

FCC SAR Test Report

APPLICANT : unitech electronics co., ltd.
EQUIPMENT : Rugged Handheld Computer
BRAND NAME : unitech
MODEL NAME : EA660
FCC ID : HLEEA660BWNW
STANDARD : FCC 47 CFR Part 2 (2.1093)

We, Sporton International Inc. (Kunshan), would like to declare that the tested sample has been evaluated in accordance with the test procedures given in 47 CFR Part 2.1093 and FCC KDB and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. (Kunshan), the test report shall not be reproduced except in full.



Approved by: Si Zhang

Sporton International Inc. (Kunshan)

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People's Republic of China



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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA372407	Rev. 01	Initial issue of report.	Oct. 13, 2023

1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **unitech electronics co., ltd., Rugged Handheld Computer, EA660**, are as follows.

Highest 1g SAR Summary						
Equipment Class	Frequency Band		Head (Separation 0mm)	Hotspot (Separation 10mm)	Body-worn (Separation 10mm)	Highest Simultaneous Transmission 1g SAR (W/kg)
			1g SAR (W/kg)			
Licensed	GSM	GSM850	0.19	0.31	0.31	1.59
		GSM1900	<0.10	0.29	0.29	
	WCDMA	WCDMA II	0.30	0.97	0.97	
		WCDMA IV	0.44	1.13	1.13	
		WCDMA V	0.42	0.84	0.84	
	LTE	LTE Band 2	0.24	0.93	0.93	
		LTE Band 5	0.29	0.79	0.79	
		LTE Band 7	1.20	0.84	0.84	
		LTE Band 12/17	0.17	0.40	0.40	
		LTE Band 13	0.30	0.43	0.43	
		LTE Band 14	0.39	0.41	0.41	
		LTE Band 66/4	0.17	1.12	1.12	
		LTE Band 41/38	1.13	0.77	0.77	
		LTE Band 48	1.02	0.54	0.54	
		5G NR	FR1 n2	0.17	0.73	
	FR1 n5		0.23	0.48	0.48	
	FR1 n7		1.02	0.68	0.68	
	FR1 n12		0.17	0.35	0.35	
	FR1 n14		0.48	0.26	0.26	
	FR1 n66		0.28	0.89	0.89	
FR1 n41/n38	0.69		0.77	0.77		
FR1 n48	1.12		0.65	0.65		
	FR1 n77/n78	1.10	1.15	1.15		
DTS	WLAN	2.4GHz WLAN	1.17	0.43	1.11	1.59
NII		5GHz WLAN	0.98	0.44	0.64	1.59
DSS	Bluetooth	2.4GHz Bluetooth	<0.10	<0.10	<0.10	1.58



Highest 10g SAR Summary				
Equipment Class	Frequency Band		Product Specific 10g SAR (W/kg) (Separation 0mm)	Highest Simultaneous Transmission 10g SAR (W/kg)
Licensed	WCDMA	WCDMA II	2.97	3.54
	5G NR	FR1 n77/n78	2.89	
NII	WLAN	5GHz WLAN	0.71	3.54
Date of Testing:			2023/8/14~2023/9/6	

Remark:

- This device supports LTE B4 / B17 / B38 and B66 / B12 / B41. Since the supported frequency span for LTE B4 / B17 / B38 falls completely within the supports frequency span for LTE B66 / B12 / B41, both LTE bands have the same target power, and both LTE bands share the same transmission path; therefore, SAR was only assessed for LTE B66 / B12 / B41.
- This device supports 5GNR n78/n38 and n77/n41. Since the supported frequency span for 5GNR n78/n38 falls completely within the supports frequency span for n77/n41, both 5GNR bands have the same target power, and both 5GNR bands share the same transmission path; therefore, SAR was only assessed for n77/n41.

Declaration of Conformity:

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

Comments and Explanations:

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

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) 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.

2. Administration Data

Sporton International Inc. (Kunshan) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

Testing Laboratory			
Test Firm	Sporton International Inc. (Kunshan)		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	SAR04-KS, SAR07-KS	CN1257	314309

Applicant	
Company Name	unitech electronics co., ltd.
Address	5F., No. 136, Ln. 235, Baoqiao Rd., Xindian Dist., New Taipei City, Taiwan

Manufacturer	
Company Name	unitech electronics co., ltd.
Address	5F., No. 136, Ln. 235, Baoqiao Rd., Xindian Dist., New Taipei City, Taiwan

3. Guidance Applied

The Specific Absorption Rate (SAR) testing specification, method, and procedure for this device is in accordance with the following standards:

- 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 616217 D04 SAR for laptop and tablets v01r02
- 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



4. Equipment Under Test (EUT) Information

4.1 General Information

Product Feature & Specification	
Equipment Name	Rugged Handheld Computer
Brand Name	unitech
Model Name	EA660
FCC ID	HLEEA660BWNW
IMEI Code	IMEI1: 357458980003635 IMEI2: 357458980003643
Wireless Technology and Frequency Range	GSM850: 824 MHz ~ 849 MHz GSM1900: 1850 MHz ~ 1910 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 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 5G NR n2: 1850 MHz ~ 1910 MHz 5G NR n5: 824 MHz ~ 849 MHz 5G NR n7: 2500 MHz ~ 2570 MHz 5G NR n12: 699 MHz ~ 716 MHz 5G NR n14: 788 MHz ~ 798 MHz 5G NR n66: 1710 MHz ~ 1780 MHz 5G NR n38: 2570 MHz ~ 2620 MHz 5G NR n41: 2496 MHz ~ 2690 MHz 5G NR n48: 3550 MHz ~ 3700 MHz 5G NR n77: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3980 MHz 5G NR n78: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3800 MHz WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz WLAN 5.2GHz Band: 5180 MHz ~ 5240 MHz WLAN 5.3GHz Band: 5260 MHz ~ 5320 MHz WLAN 5.5GHz Band: 5500 MHz ~ 5720 MHz WLAN 5.8GHz Band: 5745 MHz ~ 5825 MHz WLAN 6GHz U-NII-5: 5925 MHz ~ 6425 MHz WLAN 6GHz U-NII-6: 6425 MHz ~ 6525 MHz WLAN 6GHz U-NII-7: 6525 MHz ~ 6875 MHz WLAN 6GHz U-NII-8: 6875 MHz ~ 7125 MHz Bluetooth: 2402 MHz ~ 2480 MHz NFC: 13.56 MHz
Mode	GSM/GPRS/EGPRS RMC/AMR 12.2Kbps HSDPA HSUPA HSPA+(16QAM uplink is not supported) LTE: QPSK, 16QAM, 64QAM, 256QAM 5G NR: CP-OFDM / DFT-s-OFDM, PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM WLAN 2.4GHz 802.11b/g/n HT20/HT40 WLAN 2.4GHz 802.11ax HE20/HE40 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac/ax VHT20/VHT40/VHT80/ VHT160/HE20/HE40/HE80/HE160 WLAN 6GHz 802.11a/ax HE20/HE40/HE80/HE160 Bluetooth BR/EDR/LE NFC: ASK
HW Version	V4
SW Version	ST6729A_1280_Unitech_patchbuild_20230815181058934
GSM / (E)GPRS	Class B – EUT cannot support Packet Switched and Circuit Switched Network simultaneously but can



Transfer mode	automatically switch between Packet and Circuit Switched Network.
EUT Stage	Identical Prototype
Remark:	
<ol style="list-style-type: none"> This device supports VoIP in GPRS, EGPRS, WCDMA and LTE (e.g. for 3rd-party VoIP), LTE supports VoLTE operation. This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications. This device 5.2GHz WLAN/5.8GHz WLAN support hotspot operation, and 5.2GHz WLAN/5.8GHz WLAN supports WiFi Direct (GC/GO), and 5.3GHz / 5.5GHz supports WiFi Direct (GC only). WLAN6GHz has no hotspot function. The 2.4GHz/5GHz/6GHz WLAN can transmit in SISO and MIMO antenna mode. This device does not support DTM operation and supports GPRS/EGPRS mode up to multi-slot class 33. For dual SIM card mobile has two SIM slots and supports dual SIM dual standby. The WWAN radio transmission will be enabled by either one SIM at a time (single active). After pre-scan two SIM cards power, we found test result of the SIM1 was the worse, so we chose SIM1 slot to perform all tests. The device implements proximity sensor /receiver detection/hotspot mode for SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity). Details about the sensor detection are provided in the operational description. And the device will invoke corresponding work scenarios power level base on frequency bands/antennas, which can refer to power table at appendix E. For WLAN when transmit simultaneous with WWAN, power reduction will be activated to head. For WLAN when transmit simultaneous with WWAN and Proximity sensors trigger, power reduction will be activated to body-worn and Handheld. For some WWAN bands, sensor on reduced power level is higher than hotspot reduced power level, so front/back sensor on SAR can represent hotspot conservatively. This device supports HPUE for 5G NR n41/n77/n78 with class 2 level, HPUE power has been measured separately. For HPUE power is higher than power class 3 but with lower duty cycle, the maximum average power for class 2 and class 3 is almost the same, so we chose power class 3 full SAR testing and power class 2 verify the worst case of power class 3 SAR. For 5G NR n41/n77/n78 HPUE, 5G NR n41/n77/n78 PC2 Maximum Duty Cycle is 50%, using FTM (Factory Test Mode) with 50% duty cycle is considered during SAR testing. For 5G NR other bands test, using FTM (Factory Test Mode) with default 100% duty cycle transmission to perform SAR testing. For 5G NR EN-DC mode, standalone SAR performed for 5G NR NSA band with the maximum power, EN-DC SAR summed EN-DC mode 5G NR standalone SAR and LTE standalone SAR, the result of EN-DC SAR is more conservatively. The device support DBS (Dual Band Simultaneous) function, when the device WLAN 2.4GHz and WLAN 5GHz or WLAN 6GHz transmit at the same time the module will limit different output power for simultaneous transmission compliance. SAR and Power density test report for WLAN6GHz U-NII-5/6/7/8 will be separately submitted. About co-located SAR with WWAN/Bluetooth always chose higher SAR of WLAN5G U-NII-1/2A/2C/3 and WLAN6GHz U-NII-5/6/7/8. This device has NFC function and the NFC SAR report will be separately submitted. There are two samples, the difference between them refer to the EA660_Operational Description of Product Equality Declaration which is exhibit separately. According to the difference, only memory suppliers are different, so sample 1 was chosen to perform full test. This device supports 5G NR FR1 bands as following table, including NSA mode and SA mode. NSA and SA mode performed SAR separately. 	

<5G NR>

Mode	Band	Duplex	SCS(KHz)	Bandwidths(BW)
SA	n2	FDD	15	5, 10, 15, 20
	n5	FDD	15	5, 10, 15, 20
	n7	FDD	15	5, 10, 15, 20
	n12	FDD	15	5, 10, 15
	n14	FDD	15	5, 10
	n66	FDD	15	5, 10, 15, 20
	n38	TDD	30	20, 30, 40
	n41	TDD	30	20, 30, 40, 50, 60, 70, 80, 90, 100
	n48	TDD	30	20, 40
	n77	TDD	30	20, 30, 40, 60, 80, 100
n78	TDD	30	20, 30, 40, 50, 60, 70, 80, 90, 100	
NSA	n2	FDD	15	5, 10, 15, 20
	n5	FDD	15	5, 10, 15, 20
	n66	FDD	15	5, 10, 15, 20
	n41	TDD	30	20, 30, 40, 50, 60, 70, 80, 90, 100
	n77	TDD	30	20, 30, 40, 60, 80, 100
	n78	TDD	30	20, 30, 40, 50, 60, 70, 80, 90, 100



4.2 General LTE SAR Test and Reporting Considerations

Summarized necessary items addressed in KDB 941225 D05 v02r05																																																															
FCC ID	HLEEA660BWNW																																																														
Equipment Name	Rugged Handheld Computer																																																														
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 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																																																														
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 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																																																														
uplink modulations used	QPSK / 16QAM / 64QAM / 256QAM																																																														
LTE Voice / Data requirements	Voice and Data																																																														
LTE Release Version	R16, Cat16																																																														
CA Support	Supported, Downlink only																																																														
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>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>≤ 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	64 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)																																																								
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16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1																																																								
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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	Yes, when operating in Proximity sensors/receiver/hotspot detect mechanism, head/body-worn/hotspot/extremity will trigger reduced power for some bands applied to satisfy SAR compliance, the detail please referred to section 13.																																																														
LTE Carrier Aggregation Combinations	Inter-Band and Intra-Band possible combinations and the detail power verification please referred to section 13.																																																														
LTE Carrier Aggregation Additional Information	1. This device supports maximum of 3 carriers in the downlink.																																																														



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	20825	2507.5	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	21375	2562.5	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	23035	701.5	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	23155	713.5	23130	711
LTE Band 13												
	Bandwidth 5 MHz				Bandwidth 10 MHz				Bandwidth 10 MHz			
	Channel #	Freq.(MHz)		Channel #	Freq.(MHz)		Channel #	Freq.(MHz)		Channel #	Freq.(MHz)	
L	23205	779.5		23230	782		23230	782		23230	782	
M	23230	782			782			782				
H	23255	784.5			784.5			784.5				
LTE Band 14												
	Bandwidth 5 MHz				Bandwidth 10 MHz				Bandwidth 10 MHz			
	Channel #	Channel #		Channel #	Channel #		Channel #	Channel #		Channel #	Channel #	
L	23305	790.5		23330	793		23330	793		23330	793	
M	23330	793			793			793				
H	23355	795.5			795.5			795.5				
LTE Band 17												
	Bandwidth 5 MHz				Bandwidth 10 MHz				Bandwidth 10 MHz			
	Channel #	Freq.(MHz)		Channel #	Freq.(MHz)		Channel #	Freq.(MHz)		Channel #	Freq.(MHz)	
L	23755	706.5		23780	709		23780	709		23780	709	
M	23790	710			710			710				
H	23825	713.5			713.5			713.5				
LTE Band 38												
	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	37775	2572.5	37800	2575	37825	2577.5	37850	2580	37825	2577.5	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	38175	2612.5	38150	2610
LTE Band 41												
	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	39675	2498.5	39700	2501	39725	2503.5	39750	2506	39725	2503.5	39750	2506
LM	40148	2545.8	40160	2547	40173	2548.3	40185	2549.5	40173	2548.3	40185	2549.5
M	40620	2593	40620	2593	40620	2593	40620	2593	40620	2593	40620	2593



HM	41093	2640.3	41080	2639	41068	2637.8	41055	2636.5				
H	41565	2687.5	41540	2685	41515	2682.5	41490	2680				
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 48												
	Bandwidth 5 MHz			Bandwidth 10 MHz			Bandwidth 15 MHz			Bandwidth 20 MHz		
	Ch. #	Freq. (MHz)		Ch. #	Freq. (MHz)		Ch. #	Freq. (MHz)		Ch. #	Freq. (MHz)	
L	55265	3552.5		55290	3555		55315	3557.5		55340	3560	
LM	55810	3607		55815	3607.5		55820	3608		55830	3609	
MH	56170	3643		56165	3642.5		56160	3642		56150	3641	
H	56715	3697.5		56690	3695		56665	3692.5		56640	3690	

<For LTE Overlap Bands Description>

1) LTE Bands BW

Band	1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz
LTE Band 4	Yes	Yes	Yes	Yes	Yes	Yes
LTE Band 66	Yes	Yes	Yes	Yes	Yes	Yes
LTE Band 12	Yes	Yes	Yes	Yes		
LTE Band 17			Yes	Yes		
LTE Band 38			Yes	Yes	Yes	Yes
LTE Band 41			Yes	Yes	Yes	Yes

2) LTE Bands tune up:

Band	Antenna	Head DSI 1 Tune-up Limit	Body Worn DSI 3 Tune-up Limit	Hotspot DSI 5 Tune-up Limit	Extremity DSI 3 Tune-up Limit	Sensor Off DSI4 Tune-up Limit	Default Tune-up Limit
LTE Band 12	Ant 0	25.0	25.0	25.0	25.0	25.0	25.0
LTE Band 17	Ant 0	25.0	25.0	25.0	25.0	25.0	25.0
LTE Band 4	Ant 0	24.0	24.0	24.0	24.0	24.0	24.0
LTE Band 66	Ant 0	24.0	24.0	24.0	24.0	24.0	24.0
LTE Band 4 ENDC	Ant 0	24.0	21.5	21.5	21.5	24.0	24.0
LTE Band 66 ENDC	Ant 0	24.0	21.5	21.5	21.5	24.0	24.0

Band	Antenna	Head DSI 1 Tune-up Limit	Body Worn DSI 2 Tune-up Limit	Hotspot DSI 5 Tune-up Limit	Extremity DSI 2 Tune-up Limit	Sensor Off DSI4 Tune-up Limit	Default Tune-up Limit
LTE Band 12	Ant 1	24.0	24.0	24.0	24.0	24.0	24.0
LTE Band 17	Ant 1	24.0	24.0	24.0	24.0	24.0	24.0
LTE Band 38	Ant 1	24.0	24.0	24.0	24.0	24.0	24.0
LTE Band 41	Ant 1	24.0	24.0	24.0	24.0	24.0	24.0

Band	Antenna	Head DSI 1 Tune-up Limit	Body Worn DSI 3 Tune-up Limit	Hotspot DSI 5 Tune-up Limit	Extremity DSI 3 Tune-up Limit	Sensor Off DSI4 Tune-up Limit	Default Tune-up Limit
LTE Band 38	Ant 5	24.0	24.0	24.0	24.0	24.0	24.0
LTE Band 41	Ant 5	24.0	24.0	24.0	24.0	24.0	24.0

Band	Antenna	Head DSI 1 Tune-up Limit	Body Worn DSI 3 Tune-up Limit	Hotspot DSI 5 Tune-up Limit	Extremity DSI 3 Tune-up Limit	Sensor Off DSI4 Tune-up Limit	Default Tune-up Limit
LTE Band 38	Ant 6	24.0	24.0	24.0	24.0	24.0	24.0
LTE Band 41	Ant 6	24.0	24.0	24.0	24.0	24.0	24.0

Band	Antenna	Head DSI 1 Tune-up Limit	-	Hotspot DSI 5 Tune-up Limit	-	Sensor Off DSI4 Tune-up Limit	Default Tune-up Limit
LTE Band 38	Ant 7	23.0	-	23.0	-	23.0	23.0
LTE Band 41	Ant 7	23.0	-	23.0	-	23.0	23.0



4.3 General 5G NR SAR Test and Reporting Considerations

5G NR Information								
Operating Frequency Range of each 5G NR transmission band	5G NR n2: 1850 MHz ~ 1910 MHz 5G NR n5: 824 MHz ~ 849 MHz 5G NR n7: 2500 MHz ~ 2570 MHz 5G NR n12: 699 MHz ~ 716 MHz 5G NR n14: 788 MHz ~ 798 MHz 5G NR n66: 1710 MHz ~ 1780 MHz 5G NR n38: 2570 MHz ~ 2620 MHz 5G NR n41: 2496 MHz ~ 2690 MHz 5G NR n48: 3550 MHz ~ 3700 MHz 5G NR n77: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3980 MHz 5G NR n78: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3800 MHz							
Channel Bandwidth	The detail please refers to section 4.1 5GNR FR1 bands table.							
SCS	FDD/TDD: SCS15KHz/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 B5/12/13/66							
LTE Anchor Bands for n5	LTE B2/66							
LTE Anchor Bands for n41	LTE B2/5/12/66							
LTE Anchor Bands for n66	LTE B2/5/12/13							
LTE Anchor Bands for n77	LTE B2/5/12/66							
LTE Anchor Bands for n78	LTE B2/4/7/38/41/66							
Transmission (H, M, L) channel numbers and frequencies in each 5G NR band								
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 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	140300	701.5	140800	704	141300	706.5	141800	709
M	141500	707.5	141500	707.5	141500	707.5	141500	707.5
H	142700	713.5	142200	711	141700	708.5	141200	705.5
NR Band 14								
	Bandwidth 5MHz			Bandwidth 10MHz				
	Ch. #	Freq. (MHz)		Ch. #	Freq. (MHz)			Freq. (MHz)
L	158100	790.5		158600	793			793
M	158600	793						
H	159100	795.5						
NR Band 66								
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	342500	1712.5	343000	1715	343500	1717.5	344000	1720
M	349000	1745	349000	1745	349000	1745	349000	1745
H	355500	1777.5	355000	1775	354500	1772.5	354000	1770



NR Band 38						
	Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	516000	2580	517002	2585.01	518004	2590.02
M	519000	2595	519000	2595	519000	2595
H	522000	2610	520998	2604.99	519996	2599.98

NR Band 41																		
	Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	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	501204	2506.02	502200	2511	503202	2516.01	504204	2521.02	505200	2526	500202	2501.01	507204	2536.02	508200	2541	509202	2546.01
M	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99
H	535998	2679.99	534996	2674.98	534000	2670	532998	2664.99	531996	2659.98	537000	2685	529998	2649.99	528996	2644.98	528000	2640

NR Band 48						
	Bandwidth 20MHz			Bandwidth 40MHz		
	Ch. #	Freq. (MHz)		Ch. #	Freq. (MHz)	
L	637334	3560.01		638000	3570	
M	641666	3624.99		641666	3624.99	
H	646000	3690		645332	3679.98	

NR Band 77												
	Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 60MHz		Bandwidth 80MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	647334	3710.01	647668	3715.02	648000	3720	648668	3730.02	649334	3740.01	650000	3750
M	656000	3840	656000	3840.00	656000	3840	656000	3840	656000	3840	656000	3840
H	664666	3969.99	664332	3964.98	664000	3960	663332	3949.98	662666	3939.99	662000	3930

NR Band 78																		
	Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	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	647334	3710.01	647668	3715.02	648000	3720	648334	3725.01	648668	3730.02	649000	3735	649334	3740.01	649668	3745.02		
M	650000	3750	650000	3750.00	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750
H	652668	3790.02	652334	3785.01	652000	3780	651668	3775.02	651334	3770.01	651000	3765	650668	3760.02	650334	3755.01		

For <3450 MHz ~ 3550 MHz >

NR Band 77												
	Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 60MHz		Bandwidth 80MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	630668	3460.02	631000	3465	631334	3470.01	632000	3480	632668	3490.02		
M	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01
H	636000	3540	635668	3535.02	635334	3530.01	634668	3520.02	634000	3510		

NR Band 78																		
	Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	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	630668	3460.02	631000	3465	631334	3470.01	631668	3475.02	632000	3480	632334	3485.01	632668	3490.02	633000	3495		
M	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01
H	636000	3540	635668	3535.02	635334	3530.01	635000	3525	634668	3520.02	634334	3515.01	634000	3510	633668	3505.02		

<For NR Overlap Bands Description>

3) NR Bands BW

Mode	Band	Duplex	SCS(KHz)	Bandwidths(BW)
NSA	n77	TDD	30	20,30,40,60,80,100
	n78	TDD	30	20,30,40,50,60,70,80,90,100
SA	n38	TDD	30	20,30,40
	n41	TDD	30	20,30,40,50,60,70,80,90,100
	n77	TDD	30	20,30,40,60,80,100
	n78	TDD	30	20,30,40,50,60,70,80,90,100

4) NR Bands tune up:

Band	Antenna	Head DSI 1 Tune-up Limit	Body Worn DSI 2 Tune-up Limit	Hotspot DSI 5 Tune-up Limit	Extremity DSI 2 Tune-up Limit	Sensor Off DSI4 Tune-up Limit	Default Tune-up Limit
5G NR n38 SA	Ant 1	24.0	24.0	24.0	24.0	24.0	24.0
5G NR n41 SA	Ant 1	24.0	24.0	24.0	24.0	24.0	24.0
5G NR n41 HPUE SA	Ant 1	26.0	26.0	26.0	26.0	26.0	26.0

Band	Antenna	Head DSI 1 Tune-up Limit	Body Worn DSI 3 Tune-up Limit	Hotspot DSI 5 Tune-up Limit	Extremity DSI 3 Tune-up Limit	Sensor Off DSI4 Tune-up Limit	Default Tune-up Limit
5G NR n77 SA	Ant 5	24.0	24.0	24.0	24.0	24.0	24.0
5G NR n78 SA	Ant 5	24.0	24.0	24.0	24.0	24.0	24.0
5G NR n77 NSA	Ant 5	24.0	24.0	24.0	24.0	24.0	24.0
5G NR n78 NSA	Ant 5	24.0	24.0	24.0	24.0	24.0	24.0
5G NR n77 HPUE SA	Ant 5	27.0	27.0	27.0	27.0	27.0	27.0
5G NR n78 HPUE SA	Ant 5	27.0	27.0	27.0	27.0	27.0	27.0
5G NR n77 HPUE NSA	Ant 5	27.0	27.0	27.0	27.0	27.0	27.0
5G NR n78 HPUE NSA	Ant 5	27.0	27.0	27.0	27.0	27.0	27.0
5G NR n38 SA	Ant 5	23.5	23.5	23.5	23.5	23.5	23.5
5G NR n41 SA	Ant 5	23.5	23.5	23.5	23.5	23.5	23.5
5G NR n41 HPUE SA	Ant 5	25.5	25.5	25.5	25.5	25.5	25.5

Band	Antenna	Head DSI 1 Tune-up Limit	Body Worn DSI 3 Tune-up Limit	Hotspot DSI 5 Tune-up Limit	Extremity DSI 3 Tune-up Limit	Sensor Off DSI4 Tune-up Limit	Default Tune-up Limit
5G NR n77 SA	Ant 6	24.0	24.0	24.0	24.0	24.0	24.0
5G NR n78 SA	Ant 6	24.0	24.0	24.0	24.0	24.0	24.0
5G NR n77 HPUE SA	Ant 6	26.0	26.0	26.0	26.0	26.0	26.0
5G NR n78 HPUE SA	Ant 6	26.0	26.0	26.0	26.0	26.0	26.0
5G NR n38 SA	Ant 6	24.0	24.0	24.0	24.0	24.0	24.0
5G NR n41 SA	Ant 6	24.0	24.0	24.0	24.0	24.0	24.0
5G NR n41 HPUE SA	Ant 6	24.0	24.0	24.0	24.0	24.0	24.0

Band	Antenna	Head DSI 1 Tune-up Limit	-	Hotspot DSI 5 Tune-up Limit	-	Sensor Off DSI4 Tune-up Limit	Default Tune-up Limit
5G NR n38 SA	Ant 7	23.0	-	23.0	-	23.0	23.0
5G NR n41 SA	Ant 7	22.0	-	22.0	-	22.0	22.0
5G NR n41 HPUE SA	Ant 7	24.0	-	24.0	-	24.0	24.0



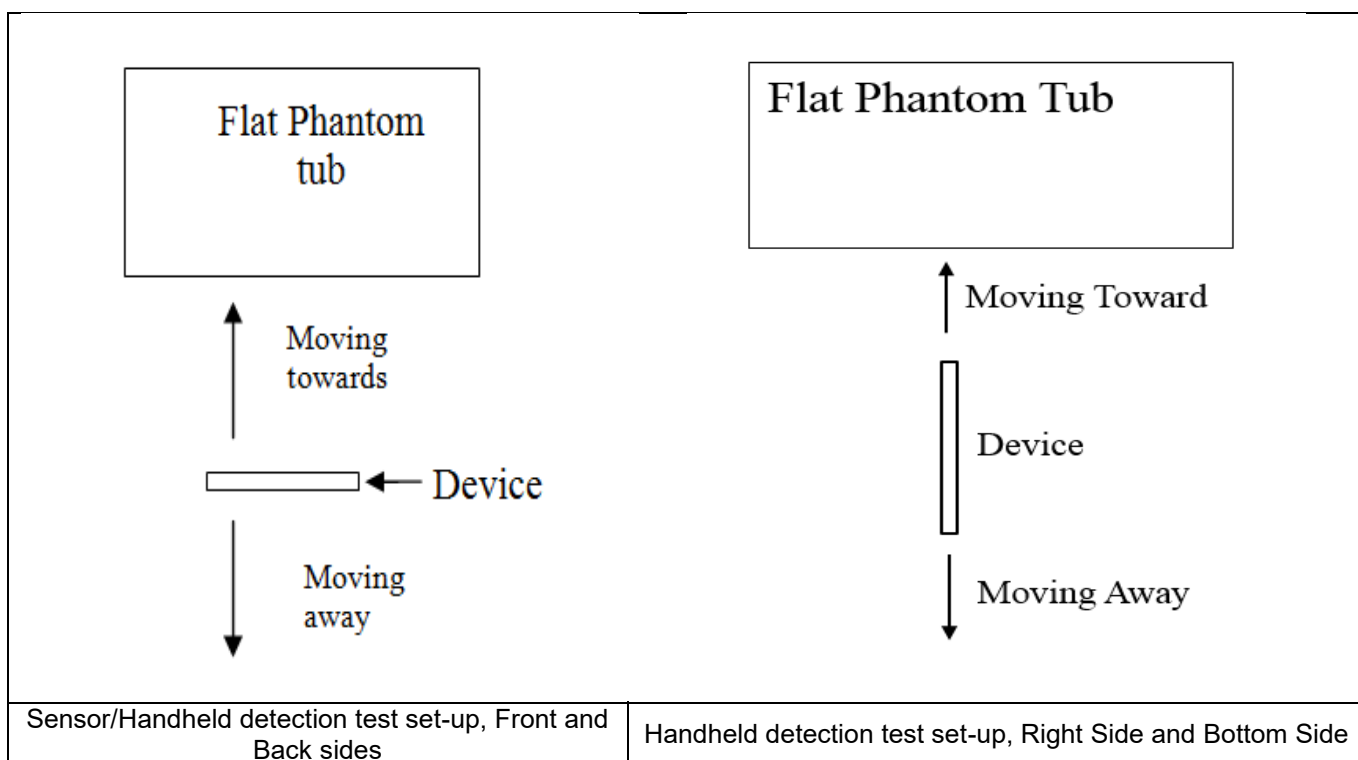
Band	Antenna	Head DSI 1 Tune-up Limit	Body Worn DSI 2 Tune-up Limit	Hotspot DSI 5 Tune-up Limit	Extremity DSI 2 Tune-up Limit	Sensor Off DSI4 Tune-up Limit	Default Tune-up Limit
5G NR n77 SA	Ant 8	21.5	23.5	23.5	23.5	24.0	24.0
5G NR n78 SA	Ant 8	21.5	23.5	23.5	23.5	24.0	24.0
5G NR n77 MIMO	Ant 8	18.5	20.5	20.5	20.5	24.0	24.0
5G NR n78 MIMO	Ant 8	18.5	20.5	20.5	20.5	24.0	24.0
5G NR n77 HPUE SA	Ant 8	24.5	26.5	26.5	26.5	27.0	27.0
5G NR n78 HPUE SA	Ant 8	24.5	26.0	26.0	26.0	26.0	26.0
5G NR n77 HPUE MIMO	Ant 8	21.5	23.5	23.5	23.5	27.0	27.0
5G NR n78 HPUE MIMO	Ant 8	21.5	23.5	23.5	23.5	26.0	26.0

Band	Antenna	Head DSI 1 Tune-up Limit	Hotspot DSI 5 Tune-up Limit	Sensor Off DSI4 Tune-up Limit	Default Tune-up Limit
5G NR n77 SA	Ant 9	24.0	24.0	24.0	24.0
5G NR n78 SA	Ant 9	24.0	24.0	24.0	24.0
5G NR n77 HPUE SA	Ant 9	26.5	26.5	26.5	26.5
5G NR n78 HPUE SA	Ant 9	25.5	25.5	25.5	25.5

5. Proximity Sensor Triggering Test

<Proximity Sensor Triggering Distance>:

1. Proximity sensor triggering distance testing was performed according to the procedures outlined in KDB 616217 D04 section 6.2, and EUT moving further away from the flat phantom and EUT moving toward the flat phantom were both assessed and the tissue-equivalent medium for highest frequency (5850MHz) and lowest (835MHz) frequency was used for proximity sensor triggering testing.
2. Capacitive proximity sensors placed coincident with antenna elements at the top and bottom ends of the phone are utilized to determine when the device comes in proximity of the user's body /handheld at the front/back/bottom/right of the device.
3. The sensors can use to detect the proximity of the user's body or a finger or handheld state at front/back/bottom /right sides of the device use a detection threshold distance. When front/back/bottom/right sides of body/handheld condition are detected reduced power will be active. The trigger distance shown in the sections below.
4. For verification of compliance of power reduction scheme, additional SAR testing with EUT transmitting at full RF power at a conservative trigger distance -1mm was performed:





<Sensor for ANT 0>

Proximity Sensor Triggering Distance (mm)				
Position	Back		Bottom Side	
	Moving towards	Moving away	Moving towards	Moving away
Minimum	20	16	11	14

<Sensor for ANT2>

Proximity Sensor Triggering Distance (mm)						
Position	Front		Back		Right Side	
	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
Minimum	5	8	13	18	12	8

<Sensor for ANT3>

Proximity Sensor Triggering Distance (mm)		
Position	Back	
	Moving towards	Moving away
Minimum	13	18

<Sensor for ANT 4 /ANT 3+4>

Proximity Sensor Triggering Distance (mm)		
Position	Back	
	Moving towards	Moving away
Minimum	12	12

<Sensor for ANT 2+4>

Proximity Sensor Triggering Distance (mm)						
Position	Front		Back		Right Side	
	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
Minimum	5	8	12	12	12	8

<Sensor for ANT 6>

Proximity Sensor Triggering Distance (mm)		
Position	Back	
	Moving towards	Moving away
Minimum	13	15

<Sensor for ANT 8>

Proximity Sensor Triggering Distance (mm)				
Position	Back		Right Side	
	Moving towards	Moving away	Moving towards	Moving away
Minimum	13	15	4	7

6. RF Exposure Limits

6.1 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.

6.2 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

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.

7. Specific Absorption Rate (SAR)

7.1 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.

7.2 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:

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

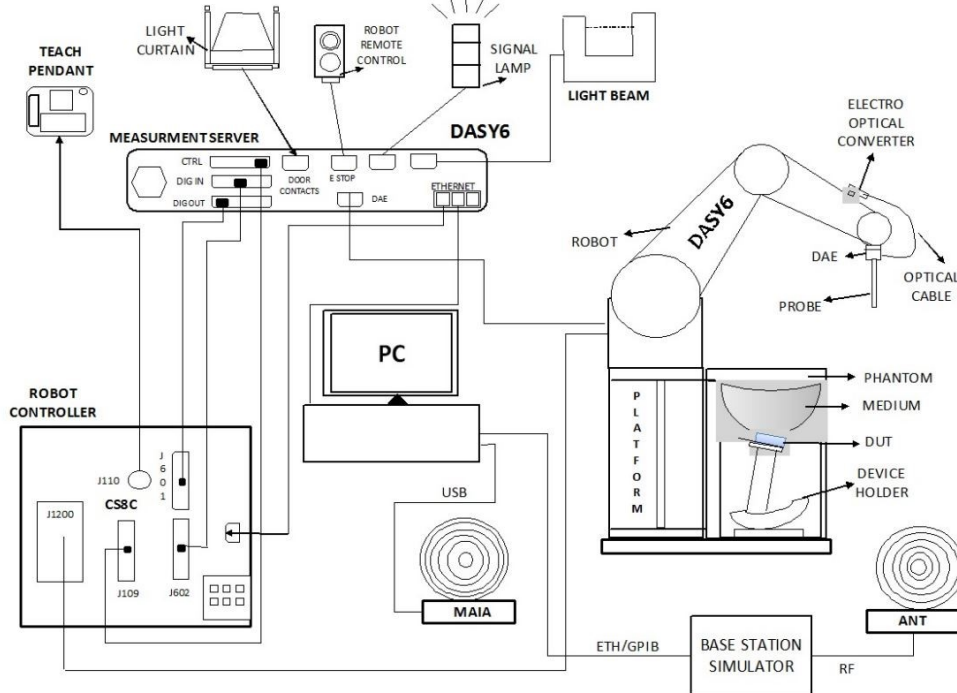
SAR is expressed in units of Watts per kilogram (W/kg)

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

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

8. System Description and Setup

The DASY5 system used for performing compliance tests consists of the following items:




- 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 Win7 or Win10 and the 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.

8.1 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.

<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	

8.2 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.



Photo of DAE

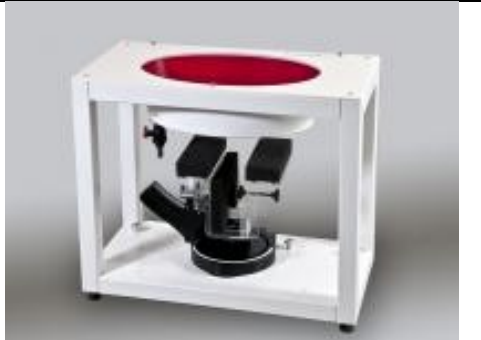
8.3 Phantom

<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 or for evaluating transmitters operating at low frequencies. ELI is fully compatible with standard and all known tissue simulating liquids.

8.4 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

9. 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

9.1 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

9.2 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.

9.3 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	$30^\circ \pm 1^\circ$	$20^\circ \pm 1^\circ$
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 \leq the corresponding x or y dimension of the test device with at least one measurement point on the test device.	

9.4 Zoom Scan

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

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

		≤ 3 GHz	> 3 GHz	
Maximum zoom scan spatial resolution: Δx_{Zoom} , Δy_{Zoom}		≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*	
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$	≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm	
	graded grid	$\Delta z_{Zoom}(1)$: between 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.				

9.5 Volume Scan Procedures

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

9.6 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.



10. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
SPEAG	750MHz System Validation Kit	D750V3	1087	2022/2/24	2025/2/23
SPEAG	835MHz System Validation Kit	D835V2	4d298	2022/12/6	2023/12/5
SPEAG	1750MHz System Validation Kit	D1750V2	1090	2022/2/24	2025/2/23
SPEAG	1900MHz System Validation Kit	D1900V2	5d118	2022/3/30	2025/3/29
SPEAG	2450MHz System Validation Kit	D2450V2	1040	2023/4/25	2024/4/24
SPEAG	2600MHz System Validation Kit	D2600V2	1061	2020/11/26	2023/11/24
SPEAG	3500MHz System Validation Kit	D3500V2	1037	2020/11/25	2023/11/23
SPEAG	3700MHz System Validation Kit	D3700V2	1008	2020/11/25	2023/11/23
SPEAG	3900MHz System Validation Kit	D3900V2	1048	2023/3/9	2024/3/8
SPEAG	5000MHz System Validation Kit	D5GHzV2	1113	2022/9/23	2023/9/22
SPEAG	Data Acquisition Electronics	DAE4	1303	2022/11/24	2023/11/23
SPEAG	Dosimetric E-Field Probe	EX3DV4	7706	2023/1/26	2024/1/25
SPEAG	SAM Twin Phantom	SAM Twin	TP-2024	NCR	NCR
SPEAG	Phone Positioner	N/A	N/A	NCR	NCR
Anritsu	Radio Communication Analyzer	MT8821C	6262306175	2023/7/5	2024/7/4
Agilent	ENA Series Network Analyzer	E5071C	MY46111157	2023/7/5	2024/7/4
SPEAG	Dielectric Probe Kit	DAK-3.5	1071	2023/2/20	2024/2/19
Anritsu	Vector Signal Generator	MG3710A	6201682672	2023/1/5	2024/1/4
Rohde & Schwarz	Power Meter	NRVD	102081	2023/7/5	2024/7/4
Rohde & Schwarz	Power Sensor	NRV-Z5	100538	2023/7/5	2024/7/4
Rohde & Schwarz	Power Sensor	NRV-Z5	100539	2023/7/5	2024/7/4
R&S	BLUETOOTH TESTER	CBT	101246	2023/5/15	2024/5/14
Rohde & Schwarz	Spectrum Analyzer	FSV7	101631	2022/10/12	2023/10/11
TES	DIGITAC THERMOMETER	1310	220305411	2023/1/8	2024/1/7
CHIGO	Thermo-Hygrometer	HTC-1	55011	2023/1/8	2024/1/7
ARRA	Power Divider	A3200-2	N/A	Note 1	
MCL	Attenuation1	BW-S10W5+	N/A	Note 1	
MCL	Attenuation2	BW-S10W5+	N/A	Note 1	
MCL	Attenuation3	BW-S10W5+	N/A	Note 1	
BONN	POWER AMPLIFIER	BLMA 0830-3	087193A	Note 1	
BONN	POWER AMPLIFIER	BLMA 2060-2	087193B	Note 1	
Agilent	Dual Directional Coupler	778D	20500	Note 1	
Agilent	Dual Directional Coupler	11691D	MY48151020	Note 1	

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
2. Referring to KDB 865664 D01v01r04, the dipole calibration interval can be extended to 3 years with justification. The dipoles are also not physically damaged, or repaired during the interval.
3. The justification data of dipole can be found in appendix C. The return loss is < -20dB, within 20% of prior calibration, the impedance is within 5 ohm of prior calibration.

11. System Verification

11.1 Tissue Simulating Liquids

For the measurement of the field distribution inside the SAM phantom with DASY, the phantom must be filled with around 25 liters of homogeneous body tissue simulating liquid. For head SAR testing, the liquid height from the ear reference point (ERP) of the phantom to the liquid top surface is larger than 15 cm, which is shown in Fig. 11.1. For body SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is larger than 15 cm, which is shown in Fig. 11.2.

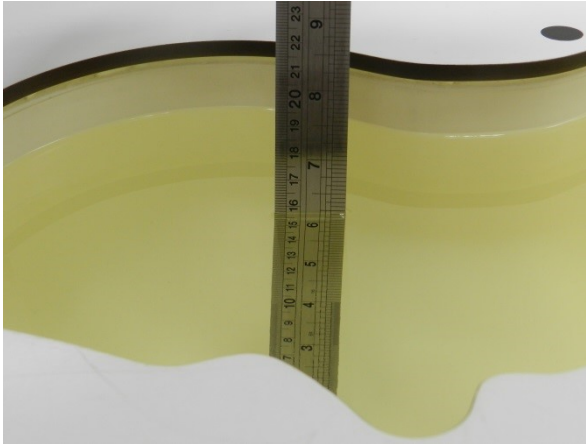


Fig 11.1 Photo of Liquid Height for Head SAR

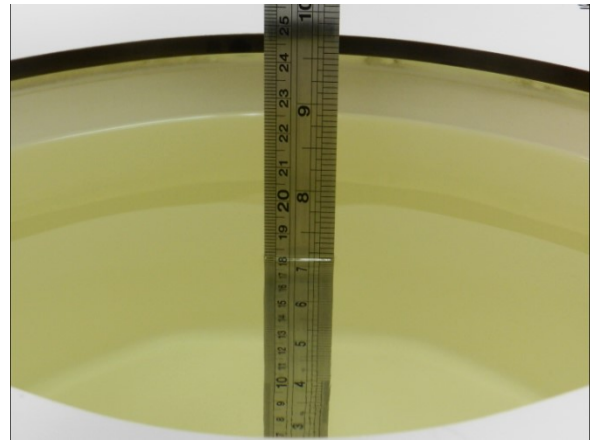


Fig 11.2 Photo of Liquid Height for Body SAR

11.2 Tissue Verification

The following tissue formulations are provided for reference only as some of the parameters have not been thoroughly verified. The composition of ingredients may be modified accordingly to achieve the desired target tissue parameters required for routine SAR evaluation.

Frequency (MHz)	Water (%)	Sugar (%)	Cellulose (%)	Salt (%)	Preventol (%)	DGBE (%)	Conductivity (σ)	Permittivity (ϵ_r)
For Head								
750	41.1	57.0	0.2	1.4	0.2	0	0.89	41.9
835	40.3	57.9	0.2	1.4	0.2	0	0.90	41.5
1800, 1900, 2000	55.2	0	0	0.3	0	44.5	1.40	40.0
2450	55.0	0	0	0	0	45.0	1.80	39.2
2600	54.8	0	0	0.1	0	45.1	1.96	39.0

Simulating Liquid for 5GHz, Manufactured by SPEAG

Ingredients	(% by weight)
Water	64~78%
Mineral oil	11~18%
Emulsifiers	9~15%
Additives and Salt	2~3%

<Tissue Dielectric Parameter Check Results>

Frequency (MHz)	Tissue Type	Liquid Temp. (°C)	Conductivity (σ)	Permittivity (ε _r)	Conductivity Target (σ)	Permittivity Target (ε _r)	Delta (σ) (%)	Delta (ε _r) (%)	Limit (%)	Date
750	Head	22.7	0.925	42.4	0.89	41.90	3.93	1.19	±5	2023/8/14
835	Head	22.8	0.915	41.3	0.90	41.50	1.67	-0.48	±5	2023/8/15
1750	Head	22.7	1.38	40.2	1.37	40.10	0.73	0.25	±5	2023/8/16
1900	Head	22.9	1.45	39.9	1.40	40.00	3.57	-0.25	±5	2023/8/17
2450	Head	22.6	1.85	39.1	1.80	39.20	2.78	-0.26	±5	2023/8/18
2600	Head	22.6	1.93	39.0	1.96	39.00	-1.53	0.00	±5	2023/8/19
3500	Head	22.7	2.80	39.0	2.91	37.90	-3.78	2.90	±5	2023/8/20
3700	Head	22.7	2.98	38.6	3.12	37.70	-4.49	2.39	±5	2023/8/21
3900	Head	22.9	3.25	37.8	3.32	37.50	-2.11	0.80	±5	2023/8/22
5250	Head	22.9	4.56	35.0	4.71	35.90	-3.18	-2.51	±5	2023/8/23
5600	Head	22.9	4.95	34.4	5.07	35.50	-2.37	-3.10	±5	2023/8/24
5750	Head	22.9	5.12	34.1	5.22	35.40	-1.92	-3.67	±5	2023/8/25
750	Head	22.7	0.905	42.7	0.89	41.90	1.69	1.91	±5	2023/8/26
835	Head	22.8	0.924	41.4	0.90	41.50	2.67	-0.24	±5	2023/8/27
1750	Head	22.7	1.35	40.1	1.37	40.10	-1.46	0.00	±5	2023/8/28
1900	Head	22.9	1.43	39.8	1.40	40.00	2.14	-0.50	±5	2023/8/29
2450	Head	22.6	1.86	38.4	1.80	39.20	3.33	-2.04	±5	2023/8/30
2600	Head	22.6	1.96	40.4	1.96	39.00	0.00	3.59	±5	2023/8/31
3500	Head	22.7	2.88	38.5	2.91	37.90	-1.03	1.58	±5	2023/9/1
3700	Head	22.7	3.08	38.0	3.12	37.70	-1.28	0.80	±5	2023/9/2
3900	Head	22.9	3.28	37.6	3.32	37.50	-1.20	0.27	±5	2023/9/3
5250	Head	22.8	4.57	35.5	4.71	35.90	-2.97	-1.11	±5	2023/9/4
5600	Head	22.8	4.95	34.8	5.07	35.50	-2.37	-1.97	±5	2023/9/5
5750	Head	22.8	5.13	34.6	5.22	35.40	-1.72	-2.26	±5	2023/9/6

11.3 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.

<1g SAR>

Date	Frequency (MHz)	Tissue Type	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 (%)
2023/8/14	750	Head	50	1087	7706	1303	0.413	8.58	8.26	-3.73
2023/8/15	835	Head	50	4d298	7706	1303	0.465	9.68	9.3	-3.93
2023/8/16	1750	Head	50	1090	7706	1303	1.88	37.00	37.6	1.62
2023/8/17	1900	Head	50	5d118	7706	1303	2.06	39.30	41.2	4.83
2023/8/18	2450	Head	50	1040	7706	1303	2.53	52.70	50.6	-3.98
2023/8/19	2600	Head	50	1061	7706	1303	2.64	56.60	52.8	-6.71
2023/8/20	3500	Head	50	1037	7706	1303	3.19	68.00	63.8	-6.18
2023/8/21	3700	Head	50	1008	7706	1303	3.22	67.60	64.4	-4.73
2023/8/22	3900	Head	50	1048	7706	1303	3.31	69.10	66.2	-4.20
2023/8/23	5250	Head	50	1113	7706	1303	3.82	81.50	76.4	-6.26
2023/8/24	5600	Head	50	1113	7706	1303	3.87	82.60	77.4	-6.30
2023/8/25	5750	Head	50	1113	7706	1303	3.81	80.80	76.2	-5.69
2023/8/26	750	Head	50	1087	7706	1303	0.402	8.58	8.04	-6.29
2023/8/27	835	Head	50	4d298	7706	1303	0.472	9.68	9.44	-2.48
2023/8/28	1750	Head	50	1090	7706	1303	1.84	37.00	36.8	-0.54
2023/8/29	1900	Head	50	5d118	7706	1303	2.03	39.30	40.6	3.31
2023/8/30	2450	Head	50	1040	7706	1303	2.55	52.70	51	-3.23
2023/8/31	2600	Head	50	1061	7706	1303	2.67	56.60	53.4	-5.65
2023/9/1	3500	Head	50	1037	7706	1303	3.21	68.00	64.2	-5.59
2023/9/2	3700	Head	50	1008	7706	1303	3.32	67.60	66.4	-1.78
2023/9/3	3900	Head	50	1048	7706	1303	3.29	69.10	65.8	-4.78
2023/9/4	5250	Head	50	1113	7706	1303	3.87	81.50	77.4	-5.03
2023/9/5	5600	Head	50	1113	7706	1303	3.88	82.60	77.6	-6.05
2023/9/6	5750	Head	50	1113	7706	1303	3.79	80.80	75.8	-6.19

<10g SAR>

Date	Frequency (MHz)	Tissue Type	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 10g SAR (W/kg)	Targeted 10g SAR (W/kg)	Normalized 10g SAR (W/kg)	Deviation (%)
2023/8/14	750	Head	50	1087	7706	1303	0.270	5.65	5.4	-4.42
2023/8/15	835	Head	50	4d298	7706	1303	0.301	6.30	6.02	-4.44
2023/8/16	1750	Head	50	1090	7706	1303	0.989	19.50	19.78	1.44
2023/8/17	1900	Head	50	5d118	7706	1303	1.06	20.40	21.2	3.92
2023/8/18	2450	Head	50	1040	7706	1303	1.18	24.60	23.6	-4.07
2023/8/19	2600	Head	50	1061	7706	1303	1.19	25.10	23.8	-5.18
2023/8/20	3500	Head	50	1037	7706	1303	1.20	25.40	24	-5.51
2023/8/21	3700	Head	50	1008	7706	1303	1.19	24.40	23.8	-2.46
2023/8/22	3900	Head	50	1048	7706	1303	1.17	24.10	23.4	-2.90
2023/8/23	5250	Head	50	1113	7706	1303	1.09	23.30	21.8	-6.44
2023/8/24	5600	Head	50	1113	7706	1303	1.11	23.70	22.2	-6.33
2023/8/25	5750	Head	50	1113	7706	1303	1.09	23.00	21.8	-5.22
2023/8/26	750	Head	50	1087	7706	1303	0.263	5.65	5.26	-6.90
2023/8/27	835	Head	50	4d298	7706	1303	0.305	6.30	6.1	-3.17
2023/8/28	1750	Head	50	1090	7706	1303	0.968	19.50	19.36	-0.72
2023/8/29	1900	Head	50	5d118	7706	1303	1.04	20.40	20.8	1.96
2023/8/30	2450	Head	50	1040	7706	1303	1.19	24.60	23.8	-3.25
2023/8/31	2600	Head	50	1061	7706	1303	1.20	25.10	24	-4.38
2023/9/1	3500	Head	50	1037	7706	1303	1.23	25.40	24.6	-3.15
2023/9/2	3700	Head	50	1008	7706	1303	1.23	24.40	24.6	0.82
2023/9/3	3900	Head	50	1048	7706	1303	1.18	24.10	23.6	-2.07
2023/9/4	5250	Head	50	1113	7706	1303	1.09	23.30	21.8	-6.44
2023/9/5	5600	Head	50	1113	7706	1303	1.11	23.70	22.2	-6.33
2023/9/6	5750	Head	50	1113	7706	1303	1.08	23.00	21.6	-6.09

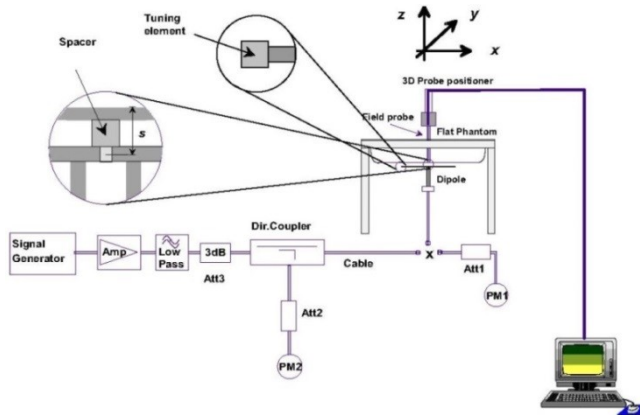


Fig 11.3.1 System Performance Check Setup



Fig 11.3.2 Setup Photo

12. RF Exposure Positions

12.1 Ear and handset reference point

Figure 12.1.1 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 12.1.2 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 12.1.3). 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 12.1.2. The ear truncation is introduced to preclude the ear lobe from interfering with handset tilt, which could lead to unstable positioning at the cheek.

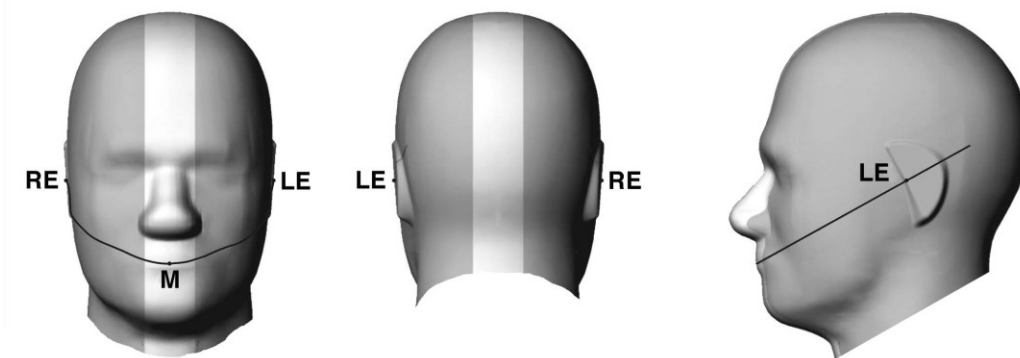


Fig 12.1.1 Front, back, and side views of SAM twin phantom

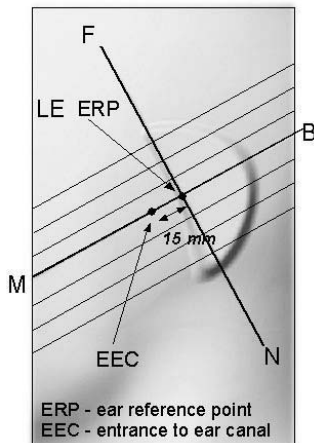


Fig 12.1.2 Close-up side view of phantom showing the ear region.

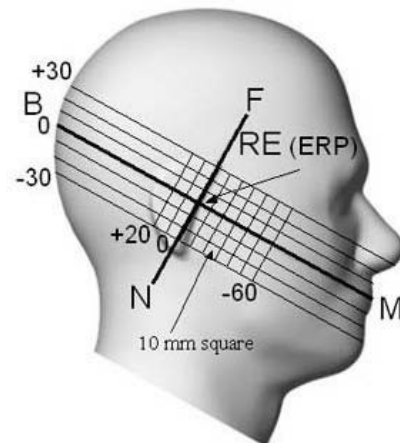


Fig 12.1.3 Side view of the phantom showing relevant markings and seven cross-sectional plane locations

12.2 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 12.2.1 and Figure 12.2.2), 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 12.2.1). 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 12.2.2), 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 12.2.3), 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 12.2.3. The actual rotation angles should be documented in the test report.

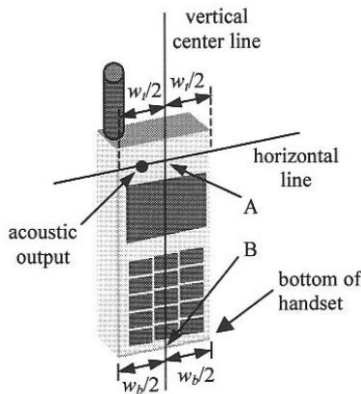


Fig 12.2.1 Handset vertical and horizontal reference lines—“fixed case”

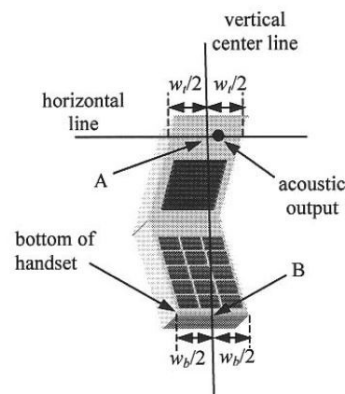


Fig 12.2.2 Handset vertical and horizontal reference lines—“clam-shell case”

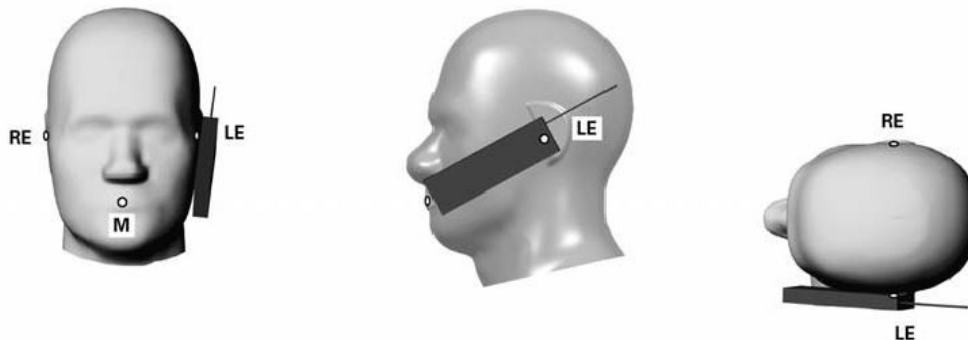


Fig 12.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

12.3 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 12.3.1. 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

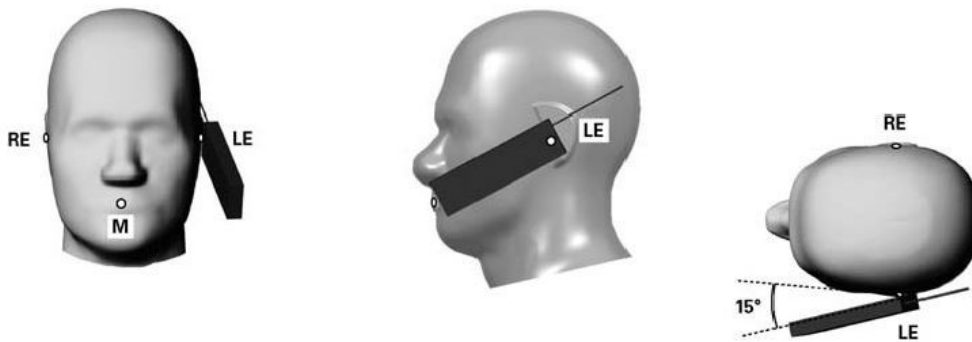


Fig 12.3.1 Tilt position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which define the Reference Plane for handset positioning, are indicated.

12.4 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 11.4). 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 $> 1.2 \text{ W/kg}$, 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-chip used with different holsters with no other metallic components) only the accessory that dictates the closest spacing to the body is tested.

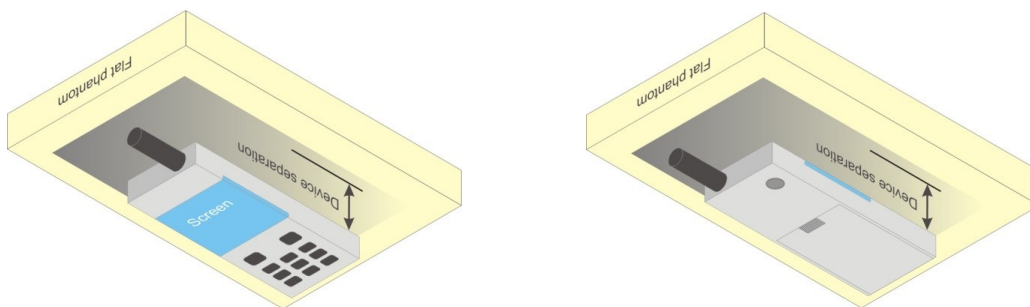


Fig 12.4 Body Worn Position

12.5 Product Specific 10g SAR Exposure

For smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm, that can provide similar mobile web access and multimedia support found in mini-tablets or UMPC mini-tablets and 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.

12.6 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.

13. Conducted RF Output Power (Unit: dBm)

The detailed conducted power table can refer to Appendix E.

<GSM Conducted Power>

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.
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 Conducted Power>

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. For DC-HSDPA, the device was configured according to the H-Set 12, Fixed Reference Channel (FRC) configuration in Table C.8.1.12 of 3GPP TS 34.121-1, with the primary and the secondary serving HS-DSCH Cell enabled during the power measurement.

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_o/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 $\beta_o/\beta_d = 12/15, \beta_{HS}/\beta_c = 24/15$. 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_o/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-TFCI
 - viii. Confirm that E-TFCI is equal to the target E-TFCI of 75 for sub-test 1, and other subtest's E-TFCI
- 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-TFCI
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	β_{ed1} : 47/15 β_{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, TF0) 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



<WCDMA Conducted Power>

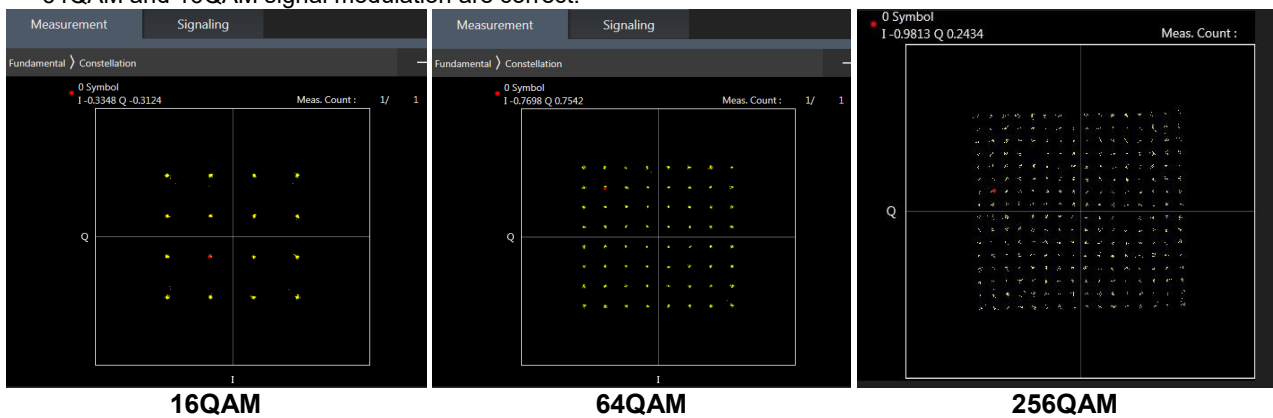
General Note:

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 / DC-HSDPA 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 / DC-HSDPA to RMC12.2Kbps and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA, and according to the following RF output power, the output power results of the secondary modes (HSDPA / HSUPA / DC-HSDPA) are less than $\frac{1}{4}$ dB higher than the primary modes; therefore, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA.

<LTE Conducted Power>

General Note:

1. Anritsu MT8820C base station simulator was used to setup the connection with EUT; the frequency band, channel bandwidth, RB allocation configuration, modulation type are set in the base station simulator to configure EUT transmitting at maximum power and at different configurations which are requested to be reported to FCC, for conducted power measurement and SAR testing.
2. Per KDB 941225 D05v02r05, when a properly configured base station simulator is used for the SAR and power measurements, spectrum plots for each RB allocation and offset configuration is not required.
3. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
4. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
5. Per KDB 941225 D05v02r05, for QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 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/64QAM/256QAM 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/64QAM/256QAM 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 / B38 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 B4 / B17 / B38 SAR test was covered by B66 / B12 / B41 / B48; 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 May 2017 TCB workshop, for 16QAM and 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 256QAM, 64QAM and 16QAM signal modulation are correct.



<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 MT8820C (firmware: #22.52#004) was used for LTE output power measurements and SAR testing.

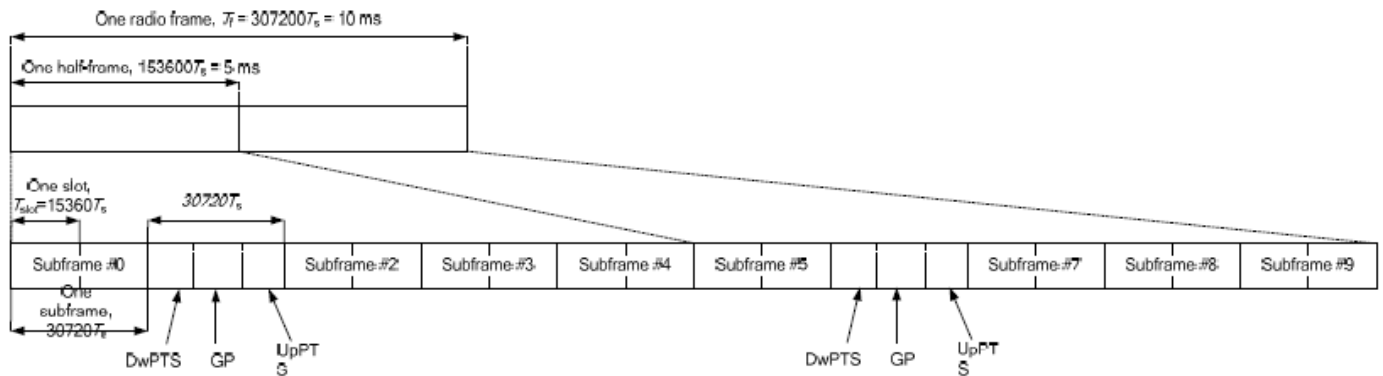


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

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

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:

For LTE TDD Power class 3

- 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.



<LTE Carrier Aggregation>

General Note:

1. This device supports Carrier Aggregation on downlink for inter and intra band. For the device supports bands and bandwidths and configurations are provided as follow table was according to 3GPP.
2. In applying the existing power measurement procedures of KDB 941225 D05A for DL CA SAR test exclusion, only the subset with the largest number of combinations of frequency bands and CCs in each row need combination, and for this device that all the configurations were choose to power measurement.
3. All permutations exist. No restrictions on Pcell & Scell combinations.
4. The gray color table is covered by other combinations and no need to verify power.

2CC Downlink Carrier Aggregation				3CC Downlink Carrier Aggregation			
Number	Combination	4X4 MIMO	Covered by	Number	Combination	4X4 MIMO	Covered by
			Measurement Superset				Measurement Superset
1	CA_2A-4A	2A-4A		1	CA_2A-5A-66A	2A-66A	
2	CA_2A-5A	2A	3CC-1	2	CA_2A-7A-66A	2A,7A,66A	
3	CA_2A-12A	2A					
4	CA_2A-13A	2A					
5	CA_4A-7A	4A-7A					
6	CA_4A-17A	4A					
7	CA_5A-7A	7A					
8	CA_5A-38A	38A					
9	CA_48A-66A	66A					
10	CA_2C	2C					
11	CA_5B						
12	CA_7C	7C					
13	CA_12B						
14	CA_38C	38C					
15	CA_41C	41C					
16	CA_48C						
17	CA_66B	66B					
18	CA_66C	66C					

LTE Carrier Aggregation Conducted Power (Downlink)

- 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 four 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 inter-band CA, the SCC selected highest bandwidth and near the middle of its transmission band. For SCC DL RB size and offset will base on the PCC corresponding RB allocation.
- vi. 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.
- vii. 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.

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

LTE 4x4 MIMO (Downlink)

This device supports downlink 4x4 MIMO operations for LTE Band 2/4/7/38/41/66 only. Uplink transmission is limited to a single output stream. Power measurements were performed with downlink 4x4 MIMO active for the configuration with highest measured maximum conducted power with 4x4 downlink MIMO inactive measured among the channel bandwidth, modulation, and RB combinations in each frequency band.

Per FCC Guidance, SAR for downlink 4x4 MIMO was not needed since the maximum average output power in 4x4 downlink MIMO mode was not > 0.25 dB higher than the maximum output power with downlink 4x4 MIMO inactive. When carrier aggregation is applicable, power measurements were performed with the downlink carrier aggregation and 4x4 DL MIMO active for the configuration with highest measured maximum conducted power with downlink carrier aggregation inactive measured among the channel bandwidth, modulation, and RB combinations in each frequency band.

4X4 MIMO	Band
	LTE Band 2/4/7/38/41/66

5G NR Output Power (Unit: dBm)

General Note:

1. 5G NR n2/n5/n66/n41/n77/n78 is NSA mode.
2. 5G NR n2/n5/n7/n12/n14/n66/n38/n41/n48/n77/n78 is SA mode.
3. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
 - a. For DFT-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class2 and 3, the CP-OFDM mode will not higher than DFT-OFDM mode, therefore, similar FCC KDB 941225 D05 procedure for other modulation output power for each RB allocation configuration is > not ½ dB higher than the same configuration in DFT-s QPSK and the reported SAR for the DFT-s QPSK configuration is ≤ 1.45 W/kg; CP-OFDM testing is not required.
 - b. For DFT-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class2 and 3, for 16QAM/64QAM/256QAM and smaller bandwidth output power will spot check largest channel bandwidth worst RB configuration to ensure the 16QAM/64QAM/256QAM and smaller bandwidth output power will not ½ dB higher than the same configuration in the largest supported bandwidth.
 - c. SAR testing 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
 - d. 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure
 - e. 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
 - f. PI/2 BPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will not ½ dB higher than the same configuration in QPSK, also reported SAR for the QPSK configuration is less than 1.45 W/kg, PI/2 BPSK /16QAM/64QAM/256QAM SAR testing are not required.
 - g. Smaller bandwidth output power for each RB allocation configuration for this device will 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
4. This device supports HPUE for 5G NR n41/n77/n78 with class 2 level, HPUE power has been measured separately. For HPUE power is higher than power class 3 but with lower duty cycle, the maximum average power for class 2 and class 3 is almost the same, so we chose power class 3 full SAR testing and power class 2 verify the worst case of power class 3 SAR.
5. For 5G NR n41/n77/n78 HPUE, 5G NR n41/n77/n78 PC2 Maximum Duty Cycle is 50%, using FTM (Factory Test Mode) with 50% duty cycle is considered during SAR testing. For 5G NR other bands test, using FTM (Factory Test Mode) with default 100% duty cycle transmission to perform SAR testing.
6. NSA and SA mode should perform SAR separately. For the maximum power of NSA mode is the same as SA total power level, so SA SAR can represent NSA mode SAR.
7. 5G NR NSA mode, the power level is the same as 5G NR SA mode, so 5G NR NSA mode and SA mode power table only show one time.
8. 5G NR supports CP-OFDM and DFT-s-OFDM modulation, for DFT-s-OFDM power is higher than CP-OFDM, so only show DFT-s-OFDM power table and chose DFT-s-OFDM to perform SAR testing.
9. For DFT-s-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for the CP-OFDM mode will not higher than DFT-s-OFDM mode, therefore, CP-OFDM measurement is unnecessary.
10. 5G NR n41/n77/n78/n48 supports UL MIMO. MIMO SAR base on standalone SAR summed together as MIMO SAR.
11. For 5G NR EN-DC mode, standalone SAR performed for 5G NR NSA band with the maximum power, EN-DC SAR summed EN-DC mode 5G NR standalone SAR and LTE standalone SAR, the result of EN-DC SAR is more conservatively.

<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	$\leq 3.5^1$ $\leq 0.5^2$	$\leq 1.2^1$ $\leq 0.5^2$	$\leq 0.2^1$ 0^2
	QPSK		≤ 1	0
	16 QAM		≤ 2	≤ 1
	64 QAM		≤ 2.5	
	256 QAM		≤ 4.5	
CP-OFDM	QPSK		≤ 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	

EN-DC combination Configuration:

NSA-ENDC	Main Anten/ Tx	
	LTE TX	NR TX
DC_2A_n5A	Ant 5	Ant 0
DC_2A_n41A	Ant 0	Ant 5
DC_2A_n66A	Ant 0	Ant 5
DC_2A_n77A	Ant 0	Ant 5
DC_2A_n78A	Ant 0	Ant 5
DC_4A_n78A	Ant 0	Ant 5
DC_5A_n2A	Ant 0	Ant 5
DC_5A_n41A	Ant 0	Ant 5
DC_5A_n66A	Ant 0	Ant 5
DC_5A_n77A	Ant 0	Ant 5
DC_7A_n78A	Ant 6	Ant 5
DC_12A_n2A	Ant 0	Ant 5
DC_12A_n41A	Ant 0	Ant 5
DC_12A_n66A	Ant 0	Ant 5
DC_12A_n77A	Ant 0	Ant 5
DC_13A_n2A	Ant 0	Ant 5
DC_13A_n66A	Ant 0	Ant 5
DC_38A_n78A	Ant 6	Ant 5
DC_41A_n78A	Ant 6	Ant 5
DC_66A_n2A	Ant 0	Ant 5
DC_66A_n5A	Ant 5	Ant 0
DC_66A_n41A	Ant 0	Ant 5
DC_66A_n77A	Ant 0	Ant 5
DC_66A_n78A	Ant 0	Ant 5

NR UL MIMO Bands Configuration:

ULMIMO	NR TX1	NR TX2
n48	Ant 8	Ant 5
n77	Ant 8	Ant 5
n78	Ant 8	Ant 5
n41	Ant 5	Ant 6

<WLAN Conducted Power>

General Note:

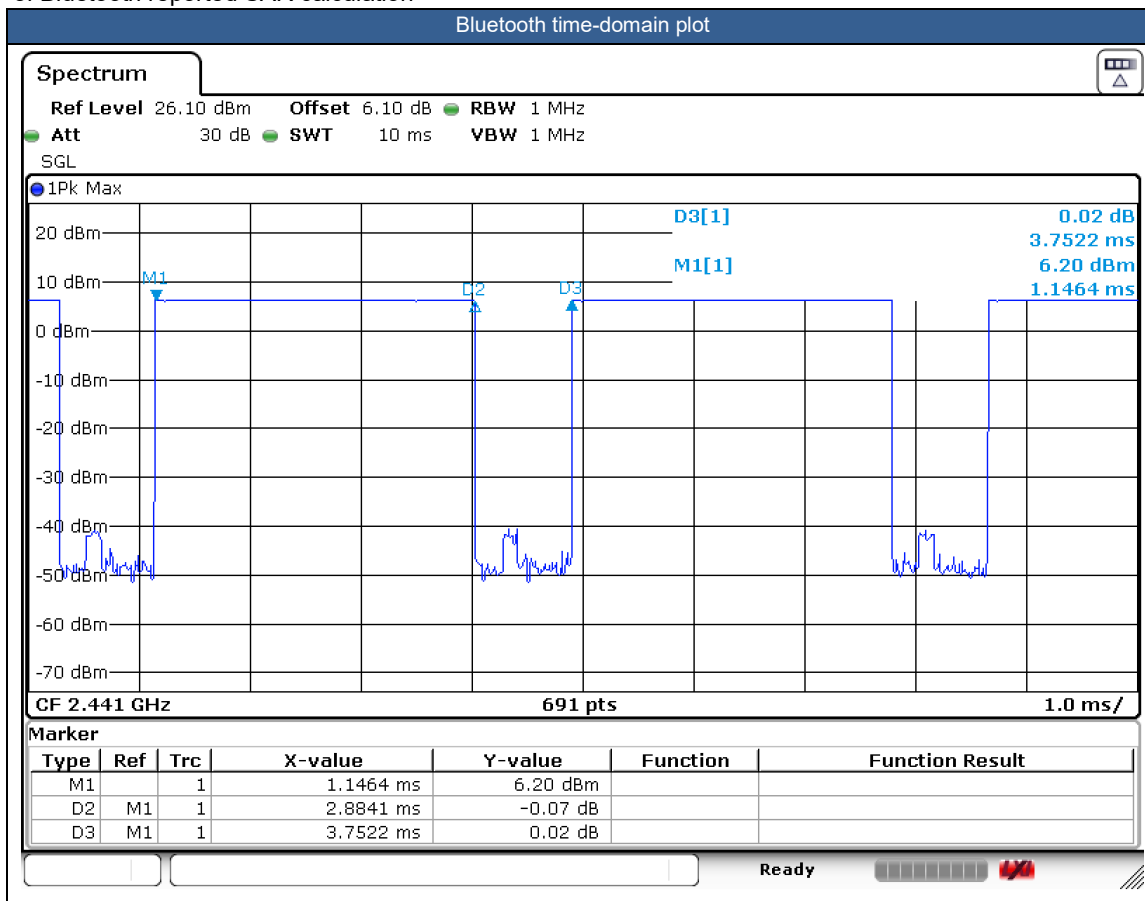
1. The maximum output power specified for production units are determined for all applicable 802.11 transmission modes in each standalone and aggregated frequency band. Maximum output power is measured for the highest maximum output power configuration(s) in each frequency band according to the default power measurement procedures. For "Not required", SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration. Additional output power measurements were not necessary.
2. Per KDB 248227 D01v02r02, SAR test reduction is determined according to 802.11 transmission mode configurations and certain exposure conditions with multiple test positions. 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.
3. 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).
4. 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.
5. DSSS and OFDM configurations are considered separately according to the required SAR procedures. SAR is measured in the initial test position using the 802.11 transmission mode configuration required by the DSSS procedure or initial test configuration and subsequent test configuration(s) according to the OFDM procedures. 18 The initial test position procedure is described in the following:
 - a. When the reported SAR of the initial test position is ≤ 0.4 W/kg, further SAR measurement is not required for the other test positions in that exposure configuration and 802.11 transmission mode combinations within the frequency band or aggregated band.
 - b. When the reported SAR of the test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is ≤ 0.8 W/kg or all required test position are tested.
 - c. For all positions/configurations, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.
6. 802.11 ax supports both full tone size mode and partial tone size mode, after verification on partial tone size mode that partial size tone mode power will not be higher than full tone size mode, therefore, full tone mode power was chosen to be measured in this report.
7. The 2.4GHz/5GHz/6GHz WLAN can transmit in SISO and MIMO antenna mode.
8. SISO and MIMO all supported by WLAN2.4GHz/WLAN5GHz, for SISO mode power is less than per chain power of MIMO mode. For WLAN SISO & MIMO mode, the whole testing has assessed only MIMO mode by referring to their higher conducted power, so only chose MIMO mode to perform SAR testing. However, in order to do SISO simultaneous transmission, additional tested the WLAN 2.4GHz SISO antenna 2/4 and WLAN 5GHz SISO antenna 3/4.
9. For the conducted power measurement is MIMO chains transmitting simultaneously and measured the separately conducted power for both chains and then based on the conducted power of two antennas respectively to calculate sum of the power for MIMO mode.



<2.4GHz Bluetooth>

General Note:

1. For 2.4GHz Bluetooth SAR testing was selected 1Mbps, due to its highest average power.
2. The Bluetooth duty cycle are 76.86% as following figure, Bluetooth SAR scaling need further consideration and the theoretical duty cycle is 83.3%, therefore the actual duty cycle will be scaled up to the theoretical value of Bluetooth reported SAR calculation





14. Antenna Location

The detailed antenna location information can refer to SAR Test Setup Photos.

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 SAR testing of Bluetooth signal with 83.3% theoretical duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle) *83.3%".
 - d. For WWAN: Reported SAR(W/kg)= Measured SAR(W/kg)*Tune-up Scaling Factor
 - e. For BT/WLAN: Reported SAR(W/kg)= Measured SAR(W/kg)* Duty Cycle scaling factor * Tune-up scaling factor
 - f. For TDD LTE SAR measurement of power class 3, 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 (W/kg) = 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 when the measured SAR is ≥ 0.8 W/kg. 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 device implements proximity sensor /receiver detection/hotspot mode for SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity). Details about the sensor detection are provided in the operational description. And the device will invoke corresponding work scenarios power level base on frequency bands/antennas, which can refer to power table at appendix E.
5. For WLAN when transmit simultaneous with WWAN, power reduction will be activated to head. For WLAN when transmit simultaneous with WWAN and Proximity sensors trigger, power reduction will be activated to body-worn and Handheld.
6. For some WWAN bands, sensor on reduced power level is higher than hotspot reduced power level, so front/back sensor on SAR can represent hotspot conservatively.
7. This device supports HPUE for 5G NR n41/n77/n78 with class 2 level, HPUE power has been measured separately. For HPUE power is higher than power class 3 but with lower duty cycle, the maximum average power for class 2 and class 3 is almost the same, so we chose power class 3 full SAR testing and power class 2 verify the worst case of power class 3 SAR.
8. For 5G NR n41/n77/n78 HPUE, 5G NR n41/n77/n78 PC2 Maximum Duty Cycle is 50%, using FTM (Factory Test Mode) with 50% duty cycle is considered during SAR testing. For 5G NR other bands test, using FTM (Factory Test Mode) with default 100% duty cycle transmission to perform SAR testing.
9. For 5G NR EN-DC mode, standalone SAR performed for 5G NR NSA band with the maximum power, EN-DC SAR summed EN-DC mode 5G NR standalone SAR and LTE standalone SAR, the result of EN-DC SAR is more conservatively.
10. 5G NR n41/n77/n78/n48 supports UL MIMO. MIMO SAR base on standalone SAR summed together as MIMO SAR.
11. 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 extremity 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.
 - a. For this device SAR for WWAN/WLAN transmitter scaled to maximum output power mode for product specific 10g SAR is higher than 1.2W/kg of WCDMA Band II, 5G NR n77/n78, WLAN5.2/5.8GHz, therefore product specific 10g SAR is necessary.
 - b. WLAN 5.3/5.5GHz tested the product specific 10g SAR since it has no hotspot mode.
 - c. When 10-g product specific 10g SAR is considered, SAR thresholds is specified in the procedures for SAR test

reduction and exclusion should be multiplied by 2.5.

12. 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. Further simplification chose the worse SAR value and the worst scaling factor from each transmit chain perform reported SAR calculation conservatively. If the hot spots are not spatially separated, the scaling factor is determined from the worst number of each transmit chain.
13. Although the distance 1gSAR is greater than 0.8 W/kg at body-worn exposure conditions, the distance SAR verified the worst of the non-distance SAR and less than non-distance SAR, so there is no need to be tested other channels.

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.
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 ¼ dB higher than the primary mode, SAR measurement is not required for the secondary mode.

WCDMA 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 / DC-HSDPA is \leq ¼ 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 / DC-HSDPA to RMC12.2Kbps and the adjusted SAR is \leq 1.2 W/kg, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA, and according to the following RF output power, the output power results of the secondary modes (HSDPA / HSUPA / DC-HSDPA) are less than ¼ dB higher than the primary modes; therefore, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA.

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/64QAM/256QAM 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/64QAM/256QAM 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 / B12 / B17 / B38 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 B2 / B4 / B17 / B38 SAR test was covered by B25 / B66 / B12 / B41; 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

5G NR Note:

1. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
 - a. SAR testing 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.
 - b. 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure
 - c. 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.
 - d. $\pi/2$ BPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will not $\frac{1}{2}$ dB higher than the same configuration in QPSK, also reported SAR for the QPSK configuration is less than 1.45 W/kg, $\pi/2$ BPSK /16QAM/64QAM/256QAM SAR testing are not required.
 - e. Smaller bandwidth output power for each RB allocation configuration for this device will 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
 - f. For 5G FR1 n5 /n7/n26/n41/n66/n77 the maximum bandwidth does not support three non-overlapping channels, 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.

WLAN/Bluetooth Note:

1. Per KDB 248227 D01v02r02, for 2.4GHz 802.11g/n SAR testing is not required when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.
2. Per KDB 248227 D01v02r02, U-NII-1 SAR testing is not required when the U-NII-2A band highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band.
3. 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.
4. 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.
5. During SAR testing the WLAN transmission was verified using a spectrum analyzer.
6. SISO and MIMO all supported by WLAN2.4GHz/WLAN5GHz, for SISO mode power is less than per chain power of MIMO mode. For WLAN SISO & MIMO mode, the whole testing has assessed only MIMO mode by referring to their higher conducted power, so only chose MIMO mode to perform SAR testing. However, in order to do SISO simultaneous transmission, additional tested the WLAN 2.4GHz SISO antenna 2/4 and WLAN 5GHz SISO antenna 3/4.
7. For the conducted power measurement is MIMO chains transmitting simultaneously and measured the separately conducted power for both chains and then based on the conducted power of two antennas respectively to calculate sum of the power for MIMO mode.

DSI status description:

The device has the following DSI state which used at different exposure condition.

Exposure Condition	DSI	Trigger conditions
Head SAR	DSI 1	Earpiece On
Hotspot Mode SAR	DSI 5	Hotspot On
Sensor off SAR	DSI 4	Sensor Off/ receiver off
Body worn/ Extremity Mode SAR for Ant 1/2/3/8	DSI 2	Sensor On/ receiver off
Body worn/ Extremity Mode SAR for Ant 0/4/5/6	DSI 3	Sensor On/ receiver off



15.1 Head SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	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)
750Mhz																				
01	LTE Band 12	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 1	23095	707.5	23.73	25.00	1.340	-	-	-0.02	0.128	0.171
	LTE Band 12	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 0	DSI 1	23095	707.5	22.67	24.00	1.358	-	-	0.03	0.102	0.139
	LTE Band 12	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 1	23095	707.5	23.73	25.00	1.340	-	-	0.01	0.082	0.110
	LTE Band 12	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 0	DSI 1	23095	707.5	22.67	24.00	1.358	-	-	-0.03	0.063	0.086
	LTE Band 12	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 1	23095	707.5	23.73	25.00	1.340	-	-	0.01	0.101	0.135
	LTE Band 12	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 0	DSI 1	23095	707.5	22.67	24.00	1.358	-	-	0.02	0.084	0.114
	LTE Band 12	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 1	23095	707.5	23.73	25.00	1.340	-	-	0.05	0.076	0.102
	LTE Band 12	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 0	DSI 1	23095	707.5	22.67	24.00	1.358	-	-	0.04	0.062	0.084
	LTE Band 12	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 1	23095	707.5	22.95	24.00	1.274	-	-	0.05	0.061	0.078
	LTE Band 12	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 1	DSI 1	23095	707.5	21.88	23.00	1.294	-	-	0.03	0.045	0.058
	LTE Band 12	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 1	23095	707.5	22.95	24.00	1.274	-	-	-0.07	0.050	0.064
	LTE Band 12	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 1	DSI 1	23095	707.5	21.88	23.00	1.294	-	-	0.03	0.040	0.052
	LTE Band 12	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 1	23095	707.5	22.95	24.00	1.274	-	-	-0.02	0.026	0.033
	LTE Band 12	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 1	DSI 1	23095	707.5	21.88	23.00	1.294	-	-	0.02	0.019	0.025
	LTE Band 12	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 1	23095	707.5	22.95	24.00	1.274	-	-	0.05	0.030	0.038
	LTE Band 12	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 1	DSI 1	23095	707.5	21.88	23.00	1.294	-	-	0.01	0.018	0.023
	LTE Band 13	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 1	23230	782	23.61	25.00	1.377	-	-	0.14	0.140	0.193
	LTE Band 13	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 0	DSI 1	23230	782	22.65	24.00	1.365	-	-	-0.01	0.113	0.154
	LTE Band 13	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 1	23230	782	23.61	25.00	1.377	-	-	0.03	0.092	0.127
	LTE Band 13	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 0	DSI 1	23230	782	22.65	24.00	1.365	-	-	-0.02	0.072	0.098
	LTE Band 13	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 1	23230	782	23.61	25.00	1.377	-	-	0.01	0.111	0.153
	LTE Band 13	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 0	DSI 1	23230	782	22.65	24.00	1.365	-	-	0.02	0.087	0.119
	LTE Band 13	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 1	23230	782	23.61	25.00	1.377	-	-	0.05	0.095	0.131
	LTE Band 13	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 0	DSI 1	23230	782	22.65	24.00	1.365	-	-	0.03	0.076	0.104
02	LTE Band 13	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 1	23230	782	22.76	24.00	1.330	-	-	-0.02	0.224	0.298
	LTE Band 13	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 1	DSI 1	23230	782	21.97	23.00	1.268	-	-	0.03	0.175	0.222
	LTE Band 13	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 1	23230	782	22.76	24.00	1.330	-	-	-0.02	0.155	0.206
	LTE Band 13	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 1	DSI 1	23230	782	21.97	23.00	1.268	-	-	0.02	0.122	0.155
	LTE Band 13	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 1	23230	782	22.76	24.00	1.330	-	-	-0.07	0.149	0.198
	LTE Band 13	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 1	DSI 1	23230	782	21.97	23.00	1.268	-	-	0.03	0.118	0.150
	LTE Band 13	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 1	23230	782	22.76	24.00	1.330	-	-	-0.02	0.102	0.136
	LTE Band 13	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 1	DSI 1	23230	782	21.97	23.00	1.268	-	-	0.02	0.085	0.108
	LTE Band 14	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 1	23330	793	23.65	25.00	1.365	-	-	0.02	0.125	0.171
	LTE Band 14	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 0	DSI 1	23330	793	22.73	24.00	1.340	-	-	0.06	0.103	0.138
	LTE Band 14	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 1	23330	793	23.65	25.00	1.365	-	-	-0.01	0.080	0.109
	LTE Band 14	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 0	DSI 1	23330	793	22.73	24.00	1.340	-	-	0.03	0.065	0.087
	LTE Band 14	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 1	23330	793	23.65	25.00	1.365	-	-	-0.02	0.105	0.143
	LTE Band 14	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 0	DSI 1	23330	793	22.73	24.00	1.340	-	-	0.01	0.081	0.109
	LTE Band 14	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 1	23330	793	23.65	25.00	1.365	-	-	0.03	0.083	0.113
	LTE Band 14	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 0	DSI 1	23330	793	22.73	24.00	1.340	-	-	0.04	0.071	0.095
03	LTE Band 14	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 1	23330	793	22.79	24.00	1.321	-	-	-0.02	0.296	0.391
	LTE Band 14	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 1	DSI 1	23330	793	21.77	23.00	1.327	-	-	0.15	0.230	0.305
	LTE Band 14	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 1	23330	793	22.79	24.00	1.321	-	-	0.03	0.196	0.259
	LTE Band 14	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 1	DSI 1	23330	793	21.77	23.00	1.327	-	-	-0.02	0.155	0.206
	LTE Band 14	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 1	23330	793	22.79	24.00	1.321	-	-	0.02	0.196	0.259
	LTE Band 14	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 1	DSI 1	23330	793	21.77	23.00	1.327	-	-	0.05	0.155	0.206
	LTE Band 14	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 1	23330	793	22.79	24.00	1.321	-	-	0.02	0.137	0.181
	LTE Band 14	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 1	DSI 1	23330	793	21.77	23.00	1.327	-	-	-0.07	0.103	0.137
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 1	141500	707.5	22.47	24.00	1.422	-	-	0.02	0.120	0.171
04	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 1	141500	707.5	22.42	24.00	1.439	-	-	-0.04	0.121	0.174
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 1	141500	707.5	22.47	24.00	1.422	-	-	-0.01	0.076	0.108
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 1	141500	707.5	22.42	24.00	1.439	-	-	0.03	0.076	0.109
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 1	141500	707.5	22.47	24.00	1.422	-	-	-0.02	0.104	0.148



FCC SAR Test Report

Report No. : FA372407

Table with columns for Test ID, Frequency, Modulation, Power, Bandwidth, Channel, Position, Distance, Antenna, Direction, Frequency, Power, SAR, etc. Includes rows for FR1 n12, FR1 n14, GSM850, WCDMA V, and LTE Band 5.



09	LTE Band 5	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 1	DSI 1	20525	836.5	22.28	23.00	1.180	-	-	-0.05	0.073	0.086
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 1	167300	836.5	23.08	24.00	1.236	-	-	0.01	0.173	0.214
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 1	167300	836.5	23.02	24.00	1.253	-	-	-0.02	0.186	0.233
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 1	167300	836.5	23.08	24.00	1.236	-	-	0.09	0.103	0.127
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 1	167300	836.5	23.02	24.00	1.253	-	-	0.02	0.116	0.145
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 1	167300	836.5	23.08	24.00	1.236	-	-	-0.02	0.140	0.173
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 1	167300	836.5	23.02	24.00	1.253	-	-	0.05	0.150	0.188
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 1	167300	836.5	23.08	24.00	1.236	-	-	0.01	0.097	0.120
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 1	167300	836.5	23.02	24.00	1.253	-	-	-0.03	0.110	0.138
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 1	167300	836.5	22.46	24.00	1.426	-	-	0.06	0.010	0.014
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 1	167300	836.5	22.40	24.00	1.445	-	-	-0.02	0.014	0.020
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 1	167300	836.5	22.46	24.00	1.426	-	-	0.1	0.006	0.009
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 1	167300	836.5	22.40	24.00	1.445	-	-	0.03	0.003	0.004
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 1	167300	836.5	22.46	24.00	1.426	-	-	0.03	0.005	0.007
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 1	167300	836.5	22.40	24.00	1.445	-	-	-0.17	0.003	0.004
FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 1	167300	836.5	22.46	24.00	1.426	-	-	0.1	0.009	0.013	
FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 1	167300	836.5	22.40	24.00	1.445	-	-	0.17	0.005	0.007	
1750Mhz																				
10	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	DSI 1	1413	1732.6	23.74	25.00	1.337	-	-	-0.09	0.327	0.437
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 0	DSI 1	1413	1732.6	23.74	25.00	1.337	-	-	0.05	0.207	0.277
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	DSI 1	1413	1732.6	23.74	25.00	1.337	-	-	0.03	0.306	0.409
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 0	DSI 1	1413	1732.6	23.74	25.00	1.337	-	-	-0.05	0.207	0.277
11	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 1	132322	1745	23.20	24.00	1.202	-	-	-0.03	0.140	0.168
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 0	DSI 1	132322	1745	22.17	23.00	1.211	-	-	0.11	0.113	0.137
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 1	132322	1745	23.20	24.00	1.202	-	-	0.15	0.082	0.099
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 0	DSI 1	132322	1745	22.17	23.00	1.211	-	-	0.06	0.064	0.077
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 1	132322	1745	23.20	24.00	1.202	-	-	0.02	0.137	0.165
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 0	DSI 1	132322	1745	22.17	23.00	1.211	-	-	-0.17	0.110	0.133
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 1	132322	1745	23.20	24.00	1.202	-	-	-0.1	0.092	0.111
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 0	DSI 1	132322	1745	22.17	23.00	1.211	-	-	0.11	0.071	0.086
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	DSI 1	132322	1745	22.81	24.00	1.315	-	-	0.08	0.081	0.107
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	DSI 1	132322	1745	22.71	24.00	1.346	-	-	-0.05	0.078	0.105
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	DSI 1	132322	1745	22.81	24.00	1.315	-	-	0.05	0.050	0.066
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	DSI 1	132322	1745	22.71	24.00	1.346	-	-	0.16	0.036	0.048
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	DSI 1	132322	1745	22.81	24.00	1.315	-	-	0.19	0.068	0.089
LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	DSI 1	132322	1745	22.71	24.00	1.346	-	-	-0.07	0.064	0.086	
LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	DSI 1	132322	1745	22.81	24.00	1.315	-	-	-0.07	0.068	0.089	
LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	DSI 1	132322	1745	22.71	24.00	1.346	-	-	-0.02	0.041	0.055	
12	FR1 n66	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 1	349000	1745	22.64	24.00	1.368	-	-	-0.1	0.202	0.276
	FR1 n66	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 1	349000	1745	22.58	24.00	1.387	-	-	0.02	0.193	0.268
	FR1 n66	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 1	349000	1745	22.64	24.00	1.368	-	-	0.03	0.120	0.164
	FR1 n66	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 1	349000	1745	22.58	24.00	1.387	-	-	-0.04	0.114	0.158
	FR1 n66	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 1	349000	1745	22.64	24.00	1.368	-	-	0.06	0.183	0.250
	FR1 n66	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 1	349000	1745	22.58	24.00	1.387	-	-	0.05	0.180	0.250
	FR1 n66	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 1	349000	1745	22.64	24.00	1.368	-	-	0.07	0.111	0.152
	FR1 n66	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 1	349000	1745	22.58	24.00	1.387	-	-	-0.09	0.118	0.164
	FR1 n66	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 5	DSI 1	349000	1745	22.92	24.00	1.282	-	-	-0.03	0.088	0.113
	FR1 n66	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 5	DSI 1	349000	1745	22.86	24.00	1.300	-	-	-0.05	0.081	0.105
	FR1 n66	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 5	DSI 1	349000	1745	22.92	24.00	1.282	-	-	-0.17	0.037	0.047
	FR1 n66	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 5	DSI 1	349000	1745	22.86	24.00	1.300	-	-	-0.15	0.020	0.026
	FR1 n66	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 5	DSI 1	349000	1745	22.92	24.00	1.282	-	-	0.17	0.084	0.108
	FR1 n66	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 5	DSI 1	349000	1745	22.86	24.00	1.300	-	-	0.06	0.083	0.108
	FR1 n66	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 5	DSI 1	349000	1745	22.92	24.00	1.282	-	-	-0.05	0.046	0.059
FR1 n66	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 5	DSI 1	349000	1745	22.86	24.00	1.300	-	-	0.06	0.040	0.052	
1900Mhz																				
13	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Right Cheek	0mm	Ant 0	DSI 1	661	1880	24.85	26.00	1.303	-	-	0.16	0.015	0.020
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Right Tilted	0mm	Ant 0	DSI 1	661	1880	24.85	26.00	1.303	-	-	-0.18	0.009	0.012
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Left Cheek	0mm	Ant 0	DSI 1	661	1880	24.85	26.00	1.303	-	-	0.05	0.026	0.034
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Left Tilted	0mm	Ant 0	DSI 1	661	1880	24.85	26.00	1.303	-	-	-0.06	0.019	0.025



Table with columns: Test Case ID, Modulation, Bandwidth, Power, Frequency, Position, etc. Rows include WCDMA II, LTE Band 2, and FR1 n2 tests. Max SAR values are highlighted in yellow (e.g., 0.302, 0.240, 1.198).



FCC SAR Test Report

Report No. : FA372407

Table with columns: LTE Band, Modulation, Power, Frequency, Duty Cycle, Location, Antenna, etc. Row 18 is highlighted in yellow.



FCC SAR Test Report

Report No. : FA372407

	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 7	DSI 1	40620	2593	21.70	23.00	1.349	62.9	1.006	-0.07	0.111	0.151
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 7	DSI 1	40620	2593	21.65	22.00	1.084	62.9	1.006	0.02	0.095	0.104
	FR1 n7	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 1	507000	2535	22.63	24.00	1.371	-	-	-0.14	0.547	0.750
	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 1	507000	2535	22.57	24.00	1.390	-	-	0.09	0.648	0.901
	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 1	502000	2510	22.42	24.00	1.439	-	-	0.07	0.647	0.931
19	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 1	512000	2560	22.51	24.00	1.409	-	-	-0.02	0.725	1.022
	FR1 n7	20M	QPSK	100	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 1	507000	2535	21.41	23.00	1.442	-	-	0.13	0.438	0.632
	FR1 n7	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 1	507000	2535	22.63	24.00	1.371	-	-	0.09	0.397	0.544
	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 1	507000	2535	22.57	24.00	1.390	-	-	0.15	0.397	0.552
	FR1 n7	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 1	507000	2535	22.63	24.00	1.371	-	-	-0.03	0.228	0.313
	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 1	507000	2535	22.57	24.00	1.390	-	-	0.01	0.230	0.320
	FR1 n7	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 1	507000	2535	22.63	24.00	1.371	-	-	-0.08	0.204	0.280
	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 1	507000	2535	22.57	24.00	1.390	-	-	0.05	0.212	0.295
	FR1 n7	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 5	DSI 1	507000	2535	22.85	24.00	1.303	-	-	0.07	0.350	0.456
	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 5	DSI 1	507000	2535	22.79	24.00	1.321	-	-	-0.03	0.406	0.536
	FR1 n7	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 5	DSI 1	507000	2535	22.85	24.00	1.303	-	-	0.14	0.136	0.177
	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 5	DSI 1	507000	2535	22.79	24.00	1.321	-	-	-0.11	0.164	0.217
	FR1 n7	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 5	DSI 1	507000	2535	22.85	24.00	1.303	-	-	0.06	0.265	0.345
	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 5	DSI 1	507000	2535	22.79	24.00	1.321	-	-	0.08	0.331	0.437
	FR1 n7	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 5	DSI 1	507000	2535	22.85	24.00	1.303	-	-	0.02	0.095	0.124
	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 5	DSI 1	507000	2535	22.79	24.00	1.321	-	-	-0.15	0.110	0.145
	FR1 n7	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 6	DSI 1	507000	2535	22.76	24.00	1.330	-	-	0.04	0.055	0.073
	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 6	DSI 1	507000	2535	22.70	24.00	1.349	-	-	0.1	0.051	0.069
	FR1 n7	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 6	DSI 1	507000	2535	22.76	24.00	1.330	-	-	0.14	0.049	0.065
	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 6	DSI 1	507000	2535	22.70	24.00	1.349	-	-	0.02	0.047	0.063
	FR1 n7	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 6	DSI 1	507000	2535	22.76	24.00	1.330	-	-	0.03	0.083	0.110
	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 6	DSI 1	507000	2535	22.70	24.00	1.349	-	-	-0.12	0.081	0.109
	FR1 n7	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 6	DSI 1	507000	2535	22.76	24.00	1.330	-	-	-0.16	0.028	0.037
	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 6	DSI 1	507000	2535	22.70	24.00	1.349	-	-	0.17	0.028	0.038
	FR1 n7	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 7	DSI 1	507000	2535	21.99	23.00	1.262	-	-	-0.06	0.238	0.300
	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 7	DSI 1	507000	2535	21.93	23.00	1.279	-	-	0.07	0.234	0.299
	FR1 n7	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 7	DSI 1	507000	2535	21.99	23.00	1.262	-	-	0.13	0.096	0.121
	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 7	DSI 1	507000	2535	21.93	23.00	1.279	-	-	0.18	0.095	0.122
	FR1 n7	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 7	DSI 1	507000	2535	21.99	23.00	1.262	-	-	0.17	0.265	0.334
	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 7	DSI 1	507000	2535	21.93	23.00	1.279	-	-	-0.04	0.285	0.365
	FR1 n7	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 7	DSI 1	507000	2535	21.99	23.00	1.262	-	-	-0.01	0.142	0.179
	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 7	DSI 1	507000	2535	21.93	23.00	1.279	-	-	0.07	0.158	0.202
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI 1	518598	2592.99	22.68	24.00	1.355	-	-	0.06	0.424	0.575
20	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI 1	518598	2592.99	22.42	24.00	1.439	-	-	-0.16	0.468	0.673
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 1	DSI 1	518598	2592.99	22.68	24.00	1.355	-	-	-0.08	0.370	0.501
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 1	DSI 1	518598	2592.99	22.42	24.00	1.439	-	-	-0.08	0.381	0.548
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 1	DSI 1	518598	2592.99	22.68	24.00	1.355	-	-	0.08	0.179	0.243
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 1	DSI 1	518598	2592.99	22.42	24.00	1.439	-	-	0.11	0.199	0.286
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 1	DSI 1	518598	2592.99	22.68	24.00	1.355	-	-	0.17	0.167	0.226
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 1	DSI 1	518598	2592.99	22.42	24.00	1.439	-	-	-0.14	0.199	0.286
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI 1	518598	2592.99	24.63	26.00	1.371	50	1.000	0.07	0.416	0.570
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 1	518598	2592.99	22.84	23.50	1.164	-	-	-0.08	0.500	0.582
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 1	518598	2592.99	22.39	23.50	1.291	-	-	-0.06	0.429	0.554
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	DSI 1	518598	2592.99	22.84	23.50	1.164	-	-	0.14	0.158	0.184
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	DSI 1	518598	2592.99	22.39	23.50	1.291	-	-	0.14	0.139	0.179
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 1	518598	2592.99	22.84	23.50	1.164	-	-	0.05	0.386	0.449
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 1	518598	2592.99	22.39	23.50	1.291	-	-	0.09	0.315	0.407
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 1	518598	2592.99	22.84	23.50	1.164	-	-	0.05	0.083	0.097
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 1	518598	2592.99	22.39	23.50	1.291	-	-	-0.02	0.097	0.125
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 1	518598	2592.99	24.62	25.50	1.225	50	1.000	0.09	0.393	0.481
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 6	DSI 1	518598	2592.99	22.67	24.00	1.358	-	-	-0.1	0.130	0.177
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 6	DSI 1	518598	2592.99	22.53	24.00	1.403	-	-	0.04	0.090	0.126
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 6	DSI 1	518598	2592.99	22.67	24.00	1.358	-	-	-0.16	0.121	0.164
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 6	DSI 1	518598	2592.99	22.53	24.00	1.403					



FCC SAR Test Report

Report No. : FA372407

Table with columns for device model, power, modulation, frequency, channel, polarization, distance, antenna, and SAR values. Rows include models like FR1 n48, FR1 n48 MIMO, FR1 n77 Part270, and FR1 n77 Part270 HPUE.



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	FR1 n77 Part270 ENDC	100M	BPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	DSI 1	656000	3840	16.95	18.50	1.429	-	-	0.09	0.248	0.354
	FR1 n77 Part270 ENDC	100M	BPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 8	DSI 1	656000	3840	16.95	18.50	1.429	-	-	0.05	0.086	0.123
	FR1 n77 Part270 HPUE ENDC	100M	BPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	DSI 1	656000	3840	19.99	21.50	1.416	50	1.000	0.03	0.252	0.357
	FR1 n77 Part270	100M	BPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	DSI 1	633334	3500.01	20.28	21.50	1.324	-	-	0.1	0.362	0.479
	FR1 n77 Part270	100M	BPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	DSI 1	633334	3500.01	20.19	21.50	1.352	-	-	-0.16	0.353	0.477
	FR1 n77 Part270	100M	BPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 8	DSI 1	633334	3500.01	20.28	21.50	1.324	-	-	-0.17	0.318	0.421
	FR1 n77 Part270	100M	BPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 8	DSI 1	633334	3500.01	20.19	21.50	1.352	-	-	-0.19	0.307	0.415
24	FR1 n77 Part270	100M	BPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	DSI 1	633334	3500.01	20.28	21.50	1.324	-	-	-0.12	0.827	1.095
	FR1 n77 Part270	100M	BPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	DSI 1	633334	3500.01	20.19	21.50	1.352	-	-	-0.09	0.771	1.042
	FR1 n77 Part270	100M	BPSK	270	0	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	DSI 1	633334	3500.01	20.11	21.50	1.377	-	-	0.07	0.555	0.764
	FR1 n77 Part270	100M	BPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 8	DSI 1	633334	3500.01	20.28	21.50	1.324	-	-	0.05	0.616	0.816
	FR1 n77 Part270	100M	BPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 8	DSI 1	633334	3500.01	20.19	21.50	1.352	-	-	0.07	0.596	0.806
	FR1 n77 Part270	100M	BPSK	270	0	DFT-SCS-30KHz	Left Tilted	0mm	Ant 8	DSI 1	633334	3500.01	20.11	21.50	1.377	-	-	0.02	0.457	0.629
	FR1 n77 Part270 HPUE	100M	BPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	DSI 1	633334	3500.01	23.25	24.50	1.334	50	1.000	0.06	0.789	1.052
	FR1 n77 Part270 MIMO	100M	BPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 8	DSI 1	633334	3500.01	17.16	18.50	1.361	-	-	0.01	0.160	0.218
	FR1 n77 Part270 MIMO	100M	BPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 8	DSI 1	633334	3500.01	17.16	18.50	1.361	-	-	0.02	0.141	0.192
	FR1 n77 Part270 MIMO	100M	BPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	DSI 1	633334	3500.01	17.16	18.50	1.361	-	-	0.05	0.366	0.498
	FR1 n77 Part270 MIMO	100M	BPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 8	DSI 1	633334	3500.01	17.16	18.50	1.361	-	-	0.06	0.273	0.372
	FR1 n77 Part270 HPUE MIMO	100M	BPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 8	DSI 1	633334	3500.01	20.22	21.50	1.343	50	1.000	0.07	0.356	0.478
	FR1 n77 Part270	100M	BPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 9	DSI 1	656000	3840	23.46	24.00	1.132	-	-	0.06	0.266	0.301
	FR1 n77 Part270	100M	BPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 9	DSI 1	656000	3840	23.39	24.00	1.151	-	-	0.01	0.234	0.269
	FR1 n77 Part270	100M	BPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 9	DSI 1	656000	3840	23.46	24.00	1.132	-	-	-0.03	0.167	0.189
	FR1 n77 Part270	100M	BPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 9	DSI 1	656000	3840	23.39	24.00	1.151	-	-	0.05	0.141	0.162
	FR1 n77 Part270	100M	BPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 9	DSI 1	656000	3840	23.46	24.00	1.132	-	-	-0.19	0.191	0.216
	FR1 n77 Part270	100M	BPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 9	DSI 1	656000	3840	23.39	24.00	1.151	-	-	0.02	0.162	0.186
	FR1 n77 Part270	100M	BPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 9	DSI 1	656000	3840	23.46	24.00	1.132	-	-	0.07	0.184	0.208
	FR1 n77 Part270	100M	BPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 9	DSI 1	656000	3840	23.39	24.00	1.151	-	-	0.16	0.155	0.178
	FR1 n77 Part270 HPUE	100M	BPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 9	DSI 1	656000	3840	25.62	26.50	1.225	50	1.000	0.02	0.211	0.258
	FR1 n77 Part270	100M	BPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 9	DSI 1	633334	3500.01	23.47	24.00	1.130	-	-	0.05	0.262	0.296
	FR1 n77 Part270	100M	BPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 9	DSI 1	633334	3500.01	23.30	24.00	1.175	-	-	0.02	0.244	0.287
	FR1 n77 Part270	100M	BPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 9	DSI 1	633334	3500.01	23.47	24.00	1.130	-	-	0.04	0.150	0.169
	FR1 n77 Part270	100M	BPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 9	DSI 1	633334	3500.01	23.30	24.00	1.175	-	-	-0.08	0.155	0.182
	FR1 n77 Part270	100M	BPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 9	DSI 1	633334	3500.01	23.47	24.00	1.130	-	-	-0.18	0.207	0.234
	FR1 n77 Part270	100M	BPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 9	DSI 1	633334	3500.01	23.30	24.00	1.175	-	-	-0.07	0.210	0.247
	FR1 n77 Part270	100M	BPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 9	DSI 1	633334	3500.01	23.47	24.00	1.130	-	-	0.08	0.217	0.245
	FR1 n77 Part270	100M	BPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 9	DSI 1	633334	3500.01	23.30	24.00	1.175	-	-	0.06	0.212	0.249
	FR1 n77 Part270 HPUE	100M	BPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 9	DSI 1	633334	3500.01	24.93	26.50	1.435	50	1.000	0.02	0.192	0.276



Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	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)
WLAN/BT																
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 2+4(2)	Standalone	1	2412	16.94	18.50	1.432	100	1.000	0.01	0.454	0.650
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 2+4(2)	Standalone	1	2412	16.94	18.50	1.432	100	1.000	-0.08	0.424	0.607
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 2+4(2)	Standalone	1	2412	16.94	18.50	1.432	100	1.000	0.1	0.654	0.937
25	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 2+4(4)	Standalone	6	2437	13.61	15.50	1.545	100	1.000	-0.05	0.756	1.168
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 2+4(4)	Standalone	11	2462	13.38	15.00	1.452	100	1.000	0.12	0.627	0.910
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 2+4(2)	Standalone	1	2412	16.94	18.50	1.432	100	1.000	0.08	0.301	0.431
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 2+4(4)	non DBS simultaneous	1	2412	9.96	11.00	1.271	100	1.000	0.05	0.150	0.191
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 2+4(4)	non DBS simultaneous	1	2412	9.96	11.00	1.271	100	1.000	0.06	0.140	0.178
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 2+4(4)	non DBS simultaneous	6	2437	9.49	11.00	1.416	100	1.000	0.03	0.250	0.354
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 2+4(4)	non DBS simultaneous	1	2412	9.96	11.00	1.271	100	1.000	0.01	0.100	0.127
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 2	Standalone	1	2412	16.94	18.50	1.432	100	1.000	0.12	0.434	0.622
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 2	Standalone	1	2412	16.94	18.50	1.432	100	1.000	0.08	0.421	0.603
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 2	Standalone	1	2412	16.94	18.50	1.432	100	1.000	0.05	0.744	1.066
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 2	Standalone	6	2437	16.89	18.50	1.449	100	1.000	0.03	0.712	1.032
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 2	Standalone	11	2462	15.83	17.00	1.309	100	1.000	0.02	0.609	0.797
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 2	Standalone	1	2412	16.94	18.50	1.432	100	1.000	0.01	0.309	0.443
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 2	DBS only	1	2412	15.69	17.00	1.352	100	1.000	0.12	0.233	0.315
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 2	DBS only	1	2412	15.69	17.00	1.352	100	1.000	0.08	0.207	0.280
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 2	DBS only	1	2412	15.69	17.00	1.352	100	1.000	0.05	0.493	0.667
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 2	DBS only	1	2412	15.69	17.00	1.352	100	1.000	0.06	0.274	0.370
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 2	DBS simultaneous	1	2412	9.66	11.00	1.361	100	1.000	0.14	0.065	0.088
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 2	DBS simultaneous	1	2412	9.66	11.00	1.361	100	1.000	-0.08	0.054	0.074
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 2	DBS simultaneous	1	2412	9.66	11.00	1.361	100	1.000	0.1	0.131	0.178
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 2	DBS simultaneous	1	2412	9.66	11.00	1.361	100	1.000	0.02	0.070	0.095
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 4	Standalone	1	2412	14.08	15.50	1.387	100	1.000	-0.03	0.089	0.123
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 4	Standalone	1	2412	14.08	15.50	1.387	100	1.000	0.14	0.057	0.079
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 4	Standalone	1	2412	14.08	15.50	1.387	100	1.000	-0.08	0.063	0.087
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 4	Standalone	1	2412	14.08	15.50	1.387	100	1.000	0.1	0.030	0.042
	Bluetooth	1Mbps	Right Cheek	0mm	Ant 2	Full power	39	2441	6.03	6.50	1.114	76.86	1.084	-0.17	0.020	0.024
	Bluetooth	1Mbps	Right Tilted	0mm	Ant 2	Full power	39	2441	6.03	6.50	1.114	76.86	1.084	-0.03	0.016	0.019
26	Bluetooth	1Mbps	Left Cheek	0mm	Ant 2	Full power	39	2441	6.03	6.50	1.114	76.86	1.084	0.13	0.045	0.054
	Bluetooth	1Mbps	Left Tilted	0mm	Ant 2	Full power	39	2441	6.03	6.50	1.114	76.86	1.084	0.11	0.036	0.043
	WLAN5.3GHz	802.11a 6Mbps	Right Cheek	0mm	Ant 3+4(4)	Full power	52	5260	13.24	15.00	1.500	99.32	1.007	-0.05	0.187	0.282
	WLAN5.3GHz	802.11a 6Mbps	Right Tilted	0mm	Ant 3+4(4)	Full power	52	5260	13.24	15.00	1.500	99.32	1.007	0.18	0.144	0.217
	WLAN5.3GHz	802.11a 6Mbps	Left Cheek	0mm	Ant 3+4(4)	Full power	52	5260	13.24	15.00	1.500	99.32	1.007	-0.03	0.245	0.370
	WLAN5.3GHz	802.11a 6Mbps	Left Tilted	0mm	Ant 3+4(4)	Full power	52	5260	13.24	15.00	1.500	99.32	1.007	0.14	0.172	0.260
	WLAN5.3GHz	802.11a 6Mbps	Right Cheek	0mm	Ant 3	Full power	52	5260	18.42	20.00	1.439	99.32	1.007	0.03	0.186	0.269
	WLAN5.3GHz	802.11a 6Mbps	Right Tilted	0mm	Ant 3	Full power	52	5260	18.42	20.00	1.439	99.32	1.007	0.02	0.161	0.233
27	WLAN5.3GHz	802.11a 6Mbps	Left Cheek	0mm	Ant 3	Full power	52	5260	18.42	20.00	1.439	99.32	1.007	-0.01	0.261	0.378
	WLAN5.3GHz	802.11a 6Mbps	Left Tilted	0mm	Ant 3	Full power	52	5260	18.42	20.00	1.439	99.32	1.007	0.05	0.172	0.249
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 3	DBS simultaneous	54	5270	15.39	17.00	1.449	100	1.000	0.03	0.119	0.172
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Tilted	0mm	Ant 3	DBS simultaneous	54	5270	15.39	17.00	1.449	100	1.000	0.01	0.107	0.155
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 3	DBS simultaneous	54	5270	15.39	17.00	1.449	100	1.000	0.02	0.137	0.198
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 3	DBS simultaneous	54	5270	15.39	17.00	1.449	100	1.000	0.09	0.129	0.187
	WLAN5.3GHz	802.11a 6Mbps	Right Cheek	0mm	Ant 4	Full power	60	5300	13.25	15.00	1.496	99.32	1.007	0.03	0.131	0.197
	WLAN5.3GHz	802.11a 6Mbps	Right Tilted	0mm	Ant 4	Full power	60	5300	13.25	15.00	1.496	99.32	1.007	0.02	0.082	0.124
	WLAN5.3GHz	802.11a 6Mbps	Left Cheek	0mm	Ant 4	Full power	60	5300	13.25	15.00	1.496	99.32	1.007	-0.01	0.068	0.102
	WLAN5.3GHz	802.11a 6Mbps	Left Tilted	0mm	Ant 4	Full power	60	5300	13.25	15.00	1.496	99.32	1.007	0.05	0.077	0.116
	WLAN5.5GHz	802.11a 6Mbps	Right Cheek	0mm	Ant 3+4(4)	Full power	132	5660	13.61	15.00	1.377	99.32	1.007	-0.17	0.367	0.509
	WLAN5.5GHz	802.11a 6Mbps	Right Tilted	0mm	Ant 3+4(4)	Full power	132	5660	13.61	15.00	1.377	99.32	1.007	0.17	0.318	0.441
28	WLAN5.5GHz	802.11a 6Mbps	Left Cheek	0mm	Ant 3+4(4)	Full power	132	5660	13.61	15.00	1.377	99.32	1.007	-0.02	0.521	0.723



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WLAN5.5GHz	802.11a 6Mbps	Left Tilted	0mm	Ant 3+4(4)	Full power	132	5660	13.61	15.00	1.377	99.32	1.007	-0.05	0.420	0.582
WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 3+4(4)	non DBS simultaneous	122	5610	11.29	13.00	1.483	100	1.000	0.03	0.187	0.277
WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 3+4(4)	non DBS simultaneous	122	5610	11.29	13.00	1.483	100	1.000	0.02	0.162	0.240
WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 3+4(4)	non DBS simultaneous	122	5610	11.29	13.00	1.483	100	1.000	-0.01	0.255	0.378
WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 3+4(4)	non DBS simultaneous	122	5610	11.29	13.00	1.483	100	1.000	0.05	0.213	0.316
WLAN5.5GHz	802.11a 6Mbps	Right Cheek	0mm	Ant 3	Full power	132	5660	18.16	19.50	1.361	99.32	1.007	-0.17	0.364	0.499
WLAN5.5GHz	802.11a 6Mbps	Right Tilted	0mm	Ant 3	Full power	132	5660	18.16	19.50	1.361	99.32	1.007	0.04	0.390	0.535
WLAN5.5GHz	802.11a 6Mbps	Left Cheek	0mm	Ant 3	Full power	132	5660	18.16	19.50	1.361	99.32	1.007	-0.01	0.461	0.632
WLAN5.5GHz	802.11a 6Mbps	Left Tilted	0mm	Ant 3	Full power	132	5660	18.16	19.50	1.361	99.32	1.007	-0.08	0.383	0.525
WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 3	DBS simultaneous	122	5610	12.65	14.00	1.365	100	1.000	0.02	0.098	0.134
WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 3	DBS simultaneous	122	5610	12.65	14.00	1.365	100	1.000	-0.01	0.088	0.120
WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 3	DBS simultaneous	122	5610	12.65	14.00	1.365	100	1.000	0.03	0.129	0.176
WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 3	DBS simultaneous	122	5610	12.65	14.00	1.365	100	1.000	0.04	0.099	0.135
WLAN5.5GHz	802.11a 6Mbps	Right Cheek	0mm	Ant 4	Full power	124	5620	13.74	15.50	1.500	99.32	1.007	-0.04	0.186	0.281
WLAN5.5GHz	802.11a 6Mbps	Right Tilted	0mm	Ant 4	Full power	124	5620	13.74	15.50	1.500	99.32	1.007	0.05	0.109	0.165
WLAN5.5GHz	802.11a 6Mbps	Left Cheek	0mm	Ant 4	Full power	124	5620	13.74	15.50	1.500	99.32	1.007	0.03	0.091	0.137
WLAN5.5GHz	802.11a 6Mbps	Left Tilted	0mm	Ant 4	Full power	124	5620	13.74	15.50	1.500	99.32	1.007	0.02	0.090	0.136
WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 4	DBS simultaneous	122	5610	8.27	10.00	1.489	100	1.000	-0.02	0.054	0.080
WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 4	DBS simultaneous	122	5610	8.27	10.00	1.489	100	1.000	0.03	0.078	0.116
WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 4	DBS simultaneous	122	5610	8.27	10.00	1.489	100	1.000	0.04	0.037	0.055
WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 4	DBS simultaneous	122	5610	8.27	10.00	1.489	100	1.000	0.09	0.032	0.048
WLAN5.8GHz	802.11a 6Mbps	Right Cheek	0mm	Ant 3+4(3)	Full power	165	5825	17.90	19.50	1.445	99.32	1.007	0.01	0.622	0.905
WLAN5.8GHz	802.11a 6Mbps	Right Cheek	0mm	Ant 3+4(3)	Full power	149	5745	17.75	19.50	1.496	99.32	1.007	0.1	0.631	0.951
29 WLAN5.8GHz	802.11a 6Mbps	Right Cheek	0mm	Ant 3+4(3)	Full power	157	5785	17.68	19.50	1.521	99.32	1.007	-0.18	0.639	0.978
WLAN5.8GHz	802.11a 6Mbps	Right Tilted	0mm	Ant 3+4(3)	Full power	165	5825	17.90	19.50	1.445	99.32	1.007	-0.17	0.610	0.888
WLAN5.8GHz	802.11a 6Mbps	Right Tilted	0mm	Ant 3+4(3)	Full power	149	5745	17.75	19.50	1.496	99.32	1.007	0.04	0.627	0.945
WLAN5.8GHz	802.11a 6Mbps	Right Tilted	0mm	Ant 3+4(3)	Full power	157	5785	17.68	19.50	1.521	99.32	1.007	-0.01	0.592	0.906
WLAN5.8GHz	802.11a 6Mbps	Left Cheek	0mm	Ant 3+4(3)	Full power	165	5825	17.90	19.50	1.445	99.32	1.007	-0.08	0.558	0.812
WLAN5.8GHz	802.11a 6Mbps	Left Cheek	0mm	Ant 3+4(3)	Full power	149	5745	17.75	19.50	1.496	99.32	1.007	0.01	0.535	0.806
WLAN5.8GHz	802.11a 6Mbps	Left Cheek	0mm	Ant 3+4(3)	Full power	157	5785	17.68	19.50	1.521	99.32	1.007	0.02	0.516	0.790
WLAN5.8GHz	802.11a 6Mbps	Left Tilted	0mm	Ant 3+4(3)	Full power	165	5825	17.90	19.50	1.445	99.32	1.007	0.05	0.573	0.834
WLAN5.8GHz	802.11a 6Mbps	Left Tilted	0mm	Ant 3+4(3)	Full power	149	5745	17.75	19.50	1.496	99.32	1.007	0.03	0.546	0.823
WLAN5.8GHz	802.11a 6Mbps	Left Tilted	0mm	Ant 3+4(3)	Full power	157	5785	17.68	19.50	1.521	99.32	1.007	-0.04	0.535	0.819
WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 3+4(4)	non DBS simultaneous	155	5775	8.98	10.50	1.419	100	1.000	0.05	0.250	0.355
WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 3+4(4)	non DBS simultaneous	155	5775	8.98	10.50	1.419	100	1.000	0.06	0.245	0.348
WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 3+4(4)	non DBS simultaneous	155	5775	8.98	10.50	1.419	100	1.000	0.01	0.218	0.309
WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 3+4(4)	non DBS simultaneous	155	5775	8.98	10.50	1.419	100	1.000	-0.03	0.224	0.318
WLAN5.8GHz	802.11a 6Mbps	Right Cheek	0mm	Ant 3	Full power	165	5825	17.90	19.50	1.445	99.32	1.007	0.04	0.482	0.702
WLAN5.8GHz	802.11a 6Mbps	Right Tilted	0mm	Ant 3	Full power	165	5825	17.90	19.50	1.445	99.32	1.007	-0.01	0.494	0.719
WLAN5.8GHz	802.11a 6Mbps	Left Cheek	0mm	Ant 3	Full power	165	5825	17.90	19.50	1.445	99.32	1.007	-0.08	0.390	0.568
WLAN5.8GHz	802.11a 6Mbps	Left Tilted	0mm	Ant 3	Full power	165	5825	17.90	19.50	1.445	99.32	1.007	0.01	0.353	0.514
WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 3	DBS simultaneous	155	5775	11.95	13.50	1.429	100	1.000	0.02	0.090	0.129
WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 3	DBS simultaneous	155	5775	11.95	13.50	1.429	100	1.000	0.09	0.083	0.119
WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 3	DBS simultaneous	155	5775	11.95	13.50	1.429	100	1.000	-0.01	0.100	0.143
WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 3	DBS simultaneous	155	5775	11.95	13.50	1.429	100	1.000	0.03	0.079	0.113
WLAN5.8GHz	802.11a 6Mbps	Right Cheek	0mm	Ant 4	Full power	165	5825	13.31	14.50	1.315	99.32	1.007	-0.02	0.145	0.192
WLAN5.8GHz	802.11a 6Mbps	Right Tilted	0mm	Ant 4	Full power	165	5825	13.31	14.50	1.315	99.32	1.007	-0.05	0.111	0.147
WLAN5.8GHz	802.11a 6Mbps	Left Cheek	0mm	Ant 4	Full power	165	5825	13.31	14.50	1.315	99.32	1.007	0.03	0.098	0.130
WLAN5.8GHz	802.11a 6Mbps	Left Tilted	0mm	Ant 4	Full power	165	5825	13.31	14.50	1.315	99.32	1.007	0.01	0.083	0.110



15.2 Hotspot SAR

Table with columns: Plot No., Band, BW (MHz), Modulation, RB Size, RB offset, Mode, Test Position, Gap (mm), Antenna, 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). Includes rows for 750Mhz and various LTE bands (12, 13, 14) with SAR values.



FCC SAR Test Report

Report No. : FA372407

	LTE Band 14	10M	QPSK	1	0	-	Front	10mm	Ant 1	DSI 5	23330	793	22.79	24.00	1.321	-	-	0.17	0.144	0.190
	LTE Band 14	10M	QPSK	25	0	-	Front	10mm	Ant 1	DSI 5	23330	793	21.77	23.00	1.327	-	-	-0.05	0.117	0.155
	LTE Band 14	10M	QPSK	1	0	-	Back	10mm	Ant 1	DSI 5	23330	793	22.79	24.00	1.321	-	-	-0.01	0.299	0.395
	LTE Band 14	10M	QPSK	25	0	-	Back	10mm	Ant 1	DSI 5	23330	793	21.77	23.00	1.327	-	-	0.01	0.236	0.313
	LTE Band 14	10M	QPSK	1	0	-	Left Side	10mm	Ant 1	DSI 5	23330	793	22.79	24.00	1.321	-	-	0.1	0.114	0.151
	LTE Band 14	10M	QPSK	25	0	-	Left Side	10mm	Ant 1	DSI 5	23330	793	21.77	23.00	1.327	-	-	-0.17	0.092	0.122
	LTE Band 14	10M	QPSK	1	0	-	Right Side	10mm	Ant 1	DSI 5	23330	793	22.79	24.00	1.321	-	-	0.04	0.093	0.123
	LTE Band 14	10M	QPSK	25	0	-	Right Side	10mm	Ant 1	DSI 5	23330	793	21.77	23.00	1.327	-	-	-0.01	0.073	0.097
	LTE Band 14	10M	QPSK	1	0	-	Top Side	10mm	Ant 1	DSI 5	23330	793	22.79	24.00	1.321	-	-	-0.08	0.129	0.170
	LTE Band 14	10M	QPSK	25	0	-	Top Side	10mm	Ant 1	DSI 5	23330	793	21.77	23.00	1.327	-	-	0.05	0.103	0.137
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 0	DSI 5	141500	707.5	22.47	24.00	1.422	-	-	-0.16	0.090	0.128
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Front	10mm	Ant 0	DSI 5	141500	707.5	22.42	24.00	1.439	-	-	0.05	0.092	0.132
33	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 0	DSI 5	141500	707.5	22.47	24.00	1.422	-	-	-0.06	0.245	0.348
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Back	10mm	Ant 0	DSI 5	141500	707.5	22.42	24.00	1.439	-	-	0.08	0.239	0.344
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Left Side	10mm	Ant 0	DSI 5	141500	707.5	22.47	24.00	1.422	-	-	-0.12	0.105	0.149
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Left Side	10mm	Ant 0	DSI 5	141500	707.5	22.42	24.00	1.439	-	-	0.16	0.108	0.155
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Right Side	10mm	Ant 0	DSI 5	141500	707.5	22.47	24.00	1.422	-	-	-0.13	0.139	0.198
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Right Side	10mm	Ant 0	DSI 5	141500	707.5	22.42	24.00	1.439	-	-	-0.07	0.147	0.212
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	10mm	Ant 0	DSI 5	141500	707.5	22.47	24.00	1.422	-	-	-0.17	0.063	0.090
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Bottom Side	10mm	Ant 0	DSI 5	141500	707.5	22.42	24.00	1.439	-	-	-0.02	0.066	0.095
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 1	DSI 5	141500	707.5	22.98	24.00	1.265	-	-	0.17	0.025	0.032
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Front	10mm	Ant 1	DSI 5	141500	707.5	22.84	24.00	1.306	-	-	-0.14	0.019	0.025
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 1	DSI 5	141500	707.5	22.98	24.00	1.265	-	-	0.03	0.022	0.028
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Back	10mm	Ant 1	DSI 5	141500	707.5	22.84	24.00	1.306	-	-	0.01	0.032	0.042
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Left Side	10mm	Ant 1	DSI 5	141500	707.5	22.98	24.00	1.265	-	-	0.05	0.020	0.025
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Left Side	10mm	Ant 1	DSI 5	141500	707.5	22.84	24.00	1.306	-	-	0.05	0.013	0.017
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Right Side	10mm	Ant 1	DSI 5	141500	707.5	22.98	24.00	1.265	-	-	-0.05	0.016	0.020
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Right Side	10mm	Ant 1	DSI 5	141500	707.5	22.84	24.00	1.306	-	-	0.16	0.011	0.014
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Top Side	10mm	Ant 1	DSI 5	141500	707.5	22.98	24.00	1.265	-	-	0.08	0.010	0.013
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Top Side	10mm	Ant 1	DSI 5	141500	707.5	22.84	24.00	1.306	-	-	0.04	0.006	0.008
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 0	DSI 5	158600	793	23.01	24.00	1.256	-	-	-0.14	0.081	0.102
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Front	10mm	Ant 0	DSI 5	158600	793	22.95	24.00	1.274	-	-	0.07	0.079	0.101
34	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 0	DSI 5	158600	793	23.01	24.00	1.256	-	-	0.04	0.207	0.260
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Back	10mm	Ant 0	DSI 5	158600	793	22.95	24.00	1.274	-	-	0.17	0.192	0.245
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Left Side	10mm	Ant 0	DSI 5	158600	793	23.01	24.00	1.256	-	-	0.06	0.060	0.075
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Left Side	10mm	Ant 0	DSI 5	158600	793	22.95	24.00	1.274	-	-	-0.09	0.057	0.073
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Right Side	10mm	Ant 0	DSI 5	158600	793	23.01	24.00	1.256	-	-	-0.15	0.108	0.136
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Right Side	10mm	Ant 0	DSI 5	158600	793	22.95	24.00	1.274	-	-	0.04	0.101	0.129
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	10mm	Ant 0	DSI 5	158600	793	23.01	24.00	1.256	-	-	0.17	0.088	0.111
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Bottom Side	10mm	Ant 0	DSI 5	158600	793	22.95	24.00	1.274	-	-	-0.15	0.088	0.112
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 1	DSI 5	158600	793	22.69	24.00	1.352	-	-	0.09	0.086	0.116
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Front	10mm	Ant 1	DSI 5	158600	793	22.55	24.00	1.396	-	-	0.11	0.086	0.120
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 1	DSI 5	158600	793	22.69	24.00	1.352	-	-	0.11	0.134	0.181
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Back	10mm	Ant 1	DSI 5	158600	793	22.55	24.00	1.396	-	-	0.01	0.140	0.195
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Left Side	10mm	Ant 1	DSI 5	158600	793	22.69	24.00	1.352	-	-	0.07	0.076	0.103
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Left Side	10mm	Ant 1	DSI 5	158600	793	22.55	24.00	1.396	-	-	0.09	0.077	0.108
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Right Side	10mm	Ant 1	DSI 5	158600	793	22.69	24.00	1.352	-	-	0.05	0.058	0.078
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Right Side	10mm	Ant 1	DSI 5	158600	793	22.55	24.00	1.396	-	-	0.01	0.063	0.088
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Top Side	10mm	Ant 1	DSI 5	158600	793	22.69	24.00	1.352	-	-	0.19	0.093	0.126
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Top Side	10mm	Ant 1	DSI 5	158600	793	22.55	24.00	1.396	-	-	-0.11	0.106	0.148
	835Mhz																			
	GSM850	-	-	-	-	GPRS (1 Tx slot)	Front	10mm	Ant 0	DSI 5	189	836.4	32.45	33.50	1.274	-	-	-0.13	0.085	0.108
	GSM850	-	-	-	-	GPRS (1 Tx slot)	Back	10mm	Ant 0	DSI 5	189	836.4	32.45	33.50	1.274	-	-	-0.19	0.207	0.264
	GSM850	-	-	-	-	GPRS (1 Tx slot)	Left Side	10mm	Ant 0	DSI 5	189	836.4	32.45	33.50	1.274	-	-	0.15	0.088	0.112
	GSM850	-	-	-	-	GPRS (1 Tx slot)	Right Side	10mm	Ant 0	DSI 5	189	836.4	32.45	33.50	1.274	-	-	0.07	0.093	0.118
	GSM850	-	-	-	-	GPRS (1 Tx slot)	Bottom Side	10mm	Ant 0	DSI 5	189	836.4	32.45	33.50	1.274	-	-	-0.08	0.088	0.112



Table with columns for test parameters (e.g., GSM850, WCDMA V, LTE Band 5, FR1 n5), modulation (QPSK), bandwidth (10M, 20M), and SAR values. Includes rows 35, 36, 37, and 38 with highlighted maximum SAR values (0.312, 0.839, 0.794, 0.475).



FCC SAR Test Report

Report No. : FA372407

	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Left Side	10mm	Ant 1	DSI 5	167300	836.5	22.46	24.00	1.426	-	-	-0.15	0.001	0.001
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Left Side	10mm	Ant 1	DSI 5	167300	836.5	22.40	24.00	1.445	-	-	-0.15	0.001	0.001
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Right Side	10mm	Ant 1	DSI 5	167300	836.5	22.46	24.00	1.426	-	-	0.02	0.001	0.001
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Right Side	10mm	Ant 1	DSI 5	167300	836.5	22.40	24.00	1.445	-	-	-0.08	0.001	0.001
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Top Side	10mm	Ant 1	DSI 5	167300	836.5	22.46	24.00	1.426	-	-	0.12	0.001	0.001
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Top Side	10mm	Ant 1	DSI 5	167300	836.5	22.40	24.00	1.445	-	-	0.04	0.001	0.001
1750Mhz																				
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 0	DSI 5	1413	1732.6	22.74	24.00	1.337	-	-	-0.15	0.619	0.827
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 0	DSI 5	1312	1712.4	22.67	24.00	1.358	-	-	0.03	0.589	0.800
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 0	DSI 5	1513	1752.6	22.70	24.00	1.349	-	-	0.02	0.596	0.804
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 0	DSI 5	1413	1732.6	22.74	24.00	1.337	-	-	0.19	0.811	1.084
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 0	DSI 5	1312	1712.4	22.67	24.00	1.358	-	-	-0.15	0.709	0.963
39	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 0	DSI 5	1513	1752.6	22.70	24.00	1.349	-	-	0.02	0.839	1.132
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 0	DSI 5	1413	1732.6	22.74	24.00	1.337	-	-	0.07	0.351	0.469
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Side	10mm	Ant 0	DSI 5	1413	1732.6	22.74	24.00	1.337	-	-	-0.18	0.273	0.365
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 0	DSI 5	1413	1732.6	22.74	24.00	1.337	-	-	0.03	0.105	0.140
	LTE Band 66	20M	QPSK	1	0	-	Front	10mm	Ant 0	DSI 5	132322	1745	23.20	24.00	1.202	-	-	-0.06	0.529	0.636
	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 0	DSI 5	132322	1745	22.17	23.00	1.211	-	-	-0.15	0.419	0.507
40	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 5	132322	1745	23.20	24.00	1.202	-	-	-0.01	0.929	1.117
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 5	132072	1720	23.14	24.00	1.219	-	-	0.15	0.863	1.052
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 5	132572	1770	22.97	24.00	1.268	-	-	0.17	0.854	1.083
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 0	DSI 5	132322	1745	22.17	23.00	1.211	-	-	-0.11	0.736	0.891
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 0	DSI 5	132072	1720	22.15	23.00	1.216	-	-	0.01	0.707	0.860
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 0	DSI 5	132572	1770	22.09	23.00	1.233	-	-	0.09	0.689	0.850
	LTE Band 66	20M	QPSK	100	0	-	Back	10mm	Ant 0	DSI 5	132322	1745	22.09	23.00	1.233	-	-	0.01	0.737	0.909
	LTE Band 66	20M	QPSK	1	0	-	Left Side	10mm	Ant 0	DSI 5	132322	1745	23.20	24.00	1.202	-	-	0.06	0.351	0.422
	LTE Band 66	20M	QPSK	50	0	-	Left Side	10mm	Ant 0	DSI 5	132322	1745	22.17	23.00	1.211	-	-	0.09	0.281	0.340
	LTE Band 66	20M	QPSK	1	0	-	Right Side	10mm	Ant 0	DSI 5	132322	1745	23.20	24.00	1.202	-	-	-0.1	0.240	0.289
	LTE Band 66	20M	QPSK	50	0	-	Right Side	10mm	Ant 0	DSI 5	132322	1745	22.17	23.00	1.211	-	-	0.01	0.192	0.232
	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 5	132322	1745	23.20	24.00	1.202	-	-	0.07	0.905	1.088
	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 5	132072	1720	23.14	24.00	1.219	-	-	0.08	0.819	0.998
	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 5	132572	1770	22.97	24.00	1.268	-	-	0.01	0.846	1.072
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 0	DSI 5	132322	1745	22.17	23.00	1.211	-	-	-0.04	0.705	0.853
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 0	DSI 5	132072	1720	22.15	23.00	1.216	-	-	-0.08	0.670	0.815
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 0	DSI 5	132572	1770	22.09	23.00	1.233	-	-	-0.12	0.709	0.874
	LTE Band 66	20M	QPSK	100	0	-	Bottom Side	10mm	Ant 0	DSI 5	132322	1745	22.09	23.00	1.233	-	-	0.04	0.712	0.878
	LTE Band 66 END C	20M	QPSK	1	0	-	Front	10mm	Ant 0	DSI 5	132322	1745	20.66	21.50	1.213	-	-	0.05	0.267	0.324
	LTE Band 66 END C	20M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 5	132322	1745	20.66	21.50	1.213	-	-	-0.02	0.470	0.570
	LTE Band 66 END C	20M	QPSK	1	0	-	Left Side	10mm	Ant 0	DSI 5	132322	1745	20.66	21.50	1.213	-	-	0.09	0.177	0.215
	LTE Band 66 END C	20M	QPSK	1	0	-	Right Side	10mm	Ant 0	DSI 5	132322	1745	20.66	21.50	1.213	-	-	-0.1	0.125	0.152
	LTE Band 66 END C	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 5	132322	1745	20.66	21.50	1.213	-	-	0.07	0.451	0.547
	LTE Band 66	20M	QPSK	1	0	-	Front	10mm	Ant 5	DSI 5	132322	1745	22.81	24.00	1.315	-	-	-0.04	0.010	0.013
	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 5	DSI 5	132322	1745	22.71	24.00	1.346	-	-	0.01	0.005	0.007
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 5	DSI 5	132322	1745	22.81	24.00	1.315	-	-	0.11	0.058	0.076
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 5	DSI 5	132322	1745	22.71	24.00	1.346	-	-	-0.11	0.052	0.070
	LTE Band 66	20M	QPSK	1	0	-	Left Side	10mm	Ant 5	DSI 5	132322	1745	22.81	24.00	1.315	-	-	0.07	0.049	0.064
	LTE Band 66	20M	QPSK	50	0	-	Left Side	10mm	Ant 5	DSI 5	132322	1745	22.71	24.00	1.346	-	-	0.15	0.040	0.054
	LTE Band 66	20M	QPSK	1	0	-	Right Side	10mm	Ant 5	DSI 5	132322	1745	22.81	24.00	1.315	-	-	0.1	0.010	0.013
	LTE Band 66	20M	QPSK	50	0	-	Right Side	10mm	Ant 5	DSI 5	132322	1745	22.71	24.00	1.346	-	-	-0.02	0.006	0.008
	LTE Band 66	20M	QPSK	1	0	-	Top Side	10mm	Ant 5	DSI 5	132322	1745	22.81	24.00	1.315	-	-	-0.1	0.015	0.020
	LTE Band 66	20M	QPSK	50	0	-	Top Side	10mm	Ant 5	DSI 5	132322	1745	22.71	24.00	1.346	-	-	0.07	0.011	0.015
	FR1 n66	20M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 0	DSI 5	349000	1745	22.64	24.00	1.368	-	-	0.05	0.373	0.510
	FR1 n66	20M	QPSK	50	28	DFT-SCS-15KHz	Front	10mm	Ant 0	DSI 5	349000	1745	22.58	24.00	1.387	-	-	0.04	0.370	0.513
	FR1 n66	20M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 0	DSI 5	349000	1745	22.64	24.00	1.368	-	-	-0.05	0.596	0.815
	FR1 n66	20M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 0	DSI 5	344000	1720	22.55	24.00	1.396	-	-	0.04	0.552	0.771
41	FR1 n66	20M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 0	DSI 5	354000	1770	22.51	24.00	1.409	-	-	-0.15	0.630	0.888



	FR1 n66	20M	QPSK	50	28	DFT-SCS-15KHz	Back	10mm	Ant 0	DSI 5	349000	1745	22.58	24.00	1.387	-	-	0.03	0.614	0.851
	FR1 n66	20M	QPSK	50	28	DFT-SCS-15KHz	Back	10mm	Ant 0	DSI 5	344000	1720	22.54	24.00	1.400	-	-	-0.03	0.531	0.743
	FR1 n66	20M	QPSK	50	28	DFT-SCS-15KHz	Back	10mm	Ant 0	DSI 5	354000	1770	22.47	24.00	1.422	-	-	-0.1	0.566	0.805
	FR1 n66	20M	QPSK	100	0	DFT-SCS-15KHz	Back	10mm	Ant 0	DSI 5	349000	1745	21.51	23.00	1.409	-	-	0.06	0.484	0.682
	FR1 n66	20M	QPSK	1	1	DFT-SCS-15KHz	Left Side	10mm	Ant 0	DSI 5	349000	1745	22.64	24.00	1.368	-	-	-0.13	0.259	0.354
	FR1 n66	20M	QPSK	50	28	DFT-SCS-15KHz	Left Side	10mm	Ant 0	DSI 5	349000	1745	22.58	24.00	1.387	-	-	0.08	0.271	0.376
	FR1 n66	20M	QPSK	1	1	DFT-SCS-15KHz	Right Side	10mm	Ant 0	DSI 5	349000	1745	22.64	24.00	1.368	-	-	0.01	0.208	0.284
	FR1 n66	20M	QPSK	50	28	DFT-SCS-15KHz	Right Side	10mm	Ant 0	DSI 5	349000	1745	22.58	24.00	1.387	-	-	0.03	0.204	0.283
	FR1 n66	20M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	10mm	Ant 0	DSI 5	349000	1745	22.64	24.00	1.368	-	-	0.15	0.572	0.782
	FR1 n66	20M	QPSK	50	28	DFT-SCS-15KHz	Bottom Side	10mm	Ant 0	DSI 5	349000	1745	22.58	24.00	1.387	-	-	0.09	0.587	0.814
	FR1 n66	20M	QPSK	50	28	DFT-SCS-15KHz	Bottom Side	10mm	Ant 0	DSI 5	344000	1720	22.54	24.00	1.400	-	-	0.02	0.566	0.792
	FR1 n66	20M	QPSK	50	28	DFT-SCS-15KHz	Bottom Side	10mm	Ant 0	DSI 5	354000	1770	22.47	24.00	1.422	-	-	0.18	0.568	0.808
	FR1 n66	20M	QPSK	100	0	DFT-SCS-15KHz	Bottom Side	10mm	Ant 0	DSI 5	349000	1745	21.51	23.00	1.409	-	-	0.06	0.465	0.655
	FR1 n66	20M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 5	DSI 5	349000	1745	22.92	24.00	1.282	-	-	-0.15	0.030	0.038
	FR1 n66	20M	QPSK	50	28	DFT-SCS-15KHz	Front	10mm	Ant 5	DSI 5	349000	1745	22.86	24.00	1.300	-	-	-0.16	0.025	0.033
	FR1 n66	20M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 5	DSI 5	349000	1745	22.92	24.00	1.282	-	-	-0.11	0.099	0.127
	FR1 n66	20M	QPSK	50	28	DFT-SCS-15KHz	Back	10mm	Ant 5	DSI 5	349000	1745	22.86	24.00	1.300	-	-	0.06	0.085	0.111
	FR1 n66	20M	QPSK	1	1	DFT-SCS-15KHz	Left Side	10mm	Ant 5	DSI 5	349000	1745	22.92	24.00	1.282	-	-	-0.07	0.079	0.101
	FR1 n66	20M	QPSK	50	28	DFT-SCS-15KHz	Left Side	10mm	Ant 5	DSI 5	349000	1745	22.86	24.00	1.300	-	-	-0.09	0.065	0.085
	FR1 n66	20M	QPSK	1	1	DFT-SCS-15KHz	Right Side	10mm	Ant 5	DSI 5	349000	1745	22.92	24.00	1.282	-	-	0.15	0.010	0.013
	FR1 n66	20M	QPSK	50	28	DFT-SCS-15KHz	Right Side	10mm	Ant 5	DSI 5	349000	1745	22.86	24.00	1.300	-	-	-0.01	0.008	0.010
	FR1 n66	20M	QPSK	1	1	DFT-SCS-15KHz	Top Side	10mm	Ant 5	DSI 5	349000	1745	22.92	24.00	1.282	-	-	0.07	0.015	0.019
	FR1 n66	20M	QPSK	50	28	DFT-SCS-15KHz	Top Side	10mm	Ant 5	DSI 5	349000	1745	22.86	24.00	1.300	-	-	0.08	0.013	0.017
1900Mhz																				
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Front	10mm	Ant 0	DSI 5	661	1880	24.85	26.00	1.303	-	-	0.05	0.107	0.139
42	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Back	10mm	Ant 0	DSI 5	661	1880	24.85	26.00	1.303	-	-	0.06	0.221	0.288
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Left Side	10mm	Ant 0	DSI 5	661	1880	24.85	26.00	1.303	-	-	-0.09	0.078	0.102
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Right Side	10mm	Ant 0	DSI 5	661	1880	24.85	26.00	1.303	-	-	0.16	0.008	0.010
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Bottom Side	10mm	Ant 0	DSI 5	661	1880	24.85	26.00	1.303	-	-	0.02	0.107	0.139
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 0	DSI 5	9400	1880	23.32	24.00	1.169	-	-	-0.15	0.340	0.398
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 0	DSI 5	9400	1880	23.32	24.00	1.169	-	-	0.11	0.709	0.829
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 0	DSI 5	9262	1852.4	23.26	24.00	1.186	-	-	-0.04	0.717	0.850
43	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 0	DSI 5	9538	1907.6	23.18	24.00	1.208	-	-	-0.01	0.805	0.972
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 0	DSI 5	9400	1880	23.32	24.00	1.169	-	-	-0.08	0.286	0.334
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Side	10mm	Ant 0	DSI 5	9400	1880	23.32	24.00	1.169	-	-	-0.17	0.126	0.147
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 0	DSI 5	9400	1880	23.32	24.00	1.169	-	-	-0.08	0.655	0.766
	LTE Band 2	20M	QPSK	1	0	-	Front	10mm	Ant 0	DSI 5	18900	1880	23.19	24.00	1.205	-	-	-0.08	0.368	0.443
	LTE Band 2	20M	QPSK	50	0	-	Front	10mm	Ant 0	DSI 5	18900	1880	22.29	23.00	1.178	-	-	0.17	0.292	0.344
	LTE Band 2	20M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 5	18900	1880	23.19	24.00	1.205	-	-	0.18	0.672	0.810
	LTE Band 2	20M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 5	18700	1860	23.14	24.00	1.219	-	-	-0.04	0.667	0.813
44	LTE Band 2	20M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 5	19100	1900	23.13	24.00	1.222	-	-	0.06	0.759	0.927
	LTE Band 2	20M	QPSK	50	0	-	Back	10mm	Ant 0	DSI 5	18900	1880	22.29	23.00	1.178	-	-	-0.08	0.525	0.618
	LTE Band 2	20M	QPSK	100	0	-	Back	10mm	Ant 0	DSI 5	18900	1880	22.22	23.00	1.197	-	-	-0.13	0.525	0.628
	LTE Band 2	20M	QPSK	1	0	-	Left Side	10mm	Ant 0	DSI 5	18900	1880	23.19	24.00	1.205	-	-	-0.13	0.276	0.333
	LTE Band 2	20M	QPSK	50	0	-	Left Side	10mm	Ant 0	DSI 5	18900	1880	22.29	23.00	1.178	-	-	0.06	0.220	0.259
	LTE Band 2	20M	QPSK	1	0	-	Right Side	10mm	Ant 0	DSI 5	18900	1880	23.19	24.00	1.205	-	-	-0.03	0.106	0.128
	LTE Band 2	20M	QPSK	50	0	-	Right Side	10mm	Ant 0	DSI 5	18900	1880	22.29	23.00	1.178	-	-	-0.03	0.085	0.100
	LTE Band 2	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 5	18900	1880	23.19	24.00	1.205	-	-	0.08	0.619	0.746
	LTE Band 2	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 0	DSI 5	18900	1880	22.29	23.00	1.178	-	-	-0.07	0.493	0.581
	LTE Band 2 ENDC	20M	QPSK	1	0	-	Front	10mm	Ant 0	DSI 5	18900	1880	21.18	22.00	1.208	-	-	0.04	0.208	0.251
	LTE Band 2 ENDC	20M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 5	19100	1900	21.01	22.00	1.256	-	-	-0.04	0.429	0.539
	LTE Band 2 ENDC	20M	QPSK	1	0	-	Left Side	10mm	Ant 0	DSI 5	18900	1880	21.18	22.00	1.208	-	-	0.06	0.156	0.188
	LTE Band 2 ENDC	20M	QPSK	1	0	-	Right Side	10mm	Ant 0	DSI 5	18900	1880	21.18	22.00	1.208	-	-	-0.08	0.059	0.071
	LTE Band 2 ENDC	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 5	18900	1880	21.18	22.00	1.208	-	-	-0.03	0.349	0.422
	LTE Band 2	20M	QPSK	1	0	-	Front	10mm	Ant 5	DSI 5	18900	1880	22.95	24.00	1.274	-	-	-0.14	0.020	0.025
	LTE Band 2	20M	QPSK	50	0	-	Front	10mm	Ant 5	DSI 5	18900	1880	22.85	24.00	1.303	-	-	0.08	0.013	0.017



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	LTE Band 2	20M	QPSK	1	0	-	Back	10mm	Ant 5	DSI 5	18900	1880	22.95	24.00	1.274	-	-	0.14	0.071	0.090
	LTE Band 2	20M	QPSK	50	0	-	Back	10mm	Ant 5	DSI 5	18900	1880	22.85	24.00	1.303	-	-	0.01	0.073	0.095
	LTE Band 2	20M	QPSK	1	0	-	Left Side	10mm	Ant 5	DSI 5	18900	1880	22.95	24.00	1.274	-	-	0.04	0.049	0.062
	LTE Band 2	20M	QPSK	50	0	-	Left Side	10mm	Ant 5	DSI 5	18900	1880	22.85	24.00	1.303	-	-	-0.17	0.046	0.060
	LTE Band 2	20M	QPSK	1	0	-	Right Side	10mm	Ant 5	DSI 5	18900	1880	22.95	24.00	1.274	-	-	-0.17	0.010	0.013
	LTE Band 2	20M	QPSK	50	0	-	Right Side	10mm	Ant 5	DSI 5	18900	1880	22.85	24.00	1.303	-	-	0.04	0.008	0.010
	LTE Band 2	20M	QPSK	1	0	-	Top Side	10mm	Ant 5	DSI 5	18900	1880	22.95	24.00	1.274	-	-	0.16	0.015	0.019
	LTE Band 2	20M	QPSK	50	0	-	Top Side	10mm	Ant 5	DSI 5	18900	1880	22.85	24.00	1.303	-	-	0.11	0.012	0.016
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 0	DSI 5	376000	1880	23.28	24.00	1.180	-	-	-0.09	0.269	0.318
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Front	10mm	Ant 0	DSI 5	376000	1880	23.22	24.00	1.197	-	-	0.02	0.258	0.309
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 0	DSI 5	376000	1880	23.28	24.00	1.180	-	-	-0.03	0.534	0.630
45	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Back	10mm	Ant 0	DSI 5	376000	1880	23.22	24.00	1.197	-	-	0.01	0.607	0.726
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Left Side	10mm	Ant 0	DSI 5	376000	1880	23.28	24.00	1.180	-	-	-0.12	0.195	0.230
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Left Side	10mm	Ant 0	DSI 5	376000	1880	23.22	24.00	1.197	-	-	-0.15	0.194	0.232
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Right Side	10mm	Ant 0	DSI 5	376000	1880	23.28	24.00	1.180	-	-	0.16	0.099	0.117
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Right Side	10mm	Ant 0	DSI 5	376000	1880	23.22	24.00	1.197	-	-	-0.18	0.095	0.114
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	10mm	Ant 0	DSI 5	376000	1880	23.28	24.00	1.180	-	-	0.07	0.521	0.615
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Bottom Side	10mm	Ant 0	DSI 5	376000	1880	23.22	24.00	1.197	-	-	-0.04	0.474	0.567
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 5	DSI 5	376000	1880	23.28	24.00	1.180	-	-	0.05	0.020	0.024
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Front	10mm	Ant 5	DSI 5	376000	1880	23.22	24.00	1.197	-	-	0.05	0.011	0.013
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 5	DSI 5	376000	1880	23.28	24.00	1.180	-	-	0.05	0.076	0.090
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Back	10mm	Ant 5	DSI 5	376000	1880	23.22	24.00	1.197	-	-	0.12	0.089	0.107
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Left Side	10mm	Ant 5	DSI 5	376000	1880	23.28	24.00	1.180	-	-	-0.07	0.055	0.065
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Left Side	10mm	Ant 5	DSI 5	376000	1880	23.22	24.00	1.197	-	-	0.02	0.050	0.060
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Right Side	10mm	Ant 5	DSI 5	376000	1880	23.28	24.00	1.180	-	-	-0.09	0.030	0.035
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Right Side	10mm	Ant 5	DSI 5	376000	1880	23.22	24.00	1.197	-	-	0.16	0.015	0.018
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Top Side	10mm	Ant 5	DSI 5	376000	1880	23.28	24.00	1.180	-	-	0.03	0.033	0.039
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Top Side	10mm	Ant 5	DSI 5	376000	1880	23.22	24.00	1.197	-	-	-0.04	0.028	0.034
2600Mhz																				
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 1	DSI 5	21100	2535	22.61	24.00	1.377	-	-	0.06	0.251	0.346
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 1	DSI 5	21100	2535	21.65	23.00	1.365	-	-	0.04	0.203	0.277
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 1	DSI 5	21100	2535	22.61	24.00	1.377	-	-	0.05	0.516	0.711
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 1	DSI 5	21100	2535	21.65	23.00	1.365	-	-	0.08	0.481	0.656
	LTE Band 7	20M	QPSK	1	0	-	Left Side	10mm	Ant 1	DSI 5	21100	2535	22.61	24.00	1.377	-	-	0.03	0.256	0.353
	LTE Band 7	20M	QPSK	50	0	-	Left Side	10mm	Ant 1	DSI 5	21100	2535	21.65	23.00	1.365	-	-	0.11	0.204	0.278
	LTE Band 7	20M	QPSK	1	0	-	Right Side	10mm	Ant 1	DSI 5	21100	2535	22.61	24.00	1.377	-	-	0.15	0.015	0.021
	LTE Band 7	20M	QPSK	50	0	-	Right Side	10mm	Ant 1	DSI 5	21100	2535	21.65	23.00	1.365	-	-	0.04	0.012	0.016
	LTE Band 7	20M	QPSK	1	0	-	Top Side	10mm	Ant 1	DSI 5	21100	2535	22.61	24.00	1.377	-	-	0.11	0.326	0.449
	LTE Band 7	20M	QPSK	50	0	-	Top Side	10mm	Ant 1	DSI 5	21100	2535	21.65	23.00	1.365	-	-	0.03	0.267	0.364
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 5	DSI 5	21100	2535	22.33	24.00	1.469	-	-	0.02	0.108	0.159
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 5	DSI 5	21100	2535	21.33	23.00	1.469	-	-	0.1	0.091	0.134
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 5	DSI 5	21100	2535	22.33	24.00	1.469	-	-	0.06	0.200	0.294
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 5	DSI 5	21100	2535	21.33	23.00	1.469	-	-	0.09	0.152	0.223
	LTE Band 7	20M	QPSK	1	0	-	Left Side	10mm	Ant 5	DSI 5	21100	2535	22.33	24.00	1.469	-	-	0.05	0.315	0.463
	LTE Band 7	20M	QPSK	50	0	-	Left Side	10mm	Ant 5	DSI 5	21100	2535	21.33	23.00	1.469	-	-	0.04	0.233	0.342
	LTE Band 7	20M	QPSK	1	0	-	Right Side	10mm	Ant 5	DSI 5	21100	2535	22.33	24.00	1.469	-	-	-0.15	0.035	0.051
	LTE Band 7	20M	QPSK	50	0	-	Right Side	10mm	Ant 5	DSI 5	21100	2535	21.33	23.00	1.469	-	-	-0.1	0.020	0.029
	LTE Band 7	20M	QPSK	1	0	-	Top Side	10mm	Ant 5	DSI 5	21100	2535	22.33	24.00	1.469	-	-	0.04	0.057	0.084
	LTE Band 7	20M	QPSK	50	0	-	Top Side	10mm	Ant 5	DSI 5	21100	2535	21.33	23.00	1.469	-	-	-0.04	0.046	0.068
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 6	DSI 5	21100	2535	22.45	24.00	1.429	-	-	0.05	0.426	0.609
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 6	DSI 5	21100	2535	21.34	23.00	1.466	-	-	-0.11	0.350	0.513
46	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 6	DSI 5	21100	2535	22.45	24.00	1.429	-	-	0.02	0.585	0.836
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 6	DSI 5	20850	2510	22.19	24.00	1.517	-	-	-0.12	0.550	0.834
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 6	DSI 5	21350	2560	22.41	24.00	1.442	-	-	0.03	0.563	0.812
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 6	DSI 5	21100	2535	21.34	23.00	1.466	-	-	-0.16	0.471	0.690
	LTE Band 7	20M	QPSK	100	0	-	Back	10mm	Ant 6	DSI 5	21100	2535	21.25	23.00	1.496	-	-	-0.02	0.453	0.678



	LTE Band 7	20M	QPSK	1	0	-	Left Side	10mm	Ant 6	DSI 5	21100	2535	22.45	24.00	1.429	-	-	0.15	0.337	0.482
	LTE Band 7	20M	QPSK	50	0	-	Left Side	10mm	Ant 6	DSI 5	21100	2535	21.34	23.00	1.466	-	-	-0.09	0.268	0.393
	LTE Band 7	20M	QPSK	1	0	-	Right Side	10mm	Ant 6	DSI 5	21100	2535	22.45	24.00	1.429	-	-	0.11	0.084	0.120
	LTE Band 7	20M	QPSK	50	0	-	Right Side	10mm	Ant 6	DSI 5	21100	2535	21.34	23.00	1.466	-	-	-0.05	0.072	0.106
	LTE Band 7	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 6	DSI 5	21100	2535	22.45	24.00	1.429	-	-	-0.08	0.378	0.540
	LTE Band 7	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 6	DSI 5	21100	2535	21.34	23.00	1.466	-	-	0.16	0.305	0.447
	LTE Band 7 ENDC	20M	QPSK	1	0	-	Front	10mm	Ant 6	DSI 5	21100	2535	21.08	22.50	1.387	-	-	0.02	0.284	0.394
	LTE Band 7 ENDC	20M	QPSK	1	0	-	Back	10mm	Ant 6	DSI 5	21100	2535	21.08	22.50	1.387	-	-	0.01	0.391	0.542
	LTE Band 7 ENDC	20M	QPSK	1	0	-	Left Side	10mm	Ant 6	DSI 5	21100	2535	21.08	22.50	1.387	-	-	0.02	0.225	0.312
	LTE Band 7 ENDC	20M	QPSK	1	0	-	Right Side	10mm	Ant 6	DSI 5	21100	2535	21.08	22.50	1.387	-	-	-0.12	0.056	0.078
	LTE Band 7 ENDC	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 6	DSI 5	21100	2535	21.08	22.50	1.387	-	-	-0.02	0.253	0.351
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 7	DSI 4	21100	2535	21.36	22.00	1.159	-	-	0.07	0.118	0.137
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 7	DSI 4	21100	2535	20.32	21.00	1.169	-	-	0.02	0.093	0.109
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 7	DSI 4	21100	2535	21.36	22.00	1.159	-	-	-0.04	0.251	0.291
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 7	DSI 4	21100	2535	20.32	21.00	1.169	-	-	0.11	0.211	0.247
	LTE Band 7	20M	QPSK	1	0	-	Left Side	10mm	Ant 7	DSI 4	21100	2535	21.36	22.00	1.159	-	-	0.05	0.010	0.012
	LTE Band 7	20M	QPSK	50	0	-	Left Side	10mm	Ant 7	DSI 4	21100	2535	20.32	21.00	1.169	-	-	-0.12	0.008	0.009
	LTE Band 7	20M	QPSK	1	0	-	Right Side	10mm	Ant 7	DSI 4	21100	2535	21.36	22.00	1.159	-	-	-0.05	0.229	0.265
	LTE Band 7	20M	QPSK	50	0	-	Right Side	10mm	Ant 7	DSI 4	21100	2535	20.32	21.00	1.169	-	-	0.09	0.187	0.219
	LTE Band 7	20M	QPSK	1	0	-	Top Side	10mm	Ant 7	DSI 4	20850	2510	21.30	22.00	1.175	-	-	0.04	0.061	0.072
	LTE Band 7	20M	QPSK	50	0	-	Top Side	10mm	Ant 7	DSI 4	21350	2560	20.22	21.00	1.197	-	-	0.1	0.055	0.066
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 1	DSI 5	40620	2593	22.95	24.00	1.274	62.9	1.006	-0.04	0.200	0.256
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 1	DSI 5	40620	2593	21.89	23.00	1.291	62.9	1.006	-0.06	0.152	0.197
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 1	DSI 5	40620	2593	22.95	24.00	1.274	62.9	1.006	0.02	0.566	0.725
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 1	DSI 5	39750	2506	22.53	24.00	1.403	62.9	1.006	0.07	0.491	0.693
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 1	DSI 5	40185	2549.5	22.78	24.00	1.324	62.9	1.006	0.08	0.521	0.694
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 1	DSI 5	41055	2636.5	22.85	24.00	1.303	62.9	1.006	0.14	0.560	0.734
47	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 1	DSI 5	41490	2680	22.83	24.00	1.309	62.9	1.006	-0.05	0.582	0.767
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 1	DSI 5	40620	2593	21.89	23.00	1.291	62.9	1.006	0.06	0.507	0.659
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 1	DSI 5	39750	2506	21.61	23.00	1.377	62.9	1.006	-0.07	0.460	0.637
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 1	DSI 5	40185	2549.5	21.86	23.00	1.300	62.9	1.006	0.02	0.450	0.589
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 1	DSI 5	41055	2636.5	21.82	23.00	1.312	62.9	1.006	0.02	0.544	0.718
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 1	DSI 5	41490	2680	21.81	23.00	1.315	62.9	1.006	0.08	0.554	0.733
	LTE Band 41	20M	QPSK	100	0	-	Back	10mm	Ant 1	DSI 5	40620	2593	21.82	23.00	1.312	62.9	1.006	0.09	0.534	0.705
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 1	DSI 5	40620	2593	22.95	24.00	1.274	62.9	1.006	0.07	0.276	0.354
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 1	DSI 5	40620	2593	21.89	23.00	1.291	62.9	1.006	0.18	0.228	0.296
	LTE Band 41	20M	QPSK	1	0	-	Right Side	10mm	Ant 1	DSI 5	40620	2593	22.95	24.00	1.274	62.9	1.006	-0.06	0.010	0.013
	LTE Band 41	20M	QPSK	50	0	-	Right Side	10mm	Ant 1	DSI 5	40620	2593	21.89	23.00	1.291	62.9	1.006	0.03	0.008	0.010
	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 1	DSI 5	40620	2593	22.95	24.00	1.274	62.9	1.006	0.12	0.339	0.434
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 1	DSI 5	40620	2593	21.89	23.00	1.291	62.9	1.006	0.08	0.283	0.368
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 5	DSI 5	40620	2593	22.71	24.00	1.346	62.9	1.006	-0.14	0.080	0.108
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 5	DSI 5	40620	2593	21.73	23.00	1.340	62.9	1.006	0.06	0.066	0.089
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 5	DSI 5	40620	2593	22.71	24.00	1.346	62.9	1.006	0.12	0.113	0.153
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 5	DSI 5	40620	2593	21.73	23.00	1.340	62.9	1.006	0.02	0.093	0.125
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 5	DSI 5	40620	2593	22.71	24.00	1.346	62.9	1.006	0.01	0.324	0.439
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 5	DSI 5	40620	2593	21.73	23.00	1.340	62.9	1.006	0.08	0.299	0.403
	LTE Band 41	20M	QPSK	1	0	-	Right Side	10mm	Ant 5	DSI 5	40620	2593	22.71	24.00	1.346	62.9	1.006	-0.18	0.010	0.014
	LTE Band 41	20M	QPSK	50	0	-	Right Side	10mm	Ant 5	DSI 5	40620	2593	21.73	23.00	1.340	62.9	1.006	0.16	0.008	0.011
	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 5	DSI 5	40620	2593	22.71	24.00	1.346	62.9	1.006	-0.16	0.028	0.038
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 5	DSI 5	40620	2593	21.73	23.00	1.340	62.9	1.006	-0.11	0.020	0.027
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 6	DSI 5	40620	2593	22.59	24.00	1.384	62.9	1.006	0.05	0.230	0.320
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 6	DSI 5	40620	2593	21.39	23.00	1.449	62.9	1.006	0.05	0.182	0.265
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 6	DSI 5	40620	2593	22.59	24.00	1.384	62.9	1.006	-0.01	0.356	0.496
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 6	DSI 5	40620	2593	21.39	23.00	1.449	62.9	1.006	-0.03	0.290	0.423
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 6	DSI 5	40620	2593	22.59	24.00	1.384	62.9	1.006	-0.15	0.265	0.369
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 6	DSI 5	40620	2593	21.39	23.00	1.449	62.9	1.006	0.02	0.208	0.303



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	LTE Band 41	20M	QPSK	1	0	-	Right Side	10mm	Ant 6	DSI 5	40620	2593	22.59	24.00	1.384	62.9	1.006	0.07	0.013	0.018
	LTE Band 41	20M	QPSK	50	0	-	Right Side	10mm	Ant 6	DSI 5	40620	2593	21.39	23.00	1.449	62.9	1.006	0.16	0.008	0.012
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 6	DSI 5	40620	2593	22.59	24.00	1.384	62.9	1.006	0.13	0.333	0.463
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 6	DSI 5	40620	2593	21.39	23.00	1.449	62.9	1.006	-0.18	0.273	0.398
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 7	DSI 4	40620	2593	21.70	23.00	1.349	62.9	1.006	0.09	0.105	0.142
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 7	DSI 4	40620	2593	21.65	22.00	1.084	62.9	1.006	0.05	0.095	0.104
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 7	DSI 4	40620	2593	21.70	23.00	1.349	62.9	1.006	-0.01	0.239	0.324
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 7	DSI 4	40620	2593	21.65	22.00	1.084	62.9	1.006	0.08	0.201	0.219
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 7	DSI 4	40620	2593	21.70	23.00	1.349	62.9	1.006	0.05	0.010	0.014
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 7	DSI 4	40620	2593	21.65	22.00	1.084	62.9	1.006	0.06	0.008	0.009
	LTE Band 41	20M	QPSK	1	0	-	Right Side	10mm	Ant 7	DSI 4	40620	2593	21.70	23.00	1.349	62.9	1.006	0.09	0.294	0.399
	LTE Band 41	20M	QPSK	50	0	-	Right Side	10mm	Ant 7	DSI 4	40620	2593	21.65	22.00	1.084	62.9	1.006	0.09	0.231	0.252
	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 7	DSI 4	40620	2593	21.70	23.00	1.349	62.9	1.006	-0.1	0.066	0.090
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 7	DSI 4	40620	2593	21.65	22.00	1.084	62.9	1.006	0.09	0.052	0.057
	FR1 n7	20M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 1	DSI 5	507000	2535	22.63	24.00	1.371	-	-	0.12	0.057	0.078
	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Front	10mm	Ant 1	DSI 5	507000	2535	22.57	24.00	1.390	-	-	-0.15	0.059	0.082
	FR1 n7	20M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 1	DSI 5	507000	2535	22.63	24.00	1.371	-	-	-0.18	0.419	0.574
	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Back	10mm	Ant 1	DSI 5	507000	2535	22.57	24.00	1.390	-	-	-0.06	0.432	0.600
	FR1 n7	20M	QPSK	1	1	DFT-SCS-15KHz	Left Side	10mm	Ant 1	DSI 5	507000	2535	22.63	24.00	1.371	-	-	0.08	0.109	0.149
	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Left Side	10mm	Ant 1	DSI 5	507000	2535	22.57	24.00	1.390	-	-	-0.12	0.111	0.154
	FR1 n7	20M	QPSK	1	1	DFT-SCS-15KHz	Right Side	10mm	Ant 1	DSI 5	507000	2535	22.63	24.00	1.371	-	-	0.06	0.024	0.033
	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Right Side	10mm	Ant 1	DSI 5	507000	2535	22.57	24.00	1.390	-	-	0.08	0.019	0.026
	FR1 n7	20M	QPSK	1	1	DFT-SCS-15KHz	Top Side	10mm	Ant 1	DSI 5	507000	2535	22.63	24.00	1.371	-	-	0.03	0.270	0.370
	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Top Side	10mm	Ant 1	DSI 5	507000	2535	22.57	24.00	1.390	-	-	0.09	0.266	0.370
	FR1 n7	20M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 5	DSI 5	507000	2535	22.85	24.00	1.303	-	-	-0.07	0.147	0.192
	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Front	10mm	Ant 5	DSI 5	507000	2535	22.79	24.00	1.321	-	-	0.04	0.129	0.170
	FR1 n7	20M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 5	DSI 5	507000	2535	22.85	24.00	1.303	-	-	0.08	0.254	0.331
	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Back	10mm	Ant 5	DSI 5	507000	2535	22.79	24.00	1.321	-	-	0.17	0.227	0.300
	FR1 n7	20M	QPSK	1	1	DFT-SCS-15KHz	Left Side	10mm	Ant 5	DSI 5	507000	2535	22.85	24.00	1.303	-	-	0.06	0.458	0.597
	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Left Side	10mm	Ant 5	DSI 5	507000	2535	22.79	24.00	1.321	-	-	-0.07	0.406	0.536
	FR1 n7	20M	QPSK	1	1	DFT-SCS-15KHz	Right Side	10mm	Ant 5	DSI 5	507000	2535	22.85	24.00	1.303	-	-	0.04	0.013	0.017
	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Right Side	10mm	Ant 5	DSI 5	507000	2535	22.79	24.00	1.321	-	-	-0.08	0.008	0.011
	FR1 n7	20M	QPSK	1	1	DFT-SCS-15KHz	Top Side	10mm	Ant 5	DSI 5	507000	2535	22.85	24.00	1.303	-	-	-0.13	0.020	0.026
	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Top Side	10mm	Ant 5	DSI 5	507000	2535	22.79	24.00	1.321	-	-	-0.07	0.013	0.017
	FR1 n7	20M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 6	DSI 5	507000	2535	22.76	24.00	1.330	-	-	0.03	0.368	0.490
	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Front	10mm	Ant 6	DSI 5	507000	2535	22.70	24.00	1.349	-	-	-0.01	0.355	0.479
48	FR1 n7	20M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 6	DSI 5	507000	2535	22.76	24.00	1.330	-	-	-0.06	0.507	0.675
	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Back	10mm	Ant 6	DSI 5	507000	2535	22.70	24.00	1.349	-	-	0.03	0.491	0.662
	FR1 n7	20M	QPSK	1	1	DFT-SCS-15KHz	Left Side	10mm	Ant 6	DSI 5	507000	2535	22.76	24.00	1.330	-	-	0.09	0.283	0.377
	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Left Side	10mm	Ant 6	DSI 5	507000	2535	22.70	24.00	1.349	-	-	0.09	0.258	0.348
	FR1 n7	20M	QPSK	1	1	DFT-SCS-15KHz	Right Side	10mm	Ant 6	DSI 5	507000	2535	22.76	24.00	1.330	-	-	0.07	0.077	0.102
	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Right Side	10mm	Ant 6	DSI 5	507000	2535	22.70	24.00	1.349	-	-	-0.11	0.066	0.089
	FR1 n7	20M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	10mm	Ant 6	DSI 5	507000	2535	22.76	24.00	1.330	-	-	0.13	0.337	0.448
	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Bottom Side	10mm	Ant 6	DSI 5	507000	2535	22.70	24.00	1.349	-	-	-0.07	0.310	0.418
	FR1 n7	20M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 7	DSI 4	507000	2535	21.99	23.00	1.262	-	-	0.08	0.055	0.069
	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Front	10mm	Ant 7	DSI 4	507000	2535	21.93	23.00	1.279	-	-	-0.19	0.060	0.077
	FR1 n7	20M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 7	DSI 4	507000	2535	21.99	23.00	1.262	-	-	0.14	0.126	0.159
	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Back	10mm	Ant 7	DSI 4	507000	2535	21.93	23.00	1.279	-	-	0.02	0.147	0.188
	FR1 n7	20M	QPSK	1	1	DFT-SCS-15KHz	Left Side	10mm	Ant 7	DSI 4	507000	2535	21.99	23.00	1.262	-	-	0.18	0.012	0.015
	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Left Side	10mm	Ant 7	DSI 4	507000	2535	21.93	23.00	1.279	-	-	0.08	0.009	0.012
	FR1 n7	20M	QPSK	1	1	DFT-SCS-15KHz	Right Side	10mm	Ant 7	DSI 4	507000	2535	21.99	23.00	1.262	-	-	0.07	0.121	0.153
	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Right Side	10mm	Ant 7	DSI 4	507000	2535	21.93	23.00	1.279	-	-	-0.19	0.132	0.169
	FR1 n7	20M	QPSK	1	1	DFT-SCS-15KHz	Top Side	10mm	Ant 7	DSI 4	507000	2535	21.99	23.00	1.262	-	-	-0.13	0.050	0.063
	FR1 n7	20M	QPSK	50	28	DFT-SCS-15KHz	Top Side	10mm	Ant 7	DSI 4	507000	2535	21.93	23.00	1.279	-	-	0.06	0.043	0.055
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 1	DSI 5	518598	2592.99	22.68	24.00	1.355	-	-	-0.13	0.080	0.108
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 1	DSI 5	518598	2592.99	22.42	24.00	1.439	-	-	0.04	0.108	0.155



FCC SAR Test Report

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Table with columns: ID, Model, Power, Modulation, Channels, Frequency, Position, Distance, Antenna, DSI, Power Density, SAR, etc. Row 49 is highlighted in yellow.



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	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 7	DSI 4	519000	2595	22.02	23.00	1.253	-	-	0.08	0.062	0.078
	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Top Side	10mm	Ant 7	DSI 4	519000	2595	21.96	23.00	1.271	-	-	0.05	0.050	0.064
3500-3900Mhz																				
	LTE Band 48	20M	QPSK	1	0	-	Front	10mm	Ant 8	DSI 5	56150	3641	23.60	24.00	1.096	62.9	1.006	-0.15	0.190	0.210
	LTE Band 48	20M	QPSK	50	0	-	Front	10mm	Ant 8	DSI 5	56150	3641	22.62	23.00	1.091	62.9	1.006	0.08	0.140	0.154
51	LTE Band 48	20M	QPSK	1	0	-	Back	10mm	Ant 8	DSI 5	56150	3641	23.60	24.00	1.096	62.9	1.006	-0.02	0.491	0.542
	LTE Band 48	20M	QPSK	50	0	-	Back	10mm	Ant 8	DSI 5	56150	3641	22.62	23.00	1.091	62.9	1.006	0.07	0.399	0.438
	LTE Band 48	20M	QPSK	1	0	-	Left Side	10mm	Ant 8	DSI 5	56150	3641	23.60	24.00	1.096	62.9	1.006	0.11	0.044	0.049
	LTE Band 48	20M	QPSK	50	0	-	Left Side	10mm	Ant 8	DSI 5	56150	3641	22.62	23.00	1.091	62.9	1.006	-0.02	0.036	0.040
	LTE Band 48	20M	QPSK	1	0	-	Right Side	10mm	Ant 8	DSI 5	56150	3641	23.60	24.00	1.096	62.9	1.006	-0.08	0.475	0.524
	LTE Band 48	20M	QPSK	50	0	-	Right Side	10mm	Ant 8	DSI 5	56150	3641	22.62	23.00	1.091	62.9	1.006	0.14	0.397	0.436
	LTE Band 48	20M	QPSK	1	0	-	Top Side	10mm	Ant 8	DSI 5	56150	3641	23.60	24.00	1.096	62.9	1.006	0.09	0.309	0.341
	LTE Band 48	20M	QPSK	50	0	-	Top Side	10mm	Ant 8	DSI 5	56150	3641	22.62	23.00	1.091	62.9	1.006	0.14	0.248	0.272
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 5	DSI 5	6416663624.99	23.08	24.00	1.236	-	-	0.09	0.070	0.087	
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Front	10mm	Ant 5	DSI 5	6416663624.99	22.93	24.00	1.279	-	-	0.08	0.054	0.069	
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 5	DSI 5	6416663624.99	23.08	24.00	1.236	-	-	0.06	0.131	0.162	
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Back	10mm	Ant 5	DSI 5	6416663624.99	22.93	24.00	1.279	-	-	0.08	0.126	0.161	
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 5	DSI 5	6416663624.99	23.08	24.00	1.236	-	-	0.06	0.164	0.203	
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Side	10mm	Ant 5	DSI 5	6416663624.99	22.93	24.00	1.279	-	-	0.02	0.173	0.221	
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 5	DSI 5	6416663624.99	23.08	24.00	1.236	-	-	0.02	0.038	0.047	
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Side	10mm	Ant 5	DSI 5	6416663624.99	22.93	24.00	1.279	-	-	0.18	0.035	0.045	
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 5	DSI 5	6416663624.99	23.08	24.00	1.236	-	-	0.18	0.058	0.072	
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Top Side	10mm	Ant 5	DSI 5	6416663624.99	22.93	24.00	1.279	-	-	0.06	0.043	0.055	
	FR1 n48	40M	BPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 8	DSI 5	6416663624.99	22.12	23.00	1.225	-	-	0.05	0.202	0.247	
	FR1 n48	40M	BPSK	50	28	DFT-SCS-30KHz	Front	10mm	Ant 8	DSI 5	6416663624.99	22.08	23.00	1.236	-	-	0.02	0.137	0.169	
52	FR1 n48	40M	BPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 8	DSI 5	6416663624.99	22.12	23.00	1.225	-	-	-0.02	0.527	0.645	
	FR1 n48	40M	BPSK	50	28	DFT-SCS-30KHz	Back	10mm	Ant 8	DSI 5	6416663624.99	22.08	23.00	1.236	-	-	0.18	0.375	0.463	
	FR1 n48	40M	BPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 8	DSI 5	6416663624.99	22.12	23.00	1.225	-	-	-0.02	0.042	0.051	
	FR1 n48	40M	BPSK	50	28	DFT-SCS-30KHz	Left Side	10mm	Ant 8	DSI 5	6416663624.99	22.08	23.00	1.236	-	-	0.04	0.037	0.046	
	FR1 n48	40M	BPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 8	DSI 5	6416663624.99	22.12	23.00	1.225	-	-	0.15	0.521	0.638	
	FR1 n48	40M	BPSK	50	28	DFT-SCS-30KHz	Right Side	10mm	Ant 8	DSI 5	6416663624.99	22.08	23.00	1.236	-	-	-0.01	0.384	0.475	
	FR1 n48	40M	BPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 8	DSI 5	6416663624.99	22.12	23.00	1.225	-	-	-0.18	0.380	0.465	
	FR1 n48	40M	BPSK	50	28	DFT-SCS-30KHz	Top Side	10mm	Ant 8	DSI 5	6416663624.99	22.08	23.00	1.236	-	-	-0.11	0.290	0.358	
	FR1 n48 MIMO	40M	BPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 8	DSI 5	6416663624.99	21.66	22.50	1.213	-	-	-0.02	0.189	0.229	
	FR1 n48 MIMO	40M	BPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 8	DSI 5	6416663624.99	21.66	22.50	1.213	-	-	0.03	0.477	0.579	
	FR1 n48 MIMO	40M	BPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 8	DSI 5	6416663624.99	21.66	22.50	1.213	-	-	0.05	0.039	0.047	
	FR1 n48 MIMO	40M	BPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 8	DSI 5	6416663624.99	21.66	22.50	1.213	-	-	0.08	0.459	0.557	
	FR1 n48 MIMO	40M	BPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 8	DSI 5	6416663624.99	21.66	22.50	1.213	-	-	0.06	0.341	0.414	
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 5	DSI 5	656000	3840	22.77	24.00	1.327	-	-	0.18	0.083	0.110
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 5	DSI 5	656000	3840	22.71	24.00	1.346	-	-	-0.18	0.061	0.082
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 5	DSI 5	656000	3840	22.77	24.00	1.327	-	-	-0.09	0.144	0.191
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 5	DSI 5	656000	3840	22.71	24.00	1.346	-	-	-0.1	0.126	0.170
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 5	DSI 5	656000	3840	22.77	24.00	1.327	-	-	-0.16	0.172	0.228
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 5	DSI 5	656000	3840	22.71	24.00	1.346	-	-	-0.03	0.183	0.246
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 5	DSI 5	656000	3840	22.77	24.00	1.327	-	-	0.05	0.031	0.041
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 5	DSI 5	656000	3840	22.71	24.00	1.346	-	-	0.07	0.032	0.043
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 5	DSI 5	656000	3840	22.77	24.00	1.327	-	-	-0.17	0.055	0.073
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 5	DSI 5	656000	3840	22.71	24.00	1.346	-	-	-0.02	0.033	0.044
	FR1 n77 Part27O HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 5	DSI 5	656000	3840	25.53	27.00	1.403	50	1.000	-0.1	0.169	0.237
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 5	DSI 5	6333343500.01	22.90	24.00	1.288	-	-	-0.19	0.018	0.023	
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 5	DSI 5	6333343500.01	22.65	24.00	1.365	-	-	-0.11	0.025	0.034	
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 5	DSI 5	6333343500.01	22.90	24.00	1.288	-	-	0.04	0.048	0.062	
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 5	DSI 5	6333343500.01	22.65	24.00	1.365	-	-	-0.04	0.055	0.075	
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 5	DSI 5	6333343500.01	22.90	24.00	1.288	-	-	0.08	0.039	0.050	
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 5	DSI 5	6333343500.01	22.65	24.00	1.365	-	-	0.17	0.051	0.070	
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 5	DSI 5	6333343500.01	22.90	24.00	1.288	-	-	0.08	0.017	0.022	



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	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 5	DSI 5	633334	3500.01	22.65	24.00	1.365	-	-	0.15	0.024	0.033
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 5	DSI 5	633334	3500.01	22.90	24.00	1.288	-	-	0.01	0.031	0.040
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 5	DSI 5	633334	3500.01	22.65	24.00	1.365	-	-	0.11	0.020	0.027
	FR1 n77 Part27Q HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 5	DSI 5	633334	3500.01	25.58	27.00	1.387	50	1.000	-0.07	0.051	0.071
	FR1 n77 Part27O	100M	BPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 6	DSI 5	656000	3840	22.88	24.00	1.294	-	-	0.03	0.271	0.351
	FR1 n77 Part27O	100M	BPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 6	DSI 5	656000	3840	22.87	24.00	1.297	-	-	0.03	0.180	0.233
	FR1 n77 Part27O	100M	BPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 6	DSI 5	656000	3840	22.88	24.00	1.294	-	-	0.03	0.264	0.342
	FR1 n77 Part27O	100M	BPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 6	DSI 5	656000	3840	22.87	24.00	1.297	-	-	-0.06	0.290	0.376
	FR1 n77 Part27O	100M	BPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 6	DSI 5	656000	3840	22.88	24.00	1.294	-	-	0.04	0.132	0.171
	FR1 n77 Part27O	100M	BPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 6	DSI 5	656000	3840	22.87	24.00	1.297	-	-	0.04	0.142	0.184
	FR1 n77 Part27O	100M	BPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 6	DSI 5	656000	3840	22.88	24.00	1.294	-	-	0.08	0.116	0.150
	FR1 n77 Part27O	100M	BPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 6	DSI 5	656000	3840	22.87	24.00	1.297	-	-	0.07	0.087	0.113
	FR1 n77 Part27O	100M	BPSK	1	1	DFT-SCS-30KHz	Bottom Side	10mm	Ant 6	DSI 5	656000	3840	22.88	24.00	1.294	-	-	0.09	0.094	0.122
	FR1 n77 Part27O	100M	BPSK	135	69	DFT-SCS-30KHz	Bottom Side	10mm	Ant 6	DSI 5	656000	3840	22.87	24.00	1.297	-	-	-0.07	0.155	0.201
	FR1 n77 Part27O HPUE	100M	BPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 6	DSI 5	656000	3840	25.28	26.00	1.180	50	1.000	-0.03	0.256	0.302
	FR1 n77 Part27Q	100M	BPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 6	DSI 5	633334	3500.01	22.57	24.00	1.390	-	-	-0.16	0.129	0.179
	FR1 n77 Part27Q	100M	BPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 6	DSI 5	633334	3500.01	22.52	24.00	1.406	-	-	-0.07	0.168	0.236
	FR1 n77 Part27Q	100M	BPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 6	DSI 5	633334	3500.01	22.57	24.00	1.390	-	-	0.03	0.265	0.368
	FR1 n77 Part27Q	100M	BPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 6	DSI 5	633334	3500.01	22.52	24.00	1.406	-	-	0.03	0.413	0.581
	FR1 n77 Part27Q	100M	BPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 6	DSI 5	633334	3500.01	22.57	24.00	1.390	-	-	0.1	0.362	0.503
	FR1 n77 Part27Q	100M	BPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 6	DSI 5	633334	3500.01	22.52	24.00	1.406	-	-	-0.16	0.348	0.489
	FR1 n77 Part27Q	100M	BPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 6	DSI 5	633334	3500.01	22.57	24.00	1.390	-	-	-0.14	0.100	0.139
	FR1 n77 Part27Q	100M	BPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 6	DSI 5	633334	3500.01	22.52	24.00	1.406	-	-	0.05	0.085	0.120
	FR1 n77 Part27Q	100M	BPSK	1	1	DFT-SCS-30KHz	Bottom Side	10mm	Ant 6	DSI 5	633334	3500.01	22.57	24.00	1.390	-	-	-0.13	0.148	0.206
	FR1 n77 Part27Q	100M	BPSK	135	69	DFT-SCS-30KHz	Bottom Side	10mm	Ant 6	DSI 5	633334	3500.01	22.52	24.00	1.406	-	-	0.06	0.245	0.344
	FR1 n77 Part27Q HPUE	100M	BPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 6	DSI 5	633334	3500.01	24.53	26.00	1.403	50	1.000	0.05	0.328	0.460
	FR1 n77 Part27O	100M	BPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 8	DSI 5	656000	3840	22.12	23.50	1.374	-	-	0.08	0.350	0.481
	FR1 n77 Part27O	100M	BPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 8	DSI 5	656000	3840	22.06	23.50	1.393	-	-	0.04	0.330	0.460
	FR1 n77 Part27O	100M	BPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 8	DSI 5	656000	3840	22.12	23.50	1.374	-	-	0.18	0.807	1.109
	FR1 n77 Part27O	100M	BPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 8	DSI 5	656000	3840	22.06	23.50	1.393	-	-	0.03	0.780	1.087
	FR1 n77 Part27O	100M	BPSK	270	0	DFT-SCS-30KHz	Back	10mm	Ant 8	DSI 5	656000	3840	22.01	23.50	1.409	-	-	0.05	0.701	0.988
	FR1 n77 Part27O	100M	BPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 8	DSI 5	656000	3840	22.12	23.50	1.374	-	-	0.08	0.075	0.103
	FR1 n77 Part27O	100M	BPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 8	DSI 5	656000	3840	22.06	23.50	1.393	-	-	0.06	0.064	0.089
	FR1 n77 Part27O	100M	BPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 8	DSI 5	656000	3840	22.12	23.50	1.374	-	-	-0.02	0.825	1.134
	FR1 n77 Part27O	100M	BPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 8	DSI 5	656000	3840	22.06	23.50	1.393	-	-	0.04	0.723	1.007
	FR1 n77 Part27O	100M	BPSK	270	0	DFT-SCS-30KHz	Right Side	10mm	Ant 8	DSI 5	656000	3840	22.01	23.50	1.409	-	-	0.07	0.751	1.058
	FR1 n77 Part27O	100M	BPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 8	DSI 5	656000	3840	22.12	23.50	1.374	-	-	-0.18	0.315	0.433
	FR1 n77 Part27O	100M	BPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 8	DSI 5	656000	3840	22.06	23.50	1.393	-	-	-0.03	0.260	0.362
	FR1 n77 Part27O HPUE	100M	BPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 8	DSI 5	656000	3840	25.09	26.50	1.384	50	1.000	-0.03	0.826	1.143
	FR1 n77 Part27O MIMO	100M	BPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 8	DSI 5	656000	3840	19.18	20.50	1.355	-	-	-0.06	0.175	0.237
	FR1 n77 Part27O MIMO	100M	BPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 8	DSI 5	656000	3840	19.18	20.50	1.355	-	-	0.03	0.404	0.547
	FR1 n77 Part27O MIMO	100M	BPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 8	DSI 5	656000	3840	19.18	20.50	1.355	-	-	0.09	0.030	0.041
	FR1 n77 Part27O MIMO	100M	BPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 8	DSI 5	656000	3840	19.18	20.50	1.355	-	-	0.04	0.403	0.546
	FR1 n77 Part27O MIMO	100M	BPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 8	DSI 5	656000	3840	19.18	20.50	1.355	-	-	0.01	0.158	0.214
	FR1 n77 Part27O HPUE MIMO	100M	BPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 8	DSI 5	656000	3840	22.05	23.50	1.396	50	1.000	0.08	0.401	0.560
	FR1 n77 Part27Q	100M	BPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 8	DSI 5	633334	3500.01	22.49	23.50	1.262	-	-	0.07	0.431	0.544
	FR1 n77 Part27Q	100M	BPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 8	DSI 5	633334	3500.01	22.39	23.50	1.291	-	-	0.03	0.383	0.495
53	FR1 n77 Part27Q	100M	BPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 8	DSI 5	633334	3500.01	22.49	23.50	1.262	-	-	0.03	0.911	1.150
	FR1 n77 Part27Q	100M	BPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 8	DSI 5	633334	3500.01	22.39	23.50	1.291	-	-	-0.02	0.807	1.042
	FR1 n77 Part27Q	100M	BPSK	270	0	DFT-SCS-30KHz	Back	10mm	Ant 8	DSI 5	633334	3500.01	22.35	23.50	1.303	-	-	-0.05	0.796	1.037
	FR1 n77 Part27Q	100M	BPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 8	DSI 5	633334	3500.01	22.49	23.50	1.262	-	-	-0.07	0.068	0.086
	FR1 n77 Part27Q	100M	BPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 8	DSI 5	633334	3500.01	22.39	23.50	1.291	-	-	0.07	0.063	0.081
	FR1 n77 Part27Q	100M	BPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 8	DSI 5	633334	3500.01	22.49	23.50	1.262	-	-	-0.17	0.849	1.071
	FR1 n77 Part27Q	100M	BPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 8	DSI 5	633334	3500.01	22.39	23.50	1.291	-	-	0.02	0.785	1.014



FR1 n77 Part27Q	100M	BPSK	270	0	DFT-SCS-30KHz	Right Side	10mm	Ant 8	DSI 5	633334	3500.01	22.35	23.50	1.303	-	-	0.02	0.717	0.934
FR1 n77 Part27Q	100M	BPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 8	DSI 5	633334	3500.01	22.49	23.50	1.262	-	-	-0.11	0.575	0.726
FR1 n77 Part27Q	100M	BPSK	135	69	DFT-SCS-30KHz	Top Side	10mm	Ant 8	DSI 5	633334	3500.01	22.39	23.50	1.291	-	-	0.09	0.524	0.677
FR1 n77 Part27Q HPUE	100M	BPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 8	DSI 5	633334	3500.01	25.35	26.50	1.303	50	1.000	-0.03	0.838	1.092
FR1 n77 Part27Q MIMO	100M	BPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 8	DSI 5	633334	3500.01	19.12	20.50	1.374	-	-	0.03	0.202	0.278
FR1 n77 Part27Q MIMO	100M	BPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 8	DSI 5	633334	3500.01	19.12	20.50	1.374	-	-	0.09	0.427	0.587
FR1 n77 Part27Q MIMO	100M	BPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 8	DSI 5	633334	3500.01	19.12	20.50	1.374	-	-	0.01	0.032	0.044
FR1 n77 Part27Q MIMO	100M	BPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 8	DSI 5	633334	3500.01	19.12	20.50	1.374	-	-	-0.02	0.398	0.547
FR1 n77 Part27Q MIMO	100M	BPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 8	DSI 5	633334	3500.01	19.12	20.50	1.374	-	-	0.05	0.270	0.371
FR1 n77 Part27Q HPUE MIMO	100M	BPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 8	DSI 5	633334	3500.01	22.18	23.50	1.355	50	1.000	0.01	0.413	0.560
FR1 n77 Part27O	100M	BPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 9	DSI 4	656000	3840	23.46	24.00	1.132	-	-	-0.06	0.412	0.467
FR1 n77 Part27O	100M	BPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 9	DSI 4	656000	3840	23.39	24.00	1.151	-	-	-0.06	0.333	0.383
FR1 n77 Part27O	100M	BPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 9	DSI 4	656000	3840	23.46	24.00	1.132	-	-	0.08	0.316	0.358
FR1 n77 Part27O	100M	BPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 9	DSI 4	656000	3840	23.39	24.00	1.151	-	-	-0.08	0.288	0.331
FR1 n77 Part27O	100M	BPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 9	DSI 4	656000	3840	23.46	24.00	1.132	-	-	0.02	0.177	0.200
FR1 n77 Part27O	100M	BPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 9	DSI 4	656000	3840	23.39	24.00	1.151	-	-	-0.04	0.157	0.181
FR1 n77 Part27O	100M	BPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 9	DSI 4	656000	3840	23.46	24.00	1.132	-	-	-0.16	0.490	0.555
FR1 n77 Part27O	100M	BPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 9	DSI 4	656000	3840	23.39	24.00	1.151	-	-	-0.07	0.427	0.491
FR1 n77 Part27O	100M	BPSK	1	1	DFT-SCS-30KHz	Bottom Side	10mm	Ant 9	DSI 4	656000	3840	23.46	24.00	1.132	-	-	-0.19	0.634	0.718
FR1 n77 Part27O	100M	BPSK	135	69	DFT-SCS-30KHz	Bottom Side	10mm	Ant 9	DSI 4	656000	3840	23.39	24.00	1.151	-	-	0.09	0.500	0.575
FR1 n77 Part27O HPUE	100M	BPSK	1	1	DFT-SCS-30KHz	Bottom Side	10mm	Ant 9	DSI 4	656000	3840	25.62	26.50	1.225	50	1.000	0.05	0.557	0.682
FR1 n77 Part27Q	100M	BPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 9	DSI 4	633334	3500.01	23.47	24.00	1.130	-	-	0.06	0.423	0.478
FR1 n77 Part27Q	100M	BPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 9	DSI 4	633334	3500.01	23.30	24.00	1.175	-	-	0.1	0.375	0.441
FR1 n77 Part27Q	100M	BPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 9	DSI 4	633334	3500.01	23.47	24.00	1.130	-	-	0.09	0.268	0.303
FR1 n77 Part27Q	100M	BPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 9	DSI 4	633334	3500.01	23.30	24.00	1.175	-	-	0.03	0.255	0.300
FR1 n77 Part27Q	100M	BPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 9	DSI 4	633334	3500.01	23.47	24.00	1.130	-	-	0.04	0.127	0.143
FR1 n77 Part27Q	100M	BPSK	135	69	DFT-SCS-30KHz	Left Side	10mm	Ant 9	DSI 4	633334	3500.01	23.30	24.00	1.175	-	-	-0.13	0.132	0.155
FR1 n77 Part27Q	100M	BPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 9	DSI 4	633334	3500.01	23.47	24.00	1.130	-	-	0.05	0.436	0.493
FR1 n77 Part27Q	100M	BPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 9	DSI 4	633334	3500.01	23.30	24.00	1.175	-	-	0.08	0.459	0.539
FR1 n77 Part27Q	100M	BPSK	1	1	DFT-SCS-30KHz	Bottom Side	10mm	Ant 9	DSI 4	633334	3500.01	23.47	24.00	1.130	-	-	-0.16	0.398	0.450
FR1 n77 Part27Q	100M	BPSK	135	69	DFT-SCS-30KHz	Bottom Side	10mm	Ant 9	DSI 4	633334	3500.01	23.30	24.00	1.175	-	-	-0.08	0.399	0.469
FR1 n77 Part27Q HPUE	100M	BPSK	135	69	DFT-SCS-30KHz	Right Side	10mm	Ant 9	DSI 4	633334	3500.01	24.80	26.50	1.479	50	1.000	0.06	0.349	0.516



Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	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)
WLAN/BT																
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 2+4(2)	non DBS simultaneous	1	2412	14.38	15.50	1.294	100	1.000	-0.04	0.115	0.149
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 2+4(2)	non DBS simultaneous	1	2412	14.38	15.50	1.294	100	1.000	-0.16	0.263	0.340
	WLAN2.4GHz	802.11b 1Mbps	Left Side	10mm	Ant 2+4(2)	non DBS simultaneous	1	2412	14.38	15.50	1.294	100	1.000	-0.07	0.087	0.113
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 2+4(2)	non DBS simultaneous	1	2412	14.38	15.50	1.294	100	1.000	0.03	0.041	0.053
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 2+4(2)	non DBS simultaneous	1	2412	14.38	15.50	1.294	100	1.000	0.04	0.094	0.122
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 2	DBS Only	1	2412	18.27	20.00	1.489	100	1.000	0.03	0.217	0.323
54	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 2	DBS Only	1	2412	18.27	20.00	1.489	100	1.000	0.07	0.290	0.432
	WLAN2.4GHz	802.11b 1Mbps	Left Side	10mm	Ant 2	DBS Only	1	2412	18.27	20.00	1.489	100	1.000	0.07	0.042	0.063
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 2	DBS Only	1	2412	18.27	20.00	1.489	100	1.000	0.03	0.128	0.191
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 2	DBS Only	1	2412	18.27	20.00	1.489	100	1.000	0.02	0.249	0.371
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 2	DBS simultaneous	1	2412	14.38	15.50	1.294	100	1.000	-0.04	0.091	0.118
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 2	DBS simultaneous	1	2412	14.38	15.50	1.294	100	1.000	-0.16	0.128	0.166
	WLAN2.4GHz	802.11b 1Mbps	Left Side	10mm	Ant 2	DBS simultaneous	1	2412	14.38	15.50	1.294	100	1.000	-0.07	0.025	0.032
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 2	DBS simultaneous	1	2412	14.38	15.50	1.294	100	1.000	0.03	0.057	0.074
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 2	DBS simultaneous	1	2412	14.38	15.50	1.294	100	1.000	0.02	0.115	0.149
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 4	Full power	1	2412	15.52	17.00	1.406	100	1.000	0.03	0.028	0.039
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4	Full power	1	2412	15.52	17.00	1.406	100	1.000	0.05	0.238	0.335
	WLAN2.4GHz	802.11b 1Mbps	Left Side	10mm	Ant 4	Full power	1	2412	15.52	17.00	1.406	100	1.000	0.09	0.199	0.280
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 4	Full power	1	2412	15.52	17.00	1.406	100	1.000	0.03	0.007	0.010
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 4	Full power	1	2412	15.52	17.00	1.406	100	1.000	0.02	0.009	0.013
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 4	DBS simultaneous	1	2412	11.85	12.50	1.161	100	1.000	0.01	0.008	0.009
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4	DBS simultaneous	1	2412	11.85	12.50	1.161	100	1.000	-0.03	0.156	0.181
	WLAN2.4GHz	802.11b 1Mbps	Left Side	10mm	Ant 4	DBS simultaneous	1	2412	11.85	12.50	1.161	100	1.000	0.05	0.143	0.166
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 4	DBS simultaneous	1	2412	11.85	12.50	1.161	100	1.000	0.04	0.031	0.036
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 4	DBS simultaneous	1	2412	11.85	12.50	1.161	100	1.000	0.09	0.010	0.012
	Bluetooth	1Mbps	Front	10mm	Ant 2	Full power	39	2441	6.03	6.50	1.114	76.86	1.084	-0.03	0.006	0.007
55	Bluetooth	1Mbps	Back	10mm	Ant 2	Full power	39	2441	6.03	6.50	1.114	76.86	1.084	0.08	0.012	0.014
	Bluetooth	1Mbps	Left Side	10mm	Ant 2	Full power	39	2441	6.03	6.50	1.114	76.86	1.084	-0.1	0.003	0.004
	Bluetooth	1Mbps	Right Side	10mm	Ant 2	Full power	39	2441	6.03	6.50	1.114	76.86	1.084	0.07	0.002	0.002
	Bluetooth	1Mbps	Top Side	10mm	Ant 2	Full power	39	2441	6.03	6.50	1.114	76.86	1.084	0.18	0.007	0.008
	WLAN5.2GHz	802.11a 6Mbps	Front	10mm	Ant 3+4(4)	non DBS simultaneous	40	5200	13.90	15.50	1.445	99.32	1.007	-0.1	0.077	0.112
	WLAN5.2GHz	802.11a 6Mbps	Back	10mm	Ant 3+4(4)	non DBS simultaneous	40	5200	13.90	15.50	1.445	99.32	1.007	0.01	0.180	0.262
	WLAN5.2GHz	802.11a 6Mbps	Left Side	10mm	Ant 3+4(4)	non DBS simultaneous	40	5200	13.90	15.50	1.445	99.32	1.007	-0.15	0.250	0.364
	WLAN5.2GHz	802.11a 6Mbps	Right Side	10mm	Ant 3+4(4)	non DBS simultaneous	40	5200	13.90	15.50	1.445	99.32	1.007	0.07	0.047	0.068
	WLAN5.2GHz	802.11a 6Mbps	Top Side	10mm	Ant 3+4(4)	non DBS simultaneous	40	5200	13.90	15.50	1.445	99.32	1.007	-0.18	0.132	0.192
	WLAN5.2GHz	802.11a 6Mbps	Front	10mm	Ant 3	DBS Only	40	5200	18.44	20.00	1.432	99.32	1.007	-0.1	0.055	0.079
	WLAN5.2GHz	802.11a 6Mbps	Back	10mm	Ant 3	DBS Only	40	5200	18.44	20.00	1.432	99.32	1.007	0.01	0.059	0.085
	WLAN5.2GHz	802.11a 6Mbps	Left Side	10mm	Ant 3	DBS Only	40	5200	18.44	20.00	1.432	99.32	1.007	-0.15	0.031	0.045
	WLAN5.2GHz	802.11a 6Mbps	Right Side	10mm	Ant 3	DBS Only	40	5200	18.44	20.00	1.432	99.32	1.007	0.07	0.047	0.068
	WLAN5.2GHz	802.11a 6Mbps	Top Side	10mm	Ant 3	DBS Only	40	5200	18.44	20.00	1.432	99.32	1.007	-0.18	0.066	0.095
	WLAN5.2GHz	802.11n-HT40 MCS0	Front	10mm	Ant 3	DBS simultaneous	46	5230	15.02	17.00	1.578	100	1.000	-0.1	0.028	0.044
	WLAN5.2GHz	802.11n-HT40 MCS0	Back	10mm	Ant 3	DBS simultaneous	46	5230	15.02	17.00	1.578	100	1.000	0.01	0.030	0.047
	WLAN5.2GHz	802.11n-HT40 MCS0	Left Side	10mm	Ant 3	DBS simultaneous	46	5230	15.02	17.00	1.578	100	1.000	-0.15	0.016	0.025
	WLAN5.2GHz	802.11n-HT40 MCS0	Right Side	10mm	Ant 3	DBS simultaneous	46	5230	15.02	17.00	1.578	100	1.000	0.07	0.024	0.038
	WLAN5.2GHz	802.11n-HT40 MCS0	Top Side	10mm	Ant 3	DBS simultaneous	46	5230	15.02	17.00	1.578	100	1.000	-0.18	0.033	0.052
	WLAN5.2GHz	802.11a 6Mbps	Front	10mm	Ant 4	DBS Only	40	5200	13.90	15.50	1.445	99.32	1.007	-0.1	0.060	0.087
	WLAN5.2GHz	802.11a 6Mbps	Back	10mm	Ant 4	DBS Only	40	5200	13.90	15.50	1.445	99.32	1.007	0.01	0.162	0.236
56	WLAN5.2GHz	802.11a 6Mbps	Left Side	10mm	Ant 4	DBS Only	40	5200	13.90	15.50	1.445	99.32	1.007	-0.15	0.304	0.442
	WLAN5.2GHz	802.11a 6Mbps	Right Side	10mm	Ant 4	DBS Only	40	5200	13.90	15.50	1.445	99.32	1.007	0.07	0.073	0.106
	WLAN5.2GHz	802.11a 6Mbps	Top Side	10mm	Ant 4	DBS Only	40	5200	13.90	15.50	1.445	99.32	1.007	-0.18	0.118	0.172
	WLAN5.2GHz	802.11n-HT40 MCS0	Front	10mm	Ant 4	DBS simultaneous	46	5230	10.76	12.50	1.493	100	1.000	-0.1	0.025	0.037



	WLAN5.2GHz	802.11n-HT40 MCS0	Back	10mm	Ant 4	DBS simultaneous	46	5230	10.76	12.50	1.493	100	1.000	0.01	0.068	0.102
	WLAN5.2GHz	802.11n-HT40 MCS0	Left Side	10mm	Ant 4	DBS simultaneous	46	5230	10.76	12.50	1.493	100	1.000	-0.15	0.127	0.190
	WLAN5.2GHz	802.11n-HT40 MCS0	Right Side	10mm	Ant 4	DBS simultaneous	46	5230	10.76	12.50	1.493	100	1.000	0.07	0.030	0.045
	WLAN5.2GHz	802.11n-HT40 MCS0	Top Side	10mm	Ant 4	DBS simultaneous	46	5230	10.76	12.50	1.493	100	1.000	-0.18	0.049	0.073
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 3+4(3)	non DBS simultaneous	155	5775	13.68	15.00	1.355	100	1.000	-0.04	0.082	0.111
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 3+4(3)	non DBS simultaneous	155	5775	13.68	15.00	1.355	100	1.000	0.03	0.191	0.259
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Side	10mm	Ant 3+4(3)	non DBS simultaneous	155	5775	13.68	15.00	1.355	100	1.000	-0.18	0.266	0.360
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 3+4(3)	non DBS simultaneous	155	5775	13.68	15.00	1.355	100	1.000	0.04	0.050	0.068
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 3+4(3)	non DBS simultaneous	155	5775	13.68	15.00	1.355	100	1.000	-0.15	0.140	0.190
	WLAN5.8GHz	802.11a 6Mbps	Front	10mm	Ant 3	DBS Only	165	5825	17.90	19.50	1.445	99.32	1.007	0.03	0.125	0.182
	WLAN5.8GHz	802.11a 6Mbps	Back	10mm	Ant 3	DBS Only	165	5825	17.90	19.50	1.445	99.32	1.007	0.02	0.135	0.197
	WLAN5.8GHz	802.11a 6Mbps	Left Side	10mm	Ant 3	DBS Only	165	5825	17.90	19.50	1.445	99.32	1.007	-0.04	0.072	0.105
	WLAN5.8GHz	802.11a 6Mbps	Right Side	10mm	Ant 3	DBS Only	165	5825	17.90	19.50	1.445	99.32	1.007	-0.18	0.107	0.156
	WLAN5.8GHz	802.11a 6Mbps	Top Side	10mm	Ant 3	DBS Only	165	5825	17.90	19.50	1.445	99.32	1.007	0.04	0.151	0.220
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 3	DBS simultaneous	155	5775	16.72	18.00	1.343	100	1.000	-0.04	0.097	0.130
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 3	DBS simultaneous	155	5775	16.72	18.00	1.343	100	1.000	0.03	0.123	0.165
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Side	10mm	Ant 3	DBS simultaneous	155	5775	16.72	18.00	1.343	100	1.000	-0.18	0.089	0.120
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 3	DBS simultaneous	155	5775	16.72	18.00	1.343	100	1.000	0.04	0.110	0.148
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 3	DBS simultaneous	155	5775	16.72	18.00	1.343	100	1.000	0.01	0.098	0.132
	WLAN5.8GHz	802.11a 6Mbps	Front	10mm	Ant 4	DBS Only	165	5825	13.31	14.50	1.315	99.32	1.007	-0.01	0.054	0.072
	WLAN5.8GHz	802.11a 6Mbps	Back	10mm	Ant 4	DBS Only	165	5825	13.31	14.50	1.315	99.32	1.007	0.02	0.145	0.192
57	WLAN5.8GHz	802.11a 6Mbps	Left Side	10mm	Ant 4	DBS Only	165	5825	13.31	14.50	1.315	99.32	1.007	0.02	0.272	0.360
	WLAN5.8GHz	802.11a 6Mbps	Right Side	10mm	Ant 4	DBS Only	165	5825	13.31	14.50	1.315	99.32	1.007	0.03	0.065	0.086
	WLAN5.8GHz	802.11a 6Mbps	Top Side	10mm	Ant 4	DBS Only	165	5825	13.31	14.50	1.315	99.32	1.007	0.04	0.106	0.140
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 4	DBS simultaneous	155	5775	11.93	13.00	1.279	100	1.000	0.02	0.044	0.056
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 4	DBS simultaneous	155	5775	11.93	13.00	1.279	100	1.000	-0.13	0.101	0.129
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Side	10mm	Ant 4	DBS simultaneous	155	5775	11.93	13.00	1.279	100	1.000	-0.04	0.155	0.198
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 4	DBS simultaneous	155	5775	11.93	13.00	1.279	100	1.000	0.03	0.062	0.079
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 4	DBS simultaneous	155	5775	11.93	13.00	1.279	100	1.000	0.01	0.094	0.120



15.3 Body Worn Accessory SAR

Table with columns: Plot No., Band, BW (MHz), Modulation, RB Size, RB offset, Mode, Test Position, Gap (mm), Antenna, 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). Rows include LTE Bands 12-14 and FR1 n12-n14 at 750Mhz and 835Mhz.



FCC SAR Test Report

Report No. : FA372407

Table with columns for frequency, modulation, power, and SAR values. Includes rows for GSM850, LTE Band 5, FR1 n5, and WCDMA IV. Specific values like 0.312, 0.839, 0.794, and 1.132 are highlighted.



FCC SAR Test Report

Report No. : FA372407

	FR1 n66	20M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 0	DSI 3	349000	1745	22.64	24.00	1.368	-	-	-0.05	0.596	0.815
	FR1 n66	20M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 0	DSI 3	344000	1720	22.55	24.00	1.396	-	-	0.04	0.552	0.771
69	FR1 n66	20M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 0	DSI 3	354000	1770	22.51	24.00	1.409	-	-	-0.15	0.630	0.888
	FR1 n66	20M	QPSK	50	28	DFT-SCS-15KHz	Back	10mm	Ant 0	DSI 3	349000	1745	22.58	24.00	1.387	-	-	0.03	0.614	0.851
	FR1 n66	20M	QPSK	50	28	DFT-SCS-15KHz	Back	10mm	Ant 0	DSI 3	344000	1720	22.54	24.00	1.400	-	-	-0.03	0.531	0.743
	FR1 n66	20M	QPSK	50	28	DFT-SCS-15KHz	Back	10mm	Ant 0	DSI 3	354000	1770	22.47	24.00	1.422	-	-	-0.1	0.566	0.805
	FR1 n66	20M	QPSK	100	0	DFT-SCS-15KHz	Back	10mm	Ant 0	DSI 3	349000	1745	21.51	23.00	1.409	-	-	0.06	0.484	0.682
	FR1 n66	20M	QPSK	1	1	DFT-SCS-15KHz	Back	11mm	Ant 0	DSI 3	354000	1770	22.51	24.00	1.409	-	-	0.02	0.545	0.768
	FR1 n66	20M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 5	DSI 4	349000	1745	22.92	24.00	1.282	-	-	-0.15	0.030	0.038
	FR1 n66	20M	QPSK	50	28	DFT-SCS-15KHz	Front	10mm	Ant 5	DSI 4	349000	1745	22.86	24.00	1.300	-	-	-0.16	0.025	0.033
	FR1 n66	20M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 5	DSI 3	349000	1745	22.92	24.00	1.282	-	-	-0.11	0.099	0.127
	FR1 n66	20M	QPSK	50	28	DFT-SCS-15KHz	Back	10mm	Ant 5	DSI 3	349000	1745	22.86	24.00	1.300	-	-	0.06	0.085	0.111
1900Mhz																				
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Front	10mm	Ant 0	DSI 4	661	1880	24.85	26.00	1.303	-	-	0.05	0.107	0.139
70	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Back	10mm	Ant 0	DSI 3	661	1880	24.85	26.00	1.303	-	-	0.06	0.221	0.288
	GSM1900					GPRS (3 Tx slots)	Back	11mm	Ant 0	DSI 3	661	1880	24.85	26.00	1.303	-	-	0.02	0.145	0.189
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 0	DSI 4	9400	1880	24.38	25.00	1.153	-	-	-0.15	0.421	0.486
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 0	DSI 3	9400	1880	23.32	24.00	1.169	-	-	0.11	0.709	0.829
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 0	DSI 3	9262	1852.4	23.26	24.00	1.186	-	-	-0.04	0.717	0.850
71	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 0	DSI 3	9538	1907.6	23.18	24.00	1.208	-	-	-0.01	0.805	0.972
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 0	DSI 3	9538	1907.6	24.11	25.00	1.227	-	-	0.06	0.423	0.519
	WCDMA II					RMC 12.2Kbps	Back	11mm	Ant 0	DSI 3	9538	1907.6	23.18	24.00	1.208	-	-	0.02	0.676	0.816
	LTE Band 2	20M	QPSK	1	0	-	Front	10mm	Ant 0	DSI 4	18900	1880	23.19	24.00	1.205	-	-	-0.08	0.368	0.443
	LTE Band 2	20M	QPSK	50	0	-	Front	10mm	Ant 0	DSI 4	18900	1880	22.29	23.00	1.178	-	-	0.17	0.292	0.344
	LTE Band 2	20M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 3	18900	1880	23.19	24.00	1.205	-	-	0.18	0.672	0.810
	LTE Band 2	20M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 3	18700	1860	23.14	24.00	1.219	-	-	-0.04	0.667	0.813
72	LTE Band 2	20M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 3	19100	1900	23.13	24.00	1.222	-	-	0.06	0.759	0.927
	LTE Band 2	20M	QPSK	50	0	-	Back	10mm	Ant 0	DSI 3	18900	1880	22.29	23.00	1.178	-	-	-0.08	0.525	0.618
	LTE Band 2	20M	QPSK	100	0	-	Back	10mm	Ant 0	DSI 3	18900	1880	22.22	23.00	1.197	-	-	-0.13	0.525	0.628
	LTE Band 2 ENDC	20M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 3	19100	1900	21.01	22.00	1.256	-	-	-0.04	0.429	0.539
	LTE Band 2	20M	QPSK	1	0	-	Back	15mm	Ant 0	DSI 3	19100	1900	23.13	24.00	1.222	-	-	0.03	0.340	0.415
	LTE Band 2	20M	QPSK	1	0	-	Back	11mm	Ant 0	DSI 3	19100	1900	21.01	22.00	1.256	-	-	0.01	0.315	0.396
	LTE Band 2	20M	QPSK	1	0	-	Front	10mm	Ant 5	DSI 4	18900	1880	22.95	24.00	1.274	-	-	-0.14	0.020	0.025
	LTE Band 2	20M	QPSK	50	0	-	Front	10mm	Ant 5	DSI 4	18900	1880	22.85	24.00	1.303	-	-	0.08	0.013	0.017
	LTE Band 2	20M	QPSK	1	0	-	Back	10mm	Ant 5	DSI 3	18900	1880	22.95	24.00	1.274	-	-	0.14	0.071	0.090
	LTE Band 2	20M	QPSK	50	0	-	Back	10mm	Ant 5	DSI 3	18900	1880	22.85	24.00	1.303	-	-	0.01	0.073	0.095
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 0	DSI 4	376000	1880	23.28	24.00	1.180	-	-	-0.09	0.269	0.318
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Front	10mm	Ant 0	DSI 4	376000	1880	23.22	24.00	1.197	-	-	0.02	0.258	0.309
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 0	DSI 3	376000	1880	23.28	24.00	1.180	-	-	-0.03	0.534	0.630
73	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Back	10mm	Ant 0	DSI 3	376000	1880	23.22	24.00	1.197	-	-	0.01	0.607	0.726
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Back	11mm	Ant 0	DSI 3	376000	1880	23.22	24.00	1.197	-	-	0.03	0.495	0.592
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Front	10mm	Ant 5	DSI 4	376000	1880	23.28	24.00	1.180	-	-	0.05	0.020	0.024
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Front	10mm	Ant 5	DSI 4	376000	1880	23.22	24.00	1.197	-	-	0.05	0.011	0.013
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Back	10mm	Ant 5	DSI 3	376000	1880	23.28	24.00	1.180	-	-	0.05	0.076	0.090
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Back	10mm	Ant 5	DSI 3	376000	1880	23.22	24.00	1.197	-	-	0.12	0.089	0.107
2600Mhz																				
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 1	DSI 4	21100	2535	22.61	24.00	1.377	-	-	0.06	0.251	0.346
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 1	DSI 4	21100	2535	21.65	23.00	1.365	-	-	0.04	0.203	0.277
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 1	DSI 2	21100	2535	22.61	24.00	1.377	-	-	0.05	0.516	0.711
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 1	DSI 2	21100	2535	21.65	23.00	1.365	-	-	0.08	0.481	0.656
	LTE Band 7	20M	QPSK	1	0	-	Back	11mm	Ant 1	DSI 2	21100	2535	22.61	24.00	1.377	-	-	0.02	0.456	0.628
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 5	DSI 4	21100	2535	22.33	24.00	1.469	-	-	0.02	0.108	0.159
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 5	DSI 4	21100	2535	21.33	23.00	1.469	-	-	0.1	0.091	0.134
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 5	DSI 3	21100	2535	22.33	24.00	1.469	-	-	0.06	0.200	0.294
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 5	DSI 3	21100	2535	21.33	23.00	1.469	-	-	0.09	0.152	0.223
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 6	DSI 4	21100	2535	22.45	24.00	1.429	-	-	0.05	0.426	0.609



Table with columns: LTE Band, Power, Modulation, Frequency, Duty Cycle, Exposure, Position, Antenna, DSI, Frequency, Power, SAR, etc. Includes rows for LTE Band 7 and FR1 n7.



Table with columns for test parameters (FR1 n7, 20M, QPSK, 50, 28, DFT-SCS-15KHz, Back, 10mm, Ant 7, DSI 4, 507000, 2535, 21.93, 23.00, 1.279, 0.02, 0.147, 0.188) and rows for various configurations including LTE Band 48 and FR1 n41/n38/n48/n77.



	FR1 n77 Part27O	100M	BPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 6	DSI 4	656000	3840	22.87	24.00	1.297	-	-	0.03	0.180	0.233
	FR1 n77 Part27O	100M	BPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 6	DSI 3	656000	3840	22.88	24.00	1.294	-	-	0.03	0.264	0.342
	FR1 n77 Part27O	100M	BPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 6	DSI 3	656000	3840	22.87	24.00	1.297	-	-	-0.06	0.290	0.376
	FR1 n77 Part27O HPUE	100M	BPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 6	DSI 3	656000	3840	25.28	26.00	1.180	50	1.000	-0.03	0.256	0.302
	FR1 n77 Part27O	100M	BPSK	135	69	DFT-SCS-30KHz	Back	11mm	Ant 6	DSI 3	656000	3840	22.87	24.00	1.297	-	-	0.01	0.210	0.272
	FR1 n77 Part27Q	100M	BPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 6	DSI 4	633334	3500.01	22.57	24.00	1.390	-	-	-0.16	0.129	0.179
	FR1 n77 Part27Q	100M	BPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 6	DSI 4	633334	3500.01	22.52	24.00	1.406	-	-	-0.07	0.168	0.236
	FR1 n77 Part27Q	100M	BPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 6	DSI 3	633334	3500.01	22.57	24.00	1.390	-	-	0.03	0.265	0.368
	FR1 n77 Part27Q	100M	BPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 6	DSI 3	633334	3500.01	22.52	24.00	1.406	-	-	0.03	0.413	0.581
	FR1 n77 Part27Q HPUE	100M	BPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 6	DSI 3	633334	3500.01	24.53	26.00	1.403	50	1.000	0.05	0.328	0.460
	FR1 n77 Part27Q	100M	BPSK	135	69	DFT-SCS-30KHz	Back	11mm	Ant 6	DSI 3	633334	3500.01	22.52	24.00	1.406	-	-	0.02	0.256	0.360
	FR1 n77 Part27O	100M	BPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 8	DSI 4	656000	3840	22.65	24.00	1.365	-	-	0.03	0.391	0.534
	FR1 n77 Part27O	100M	BPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 8	DSI 4	656000	3840	22.61	24.00	1.377	-	-	0.01	0.371	0.511
	FR1 n77 Part27O	100M	BPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 8	DSI 2	656000	3840	22.12	23.50	1.374	-	-	0.18	0.807	1.109
	FR1 n77 Part27O	100M	BPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 8	DSI 2	656000	3840	22.06	23.50	1.393	-	-	0.03	0.780	1.087
	FR1 n77 Part27O	100M	BPSK	270	0	DFT-SCS-30KHz	Back	10mm	Ant 8	DSI 2	656000	3840	22.01	23.50	1.409	-	-	0.05	0.701	0.988
	FR1 n77 Part27O HPUE	100M	BPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 8	DSI 2	656000	3840	25.09	26.50	1.384	50	1.000	0.05	0.781	1.081
	FR1 n77 Part27O MIMO	100M	BPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 8	DSI 2	656000	3840	19.18	20.50	1.355	-	-	0.03	0.409	0.554
	FR1 n77 Part27O HPUE MIMO	100M	BPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 8	DSI 2	656000	3840	22.05	23.50	1.396	50	1.000	0.05	0.395	0.552
	FR1 n77 Part27O	100M	BPSK	1	1	DFT-SCS-30KHz	Back	12mm	Ant 8	DSI 2	656000	3840	22.65	24.00	1.365	-	-	0.01	0.592	0.808
	FR1 n77 Part27O	100M	BPSK	1	1	DFT-SCS-30KHz	Back	11mm	Ant 8	DSI 2	656000	3840	19.18	20.50	1.355	-	-	0.03	0.312	0.423
	FR1 n77 Part27Q	100M	BPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 8	DSI 4	633334	3500.01	22.96	24.00	1.271	-	-	0.09	0.471	0.598
	FR1 n77 Part27Q	100M	BPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 8	DSI 4	633334	3500.01	22.92	24.00	1.282	-	-	0.04	0.423	0.542
81	FR1 n77 Part27Q	100M	BPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 8	DSI 2	633334	3500.01	22.49	23.50	1.262	-	-	0.03	0.911	1.150
	FR1 n77 Part27Q	100M	BPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 8	DSI 2	633334	3500.01	22.39	23.50	1.291	-	-	-0.02	0.807	1.042
	FR1 n77 Part27Q	100M	BPSK	270	0	DFT-SCS-30KHz	Back	10mm	Ant 8	DSI 2	633334	3500.01	22.35	23.50	1.303	-	-	-0.05	0.796	1.037
	FR1 n77 Part27Q HPUE	100M	BPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 8	DSI 2	633334	3500.01	25.35	26.50	1.303	50	1.000	-0.03	0.838	1.092
	FR1 n77 Part27Q MIMO	100M	BPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 8	DSI 2	633334	3500.01	19.12	20.50	1.374	-	-	0.09	0.427	0.587
	FR1 n77 Part27Q HPUE MIMO	100M	BPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 8	DSI 2	633334	3500.01	22.18	23.50	1.355	50	1.000	0.01	0.413	0.560
	FR1 n77 Part27Q	100M	BPSK	1	1	DFT-SCS-30KHz	Back	12mm	Ant 8	DSI 2	633334	3500.01	22.96	24.00	1.271	-	-	0.03	0.662	0.841
	FR1 n77 Part27Q	100M	BPSK	1	1	DFT-SCS-30KHz	Back	11mm	Ant 8	DSI 2	633334	3500.01	19.12	20.50	1.374	-	-	0.03	0.332	0.456
	FR1 n77 Part27O	100M	BPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 9	DSI 4	656000	3840	23.46	24.00	1.132	-	-	-0.06	0.412	0.467
	FR1 n77 Part27O	100M	BPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 9	DSI 4	656000	3840	23.39	24.00	1.151	-	-	-0.06	0.333	0.383
	FR1 n77 Part27O	100M	BPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 9	DSI 4	656000	3840	23.46	24.00	1.132	-	-	0.08	0.316	0.358
	FR1 n77 Part27O	100M	BPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 9	DSI 4	656000	3840	23.39	24.00	1.151	-	-	-0.08	0.288	0.331
	FR1 n77 Part27O HPUE	100M	BPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 9	DSI 4	656000	3840	25.62	26.50	1.225	50	1.000	0.09	0.352	0.431
	FR1 n77 Part27Q	100M	BPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 9	DSI 4	633334	3500.01	23.47	24.00	1.130	-	-	0.06	0.423	0.478
	FR1 n77 Part27Q	100M	BPSK	135	69	DFT-SCS-30KHz	Front	10mm	Ant 9	DSI 4	633334	3500.01	23.30	24.00	1.175	-	-	0.1	0.375	0.441
	FR1 n77 Part27Q	100M	BPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 9	DSI 4	633334	3500.01	23.47	24.00	1.130	-	-	0.09	0.268	0.303
	FR1 n77 Part27Q	100M	BPSK	135	69	DFT-SCS-30KHz	Back	10mm	Ant 9	DSI 4	633334	3500.01	23.30	24.00	1.175	-	-	0.03	0.255	0.300
	FR1 n77 Part27Q HPUE	100M	BPSK	1	1	DFT-SCS-30KHz	Front	10mm	Ant 9	DSI 4	633334	3500.01	24.93	26.50	1.435	50	1.000	0.01	0.307	0.441



Table with 16 columns: Plot No., Band, Mode, Test Position, Gap (mm), Antenna, 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). Rows include WLAN/Bluetooth tests across various frequencies and antenna configurations.



15.4 Product specific 10g SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	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 10g SAR (W/kg)	Reported 10g SAR (W/kg)
1900Mhz																				
87	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 0	DSI 3	9400	1880	23.32	24.00	1.169	-	-	-0.03	2.540	2.971
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 0	DSI 3	9262	1852.4	23.26	24.00	1.186	-	-	-0.06	2.290	2.715
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 0	DSI 3	9538	1907.6	23.18	24.00	1.208	-	-	0.17	2.260	2.730
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 0	DSI 4	9400	1880	24.38	25.00	1.153	-	-	0.09	0.396	0.457
3500-3900Mhz																				
88	FR1 n77 Part270	100M	BPSK	1	1	DFT-SCS-30KHz	Right Side	0mm	Ant 8	DSI 2	856000	3840	22.12	23.50	1.374	-	-	0.07	2.100	2.885
	FR1 n77 Part270	100M	BPSK	135	69	DFT-SCS-30KHz	Right Side	0mm	Ant 8	DSI 2	856000	3840	22.06	23.50	1.393	-	-	-0.01	2.010	2.800
	FR1 n77 Part270	100M	BPSK	270	0	DFT-SCS-30KHz	Right Side	0mm	Ant 8	DSI 2	856000	3840	22.01	23.50	1.409	-	-	0.05	1.910	2.692
	FR1 n77 Part270 HPUE	100M	BPSK	1	1	DFT-SCS-30KHz	Right Side	0mm	Ant 8	DSI 2	856000	3840	25.09	26.50	1.384	50	1.000	0.03	1.990	2.753
	FR1 n77 Part270 MIMO	100M	BPSK	1	1	DFT-SCS-30KHz	Right Side	0mm	Ant 8	DSI 2	856000	3840	19.18	20.50	1.355	-	-	0.06	1.010	1.369
	FR1 n77 Part270 HPUE MIMO	100M	BPSK	1	1	DFT-SCS-30KHz	Right Side	0mm	Ant 8	DSI 2	856000	3840	22.05	23.50	1.396	50	1.000	0.01	0.991	1.384
	FR1 n77 Part270	100M	BPSK	1	1	DFT-SCS-30KHz	Right Side	3mm	Ant 8	DSI 4	856000	3840	22.65	24.00	1.365	-	-	0.05	2.060	2.811

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	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 10g SAR (W/kg)	Reported 10g SAR (W/kg)
WLAN																
	WLAN 5.3GHz	802.11a 6Mbps	Front	0mm	Ant 3+4(4)	Full power	52	5260	13.24	15.00	1.500	99.32	1.007	0.03	0.142	0.214
	WLAN 5.3GHz	802.11a 6Mbps	Back	0mm	Ant 3+4(4)	Full power	52	5260	13.24	15.00	1.500	99.32	1.007	-0.15	0.317	0.479
89	WLAN 5.3GHz	802.11a 6Mbps	Left Side	0mm	Ant 3+4(4)	Full power	52	5260	13.24	15.00	1.500	99.32	1.007	0.03	0.461	0.696
	WLAN 5.3GHz	802.11a 6Mbps	Right Side	0mm	Ant 3+4(4)	Full power	52	5260	13.24	15.00	1.500	99.32	1.007	-0.15	0.093	0.140
	WLAN 5.3GHz	802.11a 6Mbps	Top Side	0mm	Ant 3+4(4)	Full power	52	5260	13.24	15.00	1.500	99.32	1.007	0.11	0.263	0.397
	WLAN 5.3GHz	802.11a 6Mbps	Front	0mm	Ant 3	Full power	52	5260	18.42	20.00	1.439	99.32	1.007	-0.08	0.216	0.313
	WLAN 5.3GHz	802.11a 6Mbps	Back	0mm	Ant 3	Full power	52	5260	18.42	20.00	1.439	99.32	1.007	-0.13	0.416	0.603
	WLAN 5.3GHz	802.11a 6Mbps	Left Side	0mm	Ant 3	Full power	52	5260	18.42	20.00	1.439	99.32	1.007	-0.04	0.020	0.029
	WLAN 5.3GHz	802.11a 6Mbps	Right Side	0mm	Ant 3	Full power	52	5260	18.42	20.00	1.439	99.32	1.007	0.03	0.141	0.204
	WLAN 5.3GHz	802.11a 6Mbps	Top Side	0mm	Ant 3	Full power	52	5260	18.42	20.00	1.439	99.32	1.007	-0.18	0.328	0.475
	WLAN 5.3GHz	802.11n-HT40 MCS0	Front	0mm	Ant 3	DBS simultaneous	54	5270	16.35	18.00	1.462	100	1.000	-0.15	0.130	0.190
	WLAN 5.3GHz	802.11n-HT40 MCS0	Back	0mm	Ant 3	DBS simultaneous	54	5270	16.35	18.00	1.462	100	1.000	-0.02	0.209	0.306
	WLAN 5.3GHz	802.11n-HT40 MCS0	Left Side	0mm	Ant 3	DBS simultaneous	54	5270	16.35	18.00	1.462	100	1.000	-0.15	0.015	0.022
	WLAN 5.3GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 3	DBS simultaneous	54	5270	16.35	18.00	1.462	100	1.000	-0.13	0.071	0.104
	WLAN 5.3GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 3	DBS simultaneous	54	5270	16.35	18.00	1.462	100	1.000	-0.04	0.210	0.307
	WLAN 5.3GHz	802.11a 6Mbps	Back	12mm	Ant 3	Full power	52	5260	18.42	20.00	1.439	99.32	1.007	0.08	0.136	0.197
	WLAN 5.3GHz	802.11a 6Mbps	Front	0mm	Ant 4	Full power	60	5300	13.25	15.00	1.496	99.32	1.007	-0.08	0.104	0.157
	WLAN 5.3GHz	802.11a 6Mbps	Back	0mm	Ant 4	Full power	60	5300	13.25	15.00	1.496	99.32	1.007	-0.13	0.232	0.350
	WLAN 5.3GHz	802.11a 6Mbps	Left Side	0mm	Ant 4	Full power	60	5300	13.25	15.00	1.496	99.32	1.007	-0.04	0.265	0.399
	WLAN 5.3GHz	802.11a 6Mbps	Right Side	0mm	Ant 4	Full power	60	5300	13.25	15.00	1.496	99.32	1.007	0.03	0.024	0.036
	WLAN 5.3GHz	802.11a 6Mbps	Top Side	0mm	Ant 4	Full power	60	5300	13.25	15.00	1.496	99.32	1.007	-0.18	0.174	0.262
	WLAN 5.5GHz	802.11a 6Mbps	Front	0mm	Ant 3+4(4)	Full power	132	5660	13.61	15.00	1.377	99.32	1.007	-0.08	0.279	0.387
	WLAN 5.5GHz	802.11a 6Mbps	Back	0mm	Ant 3+4(4)	Full power	132	5660	13.61	15.00	1.377	99.32	1.007	-0.17	0.391	0.542
	WLAN 5.5GHz	802.11a 6Mbps	Left Side	0mm	Ant 3+4(4)	Full power	132	5660	13.61	15.00	1.377	99.32	1.007	-0.08	0.437	0.606
	WLAN 5.5GHz	802.11a 6Mbps	Right Side	0mm	Ant 3+4(4)	Full power	132	5660	13.61	15.00	1.377	99.32	1.007	-0.04	0.158	0.219
90	WLAN 5.5GHz	802.11a 6Mbps	Top Side	0mm	Ant 3+4(4)	Full power	132	5660	13.61	15.00	1.377	99.32	1.007	-0.11	0.515	0.714
	WLAN 5.5GHz	802.11a 6Mbps	Front	0mm	Ant 3	Full power	132	5660	18.16	19.50	1.361	99.32	1.007	-0.08	0.290	0.398
	WLAN 5.5GHz	802.11a 6Mbps	Back	0mm	Ant 3	Full power	132	5660	18.16	19.50	1.361	99.32	1.007	-0.13	0.216	0.296
	WLAN 5.5GHz	802.11a 6Mbps	Left Side	0mm	Ant 3	Full power	132	5660	18.16	19.50	1.361	99.32	1.007	-0.04	0.021	0.029
	WLAN 5.5GHz	802.11a 6Mbps	Right Side	0mm	Ant 3	Full power	132	5660	18.16	19.50	1.361	99.32	1.007	0.03	0.196	0.269
	WLAN 5.5GHz	802.11a 6Mbps	Top Side	0mm	Ant 3	Full power	132	5660	18.16	19.50	1.361	99.32	1.007	-0.18	0.259	0.355
	WLAN 5.5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 3	DBS simultaneous	122	5610	15.72	17.00	1.343	100	1.000	-0.02	0.171	0.230
	WLAN 5.5GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 3	DBS simultaneous	122	5610	15.72	17.00	1.343	100	1.000	-0.13	0.127	0.171



WLAN 5.5GHz	802.11ac-VHT80 MCS0	Left Side	0mm	Ant 3	DBS simultaneous	122	5610	15.72	17.00	1.343	100	1.000	-0.08	0.012	0.016
WLAN 5.5GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 3	DBS simultaneous	122	5610	15.72	17.00	1.343	100	1.000	0.03	0.115	0.154
WLAN 5.5GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 3	DBS simultaneous	122	5610	15.72	17.00	1.343	100	1.000	-0.08	0.153	0.205
WLAN 5.5GHz	802.11a 6Mbps	Back	12mm	Ant 3	Full power	132	5660	18.16	19.50	1.361	99.32	1.007	0.09	0.118	0.162
WLAN 5.5GHz	802.11a 6Mbps	Front	0mm	Ant 4	Full power	124	5620	13.74	15.50	1.500	99.32	1.007	-0.08	0.108	0.163
WLAN 5.5GHz	802.11a 6Mbps	Back	0mm	Ant 4	Full power	124	5620	13.74	15.50	1.500	99.32	1.007	-0.13	0.197	0.298
WLAN 5.5GHz	802.11a 6Mbps	Left Side	0mm	Ant 4	Full power	124	5620	13.74	15.50	1.500	99.32	1.007	-0.04	0.245	0.370
WLAN 5.5GHz	802.11a 6Mbps	Right Side	0mm	Ant 4	Full power	124	5620	13.74	15.50	1.500	99.32	1.007	0.03	0.024	0.036
WLAN 5.5GHz	802.11a 6Mbps	Top Side	0mm	Ant 4	Full power	124	5620	13.74	15.50	1.500	99.32	1.007	-0.18	0.115	0.174



15.5 Repeated SAR Measurement

<1g>

No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Mode	Test Position	Gap (mm)	Antenna	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)	Ratio	Reported 1g SAR (W/kg)
1st	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 1	21350	2560	20.75	22.00	1.334	-	-	0.08	0.898	1	1.198
2st	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 1	21350	2560	20.75	22.00	1.334	-	-	0.02	0.885	1.015	1.180
1st	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 8	DSI 1	55340	3560	23.47	24.00	1.130	62.9	1.006	-0.18	0.900	1	1.023
2st	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 8	DSI 1	55340	3560	23.47	24.00	1.130	62.9	1.006	0.02	0.892	1.009	1.014
1st	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 8	DSI 1	55830	3609	23.62	24.00	1.091	62.9	1.006	0.05	0.878	1	0.964
2st	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 8	DSI 1	55830	3609	23.62	24.00	1.091	62.9	1.006	0.03	0.866	1.014	0.951
1st	FR1 n77 Part270 HPUE	100M	BPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 8	DSI 5	656000	3840	25.09	26.50	1.384	50	1.000	-0.03	0.826	1	1.143
2st	FR1 n77 Part270 HPUE	100M	BPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 8	DSI 5	656000	3840	25.09	26.50	1.384	50	1.000	0.02	0.822	1.005	1.137
1st	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 3	132322	1745	23.20	24.00	1.202	-	-	-0.01	0.929	1	1.117
2st	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 3	132322	1745	23.20	24.00	1.202	-	-	0.02	0.915	1.015	1.100
1st	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 0	DSI 3	9538	1907.6	23.18	24.00	1.208	-	-	-0.01	0.805	1	0.972
2st	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 0	DSI 3	9538	1907.6	23.18	24.00	1.208	-	-	0.06	0.795	1.013	0.960
1st	FR1 n77 Part27Q	100M	BPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 8	DSI 2	633334	3500.01	22.49	23.50	1.262	-	-	0.03	0.911	1	1.150
2st	FR1 n77 Part27Q	100M	BPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 8	DSI 2	633334	3500.01	22.49	23.50	1.262	-	-	0.01	0.906	1.006	1.143

<10g>

No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Mode	Test Position	Gap (mm)	Antenna	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 10g SAR (W/kg)	Ratio	Reported 10g SAR (W/kg)
1st	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 0	DSI 3	9400	1880	23.32	24.00	1.169	-	-	-0.03	2.540	1	2.971
2st	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 0	DSI 3	9400	1880	23.32	24.00	1.169	-	-	0.02	2.500	1.016	2.924
1st	FR1 n77 Part270	100M	BPSK	1	1	DFT-SCS-30KHz	Right Side	0mm	Ant 8	DSI 2	656000	3840	22.12	23.50	1.374	-	-	0.07	2.100	1	2.885
2st	FR1 n77 Part270	100M	BPSK	1	1	DFT-SCS-30KHz	Right Side	0mm	Ant 8	DSI 2	656000	3840	22.12	23.50	1.374	-	-	0.02	2.080	1.010	2.858
1st	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	0mm	Ant 0	DSI 1	1413	1732.6	23.74	25.00	1.337	-	-	-0.03	2.020	1	2.700
2st	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	0mm	Ant 0	DSI 1	1413	1732.6	23.74	25.00	1.337	-	-	0.01	2.000	1.010	2.673

General Note:

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



15.6 TDD LTE Linearity Data Analysis

General Note:

This device support Power Class 2 and Power Class 3 operations for 5GNR n41/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 NR 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 for 1g and < 3.5 W/kg for 10g, Separate SAR testing for Power Class 2 is not required.

FR1 n41(HPUE) Ant 1-Linearity Data for Head			FR1 n41(HPUE) Ant 5-Linearity Data for Head		
	FR1 n41 (Power Class 3)	FR1 n41 (Power Class 2)		FR1 n41 (Power Class 3)	FR1 n41 (Power Class 2)
Maximum Tune up Power (dBm)	24.00	26.00	Maximum Tune up Power (dBm)	23.50	25.50
Reported 1g SAR (W/kg)	0.673	0.570	Reported 1g SAR (W/kg)	0.582	0.481
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	251.19	199.05	Frame Averaged (mW)	223.87	177.41
Linearity SAR (W/kg)	0.533		Linearity SAR (W/kg)	0.461	
% deviation from expected linearity		6.88%	% deviation from expected linearity		4.29%
FR1 n41(HPUE) Ant 1-Linearity Data for Body-worn			FR1 n41(HPUE) Ant 5-Linearity Data for Body-worn		
	FR1 n41 (Power Class 3)	FR1 n41 (Power Class 2)		FR1 n41 (Power Class 3)	FR1 n41 (Power Class 2)
Maximum Tune up Power (dBm)	24.00	26.00	Maximum Tune up Power (dBm)	23.50	25.50
Reported 1g SAR (W/kg)	0.770	0.616	Reported 1g SAR (W/kg)	0.348	0.290
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	251.19	199.05	Frame Averaged (mW)	223.87	177.41
Linearity SAR (W/kg)	0.610		Linearity SAR (W/kg)	0.276	
% deviation from expected linearity		0.95%	% deviation from expected linearity		5.16%
FR1 n41(HPUE) Ant 1-Linearity Data for Hotspot			FR1 n41(HPUE) Ant 5-Linearity Data for Hotspot		
	FR1 n41 (Power Class 3)	FR1 n41 (Power Class 2)		FR1 n41 (Power Class 3)	FR1 n41 (Power Class 2)
Maximum Tune up Power (dBm)	24.00	26.00	Maximum Tune up Power (dBm)	23.50	25.50
Reported 1g SAR (W/kg)	0.770	0.616	Reported 1g SAR (W/kg)	0.652	0.519
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	251.19	199.05	Frame Averaged (mW)	223.87	177.41
Linearity SAR (W/kg)	0.610		Linearity SAR (W/kg)	0.517	
% deviation from expected linearity		0.95%	% deviation from expected linearity		0.45%

FR1 n77(HPUE) Part270 Ant 5-Linearity Data for Head			FR1 n77(HPUE) Part270 Ant 6-Linearity Data for Head		
	FR1 n77 (Power Class 3)	FR1 n77 (Power Class 2)		FR1 n77 (Power Class 3)	FR1 n77 (Power Class 2)
Maximum Tune up Power (dBm)	24.00	27.00	Maximum Tune up Power (dBm)	24.00	26.00
Reported 1g SAR (W/kg)	0.272	0.266	Reported 1g SAR (W/kg)	0.062	0.047
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	251.19	250.59	Frame Averaged (mW)	251.19	199.05
Linearity SAR (W/kg)	0.271		Linearity SAR (W/kg)	0.049	
% deviation from expected linearity		-1.97%	% deviation from expected linearity		-4.34%
FR1 n77(HPUE) Part270 Ant 5-Linearity Data for Body-worn			FR1 n77(HPUE) Part270 Ant 6-Linearity Data for Body-worn		
	FR1 n77 (Power Class 3)	FR1 n77 (Power Class 2)		FR1 n77 (Power Class 3)	FR1 n77 (Power Class 2)
Maximum Tune up Power (dBm)	24.00	27.00	Maximum Tune up Power (dBm)	24.00	26.00
Reported 1g SAR (W/kg)	0.191	0.179	Reported 1g SAR (W/kg)	0.376	0.302
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	251.19	250.59	Frame Averaged (mW)	251.19	199.05
Linearity SAR (W/kg)	0.191		Linearity SAR (W/kg)	0.298	
% deviation from expected linearity		-6.06%	% deviation from expected linearity		1.36%
FR1 n77(HPUE) Part270 Ant 5-Linearity Data for Hotspot			FR1 n77(HPUE) Part270 Ant 6-Linearity Data for Hotspot		
	FR1 n77 (Power Class 3)	FR1 n77 (Power Class 2)		FR1 n77 (Power Class 3)	FR1 n77 (Power Class 2)
Maximum Tune up Power (dBm)	24.00	27.00	Maximum Tune up Power (dBm)	24.00	26.00
Reported 1g SAR (W/kg)	0.246	0.237	Reported 1g SAR (W/kg)	0.376	0.302



Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	251.19	250.59	Frame Averaged (mW)	251.19	199.05
Linearity SAR (W/kg)	0.245		Linearity SAR (W/kg)	0.298	
% deviation from expected linearity		-3.43%	% deviation from expected linearity		1.36%
FR1 n77(HPUE) Part27Q Ant 5-Linearity Data for Head			FR1 n77(HPUE) Part27Q Ant 6-Linearity Data for Head		
	FR1 n77 (Power Class 3)	FR1 n77 (Power Class 2)		FR1 n77 (Power Class 3)	FR1 n77 (Power Class 2)
Maximum Tune up Power (dBm)	24.00	27.00	Maximum Tune up Power (dBm)	24.00	26.00
Reported 1g SAR (W/kg)	0.174	0.163	Reported 1g SAR (W/kg)	0.014	0.011
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	251.19	250.59	Frame Averaged (mW)	251.19	199.05
Linearity SAR (W/kg)	0.174		Linearity SAR (W/kg)	0.011	
% deviation from expected linearity		-6.10%	% deviation from expected linearity		-0.85%
FR1 n77(HPUE) Part27Q Ant 5-Linearity Data for Body-worn			FR1 n77(HPUE) Part27Q Ant 6-Linearity Data for Body-worn		
	FR1 n77 (Power Class 3)	FR1 n77 (Power Class 2)		FR1 n77 (Power Class 3)	FR1 n77 (Power Class 2)
Maximum Tune up Power (dBm)	24.00	27.00	Maximum Tune up Power (dBm)	24.00	26.00
Reported 1g SAR (W/kg)	0.075	0.071	Reported 1g SAR (W/kg)	0.581	0.460
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	251.19	250.59	Frame Averaged (mW)	251.19	199.05
Linearity SAR (W/kg)	0.075		Linearity SAR (W/kg)	0.460	
% deviation from expected linearity		-5.11%	% deviation from expected linearity		-0.09%
FR1 n77(HPUE) Part27Q Ant 5-Linearity Data for Hotspot			FR1 n77(HPUE) Part27Q Ant 6-Linearity Data for Hotspot		
	FR1 n77 (Power Class 3)	FR1 n77 (Power Class 2)		FR1 n77 (Power Class 3)	FR1 n77 (Power Class 2)
Maximum Tune up Power (dBm)	24.00	27.00	Maximum Tune up Power (dBm)	24.00	26.00
Reported 1g SAR (W/kg)	0.075	0.071	Reported 1g SAR (W/kg)	0.581	0.460
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	251.19	250.59	Frame Averaged (mW)	251.19	199.05
Linearity SAR (W/kg)	0.075		Linearity SAR (W/kg)	0.460	
% deviation from expected linearity		-5.11%	% deviation from expected linearity		-0.09%

FR1 n41(HPUE) Ant 6-Linearity Data for Head			FR1 n41(HPUE) Ant 7-Linearity Data for Head		
	FR1 n41 (Power Class 3)	FR1 n41 (Power Class 2)		FR1 n41 (Power Class 3)	FR1 n41 (Power Class 2)
Maximum Tune up Power (dBm)	24.00	26.00	Maximum Tune up Power (dBm)	22.00	24.00
Reported 1g SAR (W/kg)	0.270	0.221	Reported 1g SAR (W/kg)	0.359	0.302
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	251.19	199.05	Frame Averaged (mW)	158.49	125.59
Linearity SAR (W/kg)	0.214		Linearity SAR (W/kg)	0.284	
% deviation from expected linearity		3.29%	% deviation from expected linearity		6.16%
FR1 n41(HPUE) Ant 6-Linearity Data for Body-worn			FR1 n41(HPUE) Ant 7-Linearity Data for Body-worn		
	FR1 n41 (Power Class 3)	FR1 n41 (Power Class 2)		FR1 n41 (Power Class 3)	FR1 n41 (Power Class 2)
Maximum Tune up Power (dBm)	24.00	26.00	Maximum Tune up Power (dBm)	22.00	24.00
Reported 1g SAR (W/kg)	0.708	0.608	Reported 1g SAR (W/kg)	0.293	0.223
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	251.19	199.05	Frame Averaged (mW)	158.49	125.59
Linearity SAR (W/kg)	0.561		Linearity SAR (W/kg)	0.232	
% deviation from expected linearity		8.37%	% deviation from expected linearity		-3.96%
FR1 n41(HPUE) Ant 6-Linearity Data for Hotspot			FR1 n41(HPUE) Ant 7-Linearity Data for Hotspot		
	FR1 n41 (Power Class 3)	FR1 n41 (Power Class 2)		FR1 n41 (Power Class 3)	FR1 n41 (Power Class 2)
Maximum Tune up Power (dBm)	24.00	26.00	Maximum Tune up Power (dBm)	22.00	24.00
Reported 1g SAR (W/kg)	0.708	0.608	Reported 1g SAR (W/kg)	0.293	0.223
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	251.19	199.05	Frame Averaged (mW)	158.49	125.59
Linearity SAR (W/kg)	0.561		Linearity SAR (W/kg)	0.232	
% deviation from expected linearity		8.37%	% deviation from expected linearity		-3.96%

FR1 n77(HPUE) Part270 Ant 8-Linearity Data for Head			FR1 n77(HPUE) Part270 Ant 9-Linearity Data for Head		
	FR1 n77 (Power Class 3)	FR1 n77 (Power Class 2)		FR1 n77 (Power Class 3)	FR1 n77 (Power Class 2)
Maximum Tune up Power (dBm)	21.50	24.50	Maximum Tune up Power (dBm)	24.00	26.50
Reported 1g SAR (W/kg)	0.827	0.807	Reported 1g SAR (W/kg)	0.301	0.258
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	141.25	140.92	Frame Averaged (mW)	251.19	223.34
Linearity SAR (W/kg)	0.825		Linearity SAR (W/kg)	0.268	
% deviation from expected linearity		-2.19%	% deviation from expected linearity		-3.60%
FR1 n77(HPUE) Part270 Ant 8-Linearity Data for Body-worn			FR1 n77(HPUE) Part270 Ant 9-Linearity Data for Body-worn		
	FR1 n77 (Power Class 3)	FR1 n77 (Power Class 2)		FR1 n77 (Power Class 3)	FR1 n77 (Power Class 2)
Maximum Tune up Power (dBm)	23.50	26.50	Maximum Tune up Power (dBm)	24.00	26.50
Reported 1g SAR (W/kg)	1.109	1.081	Reported 1g SAR (W/kg)	0.467	0.431
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	223.87	223.34	Frame Averaged (mW)	251.19	223.34
Linearity SAR (W/kg)	1.106		Linearity SAR (W/kg)	0.415	
% deviation from expected linearity		-2.29%	% deviation from expected linearity		3.80%
FR1 n77(HPUE) Part270 Ant 8-Linearity Data for Hotspot			FR1 n77(HPUE) Part270 Ant 9-Linearity Data for Hotspot		
	FR1 n77 (Power Class 3)	FR1 n77 (Power Class 2)		FR1 n77 (Power Class 3)	FR1 n77 (Power Class 2)
Maximum Tune up Power (dBm)	23.50	26.50	Maximum Tune up Power (dBm)	24.00	26.50
Reported 1g SAR (W/kg)	1.134	1.143	Reported 1g SAR (W/kg)	0.718	0.682
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	223.87	223.34	Frame Averaged (mW)	251.19	223.34
Linearity SAR (W/kg)	1.131		Linearity SAR (W/kg)	0.638	
% deviation from expected linearity		1.03%	% deviation from expected linearity		6.83%
FR1 n77(HPUE) Part270 Ant 8-Linearity Data for Extremity					
	FR1 n77 (Power Class 3)	FR1 n77 (Power Class 2)			
Maximum Tune up Power (dBm)	23.50	26.50			
Reported 10g SAR (W/kg)	2.885	2.753			
Duty Cycle	100.00%	50.00%			
Frame Averaged (mW)	223.87	223.34			
Linearity SAR (W/kg)	2.878				
% deviation from expected linearity		-4.35%			



FR1 n77(HPUE) Part27Q Ant 8-Linearity Data for Head			FR1 n77(HPUE) Part27Q Ant 9-Linearity Data for Head		
	FR1 n77 (Power Class 3)	FR1 n77 (Power Class 2)		FR1 n77 (Power Class 3)	FR1 n77 (Power Class 2)
Maximum Tune up Power (dBm)	21.50	24.50	Maximum Tune up Power (dBm)	24.00	26.50
Reported 1g SAR (W/kg)	1.095	1.052	Reported 1g SAR (W/kg)	0.296	0.276
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	141.25	140.92	Frame Averaged (mW)	251.19	223.34
Linearity SAR (W/kg)	1.092		Linearity SAR (W/kg)	0.263	
% deviation from expected linearity		-3.70%	% deviation from expected linearity		4.87%
FR1 n77(HPUE) Part27Q Ant 8-Linearity Data for Body-worn			FR1 n77(HPUE) Part27Q Ant 9-Linearity Data for Body-worn		
	FR1 n77 (Power Class 3)	FR1 n77 (Power Class 2)		FR1 n77 (Power Class 3)	FR1 n77 (Power Class 2)
Maximum Tune up Power (dBm)	23.50	26.50	Maximum Tune up Power (dBm)	24.00	26.50
Reported 1g SAR (W/kg)	1.150	1.092	Reported 1g SAR (W/kg)	0.478	0.441
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	223.87	223.34	Frame Averaged (mW)	251.19	223.34
Linearity SAR (W/kg)	1.147		Linearity SAR (W/kg)	0.425	
% deviation from expected linearity		-4.82%	% deviation from expected linearity		3.76%
FR1 n77(HPUE) Part27Q Ant 8-Linearity Data for Hotspot			FR1 n77(HPUE) Part27Q Ant 9-Linearity Data for Hotspot		
	FR1 n77 (Power Class 3)	FR1 n77 (Power Class 2)		FR1 n77 (Power Class 3)	FR1 n77 (Power Class 2)
Maximum Tune up Power (dBm)	23.50	26.50	Maximum Tune up Power (dBm)	24.00	26.50
Reported 1g SAR (W/kg)	1.150	1.092	Reported 1g SAR (W/kg)	0.539	0.516
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	223.87	223.34	Frame Averaged (mW)	251.19	223.34
Linearity SAR (W/kg)	1.147		Linearity SAR (W/kg)	0.479	
% deviation from expected linearity		-4.82%	% deviation from expected linearity		7.67%

16. Simultaneous Transmission Analysis

No.	Simultaneous Transmission Configurations	Portable Handset			
		Head	Body-worn	Hotspot	Product specific 10g SAR
1.	WWAN + WLAN2.4GHz	Yes	Yes	Yes	Yes
2.	WWAN + WLAN5GHz/6GHz	Yes	Yes	Yes	Yes
3.	WWAN + Bluetooth	Yes	Yes	Yes	Yes
4.	WLAN2.4GHz + WLAN5GHz/6GHz	Yes	Yes	Yes	Yes
5.	WLAN5GHz/6GHz + Bluetooth	Yes	Yes	Yes	Yes
6.	WWAN + WLAN2.4GHz + WLAN5GHz/6GHz	Yes	Yes	Yes	Yes
7.	WWAN + WLAN5GHz/6GHz + Bluetooth	Yes	Yes	Yes	Yes
8.	WWAN + WLAN2.4GHz + WLAN5GHz/6GHz + Bluetooth	Yes	Yes	Yes	Yes
9.	WWAN + WLAN2.4GHz+NFC				Yes
10.	WWAN + WLAN5GHz/6GHz +NFC				Yes
11.	WWAN + Bluetooth+NFC				Yes
12.	WLAN2.4GHz + WLAN5GHz/6GHz +NFC				Yes
13.	WLAN5GHz/6GHz + Bluetooth+NFC				Yes
14.	WWAN + WLAN2.4GHz + WLAN5GHz/6GHz +NFC				Yes
15.	WWAN + WLAN5GHz/6GHz + Bluetooth+NFC				Yes
16.	WWAN + WLAN2.4GHz + WLAN5GHz/6GHz + Bluetooth+NFC				Yes

General Note:

- This device supports VoIP in GPRS, EGPRS, WCDMA and LTE (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.
- WWAN above includes 5G NR bands and EN-DC combination.
- The 2.4GHz/5GHz/6GHz WLAN can transmit in SISO/MIMO mode and MIMO SAR can represent SISO SAR.
- EUT will choose each GSM, WCDMA, LTE and 5GNR according to the network signal condition; therefore, they will not operate simultaneously at any moment.
- This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
- This device 5.2GHz WLAN/5.8GHz WLAN support hotspot operation, and 5.2GHz WLAN/5.8GHz WLAN supports WLAN Direct (GC/GO), and 5.3GHz / 5.5GHz supports WLAN Direct (GC only). WLAN6GHz has no hotspot function.
- The worst case 5 GHz WLAN SAR for each configuration was used for SAR summation.
- According to the EUT characteristic, WLAN 5GHz/6GHz and Bluetooth can transmit simultaneously.
- According to the EUT characteristic, WLAN 2.4GHz and Bluetooth share the same antenna and cannot transmit simultaneously; WLAN 2.4GHz ant 4 and Bluetooth ant2 can transmit simultaneously.
- According to the EUT characteristic, WLAN 5GHz/6GHz and WLAN 2.4GHz can transmit simultaneously, WLAN 5GHz/6GHz, WLAN 2.4GHz and Bluetooth can transmit simultaneously, WLAN 5GHz/6GHz ant4 and WLAN 2.4GHz ant4 share the same antenna and cannot transmit simultaneously.
- According to the EUT characteristic, WLAN 5GHz and WLAN 6GHz can't transmit simultaneously.
- NFC can transmit simultaneously with other Radios in extremity exposure condition.
- 5GNR MIMO SAR base on standalone SAR summed together as MIMO SAR.
- When stand-alone SAR is not required for a transmitter or antenna, its SAR is considered zero in the SAR summing process to assess Multi-band transmission SAR compliance.
- The maximum SAR summation is calculated based on the same configuration and test position.
- For simultaneously analysis, since the SAR summation of 3 transmitters can cover others combination of 2 transmitters, therefore in this section did not additional to evaluate 2TX combination of simultaneously transmission.
- For standalone WWAN, always choose the highest SAR among all WWAN bands within the selected antenna for each exposure position to perform simultaneous transmission analysis with WLAN/BT. This is the worst co-located analysis and can represent each band.
- For EN-DC SAR co-located with WLAN/Bluetooth, chose the worst SAR among the selected LTE bands within the selected antenna per each test position and also the worst SAR of the selected 5GNR Bands within the selected antenna to do co-located with WLAN/Bluetooth. This is the worst co-located analysis and can represent each LTE bands and each 5GNR bands.
- Per KDB 447498 D01v06, simultaneous transmission SAR is compliant if,
 - 1g Scalar SAR summation < 1.6W/kg and 10g Scalar SAR summation < 4.0W/kg.
 - $SPLSR = (SAR1 + SAR2)^{1.5} / (\text{min. separation distance, mm})$, 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.
- iii) If $SPLSR \leq 0.04$ for 1g SAR and $SPLSR \leq 0.10$ for 10g SAR, simultaneously transmission SAR measurement is not necessary.
 - iv) Simultaneously transmission SAR measurement, and the reported multi-band 1g SAR $< 1.6W/kg$ and 10g SAR $< 4.0W/kg$.
 - v) The SPLSR calculated results please refer to section 16.5.
20. The WLAN6GHz Sim-Tx analysis guidance with other transmitters was based on SAR test results. The simultaneous transmission and test exemption analysis were compliant with KDB 447498 D01. For the device does not support FR2 or other MPE field measurement, therefore section 16 in the SAR report has no TER analysis according to KDB 987594 requirement.



16.1 Head Exposure Conditions

WWAN Band	Exposure Position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
		WWAN	WLAN2.4GHz Ant 2+4 non DBS Simultaneous	WLAN2.4GHz Ant 2 DBS Simultaneous	WLAN2.4GHz Ant 2 DBS only	WLAN2.4GHz Ant 4 DBS Simultaneous	WLAN2.4GHz Ant 4 DBS only	WLAN2.4GHz Ant 4 non DBS Simultaneous	WLAN2.4GHz Ant 4 non DBS Simultaneous	WLAN5GHz Ant 3+4 non DBS Simultaneous	WLAN5GHz Ant 3 DBS Simultaneous	WLAN5GHz Ant 3 DBS only	WLAN5GHz Ant 4 DBS Simultaneous	WLAN5GHz Ant 4 DBS only	WLAN6GHz Ant 3+4 non DBS Simultaneous	WLAN6GHz Ant 3+4 DBS only	WLAN6GHz Ant 3+4 DBS Simultaneous	WLAN6GHz Ant 3 DBS only	WLAN6GHz Ant 3 DBS Simultaneous
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
All Bands Ant 0	Right Cheek	0.437	0.191	0.088	0.315	0.123	0.123	0.123	0.355	0.172	0.702	0.197	0.281	0.203	0.203	0.103	0.062	0.062	0.024
	Right Tilted	0.277	0.178	0.074	0.280	0.079	0.079	0.079	0.348	0.155	0.719	0.147	0.165	0.209	0.209	0.107	0.063	0.063	0.019
	Left Cheek	0.409	0.354	0.178	0.667	0.087	0.087	0.087	0.378	0.198	0.632	0.130	0.137	0.367	0.367	0.180	0.113	0.113	0.054
	Left Tilted	0.277	0.127	0.095	0.370	0.042	0.042	0.042	0.318	0.187	0.525	0.116	0.136	0.396	0.712	0.197	0.228	0.228	0.043
All Bands Ant 1	Right Cheek	1.198	0.191	0.088	0.315	0.123	0.123	0.123	0.355	0.172	0.702	0.197	0.281	0.203	0.203	0.103	0.062	0.062	0.024
	Right Tilted	0.727	0.178	0.074	0.280	0.079	0.079	0.079	0.348	0.155	0.719	0.147	0.165	0.209	0.209	0.107	0.063	0.063	0.019
	Left Cheek	0.454	0.354	0.178	0.667	0.087	0.087	0.087	0.378	0.198	0.632	0.130	0.137	0.367	0.367	0.180	0.113	0.113	0.054
	Left Tilted	0.348	0.127	0.095	0.370	0.042	0.042	0.042	0.318	0.187	0.525	0.116	0.136	0.396	0.712	0.197	0.228	0.228	0.043
All Bands Ant 5	Right Cheek	0.756	0.191	0.088	0.315	0.123	0.123	0.123	0.355	0.172	0.702	0.197	0.281	0.203	0.203	0.103	0.062	0.062	0.024
	Right Tilted	0.217	0.178	0.074	0.280	0.079	0.079	0.079	0.348	0.155	0.719	0.147	0.165	0.209	0.209	0.107	0.063	0.063	0.019
	Left Cheek	0.521	0.354	0.178	0.667	0.087	0.087	0.087	0.378	0.198	0.632	0.130	0.137	0.367	0.367	0.180	0.113	0.113	0.054
	Left Tilted	0.145	0.127	0.095	0.370	0.042	0.042	0.042	0.318	0.187	0.525	0.116	0.136	0.396	0.712	0.197	0.228	0.228	0.043
All Bands Ant 6	Right Cheek	0.187	0.191	0.088	0.315	0.123	0.123	0.123	0.355	0.172	0.702	0.197	0.281	0.203	0.203	0.103	0.062	0.062	0.024
	Right Tilted	0.164	0.178	0.074	0.280	0.079	0.079	0.079	0.348	0.155	0.719	0.147	0.165	0.209	0.209	0.107	0.063	0.063	0.019
	Left Cheek	0.300	0.354	0.178	0.667	0.087	0.087	0.087	0.378	0.198	0.632	0.130	0.137	0.367	0.367	0.180	0.113	0.113	0.054
	Left Tilted	0.099	0.127	0.095	0.370	0.042	0.042	0.042	0.318	0.187	0.525	0.116	0.136	0.396	0.712	0.197	0.228	0.228	0.043
All Bands Ant 7	Right Cheek	0.663	0.191	0.088	0.315	0.123	0.123	0.123	0.355	0.172	0.702	0.197	0.281	0.203	0.203	0.103	0.062	0.062	0.024
	Right Tilted	0.166	0.178	0.074	0.280	0.079	0.079	0.079	0.348	0.155	0.719	0.147	0.165	0.209	0.209	0.107	0.063	0.063	0.019
	Left Cheek	0.691	0.354	0.178	0.667	0.087	0.087	0.087	0.378	0.198	0.632	0.130	0.137	0.367	0.367	0.180	0.113	0.113	0.054
	Left Tilted	0.295	0.127	0.095	0.370	0.042	0.042	0.042	0.318	0.187	0.525	0.116	0.136	0.396	0.712	0.197	0.228	0.228	0.043
All Bands Ant 8	Right Cheek	0.479	0.191	0.088	0.315	0.123	0.123	0.123	0.355	0.172	0.702	0.197	0.281	0.203	0.203	0.103	0.062	0.062	0.024
	Right Tilted	0.421	0.178	0.074	0.280	0.079	0.079	0.079	0.348	0.155	0.719	0.147	0.165	0.209	0.209	0.107	0.063	0.063	0.019
	Left Cheek	1.118	0.354	0.178	0.667	0.087	0.087	0.087	0.378	0.198	0.632	0.130	0.137	0.367	0.367	0.180	0.113	0.113	0.054
	Left Tilted	0.855	0.127	0.095	0.370	0.042	0.042	0.042	0.318	0.187	0.525	0.116	0.136	0.396	0.712	0.197	0.228	0.228	0.043
All Bands Ant 9	Right Cheek	0.301	0.191	0.088	0.315	0.123	0.123	0.123	0.355	0.172	0.702	0.197	0.281	0.203	0.203	0.103	0.062	0.062	0.024
	Right Tilted	0.189	0.178	0.074	0.280	0.079	0.079	0.079	0.348	0.155	0.719	0.147	0.165	0.209	0.209	0.107	0.063	0.063	0.019
	Left Cheek	0.247	0.354	0.178	0.667	0.087	0.087	0.087	0.378	0.198	0.632	0.130	0.137	0.367	0.367	0.180	0.113	0.113	0.054
	Left Tilted	0.249	0.127	0.095	0.370	0.042	0.042	0.042	0.318	0.187	0.525	0.116	0.136	0.396	0.712	0.197	0.228	0.228	0.043



WWAN Band	Exposure Position	1+2	1+8	1+13	1+7+18	1+5+9+18	1+3+9	1+3+11	1+8+18	1+13+18	1+3+15	1+5+17+18	6+10	4+10	4+12	4+14	6+16	
		Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
All Bands Ant 0	Right Cheek	0.63	0.79	0.64	0.58	0.76	0.70	0.72	0.82	0.66	0.63	0.65	0.83	1.02	0.60	0.52	0.19	
	Right Tilted	0.46	0.63	0.49	0.38	0.53	0.51	0.50	0.64	0.51	0.46	0.44	0.80	1.00	0.45	0.49	0.14	
	Left Cheek	0.76	0.79	0.78	0.55	0.75	0.79	0.72	0.84	0.83	0.77	0.66	0.72	1.30	0.80	1.03	0.20	
	Left Tilted	0.40	0.60	0.67	0.36	0.55	0.56	0.49	0.64	0.72	0.57	0.59	0.57	0.90	0.51	1.08	0.27	
All Bands Ant 1	Right Cheek	1.39	1.55	1.40	1.35	1.52	1.46	1.48	1.58	1.43	1.39	1.41	0.83	1.02	0.60	0.52	0.19	
	Right Tilted	0.91	1.08	0.94	0.83	0.98	0.96	0.95	1.09	0.96	0.91	0.89	0.80	1.00	0.45	0.49	0.14	
	Left Cheek	0.81	0.83	0.82	0.60	0.79	0.83	0.76	0.89	0.88	0.81	0.71	0.72	1.30	0.80	1.03	0.20	
	Left Tilted	0.48	0.67	0.74	0.43	0.62	0.63	0.56	0.71	0.79	0.64	0.66	0.57	0.90	0.51	1.08	0.27	
All Bands Ant 5	Right Cheek	0.95	1.11	0.96	0.90	1.08	1.02	1.04	1.14	0.98	0.95	0.97	0.83	1.02	0.60	0.52	0.19	
	Right Tilted	0.40	0.57	0.43	0.32	0.47	0.45	0.44	0.58	0.45	0.40	0.38	0.80	1.00	0.45	0.49	0.14	
	Left Cheek	0.88	0.90	0.89	0.66	0.86	0.90	0.83	0.95	0.94	0.88	0.78	0.72	1.30	0.80	1.03	0.20	
	Left Tilted	0.27	0.46	0.54	0.23	0.42	0.43	0.36	0.51	0.58	0.44	0.46	0.57	0.90	0.51	1.08	0.27	
All Bands Ant 6	Right Cheek	0.38	0.54	0.39	0.33	0.51	0.45	0.47	0.57	0.41	0.38	0.40	0.83	1.02	0.60	0.52	0.19	
	Right Tilted	0.34	0.51	0.37	0.26	0.42	0.39	0.39	0.53	0.39	0.35	0.33	0.80	1.00	0.45	0.49	0.14	
	Left Cheek	0.65	0.68	0.67	0.44	0.64	0.68	0.61	0.73	0.72	0.66	0.55	0.72	1.30	0.80	1.03	0.20	
	Left Tilted	0.23	0.42	0.50	0.18	0.37	0.38	0.31	0.46	0.54	0.39	0.41	0.57	0.90	0.51	1.08	0.27	
All Bands Ant 7	Right Cheek	0.85	1.02	0.87	0.81	0.98	0.92	0.95	1.04	0.89	0.85	0.87	0.83	1.02	0.60	0.52	0.19	
	Right Tilted	0.34	0.51	0.38	0.26	0.42	0.40	0.39	0.53	0.39	0.35	0.33	0.80	1.00	0.45	0.49	0.14	
	Left Cheek	1.05	1.07	1.06	0.83	1.03	1.07	1.00	1.12	1.11	1.05	0.95	0.72	1.30	0.80	1.03	0.20	
	Left Tilted	0.42	0.61	0.69	0.38	0.57	0.58	0.51	0.66	0.73	0.59	0.61	0.57	0.90	0.51	1.08	0.27	
All Bands Ant 8	Right Cheek	0.67	0.83	0.68	0.63	0.80	0.74	0.76	0.86	0.71	0.67	0.69	0.83	1.02	0.60	0.52	0.19	
	Right Tilted	0.60	0.77	0.63	0.52	0.67	0.65	0.64	0.79	0.65	0.60	0.58	0.80	1.00	0.45	0.49	0.14	
	Left Cheek	1.47	1.50	1.49	1.26	1.46	1.49	1.43	1.55	1.54	1.48	1.37	0.72	1.30	0.80	1.03	0.20	
	Left Tilted	0.98	1.17	1.25	0.94	1.13	1.14	1.07	1.22	1.29	1.15	1.17	0.57	0.90	0.51	1.08	0.27	
All Bands Ant 9	Right Cheek	0.49	0.66	0.50	0.45	0.62	0.56	0.59	0.68	0.53	0.49	0.51	0.83	1.02	0.60	0.52	0.19	
	Right Tilted	0.37	0.54	0.40	0.29	0.44	0.42	0.41	0.56	0.42	0.37	0.35	0.80	1.00	0.45	0.49	0.14	
	Left Cheek	0.60	0.63	0.61	0.39	0.59	0.62	0.56	0.68	0.67	0.61	0.50	0.72	1.30	0.80	1.03	0.20	
	Left Tilted	0.38	0.57	0.65	0.33	0.52	0.53	0.46	0.61	0.69	0.54	0.56	0.57	0.90	0.51	1.08	0.27	



Table with columns for LTE Band, FR1 n, Ant, Exposure Position, and SAR values (0.102 to 0.043).

Table with columns for WWAN Band, FR1 Band, Exposure Position, and SAR values for various antenna configurations (1+2+19 to 6+16).



LTE Band 7 Ant 6	FR1 n77(78) Ant 5	Left Tilted	0.37	0.56	0.64	0.33	0.51	0.52	0.45	0.60	0.68	0.53	0.55	0.57	0.90	0.51	1.08	0.27
		Right Cheek	0.58	0.74	0.59	0.53	0.70	0.65	0.67	0.76	0.61	0.58	0.59	0.83	1.02	0.60	0.52	0.19
		Right Tilted	0.41	0.58	0.44	0.33	0.48	0.46	0.45	0.60	0.46	0.41	0.39	0.80	1.00	0.45	0.49	0.14
		Left Cheek	0.93	0.95	0.94	0.71	0.91	0.95	0.88	1.00	0.99	0.93	0.83	0.72	1.30	0.80	1.03	0.20
		Left Tilted	0.30	0.49	0.57	0.26	0.45	0.46	0.38	0.53	0.61	0.47	0.49	0.57	0.90	0.51	1.08	0.27
LTE Band 12 Ant 0	FR1 n2 Ant 5	Right Cheek	0.46	0.62	0.47	0.42	0.59	0.53	0.55	0.65	0.50	0.46	0.48	0.83	1.02	0.60	0.52	0.19
		Right Tilted	0.33	0.50	0.36	0.25	0.40	0.38	0.37	0.52	0.38	0.33	0.31	0.80	1.00	0.45	0.49	0.14
		Left Cheek	0.56	0.59	0.58	0.35	0.55	0.59	0.52	0.64	0.63	0.57	0.46	0.72	1.30	0.80	1.03	0.20
		Left Tilted	0.27	0.46	0.54	0.23	0.42	0.43	0.36	0.51	0.59	0.44	0.46	0.57	0.90	0.51	1.08	0.27
LTE Band 12 Ant 0	FR1 n41 Ant 5	Right Cheek	0.94	1.11	0.96	0.90	1.07	1.01	1.04	1.13	0.98	0.94	0.96	0.83	1.02	0.60	0.52	0.19
		Right Tilted	0.47	0.64	0.50	0.39	0.55	0.52	0.52	0.66	0.52	0.48	0.46	0.80	1.00	0.45	0.49	0.14
		Left Cheek	0.94	0.96	0.95	0.73	0.92	0.96	0.89	1.02	1.01	0.94	0.84	0.72	1.30	0.80	1.03	0.20
		Left Tilted	0.35	0.55	0.62	0.31	0.50	0.51	0.44	0.59	0.67	0.52	0.54	0.57	0.90	0.51	1.08	0.27
LTE Band 12 Ant 0	FR1 n66 Ant 5	Right Cheek	0.48	0.64	0.49	0.43	0.60	0.54	0.57	0.66	0.51	0.48	0.49	0.83	1.02	0.60	0.52	0.19
		Right Tilted	0.34	0.51	0.37	0.26	0.41	0.39	0.38	0.52	0.39	0.34	0.32	0.80	1.00	0.45	0.49	0.14
		Left Cheek	0.60	0.62	0.61	0.38	0.58	0.62	0.55	0.68	0.66	0.60	0.50	0.72	1.30	0.80	1.03	0.20
		Left Tilted	0.29	0.48	0.56	0.25	0.43	0.44	0.37	0.52	0.60	0.45	0.47	0.57	0.90	0.51	1.08	0.27
LTE Band 12 Ant 0	FR1 n77 Ant 5	Right Cheek	0.56	0.72	0.57	0.52	0.69	0.63	0.65	0.75	0.60	0.56	0.58	0.83	1.02	0.60	0.52	0.19
		Right Tilted	0.37	0.54	0.40	0.29	0.45	0.42	0.41	0.56	0.42	0.37	0.35	0.80	1.00	0.45	0.49	0.14
		Left Cheek	0.76	0.79	0.77	0.55	0.75	0.78	0.72	0.84	0.83	0.77	0.66	0.72	1.30	0.80	1.03	0.20
		Left Tilted	0.31	0.50	0.58	0.26	0.45	0.46	0.39	0.54	0.62	0.47	0.49	0.57	0.90	0.51	1.08	0.27
LTE Band 13 Ant 0	FR1 n2 Ant 5	Right Cheek	0.48	0.65	0.49	0.44	0.61	0.55	0.58	0.67	0.52	0.48	0.50	0.83	1.02	0.60	0.52	0.19
		Right Tilted	0.34	0.51	0.37	0.26	0.42	0.39	0.39	0.53	0.39	0.35	0.33	0.80	1.00	0.45	0.49	0.14
		Left Cheek	0.58	0.61	0.59	0.37	0.57	0.60	0.54	0.66	0.65	0.59	0.48	0.72	1.30	0.80	1.03	0.20
		Left Tilted	0.30	0.49	0.57	0.26	0.45	0.46	0.39	0.54	0.61	0.47	0.49	0.57	0.90	0.51	1.08	0.27
LTE Band 13 Ant 0	FR1 n66 Ant 5	Right Cheek	0.50	0.66	0.51	0.45	0.63	0.57	0.59	0.69	0.53	0.50	0.52	0.83	1.02	0.60	0.52	0.19
		Right Tilted	0.35	0.52	0.38	0.27	0.43	0.40	0.40	0.54	0.40	0.36	0.34	0.80	1.00	0.45	0.49	0.14
		Left Cheek	0.62	0.64	0.63	0.40	0.60	0.64	0.57	0.69	0.68	0.62	0.52	0.72	1.30	0.80	1.03	0.20
		Left Tilted	0.32	0.51	0.59	0.28	0.46	0.47	0.40	0.55	0.63	0.48	0.50	0.57	0.90	0.51	1.08	0.27
LTE Band 41 Ant 6	FR1 n77(78) Ant 5	Right Cheek	0.47	0.63	0.48	0.42	0.59	0.54	0.56	0.65	0.50	0.47	0.48	0.83	1.02	0.60	0.52	0.19
		Right Tilted	0.33	0.50	0.36	0.25	0.41	0.38	0.38	0.52	0.38	0.34	0.32	0.80	1.00	0.45	0.49	0.14
		Left Cheek	0.75	0.78	0.77	0.54	0.74	0.78	0.71	0.83	0.82	0.76	0.65	0.72	1.30	0.80	1.03	0.20
		Left Tilted	0.25	0.44	0.52	0.21	0.40	0.41	0.34	0.49	0.57	0.42	0.44	0.57	0.90	0.51	1.08	0.27
LTE Band 66 Ant 0	FR1 n2 Ant 5	Right Cheek	0.46	0.62	0.47	0.41	0.58	0.53	0.55	0.64	0.49	0.46	0.47	0.83	1.02	0.60	0.52	0.19
		Right Tilted	0.32	0.49	0.35	0.24	0.39	0.37	0.36	0.50	0.37	0.32	0.30	0.80	1.00	0.45	0.49	0.14
		Left Cheek	0.59	0.62	0.61	0.38	0.58	0.62	0.55	0.67	0.66	0.60	0.49	0.72	1.30	0.80	1.03	0.20
		Left Tilted	0.28	0.47	0.55	0.24	0.43	0.44	0.37	0.52	0.59	0.45	0.47	0.57	0.90	0.51	1.08	0.27
LTE Band 66 Ant 5	FR1 n5 Ant 0	Right Cheek	0.53	0.70	0.54	0.49	0.66	0.60	0.63	0.72	0.57	0.53	0.55	0.83	1.02	0.60	0.52	0.19
		Right Tilted	0.39	0.56	0.42	0.31	0.46	0.44	0.43	0.58	0.44	0.39	0.37	0.80	1.00	0.45	0.49	0.14
		Left Cheek	0.63	0.66	0.64	0.42	0.62	0.65	0.59	0.71	0.70	0.64	0.53	0.72	1.30	0.80	1.03	0.20
		Left Tilted	0.35	0.55	0.62	0.31	0.50	0.51	0.44	0.59	0.67	0.52	0.54	0.57	0.90	0.51	1.08	0.27



WWAN Band	FR1 Band	Exposure Position	1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16		17		Bluetooth Ant 2	18
			WWAN	FR1	WLAN2.4GHz Ant 2+4 non DBS Simultaneous		WLAN2.4GHz Ant 2 DBS Simultaneous		WLAN2.4GHz Ant 2 DBS only		WLAN2.4GHz Ant 4 DBS Simultaneous		WLAN2.4GHz Ant 4 DBS only		WLAN2.4GHz Ant 4 non DBS Simultaneous		WLAN5GHz Ant 3+4 non DBS Simultaneous		WLAN5GHz Ant 3 DBS Simultaneous		WLAN5GHz Ant 3 DBS only		WLAN5GHz Ant 4 DBS Simultaneous		WLAN5GHz Ant 4 DBS only		WLAN6GHz Ant 3+4 non DBS Simultaneous		WLAN6GHz Ant 3+4 DBS Simultaneous		WLAN6GHz Ant 3 DBS only		WLAN6GHz Ant 3 DBS Simultaneous					
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
LTE Band 66 Ant 0	FR1 n41 Ant 5	Right Cheek	0.168	0.582	0.191	0.088	0.315	0.123	0.123	0.123	0.123	0.355	0.172	0.702	0.197	0.281	0.203	0.203	0.103	0.062	0.062	0.024																
		Right Tilted	0.099	0.184	0.178	0.074	0.280	0.079	0.079	0.079	0.348	0.155	0.719	0.147	0.165	0.209	0.209	0.107	0.063	0.063	0.019																	
		Left Cheek	0.165	0.449	0.354	0.178	0.667	0.087	0.087	0.087	0.378	0.198	0.632	0.130	0.137	0.367	0.367	0.180	0.113	0.113	0.054																	
		Left Tilted	0.111	0.125	0.127	0.095	0.370	0.042	0.042	0.042	0.318	0.187	0.525	0.116	0.136	0.396	0.712	0.197	0.228	0.228	0.043																	
LTE Band 66 Ant 0	FR1 n77(78) Ant 5	Right Cheek	0.168	0.198	0.191	0.088	0.315	0.123	0.123	0.123	0.355	0.172	0.702	0.197	0.281	0.203	0.203	0.103	0.062	0.062	0.024																	
		Right Tilted	0.099	0.082	0.178	0.074	0.280	0.079	0.079	0.079	0.348	0.155	0.719	0.147	0.165	0.209	0.209	0.107	0.063	0.063	0.019																	
		Left Cheek	0.165	0.272	0.354	0.178	0.667	0.087	0.087	0.087	0.378	0.198	0.632	0.130	0.137	0.367	0.367	0.180	0.113	0.113	0.054																	
		Left Tilted	0.111	0.077	0.127	0.095	0.370	0.042	0.042	0.042	0.318	0.187	0.525	0.116	0.136	0.396	0.712	0.197	0.228	0.228	0.043																	

WWAN Band	FR1 Band	Exposure Position	1+2+19	1+8+19	1+13+19	1+7+18+19	1+5+9+18+19	1+3+9+19	1+3+11+19	1+8+18+19	1+13+18+19	1+3+15+19	1+5+17+18+19	6+10	4+10	4+12	4+14	6+16
			Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)
LTE Band 66 Ant 0	FR1 n41 Ant 5	Right Cheek	0.94	1.11	0.95	0.90	1.07	1.01	1.04	1.13	0.98	0.94	0.96	0.83	1.02	0.60	0.52	0.19
		Right Tilted	0.46	0.63	0.49	0.38	0.54	0.51	0.50	0.65	0.51	0.46	0.44	0.80	1.00	0.45	0.49	0.14
		Left Cheek	0.97	0.99	0.98	0.76	0.95	0.99	0.92	1.05	1.04	0.97	0.87	0.72	1.30	0.80	1.03	0.20
		Left Tilted	0.36	0.55	0.63	0.32	0.51	0.52	0.45	0.60	0.68	0.53	0.55	0.57	0.90	0.51	1.08	0.27
LTE Band 66 Ant 0	FR1 n77(78) Ant 5	Right Cheek	0.56	0.72	0.57	0.51	0.69	0.63	0.65	0.75	0.59	0.56	0.58	0.83	1.02	0.60	0.52	0.19
		Right Tilted	0.36	0.53	0.39	0.28	0.43	0.41	0.40	0.55	0.41	0.36	0.34	0.80	1.00	0.45	0.49	0.14
		Left Cheek	0.79	0.82	0.80	0.58	0.78	0.81	0.75	0.87	0.86	0.80	0.69	0.72	1.30	0.80	1.03	0.20
		Left Tilted	0.32	0.51	0.58	0.27	0.46	0.47	0.40	0.55	0.63	0.48	0.50	0.57	0.90	0.51	1.08	0.27



<MIMO>

FR1 Band	FR1 Band	Exposure Position	1	19	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
			FR1	FR1	WLAN2.4GHz Ant 2+4 non DBS Simultaneous	WLAN2.4GHz Ant 2 DBS Simultaneous	WLAN2.4GHz Ant 2 DBS only	WLAN2.4GHz Ant 4 DBS Simultaneous	WLAN2.4GHz Ant 4 DBS only	WLAN2.4GHz Ant 4 non DBS Simultaneous	WLAN2.4GHz Ant 4 non DBS Simultaneous	WLAN5GHz Ant 3 DBS Simultaneous	WLAN5GHz Ant 3 DBS only	WLAN5GHz Ant 4 DBS Simultaneous	WLAN5GHz Ant 4 DBS only	WLAN6GHz Ant 3+4 non DBS Simultaneous	WLAN6GHz Ant 3+4 DBS only	WLAN6GHz Ant 3+4 DBS Simultaneous	WLAN6GHz Ant 3+4 DBS Simultaneous	WLAN6GHz Ant 3 DBS only	WLAN6GHz Ant 3 DBS Simultaneous
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
FR1 n48 Ant 8	FR1 n48 Ant 5	Right Cheek	0.214	0.128	0.191	0.088	0.315	0.123	0.123	0.123	0.355	0.172	0.702	0.197	0.281	0.203	0.203	0.103	0.062	0.062	0.024
		Right Tilted	0.200	0.093	0.178	0.074	0.280	0.079	0.079	0.079	0.348	0.155	0.719	0.147	0.165	0.209	0.209	0.107	0.063	0.063	0.019
		Left Cheek	0.586	0.215	0.354	0.178	0.667	0.087	0.087	0.087	0.378	0.198	0.632	0.130	0.137	0.367	0.367	0.180	0.113	0.113	0.054
		Left Tilted	0.354	0.041	0.127	0.095	0.370	0.042	0.042	0.042	0.318	0.187	0.525	0.116	0.136	0.396	0.712	0.197	0.228	0.228	0.043
FR1 n77 Ant 8	FR1 n77 Ant 5	Right Cheek	0.218	0.198	0.191	0.088	0.315	0.123	0.123	0.123	0.355	0.172	0.702	0.197	0.281	0.203	0.203	0.103	0.062	0.062	0.024
		Right Tilted	0.192	0.082	0.178	0.074	0.280	0.079	0.079	0.079	0.348	0.155	0.719	0.147	0.165	0.209	0.209	0.107	0.063	0.063	0.019
		Left Cheek	0.498	0.272	0.354	0.178	0.667	0.087	0.087	0.087	0.378	0.198	0.632	0.130	0.137	0.367	0.367	0.180	0.113	0.113	0.054
		Left Tilted	0.372	0.077	0.127	0.095	0.370	0.042	0.042	0.042	0.318	0.187	0.525	0.116	0.136	0.396	0.712	0.197	0.228	0.228	0.043
FR1 n41 Ant 5	FR1 n41 Ant 6	Right Cheek	0.582	0.177	0.191	0.088	0.315	0.123	0.123	0.123	0.355	0.172	0.702	0.197	0.281	0.203	0.203	0.103	0.062	0.062	0.024
		Right Tilted	0.184	0.164	0.178	0.074	0.280	0.079	0.079	0.079	0.348	0.155	0.719	0.147	0.165	0.209	0.209	0.107	0.063	0.063	0.019
		Left Cheek	0.449	0.270	0.354	0.178	0.667	0.087	0.087	0.087	0.378	0.198	0.632	0.130	0.137	0.367	0.367	0.180	0.113	0.113	0.054
		Left Tilted	0.125	0.099	0.127	0.095	0.370	0.042	0.042	0.042	0.318	0.187	0.525	0.116	0.136	0.396	0.712	0.197	0.228	0.228	0.043

FR1 Band	FR1 Band	Exposure Position	1+2+19	1+8+19	1+13+19	1+7+18+19	1+5+9+18+19	1+3+9+19	1+3+11+19	1+8+18+19	1+13+18+19	1+3+15+19	1+5+17+18+19	6+10	4+10	4+12	4+14	6+16
			Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
FR1 n48 Ant 8	FR1 n48 Ant 5	Right Cheek	0.53	0.70	0.55	0.49	0.66	0.60	0.63	0.72	0.57	0.53	0.55	0.83	1.02	0.60	0.52	0.19
		Right Tilted	0.47	0.64	0.50	0.39	0.55	0.52	0.51	0.66	0.52	0.47	0.45	0.80	1.00	0.45	0.49	0.14
		Left Cheek	1.13	1.15	1.14	0.91	1.11	1.15	1.08	1.20	1.19	1.13	1.03	0.72	1.30	0.80	1.03	0.20
		Left Tilted	0.52	0.71	0.79	0.48	0.67	0.68	0.61	0.76	0.83	0.69	0.71	0.57	0.90	0.51	1.08	0.27
FR1 n77 Ant 8	FR1 n77 Ant 5	Right Cheek	0.61	0.77	0.62	0.56	0.74	0.68	0.70	0.80	0.64	0.61	0.63	0.83	1.02	0.60	0.52	0.19
		Right Tilted	0.45	0.62	0.48	0.37	0.53	0.50	0.50	0.64	0.50	0.46	0.44	0.80	1.00	0.45	0.49	0.14
		Left Cheek	1.12	1.15	1.14	0.91	1.11	1.15	1.08	1.20	1.19	1.13	1.02	0.72	1.30	0.80	1.03	0.20
		Left Tilted	0.58	0.77	0.85	0.53	0.72	0.73	0.66	0.81	0.89	0.74	0.76	0.57	0.90	0.51	1.08	0.27
FR1 n41 Ant 5	FR1 n41 Ant 6	Right Cheek	0.95	1.11	0.96	0.91	1.08	1.02	1.04	1.14	0.99	0.95	0.97	0.83	1.02	0.60	0.52	0.19
		Right Tilted	0.53	0.70	0.56	0.45	0.60	0.58	0.57	0.72	0.58	0.53	0.51	0.80	1.00	0.45	0.49	0.14
		Left Cheek	1.07	1.10	1.09	0.86	1.06	1.10	1.03	1.15	1.14	1.08	0.97	0.72	1.30	0.80	1.03	0.20
		Left Tilted	0.35	0.54	0.62	0.31	0.50	0.51	0.44	0.59	0.66	0.52	0.54	0.57	0.90	0.51	1.08	0.27



16.2 Hotspot Exposure Conditions

WLAN Band	Exposure Position	1	2	3	4	5	6	7	8	9	10	11	12	18	1+2	1+8	1+7+18	1+5+9+18	1+3+9	1+3+11	1+8+18	6+10	4+10	4+12
		WWAN 1g SAR (W/kg)	WLAN2.4GHz Ant 2+4 non DBS Simultaneous 1g SAR (W/kg)	WLAN2.4GHz Ant 2 DBS Simultaneous 1g SAR (W/kg)	WLAN2.4GHz Ant 2 DBS only 1g SAR (W/kg)	WLAN2.4GHz Ant 4 DBS Simultaneous 1g SAR (W/kg)	WLAN2.4GHz Ant 4 DBS only 1g SAR (W/kg)	WLAN2.4GHz Ant 4 non DBS Simultaneous 1g SAR (W/kg)	WLAN5GHz Ant 3+4 non DBS Simultaneous 1g SAR (W/kg)	WLAN5GHz Ant 3 DBS Simultaneous 1g SAR (W/kg)	WLAN5GHz Ant 3 DBS only 1g SAR (W/kg)	WLAN5GHz Ant 4 DBS Simultaneous 1g SAR (W/kg)	WLAN5GHz Ant 4 DBS only 1g SAR (W/kg)	Bluetooth Ant 2 1g SAR (W/kg)	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed
All Bands Ant 0	Front	0.827	0.149	0.118	0.323	0.009	0.039	0.039	0.112	0.130	0.182	0.056	0.087	0.007	0.98	0.94	0.87	0.97	1.08	1.00	0.95	0.22	0.51	0.41
	Back	1.132	0.340	0.166	0.432	0.181	0.335	0.335	0.262	0.165	0.197	0.129	0.236	0.014	1.47	1.39	1.48	1.49	1.46	1.43	1.41	0.53	0.63	0.67
	Left side	0.469	0.113	0.032	0.063	0.166	0.280	0.280	0.364	0.120	0.105	0.198	0.442	0.004	0.58	0.83	0.75	0.76	0.62	0.70	0.84	0.39	0.17	0.51
	Right side	0.365	0.053	0.074	0.191	0.036	0.010	0.010	0.068	0.148	0.156	0.079	0.106	0.002	0.42	0.43	0.38	0.55	0.59	0.52	0.44	0.17	0.35	0.30
	Top side		0.122	0.149	0.371	0.012	0.013	0.013	0.192	0.132	0.220	0.120	0.172	0.008	0.12	0.19	0.02	0.15	0.28	0.27	0.20	0.23	0.59	0.54
	Bottom side	1.088													1.09	1.09	1.09	1.09	1.09	1.09	1.09	0.00	0.00	0.00
All Bands Ant 1	Front	0.346	0.149	0.118	0.323	0.009	0.039	0.039	0.112	0.130	0.182	0.056	0.087	0.007	0.50	0.46	0.39	0.49	0.59	0.52	0.47	0.22	0.51	0.41
	Back	0.770	0.340	0.166	0.432	0.181	0.335	0.335	0.262	0.165	0.197	0.129	0.236	0.014	1.11	1.03	1.12	1.13	1.10	1.07	1.05	0.53	0.63	0.67
	Left side	0.354	0.113	0.032	0.063	0.166	0.280	0.280	0.364	0.120	0.105	0.198	0.442	0.004	0.47	0.72	0.64	0.64	0.51	0.58	0.72	0.39	0.17	0.51
	Right side	0.123	0.053	0.074	0.191	0.036	0.010	0.010	0.068	0.148	0.156	0.079	0.106	0.002	0.18	0.19	0.14	0.31	0.35	0.28	0.19	0.17	0.35	0.30
	Top side	0.449	0.122	0.149	0.371	0.012	0.013	0.013	0.192	0.132	0.220	0.120	0.172	0.008	0.57	0.64	0.47	0.60	0.73	0.72	0.65	0.23	0.59	0.54
	Bottom side														0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
All Bands Ant 5	Front	0.225	0.149	0.118	0.323	0.009	0.039	0.039	0.112	0.130	0.182	0.056	0.087	0.007	0.37	0.34	0.27	0.37	0.47	0.40	0.34	0.22	0.51	0.41
	Back	0.348	0.340	0.166	0.432	0.181	0.335	0.335	0.262	0.165	0.197	0.129	0.236	0.014	0.69	0.61	0.70	0.71	0.68	0.64	0.62	0.53	0.63	0.67
	Left side	0.652	0.113	0.032	0.063	0.166	0.280	0.280	0.364	0.120	0.105	0.198	0.442	0.004	0.77	1.02	0.94	0.94	0.80	0.88	1.02	0.39	0.17	0.51
	Right side	0.051	0.053	0.074	0.191	0.036	0.010	0.010	0.068	0.148	0.156	0.079	0.106	0.002	0.10	0.12	0.06	0.24	0.27	0.20	0.12	0.17	0.35	0.30
	Top side	0.084	0.122	0.149	0.371	0.012	0.013	0.013	0.192	0.132	0.220	0.120	0.172	0.008	0.21	0.28	0.11	0.24	0.37	0.35	0.28	0.23	0.59	0.54
	Bottom side														0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
All Bands Ant 6	Front	0.609	0.149	0.118	0.323	0.009	0.039	0.039	0.112	0.130	0.182	0.056	0.087	0.007	0.76	0.72	0.66	0.76	0.86	0.78	0.73	0.22	0.51	0.41
	Back	0.836	0.340	0.166	0.432	0.181	0.335	0.335	0.262	0.165	0.197	0.129	0.236	0.014	1.18	1.10	1.19	1.20	1.17	1.13	1.11	0.53	0.63	0.67
	Left side	0.503	0.113	0.032	0.063	0.166	0.280	0.280	0.364	0.120	0.105	0.198	0.442	0.004	0.62	0.87	0.79	0.79	0.66	0.73	0.87	0.39	0.17	0.51
	Right side	0.150	0.053	0.074	0.191	0.036	0.010	0.010	0.068	0.148	0.156	0.079	0.106	0.002	0.20	0.22	0.16	0.34	0.37	0.30	0.22	0.17	0.35	0.30
	Top side		0.122	0.149	0.371	0.012	0.013	0.013	0.192	0.132	0.220	0.120	0.172	0.008	0.12	0.19	0.02	0.15	0.28	0.27	0.20	0.23	0.59	0.54
	Bottom side	0.540													0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.00	0.00	0.00
All Bands Ant 7	Front	0.158	0.149	0.118	0.323	0.009	0.039	0.039	0.112	0.130	0.182	0.056	0.087	0.007	0.31	0.27	0.20	0.30	0.41	0.33	0.28	0.22	0.51	0.41
	Back	0.391	0.340	0.166	0.432	0.181	0.335	0.335	0.262	0.165	0.197	0.129	0.236	0.014	0.73	0.65	0.74	0.75	0.72	0.69	0.67	0.53	0.63	0.67
	Left side	0.015	0.113	0.032	0.063	0.166	0.280	0.280	0.364	0.120	0.105	0.198	0.442	0.004	0.13	0.38	0.30	0.31	0.17	0.25	0.38	0.39	0.17	0.51
	Right side	0.399	0.053	0.074	0.191	0.036	0.010	0.010	0.068	0.148	0.156	0.079	0.106	0.002	0.45	0.47	0.41	0.59	0.62	0.55	0.47	0.17	0.35	0.30
	Top side	0.090	0.122	0.149	0.371	0.012	0.013	0.013	0.192	0.132	0.220	0.120	0.172	0.008	0.21	0.28	0.11	0.24	0.37	0.36	0.29	0.23	0.59	0.54
	Bottom side														0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
All Bands Ant 8	Front	0.544	0.149	0.118	0.323	0.009	0.039	0.039	0.112	0.130	0.182	0.056	0.087	0.007	0.69	0.66	0.59	0.69	0.79	0.72	0.66	0.22	0.51	0.41
	Back	1.150	0.340	0.166	0.432	0.181	0.335	0.335	0.262	0.165	0.197	0.129	0.236	0.014	1.49	1.41	1.50	1.51	1.48	1.45	1.43	0.53	0.63	0.67
	Left side	0.103	0.113	0.032	0.063	0.166	0.280	0.280	0.364	0.120	0.105	0.198	0.442	0.004	0.22	0.47	0.39	0.39	0.26	0.33	0.47	0.39	0.17	0.51
	Right side	1.143	0.053	0.074	0.191	0.036	0.010	0.010	0.068	0.148	0.156	0.079	0.106	0.002	1.20	1.21	1.16	1.33	1.37	1.30	1.21	0.17	0.35	0.30
	Top side	0.726	0.122	0.149	0.371	0.012	0.013	0.013	0.192	0.132	0.220	0.120	0.172	0.008	0.85	0.92	0.75	0.88	1.01	1.00	0.93	0.23	0.59	0.54
	Bottom side														0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
All Bands Ant 9	Front	0.478	0.149	0.118	0.323	0.009	0.039	0.039	0.112	0.130	0.182	0.056	0.087	0.007	0.63	0.59	0.52	0.62	0.73	0.65	0.60	0.22	0.51	0.41
	Back	0.358	0.340	0.166	0.432	0.181	0.335	0.335	0.262	0.165	0.197	0.129	0.236	0.014	0.70	0.62	0.71	0.72	0.69	0.65	0.63	0.53	0.63	0.67
	Left side	0.200	0.113	0.032	0.063	0.166	0.280	0.280	0.364	0.120	0.105	0.198	0.442	0.004	0.31	0.56	0.48	0.49	0.35	0.43	0.57	0.39	0.17	0.51
	Right side	0.555	0.053	0.074	0.191	0.036	0.010	0.010	0.068	0.148	0.156	0.079	0.106	0.002	0.61	0.62	0.57	0.74	0.78	0.71	0.63	0.17	0.35	0.30
	Top side		0.122	0.149	0.371	0.012	0.013	0.013	0.192	0.132	0.220	0.120	0.172	0.008	0.12	0.19	0.02	0.15	0.28	0.27	0.20	0.23	0.59	0.54
	Bottom side	0.718													0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.00	0.00	0.00



FCC SAR Test Report

Report No. : FA372407

<EN-DC>

WWAN Band	FR1 Band	Exposure Position	1		2		3		4		5		6		7		8		9		10		11		12		18		1+2+19		1+8+19		1+7+18+19		1+5+9+18+19		1+3+9+19		1+3+11+19		1+8+18+19		6+10		4+10		4+12												
			FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1	FR1										
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)											
LTE Band 5 Ant 5	FR1 Ant 5	Front	0.025	0.153	0.149	0.118	0.323	0.009	0.039	0.039	0.112	0.130	0.182	0.056	0.087	0.007	0.33	0.29	0.22	0.32	0.43	0.35	0.30	0.22	0.51	0.41																																	
		Back	0.095	0.475	0.340	0.166	0.432	0.181	0.335	0.335	0.262	0.165	0.197	0.129	0.236	0.014	0.91	0.83	0.92	0.93	0.90	0.87	0.85	0.53	0.63	0.67																																	
		Left side	0.062	0.114	0.113	0.032	0.063	0.166	0.280	0.280	0.364	0.120	0.105	0.198	0.442	0.004	0.29	0.54	0.46	0.47	0.33	0.41	0.54	0.39	0.17	0.51																																	
		Right side	0.013	0.172	0.053	0.074	0.191	0.036	0.010	0.010	0.068	0.148	0.156	0.079	0.106	0.002	0.24	0.25	0.20	0.37	0.41	0.34	0.26	0.17	0.35	0.30																																	
		Top side	0.019	0.122	0.149	0.371	0.012	0.013	0.013	0.192	0.132	0.220	0.120	0.172	0.008	0.14	0.21	0.04	0.17	0.30	0.29	0.22	0.23	0.59	0.54																																		
		Bottom side	0.212																																																								
LTE Band 2 Ant 0	FR1 Ant 5	Front	0.251	0.200	0.149	0.118	0.323	0.009	0.039	0.039	0.112	0.130	0.182	0.056	0.087	0.007	0.60	0.56	0.50	0.60	0.70	0.63	0.57	0.22	0.51	0.41																																	
		Back	0.539	0.310	0.340	0.166	0.432	0.181	0.335	0.335	0.262	0.165	0.197	0.129	0.236	0.014	1.19	1.11	1.20	1.21	1.18	1.14	1.13	0.53	0.63	0.67																																	
		Left side	0.188	0.590	0.113	0.032	0.063	0.166	0.280	0.280	0.364	0.120	0.105	0.198	0.442	0.004	0.88	1.13	1.05	1.06	0.92	1.00	1.14	0.39	0.17	0.51																																	
		Right side	0.071	0.044	0.053	0.074	0.191	0.036	0.010	0.010	0.068	0.148	0.156	0.079	0.106	0.002	0.17	0.18	0.13	0.30	0.34	0.27	0.19	0.17	0.35	0.30																																	
		Top side	0.042	0.122	0.149	0.371	0.012	0.013	0.013	0.192	0.132	0.220	0.120	0.172	0.008	0.16	0.23	0.06	0.19	0.32	0.31	0.24	0.23	0.59	0.54																																		
		Bottom side	0.422																																																								
LTE Band 2 Ant 0	FR1 Ant 5	Front	0.251	0.038	0.149	0.118	0.323	0.009	0.039	0.039	0.112	0.130	0.182	0.056	0.087	0.007	0.44	0.40	0.34	0.44	0.54	0.46	0.41	0.22	0.51	0.41																																	
		Back	0.539	0.127	0.340	0.166	0.432	0.181	0.335	0.335	0.262	0.165	0.197	0.129	0.236	0.014	1.01	0.93	1.02	1.03	1.00	0.96	0.94	0.53	0.63	0.67																																	
		Left side	0.188	0.101	0.113	0.032	0.063	0.166	0.280	0.280	0.364	0.120	0.105	0.198	0.442	0.004	0.40	0.65	0.57	0.58	0.44	0.52	0.66	0.39	0.17	0.51																																	
		Right side	0.071	0.013	0.053	0.074	0.191	0.036	0.010	0.010	0.068	0.148	0.156	0.079	0.106	0.002	0.14	0.15	0.10	0.27	0.31	0.24	0.15	0.17	0.35	0.30																																	
		Top side	0.019	0.122	0.149	0.371	0.012	0.013	0.013	0.192	0.132	0.220	0.120	0.172	0.008	0.14	0.21	0.04	0.17	0.30	0.29	0.22	0.23	0.59	0.54																																		
		Bottom side	0.422																																																								
LTE Band 2 Ant 0	FR1 Ant 5	Front	0.251	0.110	0.149	0.118	0.323	0.009	0.039	0.039	0.112	0.130	0.182	0.056	0.087	0.007	0.51	0.47	0.41	0.51	0.61	0.54	0.48	0.22	0.51	0.41																																	
		Back	0.539	0.191	0.340	0.166	0.432	0.181	0.335	0.335	0.262	0.165	0.197	0.129	0.236	0.014	1.07	0.99	1.08	1.09	1.06	1.03	1.01	0.53	0.63	0.67																																	
		Left side	0.188	0.246	0.113	0.032	0.063	0.166	0.280	0.280	0.364	0.120	0.105	0.198	0.442	0.004	0.55	0.80	0.72	0.72	0.59	0.66	0.80	0.39	0.17	0.51																																	
		Right side	0.071	0.043	0.053	0.074	0.191	0.036	0.010	0.010	0.068	0.148	0.156	0.079	0.106	0.002	0.17	0.18	0.13	0.30	0.34	0.27	0.18	0.17	0.35	0.30																																	
		Top side	0.073	0.122	0.149	0.371	0.012	0.013	0.013	0.192	0.132	0.220	0.120	0.172	0.008	0.20	0.27	0.09	0.23	0.35	0.34	0.27	0.23	0.59	0.54																																		
		Bottom side	0.422																																																								
LTE Band 5 Ant 0	FR1 Ant 5	Front	0.164	0.024	0.149	0.118	0.323	0.009	0.039	0.039	0.112	0.130	0.182	0.056	0.087	0.007	0.34	0.30	0.23	0.33	0.44	0.36	0.31	0.22	0.51	0.41																																	
		Back	0.554	0.107	0.340	0.166	0.432	0.181	0.335	0.335	0.262	0.165	0.197	0.129	0.236	0.014	1.00	0.92	1.01	1.02	0.99	0.96	0.94	0.53	0.63	0.67																																	
		Left side	0.125	0.065	0.113	0.032	0.063	0.166	0.280	0.280	0.364	0.120	0.105	0.198	0.442	0.004	0.30	0.55	0.47	0.48	0.34	0.42	0.56	0.39	0.17	0.51																																	
		Right side	0.188	0.035	0.053	0.074	0.191	0.036	0.010	0.010	0.068	0.148	0.156	0.079	0.106	0.002	0.28	0.29																																									



FCC SAR Test Report

Report No. : FA372407

Table with columns for Band, Antenna, Side, and SAR values. Rows include LTE Band 12, 13, 15, 41, and 66 with various antenna configurations and side measurements.



Bottom side																0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.21	0.00	0.00	0.00
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WWAN Band	FR1 Band	Exposure Position	1		19		2		3		4		5		6		7		8		9		10		11		12		18		1+2+19		1+8+19		1+7+18+19		1+5+9+18+19		1+3+9+19		1+3+11+19		1+8+18+19		6+10		4+10		4+12	
			WWAN	FR1	WLAN2.4GHz Ant 2+4 non DBS Simultaneous	WLAN2.4GHz Ant 2 DBS Simultaneous	WLAN2.4GHz Ant 2 DBS only	WLAN2.4GHz Ant 4 DBS Simultaneous	WLAN2.4GHz Ant 4 DBS only	WLAN2.4GHz Ant 4 non DBS Simultaneous	WLAN5GHz Ant 3+4 non DBS Simultaneous	WLAN5GHz Ant 3 DBS Simultaneous	WLAN5GHz Ant 4 DBS Simultaneous	WLAN5GHz Ant 4 DBS only	Bluetooth Ant 2	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)					
LTE Band 66 Ant 0	FR1 Ant 5	Front	0.324	0.200	0.149	0.118	0.323	0.009	0.039	0.039	0.112	0.130	0.182	0.056	0.087	0.007	0.67	0.64	0.57	0.67	0.77	0.70	0.64	0.22	0.51	0.41																								
		Back	0.570	0.310	0.340	0.166	0.432	0.181	0.335	0.335	0.262	0.165	0.197	0.129	0.236	0.014	1.22	1.14	1.23	1.24	1.21	1.18	1.16	0.53	0.63	0.67																								
		Left side	0.215	0.580	0.113	0.032	0.063	0.166	0.280	0.280	0.364	0.120	0.105	0.198	0.442	0.004	0.91	1.16	1.08	1.09	0.95	1.03	1.16	0.39	0.17	0.51																								
		Right side	0.152	0.044	0.053	0.074	0.191	0.036	0.010	0.010	0.068	0.148	0.156	0.079	0.106	0.002	0.25	0.26	0.21	0.38	0.42	0.35	0.27	0.17	0.35	0.30																								
		Top side	0.042	0.122	0.149	0.371	0.012	0.013	0.013	0.192	0.132	0.220	0.120	0.172	0.008	0.16	0.23	0.06	0.19	0.32	0.31	0.24	0.23	0.59	0.54																									
		Bottom side	0.547															0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.00	0.00	0.00																							
LTE Band 66(4) Ant 0	FR1 Ant 5	Front	0.324	0.110	0.149	0.118	0.323	0.009	0.039	0.039	0.112	0.130	0.182	0.056	0.087	0.007	0.58	0.55	0.48	0.58	0.68	0.61	0.55	0.22	0.51	0.41																								
		Back	0.570	0.191	0.340	0.166	0.432	0.181	0.335	0.335	0.262	0.165	0.197	0.129	0.236	0.014	1.10	1.02	1.11	1.12	1.09	1.06	1.04	0.53	0.63	0.67																								
		Left side	0.215	0.246	0.113	0.032	0.063	0.166	0.280	0.280	0.364	0.120	0.105	0.198	0.442	0.004	0.57	0.83	0.75	0.75	0.61	0.69	0.83	0.39	0.17	0.51																								
		Right side	0.152	0.043	0.053	0.074	0.191	0.036	0.010	0.010	0.068	0.148	0.156	0.079	0.106	0.002	0.25	0.26	0.21	0.38	0.42	0.35	0.27	0.17	0.35	0.30																								
		Top side	0.073	0.122	0.149	0.371	0.012	0.013	0.013	0.192	0.132	0.220	0.120	0.172	0.008	0.20	0.27	0.09	0.23	0.35	0.34	0.27	0.23	0.59	0.54																									
		Bottom side	0.547															0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.00	0.00	0.00																							

<MIMO>

WWAN Band	FR1 Band	Exposure Position	1		19		2		3		4		5		6		7		8		9		10		11		12		18		1+2+19		1+8+19		1+7+18+19		1+5+9+18+19		1+3+9+19		1+3+11+19		1+8+18+19		6+10		4+10		4+12	
			WWAN	FR1	WLAN2.4GHz Ant 2+4 non DBS Simultaneous	WLAN2.4GHz Ant 2 DBS Simultaneous	WLAN2.4GHz Ant 2 DBS only	WLAN2.4GHz Ant 4 DBS Simultaneous	WLAN2.4GHz Ant 4 DBS only	WLAN2.4GHz Ant 4 non DBS Simultaneous	WLAN5GHz Ant 3+4 non DBS Simultaneous	WLAN5GHz Ant 3 DBS Simultaneous	WLAN5GHz Ant 4 DBS Simultaneous	WLAN5GHz Ant 4 DBS only	Bluetooth Ant 2	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)			
FR1 Ant 8	FR1 Ant 5	Front	0.229	0.087	0.149	0.118	0.323	0.009	0.039	0.039	0.112	0.130	0.182	0.056	0.087	0.007	0.47	0.43	0.36	0.46	0.56	0.49	0.44	0.22	0.51	0.41																								
		Back	0.579	0.162	0.340	0.166	0.432	0.181	0.335	0.335	0.262	0.165	0.197	0.129	0.236	0.014	1.08	1.00	1.09	1.10	1.07	1.04	1.02	0.53	0.63	0.67																								
		Left side	0.047	0.221	0.113	0.032	0.063	0.166	0.280	0.280	0.364	0.120	0.105	0.198	0.442	0.004	0.38	0.63	0.55	0.56	0.42	0.50	0.64	0.39	0.17	0.51																								
		Right side	0.557	0.047	0.053	0.074	0.191	0.036	0.010	0.010	0.068	0.148	0.156	0.079	0.106	0.002	0.66	0.67	0.62	0.79	0.83	0.76	0.67	0.17	0.35	0.30																								
		Top side	0.414	0.072	0.122	0.149	0.371	0.012	0.013	0.013	0.192	0.132	0.220	0.120	0.172	0.008	0.61	0.68	0.51	0.64	0.77	0.76	0.69	0.23	0.59	0.54																								
		Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000																							
FR1 Ant 8	FR1 Ant 5	Front	0.278	0.110	0.149	0.118	0.323	0.009	0.039	0.039	0.112	0.130	0.182	0.056	0.087	0.007	0.54	0.50	0.43	0.53	0.64	0.56	0.51	0.22	0.51	0.41																								
		Back	0.587	0.191	0.340	0.166	0.432	0.181	0.335	0.335	0.262	0.165	0.197	0.129	0.236	0.014	1.12	1.04	1.13	1.14	1.11	1.07	1.05	0.53	0.63	0.67																								
		Left side	0.044	0.246	0.113	0.032	0.063	0.166	0.280	0.280	0.364	0.120	0.105	0.198	0.442	0.004	0.40	0.65	0.57	0.58	0.44	0.52	0.66	0.39	0.17	0.51																								
		Right side	0.547	0.043	0.053	0.074	0.191	0.036	0.010	0.010	0.068	0.148	0.156	0.079	0.106	0.002	0.64	0.66	0.60	0.78	0.81	0.74	0.66	0.17	0.35	0.30																								
		Top side	0.371	0.073	0.122	0.149	0.371	0.012	0.013	0.013	0.192	0.132	0.220	0.120	0.172	0.008	0.57	0.64	0.47	0.60	0.73	0.71	0.64	0.23	0.59	0.54																								
		Bottom side	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000																								
FR1 Ant 5	FR1 Ant 6	Front	0.200	0.474	0.149	0.118	0.323	0.009	0.039	0.039	0.112	0.130	0.182	0.056	0.087	0.007	0.82	0.79	0.72	0.82	0.92	0.85	0.79	0.22	0.51	0.41																								
		Back	0.310	0.708	0.340	0.166	0.432	0.181	0.335	0.335	0.262	0.165	0.197	0.129	0.236	0.014	1.36	1.28	1.37	1.38	1.35	1.31	1.29	0.53	0.63	0.67																								
		Left side	0.580	0.374	0.113	0.032	0.063	0.166	0.280	0.280	0.364	0.120	0.105	0.198	0.442	0.004	1.07	1.32	1.24	1.24	1.11	1.18	1.32	0.39	0.17	0.51																								
		Right side	0.044	0.101	0.053	0.074	0.191	0.036	0.010	0.010	0.068	0.148	0.156	0.079	0.106	0.002	0.20	0.21	0.16	0.33	0.37	0.30	0.22	0.17	0.35	0.30																								
		Top side	0.042	0.122	0.149	0.371	0.012	0.013	0.013	0.192	0.132	0.220	0.120	0.172	0.008	0.16	0.23	0.06	0.19	0.32	0.31	0.24	0.23	0.59	0.54																									
		Bottom side	0.443															0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.00	0.00	0.00																							



16.3 Body-Worn Accessory Exposure Conditions

WWAN Band	Exposure Position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
		WWAN 1g SAR (W/kg)	WLAN2.4GHz Ant 2+4 non DBS Simultaneous 1g SAR (W/kg)	WLAN2.4GHz Ant 2 DBS Simultaneous 1g SAR (W/kg)	WLAN2.4GHz Ant 2 DBS only 1g SAR (W/kg)	WLAN2.4GHz Ant 4 DBS Simultaneous 1g SAR (W/kg)	WLAN2.4GHz Ant 4 DBS only 1g SAR (W/kg)	WLAN2.4GHz Ant 4 non DBS Simultaneous 1g SAR (W/kg)	WLAN2.4GHz Ant 4 non DBS Simultaneous 1g SAR (W/kg)	WLAN5GHz Ant 3+4 non DBS Simultaneous 1g SAR (W/kg)	WLAN5GHz Ant 3 DBS Simultaneous 1g SAR (W/kg)	WLAN5GHz Ant 3 DBS only 1g SAR (W/kg)	WLAN5GHz Ant 4 DBS Simultaneous 1g SAR (W/kg)	WLAN5GHz Ant 4 DBS only 1g SAR (W/kg)	WLAN6GHz Ant 3+4 non DBS Simultaneous 1g SAR (W/kg)	WLAN6GHz Ant 3+4 DBS only 1g SAR (W/kg)	WLAN6GHz Ant 3+4 DBS Simultaneous 1g SAR (W/kg)	WLAN6GHz Ant 3 DBS only 1g SAR (W/kg)	WLAN6GHz Ant 3 DBS Simultaneous 1g SAR (W/kg)
All Bands Ant 0	Front	0.827	0.149	0.118	0.323	0.035	0.039	0.039	0.165	0.182	0.182	0.148	0.148	0.010	0.010	0.010	0.029	0.029	0.007
	Back	1.132	0.340	0.166	0.432	0.087	0.335	0.335	0.384	0.206	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014
All Bands Ant 1	Front	0.346	0.149	0.118	0.323	0.035	0.039	0.039	0.165	0.182	0.182	0.148	0.148	0.010	0.010	0.010	0.029	0.029	0.007
	Back	0.770	0.340	0.166	0.432	0.087	0.335	0.335	0.384	0.206	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014
All Bands Ant 5	Front	0.225	0.149	0.118	0.323	0.035	0.039	0.039	0.165	0.182	0.182	0.148	0.148	0.010	0.010	0.010	0.029	0.029	0.007
	Back	0.348	0.340	0.166	0.432	0.087	0.335	0.335	0.384	0.206	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014
All Bands Ant 6	Front	0.609	0.149	0.118	0.323	0.035	0.039	0.039	0.165	0.182	0.182	0.148	0.148	0.010	0.010	0.010	0.029	0.029	0.007
	Back	0.836	0.340	0.166	0.432	0.087	0.335	0.335	0.384	0.206	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014
All Bands Ant 7	Front	0.158	0.149	0.118	0.323	0.035	0.039	0.039	0.165	0.182	0.182	0.148	0.148	0.010	0.010	0.010	0.029	0.029	0.007
	Back	0.391	0.340	0.166	0.432	0.087	0.335	0.335	0.384	0.206	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014
All Bands Ant 8	Front	0.598	0.149	0.118	0.323	0.035	0.039	0.039	0.165	0.182	0.182	0.148	0.148	0.010	0.010	0.010	0.029	0.029	0.007
	Back	1.150	0.340	0.166	0.432	0.087	0.335	0.335	0.384	0.206	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014
All Bands Ant 9	Front	0.478	0.149	0.118	0.323	0.035	0.039	0.039	0.165	0.182	0.182	0.148	0.148	0.010	0.010	0.010	0.029	0.029	0.007
	Back	0.358	0.340	0.166	0.432	0.087	0.335	0.335	0.384	0.206	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014

WWAN Band	Exposure Position	1+2	1+8	1+13	1+7+18	1+5+9+18	1+3+9	1+3+11	1+8+18	1+13+18	1+3+15	1+5+17+18	6+10	4+10	4+12	4+14	6+16	
		Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
All Bands Ant 0	Front	0.98	0.99	0.84	0.87	1.05	1.13	1.09	1.00	0.84	0.96	0.90	0.22	0.51	0.47	0.33	0.07	
	Back	1.47	1.52	1.15	1.48	1.44	1.50	1.49	1.53	1.16	1.32	1.27	0.64	0.73	0.62	0.45	0.37	
All Bands Ant 1	Front	0.50	0.51	0.36	0.39	0.57	0.65	0.61	0.52	0.36	0.47	0.42	0.22	0.51	0.47	0.33	0.07	
	Back	1.11	1.15	0.79	1.12	1.08	1.14	1.13	1.17	0.80	0.95	0.91	0.64	0.73	0.62	0.45	0.37	
All Bands Ant 5	Front	0.37	0.39	0.24	0.27	0.45	0.53	0.49	0.40	0.24	0.35	0.30	0.22	0.51	0.47	0.33	0.07	
	Back	0.69	0.73	0.37	0.70	0.66	0.72	0.71	0.75	0.38	0.53	0.48	0.64	0.73	0.62	0.45	0.37	
All Bands Ant 6	Front	0.76	0.77	0.62	0.66	0.83	0.91	0.88	0.78	0.63	0.74	0.68	0.22	0.51	0.47	0.33	0.07	
	Back	1.18	1.22	0.85	1.19	1.14	1.21	1.19	1.23	0.87	1.02	0.97	0.64	0.73	0.62	0.45	0.37	
All Bands Ant 7	Front	0.31	0.32	0.17	0.20	0.38	0.46	0.42	0.33	0.18	0.29	0.23	0.22	0.51	0.47	0.33	0.07	
	Back	0.73	0.78	0.41	0.74	0.70	0.76	0.75	0.79	0.42	0.58	0.53	0.64	0.73	0.62	0.45	0.37	
All Bands Ant 8	Front	0.75	0.76	0.61	0.64	0.82	0.90	0.86	0.77	0.62	0.73	0.67	0.22	0.51	0.47	0.33	0.07	
	Back	1.49	1.53	1.17	1.50	1.46	1.52	1.51	1.55	1.18	1.33	1.29	0.64	0.73	0.62	0.45	0.37	
All Bands Ant 9	Front	0.63	0.64	0.49	0.52	0.70	0.78	0.74	0.65	0.50	0.61	0.55	0.22	0.51	0.47	0.33	0.07	
	Back	0.70	0.74	0.38	0.71	0.67	0.73	0.72	0.76	0.39	0.54	0.49	0.64	0.73	0.62	0.45	0.37	



<EN-DC>

WWAN Band	WWAN Band	Exposure Position	1	19	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
			WWAN	FR1	WLAN2.4GHz Ant 2+4 non DBS Simultaneous	WLAN2.4GHz Ant 2 DBS Simultaneous	WLAN2.4GHz Ant 2 DBS only	WLAN2.4GHz Ant 4 DBS Simultaneous	WLAN2.4GHz Ant 4 DBS only	WLAN2.4GHz Ant 4 non DBS Simultaneous	WLAN5GHz Ant 3 DBS Simultaneous	WLAN5GHz Ant 3+4 non DBS Simultaneous	WLAN5GHz Ant 3 DBS only	WLAN5GHz Ant 4 DBS Simultaneous	WLAN5GHz Ant 4 DBS only	WLAN6GHz Ant 3+4 non DBS Simultaneous	WLAN6GHz Ant 3+4 DBS only	WLAN6GHz Ant 3+4 DBS Simultaneous	WLAN6GHz Ant 3+4 DBS only	WLAN6GHz Ant 3 DBS only	WLAN6GHz Ant 3 DBS Simultaneous	Bluetooth Ant 2
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
LTE Band 2 Ant 5	FR1 n5 Ant 0	Front	0.025	0.153	0.149	0.118	0.323	0.035	0.039	0.039	0.165	0.182	0.182	0.148	0.148	0.010	0.010	0.010	0.029	0.029	0.007	
		Back	0.095	0.475	0.340	0.166	0.432	0.087	0.335	0.335	0.384	0.206	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014	
LTE Band 2 Ant 0	FR1 n41 Ant 5	Front	0.443	0.225	0.149	0.118	0.323	0.035	0.039	0.039	0.165	0.182	0.182	0.148	0.148	0.010	0.010	0.010	0.029	0.029	0.007	
		Back	0.539	0.348	0.340	0.166	0.432	0.087	0.335	0.335	0.384	0.206	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014	
LTE Band 2 Ant 0	FR1 n66 Ant 5	Front	0.443	0.038	0.149	0.118	0.323	0.035	0.039	0.039	0.165	0.182	0.182	0.148	0.148	0.010	0.010	0.010	0.029	0.029	0.007	
		Back	0.539	0.127	0.340	0.166	0.432	0.087	0.335	0.335	0.384	0.206	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014	
LTE Band 2 Ant 0	FR1 n77(78) Ant 5	Front	0.443	0.110	0.149	0.118	0.323	0.035	0.039	0.039	0.165	0.182	0.182	0.148	0.148	0.010	0.010	0.010	0.029	0.029	0.007	
		Back	0.539	0.191	0.340	0.166	0.432	0.087	0.335	0.335	0.384	0.206	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014	
LTE Band 5 Ant 0	FR1 n2 Ant 5	Front	0.260	0.024	0.149	0.118	0.323	0.035	0.039	0.039	0.165	0.182	0.182	0.148	0.148	0.010	0.010	0.010	0.029	0.029	0.007	
		Back	0.554	0.107	0.340	0.166	0.432	0.087	0.335	0.335	0.384	0.206	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014	
LTE Band 5 Ant 0	FR1 n41 Ant 5	Front	0.260	0.225	0.149	0.118	0.323	0.035	0.039	0.039	0.165	0.182	0.182	0.148	0.148	0.010	0.010	0.010	0.029	0.029	0.007	
		Back	0.554	0.348	0.340	0.166	0.432	0.087	0.335	0.335	0.384	0.206	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014	
LTE Band 5 Ant 0	FR1 n66 Ant 5	Front	0.260	0.038	0.149	0.118	0.323	0.035	0.039	0.039	0.165	0.182	0.182	0.148	0.148	0.010	0.010	0.010	0.029	0.029	0.007	
		Back	0.554	0.127	0.340	0.166	0.432	0.087	0.335	0.335	0.384	0.206	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014	
LTE Band 5 Ant 0	FR1 n77 Ant 5	Front	0.260	0.110	0.149	0.118	0.323	0.035	0.039	0.039	0.165	0.182	0.182	0.148	0.148	0.010	0.010	0.010	0.029	0.029	0.007	
		Back	0.554	0.191	0.340	0.166	0.432	0.087	0.335	0.335	0.384	0.206	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014	
LTE Band 7 Ant 6	FR1 n77(78) Ant 5	Front	0.609	0.110	0.149	0.118	0.323	0.035	0.039	0.039	0.165	0.182	0.182	0.148	0.148	0.010	0.010	0.010	0.029	0.029	0.007	
		Back	0.542	0.191	0.340	0.166	0.432	0.087	0.335	0.335	0.384	0.206	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014	
LTE Band 12 Ant 0	FR1 n2 Ant 5	Front	0.178	0.024	0.149	0.118	0.323	0.035	0.039	0.039	0.165	0.182	0.182	0.148	0.148	0.010	0.010	0.010	0.029	0.029	0.007	
		Back	0.401	0.107	0.340	0.166	0.432	0.087	0.335	0.335	0.384	0.206	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014	
LTE Band 12 Ant 0	FR1 n41 Ant 5	Front	0.178	0.225	0.149	0.118	0.323	0.035	0.039	0.039	0.165	0.182	0.182	0.148	0.148	0.010	0.010	0.010	0.029	0.029	0.007	
		Back	0.401	0.348	0.340	0.166	0.432	0.087	0.335	0.335	0.384	0.206	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014	
LTE Band 12 Ant 0	FR1 n66 Ant 5	Front	0.178	0.038	0.149	0.118	0.323	0.035	0.039	0.039	0.165	0.182	0.182	0.148	0.148	0.010	0.010	0.010	0.029	0.029	0.007	
		Back	0.401	0.127	0.340	0.166	0.432	0.087	0.335	0.335	0.384	0.206	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014	
LTE Band 12 Ant 0	FR1 n77 Ant 5	Front	0.178	0.110	0.149	0.118	0.323	0.035	0.039	0.039	0.165	0.182	0.182	0.148	0.148	0.010	0.010	0.010	0.029	0.029	0.007	
		Back	0.401	0.191	0.340	0.166	0.432	0.087	0.335	0.335	0.384	0.206	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014	
LTE Band 13 Ant 0	FR1 n2 Ant 5	Front	0.190	0.024	0.149	0.118	0.323	0.035	0.039	0.039	0.165	0.182	0.182	0.148	0.148	0.010	0.010	0.010	0.029	0.029	0.007	
		Back	0.434	0.107	0.340	0.166	0.432	0.087	0.335	0.335	0.384	0.206	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014	
LTE Band 13 Ant 0	FR1 n66 Ant 5	Front	0.190	0.038	0.149	0.118	0.323	0.035	0.039	0.039	0.165	0.182	0.182	0.148	0.148	0.010	0.010	0.010	0.029	0.029	0.007	
		Back	0.434	0.127	0.340	0.166	0.432	0.087	0.335	0.335	0.384	0.206	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014	
LTE Band 41 Ant 6	FR1 n77(78) Ant 5	Front	0.320	0.110	0.149	0.118	0.323	0.035	0.039	0.039	0.165	0.182	0.182	0.148	0.148	0.010	0.010	0.010	0.029	0.029	0.007	
		Back	0.496	0.191	0.340	0.166	0.432	0.087	0.335	0.335	0.384	0.206	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014	
LTE Band 66 Ant 0	FR1 n2 Ant 5	Front	0.636	0.024	0.149	0.118	0.323	0.035	0.039	0.039	0.165	0.182	0.182	0.148	0.148	0.010	0.010	0.010	0.029	0.029	0.007	
		Back	0.570	0.107	0.340	0.166	0.432	0.087	0.335	0.335	0.384	0.206	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014	
LTE Band 66 Ant 5	FR1 n5 Ant 0	Front	0.013	0.153	0.149	0.118	0.323	0.035	0.039	0.039	0.165	0.182	0.182	0.148	0.148	0.010	0.010	0.010	0.029	0.029	0.007	
		Back	0.076	0.475	0.340	0.166	0.432	0.087	0.335	0.335	0.384	0.206	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014	



WWAN Band	WWAN Band	Exposure Position	1+2+19	1+8+19	1+13+19	1+7+18+19	1+5+9+18+19	1+3+9+19	1+3+11+19	1+8+18+19	1+13+18+19	1+3+15+19	1+5+17+18+19	6+10	4+10	4+12	4+14	6+16
			Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)
LTE Band 2 Ant 5	FR1 n5 Ant 0	Front	0.33	0.34	0.19	0.22	0.40	0.48	0.44	0.35	0.20	0.31	0.25	0.22	0.51	0.47	0.33	0.07
		Back	0.91	0.95	0.59	0.92	0.88	0.94	0.93	0.97	0.60	0.75	0.71	0.64	0.73	0.62	0.45	0.37
LTE Band 2 Ant 0	FR1 n41 Ant 5	Front	0.82	0.83	0.68	0.71	0.89	0.97	0.93	0.84	0.69	0.80	0.74	0.22	0.51	0.47	0.33	0.07
		Back	1.23	1.27	0.91	1.24	1.19	1.26	1.25	1.29	0.92	1.07	1.02	0.64	0.73	0.62	0.45	0.37
LTE Band 2 Ant 0	FR1 n66 Ant 5	Front	0.63	0.65	0.49	0.53	0.71	0.78	0.75	0.65	0.50	0.61	0.55	0.22	0.51	0.47	0.33	0.07
		Back	1.01	1.05	0.68	1.02	0.97	1.04	1.02	1.06	0.70	0.85	0.80	0.64	0.73	0.62	0.45	0.37
LTE Band 2 Ant 0	FR1 n77(78) Ant 5	Front	0.70	0.72	0.56	0.60	0.78	0.85	0.82	0.73	0.57	0.68	0.62	0.22	0.51	0.47	0.33	0.07
		Back	1.07	1.11	0.75	1.08	1.04	1.10	1.09	1.13	0.76	0.91	0.87	0.64	0.73	0.62	0.45	0.37
LTE Band 5 Ant 0	FR1 n2 Ant 5	Front	0.43	0.45	0.29	0.33	0.51	0.58	0.55	0.46	0.30	0.41	0.36	0.22	0.51	0.47	0.33	0.07
		Back	1.00	1.05	0.68	1.01	0.97	1.03	1.02	1.06	0.69	0.85	0.80	0.64	0.73	0.62	0.45	0.37
LTE Band 5 Ant 0	FR1 n41 Ant 5	Front	0.63	0.65	0.50	0.53	0.71	0.79	0.75	0.66	0.50	0.61	0.56	0.22	0.51	0.47	0.33	0.07
		Back	1.24	1.29	0.92	1.25	1.21	1.27	1.26	1.30	0.93	1.09	1.04	0.64	0.73	0.62	0.45	0.37
LTE Band 5 Ant 0	FR1 n66 Ant 5	Front	0.45	0.46	0.31	0.34	0.52	0.60	0.56	0.47	0.32	0.43	0.37	0.22	0.51	0.47	0.33	0.07
		Back	1.02	1.07	0.70	1.03	0.99	1.05	1.04	1.08	0.71	0.87	0.82	0.64	0.73	0.62	0.45	0.37
LTE Band 5 Ant 0	FR1 n77 Ant 5	Front	0.52	0.54	0.38	0.42	0.59	0.67	0.64	0.54	0.39	0.50	0.44	0.22	0.51	0.47	0.33	0.07
		Back	1.09	1.13	0.76	1.09	1.05	1.12	1.10	1.14	0.78	0.93	0.88	0.64	0.73	0.62	0.45	0.37
LTE Band 7 Ant 6	FR1 n77(78) Ant 5	Front	0.87	0.88	0.73	0.77	0.94	1.02	0.99	0.89	0.74	0.85	0.79	0.22	0.51	0.47	0.33	0.07
		Back	1.07	1.12	0.75	1.08	1.04	1.11	1.09	1.13	0.77	0.92	0.87	0.64	0.73	0.62	0.45	0.37
LTE Band 12 Ant 0	FR1 n2 Ant 5	Front	0.35	0.37	0.21	0.25	0.43	0.50	0.47	0.37	0.22	0.33	0.27	0.22	0.51	0.47	0.33	0.07
		Back	0.85	0.89	0.53	0.86	0.82	0.88	0.87	0.91	0.54	0.69	0.64	0.64	0.73	0.62	0.45	0.37
LTE Band 12 Ant 0	FR1 n41 Ant 5	Front	0.55	0.57	0.41	0.45	0.63	0.70	0.67	0.58	0.42	0.53	0.47	0.22	0.51	0.47	0.33	0.07
		Back	1.09	1.13	0.77	1.10	1.06	1.12	1.11	1.15	0.78	0.93	0.89	0.64	0.73	0.62	0.45	0.37
LTE Band 12 Ant 0	FR1 n66 Ant 5	Front	0.37	0.38	0.23	0.26	0.44	0.52	0.48	0.39	0.23	0.34	0.29	0.22	0.51	0.47	0.33	0.07
		Back	0.87	0.91	0.55	0.88	0.84	0.90	0.89	0.93	0.56	0.71	0.66	0.64	0.73	0.62	0.45	0.37
LTE Band 12 Ant 0	FR1 n77 Ant 5	Front	0.44	0.45	0.30	0.33	0.51	0.59	0.55	0.46	0.31	0.42	0.36	0.22	0.51	0.47	0.33	0.07
		Back	0.93	0.98	0.61	0.94	0.90	0.96	0.95	0.99	0.62	0.78	0.73	0.64	0.73	0.62	0.45	0.37
LTE Band 13 Ant 0	FR1 n2 Ant 5	Front	0.36	0.38	0.22	0.26	0.44	0.51	0.48	0.39	0.23	0.34	0.29	0.22	0.51	0.47	0.33	0.07
		Back	0.88	0.93	0.56	0.89	0.85	0.91	0.90	0.94	0.57	0.73	0.68	0.64	0.73	0.62	0.45	0.37
LTE Band 13 Ant 0	FR1 n66 Ant 5	Front	0.38	0.39	0.24	0.27	0.45	0.53	0.49	0.40	0.25	0.36	0.30	0.22	0.51	0.47	0.33	0.07
		Back	0.90	0.95	0.58	0.91	0.87	0.93	0.92	0.96	0.59	0.75	0.70	0.64	0.73	0.62	0.45	0.37
LTE Band 41 Ant 6	FR1 n77(78) Ant 5	Front	0.58	0.60	0.44	0.48	0.65	0.73	0.70	0.60	0.45	0.56	0.50	0.22	0.51	0.47	0.33	0.07
		Back	1.03	1.07	0.71	1.04	0.99	1.06	1.05	1.09	0.72	0.87	0.82	0.64	0.73	0.62	0.45	0.37
LTE Band 66 Ant 0	FR1 n2 Ant 5	Front	0.81	0.83	0.67	0.71	0.88	0.96	0.93	0.83	0.68	0.79	0.73	0.22	0.51	0.47	0.33	0.07
		Back	1.02	1.06	0.70	1.03	0.98	1.05	1.04	1.08	0.71	0.86	0.81	0.64	0.73	0.62	0.45	0.37
LTE Band 66 Ant 5	FR1 n5 Ant 0	Front	0.32	0.33	0.18	0.21	0.39	0.47	0.43	0.34	0.18	0.29	0.24	0.22	0.51	0.47	0.33	0.07
		Back	0.89	0.94	0.57	0.90	0.86	0.92	0.91	0.95	0.58	0.74	0.69	0.64	0.73	0.62	0.45	0.37



WWAN Band	WWAN Band	Exposure Position	1	19	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
			FR1	FR1	WLAN2.4GHz Ant 2+4 non DBS Simultaneous	WLAN2.4GHz Ant 2 DBS Simultaneous	WLAN2.4GHz Ant 2 DBS only	WLAN2.4GHz Ant 4 DBS Simultaneous	WLAN2.4GHz Ant 4 DBS only	WLAN2.4GHz Ant 4 non DBS Simultaneous	WLAN5GHz Ant 3+4 non DBS Simultaneous	WLAN5GHz Ant 3 DBS Simultaneous	WLAN5GHz Ant 3 DBS only	WLAN5GHz Ant 4 DBS Simultaneous	WLAN5GHz Ant 4 DBS only	WLAN6GHz Ant 3+4 non DBS Simultaneous	WLAN6GHz Ant 3+4 DBS only	WLAN6GHz Ant 3+4 DBS Simultaneous	WLAN6GHz Ant 3 DBS only	WLAN6GHz Ant 3 DBS Simultaneous	WLAN6GHz Ant 3 DBS only
LTE Band 66 Ant 0	FR1 n41 Ant 5	Front	0.636	0.225	0.149	0.118	0.323	0.035	0.039	0.039	0.165	0.182	0.182	0.148	0.148	0.010	0.010	0.010	0.029	0.029	0.007
		Back	0.570	0.348	0.340	0.166	0.432	0.087	0.335	0.335	0.384	0.206	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014
LTE Band 66 Ant 0	FR1 n77(78) Ant 5	Front	0.636	0.110	0.149	0.118	0.323	0.035	0.039	0.039	0.165	0.182	0.182	0.148	0.148	0.010	0.010	0.010	0.029	0.029	0.007
		Back	0.570	0.191	0.340	0.166	0.432	0.087	0.335	0.335	0.384	0.206	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014

WWAN Band	WWAN Band	Exposure Position	1+2+19	1+8+19	1+13+19	1+7+18+19	1+5+9+18+19	1+3+9+19	1+3+11+19	1+8+18+19	1+13+18+19	1+3+15+19	1+5+17+18+19	6+10	4+10	4+12	4+14	6+16
			Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed
LTE Band 66 Ant 0	FR1 n41 Ant 5	Front	1.01	1.03	0.87	0.91	1.09	1.16	1.13	1.03	0.88	0.99	0.93	0.22	0.51	0.47	0.33	0.07
		Back	1.26	1.30	0.94	1.27	1.23	1.29	1.28	1.32	0.95	1.10	1.05	0.64	0.73	0.62	0.45	0.37
LTE Band 66 Ant 0	FR1 n77(78) Ant 5	Front	0.90	0.91	0.76	0.79	0.97	1.05	1.01	0.92	0.76	0.87	0.82	0.22	0.51	0.47	0.33	0.07
		Back	1.10	1.15	0.78	1.11	1.07	1.13	1.12	1.16	0.79	0.95	0.90	0.64	0.73	0.62	0.45	0.37

<MIMO>

WWAN Band	WWAN Band	Exposure Position	1	19	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
			FR1	FR1	WLAN2.4GHz Ant 2+4 non DBS Simultaneous	WLAN2.4GHz Ant 2 DBS Simultaneous	WLAN2.4GHz Ant 2 DBS only	WLAN2.4GHz Ant 4 DBS Simultaneous	WLAN2.4GHz Ant 4 DBS only	WLAN2.4GHz Ant 4 non DBS Simultaneous	WLAN5GHz Ant 3+4 non DBS Simultaneous	WLAN5GHz Ant 3 DBS Simultaneous	WLAN5GHz Ant 3 DBS only	WLAN5GHz Ant 4 DBS Simultaneous	WLAN5GHz Ant 4 DBS only	WLAN6GHz Ant 3+4 non DBS Simultaneous	WLAN6GHz Ant 3+4 DBS only	WLAN6GHz Ant 3+4 DBS Simultaneous	WLAN6GHz Ant 3 DBS only	WLAN6GHz Ant 3 DBS Simultaneous	Bluetooth Ant 2
FR1 n48 Ant 8	FR1 n48 Ant 5	Front	0.247	0.087	0.149	0.118	0.323	0.035	0.039	0.039	0.165	0.182	0.182	0.148	0.148	0.010	0.010	0.010	0.029	0.029	0.007
		Back	0.579	0.162	0.340	0.166	0.432	0.087	0.335	0.335	0.384	0.206	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014
FR1 n77(78) Ant 8	FR1 n77(78) Ant 5	Front	0.598	0.110	0.149	0.118	0.323	0.035	0.039	0.039	0.165	0.182	0.182	0.148	0.148	0.010	0.010	0.010	0.029	0.029	0.007
		Back	0.587	0.191	0.340	0.166	0.432	0.087	0.335	0.335	0.384	0.206	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014
FR1 n41 Ant 5	FR1 n41 Ant 6	Front	0.225	0.474	0.149	0.118	0.323	0.035	0.039	0.039	0.165	0.182	0.182	0.148	0.148	0.010	0.010	0.010	0.029	0.029	0.007
		Back	0.348	0.708	0.340	0.166	0.432	0.087	0.335	0.335	0.384	0.206	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014

WWAN Band	WWAN Band	Exposure Position	1+2+19	1+8+19	1+13+19	1+7+18+19	1+5+9+18+19	1+3+9+19	1+3+11+19	1+8+18+19	1+13+18+19	1+3+15+19	1+5+17+18+19	6+10	4+10	4+12	4+14	6+16
			Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed
FR1 n48 Ant 8	FR1 n48 Ant 5	Front	0.48	0.50	0.34	0.38	0.56	0.63	0.60	0.51	0.35	0.46	0.41	0.22	0.51	0.47	0.33	0.07
		Back	1.08	1.13	0.76	1.09	1.05	1.11	1.10	1.14	0.77	0.93	0.88	0.64	0.73	0.62	0.45	0.37
FR1 n77(78) Ant 8	FR1 n77(78) Ant 5	Front	0.86	0.87	0.72	0.75	0.93	1.01	0.97	0.88	0.73	0.84	0.78	0.22	0.51	0.47	0.33	0.07
		Back	1.12	1.16	0.80	1.13	1.09	1.15	1.14	1.18	0.81	0.96	0.91	0.64	0.73	0.62	0.45	0.37
FR1 n41 Ant 5	FR1 n41 Ant 6	Front	0.85	0.86	0.71	0.75	0.92	1.00	0.97	0.87	0.72	0.83	0.77	0.22	0.51	0.47	0.33	0.07
		Back	1.40	1.44	1.07	1.41	1.36	1.43	1.41	1.45	1.09	1.24	1.19	0.64	0.73	0.62	0.45	0.37



Sensor off

WWAN Band	Exposure Position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
		WWAN	WLAN2.4GHz Ant 2+4 non DBS Simultaneous	WLAN2.4GHz Ant 2 DBS Simultaneous	WLAN2.4GHz Ant 2 DBS only	WLAN2.4GHz Ant 4 DBS Simultaneous	WLAN2.4GHz Ant 4 DBS only	WLAN2.4GHz Ant 4 non DBS Simultaneous	WLAN5GHz Ant 3+4 non DBS Simultaneous	WLAN5GHz Ant 3 DBS Simultaneous	WLAN5GHz Ant 3 DBS only	WLAN5GHz Ant 4 DBS Simultaneous	WLAN5GHz Ant 4 DBS only	WLAN5GHz Ant 4 non DBS Simultaneous	WLAN6GHz Ant 3+4 DBS Simultaneous	WLAN6GHz Ant 3+4 DBS only	WLAN6GHz Ant 3+4 DBS Simultaneous	WLAN6GHz Ant 3 DBS only	WLAN6GHz Ant 3 DBS Simultaneous	Bluetooth Ant 2
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
All Band Ant 1	Back	0.672	0.764	0.429	0.432	0.194	0.194	0.194	0.399	0.197	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014	
All Band Ant 7	Back	0.391	0.764	0.429	0.432	0.194	0.194	0.194	0.399	0.197	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014	
All Band Ant 9	Back	0.358	0.764	0.429	0.432	0.194	0.194	0.194	0.399	0.197	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014	
LTE Band 14 Ant 0	Back	0.302	0.764	0.429	0.432	0.194	0.194	0.194	0.399	0.197	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014	
FR1 n12 Ant 0	Back	0.236	0.764	0.429	0.432	0.194	0.194	0.194	0.399	0.197	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014	
FR1 n14 Ant 0	Back	0.154	0.764	0.429	0.432	0.194	0.194	0.194	0.399	0.197	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014	
GSM850 Ant 0	Back	0.148	0.764	0.429	0.432	0.194	0.194	0.194	0.399	0.197	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014	
WCDMA V Ant 0	Back	0.667	0.764	0.429	0.432	0.194	0.194	0.194	0.399	0.197	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014	
WCDMA IV Ant 0	Back	0.960	0.764	0.429	0.432	0.194	0.194	0.194	0.399	0.197	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014	
FR1 n66 Ant 0	Back	0.768	0.764	0.429	0.432	0.194	0.194	0.194	0.399	0.197	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014	
GSM1900 Ant 0	Back	0.189	0.764	0.429	0.432	0.194	0.194	0.194	0.399	0.197	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014	
WCDMA II Ant 0	Back	0.816	0.764	0.429	0.432	0.194	0.194	0.194	0.399	0.197	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014	
FR1 n2 Ant 0	Back	0.592	0.764	0.429	0.432	0.194	0.194	0.194	0.399	0.197	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014	
LTE Band 48 Ant 8	Back	0.458	0.764	0.429	0.432	0.194	0.194	0.194	0.399	0.197	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014	
FR1 n48 Ant 8	Back	0.472	0.764	0.429	0.432	0.194	0.194	0.194	0.399	0.197	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014	
FR1 n77 Ant 8	Back	0.456	0.764	0.429	0.432	0.194	0.194	0.194	0.399	0.197	0.302	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014	

WWAN Band	Exposure Position	1+2	1+8	1+13	1+7+18	1+5+9+18	1+3+9	1+3+11	1+8+18	1+13+18	1+3+15	1+5+17+18	6+10	4+10	4+12	4+14	6+16	SPLSR
		Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	
All Band Ant 1	Back	1.44	1.07	0.69	0.88	1.08	1.30	1.29	1.09	0.70	1.12	0.92	0.50	0.73	0.62	0.45	0.23	
All Band Ant 7	Back	1.16	0.79	0.41	0.60	0.80	1.02	1.01	0.80	0.42	0.84	0.63	0.50	0.73	0.62	0.45	0.23	
All Band Ant 9	Back	1.12	0.76	0.38	0.57	0.76	0.98	0.98	0.77	0.39	0.81	0.60	0.50	0.73	0.62	0.45	0.23	
LTE Band 14 Ant 0	Back	1.07	0.70	0.32	0.51	0.71	0.93	0.92	0.72	0.33	0.75	0.55	0.50	0.73	0.62	0.45	0.23	
FR1 n12 Ant 0	Back	1.00	0.64	0.25	0.44	0.64	0.86	0.86	0.65	0.27	0.68	0.48	0.50	0.73	0.62	0.45	0.23	
FR1 n14 Ant 0	Back	0.92	0.55	0.17	0.36	0.56	0.78	0.78	0.57	0.19	0.60	0.40	0.50	0.73	0.62	0.45	0.23	
GSM850 Ant 0	Back	0.91	0.55	0.17	0.36	0.55	0.77	0.77	0.56	0.18	0.60	0.39	0.50	0.73	0.62	0.45	0.23	
WCDMA V Ant 0	Back	1.43	1.07	0.69	0.88	1.07	1.29	1.29	1.08	0.70	1.11	0.91	0.50	0.73	0.62	0.45	0.23	
WCDMA IV Ant 0	Back	1.72	1.36	0.98	1.17	1.37	1.59	1.58	1.37	0.99	1.41	1.20	0.50	0.73	0.62	0.45	0.23	1
FR1 n66 Ant 0	Back	1.53	1.17	0.79	0.98	1.17	1.39	1.39	1.18	0.80	1.22	1.01	0.50	0.73	0.62	0.45	0.23	
GSM1900 Ant 0	Back	0.95	0.59	0.21	0.40	0.59	0.82	0.81	0.60	0.22	0.64	0.43	0.50	0.73	0.62	0.45	0.23	
WCDMA II Ant 0	Back	1.58	1.22	0.83	1.02	1.22	1.44	1.44	1.23	0.85	1.26	1.06	0.50	0.73	0.62	0.45	0.23	
FR1 n2 Ant 0	Back	1.36	0.99	0.61	0.80	1.00	1.22	1.21	1.01	0.62	1.04	0.84	0.50	0.73	0.62	0.45	0.23	
LTE Band 48 Ant 8	Back	1.22	0.86	0.48	0.67	0.86	1.08	1.08	0.87	0.49	0.91	0.70	0.50	0.73	0.62	0.45	0.23	
FR1 n48 Ant 8	Back	1.24	0.87	0.49	0.68	0.88	1.10	1.09	0.89	0.50	0.92	0.72	0.50	0.73	0.62	0.45	0.23	
FR1 n77 Ant 8	Back	1.22	0.86	0.47	0.66	0.86	1.08	1.08	0.87	0.49	0.90	0.70	0.50	0.73	0.62	0.45	0.23	



<EN-DC>

Table with columns for WWAN Band, Exposure Position, and SAR values (1g SAR (W/kg)) for various frequency bands and antenna configurations.

Table with columns for WWAN Band, Exposure Position, and Summed SAR values for various frequency bands and antenna configurations.

Note: Since the power level of standalone mode and ENDC/MIMO mode at ant5/6 are the same, co-located analysis of sensor off SAR is more conservative under EN-DC mode.



<MIMO>

WAN Band	Exposure Position	1	19	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
		WWAN	FR1	WLAN2.4GHz Ant 2+4 non DBS Simultaneous	WLAN2.4GHz Ant 2 DBS Simultaneous	WLAN2.4GHz Ant 2 DBS only	WLAN2.4GHz Ant 4 DBS Simultaneous	WLAN2.4GHz Ant 4 non DBS Simultaneous	WLAN2.4GHz Ant 4 non DBS Simultaneous	WLAN2.4GHz Ant 4 non DBS Simultaneous	WLAN5GHz Ant 3+4 non DBS Simultaneous	WLAN5GHz Ant 3 DBS Simultaneous	WLAN5GHz Ant 3 DBS only	WLAN5GHz Ant 4 DBS Simultaneous	WLAN5GHz Ant 4 DBS only	WLAN6GHz Ant 3+4 non DBS Simultaneous	WLAN6GHz Ant 3+4 non DBS Simultaneous	WLAN6GHz Ant 3+4 DBS Simultaneous	WLAN6GHz Ant 3 DBS only	WLAN6GHz Ant 3 DBS Simultaneous	Bluetooth Ant 2
FR1 n77(78) Ant 8	FR1 n77(78) Ant 5	Back	0.841	0.082	0.634	0.356	0.356	0.311	0.311	0.311	0.620	0.248	0.248	0.192	0.192	0.018	0.018	0.018	0.035	0.035	0.014

WWAN Band	Exposure Position	1+2+19	1+8+19	1+13+19	1+7+18+19	1+5+9+18+19	1+3+9+19	1+3+11+19	1+8+18+19	1+13+18+19	1+3+15+19	1+5+17+18+19	6+10	4+10	4+12	4+14	6+16	
		Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed
FR1 n77(78) Ant 8	FR1 n77(78) Ant 5	Back	1.56	1.54	0.94	1.25	1.50	1.53	1.47	1.56	0.96	1.30	1.28	0.56	0.60	0.55	0.37	0.35

16.4 Product specific 10g SAR Exposure Conditions

Remark:

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

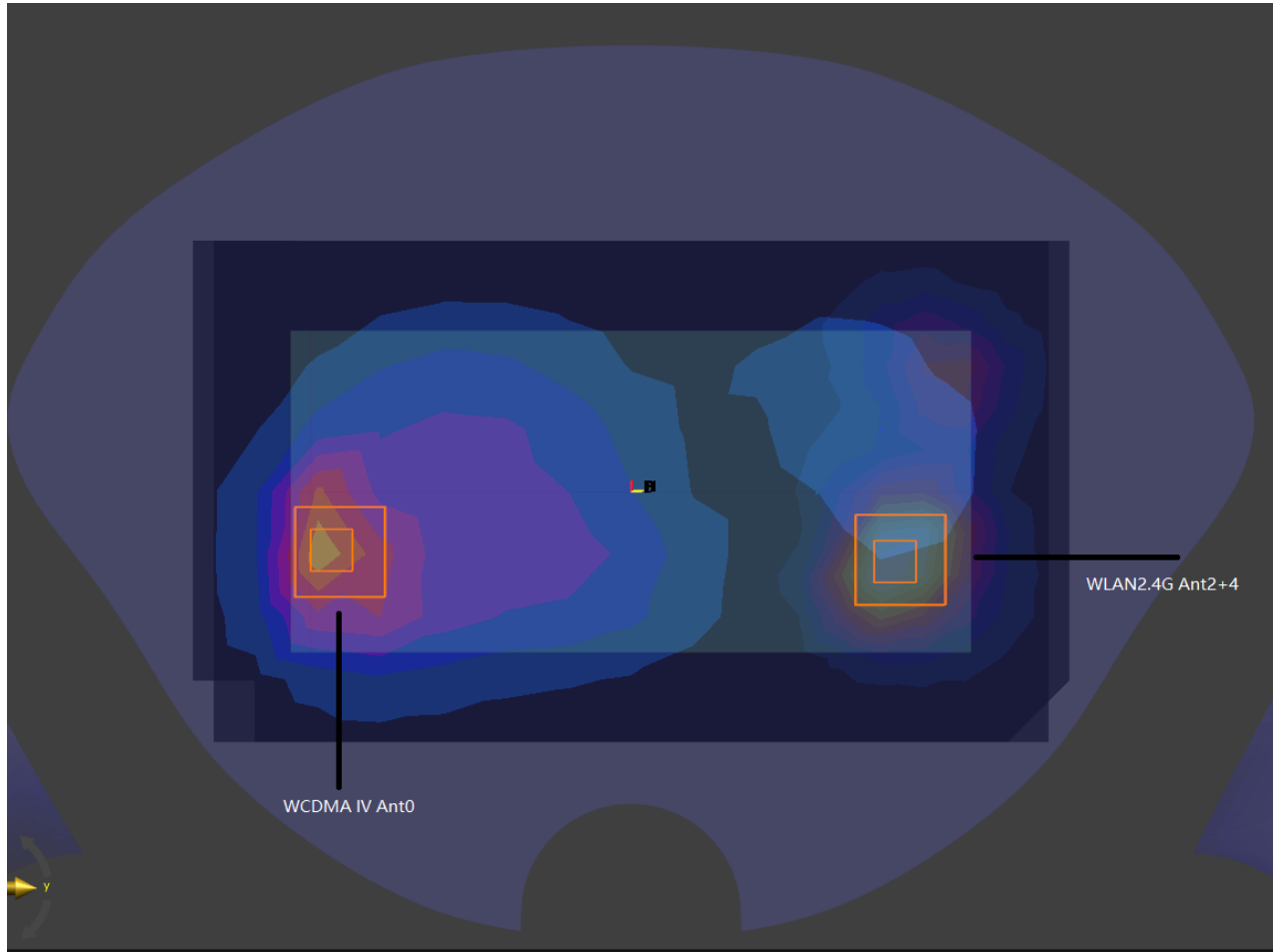
WWAN Band	Exposure Position	1	2	3	5	7	9	11	12	1+2+12	1+7+12	1+3+12	1+9+12	1+11+12	1+5+12
		WWAN	WLAN5GHz Ant 3+4 non DBS Simultaneous	WLAN5GHz Ant 3 DBS Simultaneous	WLAN5GHz Ant 4 DBS Simultaneous	WLAN6GHz Ant 3+4 non DBS Simultaneous	WLAN6GHz Ant 3+4 DBS Simultaneous	WLAN6GHz Ant 3+4 DBS Simultaneous	WLAN6GHz Ant 3 DBS Simultaneous	NFC	Summed	Summed	Summed	Summed	Summed
WCDMA II Ant 0	Front		0.387	0.398	0.163	0.082	0.082	0.040	0.006	0.39	0.09	0.40	0.09	0.05	0.17
	Back	2.971	0.542	0.306	0.350	0.095	0.095	0.047	0.022	3.54	3.09	3.30	3.09	3.04	3.34
	Left side		0.696	0.029	0.399	0.053	0.053	0.026	0.003	0.70	0.06	0.03	0.06	0.03	0.40
	Right side		0.219	0.269	0.036	0.019	0.019	0.009	0.001	0.22	0.02	0.27	0.02	0.01	0.04
	Top side		0.714	0.355	0.262	0.320	0.320	0.162	0.002	0.72	0.32	0.36	0.32	0.16	0.26
	Bottom side									0.003	0.00	0.00	0.00	0.00	0.00

FR1 Band	Exposure Position	1	2	3	5	7	9	11	12	1+2+12	1+7+12	1+3+12	1+9+12	1+11+12	1+5+12
		WWAN	WLAN5GHz Ant 3+4 non DBS Simultaneous	WLAN5GHz Ant 3 DBS Simultaneous	WLAN5GHz Ant 4 DBS Simultaneous	WLAN6GHz Ant 3+4 non DBS Simultaneous	WLAN6GHz Ant 3+4 DBS Simultaneous	WLAN6GHz Ant 3+4 DBS Simultaneous	WLAN6GHz Ant 3 DBS Simultaneous	NFC	Summed	Summed	Summed	Summed	Summed
FR1 n77 Ant 8	Front		0.387	0.398	0.163	0.082	0.082	0.040	0.006	0.39	0.09	0.40	0.09	0.05	0.17
	Back		0.542	0.306	0.350	0.095	0.095	0.047	0.022	0.56	0.12	0.33	0.12	0.07	0.37
	Left side		0.696	0.029	0.399	0.053	0.053	0.026	0.003	0.70	0.06	0.03	0.06	0.03	0.40
	Right side	2.885	0.219	0.269	0.036	0.019	0.019	0.009	0.001	3.11	2.91	3.16	2.91	2.90	2.92
	Top side		0.714	0.355	0.262	0.320	0.320	0.162	0.002	0.72	0.32	0.36	0.32	0.16	0.26
	Bottom side									0.003	0.00	0.00	0.00	0.00	0.00

16.5 SPLSR Evaluation and Analysis

General Note:

1. When standalone SAR is measured for both antennas in the pair, the peak location separation distance is computed by the square root of $[(x1-x2)^2 + (y1-y2)^2 + (z1-z2)^2]$, where $(x1, y1, z1)$ and $(x2, y2, z2)$ are the coordinates in the area scans or extrapolated peak SAR locations in the zoom scans, as appropriate.
2. $SPLSR = (SAR1 + SAR2)1.5 / (\text{min. separation distance, mm})$. If $SPLSR \leq 0.04$ for 1g SAR, simultaneously transmission SAR measurement is not necessary.



WWAN+WLAN2.4G_ Back 11mm

For Body

Case 1	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	WCDMA IV Ant 0	Back	0.96	11	-12.4	-73.1	-207	135.3	1.72	0.02	Not required
	WLAN2.4GHz Ant 2+4		0.764	11	-5.5	62	-207				

Test Engineer : Martin Li, Varus Wang, Light Wang, Ricky Gu



17. Uncertainty Assessment

Per KDB 865664 D01 SAR measurement 100MHz to 6GHz, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg and the measured 10-g SAR within a frequency band is < 3.75 W/kg. The expanded SAR measurement uncertainty must be $\leq 30\%$, for a confidence interval of $k = 2$. If these conditions are met, extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2013 is not required in SAR reports submitted for equipment approval. For this device, the highest measured 1-g SAR is less 1.5W/kg and highest measured 10-g SAR is less 3.75W/kg. Therefore, the measurement uncertainty table is not required in this report.

18. References

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

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