FCC SAR TEST REPORT

FCC ID	:	**A4RG45RY**
Equipment	:	**Phone**
Model Name	:	**G45RY, GYPW4**
Applicant	:	**Google LLC 1600 Amphitheatre Parkway, Mountain View, CA, 94043 USA**
Standard	:	**FCC 47 CFR Part 2 (2.1093)**

The product was received on Dec. 09, 2024 and testing was started from Jan. 17, 2025 and completed on Apr. 30, 2025. 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. 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

Report No.	Version	Description	Issued Date
FA4N0918-01B	01	Initial issue of report	May 05, 2025
FA4N0918-01B	02	Update section 2.2, 3	May 06, 2025
FA4N0918-01B	03	1. Update section 2.2, 3 2. Update appendix D	May 12, 2025

1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) for Google LLC, Phone, G45RY, GYPW4, are as follows.

Equipment Class	Frequency Band	Highest SAR Summary				Highest Simultaneous Transmission 1g SAR (W/kg)	Highest Simultaneous Transmission 10g SAR (W/kg)
		Head (Separation 0mm)	Body-worn (Separation 10mm)	Hotspot (Separation 10mm)	Product Specific (Separation 0mm)		
		1g SAR (W/kg)			10g SAR (W/kg)		
Licensed	GSM850	0.99	0.97	0.83		1.59	2.70
	GSM1900	0.35	0.99	0.84	2.49		
	WCDMA II	0.43	0.99	0.85	2.23		
	WCDMA IV	0.38	0.74	0.81	2.39		
	WCDMA V	0.98	0.53	0.53			
	LTE B7	0.71	0.68	0.84	2.49		
	LTE B12/B17	0.97	0.34	0.50			
	LTE B13	0.81	0.53	0.51			
	LTE B14	0.81	0.53	0.50			
	LTE B25/B2	0.91	0.85	0.83	2.35		
	LTE B26/B5	0.91	0.57	0.57			
	LTE B30	0.58	0.83	0.77	2.47		
	LTE B41/B38	0.41	0.57	0.85	2.48		
	LTE B48	0.22	0.36	0.74			
	LTE B66/B4	0.99	0.63	0.84	2.48		
	LTE B71	0.95	0.21	0.32			
	FR1 n7	0.70	0.76	0.81	2.47		
	FR1 n12	0.75	0.35	0.55			
	FR1 n14	0.94	0.55	0.57			
	FR1 n25/n2	0.97	0.81	0.83	2.13		
	FR1 n26/n5	0.82	0.58	0.61			
	FR1 n30	0.50	0.73	0.68			
	FR1 n41/n38	0.87	0.76	0.85			
	FR1 n66	0.99	0.93	0.84			
	FR1 n71	0.99	0.25	0.36			
	FR1 n77/n78	0.89	0.66	0.64			
	NTN B23		0.93		2.45		
	NTN B255		0.91		2.05		
DTS	2.4GHz WLAN	0.75	0.65	0.20		1.58	
NII	5GHz WLAN	0.79	0.78	0.25	2.70	1.59	2.70
6CD	6GHz WLAN	0.75	0.16	0.16	0.67	1.59	2.70
DSS	Bluetooth	0.22	0.29	0.25		1.59	
DTS	Thread	0.22	0.41	0.21		1.57	
DXX	NFC				0.01		2.70
Equipment Class	Frequency Band	Head	Body-worn	Hotspot	Product Specific	Reported PD (mW/cm^2)	
		Reported APD (mW/cm^2)	Reported APD (mW/cm^2)	Reported APD (mW/cm^2)	Reported APD (mW/cm^2)		
6CD	6GHz WLAN	0.46	0.13	0.13	1.59	0.74	
Date of Testing:		2025/1/17 ~ 2025/4/30					

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation and the FCC designation No. TW3786 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC test. This device is in compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1.6 W/kg for Partial-Body 1g SAR, 4.0 W/kg for Product Specific 10g SAR) specified in FCC 47 CFR part 2 (2.1093), Human Exposure to RF Radiation Limits (1.0 mW/cm^2=10 W/m^2) specified in FCC 47 CFR part 1.1310 and ANSI/IEEE C95.1-1992, and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528-2013 and FCC KDB publications.

Reviewed by: Jason Wang
Report Producer: Carlie Tsai

2. Equipment Under Test (EUT) Information

2.1 General Information

Product Feature & Specification	
Equipment Name	Phone
Model Name	G45RY, GYPW4
FCC ID	A4RG45RY
S/N	51061FDCQ000L7, 51061FDCQ000JP, 51101FDCQ0003L, 4B191FDCQ000J6, 4B131FDCQ000GJ
Wireless Technology and Frequency Range	GSM850: 824.2 MHz ~ 848.8 MHz GSM1900: 1850.2 MHz ~ 1909.8 MHz WCDMA Band II: 1850 MHz ~ 1910 MHz WCDMA Band IV: 1710 MHz ~ 1755 MHz WCDMA Band V: 824 MHz ~ 849 MHz LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 13: 777 MHz ~ 787 MHz LTE Band 14: 788 MHz ~ 798 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 25: 1850 MHz ~ 1915 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 30: 2305 MHz ~ 2315 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 48: 3550 MHz ~ 3700 MHz LTE Band 66: 1710 MHz ~ 1780 MHz LTE Band 71: 663 MHz ~ 698 MHz 5G NR n2 : 1850 MHz ~ 1910 MHz 5G NR n5 : 824 MHz ~ 849 MHz 5G NR n7 : 2500 MHz ~ 2570 MHz 5G NR n12 : 699 MHz ~ 716 MHz 5G NR n14 : 788 MHz ~ 798 MHz 5G NR n25 : 1850 MHz ~ 1915 MHz 5G NR n26 : 814 MHz ~ 849 MHz 5G NR n30 : 2305 MHz ~ 2315 MHz 5G NR n38 : 2570 MHz ~ 2620 MHz 5G NR n41 : 2496 MHz ~ 2690 MHz 5G NR n66 : 1710 MHz ~ 1780 MHz 5G NR n71 : 663 MHz ~ 698 MHz 5G NR n77: 3700 MHz ~ 3980 MHz, 3450MHz ~ 3550MHz 5G NR n78: 3700 MHz ~ 3800 MHz, 3450MHz ~ 3550MHz 5G NR n258 : 24.25 GHz~24.45 GHz, 24.75GHz ~25.25GHz 5G NR n260 : 37 GHz~40 GHz 5G NR n261 : 27.5 GHz~28.35 GHz NTN NB IoT B23: 2000 MHz ~2020 MHz NTN NB IoT B255: 1626.5 MHz ~ 1660.5 MHz WLAN 2.4 GHz Band: 2400 MHz ~ 2483.5 MHz WLAN 5.2 GHz Band: 5150 MHz ~ 5250 MHz WLAN 5.3 GHz Band: 5250 MHz ~ 5350 MHz WLAN 5.6 GHz Band: 5470 MHz ~ 5725 MHz WLAN 5.8 GHz Band: 5725 MHz ~ 5850 MHz WLAN 5.9 GHz Band: 5850 MHz ~ 5895 MHz WLAN 6E: 5925 MHz ~ 6425 MHz, 6425 MHz~6525 MHz, 6525 MHz~6875 MHz, 6875 MHz~7125 MHz Bluetooth: 2400 MHz ~ 2483.5 MHz NFC: 13.56 MHz WPC: 110 kHz ~ 148.5 kHz(Rx) UWB: 6489.6 MHz, 7987.2 MHz Thread: 2405 MHz ~ 2480 MHz

Mode	GSM/GPRS/EGPRS UMTS: RMC/AMR 12.2Kbps, HSDPA, HSUPA LTE: QPSK, 16QAM, 64QAM, 256QAM NTN: BPSK, QPSK 5G NR: DFT-s-OFDM/CP-OFDM, Pi/2 BPSK/QPSK/16QAM/64QAM/256QAM WLAN: 802.11a/b/g/n/ac/ax/be HT20/HT40/VHT20/VHT40/VHT80/VHT160/HE20/HE40/HE80/HE160/EHT20/EHT40/EHT80/EHT160 Bluetooth BR/EDR/LE/CS NFC: ASK WPC: ASK UWB: BPM-BPSK/HPSK Thread: QPSK
GSM / (E)GPRS Transfer mode	Class B – EUT cannot support Packet Switched and Circuit Switched Network simultaneously but can automatically switch between Packet and Circuit Switched Network.

Remark:

1. Dynamic antenna tuning mechanism is available at Ant. 0/2, for its < 3GHz LTE and NR band, and the supplemental antenna tuner test results were including in parent model FCC ID: A4RGUL82 Part1 SAR report appendix G, details are illustrated in the operational description.
2. This device WLAN 2.4GHz / 5.2GHz / 5.8GHz and 6GHz VLP supports Hotspot operation and Bluetooth support tethering applications.
3. The device implements the power management and sensor detection for SAR compliance at different exposure conditions (head, body-worn, hotspot and product specific, the TAS feature will manage to ensure the power level not exceeding the associated power table. Also device implement Spatial TAS predefine antenna group to analysis simultaneous transmission include in appendix D.
4. The device implements the sensor detection for SAR compliance and the power verification include in parent model FCC ID: A4RGUL82 Part1 SAR report appendix E.
5. The device additionally supports uplink MIMO on n41/n77/n78, due to UL MIMO antenna operating on different antenna groups, therefore TAS validation is not required.
6. The PC1.5 only support uplink MIMO.
7. The UWB output power is -15.19dBm and it is less than 1mW and exempt from power density testing.

2.2 Maximum Tune-up Limit

General Note:

1. In the report PC3 as power class3, PC2 as power class2, PC1.5 as power class1.5.
2. For each cellular band, the device has several WWAN antennas, the antenna selection is based on the connection quality condition.
3. The following table shows maximum output power configurations for various exposure conditions (output power index) with tune-up tolerance accounted. For TAS enabled bands, the values associate with Plimit plus the total uncertainty, or Pmax plus total uncertainty when the derived Plimit is higher than Pmax. In some frequency bands, for some power indexes which associate with the same power level, conducted power measurement for those only need to perform at once. Detail output power measurement refer to FCC ID: A4RGUL82 Part1 SAR report appendix D.
4. The index 1 is for the max power conditions, and the use case were evaluated in FCC ID: A4RGUL82 Part1 SAR report appendix G.
5. SAR compliance for the scenario, when device in next-to-ear voice call with hotspot enabled, is justified via head SAR test at Power Index 3.
6. The PC1.5 NR SAR was not required, due to PC1.5 operate in the time-averaged and burst transmission power is less than PC2, therefore, only PC2 was performed on the highest SAR test configuration in PC3, and use PC3 power level and SAR to estimated PC2 SAR linearly, and check if the deviation from the measured PC2 SAR is <10%.
7. Thread only transmit on antenna 3 and cannot not transmit with Bluetooth at same time.
8. The PC1.5 only support uplink MIMO configuration, and which per chain target power of uplink MIMO associated with PC2 power level so that the combined total power of uplink MIMO power achieve to Power class 1.5 level

Support transmit antenna and band	
Ant Config Tx0	ANT 0: GSM850, UMTS B5, LTE B5/B12/B13/B14/B17/B26/B71, NR n5/n12/n14/n26/n71
	ANT 1: LTE B2/B4/B25/B66, NR n2/n25/n38/n41/n66/n77/n78, NTN B23
	ANT 2: GSM1900, UMTS B2/B4, LTE B2/B4/B7/B25/B30/B38/B41/B66, NR n2/n7/n25/n30/n38/n41/n66
	ANT 4: NTN B255
	ANT 6: LTE B48, NR n77/n78
Ant Config Tx1	ANT 0: GSM1900, UMTS B2/B4, LTE B2/B4/B7/B25/B30/B38/B41/B66, NR n2/n7/n25/n30/n38/n41/n66
	ANT 1: GSM850, UMTS B5, LTE B5/B12/B13/B14/B17/B26/B71, NR n5/n12/n14/n26/n71
	ANT 5: LTE B2/B4/B25/B66, NR n2/n25n38/n41/n66/n77/n78
	ANT 7: LTE B48, NR n77/n78

Maximum Transmit Burst Average Power (dBm)								
Wireless technology	Mode	Antenna	Maximum Power Condition	Head	Head	Hotspot	Body-worn/Extremity	Body-worn/Extremity
				Standalone	Simultaneous	Simultaneous	Standalone	Simultaneous
			Index 1	Index 2	Index 3	Index 4	Index 5	Index 6
GSM850	GSM 1TX	Ant0	33.50	31.50	30.80	33.50	33.50	33.50
	GPRS 1TX		33.50	33.50	33.50	33.50	33.50	33.50
	GPRS 2TX		32.50	32.50	32.50	31.90	32.50	31.90
	GPRS 3TX		31.50	31.50	31.50	30.10	30.80	30.10
	GPRS 4TX		30.50	30.50	30.50	28.90	29.60	28.90
	EDGE 1TX		27.50	27.50	27.50	27.50	27.50	27.50
	EDGE 2TX		26.50	26.50	26.50	26.50	26.50	26.50
	EDGE 3TX		25.50	25.50	25.50	25.50	25.50	25.50
	EDGE 4TX		24.50	24.50	24.50	24.50	24.50	24.50
GSM850	GSM 1TX	Ant1	33.20	31.20	30.00	33.20	33.20	33.20
	GPRS 1TX		33.20	32.50	31.30	33.20	33.20	33.20
	GPRS 2TX		32.20	29.50	28.30	30.90	31.60	30.90
	GPRS 3TX		31.20	27.70	26.50	29.10	29.80	29.10
	GPRS 4TX		30.20	26.50	25.30	27.90	28.60	27.90
	EDGE 1TX		27.20	27.20	27.20	27.20	27.20	27.20
	EDGE 2TX		26.20	26.20	26.20	26.20	26.20	26.20
	EDGE 3TX		25.20	25.20	25.20	25.20	25.20	25.20
	EDGE 4TX		24.20	24.20	24.20	24.20	24.20	24.20
GSM1900	GSM/GPRS 1TX	Ant2	30.50	30.50	30.50	29.50	30.20	29.50
	GPRS 2TX		29.00	29.00	29.00	26.50	27.20	26.50
	GPRS 3TX		28.50	28.50	28.50	24.70	25.40	24.70
	GPRS 4TX		27.50	27.50	27.50	23.50	24.20	23.50
	EDGE 1TX		26.50	26.50	26.50	26.50	26.50	26.50
	EDGE 2TX		25.50	25.50	25.50	25.50	25.50	25.50
	EDGE 3TX		24.50	24.50	24.50	24.50	24.50	24.50
	EDGE 4TX		23.50	23.50	23.50	23.50	23.50	23.50
GSM1900	GSM/GPRS 1TX	Ant0	30.20	30.20	30.20	27.20	29.00	28.30
	GPRS 2TX		28.70	28.70	28.70	24.20	26.00	25.30
	GPRS 3TX		28.20	28.20	28.20	22.40	24.20	23.50
	GPRS 4TX		27.20	27.20	27.20	21.20	23.00	22.30
	EDGE 1TX		26.20	26.20	26.20	26.20	26.20	26.20
	EDGE 2TX		25.20	25.20	25.20	24.20	25.20	25.20
	EDGE 3TX		24.20	24.20	24.20	22.40	24.20	23.50
	EDGE 4TX		23.20	23.20	23.20	21.20	23.00	22.30

Maximum Transmit Burst Average Power (dBm)								
Wireless technology	Mode	Antenna	Maximum Power Condition	Head	Head	Hotspot	Body-worn/Extremity	Body-worn/Extremity
				Standalone	Simultaneous	Simultaneous	Standalone	Simultaneous
			Index 1	Index 2	Index 3	Index 4	Index 5	Index 6
WCDMA B2	R99/HSPA	Ant2	25.00	25.00	25.00	22.40	23.10	22.40
WCDMA B2	R99/HSPA	Ant0	24.70	24.70	24.70	18.00	21.00	20.30
WCDMA B4	R99/HSPA	Ant2	25.00	25.00	25.00	22.70	23.40	22.70
WCDMA B4	R99/HSPA	Ant0	24.70	24.70	24.70	18.70	20.60	19.90
WCDMA B5	R99/HSPA	Ant0	25.00	25.00	25.00	25.00	25.00	25.00
WCDMA B5	R99/HSPA	Ant1	24.70	23.90	22.90	24.70	24.70	24.70
LTE B7	PC3	Ant2	25.00	25.00	25.00	20.90	21.60	20.90
CA_7C	PC3	Ant2	24.50	24.50	24.50	20.90	21.60	20.90
LTE B7	PC3	Ant0	25.00	25.00	25.00	20.60	22.20	21.50
CA_7C	PC3	Ant0	24.50	24.50	24.50	20.60	22.20	21.50
LTE B12/B17	PC3	Ant0	25.00	25.00	25.00	25.00	25.00	25.00
LTE B12/B17	PC3	Ant1	24.70	24.60	23.40	24.70	24.70	24.70
LTE B13	PC3	Ant0	25.00	25.00	25.00	24.20	25.00	25.00
LTE B13	PC3	Ant1	25.00	24.30	23.60	25.00	25.00	25.00
LTE B14	PC3	Ant0	25.00	25.00	25.00	24.20	25.00	25.00
LTE B14	PC3	Ant1	25.00	23.70	23.00	25.00	25.00	25.00
LTE B25/B2	PC3	Ant2	25.00	25.00	25.00	21.80	22.50	21.80
LTE B25/B2	PC3	Ant0	24.70	24.70	24.70	17.90	20.40	19.70
LTE B25/B2	PC3	Ant1	25.00	17.30	16.40	22.10	22.80	22.10
LTE B25/B2	PC3	Ant5	24.50	19.50	18.80	23.40	24.50	23.90
LTE B26/B5	PC3	Ant0	25.00	25.00	25.00	25.00	25.00	25.00
CA_5B	PC3	Ant0	24.50	24.50	24.50	24.50	24.50	24.50
LTE B26/B5	PC3	Ant1	24.70	23.60	22.60	24.70	24.70	24.70
CA_5B	PC3	Ant1	24.00	23.60	22.60	24.00	24.00	24.00
LTE B30	PC3	Ant2	24.60	24.60	24.60	20.20	20.90	20.20
LTE B30	PC3	Ant0	24.60	24.60	24.60	18.90	21.50	20.80
LTE B41/B38	PC3	Ant2	25.00	25.00	25.00	23.80	24.50	23.80
LTE B41/B38	PC2	Ant2	26.90	26.90	26.90	25.40	26.10	25.40
CA_41C/38C	PC3	Ant2	24.50	24.50	24.50	23.80	24.50	23.80
LTE B41/B38	PC3	Ant0	25.00	25.00	25.00	23.10	24.80	24.10
LTE B41/B38	PC2	Ant0	27.10	27.10	27.10	24.90	26.60	25.90
CA_41C/38C	PC3	Ant0	24.50	24.50	24.50	23.10	24.50	24.10
LTE B48	PC3	Ant6	25.00	25.00	25.00	22.80	23.50	22.80
LTE B48	PC3	Ant7	22.20	22.20	22.20	21.40	22.10	21.40
LTE B66/B4	PC3	Ant2	25.00	25.00	25.00	22.00	22.70	22.00
CA_66B/66C	PC3	Ant2	24.50	24.50	24.50	22.00	22.70	22.00
LTE B66/B4	PC3	Ant0	24.70	24.70	24.70	18.20	19.80	19.10
CA_66B/66C	PC3	Ant0	24.50	24.50	24.50	18.20	19.80	19.10
LTE B66/B4	PC3	Ant1	25.00	18.40	17.20	22.60	23.30	22.60
LTE B66/B4	PC3	Ant5	24.50	19.70	19.00	24.50	24.50	24.50
LTE B71	PC3	Ant0	25.00	25.00	25.00	25.00	25.00	25.00
LTE B71	PC3	Ant1	25.00	25.00	23.80	25.00	25.00	25.00
FR1 n7	PC3	Ant2	25.00	25.00	25.00	21.20	21.90	21.20
FR1 n7	PC3	Ant0	25.00	25.00	25.00	20.60	22.40	21.70
FR1 n12	PC3	Ant0	25.00	25.00	25.00	25.00	25.00	25.00
FR1 n12	PC3	Ant1	24.70	24.70	24.70	24.70	24.70	24.70
FR1 n14	PC3	Ant0	25.00	25.00	25.00	24.40	25.00	25.00
FR1 n14	PC3	Ant1	25.00	23.90	22.70	25.00	25.00	25.00
FR1 n25/n2	PC3	Ant2	25.00	25.00	25.00	22.10	22.80	22.10
FR1 n25/n2	PC3	Ant0	24.70	24.70	24.70	18.40	20.50	19.80
FR1 n25/n2	PC3	Ant1	25.00	18.00	16.80	22.50	23.20	22.50

FR1 n25/n2	PC3	Ant5	24.50	19.80	19.10	24.20	24.50	24.50
FR1 n26/n5	PC3	Ant0	25.00	25.00	25.00	25.00	25.00	25.00
FR1 n26/n5	PC3	Ant1	24.70	23.60	22.90	24.70	24.70	24.70
FR1 n30	PC3	Ant2	24.60	24.60	24.60	21.10	21.80	21.10
FR1 n30	PC3	Ant0	24.60	24.60	24.60	18.80	21.30	20.60
FR1 n41/n38	PC3	Ant2	25.00	25.00	25.00	21.20	21.90	21.20
FR1 n41	PC2	Ant2	26.90	26.90	26.90	24.20	24.90	24.20
FR1 n41	PC1.5	Ant2	26.90	26.90	26.90	24.20	24.90	24.20
FR1 n41/n38	PC3	Ant0	25.00	25.00	25.00	21.10	22.60	21.90
FR1 n41	PC2	Ant0	27.10	27.10	27.10	24.30	25.80	25.10
FR1 n41	PC1.5	Ant0	27.10	27.10	27.10	24.30	25.80	25.10
FR1 n41/n38	PC3	Ant1	25.00	18.90	18.20	21.70	23.10	22.40
FR1 n41	PC2	Ant1	26.90	21.90	21.20	24.70	26.10	25.40
FR1 n41	PC1.5	Ant1	26.90	21.90	21.20	24.70	26.10	25.40
FR1 n41/n38	PC3	Ant5	25.00	19.20	18.50	23.50	24.50	23.80
FR1 n41	PC2	Ant5	26.90	22.20	21.50	26.50	26.90	26.80
FR1 n41	PC1.5	Ant5	26.90	22.20	21.50	26.50	26.90	26.80
FR1 n66	PC3	Ant2	25.00	25.00	25.00	22.60	23.30	22.60
FR1 n66	PC3	Ant0	24.70	24.70	24.70	19.10	20.50	19.80
FR1 n66	PC3	Ant1	25.00	18.50	17.30	23.20	24.00	23.30
FR1 n66	PC3	Ant5	24.50	20.40	19.20	24.00	24.50	24.50
FR1 n71	PC3	Ant0	25.00	25.00	25.00	25.00	25.00	25.00
FR1 n71	PC3	Ant1	25.00	24.20	23.00	25.00	25.00	25.00
FR1 n77/n78	PC3	Ant6	25.00	25.00	25.00	20.60	21.30	20.60
FR1 n77/n78	PC2	Ant6	27.10	27.10	27.10	23.70	24.40	23.70
FR1 n77/n78	PC1.5	Ant6	26.60	26.60	26.60	23.70	24.40	23.70
FR1 n77/n78	PC3	Ant7	24.40	24.40	23.50	18.90	19.60	18.90
FR1 n77/n78	PC2	Ant7	26.70	26.70	26.60	22.00	22.70	22.00
FR1 n77/n78	PC1.5	Ant7	26.00	26.00	26.00	22.00	22.70	22.00
FR1 n77/n78	PC3	Ant1	25.00	16.40	15.70	20.20	21.40	20.70
FR1 n77/n78	PC2	Ant1	27.20	19.60	18.90	23.40	24.60	23.90
FR1 n77/n78	PC1.5	Ant1	26.70	19.60	18.90	23.40	24.60	23.90
FR1 n77/n78	PC3	Ant5	25.00	19.50	18.40	25.00	25.00	25.00
FR1 n77/n78	PC2	Ant5	27.20	22.70	21.60	27.20	27.20	27.20
FR1 n77/n78	PC1.5	Ant5	26.70	22.70	21.60	26.70	26.70	26.70
NTN B23	PC3	Ant1	23.50				23.10	
NTN B255	PC3	Ant4	24.30				24.30	

<WLAN Maximum Power>

General Note:

1. The device implements the power management for WLAN SAR compliance for different exposure conditions and user cases. In each exposure condition, the power index selection is determined by the user cases as tested in Section 14 of this report. Full details about the proprietary power management decision are illustrated in the operational description.
2. 3+4(3) represents the test in 2TX operation, while the SAR or power data is associated with antenna 3
3. 3+4(4) represents the test in 2TX operation, while the SAR or power data is associated with antenna 4

Burst Average Power (dBm)												
2.4GHz Mode	Channel	Frequency (MHz)	Index 0		Index 1		Index 2		Index 3		Index 4	
			Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4
802.11b (SISO)	1	2412	22.00	22.50	17.50	17.50	12.50	12.50	21.00	21.00	15.50	15.50
	6	2437	22.50	22.50	17.50	17.50	12.50	12.50	21.00	21.00	15.50	15.50
	11	2462	21.00	21.50	17.50	17.50	12.50	12.50	21.00	21.00	15.50	15.50
	12	2467	21.00	21.50	17.50	17.50	12.50	12.50	21.00	21.00	15.50	15.50
	13	2472	17.00	17.50	17.00	17.50	12.50	12.50	17.00	17.50	15.50	15.50

Burst Average Power (dBm)												
2.4GHz Mode	Channel	Frequency (MHz)	Index 0		Index 1		Index 2		Index 3		Index 4	
			Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4
802.11b (MIMO)	1	2412	21.50	21.50	17.50	17.50	12.50	12.50	21.00	21.00	15.50	15.50
	6	2437	22.50	22.50	17.50	17.50	12.50	12.50	21.00	21.00	15.50	15.50
	11	2462	22.50	22.50	17.50	17.50	12.50	12.50	21.00	21.00	15.50	15.50
	12	2467	20.50	20.50	17.50	17.50	12.50	12.50	20.50	20.50	15.50	15.50
	13	2472	16.50	16.50	16.50	16.50	12.50	12.50	16.50	16.50	15.50	15.50
802.11g (MIMO)	1	2412	19.50	19.50	17.50	17.50	12.50	12.50	19.50	19.50	15.50	15.50
	2	2417	21.00	21.00								
	6	2437	22.00	22.00	17.50	17.50	12.50	12.50	21.00	21.00	15.50	15.50
	10	2457	21.00	21.00								
	11	2462	18.50	18.50	17.50	17.50	12.50	12.50	18.50	18.50	15.50	15.50
	12	2467	16.50	16.50	16.50	16.50	12.50	12.50	16.50	16.50	15.50	15.50
	13	2472	14.00	14.00	14.00	14.00	12.50	12.50	14.00	14.00	14.00	14.00
802.11n HT20 (MIMO)	1	2412	18.50	18.50	17.50	17.50	12.50	12.50	18.50	18.50	15.50	15.50
	2	2417	21.00	21.00								
	6	2437	21.00	21.00	17.50	17.50	12.50	12.50	21.00	21.00	15.50	15.50
	10	2457	20.00	20.00								
	11	2462	17.50	17.50	17.50	17.50	12.50	12.50	17.50	17.50	15.50	15.50
	12	2467	16.50	16.50	16.50	16.50	12.50	12.50	16.50	16.50	15.50	15.50
	13	2472	14.00	14.00	14.00	14.00	12.50	12.50	14.00	14.00	14.00	14.00
802.11ac VHT20 (MIMO)	1	2412	18.50	18.50	17.50	17.50	12.50	12.50	18.50	18.50	15.50	15.50
	2	2417	21.00	21.00								
	6	2437	21.00	21.00	17.50	17.50	12.50	12.50	21.00	21.00	15.50	15.50
	10	2457	20.00	20.00								
	11	2462	17.50	17.50	17.50	17.50	12.50	12.50	17.50	17.50	15.50	15.50
	12	2467	16.50	16.50	16.50	16.50	12.50	12.50	16.50	16.50	15.50	15.50
	13	2472	14.00	14.00	14.00	14.00	12.50	12.50	14.00	14.00	14.00	14.00
802.11ax HE20 (MIMO)	1	2412	18.50	18.50	17.50	17.50	12.50	12.50	18.50	18.50	15.50	15.50
	2	2417	21.00	21.00								
	6	2437	21.00	21.00	17.50	17.50	12.50	12.50	21.00	21.00	15.50	15.50
	10	2457	20.00	20.00								
	11	2462	17.50	17.50	17.50	17.50	12.50	12.50	17.50	17.50	15.50	15.50
	12	2467	16.50	16.50	16.50	16.50	12.50	12.50	16.50	16.50	15.50	15.50
	13	2472	14.00	14.00	14.00	14.00	12.50	12.50	14.00	14.00	14.00	14.00
802.11be EHT20 (MIMO)	1	2412	18.50	18.50	17.50	17.50	12.50	12.50	18.50	18.50	15.50	15.50
	2	2417	21.00	21.00								
	6	2437	21.00	21.00	17.50	17.50	12.50	12.50	21.00	21.00	15.50	15.50
	10	2457	20.00	20.00								
	11	2462	17.50	17.50	17.50	17.50	12.50	12.50	17.50	17.50	15.50	15.50
	12	2467	16.50	16.50	16.50	16.50	12.50	12.50	16.50	16.50	15.50	15.50
	13	2472	14.00	14.00	14.00	14.00	12.50	12.50	14.00	14.00	14.00	14.00

Burst Average Power (dBm)												
5.2GHz Mode	Channel	Frequency (MHz)	Index 0		Index 1		Index 2		Index 3		Index 4	
			Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4
802.11a (MIMO)	36	5180	18.50	18.50	15.00	15.00	10.50	10.50	18.50	18.50	18.00	18.00
	40	5200	19.50	19.50	15.00	15.00	10.50	10.50	19.50	19.50	18.00	18.00
	44	5220	19.50	19.50	15.00	15.00	10.50	10.50	19.50	19.50	18.00	18.00
	48	5240	19.50	19.50	15.00	15.00	10.50	10.50	19.50	19.50	18.00	18.00
802.11n HT20 (MIMO)	36	5180	17.50	17.50	15.00	15.00	10.50	10.50	17.50	17.50	17.50	17.50
	40	5200	20.00	20.00	15.00	15.00	10.50	10.50	20.00	20.00	18.00	18.00
	44	5220	20.00	20.00	15.00	15.00	10.50	10.50	20.00	20.00	18.00	18.00
	48	5240	20.00	20.00	15.00	15.00	10.50	10.50	20.00	20.00	18.00	18.00
802.11n HT40 (MIMO)	38	5190	16.00	16.00	15.00	15.00	10.50	10.50	16.00	16.00	16.00	16.00
	46	5230	20.00	20.00	15.00	15.00	10.50	10.50	20.00	20.00	18.00	18.00
802.11ac VHT20 (MIMO)	36	5180	17.50	17.50	15.00	15.00	10.50	10.50	17.50	17.50	17.50	17.50
	40	5200	20.00	20.00	15.00	15.00	10.50	10.50	20.00	20.00	18.00	18.00
	44	5220	20.00	20.00	15.00	15.00	10.50	10.50	20.00	20.00	18.00	18.00
	48	5240	20.00	20.00	15.00	15.00	10.50	10.50	20.00	20.00	18.00	18.00
802.11ac VHT40 (MIMO)	38	5190	16.00	16.00	15.00	15.00	10.50	10.50	16.00	16.00	16.00	16.00
	46	5230	20.00	20.00	15.00	15.00	10.50	10.50	20.00	20.00	18.00	18.00
802.11ac VHT80 (MIMO)	42	5210	14.50	14.50	14.50	14.50	10.50	10.50	14.50	14.50	14.50	14.50
802.11ax HE20 (MIMO)	36	5180	17.50	17.50	15.00	15.00	10.50	10.50	17.50	17.50	17.50	17.50
	40	5200	20.00	20.00	15.00	15.00	10.50	10.50	20.00	20.00	18.00	18.00
	44	5220	20.00	20.00	15.00	15.00	10.50	10.50	20.00	20.00	18.00	18.00
	48	5240	20.00	20.00	15.00	15.00	10.50	10.50	20.00	20.00	18.00	18.00
802.11ax HE40 (MIMO)	38	5190	16.00	16.00	15.00	15.00	10.50	10.50	16.00	16.00	16.00	16.00
	46	5230	20.00	20.00	15.00	15.00	10.50	10.50	20.00	20.00	18.00	18.00
802.11ax HE80 (MIMO)	42	5210	14.50	14.50	14.50	14.50	10.50	10.50	14.50	14.50	14.50	14.50
802.11be EHT20 (MIMO)	36	5180	17.50	17.50	15.00	15.00	10.50	10.50	17.50	17.50	17.50	17.50
	40	5200	20.00	20.00	15.00	15.00	10.50	10.50	20.00	20.00	18.00	18.00
	44	5220	20.00	20.00	15.00	15.00	10.50	10.50	20.00	20.00	18.00	18.00
	48	5240	20.00	20.00	15.00	15.00	10.50	10.50	20.00	20.00	18.00	18.00
802.11be EHT40 (MIMO)	38	5190	16.00	16.00	15.00	15.00	10.50	10.50	16.00	16.00	16.00	16.00
	46	5230	20.00	20.00	15.00	15.00	10.50	10.50	20.00	20.00	18.00	18.00
802.11be EHT80 (MIMO)	42	5210	14.50	14.50	14.50	14.50	10.50	10.50	14.50	14.50	14.50	14.50

Burst Average Power (dBm)												
5.3GHz Mode	Channel	Frequency (MHz)	Index 0		Index 1		Index 2		Index 3		Index 4	
			Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4
802.11a (MIMO)	52	5260	19.50	19.50	15.00	15.00	10.50	10.50	19.50	19.50	18.50	18.50
	56	5280	19.50	19.50	15.00	15.00	10.50	10.50	19.50	19.50	18.50	18.50
	60	5300	19.50	19.50	15.00	15.00	10.50	10.50	19.50	19.50	18.50	18.50
	64	5320	18.00	18.00	15.00	15.00	10.50	10.50	18.00	18.00	18.00	18.00
802.11n HT20 (MIMO)	52	5260	20.00	20.00	15.00	15.00	10.50	10.50	19.50	19.50	18.50	18.50
	56	5280	20.00	20.00	15.00	15.00	10.50	10.50	19.50	19.50	18.50	18.50
	60	5300	20.00	20.00	15.00	15.00	10.50	10.50	19.50	19.50	18.50	18.50
	64	5320	17.50	17.50	15.00	15.00	10.50	10.50	17.50	17.50	17.50	17.50
802.11n HT40 (MIMO)	54	5270	19.00	19.00	15.00	15.00	10.50	10.50	19.00	19.00	18.50	18.50
	62	5310	16.50	16.50	15.00	15.00	10.50	10.50	16.50	16.50	16.50	16.50
802.11ac VHT20 (MIMO)	52	5260	20.00	20.00	15.00	15.00	10.50	10.50	19.50	19.50	18.50	18.50
	56	5280	20.00	20.00	15.00	15.00	10.50	10.50	19.50	19.50	18.50	18.50
	60	5300	20.00	20.00	15.00	15.00	10.50	10.50	19.50	19.50	18.50	18.50
	64	5320	17.50	17.50	15.00	15.00	10.50	10.50	17.50	17.50	17.50	17.50
802.11ac VHT40 (MIMO)	54	5270	19.00	19.00	15.00	15.00	10.50	10.50	19.00	19.00	18.50	18.50
	62	5310	16.50	16.50	15.00	15.00	10.50	10.50	16.50	16.50	16.50	16.50
802.11ac VHT80 (MIMO)	58	5290	14.50	14.50	14.50	14.50	10.50	10.50	14.50	14.50	14.50	14.50
802.11ac VHT160 (MIMO)	50	5250	12.50	12.50	12.50	12.50	10.50	10.50	12.50	12.50	12.50	12.50
802.11ax HE20 (MIMO)	52	5260	20.00	20.00	15.00	15.00	10.50	10.50	19.50	19.50	18.50	18.50
	56	5280	20.00	20.00	15.00	15.00	10.50	10.50	19.50	19.50	18.50	18.50
	60	5300	20.00	20.00	15.00	15.00	10.50	10.50	19.50	19.50	18.50	18.50
	64	5320	17.50	17.50	15.00	15.00	10.50	10.50	17.50	17.50	17.50	17.50
802.11ax HE40 (MIMO)	54	5270	19.00	19.00	15.00	15.00	10.50	10.50	19.00	19.00	18.50	18.50
	62	5310	16.50	16.50	15.00	15.00	10.50	10.50	16.50	16.50	16.50	16.50
802.11ax HE80 (MIMO)	58	5290	14.50	14.50	14.50	14.50	10.50	10.50	14.50	14.50	14.50	14.50
802.11ax HE160 (MIMO)	50	5250	12.50	12.50	12.50	12.50	10.50	10.50	12.50	12.50	12.50	12.50
802.11be EHT20 (MIMO)	52	5260	20.00	20.00	15.00	15.00	10.50	10.50	19.50	19.50	18.50	18.50
	56	5280	20.00	20.00	15.00	15.00	10.50	10.50	19.50	19.50	18.50	18.50
	60	5300	20.00	20.00	15.00	15.00	10.50	10.50	19.50	19.50	18.50	18.50
	64	5320	17.50	17.50	15.00	15.00	10.50	10.50	17.50	17.50	17.50	17.50
802.11be EHT40 (MIMO)	54	5270	19.00	19.00	15.00	15.00	10.50	10.50	19.00	19.00	18.50	18.50
	62	5310	16.50	16.50	15.00	15.00	10.50	10.50	16.50	16.50	16.50	16.50
802.11be EHT80 (MIMO)	58	5290	14.50	14.50	14.50	14.50	10.50	10.50	14.50	14.50	14.50	14.50
802.11be EHT160 (MIMO)	50	5250	12.50	12.50	12.50	12.50	10.50	10.50	12.50	12.50	12.50	12.50

Burst Average Power (dBm)												
5.5GHz Mode	Channel	Frequency (MHz)	Index 0		Index 1		Index 2		Index 3		Index 4	
			Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4
802.11a (MIMO)	100	5500	19.00	19.00	15.50	15.50	10.50	10.50	19.00	19.00	19.00	19.00
	116	5580	19.00	19.00	15.50	15.50	10.50	10.50	19.00	19.00	19.00	19.00
	124	5620	19.00	19.00	15.50	15.50	10.50	10.50	19.00	19.00	19.00	19.00
	132	5660	19.00	19.00	15.50	15.50	10.50	10.50	19.00	19.00	19.00	19.00
	140	5700	18.50	18.50								
	144	5720	19.00	19.00	15.50	15.50	10.50	10.50	19.00	19.00	19.00	19.00
802.11n HT20 (MIMO)	100	5500	19.50	19.50	15.50	15.50	10.50	10.50	19.50	19.50	19.00	19.00
	116	5580	19.50	19.50	15.50	15.50	10.50	10.50	19.50	19.50	19.00	19.00
	124	5620	19.50	19.50	15.50	15.50	10.50	10.50	19.50	19.50	19.00	19.00
	132	5660	19.50	19.50	15.50	15.50	10.50	10.50	19.50	19.50	19.00	19.00
	140	5700	17.00	17.00								
	144	5720	19.50	19.50	15.50	15.50	10.50	10.50	19.50	19.50	19.00	19.00
802.11n HT40 (MIMO)	102	5510	15.50	15.50	15.50	15.50	10.50	10.50	15.50	15.50	15.50	15.50
	110	5550	20.00	20.00	15.50	15.50	10.50	10.50	20.00	20.00	19.00	19.00
	126	5630	20.00	20.00	15.50	15.50	10.50	10.50	20.00	20.00	19.00	19.00
	134	5670	18.50	18.50	15.50	15.50	10.50	10.50	18.50	18.50	18.50	18.50
	142	5710	20.00	20.00	15.50	15.50	10.50	10.50	20.00	20.00	19.00	19.00
802.11ac VHT20 (MIMO)	100	5500	19.50	19.50	15.50	15.50	10.50	10.50	19.50	19.50	19.00	19.00
	116	5580	19.50	19.50	15.50	15.50	10.50	10.50	19.50	19.50	19.00	19.00
	124	5620	19.50	19.50	15.50	15.50	10.50	10.50	19.50	19.50	19.00	19.00
	132	5660	19.50	19.50	15.50	15.50	10.50	10.50	19.50	19.50	19.00	19.00
	140	5700	17.00	17.00								
	144	5720	19.50	19.50	15.50	15.50	10.50	10.50	19.50	19.50	19.00	19.00
802.11ac VHT40 (MIMO)	102	5510	15.50	15.50	15.50	15.50	10.50	10.50	15.50	15.50	15.50	15.50
	110	5550	20.00	20.00	15.50	15.50	10.50	10.50	20.00	20.00	19.00	19.00
	126	5630	20.00	20.00	15.50	15.50	10.50	10.50	20.00	20.00	19.00	19.00
	134	5670	18.50	18.50	15.50	15.50	10.50	10.50	18.50	18.50	18.50	18.50
	142	5710	20.00	20.00	15.50	15.50	10.50	10.50	20.00	20.00	19.00	19.00
802.11ac VHT80 (MIMO)	106	5530	15.50	15.50	15.50	15.50	10.50	10.50	15.50	15.50	15.50	15.50
	122	5610	19.50	19.50	15.50	15.50	10.50	10.50	19.50	19.50	19.00	19.00
	138	5690	20.00	20.00	15.50	15.50	10.50	10.50	20.00	20.00	19.00	19.00
802.11ac VHT160 (MIMO)	114	5570	13.00	13.00	13.00	13.00	10.50	10.50	13.00	13.00	13.00	13.00
802.11ax HE20 (MIMO)	100	5500	19.50	19.50	15.50	15.50	10.50	10.50	19.50	19.50	19.00	19.00
	116	5580	19.50	19.50	15.50	15.50	10.50	10.50	19.50	19.50	19.00	19.00
	124	5620	19.50	19.50	15.50	15.50	10.50	10.50	19.50	19.50	19.00	19.00
	132	5660	19.50	19.50	15.50	15.50	10.50	10.50	19.50	19.50	19.00	19.00
	140	5700	17.00	17.00								
	144	5720	19.50	19.50	15.50	15.50	10.50	10.50	19.50	19.50	19.00	19.00
802.11ax HE40 (MIMO)	102	5510	15.50	15.50	15.50	15.50	10.50	10.50	15.50	15.50	15.50	15.50
	110	5550	20.00	20.00	15.50	15.50	10.50	10.50	20.00	20.00	19.00	19.00
	126	5630	20.00	20.00	15.50	15.50	10.50	10.50	20.00	20.00	19.00	19.00
	134	5670	18.50	18.50	15.50	15.50	10.50	10.50	18.50	18.50	18.50	18.50
	142	5710	20.00	20.00	15.50	15.50	10.50	10.50	20.00	20.00	19.00	19.00
802.11ax HE80 (MIMO)	106	5530	15.50	15.50	15.50	15.50	10.50	10.50	15.50	15.50	15.50	15.50
	122	5610	19.50	19.50	15.50	15.50	10.50	10.50	19.50	19.50	19.00	19.00
	138	5690	20.00	20.00	15.50	15.50	10.50	10.50	20.00	20.00	19.00	19.00
802.11ax HE160 (MIMO)	114	5570	13.00	13.00	13.00	13.00	10.50	10.50	13.00	13.00	13.00	13.00
802.11be EHT20 (MIMO)	100	5500	19.50	19.50	15.50	15.50	10.50	10.50	19.50	19.50	19.00	19.00
	116	5580	19.50	19.50	15.50	15.50	10.50	10.50	19.50	19.50	19.00	19.00
	124	5620	19.50	19.50	15.50	15.50	10.50	10.50	19.50	19.50	19.00	19.00
	132	5660	19.50	19.50	15.50	15.50	10.50	10.50	19.50	19.50	19.00	19.00
	140	5700	17.00	17.00								
	144	5720	19.50	19.50	15.50	15.50	10.50	10.50	19.50	19.50	19.00	19.00
802.11be EHT40 (MIMO)	102	5510	15.50	15.50	15.50	15.50	10.50	10.50	15.50	15.50	15.50	15.50
	110	5550	20.00	20.00	15.50	15.50	10.50	10.50	20.00	20.00	19.00	19.00
	126	5630	20.00	20.00	15.50	15.50	10.50	10.50	20.00	20.00	19.00	19.00
	134	5670	18.50	18.50	15.50	15.50	10.50	10.50	18.50	18.50	18.50	18.50
	142	5710	20.00	20.00	15.50	15.50	10.50	10.50	20.00	20.00	19.00	19.00
802.11be EHT80 (MIMO)	106	5530	15.50	15.50	15.50	15.50	10.50	10.50	15.50	15.50	15.50	15.50
	122	5610	19.50	19.50	15.50	15.50	10.50	10.50	19.50	19.50	19.00	19.00
	138	5690	20.00	20.00	15.50	15.50	10.50	10.50	20.00	20.00	19.00	19.00
802.11be EHT160 (MIMO)	114	5570	13.00	13.00	13.00	13.00	10.50	10.50	13.00	13.00	13.00	13.00

Burst Average Power (dBm)												
5.8GHz Mode	Channel	Frequency (MHz)	Index 0		Index 1		Index 2		Index 3		Index 4	
			Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4
802.11a (MIMO)	149	5745	21.00	21.00	15.50	15.50	10.00	10.00	21.00	21.00	18.00	18.00
	157	5785	21.00	21.00	15.50	15.50	10.00	10.00	21.00	21.00	18.00	18.00
	165	5825	21.00	21.00	15.50	15.50	10.00	10.00	21.00	21.00	18.00	18.00
802.11n HT20 (MIMO)	149	5745	21.00	21.00	15.50	15.50	10.00	10.00	21.00	21.00	18.00	18.00
	157	5785	21.00	21.00	15.50	15.50	10.00	10.00	21.00	21.00	18.00	18.00
	165	5825	21.00	21.00	15.50	15.50	10.00	10.00	21.00	21.00	18.00	18.00
802.11n HT40 (MIMO)	151	5755	20.00	20.00	15.50	15.50	10.00	10.00	20.00	20.00	18.00	18.00
	159	5795	20.00	20.00	15.50	15.50	10.00	10.00	20.00	20.00	18.00	18.00
802.11ac VHT20 (MIMO)	149	5745	21.00	21.00	15.50	15.50	10.00	10.00	21.00	21.00	18.00	18.00
	157	5785	21.00	21.00	15.50	15.50	10.00	10.00	21.00	21.00	18.00	18.00
	165	5825	21.00	21.00	15.50	15.50	10.00	10.00	21.00	21.00	18.00	18.00
802.11ac VHT40 (MIMO)	151	5755	20.00	20.00	15.50	15.50	10.00	10.00	20.00	20.00	18.00	18.00
	159	5795	20.00	20.00	15.50	15.50	10.00	10.00	20.00	20.00	18.00	18.00
802.11ac VHT80 (MIMO)	155	5775	19.50	19.50	15.50	15.50	10.00	10.00	19.50	19.50	18.00	18.00
802.11ax HE20 (MIMO)	149	5745	21.00	21.00	15.50	15.50	10.00	10.00	21.00	21.00	18.00	18.00
	157	5785	21.00	21.00	15.50	15.50	10.00	10.00	21.00	21.00	18.00	18.00
	165	5825	21.00	21.00	15.50	15.50	10.00	10.00	21.00	21.00	18.00	18.00
802.11ax HE40 (MIMO)	151	5755	20.00	20.00	15.50	15.50	10.00	10.00	20.00	20.00	18.00	18.00
	159	5795	20.00	20.00	15.50	15.50	10.00	10.00	20.00	20.00	18.00	18.00
802.11ax HE80 (MIMO)	155	5775	19.50	19.50	15.50	15.50	10.00	10.00	19.50	19.50	18.00	18.00
802.11be EHT20 (MIMO)	149	5745	21.00	21.00	15.50	15.50	10.00	10.00	21.00	21.00	18.00	18.00
	157	5785	21.00	21.00	15.50	15.50	10.00	10.00	21.00	21.00	18.00	18.00
	165	5825	21.00	21.00	15.50	15.50	10.00	10.00	21.00	21.00	18.00	18.00
802.11be EHT40 (MIMO)	151	5755	20.00	20.00	15.50	15.50	10.00	10.00	20.00	20.00	18.00	18.00
	159	5795	20.00	20.00	15.50	15.50	10.00	10.00	20.00	20.00	18.00	18.00
802.11be EHT80 (MIMO)	155	5775	19.50	19.50	15.50	15.50	10.00	10.00	19.50	19.50	18.00	18.00

Burst Average Power (dBm)												
5.9GHz Mode	Channel	Frequency (MHz)	Index 0		Index 1		Index 2		Index 3		Index 4	
			Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4
802.11a (MIMO)	169	5845	21.00	21.00	16.00	16.00	11.00	11.00	21.00	21.00	17.50	17.50
	173	5865	21.00	21.00	16.00	16.00	11.00	11.00	21.00	21.00	17.50	17.50
	177	5885	21.00	21.00	16.00	16.00	11.00	11.00	21.00	21.00	17.50	17.50
802.11n HT20 (MIMO)	169	5845	21.00	21.00	16.00	16.00	11.00	11.00	21.00	21.00	17.50	17.50
	173	5865	21.00	21.00	16.00	16.00	11.00	11.00	21.00	21.00	17.50	17.50
	177	5885	21.00	21.00	16.00	16.00	11.00	11.00	21.00	21.00	17.50	17.50
802.11n HT40 (MIMO)	167	5835	20.00	20.00	16.00	16.00	11.00	11.00	20.00	20.00	17.50	17.50
	175	5875	20.00	20.00	16.00	16.00	11.00	11.00	20.00	20.00	17.50	17.50
802.11ac VHT20 (MIMO)	169	5845	21.00	21.00	16.00	16.00	11.00	11.00	21.00	21.00	17.50	17.50
	173	5865	21.00	21.00	16.00	16.00	11.00	11.00	21.00	21.00	17.50	17.50
	177	5885	21.00	21.00	16.00	16.00	11.00	11.00	21.00	21.00	17.50	17.50
802.11ac VHT40 (MIMO)	167	5835	20.00	20.00	16.00	16.00	11.00	11.00	20.00	20.00	17.50	17.50
	175	5875	20.00	20.00	16.00	16.00	11.00	11.00	20.00	20.00	17.50	17.50
802.11ac VHT80 (MIMO)	171	5855	19.50	19.50	16.00	16.00	11.00	11.00	19.50	19.50	17.50	17.50
802.11ac VHT160 (MIMO)	163	5815	16.50	16.50	16.00	16.00	11.00	11.00	16.50	16.50	16.50	16.50
802.11ax HE20 (MIMO)	169	5845	21.00	21.00	16.00	16.00	11.00	11.00	21.00	21.00	17.50	17.50
	173	5865	21.00	21.00	16.00	16.00	11.00	11.00	21.00	21.00	17.50	17.50
	177	5885	21.00	21.00	16.00	16.00	11.00	11.00	21.00	21.00	17.50	17.50
802.11ax HE40 (MIMO)	167	5835	20.00	20.00	16.00	16.00	11.00	11.00	20.00	20.00	17.50	17.50
	175	5875	20.00	20.00	16.00	16.00	11.00	11.00	20.00	20.00	17.50	17.50
802.11ax HE80 (MIMO)	171	5855	19.50	19.50	16.00	16.00	11.00	11.00	19.50	19.50	17.50	17.50
802.11ax HE160 (MIMO)	163	5815	16.50	16.50	16.00	16.00	11.00	11.00	16.50	16.50	16.50	16.50
802.11be EHT20 (MIMO)	169	5845	21.00	21.00	16.00	16.00	11.00	11.00	21.00	21.00	17.50	17.50
	173	5865	21.00	21.00	16.00	16.00	11.00	11.00	21.00	21.00	17.50	17.50
	177	5885	21.00	21.00	16.00	16.00	11.00	11.00	21.00	21.00	17.50	17.50
802.11be EHT40 (MIMO)	167	5835	20.00	20.00	16.00	16.00	11.00	11.00	20.00	20.00	17.50	17.50
	175	5875	20.00	20.00	16.00	16.00	11.00	11.00	20.00	20.00	17.50	17.50
802.11be EHT80 (MIMO)	171	5855	19.50	19.50	16.00	16.00	11.00	11.00	19.50	19.50	17.50	17.50
802.11be EHT160 (MIMO)	163	5815	16.50	16.50	16.00	16.00	11.00	11.00	16.50	16.50	16.50	16.50

Standard Power (SP)

Maximum Transmit Burst Average Power (dBm)					
6GHz Mode	Band	Channel	Frequency (MHz)	Index 0	
				Ant 3	Ant 4
802.11a (MIMO)	5	1	5955	21.00	21.00
	5	49	6195	21.00	21.00
	5	93	6415	21.00	21.00
	7	117	6535	21.00	21.00
	7	149	6695	21.00	21.00
	7	181	6855	21.00	21.00
802.11ax-HE20 (MIMO)	5	1	5955	21.00	21.00
	5	49	6195	21.00	21.00
	5	93	6415	21.00	21.00
	7	117	6535	21.00	21.00
	7	149	6695	21.00	21.00
	7	181	6855	21.00	21.00
802.11ax-HE40 (MIMO)	5	3	5965	19.50	19.50
	5	51	6205	20.00	20.00
	5	91	6405	20.00	20.00
	7	123	6565	20.00	20.00
	7	147	6685	20.00	20.00
	7	179	6845	20.00	20.00
802.11ax-HE80 (MIMO)	5	7	5985	19.00	19.00
	5	55	6225	20.00	20.00
	5	87	6385	20.00	20.00
	7	135	6625	20.00	20.00
	7	151	6705	20.00	20.00
	7	167	6785	20.00	20.00
802.11ax-HE160 (MIMO)	5	15	6025	18.00	18.00
	5	47	6185	20.00	20.00
	5	79	6345	20.00	20.00
	7	143	6665	20.00	20.00
802.11be-EHT20 (MIMO)	5	1	5955	21.00	21.00
	5	49	6195	21.00	21.00
	5	93	6415	21.00	21.00
	7	117	6535	21.00	21.00
	7	149	6695	21.00	21.00
	7	181	6855	21.00	21.00
802.11be-EHT40 (MIMO)	5	3	5965	19.50	19.50
	5	51	6205	20.00	20.00
	5	91	6405	20.00	20.00
	7	123	6565	20.00	20.00
	7	147	6685	20.00	20.00
	7	179	6845	20.00	20.00
802.11be-EHT80 (MIMO)	5	7	5985	19.00	19.00
	5	55	6225	20.00	20.00
	5	87	6385	20.00	20.00
	7	135	6625	20.00	20.00
	7	151	6705	20.00	20.00
	7	167	6785	20.00	20.00
802.11be-EHT160 (MIMO)	5	15	6025	18.00	18.00
	5	47	6185	20.00	20.00
	5	79	6345	20.00	20.00
	7	143	6665	20.00	20.00

Burst Average Power (dBm)													
6GHz Mode	Band	Channel	Frequency (MHz)	Index 0		Index 1		Index 2		Index 3		Index 4	
				Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4
802.11a (MIMO)	5	1	5955	21.00	21.00	16.00	16.00	12.00	12.00	16.00	16.00	16.00	16.00
	5	57	6235	21.00	21.00	16.00	16.00	12.00	12.00	16.00	16.00	16.00	16.00
	7	173	6815	21.00	21.00	16.00	16.00	12.00	12.00	14.50	14.50	14.50	14.50
802.11ax HE20 (MIMO)	5	1	5955	21.00	21.00	16.00	16.00	12.00	12.00	16.00	16.00	16.00	16.00
	5	57	6235	21.00	21.00	16.00	16.00	12.00	12.00	16.00	16.00	16.00	16.00
	7	173	6815	21.00	21.00	16.00	16.00	12.00	12.00	14.50	14.50	14.50	14.50
802.11ax HE40 (MIMO)	5	3	5965	19.50	19.50	16.00	16.00	12.00	12.00	16.00	16.00	16.00	16.00
	5	59	6245	20.00	20.00	16.00	16.00	12.00	12.00	16.00	16.00	16.00	16.00
	7	171	6805	20.00	20.00	16.00	16.00	12.00	12.00	14.50	14.50	14.50	14.50
802.11ax HE80 (MIMO)	5	7	5985	19.00	19.00	16.00	16.00	12.00	12.00	16.00	16.00	16.00	16.00
	5	71	6305	20.00	20.00	16.00	16.00	12.00	12.00	16.00	16.00	16.00	16.00
	7	167	6785	20.00	20.00	16.00	16.00	12.00	12.00	14.50	14.50	14.50	14.50
802.11ax HE160 (MIMO)	5	15	6025	18.00	18.00	16.00	16.00	12.00	12.00	16.00	16.00	16.00	16.00
	5	47	6185	20.00	20.00	16.00	16.00	12.00	12.00	16.00	16.00	16.00	16.00
	7	143	6665	20.00	20.00	16.00	16.00	12.00	12.00	14.50	14.50	14.50	14.50
802.11be EHT20 (MIMO)	5	1	5955	21.00	21.00	16.00	16.00	12.00	12.00	16.00	16.00	16.00	16.00
	5	57	6235	21.00	21.00	16.00	16.00	12.00	12.00	16.00	16.00	16.00	16.00
	7	173	6815	21.00	21.00	16.00	16.00	12.00	12.00	14.50	14.50	14.50	14.50
802.11be EHT40 (MIMO)	5	3	5965	19.50	19.50	16.00	16.00	12.00	12.00	16.00	16.00	16.00	16.00
	5	59	6245	20.00	20.00	16.00	16.00	12.00	12.00	16.00	16.00	16.00	16.00
	7	171	6805	20.00	20.00	16.00	16.00	12.00	12.00	14.50	14.50	14.50	14.50
802.11be EHT80 (MIMO)	5	7	5985	19.00	19.00	16.00	16.00	12.00	12.00	16.00	16.00	16.00	16.00
	5	71	6305	20.00	20.00	16.00	16.00	12.00	12.00	16.00	16.00	16.00	16.00
	7	167	6785	20.00	20.00	16.00	16.00	12.00	12.00	14.50	14.50	14.50	14.50
802.11be EHT160 (MIMO)	5	15	6025	18.00	18.00	16.00	16.00	12.00	12.00	16.00	16.00	16.00	16.00
	5	47	6185	20.00	20.00	16.00	16.00	12.00	12.00	16.00	16.00	16.00	16.00
	7	143	6665	20.00	20.00	16.00	16.00	12.00	12.00	14.50	14.50	14.50	14.50

Low Power Indoor (LPI)

Maximum Transmit Burst Average Power (dBm)							
6GHz Mode	Band	Channel	Frequency (MHz)	SDB Index 0		CDD Index 0	
				Ant 3	Ant 4	Ant 3	Ant 4
802.11a (MIMO)	5	1	5955	12.50	12.50	10.50	10.50
	5	49	6195	12.50	12.50	10.50	10.50
	5	93	6415	12.50	12.50	10.50	10.50
	6	97	6435	12.50	12.50	9.00	9.00
	6	105	6475	12.50	12.50	9.00	9.00
	6	113	6515	12.50	12.50	9.00	9.00
	7	117	6535	11.00	11.00	8.00	8.00
	7	149	6695	11.00	11.00	8.00	8.00
	7	181	6855	11.00	11.00	8.00	8.00
	7/8	185	6875	11.00	11.00	8.00	8.00
	8	189	6895	13.00	13.00	10.50	10.50
	8	209	6995	13.00	13.00	10.50	10.50
	8	229	7095	13.00	13.00	10.50	10.50
802.11ax-HE20 (MIMO)	5	1	5955	13.00	13.00	11.00	11.00
	5	49	6195	13.00	13.00	11.00	11.00
	5	93	6415	13.00	13.00	11.00	11.00
	6	97	6435	13.00	13.00	10.00	10.00
	6	105	6475	13.00	13.00	10.00	10.00
	6	113	6515	13.00	13.00	10.00	10.00
	7	117	6535	11.50	11.50	8.50	8.50
	7	149	6695	11.50	11.50	8.50	8.50
	7	181	6855	11.50	11.50	8.50	8.50
	7/8	185	6875	11.50	11.50	8.50	8.50
	8	189	6895	14.00	14.00	11.00	11.00
	8	209	6995	14.00	14.00	11.00	11.00
	8	229	7095	14.00	14.00	11.00	11.00
802.11ax-HE40 (MIMO)	5	3	5965	16.00	16.00	14.00	14.00
	5	51	6205	16.00	16.00	14.00	14.00
	5	91	6405	16.00	16.00	14.00	14.00
	6	99	6445	16.00	16.00	13.00	13.00
	6	107	6485	16.00	16.00	13.00	13.00
	6	115	6525	16.00	16.00	13.00	13.00
	7	123	6565	14.50	14.50	12.00	12.00
	7	147	6685	14.50	14.50	12.00	12.00
	7	179	6845	14.50	14.50	12.00	12.00
	7/8	187	6885	14.50	14.50	12.00	12.00
	8	195	6925	16.50	16.50	14.00	14.00
	8	211	7005	16.50	16.50	14.00	14.00
	8	227	7085	16.50	16.50	14.00	14.00
802.11ax-HE80 (MIMO)	5	7	5985	19.00	19.00	16.50	16.50
	5	55	6225	19.00	19.00	16.50	16.50
	5	87	6385	19.00	19.00	16.50	16.50
	6	103	6465	18.50	18.50	16.00	16.00
	6	119	6545	18.50	18.50	16.00	16.00
	7	135	6625	17.00	17.00	15.00	15.00
	7	151	6705	17.00	17.00	15.00	15.00
	7	167	6785	17.00	17.00	15.00	15.00
	7/8	183	6865	17.00	17.00	15.00	15.00
	8	199	6945	19.50	19.50	16.50	16.50
	8	215	7025	19.50	19.50	16.50	16.50
802.11ax-HE160 (MIMO)	5	15	6025	18.00	18.00	18.00	18.00
	5	47	6185	20.00	20.00	19.50	19.50
	5	79	6345	20.00	20.00	19.50	19.50
	6	111	6505	20.00	20.00	18.50	18.50
	7	143	6665	20.00	20.00	17.50	17.50
	7/8	175	6825	20.00	20.00	17.50	17.50
	8	207	6985	20.00	20.00	19.00	19.00
802.11be-EHT20 (MIMO)	5	1	5955	13.00	13.00	11.00	11.00
	5	49	6195	13.00	13.00	11.00	11.00
	5	93	6415	13.00	13.00	11.00	11.00
	6	97	6435	13.00	13.00	10.00	10.00
	6	105	6475	13.00	13.00	10.00	10.00
	6	113	6515	13.00	13.00	10.00	10.00
	7	117	6535	11.50	11.50	8.50	8.50
	7	149	6695	11.50	11.50	8.50	8.50
	7	181	6855	11.50	11.50	8.50	8.50
	7/8	185	6875	11.50	11.50	8.50	8.50
	8	189	6895	14.00	14.00	11.00	11.00

	8	209	6995	14.00	14.00	11.00	11.00
	8	229	7095	14.00	14.00	11.00	11.00
802.11be-EHT40 (MIMO)	5	3	5965	16.00	16.00	14.00	14.00
	5	51	6205	16.00	16.00	14.00	14.00
	5	91	6405	16.00	16.00	14.00	14.00
	6	99	6445	16.00	16.00	13.00	13.00
	6	107	6485	16.00	16.00	13.00	13.00
	6	115	6525	16.00	16.00	13.00	13.00
	7	123	6565	14.50	14.50	12.00	12.00
	7	147	6685	14.50	14.50	12.00	12.00
	7	179	6845	14.50	14.50	12.00	12.00
	7/8	187	6885	14.50	14.50	12.00	12.00
	8	195	6925	16.50	16.50	14.00	14.00
	8	211	7005	16.50	16.50	14.00	14.00
	8	227	7085	16.50	16.50	14.00	14.00
802.11be-EHT80 (MIMO)	5	7	5985	19.00	19.00	16.50	16.50
	5	55	6225	19.00	19.00	16.50	16.50
	5	87	6385	19.00	19.00	16.50	16.50
	6	103	6465	18.50	18.50	16.00	16.00
	6	119	6545	18.50	18.50	16.00	16.00
	7	135	6625	17.00	17.00	15.00	15.00
	7	151	6705	17.00	17.00	15.00	15.00
	7	167	6785	17.00	17.00	15.00	15.00
	7/8	183	6865	17.00	17.00	15.00	15.00
	8	199	6945	19.50	19.50	16.50	16.50
	8	215	7025	19.50	19.50	16.50	16.50
802.11be-EHT160 (MIMO)	5	15	6025	18.00	18.00	18.00	18.00
	5	47	6185	20.00	20.00	19.50	19.50
	5	79	6345	20.00	20.00	19.50	19.50
	6	111	6505	20.00	20.00	18.50	18.50
	7	143	6665	20.00	20.00	17.50	17.50
	7/8	175	6825	20.00	20.00	17.50	17.50
	8	207	6985	20.00	20.00	19.00	19.00

Burst Average Power (dBm)													
6GHz Mode	Band	Channel	Frequency (MHz)	Index 0		Index 1		Index 2		Index 3		Index 4	
				Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4
802.11a (MIMO)	5	1	5955	12.50	12.50	12.50	12.50	12.00	12.00	12.50	12.50	12.50	12.50
	5	57	6235	12.50	12.50	12.50	12.50	12.00	12.00	12.50	12.50	12.50	12.50
	6	113	6515	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50
	7	173	6815	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
802.11ax HE20 (MIMO)	5	1	5955	13.00	13.00	13.00	13.00	12.00	12.00	13.00	13.00	13.00	13.00
	5	57	6235	13.00	13.00	13.00	13.00	12.00	12.00	13.00	13.00	13.00	13.00
	6	113	6515	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00
	7	173	6815	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50
802.11ax HE40 (MIMO)	5	3	5965	16.00	16.00	16.00	16.00	12.00	12.00	16.00	16.00	16.00	16.00
	5	59	6245	16.00	16.00	16.00	16.00	12.00	12.00	16.00	16.00	16.00	16.00
	6	107	6485	16.00	16.00	16.00	16.00	13.00	13.00	13.50	13.50	13.50	13.50
	7	171	6805	14.50	14.50	14.50	14.50	12.00	12.00	14.50	14.50	14.50	14.50
	8	227	7085	16.50	16.50	15.50	15.50	13.50	13.50	15.50	15.50	15.50	15.50
802.11ax HE80 (MIMO)	5	7	5985	19.00	19.00	16.00	16.00	12.00	12.00	16.00	16.00	16.00	16.00
	5	71	6305	19.00	19.00	16.00	16.00	12.00	12.00	16.00	16.00	16.00	16.00
	6	119	6545	18.50	18.50	16.00	16.00	13.00	13.00	13.50	13.50	13.50	13.50
	7	167	6785	17.00	17.00	16.00	16.00	12.00	12.00	14.50	14.50	14.50	14.50
	8	215	7025	19.50	19.50	15.50	15.50	13.50	13.50	15.50	15.50	15.50	15.50
802.11ax HE160 (MIMO)	5	15	6025	18.00	18.00	16.00	16.00	12.00	12.00	16.00	16.00	16.00	16.00
	5	47	6185	20.00	20.00	16.00	16.00	12.00	12.00	16.00	16.00	16.00	16.00
	6	111	6505	20.00	20.00	16.00	16.00	13.00	13.00	13.50	13.50	13.50	13.50
	7	143	6665	20.00	20.00	16.00	16.00	12.00	12.00	14.50	14.50	14.50	14.50
	8	207	6985	20.00	20.00	15.50	15.50	13.50	13.50	15.50	15.50	15.50	15.50
802.11be EHT20 (MIMO)	5	1	5955	13.00	13.00	13.00	13.00	12.00	12.00	13.00	13.00	13.00	13.00
	5	57	6235	13.00	13.00	13.00	13.00	12.00	12.00	13.00	13.00	13.00	13.00
	6	113	6515	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00
	7	173	6815	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50
802.11be EHT40 (MIMO)	5	3	5965	16.00	16.00	16.00	16.00	12.00	12.00	16.00	16.00	16.00	16.00
	5	59	6245	16.00	16.00	16.00	16.00	12.00	12.00	16.00	16.00	16.00	16.00
	6	107	6485	16.00	16.00	16.00	16.00	13.00	13.00	13.50	13.50	13.50	13.50
	7	171	6805	14.50	14.50	14.50	14.50	12.00	12.00	14.50	14.50	14.50	14.50
	8	227	7085	16.50	16.50	15.50	15.50	13.50	13.50	15.50	15.50	15.50	15.50
802.11be EHT80 (MIMO)	5	7	5985	19.00	19.00	16.00	16.00	12.00	12.00	16.00	16.00	16.00	16.00
	5	71	6305	19.00	19.00	16.00	16.00	12.00	12.00	16.00	16.00	16.00	16.00
	6	119	6545	18.50	18.50	16.00	16.00	13.00	13.00	13.50	13.50	13.50	13.50
	7	167	6785	17.00	17.00	16.00	16.00	12.00	12.00	14.50	14.50	14.50	14.50
	8	215	7025	19.50	19.50	15.50	15.50	13.50	13.50	15.50	15.50	15.50	15.50
802.11be EHT160 (MIMO)	5	15	6025	18.00	18.00	16.00	16.00	12.00	12.00	16.00	16.00	16.00	16.00
	5	47	6185	20.00	20.00	16.00	16.00	12.00	12.00	16.00	16.00	16.00	16.00
	6	111	6505	20.00	20.00	16.00	16.00	13.00	13.00	13.50	13.50	13.50	13.50
	7	143	6665	20.00	20.00	16.00	16.00	12.00	12.00	14.50	14.50	14.50	14.50
	8	207	6985	20.00	20.00	15.50	15.50	13.50	13.50	15.50	15.50	15.50	15.50

Very Low Power (VLP)

Maximum Transmit Burst Average Power (dBm)							
6GHz Mode	Band	Channel	Frequency (MHz)	SDB Index 0		CDD Index 0	
				Ant 3	Ant 4	Ant 3	Ant 4
802.11a (MIMO)	5	1	5955	8.50	8.50	6.00	6.00
	5	49	6195	8.00	8.00	6.00	6.00
	5	93	6415	8.00	8.00	6.00	6.00
	6	97	6435	8.00	8.00	5.50	5.50
	6	105	6475	8.00	8.00	5.50	5.50
	6	113	6515	8.00	8.00	5.50	5.50
	7	117	6535	6.50	6.50	4.50	4.50
	7	149	6695	6.50	6.50	4.50	4.50
	7	181	6855	7.00	7.00	4.50	4.50
	7/8	185	6875	7.00	7.00	4.50	4.50
	8	189	6895	8.50	8.50	6.00	6.00
	8	209	6995	8.50	8.50	6.00	6.00
	8	229	7095	8.50	8.50	6.00	6.00
802.11ax-HE20 (MIMO)	5	1	5955	9.00	9.00	6.50	6.50
	5	49	6195	9.00	9.00	6.50	6.50
	5	93	6415	9.00	9.00	6.50	6.50
	6	97	6435	8.50	8.50	6.00	6.00
	6	105	6475	8.50	8.50	6.00	6.00
	6	113	6515	8.50	8.50	6.00	6.00
	7	117	6535	7.00	7.00	5.00	5.00
	7	149	6695	7.00	7.00	5.00	5.00
	7	181	6855	7.50	7.50	5.00	5.00
	7/8	185	6875	7.50	7.50	5.00	5.00
	8	189	6895	9.00	9.00	6.50	6.50
	8	209	6995	10.00	10.00	6.50	6.50
	8	229	7095	10.00	10.00	6.50	6.50
802.11ax-HE40 (MIMO)	5	3	5965	11.50	11.50	9.50	9.50
	5	51	6205	11.50	11.50	9.50	9.50
	5	91	6405	11.50	11.50	9.50	9.50
	6	99	6445	11.50	11.50	8.50	8.50
	6	107	6485	11.50	11.50	8.50	8.50
	6	115	6525	11.50	11.50	8.50	8.50
	7	123	6565	10.50	10.50	7.50	7.50
	7	147	6685	10.50	10.50	7.50	7.50
	7	179	6845	10.50	10.50	7.50	7.50
	7/8	187	6885	10.50	10.50	7.50	7.50
	8	195	6925	13.00	13.00	9.50	9.50
	8	211	7005	13.00	13.00	9.50	9.50
	8	227	7085	13.00	13.00	9.50	9.50
802.11ax-HE80 (MIMO)	5	7	5985	15.00	15.00	12.50	12.50
	5	55	6225	15.00	15.00	12.50	12.50
	5	87	6385	15.00	15.00	12.50	12.50
	6	103	6465	14.50	14.50	12.00	12.00
	6	119	6545	14.50	14.50	12.00	12.00
	7	135	6625	13.50	13.50	11.00	11.00
	7	151	6705	13.50	13.50	11.00	11.00
	7	167	6785	13.50	13.50	11.00	11.00
	7/8	183	6865	13.50	13.50	11.00	11.00
	8	199	6945	16.00	16.00	12.50	12.50
	8	215	7025	16.00	16.00	12.50	12.50
802.11ax-HE160 (MIMO)	5	15	6025	17.50	17.50	15.50	15.50
	5	47	6185	17.50	17.50	15.50	15.50
	5	79	6345	17.50	17.50	15.50	15.50
	6	111	6505	15.00	15.00	14.50	14.50
	7	143	6665	16.00	16.00	13.50	13.50
	7/8	175	6825	16.00	16.00	13.50	13.50
	8	207	6985	18.50	18.50	15.50	15.50
802.11be-EHT20 (MIMO)	5	1	5955	9.00	9.00	6.50	6.50
	5	49	6195	9.00	9.00	6.50	6.50
	5	93	6415	9.00	9.00	6.50	6.50
	6	97	6435	8.50	8.50	6.00	6.00
	6	105	6475	8.50	8.50	6.00	6.00
	6	113	6515	8.50	8.50	6.00	6.00
	7	117	6535	7.00	7.00	5.00	5.00
	7	149	6695	7.00	7.00	5.00	5.00
	7	181	6855	7.50	7.50	5.00	5.00
	7/8	185	6875	7.50	7.50	5.00	5.00
	8	189	6895	9.00	9.00	6.50	6.50

	8	209	6995	10.00	10.00	6.50	6.50
	8	229	7095	10.00	10.00	6.50	6.50
802.11be-EHT40 (MIMO)	5	3	5965	11.50	11.50	9.50	9.50
	5	51	6205	11.50	11.50	9.50	9.50
	5	91	6405	11.50	11.50	9.50	9.50
	6	99	6445	11.50	11.50	8.50	8.50
	6	107	6485	11.50	11.50	8.50	8.50
	6	115	6525	11.50	11.50	8.50	8.50
	7	123	6565	10.50	10.50	7.50	7.50
	7	147	6685	10.50	10.50	7.50	7.50
	7	179	6845	10.50	10.50	7.50	7.50
	7/8	187	6885	10.50	10.50	7.50	7.50
	8	195	6925	13.00	13.00	9.50	9.50
	8	211	7005	13.00	13.00	9.50	9.50
	8	227	7085	13.00	13.00	9.50	9.50
802.11be-EHT80 (MIMO)	5	7	5985	15.00	15.00	12.50	12.50
	5	55	6225	15.00	15.00	12.50	12.50
	5	87	6385	15.00	15.00	12.50	12.50
	6	103	6465	14.50	14.50	12.00	12.00
	6	119	6545	14.50	14.50	12.00	12.00
	7	135	6625	13.50	13.50	11.00	11.00
	7	151	6705	13.50	13.50	11.00	11.00
	7	167	6785	13.50	13.50	11.00	11.00
	7/8	183	6865	13.50	13.50	11.00	11.00
	8	199	6945	16.00	16.00	12.50	12.50
	8	215	7025	16.00	16.00	12.50	12.50
802.11be-EHT160 (MIMO)	5	15	6025	17.50	17.50	15.50	15.50
	5	47	6185	17.50	17.50	15.50	15.50
	5	79	6345	17.50	17.50	15.50	15.50
	6	111	6505	15.00	15.00	14.50	14.50
	7	143	6665	16.00	16.00	13.50	13.50
	7/8	175	6825	16.00	16.00	13.50	13.50
	8	207	6985	18.50	18.50	15.50	15.50

Burst Average Power (dBm)													
6GHz Mode	Band	Channel	Frequency (MHz)	Index 0		Index 1		Index 2		Index 3		Index 4	
				Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4
802.11a (MIMO)	5	1	5955	8.50	8.50							8.50	8.50
	5	57	6235	8.00	8.00							8.00	8.00
	6	113	6515	8.00	8.00							8.00	8.00
	7	173	6815	7.00	7.00							7.00	7.00
802.11ax HE20 (MIMO)	5	1	5955	9.00	9.00							9.00	9.00
	5	57	6235	9.00	9.00							9.00	9.00
	6	113	6515	8.50	8.50							8.50	8.50
	7	173	6815	7.50	7.50							7.50	7.50
802.11ax HE40 (MIMO)	5	3	5965	11.50	11.50							11.50	11.50
	5	59	6245	11.50	11.50							11.50	11.50
	6	107	6485	11.50	11.50							11.50	11.50
	7	171	6805	10.50	10.50							10.50	10.50
	8	227	7085	13.00	13.00							13.00	13.00
802.11ax HE80 (MIMO)	5	7	5985	15.00	15.00							15.00	15.00
	5	71	6305	15.00	15.00							15.00	15.00
	6	119	6545	14.50	14.50							13.50	13.50
	7	167	6785	13.50	13.50							13.50	13.50
	8	215	7025	16.00	16.00							15.50	15.50
802.11ax HE160 (MIMO)	5	15	6025	17.50	17.50							16.00	16.00
	5	47	6185	17.50	17.50							16.00	16.00
	6	111	6505	15.00	15.00							13.50	13.50
	7	143	6665	16.00	16.00							14.50	14.50
	8	207	6985	18.50	18.50							15.50	15.50
802.11be EHT20 (MIMO)	5	1	5955	9.00	9.00							9.00	9.00
	5	57	6235	9.00	9.00							9.00	9.00
	6	113	6515	8.50	8.50							8.50	8.50
	7	173	6815	7.50	7.50							7.50	7.50
802.11be EHT40 (MIMO)	5	3	5965	11.50	11.50							11.50	11.50
	5	59	6245	11.50	11.50							11.50	11.50
	6	107	6485	11.50	11.50							11.50	11.50
	7	171	6805	10.50	10.50							10.50	10.50
	8	227	7085	13.00	13.00							13.00	13.00
802.11be EHT80 (MIMO)	5	7	5985	15.00	15.00							15.00	15.00
	5	71	6305	15.00	15.00							15.00	15.00
	6	119	6545	14.50	14.50							13.50	13.50
	7	167	6785	13.50	13.50							13.50	13.50
	8	215	7025	16.00	16.00							15.50	15.50
802.11be EHT160 (MIMO)	5	15	6025	17.50	17.50							16.00	16.00
	5	47	6185	17.50	17.50							16.00	16.00
	6	111	6505	15.00	15.00							13.50	13.50
	7	143	6665	16.00	16.00							14.50	14.50
	8	207	6985	18.50	18.50							15.50	15.50

<Bluetooth/Thread/UWB Maximum Power>

General Note:

1. The device implements the power management for Bluetooth/Thread SAR compliance for different exposure conditions and user cases. In each exposure condition, the power index selection is determined by the user cases as tested in Section 14 of this report. Full details about the proprietary power management decision are illustrated in the operational description.

Burst Average Power (dBm)								
Bluetooth Mode	Channel	Frequency (MHz)	Index 0		Index 1		Index 2	
			Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4
BR / EDR 1Mbps (SISO)	0	2402	21.00	21.00	13.00	15.00	17.00	19.50
	39	2441	21.00	21.00	13.00	15.00	17.00	19.50
	78	2480	21.00	21.00	13.00	15.00	17.00	19.50
BR / EDR 2Mbps (SISO)	0	2402	18.50	18.50	13.00	15.00	17.00	18.50
	39	2441	18.50	18.50	13.00	15.00	17.00	18.50
	78	2480	18.50	18.50	13.00	15.00	17.00	18.50
BR / EDR 3Mbps (SISO)	0	2402	18.50	18.50	13.00	15.00	17.00	18.50
	39	2441	18.50	18.50	13.00	15.00	17.00	18.50
	78	2480	18.50	18.50	13.00	15.00	17.00	18.50
LE 1Mbps (SISO)	0	2402	20.00	20.00	13.00	15.00	17.00	19.50
	19	2440	20.00	20.00	13.00	15.00	17.00	19.50
	39	2480	20.00	20.00	13.00	15.00	17.00	19.50
LE 2Mbps (SISO)	1	2404	20.00	20.00	13.00	15.00	17.00	19.50
	19	2440	20.00	20.00	13.00	15.00	17.00	19.50
	38	2478	20.00	20.00	13.00	15.00	17.00	19.50
BLE CS GFSK 1Mbps (SISO)	2	2404	19.00	19.00	13.00	15.00	17.00	19.00
	38	2440	19.00	19.00	13.00	15.00	17.00	19.00
	76	2478	19.00	19.00	13.00	15.00	17.00	19.00
BLE CS GFSK 2Mbps (SISO)	2	2404	19.00	19.00	13.00	15.00	17.00	19.00
	38	2440	19.00	19.00	13.00	15.00	17.00	19.00
	76	2478	19.00	19.00	13.00	15.00	17.00	19.00
BLE CS ASK 1Mbps (SISO)	2	2404	19.00	19.00	13.00	15.00	17.00	19.00
	38	2440	19.00	19.00	13.00	15.00	17.00	19.00
	76	2478	19.00	19.00	13.00	15.00	17.00	19.00
BLE CS ASK 2Mbps (SISO)	2	2404	19.00	19.00	13.00	15.00	17.00	19.00
	38	2440	19.00	19.00	13.00	15.00	17.00	19.00
	76	2478	19.00	19.00	13.00	15.00	17.00	19.00

Burst Average Power (dBm)								
Bluetooth Mode	Channel	Frequency (MHz)	Index 0		Index 1		Index 2	
			Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4
BR / EDR 1Mbps (MIMO)	0	2402	21.00	21.00	13.00	13.00	17.00	17.00
	39	2441	21.00	21.00	13.00	13.00	17.00	17.00
	78	2480	21.00	21.00	13.00	13.00	17.00	17.00
BR / EDR 2Mbps (MIMO)	0	2402	17.50	17.50	13.00	13.00	17.00	17.00
	39	2441	17.50	17.50	13.00	13.00	17.00	17.00
	78	2480	17.50	17.50	13.00	13.00	17.00	17.00
BR / EDR 3Mbps (MIMO)	0	2402	17.50	17.50	13.00	13.00	17.00	17.00
	39	2441	17.50	17.50	13.00	13.00	17.00	17.00
	78	2480	17.50	17.50	13.00	13.00	17.00	17.00
LE 1Mbps (MIMO)	0	2402	19.50	19.50	13.00	13.00	17.00	17.00
	19	2440	19.50	19.50	13.00	13.00	17.00	17.00
	39	2480	19.50	19.50	13.00	13.00	17.00	17.00
LE 2Mbps (MIMO)	1	2404	19.50	19.50	13.00	13.00	17.00	17.00
	19	2440	19.50	19.50	13.00	13.00	17.00	17.00
	38	2478	19.50	19.50	13.00	13.00	17.00	17.00

<Thread Maximum Power>

Burst Average Power (dBm)					
Thread Mode	Channel	Frequency (MHz)	Index 0	Index 1	Index 2
			Ant 3	Ant 3	Ant 3
250K (SISO)	11	2405	22.00	11.50	16.50
	18	2440	22.00	11.50	16.50
	25	2475	22.00	11.50	16.50
	26	2480	22.00	11.50	16.50

<UWB Maximum Power>

Maximum Tune up Power (dBm)			
UWB	Ant 2 (CH05)	Ant 1 (CH09)	Ant 2 (CH09)
	-15.19	-16.66	-18.55

2.3 General LTE SAR Test and Reporting Considerations

Summarized necessary items addressed in KDB 941225 D05 v02r05	
FCC ID	A4RG45RY
Equipment Name	Phone
Operating Frequency Range of each LTE transmission band	LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 13: 777 MHz ~ 787 MHz LTE Band 14: 788 MHz ~ 798 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 25: 1850 MHz ~ 1915 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 30: 2305 MHz ~ 2315 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 48: 3550 MHz ~ 3700 MHz LTE Band 66: 1710 MHz ~ 1780 MHz LTE Band 71: 663 MHz ~ 698 MHz
Channel Bandwidth	LTE Band 2:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 4:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 5:1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 7: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 12:1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 13: 5MHz, 10MHz LTE Band 14: 5MHz, 10MHz LTE Band 17: 5MHz, 10MHz LTE Band 25:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 26:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz LTE Band 30: 5MHz, 10MHz LTE Band 38: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 41: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 48: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 66:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 71: 5MHz, 10MHz, 15MHz, 20MHz
uplink modulations used	QPSK / 16QAM / 64QAM / 256QAM
LTE Voice / Data requirements	Voice and Data
LTE MPR permanently built-in by design	**Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3**

Modulation	Channel bandwidth / Transmission bandwidth (N_{RB})						MPR (dB)
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1
16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2
64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2
64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3
256 QAM	≥ 1						≤ 5

LTE A-MPR	In the base station simulator configuration, Network Setting value is set to NS_01 to disable A-MPR during SAR testing and the LTE SAR tests was transmitting on all TTI frames (Maximum TTI)
Spectrum plots for RB configuration	A properly configured base station simulator was used for the SAR and power measurement; therefore, spectrum plots for each RB allocation and offset configuration are not included in the SAR report.
Power reduction applied to satisfy SAR compliance	The device has several different power modes for each exposure conditions SAR compliance; power selection is determined by the device's positioning and usage scenarios. Detail refer to operational description.
LTE Carrier Aggregation Combinations	The UL CA include in parent model GUL82 part 1 SAR Report section 12
LTE Carrier Aggregation Additional Information	Additional following LTE Release features are not supported: Relay, HetNet, Enhanced MIMO, eICI, WiFi Offloading, MDH, eMBMA, Cross-Carrier Scheduling, Enhanced SC-FDMA.

Transmission (H, M, L) channel numbers and frequencies in each LTE band

LTE Band 2

	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	18607	1850.7	18615	1851.5	18625	1852.5	18650	1855	18675	1857.5	18700	1860
M	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880
H	19193	1909.3	19185	1908.5	19175	1907.5	19150	1905	19125	1902.5	19100	1900

LTE Band 4

	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	19957	1710.7	19965	1711.5	19975	1712.5	20000	1715	20025	1717.5	20050	1720
M	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5
H	20393	1754.3	20385	1753.5	20375	1752.5	20350	1750	20325	1747.5	20300	1745

LTE Band 5

	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	20407	824.7	20415	825.5	20425	826.5	20450	829
M	20525	836.5	20525	836.5	20525	836.5	20525	836.5
H	20643	848.3	20635	847.5	20625	846.5	20600	844

LTE Band 7

	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	20775	2502.5	20800	2505	20825	2507.5	20850	2510
M	21100	2535	21100	2535	21100	2535	21100	2535
H	21425	2567.5	21400	2565	21375	2562.5	21350	2560

LTE Band 12

	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	23017	699.7	23025	700.5	23035	701.5	23060	704
M	23095	707.5	23095	707.5	23095	707.5	23095	707.5
H	23173	715.3	23165	714.5	23155	713.5	23130	711

LTE Band 13

	Bandwidth 5 MHz		Bandwidth 10 MHz	
	Channel #	Freq.(MHz)	Channel #	Freq.(MHz)
L	23205	779.5	23230	782
M	23230	782		
H	23255	784.5		

LTE Band 14

	Bandwidth 5 MHz		Bandwidth 10 MHz	
	Channel #	Channel #	Channel #	Freq.(MHz)
L	23305	790.5	23330	793
M	23330	793		
H	23355	795.5		

LTE Band 17

	Bandwidth 5 MHz		Bandwidth 10 MHz	
	Channel #	Freq.(MHz)	Channel #	Freq. (MHz)
L	23755	706.5	23780	709
M	23790	710	23790	710
H	23825	713.5	23800	711

LTE Band 25												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	26047	1850.7	26055	1851.5	26065	1852.5	26090	1855	26115	1857.5	26140	1860
M	26340	1880	26340	1880	26340	1880	26340	1880	26340	1880	26340	1880
H	26683	1914.3	26675	1913.5	26665	1912.5	26640	1910	26615	1907.5	26590	1905

LTE Band 26										
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	26697	814.7	26705	815.5	26715	816.5	26740	819	26765	821.5
M	26865	831.5	26865	831.5	26865	831.5	26865	831.5	26865	831.5
H	27033	848.3	27025	847.5	27015	846.5	26990	844	26965	841.5

LTE Band 30				
	Bandwidth 5 MHz		Bandwidth 10 MHz	
	Channel #	Freq.(MHz)	Channel #	Freq.(MHz)
L	27685	2307.5	27710	2310
M	27710	2310		
H	27735	2312.5		

LTE Band 38								
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	37775	2572.5	37800	2575	37825	2577.5	37850	2580
M	38000	2595	38000	2595	38000	2595	38000	2595
H	38225	2617.5	38200	2615	38175	2612.5	38150	2610

LTE Band 41								
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	39675	2498.5	39700	2501	39725	2503.5	39750	2506
L M	40148	2545.8	40160	2547	40173	2548.3	40185	2549.5
M	40620	2593	40620	2593	40620	2593	40620	2593
H M	41093	2640.3	41080	2639	41068	2637.8	41055	2636.5
H	41565	2687.5	41540	2685	41515	2682.5	41490	2680

LTE Band 48								
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	55265	3552.5	55290	3555	55315	3557.5	55340	3560
L M	55810	3607	55815	3607.5	55820	3608	55830	3609
M H	56170	3643	56165	3642.5	56160	3642	56150	3641
H	56715	3697.5	56690	3695	56665	3692.5	56640	3690

LTE Band 66												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	131979	1710.7	131987	1711.5	131997	1712.5	132022	1715	132047	1717.5	132072	1720
M	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745
H	132665	1779.3	132657	1778.5	132647	1777.5	132622	1775	132597	1772.5	132572	1770

LTE Band 71								
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	133147	665.5	133172	668	133197	670.5	133222	673
M	133297	680.5	133297	680.5	133297	680.5	133297	680.5
H	133447	695.5	133422	693	133397	690.5	133372	688

2.4 General 5G NR SAR Test and Reporting Considerations

5G NR Information	
FCC ID	A4RG45RY
Equipment Name	Phone
Operating Frequency Range of each 5G NR transmission band	5G NR n2 : 1850 MHz ~ 1910 MHz 5G NR n5 : 824 MHz ~ 849 MHz 5G NR n7 : 2500 MHz ~ 2570 MHz 5G NR n12 : 699 MHz ~ 716 MHz 5G NR n14 : 788 MHz ~ 798 MHz 5G NR n25 : 1850 MHz ~ 1915 MHz 5G NR n26 : 814 MHz ~ 849 MHz 5G NR n30 : 2305 MHz ~ 2315 MHz 5G NR n38 : 2570 MHz ~ 2620 MHz 5G NR n41 : 2496 MHz ~ 2690 MHz 5G NR n66 : 1710 MHz ~ 1780 MHz 5G NR n71 : 663 MHz ~ 698 MHz 5G NR n77: 3700 MHz ~ 3980 MHz, 3450 MHz ~ 3550 MHz 5G NR n78: 3700 MHz ~ 3800 MHz, 3450 MHz ~ 3550 MHz
Channel Bandwidth	5G NR n2: 5MHz, 10MHz, 15MHz, 20MHz, 25MHz, 30MHz, 40MHz 5G NR n5: 5MHz, 10MHz, 15MHz, 20MHz 5G NR n7: 5MHz, 10MHz, 15MHz, 20MHz, 25 MHz, 30MHz, 40MHz, 50MHz 5G NR n12: 5MHz, 10MHz, 15MHz 5G NR n14: 5MHz, 10MHz 5G NR n25: 5MHz, 10MHz, 15MHz, 20MHz, 25 MHz, 30MHz, 35MHz, 40MHz 5G NR n26: 5MHz, 10MHz, 15MHz, 20MHz 5G NR n30: 5MHz, 10MHz 5G NR n38: 10MHz, 15MHz, 20MHz, 25 MHz, 30MHz, 40MHz 5G NR n41: 10MHz, 15MHz, 20MHz, 30MHz, 40MHz, 50MHz, 60MHz, 70MHz, 80MHz, 90MHz, 100MHz 5G NR n66: 5MHz, 10MHz, 15MHz, 20MHz, 25MHz, 30MHz, 35MHz, 40MHz 5G NR n71: 5MHz, 10MHz, 15MHz, 20MHz 5G NR n77: 10MHz, 15MHz, 20MHz, 25MHz, 30MHz, 40MHz, 50MHz, 60MHz, 70MHz, 80MHz, 90MHz, 100MHz 5G NR n78: 10MHz, 15MHz, 20MHz, 25MHz, 30MHz, 40MHz, 50MHz, 60MHz, 70MHz, 80MHz, 90MHz, 100MHz
SCS	FDD: SCS15KHz, TDD: SCS30KHz
uplink modulations used	DFT-s-OFDM: PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM CP-OFDM QPSK / 16QAM / 64QAM / 256QAM
A-MPR (Additional MPR) disabled for SAR Testing?	Yes
LTE Anchor Band 2	FR1 n2/5/7/12/25/30/38/41/66/71/77/78
LTE Anchor Band 4	FR1 n2/38/41/78
LTE Anchor Band 5	FR1 n2/7/30/38/41/66/77/78
LTE Anchor Band 7	FR1 n2/5/12/66/71/77/78
LTE Anchor Band 12	FR1 n2/7/25/30/38/41/66/77/78
LTE Anchor Band 13	FR1 n2/7/25/66/77/78
LTE Anchor Band 14	FR1 n2/30/66/77
LTE Anchor Band 25	FR1 n41/66/77/78
LTE Anchor Band 26	FR1 n25/41/77
LTE Anchor Band 30	FR1 n2/5/66/77
LTE Anchor Band 38	FR1 n78
LTE Anchor Band 41	FR1 n41/77/78
LTE Anchor Band 48	FR1 n2/5/25/66/77
LTE Anchor Band 66	FR1 n2/5/7/12/25/30/38/41/66/71/77/78
LTE Anchor Band 71	FR1 n2/7/38/41/66/78

NR Band 2

	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	370500	1852.5	371000	1855	371500	1857.5	372000	1860	372500	1862.5	373000	1865	374000	1870
M	376000	1880	376000	1880	376000	1880	376000	1880	376000	1880	376000	1880	376000	1880
H	381500	1907.5	381000	1905	380500	1902.5	380000	1900	379500	1897.5	379000	1895	378000	1890

NR Band 5

	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	165300	826.5	165800	829	166300	831.5	166800	834
M	167300	836.5	167300	836.5	167300	836.5	167300	836.5
H	169300	846.5	168800	844	168300	841.5	167800	839

NR Band 7																
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	500500	2502.5	501000	2505	501500	2507.5	502000	2510	502500	2512.5	503000	2515	504000	2520	505000	2525
M	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535
H	513500	2567.5	513000	2565	512500	2562.5	512000	2560	511500	2557.5	511000	2555	510000	2550	509000	2545

NR Band 12						
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	140300	701.5	140800	704	141300	706.5
M	141500	707.5	141500	707.5	141500	707.5
H	142700	713.5	142200	711	141700	708.5

NR Band 14				
	Bandwidth 5MHz		Bandwidth 10MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	158100	790.5	158600	793
M	158600	793		
H	159100	795.5		

NR Band 25																
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 35MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	370500	1852.5	371000	1855	371500	1857.5	372000	1860	372500	1862.5	373000	1865	373500	1867.5	374000	1870
M	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5
H	382500	1912.5	382000	1910	381500	1907.5	381000	1905	380500	1902.5	380000	1900	379500	1897.5	379000	1895

NR Band 26								
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	163300	816.5	163800	819	164300	821.5	164800	824
M	166300	831.5	166300	831.5	166300	831.5	166300	831.5
H	169300	846.5	168800	844	168300	841.5	167800	839

NR Band 30				
	Bandwidth 5MHz		Bandwidth 10MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	461500	2307.5	462000	2310
M	462000	2310		
H	462500	2312.5		

NR Band 38												
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	515004	2575.02	515502	2577.51	516000	2580	516504	2582.52	517002	2585.01	518004	2590.02
M	519000	2595	519000	2595	519000	2595	519000	2595	519000	2595	519000	2595
H	522996	2614.98	522498	2612.49	522000	2610	521496	2607.48	520998	2604.99	519996	2599.98

NR Band 41																						
	Bandwidth10MHz		Bandwidth15MHz		Bandwidth20MHz		Bandwidth30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	500202	2501.01	500700	2503.5	501204	2506.02	502200	2511	503202	2516.01	504204	2521.02	505200	2526	506202	2531.01	507204	2536.02	508200	2541	509202	2546.01
M	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99
H	537000	2685	536496	2682.48	535998	2679.99	534996	2674.98	534000	2670	532998	2664.99	531996	2659.98	531000	2655	529998	2649.99	528996	2644.98	528000	2640

NR Band 66																
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 35MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	342500	1712.5	343000	1715	343500	1717.5	344000	1720	344500	1722.5	345000	1725	345500	1727.5	346000	1730
M	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745
H	355500	1777.5	355000	1775	354500	1772.5	354000	1770	353500	1767.5	353000	1765	352500	1762.5	352000	1760

NR Band 71								
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	133100	665.5	133600	668	13410	670.5	134600	673
M	136100	680.5	136100	680.5	136100	680.5	136100	680.5
H	139100	695.5	138600	693	13810	690.5	137600	688

NR Band 77_Part 27O																								
	Bandwidth10MHz		Bandwidth15MHz		Bandwidth 20MHz		Bandwidth25MHz		Bandwidth30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	647000	3705	647168	3707.52	647334	3710.01	647500	3712.5	647668	3715.02	648000	3720	648334	3725.01	648668	3730.02	649000	3735	649334	3740.01	649668	3745.02	650000	3750
M	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840
H	665000	3975	664832	3972.48	664666	3969.99	664500	3967.50	664332	3964.98	664000	3960	663666	3954.99	663332	3949.98	663000	3945	662666	3939.99	662332	3934.98	662000	3930

NR Band 78_Part 27O																								
	Bandwidth10MHz		Bandwidth15MHz		Bandwidth 20MHz		Bandwidth25MHz		Bandwidth30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	647000	3705	647168	3707.52	647334	3710.01	647500	3712.5	647668	3715.02	648000	3720	648334	3725.01	648668	3730.02	649000	3735	649334	3740.01	649668	3745.02	650000	3750
M	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750		
H	653000	3795	652832	3792.48	652666	3789.99	652500	3787.50	652332	3784.98	652000	3780	651666	3774.99	651332	3769.98	651000	3765	650666	3759.99	650332	3754.98		

NR Band 77/78_Part 27Q																								
	Bandwidth10MHz		Bandwidth15MHz		Bandwidth 20MHz		Bandwidth25MHz		Bandwidth30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	630334	3455.01	630500	3457.5	630668	3460.02	630834	3462.51	631000	3465	631334	3470.01	631668	3475.02	632000	3480	632334	3485.01	632668	3490.02	633000	3495		
M	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98
H	636332	3544.98	636166	3542.49	636000	3540	635832	3537.48	635666	3534.99	635332	3529.98	635000	3525	634666	3519.99	634332	3514.98	634000	3510	633666	3504.99		

3. TAS feature for RF Exposure compliance

The FCC RF exposure limit is based on time-averaged RF exposure. Both SAR and PD regulatory specifications are defined over certain measurement duration allowing for time-averaging. The Samsung S.LSI proprietary Spatial Time Average SAR (S-TAS) with Non-Terrestrial Networks algorithm has been designed to meet the compliance limits over the required duration, while still allowing dynamic control of transmit power for meeting system performance. Under the control of TAS algorithm, the device can transmit at high power up to Pmax for certain interval, but the average power will be maintained not exceeding the pre-defined averaged level (Plimit), and thus maintain the time-averaged RF exposure compliance

The following table shows Plimit and maximum tune up output power Pmax, for all exposure and transmit transmit conditions (output power index).

Pmax	Maximum Tx power that can be transmitted physically from RFIC for a given RAT
SAR_FCC_limit	SAR limit specified by FCC 1.6 W/kg averaged over 1-gram, for head and body exposure, and 4 W/kg averaged over 10-gram, for extremity exposure
Plimit	The time-averaged RF power that corresponds to SAR_target or PD_target.

3.1 SAR Characterization – Power Table

General Note:

1. The Plimit values correspond to SAR_design_target.
2. GSM don't support time average feature of dynamic power varying, the power will be fixed at the static reduce power level at different exposure conditions for RF exposure compliance. For the GSM Plimit power levels in the table correspond to the burst average power levels which don't account for TX duty cycle.
3. UMTS, LTE, FR1 and NTN: Plimit power levels in the table correspond to the time-averaged power levels which accounts for TX duty cycle.
4. Maximum target power, Pmax, is configured in NV settings in EUT to limit maximum transmitting power. This power is converted into peak power in NV settings for TDD schemes.

<P_{limit} for supported technologies and bands (P_{limit} corresponding to SAR design target)>

Wireless technology (No Accounting duty cycle)	Mode	Duty Cycle %	Antenna	Maximum Power Condition	Head		Hotspot	Body-worn/Extremity		P Max Burst average power (dBm)
					Standalone	Simultaneous	Simultaneous	Standalone	Simultaneous	
				Index 1	Index 2	Index 3	Index 4	Index 5	Index 6	
				P limit						
				Burst average power (dBm)						
GSM850	GSM 1TX	12.50%	Ant0	32.50	30.50	29.80	33.90	34.60	33.90	32.50
	GPRS 1TX	12.50%		32.50	38.80	38.10	33.90	34.60	33.90	32.50
	GPRS 2TX	25.00%		31.50	35.80	35.10	30.90	31.60	30.90	31.50
	GPRS 3TX	37.50%		30.50	34.00	33.30	29.10	29.80	29.10	30.50
	GPRS 4TX	50.00%		29.50	32.80	32.10	27.90	28.60	27.90	29.50
	EDGE 1TX	12.50%		26.50	38.80	38.10	33.90	34.60	33.90	26.50
	EDGE 2TX	25.00%		25.50	35.80	35.10	30.90	31.60	30.90	25.50
	EDGE 3TX	37.50%		24.50	34.00	33.30	29.10	29.80	29.10	24.50
	EDGE 4TX	50.00%		23.50	32.80	32.10	27.90	28.60	27.90	23.50
GSM850	GSM 1TX	12.50%	Ant1	32.20	30.20	29.00	32.90	33.60	32.90	32.20
	GPRS 1TX	12.50%		32.20	31.50	30.30	32.90	33.60	32.90	32.20
	GPRS 2TX	25.00%		31.20	28.50	27.30	29.90	30.60	29.90	31.20
	GPRS 3TX	37.50%		30.20	26.70	25.50	28.10	28.80	28.10	30.20
	GPRS 4TX	50.00%		29.20	25.50	24.30	26.90	27.60	26.90	29.20
	EDGE 1TX	12.50%		26.20	31.50	30.30	32.90	33.60	32.90	26.20
	EDGE 2TX	25.00%		25.20	28.50	27.30	29.90	30.60	29.90	25.20
	EDGE 3TX	37.50%		24.20	26.70	25.50	28.10	28.80	28.10	24.20
	EDGE 4TX	50.00%		23.20	25.50	24.30	26.90	27.60	26.90	23.20
GSM1900	GSM/GPRS 1TX	12.50%	Ant2	29.50	36.90	36.20	28.50	29.20	28.50	29.50
	GPRS 2TX	25.00%		28.00	33.90	33.20	25.50	26.20	25.50	28.00
	GPRS 3TX	37.50%		27.50	32.10	31.40	23.70	24.40	23.70	27.50
	GPRS 4TX	50.00%		26.50	30.90	30.20	22.50	23.20	22.50	26.50
	EDGE 1TX	12.50%		25.50	36.90	36.20	28.50	29.20	28.50	25.50
	EDGE 2TX	25.00%		24.50	33.90	33.20	25.50	26.20	25.50	24.50
	EDGE 3TX	37.50%		23.50	32.10	31.40	23.70	24.40	23.70	23.50
	EDGE 4TX	50.00%		22.50	30.90	30.20	22.50	23.20	22.50	22.50
GSM1900	GSM/GPRS 1TX	12.50%	Ant0	29.30	44.50	43.80	26.30	28.10	27.40	29.30
	GPRS 2TX	25.00%		27.80	41.50	40.80	23.30	25.10	24.40	27.80
	GPRS 3TX	37.50%		27.30	39.70	39.00	21.50	23.30	22.60	27.30
	GPRS 4TX	50.00%		26.30	38.50	37.80	20.30	22.10	21.40	26.30
	EDGE 1TX	12.50%		25.30	44.50	43.80	26.30	28.10	27.40	25.30
	EDGE 2TX	25.00%		24.30	41.50	40.80	23.30	25.10	24.40	24.30
	EDGE 3TX	37.50%		23.30	39.70	39.00	21.50	23.30	22.60	23.30
	EDGE 4TX	50.00%		22.30	38.50	37.80	20.30	22.10	21.40	22.30

Wireless technology (Accounting duty cycle)	Mode	Duty Cycle %	Antenna	Maximum Power Condition	Head		Hotspot	Body-worn/Extremity		P Max Time-average power (dBm)
					Standalone	Simultaneous	Simultaneous	Standalone	Simultaneous	
				Index 1	Index 2	Index 3	Index 4	Index 5	Index 6	
				P limit						
				Time-average power (dBm)						
WCDMA B2	R99	100.00%	Ant2	24.00	27.60	26.90	21.40	22.10	21.40	24.00
WCDMA B2	R99	100.00%	Ant0	23.80	35.40	34.70	17.10	20.10	19.40	23.80
WCDMA B4	R99	100.00%	Ant2	24.00	28.20	27.50	21.70	22.40	21.70	24.00
WCDMA B4	R99	100.00%	Ant0	23.80	32.90	32.20	17.80	19.70	19.00	23.80
WCDMA B5	R99	100.00%	Ant0	24.30	29.90	29.20	25.30	26.00	25.30	24.30
WCDMA B5	R99	100.00%	Ant1	24.00	23.20	22.20	25.70	26.40	25.70	24.00
LTE B7	PC3	100.00%	Ant2	24.10	25.50	24.80	20.00	20.70	20.00	24.10
LTE B7	PC3	100.00%	Ant0	23.90	32.60	31.90	19.50	21.10	20.40	23.90
LTE B12/B17	PC3	100.00%	Ant0	24.30	30.50	29.80	26.50	27.70	27.00	24.30
LTE B12/B17	PC3	100.00%	Ant1	24.00	23.90	22.70	25.40	26.10	25.40	24.00
LTE B13	PC3	100.00%	Ant0	24.30	29.80	29.10	23.50	26.90	26.20	24.30
LTE B13	PC3	100.00%	Ant1	24.00	23.30	22.60	25.10	25.80	25.10	24.00
LTE B14	PC3	100.00%	Ant0	24.30	29.50	28.80	23.50	26.10	25.40	24.30
LTE B14	PC3	100.00%	Ant1	24.00	22.70	22.00	25.20	25.90	25.20	24.00
LTE B25/B2	PC3	100.00%	Ant2	24.00	27.50	26.80	20.80	21.50	20.80	24.00
LTE B25/B2	PC3	100.00%	Ant0	23.80	34.00	33.30	17.00	19.50	18.80	23.80
LTE B25/B2	PC3	100.00%	Ant1	24.00	16.30	15.40	21.10	21.80	21.10	24.00
LTE B25/B2	PC3	100.00%	Ant5	23.60	18.60	17.90	22.50	23.70	23.00	23.60
LTE B26/B5	PC3	100.00%	Ant0	24.30	29.20	28.50	25.90	26.70	26.00	24.30
LTE B26/B5	PC3	100.00%	Ant1	24.00	22.90	21.90	24.90	25.60	24.90	24.00
LTE B30	PC3	100.00%	Ant2	23.70	26.00	25.30	19.30	20.00	19.30	23.70
LTE B30	PC3	100.00%	Ant0	23.50	32.70	32.00	17.80	20.40	19.70	23.50
LTE B41/B38	PC3	63.30%	Ant2	22.10	26.00	25.30	20.90	21.60	20.90	22.10
LTE B41/B38	PC2	43.30%	Ant2	22.40	26.00	25.30	20.90	21.60	20.90	22.40
LTE B41/B38	PC3	63.30%	Ant0	22.10	33.20	32.50	20.20	21.90	21.20	22.10
LTE B41/B38	PC2	43.30%	Ant0	22.40	33.20	32.50	20.20	21.90	21.20	22.40
LTE B48	PC3	63.30%	Ant6	22.00	27.50	26.80	19.80	20.50	19.80	22.00
LTE B48	PC3	63.30%	Ant7	18.80	26.10	25.40	18.00	18.70	18.00	18.80
LTE B66/B4	PC3	100.00%	Ant2	24.00	27.80	27.10	21.00	21.70	21.00	24.00
LTE B66/B4	PC3	100.00%	Ant0	23.80	36.20	35.50	17.30	18.90	18.20	23.80
LTE B66/B4	PC3	100.00%	Ant1	24.00	17.40	16.20	21.60	22.30	21.60	24.00
LTE B66/B4	PC3	100.00%	Ant5	23.60	18.80	18.10	23.60	25.00	24.30	23.60
LTE B71	PC3	100.00%	Ant0	24.30	32.20	31.50	26.70	27.40	26.70	24.30
LTE B71	PC3	100.00%	Ant1	24.00	24.00	22.80	25.90	26.60	25.90	24.00
FR1 n7	PC3	100.00%	Ant2	24.10	25.60	24.90	20.30	21.00	20.30	24.10
FR1 n7	PC3	100.00%	Ant0	23.90	33.30	32.60	19.50	21.30	20.60	23.90
FR1 n12	PC3	100.00%	Ant0	24.30	30.60	29.90	26.10	27.20	26.50	24.30
FR1 n12	PC3	100.00%	Ant1	24.00	24.70	24.00	25.60	26.30	25.60	24.00
FR1 n14	PC3	100.00%	Ant0	24.30	29.50	28.80	23.70	26.80	26.10	24.30
FR1 n14	PC3	100.00%	Ant1	24.00	22.90	21.70	26.10	26.80	26.10	24.00
FR1 n25/n2	PC3	100.00%	Ant2	24.00	27.80	27.10	21.10	21.80	21.10	24.00
FR1 n25/n2	PC3	100.00%	Ant0	23.80	34.90	34.20	17.50	19.60	18.90	23.80
FR1 n25/n2	PC3	100.00%	Ant1	24.00	17.00	15.80	21.50	22.20	21.50	24.00
FR1 n25/n2	PC3	100.00%	Ant5	23.60	18.90	18.20	23.30	24.60	23.90	23.60
FR1 n26/n5	PC3	100.00%	Ant0	24.30	29.30	28.60	25.40	26.60	25.90	24.30
FR1 n26/n5	PC3	100.00%	Ant1	24.00	22.90	22.20	25.10	25.80	25.10	24.00
FR1 n30	PC3	100.00%	Ant2	23.70	26.60	25.90	20.20	20.90	20.20	23.70
FR1 n30	PC3	100.00%	Ant0	23.50	32.90	32.20	17.70	20.20	19.50	23.50
FR1 n41/n38	PC3	100.00%	Ant2	24.10	25.80	25.10	20.30	21.00	20.30	24.10
FR1 n41	PC2	50.00%	Ant2	23.00	25.80	25.10	20.30	21.00	20.30	23.00

FR1 n41	PC1.5	25.00%	Ant2	20.00	25.80	25.10	20.30	21.00	20.30	20.00
FR1 n41/n38	PC3	100.00%	Ant0	24.10	32.80	32.10	20.20	21.70	21.00	24.10
FR1 n41	PC2	50.00%	Ant0	23.00	32.80	32.10	20.20	21.70	21.00	23.00
FR1 n41	PC1.5	25.00%	Ant0	20.00	32.80	32.10	20.20	21.70	21.00	20.00
FR1 n41/n38	PC3	100.00%	Ant1	24.10	18.00	17.30	20.80	22.20	21.50	24.10
FR1 n41	PC2	50.00%	Ant1	23.00	18.00	17.30	20.80	22.20	21.50	23.00
FR1 n41	PC1.5	25.00%	Ant1	20.00	18.00	17.30	20.80	22.20	21.50	20.00
FR1 n41/n38	PC3	100.00%	Ant5	23.70	17.90	17.20	22.20	23.20	22.50	23.70
FR1 n41	PC2	50.00%	Ant5	22.60	17.90	17.20	22.20	23.20	22.50	22.60
FR1 n41	PC1.5	25.00%	Ant5	19.60	17.90	17.20	22.20	23.20	22.50	19.60
FR1 n66	PC3	100.00%	Ant2	24.00	28.60	27.90	21.60	22.30	21.60	24.00
FR1 n66	PC3	100.00%	Ant0	23.80	35.40	34.70	18.20	19.60	18.90	23.80
FR1 n66	PC3	100.00%	Ant1	24.00	17.50	16.30	22.20	23.00	22.30	24.00
FR1 n66	PC3	100.00%	Ant5	23.60	19.50	18.30	23.10	25.30	24.60	23.60
FR1 n71	PC3	100.00%	Ant0	24.30	32.80	32.10	27.50	28.20	27.50	24.30
FR1 n71	PC3	100.00%	Ant1	24.00	23.20	22.00	25.90	26.60	25.90	24.00
FR1 n77/n78	PC3	100.00%	Ant6	24.00	27.90	27.20	19.60	20.30	19.60	24.00
FR1 n77/n78	PC2	50.00%	Ant6	23.00	27.90	27.20	19.60	20.30	19.60	23.00
FR1 n77/n78	PC1.5	25.00%	Ant6	19.50	27.90	27.20	19.60	20.30	19.60	19.50
FR1 n77/n78	PC3	100.00%	Ant7	23.00	23.30	22.10	17.50	18.20	17.50	23.00
FR1 n77/n78	PC2	50.00%	Ant7	22.20	23.30	22.10	17.50	18.20	17.50	22.20
FR1 n77/n78	PC1.5	25.00%	Ant7	18.50	23.30	22.10	17.50	18.20	17.50	18.50
FR1 n77/n78	PC3	100.00%	Ant1	24.00	15.40	14.70	19.20	20.40	19.70	24.00
FR1 n77/n78	PC2	50.00%	Ant1	23.00	15.40	14.70	19.20	20.40	19.70	23.00
FR1 n77/n78	PC1.5	25.00%	Ant1	19.50	15.40	14.70	19.20	20.40	19.70	19.50
FR1 n77/n78	PC3	100.00%	Ant5	23.70	18.20	17.10	24.10	24.80	24.10	23.70
FR1 n77/n78	PC2	50.00%	Ant5	22.70	18.20	17.10	24.10	24.80	24.10	22.70
FR1 n77/n78	PC1.5	25.00%	Ant5	19.20	18.20	17.10	24.10	24.80	24.10	19.20
NTN B23	PC3	83.00%	Ant1	21.70				21.30		21.70
NTN B255	PC3	83.00%	Ant4	22.70				23.00		22.70

4. Guidance Applied

The Specific Absorption Rate (SAR) testing specification, method, and procedure for this device is in accordance with the following standards, the below KDB standard may not including in the TAF code without accreditation.

- FCC 47 CFR Part 2 (2.1093)
- ANSI/IEEE C95.1-1992
- IEEE 1528-2013
- FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04
- FCC KDB 865664 D02 SAR Reporting v01r02
- FCC KDB 447498 D01 General RF Exposure Guidance v06
- FCC KDB 648474 D04 SAR Evaluation Considerations for Wireless Handsets v01r03
- FCC KDB 248227 D01 802.11 Wi-Fi SAR v02r02
- FCC KDB 941225 D01 3G SAR Procedures v03r01
- FCC KDB 941225 D05 SAR for LTE Devices v02r05
- FCC KDB 941225 D05A Rel.10 LTE SAR Test Guidance v01r02
- FCC KDB 941225 D06 Hotspot Mode SAR v02r01
- FCC KDB 941225 D07 UMPC Mini Tablet v01r02
- IEC/IEEE 62209-1528:2020
- SPEAG DASY6 System Handbook
- SPEAG DASY6 Application Note (Interim Procedure for Device Operation at 6GHz-10GHz)

5. RF Exposure Limits

5.1 Uncontrolled Environment

Uncontrolled Environments are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure. The general population/uncontrolled exposure limits are applicable to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Members of the general public would come under this category when exposure is not employment-related; for example, in the case of a wireless transmitter that exposes persons in its vicinity.

5.2 Controlled Environment

Controlled Environments are defined as locations where there is exposure that may be incurred by persons who are aware of the potential for exposure, (i.e. as a result of employment or occupation). In general, occupational/controlled exposure limits are applicable to situations in which persons are exposed as a consequence of their employment, who have been made fully aware of the potential for exposure and can exercise control over their exposure. The exposure category is also applicable when the exposure is of a transient nature due to incidental passage through a location where the exposure levels may be higher than the general population/uncontrolled limits, but the exposed person is fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Limits for Occupational/Controlled Exposure (W/kg)

Whole-Body	Partial-Body	Hands, Wrists, Feet and Ankles
0.4	8.0	20.0

Limits for General Population/Uncontrolled Exposure (W/kg)

Whole-Body	Partial-Body	Hands, Wrists, Feet and Ankles
0.08	1.6	4.0

1. Whole-Body SAR is averaged over the entire body, partial-body SAR is averaged over any 1gram of tissue defined as a tissue volume in the shape of a cube. SAR for hands, wrists, feet and ankles is averaged over any 10 grams of tissue defined as a tissue volume in the shape of a cube.

5.3 RF Exposure limit for above 6GHz

According to ANSI/IEEE C95.1-1992, the criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310.

Peak Spatially Averaged Power Density was evaluated over a circular area of 4cm^2 per interim FCC Guidance for near-field power density evaluations per October 2018 TCB Workshop notes

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f2)	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f2)	30
30-300	27.5	0.073	0.2	30
300-1500			f/1500	30
1500-100,000			1.0	30

6. Specific Absorption Rate (SAR)

6.1 Introduction

SAR is related to the rate at which energy is absorbed per unit mass in an object exposed to a radio field. The SAR distribution in a biological body is complicated and is usually carried out by experimental techniques or numerical modeling. The standard recommends limits for two tiers of groups, occupational/controlled and general population/uncontrolled, based on a person's awareness and ability to exercise control over his or her exposure. In general, occupational/controlled exposure limits are higher than the limits for general population/uncontrolled.

6.2 SAR Definition

The SAR definition is the time derivative (rate) of the incremental energy (dW) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dv) of a given density (ρ). The equation description is as below:

$$\mathbf{SAR} = \frac{\mathbf{d}}{\mathbf{dt}}\left(\frac{\mathbf{dW}}{\mathbf{dm}}\right) = \frac{\mathbf{d}}{\mathbf{dt}}\left(\frac{\mathbf{dW}}{\boldsymbol{\rho}\mathbf{dv}}\right)$$

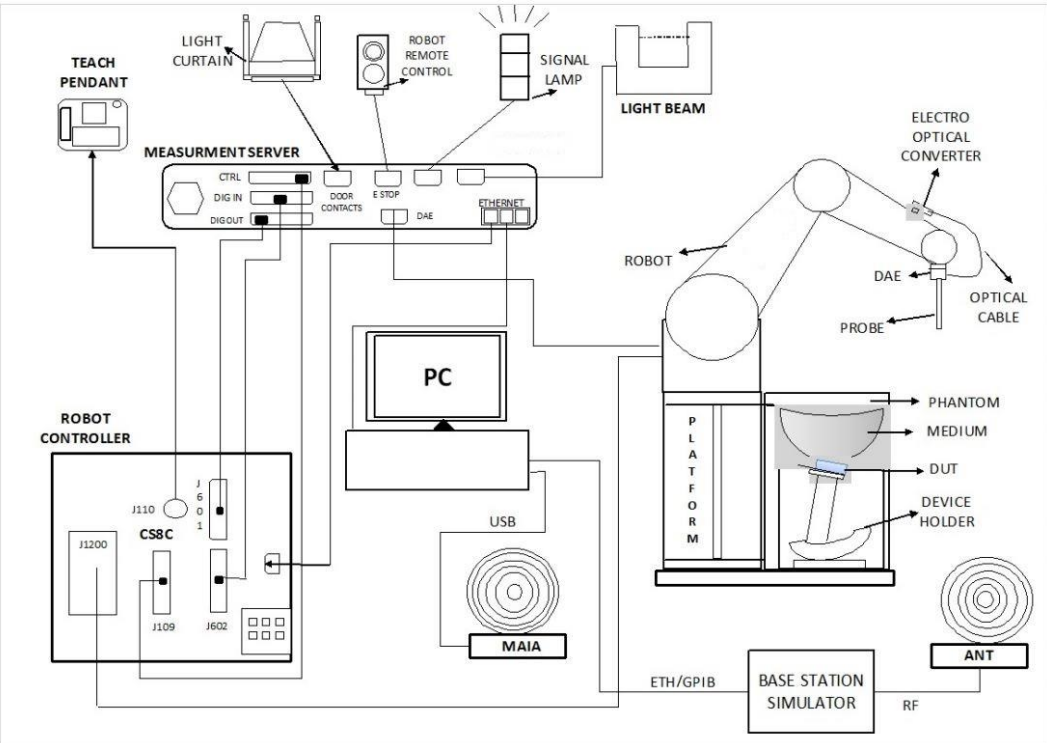
SAR is expressed in units of Watts per kilogram (W/kg)

$$\mathbf{SAR} = \frac{\boldsymbol{\sigma}|\mathbf{E}|^{\mathbf{2}}}{\boldsymbol{\rho}}$$

Where: σ is the conductivity of the tissue, ρ is the mass density of the tissue and E is the RMS electrical field strength.

7. System Description and Setup

The DASY system used for performing compliance tests consists of the following items:



- The DASY system in SAR Configuration is shown above
- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic Field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running windows software and the DASY software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

7.1 Test Site Location

The SAR measurement facilities used to collect data are within both Sporton Lab list below test site location are accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 1190 and 3786) and the FCC designation No. TW1190 and TW3786 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC test.

Laboratory	EMC & Wireless Communications Laboratory		Wensan Laboratory				
Test Site Location	TW1190 No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan		TW3786 No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan				
Test Site No.	SAR01-HY	SAR03-HY	SAR08-HY	SAR09-HY	SAR15-HY	SAR18-HY	SAR21-HY
	SAR04-HY	SAR05-HY	SAR11-HY	SAR12-HY	SAR16-HY	SAR19-HY	SAR22-HY
	SAR06-HY	SAR10-HY	SAR13-HY	SAR14-HY	SAR17-HY	SAR20-HY	

7.2 E-Field Probe

The SAR measurement is conducted with the dosimetric probe (manufactured by SPEAG).The probe is specially designed and calibrated for use in liquid with high permittivity. The dosimetric probe has special calibration in liquid at different frequency. This probe has a built in optical surface detection system to prevent from collision with phantom.

<ES3DV3 Probe>

Construction	Symmetric design with triangular core Interleaved sensors Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Frequency	4 MHz – 4 GHz; Linearity: ±0.2 dB (30 MHz – 4 GHz)	
Directivity	±0.2 dB in TSL (rotation around probe axis) ±0.3 dB in TSL (rotation normal to probe axis)	
Dynamic Range	5 µW/g – >100 mW/g; Linearity: ±0.2 dB	
Dimensions	Overall length: 337 mm (tip: 20 mm) Tip diameter: 3.9 mm (body: 12 mm) Distance from probe tip to dipole centers: 3.0 mm	

<EX3DV4 Probe>

Construction	Symmetric design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Frequency	4 MHz – >6 GHz Linearity: ±0.2 dB (30 MHz – 6 GHz)	
Directivity	±0.3 dB in TSL (rotation around probe axis) ±0.5 dB in TSL (rotation normal to probe axis)	
Dynamic Range	10 µW/g – >100 mW/g Linearity: ±0.2 dB (noise: typically <1 µW/g)	
Dimensions	Overall length: 337 mm (tip: 20 mm) Tip diameter: 2.5 mm (body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm	

7.3 Data Acquisition Electronics (DAE)

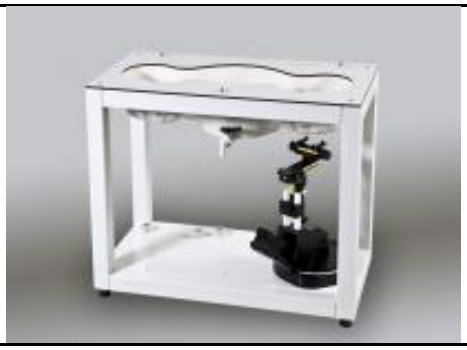
The data acquisition electronics (DAE) consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder and control logic unit. Transmission to the measurement server is accomplished through an optical downlink for data and status information as well as an optical uplink for commands and the clock.

The input impedance of the DAE is 200 MOhm; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.

Fig 5.1 Photo of DAE

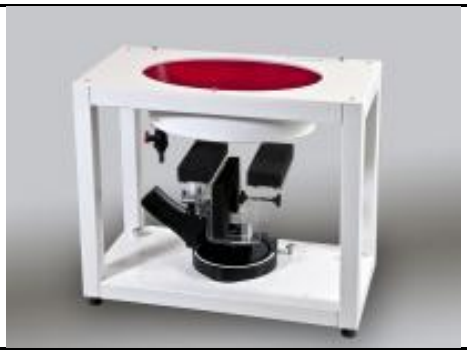
7.4 Phantom

<SAM Twin Phantom>

Shell Thickness	2 ± 0.2 mm; Center ear point: 6 ± 0.2 mm	
Filling Volume	Approx. 25 liters	
Dimensions	Length: 1000 mm; Width: 500 mm; Height: adjustable feet	
Measurement Areas	Left Hand, Right Hand, Flat Phantom	

The bottom plate contains three pair of bolts for locking the device holder. The device holder positions are adjusted to the standard measurement positions in the three sections. A white cover is provided to tap the phantom during off-periods to prevent water evaporation and changes in the liquid parameters. On the phantom top, three reference markers are provided to identify the phantom position with respect to the robot.

<ELI Phantom>

Shell Thickness	2 ± 0.2 mm (sagging: <1%)	
Filling Volume	Approx. 30 liters	
Dimensions	Major ellipse axis: 600 mm Minor axis: 400 mm	

The ELI phantom is intended for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30 MHz to 6 GHz. ELI4 is fully compatible with standard and all known tissue simulating liquids.

7.5 Device Holder

<Mounting Device for Hand-Held Transmitter>

In combination with the Twin SAM V5.0/V5.0c or ELI phantoms, the Mounting Device for Hand-Held Transmitters enables rotation of the mounted transmitter device to specified spherical coordinates. At the heads, the rotation axis is at the ear opening. Transmitter devices can be easily and accurately positioned according to IEC 62209-1, IEEE 1528, FCC, or other specifications. The device holder can be locked for positioning at different phantom sections (left head, right head, flat). And upgrade kit to Mounting Device to enable easy mounting of wider devices like big smart-phones, e-books, small tablets, etc. It holds devices with width up to 140 mm.

Mounting Device for Hand-Held Transmitters

Mounting Device Adaptor for Wide-Phones

<Mounting Device for Laptops and other Body-Worn Transmitters>

The extension is lightweight and made of POM, acrylic glass and foam. It fits easily on the upper part of the mounting device in place of the phone positioned. The extension is fully compatible with the SAM Twin and ELI phantoms.

Mounting Device for Laptops

8. Measurement Procedures

The measurement procedures are as follows:

(a) Use base station simulator to configure EUT WWAN transmission in radiated connection, and engineering software to configure EUT WLAN/BT continuously transmission, at maximum RF power, in the highest power channel.
(b) Place the EUT in the positions as Appendix D demonstrates.
(c) Set scan area, grid size and other setting on the DASY software.
(d) Measure SAR results for the highest power channel on each testing position.
(e) Find out the largest SAR result on these testing positions of each band
(f) Measure SAR results for other channels in worst SAR testing position if the reported SAR of highest power channel is larger than 0.8 W/kg

According to the test standard, the recommended procedure for assessing the peak spatial-average SAR value consists of the following steps:

(a) Power reference measurement
(b) Area scan
(c) Zoom scan
(d) Power drift measurement

8.1 Spatial Peak SAR Evaluation

The procedure for spatial peak SAR evaluation has been implemented according to the test standard. It can be conducted for 1g and 10g, as well as for user-specific masses. The DASY software includes all numerical procedures necessary to evaluate the spatial peak SAR value.

The base for the evaluation is a "cube" measurement. The measured volume must include the 1g and 10g cubes with the highest averaged SAR values. For that purpose, the center of the measured volume is aligned to the interpolated peak SAR value of a previously performed area scan.

The entire evaluation of the spatial peak values is performed within the post-processing engine (SEMCAD). The system always gives the maximum values for the 1g and 10g cubes. The algorithm to find the cube with highest averaged SAR is divided into the following stages:

(a) Extraction of the measured data (grid and values) from the Zoom Scan
(b) Calculation of the SAR value at every measurement point based on all stored data (A/D values and measurement parameters)
(c) Generation of a high-resolution mesh within the measured volume
(d) Interpolation of all measured values form the measurement grid to the high-resolution grid
(e) Extrapolation of the entire 3-D field distribution to the phantom surface over the distance from sensor to surface
(f) Calculation of the averaged SAR within masses of 1g and 10g

8.2 Power Reference Measurement

The Power Reference Measurement and Power Drift Measurements are for monitoring the power drift of the device under test in the batch process. The minimum distance of probe sensors to surface determines the closest measurement point to phantom surface. This distance cannot be smaller than the distance of sensor calibration points to probe tip as defined in the probe properties.

8.3 Area Scan

The area scan is used as a fast scan in two dimensions to find the area of high field values, before doing a fine measurement around the hot spot. The sophisticated interpolation routines implemented in DASY software can find the maximum found in the scanned area, within a range of the global maximum. The range (in dB0 is specified in the standards for compliance testing. For example, a 2 dB range is required in IEEE standard 1528 and IEC 62209 standards, whereby 3 dB is a requirement when compliance is assessed in accordance with the ARIB standard (Japan), if only one zoom scan follows the area scan, then only the absolute maximum will be taken as reference. For cases where multiple maximums are detected, the number of zoom scans has to be increased accordingly.

Area scan parameters extracted from FCC KDB 865664 D01v01r04 SAR measurement 100 MHz to 6 GHz.

	≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	5 ± 1 mm	½·δ·ln(2) ± 0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	30° ± 1°	20° ± 1°
Maximum area scan spatial resolution: Δx_{Area}, Δy_{Area}	≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
	When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	

8.4 Zoom Scan

Zoom scans are used assess the peak spatial SAR values within a cubic averaging volume containing 1 gram and 10 gram of simulated tissue. The zoom scan measures points (refer to table below) within a cube shoes base faces are centered on the maxima found in a preceding area scan job within the same procedure. When the measurement is done, the zoom scan evaluates the averaged SAR for 1 gram and 10 gram and displays these values next to the job's label.

Zoom scan parameters extracted from FCC KDB 865664 D01v01r04 SAR measurement 100 MHz to 6 GHz.

			≤ 3 GHz	> 3 GHz
Maximum zoom scan spatial resolution: Δx_{Zoom}, Δy_{Zoom}			≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	$\leq 1.5 \cdot \Delta z_{Zoom}(n-1)$	
Minimum zoom scan volume	x, y, z		≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm

Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.

* When zoom scan is required and the *reported* SAR from the *area scan based 1-g SAR estimation* procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.

8.5 Volume Scan Procedures

The volume scan is used for assess overlapping SAR distributions for antennas transmitting in different frequency bands. It is equivalent to an oversized zoom scan used in standalone measurements. The measurement volume will be used to enclose all the simultaneous transmitting antennas. For antennas transmitting simultaneously in different frequency bands, the volume scan is measured separately in each frequency band. In order to sum correctly to compute the 1g aggregate SAR, the EUT remain in the same test position for all measurements and all volume scan use the same spatial resolution and grid spacing. When all volume scan were completed, the software, SEMCAD postprocessor can combine and subsequently superpose these measurement data to calculating the multiband SAR.

8.6 Power Drift Monitoring

All SAR testing is under the EUT install full charged battery and transmit maximum output power. In DASY measurement software, the power reference measurement and power drift measurement procedures are used for monitoring the power drift of EUT during SAR test. Both these procedures measure the field at a specified reference position before and after the SAR testing. The software will calculate the field difference in dB. If the power drifts more than 5%, the SAR will be retested.

9. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
SPEAG	750MHz System Validation Kit(2)	D750V3	1107	Jun. 22, 2022	Jun. 19, 2025
SPEAG	835MHz System Validation Kit(2)	D835V2	4d167	Nov. 24, 2022	Nov. 21, 2025
SPEAG	1640MHz System Validation Kit(2)	D1640V2	346	Aug. 19, 2022	Aug. 16, 2025
SPEAG	1750MHz System Validation Kit(2)	D1750V2	1120	Mar. 25, 2022	Mar. 22, 2025
SPEAG	1900MHz System Validation Kit(2)	D1900V2	5d093	Mar. 25, 2022	Mar. 22, 2025
SPEAG	1900MHz System Validation Kit(2)	D1900V2	5d185	Jun. 17, 2022	Jun. 14, 2025
SPEAG	2000MHz System Validation Kit	D2000V2	1010	Aug. 16, 2024	Aug. 15, 2025
SPEAG	2300MHz System Validation Kit	D2300V2	1088	Jul. 10, 2024	Jul. 09, 2025
SPEAG	2450MHz System Validation Kit(2)	D2450V2	929	Nov. 21, 2022	Nov. 18, 2025
SPEAG	2450MHz System Validation Kit(2)	D2450V2	806	Mar. 24, 2022	Mar. 21, 2025
SPEAG	2600MHz System Validation Kit	D2600V2	1008	Aug. 15, 2024	Aug. 14, 2025
SPEAG	2600MHz System Validation Kit(2)	D2600V2	1089	Mar. 24, 2022	Mar. 21, 2025
SPEAG	3500MHz System Validation Kit	D3500V2	1014	Jan. 15, 2025	Jan. 14, 2026
SPEAG	3500MHz System Validation Kit(2)	D3500V2	1036	Mar. 23, 2022	Mar. 20, 2025
SPEAG	3700MHz System Validation Kit(2)	D3700V2	1006	Jun. 20, 2022	Jun. 17, 2025
SPEAG	3700MHz System Validation Kit	D3700V2	1022	Jul. 10, 2024	Jul. 09, 2025
SPEAG	3900MHz System Validation Kit(2)	D3900V2	1017	Apr. 22, 2022	Apr. 19, 2025
SPEAG	3900MHz System Validation Kit(2)	D3900V2	1092	May. 15, 2023	May. 13, 2025
SPEAG	5GHz System Validation Kit	D5GHzV2	1006	Oct. 15, 2024	Oct. 14, 2025
SPEAG	5GHz System Validation Kit	D5GHzV2	1128	Sep. 17, 2024	Sep. 16, 2025
SPEAG	6500MHz System Validation Kit	D6.5GHzV2	1003	Mar. 15, 2024	Mar. 14, 2025
SPEAG	6500MHz System Validation Kit	D6.5GHzV2	1083	Oct. 17, 2024	Oct. 16, 2025
SPEAG	13MHz System Validation Kit(2)	CLA13	1011	Jul. 10, 2023	Jul. 08, 2025
SPEAG	5G Verification Source	10GHz	1052	Oct. 16, 2024	Oct. 15, 2025
SPEAG	EUmmWV Probe Tip Protection	EUmmWV4	9461	Oct. 16, 2024	Oct. 15, 2025
SPEAG	Data Acquisition Electronics	DAE4	703	Apr. 22, 2024	Apr. 21, 2025
SPEAG	Data Acquisition Electronics	DAE4	1399	Mar. 13, 2024	Mar. 12, 2025
SPEAG	Data Acquisition Electronics	DAE4	1424	Dec. 19, 2024	Dec. 18, 2025
SPEAG	Data Acquisition Electronics	DAE4	1694	Nov. 19, 2024	Nov. 18, 2025
SPEAG	Data Acquisition Electronics	DAE4	1696	Sep. 03, 2024	Sep. 02, 2025
SPEAG	Data Acquisition Electronics	DAE4	1697	Nov. 14, 2024	Nov. 13, 2025
SPEAG	Data Acquisition Electronics	DAE4	1707	Dec. 04, 2024	Dec. 03, 2025
SPEAG	Data Acquisition Electronics	DAE4	1776	Feb. 13, 2024	Feb. 12, 2025
SPEAG	Data Acquisition Electronics	DAE4ip	1800	Jun. 18, 2024	Jun. 17, 2025
SPEAG	Dosimetric E-Field Probe	EX3DV4	3728	Mar. 20, 2024	Mar. 19, 2025
SPEAG	Dosimetric E-Field Probe	EX3DV4	3931	Nov. 19, 2024	Nov. 18, 2025
SPEAG	Dosimetric E-Field Probe	EX3DV4	7590	Mar. 19, 2024	Mar. 18, 2025
SPEAG	Dosimetric E-Field Probe	EX3DV4	7625	Dec. 13, 2024	Dec. 12, 2025
SPEAG	Dosimetric E-Field Probe	EX3DV4	7694	Nov. 18, 2024	Nov. 17, 2025
SPEAG	Dosimetric E-Field Probe	EX3DV4	7695	Dec. 02, 2024	Dec. 01, 2025
SPEAG	Dosimetric E-Field Probe	EX3DV4	7785	Nov. 28, 2024	Nov. 27, 2025
Testo	Hygro meter	608-H1	45196600	Oct. 28, 2024	Oct. 27, 2025
Anritsu	Radio Communication Analyzer	MT8821C	6201341950	Nov. 12, 2024	Nov. 11, 2025
Keysight	5G Wireless Test Platform	E7515B	MY58300712	Apr. 22, 2024	Apr. 21, 2025
R&S	BT Base Station	CBT	101136	Oct. 20, 2024	Oct. 19, 2025
SPEAG	Device Holder	N/A	N/A	N/A	N/A
Anritsu	Signal Generator	MG3710A	6201502524	Sep. 24, 2024	Sep. 23, 2025
Keysight	ENA Network Analyzer	E5071C	MY46104758	Oct. 20, 2024	Oct. 19, 2025
SPEAG	Dielectric Probe Kit	DAK-3.5	1126	Sep. 17, 2024	Sep. 16, 2025
SPEAG	Dielectric Probe Kit	DAK-12	1156	Jul. 15, 2024	Jul. 14, 2025
LINE SEIKI	Digital Thermometer	DTM3000-spezial	3690	Aug. 07, 2024	Aug. 06, 2025
Anritsu	Power Meter	ML2495A	1419002	Aug. 13, 2024	Aug. 12, 2025

Anritsu	Power Sensor	MA2411B	1911176	Aug. 13, 2024	Aug. 12, 2025
Anritsu	Spectrum Analyzer	MS2830A	6201396378	Jul. 09, 2024	Jul. 08, 2025
Mini-Circuits	Power Amplifier	ZVE-8G+	6418	Oct. 23, 2024	Oct. 22, 2025
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.

10. System Verification

10.1 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	22.4	0.877	41.800	0.89	41.90	-1.46	-0.24	±5	2025/1/22
750	22.3	0.875	41.700	0.89	41.90	-1.69	-0.48	±5	2025/1/23
750	22.6	0.872	41.600	0.89	41.90	-2.02	-0.72	±5	2025/1/24
750	22.3	0.898	43.100	0.89	41.90	0.90	2.86	±5	2025/2/2
750	22.3	0.894	43.000	0.89	41.90	0.45	2.63	±5	2025/2/10
750	22.7	0.892	43.100	0.89	41.90	0.22	2.86	±5	2025/2/14
750	22.6	0.902	40.200	0.89	41.90	1.35	-4.06	±5	2025/2/18
750	22.6	0.885	42.800	0.89	41.90	-0.56	2.15	±5	2025/3/26
835	22.1	0.923	42.500	0.90	41.50	2.56	2.41	±5	2025/1/21
835	22.5	0.914	41.500	0.90	41.50	1.56	0.00	±5	2025/1/25
835	22.4	0.929	41.500	0.90	41.50	3.22	0.00	±5	2025/1/28
835	22.5	0.941	41.800	0.90	41.50	4.56	0.72	±5	2025/2/1
835	22.3	0.933	42.800	0.90	41.50	3.67	3.13	±5	2025/2/2
835	22.3	0.928	42.700	0.90	41.50	3.11	2.89	±5	2025/2/10
835	22.5	0.916	42.400	0.90	41.50	1.78	2.17	±5	2025/2/15
835	22.6	0.937	40.300	0.90	41.50	4.11	-2.89	±5	2025/2/18
835	22.5	0.926	40.100	0.90	41.50	2.89	-3.37	±5	2025/3/5
1640	22.8	1.260	39.900	1.31	40.23	-3.82	-0.82	±5	2025/2/18
1750	22.4	1.370	40.800	1.37	40.10	0.00	1.75	±5	2025/1/31
1750	22.4	1.370	40.500	1.37	40.10	0.00	1.00	±5	2025/2/4
1750	22.3	1.350	40.900	1.37	40.10	-1.46	2.00	±5	2025/2/7
1750	22.6	1.380	40.900	1.37	40.10	0.73	2.00	±5	2025/2/13
1750	22.6	1.36	40.900	1.37	40.10	-0.73	2.00	±5	2025/2/26
1750	22.7	1.35	40.800	1.37	40.10	-1.46	1.75	±5	2025/2/27
1900	22.6	1.400	39.200	1.40	40.00	0.00	-2.00	±5	2025/1/29
1900	22.5	1.390	40.900	1.40	40.00	-0.71	2.25	±5	2025/1/30
1900	22.5	1.430	39.400	1.40	40.00	2.14	-1.50	±5	2025/2/3
1900	22.3	1.390	40.100	1.40	40.00	-0.71	0.25	±5	2025/2/6
1900	22.2	1.430	40.900	1.40	40.00	2.14	2.25	±5	2025/2/17
1900	22.6	1.38	40.6	1.40	40.00	-1.43	1.50	±5	2025/2/26
2000	22.8	1.430	39.300	1.40	40.00	2.14	-1.75	±5	2025/2/18
2300	22.6	1.670	40.500	1.67	39.50	0.00	2.53	±5	2025/2/12
2300	22.7	1.64	39.6	1.67	39.50	-1.80	0.25	±5	2025/2/27
2600	22.3	1.980	38.200	1.96	39.00	1.02	-2.05	±5	2025/1/27
2600	22.3	2.000	39.500	1.96	39.00	2.04	1.28	±5	2025/2/8
2600	22.5	1.96	39.2	1.96	39.00	0.00	0.51	±5	2025/2/14
2600	22.4	1.980	38.600	1.96	39.00	1.02	-1.03	±5	2025/2/16
2600	22.4	1.970	39.200	1.96	39.00	0.51	0.51	±5	2025/2/23
2600	22.6	1.950	38.300	1.96	39.00	-0.51	-1.79	±5	2025/2/24
3500	22.5	2.920	37.600	2.91	37.90	0.34	-0.79	±5	2025/1/26
3500	22.5	2.950	37.800	2.91	37.90	1.37	-0.26	±5	2025/1/27
3500	22.3	2.990	37.800	2.91	37.90	2.75	-0.26	±5	2025/1/27

3500	22.6	2.990	38.200	2.91	37.90	2.75	0.79	±5	2025/2/5
3500	22.3	2.910	37.300	2.91	37.90	0.00	-1.58	±5	2025/2/9
3500	22.5	2.95	38.3	2.91	37.90	1.37	1.06	±5	2025/2/10
3500	22.7	3.010	37.900	2.91	37.90	3.44	0.00	±5	2025/2/19
3500	22.5	2.970	38.400	2.91	37.90	2.06	1.32	±5	2025/2/20
3500	22.6	2.940	37.500	2.91	37.90	1.03	-1.06	±5	2025/2/21
3500	22.7	2.870	37.100	2.91	37.90	-1.37	-2.11	±5	2025/2/22
3500	22.6	2.960	37.700	2.91	37.90	1.72	-0.53	±5	2025/2/24
3500	22.5	2.910	37.400	2.91	37.90	0.00	-1.32	±5	2025/2/25
3500	22.5	2.9	38	2.91	37.90	-0.34	0.26	±5	2025/3/12
3500	22.3	2.94	38.3	2.91	37.90	1.03	1.06	±5	2025/3/13
3500	22.5	3.01	37.8	2.91	37.90	3.44	-0.26	±5	2025/3/16
3700	22.5	3.080	37.400	3.12	37.70	-1.28	-0.80	±5	2025/1/26
3700	22.5	3.100	37.600	3.12	37.70	-0.64	-0.27	±5	2025/1/27
3700	22.3	3.180	37.500	3.12	37.70	1.92	-0.53	±5	2025/1/27
3700	22.6	3.180	37.900	3.12	37.70	1.92	0.53	±5	2025/2/5
3700	22.3	3.090	37.000	3.12	37.70	-0.96	-1.86	±5	2025/2/9
3700	22.5	3.16	38.1	3.12	37.70	1.28	1.06	±5	2025/2/10
3700	22.7	3.200	37.600	3.12	37.70	2.56	-0.27	±5	2025/2/19
3700	22.5	3.180	38.200	3.12	37.70	1.92	1.33	±5	2025/2/20
3700	22.6	3.120	37.200	3.12	37.70	0.00	-1.33	±5	2025/2/21
3700	22.7	3.050	36.800	3.12	37.70	-2.24	-2.39	±5	2025/2/22
3700	22.6	3.150	37.400	3.12	37.70	0.96	-0.80	±5	2025/2/24
3700	22.5	3.100	37.200	3.12	37.70	-0.64	-1.33	±5	2025/2/25
3700	22.5	3.11	37.8	3.12	37.70	-0.32	0.27	±5	2025/3/12
3700	22.3	3.09	38	3.12	37.70	-0.96	0.80	±5	2025/3/13
3700	22.5	3.19	37.5	3.12	37.70	2.24	-0.53	±5	2025/3/16
3900	22.5	3.250	37.100	3.33	37.51	-2.40	-1.09	±5	2025/1/26
3900	22.5	3.280	37.300	3.33	37.51	-1.50	-0.56	±5	2025/1/27
3900	22.3	3.390	37.200	3.33	37.51	1.80	-0.83	±5	2025/1/27
3900	22.3	3.290	36.700	3.33	37.51	-1.20	-2.16	±5	2025/2/9
3900	22.5	3.37	37.9	3.33	37.51	1.20	1.04	±5	2025/2/10
3900	22.7	3.400	37.400	3.33	37.51	2.10	-0.29	±5	2025/2/19
3900	22.5	3.390	38.000	3.33	37.51	1.80	1.31	±5	2025/2/20
3900	22.6	3.330	37.000	3.33	37.51	0.00	-1.36	±5	2025/2/21
3900	22.7	3.250	36.500	3.33	37.51	-2.40	-2.69	±5	2025/2/22
3900	22.6	3.35	37.1	3.33	37.51	0.60	-1.09	±5	2025/2/24
3900	22.5	3.3	36.9	3.33	37.51	-0.90	-1.63	±5	2025/2/25
13	22.6	0.757	53.459	0.75	55.00	0.93	-2.80	±5	2025/2/26
2450	22.5	1.810	39.600	1.80	39.20	0.56	1.02	±5	2025/1/28
2450	22.5	1.850	38.600	1.80	39.20	2.78	-1.53	±5	2025/1/28
2450	22.6	1.780	38.700	1.80	39.20	-1.11	-1.28	±5	2025/2/4
2450	22.8	1.840	39.000	1.80	39.20	2.22	-0.51	±5	2025/2/6
2450	22.6	1.790	39.200	1.80	39.20	-0.56	0.00	±5	2025/2/6
2450	22.6	1.790	39.300	1.80	39.20	-0.56	0.26	±5	2025/2/15
2450	22.4	1.870	39.800	1.80	39.20	3.89	1.53	±5	2025/2/24
2450	22.5	1.860	38.800	1.80	39.20	3.33	-1.02	±5	2025/2/26
2450	22.3	1.860	39.600	1.80	39.20	3.33	1.02	±5	2025/3/6
2450	22.6	1.790	38.600	1.80	39.20	-0.56	-1.53	±5	2025/4/30
5250	22.6	4.640	36.100	4.71	35.95	-1.49	0.42	±5	2025/1/29
5250	22.7	4.730	36.000	4.71	35.95	0.42	0.14	±5	2025/2/16
5250	22.5	4.610	36.800	4.71	35.95	-2.12	2.36	±5	2025/2/17
5250	22.6	4.820	37.300	4.71	35.95	2.34	3.76	±5	2025/2/18
5250	22.4	4.700	37.000	4.71	35.95	-0.21	2.92	±5	2025/2/19
5250	22.5	4.700	36.600	4.71	35.95	-0.21	1.81	±5	2025/2/25
5250	22.4	4.590	36.100	4.71	35.95	-2.55	0.42	±5	2025/2/26

5600	22.6	5.000	35.600	5.07	35.50	-1.38	0.28	±5	2025/1/29
5600	22.7	5.130	35.400	5.07	35.50	1.18	-0.28	±5	2025/2/16
5600	22.5	4.960	36.300	5.07	35.50	-2.17	2.25	±5	2025/2/17
5600	22.6	5.180	36.700	5.07	35.50	2.17	3.38	±5	2025/2/18
5600	22.4	5.080	36.500	5.07	35.50	0.20	2.82	±5	2025/2/19
5600	22.4	4.950	35.600	5.07	35.50	-2.37	0.28	±5	2025/2/26
5800	22.6	5.220	35.400	5.27	35.30	-0.95	0.28	±5	2025/1/29
5800	22.7	5.380	35.000	5.27	35.30	2.09	-0.85	±5	2025/2/16
5800	22.5	5.150	36.100	5.27	35.30	-2.28	2.27	±5	2025/2/17
5800	22.6	5.380	36.500	5.27	35.30	2.09	3.40	±5	2025/2/18
5800	22.5	5.290	36.300	5.27	35.30	0.38	2.83	±5	2025/2/19
5800	22.5	5.270	35.800	5.27	35.30	0.00	1.42	±5	2025/2/25
5800	22.4	5.160	35.300	5.27	35.30	-2.09	0.00	±5	2025/2/26
6500	22.6	6.130	34.700	6.07	34.50	0.99	0.58	±5	2025/2/11
6500	22.6	6.180	34.800	6.07	34.50	1.81	0.87	±5	2025/2/13
6500	22.2	6.080	34.700	6.07	34.50	0.16	0.58	±5	2025/2/13
6500	22.6	6.150	34.500	6.07	34.50	1.32	0.00	±5	2025/2/17
6500	22.3	6.100	34.900	6.07	34.50	0.49	1.16	±5	2025/3/3
6500	22.5	6.110	35.000	6.07	34.50	0.66	1.45	±5	2025/3/5
6500	22.7	6.110	35.300	6.07	34.50	0.66	2.32	±5	2025/3/12
6500	22.5	5.960	34.400	6.07	34.50	-1.81	-0.29	±5	2025/4/28
6500	22.5	6.170	35.000	6.07	34.50	1.65	1.45	±5	2025/4/28

10.2 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 and the plots can be referred to Appendix A of this report.

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 (%)
SAR-21	2025/1/22	750	250	D750V3-1107	EX3DV4 - SN7694	DAE4 Sn1697	2.070	8.540	8.28	-3.04	1.390	5.570	5.56	-0.18
SAR-21	2025/1/23	750	250	D750V3-1107	EX3DV4 - SN7694	DAE4 Sn1697	2.100	8.540	8.4	-1.64	1.420	5.570	5.68	1.97
SAR-21	2025/1/24	750	250	D750V3-1107	EX3DV4 - SN7694	DAE4 Sn1697	2.100	8.540	8.4	-1.64	1.420	5.570	5.68	1.97
SAR-18	2025/2/2	750	250	D750V3-1107	EX3DV4 - SN7625	DAE4ip Sn1800	2.260	8.540	9.04	5.85	1.520	5.570	6.08	9.16
SAR-18	2025/2/10	750	250	D750V3-1107	EX3DV4 - SN7625	DAE4ip Sn1800	2.170	8.540	8.68	1.64	1.460	5.570	5.84	4.85
SAR-18	2025/2/14	750	250	D750V3-1107	EX3DV4 - SN7625	DAE4ip Sn1800	2.060	8.540	8.24	-3.51	1.390	5.570	5.56	-0.18
SAR-18	2025/2/18	750	250	D750V3-1107	EX3DV4 - SN7625	DAE4ip Sn1800	2.260	8.540	9.04	5.85	1.520	5.570	6.08	9.16
SAR-17	2025/3/26	750	250	D750V3-1107	EX3DV4 - SN7785	DAE4 Sn1694	2.110	8.540	8.44	-1.17	1.430	5.570	5.72	2.69
SAR-21	2025/1/21	835	250	D835V2-4d167	EX3DV4 - SN7694	DAE4 Sn1697	2.280	9.800	9.12	-6.94	1.530	6.380	6.12	-4.08
SAR-21	2025/1/25	835	250	D835V2-4d167	EX3DV4 - SN7694	DAE4 Sn1697	2.380	9.800	9.52	-2.86	1.590	6.380	6.36	-0.31
SAR-18	2025/1/28	835	250	D835V2-4d167	EX3DV4 - SN7625	DAE4ip Sn1800	2.610	9.800	10.44	6.53	1.750	6.380	7	9.72
SAR-18	2025/2/1	835	250	D835V2-4d167	EX3DV4 - SN7625	DAE4ip Sn1800	2.440	9.800	9.76	-0.41	1.630	6.380	6.52	2.19
SAR-18	2025/2/2	835	250	D835V2-4d167	EX3DV4 - SN7625	DAE4ip Sn1800	2.350	9.800	9.4	-4.08	1.570	6.380	6.28	-1.57
SAR-18	2025/2/10	835	250	D835V2-4d167	EX3DV4 - SN7625	DAE4ip Sn1800	2.560	9.800	10.24	4.49	1.720	6.380	6.88	7.84
SAR-18	2025/2/15	835	250	D835V2-4d167	EX3DV4 - SN7625	DAE4ip Sn1800	2.270	9.800	9.08	-7.35	1.520	6.380	6.08	-4.70
SAR-18	2025/2/18	835	250	D835V2-4d167	EX3DV4 - SN7625	DAE4ip Sn1800	2.480	9.800	9.92	1.22	1.660	6.380	6.64	4.08
SAR-18	2025/3/5	835	250	D835V2-4d167	EX3DV4 - SN7625	DAE4ip Sn1800	2.540	9.800	10.16	3.67	1.700	6.380	6.8	6.58
SAR-17	2025/2/18	1640	50	D1640V2-346	EX3DV4 - SN7785	DAE4 Sn1694	1.640	34.600	32.8	-5.20	0.908	18.600	18.16	-2.37
SAR-18	2025/1/31	1750	50	D1750V2-1120	EX3DV4 - SN7625	DAE4ip Sn1800	1.870	36.400	37.4	2.75	1.000	19.100	20	4.71
SAR-18	2025/2/4	1750	50	D1750V2-1120	EX3DV4 - SN7625	DAE4ip Sn1800	1.870	36.400	37.4	2.75	0.999	19.100	19.98	4.61
SAR-18	2025/2/7	1750	50	D1750V2-1120	EX3DV4 - SN7625	DAE4ip Sn1800	1.780	36.400	35.6	-2.20	0.947	19.100	18.94	-0.84
SAR-18	2025/2/13	1750	50	D1750V2-1120	EX3DV4 - SN7625	DAE4ip Sn1800	1.880	36.400	37.6	3.30	1.010	19.100	20.2	5.76
SAR-18	2025/2/26	1750	50	D1750V2-1120	EX3DV4 - SN7625	DAE4ip Sn1800	1.780	36.400	35.6	-2.20	0.952	19.100	19.04	-0.31
SAR-18	2025/2/27	1750	50	D1750V2-1120	EX3DV4 - SN7625	DAE4ip Sn1800	1.760	36.400	35.2	-3.30	0.943	19.100	18.86	-1.26
SAR-18	2025/1/29	1900	50	D1900V2-5d093	EX3DV4 - SN7625	DAE4ip Sn1800	1.970	39.900	39.4	-1.25	1.030	20.700	20.6	-0.48
SAR-18	2025/1/30	1900	50	D1900V2-5d093	EX3DV4 - SN7625	DAE4ip Sn1800	1.990	39.900	39.8	-0.25	1.030	20.700	20.6	-0.48
SAR-18	2025/2/3	1900	50	D1900V2-5d093	EX3DV4 - SN7625	DAE4ip Sn1800	2.030	39.900	40.6	1.75	1.050	20.700	21	1.45
SAR-18	2025/2/6	1900	50	D1900V2-5d185	EX3DV4 - SN7625	DAE4ip Sn1800	1.940	39.000	38.8	-0.51	1.010	20.400	20.2	-0.98
SAR-18	2025/2/17	1900	50	D1900V2-5d185	EX3DV4 - SN7625	DAE4ip Sn1800	1.980	39.000	39.6	1.54	1.030	20.400	20.6	0.98
SAR-18	2025/2/26	1900	50	D1900V2-5d093	EX3DV4 - SN7625	DAE4ip Sn1800	1.920	39.900	38.4	-3.76	1.000	20.700	20	-3.38
SAR-17	2025/2/18	2000	50	D2000V2-1010	EX3DV4 - SN7785	DAE4 Sn1694	1.890	40.200	37.8	-5.97	0.986	20.900	19.72	-5.65
SAR-18	2025/2/12	2300	50	D2300V2-1088	EX3DV4 - SN7625	DAE4ip Sn1800	2.520	48.200	50.4	4.56	1.200	23.300	24	3.00
SAR-18	2025/2/27	2300	50	D2300V2-1088	EX3DV4 - SN7625	DAE4ip Sn1800	2.480	48.200	49.6	2.90	1.180	23.300	23.6	1.29
SAR-18	2025/1/27	2600	50	D2600V2-1089	EX3DV4 - SN7625	DAE4ip Sn1800	2.650	55.400	53	-4.33	1.200	24.600	24	-2.44
SAR-18	2025/2/8	2600	50	D2600V2-1089	EX3DV4 - SN7625	DAE4ip Sn1800	2.710	55.400	54.2	-2.17	1.210	24.600	24.2	-1.63
SAR-21	2025/2/14	2600	50	D2600V2-1008	EX3DV4 - SN7694	DAE4 Sn1697	2.610	55.700	52.2	-6.28	1.180	25.300	23.6	-6.72
SAR-18	2025/2/16	2600	50	D2600V2-1008	EX3DV4 - SN7625	DAE4ip Sn1800	2.710	55.700	54.2	-2.69	1.220	25.300	24.4	-3.56
SAR-18	2025/2/23	2600	50	D2600V2-1008	EX3DV4 - SN7625	DAE4ip Sn1800	2.670	55.700	53.4	-4.13	1.200	25.300	24	-5.14
SAR-18	2025/2/24	2600	50	D2600V2-1008	EX3DV4 - SN7625	DAE4ip Sn1800	2.600	55.700	52	-6.64	1.170	25.300	23.4	-7.51
SAR-21	2025/1/26	3500	50	D3500V2-1036	EX3DV4 - SN7694	DAE4 Sn1697	3.140	67.400	62.8	-6.82	1.210	25.100	24.2	-3.59
SAR-21	2025/1/27	3500	50	D3500V2-1036	EX3DV4 - SN7694	DAE4 Sn1697	3.150	67.400	63	-6.53	1.210	25.100	24.2	-3.59
SAR-18	2025/1/27	3500	50	D3500V2-1036	EX3DV4 - SN7625	DAE4ip Sn1800	3.240	67.400	64.8	-3.86	1.230	25.100	24.6	-1.99
SAR-18	2025/2/5	3500	50	D3500V2-1036	EX3DV4 - SN7625	DAE4ip Sn1800	3.460	67.400	69.2	2.67	1.320	25.100	26.4	5.18
SAR-18	2025/2/9	3500	50	D3500V2-1036	EX3DV4 - SN7625	DAE4ip Sn1800	3.300	67.400	66	-2.08	1.250	25.100	25	-0.40
SAR-21	2025/2/10	3500	50	D3500V2-1036	EX3DV4 - SN7694	DAE4 Sn1697	3.130	67.400	62.6	-7.12	1.200	25.100	24	-4.38
SAR-18	2025/2/19	3500	50	D3500V2-1036	EX3DV4 - SN7625	DAE4ip Sn1800	3.430	67.400	68.6	1.78	1.310	25.100	26.2	4.38
SAR-18	2025/2/20	3500	50	D3500V2-1036	EX3DV4 - SN7625	DAE4ip Sn1800	3.380	67.400	67.6	0.30	1.290	25.100	25.8	2.79
SAR-18	2025/2/21	3500	50	D3500V2-1036	EX3DV4 - SN7625	DAE4ip Sn1800	3.370	67.400	67.4	0.00	1.280	25.100	25.6	1.99
SAR-18	2025/2/22	3500	50	D3500V2-1036	EX3DV4 - SN7625	DAE4ip Sn1800	3.170	67.400	63.4	-5.93	1.210	25.100	24.2	-3.59

SAR-18	2025/2/24	3500	50	D3500V2-1014	EX3DV4 - SN7625	DAE4ip Sn1800	3.290	65.700	65.8	0.15	1.250	24.900	25	0.40
SAR-18	2025/2/25	3500	50	D3500V2-1014	EX3DV4 - SN7625	DAE4ip Sn1800	3.240	65.700	64.8	-1.37	1.230	24.900	24.6	-1.20
SAR-21	2025/3/12	3500	50	D3500V2-1014	EX3DV4 - SN7694	DAE4 Sn1697	3.140	65.700	62.8	-4.41	1.230	24.900	24.6	-1.20
SAR-21	2025/3/13	3500	50	D3500V2-1014	EX3DV4 - SN7694	DAE4 Sn1697	3.130	65.700	62.6	-4.72	1.230	24.900	24.6	-1.20
SAR-17	2025/3/16	3500	50	D3500V2-1014	EX3DV4 - SN7785	DAE4 Sn1694	3.450	65.700	69	5.02	1.360	24.900	27.2	9.24
SAR-21	2025/1/26	3700	50	D3700V2-1022	EX3DV4 - SN7694	DAE4 Sn1697	3.150	68.100	63	-7.49	1.190	25.200	23.8	-5.56
SAR-21	2025/1/27	3700	50	D3700V2-1022	EX3DV4 - SN7694	DAE4 Sn1697	3.180	68.100	63.6	-6.61	1.200	25.200	24	-4.76
SAR-18	2025/1/27	3700	50	D3700V2-1022	EX3DV4 - SN7625	DAE4ip Sn1800	3.280	68.100	65.6	-3.67	1.220	25.200	24.4	-3.17
SAR-18	2025/2/5	3700	50	D3700V2-1022	EX3DV4 - SN7625	DAE4ip Sn1800	3.470	68.100	69.4	1.91	1.290	25.200	25.8	2.38
SAR-18	2025/2/9	3700	50	D3700V2-1022	EX3DV4 - SN7625	DAE4ip Sn1800	3.350	68.100	67	-1.62	1.240	25.200	24.8	-1.59
SAR-21	2025/2/10	3700	50	D3700V2-1022	EX3DV4 - SN7694	DAE4 Sn1697	3.210	68.100	64.2	-5.73	1.210	25.200	24.2	-3.97
SAR-18	2025/2/19	3700	50	D3700V2-1022	EX3DV4 - SN7625	DAE4ip Sn1800	3.420	68.100	68.4	0.44	1.270	25.200	25.4	0.79
SAR-18	2025/2/20	3700	50	D3700V2-1022	EX3DV4 - SN7625	DAE4ip Sn1800	3.410	68.100	68.2	0.15	1.270	25.200	25.4	0.79
SAR-18	2025/2/21	3700	50	D3700V2-1022	EX3DV4 - SN7625	DAE4ip Sn1800	3.370	68.100	67.4	-1.03	1.260	25.200	25.2	0.00
SAR-18	2025/2/22	3700	50	D3700V2-1022	EX3DV4 - SN7625	DAE4ip Sn1800	3.310	68.100	66.2	-2.79	1.230	25.200	24.6	-2.38
SAR-18	2025/2/24	3700	50	D3700V2-1022	EX3DV4 - SN7625	DAE4ip Sn1800	3.410	68.100	68.2	0.15	1.260	25.200	25.2	0.00
SAR-18	2025/2/25	3700	50	D3700V2-1022	EX3DV4 - SN7625	DAE4ip Sn1800	3.360	68.100	67.2	-1.32	1.240	25.200	24.8	-1.59
SAR-21	2025/3/12	3700	50	D3700V2-1006	EX3DV4 - SN7694	DAE4 Sn1697	3.250	65.600	65	-0.91	1.240	23.700	24.8	4.64
SAR-21	2025/3/13	3700	50	D3700V2-1006	EX3DV4 - SN7694	DAE4 Sn1697	3.220	65.600	64.4	-1.83	1.220	23.700	24.4	2.95
SAR-17	2025/3/16	3700	50	D3700V2-1006	EX3DV4 - SN7785	DAE4 Sn1694	3.280	65.600	65.6	0.00	1.230	23.700	24.6	3.80
SAR-21	2025/1/26	3900	50	D3900V2-1092	EX3DV4 - SN7694	DAE4 Sn1697	3.020	67.000	60.4	-9.85	1.080	23.200	21.6	-6.90
SAR-21	2025/1/27	3900	50	D3900V2-1092	EX3DV4 - SN7694	DAE4 Sn1697	3.030	67.000	60.6	-9.55	1.080	23.200	21.6	-6.90
SAR-18	2025/1/27	3900	50	D3900V2-1092	EX3DV4 - SN7625	DAE4ip Sn1800	3.220	67.000	64.4	-3.88	1.130	23.200	22.6	-2.59
SAR-18	2025/2/9	3900	50	D3900V2-1092	EX3DV4 - SN7625	DAE4ip Sn1800	3.180	67.000	63.6	-5.07	1.120	23.200	22.4	-3.45
SAR-21	2025/2/10	3900	50	D3900V2-1092	EX3DV4 - SN7694	DAE4 Sn1697	3.120	67.000	62.4	-6.87	1.110	23.200	22.2	-4.31
SAR-18	2025/2/19	3900	50	D3900V2-1092	EX3DV4 - SN7625	DAE4ip Sn1800	3.450	67.000	69	2.99	1.220	23.200	24.4	5.17
SAR-18	2025/2/20	3900	50	D3900V2-1092	EX3DV4 - SN7625	DAE4ip Sn1800	3.360	67.000	67.2	0.30	1.190	23.200	23.8	2.59
SAR-18	2025/2/21	3900	50	D3900V2-1092	EX3DV4 - SN7625	DAE4ip Sn1800	3.360	67.000	67.2	0.30	1.170	23.200	23.4	0.86
SAR-18	2025/2/22	3900	50	D3900V2-1017	EX3DV4 - SN7625	DAE4ip Sn1800	3.210	68.700	64.2	-6.55	1.130	23.900	22.6	-5.44
SAR-18	2025/2/24	3900	50	D3900V2-1092	EX3DV4 - SN7625	DAE4ip Sn1800	3.240	67.000	64.8	-3.28	1.140	23.200	22.8	-1.72
SAR-18	2025/2/25	3900	50	D3900V2-1092	EX3DV4 - SN7625	DAE4ip Sn1800	3.190	67.000	63.8	-4.78	1.130	23.200	22.6	-2.59
SAR-11	2025/2/26	13	1000	CLA13-1011	EX3DV4 - SN3931	DAE4 Sn703	0.501	0.544	0.501	-7.22	0.312	0.340	0.312	-8.24
SAR-21	2025/1/28	2450	50	D2450V2-806	EX3DV4 - SN7694	DAE4 Sn1697	2.410	52.700	48.2	-8.54	1.140	24.400	22.8	-6.56
SAR-17	2025/1/28	2450	50	D2450V2-929	EX3DV4 - SN7590	DAE4 Sn1776	2.430	52.400	48.6	-7.25	1.140	24.700	22.8	-7.69
SAR-16	2025/2/4	2450	50	D2450V2-929	EX3DV4 - SN3728	DAE4 Sn1696	2.700	52.400	54	3.05	1.240	24.700	24.8	0.40
SAR-17	2025/2/6	2450	50	D2450V2-929	EX3DV4 - SN7590	DAE4 Sn1399	2.520	52.400	50.4	-3.82	1.180	24.700	23.6	-4.45
SAR-17	2025/2/6	2450	50	D2450V2-929	EX3DV4 - SN7590	DAE4 Sn1399	2.540	52.400	50.8	-3.05	1.200	24.700	24	-2.83
SAR-17	2025/2/15	2450	50	D2450V2-929	EX3DV4 - SN7590	DAE4 Sn1399	2.450	52.400	49	-6.49	1.160	24.700	23.2	-6.07
SAR-21	2025/2/24	2450	50	D2450V2-929	EX3DV4 - SN7694	DAE4 Sn1697	2.390	52.400	47.8	-8.78	1.120	24.700	22.4	-9.31
SAR-20	2025/2/26	2450	50	D2450V2-929	EX3DV4 - SN7785	DAE4 Sn1694	2.550	52.400	51	-2.67	1.230	24.700	24.6	-0.40
SAR-20	2025/3/6	2450	50	D2450V2-929	EX3DV4 - SN7785	DAE4 Sn1694	2.560	52.400	51.2	-2.29	1.230	24.700	24.6	-0.40
SAR-19	2025/4/30	2450	50	D2450V2-929	EX3DV4 - SN7694	DAE4 Sn1697	2.450	52.400	49	-6.49	1.190	24.700	23.8	-3.64
SAR-17	2025/1/29	5250	100	D5GHzV2-1006	EX3DV4 - SN7590	DAE4 Sn1776	7.390	80.600	73.9	-8.31	2.090	22.800	20.9	-8.33
SAR-17	2025/2/16	5250	50	D5GHzV2-1006	EX3DV4 - SN7590	DAE4 Sn1399	4.250	80.600	85	5.46	1.200	22.800	24	5.26
SAR-21	2025/2/17	5250	50	D5GHzV2-1128	EX3DV4 - SN7694	DAE4 Sn1697	4.230	77.500	84.6	9.16	1.200	22.200	24	8.11
SAR-21	2025/2/18	5250	50	D5GHzV2-1128	EX3DV4 - SN7694	DAE4 Sn1697	3.590	77.500	71.8	-7.35	1.020	22.200	20.4	-8.11
SAR-21	2025/2/19	5250	50	D5GHzV2-1128	EX3DV4 - SN7694	DAE4 Sn1697	3.570	77.500	71.4	-7.87	1.010	22.200	20.2	-9.01
SAR-20	2025/2/25	5250	50	D5GHzV2-1006	EX3DV4 - SN7785	DAE4 Sn1694	3.870	80.600	77.4	-3.97	1.130	22.800	22.6	-0.88
SAR-21	2025/2/26	5250	50	D5GHzV2-1128	EX3DV4 - SN7694	DAE4 Sn1697	4.110	77.500	82.2	6.06	1.080	22.200	21.6	-2.70
SAR-17	2025/1/29	5600	100	D5GHzV2-1006	EX3DV4 - SN7590	DAE4 Sn1776	8.270	83.400	82.7	-0.84	2.330	23.700	23.3	-1.69
SAR-17	2025/2/16	5600	50	D5GHzV2-1006	EX3DV4 - SN7590	DAE4 Sn1399	3.770	83.400	75.4	-9.59	1.080	23.700	21.6	-8.86
SAR-21	2025/2/17	5600	50	D5GHzV2-1128	EX3DV4 - SN7694	DAE4 Sn1697	4.400	81.700	88	7.71	1.230	23.500	24.6	4.68
SAR-21	2025/2/18	5600	50	D5GHzV2-1128	EX3DV4 - SN7694	DAE4 Sn1697	3.750	81.700	75	-8.20	1.060	23.500	21.2	-9.79
SAR-21	2025/2/19	5600	50	D5GHzV2-1128	EX3DV4 - SN7694	DAE4 Sn1697	3.750	81.700	75	-8.20	1.070	23.500	21.4	-8.94
SAR-21	2025/2/26	5600	50	D5GHzV2-1128	EX3DV4 - SN7694	DAE4 Sn1697	3.730	81.700	74.6	-8.69	1.130	23.500	22.6	-3.83
SAR-17	2025/1/29	5800	100	D5GHzV2-1006	EX3DV4 - SN7590	DAE4 Sn1776	7.340	80.600	73.4	-8.93	2.050	22.700	20.5	-9.69

SAR-17	2025/2/16	5800	50	D5GHzV2-1006	EX3DV4 - SN7590	DAE4 Sn1399	3.920	80.600	78.4	-2.73	1.100	22.700	22	-3.08
SAR-21	2025/2/17	5800	50	D5GHzV2-1128	EX3DV4 - SN7694	DAE4 Sn1697	3.930	78.600	78.6	0.00	1.110	22.500	22.2	-1.33
SAR-21	2025/2/18	5800	50	D5GHzV2-1128	EX3DV4 - SN7694	DAE4 Sn1697	3.890	78.600	77.8	-1.02	1.100	22.500	22	-2.22
SAR-21	2025/2/19	5800	50	D5GHzV2-1006	EX3DV4 - SN7694	DAE4 Sn1697	3.710	80.600	74.2	-7.94	1.040	22.700	20.8	-8.37
SAR-20	2025/2/25	5800	50	D5GHzV2-1006	EX3DV4 - SN7785	DAE4 Sn1694	3.770	80.600	75.4	-6.45	1.080	22.700	21.6	-4.85
SAR-21	2025/2/26	5800	50	D5GHzV2-1128	EX3DV4 - SN7694	DAE4 Sn1697	3.590	78.600	71.8	-8.65	1.040	22.500	20.8	-7.56
SAR-17	2025/2/11	6500	100	D6.5GHzV2-1003	EX3DV4 - SN7590	DAE4 Sn1399	30.300	293.000	303	3.41	5.570	53.800	55.7	3.53
SAR-17	2025/2/13	6500	100	D6.5GHzV2-1003	EX3DV4 - SN7590	DAE4 Sn1399	30.600	293.000	306	4.44	5.630	53.800	56.3	4.65
SAR-21	2025/2/13	6500	100	D6.5GHzV2-1003	EX3DV4 - SN7694	DAE4 Sn1697	30.900	293.000	309	5.46	5.680	53.800	56.8	5.58
SAR-17	2025/2/17	6500	100	D6.5GHzV2-1003	EX3DV4 - SN7590	DAE4 Sn1399	29.700	293.000	297	1.37	5.440	53.800	54.4	1.12
SAR-21	2025/3/3	6500	100	D6.5GHzV2-1083	EX3DV4 - SN7694	DAE4 Sn1697	29.600	297.000	296	-0.34	5.460	54.600	54.6	0.00
SAR-20	2025/3/5	6500	100	D6.5GHzV2-1083	EX3DV4 - SN7785	DAE4 Sn1694	30.600	297.000	306	3.03	5.910	54.600	59.1	8.24
SAR-19	2025/3/12	6500	100	D6.5GHzV2-1083	EX3DV4 - SN7695	DAE4 Sn1707	28.200	297.000	282	-5.05	5.240	54.600	52.4	-4.03
SAR-18	2025/4/28	6500	100	D6.5GHzV2-1083	EX3DV4 - SN7625	DAE4ip Sn1800	27.500	297.000	275	-7.41	5.010	54.600	50.1	-8.24
SAR-19	2025/4/28	6500	100	D6.5GHzV2-1083	EX3DV4 - SN7694	DAE4 Sn1697	31.500	297.000	315	6.06	5.860	54.600	58.6	7.33

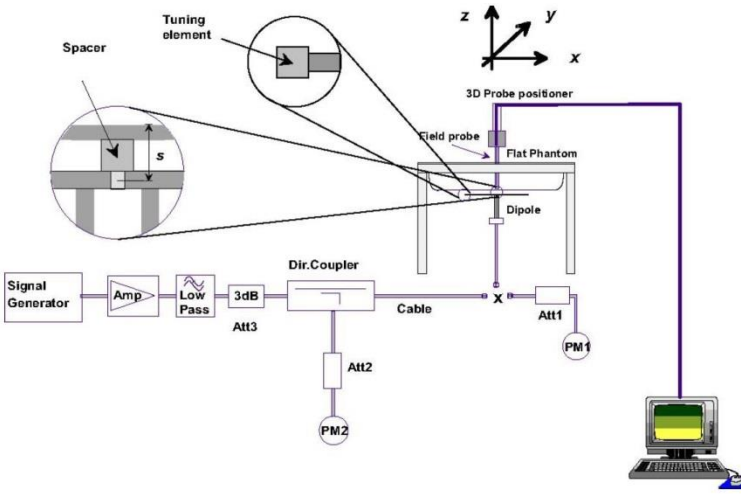


Fig 8.3.1 System Performance Check Setup

Fig 8.3.2 Setup Photo

10.3 PD System Performance Check Results

The system was verified to be within ±0.66 dB of the power density targets on the calibration certificate according to the test system specification in the user's manual and calibration facility recommendation. The 0.66 dB deviation threshold represents the expanded uncertainty for system performance checks using SPEAG's mmWave verification sources. The same spatial resolution and measurement region used in the source calibration was applied during the system check. The measured power density distribution of verification source was also confirmed through visual inspection to have no noticeable differences, both spatially (shape) and numerically (level) from the distribution provided by the manufacturer, per November 2017 TCBC Workshop Notes

Test Location	Frequency (GHz)	5G Verification Source	Probe S/N	DAE S/N	Distance (mm)	Measured 4 cm^2 (W/m^2)	Targeted 4 cm^2 (W/m^2)	Deviation (dB)	Date
SAR20	10G	10GHz_1052	9461	1424	10mm	51.6	57.2	-0.45	2025/1/17
SAR20	10G	10GHz_1052	9461	703	10mm	53.2	57.2	-0.31	2025/3/5
SAR20	10G	10GHz_1052	9461	1794	10mm	53.8	57.2	-0.27	2025/4/28

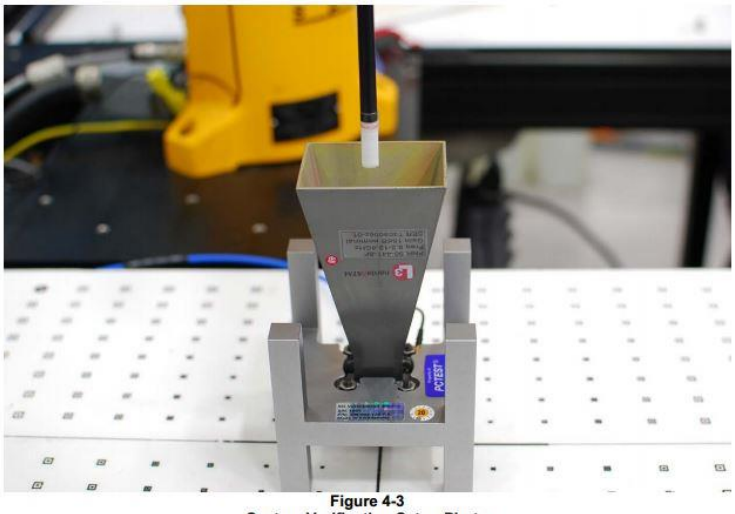


Figure 4-3
System Verification Setup Photo

System Performance Check Setup

11. RF Exposure Positions

11.1 Ear and handset reference point

Figure 9.1.1 shows the front, back, and side views of the SAM phantom. The center-of-mouth reference point is labeled “M,” the left ear reference point (ERP) is marked “LE,” and the right ERP is marked “RE.” Each ERP is 15 mm along the B-M (back-mouth) line behind the entrance-to-ear-canal (EEC) point, as shown in Figure 9.1.2 The Reference Plane is defined as passing through the two ear reference points and point M. The line N-F (neck-front), also called the reference pivoting line, is normal to the Reference Plane and perpendicular to both a line passing through RE and LE and the B-M line (see Figure 9.1.3). Both N-F and B-M lines should be marked on the exterior of the phantom shell to facilitate handset positioning. Posterior to the N-F line the ear shape is a flat surface with 6 mm thickness at each ERP, and forward of the N-F line the ear is truncated, as illustrated in Figure 9.1.2. The ear truncation is introduced to preclude the ear lobe from interfering with handset tilt, which could lead to unstable positioning at the cheek.

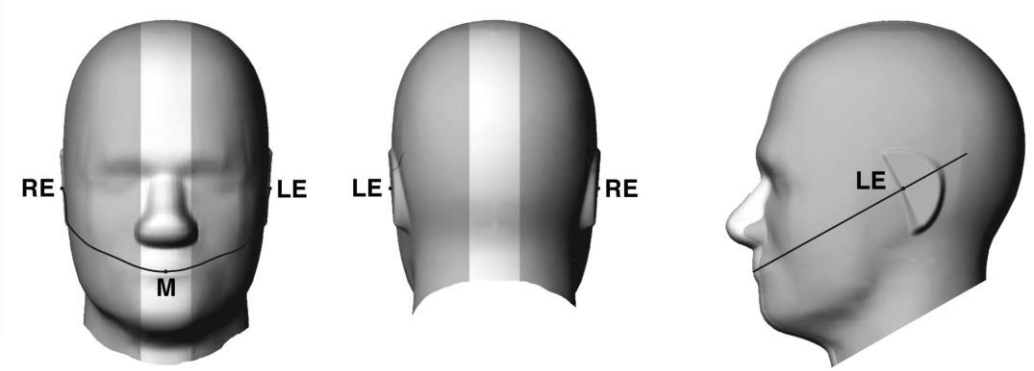


Fig 9.1.1 Front, back, and side views of SAM twin phantom

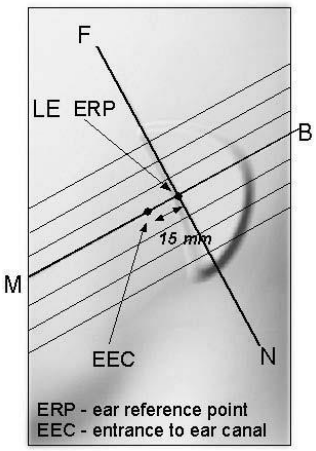


Fig 9.1.2 Close-up side view of phantom showing the ear region.

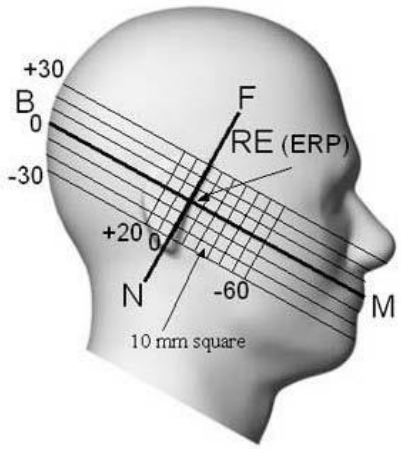


Fig 9.1.3 Side view of the phantom showing relevant markings and seven cross-sectional plane locations

11.2 Definition of the cheek position

1. Ready the handset for talk operation, if necessary. For example, for handsets with a cover piece (flip cover), open the cover. If the handset can transmit with the cover closed, both configurations must be tested.
2. Define two imaginary lines on the handset—the vertical centerline and the horizontal line. The vertical centerline passes through two points on the front side of the handset—the midpoint of the width wt of the handset at the level of the acoustic output (point A in Figure 9.2.1 and Figure 9.2.2), and the midpoint of the width wb of the bottom of the handset (point B). The horizontal line is perpendicular to the vertical centerline and passes through the center of the acoustic output (see Figure 9.2.1). The two lines intersect at point A. Note that for many handsets, point A coincides with the center of the acoustic output; however, the acoustic output may be located elsewhere on the horizontal line. Also note that the vertical centerline is not necessarily parallel to the front face of the handset (see Figure 9.2.2), especially for clamshell handsets, handsets with flip covers, and other irregularly-shaped handsets.
3. Position the handset close to the surface of the phantom such that point A is on the (virtual) extension of the line passing through points RE and LE on the phantom (see Figure 9.2.3), such that the plane defined by the vertical centerline and the horizontal line of the handset is approximately parallel to the sagittal plane of the phantom.
4. Translate the handset towards the phantom along the line passing through RE and LE until handset point A touches the pinna at the ERP.
5. While maintaining the handset in this plane, rotate it around the LE-RE line until the vertical centerline is in the plane normal to the plane containing B-M and N-F lines, i.e., the Reference Plane.
6. Rotate the handset around the vertical centerline until the handset (horizontal line) is parallel to the N-F line.
7. While maintaining the vertical centerline in the Reference Plane, keeping point A on the line passing through RE and LE, and maintaining the handset contact with the pinna, rotate the handset about the N-F line until any point on the handset is in contact with a phantom point below the pinna on the cheek. See Figure 9.2.3. The actual rotation angles should be documented in the test report.

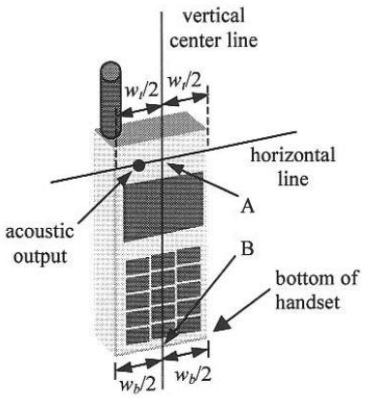


Fig 9.2.1 Handset vertical and horizontal reference lines—"fixed case

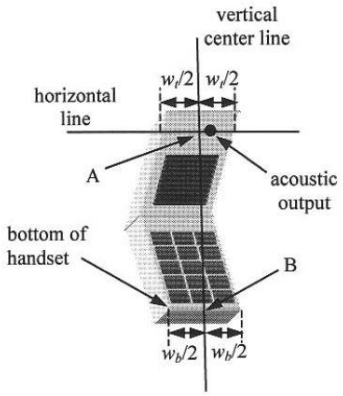


Fig 9.2.2 Handset vertical and horizontal reference lines—"clam-shell case"

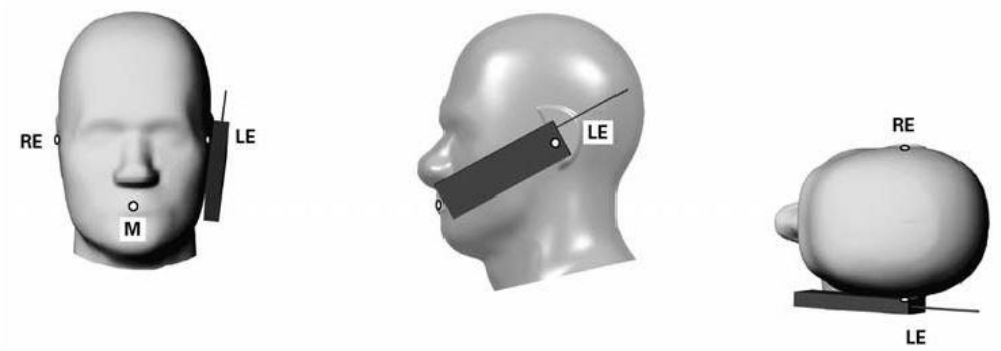


Fig 9.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

11.3 Definition of the tilt position

1. Ready the handset for talk operation, if necessary. For example, for handsets with a cover piece (flip cover), open the cover. If the handset can transmit with the cover closed, both configurations must be tested.
2. While maintaining the orientation of the handset, move the handset away from the pinna along the line passing through RE and LE far enough to allow a rotation of the handset away from the cheek by 15°.
3. Rotate the handset around the horizontal line by 15°.
4. While maintaining the orientation of the handset, move the handset towards the phantom on the line passing through RE and LE until any part of the handset touches the ear. The tilt position is obtained when the contact point is on the pinna. See Figure 9.3.1. If contact occurs at any location other than the pinna, e.g., the antenna at the back of the phantom head, the angle of the handset should be reduced. In this case, the tilt position is obtained if any point on the handset is in contact with the pinna and a second point

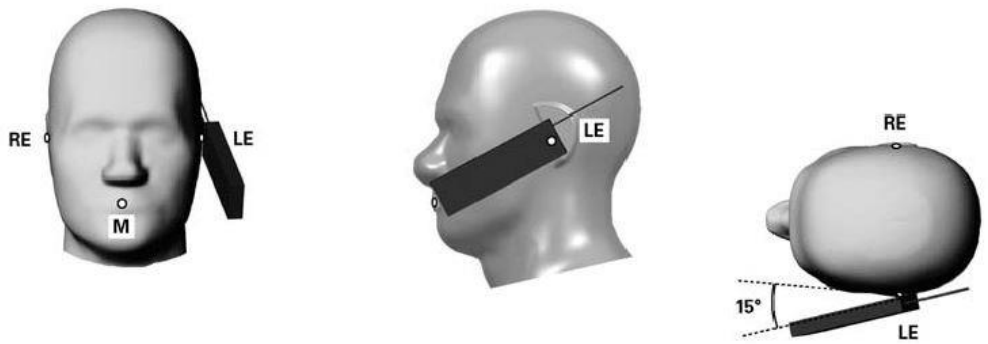


Fig 9.3.1 Tilt position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which define the Reference Plane for handset positioning, are indicated.

11.4 Body Worn Accessory

Body-worn operating configurations are tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in a normal use configuration (see Figure 9.4). Per KDB648474 D04v01r03, body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in FCC KDB 447498 D01v06 should be used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode, when applicable. When the reported SAR for body-worn accessory, measured without a headset connected to the handset is > 1.2 W/kg, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a handset attached to the handset.

Accessories for body-worn operation configurations are divided into two categories: those that do not contain metallic components and those that do contain metallic components and those that do contain metallic components. When multiple accessories that do not contain metallic components are supplied with the device, the device is tested with only the accessory that dictates the closest spacing to the body. Then multiple accessories that contain metallic components are test with the device with each accessory. If multiple accessories share an identical metallic component (i.e. the same metallic belt-chip used with different holsters with no other metallic components) only the accessory that dictates the closest spacing to the body is tested.

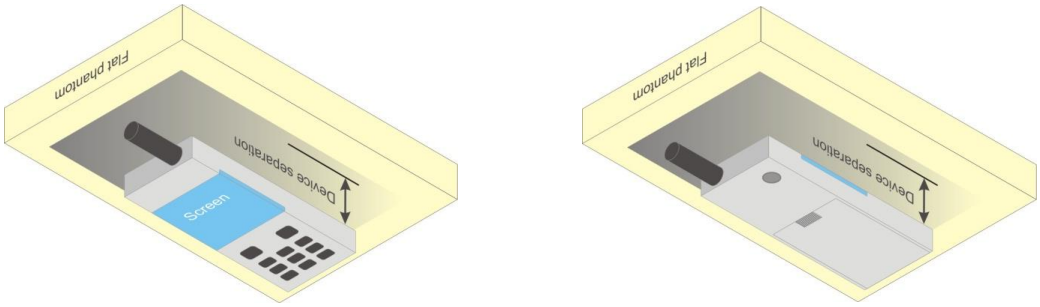


Fig 9.4 Body Worn Position

11.5 Product Specific Exposure

For smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm that provide similar mobile web access and multimedia support found in mini-tablets or UMPC mini-tablets that support voice calls next to the ear, According to KDB648474 D04v01r03, the following phablet procedures should be applied to evaluate SAR compliance for each applicable wireless modes and frequency band. Devices marketed as phablets, regardless of form factors and operating characteristics must be tested as a phablet to determine SAR compliance

1. The normally required head and body-worn accessory SAR test procedures for handsets, including hotspot mode, must be applied.

2. The UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna located at ≤ 25 mm from that surface or edge, in direct contact with a flat phantom, for 10-g extremity SAR according to the body-equivalent tissue dielectric parameters in KDB 865664 to address interactive hand use exposure conditions.6 The UMPC mini-tablet 1-g SAR at 5 mm is not required. When hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg.

11.6 Wireless Router

Some battery-operated handsets have the capability to transmit and receive user through simultaneous transmission of WIFI simultaneously with a separate licensed transmitter. The FCC has provided guidance in FCC KDB Publication 941225 D06 v02r01 where SAR test considerations for handsets (L x W ≥ 9 cm x 5 cm) are based on a composite test separation distance of 10mm from the front, back and edges of the device containing transmitting antennas within 2.5cm of their edges, determined form general mixed use conditions for this type of devices. Since the hotspot SAR results may overlap with the body-worn accessory SAR requirements, the more conservative configurations can be considered, thus excluding some body-worn accessory SAR tests.

When the user enables the personal wireless router functions for the handset, actual operations include simultaneous transmission of both the WIFI transmitter and another licensed transmitter. Both transmitters often do not transmit at the same transmitting frequency and thus cannot be evaluated for SAR under actual use conditions due to the limitations of the SAR assessment probes. Therefore, SAR must be evaluated for each frequency transmission and mode separately and spatially summed with the WIFI transmitter according to FCC KDB Publication 447498 D01v06 publication procedures. The “Portable Hotspot” feature on the handset was NOT activated during SAR assessments, to ensure the SAR measurements were evaluated for a single transmission frequency RF signal at a time.

12. Data Reuse Approach

FCC ID: A4RGUL82 (reference model) and FCC ID: A4RG45RY (variant model)

- **PCB**: The PCB layout is identical with parent model.
- **Component Positions**: The position of the components on the PCB is not changed
- **Enclosure, Materials, and From Factor**: the Enclosure, Materials, and From Factor are exactly the same

Due to the same design are identical between parent model and variant model, SAR data reuse is requested and spot check data in this report is used to justify the SAR data reuse.

For variant model 1g SAR and 10g spot check SAR result does not exceed 3dB and 1g SAR < 1.2W/kg, 10g SAR < 3.0W/kg of the reference model, the max SAR summary are identical with parent model.

The applicant should take full responsibility that the test data as referenced in this report represent compliance for this FCC ID: A4RG45RY

<Model Difference Information>

A4RGUL82 and A4RG45RY use the identical internal printed circuit board layout, and the major differences which may relate to RF are listed below:

- Depopulated mmWave Module.
- Populated module and transceiver for FR1 n79

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

<Reference detail Section>

Rule Part	Equipment Class	Wireless Technology	Frequency Band (MHz)	FCC ID (Reference)	Type Grant/ Permissive Change	Reference Title	FCC ID Filling (Variant)	Test on the variant
Part 2.1093 SAR	DXX	NFC	13.56	A4RGUL82	Original Grant	FA4N0918D	A4RG45RY	Spot check
	DSS	Bluetooth	2400~2483.5	A4RGUL82	Original Grant	FA4N0918D	A4RG45RY	Spot check
	DTS	BLE WiFi	2400~2483.5	A4RGUL82	Original Grant	FA4N0918D	A4RG45RY	Spot check
	NII	Wi-Fi	5150 ~ 5250 5250 ~ 5350 5470 ~ 5725 5725 ~ 5850 5850 ~ 5895	A4RGUL82	Original Grant	FA4N0918D	A4RG45RY	Spot check
	6CD	Wi-Fi	5925 ~ 6425 6425 ~ 6525 6525 ~ 6875 6875 ~ 7125	A4RGUL82	Original Grant	FA4N0918D	A4RG45RY	Full Test on SAR and PD
	PCB CBE	GSM	850/1900	A4RGUL82	Original Grant	FA4N0918D	A4RG45RY	Spot check
		WCDMA	B2/4/5	A4RGUL82	Original Grant	FA4N0918D	A4RG45RY	Spot check
		LTE	B2/4/5/7/12/13/14/17/ 25/26/30/38/41/48/66/71	A4RGUL82	Original Grant	FA4N0918D	A4RG45RY	Spot check
		5G FR1	n2/5/7/12/14/25/26/30/ 38/41/66/71/77/78	A4RGUL82	Original Grant	FA4N0918D	A4RG45RY	Spot check
		NTN	B23/255	A4RGUL82	Original Grant	FA4N0918D	A4RG45RY	Spot check

13. Spot Check SAR Results

General Note:

1. 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.
2. If the 1-g SAR spot check result "does not exceed 3dB, but larger than 1.2 W/kg", more spot check on the next-higher exposure position until the spot check result does not exceed 1.2 W/kg.
3. The spot check results don't show the SAR increase more than 3dB, therefore referring to the guidance in the KDB inquiry, SAR data reuse is justified.

1st as parent model
2nd as variant model

13.1 Head SAR

Plot No.	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 (dB)
	1st	GSM850_Ant 0	GPRS (4 Tx slots)	Left Cheek	0mm	2/3	189	836.4	29.35	30.50	1.303			-0.15	0.355	0.463	-0.13
	2nd	GSM850_Ant 0	GPRS (4 Tx slots)	Left Cheek	0mm	2/3	189	836.4	29.44	30.50	1.276			0.03	0.352	0.449	
	1st	GSM850_Ant 1	GPRS (4 Tx slots)	Right Cheek	0mm	2	251	848.8	24.92	26.50	1.439			-0.01	0.687	0.988	-0.06
01	2nd	GSM850_Ant 1	GPRS (4 Tx slots)	Right Cheek	0mm	2	251	848.8	24.63	26.50	1.538			-0.02	0.633	0.974	
	1st	GSM850_Ant 1	GPRS (4 Tx slots)	Right Cheek	0mm	3	251	848.8	24.92	25.30	1.091			-0.01	0.687	0.750	-0.06
	2nd	GSM850_Ant 1	GPRS (4 Tx slots)	Right Cheek	0mm	3	251	848.8	24.63	25.30	1.167			-0.02	0.633	0.739	
	1st	GSM1900_Ant 2	GPRS (4 Tx slots)	Right Cheek	0mm	2/3	810	1909.8	26.17	27.50	1.358			-0.15	0.260	0.353	-0.05
02	2nd	GSM1900_Ant 2	GPRS (4 Tx slots)	Right Cheek	0mm	2/3	810	1909.8	26.10	27.50	1.380			-0.11	0.253	0.349	
	1st	GSM1900_Ant 0	GPRS (4 Tx slots)	Right Cheek	0mm	2/3	810	1909.8	25.79	27.20	1.384			0.01	0.043	0.059	-0.38
	2nd	GSM1900_Ant 0	GPRS (4 Tx slots)	Right Cheek	0mm	2/3	810	1909.8	25.56	27.20	1.459			0.16	0.037	0.054	
	1st	WCDMA II_Ant 2	RMC 12.2Kbps	Right Cheek	0mm	2/3	9262	1852.4	24.15	25.00	1.216			0.02	0.351	0.427	-0.04
03	2nd	WCDMA II_Ant 2	RMC 12.2Kbps	Right Cheek	0mm	2/3	9262	1852.4	23.84	25.00	1.306			0.02	0.324	0.423	
	1st	WCDMA II_Ant 0	RMC 12.2Kbps	Right Cheek	0mm	2/3	9262	1852.4	23.82	24.70	1.225			0.1	0.056	0.069	-0.06
	2nd	WCDMA II_Ant 0	RMC 12.2Kbps	Right Cheek	0mm	2/3	9262	1852.4	23.83	24.70	1.222			0.09	0.056	0.068	
	1st	WCDMA IV_Ant 2	RMC 12.2Kbps	Right Cheek	0mm	2/3	1312	1712.4	24.19	25.00	1.205			0	0.313	0.377	-0.49
04	2nd	WCDMA IV_Ant 2	RMC 12.2Kbps	Right Cheek	0mm	2/3	1312	1712.4	23.95	25.00	1.274			0.01	0.265	0.337	
	1st	WCDMA IV_Ant 0	RMC 12.2Kbps	Right Cheek	0mm	2/3	1312	1712.4	23.84	24.70	1.219			0.13	0.100	0.122	-0.61
	2nd	WCDMA IV_Ant 0	RMC 12.2Kbps	Right Cheek	0mm	2/3	1312	1712.4	23.91	24.70	1.199			0.05	0.088	0.106	
	1st	WCDMA V_Ant 0	RMC 12.2Kbps	Left Cheek	0mm	2/3	4132	826.4	24.57	25.00	1.104			-0.03	0.246	0.272	-0.23
	2nd	WCDMA V_Ant 0	RMC 12.2Kbps	Left Cheek	0mm	2/3	4132	826.4	24.45	25.00	1.135			0	0.227	0.258	
	1st	WCDMA V_Ant 1	RMC 12.2Kbps	Right Cheek	0mm	2	4233	846.6	22.90	23.90	1.259			0	0.776	0.977	-0.27
05	2nd	WCDMA V_Ant 1	RMC 12.2Kbps	Right Cheek	0mm	2	4233	846.6	22.48	23.90	1.387			-0.01	0.662	0.918	
	1st	WCDMA V_Ant 1	RMC 12.2Kbps	Right Cheek	0mm	3	4132	826.4	22.38	22.90	1.127			0	0.664	0.748	-0.10
	2nd	WCDMA V_Ant 1	RMC 12.2Kbps	Right Cheek	0mm	3	4132	826.4	22.31	22.90	1.146			0	0.638	0.731	
	1st	LTE Band 7_Ant 2	20M_QPSK_1_0	Right Cheek	0mm	2/3	21100	2535	24.12	25.00	1.225			0.03	0.578	0.708	-0.50
06	2nd	LTE Band 7_Ant 2	20M_QPSK_1_0	Right Cheek	0mm	2/3	21100	2535	23.90	25.00	1.288			0.17	0.490	0.631	
	1st	LTE Band 7_Ant 0	20M_QPSK_1_0	Left Cheek	0mm	2/3	21100	2535	23.86	25.00	1.300			0.12	0.102	0.133	-0.79
	2nd	LTE Band 7_Ant 0	20M_QPSK_1_0	Left Cheek	0mm	2/3	21100	2535	23.70	25.00	1.349			-0.1	0.082	0.111	
	1st	LTE Band 12_Ant 0	10M_QPSK_1_0	Left Cheek	0mm	2/3	23095	707.5	24.41	25.00	1.146			0.12	0.205	0.235	-0.07
	2nd	LTE Band 12_Ant 0	10M_QPSK_1_0	Left Cheek	0mm	2/3	23095	707.5	24.31	25.00	1.172			-0.01	0.197	0.231	
	1st	LTE Band 12_Ant 1	10M_QPSK_1_0	Right Cheek	0mm	2	23095	707.5	23.94	24.60	1.164			0.06	0.833	0.970	-1.11
07	2nd	LTE Band 12_Ant 1	10M_QPSK_1_0	Right Cheek	0mm	2	23095	707.5	23.71	24.60	1.227			0	0.613	0.752	
	1st	LTE Band 12_Ant 1	10M_QPSK_1_0	Right Cheek	0mm	3	23095	707.5	22.66	23.40	1.186			0.01	0.631	0.748	-0.34
	2nd	LTE Band 12_Ant 1	10M_QPSK_1_0	Right Cheek	0mm	3	23095	707.5	22.72	23.40	1.169			0	0.591	0.691	
	1st	LTE Band 13_Ant 0	10M_QPSK_1_0	Left Cheek	0mm	2/3	23230	782	24.67	25.00	1.079			0.13	0.259	0.279	-0.08
	2nd	LTE Band 13_Ant 0	10M_QPSK_1_0	Left Cheek	0mm	2/3	23230	782	24.49	25.00	1.125			0.01	0.244	0.274	
	1st	LTE Band 13_Ant 1	10M_QPSK_1_0	Right Cheek	0mm	2	23230	782	22.82	24.30	1.406			-0.01	0.573	0.806	-1.45

08	2nd	LTE Band 13_Ant 1	10M_QPSK_1_0	Right Cheek	0mm	2	23230	782	22.69	24.30	1.449			-0.04	0.398	0.577	
	1st	LTE Band 13_Ant 1	10M_QPSK_1_0	Right Cheek	0mm	3	23230	782	22.82	23.60	1.197			-0.01	0.573	0.686	-1.45
	2nd	LTE Band 13_Ant 1	10M_QPSK_1_0	Right Cheek	0mm	3	23230	782	22.69	23.60	1.233			-0.04	0.398	0.491	
	1st	LTE Band 14_Ant 0	10M_QPSK_1_0	Left Cheek	0mm	2/3	23330	793	24.49	25.00	1.125			0.13	0.268	0.301	-0.35
	2nd	LTE Band 14_Ant 0	10M_QPSK_1_0	Left Cheek	0mm	2/3	23330	793	24.35	25.00	1.161			-0.1	0.239	0.278	
	1st	LTE Band 14_Ant 1	10M_QPSK_1_0	Right Cheek	0mm	2	23330	793	22.46	23.70	1.330			0	0.607	0.808	-1.66
09	2nd	LTE Band 14_Ant 1	10M_QPSK_1_0	Right Cheek	0mm	2	23330	793	22.03	23.70	1.469			-0.02	0.375	0.551	
	1st	LTE Band 14_Ant 1	10M_QPSK_1_0	Right Cheek	0mm	3	23330	793	22.46	23.00	1.132			0	0.607	0.687	-1.66
	2nd	LTE Band 14_Ant 1	10M_QPSK_1_0	Right Cheek	0mm	3	23330	793	22.03	23.00	1.250			-0.02	0.375	0.469	
	1st	LTE Band 25_Ant 2	20M_QPSK_1_0	Right Cheek	0mm	2/3	26340	1880	23.55	25.00	1.396			0.16	0.317	0.443	-0.19
	2nd	LTE Band 25_Ant 2	20M_QPSK_1_0	Right Cheek	0mm	2/3	26340	1880	23.48	25.00	1.419			0	0.299	0.424	
	1st	LTE Band 25_Ant 0	20M_QPSK_1_0	Left Cheek	0mm	2/3	26340	1880	23.46	24.70	1.330			-0.14	0.070	0.093	-2.61
	2nd	LTE Band 25_Ant 0	20M_QPSK_1_0	Left Cheek	0mm	2/3	26340	1880	23.52	24.70	1.312			-0.02	0.039	0.051	
	1st	LTE Band 25_Ant 1	20M_QPSK_50_0	Right Cheek	0mm	2	26340	1880	15.62	17.30	1.472			-0.03	0.613	0.903	-1.00
10	2nd	LTE Band 25_Ant 1	20M_QPSK_50_0	Right Cheek	0mm	2	26340	1880	15.65	17.30	1.462			0.05	0.491	0.718	
	1st	LTE Band 25_Ant 1	20M_QPSK_50_0	Right Cheek	0mm	3	26340	1880	15.62	16.40	1.197			-0.03	0.613	0.734	-0.99
	2nd	LTE Band 25_Ant 1	20M_QPSK_50_0	Right Cheek	0mm	3	26340	1880	15.65	16.40	1.189			0.05	0.491	0.584	
	1st	LTE Band 25_Ant 5	20M_QPSK_1_0	Left Cheek	0mm	2	26590	1905	17.71	19.50	1.510			-0.03	0.603	0.911	-1.33
	2nd	LTE Band 25_Ant 5	20M_QPSK_1_0	Left Cheek	0mm	2	26590	1905	17.54	19.50	1.570			0.02	0.427	0.671	
	1st	LTE Band 25_Ant 5	20M_QPSK_1_0	Left Cheek	0mm	3	26340	1880	17.82	18.80	1.253			0.15	0.550	0.689	-0.23
	2nd	LTE Band 25_Ant 5	20M_QPSK_1_0	Left Cheek	0mm	3	26340	1880	17.81	18.80	1.256			-0.05	0.521	0.654	
	1st	LTE Band 26_Ant 0	15M_QPSK_1_0	Left Cheek	0mm	2/3	26865	831.5	24.15	25.00	1.216			0.12	0.221	0.269	-0.13
	2nd	LTE Band 26_Ant 0	15M_QPSK_1_0	Left Cheek	0mm	2/3	26865	831.5	24.01	25.00	1.256			0.12	0.208	0.261	
	1st	LTE Band 26_Ant 1	15M_QPSK_1_0	Right Cheek	0mm	2	26865	831.5	22.43	23.60	1.309			-0.02	0.694	0.909	-0.46
11	2nd	LTE Band 26_Ant 1	15M_QPSK_1_0	Right Cheek	0mm	2	26865	831.5	22.60	23.60	1.259			-0.03	0.649	0.817	
	1st	LTE Band 26_Ant 1	15M_QPSK_1_0	Right Cheek	0mm	3	26865	831.5	22.43	22.60	1.040			-0.02	0.694	0.722	-0.46
	2nd	LTE Band 26_Ant 1	15M_QPSK_1_0	Right Cheek	0mm	3	26865	831.5	22.60	22.60	1.000			-0.03	0.649	0.649	
	1st	LTE Band 30_Ant 2	10M_QPSK_1_0	Right Cheek	0mm	2/3	27710	2310	23.52	24.60	1.282			-0.05	0.455	0.583	-0.52
12	2nd	LTE Band 30_Ant 2	10M_QPSK_1_0	Right Cheek	0mm	2/3	27710	2310	23.51	24.60	1.285			0.15	0.402	0.517	
	1st	LTE Band 30_Ant 0	10M_QPSK_1_0	Left Cheek	0mm	2/3	27710	2310	23.37	24.60	1.327			-0.15	0.088	0.117	-0.27
	2nd	LTE Band 30_Ant 0	10M_QPSK_1_0	Left Cheek	0mm	2/3	27710	2310	23.39	24.60	1.321			-0.11	0.083	0.110	
	1st	LTE Band 41_Ant 2	20M_QPSK_1_0	Right Cheek	0mm	2/3	40620	2593	24.09	25.00	1.233	62.9	1.006	0.09	0.327	0.406	-0.02
13	2nd	LTE Band 41_Ant 2	20M_QPSK_1_0	Right Cheek	0mm	2/3	40620	2593	23.88	25.00	1.294	62.9	1.006	-0.15	0.310	0.404	
	1st	LTE Band 41_Ant 0	20M_QPSK_1_0	Left Cheek	0mm	2/3	40620	2593	23.97	25.00	1.268	62.9	1.006	0.17	0.061	0.078	-0.93
	2nd	LTE Band 41_Ant 0	20M_QPSK_1_0	Left Cheek	0mm	2/3	40620	2593	23.92	25.00	1.282	62.9	1.006	0.01	0.049	0.063	
	1st	LTE Band 48_Ant 6	20M_QPSK_1_0	Left Cheek	0mm	2/3	55830	3609	24.35	25.00	1.161	62.9	1.006	0.16	0.184	0.215	-0.45
14	2nd	LTE Band 48_Ant 6	20M_QPSK_1_0	Left Cheek	0mm	2/3	55830	3609	23.81	25.00	1.315	62.9	1.006	0.12	0.147	0.194	
	1st	LTE Band 48_Ant 7	20M_QPSK_50_0	Right Cheek	0mm	2/3	55830	3609	20.40	22.20	1.514	62.9	1.006	0.09	0.127	0.193	-0.05
	2nd	LTE Band 48_Ant 7	20M_QPSK_50_0	Right Cheek	0mm	2/3	55830	3609	20.34	22.20	1.535	62.9	1.006	0.12	0.124	0.191	
	1st	LTE Band 66_Ant 2	20M_QPSK_1_0	Right Cheek	0mm	2/3	132322	1745	23.72	25.00	1.343			-0.09	0.306	0.411	-0.04
	2nd	LTE Band 66_Ant 2	20M_QPSK_1_0	Right Cheek	0mm	2/3	132322	1745	23.44	25.00	1.432			0.17	0.284	0.407	
	1st	LTE Band 66_Ant 0	20M_QPSK_1_0	Left Cheek	0mm	2/3	132322	1745	23.44	24.70	1.337			0.13	0.040	0.053	-2.19
	2nd	LTE Band 66_Ant 0	20M_QPSK_1_0	Left Cheek	0mm	2/3	132322	1745	23.46	24.70	1.330			0.16	0.024	0.032	
	1st	LTE Band 66_Ant 1	20M_QPSK_1_0	Right Cheek	0mm	2	132572	1770	16.58	18.40	1.521			-0.04	0.650	0.988	-0.30
15	2nd	LTE Band 66_Ant 1	20M_QPSK_1_0	Right Cheek	0mm	2	132572	1770	16.44	18.40	1.570			0.03	0.588	0.923	
	1st	LTE Band 66_Ant 1	20M_QPSK_1_0	Right Cheek	0mm	3	132322	1745	16.77	17.20	1.104			0.08	0.646	0.713	-0.30
	2nd	LTE Band 66_Ant 1	20M_QPSK_1_0	Right Cheek	0mm	3	132322	1745	16.66	17.20	1.132			0.03	0.588	0.666	
	1st	LTE Band 66_Ant 5	20M_QPSK_1_0	Left Cheek	0mm	2	132572	1770	17.79	19.70	1.552			0.08	0.587	0.911	-0.53
	2nd	LTE Band 66_Ant 5	20M_QPSK_1_0	Left Cheek	0mm	2	132572	1770	17.74	19.70	1.570			0.02	0.514	0.807	
	1st	LTE Band 66_Ant 5	20M_QPSK_1_0	Left Cheek	0mm	3	132322	1745	18.00	19.00	1.259			-0.18	0.542	0.682	-0.02
	2nd	LTE Band 66_Ant 5	20M_QPSK_1_0	Left Cheek	0mm	3	132322	1745	17.79	19.00	1.321			0.02	0.514	0.679	
	1st	LTE Band 71_Ant 0	20M_QPSK_1_0	Left Cheek	0mm	2/3	133297	680.5	24.47	25.00	1.130			-0.11	0.141	0.159	-0.78
	2nd	LTE Band 71_Ant 0	20M_QPSK_1_0	Left Cheek	0mm	2/3	133297	680.5	24.37	25.00	1.156			0.15	0.115	0.133	
	1st	LTE Band 71_Ant 1	20M_QPSK_1_0	Right Tilted	0mm	2	133297	680.5	24.43	25.00	1.140			0.02	0.830	0.946	-0.53
16	2nd	LTE Band 71_Ant 1	20M_QPSK_1_0	Right Tilted	0mm	2	133297	680.5	24.08	25.00	1.236			0.02	0.677	0.837	
	1st	LTE Band 71_Ant 1	20M_QPSK_1_0	Right Cheek	0mm	3	133297	680.5	23.12	23.80	1.169			0	0.631	0.738	0.00

	2nd	LTE Band 71_Ant 1	20M_QPSK_1_0	Right Cheek	0mm	3	133297	680.5	22.98	23.80	1.208			0	0.611	0.738	
	1st	FR1 n7_Ant 2	50M_BPSK_135_68	Right Cheek	0mm	2/3	507000	2535	24.43	25.00	1.140			0.13	0.614	0.700	-0.09
17	2nd	FR1 n7_Ant 2	50M_BPSK_135_68	Right Cheek	0mm	2/3	507000	2535	24.31	25.00	1.172			-0.01	0.585	0.686	
	1st	FR1 n7_Ant 0	50M_BPSK_135_68	Left Cheek	0mm	2/3	507000	2535	24.02	25.00	1.253			0.12	0.084	0.105	-0.34
	2nd	FR1 n7_Ant 0	50M_BPSK_135_68	Left Cheek	0mm	2/3	507000	2535	23.90	25.00	1.288			0.17	0.075	0.097	
	1st	FR1 n12_Ant 0	15M_BPSK_36_22	Left Cheek	0mm	2/3	141500	707.5	24.32	25.00	1.169			0.14	0.199	0.233	-0.04
	2nd	FR1 n12_Ant 0	15M_BPSK_36_22	Left Cheek	0mm	2/3	141500	707.5	24.20	25.00	1.202			0.15	0.192	0.231	
	1st	FR1 n12_Ant 1	15M_BPSK_36_22	Right Cheek	0mm	2/3	141500	707.5	24.09	24.70	1.151			0.01	0.652	0.750	-0.09
18	2nd	FR1 n12_Ant 1	15M_BPSK_36_22	Right Cheek	0mm	2/3	141500	707.5	24.07	24.70	1.156			0	0.635	0.734	
	1st	FR1 n14_Ant 0	10M_BPSK_25_14	Left Cheek	0mm	2/3	158600	793	24.28	25.00	1.180			-0.06	0.254	0.300	-0.76
	2nd	FR1 n14_Ant 0	10M_BPSK_25_14	Left Cheek	0mm	2/3	158600	793	24.25	25.00	1.189			-0.15	0.212	0.252	
	1st	FR1 n14_Ant 1	10M_BPSK_25_0	Right Cheek	0mm	2	158600	793	23.08	23.90	1.208			0.01	0.781	0.943	-2.42
	2nd	FR1 n14_Ant 1	10M_BPSK_25_0	Right Cheek	0mm	2	158600	793	23.06	23.90	1.213			0	0.445	0.540	
	1st	FR1 n14_Ant 1	10M_BPSK_25_0	Right Cheek	0mm	3	158600	793	22.08	22.70	1.153			0.04	0.638	0.736	-0.07
19	2nd	FR1 n14_Ant 1	10M_BPSK_25_0	Right Cheek	0mm	3	158600	793	22.06	22.70	1.159			-0.04	0.626	0.725	
	1st	FR1 n25_Ant 2	40M_BPSK_108_54	Right Cheek	0mm	2/3	376500	1882.5	23.81	25.00	1.315			0.02	0.314	0.413	-0.16
	2nd	FR1 n25_Ant 2	40M_BPSK_108_54	Right Cheek	0mm	2/3	376500	1882.5	23.62	25.00	1.374			0.18	0.290	0.398	
	1st	FR1 n25_Ant 0	40M_BPSK_1_1	Right Cheek	0mm	2/3	376500	1882.5	23.72	24.70	1.253			0.12	0.056	0.070	-0.67
	2nd	FR1 n25_Ant 0	40M_BPSK_1_1	Right Cheek	0mm	2/3	376500	1882.5	23.67	24.70	1.268			0.01	0.047	0.060	
	1st	FR1 n25_Ant 1	40M_BPSK_108_54	Right Cheek	0mm	2	376500	1882.5	16.52	18.00	1.406			-0.01	0.693	0.974	-0.12
20	2nd	FR1 n25_Ant 1	40M_BPSK_108_54	Right Cheek	0mm	2	376500	1882.5	16.48	18.00	1.419			0	0.667	0.947	
	1st	FR1 n25_Ant 1	40M_BPSK_108_54	Right Cheek	0mm	3	376500	1882.5	16.52	16.80	1.067			-0.01	0.693	0.739	-0.13
	2nd	FR1 n25_Ant 1	40M_BPSK_108_54	Right Cheek	0mm	3	376500	1882.5	16.48	16.80	1.076			0	0.667	0.718	
	1st	FR1 n25_Ant 5	40M_BPSK_108_0	Left Cheek	0mm	2	376500	1882.5	18.05	19.80	1.496			-0.02	0.542	0.811	-0.73
	2nd	FR1 n25_Ant 5	40M_BPSK_108_0	Left Cheek	0mm	2	376500	1882.5	18.03	19.80	1.503			-0.01	0.456	0.685	
	1st	FR1 n25_Ant 5	40M_BPSK_108_0	Left Cheek	0mm	3	376500	1882.5	18.05	19.10	1.274			-0.02	0.542	0.690	-0.73
	2nd	FR1 n25_Ant 5	40M_BPSK_108_0	Left Cheek	0mm	3	376500	1882.5	18.03	19.10	1.279			-0.01	0.456	0.583	
	1st	FR1 n26_Ant 0	20M_BPSK_50_28	Left Cheek	0mm	2/3	166300	831.5	24.30	25.00	1.175			0.11	0.250	0.294	-0.43
	2nd	FR1 n26_Ant 0	20M_BPSK_50_28	Left Cheek	0mm	2/3	166300	831.5	24.06	25.00	1.242			0.05	0.214	0.266	
	1st	FR1 n26_Ant 1	20M_BPSK_1_53	Right Cheek	0mm	2	166300	831.5	22.80	23.60	1.202			0	0.685	0.824	-0.37
21	2nd	FR1 n26_Ant 1	20M_BPSK_1_53	Right Cheek	0mm	2	166300	831.5	22.61	23.60	1.256			0.01	0.602	0.756	
	1st	FR1 n26_Ant 1	20M_BPSK_1_53	Right Cheek	0mm	3	166300	831.5	22.80	22.90	1.023			0	0.685	0.701	-0.37
	2nd	FR1 n26_Ant 1	20M_BPSK_1_53	Right Cheek	0mm	3	166300	831.5	22.61	22.90	1.069			0.01	0.602	0.644	
	1st	FR1 n30_Ant 2	10M_BPSK_25_14	Right Cheek	0mm	2/3	462000	2310	23.99	24.60	1.151			0.07	0.436	0.502	-0.34
22	2nd	FR1 n30_Ant 2	10M_BPSK_25_14	Right Cheek	0mm	2/3	462000	2310	23.98	24.60	1.153			0.12	0.402	0.464	
	1st	FR1 n30_Ant 0	10M_BPSK_25_14	Left Cheek	0mm	2/3	462000	2310	23.23	24.60	1.371			0.01	0.082	0.112	-1.00
	2nd	FR1 n30_Ant 0	10M_BPSK_25_14	Left Cheek	0mm	2/3	462000	2310	23.62	24.60	1.253			-0.18	0.071	0.089	
	1st	FR1 n41_Ant 2	100M_BPSK_1_1	Right Cheek	0mm	2/3	518598	2592.99	24.04	25.00	1.247			0.11	0.569	0.710	-0.41
	2nd	FR1 n41_Ant 2	100M_BPSK_1_1	Right Cheek	0mm	2/3	518598	2592.99	24.03	25.00	1.250			-0.12	0.517	0.646	
	1st	FR1 n41_Ant 0	100M_BPSK_1_1	Left Cheek	0mm	2/3	518598	2592.99	23.95	25.00	1.274			-0.19	0.098	0.125	-0.93
	2nd	FR1 n41_Ant 0	100M_BPSK_1_1	Left Cheek	0mm	2/3	518598	2592.99	24.13	25.00	1.222			-0.13	0.083	0.101	
	1st	FR1 n41_Ant 1	100M_BPSK_135_69	Right Cheek	0mm	2	518598	2592.99	17.11	18.90	1.510			0.06	0.575	0.868	-0.61
23	2nd	FR1 n41_Ant 1	100M_BPSK_135_69	Right Cheek	0mm	2	518598	2592.99	17.07	18.90	1.524			0.04	0.495	0.754	
	1st	FR1 n41_Ant 1	100M_BPSK_135_69	Right Cheek	0mm	3	518598	2592.99	17.11	18.20	1.285			0.06	0.575	0.739	-0.61
	2nd	FR1 n41_Ant 1	100M_BPSK_135_69	Right Cheek	0mm	3	518598	2592.99	17.07	18.20	1.297			0.04	0.495	0.642	
	1st	FR1 n41_Ant 5	100M_BPSK_1_1	Left Cheek	0mm	2	518598	2592.99	17.94	19.20	1.337			0	0.567	0.758	-0.22
	2nd	FR1 n41_Ant 5	100M_BPSK_1_1	Left Cheek	0mm	2	518598	2592.99	17.76	19.20	1.393			0.01	0.517	0.720	
	1st	FR1 n41_Ant 5	100M_BPSK_1_1	Left Cheek	0mm	3	518598	2592.99	17.94	18.50	1.138			0	0.567	0.645	-0.22
	2nd	FR1 n41_Ant 5	100M_BPSK_1_1	Left Cheek	0mm	3	518598	2592.99	17.76	18.50	1.186			0.01	0.517	0.613	
	1st	FR1 n66_Ant 2	40M_BPSK_108_54	Right Cheek	0mm	2/3	349000	1745	24.00	25.00	1.259			0.12	0.270	0.340	-0.09
	2nd	FR1 n66_Ant 2	40M_BPSK_108_54	Right Cheek	0mm	2/3	349000	1745	23.82	25.00	1.312			0.09	0.254	0.333	
	1st	FR1 n66_Ant 0	40M_BPSK_1_1	Left Cheek	0mm	2/3	349000	1745	23.60	24.70	1.288			-0.19	0.053	0.068	-0.13
	2nd	FR1 n66_Ant 0	40M_BPSK_1_1	Left Cheek	0mm	2/3	349000	1745	23.48	24.70	1.324			0.17	0.050	0.066	
	1st	FR1 n66_Ant 1	40M_BPSK_108_54	Right Tilted	0mm	2	349000	1745	16.89	18.50	1.449			0.01	0.684	0.991	-0.02
24	2nd	FR1 n66_Ant 1	40M_BPSK_108_54	Right Tilted	0mm	2	349000	1745	16.86	18.50	1.459			0.03	0.676	0.986	
	1st	FR1 n66_Ant 1	40M_BPSK_108_54	Right Tilted	0mm	3	349000	1745	16.89	17.30	1.099			0.01	0.684	0.752	-0.02

	2nd	FR1 n66_Ant 1	40M_BPSK_108_54	Right Tilted	0mm	3	349000	1745	16.86	17.30	1.107			0.03	0.676	0.748	
	1st	FR1 n66_Ant 5	40M_BPSK_108_54	Left Cheek	0mm	2	349000	1745	19.39	20.40	1.262			0	0.773	0.975	-1.12
	2nd	FR1 n66_Ant 5	40M_BPSK_108_54	Left Cheek	0mm	2	349000	1745	19.35	20.40	1.274			0.01	0.591	0.753	
	1st	FR1 n66_Ant 5	40M_BPSK_108_54	Left Cheek	0mm	3	349000	1745	18.38	19.20	1.208			0.01	0.521	0.629	-0.59
	2nd	FR1 n66_Ant 5	40M_BPSK_108_54	Left Cheek	0mm	3	349000	1745	18.50	19.20	1.175			-0.05	0.467	0.549	
	1st	FR1 n71_Ant 0	20M_BPSK_1_1	Left Cheek	0mm	2/3	136100	680.5	24.35	25.00	1.161			-0.06	0.120	0.139	-0.26
	2nd	FR1 n71_Ant 0	20M_BPSK_1_1	Left Cheek	0mm	2/3	136100	680.5	24.27	25.00	1.183			0.09	0.111	0.131	
	1st	FR1 n71_Ant 1	20M_BPSK_50_28	Right Cheek	0mm	2	136100	680.5	23.00	24.20	1.318			0	0.747	0.985	-1.11
25	2nd	FR1 n71_Ant 1	20M_BPSK_50_28	Right Cheek	0mm	2	136100	680.5	22.95	24.20	1.334			0	0.572	0.763	
	1st	FR1 n71_Ant 1	20M_BPSK_50_28	Right Cheek	0mm	3	136100	680.5	23.00	23.00	1.000			0	0.747	0.747	-1.11
	2nd	FR1 n71_Ant 1	20M_BPSK_50_28	Right Cheek	0mm	3	136100	680.5	22.95	23.00	1.012			0	0.572	0.579	
	1st	FR1 n77_Ant 6	100M_BPSK_1_1	Left Cheek	0mm	2/3	656000	3840	24.16	25.00	1.213			-0.07	0.371	0.450	-0.70
	2nd	FR1 n77_Ant 6	100M_BPSK_1_1	Left Cheek	0mm	2/3	656000	3840	24.15	25.00	1.216			0.14	0.315	0.383	
	1st	FR1 n77_Ant 6	100M_BPSK_1_1	Left Cheek	0mm	2/3	633332	3499.98	24.02	25.00	1.253			0.17	0.343	0.430	-2.44
	2nd	FR1 n77_Ant 6	100M_BPSK_1_1	Left Cheek	0mm	2/3	633332	3499.98	24.00	25.00	1.259			-0.12	0.195	0.245	
	1st	FR1 n77_Ant 7	100M_BPSK_1_1	Right Cheek	0mm	2	656000	3840	23.27	24.40	1.297			-0.04	0.405	0.525	-2.43
	2nd	FR1 n77_Ant 7	100M_BPSK_1_1	Right Cheek	0mm	2	656000	3840	23.21	24.40	1.315			0.16	0.228	0.300	
	1st	FR1 n77_Ant 7	100M_BPSK_1_1	Right Cheek	0mm	3	656000	3840	23.27	23.50	1.054			-0.04	0.405	0.427	-2.43
	2nd	FR1 n77_Ant 7	100M_BPSK_1_1	Right Cheek	0mm	3	656000	3840	23.21	23.50	1.069			0.16	0.228	0.244	
	1st	FR1 n77_Ant 7	100M_BPSK_135_69	Right Cheek	0mm	2	633332	3499.98	23.22	24.40	1.312			-0.18	0.577	0.757	-0.98
	2nd	FR1 n77_Ant 7	100M_BPSK_135_69	Right Cheek	0mm	2	633332	3499.98	23.21	24.40	1.315			-0.1	0.459	0.604	
	1st	FR1 n77_Ant 7	100M_BPSK_135_69	Right Cheek	0mm	3	633332	3499.98	23.22	23.50	1.067			-0.18	0.577	0.615	-0.98
	2nd	FR1 n77_Ant 7	100M_BPSK_135_69	Right Cheek	0mm	3	633332	3499.98	23.21	23.50	1.069			-0.1	0.459	0.491	
	1st	FR1 n77_Ant 1	100M_BPSK_1_1	Right Cheek	0mm	2	656000	3840	15.03	16.40	1.371			0.08	0.467	0.640	-0.09
	2nd	FR1 n77_Ant 1	100M_BPSK_1_1	Right Cheek	0mm	2	656000	3840	14.86	16.40	1.426			0.08	0.440	0.627	
	1st	FR1 n77_Ant 1	100M_BPSK_1_1	Right Cheek	0mm	3	656000	3840	15.03	15.70	1.167			0.08	0.467	0.545	-0.09
	2nd	FR1 n77_Ant 1	100M_BPSK_1_1	Right Cheek	0mm	3	656000	3840	14.86	15.70	1.213			0.08	0.440	0.534	
	1st	FR1 n77_Ant 1	100M_BPSK_1_1	Right Tilted	0mm	2	633332	3499.98	15.09	16.40	1.352			0.06	0.661	0.894	-0.21
26	2nd	FR1 n77_Ant 1	100M_BPSK_1_1	Right Tilted	0mm	2	633332	3499.98	15.02	16.40	1.374			0.06	0.619	0.851	
	1st	FR1 n77_Ant 1	100M_BPSK_1_1	Right Tilted	0mm	3	633332	3499.98	15.09	15.70	1.151			0.06	0.661	0.761	-0.22
	2nd	FR1 n77_Ant 1	100M_BPSK_1_1	Right Tilted	0mm	3	633332	3499.98	15.02	15.70	1.169			0.06	0.619	0.724	
	1st	FR1 n77_Ant 5	100M_BPSK_135_69	Left Cheek	0mm	2	656000	3840	18.39	19.50	1.291			-0.12	0.676	0.873	-0.64
	2nd	FR1 n77_Ant 5	100M_BPSK_135_69	Left Cheek	0mm	2	656000	3840	18.10	19.50	1.380			0.14	0.546	0.754	
	1st	FR1 n77_Ant 5	100M_BPSK_135_69	Left Cheek	0mm	3	656000	3840	17.32	18.40	1.282			-0.02	0.388	0.498	-0.53
	2nd	FR1 n77_Ant 5	100M_BPSK_135_69	Left Cheek	0mm	3	656000	3840	16.95	18.40	1.396			-0.1	0.316	0.441	
	1st	FR1 n77_Ant 5	100M_BPSK_135_69	Left Cheek	0mm	2	633332	3499.98	18.34	19.50	1.306			0.04	0.324	0.423	-0.60
	2nd	FR1 n77_Ant 5	100M_BPSK_135_69	Left Cheek	0mm	2	633332	3499.98	17.99	19.50	1.416			0.11	0.260	0.368	
	1st	FR1 n77_Ant 5	100M_BPSK_135_69	Left Cheek	0mm	3	633332	3499.98	17.33	18.40	1.279			0.15	0.291	0.372	-0.63
	2nd	FR1 n77_Ant 5	100M_BPSK_135_69	Left Cheek	0mm	3	633332	3499.98	17.07	18.40	1.358			0.16	0.237	0.322	

Plot No.	No.	Band	Mode	Test Position	Gap (mm)	Antenna	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 (dB)
	1st	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 3	1	6	2437	17.36	17.50	1.033	100	1.000	0.02	0.727	0.751	-0.19
27	2nd	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 3	1	6	2437	17.36	17.50	1.033	100	1.000	0.06	0.696	0.719	
	1st	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 4	1	11	2462	17.28	17.50	1.052	100	1.000	0.07	0.459	0.483	-0.13
	2nd	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 4	1	11	2462	17.28	17.50	1.052	100	1.000	-0.13	0.446	0.469	
	1st	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 3+4(3)	1	1	2412	16.49	17.50	1.262	100	1.000	-0.1	0.557	0.703	-0.46
		WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 3+4(4)	1	1	2412	17.48	17.50	1.005	100	1.000	-0.1	0.105	0.105	
	2nd	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 3+4(3)	1	1	2412	16.49	17.50	1.262	100	1.000	-0.13	0.501	0.632	
		WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 3+4(4)	1	1	2412	17.48	17.50	1.005	100	1.000	-0.13	0.139	0.140	
	1st	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 3	2	6	2437	12.28	12.50	1.052	100	1.000	0.12	0.194	0.204	-0.13
	2nd	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 3	2	6	2437	12.28	12.50	1.052	100	1.000	-0.07	0.188	0.198	
	1st	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 4	2	11	2462	12.39	12.50	1.026	100	1.000	-0.12	0.144	0.148	-0.21
	2nd	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 4	2	11	2462	12.39	12.50	1.026	100	1.000	0.05	0.137	0.141	
	1st	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 3+4(3)	2	11	2462	11.61	12.50	1.227	100	1.000	0.15	0.129	0.158	-0.40
		WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 3+4(4)	2	11	2462	12.44	12.50	1.014	100	1.000	0.15	0.024	0.024	
	2nd	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 3+4(3)	2	11	2462	11.61	12.50	1.227	100	1.000	0.07	0.117	0.144	
		WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 3+4(4)	2	11	2462	12.44	12.50	1.014	100	1.000	0.07	0.030	0.030	
	1st	WLAN5GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 3+4(3)	1	62	5310	14.49	15.00	1.125	98.92	1.011	0.11	0.144	0.164	-0.50
		WLAN5GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 3+4(4)	1	62	5310	13.65	15.00	1.365	98.92	1.011	0.11	0.575	0.793	
28	2nd	WLAN5GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 3+4(3)	1	62	5310	14.49	15.00	1.125	98.92	1.011	-0.06	0.096	0.109	
		WLAN5GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 3+4(4)	1	62	5310	13.65	15.00	1.365	98.92	1.011	-0.06	0.512	0.706	
	1st	WLAN5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 3+4(3)	2	50	5250	9.70	10.50	1.202	95.75	1.044	-0.17	0.175	0.220	-0.52
		WLAN5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 3+4(4)	2	50	5250	10.49	10.50	1.002	95.75	1.044	-0.17	0.032	0.033	
	2nd	WLAN5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 3+4(3)	2	50	5250	9.70	10.50	1.202	95.75	1.044	0	0.155	0.195	
		WLAN5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 3+4(4)	2	50	5250	10.49	10.50	1.002	95.75	1.044	0	0.018	0.019	
	1st	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 3+4(3)	1	122	5610	13.90	15.50	1.445	97.76	1.023	-0.06	0.097	0.143	-0.46
		WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 3+4(4)	1	122	5610	15.00	15.50	1.122	97.76	1.023	-0.06	0.647	0.743	
29	2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 3+4(3)	1	122	5610	13.90	15.50	1.445	97.76	1.023	-0.16	0.091	0.135	
		WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 3+4(4)	1	122	5610	15.00	15.50	1.122	97.76	1.023	-0.16	0.583	0.669	
	1st	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 3+4(3)	2	114	5570	9.12	10.50	1.374	95.75	1.044	-0.08	0.001	0.001	-0.35
		WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 3+4(4)	2	114	5570	10.50	10.50	1.000	95.75	1.044	-0.08	0.208	0.217	
	2nd	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 3+4(3)	2	114	5570	9.12	10.50	1.374	95.75	1.044	0.09	0.020	0.029	
		WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 3+4(4)	2	114	5570	10.50	10.50	1.000	95.75	1.044	0.09	0.192	0.200	
	1st	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 3+4(3)	1	155	5775	13.50	15.50	1.585	97.76	1.023	-0.03	0.058	0.094	-0.37
		WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 3+4(4)	1	155	5775	15.00	15.50	1.122	97.76	1.023	-0.03	0.660	0.758	
30	2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 3+4(3)	1	155	5775	13.50	15.50	1.585	97.76	1.023	0.17	0.075	0.122	
		WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 3+4(4)	1	155	5775	15.00	15.50	1.122	97.76	1.023	0.17	0.606	0.696	
	1st	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 3+4(3)	2	155	5775	8.63	10.00	1.371	97.76	1.023	-0.07	0.001	0.001	-0.46
		WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 3+4(4)	2	155	5775	10.00	10.00	1.000	97.76	1.023	-0.07	0.214	0.219	
	2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 3+4(3)	2	155	5775	8.63	10.00	1.371	97.76	1.023	0.17	0.001	0.001	
		WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 3+4(4)	2	155	5775	10.00	10.00	1.000	97.76	1.023	0.17	0.193	0.197	
	1st	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 3+4(3)	1	163	5815	14.38	16.00	1.452	95.75	1.044	-0.02	0.055	0.083	-0.23
		WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 3+4(4)	1	163	5815	15.64	16.00	1.086	95.75	1.044	-0.02	0.574	0.651	
31	2nd	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 3+4(3)	1	163	5815	14.38	16.00	1.452	95.75	1.044	0.09	0.137	0.208	
		WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 3+4(4)	1	163	5815	15.64	16.00	1.086	95.75	1.044	0.09	0.545	0.618	
	1st	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 3+4(3)	2	163	5815	10.29	11.00	1.178	95.75	1.044	-0.03	0.001	0.001	-0.23
		WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 3+4(4)	2	163	5815	10.90	11.00	1.023	95.75	1.044	-0.03	0.201	0.215	
	2nd	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 3+4(3)	2	163	5815	10.29	11.00	1.178	95.75	1.044	0.16	0.001	0.001	
		WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 3+4(4)	2	163	5815	10.90	11.00	1.023	95.75	1.044	0.16	0.191	0.204	

Plot No.	No.	Band	Mode	Test Position	Gap (mm)	Antenna	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 (dB)
	1st	Bluetooth	1Mbps	Right Cheek	0mm	Ant 3	1	78	2480	12.20	13.00	1.202	76.92	1.083	-0.03	0.156	0.203	-1.01
	2nd	Bluetooth	1Mbps	Right Cheek	0mm	Ant 3	1	78	2480	12.20	13.00	1.202	76.92	1.083	-0.12	0.124	0.161	
	1st	Bluetooth	1Mbps	Left Cheek	0mm	Ant 4	1	39	2441	13.78	15.00	1.324	77.04	1.081	0.13	0.153	0.219	-0.57
32	2nd	Bluetooth	1Mbps	Left Cheek	0mm	Ant 4	1	39	2441	13.78	15.00	1.324	77.04	1.081	0.13	0.134	0.192	
	1st	Bluetooth	1Mbps	Right Cheek	0mm	Ant 3+4(3)	1	78	2480	12.06	13.00	1.242	77.07	1.081	0.19	0.155	0.208	-0.51
		Bluetooth	1Mbps	Right Cheek	0mm	Ant 3+4(4)	1	78	2480	12.49	13.00	1.125	77.07	1.081	0.19	0.029	0.035	
	2nd	Bluetooth	1Mbps	Right Cheek	0mm	Ant 3+4(3)	1	78	2480	12.06	13.00	1.242	77.07	1.081	0.01	0.138	0.185	
		Bluetooth	1Mbps	Right Cheek	0mm	Ant 3+4(4)	1	78	2480	12.49	13.00	1.125	77.07	1.081	0.01	0.030	0.036	
	1st	Thread	250K	Right Cheek	0mm	Ant 3	1	25	2475	11.49	11.50	1.002	89.87	1.001	-0.09	0.215	0.216	-0.21
33	2nd	Thread	250K	Right Cheek	0mm	Ant 3	1	25	2475	11.49	11.50	1.002	89.87	1.001	-0.03	0.205	0.206	

13.2 Hotspot SAR

Plot No.	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 (dB)
	1st	GSM850_Ant 0	GPRS (4 Tx slots)	Back	10mm	4	251	848.8	28.85	28.90	1.012			0.08	0.816	0.825	-0.24
34	2nd	GSM850_Ant 0	GPRS (4 Tx slots)	Back	10mm	4	251	848.8	28.90	28.90	1.000			0.05	0.780	0.780	
	1st	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	4	251	848.8	27.00	27.90	1.230			0.14	0.292	0.359	-0.27
	2nd	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	4	251	848.8	26.60	27.90	1.349			0.01	0.250	0.337	
	1st	GSM1900_Ant 2	GPRS (4 Tx slots)	Right Edge	10mm	4	810	1909.8	22.90	23.50	1.148			-0.02	0.401	0.460	-1.08
	2nd	GSM1900_Ant 2	GPRS (4 Tx slots)	Right Edge	10mm	4	810	1909.8	23.48	23.50	1.005			-0.1	0.357	0.359	
	1st	GSM1900_Ant 0	GPRS (4 Tx slots)	Bottom Edge	10mm	4	512	1850.2	20.13	21.20	1.279			-0.01	0.659	0.843	-0.07
35	2nd	GSM1900_Ant 0	GPRS (4 Tx slots)	Bottom Edge	10mm	4	512	1850.2	20.11	21.20	1.285			0.03	0.646	0.830	
	1st	WCDMA II_Ant 2	RMC 12.2Kbps	Right Edge	10mm	4	9262	1852.4	22.22	22.40	1.042			-0.01	0.455	0.474	-0.06
	2nd	WCDMA II_Ant 2	RMC 12.2Kbps	Right Edge	10mm	4	9262	1852.4	21.92	22.40	1.117			-0.03	0.418	0.467	
	1st	WCDMA II_Ant 0	RMC 12.2Kbps	Bottom Edge	10mm	4	9262	1852.4	16.89	18.00	1.291			-0.01	0.655	0.846	-0.54
36	2nd	WCDMA II_Ant 0	RMC 12.2Kbps	Bottom Edge	10mm	4	9262	1852.4	17.40	18.00	1.148			0	0.651	0.747	
	1st	WCDMA IV_Ant 2	RMC 12.2Kbps	Right Edge	10mm	4	1312	1712.4	22.31	22.70	1.094			-0.01	0.361	0.395	-0.28
	2nd	WCDMA IV_Ant 2	RMC 12.2Kbps	Right Edge	10mm	4	1312	1712.4	22.12	22.70	1.143			0.04	0.324	0.370	
	1st	WCDMA IV_Ant 0	RMC 12.2Kbps	Bottom Edge	10mm	4	1413	1732.6	17.27	18.70	1.390			0	0.581	0.808	-0.28
37	2nd	WCDMA IV_Ant 0	RMC 12.2Kbps	Bottom Edge	10mm	4	1413	1732.6	16.98	18.70	1.486			-0.02	0.510	0.758	
	1st	WCDMA V_Ant 0	RMC 12.2Kbps	Back	10mm	4	4132	826.4	24.57	25.00	1.104			0	0.482	0.532	-0.04
38	2nd	WCDMA V_Ant 0	RMC 12.2Kbps	Back	10mm	4	4132	826.4	24.12	25.00	1.225			0.1	0.430	0.527	
	1st	WCDMA V_Ant 1	RMC 12.2Kbps	Left Edge	10mm	4	4132	826.4	24.23	24.70	1.114			-0.01	0.236	0.263	-0.03
	2nd	WCDMA V_Ant 1	RMC 12.2Kbps	Left Edge	10mm	4	4132	826.4	24.26	24.70	1.107			0	0.236	0.261	
	1st	LTE Band 7_Ant 2	20M_QPSK_1_0	Right Edge	10mm	4	21100	2535	20.11	20.90	1.199			0.01	0.434	0.521	-0.58
	2nd	LTE Band 7_Ant 2	20M_QPSK_1_0	Right Edge	10mm	4	21100	2535	20.02	20.90	1.225			-0.06	0.372	0.456	
	1st	LTE Band 7_Ant 0	20M_QPSK_1_0	Bottom Edge	10mm	4	21100	2535	19.32	20.60	1.343			-0.01	0.624	0.838	-0.07
39	2nd	LTE Band 7_Ant 0	20M_QPSK_1_0	Bottom Edge	10mm	4	21100	2535	19.19	20.60	1.384			-0.13	0.596	0.825	
	1st	LTE Band 12_Ant 0	10M_QPSK_1_0	Left Edge	10mm	4	23095	707.5	24.41	25.00	1.146			0	0.439	0.503	-0.03
40	2nd	LTE Band 12_Ant 0	10M_QPSK_1_0	Left Edge	10mm	4	23095	707.5	24.10	25.00	1.230			-0.18	0.406	0.499	
	1st	LTE Band 12_Ant 1	10M_QPSK_1_0	Left Edge	10mm	4	23095	707.5	23.93	24.70	1.194			-0.01	0.212	0.253	-1.00
	2nd	LTE Band 12_Ant 1	10M_QPSK_1_0	Left Edge	10mm	4	23095	707.5	23.69	24.70	1.262			-0.01	0.159	0.201	
	1st	LTE Band 13_Ant 0	10M_QPSK_1_0	Left Edge	10mm	4	23230	782	23.26	24.20	1.242			-0.02	0.412	0.512	-0.02
41	2nd	LTE Band 13_Ant 0	10M_QPSK_1_0	Left Edge	10mm	4	23230	782	23.09	24.20	1.291			0	0.395	0.510	
	1st	LTE Band 13_Ant 1	10M_QPSK_1_0	Left Edge	10mm	4	23230	782	24.22	25.00	1.197			-0.02	0.230	0.275	-0.89
	2nd	LTE Band 13_Ant 1	10M_QPSK_1_0	Left Edge	10mm	4	23230	782	24.10	25.00	1.230			0.05	0.182	0.224	
	1st	LTE Band 14_Ant 0	10M_QPSK_1_0	Left Edge	10mm	4	23330	793	23.12	24.20	1.282			0	0.388	0.498	-0.04
42	2nd	LTE Band 14_Ant 0	10M_QPSK_1_0	Left Edge	10mm	4	23330	793	22.98	24.20	1.324			0.01	0.373	0.494	

	1st	LTE Band 14_Ant 1	10M_QPSK_1_0	Left Edge	10mm	4	23330	793	24.12	25.00	1.225			-0.02	0.333	0.408	-2.43
	2nd	LTE Band 14_Ant 1	10M_QPSK_1_0	Left Edge	10mm	4	23330	793	23.96	25.00	1.271			-0.02	0.183	0.233	
	1st	LTE Band 25_Ant 2	20M_QPSK_50_0	Right Edge	10mm	4	26340	1880	21.10	21.80	1.175			0.01	0.447	0.525	-0.67
	2nd	LTE Band 25_Ant 2	20M_QPSK_50_0	Right Edge	10mm	4	26340	1880	21.16	21.80	1.159			-0.01	0.388	0.450	
	1st	LTE Band 25_Ant 0	20M_QPSK_50_0	Bottom Edge	10mm	4	26340	1880	16.58	17.90	1.355			0.02	0.577	0.782	-0.03
43	2nd	LTE Band 25_Ant 0	20M_QPSK_50_0	Bottom Edge	10mm	4	26340	1880	16.57	17.90	1.358			0.02	0.572	0.777	
	1st	LTE Band 25_Ant 1	20M_QPSK_50_0	Top Edge	10mm	4	26340	1880	21.29	22.10	1.205			0.02	0.555	0.669	-0.05
	2nd	LTE Band 25_Ant 1	20M_QPSK_50_0	Top Edge	10mm	4	26340	1880	21.11	22.10	1.256			-0.07	0.527	0.662	
	1st	LTE Band 25_Ant 5	20M_QPSK_1_0	Right Edge	10mm	4	26590	1905	23.04	23.40	1.086			-0.03	0.767	0.833	-0.40
	2nd	LTE Band 25_Ant 5	20M_QPSK_1_0	Right Edge	10mm	4	26590	1905	23.01	23.40	1.094			-0.02	0.694	0.759	
	1st	LTE Band 26_Ant 0	15M_QPSK_1_0	Bottom Edge	10mm	4	26865	831.5	24.15	25.00	1.216			-0.09	0.471	0.573	-0.05
44	2nd	LTE Band 26_Ant 0	15M_QPSK_1_0	Bottom Edge	10mm	4	26865	831.5	24.13	25.00	1.222			-0.01	0.464	0.567	
	1st	LTE Band 26_Ant 1	15M_QPSK_1_0	Back	10mm	4	26865	831.5	23.70	24.70	1.259			-0.01	0.199	0.251	-0.71
	2nd	LTE Band 26_Ant 1	15M_QPSK_1_0	Back	10mm	4	26865	831.5	23.51	24.70	1.315			0	0.162	0.213	
	1st	LTE Band 30_Ant 2	10M_QPSK_1_0	Right Edge	10mm	4	27710	2310	19.49	20.20	1.178			0.02	0.304	0.358	-0.71
	2nd	LTE Band 30_Ant 2	10M_QPSK_1_0	Right Edge	10mm	4	27710	2310	19.51	20.20	1.172			-0.03	0.259	0.304	
	1st	LTE Band 30_Ant 0	10M_QPSK_25_0	Bottom Edge	10mm	4	27710	2310	17.25	18.90	1.462			-0.04	0.524	0.766	-0.32
45	2nd	LTE Band 30_Ant 0	10M_QPSK_25_0	Bottom Edge	10mm	4	27710	2310	17.22	18.90	1.472			0.02	0.483	0.711	
	1st	LTE Band 41_Ant 2	20M_QPSK_1_0	Right Edge	10mm	4	40620	2593	22.93	23.80	1.222	62.9	1.006	0	0.402	0.494	-0.05
	2nd	LTE Band 41_Ant 2	20M_QPSK_1_0	Right Edge	10mm	4	40620	2593	22.80	23.80	1.259	62.9	1.006	0.01	0.385	0.488	
	1st	LTE Band 41_Ant 0	20M_QPSK_1_0	Bottom Edge	10mm	4	40185	2549.5	22.30	23.10	1.202	62.9	1.006	-0.02	0.700	0.847	-0.03
46	2nd	LTE Band 41_Ant 0	20M_QPSK_1_0	Bottom Edge	10mm	4	40185	2549.5	22.19	23.10	1.233	62.9	1.006	0.03	0.679	0.842	
	1st	LTE Band 48_Ant 6	20M_QPSK_1_0	Left Edge	10mm	4	56150	3641	21.85	22.80	1.245	62.9	1.006	-0.06	0.388	0.486	-0.88
	2nd	LTE Band 48_Ant 6	20M_QPSK_1_0	Left Edge	10mm	4	56150	3641	21.55	22.80	1.334	62.9	1.006	-0.06	0.296	0.397	
	1st	LTE Band 48_Ant 7	20M_QPSK_1_0	Right Edge	10mm	4	55340	3560	20.24	21.40	1.306	62.9	1.006	-0.04	0.566	0.744	-0.02
47	2nd	LTE Band 48_Ant 7	20M_QPSK_1_0	Right Edge	10mm	4	55340	3560	20.16	21.40	1.330	62.9	1.006	-0.13	0.553	0.740	
	1st	LTE Band 66_Ant 2	20M_QPSK_50_0	Right Edge	10mm	4	132322	1745	20.92	22.00	1.282			-0.01	0.304	0.390	-0.04
	2nd	LTE Band 66_Ant 2	20M_QPSK_50_0	Right Edge	10mm	4	132322	1745	20.76	22.00	1.330			-0.07	0.290	0.386	
	1st	LTE Band 66_Ant 0	20M_QPSK_1_0	Bottom Edge	10mm	4	132072	1720	16.50	18.20	1.479			0.01	0.564	0.834	-0.83
	2nd	LTE Band 66_Ant 0	20M_QPSK_1_0	Bottom Edge	10mm	4	132072	1720	16.48	18.20	1.486			0.02	0.464	0.689	
	1st	LTE Band 66_Ant 1	20M_QPSK_50_0	Back	10mm	4	132072	1720	20.86	22.60	1.493			0.17	0.370	0.552	-0.19
	2nd	LTE Band 66_Ant 1	20M_QPSK_50_0	Back	10mm	4	132072	1720	20.61	22.60	1.581			0	0.334	0.528	
	1st	LTE Band 66_Ant 5	20M_QPSK_1_0	Right Edge	10mm	4	132322	1745	23.40	24.50	1.288			0.02	0.655	0.844	-0.26
48	2nd	LTE Band 66_Ant 5	20M_QPSK_1_0	Right Edge	10mm	4	132322	1745	23.35	24.50	1.303			-0.03	0.610	0.795	
	1st	LTE Band 71_Ant 0	20M_QPSK_1_0	Left Edge	10mm	4	133297	680.5	24.47	25.00	1.130			0	0.285	0.322	-0.10
49	2nd	LTE Band 71_Ant 0	20M_QPSK_1_0	Left Edge	10mm	4	133297	680.5	24.08	25.00	1.236			0.03	0.255	0.315	
	1st	LTE Band 71_Ant 1	20M_QPSK_1_0	Left Edge	10mm	4	133297	680.5	24.43	25.00	1.140			-0.02	0.268	0.306	-0.09
	2nd	LTE Band 71_Ant 1	20M_QPSK_1_0	Left Edge	10mm	4	133297	680.5	24.09	25.00	1.233			-0.02	0.243	0.300	
	1st	FR1 n7_Ant 2	50M_BPSK_135_68	Right Edge	10mm	4	507000	2535	20.32	21.20	1.225			-0.01	0.382	0.468	-0.35
	2nd	FR1 n7_Ant 2	50M_BPSK_135_68	Right Edge	10mm	4	507000	2535	20.24	21.20	1.247			0.01	0.346	0.432	
	1st	FR1 n7_Ant 0	50M_BPSK_1_1	Bottom Edge	10mm	4	507000	2535	19.13	20.60	1.403			0.03	0.575	0.807	-0.10
50	2nd	FR1 n7_Ant 0	50M_BPSK_1_1	Bottom Edge	10mm	4	507000	2535	19.11	20.60	1.409			0.01	0.560	0.789	
	1st	FR1 n12_Ant 0	15M_BPSK_36_22	Left Edge	10mm	4	141500	707.5	24.32	25.00	1.169			0.01	0.470	0.550	-0.22
51	2nd	FR1 n12_Ant 0	15M_BPSK_36_22	Left Edge	10mm	4	141500	707.5	24.26	25.00	1.186			0.01	0.441	0.523	
	1st	FR1 n12_Ant 1	15M_BPSK_36_22	Left Edge	10mm	4	141500	707.5	24.09	24.70	1.151			0.02	0.219	0.252	-0.53
	2nd	FR1 n12_Ant 1	15M_BPSK_36_22	Left Edge	10mm	4	141500	707.5	24.18	24.70	1.127			-0.03	0.198	0.223	
	1st	FR1 n14_Ant 0	10M_BPSK_1_1	Left Edge	10mm	4	158600	793	24.31	24.40	1.021			0	0.555	0.567	-0.05
52	2nd	FR1 n14_Ant 0	10M_BPSK_1_1	Left Edge	10mm	4	158600	793	24.27	24.40	1.030			0.03	0.544	0.561	
	1st	FR1 n14_Ant 1	10M_BPSK_25_14	Left Edge	10mm	4	158600	793	24.12	25.00	1.225			0.01	0.346	0.424	-2.87
	2nd	FR1 n14_Ant 1	10M_BPSK_25_14	Left Edge	10mm	4	158600	793	24.10	25.00	1.230			-0.02	0.178	0.219	
	1st	FR1 n25_Ant 2	40M_BPSK_108_54	Right Edge	10mm	4	376500	1882.5	21.34	22.10	1.191			-0.01	0.398	0.474	-0.20
	2nd	FR1 n25_Ant 2	40M_BPSK_108_54	Right Edge	10mm	4	376500	1882.5	21.36	22.10	1.186			-0.02	0.382	0.453	
	1st	FR1 n25_Ant 0	40M_BPSK_108_54	Bottom Edge	10mm	4	376500	1882.5	16.80	18.40	1.445			-0.02	0.539	0.779	-0.01
53	2nd	FR1 n25_Ant 0	40M_BPSK_108_54	Bottom Edge	10mm	4	376500	1882.5	16.78	18.40	1.452			0.01	0.536	0.778	
	1st	FR1 n25_Ant 1	40M_BPSK_108_54	Top Edge	10mm	4	376500	1882.5	22.00	22.50	1.122			-0.07	0.668	0.750	-0.06
	2nd	FR1 n25_Ant 1	40M_BPSK_108_54	Top Edge	10mm	4	376500	1882.5	21.97	22.50	1.130			0.01	0.655	0.740	

	1st	FR1 n25_Ant 5	40M_BPSK_108_54	Right Edge	10mm	4	376500	1882.5	23.25	24.20	1.245			0.01	0.669	0.833	-0.39
	2nd	FR1 n25_Ant 5	40M_BPSK_108_54	Right Edge	10mm	4	376500	1882.5	23.19	24.20	1.262			-0.02	0.603	0.761	
	1st	FR1 n26_Ant 0	20M_BPSK_1_1	Bottom Edge	10mm	4	166300	831.5	24.33	25.00	1.167			0.02	0.523	0.610	-1.12
54	2nd	FR1 n26_Ant 0	20M_BPSK_1_1	Bottom Edge	10mm	4	166300	831.5	24.24	25.00	1.191			-0.14	0.395	0.471	
	1st	FR1 n26_Ant 1	20M_BPSK_50_28	Left Edge	10mm	4	166300	831.5	24.06	24.70	1.159			-0.01	0.217	0.251	-0.02
	2nd	FR1 n26_Ant 1	20M_BPSK_50_28	Left Edge	10mm	4	166300	831.5	24.01	24.70	1.172			0	0.213	0.250	
	1st	FR1 n30_Ant 2	10M_BPSK_25_14	Right Edge	10mm	4	462000	2310	20.43	21.10	1.167			-0.14	0.263	0.307	0.00
	2nd	FR1 n30_Ant 2	10M_BPSK_25_14	Right Edge	10mm	4	462000	2310	20.38	21.10	1.180			0.11	0.249	0.294	
	1st	FR1 n30_Ant 0	10M_BPSK_25_14	Bottom Edge	10mm	4	462000	2310	17.04	18.80	1.500			-0.11	0.453	0.679	-0.81
55	2nd	FR1 n30_Ant 0	10M_BPSK_25_14	Bottom Edge	10mm	4	462000	2310	17.02	18.80	1.507			-0.06	0.374	0.563	
	1st	FR1 n41_Ant 2	100M_BPSK_1_1	Right Edge	10mm	4	518598	2592.99	20.95	21.20	1.059			-0.01	0.470	0.498	-0.33
	2nd	FR1 n41_Ant 2	100M_BPSK_1_1	Right Edge	10mm	4	518598	2592.99	21.05	21.20	1.035			-0.03	0.446	0.462	
	1st	FR1 n41_Ant 0	100M_BPSK_1_1	Bottom Edge	10mm	4	518598	2592.99	19.90	21.10	1.318			0.01	0.637	0.840	-0.18
56	2nd	FR1 n41_Ant 0	100M_BPSK_1_1	Bottom Edge	10mm	4	518598	2592.99	19.89	21.10	1.321			0.02	0.609	0.805	
	1st	FR1 n41_Ant 1	100M_BPSK_1_1	Left Edge	10mm	4	518598	2592.99	21.04	21.70	1.164			0.02	0.336	0.391	-0.04
	2nd	FR1 n41_Ant 1	100M_BPSK_1_1	Left Edge	10mm	4	518598	2592.99	21.01	21.70	1.172			-0.05	0.330	0.387	
	1st	FR1 n41_Ant 5	100M_BPSK_1_1	Right Edge	10mm	4	518598	2592.99	23.03	23.50	1.114			-0.02	0.760	0.847	-0.71
	2nd	FR1 n41_Ant 5	100M_BPSK_1_1	Right Edge	10mm	4	518598	2592.99	22.60	23.50	1.230			0.01	0.585	0.720	
	1st	FR1 n66_Ant 2	40M_BPSK_108_54	Right Edge	10mm	4	349000	1745	21.82	22.60	1.197			0	0.366	0.438	-0.16
	2nd	FR1 n66_Ant 2	40M_BPSK_108_54	Right Edge	10mm	4	349000	1745	21.76	22.60	1.213			-0.01	0.348	0.422	
	1st	FR1 n66_Ant 0	40M_BPSK_1_1	Bottom Edge	10mm	4	349000	1745	17.71	19.10	1.377			0.17	0.543	0.748	-0.27
	2nd	FR1 n66_Ant 0	40M_BPSK_1_1	Bottom Edge	10mm	4	349000	1745	17.70	19.10	1.380			0.05	0.509	0.703	
	1st	FR1 n66_Ant 1	40M_BPSK_108_54	Top Edge	10mm	4	349000	1745	22.97	23.20	1.054			-0.06	0.799	0.842	-0.14
57	2nd	FR1 n66_Ant 1	40M_BPSK_108_54	Top Edge	10mm	4	349000	1745	23.07	23.20	1.030			-0.05	0.791	0.815	
	1st	FR1 n66_Ant 5	40M_BPSK_108_54	Right Edge	10mm	4	349000	1745	23.41	24.00	1.146			-0.05	0.726	0.832	-1.64
	2nd	FR1 n66_Ant 5	40M_BPSK_108_54	Right Edge	10mm	4	349000	1745	23.51	24.00	1.119			-0.15	0.509	0.570	
	1st	FR1 n71_Ant 0	20M_BPSK_1_1	Left Edge	10mm	4	136100	680.5	24.35	25.00	1.161			-0.01	0.312	0.362	-0.82
	2nd	FR1 n71_Ant 0	20M_BPSK_1_1	Left Edge	10mm	4	136100	680.5	24.33	25.00	1.167			-0.01	0.257	0.300	
	1st	FR1 n71_Ant 1	20M_BPSK_50_28	Left Edge	10mm	4	136100	680.5	24.55	25.00	1.109			0.01	0.292	0.324	-0.03
58	2nd	FR1 n71_Ant 1	20M_BPSK_50_28	Left Edge	10mm	4	136100	680.5	24.46	25.00	1.132			0	0.284	0.322	
	1st	FR1 n77_Ant 6	100M_BPSK_135_69	Front	10mm	4	656000	3840	19.96	20.60	1.159			0.05	0.410	0.475	-1.66
	2nd	FR1 n77_Ant 6	100M_BPSK_135_69	Front	10mm	4	656000	3840	19.93	20.60	1.167			-0.11	0.278	0.324	
	1st	FR1 n77_Ant 6	100M_BPSK_1_1	Left Edge	10mm	4	633332	3499.98	19.93	20.60	1.167			0.03	0.292	0.341	-0.47
	2nd	FR1 n77_Ant 6	100M_BPSK_1_1	Left Edge	10mm	4	633332	3499.98	20.05	20.60	1.135			-0.07	0.270	0.306	
	1st	FR1 n77_Ant 7	100M_BPSK_1_1	Right Edge	10mm	4	656000	3840	18.16	18.90	1.186			0.04	0.396	0.470	-0.02
	2nd	FR1 n77_Ant 7	100M_BPSK_1_1	Right Edge	10mm	4	656000	3840	18.11	18.90	1.199			0.03	0.390	0.468	
	1st	FR1 n77_Ant 7	100M_BPSK_1_1	Right Edge	10mm	4	633332	3499.98	18.34	18.90	1.138			-0.08	0.566	0.644	-0.24
59	2nd	FR1 n77_Ant 7	100M_BPSK_1_1	Right Edge	10mm	4	633332	3499.98	18.55	18.90	1.084			-0.06	0.563	0.610	
	1st	FR1 n77_Ant 1	100M_BPSK_1_1	Left Edge	10mm	4	656000	3840	19.24	20.20	1.247			-0.05	0.365	0.455	-0.02
	2nd	FR1 n77_Ant 1	100M_BPSK_1_1	Left Edge	10mm	4	656000	3840	19.15	20.20	1.274			-0.14	0.356	0.453	
	1st	FR1 n77_Ant 1	100M_BPSK_1_1	Top Edge	10mm	4	633332	3499.98	19.44	20.20	1.191			0.01	0.527	0.628	-0.44
	2nd	FR1 n77_Ant 1	100M_BPSK_1_1	Top Edge	10mm	4	633332	3499.98	19.09	20.20	1.291			-0.01	0.439	0.567	
	1st	FR1 n77_Ant 5	100M_BPSK_135_69	Back	10mm	4	650000	3750	23.42	25.00	1.439			0.13	0.248	0.357	-0.10
	2nd	FR1 n77_Ant 5	100M_BPSK_135_69	Back	10mm	4	650000	3750	23.36	25.00	1.459			0.15	0.239	0.349	
	1st	FR1 n77_Ant 5	100M_BPSK_1_1	Right Edge	10mm	4	633332	3499.98	23.74	25.00	1.337			-0.15	0.165	0.221	-0.28
	2nd	FR1 n77_Ant 5	100M_BPSK_1_1	Right Edge	10mm	4	633332	3499.98	23.51	25.00	1.409			-0.12	0.147	0.207	

Plot No.	No.	Band	Mode	Test Position	Gap (mm)	Antenna	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 (dB)
	1st	WLAN2.4GHz	802.11b 1Mbps	Left Edge	10mm	Ant 3	4	11	2462	14.80	15.50	1.175	100	1.000	-0.16	0.170	0.200	-0.27
60	2nd	WLAN2.4GHz	802.11b 1Mbps	Left Edge	10mm	Ant 3	4	11	2462	14.80	15.50	1.175	100	1.000	-0.07	0.160	0.188	
	1st	WLAN2.4GHz	802.11b 1Mbps	Right Edge	10mm	Ant 4	4	1	2412	14.84	15.50	1.164	100	1.000	-0.05	0.067	0.078	-0.17
	2nd	WLAN2.4GHz	802.11b 1Mbps	Right Edge	10mm	Ant 4	4	1	2412	14.84	15.50	1.164	100	1.000	-0.04	0.064	0.075	
	1st	WLAN2.4GHz	802.11b 1Mbps	Left Edge	10mm	Ant 3+4(3)	4	11	2462	14.37	15.50	1.297	100	1.000	-0.03	0.146	0.189	-0.49
		WLAN2.4GHz	802.11b 1Mbps	Left Edge	10mm	Ant 3+4(4)	4	11	2462	15.00	15.50	1.122	100	1.000	-0.03	0.001	0.001	
	2nd	WLAN2.4GHz	802.11b 1Mbps	Left Edge	10mm	Ant 3+4(3)	4	11	2462	14.37	15.50	1.297	100	1.000	0.01	0.130	0.169	
		WLAN2.4GHz	802.11b 1Mbps	Left Edge	10mm	Ant 3+4(4)	4	11	2462	15.00	15.50	1.122	100	1.000	0	0.001	0.001	
	1st	WLAN5GHz	802.11n-HT40 MCS0	Back	10mm	Ant 3+4(3)	4	46	5230	16.50	18.00	1.413	98.92	1.011	0.12	0.177	0.253	-0.69
		WLAN5GHz	802.11n-HT40 MCS0	Back	10mm	Ant 3+4(4)	4	46	5230	17.96	18.00	1.009	98.92	1.011	0.12	0.192	0.196	
61	2nd	WLAN5GHz	802.11n-HT40 MCS0	Back	10mm	Ant 3+4(3)	4	46	5230	16.50	18.00	1.413	98.92	1.011	-0.14	0.166	0.237	
		WLAN5GHz	802.11n-HT40 MCS0	Back	10mm	Ant 3+4(4)	4	46	5230	17.96	18.00	1.009	98.92	1.011	-0.14	0.212	0.216	
	1st	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 3+4(3)	4	155	5775	16.56	18.00	1.393	97.76	1.023	0	0.164	0.234	-0.11
		WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 3+4(4)	4	155	5775	17.99	18.00	1.002	97.76	1.023	0	0.202	0.207	
62	2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 3+4(3)	4	155	5775	16.56	18.00	1.393	97.76	1.023	-0.15	0.160	0.228	
		WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 3+4(4)	4	155	5775	17.99	18.00	1.002	97.76	1.023	-0.15	0.138	0.141	

Plot No.	No.	Band	Mode	Test Position	Gap (mm)	Antenna	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 (dB)
	1st	Bluetooth	1Mbps	Left Edge	10mm	Ant 3	2	0	2402	16.60	17.00	1.096	77.05	1.081	-0.04	0.181	0.215	-0.04
	2nd	Bluetooth	1Mbps	Left Edge	10mm	Ant 3	2	0	2402	16.60	17.00	1.096	77.05	1.081	0	0.180	0.213	
	1st	Bluetooth	1Mbps	Right Edge	10mm	Ant 4	2	78	2480	17.88	19.50	1.452	76.96	1.082	0.01	0.161	0.253	-0.30
63	2nd	Bluetooth	1Mbps	Right Edge	10mm	Ant 4	2	78	2480	17.88	19.50	1.452	76.96	1.082	-0.01	0.150	0.236	
	1st	Bluetooth	1Mbps	Left Edge	10mm	Ant 3+4(3)	2	39	2441	16.90	17.00	1.023	77.07	1.081	-0.15	0.188	0.208	-0.08
		Bluetooth	1Mbps	Left Edge	10mm	Ant 3+4(4)	2	39	2441	16.60	17.00	1.096	77.07	1.081	-0.15	0.001	0.001	
	2nd	Bluetooth	1Mbps	Left Edge	10mm	Ant 3+4(3)	2	39	2441	16.90	17.00	1.023	77.07	1.081	-0.04	0.184	0.204	
		Bluetooth	1Mbps	Left Edge	10mm	Ant 3+4(4)	2	39	2441	16.60	17.00	1.096	77.07	1.081	-0.04	0.001	0.001	
	1st	Thread	250K	Left Edge	10mm	Ant 3	2	25	2475	14.79	16.50	1.483	89.87	1.001	-0.07	0.144	0.214	-0.19
64	2nd	Thread	250K	Left Edge	10mm	Ant 3	2	25	2475	14.79	16.50	1.483	89.87	1.001	0.11	0.138	0.205	

13.3 Body-Worn SAR

Plot No.	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 (dB)
	1st	GSM850_Ant 0	GPRS (4 Tx slots)	Back	10mm	5	251	848.8	28.85	29.60	1.189			0.08	0.816	0.970	-0.25
65	2nd	GSM850_Ant 0	GPRS (4 Tx slots)	Back	10mm	5	251	848.8	28.90	29.60	1.175			0.05	0.780	0.916	
	1st	GSM850_Ant 0	GPRS (4 Tx slots)	Back	10mm	6	251	848.8	28.85	28.90	1.012			0.08	0.816	0.825	-0.24
	2nd	GSM850_Ant 0	GPRS (4 Tx slots)	Back	10mm	6	251	848.8	28.90	28.90	1.000			0.05	0.780	0.780	
	1st	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	5	251	848.8	27.00	28.60	1.445			0.14	0.292	0.422	-0.28
	2nd	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	5	251	848.8	26.60	28.60	1.585			0.01	0.250	0.396	
	1st	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	6	251	848.8	27.00	27.90	1.230			0.14	0.292	0.359	-0.27
	2nd	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	6	251	848.8	26.60	27.90	1.349			0.01	0.250	0.337	
	1st	GSM1900_Ant 2	GPRS (4 Tx slots)	Back	10mm	5	810	1909.8	22.90	24.20	1.349			-0.07	0.233	0.314	-0.79
	2nd	GSM1900_Ant 2	GPRS (4 Tx slots)	Back	10mm	5	810	1909.8	23.48	24.20	1.180			-0.18	0.222	0.262	
	1st	GSM1900_Ant 2	GPRS (4 Tx slots)	Back	10mm	6	810	1909.8	22.90	23.50	1.148			-0.07	0.233	0.268	-0.80
	2nd	GSM1900_Ant 2	GPRS (4 Tx slots)	Back	10mm	6	810	1909.8	23.48	23.50	1.005			-0.18	0.222	0.223	
	1st	GSM1900_Ant 0	GPRS (4 Tx slots)	Back	10mm	5	512	1850.2	22.30	23.00	1.175			0.04	0.842	0.989	-0.42
66	2nd	GSM1900_Ant 0	GPRS (4 Tx slots)	Back	10mm	5	512	1850.2	22.30	23.00	1.175			0.02	0.764	0.898	
	1st	GSM1900_Ant 0	GPRS (4 Tx slots)	Back	10mm	6	810	1909.8	22.30	22.30	1.000			-0.08	0.686	0.686	-0.08

	2nd	GSM1900_Ant 0	GPRS (4 Tx slots)	Back	10mm	6	810	1909.8	22.30	22.30	1.000			0.09	0.674	0.674	
	1st	WCDMA II_Ant 2	RMC 12.2Kbps	Back	10mm	5	9262	1852.4	22.22	23.10	1.225			-0.04	0.339	0.415	-0.23
	2nd	WCDMA II_Ant 2	RMC 12.2Kbps	Back	10mm	5	9262	1852.4	21.92	23.10	1.312			-0.04	0.300	0.394	
	1st	WCDMA II_Ant 2	RMC 12.2Kbps	Back	10mm	6	9262	1852.4	22.22	22.40	1.042			-0.04	0.339	0.353	-0.23
	2nd	WCDMA II_Ant 2	RMC 12.2Kbps	Back	10mm	6	9262	1852.4	21.92	22.40	1.117			-0.04	0.300	0.335	
	1st	WCDMA II_Ant 0	RMC 12.2Kbps	Back	10mm	5	9262	1852.4	19.51	21.00	1.409			-0.03	0.704	0.992	-0.64
67	2nd	WCDMA II_Ant 0	RMC 12.2Kbps	Back	10mm	5	9262	1852.4	19.87	21.00	1.297			-0.18	0.660	0.856	
	1st	WCDMA II_Ant 0	RMC 12.2Kbps	Back	10mm	6	9262	1852.4	19.51	20.30	1.199			-0.03	0.704	0.844	-0.64
	2nd	WCDMA II_Ant 0	RMC 12.2Kbps	Back	10mm	6	9262	1852.4	19.87	20.30	1.104			-0.18	0.660	0.729	
	1st	WCDMA IV_Ant 2	RMC 12.2Kbps	Back	10mm	5	1312	1712.4	22.31	23.40	1.285			-0.01	0.336	0.432	-0.29
	2nd	WCDMA IV_Ant 2	RMC 12.2Kbps	Back	10mm	5	1312	1712.4	22.12	23.40	1.343			0.02	0.301	0.404	
	1st	WCDMA IV_Ant 2	RMC 12.2Kbps	Back	10mm	6	1312	1712.4	22.31	22.70	1.094			-0.01	0.336	0.368	-0.29
	2nd	WCDMA IV_Ant 2	RMC 12.2Kbps	Back	10mm	6	1312	1712.4	22.12	22.70	1.143			0.02	0.301	0.344	
	1st	WCDMA IV_Ant 0	RMC 12.2Kbps	Back	10mm	5	1312	1712.4	19.90	20.60	1.175			-0.08	0.629	0.739	-0.54
68	2nd	WCDMA IV_Ant 0	RMC 12.2Kbps	Back	10mm	5	1312	1712.4	19.87	20.60	1.183			-0.07	0.551	0.652	
	1st	WCDMA IV_Ant 0	RMC 12.2Kbps	Back	10mm	6	1312	1712.4	19.90	19.90	1.000			-0.08	0.629	0.629	-0.54
	2nd	WCDMA IV_Ant 0	RMC 12.2Kbps	Back	10mm	6	1312	1712.4	19.87	19.90	1.007			-0.07	0.551	0.555	
	1st	WCDMA V_Ant 0	RMC 12.2Kbps	Back	10mm	5/6	4132	826.4	24.57	25.00	1.104			0.1	0.482	0.532	-0.04
69	2nd	WCDMA V_Ant 0	RMC 12.2Kbps	Back	10mm	5/6	4132	826.4	24.12	25.00	1.225			0	0.430	0.527	
	1st	WCDMA V_Ant 1	RMC 12.2Kbps	Back	10mm	5/6	4132	826.4	24.23	24.70	1.114			-0.01	0.203	0.226	-0.06
	2nd	WCDMA V_Ant 1	RMC 12.2Kbps	Back	10mm	5/6	4132	826.4	24.13	24.70	1.140			0	0.196	0.223	
	1st	LTE Band 7_Ant 2	20M_QPSK_50_0	Back	10mm	5	21100	2535	20.13	21.60	1.403			-0.01	0.288	0.404	-0.45
	2nd	LTE Band 7_Ant 2	20M_QPSK_50_0	Back	10mm	5	21100	2535	20.05	21.60	1.429			-0.06	0.255	0.364	
	1st	LTE Band 7_Ant 2	20M_QPSK_50_0	Back	10mm	6	21100	2535	20.13	20.90	1.194			-0.01	0.288	0.344	-0.45
	2nd	LTE Band 7_Ant 2	20M_QPSK_50_0	Back	10mm	6	21100	2535	20.05	20.90	1.216			-0.06	0.255	0.310	
	1st	LTE Band 7_Ant 0	20M_QPSK_1_0	Back	10mm	5	21100	2535	20.33	22.20	1.538			-0.14	0.439	0.675	-0.99
70	2nd	LTE Band 7_Ant 0	20M_QPSK_1_0	Back	10mm	5	21100	2535	20.25	22.20	1.567			-0.08	0.343	0.537	
	1st	LTE Band 7_Ant 0	20M_QPSK_1_0	Back	10mm	6	21100	2535	20.33	21.50	1.309			-0.14	0.439	0.575	-1.00
	2nd	LTE Band 7_Ant 0	20M_QPSK_1_0	Back	10mm	6	21100	2535	20.25	21.50	1.334			-0.08	0.343	0.457	
	1st	LTE Band 12_Ant 0	10M_QPSK_1_0	Back	10mm	5/6	23095	707.5	24.41	25.00	1.146			-0.01	0.297	0.340	-0.06
71	2nd	LTE Band 12_Ant 0	10M_QPSK_1_0	Back	10mm	5/6	23095	707.5	24.46	25.00	1.132			0.02	0.296	0.335	
	1st	LTE Band 12_Ant 1	10M_QPSK_1_0	Back	10mm	5/6	23095	707.5	23.93	24.70	1.194			0	0.136	0.162	-0.36
	2nd	LTE Band 12_Ant 1	10M_QPSK_1_0	Back	10mm	5/6	23095	707.5	23.69	24.70	1.262			0.07	0.118	0.149	
	1st	LTE Band 13_Ant 0	10M_QPSK_1_0	Back	10mm	5/6	23230	782	24.67	25.00	1.079			0.01	0.487	0.525	-0.09
72	2nd	LTE Band 13_Ant 0	10M_QPSK_1_0	Back	10mm	5/6	23230	782	24.42	25.00	1.143			0	0.450	0.514	
	1st	LTE Band 13_Ant 1	10M_QPSK_1_0	Back	10mm	5/6	23230	782	24.22	25.00	1.197			-0.09	0.184	0.220	-0.06
	2nd	LTE Band 13_Ant 1	10M_QPSK_1_0	Back	10mm	5/6	23230	782	24.10	25.00	1.230			-0.01	0.176	0.217	
	1st	LTE Band 14_Ant 0	10M_QPSK_1_0	Back	10mm	5/6	23330	793	24.49	25.00	1.125			-0.16	0.471	0.530	-0.02
73	2nd	LTE Band 14_Ant 0	10M_QPSK_1_0	Back	10mm	5/6	23330	793	24.17	25.00	1.211			-0.15	0.436	0.528	
	1st	LTE Band 14_Ant 1	10M_QPSK_1_0	Back	10mm	5/6	23330	793	24.12	25.00	1.225			-0.01	0.198	0.242	-0.78
	2nd	LTE Band 14_Ant 1	10M_QPSK_1_0	Back	10mm	5/6	23330	793	23.96	25.00	1.271			0.01	0.159	0.202	
	1st	LTE Band 25_Ant 2	20M_QPSK_1_0	Back	10mm	5	26340	1880	21.11	22.50	1.377			-0.09	0.304	0.419	-0.51
	2nd	LTE Band 25_Ant 2	20M_QPSK_1_0	Back	10mm	5	26340	1880	21.16	22.50	1.361			-0.01	0.274	0.373	
	1st	LTE Band 25_Ant 2	20M_QPSK_1_0	Back	10mm	6	26340	1880	21.11	21.80	1.172			-0.09	0.304	0.356	-0.49
	2nd	LTE Band 25_Ant 2	20M_QPSK_1_0	Back	10mm	6	26340	1880	21.16	21.80	1.159			-0.01	0.274	0.318	
	1st	LTE Band 25_Ant 0	20M_QPSK_50_0	Back	10mm	5	26340	1880	18.75	20.40	1.462			-0.16	0.579	0.847	-0.28
74	2nd	LTE Band 25_Ant 0	20M_QPSK_50_0	Back	10mm	5	26340	1880	18.59	20.40	1.517			0.16	0.524	0.795	
	1st	LTE Band 25_Ant 0	20M_QPSK_50_0	Back	10mm	6	26340	1880	18.75	19.70	1.245			-0.16	0.579	0.721	-0.27
	2nd	LTE Band 25_Ant 0	20M_QPSK_50_0	Back	10mm	6	26340	1880	18.59	19.70	1.291			0.16	0.524	0.677	
	1st	LTE Band 25_Ant 1	20M_QPSK_1_0	Back	10mm	5	26340	1880	21.28	22.80	1.419			0	0.488	0.693	-0.06
	2nd	LTE Band 25_Ant 1	20M_QPSK_1_0	Back	10mm	5	26340	1880	21.30	22.80	1.413			-0.06	0.484	0.684	
	1st	LTE Band 25_Ant 1	20M_QPSK_1_0	Back	10mm	6	26340	1880	21.28	22.10	1.208			0	0.488	0.589	-0.05
	2nd	LTE Band 25_Ant 1	20M_QPSK_1_0	Back	10mm	6	26340	1880	21.30	22.10	1.202			-0.06	0.484	0.582	
	1st	LTE Band 25_Ant 5	20M_QPSK_1_0	Back	10mm	5	26340	1880	23.11	24.50	1.377			0.01	0.355	0.489	-0.06
	2nd	LTE Band 25_Ant 5	20M_QPSK_1_0	Back	10mm	5	26340	1880	23.15	24.50	1.365			0.04	0.353	0.482	
	1st	LTE Band 25_Ant 5	20M_QPSK_1_0	Back	10mm	6	26340	1880	23.11	23.90	1.199			0.01	0.355	0.426	-0.06

	2nd	LTE Band 25_Ant 5	20M_QPSK_1_0	Back	10mm	6	26340	1880	23.15	23.90	1.189			0.04	0.353	0.420	
	1st	LTE Band 26_Ant 0	15M_QPSK_1_0	Back	10mm	5/6	26865	831.5	24.15	25.00	1.216			-0.02	0.469	0.570	-0.03
75	2nd	LTE Band 26_Ant 0	15M_QPSK_1_0	Back	10mm	5/6	26865	831.5	24.08	25.00	1.236			0	0.458	0.566	
	1st	LTE Band 26_Ant 1	15M_QPSK_1_0	Back	10mm	5/6	26865	831.5	23.70	24.70	1.259			-0.01	0.199	0.251	-0.71
	2nd	LTE Band 26_Ant 1	15M_QPSK_1_0	Back	10mm	5/6	26865	831.5	23.51	24.70	1.315			0	0.162	0.213	
	1st	LTE Band 30_Ant 2	10M_QPSK_1_0	Front	10mm	5	27710	2310	19.49	20.90	1.384			-0.1	0.214	0.296	-0.95
	2nd	LTE Band 30_Ant 2	10M_QPSK_1_0	Front	10mm	5	27710	2310	19.51	20.90	1.377			-0.14	0.173	0.238	
	1st	LTE Band 30_Ant 2	10M_QPSK_1_0	Front	10mm	6	27710	2310	19.49	20.20	1.178			-0.1	0.214	0.252	-0.94
	2nd	LTE Band 30_Ant 2	10M_QPSK_1_0	Front	10mm	6	27710	2310	19.51	20.20	1.172			-0.14	0.173	0.203	
	1st	LTE Band 30_Ant 0	10M_QPSK_1_0	Back	10mm	5	27710	2310	19.85	21.50	1.462			-0.1	0.564	0.825	-0.28
76	2nd	LTE Band 30_Ant 0	10M_QPSK_1_0	Back	10mm	5	27710	2310	19.68	21.50	1.521			-0.11	0.509	0.774	
	1st	LTE Band 30_Ant 0	10M_QPSK_1_0	Back	10mm	6	27710	2310	19.85	20.80	1.245			-0.1	0.564	0.702	-0.27
	2nd	LTE Band 30_Ant 0	10M_QPSK_1_0	Back	10mm	6	27710	2310	19.68	20.80	1.294			-0.11	0.509	0.659	
	1st	LTE Band 41_Ant 2	20M_QPSK_1_0	Back	10mm	5	40620	2593	22.93	24.50	1.435	62.9	1.006	0.03	0.392	0.566	-0.25
77	2nd	LTE Band 41_Ant 2	20M_QPSK_1_0	Back	10mm	5	40620	2593	22.80	24.50	1.479	62.9	1.006	-0.17	0.359	0.534	
	1st	LTE Band 41_Ant 2	20M_QPSK_1_0	Back	10mm	6	40620	2593	22.93	23.80	1.222	62.9	1.006	0.03	0.392	0.482	-0.25
	2nd	LTE Band 41_Ant 2	20M_QPSK_1_0	Back	10mm	6	40620	2593	22.80	23.80	1.259	62.9	1.006	-0.17	0.359	0.455	
	1st	LTE Band 41_Ant 0	20M_QPSK_1_0	Back	10mm	5	40620	2593	23.97	24.80	1.211	62.9	1.006	-0.15	0.442	0.538	-0.06
	2nd	LTE Band 41_Ant 0	20M_QPSK_1_0	Back	10mm	5	40620	2593	23.80	24.80	1.259	62.9	1.006	0.12	0.419	0.531	
	1st	LTE Band 41_Ant 0	20M_QPSK_1_0	Back	10mm	6	40620	2593	23.97	24.10	1.030	62.9	1.006	-0.15	0.442	0.458	-0.06
	2nd	LTE Band 41_Ant 0	20M_QPSK_1_0	Back	10mm	6	40620	2593	23.80	24.10	1.072	62.9	1.006	0.12	0.419	0.452	
	1st	LTE Band 48_Ant 6	20M_QPSK_1_0	Back	10mm	5	56150	3641	21.85	23.50	1.462	62.9	1.006	0.15	0.246	0.362	-0.76
	2nd	LTE Band 48_Ant 6	20M_QPSK_1_0	Back	10mm	5	56150	3641	21.55	23.50	1.567	62.9	1.006	-0.08	0.193	0.304	
	1st	LTE Band 48_Ant 6	20M_QPSK_1_0	Back	10mm	6	56150	3641	21.85	22.80	1.245	62.9	1.006	0.15	0.246	0.308	-0.75
	2nd	LTE Band 48_Ant 6	20M_QPSK_1_0	Back	10mm	6	56150	3641	21.55	22.80	1.334	62.9	1.006	-0.08	0.193	0.259	
	1st	LTE Band 48_Ant 7	20M_QPSK_50_0	Back	10mm	5	55830	3609	20.40	22.10	1.479	62.9	1.006	-0.06	0.234	0.348	0.00
78	2nd	LTE Band 48_Ant 7	20M_QPSK_50_0	Back	10mm	5	55830	3609	20.22	22.10	1.542	62.9	1.006	0.09	0.212	0.329	
	1st	LTE Band 48_Ant 7	20M_QPSK_50_0	Back	10mm	6	55830	3609	20.40	21.40	1.259	62.9	1.006	-0.06	0.234	0.296	-0.24
	2nd	LTE Band 48_Ant 7	20M_QPSK_50_0	Back	10mm	6	55830	3609	20.22	21.40	1.312	62.9	1.006	0.09	0.212	0.280	
	1st	LTE Band 66_Ant 2	20M_QPSK_50_0	Back	10mm	5	132322	1745	20.92	22.70	1.507			-0.17	0.226	0.340	-0.35
	2nd	LTE Band 66_Ant 2	20M_QPSK_50_0	Back	10mm	5	132322	1745	20.76	22.70	1.563			-0.15	0.201	0.314	
	1st	LTE Band 66_Ant 2	20M_QPSK_50_0	Back	10mm	6	132322	1745	20.92	22.00	1.282			-0.17	0.226	0.290	-0.36
	2nd	LTE Band 66_Ant 2	20M_QPSK_50_0	Back	10mm	6	132322	1745	20.76	22.00	1.330			-0.15	0.201	0.267	
	1st	LTE Band 66_Ant 0	20M_QPSK_1_0	Back	10mm	5	132322	1745	18.26	19.80	1.426			0.08	0.396	0.565	-0.05
	2nd	LTE Band 66_Ant 0	20M_QPSK_1_0	Back	10mm	5	132322	1745	17.87	19.80	1.560			-0.16	0.358	0.558	
	1st	LTE Band 66_Ant 0	20M_QPSK_1_0	Back	10mm	6	132322	1745	18.26	19.10	1.213			0.08	0.396	0.481	-0.05
	2nd	LTE Band 66_Ant 0	20M_QPSK_1_0	Back	10mm	6	132322	1745	17.87	19.10	1.327			-0.16	0.358	0.475	
	1st	LTE Band 66_Ant 1	20M_QPSK_50_0	Back	10mm	5	132072	1720	22.27	23.30	1.268			-0.03	0.500	0.634	-0.07
79	2nd	LTE Band 66_Ant 1	20M_QPSK_50_0	Back	10mm	5	132072	1720	22.24	23.30	1.276			0.05	0.489	0.624	
	1st	LTE Band 66_Ant 1	20M_QPSK_50_0	Back	10mm	6	132072	1720	22.27	22.60	1.079			-0.03	0.500	0.539	-0.06
	2nd	LTE Band 66_Ant 1	20M_QPSK_50_0	Back	10mm	6	132072	1720	22.24	22.60	1.086			0.05	0.489	0.531	
	1st	LTE Band 66_Ant 5	20M_QPSK_1_0	Back	10mm	5/6	132322	1745	23.40	24.50	1.288			-0.03	0.441	0.568	-0.20
	2nd	LTE Band 66_Ant 5	20M_QPSK_1_0	Back	10mm	5/6	132322	1745	23.35	24.50	1.303			-0.05	0.417	0.543	
	1st	LTE Band 71_Ant 0	20M_QPSK_1_0	Back	10mm	5/6	133297	680.5	24.47	25.00	1.130			-0.06	0.189	0.214	-0.06
80	2nd	LTE Band 71_Ant 0	20M_QPSK_1_0	Back	10mm	5/6	133297	680.5	24.28	25.00	1.180			0.09	0.179	0.211	
	1st	LTE Band 71_Ant 1	20M_QPSK_1_0	Back	10mm	5/6	133297	680.5	24.43	25.00	1.140			-0.04	0.155	0.177	-0.47
	2nd	LTE Band 71_Ant 1	20M_QPSK_1_0	Back	10mm	5/6	133297	680.5	24.09	25.00	1.233			-0.01	0.129	0.159	
	1st	FR1 n7_Ant 2	50M_BPSK_135_68	Back	10mm	5	507000	2535	20.32	21.90	1.439			-0.01	0.292	0.420	-0.49
	2nd	FR1 n7_Ant 2	50M_BPSK_135_68	Back	10mm	5	507000	2535	20.24	21.90	1.466			-0.11	0.256	0.375	
	1st	FR1 n7_Ant 2	50M_BPSK_135_68	Back	10mm	6	507000	2535	20.32	21.20	1.225			-0.01	0.292	0.358	-0.50
	2nd	FR1 n7_Ant 2	50M_BPSK_135_68	Back	10mm	6	507000	2535	20.24	21.20	1.247			-0.11	0.256	0.319	
	1st	FR1 n7_Ant 0	50M_BPSK_1_1	Back	10mm	5	507000	2535	20.80	22.40	1.445			-0.15	0.523	0.756	-0.43
81	2nd	FR1 n7_Ant 0	50M_BPSK_1_1	Back	10mm	5	507000	2535	20.76	22.40	1.459			-0.19	0.469	0.684	
	1st	FR1 n7_Ant 0	50M_BPSK_1_1	Back	10mm	6	507000	2535	20.80	21.70	1.230			-0.15	0.523	0.643	-0.43
	2nd	FR1 n7_Ant 0	50M_BPSK_1_1	Back	10mm	6	507000	2535	20.76	21.70	1.242			-0.19	0.469	0.582	
	1st	FR1 n12_Ant 0	15M_BPSK_36_22	Back	10mm	5/6	141500	707.5	24.32	25.00	1.169			0.02	0.295	0.345	-0.01

82	2nd	FR1 n12_Ant 0	15M_BPSK_36_22	Back	10mm	5/6	141500	707.5	24.29	25.00	1.178			-0.01	0.292	0.344	
	1st	FR1 n12_Ant 1	15M_BPSK_36_22	Back	10mm	5/6	141500	707.5	24.09	24.70	1.151			-0.01	0.150	0.173	-0.62
	2nd	FR1 n12_Ant 1	15M_BPSK_36_22	Back	10mm	5/6	141500	707.5	24.18	24.70	1.127			-0.01	0.133	0.150	
	1st	FR1 n14_Ant 0	10M_BPSK_1_1	Back	10mm	5/6	158600	793	24.31	25.00	1.172			0.01	0.471	0.552	-0.39
83	2nd	FR1 n14_Ant 0	10M_BPSK_1_1	Back	10mm	5/6	158600	793	24.41	25.00	1.146			0.03	0.441	0.505	
	1st	FR1 n14_Ant 1	10M_BPSK_25_14	Back	10mm	5/6	158600	793	24.12	25.00	1.225			0	0.193	0.236	-1.37
	2nd	FR1 n14_Ant 1	10M_BPSK_25_14	Back	10mm	5/6	158600	793	24.10	25.00	1.230			0.01	0.140	0.172	
	1st	FR1 n25_Ant 2	40M_BPSK_108_54	Back	10mm	5	376500	1882.5	21.34	22.80	1.400			-0.05	0.303	0.424	-0.27
	2nd	FR1 n25_Ant 2	40M_BPSK_108_54	Back	10mm	5	376500	1882.5	21.36	22.80	1.393			-0.12	0.286	0.398	
	1st	FR1 n25_Ant 2	40M_BPSK_108_54	Back	10mm	6	376500	1882.5	21.34	22.10	1.191			-0.05	0.303	0.361	-0.27
	2nd	FR1 n25_Ant 2	40M_BPSK_108_54	Back	10mm	6	376500	1882.5	21.36	22.10	1.186			-0.12	0.286	0.339	
	1st	FR1 n25_Ant 0	40M_BPSK_108_54	Back	10mm	5	376500	1882.5	18.77	20.50	1.489			-0.02	0.485	0.722	-0.13
	2nd	FR1 n25_Ant 0	40M_BPSK_108_54	Back	10mm	5	376500	1882.5	18.82	20.50	1.472			-0.08	0.476	0.701	
	1st	FR1 n25_Ant 0	40M_BPSK_108_54	Back	10mm	6	376500	1882.5	18.77	19.80	1.268			-0.02	0.485	0.615	-0.14
	2nd	FR1 n25_Ant 0	40M_BPSK_108_54	Back	10mm	6	376500	1882.5	18.82	19.80	1.253			-0.08	0.476	0.596	
	1st	FR1 n25_Ant 1	40M_BPSK_108_54	Back	10mm	5	376500	1882.5	22.00	23.20	1.318			0.01	0.613	0.808	-0.04
84	2nd	FR1 n25_Ant 1	40M_BPSK_108_54	Back	10mm	5	376500	1882.5	21.97	23.20	1.327			-0.1	0.603	0.800	
	1st	FR1 n25_Ant 1	40M_BPSK_108_54	Back	10mm	6	376500	1882.5	22.00	22.50	1.122			0.01	0.613	0.688	-0.04
	2nd	FR1 n25_Ant 1	40M_BPSK_108_54	Back	10mm	6	376500	1882.5	21.97	22.50	1.130			-0.1	0.603	0.681	
	1st	FR1 n25_Ant 5	40M_BPSK_108_54	Back	10mm	5/6	376500	1882.5	23.25	24.50	1.334			-0.05	0.457	0.609	-0.93
	2nd	FR1 n25_Ant 5	40M_BPSK_108_54	Back	10mm	5/6	376500	1882.5	23.19	24.50	1.352			0	0.364	0.492	
	1st	FR1 n26_Ant 0	20M_BPSK_1_1	Back	10mm	5/6	166300	831.5	24.33	25.00	1.167			0.01	0.493	0.575	-0.02
85	2nd	FR1 n26_Ant 0	20M_BPSK_1_1	Back	10mm	5/6	166300	831.5	24.24	25.00	1.191			0.02	0.481	0.573	
	1st	FR1 n26_Ant 1	20M_BPSK_50_28	Back	10mm	5/6	166300	831.5	24.06	24.70	1.159			-0.03	0.196	0.227	-0.42
	2nd	FR1 n26_Ant 1	20M_BPSK_50_28	Back	10mm	5/6	166300	831.5	23.96	24.70	1.186			-0.01	0.174	0.206	
	1st	FR1 n30_Ant 2	10M_BPSK_1_1	Front	10mm	5	462000	2310	20.38	21.80	1.387			-0.01	0.248	0.344	-0.48
	2nd	FR1 n30_Ant 2	10M_BPSK_1_1	Front	10mm	5	462000	2310	20.42	21.80	1.374			-0.08	0.224	0.308	
	1st	FR1 n30_Ant 2	10M_BPSK_1_1	Front	10mm	6	462000	2310	20.38	21.10	1.180			-0.01	0.248	0.293	-0.49
	2nd	FR1 n30_Ant 2	10M_BPSK_1_1	Front	10mm	6	462000	2310	20.42	21.10	1.169			-0.08	0.224	0.262	
	1st	FR1 n30_Ant 0	10M_BPSK_25_14	Back	10mm	5	462000	2310	19.53	21.30	1.503			0.15	0.488	0.734	-0.65
86	2nd	FR1 n30_Ant 0	10M_BPSK_25_14	Back	10mm	5	462000	2310	19.74	21.30	1.432			-0.09	0.441	0.632	
	1st	FR1 n30_Ant 0	10M_BPSK_25_14	Back	10mm	6	462000	2310	19.53	20.60	1.279			0.15	0.488	0.624	-0.64
	2nd	FR1 n30_Ant 0	10M_BPSK_25_14	Back	10mm	6	462000	2310	19.74	20.60	1.219			-0.09	0.441	0.538	
	1st	FR1 n41_Ant 2	100M_BPSK_1_1	Front	10mm	5	518598	2592.99	20.95	21.90	1.245			0	0.319	0.397	-0.75
	2nd	FR1 n41_Ant 2	100M_BPSK_1_1	Front	10mm	5	518598	2592.99	21.05	21.90	1.216			-0.09	0.275	0.334	
	1st	FR1 n41_Ant 2	100M_BPSK_1_1	Front	10mm	6	518598	2592.99	20.95	21.20	1.059			0	0.319	0.338	-0.74
	2nd	FR1 n41_Ant 2	100M_BPSK_1_1	Front	10mm	6	518598	2592.99	21.05	21.20	1.035			-0.09	0.275	0.285	
	1st	FR1 n41_Ant 0	100M_BPSK_1_1	Back	10mm	5	518598	2592.99	21.82	22.60	1.197			-0.12	0.567	0.679	-0.44
	2nd	FR1 n41_Ant 0	100M_BPSK_1_1	Back	10mm	5	518598	2592.99	21.89	22.60	1.178			0.05	0.521	0.614	
	1st	FR1 n41_Ant 0	100M_BPSK_1_1	Back	10mm	6	518598	2592.99	21.82	21.90	1.019			-0.12	0.567	0.578	-0.44
	2nd	FR1 n41_Ant 0	100M_BPSK_1_1	Back	10mm	6	518598	2592.99	21.89	21.90	1.002			0.05	0.521	0.522	
	1st	FR1 n41_Ant 1	100M_BPSK_1_1	Back	10mm	5	518598	2592.99	22.05	23.10	1.274			0.05	0.473	0.602	-1.16
	2nd	FR1 n41_Ant 1	100M_BPSK_1_1	Back	10mm	5	518598	2592.99	22.13	23.10	1.250			-0.01	0.369	0.461	
	1st	FR1 n41_Ant 1	100M_BPSK_1_1	Back	10mm	6	518598	2592.99	22.05	22.40	1.084			0.05	0.473	0.513	-1.16
	2nd	FR1 n41_Ant 1	100M_BPSK_1_1	Back	10mm	6	518598	2592.99	22.13	22.40	1.064			-0.01	0.369	0.393	
	1st	FR1 n41_Ant 5	100M_BPSK_1_1	Back	10mm	5	518598	2592.99	23.03	24.50	1.403			-0.01	0.538	0.755	-0.51
87	2nd	FR1 n41_Ant 5	100M_BPSK_1_1	Back	10mm	5	518598	2592.99	22.60	24.50	1.549			-0.08	0.433	0.671	
	1st	FR1 n41_Ant 5	100M_BPSK_1_1	Back	10mm	6	518598	2592.99	23.03	23.80	1.194			-0.01	0.538	0.642	-0.51
	2nd	FR1 n41_Ant 5	100M_BPSK_1_1	Back	10mm	6	518598	2592.99	22.60	23.80	1.318			-0.08	0.433	0.571	
	1st	FR1 n66_Ant 2	40M_BPSK_1_1	Front	10mm	5	349000	1745	21.84	23.30	1.400			0.06	0.280	0.392	-0.19
	2nd	FR1 n66_Ant 2	40M_BPSK_1_1	Front	10mm	5	349000	1745	21.68	23.30	1.452			-0.06	0.258	0.375	
	1st	FR1 n66_Ant 2	40M_BPSK_1_1	Front	10mm	6	349000	1745	21.84	22.60	1.191			0.06	0.280	0.334	-0.20
	2nd	FR1 n66_Ant 2	40M_BPSK_1_1	Front	10mm	6	349000	1745	21.68	22.60	1.236			-0.06	0.258	0.319	
	1st	FR1 n66_Ant 0	40M_BPSK_1_1	Back	10mm	5	349000	1745	18.95	20.50	1.429			0.09	0.441	0.630	-1.26
	2nd	FR1 n66_Ant 0	40M_BPSK_1_1	Back	10mm	5	349000	1745	18.97	20.50	1.422			-0.15	0.331	0.471	
	1st	FR1 n66_Ant 0	40M_BPSK_1_1	Back	10mm	6	349000	1745	18.95	19.80	1.216			0.09	0.441	0.536	-1.26

	2nd	FR1 n66_Ant 0	40M_BPSK_1_1	Back	10mm	6	349000	1745	18.97	19.80	1.211			-0.15	0.331	0.401	
	1st	FR1 n66_Ant 1	40M_BPSK_108_54	Back	10mm	5	349000	1745	22.97	24.00	1.268			-0.12	0.733	0.929	-0.31
88	2nd	FR1 n66_Ant 1	40M_BPSK_108_54	Back	10mm	5	349000	1745	23.07	24.00	1.239			-0.06	0.698	0.865	
	1st	FR1 n66_Ant 1	40M_BPSK_108_54	Back	10mm	6	349000	1745	22.97	23.30	1.079			-0.12	0.733	0.791	-0.31
	2nd	FR1 n66_Ant 1	40M_BPSK_108_54	Back	10mm	6	349000	1745	23.07	23.30	1.054			-0.06	0.698	0.736	
	1st	FR1 n66_Ant 5	40M_BPSK_108_54	Back	10mm	5/6	349000	1745	23.41	24.50	1.285			-0.1	0.494	0.635	-0.92
	2nd	FR1 n66_Ant 5	40M_BPSK_108_54	Back	10mm	5/6	349000	1745	23.51	24.50	1.256			-0.07	0.409	0.514	
	1st	FR1 n71_Ant 0	20M_BPSK_50_28	Back	10mm	5/6	136100	680.5	24.34	25.00	1.164			-0.19	0.217	0.253	-0.81
89	2nd	FR1 n71_Ant 0	20M_BPSK_50_28	Back	10mm	5/6	136100	680.5	24.26	25.00	1.186			-0.19	0.177	0.210	
	1st	FR1 n71_Ant 1	20M_BPSK_50_28	Back	10mm	5/6	136100	680.5	24.55	25.00	1.109			0.01	0.156	0.173	-0.48
	2nd	FR1 n71_Ant 1	20M_BPSK_50_28	Back	10mm	5/6	136100	680.5	24.46	25.00	1.132			-0.01	0.137	0.155	
	1st	FR1 n77_Ant 6	100M_BPSK_135_69	Front	10mm	5	656000	3840	19.96	21.30	1.361			0.05	0.410	0.558	-1.66
	2nd	FR1 n77_Ant 6	100M_BPSK_135_69	Front	10mm	5	656000	3840	19.93	21.30	1.371			-0.11	0.278	0.381	
	1st	FR1 n77_Ant 6	100M_BPSK_135_69	Front	10mm	6	656000	3840	19.96	20.60	1.159			0.05	0.410	0.475	-1.66
	2nd	FR1 n77_Ant 6	100M_BPSK_135_69	Front	10mm	6	656000	3840	19.93	20.60	1.167			-0.11	0.278	0.324	
	1st	FR1 n77_Ant 6	100M_BPSK_135_69	Front	10mm	5	633332	3499.98	19.82	21.30	1.406			-0.1	0.159	0.224	-1.54
	2nd	FR1 n77_Ant 6	100M_BPSK_135_69	Front	10mm	5	633332	3499.98	20.11	21.30	1.315			-0.14	0.119	0.157	
	1st	FR1 n77_Ant 6	100M_BPSK_135_69	Front	10mm	6	633332	3499.98	19.82	20.60	1.197			-0.1	0.159	0.190	-1.55
	2nd	FR1 n77_Ant 6	100M_BPSK_135_69	Front	10mm	6	633332	3499.98	20.11	20.60	1.119			-0.14	0.119	0.133	
	1st	FR1 n77_Ant 7	100M_BPSK_1_1	Back	10mm	5	656000	3840	18.16	19.60	1.393			-0.03	0.292	0.407	-1.53
	2nd	FR1 n77_Ant 7	100M_BPSK_1_1	Back	10mm	5	656000	3840	18.11	19.60	1.409			0.12	0.203	0.286	
	1st	FR1 n77_Ant 7	100M_BPSK_1_1	Back	10mm	6	656000	3840	18.16	18.90	1.186			-0.03	0.292	0.346	-1.53
	2nd	FR1 n77_Ant 7	100M_BPSK_1_1	Back	10mm	6	656000	3840	18.11	18.90	1.199			0.12	0.203	0.243	
	1st	FR1 n77_Ant 7	100M_BPSK_135_69	Front	10mm	5	633332	3499.98	18.23	19.60	1.371			-0.13	0.306	0.419	-1.16
	2nd	FR1 n77_Ant 7	100M_BPSK_135_69	Front	10mm	5	633332	3499.98	18.36	19.60	1.330			0.17	0.241	0.321	
	1st	FR1 n77_Ant 7	100M_BPSK_135_69	Front	10mm	6	633332	3499.98	18.23	18.90	1.167			-0.13	0.306	0.357	-1.17
	2nd	FR1 n77_Ant 7	100M_BPSK_135_69	Front	10mm	6	633332	3499.98	18.36	18.90	1.132			0.17	0.241	0.273	
	1st	FR1 n77_Ant 1	100M_BPSK_1_1	Back	10mm	5	656000	3840	20.21	21.40	1.315			-0.02	0.498	0.655	-0.74
90	2nd	FR1 n77_Ant 1	100M_BPSK_1_1	Back	10mm	5	656000	3840	19.93	21.40	1.403			-0.02	0.394	0.553	
	1st	FR1 n77_Ant 1	100M_BPSK_1_1	Back	10mm	6	656000	3840	20.21	20.70	1.119			-0.02	0.498	0.557	-0.74
	2nd	FR1 n77_Ant 1	100M_BPSK_1_1	Back	10mm	6	656000	3840	19.93	20.70	1.194			-0.02	0.394	0.470	
	1st	FR1 n77_Ant 1	100M_BPSK_1_1	Back	10mm	5	633332	3499.98	20.39	21.40	1.262			0.01	0.392	0.495	-0.16
	2nd	FR1 n77_Ant 1	100M_BPSK_1_1	Back	10mm	5	633332	3499.98	20.12	21.40	1.343			-0.06	0.355	0.477	
	1st	FR1 n77_Ant 1	100M_BPSK_1_1	Back	10mm	6	633332	3499.98	20.39	20.70	1.074			0.01	0.392	0.421	-0.16
	2nd	FR1 n77_Ant 1	100M_BPSK_1_1	Back	10mm	6	633332	3499.98	20.12	20.70	1.143			-0.06	0.355	0.406	
	1st	FR1 n77_Ant 5	100M_BPSK_135_69	Back	10mm	5/6	650000	3750	23.42	25.00	1.439			0.13	0.248	0.357	-0.10
	2nd	FR1 n77_Ant 5	100M_BPSK_135_69	Back	10mm	5/6	650000	3750	23.36	25.00	1.459			0.15	0.239	0.349	
	1st	FR1 n77_Ant 5	100M_BPSK_1_1	Back	10mm	5/6	633332	3499.98	23.74	25.00	1.337			0.09	0.113	0.151	-0.03
	2nd	FR1 n77_Ant 5	100M_BPSK_1_1	Back	10mm	5/6	633332	3499.98	23.66	25.00	1.361			0.19	0.110	0.150	
	1st	NTN B23_Ant 1	15K_BPSK_1_10	Back	10mm	5	25501	2000.1	22.44	23.10	1.164	79	1.051	-0.02	0.759	0.929	-0.02
91	2nd	NTN B23_Ant 1	15K_BPSK_1_10	Back	10mm	5	25501	2000.1	21.64	23.10	1.400	79	1.051	-0.02	0.629	0.925	
	1st	NTN B255_Ant 4	15K_BPSK_1_10	Back	10mm	5	261505	1626.6	23.46	24.30	1.213	79	1.051	-0.02	0.717	0.914	-0.05
92	2nd	NTN B255_Ant 4	15K_BPSK_1_10	Back	10mm	5	261505	1626.6	23.35	24.30	1.245	79	1.051	-0.17	0.690	0.903	

Plot No.	No.	Band	Mode	Test Position	Gap (mm)	Antenna	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 (dB)
	1st	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 3	3	6	2437	20.89	21.00	1.026	100	1.000	-0.01	0.632	0.648	-0.73
93	2nd	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 3	3	6	2437	20.89	21.00	1.026	100	1.000	0.06	0.534	0.548	
	1st	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 4	3	1	2412	20.80	21.00	1.047	100	1.000	0.08	0.382	0.400	-0.98
	2nd	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 4	3	1	2412	20.80	21.00	1.047	100	1.000	0.02	0.305	0.319	
	1st	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 3+4(3)	3	11	2462	20.53	21.00	1.114	100	1.000	0	0.450	0.501	-0.20
		WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 3+4(4)	3	11	2462	19.53	21.00	1.403	100	1.000	0	0.306	0.429	
	2nd	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 3+4(3)	3	11	2462	20.53	21.00	1.114	100	1.000	-0.11	0.430	0.479	
		WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 3+4(4)	3	11	2462	19.53	21.00	1.403	100	1.000	-0.11	0.295	0.414	
	1st	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 3	4	11	2462	14.80	15.50	1.175	100	1.000	0.02	0.105	0.123	-0.52
	2nd	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 3	4	11	2462	14.80	15.50	1.175	100	1.000	-0.01	0.093	0.109	
	1st	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4	4	1	2412	14.84	15.50	1.164	100	1.000	-0.14	0.044	0.051	-0.26
	2nd	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4	4	1	2412	14.84	15.50	1.164	100	1.000	-0.19	0.041	0.048	
	1st	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 3+4(3)	4	11	2462	14.37	15.50	1.297	100	1.000	0.13	0.078	0.101	-0.45
		WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 3+4(4)	4	11	2462	15.00	15.50	1.122	100	1.000	0.13	0.061	0.068	
	2nd	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 3+4(3)	4	11	2462	14.37	15.50	1.297	100	1.000	0.11	0.070	0.091	
		WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 3+4(4)	4	11	2462	15.00	15.50	1.122	100	1.000	0.11	0.052	0.058	
	1st	WLAN5GHz	802.11n-HT40 MCS0	Back	10mm	Ant 3+4(3)	3	46	5230	18.04	20.00	1.570	98.92	1.011	-0.03	0.342	0.543	-0.27
		WLAN5GHz	802.11n-HT40 MCS0	Back	10mm	Ant 3+4(4)	3	46	5230	19.88	20.00	1.028	98.92	1.011	-0.03	0.167	0.174	
94	2nd	WLAN5GHz	802.11n-HT40 MCS0	Back	10mm	Ant 3+4(3)	3	46	5230	18.04	20.00	1.570	98.92	1.011	-0.1	0.321	0.510	
		WLAN5GHz	802.11n-HT40 MCS0	Back	10mm	Ant 3+4(4)	3	46	5230	19.88	20.00	1.028	98.92	1.011	-0.1	0.127	0.132	
	1st	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 3+4(3)	3	52	5260	17.65	19.50	1.531	99.52	1.005	-0.17	0.375	0.577	-0.04
		WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 3+4(4)	3	52	5260	19.22	19.50	1.067	99.52	1.005	-0.17	0.164	0.176	
95	2nd	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 3+4(3)	3	52	5260	17.65	19.50	1.531	99.52	1.005	-0.12	0.372	0.572	
		WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 3+4(4)	3	52	5260	19.22	19.50	1.067	99.52	1.005	-0.12	0.197	0.211	
	1st	WLAN5GHz	802.11n-HT40 MCS0	Back	10mm	Ant 3+4(3)	4	54	5270	17.48	18.50	1.265	98.2	1.018	0.18	0.219	0.282	-0.37
		WLAN5GHz	802.11n-HT40 MCS0	Back	10mm	Ant 3+4(4)	4	54	5270	18.43	18.50	1.016	98.2	1.018	0.18	0.118	0.122	
	2nd	WLAN5GHz	802.11n-HT40 MCS0	Back	10mm	Ant 3+4(3)	4	54	5270	17.48	18.50	1.265	98.2	1.018	0.02	0.201	0.259	
		WLAN5GHz	802.11n-HT40 MCS0	Back	10mm	Ant 3+4(4)	4	54	5270	18.43	18.50	1.016	98.2	1.018	0.02	0.110	0.114	
	1st	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 3+4(3)	3	138	5690	19.05	20.00	1.245	97.76	1.023	-0.05	0.383	0.488	-0.60
		WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 3+4(4)	3	138	5690	19.91	20.00	1.021	97.76	1.023	-0.05	0.421	0.440	
96	2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 3+4(3)	3	138	5690	19.05	20.00	1.245	97.76	1.023	-0.04	0.334	0.425	
		WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 3+4(4)	3	138	5690	19.91	20.00	1.021	97.76	1.023	-0.04	0.286	0.299	
	1st	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 3+4(3)	4	138	5690	17.50	19.00	1.413	97.76	1.023	-0.16	0.186	0.269	-1.06
		WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 3+4(4)	4	138	5690	18.45	19.00	1.135	97.76	1.023	-0.16	0.247	0.287	
	2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 3+4(3)	4	138	5690	17.50	19.00	1.413	97.76	1.023	-0.11	0.192	0.277	
		WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 3+4(4)	4	138	5690	18.45	19.00	1.135	97.76	1.023	-0.11	0.194	0.225	
	1st	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 3+4(3)	3	149	5745	19.04	21.00	1.570	99.51	1.005	-0.08	0.385	0.608	-0.51
		WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 3+4(4)	3	149	5745	20.93	21.00	1.016	99.51	1.005	-0.08	0.395	0.403	
97	2nd	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 3+4(3)	3	149	5745	19.04	21.00	1.570	99.51	1.005	-0.07	0.343	0.541	
		WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 3+4(4)	3	149	5745	20.93	21.00	1.016	99.51	1.005	-0.07	0.450	0.460	
	1st	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 3+4(3)	4	155	5775	16.56	18.00	1.393	97.76	1.023	0	0.164	0.234	-0.11
		WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 3+4(4)	4	155	5775	17.99	18.00	1.002	97.76	1.023	0	0.202	0.207	
	2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 3+4(3)	4	155	5775	16.56	18.00	1.393	97.76	1.023	-0.15	0.160	0.228	
		WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 3+4(4)	4	155	5775	17.99	18.00	1.002	97.76	1.023	-0.15	0.138	0.141	
	1st	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 3+4(3)	3	173	5865	19.44	21.00	1.432	99.52	1.005	-0.09	0.539	0.776	-0.69
		WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 3+4(4)	3	173	5865	20.42	21.00	1.143	99.52	1.005	-0.09	0.333	0.382	
98	2nd	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 3+4(3)	3	173	5865	19.44	21.00	1.432	99.52	1.005	-0.09	0.460	0.662	
		WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 3+4(4)	3	173	5865	20.42	21.00	1.143	99.52	1.005	-0.09	0.404	0.464	
	1st	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 3+4(3)	4	171	5855	16.13	17.50	1.371	97.76	1.023	-0.07	0.207	0.290	-1.01
		WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 3+4(4)	4	171	5855	17.49	17.50	1.002	97.76	1.023	-0.07	0.122	0.125	
	2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 3+4(3)	4	171	5855	16.13	17.50	1.371	97.76	1.023	-0.04	0.164	0.230	
		WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 3+4(4)	4	171	5855	17.49	17.50	1.002	97.76	1.023	-0.04	0.143	0.147	

Plot No.	No.	Band	Mode	Test Position	Gap (mm)	Antenna	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 (dB)
	1st	Bluetooth	1Mbps	Back	10mm	Ant 3	0	78	2480	19.58	21.00	1.387	77.07	1.081	0.01	0.195	0.292	-0.42
99	2nd	Bluetooth	1Mbps	Back	10mm	Ant 3	0	78	2480	19.58	21.00	1.387	77.07	1.081	0.03	0.177	0.265	
	1st	Bluetooth	1Mbps	Back	10mm	Ant 4	0	78	2480	19.38	21.00	1.452	76.96	1.082	-0.01	0.184	0.289	-0.68
	2nd	Bluetooth	1Mbps	Back	10mm	Ant 4	0	78	2480	19.38	21.00	1.452	76.96	1.082	-0.09	0.157	0.247	
	1st	Bluetooth	1Mbps	Back	10mm	Ant 3+4(3)	0	78	2480	19.63	21.00	1.371	77.07	1.081	-0.04	0.172	0.255	-0.21
		Bluetooth	1Mbps	Back	10mm	Ant 3+4(4)	0	78	2480	19.41	21.00	1.442	77.07	1.081	-0.04	0.120	0.187	
	2nd	Bluetooth	1Mbps	Back	10mm	Ant 3+4(3)	0	78	2480	19.63	21.00	1.371	77.07	1.081	-0.01	0.164	0.243	
		Bluetooth	1Mbps	Back	10mm	Ant 3+4(4)	0	78	2480	19.41	21.00	1.442	77.07	1.081	-0.01	0.129	0.201	
	1st	Bluetooth	1Mbps	Back	10mm	Ant 3	2	0	2402	16.60	17.00	1.096	77.05	1.081	-0.01	0.146	0.173	-0.05
	2nd	Bluetooth	1Mbps	Back	10mm	Ant 3	2	0	2402	16.60	17.00	1.096	77.05	1.081	0.13	0.144	0.171	
	1st	Bluetooth	1Mbps	Back	10mm	Ant 4	2	78	2480	17.88	19.50	1.452	76.96	1.082	0.13	0.130	0.204	-0.52
	2nd	Bluetooth	1Mbps	Back	10mm	Ant 4	2	78	2480	17.88	19.50	1.452	76.96	1.082	-0.02	0.115	0.181	
	1st	Bluetooth	1Mbps	Back	10mm	Ant 3+4(3)	2	39	2441	16.90	17.00	1.023	77.07	1.081	-0.15	0.108	0.119	-0.04
		Bluetooth	1Mbps	Back	10mm	Ant 3+4(4)	2	39	2441	16.60	17.00	1.096	77.07	1.081	-0.15	0.076	0.090	
	2nd	Bluetooth	1Mbps	Back	10mm	Ant 3+4(3)	2	39	2441	16.90	17.00	1.023	77.07	1.081	0.05	0.107	0.118	
		Bluetooth	1Mbps	Back	10mm	Ant 3+4(4)	2	39	2441	16.60	17.00	1.096	77.07	1.081	0.05	0.073	0.087	
	1st	Thread	250K	Back	10mm	Ant 3	0	25	2475	20.96	22.00	1.271	89.87	1.001	0.07	0.430	0.547	-0.87
100	2nd	Thread	250K	Back	10mm	Ant 3	0	25	2475	20.96	22.00	1.271	89.87	1.001	-0.03	0.352	0.448	
	1st	Thread	250K	Back	10mm	Ant 3	2	25	2475	14.79	16.50	1.483	89.87	1.001	0.19	0.097	0.144	-0.48
	2nd	Thread	250K	Back	10mm	Ant 3	2	25	2475	14.79	16.50	1.483	89.87	1.001	0.05	0.087	0.129	

13.4 Product Specific SAR

Plot No.	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 10g SAR (W/kg)	Reported 10g SAR (W/kg)	Deviation (dB)
	1st	NTN B23_Ant 1	15K_BPSK_1_10	Front	0mm	5	25501	2000.1	22.44	23.10	1.164	79	1.051	0.04	2.000	2.447	-1.48
101	2nd	NTN B23_Ant 1	15K_BPSK_1_10	Front	0mm	5	25501	2000.1	21.24	23.10	1.535	79	1.051	0.05	1.080	1.742	
	1st	NTN B255_Ant 4	15K_BPSK_1_10	Right Edge	0mm	5	261843	1660.4	23.49	24.30	1.205	79	1.051	0.07	1.620	2.052	-0.02
102	2nd	NTN B255_Ant 4	15K_BPSK_1_10	Right Edge	0mm	5	261843	1660.4	23.23	24.30	1.279	79	1.051	0.02	1.520	2.044	
	1st	GSM1900_Ant 0	GPRS (4 Tx slots)	Bottom Edge	0mm	5	810	1909.8	22.30	23.00	1.175			0.1	2.120	2.491	-1.53
103	2nd	GSM1900_Ant 0	GPRS (4 Tx slots)	Bottom Edge	0mm	5	810	1909.8	22.84	23.00	1.038			-0.04	1.690	1.753	
	1st	WCDMA II_Ant 0	RMC 12.2Kbps	Bottom Edge	0mm	5	9262	1852.4	19.51	21.00	1.409			0.02	1.580	2.227	-0.59
104	2nd	WCDMA II_Ant 0	RMC 12.2Kbps	Bottom Edge	0mm	5	9262	1852.4	19.57	21.00	1.390			0	1.400	1.946	
	1st	WCDMA IV_Ant 0	RMC 12.2Kbps	Bottom Edge	0mm	5	1413	1732.6	19.77	20.60	1.211			0.01	1.970	2.385	-0.05
105	2nd	WCDMA IV_Ant 0	RMC 12.2Kbps	Bottom Edge	0mm	5	1413	1732.6	19.75	20.60	1.216			0.04	1.940	2.359	
	1st	LTE Band 7_Ant 0	20M_QPSK_1_0	Bottom Edge	0mm	5	21100	2535	20.33	22.20	1.538			-0.01	1.620	2.492	-0.40
106	2nd	LTE Band 7_Ant 0	20M_QPSK_1_0	Bottom Edge	0mm	5	21100	2535	20.25	22.20	1.567			0.04	1.450	2.272	
	1st	LTE Band 25_Ant 0	20M_QPSK_1_0	Bottom Edge	0mm	5	26340	1880	18.78	20.40	1.452			-0.01	1.620	2.352	-0.99
107	2nd	LTE Band 25_Ant 0	20M_QPSK_1_0	Bottom Edge	0mm	5	26340	1880	19.01	20.40	1.377			0	1.360	1.873	
	1st	LTE Band 30_Ant 0	10M_QPSK_1_0	Bottom Edge	0mm	5	27710	2310	19.85	21.50	1.462			0.03	1.690	2.471	-0.26
108	2nd	LTE Band 30_Ant 0	10M_QPSK_1_0	Bottom Edge	0mm	5	27710	2310	19.68	21.50	1.521			-0.08	1.530	2.326	
	1st	LTE Band 41_Ant 0	20M_QPSK_1_0	Bottom Edge	0mm	5	40620	2593	23.97	24.80	1.211	62.9	1.006	-0.09	2.040	2.484	-0.05
109	2nd	LTE Band 41_Ant 0	20M_QPSK_1_0	Bottom Edge	0mm	5	40620	2593	23.80	24.80	1.259	62.9	1.006	-0.01	1.940	2.457	
	1st	LTE Band 66_Ant 0	20M_QPSK_1_0	Bottom Edge	0mm	5	132072	1720	18.22	19.80	1.439			-0.18	1.720	2.475	-1.52
110	2nd	LTE Band 66_Ant 0	20M_QPSK_1_0	Bottom Edge	0mm	5	132072	1720	17.80	19.80	1.585			0.05	1.100	1.743	
	1st	FR1 n7_Ant 0	50M_BPSK_1_1	Bottom Edge	0mm	5	507000	2535	20.80	22.40	1.445			0.14	1.710	2.472	-1.72
111	2nd	FR1 n7_Ant 0	50M_BPSK_1_1	Bottom Edge	0mm	5	507000	2535	20.76	22.40	1.459			0.1	1.140	1.663	
	1st	FR1 n25_Ant 0	40M_BPSK_1_1	Bottom Edge	0mm	5	376500	1882.5	18.81	20.50	1.476			0.05	1.440	2.125	-0.06
112	2nd	FR1 n25_Ant 0	40M_BPSK_1_1	Bottom Edge	0mm	5	376500	1882.5	18.84	20.50	1.466			-0.15	1.430	2.096	

Plot No.	No.	Band	Mode	Test Position	Gap (mm)	Antenna	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 10g SAR (W/kg)	Reported 10g SAR (W/kg)	Deviation (dB)
113	1st	WLAN5GHz	802.11a 6Mbps	Front	0mm	Ant 3+4(3)	3	60	5300	17.71	19.50	1.510	99.52	1.005	0.16	1.780	2.701	-0.80
		WLAN5GHz	802.11a 6Mbps	Front	0mm	Ant 3+4(4)	3	60	5300	18.97	19.50	1.130	99.52	1.005	0.16	2.240	2.543	
	2nd	WLAN5GHz	802.11a 6Mbps	Front	0mm	Ant 3+4(3)	3	60	5300	17.71	19.50	1.510	99.52	1.005	0.18	1.480	2.246	
		WLAN5GHz	802.11a 6Mbps	Front	0mm	Ant 3+4(4)	3	60	5300	18.97	19.50	1.130	99.52	1.005	0.18	2.120	2.407	
	1st	WLAN5GHz	802.11n-HT40 MCS0	Front	0mm	Ant 3+4(3)	4	54	5270	17.48	18.50	1.265	99.52	1.005	0.04	1.200	1.525	-1.40
		WLAN5GHz	802.11n-HT40 MCS0	Front	0mm	Ant 3+4(4)	4	54	5270	18.43	18.50	1.016	99.52	1.005	0.04	1.630	1.665	
	2nd	WLAN5GHz	802.11n-HT40 MCS0	Front	0mm	Ant 3+4(3)	4	54	5270	17.48	18.50	1.265	99.52	1.005	0.07	1.140	1.449	
		WLAN5GHz	802.11n-HT40 MCS0	Front	0mm	Ant 3+4(4)	4	54	5270	18.43	18.50	1.016	99.52	1.005	0.07	1.180	1.205	
114	1st	WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 3+4(3)	3	138	5690	19.05	20.00	1.245	97.76	1.023	-0.18	1.250	1.591	-0.91
		WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 3+4(4)	3	138	5690	19.91	20.00	1.021	97.76	1.023	-0.18	1.960	2.047	
	2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 3+4(3)	3	138	5690	19.05	20.00	1.245	97.76	1.023	0.12	0.775	0.987	
		WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 3+4(4)	3	138	5690	19.91	20.00	1.021	97.76	1.023	0.12	1.590	1.661	
	1st	WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 3+4(3)	4	138	5690	17.50	19.00	1.413	97.76	1.023	0.14	0.798	1.153	-0.93
		WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 3+4(4)	4	138	5690	18.45	19.00	1.135	97.76	1.023	0.14	1.180	1.370	
	2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 3+4(3)	4	138	5690	17.50	19.00	1.413	97.76	1.023	0.09	0.675	0.975	
		WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 3+4(4)	4	138	5690	18.45	19.00	1.135	97.76	1.023	0.09	0.953	1.107	
115	1st	WLAN5GHz	802.11a 6Mbps	Left Edge	0mm	Ant 3+4(3)	3	173	5865	19.44	21.00	1.432	99.52	1.005	-0.14	1.270	1.828	-0.10
		WLAN5GHz	802.11a 6Mbps	Left Edge	0mm	Ant 3+4(4)	3	173	5865	20.42	21.00	1.143	99.52	1.005	-0.14	0.001	0.001	
	2nd	WLAN5GHz	802.11a 6Mbps	Left Edge	0mm	Ant 3+4(3)	3	173	5865	19.44	21.00	1.432	99.52	1.005	-0.03	1.240	1.785	
		WLAN5GHz	802.11a 6Mbps	Left Edge	0mm	Ant 3+4(4)	3	173	5865	20.42	21.00	1.143	99.52	1.005	-0.03	0.001	0.001	
	1st	WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 3+4(3)	4	171	5855	16.13	17.50	1.371	97.76	1.023	0.08	0.550	0.771	-0.39
		WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 3+4(4)	4	171	5855	17.49	17.50	1.002	97.76	1.023	0.08	0.707	0.725	
	2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 3+4(3)	4	171	5855	16.13	17.50	1.371	97.76	1.023	0.15	0.502	0.704	
		WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 3+4(4)	4	171	5855	17.49	17.50	1.002	97.76	1.023	0.15	0.569	0.583	
116	1st	NFC	ASK	Back	0mm				13.56							0.014		0.00
	2nd	NFC	ASK	Back	0mm				13.56							0.014		

Conclusion:

The spot check results don't show the SAR increase more than 3dB, 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.

14. WiFi Output Power (Unit: dBm)

<WLAN Note>

1. The maximum output power specified for production units are determined for all applicable 802.11 transmission modes in each standalone and aggregated frequency band. Maximum output power is measured for the highest maximum output power configuration(s) in each frequency band according to the default power measurement procedures. For “Not required”, SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, additional output power measurements were not necessary.
2. Per KDB 248227 D01v02r02, SAR test reduction is determined according to 802.11 transmission mode configurations and certain exposure conditions with multiple test positions. For OFDM, an initial test configuration must be determined for each standalone and aggregated frequency band, according to the transmission mode configuration with the highest maximum output power specified for production units to perform SAR measurements. If the same highest maximum output power applies to different combinations of channel bandwidths, modulations and data rates, additional procedures are applied to determine which test configurations require SAR measurement. When applicable, an initial test position may be applied to reduce the number of SAR measurements required for next to the ear, UMPC mini-tablet or hotspot mode configurations with multiple test positions.
3. For OFDM configurations, the initial test configuration is applied to measure SAR using either the initial test position procedure for multiple exposure test position configurations or the initial test configuration procedures for fixed exposure test conditions. Based on the reported SAR of the measured configurations and maximum output power of the transmission mode configurations that are not included in the initial test configuration, the subsequent test configuration and initial test position procedures are applied to determine if SAR measurements are required for the remaining OFDM transmission configurations. In general, the number of test channels that require SAR measurement is minimized based on maximum output power measured for the test sample(s).
4. For OFDM transmission configurations, When the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel for each frequency band.
5. DSSS and OFDM configurations are considered separately according to the required SAR procedures. SAR is measured in the initial test position using the 802.11 transmission mode configuration required by the DSSS procedure or initial test configuration and subsequent test configuration(s) according to the OFDM procedures.18 The initial test position procedure is described in the following:
   a. When the reported SAR of the initial test position is ≤ 0.4 W/kg, further SAR measurement is not required for the other test positions in that exposure configuration and 802.11 transmission mode combinations within the frequency band or aggregated band.
   b. When the reported SAR of the test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is ≤ 0.8 W/kg or all required test position are tested.
   c. For all positions/configurations, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.
6. Per 201904 TCBC workshops, General principles of FCC KDB Publication 248227 D01 can be applied to determine the SAR Initial Test Configurations and test reduction for 802.11ax SAR testing. For the table below the 802.11ax maximum power is SU (non-OFDMA), and the SU maximum power also higher than RU (OFDMA)
7. In applying the test guidance, the IEEE 802.11 mode with the maximum output power (out of all modes) should be considered for testing
8. For modes with the same maximum output power, the guidance from section 5.3.2 a) of FCC KDB Publication 248227 D01 should be applied, with 802.11ax being considered as the highest 802.11 mode for the appropriate frequency bands
9. When SAR testing for 802.11ax is required
   a. If the maximum output power is highest for OFDMA scenarios, choose the tone size with the maximum number of tones and the highest maximum output power
   b. Otherwise, consider the fully allocated channel for SAR testing
   c. When SAR testing is required on RU sizes less than the fully allocated channel, use the RU number closest to the middle of the channel, choosing the higher RU number when two RUs are equidistant to the middle of the channel

WLAN 6GHz Power index 1_LPI

				Ant 3+4 (3)		Ant 3+4 (4)		Ant 3+4		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
WiFi 6E	802.11a 6Mbps	1	5955	Not required	12.50	Not required	12.50	Not required	15.50	Not required
		57	6235		12.50		12.50		15.50	
		113	6515		12.50		12.50		15.50	
		173	6815		11.00		11.00		14.00	
	802.11ax-HE20 MCS0	1	5955		13.00		13.00		16.00	
		57	6235		13.00		13.00		16.00	
		113	6515		13.00		13.00		16.00	
		173	6815		11.50		11.50		14.50	
	802.11ax-HE40 MCS0	3	5965		16.00		16.00		19.00	
		59	6245		16.00		16.00		19.00	
		107	6485		16.00		16.00		19.00	
		171	6805		14.50		14.50		17.50	
		227	7085		15.50		15.50		18.50	
	802.11ax-HE80 MCS0	7	5985		16.00		16.00		19.00	
		71	6305		16.00		16.00		19.00	
		119	6545		16.00		16.00		19.00	
		167	6785		16.00		16.00		19.00	
		215	7025		15.50		15.50		18.50	
	802.11ax-HE160 MCS0	15	6025	15.90	16.00	15.73	16.00	18.83	19.00	95.00
		47	6185	15.90	16.00	15.71	16.00	18.82	19.00	
		111	6505	15.55	16.00	15.54	16.00	18.56	19.00	
		143	6665	14.77	16.00	15.49	16.00	18.16	19.00	
		207	6985	14.53	15.50	15.45	15.50	18.02	18.50	
	802.11be-EHT20 MCS0	1	5955	Not required	13.00	Not required	13.00	Not required	16.00	Not required
		57	6235		13.00		13.00		16.00	
		113	6515		13.00		13.00		16.00	
		173	6815		11.50		11.50		14.50	
	802.11be-EHT40 MCS0	3	5965		16.00		16.00		19.00	
		59	6245		16.00		16.00		19.00	
		107	6485		16.00		16.00		19.00	
		171	6805		14.50		14.50		17.50	
		227	7085		15.50		15.50		18.50	
	802.11be-EHT80 MCS0	7	5985		16.00		16.00		19.00	
		71	6305		16.00		16.00		19.00	
		119	6545		16.00		16.00		19.00	
		167	6785		16.00		16.00		19.00	
		215	7025		15.50		15.50		18.50	
	802.11be-EHT160 MCS0	15	6025		16.00		16.00		19.00	
		47	6185		16.00		16.00		19.00	
		111	6505		16.00		16.00		19.00	
		143	6665		16.00		16.00		19.00	
		207	6985		15.50		15.50		18.50	

WLAN 6GHz Power index 2_LPI

				Ant 3+4 (3)		Ant 3+4 (4)		Ant 3+4		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
WiFi 6E	802.11a 6Mbps	1	5955	Not required	12.00	Not required	12.00	Not required	15.00	Not required
		57	6235		12.00		12.00		15.00	
		113	6515		12.50		12.50		15.50	
		173	6815		11.00		11.00		14.00	
	802.11ax-HE20 MCS0	1	5955		12.00		12.00		15.00	
		57	6235		12.00		12.00		15.00	
		113	6515		13.00		13.00		16.00	
		173	6815		11.50		11.50		14.50	
	802.11ax-HE40 MCS0	3	5965		12.00		12.00		15.00	
		59	6245		12.00		12.00		15.00	
		107	6485		13.00		13.00		16.00	
		171	6805		12.00		12.00		15.00	
		227	7085		13.50		13.50		16.50	
	802.11ax-HE80 MCS0	7	5985		12.00		12.00		15.00	
		71	6305		12.00		12.00		15.00	
		119	6545		13.00		13.00		16.00	
		167	6785		12.00		12.00		15.00	
		215	7025		13.50		13.50		16.50	
	802.11ax-HE160 MCS0	15	6025	11.45	12.00	11.90	12.00	14.69	15.00	95.00
		47	6185	11.20	12.00	11.95	12.00	14.60	15.00	
		111	6505	11.77	13.00	11.65	13.00	14.72	16.00	
		143	6665	11.77	12.00	11.95	12.00	14.87	15.00	
		207	6985	11.97	13.50	12.28	13.50	15.14	16.50	
	802.11be-EHT20 MCS0	1	5955	Not required	12.00	Not required	12.00	Not required	15.00	Not required
		57	6235		12.00		12.00		15.00	
		113	6515		13.00		13.00		16.00	
		173	6815		11.50		11.50		14.50	
	802.11be-EHT40 MCS0	3	5965		12.00		12.00		15.00	
		59	6245		12.00		12.00		15.00	
		107	6485		13.00		13.00		16.00	
		171	6805		12.00		12.00		15.00	
		227	7085		13.50		13.50		16.50	
	802.11be-EHT80 MCS0	7	5985		12.00		12.00		15.00	
		71	6305		12.00		12.00		15.00	
		119	6545		13.00		13.00		16.00	
		167	6785		12.00		12.00		15.00	
		215	7025		13.50		13.50		16.50	
	802.11be-EHT160 MCS0	15	6025		12.00		12.00		15.00	
		47	6185		12.00		12.00		15.00	
		111	6505		13.00		13.00		16.00	
		143	6665		12.00		12.00		15.00	
		207	6985		13.50		13.50		16.50	

WLAN 6GHz Power index 3_LPI

				Ant 3+4 (3)		Ant 3+4 (4)		Ant 3+4		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
WiFi 6E	802.11a 6Mbps	1	5955	Not required	12.50	Not required	12.50	Not required	15.50	Not required
		57	6235		12.50		12.50		15.50	
		113	6515		12.50		12.50		15.50	
		173	6815		11.00		11.00		14.00	
	802.11ax-HE20 MCS0	1	5955		13.00		13.00		16.00	
		57	6235		13.00		13.00		16.00	
		113	6515		13.00		13.00		16.00	
		173	6815		11.50		11.50		14.50	
	802.11ax-HE40 MCS0	3	5965		16.00		16.00		19.00	
		59	6245		16.00		16.00		19.00	
		107	6485		13.50		13.50		16.50	
		171	6805		14.50		14.50		17.50	
		227	7085		15.50		15.50		18.50	
	802.11ax-HE80 MCS0	7	5985		16.00		16.00		19.00	
		71	6305		16.00		16.00		19.00	
		119	6545		13.50		13.50		16.50	
		167	6785		14.50		14.50		17.50	
		215	7025		15.50		15.50		18.50	
	802.11ax-HE160 MCS0	15	6025	15.90	16.00	15.73	16.00	18.83	19.00	95.00
		47	6185	15.90	16.00	15.71	16.00	18.82	19.00	
		111	6505	11.84	13.50	11.77	13.50	14.82	16.50	
		143	6665	12.90	14.50	14.50	14.50	16.78	17.50	
		207	6985	14.53	15.50	15.45	15.50	18.02	18.50	
	802.11be-EHT20 MCS0	1	5955	Not required	13.00	Not required	13.00	Not required	16.00	Not required
		57	6235		13.00		13.00		16.00	
		113	6515		13.00		13.00		16.00	
		173	6815		11.50		11.50		14.50	
	802.11be-EHT40 MCS0	3	5965		16.00		16.00		19.00	
		59	6245		16.00		16.00		19.00	
		107	6485		13.50		13.50		16.50	
		171	6805		14.50		14.50		17.50	
		227	7085		15.50		15.50		18.50	
	802.11be-EHT80 MCS0	7	5985		16.00		16.00		19.00	
		71	6305		16.00		16.00		19.00	
		119	6545		13.50		13.50		16.50	
		167	6785		14.50		14.50		17.50	
		215	7025		15.50		15.50		18.50	
	802.11be-EHT160 MCS0	15	6025		16.00		16.00		19.00	
		47	6185		16.00		16.00		19.00	
		111	6505		13.50		13.50		16.50	
		143	6665		14.50		14.50		17.50	
		207	6985		15.50		15.50		18.50	

WLAN 6GHz Power index 4_LPI

				Ant 3+4 (3)		Ant 3+4 (4)		Ant 3+4		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
WiFi 6E	802.11a 6Mbps	1	5955	Not required	12.50	Not required	12.50	Not required	15.50	Not required
		57	6235		12.50		12.50		15.50	
		113	6515		12.50		12.50		15.50	
		173	6815		11.00		11.00		14.00	
	802.11ax-HE20 MCS0	1	5955		13.00		13.00		16.00	
		57	6235		13.00		13.00		16.00	
		113	6515		13.00		13.00		16.00	
		173	6815		11.50		11.50		14.50	
	802.11ax-HE40 MCS0	3	5965		16.00		16.00		19.00	
		59	6245		16.00		16.00		19.00	
		107	6485		13.50		13.50		16.50	
		171	6805		14.50		14.50		17.50	
		227	7085		15.50		15.50		18.50	
	802.11ax-HE80 MCS0	7	5985		16.00		16.00		19.00	
		71	6305		16.00		16.00		19.00	
		119	6545		13.50		13.50		16.50	
		167	6785		14.50		14.50		17.50	
		215	7025		15.50		15.50		18.50	
	802.11ax-HE160 MCS0	15	6025	15.90	16.00	15.73	16.00	18.83	19.00	95.00
		47	6185	15.90	16.00	15.71	16.00	18.82	19.00	
		111	6505	11.84	13.50	11.77	13.50	14.82	16.50	
		143	6665	12.90	14.50	14.50	14.50	16.78	17.50	
		207	6985	14.53	15.50	15.45	15.50	18.02	18.50	
	802.11be-EHT20 MCS0	1	5955	Not required	13.00	Not required	13.00	Not required	16.00	Not required
		57	6235		13.00		13.00		16.00	
		113	6515		13.00		13.00		16.00	
		173	6815		11.50		11.50		14.50	
	802.11be-EHT40 MCS0	3	5965		16.00		16.00		19.00	
		59	6245		16.00		16.00		19.00	
		107	6485		13.50		13.50		16.50	
		171	6805		14.50		14.50		17.50	
		227	7085		15.50		15.50		18.50	
	802.11be-EHT80 MCS0	7	5985		16.00		16.00		19.00	
		71	6305		16.00		16.00		19.00	
		119	6545		13.50		13.50		16.50	
		167	6785		14.50		14.50		17.50	
		215	7025		15.50		15.50		18.50	
	802.11be-EHT160 MCS0	15	6025		16.00		16.00		19.00	
		47	6185		16.00		16.00		19.00	
		111	6505		13.50		13.50		16.50	
		143	6665		14.50		14.50		17.50	
		207	6985		15.50		15.50		18.50	

WLAN 6GHz Power index 1_SP

				Ant 3+4 (3)		Ant 3+4 (4)		Ant 3+4		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
WiFi 6E	802.11a 6Mbps	1	5955	Not required	16.00	Not required	16.00	Not required	19.00	Not required
		57	6235		16.00		16.00		19.00	
		173	6815		16.00		16.00		19.00	
	802.11ax-HE20 MCS0	1	5955		16.00		16.00		19.00	
		57	6235		16.00		16.00		19.00	
		173	6815		16.00		16.00		19.00	
	802.11ax-HE40 MCS0	3	5965		16.00		16.00		19.00	
		59	6245		16.00		16.00		19.00	
		171	6805		16.00		16.00		19.00	
	802.11ax-HE80 MCS0	7	5985		16.00		16.00		19.00	
		71	6305		16.00		16.00		19.00	
		167	6785		16.00		16.00		19.00	
	802.11ax-HE160 MCS0	15	6025	15.90	16.00	15.73	16.00	18.83	19.00	95.00
		47	6185	15.90	16.00	15.71	16.00	18.82	19.00	
		143	6665	14.77	16.00	15.49	16.00	18.16	19.00	
	802.11be-EHT20 MCS0	1	5955	Not required	16.00	Not required	16.00	Not required	19.00	Not required
		57	6235		16.00		16.00		19.00	
		173	6815		16.00		16.00		19.00	
	802.11be-EHT40 MCS0	3	5965		16.00		16.00		19.00	
		59	6245		16.00		16.00		19.00	
		171	6805		16.00		16.00		19.00	
	802.11be-EHT80 MCS0	7	5985		16.00		16.00		19.00	
		71	6305		16.00		16.00		19.00	
		167	6785		16.00		16.00		19.00	
	802.11be-EHT160 MCS0	15	6025		16.00		16.00		19.00	
		47	6185		16.00		16.00		19.00	
		143	6665		16.00		16.00		19.00	

WLAN 6GHz Power index 2_SP

				Ant 3+4 (3)		Ant 3+4 (4)		Ant 3+4		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
WiFi 6E	802.11a 6Mbps	1	5955	Not required	12.00	Not required	12.00	Not required	15.00	Not required
		57	6235		12.00		12.00		15.00	
		173	6815		12.00		12.00		15.00	
	802.11ax-HE20 MCS0	1	5955		12.00		12.00		15.00	
		57	6235		12.00		12.00		15.00	
		173	6815		12.00		12.00		15.00	
	802.11ax-HE40 MCS0	3	5965		12.00		12.00		15.00	
		59	6245		12.00		12.00		15.00	
		171	6805		12.00		12.00		15.00	
	802.11ax-HE80 MCS0	7	5985		12.00		12.00		15.00	
		71	6305		12.00		12.00		15.00	
		167	6785		12.00		12.00		15.00	
	802.11ax-HE160 MCS0	15	6025	11.45	12.00	11.90	12.00	14.69	15.00	95.00
		47	6185	11.20	12.00	11.95	12.00	14.60	15.00	
		143	6665	11.77	12.00	11.95	12.00	14.87	15.00	
	802.11be-EHT20 MCS0	1	5955	Not required	12.00	Not required	12.00	Not required	15.00	Not required
		57	6235		12.00		12.00		15.00	
		173	6815		12.00		12.00		15.00	
	802.11be-EHT40 MCS0	3	5965		12.00		12.00		15.00	
		59	6245		12.00		12.00		15.00	
		171	6805		12.00		12.00		15.00	
	802.11be-EHT80 MCS0	7	5985		12.00		12.00		15.00	
		71	6305		12.00		12.00		15.00	
		167	6785		12.00		12.00		15.00	
	802.11be-EHT160 MCS0	15	6025		12.00		12.00		15.00	
		47	6185		12.00		12.00		15.00	
		143	6665		12.00		12.00		15.00	

WLAN 6GHz Power index 3_SP

				Ant 3+4 (3)		Ant 3+4 (4)		Ant 3+4		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
WiFi 6E	802.11a 6Mbps	1	5955	Not required	16.00	Not required	16.00	Not required	19.00	Not required
		57	6235		16.00		16.00		19.00	
		173	6815		14.50		14.50		17.50	
	802.11ax-HE20 MCS0	1	5955		16.00		16.00		19.00	
		57	6235		16.00		16.00		19.00	
		173	6815		14.50		14.50		17.50	
	802.11ax-HE40 MCS0	3	5965		16.00		16.00		19.00	
		59	6245		16.00		16.00		19.00	
		171	6805		14.50		14.50		17.50	
	802.11ax-HE80 MCS0	7	5985		16.00		16.00		19.00	
		71	6305		16.00		16.00		19.00	
		167	6785		14.50		14.50		17.50	
	802.11ax-HE160 MCS0	15	6025	15.90	16.00	15.73	16.00	18.83	19.00	95
		47	6185	15.90	16.00	15.71	16.00	18.82	19.00	
		143	6665	12.90	14.50	14.50	14.50	16.78	17.50	
	802.11be-EHT20 MCS0	1	5955	Not required	16.00	Not required	16.00	Not required	19.00	Not required
		57	6235		16.00		16.00		19.00	
		173	6815		14.50		14.50		17.50	
	802.11be-EHT40 MCS0	3	5965		16.00		16.00		19.00	
		59	6245		16.00		16.00		19.00	
		171	6805		14.50		14.50		17.50	
	802.11be-EHT80 MCS0	7	5985		16.00		16.00		19.00	
		71	6305		16.00		16.00		19.00	
		167	6785		14.50		14.50		17.50	
	802.11be-EHT160 MCS0	15	6025		16.00		16.00		19.00	
		47	6185		16.00		16.00		19.00	
		143	6665		14.50		14.50		17.50	

WLAN 6GHz Power index 4_SP

				Ant 3+4 (3)		Ant 3+4 (4)		Ant 3+4		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
WiFi 6E	802.11a 6Mbps	1	5955	Not required	16.00	Not required	16.00	Not required	19.00	Not required
		57	6235		16.00		16.00		19.00	
		173	6815		14.50		14.50		17.50	
	802.11ax-HE20 MCS0	1	5955		16.00		16.00		19.00	
		57	6235		16.00		16.00		19.00	
		173	6815		14.50		14.50		17.50	
	802.11ax-HE40 MCS0	3	5965		16.00		16.00		19.00	
		59	6245		16.00		16.00		19.00	
		171	6805		14.50		14.50		17.50	
	802.11ax-HE80 MCS0	7	5985		16.00		16.00		19.00	
		71	6305		16.00		16.00		19.00	
		167	6785		14.50		14.50		17.50	
	802.11ax-HE160 MCS0	15	6025	15.90	16.00	15.73	16.00	18.83	19.00	95.00
		47	6185	15.90	16.00	15.71	16.00	18.82	19.00	
		143	6665	12.90	14.50	14.50	14.50	16.78	17.50	
	802.11be-EHT20 MCS0	1	5955	Not required	16.00	Not required	16.00	Not required	19.00	Not required
		57	6235		16.00		16.00		19.00	
		173	6815		14.50		14.50		17.50	
	802.11be-EHT40 MCS0	3	5965		16.00		16.00		19.00	
		59	6245		16.00		16.00		19.00	
		171	6805		14.50		14.50		17.50	
	802.11be-EHT80 MCS0	7	5985		16.00		16.00		19.00	
		71	6305		16.00		16.00		19.00	
		167	6785		14.50		14.50		17.50	
	802.11be-EHT160 MCS0	15	6025		16.00		16.00		19.00	
		47	6185		16.00		16.00		19.00	
		143	6665		14.50		14.50		17.50	

WLAN 6GHz Power index 4_VLP

				Ant 3+4 (3)		Ant 3+4 (4)		Ant 3+4		
	Mode	Channel	Frequency (MHz)	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Average power (dBm)	Tune-Up Limit	Duty Cycle %
WiFi 6E	802.11a 6Mbps	1	5955	Not required	8.50	Not required	8.50	Not required	11.50	Not required
		57	6235		8.00		8.00		11.00	
		113	6515		8.00		8.00		11.00	
		173	6815		7.00		7.00		10.00	
	802.11ax-HE20 MCS0	1	5955		9.00		9.00		12.00	
		57	6235		9.00		9.00		12.00	
		113	6515		8.50		8.50		11.50	
		173	6815		7.50		7.50		10.50	
	802.11ax-HE40 MCS0	3	5965		11.50		11.50		14.50	
		59	6245		11.50		11.50		14.50	
		107	6485		11.50		11.50		14.50	
		171	6805		10.50		10.50		13.50	
		227	7085		13.00		13.00		16.00	
	802.11ax-HE80 MCS0	7	5985		15.00		15.00		18.00	
		71	6305		15.00		15.00		18.00	
		119	6545		13.50		13.50		16.50	
		167	6785		13.50		13.50		16.50	
		215	7025		15.50		15.50		18.50	
	802.11ax-HE160 MCS0	15	6025	15.90	16.00	15.73	16.00	18.83	19.00	95.00
		47	6185	15.90	16.00	15.71	16.00	18.82	19.00	
		111	6505	11.84	13.50	11.77	13.50	14.82	16.50	
		143	6665	12.90	14.50	14.50	14.50	16.78	17.50	
		207	6985	14.53	15.50	15.45	15.50	18.02	18.50	
	802.11be-EHT20 MCS0	1	5955	Not required	9.00	Not required	9.00	Not required	12.00	Not required
		57	6235		9.00		9.00		12.00	
		113	6515		8.50		8.50		11.50	
		173	6815		7.50		7.50		10.50	
	802.11be-EHT40 MCS0	3	5965		11.50		11.50		14.50	
		59	6245		11.50		11.50		14.50	
		107	6485		11.50		11.50		14.50	
		171	6805		10.50		10.50		13.50	
		227	7085		13.00		13.00		16.00	
	802.11be-EHT80 MCS0	7	5985		15.00		15.00		18.00	
		71	6305		15.00		15.00		18.00	
		119	6545		13.50		13.50		16.50	
		167	6785		13.50		13.50		16.50	
		215	7025		15.50		15.50		18.50	
	802.11be-EHT160 MCS0	15	6025		16.00		16.00		19.00	
		47	6185		16.00		16.00		19.00	
		111	6505		13.50		13.50		16.50	
		143	6665		14.50		14.50		17.50	
		207	6985		15.50		15.50		18.50	

15. RF Exposure position consideration

Distance of the Antenna to the EUT surface/edge						
Antennas	Front	Back	Top Edge	Bottom Edge	Right Edge	Left Edge
WWAN Ant 0	≤ 25mm	≤ 25mm	> 25mm	≤ 25mm	≤ 25mm	≤ 25mm
WWAN Ant 1	≤ 25mm	≤ 25mm	≤ 25mm	> 25mm	≤ 25mm	≤ 25mm
WWAN Ant 2	≤ 25mm	≤ 25mm	> 25mm	≤ 25mm	≤ 25mm	≤ 25mm
WWAN Ant 5	≤ 25mm	≤ 25mm	≤ 25mm	> 25mm	≤ 25mm	≤ 25mm
WWAN Ant 6	≤ 25mm	≤ 25mm	> 25mm	≤ 25mm	≤ 25mm	≤ 25mm
WWAN Ant 7	≤ 25mm	≤ 25mm	> 25mm	≤ 25mm	≤ 25mm	≤ 25mm
WLAN/BT Ant 3 / 4 / 3+4	≤ 25mm	≤ 25mm	≤ 25mm	> 25mm	≤ 25mm	≤ 25mm
Thread Ant 3	≤ 25mm	≤ 25mm	≤ 25mm	> 25mm	≤ 25mm	≤ 25mm
NFC	≤ 25mm	≤ 25mm	≤ 25mm	> 25mm	≤ 25mm	≤ 25mm

Positions for SAR / 6E PD test						
Antennas	Front	Back	Top Edge	Bottom Edge	Right Edge	Left Edge
WWAN Ant 0	Yes	Yes	No	Yes	Yes	Yes
WWAN Ant 1	Yes	Yes	Yes	No	Yes	Yes
WWAN Ant 2	Yes	Yes	No	Yes	Yes	Yes
WWAN Ant 5	Yes	Yes	Yes	No	Yes	Yes
WWAN Ant 6	Yes	Yes	No	Yes	Yes	Yes
WWAN Ant 7	Yes	Yes	No	Yes	Yes	Yes
WLAN/BT Ant 3 / 4 / 3+4	Yes	Yes	Yes	No	Yes	Yes
Thread Ant 3	Yes	Yes	Yes	No	Yes	Yes
NFC	Yes	Yes	Yes	No	Yes	Yes

General Note:

1. Referring to KDB 941225 D06 v02r01, when the overall device length and width are ≥ 9cm*5cm. RF Exposure must be measured for all sides and surfaces with a transmitting antenna located within 25mm from that surface or edge
2. The antenna location is illustrated in the Appendix E.

16. SAR Test Results

General Note:

1. Per KDB 447498 D01v06, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
   a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
   b. For SAR testing of WLAN signal with non-100% duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle)"
   c. For WLAN: Reported SAR(W/kg)= Measured SAR(W/kg)* Duty Cycle scaling factor * Tune-up scaling factor
2. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is ≥0.8W/kg.
3. Per KDB 648474 D04v01r03, when the reported SAR for a body-worn accessory measured without a headset connected to the handset is ≤ 1.2 W/kg, SAR testing with a headset connected to the handset is not required.
4. Per KDB648474 D04v01r03, for smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm, therefore, 6GHz WLAN product specific SAR is necessary.

WLAN Note:

1. When the reported SAR of the test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is ≤ 0.8 W/kg or all required test position are tested.
2. For all positions / configurations, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions / configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.
3. For determination of the scaling factor for report SAR of MIMO mode, if the hot spots are separated the scaling factors are individually determined from each transmit chain. If the hot spots are not spatially separated, the scaling factor is determined from the worst number of each transmit chain.
4. 3+4(3) represents the test in 2TX operation, while the SAR or power data is associated with antenna 3.
5. 3+4(4) represents the test in 2TX operation, while the SAR or power data is associated with antenna 4.
6. During SAR testing the WLAN transmission was verified using a spectrum analyzer.

WLAN PD Note:

1. The WiFi 6E PD was performed according 2020 TCB workshop RF Exposure 5G RFX Policies Interim Procedures.
2. First, evaluate SAR using 6-7 GHz parameters per IEC/IEEE 62209-1528:2020 and evaluate incident PD using the mmw near-field probe and total-field/power-density reconstruction method.
3. Per Interim Procedures. The power density results were scaled according to IEC 62479:2010 for the portion of the measurement uncertainty > 30%. Total expanded uncertainty of 2.68 dB (85.4%) was used to determine the psPD measurement scaling factor
4. The manufacturer has confirmed that the devices tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units.
5. The WiFi 6E RF Exposure results are used for simultaneous transmission analysis with the other transmitters and total exposure ratio, the analysis can be found in this report appendix D
6. Absorbed power density (APD) using a 4cm2 averaging area is reported based on SAR measurements.
7. Power density was calculated by repeated E-field measurements on two measurement planes separated by λ/4.
8. The device was configured to transmit continuously at the required data rate, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools.
9. The measurement procedure consists of measuring the PDinc at two different distances: 2 mm (compliance distance) and λ/5. The grid extents should be large enough to fully capture the transmitted energy. The grid step should be fine enough to demonstrate that the integrated Power Density iPDn fulfill the criterion described below. Since iPD ratio between the two distances is ≥ -1dB, the grid step (0.0625) was sufficient for determining compliance at d=2mm.

$$10 \cdot log_{10} \frac{iPD_n(2mm)}{iPD_n(\lambda/5)} \geq -1$$

16.1 Head SAR

<WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	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)	Measured APD (W/m^2)	Reported APD (W/m^2)
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	Ant 3+4(3)	1	15	6025	15.90	16.00	1.023	95	1.053	-0.13	0.401	0.432	2.91	3.136
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	Ant 3+4(4)	1	15	6025	15.73	16.00	1.064	95	1.053	-0.13	0.092	0.103	0.585	0.656
	WLAN6GHz	802.11ax-HE160 MCS0	Right Tilted	0mm	Ant 3+4(3)	1	15	6025	15.90	16.00	1.023	95	1.053	0.04	0.177	0.191	1.15	1.239
	WLAN6GHz	802.11ax-HE160 MCS0	Right Tilted	0mm	Ant 3+4(4)	1	15	6025	15.73	16.00	1.064	95	1.053	0.04	0.085	0.095	0.613	0.687
117	WLAN6GHz	802.11ax-HE160 MCS0	Left Cheek	0mm	Ant 3+4(3)	1	15	6025	15.90	16.00	1.023	95	1.053	-0.08	0.085	0.092	0.655	0.706
	WLAN6GHz	802.11ax-HE160 MCS0	Left Cheek	0mm	Ant 3+4(4)	1	15	6025	15.73	16.00	1.064	95	1.053	-0.08	0.462	0.518	3.19	3.575
	WLAN6GHz	802.11ax-HE160 MCS0	Left Cheek	0mm	Ant 3+4(3)	1	47	6185	15.90	16.00	1.023	95	1.053	0.11	0.086	0.093	0.683	0.736
	WLAN6GHz	802.11ax-HE160 MCS0	Left Cheek	0mm	Ant 3+4(4)	1	47	6185	15.71	16.00	1.069	95	1.053	0.11	0.344	0.387	2.33	2.623
	WLAN6GHz	802.11ax-HE160 MCS0	Left Cheek	0mm	Ant 3+4(3)	1	111	6505	15.55	16.00	1.109	95	1.053	0.08	0.099	0.116	0.693	0.809
	WLAN6GHz	802.11ax-HE160 MCS0	Left Cheek	0mm	Ant 3+4(4)	1	111	6505	15.54	16.00	1.112	95	1.053	0.08	0.268	0.314	1.94	2.271
	WLAN6GHz	802.11ax-HE160 MCS0	Left Cheek	0mm	Ant 3+4(3)	1	143	6665	14.77	16.00	1.327	95	1.053	-0.06	0.067	0.094	0.511	0.714
	WLAN6GHz	802.11ax-HE160 MCS0	Left Cheek	0mm	Ant 3+4(4)	1	143	6665	15.49	16.00	1.125	95	1.053	-0.06	0.135	0.160	0.954	1.130
	WLAN6GHz	802.11ax-HE160 MCS0	Left Cheek	0mm	Ant 3+4(3)	1	207	6985	14.53	15.50	1.250	95	1.053	0.17	0.049	0.065	0.37	0.487
	WLAN6GHz	802.11ax-HE160 MCS0	Left Cheek	0mm	Ant 3+4(4)	1	207	6985	15.45	15.50	1.012	95	1.053	0.17	0.144	0.153	0.955	1.017
	WLAN6GHz	802.11ax-HE160 MCS0	Left Tilted	0mm	Ant 3+4(3)	1	15	6025	15.90	16.00	1.023	95	1.053	-0.04	0.029	0.031	0.231	0.249
	WLAN6GHz	802.11ax-HE160 MCS0	Left Tilted	0mm	Ant 3+4(4)	1	15	6025	15.73	16.00	1.064	95	1.053	-0.04	0.286	0.320	2.01	2.252
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	Ant 3+4(3)	2	207	6985	11.97	13.50	1.422	95	1.053	-0.05	0.146	0.219	0.803	1.203
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	Ant 3+4(4)	2	207	6985	12.28	13.50	1.324	95	1.053	-0.05	0.041	0.057	0.223	0.311
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	Ant 3+4(3)	2	15	6025	11.45	12.00	1.135	95	1.053	0.13	0.181	0.216	1.26	1.506
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	Ant 3+4(4)	2	15	6025	11.90	12.00	1.023	95	1.053	0.13	0.038	0.041	0.26	0.280
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	Ant 3+4(3)	2	47	6185	11.20	12.00	1.202	95	1.053	0.07	0.171	0.216	1.22	1.545
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	Ant 3+4(4)	2	47	6185	11.95	12.00	1.012	95	1.053	0.07	0.028	0.030	0.177	0.189
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	Ant 3+4(3)	2	111	6505	11.77	13.00	1.327	95	1.053	0.1	0.157	0.219	0.963	1.346
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	Ant 3+4(4)	2	111	6505	11.65	13.00	1.365	95	1.053	0.1	0.024	0.034	0.149	0.214
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	Ant 3+4(3)	2	143	6665	11.77	12.00	1.054	95	1.053	0.09	0.194	0.215	1.07	1.188
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	Ant 3+4(4)	2	143	6665	11.95	12.00	1.012	95	1.053	0.09	0.022	0.023	0.142	0.151
	WLAN6GHz	802.11ax-HE160 MCS0	Right Tilted	0mm	Ant 3+4(3)	2	207	6985	11.87	13.50	1.455	95	1.053	0.01	0.001	0.002	0.001	0.002
	WLAN6GHz	802.11ax-HE160 MCS0	Right Tilted	0mm	Ant 3+4(4)	2	207	6985	12.28	13.50	1.324	95	1.053	0.01	0.019	0.026	0.034	0.047
	WLAN6GHz	802.11ax-HE160 MCS0	Left Cheek	0mm	Ant 3+4(3)	2	207	6985	11.87	13.50	1.455	95	1.053	-0.09	0.017	0.026	0.079	0.121
	WLAN6GHz	802.11ax-HE160 MCS0	Left Cheek	0mm	Ant 3+4(4)	2	207	6985	12.28	13.50	1.324	95	1.053	-0.09	0.083	0.116	0.531	0.740
	WLAN6GHz	802.11ax-HE160 MCS0	Left Tilted	0mm	Ant 3+4(3)	2	207	6985	11.87	13.50	1.455	95	1.053	0.13	0.001	0.002	0.001	0.002
	WLAN6GHz	802.11ax-HE160 MCS0	Left Tilted	0mm	Ant 3+4(4)	2	207	6985	12.28	13.50	1.324	95	1.053	0.13	0.056	0.078	0.321	0.448

16.2 Hotspot SAR

<WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	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)	Measured APD (W/m^2)	Reported APD (W/m^2)
	WLAN6GHz	802.11ax-HE160 MCS0	Front	10mm	Ant 3+4(3)	4	15	6025	15.90	16.00	1.023	95	1.053	-0.16	0.048	0.052	0.402	0.433
	WLAN6GHz	802.11ax-HE160 MCS0	Front	10mm	Ant 3+4(4)	4	15	6025	15.73	16.00	1.064	95	1.053	-0.16	0.045	0.050	0.349	0.391
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 3+4(3)	4	15	6025	15.90	16.00	1.023	95	1.053	-0.12	0.100	0.108	0.709	0.764
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 3+4(4)	4	15	6025	15.73	16.00	1.064	95	1.053	-0.12	0.076	0.085	0.624	0.699
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 3+4(3)	4	47	6185	15.90	16.00	1.023	95	1.053	0.08	0.067	0.072	0.471	0.508
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 3+4(4)	4	47	6185	15.71	16.00	1.069	95	1.053	0.08	0.061	0.069	0.495	0.557
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 3+4(3)	4	111	6505	11.84	13.50	1.466	95	1.053	-0.07	0.056	0.086	0.379	0.585
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 3+4(4)	4	111	6505	11.77	13.50	1.489	95	1.053	-0.07	0.052	0.082	0.407	0.638
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 3+4(3)	4	143	6665	12.90	14.50	1.445	95	1.053	0.09	0.054	0.082	0.38	0.578
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 3+4(4)	4	143	6665	14.50	14.50	1.000	95	1.053	0.09	0.043	0.045	0.346	0.364
118	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 3+4(3)	4	207	6985	14.53	15.50	1.250	95	1.053	0.12	0.061	0.080	0.415	0.546
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 3+4(4)	4	207	6985	15.45	15.50	1.012	95	1.053	0.12	0.102	0.109	0.787	0.838
	WLAN6GHz	802.11ax-HE160 MCS0	Left Edge	10mm	Ant 3+4(3)	4	15	6025	15.90	16.00	1.023	95	1.053	-0.09	0.068	0.073	0.395	0.426
	WLAN6GHz	802.11ax-HE160 MCS0	Left Edge	10mm	Ant 3+4(4)	4	15	6025	15.73	16.00	1.064	95	1.053	-0.09	0.001	0.001	0.001	0.001
	WLAN6GHz	802.11ax-HE160 MCS0	Right Edge	10mm	Ant 3+4(3)	4	15	6025	15.90	16.00	1.023	95	1.053	0.19	0.001	0.001	0.001	0.001
	WLAN6GHz	802.11ax-HE160 MCS0	Right Edge	10mm	Ant 3+4(4)	4	15	6025	15.73	16.00	1.064	95	1.053	0.19	0.054	0.061	0.476	0.533
	WLAN6GHz	802.11ax-HE160 MCS0	Top Edge	10mm	Ant 3+4(3)	4	15	6025	15.90	16.00	1.023	95	1.053	0	0.001	0.001	0.001	0.001
	WLAN6GHz	802.11ax-HE160 MCS0	Top Edge	10mm	Ant 3+4(4)	4	15	6025	15.73	16.00	1.064	95	1.053	0	0.045	0.050	0.339	0.380

16.3 Body Worn Accessory SAR

<WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	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)	Measured APD (W/m^2)	Reported APD (W/m^2)
	WLAN6GHz	802.11ax-HE160 MCS0	Front	10mm	Ant 3+4(3)	3	15	6025	15.90	16.00	1.023	95	1.053	-0.16	0.048	0.052	0.402	0.433
	WLAN6GHz	802.11ax-HE160 MCS0	Front	10mm	Ant 3+4(4)	3	15	6025	15.73	16.00	1.064	95	1.053	-0.16	0.045	0.050	0.349	0.391
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 3+4(3)	3	15	6025	15.90	16.00	1.023	95	1.053	-0.12	0.095	0.102	0.701	0.755
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 3+4(4)	3	15	6025	15.73	16.00	1.064	95	1.053	-0.12	0.076	0.085	0.624	0.699
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 3+4(3)	3	47	6185	15.90	16.00	1.023	95	1.053	0.08	0.067	0.072	0.471	0.508
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 3+4(4)	3	47	6185	15.71	16.00	1.069	95	1.053	0.08	0.061	0.069	0.495	0.557
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 3+4(3)	3	111	6505	11.84	13.50	1.466	95	1.053	-0.07	0.056	0.086	0.379	0.585
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 3+4(4)	3	111	6505	11.77	13.50	1.489	95	1.053	-0.07	0.052	0.082	0.407	0.638
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 3+4(3)	3	143	6665	12.90	14.50	1.445	95	1.053	0.09	0.054	0.082	0.38	0.578
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 3+4(4)	3	143	6665	14.50	14.50	1.000	95	1.053	0.09	0.043	0.045	0.346	0.364
119	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 3+4(3)	3	207	6985	14.53	15.50	1.250	95	1.053	0.12	0.061	0.080	0.415	0.546
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 3+4(4)	3	207	6985	15.45	15.50	1.012	95	1.053	0.12	0.102	0.109	0.787	0.838
	WLAN6GHz	802.11ax-HE160 MCS0	Front	10mm	Ant 3+4(3)	4	15	6025	15.90	16.00	1.023	95	1.053	-0.16	0.048	0.052	0.402	0.433
	WLAN6GHz	802.11ax-HE160 MCS0	Front	10mm	Ant 3+4(4)	4	15	6025	15.73	16.00	1.064	95	1.053	-0.16	0.045	0.050	0.349	0.391
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 3+4(3)	4	15	6025	15.90	16.00	1.023	95	1.053	-0.12	0.095	0.102	0.701	0.755
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 3+4(4)	4	15	6025	15.73	16.00	1.064	95	1.053	-0.12	0.076	0.085	0.624	0.699
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 3+4(3)	4	47	6185	15.90	16.00	1.023	95	1.053	0.08	0.067	0.072	0.471	0.508
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 3+4(4)	4	47	6185	15.71	16.00	1.069	95	1.053	0.08	0.061	0.069	0.495	0.557
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 3+4(3)	4	111	6505	11.84	13.50	1.466	95	1.053	-0.07	0.056	0.086	0.379	0.585
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 3+4(4)	4	111	6505	11.77	13.50	1.489	95	1.053	-0.07	0.052	0.082	0.407	0.638
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 3+4(3)	4	143	6665	12.90	14.50	1.445	95	1.053	0.09	0.054	0.082	0.38	0.578
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 3+4(4)	4	143	6665	14.50	14.50	1.000	95	1.053	0.09	0.043	0.045	0.346	0.364
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 3+4(3)	4	207	6985	14.53	15.50	1.250	95	1.053	0.12	0.061	0.080	0.415	0.546
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 3+4(4)	4	207	6985	15.45	15.50	1.012	95	1.053	0.12	0.102	0.109	0.787	0.838

16.4 Product Specific SAR

<WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	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 10g SAR (W/kg)	Reported 10g SAR (W/kg)	Measured APD (W/m^2)	Reported APD (W/m^2)
120	WLAN6GHz	802.11ax-HE160 MCS0	Front	0mm	Ant 3+4(3)	3	15	6025	15.90	16.00	1.023	95	1.053	0.06	0.352	0.379	8.4	9.051
	WLAN6GHz	802.11ax-HE160 MCS0	Front	0mm	Ant 3+4(4)	3	15	6025	15.73	16.00	1.064	95	1.053	0.06	0.314	0.352	7.38	8.270
	WLAN6GHz	802.11ax-HE160 MCS0	Front	0mm	Ant 3+4(3)	3	47	6185	15.90	16.00	1.023	95	1.053	0.14	0.304	0.328	7.14	7.694
	WLAN6GHz	802.11ax-HE160 MCS0	Front	0mm	Ant 3+4(4)	3	47	6185	15.71	16.00	1.069	95	1.053	0.14	0.245	0.276	5.75	6.473
	WLAN6GHz	802.11ax-HE160 MCS0	Front	0mm	Ant 3+4(3)	3	111	6505	11.84	13.50	1.466	95	1.053	0.17	0.131	0.202	3.09	4.769
	WLAN6GHz	802.11ax-HE160 MCS0	Front	0mm	Ant 3+4(4)	3	111	6505	11.77	13.50	1.489	95	1.053	0.17	0.086	0.135	2.03	3.184
	WLAN6GHz	802.11ax-HE160 MCS0	Front	0mm	Ant 3+4(3)	3	143	6665	12.90	14.50	1.445	95	1.053	-0.11	0.210	0.320	4.93	7.504
	WLAN6GHz	802.11ax-HE160 MCS0	Front	0mm	Ant 3+4(4)	3	143	6665	14.50	14.50	1.000	95	1.053	-0.11	0.124	0.131	2.94	3.096
	WLAN6GHz	802.11ax-HE160 MCS0	Front	0mm	Ant 3+4(3)	3	207	6985	14.53	15.50	1.250	95	1.053	0.12	0.198	0.261	4.69	6.174
	WLAN6GHz	802.11ax-HE160 MCS0	Front	0mm	Ant 3+4(4)	3	207	6985	15.45	15.50	1.012	95	1.053	0.12	0.163	0.174	3.85	4.101
	WLAN6GHz	802.11ax-HE160 MCS0	Back	0mm	Ant 3+4(3)	3	15	6025	15.90	16.00	1.023	95	1.053	-0.19	0.075	0.081	1.73	1.864
	WLAN6GHz	802.11ax-HE160 MCS0	Back	0mm	Ant 3+4(4)	3	15	6025	15.73	16.00	1.064	95	1.053	-0.19	0.087	0.097	2.02	2.263
	WLAN6GHz	802.11ax-HE160 MCS0	Left Edge	0mm	Ant 3+4(3)	3	15	6025	15.90	16.00	1.023	95	1.053	-0.1	0.284	0.306	6.74	7.263
	WLAN6GHz	802.11ax-HE160 MCS0	Left Edge	0mm	Ant 3+4(4)	3	15	6025	15.73	16.00	1.064	95	1.053	-0.1	0.001	0.001	0.001	0.001
	WLAN6GHz	802.11ax-HE160 MCS0	Right Edge	0mm	Ant 3+4(3)	3	15	6025	15.90	16.00	1.023	95	1.053	0.02	0.001	0.001	0.001	0.001
	WLAN6GHz	802.11ax-HE160 MCS0	Right Edge	0mm	Ant 3+4(4)	3	15	6025	15.73	16.00	1.064	95	1.053	0.02	0.073	0.082	1.71	1.916
	WLAN6GHz	802.11ax-HE160 MCS0	Top Edge	0mm	Ant 3+4(3)	3	15	6025	15.90	16.00	1.023	95	1.053	0.03	0.001	0.001	0.001	0.001
	WLAN6GHz	802.11ax-HE160 MCS0	Top Edge	0mm	Ant 3+4(4)	3	15	6025	15.73	16.00	1.064	95	1.053	0.03	0.088	0.099	2.36	2.644
	WLAN6GHz	802.11ax-HE160 MCS0	Front	0mm	Ant 3+4(3)	4	15	6025	15.90	16.00	1.023	95	1.053	0.01	0.321	0.346	7.45	8.028
	WLAN6GHz	802.11ax-HE160 MCS0	Front	0mm	Ant 3+4(4)	4	15	6025	15.73	16.00	1.064	95	1.053	0.01	0.318	0.356	7.63	8.550
	WLAN6GHz	802.11ax-HE160 MCS0	Front	0mm	Ant 3+4(3)	4	47	6185	15.90	16.00	1.023	95	1.053	0.14	0.304	0.328	7.14	7.694
	WLAN6GHz	802.11ax-HE160 MCS0	Front	0mm	Ant 3+4(4)	4	47	6185	15.71	16.00	1.069	95	1.053	0.14	0.245	0.276	5.75	6.473
	WLAN6GHz	802.11ax-HE160 MCS0	Front	0mm	Ant 3+4(3)	4	111	6505	11.84	13.50	1.466	95	1.053	0.17	0.131	0.202	3.09	4.769
	WLAN6GHz	802.11ax-HE160 MCS0	Front	0mm	Ant 3+4(4)	4	111	6505	11.77	13.50	1.489	95	1.053	0.17	0.086	0.135	2.03	3.184
	WLAN6GHz	802.11ax-HE160 MCS0	Front	0mm	Ant 3+4(3)	4	143	6665	12.90	14.50	1.445	95	1.053	-0.11	0.210	0.320	4.93	7.504
	WLAN6GHz	802.11ax-HE160 MCS0	Front	0mm	Ant 3+4(4)	4	143	6665	14.50	14.50	1.000	95	1.053	-0.11	0.124	0.131	2.94	3.096
	WLAN6GHz	802.11ax-HE160 MCS0	Front	0mm	Ant 3+4(3)	4	207	6985	14.53	15.50	1.250	95	1.053	0.12	0.198	0.261	4.69	6.174
	WLAN6GHz	802.11ax-HE160 MCS0	Front	0mm	Ant 3+4(4)	4	207	6985	15.45	15.50	1.012	95	1.053	0.12	0.163	0.174	3.85	4.101
	WLAN6GHz	802.11ax-HE160 MCS0	Back	0mm	Ant 3+4(3)	4	15	6025	15.90	16.00	1.023	95	1.053	-0.19	0.075	0.081	1.73	1.864
	WLAN6GHz	802.11ax-HE160 MCS0	Back	0mm	Ant 3+4(4)	4	15	6025	15.73	16.00	1.064	95	1.053	-0.19	0.087	0.097	2.02	2.263
	WLAN6GHz	802.11ax-HE160 MCS0	Left Edge	0mm	Ant 3+4(3)	4	15	6025	15.90	16.00	1.023	95	1.053	-0.1	0.284	0.306	6.74	7.263
	WLAN6GHz	802.11ax-HE160 MCS0	Left Edge	0mm	Ant 3+4(4)	4	15	6025	15.73	16.00	1.064	95	1.053	-0.1	0.001	0.001	0.001	0.001
	WLAN6GHz	802.11ax-HE160 MCS0	Right Edge	0mm	Ant 3+4(3)	4	15	6025	15.90	16.00	1.023	95	1.053	0.02	0.001	0.001	0.001	0.001
	WLAN6GHz	802.11ax-HE160 MCS0	Right Edge	0mm	Ant 3+4(4)	4	15	6025	15.73	16.00	1.064	95	1.053	0.02	0.073	0.082	1.71	1.916
	WLAN6GHz	802.11ax-HE160 MCS0	Top Edge	0mm	Ant 3+4(3)	4	15	6025	15.90	16.00	1.023	95	1.053	0.03	0.001	0.001	0.001	0.001
	WLAN6GHz	802.11ax-HE160 MCS0	Top Edge	0mm	Ant 3+4(4)	4	15	6025	15.73	16.00	1.064	95	1.053	0.03	0.088	0.099	2.36	2.644

16.5 6GHz PD Test Result

Band	Mode	Test Position	Gap (mm)	Antenna	Power Index	Ch.	Freq. (MHz)	Average Power (dBm)	Grid Step (λ)	iPDn	iPD ratio (≥ -1)	Normal psPD (W/m^2)	Total psPD (W/m^2)
WLAN6GHz	802.11ax-HE160 MCS0	Front	2mm	Ant 3+4(4)	1	15	6025	15.73	0.0625	2.61	-0.92562015	2.19	3.91
WLAN6GHz	802.11ax-HE160 MCS0	Front	10mm	Ant 3+4(3)	1	15	6025	15.90	0.25	3.23		1.18	1.27
WLAN6GHz	802.11ax-HE160 MCS0	Front	2mm	Ant 3+4(3)	1	207	6985	14.53	0.0625	3.35	1.412294411	1.44	1.74
WLAN6GHz	802.11ax-HE160 MCS0	Front	8.59mm	Ant 3+4(3)	1	207	6985	14.53	0.25	2.42		0.485	0.646

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Index	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Grid Step (λ)	Scaling Factor for Measurement Uncertainty	Power Drift (dB)	Normal psPD (W/m^2)	Scaled Normal psPD (W/m^2)	Total psPD (W/m^2)	Scaled Total psPD (W/m^2)
	WLAN6GHz	802.11ax-HE160 MCS0	Front	2mm	Ant 3+4(4)	1	15	6025	15.73	16.00	1.064	95.00	1.053	0.0625	1.5535	-0.07	2.19	3.81	3.91	6.81
	WLAN6GHz	802.11ax-HE160 MCS0	Front	2mm	Ant 3+4(3)	1	47	6185	15.90	16.00	1.023	95.00	1.053	0.0625	1.5535	0.04	1.88	3.15	2.93	4.90
	WLAN6GHz	802.11ax-HE160 MCS0	Front	2mm	Ant 3+4(3)	1	111	6505	15.55	16.00	1.109	95.00	1.053	0.0625	1.5535	0.13	3.42	6.21	3.93	7.13
	WLAN6GHz	802.11ax-HE160 MCS0	Front	2mm	Ant 3+4(3)	1	143	6665	14.77	16.00	1.327	95.00	1.053	0.0625	1.5535	-0.05	2.87	6.23	3.12	6.77
	WLAN6GHz	802.11ax-HE160 MCS0	Front	2mm	Ant 3+4(3)	1	207	6985	14.53	15.50	1.250	95.00	1.053	0.0625	1.5535	-0.15	1.44	2.95	1.74	3.56
	WLAN6GHz	802.11ax-HE160 MCS0	Front	10mm	Ant 4+3(3)	4	15	6025	15.90	16.00	1.023	95.00	1.053	0.0625	1.5535	0.12	0.807	1.35	0.899	1.50
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 3+4(4)	4	15	6025	15.73	16.00	1.064	95.00	1.053	0.0625	1.5535	0.18	1.08	1.88	1.21	2.11
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 3+4(4)	4	47	6185	15.71	16.00	1.069	95.00	1.053	0.0625	1.5535	0.15	1.16	2.03	1.27	2.22
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 3+4(4)	4	111	6505	11.77	13.50	1.489	95.00	1.053	0.0625	1.5535	-0.17	0.391	0.95	0.421	1.03
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 3+4(4)	4	143	6665	14.50	14.50	1.000	95.00	1.053	0.0625	1.5535	-0.16	0.673	1.10	0.778	1.27
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 3+4(4)	4	207	6985	15.45	15.50	1.012	95.00	1.053	0.0625	1.5535	0.11	1.02	1.69	1.15	1.90
	WLAN6GHz	802.11ax-HE160 MCS0	Left Edge	10mm	Ant 4+3(3)	4	15	6025	15.90	16.00	1.023	95.00	1.053	0.0625	1.5535	-0.14	0.58	0.97	0.758	1.27
	WLAN6GHz	802.11ax-HE160 MCS0	Right Edge	10mm	Ant 4+3(4)	4	15	6025	15.73	16.00	1.064	95.00	1.053	0.0625	1.5535	0.14	0.592	1.03	0.653	1.14
	WLAN6GHz	802.11ax-HE160 MCS0	Top Edge	10mm	Ant 4+3(4)	4	15	6025	15.73	16.00	1.064	95.00	1.053	0.0625	1.5535	-0.09	0.795	1.38	0.88	1.53
	WLAN6GHz	802.11ax-HE160 MCS0	Front	2mm	Ant 3+4(4)	3	15	6025	15.73	16.00	1.064	95.00	1.053	0.0625	1.5535	-0.07	2.19	3.81	3.91	6.81
	WLAN6GHz	802.11ax-HE160 MCS0	Front	2mm	Ant 3+4(3)	3	47	6185	15.90	16.00	1.023	95.00	1.053	0.0625	1.5535	0.04	1.88	3.15	2.93	4.90
	WLAN6GHz	802.11ax-HE160 MCS0	Front	2mm	Ant 3+4(3)	3	111	6505	11.84	13.50	1.466	95.00	1.053	0.0625	1.5535	-0.12	0.956	2.29	1.23	2.95
	WLAN6GHz	802.11ax-HE160 MCS0	Front	2mm	Ant 3+4(3)	3	143	6665	12.90	14.50	1.445	95.00	1.053	0.0625	1.5535	-0.17	1.39	3.29	1.53	3.62
	WLAN6GHz	802.11ax-HE160 MCS0	Front	2mm	Ant 3+4(3)	3	207	6985	14.53	15.50	1.250	95.00	1.053	0.0625	1.5535	-0.15	1.44	2.95	1.74	3.56
	WLAN6GHz	802.11ax-HE160 MCS0	Back	2mm	Ant 3+4(4)	3	15	6025	15.73	16.00	1.064	95.00	1.053	0.0625	1.5535	-0.08	2.04	3.55	2.59	4.51
	WLAN6GHz	802.11ax-HE160 MCS0	Left Edge	2mm	Ant 3+4(3)	3	15	6025	15.90	16.00	1.023	95.00	1.053	0.0625	1.5535	-0.06	1.86	3.11	2.59	4.34
	WLAN6GHz	802.11ax-HE160 MCS0	Left Edge	2mm	Ant 3+4(3)	3	47	6185	15.90	16.00	1.023	95.00	1.053	0.0625	1.5535	-0.16	0.817	1.37	1.34	2.24
	WLAN6GHz	802.11ax-HE160 MCS0	Left Edge	2mm	Ant 3+4(3)	3	111	6505	11.84	13.50	1.466	95.00	1.053	0.0625	1.5535	-0.04	1.54	3.69	2.58	6.19
121	WLAN6GHz	802.11ax-HE160 MCS0	Left Edge	2mm	Ant 3+4(3)	3	143	6665	12.90	14.50	1.445	95.00	1.053	0.0625	1.5535	0.05	2.43	5.75	3.13	7.40
	WLAN6GHz	802.11ax-HE160 MCS0	Left Edge	2mm	Ant 3+4(3)	3	207	6985	14.53	15.50	1.250	95.00	1.053	0.0625	1.5535	-0.14	1.8	3.68	2.96	6.05
	WLAN6GHz	802.11ax-HE160 MCS0	Right Edge	2mm	Ant 3+4(4)	3	15	6025	15.73	16.00	1.064	95.00	1.053	0.0625	1.5535	0.16	2.04	3.55	2.13	3.71
	WLAN6GHz	802.11ax-HE160 MCS0	Top Edge	2mm	Ant 3+4(4)	3	15	6025	15.73	16.00	1.064	95.00	1.053	0.0625	1.5535	0.12	1.25	2.18	1.61	2.80

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17. Uncertainty Assessment

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

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

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

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

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

(b) κ is the coverage factor

Standard Uncertainty for Assumed Distribution

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

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

The judgment of conformity in the report is based on the measurement results excluding the measurement uncertainty.

Applicable for SAR Measurements:

Uncertainty Budget (4 MHz - 10 GHz range)							
Error Description	Uncertainty Value (±%)	Probability	Divisor	(Ci) 1g	(Ci) 10g	Standard Uncertainty (1g) (±%)	Standard Uncertainty (10g) (±%)
Measurement System							
Probe Calibration	18.60	N	2	1	1	9.3	9.3
Axial Isotropy	4.70	R	1.732	0.7	0.7	1.9	1.9
Hemispherical Isotropy	9.60	R	1.732	0.7	0.7	3.9	3.9
Linearity	4.70	R	1.732	1	1	2.7	2.7
Modulation Response	4.68	R	1.732	1	1	2.7	2.7
System Detection Limits	1.00	R	1.732	1	1	0.6	0.6
Boundary Effects	2.00	R	1.732	1	1	1.2	1.2
Readout Electronics	0.30	N	1	1	1	0.3	0.3
Response Time	0.00	R	1.732	1	1	0.0	0.0
Integration Time	2.60	R	1.732	1	1	1.5	1.5
RF Ambient Noise	3.00	R	1.732	1	1	1.7	1.7
RF Ambient Reflections	3.00	R	1.732	1	1	1.7	1.7
Probe Positioner	0.40	R	1.732	1	1	0.2	0.2
Probe Positioning	6.70	R	1.732	1	1	3.9	3.9
Post-processing	4.00	R	1.732	1	1	2.3	2.3
Test Sample Related							
Device Holder	3.60	N	1	1	1	3.6	3.6
Test sample Positioning	3.03	N	1	1	1	3.0	3.0
Power Scaling	0.00	R	1.732	1	1	0.0	0.0
Power Drift	5.00	R	1.732	1	1	2.9	2.9
Phantom and Setup							
Phantom Uncertainty	7.60	R	1.732	1	1	4.4	4.4
SAR correction	0.00	R	1.732	1	0.84	0.0	0.0
Liquid Conductivity Repeatability	0.03	N	1	0.78	0.77	0.0	0.0
Liquid Conductivity (target)	5.00	R	1.732	0.78	0.77	2.3	2.2
Liquid Conductivity (mea.)	2.50	R	1.732	0.78	0.77	1.1	1.1
Temp. unc. - Conductivity	3.68	R	1.732	0.78	0.77	1.7	1.6
Liquid Permittivity Repeatability	0.02	N	1	0.23	0.26	0.0	0.0
Liquid Permittivity (target)	5.00	R	1.732	0.23	0.26	0.7	0.8
Liquid Permittivity (mea.)	2.50	R	1.732	0.23	0.26	0.3	0.4
Temp. unc. - Permittivity	0.84	R	1.732	0.23	0.26	0.1	0.1
Combined Std. Uncertainty						14.5%	14.2%
Coverage Factor for 95 %						K=2	K=2
Expanded STD Uncertainty						29.0%	28.4%

Applicable for Power Density Measurements:

Error Description	Uncertainty Value (±dB)	Probability	Divisor	(Ci)	Standard Uncertainty (±dB)
Probe Calibration	0.49	N	1	1	0.49
Probe correction	0.00	R	1.732	1	0.00
Frequency response (BW ≤ 1 GHz)	0.20	R	1.732	1	0.12
Sensor cross coupling	0.00	R	1.732	1	0.00
Isotropy	0.50	R	1.732	1	0.29
Linearity	0.20	R	1.732	1	0.12
Probe scattering	0.00	R	1.732	1	0.00
Probe positioning offset	0.30	R	1.732	1	0.17
Probe positioning repeatability	0.04	R	1.732	1	0.02
Sensor mechanical offset	0.00	R	1.732	1	0.00
Probe spatial resolution	0.00	R	1.732	1	0.00
Field impedance dependance	0.00	R	1.732	1	0.00
Amplitude and phase drift	0.00	R	1.732	1	0.00
Amplitude and phase noise	0.04	R	1.732	1	0.02
Measurement area truncation	0.00	R	1.732	1	0.00
Data acquisition	0.03	N	1	1	0.03
Sampling	0.00	R	1.732	1	0.00
Field reconstruction	2.00	R	1.732	1	1.15
Forward transformation	0.00	R	1.732	1	0.00
Power density scaling	0.00	R	1.732	1	0.00
Spatial averaging	0.10	R	1.732	1	0.06
System detection limit	0.04	R	1.732	1	0.02
Uncertainty terms dep endent on the DUT and environmental factors					
Probe coupling with DUT	0.00	R	1.732	1	0.0
Modulation response	0.40	R	1.732	1	0.2
Integration time	0.00	R	1.732	1	0.0
Response time	0.00	R	1.732	1	0.0
Device holder influence	0.10	R	1.732	1	0.1
DUT alignment	0.00	R	1.732	1	0.0
RF ambient conditions	0.04	R	1.732	1	0.0
Ambient reflections	0.04	R	1.732	1	0.0
Immunity / secondary reception	0.00	R	1.732	1	0.0
Drift of the DUT		R	1.732	1	
Combined Std. Uncertainty					1.34
Expanded STD Uncertainty (95%)					**2.68**

18. References

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[3] IEEE Std. 1528-2013, “IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques”, Sep 2013

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[5] FCC KDB 447498 D01 v06, “Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies”, Oct 2015

[6] FCC KDB 648474 D04 v01r03, “SAR Evaluation Considerations for Wireless Handsets”, Oct 2015.

[7] FCC KDB 941225 D01 v03r01, “3G SAR MEAUREMENT PROCEDURES”, Oct 2015

[8] FCC KDB 941225 D05 v02r05, “SAR Evaluation Considerations for LTE Devices”, Dec 2015

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[10] FCC KDB 941225 D06 v02r01, "SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities", Oct 2015.

[11] FCC KDB 941225 D07 v01r02, " SAR Evaluation Procedures for UMPC Mini-Tablet Devices", Oct 2015.

[12] FCC KDB 865664 D01 v01r04, "SAR Measurement Requirements for 100 MHz to 6 GHz", Aug 2015.

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[14] IEC/IEEE 62209-1528:2020, “Measurement procedure for the assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Part 1528: Human models, instrumentation, and procedures (Frequency range of 4 MHz to 10 GHz)”, Oct. 2020

[15] SPEAG DASY6 System Handbook

[16] SPEAG DASY6 Application Note (Interim Procedure for Device Operation at 6GHz-10GHz)