RF EXPOSURE

VERIFICATION REPORT

FCC ID	**:**	**A4RG1AZG**
Equipment	**:**	**Phone**
Model Name	**:**	**G1AZG**
Applicant	**:**	**Google LLC** **1600 Amphitheatre Parkway,** **Mountain View, California, 94043 USA**
Standard	**:**	**FCC 47 CFR Part2 (2.1093)**

We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample provide by manufacturer and the test data has been evaluated in accordance with the test procedures given in 47 CFR Part 2.1093 and FCC KDB and has been pass the FCC requirement.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Approved by: Cona Huang / Deputy Manager

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HISTORY OF THIS TEST REPORT

Version	Description	Issued Date
01	Initial issue of report	Feb. 21, 2022

1. Introduction Section

FCC ID: A4RGB62Z (parent model) / A4RGX7AS (parent model) and FCC ID: A4RG1AZG (variant model) use the same printed circuit board. As such the layout is not changed and the position of components between reference model and variant model is identical.

The variant model depopulated the FR2 radio and FR2 antenna module, details are available in the operational description. Due to the same design of the antenna 0/1/2/6, SAR data reuse is requested and spot check data in this report is used to justify the SAR data reuse.

The applicant should take full responsibility that the test data as referenced in this report represent compliance for this FCC ID: A4RG1AZG.

2. Model Difference Information

The difference between FCC ID: A4RGB62Z / A4RGX7AS and FCC ID: A4RG1AZG is as below:

- 5G FR2 related components are depopulated.

The details of similarity and difference can be found in the confidential documents.

3. Reference detail Section

Rule Part	Equipment Class	Wireless Technology	Frequency Band (MHz)	Reference FCC ID (Parent)	Type Grant/ Permissive Change	Reference Title	FCC ID Filling (Variant)	Full Test / Spot Check Required
Part 2.1093 SAR	DSS	Bluetooth	2400~2483.5	A4RGX7AS	Original Grant	FA161608-05C	A4RG1AZG	Spot check Ant 3 / 4
	DTS	BLE Wi-Fi	2400~2483.5	A4RGX7AS	Original Grant	FA161608-05C	A4RG1AZG	Spot check Ant 3 / 4
	DXX	NFC	13.56	A4RGB62Z	Original Grant	FA161608-03C	A4RG1AZG	Spot check
	NII	Wi-Fi	5150~5250 5250~5350 5470~5725 5725~5850 5845~5885	A4RGX7AS	Original Grant	FA161608-05C	A4RG1AZG	Spot check Ant 3 / 4
	6XD	Wi-Fi	5925 ~ 6425 6425 ~ 6525 6525 ~ 6875 6875 ~ 7125	A4RGX7AS	Original Grant	FA161608-05C	A4RG1AZG	Spot check Ant 3 / 4
	PCE CBE	GSM	GSM 850/1900	A4RGB62Z	Original Grant	FA161608-03C	A4RG1AZG	Spot Check Ant 0/1/2 for GSM 850/1900
		WCDMA	Band II, IV, V	A4RGB62Z	Original Grant	FA161608-03C	A4RG1AZG	Spot check on Ant 0/2 for UMTS B2/B4, Ant 0/1 for UMTS B5
		LTE	B2/ 4/ 5/ 7/ 12/ 13/ 14/ 17/ 25/ 26/ 30/ 38/ 41/ 48/ 66/ 71	A4RGB62Z	Original Grant	FA161608-03C	A4RG1AZG	Spot check at Ant 0/2/6 for LTE B2/4/5/7/12/13/14/17/25/26/30/38/41/48/66/71
				A4RGX7AS	Original Grant	FA161608-05C	A4RG1AZG	Spot check at Ant 1 for LTE B5/12/13/14/17/26/71
		5G FR1	n2/ 5/ 7/ 12/ 25/ 30/ 48/ 66/ 71/ 77/ 78	A4RGB62Z	Original Grant	FA161608-03C	A4RG1AZG	Spot check at Ant 0/1/2/6 for NR n2/5/7/12/25/30/66/71/77

4. Spot Check Verification Data Section

SAR spot check verification on the worst cases from the original model was performed to demonstrate the test data from original model remains representative for the variant model

1st as parent model

2nd as variant model

4.1 Head SAR

No.	Band	Mode	Test Position	Gap (mm)	Power Index	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)	Deviation %
1st	GSM850_Ant 0	GPRS (4 Tx slots)	Left Cheek	0mm	2/3	251	848.8	29.24	30.50	1.337	-0.11	0.481	0.643	-6.38%
2nd	GSM850_Ant 0	GPRS (4 Tx slots)	Left Cheek	0mm	2/3	251	848.8	29.14	30.50	1.368	0.09	0.440	0.602	
1st	GSM850_Ant 1	GPRS (4 Tx slots)	Right Cheek	0mm	2	128	824.2	27.95	29.00	1.274	-0.17	0.921	1.173	-19.10%
2nd	GSM850_Ant 1	GPRS (4 Tx slots)	Right Cheek	0mm	2	128	824.2	28.09	29.00	1.233	-0.12	0.770	0.949	
1st	GSM850_Ant 1	GPRS (4 Tx slots)	Right Cheek	0mm	3	128	824.2	27.95	28.20	1.059	-0.17	0.921	0.976	-19.06%
2nd	GSM850_Ant 1	GPRS (4 Tx slots)	Right Cheek	0mm	2	128	824.2	28.09	28.20	1.026	-0.12	0.770	0.790	
1st	GSM1900_Ant 2	GPRS (4 Tx slots)	Right Cheek	0mm	2/3	810	1909.8	26.51	27.85	1.361	-0.09	0.178	0.242	-9.51%
2nd	GSM1900_Ant 2	GPRS (4 Tx slots)	Right Cheek	0mm	2/3	810	1909.8	26.48	27.85	1.371	0.07	0.160	0.219	
1st	GSM1900_Ant 0	GPRS (4 Tx slots)	Left Cheek	0mm	2/3	810	1909.8	26.26	28.00	1.493	-0.02	0.372	0.555	-7.57%
2nd	GSM1900_Ant 0	GPRS (4 Tx slots)	Left Cheek	0mm	2/3	810	1909.8	26.40	28.00	1.445	-0.07	0.355	0.513	
1st	WCDMA II_Ant 2	RMC 12.2Kbps	Right Cheek	0mm	2/3	9262	1852.4	23.99	25.25	1.337	-0.17	0.264	0.353	-5.10%
2nd	WCDMA II_Ant 2	RMC 12.2Kbps	Right Cheek	0mm	2/3	9262	1852.4	24.05	25.25	1.318	-0.16	0.254	0.335	
1st	WCDMA II_Ant 0	RMC 12.2Kbps	Left Cheek	0mm	2/3	9400	1880	24.20	25.70	1.413	0.06	0.686	0.969	-29.42%
2nd	WCDMA II_Ant 0	RMC 12.2Kbps	Left Cheek	0mm	2/3	9400	1880	24.41	25.70	1.346	-0.12	0.508	0.684	
1st	WCDMA IV_Ant 2	RMC 12.2Kbps	Right Cheek	0mm	2/3	1312	1712.4	23.81	25.25	1.393	-0.18	0.267	0.372	-12.64%
2nd	WCDMA IV_Ant 2	RMC 12.2Kbps	Right Cheek	0mm	2/3	1312	1712.4	23.88	25.25	1.371	-0.04	0.237	0.325	
1st	WCDMA IV_Ant 0	RMC 12.2Kbps	Left Cheek	0mm	2/3	1513	1752.6	23.98	25.70	1.486	0.15	0.485	0.721	-20.95%
2nd	WCDMA IV_Ant 0	RMC 12.2Kbps	Left Cheek	0mm	2/3	1513	1752.6	24.18	25.70	1.419	0.12	0.402	0.570	
1st	WCDMA V_Ant 0	RMC 12.2Kbps	Left Cheek	0mm	2/3	4233	846.6	24.18	25.30	1.294	-0.14	0.286	0.370	-1.90%
2nd	WCDMA V_Ant 0	RMC 12.2Kbps	Left Cheek	0mm	2/3	4233	846.6	24.09	25.30	1.321	0	0.275	0.363	
1st	WCDMA V_Ant 1	RMC 12.2Kbps	Right Cheek	0mm	2	4132	826.4	24.17	25.70	1.422	-0.04	0.796	1.132	-0.35%
2nd	WCDMA V_Ant 1	RMC 12.2Kbps	Right Cheek	0mm	2	4132	826.4	24.18	25.70	1.419	-0.05	0.795	1.128	
1st	WCDMA V_Ant 1	RMC 12.2Kbps	Right Cheek	0mm	3	4132	826.4	24.17	25.10	1.239	-0.04	0.796	0.986	-0.30%
2nd	WCDMA V_Ant 1	RMC 12.2Kbps	Right Cheek	0mm	3	4132	826.4	24.18	25.10	1.236	-0.05	0.795	0.983	
1st	LTE Band 7_Ant 2	20M_QPSK_1_0	Right Cheek	0mm	2/3	21350	2560	24.34	25.20	1.219	0.05	0.813	0.991	-11.20%
2nd	LTE Band 7_Ant 2	20M_QPSK_1_0	Right Cheek	0mm	2/3	21350	2560	24.33	25.20	1.222	0.11	0.720	0.880	
1st	LTE Band 7C_Ant 2	20M_QPSK_1_0	Right Cheek	0mm	2/3	21100	2535	22.83	24.20	1.371	-0.14	0.493	0.676	-5.33%
2nd	LTE Band 7C_Ant 2	20M_QPSK_1_0	Right Cheek	0mm	2/3	21100	2535	22.67	24.20	1.422	-0.12	0.450	0.640	
1st	LTE Band 7_Ant 0	20M_QPSK_1_0	Left Cheek	0mm	2/3	21350	2560	23.92	25.20	1.343	0.08	0.554	0.744	-1.61%
2nd	LTE Band 7_Ant 0	20M_QPSK_1_0	Left Cheek	0mm	2/3	21350	2560	23.95	25.20	1.334	0.1	0.549	0.732	
1st	LTE Band 7C_Ant 0	20M_QPSK_1_0	Left Cheek	0mm	2/3	21100	2535	22.42	24.20	1.507	-0.12	0.237	0.357	-0.28%
2nd	LTE Band 7C_Ant 0	20M_QPSK_1_0	Left Cheek	0mm	2/3	21100	2535	22.30	24.20	1.549	-0.17	0.230	0.356	
1st	LTE Band 12_Ant 0	10M_QPSK_1_0	Left Cheek	0mm	2/3	23095	707.5	24.34	25.30	1.247	-0.19	0.240	0.299	-13.05%
2nd	LTE Band 12_Ant 0	10M_QPSK_1_0	Left Cheek	0mm	2/3	23095	707.5	24.33	25.30	1.250	-0.15	0.208	0.260	
1st	LTE Band 12_Ant 1	10M_QPSK_1_0	Right Cheek	0mm	2	23095	707.5	23.94	25.20	1.337	-0.05	0.871	1.164	-7.30%
2nd	LTE Band 12_Ant 1	10M_QPSK_1_0	Right Cheek	0mm	2	23095	707.5	23.90	25.20	1.349	-0.17	0.800	1.079	
1st	LTE Band 12_Ant 1	10M_QPSK_1_0	Right Cheek	0mm	3	23095	707.5	23.94	24.50	1.138	-0.05	0.871	0.991	-7.27%
2nd	LTE Band 12_Ant 1	10M_QPSK_1_0	Right Cheek	0mm	3	23095	707.5	23.90	24.50	1.148	-0.17	0.800	0.919	

No.	Band	Mode	Test Position	Gap (mm)	Power Index	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)	Deviation %
1st	LTE Band 13_Ant 0	10M_QPSK_1_0	Left Cheek	0mm	2/3	23230	782	24.26	25.30	1.271			-0.18	0.280	0.356	-2.25%
2nd	LTE Band 13_Ant 0	10M_QPSK_1_0	Left Cheek	0mm	2/3	23230	782	24.34	25.30	1.247			-0.13	0.279	0.348	
1st	LTE Band 13_Ant 1	10M_QPSK_1_0	Right Tilted	0mm	2	23230	782	24.02	25.20	1.312			-0.13	0.844	1.107	-6.41%
2nd	LTE Band 13_Ant 1	10M_QPSK_1_0	Right Tilted	0mm	2	23230	782	24.07	25.20	1.297			-0.01	0.799	1.036	
1st	LTE Band 13_Ant 1	10M_QPSK_1_0	Right Tilted	0mm	3	23230	782	24.02	24.40	1.091			-0.13	0.844	0.921	-6.41%
2nd	LTE Band 13_Ant 1	10M_QPSK_1_0	Right Tilted	0mm	3	23230	782	24.07	24.40	1.079			-0.01	0.799	0.862	
1st	LTE Band 14_Ant 0	10M_QPSK_1_0	Left Cheek	0mm	2/3	23330	793	24.44	25.50	1.276			0.02	0.287	0.366	-0.82%
2nd	LTE Band 14_Ant 0	10M_QPSK_1_0	Left Cheek	0mm	2/3	23330	793	24.47	25.50	1.268			-0.07	0.286	0.363	
1st	LTE Band 14_Ant 1	10M_QPSK_1_0	Right Cheek	0mm	2	23330	793	23.94	25.20	1.337			-0.1	0.886	1.184	-6.76%
2nd	LTE Band 14_Ant 1	10M_QPSK_1_0	Right Cheek	0mm	2	23330	793	24.04	25.20	1.306			-0.13	0.845	1.104	
1st	LTE Band 14_Ant 1	10M_QPSK_1_0	Right Cheek	0mm	3	23330	793	23.94	24.40	1.112			-0.1	0.886	0.985	-6.80%
2nd	LTE Band 14_Ant 1	10M_QPSK_1_0	Right Cheek	0mm	3	23330	793	24.04	24.40	1.086			-0.13	0.845	0.918	
1st	LTE Band 25_Ant 2	20M_QPSK_1_0	Right Cheek	0mm	2/3	26140	1860	24.05	25.50	1.396			-0.05	0.244	0.341	-7.34%
2nd	LTE Band 25_Ant 2	20M_QPSK_1_0	Right Cheek	0mm	2/3	26140	1860	23.96	25.50	1.426			-0.12	0.222	0.316	
1st	LTE Band 25_Ant 0	20M_QPSK_1_0	Left Cheek	0mm	2/3	26340	1880	23.59	25.20	1.449			-0.06	0.508	0.736	-3.67%
2nd	LTE Band 25_Ant 0	20M_QPSK_1_0	Left Cheek	0mm	2/3	26340	1880	23.45	25.20	1.496			-0.06	0.474	0.709	
1st	LTE Band 26_Ant 0	15M_QPSK_1_0	Left Cheek	0mm	2/3	26865	831.5	24.62	25.50	1.225			-0.14	0.280	0.343	-11.38%
2nd	LTE Band 26_Ant 0	15M_QPSK_1_0	Left Cheek	0mm	2/3	26865	831.5	24.68	25.50	1.208			-0.07	0.252	0.304	
1st	LTE Band 5B_Ant 0	10M_QPSK_1_0	Left Cheek	0mm	2/3	20600	844	22.11	23.50	1.377			0.05	0.210	0.289	-10.03%
2nd	LTE Band 5B_Ant 0	10M_QPSK_1_0	Left Cheek	0mm	2/3	20600	844	22.07	23.50	1.390			0.05	0.187	0.260	
1st	LTE Band 26_Ant 1	15M_QPSK_1_0	Right Tilted	0mm	2/3	26865	831.5	24.55	25.20	1.161			-0.19	0.846	0.983	-5.70%
2nd	LTE Band 26_Ant 1	15M_QPSK_1_0	Right Tilted	0mm	2/3	26865	831.5	24.54	25.20	1.164			-0.08	0.796	0.927	
1st	LTE Band 5B_Ant 1	10M_QPSK_1_0	Right Cheek	0mm	2/3	20575	841.5	21.59	23.20	1.449			-0.13	0.354	0.513	9.75%
2nd	LTE Band 5B_Ant 1	10M_QPSK_1_0	Right Cheek	0mm	2/3	20575	841.5	21.63	23.20	1.435			-0.15	0.392	0.563	
1st	LTE Band 30_Ant 2	10M_QPSK_1_0	Right Cheek	0mm	2/3	27710	2310	23.56	24.60	1.271			0.11	0.417	0.530	-3.40%
2nd	LTE Band 30_Ant 2	10M_QPSK_1_0	Right Cheek	0mm	2/3	27710	2310	23.60	24.60	1.259			-0.1	0.407	0.512	
1st	LTE Band 30_Ant 0	10M_QPSK_1_0	Left Cheek	0mm	2/3	27710	2310	23.66	25.00	1.361			0.1	0.579	0.788	-7.61%
2nd	LTE Band 30_Ant 0	10M_QPSK_1_0	Left Cheek	0mm	2/3	27710	2310	23.75	25.00	1.334			0.18	0.546	0.728	
1st	LTE Band 41_Ant 2	20M_QPSK_1_0	Right Cheek	0mm	2/3	41490	2680	24.18	25.40	1.324	62.9	1.006	-0.05	0.474	0.632	4.44%
2nd	LTE Band 41_Ant 2	20M_QPSK_1_0	Right Cheek	0mm	2/3	41490	2680	24.07	25.40	1.358	62.9	1.006	0.13	0.483	0.660	
1st	LTE Band 41_HPUE_Ant 2	20M_QPSK_1_0	Right Cheek	0mm	2/3	40185	2549.5	26.60	27.70	1.288	42.9	1.009	-0.05	0.531	0.690	-4.50%
2nd	LTE Band 41_HPUE_Ant 2	20M_QPSK_1_0	Right Cheek	0mm	2/3	40185	2549.5	26.28	27.70	1.387	42.9	1.009	0.17	0.471	0.659	
1st	LTE Band 41C_Ant 2	20M_QPSK_1_0	Right Cheek	0mm	2/3	40620	2593	21.76	23.40	1.459	62.9	1.006	-0.05	0.289	0.424	-6.84%
2nd	LTE Band 41C_Ant 2	20M_QPSK_1_0	Right Cheek	0mm	2/3	40620	2593	21.74	23.40	1.466	62.9	1.006	-0.01	0.268	0.395	
1st	LTE Band 41_Ant 0	20M_QPSK_1_0	Left Cheek	0mm	2/3	41055	2636.5	23.62	25.20	1.439	62.9	1.006	-0.03	0.365	0.528	-1.52%
2nd	LTE Band 41_Ant 0	20M_QPSK_1_0	Left Cheek	0mm	2/3	41055	2636.5	23.48	25.20	1.486	62.9	1.006	0.19	0.348	0.520	
1st	LTE Band 41_HPUE_Ant 0	20M_QPSK_1_0	Left Cheek	0mm	2/3	40620	2593	25.93	27.20	1.340	42.9	1.009	0.03	0.399	0.539	-0.93%
2nd	LTE Band 41_HPUE_Ant 0	20M_QPSK_1_0	Left Cheek	0mm	2/3	40620	2593	25.49	27.20	1.483	42.9	1.009	0.12	0.357	0.534	
1st	LTE Band 41C_Ant 0	20M_QPSK_1_0	Left Cheek	0mm	2/3	40620	2593	20.92	22.20	1.343	62.9	1.006	-0.05	0.210	0.284	-14.08%
2nd	LTE Band 41C_Ant 0	20M_QPSK_1_0	Left Cheek	0mm	2/3	40620	2593	20.53	22.20	1.469	62.9	1.006	-0.06	0.165	0.244	
1st	LTE Band 48_Ant 6	20M_QPSK_1_0	Left Cheek	0mm	2/3	55830	3609	22.88	24.00	1.294	62.9	1.006	0.01	0.168	0.219	-4.11%
2nd	LTE Band 48_Ant 6	20M_QPSK_1_0	Left Cheek	0mm	2/3	55830	3609	22.82	24.00	1.312	62.9	1.006	0.15	0.159	0.210	
1st	LTE Band 48_Ant 2	20M_QPSK_1_0	Right Cheek	0mm	2/3	55340	3560	21.78	23.20	1.387	62.9	1.006	0.15	0.118	0.165	-24.85%
2nd	LTE Band 48_Ant 2	20M_QPSK_1_0	Right Cheek	0mm	2/3	55340	3560	21.75	23.20	1.396	62.9	1.006	0.11	0.088	0.124	

No.	Band	Mode	Test Position	Gap (mm)	Power Index	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)	Deviation %
1st	LTE Band 66_Ant 2	20M_QPSK_1_0	Right Cheek	0mm	2/3	132072	1720	23.92	25.25	1.358	0.15	0.219	0.297	-8.09%
2nd	LTE Band 66_Ant 2	20M_QPSK_1_0	Right Cheek	0mm	2/3	132072	1720	24.02	25.25	1.327	0.07	0.206	0.273	
1st	LTE Band 66B_Ant 2	15M_QPSK_1_74	Right Cheek	0mm	2/3	132047	1717.5	18.16	19.25	1.285	-0.13	0.064	0.082	-2.44%
2nd	LTE Band 66B_Ant 2	15M_QPSK_1_74	Right Cheek	0mm	2/3	132047	1717.5	18.21	19.25	1.271	-0.09	0.063	0.080	
1st	LTE Band 66C_Ant 2	20M_QPSK_1_99	Right Cheek	0mm	2/3	132072	1720	18.26	19.25	1.256	-0.04	0.062	0.078	1.28%
2nd	LTE Band 66C_Ant 2	20M_QPSK_1_99	Right Cheek	0mm	2/3	132072	1720	18.27	19.25	1.253	0.06	0.063	0.079	
1st	LTE Band 66_Ant 0	20M_QPSK_1_0	Left Cheek	0mm	2/3	132572	1770	23.63	25.20	1.435	0.01	0.471	0.676	-17.61%
2nd	LTE Band 66_Ant 0	20M_QPSK_1_0	Left Cheek	0mm	2/3	132572	1770	23.88	25.20	1.355	0	0.411	0.557	
1st	LTE Band 66B_Ant 0	15M_QPSK_1_0	Left Cheek	0mm	2/3	132322	1745	17.50	18.75	1.334	-0.06	0.086	0.115	-6.09%
2nd	LTE Band 66B_Ant 0	15M_QPSK_1_0	Left Cheek	0mm	2/3	132322	1745	17.91	18.75	1.213	-0.02	0.089	0.108	
1st	LTE Band 66C_Ant 0	20M_QPSK_1_0	Left Cheek	0mm	2/3	132322	1745	17.56	18.75	1.315	-0.13	0.085	0.112	-2.68%
2nd	LTE Band 66C_Ant 0	20M_QPSK_1_0	Left Cheek	0mm	2/3	132322	1745	17.96	18.75	1.199	-0.02	0.091	0.109	
1st	LTE Band 71_Ant 0	20M_QPSK_1_0	Left Cheek	0mm	2/3	133322	683	24.50	25.30	1.202	-0.17	0.259	0.311	-6.44%
2nd	LTE Band 71_Ant 0	20M_QPSK_1_0	Left Cheek	0mm	2/3	133322	683	24.32	25.30	1.253	-0.17	0.232	0.291	
1st	LTE Band 71_Ant 1	20M_QPSK_1_0	Right Cheek	0mm	2/3	133322	683	24.08	25.20	1.294	-0.05	0.651	0.843	-3.80%
2nd	LTE Band 71_Ant 1	20M_QPSK_1_0	Right Cheek	0mm	2/3	133322	683	24.16	25.20	1.271	-0.04	0.638	0.811	
1st	FR1 n5_Ant 0	20M_BPSK_1_53	Left Cheek	0mm	2/3	167300	836.5	24.34	25.50	1.306	-0.08	0.282	0.368	-1.64%
2nd	FR1 n5_Ant 0	20M_BPSK_1_53	Left Cheek	0mm	2/3	167300	836.5	24.38	25.50	1.294	-0.02	0.280	0.362	
1st	FR1 n5_Ant 1	20M_BPSK_1_53	Right Cheek	0mm	2/3	167300	836.5	24.82	25.20	1.091	-0.11	0.882	0.963	-0.21%
2nd	FR1 n5_Ant 1	20M_BPSK_1_53	Right Cheek	0mm	2/3	167300	836.5	24.75	25.20	1.109	-0.14	0.866	0.961	
1st	FR1 n7_Ant 2	20M_BPSK_1_53	Right Cheek	0mm	2/3	507000	2535	24.51	25.20	1.172	0.12	0.771	0.904	-2.88%
2nd	FR1 n7_Ant 2	20M_BPSK_1_53	Right Cheek	0mm	2/3	507000	2535	24.55	25.20	1.161	0.02	0.756	0.878	
1st	FR1 n7_Ant 0	20M_BPSK_1_53	Left Cheek	0mm	2/3	512000	2560	24.09	25.20	1.291	0.12	0.584	0.754	-1.19%
2nd	FR1 n7_Ant 0	20M_BPSK_1_53	Left Cheek	0mm	2/3	512000	2560	24.00	25.20	1.318	0.17	0.565	0.745	
1st	FR1 n12_Ant 0	15M_BPSK_1_40	Left Cheek	0mm	2/3	141500	707.5	23.94	25.30	1.368	-0.15	0.222	0.304	-0.66%
2nd	FR1 n12_Ant 0	15M_BPSK_1_40	Left Cheek	0mm	2/3	141500	707.5	23.82	25.30	1.406	-0.16	0.215	0.302	
1st	FR1 n12_Ant 1	15M_BPSK_36_22	Right Cheek	0mm	2/3	141500	707.5	24.32	25.20	1.225	-0.06	0.801	0.981	-23.86%
2nd	FR1 n12_Ant 1	15M_BPSK_36_22	Right Cheek	0mm	2/3	141500	707.5	24.26	25.20	1.242	0	0.602	0.747	
1st	FR1 n25_Ant 2	20M_BPSK_1_53	Right Cheek	0mm	2/3	381000	1905	24.61	25.70	1.285	0.19	0.280	0.360	-6.67%
2nd	FR1 n25_Ant 2	20M_BPSK_1_53	Right Cheek	0mm	2/3	381000	1905	24.62	25.70	1.282	0.18	0.262	0.336	
1st	FR1 n25_Ant 0	20M_BPSK_1_53	Left Cheek	0mm	2/3	381000	1905	24.24	25.70	1.400	0.1	0.592	0.829	-0.85%
2nd	FR1 n25_Ant 0	20M_BPSK_1_53	Left Cheek	0mm	2/3	381000	1905	24.26	25.70	1.393	0.15	0.590	0.822	
1st	FR1 n30_Ant 2	10M_BPSK_1_26	Right Cheek	0mm	2/3	462000	2310	23.10	24.60	1.413	0.16	0.369	0.521	-11.52%
2nd	FR1 n30_Ant 2	10M_BPSK_1_26	Right Cheek	0mm	2/3	462000	2310	23.11	24.60	1.409	-0.02	0.327	0.461	
1st	FR1 n30_Ant 0	10M_BPSK_1_26	Left Cheek	0mm	2/3	462000	2310	24.27	25.00	1.183	0.06	0.576	0.681	-3.23%
2nd	FR1 n30_Ant 0	10M_BPSK_1_26	Left Cheek	0mm	2/3	462000	2310	24.22	25.00	1.197	0.12	0.551	0.659	
1st	FR1 n66_Ant 2	40M_BPSK_1_108	Right Cheek	0mm	2/3	349000	1745	24.65	25.25	1.148	-0.03	0.250	0.287	-10.45%
2nd	FR1 n66_Ant 2	40M_BPSK_1_108	Right Cheek	0mm	2/3	349000	1745	24.66	25.25	1.146	0.1	0.224	0.257	
1st	FR1 n66_Ant 0	40M_BPSK_108_54	Left Cheek	0mm	2/3	349000	1745	24.46	25.70	1.330	0.11	0.462	0.615	-3.74%
2nd	FR1 n66_Ant 0	40M_BPSK_108_54	Left Cheek	0mm	2/3	349000	1745	24.40	25.70	1.349	0.12	0.439	0.592	
1st	FR1 n71_Ant 0	20M_BPSK_1_53	Left Cheek	0mm	2/3	136100	680.5	23.89	25.30	1.384	-0.01	0.199	0.275	-5.10%
2nd	FR1 n71_Ant 0	20M_BPSK_1_53	Left Cheek	0mm	2/3	136100	680.5	23.85	25.30	1.396	-0.01	0.187	0.261	
1st	FR1 n71_Ant 1	20M_BPSK_50_28	Right Cheek	0mm	2/3	136100	680.5	24.33	25.20	1.222	-0.06	0.575	0.703	-4.41%
2nd	FR1 n71_Ant 1	20M_BPSK_50_28	Right Cheek	0mm	2/3	136100	680.5	24.37	25.20	1.211	-0.01	0.555	0.672	

No.	Band	Mode	Test Position	Gap (mm)	Power Index	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)	Deviation %
1st	FR1 n77_Ant 6	100M_BPSK_1_271	Left Cheek	0mm	2/3	656000	3840	23.60	25.00	1.380	100	1.000	-0.01	0.546	0.754	-13.40%
2nd	FR1 n77_Ant 6	100M_BPSK_1_271	Left Cheek	0mm	2/3	656000	3840	23.71	25.00	1.346	100	1.000	-0.19	0.485	0.653	
1st	FR1 n77_HPUE_Ant 6	100M_BPSK_1_271	Left Cheek	0mm	2/3	656000	3840	26.14	27.20	1.276	50	1.000	-0.06	0.534	0.682	-18.48%
2nd	FR1 n77_HPUE_Ant 6	100M_BPSK_1_271	Left Cheek	0mm	2/3	656000	3840	26.20	27.20	1.259	50	1.000	0.09	0.442	0.556	
1st	FR1 n77_Ant 6	100M_BPSK_135_69	Left Cheek	0mm	2/3	633332	3499.98	23.25	25.00	1.496	100	1.000	-0.06	0.447	0.669	-7.03%
2nd	FR1 n77_Ant 6	100M_BPSK_135_69	Left Cheek	0mm	2/3	633332	3499.98	23.38	25.00	1.452	100	1.000	0.03	0.428	0.622	
1st	FR1 n77_HPUE_Ant 6	100M_BPSK_1_271	Left Cheek	0mm	2/3	633332	3499.98	25.79	27.20	1.384	50	1.000	0.15	0.436	0.603	-15.26%
2nd	FR1 n77_HPUE_Ant 6	100M_BPSK_1_271	Left Cheek	0mm	2/3	633332	3499.98	25.76	27.20	1.393	50	1.000	0.02	0.367	0.511	
1st	FR1 n77_Ant 2	100M_BPSK_135_69	Right Cheek	0mm	2/3	656000	3840	22.07	23.75	1.472	100	1.000	-0.07	0.244	0.359	-19.23%
2nd	FR1 n77_Ant 2	100M_BPSK_135_69	Right Cheek	0mm	2/3	656000	3840	22.25	23.75	1.413	100	1.000	-0.19	0.205	0.290	
1st	FR1 n77_HPUE_Ant 2	100M_BPSK_1_271	Right Cheek	0mm	2/3	656000	3840	24.92	25.90	1.253	50	1.000	0.05	0.216	0.271	-42.07%
2nd	FR1 n77_HPUE_Ant 2	100M_BPSK_1_271	Right Cheek	0mm	2/3	656000	3840	24.70	25.90	1.318	50	1.000	-0.12	0.119	0.157	
1st	FR1 n77_Ant 2	100M_BPSK_135_69	Right Cheek	0mm	2/3	633332	3499.98	22.17	23.75	1.439	100	1.000	-0.09	0.428	0.616	-26.14%
2nd	FR1 n77_Ant 2	100M_BPSK_135_69	Right Cheek	0mm	2/3	633332	3499.98	22.29	23.75	1.400	100	1.000	-0.06	0.325	0.455	
1st	FR1 n77_HPUE_Ant 2	100M_BPSK_1_271	Right Cheek	0mm	2/3	633332	3499.98	24.85	25.90	1.274	50	1.000	0.03	0.371	0.472	-20.13%
2nd	FR1 n77_HPUE_Ant 2	100M_BPSK_1_271	Right Cheek	0mm	2/3	633332	3499.98	24.61	25.90	1.346	50	1.000	-0.15	0.280	0.377	

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Index	Antenna	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)	Deviation (%)
1st	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	1	Ant 4	12	2467	18.25	18.50	1.059	98.90	1.011	-0.16	0.909	0.973	-5.14%
2nd	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	1	Ant 4	12	2467	18.25	18.50	1.059	98.90	1.011	-0.19	0.862	0.923	
1st	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	1	Ant 3	12	2467	17.55	18.50	1.245	98.90	1.011	-0.19	0.811	1.020	-3.14%
2nd	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	1	Ant 3	12	2467	17.55	18.50	1.245	98.90	1.011	-0.1	0.785	0.988	
1st	WLAN2.4GHz	802.11g 6Mbps	Left Tilted	0mm	1	Ant 4+3(4)	11	2462	18.45	18.50	1.012	93.40	1.071	-0.01	1.030	1.116	-5.65%
	WLAN2.4GHz	802.11g 6Mbps	Left Tilted	0mm	1	Ant 4+3(3)	11	2462	17.95	18.50	1.135	93.40	1.071	-0.01	0.189	0.230	
2nd	WLAN2.4GHz	802.11g 6Mbps	Left Tilted	0mm	1	Ant 4+3(4)	11	2462	18.45	18.50	1.012	93.40	1.071	-0.14	0.972	1.053	
	WLAN2.4GHz	802.11g 6Mbps	Left Tilted	0mm	1	Ant 4+3(3)	11	2462	17.95	18.50	1.135	93.40	1.071	-0.14	0.203	0.247	
1st	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	2/3	Ant 4	11	2462	16.45	16.50	1.012	98.9	1.011	-0.04	0.325	0.332	-14.46%
2nd	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	2/3	Ant 4	11	2462	16.45	16.50	1.012	98.9	1.011	0.18	0.278	0.284	
1st	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	2/3	Ant 3	11	2462	15.00	16.00	1.259	98.9	1.011	-0.17	0.330	0.420	-21.43%
2nd	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	2/3	Ant 3	11	2462	15.00	16.00	1.259	98.9	1.011	0.13	0.259	0.330	
1st	WLAN2.4GHz	802.11g 6Mbps	Left Tilted	0mm	2/3	Ant 4+3(4)	11	2462	16.45	16.50	1.012	93.4	1.071	0.12	0.550	0.596	-25.84%
	WLAN2.4GHz	802.11g 6Mbps	Left Tilted	0mm	2/3	Ant 4+3(3)	11	2462	14.75	16.00	1.334	93.4	1.071	0.12	0.096	0.137	
2nd	WLAN2.4GHz	802.11g 6Mbps	Left Tilted	0mm	2/3	Ant 4+3(4)	11	2462	16.45	16.50	1.012	93.4	1.071	-0.04	0.408	0.442	
	WLAN2.4GHz	802.11g 6Mbps	Left Tilted	0mm	2/3	Ant 4+3(3)	11	2462	14.75	16.00	1.334	93.4	1.071	-0.04	0.048	0.069	
1st	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	4	Ant 4	6	2437	10.95	11.00	1.012	98.9	1.011	0	0.081	0.083	-3.61%
2nd	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	4	Ant 4	6	2437	10.95	11.00	1.012	98.9	1.011	-0.01	0.078	0.080	
1st	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	4	Ant 3	11	2462	10.00	11.00	1.259	98.9	1.011	-0.17	0.102	0.130	-3.85%
2nd	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	4	Ant 3	11	2462	10.00	11.00	1.259	98.9	1.011	-0.06	0.098	0.125	
1st	WLAN2.4GHz	802.11g 6Mbps	Right Cheek	0mm	4	Ant 4+3(4)	1	2412	10.85	11.00	1.035	93.4	1.071	-0.16	0.048	0.053	-28.13%
	WLAN2.4GHz	802.11g 6Mbps	Right Cheek	0mm	4	Ant 4+3(3)	1	2412	9.85	11.00	1.303	93.4	1.071	-0.16	0.092	0.128	
2nd	WLAN2.4GHz	802.11g 6Mbps	Right Cheek	0mm	4	Ant 4+3(4)	1	2412	10.85	11.00	1.035	93.4	1.071	-0.06	0.048	0.053	
	WLAN2.4GHz	802.11g 6Mbps	Right Cheek	0mm	4	Ant 4+3(3)	1	2412	9.85	11.00	1.303	93.4	1.071	-0.06	0.066	0.092	

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Index	Antenna	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)	Deviation (%)
1st	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	1	Ant 4+3(4)	58	5290	13.90	15.00	1.288	88.30	1.133	-0.01	0.763	1.114	-20.74%
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	1	Ant 4+3(3)	58	5290	12.20	13.50	1.349	88.30	1.133	-0.01	0.161	0.246	
2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	1	Ant 4+3(4)	58	5290	13.90	15.00	1.288	88.30	1.133	-0.02	0.605	0.883	
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	1	Ant 4+3(3)	58	5290	12.20	13.50	1.349	88.30	1.133	-0.02	0.091	0.139	
1st	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	2	Ant 4+3(4)	58	5290	13.90	14.50	1.148	88.30	1.133	-0.01	0.763	0.993	-11.08%
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	2	Ant 4+3(3)	58	5290	12.20	12.50	1.072	88.30	1.133	-0.01	0.161	0.195	
2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	2	Ant 4+3(4)	58	5290	13.90	15.00	1.288	88.30	1.133	-0.02	0.605	0.883	
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	2	Ant 4+3(3)	58	5290	12.20	13.50	1.349	88.30	1.133	-0.02	0.091	0.139	
1st	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	3/4	Ant 4+3(4)	50	5250	10.80	11.00	1.047	88.2	1.134	0.07	0.273	0.324	-25.31%
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	3/4	Ant 4+3(3)	50	5250	8.20	8.50	1.072	88.2	1.134	0.07	0.034	0.041	
2nd	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	3/4	Ant 4+3(4)	50	5250	10.80	11.00	1.047	88.2	1.134	0.01	0.204	0.242	
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	3/4	Ant 4+3(3)	50	5250	8.20	8.50	1.072	88.2	1.134	0.01	0.041	0.050	
1st	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	1	Ant 4+3(4)	114	5570	14.10	15.00	1.230	88.20	1.134	0	0.803	1.120	-8.93%
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	1	Ant 4+3(3)	114	5570	12.80	14.00	1.318	88.20	1.134	0	0.114	0.170	
2nd	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	1	Ant 4+3(4)	114	5570	14.10	15.00	1.230	88.20	1.134	-0.08	0.731	1.020	
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	1	Ant 4+3(3)	114	5570	12.70	14.00	1.349	88.20	1.134	-0.08	0.112	0.171	
1st	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	2	Ant 4+3(4)	114	5570	14.10	14.50	1.096	88.2	1.134	-0.03	0.778	0.967	-10.13%
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	2	Ant 4+3(3)	114	5570	12.10	12.50	1.096	88.2	1.134	-0.03	0.163	0.203	
2nd	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	2	Ant 4+3(4)	114	5570	14.10	14.50	1.096	88.2	1.134	0.08	0.699	0.869	
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	2	Ant 4+3(3)	114	5570	12.10	12.50	1.096	88.2	1.134	0.08	0.107	0.133	
1st	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	3	Ant 4+3(4)	114	5570	9.70	11.00	1.349	88.2	1.134	-0.07	0.246	0.376	-3.46%
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	3	Ant 4+3(3)	114	5570	8.40	9.50	1.288	88.2	1.134	-0.07	0.017	0.025	
2nd	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	3	Ant 4+3(4)	114	5570	9.70	11.00	1.349	88.2	1.134	-0.03	0.237	0.363	
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	3	Ant 4+3(3)	114	5570	8.40	9.50	1.288	88.2	1.134	-0.03	0.033	0.048	
1st	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	4	Ant 4+3(4)	114	5570	9.70	10.50	1.202	88.2	1.134	-0.07	0.246	0.335	-3.58%
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	4	Ant 4+3(4)	114	5570	8.40	9.00	1.148	88.2	1.134	-0.07	0.017	0.022	
2nd	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	4	Ant 4+3(4)	114	5570	9.70	10.50	1.202	88.2	1.134	-0.03	0.237	0.323	
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	4	Ant 4+3(3)	114	5570	8.40	9.00	1.148	88.2	1.134	-0.03	0.033	0.043	
1st	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	1	Ant 4+3(4)	155	5775	14.40	15.50	1.288	88.3	1.133	-0.04	0.752	1.098	-4.28%
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	1	Ant 4+3(3)	155	5775	11.60	13.50	1.549	88.3	1.133	-0.04	0.152	0.267	
2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	1	Ant 4+3(4)	155	5775	14.40	15.50	1.288	88.3	1.133	-0.11	0.720	1.051	
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	1	Ant 4+3(3)	155	5775	11.60	13.50	1.549	88.3	1.133	-0.11	0.154	0.270	
1st	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	2	Ant 4+3(4)	155	5775	14.40	15.00	1.148	88.3	1.133	-0.04	0.752	0.978	-4.19%
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	2	Ant 4+3(3)	155	5775	11.60	13.00	1.380	88.3	1.133	-0.04	0.152	0.238	
2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	2	Ant 4+3(4)	155	5775	14.40	15.00	1.148	88.3	1.133	-0.11	0.720	0.937	
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	2	Ant 4+3(3)	155	5775	11.60	13.00	1.380	88.3	1.133	-0.11	0.154	0.241	
1st	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	3	Ant 4+3(4)	155	5775	11.20	12.00	1.202	88.3	1.133	-0.03	0.266	0.362	-3.04%
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	3	Ant 4+3(3)	155	5775	8.20	9.00	1.202	88.3	1.133	-0.03	0.051	0.069	
2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	3	Ant 4+3(4)	155	5775	11.20	12.00	1.202	88.3	1.133	0.09	0.258	0.351	
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	3	Ant 4+3(3)	155	5775	8.20	9.00	1.202	88.3	1.133	0.09	0.049	0.067	
1st	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	4	Ant 4+3(4)	155	5775	11.20	12.00	1.202	88.3	1.133	-0.03	0.266	0.362	-3.04%
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	4	Ant 4+3(3)	155	5775	8.20	9.00	1.202	88.3	1.133	-0.03	0.051	0.069	
2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	4	Ant 4+3(4)	155	5775	11.20	12.00	1.202	88.3	1.133	0.09	0.258	0.351	
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	4	Ant 4+3(3)	155	5775	8.20	9.00	1.202	88.3	1.133	0.09	0.049	0.067	

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Index	Antenna	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)	Deviation (%)
1st	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	1	Ant 4+3(4)	171	5855	15.10	16.00	1.230	88.20	1.134	-0.04	0.831	1.159	-21.74%
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	1	Ant 4+3(3)	171	5855	12.80	13.50	1.175	88.20	1.134	-0.04	0.243	0.324	
2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	1	Ant 4+3(4)	171	5855	15.10	16.00	1.230	88.20	1.134	-0.13	0.650	0.907	
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	1	Ant 4+3(3)	171	5855	12.80	13.50	1.175	88.20	1.134	-0.13	0.207	0.276	
1st	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	2	Ant 4+3(4)	171	5855	14.70	15.50	1.202	88.2	1.134	0.03	0.206	0.281	-13.27%
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	2	Ant 4+3(3)	171	5855	11.70	12.50	1.202	88.2	1.134	0.03	0.691	0.942	
2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	2	Ant 4+3(4)	171	5855	14.70	15.50	1.202	88.2	1.134	0.19	0.182	0.248	
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	2	Ant 4+3(3)	171	5855	11.70	12.50	1.202	88.2	1.134	0.19	0.599	0.817	
1st	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	3/4	Ant 4+3(4)	163	5815	11.30	12.00	1.175	88.2	1.134	-0.1	0.312	0.416	-29.57%
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	3/4	Ant 4+3(3)	163	5815	8.40	9.00	1.148	88.2	1.134	-0.1	0.061	0.079	
2nd	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	3/4	Ant 4+3(4)	163	5815	11.30	12.00	1.175	88.2	1.134	-0.02	0.220	0.293	
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	3/4	Ant 4+3(3)	163	5815	8.40	9.00	1.148	88.2	1.134	-0.02	0.048	0.062	
1st	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	1/2/3/4	Ant 4+3(4)	47	6185	9.80	10.00	1.047	86.20	1.160	-0.14	0.048	0.058	-21.94%
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	1/2/3/4	Ant 4+3(3)	47	6185	10.00	10.00	1.000	86.20	1.160	-0.14	0.310	0.360	
2nd	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	1/2/3/4	Ant 4+3(4)	47	6185	9.80	10.00	1.047	86.20	1.160	0.09	0.040	0.049	
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	1/2/3/4	Ant 4+3(3)	47	6185	10.00	10.00	1.000	86.20	1.160	0.09	0.242	0.281	
1st	Bluetooth	1Mbps	Left Tilted	0mm	1	Ant 4	0	2402	10.65	12.00	1.365	77.22	1.079	0.02	0.111	0.163	-6.75%
2nd	Bluetooth	1Mbps	Left Tilted	0mm	1	Ant 4	0	2402	10.65	12.00	1.365	77.22	1.079	0.03	0.103	0.152	
1st	Bluetooth	1Mbps	Right Cheek	0mm	1	Ant 3	78	2480	10.05	12.00	1.567	77.22	1.079	0.12	0.119	0.201	-12.44%
2nd	Bluetooth	1Mbps	Right Cheek	0mm	1	Ant 3	78	2480	10.05	12.00	1.567	77.22	1.079	0.12	0.104	0.176	
1st	Bluetooth	1Mbps	Right Cheek	0mm	1	Ant 4+3(4)	39	2441	10.85	12.00	1.303	77.22	1.079	0.14	0.085	0.120	-13.58%
	Bluetooth	1Mbps	Right Cheek	0mm	1	Ant 4+3(3)	39	2441	10.35	12.00	1.462	77.22	1.079	0.14	0.154	0.243	
2nd	Bluetooth	1Mbps	Right Cheek	0mm	1	Ant 4+3(4)	39	2441	10.85	12.00	1.303	77.22	1.079	0.11	0.079	0.111	
	Bluetooth	1Mbps	Right Cheek	0mm	1	Ant 4+3(3)	39	2441	10.35	12.00	1.462	77.22	1.079	0.11	0.133	0.210	

4.2 Hotspot SAR

No.	Band	Mode	Test Position	Gap (mm)	Power State	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)	Deviation %
1st	GSM850_Ant 0	GPRS (4 Tx slots)	Left Side	10mm	4	189	836.4	29.35	30.50	1.303	-0.09	0.664	0.865	-4.05%
2nd	GSM850_Ant 0	GPRS (4 Tx slots)	Left Side	10mm	4	189	836.4	29.24	30.50	1.337	-0.13	0.621	0.830	
1st	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	4	128	824.2	29.09	30.50	1.384	-0.03	0.392	0.542	-0.74%
2nd	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	4	128	824.2	29.10	30.50	1.380	0.05	0.390	0.538	
1st	GSM1900_Ant 2	GPRS (4 Tx slots)	Bottom Side	10mm	4	810	1909.8	23.50	23.80	1.072	-0.16	0.889	0.953	-15.95%
2nd	GSM1900_Ant 2	GPRS (4 Tx slots)	Bottom Side	10mm	4	810	1909.8	23.71	23.80	1.021	-0.18	0.785	0.801	
1st	GSM1900_Ant 0	GPRS (4 Tx slots)	Back	10mm	4	661	1880	26.41	28.00	1.442	-0.12	0.689	0.994	-5.24%
2nd	GSM1900_Ant 0	GPRS (4 Tx slots)	Back	10mm	4	661	1880	26.54	28.00	1.400	-0.04	0.673	0.942	
1st	WCDMA II_Ant 2	RMC 12.2Kbps	Bottom Side	10mm	4	9538	1907.6	20.11	20.90	1.199	0.08	0.786	0.943	-5.30%
2nd	WCDMA II_Ant 2	RMC 12.2Kbps	Bottom Side	10mm	4	9538	1907.6	20.23	20.90	1.167	-0.18	0.765	0.893	
1st	WCDMA II_Ant 0	RMC 12.2Kbps	Left Side	10mm	4	9538	1907.6	22.48	23.10	1.153	-0.12	0.821	0.947	-4.75%
2nd	WCDMA II_Ant 0	RMC 12.2Kbps	Left Side	10mm	4	9538	1907.6	22.55	23.10	1.135	-0.18	0.795	0.902	
1st	WCDMA IV_Ant 2	RMC 12.2Kbps	Bottom Side	10mm	4	1413	1732.6	20.97	22.00	1.268	-0.14	0.751	0.952	-12.29%
2nd	WCDMA IV_Ant 2	RMC 12.2Kbps	Bottom Side	10mm	4	1413	1732.6	21.16	22.00	1.213	-0.12	0.688	0.835	
1st	WCDMA IV_Ant 0	RMC 12.2Kbps	Bottom Side	10mm	4	1513	1752.6	23.12	23.80	1.169	-0.15	0.848	0.992	-10.99%
2nd	WCDMA IV_Ant 0	RMC 12.2Kbps	Bottom Side	10mm	4	1513	1752.6	23.17	23.80	1.156	-0.19	0.764	0.883	
1st	WCDMA V_Ant 0	RMC 12.2Kbps	Left Side	10mm	4	4182	836.4	24.14	25.30	1.306	-0.08	0.398	0.520	-5.39%
2nd	WCDMA V_Ant 0	RMC 12.2Kbps	Left Side	10mm	4	4182	836.4	24.09	25.30	1.321	-0.06	0.372	0.492	
1st	WCDMA V_Ant 1	RMC 12.2Kbps	Back	10mm	4	4132	826.4	24.17	25.70	1.422	-0.01	0.278	0.395	-0.76%
2nd	WCDMA V_Ant 1	RMC 12.2Kbps	Back	10mm	4	4132	826.4	24.18	25.70	1.419	-0.08	0.276	0.392	
1st	LTE Band 7_Ant 2	20M_QPSK_1_0	Right Side	10mm	4	21350	2560	20.02	20.20	1.042	-0.12	0.789	0.822	-15.21%
2nd	LTE Band 7_Ant 2	20M_QPSK_1_0	Right Side	10mm	4	21350	2560	20.05	20.20	1.035	-0.1	0.673	0.697	
1st	LTE Band 7C_Ant 2	20M_QPSK_1_0	Right Side	10mm	4	21100	2535	18.63	19.20	1.140	-0.14	0.522	0.595	-3.36%
2nd	LTE Band 7C_Ant 2	20M_QPSK_1_0	Right Side	10mm	4	21100	2535	18.61	19.20	1.146	-0.13	0.502	0.575	
1st	LTE Band 7_Ant 0	20M_QPSK_1_99	Left Side	10mm	4	21350	2560	23.49	24.10	1.151	-0.15	0.783	0.901	-1.78%
2nd	LTE Band 7_Ant 0	20M_QPSK_1_99	Left Side	10mm	4	21350	2560	23.51	24.10	1.146	-0.16	0.773	0.885	
1st	LTE Band 7C_Ant 0	20M_QPSK_1_0	Left Side	10mm	4	21100	2535	21.76	23.10	1.361	-0.13	0.581	0.791	-12.39%
2nd	LTE Band 7C_Ant 0	20M_QPSK_1_0	Left Side	10mm	4	21100	2535	21.47	23.10	1.455	0.02	0.476	0.693	
1st	LTE Band 12_Ant 0	10M_QPSK_1_0	Left Side	10mm	4	23095	707.5	24.34	25.30	1.247	-0.1	0.405	0.505	-4.16%
2nd	LTE Band 12_Ant 0	10M_QPSK_1_0	Left Side	10mm	4	23095	707.5	24.33	25.30	1.250	-0.16	0.387	0.484	
1st	LTE Band 12_Ant 1	10M_QPSK_1_0	Back	10mm	4	23095	707.5	23.94	25.20	1.337	-0.12	0.207	0.277	-2.17%
2nd	LTE Band 12_Ant 1	10M_QPSK_1_0	Back	10mm	4	23095	707.5	23.90	25.20	1.349	-0.1	0.201	0.271	
1st	LTE Band 13_Ant 0	10M_QPSK_1_0	Left Side	10mm	4	23230	782	24.26	25.30	1.271	-0.04	0.526	0.668	-19.32%
2nd	LTE Band 13_Ant 0	10M_QPSK_1_0	Left Side	10mm	4	23230	782	24.34	25.30	1.247	-0.1	0.432	0.539	
1st	LTE Band 13_Ant 1	10M_QPSK_1_0	Back	10mm	4	23230	782	24.02	25.20	1.312	-0.19	0.220	0.289	-3.11%
2nd	LTE Band 13_Ant 1	10M_QPSK_1_0	Back	10mm	4	23230	782	24.07	25.20	1.297	-0.19	0.216	0.280	
1st	LTE Band 14_Ant 0	10M_QPSK_1_0	Left Side	10mm	4	23330	793	24.44	25.50	1.276	-0.03	0.621	0.793	-3.91%
2nd	LTE Band 14_Ant 0	10M_QPSK_1_0	Left Side	10mm	4	23330	793	24.47	25.50	1.268	-0.09	0.601	0.762	
1st	LTE Band 14_Ant 1	10M_QPSK_1_0	Back	10mm	4	23330	793	23.94	25.20	1.337	-0.14	0.261	0.349	-10.32%
2nd	LTE Band 14_Ant 1	10M_QPSK_1_0	Back	10mm	4	23330	793	24.04	25.20	1.306	-0.13	0.240	0.313	
1st	LTE Band 25_Ant 2	20M_QPSK_50_24	Bottom Side	10mm	4	26590	1905	20.22	20.90	1.169	0.01	0.843	0.986	-4.67%
2nd	LTE Band 25_Ant 2	20M_QPSK_50_24	Bottom Side	10mm	4	26590	1905	20.19	20.90	1.178	0.01	0.798	0.940	
1st	LTE Band 25_Ant 0	20M_QPSK_50_24	Left Side	10mm	4	26340	1880	22.21	22.60	1.094	-0.15	0.855	0.935	-14.97%
2nd	LTE Band 25_Ant 0	20M_QPSK_50_24	Left Side	10mm	4	26340	1880	22.31	22.60	1.069	-0.19	0.744	0.795	

No.	Band	Mode	Test Position	Gap (mm)	Power State	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)	Deviation %
1st	LTE Band 26_Ant 0	15M_QPSK_1_0	Left Side	10mm	4	26865	831.5	24.62	25.50	1.225			-0.05	0.489	0.599	-11.69%
2nd	LTE Band 26_Ant 0	15M_QPSK_1_0	Left Side	10mm	4	26865	831.5	24.68	25.50	1.208			-0.05	0.438	0.529	
1st	LTE Band 5B_Ant 0	10M_QPSK_1_0	Left Side	10mm	4	20600	844	22.11	23.50	1.377			0.11	0.201	0.277	-2.53%
2nd	LTE Band 5B_Ant 0	10M_QPSK_1_0	Left Side	10mm	4	20600	844	22.07	23.50	1.390			-0.13	0.194	0.270	
1st	LTE Band 26_Ant 1	15M_QPSK_1_0	Back	10mm	4	26865	831.5	24.55	25.20	1.161			-0.18	0.259	0.301	-0.66%
2nd	LTE Band 26_Ant 1	15M_QPSK_1_0	Back	10mm	4	26865	831.5	24.54	25.20	1.164			-0.1	0.257	0.299	
1st	LTE Band 5B_Ant 1	10M_QPSK_1_0	Back	10mm	4	20575	841.5	21.59	23.20	1.449			-0.01	0.150	0.217	-0.92%
2nd	LTE Band 5B_Ant 1	10M_QPSK_1_0	Back	10mm	4	20575	841.5	21.63	23.20	1.435			-0.13	0.150	0.215	
1st	LTE Band 30_Ant 2	10M_QPSK_1_0	Back	10mm	4	27710	2310	21.41	22.60	1.315			-0.14	0.712	0.936	-9.94%
2nd	LTE Band 30_Ant 2	10M_QPSK_1_0	Back	10mm	4	27710	2310	21.46	22.60	1.300			-0.13	0.648	0.843	
1st	LTE Band 30_Ant 0	10M_QPSK_1_0	Left Side	10mm	4	27710	2310	22.15	22.90	1.189			-0.18	0.734	0.872	-20.87%
2nd	LTE Band 30_Ant 0	10M_QPSK_1_0	Left Side	10mm	4	27710	2310	22.18	22.90	1.180			-0.15	0.585	0.690	
1st	LTE Band 41_Ant 2	20M_QPSK_1_0	Right Side	10mm	4	41490	2680	21.69	22.60	1.233	62.9	1.006	-0.14	0.799	0.991	-8.48%
2nd	LTE Band 41_Ant 2	20M_QPSK_1_0	Right Side	10mm	4	41490	2680	22.05	22.60	1.135	62.9	1.006	-0.18	0.794	0.907	
1st	LTE Band 41_HPUE_Ant 2	20M_QPSK_1_0	Right Side	10mm	4	40620	2593	23.51	24.20	1.172	42.9	1.009	-0.17	0.751	0.888	-1.24%
2nd	LTE Band 41_HPUE_Ant 2	20M_QPSK_1_0	Right Side	10mm	4	40620	2593	23.41	24.20	1.199	42.9	1.009	-0.1	0.725	0.877	
1st	LTE Band 41C_Ant 2	20M_QPSK_1_0	Right Side	10mm	4	40620	2593	19.83	20.60	1.194	62.9	1.006	-0.18	0.597	0.717	-5.30%
2nd	LTE Band 41C_Ant 2	20M_QPSK_1_0	Right Side	10mm	4	40620	2593	19.80	20.60	1.202	62.9	1.006	-0.16	0.561	0.679	
1st	LTE Band 41_Ant 0	20M_QPSK_1_0	Back	10mm	4	41055	2636.5	23.62	25.20	1.439	62.9	1.006	0.01	0.471	0.682	-4.70%
2nd	LTE Band 41_Ant 0	20M_QPSK_1_0	Back	10mm	4	41055	2636.5	23.48	25.20	1.486	62.9	1.006	-0.04	0.435	0.650	
1st	LTE Band 41_HPUE_Ant 0	20M_QPSK_1_0	Back	10mm	4	40620	2593	25.93	27.20	1.340	42.9	1.009	-0.13	0.529	0.715	0.70%
2nd	LTE Band 41_HPUE_Ant 0	20M_QPSK_1_0	Back	10mm	4	41055	2636.5	25.49	27.20	1.483	42.9	1.009	-0.14	0.481	0.720	
1st	LTE Band 41C_Ant 0	20M_QPSK_1_0	Back	10mm	4	40620	2593	20.92	22.20	1.343	62.9	1.006	0.11	0.193	0.261	10.34%
2nd	LTE Band 41C_Ant 0	20M_QPSK_1_0	Back	10mm	4	40620	2593	20.53	22.20	1.469	62.9	1.006	-0.12	0.195	0.288	
1st	LTE Band 48_Ant 6	20M_QPSK_1_0	Front	10mm	4	55340	3560	22.69	24.00	1.352	62.9	1.006	-0.01	0.652	0.887	-15.90%
2nd	LTE Band 48_Ant 6	20M_QPSK_1_0	Front	10mm	4	55340	3560	22.82	24.00	1.312	62.9	1.006	-0.07	0.565	0.746	
1st	LTE Band 48_Ant 2	20M_QPSK_1_0	Bottom Side	10mm	4	55830	3609	21.82	23.20	1.374	62.9	1.006	0.14	0.338	0.467	-18.63%
2nd	LTE Band 48_Ant 2	20M_QPSK_1_0	Bottom Side	10mm	4	55830	3609	21.85	23.20	1.365	62.9	1.006	-0.08	0.277	0.380	
1st	LTE Band 66_Ant 2	20M_QPSK_50_24	Bottom Side	10mm	4	132072	1720	21.15	21.90	1.189			-0.18	0.794	0.944	-9.22%
2nd	LTE Band 66_Ant 2	20M_QPSK_50_24	Bottom Side	10mm	4	132072	1720	21.32	21.90	1.143			-0.16	0.750	0.857	
1st	LTE Band 66B_Ant 2	15M_QPSK_1_74	Bottom Side	10mm	4	132047	1717.5	18.16	19.25	1.285			-0.13	0.480	0.617	-14.91%
2nd	LTE Band 66B_Ant 2	15M_QPSK_1_74	Bottom Side	10mm	4	132047	1717.5	18.21	19.25	1.271			0.05	0.413	0.525	
1st	LTE Band 66C_Ant 2	20M_QPSK_1_99	Bottom Side	10mm	4	132072	1720	18.26	19.25	1.256			-0.11	0.438	0.550	2.00%
2nd	LTE Band 66C_Ant 2	20M_QPSK_1_99	Bottom Side	10mm	4	132072	1720	18.27	19.25	1.253			-0.06	0.448	0.561	
1st	LTE Band 66_Ant 0	20M_QPSK_1_0	Bottom Side	10mm	4	132072	1720	23.02	23.50	1.117			-0.14	0.813	0.908	-4.96%
2nd	LTE Band 66_Ant 0	20M_QPSK_1_0	Bottom Side	10mm	4	132072	1720	23.10	23.50	1.096			-0.16	0.787	0.863	
1st	LTE Band 66B_Ant 0	15M_QPSK_1_0	Bottom Side	10mm	4	132322	1745	17.50	18.75	1.334			-0.02	0.317	0.423	-21.04%
2nd	LTE Band 66B_Ant 0	15M_QPSK_1_0	Bottom Side	10mm	4	132322	1745	17.91	18.75	1.213			0	0.275	0.334	
1st	LTE Band 66C_Ant 0	20M_QPSK_1_0	Bottom Side	10mm	4	132322	1745	17.56	18.75	1.315			0.06	0.267	0.351	-3.70%
2nd	LTE Band 66C_Ant 0	20M_QPSK_1_0	Bottom Side	10mm	4	132322	1745	17.96	18.75	1.199			-0.03	0.282	0.338	
1st	LTE Band 71_Ant 0	20M_QPSK_1_0	Back	10mm	4	133322	683	24.50	25.30	1.202			-0.13	0.402	0.483	-4.35%
2nd	LTE Band 71_Ant 0	20M_QPSK_1_0	Back	10mm	4	133322	683	24.32	25.30	1.253			-0.14	0.369	0.462	
1st	LTE Band 71_Ant 1	20M_QPSK_1_0	Left Side	10mm	4	133322	683	24.08	25.20	1.294			-0.13	0.222	0.287	-6.27%
2nd	LTE Band 71_Ant 1	20M_QPSK_1_0	Left Side	10mm	4	133322	683	24.16	25.20	1.271			-0.16	0.212	0.269	

No.	Band	Mode	Test Position	Gap (mm)	Power State	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)	Deviation %
1st	FR1 n5_Ant 0	20M_BPSK_1_53	Left Side	10mm	4	167300	836.5	24.34	25.50	1.306			-0.16	0.405	0.529	-13.80%
2nd	FR1 n5_Ant 0	20M_BPSK_1_53	Left Side	10mm	4	167300	836.5	24.38	25.50	1.294			-0.17	0.352	0.456	
1st	FR1 n5_Ant 1	20M_BPSK_1_53	Back	10mm	4	167300	836.5	24.82	25.20	1.091			-0.19	0.295	0.322	-11.81%
2nd	FR1 n5_Ant 1	20M_BPSK_1_53	Back	10mm	4	167300	836.5	24.75	25.20	1.109			-0.15	0.256	0.284	
1st	FR1 n7_Ant 2	20M_BPSK_1_53	Right Side	10mm	4	507000	2535	20.49	20.50	1.002			-0.17	0.851	0.853	-6.10%
2nd	FR1 n7_Ant 2	20M_BPSK_1_53	Right Side	10mm	4	507000	2535	20.41	20.50	1.021			-0.14	0.785	0.801	
1st	FR1 n7_Ant 0	20M_BPSK_100_0	Left Side	10mm	4	512000	2560	23.26	24.20	1.242			-0.13	0.751	0.932	-4.94%
2nd	FR1 n7_Ant 0	20M_BPSK_100_0	Left Side	10mm	4	512000	2560	23.21	24.20	1.256			-0.08	0.705	0.886	
1st	FR1 n12_Ant 0	15M_BPSK_1_40	Left Side	10mm	4	141500	707.5	23.94	25.30	1.368			-0.04	0.346	0.473	-1.91%
2nd	FR1 n12_Ant 0	15M_BPSK_1_40	Left Side	10mm	4	141500	707.5	23.82	25.30	1.406			-0.01	0.330	0.464	
1st	FR1 n12_Ant 1	15M_BPSK_1_40	Back	10mm	4	141500	707.5	24.33	25.20	1.222			-0.19	0.204	0.249	-10.84%
2nd	FR1 n12_Ant 1	15M_BPSK_1_40	Back	10mm	4	141500	707.5	24.25	25.20	1.245			-0.19	0.178	0.222	
1st	FR1 n25_Ant 2	20M_BPSK_1_53	Bottom Side	10mm	4	376500	1882.5	20.72	21.20	1.117			-0.04	0.879	0.982	-4.18%
2nd	FR1 n25_Ant 2	20M_BPSK_1_53	Bottom Side	10mm	4	376500	1882.5	20.80	21.20	1.096			-0.09	0.858	0.941	
1st	FR1 n25_Ant 0	20M_BPSK_50_28	Left Side	10mm	4	381000	1905	23.05	23.20	1.035			-0.17	0.943	0.976	-2.56%
2nd	FR1 n25_Ant 0	20M_BPSK_50_28	Left Side	10mm	4	381000	1905	23.13	23.20	1.016			-0.18	0.936	0.951	
1st	FR1 n30_Ant 2	10M_BPSK_50_0	Back	10mm	4	462000	2310	22.01	23.10	1.285			-0.17	0.771	0.991	-0.71%
2nd	FR1 n30_Ant 2	10M_BPSK_50_0	Back	10mm	4	462000	2310	22.02	23.10	1.282			-0.1	0.767	0.984	
1st	FR1 n30_Ant 0	10M_BPSK_25_14	Left Side	10mm	4	462000	2310	23.15	23.50	1.084			-0.12	0.822	0.891	-24.02%
2nd	FR1 n30_Ant 0	10M_BPSK_25_14	Left Side	10mm	4	462000	2310	23.02	23.50	1.117			-0.15	0.606	0.677	
1st	FR1 n66_Ant 2	40M_BPSK_108_54	Bottom Side	10mm	4	349000	1745	21.75	22.70	1.245			-0.14	0.801	0.997	-1.50%
2nd	FR1 n66_Ant 2	40M_BPSK_108_54	Bottom Side	10mm	4	349000	1745	21.77	22.70	1.239			-0.04	0.793	0.982	
1st	FR1 n66_Ant 0	40M_BPSK_1_108	Bottom Side	10mm	4	349000	1745	23.56	23.90	1.081			-0.08	0.915	0.990	-6.46%
2nd	FR1 n66_Ant 0	40M_BPSK_1_108	Bottom Side	10mm	4	349000	1745	23.56	23.90	1.081			-0.15	0.856	0.926	
1st	FR1 n71_Ant 0	20M_BPSK_1_53	Left Side	10mm	4	136100	680.5	23.89	25.30	1.384			-0.07	0.360	0.498	-4.02%
2nd	FR1 n71_Ant 0	20M_BPSK_1_53	Left Side	10mm	4	136100	680.5	23.85	25.30	1.396			-0.14	0.342	0.478	
1st	FR1 n71_Ant 1	20M_BPSK_1_53	Left Side	10mm	4	136100	680.5	24.45	25.20	1.189			-0.17	0.196	0.233	-7.30%
2nd	FR1 n71_Ant 1	20M_BPSK_1_53	Left Side	10mm	4	136100	680.5	24.39	25.20	1.205			-0.05	0.179	0.216	
1st	FR1 n77_Ant 6	100M_BPSK_135_69	Left Side	10mm	4	656000	3840	21.36	21.60	1.057	100	1.000	-0.16	0.782	0.826	-11.74%
2nd	FR1 n77_Ant 6	100M_BPSK_135_69	Left Side	10mm	4	656000	3840	21.51	21.60	1.021	100	1.000	-0.08	0.714	0.729	
1st	FR1 n77_HPUE_Ant 6	100M_BPSK_135_69	Left Side	10mm	4	656000	3840	23.89	24.60	1.178	50	1.000	0.01	0.703	0.828	-29.47%
2nd	FR1 n77_HPUE_Ant 6	100M_BPSK_135_69	Left Side	10mm	4	656000	3840	24.00	24.60	1.148	50	1.000	0.11	0.509	0.584	
1st	FR1 n77_Ant 6	100M_BPSK_135_69	Front	10mm	4	633332	3499.98	21.22	21.60	1.091	100	1.000	0.02	0.910	0.993	-16.82%
2nd	FR1 n77_Ant 6	100M_BPSK_135_69	Front	10mm	4	633332	3499.98	21.44	21.60	1.038	100	1.000	0.04	0.796	0.826	
1st	FR1 n77_HPUE_Ant 6	100M_BPSK_135_69	Front	10mm	4	633332	3499.98	23.76	24.60	1.213	50	1.000	-0.01	0.796	0.966	-29.40%
2nd	FR1 n77_HPUE_Ant 6	100M_BPSK_135_69	Front	10mm	4	633332	3499.98	23.97	24.60	1.156	50	1.000	-0.06	0.590	0.682	
1st	FR1 n77_Ant 2	100M_BPSK_135_69	Back	10mm	4	656000	3840	22.07	22.80	1.183	100	1.000	-0.18	0.828	0.980	-8.06%
2nd	FR1 n77_Ant 2	100M_BPSK_135_69	Back	10mm	4	656000	3840	22.25	22.80	1.135	100	1.000	-0.1	0.794	0.901	
1st	FR1 n77_HPUE_Ant 2	100M_BPSK_135_69	Back	10mm	4	656000	3840	24.62	25.80	1.312	50	1.000	-0.16	0.706	0.926	-1.94%
2nd	FR1 n77_HPUE_Ant 2	100M_BPSK_135_69	Back	10mm	4	656000	3840	24.70	25.80	1.288	50	1.000	0.18	0.705	0.908	
1st	FR1 n77_Ant 2	100M_BPSK_135_69	Bottom Side	10mm	4	633332	3499.98	22.17	22.80	1.156	100	1.000	-0.14	0.813	0.940	-13.30%
2nd	FR1 n77_Ant 2	100M_BPSK_135_69	Bottom Side	10mm	4	633332	3499.98	22.29	22.80	1.125	100	1.000	-0.11	0.725	0.815	
1st	FR1 n77_HPUE_Ant 2	100M_BPSK_135_69	Bottom Side	10mm	4	633332	3499.98	24.66	25.80	1.300	50	1.000	-0.06	0.753	0.979	-10.93%
2nd	FR1 n77_HPUE_Ant 2	100M_BPSK_135_69	Bottom Side	10mm	4	633332	3499.98	24.61	25.80	1.315	50	1.000	-0.08	0.663	0.872	

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Index	Antenna	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)	Deviation (%)
1st	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	7	Ant 4	11	2462	19.65	20.00	1.084	98.90	1.011	-0.18	0.454	0.498	-3.01%
2nd	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	7	Ant 4	11	2462	19.65	20.00	1.084	98.90	1.011	-0.05	0.441	0.483	
1st	WLAN2.4GHz	802.11b 1Mbps	Left Side	10mm	7	Ant 3	11	2462	20.35	20.50	1.035	98.90	1.011	-0.13	0.539	0.564	-1.95%
2nd	WLAN2.4GHz	802.11b 1Mbps	Left Side	10mm	7	Ant 3	11	2462	20.35	20.50	1.035	98.90	1.011	0.12	0.528	0.553	
1st	WLAN2.4GHz	802.11g 6Mbps	Top Side	10mm	7	Ant 4+3(4)	6	2437	19.65	20.00	1.084	93.40	1.071	0.17	0.467	0.542	-3.32%
	WLAN2.4GHz	802.11g 6Mbps	Top Side	10mm	7	Ant 4+3(3)	6	2437	20.45	20.50	1.012	93.40	1.071	0.17	0.001	0.001	
2nd	WLAN2.4GHz	802.11g 6Mbps	Top Side	10mm	7	Ant 4+3(4)	6	2437	19.65	20.00	1.084	93.40	1.071	0.14	0.451	0.524	
	WLAN2.4GHz	802.11g 6Mbps	Top Side	10mm	7	Ant 4+3(3)	6	2437	20.45	20.50	1.012	93.40	1.071	0.14	0.001	0.001	
1st	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	8	Ant 4	1	2412	16.95	17.00	1.012	98.90	1.011	0.04	0.261	0.267	-13.48%
2nd	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	8	Ant 4	1	2412	16.95	17.00	1.012	98.90	1.011	0.1	0.226	0.231	
1st	WLAN2.4GHz	802.11b 1Mbps	Left Side	10mm	8	Ant 3	6	2437	17.95	18.00	1.012	98.90	1.011	0.04	0.269	0.275	-16.73%
2nd	WLAN2.4GHz	802.11b 1Mbps	Left Side	10mm	8	Ant 3	6	2437	17.95	18.00	1.012	98.90	1.011	0.03	0.224	0.229	
1st	WLAN2.4GHz	802.11g 6Mbps	Left Side	10mm	8	Ant 4+3(4)	11	2462	16.95	17.00	1.012	93.40	1.071	-0.02	0.001	0.001	-13.28%
	WLAN2.4GHz	802.11g 6Mbps	Left Side	10mm	8	Ant 4+3(3)	11	2462	17.95	18.00	1.012	93.40	1.071	-0.02	0.341	0.369	
2nd	WLAN2.4GHz	802.11g 6Mbps	Left Side	10mm	8	Ant 4+3(4)	11	2462	16.95	17.00	1.012	93.40	1.071	0.07	0.001	0.001	
	WLAN2.4GHz	802.11g 6Mbps	Left Side	10mm	8	Ant 4+3(3)	11	2462	17.95	18.00	1.012	93.40	1.071	0.07	0.295	0.320	
1st	WLAN5GHz	802.11n-HT40 MCS0	Front	10mm	7	Ant 4+3(4)	46	5230	15.90	16.00	1.023	96.79	1.033	-0.15	0.231	0.244	-28.26%
	WLAN5GHz	802.11n-HT40 MCS0	Front	10mm	7	Ant 4+3(3)	46	5230	16.80	17.00	1.047	96.79	1.033	-0.15	0.383	0.414	
2nd	WLAN5GHz	802.11n-HT40 MCS0	Front	10mm	7	Ant 4+3(4)	46	5230	15.90	16.00	1.023	96.79	1.033	-0.14	0.178	0.188	
	WLAN5GHz	802.11n-HT40 MCS0	Front	10mm	7	Ant 4+3(3)	46	5230	16.80	17.00	1.047	96.79	1.033	-0.14	0.275	0.297	
1st	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	8	Ant 4+3(4)	42	5210	14.90	15.00	1.023	88.3	1.133	-0.02	0.155	0.180	-7.78%
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	8	Ant 4+3(3)	42	5210	14.80	15.00	1.047	88.3	1.133	-0.02	0.131	0.155	
2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	8	Ant 4+3(4)	42	5210	14.90	15.00	1.023	88.3	1.133	0.01	0.143	0.166	
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	8	Ant 4+3(3)	42	5210	14.80	15.00	1.047	88.3	1.133	0.01	0.092	0.109	
1st	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	9	Ant 4+3(4)	46	5230	15.90	16.00	1.023	96.79	1.033	-0.15	0.231	0.244	-28.26%
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	9	Ant 4+3(3)	46	5230	16.80	17.00	1.047	96.79	1.033	-0.15	0.383	0.414	
2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	9	Ant 4+3(4)	46	5230	15.90	16.00	1.023	96.79	1.033	-0.04	0.178	0.188	
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	9	Ant 4+3(3)	46	5230	16.80	17.00	1.047	96.79	1.033	-0.04	0.275	0.297	
1st	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	7	Ant 4+3(4)	155	5775	15.30	15.50	1.047	88.3	1.133	-0.04	0.128	0.152	-3.89%
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	7	Ant 4+3(3)	155	5775	17.30	17.50	1.047	88.3	1.133	-0.04	0.411	0.488	
2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	7	Ant 4+3(4)	155	5775	15.30	15.50	1.047	88.3	1.133	-0.03	0.088	0.104	
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	7	Ant 4+3(3)	155	5775	17.30	17.50	1.047	88.3	1.133	-0.03	0.395	0.469	
1st	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	8	Ant 4+3(4)	155	5775	12.50	12.50	1.000	88.3	1.133	-0.01	0.057	0.065	-23.02%
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	8	Ant 4+3(3)	155	5775	14.40	14.50	1.023	88.3	1.133	-0.01	0.251	0.291	
2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	8	Ant 4+3(4)	155	5775	12.50	12.50	1.000	88.3	1.133	0.11	0.043	0.049	
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	8	Ant 4+3(3)	155	5775	14.40	14.50	1.023	88.3	1.133	0.11	0.193	0.224	
1st	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	9	Ant 4+3(4)	155	5775	14.40	14.50	1.023	88.3	1.133	-0.01	0.103	0.119	-12.05%
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	9	Ant 4+3(3)	155	5775	16.30	16.50	1.047	88.3	1.133	-0.01	0.371	0.440	
2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	9	Ant 4+3(4)	155	5775	14.40	14.50	1.023	88.3	1.133	-0.05	0.078	0.090	
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	9	Ant 4+3(3)	155	5775	16.30	16.50	1.047	88.3	1.133	-0.05	0.326	0.387	
1st	Bluetooth	1Mbps	Top Side	10mm	3/5	Ant 4	0	2402	14.25	15.00	1.189	77.22	1.079	0.16	0.103	0.132	-19.70%
2nd	Bluetooth	1Mbps	Top Side	10mm	3/5	Ant 4	0	2402	14.25	15.00	1.189	77.22	1.079	-0.09	0.083	0.106	
1st	Bluetooth	1Mbps	Left Side	10mm	3/5	Ant 3	78	2480	14.65	15.00	1.084	77.22	1.079	0.1	0.112	0.131	-14.50%
2nd	Bluetooth	1Mbps	Left Side	10mm	3/5	Ant 3	78	2480	14.65	15.00	1.084	77.22	1.079	0.08	0.096	0.112	
1st	Bluetooth	1Mbps	Top Side	10mm	3/5	Ant 4+3(4)	78	2480	14.55	15.00	1.109	76.83	1.084	0.1	0.134	0.161	-11.18%
	Bluetooth	1Mbps	Top Side	10mm	3/5	Ant 4+3(3)	78	2480	14.55	15.00	1.109	76.83	1.084	0.1	0.001	0.001	
2nd	Bluetooth	1Mbps	Top Side	10mm	3/5	Ant 4+3(4)	78	2480	14.55	15.00	1.109	76.83	1.084	0.03	0.119	0.143	
	Bluetooth	1Mbps	Top Side	10mm	3/5	Ant 4+3(3)	78	2480	14.55	15.00	1.109	76.83	1.084	0.03	0.001	0.001	

4.3 Body-Worn SAR

No.	Band	Mode	Test Position	Gap (mm)	Power State	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)	Deviation %
1st	GSM850_Ant 0	GPRS (4 Tx slots)	Back	10mm	5/6	189	836.4	29.35	30.50	1.303	0	0.545	0.710	-0.99%
2nd	GSM850_Ant 0	GPRS (4 Tx slots)	Back	10mm	5/6	189	836.4	29.24	30.50	1.337	-0.01	0.526	0.703	
1st	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	5/6	128	824.2	29.09	30.50	1.384	-0.03	0.392	0.542	-0.74%
2nd	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	5/6	128	824.2	29.10	30.50	1.380	0.05	0.390	0.538	
1st	GSM1900_Ant 2	GPRS (4 Tx slots)	Back	10mm	5	810	1909.8	24.78	25.50	1.180	-0.1	0.980	1.157	-11.24%
2nd	GSM1900_Ant 2	GPRS (4 Tx slots)	Back	10mm	5	810	1909.8	24.99	25.50	1.125	-0.1	0.913	1.027	
1st	GSM1900_Ant 2	GPRS (4 Tx slots)	Back	10mm	6	810	1909.8	23.50	24.70	1.318	-0.16	0.730	0.962	-14.86%
2nd	GSM1900_Ant 2	GPRS (4 Tx slots)	Back	10mm	6	810	1909.8	23.88	24.70	1.208	-0.18	0.678	0.819	
1st	GSM1900_Ant 0	GPRS (4 Tx slots)	Back	10mm	5/6	661	1880	26.41	28.00	1.442	-0.12	0.689	0.994	-5.24%
2nd	GSM1900_Ant 0	GPRS (4 Tx slots)	Back	10mm	5/6	661	1880	26.54	28.00	1.400	-0.04	0.673	0.942	
1st	WCDMA II_Ant 2	RMC 12.2Kbps	Back	10mm	5	9538	1907.6	20.11	22.10	1.581	-0.16	0.692	1.094	-12.52%
2nd	WCDMA II_Ant 2	RMC 12.2Kbps	Back	10mm	5	9538	1907.6	20.23	22.10	1.538	-0.19	0.622	0.957	
1st	WCDMA II_Ant 2	RMC 12.2Kbps	Back	10mm	6	9538	1907.6	20.11	21.30	1.315	-0.16	0.692	0.910	-12.53%
2nd	WCDMA II_Ant 2	RMC 12.2Kbps	Back	10mm	6	9538	1907.6	20.23	21.30	1.279	-0.19	0.622	0.796	
1st	WCDMA II_Ant 0	RMC 12.2Kbps	Back	10mm	5	9262	1852.4	23.79	23.90	1.026	-0.12	0.879	0.902	-1.33%
2nd	WCDMA II_Ant 0	RMC 12.2Kbps	Back	10mm	5	9262	1852.4	23.75	23.90	1.035	-0.15	0.860	0.890	
1st	WCDMA II_Ant 0	RMC 12.2Kbps	Back	10mm	6	9262	1852.4	23.79	23.90	1.026	-0.12	0.879	0.902	-1.33%
2nd	WCDMA II_Ant 0	RMC 12.2Kbps	Back	10mm	6	9262	1852.4	23.75	23.90	1.035	-0.15	0.860	0.890	
1st	WCDMA IV_Ant 2	RMC 12.2Kbps	Back	10mm	5	1312	1712.4	21.57	23.30	1.489	-0.16	0.791	1.178	-9.51%
2nd	WCDMA IV_Ant 2	RMC 12.2Kbps	Back	10mm	5	1312	1712.4	21.56	23.30	1.493	-0.13	0.714	1.066	
1st	WCDMA IV_Ant 2	RMC 12.2Kbps	Back	10mm	6	1312	1712.4	21.57	22.50	1.239	-0.16	0.791	0.980	-9.49%
2nd	WCDMA IV_Ant 2	RMC 12.2Kbps	Back	10mm	6	1312	1712.4	21.56	22.50	1.242	-0.13	0.714	0.887	
1st	WCDMA IV_Ant 0	RMC 12.2Kbps	Back	10mm	5	1413	1732.6	23.21	24.70	1.409	-0.19	0.720	1.015	-7.49%
2nd	WCDMA IV_Ant 0	RMC 12.2Kbps	Back	10mm	5	1413	1732.6	23.41	24.70	1.346	-0.1	0.698	0.939	
1st	WCDMA IV_Ant 0	RMC 12.2Kbps	Back	10mm	6	1413	1732.6	23.21	23.90	1.172	-0.19	0.720	0.844	-7.46%
2nd	WCDMA IV_Ant 0	RMC 12.2Kbps	Back	10mm	6	1413	1732.6	23.41	23.90	1.119	-0.1	0.698	0.781	
1st	WCDMA V_Ant 0	RMC 12.2Kbps	Back	10mm	5/6	4182	836.4	24.14	25.30	1.306	-0.05	0.326	0.426	-5.64%
2nd	WCDMA V_Ant 0	RMC 12.2Kbps	Back	10mm	5/6	4182	836.4	24.09	25.30	1.321	-0.09	0.304	0.402	
1st	WCDMA V_Ant 1	RMC 12.2Kbps	Back	10mm	5/6	4132	826.4	24.17	25.70	1.422	-0.01	0.278	0.395	-0.76%
2nd	WCDMA V_Ant 1	RMC 12.2Kbps	Back	10mm	5/6	4132	826.4	24.18	25.70	1.419	-0.08	0.276	0.392	
1st	LTE Band 7_Ant 2	20M_QPSK_1_0	Back	10mm	5	21350	2560	20.02	21.00	1.253	-0.14	0.582	0.729	-4.80%
2nd	LTE Band 7_Ant 2	20M_QPSK_1_0	Back	10mm	5	21350	2560	20.05	21.00	1.245	-0.19	0.558	0.694	
1st	LTE Band 7C_Ant 2	20M_QPSK_1_0	Back	10mm	5	21350	2560	18.63	20.00	1.371	0.08	0.420	0.576	-5.03%
2nd	LTE Band 7C_Ant 2	20M_QPSK_1_0	Back	10mm	5	21350	2560	18.61	20.00	1.377	-0.12	0.397	0.547	
1st	LTE Band 7_Ant 2	20M_QPSK_1_0	Back	10mm	6	21350	2560	20.02	21.00	1.253	-0.14	0.582	0.729	-4.80%
2nd	LTE Band 7_Ant 2	20M_QPSK_1_0	Back	10mm	6	21350	2560	20.05	21.00	1.245	-0.19	0.558	0.694	
1st	LTE Band 7C_Ant 2	20M_QPSK_1_0	Back	10mm	6	21350	2560	18.63	20.00	1.371	0.08	0.420	0.576	-5.03%
2nd	LTE Band 7C_Ant 2	20M_QPSK_1_0	Back	10mm	6	21350	2560	18.61	20.00	1.377	-0.12	0.397	0.547	
1st	LTE Band 7_Ant 0	20M_QPSK_1_99	Back	10mm	5	21350	2560	23.49	24.90	1.384	-0.1	0.487	0.674	-5.19%
2nd	LTE Band 7_Ant 0	20M_QPSK_1_99	Back	10mm	5	21350	2560	23.51	24.90	1.377	-0.13	0.464	0.639	
1st	LTE Band 7C_Ant 0	20M_QPSK_1_0	Back	10mm	5	21100	2535	21.76	23.30	1.426	-0.12	0.369	0.526	-1.71%
2nd	LTE Band 7C_Ant 0	20M_QPSK_1_0	Back	10mm	5	21100	2535	21.47	23.30	1.524	0.05	0.339	0.517	
1st	LTE Band 7_Ant 0	20M_QPSK_1_99	Back	10mm	6	21350	2560	23.49	24.90	1.384	-0.1	0.487	0.674	-5.19%
2nd	LTE Band 7_Ant 0	20M_QPSK_1_99	Back	10mm	6	21350	2560	23.51	24.90	1.377	-0.13	0.464	0.639	
1st	LTE Band 7C_Ant 0	20M_QPSK_1_0	Back	10mm	6	21100	2535	21.76	23.30	1.426	-0.12	0.369	0.526	-1.71%
2nd	LTE Band 7C_Ant 0	20M_QPSK_1_0	Back	10mm	6	21100	2535	21.47	23.30	1.524	0.05	0.339	0.517	

No.	Band	Mode	Test Position	Gap (mm)	Power State	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)	Deviation %
1st	LTE Band 12_Ant 0	10M_QPSK_1_0	Back	10mm	5/6	23095	707.5	24.34	25.30	1.247			-0.12	0.341	0.425	-4.48%
2nd	LTE Band 12_Ant 0	10M_QPSK_1_0	Back	10mm	5/6	23095	707.5	24.33	25.30	1.250			-0.1	0.325	0.406	
1st	LTE Band 12_Ant 1	10M_QPSK_1_0	Back	10mm	5/6	23095	707.5	23.94	25.20	1.337			-0.12	0.207	0.277	-2.17%
2nd	LTE Band 12_Ant 1	10M_QPSK_1_0	Back	10mm	5/6	23095	707.5	23.90	25.20	1.349			-0.1	0.201	0.271	
1st	LTE Band 13_Ant 0	10M_QPSK_1_0	Back	10mm	5/6	23230	782	24.26	25.30	1.271			-0.01	0.380	0.483	-0.83%
2nd	LTE Band 13_Ant 0	10M_QPSK_1_0	Back	10mm	5/6	23230	782	24.34	25.30	1.247			-0.15	0.384	0.479	
1st	LTE Band 13_Ant 1	10M_QPSK_1_0	Back	10mm	5/6	23230	782	24.02	25.20	1.312			-0.19	0.220	0.289	-3.11%
2nd	LTE Band 13_Ant 1	10M_QPSK_1_0	Back	10mm	5/6	23230	782	24.07	25.20	1.297			-0.19	0.216	0.280	
1st	LTE Band 14_Ant 0	10M_QPSK_1_0	Back	10mm	5/6	23330	793	24.44	25.50	1.276			-0.1	0.450	0.574	3.43%
2nd	LTE Band 14_Ant 0	10M_QPSK_1_0	Back	10mm	5/6	23330	793	24.47	25.50	1.268			-0.05	0.438	0.555	
1st	LTE Band 14_Ant 1	10M_QPSK_1_0	Back	10mm	5/6	23330	793	23.94	25.20	1.337			-0.14	0.261	0.349	-10.32%
2nd	LTE Band 14_Ant 1	10M_QPSK_1_0	Back	10mm	5/6	23330	793	24.04	25.20	1.306			-0.13	0.240	0.313	
1st	LTE Band 25_Ant 2	20M_QPSK_1_0	Back	10mm	5	26590	1905	21.13	22.10	1.250			-0.14	0.939	1.174	-3.83%
2nd	LTE Band 25_Ant 2	20M_QPSK_1_0	Back	10mm	5	26590	1905	21.28	22.10	1.208			-0.17	0.935	1.129	
1st	LTE Band 25_Ant 2	20M_QPSK_50_24	Back	10mm	6	26340	1880	20.34	21.30	1.247			-0.09	0.699	0.872	-2.75%
2nd	LTE Band 25_Ant 2	20M_QPSK_50_24	Back	10mm	6	26340	1880	20.29	21.30	1.262			-0.11	0.672	0.848	
1st	LTE Band 25_Ant 0	20M_QPSK_1_0	Back	10mm	5	26140	1860	22.02	23.40	1.374			-0.16	0.681	0.936	-6.73%
2nd	LTE Band 25_Ant 0	20M_QPSK_1_0	Back	10mm	5	26140	1860	22.16	23.40	1.330			-0.18	0.656	0.873	
1st	LTE Band 25_Ant 0	20M_QPSK_1_0	Back	10mm	6	26140	1860	22.02	23.40	1.374			-0.16	0.681	0.936	-6.73%
2nd	LTE Band 25_Ant 0	20M_QPSK_1_0	Back	10mm	6	26140	1860	22.16	23.40	1.330			-0.18	0.656	0.873	
1st	LTE Band 26_Ant 0	15M_QPSK_1_0	Back	10mm	5/6	26865	831.5	24.62	25.50	1.225			-0.07	0.358	0.438	-10.28%
2nd	LTE Band 26_Ant 0	15M_QPSK_1_0	Back	10mm	5/6	26865	831.5	24.68	25.50	1.208			-0.09	0.325	0.393	
1st	LTE Band 5B_Ant 0	10M_QPSK_1_0	Back	10mm	5/6	20600	844	22.11	23.50	1.377			0.06	0.189	0.260	10.77%
2nd	LTE Band 5B_Ant 0	10M_QPSK_1_0	Back	10mm	5/6	20600	844	22.07	23.50	1.390			-0.13	0.207	0.288	
1st	LTE Band 26_Ant 1	15M_QPSK_1_0	Back	10mm	5/6	26865	831.5	24.55	25.20	1.161			-0.18	0.259	0.301	-0.66%
2nd	LTE Band 26_Ant 1	15M_QPSK_1_0	Back	10mm	5/6	26865	831.5	24.54	25.20	1.164			-0.1	0.257	0.299	
1st	LTE Band 5B_Ant 1	10M_QPSK_1_0	Back	10mm	5/6	20575	841.5	21.59	23.20	1.449			-0.01	0.150	0.217	-0.92%
2nd	LTE Band 5B_Ant 1	10M_QPSK_1_0	Back	10mm	5/6	20575	841.5	21.63	23.20	1.435			-0.13	0.150	0.215	
1st	LTE Band 30_Ant 2	10M_QPSK_1_0	Back	10mm	5	27710	2310	21.41	23.40	1.581			-0.14	0.712	1.126	-10.04%
2nd	LTE Band 30_Ant 2	10M_QPSK_1_0	Back	10mm	5	27710	2310	21.46	23.40	1.563			-0.13	0.648	1.013	
1st	LTE Band 30_Ant 2	10M_QPSK_1_0	Back	10mm	6	27710	2310	21.41	22.60	1.315			-0.14	0.712	0.936	-9.94%
2nd	LTE Band 30_Ant 2	10M_QPSK_1_0	Back	10mm	6	27710	2310	21.46	22.60	1.300			-0.13	0.648	0.843	
1st	LTE Band 30_Ant 0	10M_QPSK_1_0	Back	10mm	5	27710	2310	22.15	23.70	1.429			-0.13	0.495	0.707	-1.27%
2nd	LTE Band 30_Ant 0	10M_QPSK_1_0	Back	10mm	5	27710	2310	22.18	23.70	1.419			-0.1	0.492	0.698	
1st	LTE Band 30_Ant 0	10M_QPSK_1_0	Back	10mm	6	27710	2310	22.15	23.70	1.429			-0.13	0.495	0.707	-1.27%
2nd	LTE Band 30_Ant 0	10M_QPSK_1_0	Back	10mm	6	27710	2310	22.18	23.70	1.419			-0.1	0.492	0.698	
1st	LTE Band 41_Ant 2	20M_QPSK_1_0	Back	10mm	5	41490	2680	21.69	23.40	1.483	62.9	1.006	-0.11	0.527	0.786	-9.16%
2nd	LTE Band 41_Ant 2	20M_QPSK_1_0	Back	10mm	5	41490	2680	22.05	23.40	1.365	62.9	1.006	-0.15	0.520	0.714	
1st	LTE Band 41_HPUE_Ant 2	20M_QPSK_1_0	Back	10mm	5	40620	2593	23.51	25.00	1.409	42.9	1.009	-0.14	0.495	0.704	-1.99%
2nd	LTE Band 41_HPUE_Ant 2	20M_QPSK_1_0	Back	10mm	5	40620	2593	23.41	25.00	1.442	42.9	1.009	-0.18	0.474	0.690	
1st	LTE Band 41C_Ant 2	20M_QPSK_1_0	Back	10mm	5	40620	2593	19.83	21.40	1.435	62.9	1.006	0.12	0.413	0.596	-12.42%
2nd	LTE Band 41C_Ant 2	20M_QPSK_1_0	Back	10mm	5	40620	2593	19.80	21.40	1.445	62.9	1.006	-0.13	0.359	0.522	
1st	LTE Band 41_Ant 2	20M_QPSK_1_0	Back	10mm	6	41490	2680	21.69	23.40	1.483	62.9	1.006	-0.11	0.527	0.786	-9.16%
2nd	LTE Band 41_Ant 2	20M_QPSK_1_0	Back	10mm	6	41490	2680	22.05	23.40	1.365	62.9	1.006	-0.15	0.520	0.714	
1st	LTE Band 41_HPUE_Ant 2	20M_QPSK_1_0	Back	10mm	6	40620	2593	23.51	25.00	1.409	42.9	1.009	-0.14	0.495	0.704	-1.99%
2nd	LTE Band 41_HPUE_Ant 2	20M_QPSK_1_0	Back	10mm	6	40620	2593	23.41	25.00	1.442	42.9	1.009	-0.18	0.474	0.690	
1st	LTE Band 41C_Ant 2	20M_QPSK_1_0	Back	10mm	6	40620	2593	19.83	21.40	1.435	62.9	1.006	0.12	0.413	0.596	-12.42%
2nd	LTE Band 41C_Ant 2	20M_QPSK_1_0	Back	10mm	6	40620	2593	19.80	21.40	1.445	62.9	1.006	-0.13	0.359	0.522	

No.	Band	Mode	Test Position	Gap (mm)	Power State	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)	Deviation %
1st	LTE Band 41_Ant 0	20M_QPSK_1_0	Back	10mm	5/6	41055	2636.5	23.62	25.20	1.439	62.9	1.006	0.01	0.471	0.682	-4.70%
2nd	LTE Band 41_Ant 0	20M_QPSK_1_0	Back	10mm	5/6	41055	2636.5	23.48	25.20	1.486	62.9	1.006	-0.04	0.435	0.650	
1st	LTE Band 41_HPUE_Ant 0	20M_QPSK_1_0	Back	10mm	5/6	40620	2593	25.93	27.20	1.340	42.9	1.009	-0.13	0.529	0.715	0.70%
2nd	LTE Band 41_HPUE_Ant 0	20M_QPSK_1_0	Back	10mm	5/6	41055	2636.5	25.49	27.20	1.483	42.9	1.009	-0.14	0.481	0.720	
1st	LTE Band 41C_Ant 0	20M_QPSK_1_0	Back	10mm	5/6	40620	2593	20.92	22.20	1.343	62.9	1.006	0.11	0.193	0.261	10.34%
2nd	LTE Band 41C_Ant 0	20M_QPSK_1_0	Back	10mm	5/6	40620	2593	20.53	22.20	1.469	62.9	1.006	-0.12	0.195	0.288	
1st	LTE Band 48_Ant 6	20M_QPSK_1_0	Front	10mm	5/6	55340	3560	22.69	24.00	1.352	62.9	1.006	-0.01	0.652	0.887	-15.90%
2nd	LTE Band 48_Ant 6	20M_QPSK_1_0	Front	10mm	5/6	55340	3560	22.82	24.00	1.312	62.9	1.006	-0.07	0.565	0.746	
1st	LTE Band 48_Ant 2	20M_QPSK_1_0	Back	10mm	5/6	56640	3690	21.72	23.20	1.406	62.9	1.006	-0.05	0.290	0.410	-14.15%
2nd	LTE Band 48_Ant 2	20M_QPSK_1_0	Back	10mm	5/6	56640	3690	21.77	23.20	1.390	62.9	1.006	-0.07	0.252	0.352	
1st	LTE Band 66_Ant 2	20M_QPSK_50_24	Back	10mm	5	132072	1720	22.14	23.20	1.276			-0.19	0.890	1.136	-6.95%
2nd	LTE Band 66_Ant 2	20M_QPSK_50_24	Back	10mm	5	132072	1720	22.34	23.20	1.219			-0.15	0.867	1.057	
1st	LTE Band 66B_Ant 2	15M_QPSK_1_74	Back	10mm	5	132047	1717.5	18.16	19.25	1.285			-0.13	0.416	0.535	0.00%
2nd	LTE Band 66B_Ant 2	15M_QPSK_1_74	Back	10mm	5	132047	1717.5	18.21	19.25	1.271			-0.08	0.421	0.535	
1st	LTE Band 66C_Ant 2	20M_QPSK_1_99	Back	10mm	5	132072	1720	18.26	19.25	1.256			-0.15	0.402	0.505	-0.40%
2nd	LTE Band 66C_Ant 2	20M_QPSK_1_99	Back	10mm	5	132072	1720	18.27	19.25	1.253			-0.12	0.401	0.503	
1st	LTE Band 66_Ant 2	20M_QPSK_1_0	Back	10mm	6	132072	1720	21.04	22.40	1.368			-0.14	0.682	0.933	-13.18%
2nd	LTE Band 66_Ant 2	20M_QPSK_1_0	Back	10mm	6	132072	1720	21.26	22.40	1.300			-0.15	0.623	0.810	
1st	LTE Band 66B_Ant 2	15M_QPSK_1_74	Back	10mm	6	132047	1717.5	18.16	19.25	1.285			-0.13	0.345	0.443	3.61%
2nd	LTE Band 66B_Ant 2	15M_QPSK_1_74	Back	10mm	6	132047	1717.5	18.21	19.25	1.271			-0.02	0.361	0.459	
1st	LTE Band 66C_Ant 2	20M_QPSK_1_99	Back	10mm	6	132072	1720	18.26	19.25	1.256			-0.13	0.355	0.446	4.04%
2nd	LTE Band 66C_Ant 2	20M_QPSK_1_99	Back	10mm	6	132072	1720	18.27	19.25	1.253			-0.15	0.370	0.464	
1st	LTE Band 66_Ant 0	20M_QPSK_1_0	Back	10mm	5	132572	1770	23.63	24.70	1.279			-0.13	0.885	1.132	-11.66%
2nd	LTE Band 66_Ant 0	20M_QPSK_1_0	Back	10mm	5	132572	1770	23.88	24.70	1.208			-0.12	0.828	1.000	
1st	LTE Band 66B_Ant 0	15M_QPSK_1_0	Back	10mm	5	132322	1745	17.50	18.75	1.334			0.11	0.263	0.351	-22.51%
2nd	LTE Band 66B_Ant 0	15M_QPSK_1_0	Back	10mm	5	132322	1745	17.91	18.75	1.213			-0.13	0.224	0.272	
1st	LTE Band 66C_Ant 0	20M_QPSK_1_0	Back	10mm	5	132322	1745	17.56	18.75	1.315			0.13	0.277	0.364	-23.90%
2nd	LTE Band 66C_Ant 0	20M_QPSK_1_0	Back	10mm	5	132322	1745	17.96	18.75	1.199			-0.13	0.231	0.277	
1st	LTE Band 66_Ant 0	20M_QPSK_1_0	Back	10mm	6	132572	1770	23.63	23.90	1.064			-0.13	0.885	0.942	-11.68%
2nd	LTE Band 66_Ant 0	20M_QPSK_1_0	Back	10mm	6	132572	1770	23.88	23.90	1.005			-0.12	0.828	0.832	
1st	LTE Band 66B_Ant 0	15M_QPSK_1_0	Back	10mm	6	132322	1745	17.50	18.75	1.334			0.11	0.263	0.351	-22.51%
2nd	LTE Band 66B_Ant 0	15M_QPSK_1_0	Back	10mm	6	132322	1745	17.91	18.75	1.213			-0.13	0.224	0.272	
1st	LTE Band 66C_Ant 0	20M_QPSK_1_0	Back	10mm	6	132322	1745	17.56	18.75	1.315			0.13	0.268	0.352	-12.22%
2nd	LTE Band 66C_Ant 0	20M_QPSK_1_0	Back	10mm	6	132322	1745	17.96	18.75	1.199			-0.13	0.258	0.309	
1st	LTE Band 71_Ant 0	20M_QPSK_1_0	Back	10mm	5/6	133322	683	24.50	25.30	1.202			-0.13	0.402	0.483	-4.35%
2nd	LTE Band 71_Ant 0	20M_QPSK_1_0	Back	10mm	5/6	133322	683	24.32	25.30	1.253			-0.14	0.369	0.462	
1st	LTE Band 71_Ant 1	20M_QPSK_1_0	Back	10mm	5/6	133322	683	24.08	25.20	1.294			-0.12	0.188	0.243	-5.35%
2nd	LTE Band 71_Ant 1	20M_QPSK_1_0	Back	10mm	5/6	133322	683	24.16	25.20	1.271			-0.15	0.181	0.230	

No.	Band	Mode	Test Position	Gap (mm)	Power State	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)	Deviation %
1st	FR1 n5_Ant 0	20M_BPSK_1_53	Back	10mm	5/6	167300	836.5	24.34	25.50	1.306	-0.12	0.328	0.428	-12.86%
2nd	FR1 n5_Ant 0	20M_BPSK_1_53	Back	10mm	5/6	167300	836.5	24.38	25.50	1.294	-0.17	0.288	0.373	
1st	FR1 n5_Ant 1	20M_BPSK_1_53	Back	10mm	5/6	167300	836.5	24.82	25.20	1.091	-0.19	0.295	0.322	-11.81%
2nd	FR1 n5_Ant 1	20M_BPSK_1_53	Back	10mm	5/6	167300	836.5	24.75	25.20	1.109	-0.15	0.256	0.284	
1st	FR1 n7_Ant 2	20M_BPSK_1_53	Back	10mm	5	512000	2560	20.48	21.30	1.208	-0.19	0.627	0.757	-2.77%
2nd	FR1 n7_Ant 2	20M_BPSK_1_53	Back	10mm	5	512000	2560	20.44	21.30	1.219	-0.1	0.604	0.736	
1st	FR1 n7_Ant 2	20M_BPSK_1_53	Back	10mm	6	512000	2560	20.48	21.30	1.208	-0.19	0.627	0.757	-2.77%
2nd	FR1 n7_Ant 2	20M_BPSK_1_53	Back	10mm	6	512000	2560	20.44	21.30	1.219	-0.1	0.604	0.736	
1st	FR1 n7_Ant 0	20M_BPSK_50_28	Back	10mm	5	512000	2560	23.30	25.00	1.479	-0.18	0.497	0.735	-2.45%
2nd	FR1 n7_Ant 0	20M_BPSK_50_28	Back	10mm	5	512000	2560	23.21	25.00	1.510	-0.17	0.475	0.717	
1st	FR1 n7_Ant 0	20M_BPSK_50_28	Back	10mm	6	512000	2560	23.30	25.00	1.479	-0.18	0.497	0.735	-2.45%
2nd	FR1 n7_Ant 0	20M_BPSK_50_28	Back	10mm	6	512000	2560	23.21	25.00	1.510	-0.17	0.475	0.717	
1st	FR1 n12_Ant 0	15M_BPSK_1_40	Back	10mm	5/6	141500	707.5	23.94	25.30	1.368	-0.04	0.338	0.462	-7.80%
2nd	FR1 n12_Ant 0	15M_BPSK_1_40	Back	10mm	5/6	141500	707.5	23.82	25.30	1.406	-0.07	0.303	0.426	
1st	FR1 n12_Ant 1	15M_BPSK_1_40	Back	10mm	5/6	141500	707.5	24.33	25.20	1.222	-0.19	0.204	0.249	-10.85%
2nd	FR1 n12_Ant 1	15M_BPSK_1_40	Back	10mm	5/6	141500	707.5	24.25	25.20	1.245	-0.19	0.178	0.222	
1st	FR1 n25_Ant 2	20M_BPSK_1_53	Back	10mm	5	376500	1882.5	21.67	22.50	1.211	-0.13	0.983	1.190	-1.26%
2nd	FR1 n25_Ant 2	20M_BPSK_1_53	Back	10mm	5	376500	1882.5	21.66	22.50	1.213	-0.18	0.968	1.175	
1st	FR1 n25_Ant 2	20M_BPSK_1_53	Back	10mm	6	376500	1882.5	21.67	21.70	1.007	-0.13	0.983	0.990	-1.31%
2nd	FR1 n25_Ant 2	20M_BPSK_1_53	Back	10mm	6	376500	1882.5	21.66	21.70	1.009	-0.18	0.968	0.977	
1st	FR1 n25_Ant 0	20M_BPSK_50_28	Back	10mm	5	372000	1860	22.95	24.00	1.274	-0.18	0.763	0.972	-12.96%
2nd	FR1 n25_Ant 0	20M_BPSK_50_28	Back	10mm	5	372000	1860	23.07	24.00	1.239	-0.15	0.683	0.846	
1st	FR1 n25_Ant 0	20M_BPSK_50_28	Back	10mm	6	372000	1860	22.95	24.00	1.274	-0.18	0.763	0.972	-12.96%
2nd	FR1 n25_Ant 0	20M_BPSK_50_28	Back	10mm	6	372000	1860	23.07	24.00	1.239	-0.15	0.683	0.846	
1st	FR1 n30_Ant 2	10M_BPSK_50_0	Back	10mm	5	462000	2310	22.01	23.90	1.545	-0.17	0.771	1.191	-0.76%
2nd	FR1 n30_Ant 2	10M_BPSK_50_0	Back	10mm	5	462000	2310	22.02	23.90	1.542	-0.1	0.767	1.182	
1st	FR1 n30_Ant 2	10M_BPSK_50_0	Back	10mm	6	462000	2310	22.01	23.10	1.285	-0.17	0.771	0.991	-0.71%
2nd	FR1 n30_Ant 2	10M_BPSK_50_0	Back	10mm	6	462000	2310	22.02	23.10	1.282	-0.1	0.767	0.984	
1st	FR1 n30_Ant 0	10M_BPSK_1_50	Back	10mm	5	462000	2310	23.22	24.30	1.282	-0.15	0.597	0.766	-17.49%
2nd	FR1 n30_Ant 0	10M_BPSK_1_50	Back	10mm	5	462000	2310	23.16	24.30	1.300	-0.15	0.486	0.632	
1st	FR1 n30_Ant 0	10M_BPSK_1_50	Back	10mm	6	462000	2310	23.22	24.30	1.282	-0.15	0.597	0.766	-17.49%
2nd	FR1 n30_Ant 0	10M_BPSK_1_50	Back	10mm	6	462000	2310	23.16	24.30	1.300	-0.15	0.486	0.632	
1st	FR1 n66_Ant 2	40M_BPSK_216_0	Back	10mm	5	349000	1745	22.60	23.70	1.288	-0.12	0.877	1.130	-0.80%
2nd	FR1 n66_Ant 2	40M_BPSK_216_0	Back	10mm	5	349000	1745	22.58	23.70	1.294	-0.14	0.866	1.121	
1st	FR1 n66_Ant 2	40M_BPSK_108_54	Back	10mm	6	349000	1745	21.75	22.90	1.303	-0.09	0.724	0.943	-2.23%
2nd	FR1 n66_Ant 2	40M_BPSK_108_54	Back	10mm	6	349000	1745	21.77	22.90	1.297	-0.14	0.711	0.922	
1st	FR1 n66_Ant 0	40M_BPSK_1_108	Back	10mm	5	349000	1745	23.56	25.00	1.393	-0.12	0.765	1.066	-0.94%
2nd	FR1 n66_Ant 0	40M_BPSK_1_108	Back	10mm	5	349000	1745	23.56	25.00	1.393	-0.15	0.758	1.056	
1st	FR1 n66_Ant 0	40M_BPSK_1_108	Back	10mm	6	349000	1745	23.56	24.20	1.159	-0.12	0.765	0.886	-0.90%
2nd	FR1 n66_Ant 0	40M_BPSK_1_108	Back	10mm	6	349000	1745	23.56	24.20	1.159	-0.15	0.758	0.878	
1st	FR1 n71_Ant 0	20M_BPSK_1_53	Back	10mm	5/6	136100	680.5	23.89	25.30	1.384	-0.09	0.323	0.447	-0.90%
2nd	FR1 n71_Ant 0	20M_BPSK_1_53	Back	10mm	5/6	136100	680.5	23.85	25.30	1.396	-0.03	0.317	0.443	
1st	FR1 n71_Ant 1	20M_BPSK_1_53	Back	10mm	5/6	136100	680.5	24.45	25.20	1.189	-0.02	0.162	0.193	-7.78%
2nd	FR1 n71_Ant 1	20M_BPSK_1_53	Back	10mm	5/6	136100	680.5	24.39	25.20	1.205	-0.04	0.148	0.178	

No.	Band	Mode	Test Position	Gap (mm)	Power State	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)	Deviation %
1st	FR1 n77_Ant 6	100M_BPSK_135_69	Front	10mm	5	656000	3840	21.36	22.40	1.271	100	1.000	-0.05	0.656	0.833	-21.49%
2nd	FR1 n77_Ant 6	100M_BPSK_135_69	Front	10mm	5	656000	3840	21.51	22.40	1.227	100	1.000	-0.14	0.533	0.654	
1st	FR1 n77_HPUE_Ant 6	100M_BPSK_135_69	Front	10mm	5	656000	3840	23.89	25.40	1.416	50	1.000	-0.11	0.604	0.855	-27.02%
2nd	FR1 n77_HPUE_Ant 6	100M_BPSK_135_69	Front	10mm	5	656000	3840	24.00	25.40	1.380	50	1.000	-0.12	0.452	0.624	
1st	FR1 n77_Ant 6	100M_BPSK_135_69	Front	10mm	6	656000	3840	21.36	21.60	1.057	100	1.000	-0.05	0.656	0.693	-21.50%
2nd	FR1 n77_Ant 6	100M_BPSK_135_69	Front	10mm	6	656000	3840	21.51	21.60	1.021	100	1.000	-0.14	0.533	0.544	
1st	FR1 n77_HPUE_Ant 6	100M_BPSK_135_69	Front	10mm	6	656000	3840	23.89	24.60	1.178	50	1.000	-0.11	0.604	0.711	-27.00%
2nd	FR1 n77_HPUE_Ant 6	100M_BPSK_135_69	Front	10mm	6	656000	3840	24.00	24.60	1.148	50	1.000	-0.12	0.452	0.519	
1st	FR1 n77_Ant 6	100M_BPSK_135_69	Front	10mm	5	633332	3499.98	21.22	22.40	1.312	100	1.000	0.02	0.910	1.194	-16.83%
2nd	FR1 n77_Ant 6	100M_BPSK_135_69	Front	10mm	5	633332	3499.98	21.44	22.40	1.247	100	1.000	0.04	0.796	0.993	
1st	FR1 n77_HPUE_Ant 6	100M_BPSK_135_69	Front	10mm	5	633332	3499.98	23.76	25.40	1.459	50	1.000	-0.01	0.796	1.161	-29.37%
2nd	FR1 n77_HPUE_Ant 6	100M_BPSK_135_69	Front	10mm	5	633332	3499.98	23.97	25.40	1.390	50	1.000	-0.06	0.590	0.820	
1st	FR1 n77_Ant 6	100M_BPSK_135_69	Front	10mm	6	633332	3499.98	21.22	21.60	1.091	100	1.000	0.02	0.910	0.993	-16.82%
2nd	FR1 n77_Ant 6	100M_BPSK_135_69	Front	10mm	6	633332	3499.98	21.44	21.60	1.038	100	1.000	0.04	0.796	0.826	
1st	FR1 n77_HPUE_Ant 6	100M_BPSK_135_69	Front	10mm	6	633332	3499.98	23.76	24.60	1.213	50	1.000	-0.01	0.796	0.966	-29.40%
2nd	FR1 n77_HPUE_Ant 6	100M_BPSK_135_69	Front	10mm	6	633332	3499.98	23.97	24.60	1.156	50	1.000	-0.06	0.590	0.682	
1st	FR1 n77_Ant 2	100M_BPSK_135_69	Back	10mm	5	656000	3840	22.07	23.60	1.422	100	1.000	-0.18	0.828	1.178	-8.06%
2nd	FR1 n77_Ant 2	100M_BPSK_135_69	Back	10mm	5	656000	3840	22.25	23.60	1.365	100	1.000	-0.1	0.794	1.083	
1st	FR1 n77_HPUE_Ant 2	100M_BPSK_135_69	Back	10mm	5	656000	3840	24.62	25.90	1.343	50	1.000	-0.16	0.706	0.948	-2.00%
2nd	FR1 n77_HPUE_Ant 2	100M_BPSK_135_69	Back	10mm	5	656000	3840	24.70	25.90	1.318	50	1.000	0.18	0.705	0.929	
1st	FR1 n77_Ant 2	100M_BPSK_135_69	Back	10mm	6	656000	3840	22.07	22.80	1.183	100	1.000	-0.18	0.828	0.980	-8.06%
2nd	FR1 n77_Ant 2	100M_BPSK_135_69	Back	10mm	6	656000	3840	22.25	22.80	1.135	100	1.000	-0.1	0.794	0.901	
1st	FR1 n77_HPUE_Ant 2	100M_BPSK_135_69	Back	10mm	6	656000	3840	24.62	25.80	1.312	50	1.000	-0.16	0.706	0.926	-1.94%
2nd	FR1 n77_HPUE_Ant 2	100M_BPSK_135_69	Back	10mm	6	656000	3840	24.70	25.80	1.288	50	1.000	0.18	0.705	0.908	
1st	FR1 n77_Ant 2	100M_BPSK_135_69	Front	10mm	5	633332	3499.98	22.17	23.60	1.390	100	1.000	-0.12	0.652	0.906	-23.29%
2nd	FR1 n77_Ant 2	100M_BPSK_135_69	Front	10mm	5	633332	3499.98	22.29	23.60	1.352	100	1.000	-0.14	0.514	0.695	
1st	FR1 n77_HPUE_Ant 2	100M_BPSK_135_69	Front	10mm	5	633332	3499.98	24.66	25.90	1.330	50	1.000	-0.14	0.581	0.773	-13.84%
2nd	FR1 n77_HPUE_Ant 2	100M_BPSK_135_69	Front	10mm	5	633332	3499.98	24.61	25.90	1.346	50	1.000	-0.15	0.495	0.666	
1st	FR1 n77_Ant 2	100M_BPSK_135_69	Front	10mm	6	633332	3499.98	22.17	22.80	1.156	100	1.000	-0.12	0.652	0.754	-23.34%
2nd	FR1 n77_Ant 2	100M_BPSK_135_69	Front	10mm	6	633332	3499.98	22.29	22.80	1.125	100	1.000	-0.14	0.514	0.578	
1st	FR1 n77_HPUE_Ant 2	100M_BPSK_135_69	Front	10mm	6	633332	3499.98	24.66	25.80	1.300	50	1.000	-0.14	0.581	0.755	-13.77%
2nd	FR1 n77_HPUE_Ant 2	100M_BPSK_135_69	Front	10mm	6	633332	3499.98	24.61	25.80	1.315	50	1.000	-0.15	0.495	0.651	

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Index	Antenna	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)	Deviation (%)
1st	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	5	Ant 4	11	2462	21.75	22.00	1.059	100.00	1.000	0.1	0.547	0.579	-15.37%
2nd	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	5	Ant 4	11	2462	21.75	22.00	1.059	100.00	1.000	0.01	0.463	0.490	
1st	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	5	Ant 3	11	2462	21.75	22.00	1.059	100.00	1.000	-0.16	0.597	0.632	-10.60%
2nd	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	5	Ant 3	11	2462	21.75	22.00	1.059	100.00	1.000	-0.1	0.533	0.565	
1st	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	5	Ant 4+3(4)	6	2437	20.95	21.50	1.135	93.40	1.071	-0.17	0.406	0.494	-2.23%
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	5	Ant 4+3(3)	6	2437	21.25	21.50	1.059	93.40	1.071	-0.17	0.391	0.444	
2nd	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	5	Ant 4+3(3)	6	2437	20.95	21.50	1.135	93.40	1.071	0.19	0.397	0.483	
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	5	Ant 4+3(3)	6	2437	21.25	21.50	1.059	93.40	1.071	0.19	0.394	0.447	
1st	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	6	Ant 4	11	2462	21.75	22.00	1.059	100.00	1.000	0.1	0.547	0.579	-15.37%
2nd	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	6	Ant 4	11	2462	21.75	22.00	1.059	100.00	1.000	0.01	0.463	0.490	
1st	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	6	Ant 3	11	2462	21.75	22.00	1.059	100.00	1.000	-0.16	0.597	0.632	-10.60%
2nd	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	6	Ant 3	11	2462	21.75	22.00	1.059	100.00	1.000	-0.1	0.533	0.565	
1st	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	6	Ant 4+3(4)	6	2437	20.95	21.50	1.135	93.40	1.071	-0.17	0.406	0.494	-2.23%
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	6	Ant 4+3(3)	6	2437	21.25	21.50	1.059	93.40	1.071	-0.17	0.391	0.444	
2nd	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	6	Ant 4+3(3)	6	2437	20.95	21.50	1.135	93.40	1.071	0.19	0.397	0.483	
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	6	Ant 4+3(3)	6	2437	21.25	21.50	1.059	93.40	1.071	0.19	0.394	0.447	
1st	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	7	Ant 4	1	2412	19.95	20.00	1.012	98.90	1.011	0.1	0.323	0.330	-8.79%
2nd	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	7	Ant 4	1	2412	19.95	20.00	1.012	98.90	1.011	-0.07	0.294	0.301	
1st	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	7	Ant 3	1	2412	20.45	20.50	1.012	98.90	1.011	-0.12	0.387	0.396	-15.91%
2nd	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	7	Ant 3	1	2412	20.45	20.50	1.012	98.90	1.011	-0.04	0.326	0.333	
1st	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	7	Ant 4+3(4)	6	2437	19.65	20.00	1.084	93.40	1.071	-0.09	0.241	0.280	-29.64%
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	7	Ant 4+3(3)	6	2437	20.45	20.50	1.012	93.40	1.071	-0.09	0.308	0.334	
2nd	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	7	Ant 4+3(4)	6	2437	19.65	20.00	1.084	93.40	1.071	-0.18	0.187	0.217	
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	7	Ant 4+3(3)	6	2437	20.45	20.50	1.012	93.40	1.071	-0.18	0.217	0.235	
1st	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	8	Ant 4	1	2412	16.95	17.00	1.012	98.90	1.011	0.14	0.133	0.136	-11.03%
2nd	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	8	Ant 4	1	2412	16.95	17.00	1.012	98.90	1.011	0	0.118	0.121	
1st	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	8	Ant 3	6	2437	17.95	18.00	1.012	98.90	1.011	0.03	0.166	0.170	-10.00%
2nd	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	8	Ant 3	6	2437	17.95	18.00	1.012	98.90	1.011	-0.08	0.150	0.153	
1st	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	8	Ant 4+3(4)	11	2462	16.95	17.00	1.012	93.40	1.071	-0.08	0.189	0.205	-1.20%
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	8	Ant 4+3(3)	11	2462	17.95	18.00	1.012	93.40	1.071	-0.08	0.232	0.251	
2nd	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	8	Ant 4+3(4)	11	2462	16.95	17.00	1.012	93.40	1.071	-0.17	0.171	0.185	
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	8	Ant 4+3(3)	11	2462	17.95	18.00	1.012	93.40	1.071	-0.17	0.229	0.248	

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Index	Antenna	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)	Deviation (%)
1st	WLAN5GHz	802.11a 6Mbps	Front	10mm	5	Ant 4+3(4)	56	5280	19.90	20.00	1.023	93.42	1.070	-0.18	0.494	0.541	-1.78%
	WLAN5GHz	802.11a 6Mbps	Front	10mm	5	Ant 4+3(3)	56	5280	19.30	20.00	1.175	93.42	1.070	-0.18	0.581	0.730	
2nd	WLAN5GHz	802.11a 6Mbps	Front	10mm	5	Ant 4+3(4)	56	5280	19.90	20.00	1.023	93.42	1.070	-0.12	0.477	0.522	
	WLAN5GHz	802.11a 6Mbps	Front	10mm	5	Ant 4+3(3)	56	5280	19.30	20.00	1.175	93.42	1.070	-0.12	0.570	0.717	
1st	WLAN5GHz	802.11a 6Mbps	Front	10mm	6	Ant 4+3(4)	56	5280	19.90	20.00	1.023	93.42	1.070	-0.18	0.494	0.541	-1.78%
	WLAN5GHz	802.11a 6Mbps	Front	10mm	6	Ant 4+3(3)	56	5280	19.30	20.00	1.175	93.42	1.070	-0.18	0.581	0.730	
2nd	WLAN5GHz	802.11a 6Mbps	Front	10mm	6	Ant 4+3(4)	56	5280	19.90	20.00	1.023	93.42	1.070	-0.12	0.477	0.522	
	WLAN5GHz	802.11a 6Mbps	Front	10mm	6	Ant 4+3(3)	56	5280	19.30	20.00	1.175	93.42	1.070	-0.12	0.570	0.717	
1st	WLAN5GHz	802.11n-HT40 MCS0	Front	10mm	7	Ant 4+3(4)	54	5270	15.30	16.00	1.175	96.6	1.035	-0.02	0.210	0.255	-15.44%
	WLAN5GHz	802.11n-HT40 MCS0	Front	10mm	7	Ant 4+3(3)	54	5270	16.40	17.00	1.148	96.6	1.035	-0.02	0.332	0.395	
2nd	WLAN5GHz	802.11n-HT40 MCS0	Front	10mm	7	Ant 4+3(4)	54	5270	15.30	16.00	1.175	96.6	1.035	-0.07	0.186	0.226	
	WLAN5GHz	802.11n-HT40 MCS0	Front	10mm	7	Ant 4+3(3)	54	5270	16.40	17.00	1.148	96.6	1.035	-0.07	0.281	0.334	
1st	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	8	Ant 4+3(4)	58	5290	15.00	15.00	1.000	88.3	1.133	-0.01	0.167	0.189	-4.23%
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	8	Ant 4+3(3)	58	5290	14.70	15.00	1.072	88.3	1.133	-0.01	0.127	0.154	
2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	8	Ant 4+3(4)	58	5290	15.00	15.00	1.000	88.3	1.133	0.09	0.160	0.181	
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	8	Ant 4+3(3)	58	5290	14.70	15.00	1.072	88.3	1.133	0.09	0.077	0.093	
1st	WLAN5GHz	802.11n-HT40 MCS0	Front	10mm	9	Ant 4+3(4)	54	5270	15.30	16.00	1.175	96.6	1.035	-0.02	0.210	0.255	-15.44%
	WLAN5GHz	802.11n-HT40 MCS0	Front	10mm	9	Ant 4+3(3)	54	5270	16.40	17.00	1.148	96.6	1.035	-0.02	0.332	0.395	
2nd	WLAN5GHz	802.11n-HT40 MCS0	Front	10mm	9	Ant 4+3(4)	54	5270	15.30	16.00	1.175	96.6	1.035	-0.07	0.186	0.226	
	WLAN5GHz	802.11n-HT40 MCS0	Front	10mm	9	Ant 4+3(3)	54	5270	16.40	17.00	1.148	96.6	1.035	-0.07	0.281	0.334	
1st	WLAN5GHz	802.11a 6Mbps	Back	10mm	5	Ant 4+3(4)	144	5720	18.00	19.00	1.259	93.6	1.068	-0.15	0.761	1.023	-15.44%
	WLAN5GHz	802.11a 6Mbps	Back	10mm	5	Ant 4+3(3)	144	5720	19.70	20.00	1.072	93.6	1.068	-0.15	0.546	0.625	
2nd	WLAN5GHz	802.11a 6Mbps	Back	10mm	5	Ant 4+3(4)	144	5720	18.00	19.00	1.259	93.6	1.068	-0.03	0.643	0.865	
	WLAN5GHz	802.11a 6Mbps	Back	10mm	5	Ant 4+3(3)	144	5720	19.70	20.00	1.072	93.6	1.068	-0.03	0.407	0.466	
1st	WLAN5GHz	802.11a 6Mbps	Back	10mm	6	Ant 4+3(4)	144	5720	18.00	18.50	1.122	93.6	1.068	-0.15	0.761	0.912	-15.46%
	WLAN5GHz	802.11a 6Mbps	Back	10mm	6	Ant 4+3(3)	144	5720	19.70	20.00	1.072	93.6	1.068	-0.15	0.546	0.625	
2nd	WLAN5GHz	802.11a 6Mbps	Back	10mm	6	Ant 4+3(4)	144	5720	18.00	18.50	1.122	93.6	1.068	-0.03	0.643	0.771	
	WLAN5GHz	802.11a 6Mbps	Back	10mm	6	Ant 4+3(3)	144	5720	19.70	20.00	1.072	93.6	1.068	-0.03	0.407	0.466	
1st	WLAN5GHz	802.11a 6Mbps	Back	10mm	7	Ant 4+3(4)	144	5720	15.40	15.50	1.023	93.6	1.068	-0.02	0.391	0.427	-13.75%
	WLAN5GHz	802.11a 6Mbps	Back	10mm	7	Ant 4+3(3)	144	5720	20.00	20.00	1.000	93.6	1.068	-0.02	0.477	0.509	
2nd	WLAN5GHz	802.11a 6Mbps	Back	10mm	7	Ant 4+3(4)	144	5720	15.40	15.50	1.023	93.6	1.068	-0.03	0.358	0.391	
	WLAN5GHz	802.11a 6Mbps	Back	10mm	7	Ant 4+3(3)	144	5720	20.00	20.00	1.000	93.6	1.068	-0.03	0.411	0.439	
1st	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	8	Ant 4+3(4)	122	5610	12.90	13.00	1.023	88.3	1.133	-0.02	0.080	0.093	-8.00%
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	8	Ant 4+3(3)	122	5610	17.00	17.00	1.000	88.3	1.133	-0.02	0.287	0.325	
2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	8	Ant 4+3(4)	122	5610	12.90	13.00	1.023	88.3	1.133	-0.03	0.073	0.085	
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	8	Ant 4+3(3)	122	5610	17.00	17.00	1.000	88.3	1.133	-0.03	0.264	0.299	
1st	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	9	Ant 4+3(4)	122	5610	12.90	13.00	1.023	88.3	1.133	-0.02	0.080	0.093	-8.00%
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	9	Ant 4+3(3)	122	5610	17.00	17.00	1.000	88.3	1.133	-0.02	0.287	0.325	
2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	9	Ant 4+3(4)	122	5610	12.90	13.00	1.023	88.3	1.133	-0.03	0.073	0.085	
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	9	Ant 4+3(3)	122	5610	17.00	17.00	1.000	88.3	1.133	-0.03	0.264	0.299	

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Index	Antenna	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)	Deviation (%)
1st	WLAN5GHz	802.11a 6Mbps	Back	10mm	5	Ant 4+3(4)	165	5825	18.20	18.50	1.072	96.6	1.035	0.08	0.910	1.009	-9.51%
	WLAN5GHz	802.11a 6Mbps	Back	10mm	5	Ant 4+3(3)	165	5825	19.90	20.00	1.023	96.6	1.035	0.08	0.397	0.420	
2nd	WLAN5GHz	802.11a 6Mbps	Back	10mm	5	Ant 4+3(4)	165	5825	18.20	18.50	1.072	96.6	1.035	0	0.823	0.913	
	WLAN5GHz	802.11a 6Mbps	Back	10mm	5	Ant 4+3(3)	165	5825	19.90	20.00	1.023	96.6	1.035	0	0.515	0.545	
1st	WLAN5GHz	802.11a 6Mbps	Back	10mm	6	Ant 4+3(4)	165	5825	17.30	17.50	1.047	93.6	1.068	-0.03	0.720	0.805	-8.94%
	WLAN5GHz	802.11a 6Mbps	Back	10mm	6	Ant 4+3(3)	165	5825	19.50	19.50	1.000	93.6	1.068	-0.03	0.417	0.445	
2nd	WLAN5GHz	802.11a 6Mbps	Back	10mm	6	Ant 4+3(4)	165	5825	17.30	17.50	1.047	93.6	1.068	-0.15	0.655	0.733	
	WLAN5GHz	802.11a 6Mbps	Back	10mm	6	Ant 4+3(3)	165	5825	19.50	19.50	1.000	93.6	1.068	-0.15	0.527	0.563	
1st	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	7	Ant 4+3(4)	155	5775	15.30	15.50	1.047	88.3	1.133	-0.04	0.128	0.152	-3.89%
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	7	Ant 4+3(3)	155	5775	17.30	17.50	1.047	88.3	1.133	-0.04	0.411	0.488	
2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	7	Ant 4+3(4)	155	5775	15.30	15.50	1.047	88.3	1.133	-0.03	0.088	0.104	
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	7	Ant 4+3(3)	155	5775	17.30	17.50	1.047	88.3	1.133	-0.03	0.395	0.469	
1st	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	8	Ant 4+3(4)	155	5775	12.50	12.50	1.000	88.3	1.133	-0.01	0.057	0.065	-23.02%
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	8	Ant 4+3(3)	155	5775	14.40	14.50	1.023	88.3	1.133	-0.01	0.251	0.291	
2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	8	Ant 4+3(4)	155	5775	12.50	12.50	1.000	88.3	1.133	0.11	0.043	0.049	
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	8	Ant 4+3(3)	155	5775	14.40	14.50	1.023	88.3	1.133	0.11	0.193	0.224	
1st	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	9	Ant 4+3(4)	155	5775	14.40	14.50	1.023	88.3	1.133	-0.01	0.103	0.119	-12.05%
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	9	Ant 4+3(3)	155	5775	16.30	16.50	1.047	88.3	1.133	-0.01	0.371	0.440	
2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	9	Ant 4+3(4)	155	5775	14.40	14.50	1.023	88.3	1.133	-0.05	0.078	0.090	
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	9	Ant 4+3(3)	155	5775	16.30	16.50	1.047	88.3	1.133	-0.05	0.326	0.387	
1st	WLAN5GHz	802.11a 6Mbps	Back	10mm	5	Ant 4+3(4)	177	5885	18.40	18.50	1.023	93.6	1.068	0.14	1.030	1.126	-9.06%
	WLAN5GHz	802.11a 6Mbps	Back	10mm	5	Ant 4+3(3)	177	5885	19.90	20.00	1.023	93.6	1.068	0.14	0.414	0.452	
2nd	WLAN5GHz	802.11a 6Mbps	Back	10mm	5	Ant 4+3(4)	177	5885	18.40	18.50	1.023	93.6	1.068	0.11	0.937	1.024	
	WLAN5GHz	802.11a 6Mbps	Back	10mm	5	Ant 4+3(3)	177	5885	19.90	20.00	1.023	93.6	1.068	0.11	0.395	0.432	
1st	WLAN5GHz	802.11a 6Mbps	Back	10mm	6	Ant 4+3(4)	177	5885	17.50	17.50	1.000	93.6	1.068	0.12	0.880	0.940	-8.09%
	WLAN5GHz	802.11a 6Mbps	Back	10mm	6	Ant 4+3(3)	177	5885	19.30	19.50	1.047	93.6	1.068	0.12	0.393	0.440	
2nd	WLAN5GHz	802.11a 6Mbps	Back	10mm	6	Ant 4+3(4)	177	5885	17.50	17.50	1.000	93.6	1.068	0.19	0.809	0.864	
	WLAN5GHz	802.11a 6Mbps	Back	10mm	6	Ant 4+3(3)	177	5885	19.30	19.50	1.047	93.6	1.068	0.19	0.340	0.380	
1st	WLAN5GHz	802.11ac-VHT160 MCS0	Front	10mm	7	Ant 4+3(4)	163	5815	15.30	15.50	1.047	88.2	1.134	-0.15	0.081	0.096	-11.24%
	WLAN5GHz	802.11ac-VHT160 MCS0	Front	10mm	7	Ant 4+3(3)	163	5815	17.20	17.50	1.072	88.2	1.134	-0.15	0.344	0.418	
2nd	WLAN5GHz	802.11ac-VHT160 MCS0	Front	10mm	7	Ant 4+3(4)	163	5815	15.30	15.50	1.047	88.2	1.134	-0.04	0.059	0.070	
	WLAN5GHz	802.11ac-VHT160 MCS0	Front	10mm	7	Ant 4+3(3)	163	5815	17.20	17.50	1.072	88.2	1.134	-0.04	0.305	0.371	
1st	WLAN5GHz	802.11ac-VHT160 MCS0	Front	10mm	8	Ant 4+3(4)	163	5815	12.40	12.50	1.023	88.2	1.134	-0.12	0.037	0.043	-10.05%
	WLAN5GHz	802.11ac-VHT160 MCS0	Front	10mm	8	Ant 4+3(3)	163	5815	14.50	14.50	1.000	88.2	1.134	-0.12	0.167	0.189	
2nd	WLAN5GHz	802.11ac-VHT160 MCS0	Front	10mm	8	Ant 4+3(4)	163	5815	12.40	12.50	1.023	88.2	1.134	-0.19	0.023	0.027	
	WLAN5GHz	802.11ac-VHT160 MCS0	Front	10mm	8	Ant 4+3(3)	163	5815	14.50	14.50	1.000	88.2	1.134	-0.19	0.150	0.170	
1st	WLAN5GHz	802.11ac-VHT160 MCS0	Front	10mm	9	Ant 4+3(4)	163	5815	14.20	14.50	1.072	88.2	1.134	-0.05	0.056	0.068	-2.93%
	WLAN5GHz	802.11ac-VHT160 MCS0	Front	10mm	9	Ant 4+3(3)	163	5815	16.30	16.50	1.047	88.2	1.134	-0.05	0.287	0.341	
2nd	WLAN5GHz	802.11ac-VHT160 MCS0	Front	10mm	9	Ant 4+3(4)	163	5815	14.20	14.50	1.072	88.2	1.134	-0.16	0.057	0.069	
	WLAN5GHz	802.11ac-VHT160 MCS0	Front	10mm	9	Ant 4+3(3)	163	5815	16.30	16.50	1.047	88.2	1.134	-0.16	0.279	0.331	
1st	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	5/6/7/8/9	Ant 4+3(4)	207	6985	12.40	12.50	1.023	86.2	1.160	0.04	0.044	0.052	-4.79%
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	5/6/7/8/9	Ant 4+3(3)	207	6985	12.50	12.50	1.000	86.2	1.160	0.04	0.144	0.167	
2nd	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	5/6/7/8/9	Ant 4+3(4)	207	6985	12.40	12.50	1.023	86.2	1.160	-0.07	0.029	0.034	
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	5/6/7/8/9	Ant 4+3(3)	207	6985	12.50	12.50	1.000	86.2	1.160	-0.07	0.137	0.159	

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Index	Antenna	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)	Deviation (%)
1st	Bluetooth	1Mbps	Back	10mm	2	Ant 4	78	2480	20.08	21.00	1.236	77.22	1.079	0.06	0.254	0.339	-11.50%
2nd	Bluetooth	1Mbps	Back	10mm	2	Ant 4	78	2480	20.08	21.00	1.236	77.22	1.079	0.18	0.225	0.300	
1st	Bluetooth	1Mbps	Back	10mm	2	Ant 4	78	2480	19.73	21.00	1.340	77.22	1.079	-0.05	0.244	0.353	-15.30%
2nd	Bluetooth	1Mbps	Back	10mm	2	Ant 4	78	2480	19.73	21.00	1.340	77.22	1.079	0.02	0.207	0.299	
1st	Bluetooth	1Mbps	Back	10mm	2	Ant 4+3(4)	78	2480	16.57	17.50	1.239	77.22	1.079	0.09	0.117	0.156	-7.05%
	Bluetooth	1Mbps	Back	10mm	2	Ant 4+3(3)	78	2480	16.38	17.50	1.295	77.22	1.079	0.09	0.057	0.080	
2nd	Bluetooth	1Mbps	Back	10mm	2	Ant 4+3(4)	78	2480	16.57	17.50	1.239	77.22	1.079	0.06	0.087	0.116	
	Bluetooth	1Mbps	Back	10mm	2	Ant 4+3(3)	78	2480	16.38	17.50	1.295	77.22	1.079	0.06	0.104	0.145	
1st	Bluetooth	1Mbps	Back	10mm	3	Ant 4	39	2441	14.15	15.00	1.216	77.22	1.079	0.08	0.060	0.079	-2.53%
2nd	Bluetooth	1Mbps	Back	10mm	3	Ant 4	39	2441	14.15	15.00	1.216	77.22	1.079	0.08	0.059	0.077	
1st	Bluetooth	1Mbps	Back	10mm	3	Ant 3	78	2480	14.65	15.00	1.084	77.22	1.079	-0.1	0.078	0.091	-16.48%
2nd	Bluetooth	1Mbps	Back	10mm	3	Ant 3	78	2480	14.65	15.00	1.084	77.22	1.079	0.03	0.065	0.076	
1st	Bluetooth	1Mbps	Back	10mm	3	Ant 4+3(4)	78	2480	14.55	15.00	1.109	76.83	1.084	0.19	0.076	0.091	-5.11%
	Bluetooth	1Mbps	Back	10mm	3	Ant 4+3(3)	78	2480	14.55	15.00	1.109	76.83	1.084	0.19	0.114	0.137	
2nd	Bluetooth	1Mbps	Back	10mm	3	Ant 4+3(4)	78	2480	14.55	15.00	1.109	76.83	1.084	-0.17	0.072	0.087	
	Bluetooth	1Mbps	Back	10mm	3	Ant 4+3(3)	78	2480	14.55	15.00	1.109	76.83	1.084	-0.17	0.108	0.130	
1st	Bluetooth	1Mbps	Back	10mm	4	Ant 4	78	2480	20.08	21.00	1.236	77.22	1.079	0.06	0.254	0.339	-11.50%
2nd	Bluetooth	1Mbps	Back	10mm	4	Ant 4	78	2480	20.08	21.00	1.236	77.22	1.079	0.18	0.225	0.300	
1st	Bluetooth	1Mbps	Back	10mm	4	Ant 3	78	2480	19.73	21.00	1.340	77.22	1.079	-0.05	0.244	0.353	-15.30%
2nd	Bluetooth	1Mbps	Back	10mm	4	Ant 3	78	2480	19.73	21.00	1.340	77.22	1.079	0.02	0.207	0.299	
1st	Bluetooth	1Mbps	Back	10mm	4	Ant 4+3(4)	78	2480	16.57	17.50	1.239	77.22	1.079	0.09	0.117	0.156	-7.05%
	Bluetooth	1Mbps	Back	10mm	4	Ant 4+3(3)	78	2480	16.38	17.50	1.295	77.22	1.079	0.09	0.057	0.080	
2nd	Bluetooth	1Mbps	Back	10mm	4	Ant 4+3(4)	78	2480	16.57	17.50	1.239	77.22	1.079	0.06	0.087	0.116	
	Bluetooth	1Mbps	Back	10mm	4	Ant 4+3(3)	78	2480	16.38	17.50	1.295	77.22	1.079	0.06	0.104	0.145	

4.4 Product Specific SAR

No.	Band	Mode	Test Position	Gap (mm)	Power State	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)	Deviation %
1st	GSM1900_Ant 2	GPRS (4 Tx slots)	Bottom Side	0mm	5	810	1909.8	24.78	25.50	1.180	0.14	1.650	1.948	-7.03%
2nd	GSM1900_Ant 2	GPRS (4 Tx slots)	Bottom Side	0mm	5	810	1909.8	24.99	25.50	1.125	0.13	1.610	1.811	
1st	WCDMA II_Ant 2	RMC 12.2Kbps	Bottom Side	0mm	5	9538	1907.6	20.11	22.10	1.581	0.14	1.040	1.644	-14.48%
2nd	WCDMA II_Ant 2	RMC 12.2Kbps	Bottom Side	0mm	5	9538	1907.6	20.23	22.10	1.538	0.14	0.914	1.406	
1st	WCDMA IV_Ant 2	RMC 12.2Kbps	Bottom Side	0mm	5	1312	1712.4	21.57	23.30	1.489	0.11	1.970	2.934	-2.32%
2nd	WCDMA IV_Ant 2	RMC 12.2Kbps	Bottom Side	0mm	5	1312	1712.4	21.56	23.30	1.493	-0.08	1.920	2.866	
1st	WCDMA IV_Ant 0	RMC 12.2Kbps	Bottom Side	0mm	5	1513	1752.6	23.12	24.70	1.439	0.09	1.450	2.086	-1.15%
2nd	WCDMA IV_Ant 0	RMC 12.2Kbps	Bottom Side	0mm	5	1513	1752.6	23.17	24.70	1.422	-0.03	1.450	2.062	
1st	LTE Band 25_Ant 2	20M_QPSK_50_24	Bottom Side	0mm	5	26590	1905	21.14	22.10	1.247	0.16	1.670	2.083	-13.06%
2nd	LTE Band 25_Ant 2	20M_QPSK_50_24	Bottom Side	0mm	5	26590	1905	21.59	22.10	1.125	0.12	1.610	1.811	
1st	LTE Band 66_Ant 2	20M_QPSK_50_24	Bottom Side	0mm	5	132072	1720	22.14	23.20	1.276	-0.1	2.280	2.910	-5.33%
2nd	LTE Band 66_Ant 2	20M_QPSK_50_24	Bottom Side	0mm	5	132072	1720	22.34	23.20	1.219	0.1	2.260	2.755	
1st	LTE Band 66B_Ant 2	15M_QPSK_1_74	Bottom Side	0mm	5	132047	1717.5	18.16	19.25	1.285	0.06	0.936	1.203	1.00%
2nd	LTE Band 66B_Ant 2	15M_QPSK_1_74	Bottom Side	0mm	5	132047	1717.5	18.21	19.25	1.271	-0.13	0.956	1.215	
1st	LTE Band 66C_Ant 2	20M_QPSK_1_99	Bottom Side	0mm	5	132072	1720	18.26	19.25	1.256	-0.06	0.913	1.147	-4.27%
2nd	LTE Band 66C_Ant 2	20M_QPSK_1_99	Bottom Side	0mm	5	132072	1720	18.27	19.25	1.253	-0.18	0.876	1.098	
1st	FR1 n25_Ant 2	20M_BPSK_1_53	Bottom Side	0mm	5	376500	1882.5	21.67	22.50	1.211	0.1	1.550	1.876	-4.90%
2nd	FR1 n25_Ant 2	20M_BPSK_1_53	Bottom Side	0mm	5	376500	1882.5	21.66	22.50	1.213	0.18	1.470	1.784	
1st	FR1 n66_Ant 2	40M_BPSK_108_54	Bottom Side	0mm	5	349000	1745	22.74	23.70	1.247	0.1	2.390	2.981	-2.55%
2nd	FR1 n66_Ant 2	40M_BPSK_108_54	Bottom Side	0mm	5	349000	1745	22.76	23.70	1.242	0.12	2.340	2.905	
1st	FR1 n66_Ant 0	40M_BPSK_1_108	Bottom Side	0mm	5	349000	1745	23.56	25.00	1.393	0.18	1.550	2.159	-1.90%
2nd	FR1 n66_Ant 0	40M_BPSK_1_108	Bottom Side	0mm	5	349000	1745	23.56	25.00	1.393	-0.02	1.520	2.118	

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Index	Antenna	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)	Deviation (%)
1st	WLAN5GHz	802.11a 6Mbps	Front	0mm	5	Ant 4+3(4)	56	5280	19.90	20.00	1.023	93.42	1.070	-0.15	1.860	2.037	-5.42%
	WLAN5GHz	802.11a 6Mbps	Front	0mm	5	Ant 4+3(3)	56	5280	19.30	20.00	1.175	93.42	1.070	-0.15	2.040	2.565	
2nd	WLAN5GHz	802.11a 6Mbps	Front	0mm	5	Ant 4+3(4)	56	5280	19.90	20.00	1.023	93.42	1.070	-0.08	1.760	1.927	
	WLAN5GHz	802.11a 6Mbps	Front	0mm	5	Ant 4+3(3)	56	5280	19.30	20.00	1.175	93.42	1.070	-0.08	1.930	2.426	
1st	WLAN5GHz	802.11a 6Mbps	Front	0mm	6	Ant 4+3(4)	56	5280	19.90	20.00	1.023	93.42	1.070	-0.15	1.860	2.037	-5.42%
	WLAN5GHz	802.11a 6Mbps	Front	0mm	6	Ant 4+3(3)	56	5280	19.30	20.00	1.175	93.42	1.070	-0.15	2.040	2.565	
2nd	WLAN5GHz	802.11a 6Mbps	Front	0mm	6	Ant 4+3(4)	56	5280	19.90	20.00	1.023	93.42	1.070	-0.08	1.760	1.927	
	WLAN5GHz	802.11a 6Mbps	Front	0mm	6	Ant 4+3(3)	56	5280	19.30	20.00	1.175	93.42	1.070	-0.08	1.930	2.426	
1st	WLAN5GHz	802.11n-HT40 MCS0	Front	0mm	7	Ant 4+3(4)	54	5270	15.30	16.00	1.175	96.6	1.035	-0.07	0.660	0.803	-2.54%
	WLAN5GHz	802.11n-HT40 MCS0	Front	0mm	7	Ant 4+3(3)	54	5270	16.40	17.00	1.148	96.6	1.035	-0.07	1.160	1.378	
2nd	WLAN5GHz	802.11n-HT40 MCS0	Front	0mm	7	Ant 4+3(4)	54	5270	15.30	16.00	1.175	96.6	1.035	-0.02	0.587	0.714	
	WLAN5GHz	802.11n-HT40 MCS0	Front	0mm	7	Ant 4+3(3)	54	5270	16.40	17.00	1.148	96.6	1.035	-0.02	1.130	1.343	
1st	WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	8	Ant 4+3(4)	58	5290	15.00	15.00	1.000	88.3	1.133	-0.05	0.555	0.629	-21.36%
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	8	Ant 4+3(3)	58	5290	14.70	15.00	1.072	88.3	1.133	-0.05	0.814	0.988	
2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	8	Ant 4+3(4)	58	5290	15.00	15.00	1.000	88.3	1.133	0.04	0.489	0.554	
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	8	Ant 4+3(3)	58	5290	14.70	15.00	1.072	88.3	1.133	0.04	0.640	0.777	
1st	WLAN5GHz	802.11n-HT40 MCS0	Front	0mm	9	Ant 4+3(4)	54	5270	15.30	16.00	1.175	96.6	1.035	-0.07	0.660	0.803	-2.54%
	WLAN5GHz	802.11n-HT40 MCS0	Front	0mm	9	Ant 4+3(3)	54	5270	16.40	17.00	1.148	96.6	1.035	-0.07	1.160	1.378	
2nd	WLAN5GHz	802.11n-HT40 MCS0	Front	0mm	9	Ant 4+3(4)	54	5270	15.30	16.00	1.175	96.6	1.035	-0.02	0.587	0.714	
	WLAN5GHz	802.11n-HT40 MCS0	Front	0mm	9	Ant 4+3(3)	54	5270	16.40	17.00	1.148	96.6	1.035	-0.02	1.130	1.343	

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Index	Antenna	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)	Deviation (%)
1st	WLAN5GHz	802.11a 6Mbps	Front	0mm	5	Ant 4+3(4)	132	5660	18.10	19.00	1.230	93.60	1.068	0	0.858	1.127	-12.71%
	WLAN5GHz	802.11a 6Mbps	Front	0mm	5	Ant 4+3(3)	132	5660	19.50	20.00	1.122	93.60	1.068	0	1.970	2.361	
2nd	WLAN5GHz	802.11a 6Mbps	Front	0mm	5	Ant 4+3(4)	132	5660	18.10	19.00	1.230	93.60	1.068	-0.11	1.030	1.353	
	WLAN5GHz	802.11a 6Mbps	Front	0mm	5	Ant 4+3(3)	132	5660	19.50	20.00	1.122	93.60	1.068	-0.11	1.720	2.061	
1st	WLAN5GHz	802.11a 6Mbps	Front	0mm	6	Ant 4+3(4)	144	5720	18.00	18.50	1.122	93.6	1.068	0.05	1.020	1.222	-4.07%
	WLAN5GHz	802.11a 6Mbps	Front	0mm	6	Ant 4+3(3)	144	5720	19.70	20.00	1.072	93.6	1.068	0.05	2.210	2.529	
2nd	WLAN5GHz	802.11a 6Mbps	Front	0mm	6	Ant 4+3(4)	144	5720	18.00	18.50	1.122	93.6	1.068	0.04	0.992	1.189	
	WLAN5GHz	802.11a 6Mbps	Front	0mm	6	Ant 4+3(3)	144	5720	19.70	20.00	1.072	93.6	1.068	0.04	2.120	2.426	
1st	WLAN5GHz	802.11a 6Mbps	Front	0mm	7	Ant 4+3(4)	144	5720	15.40	15.50	1.023	93.6	1.068	-0.07	0.509	0.556	-1.37%
	WLAN5GHz	802.11a 6Mbps	Front	0mm	7	Ant 4+3(3)	144	5720	20.00	20.00	1.000	93.6	1.068	-0.07	2.190	2.339	
2nd	WLAN5GHz	802.11a 6Mbps	Front	0mm	7	Ant 4+3(4)	144	5720	15.40	15.50	1.023	93.6	1.068	-0.08	0.544	0.595	
	WLAN5GHz	802.11a 6Mbps	Front	0mm	7	Ant 4+3(3)	144	5720	20.00	20.00	1.000	93.6	1.068	-0.08	2.160	2.307	
1st	WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	8/9	Ant 4+3(4)	122	5610	12.90	13.00	1.023	88.3	1.133	0.02	0.340	0.394	-18.69%
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	8/9	Ant 4+3(3)	122	5610	17.00	17.00	1.000	88.3	1.133	0.02	0.968	1.097	
2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	8/9	Ant 4+3(4)	122	5610	12.90	13.00	1.023	88.3	1.133	-0.15	0.249	0.289	
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	8/9	Ant 4+3(3)	122	5610	17.00	17.00	1.000	88.3	1.133	-0.15	0.787	0.892	
1st	WLAN5GHz	802.11a 6Mbps	Front	0mm	5	Ant 4+3(4)	173	5865	18.40	18.50	1.023	93.6	1.068	-0.17	0.806	0.881	-13.75%
	WLAN5GHz	802.11a 6Mbps	Front	0mm	5	Ant 4+3(3)	173	5865	19.70	20.00	1.072	93.6	1.068	-0.17	2.040	2.335	
2nd	WLAN5GHz	802.11a 6Mbps	Front	0mm	5	Ant 4+3(4)	173	5865	18.40	18.50	1.023	93.6	1.068	-0.1	0.680	0.743	
	WLAN5GHz	802.11a 6Mbps	Front	0mm	5	Ant 4+3(3)	173	5865	19.70	20.00	1.072	93.6	1.068	-0.1	1.760	2.014	
1st	WLAN5GHz	802.11a 6Mbps	Front	0mm	6	Ant 4+3(4)	169	5845	17.50	17.50	1.000	93.6	1.068	-0.11	0.698	0.745	-11.77%
	WLAN5GHz	802.11a 6Mbps	Front	0mm	6	Ant 4+3(3)	169	5845	19.40	19.50	1.023	93.6	1.068	-0.11	1.780	1.945	
2nd	WLAN5GHz	802.11a 6Mbps	Front	0mm	6	Ant 4+3(4)	169	5845	17.50	17.50	1.000	93.6	1.068	-0.13	0.632	0.675	
	WLAN5GHz	802.11a 6Mbps	Front	0mm	6	Ant 4+3(3)	169	5845	19.40	19.50	1.023	93.6	1.068	-0.13	1.570	1.716	
1st	WLAN5GHz	802.11ac-VHT160 MCS0	Front	0mm	7	Ant 4+3(4)	163	5815	15.30	15.50	1.047	88.2	1.134	-0.14	0.387	0.460	-11.26%
	WLAN5GHz	802.11ac-VHT160 MCS0	Front	0mm	7	Ant 4+3(3)	163	5815	17.20	17.50	1.072	88.2	1.134	-0.14	1.030	1.252	
2nd	WLAN5GHz	802.11ac-VHT160 MCS0	Front	0mm	7	Ant 4+3(4)	163	5815	15.30	15.50	1.047	88.2	1.134	-0.18	0.327	0.388	
	WLAN5GHz	802.11ac-VHT160 MCS0	Front	0mm	7	Ant 4+3(3)	163	5815	17.20	17.50	1.072	88.2	1.134	-0.18	0.914	1.111	
1st	WLAN5GHz	802.11ac-VHT160 MCS0	Front	0mm	8	Ant 4+3(4)	163	5815	12.40	12.50	1.023	88.2	1.134	-0.06	0.170	0.197	-17.56%
	WLAN5GHz	802.11ac-VHT160 MCS0	Front	0mm	8	Ant 4+3(3)	163	5815	14.50	14.50	1.000	88.2	1.134	-0.06	0.527	0.598	
2nd	WLAN5GHz	802.11ac-VHT160 MCS0	Front	0mm	8	Ant 4+3(4)	163	5815	12.40	12.50	1.023	88.2	1.134	-0.12	0.146	0.169	
	WLAN5GHz	802.11ac-VHT160 MCS0	Front	0mm	8	Ant 4+3(3)	163	5815	14.50	14.50	1.000	88.2	1.134	-0.12	0.435	0.493	
1st	WLAN5GHz	802.11ac-VHT160 MCS0	Front	0mm	9	Ant 4+3(4)	163	5815	14.20	14.50	1.072	88.2	1.134	-0.1	0.214	0.260	-0.12%
	WLAN5GHz	802.11ac-VHT160 MCS0	Front	0mm	9	Ant 4+3(3)	163	5815	16.30	16.50	1.047	88.2	1.134	-0.1	0.712	0.845	
2nd	WLAN5GHz	802.11ac-VHT160 MCS0	Front	0mm	9	Ant 4+3(4)	163	5815	14.20	14.50	1.072	88.2	1.134	-0.11	0.250	0.304	
	WLAN5GHz	802.11ac-VHT160 MCS0	Front	0mm	9	Ant 4+3(3)	163	5815	16.30	16.50	1.047	88.2	1.134	-0.11	0.711	0.844	
1st	WLAN6GHz	802.11ax-HE160 MCS0	Back	0mm	5/6/7/8/9	Ant 4+3(4)	207	6985	12.40	12.50	1.023	86.2	1.160	0.05	0.163	0.193	-0.68%
	WLAN6GHz	802.11ax-HE160 MCS0	Back	0mm	5/6/7/8/9	Ant 4+3(3)	207	6985	12.50	12.50	1.000	86.2	1.160	0.05	0.379	0.440	
2nd	WLAN6GHz	802.11ax-HE160 MCS0	Back	0mm	5/6/7/8/9	Ant 4+3(4)	207	6985	12.40	12.50	1.023	86.2	1.160	0.09	0.116	0.138	
	WLAN6GHz	802.11ax-HE160 MCS0	Back	0mm	5/6/7/8/9	Ant 4+3(3)	207	6985	12.50	12.50	1.000	86.2	1.160	0.09	0.377	0.437	

Conclusion:

The spot check results don't show the SAR increase more than 30%, and all below 1.2W/kg for 1-g SAR, below 3W/kg for 10-g SAR. Referring to the guidance in the KDB inquiry, SAR data reuse is justified.

END of this report

5. System Verification

5.1 Tissue Verification

The tissue dielectric parameters of tissue-equivalent media used for SAR measurements must be characterized within a temperature range of 18℃ to 25℃, measured with calibrated instruments and apparatuses, such as network analyzers and temperature probes. The temperature of the tissue-equivalent medium during SAR measurement must also be within 18℃ to 25℃ and within ± 2℃ of the temperature when the tissue parameters are characterized. The tissue dielectric measurement system must be calibrated before use. The dielectric parameters must be measured before the tissue-equivalent medium is used in a series of SAR measurements.
The liquid tissue depth was at least 15cm in the phantom for all SAR testing.

<Tissue Dielectric Parameter Check Results>

Frequency (MHz)	Liquid Temp. (℃)	Conductivity (σ)	Permittivity (ε_r)	Conductivity Target (σ)	Permittivity Target (ε_r)	Delta (σ) (%)	Delta (ε_r) (%)	Limit (%)	Date
750	22.7	0.895	41.333	0.89	41.90	0.56	-1.35	±5	2021/11/30
750	22.5	0.925	42.005	0.89	41.90	3.93	0.25	±5	2021/12/1
750	22.1	0.887	42.666	0.89	41.90	-0.34	1.83	±5	2021/12/3
750	22.6	0.887	40.871	0.89	41.90	-0.34	-2.46	±5	2021/12/6
750	22.4	0.864	42.940	0.89	41.90	-2.92	2.48	±5	2021/12/8
750	22.8	0.904	41.609	0.89	41.90	1.57	-0.69	±5	2021/12/11
750	22.9	0.912	41.734	0.89	41.90	2.47	-0.40	±5	2021/12/12
750	22.3	0.883	42.065	0.89	41.90	-0.79	0.39	±5	2021/12/25
750	22.5	0.895	43.476	0.89	41.90	0.56	3.76	±5	2021/12/27
750	22.2	0.888	41.263	0.89	41.90	-0.22	-1.52	±5	2022/1/20
750	22.1	0.887	42.666	0.89	41.90	-0.34	1.83	±5	2021/12/3
750	22.5	0.903	41.752	0.89	41.90	1.46	-0.35	±5	2021/12/5
750	22.6	0.887	40.871	0.89	41.90	-0.34	-2.46	±5	2021/12/6
835	22.6	0.921	41.099	0.90	41.50	2.33	-0.97	±5	2021/11/28
835	22.5	0.889	41.320	0.90	41.50	-1.22	-0.43	±5	2021/11/29
835	22.3	0.885	42.574	0.90	41.50	-1.67	2.59	±5	2021/12/4
835	22.3	0.885	42.574	0.90	41.50	-1.67	2.59	±5	2021/12/4
835	22.7	0.880	42.371	0.90	41.50	-2.22	2.10	±5	2021/12/10
835	22.8	0.891	41.316	0.90	41.50	-1.00	-0.44	±5	2021/12/11
835	22.9	0.896	41.426	0.90	41.50	-0.44	-0.18	±5	2021/12/12
835	22.3	0.878	42.341	0.90	41.50	-2.44	2.03	±5	2021/12/25
835	22.6	0.921	41.099	0.90	41.50	2.33	-0.97	±5	2021/11/28
835	22.1	0.883	41.203	0.90	41.50	-1.89	-0.72	±5	2021/12/3
835	22.3	0.885	42.574	0.90	41.50	-1.67	2.59	±5	2021/12/4
835	22.3	0.885	42.574	0.90	41.50	-1.67	2.59	±5	2021/12/4
1750	22.5	1.353	39.487	1.37	40.10	-1.24	-1.53	±5	2021/12/5
1750	22.2	1.388	39.865	1.37	40.10	1.31	-0.59	±5	2021/12/7
1750	22.2	1.352	38.895	1.37	40.10	-1.31	-3.00	±5	2021/12/7
1750	22.4	1.334	39.866	1.37	40.10	-2.63	-0.58	±5	2021/12/12
1750	22.2	1.363	40.166	1.37	40.10	-0.51	0.16	±5	2021/12/13
1750	22.1	1.359	40.126	1.37	40.10	-0.80	0.06	±5	2021/12/15
1750	22.3	1.397	40.610	1.37	40.10	1.97	1.27	±5	2021/12/16
1900	22.4	1.398	40.312	1.40	40.00	-0.14	0.78	±5	2021/12/2
1900	22.5	1.401	39.827	1.40	40.00	0.07	-0.43	±5	2021/12/5
1900	22.5	1.411	39.262	1.40	40.00	0.79	-1.85	±5	2021/12/5
1900	22.1	1.416	39.472	1.40	40.00	1.14	-1.32	±5	2021/12/6
1900	22.7	1.399	40.561	1.40	40.00	-0.07	1.40	±5	2021/12/9
1900	22.7	1.420	39.030	1.40	40.00	1.43	-2.43	±5	2021/12/10
1900	22.2	1.427	40.812	1.40	40.00	1.93	2.03	±5	2021/12/11
1900	22.5	1.390	40.144	1.40	40.00	-0.71	0.36	±5	2021/12/14
1900	22.1	1.400	39.596	1.40	40.00	0.00	-1.01	±5	2021/12/15
2300	22.2	1.669	39.438	1.67	39.50	-0.06	-0.16	±5	2021/11/28
2300	22.5	1.672	39.888	1.67	39.50	0.12	0.98	±5	2021/11/29
2300	22.4	1.599	38.960	1.67	39.50	-4.25	-1.37	±5	2021/12/8

2300	22.1	1.612	39.887	1.67	39.50	-3.47	0.98	±5	2021/12/13
2300	22.3	1.597	38.895	1.67	39.50	-4.37	-1.53	±5	2021/12/16
2300	22.6	1.684	39.336	1.67	39.50	0.84	-0.42	±5	2021/12/24
2300	22.5	1.647	40.181	1.67	39.50	-1.38	1.72	±5	2021/12/27
2450	22.5	1.802	39.247	1.80	39.20	0.11	0.12	±5	2021/12/20
2450	22.3	1.777	39.819	1.80	39.20	-1.28	1.58	±5	2021/12/21
2450	22.5	1.782	40.073	1.80	39.20	-1.00	2.23	±5	2022/1/2
2450	22.5	1.790	39.627	1.80	39.20	-0.56	1.09	±5	2022/1/4
2450	22.6	1.768	39.957	1.80	39.20	-1.78	1.93	±5	2022/1/5
2450	22.8	1.784	39.587	1.80	39.20	-0.89	0.99	±5	2022/1/5
2450	22.7	1.777	39.537	1.80	39.20	-1.28	0.86	±5	2022/1/6
2450	22.2	1.761	39.907	1.80	39.20	-2.17	1.80	±5	2022/1/7
2600	22.2	1.895	38.224	1.96	39.00	-3.32	-1.99	±5	2021/11/28
2600	22.5	1.899	38.674	1.96	39.00	-3.11	-0.84	±5	2021/11/29
2600	22.4	1.993	38.368	1.96	39.00	1.68	-1.62	±5	2021/12/2
2600	22.7	1.920	37.866	1.96	39.00	-2.04	-2.91	±5	2021/12/9
2600	22.5	1.979	39.366	1.96	39.00	0.97	0.94	±5	2021/12/17
2600	22.2	1.985	39.040	1.96	39.00	1.28	0.10	±5	2021/12/18
2600	22.5	1.978	38.963	1.96	39.00	0.92	-0.09	±5	2021/12/27
2600	22.5	1.988	39.136	1.96	39.00	1.43	0.35	±5	2021/11/30
2600	22.5	1.990	39.146	1.96	39.00	1.53	0.37	±5	2021/12/1
2600	22.8	1.929	39.377	1.96	39.00	-1.58	0.97	±5	2021/12/23
2600	22.5	2.003	38.855	1.96	39.00	2.19	-0.37	±5	2021/12/24
3500	22.1	2.930	37.497	2.91	37.90	0.69	-1.06	±5	2021/12/2
3500	22.6	2.925	37.467	2.91	37.90	0.52	-1.14	±5	2021/12/3
3500	22.6	3.011	38.533	2.91	37.90	3.47	1.67	±5	2021/12/4
3500	22.4	2.964	37.921	2.91	37.90	1.86	0.06	±5	2021/12/6
3500	22.7	2.994	38.236	2.91	37.90	2.89	0.89	±5	2021/12/7
3500	22.8	2.919	37.437	2.91	37.90	0.31	-1.22	±5	2021/12/12
3500	22.6	2.901	37.347	2.91	37.90	-0.31	-1.46	±5	2021/12/26
3700	22.6	3.170	38.295	3.12	37.70	1.60	1.58	±5	2021/12/4
3700	22.4	3.124	37.351	3.12	37.70	0.13	-0.93	±5	2021/12/6
3700	22.7	3.155	37.666	3.12	37.70	1.12	-0.09	±5	2021/12/7
3700	22.8	3.103	37.138	3.12	37.70	-0.54	-1.49	±5	2021/12/12
3700	22.5	3.095	37.098	3.12	37.70	-0.80	-1.60	±5	2021/12/14
3700	22.6	3.084	37.048	3.12	37.70	-1.15	-1.73	±5	2021/12/26
3900	22.1	3.316	36.920	3.33	37.51	-0.42	-1.57	±5	2021/12/2
3900	22.6	3.310	36.890	3.33	37.51	-0.60	-1.65	±5	2021/12/3
3900	22.4	3.389	37.053	3.33	37.51	1.77	-1.22	±5	2021/12/6
5250	22.4	4.594	35.871	4.71	35.95	-2.46	-0.22	±5	2021/12/20
5250	22.6	4.706	36.778	4.71	35.95	-0.08	2.30	±5	2021/12/30
5250	22.1	4.748	36.596	4.71	35.95	0.81	1.80	±5	2022/1/1
5250	22.4	4.753	36.613	4.71	35.95	0.91	1.84	±5	2022/1/4
5250	22.6	4.787	36.929	4.71	35.95	1.63	2.72	±5	2022/1/5
5250	22.7	4.765	36.797	4.71	35.95	1.17	2.36	±5	2022/1/6
5250	22.5	4.693	36.549	4.71	35.95	-0.36	1.67	±5	2022/1/7
5250	22.9	4.733	37.303	4.71	35.95	0.49	3.76	±5	2022/1/9
5600	22.4	5.099	36.215	5.07	35.50	0.57	2.01	±5	2021/12/28
5600	22.6	5.104	36.231	5.07	35.50	0.67	2.06	±5	2021/12/30
5600	22.1	5.148	36.048	5.07	35.50	1.54	1.54	±5	2022/1/1
5600	22.4	5.153	36.065	5.07	35.50	1.64	1.59	±5	2022/1/4
5600	22.6	5.189	36.381	5.07	35.50	2.35	2.48	±5	2022/1/5
5600	22.7	5.166	36.250	5.07	35.50	1.89	2.11	±5	2022/1/6
5600	22.5	5.089	36.002	5.07	35.50	0.37	1.41	±5	2022/1/7
5600	22.9	5.069	36.848	5.07	35.50	-0.02	3.80	±5	2022/1/9
5750	22.4	5.254	36.023	5.22	35.35	0.65	1.90	±5	2021/12/28
5750	22.6	5.259	36.039	5.22	35.35	0.75	1.95	±5	2021/12/30
5750	22.1	5.304	35.856	5.22	35.35	1.61	1.43	±5	2022/1/1

5750	22.4	5.310	35.873	5.22	35.35	1.72	1.48	±5	2022/1/4
5750	22.6	5.347	36.189	5.22	35.35	2.43	2.37	±5	2022/1/5
5750	22.7	5.323	36.058	5.22	35.35	1.97	2.00	±5	2022/1/6
5750	22.5	5.244	35.810	5.22	35.35	0.46	1.30	±5	2022/1/7
5850	22.1	5.521	36.207	5.32	35.25	3.78	2.71	±5	2022/1/4
5850	22.3	5.494	36.032	5.32	35.25	3.27	2.22	±5	2022/1/6
5850	22.6	5.478	35.982	5.32	35.25	2.97	2.08	±5	2022/1/7
5850	22.9	5.293	36.480	5.32	35.25	-0.51	3.49	±5	2022/1/9
6500	22.1	5.950	33.950	6.07	34.50	-1.98	-1.59	±5	2022/1/6

5.2 System Performance Check Results

Comparing to the original SAR value provided by SPEAG, the verification data should be within its specification of 10 %. Below table shows the target SAR and measured SAR after normalized to 1W input power. The table below indicates the system performance check can meet the variation criterion.

Test Site	Date	Frequency (MHz)	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 1g SAR (W/kg)	Targeted 1g SAR (W/kg)	Normalized 1g SAR (W/kg)	Deviation (%)	Measured 10g SAR (W/kg)	Targeted 10g SAR (W/kg)	Normalized 10g SAR (W/kg)	Deviation (%)
SAR09	2021/11/30	750	50	D750V3-1012	EX3DV4 - SN3728	DAE4 Sn1424	0.399	8.56	7.98	-6.78	0.262	5.56	5.24	-5.76
SAR09	2021/12/1	750	50	D750V3-1012	EX3DV4 - SN3728	DAE4 Sn1424	0.413	8.56	8.26	-3.50	0.271	5.56	5.42	-2.52
SAR09	2021/12/3	750	250	D750V3-1012	EX3DV4 - SN3728	DAE4 Sn1424	2.11	8.56	8.44	-1.40	1.43	5.56	5.72	2.88
SAR09	2021/12/6	750	250	D750V3-1012	ES3DV3 - SN3184	DAE4 Sn1424	2.07	8.56	8.28	-3.27	1.38	5.56	5.52	-0.72
SAR09	2021/12/8	750	250	D750V3-1012	ES3DV3 - SN3184	DAE4 Sn1424	2.19	8.56	8.76	2.34	1.45	5.56	5.8	4.32
SAR09	2021/12/11	750	250	D750V3-1107	ES3DV3 - SN3184	DAE4 Sn1424	1.93	8.32	7.72	-7.21	1.33	5.61	5.32	-5.17
SAR09	2021/12/12	750	250	D750V3-1107	ES3DV3 - SN3184	DAE4 Sn1424	2.09	8.32	8.36	0.48	1.42	5.61	5.68	1.25
SAR08	2021/12/25	750	50	D750V3-1012	EX3DV4 - SN7625	DAE4 Sn1512	0.433	8.56	8.66	1.17	0.285	5.56	5.7	2.52
SAR08	2021/12/27	750	50	D750V3-1012	EX3DV4 - SN7625	DAE4 Sn1512	0.439	8.56	8.78	2.57	0.289	5.56	5.78	3.96
SAR12	2022/1/20	750	250	D750V3-1107	ES3DV3 - SN3184	DAE4 Sn699	2.18	8.32	8.72	4.81	1.49	5.61	5.96	6.24
SAR09	2021/12/3	750	250	D750V3-1012	ES3DV3 - SN3184	DAE4 Sn1424	2.070	8.56	8.28	-3.27	1.380	5.56	5.52	-0.72
SAR09	2021/12/5	750	250	D750V3-1012	ES3DV3 - SN3184	DAE4 Sn1424	2.130	8.56	8.52	-0.47	1.430	5.56	5.72	2.88
SAR09	2021/12/6	750	250	D750V3-1012	ES3DV3 - SN3184	DAE4 Sn1424	2.070	8.56	8.28	-3.27	1.380	5.56	5.52	-0.72
SAR09	2021/11/28	835	50	D835V2-499	EX3DV4 - SN3728	DAE4 Sn1424	0.461	9.68	9.22	-4.75	0.299	6.28	5.98	-4.78
SAR09	2021/11/29	835	250	D835V2-499	EX3DV4 - SN3728	DAE4 Sn1424	2.35	9.68	9.4	-2.89	1.55	6.28	6.2	-1.27
SAR09	2021/12/4	835	250	D835V2-499	EX3DV4 - SN3728	DAE4 Sn1424	2.36	9.68	9.44	-2.48	1.56	6.28	6.24	-0.64
SAR09	2021/12/4	835	250	D835V2-499	ES3DV3 - SN3184	DAE4 Sn1424	2.21	9.68	8.84	-8.68	1.49	6.28	5.96	-5.10
SAR08	2021/12/10	835	250	D835V2-499	EX3DV4 - SN7625	DAE4 Sn1512	2.31	9.68	9.24	-4.55	1.49	6.28	5.96	-5.10
SAR09	2021/12/11	835	250	D835V2-499	ES3DV3 - SN3184	DAE4 Sn1424	2.38	9.68	9.52	-1.65	1.56	6.28	6.24	-0.64
SAR09	2021/12/12	835	250	D835V2-499	ES3DV3 - SN3184	DAE4 Sn1424	2.40	9.68	9.6	-0.83	1.57	6.28	6.28	0.00
SAR08	2021/12/25	835	250	D835V2-499	EX3DV4 - SN7625	DAE4 Sn1512	2.30	9.68	9.2	-4.96	1.49	6.28	5.96	-5.10
SAR09	2021/11/28	835	50	D835V2-499	EX3DV4 - SN3728	DAE4 Sn1424	0.461	9.68	9.22	-4.75	0.299	6.28	5.98	-4.78
SAR09	2021/12/3	835	250	D835V2-499	ES3DV3 - SN3184	DAE4 Sn1424	2.210	9.68	8.84	-8.68	1.490	6.28	5.96	-5.10
SAR09	2021/12/4	835	250	D835V2-499	EX3DV4 - SN3728	DAE4 Sn1424	2.360	9.68	9.44	-2.48	1.560	6.28	6.24	-0.64
SAR09	2021/12/4	835	250	D835V2-499	ES3DV3 - SN3184	DAE4 Sn1424	2.210	9.68	8.84	-8.68	1.490	6.28	5.96	-5.10
SAR09	2021/12/5	1750	250	D1750V2-1112	ES3DV3 - SN3184	DAE4 Sn1424	8.29	36.70	33.16	-9.65	4.60	19.40	18.4	-5.15
SAR09	2021/12/7	1750	250	D1750V2-1112	ES3DV3 - SN3184	DAE4 Sn1424	9.17	36.70	36.68	-0.05	4.95	19.40	19.8	2.06
SAR08	2021/12/7	1750	50	D1750V2-1112	EX3DV4 - SN7625	DAE4 Sn1512	1.94	36.70	38.8	5.72	1.01	19.40	20.2	4.12
SAR08	2021/12/12	1750	50	D1750V2-1112	EX3DV4 - SN7625	DAE4 Sn1512	1.70	36.70	34	-7.36	0.913	19.40	18.26	-5.88
SAR08	2021/12/13	1750	250	D1750V2-1112	EX3DV4 - SN7625	DAE4 Sn1512	8.76	36.70	35.04	-4.52	4.63	19.40	18.52	-4.54
SAR08	2021/12/15	1750	250	D1750V2-1112	EX3DV4 - SN7625	DAE4 Sn1512	8.74	36.70	34.96	-4.74	4.61	19.40	18.44	-4.95
SAR08	2021/12/16	1750	250	D1750V2-1112	EX3DV4 - SN7625	DAE4 Sn1512	9.56	36.70	38.24	4.20	5.02	19.40	20.08	3.51
SAR09	2021/12/2	1900	50	D1900V2-5d185	EX3DV4 - SN3728	DAE4 Sn1424	1.93	39.40	38.6	-2.03	0.998	20.50	19.96	-2.63
SAR09	2021/12/5	1900	250	D1900V2-5d185	ES3DV3 - SN3184	DAE4 Sn1424	9.54	39.40	38.16	-3.15	5.07	20.50	20.28	-1.07
SAR08	2021/12/5	1900	250	D1900V2-5d185	EX3DV4 - SN7625	DAE4 Sn1512	9.99	39.40	39.96	1.42	5.14	20.50	20.56	0.29
SAR08	2021/12/6	1900	250	D1900V2-5d185	EX3DV4 - SN7625	DAE4 Sn1512	10.00	39.40	40	1.52	5.16	20.50	20.64	0.68
SAR09	2021/12/9	1900	250	D1900V2-5d185	ES3DV3 - SN3184	DAE4 Sn1424	9.54	39.40	38.16	-3.15	5.07	20.50	20.28	-1.07
SAR08	2021/12/10	1900	250	D1900V2-5d185	EX3DV4 - SN7625	DAE4 Sn1512	10.10	39.40	40.4	2.54	5.18	20.50	20.72	1.07
SAR08	2021/12/11	1900	250	D1900V2-5d185	EX3DV4 - SN7625	DAE4 Sn1512	10.40	39.40	41.6	5.58	5.34	20.50	21.36	4.20
SAR08	2021/12/14	1900	50	D1900V2-5d185	EX3DV4 - SN7625	DAE4 Sn1512	2.13	39.40	42.6	8.12	1.09	20.50	21.8	6.34
SAR08	2021/12/15	1900	50	D1900V2-5d185	EX3DV4 - SN7625	DAE4 Sn1512	1.80	39.40	36	-8.63	0.939	20.50	18.78	-8.39
SAR11	2021/11/28	2300	250	D2300V2-1006	ES3DV3 - SN3270	DAE4 Sn316	11.70	48.70	46.8	-3.90	5.61	23.20	22.44	-3.28
SAR11	2021/11/29	2300	50	D2300V2-1006	ES3DV3 - SN3270	DAE4 Sn316	2.59	48.70	51.8	6.37	1.21	23.20	24.2	4.31
SAR08	2021/12/8	2300	250	D2300V2-1006	EX3DV4 - SN7625	DAE4 Sn1512	11.70	48.70	46.8	-3.90	5.58	23.20	22.32	-3.79
SAR09	2021/12/13	2300	250	D2300V2-1006	ES3DV3 - SN3184	DAE4 Sn1424	11.50	48.70	46	-5.54	5.64	23.20	22.56	-2.76
SAR08	2021/12/16	2300	250	D2300V2-1006	EX3DV4 - SN7625	DAE4 Sn1512	11.60	48.70	46.4	-4.72	5.57	23.20	22.28	-3.97
SAR08	2021/12/24	2300	50	D2300V2-1006	EX3DV4 - SN7625	DAE4 Sn1512	2.55	48.70	51	4.72	1.24	23.20	24.8	6.90

SAR08	2021/12/27	2300	250	D2300V2-1006	EX3DV4 - SN7625	DAE4 Sn1512	12.00	48.70	48	-1.44	5.75	23.20	23	-0.86
SAR11	2021/12/20	2450	250	D2450V2-929	ES3DV3 - SN3270	DAE4 Sn316	13.600	53.10	54.4	2.45	6.520	24.70	26.08	5.59
SAR11	2021/12/21	2450	250	D2450V2-929	ES3DV3 - SN3270	DAE4 Sn316	13.600	53.10	54.4	2.45	6.280	24.70	25.12	1.70
SAR11	2022/1/2	2450	250	D2450V2-736	ES3DV3 - SN3270	DAE4 Sn316	14.400	54.20	57.6	6.27	6.810	25.30	27.24	7.67
SAR08	2022/1/4	2450	50	D2450V2-929	EX3DV4 - SN7625	DAE4 Sn1512	2.450	53.10	49	-7.72	1.150	24.70	23	-6.88
SAR11	2022/1/5	2450	250	D2450V2-736	ES3DV3 - SN3270	DAE4 Sn316	14.300	54.20	57.2	5.54	6.760	25.30	27.04	6.88
SAR08	2022/1/5	2450	50	D2450V2-736	EX3DV4 - SN7346	DAE4 Sn1512	2.510	54.20	50.2	-7.38	1.170	25.30	23.4	-7.51
SAR08	2022/1/6	2450	50	D2450V2-736	EX3DV4 - SN7346	DAE4 Sn1512	2.500	54.20	50	-7.75	1.170	25.30	23.4	-7.51
SAR11	2022/1/7	2450	250	D2450V2-929	ES3DV3 - SN3270	DAE4 Sn316	13.300	53.10	53.2	0.19	6.370	24.70	25.48	3.16
SAR11	2021/11/28	2600	250	D2600V2-1078	ES3DV3 - SN3270	DAE4 Sn316	13.40	57.60	53.6	-6.94	6.01	25.50	24.04	-5.73
SAR11	2021/11/29	2600	50	D2600V2-1078	ES3DV3 - SN3270	DAE4 Sn316	3.05	57.60	61	5.90	1.38	25.50	27.6	8.24
SAR09	2021/12/2	2600	50	D2600V2-1078	EX3DV4 - SN3728	DAE4 Sn1424	2.78	57.60	55.6	-3.47	1.26	25.50	25.2	-1.18
SAR08	2021/12/9	2600	250	D2600V2-1078	EX3DV4 - SN7625	DAE4 Sn1512	14.50	57.60	58	0.69	6.60	25.50	26.4	3.53
SAR08	2021/12/17	2600	50	D2600V2-1008	EX3DV4 - SN7625	DAE4 Sn1512	3.12	58.00	62.4	7.59	1.39	25.80	27.8	7.75
SAR08	2021/12/18	2600	50	D2600V2-1008	EX3DV4 - SN7625	DAE4 Sn1512	3.13	58.00	62.6	7.93	1.41	25.80	28.2	9.30
SAR08	2021/12/27	2600	50	D2600V2-1078	EX3DV4 - SN7625	DAE4 Sn1512	2.64	57.60	52.8	-8.33	1.19	25.50	23.8	-6.67
SAR08	2021/11/30	2600	50	D2600V2-1008	EX3DV4 - SN3976	DAE3 Sn577	2.820	58.00	56.4	-2.76	1.290	25.80	25.8	0.00
SAR08	2021/12/1	2600	50	D2600V2-1008	EX3DV4 - SN3976	DAE3 Sn577	2.940	58.00	58.8	1.38	1.360	25.80	27.2	5.43
SAR11	2021/12/23	2600	250	D2600V2-1078	ES3DV3 - SN3270	DAE4 Sn316	15.000	57.60	60	4.17	6.700	25.50	26.8	5.10
SAR09	2021/12/24	2600	250	D2600V2-1078	ES3DV3 - SN3184	DAE4 Sn1424	14.800	57.60	59.2	2.78	6.830	25.50	27.32	7.14
SAR08	2021/12/2	3500	100	D3500V2-1014	EX3DV4 - SN7625	DAE4 Sn1512	6.33	67.90	63.3	-6.77	2.36	25.60	23.6	-7.81
SAR08	2021/12/3	3500	100	D3500V2-1014	EX3DV4 - SN7625	DAE4 Sn1512	6.58	67.90	65.8	-3.09	2.45	25.60	24.5	-4.30
SAR12	2021/12/4	3500	50	D3500V2-1014	EX3DV4 - SN3976	DAE3 Sn577	3.38	67.90	67.6	-0.44	1.28	25.60	25.6	0.00
SAR15	2021/12/6	3500	100	D3500V2-1014	EX3DV4 - SN3931	DAE4 Sn699	6.96	67.90	69.6	2.50	2.59	25.60	25.9	1.17
SAR15	2021/12/7	3500	50	D3500V2-1014	EX3DV4 - SN3931	DAE4 Sn699	3.60	67.90	72	6.04	1.36	25.60	27.2	6.25
SAR08	2021/12/12	3500	100	D3500V2-1014	EX3DV4 - SN7625	DAE4 Sn1512	6.57	67.90	65.7	-3.24	2.45	25.60	24.5	-4.30
SAR08	2021/12/26	3500	100	D3500V2-1014	EX3DV4 - SN7625	DAE4 Sn1512	6.53	67.90	65.3	-3.83	2.43	25.60	24.3	-5.08
SAR12	2021/12/4	3700	50	D3700V2-1006	EX3DV4 - SN3976	DAE3 Sn577	3.36	67.30	67.2	-0.15	1.24	24.50	24.8	1.22
SAR15	2021/12/6	3700	50	D3700V2-1006	EX3DV4 - SN3931	DAE4 Sn699	3.33	67.30	66.6	-1.04	1.22	24.50	24.4	-0.41
SAR15	2021/12/7	3700	50	D3700V2-1006	EX3DV4 - SN3931	DAE4 Sn699	3.36	67.30	67.2	-0.15	1.24	24.50	24.8	1.22
SAR08	2021/12/12	3700	100	D3700V2-1006	EX3DV4 - SN7625	DAE4 Sn1512	6.84	67.30	68.4	1.63	2.45	24.50	24.5	0.00
SAR08	2021/12/14	3700	100	D3700V2-1006	EX3DV4 - SN7625	DAE4 Sn1512	6.82	67.30	68.2	1.34	2.45	24.50	24.5	0.00
SAR08	2021/12/26	3700	100	D3700V2-1006	EX3DV4 - SN7625	DAE4 Sn1512	6.80	67.30	68	1.04	2.44	24.50	24.4	-0.41
SAR08	2021/12/2	3900	100	D3900V2-1017-3900	EX3DV4 - SN7625	DAE4 Sn1512	7.09	69.50	70.9	2.01	2.45	24.20	24.5	1.24
SAR08	2021/12/3	3900	100	D3900V2-1017-3900	EX3DV4 - SN7625	DAE4 Sn1512	7.07	69.50	70.7	1.73	2.44	24.20	24.4	0.83
SAR15	2021/12/6	3900	100	D3900V2-1017-3900	EX3DV4 - SN3931	DAE4 Sn699	7.11	69.50	71.1	2.30	2.57	24.20	25.7	6.20
SAR12	2021/12/20	5250	100	D5GHzV2-1006-5250	EX3DV4 - SN3642	DAE4 Sn656	8.470	81.70	84.7	3.67	2.400	23.20	24	3.45
SAR14	2021/12/30	5250	100	D5GHzV2-1006-5250	EX3DV4 - SN3931	DAE4 Sn1399	8.430	81.70	84.3	3.18	2.390	23.20	23.9	3.02
SAR14	2022/1/1	5250	100	D5GHzV2-1006-5250	EX3DV4 - SN3931	DAE4 Sn1399	8.500	81.70	85	4.04	2.410	23.20	24.1	3.88
SAR14	2022/1/4	5250	100	D5GHzV2-1006-5250	EX3DV4 - SN3931	DAE4 Sn1399	8.510	81.70	85.1	4.16	2.420	23.20	24.2	4.31
SAR14	2022/1/5	5250	100	D5GHzV2-1006-5250	EX3DV4 - SN3931	DAE4 Sn1399	8.570	81.70	85.7	4.90	2.430	23.20	24.3	4.74
SAR14	2022/1/6	5250	50	D5GHzV2-1006-5250	EX3DV4 - SN3931	DAE4 Sn1399	3.970	81.70	79.4	-2.82	1.140	23.20	22.8	-1.72
SAR14	2022/1/7	5250	50	D5GHzV2-1006-5250	EX3DV4 - SN3931	DAE4 Sn1399	3.910	81.70	78.2	-4.28	1.120	23.20	22.4	-3.45
SAR12	2022/1/9	5250	100	D5GHzV2-1006-5250	EX3DV4 - SN3642	DAE4 Sn699	8.900	81.70	89	8.94	2.550	23.20	25.5	9.91
SAR14	2021/12/28	5600	100	D5GHzV2-1006-5600	EX3DV4 - SN3931	DAE4 Sn1399	8.940	85.10	89.4	5.05	2.520	24.00	25.2	5.00
SAR14	2021/12/30	5600	100	D5GHzV2-1006-5600	EX3DV4 - SN3931	DAE4 Sn1399	8.950	85.10	89.5	5.17	2.530	24.00	25.3	5.42
SAR14	2022/1/1	5600	100	D5GHzV2-1006-5600	EX3DV4 - SN3931	DAE4 Sn1399	9.030	85.10	90.3	6.11	2.550	24.00	25.5	6.25
SAR14	2022/1/4	5600	100	D5GHzV2-1006-5600	EX3DV4 - SN3931	DAE4 Sn1399	9.040	85.10	90.4	6.23	2.550	24.00	25.5	6.25
SAR14	2022/1/5	5600	100	D5GHzV2-1006-5600	EX3DV4 - SN3931	DAE4 Sn1399	9.100	85.10	91	6.93	2.570	24.00	25.7	7.08
SAR14	2022/1/6	5600	50	D5GHzV2-1006-5600	EX3DV4 - SN3931	DAE4 Sn1399	4.310	85.10	86.2	1.29	1.240	24.00	24.8	3.33
SAR14	2022/1/7	5600	50	D5GHzV2-1006-5600	EX3DV4 - SN3931	DAE4 Sn1399	4.240	85.10	84.8	-0.35	1.220	24.00	24.4	1.67
SAR12	2022/1/9	5600	100	D5GHzV2-1006-5600	EX3DV4 - SN3642	DAE4 Sn699	9.020	85.10	90.2	5.99	2.500	24.00	25	4.17
SAR14	2021/12/28	5750	100	D5GHzV2-1006-5750	EX3DV4 - SN3931	DAE4 Sn1399	8.550	81.40	85.5	5.04	2.400	22.90	24	4.80
SAR14	2021/12/30	5750	100	D5GHzV2-1006-5750	EX3DV4 - SN3931	DAE4 Sn1399	8.560	81.40	85.6	5.16	2.410	22.90	24.1	5.24
SAR14	2022/1/1	5750	100	D5GHzV2-1006-5750	EX3DV4 - SN3931	DAE4 Sn1399	8.630	81.40	86.3	6.02	2.430	22.90	24.3	6.11

SAR14	2022/1/4	5750	100	D5GHzV2-1006-5750	EX3DV4 - SN3931	DAE4 Sn1399	8.640	81.40	86.4	6.14	2.430	22.90	24.3	6.11
SAR14	2022/1/5	5750	100	D5GHzV2-1006-5750	EX3DV4 - SN3931	DAE4 Sn1399	8.700	81.40	87	6.88	2.450	22.90	24.5	6.99
SAR14	2022/1/6	5750	100	D5GHzV2-1006-5750	EX3DV4 - SN3931	DAE4 Sn1399	8.060	81.40	80.6	-0.98	2.300	22.90	23	0.44
SAR14	2022/1/7	5750	100	D5GHzV2-1006-5750	EX3DV4 - SN3931	DAE4 Sn1399	7.940	81.40	79.4	-2.46	2.270	22.90	22.7	-0.87
SAR12	2022/1/4	5850	100	D5GHzV2-1171-5850	EX3DV4 - SN3642	DAE4 Sn656	7.730	82.30	77.3	-6.08	2.160	23.10	21.6	-6.49
SAR12	2022/1/6	5850	100	D5GHzV2-1171-5850	EX3DV4 - SN3642	DAE4 Sn656	7.880	82.30	78.8	-4.25	2.190	23.10	21.9	-5.19
SAR12	2022/1/7	5850	100	D5GHzV2-1171-5850	EX3DV4 - SN3642	DAE4 Sn699	8.150	82.30	81.5	-0.97	2.270	23.10	22.7	-1.73
SAR12	2022/1/9	5850	100	D5GHzV2-1171-5850	EX3DV4 - SN3642	DAE4 Sn699	7.880	82.30	78.8	-4.25	2.190	23.10	21.9	-5.19
SAR13	2022/1/6	6500	100	D6.5GHzV2-1003	EX3DV4 - SN3728	DAE3 Sn577	28.100	292.00	281	-3.77	5.270	53.80	52.7	-2.04

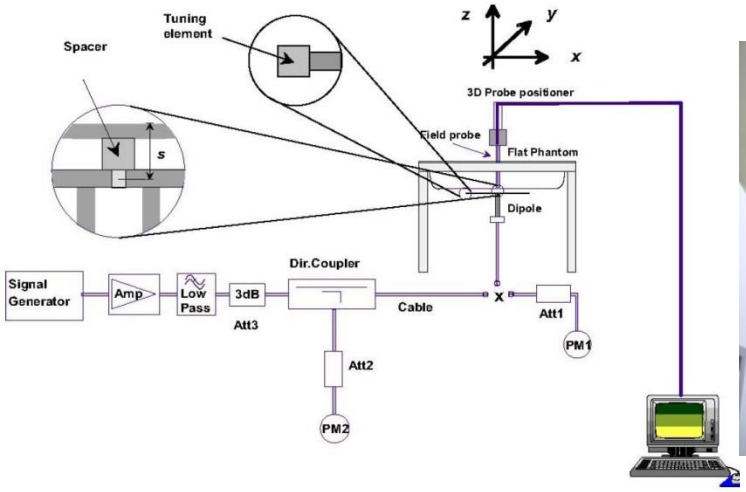

Fig 8.3.1 System Performance Check Setup

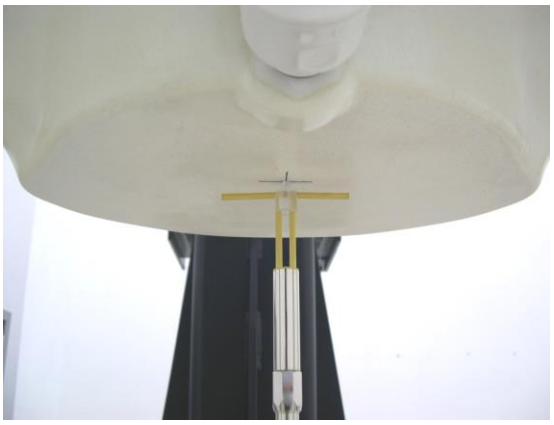

Fig 8.3.2 Setup Photo

6. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
SPEAG	750MHz System Validation Kit	D750V3	1012	Aug. 18, 2021	Aug. 17, 2022
SPEAG	750MHz System Validation Kit(2)	D750V3	1107	Mar. 08, 2019	Mar. 05, 2022
SPEAG	835MHz System Validation Kit	D835V2	499	Aug. 18, 2021	Aug. 17, 2022
SPEAG	1750MHz System Validation Kit(2)	D1750V2	1112	Mar. 07, 2019	Mar. 04, 2022
SPEAG	1900MHz System Validation Kit(2)	D1900V2	5d185	Mar. 07, 2019	Mar. 04, 2022
SPEAG	2300MHz System Validation Kit(2)	D2300V2	1006	Jan. 28, 2019	Jan. 25, 2022
SPEAG	2450MHz System Validation Kit	D2450V2	736	Aug. 17, 2021	Aug. 17, 2022
SPEAG	2450MHz System Validation Kit(2)	D2450V2	929	Nov. 21, 2019	Nov. 18, 2022
SPEAG	2600MHz System Validation Kit	D2600V2	1008	Aug. 17, 2021	Aug. 16, 2022
SPEAG	2600MHz System Validation Kit(2)	D2600V2	1078	Mar. 06, 2019	Mar. 03, 2022
SPEAG	3500MHz System Validation Kit(2)	D3500V2	1014	Jan. 29, 2019	Jan. 26, 2022
SPEAG	3700MHz System Validation Kit(2)	D3700V2	1006	Mar. 05, 2019	Mar. 02, 2022
SPEAG	3900MHz System Validation Kit(2)	D3900V2	1017	Apr. 29, 2019	Apr. 26, 2022
SPEAG	5GHz System Validation Kit	D5GHzV2	1006	Sep. 15, 2021	Sep. 14, 2022
SPEAG	5GHz System Validation Kit	D5GHzV2	1171	Apr. 20, 2021	Apr. 19, 2022
SPEAG	6500MHz System Validation Kit	D6.5GHzV2	1003	Sep. 24, 2021	Sep. 23, 2022
SPEAG	Data Acquisition Electronics	DAE3	577	Sep. 15, 2021	Sep. 14, 2022
SPEAG	Data Acquisition Electronics	DAE4	316	Jan. 19, 2021	Jan. 18, 2022
SPEAG	Data Acquisition Electronics	DAE4	656	Jan. 22, 2021	Jan. 21, 2022
SPEAG	Data Acquisition Electronics	DAE4	699	Feb. 16, 2021	Feb. 15, 2022
SPEAG	Data Acquisition Electronics	DAE4	1399	Feb. 16, 2021	Feb. 15, 2022
SPEAG	Data Acquisition Electronics	DAE4	1424	Jan. 19, 2021	Jan. 18, 2022
SPEAG	Data Acquisition Electronics	DAE4	1512	Feb. 11, 2021	Feb. 10, 2022
SPEAG	Dosimetric E-Field Probe	ES3DV3	3184	Sep. 23, 2021	Sep. 22, 2022
SPEAG	Dosimetric E-Field Probe	ES3DV3	3270	Sep. 21, 2021	Sep. 20, 2022
SPEAG	Dosimetric E-Field Probe	EX3DV4	3642	Apr. 26, 2021	Apr. 25, 2022
SPEAG	Dosimetric E-Field Probe	EX3DV4	3728	Feb. 23, 2021	Feb. 22, 2022
SPEAG	Dosimetric E-Field Probe	EX3DV4	3931	Oct. 21, 2021	Oct. 20, 2022
SPEAG	Dosimetric E-Field Probe	EX3DV4	3976	Jan. 27, 2021	Jan. 26, 2022
SPEAG	Dosimetric E-Field Probe	EX3DV4	7306	Jul. 26, 2021	Jul. 25, 2022
SPEAG	Dosimetric E-Field Probe	EX3DV4	7346	Jun. 25, 2021	Jun. 24, 2022
SPEAG	Dosimetric E-Field Probe	EX3DV4	7625	Jan. 19, 2021	Jan. 18, 2022
Testo	Hygro meter	608-H1	45196600	Oct. 22, 2021	Oct. 21, 2022
Testo	Hygro meter	608-H1	45207528	Oct. 22, 2021	Oct. 21, 2022
RCPTWN	Thermometer	HTC-1	TM685-1	Oct. 28, 2021	Oct. 27, 2022
RCPTWN	Thermometer	HTC-1	TM560-2	Oct. 28, 2021	Oct. 27, 2022
Anritsu	Radio Communication Analyzer	MT8821C	6201074414	Jul. 21, 2021	Jul. 20, 2022
Anritsu	Radio Communication Analyzer	MT8820C	6201381766	Jul. 21, 2021	Jul. 20, 2022
Anritsu	Radio Communication Analyzer	MT8821C	6201341950	Oct. 21, 2021	Oct. 20, 2022
Keysight	Wireless Communication Test Set	E5515C	MY50266977	May. 12, 2021	May. 11, 2022
SPEAG	Device Holder	N/A	N/A	N/A	N/A
Anritsu	Signal Generator	MG3710A	6201502524	Oct. 24, 2021	Oct. 23, 2022
Keysight	ENA Network Analyzer	E5071C	MY46104758	Sep. 07, 2021	Sep. 06, 2022
SPEAG	Dielectric Probe Kit	DAK-3.5	1126	Sep. 24, 2021	Sep. 23, 2022
LINE SEIKI	Digital Thermometer	DTM3000-spezial	2942	Oct. 26, 2021	Oct. 25, 2022

Anritsu	Power Meter	ML2495A	1419002	Aug. 18, 2021	Aug. 17, 2022
Anritsu	Power Sensor	MA2411B	1911176	Aug. 18, 2021	Aug. 17, 2022
Anritsu	Power Meter	ML2495A	1804003	Oct. 09, 2021	Oct. 08, 2022
Anritsu	Power Sensor	MA2411B	1726150	Oct. 09, 2021	Oct. 08, 2022
Anritsu	Spectrum Analyzer	MS2830A	6201396378	Jul. 16, 2021	Jul. 15, 2022
Agilent	Spectrum Analyzer	E4408B	MY44211028	Aug. 19, 2021	Aug. 18, 2022
Mini-Circuits	Power Amplifier	ZVE-8G+	6418	Oct. 12, 2021	Oct. 11, 2022
Mini-Circuits	Power Amplifier	ZVE-8G+	479102029	Sep. 06, 2021	Sep. 05, 2022
Custom Microwave	Standard Horn antenna	M15RH	V91113-A	NCR	NCR
ATM	Dual Directional Coupler	C122H-10	P610410z-02	Note 1	
Warison	Directional Coupler	WCOU-10-50S-10	WR889BMC4B1	Note 1	
Woken	Attenuator 1	WK0602-XX	N/A	Note 1	
PE	Attenuator 2	PE7005-10	N/A	Note 1	
PE	Attenuator 3	PE7005- 3	N/A	Note 1	

General Note:

1. Prior to system verification and validation, the path loss from the signal generator to the system check source and the power meter, which includes the amplifier, cable, attenuator and directional coupler, was measured by the network analyzer. The reading of the power meter was offset by the path loss difference between the path to the power meter and the path to the system check source to monitor the actual power level fed to the system check source.
2. The dipole calibration interval can be extended to 3 years with justification according to KDB 865664 D01. The dipoles are also not physically damaged, or repaired during the interval. The justification data in appendix C can be found which the return loss is < -20dB, within 20% of prior calibration, the impedance is within 5 ohm of prior calibration for each dipole.