									Auto-Tune (State10)	7	22	37	52	67	82	
LTE Band 12	10M_QPSK	707.5	23095	1	0	Left Side	10mm	0.206	0.28	0.164	0.122	0.258	0.182	0.076	0.131	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									Auto-Tune (State81)	8	23	38	53	68	83	
LTE Band 26	15M_QPSK	841.5	26965	1	0	Left Side	10mm	0.406	0.571	0.28	0.366	0.478	0.165	0.215	0.35	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									Auto-Tune (State57)	9	24	39	54	69	84	
LTE Band 5	10M_QPSK	836.5	20525	1	0	Left Side	10mm	0.294	0.411	0.283	0.38	0.404	0.2	0.22	0.386	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									Auto-Tune (State 22)	10	25	40	55	70	85	
LTE Band 4	20M_QPSK	1732.5	20175	1	0	Bottom Side	10mm	0.775	1.18	0.765	1.172	0.202	0.709	0.605	0.733	
Mode	Service/ Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									Auto-Tune (State 65)	11	26	41	56	71	86	



FCC SAR Test Report

Report No. : FA782510-01

LTE Band 25	20M_QPSK	1860	26140	50	0	Bottom Side	10mm	0.985	1.52	1.153	1.059	0.748	1.032	1.487	1.18	
Mode	Service/Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									Auto-Tune (State 94)	12	27	42	57	72	87	
LTE Band 66	20M_QPSK	1770	132572	1	0	Bottom Side	10mm	0.988	1.51	1.393	0.373	0.527	1.32	1.305	1.406	
Mode	Service/Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									Auto-Tune (State 1)	13	28	43	58	73	88	
LTE Band 30	10M_QPSK	2310	27710	1	25	Bottom Side	10mm	0.706	1.31	0.76	1.252	1.049	0.586	0.483	0.822	
Mode	Service/Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									Auto-Tune (State 1)	14	29	44	59	74	89	
LTE Band 7	20M_QPSK	2535	21100	50	0	Bottom Side	10mm	0.973	1.87	1.443	0.722	1.002	1.071	0.73	1.76	
Mode	Service/Modulation	Frequency (MHz)	Channel	RB Size	RB Offset	Test Position	Spacing	Measured 1g SAR (W/kg)	Average Value of Time Sweep (W/kg)							
									Auto-Tune (State1)	15	30	45	60	75	90	
LTE Band 41	20M_QPSK	2506	39750	1	49	Bottom Side	10mm	0.706	1.35	0.987	0.789	0.933	0.812	0.53	1.045	

Test Engineer : Johnny Chen

17. Uncertainty Assessment

The component of uncertainty may generally be categorized according to the methods used to evaluate them. The evaluation of uncertainty by the statistical analysis of a series of observations is termed a Type A evaluation of uncertainty. The evaluation of uncertainty by means other than the statistical analysis of a series of observation is termed a Type B evaluation of uncertainty. Each component of uncertainty, however evaluated, is represented by an estimated standard deviation, termed standard uncertainty, which is determined by the positive square root of the estimated variance.

A Type A evaluation of standard uncertainty may be based on any valid statistical method for treating data. This includes calculating the standard deviation of the mean of a series of independent observations; using the method of least squares to fit a curve to the data in order to estimate the parameter of the curve and their standard deviations; or carrying out an analysis of variance in order to identify and quantify random effects in certain kinds of measurement.

A type B evaluation of standard uncertainty is typically based on scientific judgment using all of the relevant information available. These may include previous measurement data, experience, and knowledge of the behavior and properties of relevant materials and instruments, manufacture's specification, data provided in calibration reports and uncertainties assigned to reference data taken from handbooks. Broadly speaking, the uncertainty is either obtained from an outdoor source or obtained from an assumed distribution, such as the normal distribution, rectangular or triangular distributions indicated in table below.

Uncertainty Distributions	Normal	Rectangular	Triangular	U-Shape
Multi-plying Factor ^(a)	1/ κ ^(b)	1/ $\sqrt{3}$	1/ $\sqrt{6}$	1/ $\sqrt{2}$

(a) standard uncertainty is determined as the product of the multiplying factor and the estimated range of variations in the measured quantity

(b) κ is the coverage factor

Table 17.1. Standard Uncertainty for Assumed Distribution

The combined standard uncertainty of the measurement result represents the estimated standard deviation of the result. It is obtained by combining the individual standard uncertainties of both Type A and Type B evaluation using the usual "root-sum-squares" (RSS) methods of combining standard deviations by taking the positive square root of the estimated variances.

Expanded uncertainty is a measure of uncertainty that defines an interval about the measurement result within which the measured value is confidently believed to lie. It is obtained by multiplying the combined standard uncertainty by a coverage factor. Typically, the coverage factor ranges from 2 to 3. Using a coverage factor allows the true value of a measured quantity to be specified with a defined probability within the specified uncertainty range. For purpose of this document, a coverage factor two is used, which corresponds to confidence interval of about 95 %. The DASY uncertainty Budget is shown in the following tables.

Error Description	Uncertainty Value (±%)	Probability	Divisor	(Ci) 1g	(Ci) 10g	Standard Uncertainty (1g) (±%)	Standard Uncertainty (10g) (±%)
Measurement System							
Probe Calibration	6.0	N	1	1	1	6.0	6.0
Axial Isotropy	4.7	R	1.732	0.7	0.7	1.9	1.9
Hemispherical Isotropy	9.6	R	1.732	0.7	0.7	3.9	3.9
Boundary Effects	1.0	R	1.732	1	1	0.6	0.6
Linearity	4.7	R	1.732	1	1	2.7	2.7
System Detection Limits	1.0	R	1.732	1	1	0.6	0.6
Modulation Response	3.2	R	1.732	1	1	1.8	1.8
Readout Electronics	0.3	N	1	1	1	0.3	0.3
Response Time	0.0	R	1.732	1	1	0.0	0.0
Integration Time	2.6	R	1.732	1	1	1.5	1.5
RF Ambient Noise	3.0	R	1.732	1	1	1.7	1.7
RF Ambient Reflections	3.0	R	1.732	1	1	1.7	1.7
Probe Positioner	0.4	R	1.732	1	1	0.2	0.2
Probe Positioning	2.9	R	1.732	1	1	1.7	1.7
Max. SAR Eval.	2.0	R	1.732	1	1	1.2	1.2
Test Sample Related							
Device Positioning	3.0	N	1	1	1	3.0	3.0
Device Holder	3.6	N	1	1	1	3.6	3.6
Power Drift	5.0	R	1.732	1	1	2.9	2.9
Power Scaling	0.0	R	1.732	1	1	0.0	0.0
Phantom and Setup							
Phantom Uncertainty	6.1	R	1.732	1	1	3.5	3.5
SAR correction	0.0	R	1.732	1	0.84	0.0	0.0
Liquid Conductivity Repeatability	0.2	N	1	0.78	0.71	0.1	0.1
Liquid Conductivity (target)	5.0	R	1.732	0.78	0.71	2.3	2.0
Liquid Conductivity (mea.)	2.5	R	1.732	0.78	0.71	1.1	1.0
Temp. unc. - Conductivity	3.4	R	1.732	0.78	0.71	1.5	1.4
Liquid Permittivity Repeatability	0.15	N	1	0.23	0.26	0.0	0.0
Liquid Permittivity (target)	5.0	R	1.732	0.23	0.26	0.7	0.8
Liquid Permittivity (mea.)	2.5	R	1.732	0.23	0.26	0.3	0.4
Temp. unc. - Permittivity	0.83	R	1.732	0.23	0.26	0.1	0.1
Combined Std. Uncertainty						11.4%	11.4%
Coverage Factor for 95 %						K=2	K=2
Expanded STD Uncertainty						22.9%	22.7%

Table 17.2. Uncertainty Budget for frequency range 300 MHz to 3 GHz

Error Description	Uncertainty Value (±%)	Probability	Divisor	(Ci) 1g	(Ci) 10g	Standard Uncertainty (1g) (±%)	Standard Uncertainty (10g) (±%)
Measurement System							
Probe Calibration	6.55	N	1	1	1	6.6	6.6
Axial Isotropy	4.7	R	1.732	0.7	0.7	1.9	1.9
Hemispherical Isotropy	9.6	R	1.732	0.7	0.7	3.9	3.9
Boundary Effects	2.0	R	1.732	1	1	1.2	1.2
Linearity	4.7	R	1.732	1	1	2.7	2.7
System Detection Limits	1.0	R	1.732	1	1	0.6	0.6
Modulation Response	3.2	R	1.732	1	1	1.8	1.8
Readout Electronics	0.3	N	1	1	1	0.3	0.3
Response Time	0.0	R	1.732	1	1	0.0	0.0
Integration Time	2.6	R	1.732	1	1	1.5	1.5
RF Ambient Noise	3.0	R	1.732	1	1	1.7	1.7
RF Ambient Reflections	3.0	R	1.732	1	1	1.7	1.7
Probe Positioner	0.4	R	1.732	1	1	0.2	0.2
Probe Positioning	6.7	R	1.732	1	1	3.9	3.9
Max. SAR Eval.	4.0	R	1.732	1	1	2.3	2.3
Test Sample Related							
Device Positioning	3.0	N	1	1	1	3.0	3.0
Device Holder	3.6	N	1	1	1	3.6	3.6
Power Drift	5.0	R	1.732	1	1	2.9	2.9
Power Scaling	0.0	R	1.732	1	1	0.0	0.0
Phantom and Setup							
Phantom Uncertainty	6.6	R	1.732	1	1	3.8	3.8
SAR correction	0.0	R	1.732	1	0.84	0.0	0.0
Liquid Conductivity Repeatability	0.2	N	1	0.78	0.71	0.1	0.1
Liquid Conductivity (target)	5.0	R	1.732	0.78	0.71	2.3	2.0
Liquid Conductivity (mea.)	2.5	R	1.732	0.78	0.71	1.1	1.0
Temp. unc. - Conductivity	3.4	R	1.732	0.78	0.71	1.5	1.4
Liquid Permittivity Repeatability	0.15	N	1	0.23	0.26	0.0	0.0
Liquid Permittivity (target)	5.0	R	1.732	0.23	0.26	0.7	0.8
Liquid Permittivity (mea.)	2.5	R	1.732	0.23	0.26	0.3	0.4
Temp. unc. - Permittivity	0.83	R	1.732	0.23	0.26	0.1	0.1
Combined Std. Uncertainty						12.5%	12.5%
Coverage Factor for 95 %						K=2	K=2
Expanded STD Uncertainty						25.1%	25.0%

Table 17.3. Uncertainty Budget for frequency range 3 GHz to 6 GHz

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.



Appendix B. Plots of High SAR Measurement

The plots are shown as follows.



Appendix C. DASY Calibration Certificate

The DASY calibration certificates are shown as follows.