

FCC SAR TEST REPORT

FCC ID : A4RGB62Z
Equipment : Phone
Model Name : GB62Z
Applicant : Google LLC
1600 Amphitheatre Parkway,
Mountain View, California, 94043 USA
Standard : FCC 47 CFR Part 2 (2.1093)

The product was received on Oct. 14, 2021 and testing was started from Nov. 28, 2021 and completed on Jan. 20, 2022. 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. Wensan Laboratory, the test report shall not be reproduced except in full.



Approved by: Cona Huang / Deputy Manager



Sporton International Inc. Wensan Laboratory

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History of this test report

Report No.	Version	Description	Issued Date
FA161608-03C	01	Initial issue of report	Jan. 25, 2022



1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for Google LLC, Phone, GB62Z, 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	1.17	0.71	0.87		1.59	2.98	
	GSM1900	0.56	1.16	0.99	1.95			
	WCDMA II	0.97	1.09	0.95	1.64			
	WCDMA IV	0.72	1.18	0.99	2.93			
	WCDMA V	1.13	0.43	0.52				
	LTE B7	0.99	0.73	0.90				
	LTE B12/17	0.87	0.43	0.51				
	LTE B13	0.92	0.48	0.67				
	LTE B14	0.86	0.57	0.79				
	LTE B25/2	0.74	1.17	0.99	2.08			
	LTE B26/5	0.99	0.44	0.60				
	LTE B30	0.79	1.13	0.94				
	LTE B41/B38	0.69	0.79	0.99				
	LTE B48	0.22	0.89	0.89				
	LTE B66/4	0.68	1.14	0.94	2.91			
	LTE B71	0.96	0.48	0.48				
	FR1 n5	0.96	0.43	0.53				
	FR1 n7	0.90	0.76	0.93				
	FR1 n12	0.98	0.46	0.47				
	FR1 n25/2	0.83	1.19	0.98	1.88			
FR1 n30	0.68	1.19	0.99					
FR1 n66	0.62	1.13	1.00	2.98				
FR1 n71	0.70	0.45	0.50					
FR1 n77	0.75	1.19	0.99					
DTS	2.4GHz WLAN	1.19	0.43	0.51		1.58		
NII	5GHz WLAN	1.19	1.13	0.50	2.77	1.59	2.98	
DSS	Bluetooth	0.28	0.32	0.22		1.59		
Equipment Class	Frequency Band	Head		Body		Product Specific		Highest Reported PD (W/m ²)
		Reported 1g SAR (W/kg)	APD (W/m ²)	Reported 1g SAR (W/kg)	APD (W/m ²)	Reported 1g SAR (W/kg)	APD (W/m ²)	
6XD	6GHz WLAN	0.43	1.92	0.10	0.48	0.47	8.94	7.49
Date of Testing:		2021/11/28 ~ 2022/1/20						

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 3786) 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/cm²=10 W/m²) specified in FCC 47 CFR part 1.1310 and ANSI/IEEE C95.1-1992, and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528-2013 and FCC KDB publications.

Reviewed by: Jason Wang
Report Producer: Carlie Tsai



2. Equipment Under Test (EUT) Information

2.1 General Information

Product Feature & Specification	
Equipment Name	Phone
Model Name	GB62Z
FCC ID	A4RGB62Z
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 n66 : 1710 MHz ~ 1780 MHz 5G NR n71: 663 MHz ~ 698 MHz 5G NR n77 : 3450MHz ~ 3550MHz, 3700 MHz ~ 3980 MHz 5G NR n260 : 37 GHz~40 GHz 5G NR n261 : 27.5 GHz~28.35 GHz WLAN 2.4 GHz Band: 2400 MHz ~ 2483.5 MHz WLAN 5.2 GHz Band: 5150 MHz ~ 5250 MHz WLAN 5.3 GHz Band: 5250 MHz ~ 5350 MHz WLAN 5.6 GHz Band: 5470 MHz ~ 5725 MHz WLAN 5.8 GHz Band: 5725 MHz ~ 5850 MHz WLAN 5.8G UNII4 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
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 HT20/HT40/VHT20/VHT40/VHT80/VHT160/HE20/HE40/HE80/HE160 Bluetooth BR/EDR/LE NFC:ASK
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:	<ol style="list-style-type: none"> Dynamic antenna tuning mechanism is available at Ant. 0 and for its <1GHz band, details are illustrated in the operational description This device WLAN 2.4GHz / 5.2GHz / 5.8GHz supports Hotspot operation and Bluetooth support tethering applications. 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. Details about the power management decision and sensor detection are provided in the operational description. This device has NFC operations, the NFC antenna is integrated into the device for this model, therefore, all SAR test were performed with the device which already incorporates the NFC antenna. A diagram showing the location of the antenna can be found in the operational description. According to FCC KDB publication 447498 D01v06, transmitters are consider to be operating simultaneously when there is overlapping transmission, with the exception of transmission during network hand-offs with maximum hand-off duration less than 30 seconds.



2.2 Maximum Tune-up Limit

General Note:

- 1. For each cellular band, the device has several WWAN antennas, the antenna selection is based on the connection quality condition, and only one antenna will transmit at a time.
2. The device implements the power management and sensor detection for SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity) by output power index and the TAS feature will manage to ensure the power level not exceeding the associated power table. Details about the power management decision and sensor detection are provided in the operational description.
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.
4. The index 1 is for the mobile exposure condition, the compliance is demonstrated in Sporton's test report FA161608-03E.
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.

Table with 2 columns: Transmit switching diversity configuration, Support transmit antenna and band. Rows include TX 0 and TX 1 configurations with associated antenna and band details.



Maximum Transmit Burst Average Power (dBm)											
Band	Config	Antenna	Duty cycle	Mobile Condition	Head	Head	Hotspot	Body-worn/ Extremity	Body-worn/ Extremity	Head-Hotspot	
					Standalone	Simultaneous	Simultaneous	Standalone	Simultaneous	Simultaneous	
					Index 1	Index 2	Index 3	Index 4	Index 5	Index 6	Index 7
GSM850 GSM/GPRS 1TX	TX0	0	12.50%	33.50	33.50	33.50	33.50	33.50	33.50	33.50	
GSM850 GPRS 2TX	TX0	0	25.00%	32.50	32.50	32.50	32.50	32.50	32.50	32.50	
GSM850 GPRS 3TX	TX0	0	37.50%	31.50	31.50	31.50	31.50	31.50	31.50	31.50	
GSM850 GPRS 4TX	TX0	0	50.00%	30.50	30.50	30.50	30.50	30.50	30.50	30.50	
GSM850 EDGE 1TX	TX0	0	12.50%	28.00	28.00	28.00	28.00	28.00	28.00	28.00	
GSM850 EDGE 2TX	TX0	0	25.00%	27.50	27.50	27.50	27.50	27.50	27.50	27.50	
GSM850 EDGE 3TX	TX0	0	37.50%	27.50	27.50	27.50	27.50	27.50	27.50	27.50	
GSM850 EDGE 4TX	TX0	0	50.00%	25.50	25.50	25.50	25.50	25.50	25.50	25.50	
GSM1900 GSM/GPRS 1TX	TX0	2	12.50%	30.85	30.85	30.85	29.80	30.85	30.70	30.85	
GSM1900 GPRS 2TX	TX0	2	25.00%	29.35	29.35	29.35	26.80	28.50	27.70	29.35	
GSM1900 GPRS 3TX	TX0	2	37.50%	28.85	28.85	28.85	25.05	26.75	25.95	28.85	
GSM1900 GPRS 4TX	TX0	2	50.00%	27.85	27.85	27.85	23.80	25.50	24.70	27.85	
GSM1900 EDGE 1TX	TX0	2	12.50%	26.35	26.35	26.35	26.35	26.35	26.35	26.35	
GSM1900 EDGE 2TX	TX0	2	25.00%	24.85	24.85	24.85	24.85	24.85	24.85	24.85	
GSM1900 EDGE 3TX	TX0	2	37.50%	24.85	24.85	24.85	24.85	24.85	24.85	24.85	
GSM1900 EDGE 4TX	TX0	2	50.00%	23.85	23.85	23.85	23.80	23.85	23.85	23.85	
WCDMA B2	TX0	2	100.00%	25.25	25.25	25.25	20.90	22.10	21.30	25.25	
WCDMA B4	TX0	2	100.00%	25.25	25.25	25.25	22.00	23.30	22.50	25.25	
WCDMA B5	TX0	0	100.00%	25.30	25.30	25.30	25.30	25.30	25.30	25.30	
LTE B7	TX0	2	100.00%	25.20	25.20	25.20	20.20	21.00	21.00	25.20	
LTE B12/17	TX0	0	100.00%	25.30	25.30	25.30	25.30	25.30	25.30	25.30	
LTE B13	TX0	0	100.00%	25.30	25.30	25.30	25.30	25.30	25.30	25.30	
LTE B14	TX0	0	100.00%	25.50	25.50	25.50	25.50	25.50	25.50	25.50	
LTE B25/2	TX0	2	100.00%	25.50	25.50	25.50	20.90	22.10	21.30	25.50	
LTE B26/5	TX0	0	100.00%	25.50	25.50	25.50	25.50	25.50	25.50	25.50	
LTE B30	TX0	2	100.00%	24.60	24.60	24.60	22.60	23.40	22.60	24.60	
LTE B41/B38 PC3	TX0	2	63.30%	25.40	25.40	25.40	22.60	23.40	23.40	25.40	
LTE B38 PC2	TX0	2	43.30%	27.20	27.20	27.20	24.20	25.00	25.00	27.20	
LTE B41 PC2	TX0	2	43.30%	27.70	27.70	27.70	24.20	25.00	25.00	27.70	
LTE B48	TX0	6	63.30%	24.00	24.00	24.00	24.00	24.00	24.00	24.00	
LTE B66/4	TX0	2	100.00%	25.25	25.25	25.25	21.90	23.20	22.40	25.25	
LTE B71	TX0	0	100.00%	25.30	25.30	25.30	25.30	25.30	25.30	25.30	
FR1 n5	TX0	0	100.00%	25.50	25.50	25.50	25.50	25.50	25.50	25.50	
FR1 n7	TX0	2	100.00%	25.20	25.20	25.20	20.50	21.30	21.30	25.20	
FR1 n12	TX0	0	100.00%	25.30	25.30	25.30	25.30	25.30	25.30	25.30	
FR1 n25/2	TX0	2	100.00%	25.70	25.70	25.70	21.20	22.50	21.70	25.70	
FR1 n30	TX0	2	100.00%	24.60	24.60	24.60	23.10	23.90	23.10	24.60	
FR1 n66	TX0	2	100.00%	25.25	25.25	25.25	22.70	23.70	22.90	25.25	
FR1 n71	TX0	0	100.00%	25.30	25.30	25.30	25.30	25.30	25.30	25.30	
FR1 n77 PC3	TX0	6	100.00%	25.00	25.00	25.00	21.60	22.40	21.60	25.00	
FR1 n77 PC2	TX0	6	50.00%	27.20	27.20	27.20	24.60	25.40	24.60	27.20	



Maximum Transmit Burst Average Power (dBm)											
Band	Config	Antenna	Duty cycle	Mobile	Head	Head	Hotspot	Body-worn/ Extremity	Body-worn/ Extremity	Head-Hotspot	
				Condition	Standalone	Simultaneous	Simultaneous	Standalone	Simultaneous	Simultaneous	
				Index 1	Index 2	Index 3	Index 4	Index 5	Index 6	Index 7	
GSM850 GSM/GPRS 1TX	TX1	1	12.50%	33.50	33.50	33.50	33.50	33.50	33.50	33.50	
GSM850 GPRS 2TX	TX1	1	25.00%	32.50	32.00	31.20	32.50	32.50	32.50	31.20	
GSM850 GPRS 3TX	TX1	1	37.50%	31.50	30.25	29.45	31.50	31.50	31.50	29.45	
GSM850 GPRS 4TX	TX1	1	50.00%	30.50	29.00	28.20	30.50	30.50	30.50	28.20	
GSM850 EDGE 1TX	TX1	1	12.50%	28.00	28.00	28.00	28.00	28.00	28.00	28.00	
GSM850 EDGE 2TX	TX1	1	25.00%	27.50	27.50	27.50	27.50	27.50	27.50	27.50	
GSM850 EDGE 3TX	TX1	1	37.50%	27.50	27.50	27.50	27.50	27.50	27.50	27.50	
GSM850 EDGE 4TX	TX1	1	50.00%	25.50	25.50	25.50	25.50	25.50	25.50	25.50	
GSM1900 GSM/GPRS 1TX	TX1	0	12.50%	31.00	31.00	31.00	31.00	31.00	31.00	31.00	
GSM1900 GPRS 2TX	TX1	0	25.00%	29.50	29.50	29.50	29.50	29.50	29.50	29.50	
GSM1900 GPRS 3TX	TX1	0	37.50%	29.00	29.00	29.00	29.00	29.00	29.00	29.00	
GSM1900 GPRS 4TX	TX1	0	50.00%	28.00	28.00	28.00	28.00	28.00	28.00	28.00	
GSM1900 EDGE 1TX	TX1	0	12.50%	26.50	26.50	26.50	26.50	26.50	26.50	26.50	
GSM1900 EDGE 2TX	TX1	0	25.00%	25.00	25.00	25.00	25.00	25.00	25.00	25.00	
GSM1900 EDGE 3TX	TX1	0	37.50%	25.00	25.00	25.00	25.00	25.00	25.00	25.00	
GSM1900 EDGE 4TX	TX1	0	50.00%	24.00	24.00	24.00	24.00	24.00	24.00	24.00	
WCDMA B2	TX1	0	100.00%	25.70	25.70	25.70	23.10	23.90	23.90	25.70	
WCDMA B4	TX1	0	100.00%	25.70	25.70	25.70	23.80	24.70	23.90	25.70	
WCDMA B5	TX1	1	100.00%	25.70	25.70	25.10	25.70	25.70	25.70	25.10	
LTE B7	TX1	0	100.00%	25.20	25.20	25.20	24.10	24.90	24.90	25.20	
LTE B12/17	TX1	1	100.00%	25.20	25.20	24.50	25.20	25.20	25.20	23.20	
LTE B13	TX1	1	100.00%	25.20	25.20	24.40	25.20	25.20	25.20	23.10	
LTE B14	TX1	1	100.00%	25.20	25.20	24.40	25.20	25.20	25.20	24.40	
LTE B25/2	TX1	0	100.00%	25.20	25.20	25.20	22.60	23.40	23.40	25.20	
LTE B26/5	TX1	1	100.00%	25.20	25.20	25.20	25.20	25.20	25.20	25.20	
LTE B30	TX1	0	100.00%	25.00	25.00	25.00	22.90	23.70	23.70	25.00	
LTE B41/B38 PC3	TX1	0	63.30%	25.20	25.20	25.20	25.20	25.20	25.20	25.20	
LTE B41/B38 PC2	TX1	0	43.30%	27.20	27.20	27.20	27.20	27.20	27.20	27.20	
LTE B48	TX1	2	63.30%	23.20	23.20	23.20	23.20	23.20	23.20	23.20	
LTE B66/4	TX1	0	100.00%	25.20	25.20	25.20	23.50	24.70	23.90	25.20	
LTE B71	TX1	1	100.00%	25.20	25.20	25.20	25.20	25.20	25.20	24.20	
FR1 n5	TX1	1	100.00%	25.20	25.20	25.20	25.20	25.20	25.20	25.20	
FR1 n7	TX1	0	100.00%	25.20	25.20	25.20	24.20	25.00	25.00	25.20	
FR1 n12	TX1	1	100.00%	25.20	25.20	25.20	25.20	25.20	25.20	25.00	
FR1 n25/2	TX1	0	100.00%	25.70	25.70	25.70	23.20	24.00	24.00	25.70	
FR1 n30	TX1	0	100.00%	25.00	25.00	25.00	23.50	24.30	24.30	25.00	
FR1 n66	TX1	0	100.00%	25.70	25.70	25.70	23.90	25.00	24.20	25.70	
FR1 n71	TX1	1	100.00%	25.20	25.20	25.20	25.20	25.20	25.20	25.00	
FR1 n77 PC3	TX1	2	100.00%	23.75	23.75	23.75	22.80	23.60	22.80	23.75	
FR1 n77 PC2	TX1	2	50.00%	25.90	25.90	25.90	25.80	25.90	25.80	25.90	



<WLAN Maximum Power>

General Note:

1. The device implements the power management for WLAN SAR compliance for different exposure conditions and user cases. When the device is operated against the user's head, power index 1-4 are used; when the device is operated in the body-worn or extremity condition, power index 5-9 are used. In each exposure condition, the power selection is determined by the user cases as tested in Section 15 of this report. Full details about the proprietary power management decision are illustrated in the operational description.
2. 4+3(4): power level on antenna 4, when device operated in MIMO mode (4+3)

<Mobile Condition – Power index 0>

<2.4GHZ WLAN>

Burst Average Power (dBm)				
Transmit Antenna				SISO Ant 4
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit
	802.11b 1Mbps	1	2412	19.5
		6	2437	19.5
		11	2462	19.5
		12	2467	19.5
		13	2472	19.5

Burst Average Power (dBm)				
Transmit Antenna				SISO Ant 3
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit
	802.11b 1Mbps	1	2412	22.0
		6	2437	22.0
		11	2462	22.0
		12	2467	22.0
		13	2472	19.0

Burst Average Power (dBm)						
Transmit Antenna				MIMO Ant 4+3		
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
	802.11g 6Mbps	1	2412	18.0	18.0	21.0
		6	2437	19.5	19.5	22.5
		11	2462	17.0	17.0	20.0
		12	2467	15.0	15.0	18.0
		13	2472	13.5	13.5	16.5
	802.11n-HT20 MCS0	1	2412	18.0	18.0	21.0
		6	2437	19.5	19.5	22.5
		11	2462	17.0	17.0	20.0
		12	2467	15.0	15.0	18.0
		13	2472	13.5	13.5	16.5
	802.11ac-VHT20 MCS0	1	2412	18.0	18.0	21.0
		6	2437	19.5	19.5	22.5
		11	2462	17.0	17.0	20.0
		12	2467	15.0	15.0	18.0
		13	2472	13.5	13.5	16.5
	802.11ax-HE20 MCS0	1	2412	18.0	18.0	21.0
		6	2437	19.5	19.5	22.5
		11	2462	17.0	17.0	20.0
		12	2467	15.0	15.0	18.0
13		2472	13.5	13.5	16.5	



<5GHz WLAN>

Burst Average Power (dBm)						
5.2GHz WLAN	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
	802.11a 6Mbps	36	5180	20.0	20.0	23.0
		40	5200	20.0	20.0	23.0
		44	5220	20.0	20.0	23.0
		48	5240	20.0	20.0	23.0
	802.11n-HT20 MCS0	36	5180	20.0	20.0	23.0
		40	5200	20.0	20.0	23.0
		44	5220	20.0	20.0	23.0
		48	5240	20.0	20.0	23.0
	802.11n-HT40 MCS0	38	5190	16.0	16.0	19.0
		46	5230	19.0	19.0	22.0
	802.11ac-VHT20 MCS0	36	5180	20.0	20.0	23.0
		40	5200	20.0	20.0	23.0
		44	5220	20.0	20.0	23.0
		48	5240	20.0	20.0	23.0
	802.11ac-VHT40 MCS0	38	5190	16.0	16.0	19.0
		46	5230	19.0	19.0	22.0
	802.11ac-VHT80 MCS0	42	5210	16.0	16.0	19.0
	802.11ax-HE20 MCS0	36	5180	20.0	20.0	23.0
		40	5200	20.0	20.0	23.0
		44	5220	20.0	20.0	23.0
48		5240	20.0	20.0	23.0	
802.11ax-HE40 MCS0	38	5190	16.0	16.0	19.0	
	46	5230	19.0	19.0	22.0	
802.11ax-HE80 MCS0	42	5210	16.0	16.0	19.0	



Burst Average Power (dBm)						
5.3GHz WLAN	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
5.3GHz WLAN	802.11a 6Mbps	52	5260	20.0	20.0	23.0
		56	5280	20.0	20.0	23.0
		60	5300	18.5	18.5	21.5
		64	5320	18.5	18.5	21.5
	802.11n-HT20 MCS0	52	5260	20.0	20.0	23.0
		56	5280	20.0	20.0	23.0
		60	5300	18.5	18.5	21.5
		64	5320	18.5	18.5	21.5
	802.11n-HT40 MCS0	54	5270	19.0	19.0	22.0
		62	5310	16.0	16.0	19.0
	802.11ac-VHT20 MCS0	52	5260	20.0	20.0	23.0
		56	5280	20.0	20.0	23.0
		60	5300	18.5	18.5	21.5
		64	5320	18.5	18.5	21.5
	802.11ac-VHT40 MCS0	54	5270	19.0	19.0	22.0
		62	5310	16.0	16.0	19.0
	802.11ac-VHT80 MCS0	58	5290	16.0	16.0	19.0
	802.11ac-VHT160 MCS0	50	5250	14.0	14.0	17.0
	802.11ax-HE20 MCS0	52	5260	20.0	20.0	23.0
		56	5280	20.0	20.0	23.0
60		5300	18.5	18.5	21.5	
64		5320	18.5	18.5	21.5	
802.11ax-HE40 MCS0	54	5270	19.0	19.0	22.0	
	62	5310	16.0	16.0	19.0	
802.11ax-HE80 MCS0	58	5290	16.0	16.0	19.0	
802.11ax-HE160 MCS0	50	5250	14.0	14.0	17.0	



Burst Average Power (dBm)						
5.5GHz WLAN	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
5.5GHz WLAN	802.11a 6Mbps	100	5500	20.0	20.0	23.0
		116	5580	20.0	20.0	23.0
		124	5620	20.0	20.0	23.0
		132	5660	20.0	20.0	23.0
		144	5720	20.0	20.0	23.0
	802.11n-HT20 MCS0	100	5500	20.0	20.0	23.0
		116	5580	20.0	20.0	23.0
		124	5620	20.0	20.0	23.0
		132	5660	20.0	20.0	23.0
		144	5720	20.0	20.0	23.0
	802.11n-HT40 MCS0	102	5510	16.0	16.0	19.0
		110	5550	19.0	19.0	22.0
		126	5630	19.0	19.0	22.0
		134	5670	19.0	19.0	22.0
		142	5710	19.0	19.0	22.0
	802.11ac-VHT20 MCS0	100	5500	20.0	20.0	23.0
		116	5580	20.0	20.0	23.0
		124	5620	20.0	20.0	23.0
		132	5660	20.0	20.0	23.0
		144	5720	20.0	20.0	23.0
802.11ac-VHT40 MCS0	102	5510	16.0	16.0	19.0	
	110	5550	19.0	19.0	22.0	
	126	5630	19.0	19.0	22.0	
	134	5670	19.0	19.0	22.0	
	142	5710	19.0	19.0	22.0	
802.11ac-VHT80 MCS0	106	5530	16.5	16.5	19.5	
	122	5610	19.0	19.0	22.0	
	138	5690	19.0	19.0	22.0	
802.11ac-VHT160 MCS0	114	5570	15.5	15.5	18.5	
802.11ax-HE20 MCS0	100	5500	20.0	20.0	23.0	
	116	5580	20.0	20.0	23.0	
	124	5620	20.0	20.0	23.0	
	132	5660	20.0	20.0	23.0	
	144	5720	20.0	20.0	23.0	
802.11ax-HE40 MCS0	102	5510	16.0	16.0	19.0	
	110	5550	19.0	19.0	22.0	
	126	5630	19.0	19.0	22.0	
	134	5670	19.0	19.0	22.0	
	142	5710	19.0	19.0	22.0	
802.11ax-HE80 MCS0	106	5530	16.5	16.5	19.5	
	122	5610	19.0	19.0	22.0	
	138	5690	19.0	19.0	22.0	
802.11ax-HE160 MCS0	114	5570	15.5	15.5	18.5	



Burst Average Power (dBm)						
Transmit Antenna				MIMO Ant 4+3		
5.8GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
	802.11a 6Mbps	149	5745	20.0	20.0	23.0
		157	5785	20.0	20.0	23.0
		165	5825	20.0	20.0	23.0
	802.11n-HT20 MCS0	149	5745	20.0	20.0	23.0
		157	5785	20.0	20.0	23.0
		165	5825	20.0	20.0	23.0
	802.11n-HT40 MCS0	151	5755	19.0	19.0	22.0
		159	5795	19.0	19.0	22.0
	802.11ac-VHT20 MCS0	149	5745	20.0	20.0	23.0
		157	5785	20.0	20.0	23.0
		165	5825	20.0	20.0	23.0
	802.11ac-VHT40 MCS0	151	5755	19.0	19.0	22.0
		159	5795	19.0	19.0	22.0
802.11ac-VHT80 MCS0	155	5775	19.0	19.0	22.0	
802.11ax-HE20 MCS0	149	5745	20.0	20.0	23.0	
	157	5785	20.0	20.0	23.0	
	165	5825	20.0	20.0	23.0	
802.11ax-HE40 MCS0	151	5755	19.0	19.0	22.0	
	159	5795	19.0	19.0	22.0	
802.11ax-HE80 MCS0	155	5775	19.0	19.0	22.0	



Burst Average Power (dBm)						
	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
5.8GHz WLAN UNII4	802.11a 6Mbps	169	5845	20.0	20.0	23.0
		173	5865	20.0	20.0	23.0
		177	5885	20.0	20.0	23.0
	802.11n-HT20 MCS0	169	5845	20.0	20.0	23.0
		173	5865	20.0	20.0	23.0
		177	5885	20.0	20.0	23.0
	802.11n-HT40 MCS0	167	5835	19.0	19.0	22.0
		175	5875	19.0	19.0	22.0
	802.11ac-VHT20 MCS0	169	5845	20.0	20.0	23.0
		173	5865	20.0	20.0	23.0
		177	5885	20.0	20.0	23.0
	802.11ac-VHT40 MCS0	167	5835	19.0	19.0	22.0
		175	5875	19.0	19.0	22.0
	802.11ac-VHT80 MCS0	171	5855	19.0	19.0	22.0
	802.11ac-VHT160 MCS0	163	5815	19.0	19.0	22.0
	802.11ax-HE20 MCS0	169	5845	20.0	20.0	23.0
		173	5865	20.0	20.0	23.0
		177	5885	20.0	20.0	23.0
802.11ax-HE40 MCS0	167	5835	19.0	19.0	22.0	
	175	5875	19.0	19.0	22.0	
802.11ax-HE80 MCS0	171	5855	19.0	19.0	22.0	
802.11ax-HE160 MCS0	163	5815	19.0	19.0	22.0	



<Power Index 1>

<2.4GHz WLAN>

Burst Average Power (dBm)				
Transmit Antenna				SISO Ant 4
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit
	802.11b 1Mbps	1	2412	19.5
		6	2437	19.5
		11	2462	19.5
		12	2467	19.5
		13	2472	19.5

Burst Average Power (dBm)				
Transmit Antenna				SISO Ant 3
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit
	802.11b 1Mbps	1	2412	17.5
		6	2437	17.5
		11	2462	17.5
		12	2467	17.5
		13	2472	17.5

Burst Average Power (dBm)						
Transmit Antenna				MIMO Ant 4+3		
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
	802.11g 6Mbps	1	2412	18.0	17.5	20.8
		6	2437	19.5	17.5	21.6
		11	2462	17.0	17.0	20.0
		12	2467	15.0	15.0	18.0
		13	2472	13.5	13.5	16.5
	802.11n-HT20 MCS0	1	2412	18.0	17.5	20.8
		6	2437	19.5	17.5	21.6
		11	2462	17.0	17.0	20.0
		12	2467	15.0	15.0	18.0
		13	2472	13.5	13.5	16.5
	802.11ac-VHT20 MCS0	1	2412	18.0	17.5	20.8
		6	2437	19.5	17.5	21.6
		11	2462	17.0	17.0	20.0
		12	2467	15.0	15.0	18.0
		13	2472	13.5	13.5	16.5
	802.11ax-HE20 MCS0	1	2412	18.0	17.5	20.8
		6	2437	19.5	17.5	21.6
		11	2462	17.0	17.0	20.0
		12	2467	15.0	15.0	18.0
		13	2472	13.5	13.5	16.5



<5GHz WLAN>

Burst Average Power (dBm)						
Transmit Antenna				MIMO Ant 4+3		
Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3	
5.2GHz WLAN	802.11a 6Mbps	36	5180	16.0	16.0	19.0
		40	5200	16.0	16.0	19.0
		44	5220	16.0	16.0	19.0
		48	5240	16.0	16.0	19.0
	802.11n-HT20 MCS0	36	5180	16.0	16.0	19.0
		40	5200	16.0	16.0	19.0
		44	5220	16.0	16.0	19.0
		48	5240	16.0	16.0	19.0
	802.11n-HT40 MCS0	38	5190	16.0	16.0	19.0
		46	5230	16.0	16.0	19.0
	802.11ac-VHT20 MCS0	36	5180	16.0	16.0	19.0
		40	5200	16.0	16.0	19.0
		44	5220	16.0	16.0	19.0
		48	5240	16.0	16.0	19.0
	802.11ac-VHT40 MCS0	38	5190	16.0	16.0	19.0
		46	5230	16.0	16.0	19.0
	802.11ac-VHT80 MCS0	42	5210	16.0	16.0	19.0
	802.11ax-HE20 MCS0	36	5180	16.0	16.0	19.0
		40	5200	16.0	16.0	19.0
		44	5220	16.0	16.0	19.0
48		5240	16.0	16.0	19.0	
802.11ax-HE40 MCS0	38	5190	16.0	16.0	19.0	
	46	5230	16.0	16.0	19.0	
802.11ax-HE80 MCS0	42	5210	16.0	16.0	19.0	



Burst Average Power (dBm)						
5.3GHz WLAN	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
5.3GHz WLAN	802.11a 6Mbps	52	5260	16.0	16.0	19.0
		56	5280	16.0	16.0	19.0
		60	5300	16.0	16.0	19.0
		64	5320	16.0	16.0	19.0
	802.11n-HT20 MCS0	52	5260	16.0	16.0	19.0
		56	5280	16.0	16.0	19.0
		60	5300	16.0	16.0	19.0
		64	5320	16.0	16.0	19.0
	802.11n-HT40 MCS0	54	5270	16.0	16.0	19.0
		62	5310	16.0	16.0	19.0
	802.11ac-VHT20 MCS0	52	5260	16.0	16.0	19.0
		56	5280	16.0	16.0	19.0
		60	5300	16.0	16.0	19.0
		64	5320	16.0	16.0	19.0
	802.11ac-VHT40 MCS0	54	5270	16.0	16.0	19.0
		62	5310	16.0	16.0	19.0
	802.11ac-VHT80 MCS0	58	5290	16.0	16.0	19.0
	802.11ac-VHT160 MCS0	50	5250	14.0	14.0	17.0
	802.11ax-HE20 MCS0	52	5260	16.0	16.0	19.0
		56	5280	16.0	16.0	19.0
60		5300	16.0	16.0	19.0	
64		5320	16.0	16.0	19.0	
802.11ax-HE40 MCS0	54	5270	16.0	16.0	19.0	
	62	5310	16.0	16.0	19.0	
802.11ax-HE80 MCS0	58	5290	16.0	16.0	19.0	
802.11ax-HE160 MCS0	50	5250	14.0	14.0	17.0	



Burst Average Power (dBm)						
5.5GHz WLAN	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
802.11a 6Mbps	100	5500	19.0	14.5	20.3	
	116	5580	19.0	14.5	20.3	
	124	5620	19.0	14.5	20.3	
	132	5660	19.0	14.5	20.3	
	144	5720	19.0	14.5	20.3	
802.11n-HT20 MCS0	100	5500	19.0	14.5	20.3	
	116	5580	19.0	14.5	20.3	
	124	5620	19.0	14.5	20.3	
	132	5660	19.0	14.5	20.3	
	144	5720	19.0	14.5	20.3	
802.11n-HT40 MCS0	102	5510	16.0	14.5	18.3	
	110	5550	19.0	14.5	20.3	
	126	5630	19.0	14.5	20.3	
	134	5670	19.0	14.5	20.3	
	142	5710	19.0	14.5	20.3	
802.11ac-VHT20 MCS0	100	5500	19.0	14.5	20.3	
	116	5580	19.0	14.5	20.3	
	124	5620	19.0	14.5	20.3	
	132	5660	19.0	14.5	20.3	
	144	5720	19.0	14.5	20.3	
802.11ac-VHT40 MCS0	102	5510	16.0	14.5	18.3	
	110	5550	19.0	14.5	20.3	
	126	5630	19.0	14.5	20.3	
	134	5670	19.0	14.5	20.3	
	142	5710	19.0	14.5	20.3	
802.11ac-VHT80 MCS0	106	5530	16.5	14.5	18.6	
	122	5610	19.0	14.5	20.3	
	138	5690	19.0	14.5	20.3	
802.11ac-VHT160 MCS0	114	5570	15.5	14.5	18.0	
802.11ax-HE20 MCS0	100	5500	19.0	14.5	20.3	
	116	5580	19.0	14.5	20.3	
	124	5620	19.0	14.5	20.3	
	132	5660	19.0	14.5	20.3	
	144	5720	19.0	14.5	20.3	
802.11ax-HE40 MCS0	102	5510	16.0	14.5	18.3	
	110	5550	19.0	14.5	20.3	
	126	5630	19.0	14.5	20.3	
	134	5670	19.0	14.5	20.3	
	142	5710	19.0	14.5	20.3	
802.11ax-HE80 MCS0	106	5530	16.5	14.5	18.6	
	122	5610	19.0	14.5	20.3	
	138	5690	19.0	14.5	20.3	
802.11ax-HE160 MCS0	114	5570	15.5	14.5	18.0	



Burst Average Power (dBm)						
Transmit Antenna				MIMO Ant 4+3		
5.8GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
	802.11a 6Mbps	149	5745	18.5	14.0	19.8
		157	5785	18.5	14.0	19.8
		165	5825	18.5	14.0	19.8
	802.11n-HT20 MCS0	149	5745	18.5	14.0	19.8
		157	5785	18.5	14.0	19.8
		165	5825	18.5	14.0	19.8
	802.11n-HT40 MCS0	151	5755	18.5	14.0	19.8
		159	5795	18.5	14.0	19.8
	802.11ac-VHT20 MCS0	149	5745	18.5	14.0	19.8
		157	5785	18.5	14.0	19.8
		165	5825	18.5	14.0	19.8
	802.11ac-VHT40 MCS0	151	5755	18.5	14.0	19.8
		159	5795	18.5	14.0	19.8
802.11ac-VHT80 MCS0	155	5775	18.5	14.0	19.8	
802.11ax-HE20 MCS0	149	5745	18.5	14.0	19.8	
	157	5785	18.5	14.0	19.8	
	165	5825	18.5	14.0	19.8	
802.11ax-HE40 MCS0	151	5755	18.5	14.0	19.8	
	159	5795	18.5	14.0	19.8	
802.11ax-HE80 MCS0	155	5775	18.5	14.0	19.8	



Burst Average Power (dBm)						
	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
5.8GHz WLAN UNII4	802.11a 6Mbps	169	5845	18.5	14.0	19.8
		173	5865	18.5	14.0	19.8
		177	5885	18.5	14.0	19.8
	802.11n-HT20 MCS0	169	5845	18.5	14.0	19.8
		173	5865	18.5	14.0	19.8
		177	5885	18.5	14.0	19.8
	802.11n-HT40 MCS0	167	5835	18.5	14.0	19.8
		175	5875	18.5	14.0	19.8
	802.11ac-VHT20 MCS0	169	5845	18.5	14.0	19.8
		173	5865	18.5	14.0	19.8
		177	5885	18.5	14.0	19.8
	802.11ac-VHT40 MCS0	167	5835	18.5	14.0	19.8
		175	5875	18.5	14.0	19.8
	802.11ac-VHT80 MCS0	171	5855	18.5	14.0	19.8
	802.11ac-VHT160 MCS0	163	5815	18.5	14.0	19.8
	802.11ax-HE20 MCS0	169	5845	18.5	14.0	19.8
		173	5865	18.5	14.0	19.8
		177	5885	18.5	14.0	19.8
802.11ax-HE40 MCS0	167	5835	18.5	14.0	19.8	
	175	5875	18.5	14.0	19.8	
802.11ax-HE80 MCS0	171	5855	18.5	14.0	19.8	
802.11ax-HE160 MCS0	163	5815	18.5	14.0	19.8	



<Power Index 2>

<2.4GHz WLAN>

Burst Average Power (dBm)				
Transmit Antenna				SISO Ant 4
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit
	802.11b 1Mbps	1	2412	16.5
		6	2437	16.5
		11	2462	16.5
		12	2467	16.5
		13	2472	16.5

Burst Average Power (dBm)				
Transmit Antenna				SISO Ant 3
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit
	802.11b 1Mbps	1	2412	14.5
		6	2437	14.5
		11	2462	14.5
		12	2467	14.5
		13	2472	14.5

Burst Average Power (dBm)						
Transmit Antenna				MIMO Ant 4+3		
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
	802.11g 6Mbps	1	2412	16.5	14.5	18.6
		6	2437	16.5	14.5	18.6
		11	2462	16.5	14.5	18.6
		12	2467	15.0	14.0	17.5
		13	2472	13.5	13.5	16.5
	802.11n-HT20 MCS0	1	2412	16.5	14.5	18.6
		6	2437	16.5	14.5	18.6
		11	2462	16.5	14.5	18.6
		12	2467	15.0	14.0	17.5
	802.11ac-VHT20 MCS0	1	2412	16.5	14.5	18.6
		6	2437	16.5	14.5	18.6
		11	2462	16.5	14.5	18.6
		12	2467	15.0	14.0	17.5
	802.11ax-HE20 MCS0	1	2412	16.5	14.5	17.0
		6	2437	16.5	14.5	17.0
		11	2462	16.5	14.5	17.0
		12	2467	15.0	14.0	17.0
	802.11ax-HE20 MCS0	1	2412	16.5	14.5	17.0
		6	2437	16.5	14.5	17.0
		11	2462	16.5	14.5	17.0
		12	2467	15.0	14.0	17.0
	802.11ax-HE20 MCS0	1	2412	16.5	14.5	17.0
		6	2437	16.5	14.5	17.0
11		2462	16.5	14.5	17.0	
12		2467	15.0	14.0	17.0	
802.11ax-HE20 MCS0	1	2412	16.5	14.5	17.0	
	6	2437	16.5	14.5	17.0	
	11	2462	16.5	14.5	17.0	
	12	2467	15.0	14.0	17.0	



<5GHz WLAN>

Burst Average Power (dBm)						
Transmit Antenna				MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
5.2GHz WLAN	802.11a 6Mbps	36	5180	15.5	15.5	18.5
		40	5200	15.5	15.5	18.5
		44	5220	15.5	15.5	18.5
		48	5240	15.5	15.5	18.5
	802.11n-HT20 MCS0	36	5180	15.5	15.5	18.5
		40	5200	15.5	15.5	18.5
		44	5220	15.5	15.5	18.5
		48	5240	15.5	15.5	18.5
	802.11n-HT40 MCS0	38	5190	15.5	15.5	18.5
		46	5230	15.5	15.5	18.5
	802.11ac-VHT20 MCS0	36	5180	15.5	15.5	18.5
		40	5200	15.5	15.5	18.5
		44	5220	15.5	15.5	18.5
		48	5240	15.5	15.5	18.5
	802.11ac-VHT40 MCS0	38	5190	15.5	15.5	18.5
		46	5230	15.5	15.5	18.5
	802.11ac-VHT80 MCS0	42	5210	15.5	15.5	18.5
	802.11ax-HE20 MCS0	36	5180	15.5	15.5	18.5
		40	5200	15.5	15.5	18.5
		44	5220	15.5	15.5	18.5
48		5240	15.5	15.5	18.5	
802.11ax-HE40 MCS0	38	5190	15.5	15.5	18.5	
	46	5230	15.5	15.5	18.5	
802.11ax-HE80 MCS0	42	5210	15.5	15.5	18.5	



Burst Average Power (dBm)						
5.3GHz WLAN	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
5.3GHz WLAN	802.11a 6Mbps	52	5260	15.5	15.5	18.5
		56	5280	15.5	15.5	18.5
		60	5300	15.5	15.5	18.5
		64	5320	15.5	15.5	18.5
	802.11n-HT20 MCS0	52	5260	15.5	15.5	18.5
		56	5280	15.5	15.5	18.5
		60	5300	15.5	15.5	18.5
		64	5320	15.5	15.5	18.5
	802.11n-HT40 MCS0	54	5270	15.5	15.5	18.5
		62	5310	15.5	15.5	18.5
	802.11ac-VHT20 MCS0	52	5260	15.5	15.5	18.5
		56	5280	15.5	15.5	18.5
		60	5300	15.5	15.5	18.5
		64	5320	15.5	15.5	18.5
	802.11ac-VHT40 MCS0	54	5270	15.5	15.5	18.5
		62	5310	15.5	15.5	18.5
802.11ac-VHT80 MCS0	58	5290	15.5	15.5	18.5	
802.11ac-VHT160 MCS0	50	5250	14.0	14.0	17.0	
802.11ax-HE20 MCS0	52	5260	15.5	15.5	18.5	
	56	5280	15.5	15.5	18.5	
	60	5300	15.5	15.5	18.5	
	64	5320	15.5	15.5	18.5	
802.11ax-HE40 MCS0	54	5270	15.5	15.5	18.5	
	62	5310	15.5	15.5	18.5	
802.11ax-HE80 MCS0	58	5290	15.5	15.5	18.5	
802.11ax-HE160 MCS0	50	5250	14.0	14.0	17.0	



Burst Average Power (dBm)						
5.5GHz WLAN	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
5.5GHz WLAN	802.11a 6Mbps	100	5500	18.5	14.0	19.8
		116	5580	18.5	14.0	19.8
		124	5620	18.5	14.0	19.8
		132	5660	18.5	14.0	19.8
		144	5720	18.5	14.0	19.8
	802.11n-HT20 MCS0	100	5500	18.5	14.0	19.8
		116	5580	18.5	14.0	19.8
		124	5620	18.5	14.0	19.8
		132	5660	18.5	14.0	19.8
		144	5720	18.5	14.0	19.8
	802.11n-HT40 MCS0	102	5510	16.0	14.0	18.1
		110	5550	18.5	14.0	19.8
		126	5630	18.5	14.0	19.8
		134	5670	18.5	14.0	19.8
		142	5710	18.5	14.0	19.8
	802.11ac-VHT20 MCS0	100	5500	18.5	14.0	19.8
		116	5580	18.5	14.0	19.8
		124	5620	18.5	14.0	19.8
		132	5660	18.5	14.0	19.8
		144	5720	18.5	14.0	19.8
802.11ac-VHT40 MCS0	102	5510	16.0	14.0	18.1	
	110	5550	18.5	14.0	19.8	
	126	5630	18.5	14.0	19.8	
	134	5670	18.5	14.0	19.8	
	142	5710	18.5	14.0	19.8	
802.11ac-VHT80 MCS0	106	5530	16.5	14.0	18.4	
	122	5610	18.5	14.0	19.8	
	138	5690	18.5	14.0	19.8	
802.11ac-VHT160 MCS0	114	5570	15.5	14.0	17.8	
802.11ax-HE20 MCS0	100	5500	18.5	14.0	19.8	
	116	5580	18.5	14.0	19.8	
	124	5620	18.5	14.0	19.8	
	132	5660	18.5	14.0	19.8	
	144	5720	18.5	14.0	19.8	
802.11ax-HE40 MCS0	102	5510	16.0	14.0	18.1	
	110	5550	18.5	14.0	19.8	
	126	5630	18.5	14.0	19.8	
	134	5670	18.5	14.0	19.8	
	142	5710	18.5	14.0	19.8	
802.11ax-HE80 MCS0	106	5530	16.5	14.0	18.4	
	122	5610	18.5	14.0	19.8	
	138	5690	18.5	14.0	19.8	
802.11ax-HE160 MCS0	114	5570	15.5	14.0	17.8	



Burst Average Power (dBm)						
Transmit Antenna				MIMO Ant 4+3		
5.8GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
	802.11a 6Mbps	149	5745	17.5	13.0	18.8
		157	5785	17.5	13.0	18.8
		165	5825	17.5	13.0	18.8
	802.11n-HT20 MCS0	149	5745	17.5	13.0	18.8
		157	5785	17.5	13.0	18.8
		165	5825	17.5	13.0	18.8
	802.11n-HT40 MCS0	151	5755	17.5	13.0	18.8
		159	5795	17.5	13.0	18.8
	802.11ac-VHT20 MCS0	149	5745	17.5	13.0	18.8
		157	5785	17.5	13.0	18.8
		165	5825	17.5	13.0	18.8
	802.11ac-VHT40 MCS0	151	5755	17.5	13.0	18.8
		159	5795	17.5	13.0	18.8
802.11ac-VHT80 MCS0	155	5775	17.5	13.0	18.8	
802.11ax-HE20 MCS0	149	5745	17.5	13.0	18.8	
	157	5785	17.5	13.0	18.8	
	165	5825	17.5	13.0	18.8	
802.11ax-HE40 MCS0	151	5755	17.5	13.0	18.8	
	159	5795	17.5	13.0	18.8	
802.11ax-HE80 MCS0	155	5775	17.5	13.0	18.8	



Burst Average Power (dBm)						
	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
5.8GHz WLAN UNII4	802.11a 6Mbps	169	5845	17.5	13.0	18.8
		173	5865	17.5	13.0	18.8
		177	5885	17.5	13.0	18.8
	802.11n-HT20 MCS0	169	5845	17.5	13.0	18.8
		173	5865	17.5	13.0	18.8
		177	5885	17.5	13.0	18.8
	802.11n-HT40 MCS0	167	5835	17.5	13.0	18.8
		175	5875	17.5	13.0	18.8
	802.11ac-VHT20 MCS0	169	5845	17.5	13.0	18.8
		173	5865	17.5	13.0	18.8
		177	5885	17.5	13.0	18.8
	802.11ac-VHT40 MCS0	167	5835	17.5	13.0	18.8
		175	5875	17.5	13.0	18.8
	802.11ac-VHT80 MCS0	171	5855	17.5	13.0	18.8
	802.11ac-VHT160 MCS0	163	5815	17.5	13.0	18.8
	802.11ax-HE20 MCS0	169	5845	17.5	13.0	18.8
		173	5865	17.5	13.0	18.8
		177	5885	17.5	13.0	18.8
802.11ax-HE40 MCS0	167	5835	17.5	13.0	18.8	
	175	5875	17.5	13.0	18.8	
802.11ax-HE80 MCS0	171	5855	17.5	13.0	18.8	
802.11ax-HE160 MCS0	163	5815	17.5	13.0	18.8	



<Power Index 3>

<2.4GHz WLAN>

Burst Average Power (dBm)				
Transmit Antenna				SISO Ant 4
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit
	802.11b 1Mbps	1	2412	16.5
		6	2437	16.5
		11	2462	16.5
		12	2467	16.5
		13	2472	16.5

Burst Average Power (dBm)				
Transmit Antenna				SISO Ant 3
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit
	802.11b 1Mbps	1	2412	14.5
		6	2437	14.5
		11	2462	14.5
		12	2467	14.5
		13	2472	14.5

Burst Average Power (dBm)						
Transmit Antenna				MIMO Ant 4+3		
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
	802.11g 6Mbps	1	2412	16.5	14.5	18.6
		6	2437	16.5	14.5	18.6
		11	2462	16.5	14.5	18.6
		12	2467	15.0	14.0	17.5
		13	2472	13.5	13.5	16.5
	802.11n-HT20 MCS0	1	2412	16.5	14.5	18.6
		6	2437	16.5	14.5	18.6
		11	2462	16.5	14.5	18.6
		12	2467	15.0	14.0	17.5
	802.11ac-VHT20 MCS0	13	2472	13.5	13.5	16.5
		1	2412	16.5	14.5	18.6
		6	2437	16.5	14.5	18.6
		11	2462	16.5	14.5	18.6
	802.11ax-HE20 MCS0	12	2467	15.0	14.0	17.5
		13	2472	13.5	13.5	16.5
		1	2412	16.5	14.5	17.0
		6	2437	16.5	14.5	17.0
		11	2462	16.5	14.5	17.0
		12	2467	15.0	14.0	17.0
		13	2472	13.5	13.5	17.0



<5GHz WLAN>

Burst Average Power (dBm)						
Transmit Antenna				MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
5.2GHz WLAN	802.11a 6Mbps	36	5180	13.0	11.0	15.1
		40	5200	13.0	11.0	15.1
		44	5220	13.0	11.0	15.1
		48	5240	13.0	11.0	15.1
	802.11n-HT20 MCS0	36	5180	13.0	11.0	15.1
		40	5200	13.0	11.0	15.1
		44	5220	13.0	11.0	15.1
		48	5240	13.0	11.0	15.1
	802.11n-HT40 MCS0	38	5190	13.0	11.0	15.1
		46	5230	13.0	11.0	15.1
	802.11ac-VHT20 MCS0	36	5180	13.0	11.0	15.1
		40	5200	13.0	11.0	15.1
		44	5220	13.0	11.0	15.1
		48	5240	13.0	11.0	15.1
	802.11ac-VHT40 MCS0	38	5190	13.0	11.0	15.1
		46	5230	13.0	11.0	15.1
	802.11ac-VHT80 MCS0	42	5210	13.0	11.0	15.1
	802.11ax-HE20 MCS0	36	5180	13.0	11.0	15.1
		40	5200	13.0	11.0	15.1
		44	5220	13.0	11.0	15.1
48		5240	13.0	11.0	15.1	
802.11ax-HE40 MCS0	38	5190	13.0	11.0	15.1	
	46	5230	13.0	11.0	15.1	
802.11ax-HE80 MCS0	42	5210	13.0	11.0	15.1	



Burst Average Power (dBm)						
5.3GHz WLAN	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
802.11a 6Mbps		52	5260	13.0	11.0	15.1
		56	5280	13.0	11.0	15.1
		60	5300	13.0	11.0	15.1
		64	5320	13.0	11.0	15.1
802.11n-HT20 MCS0		52	5260	13.0	11.0	15.1
		56	5280	13.0	11.0	15.1
		60	5300	13.0	11.0	15.1
		64	5320	13.0	11.0	15.1
802.11n-HT40 MCS0		54	5270	13.0	11.0	15.1
		62	5310	13.0	11.0	15.1
802.11ac-VHT20 MCS0		52	5260	13.0	11.0	15.1
		56	5280	13.0	11.0	15.1
		60	5300	13.0	11.0	15.1
		64	5320	13.0	11.0	15.1
802.11ac-VHT40 MCS0		54	5270	13.0	11.0	15.1
		62	5310	13.0	11.0	15.1
802.11ac-VHT80 MCS0		58	5290	13.0	11.0	15.1
802.11ac-VHT160 MCS0		50	5250	13.0	11.0	15.1
802.11ax-HE20 MCS0		52	5260	13.0	11.0	15.1
		56	5280	13.0	11.0	15.1
		60	5300	13.0	11.0	15.1
		64	5320	13.0	11.0	15.1
802.11ax-HE40 MCS0		54	5270	13.0	11.0	15.1
		62	5310	13.0	11.0	15.1
802.11ax-HE80 MCS0		58	5290	13.0	11.0	15.1
802.11ax-HE160 MCS0		50	5250	13.0	11.0	15.1



Burst Average Power (dBm)						
5.5GHz WLAN	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
5.5GHz WLAN	802.11a 6Mbps	100	5500	15.0	9.0	16.0
		116	5580	15.0	9.0	16.0
		124	5620	15.0	9.0	16.0
		132	5660	15.0	9.0	16.0
		144	5720	15.0	9.0	16.0
	802.11n-HT20 MCS0	100	5500	15.0	9.0	16.0
		116	5580	15.0	9.0	16.0
		124	5620	15.0	9.0	16.0
		132	5660	15.0	9.0	16.0
		144	5720	15.0	9.0	16.0
	802.11n-HT40 MCS0	102	5510	15.0	9.0	16.0
		110	5550	15.0	9.0	16.0
		126	5630	15.0	9.0	16.0
		134	5670	15.0	9.0	16.0
		142	5710	15.0	9.0	16.0
	802.11ac-VHT20 MCS0	100	5500	15.0	9.0	16.0
		116	5580	15.0	9.0	16.0
		124	5620	15.0	9.0	16.0
		132	5660	15.0	9.0	16.0
		144	5720	15.0	9.0	16.0
802.11ac-VHT40 MCS0	102	5510	15.0	9.0	16.0	
	110	5550	15.0	9.0	16.0	
	126	5630	15.0	9.0	16.0	
	134	5670	15.0	9.0	16.0	
	142	5710	15.0	9.0	16.0	
802.11ac-VHT80 MCS0	106	5530	15.0	9.0	16.0	
	122	5610	15.0	9.0	16.0	
	138	5690	15.0	9.0	16.0	
802.11ac-VHT160 MCS0	114	5570	15.0	9.0	16.0	
802.11ax-HE20 MCS0	100	5500	15.0	9.0	16.0	
	116	5580	15.0	9.0	16.0	
	124	5620	15.0	9.0	16.0	
	132	5660	15.0	9.0	16.0	
	144	5720	15.0	9.0	16.0	
802.11ax-HE40 MCS0	102	5510	15.0	9.0	16.0	
	110	5550	15.0	9.0	16.0	
	126	5630	15.0	9.0	16.0	
	134	5670	15.0	9.0	16.0	
	142	5710	15.0	9.0	16.0	
802.11ax-HE80 MCS0	106	5530	15.0	9.0	16.0	
	122	5610	15.0	9.0	16.0	
	138	5690	15.0	9.0	16.0	
802.11ax-HE160 MCS0	114	5570	15.0	9.0	16.0	



Burst Average Power (dBm)						
Transmit Antenna				MIMO Ant 4+3		
5.8GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
	802.11a 6Mbps	149	5745	14.5	9.0	15.6
		157	5785	14.5	9.0	15.6
		165	5825	14.5	9.0	15.6
	802.11n-HT20 MCS0	149	5745	14.5	9.0	15.6
		157	5785	14.5	9.0	15.6
		165	5825	14.5	9.0	15.6
	802.11n-HT40 MCS0	151	5755	14.5	9.0	15.6
		159	5795	14.5	9.0	15.6
	802.11ac-VHT20 MCS0	149	5745	14.5	9.0	15.6
		157	5785	14.5	9.0	15.6
		165	5825	14.5	9.0	15.6
	802.11ac-VHT40 MCS0	151	5755	14.5	9.0	15.6
		159	5795	14.5	9.0	15.6
	802.11ac-VHT80 MCS0	155	5775	14.5	9.0	15.6
802.11ax-HE20 MCS0	149	5745	14.5	9.0	15.6	
	157	5785	14.5	9.0	15.6	
	165	5825	14.5	9.0	15.6	
802.11ax-HE40 MCS0	151	5755	14.5	9.0	15.6	
	159	5795	14.5	9.0	15.6	
802.11ax-HE80 MCS0	155	5775	14.5	9.0	15.6	



Burst Average Power (dBm)						
	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
5.8GHz WLAN UNII4	802.11a 6Mbps	169	5845	14.5	9.0	15.6
		173	5865	14.5	9.0	15.6
		177	5885	14.5	9.0	15.6
	802.11n-HT20 MCS0	169	5845	14.5	9.0	15.6
		173	5865	14.5	9.0	15.6
		177	5885	14.5	9.0	15.6
	802.11n-HT40 MCS0	167	5835	14.5	9.0	15.6
		175	5875	14.5	9.0	15.6
	802.11ac-VHT20 MCS0	169	5845	14.5	9.0	15.6
		173	5865	14.5	9.0	15.6
		177	5885	14.5	9.0	15.6
	802.11ac-VHT40 MCS0	167	5835	14.5	9.0	15.6
		175	5875	14.5	9.0	15.6
	802.11ac-VHT80 MCS0	171	5855	14.5	9.0	15.6
	802.11ac-VHT160 MCS0	163	5815	14.5	9.0	15.6
	802.11ax-HE20 MCS0	169	5845	14.5	9.0	15.6
		173	5865	14.5	9.0	15.6
		177	5885	14.5	9.0	15.6
802.11ax-HE40 MCS0	167	5835	14.5	9.0	15.6	
	175	5875	14.5	9.0	15.6	
802.11ax-HE80 MCS0	171	5855	14.5	9.0	15.6	
802.11ax-HE160 MCS0	163	5815	14.5	9.0	15.6	



<Power Index 4>

<2.4GHz WLAN>

Burst Average Power (dBm)				
Transmit Antenna				SISO Ant 4
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit
	802.11b 1Mbps	1	2412	11.5
		6	2437	11.5
		11	2462	11.5
		12	2467	11.5
		13	2472	11.5

Burst Average Power (dBm)				
Transmit Antenna				SISO Ant 3
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit
	802.11b 1Mbps	1	2412	10.0
		6	2437	10.0
		11	2462	10.0
		12	2467	10.0
		13	2472	10.0

Burst Average Power (dBm)						
Transmit Antenna				MIMO Ant 4+3		
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
	802.11g 6Mbps	1	2412	11.5	10.0	13.8
		6	2437	11.5	10.0	13.8
		11	2462	11.5	10.0	13.8
		12	2467	11.5	10.0	13.8
		13	2472	11.5	10.0	13.8
	802.11n-HT20 MCS0	1	2412	11.5	10.0	13.8
		6	2437	11.5	10.0	13.8
		11	2462	11.5	10.0	13.8
		12	2467	11.5	10.0	13.8
		13	2472	11.5	10.0	13.8
	802.11ac-VHT20 MCS0	1	2412	11.5	10.0	13.8
		6	2437	11.5	10.0	13.8
		11	2462	11.5	10.0	13.8
		12	2467	11.5	10.0	13.8
		13	2472	11.5	10.0	13.8
	802.11ax-HE20 MCS0	1	2412	11.5	10.0	13.8
		6	2437	11.5	10.0	13.8
		11	2462	11.5	10.0	13.8
		12	2467	11.5	10.0	13.8
13		2472	11.5	10.0	13.8	



<5GHz WLAN>

Burst Average Power (dBm)						
5.2GHz WLAN	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
5.2GHz WLAN	802.11a 6Mbps	36	5180	12.0	11.0	14.5
		40	5200	12.0	11.0	14.5
		44	5220	12.0	11.0	14.5
		48	5240	12.0	11.0	14.5
	802.11n-HT20 MCS0	36	5180	12.0	11.0	14.5
		40	5200	12.0	11.0	14.5
		44	5220	12.0	11.0	14.5
	802.11n-HT40 MCS0	38	5190	12.0	11.0	14.5
		46	5230	12.0	11.0	14.5
	802.11ac-VHT20 MCS0	36	5180	12.0	11.0	14.5
		40	5200	12.0	11.0	14.5
		44	5220	12.0	11.0	14.5
		48	5240	12.0	11.0	14.5
	802.11ac-VHT40 MCS0	38	5190	12.0	11.0	14.5
		46	5230	12.0	11.0	14.5
	802.11ac-VHT80 MCS0	42	5210	12.0	11.0	14.5
	802.11ax-HE20 MCS0	36	5180	12.0	11.0	14.5
		40	5200	12.0	11.0	14.5
		44	5220	12.0	11.0	14.5
		48	5240	12.0	11.0	14.5
802.11ax-HE40 MCS0	38	5190	12.0	11.0	14.5	
	46	5230	12.0	11.0	14.5	
802.11ax-HE80 MCS0	42	5210	12.0	11.0	14.5	



Burst Average Power (dBm)						
5.3GHz WLAN	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
5.3GHz WLAN	802.11a 6Mbps	52	5260	12.0	11.0	14.5
		56	5280	12.0	11.0	14.5
		60	5300	12.0	11.0	14.5
		64	5320	12.0	11.0	14.5
	802.11n-HT20 MCS0	52	5260	12.0	11.0	14.5
		56	5280	12.0	11.0	14.5
		60	5300	12.0	11.0	14.5
		64	5320	12.0	11.0	14.5
	802.11n-HT40 MCS0	54	5270	12.0	11.0	14.5
		62	5310	12.0	11.0	14.5
	802.11ac-VHT20 MCS0	52	5260	12.0	11.0	14.5
		56	5280	12.0	11.0	14.5
		60	5300	12.0	11.0	14.5
		64	5320	12.0	11.0	14.5
	802.11ac-VHT40 MCS0	54	5270	12.0	11.0	14.5
		62	5310	12.0	11.0	14.5
802.11ac-VHT80 MCS0	58	5290	12.0	11.0	14.5	
802.11ac-VHT160 MCS0	50	5250	12.0	11.0	14.5	
802.11ax-HE20 MCS0	52	5260	12.0	11.0	14.5	
	56	5280	12.0	11.0	14.5	
	60	5300	12.0	11.0	14.5	
	64	5320	12.0	11.0	14.5	
802.11ax-HE40 MCS0	54	5270	12.0	11.0	14.5	
	62	5310	12.0	11.0	14.5	
802.11ax-HE80 MCS0	58	5290	12.0	11.0	14.5	
802.11ax-HE160 MCS0	50	5250	12.0	11.0	14.5	



Burst Average Power (dBm)						
5.5GHz WLAN	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
5.5GHz WLAN	802.11a 6Mbps	100	5500	15.0	9.0	16.0
		116	5580	15.0	9.0	16.0
		124	5620	15.0	9.0	16.0
		132	5660	15.0	9.0	16.0
		144	5720	15.0	9.0	16.0
	802.11n-HT20 MCS0	100	5500	15.0	9.0	16.0
		116	5580	15.0	9.0	16.0
		124	5620	15.0	9.0	16.0
		132	5660	15.0	9.0	16.0
		144	5720	15.0	9.0	16.0
	802.11n-HT40 MCS0	102	5510	15.0	9.0	16.0
		110	5550	15.0	9.0	16.0
		126	5630	15.0	9.0	16.0
		134	5670	15.0	9.0	16.0
		142	5710	15.0	9.0	16.0
	802.11ac-VHT20 MCS0	100	5500	15.0	9.0	16.0
		116	5580	15.0	9.0	16.0
		124	5620	15.0	9.0	16.0
		132	5660	15.0	9.0	16.0
		144	5720	15.0	9.0	16.0
802.11ac-VHT40 MCS0	102	5510	15.0	9.0	16.0	
	110	5550	15.0	9.0	16.0	
	126	5630	15.0	9.0	16.0	
	134	5670	15.0	9.0	16.0	
	142	5710	15.0	9.0	16.0	
802.11ac-VHT80 MCS0	106	5530	15.0	9.0	16.0	
	122	5610	15.0	9.0	16.0	
	138	5690	15.0	9.0	16.0	
802.11ac-VHT160 MCS0	114	5570	15.0	9.0	16.0	
802.11ax-HE20 MCS0	100	5500	15.0	9.0	16.0	
	116	5580	15.0	9.0	16.0	
	124	5620	15.0	9.0	16.0	
	132	5660	15.0	9.0	16.0	
	144	5720	15.0	9.0	16.0	
802.11ax-HE40 MCS0	102	5510	15.0	9.0	16.0	
	110	5550	15.0	9.0	16.0	
	126	5630	15.0	9.0	16.0	
	134	5670	15.0	9.0	16.0	
	142	5710	15.0	9.0	16.0	
802.11ax-HE80 MCS0	106	5530	15.0	9.0	16.0	
	122	5610	15.0	9.0	16.0	
	138	5690	15.0	9.0	16.0	
802.11ax-HE160 MCS0	114	5570	15.0	9.0	16.0	



Burst Average Power (dBm)						
Transmit Antenna				MIMO Ant 4+3		
5.8GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
	802.11a 6Mbps	149	5745	14.5	9.0	15.6
		157	5785	14.5	9.0	15.6
		165	5825	14.5	9.0	15.6
	802.11n-HT20 MCS0	149	5745	14.5	9.0	15.6
		157	5785	14.5	9.0	15.6
		165	5825	14.5	9.0	15.6
	802.11n-HT40 MCS0	151	5755	14.5	9.0	15.6
		159	5795	14.5	9.0	15.6
	802.11ac-VHT20 MCS0	149	5745	14.5	9.0	15.6
		157	5785	14.5	9.0	15.6
		165	5825	14.5	9.0	15.6
	802.11ac-VHT40 MCS0	151	5755	14.5	9.0	15.6
		159	5795	14.5	9.0	15.6
	802.11ac-VHT80 MCS0	155	5775	14.5	9.0	15.6
802.11ax-HE20 MCS0	149	5745	14.5	9.0	15.6	
	157	5785	14.5	9.0	15.6	
	165	5825	14.5	9.0	15.6	
802.11ax-HE40 MCS0	151	5755	14.5	9.0	15.6	
	159	5795	14.5	9.0	15.6	
802.11ax-HE80 MCS0	155	5775	14.5	9.0	15.6	



Burst Average Power (dBm)						
	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
5.8GHz WLAN UNII4	802.11a 6Mbps	169	5845	14.5	9.0	15.6
		173	5865	14.5	9.0	15.6
		177	5885	14.5	9.0	15.6
	802.11n-HT20 MCS0	169	5845	14.5	9.0	15.6
		173	5865	14.5	9.0	15.6
		177	5885	14.5	9.0	15.6
	802.11n-HT40 MCS0	167	5835	14.5	9.0	15.6
		175	5875	14.5	9.0	15.6
	802.11ac-VHT20 MCS0	169	5845	14.5	9.0	15.6
		173	5865	14.5	9.0	15.6
		177	5885	14.5	9.0	15.6
	802.11ac-VHT40 MCS0	167	5835	14.5	9.0	15.6
		175	5875	14.5	9.0	15.6
	802.11ac-VHT80 MCS0	171	5855	14.5	9.0	15.6
	802.11ac-VHT160 MCS0	163	5815	14.5	9.0	15.6
	802.11ax-HE20 MCS0	169	5845	14.5	9.0	15.6
		173	5865	14.5	9.0	15.6
		177	5885	14.5	9.0	15.6
802.11ax-HE40 MCS0	167	5835	14.5	9.0	15.6	
	175	5875	14.5	9.0	15.6	
802.11ax-HE80 MCS0	171	5855	14.5	9.0	15.6	
802.11ax-HE160 MCS0	163	5815	14.5	9.0	15.6	



<Power Index 5>

<2.4GHz WLAN>

Burst Average Power (dBm)				
Transmit Antenna				SISO Ant 4
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit
	802.11b 1Mbps	1	2412	19.5
		6	2437	19.5
		11	2462	19.5
		12	2467	19.5
		13	2472	19.5

Burst Average Power (dBm)				
Transmit Antenna				SISO Ant 3
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit
	802.11b 1Mbps	1	2412	22.0
		6	2437	22.0
		11	2462	22.0
		12	2467	22.0
		13	2472	19.0

Burst Average Power (dBm)						
Transmit Antenna				MIMO Ant 4+3		
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
	802.11g 6Mbps	1	2412	18.0	18.0	21.0
		6	2437	19.5	19.5	22.5
		11	2462	17.0	17.0	20.0
		12	2467	15.0	15.0	18.0
		13	2472	13.5	13.5	16.5
	802.11n-HT20 MCS0	1	2412	18.0	18.0	21.0
		6	2437	19.5	19.5	22.5
		11	2462	17.0	17.0	20.0
		12	2467	15.0	15.0	18.0
	802.11ac-VHT20 MCS0	13	2472	13.5	13.5	16.5
		1	2412	18.0	18.0	21.0
		6	2437	19.5	19.5	22.5
		11	2462	17.0	17.0	20.0
	802.11ax-HE20 MCS0	12	2467	15.0	15.0	18.0
		13	2472	13.5	13.5	16.5
		1	2412	18.0	18.0	21.0
		6	2437	19.5	19.5	22.5
		11	2462	17.0	17.0	20.0
		12	2467	15.0	15.0	18.0
13		2472	13.5	13.5	16.5	



<5GHz WLAN>

Burst Average Power (dBm)						
5.2GHz WLAN	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
5.2GHz WLAN	802.11a 6Mbps	36	5180	20.0	20.0	23.0
		40	5200	20.0	20.0	23.0
		44	5220	20.0	20.0	23.0
		48	5240	20.0	20.0	23.0
	802.11n-HT20 MCS0	36	5180	20.0	20.0	23.0
		40	5200	20.0	20.0	23.0
		44	5220	20.0	20.0	23.0
	802.11n-HT40 MCS0	38	5190	16.0	16.0	19.0
		46	5230	19.0	19.0	22.0
	802.11ac-VHT20 MCS0	36	5180	20.0	20.0	23.0
		40	5200	20.0	20.0	23.0
		44	5220	20.0	20.0	23.0
		48	5240	20.0	20.0	23.0
	802.11ac-VHT40 MCS0	38	5190	16.0	16.0	19.0
		46	5230	19.0	19.0	22.0
	802.11ac-VHT80 MCS0	42	5210	16.0	16.0	19.0
	802.11ax-HE20 MCS0	36	5180	20.0	20.0	23.0
		40	5200	20.0	20.0	23.0
		44	5220	20.0	20.0	23.0
		48	5240	20.0	20.0	23.0
802.11ax-HE40 MCS0	38	5190	16.0	16.0	19.0	
	46	5230	19.0	19.0	22.0	
802.11ax-HE80 MCS0	42	5210	16.0	16.0	19.0	



Burst Average Power (dBm)						
5.3GHz WLAN	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
	802.11a 6Mbps	52	5260	20.0	20.0	23.0
		56	5280	20.0	20.0	23.0
		60	5300	18.5	18.5	21.5
		64	5320	18.5	18.5	21.5
	802.11n-HT20 MCS0	52	5260	20.0	20.0	23.0
		56	5280	20.0	20.0	23.0
		60	5300	18.5	18.5	21.5
		64	5320	18.5	18.5	21.5
	802.11n-HT40 MCS0	54	5270	19.0	19.0	22.0
		62	5310	16.0	16.0	19.0
	802.11ac-VHT20 MCS0	52	5260	20.0	20.0	23.0
		56	5280	20.0	20.0	23.0
		60	5300	18.5	18.5	21.5
		64	5320	18.5	18.5	21.5
	802.11ac-VHT40 MCS0	54	5270	19.0	19.0	22.0
		62	5310	16.0	16.0	19.0
	802.11ac-VHT80 MCS0	58	5290	16.0	16.0	19.0
	802.11ac-VHT160 MCS0	50	5250	14.0	14.0	17.0
	802.11ax-HE20 MCS0	52	5260	20.0	20.0	23.0
		56	5280	20.0	20.0	23.0
60		5300	18.5	18.5	21.5	
64		5320	18.5	18.5	21.5	
802.11ax-HE40 MCS0	54	5270	19.0	19.0	22.0	
	62	5310	16.0	16.0	19.0	
802.11ax-HE80 MCS0	58	5290	16.0	16.0	19.0	
802.11ax-HE160 MCS0	50	5250	14.0	14.0	17.0	



Burst Average Power (dBm)						
5.5GHz WLAN	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
5.5GHz WLAN	802.11a 6Mbps	100	5500	20.0	20.0	23.0
		116	5580	20.0	20.0	23.0
		124	5620	20.0	20.0	23.0
		132	5660	20.0	20.0	23.0
		144	5720	20.0	20.0	23.0
	802.11n-HT20 MCS0	100	5500	20.0	20.0	23.0
		116	5580	20.0	20.0	23.0
		124	5620	20.0	20.0	23.0
		132	5660	20.0	20.0	23.0
		144	5720	20.0	20.0	23.0
	802.11n-HT40 MCS0	102	5510	16.0	16.0	19.0
		110	5550	19.0	19.0	22.0
		126	5630	19.0	19.0	22.0
		134	5670	19.0	19.0	22.0
		142	5710	19.0	19.0	22.0
	802.11ac-VHT20 MCS0	100	5500	20.0	20.0	23.0
		116	5580	20.0	20.0	23.0
		124	5620	20.0	20.0	23.0
		132	5660	20.0	20.0	23.0
		144	5720	20.0	20.0	23.0
802.11ac-VHT40 MCS0	102	5510	16.0	16.0	19.0	
	110	5550	19.0	19.0	22.0	
	126	5630	19.0	19.0	22.0	
	134	5670	19.0	19.0	22.0	
	142	5710	19.0	19.0	22.0	
802.11ac-VHT80 MCS0	106	5530	16.5	16.5	19.5	
	122	5610	19.0	19.0	22.0	
	138	5690	19.0	19.0	22.0	
802.11ac-VHT160 MCS0	114	5570	15.5	15.5	18.5	
802.11ax-HE20 MCS0	100	5500	20.0	20.0	23.0	
	116	5580	20.0	20.0	23.0	
	124	5620	20.0	20.0	23.0	
	132	5660	20.0	20.0	23.0	
	144	5720	20.0	20.0	23.0	
802.11ax-HE40 MCS0	102	5510	16.0	16.0	19.0	
	110	5550	19.0	19.0	22.0	
	126	5630	19.0	19.0	22.0	
	134	5670	19.0	19.0	22.0	
	142	5710	19.0	19.0	22.0	
802.11ax-HE80 MCS0	106	5530	16.5	16.5	19.5	
	122	5610	19.0	19.0	22.0	
	138	5690	19.0	19.0	22.0	
802.11ax-HE160 MCS0	114	5570	15.5	15.5	18.5	



Burst Average Power (dBm)						
Transmit Antenna				MIMO Ant 4+3		
5.8GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
	802.11a 6Mbps	149	5745	20.0	20.0	23.0
		157	5785	20.0	20.0	23.0
		165	5825	20.0	20.0	23.0
	802.11n-HT20 MCS0	149	5745	20.0	20.0	23.0
		157	5785	20.0	20.0	23.0
		165	5825	20.0	20.0	23.0
	802.11n-HT40 MCS0	151	5755	19.0	19.0	22.0
		159	5795	19.0	19.0	22.0
	802.11ac-VHT20 MCS0	149	5745	20.0	20.0	23.0
		157	5785	20.0	20.0	23.0
		165	5825	20.0	20.0	23.0
	802.11ac-VHT40 MCS0	151	5755	19.0	19.0	22.0
		159	5795	19.0	19.0	22.0
	802.11ac-VHT80 MCS0	155	5775	19.0	19.0	22.0
802.11ax-HE20 MCS0	149	5745	20.0	20.0	23.0	
	157	5785	20.0	20.0	23.0	
	165	5825	20.0	20.0	23.0	
802.11ax-HE40 MCS0	151	5755	19.0	19.0	22.0	
	159	5795	19.0	19.0	22.0	
802.11ax-HE80 MCS0	155	5775	19.0	19.0	22.0	
802.11ax-HE160 MCS0	163	5815	19.0	19.0	22.0	



Burst Average Power (dBm)						
5.8GHz WLAN Unil	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
5.8GHz WLAN Unil	802.11a 6Mbps	169	5845	19.5	20.0	22.8
		173	5865	19.5	20.0	22.8
		177	5885	19.5	20.0	22.8
	802.11n-HT20 MCS0	169	5845	19.5	20.0	22.8
		173	5865	19.5	20.0	22.8
		177	5885	19.5	20.0	22.8
	802.11n-HT40 MCS0	167	5835	19.0	19.0	22.0
		175	5875	19.0	19.0	22.0
	802.11ac-VHT20 MCS0	169	5845	19.5	20.0	22.8
		173	5865	19.5	20.0	22.8
		177	5885	19.5	20.0	22.8
	802.11ac-VHT40 MCS0	167	5835	19.0	19.0	22.0
		175	5875	19.0	19.0	22.0
	802.11ac-VHT80 MCS0	171	5855	19.0	19.0	22.0
	802.11ac-VHT160 MCS0	163	5815	19.0	19.0	22.0
	802.11ax-HE20 MCS0	169	5845	19.5	20.0	22.8
		173	5865	19.5	20.0	22.8
		177	5885	19.5	20.0	22.8
802.11ax-HE40 MCS0	167	5835	19.0	19.0	22.0	
	175	5875	19.0	19.0	22.0	
802.11ax-HE80 MCS0	171	5855	19.0	19.0	22.0	
802.11ax-HE160 MCS0	163	5815	19.0	19.0	22.0	



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<2.4GHz WLAN>

Burst Average Power (dBm)				
Transmit Antenna				SISO Ant 4
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit
	802.11b 1Mbps	1	2412	19.5
		6	2437	19.5
		11	2462	19.5
		12	2467	19.5
		13	2472	19.5

Burst Average Power (dBm)				
Transmit Antenna				SISO Ant 3
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit
	802.11b 1Mbps	1	2412	22.0
		6	2437	22.0
		11	2462	22.0
		12	2467	22.0
		13	2472	19.0

Burst Average Power (dBm)						
Transmit Antenna				MIMO Ant 4+3		
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
	802.11g 6Mbps	1	2412	18.0	18.0	21.0
		6	2437	19.5	19.5	22.5
		11	2462	17.0	17.0	20.0
		12	2467	15.0	15.0	18.0
		13	2472	13.5	13.5	16.5
	802.11n-HT20 MCS0	1	2412	18.0	18.0	21.0
		6	2437	19.5	19.5	22.5
		11	2462	17.0	17.0	20.0
		12	2467	15.0	15.0	18.0
		13	2472	13.5	13.5	16.5
	802.11ac-VHT20 MCS0	1	2412	18.0	18.0	21.0
		6	2437	19.5	19.5	22.5
		11	2462	17.0	17.0	20.0
		12	2467	15.0	15.0	18.0
		13	2472	13.5	13.5	16.5
	802.11ax-HE20 MCS0	1	2412	18.0	18.0	21.0
		6	2437	19.5	19.5	22.5
		11	2462	17.0	17.0	20.0
		12	2467	15.0	15.0	18.0
13		2472	13.5	13.5	16.5	



<5GHz WLAN>

Burst Average Power (dBm)						
Transmit Antenna				MIMO Ant 4+3		
Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3	
5.2GHz WLAN	802.11a 6Mbps	36	5180	20.0	20.0	23.0
		40	5200	20.0	20.0	23.0
		44	5220	20.0	20.0	23.0
		48	5240	20.0	20.0	23.0
	802.11n-HT20 MCS0	36	5180	20.0	20.0	23.0
		40	5200	20.0	20.0	23.0
		44	5220	20.0	20.0	23.0
	802.11n-HT40 MCS0	38	5190	16.0	16.0	19.0
		46	5230	19.0	19.0	22.0
	802.11ac-VHT20 MCS0	36	5180	20.0	20.0	23.0
		40	5200	20.0	20.0	23.0
		44	5220	20.0	20.0	23.0
		48	5240	20.0	20.0	23.0
	802.11ac-VHT40 MCS0	38	5190	16.0	16.0	19.0
		46	5230	19.0	19.0	22.0
	802.11ac-VHT80 MCS0	42	5210	16.0	16.0	19.0
	802.11ax-HE20 MCS0	36	5180	20.0	20.0	23.0
		40	5200	20.0	20.0	23.0
		44	5220	20.0	20.0	23.0
		48	5240	20.0	20.0	23.0
802.11ax-HE40 MCS0	38	5190	16.0	16.0	19.0	
	46	5230	19.0	19.0	22.0	
802.11ax-HE80 MCS0	42	5210	16.0	16.0	19.0	



Burst Average Power (dBm)						
5.3GHz WLAN	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
5.3GHz WLAN	802.11a 6Mbps	52	5260	20.0	20.0	23.0
		56	5280	20.0	20.0	23.0
		60	5300	18.5	18.5	21.5
		64	5320	18.5	18.5	21.5
	802.11n-HT20 MCS0	52	5260	20.0	20.0	23.0
		56	5280	20.0	20.0	23.0
		60	5300	18.5	18.5	21.5
		64	5320	18.5	18.5	21.5
	802.11n-HT40 MCS0	54	5270	19.0	19.0	22.0
		62	5310	16.0	16.0	19.0
	802.11ac-VHT20 MCS0	52	5260	20.0	20.0	23.0
		56	5280	20.0	20.0	23.0
		60	5300	18.5	18.5	21.5
		64	5320	18.5	18.5	21.5
	802.11ac-VHT40 MCS0	54	5270	19.0	19.0	22.0
		62	5310	16.0	16.0	19.0
	802.11ac-VHT80 MCS0	58	5290	16.0	16.0	19.0
	802.11ac-VHT160 MCS0	50	5250	14.0	14.0	17.0
	802.11ax-HE20 MCS0	52	5260	20.0	20.0	23.0
		56	5280	20.0	20.0	23.0
60		5300	18.5	18.5	21.5	
64		5320	18.5	18.5	21.5	
802.11ax-HE40 MCS0	54	5270	19.0	19.0	22.0	
	62	5310	16.0	16.0	19.0	
802.11ax-HE80 MCS0	58	5290	16.0	16.0	19.0	
802.11ax-HE160 MCS0	50	5250	14.0	14.0	17.0	



Burst Average Power (dBm)						
5.5GHz WLAN	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
5.5GHz WLAN	802.11a 6Mbps	100	5500	20.0	20.0	23.0
		116	5580	20.0	20.0	23.0
		124	5620	20.0	20.0	23.0
		132	5660	20.0	20.0	23.0
		144	5720	20.0	20.0	23.0
	802.11n-HT20 MCS0	100	5500	20.0	20.0	23.0
		116	5580	20.0	20.0	23.0
		124	5620	20.0	20.0	23.0
		132	5660	20.0	20.0	23.0
		144	5720	20.0	20.0	23.0
	802.11n-HT40 MCS0	102	5510	16.0	16.0	19.0
		110	5550	19.0	19.0	22.0
		126	5630	19.0	19.0	22.0
		134	5670	19.0	19.0	22.0
		142	5710	19.0	19.0	22.0
	802.11ac-VHT20 MCS0	100	5500	20.0	20.0	23.0
		116	5580	20.0	20.0	23.0
		124	5620	20.0	20.0	23.0
		132	5660	20.0	20.0	23.0
		144	5720	20.0	20.0	23.0
802.11ac-VHT40 MCS0	102	5510	16.0	16.0	19.0	
	110	5550	19.0	19.0	22.0	
	126	5630	19.0	19.0	22.0	
	134	5670	19.0	19.0	22.0	
	142	5710	19.0	19.0	22.0	
802.11ac-VHT80 MCS0	106	5530	16.5	16.5	19.5	
	122	5610	19.0	19.0	22.0	
	138	5690	19.0	19.0	22.0	
802.11ac-VHT160 MCS0	114	5570	15.5	15.5	18.5	
802.11ax-HE20 MCS0	100	5500	20.0	20.0	23.0	
	116	5580	20.0	20.0	23.0	
	124	5620	20.0	20.0	23.0	
	132	5660	20.0	20.0	23.0	
	144	5720	20.0	20.0	23.0	
802.11ax-HE40 MCS0	102	5510	16.0	16.0	19.0	
	110	5550	19.0	19.0	22.0	
	126	5630	19.0	19.0	22.0	
	134	5670	19.0	19.0	22.0	
	142	5710	19.0	19.0	22.0	
802.11ax-HE80 MCS0	106	5530	16.5	16.5	19.5	
	122	5610	19.0	19.0	22.0	
	138	5690	19.0	19.0	22.0	
802.11ax-HE160 MCS0	114	5570	15.5	15.5	18.5	



Burst Average Power (dBm)						
Transmit Antenna				MIMO Ant 4+3		
5.8GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
	802.11a 6Mbps	149	5745	19.0	20.0	22.5
		157	5785	19.0	20.0	22.5
		165	5825	19.0	20.0	22.5
	802.11n-HT20 MCS0	149	5745	19.0	20.0	22.5
		157	5785	19.0	20.0	22.5
		165	5825	19.0	20.0	22.5
	802.11n-HT40 MCS0	151	5755	19.0	19.0	22.0
		159	5795	19.0	19.0	22.0
	802.11ac-VHT20 MCS0	149	5745	19.0	20.0	22.5
		157	5785	19.0	20.0	22.5
		165	5825	19.0	20.0	22.5
	802.11ac-VHT40 MCS0	151	5755	19.0	19.0	22.0
		159	5795	19.0	19.0	22.0
802.11ac-VHT80 MCS0	155	5775	19.0	19.0	22.0	
802.11ax-HE20 MCS0	149	5745	19.0	20.0	22.5	
	157	5785	19.0	20.0	22.5	
	165	5825	19.0	20.0	22.5	
802.11ax-HE40 MCS0	151	5755	19.0	19.0	22.0	
	159	5795	19.0	19.0	22.0	
802.11ax-HE80 MCS0	155	5775	19.0	19.0	22.0	



Burst Average Power (dBm)						
5.8GHz WLAN UNII4	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
802.11a 6Mbps		169	5845	19.0	20.0	22.5
		173	5865	19.0	20.0	22.5
		177	5885	19.0	20.0	22.5
802.11n-HT20 MCS0		169	5845	19.0	20.0	22.5
		173	5865	19.0	20.0	22.5
		177	5885	19.0	20.0	22.5
802.11n-HT40 MCS0		167	5835	19.0	19.0	22.0
		175	5875	19.0	19.0	22.0
802.11ac-VHT20 MCS0		169	5845	19.0	20.0	22.5
		173	5865	19.0	20.0	22.5
		177	5885	19.0	20.0	22.5
802.11ac-VHT40 MCS0		167	5835	19.0	19.0	22.0
		175	5875	19.0	19.0	22.0
802.11ac-VHT80 MCS0		171	5855	19.0	19.0	22.0
802.11ac-VHT160 MCS0		163	5815	19.0	19.0	22.0
802.11ax-HE20 MCS0		169	5845	19.0	20.0	22.5
		173	5865	19.0	20.0	22.5
		177	5885	19.0	20.0	22.5
802.11ax-HE40 MCS0		167	5835	19.0	19.0	22.0
		175	5875	19.0	19.0	22.0
802.11ax-HE80 MCS0		171	5855	19.0	19.0	22.0
802.11ax-HE160 MCS0		163	5815	19.0	19.0	22.0



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<2.4GHz WLAN>

Burst Average Power (dBm)				
Transmit Antenna				SISO Ant 4
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit
	802.11b 1Mbps	1	2412	19.5
		6	2437	19.5
		11	2462	19.5
		12	2467	19.5
		13	2472	19.5

Burst Average Power (dBm)				
Transmit Antenna				SISO Ant 3
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit
	802.11b 1Mbps	1	2412	19.0
		6	2437	19.0
		11	2462	19.0
		12	2467	19.0
		13	2472	19.0

Burst Average Power (dBm)						
Transmit Antenna				MIMO Ant 4+3		
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
	802.11g 6Mbps	1	2412	18.0	18.0	21.0
		6	2437	19.5	19.0	22.3
		11	2462	17.0	17.0	20.0
		12	2467	15.0	15.0	18.0
		13	2472	13.5	13.5	16.5
	802.11n-HT20 MCS0	1	2412	18.0	18.0	21.0
		6	2437	19.5	19.0	22.3
		11	2462	17.0	17.0	20.0
		12	2467	15.0	15.0	18.0
	802.11ac-VHT20 MCS0	13	2472	13.5	13.5	16.5
		1	2412	18.0	18.0	21.0
		6	2437	19.5	19.0	22.3
		11	2462	17.0	17.0	20.0
	802.11ax-HE20 MCS0	12	2467	15.0	15.0	18.0
		13	2472	13.5	13.5	16.5
		1	2412	18.0	18.0	21.0
		6	2437	19.5	19.0	22.3
		11	2462	17.0	17.0	20.0
		12	2467	15.0	15.0	18.0
13		2472	13.5	13.5	16.5	



<5GHz WLAN>

Burst Average Power (dBm)						
5.2GHz WLAN	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
5.2GHz WLAN	802.11a 6Mbps	36	5180	15.0	19.0	20.5
		40	5200	15.0	19.0	20.5
		44	5220	15.0	19.0	20.5
		48	5240	15.0	19.0	20.5
	802.11n-HT20 MCS0	36	5180	15.0	19.0	20.5
		40	5200	15.0	19.0	20.5
		44	5220	15.0	19.0	20.5
	802.11n-HT40 MCS0	38	5190	15.0	16.0	18.5
		46	5230	15.0	19.0	20.5
	802.11ac-VHT20 MCS0	36	5180	15.0	19.0	20.5
		40	5200	15.0	19.0	20.5
		44	5220	15.0	19.0	20.5
		48	5240	15.0	19.0	20.5
	802.11ac-VHT40 MCS0	38	5190	15.0	16.0	18.5
		46	5230	15.0	19.0	20.5
	802.11ac-VHT80 MCS0	42	5210	15.0	16.0	18.5
	802.11ax-HE20 MCS0	36	5180	15.0	19.0	20.5
		40	5200	15.0	19.0	20.5
		44	5220	15.0	19.0	20.5
		48	5240	15.0	19.0	20.5
802.11ax-HE40 MCS0	38	5190	15.0	16.0	18.5	
	46	5230	15.0	19.0	20.5	
802.11ax-HE80 MCS0	42	5210	15.0	16.0	18.5	



Burst Average Power (dBm)						
5.3GHz WLAN	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
802.11a 6Mbps		52	5260	15.0	19.0	20.5
		56	5280	15.0	19.0	20.5
		60	5300	15.0	18.5	20.1
		64	5320	15.0	18.5	20.1
802.11n-HT20 MCS0		52	5260	15.0	19.0	20.5
		56	5280	15.0	19.0	20.5
		60	5300	15.0	18.5	20.1
		64	5320	15.0	18.5	20.1
802.11n-HT40 MCS0		54	5270	15.0	19.0	20.5
		62	5310	15.0	16.0	18.5
802.11ac-VHT20 MCS0		52	5260	15.0	19.0	20.5
		56	5280	15.0	19.0	20.5
		60	5300	15.0	18.5	20.1
		64	5320	15.0	18.5	20.1
802.11ac-VHT40 MCS0		54	5270	15.0	19.0	20.5
		62	5310	15.0	16.0	18.5
802.11ac-VHT80 MCS0		58	5290	15.0	16.0	18.5
802.11ac-VHT160 MCS0		50	5250	14.0	14.0	17.0
802.11ax-HE20 MCS0		52	5260	15.0	19.0	20.5
		56	5280	15.0	19.0	20.5
		60	5300	15.0	18.5	20.1
		64	5320	15.0	18.5	20.1
802.11ax-HE40 MCS0		54	5270	15.0	19.0	20.5
		62	5310	15.0	16.0	18.5
802.11ax-HE80 MCS0		58	5290	15.0	16.0	18.5
802.11ax-HE160 MCS0		50	5250	14.0	14.0	17.0



Burst Average Power (dBm)						
5.5GHz WLAN	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
5.5GHz WLAN	802.11a 6Mbps	100	5500	16.0	16.5	19.3
		116	5580	16.0	16.5	19.3
		124	5620	16.0	16.5	19.3
		132	5660	16.0	16.5	19.3
		144	5720	16.0	16.5	19.3
	802.11n-HT20 MCS0	100	5500	16.0	16.5	19.3
		116	5580	16.0	16.5	19.3
		124	5620	16.0	16.5	19.3
		132	5660	16.0	16.5	19.3
		144	5720	16.0	16.5	19.3
	802.11n-HT40 MCS0	102	5510	16.0	16.0	19.0
		110	5550	16.0	16.5	19.3
		126	5630	16.0	16.5	19.3
		134	5670	16.0	16.5	19.3
		142	5710	16.0	16.5	19.3
	802.11ac-VHT20 MCS0	100	5500	16.0	16.5	19.3
		116	5580	16.0	16.5	19.3
		124	5620	16.0	16.5	19.3
		132	5660	16.0	16.5	19.3
		144	5720	16.0	16.5	19.3
802.11ac-VHT40 MCS0	102	5510	16.0	16.0	19.0	
	110	5550	16.0	16.5	19.3	
	126	5630	16.0	16.5	19.3	
	134	5670	16.0	16.5	19.3	
	142	5710	16.0	16.5	19.3	
802.11ac-VHT80 MCS0	106	5530	16.0	16.5	19.3	
	122	5610	16.0	16.5	19.3	
	138	5690	16.0	16.5	19.3	
802.11ac-VHT160 MCS0	114	5570	15.5	15.5	18.5	
802.11ax-HE20 MCS0	100	5500	16.0	16.5	19.3	
	116	5580	16.0	16.5	19.3	
	124	5620	16.0	16.5	19.3	
	132	5660	16.0	16.5	19.3	
	144	5720	16.0	16.5	19.3	
802.11ax-HE40 MCS0	102	5510	16.0	16.0	19.0	
	110	5550	16.0	16.5	19.3	
	126	5630	16.0	16.5	19.3	
	134	5670	16.0	16.5	19.3	
	142	5710	16.0	16.5	19.3	
802.11ax-HE80 MCS0	106	5530	16.0	16.5	19.3	
	122	5610	16.0	16.5	19.3	
	138	5690	16.0	16.5	19.3	
802.11ax-HE160 MCS0	114	5570	15.5	15.5	18.5	



Burst Average Power (dBm)						
Transmit Antenna				MIMO Ant 4+3		
5.8GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
	802.11a 6Mbps	149	5745	16.0	17.5	19.8
		157	5785	16.0	17.5	19.8
		165	5825	16.0	17.5	19.8
	802.11n-HT20 MCS0	149	5745	16.0	17.5	19.8
		157	5785	16.0	17.5	19.8
		165	5825	16.0	17.5	19.8
	802.11n-HT40 MCS0	151	5755	16.0	17.5	19.8
		159	5795	16.0	17.5	19.8
	802.11ac-VHT20 MCS0	149	5745	16.0	17.5	19.8
		157	5785	16.0	17.5	19.8
		165	5825	16.0	17.5	19.8
	802.11ac-VHT40 MCS0	151	5755	16.0	17.5	19.8
		159	5795	16.0	17.5	19.8
802.11ac-VHT80 MCS0	155	5775	16.0	17.5	19.8	
802.11ax-HE20 MCS0	149	5745	16.0	17.5	19.8	
	157	5785	16.0	17.5	19.8	
	165	5825	16.0	17.5	19.8	
802.11ax-HE40 MCS0	151	5755	16.0	17.5	19.8	
	159	5795	16.0	17.5	19.8	
802.11ax-HE80 MCS0	155	5775	16.0	17.5	19.8	



Burst Average Power (dBm)						
	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
5.8GHz WLAN UNII4	802.11a 6Mbps	169	5845	16.0	17.5	19.8
		173	5865	16.0	17.5	19.8
		177	5885	16.0	17.5	19.8
	802.11n-HT20 MCS0	169	5845	16.0	17.5	19.8
		173	5865	16.0	17.5	19.8
		177	5885	16.0	17.5	19.8
	802.11n-HT40 MCS0	167	5835	16.0	17.5	19.8
		175	5875	16.0	17.5	19.8
	802.11ac-VHT20 MCS0	169	5845	16.0	17.5	19.8
		173	5865	16.0	17.5	19.8
		177	5885	16.0	17.5	19.8
	802.11ac-VHT40 MCS0	167	5835	16.0	17.5	19.8
		175	5875	16.0	17.5	19.8
	802.11ac-VHT80 MCS0	171	5855	16.0	17.5	19.8
	802.11ac-VHT160 MCS0	163	5815	16.0	17.5	19.8
	802.11ax-HE20 MCS0	169	5845	16.0	17.5	19.8
		173	5865	16.0	17.5	19.8
		177	5885	16.0	17.5	19.8
802.11ax-HE40 MCS0	167	5835	16.0	17.5	19.8	
	175	5875	16.0	17.5	19.8	
802.11ax-HE80 MCS0	171	5855	16.0	17.5	19.8	
802.11ax-HE160 MCS0	163	5815	16.0	17.5	19.8	



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<2.4GHz WLAN>

Burst Average Power (dBm)				
Transmit Antenna				SISO Ant 4
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit
	802.11b 1Mbps	1	2412	19.5
		6	2437	19.5
		11	2462	19.5
		12	2467	19.5
		13	2472	19.5

Burst Average Power (dBm)				
Transmit Antenna				SISO Ant 3
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit
	802.11b 1Mbps	1	2412	16.0
		6	2437	16.0
		11	2462	16.0
		12	2467	16.0
		13	2472	16.0

Burst Average Power (dBm)						
Transmit Antenna				MIMO Ant 4+3		
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
	802.11g 6Mbps	1	2412	18.0	16.0	20.1
		6	2437	19.5	16.0	21.1
		11	2462	17.0	16.0	19.5
		12	2467	15.0	15.0	18.0
		13	2472	13.5	13.5	16.5
	802.11n-HT20 MCS0	1	2412	18.0	16.0	20.1
		6	2437	19.5	16.0	21.1
		11	2462	17.0	16.0	19.5
		12	2467	15.0	15.0	18.0
	802.11ac-VHT20 MCS0	13	2472	13.5	13.5	16.5
		1	2412	18.0	16.0	20.1
		6	2437	19.5	16.0	21.1
		11	2462	17.0	16.0	19.5
	802.11ax-HE20 MCS0	12	2467	15.0	15.0	18.0
		13	2472	13.5	13.5	16.5
		1	2412	18.0	16.0	20.1
		6	2437	19.5	16.0	21.1
		11	2462	17.0	16.0	19.5
		12	2467	15.0	15.0	18.0
13		2472	13.5	13.5	16.5	
1		2412	18.0	16.0	20.1	



<5GHz WLAN>

Burst Average Power (dBm)						
5.2GHz WLAN	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
5.2GHz WLAN	802.11a 6Mbps	36	5180	15.0	19.0	20.5
		40	5200	15.0	19.0	20.5
		44	5220	15.0	19.0	20.5
		48	5240	15.0	19.0	20.5
	802.11n-HT20 MCS0	36	5180	15.0	19.0	20.5
		40	5200	15.0	19.0	20.5
		44	5220	15.0	19.0	20.5
	802.11n-HT40 MCS0	38	5190	15.0	16.0	18.5
		46	5230	15.0	19.0	20.5
	802.11ac-VHT20 MCS0	36	5180	15.0	19.0	20.5
		40	5200	15.0	19.0	20.5
		44	5220	15.0	19.0	20.5
		48	5240	15.0	19.0	20.5
	802.11ac-VHT40 MCS0	38	5190	15.0	16.0	18.5
		46	5230	15.0	19.0	20.5
	802.11ac-VHT80 MCS0	42	5210	15.0	16.0	18.5
	802.11ax-HE20 MCS0	36	5180	15.0	19.0	20.5
		40	5200	15.0	19.0	20.5
		44	5220	15.0	19.0	20.5
		48	5240	15.0	19.0	20.5
802.11ax-HE40 MCS0	38	5190	15.0	16.0	18.5	
	46	5230	15.0	19.0	20.5	
802.11ax-HE80 MCS0	42	5210	15.0	16.0	18.5	



Burst Average Power (dBm)						
5.3GHz WLAN	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
802.11a 6Mbps		52	5260	15.0	19.0	20.5
		56	5280	15.0	19.0	20.5
		60	5300	15.0	18.5	20.1
		64	5320	15.0	18.5	20.1
802.11n-HT20 MCS0		52	5260	15.0	19.0	20.5
		56	5280	15.0	19.0	20.5
		60	5300	15.0	18.5	20.1
		64	5320	15.0	18.5	20.1
802.11n-HT40 MCS0		54	5270	15.0	19.0	20.5
		62	5310	15.0	16.0	18.5
802.11ac-VHT20 MCS0		52	5260	15.0	19.0	20.5
		56	5280	15.0	19.0	20.5
		60	5300	15.0	18.5	20.1
		64	5320	15.0	18.5	20.1
802.11ac-VHT40 MCS0		54	5270	15.0	19.0	20.5
		62	5310	15.0	16.0	18.5
802.11ac-VHT80 MCS0		58	5290	15.0	16.0	18.5
802.11ac-VHT160 MCS0		50	5250	14.0	14.0	17.0
802.11ax-HE20 MCS0		52	5260	15.0	19.0	20.5
		56	5280	15.0	19.0	20.5
		60	5300	15.0	18.5	20.1
		64	5320	15.0	18.5	20.1
802.11ax-HE40 MCS0		54	5270	15.0	19.0	20.5
		62	5310	15.0	16.0	18.5
802.11ax-HE80 MCS0		58	5290	15.0	16.0	18.5
802.11ax-HE160 MCS0		50	5250	14.0	14.0	17.0



Burst Average Power (dBm)						
5.5GHz WLAN	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
5.5GHz WLAN	802.11a 6Mbps	100	5500	16.0	16.5	19.3
		116	5580	16.0	16.5	19.3
		124	5620	16.0	16.5	19.3
		132	5660	16.0	16.5	19.3
		144	5720	16.0	16.5	19.3
	802.11n-HT20 MCS0	100	5500	16.0	16.5	19.3
		116	5580	16.0	16.5	19.3
		124	5620	16.0	16.5	19.3
		132	5660	16.0	16.5	19.3
		144	5720	16.0	16.5	19.3
	802.11n-HT40 MCS0	102	5510	16.0	16.0	19.0
		110	5550	16.0	16.5	19.3
		126	5630	16.0	16.5	19.3
		134	5670	16.0	16.5	19.3
		142	5710	16.0	16.5	19.3
	802.11ac-VHT20 MCS0	100	5500	16.0	16.5	19.3
		116	5580	16.0	16.5	19.3
		124	5620	16.0	16.5	19.3
		132	5660	16.0	16.5	19.3
		144	5720	16.0	16.5	19.3
802.11ac-VHT40 MCS0	102	5510	16.0	16.0	19.0	
	110	5550	16.0	16.5	19.3	
	126	5630	16.0	16.5	19.3	
	134	5670	16.0	16.5	19.3	
	142	5710	16.0	16.5	19.3	
802.11ac-VHT80 MCS0	106	5530	16.0	16.5	19.3	
	122	5610	16.0	16.5	19.3	
	138	5690	16.0	16.5	19.3	
802.11ac-VHT160 MCS0	114	5570	15.5	15.5	18.5	
802.11ax-HE20 MCS0	100	5500	16.0	16.5	19.3	
	116	5580	16.0	16.5	19.3	
	124	5620	16.0	16.5	19.3	
	132	5660	16.0	16.5	19.3	
	144	5720	16.0	16.5	19.3	
802.11ax-HE40 MCS0	102	5510	16.0	16.0	19.0	
	110	5550	16.0	16.5	19.3	
	126	5630	16.0	16.5	19.3	
	134	5670	16.0	16.5	19.3	
	142	5710	16.0	16.5	19.3	
802.11ax-HE80 MCS0	106	5530	16.0	16.5	19.3	
	122	5610	16.0	16.5	19.3	
	138	5690	16.0	16.5	19.3	
802.11ax-HE160 MCS0	114	5570	15.5	15.5	18.5	



Burst Average Power (dBm)						
Transmit Antenna				MIMO Ant 4+3		
5.8GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
	802.11a 6Mbps	149	5745	13.5	15.0	17.3
		157	5785	13.5	15.0	17.3
		165	5825	13.5	15.0	17.3
	802.11n-HT20 MCS0	149	5745	13.5	15.0	17.3
		157	5785	13.5	15.0	17.3
		165	5825	13.5	15.0	17.3
	802.11n-HT40 MCS0	151	5755	13.5	15.0	17.3
		159	5795	13.5	15.0	17.3
	802.11ac-VHT20 MCS0	149	5745	13.5	15.0	17.3
		157	5785	13.5	15.0	17.3
		165	5825	13.5	15.0	17.3
	802.11ac-VHT40 MCS0	151	5755	13.5	15.0	17.3
		159	5795	13.5	15.0	17.3
802.11ac-VHT80 MCS0	155	5775	13.5	15.0	17.3	
802.11ax-HE20 MCS0	149	5745	13.5	15.0	17.3	
	157	5785	13.5	15.0	17.3	
	165	5825	13.5	15.0	17.3	
802.11ax-HE40 MCS0	151	5755	13.5	15.0	17.3	
	159	5795	13.5	15.0	17.3	
802.11ax-HE80 MCS0	155	5775	13.5	15.0	17.3	



Burst Average Power (dBm)						
5.8GHz WLAN UNII4	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
802.11a 6Mbps		169	5845	16.0	17.5	19.8
		173	5865	16.0	17.5	19.8
		177	5885	16.0	17.5	19.8
802.11n-HT20 MCS0		169	5845	16.0	17.5	19.8
		173	5865	16.0	17.5	19.8
		177	5885	16.0	17.5	19.8
802.11n-HT40 MCS0		167	5835	16.0	17.5	19.8
		175	5875	16.0	17.5	19.8
802.11ac-VHT20 MCS0		169	5845	16.0	17.5	19.8
		173	5865	16.0	17.5	19.8
		177	5885	16.0	17.5	19.8
802.11ac-VHT40 MCS0		167	5835	16.0	17.5	19.8
		175	5875	16.0	17.5	19.8
802.11ac-VHT80 MCS0		171	5855	16.0	17.5	19.8
802.11ac-VHT160 MCS0		163	5815	16.0	17.5	19.8
802.11ax-HE20 MCS0		169	5845	16.0	17.5	19.8
		173	5865	16.0	17.5	19.8
		177	5885	16.0	17.5	19.8
802.11ax-HE40 MCS0		167	5835	16.0	17.5	19.8
		175	5875	16.0	17.5	19.8
802.11ax-HE80 MCS0		171	5855	16.0	17.5	19.8
802.11ax-HE160 MCS0		163	5815	16.0	17.5	19.8



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<5GHz WLAN>

Burst Average Power (dBm)						
5.2GHz WLAN	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
	802.11a 6Mbps	36	5180	15.0	19.0	20.5
		40	5200	15.0	19.0	20.5
		44	5220	15.0	19.0	20.5
		48	5240	15.0	19.0	20.5
	802.11n-HT20 MCS0	36	5180	15.0	19.0	20.5
		40	5200	15.0	19.0	20.5
		44	5220	15.0	19.0	20.5
		48	5240	15.0	19.0	20.5
	802.11n-HT40 MCS0	38	5190	15.0	16.0	18.5
		46	5230	15.0	19.0	20.5
	802.11ac-VHT20 MCS0	36	5180	15.0	19.0	20.5
		40	5200	15.0	19.0	20.5
		44	5220	15.0	19.0	20.5
		48	5240	15.0	19.0	20.5
	802.11ac-VHT40 MCS0	38	5190	15.0	16.0	18.5
		46	5230	15.0	19.0	20.5
	802.11ac-VHT80 MCS0	42	5210	15.0	16.0	18.5
	802.11ax-HE20 MCS0	36	5180	15.0	19.0	20.5
		40	5200	15.0	19.0	20.5
		44	5220	15.0	19.0	20.5
48		5240	15.0	19.0	20.5	
802.11ax-HE40 MCS0	38	5190	15.0	16.0	18.5	
	46	5230	15.0	19.0	20.5	
802.11ax-HE80 MCS0	42	5210	15.0	16.0	18.5	



Burst Average Power (dBm)						
5.3GHz WLAN	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
802.11a 6Mbps		52	5260	15.0	19.0	20.5
		56	5280	15.0	19.0	20.5
		60	5300	15.0	18.5	20.1
		64	5320	15.0	18.5	20.1
802.11n-HT20 MCS0		52	5260	15.0	19.0	20.5
		56	5280	15.0	19.0	20.5
		60	5300	15.0	18.5	20.1
		64	5320	15.0	18.5	20.1
802.11n-HT40 MCS0		54	5270	15.0	19.0	20.5
		62	5310	15.0	16.0	18.5
802.11ac-VHT20 MCS0		52	5260	15.0	19.0	20.5
		56	5280	15.0	19.0	20.5
		60	5300	15.0	18.5	20.1
		64	5320	15.0	18.5	20.1
802.11ac-VHT40 MCS0		54	5270	15.0	19.0	20.5
		62	5310	15.0	16.0	18.5
802.11ac-VHT80 MCS0		58	5290	15.0	16.0	18.5
802.11ac-VHT160 MCS0		50	5250	14.0	14.0	17.0
802.11ax-HE20 MCS0		52	5260	15.0	19.0	20.5
		56	5280	15.0	19.0	20.5
		60	5300	15.0	18.5	20.1
		64	5320	15.0	18.5	20.1
802.11ax-HE40 MCS0		54	5270	15.0	19.0	20.5
		62	5310	15.0	16.0	18.5
802.11ax-HE80 MCS0		58	5290	15.0	16.0	18.5
802.11ax-HE160 MCS0		50	5250	14.0	14.0	17.0



Burst Average Power (dBm)						
5.5GHz WLAN	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
802.11a 6Mbps		100	5500	16.0	16.5	19.3
		116	5580	16.0	16.5	19.3
		124	5620	16.0	16.5	19.3
		132	5660	16.0	16.5	19.3
		144	5720	16.0	16.5	19.3
802.11n-HT20 MCS0		100	5500	16.0	16.5	19.3
		116	5580	16.0	16.5	19.3
		124	5620	16.0	16.5	19.3
		132	5660	16.0	16.5	19.3
		144	5720	16.0	16.5	19.3
802.11n-HT40 MCS0		102	5510	16.0	16.0	19.0
		110	5550	16.0	16.5	19.3
		126	5630	16.0	16.5	19.3
		134	5670	16.0	16.5	19.3
		142	5710	16.0	16.5	19.3
802.11ac-VHT20 MCS0		100	5500	16.0	16.5	19.3
		116	5580	16.0	16.5	19.3
		124	5620	16.0	16.5	19.3
		132	5660	16.0	16.5	19.3
		144	5720	16.0	16.5	19.3
802.11ac-VHT40 MCS0		102	5510	16.0	16.0	19.0
		110	5550	16.0	16.5	19.3
		126	5630	16.0	16.5	19.3
		134	5670	16.0	16.5	19.3
		142	5710	16.0	16.5	19.3
802.11ac-VHT80 MCS0		106	5530	16.0	16.5	19.3
		122	5610	16.0	16.5	19.3
		138	5690	16.0	16.5	19.3
802.11ac-VHT160 MCS0		114	5570	15.5	15.5	18.5
802.11ax-HE20 MCS0		100	5500	16.0	16.5	19.3
		116	5580	16.0	16.5	19.3
		124	5620	16.0	16.5	19.3
		132	5660	16.0	16.5	19.3
		144	5720	16.0	16.5	19.3
802.11ax-HE40 MCS0		102	5510	16.0	16.0	19.0
		110	5550	16.0	16.5	19.3
		126	5630	16.0	16.5	19.3
		134	5670	16.0	16.5	19.3
		142	5710	16.0	16.5	19.3
802.11ax-HE80 MCS0		106	5530	16.0	16.5	19.3
		122	5610	16.0	16.5	19.3
		138	5690	16.0	16.5	19.3
802.11ax-HE160 MCS0		114	5570	15.5	15.5	18.5



Burst Average Power (dBm)						
Transmit Antenna				MIMO Ant 4+3		
5.8GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
	802.11a 6Mbps	149	5745	17.0	16.5	19.8
		157	5785	17.0	16.5	19.8
		165	5825	17.0	16.5	19.8
	802.11n-HT20 MCS0	149	5745	17.0	16.5	19.8
		157	5785	17.0	16.5	19.8
		165	5825	17.0	16.5	19.8
	802.11n-HT40 MCS0	151	5755	17.0	16.5	19.8
		159	5795	17.0	16.5	19.8
	802.11ac-VHT20 MCS0	149	5745	17.0	16.5	19.8
		157	5785	17.0	16.5	19.8
		165	5825	17.0	16.5	19.8
	802.11ac-VHT40 MCS0	151	5755	17.0	16.5	19.8
		159	5795	17.0	16.5	19.8
802.11ac-VHT80 MCS0	155	5775	17.0	16.5	19.8	
802.11ax-HE20 MCS0	149	5745	17.0	16.5	19.8	
	157	5785	17.0	16.5	19.8	
	165	5825	17.0	16.5	19.8	
802.11ax-HE40 MCS0	151	5755	17.0	16.5	19.8	
	159	5795	17.0	16.5	19.8	
802.11ax-HE80 MCS0	155	5775	17.0	16.5	19.8	



Burst Average Power (dBm)						
5.8GHz WLAN UNII4	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
	802.11a 6Mbps	169	5845	16.5	16.0	19.3
		173	5865	16.5	16.0	19.3
		177	5885	16.5	16.0	19.3
	802.11n-HT20 MCS0	169	5845	16.5	16.0	19.3
		173	5865	16.5	16.0	19.3
		177	5885	16.5	16.0	19.3
	802.11n-HT40 MCS0	167	5835	16.5	16.0	19.3
		175	5875	16.5	16.0	19.3
	802.11ac-VHT20 MCS0	169	5845	16.5	16.0	19.3
		173	5865	16.5	16.0	19.3
		177	5885	16.5	16.0	19.3
	802.11ac-VHT40 MCS0	167	5835	16.5	16.0	19.3
		175	5875	16.5	16.0	19.3
	802.11ac-VHT80 MCS0	171	5855	16.5	16.0	19.3
	802.11ac-VHT160 MCS0	163	5815	16.5	16.0	19.3
	802.11ax-HE20 MCS0	169	5845	16.5	16.0	19.3
		173	5865	16.5	16.0	19.3
		177	5885	16.5	16.0	19.3
802.11ax-HE40 MCS0	167	5835	16.5	16.0	19.3	
	175	5875	16.5	16.0	19.3	
802.11ax-HE80 MCS0	171	5855	16.5	16.0	19.3	
802.11ax-HE160 MCS0	163	5815	16.5	16.0	19.3	



<6GHz WLAN Maximum Power>

<Mobile Condition - Power Index 0>

Burst Average Power (dBm)							
6GHz WLAN	Transmit Antenna			MIMO Ant 4+3			
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3	
6GHz WLAN	802.11ax-HE20 MCS0	1	5955	8.00	8.00	11.0	
		57	6235	7.50	7.50	10.5	
		113	6515	9.00	9.00	12.0	
		173	6815	11.50	9.50	13.6	
		229	7095	12.50	11.50	15.0	
	802.11ax-HE40 MCS0	3	5965	10.50	10.50	13.5	
		59	6245	10.00	10.00	13.0	
		107	6485	11.50	11.50	14.5	
		171	6805	14.50	12.50	16.6	
	802.11ax-HE80 MCS0	227	7085	15.00	14.00	17.5	
		7	5985	13.50	13.50	16.5	
		71	6305	13.00	13.00	16.0	
		119	6545	14.50	14.50	17.5	
	802.11ax-HE160 MCS0	167	6785	17.50	16.50	20.0	
		215	7025	18.00	17.00	20.5	
		15	6025	16.50	16.50	19.5	
		47	6185	16.50	16.50	19.5	
		111	6505	17.00	17.00	20.0	
			175	6825	19.00	19.00	22.0
			207	6985	19.00	19.00	22.0



<Power Index 1 / Power Index 2>

Burst Average Power (dBm)						
Transmit Antenna				MIMO Ant 4+3		
6GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
	802.11ax-HE20 MCS0		1	5955	8.00	8.00
57			6235	7.50	7.50	10.5
113			6515	9.00	9.00	12.0
173			6815	11.5	9.5	13.6
229			7095	12.5	11.5	15
802.11ax-HE40 MCS0		3	5965	10.50	10.50	13.5
		59	6245	10.00	10.00	13.0
		107	6485	11.50	11.50	14.5
		171	6805	14.5	12.5	16.6
802.11ax-HE80 MCS0		227	7085	15	14	17.5
		7	5985	10.50	10.50	13.5
		71	6305	10.50	10.50	13.5
		119	6545	14.50	14.50	17.5
802.11ax-HE160 MCS0		167	6785	16.50	16.50	19.5
		215	7025	16.50	16.50	19.5
		15	6025	11.50	11.50	14.5
802.11ax-HE160 MCS0		47	6185	11.50	11.50	14.5
		111	6505	14.50	14.50	17.5
		175	6825	16.50	16.50	19.5
		207	6985	16.50	16.50	19.5

<Power Index 3>

Burst Average Power (dBm)						
Transmit Antenna				MIMO Ant 4+3		
6GHz WLAN	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
	802.11ax-HE20 MCS0		1	5955	8.00	8.00
57			6235	7.50	7.50	10.5
113			6515	9.00	9.00	12.0
173			6815	11.50	9.50	13.6
229			7095	12.50	11.50	15.0
802.11ax-HE40 MCS0		3	5965	10.00	10.00	13.0
		59	6245	10.00	10.00	13.0
		107	6485	11.50	11.50	14.5
		171	6805	14.50	12.50	16.6
802.11ax-HE80 MCS0		227	7085	15.00	14.00	17.5
		7	5985	10.00	10.00	13.0
		71	6305	10.00	10.00	13.0
		119	6545	12.50	12.50	15.5
802.11ax-HE160 MCS0		167	6785	14.00	14.00	17.0
		215	7025	15.00	15.00	18.0
		15	6025	10.00	10.00	13.0
802.11ax-HE160 MCS0		47	6185	10.00	10.00	13.0
		111	6505	12.50	12.50	15.5
		175	6825	14.00	14.00	17.0
		207	6985	15.00	15.00	18.0



<Power Index 4>

Burst Average Power (dBm)						
6GHz WLAN	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
6GHz WLAN	802.11ax-HE20 MCS0	1	5955	8.00	8.00	11.0
		57	6235	7.50	7.50	10.5
		113	6515	9.00	9.00	12.0
		173	6815	11.50	9.50	13.6
		229	7095	12.50	11.50	15.0
	802.11ax-HE40 MCS0	3	5965	10.50	10.50	13.5
		59	6245	10.00	10.00	13.0
		107	6485	11.50	11.50	14.5
		171	6805	14.50	12.50	16.6
	802.11ax-HE80 MCS0	227	7085	15.00	14.00	17.5
		7	5985	10.50	10.50	13.5
		71	6305	10.50	10.50	13.5
		119	6545	13.50	13.50	16.5
	802.11ax-HE160 MCS0	167	6785	15.00	15.00	18.0
		215	7025	16.50	16.50	19.5
		15	6025	10.50	10.50	13.5
47		6185	10.50	10.50	13.5	
111		6505	13.50	13.50	16.5	
802.11ax-HE160 MCS0	175	6825	15.00	15.00	18.0	
	207	6985	16.50	16.50	19.5	

<Power Index 5 / Power Index 6 / Power Index 7 / Power Index 8 / Power Index 9>

Burst Average Power (dBm)						
6GHz WLAN	Transmit Antenna			MIMO Ant 4+3		
	Mode	Channel	Frequency (MHz)	Tune-Up Limit 4+3(4)	Tune-Up Limit 4+3(3)	Tune-Up Limit 4+3
6GHz WLAN	802.11ax-HE20 MCS0	1	5955	8.00	8.00	11.0
		57	6235	7.50	7.50	10.5
		113	6515	9.00	9.00	12.0
		173	6815	11.50	9.50	13.6
		229	7095	12.50	11.50	15.0
	802.11ax-HE40 MCS0	3	5965	8.00	8.00	11.0
		59	6245	8.00	8.00	11.0
		107	6485	11.50	11.50	14.5
		171	6805	14.50	12.50	16.6
	802.11ax-HE80 MCS0	227	7085	15.00	14.00	17.5
		7	5985	8.00	8.00	11.0
		71	6305	8.00	8.00	11.0
		119	6545	13.50	13.50	16.5
	802.11ax-HE160 MCS0	167	6785	16.00	16.00	19.0
		215	7025	15.00	15.00	18.0
		15	6025	8.00	8.00	11.0
47		6185	8.00	8.00	11.0	
111		6505	11.50	11.50	14.5	
802.11ax-HE160 MCS0	175	6825	16.00	16.00	19.0	
	207	6985	15.00	15.00	18.0	



<Bluetooth Maximum Power>

General Note:

1. The device implements the power management for Bluetooth SAR compliance for different exposure conditions and user cases. When the device is operated against the user’s head, power index 1 is used; when the device is operated in the body-worn or extremity condition, power index 2-5 are used. In each exposure condition, the power selection is determined by the user cases as tested in Section 15 of this report. Full details about the proprietary power management decision are illustrated in the operational description
2. 4+3(4): power level on antenna 4, when device operated in MIMO mode (4+3)

<Mobile condition – Power Index 0>

Mode	Burst Average Power (dBm)				
	Ant 4			Ant 4	
	BR / EDR				
	1Mbps	2Mbps	3Mbps	1Mbps	2Mbps
Tune-up Limit	21	18	18	20	20

Mode	Burst Average Power (dBm)				
	Ant 3			Ant 3	
	BR / EDR				
	1Mbps	2Mbps	3Mbps	1Mbps	2Mbps
Tune-up Limit	21	18	18	21	21

Mode	BR / EDR	Burst Average Power (dBm)								
		Ant 4+3								
		1Mbps			2Mbps			3Mbps		
		Ant 4+3(4)	Ant 4+3(3)	Ant 4+3	Ant 4+3(4)	Ant 4+3(3)	Ant 4+3	Ant 4+3(4)	Ant 4+3(3)	Ant 4+3
Tune-up Limit		17.5	17.5	20.5	15	15	18	15	15	18

<Power Index 1>

Mode	Burst Average Power (dBm)				
	Ant 4			Ant 4	
	BR / EDR				
	1Mbps	2Mbps	3Mbps	1Mbps	2Mbps
Tune-up Limit	12	12	12	12	12

Mode	Burst Average Power (dBm)				
	Ant 3			Ant 3	
	BR / EDR				
	1Mbps	2Mbps	3Mbps	1Mbps	2Mbps
Tune-up Limit	12	12	12	12	12

Mode	BR / EDR	Burst Average Power (dBm)								
		Ant 4+3								
		1Mbps			2Mbps			3Mbps		
		Ant 4+3(4)	Ant 4+3(3)	Ant 4+3	Ant 4+3(4)	Ant 4+3(3)	Ant 4+3	Ant 4+3(4)	Ant 4+3(3)	Ant 4+3
Tune-up Limit		12	12	15	12	12	15	12	12	15



<Power Index 2>

Mode	Burst Average Power (dBm)				
	Ant 4			Ant 4	
	BR / EDR				
	LE				
	1Mbps	2Mbps	3Mbps	1Mbps	2Mbps
Tune-up Limit	21	18	18	20	20

Mode	Burst Average Power (dBm)				
	Ant 3			Ant 3	
	BR / EDR				
	LE				
	1Mbps	2Mbps	3Mbps	1Mbps	2Mbps
Tune-up Limit	21	18	18	21	21

Mode	BR / EDR	Burst Average Power (dBm)								
		Ant 4+3								
		1Mbps			2Mbps			3Mbps		
		Ant 4+3(4)	Ant 4+3(3)	Ant 4+3	Ant 4+3(4)	Ant 4+3(3)	Ant 4+3	Ant 4+3(4)	Ant 4+3(3)	Ant 4+3
Tune-up Limit		17.5	17.5	20.5	15	15	18	15	15	18

<Power Index 3>

Mode	Burst Average Power (dBm)				
	Ant 4			Ant 4	
	BR / EDR				
	LE				
	1Mbps	2Mbps	3Mbps	1Mbps	2Mbps
Tune-up Limit	15	15	15	15	15

Mode	Burst Average Power (dBm)				
	Ant 3			Ant 3	
	BR / EDR				
	LE				
	1Mbps	2Mbps	3Mbps	1Mbps	2Mbps
Tune-up Limit	15	15	15	15	15

Mode	BR / EDR	Burst Average Power (dBm)								
		Ant 4+3								
		1Mbps			2Mbps			3Mbps		
		Ant 4+3(4)	Ant 4+3(3)	Ant 4+3	Ant 4+3(4)	Ant 4+3(3)	Ant 4+3	Ant 4+3(4)	Ant 4+3(3)	Ant 4+3
Tune-up Limit		15	15	18	15	15	18	15	15	18



<Power Index 4>

Mode	Burst Average Power (dBm)				
	Ant 4			Ant 4	
	BR / EDR				
	LE				
	1Mbps	2Mbps	3Mbps	1Mbps	2Mbps
Tune-up Limit	21	18	18	20	20

Mode	Burst Average Power (dBm)				
	Ant 3			Ant 3	
	BR / EDR				
	LE				
	1Mbps	2Mbps	3Mbps	1Mbps	2Mbps
Tune-up Limit	21	18	18	21	21

Mode	BR / EDR	Burst Average Power (dBm)								
		Ant 4+3								
		1Mbps			2Mbps			3Mbps		
		Ant 4+3(4)	Ant 4+3(3)	Ant 4+3	Ant 4+3(4)	Ant 4+3(3)	Ant 4+3	Ant 4+3(4)	Ant 4+3(3)	Ant 4+3
Tune-up Limit		17.5	17.5	20.5	15	15	18	15	15	18



2.3 General LTE SAR Test and Reporting Considerations

Summarized necessary items addressed in KDB 941225 D05 v02r05																																																															
FCC ID	A4RGB62Z																																																														
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 align="center">Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3</p> <table border="1"> <thead> <tr> <th rowspan="2">Modulation</th> <th colspan="6">Channel bandwidth / Transmission bandwidth (N_{RB})</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>> 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>≤ 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>> 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>≤ 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>> 5</td> <td>> 4</td> <td>> 8</td> <td>> 12</td> <td>> 16</td> <td>> 18</td> <td>≤ 3</td> </tr> <tr> <td>256 QAM</td> <td colspan="6" style="text-align: center;">≥ 1</td> <td>≤ 5</td> </tr> </tbody> </table>	Modulation	Channel bandwidth / Transmission bandwidth (N _{RB})						MPR (dB)	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1	16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1	16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2	64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2	64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3	256 QAM	≥ 1						≤ 5
Modulation	Channel bandwidth / Transmission bandwidth (N _{RB})						MPR (dB)																																																								
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz																																																									
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1																																																								
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1																																																								
16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2																																																								
64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2																																																								
64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3																																																								
256 QAM	≥ 1						≤ 5																																																								
LTE A-MPR	In the base station simulator configuration, Network Setting value is set to NS_01 to disable A-MPR during SAR testing and the LTE SAR tests was transmitting on all TTI frames (Maximum TTI)																																																														
Spectrum plots for RB configuration	A properly configured base station simulator was used for the SAR and power measurement; therefore, spectrum plots for each RB allocation and offset configuration are not included in the SAR report.																																																														
Power reduction applied to satisfy SAR compliance	The device has several different power modes for each exposure conditions SAR compliance; power selection is determined by the device's positioning and usage scenarios. Detail refer to operational description.																																																														
LTE Carrier Aggregation Combinations	Inter-Band and Intra-Band possible combinations and the detail power measurement please referred to section 14.																																																														
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, eICI, WiFi Offloading, MDH, eMBMA, Cross-Carrier Scheduling, Enhanced SC-FDMA.																																																														



Transmission (H, M, L) channel numbers and frequencies in each LTE band																
LTE Band 2																
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	18607	1850.7	18615	1851.5	18625	1852.5	18650	1855	18675	1857.5	18700	1860				
M	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880				
H	19193	1909.3	19185	1908.5	19175	1907.5	19150	1905	19125	1902.5	19100	1900				
LTE Band 4																
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	19957	1710.7	19965	1711.5	19975	1712.5	20000	1715	20025	1717.5	20050	1720				
M	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5				
H	20393	1754.3	20385	1753.5	20375	1752.5	20350	1750	20325	1747.5	20300	1745				
LTE Band 5																
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		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 15 MHz				Bandwidth 20 MHz			
	Channel #		Freq.(MHz)		Channel #		Freq.(MHz)		Channel #		Freq.(MHz)		Channel #		Freq.(MHz)	
L	23205		779.5		23230		782		23255		784.5		23280		787	
M	23230		782		23255		784.5		23280		787		23305		789.5	
H	23255		784.5		23280		787		23305		789.5		23330		792	
LTE Band 14																
	Bandwidth 5 MHz				Bandwidth 10 MHz				Bandwidth 15 MHz				Bandwidth 20 MHz			
	Channel #		Channel #		Channel #		Freq.(MHz)		Channel #		Freq.(MHz)		Channel #		Freq.(MHz)	
L	23305		790.5		23330		793		23355		795.5		23380		798	
M	23330		793		23355		795.5		23380		798		23405		800.5	
H	23355		795.5		23380		798		23405		800.5		23430		803	
LTE Band 17																
	Bandwidth 5 MHz				Bandwidth 10 MHz				Bandwidth 15 MHz				Bandwidth 20 MHz			
	Channel #		Freq.(MHz)		Channel #		Freq. (MHz)		Channel #		Freq. (MHz)		Channel #		Freq. (MHz)	
L	23755		706.5		23780		709		23805		711.5		23830		714	
M	23790		710		23815		713		23840		715.5		23865		718	
H	23825		713.5		23850		716		23875		718.5		23900		721	



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)		Channel #		Freq.(MHz)	
L	27685		2307.5		27710		2310		27710		2310	
M	27710		2310		27710		2310		27710		2310	
H	27735		2312.5		27710		2310		27710		2310	
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	37850	2580	37850	2580
M	38000	2595	38000	2595	38000	2595	38000	2595	38000	2595	38000	2595
H	38225	2617.5	38200	2615	38175	2612.5	38150	2610	38150	2610	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	39750	2506	39750	2506
L	40148	2545.8	40160	2547	40173	2548.3	40185	2549.5	40185	2549.5	40185	2549.5
M	40620	2593	40620	2593	40620	2593	40620	2593	40620	2593	40620	2593
H	41093	2640.3	41080	2639	41068	2637.8	41055	2636.5	41055	2636.5	41055	2636.5
H	41565	2687.5	41540	2685	41515	2682.5	41490	2680	41490	2680	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	55340	3560	55340	3560
L	55810	3607	55815	3607.5	55820	3608	55830	3609	55830	3609	55830	3609
M	56170	3643	56165	3642.5	56160	3642	56150	3641	56150	3641	56150	3641
H	56715	3697.5	56690	3695	56665	3692.5	56640	3690	56640	3690	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	133222	673	133222	673
M	133297	680.5	133297	680.5	133297	680.5	133297	680.5	133297	680.5	133297	680.5
H	133447	695.5	133422	693	133397	690.5	133372	688	133372	688	133372	688



2.4 General 5G NR SAR Test and Reporting Considerations

5G NR Information								
FCC ID	A4RGB62Z							
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 n66: 1710 MHz ~ 1780 MHz 5G NR n71: 663 MHz ~ 698 MHz 5G NR n77: 3700 MHz ~ 3980 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 5G NR n12: 5MHz, 10MHz, 15MHz 5G NR n25: 5MHz, 10MHz, 15MHz, 20MHz 5G NR n30: 5MHz, 10MHz 5G NR n66: 5MHz, 10MHz, 15MHz, 20MHz, 30MHz, 40MHz 5G NR n71: 5MHz, 10MHz, 15MHz, 20MHz 5G NR n77: 10MHz, 15MHz, 20MHz, 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 B5/12/13/14/48							
LTE Anchor Bands for n5	LTE B2/7/30/48/66							
LTE Anchor Bands for n25	LTE B12/26/48							
LTE Anchor Bands for n30	LTE B5/12							
LTE Anchor Bands for n66	LTE B5/12/13/14/48/71							
LTE Anchor Bands for n71	LTE B2/7/66							
LTE Anchor Bands for n77	LTE B2/5/7/13/41/66							
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	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	500500	2502.5	501000	2505	501500	2507.5	502000	2510
M	507000	2535	507000	2535	507000	2535	507000	2535
H	513500	2567.5	513000	2565	512500	2562.5	512000	2560
NR Band 12								
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 15MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	140300	701.5	140800	704	141300	706.5	141300	706.5
M	141500	707.5	141500	707.5	141500	707.5	141500	707.5
H	142700	713.5	142200	711	141700	708.5	141700	708.5



NR Band 25																						
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz															
	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														
M	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5														
H	382500	1912.5	382000	1910	381500	1907.5	381000	1905														
NR Band 30																						
	Bandwidth 5MHz				Bandwidth 10MHz																	
	Ch. #		Freq. (MHz)		Ch. #		Freq. (MHz)		Ch. #		Freq. (MHz)		Ch. #									
L	461500		2307.5		462000		2310		462000		2310											
M	462000		2310																			
H	462500		2312.5																			
NR Band 66																						
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz											
	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	345000	1725	346000	1730										
M	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745										
H	355500	1777.5	355000	1775	354500	1772.5	354000	1770	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)	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(3450MHz ~ 3550MHz)																						
Bandwidth10MHz		Bandwidth15MHz		Bandwidth 20MHz		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)	
L	630334	3455.01	630500	3457.5	630668	3460.02	631000	3465	631334	3470.01	631668	3475.02	632000	3480	632334	3485.01	632668	3490.02	633000	3495	633334	3500.01
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	3542.48	636000	3540	635666	3534.99	635332	3529.98	635000	3525	634666	3519.99	634332	3514.98	634000	3510	633666	3504.99	633332	3499.98
NR Band 77																						
Bandwidth10MHz		Bandwidth15MHz		Bandwidth 20MHz		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)	
L	647000	3705	647168	3707.52	647334	3710.01	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
H	665000	3975	664832	3972.48	664666	3969.99	664332	3964.98	664000	3960	663666	3954.99	663332	3949.98	663000	3945	662666	3939.99	662332	3934.98	662000	3930



3. TAS feature for RF Exposure compliance

The FCC RF exposure limit is based on time-averaged RF exposure. Both SAR and PD regulatory specifications are defined over certain measurement duration allowing for time-averaging. The Samsung S.LSI proprietary 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 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
PD_FCC_limit	PD limit specified by FCC, 10 W/m ² averaged over 4 cm ²
Plimit	The time-averaged RF power that corresponds to SAR_target or PD_target.



3.1 SAR Characterization – Power Table

General Note:

1. The P_{limit} values correspond to SAR_{design_target}.
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_{limit} power levels in the table correspond to the burst average power levels which don't account for TX duty cycle.

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

Wireless technology/ band (No Accounting duty cycle)	Config	Antenna	Duty cycle	Head			Hotspot	Body-worn/Extremity		P Max Burst average power (dBm)
				Standalone	Simultaneous	Simultaneous	Simultaneous	Standalone	Simultaneous	
				Index 2	Index 3	Index 7	Index 4	Index 5	Index 6	
				P limit						
Burst average power (dBm)										
GSM850 GSM/GPRS 1TX	TX0	0	12.50%	37.20	36.40	35.50	36.00	37.70	36.90	32.50
GSM850 GPRS 2TX	TX0	0	25.00%	34.20	33.40	32.50	33.00	34.70	33.90	31.50
GSM850 GPRS 3TX	TX0	0	37.50%	32.45	31.65	30.75	31.25	32.95	32.15	30.50
GSM850 GPRS 4TX	TX0	0	50.00%	31.20	30.40	29.50	30.00	31.70	30.90	29.50
GSM1900 GSM/GPRS 1TX	TX0	2	12.50%	38.20	37.40	36.50	28.70	30.40	29.60	29.75
GSM1900 GPRS 2TX	TX0	2	25.00%	35.20	34.40	33.50	25.70	27.40	26.60	28.25
GSM1900 GPRS 3TX	TX0	2	37.50%	33.45	32.65	31.75	23.95	25.65	24.85	27.75
GSM1900 GPRS 4TX	TX0	2	50.00%	32.20	31.40	30.50	22.70	24.40	23.60	26.75
WCDMA B2	TX0	2	100.00%	30.00	29.20	28.80	20.10	21.30	20.50	24.45
WCDMA B4	TX0	2	100.00%	31.70	30.90	30.40	21.20	22.50	21.70	24.45
WCDMA B5	TX0	0	100.00%	28.70	27.90	27.10	27.50	29.10	28.30	24.70

Wireless technology/ band (No Accounting duty cycle)	Config	Antenna	Duty cycle	Head			Hotspot	Body-worn/Extremity		P Max Burst average power (dBm)
				Standalone	Simultaneous	Simultaneous	Simultaneous	Standalone	Simultaneous	
				Index 2	Index 3	Index 7	Index 4	Index 5	Index 6	
				P limit						
Burst average power (dBm)										
GSM850 GSM/GPRS 1TX	TX1	1	12.50%	34.00	33.20	33.20	38.00	38.80	38.00	32.50
GSM850 GPRS 2TX	TX1	1	25.00%	31.00	30.20	30.20	35.00	35.80	35.00	31.50
GSM850 GPRS 3TX	TX1	1	37.50%	29.25	28.45	28.45	33.25	34.05	33.25	30.50
GSM850 GPRS 4TX	TX1	1	50.00%	28.00	27.20	27.20	32.00	32.80	32.00	29.50
GSM1900 GSM/GPRS 1TX	TX1	0	12.50%	37.50	36.70	36.70	33.10	33.90	33.10	30.00
GSM1900 GPRS 2TX	TX1	0	25.00%	34.50	33.70	33.70	30.10	30.90	30.10	28.50
GSM1900 GPRS 3TX	TX1	0	37.50%	32.75	31.95	31.95	28.35	29.15	28.35	28.00
GSM1900 GPRS 4TX	TX1	0	50.00%	31.50	30.70	30.70	27.10	27.90	27.10	27.00
WCDMA B2	TX1	0	100.00%	26.60	26.60	25.80	22.10	22.90	22.90	24.70
WCDMA B4	TX1	0	100.00%	27.80	27.00	26.90	22.80	23.70	22.90	24.70
WCDMA B5	TX1	1	100.00%	24.90	24.10	24.10	28.90	29.70	28.90	24.70



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

Wireless technology/ band (Accounting duty cycle)	Config	Antenna	Duty cycle	Head			Hotspot	Body-worn/Extremity		P Max Time-average power (dBm)
				Standalone	Simultaneous	Simultaneous	Simultaneous	Standalone	Simultaneous	
				Index 2	Index 3	Index 7	Index 4	Index 5	Index 6	
				P limit						
LTE B7	TX0	2	100.00%	25.20	25.20	24.40	19.40	20.20	20.20	24.40
LTE B12/17	TX0	0	100.00%	30.40	29.60	28.90	26.90	28.40	27.60	24.70
LTE B13	TX0	0	100.00%	29.20	28.40	27.40	26.60	28.40	27.60	24.70
LTE B14	TX0	0	100.00%	29.00	28.20	27.50	27.10	28.60	27.80	24.70
LTE B25/2	TX0	2	100.00%	30.60	29.80	29.40	20.10	21.30	20.50	24.70
LTE B26/5	TX0	0	100.00%	29.10	28.30	27.00	26.90	29.00	28.20	24.70
LTE B30	TX0	2	100.00%	27.50	26.70	26.70	21.70	22.50	21.70	23.70
LTE B41/B38 PC3	TX0	2	63.30%	24.00	24.00	23.20	19.60	20.40	20.40	22.40
LTE B38 PC2	TX0	2	43.30%	24.00	24.00	23.20	19.60	20.40	20.40	22.60
LTE B41 PC2	TX0	2	43.30%	24.00	24.00	23.20	19.60	20.40	20.40	23.10
LTE B48	TX0	6	63.30%	28.40	27.60	27.60	22.10	22.90	22.10	21.00
LTE B66/4	TX0	2	100.00%	32.40	31.60	31.10	21.10	22.40	21.60	24.45
LTE B71	TX0	0	100.00%	30.70	29.90	29.90	27.00	27.80	27.00	24.70
FR1 n5	TX0	0	100.00%	28.70	27.90	27.40	27.80	29.10	28.30	24.70
FR1 n7	TX0	2	100.00%	25.20	25.20	24.40	19.70	20.50	20.50	24.40
FR1 n12	TX0	0	100.00%	30.70	29.90	29.10	26.70	28.30	27.50	24.70
FR1 n25/2	TX0	2	100.00%	30.70	29.90	29.40	20.40	21.70	20.90	24.90
FR1 n30	TX0	2	100.00%	27.50	26.70	26.70	22.20	23.00	22.20	23.70
FR1 n66	TX0	2	100.00%	31.90	31.10	30.90	21.90	22.90	22.10	24.45
FR1 n71	TX0	0	100.00%	30.60	29.80	29.80	27.30	28.10	27.30	24.70
FR1 n77 PC3	TX0	6	100.00%	27.00	26.20	26.20	20.60	21.40	20.60	24.00
FR1 n77 PC2	TX0	6	50.00%	27.00	26.20	26.20	20.60	21.40	20.60	23.20

1. LTE and 5GNR TDD: P_{limit} power levels in the table correspond to the time-averaged power levels which accounts for TX duty cycle.
2. Maximum target power, P_{max}, is configured in NV settings in EUT to limit maximum transmitting power. This power is converted into peak power in NV settings for TDD schemes.



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

Wireless technology/ band (Accounting duty cycle)	Config	Antenna	Duty cycle	Head			Hotspot	Body-worn/Extremity		P Max Time-average power (dBm)
				Standalone	Simultaneous	Simultaneous	Simultaneous	Standalone	Simultaneous	
				Index 2	Index 3	Index 7	Index 4	Index 5	Index 6	
				P limit						
LTE B7	TX1	0	100.00%	27.20	27.20	26.40	23.10	23.90	23.90	24.20
LTE B12/17	TX1	1	100.00%	24.30	23.50	22.20	29.10	31.20	30.40	24.20
LTE B13	TX1	1	100.00%	24.20	23.40	22.10	29.20	31.30	30.50	24.20
LTE B14	TX1	1	100.00%	24.20	23.40	23.40	29.60	30.40	29.60	24.20
LTE B25/2	TX1	0	100.00%	26.80	26.80	26.00	21.60	22.40	22.40	24.20
LTE B26/5	TX1	1	100.00%	25.00	24.20	24.20	28.60	29.40	28.60	24.20
LTE B30	TX1	0	100.00%	25.70	25.70	24.90	21.90	22.70	22.70	24.00
LTE B41/B38 PC3	TX1	0	63.30%	25.10	24.30	24.30	23.80	24.60	23.80	22.20
LTE B41/B38 PC2	TX1	0	43.30%	25.10	24.30	24.30	23.80	24.60	23.80	22.60
LTE B48	TX1	2	63.30%	29.30	28.50	28.20	23.30	24.40	23.60	20.10
LTE B66/4	TX1	0	100.00%	27.20	26.40	26.00	22.50	23.70	22.90	24.20
LTE B71	TX1	1	100.00%	25.30	24.50	23.20	29.80	31.90	31.10	24.20
FR1 n5	TX1	1	100.00%	26.10	25.30	25.30	29.80	30.60	29.80	24.20
FR1 n7	TX1	0	100.00%	26.50	26.50	25.70	23.20	24.00	24.00	24.20
FR1 n12	TX1	1	100.00%	25.00	24.20	24.00	30.50	31.50	30.70	24.20
FR1 n25/2	TX1	0	100.00%	26.60	26.60	25.80	22.20	23.00	23.00	24.70
FR1 n30	TX1	0	100.00%	26.20	26.20	25.40	22.50	23.30	23.30	24.00
FR1 n66	TX1	0	100.00%	27.90	27.10	26.80	22.90	24.00	23.20	24.70
FR1 n71	TX1	1	100.00%	25.60	24.80	24.00	30.00	31.60	30.80	24.20
FR1 n77 PC3	TX1	2	100.00%	28.30	27.50	27.50	21.70	22.50	21.70	22.65
FR1 n77 PC2	TX1	2	50.00%	28.30	27.50	27.50	21.70	22.50	21.70	21.80

1. LTE and 5GNR TDD: P_{limit} power levels in the table correspond to the time-averaged power levels which accounts for TX duty cycle.
2. Maximum target power, P_{max}, 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.



4. RF Exposure Limits

4.1 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.

4.2 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 4cm² per interim FCC Guidance for near-field power density evaluations per October 2018 TCB Workshop notes

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

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. Specific Absorption Rate (SAR)

6.1 Introduction

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

6.2 SAR Definition

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

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

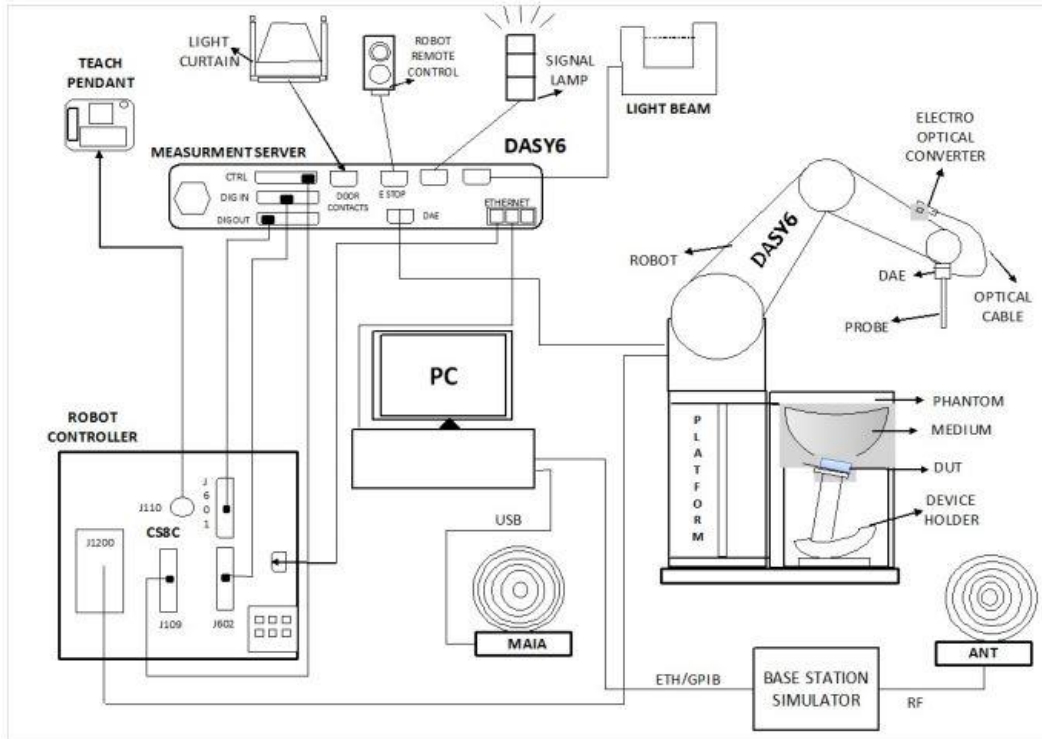
SAR is expressed in units of Watts per kilogram (W/kg)

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

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

7. System Description and Setup

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



- The DASY system in 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.

7.1 Test Site Location


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

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	
	SAR06-HY	SAR10-HY	SAR13-HY	SAR14-HY	


7.2 E-Field Probe

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

<ES3DV3 Probe>

Construction	Symmetric design with triangular core Interleaved sensors Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Frequency	10 MHz – 4 GHz; Linearity: ±0.2 dB (30 MHz – 4 GHz)	
Directivity	±0.2 dB in TSL (rotation around probe axis) ±0.3 dB in TSL (rotation normal to probe axis)	
Dynamic Range	5 µW/g – >100 mW/g; Linearity: ±0.2 dB	
Dimensions	Overall length: 337 mm (tip: 20 mm) Tip diameter: 3.9 mm (body: 12 mm) Distance from probe tip to dipole centers: 3.0 mm	

<EX3DV4 Probe>

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

7.3 Data Acquisition Electronics (DAE)

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

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

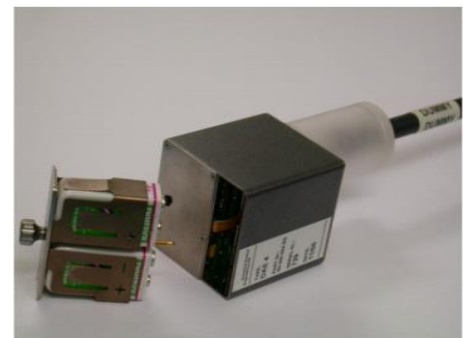



Fig 5.1 Photo of DAE


7.4 Phantom

<SAM Twin Phantom>

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

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

<ELI Phantom>

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

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

7.5 Device Holder

<Mounting Device for Hand-Held Transmitter>

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



Mounting Device for Hand-Held Transmitters



Mounting Device Adaptor for Wide-Phones

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

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



Mounting Device for Laptops

8. Measurement Procedures

The measurement procedures are as follows:

<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/BT power measurement, use engineering software to configure EUT WLAN/BT 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/BT output power

<SAR measurement>

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

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

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

8.1 Spatial Peak SAR Evaluation

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

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

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

- (a) Extraction of the measured data (grid and values) from the Zoom Scan
- (b) Calculation of the SAR value at every measurement point based on all stored data (A/D values and measurement parameters)
- (c) Generation of a high-resolution mesh within the measured volume
- (d) Interpolation of all measured values 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

8.2 Power Reference Measurement

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

8.3 Area Scan

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

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

	≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	5 ± 1 mm	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5$ 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.	

8.4 Zoom Scan

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

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

		≤ 3 GHz	> 3 GHz	
Maximum zoom scan spatial resolution: $\Delta x_{Zoom}, \Delta y_{Zoom}$		≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*	
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$	≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm	
	graded grid	$\Delta z_{Zoom}(1)$: between 1 st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	$\leq 1.5 \cdot \Delta z_{Zoom}(n-1)$	
Minimum zoom scan volume	x, y, z	≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm	
Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details. * When zoom scan is required and the <i>reported</i> SAR from the <i>area scan based 1-g SAR estimation</i> procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.				

8.5 Volume Scan Procedures

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

8.6 Power Drift Monitoring

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



9. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
SPEAG	750MHz System Validation Kit	D750V3	1012	Aug. 18, 2021	Aug. 17, 2022
SPEAG	750MHz System Validation Kit ⁽²⁾	D750V3	1107	Mar. 08, 2019	Mar. 05, 2022
SPEAG	835MHz System Validation Kit	D835V2	499	Aug. 18, 2021	Aug. 17, 2022
SPEAG	1750MHz System Validation Kit ⁽²⁾	D1750V2	1112	Mar. 07, 2019	Mar. 04, 2022
SPEAG	1900MHz System Validation Kit ⁽²⁾	D1900V2	5d185	Mar. 07, 2019	Mar. 04, 2022
SPEAG	2300MHz System Validation Kit ⁽²⁾	D2300V2	1006	Jan. 28, 2019	Jan. 25, 2022
SPEAG	2450MHz System Validation Kit	D2450V2	736	Aug. 17, 2021	Aug. 17, 2022
SPEAG	2450MHz System Validation Kit ⁽²⁾	D2450V2	929	Nov. 21, 2019	Nov. 18, 2022
SPEAG	2600MHz System Validation Kit	D2600V2	1008	Aug. 17, 2021	Aug. 16, 2022
SPEAG	2600MHz System Validation Kit ⁽²⁾	D2600V2	1078	Mar. 06, 2019	Mar. 03, 2022
SPEAG	3500MHz System Validation Kit ⁽²⁾	D3500V2	1014	Jan. 29, 2019	Jan. 26, 2022
SPEAG	3700MHz System Validation Kit ⁽²⁾	D3700V2	1006	Mar. 05, 2019	Mar. 02, 2022
SPEAG	3900MHz System Validation Kit ⁽²⁾	D3900V2	1017	Apr. 29, 2019	Apr. 26, 2022
SPEAG	5GHz System Validation Kit	D5GHzV2	1006	Sep. 15, 2021	Sep. 14, 2022
SPEAG	5GHz System Validation Kit	D5GHzV2	1171	Apr. 20, 2021	Apr. 19, 2022
SPEAG	6500MHz System Validation Kit	D6.5GHzV2	1003	Sep. 24, 2021	Sep. 23, 2022
SPEAG	5G Verification Source	10GHz	1020	Jan. 18, 2021	Jan. 17, 2022
SPEAG	Data Acquisition Electronics	DAE3	577	Sep. 15, 2021	Sep. 14, 2022
SPEAG	Data Acquisition Electronics	DAE4	316	Jan. 19, 2021	Jan. 18, 2022
SPEAG	Data Acquisition Electronics	DAE4	656	Jan. 22, 2021	Jan. 21, 2022
SPEAG	Data Acquisition Electronics	DAE4	699	Feb. 16, 2021	Feb. 15, 2022
SPEAG	Data Acquisition Electronics	DAE4	1399	Feb. 16, 2021	Feb. 15, 2022
SPEAG	Data Acquisition Electronics	DAE4	1424	Jan. 19, 2021	Jan. 18, 2022
SPEAG	Data Acquisition Electronics	DAE4	1512	Feb. 11, 2021	Feb. 10, 2022
SPEAG	Dosimetric E-Field Probe	ES3DV3	3184	Sep. 23, 2021	Sep. 22, 2022
SPEAG	Dosimetric E-Field Probe	ES3DV3	3270	Sep. 21, 2021	Sep. 20, 2022
SPEAG	Dosimetric E-Field Probe	EX3DV4	3642	Apr. 26, 2021	Apr. 25, 2022
SPEAG	Dosimetric E-Field Probe	EX3DV4	3728	Feb. 23, 2021	Feb. 22, 2022
SPEAG	Dosimetric E-Field Probe	EX3DV4	3931	Oct. 21, 2021	Oct. 20, 2022
SPEAG	Dosimetric E-Field Probe	EX3DV4	3976	Jan. 27, 2021	Jan. 26, 2022
SPEAG	Dosimetric E-Field Probe	EX3DV4	7306	Jul. 26, 2021	Jul. 25, 2022
SPEAG	Dosimetric E-Field Probe	EX3DV4	7346	Jun. 25, 2021	Jun. 24, 2022
SPEAG	Dosimetric E-Field Probe	EX3DV4	7625	Jan. 19, 2021	Jan. 18, 2022
SPEAG	EUmmWV Probe Tip Protection	EUmmWV3	9424	Mar. 23, 2021	Mar. 22, 2022
Testo	Hygro meter	608-H1	45196600	Oct. 22, 2021	Oct. 21, 2022
Testo	Hygro meter	608-H1	45207528	Oct. 22, 2021	Oct. 21, 2022
RCPTWN	Thermometer	HTC-1	TM685-1	Oct. 28, 2021	Oct. 27, 2022
RCPTWN	Thermometer	HTC-1	TM560-2	Oct. 28, 2021	Oct. 27, 2022
Anritsu	Radio Communication Analyzer	MT8821C	6201074414	Jul. 21, 2021	Jul. 20, 2022
Anritsu	Radio Communication Analyzer	MT8820C	6201381766	Jul. 21, 2021	Jul. 20, 2022
Anritsu	Radio Communication Analyzer	MT8821C	6201341950	Oct. 21, 2021	Oct. 20, 2022
Keysight	Wireless Communication Test Set	E5515C	MY50266977	May. 12, 2021	May. 11, 2022
R&S	BT Base Station	CBT	100815	Feb. 19, 2021	Feb. 18, 2022
SPEAG	Device Holder	N/A	N/A	N/A	N/A
Anritsu	Signal Generator	MG3710A	6201502524	Oct. 24, 2021	Oct. 23, 2022
Keysight	ENA Network Analyzer	E5071C	MY46104758	Sep. 07, 2021	Sep. 06, 2022



SPEAG	Dielectric Probe Kit	DAK-3.5	1126	Sep. 24, 2021	Sep. 23, 2022
LINE SEIKI	Digital Thermometer	DTM3000-spezial	2942	Oct. 26, 2021	Oct. 25, 2022
Anritsu	Power Meter	ML2495A	1419002	Aug. 18, 2021	Aug. 17, 2022
Anritsu	Power Sensor	MA2411B	1911176	Aug. 18, 2021	Aug. 17, 2022
Anritsu	Power Meter	ML2495A	1804003	Oct. 09, 2021	Oct. 08, 2022
Anritsu	Power Sensor	MA2411B	1726150	Oct. 09, 2021	Oct. 08, 2022
Anritsu	Spectrum Analyzer	MS2830A	6201396378	Jul. 16, 2021	Jul. 15, 2022
Agilent	Spectrum Analyzer	E4408B	MY44211028	Aug. 19, 2021	Aug. 18, 2022
Mini-Circuits	Power Amplifier	ZVE-8G+	6418	Oct. 12, 2021	Oct. 11, 2022
Mini-Circuits	Power Amplifier	ZVE-8G+	479102029	Sep. 06, 2021	Sep. 05, 2022
Custom Microwave	Standard Horn antenna	M15RH	V91113-A	NCR	NCR
ATM	Dual Directional Coupler	C122H-10	P610410z-02	Note 1	
Warison	Directional Coupler	WCOU-10-50S-10	WR889BMC4B1	Note 1	
Woken	Attenuator 1	WK0602-XX	N/A	Note 1	
PE	Attenuator 2	PE7005-10	N/A	Note 1	
PE	Attenuator 3	PE7005- 3	N/A	Note 1	

General Note:

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

10. System Verification

10.1 Tissue Verification

The tissue dielectric parameters of tissue-equivalent media used for SAR measurements must be characterized within a temperature range of 18°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 _r)	Conductivity Target (σ)	Permittivity Target (ε _r)	Delta (σ) (%)	Delta (ε _r) (%)	Limit (%)	Date
750	22.7	0.895	41.333	0.89	41.90	0.56	-1.35	±5	2021/11/30
750	22.5	0.925	42.005	0.89	41.90	3.93	0.25	±5	2021/12/1
750	22.1	0.887	42.666	0.89	41.90	-0.34	1.83	±5	2021/12/3
750	22.6	0.887	40.871	0.89	41.90	-0.34	-2.46	±5	2021/12/6
750	22.4	0.864	42.940	0.89	41.90	-2.92	2.48	±5	2021/12/8
750	22.8	0.904	41.609	0.89	41.90	1.57	-0.69	±5	2021/12/11
750	22.9	0.912	41.734	0.89	41.90	2.47	-0.40	±5	2021/12/12
750	22.3	0.883	42.065	0.89	41.90	-0.79	0.39	±5	2021/12/25
750	22.5	0.895	43.476	0.89	41.90	0.56	3.76	±5	2021/12/27
750	22.2	0.888	41.263	0.89	41.90	-0.22	-1.52	±5	2022/1/20
835	22.6	0.921	41.099	0.90	41.50	2.33	-0.97	±5	2021/11/28
835	22.5	0.889	41.320	0.90	41.50	-1.22	-0.43	±5	2021/11/29
835	22.3	0.885	42.574	0.90	41.50	-1.67	2.59	±5	2021/12/4
835	22.3	0.885	42.574	0.90	41.50	-1.67	2.59	±5	2021/12/4
835	22.7	0.880	42.371	0.90	41.50	-2.22	2.10	±5	2021/12/10
835	22.8	0.891	41.316	0.90	41.50	-1.00	-0.44	±5	2021/12/11
835	22.9	0.896	41.426	0.90	41.50	-0.44	-0.18	±5	2021/12/12
835	22.3	0.878	42.341	0.90	41.50	-2.44	2.03	±5	2021/12/25
1750	22.5	1.353	39.487	1.37	40.10	-1.24	-1.53	±5	2021/12/5
1750	22.2	1.388	39.865	1.37	40.10	1.31	-0.59	±5	2021/12/7
1750	22.2	1.352	38.895	1.37	40.10	-1.31	-3.00	±5	2021/12/7
1750	22.4	1.334	39.866	1.37	40.10	-2.63	-0.58	±5	2021/12/12
1750	22.2	1.363	40.166	1.37	40.10	-0.51	0.16	±5	2021/12/13
1750	22.1	1.359	40.126	1.37	40.10	-0.80	0.06	±5	2021/12/15
1750	22.3	1.397	40.610	1.37	40.10	1.97	1.27	±5	2021/12/16
1900	22.4	1.398	40.312	1.40	40.00	-0.14	0.78	±5	2021/12/2
1900	22.5	1.401	39.827	1.40	40.00	0.07	-0.43	±5	2021/12/5
1900	22.5	1.411	39.262	1.40	40.00	0.79	-1.85	±5	2021/12/5
1900	22.1	1.416	39.472	1.40	40.00	1.14	-1.32	±5	2021/12/6
1900	22.7	1.399	40.561	1.40	40.00	-0.07	1.40	±5	2021/12/9
1900	22.7	1.420	39.030	1.40	40.00	1.43	-2.43	±5	2021/12/10
1900	22.2	1.427	40.812	1.40	40.00	1.93	2.03	±5	2021/12/11
1900	22.5	1.390	40.144	1.40	40.00	-0.71	0.36	±5	2021/12/14
1900	22.1	1.400	39.596	1.40	40.00	0.00	-1.01	±5	2021/12/15
2300	22.2	1.669	39.438	1.67	39.50	-0.06	-0.16	±5	2021/11/28
2300	22.5	1.672	39.888	1.67	39.50	0.12	0.98	±5	2021/11/29
2300	22.4	1.599	38.960	1.67	39.50	-4.25	-1.37	±5	2021/12/8
2300	22.1	1.612	39.887	1.67	39.50	-3.47	0.98	±5	2021/12/13
2300	22.3	1.597	38.895	1.67	39.50	-4.37	-1.53	±5	2021/12/16
2300	22.6	1.684	39.336	1.67	39.50	0.84	-0.42	±5	2021/12/24
2300	22.5	1.647	40.181	1.67	39.50	-1.38	1.72	±5	2021/12/27
2450	22.3	1.777	39.819	1.80	39.20	-1.28	1.58	±5	2021/12/21
2450	22.3	1.775	39.803	1.80	39.20	-1.39	1.54	±5	2021/12/29
2450	22.7	1.786	39.927	1.80	39.20	-0.78	1.85	±5	2021/12/30
2450	22.6	1.793	38.633	1.80	39.20	-0.39	-1.45	±5	2021/12/31



Frequency (MHz)	Liquid Temp. (°C)	Conductivity (σ)	Permittivity (ε _r)	Conductivity Target (σ)	Permittivity Target (ε _r)	Delta (σ) (%)	Delta (ε _r) (%)	Limit (%)	Date
2600	22.2	1.895	38.224	1.96	39.00	-3.32	-1.99	±5	2021/11/28
2600	22.5	1.899	38.674	1.96	39.00	-3.11	-0.84	±5	2021/11/29
2600	22.4	1.993	38.368	1.96	39.00	1.68	-1.62	±5	2021/12/2
2600	22.7	1.920	37.866	1.96	39.00	-2.04	-2.91	±5	2021/12/9
2600	22.5	1.979	39.366	1.96	39.00	0.97	0.94	±5	2021/12/17
2600	22.2	1.985	39.040	1.96	39.00	1.28	0.10	±5	2021/12/18
2600	22.5	1.978	38.963	1.96	39.00	0.92	-0.09	±5	2021/12/27
3500	22.1	2.930	37.497	2.91	37.90	0.69	-1.06	±5	2021/12/2
3500	22.6	2.925	37.467	2.91	37.90	0.52	-1.14	±5	2021/12/3
3500	22.6	3.011	38.533	2.91	37.90	3.47	1.67	±5	2021/12/4
3500	22.4	2.964	37.921	2.91	37.90	1.86	0.06	±5	2021/12/6
3500	22.7	2.994	38.236	2.91	37.90	2.89	0.89	±5	2021/12/7
3500	22.8	2.919	37.437	2.91	37.90	0.31	-1.22	±5	2021/12/12
3500	22.6	2.901	37.347	2.91	37.90	-0.31	-1.46	±5	2021/12/26
3700	22.6	3.170	38.295	3.12	37.70	1.60	1.58	±5	2021/12/4
3700	22.4	3.124	37.351	3.12	37.70	0.13	-0.93	±5	2021/12/6
3700	22.7	3.155	37.666	3.12	37.70	1.12	-0.09	±5	2021/12/7
3700	22.8	3.103	37.138	3.12	37.70	-0.54	-1.49	±5	2021/12/12
3700	22.5	3.095	37.098	3.12	37.70	-0.80	-1.60	±5	2021/12/14
3700	22.6	3.084	37.048	3.12	37.70	-1.15	-1.73	±5	2021/12/26
3900	22.1	3.316	36.920	3.33	37.51	-0.42	-1.57	±5	2021/12/2
3900	22.6	3.310	36.890	3.33	37.51	-0.60	-1.65	±5	2021/12/3
3900	22.4	3.389	37.053	3.33	37.51	1.77	-1.22	±5	2021/12/6
5250	22.3	4.803	36.842	4.71	35.95	1.97	2.48	±5	2021/12/18
5250	22.3	4.624	35.863	4.71	35.95	-1.83	-0.24	±5	2021/12/29
5250	22.5	4.832	36.944	4.71	35.95	2.59	2.76	±5	2021/12/31
5250	22.1	4.857	37.076	4.71	35.95	3.12	3.13	±5	2022/1/2
5250	22.3	4.856	37.064	4.71	35.95	3.10	3.10	±5	2022/1/4
5250	22.4	4.793	37.577	4.71	35.95	1.76	4.53	±5	2022/1/6
5250	22.4	4.718	37.253	4.71	35.95	0.17	3.62	±5	2022/1/7
5600	22.2	4.938	35.423	5.07	35.50	-2.60	-0.22	±5	2021/12/23
5600	22.3	4.947	35.377	5.07	35.50	-2.43	-0.35	±5	2021/12/29
5600	22.5	5.212	36.433	5.07	35.50	2.80	2.63	±5	2021/12/31
5600	22.1	5.238	36.565	5.07	35.50	3.31	3.00	±5	2022/1/2
5600	22.3	5.236	36.553	5.07	35.50	3.27	2.97	±5	2022/1/4
5600	22.4	5.183	37.019	5.07	35.50	2.23	4.28	±5	2022/1/6
5600	22.4	5.054	36.798	5.07	35.50	-0.32	3.66	±5	2022/1/7
5750	22.2	5.129	35.363	5.22	35.35	-1.74	0.04	±5	2021/12/23
5750	22.3	5.134	35.379	5.22	35.35	-1.65	0.08	±5	2021/12/24
5750	22.3	5.139	35.326	5.22	35.35	-1.55	-0.07	±5	2021/12/27
5750	22.3	5.138	35.317	5.22	35.35	-1.57	-0.09	±5	2021/12/29
5750	22.5	5.381	36.249	5.22	35.35	3.08	2.54	±5	2021/12/31
5750	22.1	5.408	36.382	5.22	35.35	3.60	2.92	±5	2022/1/2
5750	22.3	5.407	36.370	5.22	35.35	3.58	2.89	±5	2022/1/4
5750	22.4	5.328	36.834	5.22	35.35	2.07	4.20	±5	2022/1/6
5750	22.4	5.175	36.520	5.22	35.35	-0.86	3.31	±5	2022/1/7
5850	22.3	5.239	35.189	5.32	35.25	-1.52	-0.17	±5	2021/12/27
5850	22.3	5.238	35.180	5.32	35.25	-1.54	-0.20	±5	2021/12/29
5850	22.1	5.523	36.220	5.32	35.25	3.82	2.75	±5	2022/1/2
5850	22.3	5.521	36.207	5.32	35.25	3.78	2.71	±5	2022/1/4
6500	22.1	5.910	33.445	6.07	34.50	-2.64	-3.06	±5	2022/1/2
6500	22.5	6.010	34.290	6.07	34.50	-0.99	-0.61	±5	2022/1/13



10.2 System Performance Check Results

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

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



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 (%)
SAR11	2021/11/28	2300	250	D2300V2-1006	ES3DV3 - SN3270	DAE4 Sn316	11.70	48.70	46.8	-3.90	5.61	23.20	22.44	-3.28
SAR11	2021/11/29	2300	50	D2300V2-1006	ES3DV3 - SN3270	DAE4 Sn316	2.59	48.70	51.8	6.37	1.21	23.20	24.2	4.31
SAR08	2021/12/8	2300	250	D2300V2-1006	EX3DV4 - SN7625	DAE4 Sn1512	11.70	48.70	46.8	-3.90	5.58	23.20	22.32	-3.79
SAR09	2021/12/13	2300	250	D2300V2-1006	ES3DV3 - SN3184	DAE4 Sn1424	11.50	48.70	46	-5.54	5.64	23.20	22.56	-2.76
SAR08	2021/12/16	2300	250	D2300V2-1006	EX3DV4 - SN7625	DAE4 Sn1512	11.60	48.70	46.4	-4.72	5.57	23.20	22.28	-3.97
SAR08	2021/12/24	2300	50	D2300V2-1006	EX3DV4 - SN7625	DAE4 Sn1512	2.55	48.70	51	4.72	1.24	23.20	24.8	6.90
SAR08	2021/12/27	2300	250	D2300V2-1006	EX3DV4 - SN7625	DAE4 Sn1512	12.00	48.70	48	-1.44	5.75	23.20	23	-0.86
SAR11	2021/12/21	2450	250	D2450V2-929	ES3DV3 - SN3270	DAE4 Sn316	13.60	53.10	54.4	2.45	6.28	24.70	25.12	1.70
SAR11	2021/12/29	2450	250	D2450V2-929	ES3DV3 - SN3270	DAE4 Sn316	13.40	53.10	53.6	0.94	6.42	24.70	25.68	3.97
SAR11	2021/12/30	2450	250	D2450V2-929	ES3DV3 - SN3270	DAE4 Sn316	13.70	53.10	54.8	3.20	6.31	24.70	25.24	2.19
SAR11	2021/12/31	2450	250	D2450V2-736	ES3DV3 - SN3270	DAE4 Sn316	13.70	54.20	54.8	1.11	6.49	25.30	25.96	2.61
SAR11	2021/11/28	2600	250	D2600V2-1078	ES3DV3 - SN3270	DAE4 Sn316	13.40	57.60	53.6	-6.94	6.01	25.50	24.04	-5.73
SAR11	2021/11/29	2600	50	D2600V2-1078	ES3DV3 - SN3270	DAE4 Sn316	3.05	57.60	61	5.90	1.38	25.50	27.6	8.24
SAR09	2021/12/2	2600	50	D2600V2-1078	EX3DV4 - SN3728	DAE4 Sn1424	2.78	57.60	55.6	-3.47	1.26	25.50	25.2	-1.18
SAR08	2021/12/9	2600	250	D2600V2-1078	EX3DV4 - SN7625	DAE4 Sn1512	14.50	57.60	58	0.69	6.60	25.50	26.4	3.53
SAR08	2021/12/17	2600	50	D2600V2-1008	EX3DV4 - SN7625	DAE4 Sn1512	3.12	58.00	62.4	7.59	1.39	25.80	27.8	7.75
SAR08	2021/12/18	2600	50	D2600V2-1008	EX3DV4 - SN7625	DAE4 Sn1512	3.13	58.00	62.6	7.93	1.41	25.80	28.2	9.30
SAR08	2021/12/27	2600	50	D2600V2-1078	EX3DV4 - SN7625	DAE4 Sn1512	2.64	57.60	52.8	-8.33	1.19	25.50	23.8	-6.67
SAR08	2021/12/2	3500	100	D3500V2-1014	EX3DV4 - SN7625	DAE4 Sn1512	6.33	67.90	63.3	-6.77	2.36	25.60	23.6	-7.81
SAR08	2021/12/3	3500	100	D3500V2-1014	EX3DV4 - SN7625	DAE4 Sn1512	6.58	67.90	65.8	-3.09	2.45	25.60	24.5	-4.30
SAR12	2021/12/4	3500	50	D3500V2-1014	EX3DV4 - SN3976	DAE3 Sn577	3.38	67.90	67.6	-0.44	1.28	25.60	25.6	0.00
SAR15	2021/12/6	3500	100	D3500V2-1014	EX3DV4 - SN3931	DAE4 Sn699	6.96	67.90	69.6	2.50	2.59	25.60	25.9	1.17
SAR15	2021/12/7	3500	50	D3500V2-1014	EX3DV4 - SN3931	DAE4 Sn699	3.60	67.90	72	6.04	1.36	25.60	27.2	6.25
SAR08	2021/12/12	3500	100	D3500V2-1014	EX3DV4 - SN7625	DAE4 Sn1512	6.57	67.90	65.7	-3.24	2.45	25.60	24.5	-4.30
SAR08	2021/12/26	3500	100	D3500V2-1014	EX3DV4 - SN7625	DAE4 Sn1512	6.53	67.90	65.3	-3.83	2.43	25.60	24.3	-5.08
SAR12	2021/12/4	3700	50	D3700V2-1006	EX3DV4 - SN3976	DAE3 Sn577	3.36	67.30	67.2	-0.15	1.24	24.50	24.8	1.22
SAR15	2021/12/6	3700	50	D3700V2-1006	EX3DV4 - SN3931	DAE4 Sn699	3.33	67.30	66.6	-1.04	1.22	24.50	24.4	-0.41
SAR15	2021/12/7	3700	50	D3700V2-1006	EX3DV4 - SN3931	DAE4 Sn699	3.36	67.30	67.2	-0.15	1.24	24.50	24.8	1.22
SAR08	2021/12/12	3700	100	D3700V2-1006	EX3DV4 - SN7625	DAE4 Sn1512	6.84	67.30	68.4	1.63	2.45	24.50	24.5	0.00
SAR08	2021/12/14	3700	100	D3700V2-1006	EX3DV4 - SN7625	DAE4 Sn1512	6.82	67.30	68.2	1.34	2.45	24.50	24.5	0.00
SAR08	2021/12/26	3700	100	D3700V2-1006	EX3DV4 - SN7625	DAE4 Sn1512	6.80	67.30	68	1.04	2.44	24.50	24.4	-0.41
SAR08	2021/12/2	3900	100	D3900V2-1017-3900	EX3DV4 - SN7625	DAE4 Sn1512	7.09	69.50	70.9	2.01	2.45	24.20	24.5	1.24
SAR08	2021/12/3	3900	100	D3900V2-1017-3900	EX3DV4 - SN7625	DAE4 Sn1512	7.07	69.50	70.7	1.73	2.44	24.20	24.4	0.83
SAR15	2021/12/6	3900	100	D3900V2-1017-3900	EX3DV4 - SN3931	DAE4 Sn699	7.11	69.50	71.1	2.30	2.57	24.20	25.7	6.20

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 (%)
SAR12	2021/12/18	5250	100	D5GHzV2-1006-5250	EX3DV4 - SN3642	DAE4 Sn656	8.86	81.70	88.6	8.45	2.51	23.20	25.1	8.19
SAR12	2021/12/29	5250	100	D5GHzV2-1006-5250	EX3DV4 - SN3642	DAE4 Sn656	8.71	81.70	87.1	6.61	2.49	23.20	24.9	7.33
SAR12	2021/12/31	5250	100	D5GHzV2-1006-5250	EX3DV4 - SN3642	DAE4 Sn656	8.91	81.70	89.1	9.06	2.52	23.20	25.2	8.62
SAR12	2022/1/2	5250	100	D5GHzV2-1006-5250	EX3DV4 - SN3642	DAE4 Sn656	8.74	81.70	87.4	6.98	2.41	23.20	24.1	3.88
SAR12	2022/1/4	5250	100	D5GHzV2-1006-5250	EX3DV4 - SN3642	DAE4 Sn656	8.86	81.70	88.6	8.45	2.51	23.20	25.1	8.19
SAR08	2022/1/6	5250	100	D5GHzV2-1006-5250	EX3DV4 - SN7346	DAE4 Sn1512	8.48	81.70	84.8	3.79	2.41	23.20	24.1	3.88
SAR08	2022/1/7	5250	100	D5GHzV2-1006-5250	EX3DV4 - SN7306	DAE4 Sn1512	8.67	81.70	86.7	6.12	2.52	23.20	25.2	8.62
SAR12	2021/12/23	5600	100	D5GHzV2-1006-5600	EX3DV4 - SN3642	DAE4 Sn656	8.90	85.10	89	4.58	2.51	24.00	25.1	4.58
SAR12	2021/12/29	5600	100	D5GHzV2-1006-5600	EX3DV4 - SN3642	DAE4 Sn656	8.92	85.10	89.2	4.82	2.52	24.00	25.2	5.00
SAR12	2021/12/31	5600	100	D5GHzV2-1006-5600	EX3DV4 - SN3642	DAE4 Sn656	9.28	85.10	92.8	9.05	2.57	24.00	25.7	7.08
SAR12	2022/1/2	5600	100	D5GHzV2-1006-5600	EX3DV4 - SN3642	DAE4 Sn656	9.12	85.10	91.2	7.17	2.58	24.00	25.8	7.50
SAR12	2022/1/4	5600	100	D5GHzV2-1006-5600	EX3DV4 - SN3642	DAE4 Sn656	9.32	85.10	93.2	9.52	2.58	24.00	25.8	7.50
SAR08	2022/1/6	5600	100	D5GHzV2-1006-5600	EX3DV4 - SN7346	DAE4 Sn1512	8.27	85.10	82.7	-2.82	2.39	24.00	23.9	-0.42
SAR08	2022/1/7	5600	50	D5GHzV2-1006-5600	EX3DV4 - SN7306	DAE4 Sn1512	4.08	85.10	81.6	-4.11	1.15	24.00	23	-4.17
SAR012	2021/12/23	5750	100	D5GHzV2-1006-5750	EX3DV4 - SN3642	DAE4 Sn656	8.79	81.40	87.9	7.99	2.49	22.90	24.9	8.73
SAR12	2021/12/24	5750	100	D5GHzV2-1006-5750	EX3DV4 - SN3931	DAE4 Sn1399	8.36	81.40	83.6	2.70	2.35	22.90	23.5	2.62
SAR12	2021/12/27	5750	100	D5GHzV2-1006-5250	EX3DV4 - SN3642	DAE4 Sn699	7.69	81.70	76.9	-5.88	2.11	23.20	21.1	-9.05
SAR12	2021/12/29	5750	100	D5GHzV2-1006-5750	EX3DV4 - SN3642	DAE4 Sn656	8.43	81.40	84.3	3.56	2.37	22.90	23.7	3.49
SAR12	2021/12/31	5750	100	D5GHzV2-1006-5750	EX3DV4 - SN3642	DAE4 Sn656	8.83	81.40	88.3	8.48	2.48	22.90	24.8	8.30
SAR12	2022/1/2	5750	100	D5GHzV2-1006-5750	EX3DV4 - SN3642	DAE4 Sn656	8.69	81.40	86.9	6.76	2.45	22.90	24.5	6.99
SAR12	2022/1/4	5750	100	D5GHzV2-1006-5750	EX3DV4 - SN3642	DAE4 Sn656	8.91	81.40	89.1	9.46	2.49	22.90	24.9	8.73
SAR08	2022/1/6	5750	100	D5GHzV2-1006-5750	EX3DV4 - SN7346	DAE4 Sn1512	7.96	81.40	79.6	-2.21	2.23	22.90	22.3	-2.62
SAR08	2022/1/7	5750	100	D5GHzV2-1006-5750	EX3DV4 - SN7306	DAE4 Sn1512	8.15	81.40	81.5	0.12	2.34	22.90	23.4	2.18
SAR12	2021/12/27	5850	100	D5GHzV2-1171-5850	EX3DV4 - SN3642	DAE4 Sn699	7.62	82.30	76.2	-7.41	2.15	23.10	21.5	-6.93
SAR12	2021/12/29	5850	100	D5GHzV2-1171-5850	EX3DV4 - SN3642	DAE4 Sn656	7.56	82.30	75.6	-8.14	2.11	23.10	21.1	-8.66
SAR12	2022/1/2	5850	100	D5GHzV2-1171-5850	EX3DV4 - SN3642	DAE4 Sn656	8.24	82.30	82.4	0.12	2.30	23.10	23	-0.43
SAR12	2022/1/4	5850	100	D5GHzV2-1171-5850	EX3DV4 - SN3642	DAE4 Sn656	7.73	82.30	77.3	-6.08	2.16	23.10	21.6	-6.49
SAR13	2022/1/12	6500	100	D6.5GHzV2-1003	EX3DV4 - SN3728	DAE3 Sn577	31.08	292.00	310.8	6.44	5.91	53.80	59.1	9.85
SAR13	2022/1/13	6500	100	D6.5GHzV2-1003	EX3DV4 - SN3728	DAE3 Sn577	28.10	292.00	281	-3.77	5.27	53.80	52.7	-2.04

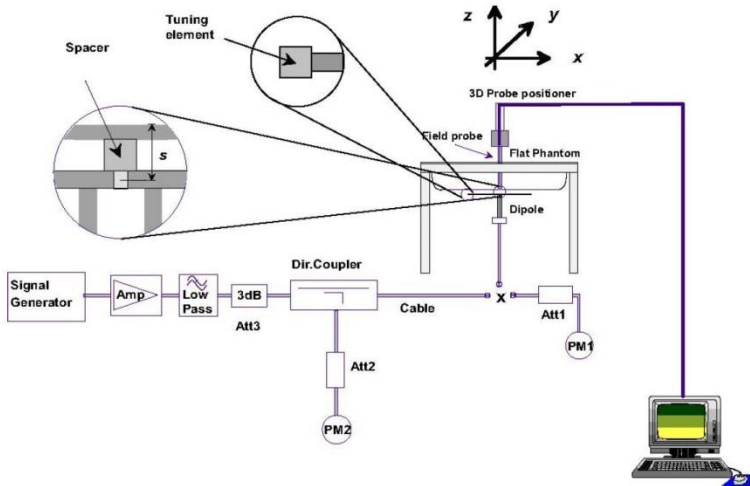


Fig 8.3.1 System Performance Check Setup



Fig 8.3.2 Setup Photo

10.3 PD System Performance Check Results

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

Test Location	Frequency (GHz)	5G Verification Source	Probe S/N	DAE S/N	Distance (mm)	Measured 4 cm ² (W/m ²)	Targeted 4 cm ² (W/m ²)	Deviation (dB)	Date
SAR06-HY	10G	10GHz_1020	EUmmWV3 - SN9424	Sn577	10	41.4	42.2	-0.08	2021/12/24
SAR06-HY	10G	10GHz_1020	EUmmWV3 - SN9424	Sn577	10	39.2	42.2	-0.32	2022/1/12

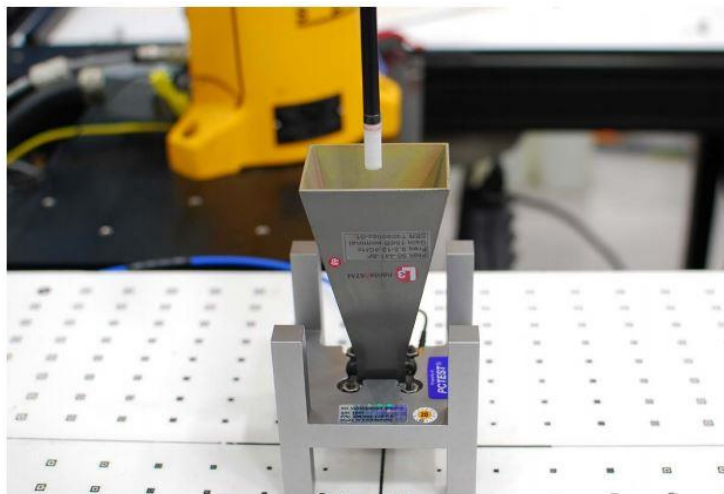


Figure 4-3
System Verification Setup Photo

System Performance Check Setup

11. RF Exposure Positions

11.1 Ear and handset reference point

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

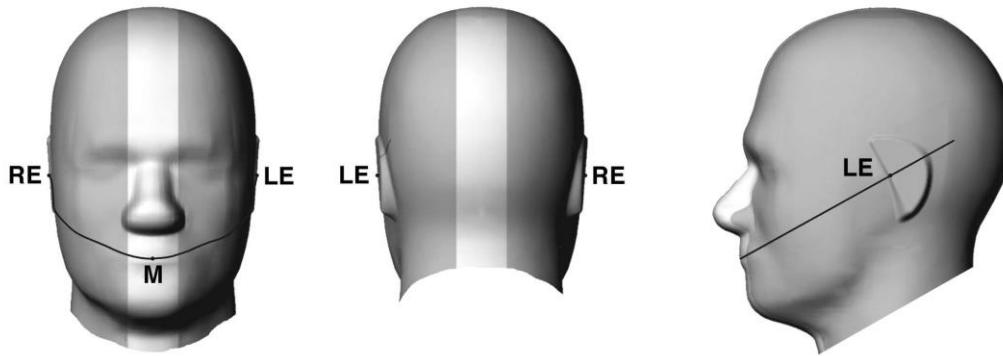


Fig 9.1.1 Front, back, and side views of SAM twin phantom

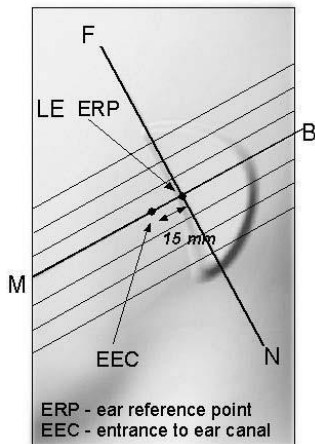


Fig 9.1.2 Close-up side view of phantom showing the ear region.

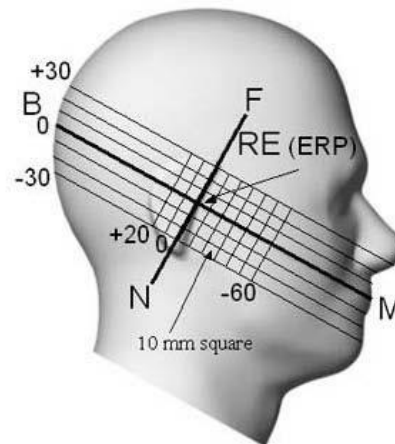


Fig 9.1.3 Side view of the phantom showing relevant markings and seven cross-sectional plane locations

11.2 Definition of the cheek position

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

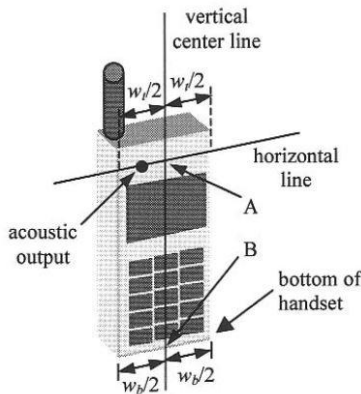


Fig 9.2.1 Handset vertical and horizontal reference lines—“fixed case”

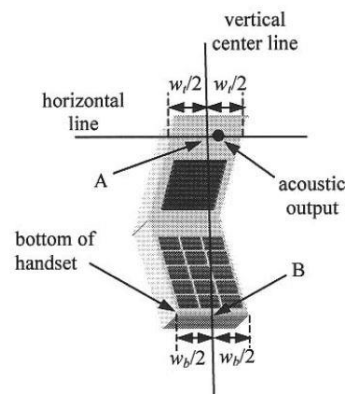


Fig 9.2.2 Handset vertical and horizontal reference lines—“clam-shell case”

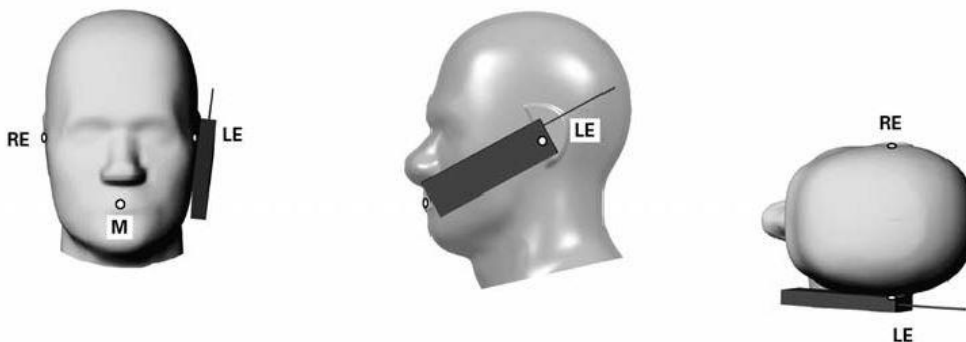


Fig 9.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

11.3 Definition of the tilt position

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

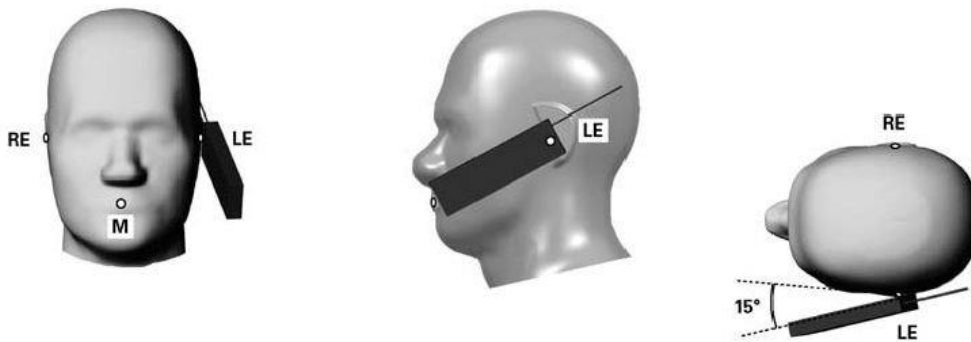


Fig 9.3.1 Tilt position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which define the Reference Plane for handset positioning, are indicated.

11.4 Body Worn Accessory

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

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

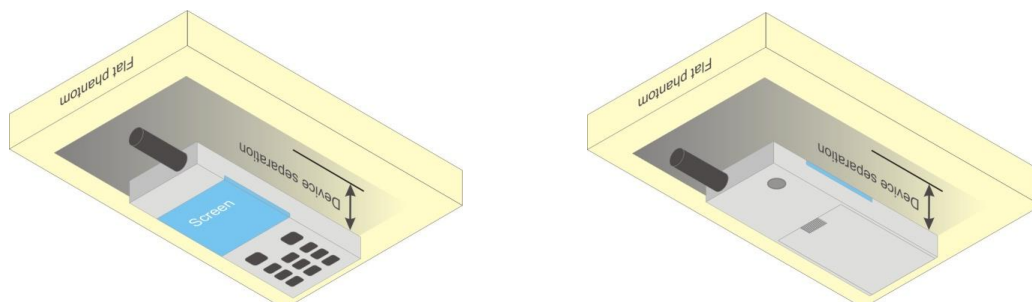


Fig 9.4 Body Worn Position



11.5 Product Specific Exposure

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

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

11.6 Wireless Router

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

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



12. 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 ≤ 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 (β_c and β_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: β values for transmitter characteristics tests with HS-DPCCH

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{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, Δ_{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 β_c/β_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 (β_c and β_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: β values for transmitter characteristics tests with HS-DPCCH and E-DCH

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{HS} (Note1)	β_{ec}	β_{ed} (Note 4) (Note 5)	β_{ed} (SF)	β_{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 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, Δ_{ACK} , Δ_{NACK} and $\Delta_{CQI} = 30/15$ with $\beta_{hs} = 30/15 * \beta_c$. For sub-test 5, Δ_{ACK} , Δ_{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 β_c/β_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: β_{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.

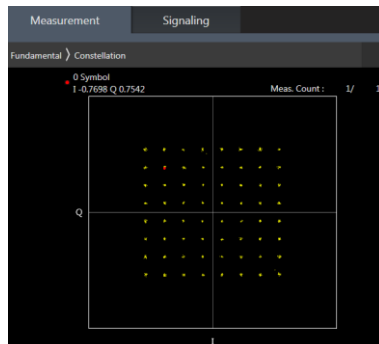
Setup Configuration

<LTE Note>

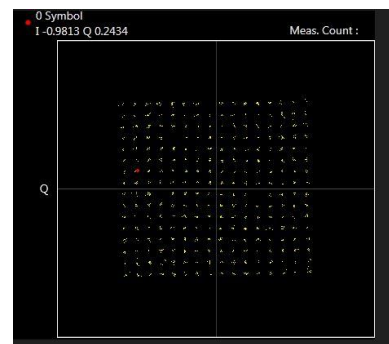
1. Anritsu MT8821C base station simulator was used to setup the connection with EUT; the frequency band, channel bandwidth, RB allocation configuration, modulation type are set in the base station simulator to configure EUT transmitting at maximum power and at different configurations which are requested 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 ≤ 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 ≤ 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 ≤ 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
10. According to 2017 TCB workshop, for 16QAM, 64QAM, 256QAM should be verified by checking the signal constellation with a call box to avoid incorrect maximum power levels due to MPR and other requirements associated with signal modulation, and the following figure is taken from the "Fundamental Measurement >> Modulation Analysis >> constellation" mode of the device connect to the MT8821C base station, therefore, the device 64QAM and 16QAM signal modulation are correct.



16QAM



64QAM



256QAM

<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 Anritsu MT8821C (firmware: #22.52#004) was used for LTE output power measurements and SAR testing.

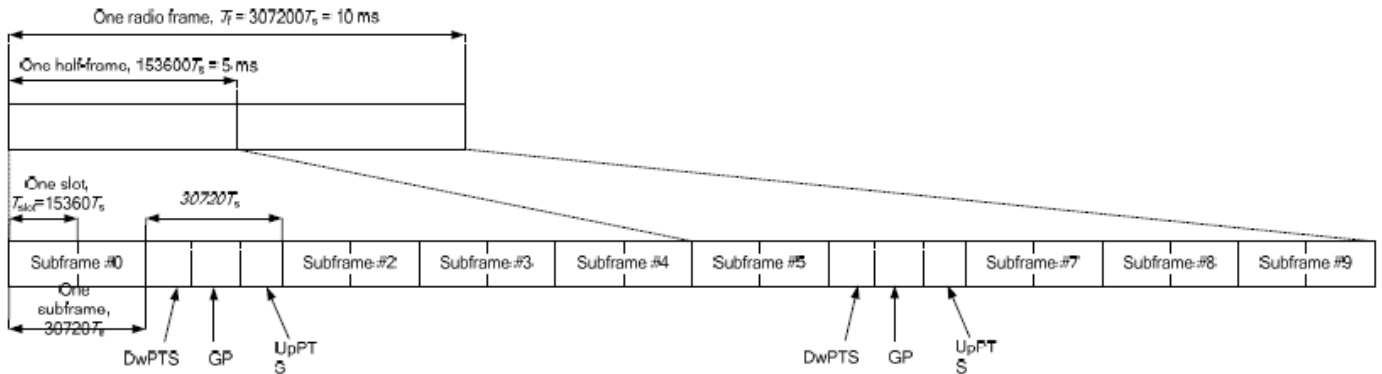


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

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			7680 · Ts	4384 · Ts	5120 · Ts
5	6592 · Ts	4384 · Ts	5120 · Ts	20480 · Ts		
6	19760 · Ts			23040 · Ts		
7	21952 · Ts			12800 · Ts		
8	24144 · Ts			-	-	-
9	13168 · Ts			-	-	-

Special subframe (30720·T_s): Normal cyclic prefix in downlink (UpPTS)			
	Special subframe configuration	Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
Uplink duty factor in one special subframe	0~4	7.13%	8.33%
	5~9	14.3%	16.7%

Special subframe(30720·T_s): Extended cyclic prefix in downlink (UpPTS)			
	Special subframe configuration	Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
Uplink duty factor in one special subframe	0~3	7.13%	8.33%
	4~7	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 operations for LTE Band 41.
- 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 FR1 Note>

General 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 was performed using Factory Test Mode software to establish the connection and perform SAR with 100% transmission. And only for TDD power class2 was performed using Factory Test Mode software to establish the connection and perform SAR with 50% transmission

<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 ¹	≤ 1.2 ¹	≤ 0.2 ¹
		≤ 0.5 ²	≤ 0.5 ²	0 ²
	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 ≤ 0.4 W/kg, further SAR measurement is not required for the other test positions in that exposure configuration and 802.11 transmission mode combinations within the frequency band or aggregated band.
 - b. When the reported SAR of the test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is ≤ 0.8 W/kg or all required test position are tested.
 - c. For all positions/configurations, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.
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 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	Ant 4	76.81
	1	Ant 3	77.31
	1	Ant 4+3	77.28
	2	Ant 4	76.92
	2	Ant 3	77.31
	2	Ant 4+3	77.28
	3/5	Ant 4	76.81
	3/5	Ant 3	77.31
	3/5	Ant 4+3	77.28
	4	Ant 4	76.92
	4	Ant 3	77.31
	4	Ant 4+3	77.28



13. DL/UL carrier aggregation

<LTE Carrier Aggregation combinations>

General Note:

1. This device supports Carrier Aggregation on downlink only for inter and intra band. For the device supports combination bands and configurations are according to 3GPP.
2. In applying the existing power measurement procedure of KDB 941225 D05A for DL CA SAR test exclusion, only the subset with the largest number of combinations of the frequency band and CCs in each row need consideration, and that configurations require power measurement should be highlighted in the below table.

2CC Downlink Carrier Aggregation				3CC Downlink Carrier Aggregation				4CC Downlink Carrier Aggregation			
Number	Combination	Restriction	Covered by Measurement Superset	Number	Combination	Restriction	Covered by Measurement Superset	Number	Combination	Restriction	Covered by Measurement Superset
1	CA_2A-12A		3CC-1	1	CA_2A-12A-30A		4CC-10	1	CA_2A-12A-66A-66A		5CC-8
2	CA_2A-13A		3CC-5	2	CA_2A-12A-66A		4CC-1	2	CA_2A-12A-66C		4CC-1
3	CA_2A-14A		3CC-7	3	CA_2A-12A-12A		3CC-1	3	CA_2A-12B-66A		4CC-1
4	CA_2A-17A	O6	3CC-25	4	CA_2A-12B		3CC-1	4	CA_2A-13A-48A-48A		5CC-2
5	CA_2A-29A	B29 SCC Only	3CC-8	5	CA_2A-13A-48A		4CC-4	5	CA_2A-13A-48C		4CC-4
6	CA_2A-2A		3CC-1	6	CA_2A-13A-66A		4CC-6	6	CA_2A-13A-66A-66A		5CC-10
7	CA_2A-30A		3CC-1	7	CA_2A-14A-30A	O6	4CC-146	7	CA_2A-13A-66B		4CC-6
8	CA_2A-48A		3CC-5	8	CA_2A-29A-30A	B29 SCC Only	4CC-14	8	CA_2A-13A-66C	O6	4CC-6
9	CA_2A-4A		3CC-14	9	CA_2A-29A-66A	B29 SCC Only	4CC-147	9	CA_2A-14A-66A-66A		5CC-11
10	CA_2A-5A		3CC-15	10	CA_2A-2A-12A		3CC-1	10	CA_2A-2A-12A-30A		5CC-67
11	CA_2A-66A		3CC-2	11	CA_2A-2A-13A		3CC-5	11	CA_2A-2A-12A-66A		4CC-1
12	CA_2A-71A		3CC-17	12	CA_2A-2A-29A	B29 SCC Only	3CC-8	12	CA_2A-2A-12B		4CC-1
13	CA_2A-7A		3CC-18	13	CA_2A-2A-30A		3CC-1	13	CA_2A-2A-13A-66A		4CC-6
14	CA_2C		3CC-1	14	CA_2A-2A-4A		3CC-23	14	CA_2A-2A-29A-30A	B29 SCC Only	5CC-74
15	CA_4A-12A		3CC-23	15	CA_2A-2A-5A		3CC-29	15	CA_2A-2A-30A-66A		5CC-63
16	CA_4A-13A		3CC-24	16	CA_2A-2A-66A		3CC-2	16	CA_2A-2A-4A-12A		
17	CA_4A-17A		3CC-25	17	CA_2A-2A-71A		3CC-30	17	CA_2A-2A-4A-13A		5CC-13
18	CA_4A-29A	B29 SCC Only	3CC-26	18	CA_2A-2A-7A		3CC-31	18	CA_2A-2A-4A-4A		4CC-16
19	CA_4A-30A		3CC-27	19	CA_2A-30A-66A		4CC-15	19	CA_2A-2A-4A-5A		5CC-14
20	CA_4A-48A		3CC-148	20	CA_2A-48A-48A		3CC-21	20	CA_2A-2A-4A-71A	O6	
21	CA_4A-4A		3CC-23	21	CA_2A-48A-66A		4CC-32	21	CA_2A-2A-5A-30A		5CC-70
22	CA_4A-5A		3CC-29	22	CA_2A-48C		3CC-21	22	CA_2A-2A-5A-5A		4CC-19
23	CA_4A-71A		3CC-30	23	CA_2A-4A-12A		4CC-16	23	CA_2A-2A-5A-66A		5CC-30
24	CA_4A-7A		3CC-31	24	CA_2A-4A-13A		4CC-17	24	CA_2A-2A-5B	O6	4CC-19
25	CA_5A-25A	O6		25	CA_2A-4A-17A			25	CA_2A-2A-66A-66A		4CC-1
26	CA_5A-30A		3CC-64	26	CA_2A-4A-29A	B29 SCC Only		26	CA_2A-2A-66A-71A		5CC-79
27	CA_5A-38A		3CC-84	27	CA_2A-4A-30A			27	CA_2A-2A-66B		4CC-1
28	CA_5A-41A			28	CA_2A-4A-4A		3CC-23	28	CA_2A-2A-66C		4CC-1
29	CA_5A-48A		4CC-83	29	CA_2A-4A-5A		4CC-19	29	CA_2A-2A-7A-12A		
30	CA_5A-5A		3CC-15	30	CA_2A-4A-71A		4CC-20	30	CA_2A-2A-7A-66A		5CC-33
31	CA_5A-66A		4CC-76	31	CA_2A-4A-7A		4CC-44	31	CA_2A-30A-66A-66A		4CC-15
32	CA_5A-7A		4CC-80	32	CA_2A-5A-30A		4CC-21	32	CA_2A-48A-48A-66A		6CC-1
33	CA_5B		3CC-15	33	CA_2A-5A-48A		4CC-46	33	CA_2A-48A-48C		4CC-4
34	CA_5C		3CC-15	34	CA_2A-5A-66A		4CC-48	34	CA_2A-48C-66A		4CC-32
35	CA_7A-12A		3CC-86	35	CA_2A-5A-7A		4CC-163	35	CA_2A-48D		4CC-32
36	CA_7A-13A		3CC-90	36	CA_2A-5B		3CC-32	36	CA_2A-4A-12A-12A		4CC-16
37	CA_7A-26A		3CC-91	37	CA_2A-66A-66A		3CC-2	37	CA_2A-4A-12B		4CC-16
38	CA_7A-29A	B29 SCC Only	3CC-88	38	CA_2A-66A-71A		4CC-55	38	CA_2A-4A-4A-12A		4CC-16
39	CA_7A-66A		3CC-86	39	CA_2A-66B		3CC-2	39	CA_2A-4A-4A-13A		4CC-17
40	CA_7A-7A		3CC-18	40	CA_2A-66C		3CC-2	40	CA_2A-4A-4A-5A		4CC-19
41	CA_7B		3CC-18	41	CA_2A-7A-12A		4CC-29	41	CA_2A-4A-4A-71A		4CC-20
42	CA_7C		3CC-18	42	CA_2A-7A-13A		4CC-64	42	CA_2A-4A-5A-5A		4CC-19
43	CA_12A-12A		3CC-1	43	CA_2A-7A-29A	B29 SCC Only	4CC-62	43	CA_2A-4A-5B		4CC-19



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44	CA_12A-25A			44	CA_2A-7A-66A		4CC-30	44	CA_2A-4A-7A-7A		
45	CA_12A-30A		3CC-1	45	CA_2A-7A-7A		3CC-31	45	CA_2A-4A-7C		4CC-44
46	CA_12A-66A		3CC-2	46	CA_2A-7C		3CC-31	46	CA_2A-5A-48A-48A		5CC-28
47	CA_12B		3CC-1	47	CA_2C-12A		3CC-1	47	CA_2A-5A-48C		4CC-46
48	CA_13A-48A		3CC-5	48	CA_2C-29A	B29 SCC Only	3CC-8	48	CA_2A-5A-5A-66A		5CC-16
49	CA_13A-66A		3CC-6	49	CA_2C-30A		3CC-8	49	CA_2A-5A-66A-66A		4CC-48
50	CA_14A-30A		3CC-7	50	CA_2C-5A		3CC-29	50	CA_2A-5A-66B		4CC-48
51	CA_14A-66A		3CC-108	51	CA_2C-66A		3CC-2	51	CA_2A-5A-66C		4CC-48
52	CA_25A-25A		3CC-111	52	CA_4A-12A-12A		3CC-23	52	CA_2A-5B-30A		4CC-21
53	CA_25A-26A		3CC-111	53	CA_4A-12A-30A		4CC-73	53	CA_2A-5B-66A		4CC-48
54	CA_25A-41A		3CC-112	54	CA_4A-12B		3CC-23	54	CA_2A-66A-66A-66A		4CC-48
55	CA_25A-48A			55	CA_4A-29A-30A	B29 SCC Only	4CC-75	55	CA_2A-66A-66A-71A		5CC-79
56	CA_26A-41A		3CC-117	56	CA_4A-48C		3CC-149	56	CA_2A-66A-66B		4CC-48
57	CA_29A-30A	B29 SCC Only	3CC-8	57	CA_4A-4A-12A		3CC-23	57	CA_2A-66A-66C		4CC-48
58	CA_29A-66A	B29 SCC Only	3CC-9	58	CA_4A-4A-13A		3CC-24	58	CA_2A-66C-71A		4CC-55
59	CA_30A-66A		3CC-118	59	CA_4A-4A-29A	B29 SCC Only	3CC-26	59	CA_2A-66D		4CC-48
60	CA_38A-38A		3CC-84	60	CA_4A-4A-30A		3CC-64	60	CA_2A-7A-12B		4CC-29
61	CA_38C		3CC-84	61	CA_4A-4A-5A		3CC-64	61	CA_2A-7A-66A-66A		5CC-33
62	CA_41A-41A		3CC-112	62	CA_4A-4A-71A		3CC-30	62	CA_2A-7A-7A-29A	B29 SCC Only	
63	CA_41C		3CC-112	63	CA_4A-4A-7A		3CC-66	63	CA_2A-7A-7A-66A		4CC-61
64	CA_48A-48A		3CC-73	64	CA_4A-5A-30A		4CC-77	64	CA_2A-7A-7A-13A		
65	CA_48A-66A		3CC-103	65	CA_4A-5B		3CC-64	65	CA_2A-7C-66A		4CC-61
66	CA_48C		3CC-73	66	CA_4A-7A-12A		4CC-81	66	CA_2A-7C-13A		4CC-46
67	CA_66A-66A		3CC-2	67	CA_4A-7A-7A		3CC-66	67	CA_2A-7C-29A	B29 SCC Only	4CC-62
68	CA_66A-71A		3CC-131	68	CA_4A-7C		3CC-66	68	CA_2C-12A-30A		4CC-10
69	CA_66B		3CC-2	69	CA_4C-12A		3CC-66	69	CA_2C-29A-30A	B29 SCC Only	4CC-14
70	CA_66C		3CC-2	70	CA_4C-5A		3CC-64	70	CA_2C-5A-66A		4CC-23
71	CA_48A-71A		3CC-139	71	CA_4C-7A		3CC-66	71	CA_2C-66A-66A		4CC-61
72	CA_2A-26A		3CC-141	72	CA_5A-30A-66A		4CC-82	72	CA_4A-48D		4CC-76
73	CA_4A-41A			73	CA_5A-48A-48A		3CC-74	73	CA_4A-4A-12A-30A		
74	CA_25C		3CC-111	74	CA_5A-48A-66A		4CC-83	74	CA_4A-4A-12B		4CC-73
75	CA_26A-66A		3CC-142	75	CA_5A-48C		3CC-74	75	CA_4A-4A-29A-30A	B29 SCC Only	
76	CA_7A-71A		3CC-156	76	CA_5A-5A-66A		3CC-81	76	CA_4A-4A-48A-48A		5CC-36
77	CA_25A-66A		3CC-164	77	CA_5A-66A-66A		3CC-81	77	CA_4A-4A-5A-30A		
78	CA_7A-25A		3CC-164	78	CA_5A-66B		3CC-81	78	CA_4A-4A-5A-5A		4CC-77
				79	CA_5A-66C		3CC-81	79	CA_4A-4A-5B		4CC-77
				80	CA_5A-7A-7A		3CC-81	80	CA_4A-5B-30A		4CC-77
				81	CA_5A-7A-66A		4CC-94	81	CA_4A-7A-12B		
				82	CA_5A-7C		3CC-81	82	CA_5A-30A-66A-66A		
				83	CA_5B-30A		3CC-72	83	CA_5A-48A-48A-66A		5CC-37
				84	CA_5B-38A			84	CA_5A-48A-48C		4CC-83
				85	CA_5B-66A		3CC-81	85	CA_5A-48C-66A		4CC-83
				86	CA_7A-12A-66A		4CC-100	86	CA_5A-48D		4CC-83
				87	CA_7A-12B		3CC-86	87	CA_5A-5A-66A-66A		4CC-83
				88	CA_7A-29A-66A	B29 SCC Only	4CC-102	88	CA_5A-5A-66B		4CC-83
				89	CA_7A-66A-66A		3CC-86	89	CA_5A-5A-66C		4CC-83
				90	CA_7A-7A-13A		3CC-42	90	CA_5A-66A-66A-66A		4CC-83
				91	CA_7A-7A-26A		3CC-141	91	CA_5A-66A-66B		4CC-83
				92	CA_7A-7A-29A	B29 SCC Only	3CC-88	92	CA_5A-66A-66C		4CC-83
				93	CA_7A-7A-66A		3CC-86	93	CA_5A-66D		4CC-83
				94	CA_7C-29A	B29 SCC Only	3CC-88	94	CA_5A-7A-66A-66A		5CC-42
				95	CA_7C-66A		3CC-86	95	CA_5A-7C-66A		4CC-94
				96	CA_7C-13A		3CC-90	96	CA_5B-30A-66A		4CC-82
				97	CA_12A-12A-66A		3CC-86	97	CA_5B-66A-66A		4CC-82
				98	CA_12A-30A-66A		4CC-106	98	CA_5B-66B		4CC-82
				99	CA_12A-66A-66A		3CC-86	99	CA_5B-66C		4CC-82



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			100	CA_12A-66C		3CC-86	100	CA_7A-12A-66A-66A		
			101	CA_12B-66A		3CC-86	101	CA_7A-12B-66A		4CC-101
			102	CA_13A-48A-48A		3CC-102	102	CA_7A-7A-29A-66A	B29 SCC Only	
			103	CA_13A-48A-66A		4CC-108	103	CA_7A-7A-66A-66A		4CC-102
			104	CA_13A-48C		3CC-102	104	CA_7C-29A-66A	B29 SCC Only	4CC-102
			105	CA_13A-66A-66A		3CC-102	105	CA_7C-66A-66A		4CC-102
			106	CA_13A-66B		3CC-102	106	CA_12A-30A-66A-66A		
			107	CA_13A-66C		3CC-102	107	CA_12B-66A-66A		4CC-106
			108	CA_14A-30A-66A		4CC-118	108	CA_13A-48A-48A-66A		5CC-44
			109	CA_14A-66A-66A		3CC-109	109	CA_13A-48A-48C		4CC-108
			110	CA_25A-25A-25A		3CC-111	110	CA_13A-48A-66B		4CC-108
			111	CA_25A-25A-26A			111	CA_13A-48A-66C		4CC-108
			112	CA_25A-25A-41A		4CC-119	112	CA_13A-48C-66A		4CC-108
			113	CA_25C-26A		3CC-111	113	CA_13A-48D		4CC-108
			114	CA_25A-25C		3CC-111	114	CA_13A-66A-66A-66A		4CC-108
			115	CA_25A-41C		3CC-112	115	CA_13A-66A-66B		4CC-108
			116	CA_25D		3CC-111	116	CA_13A-66A-66C		4CC-108
			117	CA_26A-41C			117	CA_13A-66D		4CC-108
			118	CA_29A-30A-66A	B29 SCC Only	4CC-121	118	CA_14A-30A-66A-66A		
			119	CA_29A-66A-66A	B29 SCC Only	3CC-118	119	CA_25A-25A-41C		5CC-50
			120	CA_30A-66A-66A		3CC-118	120	CA_25A-41D		4CC-119
			121	CA_41A-41C		3CC-112	121	CA_29A-30A-66A-66A	B29 SCC Only	
			122	CA_41D		3CC-112	122	CA_41A-41A-41C		4CC-119
			123	CA_48A-48A-66A		3CC-74	123	CA_41A-41D		4CC-119
			124	CA_48A-48C		3CC-74	124	CA_41C-41C		4CC-119
			125	CA_48A-66A-66A		3CC-74	125	CA_41E		4CC-119
			126	CA_48A-66B		3CC-74	126	CA_48A-48A-66A-66A		4CC-108
			127	CA_48A-66C		3CC-74	127	CA_48A-48A-66B		4CC-108
			128	CA_48C-66A		3CC-74	128	CA_48A-48A-66C		4CC-108
			129	CA_48D		3CC-74	129	CA_48A-48D		4CC-108
			130	CA_66A-66A-66A		3CC-74	130	CA_48A-48C-66A		4CC-108
			131	CA_66A-66A-71A		3CC-38	131	CA_48A-66A-66A-66A		4CC-108
			132	CA_66A-66B		3CC-74	132	CA_48C-48C		4CC-108
			133	CA_66A-66C		3CC-74	133	CA_48C-66A-66A		4CC-108
			134	CA_66C-71A		3CC-131	134	CA_48C-66B		4CC-108
			135	CA_66D		3CC-74	135	CA_48C-66C		4CC-108
			136	CA_2A-14A-66A		4CC-146	136	CA_48D-66A		4CC-108
			137	CA_2A-2A-14A		4CC-146	137	CA_48E		4CC-108
			138	CA_48C-48A		3CC-74	138	CA_66B-66C		4CC-108
			139	CA_48A-48A-71A			139	CA_2A-2A-2A-12A		5CC-8
			140	CA_48C-71A		3CC-139	140	CA_2A-2A-2A-5A		5CC-70
			141	CA_2A-7A-26A			141	CA_2A-2A-2A-30A		5CC-70
			142	CA_2A-26A-66A			142	CA_2A-2A-2A-66A		5CC-8
			143	CA_7A-26A-66A			143	CA_2A-2A-14A-66A		5CC-11
			144	CA_7A-13A-66A		4CC-144	144	CA_7C-13A-66A		4CC-168
			145	CA_2A-5A-5A		3CC-35	145	CA_14A-66A-66A-66A		5CC-11
			146	CA_4A-5A-5A		4CC-77	146	CA_2A-2A-14A-30A		5CC-72
			147	CA_4A-7A-29A	B29 SCC Only	4CC-150	147	CA_2A-2A-29A-66A	B29 SCC Only	5CC-75
			148	CA_4A-4A-48A		4CC-76	148	CA_2A-29A-66A-66A	B29 SCC Only	4CC-147
			149	CA_4A-48A-48A		3CC-149	149	CA_2A-48C-48A		4CC-32
			150	CA_25C-41A		3CC-112	150	CA_4A-7A-7A-29A	B29 SCC Only	
			151	CA_41A-41A-41A		3CC-112	151	CA_2C-5A-30A		5CC-70
			152	CA_41C-41A		3CC-112	152	CA_2C-5B		4CC-48
			153	CA_66B-66A		3CC-74	153	CA_5A-48C-48A		5CC-37
			154	CA_4A-7A-71A			154	CA_13A-48C-48A		5CC-44
			155	CA_2A-2A-2A		3CC-1	155	CA_25C-41C		4CC-119



			36	CA_4A-48E						
			37	CA_5A-48A-48C-66A						
			38	CA_5A-48A-48D			5CC-28			
			39	CA_5A-48C-48C			5CC-28			
			40	CA_5A-48D-66A			5CC-37			
			41	CA_5A-48E			5CC-28			
			42	CA_5A-7C-66A-66A						
			43	CA_13A-48A-48D			5CC-44			
			44	CA_13A-48A-48C-66A						
			45	CA_13A-48C-48C			5CC-44			
			46	CA_13A-48C-66B			5CC-44			
			47	CA_13A-48C-66C			5CC-44			
			48	CA_13A-48D-66A			5CC-44			
			49	CA_13A-48E			5CC-44			
			50	CA_25A-25A-41D						
			51	CA_25C-41D			5CC-50			
			52	CA_41C-41D			5CC-50			
			53	CA_41F			5CC-50			
			54	CA_48A-48E			5CC-44			
			55	CA_48A-48C-66B			5CC-44			
			56	CA_48A-48C-66C			5CC-44			
			57	CA_48A-48D-66A			5CC-44			
			58	CA_48C-48D			5CC-44			
			59	CA_48C-48C-66A			5CC-44			
			60	CA_48C-66A-66A-66A			5CC-44			
			61	CA_48E-66A			5CC-44			
			62	CA_48F			5CC-44			
			63	CA_2A-2A-30A-66A-66A						
			64	CA_2A-12A-66A-66A-66A			5CC-8			
			65	CA_2A-30A-66A-66A-66A			5CC-63			
			66	CA_2A-5A-66A-66A-66A			5CC-16			
			67	CA_2A-2A-2A-12A-30A						
			68	CA_2A-2A-2A-12A-66A			5CC-8			
			69	CA_2A-2A-2A-30A-66A			5CC-63			
			70	CA_2A-2A-2A-5A-30A						
			71	CA_2A-2A-2A-5A-66A			5CC-16			
			72	CA_2A-2A-2A-14A-30A						
			73	CA_2A-2A-2A-14A-66A			5CC-11			
			74	CA_2A-2A-2A-29A-30A	B29 SCC Only					
			75	CA_2A-2A-2A-29A-66A	B29 SCC Only					
			76	CA_2A-29A-66A-66A-66A	B29 SCC Only					
			77	CA_2A-2A-5B-30A			5CC-70			
			78	CA_2A-2A-7A-66A-66A			5CC-33			
			79	CA_2A-2A-66A-66A-71A						
			80	CA_2A-5A-5A-66A-66A			5CC-16			
			81	CA_7A-7A-25A-25A-66A						

<Power verification when LTE Carrier Aggregation Active>

General Note:

- i. According to KDB941225 D05A v01r02, Uplink maximum output power measurement with downlink carrier aggregation active should be measured, using the highest output channel measured without downlink carrier aggregation, to confirm that uplink maximum output power with downlink carrier aggregation active remains within the specified tune-up tolerance limits and not more than ¼ Db higher than the maximum output measured without downlink carrier aggregation active.
- ii. Uplink maximum output power with downlink carrier aggregation active does not show more than ¼ Db higher than the maximum output power without downlink carrier aggregation active, therefore SAR evaluation with downlink carrier aggregation active can be excluded.
- iii. The device supports downlink two carrier aggregation. For power measurement were control and acknowledge data is sent on uplink channels that operate identical to specifications when downlink carrier aggregation is inactive.
- iv. Selected highest measured power when downlink carrier aggregation is inactive for conducted power comparison with downlink carrier aggregation is active, to confirm that when downlink carrier aggregation is active uplink maximum output power remains within the specified tune-up tolerance limits and not more than ¼ dB higher than the maximum output power measured when downlink carrier aggregation inactive.
- v. For non-contiguous intra-band CA, the SCC selected to provide maximum separation from the PCC and must remain fully within the downlink transmission band.
- vi. For Intra-band, contiguous CA, the downlink 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.

$$\text{Nominal channel spacing} = \left\lceil \frac{BW_{\text{Channel}(1)} + BW_{\text{Channel}(2)} - 0.1|BW_{\text{Channel}(1)} - BW_{\text{Channel}(2)}|}{0.6} \right\rceil 0.3 \text{ [MHz]}$$

<Two Carrier power verification>

Configure	CA Configuration (BCS)	PCC							SCC				Power	
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx.Power (dBm)	W/O CA Tx.Power (dBm)
Inter-Band	CA_5A-25A	5	10	836.5	20525	QPSK	1	0	25	20	1960	8340	24.65	24.71
	CA_5A-41A	5	10	836.5	20525	QPSK	1	0	41	20	2593	40620	24.55	24.71
	CA_12A-25A	12	10	707.5	23095	QPSK	1	0	25	20	1960	8340	24.18	24.34
	CA_25A-48A	25	20	1880	26340	QPSK	1	0	48	20	3609	55830	24.15	24.16
	CA_4A-41A	4	20	1732.5	20175	QPSK	1	0	41	20	2593	40620	24.02	24.15

<Three Carrier power verification>

Configure	CA Configuration (BCS)	PCC							SCC1				SCC2				Power	
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx.Power (dBm)	W/O CA Tx.Power (dBm)
Inter-Band	CA_2A-4A-17A	2	20	1880	18900	QPSK	1	0	4	20	2132.5	2175	17	10	740	5790	23.91	24.11
	CA_2A-4A-29A	2	20	1880	18900	QPSK	1	0	4	20	2132.5	2175	29	10	722.5	9715	24.03	24.11
	CA_2A-4A-30A	2	20	1880	18900	QPSK	1	0	4	20	2132.5	2175	30	10	2355	9820	23.97	24.11
	CA_5B-38A	5	10	831.6	20476	QPSK	1	0	5	10	886.5	2575	38	20	2595	38000	24.52	24.71
	CA_25A-25A-26A	25	20	1880	26340	QPSK	1	0	25	5	1940	8140	26	5	876.5	8865	23.98	24.16
	CA_26A-41C	26	15	831.5	26865	QPSK	1	0	41	20	2593	40620	41	20	2612.8	40818	24.55	24.62
	CA_26A-41C	26	15	836.5	26915	QPSK	1	0	41	20	2593	40620	41	20	2612.8	40818	24.55	24.68
	CA_48A-48A-71A	48	20	3609	55830	QPSK	1	0	48	5	3697.5	56715	71	20	637	68786	22.79	22.88
	CA_2A-7A-26A	2	20	1880	18900	QPSK	1	0	7	20	2655	3100	26	15	876.5	8865	23.95	24.11
	CA_2A-26A-66A	2	20	1880	18900	QPSK	1	0	26	15	876.5	8865	66	20	2155	66886	23.93	24.11
	CA_7A-26A-66A	7	20	2535	21100	QPSK	1	0	26	15	876.5	8865	66	20	2155	66886	24.28	24.40
	CA_4A-7A-71A	4	20	1732.5	20175	QPSK	1	0	7	20	2655	3100	71	20	637	68786	24.12	24.15



<Four Carrier power verification>

Configure	CA Configuration (BCS)	PCC							SCC1				SCC2				SCC3				Power	
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx.Power (dBm)	W/O CA Tx.Power (dBm)
Inter-Band	CA_2A-2A-4A-12A	2	20	1880	18900	QPSK	1	0	2	5	1932.5	625	4	20	2132.5	2175	12	10	737.5	5095	23.99	24.11
	CA_2A-2A-4A-71A	2	20	1880	18900	QPSK	1	0	2	5	1932.5	625	4	20	2132.5	2175	71	20	637	68786	24.09	24.11
	CA_2A-2A-7A-12A	2	20	1880	18900	QPSK	1	0	2	5	1932.5	625	7	20	2655	3100	12	10	737.5	5095	23.94	24.11
	CA_2A-4A-7A-7A	2	20	1880	18900	QPSK	1	0	4	20	2132.5	2175	7	20	2655	3100	7	5	2622.5	2775	24.04	24.11
	CA_2A-7A-7A-29A	2	20	1880	18900	QPSK	1	0	7	20	2655	3100	7	5	2622.5	2775	29	10	722.5	9715	23.95	24.11
	CA_2A-7A-7A-13A	2	20	1880	18900	QPSK	1	0	7	20	2655	3100	7	5	2622.5	2775	13	10	751	5230	23.93	24.11
	CA_4A-4A-12A-30A	4	20	1732.5	20175	QPSK	1	0	4	5	2112.5	1975	12	10	737.5	5095	30	10	2355	9820	24.00	24.15
	CA_4A-4A-29A-30A	4	20	1732.5	20175	QPSK	1	0	4	5	2112.5	1975	29	10	722.5	9715	30	10	2355	9820	24.00	24.15
	CA_4A-4A-5A-30A	4	20	1732.5	20175	QPSK	1	0	4	5	2112.5	1975	5	10	881.5	2525	30	10	2355	9820	24.13	24.15
	CA_4A-7A-12B	4	20	1732.5	20175	QPSK	1	0	7	20	2655	3100	12	10	732.8	5048	12	5	740	5120	24.07	24.15
	CA_5A-30A-66A-66A	5	10	836.5	20525	QPSK	1	0	30	10	2355	9820	66	20	2155	66886	66	5	2112.5	66461	24.61	24.71
	CA_7A-12A-66A-66A	7	20	2535	21100	QPSK	1	0	12	10	737.5	5095	66	20	2155	66886	66	5	2112.5	66461	24.27	24.40
	CA_7A-7A-29A-66A	7	20	2535	21100	QPSK	1	0	7	5	2622.5	2775	29	10	722.5	9715	66	20	2155	66886	24.20	24.40
	CA_12A-30A-66A-66A	12	10	707.5	23095	QPSK	1	0	30	10	2355	9820	66	20	2155	66886	66	5	2112.5	66461	24.30	24.34
	CA_14A-30A-66A-66A	14	10	793	23330	QPSK	1	0	30	10	2355	9820	66	20	2155	66886	66	5	2112.5	66461	24.31	24.44
	CA_29A-30A-66A-66A	30	10	2310	27710	QPSK	1	0	29	10	722.5	9715	66	20	2155	66886	66	5	2112.5	66461	23.36	23.56
	CA_4A-7A-7A-29A	4	20	1732.5	20175	QPSK	1	0	7	20	2655	3100	7	5	2622.5	2775	29	10	722.5	9715	24.12	24.15
	CA_2A-2A-7A-71A	2	20	1880	18900	QPSK	1	0	2	5	1932.5	625	7	20	2655	3100	71	20	637	68786	24.06	24.11
	CA_2A-5A-7A-7A	2	20	1880	18900	QPSK	1	0	5	10	881.5	2525	7	20	2655	3100	7	5	2622.5	2775	23.98	24.11
	CA_7A-66A-66A-71A	7	20	2535	21100	QPSK	1	0	66	20	2155	66886	66	5	2112.5	66461	71	20	637	68786	24.38	24.40
CA_7A-7A-13A-66A	7	20	2535	21100	QPSK	1	0	7	5	2622.5	2775	13	10	751	5230	66	20	2155	66886	24.26	24.40	



<Five Carrier power verification>

Configure	CA Configuration (BCS)	PCC						SCC1				SCC2				SCC3				SCC4				Power				
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel
Inter-Band	CA_2A-13A-48A-48C	2	20	1880	18900	QPSK	1	0	13	10	751	5230	48	20	3609	55830	48	5	3697.5	56715	48	20	3685.8	56598	24.00	24.11		
	CA_2A-2A-12A-66A-66A	2	20	1880	18900	QPSK	1	0	2	5	1931.5	625	12	10	737.5	5095	66	20	2155	66886	66	5	2112.5	66486	24.01	24.11		
	CA_2A-2A-13A-66A-66A	2	20	1880	18900	QPSK	1	0	2	5	1931.5	625	13	10	751	5230	66	20	2155	66886	66	5	2112.5	66486	23.95	24.11		
	CA_2A-2A-14A-66A-66A	2	20	1880	18900	QPSK	1	0	2	5	1931.5	625	14	10	763	5330	66	20	2155	66886	66	5	2112.5	66486	24.09	24.11		
	CA_2A-2A-29A-66A-66A	2	20	1880	18900	QPSK	1	0	2	5	1931.5	625	29	10	722.5	9715	66	20	2155	66886	66	5	2112.5	66486	24.02	24.11		
	CA_2A-2A-4A-4A-13A	2	20	1880	18900	QPSK	1	0	2	5	1931.5	625	4	20	2132.5	2175	4	5	2112.5	1975	13	10	751	5230	24.04	24.11		
	CA_2A-2A-4A-4A-5A	2	20	1880	18900	QPSK	1	0	2	5	1931.5	625	4	20	2132.5	2175	4	5	2112.5	1975	5	10	881.5	2525	24.10	24.11		
	CA_2A-2A-5A-66A-66A	2	20	1880	18900	QPSK	1	0	2	5	1931.5	625	5	10	881.5	2525	66	20	2155	66886	66	5	2112.5	66486	24.02	24.11		
	CA_2A-5A-48A-48C	2	20	1880	18900	QPSK	1	0	5	10	881.5	2525	48	20	3609	55830	48	5	3697.5	56715	48	20	3685.8	56598	23.95	24.11		
	CA_2A-7A-7A-66A-66A	2	20	1880	18900	QPSK	1	0	7	20	2655	3100	7	5	2622.5	2775	66	20	2155	66886	66	5	2112.5	66486	24.07	24.11		
	CA_4A-48E	4	20	1732.5	20175	QPSK	1	0	48	20	3609	55830	48	20	3628.8	56028	48	20	3648.6	56226	48	20	3668.4	56424	24.14	24.15		
	CA_5A-48A-48C-66A	5	10	836.5	20525	QPSK	1	0	48	20	3609	55830	48	5	3697.5	56715	48	20	3685.8	56598	66	20	2155	66886	24.55	24.71		
	CA_5A-7C-66A-66A	5	10	836.5	20525	QPSK	1	0	7	20	2655	3100	7	20	2674.8	3298	66	20	2155	66886	66	5	2112.5	66486	24.58	24.71		
	CA_13A-48A-48C-66A	13	10	782	23230	QPSK	1	0	48	20	3609	55830	48	5	3697.5	56715	48	20	3685.8	56598	66	20	2155	66886	24.24	24.26		
	CA_25A-25A-41D	25	20	1880	26340	QPSK	1	0	25	5	1932.5	8065	41	20	2593	40620	41	20	2612.8	40818	41	20	2632.6	41016	23.97	24.16		
	CA_2A-2A-30A-66A-66A	2	20	1880	18900	QPSK	1	0	2	5	1931.5	625	30	10	2355	9820	66	20	2155	66886	66	5	2112.5	66486	24.03	24.11		
	CA_2A-2A-2A-12A-30A	2	20	1880	18900	QPSK	1	0	2	5	1931.5	625	2	5	1987.5	1175	12	10	737.5	5095	30	10	2355	9820	24.07	24.11		
	CA_2A-2A-2A-5A-30A	2	20	1880	18900	QPSK	1	0	2	5	1931.5	625	2	5	1987.5	1175	5	10	881.5	2525	30	10	2355	9820	23.99	24.11		
	CA_2A-2A-2A-14A-30A	2	20	1880	18900	QPSK	1	0	2	5	1931.5	625	2	5	1987.5	1175	14	10	763	5330	30	10	2355	9820	24.02	24.11		
	CA_2A-2A-2A-29A-30A	2	20	1880	18900	QPSK	1	0	2	5	1931.5	625	2	5	1987.5	1175	29	10	722.5	9715	30	10	2355	9820	23.93	24.11		
	CA_2A-2A-2A-29A-66A	2	20	1880	18900	QPSK	1	0	2	5	1931.5	625	2	5	1987.5	1175	29	10	722.5	9715	66	20	2155	66886	23.99	24.11		
	CA_2A-29A-66A-66A-66A	2	20	1880	18900	QPSK	1	0	29	10	722.5	9715	66	20	2155	66886	66	5	2112.5	66461	66	5	2197.5	67311	24.00	24.11		
	CA_2A-2A-66A-66A-71A	2	20	1880	18900	QPSK	1	0	2	5	1931.5	625	66	20	2155	66886	66	5	2112.5	66461	71	20	637	68786	23.98	24.11		
	CA_7A-7A-25A-25A-66A	7	20	2535	21100	QPSK	1	0	7	5	2622.5	2775	25	20	1960	8340	25	5	1932.5	8065	66	20	2155	66886	24.20	24.40		

<Six Carrier power verification>

Configure	CA Configuration (BCS)	PCC						SCC1				SCC2				SCC3				SCC4				SCC5		Power				
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx.Power (dBm)	W/O CA Tx.Power (dBm)
Inter-Band	CA_2A-48E-66A	2	20	1880	18900	QPSK	1	0	48	20	3609	55830	48	20	3628.8	56028	48	20	3648.6	56226	48	20	3668.4	56424	66	20	2155	66886	23.91	24.11

<LTE Uplink carrier aggregation>

2CC Uplink Carrier Aggregation	
Number	Combination
1	CA_5B
2	CA_7C
3	CA_66B
4	CA_66C
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.

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Index 1/2/3/4/5/6/7								
CA_5B								
Combination 10MHz+10MHz (50RB+50RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20450	20549	QPSK	1	49	1	0	22.04	23.50
20575	20476	QPSK	1	0	1	49	22.06	23.50
20600	20501	QPSK	1	0	1	49	22.11	23.50

Index 1/2/3/7								
CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	22.64	24.20
21100	20902	QPSK	1	0	1	99	22.83	24.20
21350	21152	QPSK	1	0	1	99	22.81	24.20



Index 4								
CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	18.51	19.20
21100	20902	QPSK	1	0	1	99	18.63	19.20
21350	21152	QPSK	1	0	1	99	18.61	19.20

Index 5/6								
CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	18.51	20.00
21100	20902	QPSK	1	0	1	99	18.63	20.00
21350	21152	QPSK	1	0	1	99	18.61	20.00

Index 1/2/3/7								
CA_66B								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132047	132140	QPSK	1	74	1	0	18.16	19.25
132322	132229	QPSK	1	0	1	24	18.11	19.25
132597	132504	QPSK	1	0	1	24	18.09	19.25

Index 4								
CA_66B								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132047	132140	QPSK	1	74	1	0	18.16	19.25
132322	132229	QPSK	1	0	1	24	18.11	19.25
132597	132504	QPSK	1	0	1	24	18.09	19.25

Index 5								
CA_66B								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132047	132140	QPSK	1	74	1	0	18.16	19.25
132322	132229	QPSK	1	0	1	24	18.11	19.25
132597	132504	QPSK	1	0	1	24	18.09	19.25

Index 6								
CA_66B								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132047	132140	QPSK	1	74	1	0	18.16	19.25
132322	132229	QPSK	1	0	1	24	18.11	19.25
132597	132504	QPSK	1	0	1	24	18.09	19.25

Index 1/2/3/7								
CA_66C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132072	132270	QPSK	1	99	1	0	18.26	19.25
132322	132124	QPSK	1	0	1	99	18.18	19.25
132572	132374	QPSK	1	0	1	99	18.11	19.25

Index 4								
CA_66C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132072	132270	QPSK	1	99	1	0	18.26	19.25
132322	132124	QPSK	1	0	1	99	18.18	19.25
132572	132374	QPSK	1	0	1	99	18.11	19.25

Index 5								
CA_66C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132072	132270	QPSK	1	99	1	0	18.26	19.25
132322	132124	QPSK	1	0	1	99	18.18	19.25
132572	132374	QPSK	1	0	1	99	18.11	19.25

Index 6								
CA_66C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132072	132270	QPSK	1	99	1	0	18.26	19.25
132322	132124	QPSK	1	0	1	99	18.18	19.25
132572	132374	QPSK	1	0	1	99	18.11	19.25

Index 1/2/3/7								
CA_41C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	21.67	23.40
40185	39987	QPSK	1	0	1	99	21.59	23.40
40620	40422	QPSK	1	0	1	99	21.76	23.40
41055	40857	QPSK	1	0	1	99	21.56	23.40
41490	41292	QPSK	1	0	1	99	21.68	23.40



Index 4								
CA_41C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	19.63	20.60
40185	39987	QPSK	1	0	1	99	19.68	20.60
40620	40422	QPSK	1	0	1	99	19.83	20.60
41055	40857	QPSK	1	0	1	99	19.65	20.60
41490	41292	QPSK	1	0	1	99	19.71	20.60

Index 5/6								
CA_41C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	19.63	21.40
40185	39987	QPSK	1	0	1	99	19.68	21.40
40620	40422	QPSK	1	0	1	99	19.83	21.40
41055	40857	QPSK	1	0	1	99	19.65	21.40
41490	41292	QPSK	1	0	1	99	19.71	21.40

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Index 1/2/3/4/5/6/7								
CA_5B								
Combination 10MHz+10MHz (50RB+50RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20450	20549	QPSK	1	49	1	0	21.65	23.20
20575	20476	QPSK	1	0	1	49	21.71	23.20
20600	20501	QPSK	1	0	1	49	21.62	23.20

Index 1/2/3/7								
CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	22.36	24.20
21100	20902	QPSK	1	0	1	99	22.42	24.20
21350	21152	QPSK	1	0	1	99	22.38	24.20

Index 4								
CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	21.65	23.10
21100	20902	QPSK	1	0	1	99	21.76	23.10
21350	21152	QPSK	1	0	1	99	21.71	23.10



Index 5/6								
CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	21.65	23.30
21100	20902	QPSK	1	0	1	99	21.76	23.30
21350	21152	QPSK	1	0	1	99	21.71	23.30

Index 1/2/3/7								
CA_66B								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132047	132140	QPSK	1	74	1	0	17.47	18.75
132322	132229	QPSK	1	0	1	24	17.50	18.75
132597	132504	QPSK	1	0	1	24	17.49	18.75

Index 4								
CA_66B								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132047	132140	QPSK	1	74	1	0	17.47	18.75
132322	132229	QPSK	1	0	1	24	17.50	18.75
132597	132504	QPSK	1	0	1	24	17.49	18.75

Index 5								
CA_66B								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132047	132140	QPSK	1	74	1	0	17.47	18.75
132322	132229	QPSK	1	0	1	24	17.50	18.75
132597	132504	QPSK	1	0	1	24	17.49	18.75

Index 6								
CA_66B								
Combination 15MHz+5MHz (75RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132047	132140	QPSK	1	74	1	0	17.47	18.75
132322	132229	QPSK	1	0	1	24	17.50	18.75
132597	132504	QPSK	1	0	1	24	17.49	18.75

Index 1/2/3/7								
CA_66C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132072	132270	QPSK	1	99	1	0	17.52	18.75
132322	132124	QPSK	1	0	1	99	17.56	18.75
132572	132374	QPSK	1	0	1	99	17.54	18.75



Index 4								
CA_66C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132072	132270	QPSK	1	99	1	0	17.52	18.75
132322	132124	QPSK	1	0	1	99	17.56	18.75
132572	132374	QPSK	1	0	1	99	17.54	18.75

Index 5								
CA_66C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132072	132270	QPSK	1	99	1	0	17.52	18.75
132322	132124	QPSK	1	0	1	99	17.56	18.75
132572	132374	QPSK	1	0	1	99	17.54	18.75

Index 6								
CA_66C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
132072	132270	QPSK	1	99	1	0	17.52	18.75
132322	132124	QPSK	1	0	1	99	17.56	18.75
132572	132374	QPSK	1	0	1	99	17.54	18.75

Index 1/2/3/4/5/6/7								
CA_41C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	1	99	1	0	20.65	22.20
40185	39987	QPSK	1	0	1	99	20.77	22.20
40620	40422	QPSK	1	0	1	99	20.92	22.20
41055	40857	QPSK	1	0	1	99	20.91	22.20
41490	41292	QPSK	1	0	1	99	20.88	22.20

14. 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 6	≤ 25mm	≤ 25mm	> 25mm	≤ 25mm	≤ 25mm	≤ 25mm
2.4GHz WLAN Ant 4	≤ 25mm	≤ 25mm	≤ 25mm	> 25mm	≤ 25mm	≤ 25mm
2.4GHz WLAN Ant 3	≤ 25mm	≤ 25mm	≤ 25mm	> 25mm	≤ 25mm	≤ 25mm
WLAN/BT Ant 4+3	≤ 25mm	≤ 25mm	≤ 25mm	> 25mm	≤ 25mm	≤ 25mm

Positions for SAR tests; Hotspot mode						
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 6	Yes	Yes	No	Yes	Yes	Yes
2.4GHz WLAN Ant 4	Yes	Yes	Yes	No	Yes	Yes
2.4GHz WLAN Ant 3	Yes	Yes	Yes	No	Yes	Yes
WLAN/BT Ant 4+3	Yes	Yes	Yes	No	Yes	Yes

General Note:

1. Referring to KDB 941225 D06 v02r01, when the overall device length and width are ≥ 9cm*5cm, 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
2. The antenna location is illustrated in the Appendix E.



15. 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:
 - ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
 - ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
 - ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz
3. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is ≥ 0.8 W/kg.
4. Per KDB 648474 D04v01r03, when the reported SAR for a body-worn accessory measured without a headset connected to the handset is ≤ 1.2 W/kg, SAR testing with a headset connected to the handset is not required.
5. Per KDB648474 D04v01r03, for smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm, when hotspot mode applies, 10-g product specific SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg, however, when power reduction applies to hotspot mode the measured SAR must be scaled to the maximum output power, including tolerance, allowed for phablet modes to compare with the 1.2 W/kg SAR test reduction threshold, for this device the GSM1900, WCDMA B2/4, LTE B25/66, FR1 n25/66 Bottom Side, WLAN 5.2GHz, 5.3GHz, 5.5GHz, 5.8GHz UNII-4 and 6GHz product specific SAR is necessary.
6. For 5.3GHz / 5.5GHz / 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 $\leq \frac{1}{4}$ 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 ≤ 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 ≤ 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 ≤ 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 ≤ 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 ≤ 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 ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device
 - e. For 5G FR1 n5/n12/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 was performed using Factory Test Mode software to establish the connection and perform SAR with 100% transmission. And only for TDD power class2 was performed using Factory Test Mode software to establish the connection and perform SAR with 50% transmission
 - g. NR n2 SAR test was covered by NR n25; SAR test for overlapping bands can be reduced if the maximum output power, including tolerance, for the smaller band is \leq the larger band and the channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band to qualify for the SAR test exclusion.

**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. For OFDM transmission configurations in the 2.4 GHz / 5 GHz / 6GHz 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
3. Per KDB 248227 D01v02r02, WLAN5.2GHz SAR testing is not required when the WLAN5.3GHz band highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for WLAN5.2GHz band.
4. When the reported SAR of the test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is ≤ 0.8 W/kg or all required test position are tested.
5. For all positions / configurations, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions / configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.
6. 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
7. During SAR testing the WLAN transmission was verified using a spectrum analyzer.

WLAN PD Note:

1. 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.
2. Absorbed power density (APD) using a 4cm² averaging area is reported based on SAR measurements.
3. Power density was calculated by repeated E-field measurements on two measurement planes separated by $\lambda/4$.
4. 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.
5. Per FCC guidance and equipment manufacturer guidance, 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.
6. The measurement procedure consists of measuring the PD_{inc} 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_n fulfill the criterion described below. Since iPD ratio between the two distances is ≥ -1 dB, the grid step (0.0625) was sufficient for determining compliance at d=2mm.

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



15.1 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)
	GSM850_Ant 0	GPRS (4 Tx slots)	Right Cheek	0mm	2/3	128	824.2	29.42	30.50	1.282	-0.09	0.316	0.405
	GSM850_Ant 0	GPRS (4 Tx slots)	Right Tilted	0mm	2/3	128	824.2	29.42	30.50	1.282	-0.17	0.180	0.231
	GSM850_Ant 0	GPRS (4 Tx slots)	Left Cheek	0mm	2/3	128	824.2	29.42	30.50	1.282	0.01	0.434	0.557
	GSM850_Ant 0	GPRS (4 Tx slots)	Left Cheek	0mm	2/3	189	836.4	29.35	30.50	1.303	0.06	0.493	0.642
	GSM850_Ant 0	GPRS (4 Tx slots)	Left Cheek	0mm	2/3	251	848.8	29.24	30.50	1.337	-0.11	0.481	0.643
	GSM850_Ant 0	GPRS (4 Tx slots)	Left Tilted	0mm	2/3	128	824.2	29.42	30.50	1.282	-0.04	0.242	0.310
	GSM850_Ant 1	GPRS (4 Tx slots)	Right Cheek	0mm	2	189	836.4	28.18	29.00	1.208	-0.1	0.740	0.894
01	GSM850_Ant 1	GPRS (4 Tx slots)	Right Cheek	0mm	2	128	824.2	27.95	29.00	1.274	-0.17	0.921	1.173
	GSM850_Ant 1	GPRS (4 Tx slots)	Right Cheek	0mm	2	251	848.8	28.15	29.00	1.216	-0.19	0.672	0.817
	GSM850_Ant 1	GPRS (4 Tx slots)	Right Tilted	0mm	2	189	836.4	28.18	29.00	1.208	-0.12	0.630	0.761
	GSM850_Ant 1	GPRS (4 Tx slots)	Left Cheek	0mm	2	189	836.4	28.18	29.00	1.208	-0.15	0.475	0.574
	GSM850_Ant 1	GPRS (4 Tx slots)	Left Tilted	0mm	2	189	836.4	28.18	29.00	1.208	-0.15	0.357	0.431
	GSM850_Ant 1	GPRS (4 Tx slots)	Right Cheek	0mm	3	189	836.4	28.18	28.20	1.005	-0.1	0.740	0.743
	GSM850_Ant 1	GPRS (4 Tx slots)	Right Cheek	0mm	3	128	824.2	27.95	28.20	1.059	-0.17	0.921	0.976
	GSM850_Ant 1	GPRS (4 Tx slots)	Right Cheek	0mm	3	251	848.8	28.15	28.20	1.012	-0.19	0.672	0.680
	GSM850_Ant 1	GPRS (4 Tx slots)	Right Tilted	0mm	3	189	836.4	28.18	28.20	1.005	-0.12	0.630	0.633
	GSM850_Ant 1	GPRS (4 Tx slots)	Left Cheek	0mm	3	189	836.4	28.18	28.20	1.005	-0.15	0.475	0.477
	GSM850_Ant 1	GPRS (4 Tx slots)	Left Tilted	0mm	3	189	836.4	28.18	28.20	1.005	-0.15	0.357	0.359
	GSM1900_Ant 2	GPRS (4 Tx slots)	Right Cheek	0mm	2/3	512	1850.2	26.56	27.85	1.346	-0.05	0.157	0.211
	GSM1900_Ant 2	GPRS (4 Tx slots)	Right Cheek	0mm	2/3	661	1880	26.55	27.85	1.349	-0.03	0.148	0.200
	GSM1900_Ant 2	GPRS (4 Tx slots)	Right Cheek	0mm	2/3	810	1909.8	26.51	27.85	1.361	-0.09	0.178	0.242
	GSM1900_Ant 2	GPRS (4 Tx slots)	Right Tilted	0mm	2/3	512	1850.2	26.56	27.85	1.346	-0.06	0.053	0.071
	GSM1900_Ant 2	GPRS (4 Tx slots)	Left Cheek	0mm	2/3	512	1850.2	26.56	27.85	1.346	-0.14	0.074	0.100
	GSM1900_Ant 2	GPRS (4 Tx slots)	Left Tilted	0mm	2/3	512	1850.2	26.56	27.85	1.346	-0.17	0.067	0.090
	GSM1900_Ant 0	GPRS (4 Tx slots)	Right Cheek	0mm	2/3	512	1850.2	26.62	28.00	1.374	-0.16	0.152	0.209
	GSM1900_Ant 0	GPRS (4 Tx slots)	Right Tilted	0mm	2/3	512	1850.2	26.62	28.00	1.374	-0.04	0.179	0.246
	GSM1900_Ant 0	GPRS (4 Tx slots)	Left Cheek	0mm	2/3	512	1850.2	26.62	28.00	1.374	-0.03	0.295	0.405
	GSM1900_Ant 0	GPRS (4 Tx slots)	Left Cheek	0mm	2/3	661	1880	26.41	28.00	1.442	-0.05	0.336	0.485
02	GSM1900_Ant 0	GPRS (4 Tx slots)	Left Cheek	0mm	2/3	810	1909.8	26.26	28.00	1.493	-0.02	0.372	0.555
	GSM1900_Ant 0	GPRS (4 Tx slots)	Left Tilted	0mm	2/3	512	1850.2	26.62	28.00	1.374	-0.05	0.190	0.261



<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 II_Ant 2	RMC 12.2Kbps	Right Cheek	0mm	2/3	9262	1852.4	23.99	25.25	1.337	-0.17	0.264	0.353
	WCDMA II_Ant 2	RMC 12.2Kbps	Right Cheek	0mm	2/3	9400	1880	23.89	25.25	1.368	0.12	0.238	0.326
	WCDMA II_Ant 2	RMC 12.2Kbps	Right Cheek	0mm	2/3	9538	1907.6	23.82	25.25	1.390	-0.09	0.252	0.350
	WCDMA II_Ant 2	RMC 12.2Kbps	Right Tilted	0mm	2/3	9262	1852.4	23.99	25.25	1.337	0.07	0.093	0.124
	WCDMA II_Ant 2	RMC 12.2Kbps	Left Cheek	0mm	2/3	9262	1852.4	23.99	25.25	1.337	0.05	0.131	0.175
	WCDMA II_Ant 2	RMC 12.2Kbps	Left Tilted	0mm	2/3	9262	1852.4	23.99	25.25	1.337	-0.13	0.121	0.162
	WCDMA II_Ant 0	RMC 12.2Kbps	Right Cheek	0mm	2/3	9262	1852.4	24.47	25.70	1.327	-0.16	0.279	0.370
	WCDMA II_Ant 0	RMC 12.2Kbps	Right Tilted	0mm	2/3	9262	1852.4	24.47	25.70	1.327	-0.15	0.240	0.319
	WCDMA II_Ant 0	RMC 12.2Kbps	Left Cheek	0mm	2/3	9262	1852.4	24.47	25.70	1.327	-0.19	0.582	0.773
03	WCDMA II_Ant 0	RMC 12.2Kbps	Left Cheek	0mm	2/3	9400	1880	24.20	25.70	1.413	0.06	0.686	0.969
	WCDMA II_Ant 0	RMC 12.2Kbps	Left Cheek	0mm	2/3	9538	1907.6	24.19	25.70	1.416	-0.19	0.572	0.810
	WCDMA II_Ant 0	RMC 12.2Kbps	Left Tilted	0mm	2/3	9262	1852.4	24.47	25.70	1.327	-0.11	0.210	0.279
	WCDMA IV_Ant 2	RMC 12.2Kbps	Right Cheek	0mm	2/3	1312	1712.4	23.81	25.25	1.393	-0.18	0.267	0.372
	WCDMA IV_Ant 2	RMC 12.2Kbps	Right Cheek	0mm	2/3	1413	1732.6	23.76	25.25	1.409	0.09	0.191	0.269
	WCDMA IV_Ant 2	RMC 12.2Kbps	Right Cheek	0mm	2/3	1513	1752.6	23.73	25.25	1.419	0.08	0.168	0.238
	WCDMA IV_Ant 2	RMC 12.2Kbps	Right Tilted	0mm	2/3	1312	1712.4	23.81	25.25	1.393	-0.12	0.106	0.148
	WCDMA IV_Ant 2	RMC 12.2Kbps	Left Cheek	0mm	2/3	1312	1712.4	23.81	25.25	1.393	-0.15	0.171	0.238
	WCDMA IV_Ant 2	RMC 12.2Kbps	Left Tilted	0mm	2/3	1312	1712.4	23.81	25.25	1.393	0.06	0.097	0.135
	WCDMA IV_Ant 0	RMC 12.2Kbps	Right Cheek	0mm	2/3	1312	1712.4	24.19	25.70	1.416	-0.12	0.220	0.311
	WCDMA IV_Ant 0	RMC 12.2Kbps	Right Tilted	0mm	2/3	1312	1712.4	24.19	25.70	1.416	0.08	0.240	0.340
	WCDMA IV_Ant 0	RMC 12.2Kbps	Left Cheek	0mm	2/3	1312	1712.4	24.19	25.70	1.416	0.11	0.498	0.705
	WCDMA IV_Ant 0	RMC 12.2Kbps	Left Cheek	0mm	2/3	1413	1732.6	24.03	25.70	1.469	-0.13	0.477	0.701
04	WCDMA IV_Ant 0	RMC 12.2Kbps	Left Cheek	0mm	2/3	1513	1752.6	23.98	25.70	1.486	0.15	0.485	0.721
	WCDMA IV_Ant 0	RMC 12.2Kbps	Left Tilted	0mm	2/3	1312	1712.4	24.19	25.70	1.416	0.07	0.255	0.361
	WCDMA V_Ant 0	RMC 12.2Kbps	Right Cheek	0mm	2/3	4132	826.4	24.18	25.30	1.294	0.11	0.187	0.242
	WCDMA V_Ant 0	RMC 12.2Kbps	Right Tilted	0mm	2/3	4132	826.4	24.18	25.30	1.294	0.12	0.093	0.120
	WCDMA V_Ant 0	RMC 12.2Kbps	Left Cheek	0mm	2/3	4132	826.4	24.18	25.30	1.294	0.01	0.238	0.308
	WCDMA V_Ant 0	RMC 12.2Kbps	Left Cheek	0mm	2/3	4182	836.4	24.14	25.30	1.306	0.06	0.262	0.342
	WCDMA V_Ant 0	RMC 12.2Kbps	Left Cheek	0mm	2/3	4233	846.6	24.18	25.30	1.294	-0.14	0.286	0.370
	WCDMA V_Ant 0	RMC 12.2Kbps	Left Tilted	0mm	2/3	4132	826.4	24.18	25.30	1.294	0.05	0.149	0.193
	WCDMA V_Ant 1	RMC 12.2Kbps	Right Cheek	0mm	2	4182	836.4	24.26	25.70	1.393	-0.18	0.723	1.007
05	WCDMA V_Ant 1	RMC 12.2Kbps	Right Cheek	0mm	2	4132	826.4	24.17	25.70	1.422	-0.04	0.796	1.132
	WCDMA V_Ant 1	RMC 12.2Kbps	Right Cheek	0mm	2	4233	846.6	24.21	25.70	1.409	0.01	0.691	0.974
	WCDMA V_Ant 1	RMC 12.2Kbps	Right Tilted	0mm	2	4182	836.4	24.26	25.70	1.393	-0.05	0.620	0.864
	WCDMA V_Ant 1	RMC 12.2Kbps	Right Tilted	0mm	2	4132	826.4	24.17	25.70	1.422	-0.07	0.631	0.897
	WCDMA V_Ant 1	RMC 12.2Kbps	Right Tilted	0mm	2	4233	846.6	24.21	25.70	1.409	-0.03	0.599	0.844
	WCDMA V_Ant 1	RMC 12.2Kbps	Left Cheek	0mm	2	4182	836.4	24.26	25.70	1.393	-0.07	0.390	0.543
	WCDMA V_Ant 1	RMC 12.2Kbps	Left Tilted	0mm	2	4182	836.4	24.26	25.70	1.393	-0.05	0.327	0.456
	WCDMA V_Ant 1	RMC 12.2Kbps	Right Cheek	0mm	3	4182	836.4	24.26	25.10	1.213	-0.18	0.723	0.877
	WCDMA V_Ant 1	RMC 12.2Kbps	Right Cheek	0mm	3	4132	826.4	24.17	25.10	1.239	-0.04	0.796	0.986
	WCDMA V_Ant 1	RMC 12.2Kbps	Right Cheek	0mm	3	4233	846.6	24.21	25.10	1.227	0.01	0.691	0.848
	WCDMA V_Ant 1	RMC 12.2Kbps	Right Tilted	0mm	3	4182	836.4	24.26	25.10	1.213	-0.05	0.620	0.752
	WCDMA V_Ant 1	RMC 12.2Kbps	Left Cheek	0mm	3	4182	836.4	24.26	25.10	1.213	-0.07	0.390	0.473
	WCDMA V_Ant 1	RMC 12.2Kbps	Left Tilted	0mm	3	4182	836.4	24.26	25.10	1.213	-0.05	0.327	0.397



<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 7_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	2/3	21100	2535	24.40	25.20	1.202	-0.13	0.745	0.896
	LTE Band 7_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	2/3	20850	2510	24.35	25.20	1.216	-0.13	0.675	0.821
06	LTE Band 7_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	2/3	21350	2560	24.34	25.20	1.219	0.05	0.813	0.991
	LTE Band 7_Ant 2	20M	QPSK	50	0	Right Cheek	0mm	2/3	21100	2535	23.32	24.20	1.225	0.11	0.583	0.714
	LTE Band 7_Ant 2	20M	QPSK	100	0	Right Cheek	0mm	2/3	21100	2535	23.22	24.20	1.253	0.07	0.575	0.721
	LTE Band 7_Ant 2	20M	QPSK	1	0	Right Tilted	0mm	2/3	21100	2535	24.40	25.20	1.202	-0.11	0.161	0.194
	LTE Band 7_Ant 2	20M	QPSK	50	0	Right Tilted	0mm	2/3	21100	2535	23.32	24.20	1.225	-0.14	0.125	0.153
	LTE Band 7_Ant 2	20M	QPSK	1	0	Left Cheek	0mm	2/3	21100	2535	24.40	25.20	1.202	-0.15	0.336	0.404
	LTE Band 7_Ant 2	20M	QPSK	50	0	Left Cheek	0mm	2/3	21100	2535	23.32	24.20	1.225	-0.12	0.275	0.337
	LTE Band 7_Ant 2	20M	QPSK	1	0	Left Tilted	0mm	2/3	21100	2535	24.40	25.20	1.202	0.04	0.189	0.227
	LTE Band 7_Ant 2	20M	QPSK	50	0	Left Tilted	0mm	2/3	21100	2535	23.32	24.20	1.225	-0.1	0.172	0.211
	LTE Band 7C_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	2/3	21100	2535	22.83	24.20	1.371	-0.14	0.493	0.676
	LTE Band 7_Ant 0	20M	QPSK	1	0	Right Cheek	0mm	2/3	21100	2535	23.95	25.20	1.334	0	0.134	0.179
	LTE Band 7_Ant 0	20M	QPSK	50	0	Right Cheek	0mm	2/3	21100	2535	22.85	24.20	1.365	-0.01	0.107	0.146
	LTE Band 7_Ant 0	20M	QPSK	1	0	Right Tilted	0mm	2/3	21100	2535	23.95	25.20	1.334	-0.13	0.151	0.201
	LTE Band 7_Ant 0	20M	QPSK	50	0	Right Tilted	0mm	2/3	21100	2535	22.85	24.20	1.365	-0.1	0.130	0.177
	LTE Band 7_Ant 0	20M	QPSK	1	0	Left Cheek	0mm	2/3	21100	2535	23.95	25.20	1.334	-0.18	0.295	0.393
	LTE Band 7_Ant 0	20M	QPSK	1	0	Left Cheek	0mm	2/3	20850	2510	23.94	25.20	1.337	-0.04	0.248	0.331
	LTE Band 7_Ant 0	20M	QPSK	1	0	Left Cheek	0mm	2/3	21350	2560	23.92	25.20	1.343	0.08	0.554	0.744
	LTE Band 7_Ant 0	20M	QPSK	50	0	Left Cheek	0mm	2/3	21100	2535	22.85	24.20	1.365	-0.09	0.260	0.355
	LTE Band 7_Ant 0	20M	QPSK	1	0	Left Tilted	0mm	2/3	21100	2535	23.95	25.20	1.334	-0.11	0.105	0.140
	LTE Band 7_Ant 0	20M	QPSK	50	0	Left Tilted	0mm	2/3	21100	2535	22.85	24.20	1.365	-0.18	0.088	0.120
	LTE Band 7C_Ant 0	20M	QPSK	1	0	Left Cheek	0mm	2/3	21100	2535	22.42	24.20	1.507	-0.12	0.237	0.357
	LTE Band 12_Ant 0	10M	QPSK	1	0	Right Cheek	0mm	2/3	23095	707.5	24.34	25.30	1.247	-0.03	0.164	0.205
	LTE Band 12_Ant 0	10M	QPSK	25	0	Right Cheek	0mm	2/3	23095	707.5	23.40	24.30	1.230	0	0.139	0.171
	LTE Band 12_Ant 0	10M	QPSK	1	0	Right Tilted	0mm	2/3	23095	707.5	24.34	25.30	1.247	-0.06	0.115	0.143
	LTE Band 12_Ant 0	10M	QPSK	25	0	Right Tilted	0mm	2/3	23095	707.5	23.40	24.30	1.230	-0.09	0.095	0.117
	LTE Band 12_Ant 0	10M	QPSK	1	0	Left Cheek	0mm	2/3	23095	707.5	24.34	25.30	1.247	-0.19	0.240	0.299
	LTE Band 12_Ant 0	10M	QPSK	25	0	Left Cheek	0mm	2/3	23095	707.5	23.40	24.30	1.230	-0.06	0.174	0.214
	LTE Band 12_Ant 0	10M	QPSK	1	0	Left Tilted	0mm	2/3	23095	707.5	24.34	25.30	1.247	-0.08	0.141	0.176
	LTE Band 12_Ant 0	10M	QPSK	25	0	Left Tilted	0mm	2/3	23095	707.5	23.40	24.30	1.230	-0.06	0.104	0.128
07	LTE Band 12_Ant 1	10M	QPSK	1	0	Right Cheek	0mm	2	23095	707.5	23.87	25.20	1.358	-0.13	0.643	0.873
	LTE Band 12_Ant 1	10M	QPSK	25	0	Right Cheek	0mm	2	23095	707.5	23.00	24.20	1.318	-0.1	0.515	0.679
	LTE Band 12_Ant 1	10M	QPSK	50	0	Right Cheek	0mm	2	23095	707.5	23.02	24.20	1.312	-0.05	0.513	0.673
	LTE Band 12_Ant 1	10M	QPSK	1	0	Right Tilted	0mm	2	23095	707.5	23.87	25.20	1.358	0.03	0.598	0.812
	LTE Band 12_Ant 1	10M	QPSK	25	0	Right Tilted	0mm	2	23095	707.5	23.00	24.20	1.318	-0.04	0.484	0.638
	LTE Band 12_Ant 1	10M	QPSK	50	0	Right Tilted	0mm	2	23095	707.5	23.02	24.20	1.312	0	0.485	0.636
	LTE Band 12_Ant 1	10M	QPSK	1	0	Left Cheek	0mm	2	23095	707.5	23.87	25.20	1.358	-0.15	0.286	0.388
	LTE Band 12_Ant 1	10M	QPSK	25	0	Left Cheek	0mm	2	23095	707.5	23.00	24.20	1.318	-0.02	0.234	0.308
	LTE Band 12_Ant 1	10M	QPSK	1	0	Left Tilted	0mm	2	23095	707.5	23.87	25.20	1.358	-0.06	0.229	0.311
	LTE Band 12_Ant 1	10M	QPSK	25	0	Left Tilted	0mm	2	23095	707.5	23.00	24.20	1.318	-0.01	0.187	0.247
	LTE Band 12_Ant 1	10M	QPSK	1	0	Right Cheek	0mm	3	23095	707.5	23.87	24.50	1.156	-0.13	0.643	0.743
	LTE Band 12_Ant 1	10M	QPSK	25	0	Right Cheek	0mm	3	23095	707.5	23.00	24.00	1.259	-0.1	0.515	0.648
	LTE Band 12_Ant 1	10M	QPSK	1	0	Right Tilted	0mm	3	23095	707.5	23.87	24.50	1.156	0.03	0.598	0.691
	LTE Band 12_Ant 1	10M	QPSK	25	0	Right Tilted	0mm	3	23095	707.5	23.00	24.00	1.259	-0.04	0.484	0.609
	LTE Band 12_Ant 1	10M	QPSK	1	0	Left Cheek	0mm	3	23095	707.5	23.87	24.50	1.156	-0.15	0.286	0.331
	LTE Band 12_Ant 1	10M	QPSK	25	0	Left Cheek	0mm	3	23095	707.5	23.00	24.00	1.259	-0.02	0.234	0.295
	LTE Band 12_Ant 1	10M	QPSK	1	0	Left Tilted	0mm	3	23095	707.5	23.87	24.50	1.156	-0.06	0.229	0.265
	LTE Band 12_Ant 1	10M	QPSK	25	0	Left Tilted	0mm	3	23095	707.5	23.00	24.00	1.259	-0.01	0.187	0.235



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 13_Ant 0	10M	QPSK	1	0	Right Cheek	0mm	2/3	23230	782	24.26	25.30	1.271	0.12	0.209	0.266
	LTE Band 13_Ant 0	10M	QPSK	25	0	Right Cheek	0mm	2/3	23230	782	23.36	24.30	1.242	-0.11	0.177	0.220
	LTE Band 13_Ant 0	10M	QPSK	1	0	Right Tilted	0mm	2/3	23230	782	24.26	25.30	1.271	0.15	0.117	0.149
	LTE Band 13_Ant 0	10M	QPSK	25	0	Right Tilted	0mm	2/3	23230	782	23.36	24.30	1.242	0.06	0.097	0.120
	LTE Band 13_Ant 0	10M	QPSK	1	0	Left Cheek	0mm	2/3	23230	782	24.26	25.30	1.271	-0.18	0.280	0.356
	LTE Band 13_Ant 0	10M	QPSK	25	0	Left Cheek	0mm	2/3	23230	782	23.36	24.30	1.242	-0.08	0.233	0.289
	LTE Band 13_Ant 0	10M	QPSK	1	0	Left Tilted	0mm	2/3	23230	782	24.26	25.30	1.271	0.13	0.184	0.234
	LTE Band 13_Ant 0	10M	QPSK	25	0	Left Tilted	0mm	2/3	23230	782	23.36	24.30	1.242	0.09	0.151	0.187
08	LTE Band 13_Ant 1	10M	QPSK	1	0	Right Cheek	0mm	2	23230	782	23.92	25.20	1.343	-0.18	0.685	0.920
	LTE Band 13_Ant 1	10M	QPSK	25	0	Right Cheek	0mm	2	23230	782	22.94	24.20	1.337	0	0.572	0.765
	LTE Band 13_Ant 1	10M	QPSK	50	0	Right Cheek	0mm	2	23230	782	22.99	24.20	1.321	-0.06	0.551	0.728
	LTE Band 13_Ant 1	10M	QPSK	1	0	Right Tilted	0mm	2	23230	782	23.92	25.20	1.343	-0.15	0.588	0.790
	LTE Band 13_Ant 1	10M	QPSK	25	0	Right Tilted	0mm	2	23230	782	22.94	24.20	1.337	0.05	0.491	0.656
	LTE Band 13_Ant 1	10M	QPSK	1	0	Left Cheek	0mm	2	23230	782	23.92	25.20	1.343	-0.18	0.362	0.486
	LTE Band 13_Ant 1	10M	QPSK	25	0	Left Cheek	0mm	2	23230	782	22.94	24.20	1.337	0.02	0.304	0.406
	LTE Band 13_Ant 1	10M	QPSK	1	0	Left Tilted	0mm	2	23230	782	23.92	25.20	1.343	0.19	0.315	0.423
	LTE Band 13_Ant 1	10M	QPSK	25	0	Left Tilted	0mm	2	23230	782	22.94	24.20	1.337	0.05	0.264	0.353
	LTE Band 13_Ant 1	10M	QPSK	1	0	Right Cheek	0mm	3	23230	782	23.92	24.40	1.117	-0.18	0.685	0.765
	LTE Band 13_Ant 1	10M	QPSK	25	0	Right Cheek	0mm	3	23230	782	22.94	23.90	1.247	0	0.572	0.714
	LTE Band 13_Ant 1	10M	QPSK	1	0	Right Tilted	0mm	3	23230	782	23.92	24.40	1.117	-0.15	0.588	0.657
	LTE Band 13_Ant 1	10M	QPSK	25	0	Right Tilted	0mm	3	23230	782	22.94	23.90	1.247	0.05	0.491	0.612
	LTE Band 13_Ant 1	10M	QPSK	1	0	Left Cheek	0mm	3	23230	782	23.92	24.40	1.117	-0.18	0.362	0.404
	LTE Band 13_Ant 1	10M	QPSK	25	0	Left Cheek	0mm	3	23230	782	22.94	23.90	1.247	0.02	0.304	0.379
	LTE Band 13_Ant 1	10M	QPSK	1	0	Left Tilted	10mm	3	23230	782	23.92	24.40	1.117	0.19	0.315	0.352
	LTE Band 13_Ant 1	10M	QPSK	25	0	Left Tilted	0mm	3	23230	782	22.94	23.90	1.247	0.05	0.264	0.329
	LTE Band 14_Ant 0	10M	QPSK	1	0	Right Cheek	0mm	2/3	23330	793	24.44	25.50	1.276	0.08	0.214	0.273
	LTE Band 14_Ant 0	10M	QPSK	25	0	Right Cheek	0mm	2/3	23330	793	23.53	24.50	1.250	-0.13	0.172	0.215
	LTE Band 14_Ant 0	10M	QPSK	1	0	Right Tilted	0mm	2/3	23330	793	24.44	25.50	1.276	0.11	0.109	0.139
	LTE Band 14_Ant 0	10M	QPSK	25	0	Right Tilted	0mm	2/3	23330	793	23.53	24.50	1.250	0.06	0.088	0.110
	LTE Band 14_Ant 0	10M	QPSK	1	0	Left Cheek	0mm	2/3	23330	793	24.44	25.50	1.276	0.02	0.287	0.366
	LTE Band 14_Ant 0	10M	QPSK	25	0	Left Cheek	0mm	2/3	23330	793	23.53	24.50	1.250	-0.09	0.231	0.289
	LTE Band 14_Ant 0	10M	QPSK	1	0	Left Tilted	0mm	2/3	23330	793	24.44	25.50	1.276	0.15	0.176	0.225
	LTE Band 14_Ant 0	10M	QPSK	25	0	Left Tilted	0mm	2/3	23330	793	23.53	24.50	1.250	0.12	0.142	0.178
09	LTE Band 14_Ant 1	10M	QPSK	1	0	Right Cheek	0mm	2	23330	793	23.84	25.20	1.368	-0.1	0.631	0.863
	LTE Band 14_Ant 1	10M	QPSK	25	0	Right Cheek	0mm	2	23330	793	22.87	24.20	1.358	-0.07	0.512	0.695
	LTE Band 14_Ant 1	10M	QPSK	50	0	Right Cheek	0mm	2	23330	793	22.94	24.20	1.337	-0.08	0.498	0.666
	LTE Band 14_Ant 1	10M	QPSK	1	0	Right Tilted	0mm	2	23330	793	23.84	25.20	1.368	-0.19	0.608	0.832
	LTE Band 14_Ant 1	10M	QPSK	25	0	Right Tilted	0mm	2	23330	793	22.87	24.20	1.358	0.11	0.517	0.702
	LTE Band 14_Ant 1	10M	QPSK	50	0	Right Tilted	0mm	2	23330	793	22.94	24.20	1.337	-0.07	0.495	0.662
	LTE Band 14_Ant 1	10M	QPSK	1	0	Left Cheek	0mm	2	23330	793	23.84	25.20	1.368	-0.18	0.388	0.531
	LTE Band 14_Ant 1	10M	QPSK	25	0	Left Cheek	0mm	2	23330	793	22.87	24.20	1.358	-0.08	0.309	0.420
	LTE Band 14_Ant 1	10M	QPSK	1	0	Left Tilted	0mm	2	23330	793	23.84	25.20	1.368	-0.12	0.327	0.447
	LTE Band 14_Ant 1	10M	QPSK	25	0	Left Tilted	0mm	2	23330	793	22.87	24.20	1.358	-0.09	0.260	0.353
	LTE Band 14_Ant 1	10M	QPSK	1	0	Right Cheek	0mm	3	23330	793	23.84	24.40	1.138	-0.1	0.646	0.735
	LTE Band 14_Ant 1	10M	QPSK	25	0	Right Cheek	0mm	3	23330	793	22.87	23.90	1.268	-0.07	0.524	0.664
	LTE Band 14_Ant 1	10M	QPSK	1	0	Right Tilted	0mm	3	23330	793	23.84	24.40	1.138	-0.19	0.622	0.708
	LTE Band 14_Ant 1	10M	QPSK	25	0	Right Tilted	0mm	3	23330	793	22.87	23.90	1.268	0.11	0.529	0.671
	LTE Band 14_Ant 1	10M	QPSK	1	0	Left Cheek	0mm	3	23330	793	23.84	24.40	1.138	-0.18	0.397	0.452
	LTE Band 14_Ant 1	10M	QPSK	25	0	Left Cheek	0mm	3	23330	793	22.87	23.90	1.268	-0.08	0.316	0.401
	LTE Band 14_Ant 1	10M	QPSK	1	0	Left Tilted	0mm	3	23330	793	23.84	24.40	1.138	-0.12	0.335	0.381
	LTE Band 14_Ant 1	10M	QPSK	25	0	Left Tilted	0mm	3	23330	793	22.87	23.90	1.268	-0.09	0.266	0.337



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 25_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	2/3	26340	1880	24.16	25.50	1.361	0.06	0.218	0.297
	LTE Band 25_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	2/3	26140	1860	24.05	25.50	1.396	-0.05	0.244	0.341
	LTE Band 25_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	2/3	26590	1905	23.94	25.50	1.432	0	0.224	0.321
	LTE Band 25_Ant 2	20M	QPSK	50	0	Right Cheek	0mm	2/3	26340	1880	23.29	24.50	1.321	-0.01	0.159	0.210
	LTE Band 25_Ant 2	20M	QPSK	1	0	Right Tilted	0mm	2/3	26340	1880	24.16	25.50	1.361	-0.1	0.084	0.114
	LTE Band 25_Ant 2	20M	QPSK	50	0	Right Tilted	0mm	2/3	26340	1880	23.29	24.50	1.321	-0.05	0.060	0.079
	LTE Band 25_Ant 2	20M	QPSK	1	0	Left Cheek	0mm	2/3	26340	1880	24.16	25.50	1.361	-0.03	0.118	0.161
	LTE Band 25_Ant 2	20M	QPSK	50	0	Left Cheek	0mm	2/3	26340	1880	23.29	24.50	1.321	-0.1	0.080	0.106
	LTE Band 25_Ant 2	20M	QPSK	1	0	Left Tilted	0mm	2/3	26340	1880	24.16	25.50	1.361	-0.09	0.103	0.140
	LTE Band 25_Ant 2	20M	QPSK	50	0	Left Tilted	0mm	2/3	26340	1880	23.29	24.50	1.321	-0.05	0.074	0.098
	LTE Band 25_Ant 0	20M	QPSK	1	0	Right Cheek	0mm	2/3	26340	1880	23.59	25.20	1.449	-0.17	0.234	0.339
	LTE Band 25_Ant 0	20M	QPSK	50	0	Right Cheek	0mm	2/3	26340	1880	22.49	24.20	1.483	-0.12	0.181	0.268
	LTE Band 25_Ant 0	20M	QPSK	1	0	Right Tilted	0mm	2/3	26340	1880	23.59	25.20	1.449	-0.12	0.176	0.255
	LTE Band 25_Ant 0	20M	QPSK	50	0	Right Tilted	0mm	2/3	26340	1880	22.49	24.20	1.483	-0.11	0.148	0.219
10	LTE Band 25_Ant 0	20M	QPSK	1	0	Left Cheek	0mm	2/3	26340	1880	23.59	25.20	1.449	-0.06	0.508	0.736
	LTE Band 25_Ant 0	20M	QPSK	1	0	Left Cheek	0mm	2/3	26140	1860	23.38	25.20	1.521	-0.15	0.428	0.651
	LTE Band 25_Ant 0	20M	QPSK	1	0	Left Cheek	0mm	2/3	26590	1905	23.40	25.20	1.514	-0.13	0.407	0.616
	LTE Band 25_Ant 0	20M	QPSK	50	0	Left Cheek	0mm	2/3	26340	1880	22.49	24.20	1.483	-0.17	0.356	0.528
	LTE Band 25_Ant 0	20M	QPSK	1	0	Left Tilted	0mm	2/3	26340	1880	23.59	25.20	1.449	-0.07	0.162	0.235
	LTE Band 25_Ant 0	20M	QPSK	50	0	Left Tilted	0mm	2/3	26340	1880	22.49	24.20	1.483	-0.18	0.142	0.211
	LTE Band 26_Ant 0	15M	QPSK	1	0	Right Cheek	0mm	2/3	26865	831.5	24.62	25.50	1.225	-0.07	0.177	0.217
	LTE Band 26_Ant 0	15M	QPSK	36	0	Right Cheek	0mm	2/3	26865	831.5	23.64	24.50	1.219	0.17	0.151	0.184
	LTE Band 26_Ant 0	15M	QPSK	1	0	Right Tilted	0mm	2/3	26865	831.5	24.62	25.50	1.225	-0.04	0.097	0.119
	LTE Band 26_Ant 0	15M	QPSK	36	0	Right Tilted	0mm	2/3	26865	831.5	23.64	24.50	1.219	-0.04	0.080	0.098
	LTE Band 26_Ant 0	15M	QPSK	1	0	Left Cheek	0mm	2/3	26865	831.5	24.62	25.50	1.225	-0.14	0.280	0.343
	LTE Band 26_Ant 0	15M	QPSK	36	0	Left Cheek	0mm	2/3	26865	831.5	23.64	24.50	1.219	0.16	0.235	0.286
	LTE Band 26_Ant 0	15M	QPSK	1	0	Left Tilted	0mm	2/3	26865	831.5	24.62	25.50	1.225	0.19	0.151	0.185
	LTE Band 26_Ant 0	15M	QPSK	36	0	Left Tilted	0mm	2/3	26865	831.5	23.64	24.50	1.219	0.17	0.130	0.158
	LTE Band 5B_Ant 0	10M	QPSK	1	0	Left Cheek	0mm	2/3	20600	844	22.11	23.50	1.377	0.05	0.210	0.289
11	LTE Band 26_Ant 1	15M	QPSK	1	0	Right Cheek	0mm	2/3	26865	831.5	24.46	25.20	1.186	-0.08	0.835	0.990
	LTE Band 26_Ant 1	15M	QPSK	36	0	Right Cheek	0mm	2/3	26865	831.5	23.48	24.20	1.180	-0.17	0.714	0.843
	LTE Band 26_Ant 1	15M	QPSK	75	0	Right Cheek	0mm	2/3	26865	831.5	23.45	24.20	1.189	-0.07	0.712	0.846
	LTE Band 26_Ant 1	15M	QPSK	1	0	Right Tilted	0mm	2/3	26865	831.5	24.46	25.20	1.186	-0.1	0.798	0.946
	LTE Band 26_Ant 1	15M	QPSK	36	0	Right Tilted	0mm	2/3	26865	831.5	23.48	24.20	1.180	-0.07	0.670	0.791
	LTE Band 26_Ant 1	15M	QPSK	75	0	Right Tilted	0mm	2/3	26865	831.5	23.45	24.20	1.189	0.04	0.670	0.796
	LTE Band 26_Ant 1	15M	QPSK	1	0	Left Cheek	0mm	2/3	26865	831.5	24.46	25.20	1.186	-0.16	0.473	0.561
	LTE Band 26_Ant 1	15M	QPSK	36	0	Left Cheek	0mm	2/3	26865	831.5	23.48	24.20	1.180	-0.03	0.398	0.470
	LTE Band 26_Ant 1	15M	QPSK	1	0	Left Tilted	0mm	2/3	26865	831.5	24.46	25.20	1.186	-0.09	0.399	0.473
	LTE Band 26_Ant 1	15M	QPSK	36	0	Left Tilted	0mm	2/3	26865	831.5	23.48	24.20	1.180	-0.06	0.336	0.397
	LTE Band 5B_Ant 1	10M	QPSK	1	0	Right Cheek	0mm	2/3	20575	844	21.71	23.20	1.409	-0.13	0.386	0.544



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 30_Ant 2	10M	QPSK	1	0	Right Cheek	0mm	2/3	27710	2310	23.56	24.60	1.271	0.11	0.417	0.530
	LTE Band 30_Ant 2	10M	QPSK	25	0	Right Cheek	0mm	2/3	27710	2310	20.58	21.60	1.265	0.02	0.212	0.268
	LTE Band 30_Ant 2	10M	QPSK	1	0	Right Tilted	0mm	2/3	27710	2310	23.56	24.60	1.271	-0.03	0.151	0.192
	LTE Band 30_Ant 2	10M	QPSK	25	0	Right Tilted	0mm	2/3	27710	2310	20.58	21.60	1.265	0	0.081	0.102
	LTE Band 30_Ant 2	10M	QPSK	1	0	Left Cheek	0mm	2/3	27710	2310	23.56	24.60	1.271	0.05	0.296	0.376
	LTE Band 30_Ant 2	10M	QPSK	25	0	Left Cheek	0mm	2/3	27710	2310	20.58	21.60	1.265	0.02	0.140	0.177
	LTE Band 30_Ant 2	10M	QPSK	1	0	Left Tilted	0mm	2/3	27710	2310	23.56	24.60	1.271	-0.1	0.227	0.288
	LTE Band 30_Ant 2	10M	QPSK	25	0	Left Tilted	0mm	2/3	27710	2310	20.58	21.60	1.265	-0.07	0.116	0.147
	LTE Band 30_Ant 0	10M	QPSK	1	0	Right Cheek	0mm	2/3	27710	2310	23.66	25.00	1.361	-0.03	0.162	0.221
	LTE Band 30_Ant 0	10M	QPSK	25	0	Right Cheek	0mm	2/3	27710	2310	20.69	22.00	1.352	-0.04	0.075	0.101
	LTE Band 30_Ant 0	10M	QPSK	1	0	Right Tilted	0mm	2/3	27710	2310	23.66	25.00	1.361	-0.02	0.127	0.173
	LTE Band 30_Ant 0	10M	QPSK	25	0	Right Tilted	0mm	2/3	27710	2310	20.69	22.00	1.352	-0.1	0.063	0.085
12	LTE Band 30_Ant 0	10M	QPSK	1	0	Left Cheek	0mm	2/3	27710	2310	23.66	25.00	1.361	0.1	0.579	0.788
	LTE Band 30_Ant 0	10M	QPSK	25	0	Left Cheek	0mm	2/3	27710	2310	20.69	22.00	1.352	-0.1	0.197	0.266
	LTE Band 30_Ant 0	10M	QPSK	1	0	Left Tilted	0mm	2/3	27710	2310	23.66	25.00	1.361	-0.14	0.100	0.136
	LTE Band 30_Ant 0	10M	QPSK	25	0	Left Tilted	0mm	2/3	27710	2310	20.69	22.00	1.352	-0.19	0.047	0.064
	LTE Band 66_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	2/3	132072	1720	23.92	25.25	1.358	0.15	0.219	0.297
	LTE Band 66_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	2/3	132322	1745	23.91	25.25	1.361	0.13	0.199	0.271
	LTE Band 66_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	2/3	132572	1770	23.68	25.25	1.435	-0.05	0.180	0.258
	LTE Band 66_Ant 2	20M	QPSK	50	0	Right Cheek	0mm	2/3	132072	1720	22.99	24.25	1.337	0.15	0.118	0.158
	LTE Band 66_Ant 2	20M	QPSK	1	0	Right Tilted	0mm	2/3	132072	1720	23.92	25.25	1.358	-0.08	0.108	0.147
	LTE Band 66_Ant 2	20M	QPSK	50	0	Right Tilted	0mm	2/3	132072	1720	22.99	24.25	1.337	0.11	0.079	0.106
	LTE Band 66_Ant 2	20M	QPSK	1	0	Left Cheek	0mm	2/3	132072	1720	23.92	25.25	1.358	-0.03	0.138	0.187
	LTE Band 66_Ant 2	20M	QPSK	50	0	Left Cheek	0mm	2/3	132072	1720	22.99	24.25	1.337	0.06	0.104	0.139
	LTE Band 66_Ant 2	20M	QPSK	1	0	Left Tilted	0mm	2/3	132072	1720	23.92	25.25	1.358	0.09	0.083	0.113
	LTE Band 66_Ant 2	20M	QPSK	50	0	Left Tilted	0mm	2/3	132072	1720	22.99	24.25	1.337	0.03	0.068	0.091
	LTE Band 66B_Ant 2	15M	QPSK	1	74	Right Cheek	0mm	2/3	132047	1717.5	18.16	19.25	1.285	-0.13	0.064	0.082
	LTE Band 66C_Ant 2	20M	QPSK	1	99	Right Cheek	0mm	2/3	132072	1720	18.26	19.25	1.256	-0.04	0.062	0.078
	LTE Band 66_Ant 0	20M	QPSK	1	0	Right Cheek	0mm	2/3	132322	1745	23.64	25.20	1.432	0.15	0.204	0.292
	LTE Band 66_Ant 0	20M	QPSK	50	0	Right Cheek	0mm	2/3	132322	1745	22.73	24.20	1.403	-0.08	0.173	0.243
	LTE Band 66_Ant 0	20M	QPSK	1	0	Right Tilted	0mm	2/3	132322	1745	23.64	25.20	1.432	0.02	0.234	0.335
	LTE Band 66_Ant 0	20M	QPSK	50	0	Right Tilted	0mm	2/3	132322	1745	22.73	24.20	1.403	-0.03	0.197	0.276
	LTE Band 66_Ant 0	20M	QPSK	1	0	Left Cheek	0mm	2/3	132322	1745	23.64	25.20	1.432	0.05	0.427	0.612
	LTE Band 66_Ant 0	20M	QPSK	1	0	Left Cheek	0mm	2/3	132072	1720	23.62	25.20	1.439	0.07	0.376	0.541
13	LTE Band 66_Ant 0	20M	QPSK	1	0	Left Cheek	0mm	2/3	132572	1770	23.63	25.20	1.435	0.01	0.471	0.676
	LTE Band 66_Ant 0	20M	QPSK	50	0	Left Cheek	0mm	2/3	132322	1745	22.73	24.20	1.403	-0.08	0.365	0.512
	LTE Band 66_Ant 0	20M	QPSK	1	0	Left Tilted	0mm	2/3	132322	1745	23.64	25.20	1.432	0.12	0.243	0.348
	LTE Band 66_Ant 0	20M	QPSK	50	0	Left Tilted	0mm	2/3	132322	1745	22.73	24.20	1.403	-0.16	0.199	0.279
	LTE Band 66B_Ant 0	15M	QPSK	1	0	Left Cheek	0mm	2/3	132322	1745	17.50	18.75	1.334	-0.06	0.086	0.115
	LTE Band 66C_Ant 0	20M	QPSK	1	0	Left Cheek	0mm	2/3	132322	1745	17.56	18.75	1.315	-0.13	0.085	0.112



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 71_Ant 0	20M	QPSK	1	0	Right Cheek	0mm	2/3	133322	683	24.50	25.30	1.202	0.12	0.245	0.295
	LTE Band 71_Ant 0	20M	QPSK	50	0	Right Cheek	0mm	2/3	133322	683	23.60	24.30	1.175	-0.08	0.198	0.233
	LTE Band 71_Ant 0	20M	QPSK	1	0	Right Tilted	0mm	2/3	133322	683	24.50	25.30	1.202	0.15	0.106	0.127
	LTE Band 71_Ant 0	20M	QPSK	50	0	Right Tilted	0mm	2/3	133322	683	23.60	24.30	1.175	0.13	0.091	0.107
	LTE Band 71_Ant 0	20M	QPSK	1	0	Left Cheek	0mm	2/3	133322	683	24.50	25.30	1.202	-0.17	0.259	0.311
	LTE Band 71_Ant 0	20M	QPSK	50	0	Left Cheek	0mm	2/3	133322	683	23.60	24.30	1.175	-0.09	0.212	0.249
	LTE Band 71_Ant 0	20M	QPSK	1	0	Left Tilted	0mm	2/3	133322	683	24.50	25.30	1.202	0.06	0.124	0.149
	LTE Band 71_Ant 0	20M	QPSK	50	0	Left Tilted	0mm	2/3	133322	683	23.60	24.30	1.175	0.11	0.104	0.122
	LTE Band 71_Ant 1	20M	QPSK	1	0	Right Cheek	0mm	2/3	133322	683	24.03	25.20	1.309	-0.19	0.728	0.953
	LTE Band 71_Ant 1	20M	QPSK	50	0	Right Cheek	0mm	2/3	133322	683	23.20	24.20	1.259	-0.19	0.569	0.716
	LTE Band 71_Ant 1	20M	QPSK	100	0	Right Cheek	0mm	2/3	133322	683	23.16	24.20	1.271	-0.18	0.554	0.704
14	LTE Band 71_Ant 1	20M	QPSK	1	0	Right Tilted	0mm	2/3	133322	683	24.03	25.20	1.309	-0.17	0.736	0.964
	LTE Band 71_Ant 1	20M	QPSK	50	0	Right Tilted	0mm	2/3	133322	683	23.20	24.20	1.259	-0.12	0.460	0.579
	LTE Band 71_Ant 1	20M	QPSK	100	0	Right Tilted	0mm	2/3	133322	683	23.16	24.20	1.271	-0.16	0.447	0.568
	LTE Band 71_Ant 1	20M	QPSK	1	0	Left Cheek	0mm	2/3	133322	683	24.03	25.20	1.309	-0.17	0.266	0.348
	LTE Band 71_Ant 1	20M	QPSK	50	0	Left Cheek	0mm	2/3	133322	683	23.20	24.20	1.259	-0.18	0.233	0.293
	LTE Band 71_Ant 1	20M	QPSK	1	0	Left Tilted	0mm	2/3	133322	683	24.03	25.20	1.309	-0.1	0.236	0.309
	LTE Band 71_Ant 1	20M	QPSK	50	0	Left Tilted	0mm	2/3	133322	683	23.20	24.20	1.259	-0.13	0.201	0.253



<TDD 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	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 41_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	2/3	40620	2593	24.39	25.40	1.262	62.9	1.006	-0.06	0.431	0.547
	LTE Band 41_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	2/3	39790	2510	24.31	25.40	1.285	62.9	1.006	0.01	0.422	0.546
	LTE Band 41_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	2/3	39750	2506	24.32	25.40	1.282	62.9	1.006	-0.13	0.420	0.542
	LTE Band 41_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	2/3	40185	2549.5	24.38	25.40	1.265	62.9	1.006	-0.12	0.466	0.593
	LTE Band 41_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	2/3	41055	2636.5	24.14	25.40	1.337	62.9	1.006	0.11	0.451	0.606
	LTE Band 41_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	2/3	41490	2680	24.18	25.40	1.324	62.9	1.006	-0.05	0.474	0.632
	LTE Band 41_Ant 2	20M	QPSK	50	0	Right Cheek	0mm	2/3	40620	2593	23.46	24.40	1.242	62.9	1.006	0.08	0.285	0.356
	LTE Band 41_Ant 2	20M	QPSK	1	0	Right Tilted	0mm	2/3	40620	2593	24.39	25.40	1.262	62.9	1.006	-0.09	0.184	0.234
	LTE Band 41_Ant 2	20M	QPSK	50	0	Right Tilted	0mm	2/3	40620	2593	23.46	24.40	1.242	62.9	1.006	0.1	0.098	0.122
	LTE Band 41_Ant 2	20M	QPSK	1	0	Left Cheek	0mm	2/3	40620	2593	24.39	25.40	1.262	62.9	1.006	0.11	0.266	0.338
	LTE Band 41_Ant 2	20M	QPSK	50	0	Left Cheek	0mm	2/3	40620	2593	23.46	24.40	1.242	62.9	1.006	-0.11	0.185	0.231
	LTE Band 41_Ant 2	20M	QPSK	1	0	Left Tilted	0mm	2/3	40620	2593	24.39	25.40	1.262	62.9	1.006	0.05	0.153	0.194
	LTE Band 41_Ant 2	20M	QPSK	50	0	Left Tilted	0mm	2/3	40620	2593	23.46	24.40	1.242	62.9	1.006	-0.15	0.133	0.166
15	LTE Band 41_HPUE_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	2/3	40185	2549.5	26.60	27.70	1.288	42.9	1.009	-0.05	0.531	0.690
	LTE Band 41_HPUE_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	2/3	40620	2593	26.57	27.70	1.297	42.9	1.009	-0.02	0.502	0.657
	LTE Band 41_HPUE_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	2/3	39790	2510	26.39	27.70	1.352	42.9	1.009	0.04	0.488	0.666
	LTE Band 41_HPUE_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	2/3	39750	2506	26.40	27.70	1.349	42.9	1.009	-0.15	0.495	0.674
	LTE Band 41_HPUE_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	2/3	41055	2636.5	26.29	27.70	1.384	42.9	1.009	0.03	0.485	0.677
	LTE Band 41_HPUE_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	2/3	41490	2680	26.39	27.70	1.352	42.9	1.009	0.01	0.501	0.683
	LTE Band 41C_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	2/3	40620	2593	21.76	23.40	1.459	62.9	1.006	-0.05	0.289	0.424
	LTE Band 41_Ant 0	20M	QPSK	1	0	Right Cheek	0mm	2/3	40620	2593	23.77	25.20	1.390	62.9	1.006	0.06	0.142	0.199
	LTE Band 41_Ant 0	20M	QPSK	50	0	Right Cheek	0mm	2/3	40620	2593	22.75	24.20	1.396	62.9	1.006	-0.12	0.091	0.128
	LTE Band 41_Ant 0	20M	QPSK	1	0	Right Tilted	0mm	2/3	40620	2593	23.77	25.20	1.390	62.9	1.006	0.01	0.140	0.196
	LTE Band 41_Ant 0	20M	QPSK	50	0	Right Tilted	0mm	2/3	40620	2593	22.75	24.20	1.396	62.9	1.006	0.06	0.091	0.128
	LTE Band 41_Ant 0	20M	QPSK	1	0	Left Cheek	0mm	2/3	40620	2593	23.77	25.20	1.390	62.9	1.006	-0.15	0.314	0.439
	LTE Band 41_Ant 0	20M	QPSK	1	0	Left Cheek	0mm	2/3	39790	2510	23.60	25.20	1.445	62.9	1.006	-0.13	0.181	0.263
	LTE Band 41_Ant 0	20M	QPSK	1	0	Left Cheek	0mm	2/3	39750	2506	23.61	25.20	1.442	62.9	1.006	0.06	0.178	0.258
	LTE Band 41_Ant 0	20M	QPSK	1	0	Left Cheek	0mm	2/3	40185	2549.5	23.62	25.20	1.439	62.9	1.006	-0.1	0.259	0.375
	LTE Band 41_Ant 0	20M	QPSK	1	0	Left Cheek	0mm	2/3	41055	2636.5	23.62	25.20	1.439	62.9	1.006	-0.03	0.365	0.528
	LTE Band 41_Ant 0	20M	QPSK	1	0	Left Cheek	0mm	2/3	41490	2680	23.63	25.20	1.435	62.9	1.006	0.12	0.355	0.513
	LTE Band 41_Ant 0	20M	QPSK	50	0	Left Cheek	0mm	2/3	40620	2593	22.75	24.20	1.396	62.9	1.006	0.02	0.204	0.287
	LTE Band 41_Ant 0	20M	QPSK	1	0	Left Tilted	0mm	2/3	40620	2593	23.77	25.20	1.390	62.9	1.006	0.01	0.102	0.143
	LTE Band 41_Ant 0	20M	QPSK	50	0	Left Tilted	0mm	2/3	40620	2593	22.75	24.20	1.396	62.9	1.006	0.06	0.066	0.093
	LTE Band 41_HPUE_Ant 0	20M	QPSK	1	0	Left Cheek	0mm	2/3	40620	2593	25.93	27.20	1.340	42.9	1.009	0.03	0.399	0.539
	LTE Band 41C_Ant 0	20M	QPSK	1	0	Left Cheek	0mm	2/3	40620	2593	20.92	22.20	1.343	62.9	1.006	-0.05	0.210	0.284



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	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 48_Ant 6	20M	QPSK	1	0	Right Cheek	0mm	2/3	55830	3609	22.88	24.00	1.294	62.9	1.006	0.05	0.097	0.126
	LTE Band 48_Ant 6	20M	QPSK	50	0	Right Cheek	0mm	2/3	55830	3609	21.85	23.00	1.303	62.9	1.006	0.18	0.079	0.104
	LTE Band 48_Ant 6	20M	QPSK	1	0	Right Tilted	0mm	2/3	55830	3609	22.88	24.00	1.294	62.9	1.006	0.16	0.071	0.092
	LTE Band 48_Ant 6	20M	QPSK	50	0	Right Tilted	0mm	2/3	55830	3609	21.85	23.00	1.303	62.9	1.006	-0.14	0.071	0.093
16	LTE Band 48_Ant 6	20M	QPSK	1	0	Left Cheek	0mm	2/3	55830	3609	22.88	24.00	1.294	62.9	1.006	0.01	0.168	0.219
	LTE Band 48_Ant 6	20M	QPSK	1	0	Left Cheek	0mm	2/3	55340	3560	22.69	24.00	1.352	62.9	1.006	0.18	0.152	0.207
	LTE Band 48_Ant 6	20M	QPSK	1	0	Left Cheek	0mm	2/3	56150	3641	22.80	24.00	1.318	62.9	1.006	0.03	0.136	0.180
	LTE Band 48_Ant 6	20M	QPSK	1	0	Left Cheek	0mm	2/3	56640	3690	22.87	24.00	1.297	62.9	1.006	-0.16	0.145	0.189
	LTE Band 48_Ant 6	20M	QPSK	50	0	Left Cheek	0mm	2/3	55830	3609	21.85	23.00	1.303	62.9	1.006	0.07	0.124	0.163
	LTE Band 48_Ant 6	20M	QPSK	1	0	Left Tilted	0mm	2/3	55830	3609	22.88	24.00	1.294	62.9	1.006	0.18	0.053	0.069
	LTE Band 48_Ant 6	20M	QPSK	50	0	Left Tilted	0mm	2/3	55830	3609	21.85	23.00	1.303	62.9	1.006	0.07	0.048	0.063
	LTE Band 48_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	2/3	55830	3609	21.82	23.20	1.374	62.9	1.006	-0.05	0.087	0.120
	LTE Band 48_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	2/3	55340	3560	21.78	23.20	1.387	62.9	1.006	0.15	0.118	0.165
	LTE Band 48_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	2/3	56150	3641	21.73	23.20	1.403	62.9	1.006	0.01	0.083	0.117
	LTE Band 48_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	2/3	56640	3690	21.72	23.20	1.406	62.9	1.006	0.11	0.075	0.106
	LTE Band 48_Ant 2	20M	QPSK	50	0	Right Cheek	0mm	2/3	55830	3609	20.85	22.20	1.365	62.9	1.006	-0.12	0.068	0.093
	LTE Band 48_Ant 2	20M	QPSK	1	0	Right Tilted	0mm	2/3	55830	3609	21.82	23.20	1.374	62.9	1.006	0.05	0.072	0.100
	LTE Band 48_Ant 2	20M	QPSK	50	0	Right Tilted	0mm	2/3	55830	3609	20.85	22.20	1.365	62.9	1.006	-0.08	0.045	0.062
	LTE Band 48_Ant 2	20M	QPSK	1	0	Left Cheek	0mm	2/3	55830	3609	21.82	23.20	1.374	62.9	1.006	0.06	0.079	0.109
	LTE Band 48_Ant 2	20M	QPSK	50	0	Left Cheek	0mm	2/3	55830	3609	20.85	22.20	1.365	62.9	1.006	-0.17	0.047	0.065
	LTE Band 48_Ant 2	20M	QPSK	1	0	Left Tilted	0mm	2/3	55830	3609	21.82	23.20	1.374	62.9	1.006	0.08	0.076	0.105
	LTE Band 48_Ant 2	20M	QPSK	50	0	Left Tilted	0mm	2/3	55830	3609	20.85	22.20	1.365	62.9	1.006	-0.09	0.045	0.062

<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 n5_Ant 0	20M	BPSK	1	53	Right Cheek	0mm	2/3	167300	836.5	24.34	25.50	1.306	-0.06	0.212	0.277
	FR1 n5_Ant 0	20M	BPSK	50	28	Right Cheek	0mm	2/3	167300	836.5	24.21	25.50	1.346	-0.05	0.205	0.276
	FR1 n5_Ant 0	20M	BPSK	1	53	Right Tilted	0mm	2/3	167300	836.5	24.34	25.50	1.306	-0.01	0.113	0.148
	FR1 n5_Ant 0	20M	BPSK	50	28	Right Tilted	0mm	2/3	167300	836.5	24.21	25.50	1.346	-0.07	0.107	0.144
	FR1 n5_Ant 0	20M	BPSK	1	53	Left Cheek	0mm	2/3	167300	836.5	24.34	25.50	1.306	-0.08	0.282	0.368
	FR1 n5_Ant 0	20M	BPSK	50	28	Left Cheek	0mm	2/3	167300	836.5	24.21	25.50	1.346	-0.09	0.200	0.269
	FR1 n5_Ant 0	20M	BPSK	1	53	Left Tilted	0mm	2/3	167300	836.5	24.34	25.50	1.306	-0.04	0.156	0.204
	FR1 n5_Ant 0	20M	BPSK	50	28	Left Tilted	0mm	2/3	167300	836.5	24.21	25.50	1.346	-0.06	0.156	0.210
17	FR1 n5_Ant 1	20M	BPSK	1	53	Right Cheek	0mm	2/3	167300	836.5	24.82	25.20	1.091	-0.11	0.882	0.963
	FR1 n5_Ant 1	20M	BPSK	50	28	Right Cheek	0mm	2/3	167300	836.5	24.67	25.20	1.130	-0.13	0.741	0.837
	FR1 n5_Ant 1	20M	BPSK	100	0	Right Cheek	0mm	2/3	167300	836.5	24.18	24.70	1.127	-0.11	0.597	0.673
	FR1 n5_Ant 1	20M	BPSK	1	53	Right Tilted	0mm	2/3	167300	836.5	24.82	25.20	1.091	-0.11	0.602	0.657
	FR1 n5_Ant 1	20M	BPSK	50	28	Right Tilted	0mm	2/3	167300	836.5	24.67	25.20	1.130	-0.19	0.614	0.694
	FR1 n5_Ant 1	20M	BPSK	1	53	Left Cheek	0mm	2/3	167300	836.5	24.82	25.20	1.091	-0.13	0.440	0.480
	FR1 n5_Ant 1	20M	BPSK	50	28	Left Cheek	0mm	2/3	167300	836.5	24.67	25.20	1.130	-0.1	0.432	0.488
	FR1 n5_Ant 1	20M	BPSK	1	53	Left Tilted	0mm	2/3	167300	836.5	24.82	25.20	1.091	-0.14	0.366	0.399
	FR1 n5_Ant 1	20M	BPSK	50	28	Left Tilted	0mm	2/3	167300	836.5	24.67	25.20	1.130	-0.1	0.348	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)
18	FR1 n7_Ant 2	20M	BPSK	1	53	Right Cheek	0mm	2/3	507000	2535	24.51	25.20	1.172	0.12	0.771	0.904
	FR1 n7_Ant 2	20M	BPSK	1	53	Right Cheek	0mm	2/3	502000	2510	24.46	25.20	1.186	-0.19	0.705	0.836
	FR1 n7_Ant 2	20M	BPSK	1	53	Right Cheek	0mm	2/3	512000	2560	24.42	25.20	1.197	-0.1	0.749	0.896
	FR1 n7_Ant 2	20M	BPSK	50	28	Right Cheek	0mm	2/3	507000	2535	24.39	25.20	1.205	-0.11	0.737	0.888
	FR1 n7_Ant 2	20M	BPSK	50	28	Right Cheek	0mm	2/3	502000	2510	24.36	25.20	1.213	-0.16	0.737	0.894
	FR1 n7_Ant 2	20M	BPSK	50	28	Right Cheek	0mm	2/3	512000	2560	24.32	25.20	1.225	-0.15	0.725	0.888
	FR1 n7_Ant 2	20M	BPSK	100	0	Right Cheek	0mm	2/3	507000	2535	23.87	24.70	1.211	-0.16	0.657	0.795
	FR1 n7_Ant 2	20M	BPSK	1	53	Right Tilted	0mm	2/3	507000	2535	24.51	25.20	1.172	-0.13	0.154	0.181
	FR1 n7_Ant 2	20M	BPSK	50	28	Right Tilted	0mm	2/3	507000	2535	24.39	25.20	1.205	-0.19	0.148	0.178
	FR1 n7_Ant 2	20M	BPSK	1	53	Left Cheek	0mm	2/3	507000	2535	24.51	25.20	1.172	-0.14	0.383	0.449
	FR1 n7_Ant 2	20M	BPSK	50	28	Left Cheek	0mm	2/3	507000	2535	24.39	25.20	1.205	-0.1	0.393	0.474
	FR1 n7_Ant 2	20M	BPSK	1	53	Left Tilted	0mm	2/3	507000	2535	24.51	25.20	1.172	-0.14	0.205	0.240
	FR1 n7_Ant 2	20M	BPSK	50	28	Left Tilted	0mm	2/3	507000	2535	24.39	25.20	1.205	-0.18	0.203	0.245
	FR1 n7_Ant 0	20M	BPSK	1	53	Right Cheek	0mm	2/3	507000	2535	24.10	25.20	1.288	0.13	0.244	0.314
	FR1 n7_Ant 0	20M	BPSK	50	28	Right Cheek	0mm	2/3	507000	2535	23.95	25.20	1.334	0.05	0.222	0.296
	FR1 n7_Ant 0	20M	BPSK	1	53	Right Tilted	0mm	2/3	507000	2535	24.10	25.20	1.288	-0.04	0.172	0.222
	FR1 n7_Ant 0	20M	BPSK	50	28	Right Tilted	0mm	2/3	507000	2535	23.95	25.20	1.334	0.14	0.171	0.228
	FR1 n7_Ant 0	20M	BPSK	1	53	Left Cheek	0mm	2/3	507000	2535	24.10	25.20	1.288	-0.17	0.374	0.482
	FR1 n7_Ant 0	20M	BPSK	1	53	Left Cheek	0mm	2/3	502000	2510	23.97	25.20	1.327	-0.07	0.281	0.373
	FR1 n7_Ant 0	20M	BPSK	1	53	Left Cheek	0mm	2/3	512000	2560	24.09	25.20	1.291	0.12	0.584	0.754
	FR1 n7_Ant 0	20M	BPSK	50	28	Left Cheek	0mm	2/3	507000	2535	23.95	25.20	1.334	-0.06	0.336	0.448
	FR1 n7_Ant 0	20M	BPSK	1	53	Left Tilted	0mm	2/3	507000	2535	24.10	25.20	1.288	-0.16	0.118	0.152
	FR1 n7_Ant 0	20M	BPSK	50	28	Left Tilted	0mm	2/3	507000	2535	23.95	25.20	1.334	-0.01	0.118	0.157
	FR1 n12_Ant 0	15M	BPSK	1	40	Right Cheek	0mm	2/3	141500	707.5	23.94	25.30	1.368	-0.09	0.190	0.260
	FR1 n12_Ant 0	15M	BPSK	36	22	Right Cheek	0mm	2/3	141500	707.5	23.93	25.30	1.371	-0.06	0.193	0.265
	FR1 n12_Ant 0	15M	BPSK	1	40	Right Tilted	0mm	2/3	141500	707.5	23.94	25.30	1.368	0	0.118	0.161
	FR1 n12_Ant 0	15M	BPSK	36	22	Right Tilted	0mm	2/3	141500	707.5	23.93	25.30	1.371	-0.04	0.113	0.155
	FR1 n12_Ant 0	15M	BPSK	1	40	Left Cheek	0mm	2/3	141500	707.5	23.94	25.30	1.368	-0.15	0.222	0.304
	FR1 n12_Ant 0	15M	BPSK	36	22	Left Cheek	0mm	2/3	141500	707.5	23.93	25.30	1.371	-0.01	0.220	0.302
	FR1 n12_Ant 0	15M	BPSK	1	40	Left Tilted	0mm	2/3	141500	707.5	23.94	25.30	1.368	-0.09	0.136	0.186
	FR1 n12_Ant 0	15M	BPSK	36	22	Left Tilted	0mm	2/3	141500	707.5	23.93	25.30	1.371	-0.1	0.133	0.182
	FR1 n12_Ant 1	15M	BPSK	1	40	Right Cheek	0mm	2/3	141500	707.5	24.33	25.20	1.222	-0.18	0.593	0.725
19	FR1 n12_Ant 1	15M	BPSK	36	22	Right Cheek	0mm	2/3	141500	707.5	24.32	25.20	1.225	-0.06	0.801	0.981
	FR1 n12_Ant 1	15M	BPSK	75	0	Right Cheek	0mm	2/3	141500	707.5	23.85	24.70	1.216	-0.11	0.545	0.663
	FR1 n12_Ant 1	15M	BPSK	1	40	Right Tilted	0mm	2/3	141500	707.5	24.33	25.20	1.222	-0.18	0.567	0.693
	FR1 n12_Ant 1	15M	BPSK	36	22	Right Tilted	0mm	2/3	141500	707.5	24.32	25.20	1.225	-0.17	0.555	0.680
	FR1 n12_Ant 1	15M	BPSK	1	40	Left Cheek	0mm	2/3	141500	707.5	24.33	25.20	1.222	-0.19	0.281	0.343
	FR1 n12_Ant 1	15M	BPSK	36	22	Left Cheek	0mm	2/3	141500	707.5	24.32	25.20	1.225	-0.13	0.288	0.353
	FR1 n12_Ant 1	15M	BPSK	1	40	Left Tilted	0mm	2/3	141500	707.5	24.33	25.20	1.222	-0.17	0.230	0.281
	FR1 n12_Ant 1	15M	BPSK	36	22	Left Tilted	0mm	2/3	141500	707.5	24.32	25.20	1.225	-0.1	0.233	0.285



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 n25_Ant 2	20M	BPSK	1	53	Right Cheek	0mm	2/3	376500	1882.5	24.63	25.70	1.279	0.02	0.257	0.329
	FR1 n25_Ant 2	20M	BPSK	1	53	Right Cheek	0mm	2/3	372000	1860	24.60	25.70	1.288	0.01	0.259	0.334
	FR1 n25_Ant 2	20M	BPSK	1	53	Right Cheek	0mm	2/3	381000	1905	24.61	25.70	1.285	0.19	0.280	0.360
	FR1 n25_Ant 2	20M	BPSK	50	28	Right Cheek	0mm	2/3	376500	1882.5	24.51	25.70	1.315	-0.18	0.201	0.264
	FR1 n25_Ant 2	20M	BPSK	1	53	Right Tilted	0mm	2/3	376500	1882.5	24.63	25.70	1.279	0.16	0.073	0.093
	FR1 n25_Ant 2	20M	BPSK	50	28	Right Tilted	0mm	2/3	376500	1882.5	24.51	25.70	1.315	-0.13	0.064	0.084
	FR1 n25_Ant 2	20M	BPSK	1	53	Left Cheek	0mm	2/3	376500	1882.5	24.63	25.70	1.279	-0.07	0.108	0.138
	FR1 n25_Ant 2	20M	BPSK	50	28	Left Cheek	0mm	2/3	376500	1882.5	24.51	25.70	1.315	0.13	0.108	0.142
	FR1 n25_Ant 2	20M	BPSK	1	53	Left Tilted	0mm	2/3	376500	1882.5	24.63	25.70	1.279	0.12	0.090	0.115
	FR1 n25_Ant 2	20M	BPSK	50	28	Left Tilted	0mm	2/3	376500	1882.5	24.51	25.70	1.315	0.05	0.104	0.137
	FR1 n25_Ant 0	20M	BPSK	1	53	Right Cheek	0mm	2/3	376500	1882.5	24.45	25.70	1.334	-0.1	0.262	0.349
	FR1 n25_Ant 0	20M	BPSK	50	28	Right Cheek	0mm	2/3	376500	1882.5	24.28	25.70	1.387	-0.16	0.239	0.331
	FR1 n25_Ant 0	20M	BPSK	1	53	Right Tilted	0mm	2/3	376500	1882.5	24.45	25.70	1.334	-0.17	0.212	0.283
	FR1 n25_Ant 0	20M	BPSK	50	28	Right Tilted	0mm	2/3	376500	1882.5	24.28	25.70	1.387	-0.18	0.199	0.276
	FR1 n25_Ant 0	20M	BPSK	1	53	Left Cheek	0mm	2/3	376500	1882.5	24.45	25.70	1.334	-0.14	0.528	0.704
	FR1 n25_Ant 0	20M	BPSK	1	53	Left Cheek	0mm	2/3	372000	1860	24.07	25.70	1.455	-0.15	0.466	0.678
20	FR1 n25_Ant 0	20M	BPSK	1	53	Left Cheek	0mm	2/3	381000	1905	24.24	25.70	1.400	0.1	0.592	0.829
	FR1 n25_Ant 0	20M	BPSK	50	28	Left Cheek	0mm	2/3	376500	1882.5	24.28	25.70	1.387	-0.14	0.505	0.700
	FR1 n25_Ant 0	20M	BPSK	100	0	Left Cheek	0mm	2/3	376500	1882.5	23.82	25.20	1.374	-0.18	0.409	0.562
	FR1 n25_Ant 0	20M	BPSK	1	53	Left Tilted	0mm	2/3	376500	1882.5	24.45	25.70	1.334	-0.17	0.188	0.251
	FR1 n25_Ant 0	20M	BPSK	50	28	Left Tilted	0mm	2/3	376500	1882.5	24.28	25.70	1.387	-0.17	0.179	0.248
	FR1 n30_Ant 2	10M	BPSK	1	26	Right Cheek	0mm	2/3	462000	2310	23.10	24.60	1.413	0.16	0.369	0.521
	FR1 n30_Ant 2	10M	BPSK	25	14	Right Cheek	0mm	2/3	462000	2310	22.99	24.60	1.449	0.03	0.352	0.510
	FR1 n30_Ant 2	10M	BPSK	1	26	Right Tilted	0mm	2/3	462000	2310	23.10	24.60	1.413	-0.05	0.130	0.184
	FR1 n30_Ant 2	10M	BPSK	25	14	Right Tilted	0mm	2/3	462000	2310	22.99	24.60	1.449	0.011	0.132	0.191
	FR1 n30_Ant 2	10M	BPSK	1	26	Left Cheek	0mm	2/3	462000	2310	23.10	24.60	1.413	-0.12	0.260	0.367
	FR1 n30_Ant 2	10M	BPSK	25	14	Left Cheek	0mm	2/3	462000	2310	22.99	24.60	1.449	0.08	0.242	0.351
	FR1 n30_Ant 2	10M	BPSK	1	26	Left Tilted	0mm	2/3	462000	2310	23.10	24.60	1.413	-0.1	0.200	0.283
	FR1 n30_Ant 2	10M	BPSK	25	14	Left Tilted	0mm	2/3	462000	2310	22.99	24.60	1.449	0.09	0.193	0.280
	FR1 n30_Ant 0	10M	BPSK	1	26	Right Cheek	0mm	2/3	462000	2310	24.27	25.00	1.183	0.15	0.248	0.293
	FR1 n30_Ant 0	10M	BPSK	25	14	Right Cheek	0mm	2/3	462000	2310	24.13	25.00	1.222	-0.11	0.242	0.296
	FR1 n30_Ant 0	10M	BPSK	1	26	Right Tilted	0mm	2/3	462000	2310	24.27	25.00	1.183	0.09	0.188	0.222
	FR1 n30_Ant 0	10M	BPSK	25	14	Right Tilted	0mm	2/3	462000	2310	24.13	25.00	1.222	-0.05	0.187	0.228
21	FR1 n30_Ant 0	10M	BPSK	1	26	Left Cheek	0mm	2/3	462000	2310	24.27	25.00	1.183	0.06	0.576	0.681
	FR1 n30_Ant 0	10M	BPSK	25	14	Left Cheek	0mm	2/3	462000	2310	24.13	25.00	1.222	0.05	0.535	0.654
	FR1 n30_Ant 0	10M	BPSK	1	26	Left Tilted	0mm	2/3	462000	2310	24.27	25.00	1.183	0	0.177	0.209
	FR1 n30_Ant 0	10M	BPSK	25	14	Left Tilted	0mm	2/3	462000	2310	24.13	25.00	1.222	0.13	0.166	0.203
	FR1 n66_Ant 2	40M	BPSK	1	108	Right Cheek	0mm	2/3	349000	1745	24.65	25.25	1.148	-0.03	0.250	0.287
	FR1 n66_Ant 2	40M	BPSK	108	54	Right Cheek	0mm	2/3	349000	1745	24.53	25.25	1.180	0.1	0.167	0.197
	FR1 n66_Ant 2	40M	BPSK	1	108	Right Tilted	0mm	2/3	349000	1745	24.65	25.25	1.148	-0.13	0.108	0.124
	FR1 n66_Ant 2	40M	BPSK	108	54	Right Tilted	0mm	2/3	349000	1745	24.53	25.25	1.180	0.1	0.111	0.131
	FR1 n66_Ant 2	40M	BPSK	1	108	Left Cheek	0mm	2/3	349000	1745	24.65	25.25	1.148	0.06	0.125	0.143
	FR1 n66_Ant 2	40M	BPSK	108	54	Left Cheek	0mm	2/3	349000	1745	24.53	25.25	1.180	-0.05	0.106	0.126
	FR1 n66_Ant 2	40M	BPSK	1	108	Left Tilted	0mm	2/3	349000	1745	24.65	25.25	1.148	-0.14	0.103	0.118
	FR1 n66_Ant 2	40M	BPSK	108	54	Left Tilted	0mm	2/3	349000	1745	24.53	25.25	1.180	-0.13	0.098	0.116
	FR1 n66_Ant 0	40M	BPSK	1	108	Right Cheek	0mm	2/3	349000	1745	24.62	25.70	1.282	0.16	0.203	0.260
	FR1 n66_Ant 0	40M	BPSK	108	54	Right Cheek	0mm	2/3	349000	1745	24.46	25.70	1.330	0.14	0.195	0.259
	FR1 n66_Ant 0	40M	BPSK	1	108	Right Tilted	0mm	2/3	349000	1745	24.62	25.70	1.282	0.12	0.228	0.292
	FR1 n66_Ant 0	40M	BPSK	108	54	Right Tilted	0mm	2/3	349000	1745	24.46	25.70	1.330	0.11	0.217	0.289
	FR1 n66_Ant 0	40M	BPSK	1	108	Left Cheek	0mm	2/3	349000	1745	24.62	25.70	1.282	0.14	0.438	0.562
22	FR1 n66_Ant 0	40M	BPSK	108	54	Left Cheek	0mm	2/3	349000	1745	24.46	25.70	1.330	0.11	0.462	0.615
	FR1 n66_Ant 0	40M	BPSK	1	108	Left Tilted	0mm	2/3	349000	1745	24.62	25.70	1.282	-0.09	0.235	0.301
	FR1 n66_Ant 0	40M	BPSK	108	54	Left Tilted	0mm	2/3	349000	1745	24.46	25.70	1.330	-0.08	0.229	0.305



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 n71_Ant 0	20M	BPSK	1	53	Right Cheek	0mm	2/3	136100	680.5	23.89	25.30	1.384	-0.05	0.172	0.238
	FR1 n71_Ant 0	20M	BPSK	50	28	Right Cheek	0mm	2/3	136100	680.5	23.82	25.30	1.406	-0.03	0.165	0.232
	FR1 n71_Ant 0	20M	BPSK	1	53	Right Tilted	0mm	2/3	136100	680.5	23.89	25.30	1.384	0.04	0.080	0.111
	FR1 n71_Ant 0	20M	BPSK	50	28	Right Tilted	0mm	2/3	136100	680.5	23.82	25.30	1.406	0.02	0.077	0.108
	FR1 n71_Ant 0	20M	BPSK	1	53	Left Cheek	0mm	2/3	136100	680.5	23.89	25.30	1.384	-0.01	0.199	0.275
	FR1 n71_Ant 0	20M	BPSK	50	28	Left Cheek	0mm	2/3	136100	680.5	23.82	25.30	1.406	-0.06	0.177	0.249
	FR1 n71_Ant 0	20M	BPSK	1	53	Left Tilted	0mm	2/3	136100	680.5	23.89	25.30	1.384	-0.08	0.093	0.129
	FR1 n71_Ant 0	20M	BPSK	50	28	Left Tilted	0mm	2/3	136100	680.5	23.82	25.30	1.406	-0.02	0.096	0.135
	FR1 n71_Ant 1	20M	BPSK	1	53	Right Cheek	0mm	2/3	136100	680.5	24.45	25.20	1.189	-0.08	0.514	0.611
23	FR1 n71_Ant 1	20M	BPSK	50	28	Right Cheek	0mm	2/3	136100	680.5	24.33	25.20	1.222	-0.06	0.575	0.703
	FR1 n71_Ant 1	20M	BPSK	1	53	Right Tilted	0mm	2/3	136100	680.5	24.45	25.20	1.189	-0.02	0.509	0.605
	FR1 n71_Ant 1	20M	BPSK	50	28	Right Tilted	0mm	2/3	136100	680.5	24.33	25.20	1.222	-0.15	0.534	0.652
	FR1 n71_Ant 1	20M	BPSK	1	53	Left Cheek	0mm	2/3	136100	680.5	24.45	25.20	1.189	-0.13	0.251	0.298
	FR1 n71_Ant 1	20M	BPSK	50	28	Left Cheek	0mm	2/3	136100	680.5	24.33	25.20	1.222	-0.16	0.281	0.343
	FR1 n71_Ant 1	20M	BPSK	1	53	Left Tilted	0mm	2/3	136100	680.5	24.45	25.20	1.189	-0.09	0.213	0.253
	FR1 n71_Ant 1	20M	BPSK	50	28	Left Tilted	0mm	2/3	136100	680.5	24.33	25.20	1.222	-0.16	0.252	0.308
	FR1 n77_Ant 6	100M	BPSK	1	271	Right Cheek	0mm	2/3	656000	3840	23.60	25.00	1.380	0.11	0.272	0.375
	FR1 n77_Ant 6	100M	BPSK	135	69	Right Cheek	0mm	2/3	656000	3840	23.48	25.00	1.419	-0.08	0.231	0.328
	FR1 n77_Ant 6	100M	BPSK	1	271	Right Tilted	0mm	2/3	656000	3840	23.60	25.00	1.380	0.15	0.262	0.362
	FR1 n77_Ant 6	100M	BPSK	135	69	Right Tilted	0mm	2/3	656000	3840	23.48	25.00	1.419	-0.03	0.245	0.348
24	FR1 n77_Ant 6	100M	BPSK	1	271	Left Cheek	0mm	2/3	656000	3840	23.60	25.00	1.380	-0.01	0.546	0.754
	FR1 n77_Ant 6	100M	BPSK	135	69	Left Cheek	0mm	2/3	656000	3840	23.48	25.00	1.419	0.05	0.431	0.612
	FR1 n77_Ant 6	100M	BPSK	1	271	Left Tilted	0mm	2/3	656000	3840	23.60	25.00	1.380	0.08	0.178	0.246
	FR1 n77_Ant 6	100M	BPSK	135	69	Left Tilted	0mm	2/3	656000	3840	23.48	25.00	1.419	-0.06	0.152	0.216
	FR1 n77_HPUE_Ant 6	100M	BPSK	1	271	Left Cheek	0mm	2/3	656000	3840	26.14	27.20	1.276	-0.06	0.534	0.682
	FR1 n77_Ant 6	100M	BPSK	1	271	Right Cheek	0mm	2/3	633332	3499.98	23.52	25.00	1.406	0.15	0.272	0.382
	FR1 n77_Ant 6	100M	BPSK	135	69	Right Cheek	0mm	2/3	633332	3499.98	23.25	25.00	1.496	0.12	0.237	0.355
	FR1 n77_Ant 6	100M	BPSK	1	271	Right Tilted	0mm	2/3	633332	3499.98	23.52	25.00	1.406	-0.13	0.228	0.321
	FR1 n77_Ant 6	100M	BPSK	135	69	Right Tilted	0mm	2/3	633332	3499.98	23.25	25.00	1.496	0.08	0.251	0.376
	FR1 n77_Ant 6	100M	BPSK	1	271	Left Cheek	0mm	2/3	633332	3499.98	23.52	25.00	1.406	0.09	0.380	0.534
	FR1 n77_Ant 6	100M	BPSK	135	69	Left Cheek	0mm	2/3	633332	3499.98	23.25	25.00	1.496	-0.06	0.447	0.669
	FR1 n77_Ant 6	100M	BPSK	1	271	Left Tilted	0mm	2/3	633332	3499.98	23.52	25.00	1.406	0.11	0.160	0.225
	FR1 n77_Ant 6	100M	BPSK	135	69	Left Tilted	0mm	2/3	633332	3499.98	23.25	25.00	1.496	0.03	0.149	0.223
	FR1 n77_HPUE_Ant 6	100M	BPSK	1	271	Left Cheek	0mm	2/3	633332	3499.98	25.79	27.20	1.384	0.15	0.436	0.603
	FR1 n77_Ant 2	100M	BPSK	1	271	Right Cheek	0mm	2/3	656000	3840	22.34	23.75	1.384	0.05	0.203	0.281
	FR1 n77_Ant 2	100M	BPSK	135	69	Right Cheek	0mm	2/3	656000	3840	22.07	23.75	1.472	-0.07	0.244	0.359
	FR1 n77_Ant 2	100M	BPSK	1	271	Right Tilted	0mm	2/3	656000	3840	22.34	23.75	1.384	0.12	0.067	0.093
	FR1 n77_Ant 2	100M	BPSK	135	69	Right Tilted	0mm	2/3	656000	3840	22.07	23.75	1.472	0.03	0.085	0.125
	FR1 n77_Ant 2	100M	BPSK	1	271	Left Cheek	0mm	2/3	656000	3840	22.34	23.75	1.384	0.01	0.116	0.160
	FR1 n77_Ant 2	100M	BPSK	135	69	Left Cheek	0mm	2/3	656000	3840	22.07	23.75	1.472	-0.07	0.122	0.180
	FR1 n77_Ant 2	100M	BPSK	1	271	Left Tilted	0mm	2/3	656000	3840	22.34	23.75	1.384	0.04	0.093	0.129
	FR1 n77_Ant 2	100M	BPSK	135	69	Left Tilted	0mm	2/3	656000	3840	22.07	23.75	1.472	0.09	0.128	0.188
	FR1 n77_HPUE_Ant 2	100M	BPSK	1	271	Right Cheek	0mm	2/3	656000	3840	24.92	25.90	1.253	0.05	0.216	0.271
	FR1 n77_Ant 2	100M	BPSK	1	271	Right Cheek	0mm	2/3	633332	3499.98	22.28	23.75	1.403	0.07	0.239	0.335
	FR1 n77_Ant 2	100M	BPSK	135	69	Right Cheek	0mm	2/3	633332	3499.98	22.17	23.75	1.439	-0.09	0.428	0.616
	FR1 n77_Ant 2	100M	BPSK	1	271	Right Tilted	0mm	2/3	633332	3499.98	22.28	23.75	1.403	0.03	0.105	0.147
	FR1 n77_Ant 2	100M	BPSK	135	69	Right Tilted	0mm	2/3	633332	3499.98	22.17	23.75	1.439	-0.08	0.136	0.196
	FR1 n77_Ant 2	100M	BPSK	1	271	Left Cheek	0mm	2/3	633332	3499.98	22.28	23.75	1.403	0.11	0.160	0.224
	FR1 n77_Ant 2	100M	BPSK	135	69	Left Cheek	0mm	2/3	633332	3499.98	22.17	23.75	1.439	0.16	0.226	0.325
	FR1 n77_Ant 2	100M	BPSK	1	271	Left Tilted	0mm	2/3	633332	3499.98	22.28	23.75	1.403	0.05	0.127	0.178
	FR1 n77_Ant 2	100M	BPSK	135	69	Left Tilted	0mm	2/3	633332	3499.98	22.17	23.75	1.439	0.04	0.194	0.279
	FR1 n77_HPUE_Ant 2	100M	BPSK	1	271	Right Cheek	0mm	2/3	633332	3499.98	24.85	25.90	1.274	0.03	0.371	0.472



<WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Index	Antenna	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	1	Ant 4	11	2462	19.15	19.50	1.084	98.90	1.011	0.03	0.399	0.437
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	1	Ant 4	11	2462	19.15	19.50	1.084	98.90	1.011	0.09	0.474	0.519
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	1	Ant 4	11	2462	19.15	19.50	1.084	98.90	1.011	0.07	0.928	1.017
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	1	Ant 4	12	2467	19.05	19.50	1.109	98.90	1.011	0.04	0.916	1.027
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	1	Ant 4	11	2462	19.15	19.50	1.084	98.90	1.011	-0.09	0.850	0.931
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	1	Ant 4	12	2467	19.05	19.50	1.109	98.90	1.011	-0.11	0.816	0.915
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	1	Ant 3	1	2412	17.50	17.50	1.000	98.90	1.011	-0.07	0.995	1.006
25	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	1	Ant 3	12	2467	17.50	17.50	1.000	98.90	1.011	-0.05	1.180	1.193
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	1	Ant 3	1	2412	17.50	17.50	1.000	98.90	1.011	0.14	0.148	0.150
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	1	Ant 3	1	2412	17.50	17.50	1.000	98.90	1.011	-0.13	0.209	0.211
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	1	Ant 3	1	2412	17.50	17.50	1.000	98.90	1.011	0.05	0.053	0.054
	WLAN2.4GHz	802.11g 6Mbps	Right Cheek	0mm	1	Ant 4+3(4)	6	2437	19.35	19.50	1.035	93.40	1.071	-0.06	0.463	0.513
	WLAN2.4GHz	802.11g 6Mbps	Right Cheek	0mm	1	Ant 4+3(3)	6	2437	17.45	17.50	1.012	93.40	1.071	-0.06	1.040	1.127
	WLAN2.4GHz	802.11g 6Mbps	Right Cheek	0mm	1	Ant 4+3(4)	1	2412	18.00	18.00	1.000	93.40	1.071	-0.01	0.381	0.408
	WLAN2.4GHz	802.11g 6Mbps	Right Cheek	0mm	1	Ant 4+3(3)	1	2412	17.05	17.50	1.109	93.40	1.071	-0.01	0.690	0.820
	WLAN2.4GHz	802.11g 6Mbps	Right Tilted	0mm	1	Ant 4+3(4)	6	2437	19.35	19.50	1.035	93.40	1.071	-0.09	0.598	0.663
	WLAN2.4GHz	802.11g 6Mbps	Right Tilted	0mm	1	Ant 4+3(3)	6	2437	17.45	17.50	1.012	93.40	1.071	-0.09	0.001	0.001
	WLAN2.4GHz	802.11g 6Mbps	Left Cheek	0mm	1	Ant 4+3(4)	6	2437	19.35	19.50	1.035	93.40	1.071	0.05	0.817	0.906
	WLAN2.4GHz	802.11g 6Mbps	Left Cheek	0mm	1	Ant 4+3(3)	6	2437	17.45	17.50	1.012	93.40	1.071	0.05	0.476	0.516
	WLAN2.4GHz	802.11g 6Mbps	Left Cheek	0mm	1	Ant 4+3(4)	1	2412	18.00	18.00	1.000	93.40	1.071	-0.09	0.693	0.742
	WLAN2.4GHz	802.11g 6Mbps	Left Cheek	0mm	1	Ant 4+3(3)	1	2412	17.05	17.50	1.109	93.40	1.071	-0.09	0.288	0.342
	WLAN2.4GHz	802.11g 6Mbps	Left Tilted	0mm	1	Ant 4+3(4)	6	2437	19.35	19.50	1.035	93.40	1.071	0.01	0.749	0.830
	WLAN2.4GHz	802.11g 6Mbps	Left Tilted	0mm	1	Ant 4+3(3)	6	2437	17.45	17.50	1.012	93.40	1.071	0.01	0.122	0.132
	WLAN2.4GHz	802.11g 6Mbps	Left Tilted	0mm	1	Ant 4+3(4)	1	2412	18.00	18.00	1.000	93.40	1.071	0.07	0.627	0.672
	WLAN2.4GHz	802.11g 6Mbps	Left Tilted	0mm	1	Ant 4+3(3)	1	2412	17.05	17.50	1.109	93.40	1.071	0.07	0.098	0.116
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	2/3	Ant 4	11	2462	16.25	16.50	1.059	98.9	1.011	-0.01	0.196	0.210
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	2/3	Ant 4	11	2462	16.25	16.50	1.059	98.9	1.011	-0.02	0.240	0.257
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	2/3	Ant 4	11	2462	16.25	16.50	1.059	98.9	1.011	-0.07	0.436	0.467
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	2/3	Ant 4	11	2462	16.25	16.50	1.059	98.9	1.011	-0.14	0.379	0.406
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	2/3	Ant 3	6	2437	14.50	14.50	1.000	98.9	1.011	0.17	0.571	0.577
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	2/3	Ant 3	6	2437	14.50	14.50	1.000	98.9	1.011	-0.05	0.144	0.146
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	2/3	Ant 3	6	2437	14.50	14.50	1.000	98.9	1.011	-0.09	0.183	0.185
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	2/3	Ant 3	6	2437	14.50	14.50	1.000	98.9	1.011	0.16	0.055	0.056
	WLAN2.4GHz	802.11g 6Mbps	Right Cheek	0mm	2/3	Ant 4+3(4)	11	2462	16.45	16.50	1.012	93.4	1.071	-0.19	0.201	0.218
	WLAN2.4GHz	802.11g 6Mbps	Right Cheek	0mm	2/3	Ant 4+3(3)	11	2462	14.30	14.50	1.047	93.4	1.071	-0.19	0.523	0.587
	WLAN2.4GHz	802.11g 6Mbps	Right Tilted	0mm	2/3	Ant 4+3(4)	11	2462	16.45	16.50	1.012	93.4	1.071	0.12	0.310	0.336
	WLAN2.4GHz	802.11g 6Mbps	Right Tilted	0mm	2/3	Ant 4+3(3)	11	2462	14.30	14.50	1.047	93.4	1.071	0.12	0.001	0.001
	WLAN2.4GHz	802.11g 6Mbps	Left Cheek	0mm	2/3	Ant 4+3(4)	11	2462	16.45	16.50	1.012	93.4	1.071	0.12	0.462	0.501
	WLAN2.4GHz	802.11g 6Mbps	Left Cheek	0mm	2/3	Ant 4+3(3)	11	2462	14.30	14.50	1.047	93.4	1.071	0.12	0.187	0.210
	WLAN2.4GHz	802.11g 6Mbps	Left Tilted	0mm	2/3	Ant 4+3(4)	11	2462	16.45	16.50	1.012	93.4	1.071	-0.04	0.402	0.436
	WLAN2.4GHz	802.11g 6Mbps	Left Tilted	0mm	2/3	Ant 4+3(3)	11	2462	14.30	14.50	1.047	93.4	1.071	-0.04	0.060	0.067



Plot No.	Band	Mode	Test Position	Gap (mm)	Power Index	Antenna	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	4	Ant 4	6	2437	11.35	11.50	1.035	98.90	1.011	0.08	0.048	0.050
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	4	Ant 4	6	2437	11.35	11.50	1.035	98.90	1.011	0.06	0.058	0.061
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	4	Ant 4	6	2437	11.35	11.50	1.035	98.90	1.011	-0.06	0.132	0.138
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	4	Ant 4	6	2437	11.35	11.50	1.035	98.90	1.011	-0.05	0.103	0.108
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	4	Ant 3	1	2412	9.95	10.00	1.012	98.90	1.011	0.05	0.128	0.131
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	4	Ant 3	1	2412	9.95	10.00	1.012	98.90	1.011	0.19	0.026	0.027
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	4	Ant 3	1	2412	9.95	10.00	1.012	98.90	1.011	0.1	0.035	0.036
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	4	Ant 3	1	2412	9.95	10.00	1.012	98.90	1.011	0.19	0.008	0.009
	WLAN2.4GHz	802.11g 6Mbps	Right Cheek	0mm	4	Ant 4+3(4)	1	2412	11.45	11.50	1.012	93.40	1.071	0	0.015	0.016
	WLAN2.4GHz	802.11g 6Mbps	Right Cheek	0mm	4	Ant 4+3(3)	1	2412	9.95	10.00	1.012	93.40	1.071	0	0.145	0.157
	WLAN2.4GHz	802.11g 6Mbps	Right Tilted	0mm	4	Ant 4+3(4)	1	2412	11.45	11.50	1.012	93.40	1.071	-0.05	0.060	0.065
	WLAN2.4GHz	802.11g 6Mbps	Right Tilted	0mm	4	Ant 4+3(3)	1	2412	9.95	10.00	1.012	93.40	1.071	-0.05	0.001	0.001
	WLAN2.4GHz	802.11g 6Mbps	Left Cheek	0mm	4	Ant 4+3(4)	1	2412	11.45	11.50	1.012	93.40	1.071	0.11	0.117	0.127
	WLAN2.4GHz	802.11g 6Mbps	Left Cheek	0mm	4	Ant 4+3(3)	1	2412	9.95	10.00	1.012	93.40	1.071	0.11	0.043	0.047
	WLAN2.4GHz	802.11g 6Mbps	Left Tilted	0mm	4	Ant 4+3(4)	1	2412	11.45	11.50	1.012	93.40	1.071	0.17	0.079	0.086
	WLAN2.4GHz	802.11g 6Mbps	Left Tilted	0mm	4	Ant 4+3(3)	1	2412	9.95	10.00	1.012	93.40	1.071	0.17	0.009	0.010

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Index	Antenna	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
26	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	1	Ant 4+3(4)	58	5290	15.90	16.00	1.023	87.95	1.137	0.12	0.282	0.328
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	1	Ant 4+3(3)	58	5290	15.40	16.00	1.148	87.95	1.137	0.12	0.797	1.040
	WLAN5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	1	Ant 4+3(4)	54	5260	15.90	16.00	1.023	96.79	1.033	0.19	0.261	0.276
	WLAN5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	1	Ant 4+3(3)	54	5260	15.50	16.00	1.122	96.79	1.033	0.19	0.825	0.956
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	1	Ant 4+3(4)	58	5290	15.90	16.00	1.023	87.95	1.137	0.01	0.257	0.299
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	1	Ant 4+3(3)	58	5290	15.40	16.00	1.148	87.95	1.137	0.01	0.122	0.159
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	1	Ant 4+3(4)	58	5290	15.90	16.00	1.023	87.95	1.137	0.19	0.903	1.051
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	1	Ant 4+3(3)	58	5290	15.40	16.00	1.148	87.95	1.137	0.19	0.209	0.273
	WLAN5GHz	802.11n-HT40 MCS0	Left Cheek	0mm	1	Ant 4+3(4)	54	5260	15.90	16.00	1.023	96.79	1.033	0.06	0.816	0.863
	WLAN5GHz	802.11n-HT40 MCS0	Left Cheek	0mm	1	Ant 4+3(3)	54	5260	15.50	16.00	1.122	96.79	1.033	0.06	0.199	0.231
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	1	Ant 4+3(4)	58	5290	15.90	16.00	1.023	87.95	1.137	0.18	0.630	0.733
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	1	Ant 4+3(3)	58	5290	15.40	16.00	1.148	87.95	1.137	0.18	0.061	0.080
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	2	Ant 4+3(4)	58	5290	15.40	15.50	1.023	87.95	1.137	0.16	0.233	0.271
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	2	Ant 4+3(3)	58	5290	15.00	15.50	1.122	87.95	1.137	0.16	0.756	0.964
	WLAN5GHz	802.11n-HT40 MCS0	Right Cheek	10mm	2	Ant 4+3(4)	54	5270	15.40	15.50	1.023	96.79	1.033	0.11	0.268	0.283
	WLAN5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	2	Ant 4+3(3)	54	5270	15.10	15.50	1.096	96.79	1.033	0.11	0.875	0.991
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	2	Ant 4+3(4)	58	5290	15.40	15.50	1.023	87.95	1.137	0.1	0.236	0.275
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	2	Ant 4+3(3)	58	5290	15.00	15.50	1.122	87.95	1.137	0.1	0.127	0.162
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	2	Ant 4+3(4)	58	5290	15.40	15.50	1.023	87.95	1.137	-0.13	0.796	0.926
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	2	Ant 4+3(3)	58	5290	15.00	15.50	1.122	87.95	1.137	-0.13	0.161	0.205
	WLAN5GHz	802.11n-HT40 MCS0	Left Cheek	0mm	2	Ant 4+3(4)	54	5270	15.40	15.50	1.023	96.79	1.033	-0.13	0.785	0.830
	WLAN5GHz	802.11n-HT40 MCS0	Left Cheek	0mm	2	Ant 4+3(3)	54	5270	15.10	15.50	1.096	96.79	1.033	-0.13	0.176	0.199
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	2	Ant 4+3(4)	58	5290	15.40	15.50	1.023	87.95	1.137	0.11	0.570	0.663
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	2	Ant 4+3(3)	58	5290	15.00	15.50	1.122	87.95	1.137	0.11	0.060	0.077
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	3	Ant 4+3(4)	50	5250	12.90	13.00	1.023	88.10	1.135	-0.11	0.133	0.154
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	3	Ant 4+3(3)	50	5250	10.70	11.00	1.072	88.10	1.135	-0.11	0.250	0.304
WLAN5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	3	Ant 4+3(4)	50	5250	12.90	13.00	1.023	88.10	1.135	-0.11	0.119	0.138	
WLAN5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	3	Ant 4+3(3)	50	5250	10.70	11.00	1.072	88.10	1.135	-0.11	0.040	0.049	
WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	3	Ant 4+3(4)	50	5250	12.90	13.00	1.023	88.10	1.135	-0.12	0.380	0.441	
WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	3	Ant 4+3(3)	50	5250	10.70	11.00	1.072	88.10	1.135	-0.12	0.007	0.009	
WLAN5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	3	Ant 4+3(4)	50	5250	12.90	13.00	1.023	88.10	1.135	0.01	0.297	0.345	
WLAN5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	3	Ant 4+3(3)	50	5250	10.70	11.00	1.072	88.10	1.135	0.01	0.047	0.057	
WLAN5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	4	Ant 4+3(4)	50	5250	11.80	12.00	1.047	88.10	1.135	0.13	0.118	0.140	
WLAN5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	4	Ant 4+3(3)	50	5250	10.70	11.00	1.072	88.10	1.135	0.13	0.319	0.388	
WLAN5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	4	Ant 4+3(4)	50	5250	11.80	12.00	1.047	88.10	1.135	0.13	0.079	0.094	
WLAN5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	4	Ant 4+3(3)	50	5250	10.70	11.00	1.072	88.10	1.135	0.13	0.032	0.039	
WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	4	Ant 4+3(4)	50	5250	11.80	12.00	1.047	88.10	1.135	0.18	0.327	0.389	
WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	4	Ant 4+3(3)	50	5250	10.70	11.00	1.072	88.10	1.135	0.18	0.047	0.057	
WLAN5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	4	Ant 4+3(4)	50	5250	11.80	12.00	1.047	88.10	1.135	0.08	0.238	0.283	
WLAN5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	4	Ant 4+3(3)	50	5250	10.70	11.00	1.072	88.10	1.135	0.08	0.016	0.019	



Plot No.	Band	Mode	Test Position	Gap (mm)	Power Index	Antenna	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
27	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	1	Ant 4+3(4)	138	5690	18.90	19.00	1.023	87.95	1.137	0.16	0.355	0.413
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	1	Ant 4+3(3)	138	5690	13.80	14.50	1.175	87.95	1.137	0.16	0.864	1.154
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	1	Ant 4+3(4)	122	5610	18.80	19.00	1.047	87.95	1.137	0.19	0.310	0.369
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	1	Ant 4+3(3)	122	5610	13.80	14.50	1.175	87.95	1.137	0.19	0.634	0.847
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	1	Ant 4+3(4)	138	5690	18.90	19.00	1.023	87.95	1.137	-0.14	0.449	0.522
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	1	Ant 4+3(3)	138	5690	13.80	14.50	1.175	87.95	1.137	-0.14	0.159	0.212
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	1	Ant 4+3(4)	138	5690	18.90	19.00	1.023	87.95	1.137	-0.15	0.893	1.039
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	1	Ant 4+3(3)	138	5690	13.80	14.50	1.175	87.95	1.137	-0.15	0.224	0.299
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	1	Ant 4+3(4)	122	5610	18.80	19.00	1.047	87.95	1.137	-0.14	0.822	0.979
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	1	Ant 4+3(3)	122	5610	13.80	14.50	1.175	87.95	1.137	-0.14	0.188	0.251
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	1	Ant 4+3(4)	138	5690	18.90	19.00	1.023	87.95	1.137	0.14	0.614	0.714
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	1	Ant 4+3(3)	138	5690	13.80	14.50	1.175	87.95	1.137	0.14	0.084	0.112
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	2	Ant 4+3(4)	122	5610	18.50	18.50	1.000	87.95	1.137	0.07	0.294	0.334
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	2	Ant 4+3(3)	122	5610	12.60	14.00	1.380	87.95	1.137	0.07	0.513	0.805
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	2	Ant 4+3(4)	138	5690	18.30	18.50	1.047	87.95	1.137	-0.09	0.359	0.427
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	2	Ant 4+3(3)	138	5690	13.10	14.00	1.230	87.95	1.137	-0.09	0.703	0.983
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	2	Ant 4+3(4)	122	5610	18.50	18.50	1.000	87.95	1.137	-0.06	0.509	0.579
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	2	Ant 4+3(3)	122	5610	12.60	14.00	1.380	87.95	1.137	-0.06	0.509	0.799
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	2	Ant 4+3(4)	122	5610	18.50	18.50	1.000	87.95	1.137	-0.12	0.710	0.807
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	2	Ant 4+3(3)	122	5610	12.60	14.00	1.380	87.95	1.137	-0.12	0.170	0.267
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	2	Ant 4+3(4)	138	5690	18.30	18.50	1.047	87.95	1.137	0.08	0.830	0.988
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	2	Ant 4+3(3)	138	5690	13.10	14.00	1.230	87.95	1.137	0.08	0.202	0.283
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	2	Ant 4+3(4)	122	5610	18.50	18.50	1.000	87.95	1.137	0.14	0.643	0.731
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	2	Ant 4+3(3)	122	5610	12.60	14.00	1.380	87.95	1.137	0.14	0.069	0.108
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	3/4	Ant 4+3(4)	114	5570	14.90	15.00	1.023	88.10	1.135	-0.14	0.094	0.109
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	3/4	Ant 4+3(3)	114	5570	8.90	9.00	1.023	88.10	1.135	-0.14	0.275	0.319
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	3/4	Ant 4+3(4)	114	5570	14.90	15.00	1.023	88.10	1.135	-0.1	0.196	0.228
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	3/4	Ant 4+3(3)	114	5570	8.90	9.00	1.023	88.10	1.135	-0.1	0.005	0.006
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	3/4	Ant 4+3(4)	114	5570	14.90	15.00	1.023	88.10	1.135	-0.18	0.335	0.389
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	3/4	Ant 4+3(3)	114	5570	8.90	9.00	1.023	88.10	1.135	-0.18	0.003	0.003
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	3/4	Ant 4+3(4)	114	5570	14.90	15.00	1.023	88.10	1.135	-0.11	0.294	0.341
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	3/4	Ant 4+3(3)	114	5570	8.90	9.00	1.023	88.10	1.135	-0.11	0.010	0.012



Plot No.	Band	Mode	Test Position	Gap (mm)	Power Index	Antenna	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
28	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	1	Ant 4+3(4)	155	5775	18.40	18.50	1.023	87.95	1.137	-0.19	0.406	0.472
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	1	Ant 4+3(3)	155	5775	13.70	14.00	1.072	87.95	1.137	-0.19	0.976	1.189
	WLAN5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	1	Ant 4+3(4)	151	5755	18.50	18.50	1.000	96.79	1.033	-0.12	0.435	0.449
	WLAN5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	1	Ant 4+3(3)	151	5755	13.70	14.00	1.072	96.79	1.033	-0.12	1.070	1.184
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	1	Ant 4+3(4)	155	5775	18.40	18.50	1.023	87.95	1.137	-0.14	0.488	0.568
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	1	Ant 4+3(3)	155	5775	13.70	14.00	1.072	87.95	1.137	-0.14	0.207	0.252
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	1	Ant 4+3(4)	155	5775	18.40	18.50	1.023	87.95	1.137	0.11	0.872	1.015
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	1	Ant 4+3(3)	155	5775	13.70	14.00	1.072	87.95	1.137	0.11	0.236	0.288
	WLAN5GHz	802.11n-HT40 MCS0	Left Cheek	0mm	1	Ant 4+3(4)	151	5755	18.50	18.50	1.000	96.79	1.033	-0.16	0.871	0.900
	WLAN5GHz	802.11n-HT40 MCS0	Left Cheek	0mm	1	Ant 4+3(3)	151	5755	13.70	14.00	1.072	96.79	1.033	-0.16	0.348	0.385
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	1	Ant 4+3(4)	155	5775	18.40	18.50	1.023	87.95	1.137	0.16	0.569	0.662
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	1	Ant 4+3(3)	155	5775	13.70	14.00	1.072	87.95	1.137	0.16	0.124	0.151
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	2	Ant 4+3(4)	155	5775	17.30	17.50	1.047	87.95	1.137	0	0.301	0.358
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	2	Ant 4+3(3)	155	5775	12.70	13.00	1.072	87.95	1.137	0	0.735	0.895
	WLAN5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	2	Ant 4+3(4)	151	5755	17.40	17.50	1.023	96.79	1.033	0.12	0.321	0.339
	WLAN5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	2	Ant 4+3(3)	151	5755	12.90	13.00	1.023	96.79	1.033	0.12	0.839	0.887
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	2	Ant 4+3(4)	155	5775	17.30	17.50	1.047	87.95	1.137	-0.18	0.409	0.487
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	2	Ant 4+3(3)	155	5775	12.70	13.00	1.072	87.95	1.137	-0.18	0.160	0.195
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	2	Ant 4+3(4)	155	5775	17.30	17.50	1.047	87.95	1.137	-0.18	0.673	0.801
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	2	Ant 4+3(3)	155	5775	12.70	13.00	1.072	87.95	1.137	-0.18	0.201	0.245
	WLAN5GHz	802.11n-HT40 MCS0	Left Cheek	0mm	2	Ant 4+3(4)	151	5755	17.40	17.50	1.023	96.79	1.033	-0.12	0.617	0.652
	WLAN5GHz	802.11n-HT40 MCS0	Left Cheek	0mm	2	Ant 4+3(3)	151	5755	12.90	13.00	1.023	96.79	1.033	-0.12	0.222	0.235
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	2	Ant 4+3(4)	155	5775	17.30	17.50	1.047	87.95	1.137	0.15	0.392	0.467
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	2	Ant 4+3(3)	155	5775	12.70	13.00	1.072	87.95	1.137	0.15	0.088	0.107
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	3/4	Ant 4+3(4)	155	5775	14.50	14.50	1.000	87.95	1.137	0.15	0.139	0.158
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	3/4	Ant 4+3(3)	155	5775	8.80	9.00	1.047	87.95	1.137	0.15	0.265	0.316
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	3/4	Ant 4+3(4)	155	5775	14.50	14.50	1.000	87.95	1.137	0.16	0.174	0.198
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	3/4	Ant 4+3(3)	155	5775	8.80	9.00	1.047	87.95	1.137	0.16	0.061	0.073
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	3/4	Ant 4+3(4)	155	5775	14.50	14.50	1.000	87.95	1.137	-0.15	0.264	0.300
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	3/4	Ant 4+3(3)	155	5775	8.80	9.00	1.047	87.95	1.137	-0.15	0.077	0.092
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	3/4	Ant 4+3(4)	155	5775	14.50	14.50	1.000	87.95	1.137	-0.16	0.205	0.233
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	3/4	Ant 4+3(3)	155	5775	8.80	9.00	1.047	87.95	1.137	-0.16	0.001	0.001



Plot No.	Band	Mode	Test Position	Gap (mm)	Power Index	Antenna	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
29	WLAN5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	1	Ant 4+3(4)	163	5815	18.50	18.50	1.000	86.20	1.160	-0.11	0.358	0.415
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	1	Ant 4+3(3)	163	5815	13.90	14.00	1.023	86.20	1.160	-0.11	0.876	1.040
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	1	Ant 4+3(4)	171	5855	18.30	18.50	1.047	88.10	1.135	-0.13	0.410	0.487
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	1	Ant 4+3(3)	171	5855	13.90	14.00	1.023	88.10	1.135	-0.13	0.920	1.069
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	1	Ant 4+3(4)	163	5815	18.50	18.50	1.000	86.20	1.160	-0.06	0.439	0.509
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	1	Ant 4+3(3)	163	5815	13.90	14.00	1.023	86.20	1.160	-0.06	0.176	0.209
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	1	Ant 4+3(4)	163	5815	18.50	18.50	1.000	86.20	1.160	-0.14	0.688	0.798
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	1	Ant 4+3(3)	163	5815	13.90	14.00	1.023	86.20	1.160	-0.14	0.244	0.290
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	1	Ant 4+3(4)	163	5815	18.50	18.50	1.000	86.20	1.160	-0.14	0.501	0.581
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	1	Ant 4+3(3)	163	5815	13.90	14.00	1.023	86.20	1.160	-0.14	0.092	0.109
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	2	Ant 4+3(4)	163	5815	17.50	17.50	1.000	86.20	1.160	0.07	0.289	0.335
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	2	Ant 4+3(3)	163	5815	12.90	13.00	1.023	86.20	1.160	0.07	0.698	0.829
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	2	Ant 4+3(4)	171	5855	17.40	17.50	1.023	87.95	1.137	0.06	0.359	0.418
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	2	Ant 4+3(3)	171	5855	12.80	13.00	1.047	87.95	1.137	0.06	0.756	0.900
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	2	Ant 4+3(4)	163	5815	17.50	17.50	1.000	86.20	1.160	-0.05	0.376	0.436
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	2	Ant 4+3(3)	163	5815	12.90	13.00	1.023	86.20	1.160	-0.05	0.141	0.167
WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	2	Ant 4+3(4)	163	5815	17.50	17.50	1.000	86.20	1.160	-0.18	0.570	0.661	
WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	2	Ant 4+3(3)	163	5815	12.90	13.00	1.023	86.20	1.160	-0.18	0.183	0.217	
WLAN5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	2	Ant 4+3(4)	163	5815	17.50	17.50	1.000	86.20	1.160	0.17	0.427	0.495	
WLAN5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	2	Ant 4+3(3)	163	5815	12.90	13.00	1.023	86.20	1.160	0.17	0.074	0.088	
WLAN5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	3	Ant 4+3(4)	163	5815	14.50	14.50	1.000	86.20	1.160	0.14	0.113	0.131	
WLAN5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	3	Ant 4+3(3)	163	5815	8.90	9.00	1.023	86.20	1.160	0.14	0.268	0.318	
WLAN5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	3	Ant 4+3(4)	163	5815	14.50	14.50	1.000	86.20	1.160	-0.15	0.161	0.187	
WLAN5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	3	Ant 4+3(3)	163	5815	8.90	9.00	1.023	86.20	1.160	-0.15	0.043	0.051	
WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	3	Ant 4+3(4)	163	5815	14.50	14.50	1.000	86.20	1.160	0.12	0.261	0.303	
WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	3	Ant 4+3(3)	163	5815	8.90	9.00	1.023	86.20	1.160	0.12	0.062	0.074	
WLAN5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	3	Ant 4+3(4)	163	5815	14.50	14.50	1.000	86.20	1.160	-0.16	0.174	0.202	
WLAN5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	3	Ant 4+3(3)	163	5815	8.90	9.00	1.023	86.20	1.160	-0.16	0.024	0.028	
WLAN5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	4	Ant 4+3(4)	163	5815	14.50	14.50	1.000	86.20	1.160	0.14	0.113	0.131	
WLAN5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	4	Ant 4+3(3)	163	5815	8.90	9.00	1.023	86.20	1.160	0.14	0.268	0.318	
WLAN5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	4	Ant 4+3(4)	163	5815	14.50	14.50	1.000	86.20	1.160	0.01	0.161	0.187	
WLAN5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	4	Ant 4+3(3)	163	5815	8.90	9.00	1.023	86.20	1.160	0.01	0.043	0.051	
WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	4	Ant 4+3(4)	163	5815	14.50	14.50	1.000	86.20	1.160	0.12	0.261	0.303	
WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	4	Ant 4+3(3)	163	5815	8.90	9.00	1.023	86.20	1.160	0.12	0.062	0.074	
WLAN5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	4	Ant 4+3(4)	163	5815	14.50	14.50	1.000	86.20	1.160	-0.09	0.172	0.200	
WLAN5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	4	Ant 4+3(3)	163	5815	8.90	9.00	1.023	86.20	1.160	-0.09	0.016	0.019	



<6GHz WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Index	Antenna	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)	APD
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	1/2	Ant 4+3(4)	207	6985	16.50	16.50	1.000	85.9	1.164	0.05	0.045	0.052	0.00
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	1/2	Ant 4+3(3)	207	6985	16.50	16.50	1.000	85.9	1.164	0.05	0.266	0.310	1.94
30	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	1/2	Ant 4+3(4)	15	6025	10.00	11.50	1.413	85.9	1.164	-0.06	0.001	0.002	0.00
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	1/2	Ant 4+3(3)	15	6025	10.00	11.50	1.413	85.9	1.164	-0.06	0.262	0.431	1.92
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	1/2	Ant 4+3(4)	47	6185	10.20	11.50	1.349	85.9	1.164	-0.18	0.018	0.028	0.00
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	1/2	Ant 4+3(3)	47	6185	10.10	11.50	1.380	85.9	1.164	-0.18	0.169	0.272	1.17
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	1/2	Ant 4+3(4)	111	6505	14.40	14.50	1.023	85.9	1.164	-0.13	0.097	0.116	0.72
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	1/2	Ant 4+3(3)	111	6505	14.40	14.50	1.023	85.9	1.164	-0.13	0.347	0.413	2.50
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	1/2	Ant 4+3(4)	175	6825	16.50	16.50	1.000	85.9	1.164	-0.08	0.037	0.043	0.00
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	1/2	Ant 4+3(3)	175	6825	15.40	16.50	1.288	85.9	1.164	-0.08	0.276	0.414	2.04
	WLAN6GHz	802.11ax-HE160 MCS0	Right Tilted	0mm	1/2	Ant 4+3(4)	207	6985	16.50	16.50	1.000	85.9	1.164	-0.07	0.046	0.054	0.35
	WLAN6GHz	802.11ax-HE160 MCS0	Right Tilted	0mm	1/2	Ant 4+3(3)	207	6985	16.50	16.50	1.000	85.9	1.164	-0.07	0.068	0.079	0.55
	WLAN6GHz	802.11ax-HE160 MCS0	Left Cheek	0mm	1/2	Ant 4+3(4)	207	6985	16.50	16.50	1.000	85.9	1.164	0.05	0.196	0.228	1.29
	WLAN6GHz	802.11ax-HE160 MCS0	Left Cheek	0mm	1/2	Ant 4+3(3)	207	6985	16.50	16.50	1.000	85.9	1.164	0.05	0.134	0.156	1.05
	WLAN6GHz	802.11ax-HE160 MCS0	Left Tilted	0mm	1/2	Ant 4+3(4)	207	6985	16.50	16.50	1.000	85.9	1.164	-0.02	0.091	0.106	0.70
	WLAN6GHz	802.11ax-HE160 MCS0	Left Tilted	0mm	1/2	Ant 4+3(3)	207	6985	16.50	16.50	1.000	85.9	1.164	-0.02	0.060	0.070	0.49
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	3	Ant 4+3(4)	207	6985	14.70	15.00	1.072	85.9	1.164	0	0.036	0.045	0.00
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	3	Ant 4+3(3)	207	6985	14.10	15.00	1.230	85.9	1.164	0	0.118	0.169	0.84
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	3	Ant 4+3(4)	15	6025	9.90	10.00	1.023	85.9	1.164	0.1	0.036	0.043	0.00
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	3	Ant 4+3(3)	15	6025	9.80	10.00	1.047	85.9	1.164	0.1	0.238	0.290	1.64
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	3	Ant 4+3(4)	47	6185	9.60	10.00	1.096	85.9	1.164	0	0.014	0.018	0.00
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	3	Ant 4+3(3)	47	6185	9.50	10.00	1.122	85.9	1.164	0	0.162	0.212	1.10
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	3	Ant 4+3(4)	111	6505	12.50	12.50	1.000	85.9	1.164	-0.11	0.049	0.057	0.33
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	3	Ant 4+3(3)	111	6505	12.20	12.50	1.072	85.9	1.164	-0.11	0.217	0.271	1.46
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	3	Ant 4+3(4)	175	6825	13.90	14.00	1.023	85.9	1.164	0.15	0.022	0.026	0.17
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	3	Ant 4+3(3)	175	6825	12.50	14.00	1.413	85.9	1.164	0.15	0.161	0.265	1.00
	WLAN6GHz	802.11ax-HE160 MCS0	Right Tilted	0mm	3	Ant 4+3(4)	207	6985	14.70	15.00	1.072	85.9	1.164	0.13	0.034	0.042	0.23
	WLAN6GHz	802.11ax-HE160 MCS0	Right Tilted	0mm	3	Ant 4+3(3)	207	6985	14.10	15.00	1.230	85.9	1.164	0.13	0.047	0.067	0.37
	WLAN6GHz	802.11ax-HE160 MCS0	Left Cheek	0mm	3	Ant 4+3(4)	207	6985	14.70	15.00	1.072	85.9	1.164	0.001	0.129	0.161	0.86
	WLAN6GHz	802.11ax-HE160 MCS0	Left Cheek	0mm	3	Ant 4+3(3)	207	6985	14.10	15.00	1.230	85.9	1.164	0.001	0.104	0.149	0.80
	WLAN6GHz	802.11ax-HE160 MCS0	Left Tilted	0mm	3	Ant 4+3(4)	207	6985	14.70	15.00	1.072	85.9	1.164	0.11	0.055	0.069	0.39
	WLAN6GHz	802.11ax-HE160 MCS0	Left Tilted	0mm	3	Ant 4+3(3)	207	6985	14.10	15.00	1.230	85.9	1.164	0.11	0.038	0.054	0.32
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	4	Ant 4+3(4)	207	6985	16.50	16.50	1.000	85.9	1.164	0.05	0.045	0.052	0.34
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	4	Ant 4+3(3)	207	6985	16.50	16.50	1.000	85.9	1.164	0.05	0.266	0.310	2.29
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	4	Ant 4+3(4)	15	6025	10.00	10.50	1.122	85.9	1.164	-0.06	0.001	0.001	0.35
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	4	Ant 4+3(3)	15	6025	10.00	10.50	1.122	85.9	1.164	-0.06	0.262	0.342	2.15
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	4	Ant 4+3(4)	47	6185	10.20	10.50	1.072	85.9	1.164	-0.18	0.018	0.022	0.12
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	4	Ant 4+3(3)	47	6185	10.10	10.50	1.096	85.9	1.164	-0.18	0.169	0.216	1.44
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	4	Ant 4+3(4)	111	6505	13.10	13.50	1.096	85.9	1.164	-0.17	0.068	0.087	0.47
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	4	Ant 4+3(3)	111	6505	13.00	13.50	1.122	85.9	1.164	-0.17	0.243	0.317	1.74
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	4	Ant 4+3(4)	175	6825	14.90	15.00	1.023	85.9	1.164	-0.02	0.021	0.025	0.00
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	4	Ant 4+3(3)	175	6825	13.40	15.00	1.445	85.9	1.164	-0.02	0.218	0.367	1.49
	WLAN6GHz	802.11ax-HE160 MCS0	Right Tilted	0mm	4	Ant 4+3(4)	207	6985	16.50	16.50	1.000	85.9	1.164	-0.07	0.046	0.054	0.35
	WLAN6GHz	802.11ax-HE160 MCS0	Right Tilted	0mm	4	Ant 4+3(3)	207	6985	16.50	16.50	1.000	85.9	1.164	-0.07	0.068	0.079	0.55
	WLAN6GHz	802.11ax-HE160 MCS0	Left Cheek	0mm	4	Ant 4+3(4)	207	6985	16.50	16.50	1.000	85.9	1.164	0.05	0.196	0.228	1.29
	WLAN6GHz	802.11ax-HE160 MCS0	Left Cheek	0mm	4	Ant 4+3(3)	207	6985	16.50	16.50	1.000	85.9	1.164	0.05	0.134	0.156	1.05
	WLAN6GHz	802.11ax-HE160 MCS0	Left Tilted	0mm	4	Ant 4+3(4)	207	6985	16.50	16.50	1.000	85.9	1.164	-0.02	0.091	0.106	0.70
	WLAN6GHz	802.11ax-HE160 MCS0	Left Tilted	0mm	4	Ant 4+3(3)	207	6985	16.50	16.50	1.000	85.9	1.164	-0.02	0.060	0.070	0.49



<Bluetooth SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Index	Antenna	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	Bluetooth	1Mbps	Right Cheek	0mm	1	Ant 4	39	2441	10.35	12.00	1.462	76.81	1.084	0.02	0.053	0.084
	Bluetooth	1Mbps	Right Tilted	0mm	1	Ant 4	39	2441	10.35	12.00	1.462	76.81	1.084	0.01	0.061	0.097
	Bluetooth	1Mbps	Left Cheek	0mm	1	Ant 4	39	2441	10.35	12.00	1.462	76.81	1.084	0.03	0.098	0.155
	Bluetooth	1Mbps	Left Tilted	0mm	1	Ant 4	39	2441	10.35	12.00	1.462	76.81	1.084	-0.07	0.087	0.138
	Bluetooth	1Mbps	Right Cheek	0mm	1	Ant 3	39	2441	10.15	12.00	1.531	77.31	1.077	-0.01	0.167	0.275
	Bluetooth	1Mbps	Right Tilted	0mm	1	Ant 3	39	2441	10.15	12.00	1.531	77.31	1.077	0.1	0.042	0.069
	Bluetooth	1Mbps	Left Cheek	0mm	1	Ant 3	39	2441	10.15	12.00	1.531	77.31	1.077	-0.01	0.068	0.112
	Bluetooth	1Mbps	Left Tilted	0mm	1	Ant 3	39	2441	10.15	12.00	1.531	77.31	1.077	0.02	0.017	0.028
31	Bluetooth	1Mbps	Right Cheek	0mm	1	Ant 4+3(4)	39	2441	10.95	12.00	1.274	77.28	1.078	-0.15	0.061	0.084
	Bluetooth	1Mbps	Right Cheek	0mm	1	Ant 4+3(3)	39	2441	10.81	12.00	1.315	77.28	1.078	-0.15	0.197	0.279
	Bluetooth	1Mbps	Right Tilted	0mm	1	Ant 4+3(4)	39	2441	10.95	12.00	1.274	77.28	1.078	-0.06	0.024	0.033
	Bluetooth	1Mbps	Right Tilted	0mm	1	Ant 4+3(3)	39	2441	10.81	12.00	1.315	77.28	1.078	-0.06	0.127	0.180
	Bluetooth	1Mbps	Left Cheek	0mm	1	Ant 4+3(4)	39	2441	10.95	12.00	1.274	77.28	1.078	-0.02	0.095	0.130
	Bluetooth	1Mbps	Left Cheek	0mm	1	Ant 4+3(3)	39	2441	10.81	12.00	1.315	77.28	1.078	-0.02	0.075	0.106
	Bluetooth	1Mbps	Left Tilted	0mm	1	Ant 4+3(4)	39	2441	10.95	12.00	1.274	77.28	1.078	0.09	0.097	0.133
	Bluetooth	1Mbps	Left Tilted	0mm	1	Ant 4+3(3)	39	2441	10.81	12.00	1.315	77.28	1.078	0.09	0.080	0.113



15.2 Hotspot SAR

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	GSM850_Ant 0	GPRS (4 Tx slots)	Front	10mm	4	128	824.2	29.42	30.50	1.282	-0.18	0.371	0.476
	GSM850_Ant 0	GPRS (4 Tx slots)	Back	10mm	4	128	824.2	29.42	30.50	1.282	-0.14	0.437	0.560
	GSM850_Ant 0	GPRS (4 Tx slots)	Left Side	10mm	4	128	824.2	29.42	30.50	1.282	-0.19	0.515	0.660
32	GSM850_Ant 0	GPRS (4 Tx slots)	Left Side	10mm	4	189	836.4	29.35	30.50	1.303	-0.09	0.664	0.865
	GSM850_Ant 0	GPRS (4 Tx slots)	Left Side	10mm	4	251	848.8	29.24	30.50	1.337	-0.07	0.574	0.767
	GSM850_Ant 0	GPRS (4 Tx slots)	Right Side	10mm	4	128	824.2	29.42	30.50	1.282	-0.12	0.362	0.464
	GSM850_Ant 0	GPRS (4 Tx slots)	Bottom Side	10mm	4	128	824.2	29.42	30.50	1.282	-0.16	0.203	0.260
	GSM850_Ant 1	GPRS (4 Tx slots)	Front	10mm	4	128	824.2	29.09	30.50	1.384	0.07	0.283	0.392
	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	4	128	824.2	29.09	30.50	1.384	-0.03	0.392	0.542
	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	4	189	836.4	29.07	30.50	1.390	0.13	0.319	0.443
	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	4	251	848.8	28.80	30.50	1.479	0.08	0.292	0.432
	GSM850_Ant 1	GPRS (4 Tx slots)	Left Side	10mm	4	128	824.2	29.09	30.50	1.384	0.03	0.242	0.335
	GSM850_Ant 1	GPRS (4 Tx slots)	Right Side	10mm	4	128	824.2	29.09	30.50	1.384	0.01	0.187	0.259
	GSM850_Ant 1	GPRS (4 Tx slots)	Top Side	10mm	4	128	824.2	29.09	30.50	1.384	0.04	0.271	0.375
	GSM1900_Ant 2	GPRS (4 Tx slots)	Front	10mm	4	661	1880	23.72	23.80	1.019	0.07	0.580	0.591
	GSM1900_Ant 2	GPRS (4 Tx slots)	Back	10mm	4	661	1880	23.72	23.80	1.019	-0.11	0.703	0.716
	GSM1900_Ant 2	GPRS (4 Tx slots)	Left Side	10mm	4	661	1880	23.72	23.80	1.019	-0.09	0.051	0.052
	GSM1900_Ant 2	GPRS (4 Tx slots)	Right Side	10mm	4	661	1880	23.72	23.80	1.019	-0.18	0.529	0.539
	GSM1900_Ant 2	GPRS (4 Tx slots)	Bottom Side	10mm	4	661	1880	23.72	23.80	1.019	-0.18	0.794	0.809
	GSM1900_Ant 2	GPRS (4 Tx slots)	Bottom Side	10mm	4	512	1850.2	23.60	23.80	1.047	-0.18	0.800	0.838
	GSM1900_Ant 2	GPRS (4 Tx slots)	Bottom Side	10mm	4	810	1909.8	23.50	23.80	1.072	-0.16	0.889	0.953
	GSM1900_Ant 0	GPRS (4 Tx slots)	Front	10mm	4	512	1850.2	26.62	28.00	1.374	-0.14	0.368	0.506
	GSM1900_Ant 0	GPRS (4 Tx slots)	Back	10mm	4	512	1850.2	26.62	28.00	1.374	-0.11	0.594	0.816
33	GSM1900_Ant 0	GPRS (4 Tx slots)	Back	10mm	4	661	1880	26.41	28.00	1.442	-0.12	0.689	0.994
	GSM1900_Ant 0	GPRS (4 Tx slots)	Back	10mm	4	810	1909.8	26.26	28.00	1.493	-0.14	0.609	0.909
	GSM1900_Ant 0	GPRS (4 Tx slots)	Left Side	10mm	4	512	1850.2	26.62	28.00	1.374	-0.13	0.683	0.938
	GSM1900_Ant 0	GPRS (4 Tx slots)	Left Side	10mm	4	661	1880	26.41	28.00	1.442	-0.16	0.685	0.988
	GSM1900_Ant 0	GPRS (4 Tx slots)	Left Side	10mm	4	810	1909.8	26.26	28.00	1.493	-0.15	0.665	0.993
	GSM1900_Ant 0	GPRS (4 Tx slots)	Right Side	10mm	4	512	1850.2	26.62	28.00	1.374	-0.12	0.028	0.038
	GSM1900_Ant 0	GPRS (4 Tx slots)	Bottom Side	10mm	4	512	1850.2	26.62	28.00	1.374	-0.15	0.609	0.837
	GSM1900_Ant 0	GPRS (4 Tx slots)	Bottom Side	10mm	4	661	1880	26.41	28.00	1.442	-0.12	0.556	0.802
	GSM1900_Ant 0	GPRS (4 Tx slots)	Bottom Side	10mm	4	810	1909.8	26.26	28.00	1.493	-0.15	0.551	0.823



<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA II_Ant 2	RMC 12.2Kbps	Front	10mm	4	9262	1852.4	20.37	20.90	1.130	0.06	0.502	0.567
	WCDMA II_Ant 2	RMC 12.2Kbps	Back	10mm	4	9262	1852.4	20.37	20.90	1.130	-0.12	0.658	0.743
	WCDMA II_Ant 2	RMC 12.2Kbps	Left Side	10mm	4	9262	1852.4	20.37	20.90	1.130	-0.05	0.052	0.059
	WCDMA II_Ant 2	RMC 12.2Kbps	Right Side	10mm	4	9262	1852.4	20.37	20.90	1.130	-0.17	0.434	0.490
	WCDMA II_Ant 2	RMC 12.2Kbps	Bottom Side	10mm	4	9262	1852.4	20.37	20.90	1.130	-0.14	0.717	0.810
	WCDMA II_Ant 2	RMC 12.2Kbps	Bottom Side	10mm	4	9400	1880	20.18	20.90	1.180	-0.15	0.769	0.908
	WCDMA II_Ant 2	RMC 12.2Kbps	Bottom Side	10mm	4	9538	1907.6	20.11	20.90	1.199	0.08	0.786	0.943
	WCDMA II_Ant 0	RMC 12.2Kbps	Front	10mm	4	9262	1852.4	22.79	23.10	1.074	-0.17	0.414	0.445
	WCDMA II_Ant 0	RMC 12.2Kbps	Back	10mm	4	9262	1852.4	22.79	23.10	1.074	-0.16	0.644	0.692
	WCDMA II_Ant 0	RMC 12.2Kbps	Left Side	10mm	4	9262	1852.4	22.79	23.10	1.074	-0.09	0.696	0.747
	WCDMA II_Ant 0	RMC 12.2Kbps	Left Side	10mm	4	9400	1880	22.59	23.10	1.125	-0.15	0.704	0.792
34	WCDMA II_Ant 0	RMC 12.2Kbps	Left Side	10mm	4	9538	1907.6	22.48	23.10	1.153	-0.12	0.821	0.947
	WCDMA II_Ant 0	RMC 12.2Kbps	Right Side	10mm	4	9262	1852.4	22.79	23.10	1.074	-0.09	0.032	0.034
	WCDMA II_Ant 0	RMC 12.2Kbps	Bottom Side	10mm	4	9262	1852.4	22.79	23.10	1.074	-0.14	0.591	0.635
	WCDMA IV_Ant 2	RMC 12.2Kbps	Front	10mm	4	1312	1712.4	21.05	22.00	1.245	-0.19	0.478	0.595
	WCDMA IV_Ant 2	RMC 12.2Kbps	Back	10mm	4	1312	1712.4	21.05	22.00	1.245	-0.19	0.695	0.865
	WCDMA IV_Ant 2	RMC 12.2Kbps	Back	10mm	4	1413	1732.6	20.97	22.00	1.268	-0.1	0.684	0.867
	WCDMA IV_Ant 2	RMC 12.2Kbps	Back	10mm	4	1513	1752.6	20.95	22.00	1.274	-0.15	0.641	0.816
	WCDMA IV_Ant 2	RMC 12.2Kbps	Left Side	10mm	4	1312	1712.4	21.05	22.00	1.245	-0.13	0.056	0.070
	WCDMA IV_Ant 2	RMC 12.2Kbps	Right Side	10mm	4	1312	1712.4	21.05	22.00	1.245	-0.18	0.557	0.693
	WCDMA IV_Ant 2	RMC 12.2Kbps	Bottom Side	10mm	4	1312	1712.4	21.05	22.00	1.245	-0.08	0.764	0.951
	WCDMA IV_Ant 2	RMC 12.2Kbps	Bottom Side	10mm	4	1413	1732.6	20.97	22.00	1.268	-0.14	0.751	0.952
	WCDMA IV_Ant 2	RMC 12.2Kbps	Bottom Side	10mm	4	1513	1752.6	20.95	22.00	1.274	-0.12	0.740	0.942
	WCDMA IV_Ant 0	RMC 12.2Kbps	Front	10mm	4	1312	1712.4	23.25	23.80	1.135	0.16	0.395	0.448
	WCDMA IV_Ant 0	RMC 12.2Kbps	Back	10mm	4	1312	1712.4	23.25	23.80	1.135	-0.18	0.673	0.764
	WCDMA IV_Ant 0	RMC 12.2Kbps	Left Side	10mm	4	1312	1712.4	23.25	23.80	1.135	-0.18	0.610	0.692
	WCDMA IV_Ant 0	RMC 12.2Kbps	Right Side	10mm	4	1312	1712.4	23.25	23.80	1.135	-0.18	0.057	0.065
	WCDMA IV_Ant 0	RMC 12.2Kbps	Bottom Side	10mm	4	1312	1712.4	23.25	23.80	1.135	-0.18	0.708	0.804
	WCDMA IV_Ant 0	RMC 12.2Kbps	Bottom Side	10mm	4	1413	1732.6	23.21	23.80	1.146	-0.07	0.710	0.813
35	WCDMA IV_Ant 0	RMC 12.2Kbps	Bottom Side	10mm	4	1513	1752.6	23.12	23.80	1.169	-0.15	0.848	0.992
	WCDMA V_Ant 0	RMC 12.2Kbps	Front	10mm	4	4132	826.4	24.18	25.30	1.294	-0.06	0.302	0.391
	WCDMA V_Ant 0	RMC 12.2Kbps	Back	10mm	4	4132	826.4	24.18	25.30	1.294	0.01	0.328	0.424
	WCDMA V_Ant 0	RMC 12.2Kbps	Back	10mm	4	4182	836.4	24.14	25.30	1.306	-0.05	0.326	0.426
	WCDMA V_Ant 0	RMC 12.2Kbps	Back	10mm	4	4233	846.6	24.18	25.30	1.294	-0.16	0.327	0.423
	WCDMA V_Ant 0	RMC 12.2Kbps	Left Side	10mm	4	4132	826.4	24.18	25.30	1.294	0.12	0.381	0.493
36	WCDMA V_Ant 0	RMC 12.2Kbps	Left Side	10mm	4	4182	836.4	24.14	25.30	1.306	-0.08	0.398	0.520
	WCDMA V_Ant 0	RMC 12.2Kbps	Left Side	10mm	4	4233	846.6	24.18	25.30	1.294	-0.04	0.387	0.501
	WCDMA V_Ant 0	RMC 12.2Kbps	Right Side	10mm	4	4132	826.4	24.18	25.30	1.294	0.06	0.240	0.311
	WCDMA V_Ant 0	RMC 12.2Kbps	Bottom Side	10mm	4	4132	826.4	24.18	25.30	1.294	-0.07	0.173	0.224
	WCDMA V_Ant 1	RMC 12.2Kbps	Front	10mm	4	4132	826.4	24.17	25.70	1.422	0.11	0.173	0.246
	WCDMA V_Ant 1	RMC 12.2Kbps	Back	10mm	4	4132	826.4	24.17	25.70	1.422	-0.01	0.278	0.395
	WCDMA V_Ant 1	RMC 12.2Kbps	Back	10mm	4	4182	836.4	24.26	25.70	1.393	0.06	0.273	0.380
	WCDMA V_Ant 1	RMC 12.2Kbps	Back	10mm	4	4233	846.6	24.21	25.70	1.409	0.07	0.265	0.373
	WCDMA V_Ant 1	RMC 12.2Kbps	Left Side	10mm	4	4132	826.4	24.17	25.70	1.422	-0.06	0.170	0.242
	WCDMA V_Ant 1	RMC 12.2Kbps	Right Side	10mm	4	4132	826.4	24.17	25.70	1.422	-0.08	0.165	0.235
	WCDMA V_Ant 1	RMC 12.2Kbps	Top Side	10mm	4	4132	826.4	24.17	25.70	1.422	-0.01	0.164	0.233



<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 7_Ant 2	20M	QPSK	1	0	Front	10mm	4	21350	2560	20.02	20.20	1.042	-0.12	0.329	0.343
	LTE Band 7_Ant 2	20M	QPSK	50	24	Front	10mm	4	21350	2560	20.17	20.20	1.007	-0.11	0.328	0.330
	LTE Band 7_Ant 2	20M	QPSK	1	0	Back	10mm	4	21350	2560	20.02	20.20	1.042	-0.14	0.582	0.607
	LTE Band 7_Ant 2	20M	QPSK	50	24	Back	10mm	4	21350	2560	20.17	20.20	1.007	-0.17	0.554	0.558
	LTE Band 7_Ant 2	20M	QPSK	1	0	Left Side	10mm	4	21350	2560	20.02	20.20	1.042	-0.09	0.010	0.010
	LTE Band 7_Ant 2	20M	QPSK	50	24	Left Side	10mm	4	21350	2560	20.17	20.20	1.007	-0.09	0.010	0.010
	LTE Band 7_Ant 2	20M	QPSK	1	0	Right Side	10mm	4	21350	2560	20.02	20.20	1.042	-0.12	0.789	0.822
	LTE Band 7_Ant 2	20M	QPSK	1	0	Right Side	10mm	4	20850	2510	20.01	20.20	1.045	-0.13	0.629	0.657
	LTE Band 7_Ant 2	20M	QPSK	1	0	Right Side	10mm	4	21100	2535	19.99	20.20	1.050	-0.15	0.667	0.700
	LTE Band 7_Ant 2	20M	QPSK	50	24	Right Side	10mm	4	21350	2560	20.17	20.20	1.007	-0.1	0.673	0.678
	LTE Band 7_Ant 2	20M	QPSK	100	0	Right Side	10mm	4	21350	2560	20.18	20.20	1.005	-0.16	0.696	0.699
	LTE Band 7_Ant 2	20M	QPSK	1	0	Bottom Side	10mm	4	21350	2560	20.02	20.20	1.042	-0.19	0.316	0.329
	LTE Band 7_Ant 2	20M	QPSK	50	24	Bottom Side	10mm	4	21350	2560	20.17	20.20	1.007	-0.17	0.307	0.309
	LTE Band 7C_Ant 2	20M	QPSK	1	0	Right Side	10mm	4	21100	2535	18.63	19.20	1.140	-0.14	0.522	0.595
	LTE Band 7_Ant 0	20M	QPSK	1	99	Front	10mm	4	21350	2560	23.49	24.10	1.151	-0.14	0.316	0.364
	LTE Band 7_Ant 0	20M	QPSK	50	50	Front	10mm	4	21350	2560	23.25	23.90	1.161	-0.18	0.297	0.345
	LTE Band 7_Ant 0	20M	QPSK	1	99	Back	10mm	4	21350	2560	23.49	24.10	1.151	-0.1	0.487	0.560
	LTE Band 7_Ant 0	20M	QPSK	50	50	Back	10mm	4	21350	2560	23.25	23.90	1.161	-0.13	0.432	0.502
37	LTE Band 7_Ant 0	20M	QPSK	1	99	Left Side	10mm	4	21350	2560	23.49	24.10	1.151	-0.15	0.783	0.901
	LTE Band 7_Ant 0	20M	QPSK	1	99	Left Side	10mm	4	20850	2510	23.39	24.10	1.178	-0.1	0.481	0.566
	LTE Band 7_Ant 0	20M	QPSK	1	99	Left Side	10mm	4	21100	2535	23.43	24.10	1.167	-0.1	0.600	0.700
	LTE Band 7_Ant 0	20M	QPSK	50	50	Left Side	10mm	4	21350	2560	23.25	23.90	1.161	-0.13	0.701	0.814
	LTE Band 7_Ant 0	20M	QPSK	50	50	Left Side	10mm	4	20850	2510	23.20	23.90	1.175	-0.18	0.450	0.529
	LTE Band 7_Ant 0	20M	QPSK	50	50	Left Side	10mm	4	21100	2535	23.16	23.90	1.186	-0.1	0.573	0.679
	LTE Band 7_Ant 0	20M	QPSK	100	0	Left Side	10mm	4	21350	2560	23.22	23.90	1.169	-0.18	0.695	0.813
	LTE Band 7_Ant 0	20M	QPSK	1	99	Right Side	10mm	4	21350	2560	23.49	24.10	1.151	-0.14	0.016	0.018
	LTE Band 7_Ant 0	20M	QPSK	50	50	Right Side	10mm	4	21350	2560	23.25	23.90	1.161	0.03	0.017	0.020
	LTE Band 7_Ant 0	20M	QPSK	1	99	Bottom Side	10mm	4	21350	2560	23.49	24.10	1.151	-0.14	0.168	0.193
	LTE Band 7_Ant 0	20M	QPSK	50	50	Bottom Side	10mm	4	21350	2560	23.25	23.90	1.161	-0.13	0.157	0.182
	LTE Band 7C_Ant 0	20M	QPSK	1	0	Left Side	10mm	4	21100	2535	21.76	23.10	1.361	-0.13	0.581	0.791
	LTE Band 12_Ant 0	10M	QPSK	1	0	Front	10mm	4	23095	707.5	24.34	25.30	1.247	0.12	0.246	0.307
	LTE Band 12_Ant 0	10M	QPSK	25	0	Front	10mm	4	23095	707.5	23.40	24.30	1.230	-0.15	0.220	0.271
	LTE Band 12_Ant 0	10M	QPSK	1	0	Back	10mm	4	23095	707.5	24.34	25.30	1.247	-0.12	0.341	0.425
	LTE Band 12_Ant 0	10M	QPSK	25	0	Back	10mm	4	23095	707.5	23.40	24.30	1.230	0.13	0.254	0.312
38	LTE Band 12_Ant 0	10M	QPSK	1	0	Left Side	10mm	4	23095	707.5	24.34	25.30	1.247	-0.1	0.405	0.505
	LTE Band 12_Ant 0	10M	QPSK	25	0	Left Side	10mm	4	23095	707.5	23.40	24.30	1.230	0.15	0.319	0.392
	LTE Band 12_Ant 0	10M	QPSK	1	0	Right Side	10mm	4	23095	707.5	24.34	25.30	1.247	-0.07	0.265	0.331
	LTE Band 12_Ant 0	10M	QPSK	25	0	Right Side	10mm	4	23095	707.5	23.40	24.30	1.230	0.09	0.251	0.309
	LTE Band 12_Ant 0	10M	QPSK	1	0	Bottom Side	10mm	4	23095	707.5	24.34	25.30	1.247	-0.11	0.045	0.056
	LTE Band 12_Ant 0	10M	QPSK	25	0	Bottom Side	10mm	4	23095	707.5	23.40	24.30	1.230	0.08	0.059	0.073
	LTE Band 12_Ant 1	10M	QPSK	1	0	Front	10mm	4	23095	707.5	23.87	25.20	1.358	-0.16	0.140	0.190
	LTE Band 12_Ant 1	10M	QPSK	25	0	Front	10mm	4	23095	707.5	23.00	24.20	1.318	-0.02	0.126	0.166
	LTE Band 12_Ant 1	10M	QPSK	1	0	Back	10mm	4	23095	707.5	23.87	25.20	1.358	-0.02	0.215	0.292
	LTE Band 12_Ant 1	10M	QPSK	25	0	Back	10mm	4	23095	707.5	23.00	24.20	1.318	-0.06	0.184	0.243
	LTE Band 12_Ant 1	10M	QPSK	1	0	Left Side	10mm	4	23095	707.5	23.87	25.20	1.358	-0.08	0.209	0.284
	LTE Band 12_Ant 1	10M	QPSK	25	0	Left Side	10mm	4	23095	707.5	23.00	24.20	1.318	-0.12	0.147	0.194
	LTE Band 12_Ant 1	10M	QPSK	1	0	Right Side	10mm	4	23095	707.5	23.87	25.20	1.358	-0.18	0.074	0.101
	LTE Band 12_Ant 1	10M	QPSK	25	0	Right Side	10mm	4	23095	707.5	23.00	24.20	1.318	-0.12	0.069	0.091
	LTE Band 12_Ant 1	10M	QPSK	1	0	Top Side	10mm	4	23095	707.5	23.87	25.20	1.358	-0.13	0.128	0.174
	LTE Band 12_Ant 1	10M	QPSK	25	0	Top Side	10mm	4	23095	707.5	23.00	24.20	1.318	0.01	0.078	0.103



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 13_Ant 0	10M	QPSK	1	0	Front	10mm	4	23230	782	24.26	25.30	1.271	0.12	0.351	0.446
	LTE Band 13_Ant 0	10M	QPSK	25	0	Front	10mm	4	23230	782	23.36	24.30	1.242	-0.12	0.286	0.355
	LTE Band 13_Ant 0	10M	QPSK	1	0	Back	10mm	4	23230	782	24.26	25.30	1.271	-0.01	0.380	0.483
	LTE Band 13_Ant 0	10M	QPSK	25	0	Back	10mm	4	23230	782	23.36	24.30	1.242	0.13	0.328	0.407
39	LTE Band 13_Ant 0	10M	QPSK	1	0	Left Side	10mm	4	23230	782	24.26	25.30	1.271	-0.04	0.526	0.668
	LTE Band 13_Ant 0	10M	QPSK	25	0	Left Side	10mm	4	23230	782	23.36	24.30	1.242	0.09	0.358	0.445
	LTE Band 13_Ant 0	10M	QPSK	1	0	Right Side	10mm	4	23230	782	24.26	25.30	1.271	-0.08	0.380	0.483
	LTE Band 13_Ant 0	10M	QPSK	25	0	Right Side	10mm	4	23230	782	23.36	24.30	1.242	0.06	0.325	0.404
	LTE Band 13_Ant 0	10M	QPSK	1	0	Bottom Side	10mm	4	23230	782	24.26	25.30	1.271	0.03	0.115	0.146
	LTE Band 13_Ant 0	10M	QPSK	25	0	Bottom Side	10mm	4	23230	782	23.36	24.30	1.242	-0.07	0.095	0.118
	LTE Band 13_Ant 1	10M	QPSK	1	0	Front	10mm	4	23230	782	23.92	25.20	1.343	0.11	0.163	0.219
	LTE Band 13_Ant 1	10M	QPSK	25	0	Front	10mm	4	23230	782	22.94	24.20	1.337	-0.08	0.133	0.178
	LTE Band 13_Ant 1	10M	QPSK	1	0	Back	10mm	4	23230	782	23.92	25.20	1.343	-0.19	0.227	0.305
	LTE Band 13_Ant 1	10M	QPSK	25	0	Back	10mm	4	23230	782	22.94	24.20	1.337	0.13	0.189	0.253
	LTE Band 13_Ant 1	10M	QPSK	1	0	Left Side	10mm	4	23230	782	23.92	25.20	1.343	-0.05	0.168	0.226
	LTE Band 13_Ant 1	10M	QPSK	25	0	Left Side	10mm	4	23230	782	22.94	24.20	1.337	0.07	0.130	0.174
	LTE Band 13_Ant 1	10M	QPSK	1	0	Right Side	10mm	4	23230	782	23.92	25.20	1.343	0.08	0.122	0.164
	LTE Band 13_Ant 1	10M	QPSK	25	0	Right Side	10mm	4	23230	782	22.94	24.20	1.337	0.09	0.091	0.122
	LTE Band 13_Ant 1	10M	QPSK	1	0	Top Side	10mm	4	23230	782	23.92	25.20	1.343	-0.05	0.140	0.188
	LTE Band 13_Ant 1	10M	QPSK	25	0	Top Side	10mm	4	23230	782	22.94	24.20	1.337	0.12	0.097	0.130
	LTE Band 14_Ant 0	10M	QPSK	1	0	Front	10mm	4	23330	793	24.44	25.50	1.276	0.11	0.323	0.412
	LTE Band 14_Ant 0	10M	QPSK	25	0	Front	10mm	4	23330	793	23.53	24.50	1.250	-0.07	0.263	0.329
	LTE Band 14_Ant 0	10M	QPSK	1	0	Back	10mm	4	23330	793	24.44	25.50	1.276	-0.09	0.398	0.508
	LTE Band 14_Ant 0	10M	QPSK	25	0	Back	10mm	4	23330	793	23.53	24.50	1.250	0.11	0.305	0.381
40	LTE Band 14_Ant 0	10M	QPSK	1	0	Left Side	10mm	4	23330	793	24.44	25.50	1.276	-0.03	0.621	0.793
	LTE Band 14_Ant 0	10M	QPSK	25	0	Left Side	10mm	4	23330	793	23.53	24.50	1.250	0.06	0.359	0.449
	LTE Band 14_Ant 0	10M	QPSK	1	0	Right Side	10mm	4	23330	793	24.44	25.50	1.276	-0.08	0.391	0.499
	LTE Band 14_Ant 0	10M	QPSK	25	0	Right Side	10mm	4	23330	793	23.53	24.50	1.250	0.09	0.317	0.396
	LTE Band 14_Ant 0	10M	QPSK	1	0	Bottom Side	10mm	4	23330	793	24.44	25.50	1.276	0.13	0.137	0.175
	LTE Band 14_Ant 0	10M	QPSK	25	0	Bottom Side	10mm	4	23330	793	23.53	24.50	1.250	0.014	0.111	0.139
	LTE Band 14_Ant 1	10M	QPSK	1	0	Front	10mm	4	23330	793	23.84	25.20	1.368	-0.04	0.155	0.212
	LTE Band 14_Ant 1	10M	QPSK	25	0	Front	10mm	4	23330	793	22.87	24.20	1.358	-0.16	0.146	0.198
	LTE Band 14_Ant 1	10M	QPSK	1	0	Back	10mm	4	23330	793	23.84	25.20	1.368	0.17	0.271	0.371
	LTE Band 14_Ant 1	10M	QPSK	25	0	Back	10mm	4	23330	793	22.87	24.20	1.358	-0.15	0.190	0.258
	LTE Band 14_Ant 1	10M	QPSK	1	0	Left Side	10mm	4	23330	793	23.84	25.20	1.368	-0.06	0.183	0.250
	LTE Band 14_Ant 1	10M	QPSK	25	0	Left Side	10mm	4	23330	793	22.87	24.20	1.358	-0.1	0.134	0.182
	LTE Band 14_Ant 1	10M	QPSK	1	0	Right Side	10mm	4	23330	793	23.84	25.20	1.368	-0.19	0.085	0.116
	LTE Band 14_Ant 1	10M	QPSK	25	0	Right Side	10mm	4	23330	793	22.87	24.20	1.358	-0.11	0.064	0.087
	LTE Band 14_Ant 1	10M	QPSK	1	0	Top Side	10mm	4	23330	793	23.84	25.20	1.368	-0.07	0.138	0.189
	LTE Band 14_Ant 1	10M	QPSK	25	0	Top Side	10mm	4	23330	793	22.87	24.20	1.358	-0.04	0.131	0.178



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 25_Ant 2	20M	QPSK	1	0	Front	10mm	4	26140	1860	20.30	20.90	1.148	-0.09	0.548	0.629
	LTE Band 25_Ant 2	20M	QPSK	50	24	Front	10mm	4	26140	1860	20.41	20.90	1.119	-0.14	0.576	0.645
	LTE Band 25_Ant 2	20M	QPSK	1	0	Back	10mm	4	26140	1860	20.30	20.90	1.148	-0.13	0.632	0.726
	LTE Band 25_Ant 2	20M	QPSK	50	24	Back	10mm	4	26140	1860	20.41	20.90	1.119	-0.18	0.667	0.747
	LTE Band 25_Ant 2	20M	QPSK	1	0	Left Side	10mm	4	26140	1860	20.30	20.90	1.148	-0.1	0.039	0.045
	LTE Band 25_Ant 2	20M	QPSK	50	24	Left Side	10mm	4	26140	1860	20.41	20.90	1.119	-0.14	0.039	0.044
	LTE Band 25_Ant 2	20M	QPSK	1	0	Right Side	10mm	4	26140	1860	20.30	20.90	1.148	-0.12	0.469	0.538
	LTE Band 25_Ant 2	20M	QPSK	50	24	Right Side	10mm	4	26140	1860	20.41	20.90	1.119	-0.12	0.485	0.543
	LTE Band 25_Ant 2	20M	QPSK	1	0	Bottom Side	10mm	4	26140	1860	20.30	20.90	1.148	-0.13	0.704	0.808
	LTE Band 25_Ant 2	20M	QPSK	1	0	Bottom Side	10mm	4	26340	1880	20.29	20.90	1.151	-0.1	0.757	0.871
	LTE Band 25_Ant 2	20M	QPSK	1	0	Bottom Side	10mm	4	26590	1905	20.18	20.90	1.180	-0.14	0.783	0.924
	LTE Band 25_Ant 2	20M	QPSK	50	24	Bottom Side	10mm	4	26140	1860	20.41	20.90	1.119	-0.05	0.742	0.831
	LTE Band 25_Ant 2	20M	QPSK	50	24	Bottom Side	10mm	4	26340	1880	20.34	20.90	1.138	0.06	0.770	0.876
41	LTE Band 25_Ant 2	20M	QPSK	50	24	Bottom Side	10mm	4	26590	1905	20.22	20.90	1.169	0.01	0.843	0.986
	LTE Band 25_Ant 2	20M	QPSK	100	0	Bottom Side	10mm	4	26140	1860	20.39	20.90	1.125	-0.03	0.747	0.840
	LTE Band 25_Ant 0	20M	QPSK	1	0	Front	10mm	4	26340	1880	22.20	22.60	1.096	-0.17	0.386	0.423
	LTE Band 25_Ant 0	20M	QPSK	50	24	Front	10mm	4	26340	1880	22.21	22.60	1.094	-0.17	0.388	0.424
	LTE Band 25_Ant 0	20M	QPSK	1	0	Back	10mm	4	26340	1880	22.20	22.60	1.096	-0.1	0.635	0.696
	LTE Band 25_Ant 0	20M	QPSK	50	24	Back	10mm	4	26340	1880	22.21	22.60	1.094	-0.14	0.636	0.696
	LTE Band 25_Ant 0	20M	QPSK	1	0	Left Side	10mm	4	26340	1880	22.20	22.60	1.096	-0.11	0.728	0.798
	LTE Band 25_Ant 0	20M	QPSK	50	24	Left Side	10mm	4	26340	1880	22.21	22.60	1.094	-0.15	0.855	0.935
	LTE Band 25_Ant 0	20M	QPSK	50	24	Left Side	10mm	4	26140	1860	22.15	22.60	1.109	-0.13	0.698	0.774
	LTE Band 25_Ant 0	20M	QPSK	50	24	Left Side	10mm	4	26590	1905	22.12	22.60	1.117	-0.16	0.714	0.797
	LTE Band 25_Ant 0	20M	QPSK	100	0	Left Side	10mm	4	26340	1880	22.20	22.60	1.096	-0.14	0.715	0.784
	LTE Band 25_Ant 0	20M	QPSK	1	0	Right Side	10mm	4	26340	1880	22.20	22.60	1.096	-0.02	0.031	0.034
	LTE Band 25_Ant 0	20M	QPSK	50	24	Right Side	10mm	4	26340	1880	22.21	22.60	1.094	0	0.028	0.031
	LTE Band 25_Ant 0	20M	QPSK	1	0	Bottom Side	10mm	4	26340	1880	22.20	22.60	1.096	-0.15	0.585	0.641
	LTE Band 25_Ant 0	20M	QPSK	50	24	Bottom Side	10mm	4	26340	1880	22.21	22.60	1.094	-0.15	0.541	0.592
	LTE Band 26_Ant 0	15M	QPSK	1	0	Front	10mm	4	26865	831.5	24.62	25.50	1.225	0.01	0.333	0.408
	LTE Band 26_Ant 0	15M	QPSK	36	0	Front	10mm	4	26865	831.5	23.64	24.50	1.219	0.08	0.250	0.305
	LTE Band 26_Ant 0	15M	QPSK	1	0	Back	10mm	4	26865	831.5	24.62	25.50	1.225	-0.07	0.358	0.438
	LTE Band 26_Ant 0	15M	QPSK	36	0	Back	10mm	4	26865	831.5	23.64	24.50	1.219	-0.11	0.299	0.364
42	LTE Band 26_Ant 0	15M	QPSK	1	0	Left Side	10mm	4	26865	831.5	24.62	25.50	1.225	-0.05	0.489	0.599
	LTE Band 26_Ant 0	15M	QPSK	36	0	Left Side	10mm	4	26865	831.5	23.64	24.50	1.219	-0.1	0.391	0.477
	LTE Band 26_Ant 0	15M	QPSK	1	0	Right Side	10mm	4	26865	831.5	24.62	25.50	1.225	0.09	0.288	0.353
	LTE Band 26_Ant 0	15M	QPSK	36	0	Right Side	10mm	4	26865	831.5	23.64	24.50	1.219	0.06	0.234	0.285
	LTE Band 26_Ant 0	15M	QPSK	1	0	Bottom Side	10mm	4	26865	831.5	24.62	25.50	1.225	0.02	0.206	0.252
	LTE Band 26_Ant 0	15M	QPSK	36	0	Bottom Side	10mm	4	26865	831.5	23.64	24.50	1.219	0.05	0.174	0.212
	LTE Band 5B_Ant 0	10M	QPSK	1	0	Left Side	10mm	4	20600	844	22.11	23.50	1.377	0.11	0.201	0.277
	LTE Band 26_Ant 1	15M	QPSK	1	0	Front	10mm	4	26865	831.5	24.46	25.20	1.186	-0.06	0.202	0.240
	LTE Band 26_Ant 1	15M	QPSK	36	0	Front	10mm	4	26865	831.5	23.48	24.20	1.180	0.01	0.157	0.185
	LTE Band 26_Ant 1	15M	QPSK	1	0	Back	10mm	4	26865	831.5	24.46	25.20	1.186	-0.09	0.295	0.350
	LTE Band 26_Ant 1	15M	QPSK	36	0	Back	10mm	4	26865	831.5	23.48	24.20	1.180	0.1	0.231	0.273
	LTE Band 26_Ant 1	15M	QPSK	1	0	Left Side	10mm	4	26865	831.5	24.46	25.20	1.186	0.06	0.116	0.138
	LTE Band 26_Ant 1	15M	QPSK	36	0	Left Side	10mm	4	26865	831.5	23.48	24.20	1.180	-0.08	0.086	0.102
	LTE Band 26_Ant 1	15M	QPSK	1	0	Right Side	10mm	4	26865	831.5	24.46	25.20	1.186	-0.03	0.102	0.121
	LTE Band 26_Ant 1	15M	QPSK	36	0	Right Side	10mm	4	26865	831.5	23.48	24.20	1.180	0.04	0.061	0.072
	LTE Band 26_Ant 1	15M	QPSK	1	0	Top Side	10mm	4	26865	831.5	24.46	25.20	1.186	0.08	0.178	0.211
	LTE Band 26_Ant 1	15M	QPSK	36	0	Top Side	10mm	4	26865	831.5	23.48	24.20	1.180	0.07	0.145	0.171
	LTE Band 5B_Ant 1	10M	QPSK	1	0	Back	10mm	4	20575	844	21.71	23.20	1.409	0.07	0.155	0.218



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 30_Ant 2	10M	QPSK	1	0	Front	10mm	4	27710	2310	21.41	22.60	1.315	-0.03	0.469	0.617
	LTE Band 30_Ant 2	10M	QPSK	25	25	Front	10mm	4	27710	2310	20.69	21.60	1.233	-0.01	0.431	0.531
43	LTE Band 30_Ant 2	10M	QPSK	1	0	Back	10mm	4	27710	2310	21.41	22.60	1.315	-0.14	0.712	0.936
	LTE Band 30_Ant 2	10M	QPSK	25	25	Back	10mm	4	27710	2310	20.69	21.60	1.233	-0.17	0.667	0.822
	LTE Band 30_Ant 2	10M	QPSK	50	0	Back	10mm	4	27710	2310	20.69	21.60	1.233	-0.14	0.667	0.822
	LTE Band 30_Ant 2	10M	QPSK	1	0	Left Side	10mm	4	27710	2310	21.41	22.60	1.315	0.1	0.010	0.013
	LTE Band 30_Ant 2	10M	QPSK	25	25	Left Side	10mm	4	27710	2310	20.69	21.60	1.233	0.09	0.008	0.010
	LTE Band 30_Ant 2	10M	QPSK	1	0	Right Side	10mm	4	27710	2310	21.41	22.60	1.315	-0.12	0.702	0.923
	LTE Band 30_Ant 2	10M	QPSK	25	25	Right Side	10mm	4	27710	2310	20.69	21.60	1.233	0.08	0.654	0.806
	LTE Band 30_Ant 2	10M	QPSK	50	0	Right Side	10mm	4	27710	2310	20.69	21.60	1.233	0	0.645	0.795
	LTE Band 30_Ant 2	10M	QPSK	1	0	Bottom Side	10mm	4	27710	2310	21.41	22.60	1.315	0.11	0.639	0.840
	LTE Band 30_Ant 2	10M	QPSK	25	25	Bottom Side	10mm	4	27710	2310	20.69	21.60	1.233	0.05	0.579	0.714
	LTE Band 30_Ant 2	10M	QPSK	50	0	Bottom Side	10mm	4	27710	2310	20.69	21.60	1.233	-0.11	0.568	0.700
	LTE Band 30_Ant 0	10M	QPSK	1	0	Front	10mm	4	27710	2310	22.15	22.90	1.189	-0.11	0.366	0.435
	LTE Band 30_Ant 0	10M	QPSK	25	0	Front	10mm	4	27710	2310	20.67	21.90	1.327	-0.17	0.260	0.345
	LTE Band 30_Ant 0	10M	QPSK	1	0	Back	10mm	4	27710	2310	22.15	22.90	1.189	-0.13	0.495	0.588
	LTE Band 30_Ant 0	10M	QPSK	25	0	Back	10mm	4	27710	2310	20.67	21.90	1.327	-0.15	0.336	0.446
	LTE Band 30_Ant 0	10M	QPSK	1	0	Left Side	10mm	4	27710	2310	22.15	22.90	1.189	-0.18	0.734	0.872
	LTE Band 30_Ant 0	10M	QPSK	25	0	Left Side	10mm	4	27710	2310	20.90	21.90	1.259	-0.16	0.513	0.646
	LTE Band 30_Ant 0	10M	QPSK	50	0	Left Side	10mm	4	27710	2310	20.66	21.90	1.330	-0.12	0.509	0.677
	LTE Band 30_Ant 0	10M	QPSK	1	0	Right Side	10mm	4	27710	2310	22.15	22.90	1.189	-0.09	0.024	0.029
	LTE Band 30_Ant 0	10M	QPSK	25	0	Right Side	10mm	4	27710	2310	20.67	21.90	1.327	-0.13	0.016	0.021
	LTE Band 30_Ant 0	10M	QPSK	1	0	Bottom Side	10mm	4	27710	2310	22.15	22.90	1.189	-0.17	0.112	0.133
	LTE Band 30_Ant 0	10M	QPSK	25	0	Bottom Side	10mm	4	27710	2310	20.67	21.90	1.327	-0.14	0.080	0.106



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 66_Ant 2	20M	QPSK	1	0	Front	10mm	4	132072	1720	21.04	21.90	1.219	-0.16	0.599	0.730
	LTE Band 66_Ant 2	20M	QPSK	50	24	Front	10mm	4	132072	1720	21.15	21.90	1.189	-0.03	0.620	0.737
	LTE Band 66_Ant 2	20M	QPSK	1	0	Back	10mm	4	132072	1720	21.04	21.90	1.219	-0.14	0.682	0.831
	LTE Band 66_Ant 2	20M	QPSK	1	0	Back	10mm	4	132322	1745	21.03	21.90	1.222	-0.12	0.600	0.733
	LTE Band 66_Ant 2	20M	QPSK	1	0	Back	10mm	4	132572	1770	20.97	21.90	1.239	-0.11	0.565	0.700
	LTE Band 66_Ant 2	20M	QPSK	50	24	Back	10mm	4	132072	1720	21.15	21.90	1.189	-0.18	0.655	0.778
	LTE Band 66_Ant 2	20M	QPSK	100	0	Back	10mm	4	132072	1720	21.13	21.90	1.194	-0.16	0.633	0.756
	LTE Band 66_Ant 2	20M	QPSK	1	0	Left Side	10mm	4	132072	1720	21.04	21.90	1.219	-0.01	0.062	0.076
	LTE Band 66_Ant 2	20M	QPSK	50	24	Left Side	10mm	4	132072	1720	21.15	21.90	1.189	-0.09	0.062	0.074
	LTE Band 66_Ant 2	20M	QPSK	1	0	Right Side	10mm	4	132072	1720	21.04	21.90	1.219	-0.17	0.583	0.711
	LTE Band 66_Ant 2	20M	QPSK	50	24	Right Side	10mm	4	132072	1720	21.15	21.90	1.189	-0.18	0.598	0.711
	LTE Band 66_Ant 2	20M	QPSK	1	0	Bottom Side	10mm	4	132072	1720	21.04	21.90	1.219	-0.18	0.722	0.880
	LTE Band 66_Ant 2	20M	QPSK	1	0	Bottom Side	10mm	4	132322	1745	21.03	21.90	1.222	-0.14	0.704	0.860
	LTE Band 66_Ant 2	20M	QPSK	1	0	Bottom Side	10mm	4	132572	1770	20.97	21.90	1.239	-0.17	0.692	0.857
44	LTE Band 66_Ant 2	20M	QPSK	50	24	Bottom Side	10mm	4	132072	1720	21.15	21.90	1.189	-0.18	0.794	0.944
	LTE Band 66_Ant 2	20M	QPSK	50	24	Bottom Side	10mm	4	132322	1745	21.08	21.90	1.208	-0.17	0.719	0.868
	LTE Band 66_Ant 2	20M	QPSK	50	24	Bottom Side	10mm	4	132572	1770	21.04	21.90	1.219	-0.11	0.721	0.879
	LTE Band 66_Ant 2	20M	QPSK	100	0	Bottom Side	10mm	4	132072	1720	21.13	21.90	1.194	-0.03	0.745	0.890
	LTE Band 66B_Ant 2	15M	QPSK	1	74	Bottom Side	10mm	4	132047	1717.5	18.16	19.25	1.285	-0.13	0.480	0.617
	LTE Band 66C_Ant 2	20M	QPSK	1	99	Bottom Side	10mm	4	132072	1720	18.26	19.25	1.256	-0.11	0.438	0.550
	LTE Band 66_Ant 0	20M	QPSK	1	0	Front	10mm	4	132322	1745	23.03	23.50	1.114	-0.15	0.413	0.460
	LTE Band 66_Ant 0	20M	QPSK	50	0	Front	10mm	4	132322	1745	23.09	23.50	1.099	-0.1	0.395	0.434
	LTE Band 66_Ant 0	20M	QPSK	1	0	Back	10mm	4	132322	1745	23.03	23.50	1.114	-0.12	0.664	0.740
	LTE Band 66_Ant 0	20M	QPSK	50	0	Back	10mm	4	132322	1745	23.09	23.50	1.099	-0.12	0.663	0.729
	LTE Band 66_Ant 0	20M	QPSK	1	0	Left Side	10mm	4	132322	1745	23.03	23.50	1.114	-0.18	0.577	0.643
	LTE Band 66_Ant 0	20M	QPSK	50	0	Left Side	10mm	4	132322	1745	23.09	23.50	1.099	-0.16	0.582	0.640
	LTE Band 66_Ant 0	20M	QPSK	1	0	Right Side	10mm	4	132322	1745	23.03	23.50	1.114	-0.15	0.059	0.066
	LTE Band 66_Ant 0	20M	QPSK	50	0	Right Side	10mm	4	132322	1745	23.09	23.50	1.099	-0.15	0.057	0.063
	LTE Band 66_Ant 0	20M	QPSK	1	0	Bottom Side	10mm	4	132322	1745	23.03	23.50	1.114	-0.04	0.738	0.822
	LTE Band 66_Ant 0	20M	QPSK	1	0	Bottom Side	10mm	4	132072	1720	23.02	23.50	1.117	-0.14	0.813	0.908
	LTE Band 66_Ant 0	20M	QPSK	1	0	Bottom Side	10mm	4	132572	1770	23.01	23.50	1.119	-0.19	0.709	0.794
	LTE Band 66_Ant 0	20M	QPSK	50	0	Bottom Side	10mm	4	132322	1745	23.09	23.50	1.099	-0.16	0.699	0.768
	LTE Band 66_Ant 0	20M	QPSK	100	0	Bottom Side	10mm	4	132072	1720	23.02	23.50	1.117	-0.17	0.728	0.813
	LTE Band 66B_Ant 0	15M	QPSK	1	0	Bottom Side	10mm	4	132322	1745	17.50	18.75	1.334	-0.02	0.317	0.423
	LTE Band 66C_Ant 0	20M	QPSK	1	0	Bottom Side	10mm	4	132322	1745	17.56	18.75	1.315	0.06	0.267	0.351



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 71_Ant 0	20M	QPSK	1	0	Front	10mm	4	133322	683	24.50	25.30	1.202	-0.05	0.289	0.347
	LTE Band 71_Ant 0	20M	QPSK	50	0	Front	10mm	4	133322	683	23.60	24.30	1.175	0.11	0.242	0.284
45	LTE Band 71_Ant 0	20M	QPSK	1	0	Back	10mm	4	133322	683	24.50	25.30	1.202	-0.13	0.402	0.483
	LTE Band 71_Ant 0	20M	QPSK	50	0	Back	10mm	4	133322	683	23.60	24.30	1.175	0.13	0.302	0.355
	LTE Band 71_Ant 0	20M	QPSK	1	0	Left Side	10mm	4	133322	683	24.50	25.30	1.202	0.07	0.384	0.462
	LTE Band 71_Ant 0	20M	QPSK	50	0	Left Side	10mm	4	133322	683	23.60	24.30	1.175	0	0.288	0.338
	LTE Band 71_Ant 0	20M	QPSK	1	0	Right Side	10mm	4	133322	683	24.50	25.30	1.202	-0.06	0.256	0.308
	LTE Band 71_Ant 0	20M	QPSK	50	0	Right Side	10mm	4	133322	683	23.60	24.30	1.175	0.01	0.252	0.296
	LTE Band 71_Ant 0	20M	QPSK	1	0	Bottom Side	10mm	4	133322	683	24.50	25.30	1.202	0.13	0.067	0.081
	LTE Band 71_Ant 0	20M	QPSK	50	0	Bottom Side	10mm	4	133322	683	23.60	24.30	1.175	0.09	0.062	0.073
	LTE Band 71_Ant 1	20M	QPSK	1	0	Front	10mm	4	133322	683	24.03	25.20	1.309	0.03	0.131	0.172
	LTE Band 71_Ant 1	20M	QPSK	50	0	Front	10mm	4	133322	683	23.20	24.20	1.259	-0.05	0.114	0.144
	LTE Band 71_Ant 1	20M	QPSK	1	0	Back	10mm	4	133322	683	24.03	25.20	1.309	-0.06	0.199	0.261
	LTE Band 71_Ant 1	20M	QPSK	50	0	Back	10mm	4	133322	683	23.20	24.20	1.259	0.11	0.161	0.203
	LTE Band 71_Ant 1	20M	QPSK	1	0	Left Side	10mm	4	133322	683	24.03	25.20	1.309	-0.11	0.217	0.284
	LTE Band 71_Ant 1	20M	QPSK	50	0	Left Side	10mm	4	133322	683	23.20	24.20	1.259	0.03	0.206	0.259
	LTE Band 71_Ant 1	20M	QPSK	1	0	Right Side	10mm	4	133322	683	24.03	25.20	1.309	-0.1	0.099	0.130
	LTE Band 71_Ant 1	20M	QPSK	50	0	Right Side	10mm	4	133322	683	23.20	24.20	1.259	0	0.083	0.104
	LTE Band 71_Ant 1	20M	QPSK	1	0	Top Side	10mm	4	133322	683	24.03	25.20	1.309	0.15	0.142	0.186
	LTE Band 71_Ant 1	20M	QPSK	50	0	Top Side	10mm	4	133322	683	23.20	24.20	1.259	-0.13	0.120	0.151



<TDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 41_Ant 2	20M	QPSK	1	0	Front	10mm	4	40185	2549.5	21.90	22.60	1.175	62.9	1.006	-0.11	0.360	0.426
	LTE Band 41_Ant 2	20M	QPSK	50	24	Front	10mm	4	40185	2549.5	22.00	22.60	1.148	62.9	1.006	-0.09	0.367	0.424
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	4	40185	2549.5	21.90	22.60	1.175	62.9	1.006	-0.15	0.462	0.546
	LTE Band 41_Ant 2	20M	QPSK	50	24	Back	10mm	4	40185	2549.5	22.00	22.60	1.148	62.9	1.006	-0.13	0.469	0.542
	LTE Band 41_Ant 2	20M	QPSK	1	0	Left Side	10mm	4	40185	2549.5	21.90	22.60	1.175	62.9	1.006	-0.16	0.009	0.011
	LTE Band 41_Ant 2	20M	QPSK	50	24	Left Side	10mm	4	40185	2549.5	22.00	22.60	1.148	62.9	1.006	-0.12	0.013	0.015
	LTE Band 41_Ant 2	20M	QPSK	1	0	Right Side	10mm	4	40185	2549.5	21.90	22.60	1.175	62.9	1.006	-0.14	0.800	0.946
	LTE Band 41_Ant 2	20M	QPSK	1	0	Right Side	10mm	4	39790	2510	21.86	22.60	1.186	62.9	1.006	-0.14	0.598	0.713
	LTE Band 41_Ant 2	20M	QPSK	1	0	Right Side	10mm	4	39750	2506	21.83	22.60	1.194	62.9	1.006	-0.17	0.574	0.689
	LTE Band 41_Ant 2	20M	QPSK	1	0	Right Side	10mm	4	40620	2593	21.89	22.60	1.178	62.9	1.006	-0.17	0.595	0.705
	LTE Band 41_Ant 2	20M	QPSK	1	0	Right Side	10mm	4	41055	2636.5	21.68	22.60	1.236	62.9	1.006	-0.18	0.568	0.706
46	LTE Band 41_Ant 2	20M	QPSK	1	0	Right Side	10mm	4	41490	2680	21.69	22.60	1.233	62.9	1.006	-0.14	0.799	0.991
	LTE Band 41_Ant 2	20M	QPSK	50	24	Right Side	10mm	4	40185	2549.5	22.00	22.60	1.148	62.9	1.006	-0.18	0.681	0.787
	LTE Band 41_Ant 2	20M	QPSK	50	24	Right Side	10mm	4	39790	2510	21.89	22.60	1.178	62.9	1.006	-0.12	0.593	0.703
	LTE Band 41_Ant 2	20M	QPSK	50	24	Right Side	10mm	4	39750	2506	21.90	22.60	1.175	62.9	1.006	-0.07	0.568	0.671
	LTE Band 41_Ant 2	20M	QPSK	50	24	Right Side	10mm	4	40620	2593	21.94	22.60	1.164	62.9	1.006	-0.16	0.564	0.661
	LTE Band 41_Ant 2	20M	QPSK	50	24	Right Side	10mm	4	41055	2636.5	21.74	22.60	1.219	62.9	1.006	-0.13	0.590	0.724
	LTE Band 41_Ant 2	20M	QPSK	50	24	Right Side	10mm	4	41490	2680	21.99	22.60	1.151	62.9	1.006	-0.13	0.703	0.814
	LTE Band 41_Ant 2	20M	QPSK	100	0	Right Side	10mm	4	40185	2549.5	21.94	22.60	1.164	62.9	1.006	-0.12	0.634	0.742
	LTE Band 41_Ant 2	20M	QPSK	1	0	Bottom Side	10mm	4	40185	2549.5	21.90	22.60	1.175	62.9	1.006	-0.11	0.307	0.363
	LTE Band 41_Ant 2	20M	QPSK	50	24	Bottom Side	10mm	4	40185	2549.5	22.00	22.60	1.148	62.9	1.006	-0.16	0.307	0.355
	LTE Band 41_HPUE_Ant 2	20M	QPSK	1	0	Right Side	10mm	4	40620	2593	23.51	24.20	1.172	42.9	1.009	-0.17	0.751	0.888
	LTE Band 41C_Ant 2	20M	QPSK	1	0	Right Side	10mm	4	40620	2593	19.83	20.60	1.194	62.9	1.006	-0.18	0.597	0.717
	LTE Band 41_Ant 0	20M	QPSK	1	0	Front	10mm	4	40620	2593	23.77	25.20	1.390	62.9	1.006	-0.18	0.296	0.414
	LTE Band 41_Ant 0	20M	QPSK	50	0	Front	10mm	4	40620	2593	22.75	24.20	1.396	62.9	1.006	-0.14	0.181	0.254
	LTE Band 41_Ant 0	20M	QPSK	1	0	Back	10mm	4	40620	2593	23.77	25.20	1.390	62.9	1.006	-0.16	0.377	0.527
	LTE Band 41_Ant 0	20M	QPSK	1	0	Back	10mm	4	39790	2510	23.60	25.20	1.445	62.9	1.006	-0.06	0.235	0.342
	LTE Band 41_Ant 0	20M	QPSK	1	0	Back	10mm	4	39750	2506	23.61	25.20	1.442	62.9	1.006	-0.14	0.230	0.334
	LTE Band 41_Ant 0	20M	QPSK	1	0	Back	10mm	4	40185	2549.5	23.62	25.20	1.439	62.9	1.006	-0.03	0.306	0.443
	LTE Band 41_Ant 0	20M	QPSK	1	0	Back	10mm	4	41055	2636.5	23.62	25.20	1.439	62.9	1.006	0.01	0.471	0.682
	LTE Band 41_Ant 0	20M	QPSK	1	0	Back	10mm	4	41490	2680	23.63	25.20	1.435	62.9	1.006	-0.18	0.446	0.644
	LTE Band 41_Ant 0	20M	QPSK	50	0	Back	10mm	4	40620	2593	22.75	24.20	1.396	62.9	1.006	-0.14	0.226	0.317
	LTE Band 41_Ant 0	20M	QPSK	1	0	Left Side	10mm	4	40620	2593	23.77	25.20	1.390	62.9	1.006	-0.16	0.324	0.453
	LTE Band 41_Ant 0	20M	QPSK	50	0	Left Side	10mm	4	40620	2593	22.75	24.20	1.396	62.9	1.006	-0.06	0.372	0.523
	LTE Band 41_Ant 0	20M	QPSK	1	0	Right Side	10mm	4	40620	2593	23.77	25.20	1.390	62.9	1.006	-0.14	0.038	0.053
	LTE Band 41_Ant 0	20M	QPSK	50	0	Right Side	10mm	4	40620	2593	22.75	24.20	1.396	62.9	1.006	-0.03	0.062	0.087
	LTE Band 41_Ant 0	20M	QPSK	1	0	Bottom Side	10mm	4	40620	2593	23.77	25.20	1.390	62.9	1.006	-0.03	0.182	0.254
	LTE Band 41_Ant 0	20M	QPSK	50	0	Bottom Side	10mm	4	40620	2593	22.75	24.20	1.396	62.9	1.006	-0.11	0.098	0.138
	LTE Band 41_HPUE_Ant 0	20M	QPSK	1	0	Back	10mm	4	40620	2593	25.93	27.20	1.340	42.9	1.009	-0.13	0.529	0.715
	LTE Band 41C_Ant 0	20M	QPSK	1	0	Back	10mm	4	40620	2593	20.92	22.20	1.343	62.9	1.006	0.11	0.193	0.261



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
47	LTE Band 48_Ant 6	20M	QPSK	1	0	Front	10mm	4	55830	3609	22.88	24.00	1.294	62.9	1.006	-0.16	0.524	0.682
	LTE Band 48_Ant 6	20M	QPSK	1	0	Front	10mm	4	55340	3560	22.69	24.00	1.352	62.9	1.006	-0.01	0.652	0.887
	LTE Band 48_Ant 6	20M	QPSK	1	0	Front	10mm	4	56150	3641	22.80	24.00	1.318	62.9	1.006	-0.14	0.442	0.586
	LTE Band 48_Ant 6	20M	QPSK	1	0	Front	10mm	4	56640	3690	22.87	24.00	1.297	62.9	1.006	-0.13	0.432	0.564
	LTE Band 48_Ant 6	20M	QPSK	50	0	Front	10mm	4	55830	3609	21.85	23.00	1.303	62.9	1.006	-0.13	0.392	0.514
	LTE Band 48_Ant 6	20M	QPSK	100	0	Front	10mm	4	55830	3609	21.76	23.00	1.330	62.9	1.006	-0.19	0.376	0.503
	LTE Band 48_Ant 6	20M	QPSK	1	0	Back	10mm	4	55830	3609	22.88	24.00	1.294	62.9	1.006	-0.17	0.337	0.439
	LTE Band 48_Ant 6	20M	QPSK	50	0	Back	10mm	4	55830	3609	21.85	23.00	1.303	62.9	1.006	-0.14	0.272	0.357
	LTE Band 48_Ant 6	20M	QPSK	1	0	Left Side	10mm	4	55830	3609	22.88	24.00	1.294	62.9	1.006	0.02	0.473	0.616
	LTE Band 48_Ant 6	20M	QPSK	50	0	Left Side	10mm	4	55830	3609	21.85	23.00	1.303	62.9	1.006	-0.08	0.371	0.486
	LTE Band 48_Ant 6	20M	QPSK	1	0	Right Side	10mm	4	55830	3609	22.88	24.00	1.294	62.9	1.006	-0.11	0.039	0.051
	LTE Band 48_Ant 6	20M	QPSK	50	0	Right Side	10mm	4	55830	3609	21.85	23.00	1.303	62.9	1.006	-0.17	0.028	0.037
	LTE Band 48_Ant 6	20M	QPSK	1	0	Bottom Side	10mm	4	55830	3609	22.88	24.00	1.294	62.9	1.006	-0.13	0.353	0.460
	LTE Band 48_Ant 6	20M	QPSK	50	0	Bottom Side	10mm	4	55830	3609	21.85	23.00	1.303	62.9	1.006	-0.13	0.290	0.380
	LTE Band 48_Ant 2	20M	QPSK	1	0	Front	10mm	4	55830	3609	21.82	23.20	1.374	62.9	1.006	0.09	0.243	0.336
	LTE Band 48_Ant 2	20M	QPSK	50	0	Front	10mm	4	55830	3609	20.85	22.20	1.365	62.9	1.006	0.08	0.182	0.250
	LTE Band 48_Ant 2	20M	QPSK	1	0	Back	10mm	4	55830	3609	21.82	23.20	1.374	62.9	1.006	-0.04	0.276	0.382
LTE Band 48_Ant 2	20M	QPSK	50	0	Back	10mm	4	55830	3609	20.85	22.20	1.365	62.9	1.006	0.05	0.189	0.259	
LTE Band 48_Ant 2	20M	QPSK	1	0	Left Side	10mm	4	55830	3609	21.82	23.20	1.374	62.9	1.006	0.07	0.096	0.133	
LTE Band 48_Ant 2	20M	QPSK	50	0	Left Side	10mm	4	55830	3609	20.85	22.20	1.365	62.9	1.006	0.08	0.067	0.092	
LTE Band 48_Ant 2	20M	QPSK	1	0	Right Side	10mm	4	55830	3609	21.82	23.20	1.374	62.9	1.006	-0.13	0.185	0.256	
LTE Band 48_Ant 2	20M	QPSK	50	0	Right Side	10mm	4	55830	3609	20.85	22.20	1.365	62.9	1.006	-0.1	0.131	0.180	
LTE Band 48_Ant 2	20M	QPSK	1	0	Bottom Side	10mm	4	55830	3609	21.82	23.20	1.374	62.9	1.006	0.14	0.338	0.467	
LTE Band 48_Ant 2	20M	QPSK	1	0	Bottom Side	10mm	4	55340	3560	21.78	23.20	1.387	62.9	1.006	0.07	0.313	0.437	
LTE Band 48_Ant 2	20M	QPSK	1	0	Bottom Side	10mm	4	56150	3641	21.73	23.20	1.403	62.9	1.006	-0.09	0.329	0.464	
LTE Band 48_Ant 2	20M	QPSK	1	0	Bottom Side	10mm	4	56640	3690	21.72	23.20	1.406	62.9	1.006	-0.17	0.302	0.427	
LTE Band 48_Ant 2	20M	QPSK	50	0	Bottom Side	10mm	4	55830	3609	20.85	22.20	1.365	62.9	1.006	0.08	0.241	0.331	



<5G NR SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	FR1 n5_Ant 0	20M	BPSK	1	53	Front	10mm	4	167300	836.5	24.34	25.50	1.306	0.12	0.249	0.325
	FR1 n5_Ant 0	20M	BPSK	50	28	Front	10mm	4	167300	836.5	24.21	25.50	1.346	-0.08	0.237	0.319
	FR1 n5_Ant 0	20M	BPSK	1	53	Back	10mm	4	167300	836.5	24.34	25.50	1.306	-0.12	0.328	0.428
	FR1 n5_Ant 0	20M	BPSK	50	28	Back	10mm	4	167300	836.5	24.21	25.50	1.346	0.09	0.270	0.363
48	FR1 n5_Ant 0	20M	BPSK	1	53	Left Side	10mm	4	167300	836.5	24.34	25.50	1.306	-0.16	0.405	0.529
	FR1 n5_Ant 0	20M	BPSK	50	28	Left Side	10mm	4	167300	836.5	24.21	25.50	1.346	0.12	0.339	0.456
	FR1 n5_Ant 0	20M	BPSK	1	53	Right Side	10mm	4	167300	836.5	24.34	25.50	1.306	-0.05	0.242	0.316
	FR1 n5_Ant 0	20M	BPSK	50	28	Right Side	10mm	4	167300	836.5	24.21	25.50	1.346	0.08	0.231	0.311
	FR1 n5_Ant 0	20M	BPSK	1	53	Bottom Side	10mm	4	167300	836.5	24.34	25.50	1.306	0.06	0.169	0.221
	FR1 n5_Ant 0	20M	BPSK	50	28	Bottom Side	10mm	4	167300	836.5	24.21	25.50	1.346	-0.011	0.150	0.202
	FR1 n5_Ant 1	20M	BPSK	1	53	Front	10mm	4	167300	836.5	24.82	25.20	1.091	0.11	0.177	0.193
	FR1 n5_Ant 1	20M	BPSK	50	28	Front	10mm	4	167300	836.5	24.67	25.20	1.130	-0.12	0.164	0.185
	FR1 n5_Ant 1	20M	BPSK	1	53	Back	10mm	4	167300	836.5	24.82	25.20	1.091	-0.19	0.295	0.322
	FR1 n5_Ant 1	20M	BPSK	50	28	Back	10mm	4	167300	836.5	24.67	25.20	1.130	-0.09	0.250	0.282
	FR1 n5_Ant 1	20M	BPSK	1	53	Left Side	10mm	4	167300	836.5	24.82	25.20	1.091	0.05	0.099	0.108
	FR1 n5_Ant 1	20M	BPSK	50	28	Left Side	10mm	4	167300	836.5	24.67	25.20	1.130	-0.03	0.097	0.110
	FR1 n5_Ant 1	20M	BPSK	1	53	Right Side	10mm	4	167300	836.5	24.82	25.20	1.091	0.13	0.085	0.093
	FR1 n5_Ant 1	20M	BPSK	50	28	Right Side	10mm	4	167300	836.5	24.67	25.20	1.130	0.14	0.083	0.094
	FR1 n5_Ant 1	20M	BPSK	1	53	Top Side	10mm	4	167300	836.5	24.82	25.20	1.091	-0.06	0.130	0.142
	FR1 n5_Ant 1	20M	BPSK	50	28	Top Side	10mm	4	167300	836.5	24.67	25.20	1.130	0.15	0.126	0.142
	FR1 n7_Ant 2	20M	BPSK	1	53	Front	10mm	4	507000	2535	20.49	20.50	1.002	-0.11	0.416	0.417
	FR1 n7_Ant 2	20M	BPSK	50	28	Front	10mm	4	507000	2535	20.44	20.50	1.014	-0.14	0.402	0.408
	FR1 n7_Ant 2	20M	BPSK	1	53	Back	10mm	4	507000	2535	20.49	20.50	1.002	-0.16	0.584	0.585
	FR1 n7_Ant 2	20M	BPSK	50	28	Back	10mm	4	507000	2535	20.44	20.50	1.014	-0.12	0.531	0.538
	FR1 n7_Ant 2	20M	BPSK	1	53	Left Side	10mm	4	507000	2535	20.49	20.50	1.002	-0.15	0.008	0.008
	FR1 n7_Ant 2	20M	BPSK	50	28	Left Side	10mm	4	507000	2535	20.44	20.50	1.014	0.17	0.009	0.010
	FR1 n7_Ant 2	20M	BPSK	1	53	Right Side	10mm	4	507000	2535	20.49	20.50	1.002	-0.17	0.851	0.853
	FR1 n7_Ant 2	20M	BPSK	1	53	Right Side	10mm	4	502000	2510	20.47	20.50	1.007	-0.18	0.776	0.781
	FR1 n7_Ant 2	20M	BPSK	1	53	Right Side	10mm	4	512000	2560	20.48	20.50	1.005	-0.1	0.827	0.831
	FR1 n7_Ant 2	20M	BPSK	50	28	Right Side	10mm	4	507000	2535	20.44	20.50	1.014	-0.14	0.829	0.841
	FR1 n7_Ant 2	20M	BPSK	50	28	Right Side	10mm	4	502000	2510	20.40	20.50	1.023	-0.14	0.736	0.753
	FR1 n7_Ant 2	20M	BPSK	50	28	Right Side	10mm	4	512000	2560	20.39	20.50	1.026	-0.13	0.819	0.840
	FR1 n7_Ant 2	20M	BPSK	100	0	Right Side	10mm	4	507000	2535	20.42	20.50	1.019	-0.14	0.782	0.797
	FR1 n7_Ant 2	20M	BPSK	1	53	Bottom Side	10mm	4	507000	2535	20.49	20.50	1.002	-0.1	0.373	0.374
	FR1 n7_Ant 2	20M	BPSK	50	28	Bottom Side	10mm	4	507000	2535	20.44	20.50	1.014	-0.11	0.363	0.368
	FR1 n7_Ant 0	20M	BPSK	1	53	Front	10mm	4	512000	2560	23.41	24.20	1.199	-0.1	0.354	0.425
	FR1 n7_Ant 0	20M	BPSK	50	28	Front	10mm	4	512000	2560	23.30	24.20	1.230	-0.18	0.357	0.439
	FR1 n7_Ant 0	20M	BPSK	1	53	Back	10mm	4	512000	2560	23.41	24.20	1.199	-0.12	0.493	0.591
	FR1 n7_Ant 0	20M	BPSK	50	28	Back	10mm	4	512000	2560	23.30	24.20	1.230	-0.18	0.497	0.611
	FR1 n7_Ant 0	20M	BPSK	1	53	Left Side	10mm	4	512000	2560	23.41	24.20	1.199	-0.17	0.693	0.831
	FR1 n7_Ant 0	20M	BPSK	1	53	Left Side	10mm	4	502000	2510	23.38	24.20	1.208	-0.13	0.435	0.525
	FR1 n7_Ant 0	20M	BPSK	1	53	Left Side	10mm	4	507000	2535	23.40	24.20	1.202	-0.15	0.551	0.662
	FR1 n7_Ant 0	20M	BPSK	50	28	Left Side	10mm	4	512000	2560	23.30	24.20	1.230	-0.11	0.680	0.837
	FR1 n7_Ant 0	20M	BPSK	50	28	Left Side	10mm	4	502000	2510	23.28	24.20	1.236	-0.18	0.466	0.576
	FR1 n7_Ant 0	20M	BPSK	50	28	Left Side	10mm	4	507000	2535	23.29	24.20	1.233	-0.09	0.533	0.657
49	FR1 n7_Ant 0	20M	BPSK	100	0	Left Side	10mm	4	512000	2560	23.26	24.20	1.242	-0.13	0.751	0.932
	FR1 n7_Ant 0	20M	BPSK	1	53	Right Side	10mm	4	512000	2560	23.41	24.20	1.199	-0.16	0.013	0.016
	FR1 n7_Ant 0	20M	BPSK	50	28	Right Side	10mm	4	512000	2560	23.30	24.20	1.230	-0.17	0.014	0.017
	FR1 n7_Ant 0	20M	BPSK	1	53	Bottom Side	10mm	4	512000	2560	23.41	24.20	1.199	-0.1	0.164	0.197
	FR1 n7_Ant 0	20M	BPSK	50	28	Bottom Side	10mm	4	512000	2560	23.30	24.20	1.230	-0.12	0.165	0.203



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	FR1 n12_Ant 0	15M	BPSK	1	40	Front	10mm	4	141500	707.5	23.94	25.30	1.368	-0.17	0.293	0.401
	FR1 n12_Ant 0	15M	BPSK	36	22	Front	10mm	4	141500	707.5	23.93	25.30	1.371	0	0.281	0.385
	FR1 n12_Ant 0	15M	BPSK	1	40	Back	10mm	4	141500	707.5	23.94	25.30	1.368	-0.04	0.338	0.462
	FR1 n12_Ant 0	15M	BPSK	36	22	Back	10mm	4	141500	707.5	23.93	25.30	1.371	-0.02	0.322	0.441
50	FR1 n12_Ant 0	15M	BPSK	1	40	Left Side	10mm	4	141500	707.5	23.94	25.30	1.368	-0.04	0.346	0.473
	FR1 n12_Ant 0	15M	BPSK	36	22	Left Side	10mm	4	141500	707.5	23.93	25.30	1.371	-0.11	0.331	0.454
	FR1 n12_Ant 0	15M	BPSK	1	40	Right Side	10mm	4	141500	707.5	23.94	25.30	1.368	-0.02	0.238	0.326
	FR1 n12_Ant 0	15M	BPSK	36	22	Right Side	10mm	4	141500	707.5	23.93	25.30	1.371	-0.01	0.225	0.308
	FR1 n12_Ant 0	15M	BPSK	1	40	Bottom Side	10mm	4	141500	707.5	23.94	25.30	1.368	-0.16	0.057	0.078
	FR1 n12_Ant 0	15M	BPSK	36	22	Bottom Side	10mm	4	141500	707.5	23.93	25.30	1.371	-0.15	0.050	0.069
	FR1 n12_Ant 1	15M	BPSK	1	40	Front	10mm	4	141500	707.5	24.33	25.20	1.222	-0.15	0.125	0.153
	FR1 n12_Ant 1	15M	BPSK	36	22	Front	10mm	4	141500	707.5	24.32	25.20	1.225	-0.13	0.087	0.107
	FR1 n12_Ant 1	15M	BPSK	1	40	Back	10mm	4	141500	707.5	24.33	25.20	1.222	-0.19	0.204	0.249
	FR1 n12_Ant 1	15M	BPSK	36	22	Back	10mm	4	141500	707.5	24.32	25.20	1.225	0	0.176	0.216
	FR1 n12_Ant 1	15M	BPSK	1	40	Left Side	10mm	4	141500	707.5	24.33	25.20	1.222	-0.14	0.195	0.238
	FR1 n12_Ant 1	15M	BPSK	36	22	Left Side	10mm	4	141500	707.5	24.32	25.20	1.225	-0.14	0.173	0.212
	FR1 n12_Ant 1	15M	BPSK	1	40	Right Side	10mm	4	141500	707.5	24.33	25.20	1.222	-0.1	0.104	0.127
	FR1 n12_Ant 1	15M	BPSK	36	22	Right Side	10mm	4	141500	707.5	24.32	25.20	1.225	-0.08	0.067	0.082
	FR1 n12_Ant 1	15M	BPSK	1	40	Top Side	10mm	4	141500	707.5	24.33	25.20	1.222	-0.06	0.136	0.166
	FR1 n12_Ant 1	15M	BPSK	36	22	Top Side	10mm	4	141500	707.5	24.32	25.20	1.225	0.11	0.076	0.093
	FR1 n25_Ant 2	20M	BPSK	1	53	Front	10mm	4	372000	1860	20.76	21.20	1.107	0.01	0.559	0.619
	FR1 n25_Ant 2	20M	BPSK	50	28	Front	10mm	4	372000	1860	20.63	21.20	1.140	-0.12	0.588	0.670
	FR1 n25_Ant 2	20M	BPSK	1	53	Back	10mm	4	372000	1860	20.76	21.20	1.107	-0.18	0.754	0.834
	FR1 n25_Ant 2	20M	BPSK	1	53	Back	10mm	4	376500	1882.5	20.72	21.20	1.117	-0.18	0.738	0.824
	FR1 n25_Ant 2	20M	BPSK	1	53	Back	10mm	4	381000	1905	20.68	21.20	1.127	-0.17	0.727	0.819
	FR1 n25_Ant 2	20M	BPSK	50	28	Back	10mm	4	372000	1860	20.63	21.20	1.140	-0.14	0.738	0.842
	FR1 n25_Ant 2	20M	BPSK	50	28	Back	10mm	4	376500	1882.5	20.60	21.20	1.148	-0.13	0.718	0.824
	FR1 n25_Ant 2	20M	BPSK	50	28	Back	10mm	4	381000	1905	20.55	21.20	1.161	-0.15	0.707	0.821
	FR1 n25_Ant 2	20M	BPSK	100	0	Back	10mm	4	372000	1860	20.59	21.20	1.151	-0.11	0.690	0.794
	FR1 n25_Ant 2	20M	BPSK	1	53	Left Side	10mm	4	372000	1860	20.76	21.20	1.107	0.01	0.046	0.051
	FR1 n25_Ant 2	20M	BPSK	50	28	Left Side	10mm	4	372000	1860	20.63	21.20	1.140	0.05	0.048	0.055
	FR1 n25_Ant 2	20M	BPSK	1	53	Right Side	10mm	4	372000	1860	20.76	21.20	1.107	-0.11	0.546	0.604
	FR1 n25_Ant 2	20M	BPSK	50	28	Right Side	10mm	4	372000	1860	20.63	21.20	1.140	-0.05	0.568	0.648
	FR1 n25_Ant 2	20M	BPSK	1	53	Bottom Side	10mm	4	372000	1860	20.76	21.20	1.107	-0.11	0.800	0.885
51	FR1 n25_Ant 2	20M	BPSK	1	53	Bottom Side	10mm	4	376500	1882.5	20.72	21.20	1.117	-0.04	0.879	0.982
	FR1 n25_Ant 2	20M	BPSK	1	53	Bottom Side	10mm	4	381000	1905	20.68	21.20	1.127	0.1	0.829	0.934
	FR1 n25_Ant 2	20M	BPSK	50	28	Bottom Side	10mm	4	372000	1860	20.63	21.20	1.140	0.02	0.777	0.886
	FR1 n25_Ant 2	20M	BPSK	50	28	Bottom Side	10mm	4	376500	1882.5	20.60	21.20	1.148	0.01	0.821	0.943
	FR1 n25_Ant 2	20M	BPSK	50	28	Bottom Side	10mm	4	381000	1905	20.55	21.20	1.161	0	0.803	0.933
	FR1 n25_Ant 2	20M	BPSK	100	0	Bottom Side	10mm	4	372000	1860	20.59	21.20	1.151	0.17	0.775	0.892
	FR1 n25_Ant 0	20M	BPSK	1	53	Front	10mm	4	376500	1882.5	23.20	23.20	1.000	-0.14	0.437	0.437
	FR1 n25_Ant 0	20M	BPSK	50	28	Front	10mm	4	376500	1882.5	23.08	23.20	1.028	-0.18	0.445	0.457
	FR1 n25_Ant 0	20M	BPSK	1	53	Back	10mm	4	376500	1882.5	23.20	23.20	1.000	-0.17	0.704	0.704
	FR1 n25_Ant 0	20M	BPSK	50	28	Back	10mm	4	376500	1882.5	23.08	23.20	1.028	-0.19	0.699	0.719
	FR1 n25_Ant 0	20M	BPSK	1	53	Left Side	10mm	4	376500	1882.5	23.20	23.20	1.000	-0.15	0.802	0.802
	FR1 n25_Ant 0	20M	BPSK	1	53	Left Side	10mm	4	372000	1860	23.01	23.20	1.045	-0.18	0.756	0.790
	FR1 n25_Ant 0	20M	BPSK	1	53	Left Side	10mm	4	381000	1905	23.19	23.20	1.002	-0.12	0.817	0.819
	FR1 n25_Ant 0	20M	BPSK	50	28	Left Side	10mm	4	376500	1882.5	23.08	23.20	1.028	-0.07	0.789	0.811
	FR1 n25_Ant 0	20M	BPSK	50	28	Left Side	10mm	4	372000	1860	22.95	23.20	1.059	-0.16	0.741	0.785
	FR1 n25_Ant 0	20M	BPSK	50	28	Left Side	10mm	4	381000	1905	23.05	23.20	1.035	-0.17	0.943	0.976
	FR1 n25_Ant 0	20M	BPSK	100	0	Left Side	10mm	4	376500	1882.5	23.01	23.20	1.045	-0.17	0.770	0.804
	FR1 n25_Ant 0	20M	BPSK	1	53	Right Side	10mm	4	376500	1882.5	23.20	23.20	1.000	-0.18	0.024	0.024
	FR1 n25_Ant 0	20M	BPSK	50	28	Right Side	10mm	4	376500	1882.5	23.08	23.20	1.028	-0.11	0.024	0.025
	FR1 n25_Ant 0	20M	BPSK	1	53	Bottom Side	10mm	4	376500	1882.5	23.20	23.20	1.000	-0.12	0.619	0.619
	FR1 n25_Ant 0	20M	BPSK	50	28	Bottom Side	10mm	4	376500	1882.5	23.08	23.20	1.028	0.01	0.569	0.585



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	FR1 n30_Ant 2	10M	BPSK	1	26	Front	10mm	4	462000	2310	22.15	23.10	1.245	0.11	0.578	0.719
	FR1 n30_Ant 2	10M	BPSK	25	14	Front	10mm	4	462000	2310	22.06	23.10	1.271	-0.04	0.572	0.727
	FR1 n30_Ant 2	10M	BPSK	1	26	Back	10mm	4	462000	2310	22.15	23.10	1.245	-0.1	0.790	0.983
	FR1 n30_Ant 2	10M	BPSK	25	14	Back	10mm	4	462000	2310	22.06	23.10	1.271	-0.1	0.723	0.919
52	FR1 n30_Ant 2	10M	BPSK	50	0	Back	10mm	4	462000	2310	22.01	23.10	1.285	-0.17	0.771	0.991
	FR1 n30_Ant 2	10M	BPSK	1	26	Left Side	10mm	4	462000	2310	22.15	23.10	1.245	0.01	0.011	0.014
	FR1 n30_Ant 2	10M	BPSK	25	14	Left Side	10mm	4	462000	2310	22.06	23.10	1.271	0.04	0.012	0.015
	FR1 n30_Ant 2	10M	BPSK	1	26	Right Side	10mm	4	462000	2310	22.15	23.10	1.245	-0.07	0.751	0.935
	FR1 n30_Ant 2	10M	BPSK	25	14	Right Side	10mm	4	462000	2310	22.06	23.10	1.271	-0.08	0.737	0.936
	FR1 n30_Ant 2	10M	BPSK	50	0	Right Side	10mm	4	462000	2310	22.01	23.10	1.285	-0.07	0.769	0.988
	FR1 n30_Ant 2	10M	BPSK	1	26	Bottom Side	10mm	4	462000	2310	22.15	23.10	1.245	-0.08	0.709	0.882
	FR1 n30_Ant 2	10M	BPSK	25	14	Bottom Side	10mm	4	462000	2310	22.06	23.10	1.271	0.11	0.729	0.926
	FR1 n30_Ant 2	10M	BPSK	50	0	Bottom Side	10mm	4	462000	2310	22.01	23.10	1.285	0.03	0.727	0.934
	FR1 n30_Ant 0	10M	BPSK	1	50	Front	10mm	4	462000	2310	23.22	23.50	1.067	-0.12	0.379	0.404
	FR1 n30_Ant 0	10M	BPSK	25	14	Front	10mm	4	462000	2310	23.15	23.50	1.084	-0.15	0.385	0.417
	FR1 n30_Ant 0	10M	BPSK	1	50	Back	10mm	4	462000	2310	23.22	23.50	1.067	-0.15	0.597	0.637
	FR1 n30_Ant 0	10M	BPSK	25	14	Back	10mm	4	462000	2310	23.15	23.50	1.084	-0.1	0.565	0.612
	FR1 n30_Ant 0	10M	BPSK	1	50	Left Side	10mm	4	462000	2310	23.22	23.50	1.067	0	0.814	0.868
	FR1 n30_Ant 0	10M	BPSK	25	14	Left Side	10mm	4	462000	2310	23.15	23.50	1.084	-0.12	0.822	0.891
	FR1 n30_Ant 0	10M	BPSK	50	0	Left Side	10mm	4	462000	2310	23.18	23.50	1.076	-0.04	0.799	0.860
	FR1 n30_Ant 0	10M	BPSK	1	50	Right Side	10mm	4	462000	2310	23.22	23.50	1.067	-0.1	0.028	0.030
	FR1 n30_Ant 0	10M	BPSK	25	14	Right Side	10mm	4	462000	2310	23.15	23.50	1.084	0.06	0.031	0.034
	FR1 n30_Ant 0	10M	BPSK	1	50	Bottom Side	10mm	4	462000	2310	23.22	23.50	1.067	-0.17	0.131	0.140
	FR1 n30_Ant 0	10M	BPSK	25	14	Bottom Side	10mm	4	462000	2310	23.15	23.50	1.084	-0.14	0.136	0.147
	FR1 n66_Ant 2	40M	BPSK	1	108	Front	10mm	4	349000	1745	21.91	22.70	1.199	0.01	0.566	0.679
	FR1 n66_Ant 2	40M	BPSK	108	54	Front	10mm	4	349000	1745	21.75	22.70	1.245	-0.06	0.573	0.713
	FR1 n66_Ant 2	40M	BPSK	1	108	Back	10mm	4	349000	1745	21.91	22.70	1.199	-0.14	0.744	0.892
	FR1 n66_Ant 2	40M	BPSK	108	54	Back	10mm	4	349000	1745	21.75	22.70	1.245	-0.09	0.724	0.901
	FR1 n66_Ant 2	40M	BPSK	216	0	Back	10mm	4	349000	1745	21.61	22.70	1.285	-0.18	0.699	0.898
	FR1 n66_Ant 2	40M	BPSK	1	108	Left Side	10mm	4	349000	1745	21.91	22.70	1.199	0.06	0.036	0.043
	FR1 n66_Ant 2	40M	BPSK	108	54	Left Side	10mm	4	349000	1745	21.75	22.70	1.245	0.1	0.034	0.042
	FR1 n66_Ant 2	40M	BPSK	1	108	Right Side	10mm	4	349000	1745	21.91	22.70	1.199	0.06	0.555	0.666
	FR1 n66_Ant 2	40M	BPSK	108	54	Right Side	10mm	4	349000	1745	21.75	22.70	1.245	-0.16	0.566	0.704
	FR1 n66_Ant 2	40M	BPSK	1	108	Bottom Side	10mm	4	349000	1745	21.91	22.70	1.199	-0.17	0.816	0.979
53	FR1 n66_Ant 2	40M	BPSK	108	54	Bottom Side	10mm	4	349000	1745	21.75	22.70	1.245	-0.14	0.801	0.997
	FR1 n66_Ant 2	40M	BPSK	216	0	Bottom Side	10mm	4	349000	1745	21.61	22.70	1.285	-0.07	0.761	0.978
	FR1 n66_Ant 0	40M	BPSK	1	108	Front	10mm	4	349000	1745	23.56	23.90	1.081	-0.1	0.437	0.473
	FR1 n66_Ant 0	40M	BPSK	108	54	Front	10mm	4	349000	1745	23.39	23.90	1.125	-0.16	0.404	0.454
	FR1 n66_Ant 0	40M	BPSK	1	108	Back	10mm	4	349000	1745	23.56	23.90	1.081	-0.12	0.765	0.827
	FR1 n66_Ant 0	40M	BPSK	108	54	Back	10mm	4	349000	1745	23.39	23.90	1.125	-0.11	0.683	0.768
	FR1 n66_Ant 0	40M	BPSK	216	0	Back	10mm	4	349000	1745	23.25	23.90	1.161	-0.11	0.664	0.771
	FR1 n66_Ant 0	40M	BPSK	1	108	Left Side	10mm	4	349000	1745	23.56	23.90	1.081	-0.13	0.650	0.703
	FR1 n66_Ant 0	40M	BPSK	108	54	Left Side	10mm	4	349000	1745	23.39	23.90	1.125	0.03	0.630	0.709
	FR1 n66_Ant 0	40M	BPSK	1	108	Right Side	10mm	4	349000	1745	23.56	23.90	1.081	-0.19	0.067	0.072
	FR1 n66_Ant 0	40M	BPSK	108	54	Right Side	10mm	4	349000	1745	23.39	23.90	1.125	-0.13	0.066	0.074
	FR1 n66_Ant 0	40M	BPSK	1	108	Bottom Side	10mm	4	349000	1745	23.56	23.90	1.081	-0.08	0.915	0.990
	FR1 n66_Ant 0	40M	BPSK	108	54	Bottom Side	10mm	4	349000	1745	23.39	23.90	1.125	-0.07	0.715	0.804
	FR1 n66_Ant 0	40M	BPSK	216	0	Bottom Side	10mm	4	349000	1745	23.25	23.90	1.161	-0.13	0.713	0.828



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	FR1 n71_Ant 0	20M	BPSK	1	53	Front	10mm	4	136100	680.5	23.89	25.30	1.384	-0.15	0.262	0.362
	FR1 n71_Ant 0	20M	BPSK	50	28	Front	10mm	4	136100	680.5	23.82	25.30	1.406	-0.01	0.258	0.363
	FR1 n71_Ant 0	20M	BPSK	1	53	Back	10mm	4	136100	680.5	23.89	25.30	1.384	-0.09	0.323	0.447
	FR1 n71_Ant 0	20M	BPSK	50	28	Back	10mm	4	136100	680.5	23.82	25.30	1.406	0.11	0.297	0.418
54	FR1 n71_Ant 0	20M	BPSK	1	53	Left Side	10mm	4	136100	680.5	23.89	25.30	1.384	-0.07	0.360	0.498
	FR1 n71_Ant 0	20M	BPSK	50	28	Left Side	10mm	4	136100	680.5	23.82	25.30	1.406	-0.02	0.353	0.496
	FR1 n71_Ant 0	20M	BPSK	1	53	Right Side	10mm	4	136100	680.5	23.89	25.30	1.384	-0.01	0.255	0.353
	FR1 n71_Ant 0	20M	BPSK	50	28	Right Side	10mm	4	136100	680.5	23.82	25.30	1.406	-0.08	0.238	0.335
	FR1 n71_Ant 0	20M	BPSK	1	53	Bottom Side	10mm	4	136100	680.5	23.89	25.30	1.384	-0.09	0.067	0.093
	FR1 n71_Ant 0	20M	BPSK	50	28	Bottom Side	10mm	4	136100	680.5	23.82	25.30	1.406	0.06	0.057	0.080
	FR1 n71_Ant 1	20M	BPSK	1	53	Front	10mm	4	136100	680.5	24.45	25.20	1.189	0	0.124	0.147
	FR1 n71_Ant 1	20M	BPSK	50	28	Front	10mm	4	136100	680.5	24.33	25.20	1.222	-0.02	0.062	0.076
	FR1 n71_Ant 1	20M	BPSK	1	53	Back	10mm	4	136100	680.5	24.45	25.20	1.189	-0.02	0.162	0.193
	FR1 n71_Ant 1	20M	BPSK	50	28	Back	10mm	4	136100	680.5	24.33	25.20	1.222	-0.15	0.157	0.192
	FR1 n71_Ant 1	20M	BPSK	1	53	Left Side	10mm	4	136100	680.5	24.45	25.20	1.189	-0.17	0.196	0.233
	FR1 n71_Ant 1	20M	BPSK	50	28	Left Side	10mm	4	136100	680.5	24.33	25.20	1.222	-0.09	0.169	0.206
	FR1 n71_Ant 1	20M	BPSK	1	53	Right Side	10mm	4	136100	680.5	24.45	25.20	1.189	-0.02	0.079	0.094
	FR1 n71_Ant 1	20M	BPSK	50	28	Right Side	10mm	4	136100	680.5	24.33	25.20	1.222	-0.01	0.038	0.046
	FR1 n71_Ant 1	20M	BPSK	1	53	Top Side	10mm	4	136100	680.5	24.45	25.20	1.189	0	0.096	0.114
	FR1 n71_Ant 1	20M	BPSK	50	28	Top Side	10mm	4	136100	680.5	24.33	25.20	1.222	-0.02	0.045	0.055



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	FR1 n77_Ant 6	100M	BPSK	1	271	Front	10mm	4	656000	3840	21.59	21.60	1.002	100	1.000	-0.06	0.478	0.479
	FR1 n77_Ant 6	100M	BPSK	135	69	Front	10mm	4	656000	3840	21.36	21.60	1.057	100	1.000	-0.05	0.656	0.693
	FR1 n77_Ant 6	100M	BPSK	1	271	Back	10mm	4	656000	3840	21.59	21.60	1.002	100	1.000	-0.18	0.380	0.381
	FR1 n77_Ant 6	100M	BPSK	135	69	Back	10mm	4	656000	3840	21.36	21.60	1.057	100	1.000	0.12	0.370	0.391
	FR1 n77_Ant 6	100M	BPSK	1	271	Left Side	10mm	4	656000	3840	21.59	21.60	1.002	100	1.000	-0.18	0.734	0.736
	FR1 n77_Ant 6	100M	BPSK	135	69	Left Side	10mm	4	656000	3840	21.36	21.60	1.057	100	1.000	-0.16	0.782	0.826
	FR1 n77_Ant 6	100M	BPSK	270	0	Left Side	10mm	4	656000	3840	21.30	21.60	1.072	100	1.000	-0.07	0.692	0.741
	FR1 n77_Ant 6	100M	BPSK	1	271	Right Side	10mm	4	656000	3840	21.59	21.60	1.002	100	1.000	-0.16	0.049	0.049
	FR1 n77_Ant 6	100M	BPSK	135	69	Right Side	10mm	4	656000	3840	21.36	21.60	1.057	100	1.000	-0.13	0.052	0.055
	FR1 n77_Ant 6	100M	BPSK	1	271	Bottom Side	10mm	4	656000	3840	21.59	21.60	1.002	100	1.000	-0.1	0.327	0.328
	FR1 n77_Ant 6	100M	BPSK	135	69	Bottom Side	10mm	4	656000	3840	21.36	21.60	1.057	100	1.000	-0.02	0.324	0.342
	FR1 n77_HPUE_Ant 6	100M	BPSK	135	69	Left Side	10mm	4	656000	3840	23.89	24.60	1.178	50	1.000	0.01	0.703	0.828
	FR1 n77_Ant 6	100M	BPSK	1	271	Front	10mm	4	633332	3499.98	21.19	21.60	1.099	100	1.000	0.07	0.765	0.841
55	FR1 n77_Ant 6	100M	BPSK	135	69	Front	10mm	4	633332	3499.98	21.22	21.60	1.091	100	1.000	0.02	0.910	0.993
	FR1 n77_Ant 6	100M	BPSK	270	0	Front	10mm	4	633332	3499.98	21.19	21.60	1.099	100	1.000	0.08	0.788	0.866
	FR1 n77_Ant 6	100M	BPSK	1	271	Back	10mm	4	633332	3499.98	21.19	21.60	1.099	100	1.000	-0.12	0.525	0.577
	FR1 n77_Ant 6	100M	BPSK	135	69	Back	10mm	4	633332	3499.98	21.22	21.60	1.091	100	1.000	-0.13	0.473	0.516
	FR1 n77_Ant 6	100M	BPSK	1	271	Left Side	10mm	4	633332	3499.98	21.19	21.60	1.099	100	1.000	-0.02	0.558	0.613
	FR1 n77_Ant 6	100M	BPSK	135	69	Left Side	10mm	4	633332	3499.98	21.22	21.60	1.091	100	1.000	0.02	0.631	0.689
	FR1 n77_Ant 6	100M	BPSK	1	271	Right Side	10mm	4	633332	3499.98	21.19	21.60	1.099	100	1.000	0.14	0.073	0.080
	FR1 n77_Ant 6	100M	BPSK	135	69	Right Side	10mm	4	633332	3499.98	21.22	21.60	1.091	100	1.000	-0.02	0.084	0.092
	FR1 n77_Ant 6	100M	BPSK	1	271	Bottom Side	10mm	4	633332	3499.98	21.19	21.60	1.099	100	1.000	-0.11	0.374	0.411
	FR1 n77_Ant 6	100M	BPSK	135	69	Bottom Side	10mm	4	633332	3499.98	21.22	21.60	1.091	100	1.000	-0.05	0.397	0.433
	FR1 n77_HPUE_Ant 6	100M	BPSK	135	69	Front	10mm	4	633332	3499.98	23.76	24.60	1.213	50	1.000	-0.01	0.796	0.966
	FR1 n77_Ant 2	100M	BPSK	1	271	Front	10mm	4	656000	3840	22.34	22.80	1.112	100	1.000	-0.12	0.427	0.475
	FR1 n77_Ant 2	100M	BPSK	135	69	Front	10mm	4	656000	3840	22.07	22.80	1.183	100	1.000	-0.16	0.480	0.568
	FR1 n77_Ant 2	100M	BPSK	1	271	Back	10mm	4	656000	3840	22.34	22.80	1.112	100	1.000	-0.12	0.772	0.858
	FR1 n77_Ant 2	100M	BPSK	135	69	Back	10mm	4	656000	3840	22.07	22.80	1.183	100	1.000	-0.18	0.828	0.980
	FR1 n77_Ant 2	100M	BPSK	270	0	Back	10mm	4	656000	3840	21.30	22.30	1.259	100	1.000	-0.16	0.600	0.755
	FR1 n77_Ant 2	100M	BPSK	1	271	Left Side	10mm	4	656000	3840	22.34	22.80	1.112	100	1.000	0.11	0.171	0.190
	FR1 n77_Ant 2	100M	BPSK	135	69	Left Side	10mm	4	656000	3840	22.07	22.80	1.183	100	1.000	-0.06	0.177	0.209
	FR1 n77_Ant 2	100M	BPSK	1	271	Right Side	10mm	4	656000	3840	22.34	22.80	1.112	100	1.000	-0.17	0.282	0.314
	FR1 n77_Ant 2	100M	BPSK	135	69	Right Side	10mm	4	656000	3840	22.07	22.80	1.183	100	1.000	-0.17	0.282	0.334
	FR1 n77_Ant 2	100M	BPSK	1	271	Bottom Side	10mm	4	656000	3840	22.34	22.80	1.112	100	1.000	0.01	0.321	0.357
	FR1 n77_Ant 2	100M	BPSK	135	69	Bottom Side	10mm	4	656000	3840	22.07	22.80	1.183	100	1.000	0.1	0.342	0.405
	FR1 n77_HPUE_Ant 2	100M	BPSK	135	69	Back	10mm	4	656000	3840	24.62	25.80	1.312	50	1.000	-0.16	0.706	0.926
	FR1 n77_Ant 2	100M	BPSK	1	271	Front	10mm	4	633332	3499.98	22.28	22.80	1.127	100	1.000	-0.1	0.575	0.648
	FR1 n77_Ant 2	100M	BPSK	135	69	Front	10mm	4	633332	3499.98	22.17	22.80	1.156	100	1.000	-0.12	0.652	0.754
	FR1 n77_Ant 2	100M	BPSK	1	271	Back	10mm	4	633332	3499.98	22.28	22.80	1.127	100	1.000	-0.12	0.616	0.694
	FR1 n77_Ant 2	100M	BPSK	135	69	Back	10mm	4	633332	3499.98	22.17	22.80	1.156	100	1.000	-0.14	0.566	0.654
	FR1 n77_Ant 2	100M	BPSK	1	271	Left Side	10mm	4	633332	3499.98	22.28	22.80	1.127	100	1.000	0.09	0.146	0.165
	FR1 n77_Ant 2	100M	BPSK	135	69	Left Side	10mm	4	633332	3499.98	22.17	22.80	1.156	100	1.000	0	0.116	0.134
	FR1 n77_Ant 2	100M	BPSK	1	271	Right Side	10mm	4	633332	3499.98	22.28	22.80	1.127	100	1.000	-0.16	0.502	0.566
	FR1 n77_Ant 2	100M	BPSK	135	69	Right Side	10mm	4	633332	3499.98	22.17	22.80	1.156	100	1.000	-0.07	0.680	0.786
	FR1 n77_Ant 2	100M	BPSK	1	271	Bottom Side	10mm	4	633332	3499.98	22.28	22.80	1.127	100	1.000	0.01	0.802	0.904
	FR1 n77_Ant 2	100M	BPSK	135	69	Bottom Side	10mm	4	633332	3499.98	22.17	22.80	1.156	100	1.000	-0.14	0.813	0.940
	FR1 n77_Ant 2	100M	BPSK	270	0	Bottom Side	10mm	4	633332	3499.98	21.81	22.30	1.119	100	1.000	0	0.567	0.635
	FR1 n77_HPUE_Ant 2	100M	BPSK	135	69	Bottom Side	10mm	4	633332	3499.98	24.66	25.80	1.300	50	1.000	-0.06	0.753	0.979

<WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Index	Antenna	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	7	Ant 4	11	2462	19.15	19.50	1.084	98.90	1.011	0.03	0.127	0.139
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	7	Ant 4	11	2462	19.15	19.50	1.084	98.90	1.011	0.01	0.147	0.161
	WLAN2.4GHz	802.11b 1Mbps	Left Side	10mm	7	Ant 4	11	2462	19.15	19.50	1.084	98.90	1.011	-0.13	0.024	0.026
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	7	Ant 4	11	2462	19.15	19.50	1.084	98.90	1.011	0.12	0.088	0.096
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	7	Ant 4	11	2462	19.15	19.50	1.084	98.90	1.011	-0.19	0.201	0.220
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	7	Ant 3	6	2437	18.95	19.00	1.012	98.90	1.011	-0.03	0.212	0.217
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	7	Ant 3	6	2437	18.95	19.00	1.012	98.90	1.011	0.02	0.293	0.300
	WLAN2.4GHz	802.11b 1Mbps	Left Side	10mm	7	Ant 3	6	2437	18.95	19.00	1.012	98.90	1.011	0.03	0.499	0.510
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	7	Ant 3	6	2437	18.95	19.00	1.012	98.90	1.011	-0.15	0.003	0.003
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	7	Ant 3	6	2437	18.95	19.00	1.012	98.90	1.011	-0.02	0.027	0.028
	WLAN2.4GHz	802.11g 6Mbps	Front	10mm	7	Ant 4+3(4)	6	2437	19.25	19.50	1.059	93.40	1.071	-0.17	0.201	0.228
	WLAN2.4GHz	802.11g 6Mbps	Front	10mm	7	Ant 4+3(3)	6	2437	18.55	19.00	1.109	93.40	1.071	-0.17	0.284	0.337
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	7	Ant 4+3(4)	6	2437	19.25	19.50	1.059	93.40	1.071	-0.15	0.172	0.195
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	7	Ant 4+3(3)	6	2437	18.55	19.00	1.109	93.40	1.071	-0.15	0.345	0.410
56	WLAN2.4GHz	802.11g 6Mbps	Left Side	10mm	7	Ant 4+3(4)	6	2437	19.25	19.50	1.059	93.40	1.071	0.03	0.001	0.001
	WLAN2.4GHz	802.11g 6Mbps	Left Side	10mm	7	Ant 4+3(3)	6	2437	18.55	19.00	1.109	93.40	1.071	0.03	0.431	0.512
	WLAN2.4GHz	802.11g 6Mbps	Right Side	10mm	7	Ant 4+3(4)	6	2437	19.25	19.50	1.059	93.40	1.071	-0.03	0.088	0.100
	WLAN2.4GHz	802.11g 6Mbps	Right Side	10mm	7	Ant 4+3(3)	6	2437	18.55	19.00	1.109	93.40	1.071	-0.03	0.001	0.001
	WLAN2.4GHz	802.11g 6Mbps	Top Side	10mm	7	Ant 4+3(4)	6	2437	19.25	19.50	1.059	93.40	1.071	0.04	0.175	0.199
	WLAN2.4GHz	802.11g 6Mbps	Top Side	10mm	7	Ant 4+3(3)	6	2437	18.55	19.00	1.109	93.40	1.071	0.04	0.001	0.001
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	8	Ant 4	11	2462	19.15	19.50	1.084	98.90	1.011	0.03	0.127	0.139
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	8	Ant 4	11	2462	19.15	19.50	1.084	98.90	1.011	0.01	0.147	0.161
	WLAN2.4GHz	802.11b 1Mbps	Left Side	10mm	8	Ant 4	11	2462	19.15	19.50	1.084	98.90	1.011	-0.13	0.024	0.026
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	8	Ant 4	11	2462	19.15	19.50	1.084	98.90	1.011	0.12	0.088	0.096
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	8	Ant 4	11	2462	19.15	19.50	1.084	98.90	1.011	-0.19	0.201	0.220
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	8	Ant 3	6	2437	15.65	16.00	1.084	98.90	1.011	-0.02	0.097	0.106
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	8	Ant 3	6	2437	15.65	16.00	1.084	98.90	1.011	0.07	0.142	0.156
	WLAN2.4GHz	802.11b 1Mbps	Left Side	10mm	8	Ant 3	6	2437	15.65	16.00	1.084	98.90	1.011	0.12	0.239	0.262
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	8	Ant 3	6	2437	15.65	16.00	1.084	98.90	1.011	0.01	0.001	0.001
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	8	Ant 3	6	2437	15.65	16.00	1.084	98.90	1.011	-0.14	0.012	0.013
	WLAN2.4GHz	802.11g 6Mbps	Front	10mm	8	Ant 4+3(4)	6	2437	19.25	19.50	1.059	93.40	1.071	-0.12	0.127	0.144
	WLAN2.4GHz	802.11g 6Mbps	Front	10mm	8	Ant 4+3(3)	6	2437	15.85	16.00	1.035	93.40	1.071	-0.12	0.163	0.181
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	8	Ant 4+3(4)	6	2437	19.25	19.50	1.059	93.40	1.071	-0.13	0.164	0.186
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	8	Ant 4+3(3)	6	2437	15.85	16.00	1.035	93.40	1.071	-0.13	0.204	0.226
	WLAN2.4GHz	802.11g 6Mbps	Left Side	10mm	8	Ant 4+3(4)	6	2437	19.25	19.50	1.059	93.40	1.071	0.09	0.001	0.001
	WLAN2.4GHz	802.11g 6Mbps	Left Side	10mm	8	Ant 4+3(3)	6	2437	15.85	16.00	1.035	93.40	1.071	0.09	0.235	0.261
	WLAN2.4GHz	802.11g 6Mbps	Right Side	10mm	8	Ant 4+3(4)	6	2437	19.25	19.50	1.059	93.40	1.071	0	0.084	0.095
	WLAN2.4GHz	802.11g 6Mbps	Right Side	10mm	8	Ant 4+3(3)	6	2437	15.85	16.00	1.035	93.40	1.071	0	0.001	0.001
	WLAN2.4GHz	802.11g 6Mbps	Top Side	10mm	8	Ant 4+3(4)	6	2437	19.25	19.50	1.059	93.40	1.071	0	0.175	0.199
	WLAN2.4GHz	802.11g 6Mbps	Top Side	10mm	8	Ant 4+3(3)	6	2437	15.85	16.00	1.035	93.40	1.071	0	0.001	0.001



Plot No.	Band	Mode	Test Position	Gap (mm)	Power Index	Antenna	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
57	WLAN5GHz	802.11n-HT40 MCS0	Front	10mm	7	Ant 4+3(4)	46	5230	14.20	15.00	1.202	96.79	1.033	-0.11	0.063	0.078
	WLAN5GHz	802.11n-HT40 MCS0	Front	10mm	7	Ant 4+3(3)	46	5230	17.90	19.00	1.288	96.79	1.033	-0.11	0.079	0.105
	WLAN5GHz	802.11n-HT40 MCS0	Back	10mm	7	Ant 4+3(4)	46	5230	14.20	15.00	1.202	96.79	1.033	-0.12	0.156	0.194
	WLAN5GHz	802.11n-HT40 MCS0	Back	10mm	7	Ant 4+3(3)	46	5230	17.90	19.00	1.288	96.79	1.033	-0.12	0.175	0.233
	WLAN5GHz	802.11n-HT40 MCS0	Left Side	10mm	7	Ant 4+3(4)	46	5230	14.20	15.00	1.202	96.79	1.033	-0.14	0.001	0.001
	WLAN5GHz	802.11n-HT40 MCS0	Left Side	10mm	7	Ant 4+3(3)	46	5230	17.90	19.00	1.288	96.79	1.033	-0.14	0.049	0.065
	WLAN5GHz	802.11n-HT40 MCS0	Right Side	10mm	7	Ant 4+3(4)	46	5230	14.20	15.00	1.202	96.79	1.033	0.03	0.105	0.130
	WLAN5GHz	802.11n-HT40 MCS0	Right Side	10mm	7	Ant 4+3(3)	46	5230	17.90	19.00	1.288	96.79	1.033	0.03	0.026	0.035
	WLAN5GHz	802.11n-HT40 MCS0	Top Side	10mm	7	Ant 4+3(4)	46	5230	14.20	15.00	1.202	96.79	1.033	-0.09	0.047	0.058
	WLAN5GHz	802.11n-HT40 MCS0	Top Side	10mm	7	Ant 4+3(3)	46	5230	17.90	19.00	1.288	96.79	1.033	-0.09	0.001	0.001
	WLAN5GHz	802.11n-HT40 MCS0	Front	10mm	8	Ant 4+3(4)	46	5230	14.20	15.00	1.202	96.79	1.033	-0.11	0.063	0.078
	WLAN5GHz	802.11n-HT40 MCS0	Front	10mm	8	Ant 4+3(3)	46	5230	17.90	19.00	1.288	96.79	1.033	-0.11	0.079	0.105
	WLAN5GHz	802.11n-HT40 MCS0	Back	10mm	8	Ant 4+3(4)	46	5230	14.20	15.00	1.202	96.79	1.033	-0.12	0.156	0.194
	WLAN5GHz	802.11n-HT40 MCS0	Back	10mm	8	Ant 4+3(3)	46	5230	17.90	19.00	1.288	96.79	1.033	-0.12	0.175	0.233
	WLAN5GHz	802.11n-HT40 MCS0	Left Side	10mm	8	Ant 4+3(4)	46	5230	14.20	15.00	1.202	96.79	1.033	-0.14	0.001	0.001
	WLAN5GHz	802.11n-HT40 MCS0	Left Side	10mm	8	Ant 4+3(3)	46	5230	17.90	19.00	1.288	96.79	1.033	-0.14	0.049	0.065
WLAN5GHz	802.11n-HT40 MCS0	Right Side	10mm	8	Ant 4+3(4)	46	5230	14.20	15.00	1.202	96.79	1.033	0.03	0.105	0.130	
WLAN5GHz	802.11n-HT40 MCS0	Right Side	10mm	8	Ant 4+3(3)	46	5230	17.90	19.00	1.288	96.79	1.033	0.03	0.026	0.035	
WLAN5GHz	802.11n-HT40 MCS0	Top Side	10mm	8	Ant 4+3(4)	46	5230	14.20	15.00	1.202	96.79	1.033	-0.09	0.047	0.058	
WLAN5GHz	802.11n-HT40 MCS0	Top Side	10mm	8	Ant 4+3(3)	46	5230	17.90	19.00	1.288	96.79	1.033	-0.09	0.001	0.001	
WLAN5GHz	802.11n-HT40 MCS0	Front	10mm	9	Ant 4+3(4)	46	5230	14.20	15.00	1.202	96.79	1.033	-0.11	0.063	0.078	
WLAN5GHz	802.11n-HT40 MCS0	Front	10mm	9	Ant 4+3(3)	46	5230	17.90	19.00	1.288	96.79	1.033	-0.11	0.079	0.105	
WLAN5GHz	802.11n-HT40 MCS0	Back	10mm	9	Ant 4+3(4)	46	5230	14.20	15.00	1.202	96.79	1.033	-0.12	0.156	0.194	
WLAN5GHz	802.11n-HT40 MCS0	Back	10mm	9	Ant 4+3(3)	46	5230	17.90	19.00	1.288	96.79	1.033	-0.12	0.175	0.233	
WLAN5GHz	802.11n-HT40 MCS0	Left Side	10mm	9	Ant 4+3(4)	46	5230	14.20	15.00	1.202	96.79	1.033	-0.14	0.001	0.001	
WLAN5GHz	802.11n-HT40 MCS0	Left Side	10mm	9	Ant 4+3(3)	46	5230	17.90	19.00	1.288	96.79	1.033	-0.14	0.049	0.065	
WLAN5GHz	802.11n-HT40 MCS0	Right Side	10mm	9	Ant 4+3(4)	46	5230	14.20	15.00	1.202	96.79	1.033	0.03	0.105	0.130	
WLAN5GHz	802.11n-HT40 MCS0	Right Side	10mm	9	Ant 4+3(3)	46	5230	17.90	19.00	1.288	96.79	1.033	0.03	0.026	0.035	
WLAN5GHz	802.11n-HT40 MCS0	Top Side	10mm	9	Ant 4+3(4)	46	5230	14.20	15.00	1.202	96.79	1.033	-0.09	0.047	0.058	
WLAN5GHz	802.11n-HT40 MCS0	Top Side	10mm	9	Ant 4+3(3)	46	5230	17.90	19.00	1.288	96.79	1.033	-0.09	0.001	0.001	



Plot No.	Band	Mode	Test Position	Gap (mm)	Power Index	Antenna	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
58	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	7	Ant 4+3(4)	155	5775	16.00	16.00	1.000	87.95	1.137	-0.05	0.092	0.105
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	7	Ant 4+3(3)	155	5775	17.30	17.50	1.047	87.95	1.137	-0.05	0.421	0.501
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	7	Ant 4+3(4)	155	5775	16.00	16.00	1.000	87.95	1.137	-0.09	0.290	0.330
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	7	Ant 4+3(3)	155	5775	17.30	17.50	1.047	87.95	1.137	-0.09	0.302	0.360
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Side	10mm	7	Ant 4+3(4)	155	5775	16.00	16.00	1.000	87.95	1.137	-0.04	0.001	0.001
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Side	10mm	7	Ant 4+3(3)	155	5775	17.30	17.50	1.047	87.95	1.137	-0.04	0.205	0.244
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Side	10mm	7	Ant 4+3(4)	155	5775	16.00	16.00	1.000	87.95	1.137	-0.02	0.280	0.318
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Side	10mm	7	Ant 4+3(3)	155	5775	17.30	17.50	1.047	87.95	1.137	-0.02	0.001	0.001
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	10mm	7	Ant 4+3(4)	155	5775	16.00	16.00	1.000	87.95	1.137	0.06	0.109	0.124
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	10mm	7	Ant 4+3(3)	155	5775	17.30	17.50	1.047	87.95	1.137	0.06	0.001	0.001
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	8	Ant 4+3(4)	155	5775	13.40	13.50	1.023	87.95	1.137	0.17	0.032	0.037
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	8	Ant 4+3(3)	155	5775	14.30	15.00	1.175	87.95	1.137	0.17	0.170	0.227
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	8	Ant 4+3(4)	155	5775	13.40	13.50	1.023	87.95	1.137	-0.11	0.135	0.157
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	8	Ant 4+3(3)	155	5775	14.30	15.00	1.175	87.95	1.137	-0.11	0.151	0.202
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Side	10mm	8	Ant 4+3(4)	155	5775	13.40	13.50	1.023	87.95	1.137	-0.19	0.001	0.001
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Side	10mm	8	Ant 4+3(3)	155	5775	14.30	15.00	1.175	87.95	1.137	-0.19	0.104	0.139
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Side	10mm	8	Ant 4+3(4)	155	5775	13.40	13.50	1.023	87.95	1.137	-0.1	0.143	0.166
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Side	10mm	8	Ant 4+3(3)	155	5775	14.30	15.00	1.175	87.95	1.137	-0.1	0.001	0.001
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	10mm	8	Ant 4+3(4)	155	5775	13.40	13.50	1.023	87.95	1.137	-0.19	0.048	0.056
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	10mm	8	Ant 4+3(3)	155	5775	14.30	15.00	1.175	87.95	1.137	-0.19	0.019	0.025
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	9	Ant 4+3(4)	155	5775	15.40	17.00	1.445	87.95	1.137	-0.11	0.035	0.058
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	9	Ant 4+3(3)	155	5775	15.60	16.50	1.230	87.95	1.137	-0.11	0.095	0.133
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	9	Ant 4+3(4)	155	5775	15.40	17.00	1.445	87.95	1.137	-0.13	0.233	0.383
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	9	Ant 4+3(3)	155	5775	15.60	16.50	1.230	87.95	1.137	-0.13	0.215	0.301
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Side	10mm	9	Ant 4+3(4)	155	5775	15.40	17.00	1.445	87.95	1.137	-0.14	0.001	0.002
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Side	10mm	9	Ant 4+3(3)	155	5775	15.60	16.50	1.230	87.95	1.137	-0.14	0.073	0.102
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Side	10mm	9	Ant 4+3(4)	155	5775	15.40	17.00	1.445	87.95	1.137	-0.15	0.225	0.370
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Side	10mm	9	Ant 4+3(3)	155	5775	15.60	16.50	1.230	87.95	1.137	-0.15	0.001	0.001
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	10mm	9	Ant 4+3(4)	155	5775	15.40	17.00	1.445	87.95	1.137	0.18	0.073	0.120
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	10mm	9	Ant 4+3(3)	155	5775	15.60	16.50	1.230	87.95	1.137	0.18	0.047	0.066



<Bluetooth SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Index	Antenna	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	Bluetooth	1Mbps	Front	10mm	3	Ant 4	78	2480	14.85	15.00	1.035	76.81	1.084	-0.17	0.046	0.052
	Bluetooth	1Mbps	Back	10mm	3	Ant 4	78	2480	14.85	15.00	1.035	76.81	1.084	0.01	0.055	0.062
	Bluetooth	1Mbps	Left Side	10mm	3	Ant 4	78	2480	14.85	15.00	1.035	76.81	1.084	0.16	0.001	0.001
	Bluetooth	1Mbps	Right Side	10mm	3	Ant 4	78	2480	14.85	15.00	1.035	76.81	1.084	0.01	0.028	0.031
	Bluetooth	1Mbps	Top Side	10mm	3	Ant 4	78	2480	14.85	15.00	1.035	76.81	1.084	0.09	0.064	0.072
	Bluetooth	1Mbps	Front	10mm	3	Ant 3	78	2480	14.65	15.00	1.084	77.31	1.077	-0.19	0.102	0.119
	Bluetooth	1Mbps	Back	10mm	3	Ant 3	78	2480	14.65	15.00	1.084	77.31	1.077	0.1	0.128	0.149
59	Bluetooth	1Mbps	Left Side	10mm	3	Ant 3	78	2480	14.65	15.00	1.084	77.31	1.077	0.15	0.185	0.216
	Bluetooth	1Mbps	Right Side	10mm	3	Ant 3	78	2480	14.65	15.00	1.084	77.31	1.077	0.11	0.003	0.004
	Bluetooth	1Mbps	Top Side	10mm	3	Ant 3	78	2480	14.65	15.00	1.084	77.31	1.077	0.03	0.013	0.015
	Bluetooth	1Mbps	Front	10mm	3	Ant 4+3(4)	0	2402	14.75	15.00	1.059	77.28	1.078	-0.19	0.089	0.102
	Bluetooth	1Mbps	Front	10mm	3	Ant 4+3(3)	0	2402	14.75	15.00	1.059	77.28	1.078	-0.19	0.060	0.069
	Bluetooth	1Mbps	Back	10mm	3	Ant 4+3(4)	0	2402	14.75	15.00	1.059	77.28	1.078	-0.13	0.048	0.055
	Bluetooth	1Mbps	Back	10mm	3	Ant 4+3(3)	0	2402	14.75	15.00	1.059	77.28	1.078	-0.13	0.095	0.108
	Bluetooth	1Mbps	Left Side	10mm	3	Ant 4+3(4)	0	2402	14.75	15.00	1.059	77.28	1.078	-0.1	0.001	0.001
	Bluetooth	1Mbps	Left Side	10mm	3	Ant 4+3(3)	0	2402	14.75	15.00	1.059	77.28	1.078	-0.1	0.150	0.171
	Bluetooth	1Mbps	Right Side	10mm	3	Ant 4+3(4)	0	2402	14.75	15.00	1.059	77.28	1.078	-0.19	0.014	0.016
	Bluetooth	1Mbps	Right Side	10mm	3	Ant 4+3(3)	0	2402	14.75	15.00	1.059	77.28	1.078	-0.19	0.001	0.001
	Bluetooth	1Mbps	Top Side	10mm	3	Ant 4+3(4)	0	2402	14.75	15.00	1.059	77.28	1.078	-0.06	0.069	0.079
	Bluetooth	1Mbps	Top Side	10mm	3	Ant 4+3(3)	0	2402	14.75	15.00	1.059	77.28	1.078	-0.06	0.001	0.001



15.3 Body Worn Accessory SAR

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	GSM850_Ant 0	GPRS (4 Tx slots)	Front	10mm	5/6	128	824.2	29.42	30.50	1.282	-0.18	0.371	0.476
	GSM850_Ant 0	GPRS (4 Tx slots)	Back	10mm	5/6	128	824.2	29.42	30.50	1.282	-0.14	0.437	0.560
60	GSM850_Ant 0	GPRS (4 Tx slots)	Back	10mm	5/6	189	836.4	29.35	30.50	1.303	0	0.545	0.710
	GSM850_Ant 0	GPRS (4 Tx slots)	Back	10mm	5/6	251	848.8	29.24	30.50	1.337	-0.18	0.460	0.615
	GSM850_Ant 1	GPRS (4 Tx slots)	Front	10mm	5/6	128	824.2	29.09	30.50	1.384	0.07	0.283	0.392
	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	5/6	128	824.2	29.09	30.50	1.384	-0.03	0.392	0.542
	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	5/6	189	836.4	29.07	30.50	1.390	0.13	0.319	0.443
	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	5/6	251	848.8	28.80	30.50	1.479	0.08	0.292	0.432
	GSM1900_Ant 2	GPRS (4 Tx slots)	Front	10mm	5	661	1880	25.01	25.50	1.119	0.05	0.787	0.881
	GSM1900_Ant 2	GPRS (4 Tx slots)	Front	10mm	5	512	1850.2	24.99	25.50	1.125	-0.09	0.770	0.866
	GSM1900_Ant 2	GPRS (4 Tx slots)	Front	10mm	5	810	1909.8	24.78	25.50	1.180	-0.1	0.776	0.916
	GSM1900_Ant 2	GPRS (4 Tx slots)	Back	10mm	5	661	1880	25.01	25.50	1.119	-0.14	0.955	1.069
	GSM1900_Ant 2	GPRS (4 Tx slots)	Back	10mm	5	512	1850.2	24.99	25.50	1.125	-0.18	0.936	1.053
61	GSM1900_Ant 2	GPRS (4 Tx slots)	Back	10mm	5	810	1909.8	24.78	25.50	1.180	-0.1	0.980	1.157
	GSM1900_Ant 2	GPRS (4 Tx slots)	Front	10mm	6	661	1880	23.72	24.70	1.253	0.07	0.580	0.727
	GSM1900_Ant 2	GPRS (4 Tx slots)	Back	10mm	6	661	1880	23.72	24.70	1.253	-0.11	0.703	0.881
	GSM1900_Ant 2	GPRS (4 Tx slots)	Back	10mm	6	512	1850.2	23.60	24.70	1.288	-0.17	0.683	0.880
	GSM1900_Ant 2	GPRS (4 Tx slots)	Back	10mm	6	810	1909.8	23.50	24.70	1.318	-0.16	0.730	0.962
	GSM1900_Ant 0	GPRS (4 Tx slots)	Front	10mm	5/6	512	1850.2	26.62	28.00	1.374	-0.14	0.368	0.506
	GSM1900_Ant 0	GPRS (4 Tx slots)	Back	10mm	5/6	512	1850.2	26.62	28.00	1.374	-0.11	0.594	0.816
	GSM1900_Ant 0	GPRS (4 Tx slots)	Back	10mm	5/6	661	1880	26.41	28.00	1.442	-0.12	0.689	0.994
	GSM1900_Ant 0	GPRS (4 Tx slots)	Back	10mm	5/6	810	1909.8	26.26	28.00	1.493	-0.14	0.609	0.909

<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA II_Ant 2	RMC 12.2Kbps	Front	10mm	5	9262	1852.4	20.37	22.10	1.489	0.06	0.502	0.748
	WCDMA II_Ant 2	RMC 12.2Kbps	Back	10mm	5	9262	1852.4	20.37	22.10	1.489	-0.12	0.658	0.980
	WCDMA II_Ant 2	RMC 12.2Kbps	Back	10mm	5	9400	1880	20.18	22.10	1.556	-0.15	0.674	1.049
62	WCDMA II_Ant 2	RMC 12.2Kbps	Back	10mm	5	9538	1907.6	20.11	22.10	1.581	-0.16	0.692	1.094
	WCDMA II_Ant 2	RMC 12.2Kbps	Front	10mm	6	9262	1852.4	20.37	21.30	1.239	0.06	0.502	0.622
	WCDMA II_Ant 2	RMC 12.2Kbps	Back	10mm	6	9262	1852.4	20.37	21.30	1.239	-0.12	0.658	0.815
	WCDMA II_Ant 2	RMC 12.2Kbps	Back	10mm	6	9400	1880	20.18	21.30	1.294	-0.15	0.674	0.872
	WCDMA II_Ant 2	RMC 12.2Kbps	Back	10mm	6	9538	1907.6	20.11	21.30	1.315	-0.16	0.692	0.910
	WCDMA II_Ant 0	RMC 12.2Kbps	Front	10mm	5	9262	1852.4	23.79	23.90	1.026	-0.17	0.469	0.481
	WCDMA II_Ant 0	RMC 12.2Kbps	Back	10mm	5	9262	1852.4	23.79	23.90	1.026	-0.12	0.879	0.902
	WCDMA II_Ant 0	RMC 12.2Kbps	Back	10mm	5	9400	1880	23.52	23.90	1.091	-0.12	0.712	0.777
	WCDMA II_Ant 0	RMC 12.2Kbps	Back	10mm	5	9538	1907.6	23.38	23.90	1.127	-0.11	0.658	0.742
	WCDMA II_Ant 0	RMC 12.2Kbps	Front	10mm	6	9262	1852.4	23.79	23.90	1.026	-0.17	0.469	0.481
	WCDMA II_Ant 0	RMC 12.2Kbps	Back	10mm	6	9262	1852.4	23.79	23.90	1.026	-0.12	0.879	0.902
	WCDMA II_Ant 0	RMC 12.2Kbps	Back	10mm	6	9400	1880	23.52	23.90	1.091	-0.12	0.712	0.777
	WCDMA II_Ant 0	RMC 12.2Kbps	Back	10mm	6	9538	1907.6	23.38	23.90	1.127	-0.11	0.658	0.742
	WCDMA IV_Ant 2	RMC 12.2Kbps	Front	10mm	5	1312	1712.4	21.57	23.30	1.489	-0.12	0.551	0.821
	WCDMA IV_Ant 2	RMC 12.2Kbps	Front	10mm	5	1413	1732.6	21.48	23.30	1.521	0.08	0.518	0.788
	WCDMA IV_Ant 2	RMC 12.2Kbps	Front	10mm	5	1513	1752.6	21.51	23.30	1.510	0.03	0.504	0.761
63	WCDMA IV_Ant 2	RMC 12.2Kbps	Back	10mm	5	1312	1712.4	21.57	23.30	1.489	-0.16	0.791	1.178
	WCDMA IV_Ant 2	RMC 12.2Kbps	Back	10mm	5	1413	1732.6	21.48	23.30	1.521	-0.19	0.753	1.145
	WCDMA IV_Ant 2	RMC 12.2Kbps	Back	10mm	5	1513	1752.6	21.51	23.30	1.510	-0.14	0.713	1.077
	WCDMA IV_Ant 2	RMC 12.2Kbps	Front	10mm	6	1312	1712.4	21.57	22.50	1.239	-0.12	0.551	0.683
	WCDMA IV_Ant 2	RMC 12.2Kbps	Back	10mm	6	1312	1712.4	21.57	22.50	1.239	-0.16	0.791	0.980
	WCDMA IV_Ant 2	RMC 12.2Kbps	Back	10mm	6	1413	1732.6	21.48	22.50	1.265	-0.19	0.753	0.952
	WCDMA IV_Ant 2	RMC 12.2Kbps	Back	10mm	6	1513	1752.6	21.51	22.50	1.256	-0.14	0.713	0.896
	WCDMA IV_Ant 0	RMC 12.2Kbps	Front	10mm	5	1312	1712.4	23.25	24.70	1.396	0.16	0.395	0.552
	WCDMA IV_Ant 0	RMC 12.2Kbps	Back	10mm	5	1312	1712.4	23.25	24.70	1.396	-0.18	0.673	0.940
	WCDMA IV_Ant 0	RMC 12.2Kbps	Back	10mm	5	1413	1732.6	23.21	24.70	1.409	-0.19	0.720	1.015
	WCDMA IV_Ant 0	RMC 12.2Kbps	Back	10mm	5	1513	1752.6	23.12	24.70	1.439	-0.16	0.667	0.960
	WCDMA IV_Ant 0	RMC 12.2Kbps	Front	10mm	6	1312	1712.4	23.25	23.90	1.161	0.16	0.395	0.459
	WCDMA IV_Ant 0	RMC 12.2Kbps	Back	10mm	6	1312	1712.4	23.25	23.90	1.161	-0.18	0.673	0.782
	WCDMA IV_Ant 0	RMC 12.2Kbps	Back	10mm	6	1413	1732.6	23.21	23.90	1.172	-0.19	0.720	0.844
	WCDMA IV_Ant 0	RMC 12.2Kbps	Back	10mm	6	1513	1752.6	23.12	23.90	1.197	-0.16	0.667	0.798
	WCDMA V_Ant 0	RMC 12.2Kbps	Front	10mm	5/6	4132	826.4	24.18	25.30	1.294	-0.06	0.302	0.391
	WCDMA V_Ant 0	RMC 12.2Kbps	Back	10mm	5/6	4132	826.4	24.18	25.30	1.294	0.01	0.328	0.424
64	WCDMA V_Ant 0	RMC 12.2Kbps	Back	10mm	5/6	4182	836.4	24.14	25.30	1.306	-0.05	0.326	0.426
	WCDMA V_Ant 0	RMC 12.2Kbps	Back	10mm	5/6	4233	846.6	24.18	25.30	1.294	-0.16	0.327	0.423
	WCDMA V_Ant 1	RMC 12.2Kbps	Front	10mm	5/6	4132	826.4	24.17	25.70	1.422	0.11	0.173	0.246
	WCDMA V_Ant 1	RMC 12.2Kbps	Back	10mm	5/6	4132	826.4	24.17	25.70	1.422	-0.01	0.278	0.395
	WCDMA V_Ant 1	RMC 12.2Kbps	Back	10mm	5/6	4182	836.4	24.26	25.70	1.393	0.06	0.273	0.380
	WCDMA V_Ant 1	RMC 12.2Kbps	Back	10mm	5/6	4233	846.6	24.21	25.70	1.409	0.07	0.265	0.373



<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 7_Ant 2	20M	QPSK	1	0	Front	10mm	5	21350	2560	20.02	21.00	1.253	-0.12	0.329	0.412
	LTE Band 7_Ant 2	20M	QPSK	50	24	Front	10mm	5	21350	2560	20.17	21.00	1.211	-0.11	0.328	0.397
65	LTE Band 7_Ant 2	20M	QPSK	1	0	Back	10mm	5	21350	2560	20.02	21.00	1.253	-0.14	0.582	0.729
	LTE Band 7_Ant 2	20M	QPSK	1	0	Back	10mm	5	20850	2510	20.01	21.00	1.256	-0.17	0.497	0.624
	LTE Band 7_Ant 2	20M	QPSK	1	0	Back	10mm	5	21100	2535	19.99	21.00	1.262	-0.13	0.528	0.666
	LTE Band 7_Ant 2	20M	QPSK	50	24	Back	10mm	5	21350	2560	20.17	21.00	1.211	-0.17	0.554	0.671
	LTE Band 7C_Ant 2	20M	QPSK	1	0	Back	10mm	5	21350	2560	18.63	20.00	1.371	0.08	0.420	0.576
	LTE Band 7_Ant 2	20M	QPSK	1	0	Front	10mm	6	21350	2560	20.02	21.00	1.253	-0.12	0.329	0.412
	LTE Band 7_Ant 2	20M	QPSK	50	24	Front	10mm	6	21350	2560	20.17	21.00	1.211	-0.11	0.328	0.397
	LTE Band 7_Ant 2	20M	QPSK	1	0	Back	10mm	6	21350	2560	20.02	21.00	1.253	-0.14	0.582	0.729
	LTE Band 7_Ant 2	20M	QPSK	1	0	Back	10mm	6	20850	2510	20.01	21.00	1.256	-0.17	0.497	0.624
	LTE Band 7_Ant 2	20M	QPSK	1	0	Back	10mm	6	21100	2535	19.99	21.00	1.262	-0.13	0.528	0.666
	LTE Band 7_Ant 2	20M	QPSK	50	24	Back	10mm	6	21350	2560	20.17	21.00	1.211	-0.17	0.554	0.671
	LTE Band 7C_Ant 2	20M	QPSK	1	0	Back	10mm	6	21350	2560	18.63	20.00	1.371	0.08	0.420	0.576
	LTE Band 7_Ant 0	20M	QPSK	1	99	Front	10mm	5	21350	2560	23.49	24.90	1.384	-0.14	0.316	0.437
	LTE Band 7_Ant 0	20M	QPSK	50	50	Front	10mm	5	21350	2560	23.25	23.90	1.161	-0.18	0.297	0.345
	LTE Band 7_Ant 0	20M	QPSK	1	99	Back	10mm	5	21350	2560	23.49	24.90	1.384	-0.1	0.487	0.674
	LTE Band 7_Ant 0	20M	QPSK	1	99	Back	10mm	5	20850	2510	23.39	24.90	1.416	-0.15	0.351	0.497
	LTE Band 7_Ant 0	20M	QPSK	1	99	Back	10mm	5	21100	2535	23.43	24.90	1.403	-0.14	0.395	0.554
	LTE Band 7_Ant 0	20M	QPSK	50	50	Back	10mm	5	21350	2560	23.25	23.90	1.161	-0.13	0.432	0.502
	LTE Band 7C_Ant 0	20M	QPSK	1	0	Back	10mm	5	21100	2535	21.76	23.30	1.426	-0.12	0.369	0.526
	LTE Band 7_Ant 0	20M	QPSK	1	99	Front	10mm	6	21350	2560	23.49	24.90	1.384	-0.14	0.316	0.437
	LTE Band 7_Ant 0	20M	QPSK	50	50	Front	10mm	6	21350	2560	23.25	23.90	1.161	-0.18	0.297	0.345
	LTE Band 7_Ant 0	20M	QPSK	1	99	Back	10mm	6	21350	2560	23.49	24.90	1.384	-0.1	0.487	0.674
	LTE Band 7_Ant 0	20M	QPSK	1	99	Back	10mm	6	20850	2510	23.39	24.90	1.416	-0.15	0.351	0.497
	LTE Band 7_Ant 0	20M	QPSK	1	99	Back	10mm	6	21100	2535	23.43	24.90	1.403	-0.14	0.395	0.554
	LTE Band 7_Ant 0	20M	QPSK	50	50	Back	10mm	6	21350	2560	23.25	23.90	1.161	-0.13	0.432	0.502
	LTE Band 7C_Ant 0	20M	QPSK	1	0	Back	10mm	6	21100	2535	21.76	23.30	1.426	-0.12	0.369	0.526
	LTE Band 12_Ant 0	10M	QPSK	1	0	Front	10mm	5/6	23095	707.5	24.34	25.30	1.247	0.12	0.246	0.307
	LTE Band 12_Ant 0	10M	QPSK	25	0	Front	10mm	5/6	23095	707.5	23.40	24.30	1.230	-0.15	0.220	0.271
66	LTE Band 12_Ant 0	10M	QPSK	1	0	Back	10mm	5/6	23095	707.5	24.34	25.30	1.247	-0.12	0.341	0.425
	LTE Band 12_Ant 0	10M	QPSK	25	0	Back	10mm	5/6	23095	707.5	23.40	24.30	1.230	0.13	0.254	0.312
	LTE Band 12_Ant 1	10M	QPSK	1	0	Front	10mm	5/6	23095	707.5	23.87	25.20	1.358	-0.16	0.140	0.190
	LTE Band 12_Ant 1	10M	QPSK	25	0	Front	10mm	5/6	23095	707.5	23.00	24.20	1.318	-0.02	0.126	0.166
	LTE Band 12_Ant 1	10M	QPSK	1	0	Back	10mm	5/6	23095	707.5	23.87	25.20	1.358	-0.02	0.215	0.292
	LTE Band 12_Ant 1	10M	QPSK	25	0	Back	10mm	5/6	23095	707.5	23.00	24.20	1.318	-0.06	0.184	0.243
	LTE Band 13_Ant 0	10M	QPSK	1	0	Front	10mm	5/6	23230	782	24.26	25.30	1.271	0.12	0.351	0.446
	LTE Band 13_Ant 0	10M	QPSK	25	0	Front	10mm	5/6	23230	782	23.36	24.30	1.242	-0.12	0.286	0.355
67	LTE Band 13_Ant 0	10M	QPSK	1	0	Back	10mm	5/6	23230	782	24.26	25.30	1.271	-0.01	0.380	0.483
	LTE Band 13_Ant 0	10M	QPSK	25	0	Back	10mm	5/6	23230	782	23.36	24.30	1.242	0.13	0.328	0.407
	LTE Band 13_Ant 1	10M	QPSK	1	0	Front	10mm	5/6	23230	782	23.92	25.20	1.343	0.11	0.163	0.219
	LTE Band 13_Ant 1	10M	QPSK	25	0	Front	10mm	5/6	23230	782	22.94	24.20	1.337	-0.08	0.133	0.178
	LTE Band 13_Ant 1	10M	QPSK	1	0	Back	10mm	5/6	23230	782	23.92	25.20	1.343	-0.19	0.227	0.305
	LTE Band 13_Ant 1	10M	QPSK	25	0	Back	10mm	5/6	23230	782	22.94	24.20	1.337	0.13	0.189	0.253



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 14_Ant 0	10M	QPSK	1	0	Front	10mm	5/6	23330	793	24.44	25.50	1.276	0.11	0.323	0.412
	LTE Band 14_Ant 0	10M	QPSK	25	0	Front	10mm	5/6	23330	793	23.53	24.50	1.250	-0.07	0.263	0.329
68	LTE Band 14_Ant 0	10M	QPSK	1	0	Back	10mm	5/6	23330	793	24.44	25.50	1.276	-0.1	0.450	0.574
	LTE Band 14_Ant 0	10M	QPSK	25	0	Back	10mm	5/6	23330	793	23.53	24.50	1.250	0.11	0.305	0.381
	LTE Band 14_Ant 1	10M	QPSK	1	0	Front	10mm	5/6	23330	793	23.84	25.20	1.368	-0.04	0.155	0.212
	LTE Band 14_Ant 1	10M	QPSK	25	0	Front	10mm	5/6	23330	793	22.87	24.20	1.358	-0.16	0.146	0.198
	LTE Band 14_Ant 1	10M	QPSK	1	0	Back	10mm	5/6	23330	793	23.84	25.20	1.368	0.17	0.271	0.371
	LTE Band 14_Ant 1	10M	QPSK	25	0	Back	10mm	5/6	23330	793	22.87	24.20	1.358	-0.15	0.190	0.258
	LTE Band 25_Ant 2	20M	QPSK	1	0	Front	10mm	5	26140	1860	21.40	22.10	1.175	-0.16	0.710	0.834
	LTE Band 25_Ant 2	20M	QPSK	1	0	Front	10mm	5	26340	1880	21.33	22.10	1.194	-0.17	0.764	0.912
	LTE Band 25_Ant 2	20M	QPSK	1	0	Front	10mm	5	26590	1905	21.13	22.10	1.250	-0.16	0.756	0.945
	LTE Band 25_Ant 2	20M	QPSK	50	24	Front	10mm	5	26140	1860	21.48	22.10	1.153	-0.14	0.771	0.889
	LTE Band 25_Ant 2	20M	QPSK	50	24	Front	10mm	5	26340	1880	21.36	22.10	1.186	-0.14	0.774	0.918
	LTE Band 25_Ant 2	20M	QPSK	50	24	Front	10mm	5	26590	1905	21.14	22.10	1.247	-0.11	0.695	0.867
	LTE Band 25_Ant 2	20M	QPSK	100	0	Front	10mm	5	26140	1860	21.47	22.10	1.156	-0.11	0.743	0.859
	LTE Band 25_Ant 2	20M	QPSK	1	0	Back	10mm	5	26140	1860	21.40	22.10	1.175	-0.14	0.876	1.029
	LTE Band 25_Ant 2	20M	QPSK	1	0	Back	10mm	5	26340	1880	21.33	22.10	1.194	-0.16	0.937	1.119
69	LTE Band 25_Ant 2	20M	QPSK	1	0	Back	10mm	5	26590	1905	21.13	22.10	1.250	-0.14	0.939	1.174
	LTE Band 25_Ant 2	20M	QPSK	50	24	Back	10mm	5	26140	1860	21.48	22.10	1.153	-0.17	0.927	1.069
	LTE Band 25_Ant 2	20M	QPSK	50	24	Back	10mm	5	26340	1880	21.36	22.10	1.186	-0.15	0.976	1.157
	LTE Band 25_Ant 2	20M	QPSK	50	24	Back	10mm	5	26590	1905	21.14	22.10	1.247	-0.19	0.928	1.158
	LTE Band 25_Ant 2	20M	QPSK	100	0	Back	10mm	5	26140	1860	21.47	22.10	1.156	-0.18	0.984	1.138
	LTE Band 25_Ant 2	20M	QPSK	1	0	Front	10mm	6	26140	1860	20.30	21.30	1.259	-0.09	0.548	0.690
	LTE Band 25_Ant 2	20M	QPSK	50	24	Front	10mm	6	26140	1860	20.41	21.30	1.227	-0.14	0.576	0.707
	LTE Band 25_Ant 2	20M	QPSK	1	0	Back	10mm	6	26140	1860	20.30	21.30	1.259	-0.13	0.632	0.796
	LTE Band 25_Ant 2	20M	QPSK	1	0	Back	10mm	6	26340	1880	20.29	21.30	1.262	-0.11	0.680	0.858
	LTE Band 25_Ant 2	20M	QPSK	1	0	Back	10mm	6	26590	1905	20.18	21.30	1.294	-0.12	0.670	0.867
	LTE Band 25_Ant 2	20M	QPSK	50	24	Back	10mm	6	26140	1860	20.41	21.30	1.227	-0.18	0.667	0.819
	LTE Band 25_Ant 2	20M	QPSK	50	24	Back	10mm	6	26340	1880	20.34	21.30	1.247	-0.09	0.699	0.872
	LTE Band 25_Ant 2	20M	QPSK	50	24	Back	10mm	6	26590	1905	20.22	21.30	1.282	-0.18	0.667	0.855
	LTE Band 25_Ant 2	20M	QPSK	100	0	Back	10mm	6	26140	1860	20.39	21.30	1.233	-0.18	0.675	0.832
	LTE Band 25_Ant 0	20M	QPSK	1	0	Front	10mm	5	26340	1880	22.20	23.40	1.318	-0.17	0.386	0.509
	LTE Band 25_Ant 0	20M	QPSK	50	24	Front	10mm	5	26340	1880	22.21	23.40	1.315	-0.17	0.388	0.510
	LTE Band 25_Ant 0	20M	QPSK	1	0	Back	10mm	5	26340	1880	22.20	23.40	1.318	-0.1	0.635	0.837
	LTE Band 25_Ant 0	20M	QPSK	1	0	Back	10mm	5	26140	1860	22.02	23.40	1.374	-0.16	0.681	0.936
	LTE Band 25_Ant 0	20M	QPSK	1	0	Back	10mm	5	26590	1905	22.08	23.40	1.355	-0.19	0.569	0.771
	LTE Band 25_Ant 0	20M	QPSK	50	24	Back	10mm	5	26340	1880	22.21	23.40	1.315	-0.14	0.636	0.836
	LTE Band 25_Ant 0	20M	QPSK	50	24	Back	10mm	5	26140	1860	22.15	23.40	1.334	-0.1	0.647	0.863
	LTE Band 25_Ant 0	20M	QPSK	50	24	Back	10mm	5	26590	1905	22.12	23.40	1.343	-0.17	0.553	0.743
	LTE Band 25_Ant 0	20M	QPSK	100	0	Back	10mm	5	26340	1880	22.20	23.40	1.318	-0.13	0.626	0.825
	LTE Band 25_Ant 0	20M	QPSK	1	0	Front	10mm	6	26340	1880	22.20	23.40	1.318	-0.17	0.386	0.509
	LTE Band 25_Ant 0	20M	QPSK	50	24	Front	10mm	6	26340	1880	22.21	23.40	1.315	-0.17	0.388	0.510
	LTE Band 25_Ant 0	20M	QPSK	1	0	Back	10mm	6	26340	1880	22.20	23.40	1.318	-0.1	0.635	0.837
	LTE Band 25_Ant 0	20M	QPSK	1	0	Back	10mm	6	26140	1860	22.02	23.40	1.374	-0.16	0.681	0.936
	LTE Band 25_Ant 0	20M	QPSK	1	0	Back	10mm	6	26590	1905	22.08	23.40	1.355	-0.19	0.569	0.771
	LTE Band 25_Ant 0	20M	QPSK	50	24	Back	10mm	6	26340	1880	22.21	23.40	1.315	-0.14	0.636	0.836
	LTE Band 25_Ant 0	20M	QPSK	50	24	Back	10mm	6	26140	1860	22.15	23.40	1.334	-0.1	0.647	0.863
	LTE Band 25_Ant 0	20M	QPSK	50	24	Back	10mm	6	26590	1905	22.12	23.40	1.343	-0.17	0.553	0.743
	LTE Band 25_Ant 0	20M	QPSK	100	0	Back	10mm	6	26340	1880	22.20	23.40	1.318	-0.13	0.626	0.825



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 26_Ant 0	15M	QPSK	1	0	Front	10mm	5/6	26865	831.5	24.62	25.50	1.225	0.01	0.333	0.408
	LTE Band 26_Ant 0	15M	QPSK	36	0	Front	10mm	5/6	26865	831.5	23.64	24.50	1.219	0.08	0.250	0.305
70	LTE Band 26_Ant 0	15M	QPSK	1	0	Back	10mm	5/6	26865	831.5	24.62	25.50	1.225	-0.07	0.358	0.438
	LTE Band 26_Ant 0	15M	QPSK	36	0	Back	10mm	5/6	26865	831.5	23.64	24.50	1.219	-0.11	0.299	0.364
	LTE Band 5B_Ant 0	10M	QPSK	1	0	Back	10mm	5/6	20600	844	22.11	23.50	1.377	0.06	0.189	0.260
	LTE Band 26_Ant 1	15M	QPSK	1	0	Front	10mm	5/6	26865	831.5	24.46	25.20	1.186	-0.06	0.202	0.240
	LTE Band 26_Ant 1	15M	QPSK	36	0	Front	10mm	5/6	26865	831.5	23.48	24.20	1.180	0.01	0.157	0.185
	LTE Band 26_Ant 1	15M	QPSK	1	0	Back	10mm	5/6	26865	831.5	24.46	25.20	1.186	-0.09	0.295	0.350
	LTE Band 26_Ant 1	15M	QPSK	36	0	Back	10mm	5/6	26865	831.5	23.48	24.20	1.180	0.1	0.231	0.273
	LTE Band 5B_Ant 1	10M	QPSK	1	0	Back	10mm	5/6	20600	844	21.71	23.20	1.409	0.07	0.155	0.218
	LTE Band 30_Ant 2	10M	QPSK	1	0	Front	10mm	5	27710	2310	21.41	23.40	1.581	-0.03	0.469	0.742
	LTE Band 30_Ant 2	10M	QPSK	25	25	Front	10mm	5	27710	2310	20.69	21.60	1.233	-0.01	0.431	0.531
71	LTE Band 30_Ant 2	10M	QPSK	1	0	Back	10mm	5	27710	2310	21.41	23.40	1.581	-0.14	0.712	1.126
	LTE Band 30_Ant 2	10M	QPSK	25	25	Back	10mm	5	27710	2310	20.69	21.60	1.233	-0.17	0.667	0.822
	LTE Band 30_Ant 2	10M	QPSK	50	0	Back	10mm	5	27710	2310	20.69	21.60	1.233	-0.14	0.667	0.822
	LTE Band 30_Ant 2	10M	QPSK	1	0	Front	10mm	6	27710	2310	21.41	22.60	1.315	-0.03	0.469	0.617
	LTE Band 30_Ant 2	10M	QPSK	25	25	Front	10mm	6	27710	2310	20.69	21.60	1.233	-0.01	0.431	0.531
	LTE Band 30_Ant 2	10M	QPSK	1	0	Back	10mm	6	27710	2310	21.41	22.60	1.315	-0.14	0.712	0.936
	LTE Band 30_Ant 2	10M	QPSK	25	25	Back	10mm	6	27710	2310	20.69	21.60	1.233	-0.17	0.667	0.822
	LTE Band 30_Ant 2	10M	QPSK	50	0	Back	10mm	6	27710	2310	20.69	21.60	1.233	-0.14	0.667	0.822
	LTE Band 30_Ant 0	10M	QPSK	1	0	Front	10mm	5	27710	2310	22.15	23.70	1.429	-0.11	0.366	0.523
	LTE Band 30_Ant 0	10M	QPSK	25	0	Front	10mm	5	27710	2310	20.67	21.90	1.327	-0.17	0.260	0.345
	LTE Band 30_Ant 0	10M	QPSK	1	0	Back	10mm	5	27710	2310	22.15	23.70	1.429	-0.13	0.495	0.707
	LTE Band 30_Ant 0	10M	QPSK	25	0	Back	10mm	5	27710	2310	20.67	21.90	1.327	-0.15	0.336	0.446
	LTE Band 30_Ant 0	10M	QPSK	1	0	Front	10mm	6	27710	2310	22.15	23.70	1.429	-0.11	0.366	0.523
	LTE Band 30_Ant 0	10M	QPSK	25	0	Front	10mm	6	27710	2310	20.67	21.90	1.327	-0.17	0.260	0.345
	LTE Band 30_Ant 0	10M	QPSK	1	0	Back	10mm	6	27710	2310	22.15	23.70	1.429	-0.13	0.495	0.707
	LTE Band 30_Ant 0	10M	QPSK	25	0	Back	10mm	6	27710	2310	20.67	21.90	1.327	-0.15	0.336	0.446



FCC SAR TEST REPORT

Report No. : FA161608-03C

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 66_Ant 2	20M	QPSK	1	0	Front	10mm	5	132072	1720	22.09	23.20	1.291	-0.13	0.729	0.941
	LTE Band 66_Ant 2	20M	QPSK	1	0	Front	10mm	5	132322	1745	22.00	23.20	1.318	-0.09	0.645	0.850
	LTE Band 66_Ant 2	20M	QPSK	1	0	Front	10mm	5	132572	1770	21.95	23.20	1.334	-0.1	0.616	0.821
	LTE Band 66_Ant 2	20M	QPSK	50	24	Front	10mm	5	132072	1720	22.14	23.20	1.276	-0.17	0.757	0.966
	LTE Band 66_Ant 2	20M	QPSK	50	24	Front	10mm	5	132322	1745	22.07	23.20	1.297	-0.18	0.668	0.867
	LTE Band 66_Ant 2	20M	QPSK	50	24	Front	10mm	5	132572	1770	22.01	23.20	1.315	-0.16	0.626	0.823
	LTE Band 66_Ant 2	20M	QPSK	100	0	Front	10mm	5	132072	1720	22.11	23.20	1.285	-0.13	0.696	0.895
	LTE Band 66_Ant 2	20M	QPSK	1	0	Back	10mm	5	132072	1720	22.09	23.20	1.291	-0.12	0.824	1.064
	LTE Band 66_Ant 2	20M	QPSK	1	0	Back	10mm	5	132322	1745	22.00	23.20	1.318	-0.1	0.776	1.023
	LTE Band 66_Ant 2	20M	QPSK	1	0	Back	10mm	5	132572	1770	21.95	23.20	1.334	-0.1	0.750	1.000
72	LTE Band 66_Ant 2	20M	QPSK	50	24	Back	10mm	5	132072	1720	22.14	23.20	1.276	-0.19	0.890	1.136
	LTE Band 66_Ant 2	20M	QPSK	50	24	Back	10mm	5	132322	1745	22.07	23.20	1.297	-0.14	0.803	1.042
	LTE Band 66_Ant 2	20M	QPSK	50	24	Back	10mm	5	132572	1770	22.01	23.20	1.315	-0.18	0.777	1.022
	LTE Band 66_Ant 2	20M	QPSK	100	0	Back	10mm	5	132072	1720	22.11	23.20	1.285	-0.17	0.847	1.089
	LTE Band 66B_Ant 2	15M	QPSK	1	74	Back	10mm	5	132047	1717.5	18.16	19.25	1.285	-0.13	0.416	0.535
	LTE Band 66C_Ant 2	20M	QPSK	1	99	Back	10mm	5	132072	1720	18.26	19.25	1.256	-0.15	0.402	0.505
	LTE Band 66_Ant 2	20M	QPSK	1	0	Front	10mm	6	132072	1720	21.04	22.40	1.368	-0.16	0.599	0.819
	LTE Band 66_Ant 2	20M	QPSK	1	0	Front	10mm	6	132322	1745	21.03	22.40	1.371	-0.05	0.575	0.788
	LTE Band 66_Ant 2	20M	QPSK	1	0	Front	10mm	6	132572	1770	20.97	22.40	1.390	-0.1	0.533	0.741
	LTE Band 66_Ant 2	20M	QPSK	50	24	Front	10mm	6	132072	1720	21.15	22.40	1.334	-0.03	0.620	0.827
	LTE Band 66_Ant 2	20M	QPSK	50	24	Front	10mm	6	132322	1745	21.08	22.40	1.355	-0.15	0.585	0.793
	LTE Band 66_Ant 2	20M	QPSK	50	24	Front	10mm	6	132572	1770	21.04	22.40	1.368	-0.14	0.551	0.754
	LTE Band 66_Ant 2	20M	QPSK	100	0	Front	10mm	6	132072	1720	21.13	22.40	1.340	-0.13	0.610	0.817
	LTE Band 66_Ant 2	20M	QPSK	1	0	Back	10mm	6	132072	1720	21.04	22.40	1.368	-0.14	0.682	0.933
	LTE Band 66_Ant 2	20M	QPSK	1	0	Back	10mm	6	132322	1745	21.03	22.40	1.371	-0.12	0.600	0.823
	LTE Band 66_Ant 2	20M	QPSK	1	0	Back	10mm	6	132572	1770	20.97	22.40	1.390	-0.11	0.565	0.785
	LTE Band 66_Ant 2	20M	QPSK	50	24	Back	10mm	6	132072	1720	21.15	22.40	1.334	-0.18	0.655	0.873
	LTE Band 66_Ant 2	20M	QPSK	50	24	Back	10mm	6	132322	1745	21.08	22.40	1.355	-0.15	0.617	0.836
	LTE Band 66_Ant 2	20M	QPSK	50	24	Back	10mm	6	132572	1770	21.04	22.40	1.368	-0.09	0.578	0.791
	LTE Band 66_Ant 2	20M	QPSK	100	0	Back	10mm	6	132072	1720	21.13	22.40	1.340	-0.16	0.633	0.848
	LTE Band 66B_Ant 2	15M	QPSK	1	74	Back	10mm	6	132047	1717.5	18.16	19.25	1.285	-0.13	0.345	0.443
	LTE Band 66C_Ant 2	20M	QPSK	1	99	Back	10mm	6	132072	1720	18.26	19.25	1.256	-0.13	0.355	0.446
	LTE Band 66_Ant 0	20M	QPSK	1	0	Front	10mm	5	132322	1745	23.64	24.70	1.276	-0.19	0.511	0.652
	LTE Band 66_Ant 0	20M	QPSK	50	0	Front	10mm	5	132322	1745	22.73	24.20	1.403	-0.17	0.421	0.591
	LTE Band 66_Ant 0	20M	QPSK	1	0	Back	10mm	5	132322	1745	23.64	24.70	1.276	-0.11	0.792	1.011
	LTE Band 66_Ant 0	20M	QPSK	1	0	Back	10mm	5	132072	1720	23.62	24.70	1.282	-0.19	0.760	0.975
	LTE Band 66_Ant 0	20M	QPSK	1	0	Back	10mm	5	132572	1770	23.63	24.70	1.279	-0.13	0.885	1.132
	LTE Band 66_Ant 0	20M	QPSK	50	0	Back	10mm	5	132322	1745	22.73	24.20	1.403	-0.14	0.657	0.922
	LTE Band 66_Ant 0	20M	QPSK	50	0	Back	10mm	5	132072	1720	22.72	24.20	1.406	-0.14	0.655	0.921
	LTE Band 66_Ant 0	20M	QPSK	50	0	Back	10mm	5	132572	1770	22.66	24.20	1.426	-0.14	0.669	0.954
	LTE Band 66_Ant 0	20M	QPSK	100	0	Back	10mm	5	132322	1745	22.70	24.20	1.413	-0.12	0.643	0.908
	LTE Band 66B_Ant 0	15M	QPSK	1	0	Back	10mm	5	132322	1745	17.50	18.75	1.334	0.11	0.263	0.351
	LTE Band 66C_Ant 0	20M	QPSK	1	0	Back	10mm	5	132322	1745	17.56	18.75	1.315	0.13	0.277	0.364
	LTE Band 66_Ant 0	20M	QPSK	1	0	Front	10mm	6	132322	1745	23.64	23.90	1.062	-0.19	0.511	0.543
	LTE Band 66_Ant 0	20M	QPSK	50	0	Front	10mm	6	132322	1745	22.73	23.90	1.309	-0.17	0.421	0.551
	LTE Band 66_Ant 0	20M	QPSK	1	0	Back	10mm	6	132322	1745	23.64	23.90	1.062	-0.11	0.792	0.841
	LTE Band 66_Ant 0	20M	QPSK	1	0	Back	10mm	6	132072	1720	23.62	23.90	1.067	-0.19	0.760	0.811
	LTE Band 66_Ant 0	20M	QPSK	1	0	Back	10mm	6	132572	1770	23.63	23.90	1.064	-0.13	0.885	0.942
	LTE Band 66_Ant 0	20M	QPSK	50	0	Back	10mm	6	132322	1745	22.73	23.90	1.309	-0.14	0.657	0.860
	LTE Band 66_Ant 0	20M	QPSK	50	0	Back	10mm	6	132072	1720	22.72	23.90	1.312	-0.14	0.655	0.859
	LTE Band 66_Ant 0	20M	QPSK	50	0	Back	10mm	6	132572	1770	22.66	23.90	1.330	-0.14	0.669	0.890
	LTE Band 66_Ant 0	20M	QPSK	100	0	Back	10mm	6	132322	1745	22.70	23.90	1.318	-0.12	0.643	0.848
	LTE Band 66B_Ant 0	15M	QPSK	1	0	Back	10mm	6	132322	1745	17.50	18.75	1.334	0.11	0.263	0.351
	LTE Band 66C_Ant 0	20M	QPSK	1	0	Back	10mm	6	132322	1745	17.56	18.75	1.315	0.13	0.268	0.352



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 71_Ant 0	20M	QPSK	1	0	Front	10mm	5/6	133322	683	24.50	25.30	1.202	-0.05	0.289	0.347
	LTE Band 71_Ant 0	20M	QPSK	50	0	Front	10mm	5/6	133322	683	23.60	24.30	1.175	0.11	0.242	0.284
73	LTE Band 71_Ant 0	20M	QPSK	1	0	Back	10mm	5/6	133322	683	24.50	25.30	1.202	-0.13	0.402	0.483
	LTE Band 71_Ant 0	20M	QPSK	50	0	Back	10mm	5/6	133322	683	23.60	24.30	1.175	0.13	0.302	0.355
	LTE Band 71_Ant 1	20M	QPSK	1	0	Front	10mm	5/6	133322	683	24.03	25.20	1.309	-0.15	0.131	0.172
	LTE Band 71_Ant 1	20M	QPSK	50	0	Front	10mm	5/6	133322	683	23.20	24.20	1.259	-0.01	0.114	0.144
	LTE Band 71_Ant 1	20M	QPSK	1	0	Back	10mm	5/6	133322	683	24.03	25.20	1.309	-0.06	0.199	0.261
	LTE Band 71_Ant 1	20M	QPSK	50	0	Back	10mm	5/6	133322	683	23.20	24.20	1.259	0.11	0.161	0.203

<TDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 41_Ant 2	20M	QPSK	1	0	Front	10mm	5	40185	2549.5	21.90	23.40	1.413	62.9	1.006	-0.11	0.360	0.512
	LTE Band 41_Ant 2	20M	QPSK	50	24	Front	10mm	5	40185	2549.5	22.00	23.40	1.380	62.9	1.006	-0.09	0.367	0.510
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	5	40185	2549.5	21.90	23.40	1.413	62.9	1.006	-0.15	0.462	0.657
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	5	39790	2510	21.86	23.40	1.426	62.9	1.006	-0.18	0.422	0.605
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	5	39750	2506	21.83	23.40	1.435	62.9	1.006	-0.17	0.394	0.569
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	5	40620	2593	21.89	23.40	1.416	62.9	1.006	-0.12	0.408	0.581
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	5	41055	2636.5	21.68	23.40	1.486	62.9	1.006	-0.13	0.411	0.614
74	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	5	41490	2680	21.69	23.40	1.483	62.9	1.006	-0.11	0.527	0.786
	LTE Band 41_Ant 2	20M	QPSK	50	24	Back	10mm	5	40185	2549.5	22.00	23.40	1.380	62.9	1.006	-0.13	0.469	0.651
	LTE Band 41_HPUE_Ant 2	20M	QPSK	1	0	Back	10mm	5	40620	2593	23.51	25.00	1.409	42.9	1.009	-0.14	0.495	0.704
	LTE Band 41C_Ant 2	20M	QPSK	1	0	Back	10mm	5	40620	2593	19.83	21.40	1.435	62.9	1.006	0.12	0.413	0.596
	LTE Band 41_Ant 2	20M	QPSK	1	0	Front	10mm	6	40185	2549.5	21.90	23.40	1.413	62.9	1.006	-0.11	0.360	0.512
	LTE Band 41_Ant 2	20M	QPSK	50	24	Front	10mm	6	40185	2549.5	22.00	23.40	1.380	62.9	1.006	-0.09	0.367	0.510
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	6	40185	2549.5	21.90	23.40	1.413	62.9	1.006	-0.15	0.462	0.657
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	6	39790	2510	21.86	23.40	1.426	62.9	1.006	-0.18	0.422	0.605
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	6	39750	2506	21.83	23.40	1.435	62.9	1.006	-0.17	0.394	0.569
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	6	40620	2593	21.89	23.40	1.416	62.9	1.006	-0.12	0.408	0.581
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	6	41055	2636.5	21.68	23.40	1.486	62.9	1.006	-0.13	0.411	0.614
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	6	41490	2680	21.69	23.40	1.483	62.9	1.006	-0.11	0.527	0.786
	LTE Band 41_Ant 2	20M	QPSK	50	24	Back	10mm	6	40185	2549.5	22.00	23.40	1.380	62.9	1.006	-0.13	0.469	0.651
	LTE Band 41_HPUE_Ant 2	20M	QPSK	1	0	Back	10mm	6	40620	2593	23.51	25.00	1.409	42.9	1.009	-0.14	0.495	0.704
	LTE Band 41C_Ant 2	20M	QPSK	1	0	Back	10mm	6	40620	2593	19.83	21.40	1.435	62.9	1.006	0.12	0.413	0.596
	LTE Band 41_Ant 0	20M	QPSK	1	0	Front	10mm	5/6	40620	2593	23.77	25.20	1.390	62.9	1.006	-0.18	0.296	0.414
	LTE Band 41_Ant 0	20M	QPSK	50	0	Front	10mm	5/6	40620	2593	22.75	24.20	1.396	62.9	1.006	-0.14	0.181	0.254
	LTE Band 41_Ant 0	20M	QPSK	1	0	Back	10mm	5/6	40620	2593	23.77	25.20	1.390	62.9	1.006	-0.16	0.377	0.527
	LTE Band 41_Ant 0	20M	QPSK	1	0	Back	10mm	5/6	39790	2510	23.60	25.20	1.445	62.9	1.006	-0.06	0.235	0.342
	LTE Band 41_Ant 0	20M	QPSK	1	0	Back	10mm	5/6	39750	2506	23.61	25.20	1.442	62.9	1.006	-0.14	0.230	0.334
	LTE Band 41_Ant 0	20M	QPSK	1	0	Back	10mm	5/6	40185	2549.5	23.62	25.20	1.439	62.9	1.006	-0.03	0.306	0.443
	LTE Band 41_Ant 0	20M	QPSK	1	0	Back	10mm	5/6	41055	2636.5	23.62	25.20	1.439	62.9	1.006	0.01	0.471	0.682
	LTE Band 41_Ant 0	20M	QPSK	1	0	Back	10mm	5/6	41490	2680	23.63	25.20	1.435	62.9	1.006	-0.18	0.446	0.644
	LTE Band 41_Ant 0	20M	QPSK	50	0	Back	10mm	5/6	40620	2593	22.75	24.20	1.396	62.9	1.006	-0.14	0.226	0.317
	LTE Band 41_HPUE_Ant 0	20M	QPSK	1	0	Back	10mm	5/6	40620	2593	25.93	27.20	1.340	42.9	1.009	-0.13	0.529	0.715
	LTE Band 41C_Ant 0	20M	QPSK	1	0	Back	10mm	5/6	40620	2593	20.92	22.20	1.343	62.9	1.006	0.11	0.193	0.261



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 48_Ant 6	20M	QPSK	1	0	Front	10mm	5/6	55830	3609	22.88	24.00	1.294	62.9	1.006	-0.16	0.524	0.682
75	LTE Band 48_Ant 6	20M	QPSK	1	0	Front	10mm	5/6	55340	3560	22.69	24.00	1.352	62.9	1.006	-0.01	0.652	0.887
	LTE Band 48_Ant 6	20M	QPSK	1	0	Front	10mm	5/6	56150	3641	22.80	24.00	1.318	62.9	1.006	-0.14	0.442	0.586
	LTE Band 48_Ant 6	20M	QPSK	1	0	Front	10mm	5/6	56640	3690	22.87	24.00	1.297	62.9	1.006	-0.13	0.432	0.564
	LTE Band 48_Ant 6	20M	QPSK	50	0	Front	10mm	5/6	55830	3609	21.85	23.00	1.303	62.9	1.006	-0.13	0.392	0.514
	LTE Band 48_Ant 6	20M	QPSK	100	0	Front	10mm	5/6	55830	3609	21.76	23.00	1.330	62.9	1.006	-0.19	0.376	0.503
	LTE Band 48_Ant 6	20M	QPSK	1	0	Back	10mm	5/6	55830	3609	22.88	24.00	1.294	62.9	1.006	-0.17	0.337	0.439
	LTE Band 48_Ant 6	20M	QPSK	50	0	Back	10mm	5/6	55830	3609	21.85	23.00	1.303	62.9	1.006	-0.14	0.272	0.357
	LTE Band 48_Ant 2	20M	QPSK	1	0	Front	10mm	5/6	55830	3609	21.82	23.20	1.374	62.9	1.006	0.09	0.243	0.336
	LTE Band 48_Ant 2	20M	QPSK	50	0	Front	10mm	5/6	55830	3609	20.85	22.20	1.365	62.9	1.006	0.08	0.182	0.250
	LTE Band 48_Ant 2	20M	QPSK	1	0	Back	10mm	5/6	55830	3609	21.82	23.20	1.374	62.9	1.006	-0.04	0.276	0.382
	LTE Band 48_Ant 2	20M	QPSK	1	0	Back	10mm	5/6	55340	3560	21.78	23.20	1.387	62.9	1.006	0	0.252	0.352
	LTE Band 48_Ant 2	20M	QPSK	1	0	Back	10mm	5/6	56150	3641	21.73	23.20	1.403	62.9	1.006	-0.13	0.251	0.354
	LTE Band 48_Ant 2	20M	QPSK	1	0	Back	10mm	5/6	56640	3690	21.72	23.20	1.406	62.9	1.006	-0.05	0.290	0.410
	LTE Band 48_Ant 2	20M	QPSK	50	0	Back	10mm	5/6	55830	3609	20.85	22.20	1.365	62.9	1.006	0.05	0.189	0.259

<5G NR SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	FR1 n5_Ant 0	20M	BPSK	1	53	Front	10mm	5/6	167300	836.5	24.34	25.50	1.306	0.12	0.249	0.325
	FR1 n5_Ant 0	20M	BPSK	50	28	Front	10mm	5/6	167300	836.5	24.21	25.50	1.346	-0.08	0.237	0.319
76	FR1 n5_Ant 0	20M	BPSK	1	53	Back	10mm	5/6	167300	836.5	24.34	25.50	1.306	-0.12	0.328	0.428
	FR1 n5_Ant 0	20M	BPSK	50	28	Back	10mm	5/6	167300	836.5	24.21	25.50	1.346	0.09	0.270	0.363
	FR1 n5_Ant 1	20M	BPSK	1	53	Front	10mm	5/6	167300	836.5	24.82	25.20	1.091	0.11	0.177	0.193
	FR1 n5_Ant 1	20M	BPSK	50	28	Front	10mm	5/6	167300	836.5	24.67	25.20	1.130	-0.12	0.164	0.185
	FR1 n5_Ant 1	20M	BPSK	1	53	Back	10mm	5/6	167300	836.5	24.82	25.20	1.091	-0.19	0.295	0.322
	FR1 n5_Ant 1	20M	BPSK	50	28	Back	10mm	5/6	167300	836.5	24.67	25.20	1.130	-0.09	0.250	0.282
	FR1 n7_Ant 2	20M	BPSK	1	53	Front	10mm	5	507000	2535	20.49	21.30	1.205	-0.11	0.416	0.501
	FR1 n7_Ant 2	20M	BPSK	50	28	Front	10mm	5	507000	2535	20.44	21.30	1.219	-0.14	0.402	0.490
	FR1 n7_Ant 2	20M	BPSK	1	53	Back	10mm	5	507000	2535	20.49	21.30	1.205	-0.16	0.584	0.704
	FR1 n7_Ant 2	20M	BPSK	1	53	Back	10mm	5	502000	2510	20.47	21.30	1.211	-0.1	0.591	0.715
77	FR1 n7_Ant 2	20M	BPSK	1	53	Back	10mm	5	512000	2560	20.48	21.30	1.208	-0.19	0.627	0.757
	FR1 n7_Ant 2	20M	BPSK	50	28	Back	10mm	5	507000	2535	20.44	21.30	1.219	-0.12	0.531	0.647
	FR1 n7_Ant 2	20M	BPSK	1	53	Front	10mm	6	507000	2535	20.49	21.30	1.205	-0.11	0.416	0.501
	FR1 n7_Ant 2	20M	BPSK	50	28	Front	10mm	6	507000	2535	20.44	21.30	1.219	-0.14	0.402	0.490
	FR1 n7_Ant 2	20M	BPSK	1	53	Back	10mm	6	507000	2535	20.49	21.30	1.205	-0.16	0.584	0.704
	FR1 n7_Ant 2	20M	BPSK	1	53	Back	10mm	6	502000	2510	20.47	21.30	1.211	-0.1	0.591	0.715
	FR1 n7_Ant 2	20M	BPSK	1	53	Back	10mm	6	512000	2560	20.48	21.30	1.208	-0.19	0.627	0.757
	FR1 n7_Ant 2	20M	BPSK	50	28	Back	10mm	6	507000	2535	20.44	21.30	1.219	-0.12	0.531	0.647
	FR1 n7_Ant 0	20M	BPSK	1	53	Front	10mm	5	512000	2560	23.41	25.00	1.442	-0.1	0.354	0.511
	FR1 n7_Ant 0	20M	BPSK	50	28	Front	10mm	5	512000	2560	23.30	25.00	1.479	-0.18	0.357	0.528
	FR1 n7_Ant 0	20M	BPSK	1	53	Back	10mm	5	512000	2560	23.41	25.00	1.442	-0.12	0.493	0.711
	FR1 n7_Ant 0	20M	BPSK	50	28	Back	10mm	5	512000	2560	23.30	25.00	1.479	-0.18	0.497	0.735
	FR1 n7_Ant 0	20M	BPSK	50	28	Back	10mm	5	502000	2510	23.28	25.00	1.486	-0.14	0.325	0.483
	FR1 n7_Ant 0	20M	BPSK	50	28	Back	10mm	5	507000	2535	23.29	25.00	1.483	-0.11	0.370	0.549
	FR1 n7_Ant 0	20M	BPSK	1	53	Front	10mm	6	512000	2560	23.41	25.00	1.442	-0.1	0.354	0.511
	FR1 n7_Ant 0	20M	BPSK	50	28	Front	10mm	6	512000	2560	23.30	25.00	1.479	-0.18	0.357	0.528
	FR1 n7_Ant 0	20M	BPSK	1	53	Back	10mm	6	512000	2560	23.41	25.00	1.442	-0.12	0.493	0.711
	FR1 n7_Ant 0	20M	BPSK	50	28	Back	10mm	6	512000	2560	23.30	25.00	1.479	-0.18	0.497	0.735
	FR1 n7_Ant 0	20M	BPSK	50	28	Back	10mm	6	502000	2510	23.28	25.00	1.486	-0.14	0.325	0.483
	FR1 n7_Ant 0	20M	BPSK	50	28	Back	10mm	6	507000	2535	23.29	25.00	1.483	-0.11	0.370	0.549



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	FR1 n12_Ant 0	15M	BPSK	1	40	Front	10mm	5/6	141500	707.5	23.94	25.30	1.368	-0.17	0.293	0.401
	FR1 n12_Ant 0	15M	BPSK	36	22	Front	10mm	5/6	141500	707.5	23.93	25.30	1.371	0	0.281	0.385
78	FR1 n12_Ant 0	15M	BPSK	1	40	Back	10mm	5/6	141500	707.5	23.94	25.30	1.368	-0.04	0.338	0.462
	FR1 n12_Ant 0	15M	BPSK	36	22	Back	10mm	5/6	141500	707.5	23.93	25.30	1.371	-0.02	0.322	0.441
	FR1 n12_Ant 1	15M	BPSK	1	40	Front	10mm	5/6	141500	707.5	24.33	25.20	1.222	-0.15	0.125	0.153
	FR1 n12_Ant 1	15M	BPSK	36	22	Front	10mm	5/6	141500	707.5	24.32	25.20	1.225	-0.13	0.087	0.107
	FR1 n12_Ant 1	15M	BPSK	1	40	Back	10mm	5/6	141500	707.5	24.33	25.20	1.222	-0.19	0.204	0.249
	FR1 n12_Ant 1	15M	BPSK	36	22	Back	10mm	5/6	141500	707.5	24.32	25.20	1.225	0	0.176	0.216
	FR1 n25_Ant 2	20M	BPSK	1	53	Front	10mm	5	372000	1860	21.68	22.50	1.208	-0.14	0.769	0.929
	FR1 n25_Ant 2	20M	BPSK	1	53	Front	10mm	5	376500	1882.5	21.67	22.50	1.211	0.11	0.827	1.001
	FR1 n25_Ant 2	20M	BPSK	1	53	Front	10mm	5	381000	1905	21.64	22.50	1.219	-0.06	0.779	0.950
	FR1 n25_Ant 2	20M	BPSK	50	28	Front	10mm	5	372000	1860	21.65	22.50	1.216	0.11	0.780	0.949
	FR1 n25_Ant 2	20M	BPSK	50	28	Front	10mm	5	376500	1882.5	21.57	22.50	1.239	0.06	0.763	0.945
	FR1 n25_Ant 2	20M	BPSK	50	28	Front	10mm	5	381000	1905	21.51	22.50	1.256	0.02	0.768	0.965
	FR1 n25_Ant 2	20M	BPSK	100	0	Front	10mm	5	372000	1860	21.59	22.50	1.233	0.06	0.759	0.936
	FR1 n25_Ant 2	20M	BPSK	1	53	Back	10mm	5	372000	1860	21.68	22.50	1.208	-0.12	0.910	1.099
79	FR1 n25_Ant 2	20M	BPSK	1	53	Back	10mm	5	376500	1882.5	21.67	22.50	1.211	-0.13	0.983	1.190
	FR1 n25_Ant 2	20M	BPSK	1	53	Back	10mm	5	381000	1905	21.64	22.50	1.219	-0.16	0.975	1.189
	FR1 n25_Ant 2	20M	BPSK	50	28	Back	10mm	5	372000	1860	21.65	22.50	1.216	-0.11	0.891	1.084
	FR1 n25_Ant 2	20M	BPSK	50	28	Back	10mm	5	376500	1882.5	21.57	22.50	1.239	-0.12	0.944	1.169
	FR1 n25_Ant 2	20M	BPSK	50	28	Back	10mm	5	381000	1905	21.51	22.50	1.256	-0.19	0.926	1.163
	FR1 n25_Ant 2	20M	BPSK	100	0	Back	10mm	5	372000	1860	21.59	22.50	1.233	-0.17	0.936	1.154
	FR1 n25_Ant 2	20M	BPSK	1	53	Front	10mm	6	372000	1860	21.68	21.70	1.005	-0.14	0.769	0.773
	FR1 n25_Ant 2	20M	BPSK	50	28	Front	10mm	6	372000	1860	21.65	21.70	1.012	0.11	0.780	0.789
	FR1 n25_Ant 2	20M	BPSK	1	53	Back	10mm	6	372000	1860	21.68	21.70	1.005	-0.12	0.910	0.914
	FR1 n25_Ant 2	20M	BPSK	1	53	Back	10mm	6	376500	1882.5	21.67	21.70	1.007	-0.13	0.983	0.990
	FR1 n25_Ant 2	20M	BPSK	1	53	Back	10mm	6	381000	1905	21.64	21.70	1.014	-0.16	0.975	0.989
	FR1 n25_Ant 2	20M	BPSK	50	28	Back	10mm	6	372000	1860	21.65	21.70	1.012	-0.11	0.891	0.901
	FR1 n25_Ant 2	20M	BPSK	50	28	Back	10mm	6	376500	1882.5	21.57	21.70	1.030	-0.12	0.944	0.973
	FR1 n25_Ant 2	20M	BPSK	50	28	Back	10mm	6	381000	1905	21.51	21.70	1.045	-0.19	0.926	0.967
	FR1 n25_Ant 2	20M	BPSK	100	0	Back	10mm	6	372000	1860	21.59	21.70	1.026	-0.17	0.936	0.960
	FR1 n25_Ant 0	20M	BPSK	1	53	Front	10mm	5	376500	1882.5	23.20	24.00	1.202	-0.14	0.437	0.525
	FR1 n25_Ant 0	20M	BPSK	50	28	Front	10mm	5	376500	1882.5	23.08	24.00	1.236	-0.18	0.445	0.550
	FR1 n25_Ant 0	20M	BPSK	1	53	Back	10mm	5	376500	1882.5	23.20	24.00	1.202	-0.17	0.704	0.846
	FR1 n25_Ant 0	20M	BPSK	1	53	Back	10mm	5	372000	1860	23.01	24.00	1.256	-0.1	0.701	0.880
	FR1 n25_Ant 0	20M	BPSK	1	53	Back	10mm	5	381000	1905	23.19	24.00	1.205	-0.15	0.693	0.835
	FR1 n25_Ant 0	20M	BPSK	50	28	Back	10mm	5	376500	1882.5	23.08	24.00	1.236	-0.19	0.699	0.864
	FR1 n25_Ant 0	20M	BPSK	50	28	Back	10mm	5	372000	1860	22.95	24.00	1.274	-0.18	0.763	0.972
	FR1 n25_Ant 0	20M	BPSK	50	28	Back	10mm	5	381000	1905	23.05	24.00	1.245	-0.1	0.664	0.826
	FR1 n25_Ant 0	20M	BPSK	100	0	Back	10mm	5	376500	1882.5	23.01	24.00	1.256	-0.03	0.715	0.898
	FR1 n25_Ant 0	20M	BPSK	1	53	Front	10mm	6	376500	1882.5	23.20	24.00	1.202	-0.14	0.437	0.525
	FR1 n25_Ant 0	20M	BPSK	50	28	Front	10mm	6	376500	1882.5	23.08	24.00	1.236	-0.18	0.445	0.550
	FR1 n25_Ant 0	20M	BPSK	1	53	Back	10mm	6	376500	1882.5	23.20	24.00	1.202	-0.17	0.704	0.846
	FR1 n25_Ant 0	20M	BPSK	1	53	Back	10mm	6	372000	1860	23.01	24.00	1.256	-0.1	0.701	0.880
	FR1 n25_Ant 0	20M	BPSK	1	53	Back	10mm	6	381000	1905	23.19	24.00	1.205	-0.15	0.693	0.835
	FR1 n25_Ant 0	20M	BPSK	50	28	Back	10mm	6	376500	1882.5	23.08	24.00	1.236	-0.19	0.699	0.864
	FR1 n25_Ant 0	20M	BPSK	50	28	Back	10mm	6	372000	1860	22.95	24.00	1.274	-0.18	0.763	0.972
	FR1 n25_Ant 0	20M	BPSK	50	28	Back	10mm	6	381000	1905	23.05	24.00	1.245	-0.1	0.664	0.826
	FR1 n25_Ant 0	20M	BPSK	100	0	Back	10mm	6	376500	1882.5	23.01	24.00	1.256	-0.03	0.715	0.898



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	FR1 n30_Ant 2	10M	BPSK	1	26	Front	10mm	5	462000	2310	22.15	23.90	1.496	0.12	0.578	0.865
	FR1 n30_Ant 2	10M	BPSK	25	14	Front	10mm	5	462000	2310	22.06	23.90	1.528	0.08	0.572	0.874
	FR1 n30_Ant 2	10M	BPSK	50	0	Front	10mm	5	462000	2310	22.01	23.90	1.545	0.15	0.556	0.859
	FR1 n30_Ant 2	10M	BPSK	1	26	Back	10mm	5	462000	2310	22.15	23.90	1.496	-0.1	0.790	1.182
	FR1 n30_Ant 2	10M	BPSK	25	14	Back	10mm	5	462000	2310	22.06	23.90	1.528	0.11	0.673	1.028
80	FR1 n30_Ant 2	10M	BPSK	50	0	Back	10mm	5	462000	2310	22.01	23.90	1.545	-0.17	0.771	1.191
	FR1 n30_Ant 2	10M	BPSK	1	26	Front	10mm	6	462000	2310	22.15	23.10	1.245	0.12	0.578	0.719
	FR1 n30_Ant 2	10M	BPSK	25	14	Front	10mm	6	462000	2310	22.06	23.10	1.271	0.08	0.572	0.727
	FR1 n30_Ant 2	10M	BPSK	50	0	Front	10mm	6	462000	2310	22.01	23.10	1.285	0.15	0.556	0.715
	FR1 n30_Ant 2	10M	BPSK	1	26	Back	10mm	6	462000	2310	22.15	23.10	1.245	-0.1	0.790	0.983
	FR1 n30_Ant 2	10M	BPSK	25	14	Back	10mm	6	462000	2310	22.06	23.10	1.271	0.11	0.673	0.855
	FR1 n30_Ant 2	10M	BPSK	50	0	Back	10mm	6	462000	2310	22.01	23.10	1.285	-0.17	0.771	0.991
	FR1 n30_Ant 0	10M	BPSK	1	50	Front	10mm	5	462000	2310	23.22	24.30	1.282	-0.12	0.379	0.486
	FR1 n30_Ant 0	10M	BPSK	25	14	Front	10mm	5	462000	2310	23.15	24.30	1.303	-0.15	0.385	0.502
	FR1 n30_Ant 0	10M	BPSK	1	50	Back	10mm	5	462000	2310	23.22	24.30	1.282	-0.15	0.597	0.766
	FR1 n30_Ant 0	10M	BPSK	25	14	Back	10mm	5	462000	2310	23.15	24.30	1.303	-0.1	0.565	0.736
	FR1 n30_Ant 0	10M	BPSK	1	50	Front	10mm	6	462000	2310	23.22	24.30	1.282	-0.12	0.379	0.486
	FR1 n30_Ant 0	10M	BPSK	25	14	Front	10mm	6	462000	2310	23.15	24.30	1.303	-0.15	0.385	0.502
	FR1 n30_Ant 0	10M	BPSK	1	50	Back	10mm	6	462000	2310	23.22	24.30	1.282	-0.15	0.597	0.766
	FR1 n30_Ant 0	10M	BPSK	25	14	Back	10mm	6	462000	2310	23.15	24.30	1.303	-0.1	0.565	0.736
	FR1 n66_Ant 2	40M	BPSK	1	108	Front	10mm	5	349000	1745	22.92	23.70	1.197	0.01	0.722	0.864
	FR1 n66_Ant 2	40M	BPSK	108	54	Front	10mm	5	349000	1745	22.74	23.70	1.247	-0.16	0.740	0.923
	FR1 n66_Ant 2	40M	BPSK	216	0	Front	10mm	5	349000	1745	22.60	23.70	1.288	0.06	0.693	0.893
	FR1 n66_Ant 2	40M	BPSK	1	108	Back	10mm	5	349000	1745	22.92	23.70	1.197	-0.09	0.926	1.108
	FR1 n66_Ant 2	40M	BPSK	108	54	Back	10mm	5	349000	1745	22.74	23.70	1.247	-0.18	0.892	1.113
81	FR1 n66_Ant 2	40M	BPSK	216	0	Back	10mm	5	349000	1745	22.60	23.70	1.288	-0.12	0.877	1.130
	FR1 n66_Ant 2	40M	BPSK	1	108	Front	10mm	6	349000	1745	21.91	22.90	1.256	0.01	0.566	0.711
	FR1 n66_Ant 2	40M	BPSK	108	54	Front	10mm	6	349000	1745	21.75	22.90	1.303	-0.06	0.573	0.747
	FR1 n66_Ant 2	40M	BPSK	1	108	Back	10mm	6	349000	1745	21.91	22.90	1.256	-0.14	0.744	0.934
	FR1 n66_Ant 2	40M	BPSK	108	54	Back	10mm	6	349000	1745	21.75	22.90	1.303	-0.09	0.724	0.943
	FR1 n66_Ant 2	40M	BPSK	216	0	Back	10mm	6	349000	1745	21.61	22.90	1.346	-0.18	0.699	0.941
	FR1 n66_Ant 0	40M	BPSK	1	108	Front	10mm	5	349000	1745	23.56	25.00	1.393	-0.1	0.437	0.609
	FR1 n66_Ant 0	40M	BPSK	108	54	Front	10mm	5	349000	1745	23.39	25.00	1.449	-0.16	0.404	0.585
	FR1 n66_Ant 0	40M	BPSK	1	108	Back	10mm	5	349000	1745	23.56	25.00	1.393	-0.12	0.765	1.066
	FR1 n66_Ant 0	40M	BPSK	108	54	Back	10mm	5	349000	1745	23.39	25.00	1.449	-0.11	0.683	0.990
	FR1 n66_Ant 0	40M	BPSK	216	0	Back	10mm	5	349000	1745	23.25	25.00	1.496	-0.11	0.664	0.994
	FR1 n66_Ant 0	40M	BPSK	1	108	Front	10mm	6	349000	1745	23.56	24.20	1.159	-0.1	0.437	0.506
	FR1 n66_Ant 0	40M	BPSK	108	54	Front	10mm	6	349000	1745	23.39	24.20	1.205	-0.16	0.404	0.487
	FR1 n66_Ant 0	40M	BPSK	1	108	Back	10mm	6	349000	1745	23.56	24.20	1.159	-0.12	0.765	0.886
	FR1 n66_Ant 0	40M	BPSK	108	54	Back	10mm	6	349000	1745	23.39	24.20	1.205	-0.11	0.683	0.823
	FR1 n66_Ant 0	40M	BPSK	216	0	Back	10mm	6	349000	1745	23.25	24.20	1.245	-0.11	0.664	0.826
	FR1 n71_Ant 0	20M	BPSK	1	53	Front	10mm	5/6	136100	680.5	23.89	25.30	1.384	-0.15	0.262	0.362
	FR1 n71_Ant 0	20M	BPSK	50	28	Front	10mm	5/6	136100	680.5	23.82	25.30	1.406	-0.01	0.258	0.363
82	FR1 n71_Ant 0	20M	BPSK	1	53	Back	10mm	5/6	136100	680.5	23.89	25.30	1.384	-0.09	0.323	0.447
	FR1 n71_Ant 0	20M	BPSK	50	28	Back	10mm	5/6	136100	680.5	23.82	25.30	1.406	0.11	0.297	0.418
	FR1 n71_Ant 1	20M	BPSK	1	53	Front	10mm	5/6	136100	680.5	24.45	25.20	1.189	0	0.124	0.147
	FR1 n71_Ant 1	20M	BPSK	50	28	Front	10mm	5/6	136100	680.5	24.33	25.20	1.222	-0.02	0.062	0.076
	FR1 n71_Ant 1	20M	BPSK	1	53	Back	10mm	5/6	136100	680.5	24.45	25.20	1.189	-0.02	0.162	0.193
	FR1 n71_Ant 1	20M	BPSK	50	28	Back	10mm	5/6	136100	680.5	24.33	25.20	1.222	-0.15	0.157	0.192



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	FR1 n77_Ant 6	100M	BPSK	1	271	Front	10mm	5	656000	3840	21.59	22.40	1.205	100	1.000	-0.06	0.478	0.576
	FR1 n77_Ant 6	100M	BPSK	135	69	Front	10mm	5	656000	3840	21.36	22.40	1.271	100	1.000	-0.05	0.656	0.833
	FR1 n77_Ant 6	100M	BPSK	270	0	Front	10mm	5	656000	3840	21.30	22.40	1.288	100	1.000	-0.13	0.544	0.701
	FR1 n77_Ant 6	100M	BPSK	1	271	Back	10mm	5	656000	3840	21.59	22.40	1.205	100	1.000	-0.18	0.380	0.458
	FR1 n77_Ant 6	100M	BPSK	135	69	Back	10mm	5	656000	3840	21.36	22.40	1.271	100	1.000	0.12	0.370	0.470
	FR1 n77_HPUE_Ant 6	100M	BPSK	135	69	Front	10mm	5	656000	3840	23.89	25.40	1.416	50	1.000	-0.11	0.604	0.855
	FR1 n77_Ant 6	100M	BPSK	1	271	Front	10mm	6	656000	3840	21.59	21.60	1.002	100	1.000	-0.06	0.478	0.479
	FR1 n77_Ant 6	100M	BPSK	135	69	Front	10mm	6	656000	3840	21.36	21.60	1.057	100	1.000	-0.05	0.656	0.693
	FR1 n77_Ant 6	100M	BPSK	1	271	Back	10mm	6	656000	3840	21.59	21.60	1.002	100	1.000	-0.18	0.380	0.381
	FR1 n77_Ant 6	100M	BPSK	135	69	Back	10mm	6	656000	3840	21.36	21.60	1.057	100	1.000	0.12	0.370	0.391
	FR1 n77_HPUE_Ant 6	100M	BPSK	135	69	Front	10mm	6	656000	3840	23.89	24.60	1.178	50	1.000	-0.11	0.604	0.711
	FR1 n77_Ant 6	100M	BPSK	1	271	Front	10mm	5	633332	3499.98	21.19	22.40	1.321	100	1.000	0.07	0.765	1.011
83	FR1 n77_Ant 6	100M	BPSK	135	69	Front	10mm	5	633332	3499.98	21.22	22.40	1.312	100	1.000	0.02	0.910	1.194
	FR1 n77_Ant 6	100M	BPSK	270	0	Front	10mm	5	633332	3499.98	21.19	22.40	1.321	100	1.000	0.08	0.788	1.041
	FR1 n77_Ant 6	100M	BPSK	1	271	Back	10mm	5	633332	3499.98	21.19	22.40	1.321	100	1.000	-0.12	0.525	0.694
	FR1 n77_Ant 6	100M	BPSK	135	69	Back	10mm	5	633332	3499.98	21.22	22.40	1.312	100	1.000	-0.13	0.473	0.621
	FR1 n77_HPUE_Ant 6	100M	BPSK	135	69	Front	10mm	5	633332	3499.98	23.76	25.40	1.459	50	1.000	-0.01	0.796	1.161
	FR1 n77_Ant 6	100M	BPSK	1	271	Front	10mm	6	633332	3499.98	21.19	21.60	1.099	100	1.000	0.07	0.765	0.841
	FR1 n77_Ant 6	100M	BPSK	135	69	Front	10mm	6	633332	3499.98	21.22	21.60	1.091	100	1.000	0.02	0.910	0.993
	FR1 n77_Ant 6	100M	BPSK	270	0	Front	10mm	6	633332	3499.98	21.19	21.60	1.099	100	1.000	0.08	0.788	0.866
	FR1 n77_Ant 6	100M	BPSK	1	271	Back	10mm	6	633332	3499.98	21.19	21.60	1.099	100	1.000	-0.12	0.525	0.577
	FR1 n77_Ant 6	100M	BPSK	135	69	Back	10mm	6	633332	3499.98	21.22	21.60	1.091	100	1.000	-0.13	0.473	0.516
	FR1 n77_HPUE_Ant 6	100M	BPSK	135	69	Front	10mm	6	633332	3499.98	23.76	24.60	1.213	50	1.000	-0.01	0.796	0.966
	FR1 n77_Ant 2	100M	BPSK	1	271	Front	10mm	5	656000	3840	22.34	23.60	1.337	100	1.000	-0.12	0.427	0.571
	FR1 n77_Ant 2	100M	BPSK	135	69	Front	10mm	5	656000	3840	22.07	23.60	1.422	100	1.000	-0.16	0.480	0.683
	FR1 n77_Ant 2	100M	BPSK	1	271	Back	10mm	5	656000	3840	22.34	23.60	1.337	100	1.000	-0.12	0.772	1.032
	FR1 n77_Ant 2	100M	BPSK	135	69	Back	10mm	5	656000	3840	22.07	23.60	1.422	100	1.000	-0.18	0.828	1.178
	FR1 n77_Ant 2	100M	BPSK	270	0	Back	10mm	5	656000	3840	21.30	23.10	1.514	100	1.000	-0.16	0.600	0.908
	FR1 n77_HPUE_Ant 2	100M	BPSK	135	69	Back	10mm	5	656000	3840	24.62	25.90	1.343	50	1.000	-0.16	0.706	0.948
	FR1 n77_Ant 2	100M	BPSK	1	271	Front	10mm	6	656000	3840	22.34	22.80	1.112	100	1.000	-0.12	0.427	0.475
	FR1 n77_Ant 2	100M	BPSK	135	69	Front	10mm	6	656000	3840	22.07	22.80	1.183	100	1.000	-0.16	0.480	0.568
	FR1 n77_Ant 2	100M	BPSK	1	271	Back	10mm	6	656000	3840	22.34	22.80	1.112	100	1.000	-0.12	0.772	0.858
	FR1 n77_Ant 2	100M	BPSK	135	69	Back	10mm	6	656000	3840	22.07	22.80	1.183	100	1.000	-0.18	0.828	0.980
	FR1 n77_Ant 2	100M	BPSK	270	0	Back	10mm	6	656000	3840	21.30	22.30	1.259	100	1.000	-0.16	0.600	0.755
	FR1 n77_HPUE_Ant 2	100M	BPSK	135	69	Back	10mm	6	656000	3840	24.62	25.80	1.312	50	1.000	-0.16	0.706	0.926
	FR1 n77_Ant 2	100M	BPSK	1	271	Front	10mm	5	633332	3499.98	22.28	23.60	1.355	100	1.000	-0.1	0.575	0.779
	FR1 n77_Ant 2	100M	BPSK	135	69	Front	10mm	5	633332	3499.98	22.17	23.60	1.390	100	1.000	-0.12	0.652	0.906
	FR1 n77_Ant 2	100M	BPSK	270	0	Front	10mm	5	633332	3499.98	21.81	23.10	1.346	100	1.000	-0.11	0.473	0.637
	FR1 n77_Ant 2	100M	BPSK	1	271	Back	10mm	5	633332	3499.98	22.28	23.60	1.355	100	1.000	-0.12	0.616	0.835
	FR1 n77_Ant 2	100M	BPSK	135	69	Back	10mm	5	633332	3499.98	22.17	23.60	1.390	100	1.000	-0.14	0.566	0.787
	FR1 n77_Ant 2	100M	BPSK	270	0	Back	10mm	5	633332	3499.98	21.81	23.10	1.346	100	1.000	-0.13	0.419	0.564
	FR1 n77_HPUE_Ant 2	100M	BPSK	135	69	Front	10mm	5	633332	3499.98	24.66	25.90	1.330	50	1.000	-0.14	0.581	0.773
	FR1 n77_Ant 2	100M	BPSK	1	271	Front	10mm	6	633332	3499.98	22.28	22.80	1.127	100	1.000	-0.1	0.575	0.648
	FR1 n77_Ant 2	100M	BPSK	135	69	Front	10mm	6	633332	3499.98	22.17	22.80	1.156	100	1.000	-0.12	0.652	0.754
	FR1 n77_Ant 2	100M	BPSK	1	271	Back	10mm	6	633332	3499.98	22.28	22.80	1.127	100	1.000	-0.12	0.616	0.694
	FR1 n77_Ant 2	100M	BPSK	135	69	Back	10mm	6	633332	3499.98	22.17	22.80	1.156	100	1.000	-0.14	0.566	0.654
	FR1 n77_HPUE_Ant 2	100M	BPSK	135	69	Front	10mm	6	633332	3499.98	24.66	25.80	1.300	50	1.000	-0.14	0.581	0.755

<WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Index	Antenna	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	5	Ant 4	11	2462	19.15	19.50	1.084	98.90	1.011	0.03	0.127	0.139
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	5	Ant 4	11	2462	19.15	19.50	1.084	98.90	1.011	0.01	0.147	0.161
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	5	Ant 3	1	2412	21.75	22.00	1.059	98.90	1.011	-0.12	0.284	0.304
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	5	Ant 3	1	2412	21.75	22.00	1.059	98.90	1.011	-0.11	0.378	0.405
84	WLAN2.4GHz	802.11g 6Mbps	Front	10mm	5	Ant 4+3(4)	6	2437	19.45	19.50	1.012	93.40	1.071	-0.15	0.160	0.173
	WLAN2.4GHz	802.11g 6Mbps	Front	10mm	5	Ant 4+3(3)	6	2437	19.35	19.50	1.035	93.40	1.071	-0.15	0.280	0.310
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	5	Ant 4+3(4)	6	2437	19.45	19.50	1.012	93.40	1.071	-0.17	0.175	0.190
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	5	Ant 4+3(3)	6	2437	19.35	19.50	1.035	93.40	1.071	-0.17	0.391	0.433
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	6	Ant 4	11	2462	19.15	19.50	1.084	98.90	1.011	0.03	0.127	0.139
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	6	Ant 4	11	2462	19.15	19.50	1.084	98.90	1.011	0.01	0.147	0.161
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	6	Ant 3	1	2412	21.75	22.00	1.059	98.90	1.011	-0.12	0.284	0.304
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	6	Ant 3	1	2412	21.75	22.00	1.059	98.90	1.011	-0.11	0.378	0.405
	WLAN2.4GHz	802.11g 6Mbps	Front	10mm	6	Ant 4+3(4)	6	2437	19.45	19.50	1.012	93.40	1.071	-0.15	0.160	0.173
	WLAN2.4GHz	802.11g 6Mbps	Front	10mm	6	Ant 4+3(3)	6	2437	19.35	19.50	1.035	93.40	1.071	-0.15	0.280	0.310
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	6	Ant 4+3(4)	6	2437	19.45	19.50	1.012	93.40	1.071	-0.17	0.175	0.190
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	6	Ant 4+3(3)	6	2437	19.35	19.50	1.035	93.40	1.071	-0.17	0.391	0.433
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	7	Ant 4	11	2462	19.15	19.50	1.084	98.90	1.011	0.03	0.127	0.139
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	7	Ant 4	11	2462	19.15	19.50	1.084	98.90	1.011	0.01	0.147	0.161
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	7	Ant 3	6	2437	18.95	19.00	1.012	98.90	1.011	-0.03	0.212	0.217
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	7	Ant 3	6	2437	18.95	19.00	1.012	98.90	1.011	0.02	0.293	0.300
	WLAN2.4GHz	802.11g 6Mbps	Front	10mm	7	Ant 4+3(4)	6	2437	19.25	19.50	1.059	93.40	1.071	-0.17	0.201	0.228
	WLAN2.4GHz	802.11g 6Mbps	Front	10mm	7	Ant 4+3(3)	6	2437	18.55	19.00	1.109	93.40	1.071	-0.17	0.284	0.337
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	7	Ant 4+3(4)	6	2437	19.25	19.50	1.059	93.40	1.071	-0.15	0.172	0.195
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	7	Ant 4+3(3)	6	2437	18.55	19.00	1.109	93.40	1.071	-0.15	0.345	0.410
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	8	Ant 4	11	2462	19.15	19.50	1.084	98.90	1.011	0.03	0.127	0.139
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	8	Ant 4	11	2462	19.15	19.50	1.084	98.90	1.011	0.01	0.147	0.161
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	8	Ant 3	6	2437	15.65	16.00	1.084	98.90	1.011	-0.02	0.097	0.106
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	8	Ant 3	6	2437	15.65	16.00	1.084	98.90	1.011	0.07	0.142	0.156
	WLAN2.4GHz	802.11g 6Mbps	Front	10mm	8	Ant 4+3(4)	6	2437	19.25	19.50	1.059	93.40	1.071	-0.12	0.127	0.144
	WLAN2.4GHz	802.11g 6Mbps	Front	10mm	8	Ant 4+3(3)	6	2437	15.85	16.00	1.035	93.40	1.071	-0.12	0.163	0.181
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	8	Ant 4+3(4)	6	2437	19.25	19.50	1.059	93.40	1.071	-0.13	0.164	0.186
	WLAN2.4GHz	802.11g 6Mbps	Back	10mm	8	Ant 4+3(3)	6	2437	15.85	16.00	1.035	93.40	1.071	-0.13	0.204	0.226



Plot No.	Band	Mode	Test Position	Gap (mm)	Power Index	Antenna	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
85	WLAN5GHz	802.11a 6Mbps	Front	10mm	5/6	Ant 4+3(4)	52	5260	19.50	20.00	1.122	93.51	1.069	-0.1	0.376	0.451
	WLAN5GHz	802.11a 6Mbps	Front	10mm	5/6	Ant 4+3(3)	52	5260	19.80	20.00	1.047	93.51	1.069	-0.1	0.360	0.403
	WLAN5GHz	802.11a 6Mbps	Back	10mm	5/6	Ant 4+3(4)	52	5260	19.50	20.00	1.122	93.51	1.069	-0.15	0.462	0.554
	WLAN5GHz	802.11a 6Mbps	Back	10mm	5/6	Ant 4+3(3)	52	5260	19.80	20.00	1.047	93.51	1.069	-0.15	0.280	0.313
86	WLAN5GHz	802.11n-HT40 MCS0	Front	10mm	7/8/9	Ant 4+3(4)	54	5270	14.20	15.00	1.202	96.79	1.033	-0.09	0.058	0.072
	WLAN5GHz	802.11n-HT40 MCS0	Front	10mm	7/8/9	Ant 4+3(3)	54	5270	17.70	19.00	1.349	96.79	1.033	-0.09	0.076	0.106
	WLAN5GHz	802.11n-HT40 MCS0	Back	10mm	7/8/9	Ant 4+3(4)	54	5270	14.20	15.00	1.202	96.79	1.033	-0.09	0.165	0.205
	WLAN5GHz	802.11n-HT40 MCS0	Back	10mm	7/8/9	Ant 4+3(3)	54	5270	17.70	19.00	1.349	96.79	1.033	-0.09	0.199	0.277
	WLAN5GHz	802.11a 6Mbps	Front	10mm	5/6	Ant 4+3(4)	124	5620	19.90	20.00	1.023	93.51	1.069	0.1	0.177	0.194
	WLAN5GHz	802.11a 6Mbps	Front	10mm	5/6	Ant 4+3(3)	124	5620	19.50	20.00	1.122	93.51	1.069	0.1	0.541	0.649
	WLAN5GHz	802.11a 6Mbps	Back	10mm	5/6	Ant 4+3(4)	124	5620	19.90	20.00	1.023	93.51	1.069	-0.06	0.455	0.498
	WLAN5GHz	802.11a 6Mbps	Back	10mm	5/6	Ant 4+3(3)	124	5620	19.50	20.00	1.122	93.51	1.069	-0.06	0.384	0.461
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	7/8/9	Ant 4+3(4)	122	5610	15.70	16.00	1.072	87.95	1.137	-0.11	0.044	0.054
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	7/8/9	Ant 4+3(3)	122	5610	16.50	16.50	1.000	87.95	1.137	-0.11	0.079	0.090
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	7/8/9	Ant 4+3(4)	122	5610	15.70	16.00	1.072	87.95	1.137	-0.1	0.057	0.069
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	7/8/9	Ant 4+3(3)	122	5610	16.50	16.50	1.000	87.95	1.137	-0.1	0.085	0.097



Table with 17 columns: Plot No., Band, Mode, Test Position, Gap (mm), Power Index, Antenna, Ch., Freq. (MHz), Average Power (dBm), Tune-Up Limit (dBm), Tune-up Scaling Factor, Duty Cycle %, Duty Cycle Scaling Factor, Power Drift (dB), Measured 1g SAR (W/kg), Reported 1g SAR (W/kg). Rows include various test configurations for 87 and 88 plots.

<6GHz WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Index	Antenna	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)	APD
89	WLAN6GHz	802.11ax-HE160 MCS0	Front	10mm	5/6	Ant 4+3(4)	175	6825	15.70	16.00	1.072	85.9	1.164	-0.08	0.026	0.032	0.21
	WLAN6GHz	802.11ax-HE160 MCS0	Front	10mm	5/6	Ant 4+3(3)	175	6825	14.50	16.00	1.413	85.9	1.164	-0.08	0.060	0.099	0.47
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	5/6	Ant 4+3(4)	175	6825	15.70	16.00	1.072	85.9	1.164	-0.03	0.024	0.030	0.18
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	5/6	Ant 4+3(3)	175	6825	14.50	16.00	1.413	85.9	1.164	-0.03	0.063	0.104	0.48
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	5/6	Ant 4+3(4)	15	6025	6.30	8.00	1.479	85.9	1.164	-0.12	0.054	0.093	0.42
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	5/6	Ant 4+3(3)	15	6025	6.20	8.00	1.514	85.9	1.164	-0.12	0.012	0.021	0.08
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	5/6	Ant 4+3(4)	47	6185	6.10	8.00	1.549	85.9	1.164	0.05	0.036	0.065	0.27
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	5/6	Ant 4+3(3)	47	6185	6.00	8.00	1.585	85.9	1.164	0.05	0.007	0.013	0.03
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	5/6	Ant 4+3(4)	111	6505	11.40	11.50	1.023	85.9	1.164	0.09	0.083	0.099	0.64
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	5/6	Ant 4+3(3)	111	6505	11.10	11.50	1.096	85.9	1.164	0.09	0.020	0.026	0.15
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	5/6	Ant 4+3(4)	207	6985	14.70	15.00	1.072	85.9	1.164	-0.05	0.001	0.001	0.00
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	5/6	Ant 4+3(3)	207	6985	14.00	15.00	1.259	85.9	1.164	-0.05	0.054	0.079	0.39
	WLAN6GHz	802.11ax-HE160 MCS0	Front	10mm	7/8/9	Ant 4+3(4)	175	6825	15.70	16.00	1.072	85.9	1.164	-0.08	0.026	0.032	0.21
	WLAN6GHz	802.11ax-HE160 MCS0	Front	10mm	7/8/9	Ant 4+3(3)	175	6825	14.50	16.00	1.413	85.9	1.164	-0.08	0.060	0.099	0.47
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	7/8/9	Ant 4+3(4)	175	6825	15.70	16.00	1.072	85.9	1.164	-0.03	0.024	0.030	0.18
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	7/8/9	Ant 4+3(3)	175	6825	14.50	16.00	1.413	85.9	1.164	-0.03	0.063	0.104	0.48
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	7/8/9	Ant 4+3(4)	15	6025	6.30	8.00	1.479	85.9	1.164	-0.12	0.054	0.093	0.42
	WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	7/8/9	Ant 4+3(3)	15	6025	6.20	8.00	1.514	85.9	1.164	-0.12	0.012	0.021	0.08
WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	7/8/9	Ant 4+3(4)	47	6185	6.10	8.00	1.549	85.9	1.164	0.05	0.036	0.065	0.27	
WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	7/8/9	Ant 4+3(3)	47	6185	6.00	8.00	1.585	85.9	1.164	0.05	0.007	0.013	0.03	
WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	7/8/9	Ant 4+3(4)	111	6505	11.40	11.50	1.023	85.9	1.164	0.09	0.083	0.099	0.64	
WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	7/8/9	Ant 4+3(3)	111	6505	11.10	11.50	1.096	85.9	1.164	0.09	0.020	0.026	0.15	
WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	7/8/9	Ant 4+3(4)	207	6985	14.70	15.00	1.072	85.9	1.164	-0.05	0.001	0.001	0.00	
WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	7/8/9	Ant 4+3(3)	207	6985	14.00	15.00	1.259	85.9	1.164	-0.05	0.054	0.079	0.39	



<Bluetooth SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Index	Antenna	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	Bluetooth	1Mbps	Front	10mm	2	Ant 4	78	2480	19.53	21.00	1.402	76.92	1.083	-0.14	0.071	0.108
	Bluetooth	1Mbps	Back	10mm	2	Ant 4	78	2480	19.53	21.00	1.402	76.92	1.083	-0.15	0.078	0.118
	Bluetooth	1Mbps	Front	10mm	2	Ant 3	0	2402	20.39	21.00	1.152	77.31	1.077	0.13	0.186	0.231
90	Bluetooth	1Mbps	Back	10mm	2	Ant 3	0	2402	20.39	21.00	1.152	77.31	1.077	0.11	0.260	0.322
	Bluetooth	1Mbps	Front	10mm	2	Ant 4+3(4)	78	2480	17.31	17.50	1.044	77.28	1.078	0	0.036	0.041
	Bluetooth	1Mbps	Front	10mm	2	Ant 4+3(3)	78	2480	16.94	17.50	1.138	77.28	1.078	0	0.102	0.125
	Bluetooth	1Mbps	Back	10mm	2	Ant 4+3(4)	78	2480	17.31	17.50	1.044	77.28	1.078	-0.09	0.053	0.060
	Bluetooth	1Mbps	Back	10mm	2	Ant 4+3(3)	78	2480	16.94	17.50	1.138	77.28	1.078	-0.09	0.139	0.171
	Bluetooth	1Mbps	Front	10mm	3	Ant 4	78	2480	14.85	15.00	1.035	76.81	1.084	-0.17	0.046	0.052
	Bluetooth	1Mbps	Back	10mm	3	Ant 4	78	2480	14.85	15.00	1.035	76.81	1.084	0.01	0.055	0.062
	Bluetooth	1Mbps	Front	10mm	3	Ant 3	78	2480	14.65	15.00	1.084	77.31	1.077	-0.19	0.102	0.119
	Bluetooth	1Mbps	Back	10mm	3	Ant 3	78	2480	14.65	15.00	1.084	77.31	1.077	0.1	0.128	0.149
	Bluetooth	1Mbps	Front	10mm	3	Ant 4+3(4)	0	2402	14.75	15.00	1.059	77.28	1.078	-0.19	0.089	0.102
	Bluetooth	1Mbps	Front	10mm	3	Ant 4+3(3)	0	2402	14.75	15.00	1.059	77.28	1.078	-0.19	0.060	0.069
	Bluetooth	1Mbps	Back	10mm	3	Ant 4+3(4)	0	2402	14.75	15.00	1.059	77.28	1.078	-0.13	0.048	0.055
	Bluetooth	1Mbps	Back	10mm	3	Ant 4+3(3)	0	2402	14.75	15.00	1.059	77.28	1.078	-0.13	0.095	0.108
	Bluetooth	1Mbps	Front	10mm	4	Ant 4	78	2480	19.53	21.00	1.402	76.92	1.083	-0.14	0.071	0.108
	Bluetooth	1Mbps	Back	10mm	4	Ant 4	78	2480	19.53	21.00	1.402	76.92	1.083	-0.15	0.078	0.118
	Bluetooth	1Mbps	Front	10mm	4	Ant 3	0	2402	20.39	21.00	1.152	77.31	1.077	0.13	0.186	0.231
	Bluetooth	1Mbps	Back	10mm	4	Ant 3	0	2402	20.39	21.00	1.152	77.31	1.077	0.11	0.260	0.322
	Bluetooth	1Mbps	Front	10mm	4	Ant 4+3(4)	78	2480	17.31	17.50	1.044	77.28	1.078	0	0.036	0.041
	Bluetooth	1Mbps	Front	10mm	4	Ant 4+3(3)	78	2480	16.94	17.50	1.138	77.28	1.078	0	0.102	0.125
	Bluetooth	1Mbps	Back	10mm	4	Ant 4+3(4)	78	2480	17.31	17.50	1.044	77.28	1.078	-0.09	0.053	0.060
	Bluetooth	1Mbps	Back	10mm	4	Ant 4+3(3)	78	2480	16.94	17.50	1.138	77.28	1.078	-0.09	0.139	0.171



15.4 Product Specific SAR

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
91	GSM1900_Ant 2	GPRS (4 Tx slots)	Bottom Side	0mm	5	810	1909.8	24.78	25.50	1.180	0.14	1.650	1.948
	GSM1900_Ant 2	GPRS (4 Tx slots)	Bottom Side	0mm	5	661	1880	25.01	25.50	1.119	0.19	1.420	1.590
	GSM1900_Ant 2	GPRS (4 Tx slots)	Bottom Side	0mm	5	512	1850.2	24.99	25.50	1.125	0.11	1.460	1.642

<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
92	WCDMA II_Ant 2	RMC 12.2Kbps	Bottom Side	0mm	5	9538	1907.6	20.11	22.10	1.581	0.14	1.040	1.644
	WCDMA II_Ant 2	RMC 12.2Kbps	Bottom Side	0mm	5	9262	1852.4	20.37	22.10	1.489	0.15	1.030	1.534
	WCDMA II_Ant 2	RMC 12.2Kbps	Bottom Side	0mm	5	9400	1880	20.18	22.10	1.556	0.11	0.952	1.481
93	WCDMA IV_Ant 2	RMC 12.2Kbps	Bottom Side	0mm	5	1312	1712.4	21.57	23.30	1.489	0.11	1.970	2.934
	WCDMA IV_Ant 2	RMC 12.2Kbps	Bottom Side	0mm	5	1413	1732.6	21.48	23.30	1.521	-0.04	1.830	2.783
	WCDMA IV_Ant 2	RMC 12.2Kbps	Bottom Side	0mm	5	1513	1752.6	21.51	23.30	1.510	0.03	1.780	2.688
	WCDMA IV_Ant 0	RMC 12.2Kbps	Bottom Side	0mm	5	1513	1752.6	23.12	24.70	1.439	0.09	1.450	2.086
	WCDMA IV_Ant 0	RMC 12.2Kbps	Bottom Side	0mm	5	1312	1712.4	23.25	24.70	1.396	0.05	1.470	2.053
	WCDMA IV_Ant 0	RMC 12.2Kbps	Bottom Side	0mm	5	1413	1732.6	23.21	24.70	1.409	-0.07	1.470	2.072

<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
94	LTE Band 25_Ant 2	20M	QPSK	50	24	Bottom Side	0mm	5	26590	1905	21.14	22.10	1.247	0.16	1.670	2.083
	LTE Band 25_Ant 2	20M	QPSK	50	24	Bottom Side	0mm	5	26140	1860	21.48	22.10	1.153	0.04	1.720	1.984
	LTE Band 25_Ant 2	20M	QPSK	50	24	Bottom Side	0mm	5	26340	1880	21.36	22.10	1.186	0.13	1.720	2.040
95	LTE Band 66_Ant 2	20M	QPSK	50	24	Bottom Side	0mm	5	132072	1720	22.14	23.20	1.276	-0.1	2.280	2.910
	LTE Band 66_Ant 2	20M	QPSK	50	24	Bottom Side	0mm	5	132322	1745	22.07	23.20	1.297	0.16	2.230	2.893
	LTE Band 66_Ant 2	20M	QPSK	50	24	Bottom Side	0mm	5	132572	1770	22.01	23.20	1.315	0.11	2.210	2.907
	LTE Band 66B_Ant 2	15M	QPSK	1	74	Bottom Side	0mm	5	132047	1717.5	18.16	19.25	1.285	0.06	0.936	1.203
	LTE Band 66C_Ant 2	20M	QPSK	1	99	Bottom Side	0mm	5	132072	1720	18.26	19.25	1.256	-0.06	0.913	1.147

<5G NR SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
96	FR1 n25_Ant 2	20M	BPSK	1	53	Bottom Side	0mm	5	376500	1882.5	21.67	22.50	1.211	0.1	1.550	1.876
	FR1 n25_Ant 2	20M	BPSK	1	53	Bottom Side	0mm	5	372000	1860	21.68	22.50	1.208	0.1	1.450	1.751
	FR1 n25_Ant 2	20M	BPSK	1	53	Bottom Side	0mm	5	381000	1905	21.64	22.50	1.219	0.12	1.450	1.768
97	FR1 n66_Ant 2	40M	BPSK	108	54	Bottom Side	0mm	5	349000	1745	22.74	23.70	1.247	0.1	2.390	2.981
	FR1 n66_Ant 0	40M	BPSK	1	108	Bottom Side	0mm	5	349000	1745	23.56	25.00	1.393	0.18	1.550	2.159

<WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Index	Antenna	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
98	WLAN5GHz	802.11a 6Mbps	Front	0mm	5/6	Ant 4+3(4)	52	5260	19.50	20.00	1.122	93.51	1.069	-0.12	1.040	1.247
	WLAN5GHz	802.11a 6Mbps	Front	0mm	5/6	Ant 4+3(3)	52	5260	19.80	20.00	1.047	93.51	1.069	-0.12	1.260	1.410
	WLAN5GHz	802.11a 6Mbps	Back	0mm	5/6	Ant 4+3(4)	52	5260	19.50	20.00	1.122	93.51	1.069	-0.13	1.800	2.159
	WLAN5GHz	802.11a 6Mbps	Back	0mm	5/6	Ant 4+3(3)	52	5260	19.80	20.00	1.047	93.51	1.069	-0.13	1.120	1.254
	WLAN5GHz	802.11a 6Mbps	Back	0mm	5/6	Ant 4+3(4)	56	5280	19.80	20.00	1.047	93.51	1.069	-0.13	2.450	2.742
	WLAN5GHz	802.11a 6Mbps	Back	0mm	5/6	Ant 4+3(3)	56	5280	19.40	20.00	1.148	93.51	1.069	-0.13	1.140	1.399
	WLAN5GHz	802.11a 6Mbps	Left Side	0mm	5/6	Ant 4+3(4)	52	5260	19.50	20.00	1.122	93.51	1.069	-0.18	0.001	0.001
	WLAN5GHz	802.11a 6Mbps	Left Side	0mm	5/6	Ant 4+3(3)	52	5260	19.80	20.00	1.047	93.51	1.069	-0.18	0.499	0.559
	WLAN5GHz	802.11a 6Mbps	Right Side	0mm	5/6	Ant 4+3(4)	52	5260	19.50	20.00	1.122	93.51	1.069	-0.12	0.855	1.026
	WLAN5GHz	802.11a 6Mbps	Right Side	0mm	5/6	Ant 4+3(3)	52	5260	19.80	20.00	1.047	93.51	1.069	-0.12	0.001	0.001
	WLAN5GHz	802.11a 6Mbps	Top Side	0mm	5/6	Ant 4+3(4)	52	5260	19.50	20.00	1.122	93.51	1.069	-0.12	0.487	0.584
	WLAN5GHz	802.11a 6Mbps	Top Side	0mm	5/6	Ant 4+3(3)	52	5260	19.80	20.00	1.047	93.51	1.069	-0.12	0.266	0.298
	WLAN5GHz	802.11n-HT40 MCS0	Front	0mm	7/8/9	Ant 4+3(4)	54	5270	14.20	15.00	1.202	96.79	1.033	-0.17	0.396	0.492
	WLAN5GHz	802.11n-HT40 MCS0	Front	0mm	7/8/9	Ant 4+3(3)	54	5270	17.70	19.00	1.349	96.79	1.033	-0.17	0.921	1.283
	WLAN5GHz	802.11n-HT40 MCS0	Back	0mm	7/8/9	Ant 4+3(4)	54	5270	14.20	15.00	1.202	96.79	1.033	-0.19	0.775	0.963
	WLAN5GHz	802.11n-HT40 MCS0	Back	0mm	7/8/9	Ant 4+3(3)	54	5270	17.70	19.00	1.349	96.79	1.033	-0.19	0.675	0.941
	WLAN5GHz	802.11n-HT40 MCS0	Left Side	0mm	7/8/9	Ant 4+3(4)	54	5270	14.20	15.00	1.202	96.79	1.033	0.17	0.001	0.001
	WLAN5GHz	802.11n-HT40 MCS0	Left Side	0mm	7/8/9	Ant 4+3(3)	54	5270	17.70	19.00	1.349	96.79	1.033	0.17	0.362	0.504
WLAN5GHz	802.11n-HT40 MCS0	Right Side	0mm	7/8/9	Ant 4+3(4)	54	5270	14.20	15.00	1.202	96.79	1.033	0.01	0.355	0.441	
WLAN5GHz	802.11n-HT40 MCS0	Right Side	0mm	7/8/9	Ant 4+3(3)	54	5270	17.70	19.00	1.349	96.79	1.033	0.01	0.001	0.001	
WLAN5GHz	802.11n-HT40 MCS0	Top Side	0mm	7/8/9	Ant 4+3(4)	54	5270	14.20	15.00	1.202	96.79	1.033	0.06	0.174	0.216	
WLAN5GHz	802.11n-HT40 MCS0	Top Side	0mm	7/8/9	Ant 4+3(3)	54	5270	17.70	19.00	1.349	96.79	1.033	0.06	0.001	0.001	

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Index	Antenna	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
99	WLAN5GHz	802.11a 6Mbps	Front	0mm	5/6	Ant 4+3(4)	124	5620	19.90	20.00	1.023	93.51	1.069	-0.19	0.612	0.669
	WLAN5GHz	802.11a 6Mbps	Front	0mm	5/6	Ant 4+3(3)	124	5620	19.50	20.00	1.122	93.51	1.069	-0.19	1.610	1.931
	WLAN5GHz	802.11a 6Mbps	Back	0mm	5/6	Ant 4+3(4)	124	5620	19.90	20.00	1.023	93.51	1.069	-0.12	2.020	2.210
	WLAN5GHz	802.11a 6Mbps	Back	0mm	5/6	Ant 4+3(3)	124	5620	19.50	20.00	1.122	93.51	1.069	-0.12	1.400	1.679
	WLAN5GHz	802.11a 6Mbps	Back	0mm	5/6	Ant 4+3(4)	144	5720	19.40	20.00	1.148	93.51	1.069	-0.16	2.260	2.774
	WLAN5GHz	802.11a 6Mbps	Back	0mm	5/6	Ant 4+3(3)	144	5720	19.70	20.00	1.072	93.51	1.069	-0.16	1.730	1.982
	WLAN5GHz	802.11a 6Mbps	Left Side	0mm	5/6	Ant 4+3(4)	124	5620	19.90	20.00	1.023	93.51	1.069	0.14	0.001	0.001
	WLAN5GHz	802.11a 6Mbps	Left Side	0mm	5/6	Ant 4+3(3)	124	5620	19.50	20.00	1.122	93.51	1.069	0.14	0.613	0.735
	WLAN5GHz	802.11a 6Mbps	Right Side	0mm	5/6	Ant 4+3(4)	124	5620	19.90	20.00	1.023	93.51	1.069	-0.1	0.779	0.852
	WLAN5GHz	802.11a 6Mbps	Right Side	0mm	5/6	Ant 4+3(3)	124	5620	19.50	20.00	1.122	93.51	1.069	-0.1	0.001	0.001
	WLAN5GHz	802.11a 6Mbps	Top Side	0mm	5/6	Ant 4+3(4)	124	5620	19.90	20.00	1.023	93.51	1.069	0.19	0.420	0.459
	WLAN5GHz	802.11a 6Mbps	Top Side	0mm	5/6	Ant 4+3(3)	124	5620	19.50	20.00	1.122	93.51	1.069	0.19	0.134	0.161
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	7/8/9	Ant 4+3(4)	122	5610	15.70	16.00	1.072	87.95	1.137	-0.06	0.311	0.379
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	7/8/9	Ant 4+3(3)	122	5610	16.50	16.50	1.000	87.95	1.137	-0.06	0.547	0.622
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	0mm	7/8/9	Ant 4+3(4)	122	5610	15.70	16.00	1.072	87.95	1.137	0.03	0.736	0.897
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	0mm	7/8/9	Ant 4+3(3)	122	5610	16.50	16.50	1.000	87.95	1.137	0.03	0.602	0.684
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Side	0mm	7/8/9	Ant 4+3(4)	122	5610	15.70	16.00	1.072	87.95	1.137	-0.02	0.001	0.001
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Side	0mm	7/8/9	Ant 4+3(3)	122	5610	16.50	16.50	1.000	87.95	1.137	-0.02	0.242	0.275
WLAN5GHz	802.11ac-VHT80 MCS0	Right Side	0mm	7/8/9	Ant 4+3(4)	122	5610	15.70	16.00	1.072	87.95	1.137	0.03	0.403	0.491	
WLAN5GHz	802.11ac-VHT80 MCS0	Right Side	0mm	7/8/9	Ant 4+3(3)	122	5610	16.50	16.50	1.000	87.95	1.137	0.03	0.001	0.001	
WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	0mm	7/8/9	Ant 4+3(4)	122	5610	15.70	16.00	1.072	87.95	1.137	-0.01	0.183	0.223	
WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	0mm	7/8/9	Ant 4+3(3)	122	5610	16.50	16.50	1.000	87.95	1.137	-0.01	0.001	0.001	



Plot No.	Band	Mode	Test Position	Gap (mm)	Power Index	Antenna	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
100	WLAN5GHz	802.11a 6Mbps	Front	0mm	5	Ant 4+3(4)	173	5865	19.30	19.50	1.047	93.51	1.069	-0.04	0.627	0.702
	WLAN5GHz	802.11a 6Mbps	Front	0mm	5	Ant 4+3(3)	173	5865	20.00	20.00	1.000	93.51	1.069	-0.04	2.050	2.191
	WLAN5GHz	802.11a 6Mbps	Front	0mm	5	Ant 4+3(4)	169	5845	19.40	19.50	1.023	93.51	1.069	-0.14	0.646	0.707
	WLAN5GHz	802.11a 6Mbps	Front	0mm	5	Ant 4+3(3)	169	5845	19.90	20.00	1.023	93.51	1.069	-0.14	1.950	2.133
	WLAN5GHz	802.11a 6Mbps	Back	0mm	5	Ant 4+3(4)	173	5865	19.30	19.50	1.047	93.51	1.069	-0.11	1.920	2.149
	WLAN5GHz	802.11a 6Mbps	Back	0mm	5	Ant 4+3(3)	173	5865	20.00	20.00	1.000	93.51	1.069	-0.11	1.770	1.892
	WLAN5GHz	802.11a 6Mbps	Back	0mm	5	Ant 4+3(4)	169	5845	19.40	19.50	1.023	93.51	1.069	-0.13	1.800	1.969
	WLAN5GHz	802.11a 6Mbps	Back	0mm	5	Ant 4+3(3)	169	5845	19.90	20.00	1.023	93.51	1.069	-0.13	1.790	1.958
	WLAN5GHz	802.11a 6Mbps	Left Side	0mm	5	Ant 4+3(4)	173	5865	19.30	19.50	1.047	93.51	1.069	-0.14	0.001	0.001
	WLAN5GHz	802.11a 6Mbps	Left Side	0mm	5	Ant 4+3(3)	173	5865	20.00	20.00	1.000	93.51	1.069	-0.14	0.610	0.652
	WLAN5GHz	802.11a 6Mbps	Right Side	0mm	5	Ant 4+3(4)	173	5865	19.30	19.50	1.047	93.51	1.069	-0.15	1.190	1.332
	WLAN5GHz	802.11a 6Mbps	Right Side	0mm	5	Ant 4+3(3)	173	5865	20.00	20.00	1.000	93.51	1.069	-0.15	0.001	0.001
	WLAN5GHz	802.11a 6Mbps	Top Side	0mm	5	Ant 4+3(4)	173	5865	19.30	19.50	1.047	93.51	1.069	-0.11	0.587	0.657
	WLAN5GHz	802.11a 6Mbps	Top Side	0mm	5	Ant 4+3(3)	173	5865	20.00	20.00	1.000	93.51	1.069	-0.11	0.587	0.628
	WLAN5GHz	802.11a 6Mbps	Front	0mm	6	Ant 4+3(4)	173	5865	18.90	19.00	1.023	93.51	1.069	-0.16	0.587	0.642
	WLAN5GHz	802.11a 6Mbps	Front	0mm	6	Ant 4+3(3)	173	5865	19.90	20.00	1.023	93.51	1.069	-0.16	1.960	2.144
	WLAN5GHz	802.11a 6Mbps	Front	0mm	6	Ant 4+3(4)	169	5845	18.90	19.00	1.023	93.51	1.069	-0.18	0.591	0.646
	WLAN5GHz	802.11a 6Mbps	Front	0mm	6	Ant 4+3(3)	169	5845	19.90	20.00	1.023	93.51	1.069	-0.18	1.910	2.089
	WLAN5GHz	802.11a 6Mbps	Back	0mm	6	Ant 4+3(4)	173	5865	18.90	19.00	1.023	93.51	1.069	-0.08	1.710	1.871
	WLAN5GHz	802.11a 6Mbps	Back	0mm	6	Ant 4+3(3)	173	5865	19.90	20.00	1.023	93.51	1.069	-0.08	1.740	1.903
	WLAN5GHz	802.11a 6Mbps	Left Side	0mm	6	Ant 4+3(4)	173	5865	18.90	19.00	1.023	93.51	1.069	-0.16	0.001	0.001
	WLAN5GHz	802.11a 6Mbps	Left Side	0mm	6	Ant 4+3(3)	173	5865	19.90	20.00	1.023	93.51	1.069	-0.16	1.050	1.149
	WLAN5GHz	802.11a 6Mbps	Right Side	0mm	6	Ant 4+3(4)	173	5865	18.90	19.00	1.023	93.51	1.069	0.14	0.997	1.091
	WLAN5GHz	802.11a 6Mbps	Right Side	0mm	6	Ant 4+3(3)	173	5865	19.90	20.00	1.023	93.51	1.069	0.14	0.001	0.001
	WLAN5GHz	802.11a 6Mbps	Top Side	0mm	6	Ant 4+3(4)	169	5845	18.90	19.00	1.023	93.51	1.069	0.11	0.776	0.849
	WLAN5GHz	802.11a 6Mbps	Top Side	0mm	6	Ant 4+3(3)	169	5845	19.90	20.00	1.023	93.51	1.069	0.11	0.309	0.338
	WLAN5GHz	802.11ac-VHT160 MCS0	Front	0mm	7/8	Ant 4+3(4)	163	5815	15.90	16.00	1.023	86.30	1.159	-0.13	0.199	0.236
	WLAN5GHz	802.11ac-VHT160 MCS0	Front	0mm	7/8	Ant 4+3(3)	163	5815	17.50	17.50	1.000	86.30	1.159	-0.13	0.776	0.899
	WLAN5GHz	802.11ac-VHT160 MCS0	Back	0mm	7/8	Ant 4+3(4)	163	5815	15.90	16.00	1.023	86.30	1.159	0.19	0.613	0.727
	WLAN5GHz	802.11ac-VHT160 MCS0	Back	0mm	7/8	Ant 4+3(3)	163	5815	17.50	17.50	1.000	86.30	1.159	0.19	0.824	0.955
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Side	0mm	7/8	Ant 4+3(4)	163	5815	15.90	16.00	1.023	86.30	1.159	-0.1	0.001	0.001
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Side	0mm	7/8	Ant 4+3(3)	163	5815	17.50	17.50	1.000	86.30	1.159	-0.1	0.433	0.502
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Side	0mm	7/8	Ant 4+3(4)	163	5815	15.90	16.00	1.023	86.30	1.159	0.1	0.351	0.416
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Side	0mm	7/8	Ant 4+3(3)	163	5815	17.50	17.50	1.000	86.30	1.159	0.1	0.001	0.001
	WLAN5GHz	802.11ac-VHT160 MCS0	Top Side	0mm	7/8	Ant 4+3(4)	163	5815	15.90	16.00	1.023	86.30	1.159	0.13	0.316	0.375
	WLAN5GHz	802.11ac-VHT160 MCS0	Top Side	0mm	7/8	Ant 4+3(3)	163	5815	17.50	17.50	1.000	86.30	1.159	0.13	0.063	0.073
	WLAN5GHz	802.11ac-VHT160 MCS0	Front	0mm	9	Ant 4+3(4)	163	5815	15.50	16.50	1.259	86.30	1.159	-0.1	0.222	0.324
	WLAN5GHz	802.11ac-VHT160 MCS0	Front	0mm	9	Ant 4+3(3)	163	5815	16.00	16.00	1.000	86.30	1.159	-0.1	0.636	0.737
	WLAN5GHz	802.11ac-VHT160 MCS0	Back	0mm	9	Ant 4+3(4)	163	5815	15.50	16.50	1.259	86.30	1.159	0.09	0.564	0.823
	WLAN5GHz	802.11ac-VHT160 MCS0	Back	0mm	9	Ant 4+3(3)	163	5815	16.00	16.00	1.000	86.30	1.159	0.09	0.580	0.672
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Side	0mm	9	Ant 4+3(4)	163	5815	15.50	16.50	1.259	86.30	1.159	0.07	0.001	0.001
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Side	0mm	9	Ant 4+3(3)	163	5815	16.00	16.00	1.000	86.30	1.159	0.07	0.323	0.374
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Side	0mm	9	Ant 4+3(4)	163	5815	15.50	16.50	1.259	86.30	1.159	0.03	0.316	0.461
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Side	0mm	9	Ant 4+3(3)	163	5815	16.00	16.00	1.000	86.30	1.159	0.03	0.001	0.001
	WLAN5GHz	802.11ac-VHT160 MCS0	Top Side	0mm	9	Ant 4+3(4)	163	5815	15.50	16.50	1.259	86.30	1.159	0.08	0.268	0.391
	WLAN5GHz	802.11ac-VHT160 MCS0	Top Side	0mm	9	Ant 4+3(3)	163	5815	16.00	16.00	1.000	86.30	1.159	0.08	0.113	0.131



<6GHz WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Index	Antenna	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)	APD
	WLAN6GHz	802.11ax-HE160 MCS0	Front	0mm	5/6	Ant 4+3(4)	175	6825	15.70	16.00	1.072	85.9	1.164	0.05	0.050	0.062	1.17
	WLAN6GHz	802.11ax-HE160 MCS0	Front	0mm	5/6	Ant 4+3(3)	175	6825	14.50	16.00	1.413	85.9	1.164	0.05	0.138	0.227	3.30
101	WLAN6GHz	802.11ax-HE160 MCS0	Back	0mm	5/6	Ant 4+3(4)	175	6825	15.70	16.00	1.072	85.9	1.164	-0.13	0.378	0.471	8.94
	WLAN6GHz	802.11ax-HE160 MCS0	Back	0mm	5/6	Ant 4+3(3)	175	6825	14.50	16.00	1.413	85.9	1.164	-0.13	0.129	0.212	3.08
	WLAN6GHz	802.11ax-HE160 MCS0	Back	0mm	5/6	Ant 4+3(4)	15	6025	6.30	8.00	1.479	85.9	1.164	0.13	0.042	0.072	0.98
	WLAN6GHz	802.11ax-HE160 MCS0	Back	0mm	5/6	Ant 4+3(3)	15	6025	6.20	8.00	1.514	85.9	1.164	0.13	0.027	0.048	0.64
	WLAN6GHz	802.11ax-HE160 MCS0	Back	0mm	5/6	Ant 4+3(4)	47	6185	6.10	8.00	1.549	85.9	1.164	0.04	0.033	0.059	0.77
	WLAN6GHz	802.11ax-HE160 MCS0	Back	0mm	5/6	Ant 4+3(3)	47	6185	6.00	8.00	1.585	85.9	1.164	0.04	0.008	0.015	0.20
	WLAN6GHz	802.11ax-HE160 MCS0	Back	0mm	5/6	Ant 4+3(4)	111	6505	11.40	11.50	1.023	85.9	1.164	0.01	0.172	0.205	4.06
	WLAN6GHz	802.11ax-HE160 MCS0	Back	0mm	5/6	Ant 4+3(3)	111	6505	11.10	11.50	1.096	85.9	1.164	0.01	0.033	0.042	0.80
	WLAN6GHz	802.11ax-HE160 MCS0	Back	0mm	5/6	Ant 4+3(4)	207	6985	14.70	15.00	1.072	85.9	1.164	-0.01	0.243	0.303	5.77
	WLAN6GHz	802.11ax-HE160 MCS0	Back	0mm	5/6	Ant 4+3(3)	207	6985	14.00	15.00	1.259	85.9	1.164	-0.01	0.112	0.164	2.69
	WLAN6GHz	802.11ax-HE160 MCS0	Left Side	0mm	5/6	Ant 4+3(4)	175	6825	15.70	16.00	1.072	85.9	1.164	0.05	0.001	0.001	0.00
	WLAN6GHz	802.11ax-HE160 MCS0	Left Side	0mm	5/6	Ant 4+3(3)	175	6825	14.50	16.00	1.413	85.9	1.164	0.05	0.097	0.159	2.31
	WLAN6GHz	802.11ax-HE160 MCS0	Right Side	0mm	5/6	Ant 4+3(4)	175	6825	15.70	16.00	1.072	85.9	1.164	0.1	0.108	0.135	2.55
	WLAN6GHz	802.11ax-HE160 MCS0	Right Side	0mm	5/6	Ant 4+3(3)	175	6825	14.50	16.00	1.413	85.9	1.164	0.1	0.001	0.002	0.00
	WLAN6GHz	802.11ax-HE160 MCS0	Top Side	0mm	5/6	Ant 4+3(4)	175	6825	15.70	16.00	1.072	85.9	1.164	-0.05	0.020	0.025	0.49
	WLAN6GHz	802.11ax-HE160 MCS0	Top Side	0mm	5/6	Ant 4+3(3)	175	6825	14.50	16.00	1.413	85.9	1.164	-0.05	0.005	0.008	0.14
	WLAN6GHz	802.11ax-HE160 MCS0	Front	0mm	7/8/9	Ant 4+3(4)	175	6825	15.70	16.00	1.072	85.9	1.164	0.05	0.050	0.062	1.17
	WLAN6GHz	802.11ax-HE160 MCS0	Front	0mm	7/8/9	Ant 4+3(3)	175	6825	14.50	16.00	1.413	85.9	1.164	0.05	0.138	0.227	3.30
	WLAN6GHz	802.11ax-HE160 MCS0	Back	0mm	7/8/9	Ant 4+3(4)	175	6825	15.70	16.00	1.072	85.9	1.164	-0.13	0.378	0.471	8.94
	WLAN6GHz	802.11ax-HE160 MCS0	Back	0mm	7/8/9	Ant 4+3(3)	175	6825	14.50	16.00	1.413	85.9	1.164	-0.13	0.129	0.212	3.08
	WLAN6GHz	802.11ax-HE160 MCS0	Back	0mm	7/8/9	Ant 4+3(4)	15	6025	6.30	8.00	1.479	85.9	1.164	0.13	0.042	0.072	0.98
	WLAN6GHz	802.11ax-HE160 MCS0	Back	0mm	7/8/9	Ant 4+3(3)	15	6025	6.20	8.00	1.514	85.9	1.164	0.13	0.027	0.048	0.64
	WLAN6GHz	802.11ax-HE160 MCS0	Back	0mm	7/8/9	Ant 4+3(4)	47	6185	6.10	8.00	1.549	85.9	1.164	0.04	0.033	0.059	0.77
	WLAN6GHz	802.11ax-HE160 MCS0	Back	0mm	7/8/9	Ant 4+3(3)	47	6185	6.00	8.00	1.585	85.9	1.164	0.04	0.008	0.015	0.20
	WLAN6GHz	802.11ax-HE160 MCS0	Back	0mm	7/8/9	Ant 4+3(4)	111	6505	11.40	11.50	1.023	85.9	1.164	0.01	0.172	0.205	4.06
	WLAN6GHz	802.11ax-HE160 MCS0	Back	0mm	7/8/9	Ant 4+3(3)	111	6505	11.10	11.50	1.096	85.9	1.164	0.01	0.033	0.042	0.80
	WLAN6GHz	802.11ax-HE160 MCS0	Back	0mm	7/8/9	Ant 4+3(4)	207	6985	14.70	15.00	1.072	85.9	1.164	-0.01	0.243	0.303	5.77
	WLAN6GHz	802.11ax-HE160 MCS0	Back	0mm	7/8/9	Ant 4+3(3)	207	6985	14.00	15.00	1.259	85.9	1.164	-0.01	0.112	0.164	2.69
	WLAN6GHz	802.11ax-HE160 MCS0	Left Side	0mm	7/8/9	Ant 4+3(4)	175	6825	15.70	16.00	1.072	85.9	1.164	0.05	0.001	0.001	0.00
	WLAN6GHz	802.11ax-HE160 MCS0	Left Side	0mm	7/8/9	Ant 4+3(3)	175	6825	14.50	16.00	1.413	85.9	1.164	0.05	0.097	0.159	2.31
	WLAN6GHz	802.11ax-HE160 MCS0	Right Side	0mm	7/8/9	Ant 4+3(4)	175	6825	15.70	16.00	1.072	85.9	1.164	0.1	0.108	0.135	2.55
	WLAN6GHz	802.11ax-HE160 MCS0	Right Side	0mm	7/8/9	Ant 4+3(3)	175	6825	14.50	16.00	1.413	85.9	1.164	0.1	0.001	0.002	0.00
	WLAN6GHz	802.11ax-HE160 MCS0	Top Side	0mm	7/8/9	Ant 4+3(4)	175	6825	15.70	16.00	1.072	85.9	1.164	-0.05	0.020	0.025	0.49
	WLAN6GHz	802.11ax-HE160 MCS0	Top Side	0mm	7/8/9	Ant 4+3(3)	175	6825	14.50	16.00	1.413	85.9	1.164	-0.05	0.005	0.008	0.14



15.5 6GHz PD Test result

Band	Mode	Test Position	Gap (mm)	Antenna	Ch.	Freq. (MHz)	Average Power (dBm)	Grid Step (λ)	iPDn (W/m ²)	iPD ratio (≥ -1)	Normal psPD (W/m ²)	Total psPD (W/m ²)
WLAN6GHz	802.11ax-HE160 MCS0	Back	2mm	Ant 4+3(4)	15	6025	6.30	0.0625	6.76	7.8072867	2.48	2.77
WLAN6GHz	802.11ax-HE160 MCS0	Back	10mm	Ant 4+3(4)	15	6025	6.30	0.25	1.12		0.302	0.333
WLAN6GHz	802.11ax-HE160 MCS0	Back	2mm	Ant 4+3(3)	207	6985	14.00	0.0625	7.86	6.2825082	2.82	3.25
WLAN6GHz	802.11ax-HE160 MCS0	Back	8.59mm	Ant 4+3(3)	207	6985	14.00	0.25	1.85		0.67	0.726
WLAN6GHz	802.11ax-HE160 MCS0	Front	2mm	Ant 4+3(3)	15	6025	10.00	0.0625	2.81	0.6131649	2.39	2.57
WLAN6GHz	802.11ax-HE160 MCS0	Front	10mm	Ant 4+3(3)	15	6025	10.00	0.25	2.44		0.806	0.908
WLAN6GHz	802.11ax-HE160 MCS0	Front	2mm	Ant 4+3(3)	207	6985	16.50	0.0625	3.98	0.595536	3.17	4.1
WLAN6GHz	802.11ax-HE160 MCS0	Front	8.59mm	Ant 4+3(3)	207	6985	16.50	0.25	3.47		0.981	1.1

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Grid Step (λ)	Scaling Factor for measurement uncertainty	Power Drift (dB)	Normal psPD (W/m ²)	Scaled Normal psPD (W/m ²)	Total psPD (W/m ²)	Scaled Total psPD (W/m ²)
	WLAN6GHz	802.11ax-HE160 MCS0	Back	2mm	Ant 4+3(4)	15	6025	6.30	8.00	1.479	85.90	1.164	0.0625	1.5535	-0.18	2.48	6.63	2.77	7.41
	WLAN6GHz	802.11ax-HE160 MCS0	Back	2mm	Ant 4+3(4)	47	6185	6.10	8.00	1.549	85.90	1.164	0.0625	1.5535	0.14	2.25	6.30	2.48	6.95
	WLAN6GHz	802.11ax-HE160 MCS0	Back	2mm	Ant 4+3(4)	111	6505	11.40	11.50	1.023	85.90	1.164	0.0625	1.5535	-0.13	2.87	5.31	3.38	6.25
	WLAN6GHz	802.11ax-HE160 MCS0	Back	2mm	Ant 4+3(4)	175	6825	15.70	16.00	1.072	85.90	1.164	0.0625	1.5535	-0.16	2.83	5.48	3.32	6.43
	WLAN6GHz	802.11ax-HE160 MCS0	Back	2mm	Ant 4+3(3)	207	6985	14.00	15.00	1.259	85.90	1.164	0.0625	1.5535	-0.01	2.82	6.42	3.25	7.40
	WLAN6GHz	802.11ax-HE160 MCS0	Front	2mm	Ant 4+3(3)	15	6025	10.00	11.50	1.413	85.90	1.164	0.0625	1.5535	-0.12	2.39	6.10	2.57	6.56
	WLAN6GHz	802.11ax-HE160 MCS0	Front	2mm	Ant 4+3(3)	47	6185	10.10	11.50	1.380	85.90	1.164	0.0625	1.5535	-0.15	1.16	2.90	1.38	3.44
102	WLAN6GHz	802.11ax-HE160 MCS0	Front	2mm	Ant 4+3(3)	111	6505	14.40	14.50	1.023	85.90	1.164	0.0625	1.5535	-0.07	3.24	6.00	4.05	7.49
	WLAN6GHz	802.11ax-HE160 MCS0	Front	2mm	Ant 4+3(3)	175	6825	15.40	16.50	1.288	85.90	1.164	0.0625	1.5535	0.08	2.51	5.85	3.15	7.34
	WLAN6GHz	802.11ax-HE160 MCS0	Front	2mm	Ant 4+3(3)	207	6985	16.50	16.50	1.000	85.90	1.164	0.0625	1.5535	0.06	3.17	5.73	4.1	7.41



15.6 Repeated SAR Measurement

General Note:

1. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is ≥ 0.8 W/kg.
2. Per KDB 865664 D01v01r04, if the ratio among the repeated measurement is ≤ 1.2 and the measured SAR < 1.45 W/kg, only one repeated measurement is required.
3. Per KDB 865664 D01v01r04, if the extremity repeated SAR is necessary, the same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.
4. The ratio is the difference in percentage between original and repeated *measured SAR*.
5. All measurement SAR result is scaled-up to account for tune-up tolerance and is compliant.

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)	Ratio	Reported 1g SAR (W/kg)
1st	FR1 n12_Ant 1	15M_BPSK_36_22	Right Cheek	0mm	2/3	141500	707.5	24.32	25.20	1.225	-0.06	0.801	-	0.981
2nd	FR1 n12_Ant 1	15M_BPSK_36_22	Right Cheek	0mm	2/3	141500	707.5	24.32	25.20	1.225	0.15	0.795	1.01	0.974
1st	GSM850_Ant 1	GPRS (4 Tx slots)	Right Cheek	0mm	2	128	824.2	27.95	29.00	1.274	-0.17	0.921	-	1.173
2nd	GSM850_Ant 1	GPRS (4 Tx slots)	Right Cheek	0mm	2	128	824.2	27.95	29.00	1.274	-0.12	0.897	1.03	1.142
1st	FR1 n66_Ant 2	40M_BPSK_1_108	Back	10mm	5	349000	1745	22.92	23.7	1.197	-0.09	0.911	-	1.108
2nd	FR1 n66_Ant 2	40M_BPSK_1_108	Back	10mm	5	349000	1745	22.92	23.7	1.197	-0.18	0.892	1.02	1.090
1st	LTE B25	20M_QPSK_100_0	Back	10mm	5	26140	1860	21.47	22.1	1.156	-0.18	0.984	-	1.138
2nd	LTE B25	20M_QPSK_100_0	Back	10mm	5	26140	1860	21.47	22.1	1.156	-0.16	0.910	1.08	1.052
1st	FR1 n30_Ant 0	10M_BPSK_25_14	Left Side	10mm	4	462000	2310	23.15	23.50	1.084	-0.12	0.822	-	0.891
2nd	FR1 n30_Ant 0	10M_BPSK_25_14	Left Side	10mm	4	462000	2310	23.15	23.50	1.084	0.01	0.817	1.01	0.886
1st	FR1 n7_Ant 2	20M_BPSK_1_53	Right Side	10mm	4	507000	2535	20.49	20.50	1.002	-0.17	0.851	-	0.853
2nd	FR1 n7_Ant 2	20M_BPSK_1_53	Right Side	10mm	4	507000	2535	20.49	20.50	1.002	0.03	0.844	1.01	0.846
1st	FR1 n77_Ant 0	100M_BPSK_135_69	Front	10mm	4	633332	3499.98	21.22	21.6	1.091	0.02	0.910	-	0.933
2nd	FR1 n77_Ant 0	100M_BPSK_135_69	Front	10mm	4	633332	3499.98	21.22	21.6	1.091	0.05	0.901	1.01	0.983

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 10g SAR (W/kg)	Ratio	Reported 10g SAR (W/kg)
1st	FR1 n66_Ant 2	40M_BPSK_108_54	Bottom Side	0mm	5	349000	1745	22.74	23.70	1.247	0.1	2.390	-	2.981
2nd	FR1 n66_Ant 2	40M_BPSK_108_54	Bottom Side	0mm	5	349000	1745	22.74	23.70	1.247	0.16	2.360	1.01	2.944



No.	Band	Mode	Test Position	Gap (mm)	Power Index	Antenna	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Ratio	Reported 1g SAR (W/kg)
1st	WLAN2.4GHZ	802.11b 1Mbps	Right Cheek	0mm	1	Ant 3	12	2467	17.50	17.50	1.000	98.90	1.011	-0.05	1.180	-	1.193
2nd	WLAN2.4GHZ	802.11b 1Mbps	Right Cheek	0mm	1	Ant 3	12	2467	17.50	17.50	1.000	98.9	1.011	-0.15	1.120	1.05	1.132
1st	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	1	Ant 4+3(4)	58	5290	15.90	16.00	1.023	87.95	1.137	0.19	0.903	-	1.051
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	1	Ant 4+3(3)	58	5290	15.40	16.00	1.148	87.95	1.137	0.19	0.209		0.273
2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	1	Ant 4+3(4)	58	5290	15.90	16.00	1.023	87.95	1.137	0.02	0.873	1.03	1.016
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	1	Ant 4+3(3)	58	5290	15.40	16.00	1.148	87.95	1.137	0.02	0.221		0.289
1st	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	1	Ant 4+3(4)	138	5690	18.90	19.00	1.023	87.95	1.137	-0.15	0.893	-	1.039
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	1	Ant 4+3(3)	138	5690	13.80	14.50	1.175	87.95	1.137	-0.15	0.224		0.299
2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	1	Ant 4+3(4)	138	5690	18.90	19.00	1.023	87.95	1.137	0.14	0.828	1.08	0.963
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	1	Ant 4+3(3)	138	5690	13.80	14.50	1.175	87.95	1.137	0.14	0.318		0.425
1st	WLAN5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	1	Ant 4+3(4)	151	5755	18.50	18.50	1.000	96.79	1.033	-0.12	0.435	-	0.449
	WLAN5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	1	Ant 4+3(3)	151	5755	13.70	14.00	1.072	96.79	1.033	-0.12	1.070		1.184
2nd	WLAN5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	1	Ant 4+3(4)	151	5755	18.50	18.50	1.000	96.79	1.033	0.04	0.512	1.11	0.529
	WLAN5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	1	Ant 4+3(3)	151	5755	13.70	14.00	1.072	96.79	1.033	0.04	0.960		1.063
1st	WLAN5GHz	802.11a 6Mbps	Back	10mm	5	Ant 4+3(4)	173	5865	19.30	19.50	1.047	93.51	1.069	-0.11	1.010	-	1.131
	WLAN5GHz	802.11a 6Mbps	Back	10mm	5	Ant 4+3(3)	173	5865	20.00	20.00	1.000	93.51	1.069	-0.11	0.578		0.618
2nd	WLAN5GHz	802.11a 6Mbps	Back	10mm	5	Ant 4+3(4)	173	5865	19.30	19.50	1.047	93.51	1.069	-0.16	0.990	1.02	1.108
	WLAN5GHz	802.11a 6Mbps	Back	10mm	5	Ant 4+3(3)	173	5865	20.00	20.00	1.000	93.51	1.069	-0.16	0.551		0.589

No.	Band	Mode	Test Position	Gap (mm)	Power Index	Antenna	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Ratio	Reported 10g SAR (W/kg)
1st	WLAN5GHz	802.11a 6Mbps	Back	0mm	5	Ant 4+3(4)	56	5280	19.80	20.00	1.047	93.51	1.069	-0.13	2.450	-	2.742
	WLAN5GHz	802.11a 6Mbps	Back	0mm	5	Ant 4+3(3)	56	5280	19.40	20.00	1.148	93.51	1.069	-0.13	1.140		1.399
2nd	WLAN5GHz	802.11a 6Mbps	Back	0mm	5	Ant 4+3(4)	56	5280	19.80	20.00	1.047	93.51	1.069	-0.12	2.060	1.19	2.306
	WLAN5GHz	802.11a 6Mbps	Back	0mm	5	Ant 4+3(3)	56	5280	19.40	20.00	1.148	93.51	1.069	-0.12	1.190		1.461
1st	WLAN5GHz	802.11a 6Mbps	Back	0mm	5	Ant 4+3(4)	144	5720	19.40	20.00	1.148	93.51	1.069	-0.16	2.260	-	2.774
	WLAN5GHz	802.11a 6Mbps	Back	0mm	5	Ant 4+3(3)	144	5720	19.70	20.00	1.072	93.51	1.069	-0.16	1.730		1.982
2nd	WLAN5GHz	802.11a 6Mbps	Back	0mm	5	Ant 4+3(4)	144	5720	19.40	20.00	1.148	93.51	1.069	-0.11	2.200	1.03	2.700
	WLAN5GHz	802.11a 6Mbps	Back	0mm	5	Ant 4+3(3)	144	5720	19.70	20.00	1.072	93.51	1.069	-0.11	1.690		1.936
1st	WLAN5GHz	802.11a 6Mbps	Front	0mm	5	Ant 4+3(4)	173	5865	19.30	19.50	1.047	93.51	1.069	-0.04	0.627	-	0.702
	WLAN5GHz	802.11a 6Mbps	Front	0mm	5	Ant 4+3(3)	173	5865	20.00	20.00	1.000	93.51	1.069	-0.04	2.050		2.191
2nd	WLAN5GHz	802.11a 6Mbps	Front	0mm	5	Ant 4+3(4)	173	5865	19.30	19.50	1.047	93.51	1.069	-0.09	0.611	1.02	0.684
	WLAN5GHz	802.11a 6Mbps	Front	0mm	5	Ant 4+3(3)	173	5865	20.00	20.00	1.000	93.51	1.069	-0.09	2.010		2.149



15.7 LTE Band 41 Power Class 2 and Power Class 3 Linearity

This device support Power Class 2 and Power Class 3 operations for LTE Band 41. The highest available duty cycle for Power Class 2 operation is 43.3% using UL-DL configuration 1. 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 LTE 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%

<LTE Band 41 Linearity Data for Head>

TX0	LTE Band 41_Ant 2	LTE Band 41_Ant 2
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	25.40	27.70
Reported 1g SAR (W/kg)	0.632	0.69
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	219.48	254.97
Linearity SAR(W/kg)	0.73	
% deviation from expected linearity		-6.02%

TX1	LTE Band 41_Ant 0	LTE Band 41_Ant 0
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	25.20	27.20
Reported 1g SAR (W/kg)	0.528	0.539
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	209.61	227.24
Linearity SAR(W/kg)	0.57	
% deviation from expected linearity		-5.84%

<LTE Band 41 Linearity Data for Hotspot>

TX0	LTE Band 41_Ant 2	LTE Band 41_Ant 2
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	22.60	24.20
Reported 1g SAR (W/kg)	0.991	0.888
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	115.19	113.89
Linearity SAR(W/kg)	0.98	
% deviation from expected linearity		-9.37%

TX1	LTE Band 41_Ant 0	LTE Band 41_Ant 0
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	25.20	27.20
Reported 1g SAR (W/kg)	0.682	0.715
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	209.61	227.24
Linearity SAR(W/kg)	0.74	
% deviation from expected linearity		-3.30%



<LTE Band 41 Linearity Data for Body-worn>

TX0	LTE Band 41_Ant 2	LTE Band 41_Ant 2
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	23.40	25.00
Reported 1g SAR (W/kg)	0.786	0.704
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	138.49	136.93
Linearity SAR(W/kg)	0.78	
% deviation from expected linearity		-9.41%

TX1	LTE Band 41_Ant 0	LTE Band 41_Ant 0
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	25.20	27.20
Reported 1g SAR (W/kg)	0.682	0.715
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	209.61	227.24
Linearity SAR(W/kg)	0.74	
% deviation from expected linearity		-3.30%



15.8 FR1 n77 Power Class 2 and Power Class 3 Linearity

This device support Power Class 2 and Power Class 3 operations for FR1 n77. The highest available duty cycle for Power Class 2 operation is 50% using UL-DL configuration 1. 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 n77 (3700 MHz ~ 3980 MHz) Linearity Data for Head>

TX0	FR1 n77_Ant 6	FR1 n77_Ant 6
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	25.00	27.20
Reported 1g SAR (W/kg)	0.754	0.682
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	316.23	262.40
Linearity SAR(W/kg)	0.63	
% deviation from expected linearity		9.00%

TX1	FR1 n77_Ant 2	FR1 n77_Ant 2
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	23.75	25.90
Reported 1g SAR (W/kg)	0.359	0.271
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	237.14	194.52
Linearity SAR(W/kg)	0.29	
% deviation from expected linearity		-7.98%

<FR1 n77 (3450MHz ~ 3550MHz) Linearity Data for Head>

TX0	FR1 n77_Ant 6	FR1 n77_Ant 6
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	25.00	27.20
Reported 1g SAR (W/kg)	0.669	0.603
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	316.23	262.40
Linearity SAR(W/kg)	0.56	
% deviation from expected linearity		8.62%

TX1	FR1 n77_Ant 2	FR1 n77_Ant 2
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	23.75	25.90
Reported 1g SAR (W/kg)	0.616	0.472
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	237.14	194.52
Linearity SAR(W/kg)	0.51	
% deviation from expected linearity		-6.59%



<FR1 n77 (3700 MHz ~ 3980 MHz) Linearity Data for Hotspot>

TX0	FR1 n77_Ant 6	FR1 n77_Ant 6
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	21.60	24.60
Reported 1g SAR (W/kg)	0.826	0.828
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	144.54	144.20
Linearity SAR(W/kg)	0.82	
% deviation from expected linearity		0.48%

TX1	FR1 n77_Ant 2	FR1 n77_Ant 2
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	22.80	25.80
Reported 1g SAR (W/kg)	0.980	0.926
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	190.55	190.09
Linearity SAR(W/kg)	0.98	
% deviation from expected linearity		-5.29%

<FR1 n77 (3450MHz ~ 3550MHz) Linearity Data for Hotspot>

TX0	FR1 n77_Ant 6	FR1 n77_Ant 6
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	21.60	24.60
Reported 1g SAR (W/kg)	0.993	0.966
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	144.54	144.20
Linearity SAR(W/kg)	0.99	
% deviation from expected linearity		-2.49%

TX1	FR1 n77_Ant 2	FR1 n77_Ant 2
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	22.80	25.80
Reported 1g SAR (W/kg)	0.940	0.979
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	190.55	190.09
Linearity SAR(W/kg)	0.94	
% deviation from expected linearity		4.40%



<FR1 n77 (3700 MHz ~ 3980 MHz) Linearity Data for Body-worn>

TX0	FR1 n77_Ant 6	FR1 n77_Ant 6
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	22.40	25.40
Reported 1g SAR (W/kg)	0.833	0.855
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	173.78	173.37
Linearity SAR(W/kg)	0.83	
% deviation from expected linearity		2.88%

TX1	FR1 n77_Ant 2	FR1 n77_Ant 2
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	23.6	25.9
Reported 1g SAR (W/kg)	1.178	0.948
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	229.09	194.52
Linearity SAR(W/kg)	1.00	
% deviation from expected linearity		-5.23%

<FR1 n77 (3450MHz ~ 3550MHz) Linearity Data for Body-worn>

TX0	FR1 n77_Ant 6	FR1 n77_Ant 6
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	22.40	25.40
Reported 1g SAR (W/kg)	1.194	1.161
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	173.78	173.37
Linearity SAR(W/kg)	1.19	
% deviation from expected linearity		-2.53%

TX1	FR1 n77_Ant 2	FR1 n77_Ant 2
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	23.60	25.90
Reported 1g SAR (W/kg)	0.906	0.773
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	229.09	194.52
Linearity SAR(W/kg)	0.77	
% deviation from expected linearity		0.48%



16. Simultaneous Transmission Analysis

Portable Condition	Tx mode	Capable TX Configurations	WWAN Power	WiFi Power	BT Power	
Head	WWAN standalone	WWAN	Index 2			
	WiFi standalone	WiFi 2.4G 11b SISO (Ant 4)			Index 1	
		WiFi 2.4G 11b SISO (Ant 3)				
		WiFi 2.4G MIMO/CDD (Ant4+3)				
		WiFi 5G/6E MIMO (Ant4+3)				
		WiFi 2.4G 11b SISO (Ant 4) + WiFi 5G/6E MIMO (Ant4+3)				
		WiFi 2.4G 11b SISO (Ant 3) + WiFi 5G/6E MIMO (Ant4+3)				
		WiFi 2.4G 11g/n/ac/ax MIMO (Ant4+3) + WiFi 5G/6E MIMO (Ant4+3)			Index 2 (RSDB)	
	BT standalone	Bluetooth (Ant4)				Index 1
		Bluetooth (Ant3)				
		Bluetooth (Ant4+3) (BDR/EDR Only)				
	WiFi +BT	WiFi 5G/6E MIMO (Ant4+3) + Bluetooth (Ant4)			Index 1	Index 1
		WiFi 5G/6E MIMO (Ant4+3) + Bluetooth (Ant3)				
		WiFi 5G/6E MIMO (Ant4+3) + Bluetooth (Ant4+3)				
	WWAN + WiFi	WWAN + WiFi 2.4G 11b SISO (Ant 4)		Index 3 / Index 7 (Hotspot on)	Index 3	
		WWAN + WiFi 2.4G 11b SISO (Ant 3)				
		WWAN + WiFi 2.4G MIMO/CDD (Ant4+3)				
		WWAN + WiFi 5G/6E MIMO (Ant4+3)				
		WWAN + WiFi 2.4G 11b SISO (Ant 4) + WiFi 5G/6E MIMO (Ant4+3)			Index 4 (RSDB)	
		WWAN + WiFi 2.4G 11b SISO (Ant 3) + WiFi 5G/6E MIMO (Ant4+3)				
		WWAN + WiFi 2.4G MIMO (Ant4+3) + WiFi 5G/6E MIMO (Ant4+3)				
	WWAN + BT	WWAN + Bluetooth (Ant4)		Index 3 / Index 7 (Hotspot on)		Index 1
		WWAN + Bluetooth (Ant3)				
		WWAN + Bluetooth (Ant4+3) (BDR/EDR Only)				
WWAN + WiFi + BT	WWAN + WiFi 5G/6E MIMO (Ant4+3) + Bluetooth (Ant4)		Index 3 / Index 7 (Hotspot on)	Index 3	Index 1	
	WWAN + WiFi 5G/6E MIMO (Ant4+3) + Bluetooth (Ant3)					
	WWAN + WiFi 5G/6E MIMO (Ant4+3) + Bluetooth (Ant4+3)					



Portable Condition	Tx mode	Capable TX Configurations	WWAN Power	WiFi	BT
				Power	Power
Body	WWAN standalone	WWAN	Index 5		
	WiFi standalone	WiFi 2.4G 11b SISO (Ant 4)		Index 5	Index 6 (RSDB)
		WiFi 2.4G 11b SISO (Ant 3)			
		WiFi 2.4G MIMO/CDD (Ant4+3)			
		WiFi 5G/6E MIMO (Ant4+3)			
		WiFi 2.4G 11b SISO (Ant 4) + WiFi 5G/6E MIMO (Ant4+3)			
		WiFi 2.4G 11b SISO (Ant 3) + WiFi 5G/6E MIMO (Ant4+3)			
		WiFi 2.4G 11g/n/ac/ax MIMO (Ant4+3) + WiFi 5G/6E MIMO (Ant4+3)			
	BT standalone	Bluetooth (Ant4)			Index 4
		Bluetooth (Ant3)			
		Bluetooth (Ant4+3) (BDR/EDR Only)			
	WiFi +BT	WiFi 5G/6E MIMO (Ant4+3) + Bluetooth (Ant4)		Index 5	Index 2
		WiFi 5G/6E MIMO (Ant4+3) + Bluetooth (Ant3)			
		WiFi 5G/6E MIMO (Ant4+3) + Bluetooth (Ant4+3)			
	WWAN + WiFi	WWAN + WiFi 2.4G 11b SISO (Ant 4)	Index 6 / Index 4 (Hotspot on)	Index 7	Index 8 (RSDB)
		WWAN + WiFi 2.4G 11b SISO (Ant 3)			
		WWAN + WiFi 2.4G MIMO/CDD (Ant4+3)			
		WWAN + WiFi 5G/6E MIMO (Ant4+3)			
		WWAN + WiFi 2.4G 11b SISO (Ant 4) + WiFi 5G/6E MIMO (Ant4+3)			
		WWAN + WiFi 2.4G 11b SISO (Ant 3) + WiFi 5G/6E MIMO (Ant4+3)			
		WWAN + WiFi 2.4G MIMO (Ant4+3) + WiFi 5G/6E MIMO (Ant4+3)			
	WWAN + BT	WWAN + Bluetooth (Ant4)	Index 6 / Index 4 (Hotspot on)		Index 2
		WWAN + Bluetooth (Ant3)			
		WWAN + Bluetooth (Ant4+3) (BDR/EDR Only)			
WWAN + WiFi +BT	WWAN + WiFi 5G/6E MIMO (Ant4+3) + Bluetooth (Ant4)	Index 6 / Index 4 (Hotspot on)	Index 9	Index 3	
	WWAN + WiFi 5G/6E MIMO (Ant4+3) + Bluetooth (Ant3)				
	WWAN + WiFi 5G/6E MIMO (Ant4+3) + Bluetooth (Ant4+3)				

General Note:

- Simultaneous operation at maximum power levels when the device is neither against the body nor the head (i.e. in a mobile RF exposure condition) is addressed in Sporton's RF Exposure report no.: FA161608-03E
- The Sim-Tx configuration combination include in operation description will be match the title in the below Sum-Tx evaluation table.
- This device only WLAN 2.4GHz / 5.2GHz / 5.8GHz supports Hotspot operation and Bluetooth support tethering applications.
- The worst case WLAN reported SAR for each configuration was used for SAR summation. Therefore, the following summations represent the absolute worst cases for simultaneous transmission with WLAN.
- The Scaled SAR summation is calculated based on the same configuration and test position.
- Per KDB 447498 D01v06, simultaneous transmission SAR is compliant if,
 - Scalar SAR summation < 1.6W/kg.
 - $SPLSR = (SAR1 + SAR2)^{1.5} / (\min. \text{ separation distance, mm})$, and the peak separation distance is determined from the square root of $[(x1-x2)^2 + (y1-y2)^2 + (z1-z2)^2]$, where (x1, y1, z1) and (x2, y2, z2) are the coordinates of the extrapolated peak SAR locations in the zoom scan.
 - If $SPLSR \leq 0.04$, simultaneously transmission SAR measurement is not necessary.
 - Simultaneously transmission SAR measurement, and the reported multi-band SAR < 1.6W/kg.
- For WWAN power, when the device is in head mode and hotspot function is enabled, the device will select power index 7 which is further lower than power index 3, as described in the operational description. In this report, standalone and simultaneous SAR compliance for the mentioned scenario was justified at power index 3 conservatively.