



# FCC SAR TEST REPORT

FCC ID : A4RGC3VE  
Equipment : Phone  
Model Name : GC3VE  
Applicant : Google LLC  
1600 Amphitheatre Parkway,  
Mountain View, California, 94043 USA  
Standard : FCC 47 CFR Part 2 (2.1093)

The product was received on Feb. 09, 2023 and testing was started from Apr. 12, 2023 and completed on Jun. 09, 2023. 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.

*Cona Huang*

Approved by: Cona Huang / Deputy Manager



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### History of this test report

Report No.	Version	Description	Issued Date
FA2D0206-03D	01	Initial issue of report	Jun. 30, 2023
FA2D0206-03D	02	1. Update section 6.1, section 6.2, section 7.1, section 14, section 17.3, section 18.3 and section 18.7 2. Update appendix B, D and G	Jul. 18, 2023
FA2D0206-03D	03	1. Update section 6.2	Aug. 22, 2023



# 1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for Google LLC, Phone, GC3VE, 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	0.50	0.98	0.85		1.59	2.48
	GSM1900	0.56	0.63	0.82			
	WCDMA II	0.75	0.95	0.84	2.46		
	WCDMA IV	0.47	0.70	0.74			
	WCDMA V	0.70	0.63	0.72			
	LTE Band 2	0.72	0.51	0.65			
	LTE Band 7	0.76	0.92	0.78	1.73		
	LTE Band 12 / 17	0.38	0.35	0.48			
	LTE Band 13	0.74	0.42	0.48			
	LTE Band 14	0.70	0.45	0.48			
	LTE Band 25	0.79	0.70	0.74	2.34		
	LTE Band 5 / 26	0.54	0.72	0.72			
	LTE Band 30	0.22	0.93	0.85	2.48		
	LTE Band 38 / 41	0.36	0.65	0.78			
	LTE Band 48	0.59	0.64	0.79			
	LTE Band 4 / 66	0.81	0.70	0.82	2.47		
	LTE Band 71	0.95	0.37	0.56			
	FR1 n2	0.95	0.69	0.84			
	FR1 n5	0.46	0.60	0.67			
	FR1 n7	0.73	0.96	0.76	2.04		
	FR1 n12	0.39	0.38	0.52			
	FR1 n25	0.84	0.69	0.85	2.45		
	FR1 n30	0.44	0.96	0.82	2.32		
FR1 n66	0.92	0.76	0.82	2.25			
FR1 n71	0.97	0.31	0.49				
FR1 n38 / n41	0.80	0.98	0.84				
FR1 n77 / n78	0.80	0.63	0.82				
DXX	13.56MHz			0.09		2.48	
DTS	2.4GHz WLAN	0.78	0.64	0.51		1.58	
NII	5GHz WLAN	0.79	0.40	0.37	1.69	1.59	2.48
6CD	6GHz WLAN	0.29	0.16		0.49	1.59	2.48
DSS	Bluetooth	0.21	0.24	0.29		1.59	
Equipment Class	Frequency Band	Head Reported APD (mW/cm <sup>2</sup> )	Body-worn Reported APD (mW/cm <sup>2</sup> )	Product Specific Reported APD (mW/cm <sup>2</sup> )	Reported PD (mW/cm <sup>2</sup> )		
6CD	6GHz WLAN	0.19	0.12	0.97	0.71		
Date of Testing:		2023/4/12 ~ 2023/6/9					

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<sup>2</sup>=10 W/m<sup>2</sup>) 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. Data Reuse Approach**

FCC ID: A4RG1MNW (reference model) and FCC ID: A4RGC3VE (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 Form Factor:** the Enclosure, Materials, and Form 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 30% and 1g SAR < 1.2W/kg, 10g SAR < 3.0W/kg of the reference model, the WWAN 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: A4RGC3VE

## **3. Model Difference Information**

A4RG1MNW and A4RGC3VE use the identical internal printed circuit board layout, and the major differences which may relate to RF are listed below:

- 5G FR2 related components are depopulated
- Different antenna matching for antenna 1 and antenna 4

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



**4. 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	WPT	110.1KHz ~ 148.5KHz	A4RG1MNV	Original Grant	FA2D0206-01B	A4RGC3VE	Full test
	DXX	NFC	13.56	A4RG1MNV	Original Grant	FA2D0206-01F	A4RGC3VE	Spot check
	UWB	UWB	6489.6, 7987.2	A4RG1MNV	Original Grant	FA2D0206-01F	A4RGC3VE	1mW Low power exclusion
	DSS	Bluetooth	2400~2483.5	A4RG1MNV	Original Grant	FA2D0206-01F	A4RGC3VE	Full test
	DTS	BLE WiFi	2400~2483.5	A4RG1MNV	Original Grant	FA2D0206-01F	A4RGC3VE	Full test
	NII	Wi-Fi	5150 ~ 5250 5250 ~ 5350 5470 ~ 5725 5725 ~ 5850 5850 ~ 5895	A4RG1MNV	Original Grant	FA2D0206-01F	A4RGC3VE	Full test
	6XD	Wi-Fi	5925 ~ 6425 6425 ~ 6525 6525 ~ 6875 6875 ~ 7125	A4RG1MNV	Original Grant	FA2D0206-01F	A4RGC3VE	Full test
	PCB CBE	GSM	850/1900	A4RG1MNV	Original Grant	FA2D0206-01F	A4RGC3VE	Spot check/ Full Test on Ant 1 for GSM850
		WCDMA	B2/4/5	A4RG1MNV	Original Grant	FA2D0206-01F	A4RGC3VE	Spot check/ Full Test on Ant 1 for B5
		LTE	B2/4/5/7/12/13/14/17/25/26/30/38/41/48/66/71	A4RG1MNV	Original Grant	FA2D0206-01F	A4RGC3VE	Spot check/ Full Test on Ant 1 for B2/4/5/12/13/14/17/26/66/71
5G FR1		n2/5/7/12/25/30/66/71 38/41/77/78	A4RG1MNV	Original Grant	FA2D0206-01F	A4RGC3VE	Spot check/ Full Test on Ant 1 for n2/5/12/41/66/71/77/78	

**5. 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)



## 6. Equipment Under Test (EUT) Information

### 6.1 General Information

Product Feature & Specification	
Equipment Name	Phone
Model Name	GC3VE
FCC ID	A4RGC3VE
S / N	33291FDJG00020, 33291FDJG0002B, 33131FDJG0008K, 33131FDJG0007Q, 33291FDJG00028
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 n25 : 1850 MHz ~ 1915 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: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3980 MHz 5G NR n78: 3700 MHz ~ 3800 MHz, 3450MHz ~ 3550 MHz WLAN 2.4GHz Band: 2400 MHz ~ 2483.5 MHz WLAN 5.2G Band: 5150 MHz ~ 5250 MHz WLAN 5.3G Band: 5250 MHz ~ 5350 MHz WLAN 5.5G Band: 5470 MHz ~ 5725 MHz WLAN 5.8G Band: 5725 MHz ~ 5850 MHz WLAN 5.9G 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 WPT: 110.1 KHz ~ 148.5 KHz UWB: 6489.6 MHz, 7987.2 MHz
Mode	GSM/GPRS/EGPRS RMC/AMR 12.2Kbps HSDPA HSUPA LTE: QPSK, 16QAM, 64QAM, 256QAM 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 NFC: ASK WPT: ASK UWB: BPM-BPSK
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 and 2 for its < 3GHz LTE and NR band, and the supplemental antenna tuner test results were include in FCC ID: A4RG1MNMW part1 SAR appendix G, details are illustrated in the operational description.
2. This device WLAN 2.4GHz / 5.2GHz / 5.8GHz 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, extremity) and the TAS feature will manage to ensure the power level not exceeding the associated power table. And also implement Spatial TAS predefine antenna group to analysis simultaneous transmission include in appendix F.
4. The device implements the sensor detection for SAR compliance and the power verification include in appendix E
5. The UWB output power is -11.6dBm and it is less than 1mW and exempt from power density testing.

**6.2 Maximum Tune-up Limit**

**General Note:**

1. In the report PC3 as power class3, PC2 as power class2
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 appendix D.
4. The max power conditions use case were evaluated in the reference model G1MNMW, the report exhibit of G1MNMW\_Part 1 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 device additionally support uplink MIMO on n41/n77/n78, the TAS feature will control the device to transmit at higher power instantaneously, as high as Pmax, when needed, but enforces power limiting to maintain time-averaged transmit power to Plimit, the uplink MIMO compliance is validated include in the TAS Part2 report No.: FA2D0206-03C.

Antenna configuration	
Transmit switching diversity configuration	Support transmit antenna and band
TX 0	ANT 0: GSM850, UMTS B5, LTE B5/B12/B13/B14/B17/B26/B71, NR n5/n12/n26/n71 ANT 1: LTE B2/B4/B66, NR n2/n66/n38/n41/n48/n77 ANT 2: GSM1900, UMTS B2/B4, LTE B2/B4/B7/B25/B30/B66/B38/B41, NR n2/n7/n25/n30/n66/n70/n38/n41 ANT 6: LTE B48, NR n48/n77/n78
TX 1	ANT 0: GSM1900, UMTS B2/B4, LTE B2/B4/B7/B25/B30/B66/B38/B41, NR n2/n7/n25/n30/n66/n70/n38/n41 ANT 1: GSM850, UMTS B5, LTE B5/B12/B13/B14/B17/B26/B71, NR n5/n12/n26/n71 ANT 5: LTE B2/B4/B66, NR n2/n66/n38/n41/n48/n77/78 ANT 7: LTE B48, NR n48/n77/n78





Maximum Transmit Burst Average Power (dBm)								
Band	Antenna	Duty cycle	Maximum Power Condition	Head	Head	Hotspot	Body-worn	Body-worn
				Standalone	Simultaneous	Simultaneous	Standalone	Simultaneous
			Index 1	Index 2	Index 3	Index 4	Index 5	Index 6
GSM850 GPRS 1TX	0	12.50%	33.5	33.5	33.5	33.5	33.5	33.5
GSM850 GPRS 2TX	0	25.00%	32.5	32.5	32.1	31.9	32.5	32.4
GSM850 GPRS 3TX	0	37.50%	31.5	31.0	30.3	30.1	31.3	30.6
GSM850 GPRS 4TX	0	50.00%	30.5	29.8	29.1	28.9	30.1	29.4
GSM850 EDGE 1TX	0	12.50%	28.0	28.0	28.0	28.0	28.0	28.0
GSM850 EDGE 2TX	0	25.00%	27.5	27.5	27.5	27.5	27.5	27.5
GSM850 EDGE 3TX	0	37.50%	27.5	27.5	27.5	27.5	27.5	27.5
GSM850 EDGE 4TX	0	50.00%	25.5	25.5	25.5	25.5	25.5	25.5
GSM850 GPRS 1TX	1	12.50%	33.1	31.2	30.5	33.1	33.1	33.1
GSM850 GPRS 2TX	1	25.00%	32.1	28.2	27.5	31.9	32.1	31.9
GSM850 GPRS 3TX	1	37.50%	31.1	26.4	25.7	30.1	30.8	30.1
GSM850 GPRS 4TX	1	50.00%	30.1	25.2	24.5	28.9	29.6	28.9
GSM850 EDGE 1TX	1	12.50%	27.6	27.6	27.6	27.6	27.6	27.6
GSM850 EDGE 2TX	1	25.00%	27.1	27.1	27.1	27.1	27.1	27.1
GSM850 EDGE 3TX	1	37.50%	27.1	26.4	25.7	27.1	27.1	27.1
GSM850 EDGE 4TX	1	50.00%	25.1	25.1	24.5	25.1	25.1	25.1
GSM1900 GPRS 1TX	0	12.50%	30.2	30.2	30.2	28.5	30.0	29.3
GSM1900 GPRS 2TX	0	25.00%	28.7	28.7	28.7	25.5	27.0	26.3
GSM1900 GPRS 3TX	0	37.50%	28.2	28.2	28.2	23.7	25.2	24.5
GSM1900 GPRS 4TX	0	50.00%	27.2	27.2	27.2	22.5	24.0	23.3
GSM1900 EDGE 1TX	0	12.50%	25.2	25.2	25.2	25.2	25.2	25.2
GSM1900 EDGE 2TX	0	25.00%	24.2	24.2	24.2	24.2	24.2	24.2
GSM1900 EDGE 3TX	0	37.50%	24.2	24.2	24.2	23.7	24.2	24.2
GSM1900 EDGE 4TX	0	50.00%	23.2	23.2	23.2	22.5	23.2	23.2
GSM1900 GPRS 1TX	2	12.50%	31.0	31.0	31.0	29.5	30.2	29.5
GSM1900 GPRS 2TX	2	25.00%	29.5	29.5	29.5	26.5	27.2	26.5
GSM1900 GPRS 3TX	2	37.50%	29.0	29.0	29.0	24.7	25.4	24.7
GSM1900 GPRS 4TX	2	50.00%	28.0	28.0	28.0	23.5	24.2	23.5
GSM1900 EDGE 1TX	2	12.50%	26.0	26.0	26.0	26.0	26.0	26.0
GSM1900 EDGE 2TX	2	25.00%	25.0	25.0	25.0	25.0	25.0	25.0
GSM1900 EDGE 3TX	2	37.50%	25.0	25.0	25.0	24.7	25.0	24.7
GSM1900 EDGE 4TX	2	50.00%	24.0	24.0	24.0	23.5	24.0	23.5
WCDMA B2	0	100.00%	25.2	25.2	25.2	18.7	20.8	20.1
WCDMA B2	2	100.00%	25.4	25.4	25.4	20.7	21.4	20.7
WCDMA B4	0	100.00%	25.2	25.2	25.2	19.0	19.7	19.0
WCDMA B4	2	100.00%	25.4	25.4	25.4	20.7	21.4	20.7
WCDMA B5	0	100.00%	25.4	25.4	25.4	25.4	25.4	25.4
WCDMA B5	1	100.00%	25.5	22.7	22.0	25.5	25.5	25.5



Maximum Transmit Burst Average Power (dBm)								
Band	Antenna	Duty cycle	Maximum Power Condition	Head	Head	Hotspot	Body-worn	Body-worn
			Index 1	Standalone	Simultaneous	Simultaneous	Standalone	Simultaneous
			Index 1	Index 2	Index 3	Index 4	Index 5	Index 6
LTE B2	1	100.00%	25.4	17.0	16.3	20.8	21.5	20.8
LTE B2	5	100.00%	25.2	19.6	18.9	21.7	22.4	21.7
LTE B7	0	100.00%	25.0	25.0	25.0	17.7	22.0	21.3
LTE B7	2	100.00%	25.4	25.4	25.4	21.5	22.2	21.5
LTE B12/17	0	100.00%	25.4	25.4	25.4	25.4	25.4	25.4
LTE B12/17	1	100.00%	25.5	23.2	22.5	25.5	25.5	25.5
LTE B13	0	100.00%	25.4	25.4	25.4	25.4	25.4	25.4
LTE B13	1	100.00%	25.5	24.2	23.5	25.5	25.5	25.5
LTE B14	0	100.00%	25.4	25.4	25.4	25.4	25.4	25.4
LTE B14	1	100.00%	25.5	23.3	22.6	25.5	25.5	25.5
LTE B25/2	0	100.00%	25.2	25.2	25.2	18.2	20.5	19.8
LTE B25/2	2	100.00%	25.4	25.4	25.4	21.0	21.7	21.0
LTE B26/5	0	100.00%	25.4	25.4	25.4	25.4	25.4	25.4
LTE B26/5	1	100.00%	25.4	21.8	21.1	25.4	25.4	25.4
LTE B30	0	100.00%	23.4	23.4	23.4	18.2	20.8	20.1
LTE B30	2	100.00%	23.1	23.1	23.1	20.9	21.6	20.9
LTE B41/38 PC3	0	63.30%	23.5	23.5	23.5	19.3	23.1	22.4
LTE B41/38 PC3	2	63.30%	23.9	23.9	23.9	23.2	23.9	23.2
LTE B41/38 PC2	0	43.30%	26.5	26.5	26.5	20.9	24.7	24.0
LTE B41/38 PC2	2	43.30%	26.9	26.9	26.9	24.8	25.5	24.8
LTE B48 PC3	6	63.30%	22.4	22.4	22.4	20.7	21.4	20.7
LTE B48 PC3	7	63.30%	24.7	24.7	24.7	23.7	24.4	23.7
LTE B66/4	0	100.00%	25.2	25.2	25.2	18.4	19.9	19.2
LTE B66/4	1	100.00%	25.4	18.0	17.3	22.0	22.7	22.0
LTE B66/4	2	100.00%	25.4	25.4	25.4	21.0	21.7	21.0
LTE B66/4	5	100.00%	25.2	20.5	19.8	22.4	23.1	22.4
LTE B71	0	100.00%	25.4	25.4	25.4	25.4	25.4	25.4
LTE B71	1	100.00%	25.5	23.9	23.2	25.5	25.5	25.5



Maximum Transmit Burst Average Power (dBm)								
Band	Antenna	Duty cycle	Maximum Power Condition	Head	Head	Hotspot	Body-worn	Body-worn
			Index 1	Standalone	Simultaneous	Simultaneous	Standalone	Simultaneous
				Index 2	Index 3	Index 4	Index 5	Index 6
FR1 n2	1	100.00%	25.4	17.2	16.5	20.8	21.6	20.9
FR1 n2	5	100.00%	25.2	18.7	18.0	21.6	23.0	22.3
FR1 n5	0	100.00%	25.4	25.4	25.4	25.4	25.4	25.4
FR1 n5	1	100.00%	25.4	22.6	21.9	25.4	25.4	25.4
FR1 n7	0	100.00%	24.3	24.3	24.3	18.4	21.9	21.2
FR1 n7	2	100.00%	25.4	25.4	25.4	22.1	22.8	22.1
FR1 n12	0	100.00%	25.4	25.4	25.4	25.4	25.4	25.4
FR1 n12	1	100.00%	25.2	25.2	24.6	25.2	25.2	25.2
FR1 n25/2	0	100.00%	25.2	25.2	25.2	18.8	20.6	19.9
FR1 n25/2	2	100.00%	25.4	25.4	25.4	20.6	21.3	20.6
FR1 n30	0	100.00%	23.4	23.4	23.4	18.2	20.7	20.0
FR1 n30	2	100.00%	23.1	23.1	23.1	21.6	22.3	21.6
FR1 n38 PC3	0	100.00%	25.0	25.0	25.0	18.8	22.4	21.7
FR1 n38 PC3	1	100.00%	25.4	17.7	17.0	21.1	23.0	22.3
FR1 n38 PC3	2	100.00%	25.4	25.4	25.4	21.2	21.9	21.2
FR1 n38 PC3	5	100.00%	25.0	21.1	20.4	20.4	22.3	21.6
FR1 n41 PC3	0	100.00%	23.5	23.5	23.5	18.8	22.4	21.7
FR1 n41 PC3	1	100.00%	23.9	17.7	17.0	21.1	23.0	22.3
FR1 n41 PC3	2	100.00%	23.9	23.9	23.9	21.2	21.9	21.2
FR1 n41 PC3	5	100.00%	23.5	21.1	20.4	20.4	22.3	21.6
FR1 n41 PC2	0	50.00%	26.5	26.5	26.5	21.8	25.4	24.7
FR1 n41 PC2	1	50.00%	26.9	20.7	20.0	24.1	26.0	25.3
FR1 n41 PC2	2	50.00%	26.9	26.9	26.9	24.2	24.9	24.2
FR1 n41 PC2	5	50.00%	26.2	24.1	23.4	23.4	25.3	24.6
FR1 n66	0	100.00%	25.2	25.2	25.2	18.9	19.6	18.9
FR1 n66	1	100.00%	25.4	18.4	17.7	22.3	23.0	22.3
FR1 n66	2	100.00%	25.4	25.4	25.4	22.1	22.8	22.1
FR1 n66	5	100.00%	25.2	19.7	19.0	22.6	23.3	22.6
FR1 n71	0	100.00%	25.4	25.4	25.4	25.4	25.4	25.4
FR1 n71	1	100.00%	25.2	25.2	24.5	25.2	25.2	25.2
FR1 n77 PC3	1	100.00%	24.1	17.6	16.9	18.0	21.7	21.0
FR1 n77 PC3	5	100.00%	23.6	20.9	20.2	20.8	23.6	22.9
FR1 n77 PC3	6	100.00%	24.6	24.6	24.6	21.7	22.4	21.7
FR1 n77 PC3	7	100.00%	24.0	24.0	24.0	24.0	24.0	24.0
FR1 n77 PC2	1	50.00%	27.1	20.6	19.9	21.0	24.7	24.0
FR1 n77 PC2	5	50.00%	26.6	23.9	23.2	23.8	26.6	25.9
FR1 n77 PC2	6	50.00%	27.6	27.6	27.6	24.7	25.4	24.7
FR1 n77 PC2	7	50.00%	26.4	26.4	26.4	26.4	26.4	26.4
FR1 n78 PC3	1	100.00%	24.1	17.6	16.9	18.0	21.7	21.0
FR1 n78 PC3	5	100.00%	24.3	20.9	20.2	20.8	23.6	22.9
FR1 n78 PC3	6	100.00%	24.1	24.1	24.1	21.7	22.4	21.7
FR1 n78 PC3	7	100.00%	24.0	24.0	24.0	24.0	24.0	24.0
FR1 n78 PC2	6	50.00%	27.1	27.1	27.1	24.7	25.4	24.7
FR1 n78 PC2	7	50.00%	26.0	26.0	26.0	26.0	26.0	26.0



**<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 18 of this report. Full details about the proprietary power management decision are illustrated in the operational description.
2. 4+3(3) represents the test in 2TX operation, while the SAR or power data is associated with antenna 3
3. 4+3(4) represents the test in 2TX operation, while the SAR or power data is associated with antenna 4

**<Maximum Power – Power index 0>**

**<2.4GHz WLAN>**

Burst Average Power (dBm)				
Transmit Antenna				SISO Ant 3
2.4GHz WLAN	Mode	Tune-Up Limit	Frequency (MHz)	Tune-Up Limit
	802.11b 1Mbps	1	2412	22.50
		6	2437	22.50
		11	2462	22.50
		12	2467	22.50
		13	2472	20.50

Burst Average Power (dBm)				
Transmit Antenna				SISO Ant 4
2.4GHz WLAN	Mode	Tune-Up Limit	Frequency (MHz)	Tune-Up Limit
	802.11b 1Mbps	1	2412	22.50
		6	2437	22.50
		11	2462	22.50
		12	2467	22.50
		13	2472	21.50

Burst Average Power (dBm)								
2.4GHz WLAN	Transmit Antenna	Mode	Channel	Frequency (MHz)	MIMO			
					Ant 3+4(3)	Ant 3+4(4)	Ant 3+4	
					Tune-Up Limit	Tune-Up Limit	Tune-Up Limit	
	802.11g 6Mbps		1	2412	22.00	22.00	25.00	
			6	2437	22.00	22.00	25.00	
			11	2462	18.50	18.50	21.50	
			12	2467	15.50	15.50	18.50	
			13	2472	13.50	13.50	16.50	
	802.11n-HT20 MCS0			1	2412	21.00	21.00	24.00
				6	2437	21.00	21.00	24.00
				11	2462	18.00	18.00	21.00
				12	2467	17.00	17.00	20.00
				13	2472	15.00	15.00	18.00
	802.11ac-VHT20 MCS0			1	2412	21.00	21.00	24.00
				6	2437	21.00	21.00	24.00
				11	2462	18.00	18.00	21.00
				12	2467	17.00	17.00	20.00
				13	2472	15.00	15.00	18.00
	802.11ax-HE20 MCS0			1	2412	21.00	21.00	24.00
				6	2437	21.00	21.00	24.00
				11	2462	18.00	18.00	21.00
				12	2467	17.00	17.00	20.00
				13	2472	15.00	15.00	18.00
802.11be-EHT20 MCS0			1	2412	21.00	21.00	24.00	
			6	2437	21.00	21.00	24.00	
			11	2462	18.00	18.00	21.00	
			12	2467	17.00	17.00	20.00	
			13	2472	15.00	15.00	18.00	



<5GHz WLAN>

Burst Average Power (dBm)						
5.2GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		36	5180	20.50	20.50	23.50
		40	5200	20.50	20.50	23.50
		44	5220	20.50	20.50	23.50
		48	5240	20.50	20.50	23.50
802.11n-HT20 MCS0		36	5180	20.50	20.50	23.50
		40	5200	20.50	20.50	23.50
		44	5220	20.50	20.50	23.50
		48	5240	20.50	20.50	23.50
802.11n-HT40 MCS0		38	5190	17.50	17.50	20.50
		46	5230	20.50	20.50	23.50
802.11ac-VHT20 MCS0		36	5180	20.50	20.50	23.50
		40	5200	20.50	20.50	23.50
		44	5220	20.50	20.50	23.50
		48	5240	20.50	20.50	23.50
802.11ac-VHT40 MCS0		38	5190	17.50	17.50	20.50
		46	5230	20.50	20.50	23.50
802.11ac-VHT80 MCS0		42	5210	17.50	17.50	20.50
802.11ax-HE20 MCS0		36	5180	20.50	20.50	23.50
		40	5200	20.50	20.50	23.50
		44	5220	20.50	20.50	23.50
		48	5240	20.50	20.50	23.50
802.11ax-HE40 MCS0		38	5190	17.50	17.50	20.50
		46	5230	20.50	20.50	23.50
802.11ax-HE80 MCS0		42	5210	17.50	17.50	20.50
802.11be-EHT20 MCS0		36	5180	20.50	20.50	23.50
		40	5200	20.50	20.50	23.50
		44	5220	20.50	20.50	23.50
		48	5240	20.50	20.50	23.50
802.11be-EHT40 MCS0		38	5190	17.50	17.50	20.50
		46	5230	20.50	20.50	23.50
802.11be-EHT80 MCS0		42	5210	17.50	17.50	20.50



Burst Average Power (dBm)						
5.3GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		52	5260	20.50	20.50	23.50
		56	5280	20.50	20.50	23.50
		60	5300	20.50	20.50	23.50
		64	5320	20.50	20.50	23.50
802.11n-HT20 MCS0		52	5260	20.50	20.50	23.50
		56	5280	20.50	20.50	23.50
		60	5300	20.50	20.50	23.50
		64	5320	20.50	20.50	23.50
802.11n-HT40 MCS0		54	5270	20.50	20.50	23.50
		62	5310	17.00	17.00	20.00
802.11ac-VHT20 MCS0		52	5260	20.50	20.50	23.50
		56	5280	20.50	20.50	23.50
		60	5300	20.50	20.50	23.50
		64	5320	20.50	20.50	23.50
802.11ac-VHT40 MCS0		54	5270	20.50	20.50	23.50
		62	5310	17.00	17.00	20.00
802.11ac-VHT80 MCS0		58	5290	17.00	17.00	20.00
		50	5250	14.50	14.50	17.50
802.11ac-VHT160 MCS0		52	5260	20.50	20.50	23.50
		56	5280	20.50	20.50	23.50
		60	5300	20.50	20.50	23.50
		64	5320	20.50	20.50	23.50
802.11ax-HE20 MCS0		54	5270	20.50	20.50	23.50
		62	5310	17.00	17.00	20.00
802.11ax-HE40 MCS0		58	5290	17.00	17.00	20.00
		50	5250	14.50	14.50	17.50
802.11ax-HE80 MCS0		52	5260	20.50	20.50	23.50
		56	5280	20.50	20.50	23.50
		60	5300	20.50	20.50	23.50
		64	5320	20.50	20.50	23.50
802.11ax-HE160 MCS0		54	5270	20.50	20.50	23.50
		62	5310	17.00	17.00	20.00
802.11be-EHT20 MCS0		58	5290	17.00	17.00	20.00
		50	5250	14.50	14.50	17.50
		52	5260	20.50	20.50	23.50
		56	5280	20.50	20.50	23.50
802.11be-EHT40 MCS0		60	5300	20.50	20.50	23.50
		64	5320	20.50	20.50	23.50
		54	5270	20.50	20.50	23.50
		62	5310	17.00	17.00	20.00
802.11be-EHT80 MCS0		58	5290	17.00	17.00	20.00
		50	5250	14.50	14.50	17.50
802.11be-EHT160 MCS0		52	5260	20.50	20.50	23.50
		56	5280	20.50	20.50	23.50



Burst Average Power (dBm)						
5.5GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		100	5500	20.00	20.00	23.00
		116	5580	20.00	20.00	23.00
		124	5620	20.00	20.00	23.00
		132	5660	20.00	20.00	23.00
		144	5720	19.00	19.00	22.00
802.11n-HT20 MCS0		100	5500	20.00	20.00	23.00
		116	5580	20.00	20.00	23.00
		124	5620	18.50	18.50	21.50
		132	5660	18.50	18.50	21.50
		144	5720	20.00	20.00	23.00
802.11n-HT40 MCS0		102	5510	16.00	16.00	19.00
		110	5550	20.00	20.00	23.00
		126	5630	16.00	16.00	19.00
		134	5670	20.00	20.00	23.00
		142	5710	20.00	20.00	23.00
802.11ac-VHT20 MCS0		100	5500	20.00	20.00	23.00
		116	5580	20.00	20.00	23.00
		124	5620	18.50	18.50	21.50
		132	5660	18.50	18.50	21.50
		144	5720	20.00	20.00	23.00
802.11ac-VHT40 MCS0		102	5510	16.00	16.00	19.00
		110	5550	20.00	20.00	23.00
		126	5630	16.00	16.00	19.00
		134	5670	20.00	20.00	23.00
		142	5710	20.00	20.00	23.00
802.11ac-VHT80 MCS0		106	5530	16.50	16.50	19.50
		122	5610	20.00	20.00	23.00
		138	5690	20.00	20.00	23.00
		114	5570	16.00	16.00	19.00
		802.11ac-VHT160 MCS0		100	5500	20.00
802.11ax-HE20 MCS0		116	5580	20.00	20.00	23.00
		124	5620	18.50	18.50	21.50
		132	5660	18.50	18.50	21.50
		144	5720	20.00	20.00	23.00
		102	5510	16.00	16.00	19.00
802.11ax-HE40 MCS0		110	5550	20.00	20.00	23.00
		126	5630	16.00	16.00	19.00
		134	5670	20.00	20.00	23.00
		142	5710	20.00	20.00	23.00
		106	5530	16.50	16.50	19.50
802.11ax-HE80 MCS0		122	5610	20.00	20.00	23.00
		138	5690	20.00	20.00	23.00
		114	5570	16.00	16.00	19.00
802.11ax-HE160 MCS0		100	5500	20.00	20.00	23.00
802.11be-EHT20 MCS0		116	5580	20.00	20.00	23.00
		124	5620	18.50	18.50	21.50
		132	5660	18.50	18.50	21.50
		144	5720	20.00	20.00	23.00
		102	5510	16.00	16.00	19.00
802.11be-EHT40 MCS0		110	5550	20.00	20.00	23.00
		126	5630	16.00	16.00	19.00
		134	5670	20.00	20.00	23.00
		142	5710	20.00	20.00	23.00
		106	5530	16.50	16.50	19.50
802.11be-EHT80 MCS0		122	5610	20.00	20.00	23.00
		138	5690	20.00	20.00	23.00
		114	5570	16.00	16.00	19.00
802.11be-EHT160 MCS0		100	5500	20.00	20.00	23.00



Burst Average Power (dBm)						
5.8GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		149	5745	19.50	19.50	22.50
		157	5785	19.50	19.50	22.50
		165	5825	19.50	19.50	22.50
802.11n-HT20 MCS0		149	5745	19.50	19.50	22.50
		157	5785	19.50	19.50	22.50
		165	5825	19.50	19.50	22.50
802.11n-HT40 MCS0		151	5755	20.00	20.00	23.00
		159	5795	20.00	20.00	23.00
802.11ac-VHT20 MCS0		149	5745	19.50	19.50	22.50
		157	5785	19.50	19.50	22.50
		165	5825	19.50	19.50	22.50
802.11ac-VHT40 MCS0		151	5755	20.00	20.00	23.00
		159	5795	20.00	20.00	23.00
802.11ac-VHT80 MCS0		155	5775	20.00	20.00	23.00
		149	5745	19.50	19.50	22.50
802.11ax-HE20 MCS0		157	5785	19.50	19.50	22.50
		165	5825	19.50	19.50	22.50
		151	5755	20.00	20.00	23.00
802.11ax-HE40 MCS0		159	5795	20.00	20.00	23.00
		155	5775	20.00	20.00	23.00
802.11ax-HE80 MCS0		149	5745	19.50	19.50	22.50
		157	5785	19.50	19.50	22.50
802.11be-EHT20 MCS0		165	5825	19.50	19.50	22.50
		151	5755	20.00	20.00	23.00
		159	5795	20.00	20.00	23.00
802.11be-EHT40 MCS0		155	5775	20.00	20.00	23.00
		149	5745	19.50	19.50	22.50

Burst Average Power (dBm)						
5.9GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		169	5845	18.00	19.50	21.50
		173	5865	18.00	19.50	21.50
		177	5885	17.00	19.50	21.00
802.11n-HT20 MCS0		169	5845	18.00	19.50	21.50
		173	5865	18.00	19.50	21.50
		177	5885	17.00	19.50	21.00
802.11n-HT40 MCS0		167	5835	19.00	19.00	22.00
		175	5875	19.00	19.00	22.00
802.11ac-VHT20 MCS0		169	5845	18.00	19.50	21.50
		173	5865	18.00	19.50	21.50
		177	5885	17.00	19.50	21.00
802.11ac-VHT40 MCS0		167	5835	19.00	19.00	22.00
		175	5875	19.00	19.00	22.00
802.11ac-VHT80 MCS0		171	5855	19.50	19.50	22.50
		163	5815	19.50	19.50	22.50
802.11ac-VHT160 MCS0		169	5845	18.00	19.50	21.50
		173	5865	18.00	19.50	21.50
		177	5885	17.00	19.50	21.00
802.11ax-HE20 MCS0		167	5835	19.00	19.00	22.00
		175	5875	19.00	19.00	22.00
		171	5855	19.50	19.50	22.50
802.11ax-HE40 MCS0		163	5815	19.50	19.50	22.50
		169	5845	18.00	19.50	21.50
802.11ax-HE80 MCS0		173	5865	18.00	19.50	21.50
		177	5885	17.00	19.50	21.00
		167	5835	19.00	19.00	22.00
802.11be-EHT20 MCS0		175	5875	19.00	19.00	22.00
		171	5855	19.50	19.50	22.50
		163	5815	19.50	19.50	22.50
802.11be-EHT40 MCS0		169	5845	18.00	19.50	21.50
		173	5865	18.00	19.50	21.50
802.11be-EHT80 MCS0		177	5885	17.00	19.50	21.00
		167	5835	19.00	19.00	22.00
		175	5875	19.00	19.00	22.00
802.11be-EHT160 MCS0		171	5855	19.50	19.50	22.50
		163	5815	19.50	19.50	22.50





<Power index 1> Non-RSDB

<2.4GHz WLAN>

Burst Average Power (dBm)				
Transmit Antenna				SISO Ant 3
2.4GHz WLAN	Mode	Tune-Up Limit	Frequency (MHz)	Tune-Up Limit
	802.11b 1Mbps	1	2412	20.00
		6	2437	20.00
		11	2462	20.00
		12	2467	20.00
13	2472	20.00		

Burst Average Power (dBm)				
Transmit Antenna				SISO Ant 4
2.4GHz WLAN	Mode	Tune-Up Limit	Frequency (MHz)	Tune-Up Limit
	802.11b 1Mbps	1	2412	16.00
		6	2437	16.00
		11	2462	16.00
		12	2467	16.00
13	2472	16.00		

Burst Average Power (dBm)						
Transmit Antenna				MIMO		
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
	802.11g 6Mbps	1	2412	16.00	16.00	19.00
		6	2437	16.00	16.00	19.00
		11	2462	16.00	16.00	19.00
12		2467	15.50	15.50	18.50	
802.11n-HT20 MCS0	13	2472	13.50	13.50	16.50	
	1	2412	16.00	16.00	19.00	
	6	2437	16.00	16.00	19.00	
	11	2462	16.00	16.00	19.00	
802.11ac-VHT20 MCS0	12	2467	16.00	16.00	19.00	
	13	2472	15.00	15.00	18.00	
	1	2412	16.00	16.00	19.00	
	6	2437	16.00	16.00	19.00	
802.11ax-HE20 MCS0	11	2462	16.00	16.00	19.00	
	12	2467	16.00	16.00	19.00	
	13	2472	15.00	15.00	18.00	
	1	2412	16.00	16.00	19.00	
802.11be-EHT20 MCS0	6	2437	16.00	16.00	19.00	
	11	2462	16.00	16.00	19.00	
	12	2467	16.00	16.00	19.00	
	13	2472	15.00	15.00	18.00	



<5GHz WLAN>

Burst Average Power (dBm)						
5.2GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		36	5180	19.00	19.00	22.00
		40	5200	19.00	19.00	22.00
		44	5220	19.00	19.00	22.00
		48	5240	19.00	19.00	22.00
802.11n-HT20 MCS0		36	5180	19.00	19.00	22.00
		40	5200	19.00	19.00	22.00
		44	5220	19.00	19.00	22.00
		48	5240	19.00	19.00	22.00
802.11n-HT40 MCS0		38	5190	17.50	17.50	20.50
		46	5230	19.00	19.00	22.00
802.11ac-VHT20 MCS0		36	5180	19.00	19.00	22.00
		40	5200	19.00	19.00	22.00
		44	5220	19.00	19.00	22.00
		48	5240	19.00	19.00	22.00
802.11ac-VHT40 MCS0		38	5190	17.50	17.50	20.50
		46	5230	19.00	19.00	22.00
802.11ac-VHT80 MCS0		42	5210	17.50	17.50	20.50
		46	5230	19.00	19.00	22.00
802.11ax-HE20 MCS0		36	5180	19.00	19.00	22.00
		40	5200	19.00	19.00	22.00
		44	5220	19.00	19.00	22.00
		48	5240	19.00	19.00	22.00
802.11ax-HE40 MCS0		38	5190	17.50	17.50	20.50
		46	5230	19.00	19.00	22.00
802.11ax-HE80 MCS0		42	5210	17.50	17.50	20.50
		46	5230	19.00	19.00	22.00
802.11be-EHT20 MCS0		36	5180	19.00	19.00	22.00
		40	5200	19.00	19.00	22.00
		44	5220	19.00	19.00	22.00
		48	5240	19.00	19.00	22.00
802.11be-EHT40 MCS0		38	5190	17.50	17.50	20.50
		46	5230	19.00	19.00	22.00
802.11be-EHT80 MCS0		42	5210	17.50	17.50	20.50
		46	5230	19.00	19.00	22.00



Burst Average Power (dBm)						
5.3GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		52	5260	19.00	19.00	22.00
		56	5280	19.00	19.00	22.00
		60	5300	19.00	19.00	22.00
		64	5320	19.00	19.00	22.00
802.11n-HT20 MCS0		52	5260	19.00	19.00	22.00
		56	5280	19.00	19.00	22.00
		60	5300	19.00	19.00	22.00
		64	5320	19.00	19.00	22.00
802.11n-HT40 MCS0		54	5270	19.00	19.00	22.00
		62	5310	17.00	17.00	20.00
802.11ac-VHT20 MCS0		52	5260	19.00	19.00	22.00
		56	5280	19.00	19.00	22.00
		60	5300	19.00	19.00	22.00
		64	5320	19.00	19.00	22.00
802.11ac-VHT40 MCS0		54	5270	19.00	19.00	22.00
		62	5310	17.00	17.00	20.00
802.11ac-VHT80 MCS0		58	5290	17.00	17.00	20.00
		50	5250	14.50	14.50	17.50
802.11ac-VHT160 MCS0		52	5260	19.00	19.00	22.00
		56	5280	19.00	19.00	22.00
		60	5300	19.00	19.00	22.00
		64	5320	19.00	19.00	22.00
802.11ax-HE20 MCS0		54	5270	19.00	19.00	22.00
		62	5310	17.00	17.00	20.00
802.11ax-HE40 MCS0		58	5290	17.00	17.00	20.00
		50	5250	14.50	14.50	17.50
802.11ax-HE80 MCS0		52	5260	19.00	19.00	22.00
		56	5280	19.00	19.00	22.00
		60	5300	19.00	19.00	22.00
		64	5320	19.00	19.00	22.00
802.11ax-HE160 MCS0		54	5270	19.00	19.00	22.00
		62	5310	17.00	17.00	20.00
802.11be-EHT20 MCS0		58	5290	17.00	17.00	20.00
		50	5250	14.50	14.50	17.50
		52	5260	19.00	19.00	22.00
		56	5280	19.00	19.00	22.00
802.11be-EHT40 MCS0		60	5300	19.00	19.00	22.00
		64	5320	19.00	19.00	22.00
802.11be-EHT80 MCS0		54	5270	19.00	19.00	22.00
		62	5310	17.00	17.00	20.00
802.11be-EHT160 MCS0		58	5290	17.00	17.00	20.00
		50	5250	14.50	14.50	17.50



Burst Average Power (dBm)						
5.5GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		100	5500	18.00	18.00	21.00
		116	5580	18.00	18.00	21.00
		124	5620	18.00	18.00	21.00
		132	5660	18.00	18.00	21.00
		144	5720	18.00	18.00	21.00
802.11n-HT20 MCS0		100	5500	18.00	18.00	21.00
		116	5580	18.00	18.00	21.00
		124	5620	18.00	18.00	21.00
		132	5660	18.00	18.00	21.00
		144	5720	18.00	18.00	21.00
802.11n-HT40 MCS0		102	5510	16.00	16.00	19.00
		110	5550	18.00	18.00	21.00
		126	5630	16.00	16.00	19.00
		134	5670	18.00	18.00	21.00
		142	5710	18.00	18.00	21.00
802.11ac-VHT20 MCS0		100	5500	18.00	18.00	21.00
		116	5580	18.00	18.00	21.00
		124	5620	18.00	18.00	21.00
		132	5660	18.00	18.00	21.00
		144	5720	18.00	18.00	21.00
802.11ac-VHT40 MCS0		102	5510	16.00	16.00	19.00
		110	5550	18.00	18.00	21.00
		126	5630	16.00	16.00	19.00
		134	5670	18.00	18.00	21.00
		142	5710	18.00	18.00	21.00
802.11ac-VHT80 MCS0		106	5530	16.50	16.50	19.50
		122	5610	18.00	18.00	21.00
		138	5690	18.00	18.00	21.00
		114	5570	16.00	16.00	19.00
		802.11ac-VHT160 MCS0		100	5500	18.00
802.11ax-HE20 MCS0		116	5580	18.00	18.00	21.00
		124	5620	18.00	18.00	21.00
		132	5660	18.00	18.00	21.00
		144	5720	18.00	18.00	21.00
		102	5510	16.00	16.00	19.00
802.11ax-HE40 MCS0		110	5550	18.00	18.00	21.00
		126	5630	16.00	16.00	19.00
		134	5670	18.00	18.00	21.00
		142	5710	18.00	18.00	21.00
		106	5530	16.50	16.50	19.50
802.11ax-HE80 MCS0		122	5610	18.00	18.00	21.00
		138	5690	18.00	18.00	21.00
		114	5570	16.00	16.00	19.00
802.11ax-HE160 MCS0		100	5500	18.00	18.00	21.00
802.11be-EHT20 MCS0		116	5580	18.00	18.00	21.00
		124	5620	18.00	18.00	21.00
		132	5660	18.00	18.00	21.00
		144	5720	18.00	18.00	21.00
		102	5510	16.00	16.00	19.00
802.11be-EHT40 MCS0		110	5550	18.00	18.00	21.00
		126	5630	16.00	16.00	19.00
		134	5670	18.00	18.00	21.00
		142	5710	18.00	18.00	21.00
		106	5530	16.50	16.50	19.50
802.11be-EHT80 MCS0		122	5610	18.00	18.00	21.00
		138	5690	18.00	18.00	21.00
		114	5570	16.00	16.00	19.00
802.11be-EHT160 MCS0		100	5500	18.00	18.00	21.00



Burst Average Power (dBm)						
5.8GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		149	5745	19.00	19.00	22.00
		157	5785	19.00	19.00	22.00
		165	5825	19.00	19.00	22.00
802.11n-HT20 MCS0		149	5745	19.00	19.00	22.00
		157	5785	19.00	19.00	22.00
		165	5825	19.00	19.00	22.00
802.11n-HT40 MCS0		151	5755	19.00	19.00	22.00
		159	5795	19.00	19.00	22.00
802.11ac-VHT20 MCS0		149	5745	19.00	19.00	22.00
		157	5785	19.00	19.00	22.00
		165	5825	19.00	19.00	22.00
802.11ac-VHT40 MCS0		151	5755	19.00	19.00	22.00
		159	5795	19.00	19.00	22.00
802.11ac-VHT80 MCS0		155	5775	19.00	19.00	22.00
		149	5745	19.00	19.00	22.00
802.11ax-HE20 MCS0		157	5785	19.00	19.00	22.00
		165	5825	19.00	19.00	22.00
		151	5755	19.00	19.00	22.00
802.11ax-HE40 MCS0		159	5795	19.00	19.00	22.00
		155	5775	19.00	19.00	22.00
802.11ax-HE80 MCS0		149	5745	19.00	19.00	22.00
		157	5785	19.00	19.00	22.00
802.11be-EHT20 MCS0		165	5825	19.00	19.00	22.00
		151	5755	19.00	19.00	22.00
		159	5795	19.00	19.00	22.00
802.11be-EHT40 MCS0		155	5775	19.00	19.00	22.00
		149	5745	19.00	19.00	22.00
802.11be-EHT80 MCS0		157	5785	19.00	19.00	22.00
		155	5775	19.00	19.00	22.00

Burst Average Power (dBm)						
5.9GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		169	5845	17.50	17.50	20.50
		173	5865	17.50	17.50	20.50
		177	5885	17.00	17.50	20.50
802.11n-HT20 MCS0		169	5845	17.50	17.50	20.50
		173	5865	17.50	17.50	20.50
		177	5885	17.00	17.50	20.50
802.11n-HT40 MCS0		167	5835	17.50	17.50	20.50
		175	5875	17.50	17.50	20.50
802.11ac-VHT20 MCS0		169	5845	17.50	17.50	20.50
		173	5865	17.50	17.50	20.50
		177	5885	17.00	17.50	20.50
802.11ac-VHT40 MCS0		167	5835	17.50	17.50	20.50
		175	5875	17.50	17.50	20.50
802.11ac-VHT80 MCS0		171	5855	17.50	17.50	20.50
		163	5815	17.50	17.50	20.50
802.11ac-VHT160 MCS0		169	5845	17.50	17.50	20.50
		173	5865	17.50	17.50	20.50
		177	5885	17.00	17.50	20.50
802.11ax-HE20 MCS0		167	5835	17.50	17.50	20.50
		175	5875	17.50	17.50	20.50
		171	5855	17.50	17.50	20.50
802.11ax-HE40 MCS0		163	5815	17.50	17.50	20.50
		169	5845	17.50	17.50	20.50
802.11ax-HE80 MCS0		173	5865	17.50	17.50	20.50
		177	5885	17.00	17.50	20.50
		167	5835	17.50	17.50	20.50
802.11be-EHT20 MCS0		175	5875	17.50	17.50	20.50
		171	5855	17.50	17.50	20.50
802.11be-EHT40 MCS0		163	5815	17.50	17.50	20.50
		169	5845	17.50	17.50	20.50
		173	5865	17.50	17.50	20.50
802.11be-EHT80 MCS0		177	5885	17.00	17.50	20.50
		167	5835	17.50	17.50	20.50
802.11be-EHT160 MCS0		175	5875	17.50	17.50	20.50
		171	5855	17.50	17.50	20.50



<Power index 2> RSDB

<2.4GHz WLAN>

Burst Average Power (dBm)					
Transmit Antenna				SISO Ant 3	
2.4GHz WLAN	Mode	Tune-Up Limit	Frequency (MHz)	Tune-Up Limit	
	802.11b 1Mbps		1	2412	19.00
			6	2437	19.00
			11	2462	19.00
			12	2467	19.00
			13	2472	19.00

Burst Average Power (dBm)					
Transmit Antenna				SISO Ant 4	
2.4GHz WLAN	Mode	Tune-Up Limit	Frequency (MHz)	Tune-Up Limit	
	802.11b 1Mbps		1	2412	15.00
			6	2437	15.00
			11	2462	15.00
			12	2467	15.00
			13	2472	15.00

Burst Average Power (dBm)							
Transmit Antenna				MIMO			
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4	
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit	
	802.11g 6Mbps		1	2412	14.00	14.00	17.00
			6	2437	14.00	14.00	17.00
			11	2462	14.00	14.00	17.00
			12	2467	14.00	14.00	17.00
			13	2472	13.50	13.50	16.50
	802.11n-HT20 MCS0		1	2412	14.00	14.00	17.00
			6	2437	14.00	14.00	17.00
			11	2462	14.00	14.00	17.00
			12	2467	14.00	14.00	17.00
	802.11ac-VHT20 MCS0		13	2472	14.00	14.00	17.00
			1	2412	14.00	14.00	17.00
			6	2437	14.00	14.00	17.00
			11	2462	14.00	14.00	17.00
	802.11ax-HE20 MCS0		12	2467	14.00	14.00	17.00
			13	2472	14.00	14.00	17.00
			1	2412	14.00	14.00	17.00
			6	2437	14.00	14.00	17.00
	802.11be-EHT20 MCS0		11	2462	14.00	14.00	17.00
			12	2467	14.00	14.00	17.00
			13	2472	14.00	14.00	17.00
			1	2412	14.00	14.00	17.00



<5GHz WLAN>

Burst Average Power (dBm)						
5.2GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		36	5180	18.00	18.00	21.00
		40	5200	18.00	18.00	21.00
		44	5220	18.00	18.00	21.00
		48	5240	18.00	18.00	21.00
802.11n-HT20 MCS0		36	5180	18.00	18.00	21.00
		40	5200	18.00	18.00	21.00
		44	5220	18.00	18.00	21.00
		48	5240	18.00	18.00	21.00
802.11n-HT40 MCS0		38	5190	17.50	17.50	20.50
		46	5230	18.00	18.00	21.00
802.11ac-VHT20 MCS0		36	5180	18.00	18.00	21.00
		40	5200	18.00	18.00	21.00
		44	5220	18.00	18.00	21.00
		48	5240	18.00	18.00	21.00
802.11ac-VHT40 MCS0		38	5190	17.50	17.50	20.50
		46	5230	18.00	18.00	21.00
802.11ac-VHT80 MCS0		42	5210	17.50	17.50	20.50
		46	5230	18.00	18.00	21.00
802.11ax-HE20 MCS0		36	5180	18.00	18.00	21.00
		40	5200	18.00	18.00	21.00
		44	5220	18.00	18.00	21.00
		48	5240	18.00	18.00	21.00
802.11ax-HE40 MCS0		38	5190	17.50	17.50	20.50
		46	5230	18.00	18.00	21.00
802.11ax-HE80 MCS0		42	5210	17.50	17.50	20.50
		46	5230	18.00	18.00	21.00
802.11be-EHT20 MCS0		36	5180	18.00	18.00	21.00
		40	5200	18.00	18.00	21.00
		44	5220	18.00	18.00	21.00
		48	5240	18.00	18.00	21.00
802.11be-EHT40 MCS0		38	5190	17.50	17.50	20.50
		46	5230	18.00	18.00	21.00
802.11be-EHT80 MCS0		42	5210	17.50	17.50	20.50
		46	5230	18.00	18.00	21.00



Burst Average Power (dBm)						
5.3GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		52	5260	18.00	18.00	21.00
		56	5280	18.00	18.00	21.00
		60	5300	18.00	18.00	21.00
		64	5320	18.00	18.00	21.00
802.11n-HT20 MCS0		52	5260	18.00	18.00	21.00
		56	5280	18.00	18.00	21.00
		60	5300	18.00	18.00	21.00
		64	5320	18.00	18.00	21.00
802.11n-HT40 MCS0		54	5270	18.00	18.00	21.00
		62	5310	17.00	17.00	20.00
802.11ac-VHT20 MCS0		52	5260	18.00	18.00	21.00
		56	5280	18.00	18.00	21.00
		60	5300	18.00	18.00	21.00
802.11ac-VHT40 MCS0		54	5270	18.00	18.00	21.00
		62	5310	17.00	17.00	20.00
		58	5290	17.00	17.00	20.00
802.11ac-VHT80 MCS0		50	5250	14.50	14.50	17.50
		52	5260	18.00	18.00	21.00
802.11ac-VHT160 MCS0		56	5280	18.00	18.00	21.00
		60	5300	18.00	18.00	21.00
		64	5320	18.00	18.00	21.00
802.11ax-HE20 MCS0		54	5270	18.00	18.00	21.00
		62	5310	17.00	17.00	20.00
		58	5290	17.00	17.00	20.00
802.11ax-HE40 MCS0		50	5250	14.50	14.50	17.50
		52	5260	18.00	18.00	21.00
802.11ax-HE80 MCS0		56	5280	18.00	18.00	21.00
		60	5300	18.00	18.00	21.00
		64	5320	18.00	18.00	21.00
802.11ax-HE160 MCS0		54	5270	18.00	18.00	21.00
		62	5310	17.00	17.00	20.00
802.11be-EHT20 MCS0		58	5290	17.00	17.00	20.00
		50	5250	14.50	14.50	17.50
		52	5260	18.00	18.00	21.00
		56	5280	18.00	18.00	21.00
802.11be-EHT40 MCS0		60	5300	18.00	18.00	21.00
		64	5320	18.00	18.00	21.00
		54	5270	18.00	18.00	21.00
802.11be-EHT80 MCS0		62	5310	17.00	17.00	20.00
		58	5290	17.00	17.00	20.00
802.11be-EHT160 MCS0		50	5250	14.50	14.50	17.50
		52	5260	18.00	18.00	21.00





Burst Average Power (dBm)						
5.5GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		100	5500	17.50	17.50	20.50
		116	5580	17.50	17.50	20.50
		124	5620	17.50	17.50	20.50
		132	5660	17.50	17.50	20.50
		144	5720	17.50	17.50	20.50
802.11n-HT20 MCS0		100	5500	17.50	17.50	20.50
		116	5580	17.50	17.50	20.50
		124	5620	17.50	17.50	20.50
		132	5660	17.50	17.50	20.50
		144	5720	17.50	17.50	20.50
802.11n-HT40 MCS0		102	5510	16.00	16.00	19.00
		110	5550	17.50	17.50	20.50
		126	5630	16.00	16.00	19.00
		134	5670	17.50	17.50	20.50
		142	5710	17.50	17.50	20.50
802.11ac-VHT20 MCS0		100	5500	17.50	17.50	20.50
		116	5580	17.50	17.50	20.50
		124	5620	17.50	17.50	20.50
		132	5660	17.50	17.50	20.50
		144	5720	17.50	17.50	20.50
802.11ac-VHT40 MCS0		102	5510	16.00	16.00	19.00
		110	5550	17.50	17.50	20.50
		126	5630	16.00	16.00	19.00
		134	5670	17.50	17.50	20.50
		142	5710	17.50	17.50	20.50
802.11ac-VHT80 MCS0		106	5530	16.50	16.50	19.50
		122	5610	17.50	17.50	20.50
		138	5690	17.50	17.50	20.50
		114	5570	16.00	16.00	19.00
		802.11ac-VHT160 MCS0		100	5500	17.50
802.11ax-HE20 MCS0		116	5580	17.50	17.50	20.50
		124	5620	17.50	17.50	20.50
		132	5660	17.50	17.50	20.50
		144	5720	17.50	17.50	20.50
		102	5510	16.00	16.00	19.00
802.11ax-HE40 MCS0		110	5550	17.50	17.50	20.50
		126	5630	16.00	16.00	19.00
		134	5670	17.50	17.50	20.50
		142	5710	17.50	17.50	20.50
		106	5530	16.50	16.50	19.50
802.11ax-HE80 MCS0		122	5610	17.50	17.50	20.50
		138	5690	17.50	17.50	20.50
		114	5570	16.00	16.00	19.00
802.11ax-HE160 MCS0		100	5500	17.50	17.50	20.50
802.11be-EHT20 MCS0		116	5580	17.50	17.50	20.50
		124	5620	17.50	17.50	20.50
		132	5660	17.50	17.50	20.50
		144	5720	17.50	17.50	20.50
		102	5510	16.00	16.00	19.00
802.11be-EHT40 MCS0		110	5550	17.50	17.50	20.50
		126	5630	16.00	16.00	19.00
		134	5670	17.50	17.50	20.50
		142	5710	17.50	17.50	20.50
		106	5530	16.50	16.50	19.50
802.11be-EHT80 MCS0		122	5610	17.50	17.50	20.50
		138	5690	17.50	17.50	20.50
		114	5570	16.00	16.00	19.00
802.11be-EHT160 MCS0		100	5500	17.50	17.50	20.50



Burst Average Power (dBm)						
5.8GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		149	5745	17.50	17.50	20.50
		157	5785	17.50	17.50	20.50
		165	5825	17.50	17.50	20.50
802.11n-HT20 MCS0		149	5745	17.50	17.50	20.50
		157	5785	17.50	17.50	20.50
		165	5825	17.50	17.50	20.50
802.11n-HT40 MCS0		151	5755	17.50	17.50	20.50
		159	5795	17.50	17.50	20.50
		149	5745	17.50	17.50	20.50
802.11ac-VHT20 MCS0		157	5785	17.50	17.50	20.50
		165	5825	17.50	17.50	20.50
		151	5755	17.50	17.50	20.50
802.11ac-VHT40 MCS0		159	5795	17.50	17.50	20.50
		149	5745	17.50	17.50	20.50
		157	5785	17.50	17.50	20.50
802.11ac-VHT80 MCS0		155	5775	17.50	17.50	20.50
		149	5745	17.50	17.50	20.50
		157	5785	17.50	17.50	20.50
802.11ax-HE20 MCS0		157	5785	17.50	17.50	20.50
		165	5825	17.50	17.50	20.50
		151	5755	17.50	17.50	20.50
802.11ax-HE40 MCS0		159	5795	17.50	17.50	20.50
		155	5775	17.50	17.50	20.50
		149	5745	17.50	17.50	20.50
802.11ax-HE80 MCS0		157	5785	17.50	17.50	20.50
		165	5825	17.50	17.50	20.50
		151	5755	17.50	17.50	20.50
802.11be-EHT20 MCS0		159	5795	17.50	17.50	20.50
		157	5785	17.50	17.50	20.50
		165	5825	17.50	17.50	20.50
802.11be-EHT40 MCS0		151	5755	17.50	17.50	20.50
		159	5795	17.50	17.50	20.50
		155	5775	17.50	17.50	20.50
802.11be-EHT80 MCS0		155	5775	17.50	17.50	20.50

Burst Average Power (dBm)						
5.9GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		169	5845	16.50	16.50	19.50
		173	5865	16.50	16.50	19.50
		177	5885	16.50	16.50	19.50
802.11n-HT20 MCS0		169	5845	16.50	16.50	19.50
		173	5865	16.50	16.50	19.50
		177	5885	16.50	16.50	19.50
802.11n-HT40 MCS0		167	5835	16.50	16.50	19.50
		175	5875	16.50	16.50	19.50
		169	5845	16.50	16.50	19.50
802.11ac-VHT20 MCS0		173	5865	16.50	16.50	19.50
		177	5885	16.50	16.50	19.50
		167	5835	16.50	16.50	19.50
802.11ac-VHT40 MCS0		175	5875	16.50	16.50	19.50
		171	5855	16.50	16.50	19.50
		173	5865	16.50	16.50	19.50
802.11ac-VHT80 MCS0		171	5855	16.50	16.50	19.50
		163	5815	16.50	16.50	19.50
		169	5845	16.50	16.50	19.50
802.11ax-HE20 MCS0		173	5865	16.50	16.50	19.50
		177	5885	16.50	16.50	19.50
		167	5835	16.50	16.50	19.50
802.11ax-HE40 MCS0		175	5875	16.50	16.50	19.50
		171	5855	16.50	16.50	19.50
		163	5815	16.50	16.50	19.50
802.11ax-HE80 MCS0		169	5845	16.50	16.50	19.50
		173	5865	16.50	16.50	19.50
		177	5885	16.50	16.50	19.50
802.11be-EHT20 MCS0		167	5835	16.50	16.50	19.50
		175	5875	16.50	16.50	19.50
		171	5855	16.50	16.50	19.50
802.11be-EHT40 MCS0		171	5855	16.50	16.50	19.50
		163	5815	16.50	16.50	19.50
		169	5845	16.50	16.50	19.50
802.11be-EHT80 MCS0		173	5865	16.50	16.50	19.50
		177	5885	16.50	16.50	19.50
		167	5835	16.50	16.50	19.50
802.11be-EHT160 MCS0		163	5815	16.50	16.50	19.50



<Power index 3> Non-RSDB

<2.4GHz WLAN>

Burst Average Power (dBm)				
Transmit Antenna				SISO Ant 3
2.4GHz WLAN	Mode	Tune-Up Limit	Frequency (MHz)	Tune-Up Limit
	802.11b 1Mbps	1	2412	18.00
		6	2437	18.00
		11	2462	18.00
		12	2467	18.00
		13	2472	18.00

Burst Average Power (dBm)				
Transmit Antenna				SISO Ant 4
2.4GHz WLAN	Mode	Tune-Up Limit	Frequency (MHz)	Tune-Up Limit
	802.11b 1Mbps	1	2412	12.00
		6	2437	12.00
		11	2462	12.00
		12	2467	12.00
		13	2472	12.00

Burst Average Power (dBm)						
Transmit Antenna				MIMO		
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
	802.11g 6Mbps	1	2412	11.50	11.50	14.50
		6	2437	11.50	11.50	14.50
		11	2462	11.50	11.50	14.50
		12	2467	11.50	11.50	14.50
		13	2472	11.50	11.50	14.50
	802.11n-HT20 MCS0	1	2412	11.50	11.50	14.50
		6	2437	11.50	11.50	14.50
		11	2462	11.50	11.50	14.50
		12	2467	11.50	11.50	14.50
		13	2472	11.50	11.50	14.50
	802.11ac-VHT20 MCS0	1	2412	11.50	11.50	14.50
		6	2437	11.50	11.50	14.50
		11	2462	11.50	11.50	14.50
		12	2467	11.50	11.50	14.50
		13	2472	11.50	11.50	14.50
	802.11ax-HE20 MCS0	1	2412	11.50	11.50	14.50
		6	2437	11.50	11.50	14.50
		11	2462	11.50	11.50	14.50
		12	2467	11.50	11.50	14.50
		13	2472	11.50	11.50	14.50
802.11be-EHT20 MCS0	1	2412	11.50	11.50	14.50	
	6	2437	11.50	11.50	14.50	
	11	2462	11.50	11.50	14.50	
	12	2467	11.50	11.50	14.50	
	13	2472	11.50	11.50	14.50	



<5GHz WLAN>

Burst Average Power (dBm)						
5.2GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		36	5180	14.50	14.50	17.50
		40	5200	14.50	14.50	17.50
		44	5220	14.50	14.50	17.50
		48	5240	14.50	14.50	17.50
802.11n-HT20 MCS0		36	5180	14.50	14.50	17.50
		40	5200	14.50	14.50	17.50
		44	5220	14.50	14.50	17.50
		48	5240	14.50	14.50	17.50
802.11n-HT40 MCS0		38	5190	14.50	14.50	17.50
		46	5230	14.50	14.50	17.50
802.11ac-VHT20 MCS0		36	5180	14.50	14.50	17.50
		40	5200	14.50	14.50	17.50
		44	5220	14.50	14.50	17.50
		48	5240	14.50	14.50	17.50
802.11ac-VHT40 MCS0		38	5190	14.50	14.50	17.50
		46	5230	14.50	14.50	17.50
802.11ac-VHT80 MCS0		42	5210	14.50	14.50	17.50
		42	5210	14.50	14.50	17.50
802.11ax-HE20 MCS0		36	5180	14.50	14.50	17.50
		40	5200	14.50	14.50	17.50
		44	5220	14.50	14.50	17.50
		48	5240	14.50	14.50	17.50
802.11ax-HE40 MCS0		38	5190	14.50	14.50	17.50
		46	5230	14.50	14.50	17.50
802.11ax-HE80 MCS0		42	5210	14.50	14.50	17.50
		42	5210	14.50	14.50	17.50
802.11be-EHT20 MCS0		36	5180	14.50	14.50	17.50
		40	5200	14.50	14.50	17.50
		44	5220	14.50	14.50	17.50
		48	5240	14.50	14.50	17.50
802.11be-EHT40 MCS0		38	5190	14.50	14.50	17.50
		46	5230	14.50	14.50	17.50
802.11be-EHT80 MCS0		42	5210	14.50	14.50	17.50
		42	5210	14.50	14.50	17.50



Burst Average Power (dBm)						
5.3GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		52	5260	14.50	14.50	17.50
		56	5280	14.50	14.50	17.50
		60	5300	14.50	14.50	17.50
		64	5320	14.50	14.50	17.50
802.11n-HT20 MCS0		52	5260	14.50	14.50	17.50
		56	5280	14.50	14.50	17.50
		60	5300	14.50	14.50	17.50
		64	5320	14.50	14.50	17.50
802.11n-HT40 MCS0		54	5270	14.50	14.50	17.50
		62	5310	14.50	14.50	17.50
802.11ac-VHT20 MCS0		52	5260	14.50	14.50	17.50
		56	5280	14.50	14.50	17.50
		60	5300	14.50	14.50	17.50
		64	5320	14.50	14.50	17.50
802.11ac-VHT40 MCS0		54	5270	14.50	14.50	17.50
		62	5310	14.50	14.50	17.50
802.11ac-VHT80 MCS0		58	5290	14.50	14.50	17.50
		50	5250	14.50	14.50	17.50
802.11ac-VHT160 MCS0		52	5260	14.50	14.50	17.50
		56	5280	14.50	14.50	17.50
		60	5300	14.50	14.50	17.50
		64	5320	14.50	14.50	17.50
802.11ax-HE20 MCS0		54	5270	14.50	14.50	17.50
		62	5310	14.50	14.50	17.50
802.11ax-HE40 MCS0		58	5290	14.50	14.50	17.50
		50	5250	14.50	14.50	17.50
802.11ax-HE80 MCS0		52	5260	14.50	14.50	17.50
		56	5280	14.50	14.50	17.50
		60	5300	14.50	14.50	17.50
		64	5320	14.50	14.50	17.50
802.11ax-HE160 MCS0		54	5270	14.50	14.50	17.50
		62	5310	14.50	14.50	17.50
802.11be-EHT20 MCS0		52	5260	14.50	14.50	17.50
		56	5280	14.50	14.50	17.50
		60	5300	14.50	14.50	17.50
		64	5320	14.50	14.50	17.50
802.11be-EHT40 MCS0		54	5270	14.50	14.50	17.50
		62	5310	14.50	14.50	17.50
802.11be-EHT80 MCS0		58	5290	14.50	14.50	17.50
		50	5250	14.50	14.50	17.50
802.11be-EHT160 MCS0		52	5260	14.50	14.50	17.50
		50	5250	14.50	14.50	17.50



Burst Average Power (dBm)							
5.5GHz WLAN	Transmit Antenna			MIMO			
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4	
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit	
802.11a 6Mbps	802.11a 6Mbps	100	5500	13.50	13.50	16.50	
		116	5580	13.50	13.50	16.50	
		124	5620	13.50	13.50	16.50	
		132	5660	13.50	13.50	16.50	
		144	5720	13.50	13.50	16.50	
	802.11n-HT20 MCS0	802.11n-HT20 MCS0	100	5500	13.50	13.50	16.50
			116	5580	13.50	13.50	16.50
			124	5620	13.50	13.50	16.50
			132	5660	13.50	13.50	16.50
			144	5720	13.50	13.50	16.50
	802.11n-HT40 MCS0	802.11n-HT40 MCS0	102	5510	13.50	13.50	16.50
			110	5550	13.50	13.50	16.50
			126	5630	13.50	13.50	16.50
			134	5670	13.50	13.50	16.50
			142	5710	13.50	13.50	16.50
	802.11ac-VHT20 MCS0	802.11ac-VHT20 MCS0	100	5500	13.50	13.50	16.50
116			5580	13.50	13.50	16.50	
124			5620	13.50	13.50	16.50	
132			5660	13.50	13.50	16.50	
144			5720	13.50	13.50	16.50	
802.11ac-VHT40 MCS0	802.11ac-VHT40 MCS0	102	5510	13.50	13.50	16.50	
		110	5550	13.50	13.50	16.50	
		126	5630	13.50	13.50	16.50	
		134	5670	13.50	13.50	16.50	
		142	5710	13.50	13.50	16.50	
802.11ac-VHT80 MCS0	802.11ac-VHT80 MCS0	106	5530	13.50	13.50	16.50	
		122	5610	13.50	13.50	16.50	
		138	5690	13.50	13.50	16.50	
		114	5570	13.50	13.50	16.50	
		802.11ac-VHT160 MCS0	802.11ac-VHT160 MCS0	114	5570	13.50	13.50
802.11ax-HE20 MCS0	802.11ax-HE20 MCS0	100	5500	13.50	13.50	16.50	
		116	5580	13.50	13.50	16.50	
		124	5620	13.50	13.50	16.50	
		132	5660	13.50	13.50	16.50	
		144	5720	13.50	13.50	16.50	
802.11ax-HE40 MCS0	802.11ax-HE40 MCS0	102	5510	13.50	13.50	16.50	
		110	5550	13.50	13.50	16.50	
		126	5630	13.50	13.50	16.50	
		134	5670	13.50	13.50	16.50	
		142	5710	13.50	13.50	16.50	
802.11ax-HE80 MCS0	802.11ax-HE80 MCS0	106	5530	13.50	13.50	16.50	
		122	5610	13.50	13.50	16.50	
		138	5690	13.50	13.50	16.50	
		114	5570	13.50	13.50	16.50	
		802.11ax-HE160 MCS0	802.11ax-HE160 MCS0	114	5570	13.50	13.50
802.11be-EHT20 MCS0	802.11be-EHT20 MCS0	100	5500	13.50	13.50	16.50	
		116	5580	13.50	13.50	16.50	
		124	5620	13.50	13.50	16.50	
		132	5660	13.50	13.50	16.50	
		144	5720	13.50	13.50	16.50	
802.11be-EHT40 MCS0	802.11be-EHT40 MCS0	102	5510	13.50	13.50	16.50	
		110	5550	13.50	13.50	16.50	
		126	5630	13.50	13.50	16.50	
		134	5670	13.50	13.50	16.50	
		142	5710	13.50	13.50	16.50	
802.11be-EHT80 MCS0	802.11be-EHT80 MCS0	106	5530	13.50	13.50	16.50	
		122	5610	13.50	13.50	16.50	
		138	5690	13.50	13.50	16.50	
		114	5570	13.50	13.50	16.50	
		802.11be-EHT160 MCS0	802.11be-EHT160 MCS0	114	5570	13.50	13.50



Burst Average Power (dBm)						
5.8GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		149	5745	14.00	14.00	17.00
		157	5785	14.00	14.00	17.00
		165	5825	14.00	14.00	17.00
802.11n-HT20 MCS0		149	5745	14.00	14.00	17.00
		157	5785	14.00	14.00	17.00
		165	5825	14.00	14.00	17.00
802.11n-HT40 MCS0		151	5755	14.00	14.00	17.00
		159	5795	14.00	14.00	17.00
802.11ac-VHT20 MCS0		149	5745	14.00	14.00	17.00
		157	5785	14.00	14.00	17.00
		165	5825	14.00	14.00	17.00
802.11ac-VHT40 MCS0		151	5755	14.00	14.00	17.00
		159	5795	14.00	14.00	17.00
802.11ac-VHT80 MCS0		155	5775	14.00	14.00	17.00
		149	5745	14.00	14.00	17.00
802.11ax-HE20 MCS0		157	5785	14.00	14.00	17.00
		165	5825	14.00	14.00	17.00
		151	5755	14.00	14.00	17.00
802.11ax-HE40 MCS0		159	5795	14.00	14.00	17.00
		155	5775	14.00	14.00	17.00
802.11ax-HE80 MCS0		149	5745	14.00	14.00	17.00
		157	5785	14.00	14.00	17.00
802.11be-EHT20 MCS0		165	5825	14.00	14.00	17.00
		151	5755	14.00	14.00	17.00
		159	5795	14.00	14.00	17.00
802.11be-EHT40 MCS0		155	5775	14.00	14.00	17.00
		149	5745	14.00	14.00	17.00
802.11be-EHT80 MCS0		155	5775	14.00	14.00	17.00

Burst Average Power (dBm)						
5.9GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		169	5845	13.00	13.00	16.00
		173	5865	13.00	13.00	16.00
		177	5885	13.00	13.00	16.00
802.11n-HT20 MCS0		169	5845	13.00	13.00	16.00
		173	5865	13.00	13.00	16.00
		177	5885	13.00	13.00	16.00
802.11n-HT40 MCS0		167	5835	13.00	13.00	16.00
		175	5875	13.00	13.00	16.00
802.11ac-VHT20 MCS0		169	5845	13.00	13.00	16.00
		173	5865	13.00	13.00	16.00
		177	5885	13.00	13.00	16.00
802.11ac-VHT40 MCS0		167	5835	13.00	13.00	16.00
		175	5875	13.00	13.00	16.00
		171	5855	13.00	13.00	16.00
802.11ac-VHT80 MCS0		163	5815	13.00	13.00	16.00
		169	5845	13.00	13.00	16.00
802.11ax-HE20 MCS0		173	5865	13.00	13.00	16.00
		177	5885	13.00	13.00	16.00
		167	5835	13.00	13.00	16.00
802.11ax-HE40 MCS0		175	5875	13.00	13.00	16.00
		171	5855	13.00	13.00	16.00
802.11ax-HE80 MCS0		163	5815	13.00	13.00	16.00
		169	5845	13.00	13.00	16.00
802.11be-EHT20 MCS0		173	5865	13.00	13.00	16.00
		177	5885	13.00	13.00	16.00
		167	5835	13.00	13.00	16.00
802.11be-EHT40 MCS0		175	5875	13.00	13.00	16.00
		171	5855	13.00	13.00	16.00
802.11be-EHT80 MCS0		163	5815	13.00	13.00	16.00



<Power index 4> RSDB

<2.4GHz WLAN>

Burst Average Power (dBm)				
Transmit Antenna				SISO Ant 3
2.4GHz WLAN	Mode	Tune-Up Limit	Frequency (MHz)	Tune-Up Limit
	802.11b 1Mbps	1	2412	15.00
		6	2437	15.00
		11	2462	15.00
		12	2467	15.00
		13	2472	15.00

Burst Average Power (dBm)				
Transmit Antenna				SISO Ant 4
2.4GHz WLAN	Mode	Tune-Up Limit	Frequency (MHz)	Tune-Up Limit
	802.11b 1Mbps	1	2412	12.00
		6	2437	12.00
		11	2462	12.00
		12	2467	12.00
		13	2472	12.00

Burst Average Power (dBm)						
Transmit Antenna				MIMO		
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
	802.11g 6Mbps	1	2412	11.50	11.50	14.50
		6	2437	11.50	11.50	14.50
		11	2462	11.50	11.50	14.50
		12	2467	11.50	11.50	14.50
13		2472	11.50	11.50	14.50	
802.11n-HT20 MCS0	1	2412	11.50	11.50	14.50	
	6	2437	11.50	11.50	14.50	
	11	2462	11.50	11.50	14.50	
	12	2467	11.50	11.50	14.50	
802.11ac-VHT20 MCS0	13	2472	11.50	11.50	14.50	
	1	2412	11.50	11.50	14.50	
	6	2437	11.50	11.50	14.50	
	11	2462	11.50	11.50	14.50	
802.11ax-HE20 MCS0	12	2467	11.50	11.50	14.50	
	13	2472	11.50	11.50	14.50	
	1	2412	11.50	11.50	14.50	
	6	2437	11.50	11.50	14.50	
802.11be-EHT20 MCS0	11	2462	11.50	11.50	14.50	
	12	2467	11.50	11.50	14.50	
	13	2472	11.50	11.50	14.50	
	1	2412	11.50	11.50	14.50	





<5GHz WLAN>

Burst Average Power (dBm)						
5.2GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		36	5180	14.50	14.50	17.50
		40	5200	14.50	14.50	17.50
		44	5220	14.50	14.50	17.50
		48	5240	14.50	14.50	17.50
802.11n-HT20 MCS0		36	5180	14.50	14.50	17.50
		40	5200	14.50	14.50	17.50
		44	5220	14.50	14.50	17.50
		48	5240	14.50	14.50	17.50
802.11n-HT40 MCS0		38	5190	14.50	14.50	17.50
		46	5230	14.50	14.50	17.50
802.11ac-VHT20 MCS0		36	5180	14.50	14.50	17.50
		40	5200	14.50	14.50	17.50
		44	5220	14.50	14.50	17.50
		48	5240	14.50	14.50	17.50
802.11ac-VHT40 MCS0		38	5190	14.50	14.50	17.50
		46	5230	14.50	14.50	17.50
802.11ac-VHT80 MCS0		42	5210	14.50	14.50	17.50
		42	5210	14.50	14.50	17.50
802.11ax-HE20 MCS0		36	5180	14.50	14.50	17.50
		40	5200	14.50	14.50	17.50
		44	5220	14.50	14.50	17.50
		48	5240	14.50	14.50	17.50
802.11ax-HE40 MCS0		38	5190	14.50	14.50	17.50
		46	5230	14.50	14.50	17.50
802.11ax-HE80 MCS0		42	5210	14.50	14.50	17.50
		42	5210	14.50	14.50	17.50
802.11be-EHT20 MCS0		36	5180	14.50	14.50	17.50
		40	5200	14.50	14.50	17.50
		44	5220	14.50	14.50	17.50
		48	5240	14.50	14.50	17.50
802.11be-EHT40 MCS0		38	5190	14.50	14.50	17.50
		46	5230	14.50	14.50	17.50
802.11be-EHT80 MCS0		42	5210	14.50	14.50	17.50
		42	5210	14.50	14.50	17.50



Burst Average Power (dBm)						
5.3GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		52	5260	14.50	14.50	17.50
		56	5280	14.50	14.50	17.50
		60	5300	14.50	14.50	17.50
		64	5320	14.50	14.50	17.50
802.11n-HT20 MCS0		52	5260	14.50	14.50	17.50
		56	5280	14.50	14.50	17.50
		60	5300	14.50	14.50	17.50
		64	5320	14.50	14.50	17.50
802.11n-HT40 MCS0		54	5270	14.50	14.50	17.50
		62	5310	14.50	14.50	17.50
802.11ac-VHT20 MCS0		52	5260	14.50	14.50	17.50
		56	5280	14.50	14.50	17.50
		60	5300	14.50	14.50	17.50
		64	5320	14.50	14.50	17.50
802.11ac-VHT40 MCS0		54	5270	14.50	14.50	17.50
		62	5310	14.50	14.50	17.50
802.11ac-VHT80 MCS0		58	5290	14.50	14.50	17.50
		50	5250	14.50	14.50	17.50
802.11ac-VHT160 MCS0		52	5260	14.50	14.50	17.50
		56	5280	14.50	14.50	17.50
		60	5300	14.50	14.50	17.50
		64	5320	14.50	14.50	17.50
802.11ax-HE20 MCS0		54	5270	14.50	14.50	17.50
		62	5310	14.50	14.50	17.50
802.11ax-HE40 MCS0		58	5290	14.50	14.50	17.50
		50	5250	14.50	14.50	17.50
802.11ax-HE80 MCS0		52	5260	14.50	14.50	17.50
		56	5280	14.50	14.50	17.50
		60	5300	14.50	14.50	17.50
		64	5320	14.50	14.50	17.50
802.11ax-HE160 MCS0		54	5270	14.50	14.50	17.50
		62	5310	14.50	14.50	17.50
802.11be-EHT20 MCS0		58	5290	14.50	14.50	17.50
		50	5250	14.50	14.50	17.50
		52	5260	14.50	14.50	17.50
		56	5280	14.50	14.50	17.50
802.11be-EHT40 MCS0		60	5300	14.50	14.50	17.50
		64	5320	14.50	14.50	17.50
802.11be-EHT80 MCS0		54	5270	14.50	14.50	17.50
		62	5310	14.50	14.50	17.50
802.11be-EHT160 MCS0		58	5290	14.50	14.50	17.50
		50	5250	14.50	14.50	17.50



Burst Average Power (dBm)						
5.5GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		100	5500	13.50	13.50	16.50
		116	5580	13.50	13.50	16.50
		124	5620	13.50	13.50	16.50
		132	5660	13.50	13.50	16.50
		144	5720	13.50	13.50	16.50
802.11n-HT20 MCS0		100	5500	13.50	13.50	16.50
		116	5580	13.50	13.50	16.50
		124	5620	13.50	13.50	16.50
		132	5660	13.50	13.50	16.50
		144	5720	13.50	13.50	16.50
802.11n-HT40 MCS0		102	5510	13.50	13.50	16.50
		110	5550	13.50	13.50	16.50
		126	5630	13.50	13.50	16.50
		134	5670	13.50	13.50	16.50
		142	5710	13.50	13.50	16.50
802.11ac-VHT20 MCS0		100	5500	13.50	13.50	16.50
		116	5580	13.50	13.50	16.50
		124	5620	13.50	13.50	16.50
		132	5660	13.50	13.50	16.50
		144	5720	13.50	13.50	16.50
802.11ac-VHT40 MCS0		102	5510	13.50	13.50	16.50
		110	5550	13.50	13.50	16.50
		126	5630	13.50	13.50	16.50
		134	5670	13.50	13.50	16.50
		142	5710	13.50	13.50	16.50
802.11ac-VHT80 MCS0		106	5530	13.50	13.50	16.50
		122	5610	13.50	13.50	16.50
		138	5690	13.50	13.50	16.50
		114	5570	13.50	13.50	16.50
		802.11ac-VHT160 MCS0		100	5500	13.50
802.11ax-HE20 MCS0		116	5580	13.50	13.50	16.50
		124	5620	13.50	13.50	16.50
		132	5660	13.50	13.50	16.50
		144	5720	13.50	13.50	16.50
		102	5510	13.50	13.50	16.50
802.11ax-HE40 MCS0		110	5550	13.50	13.50	16.50
		126	5630	13.50	13.50	16.50
		134	5670	13.50	13.50	16.50
		142	5710	13.50	13.50	16.50
		106	5530	13.50	13.50	16.50
802.11ax-HE80 MCS0		122	5610	13.50	13.50	16.50
		138	5690	13.50	13.50	16.50
		114	5570	13.50	13.50	16.50
802.11ax-HE160 MCS0		100	5500	13.50	13.50	16.50
802.11be-EHT20 MCS0		116	5580	13.50	13.50	16.50
		124	5620	13.50	13.50	16.50
		132	5660	13.50	13.50	16.50
		144	5720	13.50	13.50	16.50
		102	5510	13.50	13.50	16.50
802.11be-EHT40 MCS0		110	5550	13.50	13.50	16.50
		126	5630	13.50	13.50	16.50
		134	5670	13.50	13.50	16.50
		142	5710	13.50	13.50	16.50
		106	5530	13.50	13.50	16.50
802.11be-EHT80 MCS0		122	5610	13.50	13.50	16.50
		138	5690	13.50	13.50	16.50
		114	5570	13.50	13.50	16.50
802.11be-EHT160 MCS0		100	5500	13.50	13.50	16.50



Burst Average Power (dBm)						
5.8GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		149	5745	14.00	14.00	17.00
		157	5785	14.00	14.00	17.00
		165	5825	14.00	14.00	17.00
802.11n-HT20 MCS0		149	5745	14.00	14.00	17.00
		157	5785	14.00	14.00	17.00
		165	5825	14.00	14.00	17.00
802.11n-HT40 MCS0		151	5755	14.00	14.00	17.00
		159	5795	14.00	14.00	17.00
802.11ac-VHT20 MCS0		149	5745	14.00	14.00	17.00
		157	5785	14.00	14.00	17.00
		165	5825	14.00	14.00	17.00
802.11ac-VHT40 MCS0		151	5755	14.00	14.00	17.00
		159	5795	14.00	14.00	17.00
802.11ac-VHT80 MCS0		155	5775	14.00	14.00	17.00
		149	5745	14.00	14.00	17.00
802.11ax-HE20 MCS0		157	5785	14.00	14.00	17.00
		165	5825	14.00	14.00	17.00
		151	5755	14.00	14.00	17.00
802.11ax-HE40 MCS0		159	5795	14.00	14.00	17.00
		155	5775	14.00	14.00	17.00
802.11ax-HE80 MCS0		149	5745	14.00	14.00	17.00
		157	5785	14.00	14.00	17.00
802.11be-EHT20 MCS0		165	5825	14.00	14.00	17.00
		151	5755	14.00	14.00	17.00
		159	5795	14.00	14.00	17.00
802.11be-EHT40 MCS0		155	5775	14.00	14.00	17.00
		149	5745	14.00	14.00	17.00
802.11be-EHT80 MCS0		155	5775	14.00	14.00	17.00

Burst Average Power (dBm)						
5.9GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		169	5845	13.00	13.00	16.00
		173	5865	13.00	13.00	16.00
		177	5885	13.00	13.00	16.00
802.11n-HT20 MCS0		169	5845	13.00	13.00	16.00
		173	5865	13.00	13.00	16.00
		177	5885	13.00	13.00	16.00
802.11n-HT40 MCS0		167	5835	13.00	13.00	16.00
		175	5875	13.00	13.00	16.00
802.11ac-VHT20 MCS0		169	5845	13.00	13.00	16.00
		173	5865	13.00	13.00	16.00
		177	5885	13.00	13.00	16.00
802.11ac-VHT40 MCS0		167	5835	13.00	13.00	16.00
		175	5875	13.00	13.00	16.00
		171	5855	13.00	13.00	16.00
802.11ac-VHT80 MCS0		163	5815	13.00	13.00	16.00
		169	5845	13.00	13.00	16.00
802.11ax-HE20 MCS0		173	5865	13.00	13.00	16.00
		177	5885	13.00	13.00	16.00
		167	5835	13.00	13.00	16.00
802.11ax-HE40 MCS0		175	5875	13.00	13.00	16.00
		171	5855	13.00	13.00	16.00
802.11ax-HE80 MCS0		163	5815	13.00	13.00	16.00
		169	5845	13.00	13.00	16.00
802.11be-EHT20 MCS0		173	5865	13.00	13.00	16.00
		177	5885	13.00	13.00	16.00
		167	5835	13.00	13.00	16.00
802.11be-EHT40 MCS0		175	5875	13.00	13.00	16.00
		171	5855	13.00	13.00	16.00
802.11be-EHT80 MCS0		163	5815	13.00	13.00	16.00



<Power index 5> Non-RSDB

<2.4GHz WLAN>

Burst Average Power (dBm)				
Transmit Antenna				SISO Ant 3
2.4GHz WLAN	Mode	Tune-Up Limit	Frequency (MHz)	Tune-Up Limit
	802.11b 1Mbps	1	2412	22.50
		6	2437	22.50
		11	2462	22.50
		12	2467	22.50
		13	2472	21.50

Burst Average Power (dBm)				
Transmit Antenna				SISO Ant 4
2.4GHz WLAN	Mode	Tune-Up Limit	Frequency (MHz)	Tune-Up Limit
	802.11b 1Mbps	1	2412	22.50
		6	2437	22.50
		11	2462	22.50
		12	2467	22.50
		13	2472	20.00

Burst Average Power (dBm)						
Transmit Antenna				MIMO		
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
	802.11g 6Mbps	1	2412	22.00	22.00	25.00
		6	2437	22.00	22.00	25.00
		11	2462	18.50	18.50	21.50
		12	2467	15.50	15.50	18.50
		13	2472	13.50	13.50	16.50
	802.11n-HT20 MCS0	1	2412	21.00	21.00	24.00
		6	2437	21.00	21.00	24.00
		11	2462	18.00	18.00	21.00
		12	2467	17.00	17.00	20.00
	802.11ac-VHT20 MCS0	13	2472	15.00	15.00	18.00
		1	2412	21.00	21.00	24.00
		6	2437	21.00	21.00	24.00
		11	2462	18.00	18.00	21.00
	802.11ax-HE20 MCS0	12	2467	17.00	17.00	20.00
		13	2472	15.00	15.00	18.00
		1	2412	21.00	21.00	24.00
		6	2437	21.00	21.00	24.00
	802.11be-EHT20 MCS0	11	2462	18.00	18.00	21.00
		12	2467	17.00	17.00	20.00
		13	2472	15.00	15.00	18.00
1		2412	21.00	21.00	24.00	



<5GHz WLAN>

Burst Average Power (dBm)						
5.2GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		36	5180	20.00	20.00	23.00
		40	5200	20.00	20.00	23.00
		44	5220	20.00	20.00	23.00
		48	5240	20.00	20.00	23.00
802.11n-HT20 MCS0		36	5180	20.00	20.00	23.00
		40	5200	20.00	20.00	23.00
		44	5220	20.00	20.00	23.00
		48	5240	20.00	20.00	23.00
802.11n-HT40 MCS0		38	5190	17.50	17.50	20.50
		46	5230	20.00	20.00	23.00
802.11ac-VHT20 MCS0		36	5180	20.00	20.00	23.00
		40	5200	20.00	20.00	23.00
		44	5220	20.00	20.00	23.00
		48	5240	20.00	20.00	23.00
802.11ac-VHT40 MCS0		38	5190	17.50	17.50	20.50
		46	5230	20.00	20.00	23.00
802.11ac-VHT80 MCS0		42	5210	17.50	17.50	20.50
802.11ax-HE20 MCS0		36	5180	20.00	20.00	23.00
		40	5200	20.00	20.00	23.00
		44	5220	20.00	20.00	23.00
		48	5240	20.00	20.00	23.00
802.11ax-HE40 MCS0		38	5190	17.50	17.50	20.50
		46	5230	20.00	20.00	23.00
802.11ax-HE80 MCS0		42	5210	17.50	17.50	20.50
802.11be-EHT20 MCS0		36	5180	20.00	20.00	23.00
		40	5200	20.00	20.00	23.00
		44	5220	20.00	20.00	23.00
		48	5240	20.00	20.00	23.00
802.11be-EHT40 MCS0		38	5190	17.50	17.50	20.50
		46	5230	20.00	20.00	23.00
802.11be-EHT80 MCS0		42	5210	17.50	17.50	20.50



Burst Average Power (dBm)						
5.3GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		52	5260	20.00	20.00	23.00
		56	5280	20.00	20.00	23.00
		60	5300	20.00	20.00	23.00
		64	5320	20.00	20.00	23.00
802.11n-HT20 MCS0		52	5260	20.00	20.00	23.00
		56	5280	20.00	20.00	23.00
		60	5300	20.00	20.00	23.00
		64	5320	20.00	20.00	23.00
802.11n-HT40 MCS0		54	5270	20.00	20.00	23.00
		62	5310	17.00	17.00	20.00
802.11ac-VHT20 MCS0		52	5260	20.00	20.00	23.00
		56	5280	20.00	20.00	23.00
		60	5300	20.00	20.00	23.00
802.11ac-VHT40 MCS0		54	5270	20.00	20.00	23.00
		62	5310	17.00	17.00	20.00
		58	5290	17.00	17.00	20.00
802.11ac-VHT80 MCS0		50	5250	14.50	14.50	17.50
		52	5260	20.00	20.00	23.00
802.11ac-VHT160 MCS0		56	5280	20.00	20.00	23.00
		60	5300	20.00	20.00	23.00
		64	5320	20.00	20.00	23.00
802.11ax-HE20 MCS0		54	5270	20.00	20.00	23.00
		62	5310	17.00	17.00	20.00
		58	5290	17.00	17.00	20.00
802.11ax-HE40 MCS0		50	5250	14.50	14.50	17.50
		52	5260	20.00	20.00	23.00
802.11ax-HE80 MCS0		56	5280	20.00	20.00	23.00
		60	5300	20.00	20.00	23.00
		64	5320	20.00	20.00	23.00
802.11ax-HE160 MCS0		54	5270	20.00	20.00	23.00
		62	5310	17.00	17.00	20.00
802.11be-EHT20 MCS0		58	5290	17.00	17.00	20.00
		50	5250	14.50	14.50	17.50
		52	5260	20.00	20.00	23.00
		56	5280	20.00	20.00	23.00
802.11be-EHT40 MCS0		60	5300	20.00	20.00	23.00
		64	5320	20.00	20.00	23.00
		54	5270	20.00	20.00	23.00
802.11be-EHT80 MCS0		62	5310	17.00	17.00	20.00
		58	5290	17.00	17.00	20.00
802.11be-EHT160 MCS0		50	5250	14.50	14.50	17.50
		52	5260	20.00	20.00	23.00



Burst Average Power (dBm)						
5.5GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		100	5500	20.00	20.00	23.00
		116	5580	20.00	20.00	23.00
		124	5620	20.00	20.00	23.00
		132	5660	20.00	20.00	23.00
		144	5720	19.00	19.00	22.00
802.11n-HT20 MCS0		100	5500	20.00	20.00	23.00
		116	5580	20.00	20.00	23.00
		124	5620	18.50	18.50	21.50
		132	5660	18.50	18.50	21.50
		144	5720	20.00	20.00	23.00
802.11n-HT40 MCS0		102	5510	16.00	16.00	19.00
		110	5550	20.00	20.00	23.00
		126	5630	16.00	16.00	19.00
		134	5670	20.00	20.00	23.00
		142	5710	20.00	20.00	23.00
802.11ac-VHT20 MCS0		100	5500	20.00	20.00	23.00
		116	5580	20.00	20.00	23.00
		124	5620	18.50	18.50	21.50
		132	5660	18.50	18.50	21.50
		144	5720	20.00	20.00	23.00
802.11ac-VHT40 MCS0		102	5510	16.00	16.00	19.00
		110	5550	20.00	20.00	23.00
		126	5630	16.00	16.00	19.00
		134	5670	20.00	20.00	23.00
		142	5710	20.00	20.00	23.00
802.11ac-VHT80 MCS0		106	5530	16.50	16.50	19.50
		122	5610	20.00	20.00	23.00
		138	5690	20.00	20.00	23.00
		114	5570	16.00	16.00	19.00
		802.11ac-VHT160 MCS0		100	5500	20.00
802.11ax-HE20 MCS0		116	5580	20.00	20.00	23.00
		124	5620	18.50	18.50	21.50
		132	5660	18.50	18.50	21.50
		144	5720	20.00	20.00	23.00
		102	5510	16.00	16.00	19.00
802.11ax-HE40 MCS0		110	5550	20.00	20.00	23.00
		126	5630	16.00	16.00	19.00
		134	5670	20.00	20.00	23.00
		142	5710	20.00	20.00	23.00
		106	5530	16.50	16.50	19.50
802.11ax-HE80 MCS0		122	5610	20.00	20.00	23.00
		138	5690	20.00	20.00	23.00
		114	5570	16.00	16.00	19.00
802.11ax-HE160 MCS0		100	5500	20.00	20.00	23.00
802.11be-EHT20 MCS0		116	5580	20.00	20.00	23.00
		124	5620	18.50	18.50	21.50
		132	5660	18.50	18.50	21.50
		144	5720	20.00	20.00	23.00
		102	5510	16.00	16.00	19.00
802.11be-EHT40 MCS0		110	5550	20.00	20.00	23.00
		126	5630	16.00	16.00	19.00
		134	5670	20.00	20.00	23.00
		142	5710	20.00	20.00	23.00
		106	5530	16.50	16.50	19.50
802.11be-EHT80 MCS0		122	5610	20.00	20.00	23.00
		138	5690	20.00	20.00	23.00
		114	5570	16.00	16.00	19.00
802.11be-EHT160 MCS0		100	5500	20.00	20.00	23.00





Burst Average Power (dBm)						
5.8GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		149	5745	19.50	19.50	22.50
		157	5785	19.50	19.50	22.50
		165	5825	19.50	19.50	22.50
802.11n-HT20 MCS0		149	5745	19.50	19.50	22.50
		157	5785	19.50	19.50	22.50
		165	5825	19.50	19.50	22.50
802.11n-HT40 MCS0		151	5755	20.00	20.00	23.00
		159	5795	20.00	20.00	23.00
802.11ac-VHT20 MCS0		149	5745	19.50	19.50	22.50
		157	5785	19.50	19.50	22.50
		165	5825	19.50	19.50	22.50
802.11ac-VHT40 MCS0		151	5755	20.00	20.00	23.00
		159	5795	20.00	20.00	23.00
802.11ac-VHT80 MCS0		155	5775	20.00	20.00	23.00
		149	5745	19.50	19.50	22.50
802.11ax-HE20 MCS0		157	5785	19.50	19.50	22.50
		165	5825	19.50	19.50	22.50
		151	5755	20.00	20.00	23.00
802.11ax-HE40 MCS0		159	5795	20.00	20.00	23.00
		155	5775	20.00	20.00	23.00
802.11ax-HE80 MCS0		149	5745	19.50	19.50	22.50
		157	5785	19.50	19.50	22.50
802.11be-EHT20 MCS0		165	5825	19.50	19.50	22.50
		151	5755	20.00	20.00	23.00
802.11be-EHT40 MCS0		159	5795	20.00	20.00	23.00
		155	5775	20.00	20.00	23.00

Burst Average Power (dBm)						
5.9GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		169	5845	18.00	19.50	21.50
		173	5865	18.00	19.50	21.50
		177	5885	17.00	19.50	21.00
802.11n-HT20 MCS0		169	5845	18.00	19.50	21.50
		173	5865	18.00	19.50	21.50
		177	5885	17.00	19.50	21.00
802.11n-HT40 MCS0		167	5835	19.00	19.00	22.00
		175	5875	19.00	19.00	22.00
802.11ac-VHT20 MCS0		169	5845	18.00	19.50	21.50
		173	5865	18.00	19.50	21.50
		177	5885	17.00	19.50	21.00
802.11ac-VHT40 MCS0		167	5835	19.00	19.00	22.00
		175	5875	19.00	19.00	22.00
802.11ac-VHT80 MCS0		171	5855	19.50	19.50	22.50
		163	5815	19.50	19.50	22.50
802.11ac-VHT160 MCS0		169	5845	18.00	19.50	21.50
		173	5865	18.00	19.50	21.50
		177	5885	17.00	19.50	21.00
802.11ax-HE20 MCS0		167	5835	19.00	19.00	22.00
		175	5875	19.00	19.00	22.00
		171	5855	19.50	19.50	22.50
802.11ax-HE40 MCS0		163	5815	19.50	19.50	22.50
		169	5845	18.00	19.50	21.50
802.11ax-HE80 MCS0		173	5865	18.00	19.50	21.50
		177	5885	17.00	19.50	21.00
802.11be-EHT20 MCS0		167	5835	19.00	19.00	22.00
		175	5875	19.00	19.00	22.00
802.11be-EHT40 MCS0		171	5855	19.50	19.50	22.50
		163	5815	19.50	19.50	22.50
802.11be-EHT80 MCS0		169	5845	18.00	19.50	21.50
		173	5865	18.00	19.50	21.50
802.11be-EHT160 MCS0		177	5885	17.00	19.50	21.00
		167	5835	19.00	19.00	22.00



<Power index 6> RSDB

<2.4GHz WLAN>

Burst Average Power (dBm)					
Transmit Antenna				SISO Ant 3	
2.4GHz WLAN	Mode	Tune-Up Limit	Frequency (MHz)	Tune-Up Limit	
	802.11b 1Mbps		1	2412	22.50
			6	2437	22.50
			11	2462	22.50
			12	2467	22.50
			13	2472	21.50

Burst Average Power (dBm)					
Transmit Antenna				SISO Ant 4	
2.4GHz WLAN	Mode	Tune-Up Limit	Frequency (MHz)	Tune-Up Limit	
	802.11b 1Mbps		1	2412	20.00
			6	2437	20.00
			11	2462	20.00
			12	2467	20.00
			13	2472	20.00

Burst Average Power (dBm)							
Transmit Antenna				MIMO			
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4	
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit	
	802.11g 6Mbps		1	2412	19.00	19.00	22.00
			6	2437	19.00	19.00	22.00
			11	2462	18.50	18.50	21.50
			12	2467	15.50	15.50	18.50
			13	2472	13.50	13.50	16.50
	802.11n-HT20 MCS0		1	2412	19.00	19.00	22.00
			6	2437	19.00	19.00	22.00
			11	2462	18.00	18.00	21.00
			12	2467	17.00	17.00	20.00
			13	2472	15.00	15.00	18.00
	802.11ac-VHT20 MCS0		1	2412	19.00	19.00	22.00
			6	2437	19.00	19.00	22.00
			11	2462	18.00	18.00	21.00
			12	2467	17.00	17.00	20.00
			13	2472	15.00	15.00	18.00
	802.11ax-HE20 MCS0		1	2412	19.00	19.00	22.00
			6	2437	19.00	19.00	22.00
			11	2462	18.00	18.00	21.00
			12	2467	17.00	17.00	20.00
			13	2472	15.00	15.00	18.00
	802.11be-EHT20 MCS0		1	2412	19.00	19.00	22.00
			6	2437	19.00	19.00	22.00
			11	2462	18.00	18.00	21.00
			12	2467	17.00	17.00	20.00
			13	2472	15.00	15.00	18.00



<5GHz WLAN>

Burst Average Power (dBm)						
5.2GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		36	5180	19.00	19.00	22.00
		40	5200	19.00	19.00	22.00
		44	5220	19.00	19.00	22.00
		48	5240	19.00	19.00	22.00
802.11n-HT20 MCS0		36	5180	19.00	19.00	22.00
		40	5200	19.00	19.00	22.00
		44	5220	19.00	19.00	22.00
		48	5240	19.00	19.00	22.00
802.11n-HT40 MCS0		38	5190	17.50	17.50	20.50
		46	5230	19.00	19.00	22.00
802.11ac-VHT20 MCS0		36	5180	19.00	19.00	22.00
		40	5200	19.00	19.00	22.00
		44	5220	19.00	19.00	22.00
		48	5240	19.00	19.00	22.00
802.11ac-VHT40 MCS0		38	5190	17.50	17.50	20.50
		46	5230	19.00	19.00	22.00
802.11ac-VHT80 MCS0		42	5210	17.50	17.50	20.50
		46	5230	19.00	19.00	22.00
802.11ax-HE20 MCS0		36	5180	19.00	19.00	22.00
		40	5200	19.00	19.00	22.00
		44	5220	19.00	19.00	22.00
		48	5240	19.00	19.00	22.00
802.11ax-HE40 MCS0		38	5190	17.50	17.50	20.50
		46	5230	19.00	19.00	22.00
802.11ax-HE80 MCS0		42	5210	17.50	17.50	20.50
		46	5230	19.00	19.00	22.00
802.11be-EHT20 MCS0		36	5180	19.00	19.00	22.00
		40	5200	19.00	19.00	22.00
		44	5220	19.00	19.00	22.00
		48	5240	19.00	19.00	22.00
802.11be-EHT40 MCS0		38	5190	17.50	17.50	20.50
		46	5230	19.00	19.00	22.00
802.11be-EHT80 MCS0		42	5210	17.50	17.50	20.50
		46	5230	19.00	19.00	22.00



Burst Average Power (dBm)						
5.3GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		52	5260	19.00	19.00	22.00
		56	5280	19.00	19.00	22.00
		60	5300	19.00	19.00	22.00
		64	5320	19.00	19.00	22.00
802.11n-HT20 MCS0		52	5260	19.00	19.00	22.00
		56	5280	19.00	19.00	22.00
		60	5300	19.00	19.00	22.00
		64	5320	19.00	19.00	22.00
802.11n-HT40 MCS0		54	5270	19.00	19.00	22.00
		62	5310	17.00	17.00	20.00
802.11ac-VHT20 MCS0		52	5260	19.00	19.00	22.00
		60	5300	19.00	19.00	22.00
		64	5320	19.00	19.00	22.00
802.11ac-VHT40 MCS0		54	5270	19.00	19.00	22.00
		62	5310	17.00	17.00	20.00
802.11ac-VHT80 MCS0		58	5290	17.00	17.00	20.00
		50	5250	14.50	14.50	17.50
802.11ac-VHT160 MCS0		52	5260	19.00	19.00	22.00
		60	5300	19.00	19.00	22.00
		64	5320	19.00	19.00	22.00
802.11ax-HE20 MCS0		54	5270	19.00	19.00	22.00
		62	5310	17.00	17.00	20.00
		58	5290	17.00	17.00	20.00
802.11ax-HE40 MCS0		50	5250	14.50	14.50	17.50
		52	5260	19.00	19.00	22.00
802.11ax-HE80 MCS0		56	5280	19.00	19.00	22.00
		60	5300	19.00	19.00	22.00
		64	5320	19.00	19.00	22.00
802.11ax-HE160 MCS0		54	5270	19.00	19.00	22.00
		62	5310	17.00	17.00	20.00
802.11be-EHT20 MCS0		58	5290	17.00	17.00	20.00
		52	5260	19.00	19.00	22.00
		60	5300	19.00	19.00	22.00
		64	5320	19.00	19.00	22.00
802.11be-EHT40 MCS0		54	5270	19.00	19.00	22.00
		62	5310	17.00	17.00	20.00
802.11be-EHT80 MCS0		58	5290	17.00	17.00	20.00
		50	5250	14.50	14.50	17.50
802.11be-EHT160 MCS0		52	5260	19.00	19.00	22.00



Burst Average Power (dBm)						
5.5GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		100	5500	20.00	20.00	23.00
		116	5580	20.00	20.00	23.00
		124	5620	20.00	20.00	23.00
		132	5660	20.00	20.00	23.00
		144	5720	19.00	19.00	22.00
802.11n-HT20 MCS0		100	5500	20.00	20.00	23.00
		116	5580	20.00	20.00	23.00
		124	5620	18.50	18.50	21.50
		132	5660	18.50	18.50	21.50
		144	5720	20.00	20.00	23.00
802.11n-HT40 MCS0		102	5510	16.00	16.00	19.00
		110	5550	20.00	20.00	23.00
		126	5630	16.00	16.00	19.00
		134	5670	20.00	20.00	23.00
		142	5710	20.00	20.00	23.00
802.11ac-VHT20 MCS0		100	5500	20.00	20.00	23.00
		116	5580	20.00	20.00	23.00
		124	5620	18.50	18.50	21.50
		132	5660	18.50	18.50	21.50
		144	5720	20.00	20.00	23.00
802.11ac-VHT40 MCS0		102	5510	16.00	16.00	19.00
		110	5550	20.00	20.00	23.00
		126	5630	16.00	16.00	19.00
		134	5670	20.00	20.00	23.00
		142	5710	20.00	20.00	23.00
802.11ac-VHT80 MCS0		106	5530	16.50	16.50	19.50
		122	5610	20.00	20.00	23.00
		138	5690	20.00	20.00	23.00
		114	5570	16.00	16.00	19.00
		802.11ac-VHT160 MCS0		100	5500	20.00
802.11ax-HE20 MCS0		116	5580	20.00	20.00	23.00
		124	5620	18.50	18.50	21.50
		132	5660	18.50	18.50	21.50
		144	5720	20.00	20.00	23.00
		102	5510	16.00	16.00	19.00
802.11ax-HE40 MCS0		110	5550	20.00	20.00	23.00
		126	5630	16.00	16.00	19.00
		134	5670	20.00	20.00	23.00
		142	5710	20.00	20.00	23.00
		106	5530	16.50	16.50	19.50
802.11ax-HE80 MCS0		122	5610	20.00	20.00	23.00
		138	5690	20.00	20.00	23.00
		114	5570	16.00	16.00	19.00
802.11ax-HE160 MCS0		100	5500	20.00	20.00	23.00
802.11be-EHT20 MCS0		116	5580	20.00	20.00	23.00
		124	5620	18.50	18.50	21.50
		132	5660	18.50	18.50	21.50
		144	5720	20.00	20.00	23.00
		102	5510	16.00	16.00	19.00
802.11be-EHT40 MCS0		110	5550	20.00	20.00	23.00
		126	5630	16.00	16.00	19.00
		134	5670	20.00	20.00	23.00
		142	5710	20.00	20.00	23.00
		106	5530	16.50	16.50	19.50
802.11be-EHT80 MCS0		122	5610	20.00	20.00	23.00
		138	5690	20.00	20.00	23.00
		114	5570	16.00	16.00	19.00
802.11be-EHT160 MCS0		100	5500	20.00	20.00	23.00



Burst Average Power (dBm)						
5.8GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		149	5745	19.50	19.50	22.50
		157	5785	19.50	19.50	22.50
		165	5825	19.50	19.50	22.50
802.11n-HT20 MCS0		149	5745	19.50	19.50	22.50
		157	5785	19.50	19.50	22.50
		165	5825	19.50	19.50	22.50
802.11n-HT40 MCS0		151	5755	20.00	20.00	23.00
		159	5795	20.00	20.00	23.00
802.11ac-VHT20 MCS0		149	5745	19.50	19.50	22.50
		157	5785	19.50	19.50	22.50
		165	5825	19.50	19.50	22.50
802.11ac-VHT40 MCS0		151	5755	20.00	20.00	23.00
		159	5795	20.00	20.00	23.00
802.11ac-VHT80 MCS0		155	5775	20.00	20.00	23.00
		149	5745	19.50	19.50	22.50
802.11ax-HE20 MCS0		157	5785	19.50	19.50	22.50
		165	5825	19.50	19.50	22.50
		151	5755	20.00	20.00	23.00
802.11ax-HE40 MCS0		159	5795	20.00	20.00	23.00
		155	5775	20.00	20.00	23.00
802.11ax-HE80 MCS0		149	5745	19.50	19.50	22.50
		157	5785	19.50	19.50	22.50
802.11be-EHT20 MCS0		165	5825	19.50	19.50	22.50
		151	5755	20.00	20.00	23.00
		159	5795	20.00	20.00	23.00
802.11be-EHT40 MCS0		155	5775	20.00	20.00	23.00
		149	5745	19.50	19.50	22.50

Burst Average Power (dBm)						
5.9GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		169	5845	18.00	19.50	21.50
		173	5865	18.00	19.50	21.50
		177	5885	17.00	19.50	21.00
802.11n-HT20 MCS0		169	5845	18.00	19.50	21.50
		173	5865	18.00	19.50	21.50
		177	5885	17.00	19.50	21.00
802.11n-HT40 MCS0		167	5835	19.00	19.00	22.00
		175	5875	19.00	19.00	22.00
802.11ac-VHT20 MCS0		169	5845	18.00	19.50	21.50
		173	5865	18.00	19.50	21.50
		177	5885	17.00	19.50	21.00
802.11ac-VHT40 MCS0		167	5835	19.00	19.00	22.00
		175	5875	19.00	19.00	22.00
802.11ac-VHT80 MCS0		171	5855	19.50	19.50	22.50
		163	5815	19.50	19.50	22.50
802.11ac-VHT160 MCS0		169	5845	18.00	19.50	21.50
		173	5865	18.00	19.50	21.50
		177	5885	17.00	19.50	21.00
802.11ax-HE20 MCS0		167	5835	19.00	19.00	22.00
		175	5875	19.00	19.00	22.00
		171	5855	19.50	19.50	22.50
802.11ax-HE40 MCS0		163	5815	19.50	19.50	22.50
		169	5845	18.00	19.50	21.50
802.11ax-HE80 MCS0		173	5865	18.00	19.50	21.50
		177	5885	17.00	19.50	21.00
		167	5835	19.00	19.00	22.00
802.11be-EHT20 MCS0		175	5875	19.00	19.00	22.00
		171	5855	19.50	19.50	22.50
		163	5815	19.50	19.50	22.50
802.11be-EHT40 MCS0		169	5845	18.00	19.50	21.50
		173	5865	18.00	19.50	21.50
802.11be-EHT80 MCS0		177	5885	17.00	19.50	21.00
		167	5835	19.00	19.00	22.00
		175	5875	19.00	19.00	22.00
802.11be-EHT160 MCS0		171	5855	19.50	19.50	22.50
		163	5815	19.50	19.50	22.50



<Power index 7> Non-RSDB

<2.4GHz WLAN>

Burst Average Power (dBm)					
Transmit Antenna				SISO Ant 3	
2.4GHz WLAN	Mode	Tune-Up Limit	Frequency (MHz)	Tune-Up Limit	
	802.11b 1Mbps		1	2412	22.50
			6	2437	22.50
			11	2462	22.50
			12	2467	22.50
			13	2472	21.50

Burst Average Power (dBm)					
Transmit Antenna				SISO Ant 4	
2.4GHz WLAN	Mode	Tune-Up Limit	Frequency (MHz)	Tune-Up Limit	
	802.11b 1Mbps		1	2412	20.00
			6	2437	20.00
			11	2462	20.00
			12	2467	20.00
			13	2472	20.00

Burst Average Power (dBm)							
Transmit Antenna				MIMO			
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4	
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit	
	802.11g 6Mbps		1	2412	19.00	19.00	22.00
			6	2437	19.00	19.00	22.00
			11	2462	18.50	18.50	21.50
			12	2467	15.50	15.50	18.50
			13	2472	13.50	13.50	16.50
	802.11n-HT20 MCS0		1	2412	19.00	19.00	22.00
			6	2437	19.00	19.00	22.00
			11	2462	18.00	18.00	21.00
			12	2467	17.00	17.00	20.00
			13	2472	15.00	15.00	18.00
	802.11ac-VHT20 MCS0		1	2412	19.00	19.00	22.00
			6	2437	19.00	19.00	22.00
			11	2462	18.00	18.00	21.00
			12	2467	17.00	17.00	20.00
			13	2472	15.00	15.00	18.00
	802.11ax-HE20 MCS0		1	2412	19.00	19.00	22.00
			6	2437	19.00	19.00	22.00
			11	2462	18.00	18.00	21.00
			12	2467	17.00	17.00	20.00
			13	2472	15.00	15.00	18.00
	802.11be-EHT20 MCS0		1	2412	19.00	19.00	22.00
			6	2437	19.00	19.00	22.00
			11	2462	18.00	18.00	21.00
			12	2467	17.00	17.00	20.00
			13	2472	15.00	15.00	18.00



<5GHz WLAN>

Burst Average Power (dBm)						
5.2GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		36	5180	19.00	19.00	22.00
		40	5200	19.00	19.00	22.00
		44	5220	19.00	19.00	22.00
		48	5240	19.00	19.00	22.00
802.11n-HT20 MCS0		36	5180	19.00	19.00	22.00
		40	5200	19.00	19.00	22.00
		44	5220	19.00	19.00	22.00
		48	5240	19.00	19.00	22.00
802.11n-HT40 MCS0		38	5190	17.50	17.50	20.50
		46	5230	19.00	19.00	22.00
802.11ac-VHT20 MCS0		36	5180	19.00	19.00	22.00
		40	5200	19.00	19.00	22.00
		44	5220	19.00	19.00	22.00
		48	5240	19.00	19.00	22.00
802.11ac-VHT40 MCS0		38	5190	17.50	17.50	20.50
		46	5230	19.00	19.00	22.00
802.11ac-VHT80 MCS0		42	5210	17.50	17.50	20.50
		46	5230	19.00	19.00	22.00
802.11ax-HE20 MCS0		36	5180	19.00	19.00	22.00
		40	5200	19.00	19.00	22.00
		44	5220	19.00	19.00	22.00
		48	5240	19.00	19.00	22.00
802.11ax-HE40 MCS0		38	5190	17.50	17.50	20.50
		46	5230	19.00	19.00	22.00
802.11ax-HE80 MCS0		42	5210	17.50	17.50	20.50
		46	5230	19.00	19.00	22.00
802.11be-EHT20 MCS0		36	5180	19.00	19.00	22.00
		40	5200	19.00	19.00	22.00
		44	5220	19.00	19.00	22.00
		48	5240	19.00	19.00	22.00
802.11be-EHT40 MCS0		38	5190	17.50	17.50	20.50
		46	5230	19.00	19.00	22.00
802.11be-EHT80 MCS0		42	5210	17.50	17.50	20.50
		46	5230	19.00	19.00	22.00





Burst Average Power (dBm)						
5.3GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		52	5260	19.00	19.00	22.00
		56	5280	19.00	19.00	22.00
		60	5300	19.00	19.00	22.00
		64	5320	19.00	19.00	22.00
802.11n-HT20 MCS0		52	5260	19.00	19.00	22.00
		56	5280	19.00	19.00	22.00
		60	5300	19.00	19.00	22.00
		64	5320	19.00	19.00	22.00
802.11n-HT40 MCS0		54	5270	19.00	19.00	22.00
		62	5310	17.00	17.00	20.00
802.11ac-VHT20 MCS0		52	5260	19.00	19.00	22.00
		60	5300	19.00	19.00	22.00
		64	5320	19.00	19.00	22.00
802.11ac-VHT40 MCS0		54	5270	19.00	19.00	22.00
		62	5310	17.00	17.00	20.00
802.11ac-VHT80 MCS0		58	5290	17.00	17.00	20.00
802.11ac-VHT160 MCS0		50	5250	14.50	14.50	17.50
802.11ax-HE20 MCS0		52	5260	19.00	19.00	22.00
		56	5280	19.00	19.00	22.00
		60	5300	19.00	19.00	22.00
		64	5320	19.00	19.00	22.00
802.11ax-HE40 MCS0		54	5270	19.00	19.00	22.00
		62	5310	17.00	17.00	20.00
802.11ax-HE80 MCS0		58	5290	17.00	17.00	20.00
802.11ax-HE160 MCS0		50	5250	14.50	14.50	17.50
802.11be-EHT20 MCS0		52	5260	19.00	19.00	22.00
		56	5280	19.00	19.00	22.00
		60	5300	19.00	19.00	22.00
		64	5320	19.00	19.00	22.00
802.11be-EHT40 MCS0		54	5270	19.00	19.00	22.00
		62	5310	17.00	17.00	20.00
802.11be-EHT80 MCS0		58	5290	17.00	17.00	20.00
802.11be-EHT160 MCS0		50	5250	14.50	14.50	17.50



Burst Average Power (dBm)						
5.5GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		100	5500	20.00	20.00	23.00
		116	5580	20.00	20.00	23.00
		124	5620	20.00	20.00	23.00
		132	5660	20.00	20.00	23.00
		144	5720	19.00	19.00	22.00
802.11n-HT20 MCS0		100	5500	20.00	20.00	23.00
		116	5580	20.00	20.00	23.00
		124	5620	18.50	18.50	21.50
		132	5660	18.50	18.50	21.50
		144	5720	20.00	20.00	23.00
802.11n-HT40 MCS0		102	5510	16.00	16.00	19.00
		110	5550	20.00	20.00	23.00
		126	5630	16.00	16.00	19.00
		134	5670	20.00	20.00	23.00
		142	5710	20.00	20.00	23.00
802.11ac-VHT20 MCS0		100	5500	20.00	20.00	23.00
		116	5580	20.00	20.00	23.00
		124	5620	18.50	18.50	21.50
		132	5660	18.50	18.50	21.50
		144	5720	20.00	20.00	23.00
802.11ac-VHT40 MCS0		102	5510	16.00	16.00	19.00
		110	5550	20.00	20.00	23.00
		126	5630	16.00	16.00	19.00
		134	5670	20.00	20.00	23.00
		142	5710	20.00	20.00	23.00
802.11ac-VHT80 MCS0		106	5530	16.50	16.50	19.50
		122	5610	20.00	20.00	23.00
		138	5690	20.00	20.00	23.00
		114	5570	16.00	16.00	19.00
		802.11ac-VHT160 MCS0		100	5500	20.00
802.11ax-HE20 MCS0		116	5580	20.00	20.00	23.00
		124	5620	18.50	18.50	21.50
		132	5660	18.50	18.50	21.50
		144	5720	20.00	20.00	23.00
		102	5510	16.00	16.00	19.00
802.11ax-HE40 MCS0		110	5550	20.00	20.00	23.00
		126	5630	16.00	16.00	19.00
		134	5670	20.00	20.00	23.00
		142	5710	20.00	20.00	23.00
		106	5530	16.50	16.50	19.50
802.11ax-HE80 MCS0		122	5610	20.00	20.00	23.00
		138	5690	20.00	20.00	23.00
		114	5570	16.00	16.00	19.00
802.11ax-HE160 MCS0		100	5500	20.00	20.00	23.00
802.11be-EHT20 MCS0		116	5580	20.00	20.00	23.00
		124	5620	18.50	18.50	21.50
		132	5660	18.50	18.50	21.50
		144	5720	20.00	20.00	23.00
		102	5510	16.00	16.00	19.00
802.11be-EHT40 MCS0		110	5550	20.00	20.00	23.00
		126	5630	16.00	16.00	19.00
		134	5670	20.00	20.00	23.00
		142	5710	20.00	20.00	23.00
		106	5530	16.50	16.50	19.50
802.11be-EHT80 MCS0		122	5610	20.00	20.00	23.00
		138	5690	20.00	20.00	23.00
		114	5570	16.00	16.00	19.00
802.11be-EHT160 MCS0		100	5500	20.00	20.00	23.00



Burst Average Power (dBm)						
5.8GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		149	5745	19.50	19.50	22.50
		157	5785	19.50	19.50	22.50
		165	5825	19.50	19.50	22.50
802.11n-HT20 MCS0		149	5745	19.50	19.50	22.50
		157	5785	19.50	19.50	22.50
		165	5825	19.50	19.50	22.50
802.11n-HT40 MCS0		151	5755	20.00	20.00	23.00
		159	5795	20.00	20.00	23.00
802.11ac-VHT20 MCS0		149	5745	19.50	19.50	22.50
		157	5785	19.50	19.50	22.50
		165	5825	19.50	19.50	22.50
802.11ac-VHT40 MCS0		151	5755	20.00	20.00	23.00
		159	5795	20.00	20.00	23.00
802.11ac-VHT80 MCS0		155	5775	20.00	20.00	23.00
		149	5745	19.50	19.50	22.50
802.11ax-HE20 MCS0		157	5785	19.50	19.50	22.50
		165	5825	19.50	19.50	22.50
		151	5755	20.00	20.00	23.00
802.11ax-HE40 MCS0		159	5795	20.00	20.00	23.00
		155	5775	20.00	20.00	23.00
802.11ax-HE80 MCS0		149	5745	19.50	19.50	22.50
		157	5785	19.50	19.50	22.50
802.11be-EHT20 MCS0		165	5825	19.50	19.50	22.50
		151	5755	20.00	20.00	23.00
		159	5795	20.00	20.00	23.00
802.11be-EHT40 MCS0		155	5775	20.00	20.00	23.00
		149	5745	19.50	19.50	22.50

Burst Average Power (dBm)						
5.9GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		169	5845	18.00	19.50	21.50
		173	5865	18.00	19.50	21.50
		177	5885	17.00	19.50	21.00
802.11n-HT20 MCS0		169	5845	18.00	19.50	21.50
		173	5865	18.00	19.50	21.50
		177	5885	17.00	19.50	21.00
802.11n-HT40 MCS0		167	5835	19.00	19.00	22.00
		175	5875	19.00	19.00	22.00
802.11ac-VHT20 MCS0		169	5845	18.00	19.50	21.50
		173	5865	18.00	19.50	21.50
		177	5885	17.00	19.50	21.00
802.11ac-VHT40 MCS0		167	5835	19.00	19.00	22.00
		175	5875	19.00	19.00	22.00
802.11ac-VHT80 MCS0		171	5855	19.50	19.50	22.50
		163	5815	19.50	19.50	22.50
802.11ac-VHT160 MCS0		169	5845	18.00	19.50	21.50
		173	5865	18.00	19.50	21.50
		177	5885	17.00	19.50	21.00
802.11ax-HE20 MCS0		167	5835	19.00	19.00	22.00
		175	5875	19.00	19.00	22.00
		171	5855	19.50	19.50	22.50
802.11ax-HE40 MCS0		163	5815	19.50	19.50	22.50
		169	5845	18.00	19.50	21.50
802.11ax-HE80 MCS0		173	5865	18.00	19.50	21.50
		177	5885	17.00	19.50	21.00
		167	5835	19.00	19.00	22.00
802.11be-EHT20 MCS0		175	5875	19.00	19.00	22.00
		171	5855	19.50	19.50	22.50
802.11be-EHT40 MCS0		163	5815	19.50	19.50	22.50
		169	5845	18.00	19.50	21.50
		173	5865	18.00	19.50	21.50
802.11be-EHT80 MCS0		177	5885	17.00	19.50	21.00
		167	5835	19.00	19.00	22.00
802.11be-EHT160 MCS0		175	5875	19.00	19.00	22.00
		171	5855	19.50	19.50	22.50



<Power index 8> RSDB

<2.4GHz WLAN>

Burst Average Power (dBm)				
Transmit Antenna				SISO Ant 3
2.4GHz WLAN	Mode	Tune-Up Limit	Frequency (MHz)	Tune-Up Limit
	802.11b 1Mbps	1	2412	19.50
		6	2437	19.50
		11	2462	19.50
		12	2467	19.50
		13	2472	19.50

Burst Average Power (dBm)				
Transmit Antenna				SISO Ant 4
2.4GHz WLAN	Mode	Tune-Up Limit	Frequency (MHz)	Tune-Up Limit
	802.11b 1Mbps	1	2412	17.50
		6	2437	17.50
		11	2462	17.50
		12	2467	17.50
		13	2472	17.50

Burst Average Power (dBm)						
Transmit Antenna				MIMO		
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
	802.11g 6Mbps	1	2412	15.00	15.00	18.00
		6	2437	15.00	15.00	18.00
		11	2462	15.00	15.00	18.00
		12	2467	15.50	15.50	18.50
		13	2472	13.50	13.50	16.50
	802.11n-HT20 MCS0	1	2412	15.00	15.00	18.00
		6	2437	15.00	15.00	18.00
		11	2462	15.00	15.00	18.00
		12	2467	15.00	15.00	18.00
		13	2472	15.00	15.00	18.00
	802.11ac-VHT20 MCS0	1	2412	15.00	15.00	18.00
		6	2437	15.00	15.00	18.00
		11	2462	15.00	15.00	18.00
		12	2467	15.00	15.00	18.00
		13	2472	15.00	15.00	18.00
	802.11ax-HE20 MCS0	1	2412	15.00	15.00	18.00
		6	2437	15.00	15.00	18.00
		11	2462	15.00	15.00	18.00
		12	2467	15.00	15.00	18.00
		13	2472	15.00	15.00	18.00
	802.11be-EHT20 MCS0	1	2412	15.00	15.00	18.00
		6	2437	15.00	15.00	18.00
		11	2462	15.00	15.00	18.00
		12	2467	15.00	15.00	18.00
		13	2472	15.00	15.00	18.00



<5GHz WLAN>

Burst Average Power (dBm)						
5.2GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		36	5180	19.00	19.00	22.00
		40	5200	19.00	19.00	22.00
		44	5220	19.00	19.00	22.00
		48	5240	19.00	19.00	22.00
802.11n-HT20 MCS0		36	5180	19.00	19.00	22.00
		40	5200	19.00	19.00	22.00
		44	5220	19.00	19.00	22.00
		48	5240	19.00	19.00	22.00
802.11n-HT40 MCS0		38	5190	17.50	17.50	20.50
		46	5230	19.00	19.00	22.00
802.11ac-VHT20 MCS0		36	5180	19.00	19.00	22.00
		40	5200	19.00	19.00	22.00
		44	5220	19.00	19.00	22.00
		48	5240	19.00	19.00	22.00
802.11ac-VHT40 MCS0		38	5190	17.50	17.50	20.50
		46	5230	19.00	19.00	22.00
802.11ac-VHT80 MCS0		42	5210	17.50	17.50	20.50
		46	5230	19.00	19.00	22.00
802.11ax-HE20 MCS0		36	5180	19.00	19.00	22.00
		40	5200	19.00	19.00	22.00
		44	5220	19.00	19.00	22.00
		48	5240	19.00	19.00	22.00
802.11ax-HE40 MCS0		38	5190	17.50	17.50	20.50
		46	5230	19.00	19.00	22.00
802.11ax-HE80 MCS0		42	5210	17.50	17.50	20.50
		46	5230	19.00	19.00	22.00
802.11be-EHT20 MCS0		36	5180	19.00	19.00	22.00
		40	5200	19.00	19.00	22.00
		44	5220	19.00	19.00	22.00
		48	5240	19.00	19.00	22.00
802.11be-EHT40 MCS0		38	5190	17.50	17.50	20.50
		46	5230	19.00	19.00	22.00
802.11be-EHT80 MCS0		42	5210	17.50	17.50	20.50
		46	5230	19.00	19.00	22.00



Burst Average Power (dBm)						
5.3GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		52	5260	19.00	19.00	22.00
		56	5280	19.00	19.00	22.00
		60	5300	19.00	19.00	22.00
		64	5320	19.00	19.00	22.00
802.11n-HT20 MCS0		52	5260	19.00	19.00	22.00
		56	5280	19.00	19.00	22.00
		60	5300	19.00	19.00	22.00
		64	5320	19.00	19.00	22.00
802.11n-HT40 MCS0		54	5270	19.00	19.00	22.00
		62	5310	17.00	17.00	20.00
802.11ac-VHT20 MCS0		52	5260	19.00	19.00	22.00
		60	5300	19.00	19.00	22.00
		64	5320	19.00	19.00	22.00
802.11ac-VHT40 MCS0		54	5270	19.00	19.00	22.00
		62	5310	17.00	17.00	20.00
802.11ac-VHT80 MCS0		58	5290	17.00	17.00	20.00
		50	5250	14.50	14.50	17.50
802.11ac-VHT160 MCS0		52	5260	19.00	19.00	22.00
		60	5300	19.00	19.00	22.00
		64	5320	19.00	19.00	22.00
802.11ax-HE20 MCS0		54	5270	19.00	19.00	22.00
		62	5310	17.00	17.00	20.00
		58	5290	17.00	17.00	20.00
802.11ax-HE40 MCS0		50	5250	14.50	14.50	17.50
		52	5260	19.00	19.00	22.00
802.11ax-HE80 MCS0		56	5280	19.00	19.00	22.00
		60	5300	19.00	19.00	22.00
		64	5320	19.00	19.00	22.00
802.11ax-HE160 MCS0		54	5270	19.00	19.00	22.00
		62	5310	17.00	17.00	20.00
802.11be-EHT20 MCS0		58	5290	17.00	17.00	20.00
		52	5260	19.00	19.00	22.00
		60	5300	19.00	19.00	22.00
		64	5320	19.00	19.00	22.00
802.11be-EHT40 MCS0		54	5270	19.00	19.00	22.00
		62	5310	17.00	17.00	20.00
802.11be-EHT80 MCS0		58	5290	17.00	17.00	20.00
		50	5250	14.50	14.50	17.50
802.11be-EHT160 MCS0		52	5260	19.00	19.00	22.00



Burst Average Power (dBm)						
5.5GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		100	5500	19.00	19.00	22.00
		116	5580	19.00	19.00	22.00
		124	5620	19.00	19.00	22.00
		132	5660	19.00	19.00	22.00
		144	5720	19.00	19.00	22.00
802.11n-HT20 MCS0		100	5500	19.00	19.00	22.00
		116	5580	19.00	19.00	22.00
		124	5620	18.50	18.50	21.50
		132	5660	18.50	18.50	21.50
		144	5720	19.00	19.00	22.00
802.11n-HT40 MCS0		102	5510	16.00	16.00	19.00
		110	5550	19.00	19.00	22.00
		126	5630	16.00	16.00	19.00
		134	5670	19.00	19.00	22.00
		142	5710	19.00	19.00	22.00
802.11ac-VHT20 MCS0		100	5500	19.00	19.00	22.00
		116	5580	19.00	19.00	22.00
		124	5620	18.50	18.50	21.50
		132	5660	18.50	18.50	21.50
		144	5720	19.00	19.00	22.00
802.11ac-VHT40 MCS0		102	5510	16.00	16.00	19.00
		110	5550	19.00	19.00	22.00
		126	5630	16.00	16.00	19.00
		134	5670	19.00	19.00	22.00
		142	5710	19.00	19.00	22.00
802.11ac-VHT80 MCS0		106	5530	16.50	16.50	19.50
		122	5610	19.00	19.00	22.00
		138	5690	19.00	19.00	22.00
		114	5570	16.00	16.00	19.00
		802.11ac-VHT160 MCS0		114	5570	16.00
802.11ax-HE20 MCS0		100	5500	19.00	19.00	22.00
		116	5580	19.00	19.00	22.00
		124	5620	18.50	18.50	21.50
		132	5660	18.50	18.50	21.50
		144	5720	19.00	19.00	22.00
802.11ax-HE40 MCS0		102	5510	16.00	16.00	19.00
		110	5550	19.00	19.00	22.00
		126	5630	16.00	16.00	19.00
		134	5670	19.00	19.00	22.00
		142	5710	19.00	19.00	22.00
802.11ax-HE80 MCS0		106	5530	16.50	16.50	19.50
		122	5610	19.00	19.00	22.00
		138	5690	19.00	19.00	22.00
802.11ax-HE160 MCS0		114	5570	16.00	16.00	19.00
802.11be-EHT20 MCS0		100	5500	19.00	19.00	22.00
		116	5580	19.00	19.00	22.00
		124	5620	18.50	18.50	21.50
		132	5660	18.50	18.50	21.50
		144	5720	19.00	19.00	22.00
802.11be-EHT40 MCS0		102	5510	16.00	16.00	19.00
		110	5550	19.00	19.00	22.00
		126	5630	16.00	16.00	19.00
		134	5670	19.00	19.00	22.00
		142	5710	19.00	19.00	22.00
802.11be-EHT80 MCS0		106	5530	16.50	16.50	19.50
		122	5610	19.00	19.00	22.00
		138	5690	19.00	19.00	22.00
802.11be-EHT160 MCS0		114	5570	16.00	16.00	19.00



Burst Average Power (dBm)						
5.8GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		149	5745	19.00	19.00	22.00
		157	5785	19.00	19.00	22.00
		165	5825	19.00	19.00	22.00
802.11n-HT20 MCS0		149	5745	19.00	19.00	22.00
		157	5785	19.00	19.00	22.00
		165	5825	19.00	19.00	22.00
802.11n-HT40 MCS0		151	5755	19.00	19.00	22.00
		159	5795	19.00	19.00	22.00
802.11ac-VHT20 MCS0		149	5745	19.00	19.00	22.00
		157	5785	19.00	19.00	22.00
		165	5825	19.00	19.00	22.00
802.11ac-VHT40 MCS0		151	5755	19.00	19.00	22.00
		159	5795	19.00	19.00	22.00
802.11ac-VHT80 MCS0		155	5775	19.00	19.00	22.00
		149	5745	19.00	19.00	22.00
802.11ax-HE20 MCS0		157	5785	19.00	19.00	22.00
		165	5825	19.00	19.00	22.00
		151	5755	19.00	19.00	22.00
802.11ax-HE40 MCS0		159	5795	19.00	19.00	22.00
		155	5775	19.00	19.00	22.00
802.11ax-HE80 MCS0		149	5745	19.00	19.00	22.00
		157	5785	19.00	19.00	22.00
802.11be-EHT20 MCS0		165	5825	19.00	19.00	22.00
		151	5755	19.00	19.00	22.00
		159	5795	19.00	19.00	22.00
802.11be-EHT40 MCS0		155	5775	19.00	19.00	22.00
		149	5745	19.00	19.00	22.00
802.11be-EHT80 MCS0		157	5785	19.00	19.00	22.00
		155	5775	19.00	19.00	22.00

Burst Average Power (dBm)						
5.9GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		169	5845	18.00	18.50	21.00
		173	5865	18.00	18.50	21.00
		177	5885	17.00	18.50	20.50
802.11n-HT20 MCS0		169	5845	18.00	18.50	21.00
		173	5865	18.00	18.50	21.00
		177	5885	17.00	18.50	20.50
802.11n-HT40 MCS0		167	5835	18.50	18.50	21.50
		175	5875	18.50	18.50	21.50
802.11ac-VHT20 MCS0		169	5845	18.00	18.50	21.00
		173	5865	18.00	18.50	21.00
		177	5885	17.00	18.50	20.50
802.11ac-VHT40 MCS0		167	5835	18.50	18.50	21.50
		175	5875	18.50	18.50	21.50
802.11ac-VHT80 MCS0		171	5855	18.50	18.50	21.50
		163	5815	18.50	18.50	21.50
802.11ac-VHT160 MCS0		169	5845	18.00	18.50	21.00
		173	5865	18.00	18.50	21.00
		177	5885	17.00	18.50	20.50
802.11ax-HE20 MCS0		167	5835	18.50	18.50	21.50
		175	5875	18.50	18.50	21.50
		171	5855	18.50	18.50	21.50
802.11ax-HE40 MCS0		163	5815	18.50	18.50	21.50
		169	5845	18.00	18.50	21.00
802.11ax-HE80 MCS0		173	5865	18.00	18.50	21.00
		177	5885	17.00	18.50	20.50
		167	5835	18.50	18.50	21.50
802.11be-EHT20 MCS0		175	5875	18.50	18.50	21.50
		171	5855	18.50	18.50	21.50
802.11be-EHT40 MCS0		163	5815	18.50	18.50	21.50
		169	5845	18.00	18.50	21.00
		173	5865	18.00	18.50	21.00
802.11be-EHT80 MCS0		177	5885	17.00	18.50	20.50
		167	5835	18.50	18.50	21.50
802.11be-EHT160 MCS0		175	5875	18.50	18.50	21.50
		171	5855	18.50	18.50	21.50





<Power index 9> Non-RSDB

<5GHz WLAN>

Burst Average Power (dBm)						
5.2GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		36	5180	19.00	19.00	22.00
		40	5200	19.00	19.00	22.00
		44	5220	19.00	19.00	22.00
		48	5240	19.00	19.00	22.00
802.11n-HT20 MCS0		36	5180	19.00	19.00	22.00
		40	5200	19.00	19.00	22.00
		44	5220	19.00	19.00	22.00
		48	5240	19.00	19.00	22.00
802.11n-HT40 MCS0		38	5190	17.50	17.50	20.50
		46	5230	19.00	19.00	22.00
802.11ac-VHT20 MCS0		36	5180	19.00	19.00	22.00
		40	5200	19.00	19.00	22.00
		44	5220	19.00	19.00	22.00
		48	5240	19.00	19.00	22.00
802.11ac-VHT40 MCS0		38	5190	17.50	17.50	20.50
		46	5230	19.00	19.00	22.00
802.11ac-VHT80 MCS0		42	5210	17.50	17.50	20.50
802.11ax-HE20 MCS0		36	5180	19.00	19.00	22.00
		40	5200	19.00	19.00	22.00
		44	5220	19.00	19.00	22.00
		48	5240	19.00	19.00	22.00
802.11ax-HE40 MCS0		38	5190	17.50	17.50	20.50
		46	5230	19.00	19.00	22.00
802.11ax-HE80 MCS0		42	5210	17.50	17.50	20.50
802.11be-EHT20 MCS0		36	5180	19.00	19.00	22.00
		40	5200	19.00	19.00	22.00
		44	5220	19.00	19.00	22.00
		48	5240	19.00	19.00	22.00
802.11be-EHT40 MCS0		38	5190	17.50	17.50	20.50
		46	5230	19.00	19.00	22.00
802.11be-EHT80 MCS0		42	5210	17.50	17.50	20.50



Burst Average Power (dBm)						
5.3GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		52	5260	19.00	19.00	22.00
		56	5280	19.00	19.00	22.00
		60	5300	19.00	19.00	22.00
		64	5320	19.00	19.00	22.00
802.11n-HT20 MCS0		52	5260	19.00	19.00	22.00
		56	5280	19.00	19.00	22.00
		60	5300	19.00	19.00	22.00
		64	5320	19.00	19.00	22.00
802.11n-HT40 MCS0		54	5270	19.00	19.00	22.00
		62	5310	17.00	17.00	20.00
802.11ac-VHT20 MCS0		52	5260	19.00	19.00	22.00
		56	5280	19.00	19.00	22.00
		60	5300	19.00	19.00	22.00
		64	5320	19.00	19.00	22.00
802.11ac-VHT40 MCS0		54	5270	19.00	19.00	22.00
		62	5310	17.00	17.00	20.00
802.11ac-VHT80 MCS0		58	5290	17.00	17.00	20.00
		50	5250	14.50	14.50	17.50
802.11ac-VHT160 MCS0		52	5260	19.00	19.00	22.00
		56	5280	19.00	19.00	22.00
		60	5300	19.00	19.00	22.00
		64	5320	19.00	19.00	22.00
802.11ax-HE20 MCS0		54	5270	19.00	19.00	22.00
		62	5310	17.00	17.00	20.00
802.11ax-HE40 MCS0		58	5290	17.00	17.00	20.00
		50	5250	14.50	14.50	17.50
802.11ax-HE80 MCS0		52	5260	19.00	19.00	22.00
		56	5280	19.00	19.00	22.00
		60	5300	19.00	19.00	22.00
		64	5320	19.00	19.00	22.00
802.11ax-HE160 MCS0		54	5270	19.00	19.00	22.00
		62	5310	17.00	17.00	20.00
802.11be-EHT20 MCS0		58	5290	17.00	17.00	20.00
		50	5250	14.50	14.50	17.50
		52	5260	19.00	19.00	22.00
		56	5280	19.00	19.00	22.00
802.11be-EHT40 MCS0		60	5300	19.00	19.00	22.00
		64	5320	19.00	19.00	22.00
802.11be-EHT80 MCS0		54	5270	19.00	19.00	22.00
		62	5310	17.00	17.00	20.00
802.11be-EHT160 MCS0		58	5290	17.00	17.00	20.00
		50	5250	14.50	14.50	17.50



Burst Average Power (dBm)						
5.5GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		100	5500	19.00	19.00	22.00
		116	5580	19.00	19.00	22.00
		124	5620	19.00	19.00	22.00
		132	5660	19.00	19.00	22.00
		144	5720	19.00	19.00	22.00
802.11n-HT20 MCS0		100	5500	19.00	19.00	22.00
		116	5580	19.00	19.00	22.00
		124	5620	18.50	18.50	21.50
		132	5660	18.50	18.50	21.50
		144	5720	19.00	19.00	22.00
802.11n-HT40 MCS0		102	5510	16.00	16.00	19.00
		110	5550	19.00	19.00	22.00
		126	5630	16.00	16.00	19.00
		134	5670	19.00	19.00	22.00
		142	5710	19.00	19.00	22.00
802.11ac-VHT20 MCS0		100	5500	19.00	19.00	22.00
		116	5580	19.00	19.00	22.00
		124	5620	18.50	18.50	21.50
		132	5660	18.50	18.50	21.50
		144	5720	19.00	19.00	22.00
802.11ac-VHT40 MCS0		102	5510	16.00	16.00	19.00
		110	5550	19.00	19.00	22.00
		126	5630	16.00	16.00	19.00
		134	5670	19.00	19.00	22.00
		142	5710	19.00	19.00	22.00
802.11ac-VHT80 MCS0		106	5530	16.50	16.50	19.50
		122	5610	19.00	19.00	22.00
		138	5690	19.00	19.00	22.00
		114	5570	16.00	16.00	19.00
		802.11ac-VHT160 MCS0		114	5570	16.00
802.11ax-HE20 MCS0		100	5500	19.00	19.00	22.00
		116	5580	19.00	19.00	22.00
		124	5620	18.50	18.50	21.50
		132	5660	18.50	18.50	21.50
		144	5720	19.00	19.00	22.00
802.11ax-HE40 MCS0		102	5510	16.00	16.00	19.00
		110	5550	19.00	19.00	22.00
		126	5630	16.00	16.00	19.00
		134	5670	19.00	19.00	22.00
		142	5710	19.00	19.00	22.00
802.11ax-HE80 MCS0		106	5530	16.50	16.50	19.50
		122	5610	19.00	19.00	22.00
		138	5690	19.00	19.00	22.00
802.11ax-HE160 MCS0		114	5570	16.00	16.00	19.00
802.11be-EHT20 MCS0		100	5500	19.00	19.00	22.00
		116	5580	19.00	19.00	22.00
		124	5620	18.50	18.50	21.50
		132	5660	18.50	18.50	21.50
		144	5720	19.00	19.00	22.00
802.11be-EHT40 MCS0		102	5510	16.00	16.00	19.00
		110	5550	19.00	19.00	22.00
		126	5630	16.00	16.00	19.00
		134	5670	19.00	19.00	22.00
		142	5710	19.00	19.00	22.00
802.11be-EHT80 MCS0		106	5530	16.50	16.50	19.50
		122	5610	19.00	19.00	22.00
		138	5690	19.00	19.00	22.00
802.11be-EHT160 MCS0		114	5570	16.00	16.00	19.00



Burst Average Power (dBm)						
5.8GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		149	5745	19.00	19.00	22.00
		157	5785	19.00	19.00	22.00
		165	5825	19.00	19.00	22.00
802.11n-HT20 MCS0		149	5745	19.00	19.00	22.00
		157	5785	19.00	19.00	22.00
		165	5825	19.00	19.00	22.00
802.11n-HT40 MCS0		151	5755	19.00	19.00	22.00
		159	5795	19.00	19.00	22.00
802.11ac-VHT20 MCS0		149	5745	19.00	19.00	22.00
		157	5785	19.00	19.00	22.00
		165	5825	19.00	19.00	22.00
802.11ac-VHT40 MCS0		151	5755	19.00	19.00	22.00
		159	5795	19.00	19.00	22.00
802.11ac-VHT80 MCS0		155	5775	19.00	19.00	22.00
		149	5745	19.00	19.00	22.00
802.11ax-HE20 MCS0		157	5785	19.00	19.00	22.00
		165	5825	19.00	19.00	22.00
		151	5755	19.00	19.00	22.00
802.11ax-HE40 MCS0		159	5795	19.00	19.00	22.00
		155	5775	19.00	19.00	22.00
802.11ax-HE80 MCS0		149	5745	19.00	19.00	22.00
		157	5785	19.00	19.00	22.00
802.11be-EHT20 MCS0		165	5825	19.00	19.00	22.00
		151	5755	19.00	19.00	22.00
		159	5795	19.00	19.00	22.00
802.11be-EHT40 MCS0		155	5775	19.00	19.00	22.00
		149	5745	19.00	19.00	22.00

Burst Average Power (dBm)						
5.9GHz WLAN	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
802.11a 6Mbps		169	5845	18.00	18.50	21.00
		173	5865	18.00	18.50	21.00
		177	5885	17.00	18.50	20.50
802.11n-HT20 MCS0		169	5845	18.00	18.50	21.00
		173	5865	18.00	18.50	21.00
		177	5885	17.00	18.50	20.50
802.11n-HT40 MCS0		167	5835	18.50	18.50	21.50
		175	5875	18.50	18.50	21.50
802.11ac-VHT20 MCS0		169	5845	18.00	18.50	21.00
		173	5865	18.00	18.50	21.00
		177	5885	17.00	18.50	20.50
802.11ac-VHT40 MCS0		167	5835	18.50	18.50	21.50
		175	5875	18.50	18.50	21.50
802.11ac-VHT80 MCS0		171	5855	18.50	18.50	21.50
		163	5815	18.50	18.50	21.50
802.11ac-VHT160 MCS0		169	5845	18.00	18.50	21.00
		173	5865	18.00	18.50	21.00
		177	5885	17.00	18.50	20.50
802.11ax-HE20 MCS0		167	5835	18.50	18.50	21.50
		175	5875	18.50	18.50	21.50
		171	5855	18.50	18.50	21.50
802.11ax-HE40 MCS0		163	5815	18.50	18.50	21.50
		169	5845	18.00	18.50	21.00
802.11ax-HE80 MCS0		173	5865	18.00	18.50	21.00
		177	5885	17.00	18.50	20.50
		167	5835	18.50	18.50	21.50
802.11be-EHT20 MCS0		175	5875	18.50	18.50	21.50
		171	5855	18.50	18.50	21.50
802.11be-EHT40 MCS0		163	5815	18.50	18.50	21.50
		169	5845	18.00	18.50	21.00
		177	5885	17.00	18.50	20.50
802.11be-EHT80 MCS0		167	5835	18.50	18.50	21.50
		175	5875	18.50	18.50	21.50
802.11be-EHT160 MCS0		171	5855	18.50	18.50	21.50
		163	5815	18.50	18.50	21.50



<Maximum Power - Power Index 0>

Standard Power client (SP)

Transmit Antenna				Burst Average Power (dBm)		
Mode	Channel	Frequency (MHz)	MIMO			
			Ant 3+4(3) Tune-Up Limit	Ant 3+4(4) Tune-Up Limit	Ant 3+4 Tune-Up Limit	
WiFi 6E	802.11a 6Mbps	1	5955	18.00	18.00	21.00
		57	6235	19.50	19.50	22.50
		113	6515			
		173	6815	21.00	21.00	24.00
		233	7115			
	802.11ax-HE20 MCS0	1	5955	16.50	16.50	19.50
		57	6235	19.50	19.50	22.50
		113	6515			
		173	6815	20.00	20.00	23.00
		233	7115			
	802.11ax-HE40 MCS0	3	5965	19.00	19.00	22.00
		59	6245	20.00	20.00	23.00
		107	6485			
		171	6805	19.50	19.50	22.50
		227	7085			
	802.11ax-HE80 MCS0	7	5985	19.50	19.50	22.50
71		6305	20.00	20.00	23.00	
119		6545				
167		6785	19.00	19.00	22.00	
215		7025				
802.11ax-HE160 MCS0	15	6025	20.00	20.00	23.00	
	47	6185	20.00	20.00	23.00	
	111	6505				
	143	6665	18.50	18.50	21.50	
	207	6985				
802.11be-EHT20 MCS0	1	5955	16.50	16.50	19.50	
	57	6235	19.50	19.50	22.50	
	113	6515				
	173	6815	20.00	20.00	23.00	
	233	7115				
802.11be-EHT40 MCS0	3	5965	19.00	19.00	22.00	
	59	6245	20.00	20.00	23.00	
	107	6485				
	171	6805	19.50	19.50	22.50	
	227	7085				
802.11be-EHT80 MCS0	7	5985	19.50	19.50	22.50	
	71	6305	20.00	20.00	23.00	
	119	6545				
	167	6785	19.00	19.00	22.00	
	215	7025				
802.11be-EHT160 MCS0	15	6025	20.00	20.00	23.00	
	47	6185	20.00	20.00	23.00	
	111	6505				
	143	6665	18.50	18.50	21.50	
	207	6985				



<Power Index 1 /Power Index 2 /Power Index 3 /Power Index 4> Non-RSDB / RSDB

Standard Power client (SP)

<6GHz WLAN>

Burst Average Power (dBm)						
	Transmit Antenna			MIMO		
	Mode	Channel	Frequency (MHz)	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
				Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
WiFi 6E	802.11a 6Mbps	1	5955	16.00	16.00	19.00
		57	6235	16.00	16.00	19.00
		113	6515			
		173	6815	16.00	16.00	19.00
		233	7115			
	802.11ax-HE20 MCS0	1	5955	16.00	16.00	19.00
		57	6235	16.00	16.00	19.00
		113	6515			
		173	6815	16.00	16.00	19.00
		233	7115			
	802.11ax-HE40 MCS0	3	5965	16.00	16.00	19.00
		59	6245	16.00	16.00	19.00
		107	6485			
		171	6805	16.00	16.00	19.00
		227	7085			
	802.11ax-HE80 MCS0	7	5985	16.00	16.00	19.00
		71	6305	16.00	16.00	19.00
		119	6545			
		167	6785	16.00	16.00	19.00
		215	7025			
	802.11ax-HE160 MCS0	15	6025	13.50	13.50	16.50
		47	6185	13.50	13.50	16.50
		111	6505			
		143	6665	16.00	16.00	19.00
		207	6985			
	802.11be-EHT20 MCS0	1	5955	16.00	16.00	19.00
		57	6235	16.00	16.00	19.00
		113	6515			
		173	6815	16.00	16.00	19.00
		233	7115			
	802.11be-EHT40 MCS0	3	5965	16.00	16.00	19.00
		59	6245	16.00	16.00	19.00
		107	6485			
		171	6805	16.00	16.00	19.00
		227	7085			
	802.11be-EHT80 MCS0	7	5985	16.00	16.00	19.00
		71	6305	16.00	16.00	19.00
		119	6545			
		167	6785	16.00	16.00	19.00
		215	7025			
802.11be-EHT160 MCS0	15	6025	16.00	16.00	19.00	
	47	6185	16.00	16.00	19.00	
	111	6505				
	143	6665	16.00	16.00	19.00	
	207	6985				



<Power Index 5 /Power Index 6 /Power Index 7 /Power Index 8 /Power Index 9> Non-RSDB / RSDB

Standard Power client (SP)

<6GHz WLAN>

		Burst Average Power (dBm)					
	Transmit Antenna	Mode	Channel	Frequency (MHz)	MIMO		
					Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
					Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
WiFi 6E	802.11a 6Mbps	1	5955	17.50	17.50	20.50	
		57	6235	17.50	17.50	20.50	
		113	6515				
		173	6815	17.50	17.50	20.50	
		233	7115				
	802.11ax-HE20 MCS0	1	5955	16.50	16.50	19.50	
		57	6235	17.50	17.50	20.50	
		113	6515				
		173	6815	17.50	17.50	20.50	
		233	7115				
	802.11ax-HE40 MCS0	3	5965	17.50	17.50	20.50	
		59	6245	17.50	17.50	20.50	
		107	6485				
		171	6805	17.50	17.50	20.50	
		227	7085				
	802.11ax-HE80 MCS0	7	5985	17.50	17.50	20.50	
		71	6305	17.50	17.50	20.50	
		119	6545				
		167	6785	17.50	17.50	20.50	
		215	7025				
	802.11ax-HE160 MCS0	15	6025	17.00	17.00	20.00	
		47	6185	17.00	17.00	20.00	
		111	6505				
		143	6665	17.50	17.50	20.50	
		207	6985				
	802.11be-EHT20 MCS0	1	5955	16.50	16.50	19.50	
		57	6235	17.50	17.50	20.50	
		113	6515				
		173	6815	17.50	17.50	20.50	
		233	7115				
	802.11be-EHT40 MCS0	3	5965	17.50	17.50	20.50	
		59	6245	17.50	17.50	20.50	
		107	6485				
		171	6805	17.50	17.50	20.50	
		227	7085				
	802.11be-EHT80 MCS0	7	5985	17.50	17.50	20.50	
		71	6305	17.50	17.50	20.50	
		119	6545				
		167	6785	17.50	17.50	20.50	
		215	7025				
802.11be-EHT160 MCS0	15	6025	17.00	17.00	20.00		
	47	6185	17.00	17.00	20.00		
	111	6505					
	143	6665	17.50	17.50	20.50		
	207	6985					



<Maximum Power - Power Index 0>

Low Power Indoor (LPI)

		Burst Average Power (dBm)			MIMO		
	Transmit Antenna			Ant 3+4(3)	Ant 3+4(4)	Ant 3+4	
	Mode	Channel	Frequency (MHz)	Tune-Up Limit	Tune-Up Limit	Tune-Up Limit	
WiFi 6E	802.11a 6Mbps	1	5955	8.50	8.50	11.50	
		57	6235	8.50	8.50	11.50	
		113	6515	10.00	10.00	13.00	
		173	6815	10.50	10.50	13.50	
		233	7115	10.50	10.50	13.50	
	802.11ax-HE20 MCS0	1	5955	9.00	9.00	12.00	
		57	6235	9.00	9.00	12.00	
		113	6515	10.00	10.00	13.00	
		173	6815	11.50	11.50	14.50	
		233	7115	10.00	10.00	13.00	
	802.11ax-HE40 MCS0	3	5965	12.00	12.00	15.00	
		59	6245	11.00	11.00	14.00	
		107	6485	13.00	13.00	16.00	
		171	6805	14.00	14.00	17.00	
		227	7085	13.00	13.00	16.00	
	802.11ax-HE80 MCS0	7	5985	15.00	15.00	18.00	
		71	6305	14.00	14.00	17.00	
		119	6545	15.50	15.50	18.50	
		167	6785	16.00	16.00	19.00	
		215	7025	15.00	15.00	18.00	
	802.11ax-HE160 MCS0	15	6025	17.50	17.50	20.50	
		47	6185	17.50	17.50	20.50	
		111	6505	18.50	18.50	21.50	
		143	6665	19.50	19.50	22.50	
		207	6985	18.00	18.00	21.00	
	802.11be-EHT20 MCS0	1	5955	9.00	9.00	12.00	
		57	6235	9.00	9.00	12.00	
		113	6515	10.00	10.00	13.00	
		173	6815	11.50	11.50	14.50	
		233	7115	10.00	10.00	13.00	
	802.11be-EHT40 MCS0	3	5965	12.00	12.00	15.00	
		59	6245	11.00	11.00	14.00	
		107	6485	13.00	13.00	16.00	
		171	6805	14.00	14.00	17.00	
		227	7085	13.00	13.00	16.00	
	802.11be-EHT80 MCS0	7	5985	15.00	15.00	18.00	
		71	6305	14.00	14.00	17.00	
		119	6545	15.50	15.50	18.50	
		167	6785	16.00	16.00	19.00	
		215	7025	15.00	15.00	18.00	
802.11be-EHT160 MCS0	15	6025	17.50	17.50	20.50		
	47	6185	17.50	17.50	20.50		
	111	6505	18.50	18.50	21.50		
	143	6665	19.50	19.50	22.50		
	207	6985	18.00	18.00	21.50		





<Power Index 1 / Power Index 2 / Power Index 3 / Power Index 4> Non-RSDB / RSDB

Low Power Indoor (LPI)

<6GHz WLAN>

		Burst Average Power (dBm)					
	Transmit Antenna	Mode	Channel	Frequency (MHz)	MIMO		
					Ant 3+4(3) Tune-Up Limit	Ant 3+4(4) Tune-Up Limit	Ant 3+4 Tune-Up Limit
WiFi 6E	802.11a 6Mbps	1	5955	8.50	8.50	11.50	
		57	6235	8.50	8.50	11.50	
		113	6515	10.00	10.00	13.00	
		173	6815	10.50	10.50	13.50	
		233	7115	10.50	10.50	13.50	
	802.11ax-HE20 MCS0	1	5955	9.00	9.00	12.00	
		57	6235	9.00	9.00	12.00	
		113	6515	10.00	10.00	13.00	
		173	6815	11.50	11.50	14.50	
	802.11ax-HE40 MCS0	233	7115	10.00	10.00	13.00	
		3	5965	12.00	12.00	15.00	
		59	6245	11.00	11.00	14.00	
		107	6485	13.00	13.00	16.00	
	802.11ax-HE80 MCS0	171	6805	14.00	14.00	17.00	
		227	7085	13.00	13.00	16.00	
		7	5985	15.00	15.00	18.00	
		71	6305	14.00	14.00	17.00	
	802.11ax-HE160 MCS0	119	6545	15.50	15.50	18.50	
		167	6785	16.00	16.00	19.00	
		215	7025	15.00	15.00	18.00	
		15	6025	13.50	13.50	16.50	
	802.11be-EHT20 MCS0	47	6185	13.50	13.50	16.50	
		111	6505	16.00	16.00	19.00	
		143	6665	16.00	16.00	19.00	
		207	6985	15.00	15.00	18.00	
	802.11be-EHT40 MCS0	1	5955	9.00	9.00	12.00	
		57	6235	9.00	9.00	12.00	
		113	6515	10.00	10.00	13.00	
		173	6815	11.50	11.50	14.50	
	802.11be-EHT80 MCS0	233	7115	10.00	10.00	13.00	
		3	5965	12.00	12.00	15.00	
		59	6245	11.00	11.00	14.00	
		107	6485	13.00	13.00	16.00	
	802.11be-EHT160 MCS0	171	6805	14.00	14.00	17.00	
		227	7085	13.00	13.00	16.00	
		7	5985	15.00	15.00	18.00	
		71	6305	14.00	14.00	17.00	
	802.11be-EHT20 MCS0	119	6545	15.50	15.50	18.50	
		167	6785	16.00	16.00	19.00	
		215	7025	15.00	15.00	18.00	
15		6025	13.50	13.50	16.50		
802.11be-EHT40 MCS0	47	6185	13.50	13.50	16.50		
	111	6505	16.00	16.00	19.00		
	143	6665	16.00	16.00	19.00		
	207	6985	15.00	15.00	18.00		



<Power Index 5 / Power Index 6 / Power Index 7 / Power Index 8 / Power Index 9> Non-RSDB / RSDB

Low Power Indoor (LPI)

<6GHz WLAN>

		Burst Average Power (dBm)					
	Transmit Antenna	Mode	Channel	Frequency (MHz)	MIMO		
					Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
					Tune-Up Limit	Tune-Up Limit	Tune-Up Limit
WiFi 6E	802.11a 6Mbps	1	5955	8.50	8.50	11.50	
		57	6235	8.50	8.50	11.50	
		113	6515	10.00	10.00	13.00	
		173	6815	10.50	10.50	13.50	
		233	7115	10.50	10.50	13.50	
	802.11ax-HE20 MCS0	1	5955	9.00	9.00	12.00	
		57	6235	9.00	9.00	12.00	
		113	6515	10.00	10.00	13.00	
		173	6815	11.50	11.50	14.50	
	802.11ax-HE40 MCS0	233	7115	10.00	10.00	13.00	
		3	5965	12.00	12.00	15.00	
		59	6245	11.00	11.00	14.00	
		107	6485	13.00	13.00	16.00	
	802.11ax-HE80 MCS0	171	6805	14.00	14.00	17.00	
		227	7085	13.00	13.00	16.00	
		7	5985	15.00	15.00	18.00	
		71	6305	14.00	14.00	17.00	
	802.11ax-HE160 MCS0	119	6545	15.50	15.50	18.50	
		167	6785	16.00	16.00	19.00	
		215	7025	15.00	15.00	18.00	
		15	6025	17.00	17.00	20.00	
	802.11be-EHT20 MCS0	47	6185	17.00	17.00	20.00	
		111	6505	16.00	16.00	19.00	
		143	6665	17.50	17.50	20.50	
		207	6985	18.00	18.00	21.00	
	802.11be-EHT40 MCS0	1	5955	9.00	9.00	12.00	
		57	6235	9.00	9.00	12.00	
		113	6515	10.00	10.00	13.00	
		173	6815	11.50	11.50	14.50	
	802.11be-EHT80 MCS0	233	7115	10.00	10.00	13.00	
		3	5965	12.00	12.00	15.00	
		59	6245	11.00	11.00	14.00	
		107	6485	13.00	13.00	16.00	
	802.11be-EHT160 MCS0	171	6805	14.00	14.00	17.00	
		227	7085	13.00	13.00	16.00	
		7	5985	15.00	15.00	18.00	
		71	6305	14.00	14.00	17.00	
	802.11be-EHT20 MCS0	119	6545	15.50	15.50	18.50	
		167	6785	16.00	16.00	19.00	
		215	7025	15.00	15.00	18.00	
		15	6025	17.00	17.00	20.00	
	802.11be-EHT40 MCS0	47	6185	17.00	17.00	20.00	
		111	6505	16.00	16.00	19.00	
		143	6665	17.50	17.50	20.50	
		207	6985	18.00	18.00	21.00	



<Bluetooth Maximum Power>

General Note:

1. The device implements the power management for Bluetooth 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 18 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

<Maximum Power – Power Index 0>

Mode	Burst Average Power (dBm)								
	Ant 3 BR / EDR			Ant 3 LE			Ant 3 HR		
	1Mbps	2Mbps	3Mbps	1Mbps	2Mbps	2Mbps	4Mbps	8Mbps	
Tune-up Limit	21.00	18.50	18.50	20.00	20.00	18.50	18.50	18.50	

Mode	Burst Average Power (dBm)								
	Ant 4 BR / EDR			Ant 4 LE			Ant 4 HR		
	1Mbps	2Mbps	3Mbps	1Mbps	2Mbps	2Mbps	4Mbps	8Mbps	
Tune-up Limit	20.00	18.00	18.00	19.50	19.50	18.00	18.00	18.00	

Mode	BR / EDR	Burst Average Power (dBm)								
		1Mbps			2Mbps			3Mbps		
		Ant 3+4(3)	Ant 3+4(4)	Ant 3+4	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
Tune-up Limit		18.50	18.50	21.50	16.00	16.00	19.00	16.00	16.00	19.00

Mode	LE	Burst Average Power (dBm)								
		1Mbps			2Mbps			2Mbps		
		Ant 3+4(3)	Ant 3+4(4)	Ant 3+4	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
Tune-up Limit		20.00	20.00	23.00	20.00	20.00	23.00	20.00	20.00	23.00

Mode	HR	Burst Average Power (dBm)								
		2Mbps			4Mbps			8Mbps		
		Ant 3+4(3)	Ant 3+4(4)	Ant 3+4	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
Tune-up Limit		16.00	16.00	19.00	15.50	15.50	18.50	16.00	16.00	19.00

<Power Index 1>

Mode	Burst Average Power (dBm)								
	Ant 3 BR / EDR			Ant 3 LE			Ant 3 HR		
	1Mbps	2Mbps	3Mbps	1Mbps	2Mbps	2Mbps	4Mbps	8Mbps	
Tune-up Limit	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	

Mode	Burst Average Power (dBm)								
	Ant 4 BR / EDR			Ant 4 LE			Ant 4 HR		
	1Mbps	2Mbps	3Mbps	1Mbps	2Mbps	2Mbps	4Mbps	8Mbps	
Tune-up Limit	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	

Mode	BR / EDR	Burst Average Power (dBm)								
		1Mbps			2Mbps			3Mbps		
		Ant 3+4(3)	Ant 3+4(4)	Ant 3+4	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
Tune-up Limit		9.00	9.00	12.00	9.00	9.00	12.00	9.00	9.00	12.00

Mode	LE	Burst Average Power (dBm)								
		1Mbps			2Mbps			2Mbps		
		Ant 3+4(3)	Ant 3+4(4)	Ant 3+4	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
Tune-up Limit		9.00	9.00	12.00	9.00	9.00	12.00	9.00	9.00	12.00

Mode	HR	Burst Average Power (dBm)								
		2Mbps			4Mbps			8Mbps		
		Ant 3+4(3)	Ant 3+4(4)	Ant 3+4	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
Tune-up Limit		9.00	9.00	12.00	9.00	9.00	12.00	9.00	9.00	12.00



<Power Index 2>

Burst Average Power (dBm)								
Mode	Ant 3			Ant 3		Ant 3		
	BR / EDR			LE		HR		
	1Mbps	2Mbps	3Mbps	1Mbps	2Mbps	2Mbps	4Mbps	8Mbps
Tune-up Limit	21.00	18.50	18.50	20.00	20.00	18.50	18.50	18.50

Burst Average Power (dBm)								
Mode	Ant 4			Ant 4		Ant 4		
	BR / EDR			LE		HR		
	1Mbps	2Mbps	3Mbps	1Mbps	2Mbps	2Mbps	4Mbps	8Mbps
Tune-up Limit	20.00	18.00	18.00	19.50	19.50	18.00	18.00	18.00

Burst Average Power (dBm)										
Mode	BR / EDR	1Mbps			2Mbps			3Mbps		
		Ant 3+4(3)	Ant 3+4(4)	Ant 3+4	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
Tune-up Limit		18.50	18.50	21.50	16.00	16.00	19.00	16.00	16.00	19.00

Burst Average Power (dBm)							
Mode	LE	1Mbps			2Mbps		
		Ant 3+4(3)	Ant 3+4(4)	Ant 3+4	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
Tune-up Limit		18.50	18.50	21.50	18.50	18.50	21.50

Burst Average Power (dBm)										
Mode	HR	2Mbps			4Mbps			8Mbps		
		Ant 3+4(3)	Ant 3+4(4)	Ant 3+4	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
Tune-up Limit		16.00	16.00	19.00	15.50	15.50	18.50	16.00	16.00	19.00

<Power Index 3>

Burst Average Power (dBm)								
Mode	Ant 3			Ant 3		Ant 3		
	BR / EDR			LE		HR		
	1Mbps	2Mbps	3Mbps	1Mbps	2Mbps	2Mbps	4Mbps	8Mbps
Tune-up Limit	21.00	18.50	18.50	20.00	20.00	18.50	18.50	18.50

Burst Average Power (dBm)								
Mode	Ant 4			Ant 4		Ant 4		
	BR / EDR			LE		HR		
	1Mbps	2Mbps	3Mbps	1Mbps	2Mbps	2Mbps	4Mbps	8Mbps
Tune-up Limit	18.50	18.00	18.00	18.50	18.50	18.00	18.00	18.00

Burst Average Power (dBm)										
Mode	BR / EDR	1Mbps			2Mbps			3Mbps		
		Ant 3+4(3)	Ant 3+4(4)	Ant 3+4	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
Tune-up Limit		18.50	18.50	21.50	16.00	16.00	19.00	16.00	16.00	19.00

Burst Average Power (dBm)							
Mode	LE	1Mbps			2Mbps		
		Ant 3+4(3)	Ant 3+4(4)	Ant 3+4	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
Tune-up Limit		18.50	18.50	21.50	18.50	18.50	21.50

Burst Average Power (dBm)										
Mode	HR	2Mbps			4Mbps			8Mbps		
		Ant 3+4(3)	Ant 3+4(4)	Ant 3+4	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
Tune-up Limit		16.00	16.00	19.00	15.50	15.50	18.50	16.00	16.00	19.00



<Power Index 4>

Burst Average Power (dBm)								
Mode	Ant 3			Ant 3		Ant 3		
	BR / EDR			LE		HR		
	1Mbps	2Mbps	3Mbps	1Mbps	2Mbps	2Mbps	4Mbps	8Mbps
Tune-up Limit	21.00	18.00	18.00	20.00	20.00	18.50	18.50	18.50

Burst Average Power (dBm)								
Mode	Ant 4			Ant 4		Ant 4		
	BR / EDR			LE		HR		
	1Mbps	2Mbps	3Mbps	1Mbps	2Mbps	2Mbps	4Mbps	8Mbps
Tune-up Limit	18.50	18.00	18.00	18.50	18.50	18.00	18.00	18.00

Burst Average Power (dBm)								
Mode	Ant 3			Ant 3		Ant 3		
	BR / EDR			LE		HR		
	1Mbps	2Mbps	3Mbps	1Mbps	2Mbps	2Mbps	4Mbps	8Mbps
Tune-up Limit	21.00	18.50	18.50	20.00	20.00	18.50	18.50	18.50

Burst Average Power (dBm)										
Mode	BR / EDR	1Mbps			2Mbps			3Mbps		
		Ant 3+4(3)	Ant 3+4(4)	Ant 3+4	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
Tune-up Limit		18.50	18.50	21.50	16.00	16.00	19.00	16.00	16.00	19.00

Burst Average Power (dBm)							
Mode	LE	1Mbps			2Mbps		
		Ant 3+4(3)	Ant 3+4(4)	Ant 3+4	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
Tune-up Limit		18.50	18.50	21.50	18.50	18.50	21.50

Burst Average Power (dBm)										
Mode	HR	2Mbps			4Mbps			8Mbps		
		Ant 3+4(3)	Ant 3+4(4)	Ant 3+4	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4	Ant 3+4(3)	Ant 3+4(4)	Ant 3+4
Tune-up Limit		16.00	16.00	19.00	15.50	15.50	18.50	16.00	16.00	19.00



6.3 General LTE SAR Test and Reporting Considerations

Summarized necessary items addressed in KDB 941225 D05 v02r05																																																															
FCC ID	A4RGC3VE																																																														
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	<p><b>Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3</b></p> <table border="1"> <thead> <tr> <th rowspan="2">Modulation</th> <th colspan="6">Channel bandwidth / Transmission bandwidth (N<sub>RB</sub>)</th> <th rowspan="2">MPR (dB)</th> </tr> <tr> <th>1.4 MHz</th> <th>3.0 MHz</th> <th>5 MHz</th> <th>10 MHz</th> <th>15 MHz</th> <th>20 MHz</th> </tr> </thead> <tbody> <tr> <td>QPSK</td> <td>&gt; 5</td> <td>&gt; 4</td> <td>&gt; 8</td> <td>&gt; 12</td> <td>&gt; 16</td> <td>&gt; 18</td> <td>≤ 1</td> </tr> <tr> <td>16 QAM</td> <td>≤ 5</td> <td>≤ 4</td> <td>≤ 8</td> <td>≤ 12</td> <td>≤ 16</td> <td>≤ 18</td> <td>≤ 1</td> </tr> <tr> <td>16 QAM</td> <td>&gt; 5</td> <td>&gt; 4</td> <td>&gt; 8</td> <td>&gt; 12</td> <td>&gt; 16</td> <td>&gt; 18</td> <td>≤ 2</td> </tr> <tr> <td>64 QAM</td> <td>≤ 5</td> <td>≤ 4</td> <td>≤ 8</td> <td>≤ 12</td> <td>≤ 16</td> <td>≤ 18</td> <td>≤ 2</td> </tr> <tr> <td>64 QAM</td> <td>&gt; 5</td> <td>&gt; 4</td> <td>&gt; 8</td> <td>&gt; 12</td> <td>&gt; 16</td> <td>&gt; 18</td> <td>≤ 3</td> </tr> <tr> <td>256 QAM</td> <td colspan="6">≥ 1</td> <td>≤ 5</td> </tr> </tbody> </table>	Modulation	Channel bandwidth / Transmission bandwidth (N <sub>RB</sub> )						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
Modulation	Channel bandwidth / Transmission bandwidth (N <sub>RB</sub> )						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	Inter-Band and Intra-Band possible combinations and the detail power measurement please referred to reference model FCC ID: A4RG1MNV, Part1 SAR report section 13, in this report only additional measured UL CA 5B ant1 SAR and output power.																																																														
LTE Carrier Aggregation Additional Information	This device supports maximum of 6 carriers in the downlink and 2 carriers in the uplink. Additional following LTE Release features are not supported: Relay, HetNet, Enhanced MIMO, eICl, 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		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	20407	824.7	20415	825.5	20425	826.5	20450	829	20450	829	20450	829
M	20525	836.5	20525	836.5	20525	836.5	20525	836.5	20525	836.5	20525	836.5
H	20643	848.3	20635	847.5	20625	846.5	20600	844	20600	844	20600	844
LTE Band 7												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 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	20775	2502.5	20800	2505	20825	2507.5	20850	2510	20850	2510	20850	2510
M	21100	2535	21100	2535	21100	2535	21100	2535	21100	2535	21100	2535
H	21425	2567.5	21400	2565	21375	2562.5	21350	2560	21350	2560	21350	2560
LTE Band 12												
	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	23017	699.7	23025	700.5	23035	701.5	23060	704	23060	704	23060	704
M	23095	707.5	23095	707.5	23095	707.5	23095	707.5	23095	707.5	23095	707.5
H	23173	715.3	23165	714.5	23155	713.5	23130	711	23130	711	23130	711
LTE Band 13												
	Bandwidth 5 MHz				Bandwidth 10 MHz				Bandwidth 10 MHz			
	Channel #		Freq.(MHz)		Channel #		Freq.(MHz)		Channel #		Freq.(MHz)	
L	23205		779.5		23230		782		23230		782	
M	23230		782		23230		782		23230		782	
H	23255		784.5		23230		782		23230		782	
LTE Band 14												
	Bandwidth 5 MHz				Bandwidth 10 MHz				Bandwidth 10 MHz			
	Channel #		Channel #		Channel #		Freq.(MHz)		Channel #		Freq.(MHz)	
L	23305		790.5		23330		793		23330		793	
M	23330		793		23330		793		23330		793	
H	23355		795.5		23330		793		23330		793	
LTE Band 17												
	Bandwidth 5 MHz				Bandwidth 10 MHz				Bandwidth 10 MHz			
	Channel #		Freq.(MHz)		Channel #		Freq.(MHz)		Channel #		Freq.(MHz)	
L	23755		706.5		23780		709		23780		709	
M	23790		710		23790		710		23790		710	
H	23825		713.5		23800		711		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)	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	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)	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)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	39675	2498.5	39700	2501	39725	2503.5	39750	2506				
L	40148	2545.8	40160	2547	40173	2548.3	40185	2549.5				
M	40620	2593	40620	2593	40620	2593	40620	2593				
H	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)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	55265	3552.5	55290	3555	55315	3557.5	55340	3560				
L	55810	3607	55815	3607.5	55820	3608	55830	3609				
M	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)	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				





**6.4 General 5G NR SAR Test and Reporting Considerations**

5G NR Information																
FCC	A4RGC3VE															
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 n25: 1850 MHz ~ 1915 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															
Channel Bandwidth	5G NR n2: 5MHz, 10MHz, 15MHz, 20MHz 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 n25: 5MHz, 10MHz, 15MHz, 20MHz, 25 MHz, 30MHz, 40MHz 5G NR n30: 5MHz, 10MHz 5G NR n38: 10MHz, 15MHz, 20MHz 5G NR n41: 10MHz, 15MHz, 20MHz, 30MHz, 40MHz, 50MHz, 60MHz, 70MHz, 80MHz, 90MHz, 100MHz 5G NR n66: 5MHz, 10MHz, 15MHz, 20MHz, 25 MHz, 30MHz, 40MHz 5G NR n71: 5MHz, 10MHz, 15MHz, 20MHz 5G NR n77/78: 10MHz, 15MHz, 20MHz, 25 MHz, 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 Bands for n2	LTE B2/4/5/7/12/13/14/30/48/66/71															
LTE Anchor Bands for n5	LTE B2/7/30/48/66															
LTE Anchor Bands for n7	LTE B2/5/12/13/66/71															
LTE Anchor Bands for n12	LTE B2/7/66															
LTE Anchor Bands for n25	LTE B2/12/13/26/48/66															
LTE Anchor Bands for n30	LTE B2/5/12/14/66															
LTE Anchor Bands for n38	LTE B2/4/5/12/66/71															
LTE Anchor Bands for n41	LTE B2/4/5/12/25/26/66/71															
LTE Anchor Bands for n66	LTE B2/5/7/12/13/14/25/30/48/66/71															
LTE Anchor Bands for n71	LTE B2/7/66															
LTE Anchor Bands for n77	LTE B2/5/7/12/13/14/25/26/30/41/66															
LTE Anchor Bands for n78	LTE B2/4/5/7/12/13/25/38/41/66/71															
NR Band 2																
Bandwidth 5MHz		Bandwidth 10MHz				Bandwidth 15MHz		Bandwidth 20MHz								
Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)									
L	370500	1852.5	371000	1855	371500	1857.5	372000	1860								
M	376000	1880	376000	1880	376000	1880	376000	1880								
H	381500	1907.5	381000	1905	380500	1902.5	380000	1900								
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 25																								
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	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	379000	1895										
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																
Ch. #	Freq. (MHz)			Ch. #	Freq. (MHz)			Ch. #	Freq. (MHz)															
L	515004	2575.02			515502	2577.51			516000	2580														
M	519000	2595			519000	2595			519000	2595														
H	522996	2614.98			522498	2612.49			522000	2610														
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 40MHz												
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	346000	1730										
M	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	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																								
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																								
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	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	650000	3750
NR Band 77/78(3450MHz ~ 3550MHz)																								
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	633332	3499.98
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		
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		



### 7. 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 TAS (Time Average SAR) 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



**7.1 SAR Characterization – Power Table**

**General Note:**

1. The P<sub>limit</sub> values correspond to SAR<sub>design\_target</sub>.
2. GSM and WCDMA 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 (TDD) P<sub>limit</sub> power levels in the table correspond to the burst average power levels which don't account for TX duty cycle.

**<P<sub>limit</sub> for supported technologies and bands (P<sub>limit</sub> corresponding to SAR design target)>**

Wireless technology/ band (No Accounting duty cycle)	Antenna	Duty cycle	Maximum Power Conditions	Head		Hotspot	Body-worn		P <sub>Max</sub> Burst average power (dBm)
				Standalone	Simultaneous	Simultaneous	Standalone	Simultaneous	
			Index 1	Index 2	Index 3	Index 4	Index 5	Index 6	
			P limit						
GSM850 GPRS 1TX	0	12.50%	32.5	34.8	34.1	33.9	35.1	34.4	32.5
GSM850 GPRS 2TX	0	25.00%	31.5	31.8	31.1	30.9	32.1	31.4	31.5
GSM850 GPRS 3TX	0	37.50%	30.5	30.0	29.3	29.1	30.3	29.6	30.5
GSM850 GPRS 4TX	0	50.00%	29.5	28.8	28.1	27.9	29.1	28.4	29.5
GSM850 EDGE 1TX	0	12.50%	27.0	34.8	34.1	33.9	35.1	34.4	27.0
GSM850 EDGE 2TX	0	25.00%	26.5	31.8	31.1	30.9	32.1	31.4	26.5
GSM850 EDGE 3TX	0	37.50%	26.5	30.0	29.3	29.1	30.3	29.6	26.5
GSM850 EDGE 4TX	0	50.00%	24.5	28.8	28.1	27.9	29.1	28.4	24.5
GSM850 GPRS 1TX	1	12.50%	32.1	30.2	29.5	33.9	34.6	33.9	32.1
GSM850 GPRS 2TX	1	25.00%	31.1	27.2	26.5	30.9	31.6	30.9	31.1
GSM850 GPRS 3TX	1	37.50%	30.1	25.4	24.7	29.1	29.8	29.1	30.1
GSM850 GPRS 4TX	1	50.00%	29.1	24.2	23.5	27.9	28.6	27.9	29.1
GSM850 EDGE 1TX	1	12.50%	26.6	30.2	29.5	33.9	34.6	33.9	26.6
GSM850 EDGE 2TX	1	25.00%	26.1	27.2	26.5	30.9	31.6	30.9	26.1
GSM850 EDGE 3TX	1	37.50%	26.1	25.4	24.7	29.1	29.8	29.1	26.1
GSM850 EDGE 4TX	1	50.00%	24.1	24.2	23.5	27.9	28.6	27.9	24.1
GSM1900 GPRS 1TX	0	12.50%	29.2	45.6	44.9	27.5	29.0	28.3	29.2
GSM1900 GPRS 2TX	0	25.00%	27.7	42.6	41.9	24.5	26.0	25.3	27.7
GSM1900 GPRS 3TX	0	37.50%	27.2	40.8	40.1	22.7	24.2	23.5	27.2
GSM1900 GPRS 4TX	0	50.00%	26.2	39.6	38.9	21.5	23.0	22.3	26.2
GSM1900 EDGE 1TX	0	12.50%	24.2	45.6	44.9	27.5	29.0	28.3	24.2
GSM1900 EDGE 2TX	0	25.00%	23.2	42.6	41.9	24.5	26.0	25.3	23.2
GSM1900 EDGE 3TX	0	37.50%	23.2	40.8	40.1	22.7	24.2	23.5	23.2
GSM1900 EDGE 4TX	0	50.00%	22.2	39.6	38.9	21.5	23.0	22.3	22.2
GSM1900 GPRS 1TX	2	12.50%	30.0	35.5	34.8	28.5	29.2	28.5	30.0
GSM1900 GPRS 2TX	2	25.00%	28.5	32.5	31.8	25.5	26.2	25.5	28.5
GSM1900 GPRS 3TX	2	37.50%	28.0	30.7	30.0	23.7	24.4	23.7	28.0
GSM1900 GPRS 4TX	2	50.00%	27.0	29.5	28.8	22.5	23.2	22.5	27.0
GSM1900 EDGE 1TX	2	12.50%	25.0	35.5	34.8	28.5	29.2	28.5	25.0
GSM1900 EDGE 2TX	2	25.00%	24.0	32.5	31.8	25.5	26.2	25.5	24.0
GSM1900 EDGE 3TX	2	37.50%	24.0	30.7	30.0	23.7	24.4	23.7	24.0
GSM1900 EDGE 4TX	2	50.00%	23.0	29.5	28.8	22.5	23.2	22.5	23.0
WCDMA B2	0	100.00%	23.8	35.2	34.5	17.3	19.4	18.7	23.8
WCDMA B2	2	100.00%	24.6	26.4	25.7	19.9	20.6	19.9	24.6
WCDMA B4	0	100.00%	23.8	34.5	33.8	17.6	18.3	17.6	23.8
WCDMA B4	2	100.00%	24.6	27.9	27.2	19.9	20.6	19.9	24.6
WCDMA B5	0	100.00%	24.7	29.4	28.7	25.0	25.7	25.0	24.7
WCDMA B5	1	100.00%	24.3	21.5	20.8	26.8	27.5	26.8	24.3

**<P<sub>limit</sub> for supported technologies and bands (P<sub>limit</sub> corresponding to SAR design target)>**

Wireless technology/ band (Accounting duty cycle)	Antenna	Duty cycle	Maximum Power Conditions	Head		Hotspot	Body-worn		P <sub>Max</sub> Time average power (dBm)
				Standalone	Simultaneous	Simultaneous	Standalone	Simultaneous	
			Index 1	Index 2	Index 3	Index 4	Index 5	Index 6	
			P limit						
LTE B2	1	100.00%	24.6	16.2	15.5	20.0	20.7	20.0	24.6
LTE B2	5	100.00%	23.8	18.2	17.5	20.3	21.0	20.3	23.8
LTE B7	0	100.00%	23.5	29.2	28.5	16.2	20.5	19.8	23.5
LTE B7	2	100.00%	24.5	25.9	25.2	20.6	21.3	20.6	24.5
LTE B12/17	0	100.00%	24.7	30.7	30.0	27.2	28.5	27.8	24.7
LTE B12/17	1	100.00%	24.3	22.0	21.3	27.8	28.5	27.8	24.3
LTE B13	0	100.00%	24.7	30.2	29.5	25.8	26.5	25.8	24.7
LTE B13	1	100.00%	24.3	23.0	22.3	28.5	29.2	28.5	24.3
LTE B14	0	100.00%	24.7	30.1	29.4	25.6	26.3	25.6	24.7
LTE B14	1	100.00%	24.3	22.1	21.4	28.3	29.0	28.3	24.3
LTE B25/2	0	100.00%	23.8	34.2	33.5	16.8	19.1	18.4	23.8
LTE B25/2	2	100.00%	24.6	25.7	25.0	20.2	20.9	20.2	24.6
LTE B26/5	0	100.00%	24.7	29.1	28.4	25.4	26.1	25.4	24.7
LTE B26/5	1	100.00%	24.3	20.7	20.0	26.9	27.6	26.9	24.3
LTE B30	0	100.00%	21.9	33.7	33.0	16.7	19.3	18.6	21.9
LTE B30	2	100.00%	22.2	26.8	26.1	20.0	20.7	20.0	22.2
LTE B41/38 PC3	0	63.30%	21.4	30.2	29.5	15.8	19.6	18.9	20.0
LTE B41/38 PC3	2	63.30%	22.4	26.3	25.6	20.3	21.0	20.3	21.0
LTE B41/38 PC2	0	43.30%	21.4	30.2	29.5	15.8	19.6	18.9	21.4
LTE B41/38 PC2	2	43.30%	22.4	26.3	25.6	20.3	21.0	20.3	22.4
LTE B48 PC3	6	63.30%	19.3	28.8	28.1	17.6	18.3	17.6	19.3
LTE B48 PC3	7	63.30%	21.7	24.5	23.8	20.7	21.4	20.7	21.7
LTE B66/4	0	100.00%	23.8	33.7	33.0	17.0	18.5	17.8	23.8
LTE B66/4	1	100.00%	24.6	17.2	16.5	21.2	21.9	21.2	24.6
LTE B66/4	2	100.00%	24.6	27.5	26.8	20.2	20.9	20.2	24.6
LTE B66/4	5	100.00%	23.8	19.1	18.4	21.0	21.7	21.0	23.8
LTE B71	0	100.00%	24.7	31.3	30.6	26.9	28.3	27.6	24.7
LTE B71	1	100.00%	24.3	22.7	22.0	28.0	28.7	28.0	24.3

1. LTE and 5GNR TDD: P<sub>limit</sub> power levels in the table correspond to the time-averaged power levels which accounts for TX duty cycle.
2. Maximum target power, P<sub>max</sub>, 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<sub>limit</sub> for supported technologies and bands (P<sub>limit</sub> corresponding to SAR design target)>**

Wireless technology/ band (Accounting duty cycle)	Antenna	Duty cycle	Maximum Power Conditions	Head		Hotspot	Body-worn		PMax Time average power (dBm)
				Standalone	Simultaneous	Simultaneous	Standalone	Simultaneous	
			Index 1	Index 2	Index 3	Index 4	Index 5	Index 6	
			P limit						
FR1 n2	1	100.00%	24.6	16.4	15.7	20.0	20.8	20.1	24.6
FR1 n2	5	100.00%	23.8	17.3	16.6	20.2	21.6	20.9	23.8
FR1 n5	0	100.00%	24.7	29.2	28.5	26.1	27.4	26.7	24.7
FR1 n5	1	100.00%	24.3	21.5	20.8	25.2	25.9	25.2	24.3
FR1 n7	0	100.00%	23.2	27.8	27.1	17.3	20.8	20.1	23.2
FR1 n7	2	100.00%	24.5	25.5	24.8	21.2	21.9	21.2	24.5
FR1 n12	0	100.00%	24.7	30.8	30.1	26.6	27.3	26.6	24.7
FR1 n12	1	100.00%	24.3	24.4	23.7	28.1	28.8	28.1	24.3
FR1 n25/2	0	100.00%	23.8	33.5	32.8	17.4	19.2	18.5	23.8
FR1 n25/2	2	100.00%	24.6	25.3	24.6	19.8	20.5	19.8	24.6
FR1 n30	0	100.00%	21.9	28.5	27.8	16.7	19.2	18.5	21.9
FR1 n30	2	100.00%	22.2	24.9	24.2	20.7	21.4	20.7	22.2
FR1 n38 PC3	0	100.00%	23.5	29.7	29.0	17.3	20.9	20.2	23.5
FR1 n38 PC3	1	100.00%	24.5	16.8	16.1	21.4	22.1	21.4	24.5
FR1 n38 PC3	2	100.00%	24.5	26.5	25.8	20.3	21.0	20.3	24.5
FR1 n38 PC3	5	100.00%	23.5	19.6	18.9	20.1	20.8	20.1	23.5
FR1 n41 PC3	0	100.00%	22.0	27.5	26.8	17.3	20.9	20.2	22.0
FR1 n41 PC3	1	100.00%	23.0	16.8	16.1	21.4	22.1	21.4	23.0
FR1 n41 PC3	2	100.00%	23.0	25.5	24.8	20.3	21.0	20.3	23.0
FR1 n41 PC3	5	100.00%	22.0	19.6	18.9	20.1	20.8	20.1	22.0
FR1 n41 PC2	0	50.00%	22.0	27.5	26.8	17.3	20.9	20.2	22.0
FR1 n41 PC2	1	50.00%	23.0	16.8	16.1	21.4	22.1	21.4	23.0
FR1 n41 PC2	2	50.00%	23.0	25.5	24.8	20.3	21.0	20.3	23.0
FR1 n41 PC2	5	50.00%	22.0	19.6	18.9	20.1	20.8	20.1	21.7
FR1 n66	0	100.00%	23.8	31.8	31.1	17.5	18.2	17.5	23.8
FR1 n66	1	100.00%	24.6	17.6	16.9	21.5	22.2	21.5	24.6
FR1 n66	2	100.00%	24.6	27.8	27.1	21.3	22.0	21.3	24.6
FR1 n66	5	100.00%	23.8	18.3	17.6	21.2	21.9	21.2	23.8
FR1 n71	0	100.00%	24.7	32.6	31.9	26.7	27.4	26.7	24.7
FR1 n71	1	100.00%	24.1	24.1	23.4	28.7	29.4	28.7	24.1
FR1 n77 PC3	1	100.00%	23.0	16.5	15.8	19.9	20.6	19.9	23.0
FR1 n77 PC3	5	100.00%	22.5	19.8	19.1	21.8	22.5	21.8	22.5
FR1 n77 PC3	6	100.00%	23.5	27.7	27.0	20.6	21.3	20.6	23.5
FR1 n77 PC3	7	100.00%	22.9	27.9	27.2	23.3	24.6	23.9	22.9
FR1 n77 PC2	1	50.00%	23.0	16.5	15.8	19.9	20.6	19.9	23.0
FR1 n77 PC2	5	50.00%	22.5	19.8	19.1	21.8	22.5	21.8	22.5
FR1 n77 PC2	6	50.00%	23.5	27.7	27.0	20.6	21.3	20.6	23.5
FR1 n77 PC2	7	50.00%	22.9	27.9	27.2	23.3	24.6	23.9	22.4
FR1 n78 PC3	1	100.00%	23.0	16.5	15.8	19.9	20.6	19.9	23.0
FR1 n78 PC3	5	100.00%	21.9	18.5	17.8	20.5	21.2	20.5	21.9
FR1 n78 PC3	6	100.00%	23.0	28.7	28.0	20.6	21.3	20.6	23.0
FR1 n78 PC3	7	100.00%	21.9	28.2	27.5	22.6	23.3	22.6	21.9
FR1 n78 PC2	6	50.00%	23.0	28.7	28.0	20.6	21.3	20.6	23.0
FR1 n78 PC2	7	50.00%	21.9	28.2	27.5	22.6	23.3	22.6	21.9

1. The device additionally support UL MIMO mode on n41/48/77/78
2. LTE and 5GNR TDD: P<sub>limit</sub> power levels in the table correspond to the time-averaged power levels which accounts for TX duty cycle.
3. Maximum target power, P<sub>max</sub>, 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.



**8. RF Exposure Limits**

**8.1 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.

**8.2 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.



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<sup>2</sup> 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 <sup>2</sup> )	Averaging time (minutes)
<b>(A) Limits for Occupational/Controlled Exposures</b>				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f <sup>2</sup> )	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-100,000			5	6
<b>(B) Limits for General Population/Uncontrolled Exposure</b>				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f <sup>2</sup> )	30
30-300	27.5	0.073	0.2	30
300-1500			f/1500	30
1500-100,000			1.0	30



## **9. Specific Absorption Rate (SAR)**

### **9.1 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.

### **9.2 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 ( $\rho$ ). The equation description is as below:

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

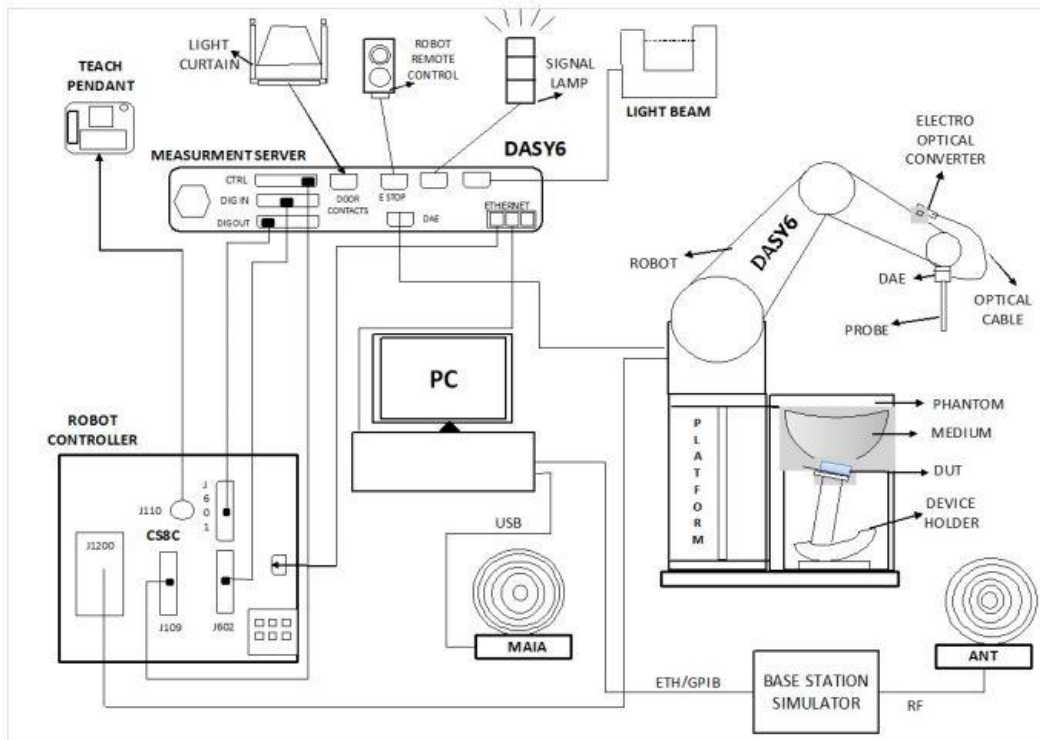
SAR is expressed in units of Watts per kilogram (W/kg)

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

Where:  $\sigma$  is the conductivity of the tissue,  $\rho$  is the mass density of the tissue and E is the RMS electrical field strength.

## 10. System Description and Setup

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



- The DASY system in DASY6/DASY5 V5.2 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 DASY5/DASY6 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.

### 10.1 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.

Test Site	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
	SAR04-HY	SAR05-HY	SAR11-HY	SAR12-HY	SAR16-HY
	SAR06-HY	SAR10-HY	SAR13-HY	SAR14-HY	SAR17-HY


**10.2 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	10 MHz – 4 GHz; Linearity: $\pm 0.2$ dB (30 MHz – 4 GHz)	
Directivity	$\pm 0.2$ dB in TSL (rotation around probe axis) $\pm 0.3$ dB in TSL (rotation normal to probe axis)	
Dynamic Range	5 $\mu$ W/g – >100 mW/g; Linearity: $\pm 0.2$ 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	

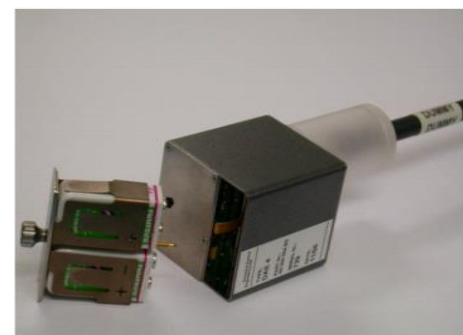
**<EX3DV4 Probe>**

Construction	Symmetric design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Frequency	10 MHz – >6 GHz Linearity: $\pm 0.2$ dB (30 MHz – 6 GHz)	
Directivity	$\pm 0.3$ dB in TSL (rotation around probe axis) $\pm 0.5$ dB in TSL (rotation normal to probe axis)	
Dynamic Range	10 $\mu$ W/g – >100 mW/g Linearity: $\pm 0.2$ dB (noise: typically <1 $\mu$ W/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	

**10.3 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

**10.4 Phantom**

**<SAM Twin Phantom>**

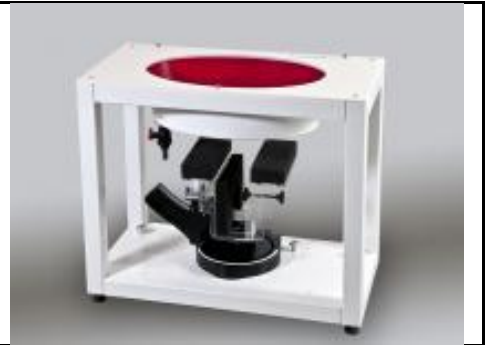
Shell Thickness	2 ± 0.2 mm; Center ear point: 6 ± 0.2 mm
Filling Volume	Approx. 25 liters
Dimensions	Length: 1000 mm; Width: 500 mm; Height: adjustable feet
Measurement Areas	Left Hand, Right Hand, Flat Phantom



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.

## **10.5 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



## **11. Measurement Procedures**

The measurement procedures are as follows:

### <Conducted power measurement>

- (a) For WWAN power measurement, use base station simulator to configure EUT WWAN transmission in conducted connection with RF cable, at maximum power in each supported wireless interface and frequency band.
- (b) Read the WWAN RF power level from the base station simulator.
- (c) For WLAN power measurement, use engineering software to configure EUT WLAN continuously transmission, at maximum RF power in each supported wireless interface and frequency band
- (d) Connect EUT RF port through RF cable to the power meter, and measure WLAN output power

### <SAR measurement>

- (a) Use base station simulator to configure EUT WWAN transmission in radiated connection, and engineering software to configure EUT WLAN 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

### **11.1 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 from 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

**11.2 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.

**11.3 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	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5$ mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	30° ± 1°	20° ± 1°
Maximum area scan spatial resolution: $\Delta x_{Area}, \Delta y_{Area}$	≤ 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.	



**11.4 Zoom Scan**

Zoom scans are used to 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 whose 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: $\Delta x_{Zoom}, \Delta y_{Zoom}$		$\leq 2$ GHz: $\leq 8$ mm $2 - 3$ GHz: $\leq 5$ mm*	$3 - 4$ GHz: $\leq 5$ mm* $4 - 6$ GHz: $\leq 4$ mm*	
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$	$\leq 5$ mm	$3 - 4$ GHz: $\leq 4$ mm $4 - 5$ GHz: $\leq 3$ mm $5 - 6$ GHz: $\leq 2$ mm	
	graded grid	$\Delta z_{Zoom}(1)$ : between 1 <sup>st</sup> two points closest to phantom surface	$\leq 4$ mm	$3 - 4$ GHz: $\leq 3$ mm $4 - 5$ GHz: $\leq 2.5$ mm $5 - 6$ GHz: $\leq 2$ 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	$\geq 30$ mm	$3 - 4$ GHz: $\geq 28$ mm $4 - 5$ GHz: $\geq 25$ mm $5 - 6$ GHz: $\geq 22$ mm	
Note: $\delta$ 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 <i>reported</i> SAR from the <i>area scan based 1-g SAR estimation</i> procedures of KDB 447498 is $\leq 1.4$ W/kg, $\leq 8$ mm, $\leq 7$ mm and $\leq 5$ 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.				

**11.5 Volume Scan Procedures**

The volume scan is used to 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.

**11.6 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.





## 12. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
SPEAG	750MHz System Validation Kit <sup>(2)</sup>	D750V3	1012	Aug. 18, 2021	Aug. 16, 2023
SPEAG	835MHz System Validation Kit <sup>(2)</sup>	D835V2	4d060	Mar. 24, 2022	Mar. 22, 2024
SPEAG	1750MHz System Validation Kit	D1750V2	1068	Nov. 21, 2022	Nov. 20, 2023
SPEAG	1900MHz System Validation Kit <sup>(2)</sup>	D1900V2	5d093	Mar. 25, 2022	Mar. 23, 2024
SPEAG	2300MHz System Validation Kit <sup>(2)</sup>	D2300V2	1088	Jul. 13, 2021	Jul. 11, 2023
SPEAG	2450MHz System Validation Kit <sup>(2)</sup>	D2450V2	736	Aug. 17, 2021	Aug. 15, 2023
SPEAG	2600MHz System Validation Kit <sup>(2)</sup>	D2600V2	1008	Aug. 17, 2021	Aug. 15, 2023
SPEAG	2600MHz System Validation Kit <sup>(2)</sup>	D2600V2	1089	Mar. 24, 2022	Mar. 22, 2024
SPEAG	3500MHz System Validation Kit <sup>(2)</sup>	D3500V2	1036	Mar. 23, 2022	Mar. 21, 2024
SPEAG	3700MHz System Validation Kit <sup>(2)</sup>	D3700V2	1022	Jul. 14, 2021	Jul. 12, 2023
SPEAG	3900MHz System Validation Kit <sup>(2)</sup>	D3900V2	1017	Apr. 22, 2022	Apr. 20, 2024
SPEAG	5GHz System Validation Kit <sup>(2)</sup>	D5GHzV2	1171	Apr. 20, 2021	Apr. 17, 2024
SPEAG	6500MHz System Validation Kit	D6.5GHzV2	1003	Mar. 15, 2023	Mar. 14, 2024
SPEAG	13MHz System Validation Kit <sup>(2)</sup>	CLA13	1011	Jul. 08, 2020	Jul. 05, 2023
SPEAG	5G Verification Source	10GHz	1020	Jan. 20, 2023	Jan. 19, 2024
SPEAG	EUmmWV Probe Tip Protection	EUmmWV3	9424	Mar. 21, 2023	Mar. 20, 2024
SPEAG	Data Acquisition Electronics	DAE4	853	Jul. 20, 2022	Jul. 19, 2023
SPEAG	Data Acquisition Electronics	DAE4	854	Aug. 24, 2022	Aug. 23, 2023
SPEAG	Data Acquisition Electronics	DAE4	1694	Nov. 18, 2022	Nov. 17, 2023
SPEAG	Dosimetric E-Field Probe	EX3DV4	3642	Apr. 26, 2023	Apr. 25, 2024
SPEAG	Dosimetric E-Field Probe	EX3DV4	3925	Apr. 25, 2023	Apr. 24, 2024
SPEAG	Dosimetric E-Field Probe	EX3DV4	7306	Jul. 28, 2022	Jul. 27, 2023
SPEAG	Dosimetric E-Field Probe	EX3DV4	7439	Feb. 21, 2023	Feb. 20, 2024
RCPTWN	Thermometer	HTC-1	TM685-1	Jun. 27, 2022	Jun. 26, 2023
RCPTWN	Thermometer	HTC-1	TM560-2	Mar. 21, 2023	Mar. 20, 2024
Anritsu	Radio Communication Analyzer	MT8821C	6201341950	Oct. 31, 2022	Oct. 30, 2023
Keysight	5G Wireless Test Platform	E7515B	MY59321826	Apr. 26, 2023	Apr. 25, 2024
R&S	Wideband Radio Communication Tester	CMX500	101931	Jul. 21, 2022	Jul. 20, 2023
R&S	BT Base Station	CBT32	101136	Oct. 25, 2022	Oct. 24, 2023
SPEAG	Device Holder	N/A	N/A	N/A	N/A
Anritsu	Signal Generator	MG3710A	6201502524	Oct. 12, 2022	Oct. 11, 2023
Keysight	ENA Network Analyzer	E5071C	MY46104758	Sep. 22, 2022	Sep. 21, 2023
SPEAG	Dielectric Probe Kit	DAK-3.5	1126	Sep. 28, 2022	Sep. 27, 2023
SPEAG	Dielectric Probe Kit	DAK-12	1156	Jul. 28, 2022	Jul. 27, 2023
LINE SEIKI	Digital Thermometer	DTM3000-spezial	3796	Jan. 13, 2023	Jan. 12, 2024
Anritsu	Power Meter	ML2495A	1419002	Aug. 16, 2022	Aug. 15, 2023
Anritsu	Power Sensor	MA2411B	1911176	Aug. 16, 2022	Aug. 15, 2023
Anritsu	Spectrum Analyzer	MS2830A	6201396378	Jul. 21, 2022	Jul. 20, 2023
Mini-Circuits	Power Amplifier	ZVE-8G+	6418	Oct. 14, 2022	Oct. 13, 2023
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.



### 13. System Verification

#### 13.1 Tissue Verification

The tissue dielectric parameters of tissue-equivalent media used for SAR measurements must be characterized within a temperature range of 18°C to 25°C, 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°C to 25°C and within ± 2°C 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. (°C)	Conductivity (σ)	Permittivity (ε <sub>r</sub> )	Conductivity Target (σ)	Permittivity Target (ε <sub>r</sub> )	Delta (σ) (%)	Delta (ε <sub>r</sub> ) (%)	Limit (%)	Date
750	22.6	0.895	43.500	0.89	41.90	0.56	3.82	±5	2023/5/8
750	22.5	0.888	43.200	0.89	41.90	-0.22	3.10	±5	2023/5/12
750	22.5	0.903	43.800	0.89	41.90	1.46	4.53	±5	2023/5/28
835	22.3	0.926	42.900	0.90	41.50	2.89	3.37	±5	2023/5/5
835	22.5	0.919	42.700	0.90	41.50	2.11	2.89	±5	2023/5/15
1750	22.6	1.360	40.100	1.37	40.10	-0.73	0.00	±5	2023/5/16
1750	22.3	1.380	40.700	1.37	40.10	0.73	1.50	±5	2023/5/23
1750	22.4	1.360	40.700	1.37	40.10	-0.73	1.50	±5	2023/5/24
1750	22.6	1.380	40.800	1.37	40.10	0.73	1.75	±5	2023/5/25
1750	22.6	1.350	40.400	1.37	40.10	-1.46	0.75	±5	2023/5/26
1900	22.2	1.430	39.300	1.40	40.00	2.14	-1.75	±5	2023/5/1
1900	22.4	1.440	39.100	1.40	40.00	2.86	-2.25	±5	2023/5/2
1900	22.3	1.460	40.900	1.40	40.00	4.29	2.25	±5	2023/5/3
1900	22.5	1.430	39.100	1.40	40.00	2.14	-2.25	±5	2023/5/4
1900	22.6	1.430	40.000	1.40	40.00	2.14	0.00	±5	2023/5/13
2300	22.3	1.600	39.700	1.67	39.50	-4.19	0.51	±5	2023/5/9
2300	22.5	1.640	40.500	1.67	39.50	-1.80	2.53	±5	2023/5/10
2300	22.7	1.650	39.000	1.67	39.50	-1.20	-1.27	±5	2023/5/14
2600	22.6	1.930	39.000	1.96	39.00	-1.53	0.00	±5	2023/5/6
2600	22.6	1.970	39.500	1.96	39.00	0.51	1.28	±5	2023/5/7
2600	22.2	1.950	39.400	1.96	39.00	-0.51	1.03	±5	2023/5/11
2600	22.5	1.970	39.200	1.96	39.00	0.51	0.51	±5	2023/5/12
2600	22.7	2.000	37.900	1.96	39.00	2.04	-2.82	±5	2023/5/14
2600	22.4	2.020	40.000	1.96	39.00	3.06	2.56	±5	2023/5/15
2600	22.7	1.970	39.600	1.96	39.00	0.51	1.54	±5	2023/5/16
2600	22.1	1.920	38.600	1.96	39.00	-2.04	-1.03	±5	2023/5/17
2600	22.2	1.950	39.300	1.96	39.00	-0.51	0.77	±5	2023/5/18
3500	22.7	2.910	38.100	2.91	37.90	0.00	0.53	±5	2023/5/14
3500	22.7	2.920	38.000	2.91	37.90	0.34	0.26	±5	2023/5/29
3500	22.8	2.960	38.100	2.91	37.90	1.72	0.53	±5	2023/5/30
3500	22.4	2.990	38.400	2.91	37.90	2.75	1.32	±5	2023/5/31
3500	22.5	3.000	38.700	2.91	37.90	3.09	2.11	±5	2023/6/1
3700	22.7	3.110	37.700	3.12	37.70	-0.32	0.00	±5	2023/5/14
3700	22.7	3.120	37.800	3.12	37.70	0.00	0.27	±5	2023/5/29
3700	22.8	3.200	37.500	3.12	37.70	2.56	-0.53	±5	2023/5/30
3700	22.4	3.210	38.200	3.12	37.70	2.88	1.33	±5	2023/5/31
3700	22.5	3.190	38.400	3.12	37.70	2.24	1.86	±5	2023/6/1
3900	22.7	3.330	37.600	3.33	37.51	0.00	0.24	±5	2023/5/29
3900	22.8	3.340	37.800	3.33	37.51	0.30	0.77	±5	2023/5/30
3900	22.4	3.420	38.000	3.33	37.51	2.70	1.31	±5	2023/5/31
3900	22.5	3.390	38.100	3.33	37.51	1.80	1.57	±5	2023/6/1



Frequency (MHz)	Liquid Temp. (°C)	Conductivity (σ)	Permittivity (ε <sub>r</sub> )	Conductivity Target (σ)	Permittivity Target (ε <sub>r</sub> )	Delta (σ) (%)	Delta (ε <sub>r</sub> ) (%)	Limit (%)	Date
13	22.5	0.757	53.600	0.75	55.00	0.93	-2.55	±5	2023/4/18
2450	22.4	1.800	39.700	1.80	39.20	0.00	1.28	±5	2023/5/6
2450	22.5	1.780	39.500	1.80	39.20	-1.11	0.77	±5	2023/5/7
2450	22.6	1.800	38.700	1.80	39.20	0.00	-1.28	±5	2023/5/10
2450	22.6	1.820	38.900	1.80	39.20	1.11	-0.77	±5	2023/5/13
2450	22.6	1.840	39.100	1.80	39.20	2.22	-0.26	±5	2023/5/21
5250	22.3	4.710	36.000	4.71	35.95	0.00	0.14	±5	2023/5/5
5250	22.4	4.610	36.600	4.71	35.95	-2.12	1.81	±5	2023/5/8
5250	22.6	4.620	35.800	4.71	35.95	-1.91	-0.42	±5	2023/5/9
5250	22.5	4.750	37.000	4.71	35.95	0.85	2.92	±5	2023/5/12
5600	22.3	5.110	35.400	5.07	35.50	0.79	-0.28	±5	2023/5/5
5600	22.6	5.01	35.2	5.07	35.50	-1.18	-0.85	±5	2023/5/9
5600	22.5	5.12	36.5	5.07	35.50	0.99	2.82	±5	2023/5/12
5750	22.3	5.3	35	5.22	35.35	1.53	-0.99	±5	2023/5/5
5750	22.4	5.18	35.6	5.22	35.35	-0.77	0.71	±5	2023/5/8
5750	22.5	5.14	34.6	5.22	35.35	-1.53	-2.12	±5	2023/5/12
5850	22.3	5.42	34.9	5.32	35.25	1.88	-0.99	±5	2023/5/5
5850	22.5	5.27	34.2	5.32	35.25	-0.94	-2.98	±5	2023/5/11
6500	22	6.16	34.2	6.07	34.50	1.48	-0.87	±5	2023/5/19



**13.2 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 (%)
SAR01	2023/5/8	750	250	D750V3-1012	EX3DV4 - SN7439	DAE4 Sn854	2.090	8.560	8.36	-2.34	1.360	5.560	5.44	-2.16
SAR04	2023/5/12	750	50	D750V3-1012	EX3DV4 - SN3925	DAE4 Sn853	0.416	8.560	8.32	-2.80	0.276	5.560	5.52	-0.72
SAR01	2023/5/28	750	250	D750V3-1012	EX3DV4 - SN7439	DAE4 Sn854	2.200	8.560	8.8	2.80	1.420	5.560	5.68	2.16
SAR01	2023/5/5	835	100	D835V2-4d060	EX3DV4 - SN7439	DAE4 Sn854	0.968	9.730	9.68	-0.51	0.629	6.390	6.29	-1.56
SAR04	2023/5/15	835	50	D835V2-4d060	EX3DV4 - SN3925	DAE4 Sn853	0.501	9.730	10.02	2.98	0.329	6.390	6.58	2.97
SAR04	2023/5/16	1750	50	D1750V2-1068	EX3DV4 - SN3925	DAE4 Sn853	1.780	36.700	35.6	-3.00	0.958	19.300	19.16	-0.73
SAR01	2023/5/23	1750	250	D1750V2-1068	EX3DV4 - SN7439	DAE4 Sn854	9.660	36.700	38.64	5.29	5.090	19.300	20.36	5.49
SAR01	2023/5/24	1750	250	D1750V2-1068	EX3DV4 - SN7439	DAE4 Sn854	9.780	36.700	39.12	6.59	5.150	19.300	20.6	6.74
SAR01	2023/5/25	1750	250	D1750V2-1068	EX3DV4 - SN7439	DAE4 Sn854	9.370	36.700	37.48	2.13	4.930	19.300	19.72	2.18
SAR01	2023/5/26	1750	250	D1750V2-1068	EX3DV4 - SN7439	DAE4 Sn854	9.510	36.700	38.04	3.65	5.000	19.300	20	3.63
SAR01	2023/5/1	1900	100	D1900V2-5d093	EX3DV4 - SN7439	DAE4 Sn854	4.350	39.900	43.5	9.02	2.230	20.700	22.3	7.73
SAR01	2023/5/2	1900	100	D1900V2-5d093	EX3DV4 - SN7439	DAE4 Sn854	4.190	39.900	41.9	5.01	2.150	20.700	21.5	3.86
SAR01	2023/5/3	1900	100	D1900V2-5d093	EX3DV4 - SN7439	DAE4 Sn854	4.370	39.900	43.7	9.52	2.240	20.700	22.4	8.21
SAR01	2023/5/4	1900	100	D1900V2-5d093	EX3DV4 - SN7439	DAE4 Sn854	4.240	39.900	42.4	6.27	2.170	20.700	21.7	4.83
SAR04	2023/5/13	1900	50	D1900V2-5d093	EX3DV4 - SN3925	DAE4 Sn853	2.050	39.900	41	2.76	1.080	20.700	21.6	4.35
SAR01	2023/5/9	2300	100	D2300V2-1088	EX3DV4 - SN7439	DAE4 Sn854	4.870	49.700	48.7	-2.01	2.360	24.100	23.6	-2.07
SAR01	2023/5/10	2300	100	D2300V2-1088	EX3DV4 - SN7439	DAE4 Sn854	4.860	49.700	48.6	-2.21	2.350	24.100	23.5	-2.49
SAR04	2023/5/14	2300	50	D2300V2-1088	EX3DV4 - SN3925	DAE4 Sn853	2.340	49.700	46.8	-5.84	1.130	24.100	22.6	-6.22
SAR01	2023/5/6	2600	100	D2600V2-1089	EX3DV4 - SN7439	DAE4 Sn854	5.890	55.400	58.9	6.32	2.630	24.600	26.3	6.91
SAR01	2023/5/7	2600	100	D2600V2-1089	EX3DV4 - SN7439	DAE4 Sn854	5.710	55.400	57.1	3.07	2.550	24.600	25.5	3.66
SAR01	2023/5/11	2600	100	D2600V2-1089	EX3DV4 - SN7439	DAE4 Sn854	5.910	55.400	59.1	6.68	2.630	24.600	26.3	6.91
SAR01	2023/5/12	2600	100	D2600V2-1089	EX3DV4 - SN7439	DAE4 Sn854	5.840	55.400	58.4	5.42	2.600	24.600	26	5.69
SAR04	2023/5/14	2600	50	D2600V2-1008	EX3DV4 - SN3925	DAE4 Sn853	2.850	58.000	57	-1.72	1.300	25.800	26	0.78
SAR01	2023/5/15	2600	100	D2600V2-1089	EX3DV4 - SN7439	DAE4 Sn854	5.550	55.400	55.5	0.18	2.470	24.600	24.7	0.41
SAR01	2023/5/16	2600	100	D2600V2-1089	EX3DV4 - SN7439	DAE4 Sn854	5.130	55.400	51.3	-7.40	2.280	24.600	22.8	-7.32
SAR01	2023/5/17	2600	100	D2600V2-1089	EX3DV4 - SN7439	DAE4 Sn854	5.430	55.400	54.3	-1.99	2.420	24.600	24.2	-1.63
SAR01	2023/5/18	2600	100	D2600V2-1089	EX3DV4 - SN7439	DAE4 Sn854	5.510	55.400	55.1	-0.54	2.460	24.600	24.6	0.00
SAR04	2023/5/14	3500	50	D3500V2-1036	EX3DV4 - SN3925	DAE4 Sn853	3.470	67.400	69.4	2.97	1.350	25.100	27	7.57
SAR10	2023/5/29	3500	100	D3500V2-1036	EX3DV4 - SN3642	DAE4 Sn1694	6.830	67.400	68.3	1.34	2.640	25.100	26.4	5.18
SAR10	2023/5/30	3500	100	D3500V2-1036	EX3DV4 - SN3642	DAE4 Sn1694	7.020	67.400	70.2	4.15	2.710	25.100	27.1	7.97
SAR10	2023/5/31	3500	100	D3500V2-1036	EX3DV4 - SN3642	DAE4 Sn1694	7.070	67.400	70.7	4.90	2.730	25.100	27.3	8.76
SAR10	2023/6/1	3500	100	D3500V2-1036	EX3DV4 - SN3642	DAE4 Sn1694	7.090	67.400	70.9	5.19	2.740	25.100	27.4	9.16
SAR04	2023/5/14	3700	50	D3700V2-1022	EX3DV4 - SN3925	DAE4 Sn853	3.470	68.200	69.4	1.76	1.320	24.700	26.4	6.88
SAR10	2023/5/29	3700	100	D3700V2-1022	EX3DV4 - SN3642	DAE4 Sn1694	6.680	68.200	66.8	-2.05	2.510	24.700	25.1	1.62
SAR10	2023/5/30	3700	100	D3700V2-1022	EX3DV4 - SN3642	DAE4 Sn1694	6.780	68.200	67.8	-0.59	2.550	24.700	25.5	3.24
SAR10	2023/5/31	3700	100	D3700V2-1022	EX3DV4 - SN3642	DAE4 Sn1694	6.740	68.200	67.4	-1.17	2.540	24.700	25.4	2.83
SAR10	2023/6/1	3700	100	D3700V2-1022	EX3DV4 - SN3642	DAE4 Sn1694	6.660	68.200	66.6	-2.35	2.510	24.700	25.1	1.62
SAR10	2023/5/29	3900	100	D3900V2-1017	EX3DV4 - SN3642	DAE4 Sn1694	6.930	68.700	69.3	0.87	2.550	23.900	25.5	6.69
SAR10	2023/5/30	3900	100	D3900V2-1017	EX3DV4 - SN3642	DAE4 Sn1694	7.020	68.700	70.2	2.18	2.580	23.900	25.8	7.95
SAR10	2023/5/31	3900	100	D3900V2-1017	EX3DV4 - SN3642	DAE4 Sn1694	7.140	68.700	71.4	3.93	2.610	23.900	26.1	9.21
SAR10	2023/6/1	3900	100	D3900V2-1017	EX3DV4 - SN3642	DAE4 Sn1694	7.000	68.700	70	1.89	2.570	23.900	25.7	7.53

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 (%)
SAR05	2023/4/18	13	250	CLA13-1011	EX3DV4 - SN7306	DAE4 Sn1694	0.147	0.555	0.588	5.00	0.091	0.343	0.364	7.06
SAR10	2023/5/6	2450	250	D2450V2-736	EX3DV4 - SN3642	DAE4 Sn1694	12.700	54.200	50.8	-6.27	5.880	25.300	23.52	-7.04
SAR05	2023/5/7	2450	250	D2450V2-736	EX3DV4 - SN7306	DAE4 Sn1694	12.800	54.200	51.2	-5.54	5.990	25.300	23.96	-5.30
SAR05	2023/5/10	2450	250	D2450V2-736	EX3DV4 - SN7306	DAE4 Sn1694	13.300	54.200	53.2	-1.85	6.270	25.300	25.08	-0.87
SAR05	2023/5/13	2450	50	D2450V2-736	EX3DV4 - SN7306	DAE4 Sn1694	2.550	54.200	51	-5.90	1.200	25.300	24	-5.14
SAR10	2023/5/21	2450	250	D2450V2-736	EX3DV4 - SN3642	DAE4 Sn1694	12.900	54.200	51.6	-4.80	5.990	25.300	23.96	-5.30
SAR10	2023/5/5	5250	100	D5GHzV2-1171	EX3DV4 - SN3642	DAE4 Sn1694	8.650	80.300	86.5	7.72	2.470	23.000	24.7	7.39
SAR05	2023/5/8	5250	100	D5GHzV2-1171	EX3DV4 - SN7306	DAE4 Sn1694	7.300	80.300	73	-9.09	2.120	23.000	21.2	-7.83
SAR05	2023/5/9	5250	100	D5GHzV2-1171	EX3DV4 - SN7306	DAE4 Sn1694	7.330	80.300	73.3	-8.72	2.120	23.000	21.2	-7.83
SAR05	2023/5/12	5250	50	D5GHzV2-1171	EX3DV4 - SN7306	DAE4 Sn1694	3.650	80.300	73	-9.09	1.060	23.000	21.2	-7.83
SAR10	2023/5/5	5600	100	D5GHzV2-1171	EX3DV4 - SN3642	DAE4 Sn1694	8.390	83.400	83.9	0.60	2.390	23.700	23.9	0.84
SAR05	2023/5/9	5600	100	D5GHzV2-1171	EX3DV4 - SN7306	DAE4 Sn1694	9.150	83.400	91.5	9.71	2.600	23.700	26	9.70
SAR05	2023/5/12	5600	50	D5GHzV2-1171	EX3DV4 - SN7306	DAE4 Sn1694	4.130	83.400	82.6	-0.96	1.190	23.700	23.8	0.42
SAR10	2023/5/5	5750	50	D5GHzV2-1171	EX3DV4 - SN3642	DAE4 Sn1694	4.310	80.400	86.2	7.21	1.220	22.800	24.4	7.02
SAR05	2023/5/8	5750	100	D5GHzV2-1171	EX3DV4 - SN7306	DAE4 Sn1694	8.010	80.400	80.1	-0.37	2.300	22.800	23	0.88
SAR05	2023/5/12	5750	100	D5GHzV2-1171	EX3DV4 - SN7306	DAE4 Sn1694	8.020	80.400	80.2	-0.25	2.290	22.800	22.9	0.44
SAR10	2023/5/5	5850	100	D5GHzV2-1171	EX3DV4 - SN3642	DAE4 Sn1694	8.920	82.300	89.2	8.38	2.530	23.100	25.3	9.52
SAR10	2023/5/11	5850	100	D5GHzV2-1171	EX3DV4 - SN3642	DAE4 Sn1694	8.750	82.300	87.5	6.32	2.490	23.100	24.9	7.79
SAR05	2023/5/19	6500	100	D6.5GHzV2-1003	EX3DV4 - SN7306	DAE4 Sn1694	30.700	297.000	307	3.37	5.750	54.500	57.5	5.50

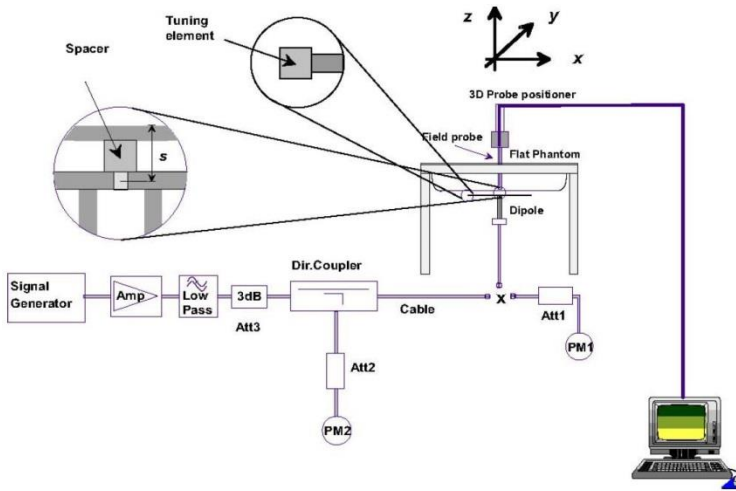


Fig 8.3.1 System Performance Check Setup

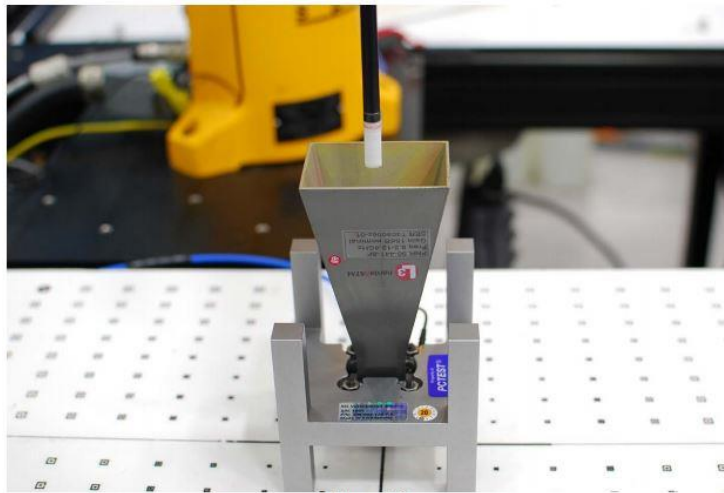


Fig 8.3.2 Setup Photo

**13.3 PD System Performance Check Results**

The system was verified to be within  $\pm 0.66$  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 <sup>2</sup> (W/m <sup>2</sup> )	Targeted 4 cm <sup>2</sup> (W/m <sup>2</sup> )	Deviation (dB)	Date
SAR01	10G	10GHz_1020	9424	854	10	49.5	54.9	-0.45	2023/4/30



**Figure 4-3**  
System Verification Setup Photo

System Performance Check Setup



## **14. Measurement procedure for output power and SAR**

Detail output power measurement data is in the appendix D

### **<GSM Note>**

1. Per KDB 447498 D01v06, the maximum output power channel is used for SAR testing and for further SAR test reduction.
2. Per KDB 941225 D01v03r01, for SAR test reduction for GSM / GPRS / EDGE modes is determined by the source-based time-averaged output power including tune-up tolerance. The mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested. Therefore, the GPRS (4Tx slots) for GSM850/GSM1900 is considered as the primary mode.
3. Other configurations of GSM / GPRS / EDGE are considered as secondary modes. The 3G SAR test reduction procedure is applied, when the maximum output power and tune-up tolerance specified for production units in a secondary mode is  $\leq \frac{1}{4}$  dB higher than the primary mode, SAR measurement is not required for the secondary mode.

### **<WCDMA Note>**

1. The following tests were conducted according to the test requirements outlines in 3GPP TS 34.121 specification.
2. The procedures in KDB 941225 D01v03r01 are applied for 3GPP Rel. 6 HSPA to configure the device in the required sub-test mode(s) to determine SAR test exclusion.
3. Per KDB 941225 D01v03r01, for SAR testing is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".
4. Per KDB 941225 D01v03r01, RMC 12.2kbps setting is used to evaluate SAR. The maximum output power and tune-up tolerance specified for production units in HSDPA / HSUPA is  $\leq \frac{1}{4}$  dB higher than RMC 12.2Kbps or when the highest reported SAR of the RMC12.2Kbps is scaled by the ratio of specified maximum output power and tune-up tolerance of HSDPA / HSUPA to RMC12.2Kbps and the adjusted SAR is  $\leq 1.2$  W/kg, SAR measurement is not required for HSDPA / HSUPA, and according to the following RF output power, the output power results of the secondary modes (HSUPA, HSDPA) are less than  $\frac{1}{4}$  dB higher than the primary modes; therefore, SAR measurement is not required for HSDPA / HSUPA.

A summary of these settings are illustrated below:



**HSDPA Setup Configuration:**

- a. The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration.
- b. The RF path losses were compensated into the measurements.
- c. A call was established between EUT and Base Station with following setting:
  - i. Set Gain Factors ( $\beta_c$  and  $\beta_d$ ) and parameters were set according to each
  - ii. Specific sub-test in the following table, C10.1.4, quoted from the TS 34.121
  - iii. Set RMC 12.2Kbps + HSDPA mode.
  - iv. Set Cell Power = -86 dBm
  - v. Set HS-DSCH Configuration Type to FRC (H-set 1, QPSK)
  - vi. Select HSDPA Uplink Parameters
  - vii. Set Delta ACK, Delta NACK and Delta CQI = 8
  - viii. Set Ack-Nack Repetition Factor to 3
  - ix. Set CQI Feedback Cycle (k) to 4 ms
  - x. Set CQI Repetition Factor to 2
  - xi. Power Ctrl Mode = All Up bits
- d. The transmitted maximum output power was recorded.

**Table C.10.1.4:  $\beta$  values for transmitter characteristics tests with HS-DPCCH**

Sub-test	$\beta_c$	$\beta_d$	$\beta_d$ (SF)	$\beta_c/\beta_d$	$\beta_{hs}$ (Note 1, Note 2)	CM (dB) (Note 3)	MPR (dB) (Note 3)
1	2/15	15/15	64	2/15	4/15	0.0	0.0
2	12/15 (Note 4)	15/15 (Note 4)	64	12/15 (Note 4)	24/15	1.0	0.0
3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5

Note 1:  $\Delta_{ACK}, \Delta_{NACK}$  and  $\Delta_{CQI} = 30/15$  with  $\beta_{hs} = 30/15 * \beta_c$ .

Note 2: For the HS-DPCCH power mask requirement test in clause 5.2C, 5.7A, and the Error Vector Magnitude (EVM) with HS-DPCCH test in clause 5.13.1A, and HSDPA EVM with phase discontinuity in clause 5.13.1AA,  $\Delta_{ACK}$  and  $\Delta_{NACK} = 30/15$  with  $\beta_{hs} = 30/15 * \beta_c$ , and  $\Delta_{CQI} = 24/15$  with  $\beta_{hs} = 24/15 * \beta_c$ .

Note 3: CM = 1 for  $\beta_c/\beta_d = 12/15, \beta_{hs}/\beta_c = 24/15$ . For all other combinations of DPDCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.

Note 4: For subtest 2 the  $\beta_c/\beta_d$  ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to  $\beta_c = 11/15$  and  $\beta_d = 15/15$ .

**Setup Configuration**



**HSUPA Setup Configuration:**

- a. The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration.
- b. The RF path losses were compensated into the measurements.
- c. A call was established between EUT and Base Station with following setting \* :
  - i. Call Configs = 5.2B, 5.9B, 5.10B, and 5.13.2B with QPSK
  - ii. Set the Gain Factors ( $\beta_c$  and  $\beta_d$ ) and parameters (AG Index) were set according to each specific sub-test in the following table, C11.1.3, quoted from the TS 34.121
  - iii. Set Cell Power = -86 dBm
  - iv. Set Channel Type = 12.2k + HSPA
  - v. Set UE Target Power
  - vi. Power Ctrl Mode= Alternating bits
  - vii. Set and observe the E-TFCl
  - viii. Confirm that E-TFCl is equal to the target E-TFCl of 75 for sub-test 1, and other subtest's E-TFCl
- d. The transmitted maximum output power was recorded.

**Table C.11.1.3:  $\beta$  values for transmitter characteristics tests with HS-DPCCH and E-DCH**

Sub-test	$\beta_c$	$\beta_d$	$\beta_d$ (SF)	$\beta_c/\beta_d$	$\beta_{HS}$ (Note1)	$\beta_{ec}$	$\beta_{ed}$ (Note 4) (Note 5)	$\beta_{ed}$ (SF)	$\beta_{ed}$ (Codes)	CM (dB) (Note 2)	MPR (dB) (Note 2) (Note 6)	AG Index (Note 5)	E-TFCl
1	11/15 (Note 3)	15/15 (Note 3)	64	11/15 (Note 3)	22/15	209/25	1309/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	$\beta_{ed1}$ : 47/15 $\beta_{ed2}$ : 47/15	4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15	0	-	-	5/15	5/15	47/15	4	1	1.0	0.0	12	67

Note 1: For sub-test 1 to 4,  $\Delta_{ACK}$ ,  $\Delta_{NACK}$  and  $\Delta_{CQI} = 30/15$  with  $\beta_{hs} = 30/15 * \beta_c$ . For sub-test 5,  $\Delta_{ACK}$ ,  $\Delta_{NACK}$  and  $\Delta_{CQI} = 5/15$  with  $\beta_{hs} = 5/15 * \beta_c$ .

Note 2: CM = 1 for  $\beta_c/\beta_d = 12/15$ ,  $\beta_{hs}/\beta_c = 24/15$ . For all other combinations of DPDCH, DPCCH, HS- DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.

Note 3: For subtest 1 the  $\beta_c/\beta_d$  ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to  $\beta_c = 10/15$  and  $\beta_d = 15/15$ .

Note 4: In case of testing by UE using E-DPDCH Physical Layer category 1, Sub-test 3 is omitted according to TS25.306 Table 5.1g.

Note 5:  $\beta_{ed}$  can not be set directly; it is set by Absolute Grant Value.

Note 6: For subtests 2, 3 and 4, UE may perform E-DPDCH power scaling at max power which could results in slightly smaller MPR values.

**Setup Configuration**

**<LTE Note>**

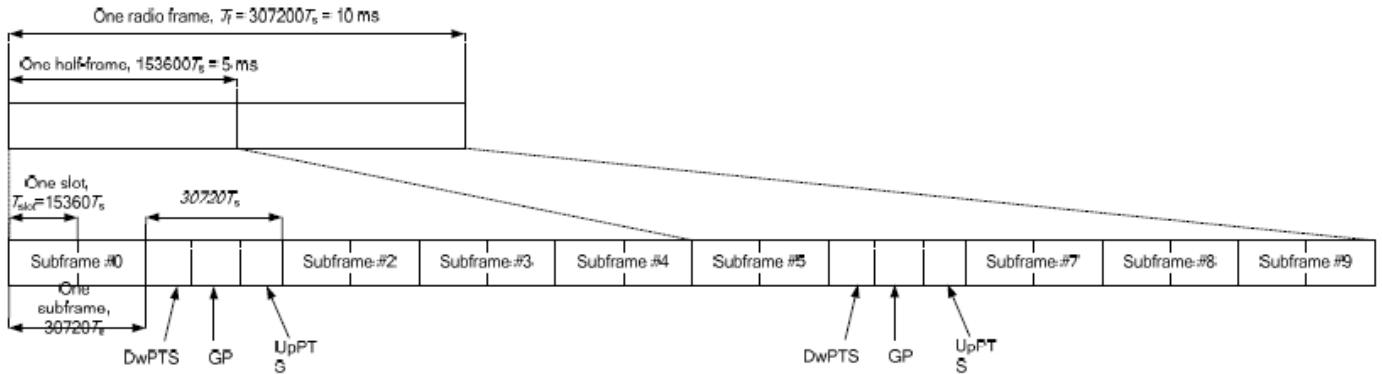
1. Anritsu MT8820C base station simulator was used to setup the connection with EUT; the frequency band, channel bandwidth, RB allocation configuration, modulation type are set in the base station simulator to configure EUT transmitting at maximum power and at different configurations which are requested to be reported to FCC, for conducted power measurement and SAR testing.
2. Per KDB 941225 D05v02r05, when a properly configured base station simulator is used for the SAR and power measurements, spectrum plots for each RB allocation and offset configuration is not required.
3. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
4. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
5. Per KDB 941225 D05v02r05, For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are  $\leq 0.8$  W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is  $> 1.45$  W/kg, the remaining required test channels must also be tested.
6. Per KDB 941225 D05v02r05, 16QAM output power for each RB allocation configuration is  $>$  not  $\frac{1}{2}$  dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is  $\leq 1.45$  W/kg; Per KDB 941225 D05v02r05, 16QAM SAR testing is not required.
7. Per KDB 941225 D05v02r05, Smaller bandwidth output power for each RB allocation configuration is  $>$  not  $\frac{1}{2}$  dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is  $\leq 1.45$  W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
8. For LTE B4/B5/B12/B17/B26/B38/B71 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
9. LTE band 2/4/5/17/38 SAR test was covered by Band 25/66/26/12/41; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
  - a. the maximum output power, including tolerance, for the smaller band is  $\leq$  the larger band to qualify for the SAR test exclusion
  - b. the channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band

**<TDD LTE SAR Measurement>**

TDD LTE configuration setup for SAR measurement

SAR was tested with a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by 3GPP.

- a. 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table 4.2-2 for uplink-downlink configurations
- b. “special subframe S” contains both uplink and downlink transmissions, it has been taken into consideration to determine the transmission duty factor according to the worst case uplink and downlink cyclic prefix requirements for UpPTS
- c. Establishing connections with base station simulators ensure a consistent means for testing SAR and recommended for evaluating SAR. The base station simulator was used for LTE output power measurements and SAR testing.



**Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).**

**Table 4.2-2: Uplink-downlink configurations.**

Uplink-downlink configuration	Downlink-to-Uplink Switch-point periodicity	Subframe number									
		0	1	2	3	4	5	6	7	8	9
0	5 ms	D	S	U	U	U	D	S	U	U	U
1	5 ms	D	S	U	U	D	D	S	U	U	D
2	5 ms	D	S	U	D	D	D	S	U	D	D
3	10 ms	D	S	U	U	U	D	D	D	D	D
4	10 ms	D	S	U	U	D	D	D	D	D	D
5	10 ms	D	S	U	D	D	D	D	D	D	D
6	5 ms	D	S	U	U	U	D	S	U	U	D

**Table 4.2-1: Configuration of special subframe (lengths of DwPTS/GP/UpPTS).**

Special subframe configuration	Normal cyclic prefix in downlink			Extended cyclic prefix in downlink		
	DwPTS	UpPTS		DwPTS	UpPTS	
		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
0	6592 · Ts	2192 · Ts	2560 · Ts	7680 · Ts	2192 · Ts	2560 · Ts
1	19760 · Ts			20480 · Ts		
2	21952 · Ts			23040 · Ts		
3	24144 · Ts			25600 · Ts		
4	26336 · Ts	4384 · Ts	5120 · Ts	7680 · Ts	4384 · Ts	5120 · Ts
5	6592 · Ts			20480 · Ts		
6	19760 · Ts			23040 · Ts		
7	21952 · Ts			12800 · Ts		
8	24144 · Ts			-		
9	13168 · Ts	-	-	-	-	-



<b>Special subframe (30720·T<sub>s</sub>): Normal cyclic prefix in downlink (UpPTS)</b>			
	<b>Special subframe configuration</b>	<b>Normal cyclic prefix in uplink</b>	<b>Extended cyclic prefix in uplink</b>
<b>Uplink duty factor in one special subframe</b>	<b>0~4</b>	7.13%	8.33%
	<b>5~9</b>	14.3%	16.7%

<b>Special subframe(30720·T<sub>s</sub>): Extended cyclic prefix in downlink (UpPTS)</b>			
	<b>Special subframe configuration</b>	<b>Normal cyclic prefix in uplink</b>	<b>Extended cyclic prefix in uplink</b>
<b>Uplink duty factor in one special subframe</b>	<b>0~3</b>	7.13%	8.33%
	<b>4~7</b>	14.3%	16.7%

The highest duty factor is resulted from:

- i. Uplink-downlink configuration: 0. In a half-frame consisted of 5 subframes, uplink operation is in 3 uplink subframes and 1 special subframe.
- ii. special subframe configuration: 5-9 for normal cyclic prefix in downlink, 4-7 for extended cyclic prefix in downlink
- iii. for special subframe with extended cyclic prefix in uplink, the total uplink duty factor in one half-frame is:  $(3+0.167)/5 = 63.3\%$
- iv. for special subframe with normal cyclic prefix in uplink, the total uplink duty factor in one half-frame is:  $(3+0.143)/5 = 62.9\%$
- v. For TDD LTE SAR measurement, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix  $63.3\%/62.9\% = 1.006$  is applied to scale-up the measured SAR result. The scaled TDD LTE SAR = measured SAR (W/kg)\* Tune-up Scaling Factor\* scaling factor for extended cyclic prefix.
- vi. The device supports Power Class 3 uplink-downlink configurations 0 and 6, and Power Class 2 uplink-downlink configurations 1 to 5.
- vii. The highest available duty cycle for Power Class 2 operation is 43.3% using UL-DL configuration 1, for Power Class 3 operation is 63.3% using UL-DL configuration 0. Per FCC Guidance, all SAR tests were performed using Power Class 3. SAR with Power Class 2 at the available duty factor was additionally performed for the Power Class 3 configuration with the highest SAR among all exposure condition.

**<5G NR Note>**

1. Referencing the procedure in KDB 941225, the test procedures are outlined as below
  - a. For DFT-OFDM output power measurement, full measurement was done for Pi/2 BPSK and QPSK and for the largest supported bandwidth, repeat test for 16QAM/64QAM/256QAM under 1RB 1Offset configuration. For smaller bandwidth, measure conducted power for Pi/2 BPSK and 1RB 1Offset configuration.
  - b. According to the tune-up, CP-OFDM output power is not ½ dB higher than DFT-OFDM mode, and the reported SAR of DFT-OFDM mode reported SAR is ≤ 1.45 W/kg, SAR test and thus conducted power for CP-OFDM mode is not required.
  - c. To start SAR test for the largest channel bandwidth for Pi/2 BPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel. Also do SAR test for 50% RB allocation for Pi/2 BPSK SAR testing using 1RB Pi/2 BPSK allocation procedure
  - d. For Pi/2 BPSK with 100% RB allocation, SAR test is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
  - e. For higher modulation QPSK/16QAM/64QAM/256QAM, according to tune-up document the power level is not ½ dB higher than the same configuration in Pi/2 BPSK, also reported SAR for the Pi/2 BPSK configuration is less than 1.45 W/kg, QPSK/16QAM/64QAM/256QAM SAR testing are not required.
  - f. Smaller bandwidth output power for each RB allocation configuration for this device is not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device
2. Due to test setup limitations, SAR testing for NR TDD Power class 3 was performed using Factory Test Mode software to establish the connection and perform SAR with 100% transmission. For NR TDD power class2 was performed using Factory Test Mode software to establish the connection and perform SAR with 50% transmission.
3. For NR FDD was establishing connections via a base station simulator to use for output power measurement and SAR testing

**<3GPP 38.101 MPR for EN-DC>**

**Table 6.2.2-1 Maximum power reduction (MPR) for power class 3**

Modulation		MPR (dB)		
		Edge RB allocations	Outer RB allocations	Inner RB allocations
DFT-s-OFDM	Pi/2 BPSK	≤ 3.5 <sup>1</sup>	≤ 1.2 <sup>1</sup>	≤ 0.2 <sup>1</sup>
		≤ 0.5 <sup>2</sup>	≤ 0.5 <sup>2</sup>	0 <sup>2</sup>
	QPSK	≤ 1		0
	16 QAM	≤ 2		≤ 1
	64 QAM		≤ 2.5	
CP-OFDM	QPSK		≤ 4.5	
		≤ 3		≤ 1.5
	16 QAM	≤ 3		≤ 2
	64 QAM		≤ 3.5	
	256 QAM		≤ 6.5	

NOTE 1: Applicable for UE operating in TDD mode with Pi/2 BPSK modulation and UE indicates support for UE capability *powerBoosting-pi2BPSK* and if the IE *powerBoostPi2BPSK* is set to 1 and 40 % or less slots in radio frame are used for UL transmission for bands n40, n41, n77, n78 and n79. The reference power of 0 dB MPR is 26 dBm.

NOTE 2: Applicable for UE operating in FDD mode, or in TDD mode in bands other than n40, n41, n77, n78 and n79 with Pi/2 BPSK modulation and if the IE *powerBoostPi2BPSK* is set to 0 and if more than 40 % of slots in radio frame are used for UL transmission for bands n40, n41, n77, n78 and n79.

**Table 6.2.2-2 Maximum power reduction (MPR) for power class 2**

Modulation		MPR (dB)		
		Edge RB allocations	Outer RB allocations	Inner RB allocations
DFT-s-OFDM	Pi/2 BPSK	≤ 3.5	≤ 0.5	0
	QPSK	≤ 3.5	≤ 1	0
	16 QAM	≤ 3.5	≤ 2	≤ 1
	64 QAM	≤ 3.5		≤ 2.5
	256 QAM		≤ 4.5	
CP-OFDM	QPSK	≤ 3.5	≤ 3	≤ 1.5
	16 QAM	≤ 3.5	≤ 3	≤ 2
	64 QAM		≤ 3.5	
	256 QAM		≤ 6.5	





<WLAN Note>

1. The SISO mode support only when the Antenna 3 and 4 is transmitting on 802.11b mode, other support MIMO mode.
2. 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.
3. Per KDB 248227 D01v02r02, SAR test reduction is determined according to 802.11 transmission mode configurations and certain exposure conditions with multiple test positions. In the 2.4 GHz band, separate SAR procedures are applied to DSSS and OFDM configurations to simplify DSSS test requirements. For OFDM, in both 2.4 and 5 GHz bands, an initial test configuration must be determined for each standalone and aggregated frequency band, according to the transmission mode configuration with the highest maximum output power specified for production units to perform SAR measurements. If the same highest maximum output power applies to different combinations of channel bandwidths, modulations and data rates, additional procedures are applied to determine which test configurations require SAR measurement. When applicable, an initial test position may be applied to reduce the number of SAR measurements required for next to the ear, UMPC mini-tablet or hotspot mode configurations with multiple test positions.
4. For 2.4 GHz 802.11b DSSS, either the initial test position procedure for multiple exposure test positions or the DSSS procedure for fixed exposure position is applied; these are mutually exclusive. For 2.4 GHz and 5 GHz OFDM configurations, the initial test configuration is applied to measure SAR using either the initial test position procedure for multiple exposure test position configurations or the initial test configuration procedures for fixed exposure test conditions. Based on the reported SAR of the measured configurations and maximum output power of the transmission mode configurations that are not included in the initial test configuration, the subsequent test configuration and initial test position procedures are applied to determine if SAR measurements are required for the remaining OFDM transmission configurations. In general, the number of test channels that require SAR measurement is minimized based on maximum output power measured for the test sample(s).
5. For OFDM transmission configurations in the 2.4 GHz and 5 GHz bands, When the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel for each frequency band.
6. DSSS and OFDM configurations are considered separately according to the required SAR procedures. SAR is measured in the initial test position using the 802.11 transmission mode configuration required by the DSSS procedure or initial test configuration and subsequent test configuration(s) according to the OFDM procedures.18 The initial test position procedure is described in the following:
  - a. When the reported SAR of the initial test position is  $\leq 0.4$  W/kg, further SAR measurement is not required for the other test positions in that exposure configuration and 802.11 transmission mode combinations within the frequency band or aggregated band.
  - b. When the reported SAR of the test position is  $> 0.4$  W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closest/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is  $\leq 0.8$  W/kg or all required test position are tested.
  - c. For all positions/configurations, when the reported SAR is  $> 0.8$  W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is  $\leq 1.2$  W/kg or all required channels are tested.
7. 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)
8. In applying the test guidance, the IEEE 802.11 mode with the maximum output power (out of all modes) should be considered for testing
9. 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
10. 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

<Bluetooth>

1. For 2.4GHz Bluetooth SAR testing was selected ER/EDR 1Mbps due to its highest average power and duty cycle list below are considered in SAR testing, and the duty cycle would be scaled to theoretical 83.3% in reported SAR calculation, for the duty cycle figure and output power include in appendix D.

	Power Index	Antenna	Duty Cycle %
Bluetooth	1/2/3/4	Ant 4	76.76
	1/2/3/4	Ant 3	77.26
	1/2/3/4	Ant 4+3	77.2



### 15. UL carrier aggregation

#### <LTE Uplink carrier aggregation>

2CC Uplink Carrier Aggregation	
Number	Combination
1	CA_5B
2	CA_7C
3	CA_66B
4	CA_66C
5	CA_38C
5	CA_41C

#### <Intra-band>

##### General Note:

- i. The device supports intra-band uplink carrier aggregation with a maximum of two 20MHz component carriers. For intra band contiguous carrier aggregation scenarios, 3GPP 36.101 table 6.2.2A-1 specifies that the aggregate maximum allowed output power is equivalent to the single carrier scenario. 3GPP 36.101 6.2.3A allows for several dB of MPR to be applied when not-contiguous RB allocation is implemented. The conducted power and MPR setting in this device are permanently implemented pre 3GPP requirement.
- ii. According TCB workshop, the output power with uplink CA active was measured for the configuration with the highest reported SAR with single carrier for each exposure condition. The power was measured with wideband signal integration over both component carriers.
- iii. Uplink CA is only operating with power class3, and additional SAR measurement for LTE UL CA whit other DL CA combinations active were not required since the maximum output power for this configuration was not > 0.25dB higher than the maximum output power for UL CA active.
- iv. For Intra-band, contiguous CA, the channels selected to perform the uplink power measurement must satisfy 3GPP channel spacing (5.4.1A of 3GPP TS 36.521 or equivalent) and channel bandwidth (5.4.2A) requirements.
- v. In this report only additional measured UL CA 5B ant1 SAR and output power, other CA combination refer to reference model FCC ID: A4RG1MNW Part1 SAR Report section13.

### TX 1

Index 2										
CA_5B_Ant 1										
Combination 10MHz+10MHz (50RB+50RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20450	20549	QPSK	1	0	0	0	1	0	18.78	20.5
20475	20574	QPSK	1	49	1	0	2	0	18.55	20.5
20600	20501	QPSK	1	0	1	49	2	0	18.56	20.5

Index 3										
CA_5B_Ant 1										
Combination 10MHz+10MHz (50RB+50RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20450	20549	QPSK	1	0	0	0	1	0	18.78	19.8
20475	20574	QPSK	1	49	1	0	2	0	18.55	19.8
20600	20501	QPSK	1	0	1	49	2	0	18.56	19.8



Index 4										
CA_5B_Ant 1										
Combination 10MHz+10MHz (50RB+50RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20450	20549	QPSK	1	0	0	0	1	0	22.78	24.1
20475	20574	QPSK	1	49	1	0	2	0	22.6	24.1
20600	20501	QPSK	1	0	1	49	2	0	22.63	24.1

Index 5/6										
CA_5B_Ant 1										
Combination 10MHz+10MHz (50RB+50RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20450	20549	QPSK	1	0	0	0	1	0	22.73	24.1
20475	20574	QPSK	1	49	1	0	2	0	22.6	24.1
20600	20501	QPSK	1	0	1	49	2	0	22.58	24.1



**16. RF Exposure position consideration**

Distance of the Antenna to the EUT surface/edge						
Antennas	Front	Back	Top Side	Bottom Side	Right Side	Left Side
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
2.4GHz WLAN/BT Ant 3 / 4	≤ 25mm	≤ 25mm	≤ 25mm	> 25mm	≤ 25mm	≤ 25mm
NFC	≤ 25mm	≤ 25mm	> 25mm	> 25mm	≤ 25mm	≤ 25mm

Positions for SAR / PD tests						
Antennas	Front	Back	Top Side	Bottom Side	Right Side	Left Side
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	Yes	Yes	Yes	No	Yes	Yes
NFC	Yes	Yes	No	No	Yes	Yes

**General Note:**

- Referring to KDB 941225 D06 v02r01, when the overall device length and width are ≥ 9cm\*5cm, the test distance is 10 mm. SAR must be measured for all sides and surfaces with a transmitting antenna located within 25mm from that surface or edge
- The antenna location is illustrated in the Appendix H.



### 17. Spot Check SAR Results

**General Note:**

- 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.
- If the 1-g SAR spot check result "does not exceed 30%, 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.
- The spot check results don't show the SAR increase more than 30%, therefore referring to the guidance in the KDB inquiry, SAR data reuse is justified.

1st as parent model  
2nd as variant model

#### 17.1 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 (%)
01	1st	GSM850_Ant 0	GPRS (4 Tx slots)	Left Cheek	0mm	Index 2	251	848.8	28.81	29.80	1.256			0.01	0.398	0.500	-24.40%
	2nd	GSM850_Ant 0	GPRS (4 Tx slots)	Left Cheek	0mm	Index 2	251	848.8	28.40	29.80	1.380			-0.15	0.274	0.378	
02	1st	GSM1900_Ant 2	GPRS (4 Tx slots)	Right Cheek	0mm	Index 2/3	512	1850.2	26.74	28.00	1.337			0.13	0.419	0.560	-0.71%
	2nd	GSM1900_Ant 2	GPRS (4 Tx slots)	Right Cheek	0mm	Index 2/3	512	1850.2	26.99	28.00	1.262			0.03	0.441	0.556	
	1st	GSM1900_Ant 0	GPRS (4 Tx slots)	Right Cheek	0mm	Index 2/3	661	1880	26.10	27.20	1.288			0	0.048	0.062	-8.06%
	2nd	GSM1900_Ant 0	GPRS (4 Tx slots)	Right Cheek	0mm	Index 2/3	661	1880	25.63	27.20	1.435			0.05	0.040	0.057	
03	1st	WCDMA II_Ant 2	RMC 12.2Kbps	Right Cheek	0mm	Index 2/3	9538	1907.6	24.91	25.40	1.119			0	0.671	0.751	-0.40%
	2nd	WCDMA II_Ant 2	RMC12.2Kbps	Right Cheek	0mm	Index 2/3	9538	1907.6	25.16	25.40	1.057			0.15	0.708	0.748	
	1st	WCDMA II_Ant 0	RMC 12.2Kbps	Right Cheek	0mm	Index 2/3	9400	1880	24.47	25.20	1.183			-0.12	0.069	0.082	-1.22%
	2nd	WCDMA II_Ant 0	RMC12.2Kbps	Right Cheek	0mm	Index 2/3	9400	1880	24.44	25.20	1.191			-0.01	0.068	0.081	
04	1st	WCDMA IV_Ant 2	RMC 12.2Kbps	Right Cheek	0mm	Index 2/3	1513	1752.6	24.88	25.40	1.127			0.01	0.413	0.466	-0.64%
	2nd	WCDMA IV_Ant 2	RMC12.2Kbps	Right Cheek	0mm	Index 2/3	1513	1752.6	24.91	25.40	1.119			-0.07	0.414	0.463	
	1st	WCDMA IV_Ant 0	RMC 12.2Kbps	Right Cheek	0mm	Index 2/3	1413	1732.6	24.62	25.20	1.143			0.01	0.104	0.119	-0.84%
	2nd	WCDMA IV_Ant 0	RMC12.2Kbps	Right Cheek	0mm	Index 2/3	1413	1732.6	24.69	25.20	1.125			0.03	0.105	0.118	
05	1st	WCDMA V_Ant 0	RMC 12.2Kbps	Left Cheek	0mm	Index 2/3	4182	836.4	25.02	25.40	1.091			-0.12	0.294	0.321	-0.62%
	2nd	WCDMA V_Ant 0	RMC 12.2Kbps	Left Cheek	0mm	Index 2/3	4182	836.4	25.03	25.40	1.089			-0.18	0.293	0.319	
06	1st	LTE Band 2_Ant 5	20M_QPSK_1_0	Left Cheek	0mm	Index 2	19100	1900	18.08	19.60	1.419			-0.05	0.459	0.651	-6.76%
	2nd	LTE Band 2_Ant 5	20M_QPSK_1_0	Left Cheek	0mm	Index 2	19100	1900	17.91	19.60	1.476			-0.02	0.411	0.607	
07	1st	LTE Band 7_Ant 2	20M_QPSK_1_0	Right Cheek	0mm	Index 2/3	21100	2535	24.91	25.40	1.119			-0.01	0.679	0.760	-8.29%
	2nd	LTE Band 7_Ant 2	20M_QPSK_1_0	Right Cheek	0mm	Index 2/3	21100	2535	23.85	25.40	1.429			0.07	0.488	0.697	
	1st	LTE Band 7_Ant 0	20M_QPSK_1_0	Left Cheek	0mm	Index 2/3	21100	2535	23.93	25.00	1.279			0.02	0.210	0.269	-15.61%
	2nd	LTE Band 7_Ant 0	20M_QPSK_1_0	Left Cheek	0mm	Index 2/3	21100	2535	23.69	25.00	1.352			-0.13	0.168	0.227	
08	1st	LTE Band 12_Ant 0	10M_QPSK_1_0	Left Cheek	0mm	Index 2/3	23095	707.5	24.93	25.40	1.114			0.02	0.221	0.246	-1.22%
	2nd	LTE Band 12_Ant 0	10M_QPSK_1_0	Left Cheek	0mm	Index 2/3	23095	707.5	25.13	25.40	1.064			-0.09	0.228	0.243	
09	1st	LTE Band 13_Ant 0	10M_QPSK_1_0	Left Cheek	0mm	Index 2/3	23230	782	24.76	25.40	1.159			-0.05	0.243	0.282	-0.35%
	2nd	LTE Band 13_Ant 0	10M_QPSK_1_0	Left Cheek	0mm	Index 2/3	23230	782	25.03	25.40	1.089			-0.12	0.258	0.281	
10	1st	LTE Band 14_Ant 0	10M_QPSK_1_0	Left Cheek	0mm	Index 2/3	23330	793	24.77	25.40	1.156			-0.01	0.248	0.287	-3.83%
	2nd	LTE Band 14_Ant 0	10M_QPSK_1_0	Left Cheek	0mm	Index 2/3	23330	793	24.87	25.40	1.130			-0.06	0.244	0.276	
11	1st	LTE Band 25_Ant 2	20M_QPSK_1_0	Right Cheek	0mm	Index 2/3	26590	1905	24.52	25.40	1.225			0.01	0.646	0.791	-3.29%
	2nd	LTE Band 25_Ant 2	20M_QPSK_1_0	Right Cheek	0mm	Index 2/3	26590	1905	24.39	25.40	1.262			0	0.606	0.765	
	1st	LTE Band 25_Ant 0	20M_QPSK_1_0	Left Cheek	0mm	Index 2/3	26340	1880	24.49	25.20	1.178			-0.14	0.077	0.091	-6.59%
	2nd	LTE Band 25_Ant 0	20M_QPSK_1_0	Left Cheek	0mm	Index 2/3	26340	1880	24.11	25.20	1.285			-0.14	0.066	0.085	
12	1st	LTE Band 26_Ant 0	15M_QPSK_1_0	Left Cheek	0mm	Index 2/3	26865	831.5	24.39	25.40	1.262			0.01	0.286	0.361	-1.39%
	2nd	LTE Band 26_Ant 0	15M_QPSK_1_0	Left Cheek	0mm	Index 2/3	26865	831.5	24.53	25.40	1.222			-0.14	0.291	0.356	
13	1st	LTE Band 30_Ant 2	10M_QPSK_1_0	Right Cheek	0mm	Index 2/3	27710	2310	22.65	23.10	1.109			0.03	0.194	0.215	-5.12%
	2nd	LTE Band 30_Ant 2	10M_QPSK_1_0	Right Cheek	0mm	Index 2/3	27710	2310	22.53	23.10	1.140			-0.06	0.179	0.204	
	1st	LTE Band 30_Ant 0	10M_QPSK_1_0	Left Cheek	0mm	Index 2/3	27710	2310	22.32	23.40	1.282			-0.03	0.071	0.091	-28.57%
	2nd	LTE Band 30_Ant 0	10M_QPSK_1_0	Left Cheek	0mm	Index 2/3	27710	2310	23.26	23.40	1.033			0.11	0.063	0.065	
14	1st	LTE Band 41_HPUE_Ant 2	20M_QPSK_1_0	Right Cheek	0mm	Index 2/3	39750	2506	26.31	26.90	1.146	42.9	1.009	0.01	0.309	0.357	-24.65%
	2nd	LTE Band 41_HPUE_Ant 2	20M_QPSK_1_0	Right Cheek	0mm	Index 2/3	39750	2506	26.45	26.90	1.109	42.9	1.009	0.17	0.240	0.269	
	1st	LTE Band 41_HPUE_Ant 0	20M_QPSK_1_0	Left Cheek	0mm	Index 2/3	39750	2506	25.54	26.50	1.247	42.9	1.009	-0.15	0.091	0.115	-26.09%
	2nd	LTE Band 41_HPUE_Ant 0	20M_QPSK_1_0	Left Cheek	0mm	Index 2/3	39750	2506	25.43	26.50	1.279	42.9	1.009	-0.09	0.066	0.085	
15	1st	LTE Band 48_Ant 6	20M_QPSK_1_0	Left Cheek	0mm	Index 2/3	56150	3641	21.14	22.40	1.337	62.9	1.006	0.02	0.191	0.257	-44.36%



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	2nd	LTE Band 48_Ant 6	20M_QPSK_1_0	Left Cheek	0mm	Index 2/3	56150	3641	21.24	22.40	1.306	62.9	1.006	0.03	0.109	0.143	
	1st	LTE Band 48_Ant 7	20M_QPSK_1_0	Right Cheek	0mm	Index 2/3	55340	3560	22.92	24.70	1.507	62.9	1.006	-0.07	0.392	0.594	-54.21%
15	2nd	LTE Band 48_Ant 7	20M_QPSK_1_0	Right Cheek	0mm	Index 2/3	55340	3560	22.88	24.70	1.521	62.9	1.006	-0.11	0.178	0.272	
	1st	LTE Band 66_Ant 2	20M_QPSK_1_0	Right Cheek	0mm	Index 2/3	132572	1770	24.75	25.40	1.161			-0.06	0.436	0.506	-20.95%
	2nd	LTE Band 66_Ant 2	20M_QPSK_1_0	Right Cheek	0mm	Index 2/3	132572	1770	24.69	25.40	1.178			-0.13	0.340	0.400	
	1st	LTE Band 66_Ant 0	20M_QPSK_1_0	Right Cheek	0mm	Index 2/3	132322	1745	24.24	25.20	1.247			-0.05	0.084	0.105	-5.71%
	2nd	LTE Band 66_Ant 0	20M_QPSK_1_0	Right Cheek	0mm	Index 2/3	132322	1745	24.20	25.20	1.259			0.17	0.079	0.099	
	1st	LTE Band 66_Ant 5	20M_QPSK_1_0	Left Cheek	0mm	Index 2	132072	1720	19.72	20.50	1.197			0.08	0.575	0.688	-6.25%
16	2nd	LTE Band 66_Ant 5	20M_QPSK_1_0	Left Cheek	0mm	Index 2	132072	1720	19.81	20.50	1.172			-0.01	0.550	0.645	
	1st	LTE Band 71_Ant 0	20M_QPSK_1_0	Left Cheek	0mm	Index 2/3	133297	680.5	24.61	25.40	1.199			-0.04	0.181	0.217	-5.53%
17	2nd	LTE Band 71_Ant 0	20M_QPSK_1_0	Left Cheek	0mm	Index 2/3	133297	680.5	24.59	25.40	1.205			-0.05	0.170	0.205	
	1st	FR1 n2_Ant 5	20M_QPSK_1_1	Left Cheek	0mm	Index 2	376000	1880	17.38	18.70	1.355			-0.16	0.503	0.682	-4.40%
18	2nd	FR1 n2_Ant 5	20M_QPSK_1_1	Left Cheek	0mm	Index 2	376000	1880	17.30	18.70	1.380			-0.1	0.472	0.652	
	1st	FR1 n26_Ant 0	20M_QPSK_1_1	Left Cheek	0mm	Index 2/3	166300	831.5	24.49	25.40	1.233			0.13	0.157	0.194	-3.09%
19	2nd	FR1 n5_Ant 0	20M_QPSK_1_1	Left Cheek	0mm	Index 2/3	167300	836.5	24.57	25.40	1.211			-0.11	0.155	0.188	
	1st	FR1 n7_Ant 2	50M_QPSK_1_1	Right Cheek	0mm	Index 2/3	507000	2535	25.09	25.40	1.074			0.1	0.680	0.730	-68.77%
	2nd	FR1 n7_Ant 2	50M_QPSK_1_1	Right Cheek	0mm	Index 2/3	507000	2535	25.12	25.40	1.067			0.04	0.214	0.228	
	1st	FR1 n7_Ant 0	50M_QPSK_1_1	Left Cheek	0mm	Index 2/3	507000	2535	23.63	24.30	1.167			-0.1	0.268	0.313	-8.31%
20	2nd	FR1 n7_Ant 0	50M_QPSK_1_1	Left Cheek	0mm	Index 2/3	507000	2535	23.53	24.30	1.194			0.09	0.240	0.287	
	1st	FR1 n12_Ant 0	15M_QPSK_1_1	Left Cheek	0mm	Index 2/3	141500	707.5	24.52	25.40	1.225			-0.16	0.231	0.283	-6.71%
21	2nd	FR1 n12_Ant 0	15M_QPSK_1_1	Left Cheek	0mm	Index 2/3	141500	707.5	24.46	25.40	1.242			-0.11	0.213	0.264	
	1st	FR1 n25_Ant 2	40M_QPSK_1_1	Right Cheek	0mm	Index 2/3	376500	1882.5	24.45	25.40	1.245			0.17	0.671	0.835	-9.82%
22	2nd	FR1 n25_Ant 2	40M_QPSK_1_1	Right Cheek	0mm	Index 2/3	376500	1882.5	24.32	25.40	1.282			-0.04	0.587	0.753	
	1st	FR1 n25_Ant 0	40M_QPSK_1_1	Left Cheek	0mm	Index 2/3	376500	1882.5	23.66	25.20	1.426			0.04	0.076	0.108	-12.96%
	2nd	FR1 n25_Ant 0	40M_QPSK_1_1	Left Cheek	0mm	Index 2/3	376500	1882.5	23.73	25.20	1.403			-0.09	0.067	0.094	
	1st	FR1 n30_Ant 2	10M_QPSK_1_1	Right Cheek	0mm	Index 2/3	462000	2310	22.19	23.10	1.233			0.1	0.354	0.437	-8.92%
23	2nd	FR1 n30_Ant 2	10M_QPSK_1_1	Right Cheek	0mm	Index 2/3	462000	2310	22.18	23.10	1.236			0.05	0.322	0.398	
	1st	FR1 n30_Ant 0	10M_QPSK_1_1	Left Cheek	0mm	Index 2/3	462000	2310	22.10	23.40	1.349			-0.06	0.150	0.202	-16.83%
	2nd	FR1 n30_Ant 0	10M_QPSK_1_1	Left Cheek	0mm	Index 2/3	462000	2310	22.05	23.40	1.365			0.02	0.123	0.168	
	1st	FR1 n38_Ant 2	20M_QPSK_1_1	Right Cheek	0mm	Index 2/3	516000	2580	24.37	25.40	1.268			-0.07	0.603	0.764	-11.26%
24	2nd	FR1 n38_Ant 2	20M_QPSK_1_1	Right Cheek	0mm	Index 2/3	516000	2580	24.27	25.40	1.297			0.1	0.523	0.678	
	1st	FR1 n38_Ant 0	20M_QPSK_1_1	Left Cheek	0mm	Index 2/3	519000	2595	23.32	25.00	1.472			-0.11	0.213	0.314	-40.13%
	2nd	FR1 n38_Ant 0	20M_QPSK_1_1	Left Cheek	0mm	Index 2/3	519000	2595	23.32	25.00	1.472			-0.11	0.128	0.188	
	1st	FR1 n41_Ant 2	100M_QPSK_1_1	Right Cheek	0mm	Index 2/3	518598	2592.99	23.85	23.90	1.012			0.05	0.552	0.558	-4.84%
	2nd	FR1 n41_Ant 2	100M_QPSK_1_1	Right Cheek	0mm	Index 2/3	518598	2592.99	23.72	23.90	1.042			-0.09	0.509	0.531	
	1st	FR1 n41_Ant 0	100M_QPSK_1_1	Left Cheek	0mm	Index 2/3	518598	2592.99	22.61	23.50	1.227			-0.14	0.241	0.296	-31.76%
	2nd	FR1 n41_Ant 0	100M_QPSK_1_1	Left Cheek	0mm	Index 2/3	518598	2592.99	22.69	23.50	1.205			0.08	0.168	0.202	
	1st	FR1 n41_Ant 5	100M_QPSK_1_1	Left Cheek	0mm	Index 2	518598	2592.99	19.96	21.10	1.300			0.08	0.526	0.684	-11.55%
25	2nd	FR1 n41_Ant 5	100M_QPSK_1_1	Left Cheek	0mm	Index 2	518598	2592.99	20.30	21.10	1.202			-0.11	0.503	0.605	
	1st	FR1 n66_Ant 2	40M_QPSK_1_1	Right Cheek	0mm	Index 2/3	349000	1745	24.79	25.40	1.151			0	0.430	0.495	-11.11%
	2nd	FR1 n66_Ant 2	40M_QPSK_1_1	Right Cheek	0mm	Index 2/3	349000	1745	24.80	25.40	1.148			0.09	0.383	0.440	
	1st	FR1 n66_Ant 0	40M_QPSK_1_1	Right Cheek	0mm	Index 2/3	349000	1745	23.66	25.20	1.426			0.13	0.110	0.157	-31.85%
	2nd	FR1 n66_Ant 0	40M_QPSK_1_1	Right Cheek	0mm	Index 2/3	349000	1745	23.65	25.20	1.429			-0.07	0.075	0.107	
	1st	FR1 n66_Ant 5	40M_QPSK_1_1	Left Cheek	0mm	Index 2	349000	1745	18.38	19.70	1.355			-0.07	0.506	0.686	-4.08%
26	2nd	FR1 n66_Ant 5	40M_QPSK_1_1	Left Cheek	0mm	Index 2	349000	1745	18.40	19.70	1.349			-0.11	0.488	0.658	
	1st	FR1 n71_Ant 0	20M_QPSK_1_1	Left Cheek	0mm	Index 2/3	136100	680.5	24.58	25.40	1.208			-0.12	0.224	0.271	-6.27%
27	2nd	FR1 n71_Ant 0	20M_QPSK_1_1	Left Cheek	0mm	Index 2/3	136100	680.5	24.60	25.40	1.202			-0.12	0.211	0.254	
	1st	FR1 n77_Ant 6	100M_QPSK_1_1	Left Cheek	0mm	Index 2/3	656000	3840	23.99	24.6	1.151			-0.02	0.257	0.296	-18.92%
	2nd	FR1 n77_Ant 6	100M_QPSK_1_1	Left Cheek	0mm	Index 2/3	656000	3840	24.00	24.60	1.148			-0.12	0.209	0.240	
	1st	FR1 n77_Ant 6	100M_QPSK_1_1	Left Cheek	0mm	Index 2/3	633332	3499.98	24.05	24.6	1.135			0.13	0.158	0.179	-7.26%
	2nd	FR1 n77_Ant 6	100M_QPSK_1_1	Left Cheek	0mm	Index 2/3	633332	3499.98	24.15	24.60	1.109			-0.08	0.150	0.166	
	1st	FR1 n77_Ant 7	100M_QPSK_1_1	Right Cheek	0mm	Index 2/3	656000	3840	22.68	24	1.355			0	0.181	0.245	-15.92%
	2nd	FR1 n77_Ant 7	100M_QPSK_1_1	Right Cheek	0mm	Index 2/3	656000	3840	22.74	24.00	1.337			-0.14	0.154	0.206	
	1st	FR1 n77_Ant 7	100M_QPSK_1_1	Right Cheek	0mm	Index 2/3	633332	3499.98	23.05	24	1.245			-0.04	0.200	0.249	-44.18%
	2nd	FR1 n77_Ant 7	100M_QPSK_1_1	Right Cheek	0mm	Index 2/3	633332	3499.98	23.24	24.00	1.191			0.11	0.117	0.139	
	1st	FR1 n77_Ant 5	100M_QPSK_1_1	Left Cheek	0mm	Index 2	656000	3840	19.98	20.90	1.236			0.14	0.557	0.688	-3.20%
28	2nd	FR1 n77_Ant 5	100M_QPSK_1_1	Left Cheek	0mm	Index 2	656000	3840	20.18	20.90	1.180			-0.02	0.564	0.666	
	1st	FR1 n77_Ant 5	100M_QPSK_1_1	Left Cheek	0mm	Index 2	633332	3499.98	20.16	20.90	1.186			0.03	0.172	0.204	-6.86%
	2nd	FR1 n77_Ant 5	100M_QPSK_1_1	Left Cheek	0mm	Index 2	633332	3499.98	20.15	20.90	1.189			0.07	0.160	0.190	



17.2 Hotspot SAR

Plot No.	No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)	Deviation (%)
	1st	GSM850_Ant 0	GPRS (4 Tx slots)	Bottom Side	10mm	Index 4	128	824.2	28.81	28.90	1.021			-0.01	0.831	0.848	
29	2nd	GSM850_Ant 0	GPRS (4 Tx slots)	Bottom Side	10mm	Index 4	128	824.2	28.40	28.90	1.122			-0.07	0.669	0.751	-11.44%
	1st	GSM1900_Ant 2	GPRS (4 Tx slots)	Right Side	10mm	Index 4	661	1880	22.35	23.50	1.303			-0.04	0.293	0.382	
	2nd	GSM1900_Ant 2	GPRS (4 Tx slots)	Right Side	10mm	Index 4	661	1880	22.38	23.50	1.294			0.03	0.293	0.379	-0.79%
	1st	GSM1900_Ant 0	GPRS (4 Tx slots)	Bottom Side	10mm	Index 4	512	1850.2	22.15	22.50	1.084			0.03	0.753	0.816	
30	2nd	GSM1900_Ant 0	GPRS (4 Tx slots)	Bottom Side	10mm	Index 4	512	1850.2	21.96	22.50	1.132			0.03	0.688	0.779	-4.53%
	1st	WCDMA II_Ant 2	RMC 12.2Kbps	Right Side	10mm	Index 4	9538	1907.6	20.70	20.70	1.000			-0.02	0.460	0.460	
	2nd	WCDMA II_Ant 2	RMC 12.2Kbps	Right Side	10mm	Index 4	9538	1907.6	20.67	20.70	1.007			0.02	0.407	0.410	-10.87%
	1st	WCDMA II_Ant 0	RMC 12.2Kbps	Bottom Side	10mm	Index 4	9538	1907.6	18.31	18.70	1.094			-0.11	0.764	0.836	
31	2nd	WCDMA II_Ant 0	RMC 12.2Kbps	Bottom Side	10mm	Index 4	9538	1907.6	18.41	18.70	1.069			-0.01	0.676	0.723	-13.52%
	1st	WCDMA IV_Ant 2	RMC 12.2Kbps	Back	10mm	Index 4	1413	1732.6	20.20	20.70	1.122			0.01	0.284	0.319	
	2nd	WCDMA IV_Ant 2	RMC 12.2Kbps	Back	10mm	Index 4	1413	1732.6	20.27	20.70	1.104			-0.12	0.285	0.315	-1.25%
	1st	WCDMA IV_Ant 0	RMC 12.2Kbps	Bottom Side	10mm	Index 4	1413	1732.6	18.83	19.00	1.040			-0.06	0.715	0.744	
32	2nd	WCDMA IV_Ant 0	RMC 12.2Kbps	Bottom Side	10mm	Index 4	1413	1732.6	18.71	19.00	1.069			0	0.693	0.741	-0.40%
	1st	WCDMA V_Ant 0	RMC 12.2Kbps	Bottom Side	10mm	Index 4	4233	846.6	24.88	25.40	1.127			0.07	0.638	0.719	
33	2nd	WCDMA V_Ant 0	RMC 12.2Kbps	Bottom Side	10mm	Index 4	4233	846.6	25.03	25.40	1.089			0.02	0.582	0.634	-11.82%
	1st	LTE Band 2_Ant 5	20M_QPSK_1_0	Right Side	10mm	Index 4	18700	1860	21.52	21.70	1.042			-0.02	0.619	0.645	
34	2nd	LTE Band 2_Ant 5	20M_QPSK_1_0	Right Side	0mm	Index 4	18700	1860	21.49	21.70	1.050			-0.02	0.583	0.612	-5.12%
	1st	LTE Band 7_Ant 2	20M_QPSK_1_0	Right Side	10mm	Index 4	21350	2560	21.33	21.50	1.040			-0.02	0.582	0.605	
	2nd	LTE Band 7_Ant 2	20M_QPSK_1_0	Right Side	10mm	Index 4	21350	2560	20.76	21.50	1.186			-0.11	0.207	0.245	-59.50%
	1st	LTE Band 7_Ant 0	20M_QPSK_1_0	Bottom Side	10mm	Index 4	20850	2510	17.62	17.70	1.019			0.04	0.761	0.775	
35	2nd	LTE Band 7_Ant 0	20M_QPSK_1_0	Bottom Side	10mm	Index 4	20850	2510	17.45	17.70	1.059			-0.09	0.708	0.750	-3.23%
	1st	LTE Band 12_Ant 0	10M_QPSK_1_0	Left Side	10mm	Index 4	23095	707.5	24.93	25.40	1.114			-0.06	0.428	0.477	
36	2nd	LTE Band 12_Ant 0	10M_QPSK_1_0	Left Side	10mm	Index 4	23095	707.5	25.13	25.40	1.064			-0.02	0.445	0.474	-0.63%
	1st	LTE Band 13_Ant 0	10M_QPSK_1_0	Left Side	10mm	Index 4	23230	782	24.76	25.40	1.159			-0.02	0.415	0.481	
37	2nd	LTE Band 13_Ant 0	10M_QPSK_1_0	Left Side	10mm	Index 4	23230	782	25.03	25.40	1.089			0.02	0.439	0.478	-0.62%
	1st	LTE Band 14_Ant 0	10M_QPSK_1_0	Bottom Side	10mm	Index 4	23330	793	24.77	25.40	1.156			-0.05	0.411	0.475	
38	2nd	LTE Band 14_Ant 0	10M_QPSK_1_0	Bottom Side	10mm	Index 4	23330	793	24.90	25.40	1.122			-0.01	0.413	0.463	-2.53%
	1st	LTE Band 25_Ant 2	20M_QPSK_1_0	Right Side	10mm	Index 4	26340	1880	20.98	21.00	1.005			-0.02	0.438	0.440	
	2nd	LTE Band 25_Ant 2	20M_QPSK_1_0	Right Side	10mm	Index 4	26340	1880	20.92	21.00	1.019			-0.14	0.379	0.386	-12.27%
	1st	LTE Band 25_Ant 0	20M_QPSK_1_0	Bottom Side	10mm	Index 4	26590	1905	18.09	18.20	1.026			0.01	0.722	0.741	
39	2nd	LTE Band 25_Ant 0	20M_QPSK_1_0	Bottom Side	10mm	Index 4	26590	1905	17.79	18.20	1.099			-0.01	0.626	0.688	-7.15%
	1st	LTE Band 26_Ant 0	15M_QPSK_1_0	Back	10mm	Index 4	26865	831.5	24.39	25.40	1.262			-0.02	0.568	0.717	
40	2nd	LTE Band 26_Ant 0	15M_QPSK_1_0	Back	10mm	Index 4	26865	831.5	24.53	25.40	1.222			-0.09	0.512	0.626	-12.69%
	1st	LTE Band 30_Ant 2	10M_QPSK_1_0	Right Side	10mm	Index 4	27710	2310	20.56	20.90	1.081			-0.04	0.443	0.479	
	2nd	LTE Band 30_Ant 2	10M_QPSK_1_0	Right Side	10mm	Index 4	27710	2310	20.16	20.90	1.186			0	0.281	0.333	-30.48%
	1st	LTE Band 30_Ant 0	10M_QPSK_1_0	Bottom Side	10mm	Index 4	27710	2310	18.16	18.20	1.009			-0.09	0.839	0.847	
41	2nd	LTE Band 30_Ant 0	10M_QPSK_1_0	Bottom Side	10mm	Index 4	27710	2310	17.89	18.20	1.074			-0.05	0.789	0.847	0.00%
	1st	LTE Band 41_Ant 2	20M_QPSK_1_0	Right Side	10mm	Index 4	40620	2593	22.77	23.20	1.104	62.9	1.006	-0.05	0.453	0.503	-43.54%
	2nd	LTE Band 41_Ant 2	20M_QPSK_1_0	Right Side	10mm	Index 4	40620	2593	22.69	23.20	1.125	62.9	1.006	-0.05	0.251	0.284	
	1st	LTE Band 41_Ant 0	20M_QPSK_1_0	Bottom Side	10mm	Index 4	39750	2506	19.16	19.30	1.033	62.9	1.006	0.02	0.755	0.784	
42	2nd	LTE Band 41_Ant 0	20M_QPSK_1_0	Bottom Side	10mm	Index 4	39750	2506	19.07	19.30	1.054	62.9	1.006	-0.12	0.723	0.767	-2.17%
	1st	LTE Band 48_Ant 6	20M_QPSK_1_0	Left Side	10mm	Index 4	55830	3609	20.44	20.70	1.062	62.9	1.006	0.11	0.332	0.355	-18.31%
	2nd	LTE Band 48_Ant 6	20M_QPSK_1_0	Left Side	10mm	Index 4	55830	3609	20.37	20.70	1.079	62.9	1.006	-0.11	0.267	0.290	
	1st	LTE Band 48_Ant 7	20M_QPSK_1_0	Right Side	10mm	Index 4	55830	3609	22.88	23.70	1.208	62.9	1.006	0.08	0.653	0.793	
43	2nd	LTE Band 48_Ant 7	20M_QPSK_1_0	Right Side	10mm	Index 4	55830	3609	22.88	23.70	1.208	62.9	1.006	-0.04	0.575	0.699	-11.85%
	1st	LTE Band 66_Ant 2	20M_QPSK_1_0	Right Side	10mm	Index 4	132572	1770	20.56	21.00	1.107			0.05	0.362	0.401	
	2nd	LTE Band 66_Ant 2	20M_QPSK_1_0	Right Side	10mm	Index 4	132572	1770	20.68	21.00	1.076			-0.09	0.369	0.397	-1.00%
	1st	LTE Band 66_Ant 0	20M_QPSK_1_0	Bottom Side	10mm	Index 4	132572	1770	18.38	18.40	1.005			-0.02	0.816	0.820	
44	2nd	LTE Band 66_Ant 0	20M_QPSK_1_0	Bottom Side	10mm	Index 4	132572	1770	18.37	18.40	1.007			0	0.759	0.764	-6.83%
	1st	LTE Band 66_Ant 5	20M_QPSK_1_0	Right Side	10mm	Index 4	132322	1745	21.74	22.40	1.164			0	0.502	0.584	
	2nd	LTE Band 66_Ant 5	20M_QPSK_1_0	Right Side	10mm	Index 4	132322	1745	21.92	22.40	1.117			0.01	0.521	0.582	-0.34%



**FCC SAR TEST REPORT**

**Report No. : FA2D0206-03D**

	1st	LTE Band 71_Ant 0	20M_QPSK_1_0	Left Side	10mm	Index 4	133297	680.5	24.61	25.40	1.199			-0.01	0.463	0.555	
45	2nd	LTE Band 71_Ant 0	20M_QPSK_1_0	Left Side	10mm	Index 4	133297	680.5	24.59	25.40	1.205			-0.16	0.417	0.502	-9.55%
	1st	FR1 n2_Ant 5	20M_QPSK_1_1	Right Side	10mm	Index 4	372000	1860	21.36	21.60	1.057			0.1	0.795	0.840	
46	2nd	FR1 n2_Ant 5	20M_QPSK_1_1	Right Side	10mm	Index 4	372000	1860	21.45	21.60	1.035			-0.18	0.785	0.813	-3.21%
	1st	FR1 n26_Ant 0	20M_QPSK_1_1	Bottom Side	10mm	Index 4	166300	831.5	24.49	25.40	1.233			-0.03	0.546	0.673	
47	2nd	FR1 n5_Ant 0	20M_QPSK_1_1	Bottom Side	10mm	Index 4	167300	836.5	24.57	25.40	1.211			-0.1	0.463	0.561	-16.64%
	1st	FR1 n7_Ant 2	50M_QPSK_1_1	Right Side	10mm	Index 4	507000	2535	21.94	22.10	1.038			-0.08	0.660	0.685	
	2nd	FR1 n7_Ant 2	50M_QPSK_1_1	Right Side	10mm	Index 4	507000	2535	21.77	22.10	1.079			-0.15	0.603	0.651	-4.96%
	1st	FR1 n7_Ant 0	50M_QPSK_1_1	Bottom Side	10mm	Index 4	507000	2535	17.76	18.40	1.159			-0.16	0.655	0.759	
48	2nd	FR1 n7_Ant 0	50M_QPSK_1_1	Bottom Side	10mm	Index 4	507000	2535	17.67	18.40	1.183			-0.17	0.572	0.677	-10.80%
	1st	FR1 n12_Ant 0	15M_QPSK_1_1	Left Side	10mm	Index 4	141500	707.5	24.53	25.40	1.222			-0.12	0.426	0.520	
49	2nd	FR1 n12_Ant 0	15M_QPSK_1_1	Left Side	10mm	Index 4	141500	707.5	24.46	25.40	1.242			-0.01	0.405	0.503	-3.27%
	1st	FR1 n25_Ant 2	40M_QPSK_1_1	Right Side	10mm	Index 4	376500	1882.5	19.90	20.60	1.175			-0.13	0.449	0.528	
	2nd	FR1 n25_Ant 2	40M_QPSK_1_1	Right Side	10mm	Index 4	376500	1882.5	20.03	20.60	1.140			-0.13	0.345	0.393	-25.57%
	1st	FR1 n25_Ant 0	40M_QPSK_1_1	Bottom Side	10mm	Index 4	376500	1882.5	18.21	18.80	1.146			-0.1	0.739	0.847	
50	2nd	FR1 n25_Ant 0	40M_QPSK_1_1	Bottom Side	10mm	Index 4	376500	1882.5	18.17	18.80	1.156			-0.12	0.705	0.815	-3.78%
	1st	FR1 n30_Ant 2	10M_QPSK_1_1	Right Side	10mm	Index 4	462000	2310	20.77	21.60	1.211			-0.04	0.500	0.605	
	2nd	FR1 n30_Ant 2	10M_QPSK_1_1	Right Side	10mm	Index 4	462000	2310	20.66	21.60	1.242			0.03	0.482	0.598	-1.16%
	1st	FR1 n30_Ant 0	10M_QPSK_1_1	Bottom Side	10mm	Index 4	462000	2310	18.16	18.20	1.009			-0.06	0.808	0.815	
51	2nd	FR1 n30_Ant 0	10M_QPSK_1_1	Bottom Side	10mm	Index 4	462000	2310	18.20	18.20	1.000			-0.04	0.792	0.792	-2.82%
	1st	FR1 n41_Ant 2	100M_QPSK_1_1	Right Side	10mm	Index 4	518598	2592.99	20.65	21.20	1.135			-0.17	0.515	0.585	
	2nd	FR1 n41_Ant 2	100M_QPSK_1_1	Right Side	10mm	Index 4	518598	2592.99	20.65	21.20	1.135			-0.17	0.425	0.482	-17.61%
	1st	FR1 n41_Ant 0	100M_QPSK_1_1	Bottom Side	10mm	Index 4	518598	2592.99	18.38	18.80	1.102			-0.02	0.764	0.842	
52	2nd	FR1 n41_Ant 0	100M_QPSK_1_1	Bottom Side	10mm	Index 4	518598	2592.99	18.47	18.80	1.079			-0.16	0.691	0.746	-11.40%
	1st	FR1 n41_Ant 5	100M_QPSK_1_1	Right Side	10mm	Index 4	518598	2592.99	20.05	20.40	1.084			-0.07	0.408	0.442	
	2nd	FR1 n41_Ant 5	100M_QPSK_1_1	Right Side	10mm	Index 4	518598	2592.99	20.25	20.40	1.035			-0.06	0.400	0.414	-6.33%
	1st	FR1 n66_Ant 2	40M_QPSK_1_1	Back	10mm	Index 4	349000	1745	21.45	22.10	1.161			-0.08	0.441	0.512	
	2nd	FR1 n66_Ant 2	40M_QPSK_1_1	Back	10mm	Index 4	349000	1745	21.47	22.10	1.156			-0.13	0.398	0.460	-10.16%
	1st	FR1 n66_Ant 0	40M_QPSK_1_1	Bottom Side	10mm	Index 4	349000	1745	18.61	18.90	1.069			0.18	0.766	0.819	
53	2nd	FR1 n66_Ant 0	40M_QPSK_1_1	Bottom Side	10mm	Index 4	349000	1745	18.58	18.90	1.076			-0.04	0.686	0.738	-9.89%
	1st	FR1 n66_Ant 5	40M_QPSK_1_1	Right Side	10mm	Index 4	349000	1745	22.29	22.60	1.074			-0.13	0.760	0.816	
	2nd	FR1 n66_Ant 5	40M_QPSK_1_1	Right Side	10mm	Index 4	349000	1745	22.35	22.60	1.059			-0.15	0.683	0.723	-11.40%
	1st	FR1 n71_Ant 0	20M_QPSK_1_1	Left Side	10mm	Index 4	136100	680.5	24.58	25.40	1.208			-0.09	0.409	0.494	
54	2nd	FR1 n71_Ant 0	20M_QPSK_1_1	Left Side	10mm	Index 4	136100	680.5	24.60	25.40	1.202			-0.1	0.392	0.471	-4.66%
	1st	FR1 n77_Ant 6	100M_QPSK_1_1	Left Side	10mm	Index 4	656000	3840	21.55	21.70	1.035			0.01	0.491	0.508	
	2nd	FR1 n77_Ant 6	100M_QPSK_1_1	Left Side	10mm	Index 4	656000	3840	21.43	21.70	1.064			0	0.315	0.335	-34.06%
	1st	FR1 n77_Ant 6	100M_QPSK_1_1	Left Side	10mm	Index 4	633332	3499.98	21.62	21.70	1.019			-0.01	0.465	0.474	
	2nd	FR1 n77_Ant 6	100M_QPSK_1_1	Left Side	10mm	Index 4	633332	3499.98	21.55	21.70	1.035			-0.02	0.292	0.302	-36.29%
	1st	FR1 n77_Ant 7	100M_QPSK_1_1	Back	10mm	Index 4	656000	3840	22.68	24	1.355			-0.09	0.462	0.626	
	2nd	FR1 n77_Ant 7	100M_QPSK_1_1	Back	10mm	Index 4	656000	3840	22.73	24.00	1.340			-0.02	0.382	0.512	-18.21%
	1st	FR1 n77_Ant 7	100M_QPSK_1_1	Right Side	10mm	Index 4	633332	3499.98	23.05	24	1.245			-0.05	0.655	0.815	
55	2nd	FR1 n77_Ant 7	100M_QPSK_1_1	Right Side	10mm	Index 4	633332	3499.98	23.15	24.00	1.216			-0.01	0.585	0.711	-12.76%
	1st	FR1 n77_Ant 5	100M_QPSK_1_1	Right Side	10mm	Index 4	656000	3840	20.17	20.8	1.156			0.05	0.213	0.246	
	2nd	FR1 n77_Ant 5	100M_QPSK_1_1	Right Side	10mm	Index 4	656000	3840	20.31	20.80	1.119			0.01	0.195	0.218	-11.38%
	1st	FR1 n77_Ant 5	100M_QPSK_1_1	Right Side	10mm	Index 4	633332	3499.98	20.26	20.8	1.132			-0.03	0.210	0.238	
	2nd	FR1 n77_Ant 5	100M_QPSK_1_1	Right Side	10mm	Index 4	633332	3499.98	20.35	20.80	1.109			-0.02	0.141	0.156	-34.45%





17.3 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 (%)
	1st	GSM850_Ant 0	GPRS (4 Tx slots)	Back	10mm	Index 5	128	824.2	28.81	30.10	1.346			0.04	0.729	0.981	
56	2nd	GSM850_Ant 0	GPRS (4 Tx slots)	Back	10mm	Index 5	128	824.2	28.40	30.10	1.479			-0.08	0.570	0.843	-14.07%
	1st	GSM1900_Ant 2	GPRS (4 Tx slots)	Back	10mm	Index 5	512	1850.2	22.46	24.20	1.493			-0.09	0.270	0.403	-13.15%
	2nd	GSM1900_Ant 2	GPRS (4 Tx slots)	Back	10mm	Index 5	512	1850.2	22.38	24.20	1.521			-0.19	0.230	0.350	-17.65%
	1st	GSM1900_Ant 0	GPRS (4 Tx slots)	Front	10mm	Index 5	661	1880	23.01	24.00	1.256			-0.16	0.501	0.629	-17.65%
57	2nd	GSM1900_Ant 0	GPRS (4 Tx slots)	Front	10mm	Index 5	661	1880.000	22.67	24.00	1.358			0.15	0.381	0.518	-17.65%
	1st	WCDMA II_Ant 2	RMC 12.2Kbps	Front	10mm	Index 5	9538	1907.6	20.70	21.40	1.175			-0.02	0.343	0.403	-0.25%
	2nd	WCDMA II_Ant 2	RMC 12.2Kbps	Front	10mm	Index 5	9538	1907.6	20.67	21.40	1.183			-0.08	0.340	0.402	-0.25%
	1st	WCDMA II_Ant 0	RMC 12.2Kbps	Front	10mm	Index 5	9400	1880	19.71	20.80	1.285			0	0.736	0.946	-34.88%
58	2nd	WCDMA II_Ant 0	RMC 12.2Kbps	Front	10mm	Index 5	9400	1880	20.27	20.80	1.130			0.03	0.545	0.616	-34.88%
	1st	WCDMA IV_Ant 2	RMC 12.2Kbps	Back	10mm	Index 5	1413	1732.6	20.20	21.40	1.318			0.01	0.284	0.374	-1.07%
	2nd	WCDMA IV_Ant 2	RMC 12.2Kbps	Back	10mm	Index 5	1413	1732.6	20.27	21.40	1.297			-0.12	0.285	0.370	-1.07%
	1st	WCDMA IV_Ant 0	RMC 12.2Kbps	Front	10mm	Index 5	1513	1752.6	18.77	19.70	1.239			-0.04	0.566	0.701	-14.41%
59	2nd	WCDMA IV_Ant 0	RMC 12.2Kbps	Front	10mm	Index 5	1513	1752.6	18.71	19.70	1.256			-0.11	0.478	0.600	-14.41%
	1st	WCDMA V_Ant 0	RMC 12.2Kbps	Back	10mm	Index 5/6	4233	846.6	24.88	25.40	1.127			0.02	0.557	0.628	-17.04%
60	2nd	WCDMA V_Ant 0	RMC 12.2Kbps	Back	10mm	Index 5/6	4233	846.6	25.03	25.40	1.089			0.02	0.478	0.521	-17.04%
	1st	LTE Band 2_Ant 5	20M_QPSK_1_0	Back	10mm	Index 5	19100	1900	21.46	22.40	1.242			-0.03	0.413	0.513	-34.31%
61	2nd	LTE Band 2_Ant 5	20M_QPSK_1_0	Back	10mm	Index 5	19100	1900	21.55	22.40	1.216			-0.08	0.277	0.337	-34.31%
	1st	LTE Band 7_Ant 2	20M_QPSK_1_0	Front	10mm	Index 5	21350	2560	21.33	22.20	1.222			0	0.424	0.518	-50.00%
	2nd	LTE Band 7_Ant 2	20M_QPSK_1_0	Front	10mm	Index 5	21350	2560	20.76	22.20	1.393			-0.06	0.186	0.259	-50.00%
	1st	LTE Band 7_Ant 0	20M_QPSK_1_0	Back	10mm	Index 5	21100	2535	21.01	22.00	1.256			-0.05	0.736	0.924	-12.23%
62	2nd	LTE Band 7_Ant 0	20M_QPSK_1_0	Back	10mm	Index 5	21100	2535	21.00	22.00	1.259			-0.19	0.644	0.811	-12.23%
	1st	LTE Band 12_Ant 0	10M_QPSK_1_0	Back	10mm	Index 5/6	23095	707.5	24.93	25.40	1.114			-0.06	0.318	0.354	-7.91%
63	2nd	LTE Band 12_Ant 0	10M_QPSK_1_0	Back	10mm	Index 5/6	23095	707.5	25.13	25.40	1.064			0.02	0.306	0.326	-7.91%
	1st	LTE Band 13_Ant 0	10M_QPSK_1_0	Back	10mm	Index 5/6	23230	782	24.76	25.40	1.159			-0.03	0.365	0.423	-4.96%
64	2nd	LTE Band 13_Ant 0	10M_QPSK_1_0	Back	10mm	Index 5/6	23230	782	25.03	25.40	1.089			0.01	0.369	0.402	-4.96%
	1st	LTE Band 14_Ant 0	10M_QPSK_1_0	Back	10mm	Index 5/6	23330	793	24.77	25.40	1.156			-0.02	0.393	0.454	-0.22%
65	2nd	LTE Band 14_Ant 0	10M_QPSK_1_0	Back	10mm	Index 5/6	23330	793	24.90	25.40	1.122			0	0.404	0.453	-0.22%
	1st	LTE Band 25_Ant 2	20M_QPSK_1_0	Front	10mm	Index 5	26590	1905	20.66	21.70	1.271			0	0.344	0.437	-2.97%
	2nd	LTE Band 25_Ant 2	20M_QPSK_1_0	Front	10mm	Index 5	26590	1905	20.60	21.70	1.288			0.01	0.329	0.424	-2.97%
	1st	LTE Band 25_Ant 0	20M_QPSK_1_0	Front	10mm	Index 5	26590	1905	19.18	20.50	1.355			0.07	0.515	0.698	-1.86%
66	2nd	LTE Band 25_Ant 0	20M_QPSK_1_0	Front	10mm	Index 5	26590	1905	19.08	20.50	1.387			-0.07	0.494	0.685	-1.86%
	1st	LTE Band 26_Ant 0	15M_QPSK_1_0	Back	10mm	Index 5/6	26865	831.5	24.39	25.40	1.262			-0.02	0.568	0.717	-12.69%
67	2nd	LTE Band 26_Ant 0	15M_QPSK_1_0	Back	10mm	Index 5/6	26865	831.5	24.53	25.40	1.222			-0.09	0.512	0.626	-12.69%
	1st	LTE Band 30_Ant 2	10M_QPSK_1_0	Front	10mm	Index 5	27710	2310	20.56	21.60	1.271			0.02	0.367	0.466	-17.17%
	2nd	LTE Band 30_Ant 2	10M_QPSK_1_0	Front	10mm	Index 5	27710	2310	20.16	21.60	1.393			-0.02	0.277	0.386	-17.17%
	1st	LTE Band 30_Ant 0	10M_QPSK_1_0	Front	10mm	Index 5	27710	2310	20.07	20.80	1.183			-0.01	0.788	0.932	-1.07%
68	2nd	LTE Band 30_Ant 0	10M_QPSK_1_0	Front	10mm	Index 5	27710	2310	19.89	20.80	1.233			-0.11	0.748	0.922	-1.07%
	1st	LTE Band 41_Ant 2	20M_QPSK_1_0	Front	10mm	Index 5	40620	2593	22.77	23.90	1.297	62.9	1.006	-0.06	0.380	0.496	-51.41%
	2nd	LTE Band 41_Ant 2	20M_QPSK_1_0	Front	10mm	Index 5	40620	2593	22.69	23.90	1.321	62.9	1.006	-0.05	0.181	0.241	-51.41%
	1st	LTE Band 41_Ant 0	20M_QPSK_1_0	Front	10mm	Index 5	39750	2506	22.10	23.10	1.259	62.9	1.006	0.02	0.511	0.647	-4.95%
69	2nd	LTE Band 41_Ant 0	20M_QPSK_1_0	Front	10mm	Index 5	39750	2506	22.23	23.10	1.222	62.9	1.006	-0.01	0.500	0.615	-4.95%
	1st	LTE Band 48_Ant 6	20M_QPSK_1_0	Front	10mm	Index 5	55340	3560	20.55	21.40	1.216	62.9	1.006	-0.08	0.255	0.312	-13.78%
	2nd	LTE Band 48_Ant 6	20M_QPSK_1_0	Front	10mm	Index 5	55340	3560	20.49	21.40	1.233	62.9	1.006	-0.1	0.217	0.269	-13.78%
	1st	LTE Band 48_Ant 7	20M_QPSK_1_0	Back	10mm	Index 5	55830	3609	22.88	24.40	1.419	62.9	1.006	-0.05	0.448	0.640	-13.44%
70	2nd	LTE Band 48_Ant 7	20M_QPSK_1_0	Back	10mm	Index 5	55830	3609	22.88	24.40	1.419	62.9	1.006	-0.07	0.388	0.554	-13.44%
	1st	LTE Band 66_Ant 2	20M_QPSK_1_0	Back	10mm	Index 5	132572	1770	20.56	21.70	1.300			-0.13	0.307	0.399	-1.75%
	2nd	LTE Band 66_Ant 2	20M_QPSK_1_0	Back	10mm	Index 5	132572	1770	20.68	21.70	1.265			0	0.310	0.392	-1.75%
	1st	LTE Band 66_Ant 0	20M_QPSK_1_0	Front	10mm	Index 5	132322	1745	18.75	19.90	1.303			-0.06	0.536	0.698	-12.75%
71	2nd	LTE Band 66_Ant 0	20M_QPSK_1_0	Front	10mm	Index 5	132322	1745	18.74	19.90	1.306			-0.09	0.466	0.609	-12.75%
	1st	LTE Band 66_Ant 5	20M_QPSK_1_0	Back	10mm	Index 5	132322	1745	21.74	23.10	1.368			-0.02	0.272	0.372	-13.98%
	2nd	LTE Band 66_Ant 5	20M_QPSK_1_0	Back	10mm	Index 5	132322	1745	21.92	23.10	1.312			-0.04	0.244	0.320	-13.98%



**FCC SAR TEST REPORT**

**Report No. : FA2D0206-03D**

	1st	LTE Band 71_Ant 0	20M_QPSK_1_0	Back	10mm	Index 5/6	133297	680.5	24.61	25.40	1.199			-0.01	0.294	0.353	
72	2nd	LTE Band 71_Ant 0	20M_QPSK_1_0	Back	10mm	Index 5/6	133297	680.5	24.59	25.40	1.205			-0.04	0.245	0.295	-16.43%
	1st	FR1 n2_Ant 5	20M_QPSK_1_1	Back	10mm	Index 5	372000	1860	21.36	23.00	1.459			-0.07	0.471	0.687	
73	2nd	FR1 n2_Ant 5	20M_QPSK_1_1	Back	10mm	Index 5	372000	1860	21.45	23.00	1.429			-0.16	0.373	0.533	-22.42%
	1st	FR1 n26_Ant 0	20M_QPSK_1_1	Back	10mm	Index 5/6	166300	831.5	24.49	25.40	1.233			-0.12	0.488	0.602	
74	2nd	FR1 n5_Ant 0	20M_QPSK_1_1	Back	10mm	Index 5/6	167300	836.5	24.57	25.40	1.211			-0.13	0.445	0.539	-10.47%
	1st	FR1 n7_Ant 2	50M_QPSK_1_1	Front	10mm	Index 5	507000	2535	21.94	22.80	1.219			-0.18	0.671	0.818	
	2nd	FR1 n7_Ant 2	50M_QPSK_1_1	Front	10mm	Index 5	507000	2535	21.77	22.80	1.268			-0.07	0.587	0.744	-1.72%
	1st	FR1 n7_Ant 0	50M_QPSK_1_1	Front	10mm	Index 5	507000	2535	20.95	21.90	1.245			-0.17	0.771	0.960	
75	2nd	FR1 n7_Ant 0	50M_QPSK_1_1	Front	10mm	Index 5	507000	2535	20.96	21.90	1.242			-0.14	0.605	0.751	-21.77%
	1st	FR1 n12_Ant 0	15M_QPSK_1_1	Back	10mm	Index 5/6	141500	707.5	24.53	25.40	1.222			-0.17	0.311	0.380	
76	2nd	FR1 n12_Ant 0	15M_QPSK_1_1	Back	10mm	Index 5/6	141500	707.5	24.46	25.40	1.242			-0.18	0.301	0.374	-1.58%
	1st	FR1 n25_Ant 2	40M_QPSK_1_1	Front	10mm	Index 5	376500	1882.5	19.90	21.30	1.380			-0.13	0.368	0.508	
	2nd	FR1 n25_Ant 2	40M_QPSK_1_1	Front	10mm	Index 5	376500	1882.5	20.03	21.30	1.340			-0.15	0.333	0.446	-12.20%
	1st	FR1 n25_Ant 0	40M_QPSK_1_1	Front	10mm	Index 5	376500	1882.5	19.26	20.60	1.361			-0.14	0.503	0.685	
77	2nd	FR1 n25_Ant 0	40M_QPSK_1_1	Front	10mm	Index 5	376500	1882.5	19.26	20.60	1.361			-0.13	0.328	0.447	-34.74%
	1st	FR1 n30_Ant 2	10M_QPSK_1_1	Front	10mm	Index 5	462000	2310	20.77	22.30	1.422			-0.02	0.396	0.563	
	2nd	FR1 n30_Ant 2	10M_QPSK_1_1	Front	10mm	Index 5	462000	2310	20.66	22.30	1.459			-0.11	0.380	0.554	-1.60%
	1st	FR1 n30_Ant 0	10M_QPSK_1_1	Back	10mm	Index 5	462000	2310	19.41	20.70	1.346			-0.13	0.714	0.961	
78	2nd	FR1 n30_Ant 0	10M_QPSK_1_1	Back	10mm	Index 5	462000	2310	19.60	20.70	1.288			0	0.673	0.867	-9.78%
	1st	FR1 n41_Ant 2	100M_QPSK_1_1	Front	10mm	Index 5	518598	2592.99	20.65	21.90	1.334			-0.11	0.468	0.624	
	2nd	FR1 n41_Ant 2	100M_QPSK_1_1	Front	10mm	Index 5	518598	2592.99	20.65	21.90	1.334			-0.19	0.433	0.577	-7.53%
	1st	FR1 n41_Ant 0	100M_QPSK_1_1	Front	10mm	Index 5	518598	2592.99	21.61	22.40	1.199			-0.13	0.815	0.978	
79	2nd	FR1 n41_Ant 0	100M_QPSK_1_1	Front	10mm	Index 5	518598	2592.99	21.62	22.40	1.197			-0.02	0.783	0.937	-4.19%
	1st	FR1 n41_Ant 5	100M_QPSK_1_1	Back	10mm	Index 5	518598	2592.99	21.25	22.30	1.274			-0.04	0.345	0.439	
	2nd	FR1 n41_Ant 5	100M_QPSK_1_1	Back	10mm	Index 5	518598	2592.99	21.45	22.30	1.216			-0.1	0.345	0.420	-4.33%
	1st	FR1 n66_Ant 2	40M_QPSK_1_1	Back	10mm	Index 5	349000	1745	21.45	22.80	1.365			-0.08	0.441	0.602	
80	2nd	FR1 n66_Ant 2	40M_QPSK_1_1	Back	10mm	Index 5	349000	1745	21.47	22.80	1.358			-0.13	0.398	0.541	-10.13%
	1st	FR1 n66_Ant 0	40M_QPSK_1_1	Front	10mm	Index 5	349000	1745	18.61	19.60	1.256			-0.06	0.601	0.755	
	2nd	FR1 n66_Ant 0	40M_QPSK_1_1	Front	10mm	Index 5	349000	1745	18.58	19.60	1.265			-0.08	0.410	0.519	-31.26%
	1st	FR1 n66_Ant 5	40M_QPSK_1_1	Back	10mm	Index 5	349000	1745	22.29	23.30	1.262			-0.15	0.424	0.535	
	2nd	FR1 n66_Ant 5	40M_QPSK_1_1	Back	10mm	Index 5	349000	1745	22.35	23.30	1.245			-0.11	0.407	0.507	-5.23%
	1st	FR1 n71_Ant 0	20M_QPSK_1_1	Back	10mm	Index 5/6	136100	680.5	24.58	25.40	1.208			-0.14	0.260	0.314	
81	2nd	FR1 n71_Ant 0	20M_QPSK_1_1	Back	10mm	Index 5/6	136100	680.5	24.60	25.40	1.202			-0.15	0.230	0.277	-11.78%
	1st	FR1 n77_Ant 6	100M_QPSK_1_1	Front	10mm	Index 5	656000	3840	21.55	22.40	1.216			0	0.339	0.412	
	2nd	FR1 n77_Ant 6	100M_QPSK_1_1	Front	10mm	Index 5	656000	3840	21.43	22.40	1.250			-0.1	0.204	0.255	-38.11%
	1st	FR1 n77_Ant 6	100M_QPSK_1_1	Front	10mm	Index 5	633332	3499.98	21.62	22.40	1.197			-0.02	0.361	0.432	
	2nd	FR1 n77_Ant 6	100M_QPSK_1_1	Front	10mm	Index 5	633332	3499.98	21.55	22.40	1.216			-0.05	0.211	0.257	-40.51%
	1st	FR1 n77_Ant 7	100M_QPSK_1_1	Back	10mm	Index 5/6	656000	3840	22.68	24	1.355			-0.09	0.462	0.626	
82	2nd	FR1 n77_Ant 7	100M_QPSK_1_1	Back	10mm	Index 5/6	656000	3840	22.73	24.00	1.340			-0.02	0.382	0.512	-18.21%
	1st	FR1 n77_Ant 7	100M_QPSK_1_1	Back	10mm	Index 5/6	633332	3499.98	23.05	24	1.245			-0.09	0.264	0.329	
	2nd	FR1 n77_Ant 7	100M_QPSK_1_1	Back	10mm	Index 5/6	633332	3499.98	23.15	24.00	1.216			-0.11	0.193	0.235	-28.57%
	1st	FR1 n77_Ant 5	100M_QPSK_1_1	Front	10mm	Index 5	656000	3840	22.27	23.60	1.358			0.19	0.161	0.219	
	2nd	FR1 n77_Ant 5	100M_QPSK_1_1	Front	10mm	Index 5	656000	3840	22.41	23.60	1.315			0.12	0.148	0.195	-10.96%
	1st	FR1 n77_Ant 5	100M_QPSK_1_1	Front	10mm	Index 5	633332	3499.98	22.36	23.60	1.330			-0.01	0.174	0.231	
	2nd	FR1 n77_Ant 5	100M_QPSK_1_1	Front	10mm	Index 5	633332	3499.98	22.45	23.60	1.303			0.15	0.156	0.203	-12.12%



**17.4 Product Specific SAR**

Plot No.	No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)	Deviation (%)
	1st	WCDMA II_Ant 0	RMC 12.2Kbps	Bottom Side	0mm	Index 5	9400	1880	19.71	20.80	1.285	-0.01	1.910	2.455	
83	2nd	WCDMA II_Ant 0	RMC 12.2Kbps	Bottom Side	0mm	Index 5	9400	1880	20.27	20.80	1.130	0.01	1.960	2.214	-9.82%
	1st	LTE Band 7_Ant 0	20M_QPSK_1_1	Bottom Side	0mm	Index 5	20850	2510	21.24	22.00	1.191	-0.01	1.450	1.727	
84	2nd	LTE Band 7_Ant 0	20M_QPSK_1_1	Bottom Side	0mm	Index 5	20850	2510	21.20	22.00	1.202	0.03	1.300	1.563	-9.50%
	1st	LTE Band 25_Ant 0	20M_QPSK_1_1	Bottom Side	0mm	Index 5	26340	1880	19.58	20.50	1.236	0.01	1.890	2.336	
85	2nd	LTE Band 25_Ant 0	20M_QPSK_1_1	Bottom Side	0mm	Index 5	26340	1880	19.36	20.50	1.300	-0.03	1.780	2.314	-0.94%
	1st	LTE Band 30_Ant 0	10M_QPSK_1_1	Bottom Side	0mm	Index 5	27710	2310	20.07	20.80	1.183	-0.01	2.100	2.484	
86	2nd	LTE Band 30_Ant 0	10M_QPSK_1_1	Bottom Side	0mm	Index 5	27710	2310	19.89	20.80	1.233	0	1.940	2.392	-3.70%
	1st	LTE Band 66_Ant 0	20M_QPSK_1_1	Bottom Side	0mm	Index 5	132572	1770	18.99	19.90	1.233	0.14	2.000	2.466	
87	2nd	LTE Band 66_Ant 0	20M_QPSK_1_1	Bottom Side	0mm	Index 5	132572	1770	18.95	19.90	1.245	-0.02	1.950	2.427	-1.58%
	1st	FR1 n7_Ant 0	50M_QPSK_1_1	Bottom Side	0mm	Index 5	507000	2535	20.95	21.90	1.245	-0.08	1.640	2.041	
88	2nd	FR1 n7_Ant 0	50M_QPSK_1_1	Bottom Side	0mm	Index 5	507000	2535	20.96	21.90	1.242	-0.09	1.200	1.490	-27.00%
	1st	FR1 n25_Ant 0	40M_QPSK_1_1	Bottom Side	0mm	Index 5	376500	1882.5	19.26	20.60	1.361	-0.01	1.800	2.451	
89	2nd	FR1 n25_Ant 0	40M_QPSK_1_1	Bottom Side	0mm	Index 5	376500	1882.5	19.26	20.60	1.361	-0.03	1.570	2.137	-12.81%
	1st	FR1 n30_Ant 0	10M_QPSK_1_1	Bottom Side	0mm	Index 5	462000	2310	19.41	20.70	1.346	-0.02	1.720	2.315	
90	2nd	FR1 n30_Ant 0	10M_QPSK_1_1	Bottom Side	0mm	Index 5	462000	2310	19.60	20.70	1.288	0.03	1.470	1.894	-18.19%
	1st	FR1 n66_Ant 0	40M_QPSK_1_1	Bottom Side	0mm	Index 5	349000	1745	18.61	19.60	1.256	0.02	1.790	2.248	
91	2nd	FR1 n66_Ant 0	40M_QPSK_1_1	Bottom Side	0mm	Index 5	349000	1745	18.58	19.60	1.265	0.02	1.650	2.087	-7.16%

**<NFC SAR>**

Plot No.	No.	Band	Test Position	Gap (mm)	Freq. (MHz)	Power Drift (dB)	Measured 10g SAR (W/kg)	Deviation (%)
	1st	NFC	Back	0mm	13.56	-0.07	0.093	
92	2nd	NFC	Back	0mm	13.56	-0.03	0.090	-3.23%

**Conclusion:**

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





## 18. SAR Test Results

### General Note:

1. Per KDB 447498 D01v06, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
  - a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
  - b. For SAR testing of WLAN signal with non-100% duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle)"
  - c. For WWAN: Reported SAR(W/kg)= Measured SAR(W/kg)\*Tune-up Scaling Factor
  - d. For WLAN/Bluetooth: Reported SAR(W/kg)= Measured SAR(W/kg)\* Duty Cycle scaling factor \* Tune-up scaling factor
  - e. For TDD LTE SAR measurement, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix  $63.3\%/62.9\% = 1.006$  is applied to scale-up the measured SAR result. The Reported TDD LTE SAR = measured SAR (W/kg)\* Tune-up Scaling Factor\* scaling factor for extended cyclic prefix.
2. Per KDB 447498 D01v06, for each exposure position, testing of other required channels within the operating mode of a frequency band is not required when the *reported* 1-g or 10-g SAR for the mid-band or highest output power channel is:
  - $\leq 0.8$  W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is  $\leq 100$  MHz
  - $\leq 0.6$  W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
  - $\leq 0.4$  W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is  $\geq 200$  MHz
3. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is  $\geq 0.8$ W/kg.
4. Per KDB 648474 D04v01r03, when the reported SAR for a body-worn accessory measured without a headset connected to the handset is  $\leq 1.2$  W/kg, SAR testing with a headset connected to the handset is not required.
5. Per KDB648474 D04v01r03, for smart phones with a display diagonal dimension  $> 15$ cm or an overall diagonal dimension  $> 16$ cm, when hotspot mode applies, 10-g product specific SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR  $> 1.2$  W/kg, in this report all the hotspot mode results are  $< 1.2$ W/kg.
6. For 5.3GHz, 5.5GHz, 5.9GHz and 6GHz WLAN product specific SAR is necessary too, due to an overall diagonal dimension is  $> 16$ cm.

### GSM Note:

1. Per KDB 941225 D01v03r01, for SAR test reduction for GSM / GPRS / EDGE modes is determined by the source-based time-averaged output power including tune-up tolerance. The mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested. Therefore, the GPRS (4Tx slots) for GSM850/GSM1900 is considered as the primary mode.
2. Other configurations of GSM / GPRS / EDGE are considered as secondary modes. The 3G SAR test reduction procedure is applied, when the maximum output power and tune-up tolerance specified for production units in a secondary mode is  $\leq 1/4$  dB higher than the primary mode, SAR measurement is not required for the secondary mode.

**UMTS Note:**

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

**LTE Note:**

1. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
2. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
3. Per KDB 941225 D05v02r05, For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are  $\leq 0.8$  W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is  $> 1.45$  W/kg, the remaining required test channels must also be tested.
4. Per KDB 941225 D05v02r05, 16QAM output power for each RB allocation configuration is  $>$  not  $\frac{1}{2}$  dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is  $\leq 1.45$  W/kg; Per KDB 941225 D05v02r05, 16QAM SAR testing is not required.
5. Per KDB 941225 D05v02r05, Smaller bandwidth output power for each RB allocation configuration is  $>$  not  $\frac{1}{2}$  dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is  $\leq 1.45$  W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
6. For LTE B4/B5/B12/B17/B26/B38/B71 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
7. LTE band 2/4/5/17/38 SAR test was covered by Band 25/66/26/12/41; according to TCB workshop, SAR test for overlapping LTE bands can be reduced if
  - a. The maximum output power, including tolerance, for the smaller band is  $\leq$  the larger band to qualify for the SAR test exclusion.
  - b. The channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band.

**5G NR Note:**

1. Referencing the procedure in KDB 941225, the test procedures are outlined as below:
  - a. To start SAR test for the largest channel bandwidth for PI/2 BPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel. Also do SAR test for 50% RB allocation for PI/2 BPSK SAR testing using 1RB PI/2 BPSK allocation procedure
  - b. For PI/2 BPSK with 100% RB allocation, SAR test is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are  $\leq 0.8$  W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is  $> 1.45$  W/kg, the remaining required test channels must also be tested.
  - c. For higher modulation QPSK/16QAM/64QAM/256QAM, according to tune-up document the power level is not  $\frac{1}{2}$  dB higher than the same configuration in PI/2 BPSK, also reported SAR for the PI/2 BPSK configuration is less than 1.45 W/kg, QPSK/16QAM/64QAM/256QAM SAR testing are not required.
  - d. Smaller bandwidth output power for each RB allocation configuration for this device is not  $\frac{1}{2}$  dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is  $\leq 1.45$  W/kg, smaller bandwidth SAR testing is not required for this device
  - e. For 5G FR1 n5/n12/n41/n71/n77, the maximum channel bandwidth does not support three non-overlapping channels in the frequency band, the middle channel of the group of overlapping channels were selected for testing.
  - f. Due to test setup limitations, SAR testing for NR TDD Power class 3 was performed using Factory Test Mode software to establish the connection and perform SAR with 100% transmission. For NR TDD power class2 was performed using Factory Test Mode software to establish the connection and perform SAR with 50% transmission.

**WLAN Note:**

1. The SISO mode support only when the Antenna 3 and 4 is transmitting on 802.11b mode, other support MIMO mode.
2. Per KDB 248227 D01v02r02, For 802.11b DSSS SAR measurements, DSSS SAR procedure applies to fixed exposure test position and initial test position procedure applies to multiple exposure test position when 802.11 DSS mode is active at transmit antenna 3 and 4
3. Per KDB 248227 D01v02r02, for 2.4GHz WLAN MIMO operation for 802.11g/n, when the same highest maximum output power specification applies to multiple transmission modes, the largest channel bandwidth configuration with the lowest order modulation and lowest data rate is measured, so 802.11g mode is selected to be tested.
4. Per KDB 248227 D01v02r02, WLAN5.2GHz SAR testing is not required when the WLAN5.3GHz band highest reported SAR for a test configuration is  $\leq 1.2$  W/kg, SAR is not required for WLAN5.2GHz band.
5. When the reported SAR of the test position is  $> 0.4$  W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is  $\leq 0.8$  W/kg or all required test position are tested.
6. For all positions / configurations, when the reported SAR is  $> 0.8$  W/kg, SAR is measured for these test positions / configurations on the subsequent next highest measured output power channel(s) until the reported SAR is  $\leq 1.2$  W/kg or all required channels are tested.
7. 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
8. 4+3(3) represents the test in 2TX operation, while the SAR or power data is associated with antenna 3
9. 4+3(4) represents the test in 2TX operation, while the SAR or power data is associated with antenna 4
10. 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 using highest SAR test configurations evaluate incident PD using the mmw near-field probe and total-field/power-density reconstruction method (2 mm closest meas. plane).
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 F
6. Absorbed power density (APD) using a 4cm<sup>2</sup> averaging area is reported based on SAR measurements.
7. Power density was calculated by repeated E-field measurements on two measurement planes separated by  $\lambda/4$ .
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 PD<sub>inc</sub> at two different distances: 2 mm (compliance distance) and  $\lambda/5$ . 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 iPD<sub>n</sub> fulfill the criterion described below. Since iPD ratio between the two distances is  $\geq -1$ dB, the grid step (0.0625) was sufficient for determining compliance at d=2mm.

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

**18.1 Head SAR**

**<GSM SAR>**

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Index	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
93	GSM850_Ant 1	GPRS (4 Tx slots)	Right Cheek	0mm	Index 2	128	824.2	24.10	25.20	1.288	-0.15	0.586	0.755
	GSM850_Ant 1	GPRS (4 Tx slots)	Right Cheek	0mm	Index 2	189	836.4	24.02	25.20	1.312	-0.11	0.537	0.705
	GSM850_Ant 1	GPRS (4 Tx slots)	Right Cheek	0mm	Index 2	251	848.8	24.02	25.20	1.312	-0.16	0.535	0.702
	GSM850_Ant 1	GPRS (4 Tx slots)	Right Tilted	0mm	Index 2	128	824.2	24.10	25.20	1.288	-0.12	0.439	0.566
	GSM850_Ant 1	GPRS (4 Tx slots)	Left Cheek	0mm	Index 2	128	824.2	24.10	25.20	1.288	-0.15	0.433	0.558
	GSM850_Ant 1	GPRS (4 Tx slots)	Left Tilted	0mm	Index 2	128	824.2	24.10	25.20	1.288	-0.17	0.294	0.379
	GSM850_Ant 1	GPRS (4 Tx slots)	Right Cheek	0mm	Index 3	128	824.2	24.10	24.50	1.096	-0.15	0.586	0.643
	GSM850_Ant 1	GPRS (4 Tx slots)	Right Cheek	0mm	Index 3	189	836.4	24.02	24.50	1.117	-0.11	0.537	0.600
	GSM850_Ant 1	GPRS (4 Tx slots)	Right Cheek	0mm	Index 3	251	848.8	24.02	24.50	1.117	-0.16	0.535	0.598
	GSM850_Ant 1	GPRS (4 Tx slots)	Right Tilted	0mm	Index 3	128	824.2	24.10	24.50	1.096	-0.12	0.439	0.481
	GSM850_Ant 1	GPRS (4 Tx slots)	Left Cheek	0mm	Index 3	128	824.2	24.10	24.50	1.096	-0.15	0.433	0.475
	GSM850_Ant 1	GPRS (4 Tx slots)	Left Tilted	0mm	Index 3	128	824.2	24.10	24.50	1.096	-0.17	0.294	0.322

**<WCDMA SAR>**

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Index	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA V_Ant 1	RMC 12.2Kbps	Right Cheek	0mm	Index 2	4182	836.4	21.04	22.70	1.466	0.12	0.438	0.642
	WCDMA V_Ant 1	RMC 12.2Kbps	Right Cheek	0mm	Index 2	4132	826.4	21.00	22.70	1.479	-0.14	0.412	0.609
94	WCDMA V_Ant 1	RMC 12.2Kbps	Right Cheek	0mm	Index 2	4233	846.6	20.98	22.70	1.486	0.02	0.469	0.697
	WCDMA V_Ant 1	RMC 12.2Kbps	Right Tilted	0mm	Index 2	4182	836.4	21.04	22.70	1.466	-0.01	0.285	0.418
	WCDMA V_Ant 1	RMC 12.2Kbps	Left Cheek	0mm	Index 2	4182	836.4	21.04	22.70	1.466	-0.08	0.219	0.321
	WCDMA V_Ant 1	RMC 12.2Kbps	Left Tilted	0mm	Index 2	4182	836.4	21.04	22.70	1.466	-0.13	0.193	0.283
	WCDMA V_Ant 1	RMC 12.2Kbps	Right Cheek	0mm	Index 3	4182	836.4	21.04	22.00	1.247	0.12	0.438	0.546
	WCDMA V_Ant 1	RMC 12.2Kbps	Right Cheek	0mm	Index 3	4132	826.4	21.00	22.00	1.259	-0.14	0.412	0.519
	WCDMA V_Ant 1	RMC 12.2Kbps	Right Cheek	0mm	Index 3	4233	846.6	20.98	22.00	1.265	0.02	0.469	0.593
	WCDMA V_Ant 1	RMC 12.2Kbps	Right Tilted	0mm	Index 3	4182	836.4	21.04	22.00	1.247	-0.01	0.285	0.356
	WCDMA V_Ant 1	RMC 12.2Kbps	Left Cheek	0mm	Index 3	4182	836.4	21.04	22.00	1.247	-0.08	0.219	0.273
	WCDMA V_Ant 1	RMC 12.2Kbps	Left Tilted	0mm	Index 3	4182	836.4	21.04	22.00	1.247	-0.13	0.193	0.241



<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Index	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 2_Ant 1	20M	QPSK	1	0	Right Cheek	0mm	Index 2	18900	1880	15.79	17.00	1.321	-0.08	0.451	0.596
	LTE Band 2_Ant 1	20M	QPSK	50	0	Right Cheek	0mm	Index 2	18900	1880	15.60	17.00	1.380	0.02	0.389	0.537
95	LTE Band 2_Ant 1	20M	QPSK	1	0	Right Tilted	0mm	Index 2	18900	1880	15.79	17.00	1.321	0.03	0.542	0.716
	LTE Band 2_Ant 1	20M	QPSK	1	0	Right Tilted	0mm	Index 2	18700	1860	15.66	17.00	1.361	0.12	0.516	0.703
	LTE Band 2_Ant 1	20M	QPSK	1	0	Right Tilted	0mm	Index 2	19100	1900	15.64	17.00	1.368	0.14	0.501	0.685
	LTE Band 2_Ant 1	20M	QPSK	50	0	Right Tilted	0mm	Index 2	18900	1880	15.60	17.00	1.380	0.11	0.456	0.629
	LTE Band 2_Ant 1	20M	QPSK	1	0	Left Cheek	0mm	Index 2	18900	1880	15.79	17.00	1.321	-0.04	0.174	0.230
	LTE Band 2_Ant 1	20M	QPSK	50	0	Left Cheek	0mm	Index 2	18900	1880	15.60	17.00	1.380	0.06	0.148	0.204
	LTE Band 2_Ant 1	20M	QPSK	1	0	Left Tilted	0mm	Index 2	18900	1880	15.79	17.00	1.321	-0.03	0.225	0.297
	LTE Band 2_Ant 1	20M	QPSK	50	0	Left Tilted	0mm	Index 2	18900	1880	15.60	17.00	1.380	0.07	0.191	0.264
	LTE Band 2_Ant 1	20M	QPSK	1	0	Right Cheek	0mm	Index 3	18900	1880	15.79	16.30	1.125	-0.08	0.451	0.507
	LTE Band 2_Ant 1	20M	QPSK	50	0	Right Cheek	0mm	Index 3	18900	1880	15.60	16.30	1.175	0.02	0.389	0.457
	LTE Band 2_Ant 1	20M	QPSK	1	0	Right Tilted	0mm	Index 3	18900	1880	15.79	16.30	1.125	0.03	0.542	0.610
	LTE Band 2_Ant 1	20M	QPSK	1	0	Right Tilted	0mm	Index 3	18700	1860	15.66	16.30	1.159	0.12	0.516	0.598
	LTE Band 2_Ant 1	20M	QPSK	1	0	Right Tilted	0mm	Index 3	19100	1900	15.64	16.30	1.164	0.14	0.501	0.583
	LTE Band 2_Ant 1	20M	QPSK	50	0	Right Tilted	0mm	Index 3	18900	1880	15.60	16.30	1.175	0.11	0.456	0.536
	LTE Band 2_Ant 1	20M	QPSK	1	0	Left Cheek	0mm	Index 3	18900	1880	15.79	16.30	1.125	-0.04	0.174	0.196
	LTE Band 2_Ant 1	20M	QPSK	50	0	Left Cheek	0mm	Index 3	18900	1880	15.60	16.30	1.175	0.06	0.148	0.174
	LTE Band 2_Ant 1	20M	QPSK	1	0	Left Tilted	0mm	Index 3	18900	1880	15.79	16.30	1.125	-0.03	0.225	0.253
	LTE Band 2_Ant 1	20M	QPSK	50	0	Left Tilted	0mm	Index 3	18900	1880	15.60	16.30	1.175	0.07	0.191	0.224
96	LTE Band 12_Ant 1	10M	QPSK	1	0	Right Cheek	0mm	Index 2	23095	707.5	21.88	23.20	1.355	0.01	0.278	0.377
	LTE Band 12_Ant 1	10M	QPSK	25	0	Right Cheek	0mm	Index 2	23095	707.5	21.75	23.20	1.396	-0.02	0.256	0.357
	LTE Band 12_Ant 1	10M	QPSK	1	0	Right Tilted	0mm	Index 2	23095	707.5	21.88	23.20	1.355	-0.07	0.212	0.287
	LTE Band 12_Ant 1	10M	QPSK	25	0	Right Tilted	0mm	Index 2	23095	707.5	21.75	23.20	1.396	0.14	0.183	0.256
	LTE Band 12_Ant 1	10M	QPSK	1	0	Left Cheek	0mm	Index 2	23095	707.5	21.88	23.20	1.355	-0.07	0.158	0.214
	LTE Band 12_Ant 1	10M	QPSK	25	0	Left Cheek	0mm	Index 2	23095	707.5	21.75	23.20	1.396	-0.15	0.138	0.193
	LTE Band 12_Ant 1	10M	QPSK	1	0	Left Tilted	0mm	Index 2	23095	707.5	21.88	23.20	1.355	-0.01	0.141	0.191
	LTE Band 12_Ant 1	10M	QPSK	25	0	Left Tilted	0mm	Index 2	23095	707.5	21.75	23.20	1.396	-0.16	0.126	0.176
	LTE Band 12_Ant 1	10M	QPSK	1	0	Right Cheek	0mm	Index 3	23095	707.5	21.88	22.50	1.153	0.01	0.278	0.321
	LTE Band 12_Ant 1	10M	QPSK	25	0	Right Cheek	0mm	Index 3	23095	707.5	21.75	22.50	1.189	-0.02	0.256	0.304
	LTE Band 12_Ant 1	10M	QPSK	1	0	Right Tilted	0mm	Index 3	23095	707.5	21.88	22.50	1.153	-0.07	0.212	0.245
	LTE Band 12_Ant 1	10M	QPSK	25	0	Right Tilted	0mm	Index 3	23095	707.5	21.75	22.50	1.189	0.14	0.183	0.217
	LTE Band 12_Ant 1	10M	QPSK	1	0	Left Cheek	0mm	Index 3	23095	707.5	21.88	22.50	1.153	-0.07	0.158	0.182
	LTE Band 12_Ant 1	10M	QPSK	25	0	Left Cheek	0mm	Index 3	23095	707.5	21.75	22.50	1.189	-0.15	0.138	0.164
	LTE Band 12_Ant 1	10M	QPSK	1	0	Left Tilted	0mm	Index 3	23095	707.5	21.88	22.50	1.153	-0.01	0.141	0.163
	LTE Band 12_Ant 1	10M	QPSK	25	0	Left Tilted	0mm	Index 3	23095	707.5	21.75	22.50	1.189	-0.16	0.126	0.150





Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Index	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
97	LTE Band 13_Ant 1	10M	QPSK	1	0	Right Cheek	0mm	Index 2	23230	782	23.11	24.20	1.285	-0.03	0.576	0.740
	LTE Band 13_Ant 1	10M	QPSK	25	0	Right Cheek	0mm	Index 2	23230	782	23.07	24.20	1.297	-0.05	0.510	0.662
	LTE Band 13_Ant 1	10M	QPSK	1	0	Right Tilted	0mm	Index 2	23230	782	23.11	24.20	1.285	-0.18	0.379	0.487
	LTE Band 13_Ant 1	10M	QPSK	25	0	Right Tilted	0mm	Index 2	23230	782	23.07	24.20	1.297	0.04	0.315	0.409
	LTE Band 13_Ant 1	10M	QPSK	1	0	Left Cheek	0mm	Index 2	23230	782	23.11	24.20	1.285	-0.02	0.395	0.508
	LTE Band 13_Ant 1	10M	QPSK	25	0	Left Cheek	0mm	Index 2	23230	782	23.07	24.20	1.297	-0.18	0.369	0.479
	LTE Band 13_Ant 1	10M	QPSK	1	0	Left Tilted	0mm	Index 2	23230	782	23.11	24.20	1.285	-0.07	0.329	0.423
	LTE Band 13_Ant 1	10M	QPSK	25	0	Left Tilted	0mm	Index 2	23230	782	23.07	24.20	1.297	0	0.293	0.380
	LTE Band 13_Ant 1	10M	QPSK	1	0	Right Cheek	0mm	Index 3	23230	782	23.11	23.50	1.094	-0.03	0.576	0.630
	LTE Band 13_Ant 1	10M	QPSK	25	0	Right Cheek	0mm	Index 3	23230	782	23.07	23.50	1.104	-0.05	0.510	0.563
	LTE Band 13_Ant 1	10M	QPSK	1	0	Right Tilted	0mm	Index 3	23230	782	23.11	23.50	1.094	-0.18	0.379	0.415
	LTE Band 13_Ant 1	10M	QPSK	25	0	Right Tilted	0mm	Index 3	23230	782	23.07	23.50	1.104	0.04	0.315	0.348
	LTE Band 13_Ant 1	10M	QPSK	1	0	Left Cheek	0mm	Index 3	23230	782	23.11	23.50	1.094	-0.02	0.395	0.432
	LTE Band 13_Ant 1	10M	QPSK	25	0	Left Cheek	0mm	Index 3	23230	782	23.07	23.50	1.104	-0.18	0.369	0.407
	LTE Band 13_Ant 1	10M	QPSK	1	0	Left Tilted	0mm	Index 3	23230	782	23.11	23.50	1.094	-0.07	0.329	0.360
	LTE Band 13_Ant 1	10M	QPSK	25	0	Left Tilted	0mm	Index 3	23230	782	23.07	23.50	1.104	0	0.293	0.323
98	LTE Band 14_Ant 1	10M	QPSK	1	0	Right Cheek	0mm	Index 2	23330	793	22.10	23.30	1.318	-0.02	0.534	0.704
	LTE Band 14_Ant 1	10M	QPSK	25	0	Right Cheek	0mm	Index 2	23330	793	22.01	23.30	1.346	-0.07	0.485	0.653
	LTE Band 14_Ant 1	10M	QPSK	1	0	Right Tilted	0mm	Index 2	23330	793	22.10	23.30	1.318	-0.08	0.378	0.498
	LTE Band 14_Ant 1	10M	QPSK	25	0	Right Tilted	0mm	Index 2	23330	793	22.01	23.30	1.346	0.02	0.333	0.448
	LTE Band 14_Ant 1	10M	QPSK	1	0	Left Cheek	0mm	Index 2	23330	793	22.10	23.30	1.318	-0.01	0.317	0.418
	LTE Band 14_Ant 1	10M	QPSK	25	0	Left Cheek	0mm	Index 2	23330	793	22.01	23.30	1.346	-0.08	0.279	0.375
	LTE Band 14_Ant 1	10M	QPSK	1	0	Left Tilted	0mm	Index 2	23330	793	22.10	23.30	1.318	-0.04	0.275	0.363
	LTE Band 14_Ant 1	10M	QPSK	25	0	Left Tilted	0mm	Index 2	23330	793	22.01	23.30	1.346	0.02	0.241	0.324
	LTE Band 14_Ant 1	10M	QPSK	1	0	Right Cheek	0mm	Index 3	23330	793	22.10	22.60	1.122	-0.02	0.534	0.599
	LTE Band 14_Ant 1	10M	QPSK	25	0	Right Cheek	0mm	Index 3	23330	793	22.01	22.60	1.146	-0.07	0.485	0.556
	LTE Band 14_Ant 1	10M	QPSK	1	0	Right Tilted	0mm	Index 3	23330	793	22.10	22.60	1.122	-0.08	0.378	0.424
	LTE Band 14_Ant 1	10M	QPSK	25	0	Right Tilted	0mm	Index 3	23330	793	22.01	22.60	1.146	0.02	0.333	0.381
	LTE Band 14_Ant 1	10M	QPSK	1	0	Left Cheek	0mm	Index 3	23330	793	22.10	22.60	1.122	-0.01	0.317	0.356
	LTE Band 14_Ant 1	10M	QPSK	25	0	Left Cheek	0mm	Index 3	23330	793	22.01	22.60	1.146	-0.08	0.279	0.320
	LTE Band 14_Ant 1	10M	QPSK	1	0	Left Tilted	0mm	Index 3	23330	793	22.10	22.60	1.122	-0.04	0.275	0.309
	LTE Band 14_Ant 1	10M	QPSK	25	0	Left Tilted	0mm	Index 3	23330	793	22.01	22.60	1.146	0.02	0.241	0.276
99	LTE Band 26_Ant 1	15M	QPSK	1	0	Right Cheek	0mm	Index 2	26865	831.5	20.25	21.80	1.429	0	0.375	0.536
	LTE Band 26_Ant 1	15M	QPSK	36	0	Right Cheek	0mm	Index 2	26865	831.5	20.20	21.80	1.445	0	0.341	0.493
	LTE Band 26_Ant 1	15M	QPSK	1	0	Right Tilted	0mm	Index 2	26865	831.5	20.25	21.80	1.429	-0.15	0.278	0.397
	LTE Band 26_Ant 1	15M	QPSK	36	0	Right Tilted	0mm	Index 2	26865	831.5	20.20	21.80	1.445	-0.19	0.233	0.337
	LTE Band 26_Ant 1	15M	QPSK	1	0	Left Cheek	0mm	Index 2	26865	831.5	20.25	21.80	1.429	-0.16	0.236	0.337
	LTE Band 26_Ant 1	15M	QPSK	36	0	Left Cheek	0mm	Index 2	26865	831.5	20.20	21.80	1.445	-0.02	0.196	0.283
	LTE Band 26_Ant 1	15M	QPSK	1	0	Left Tilted	0mm	Index 2	26865	831.5	20.25	21.80	1.429	-0.16	0.197	0.281
	LTE Band 26_Ant 1	15M	QPSK	36	0	Left Tilted	0mm	Index 2	26865	831.5	20.20	21.80	1.445	0.19	0.171	0.247
	LTE Band 5B_Ant 1	10M+10M	QPSK	1	0	Right Cheek	0mm	Index 2	20475	831.5	18.55	20.50	1.567	0.02	0.251	0.393
	LTE Band 26_Ant 1	15M	QPSK	1	0	Right Cheek	0mm	Index 3	26865	831.5	20.25	21.10	1.216	0	0.375	0.456
	LTE Band 26_Ant 1	15M	QPSK	36	0	Right Cheek	0mm	Index 3	26865	831.5	20.20	21.10	1.230	0	0.341	0.420
	LTE Band 26_Ant 1	15M	QPSK	1	0	Right Tilted	0mm	Index 3	26865	831.5	20.25	21.10	1.216	-0.15	0.278	0.338
	LTE Band 26_Ant 1	15M	QPSK	36	0	Right Tilted	0mm	Index 3	26865	831.5	20.20	21.10	1.230	-0.19	0.233	0.287
	LTE Band 26_Ant 1	15M	QPSK	1	0	Left Cheek	0mm	Index 3	26865	831.5	20.25	21.10	1.216	-0.16	0.236	0.287
	LTE Band 26_Ant 1	15M	QPSK	36	0	Left Cheek	0mm	Index 3	26865	831.5	20.20	21.10	1.230	-0.02	0.196	0.241
	LTE Band 26_Ant 1	15M	QPSK	1	0	Left Tilted	0mm	Index 3	26865	831.5	20.25	21.10	1.216	-0.16	0.197	0.240
	LTE Band 26_Ant 1	15M	QPSK	36	0	Left Tilted	0mm	Index 3	26865	831.5	20.20	21.10	1.230	0.19	0.171	0.210
	LTE Band 5B_Ant 1	10M+10M	QPSK	1	0	Right Cheek	0mm	Index 3	20475	831.5	18.55	19.80	1.334	0.02	0.251	0.335



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Index	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 66_Ant 1	20M	QPSK	1	0	Right Cheek	0mm	Index 2	132322	1745	16.79	18.00	1.321	-0.02	0.528	0.698
	LTE Band 66_Ant 1	20M	QPSK	50	0	Right Cheek	0mm	Index 2	132322	1745	16.60	18.00	1.380	0.19	0.435	0.600
100	LTE Band 66_Ant 1	20M	QPSK	1	0	Right Tilted	0mm	Index 2	132322	1745	16.79	18.00	1.321	-0.04	0.610	0.806
	LTE Band 66_Ant 1	20M	QPSK	1	0	Right Tilted	0mm	Index 2	132072	1720	16.69	18.00	1.352	0.05	0.582	0.787
	LTE Band 66_Ant 1	20M	QPSK	1	0	Right Tilted	0mm	Index 2	132572	1770	16.65	18.00	1.365	0	0.573	0.782
	LTE Band 66_Ant 1	20M	QPSK	50	0	Right Tilted	0mm	Index 2	132072	1720	16.53	18.00	1.403	0.06	0.534	0.749
	LTE Band 66_Ant 1	20M	QPSK	100	0	Right Tilted	0mm	Index 2	132322	1745	16.54	18.00	1.400	0.06	0.516	0.722
	LTE Band 66_Ant 1	20M	QPSK	1	0	Left Cheek	0mm	Index 2	132322	1745	16.79	18.00	1.321	-0.06	0.215	0.284
	LTE Band 66_Ant 1	20M	QPSK	50	0	Left Cheek	0mm	Index 2	132322	1745	16.60	18.00	1.380	0.12	0.183	0.253
	LTE Band 66_Ant 1	20M	QPSK	1	0	Left Tilted	0mm	Index 2	132322	1745	16.79	18.00	1.321	-0.01	0.296	0.391
	LTE Band 66_Ant 1	20M	QPSK	50	0	Left Tilted	0mm	Index 2	132322	1745	16.60	18.00	1.380	-0.14	0.252	0.348
	LTE Band 66_Ant 1	20M	QPSK	1	0	Right Cheek	0mm	Index 3	132322	1745	16.79	17.30	1.125	-0.02	0.528	0.594
	LTE Band 66_Ant 1	20M	QPSK	50	0	Right Cheek	0mm	Index 3	132322	1745	16.60	17.30	1.175	0.19	0.435	0.511
	LTE Band 66_Ant 1	20M	QPSK	1	0	Right Tilted	0mm	Index 3	132322	1745	16.79	17.30	1.125	-0.04	0.610	0.686
	LTE Band 66_Ant 1	20M	QPSK	50	0	Right Tilted	0mm	Index 3	132072	1720	16.53	17.30	1.194	0.06	0.534	0.638
	LTE Band 66_Ant 1	20M	QPSK	1	0	Left Cheek	0mm	Index 3	132322	1745	16.79	17.30	1.125	-0.06	0.215	0.242
	LTE Band 66_Ant 1	20M	QPSK	50	0	Left Cheek	0mm	Index 3	132322	1745	16.60	17.30	1.175	0.12	0.183	0.215
	LTE Band 66_Ant 1	20M	QPSK	1	0	Left Tilted	0mm	Index 3	132322	1745	16.79	17.30	1.125	-0.01	0.296	0.333
	LTE Band 66_Ant 1	20M	QPSK	50	0	Left Tilted	0mm	Index 3	132322	1745	16.60	17.30	1.175	-0.14	0.252	0.296
101	LTE Band 71_Ant 1	20M	QPSK	1	0	Right Cheek	0mm	Index 2	133297	680.5	22.55	23.90	1.365	0.03	0.696	0.950
	LTE Band 71_Ant 1	20M	QPSK	50	0	Right Cheek	0mm	Index 2	133297	680.5	22.50	23.90	1.380	0.03	0.674	0.930
	LTE Band 71_Ant 1	20M	QPSK	100	0	Right Cheek	0mm	Index 2	133297	680.5	22.39	23.90	1.416	0.01	0.651	0.922
	LTE Band 71_Ant 1	20M	QPSK	1	0	Right Tilted	0mm	Index 2	133297	680.5	22.55	23.90	1.365	-0.03	0.520	0.710
	LTE Band 71_Ant 1	20M	QPSK	50	0	Right Tilted	0mm	Index 2	133297	680.5	22.50	23.90	1.380	-0.16	0.503	0.694
	LTE Band 71_Ant 1	20M	QPSK	1	0	Left Cheek	0mm	Index 2	133297	680.5	22.55	23.90	1.365	-0.03	0.351	0.479
	LTE Band 71_Ant 1	20M	QPSK	50	0	Left Cheek	0mm	Index 2	133297	680.5	22.50	23.90	1.380	-0.15	0.329	0.454
	LTE Band 71_Ant 1	20M	QPSK	1	0	Left Tilted	0mm	Index 2	133297	680.5	22.55	23.90	1.365	-0.11	0.337	0.460
	LTE Band 71_Ant 1	20M	QPSK	50	0	Left Tilted	0mm	Index 2	133297	680.5	22.50	23.90	1.380	0.16	0.313	0.432
	LTE Band 71_Ant 1	20M	QPSK	1	0	Right Cheek	0mm	Index 3	133297	680.5	22.55	23.20	1.161	0.03	0.696	0.808
	LTE Band 71_Ant 1	20M	QPSK	50	0	Right Cheek	0mm	Index 3	133297	680.5	22.50	23.20	1.175	0.03	0.674	0.792
	LTE Band 71_Ant 1	20M	QPSK	100	0	Right Cheek	0mm	Index 3	133297	680.5	22.39	23.20	1.205	0.01	0.651	0.784
	LTE Band 71_Ant 1	20M	QPSK	1	0	Right Tilted	0mm	Index 3	133297	680.5	22.55	23.20	1.161	-0.03	0.520	0.604
	LTE Band 71_Ant 1	20M	QPSK	50	0	Right Tilted	0mm	Index 3	133297	680.5	22.50	23.20	1.175	-0.16	0.503	0.591
	LTE Band 71_Ant 1	20M	QPSK	1	0	Left Cheek	0mm	Index 3	133297	680.5	22.55	23.20	1.161	-0.03	0.351	0.408
	LTE Band 71_Ant 1	20M	QPSK	50	0	Left Cheek	0mm	Index 3	133297	680.5	22.50	23.20	1.175	-0.15	0.329	0.387
	LTE Band 71_Ant 1	20M	QPSK	1	0	Left Tilted	0mm	Index 3	133297	680.5	22.55	23.20	1.161	-0.11	0.337	0.391
	LTE Band 71_Ant 1	20M	QPSK	50	0	Left Tilted	0mm	Index 3	133297	680.5	22.50	23.20	1.175	0.16	0.313	0.368





<5G NR SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Index	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	FR1 n2_Ant 1	20M	QPSK	1	1	Right Cheek	0mm	Index 2	376000	1880	16.17	17.20	1.268	-0.18	0.612	0.776
	FR1 n2_Ant 1	20M	QPSK	50	28	Right Cheek	0mm	Index 2	376000	1880	16.10	17.20	1.288	0.04	0.573	0.738
	FR1 n2_Ant 1	20M	QPSK	1	1	Right Tilted	0mm	Index 2	376000	1880	16.17	17.20	1.268	0.01	0.663	0.840
	FR1 n2_Ant 1	20M	QPSK	1	1	Right Tilted	0mm	Index 2	372000	1860	16.06	17.20	1.300	-0.07	0.677	0.880
102	FR1 n2_Ant 1	20M	QPSK	1	1	Right Tilted	0mm	Index 2	380000	1900	16.08	17.20	1.294	-0.16	0.733	0.949
	FR1 n2_Ant 1	20M	QPSK	50	28	Right Tilted	0mm	Index 2	376000	1880	16.10	17.20	1.288	-0.06	0.612	0.788
	FR1 n2_Ant 1	20M	QPSK	100	0	Right Tilted	0mm	Index 2	376000	1880	16.02	17.20	1.312	0.07	0.606	0.795
	FR1 n2_Ant 1	20M	QPSK	1	1	Left Cheek	0mm	Index 2	376000	1880	16.17	17.20	1.268	-0.19	0.273	0.346
	FR1 n2_Ant 1	20M	QPSK	50	28	Left Cheek	0mm	Index 2	376000	1880	16.10	17.20	1.288	-0.01	0.238	0.307
	FR1 n2_Ant 1	20M	QPSK	1	1	Left Tilted	0mm	Index 2	376000	1880	16.17	17.20	1.268	-0.03	0.310	0.393
	FR1 n2_Ant 1	20M	QPSK	50	28	Left Tilted	0mm	Index 2	376000	1880	16.10	17.20	1.288	0.03	0.292	0.376
	FR1 n2_Ant 1	20M	QPSK	1	1	Right Cheek	0mm	Index 3	376000	1880	16.17	16.50	1.079	-0.18	0.612	0.660
	FR1 n2_Ant 1	20M	QPSK	50	28	Right Cheek	0mm	Index 3	376000	1880	16.10	16.50	1.096	0.04	0.573	0.628
	FR1 n2_Ant 1	20M	QPSK	1	1	Right Tilted	0mm	Index 3	376000	1880	16.17	16.50	1.079	0.01	0.663	0.715
	FR1 n2_Ant 1	20M	QPSK	1	1	Right Tilted	0mm	Index 3	372000	1860	16.06	16.50	1.107	-0.07	0.677	0.749
	FR1 n2_Ant 1	20M	QPSK	1	1	Right Tilted	0mm	Index 3	380000	1900	16.08	16.50	1.102	-0.16	0.733	0.807
	FR1 n2_Ant 1	20M	QPSK	50	28	Right Tilted	0mm	Index 3	376000	1880	16.10	16.50	1.096	-0.06	0.612	0.671
	FR1 n2_Ant 1	20M	QPSK	100	0	Right Tilted	0mm	Index 3	376000	1880	16.02	16.50	1.117	0.07	0.606	0.677
	FR1 n2_Ant 1	20M	QPSK	1	1	Left Cheek	0mm	Index 3	376000	1880	16.17	16.50	1.079	-0.19	0.273	0.295
	FR1 n2_Ant 1	20M	QPSK	50	28	Left Cheek	0mm	Index 3	376000	1880	16.10	16.50	1.096	-0.01	0.238	0.261
	FR1 n2_Ant 1	20M	QPSK	1	1	Left Tilted	0mm	Index 3	376000	1880	16.17	16.50	1.079	-0.03	0.310	0.334
	FR1 n2_Ant 1	20M	QPSK	50	28	Left Tilted	0mm	Index 3	376000	1880	16.10	16.50	1.096	0.03	0.292	0.320
	FR1 n5_Ant 1	20M	QPSK	1	1	Right Cheek	0mm	Index 2	167300	836.5	21.46	22.60	1.300	-0.03	0.318	0.413
	FR1 n5_Ant 1	20M	QPSK	50	28	Right Cheek	0mm	Index 2	167300	836.5	21.33	22.60	1.340	0.04	0.306	0.410
103	FR1 n5_Ant 1	20M	QPSK	1	1	Right Tilted	0mm	Index 2	167300	836.5	21.46	22.60	1.300	-0.02	0.351	0.456
	FR1 n5_Ant 1	20M	QPSK	50	28	Right Tilted	0mm	Index 2	167300	836.5	21.33	22.60	1.340	0.07	0.336	0.450
	FR1 n5_Ant 1	20M	QPSK	1	1	Left Cheek	0mm	Index 2	167300	836.5	21.46	22.60	1.300	-0.04	0.231	0.300
	FR1 n5_Ant 1	20M	QPSK	50	28	Left Cheek	0mm	Index 2	167300	836.5	21.33	22.60	1.340	0.01	0.212	0.284
	FR1 n5_Ant 1	20M	QPSK	1	1	Left Tilted	0mm	Index 2	167300	836.5	21.46	22.60	1.300	-0.02	0.239	0.311
	FR1 n5_Ant 1	20M	QPSK	50	28	Left Tilted	0mm	Index 2	167300	836.5	21.33	22.60	1.340	-0.11	0.226	0.303
	FR1 n5_Ant 1	20M	QPSK	1	1	Right Cheek	0mm	Index 3	167300	836.5	21.46	21.90	1.107	-0.03	0.318	0.352
	FR1 n5_Ant 1	20M	QPSK	50	28	Right Cheek	0mm	Index 3	167300	836.5	21.33	21.90	1.140	0.04	0.306	0.349
	FR1 n5_Ant 1	20M	QPSK	1	1	Right Tilted	0mm	Index 3	167300	836.5	21.46	21.90	1.107	-0.02	0.351	0.388
	FR1 n5_Ant 1	20M	QPSK	50	28	Right Tilted	0mm	Index 3	167300	836.5	21.33	21.90	1.140	0.07	0.336	0.383
	FR1 n5_Ant 1	20M	QPSK	1	1	Left Cheek	0mm	Index 3	167300	836.5	21.46	21.90	1.107	-0.04	0.231	0.256
	FR1 n5_Ant 1	20M	QPSK	50	28	Left Cheek	0mm	Index 3	167300	836.5	21.33	21.90	1.140	0.01	0.212	0.242
	FR1 n5_Ant 1	20M	QPSK	1	1	Left Tilted	0mm	Index 3	167300	836.5	21.46	21.90	1.107	-0.02	0.239	0.264
	FR1 n5_Ant 1	20M	QPSK	50	28	Left Tilted	0mm	Index 3	167300	836.5	21.33	21.90	1.140	-0.11	0.226	0.258



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Index	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	FR1 n12_Ant 1	15M	QPSK	1	1	Right Cheek	0mm	Index 2	141500	707.5	23.55	25.20	1.462	-0.1	0.254	0.371
	FR1 n12_Ant 1	15M	QPSK	36	0	Right Cheek	0mm	Index 2	141500	707.5	23.45	24.20	1.189	-0.15	0.242	0.288
104	FR1 n12_Ant 1	15M	QPSK	1	1	Right Tilted	0mm	Index 2	141500	707.5	23.55	25.20	1.462	-0.15	0.267	0.390
	FR1 n12_Ant 1	15M	QPSK	36	0	Right Tilted	0mm	Index 2	141500	707.5	23.45	24.20	1.189	0.11	0.252	0.300
	FR1 n12_Ant 1	15M	QPSK	1	1	Left Cheek	0mm	Index 2	141500	707.5	23.55	25.20	1.462	-0.18	0.198	0.290
	FR1 n12_Ant 1	15M	QPSK	36	0	Left Cheek	0mm	Index 2	141500	707.5	23.45	24.20	1.189	-0.07	0.197	0.234
	FR1 n12_Ant 1	15M	QPSK	1	1	Left Tilted	0mm	Index 2	141500	707.5	23.55	25.20	1.462	-0.06	0.176	0.257
	FR1 n12_Ant 1	15M	QPSK	36	0	Left Tilted	0mm	Index 2	141500	707.5	23.45	24.20	1.189	0.09	0.165	0.196
	FR1 n12_Ant 1	15M	QPSK	1	1	Right Cheek	0mm	Index 3	141500	707.5	23.55	24.60	1.274	-0.1	0.254	0.323
	FR1 n12_Ant 1	15M	QPSK	36	0	Right Cheek	0mm	Index 3	141500	707.5	23.45	24.20	1.189	-0.15	0.242	0.288
	FR1 n12_Ant 1	15M	QPSK	1	1	Right Tilted	0mm	Index 3	141500	707.5	23.55	24.60	1.274	-0.15	0.267	0.340
	FR1 n12_Ant 1	15M	QPSK	36	0	Right Tilted	0mm	Index 3	141500	707.5	23.45	24.20	1.189	0.11	0.252	0.300
	FR1 n12_Ant 1	15M	QPSK	1	1	Left Cheek	0mm	Index 3	141500	707.5	23.55	24.60	1.274	-0.18	0.198	0.252
	FR1 n12_Ant 1	15M	QPSK	36	0	Left Cheek	0mm	Index 3	141500	707.5	23.45	24.20	1.189	-0.07	0.197	0.234
	FR1 n12_Ant 1	15M	QPSK	1	1	Left Tilted	0mm	Index 3	141500	707.5	23.55	24.60	1.274	-0.06	0.176	0.224
	FR1 n12_Ant 1	15M	QPSK	36	0	Left Tilted	0mm	Index 3	141500	707.5	23.45	24.20	1.189	0.09	0.165	0.196
	FR1 n41_Ant 1	100M	QPSK	1	1	Right Cheek	0mm	Index 2	518598	2592.99	16.60	17.70	1.288	-0.11	0.499	0.643
	FR1 n41_Ant 1	100M	QPSK	135	69	Right Cheek	0mm	Index 2	518598	2592.99	16.38	17.70	1.355	0.01	0.462	0.626
105	FR1 n41_Ant 1	100M	QPSK	1	1	Right Tilted	0mm	Index 2	518598	2592.99	16.60	17.70	1.288	-0.04	0.621	0.800
	FR1 n41_Ant 1	100M	QPSK	135	69	Right Tilted	0mm	Index 2	518598	2592.99	16.38	17.70	1.355	0.09	0.581	0.787
	FR1 n41_Ant 1	100M	QPSK	270	0	Right Tilted	0mm	Index 2	518598	2592.99	16.13	17.70	1.435	0.05	0.543	0.779
	FR1 n41_Ant 1	100M	QPSK	1	1	Left Cheek	0mm	Index 2	518598	2592.99	16.60	17.70	1.288	-0.19	0.209	0.269
	FR1 n41_Ant 1	100M	QPSK	135	69	Left Cheek	0mm	Index 2	518598	2592.99	16.38	17.70	1.355	0.05	0.185	0.251
	FR1 n41_Ant 1	100M	QPSK	1	1	Left Tilted	0mm	Index 2	518598	2592.99	16.60	17.70	1.288	0.11	0.308	0.397
	FR1 n41_Ant 1	100M	QPSK	135	69	Left Tilted	0mm	Index 2	518598	2592.99	16.38	17.70	1.355	-0.06	0.274	0.371
	FR1 n41_HPUE_Ant 1	100M	QPSK	1	1	Right Tilted	0mm	Index 2	518598	2592.99	19.48	20.70	1.324	-0.02	0.554	0.734
	FR1 n41_Ant 1	100M	QPSK	1	1	Right Cheek	0mm	Index 3	518598	2592.99	16.60	17.00	1.096	-0.11	0.499	0.547
	FR1 n41_Ant 1	100M	QPSK	135	69	Right Cheek	0mm	Index 3	518598	2592.99	16.38	17.00	1.153	0.01	0.462	0.533
	FR1 n41_Ant 1	100M	QPSK	1	1	Right Tilted	0mm	Index 3	518598	2592.99	16.60	17.00	1.096	-0.04	0.621	0.681
	FR1 n41_Ant 1	100M	QPSK	135	69	Right Tilted	0mm	Index 3	518598	2592.99	16.38	17.00	1.153	0.09	0.581	0.670
	FR1 n41_Ant 1	100M	QPSK	1	1	Left Cheek	0mm	Index 3	518598	2592.99	16.60	17.00	1.096	-0.19	0.209	0.229
	FR1 n41_Ant 1	100M	QPSK	135	69	Left Cheek	0mm	Index 3	518598	2592.99	16.38	17.00	1.153	0.05	0.185	0.213
	FR1 n41_Ant 1	100M	QPSK	1	1	Left Tilted	0mm	Index 3	518598	2592.99	16.60	17.00	1.096	0.11	0.308	0.338
	FR1 n41_Ant 1	100M	QPSK	135	69	Left Tilted	0mm	Index 3	518598	2592.99	16.38	17.00	1.153	-0.06	0.274	0.316
	FR1 n41_HPUE_Ant 1	100M	QPSK	1	1	Right Tilted	0mm	Index 3	518598	2592.99	19.48	20.00	1.127	-0.02	0.554	0.624



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Index	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	FR1 n66_Ant 1	40M	QPSK	1	1	Right Cheek	0mm	Index 2	349000	1745	16.92	18.40	1.406	-0.14	0.570	0.801
	FR1 n66_Ant 1	40M	QPSK	108	54	Right Cheek	0mm	Index 2	349000	1745	16.86	18.40	1.426	0.06	0.554	0.790
	FR1 n66_Ant 1	40M	QPSK	216	0	Right Cheek	0mm	Index 2	349000	1745	16.76	18.40	1.459	-0.15	0.501	0.731
106	FR1 n66_Ant 1	40M	QPSK	1	1	Right Tilted	0mm	Index 2	349000	1745	16.92	18.40	1.406	-0.14	0.657	0.924
	FR1 n66_Ant 1	40M	QPSK	108	54	Right Tilted	0mm	Index 2	349000	1745	16.86	18.40	1.426	-0.09	0.624	0.890
	FR1 n66_Ant 1	40M	QPSK	216	0	Right Tilted	0mm	Index 2	349000	1745	16.76	18.40	1.459	0.03	0.619	0.903
	FR1 n66_Ant 1	40M	QPSK	1	1	Left Cheek	0mm	Index 2	349000	1745	16.92	18.40	1.406	-0.15	0.262	0.368
	FR1 n66_Ant 1	40M	QPSK	108	54	Left Cheek	0mm	Index 2	349000	1745	16.86	18.40	1.426	0.02	0.233	0.332
	FR1 n66_Ant 1	40M	QPSK	1	1	Left Tilted	0mm	Index 2	349000	1745	16.92	18.40	1.406	-0.13	0.317	0.446
	FR1 n66_Ant 1	40M	QPSK	108	54	Left Tilted	0mm	Index 2	349000	1745	16.86	18.40	1.426	-0.07	0.298	0.425
	FR1 n66_Ant 1	40M	QPSK	1	1	Right Cheek	0mm	Index 3	349000	1745	16.92	17.70	1.197	-0.14	0.570	0.682
	FR1 n66_Ant 1	40M	QPSK	108	54	Right Cheek	0mm	Index 3	349000	1745	16.86	17.70	1.213	0.06	0.554	0.672
	FR1 n66_Ant 1	40M	QPSK	1	1	Right Tilted	0mm	Index 3	349000	1745	16.92	17.70	1.197	-0.14	0.657	0.786
	FR1 n66_Ant 1	40M	QPSK	108	54	Right Tilted	0mm	Index 3	349000	1745	16.86	17.70	1.213	-0.09	0.624	0.757
	FR1 n66_Ant 1	40M	QPSK	216	0	Right Tilted	0mm	Index 3	349000	1745	16.76	17.70	1.242	0.03	0.619	0.769
	FR1 n66_Ant 1	40M	QPSK	1	1	Left Cheek	0mm	Index 3	349000	1745	16.92	17.70	1.197	-0.15	0.262	0.314
	FR1 n66_Ant 1	40M	QPSK	108	54	Left Cheek	0mm	Index 3	349000	1745	16.86	17.70	1.213	0.02	0.233	0.283
	FR1 n66_Ant 1	40M	QPSK	1	1	Left Tilted	0mm	Index 3	349000	1745	16.92	17.70	1.197	-0.13	0.317	0.379
	FR1 n66_Ant 1	40M	QPSK	108	54	Left Tilted	0mm	Index 3	349000	1745	16.86	17.70	1.213	-0.07	0.298	0.362
107	FR1 n71_Ant 1	20M	QPSK	1	1	Right Cheek	0mm	Index 2	136100	680.5	24.46	25.20	1.186	-0.15	0.814	0.965
	FR1 n71_Ant 1	20M	QPSK	50	28	Right Cheek	0mm	Index 2	136100	680.5	24.31	25.20	1.227	0.05	0.766	0.940
	FR1 n71_Ant 1	20M	QPSK	100	0	Right Cheek	0mm	Index 2	136100	680.5	23.76	24.20	1.107	0.02	0.663	0.734
	FR1 n71_Ant 1	20M	QPSK	1	1	Right Tilted	0mm	Index 2	136100	680.5	24.46	25.20	1.186	-0.16	0.687	0.815
	FR1 n71_Ant 1	20M	QPSK	50	28	Right Tilted	0mm	Index 2	136100	680.5	24.31	25.20	1.227	-0.03	0.621	0.762
	FR1 n71_Ant 1	20M	QPSK	100	0	Right Tilted	0mm	Index 2	136100	680.5	23.76	24.20	1.107	0.19	0.548	0.606
	FR1 n71_Ant 1	20M	QPSK	1	1	Left Cheek	0mm	Index 2	136100	680.5	24.46	25.20	1.186	-0.14	0.418	0.496
	FR1 n71_Ant 1	20M	QPSK	50	28	Left Cheek	0mm	Index 2	136100	680.5	24.31	25.20	1.227	0.03	0.398	0.489
	FR1 n71_Ant 1	20M	QPSK	1	1	Left Tilted	0mm	Index 2	136100	680.5	24.46	25.20	1.186	-0.18	0.418	0.496
	FR1 n71_Ant 1	20M	QPSK	50	28	Left Tilted	0mm	Index 2	136100	680.5	24.31	25.20	1.227	-0.04	0.376	0.462
	FR1 n71_Ant 1	20M	QPSK	1	1	Right Cheek	0mm	Index 3	136100	680.5	24.46	24.50	1.009	-0.15	0.814	0.822
	FR1 n71_Ant 1	20M	QPSK	50	28	Right Cheek	0mm	Index 3	136100	680.5	24.31	24.50	1.045	0.05	0.766	0.800
	FR1 n71_Ant 1	20M	QPSK	100	0	Right Cheek	0mm	Index 3	136100	680.5	23.76	23.80	1.009	0.02	0.663	0.669
	FR1 n71_Ant 1	20M	QPSK	1	1	Right Tilted	0mm	Index 3	136100	680.5	24.46	24.50	1.009	-0.16	0.687	0.693
	FR1 n71_Ant 1	20M	QPSK	50	28	Right Tilted	0mm	Index 3	136100	680.5	24.31	24.50	1.045	-0.03	0.621	0.649
	FR1 n71_Ant 1	20M	QPSK	100	0	Right Tilted	0mm	Index 3	136100	680.5	23.76	23.80	1.009	0.19	0.548	0.553
	FR1 n71_Ant 1	20M	QPSK	1	1	Left Cheek	0mm	Index 3	136100	680.5	24.46	24.50	1.009	-0.14	0.418	0.422
	FR1 n71_Ant 1	20M	QPSK	50	28	Left Cheek	0mm	Index 3	136100	680.5	24.31	24.50	1.045	0.03	0.398	0.416
	FR1 n71_Ant 1	20M	QPSK	1	1	Left Tilted	0mm	Index 3	136100	680.5	24.46	24.50	1.009	-0.18	0.418	0.422
	FR1 n71_Ant 1	20M	QPSK	50	28	Left Tilted	0mm	Index 3	136100	680.5	24.31	24.50	1.045	-0.04	0.376	0.393



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Index	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
108	FR1 n77_Ant 1	100M	QPSK	1	1	Right Cheek	0mm	Index 2	656000	3840	16.48	17.60	1.294	0.06	0.621	0.804
	FR1 n77_Ant 1	100M	QPSK	135	0	Right Cheek	0mm	Index 2	656000	3840	16.39	17.60	1.321	0.09	0.585	0.773
	FR1 n77_Ant 1	100M	QPSK	270	0	Right Cheek	0mm	Index 2	656000	3840	16.20	17.60	1.380	0.01	0.551	0.761
	FR1 n77_Ant 1	100M	QPSK	1	1	Right Tilted	0mm	Index 2	656000	3840	16.48	17.60	1.294	-0.07	0.598	0.774
	FR1 n77_Ant 1	100M	QPSK	135	0	Right Tilted	0mm	Index 2	656000	3840	16.39	17.60	1.321	-0.02	0.541	0.715
	FR1 n77_Ant 1	100M	QPSK	1	1	Left Cheek	0mm	Index 2	656000	3840	16.48	17.60	1.294	-0.06	0.286	0.370
	FR1 n77_Ant 1	100M	QPSK	135	0	Left Cheek	0mm	Index 2	656000	3840	16.39	17.60	1.321	0.03	0.263	0.348
	FR1 n77_Ant 1	100M	QPSK	1	1	Left Tilted	0mm	Index 2	656000	3840	16.48	17.60	1.294	-0.02	0.355	0.459
	FR1 n77_Ant 1	100M	QPSK	135	0	Left Tilted	0mm	Index 2	656000	3840	16.39	17.60	1.321	-0.14	0.312	0.412
	FR1 n77_HPUE_Ant 1	100M	QPSK	1	1	Right Cheek	0mm	Index 2	656000	3840	19.65	20.60	1.245	0.05	0.594	0.739
	FR1 n77_Ant 1	100M	QPSK	1	1	Right Cheek	0mm	Index 3	656000	3840	16.48	16.90	1.102	0.06	0.621	0.684
	FR1 n77_Ant 1	100M	QPSK	135	0	Right Cheek	0mm	Index 3	656000	3840	16.39	16.90	1.125	0.09	0.585	0.658
	FR1 n77_Ant 1	100M	QPSK	1	1	Right Tilted	0mm	Index 3	656000	3840	16.48	16.90	1.102	-0.07	0.598	0.659
	FR1 n77_Ant 1	100M	QPSK	135	0	Right Tilted	0mm	Index 3	656000	3840	16.39	16.90	1.125	-0.02	0.541	0.608
	FR1 n77_Ant 1	100M	QPSK	1	1	Left Cheek	0mm	Index 3	656000	3840	16.48	16.90	1.102	-0.06	0.286	0.315
	FR1 n77_Ant 1	100M	QPSK	135	0	Left Cheek	0mm	Index 3	656000	3840	16.39	16.90	1.125	0.03	0.263	0.296
	FR1 n77_Ant 1	100M	QPSK	1	1	Left Tilted	0mm	Index 3	656000	3840	16.48	16.90	1.102	-0.02	0.355	0.391
	FR1 n77_Ant 1	100M	QPSK	135	0	Left Tilted	0mm	Index 3	656000	3840	16.39	16.90	1.125	-0.14	0.312	0.351
	FR1 n77_HPUE_Ant 1	100M	QPSK	1	1	Right Cheek	0mm	Index 3	656000	3840	19.65	19.90	1.059	0.12	0.594	0.629
	FR1 n77_Ant 1	100M	QPSK	1	1	Right Cheek	0mm	Index 2	633332	3499.98	16.48	17.60	1.294	0.09	0.497	0.643
	FR1 n77_Ant 1	100M	QPSK	135	69	Right Cheek	0mm	Index 2	633332	3499.98	16.26	17.60	1.361	-0.17	0.425	0.579
	FR1 n77_Ant 1	100M	QPSK	1	1	Right Tilted	0mm	Index 2	633332	3499.98	16.48	17.60	1.294	-0.05	0.465	0.602
	FR1 n77_Ant 1	100M	QPSK	135	69	Right Tilted	0mm	Index 2	633332	3499.98	16.26	17.60	1.361	-0.18	0.413	0.562
	FR1 n77_Ant 1	100M	QPSK	1	1	Left Cheek	0mm	Index 2	633332	3499.98	16.48	17.60	1.294	-0.03	0.257	0.333
	FR1 n77_Ant 1	100M	QPSK	135	69	Left Cheek	0mm	Index 2	633332	3499.98	16.26	17.60	1.361	0.04	0.221	0.301
	FR1 n77_Ant 1	100M	QPSK	1	1	Left Tilted	0mm	Index 2	633332	3499.98	16.48	17.60	1.294	0.19	0.314	0.406
	FR1 n77_Ant 1	100M	QPSK	135	69	Left Tilted	0mm	Index 2	633332	3499.98	16.26	17.60	1.361	0.08	0.265	0.361
	FR1 n77_HPUE_Ant 1	100M	QPSK	1	1	Right Cheek	0mm	Index 2	633332	3499.98	19.40	20.60	1.318	0.04	0.466	0.614
	FR1 n77_Ant 1	100M	QPSK	1	1	Right Cheek	0mm	Index 3	633332	3499.98	16.48	16.90	1.102	0.09	0.497	0.547
	FR1 n77_Ant 1	100M	QPSK	135	69	Right Cheek	0mm	Index 3	633332	3499.98	16.26	16.90	1.159	-0.17	0.425	0.492
	FR1 n77_Ant 1	100M	QPSK	1	1	Right Tilted	0mm	Index 3	633332	3499.98	16.48	16.90	1.102	-0.05	0.465	0.512
	FR1 n77_Ant 1	100M	QPSK	135	69	Right Tilted	0mm	Index 3	633332	3499.98	16.26	16.90	1.159	-0.18	0.413	0.479
	FR1 n77_Ant 1	100M	QPSK	1	1	Left Cheek	0mm	Index 3	633332	3499.98	16.48	16.90	1.102	-0.03	0.257	0.283
	FR1 n77_Ant 1	100M	QPSK	135	69	Left Cheek	0mm	Index 3	633332	3499.98	16.26	16.90	1.159	0.04	0.221	0.256
	FR1 n77_Ant 1	100M	QPSK	1	1	Left Tilted	0mm	Index 3	633332	3499.98	16.48	16.90	1.102	0.19	0.314	0.346
	FR1 n77_Ant 1	100M	QPSK	135	69	Left Tilted	0mm	Index 3	633332	3499.98	16.26	16.90	1.159	0.08	0.265	0.307
	FR1 n77_HPUE_Ant 1	100M	QPSK	1	1	Right Cheek	0mm	Index 3	633332	3499.98	19.40	19.90	1.122	0.04	0.466	0.523



**<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)
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 4	Index 1	1	2412	15.90	16.00	1.023	100	1.000	0.02	0.217	0.222
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 4	Index 1	1	2412	15.90	16.00	1.023	100	1.000	0.12	0.286	0.293
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 4	Index 1	1	2412	15.90	16.00	1.023	100	1.000	0.08	0.530	0.542
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 4	Index 1	1	2412	15.90	16.00	1.023	100	1.000	0	0.569	0.582
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 4	Index 1	6	2437	15.70	16.00	1.072	100	1.000	0	0.587	0.629
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 4	Index 1	11	2462	15.80	16.00	1.047	100	1.000	-0.04	0.516	0.540
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 4	Index 2	11	2462	14.50	15.00	1.122	100	1.000	0	0.116	0.130
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 4	Index 2	11	2462	14.50	15.00	1.122	100	1.000	-0.03	0.117	0.131
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 4	Index 2	11	2462	14.50	15.00	1.122	100	1.000	-0.14	0.363	0.407
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 4	Index 2	11	2462	14.50	15.00	1.122	100	1.000	0.03	0.403	0.452
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 4	Index 2	1	2412	14.30	15.00	1.175	100	1.000	0.02	0.424	0.498
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 4	Index 2	6	2437	14.30	15.00	1.175	100	1.000	0.02	0.450	0.529
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 4	Index 3/4	11	2462	11.90	12.00	1.023	100	1.000	-0.1	0.066	0.068
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 4	Index 3/4	11	2462	11.90	12.00	1.023	100	1.000	-0.03	0.074	0.076
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 4	Index 3/4	11	2462	11.90	12.00	1.023	100	1.000	0.13	0.219	0.224
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 4	Index 3/4	11	2462	11.90	12.00	1.023	100	1.000	-0.15	0.230	0.235
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 4	Index 3/4	1	2412	11.70	12.00	1.072	100	1.000	0.03	0.273	0.293
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 4	Index 3/4	6	2437	11.70	12.00	1.072	100	1.000	0	0.279	0.299
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 3	Index 1	1	2412	19.70	20.00	1.072	100	1.000	0.01	0.412	0.441
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 3	Index 1	6	2437	19.60	20.00	1.096	100	1.000	0.02	0.465	0.510
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 3	Index 1	11	2462	19.50	20.00	1.122	100	1.000	0.03	0.417	0.468
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 3	Index 1	1	2412	19.70	20.00	1.072	100	1.000	-0.05	0.074	0.079
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 3	Index 1	1	2412	19.70	20.00	1.072	100	1.000	0.1	0.371	0.398
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 3	Index 1	1	2412	19.70	20.00	1.072	100	1.000	0.06	0.029	0.031
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 3	Index 2	1	2412	18.90	19.00	1.023	100	1.000	-0.02	0.296	0.303
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 3	Index 2	6	2437	18.70	19.00	1.072	100	1.000	0.02	0.319	0.342
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 3	Index 2	11	2462	18.60	19.00	1.096	100	1.000	-0.01	0.324	0.355
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 3	Index 2	1	2412	18.90	19.00	1.023	100	1.000	0.03	0.053	0.054
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 3	Index 2	1	2412	18.90	19.00	1.023	100	1.000	0.04	0.266	0.272
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 3	Index 2	1	2412	18.90	19.00	1.023	100	1.000	-0.07	0.021	0.021
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 3	Index 3	1	2412	18.00	18.00	1.000	100	1.000	0.07	0.261	0.261
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 3	Index 3	6	2437	17.70	18.00	1.072	100	1.000	0.04	0.224	0.240
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 3	Index 3	11	2462	17.80	18.00	1.047	100	1.000	-0.01	0.265	0.277
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 3	Index 3	1	2412	18.00	18.00	1.000	100	1.000	-0.18	0.052	0.052
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 3	Index 3	1	2412	18.00	18.00	1.000	100	1.000	-0.09	0.259	0.259
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 3	Index 3	1	2412	18.00	18.00	1.000	100	1.000	0.07	0.020	0.020
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 3	Index 4	1	2412	14.80	15.00	1.047	100	1.000	-0.1	0.104	0.109
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 3	Index 4	1	2412	14.80	15.00	1.047	100	1.000	-0.04	0.021	0.022
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 3	Index 4	1	2412	14.80	15.00	1.047	100	1.000	0.05	0.117	0.123
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 3	Index 4	6	2437	14.70	15.00	1.072	100	1.000	0.06	0.088	0.094
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 3	Index 4	11	2462	14.80	15.00	1.047	100	1.000	0.01	0.104	0.109
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 3	Index 4	1	2412	14.80	15.00	1.047	100	1.000	0.17	0.007	0.007



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)
	WLAN2.4GHz	802.11g 6Mbps	Right Cheek	0mm	Ant 4+3(4)	Index 1	6	2437	15.50	16.00	1.122	93.74	1.067	0.01	0.244	0.292
	WLAN2.4GHz	802.11g 6Mbps	Right Cheek	0mm	Ant 4+3(3)	Index 1	6	2437	15.30	16.00	1.175	93.74	1.067	0.03	0.059	0.074
	WLAN2.4GHz	802.11g 6Mbps	Right Tilted	0mm	Ant 4+3(4)	Index 1	6	2437	15.50	16.00	1.122	93.74	1.067	0.05	0.307	0.368
	WLAN2.4GHz	802.11g 6Mbps	Right Tilted	0mm	Ant 4+3(3)	Index 1	6	2437	15.30	16.00	1.175	93.74	1.067	0.07	0.001	0.001
	WLAN2.4GHz	802.11g 6Mbps	Left Cheek	0mm	Ant 4+3(4)	Index 1	6	2437	15.50	16.00	1.122	93.74	1.067	0.04	0.581	0.696
	WLAN2.4GHz	802.11g 6Mbps	Left Cheek	0mm	Ant 4+3(3)	Index 1	6	2437	15.30	16.00	1.175	93.74	1.067	0.07	0.140	0.176
109	WLAN2.4GHz	802.11g 6Mbps	Left Tilted	0mm	Ant 4+3(4)	Index 1	6	2437	15.50	16.00	1.122	93.74	1.067	0.02	0.651	0.779
	WLAN2.4GHz	802.11g 6Mbps	Left Tilted	0mm	Ant 4+3(3)	Index 1	6	2437	15.30	16.00	1.175	93.74	1.067	0.03	0.020	0.025
	WLAN2.4GHz	802.11g 6Mbps	Left Tilted	0mm	Ant 4+3(4)	Index 1	1	2412	15.30	16.00	1.175	93.74	1.067	0.02	0.566	0.710
	WLAN2.4GHz	802.11g 6Mbps	Left Tilted	0mm	Ant 4+3(3)	Index 1	1	2412	15.10	16.00	1.230	93.74	1.067	-0.05	0.017	0.022
	WLAN2.4GHz	802.11g 6Mbps	Left Tilted	0mm	Ant 4+3(4)	Index 1	11	2462	15.20	16.00	1.202	93.74	1.067	-0.01	0.604	0.775
	WLAN2.4GHz	802.11g 6Mbps	Left Tilted	0mm	Ant 4+3(3)	Index 1	11	2462	15.50	16.00	1.122	93.74	1.067	0.04	0.019	0.023
	WLAN2.4GHz	802.11g 6Mbps	Right Cheek	0mm	Ant 4+3(4)	Index 2	6	2437	13.70	14.00	1.072	93.74	1.067	0.06	0.166	0.190
	WLAN2.4GHz	802.11g 6Mbps	Right Cheek	0mm	Ant 4+3(3)	Index 2	6	2437	13.90	14.00	1.023	93.74	1.067	0.07	0.039	0.043
	WLAN2.4GHz	802.11g 6Mbps	Right Tilted	0mm	Ant 4+3(4)	Index 2	6	2437	13.70	14.00	1.072	93.74	1.067	0.09	0.236	0.270
	WLAN2.4GHz	802.11g 6Mbps	Right Tilted	0mm	Ant 4+3(3)	Index 2	6	2437	13.90	14.00	1.023	93.74	1.067	-0.02	0.001	0.001
	WLAN2.4GHz	802.11g 6Mbps	Left Cheek	0mm	Ant 4+3(4)	Index 2	6	2437	13.70	14.00	1.072	93.74	1.067	-0.16	0.395	0.452
	WLAN2.4GHz	802.11g 6Mbps	Left Cheek	0mm	Ant 4+3(3)	Index 2	6	2437	13.90	14.00	1.023	93.74	1.067	0.16	0.093	0.102
	WLAN2.4GHz	802.11g 6Mbps	Left Tilted	0mm	Ant 4+3(4)	Index 2	6	2437	13.70	14.00	1.072	93.74	1.067	0.04	0.462	0.528
	WLAN2.4GHz	802.11g 6Mbps	Left Tilted	0mm	Ant 4+3(4)	Index 2	6	2437	13.70	14.00	1.072	93.74	1.067	0.04	0.001	0.001
	WLAN2.4GHz	802.11g 6Mbps	Left Tilted	0mm	Ant 4+3(4)	Index 2	1	2412	13.50	14.00	1.122	93.74	1.067	0	0.418	0.500
	WLAN2.4GHz	802.11g 6Mbps	Left Tilted	0mm	Ant 4+3(4)	Index 2	1	2412	13.50	14.00	1.122	93.74	1.067	0	0.001	0.001
	WLAN2.4GHz	802.11g 6Mbps	Left Tilted	0mm	Ant 4+3(4)	Index 2	11	2462	13.70	14.00	1.072	93.74	1.067	-0.06	0.429	0.490
	WLAN2.4GHz	802.11g 6Mbps	Left Tilted	0mm	Ant 4+3(4)	Index 2	11	2462	13.70	14.00	1.072	93.74	1.067	-0.06	0.001	0.001
	WLAN2.4GHz	802.11g 6Mbps	Right Cheek	0mm	Ant 4+3(4)	Index 3/4	6	2437	11.40	11.50	1.023	93.74	1.067	0.04	0.051	0.056
	WLAN2.4GHz	802.11g 6Mbps	Right Cheek	0mm	Ant 4+3(3)	Index 3/4	6	2437	11.50	11.50	1.000	93.74	1.067	0.07	0.049	0.052
	WLAN2.4GHz	802.11g 6Mbps	Right Tilted	0mm	Ant 4+3(4)	Index 3/4	6	2437	11.40	11.50	1.023	93.74	1.067	0.04	0.064	0.070
	WLAN2.4GHz	802.11g 6Mbps	Right Tilted	0mm	Ant 4+3(3)	Index 3/4	6	2437	11.50	11.50	1.000	93.74	1.067	-0.04	0.009	0.010
	WLAN2.4GHz	802.11g 6Mbps	Left Cheek	0mm	Ant 4+3(4)	Index 3/4	6	2437	11.40	11.50	1.023	93.74	1.067	0	0.186	0.203
	WLAN2.4GHz	802.11g 6Mbps	Left Cheek	0mm	Ant 4+3(3)	Index 3/4	6	2437	11.50	11.50	1.000	93.74	1.067	-0.03	0.051	0.054
	WLAN2.4GHz	802.11g 6Mbps	Left Tilted	0mm	Ant 4+3(4)	Index 3/4	6	2437	11.40	11.50	1.023	93.74	1.067	0.02	0.200	0.218
	WLAN2.4GHz	802.11g 6Mbps	Left Tilted	0mm	Ant 4+3(3)	Index 3/4	6	2437	11.50	11.50	1.000	93.74	1.067	0	0.001	0.001
	WLAN2.4GHz	802.11g 6Mbps	Left Tilted	0mm	Ant 4+3(4)	Index 3/4	1	2412	11.30	11.50	1.047	93.74	1.067	0.04	0.190	0.212
	WLAN2.4GHz	802.11g 6Mbps	Left Tilted	0mm	Ant 4+3(3)	Index 3/4	1	2412	11.20	11.50	1.072	93.74	1.067	0	0.001	0.001
	WLAN2.4GHz	802.11g 6Mbps	Left Tilted	0mm	Ant 4+3(4)	Index 3/4	11	2462	11.10	11.50	1.096	93.74	1.067	-0.01	0.121	0.142
	WLAN2.4GHz	802.11g 6Mbps	Left Tilted	0mm	Ant 4+3(3)	Index 3/4	11	2462	11.30	11.50	1.047	93.74	1.067	0	0.001	0.001





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)
110	WLAN5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 4+3(4)	Index 1	54	5270	17.40	19.00	1.445	96.15	1.040	0.01	0.354	0.532
	WLAN5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 4+3(3)	Index 1	54	5270	17.80	19.00	1.318	96.15	1.040	0	0.519	0.712
	WLAN5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 4+3(4)	Index 1	62	5310	16.50	17.00	1.122	96.15	1.040	0.03	0.209	0.244
	WLAN5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 4+3(3)	Index 1	62	5310	16.30	17.00	1.175	96.15	1.040	0.01	0.306	0.374
	WLAN5GHz	802.11n-HT40 MCS0	Right Tilted	0mm	Ant 4+3(4)	Index 1	54	5270	17.40	19.00	1.445	96.15	1.040	0	0.292	0.439
	WLAN5GHz	802.11n-HT40 MCS0	Right Tilted	0mm	Ant 4+3(3)	Index 1	54	5270	17.80	19.00	1.318	96.15	1.040	-0.01	0.351	0.481
	WLAN5GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 4+3(4)	Index 1	54	5270	17.40	19.00	1.445	96.15	1.040	0.06	0.402	0.604
	WLAN5GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 4+3(3)	Index 1	54	5270	17.80	19.00	1.318	96.15	1.040	-0.01	0.374	0.513
	WLAN5GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 4+3(4)	Index 1	54	5270	17.40	19.00	1.445	96.15	1.040	-0.01	0.314	0.472
	WLAN5GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 4+3(3)	Index 1	54	5270	17.80	19.00	1.318	96.15	1.040	0.02	0.387	0.531
	WLAN5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 4+3(4)	Index 2	54	5270	17.40	18.00	1.148	96.15	1.040	0.01	0.354	0.423
	WLAN5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 4+3(3)	Index 2	54	5270	17.80	18.00	1.047	96.15	1.040	0	0.519	0.565
	WLAN5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 4+3(4)	Index 2	62	5310	16.50	17.00	1.122	96.15	1.040	0.03	0.209	0.244
	WLAN5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 4+3(3)	Index 2	62	5310	16.30	17.00	1.175	96.15	1.040	0.01	0.306	0.374
	WLAN5GHz	802.11n-HT40 MCS0	Right Tilted	0mm	Ant 4+3(4)	Index 2	54	5270	17.40	18.00	1.148	96.15	1.040	0	0.292	0.349
	WLAN5GHz	802.11n-HT40 MCS0	Right Tilted	0mm	Ant 4+3(3)	Index 2	54	5270	17.80	18.00	1.047	96.15	1.040	-0.01	0.351	0.382
	WLAN5GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 4+3(4)	Index 2	54	5270	17.40	18.00	1.148	96.15	1.040	0.06	0.402	0.480
	WLAN5GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 4+3(3)	Index 2	54	5270	17.80	18.00	1.047	96.15	1.040	-0.01	0.374	0.407
	WLAN5GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 4+3(4)	Index 2	54	5270	17.40	18.00	1.148	96.15	1.040	-0.01	0.314	0.375
	WLAN5GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 4+3(3)	Index 2	54	5270	17.80	18.00	1.047	96.15	1.040	0.02	0.387	0.421
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 4+3(4)	Index 3/4	50	5250	13.70	14.50	1.202	87.06	1.149	-0.01	0.140	0.193
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 4+3(3)	Index 3/4	50	5250	14.20	14.50	1.072	87.06	1.149	0	0.228	0.281
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 4+3(4)	Index 3/4	50	5250	13.70	14.50	1.202	87.06	1.149	0	0.001	0.001
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 4+3(3)	Index 3/4	50	5250	14.20	14.50	1.072	87.06	1.149	0.05	0.121	0.149
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 4+3(4)	Index 3/4	50	5250	13.70	14.50	1.202	87.06	1.149	-0.11	0.170	0.235
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 4+3(3)	Index 3/4	50	5250	14.20	14.50	1.072	87.06	1.149	0.17	0.232	0.286
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 4+3(4)	Index 3/4	50	5250	13.70	14.50	1.202	87.06	1.149	0.04	0.174	0.240
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 4+3(3)	Index 3/4	50	5250	14.20	14.50	1.072	87.06	1.149	0	0.001	0.001



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)
111	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 4+3(4)	Index 1	122	5610	16.70	18.00	1.349	87.81	1.139	0.08	0.240	0.369
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 4+3(3)	Index 1	122	5610	17.00	18.00	1.259	87.81	1.139	0.05	0.304	0.436
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 4+3(4)	Index 1	106	5530	15.80	16.50	1.175	87.81	1.139	0.06	0.151	0.202
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 4+3(3)	Index 1	106	5530	15.90	16.50	1.148	87.81	1.139	-0.01	0.191	0.250
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 4+3(4)	Index 1	138	5690	16.40	18.00	1.445	87.81	1.139	0.02	0.187	0.308
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 4+3(3)	Index 1	138	5690	16.80	18.00	1.318	87.81	1.139	-0.04	0.237	0.356
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 4+3(4)	Index 1	122	5610	16.70	18.00	1.349	87.81	1.139	-0.06	0.257	0.395
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 4+3(3)	Index 1	122	5610	17.00	18.00	1.259	87.81	1.139	0.14	0.281	0.403
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 4+3(4)	Index 1	122	5610	16.70	18.00	1.349	87.81	1.139	0.04	0.277	0.426
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 4+3(3)	Index 1	122	5610	17.00	18.00	1.259	87.81	1.139	-0.03	0.222	0.318
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 4+3(4)	Index 1	122	5610	16.70	18.00	1.349	87.81	1.139	-0.02	0.247	0.380
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 4+3(3)	Index 1	122	5610	17.00	18.00	1.259	87.81	1.139	0.06	0.270	0.387
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 4+3(4)	Index 2	122	5610	16.70	17.50	1.202	87.81	1.139	0.08	0.240	0.329
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 4+3(3)	Index 2	122	5610	17.00	17.50	1.122	87.81	1.139	0.05	0.304	0.389
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 4+3(4)	Index 2	106	5530	15.80	16.50	1.175	87.81	1.139	0.06	0.151	0.202
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 4+3(3)	Index 2	106	5530	15.90	16.50	1.148	87.81	1.139	-0.01	0.191	0.250
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 4+3(4)	Index 2	138	5690	16.40	17.50	1.288	87.81	1.139	0.02	0.187	0.274
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 4+3(3)	Index 2	138	5690	16.80	17.50	1.175	87.81	1.139	-0.04	0.237	0.317
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 4+3(4)	Index 2	122	5610	16.70	17.50	1.202	87.81	1.139	-0.06	0.257	0.352
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 4+3(3)	Index 2	122	5610	17.00	17.50	1.122	87.81	1.139	0.14	0.281	0.359
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 4+3(4)	Index 2	122	5610	16.70	17.50	1.202	87.81	1.139	0.04	0.277	0.379
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 4+3(3)	Index 2	122	5610	17.00	17.50	1.122	87.81	1.139	-0.03	0.222	0.284
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 4+3(4)	Index 2	122	5610	16.70	17.50	1.202	87.81	1.139	-0.02	0.247	0.338
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 4+3(3)	Index 2	122	5610	17.00	17.50	1.122	87.81	1.139	0.06	0.270	0.345
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 4+3(4)	Index 3/4	114	5570	12.70	13.50	1.202	87.06	1.149	-0.17	0.070	0.097
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 4+3(3)	Index 3/4	114	5570	12.70	13.50	1.202	87.06	1.149	0.05	0.174	0.240
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 4+3(4)	Index 3/4	114	5570	12.70	13.50	1.202	87.06	1.149	0.12	0.072	0.099
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 4+3(3)	Index 3/4	114	5570	12.70	13.50	1.202	87.06	1.149	0.12	0.101	0.140
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 4+3(4)	Index 3/4	114	5570	12.70	13.50	1.202	87.06	1.149	0.07	0.159	0.219
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 4+3(3)	Index 3/4	114	5570	12.70	13.50	1.202	87.06	1.149	-0.13	0.213	0.294
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 4+3(4)	Index 3/4	114	5570	12.70	13.50	1.202	87.06	1.149	-0.05	0.127	0.175
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 4+3(3)	Index 3/4	114	5570	12.70	13.50	1.202	87.06	1.149	0	0.001	0.001





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)
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 4+3(4)	Index 1	155	5775	18.50	19.00	1.122	87.81	1.139	0.02	0.400	0.511
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 4+3(3)	Index 1	155	5775	18.60	19.00	1.096	87.81	1.139	-0.03	0.389	0.486
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 4+3(4)	Index 1	155	5775	18.50	19.00	1.122	87.81	1.139	0.04	0.281	0.359
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 4+3(3)	Index 1	155	5775	18.60	19.00	1.096	87.81	1.139	0.06	0.014	0.017
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 4+3(4)	Index 1	155	5775	18.50	19.00	1.122	87.81	1.139	-0.02	0.542	0.693
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 4+3(3)	Index 1	155	5775	18.60	19.00	1.096	87.81	1.139	-0.09	0.568	0.709
112	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 4+3(4)	Index 1	155	5775	18.50	19.00	1.122	87.81	1.139	0.03	0.619	0.791
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	10mm	Ant 4+3(3)	Index 1	155	5775	18.60	19.00	1.096	87.81	1.139	-0.01	0.031	0.039
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 4+3(4)	Index 2	155	5775	16.70	17.50	1.202	87.81	1.139	0.03	0.347	0.475
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 4+3(3)	Index 2	155	5775	16.90	17.50	1.148	87.81	1.139	-0.04	0.361	0.472
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 4+3(4)	Index 2	155	5775	16.70	17.50	1.202	87.81	1.139	0.1	0.184	0.252
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 4+3(3)	Index 2	155	5775	16.90	17.50	1.148	87.81	1.139	0.03	0.009	0.012
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 4+3(4)	Index 2	155	5775	16.70	17.50	1.202	87.81	1.139	0.11	0.416	0.570
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 4+3(3)	Index 2	155	5775	16.90	17.50	1.148	87.81	1.139	-0.09	0.432	0.565
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 4+3(4)	Index 2	155	5775	16.70	17.50	1.202	87.81	1.139	0.13	0.397	0.544
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 4+3(3)	Index 2	155	5775	16.90	17.50	1.148	87.81	1.139	0.06	0.019	0.025
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 4+3(4)	Index 3/4	155	5775	13.20	14.00	1.202	87.81	1.139	-0.16	0.104	0.142
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 4+3(3)	Index 3/4	155	5775	13.30	14.00	1.175	87.81	1.139	-0.12	0.111	0.149
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 4+3(4)	Index 3/4	155	5775	13.20	14.00	1.202	87.81	1.139	0.09	0.088	0.121
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 4+3(3)	Index 3/4	155	5775	13.30	14.00	1.175	87.81	1.139	-0.11	0.088	0.118
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 4+3(4)	Index 3/4	155	5775	13.20	14.00	1.202	87.81	1.139	-0.11	0.164	0.225
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 4+3(3)	Index 3/4	155	5775	13.30	14.00	1.175	87.81	1.139	0.1	0.162	0.217
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 4+3(4)	Index 3/4	155	5775	13.20	14.00	1.202	87.81	1.139	0.09	0.194	0.266
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 4+3(3)	Index 3/4	155	5775	13.30	14.00	1.175	87.81	1.139	0	0.001	0.001
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 4+3(4)	Index 1	163	5815	16.80	17.50	1.175	87.06	1.149	0.13	0.337	0.455
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 4+3(3)	Index 1	163	5815	17.30	17.50	1.047	87.06	1.149	0.14	0.331	0.398
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 4+3(4)	Index 1	163	5815	16.80	17.50	1.175	87.06	1.149	-0.1	0.250	0.337
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 4+3(3)	Index 1	163	5815	17.30	17.50	1.047	87.06	1.149	0.02	0.010	0.012
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 4+3(4)	Index 1	163	5815	16.80	17.50	1.175	87.06	1.149	0.12	0.480	0.648
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 4+3(3)	Index 1	163	5815	17.30	17.50	1.047	87.06	1.149	-0.04	0.471	0.567
113	WLAN5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 4+3(4)	Index 1	163	5815	16.80	17.50	1.175	87.06	1.149	0.03	0.535	0.722
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Tilted	10mm	Ant 4+3(3)	Index 1	163	5815	17.30	17.50	1.047	87.06	1.149	-0.03	0.021	0.025
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 4+3(4)	Index 2	163	5815	16.10	16.50	1.096	87.06	1.149	0.08	0.260	0.328
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 4+3(3)	Index 2	163	5815	16.10	16.50	1.096	87.06	1.149	-0.12	0.252	0.317
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 4+3(4)	Index 2	163	5815	16.10	16.50	1.096	87.06	1.149	0.1	0.203	0.256
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 4+3(3)	Index 2	163	5815	16.10	16.50	1.096	87.06	1.149	0.05	0.036	0.045
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 4+3(4)	Index 2	163	5815	16.10	16.50	1.096	87.06	1.149	0.06	0.370	0.466
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 4+3(3)	Index 2	163	5815	16.10	16.50	1.096	87.06	1.149	-0.15	0.359	0.452
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 4+3(4)	Index 2	163	5815	16.10	16.50	1.096	87.06	1.149	-0.08	0.435	0.548
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 4+3(3)	Index 2	163	5815	16.10	16.50	1.096	87.06	1.149	-0.02	0.078	0.098
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 4+3(4)	Index 3/4	163	5815	12.50	13.00	1.122	87.06	1.149	0.17	0.097	0.125
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 4+3(3)	Index 3/4	163	5815	12.50	13.00	1.122	87.06	1.149	0.08	0.109	0.141
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 4+3(4)	Index 3/4	163	5815	12.50	13.00	1.122	87.06	1.149	-0.01	0.075	0.097
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 4+3(3)	Index 3/4	163	5815	12.50	13.00	1.122	87.06	1.149	0.16	0.079	0.102
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 4+3(4)	Index 3/4	163	5815	12.50	13.00	1.122	87.06	1.149	0.12	0.148	0.191
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 4+3(3)	Index 3/4	163	5815	12.50	13.00	1.122	87.06	1.149	0.19	0.126	0.162
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 4+3(4)	Index 3/4	163	5815	12.50	13.00	1.122	87.06	1.149	-0.03	0.181	0.233
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 4+3(3)	Index 3/4	163	5815	12.50	13.00	1.122	87.06	1.149	0	0.001	0.001



<WLAN 6GHz 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 4+3(4)	Index 1/2/3/4	111	6505	15.20	16.00	1.202	85.92	1.164	-0.04	0.106	0.148	0.659	0.922
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	Ant 4+3(3)	Index 1/2/3/4	111	6505	15.90	16.00	1.023	85.92	1.164	0.19	0.163	0.194	0.978	1.165
	WLAN6GHz	802.11ax-HE160 MCS0	Right Tilted	0mm	Ant 4+3(4)	Index 1/2/3/4	111	6505	15.20	16.00	1.202	85.92	1.164	0.17	0.095	0.133	0.548	0.767
	WLAN6GHz	802.11ax-HE160 MCS0	Right Tilted	0mm	Ant 4+3(3)	Index 1/2/3/4	111	6505	15.90	16.00	1.023	85.92	1.164	0.16	0.123	0.147	0.883	1.052
	WLAN6GHz	802.11ax-HE160 MCS0	Left Cheek	0mm	Ant 4+3(4)	Index 1/2/3/4	111	6505	15.20	16.00	1.202	85.92	1.164	0.1	0.183	0.256	1.080	1.511
	WLAN6GHz	802.11ax-HE160 MCS0	Left Cheek	0mm	Ant 4+3(3)	Index 1/2/3/4	111	6505	15.90	16.00	1.023	85.92	1.164	0.01	0.106	0.126	0.791	0.942
	WLAN6GHz	802.11ax-HE160 MCS0	Left Cheek	0mm	Ant 4+3(4)	Index 1/2/3/4	15	6025	13.00	13.50	1.122	85.92	1.164	-0.12	0.195	0.255	1.310	1.711
	WLAN6GHz	802.11ax-HE160 MCS0	Left Cheek	0mm	Ant 4+3(3)	Index 1/2/3/4	15	6025	13.40	13.50	1.023	85.92	1.164	-0.05	0.175	0.208	1.360	1.620
	WLAN6GHz	802.11ax-HE160 MCS0	Left Cheek	0mm	Ant 4+3(4)	Index 1/2/3/4	47	6185	13.00	13.50	1.122	85.92	1.164	0.08	0.098	0.128	0.620	0.810
	WLAN6GHz	802.11ax-HE160 MCS0	Left Cheek	0mm	Ant 4+3(3)	Index 1/2/3/4	47	6185	13.40	13.50	1.023	85.92	1.164	0.08	0.081	0.096	0.600	0.715
	WLAN6GHz	802.11ax-HE160 MCS0	Left Cheek	0mm	Ant 4+3(4)	Index 1/2/3/4	143	6665	15.10	16.00	1.230	85.92	1.164	0.03	0.197	0.282	1.180	1.690
	WLAN6GHz	802.11ax-HE160 MCS0	Left Cheek	0mm	Ant 4+3(3)	Index 1/2/3/4	143	6665	15.00	16.00	1.259	85.92	1.164	0.03	0.111	0.163	0.880	1.290
114	WLAN6GHz	802.11ax-HE160 MCS0	Left Cheek	0mm	Ant 4+3(4)	Index 1/2/3/4	207	6985	15.00	15.00	1.000	85.92	1.164	0.07	0.250	0.291	1.650	1.921
	WLAN6GHz	802.11ax-HE160 MCS0	Left Cheek	0mm	Ant 4+3(3)	Index 1/2/3/4	207	6985	14.50	15.00	1.122	85.92	1.164	0.04	0.065	0.085	0.497	0.649
	WLAN6GHz	802.11ax-HE160 MCS0	Left Tilted	0mm	Ant 4+3(4)	Index 1/2/3/4	111	6505	15.20	16.00	1.202	85.92	1.164	-0.04	0.180	0.252	1.050	1.469
	WLAN6GHz	802.11ax-HE160 MCS0	Left Tilted	0mm	Ant 4+3(3)	Index 1/2/3/4	111	6505	15.90	16.00	1.023	85.92	1.164	-0.01	0.066	0.079	0.323	0.385

<Bluetooth 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)
	Bluetooth	1Mbps	Right Cheek	0mm	Ant 4	Index 1	78	2480	8.80	9.00	1.047	76.76	1.085	0.17	0.027	0.031
	Bluetooth	1Mbps	Right Tilted	0mm	Ant 4	Index 1	78	2480	8.80	9.00	1.047	76.76	1.085	0.14	0.034	0.039
	Bluetooth	1Mbps	Left Cheek	0mm	Ant 4	Index 1	78	2480	8.80	9.00	1.047	76.76	1.085	-0.02	0.093	0.106
	Bluetooth	1Mbps	Left Tilted	0mm	Ant 4	Index 1	78	2480	8.80	9.00	1.047	76.76	1.085	0.02	0.100	0.114
	Bluetooth	1Mbps	Left Tilted	0mm	Ant 4	Index 1	0	2402	8.30	9.00	1.175	76.76	1.085	0.04	0.063	0.080
	Bluetooth	1Mbps	Left Tilted	0mm	Ant 4	Index 1	39	2441	8.60	9.00	1.096	76.76	1.085	0.07	0.113	0.134
	Bluetooth	1Mbps	Right Cheek	0mm	Ant 3	Index 1	0	2402	8.60	9.00	1.096	77.26	1.078	0.07	0.038	0.045
	Bluetooth	1Mbps	Right Cheek	0mm	Ant 3	Index 1	39	2441	8.40	9.00	1.148	77.26	1.078	0.05	0.044	0.054
	Bluetooth	1Mbps	Right Cheek	0mm	Ant 3	Index 1	78	2480	8.50	9.00	1.122	77.26	1.078	0.02	0.054	0.065
	Bluetooth	1Mbps	Right Tilted	0mm	Ant 3	Index 1	0	2402	8.60	9.00	1.096	77.26	1.078	-0.19	0.006	0.007
	Bluetooth	1Mbps	Left Cheek	0mm	Ant 3	Index 1	0	2402	8.60	9.00	1.096	77.26	1.078	-0.04	0.037	0.044
	Bluetooth	1Mbps	Left Tilted	0mm	Ant 3	Index 1	0	2402	8.60	9.00	1.096	77.26	1.078	0.13	0.003	0.004
	Bluetooth	1Mbps	Right Cheek	0mm	Ant 4+3(4)	Index 1	0	2402	8.50	9.00	1.122	77.2	1.079	0.07	0.029	0.035
	Bluetooth	1Mbps	Right Cheek	0mm	Ant 4+3(3)	Index 1	0	2402	8.40	9.00	1.148	77.2	1.079	-0.11	0.026	0.032
	Bluetooth	1Mbps	Right Tilted	0mm	Ant 4+3(4)	Index 1	0	2402	8.50	9.00	1.122	77.2	1.079	0.1	0.030	0.036
	Bluetooth	1Mbps	Right Tilted	0mm	Ant 4+3(3)	Index 1	0	2402	8.40	9.00	1.148	77.2	1.079	0	0.001	0.001
	Bluetooth	1Mbps	Left Cheek	0mm	Ant 4+3(4)	Index 1	0	2402	8.50	9.00	1.122	77.2	1.079	0.03	0.074	0.090
	Bluetooth	1Mbps	Left Cheek	0mm	Ant 4+3(3)	Index 1	0	2402	8.40	9.00	1.148	77.2	1.079	0	0.026	0.032
	Bluetooth	1Mbps	Left Tilted	0mm	Ant 4+3(4)	Index 1	0	2402	8.50	9.00	1.122	77.2	1.079	0.11	0.093	0.113
	Bluetooth	1Mbps	Left Tilted	0mm	Ant 4+3(3)	Index 1	0	2402	8.40	9.00	1.148	77.2	1.079	0.03	0.001	0.001
115	Bluetooth	1Mbps	Left Tilted	0mm	Ant 4+3(4)	Index 1	39	2441	8.40	9.00	1.148	77.2	1.079	-0.01	0.166	0.206
	Bluetooth	1Mbps	Left Tilted	0mm	Ant 4+3(3)	Index 1	39	2441	8.60	9.00	1.096	77.2	1.079	-0.01	0.001	0.001
	Bluetooth	1Mbps	Left Tilted	0mm	Ant 4+3(4)	Index 1	78	2480	8.00	9.00	1.259	77.2	1.079	0.19	0.076	0.103
	Bluetooth	1Mbps	Left Tilted	0mm	Ant 4+3(3)	Index 1	78	2480	8.60	9.00	1.096	77.2	1.079	0.09	0.001	0.001



18.2 Hotspot SAR

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	GSM850_Ant 1	GPRS (4 Tx slots)	Front	10mm	Index 4	189	836.4	28.33	28.90	1.140	-0.15	0.309	0.352
116	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	Index 4	189	836.4	28.33	28.90	1.140	-0.07	0.635	0.724
	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	Index 4	128	824.2	28.32	28.90	1.143	0.1	0.538	0.615
	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	Index 4	251	848.8	28.22	28.90	1.169	-0.05	0.599	0.701
	GSM850_Ant 1	GPRS (4 Tx slots)	Left Side	10mm	Index 4	189	836.4	28.33	28.90	1.140	-0.13	0.206	0.235
	GSM850_Ant 1	GPRS (4 Tx slots)	Right Side	10mm	Index 4	189	836.4	28.33	28.90	1.140	-0.01	0.152	0.173
	GSM850_Ant 1	GPRS (4 Tx slots)	Top Side	10mm	Index 4	189	836.4	28.33	28.90	1.140	-0.05	0.265	0.302

<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA V_Ant 1	RMC 12.2Kbps	Front	10mm	Index 4	4132	826.4	24.68	25.50	1.208	-0.04	0.264	0.319
	WCDMA V_Ant 1	RMC 12.2Kbps	Back	10mm	Index 4	4132	826.4	24.68	25.50	1.208	0.14	0.492	0.594
	WCDMA V_Ant 1	RMC 12.2Kbps	Back	10mm	Index 4	4182	836.4	24.61	25.50	1.227	0.14	0.458	0.562
117	WCDMA V_Ant 1	RMC 12.2Kbps	Back	10mm	Index 4	4233	846.6	24.54	25.50	1.247	-0.06	0.485	0.605
	WCDMA V_Ant 1	RMC 12.2Kbps	Left Side	10mm	Index 4	4132	826.4	24.68	25.50	1.208	0.03	0.185	0.223
	WCDMA V_Ant 1	RMC 12.2Kbps	Right Side	10mm	Index 4	4132	826.4	24.68	25.50	1.208	-0.01	0.149	0.180
	WCDMA V_Ant 1	RMC 12.2Kbps	Top Side	10mm	Index 4	4132	826.4	24.68	25.50	1.208	-0.03	0.199	0.240



<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 2_Ant 1	20M	QPSK	1	0	Front	10mm	Index 4	19100	1900	20.55	20.80	1.059	0.06	0.262	0.278
	LTE Band 2_Ant 1	20M	QPSK	50	0	Front	10mm	Index 4	19100	1900	20.47	20.80	1.079	0.02	0.223	0.241
	LTE Band 2_Ant 1	20M	QPSK	1	0	Back	10mm	Index 4	19100	1900	20.55	20.80	1.059	-0.16	0.282	0.299
	LTE Band 2_Ant 1	20M	QPSK	50	0	Back	10mm	Index 4	19100	1900	20.47	20.80	1.079	-0.13	0.240	0.259
	LTE Band 2_Ant 1	20M	QPSK	1	0	Left Side	10mm	Index 4	19100	1900	20.55	20.80	1.059	-0.01	0.080	0.085
	LTE Band 2_Ant 1	20M	QPSK	50	0	Left Side	10mm	Index 4	19100	1900	20.47	20.80	1.079	-0.17	0.072	0.078
	LTE Band 2_Ant 1	20M	QPSK	1	0	Right Side	10mm	Index 4	19100	1900	20.55	20.80	1.059	-0.19	0.010	0.011
	LTE Band 2_Ant 1	20M	QPSK	50	0	Right Side	10mm	Index 4	19100	1900	20.47	20.80	1.079	0.04	0.001	0.001
118	LTE Band 2_Ant 1	20M	QPSK	1	0	Top Side	10mm	Index 4	19100	1900	20.55	20.80	1.059	-0.04	0.548	0.580
	LTE Band 2_Ant 1	20M	QPSK	1	0	Top Side	10mm	Index 4	18700	1860	20.25	20.80	1.135	-0.15	0.465	0.528
	LTE Band 2_Ant 1	20M	QPSK	1	0	Top Side	10mm	Index 4	18900	1880	20.36	20.80	1.107	0.02	0.524	0.580
	LTE Band 2_Ant 1	20M	QPSK	50	0	Top Side	10mm	Index 4	19100	1900	20.47	20.80	1.079	-0.05	0.495	0.534
	LTE Band 12_Ant 1	10M	QPSK	1	0	Front	10mm	Index 4	23095	707.5	24.64	25.50	1.219	-0.01	0.159	0.194
	LTE Band 12_Ant 1	10M	QPSK	25	0	Front	10mm	Index 4	23095	707.5	23.76	24.50	1.186	0.15	0.131	0.155
119	LTE Band 12_Ant 1	10M	QPSK	1	0	Back	10mm	Index 4	23095	707.5	24.64	25.50	1.219	-0.01	0.214	0.261
	LTE Band 12_Ant 1	10M	QPSK	25	0	Back	10mm	Index 4	23095	707.5	23.76	24.50	1.186	0.02	0.182	0.216
	LTE Band 12_Ant 1	10M	QPSK	1	0	Left Side	10mm	Index 4	23095	707.5	24.64	25.50	1.219	-0.01	0.135	0.165
	LTE Band 12_Ant 1	10M	QPSK	25	0	Left Side	10mm	Index 4	23095	707.5	23.76	24.50	1.186	0.07	0.111	0.132
	LTE Band 12_Ant 1	10M	QPSK	1	0	Right Side	10mm	Index 4	23095	707.5	24.64	25.50	1.219	-0.07	0.172	0.210
	LTE Band 12_Ant 1	10M	QPSK	25	0	Right Side	10mm	Index 4	23095	707.5	23.76	24.50	1.186	-0.04	0.166	0.197
	LTE Band 12_Ant 1	10M	QPSK	1	0	Top Side	10mm	Index 4	23095	707.5	24.64	25.50	1.219	0	0.098	0.119
	LTE Band 12_Ant 1	10M	QPSK	25	0	Top Side	10mm	Index 4	23095	707.5	23.76	24.50	1.186	0.14	0.079	0.094
	LTE Band 13_Ant 1	10M	QPSK	1	0	Front	10mm	Index 4	23230	782	24.65	25.50	1.216	-0.15	0.227	0.276
	LTE Band 13_Ant 1	10M	QPSK	25	0	Front	10mm	Index 4	23230	782	23.74	24.50	1.191	0.06	0.192	0.229
120	LTE Band 13_Ant 1	10M	QPSK	1	0	Back	10mm	Index 4	23230	782	24.65	25.50	1.216	0.03	0.344	0.418
	LTE Band 13_Ant 1	10M	QPSK	25	0	Back	10mm	Index 4	23230	782	23.74	24.50	1.191	0.11	0.307	0.366
	LTE Band 13_Ant 1	10M	QPSK	1	0	Left Side	10mm	Index 4	23230	782	24.65	25.50	1.216	-0.1	0.137	0.167
	LTE Band 13_Ant 1	10M	QPSK	25	0	Left Side	10mm	Index 4	23230	782	23.74	24.50	1.191	0.04	0.125	0.149
	LTE Band 13_Ant 1	10M	QPSK	1	0	Right Side	10mm	Index 4	23230	782	24.65	25.50	1.216	-0.01	0.164	0.199
	LTE Band 13_Ant 1	10M	QPSK	25	0	Right Side	10mm	Index 4	23230	782	23.74	24.50	1.191	-0.1	0.131	0.156
	LTE Band 13_Ant 1	10M	QPSK	1	0	Top Side	10mm	Index 4	23230	782	24.65	25.50	1.216	-0.08	0.153	0.186
	LTE Band 13_Ant 1	10M	QPSK	25	0	Top Side	10mm	Index 4	23230	782	23.74	24.50	1.191	0.05	0.118	0.141
	LTE Band 14_Ant 1	10M	QPSK	1	0	Front	10mm	Index 4	23330	793	24.69	25.50	1.205	-0.02	0.271	0.327
	LTE Band 14_Ant 1	10M	QPSK	25	0	Front	10mm	Index 4	23330	793	23.67	24.50	1.211	0.07	0.218	0.264
121	LTE Band 14_Ant 1	10M	QPSK	1	0	Back	10mm	Index 4	23330	793	24.69	25.50	1.205	-0.09	0.359	0.433
	LTE Band 14_Ant 1	10M	QPSK	25	0	Back	10mm	Index 4	23330	793	23.67	24.50	1.211	0.01	0.316	0.383
	LTE Band 14_Ant 1	10M	QPSK	1	0	Left Side	10mm	Index 4	23330	793	24.69	25.50	1.205	-0.09	0.056	0.067
	LTE Band 14_Ant 1	10M	QPSK	25	0	Left Side	10mm	Index 4	23330	793	23.67	24.50	1.211	-0.07	0.049	0.059
	LTE Band 14_Ant 1	10M	QPSK	1	0	Right Side	10mm	Index 4	23330	793	24.69	25.50	1.205	-0.02	0.081	0.098
	LTE Band 14_Ant 1	10M	QPSK	25	0	Right Side	10mm	Index 4	23330	793	23.67	24.50	1.211	0.1	0.063	0.076
	LTE Band 14_Ant 1	10M	QPSK	1	0	Top Side	10mm	Index 4	23330	793	24.69	25.50	1.205	-0.01	0.102	0.123
	LTE Band 14_Ant 1	10M	QPSK	25	0	Top Side	10mm	Index 4	23330	793	23.67	24.50	1.211	0.19	0.097	0.117



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 26_Ant 1	15M	QPSK	1	0	Front	10mm	Index 4	26865	831.5	24.32	25.40	1.282	-0.01	0.271	0.348
	LTE Band 26_Ant 1	15M	QPSK	36	0	Front	10mm	Index 4	26865	831.5	23.34	24.40	1.276	0.11	0.230	0.294
122	LTE Band 26_Ant 1	15M	QPSK	1	0	Back	10mm	Index 4	26865	831.5	24.32	25.40	1.282	-0.02	0.498	0.639
	LTE Band 26_Ant 1	15M	QPSK	36	0	Back	10mm	Index 4	26865	831.5	23.34	24.40	1.276	-0.08	0.423	0.540
	LTE Band 26_Ant 1	15M	QPSK	1	0	Left Side	10mm	Index 4	26865	831.5	24.32	25.40	1.282	-0.11	0.145	0.186
	LTE Band 26_Ant 1	15M	QPSK	36	0	Left Side	10mm	Index 4	26865	831.5	23.34	24.40	1.276	-0.01	0.133	0.170
	LTE Band 26_Ant 1	15M	QPSK	1	0	Right Side	10mm	Index 4	26865	831.5	24.32	25.40	1.282	-0.02	0.167	0.214
	LTE Band 26_Ant 1	15M	QPSK	36	0	Right Side	10mm	Index 4	26865	831.5	23.34	24.40	1.276	-0.15	0.138	0.176
	LTE Band 26_Ant 1	15M	QPSK	1	0	Top Side	10mm	Index 4	26865	831.5	24.32	25.40	1.282	-0.04	0.197	0.253
	LTE Band 26_Ant 1	15M	QPSK	36	0	Top Side	10mm	Index 4	26865	831.5	23.34	24.40	1.276	-0.05	0.186	0.237
	LTE Band 5B_Ant 1	10M+10M	QPSK	1	0	Back	10mm	Index 4	20475	831.5	22.60	24.10	1.413	0.07	0.342	0.483
	LTE Band 66_Ant 1	20M	QPSK	1	0	Front	10mm	Index 4	132322	1745	21.77	22.00	1.054	-0.01	0.340	0.358
	LTE Band 66_Ant 1	20M	QPSK	50	0	Front	10mm	Index 4	132322	1745	21.74	22.00	1.062	-0.1	0.300	0.319
	LTE Band 66_Ant 1	20M	QPSK	1	0	Back	10mm	Index 4	132322	1745	21.77	22.00	1.054	0.01	0.360	0.380
	LTE Band 66_Ant 1	20M	QPSK	50	0	Back	10mm	Index 4	132322	1745	21.74	22.00	1.062	-0.07	0.303	0.322
	LTE Band 66_Ant 1	20M	QPSK	1	0	Left Side	10mm	Index 4	132322	1745	21.77	22.00	1.054	0.04	0.105	0.111
	LTE Band 66_Ant 1	20M	QPSK	50	0	Left Side	10mm	Index 4	132322	1745	21.74	22.00	1.062	0.05	0.073	0.078
	LTE Band 66_Ant 1	20M	QPSK	1	0	Right Side	10mm	Index 4	132322	1745	21.77	22.00	1.054	-0.09	0.024	0.025
	LTE Band 66_Ant 1	20M	QPSK	50	0	Right Side	10mm	Index 4	132322	1745	21.74	22.00	1.062	-0.08	0.018	0.019
123	LTE Band 66_Ant 1	20M	QPSK	1	0	Top Side	10mm	Index 4	132322	1745	21.77	22.00	1.054	-0.03	0.664	0.700
	LTE Band 66_Ant 1	20M	QPSK	1	0	Top Side	10mm	Index 4	132072	1720	21.59	22.00	1.099	0.04	0.629	0.691
	LTE Band 66_Ant 1	20M	QPSK	1	0	Top Side	10mm	Index 4	132572	1770	21.58	22.00	1.102	0.17	0.561	0.618
	LTE Band 66_Ant 1	20M	QPSK	50	0	Top Side	10mm	Index 4	132322	1745	21.74	22.00	1.062	-0.17	0.597	0.634
	LTE Band 71_Ant 1	20M	QPSK	1	0	Front	10mm	Index 4	133297	680.5	24.42	25.50	1.282	-0.12	0.244	0.313
	LTE Band 71_Ant 1	20M	QPSK	50	0	Front	10mm	Index 4	133297	680.5	23.38	24.50	1.294	-0.08	0.212	0.274
124	LTE Band 71_Ant 1	20M	QPSK	1	0	Back	10mm	Index 4	133297	680.5	24.42	25.50	1.282	-0.16	0.290	0.372
	LTE Band 71_Ant 1	20M	QPSK	50	0	Back	10mm	Index 4	133297	680.5	23.38	24.50	1.294	0.03	0.257	0.333
	LTE Band 71_Ant 1	20M	QPSK	1	0	Left Side	10mm	Index 4	133297	680.5	24.42	25.50	1.282	-0.12	0.147	0.189
	LTE Band 71_Ant 1	20M	QPSK	50	0	Left Side	10mm	Index 4	133297	680.5	23.38	24.50	1.294	0.18	0.121	0.157
	LTE Band 71_Ant 1	20M	QPSK	1	0	Right Side	10mm	Index 4	133297	680.5	24.42	25.50	1.282	-0.16	0.117	0.150
	LTE Band 71_Ant 1	20M	QPSK	50	0	Right Side	10mm	Index 4	133297	680.5	23.38	24.50	1.294	-0.02	0.101	0.131
	LTE Band 71_Ant 1	20M	QPSK	1	0	Top Side	10mm	Index 4	133297	680.5	24.42	25.50	1.282	-0.03	0.109	0.140
	LTE Band 71_Ant 1	20M	QPSK	50	0	Top Side	10mm	Index 4	133297	680.5	23.38	24.50	1.294	-0.06	0.076	0.098



<5G NR SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	FR1 n2_Ant 1	20M	QPSK	1	1	Front	10mm	Index 4	376000	1880	20.50	20.80	1.072	-0.07	0.254	0.272
	FR1 n2_Ant 1	20M	QPSK	50	28	Front	10mm	Index 4	376000	1880	20.42	20.80	1.091	0.05	0.235	0.256
	FR1 n2_Ant 1	20M	QPSK	1	1	Back	10mm	Index 4	376000	1880	20.50	20.80	1.072	0.15	0.260	0.279
	FR1 n2_Ant 1	20M	QPSK	50	28	Back	10mm	Index 4	376000	1880	20.42	20.80	1.091	-0.01	0.241	0.263
	FR1 n2_Ant 1	20M	QPSK	1	1	Left Side	10mm	Index 4	376000	1880	20.50	20.80	1.072	-0.12	0.054	0.058
	FR1 n2_Ant 1	20M	QPSK	50	28	Left Side	10mm	Index 4	376000	1880	20.42	20.80	1.091	0.13	0.050	0.055
	FR1 n2_Ant 1	20M	QPSK	1	1	Right Side	10mm	Index 4	376000	1880	20.50	20.80	1.072	-0.09	0.005	0.005
	FR1 n2_Ant 1	20M	QPSK	50	28	Right Side	10mm	Index 4	376000	1880	20.42	20.80	1.091	0.13	0.003	0.003
125	FR1 n2_Ant 1	20M	QPSK	1	1	Top Side	10mm	Index 4	376000	1880	20.50	20.80	1.072	-0.07	0.639	0.685
	FR1 n2_Ant 1	20M	QPSK	50	28	Top Side	10mm	Index 4	376000	1880	20.42	20.80	1.091	0.05	0.602	0.657
	FR1 n5_Ant 1	20M	QPSK	1	1	Front	10mm	Index 4	167300	836.5	24.29	25.40	1.291	-0.11	0.054	0.070
	FR1 n5_Ant 1	20M	QPSK	50	28	Front	10mm	Index 4	167300	836.5	24.07	25.40	1.358	0.04	0.046	0.062
126	FR1 n5_Ant 1	20M	QPSK	1	1	Back	10mm	Index 4	167300	836.5	24.29	25.40	1.291	-0.08	0.084	0.108
	FR1 n5_Ant 1	20M	QPSK	50	28	Back	10mm	Index 4	167300	836.5	24.07	25.40	1.358	0.06	0.079	0.107
	FR1 n5_Ant 1	20M	QPSK	1	1	Left Side	10mm	Index 4	167300	836.5	24.29	25.40	1.291	-0.17	0.015	0.019
	FR1 n5_Ant 1	20M	QPSK	50	28	Left Side	10mm	Index 4	167300	836.5	24.07	25.40	1.358	-0.02	0.011	0.015
	FR1 n5_Ant 1	20M	QPSK	1	1	Right Side	10mm	Index 4	167300	836.5	24.29	25.40	1.291	-0.1	0.025	0.032
	FR1 n5_Ant 1	20M	QPSK	50	28	Right Side	10mm	Index 4	167300	836.5	24.07	25.40	1.358	-0.14	0.019	0.026
	FR1 n5_Ant 1	20M	QPSK	1	1	Top Side	10mm	Index 4	167300	836.5	24.29	25.40	1.291	0.08	0.056	0.072
	FR1 n5_Ant 1	20M	QPSK	50	28	Top Side	10mm	Index 4	167300	836.5	24.07	25.40	1.358	0.01	0.043	0.058
	FR1 n12_Ant 1	15M	QPSK	1	1	Front	10mm	Index 4	141500	707.5	24.55	25.20	1.161	-0.07	0.105	0.122
	FR1 n12_Ant 1	15M	QPSK	36	22	Front	10mm	Index 4	141500	707.5	24.43	25.20	1.194	0.05	0.089	0.106
127	FR1 n12_Ant 1	15M	QPSK	1	1	Back	10mm	Index 4	141500	707.5	24.55	25.20	1.161	-0.19	0.148	0.172
	FR1 n12_Ant 1	15M	QPSK	36	22	Back	10mm	Index 4	141500	707.5	24.43	25.20	1.194	-0.08	0.133	0.159
	FR1 n12_Ant 1	15M	QPSK	1	1	Left Side	10mm	Index 4	141500	707.5	24.55	25.20	1.161	-0.1	0.077	0.089
	FR1 n12_Ant 1	15M	QPSK	36	22	Left Side	10mm	Index 4	141500	707.5	24.43	25.20	1.194	0.03	0.072	0.086
	FR1 n12_Ant 1	15M	QPSK	1	1	Right Side	10mm	Index 4	141500	707.5	24.55	25.20	1.161	-0.15	0.105	0.122
	FR1 n12_Ant 1	15M	QPSK	36	22	Right Side	10mm	Index 4	141500	707.5	24.43	25.20	1.194	0.07	0.096	0.115
	FR1 n12_Ant 1	15M	QPSK	1	1	Top Side	10mm	Index 4	141500	707.5	24.55	25.20	1.161	-0.18	0.078	0.091
	FR1 n12_Ant 1	15M	QPSK	36	22	Top Side	10mm	Index 4	141500	707.5	24.43	25.20	1.194	0	0.067	0.080
	FR1 n41_Ant 1	100M	QPSK	1	1	Front	10mm	Index 4	518598	2592.99	20.32	21.10	1.197	-0.14	0.203	0.243
	FR1 n41_Ant 1	100M	QPSK	135	69	Front	10mm	Index 4	518598	2592.99	20.41	21.10	1.172	0.06	0.189	0.222
	FR1 n41_Ant 1	100M	QPSK	1	1	Back	10mm	Index 4	518598	2592.99	20.32	21.10	1.197	-0.1	0.222	0.266
	FR1 n41_Ant 1	100M	QPSK	135	69	Back	10mm	Index 4	518598	2592.99	20.41	21.10	1.172	0.05	0.205	0.240
	FR1 n41_Ant 1	100M	QPSK	1	1	Left Side	10mm	Index 4	518598	2592.99	20.32	21.10	1.197	-0.11	0.283	0.339
	FR1 n41_Ant 1	100M	QPSK	135	69	Left Side	10mm	Index 4	518598	2592.99	20.41	21.10	1.172	0.13	0.265	0.311
	FR1 n41_Ant 1	100M	QPSK	1	1	Right Side	10mm	Index 4	518598	2592.99	20.32	21.10	1.197	0.01	0.001	0.001
	FR1 n41_Ant 1	100M	QPSK	135	69	Right Side	10mm	Index 4	518598	2592.99	20.41	21.10	1.172	0.01	0.001	0.001
128	FR1 n41_Ant 1	100M	QPSK	1	1	Top Side	10mm	Index 4	518598	2592.99	20.32	21.10	1.197	-0.03	0.426	0.510
	FR1 n41_Ant 1	100M	QPSK	135	69	Top Side	10mm	Index 4	518598	2592.99	20.41	21.10	1.172	-0.06	0.419	0.491
	FR1 n41_HPUE_Ant 1	100M	QPSK	1	1	Top Side	10mm	Index 4	518598	2592.99	23.53	24.10	1.140	-0.07	0.424	0.483





Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	FR1 n66_Ant 1	40M	QPSK	1	1	Front	10mm	Index 4	349000	1745	21.98	22.30	1.076	0.07	0.279	0.300
	FR1 n66_Ant 1	40M	QPSK	108	54	Front	10mm	Index 4	349000	1745	21.84	22.30	1.112	0.03	0.263	0.292
	FR1 n66_Ant 1	40M	QPSK	1	1	Back	10mm	Index 4	349000	1745	21.98	22.30	1.076	-0.16	0.370	0.398
	FR1 n66_Ant 1	40M	QPSK	108	54	Back	10mm	Index 4	349000	1745	21.84	22.30	1.112	0.09	0.337	0.375
	FR1 n66_Ant 1	40M	QPSK	1	1	Left Side	10mm	Index 4	349000	1745	21.98	22.30	1.076	-0.07	0.130	0.140
	FR1 n66_Ant 1	40M	QPSK	108	54	Left Side	10mm	Index 4	349000	1745	21.84	22.30	1.112	-0.12	0.114	0.127
	FR1 n66_Ant 1	40M	QPSK	1	1	Right Side	10mm	Index 4	349000	1745	21.98	22.30	1.076	0.01	0.001	0.001
	FR1 n66_Ant 1	40M	QPSK	108	54	Right Side	10mm	Index 4	349000	1745	21.84	22.30	1.112	0.01	0.001	0.001
129	FR1 n66_Ant 1	40M	QPSK	1	1	Top Side	10mm	Index 4	349000	1745	21.98	22.30	1.076	-0.14	0.667	0.718
	FR1 n66_Ant 1	40M	QPSK	108	54	Top Side	10mm	Index 4	349000	1745	21.84	22.30	1.112	-0.02	0.633	0.704
	FR1 n71_Ant 1	20M	QPSK	1	1	Front	10mm	Index 4	136100	680.5	24.52	25.20	1.169	-0.1	0.158	0.185
	FR1 n71_Ant 1	20M	QPSK	50	28	Front	10mm	Index 4	136100	680.5	24.31	25.20	1.227	0.07	0.134	0.164
130	FR1 n71_Ant 1	20M	QPSK	1	1	Back	10mm	Index 4	136100	680.5	24.52	25.20	1.169	-0.18	0.168	0.196
	FR1 n71_Ant 1	20M	QPSK	50	28	Back	10mm	Index 4	136100	680.5	24.31	25.20	1.227	0.04	0.151	0.185
	FR1 n71_Ant 1	20M	QPSK	1	1	Left Side	10mm	Index 4	136100	680.5	24.52	25.20	1.169	-0.17	0.146	0.171
	FR1 n71_Ant 1	20M	QPSK	50	28	Left Side	10mm	Index 4	136100	680.5	24.31	25.20	1.227	0.05	0.123	0.151
	FR1 n71_Ant 1	20M	QPSK	1	1	Right Side	10mm	Index 4	136100	680.5	24.52	25.20	1.169	-0.13	0.086	0.101
	FR1 n71_Ant 1	20M	QPSK	50	28	Right Side	10mm	Index 4	136100	680.5	24.31	25.20	1.227	-0.01	0.069	0.085
	FR1 n71_Ant 1	20M	QPSK	1	1	Top Side	10mm	Index 4	136100	680.5	24.52	25.20	1.169	-0.16	0.102	0.119
	FR1 n71_Ant 1	20M	QPSK	50	28	Top Side	10mm	Index 4	136100	680.5	24.31	25.20	1.227	0.08	0.088	0.108
	FR1 n77_Ant 1	100M	QPSK	1	1	Front	10mm	Index 4	656000	3840	17.68	18.00	1.076	-0.17	0.112	0.121
	FR1 n77_Ant 1	100M	QPSK	135	69	Front	10mm	Index 4	656000	3840	17.53	18.00	1.114	0.05	0.104	0.116
	FR1 n77_Ant 1	100M	QPSK	1	1	Back	10mm	Index 4	656000	3840	17.68	18.00	1.076	0	0.185	0.199
	FR1 n77_Ant 1	100M	QPSK	135	69	Back	10mm	Index 4	656000	3840	17.53	18.00	1.114	0.01	0.161	0.179
131	FR1 n77_Ant 1	100M	QPSK	1	1	Left Side	10mm	Index 4	656000	3840	17.68	18.00	1.076	-0.04	0.248	0.267
	FR1 n77_Ant 1	100M	QPSK	135	69	Left Side	10mm	Index 4	656000	3840	17.53	18.00	1.114	-0.06	0.223	0.248
	FR1 n77_Ant 1	100M	QPSK	1	1	Right Side	10mm	Index 4	656000	3840	17.68	18.00	1.076	-0.18	0.023	0.025
	FR1 n77_Ant 1	100M	QPSK	135	69	Right Side	10mm	Index 4	656000	3840	17.53	18.00	1.114	0.17	0.014	0.016
	FR1 n77_Ant 1	100M	QPSK	1	1	Top Side	10mm	Index 4	656000	3840	17.68	18.00	1.076	-0.07	0.142	0.153
	FR1 n77_Ant 1	100M	QPSK	135	69	Top Side	10mm	Index 4	656000	3840	17.53	18.00	1.114	0.02	0.118	0.131
	FR1 n77_HPUE_Ant 1	100M	QPSK	1	1	Left Side	10mm	Index 4	656000	3840	20.64	21.00	1.086	0.09	0.235	0.255
	FR1 n77_Ant 1	100M	QPSK	1	1	Front	10mm	Index 4	633332	3499.98	17.49	18.00	1.125	0.17	0.091	0.102
	FR1 n77_Ant 1	100M	QPSK	135	69	Front	10mm	Index 4	633332	3499.98	17.37	18.00	1.156	0.03	0.072	0.083
	FR1 n77_Ant 1	100M	QPSK	1	1	Back	10mm	Index 4	633332	3499.98	17.49	18.00	1.125	-0.06	0.099	0.111
	FR1 n77_Ant 1	100M	QPSK	135	69	Back	10mm	Index 4	633332	3499.98	17.37	18.00	1.156	0.12	0.085	0.098
	FR1 n77_Ant 1	100M	QPSK	1	1	Left Side	10mm	Index 4	633332	3499.98	17.49	18.00	1.125	-0.19	0.185	0.208
	FR1 n77_Ant 1	100M	QPSK	135	69	Left Side	10mm	Index 4	633332	3499.98	17.37	18.00	1.156	0.13	0.150	0.173
	FR1 n77_Ant 1	100M	QPSK	1	1	Right Side	10mm	Index 4	633332	3499.98	17.49	18.00	1.125	-0.02	0.001	0.001
	FR1 n77_Ant 1	100M	QPSK	135	69	Right Side	10mm	Index 4	633332	3499.98	17.37	18.00	1.156	0.08	0.001	0.001
	FR1 n77_Ant 1	100M	QPSK	1	1	Top Side	10mm	Index 4	633332	3499.98	17.49	18.00	1.125	-0.01	0.105	0.118
	FR1 n77_Ant 1	100M	QPSK	135	69	Top Side	10mm	Index 4	633332	3499.98	17.37	18.00	1.156	-0.16	0.093	0.108
	FR1 n77_HPUE_Ant 1	100M	QPSK	1	1	Left Side	10mm	Index 4	633332	3499.98	20.42	21.00	1.143	-0.06	0.174	0.199



<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)
	WLAN2.4GHZ	802.11b 1Mbps	Front	10mm	Ant 4	Index 7	1	2412	19.60	20.00	1.096	100	1.000	0.04	0.240	0.263
	WLAN2.4GHZ	802.11b 1Mbps	Back	10mm	Ant 4	Index 7	1	2412	19.60	20.00	1.096	100	1.000	-0.09	0.278	0.305
	WLAN2.4GHZ	802.11b 1Mbps	Left Side	10mm	Ant 4	Index 7	1	2412	19.60	20.00	1.096	100	1.000	-0.03	0.001	0.001
	WLAN2.4GHZ	802.11b 1Mbps	Right Side	10mm	Ant 4	Index 7	1	2412	19.60	20.00	1.096	100	1.000	-0.05	0.275	0.302
	WLAN2.4GHZ	802.11b 1Mbps	Top Side	10mm	Ant 4	Index 7	1	2412	19.60	20.00	1.096	100	1.000	-0.02	0.411	0.451
132	WLAN2.4GHZ	802.11b 1Mbps	Top Side	10mm	Ant 4	Index 7	6	2437	19.50	20.00	1.122	100	1.000	-0.01	0.457	0.513
	WLAN2.4GHZ	802.11b 1Mbps	Top Side	10mm	Ant 4	Index 7	11	2462	19.60	20.00	1.096	100	1.000	0.01	0.391	0.429
	WLAN2.4GHZ	802.11b 1Mbps	Front	10mm	Ant 4	Index 8	1	2412	17.50	17.50	1.000	100	1.000	0.09	0.162	0.162
	WLAN2.4GHZ	802.11b 1Mbps	Back	10mm	Ant 4	Index 8	1	2412	17.50	17.50	1.000	100	1.000	-0.01	0.186	0.186
	WLAN2.4GHZ	802.11b 1Mbps	Left Side	10mm	Ant 4	Index 8	1	2412	17.50	17.50	1.000	100	1.000	0	0.001	0.001
	WLAN2.4GHZ	802.11b 1Mbps	Right Side	10mm	Ant 4	Index 8	1	2412	17.50	17.50	1.000	100	1.000	0	0.193	0.193
	WLAN2.4GHZ	802.11b 1Mbps	Top Side	10mm	Ant 4	Index 8	1	2412	17.50	17.50	1.000	100	1.000	-0.01	0.250	0.250
	WLAN2.4GHZ	802.11b 1Mbps	Top Side	10mm	Ant 4	Index 8	6	2437	17.20	17.50	1.072	100	1.000	-0.03	0.254	0.272
	WLAN2.4GHZ	802.11b 1Mbps	Top Side	10mm	Ant 4	Index 8	11	2462	17.30	17.50	1.047	100	1.000	0.02	0.234	0.245
	WLAN2.4GHZ	802.11b 1Mbps	Front	10mm	Ant 3	Index 7	1	2412	22.40	22.50	1.023	100	1.000	-0.15	0.239	0.245
	WLAN2.4GHZ	802.11b 1Mbps	Back	10mm	Ant 3	Index 7	1	2412	22.40	22.50	1.023	100	1.000	-0.05	0.225	0.230
	WLAN2.4GHZ	802.11b 1Mbps	Left Side	10mm	Ant 3	Index 7	1	2412	22.40	22.50	1.023	100	1.000	-0.02	0.343	0.351
	WLAN2.4GHZ	802.11b 1Mbps	Left Side	10mm	Ant 3	Index 7	6	2437	22.30	22.50	1.047	100	1.000	-0.03	0.367	0.384
	WLAN2.4GHZ	802.11b 1Mbps	Left Side	10mm	Ant 3	Index 7	11	2462	22.30	22.50	1.047	100	1.000	-0.07	0.404	0.423
	WLAN2.4GHZ	802.11b 1Mbps	Right Side	10mm	Ant 3	Index 7	1	2412	22.40	22.50	1.023	100	1.000	0	0.001	0.001
	WLAN2.4GHZ	802.11b 1Mbps	Top Side	10mm	Ant 3	Index 7	1	2412	22.40	22.50	1.023	100	1.000	0.09	0.023	0.024
	WLAN2.4GHZ	802.11b 1Mbps	Front	10mm	Ant 3	Index 8	1	2412	19.40	19.50	1.023	100	1.000	0.09	0.116	0.119
	WLAN2.4GHZ	802.11b 1Mbps	Back	10mm	Ant 3	Index 8	1	2412	19.40	19.50	1.023	100	1.000	-0.11	0.111	0.114
	WLAN2.4GHZ	802.11b 1Mbps	Left Side	10mm	Ant 3	Index 8	1	2412	19.40	19.50	1.023	100	1.000	-0.02	0.171	0.175
	WLAN2.4GHZ	802.11b 1Mbps	Left Side	10mm	Ant 3	Index 8	6	2437	19.40	19.50	1.023	100	1.000	0.01	0.189	0.193
	WLAN2.4GHZ	802.11b 1Mbps	Left Side	10mm	Ant 3	Index 8	11	2462	19.40	19.50	1.023	100	1.000	0.04	0.208	0.213
	WLAN2.4GHZ	802.11b 1Mbps	Right Side	10mm	Ant 3	Index 8	1	2412	19.40	19.50	1.023	100	1.000	0	0.001	0.001
	WLAN2.4GHZ	802.11b 1Mbps	Top Side	10mm	Ant 3	Index 8	1	2412	19.40	19.50	1.023	100	1.000	-0.03	0.010	0.010
	WLAN2.4GHZ	802.11g 6Mbps	Front	10mm	Ant 4+3(4)	Index 7	1	2412	19.00	19.00	1.000	93.74	1.067	0	0.255	0.272
	WLAN2.4GHZ	802.11g 6Mbps	Front	10mm	Ant 4+3(3)	Index 7	1	2412	18.70	19.00	1.072	93.74	1.067	-0.1	0.116	0.133
	WLAN2.4GHZ	802.11g 6Mbps	Back	10mm	Ant 4+3(4)	Index 7	1	2412	19.00	19.00	1.000	93.74	1.067	-0.06	0.272	0.290
	WLAN2.4GHZ	802.11g 6Mbps	Back	10mm	Ant 4+3(3)	Index 7	1	2412	18.70	19.00	1.072	93.74	1.067	0.01	0.099	0.113
	WLAN2.4GHZ	802.11g 6Mbps	Left Side	10mm	Ant 4+3(3)	Index 7	1	2412	18.70	19.00	1.072	93.74	1.067	-0.01	0.179	0.205
	WLAN2.4GHZ	802.11g 6Mbps	Right Side	10mm	Ant 4+3(4)	Index 7	1	2412	19.00	19.00	1.000	93.74	1.067	0.03	0.288	0.307
	WLAN2.4GHZ	802.11g 6Mbps	Top Side	10mm	Ant 4+3(4)	Index 7	1	2412	19.00	19.00	1.000	93.74	1.067	0.04	0.387	0.413
	WLAN2.4GHZ	802.11g 6Mbps	Top Side	10mm	Ant 4+3(4)	Index 7	6	2437	18.70	19.00	1.072	93.74	1.067	0.12	0.360	0.412
	WLAN2.4GHZ	802.11g 6Mbps	Top Side	10mm	Ant 4+3(4)	Index 7	11	2462	18.40	18.50	1.023	93.74	1.067	0.08	0.334	0.365
	WLAN2.4GHZ	802.11g 6Mbps	Front	10mm	Ant 4+3(4)	Index 8	1	2412	14.90	15.00	1.023	93.74	1.067	-0.11	0.096	0.105
	WLAN2.4GHZ	802.11g 6Mbps	Front	10mm	Ant 4+3(3)	Index 8	1	2412	14.70	15.00	1.072	93.74	1.067	0.17	0.045	0.051
	WLAN2.4GHZ	802.11g 6Mbps	Back	10mm	Ant 4+3(4)	Index 8	1	2412	14.90	15.00	1.023	93.74	1.067	0.13	0.112	0.122
	WLAN2.4GHZ	802.11g 6Mbps	Back	10mm	Ant 4+3(3)	Index 8	1	2412	14.70	15.00	1.072	93.74	1.067	-0.16	0.040	0.046
	WLAN2.4GHZ	802.11g 6Mbps	Left Side	10mm	Ant 4+3(3)	Index 8	1	2412	14.70	15.00	1.072	93.74	1.067	0.08	0.064	0.073
	WLAN2.4GHZ	802.11g 6Mbps	Right Side	10mm	Ant 4+3(4)	Index 8	1	2412	14.90	15.00	1.023	93.74	1.067	-0.03	0.112	0.122
	WLAN2.4GHZ	802.11g 6Mbps	Top Side	10mm	Ant 4+3(4)	Index 8	1	2412	14.90	15.00	1.023	93.74	1.067	0.03	0.149	0.163
	WLAN2.4GHZ	802.11g 6Mbps	Top Side	10mm	Ant 4+3(4)	Index 8	6	2437	14.80	15.00	1.047	93.74	1.067	-0.03	0.156	0.174
	WLAN2.4GHZ	802.11g 6Mbps	Top Side	10mm	Ant 4+3(4)	Index 8	11	2462	14.80	15.00	1.047	93.74	1.067	0.01	0.150	0.168



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)
	WLAN5GHz	802.11n-HT40 MCS0	Front	10mm	Ant 4+3(4)	Index 7/8/9	46	5230	18.60	19.00	1.096	96.15	1.040	0.01	0.083	0.095
	WLAN5GHz	802.11n-HT40 MCS0	Front	10mm	Ant 4+3(3)	Index 7/8/9	46	5230	18.40	19.00	1.148	96.15	1.040	-0.09	0.142	0.170
	WLAN5GHz	802.11n-HT40 MCS0	Back	10mm	Ant 4+3(4)	Index 7/8/9	46	5230	18.60	19.00	1.096	96.15	1.040	0.03	0.156	0.178
	WLAN5GHz	802.11n-HT40 MCS0	Back	10mm	Ant 4+3(3)	Index 7/8/9	46	5230	18.40	19.00	1.148	96.15	1.040	-0.04	0.093	0.111
133	WLAN5GHz	802.11n-HT40 MCS0	Left Side	10mm	Ant 4+3(3)	Index 7/8/9	46	5230	18.40	19.00	1.148	96.15	1.040	0.04	0.282	0.337
	WLAN5GHz	802.11n-HT40 MCS0	Left Side	10mm	Ant 4+3(3)	Index 7/8/9	38	5190	16.20	17.50	1.349	96.15	1.040	0.03	0.142	0.199
	WLAN5GHz	802.11n-HT40 MCS0	Right Side	10mm	Ant 4+3(4)	Index 7/8/9	46	5230	18.60	19.00	1.096	96.15	1.040	0.11	0.121	0.138
	WLAN5GHz	802.11n-HT40 MCS0	Top Side	10mm	Ant 4+3(4)	Index 7/8/9	46	5230	18.60	19.00	1.096	96.15	1.040	-0.09	0.147	0.168
134	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 4+3(4)	Index 7	155	5775	19.00	20.00	1.259	87.81	1.139	0.17	0.148	0.212
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 4+3(3)	Index 7	155	5775	19.40	20.00	1.148	87.81	1.139	0.17	0.107	0.140
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 4+3(4)	Index 7	155	5775	19.00	20.00	1.259	87.81	1.139	-0.19	0.259	0.371
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 4+3(3)	Index 7	155	5775	19.40	20.00	1.148	87.81	1.139	-0.14	0.070	0.092
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Side	10mm	Ant 4+3(3)	Index 7	155	5775	19.40	20.00	1.148	87.81	1.139	-0.19	0.178	0.233
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 4+3(4)	Index 7	155	5775	19.00	20.00	1.259	87.81	1.139	0.17	0.205	0.294
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 4+3(4)	Index 7	155	5775	19.00	20.00	1.259	87.81	1.139	-0.06	0.153	0.219
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 4+3(4)	Index 8/9	155	5775	18.50	19.00	1.122	87.81	1.139	-0.19	0.121	0.155
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 4+3(3)	Index 8/9	155	5775	18.90	19.00	1.023	87.81	1.139	-0.14	0.084	0.098
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 4+3(4)	Index 8/9	155	5775	18.50	19.00	1.122	87.81	1.139	0.02	0.222	0.284
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 4+3(3)	Index 8/9	155	5775	18.90	19.00	1.023	87.81	1.139	-0.01	0.078	0.091
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Side	10mm	Ant 4+3(3)	Index 8/9	155	5775	18.90	19.00	1.023	87.81	1.139	-0.12	0.145	0.169
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 4+3(4)	Index 8/9	155	5775	18.50	19.00	1.122	87.81	1.139	-0.11	0.169	0.216
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 4+3(4)	Index 8/9	155	5775	18.50	19.00	1.122	87.81	1.139	-0.01	0.128	0.164

**<Bluetooth 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)
	Bluetooth	1Mbps	Front	10mm	Ant 4	Index 3/4	0	2402	18.40	18.50	1.023	76.76	1.085	-0.13	0.137	0.152
	Bluetooth	1Mbps	Back	10mm	Ant 4	Index 3/4	0	2402	18.40	18.50	1.023	76.76	1.085	-0.04	0.132	0.147
	Bluetooth	1Mbps	Left Side	10mm	Ant 4	Index 3/4	0	2402	18.40	18.50	1.023	76.76	1.085	0	0.001	0.001
	Bluetooth	1Mbps	Right Side	10mm	Ant 4	Index 3/4	0	2402	18.40	18.50	1.023	76.76	1.085	-0.05	0.156	0.173
	Bluetooth	1Mbps	Top Side	10mm	Ant 4	Index 3/4	0	2402	18.40	18.50	1.023	76.76	1.085	0	0.196	0.218
135	Bluetooth	1Mbps	Top Side	10mm	Ant 4	Index 3/4	39	2441	18.40	18.50	1.023	76.76	1.085	-0.02	0.258	0.286
	Bluetooth	1Mbps	Top Side	10mm	Ant 4	Index 3/4	78	2480	18.20	18.50	1.072	76.76	1.085	0.03	0.179	0.208
	Bluetooth	1Mbps	Front	10mm	Ant 3	Index 3/4	78	2480	19.89	21.00	1.292	77.26	1.078	-0.11	0.081	0.113
	Bluetooth	1Mbps	Back	10mm	Ant 3	Index 3/4	78	2480	19.89	21.00	1.292	77.26	1.078	-0.02	0.099	0.138
	Bluetooth	1Mbps	Left Side	10mm	Ant 3	Index 3/4	78	2480	19.89	21.00	1.292	77.26	1.078	0.04	0.188	0.262
	Bluetooth	1Mbps	Left Side	10mm	Ant 3	Index 3/4	0	2402	19.09	21.00	1.553	77.26	1.078	0.01	0.150	0.251
	Bluetooth	1Mbps	Left Side	10mm	Ant 3	Index 3/4	39	2441	19.80	21.00	1.319	77.26	1.078	0.05	0.169	0.240
	Bluetooth	1Mbps	Right Side	10mm	Ant 3	Index 3/4	78	2480	19.89	21.00	1.292	77.26	1.078	0	0.001	0.001
	Bluetooth	1Mbps	Top Side	10mm	Ant 3	Index 3/4	78	2480	19.89	21.00	1.292	77.26	1.078	0.02	0.009	0.013
	Bluetooth	1Mbps	Front	10mm	Ant 4+3(4)	Index 3/4	39	2441	17.14	18.50	1.369	77.2	1.079	-0.11	0.091	0.134
	Bluetooth	1Mbps	Front	10mm	Ant 4+3(3)	Index 3/4	39	2441	17.59	18.50	1.234	77.2	1.079	-0.11	0.066	0.088
	Bluetooth	1Mbps	Back	10mm	Ant 4+3(4)	Index 3/4	39	2441	17.14	18.50	1.369	77.2	1.079	-0.09	0.109	0.161
	Bluetooth	1Mbps	Back	10mm	Ant 4+3(3)	Index 3/4	39	2441	17.59	18.50	1.234	77.2	1.079	-0.01	0.038	0.051
	Bluetooth	1Mbps	Left Side	10mm	Ant 4+3(3)	Index 3/4	39	2441	17.59	18.50	1.234	77.2	1.079	-0.01	0.083	0.110
	Bluetooth	1Mbps	Right Side	10mm	Ant 4+3(4)	Index 3/4	39	2441	17.14	18.50	1.369	77.2	1.079	0.04	0.131	0.193
	Bluetooth	1Mbps	Top Side	10mm	Ant 4+3(4)	Index 3/4	39	2441	17.14	18.50	1.369	77.2	1.079	-0.03	0.142	0.210
	Bluetooth	1Mbps	Top Side	10mm	Ant 4+3(4)	Index 3/4	0	2402	17.28	18.50	1.325	77.2	1.079	0.04	0.134	0.192
	Bluetooth	1Mbps	Top Side	10mm	Ant 4+3(4)	Index 3/4	78	2480	16.50	18.50	1.585	77.2	1.079	0.02	0.105	0.180



18.3 Body-Worn SAR

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Index	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	GSM850_Ant 1	GPRS (4 Tx slots)	Front	10mm	Index 5	189	836.4	28.33	29.60	1.340	-0.15	0.309	0.414
136	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	Index 5	189	836.4	28.33	29.60	1.340	-0.07	0.635	0.851
	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	Index 5	128	824.2	28.32	29.60	1.343	0.1	0.538	0.722
	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	Index 5	251	848.8	28.22	29.60	1.374	-0.05	0.599	0.823
	GSM850_Ant 1	GPRS (4 Tx slots)	Front	10mm	Index 6	189	836.4	28.33	28.90	1.140	-0.15	0.309	0.352
	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	Index 6	189	836.4	28.33	28.90	1.140	-0.07	0.635	0.724
	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	Index 6	128	824.2	28.32	28.90	1.143	0.1	0.538	0.615
	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	Index 6	251	848.8	28.22	28.90	1.169	-0.05	0.599	0.701

<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Index	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA V_Ant 1	RMC 12.2Kbps	Front	10mm	Index 5/6	4132	826.4	24.68	25.50	1.208	-0.04	0.264	0.319
	WCDMA V_Ant 1	RMC 12.2Kbps	Back	10mm	Index 5/6	4132	826.4	24.68	25.50	1.208	0.14	0.492	0.594
	WCDMA V_Ant 1	RMC 12.2Kbps	Back	10mm	Index 5/6	4182	836.4	24.61	25.50	1.227	0.14	0.458	0.562
137	WCDMA V_Ant 1	RMC 12.2Kbps	Back	10mm	Index 5/6	4233	846.6	24.54	25.50	1.247	-0.06	0.485	0.605



<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Index	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 2_Ant 1	20M	QPSK	1	0	Front	10mm	Index 5	19100	1900	20.55	21.50	1.245	0.06	0.262	0.326
	LTE Band 2_Ant 1	20M	QPSK	50	0	Front	10mm	Index 5	19100	1900	20.47	21.50	1.268	0.02	0.223	0.283
	LTE Band 2_Ant 1	20M	QPSK	1	0	Back	10mm	Index 5	19100	1900	20.55	21.50	1.245	-0.16	0.282	0.351
138	LTE Band 2_Ant 1	20M	QPSK	1	0	Back	10mm	Index 5	18700	1860	20.25	21.50	1.334	-0.04	0.346	0.461
	LTE Band 2_Ant 1	20M	QPSK	1	0	Back	10mm	Index 5	18900	1880	20.36	21.50	1.300	-0.1	0.311	0.404
	LTE Band 2_Ant 1	20M	QPSK	50	0	Back	10mm	Index 5	19100	1900	20.47	21.50	1.268	0.14	0.244	0.309
	LTE Band 2_Ant 1	20M	QPSK	1	0	Front	10mm	Index 6	19100	1900	20.55	20.80	1.059	0.06	0.262	0.278
	LTE Band 2_Ant 1	20M	QPSK	50	0	Front	10mm	Index 6	19100	1900	20.47	20.80	1.079	0.02	0.223	0.241
	LTE Band 2_Ant 1	20M	QPSK	1	0	Back	10mm	Index 6	19100	1900	20.55	20.80	1.059	-0.16	0.282	0.299
	LTE Band 2_Ant 1	20M	QPSK	1	0	Back	10mm	Index 6	18700	1860	20.25	20.80	1.135	-0.04	0.346	0.393
	LTE Band 2_Ant 1	20M	QPSK	1	0	Back	10mm	Index 6	18900	1880	20.36	20.80	1.107	-0.1	0.311	0.344
	LTE Band 2_Ant 1	20M	QPSK	50	0	Back	10mm	Index 6	19100	1900	20.47	20.80	1.079	0.14	0.244	0.263
	LTE Band 12_Ant 1	10M	QPSK	1	0	Front	10mm	Index 5/6	23095	707.5	24.64	25.50	1.219	-0.01	0.159	0.194
	LTE Band 12_Ant 1	10M	QPSK	25	0	Front	10mm	Index 5/6	23095	707.5	23.76	24.50	1.186	0.15	0.131	0.155
139	LTE Band 12_Ant 1	10M	QPSK	1	0	Back	10mm	Index 5/6	23095	707.5	24.64	25.50	1.219	-0.01	0.214	0.261
	LTE Band 12_Ant 1	10M	QPSK	25	0	Back	10mm	Index 5/6	23095	707.5	23.76	24.50	1.186	0.02	0.182	0.216
	LTE Band 13_Ant 1	10M	QPSK	1	0	Front	10mm	Index 5/6	23230	782	24.65	25.50	1.216	-0.15	0.227	0.276
	LTE Band 13_Ant 1	10M	QPSK	25	0	Front	10mm	Index 5/6	23230	782	23.74	24.50	1.191	0.06	0.192	0.229
140	LTE Band 13_Ant 1	10M	QPSK	1	0	Back	10mm	Index 5/6	23230	782	24.65	25.50	1.216	0.03	0.344	0.418
	LTE Band 13_Ant 1	10M	QPSK	25	0	Back	10mm	Index 5/6	23230	782	23.74	24.50	1.191	0.11	0.307	0.366
	LTE Band 14_Ant 1	10M	QPSK	1	0	Front	10mm	Index 5/6	23330	793	24.69	25.50	1.205	-0.02	0.271	0.327
	LTE Band 14_Ant 1	10M	QPSK	25	0	Front	10mm	Index 5/6	23330	793	23.67	24.50	1.211	0.07	0.218	0.264
141	LTE Band 14_Ant 1	10M	QPSK	1	0	Back	10mm	Index 5/6	23330	793	24.69	25.50	1.205	-0.09	0.359	0.433
	LTE Band 14_Ant 1	10M	QPSK	25	0	Back	10mm	Index 5/6	23330	793	23.67	24.50	1.211	0.01	0.316	0.383
	LTE Band 26_Ant 1	15M	QPSK	1	0	Front	10mm	Index 5/6	26865	831.5	24.32	25.40	1.282	-0.01	0.271	0.348
	LTE Band 26_Ant 1	15M	QPSK	36	0	Front	10mm	Index 5/6	26865	831.5	23.34	24.40	1.276	0.11	0.230	0.294
142	LTE Band 26_Ant 1	15M	QPSK	1	0	Back	10mm	Index 5/6	26865	831.5	24.32	25.40	1.282	-0.02	0.498	0.639
	LTE Band 26_Ant 1	15M	QPSK	36	0	Back	10mm	Index 5/6	26865	831.5	23.34	24.40	1.276	-0.08	0.423	0.540
	LTE Band 5B_Ant 1	10M+10M	QPSK	1	0	Back	10mm	Index 5/6	20475	831.5	22.60	24.10	1.413	0.07	0.342	0.483
	LTE Band 66_Ant 1	20M	QPSK	1	0	Front	10mm	Index 5	132322	1745	21.77	22.70	1.239	-0.01	0.340	0.421
	LTE Band 66_Ant 1	20M	QPSK	50	0	Front	10mm	Index 5	132322	1745	21.74	22.70	1.247	-0.1	0.300	0.374
143	LTE Band 66_Ant 1	20M	QPSK	1	0	Back	10mm	Index 5	132322	1745	21.77	22.70	1.239	0.01	0.360	0.446
	LTE Band 66_Ant 1	20M	QPSK	1	0	Back	10mm	Index 5	132072	1720	21.59	22.70	1.291	-0.12	0.339	0.438
	LTE Band 66_Ant 1	20M	QPSK	1	0	Back	10mm	Index 5	132572	1770	21.58	22.70	1.294	-0.11	0.321	0.415
	LTE Band 66_Ant 1	20M	QPSK	50	0	Back	10mm	Index 5	132322	1745	21.74	22.70	1.247	-0.07	0.303	0.378
	LTE Band 66_Ant 1	20M	QPSK	1	0	Front	10mm	Index 6	132322	1745	21.77	22.00	1.054	-0.01	0.340	0.358
	LTE Band 66_Ant 1	20M	QPSK	50	0	Front	10mm	Index 6	132322	1745	21.74	22.00	1.062	-0.1	0.300	0.319
	LTE Band 66_Ant 1	20M	QPSK	1	0	Back	10mm	Index 6	132322	1745	21.77	22.00	1.054	0.01	0.360	0.380
	LTE Band 66_Ant 1	20M	QPSK	1	0	Back	10mm	Index 6	132072	1720	21.59	22.00	1.099	-0.12	0.339	0.373
	LTE Band 66_Ant 1	20M	QPSK	1	0	Back	10mm	Index 6	132572	1770	21.58	22.00	1.102	-0.11	0.321	0.354
	LTE Band 66_Ant 1	20M	QPSK	50	0	Back	10mm	Index 6	132322	1745	21.74	22.00	1.062	-0.07	0.303	0.322
	LTE Band 71_Ant 1	20M	QPSK	1	0	Front	10mm	Index 5/6	133297	680.5	24.42	25.50	1.282	-0.12	0.244	0.313
	LTE Band 71_Ant 1	20M	QPSK	50	0	Front	10mm	Index 5/6	133297	680.5	23.38	24.50	1.294	-0.08	0.212	0.274
144	LTE Band 71_Ant 1	20M	QPSK	1	0	Back	10mm	Index 5/6	133297	680.5	24.42	25.50	1.282	-0.16	0.290	0.372
	LTE Band 71_Ant 1	20M	QPSK	50	0	Back	10mm	Index 5/6	133297	680.5	23.38	24.50	1.294	0.03	0.257	0.333



<5G NR SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Index	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	FR1 n2_Ant 1	20M	QPSK	1	1	Front	10mm	Index 5	376000	1880	20.58	21.60	1.265	-0.07	0.254	0.321
	FR1 n2_Ant 1	20M	QPSK	50	28	Front	10mm	Index 5	376000	1880	20.47	21.60	1.297	0.05	0.235	0.305
	FR1 n2_Ant 1	20M	QPSK	1	1	Back	10mm	Index 5	376000	1880	20.58	21.60	1.265	0.15	0.260	0.329
	FR1 n2_Ant 1	20M	QPSK	1	1	Back	10mm	Index 5	372000	1860	20.48	21.60	1.294	0.04	0.248	0.321
	FR1 n2_Ant 1	20M	QPSK	1	1	Back	10mm	Index 5	380000	1900	20.55	21.60	1.274	0.14	0.231	0.294
	FR1 n2_Ant 1	20M	QPSK	50	28	Back	10mm	Index 5	376000	1880	20.47	21.60	1.297	-0.01	0.241	0.313
	FR1 n2_Ant 1	20M	QPSK	1	1	Front	10mm	Index 6	376000	1880	20.58	20.90	1.076	-0.07	0.254	0.273
	FR1 n2_Ant 1	20M	QPSK	50	28	Front	10mm	Index 6	376000	1880	20.47	20.90	1.104	0.05	0.235	0.259
145	FR1 n2_Ant 1	20M	QPSK	1	1	Back	10mm	Index 6	376000	1880	20.58	20.90	1.076	0.15	0.260	0.280
	FR1 n2_Ant 1	20M	QPSK	50	28	Back	10mm	Index 6	376000	1880	20.48	20.90	1.102	-0.01	0.241	0.265
	FR1 n2_Ant 1	20M	QPSK	1	1	Back	10mm	Index 6	372000	1860	20.55	20.90	1.084	0.04	0.248	0.269
	FR1 n2_Ant 1	20M	QPSK	1	1	Back	10mm	Index 6	380000	1900	20.47	20.90	1.104	0.14	0.231	0.255
	FR1 n5_Ant 1	20M	QPSK	1	1	Front	10mm	Index 5/6	167300	836.5	24.29	25.40	1.291	-0.11	0.054	0.070
	FR1 n5_Ant 1	20M	QPSK	50	28	Front	10mm	Index 5/6	167300	836.5	24.07	25.40	1.358	0.04	0.046	0.062
146	FR1 n5_Ant 1	20M	QPSK	1	1	Back	10mm	Index 5/6	167300	836.5	24.29	25.40	1.291	-0.08	0.084	0.108
	FR1 n5_Ant 1	20M	QPSK	50	28	Back	10mm	Index 5/6	167300	836.5	24.07	25.40	1.358	0.06	0.079	0.107
	FR1 n12_Ant 1	15M	QPSK	1	1	Front	10mm	Index 5/6	141500	707.5	24.55	25.20	1.161	-0.07	0.105	0.122
	FR1 n12_Ant 1	15M	QPSK	36	22	Front	10mm	Index 5/6	141500	707.5	24.43	25.20	1.194	0.05	0.089	0.106
147	FR1 n12_Ant 1	15M	QPSK	1	1	Back	10mm	Index 5/6	141500	707.5	24.55	25.20	1.161	-0.19	0.148	0.172
	FR1 n12_Ant 1	15M	QPSK	36	22	Back	10mm	Index 5/6	141500	707.5	24.43	25.20	1.194	-0.08	0.133	0.159
	FR1 n41_Ant 1	100M	QPSK	1	1	Front	10mm	Index 5	518598	2592.99	21.62	23.00	1.374	-0.14	0.268	0.368
	FR1 n41_Ant 1	100M	QPSK	135	69	Front	10mm	Index 5	518598	2592.99	21.61	23.00	1.377	0.06	0.249	0.343
148	FR1 n41_Ant 1	100M	QPSK	1	1	Back	10mm	Index 5	518598	2592.99	21.62	23.00	1.374	-0.1	0.293	0.403
	FR1 n41_Ant 1	100M	QPSK	135	69	Back	10mm	Index 5	518598	2592.99	21.61	23.00	1.377	0.05	0.270	0.372
	FR1 n41_HPUE_Ant 1	100M	QPSK	1	1	Back	10mm	Index 5	518598	2592.99	24.73	26.00	1.340	0.07	0.282	0.378
	FR1 n41_Ant 1	100M	QPSK	1	1	Front	10mm	Index 6	518598	2592.99	21.62	22.30	1.169	-0.14	0.268	0.313
	FR1 n41_Ant 1	100M	QPSK	135	69	Front	10mm	Index 6	518598	2592.99	21.61	22.30	1.172	0.06	0.249	0.292
	FR1 n41_Ant 1	100M	QPSK	1	1	Back	10mm	Index 6	518598	2592.99	21.62	22.30	1.169	-0.1	0.293	0.343
	FR1 n41_Ant 1	100M	QPSK	135	69	Back	10mm	Index 6	518598	2592.99	21.61	22.30	1.172	0.05	0.270	0.316
	FR1 n41_HPUE_Ant 1	100M	QPSK	1	1	Back	10mm	Index 6	518598	2592.99	24.73	25.30	1.140	0.07	0.282	0.322
	FR1 n66_Ant 1	40M	QPSK	1	1	Front	10mm	Index 5	349000	1745	21.98	23.00	1.265	0.07	0.279	0.353
	FR1 n66_Ant 1	40M	QPSK	108	54	Front	10mm	Index 5	349000	1745	21.84	23.00	1.306	0.03	0.263	0.344
149	FR1 n66_Ant 1	40M	QPSK	1	1	Back	10mm	Index 5	349000	1745	21.98	23.00	1.265	-0.16	0.370	0.468
	FR1 n66_Ant 1	40M	QPSK	108	54	Back	10mm	Index 5	349000	1745	21.84	23.00	1.306	0.09	0.337	0.440
	FR1 n66_Ant 1	40M	QPSK	1	1	Front	10mm	Index 6	349000	1745	21.98	22.30	1.076	0.07	0.279	0.300
	FR1 n66_Ant 1	40M	QPSK	108	54	Front	10mm	Index 6	349000	1745	21.84	22.30	1.112	0.03	0.263	0.292
	FR1 n66_Ant 1	40M	QPSK	1	1	Back	10mm	Index 6	349000	1745	21.98	22.30	1.076	-0.16	0.370	0.398
	FR1 n66_Ant 1	40M	QPSK	108	54	Back	10mm	Index 6	349000	1745	21.84	22.30	1.112	0.09	0.337	0.375
	FR1 n71_Ant 1	20M	QPSK	1	1	Front	10mm	Index 5/6	136100	680.5	24.52	25.20	1.169	-0.1	0.158	0.185
	FR1 n71_Ant 1	20M	QPSK	50	28	Front	10mm	Index 5/6	136100	680.5	24.31	25.20	1.227	0.07	0.134	0.164
150	FR1 n71_Ant 1	20M	QPSK	1	1	Back	10mm	Index 5/6	136100	680.5	24.52	25.20	1.169	-0.18	0.168	0.196
	FR1 n71_Ant 1	20M	QPSK	50	28	Back	10mm	Index 5/6	136100	680.5	24.31	25.20	1.227	0.04	0.151	0.185



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Index	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	FR1 n77_Ant 1	100M	QPSK	1	1	Front	10mm	Index 5	656000	3840	20.71	21.70	1.256	-0.17	0.222	0.279
	FR1 n77_Ant 1	100M	QPSK	135	69	Front	10mm	Index 5	656000	3840	20.53	21.70	1.309	0.05	0.204	0.267
151	FR1 n77_Ant 1	100M	QPSK	1	1	Back	10mm	Index 5	656000	3840	20.71	21.70	1.256	0	0.392	0.492
	FR1 n77_Ant 1	100M	QPSK	135	69	Back	10mm	Index 5	656000	3840	20.53	21.70	1.309	0.01	0.361	0.473
	FR1 n77_HPUE_Ant 1	100M	QPSK	1	1	Back	10mm	Index 5	656000	3840	23.64	24.70	1.276	-0.06	0.376	0.480
	FR1 n77_Ant 1	100M	QPSK	1	1	Front	10mm	Index 6	656000	3840	20.71	21.00	1.069	-0.17	0.222	0.237
	FR1 n77_Ant 1	100M	QPSK	135	69	Front	10mm	Index 6	656000	3840	20.53	21.00	1.114	0.05	0.204	0.227
	FR1 n77_Ant 1	100M	QPSK	1	1	Back	10mm	Index 6	656000	3840	20.71	21.00	1.069	0	0.392	0.419
	FR1 n77_Ant 1	100M	QPSK	135	69	Back	10mm	Index 6	656000	3840	20.53	21.00	1.114	0.01	0.361	0.402
	FR1 n77_HPUE_Ant 1	100M	QPSK	1	1	Back	10mm	Index 6	656000	3840	23.64	24.00	1.086	-0.06	0.376	0.408
	FR1 n77_Ant 1	100M	QPSK	1	1	Front	10mm	Index 5	633332	3499.98	20.49	21.70	1.321	0.17	0.182	0.240
	FR1 n77_Ant 1	100M	QPSK	135	69	Front	10mm	Index 5	633332	3499.98	20.37	21.70	1.358	0.03	0.144	0.196
	FR1 n77_Ant 1	100M	QPSK	1	1	Back	10mm	Index 5	633332	3499.98	20.49	21.70	1.321	-0.06	0.198	0.262
	FR1 n77_Ant 1	100M	QPSK	135	69	Back	10mm	Index 5	633332	3499.98	20.37	21.70	1.358	0.12	0.170	0.231
	FR1 n77_HPUE_Ant 1	100M	QPSK	1	1	Back	10mm	Index 5	633332	3499.98	23.42	24.70	1.343	-0.18	0.188	0.252
	FR1 n77_Ant 1	100M	QPSK	1	1	Front	10mm	Index 6	633332	3499.98	20.49	21.00	1.125	0.17	0.182	0.205
	FR1 n77_Ant 1	100M	QPSK	135	69	Front	10mm	Index 6	633332	3499.98	20.37	21.00	1.156	0.03	0.144	0.166
	FR1 n77_Ant 1	100M	QPSK	1	1	Back	10mm	Index 6	633332	3499.98	20.49	21.00	1.125	-0.06	0.198	0.223
	FR1 n77_Ant 1	100M	QPSK	135	69	Back	10mm	Index 6	633332	3499.98	20.37	21.00	1.156	0.12	0.170	0.197
	FR1 n77_HPUE_Ant 1	100M	QPSK	1	1	Back	10mm	Index 6	633332	3499.98	23.42	24.00	1.143	-0.18	0.188	0.215



<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)
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 4	Index 5	1	2412	22.30	22.50	1.047	100	1.000	-0.02	0.502	0.526
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4	Index 5	1	2412	22.30	22.50	1.047	100	1.000	-0.17	0.531	0.556
152	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4	Index 5	6	2437	22.30	22.50	1.047	100	1.000	-0.03	0.607	0.636
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4	Index 5	11	2462	22.30	22.50	1.047	100	1.000	0.02	0.574	0.601
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 4	Index 6/7	1	2412	19.60	20.00	1.096	100	1.000	0.04	0.240	0.263
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4	Index 6/7	1	2412	19.60	20.00	1.096	100	1.000	-0.09	0.278	0.305
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4	Index 6/7	6	2437	19.50	20.00	1.122	100	1.000	-0.04	0.310	0.348
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4	Index 6/7	11	2462	19.60	20.00	1.096	100	1.000	0.06	0.293	0.321
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 4	Index 8	1	2412	17.50	17.50	1.000	100	1.000	0.09	0.162	0.162
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4	Index 8	1	2412	17.50	17.50	1.000	100	1.000	-0.01	0.186	0.186
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4	Index 8	6	2437	17.20	17.50	1.072	100	1.000	-0.03	0.190	0.204
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4	Index 8	11	2462	17.30	17.50	1.047	100	1.000	0.02	0.180	0.188
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 3	Index 5/6/7	1	2412	22.40	22.50	1.023	100	1.000	-0.15	0.239	0.245
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 3	Index 5/6/7	6	2437	22.30	22.50	1.047	100	1.000	0.03	0.208	0.218
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 3	Index 5/6/7	11	2462	22.30	22.50	1.047	100	1.000	0	0.254	0.266
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 3	Index 5/6/7	1	2412	22.40	22.50	1.023	100	1.000	-0.05	0.225	0.230
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 3	Index 8	1	2412	19.40	19.50	1.023	100	1.000	0.09	0.116	0.119
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 3	Index 8	6	2437	19.40	19.50	1.023	100	1.000	0.08	0.120	0.123
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 3	Index 8	11	2462	19.40	19.50	1.023	100	1.000	-0.04	0.127	0.130
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 3	Index 8	1	2412	19.40	19.50	1.023	100	1.000	-0.11	0.111	0.114
	WLAN2.4GHz	802.11g 6Mbps	Front	10mm	Ant 4+3(4)	Index 5	6	2437	21.90	22.00	1.023	93.74	1.067	-0.03	0.481	0.525
	WLAN2.4GHz	802.11g 6Mbps	Front	10mm	Ant 4+3(3)	Index 5	6	2437	21.40	22.00	1.148	93.74	1.067	-0.09	0.195	0.239
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	Ant 4+3(4)	Index 5	6	2437	21.90	22.00	1.023	93.74	1.067	0.02	0.486	0.531
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	Ant 4+3(3)	Index 5	6	2437	21.40	22.00	1.148	93.74	1.067	-0.03	0.201	0.246
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	Ant 4+3(4)	Index 5	1	2412	21.30	22.00	1.175	93.74	1.067	-0.09	0.439	0.550
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	Ant 4+3(3)	Index 5	1	2412	21.00	22.00	1.259	93.74	1.067	-0.03	0.192	0.258
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	Ant 4+3(4)	Index 5	11	2462	18.40	18.50	1.023	93.74	1.067	0.04	0.227	0.248
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	Ant 4+3(3)	Index 5	11	2462	18.50	18.50	1.000	93.74	1.067	-0.06	0.110	0.117
	WLAN2.4GHz	802.11g 6Mbps	Front	10mm	Ant 4+3(4)	Index 6/7	1	2412	19.00	19.00	1.000	93.74	1.067	0	0.255	0.272
	WLAN2.4GHz	802.11g 6Mbps	Front	10mm	Ant 4+3(3)	Index 6/7	1	2412	18.70	19.00	1.072	93.74	1.067	-0.1	0.116	0.133
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	Ant 4+3(4)	Index 6/7	1	2412	19.00	19.00	1.000	93.74	1.067	-0.06	0.272	0.290
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	Ant 4+3(3)	Index 6/7	1	2412	18.70	19.00	1.072	93.74	1.067	0.01	0.099	0.113
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	Ant 4+3(4)	Index 6/7	6	2437	18.70	19.00	1.072	93.74	1.067	-0.04	0.275	0.314
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	Ant 4+3(3)	Index 6/7	6	2437	18.50	19.00	1.122	93.74	1.067	-0.01	0.113	0.135
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	Ant 4+3(4)	Index 6/7	11	2462	18.40	18.50	1.023	93.74	1.067	0.04	0.227	0.248
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	Ant 4+3(3)	Index 6/7	11	2462	18.50	18.50	1.000	93.74	1.067	-0.06	0.110	0.117
	WLAN2.4GHz	802.11g 6Mbps	Front	10mm	Ant 4+3(4)	Index 8	1	2412	14.90	15.00	1.023	93.74	1.067	-0.11	0.096	0.105
	WLAN2.4GHz	802.11g 6Mbps	Front	10mm	Ant 4+3(3)	Index 8	1	2412	14.70	15.00	1.072	93.74	1.067	0.17	0.045	0.051
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	Ant 4+3(4)	Index 8	1	2412	14.90	15.00	1.023	93.74	1.067	0.13	0.112	0.122
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	Ant 4+3(3)	Index 8	1	2412	14.70	15.00	1.072	93.74	1.067	-0.16	0.040	0.046
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	Ant 4+3(4)	Index 8	6	2437	14.80	15.00	1.047	93.74	1.067	0	0.109	0.122
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	Ant 4+3(3)	Index 8	6	2437	14.40	15.00	1.148	93.74	1.067	0.01	0.044	0.054
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	Ant 4+3(4)	Index 8	11	2462	14.80	15.00	1.047	93.74	1.067	0.02	0.097	0.108
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	Ant 4+3(3)	Index 8	11	2462	14.80	15.00	1.047	93.74	1.067	0.04	0.047	0.053





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)
153	WLAN5GHz	802.11n-HT40 MCS0	Front	10mm	Ant 4+3(4)	Index 5	54	5270	19.40	20.00	1.148	96.15	1.040	-0.04	0.123	0.147
	WLAN5GHz	802.11n-HT40 MCS0	Front	10mm	Ant 4+3(3)	Index 5	54	5270	18.90	20.00	1.288	96.15	1.040	-0.04	0.195	0.261
	WLAN5GHz	802.11n-HT40 MCS0	Back	10mm	Ant 4+3(4)	Index 5	54	5270	19.40	20.00	1.148	96.15	1.040	-0.08	0.221	0.264
	WLAN5GHz	802.11n-HT40 MCS0	Back	10mm	Ant 4+3(3)	Index 5	54	5270	18.90	20.00	1.288	96.15	1.040	-0.02	0.127	0.170
	WLAN5GHz	802.11n-HT40 MCS0	Back	10mm	Ant 4+3(4)	Index 5	62	5310	16.50	17.00	1.122	96.15	1.040	-0.02	0.092	0.107
	WLAN5GHz	802.11n-HT40 MCS0	Back	10mm	Ant 4+3(3)	Index 5	62	5310	16.30	17.00	1.175	96.15	1.040	0.03	0.052	0.064
	WLAN5GHz	802.11n-HT40 MCS0	Front	10mm	Ant 4+3(4)	Index 6/7/8/9	54	5270	18.80	19.00	1.047	96.15	1.040	-0.02	0.093	0.101
	WLAN5GHz	802.11n-HT40 MCS0	Front	10mm	Ant 4+3(3)	Index 6/7/8/9	54	5270	18.40	19.00	1.148	96.15	1.040	-0.18	0.152	0.182
	WLAN5GHz	802.11n-HT40 MCS0	Back	10mm	Ant 4+3(4)	Index 6/7/8/9	54	5270	18.80	19.00	1.047	96.15	1.040	-0.02	0.176	0.192
	WLAN5GHz	802.11n-HT40 MCS0	Back	10mm	Ant 4+3(3)	Index 6/7/8/9	54	5270	18.40	19.00	1.148	96.15	1.040	0.02	0.101	0.121
	WLAN5GHz	802.11n-HT40 MCS0	Back	10mm	Ant 4+3(4)	Index 6/7/8/9	62	5310	16.50	17.00	1.122	96.15	1.040	-0.02	0.092	0.107
	WLAN5GHz	802.11n-HT40 MCS0	Back	10mm	Ant 4+3(3)	Index 6/7/8/9	62	5310	16.30	17.00	1.175	96.15	1.040	0.03	0.052	0.064
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 4+3(4)	Index 5/6/7	122	5610	18.90	20.00	1.288	87.81	1.139	-0.06	0.107	0.157
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 4+3(3)	Index 5/6/7	122	5610	19.30	20.00	1.175	87.81	1.139	0.07	0.154	0.206
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 4+3(4)	Index 5/6/7	122	5610	18.90	20.00	1.288	87.81	1.139	0.18	0.184	0.270
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 4+3(3)	Index 5/6/7	122	5610	19.30	20.00	1.175	87.81	1.139	-0.09	0.170	0.227
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 4+3(4)	Index 5/6/7	106	5530	15.80	16.50	1.175	87.81	1.139	0.08	0.060	0.080
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 4+3(3)	Index 5/6/7	106	5530	15.90	16.50	1.148	87.81	1.139	0.03	0.081	0.106
154	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 4+3(4)	Index 5/6/7	138	5690	18.80	20.00	1.318	87.81	1.139	-0.08	0.268	0.402
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 4+3(3)	Index 5/6/7	138	5690	19.30	20.00	1.175	87.81	1.139	-0.02	0.118	0.158
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 4+3(4)	Index 8/9	122	5610	18.40	19.00	1.148	87.81	1.139	-0.02	0.094	0.123
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 4+3(3)	Index 8/9	122	5610	18.90	19.00	1.023	87.81	1.139	-0.02	0.137	0.160
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 4+3(4)	Index 8/9	122	5610	18.40	19.00	1.148	87.81	1.139	-0.08	0.189	0.247
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 4+3(3)	Index 8/9	122	5610	18.90	19.00	1.023	87.81	1.139	-0.02	0.148	0.172
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 4+3(4)	Index 8/9	106	5530	15.80	16.50	1.175	87.81	1.139	0.08	0.060	0.080
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 4+3(3)	Index 8/9	106	5530	15.90	16.50	1.148	87.81	1.139	0.03	0.081	0.106
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 4+3(4)	Index 8/9	138	5690	18.20	19.00	1.202	87.81	1.139	-0.04	0.215	0.294
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 4+3(3)	Index 8/9	138	5690	18.80	19.00	1.047	87.81	1.139	-0.06	0.098	0.117
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 4+3(4)	Index 5/6/7	155	5775	19.00	20.00	1.259	87.81	1.139	0.17	0.148	0.212
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 4+3(3)	Index 5/6/7	155	5775	19.40	20.00	1.148	87.81	1.139	0.17	0.107	0.140
155	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 4+3(4)	Index 5/6/7	155	5775	19.00	20.00	1.259	87.81	1.139	-0.19	0.259	0.371
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 4+3(3)	Index 5/6/7	155	5775	19.40	20.00	1.148	87.81	1.139	-0.14	0.070	0.092
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 4+3(4)	Index 8/9	155	5775	18.50	19.00	1.122	87.81	1.139	-0.19	0.121	0.155
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 4+3(3)	Index 8/9	155	5775	18.90	19.00	1.023	87.81	1.139	-0.14	0.084	0.098
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 4+3(4)	Index 8/9	155	5775	18.50	19.00	1.122	87.81	1.139	0.02	0.222	0.284
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 4+3(3)	Index 8/9	155	5775	18.90	19.00	1.023	87.81	1.139	-0.01	0.078	0.091
	WLAN5GHz	802.11ac-VHT160 MCS0	Front	10mm	Ant 4+3(4)	Index 5/6/7	163	5815	19.00	19.50	1.122	87.06	1.149	-0.08	0.145	0.187
	WLAN5GHz	802.11ac-VHT160 MCS0	Front	10mm	Ant 4+3(3)	Index 5/6/7	163	5815	19.20	19.50	1.072	87.06	1.149	-0.07	0.121	0.149
	WLAN5GHz	802.11ac-VHT160 MCS0	Back	10mm	Ant 4+3(4)	Index 5/6/7	163	5815	19.00	19.50	1.122	87.06	1.149	0.06	0.286	0.369
	WLAN5GHz	802.11ac-VHT160 MCS0	Back	10mm	Ant 4+3(3)	Index 5/6/7	163	5815	19.20	19.50	1.072	87.06	1.149	0.04	0.112	0.138
	WLAN5GHz	802.11ac-VHT160 MCS0	Front	10mm	Ant 4+3(4)	Index 8/9	163	5815	18.20	18.50	1.072	87.06	1.149	0.1	0.119	0.147
	WLAN5GHz	802.11ac-VHT160 MCS0	Front	10mm	Ant 4+3(3)	Index 8/9	163	5815	18.40	18.50	1.023	87.06	1.149	-0.02	0.095	0.112
	WLAN5GHz	802.11ac-VHT160 MCS0	Back	10mm	Ant 4+3(4)	Index 8/9	163	5815	18.20	18.50	1.072	87.06	1.149	0.04	0.236	0.291
	WLAN5GHz	802.11ac-VHT160 MCS0	Back	10mm	Ant 4+3(3)	Index 8/9	163	5815	18.40	18.50	1.023	87.06	1.149	-0.16	0.093	0.109



<WLAN 6GHz 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)
	WLAN5/6GHz	802.11ax-HE160 MCS0	Front	10mm	Ant 4+3(4)	Index 5/6/7/8/9	207	6985	17.90	18.00	1.023	85.92	1.164	0.13	0.072	0.086	0.529	0.630
	WLAN5/6GHz	802.11ax-HE160 MCS0	Front	10mm	Ant 4+3(3)	Index 5/6/7/8/9	207	6985	17.90	18.00	1.023	85.92	1.164	-0.1	0.070	0.083	0.585	0.697
	WLAN5/6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 4+3(4)	Index 5/6/7/8/9	207	6985	17.90	18.00	1.023	85.92	1.164	-0.16	0.117	0.139	0.762	0.908
	WLAN5/6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 4+3(3)	Index 5/6/7/8/9	207	6985	17.90	18.00	1.023	85.92	1.164	-0.15	0.078	0.093	0.615	0.733
157	WLAN5/6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 4+3(4)	Index 5/6/7/8/9	15	6025	16.40	17.00	1.148	85.92	1.164	-0.18	0.120	0.160	0.867	1.159
	WLAN5/6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 4+3(3)	Index 5/6/7/8/9	15	6025	16.70	17.00	1.072	85.92	1.164	-0.02	0.064	0.080	0.485	0.605
	WLAN5/6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 4+3(4)	Index 5/6/7/8/9	47	6185	16.50	17.00	1.122	85.92	1.164	-0.09	0.071	0.093	0.500	0.653
	WLAN5/6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 4+3(3)	Index 5/6/7/8/9	47	6185	16.70	17.00	1.078	85.92	1.164	-0.09	0.035	0.044	0.260	0.324
	WLAN5/6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 4+3(4)	Index 5/6/7/8/9	111	6505	15.40	16.00	1.148	85.92	1.164	-0.18	0.015	0.020	0.100	0.134
	WLAN5/6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 4+3(3)	Index 5/6/7/8/9	111	6505	15.90	16.00	1.023	85.92	1.164	-0.18	0.022	0.026	0.180	0.214
	WLAN5/6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 4+3(4)	Index 5/6/7/8/9	143	6665	16.60	17.50	1.230	85.92	1.164	0.18	0.016	0.023	0.080	0.115
	WLAN5/6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 4+3(3)	Index 5/6/7/8/9	143	6665	17.20	17.50	1.072	85.92	1.164	0.18	0.034	0.042	0.260	0.324

<Bluetooth 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)
	Bluetooth	1Mbps	Front	10mm	Ant 4	Index 2	0	2402	19.59	20.00	1.098	76.76	1.085	-0.14	0.174	0.207
158	Bluetooth	1Mbps	Back	10mm	Ant 4	Index 2	0	2402	19.59	20.00	1.098	76.76	1.085	-0.11	0.198	0.236
	Bluetooth	1Mbps	Back	10mm	Ant 4	Index 2	39	2441	19.17	20.00	1.210	76.76	1.085	0.05	0.172	0.226
	Bluetooth	1Mbps	Back	10mm	Ant 4	Index 2	78	2480	18.84	20.00	1.305	76.76	1.085	0.02	0.147	0.208
	Bluetooth	1Mbps	Front	10mm	Ant 4	Index 3/4	0	2402	18.40	18.50	1.023	76.76	1.085	-0.13	0.137	0.152
	Bluetooth	1Mbps	Front	10mm	Ant 4	Index 3/4	39	2441	18.40	18.50	1.023	76.76	1.085	0.12	0.145	0.161
	Bluetooth	1Mbps	Front	10mm	Ant 4	Index 3/4	78	2480	18.20	18.50	1.072	76.76	1.085	0	0.134	0.156
	Bluetooth	1Mbps	Back	10mm	Ant 4	Index 3/4	0	2402	18.40	18.50	1.023	76.76	1.085	-0.04	0.132	0.147
	Bluetooth	1Mbps	Front	10mm	Ant 3	Index 2/3/4	78	2480	19.89	21.00	1.292	77.26	1.078	-0.11	0.081	0.113
	Bluetooth	1Mbps	Back	10mm	Ant 3	Index 2/3/4	78	2480	19.89	21.00	1.292	77.26	1.078	-0.02	0.099	0.138
	Bluetooth	1Mbps	Back	10mm	Ant 3	Index 2/3/4	0	2402	19.09	21.00	1.553	77.26	1.078	-0.08	0.102	0.171
	Bluetooth	1Mbps	Back	10mm	Ant 3	Index 2/3/4	39	2441	19.80	21.00	1.319	77.26	1.078	0.03	0.096	0.136
	Bluetooth	1Mbps	Front	10mm	Ant 4+3(4)	Index 2/3/4	39	2441	17.14	18.50	1.369	77.2	1.079	-0.11	0.091	0.134
	Bluetooth	1Mbps	Front	10mm	Ant 4+3(3)	Index 2/3/4	39	2441	17.59	18.50	1.234	77.2	1.079	-0.11	0.066	0.088
	Bluetooth	1Mbps	Back	10mm	Ant 4+3(4)	Index 2/3/4	39	2441	17.14	18.50	1.369	77.2	1.079	-0.09	0.109	0.161
	Bluetooth	1Mbps	Back	10mm	Ant 4+3(3)	Index 2/3/4	39	2441	17.59	18.50	1.234	77.2	1.079	-0.01	0.038	0.051
	Bluetooth	1Mbps	Back	10mm	Ant 4+3(4)	Index 2/3/4	0	2402	17.28	18.50	1.325	77.2	1.079	0.04	0.096	0.137
	Bluetooth	1Mbps	Back	10mm	Ant 4+3(3)	Index 2/3/4	0	2402	17.13	18.50	1.371	77.2	1.079	0.06	0.029	0.043
	Bluetooth	1Mbps	Back	10mm	Ant 4+3(4)	Index 2/3/4	78	2480	16.50	18.50	1.585	77.2	1.079	-0.02	0.082	0.140
	Bluetooth	1Mbps	Back	10mm	Ant 4+3(3)	Index 2/3/4	78	2480	18.00	18.50	1.122	77.2	1.079	-0.03	0.032	0.039





18.4 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)
	WLAN5GHz	802.11n-HT40 MCS0	Front	0mm	Ant 4+3(4)	Index 5	54	5270	19.40	20.00	1.148	96.15	1.040	-0.16	0.509	0.608
	WLAN5GHz	802.11n-HT40 MCS0	Front	0mm	Ant 4+3(3)	Index 5	54	5270	18.90	20.00	1.288	96.15	1.040	-0.12	0.767	1.028
	WLAN5GHz	802.11n-HT40 MCS0	Back	0mm	Ant 4+3(4)	Index 5	54	5270	19.40	20.00	1.148	96.15	1.040	-0.18	0.356	0.425
	WLAN5GHz	802.11n-HT40 MCS0	Back	0mm	Ant 4+3(3)	Index 5	54	5270	18.90	20.00	1.288	96.15	1.040	-0.08	0.264	0.354
159	WLAN5GHz	802.11n-HT40 MCS0	Left Side	0mm	Ant 4+3(3)	Index 5	54	5270	18.90	20.00	1.288	96.15	1.040	0.02	1.260	1.688
	WLAN5GHz	802.11n-HT40 MCS0	Left Side	0mm	Ant 4+3(3)	Index 5	62	5310	16.30	17.00	1.175	96.15	1.040	0.04	0.619	0.756
	WLAN5GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 4+3(4)	Index 5	54	5270	19.40	20.00	1.148	96.15	1.040	-0.19	0.749	0.894
	WLAN5GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 4+3(4)	Index 5	54	5270	19.40	20.00	1.148	96.15	1.040	0	0.980	1.170
	WLAN5GHz	802.11n-HT40 MCS0	Front	0mm	Ant 4+3(4)	Index 6/7/8/9	54	5270	18.80	19.00	1.047	96.15	1.040	0.05	0.427	0.465
	WLAN5GHz	802.11n-HT40 MCS0	Front	0mm	Ant 4+3(3)	Index 6/7/8/9	54	5270	18.40	19.00	1.148	96.15	1.040	0.01	0.638	0.762
	WLAN5GHz	802.11n-HT40 MCS0	Back	0mm	Ant 4+3(4)	Index 6/7/8/9	54	5270	18.80	19.00	1.047	96.15	1.040	-0.03	0.293	0.319
	WLAN5GHz	802.11n-HT40 MCS0	Back	0mm	Ant 4+3(3)	Index 6/7/8/9	54	5270	18.40	19.00	1.148	96.15	1.040	0.01	0.219	0.262
	WLAN5GHz	802.11n-HT40 MCS0	Left Side	0mm	Ant 4+3(3)	Index 6/7/8/9	54	5270	18.40	19.00	1.148	96.15	1.040	0.03	1.010	1.206
	WLAN5GHz	802.11n-HT40 MCS0	Left Side	0mm	Ant 4+3(3)	Index 6/7/8/9	62	5310	16.30	17.00	1.175	96.15	1.040	0.04	0.619	0.756
	WLAN5GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 4+3(4)	Index 6/7/8/9	54	5270	18.80	19.00	1.047	96.15	1.040	-0.19	0.617	0.672
	WLAN5GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 4+3(4)	Index 6/7/8/9	54	5270	18.80	19.00	1.047	96.15	1.040	0.03	0.692	0.754
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 4+3(4)	Index 5/6/7	122	5610	18.90	20.00	1.288	87.81	1.139	-0.18	0.375	0.550
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 4+3(3)	Index 5/6/7	122	5610	19.30	20.00	1.175	87.81	1.139	-0.08	0.714	0.955
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 4+3(4)	Index 5/6/7	122	5610	18.90	20.00	1.288	87.81	1.139	-0.03	0.374	0.549
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 4+3(3)	Index 5/6/7	122	5610	19.30	20.00	1.175	87.81	1.139	-0.11	0.254	0.340
160	WLAN5GHz	802.11ac-VHT80 MCS0	Left Side	0mm	Ant 4+3(3)	Index 5/6/7	122	5610	19.30	20.00	1.175	87.81	1.139	0.01	1.050	1.405
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Side	0mm	Ant 4+3(3)	Index 5/6/7	106	5530	15.90	16.50	1.148	87.81	1.139	0.03	0.534	0.698
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Side	0mm	Ant 4+3(3)	Index 5/6/7	138	5690	19.30	20.00	1.175	87.81	1.139	0.04	0.839	1.123
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 4+3(4)	Index 5/6/7	122	5610	18.90	20.00	1.288	87.81	1.139	-0.11	0.546	0.801
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 4+3(4)	Index 5/6/7	122	5610	18.90	20.00	1.288	87.81	1.139	-0.03	0.576	0.845
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 4+3(4)	Index 8/9	122	5610	18.40	19.00	1.148	87.81	1.139	-0.13	0.248	0.324
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 4+3(3)	Index 8/9	122	5610	18.90	19.00	1.023	87.81	1.139	-0.13	0.475	0.554
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 4+3(4)	Index 8/9	122	5610	18.40	19.00	1.148	87.81	1.139	-0.12	0.320	0.418
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 4+3(3)	Index 8/9	122	5610	18.90	19.00	1.023	87.81	1.139	-0.13	0.209	0.244
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Side	0mm	Ant 4+3(3)	Index 8/9	122	5610	18.90	19.00	1.023	87.81	1.139	-0.18	0.857	0.999
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Side	0mm	Ant 4+3(3)	Index 8/9	106	5530	15.90	16.50	1.148	87.81	1.139	0.03	0.534	0.698
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Side	0mm	Ant 4+3(3)	Index 8/9	138	5690	18.80	19.00	1.047	87.81	1.139	0.04	0.651	0.776
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 4+3(4)	Index 8/9	122	5610	18.40	19.00	1.148	87.81	1.139	0.13	0.457	0.598
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 4+3(4)	Index 8/9	122	5610	18.40	19.00	1.148	87.81	1.139	-0.18	0.479	0.626
	WLAN5GHz	802.11ac-VHT160 MCS0	Front	0mm	Ant 4+3(4)	Index 5/6/7	163	5815	19.00	19.50	1.122	87.06	1.149	0	0.614	0.792
	WLAN5GHz	802.11ac-VHT160 MCS0	Front	0mm	Ant 4+3(3)	Index 5/6/7	163	5815	19.20	19.50	1.072	87.06	1.149	0	0.649	0.799
	WLAN5GHz	802.11ac-VHT160 MCS0	Back	0mm	Ant 4+3(4)	Index 5/6/7	163	5815	19.00	19.50	1.122	87.06	1.149	-0.02	0.368	0.474
	WLAN5GHz	802.11ac-VHT160 MCS0	Back	0mm	Ant 4+3(3)	Index 5/6/7	163	5815	19.20	19.50	1.072	87.06	1.149	-0.03	0.185	0.228
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Side	0mm	Ant 4+3(3)	Index 5/6/7	163	5815	19.20	19.50	1.072	87.06	1.149	0	0.779	0.959
161	WLAN5GHz	802.11ac-VHT160 MCS0	Right Side	0mm	Ant 4+3(4)	Index 5/6/7	163	5815	19.00	19.50	1.122	87.06	1.149	0	0.900	1.160
	WLAN5GHz	802.11ac-VHT160 MCS0	Top Side	0mm	Ant 4+3(4)	Index 5/6/7	163	5815	19.00	19.50	1.122	87.06	1.149	-0.04	0.520	0.670
	WLAN5GHz	802.11ac-VHT160 MCS0	Front	0mm	Ant 4+3(4)	Index 8/9	163	5815	18.20	18.50	1.072	87.06	1.149	0.1	0.515	0.634
	WLAN5GHz	802.11ac-VHT160 MCS0	Front	0mm	Ant 4+3(3)	Index 8/9	163	5815	18.40	18.50	1.023	87.06	1.149	-0.02	0.508	0.597
	WLAN5GHz	802.11ac-VHT160 MCS0	Back	0mm	Ant 4+3(4)	Index 8/9	163	5815	18.20	18.50	1.072	87.06	1.149	0.01	0.308	0.379
	WLAN5GHz	802.11ac-VHT160 MCS0	Back	0mm	Ant 4+3(3)	Index 8/9	163	5815	18.40	18.50	1.023	87.06	1.149	0	0.158	0.186
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Side	0mm	Ant 4+3(3)	Index 8/9	163	5815	18.40	18.50	1.023	87.06	1.149	0.05	0.641	0.754
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Side	0mm	Ant 4+3(4)	Index 8/9	163	5815	18.20	18.50	1.072	87.06	1.149	0.03	0.745	0.917
	WLAN5GHz	802.11ac-VHT160 MCS0	Top Side	0mm	Ant 4+3(4)	Index 8/9	163	5815	18.20	18.50	1.072	87.06	1.149	-0.02	0.431	0.531



<WLAN 6GHz 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 <sup>2</sup> )	Reported APD (W/m <sup>2</sup> )
	WLAN6GHz	802.11ax-HE160 MCS0	Front	0mm	Ant 4+3(4)	Index 5/6/7/8/9	207	6985	17.90	18.00	1.023	85.92	1.164	-0.04	0.252	0.300	6.040	7.194
	WLAN6GHz	802.11ax-HE160 MCS0	Front	0mm	Ant 4+3(3)	Index 5/6/7/8/9	207	6985	17.90	18.00	1.023	85.92	1.164	0	0.177	0.211	4.220	5.026
	WLAN6GHz	802.11ax-HE160 MCS0	Back	0mm	Ant 4+3(4)	Index 5/6/7/8/9	207	6985	17.90	18.00	1.023	85.92	1.164	0.13	0.100	0.119	2.370	2.823
	WLAN6GHz	802.11ax-HE160 MCS0	Back	0mm	Ant 4+3(3)	Index 5/6/7/8/9	207	6985	17.90	18.00	1.023	85.92	1.164	0.02	0.083	0.099	1.900	2.263
	WLAN6GHz	802.11ax-HE160 MCS0	Left Side	0mm	Ant 4+3(3)	Index 5/6/7/8/9	207	6985	17.90	18.00	1.023	85.92	1.164	-0.03	0.329	0.392	7.700	9.172
	WLAN6GHz	802.11ax-HE160 MCS0	Right Side	0mm	Ant 4+3(4)	Index 5/6/7/8/9	207	6985	17.90	18.00	1.023	85.92	1.164	-0.02	0.155	0.185	3.680	4.383
162	WLAN6GHz	802.11ax-HE160 MCS0	Top Side	0mm	Ant 4+3(4)	Index 5/6/7/8/9	207	6985	17.90	18.00	1.023	85.92	1.164	0.04	0.411	0.490	8.180	9.743
	WLAN6GHz	802.11ax-HE160 MCS0	Top Side	0mm	Ant 4+3(4)	Index 5/6/7/8/9	15	6025	16.40	17.00	1.148	85.92	1.164	-0.02	0.212	0.283	4.950	6.615
	WLAN6GHz	802.11ax-HE160 MCS0	Top Side	0mm	Ant 4+3(4)	Index 5/6/7/8/9	47	6185	16.50	17.00	1.122	85.92	1.164	0	0.152	0.199	3.420	4.467
	WLAN6GHz	802.11ax-HE160 MCS0	Top Side	0mm	Ant 4+3(4)	Index 5/6/7/8/9	111	6505	15.40	16.00	1.148	85.92	1.164	0.02	0.132	0.176	3.020	4.036
	WLAN6GHz	802.11ax-HE160 MCS0	Top Side	0mm	Ant 4+3(4)	Index 5/6/7/8/9	143	6665	16.60	17.50	1.230	85.92	1.164	0	0.228	0.327	5.200	7.447

18.5 6GHz PD Test Result

Band	Mode	Test Position	Gap (mm)	Antenna	Ch.	Freq. (MHz)	Average Power (dBm)	Grid Step (λ)	iPDn	iPD ratio (≥ -1)	Normal psPD (W/m <sup>2</sup> )	Total psPD (W/m <sup>2</sup> )
WLAN6GHz	802.11ax-HE160 MCS0	Top Side	2mm	Ant 3+4(4)	15	6025	16.70	0.0625	2.25	-0.03843339	1.390	1.550
WLAN6GHz	802.11ax-HE160 MCS0	Top Side	10mm	Ant 3+4(4)	15	6025	16.70	0.25	2.27		0.665	0.722
WLAN6GHz	802.11ax-HE160 MCS0	Top Side	2mm	Ant 3+4(4)	207	6985	17.90	0.0625	2.56	-0.10061326	3.370	3.820
WLAN6GHz	802.11ax-HE160 MCS0	Top Side	8.59mm	Ant 3+4(4)	207	6985	17.90	0.25	2.62		0.839	0.866

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 <sup>2</sup> )	Scaled Normal psPD (W/m <sup>2</sup> )	Total psPD (W/m <sup>2</sup> )	Scaled Total psPD (W/m <sup>2</sup> )
	WLAN6GHz	802.11ax-HE160 MCS0	Front	2mm	Ant 3+4(4)	1	15	6025	13.00	13.50	1.122	85.92	1.164	0.0625	1.5535	0.11	1.350	2.739	1.700	3.449
	WLAN6GHz	802.11ax-HE160 MCS0	Front	2mm	Ant 3+4(4)	1	47	6185	13.00	13.50	1.122	85.92	1.164	0.0625	1.5535	-0.14	0.999	2.027	1.110	2.252
	WLAN6GHz	802.11ax-HE160 MCS0	Front	2mm	Ant 3+4(4)	1	111	6505	15.20	16.00	1.202	85.92	1.164	0.0625	1.5535	0.06	1.230	2.674	1.450	3.152
	WLAN6GHz	802.11ax-HE160 MCS0	Front	2mm	Ant 3+4(3)	1	143	6665	15.00	16.00	1.259	85.92	1.164	0.0625	1.5535	-0.19	1.270	2.891	1.520	3.460
	WLAN6GHz	802.11ax-HE160 MCS0	Front	2mm	Ant 3+4(3)	1	207	6985	14.50	15.00	1.122	85.92	1.164	0.0625	1.5535	-0.05	1.360	2.759	1.480	3.003
	WLAN6GHz	802.11ax-HE160 MCS0	Top Side	2mm	Ant 3+4(4)	5	15	6025	16.40	17.00	1.148	85.92	1.164	0.0625	1.5535	0.09	1.390	2.886	1.550	3.218
	WLAN6GHz	802.11ax-HE160 MCS0	Top Side	2mm	Ant 3+4(4)	5	47	6185	16.50	17.00	1.122	85.92	1.164	0.0625	1.5535	-0.06	0.743	1.507	1.140	2.313
	WLAN6GHz	802.11ax-HE160 MCS0	Top Side	2mm	Ant 3+4(4)	5	111	6505	15.40	16.00	1.148	85.92	1.164	0.0625	1.5535	0.09	0.576	1.196	0.731	1.518
	WLAN6GHz	802.11ax-HE160 MCS0	Top Side	2mm	Ant 3+4(4)	5	143	6665	16.60	17.50	1.230	85.92	1.164	0.0625	1.5535	0.17	0.907	2.018	1.010	2.247
163	WLAN6GHz	802.11ax-HE160 MCS0	Top Side	2mm	Ant 3+4(4)	5	207	6985	17.90	18.00	1.023	85.92	1.164	0.0625	1.5535	0.17	3.370	6.236	3.820	7.069
	WLAN6GHz	802.11ax-HE160 MCS0	Front	2mm	Ant 3+4(3)	5	207	6985	17.90	18.00	1.023	85.92	1.164	0.0625	1.5535	0.02	2.090	3.867	2.440	4.515
	WLAN6GHz	802.11ax-HE160 MCS0	Back	2mm	Ant 3+4(4)	5	207	6985	17.90	18.00	1.023	85.92	1.164	0.0625	1.5535	0.04	1.200	2.220	1.390	2.572
	WLAN6GHz	802.11ax-HE160 MCS0	Left Side	2mm	Ant 3+4(3)	5	207	6985	17.90	18.00	1.023	85.92	1.164	0.0625	1.5535	0.05	2.720	5.033	3.310	6.125
	WLAN6GHz	802.11ax-HE160 MCS0	Right Side	2mm	Ant 3+4(4)	5	207	6985	17.90	18.00	1.023	85.92	1.164	0.0625	1.5535	0.1	0.790	1.462	1.180	2.183



**18.6 Repeated SAR Measurement**

No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Index	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Ratio	Reported 1g SAR (W/kg)
1st	FR1 n71_Ant 1	20M	QPSK	1	1	Right Cheek	0mm	Index 2	136100	680.5	24.46	25.20	1.186	-0.15	0.814	-	0.965
2nd	FR1 n71_Ant 1	20M	QPSK	1	1	Right Cheek	0mm	Index 2	136100	680.5	24.46	25.20	1.186	0.04	0.801	1.02	0.950

**General Note:**

1. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is  $\geq 0.8$ W/kg.
2. Per KDB 865664 D01v01r04, if the ratio among the repeated measurement is  $\leq 1.2$  and the measured SAR  $< 1.45$ W/kg, only one repeated measurement is required.
3. The ratio is the difference in percentage between original and repeated *measured* SAR.
4. All measurement SAR result is scaled-up to account for tune-up tolerance and is compliant.

**18.7 FR1 n41/n77 Power Class 2 and Power Class 3 Linearity**

This device support Power Class 2 and Power Class 3 operations for FR1 n41/n77. Per FCC Guidance based on the device behavior, all SAR tests were performed using Power Class 3. Power Class 2 is tested using the highest SAR test configuration in Power Class 3 for each FR1 configuration and exposure condition combination, according to the highest time averaged power for all applicable uplink-downlink configurations in Power Class 2. When the reported SAR vs. output power is linearly scaled with  $< 10\%$  discrepancy between power classes and all reported SAR are  $< 1.4$  W/kg, Separate SAR testing for Power Class 2 is not required. Use PC3 power level and SAR to estimated PC2 SAR linearly, and check if the deviation from the measured PC2 SAR is  $< 10\%$

**<FR1 n41 Linearity Data for Head>**

	FR1 n41_Ant 1 (Power Class 3)	FR1 n41_Ant 1 (Power Class 2)
Maximum Tune up Power (dBm)	17.7	20.7
Reported 1g SAR (W/kg)	0.8	0.734
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	58.88	58.74
Linearity SAR(W/kg)	0.80	
% deviation from expected linearity		-8.03%

**<FR1 n77 Linearity Data for Head>**

	FR1 n77_Ant 1 (Power Class 3)	FR1 n77_Ant 1 (Power Class 2)
Maximum Tune up Power (dBm)	17.60	20.60
Reported 1g SAR (W/kg)	0.804	0.739
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	57.54	57.41
Linearity SAR(W/kg)	0.80	
% deviation from expected linearity		-7.87%

**<FR1 n41 Linearity Data for Hotspot>**

	FR1 n41_Ant 1	FR1 n41_Ant 1
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	21.10	24.10
Reported 1g SAR (W/kg)	0.51	0.483
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	128.82	128.52
Linearity SAR(W/kg)	0.51	
% deviation from expected linearity		-5.07%

**<FR1 n77 Linearity Data for Hotspot>**

	FR1 n77_Ant 1	FR1 n77_Ant 1
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	18	21
Reported 1g SAR (W/kg)	0.267	0.255
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	63.10	62.95
Linearity SAR(W/kg)	0.27	
% deviation from expected linearity		-4.27%

**<FR1 n41 Linearity Data for Body-worn>**

	FR1 n41_Ant 1	FR1 n41_Ant 1
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	23	26
Reported 1g SAR (W/kg)	0.403	0.378
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	199.53	199.05
Linearity SAR(W/kg)	0.40	
% deviation from expected linearity		-5.98%

**<FR1 n77 Linearity Data for Body-worn>**

	FR1 n77_Ant 1	FR1 n77_Ant 1
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	21.7	24.7
Reported 1g SAR (W/kg)	0.492	0.48
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	147.91	147.56
Linearity SAR(W/kg)	0.49	
% deviation from expected linearity		-2.21%

**Test Engineer** : Jocelyn Huang, Putzie Chen, Ben Huang, Jay Chien, Jimmy Lu, Carter Jhuang, Mood Huang, Rain Chiu, Jacky Chen and Hank Chiang

## **19. Uncertainty Assessment**

Declaration of Conformity:

The test results with all measurement uncertainty excluded is presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

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

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

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

<b>Uncertainty Distributions</b>	<b>Normal</b>	<b>Rectangular</b>	<b>Triangular</b>	<b>U-Shape</b>
Multi-plying Factor <sup>(a)</sup>	1/k <sup>(b)</sup>	1/√3	1/√6	1/√2

- (a) standard uncertainty is determined as the product of the multiplying factor and the estimated range of variations in the measured quantity
- (b)  $\kappa$  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) (±%)
<b>Measurement System</b>							
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
<b>Test Sample Related</b>							
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
<b>Phantom and Setup</b>							
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
<b>Combined Std. Uncertainty</b>						14.5%	14.2%
<b>Coverage Factor for 95 %</b>						K=2	K=2
<b>Expanded STD Uncertainty</b>						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
<b>Uncertainty terms dep endent on the DUT and environmental factors</b>					
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	
<b>Combined Std. Uncertainty</b>					<b>1.34</b>
<b>Expanded STD Uncertainty (95%)</b>					<b>2.68</b>





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