

FCC SAR Test Report

APPLICANT : Motorola Mobility LLC
EQUIPMENT : Mobile Cellular Phone
BRAND NAME : Motorola
MODEL NAME : XT2621-3
FCC ID : IHDT56AW4
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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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA5O1022-01	Rev. 01	Initial issue of report.	Dec. 10, 2025

1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **Motorola Mobility LLC, Mobile Cellular Phone, XT2621-3**, are as follows.

Equipment Class	Frequency Band	Highest SAR Summary				Highest Simultaneous Transmission 1g SAR SAR (W/kg)	Highest Simultaneous Transmission 10g SAR SAR (W/kg)
		Head (Separation 0mm)	Hotspot (Separation 5mm)	Body worn (Separation 5mm)	Extremity (Separation 0mm)		
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	10g SAR (W/kg)		
Licensed	GSM850	0.48	1.27	1.27	2.44	1.54	3.90
	GSM1900	0.15	1.27	1.28	2.91		
	WCDMA II	0.32	1.28	1.28	3.17		
	WCDMA IV	0.30	1.29	1.28	3.16		
	WCDMA V	0.38	1.22	1.22	1.77		
	LTE Band 2	0.10	0.84	0.79	2.08		
	LTE Band 7	0.87	1.29	1.29	3.19		
	LTE Band 12/17	0.56	1.15	1.15			
	LTE Band 13	0.27	1.17	1.17			
	LTE Band 25	0.89	1.29	1.28	3.15		
	LTE Band 26/5	0.81	1.23	1.23	1.80		
	LTE Band 38	0.37	1.30	1.30	3.24		
	LTE Band 41	0.88	0.67	0.88	2.36		
	LTE Band 66/4	0.88	1.27	1.29	3.20		
	LTE Band 42	0.89	0.63	0.90	2.47		
	FR1 n2	0.88	1.29	1.29	3.16		
	FR1 n7	0.89	1.26	1.29	3.15		
	FR1 n26/5	0.89	1.31	1.31	1.08		
	FR1 n41/38	0.87	0.62	0.88	2.47		
	FR1 n66	0.88	1.28	1.30	3.19		
	FR1 n77/78	0.89	1.30	1.27	2.81		
DTS	2.4GHz WLAN	1.20	0.62	1.37	1.08	1.54	3.90
NII	5GHz WLAN	1.07	0.60	1.09	1.81	1.54	3.90
DSS	Bluetooth	0.21	0.30	0.30		1.54	3.90
Date of Testing:		2025/11/09 ~ 2025/11/28					

Remark:

- This device supports LTE B2 / B4 / B5 / B17 / B38 and B25 / B66 / B26 / B12 / B41. Since the supported frequency span for LTE B2 / B4 / B5 / B17 / B38 falls completely within the support's frequency span for LTE B25 / B66 / B26 / 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 B25 / B66 / B26 / B12 / B41.
- This device supports 5GNR n5 / n38 / n78 and n26 / n41 / n77. Since the supported frequency span for 5GNR n5 / n38 / n78 falls completely within the support's frequency span for n26 / n41 / n77, both 5GNR bands have the same target power, and both 5GNR bands share the same transmission path; therefore, SAR was only assessed for n26 / n41 / n77.

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.
	SAR02-KS	CN1257	314309

Applicant	
Company Name	Motorola Mobility LLC
Address	222 W,Merchandise Mart Plaza, Chicago IL 60654 USA

Manufacturer	
Company Name	Motorola Mobility LLC
Address	222 W,Merchandise Mart Plaza, Chicago IL 60654 USA

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	Mobile Cellular Phone
Brand Name	Motorola
Model Name	XT2621-3
FCC ID	IHDT56AW4
IMEI Code	Sample 1: 357552650005392, 357452650006499, 357452650005475, 357452650005426, 357452650005095 Sample 2: 353260280016232/353260280016240, 353260280016190/353260280016208 Sample 3: 353260280016554/353260280016562
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 17: 704 MHz ~ 716 MHz LTE Band 25: 1850 MHz ~ 1915 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 42: 3450 MHz ~ 3550 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 n26: 814 MHz ~ 849 MHz 5G NR n38: 2570 MHz ~ 2620 MHz 5G NR n41: 2496 MHz ~ 2690 MHz 5G NR n66: 1710 MHz ~ 1780 MHz 5G NR n77: 3700 MHz ~ 3980 MHz 5G NR n78: 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 Bluetooth: 2402 MHz ~ 2480 MHz NFC : 13.56 MHz
Mode	GSM/GPRS/EGPRS RMC/AMR 12.2Kbps HSDPA HSUPA DC-HSDPA HSPA+ (16QAM uplink is supported) LTE: QPSK, 16QAM, 64QAM, 256QAM 5G NR: DFT-s-OFDM/CP-OFDM, Pi/2 BPSK/QPSK/16QAM/64QAM/256QAM WLAN 2.4GHz 802.11b/g/n HT20/HT40 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE NFC: ASK

HW Version	DVT2
SW Version	W2WI36.28
GSM / (E)GPRS Transfer mode	Class B – EUT cannot support Packet Switched and Circuit Switched Network simultaneously but can automatically switch between Packet and Circuit Switched Network.
EUT Stage	Identical Prototype

Remark:

1. This device supports VoIP in GPRS, EGPRS, WCDMA, LTE and 5GNR (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.
2. This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
3. 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).
4. This device does not support DTM operation and supports GPRS/EGPRS mode up to multi-slot class 12.
5. There are two different types of EUT. They are single SIM card mobile and dual SIM card mobile.
6. The device implements the power management and proximity sensor /receiver detection/hotspot mode for SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity) and the MediaTek TA-SAR will manage to ensure the power level not exceeding the associated power table. Details about the power management decision and sensor detection are provided in the operational description. And the device will invoke corresponding work scenarios power level base on frequency bands/antennas, which can refer to power table at appendix E.
7. For WLAN/BT when transmit simultaneously with each other, or when transmit simultaneous with WWAN, power reduction will be activated to head exposure condition. For WLAN when transmit simultaneous with WWAN/BT and Proximity sensors trigger, power reduction will be activated to body-worn and extremity exposure conditions.
8. For some WWAN bands, sensor on power level is higher than hotspot power level, so front/back sensor on SAR can represent hotspot conservatively.
9. There are five samples, the difference between them refer to the XT2621-3_Operational Description of Product Equality Declaration which is exhibit separately. According to the differences, so sample 1 was chosen to perform full SAR testing and sample 2/3 for worst case verification. For sample 4/5, the differences do not affect the test, so sample 4/5 are not tested.
10. This device has NFC function and the NFC SAR report will be separately submitted.
11. This device supports 5GNR 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)
NSA	n2	FDD	15	5, 10, 15, 20, 25, 30, 35, 40
	n7	FDD	15	5, 10, 15, 20, 25, 30, 35, 40, 50
	n66	FDD	15	5, 10, 15, 20, 25, 30, 35, 40, 45
	n38	TDD	30	10, 15, 20, 25, 30, 40
	n41	TDD	30	10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100
	n78	TDD	30	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100
SA	n2	FDD	15	5, 10, 15, 20, 25, 30, 35, 40
	n5	FDD	15	5, 10, 15, 20
	n7	FDD	15	5, 10, 15, 20, 25, 30, 35, 40, 50
	n26	FDD	15	5, 10, 15, 20
	n66	FDD	15	5, 10, 15, 20, 25, 30, 35, 40, 45
	n38	TDD	30	10, 15, 20, 25, 30, 40
	n41	TDD	30	10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100
	n77	TDD	30	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100
	n78	TDD	30	10, 15, 20, 25, 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	IHDT56AW4																																																																												
Equipment Name	Mobile Cellular Phone																																																																												
Operating Frequency Range of each LTE transmission band	LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 13: 777 MHz ~ 787 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 25: 1850 MHz ~ 1915 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 42: 3450 MHz ~ 3550 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 17: 5MHz, 10MHz LTE Band 25:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 26:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz LTE Band 38: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 41: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 42: 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	R15																																																																												
CA Support	Supported, Uplink and Downlink																																																																												
LTE MPR permanently built-in by design	<table><tr><th colspan="8">Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3</th></tr><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><tr><td>QPSK</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 1</td></tr><tr><td>16 QAM</td><td>≤ 5</td><td>≤ 4</td><td>≤ 8</td><td>≤ 12</td><td>≤ 16</td><td>≤ 18</td><td>≤ 1</td></tr><tr><td>16 QAM</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 2</td></tr><tr><td>64 QAM</td><td>≤ 5</td><td>≤ 4</td><td>≤ 8</td><td>≤ 12</td><td>≤ 16</td><td>≤ 18</td><td>≤ 2</td></tr><tr><td>64 QAM</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 3</td></tr><tr><td>256 QAM</td><td colspan="6">≥ 1</td><td>≤ 5</td></tr></table>							Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3								Modulation	Channel bandwidth / Transmission bandwidth (N _{RB})						MPR (dB)	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1	16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1	16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2	64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2	64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3	256 QAM	≥ 1						≤ 5
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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 14.																																																																												
LTE Carrier Aggregation Combinations	Inter-Band and Intra-Band possible combinations and the detail power verification please referred to section 14.																																																																												
LTE Carrier Aggregation Additional Information	1. This device supports LTE Carrier Aggregation (CA) in the uplink for intra-band and inter-band with two component carriers in the uplink. SAR Measurements and conducted powers were evaluated per FCC Guidance. 2. This device supports maximum of 2 carriers in the uplink.																																																																												

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 25 MHz		Bandwidth 30 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	20775	2502.5	20800	2505	20825	2507.5	20850	2510	20850	2510	20850	2510
M	21100	2535	21100	2535	21100	2535	21100	2535	21100	2535	21100	2535
H	21425	2567.5	21400	2565	21375	2562.5	21350	2560	21350	2560	21350	2560
LTE Band 12												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	23017	699.7	23025	700.5	23035	701.5	23060	704	23060	704	23060	704
M	23095	707.5	23095	707.5	23095	707.5	23095	707.5	23095	707.5	23095	707.5
H	23173	715.3	23165	714.5	23155	713.5	23130	711	23130	711	23130	711
LTE Band 13												
	Bandwidth 5 MHz				Bandwidth 10 MHz				Bandwidth 15 MHz			
	Channel #		Freq.(MHz)		Channel #		Freq.(MHz)		Channel #		Freq.(MHz)	
L	23205		779.5		23230		782		23255		784.5	
M	23230		782		23255		784.5		23280		787	
H	23255		784.5		23280		787		23305		789.5	
LTE Band 17												
	Bandwidth 5 MHz				Bandwidth 10 MHz				Bandwidth 15 MHz			
	Channel #		Freq.(MHz)		Channel #		Freq.(MHz)		Channel #		Freq.(MHz)	
L	23755		706.5		23780		709		23805		711.5	
M	23790		710		23790		710		23790		710	
H	23825		713.5		23800		711		23800		711	
LTE Band 25												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	26047	1850.7	26055	1851.5	26065	1852.5	26090	1855	26115	1857.5	26140	1860
M	26340	1880	26340	1880	26340	1880	26340	1880	26340	1880	26340	1880
H	26683	1914.3	26675	1913.5	26665	1912.5	26640	1910	26615	1907.5	26590	1905
LTE Band 26												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	26697	814.7	26705	815.5	26715	816.5	26740	819	26765	821.5	26790	824
M	26865	831.5	26865	831.5	26865	831.5	26865	831.5	26865	831.5	26865	831.5
H	27033	848.3	27025	847.5	27015	846.5	26990	844	26965	841.5	26940	838

LTE Band 38												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	37775	2572.5	37800	2575	37825	2577.5	37850	2580				
M	38000	2595	38000	2595	38000	2595	38000	2595				
H	38225	2617.5	38200	2615	38175	2612.5	38150	2610				
LTE Band 41												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	39675	2498.5	39700	2501	39725	2503.5	39750	2506				
LM	40148	2545.8	40160	2547	40173	2548.3	40185	2549.5				
M	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 42												
	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	42115	3452.5	42140	3455	42165	3457.5	42190	3460				
M	42590	3500	42590	3500	42590	3500	42590	3500				
H	43065	3547.5	43040	3545	43015	3542.5	42990	3540				

<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 2	Yes	Yes	Yes	Yes	Yes	Yes
LTE Band 25	Yes	Yes	Yes	Yes	Yes	Yes
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 5	Yes	Yes	Yes	Yes		
LTE Band 26	Yes	Yes	Yes	Yes	Yes	
LTE Band 38			Yes	Yes	Yes	Yes
LTE Band 41			Yes	Yes	Yes	Yes

2) LTE Bands tune up:

Band	Antenna	Head	Bodyworn	Hotspot	Extremity	Sensor off	Default
		ECI2	ECI3	ECI7	ECI6	ECI4	Tune-up Limit
LTE Band 2	Ant0	24	18	17	21.7	24	24
LTE Band 25	Ant0	24	18	17	21.7	24	24
LTE Band 2 PA (Reference Designator)	Ant0	24	18	17	21.7	24	24
LTE Band 2	Ant4	17.3	20.1	16.7	21.4	22	22
LTE Band 25	Ant4	17.3	20.1	16.7	21.4	22	22
LTE Band 4	Ant0	24	17.9	17.4	21.2	24	24
LTE Band 66	Ant0	24	17.9	17.4	21.2	24	24
LTE Band 4 PA (Reference Designator)	Ant0	24	17.9	17.4	21.2	24	24
LTE Band 66 PA (Reference Designator)	Ant0	24	17.9	17.4	21.2	24	24
LTE Band 4	Ant4	17.8	19.5	16.7	22	22	22
LTE Band 66	Ant4	17.8	19.5	16.7	22	22	22
LTE Band 4 PA (Reference Designator)	Ant4	17.8	19.5	16.7	22	24	24
LTE Band 66 PA (Reference Designator)	Ant4	17.8	19.5	16.7	22	24	24
LTE Band 5	Ant0	24	24	24	24	24	24
LTE Band 26	Ant0	24	24	24	24	24	24
LTE Band 26 PA (Reference Designator)	Ant0	24	24	24	24	24	24
LTE Band 5	Ant4	22.5	22.5	20.1	23	23	23
LTE Band 26	Ant4	22.5	22.5	20.1	23	23	23
LTE Band 12	Ant0	24	24	24	24	24	24
LTE Band 17	Ant0	24	24	24	24	24	24
LTE Band 38 PC3	Ant4	20.9	19.3	18.2	24	24	24
LTE Band 41 PC3	Ant4	20.9	19.3	18.2	24	24	24

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 n26: 814 MHz ~ 849 MHz																
		5G NR n38: 2570 MHz ~ 2620 MHz																
		5G NR n41: 2496 MHz ~ 2690 MHz																
		5G NR n66: 1710 MHz ~ 1780 MHz																
		5G NR n77: 3700 MHz ~ 3980 MHz																
		5G NR n78: 3700 MHz ~ 3800 MHz																
Channel Bandwidth		The detail please refers to section 4.1 5GNR FR1 bands table.																
SCS		FDD: SCS15KHz, TDD: SCS30KHz																
uplink modulations used		DFT-s-OFDM: PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM CP-OFDM: QPSK / 16QAM / 64QAM / 256QAM																
A-MPR (Additional MPR) disabled for SAR Testing?		Yes																
LTE Anchor Bands for n2		LTE B4/7/12/66																
LTE Anchor Bands for n7		LTE B2/4/5/66																
LTE Anchor Bands for n66		LTE B2/7/12																
LTE Anchor Bands for n38		LTE B2/4/5/66																
LTE Anchor Bands for n41		LTE B2/4/5/66																
LTE Anchor Bands for n78		LTE B2/4/5/7/12/38/66																
Transmission (H, M, L) channel numbers and frequencies in each 5G NR band																		
NR Band 2																		
Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 35MHz		Bandwidth 40MHz				
Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)			
L	370500	1852.5	371000	1855	371500	1857.5	372000	1860	372500	1862.5	373000	1865	373500	1867.5	374000	1870		
M	376000	1880	376000	1880	376000	1880	376000	1880	376000	1880	376000	1880	376000	1880	376000	1880		
H	381500	1907.5	381000	1905	380500	1902.5	380000	1900	379500	1897.5	379000	1895	378500	1892.5	378000	1890		
NR Band 5																		
Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz												
Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)											
L	165300	826.5	165800	829	166300	831.5	166800	834										
M	167300	836.5	167300	836.5	167300	836.5	167300	836.5										
H	169300	846.5	168800	844	168300	841.5	167800	839										
NR Band 7																		
Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 35MHz		Bandwidth 40MHz		Bandwidth 50MHz		
Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	
L	500500	2502.5	501000	2505	501500	2507.5	502000	2510	502500	2512.5	503000	2515	503500	2517.5	504000	2520	505000	2525
M	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535
H	513500	2567.5	513000	2565	512500	2562.5	512000	2560	511500	2557.5	511000	2555	510500	2552.5	510000	2550	509000	2545
NR Band 26																		
Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz												
Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)											
L	163300	816.5	163800	819	164300	821.5	164800	824										
M	166300	831.5	166300	831.5	166300	831.5	166300	831.5										
H	169300	846.5	168800	844	168300	841.5	167800	839										
NR Band 66																		
Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 35MHz		Bandwidth 40MHz		Bandwidth 45MHz		
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	342500	1712.5	343000	1715	343500	1717.5	344000	1720	344500	1722.5	345000	1725	345500	1727.5	346000	1730	346500	1732.5
M	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745
H	355500	1777.5	355000	1775	354500	1772.5	354000	1770	353500	1767.5	353000	1765	352500	1762.5	352000	1760	351500	1757.5



NR Band 38											
Bandwidth10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz	
Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L 515004	2575.02	515502	2577.51	516000	2580	516504	2582.52	517002	2585.01	518004	2590.02
M 519000	2595	519000	2595	519000	2595	519000	2595	519000	2595	519000	2595
H 522996	2614.98	522498	2612.49	522000	2610	521496	2607.48	520998	2604.99	519996	2599.98

NR Band 41																											
Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 35MHz		Bandwidth 40MHz		Bandwidth 45MHz		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)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L 500202	2501.01	500700	2503.5	501204	2506.02	501702	2508.51	502200	2511	502704	2513.52	503202	2516.01	503700	2518.5	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	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99
H 537000	2685	536496	2682.48	535998	2679.99	535500	2677.5	534996	2674.98	534498	2672.49	534000	2670	533496	2667.48	532998	2664.99	531996	2659.98	531000	2655	529998	2649.99	528996	2644.98	528000	2640

NR Band 77																								
Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		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)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	
L	647000	3705	647168	3707.52	647334	3710.01	647500	3712.5	647668	3715.02	648000	3720	648334	3725.01	648668	3730.02	649000	3735	649334	3740.01	649668	3745.02	650000	3750
M	656000	3840	656000	3840	656000	3840	656000	3840.00	656000	3840.00	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840
H	665000	3975	664834	3972.51	664668	3970.02	664500	3967.50	664334	3965.01	664000	3960	663668	3955.02	663334	3950.01	663000	3945	662668	3940.02	662334	3935.01	662000	3930

NR Band 78																							
Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		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)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L 647000	3705	647168	3707.52	647334	3710.01	647500	3712.5	647668	3715.02	648000	3720	648334	3725.01	648668	3730.02	649000	3735	649334	3740.01	649668	3745.02		
M 650000	3750	650000	3750	650000	3750	650000	3750.00	650000	3750.00	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750
H 653000	3795	652834	3792.51	652668	3790.02	652500	3787.5	652334	3785.01	652000	3780	651668	3775.02	651334	3770.01	651000	3765	650668	3760.02	650334	3755.01		

<For NR Overlap Bands Description>
1) NR Bands BW

Band	Duplex	SCS(KHz)	Bandwidths(BW)
n5	FDD	15	5/10/15/20MHz
n26	FDD	15	5/10/15/20MHz
n38	TDD	30	10/15/20/25/30/40MHz
n41	TDD	30	10/15/20/25/30/35/40/45/50/60/70/80/90/100MHz
n77	TDD	30	10/15/20/25/30/40/50/60/70/80/90/100MHz
n78	TDD	30	10/15/20/25/30/40/50/60/70/80/90/100MHz

2) NR Bands Tune up:

Band	Antenna	Head	Bodyworn	Hotspot	Extremity	Sensor off	Default
		ECI2	ECI3	ECI7	ECI6	ECI4	Tune-up Limit
FR1 n5	Ant0	24	24	24	24	24	24
FR1 n26	Ant0	24	24	24	24	24	24
FR1 n5	Ant4	22.4	21.9	20.9	23	23	23
FR1 n26	Ant4	22.4	21.9	20.9	23	23	23
FR1 n38 PC3	Ant4	18.3	16.7	15.8	22.1	24	24
FR1 n41 PC3	Ant4	18.3	16.7	15.8	22.1	24	24
FR1 n77 PC3	Ant5	18.3	17.8	15.9	21.8	24	24
FR1 n78 PC3	Ant5	18.3	17.8	15.9	21.8	24	24
FR1 n77 PC3	Ant1	19	16.3	15	19	19	19
FR1 n78 PC3	Ant1	19	16.3	15	19	19	19
FR1 n77 PC3	Ant8	23	12.1	10.1	20	23	23
FR1 n78 PC3	Ant8	23	12.1	10.1	20	23	23
FR1 n77 PC3	Ant2	20	17.9	15.4	20	20	20
FR1 n78 PC3	Ant2	20	17.9	15.4	20	20	20

5. TA-SAR feature for RF Exposure compliance

WWAN bands and mmWave are all enabled with MediaTek TA-SAR feature. This feature performs time averaging algorithm in real time to control and manage transmitting power and ensure the time-averaged RF exposure is in compliance with FCC requirements all the time. Note that WLAN/BT operations are not enabled with TA-SAR feature.

The FCC RF exposure limit is defined based on time-averaged RF exposure. The product implements MediaTek TA-SAR feature which controls the instantaneous transmitting power for WWAN transmitter to ensure the product in compliance with FCC RF exposure limit over a defined time window, for SAR (transmit frequency $\leq 6\text{GHz}$). To control and manage transmitting power in real time and to ensure at all times the time-averaged RF exposure is compliant to the regulation requirement.

The purpose of this report (Part 1 test) is to demonstrate that the EUT meets FCC SAR limits when transmitting in static transmission scenario at maximum allowable time-averaged power levels.

The Plimit values correspond to SAR_design_target. The power will be fixed at the static reduce power level at different exposure conditions for RF exposure compliance. For the GSM (TDD) Plimit power levels in the table correspond to the burst average power levels which don't account for TX duty cycle.

This report describes the procedures for the SAR char generation, and the parameters obtained from SAR characterization (referred to as SAR char, respectively) will be used as input for TA-SAR algorithm. SAR char will be entered via the MediaTek's NV suggestion to enable the TA-SAR Feature.

<Terminologies in this report>

P_{limit}	The time-averaged RF power which corresponds to SAR_design_target.
P_{max}	Maximum target power level
SAR_design_target:	The design target for SAR compliance. It should be less than regulatory SAR limit to account for all device design related uncertainty.
SAR char	P_{limit} for all the technologies/bands for all applicable ECI

<SAR Characterization>

SAR char must be generated to cover all radio configurations and usage scenarios that the wireless device supports for operating at 6 GHz or below. It will then be used as input for TA-SAR to control and manage RF exposure for $f < 6\text{GHz}$.

SPLSR_Group (Antenna Group):

Antenna Group 0 (AG0)	ANT0 & ANT1
Antenna Group 1 (AG1)	ANT2 & ANT4 & ANT5 & ANT8

<SAR design target and uncertainty>

Item	Uncertainty dB (k=2)
Total uncertainty	1.5

To account for total uncertainty, SAR_design_target should be determined as:

$$SAR_{\text{design_target}} < SAR_{\text{regulatory_limit}} \times 10^{\frac{-\text{total uncertainty}}{10}}$$

The TA-SAR algorithm maintains the time-averaged transmit power, in turn, time-averaged RF exposure of SAR_design_target, below the predefined time-averaged power limit, for each characterized technology and band.

TA-SAR allows the device to transmit at higher power instantaneously, as high as Pmax, when needed, but enforces power limiting to maintain time-averaged transmit power to Plimit.

<Plimit for supported technologies and bands >

Band	Antenna	Head ECI2	Bodyworn ECI3	Hotspot ECI7	Extremity ECI6	Sensor off ECI4	Pmax*
GSM850	Ant0	29.7	23.9	23.9	26.6	30.7	25.5
GSM1900	Ant0	31.8	19.0	17.6	21.6	27.8	22.5
WCDMA II	Ant0	29.0	18.0	18.0	21.1	25.5	23.0
WCDMA IV	Ant0	29.3	17.7	17.2	21.1	25.4	23.0
WCDMA V	Ant0	28.3	23.0	23.0	25.5	30.4	23.0
LTE Band 25(2)	Ant0	29.2	17.0	16.0	20.7	24.7	23.0
LTE Band 2 PA (Reference Designator)	Ant0	29.2	17.0	16.0	20.7	24.7	23.0
LTE Band 25(2)	Ant4	17.2	19.1	15.7	20.4	26.6	21.0
LTE Band 66(4)	Ant0	29.3	16.9	16.4	20.2	24.6	23.0
LTE Band 66(4) PA (Reference Designator)	Ant0	29.3	16.9	16.4	20.2	24.6	23.0
LTE Band 66(4)	Ant4	16.8	18.5	15.7	21.0	23.9	21.0
LTE Band 66(4) PA (Reference Designator)	Ant4	16.8	18.5	15.7	21.0	23.9	23.0
LTE Band 26(5)	Ant0	29.2	23.0	23.0	25.5	29.7	23.0
LTE Band 26 PA (Reference Designator)	Ant0	29.2	23.0	23.0	25.5	29.7	23.0
LTE Band 26(5)	Ant4	21.5	21.5	19.1	24.6	29.6	22.0
LTE Band 7	Ant1	25.2	17.3	17.3	20.2	24.5	23.0
LTE Band 7	Ant4	17.5	16.6	14.6	20.5	26.4	23.0
LTE Band 12(17)	Ant0	29.5	23.1	23.1	23.0	23.0	23.0
LTE Band 12	Ant4	24.0	25.5	24.0	22.0	22.0	22.0
LTE Band 13	Ant0	29.8	23.1	23.1	23.0	23.0	23.0
LTE Band 41(38) PC3	Ant4	17.9	16.3	15.2	21.0	24.9	21.0
LTE Band 38 PC3	Ant1	25.5	16.1	16.1	19.5	24.3	20.0
LTE Band 42	Ant5	15.8	13.2	12.4	19.6	23.7	20.0
FR1 n2	Ant0	31.9	16.5	16.1	20.7	26.5	23.0
FR1 n2 PA (Reference Designator)	Ant0	31.9	16.5	16.1	20.7	26.5	23.0
FR1 n2	Ant4	18.7	20.0	16.9	21.0	28.6	21.0
FR1 n2 PA (Reference Designator)	Ant4	18.7	20.0	16.9	21.0	28.6	23.0
FR1 n26(5)	Ant0	31.2	23.0	23.0	23.0	23.0	23.0
FR1 n26(5)	Ant4	21.4	20.9	19.9	22.0	31.9	22.0
FR1 n7	Ant1	25.1	17.2	17.2	19.7	26.2	23.0
FR1 n7	Ant4	17.8	15.9	14.5	20.6	25.9	23.0
FR1 n66	Ant0	30.9	16.6	16.4	20.8	25.7	23.0
FR1 n66 PA (Reference Designator)	Ant0	30.9	16.6	16.4	20.8	25.7	23.0
FR1 n66	Ant4	16.1	17.8	15.5	20.4	25.2	21.0
FR1 n66 PA (Reference Designator)	Ant4	16.1	17.8	15.5	20.4	25.2	23.0
FR1 n41(38) PC3	Ant4	17.3	15.7	14.8	21.1	26.3	23.0
FR1 n77(78) PC3	Ant5	17.3	16.8	14.9	20.8	24.2	23.0
FR1 n77(78) PC3	Ant1	27.2	15.3	14.0	18.0	24.3	18.0
FR1 n77(78) PC3	Ant8	22.4	11.1	9.1	19.0	19.0	22.0
FR1 n77(78) PC3	Ant2	29.3	16.9	14.4	19.1	19.1	19.0

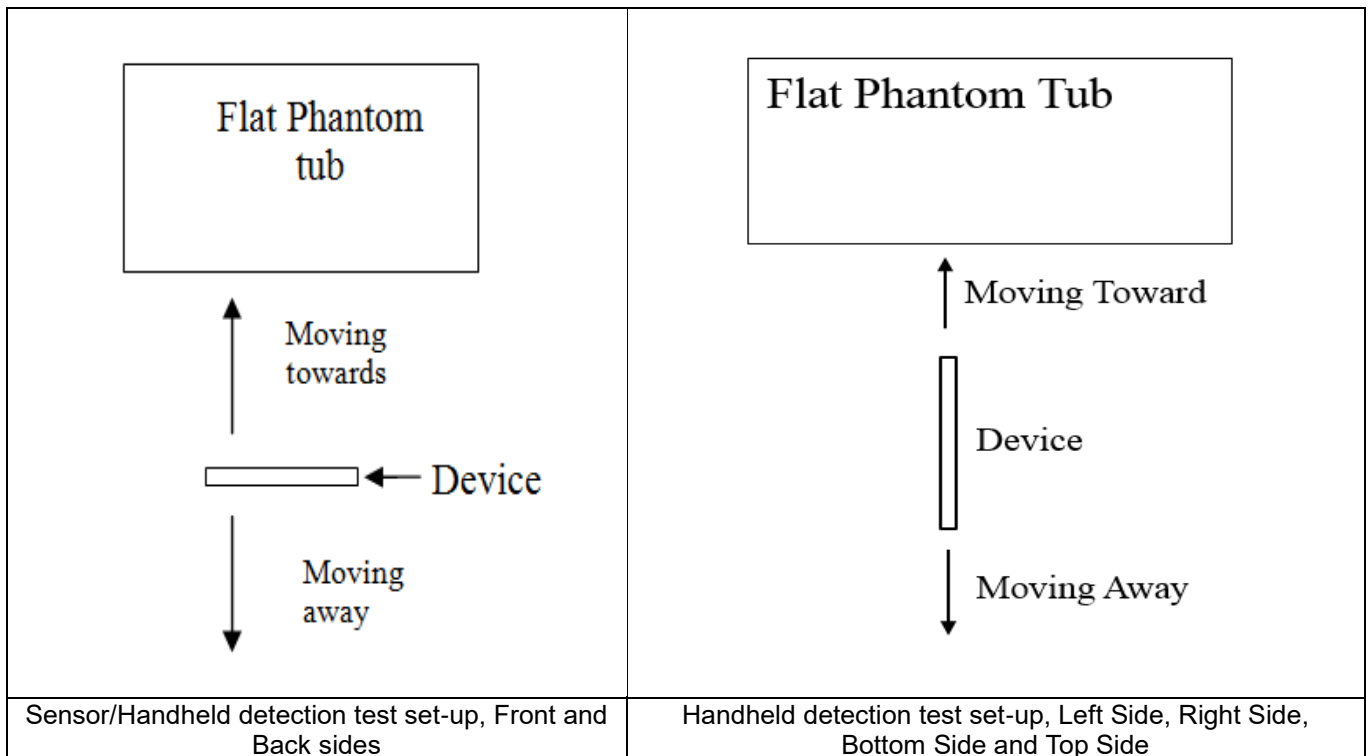
Note:

- 1) *Pmax is used for RF tune up procedure. The maximum allowed output power is equal to Pmax + 1.0 dB device uncertainty.
- 2) All Plimit power levels entered in the Table correspond to average power levels after accounting for duty cycle in the case TDD modulation schemes (for e.g., GSM & LTE TDD & NR TDD).
- 3) The max allowed output power is the Plimit + 1.0 dB device uncertainty, and if Plimit is higher than Pmax, the device output power will be Pmax instead.

6. 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 (5825MHz) 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 at the front or back of the device.
3. The output power will reduce to body worn power level when top and bottom sensor pad be detected.
4. The sensors used to detect the proximity of the user's body at the front or back surface of the device use a detection threshold distance. The data shown in the sections below shows the distance(s). When front or back body worn condition is detected reduced power will be active.
5. The device employs proximity sensors also can detect the presence of the user's a finger or hand when handheld state at the front/back/top/bottom/left/right sides of the device. When front/back/top/bottom/left/right sides of handheld condition is detected reduced power will be active.
6. 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:



<P-Sensor>

Proximity Sensor Triggering Distance (mm)				
Position	Front		Back	
	Moving towards	Moving away	Moving towards	Moving away
Minimum	15	21	22	26

<Handheld for ANT 0>

Proximity Sensor Triggering Distance (mm)								
Position	Front		Back		Right Side		Bottom Side	
	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
Minimum	13	18	20	26	9	19	16	23

<Handheld for ANT1>

Proximity Sensor Triggering Distance (mm)								
Position	Front		Back		Left Side		Bottom Side	
	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
Minimum	8	14	17	22	5	11	14	26

<Handheld for ANT 4>

Proximity Sensor Triggering Distance (mm)								
Position	Front		Back		Left Side		Top Side	
	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
Minimum	11	22	15	24	6	18	17	22

<Handheld for ANT 5>

Proximity Sensor Triggering Distance (mm)							
Position	Front		Back		Top Side		
	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away	Moving away
Minimum	3	11	5	14	10		21

<Handheld for ANT 6>

Proximity Sensor Triggering Distance (mm)								
Position	Front		Back		Right Side		Top Side	
	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
Minimum	9	14	11	16	9	20	13	25

7. RF Exposure Limits

7.1 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.

7.2 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.

8. Specific Absorption Rate (SAR)

8.1 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.

8.2 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:

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

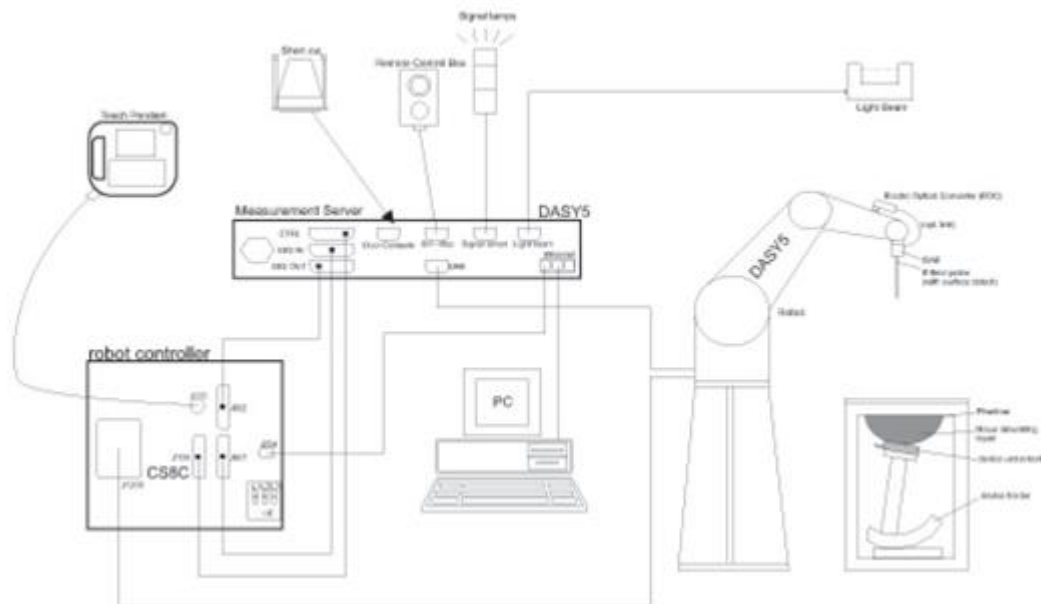
SAR is expressed in units of Watts per kilogram (W/kg)

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

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

9. System Description and Setup

The DASY 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 WinXP or Win7 and the DASY5 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.

9.1 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	4 MHz – 10 GHz Linearity: ± 0.2 dB (30 MHz – 10 GHz)	
Directivity	± 0.3 dB in TSL (rotation around probe axis) ± 0.5 dB in TSL (rotation normal to probe axis)	
Dynamic Range	10 μ W/g – >100 mW/g Linearity: ± 0.2 dB (noise: typically <1 μ W/g)	
Dimensions	Overall length: 337 mm (tip: 20 mm) Tip diameter: 2.5 mm (body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm	

9.2 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

9.3 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.

9.4 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

10. 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

10.1 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

10.2 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.

10.3 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 dB) 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: $\Delta x_{\text{Area}}, \Delta y_{\text{Area}}$	≤ 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.	

10.4 Zoom Scan

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

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

			≤ 3 GHz	> 3 GHz
Maximum zoom scan spatial resolution: $\Delta x_{\text{Zoom}}, \Delta y_{\text{Zoom}}$			≤ 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: $\Delta z_{\text{Zoom}}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{\text{Zoom}}(1)$: 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
		$\Delta z_{\text{Zoom}}(n>1)$: between subsequent points	$\leq 1.5 \cdot \Delta z_{\text{Zoom}}(n-1)$	
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 <u>reported</u> SAR from the <u>area scan based 1-g SAR estimation</u> 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.				

10.5 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.

10.6 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.

11. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Last Cal.	Due Date
SPEAG	750MHz System Validation Kit	D750V3	1087	Mar. 12, 2025	Mar. 11, 2026
SPEAG	835MHz System Validation Kit	D835V2	4d298	Jan. 26, 2024	Jan. 24, 2026
SPEAG	1750MHz System Validation Kit	D1750V2	1090	Mar. 12, 2025	Mar. 11, 2026
SPEAG	1900MHz System Validation Kit	D1900V2	5d170	Mar. 13, 2025	Mar. 12, 2026
SPEAG	2450MHz System Validation Kit	D2450V2	1095	Feb. 08, 2024	Feb. 06, 2026
SPEAG	2600MHz System Validation Kit	D2600V2	1112	Dec. 18, 2023	Dec. 16, 2025
SPEAG	3500MHz System Validation Kit	D3500V2	1037	Nov. 20, 2023	Nov. 17, 2026
SPEAG	3700MHz System Validation Kit	D3700V2	1008	Nov. 20, 2023	Nov. 17, 2026
SPEAG	3900MHz System Validation Kit	D3900V2	1048	Mar. 09, 2023	Mar. 06, 2026
SPEAG	5000MHz System Validation Kit	D5GHzV2	1113	Sep. 17, 2025	Sep. 16, 2026
SPEAG	Data Acquisition Electronics	DAE4	1649	Aug. 27, 2025	Aug. 26, 2026
SPEAG	Dosimetric E-Field Probe	EX3DV4	3857	Feb. 19, 2025	Feb. 18, 2026
SPEAG	SAM Twin Phantom	SAM Twin	TP-1842	NCR	NCR
Beichuang	Thermo-Hygrometer	HTC-1	1949250	Jan. 11, 2025	Jan. 10, 2026
Beichuang	Thermo-Hygrometer	HTC-1	1949246	Jan. 11, 2025	Jan. 10, 2026
SPEAG	Phone Positioner	N/A	N/A	NCR	NCR
Anritsu	Radio Communication Analyzer	MT8820C	6201563900	Jul. 02, 2025	Jul. 01, 2026
Agilent	ENA Series Network Analyzer	E5071C	MY46112129	Jul. 02, 2025	Jul. 01, 2026
Anritsu	Vector Signal Generator	MG3710A	6201682672	Jan. 03, 2025	Jan. 02, 2026
Rohde & Schwarz	Signal Generator	SMB100A	100455	Jan. 02, 2025	Jan. 01, 2026
SPEAG	Dielectric Probe Kit	DAK-3.5	1071	Feb. 24, 2025	Feb. 23, 2026
Rohde & Schwarz	Power Meter	NRVD	102081	Jul. 02, 2025	Jul. 01, 2026
Rohde & Schwarz	Power Sensor	NRV-Z5	100538	Jul. 02, 2025	Jul. 01, 2026
R&S	BLUETOOTH TESTER	CBT	101246	Jul. 03, 2025	Jul. 02, 2026
Rohde & Schwarz	Spectrum Analyzer	FSV7	101631	Oct. 11, 2025	Oct. 10, 2026
TES	DIGITAC THERMOMETER	TYPE-K	220305411	Jan. 02, 2025	Jan. 01, 2026
ARRA	Power Divider	A3200-2	N/A	Note 1	
MCL	Attenuation1	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.

12. System Verification

12.1 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.

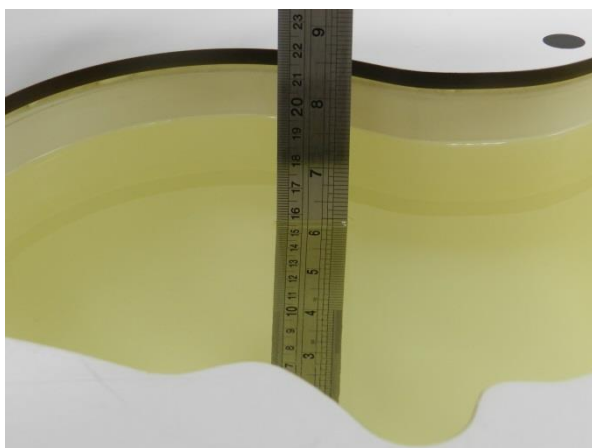


Fig 11.1 Photo of Liquid Height for Head SAR



Fig 11.2 Photo of Liquid Height for Body SAR

12.2 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)	Liquid Temp (°C)	Conductivity (σ)	Permittivity (εr)	Conductivity Target (σ)	Permittivity Target (εr)	Delta (σ) (%)	Delta (εr) (%)	Limit (%)	Date
750	22.6	0.889	42.916	0.89	41.9	-0.11	2.42	±5.0	2025-11-09
750	22.7	0.889	42.872	0.89	41.9	-0.11	2.32	±5.0	2025-11-16
835	22.6	0.917	42.482	0.9	41.5	1.89	2.37	±5.0	2025-11-10
835	22.7	0.914	42.538	0.9	41.5	1.56	2.50	±5.0	2025-11-17
1750	22.8	1.368	40.675	1.37	40.1	-0.15	1.43	±5.0	2025-11-11
1750	22.7	1.375	40.244	1.37	40.1	0.36	0.36	±5.0	2025-11-18
1900	22.6	1.451	39.21	1.4	40.0	3.64	-1.97	±5.0	2025-11-12
1900	22.7	1.45	39.086	1.4	40.0	3.57	-2.29	±5.0	2025-11-19
2450	22.8	1.759	39.268	1.8	39.2	-2.28	0.17	±5.0	2025-11-23
2600	22.9	1.905	38.86	1.96	39.0	-2.81	-0.36	±5.0	2025-11-13
2600	22.8	1.904	38.856	1.96	39.0	-2.86	-0.37	±5.0	2025-11-20
3500	22.6	2.977	37.812	2.91	37.9	2.30	-0.23	±5.0	2025-11-14
3500	22.8	2.973	37.755	2.91	37.9	2.16	-0.38	±5.0	2025-11-17
3700	22.9	3.192	37.564	3.12	37.7	2.31	-0.36	±5.0	2025-11-23
3700	22.6	3.181	37.579	3.12	37.7	1.96	-0.32	±5.0	2025-11-24
3900	22.9	3.397	37.39	3.33	37.51	2.01	-0.32	±5.0	2025-11-15
3900	22.8	3.385	37.377	3.33	37.51	1.65	-0.35	±5.0	2025-11-22
5250	22.9	4.655	36.312	4.71	35.95	-1.17	1.01	±5.0	2025-11-24
5600	22.7	5.059	35.777	5.07	35.5	-0.22	0.78	±5.0	2025-11-26
5800	22.6	5.269	35.79	5.27	35.3	-0.02	1.39	±5.0	2025-11-28

12.3 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.

Date	Frequency (MHz)	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 1g SAR (W/kg)	Targeted 1g SAR (W/kg)	Normalized 1g SAR (W/kg)	Deviation (%)	Measured 10g SAR (W/kg)	Targeted 10g SAR (W/kg)	Normalized 10g SAR (W/kg)	Deviation (%)
2025-11-09	750	50.00	D750V3 - 1087	EX3DV4 - SN3857	DAE4 Sn1649	0.452	8.680	9.040	4.15	0.305	5.610	6.100	8.73
2025-11-16	750	50.00	D750V3 - 1087	EX3DV4 - SN3857	DAE4 Sn1649	0.452	8.680	9.040	4.15	0.306	5.610	6.120	9.09
2025-11-10	835	50.00	D835V2 - 4d298	EX3DV4 - SN3857	DAE4 Sn1649	0.526	9.890	10.520	6.37	0.351	6.450	7.020	8.84
2025-11-17	835	50.00	D835V2 - 4d298	EX3DV4 - SN3857	DAE4 Sn1649	0.523	9.890	10.460	5.76	0.350	6.450	7.000	8.53
2025-11-11	1750	50.00	D1750V2 - 1090	EX3DV4 - SN3857	DAE4 Sn1649	1.980	36.600	39.600	8.20	1.070	19.500	21.400	9.74
2025-11-18	1750	50.00	D1750V2 - 1090	EX3DV4 - SN3857	DAE4 Sn1649	1.990	36.600	39.800	8.74	1.070	19.500	21.400	9.74
2025-11-12	1900	50.00	D1900V2 - 5d170	EX3DV4 - SN3857	DAE4 Sn1649	2.140	39.100	42.800	9.46	1.130	20.600	22.600	9.71
2025-11-19	1900	50.00	D1900V2 - 5d170	EX3DV4 - SN3857	DAE4 Sn1649	2.140	39.100	42.800	9.46	1.130	20.600	22.600	9.71
2025-11-23	2450	50.00	D2450V2 - 1095	EX3DV4 - SN3857	DAE4 Sn1649	2.690	52.600	53.800	2.28	1.260	24.700	25.200	2.02
2025-11-13	2600	50.00	D2600V2 - 1112	EX3DV4 - SN3857	DAE4 Sn1649	2.710	55.100	54.200	-1.63	1.240	24.800	24.800	0.00
2025-11-20	2600	50.00	D2600V2 - 1112	EX3DV4 - SN3857	DAE4 Sn1649	2.700	55.100	54.000	-2.00	1.220	24.800	24.400	-1.61
2025-11-14	3500	50.00	D3500V2 - 1037	EX3DV4 - SN3857	DAE4 Sn1649	3.340	65.400	66.800	2.14	1.280	24.700	25.600	3.64
2025-11-17	3500	50.00	D3500V2 - 1037	EX3DV4 - SN3857	DAE4 Sn1649	3.320	65.400	66.400	1.53	1.270	24.700	25.400	2.83
2025-11-23	3700	50.00	D3700V2 - 1008	EX3DV4 - SN3857	DAE4 Sn1649	3.230	67.200	64.600	-3.87	1.230	24.400	24.600	0.82
2025-11-24	3700	50.00	D3700V2 - 1008	EX3DV4 - SN3857	DAE4 Sn1649	3.220	67.200	64.400	-4.17	1.220	24.400	24.400	0.00
2025-11-15	3900	50.00	D3900V2 - 1048	EX3DV4 - SN3857	DAE4 Sn1649	3.480	69.100	69.600	0.72	1.230	24.100	24.600	2.07
2025-11-22	3900	50.00	D3900V2 - 1048	EX3DV4 - SN3857	DAE4 Sn1649	3.460	69.100	69.200	0.14	1.230	24.100	24.600	2.07
2025-11-24	5250	50.00	D5GHzV2 - 1113	EX3DV4 - SN3857	DAE4 Sn1649	3.940	78.100	78.800	0.90	1.120	22.400	22.400	0.00
2025-11-26	5600	50.00	D5GHzV2 - 1113	EX3DV4 - SN3857	DAE4 Sn1649	4.040	80.000	80.800	1.00	1.130	23.000	22.600	-1.74
2025-11-28	5800	50.00	D5GHzV2 - 1113	EX3DV4 - SN3857	DAE4 Sn1649	3.710	77.900	74.200	-4.75	1.040	22.300	20.800	-6.73

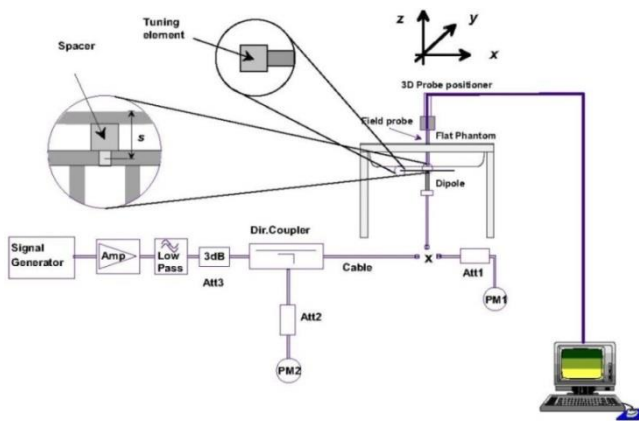


Fig 11.3.1 System Performance Check Setup

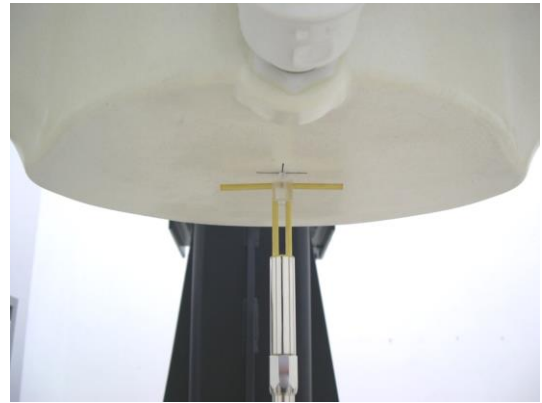


Fig 11.3.2 Setup Photo

13. RF Exposure Positions

13.1 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.

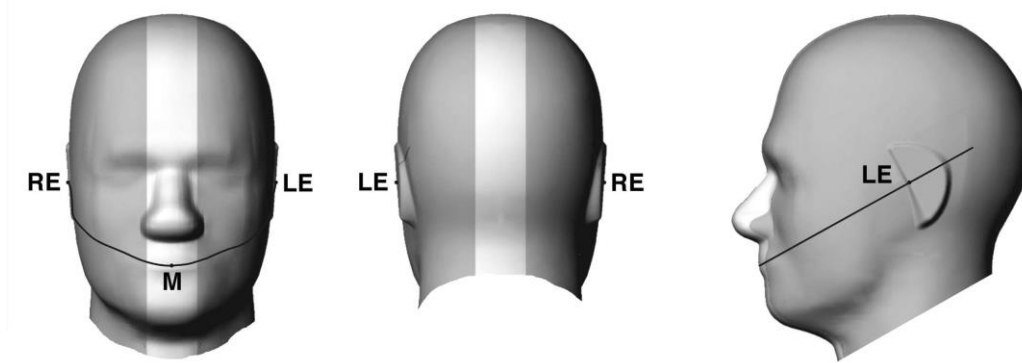


Fig 12.1.1 Front, back, and side views of SAM twin phantom

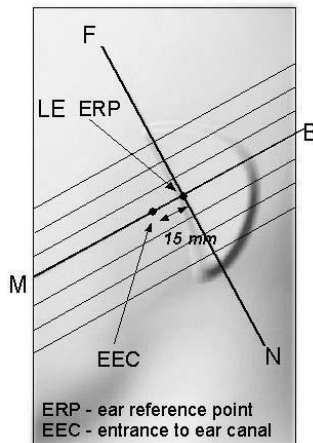


Fig 12.1.2 Close-up side view of phantom showing the ear region.

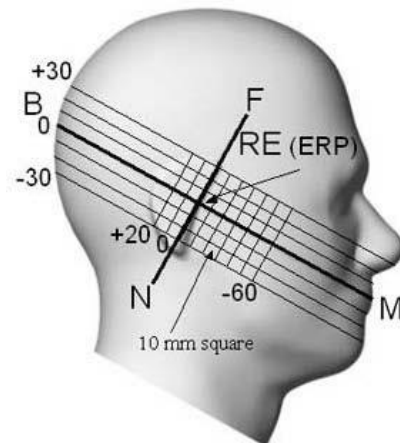


Fig 12.1.3 Side view of the phantom showing relevant markings and seven cross-sectional plane locations

13.2 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 handset. 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.

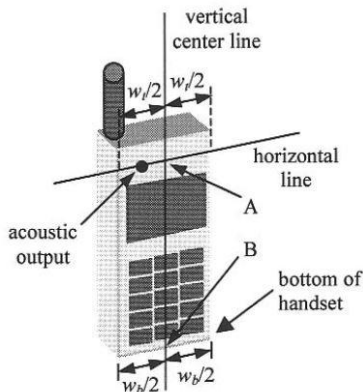


Fig 12.2.1 Handset vertical and horizontal reference lines—"fixed case"

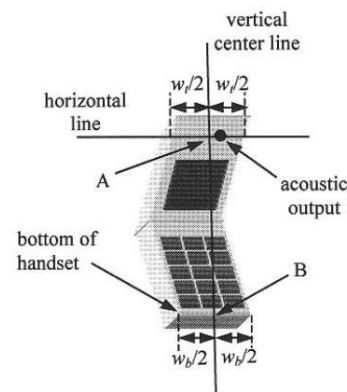


Fig 12.2.2 Handset vertical and horizontal reference lines—"clam-shell case"

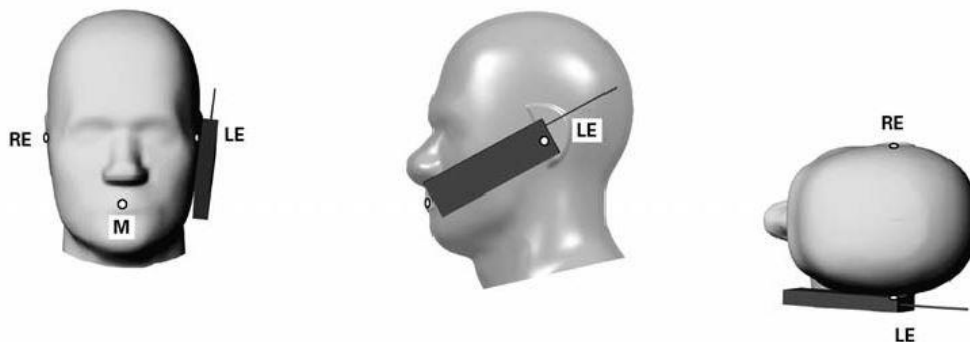


Fig 12.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

13.3 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

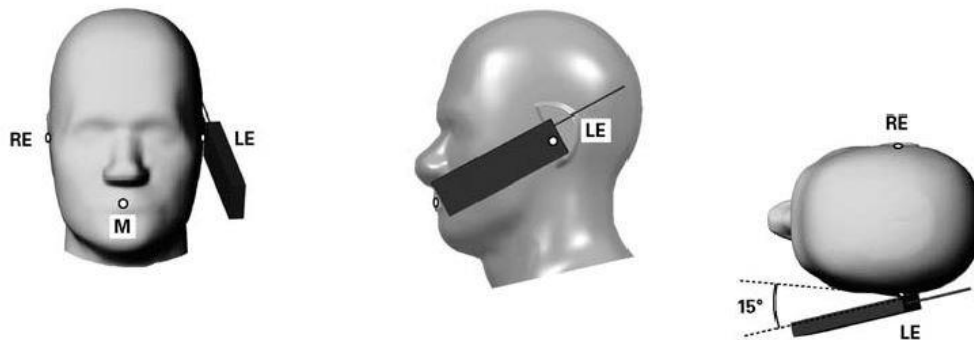


Fig 12.3.1 Tilt position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which define the Reference Plane for handset positioning, are indicated.

13.4 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 12.4). 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 handset attached to the handset.

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

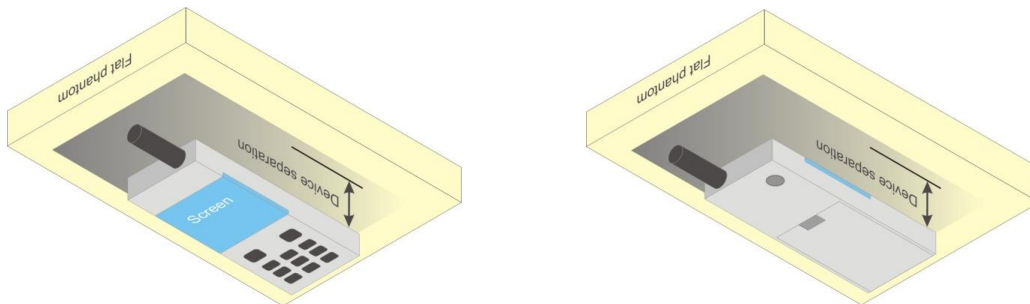


Fig 12.4 Body Worn Position

13.5 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.

13.6 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.

14. 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 $\leq 1/4$ 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 HSPA+ devices supporting 16 QAM in the uplink, power measurements procedure is according to the configurations in Table C.11.1.4 of 3GPP TS 34.121-1.
4. 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_c/β_d	β_{hs} (Note 1, Note 2)	CM (dB) (Note 3)	MPR (dB) (Note 3)
1	2/15	15/15	64	2/15	4/15	0.0	0.0
2	12/15 (Note 4)	15/15 (Note 4)	64	12/15 (Note 4)	24/15	1.0	0.0
3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5

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

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

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

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

Setup Configuration

HSUPA Setup Configuration:

- a. The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration.
- b. The RF path losses were compensated into the measurements.
- c. A call was established between EUT and Base Station with following setting * :
 - i. Call Configs = 5.2B, 5.9B, 5.10B, and 5.13.2B with QPSK
 - ii. Set the Gain Factors (β_c and β_d) and parameters (AG Index) were set according to each specific sub-test in the following table, C11.1.3, quoted from the TS 34.121
 - iii. Set Cell Power = -86 dBm
 - iv. Set Channel Type = 12.2k + HSPA
 - v. Set UE Target Power
 - vi. Power Ctrl Mode= Alternating bits
 - vii. Set and observe the E-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} (Note 1)	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	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15	0	-	-	5/15	5/15	47/15	4	1	1.0	0.0	12	67

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

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

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

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

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

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

Setup Configuration

DC-HSDPA 3GPP release 8 Setup Configuration:

- a. The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration below
- 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 RMC 12.2Kbps + HSDPA mode.
 - ii. Set Cell Power = -25 dBm
 - iii. Set HS-DSCH Configuration Type to FRC (H-set 12, QPSK)
 - iv. Select HSDPA Uplink Parameters
 - v. Set Gain Factors (β_c and β_d) and parameters were set according to each Specific sub-test in the following table, C10.1.4, quoted from the TS 34.121
 - a). Subtest 1: $\beta_c/\beta_d=2/15$
 - b). Subtest 2: $\beta_c/\beta_d=12/15$
 - c). Subtest 3: $\beta_c/\beta_d=15/8$
 - d). Subtest 4: $\beta_c/\beta_d=15/4$
 - vi. Set Delta ACK, Delta NACK and Delta CQI = 8
 - vii. Set Ack-Nack Repetition Factor to 3
 - viii. Set CQI Feedback Cycle (k) to 4 ms
 - ix. Set CQI Repetition Factor to 2
 - x. Power Ctrl Mode = All Up bits
- d. The transmitted maximum output power was recorded.

The following tests were conducted according to the test requirements outlines in 3GPP TS 34.121 specification. A summary of these settings are illustrated below:

C.8.1.12 Fixed Reference Channel Definition H-Set 12

Table C.8.1.12: Fixed Reference Channel H-Set 12

Parameter	Unit	Value
Nominal Avg. Inf. Bit Rate	kbps	60
Inter-TTI Distance	TTI's	1
Number of HARQ Processes	Processes	6
Information Bit Payload (N_{INF})	Bits	120
Number Code Blocks	Blocks	1
Binary Channel Bits Per TTI	Bits	960
Total Available SML's in UE	SML's	19200
Number of SML's per HARQ Proc.	SML's	3200
Coding Rate		0.15
Number of Physical Channel Codes	Codes	1
Modulation		QPSK
Note 1: The RMC is intended to be used for DC-HSDPA mode and both cells shall transmit with identical parameters as listed in the table.		
Note 2: Maximum number of transmission is limited to 1, i.e., retransmission is not allowed. The redundancy and constellation version 0 shall be used.		

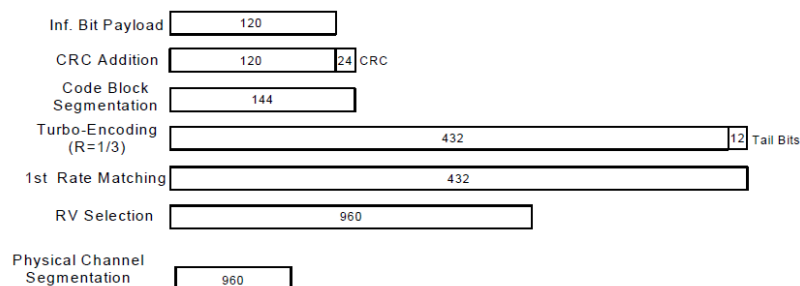


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

Setup Configuration

HSPA+ 3GPP release 7 (uplink category 7) 16QAM, Setup Configuration:

- i. The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration.
- ii. The RF path losses were compensated into the measurements.
- iii. A call was established between EUT and Base Station with following setting * :
 4. Call Configs = 5.2E:HSPA+:UL with 16QAM
 5. 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, C11.1.4, quoted from the TS 34.121-1 s5.2E
 6. Set Channel Params
 7. Set Cell Power = -86 dBm
 8. Set Channel Type = HSPA
 9. Set UE Target Power =21 dBm
 10. Power Ctrl Mode= All Up Bits
 11. Set Manual Uplink DPCH Bc/Bd = Manual
 12. Set Manual Uplink DPCH Bc and Bd=15,15(for 34.121-1 v8.10.0 table C11.1.4 sub-test 1)
 13. Set HSPA Conn DL Channel Levels
 14. Set HS-SCCH Configs
 15. Set RB Test Mode Setup
 16. Set Common HSUPA Parameters
 17. Set Serving Grant
 18. Confirm that E-TFCI is equal to the target E-TFCI of 105 for sub-test 1, and other subtest's E-TFCI
- iv. The transmitted maximum output power was recorded.

Table C.11.1.4: β values for transmitter characteristics tests with HS-DPCCH and E-DCH with 16QAM

Sub-test	β_c (Note3)	β_d	β_{HS} (Note1)	β_{ec}	β_{ed} (2xSF2) (Note 4)	β_{ed} (2xSF4) (Note 4)	CM (dB) (Note 2)	MPR (dB) (Note 2)	AG Index (Note 4)	E-TFCI (Note 5)	E-TFCI (boost)
1	1	0	30/15	30/15	β_{ed1} : 30/15 β_{ed2} : 30/15	β_{ed3} : 24/15 β_{ed4} : 24/15	3.5	2.5	14	105	105

Note 1: Δ_{ACK} , Δ_{NACK} and $\Delta_{CQI} = 30/15$ with $\beta_{fs} = 30/15 * \beta_c$.
 Note 2: CM = 3.5 and the MPR is based on the relative CM difference, MPR = MAX(CM-1,0).
 Note 3: DPDCH is not configured, therefore the β_c is set to 1 and $\beta_d = 0$ by default.
 Note 4: β_{ed} can not be set directly; it is set by Absolute Grant Value.
 Note 5: All the sub-tests require the UE to transmit 2SF2+2SF4 16QAM EDCH and they apply for UE using E-DPDCH category 7. E-DCH TTI is set to 2ms TTI and E-DCH table index = 2. To support these E-DCH configurations DPDCH is not allocated. The UE is signaled to use the extrapolation algorithm.

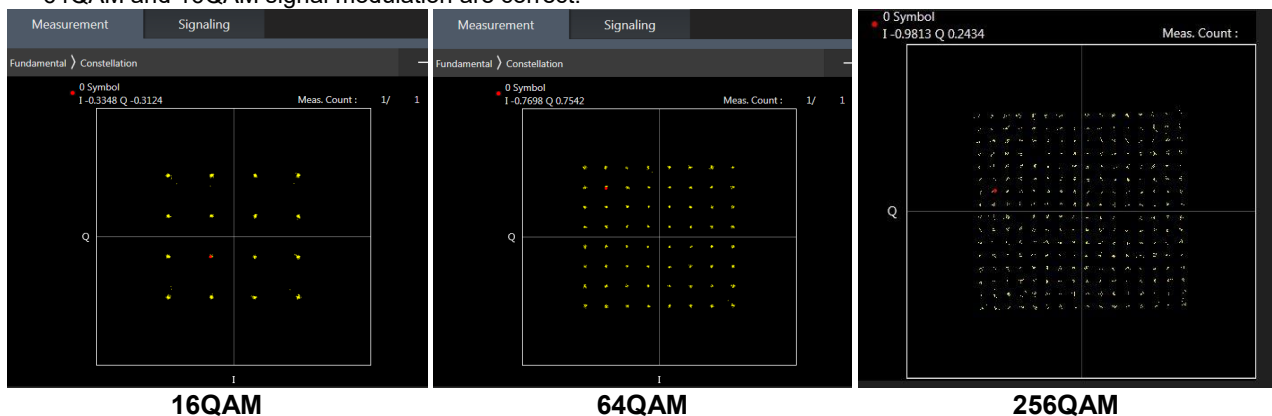
Setup Configuration
<WCDMA Conducted Power>
General Note:

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

<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 / B26 / 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 B2 / B17 / B4 / B5 / B38 SAR test was covered by B25 / B12 / B66 / B26 / 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
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.

- 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table 4.2-2 for uplink-downlink configurations
- “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
- 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.

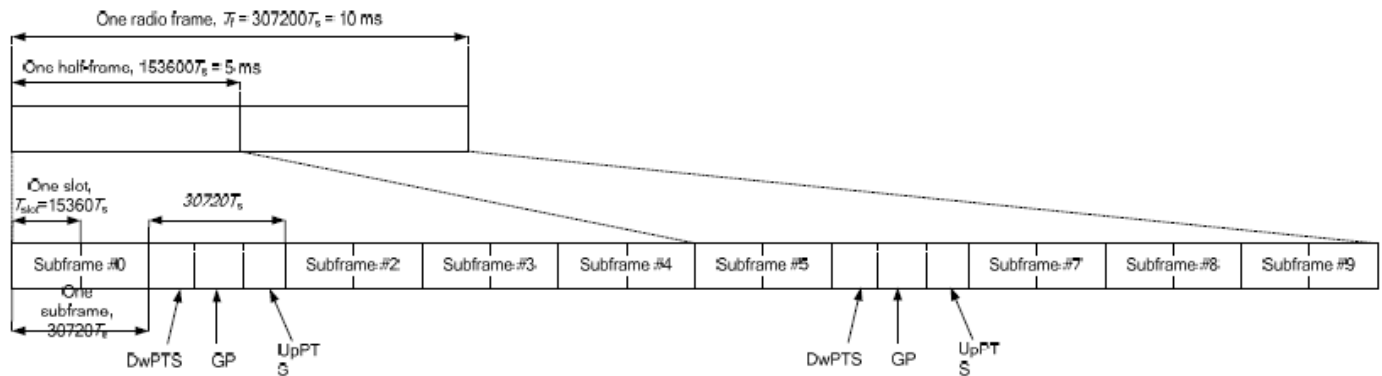


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

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	$6592 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$	$7680 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$
1	$19760 \cdot T_s$			$20480 \cdot T_s$		
2	$21952 \cdot T_s$			$23040 \cdot T_s$		
3	$24144 \cdot T_s$			$25600 \cdot T_s$		
4	$26336 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$7680 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
5	$6592 \cdot T_s$			$20480 \cdot T_s$		
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			$12800 \cdot T_s$	-	-
8	$24144 \cdot T_s$			-		
9	$13168 \cdot T_s$			-	-	-

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

- Uplink-downlink configuration: 0. In a half-frame consisted of 5 subframes, uplink operation is in 3 uplink subframes and 1 special subframe.
- special subframe configuration: 5-9 for normal cyclic prefix in downlink, 4-7 for extended cyclic prefix in downlink
- for special subframe with extended cyclic prefix in uplink, the total uplink duty factor in one half-frame is: $(3+0.167)/5 = 63.3\%$
- for special subframe with normal cyclic prefix in uplink, the total uplink duty factor in one half-frame is: $(3+0.143)/5 = 62.9\%$
- 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>

The detailed LTE Carrier Aggregation conducted power table can refer to Appendix F.

General Note:

1. Per Oct. 2024 TCB workshop, the downlink (DL) pertains to receiver functionality, thus it is not related to RF exposure compliance limits related to cumulative effects of different transmitters.
2. Per Oct. 2024 TCB workshop, equipment authorization applications shall refer to the worst-case UL powers resulting from all the possible modes of operations. Accordingly, CA-DL cases do not need to be analyzed separately, unless pertinent to establishing UL power setting.
3. Per Oct. 2024 TCB workshop, Manufacturer declares that TX power measurement for multiple DL CA configurations is deemed not required as the DL CA has no impact on the TX power according to preliminary scan. TX power measured in LTE standalone operation represents the worst case.
4. This device supports LTE carrier aggregation in the downlink. All 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.

LTE Carrier Aggregation Conducted Power (Uplink)

LTE Uplink CA	2CC Uplink Carrier Aggregation
Intra-band	Antenna Tx
CA_2C	Ant0
CA_7C	Ant1
CA_66C	Ant0
CA_42C	Ant5

<Intra-band>
General Note:

- The device supports intra-band uplink carrier aggregation for LTE B2/7/66/42 with a maximum of two uplink component carriers. For intra band contiguous carrier aggregation scenarios, 3GPP 36.101 table 6.2.2A-1 specifies that the aggregate maximum allowed output power is equivalent to the single carrier scenario. 3GPP 36.101 6.2.3A allows for several dB of MPR to be applied when not-contiguous RB allocation is implemented. The conducted power and MPR setting in this device are permanently implemented pre 3GPP requirement.
- According Nov. 2017 TCB workshop, the output power with uplink CA active was measured for the configuration with the highest reported SAR with single carrier for each exposure condition. The power was measured with wideband signal integration over both component carriers.
- Additional SAR measurement for LTE UL CA with other DL CA combinations active were not required since the maximum output power for this configuration was not > 0.25dB higher than the maximum output power for UL CA active.

<Inter-band uplink carrier aggregation consideration>

LTE Uplink CA	2CC Uplink Carrier Aggregation
Inter-band	Antenna Tx
CA_2A-4A	Ant0 + Ant4
CA_2A-5A	Ant0 + Ant4
CA_2A-66A	Ant0 + Ant4
CA_2A-7A	Ant0 + Ant4
CA_4A-5A	Ant0 + Ant4
CA_4A-7A	Ant0 + Ant4
CA_5A-66A	Ant4 + Ant0
CA_5A-7A	Ant0 + Ant4
CA_7A-26A	Ant4 + Ant0

General Note:

- The single carrier of inter band CA uplink power level is the same as Non-CA standalone LTE power level.
- The product implements MediaTek TA-SAR feature which controls the instantaneous transmitting power for WWAN transmitter to ensure the product in compliance with RF exposure limit over a defined time window, for SAR (transmit frequency ≤ 6GHz). To control and manage transmitting power in real time and to ensure at all times the time-averaged RF exposure is compliant to the regulation requirement.
- For LTE inter-band CA mode, MediaTek TA-SAR algorithm in WWAN adds directly the time-averaged RF exposure between two LTE bands. TA-SAR algorithm controls the total RF exposure based on LTE inter CA bands to not exceed FCC limit. In Part 1 Report, TA-SAR compliance was evaluated with other Radios (WLAN or BT) using standalone LTE SAR mode.

5G NR Output Power (Unit: dBm)

General Note:

1. 5G NR n2/n7/n66/n38/n41/n78 is NSA mode.
2. 5G NR n2/n5/n7/n26/n66/n38/n41/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. For 5G NR test, using FTM (Factory Test Mode) to perform SAR with default 100% transmission.
5. For 5G NR, the simultaneous transmission analysis is used standalone SAR at total power level to show compliance.
6. 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.
7. 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.
8. 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.
9. 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.

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

ENDC	Main Antenna Tx	
	LTE TX	NR TX
DC_12A_n2A	Ant4	Ant0
DC_12A_n66A	Ant4	Ant0
DC_12A_n78A	Ant0	Ant5
DC_2A_n38A	Ant0	Ant4
DC_2A_n41A	Ant0	Ant4
DC_2A_n66A	Ant0	Ant4
DC_2A_n78A	Ant0	Ant5
DC_2A_n7A	Ant0	Ant4
DC_38A_n78A	Ant1	Ant5
DC_4A_n2A	Ant0	Ant4
DC_4A_n38A	Ant0	Ant4
DC_4A_n41A	Ant0	Ant4
DC_4A_n78A	Ant0	Ant5
DC_4A_n7A	Ant0	Ant4
DC_5A_n38A	Ant0	Ant4
DC_5A_n41A	Ant0	Ant4
DC_5A_n78A	Ant0	Ant5
DC_5A_n7A	Ant0	Ant4
DC_66A_n2A	Ant0	Ant4
DC_66A_n38A	Ant0	Ant4
DC_66A_n41A	Ant0	Ant4
DC_66A_n78A	Ant0	Ant5
DC_66A_n7A	Ant0	Ant4
DC_7A_n2A	Ant1	Ant4
DC_7A_n66A	Ant1	Ant4
DC_7A_n78A	Ant1	Ant5

<WLAN Conducted Power>

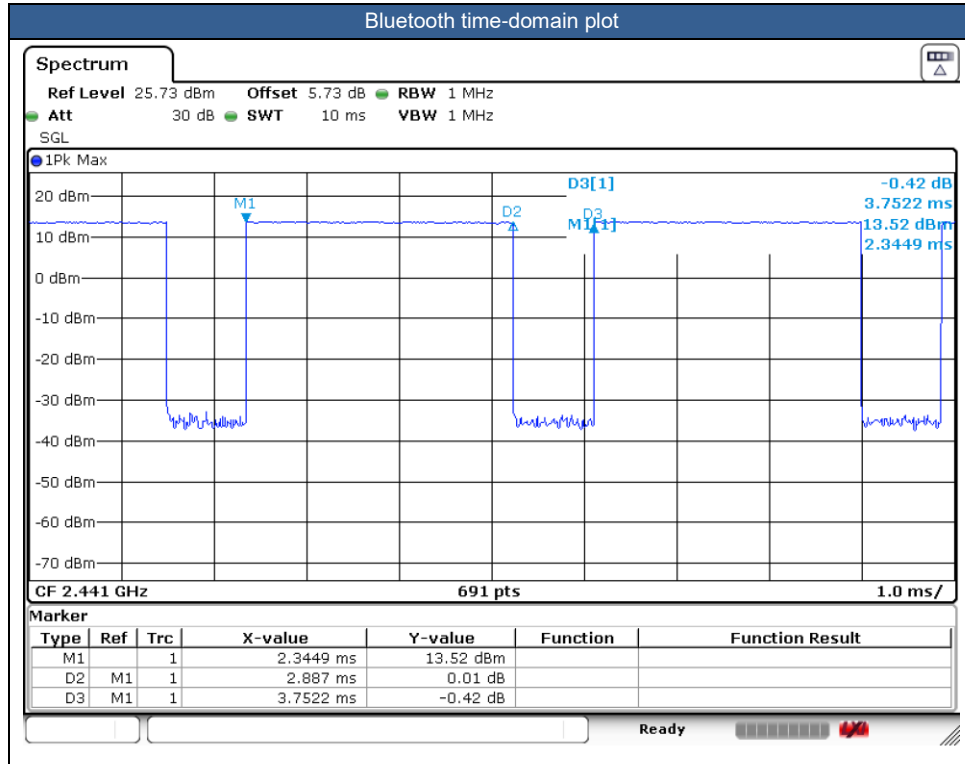
General Note:

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.

<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 76.94% as following figure, for 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.





15. Antenna Location

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

16. SAR Test Results

General Note:

1. Per KDB 447498 D01v06, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
 - a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
 - b. For SAR testing of WLAN signal with non-100% duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle)"
 - c. For 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 WLAN/Bluetooth: 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 the power management and proximity sensor/receiver detection/hotspot mode for SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity) and the MediaTek TA-SAR will manage to ensure the power level not exceeding the associated power table. Details about the power management decision and sensor detection are provided in the operational description. 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. 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 GSM850/1900, WCDMA Band II/IV/V, LTE Band 2/4/5/7/25/26/66/38/41/42, 5GNR n2/n7/n5/n26/n66/n38 /n41/n77/n78, WLAN 2.4GHz, 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.
6. Although the headset SAR is greater than 0.8 W/kg, the headset SAR verified the worst of the non-headset SAR and less than non-headset SAR, so there is no need to be tested other channels.
7. According to Nov. 2017 TCB workshop, when the reported 1gSAR for UL CA configuration is <1.2 W/kg, UL CA 1gSAR is not required for all required test channels (PCC based).
8. LTE B2/4/26/66 and 5GNR n2/66 at Ant 0, LTE B4/66 and 5GNR n2/66 at Ant 4 support different PAs for same antennas. And some LTE/NR bands support PA (Reference Designator) only under ENDC& UL CA. Some LTE/NR bands support different PAs for some antennas, whether it is the maximum power of Main PA is higher than and very close to the PA (Reference Designator), for RF exposure, after verification all PAs in a same position, so the worst-case PA was chosen to perform full SAR testing to ensure the RF exposure is compliance and another PA verified the worst case.
9. SAR is not required because the distance from the antenna to the edge is > 25 mm as per KDB 941225 D06 Hotspot SAR.
10. For Phablet devices, when hotspot mode is not supported, Product specific 10-g SAR is required for all surfaces and edges with an antenna located at ≤ 25 mm from that surface or edge in direct contact with a flat phantom, to address

interactive hand use exposure conditions.

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

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 / B5 / B12 / B26 / 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 / B5 / B17 / B38 SAR test was covered by B25 / B66 / B26 / 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 n2/n5 /n7/n26/n66/n38/n41/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.

ECI status description:

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

This WWAN bands enabled with MediaTek TA-SAR feature which located at chapter 5. The default power is Pmax power, When Plimit power higher than Pmax power, the output power will be limited at Pmax, and so the SAR will use Pmax power to do the testing.

Exposure Condition	Main PA	PA (Reference Designator)	Trigger conditions
Head SAR	ECI2	ECI2-1	Earpiece On
Hotspot SAR	ECI7	ECI7-1	Hotspot On
Body worn SAR	ECI3	ECI3-1	Sensor On
Extremity SAR	ECI6	ECI6-1	Sensor On
Body worn/ Extremity SAR	ECI4	ECI4-1	Sensor Off

16.1 Head SAR

【GSM SAR】

Plot No	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
01	GSM850	GPRS 4 Tx slots	Right Cheek	0mm	Ant 0	ECI 2	189	836.4	1	28.32	29.50	1.312	-0.01	0.368	0.483
	GSM850	GPRS 4 Tx slots	Right Tilted	0mm	Ant 0	ECI 2	189	836.4	1	28.32	29.50	1.312	-0.07	0.195	0.256
	GSM850	GPRS 4 Tx slots	Left Cheek	0mm	Ant 0	ECI 2	189	836.4	1	28.32	29.50	1.312	0.17	0.326	0.428
	GSM850	GPRS 4 Tx slots	Left Tilted	0mm	Ant 0	ECI 2	189	836.4	1	28.32	29.50	1.312	0.03	0.177	0.232
02	GSM1900	GPRS 4 Tx slots	Right Cheek	0mm	Ant 0	ECI 2	661	1880	1	25.66	26.50	1.213	0.17	0.124	0.150
	GSM1900	GPRS 4 Tx slots	Right Tilted	0mm	Ant 0	ECI 2	661	1880	1	25.66	26.50	1.213	0.14	0.074	0.090
	GSM1900	GPRS 4 Tx slots	Left Cheek	0mm	Ant 0	ECI 2	661	1880	1	25.66	26.50	1.213	-0.03	0.108	0.131
	GSM1900	GPRS 4 Tx slots	Left Tilted	0mm	Ant 0	ECI 2	661	1880	1	25.66	26.50	1.213	-0.17	0.090	0.110

【WCDMA SAR】

Plot No	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
03	WCDMA II	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	ECI 2	9400	1880	1	23.22	24.00	1.197	-0.06	0.271	0.324
	WCDMA II	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	ECI 2	9400	1880	2	23.22	24.00	1.197	0.03	0.196	0.235
	WCDMA II	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	ECI 2	9400	1880	3	23.22	24.00	1.197	0.08	0.179	0.214
	WCDMA II	RMC 12.2Kbps	Right Tilted	0mm	Ant 0	ECI 2	9400	1880	1	23.22	24.00	1.197	0.00	0.180	0.215
	WCDMA II	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	ECI 2	9400	1880	1	23.22	24.00	1.197	0.08	0.177	0.212
	WCDMA II	RMC 12.2Kbps	Left Tilted	0mm	Ant 0	ECI 2	9400	1880	1	23.22	24.00	1.197	0.08	0.178	0.213
04	WCDMA IV	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	ECI 2	1413	1732.6	1	23.46	24.00	1.132	0.09	0.264	0.299
	WCDMA IV	RMC 12.2Kbps	Right Tilted	0mm	Ant 0	ECI 2	1413	1732.6	1	23.46	24.00	1.132	0.18	0.155	0.176
	WCDMA IV	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	ECI 2	1413	1732.6	1	23.46	24.00	1.132	0.18	0.198	0.224
	WCDMA IV	RMC 12.2Kbps	Left Tilted	0mm	Ant 0	ECI 2	1413	1732.6	1	23.46	24.00	1.132	-0.09	0.159	0.180
05	WCDMA V	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	ECI 2	4182	836.4	1	23.25	24.00	1.189	0.06	0.317	0.377
	WCDMA V	RMC 12.2Kbps	Right Tilted	0mm	Ant 0	ECI 2	4182	836.4	1	23.25	24.00	1.189	-0.09	0.166	0.197
	WCDMA V	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	ECI 2	4182	836.4	1	23.25	24.00	1.189	0.09	0.314	0.373
	WCDMA V	RMC 12.2Kbps	Left Tilted	0mm	Ant 0	ECI 2	4182	836.4	1	23.25	24.00	1.189	-0.02	0.182	0.216

【FDD LTE SAR】

Plot No	Band	BW	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	Power State	PA Note	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
06	LTE Band 2	20M	QPSK	1	0	Right Cheek	0mm	Ant 0	ECI 2-1	PA (Reference Designator)	18900	1880	1	23.59	24.00	1.099	-0.03	0.093	0.102
	LTE Band 2	20M	QPSK	50	0	Right Cheek	0mm	Ant 0	ECI 2-1	PA (Reference Designator)	18900	1880	1	22.57	23.00	1.104	-0.07	0.073	0.081
	LTE Band 2	20M	QPSK	1	0	Right Tilted	0mm	Ant 0	ECI 2-1	PA (Reference Designator)	18900	1880	1	23.59	24.00	1.099	0.19	0.054	0.059
	LTE Band 2	20M	QPSK	50	0	Right Tilted	0mm	Ant 0	ECI 2-1	PA (Reference Designator)	18900	1880	1	22.57	23.00	1.104	0.18	0.042	0.046
	LTE Band 2	20M	QPSK	1	0	Left Cheek	0mm	Ant 0	ECI 2-1	PA (Reference Designator)	18900	1880	1	23.59	24.00	1.099	0.15	0.066	0.072
	LTE Band 2	20M	QPSK	50	0	Left Cheek	0mm	Ant 0	ECI 2-1	PA (Reference Designator)	18900	1880	1	22.57	23.00	1.104	0.17	0.052	0.058
	LTE Band 2	20M	QPSK	1	0	Left Tilted	0mm	Ant 0	ECI 2-1	PA (Reference Designator)	18900	1880	1	23.59	24.00	1.099	-0.12	0.064	0.070
	LTE Band 2	20M	QPSK	50	0	Left Tilted	0mm	Ant 0	ECI 2-1	PA (Reference Designator)	18900	1880	1	22.57	23.00	1.104	0.13	0.051	0.056
	LTE Band 2C	20M	QPSK	1	0	Right Cheek	0mm	Ant 0	ECI 2-1	PA (Reference Designator)	18900+19098	1880+1899.8	1	23.42	24	1.143	0.02	0.086	0.098
	LTE Band 7	20M	QPSK	1	0	Right Cheek	0mm	Ant 4	ECI 2		21100	2535	1	17.53	18.50	1.25	-0.06	0.661	0.826
	LTE Band 7	20M	QPSK	1	0	Right Cheek	0mm	Ant 4	ECI 2		20850	2510	1	17.46	18.50	1.271	0.06	0.618	0.786
	LTE Band 7	20M	QPSK	1	0	Right Cheek	0mm	Ant 4	ECI 2		21350	2560	1	17.48	18.50	1.265	0.09	0.627	0.794
	LTE Band 7	20M	QPSK	50	0	Right Cheek	0mm	Ant 4	ECI 2		21100	2535	1	17.51	18.50	1.256	0.08	0.500	0.628
	LTE Band 7	20M	QPSK	100	0	Right Cheek	0mm	Ant 4	ECI 2		21100	2535	1	17.43	18.50	1.279	-0.05	0.500	0.640
	LTE Band 7	20M	QPSK	1	0	Right Tilted	0mm	Ant 4	ECI 2		21100	2535	1	17.53	18.50	1.25	-0.05	0.679	0.849
	LTE Band 7	20M	QPSK	1	0	Right Tilted	0mm	Ant 4	ECI 2		20850	2510	1	17.46	18.50	1.271	-0.05	0.679	0.863
07	LTE Band 7	20M	QPSK	1	0	Right Tilted	0mm	Ant 4	ECI 2		21350	2560	1	17.48	18.50	1.265	0.05	0.691	0.874



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	LTE Band 7	20M	QPSK	50	0	Right Tilted	0mm	Ant 4	ECI 2		21100	2535	1	17.51	18.50	1.256	-0.16	0.506	0.636
	LTE Band 7	20M	QPSK	100	0	Right Tilted	0mm	Ant 4	ECI 2		21100	2535	1	17.43	18.50	1.279	-0.13	0.506	0.647
	LTE Band 7	20M	QPSK	1	0	Left Cheek	0mm	Ant 4	ECI 2		21100	2535	1	17.53	18.50	1.25	-0.00	0.212	0.265
	LTE Band 7	20M	QPSK	50	0	Left Cheek	0mm	Ant 4	ECI 2		21100	2535	1	17.51	18.50	1.256	0.14	0.163	0.205
	LTE Band 7	20M	QPSK	1	0	Left Tilted	0mm	Ant 4	ECI 2		21100	2535	1	17.53	18.50	1.25	0.07	0.266	0.332
	LTE Band 7	20M	QPSK	50	0	Left Tilted	0mm	Ant 4	ECI 2		21100	2535	1	17.51	18.50	1.256	-0.07	0.199	0.250
	LTE Band 7	20M	QPSK	1	0	Right Cheek	0mm	Ant 1	ECI 2		21100	2535	1	22.29	24.00	1.483	-0.17	0.282	0.419
	LTE Band 7	20M	QPSK	50	0	Right Cheek	0mm	Ant 1	ECI 2		21100	2535	1	21.23	23.00	1.503	-0.15	0.230	0.345
	LTE Band 7	20M	QPSK	1	0	Right Tilted	0mm	Ant 1	ECI 2		21100	2535	1	22.29	24.00	1.483	-0.03	0.255	0.378
	LTE Band 7	20M	QPSK	50	0	Right Tilted	0mm	Ant 1	ECI 2		21100	2535	1	21.23	23.00	1.503	0.06	0.203	0.305
	LTE Band 7	20M	QPSK	1	0	Left Cheek	0mm	Ant 1	ECI 2		21100	2535	1	22.29	24.00	1.483	0.17	0.520	0.771
	LTE Band 7	20M	QPSK	50	0	Left Cheek	0mm	Ant 1	ECI 2		21100	2535	1	21.23	23.00	1.503	0.17	0.419	0.630
	LTE Band 7	20M	QPSK	1	0	Left Tilted	0mm	Ant 1	ECI 2		21100	2535	1	22.29	24.00	1.483	-0.15	0.155	0.229
	LTE Band 7	20M	QPSK	50	0	Left Tilted	0mm	Ant 1	ECI 2		21100	2535	1	21.23	23.00	1.503	-0.09	0.121	0.182
	LTE Band 7C	20M	QPSK	1	0	Left Cheek	0mm	Ant 1	ECI 2		21100+ 20902	2535+ 2515.2	1	22.26	24	1.493	0.06	0.512	0.764
	LTE Band 12	10M	QPSK	1	0	Right Cheek	0mm	Ant 0	ECI 2		23095	707.5	1	22.66	24.00	1.361	0.01	0.209	0.284
	LTE Band 12	10M	QPSK	25	0	Right Cheek	0mm	Ant 0	ECI 2		23095	707.5	1	21.58	23.00	1.387	0.10	0.163	0.226
	LTE Band 12	10M	QPSK	1	0	Right Tilted	0mm	Ant 0	ECI 2		23095	707.5	1	22.66	24.00	1.361	0.04	0.109	0.149
	LTE Band 12	10M	QPSK	25	0	Right Tilted	0mm	Ant 0	ECI 2		23095	707.5	1	21.58	23.00	1.387	0.16	0.083	0.116
	LTE Band 12	10M	QPSK	1	0	Left Cheek	0mm	Ant 0	ECI 2		23095	707.5	1	22.66	24.00	1.361	-0.10	0.171	0.233
	LTE Band 12	10M	QPSK	25	0	Left Cheek	0mm	Ant 0	ECI 2		23095	707.5	1	21.58	23.00	1.387	0.05	0.128	0.177
	LTE Band 12	10M	QPSK	1	0	Left Tilted	0mm	Ant 0	ECI 2		23095	707.5	1	22.66	24.00	1.361	0.06	0.081	0.111
	LTE Band 12	10M	QPSK	25	0	Left Tilted	0mm	Ant 0	ECI 2		23095	707.5	1	21.58	23.00	1.387	0.10	0.061	0.084
08	LTE Band 12	10M	QPSK	1	0	Right Cheek	0mm	Ant 4	ECI 2		23095	707.5	1	22.18	23.00	1.208	-0.02	0.461	0.557
	LTE Band 12	10M	QPSK	1	0	Right Cheek	0mm	Ant 4	ECI 2		23095	707.5	2	22.18	23.00	1.208	0.06	0.450	0.544
	LTE Band 12	10M	QPSK	1	0	Right Cheek	0mm	Ant 4	ECI 2		23095	707.5	3	22.18	23.00	1.208	0.08	0.459	0.554
	LTE Band 12	10M	QPSK	25	0	Right Cheek	0mm	Ant 4	ECI 2		23095	707.5	1	21.15	22.00	1.216	0.15	0.362	0.440
	LTE Band 12	10M	QPSK	1	0	Right Tilted	0mm	Ant 4	ECI 2		23095	707.5	1	22.18	23.00	1.208	-0.14	0.414	0.500
	LTE Band 12	10M	QPSK	25	0	Right Tilted	0mm	Ant 4	ECI 2		23095	707.5	1	21.15	22.00	1.216	0.03	0.323	0.393
	LTE Band 12	10M	QPSK	1	0	Left Cheek	0mm	Ant 4	ECI 2		23095	707.5	1	22.18	23.00	1.208	-0.02	0.303	0.366
	LTE Band 12	10M	QPSK	25	0	Left Cheek	0mm	Ant 4	ECI 2		23095	707.5	1	21.15	22.00	1.216	-0.18	0.257	0.312
	LTE Band 12	10M	QPSK	1	0	Left Tilted	0mm	Ant 4	ECI 2		23095	707.5	1	22.18	23.00	1.208	0.09	0.280	0.338
	LTE Band 12	10M	QPSK	25	0	Left Tilted	0mm	Ant 4	ECI 2		23095	707.5	1	21.15	22.00	1.216	-0.10	0.234	0.285
09	LTE Band 13	10M	QPSK	1	0	Right Cheek	0mm	Ant 0	ECI 2		23230	782	1	22.39	24.00	1.449	0.08	0.186	0.270
	LTE Band 13	10M	QPSK	1	0	Right Cheek	0mm	Ant 0	ECI 2		23230	782	2	22.39	24.00	1.449	0.04	0.177	0.256
	LTE Band 13	10M	QPSK	1	0	Right Cheek	0mm	Ant 0	ECI 2		23230	782	3	22.39	24.00	1.449	0.08	0.143	0.207
	LTE Band 13	10M	QPSK	25	0	Right Cheek	0mm	Ant 0	ECI 2		23230	782	1	21.39	23.00	1.449	-0.03	0.147	0.213
	LTE Band 13	10M	QPSK	1	0	Right Tilted	0mm	Ant 0	ECI 2		23230	782	1	22.39	24.00	1.449	-0.18	0.113	0.163
	LTE Band 13	10M	QPSK	25	0	Right Tilted	0mm	Ant 0	ECI 2		23230	782	1	21.39	23.00	1.449	0.16	0.092	0.134
	LTE Band 13	10M	QPSK	1	0	Left Cheek	0mm	Ant 0	ECI 2		23230	782	1	22.39	24.00	1.449	0.09	0.151	0.219
	LTE Band 13	10M	QPSK	25	0	Left Cheek	0mm	Ant 0	ECI 2		23230	782	1	21.39	23.00	1.449	0.06	0.122	0.176
	LTE Band 13	10M	QPSK	1	0	Left Tilted	0mm	Ant 0	ECI 2		23230	782	1	22.39	24.00	1.449	0.02	0.085	0.124
	LTE Band 13	10M	QPSK	25	0	Left Tilted	0mm	Ant 0	ECI 2		23230	782	1	21.39	23.00	1.449	-0.07	0.071	0.103
	LTE Band 25	20M	QPSK	1	0	Right Cheek	0mm	Ant 0	ECI 2		26340	1880	1	22.49	24.00	1.416	0.12	0.216	0.306
	LTE Band 25	20M	QPSK	50	0	Right Cheek	0mm	Ant 0	ECI 2		26340	1880	1	21.33	23.00	1.469	0.05	0.170	0.250
	LTE Band 25	20M	QPSK	1	0	Right Tilted	0mm	Ant 0	ECI 2		26340	1880	1	22.49	24.00	1.416	0.10	0.125	0.177
	LTE Band 25	20M	QPSK	50	0	Right Tilted	0mm	Ant 0	ECI 2		26340	1880	1	21.33	23.00	1.469	-0.19	0.097	0.143
	LTE Band 25	20M	QPSK	1	0	Left Cheek	0mm	Ant 0	ECI 2		26340	1880	1	22.49	24.00	1.416	-0.03	0.153	0.217
	LTE Band 25	20M	QPSK	50	0	Left Cheek	0mm	Ant 0	ECI 2		26340	1880	1	21.33	23.00	1.469	-0.04	0.121	0.178
	LTE Band 25	20M	QPSK	1	0	Left Tilted	0mm	Ant 0	ECI 2		26340	1880	1	22.49	24.00	1.416	-0.02	0.149	0.211
	LTE Band 25	20M	QPSK	50	0	Left Tilted	0mm	Ant 0	ECI 2		26340	1880	1	21.33	23.00	1.469	-0.16	0.119	0.174
	LTE Band 25	20M	QPSK	1	0	Right Cheek	0mm	Ant 4	ECI 2		26340	1880	1	17.20	18.20	1.259	0.08	0.585	0.736
	LTE Band 25	20M	QPSK	50	0	Right Cheek	0mm	Ant 4	ECI 2		26340	1880	1	17.15	18.20	1.274	0.00	0.458	0.583
	LTE Band 25	20M	QPSK	1	0	Right Tilted	0mm	Ant 4	ECI 2		26340	1880	1	17.20	18.20	1.259	0.02	0.695	0.875
10	LTE Band 25	20M	QPSK	1	0	Right Tilted	0mm	Ant 4	ECI 2		26140	1860	1	17.14	18.20	1.276	-0.03	0.699	0.892
	LTE Band 25	20M	QPSK	1	0	Right Tilted	0mm	Ant 4	ECI 2		26140	1860	2	17.14	18.20	1.276	0.02	0.437	0.558
	LTE Band 25	20M	QPSK	1	0	Right Tilted	0mm	Ant 4	ECI 2		26140	1860	3	17.14	18.20	1.276	0.03	0.509	0.649
	LTE Band 25	20M	QPSK	1	0	Right Tilted	0mm	Ant 4	ECI 2		26590	1905	1	17.18	18.20	1.265	0.16	0.678	0.857
	LTE Band 25	20M	QPSK	50	0	Right Tilted	0mm	Ant 4	ECI 2		26340	1880	1	17.15	18.20	1.274	-0.17	0.542	0.691
	LTE Band 25	20M	QPSK	100	0	Right Tilted	0mm	Ant 4	ECI 2		26340	1880	1	17.09	18.20	1.291	-0.14	0.542	0.700
	LTE Band 25	20M	QPSK	1	0	Left Cheek	0mm	Ant 4	ECI 2		26340	1880	1	17.20	18.20	1.259	0.05	0.428	0.539
	LTE Band 25	20M	QPSK	50	0	Left Cheek	0mm	Ant 4	ECI 2		26340	1880	1	17.15	18.20	1.274	-0.18	0.334	0.425
	LTE Band 25	20M	QPSK	1	0	Left Tilted	0mm	Ant 4	ECI 2		26340	1880	1	17.20	18.20	1.259	0.12	0.542	0.683
	LTE Band 25	20M	QPSK	50	0	Left Tilted	0mm	Ant 4	ECI 2		26340	1880	1	17.15	18.20	1.274	0.05	0.424	0.540
	LTE Band 26	15M	QPSK	1	0	Right Cheek	0mm	Ant 0	ECI 2		26865	831.5	1	22.38	24.00	1.452	0.08	0.212	0.308
	LTE Band 26	15M	QPSK	1	0	Right Cheek	0mm	Ant 0	ECI 2		26865	831.5	2	22.38	24.00	1.452	-0.11	0.168	0.244
	LTE Band 26	15M	QPSK	1	0	Right Cheek	0mm	Ant 0	ECI 2		26865	831.5	3	22.38	24.00	1.452	0.05	0.172	0.250
	LTE Band 26	15M	QPSK	36	0	Right Cheek	0mm	Ant 0	ECI 2		26865	831.5	1	21.24	23.00	1.5	0.07	0.165	0.247
	LTE Band 26	15M	QPSK	1	0	Right Cheek	0mm	Ant 0	ECI 2-1 (Reference Designator)		26865	831.5	1	23.69	24.00	1.074	0.02	0.142	0.153
	LTE Band 26	15M	QPSK	1	0	Right Tilted	0mm	Ant 0	ECI 2		26865	831.5	1	22.38	24.00	1.452	0.14	0.119	0.173
	LTE Band 26	15M	QPSK	36	0	Right Tilted	0mm	Ant 0	ECI 2		26865	831.5	1	21.24	23.00	1.5	-0.06	0.092	0.138



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	LTE Band 26	15M	QPSK	1	0	Left Cheek	0mm	Ant 0	ECI 2		26865	831.5	1	22.38	24.00	1.452	0.05	0.203	0.294
	LTE Band 26	15M	QPSK	36	0	Left Cheek	0mm	Ant 0	ECI 2		26865	831.5	1	21.24	23.00	1.5	0.18	0.157	0.235
	LTE Band 26	15M	QPSK	1	0	Left Tilted	0mm	Ant 0	ECI 2		26865	831.5	1	22.38	24.00	1.452	-0.05	0.114	0.165
	LTE Band 26	15M	QPSK	36	0	Left Tilted	0mm	Ant 0	ECI 2		26865	831.5	1	21.24	23.00	1.5	0.04	0.085	0.128
11	LTE Band 26	15M	QPSK	1	0	Right Cheek	0mm	Ant 4	ECI 2		26865	831.5	1	21.55	22.50	1.245	-0.03	0.651	0.810
	LTE Band 26	15M	QPSK	36	0	Right Cheek	0mm	Ant 4	ECI 2		26865	831.5	1	20.82	22.00	1.312	-0.11	0.512	0.672
	LTE Band 26	15M	QPSK	75	0	Right Cheek	0mm	Ant 4	ECI 2		26865	831.5	1	20.81	22.00	1.315	-0.01	0.511	0.672
	LTE Band 26	15M	QPSK	1	0	Right Tilted	0mm	Ant 4	ECI 2		26865	831.5	1	21.55	22.50	1.245	-0.04	0.584	0.727
	LTE Band 26	15M	QPSK	36	0	Right Tilted	0mm	Ant 4	ECI 2		26865	831.5	1	20.82	22.00	1.312	0.08	0.453	0.595
	LTE Band 26	15M	QPSK	1	0	Left Cheek	0mm	Ant 4	ECI 2		26865	831.5	1	21.55	22.50	1.245	-0.08	0.478	0.595
	LTE Band 26	15M	QPSK	36	0	Left Cheek	0mm	Ant 4	ECI 2		26865	831.5	1	20.82	22.00	1.312	0.14	0.371	0.487
	LTE Band 26	15M	QPSK	1	0	Left Tilted	0mm	Ant 4	ECI 2		26865	831.5	1	21.55	22.50	1.245	0.13	0.456	0.568
	LTE Band 26	15M	QPSK	36	0	Left Tilted	0mm	Ant 4	ECI 2		26865	831.5	1	20.82	22.00	1.312	-0.15	0.355	0.465
	LTE Band 66	20M	QPSK	1	0	Right Cheek	0mm	Ant 0	ECI 2		132322	1745	1	22.54	24.00	1.4	0.12	0.215	0.301
	LTE Band 66	20M	QPSK	50	0	Right Cheek	0mm	Ant 0	ECI 2		132322	1745	1	21.55	23.00	1.396	0.09	0.170	0.237
	LTE Band 66	20M	QPSK	1	0	Right Cheek	0mm	Ant 0	ECI 2-1 (Reference Designator)		132322	1745	1	23.36	24.00	1.159	0.02	0.113	0.131
	LTE Band 66C	20M	QPSK	1	0	Right Cheek	0mm	Ant 0	ECI 2		132322+ 132124	1745+ 1725.2	1	22.51	24	1.409	-0.06	0.182	0.256
	LTE Band 66	20M	QPSK	1	0	Right Cheek	0mm	Ant 0	ECI 2		132322	1745	2	22.54	24.00	1.4	0.05	0.182	0.255
	LTE Band 66	20M	QPSK	1	0	Right Cheek	0mm	Ant 0	ECI 2		132322	1745	3	22.54	24.00	1.4	0.04	0.177	0.248
	LTE Band 66	20M	QPSK	1	0	Right Tilted	0mm	Ant 0	ECI 2		132322	1745	1	22.54	24.00	1.4	0.17	0.115	0.161
	LTE Band 66	20M	QPSK	50	0	Right Tilted	0mm	Ant 0	ECI 2		132322	1745	1	21.55	23.00	1.396	0.19	0.088	0.123
	LTE Band 66	20M	QPSK	1	0	Left Cheek	0mm	Ant 0	ECI 2		132322	1745	1	22.54	24.00	1.4	0.07	0.153	0.214
	LTE Band 66	20M	QPSK	50	0	Left Cheek	0mm	Ant 0	ECI 2		132322	1745	1	21.55	23.00	1.396	0.15	0.119	0.166
	LTE Band 66	20M	QPSK	1	0	Left Tilted	0mm	Ant 0	ECI 2		132322	1745	1	22.54	24.00	1.4	0.01	0.128	0.179
	LTE Band 66	20M	QPSK	50	0	Left Tilted	0mm	Ant 0	ECI 2		132322	1745	1	21.55	23.00	1.396	-0.13	0.108	0.150
	LTE Band 66	20M	QPSK	1	0	Right Cheek	0mm	Ant 4	ECI 2		132322	1745	1	16.97	17.80	1.211	-0.05	0.625	0.757
	LTE Band 66	20M	QPSK	50	0	Right Cheek	0mm	Ant 4	ECI 2		132322	1745	1	16.93	17.80	1.222	-0.03	0.488	0.597
	LTE Band 66	20M	QPSK	1	0	Right Tilted	0mm	Ant 4	ECI 2		132322	1745	1	16.97	17.80	1.211	-0.18	0.704	0.852
12	LTE Band 66	20M	QPSK	1	0	Right Tilted	0mm	Ant 4	ECI 2		132072	1720	1	16.94	17.80	1.219	0.12	0.721	0.879
	LTE Band 66	20M	QPSK	1	0	Right Tilted	0mm	Ant 4	ECI 2		132072	1720	2	16.94	17.80	1.219	0.06	0.625	0.762
	LTE Band 66	20M	QPSK	1	0	Right Tilted	0mm	Ant 4	ECI 2		132072	1720	3	16.94	17.80	1.219	0.07	0.515	0.628
	LTE Band 66	20M	QPSK	1	0	Right Tilted	0mm	Ant 4	ECI 2		132572	1770	1	16.91	17.80	1.227	-0.12	0.640	0.785
	LTE Band 66	20M	QPSK	50	0	Right Tilted	0mm	Ant 4	ECI 2		132322	1745	1	16.93	17.80	1.222	-0.09	0.552	0.675
	LTE Band 66	20M	QPSK	100	0	Right Tilted	0mm	Ant 4	ECI 2		132322	1745	1	16.87	17.80	1.239	0.01	0.555	0.688
	LTE Band 66	20M	QPSK	1	0	Right Tilted	0mm	Ant 4	ECI 2-1 (Reference Designator)		132322	1745	1	16.96	17.80	1.213	0.01	0.577	0.700
	LTE Band 66	20M	QPSK	1	0	Left Cheek	0mm	Ant 4	ECI 2		132322	1745	1	16.97	17.80	1.211	0.16	0.436	0.528
	LTE Band 66	20M	QPSK	50	0	Left Cheek	0mm	Ant 4	ECI 2		132322	1745	1	16.93	17.80	1.222	-0.08	0.343	0.419
	LTE Band 66	20M	QPSK	1	0	Left Tilted	0mm	Ant 4	ECI 2		132322	1745	1	16.97	17.80	1.211	0.12	0.541	0.655
	LTE Band 66	20M	QPSK	50	0	Left Tilted	0mm	Ant 4	ECI 2		132322	1745	1	16.93	17.80	1.222	-0.04	0.424	0.519

【TDD LTE SAR】

Plot No	Band	BW	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 38	20M	QPSK	1	0	Right Cheek	0mm	Ant 1	ECI 2	38000	2595	1	21.44	23.00	1.432	62.9	1.006	-0.02	0.139	0.200
	LTE Band 38	20M	QPSK	50	0	Right Cheek	0mm	Ant 1	ECI 2	38000	2595	1	20.47	22.00	1.422	62.9	1.006	0.11	0.111	0.159
	LTE Band 38	20M	QPSK	1	0	Right Tilted	0mm	Ant 1	ECI 2	38000	2595	1	21.44	23.00	1.432	62.9	1.006	0.02	0.119	0.171
	LTE Band 38	20M	QPSK	50	0	Right Tilted	0mm	Ant 1	ECI 2	38000	2595	1	20.47	22.00	1.422	62.9	1.006	-0.04	0.089	0.128
13	LTE Band 38	20M	QPSK	1	0	Left Cheek	0mm	Ant 1	ECI 2	38000	2595	1	21.44	23.00	1.432	62.9	1.006	0.03	0.255	0.367
	LTE Band 38	20M	QPSK	50	0	Left Cheek	0mm	Ant 1	ECI 2	38000	2595	1	20.47	22.00	1.422	62.9	1.006	-0.02	0.204	0.292
	LTE Band 38	20M	QPSK	1	0	Left Tilted	0mm	Ant 1	ECI 2	38000	2595	1	21.44	23.00	1.432	62.9	1.006	-0.18	0.069	0.099
	LTE Band 38	20M	QPSK	50	0	Left Tilted	0mm	Ant 1	ECI 2	38000	2595	1	20.47	22.00	1.422	62.9	1.006	-0.13	0.053	0.076
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant 4	ECI 2	40620	2593	1	19.75	20.90	1.303	62.9	1.006	0.07	0.605	0.793
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant 4	ECI 2	39750	2506	1	19.69	20.90	1.321	62.9	1.006	-0.14	0.579	0.769
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant 4	ECI 2	40185	2549.5	1	19.74	20.90	1.306	62.9	1.006	-0.03	0.559	0.735
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant 4	ECI 2	41055	2636.5	1	19.67	20.90	1.327	62.9	1.006	0.14	0.621	0.830
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant 4	ECI 2	41490	2680	1	19.68	20.90	1.324	62.9	1.006	-0.13	0.481	0.640
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant 4	ECI 2	40620	2593	1	19.69	20.90	1.321	62.9	1.006	0.04	0.481	0.639
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant 4	ECI 2	39750	2506	1	19.61	20.90	1.346	62.9	1.006	-0.09	0.451	0.611
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant 4	ECI 2	40185	2549.5	1	19.67	20.90	1.327	62.9	1.006	0.09	0.438	0.585
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant 4	ECI 2	41055	2636.5	1	19.63	20.90	1.34	62.9	1.006	-0.01	0.494	0.666
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant 4	ECI 2	41490	2680	1	19.65	20.90	1.334	62.9	1.006	0.05	0.383	0.514
	LTE Band 41	20M	QPSK	100	0	Right Cheek	0mm	Ant 4	ECI 2	40620	2593	1	19.68	20.90	1.324	62.9	1.006	0.05	0.484	0.645
	LTE Band 41	20M	QPSK	1	0	Right Tilted	0mm	Ant 4	ECI 2	40620	2593	1	19.75	20.90	1.303	62.9	1.006	0.14	0.599	0.785
14	LTE Band 41	20M	QPSK	1	0	Right Tilted	0mm	Ant 4	ECI 2	39750	2506	1	19.69	20.90	1.321	62.9	1.006	-0.01	0.664	0.882
	LTE Band 41	20M	QPSK	1	0	Right Tilted	0mm	Ant 4	ECI 2	40185	2549.5	1	19.74	20.90	1.306	62.9	1.006	-0.00	0.605	0.795
	LTE Band 41	20M	QPSK	1	0	Right Tilted	0mm	Ant 4	ECI 2	41055	2636.5	1	19.67	20.90	1.327	62.9	1.006	0.03	0.602	0.803



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	LTE Band 41	20M	QPSK	1	0	Right Tilted	0mm	Ant 4	ECI 2	41490	2680	1	19.68	20.90	1.324	62.9	1.006	-0.02	0.432	0.575
	LTE Band 41	20M	QPSK	50	0	Right Tilted	0mm	Ant 4	ECI 2	40620	2593	1	19.69	20.90	1.321	62.9	1.006	0.11	0.474	0.630
	LTE Band 41	20M	QPSK	50	0	Right Tilted	0mm	Ant 4	ECI 2	39750	2506	1	19.61	20.90	1.346	62.9	1.006	-0.19	0.527	0.713
	LTE Band 41	20M	QPSK	50	0	Right Tilted	0mm	Ant 4	ECI 2	40185	2549.5	1	19.67	20.90	1.327	62.9	1.006	-0.08	0.478	0.638
	LTE Band 41	20M	QPSK	50	0	Right Tilted	0mm	Ant 4	ECI 2	41055	2636.5	1	19.63	20.90	1.34	62.9	1.006	-0.05	0.478	0.644
	LTE Band 41	20M	QPSK	50	0	Right Tilted	0mm	Ant 4	ECI 2	41490	2680	1	19.65	20.90	1.334	62.9	1.006	-0.17	0.340	0.457
	LTE Band 41	20M	QPSK	100	0	Right Tilted	0mm	Ant 4	ECI 2	40620	2593	1	19.68	20.90	1.324	62.9	1.006	0.03	0.478	0.636
	LTE Band 41	20M	QPSK	1	0	Left Cheek	0mm	Ant 4	ECI 2	40620	2593	1	19.75	20.90	1.303	62.9	1.006	0.02	0.200	0.262
	LTE Band 41	20M	QPSK	50	0	Left Cheek	0mm	Ant 4	ECI 2	40620	2593	1	19.69	20.90	1.321	62.9	1.006	-0.00	0.162	0.216
	LTE Band 41	20M	QPSK	1	0	Left Tilted	0mm	Ant 4	ECI 2	40620	2593	1	19.75	20.90	1.303	62.9	1.006	-0.11	0.233	0.306
	LTE Band 41	20M	QPSK	50	0	Left Tilted	0mm	Ant 4	ECI 2	40620	2593	1	19.69	20.90	1.321	62.9	1.006	0.10	0.183	0.243
	LTE Band 42	20M	QPSK	1	0	Right Cheek	0mm	Ant 5	ECI 2	42590	3500	1	17.49	18.80	1.352	62.9	1.006	-0.04	0.422	0.574
	LTE Band 42	20M	QPSK	50	0	Right Cheek	0mm	Ant 5	ECI 2	42590	3500	1	17.42	18.80	1.374	62.9	1.006	-0.18	0.331	0.457
	LTE Band 42	20M	QPSK	1	0	Right Tilted	0mm	Ant 5	ECI 2	42590	3500	1	17.49	18.80	1.352	62.9	1.006	0.15	0.506	0.689
	LTE Band 42	20M	QPSK	50	0	Right Tilted	0mm	Ant 5	ECI 2	42590	3500	1	17.42	18.80	1.374	62.9	1.006	-0.06	0.402	0.555
	LTE Band 42	20M	QPSK	1	0	Left Cheek	0mm	Ant 5	ECI 2	42590	3500	1	17.49	18.80	1.352	62.9	1.006	0.08	0.618	0.840
	LTE Band 42	20M	QPSK	1	0	Left Cheek	0mm	Ant 5	ECI 2	42190	3460	1	17.45	18.80	1.365	62.9	1.006	-0.15	0.614	0.844
	LTE Band 42	20M	QPSK	1	0	Left Cheek	0mm	Ant 5	ECI 2	42990	3540	1	17.43	18.80	1.371	62.9	1.006	0.15	0.604	0.834
	LTE Band 42	20M	QPSK	50	0	Left Cheek	0mm	Ant 5	ECI 2	42590	3500	1	17.42	18.80	1.374	62.9	1.006	0.16	0.493	0.681
	LTE Band 42	20M	QPSK	100	0	Left Cheek	0mm	Ant 5	ECI 2	42590	3500	1	17.40	18.80	1.38	62.9	1.006	-0.17	0.493	0.684
15	LTE Band 42	20M	QPSK	1	0	Left Tilted	0mm	Ant 5	ECI 2	42590	3500	1	17.49	18.80	1.352	62.9	1.006	-0.05	0.655	0.891
	LTE Band 42C	20M	QPSK	1	0	Left Tilted	0mm	Ant 5	ECI 2	42590+ 42788	3500+ 3519.8	1	17.49	18.8	1.352	62.9	1.006	0.05	0.633	0.861
	LTE Band 42	20M	QPSK	1	0	Left Tilted	0mm	Ant 5	ECI 2	42590	3500	2	17.49	18.80	1.352	62.9	1.006	0.08	0.605	0.823
	LTE Band 42	20M	QPSK	1	0	Left Tilted	0mm	Ant 5	ECI 2	42590	3500	3	17.49	18.80	1.352	62.9	1.006	0.03	0.573	0.779
	LTE Band 42	20M	QPSK	1	0	Left Tilted	0mm	Ant 5	ECI 2	42190	3460	1	17.45	18.80	1.365	62.9	1.006	0.05	0.638	0.876
	LTE Band 42	20M	QPSK	1	0	Left Tilted	0mm	Ant 5	ECI 2	42990	3540	1	17.43	18.80	1.371	62.9	1.006	0.15	0.645	0.889
	LTE Band 42	20M	QPSK	50	0	Left Tilted	0mm	Ant 5	ECI 2	42590	3500	1	17.42	18.80	1.374	62.9	1.006	0.04	0.520	0.719
	LTE Band 42	20M	QPSK	100	0	Left Tilted	0mm	Ant 5	ECI 2	42590	3500	1	17.40	18.80	1.38	62.9	1.006	-0.12	0.520	0.722

【FR1 SAR】

Plot No	Band	BW	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	Power State	PA Note	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	FR1 n2	40M	BPSK	1	1	Right Cheek	0mm	Ant 0	ECI 2		376000	1880	1	22.73	24.00	1.34	-0.11	0.113	0.151
	FR1 n2	40M	BPSK	108	54	Right Cheek	0mm	Ant 0	ECI 2		376000	1880	1	22.75	24.00	1.334	0.03	0.125	0.167
	FR1 n2	40M	BPSK	108	54	Right Cheek	0mm	Ant 0	ECI 2-1	PA (Reference Designator)	376000	1880	1	22.71	24.00	1.346	-0.05	0.095	0.128
	FR1 n2	40M	BPSK	1	1	Right Tilted	0mm	Ant 0	ECI 2		376000	1880	1	22.73	24.00	1.34	0.06	0.093	0.125
	FR1 n2	40M	BPSK	108	54	Right Tilted	0mm	Ant 0	ECI 2		376000	1880	1	22.75	24.00	1.334	0.07	0.101	0.135
	FR1 n2	40M	BPSK	1	1	Left Cheek	0mm	Ant 0	ECI 2		376000	1880	1	22.73	24.00	1.34	0.14	0.107	0.143
	FR1 n2	40M	BPSK	108	54	Left Cheek	0mm	Ant 0	ECI 2		376000	1880	1	22.75	24.00	1.334	0.19	0.104	0.139
	FR1 n2	40M	BPSK	1	1	Left Tilted	0mm	Ant 0	ECI 2		376000	1880	1	22.73	24.00	1.34	-0.11	0.106	0.142
	FR1 n2	40M	BPSK	108	54	Left Tilted	0mm	Ant 0	ECI 2		376000	1880	1	22.75	24.00	1.334	0.15	0.116	0.155
	FR1 n2	40M	BPSK	1	1	Right Cheek	0mm	Ant 4	ECI 2		376000	1880	1	18.64	19.70	1.276	0.19	0.601	0.767
	FR1 n2	40M	BPSK	108	54	Right Cheek	0mm	Ant 4	ECI 2		376000	1880	1	18.59	19.70	1.291	-0.05	0.640	0.826
	FR1 n2	40M	BPSK	216	0	Right Cheek	0mm	Ant 4	ECI 2		376000	1880	1	18.54	19.70	1.306	0.16	0.640	0.835
	FR1 n2	40M	BPSK	1	1	Right Tilted	0mm	Ant 4	ECI 2		376000	1880	1	18.64	19.70	1.276	0.05	0.634	0.809
16	FR1 n2	40M	BPSK	108	54	Right Tilted	0mm	Ant 4	ECI 2		376000	1880	1	18.59	19.70	1.291	0.01	0.683	0.882
	FR1 n2	40M	BPSK	216	0	Right Tilted	0mm	Ant 4	ECI 2		376000	1880	1	18.54	19.70	1.306	-0.11	0.663	0.866
	FR1 n2	40M	BPSK	108	54	Right Tilted	0mm	Ant 4	ECI 2-1	PA (Reference Designator)	376000	1880	1	18.59	19.70	1.291	0.02	0.602	0.777
	FR1 n2	40M	BPSK	1	1	Left Cheek	0mm	Ant 4	ECI 2		376000	1880	1	18.64	19.70	1.276	0.10	0.420	0.536
	FR1 n2	40M	BPSK	108	54	Left Cheek	0mm	Ant 4	ECI 2		376000	1880	1	18.59	19.70	1.291	-0.04	0.454	0.587
	FR1 n2	40M	BPSK	1	1	Left Tilted	0mm	Ant 4	ECI 2		376000	1880	1	18.64	19.70	1.276	0.05	0.508	0.648
	FR1 n2	40M	BPSK	108	54	Left Tilted	0mm	Ant 4	ECI 2		376000	1880	1	18.59	19.70	1.291	0.00	0.521	0.673
	FR1 n7	50M	BPSK	1	1	Right Cheek	0mm	Ant 4	ECI 2		507000	2535	1	17.76	18.80	1.271	0.05	0.640	0.813
	FR1 n7	50M	BPSK	135	68	Right Cheek	0mm	Ant 4	ECI 2		507000	2535	1	17.70	18.80	1.288	0.15	0.670	0.863
	FR1 n7	50M	BPSK	270	0	Right Cheek	0mm	Ant 4	ECI 2		507000	2535	1	17.68	18.80	1.294	-0.19	0.649	0.840
	FR1 n7	50M	BPSK	1	1	Right Tilted	0mm	Ant 4	ECI 2		507000	2535	1	17.76	18.80	1.271	-0.11	0.661	0.840
17	FR1 n7	50M	BPSK	135	68	Right Tilted	0mm	Ant 4	ECI 2		507000	2535	1	17.70	18.80	1.288	0.08	0.688	0.886
	FR1 n7	50M	BPSK	135	68	Right Tilted	0mm	Ant 4	ECI 2		507000	2535	2	17.70	18.80	1.288	0.03	0.683	0.88
	FR1 n7	50M	BPSK	135	68	Right Tilted	0mm	Ant 4	ECI 2		507000	2535	3	17.70	18.80	1.288	0.08	0.675	0.869
	FR1 n7	50M	BPSK	270	0	Right Tilted	0mm	Ant 4	ECI 2		507000	2535	1	17.68	18.80	1.294	0.08	0.673	0.871
	FR1 n7	50M	BPSK	1	1	Left Cheek	0mm	Ant 4	ECI 2		507000	2535	1	17.76	18.80	1.271	-0.05	0.250	0.317
	FR1 n7	50M	BPSK	135	68	Left Cheek	0mm	Ant 4	ECI 2		507000	2535	1	17.70	18.80	1.288	0.02	0.220	0.283
	FR1 n7	50M	BPSK	1	1	Left Tilted	0mm	Ant 4	ECI 2		507000	2535	1	17.76	18.80	1.271	-0.08	0.317	0.403
	FR1 n7	50M	BPSK	135	68	Left Tilted	0mm	Ant 4	ECI 2		507000	2535	1	17.70	18.80	1.288	0.10	0.280	0.361
	FR1 n7	50M	BPSK	1	1	Right Cheek	0mm	Ant 1	ECI 2		507000	2535	1	22.26	24.00	1.493	-0.13	0.241	0.360
	FR1 n7	50M	BPSK	135	68	Right Cheek	0mm	Ant 1	ECI 2		507000	2535	1	22.18	24.00	1.521	0.05	0.270	0.411
	FR1 n7	50M	BPSK	1	1	Right Tilted	0mm	Ant 1	ECI 2		507000	2535	1	22.26	24.00	1.493	-0.10	0.212	0.317



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	FR1 n7	50M	BPSK	135	68	Right Tilted	0mm	Ant 1	ECI 2		507000	2535	1	22.18	24.00	1.521	-0.12	0.225	0.342
	FR1 n7	50M	BPSK	1	1	Left Cheek	0mm	Ant 1	ECI 2		507000	2535	1	22.26	24.00	1.493	-0.04	0.460	0.687
	FR1 n7	50M	BPSK	135	68	Left Cheek	0mm	Ant 1	ECI 2		507000	2535	1	22.18	24.00	1.521	0.06	0.518	0.788
	FR1 n7	50M	BPSK	135	68	Left Cheek	0mm	Ant 1	ECI 2		507000	2535	2	22.18	24.00	1.521	0.02	0.462	0.703
	FR1 n7	50M	BPSK	135	68	Left Cheek	0mm	Ant 1	ECI 2		507000	2535	3	22.18	24.00	1.521	0.08	0.504	0.767
	FR1 n7	50M	BPSK	1	1	Left Tilted	0mm	Ant 1	ECI 2		507000	2535	1	22.26	24.00	1.493	0.01	0.137	0.205
	FR1 n7	50M	BPSK	135	68	Left Tilted	0mm	Ant 1	ECI 2		507000	2535	1	22.18	24.00	1.521	-0.07	0.129	0.196
	FR1 n26	20M	BPSK	1	1	Right Cheek	0mm	Ant 0	ECI 2		166300	831.5	1	22.93	24.00	1.279	0.02	0.134	0.171
	FR1 n26	20M	BPSK	50	28	Right Cheek	0mm	Ant 0	ECI 2		166300	831.5	1	22.95	24.00	1.274	0.09	0.152	0.194
	FR1 n26	20M	BPSK	1	1	Right Tilted	0mm	Ant 0	ECI 2		166300	831.5	1	22.93	24.00	1.279	-0.06	0.077	0.098
	FR1 n26	20M	BPSK	50	28	Right Tilted	0mm	Ant 0	ECI 2		166300	831.5	1	22.95	24.00	1.274	0.16	0.088	0.112
	FR1 n26	20M	BPSK	1	1	Left Cheek	0mm	Ant 0	ECI 2		166300	831.5	1	22.93	24.00	1.279	-0.00	0.122	0.156
	FR1 n26	20M	BPSK	50	28	Left Cheek	0mm	Ant 0	ECI 2		166300	831.5	1	22.95	24.00	1.274	-0.08	0.143	0.182
	FR1 n26	20M	BPSK	1	1	Left Tilted	0mm	Ant 0	ECI 2		166300	831.5	1	22.93	24.00	1.279	-0.17	0.070	0.090
	FR1 n26	20M	BPSK	50	28	Left Tilted	0mm	Ant 0	ECI 2		166300	831.5	1	22.95	24.00	1.274	0.06	0.079	0.101
	FR1 n26	20M	BPSK	1	1	Right Cheek	0mm	Ant 4	ECI 2		166300	831.5	1	21.04	22.40	1.368	0.07	0.571	0.781
18	FR1 n26	20M	BPSK	50	28	Right Cheek	0mm	Ant 4	ECI 2		166300	831.5	1	21.07	22.40	1.358	-0.01	0.655	0.889
	FR1 n26	20M	BPSK	50	28	Right Cheek	0mm	Ant 4	ECI 2		166300	831.5	2	21.07	22.40	1.358	0.06	0.638	0.866
	FR1 n26	20M	BPSK	50	28	Right Cheek	0mm	Ant 4	ECI 2		166300	831.5	3	21.07	22.40	1.358	0.01	0.654	0.888
	FR1 n26	20M	BPSK	100	0	Right Cheek	0mm	Ant 4	ECI 2		166300	831.5	1	21.05	22.40	1.365	0.00	0.627	0.856
	FR1 n26	20M	BPSK	1	1	Right Tilted	0mm	Ant 4	ECI 2		166300	831.5	1	21.04	22.40	1.368	0.05	0.478	0.654
	FR1 n26	20M	BPSK	50	28	Right Tilted	0mm	Ant 4	ECI 2		166300	831.5	1	21.07	22.40	1.358	0.06	0.528	0.717
	FR1 n26	20M	BPSK	1	1	Left Cheek	0mm	Ant 4	ECI 2		166300	831.5	1	21.04	22.40	1.368	0.10	0.410	0.562
	FR1 n26	20M	BPSK	50	28	Left Cheek	0mm	Ant 4	ECI 2		166300	831.5	1	21.07	22.40	1.358	-0.06	0.460	0.625
	FR1 n26	20M	BPSK	1	1	Left Tilted	0mm	Ant 4	ECI 2		166300	831.5	1	21.04	22.40	1.368	-0.03	0.367	0.502
	FR1 n26	20M	BPSK	50	28	Left Tilted	0mm	Ant 4	ECI 2		166300	831.5	1	21.07	22.40	1.358	0.13	0.413	0.560
	FR1 n66	45M	BPSK	1	1	Right Cheek	0mm	Ant 0	ECI 2		349000	1745	1	22.65	24.00	1.365	-0.07	0.124	0.169
	FR1 n66	45M	BPSK	120	60	Right Cheek	0mm	Ant 0	ECI 2		349000	1745	1	22.67	24.00	1.358	-0.06	0.153	0.208
	FR1 n66	45M	BPSK	1	1	Right Cheek	0mm	Ant 0	ECI 2-1 (Reference Designator)		349000	1745	1	22.59	24.00	1.384	0.01	0.105	0.145
	FR1 n66	45M	BPSK	1	1	Right Tilted	0mm	Ant 0	ECI 2		349000	1745	1	22.65	24.00	1.365	0.11	0.062	0.085
	FR1 n66	45M	BPSK	120	60	Right Tilted	0mm	Ant 0	ECI 2		349000	1745	1	22.67	24.00	1.358	0.08	0.076	0.103
	FR1 n66	45M	BPSK	1	1	Left Cheek	0mm	Ant 0	ECI 2		349000	1745	1	22.65	24.00	1.365	0.12	0.097	0.132
	FR1 n66	45M	BPSK	120	60	Left Cheek	0mm	Ant 0	ECI 2		349000	1745	1	22.67	24.00	1.358	0.14	0.110	0.149
	FR1 n66	45M	BPSK	1	1	Left Tilted	0mm	Ant 0	ECI 2		349000	1745	1	22.65	24.00	1.365	-0.08	0.076	0.104
	FR1 n66	45M	BPSK	120	60	Left Tilted	0mm	Ant 0	ECI 2		349000	1745	1	22.67	24.00	1.358	0.05	0.082	0.111
	FR1 n66	45M	BPSK	1	1	Right Cheek	0mm	Ant 4	ECI 2		349000	1745	1	16.30	17.10	1.202	0.02	0.665	0.799
	FR1 n66	45M	BPSK	120	60	Right Cheek	0mm	Ant 4	ECI 2		349000	1745	1	16.28	17.10	1.208	0.13	0.657	0.794
	FR1 n66	45M	BPSK	1	1	Right Tilted	0mm	Ant 4	ECI 2		349000	1745	1	16.30	17.10	1.202	0.09	0.697	0.838
19	FR1 n66	45M	BPSK	120	60	Right Tilted	0mm	Ant 4	ECI 2		349000	1745	1	16.28	17.10	1.208	-0.11	0.725	0.876
	FR1 n66	45M	BPSK	240	0	Right Tilted	0mm	Ant 4	ECI 2		349000	1745	1	16.22	17.10	1.225	-0.04	0.706	0.865
	FR1 n66	45M	BPSK	1	1	Right Tilted	0mm	Ant 4	ECI 2-1 (Reference Designator)		349000	1745	1	16.24	17.10	1.219	0.01	0.567	0.691
	FR1 n66	45M	BPSK	1	1	Left Cheek	0mm	Ant 4	ECI 2		349000	1745	1	16.30	17.10	1.202	0.17	0.457	0.549
	FR1 n66	45M	BPSK	120	60	Left Cheek	0mm	Ant 4	ECI 2		349000	1745	1	16.28	17.10	1.208	-0.02	0.461	0.556
	FR1 n66	45M	BPSK	1	1	Left Tilted	0mm	Ant 4	ECI 2		349000	1745	1	16.30	17.10	1.202	-0.04	0.533	0.640
	FR1 n66	45M	BPSK	120	60	Left Tilted	0mm	Ant 4	ECI 2		349000	1745	1	16.28	17.10	1.208	-0.01	0.529	0.639
	FR1 n41	100M	BPSK	1	1	Right Cheek	0mm	Ant 4	ECI 2		518598	2592.99	1	17.23	18.30	1.279	-0.06	0.621	0.794
20	FR1 n41	100M	BPSK	135	69	Right Cheek	0mm	Ant 4	ECI 2		518598	2592.99	1	17.21	18.30	1.285	-0.01	0.680	0.874
	FR1 n41	100M	BPSK	270	0	Right Cheek	0mm	Ant 4	ECI 2		518598	2592.99	1	17.16	18.30	1.3	-0.03	0.653	0.849
	FR1 n41	100M	BPSK	1	1	Right Tilted	0mm	Ant 4	ECI 2		518598	2592.99	1	17.23	18.30	1.279	0.19	0.656	0.839
	FR1 n41	100M	BPSK	135	69	Right Tilted	0mm	Ant 4	ECI 2		518598	2592.99	1	17.21	18.30	1.285	0.01	0.653	0.839
	FR1 n41	100M	BPSK	270	0	Right Tilted	0mm	Ant 4	ECI 2		518598	2592.99	1	17.16	18.30	1.3	0.15	0.671	0.872
	FR1 n41	100M	BPSK	1	1	Left Cheek	0mm	Ant 4	ECI 2		518598	2592.99	1	17.23	18.30	1.279	-0.13	0.216	0.277
	FR1 n41	100M	BPSK	135	69	Left Cheek	0mm	Ant 4	ECI 2		518598	2592.99	1	17.21	18.30	1.285	-0.15	0.236	0.303
	FR1 n41	100M	BPSK	1	1	Left Tilted	0mm	Ant 4	ECI 2		518598	2592.99	1	17.23	18.30	1.279	-0.07	0.276	0.354
	FR1 n41	100M	BPSK	135	69	Left Tilted	0mm	Ant 4	ECI 2		518598	2592.99	1	17.21	18.30	1.285	-0.07	0.276	0.355
	FR1 n77	100M	BPSK	1	1	Right Cheek	0mm	Ant 5	ECI 2		656000	3840	1	17.15	18.30	1.303	-0.15	0.349	0.455
	FR1 n77	100M	BPSK	135	69	Right Cheek	0mm	Ant 5	ECI 2		656000	3840	1	17.13	18.30	1.309	-0.07	0.444	0.581
	FR1 n77	100M	BPSK	1	1	Right Tilted	0mm	Ant 5	ECI 2		656000	3840	1	17.15	18.30	1.303	-0.04	0.406	0.529
	FR1 n77	100M	BPSK	135	69	Right Tilted	0mm	Ant 5	ECI 2		656000	3840	1	17.13	18.30	1.309	-0.06	0.518	0.678
	FR1 n77	100M	BPSK	1	1	Left Cheek	0mm	Ant 5	ECI 2		656000	3840	1	17.15	18.30	1.303	-0.16	0.568	0.741
21	FR1 n77	100M	BPSK	135	69	Left Cheek	0mm	Ant 5	ECI 2		656000	3840	1	17.13	18.30	1.309	0.17	0.681	0.891
	FR1 n77	100M	BPSK	135	69	Left Cheek	0mm	Ant 5	ECI 2		656000	3840	2	17.13	18.30	1.309	0.08	0.648	0.848
	FR1 n77	100M	BPSK	135	69	Left Cheek	0mm	Ant 5	ECI 2		656000	3840	3	17.13	18.30	1.309	0.02	0.598	0.783
	FR1 n77	100M	BPSK	270	0	Left Cheek	0mm	Ant 5	ECI 2		656000	3840	1	17.10	18.30	1.318	0.13	0.669	0.882
	FR1 n77	100M	BPSK	1	1	Left Tilted	0mm	Ant 5	ECI 2		656000	3840	1	17.15	18.30	1.303	0.05	0.539	0.702
	FR1 n77	100M	BPSK	135	69	Left Tilted	0mm	Ant 5	ECI 2		656000	3840	1	17.13	18.30	1.309	-0.17	0.669	0.876
	FR1 n77	100M	BPSK	270	0	Left Tilted	0mm	Ant 5	ECI 2		656000	3840	1	17.10	18.30	1.318	-0.16	0.669	0.882
	FR1 n77	100M	BPSK	1	1	Right Cheek	0mm	Ant 1	ECI 2		656000	3840	1	17.67	19.00	1.358	0.16	0.046	0.062
	FR1 n77	100M	BPSK	135	69	Right Cheek	0mm	Ant 1	ECI 2		656000	3840	1	17.57	19.00	1.39	0.07	0.083	0.115
	FR1 n77	100M	BPSK	1	1	Right Tilted	0mm	Ant 1	ECI 2		656000	3840	1	17.67	19.00	1.358	0.14	0.060	0.081
	FR1 n77	100M	BPSK	135	69	Right Tilted	0mm	Ant 1	ECI 2		656000	3840	1	17.57	19.00	1.39	0.03	0.076	0.106



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FR1 n77	100M	BPSK	1	1	Left Cheek	0mm	Ant 1	ECI 2		656000	3840	1	17.67	19.00	1.358	0.12	0.076	0.103
FR1 n77	100M	BPSK	135	69	Left Cheek	0mm	Ant 1	ECI 2		656000	3840	1	17.57	19.00	1.39	0.03	0.112	0.156
FR1 n77	100M	BPSK	135	69	Left Cheek	0mm	Ant 1	ECI 2		656000	3840	2	17.57	19.00	1.39	0.03	0.110	0.153
FR1 n77	100M	BPSK	135	69	Left Cheek	0mm	Ant 1	ECI 2		656000	3840	3	17.57	19.00	1.39	0.07	0.104	0.145
FR1 n77	100M	BPSK	1	1	Left Tilted	0mm	Ant 1	ECI 2		656000	3840	1	17.67	19.00	1.358	0.10	0.037	0.050
FR1 n77	100M	BPSK	135	69	Left Tilted	0mm	Ant 1	ECI 2		656000	3840	1	17.57	19.00	1.39	0.11	0.038	0.053
FR1 n77	100M	BPSK	1	1	Right Cheek	0mm	Ant 8	ECI 2		656000	3840	1	22.19	23.00	1.205	-0.13	0.289	0.348
FR1 n77	100M	BPSK	135	69	Right Cheek	0mm	Ant 8	ECI 2		656000	3840	1	22.16	23.00	1.213	-0.03	0.335	0.406
FR1 n77	100M	BPSK	1	1	Right Tilted	0mm	Ant 8	ECI 2		656000	3840	1	22.19	23.00	1.205	0.16	0.222	0.268
FR1 n77	100M	BPSK	135	69	Right Tilted	0mm	Ant 8	ECI 2		656000	3840	1	22.16	23.00	1.213	-0.17	0.244	0.296
FR1 n77	100M	BPSK	1	1	Left Cheek	0mm	Ant 8	ECI 2		656000	3840	1	22.19	23.00	1.205	-0.13	0.605	0.729
FR1 n77	100M	BPSK	135	69	Left Cheek	0mm	Ant 8	ECI 2		656000	3840	1	22.16	23.00	1.213	-0.03	0.666	0.808
FR1 n77	100M	BPSK	135	69	Left Cheek	0mm	Ant 8	ECI 2		656000	3840	2	22.16	23.00	1.213	0.05	0.660	0.801
FR1 n77	100M	BPSK	135	69	Left Cheek	0mm	Ant 8	ECI 2		656000	3840	3	22.16	23.00	1.213	0.02	0.663	0.804
FR1 n77	100M	BPSK	270	0	Left Cheek	0mm	Ant 8	ECI 2		656000	3840	1	21.66	22.50	1.213	0.14	0.617	0.749
FR1 n77	100M	BPSK	1	1	Left Tilted	0mm	Ant 8	ECI 2		656000	3840	1	22.19	23.00	1.205	0.02	0.274	0.330
FR1 n77	100M	BPSK	135	69	Left Tilted	0mm	Ant 8	ECI 2		656000	3840	1	22.16	23.00	1.213	0.01	0.264	0.320
FR1 n77	100M	BPSK	1	1	Right Cheek	0mm	Ant 2	ECI 2		656000	3840	1	19.23	20.00	1.194	-0.04	0.050	0.060
FR1 n77	100M	BPSK	135	69	Right Cheek	0mm	Ant 2	ECI 2		656000	3840	1	19.16	20.00	1.213	0.03	0.067	0.081
FR1 n77	100M	BPSK	135	69	Right Cheek	0mm	Ant 2	ECI 2		656000	3840	2	19.16	20.00	1.213	0.01	0.063	0.076
FR1 n77	100M	BPSK	135	69	Right Cheek	0mm	Ant 2	ECI 2		656000	3840	3	19.16	20.00	1.213	0.18	0.057	0.069
FR1 n77	100M	BPSK	1	1	Right Tilted	0mm	Ant 2	ECI 2		656000	3840	1	19.23	20.00	1.194	0.04	0.001	0.001
FR1 n77	100M	BPSK	135	69	Right Tilted	0mm	Ant 2	ECI 2		656000	3840	1	19.16	20.00	1.213	0.11	0.049	0.059
FR1 n77	100M	BPSK	1	1	Left Cheek	0mm	Ant 2	ECI 2		656000	3840	1	19.23	20.00	1.194	0.18	0.050	0.060
FR1 n77	100M	BPSK	135	69	Left Cheek	0mm	Ant 2	ECI 2		656000	3840	1	19.16	20.00	1.213	-0.03	0.058	0.070
FR1 n77	100M	BPSK	1	1	Left Tilted	0mm	Ant 2	ECI 2		656000	3840	1	19.23	20.00	1.194	0.16	0.029	0.035
FR1 n77	100M	BPSK	135	69	Left Tilted	0mm	Ant 2	ECI 2		656000	3840	1	19.16	20.00	1.213	-0.09	0.043	0.052



【WLAN 2.4GHz_5GHz SAR】

Plot No	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 6	Head Standalone	1	2412	1	18.64	20.00	1.368	100.0	1.0	0.07	0.314	0.429
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 6	Head Standalone	1	2412	1	18.64	20.00	1.368	100.0	1.0	-0.03	0.317	0.433
22	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 6	Head Standalone	1	2412	1	18.64	20.00	1.368	100.0	1.0	-0.11	0.877	1.200
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 6	Head Standalone	1	2412	2	18.64	20.00	1.368	100.0	1.0	0.1	0.860	1.176
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 6	Head Standalone	1	2412	3	18.64	20.00	1.368	100.0	1.0	0.19	0.828	1.133
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 6	Head Standalone	6	2437	1	17.16	18.50	1.361	100.0	1.0	0.18	0.600	0.817
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 6	Head Standalone	11	2462	1	17.00	18.50	1.413	100.0	1.0	0.12	0.586	0.828
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 6	Head Simultaneous	1	2412	1	13.64	15.00	1.368	100.0	1.0	0.03	0.282	0.386
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 6	Head Standalone	1	2412	1	18.64	20.00	1.368	100.0	1.0	0.15	0.580	0.794
	WLAN5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 6	Head Standalone	54	5270	1	15.64	16.50	1.219	94.92	1.054	-0.10	0.559	0.718
	WLAN5GHz	802.11n-HT40 MCS0	Right Tilted	0mm	Ant 6	Head Standalone	54	5270	1	15.64	16.50	1.219	94.92	1.054	0.12	0.639	0.821
	WLAN5GHz	802.11n-HT40 MCS0	Right Tilted	0mm	Ant 6	Head Standalone	62	5310	1	13.16	14.5	1.361	94.92	1.054	0.02	0.610	0.875
	WLAN5GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 6	Head Standalone	54	5270	1	15.64	16.50	1.219	94.92	1.054	0.08	0.829	1.066
	WLAN5GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 6	Head Standalone	62	5310	1	13.16	14.5	1.361	94.92	1.054	0.04	0.738	1.059
23	WLAN5GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 6	Head Standalone	54	5270	1	15.64	16.50	1.219	94.92	1.054	0.05	0.836	1.074
	WLAN5GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 6	Head Standalone	54	5270	2	15.64	16.50	1.219	94.92	1.054	-0.06	0.442	0.568
	WLAN5GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 6	Head Standalone	54	5270	3	15.64	16.50	1.219	94.92	1.054	0.02	0.459	0.59
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 6	Head Simultaneous	58	5290	1	11.18	12.00	1.208	84.27	1.187	0.06	0.273	0.391
	WLAN5GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 6	Head Standalone	62	5310	1	13.16	14.5	1.361	94.92	1.054	0.08	0.726	1.041
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 6	Head Standalone	122	5610	1	15.83	17.00	1.309	84.27	1.187	0.17	0.461	0.717
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 6	Head Standalone	122	5610	1	15.83	17.00	1.309	84.27	1.187	0.09	0.519	0.806
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 6	Head Standalone	138	5690	1	15.63	17.00	1.371	84.27	1.187	-0.15	0.507	0.825
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 6	Head Standalone	122	5610	1	15.83	17.00	1.309	84.27	1.187	0.03	0.583	0.905
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 6	Head Standalone	138	5690	1	15.63	17.00	1.371	84.27	1.187	0.11	0.550	0.894
24	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 6	Head Standalone	122	5610	1	15.83	17.00	1.309	84.27	1.187	0.09	0.664	1.032
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 6	Head Standalone	122	5610	2	15.83	17.00	1.309	84.27	1.187	0.05	0.412	0.64
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 6	Head Standalone	122	5610	3	15.83	17.00	1.309	84.27	1.187	0.01	0.329	0.511
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 6	Head Standalone	138	5690	1	15.63	17.00	1.371	84.27	1.187	0.07	0.600	0.977
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 6	Head Simultaneous	122	5610	1	11.83	13.00	1.309	84.27	1.187	0.06	0.256	0.398
	WLAN5GHz	802.11a 6Mbps	Right Cheek	0mm	Ant 6	Head Standalone	149	5745	1	17.24	19.00	1.5	97.46	1.026	0.10	0.513	0.789
	WLAN5GHz	802.11a 6Mbps	Right Tilted	0mm	Ant 6	Head Standalone	149	5745	1	17.24	19.00	1.5	97.46	1.026	0.07	0.597	0.918
	WLAN5GHz	802.11a 6Mbps	Right Tilted	0mm	Ant 6	Head Standalone	157	5785	1	17.19	19.00	1.517	97.46	1.026	0.03	0.585	0.911
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	Ant 6	Head Standalone	149	5745	1	17.24	19.00	1.5	97.46	1.026	-0.01	0.594	0.914
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	Ant 6	Head Standalone	157	5785	1	17.19	19.00	1.517	97.46	1.026	0.03	0.583	0.907
25	WLAN5GHz	802.11a 6Mbps	Left Tilted	0mm	Ant 6	Head Standalone	149	5745	1	17.24	19.00	1.5	97.46	1.026	0.01	0.674	1.037
	WLAN5GHz	802.11a 6Mbps	Left Tilted	0mm	Ant 6	Head Standalone	149	5745	2	17.24	19.00	1.5	97.46	1.026	-0.05	0.667	1.027
	WLAN5GHz	802.11a 6Mbps	Left Tilted	0mm	Ant 6	Head Standalone	149	5745	3	17.24	19.00	1.5	97.46	1.026	0.04	0.556	0.856
	WLAN5GHz	802.11a 6Mbps	Left Tilted	0mm	Ant 6	Head Standalone	157	5785	1	17.19	19.00	1.517	97.46	1.026	-0.02	0.645	1.003
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 6	Head Simultaneous	155	5775	1	12.72	14.50	1.507	84.27	1.187	0.06	0.222	0.397

【Bluetooth SAR】

Plot No	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	Bluetooth	1Mbps	Right Cheek	0mm	Ant 6	Full Power	78	2480	1	13.86	15.00	1.3	76.94	1.083	-0.06	0.054	0.076
	Bluetooth	1Mbps	Right Tilted	0mm	Ant 6	Full Power	78	2480	1	13.86	15.00	1.3	76.94	1.083	0.06	0.050	0.070
26	Bluetooth	1Mbps	Left Cheek	0mm	Ant 6	Full Power	78	2480	1	13.86	15.00	1.3	76.94	1.083	0.11	0.152	0.214
	Bluetooth	1Mbps	Left Tilted	0mm	Ant 6	Full Power	78	2480	1	13.86	15.00	1.3	76.94	1.083	-0.02	0.104	0.147

16.2 Hotspot SAR

【GSM SAR】

Plot No	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
27	GSM850	GPRS 4 Tx slots	Front	5mm	Ant 0	ECI 7	189	836.4	1	27.04	27.90	1.219	-0.17	0.638	0.778
	GSM850	GPRS 4 Tx slots	Back	5mm	Ant 0	ECI 7	189	836.4	1	27.04	27.90	1.219	0.01	1.040	1.268
	GSM850	GPRS 4 Tx slots	Back	5mm	Ant 0	ECI 7	128	824.2	1	26.95	27.90	1.245	0.11	0.958	1.193
	GSM850	GPRS 4 Tx slots	Back	5mm	Ant 0	ECI 7	251	848.8	1	26.99	27.90	1.233	-0.14	0.958	1.181
	GSM850	GPRS 4 Tx slots	Left Side	5mm	Ant 0	ECI 7	189	836.4	1	27.04	27.90	1.219	0.08	0.197	0.240
	GSM850	GPRS 4 Tx slots	Right Side	5mm	Ant 0	ECI 7	189	836.4	1	27.04	27.90	1.219	-0.02	0.520	0.634
	GSM850	GPRS 4 Tx slots	Top Side	5mm	Ant 0	ECI 7	189	836.4	1	27.04	27.90	1.219	-0.13	0.001	0.001
	GSM850	GPRS 4 Tx slots	Bottom Side	5mm	Ant 0	ECI 7	189	836.4	1	27.04	27.90	1.219	0.08	0.698	0.851
	GSM850	GPRS 4 Tx slots	Bottom Side	5mm	Ant 0	ECI 7	128	824.2	1	26.95	27.90	1.245	-0.18	0.599	0.745
	GSM850	GPRS 4 Tx slots	Bottom Side	5mm	Ant 0	ECI 7	251	848.8	1	26.99	27.90	1.233	-0.15	0.619	0.763
	GSM1900	GPRS 4 Tx slots	Front	5mm	Ant 0	ECI 7	661	1880	1	20.66	21.60	1.242	0.09	0.361	0.448
	GSM1900	GPRS 4 Tx slots	Back	5mm	Ant 0	ECI 7	661	1880	1	20.66	21.60	1.242	0.15	0.730	0.906
	GSM1900	GPRS 4 Tx slots	Back	5mm	Ant 0	ECI 7	512	1850.2	1	20.62	21.60	1.253	0.10	0.818	1.025
	GSM1900	GPRS 4 Tx slots	Back	5mm	Ant 0	ECI 7	810	1909.8	1	20.60	21.60	1.259	0.00	0.810	1.019
	GSM1900	GPRS 4 Tx slots	Left Side	5mm	Ant 0	ECI 7	661	1880	1	20.66	21.60	1.242	-0.03	0.055	0.069
	GSM1900	GPRS 4 Tx slots	Right Side	5mm	Ant 0	ECI 7	661	1880	1	20.66	21.60	1.242	-0.14	0.050	0.062
	GSM1900	GPRS 4 Tx slots	Top Side	5mm	Ant 0	ECI 7	661	1880	1	20.66	21.60	1.242	-0.05	0.001	0.001
	GSM1900	GPRS 4 Tx slots	Bottom Side	5mm	Ant 0	ECI 7	661	1880	1	20.66	21.60	1.242	-0.13	0.921	1.144
	GSM1900	GPRS 4 Tx slots	Bottom Side	5mm	Ant 0	ECI 7	512	1850.2	1	20.62	21.60	1.253	0.06	1.010	1.266
	GSM1900	GPRS 4 Tx slots	Bottom Side	5mm	Ant 0	ECI 7	512	1850.2	2	20.62	21.60	1.253	0.03	1.000	1.253
28	GSM1900	GPRS 4 Tx slots	Bottom Side	5mm	Ant 0	ECI 7	512	1850.2	3	20.62	21.60	1.253	0.07	0.859	1.076
	GSM1900	GPRS 4 Tx slots	Bottom Side	5mm	Ant 0	ECI 7	810	1909.8	1	20.60	21.60	1.259	0.01	0.999	1.257

【WCDMA SAR】

Plot No	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
29	WCDMA II	RMC 12.2Kbps	Front	5mm	Ant 0	ECI 7	9400	1880	1	17.71	19.00	1.346	-0.14	0.449	0.604
	WCDMA II	RMC 12.2Kbps	Back	5mm	Ant 0	ECI 7	9400	1880	1	17.71	19.00	1.346	-0.04	0.952	1.281
	WCDMA II	RMC 12.2Kbps	Back	5mm	Ant 0	ECI 7	9262	1852.4	1	17.67	19.00	1.358	0.07	0.893	1.213
	WCDMA II	RMC 12.2Kbps	Back	5mm	Ant 0	ECI 7	9538	1907.6	1	17.68	19.00	1.355	0.14	0.759	1.029
	WCDMA II	RMC 12.2Kbps	Left Side	5mm	Ant 0	ECI 7	9400	1880	1	17.71	19.00	1.346	-0.02	0.069	0.093
	WCDMA II	RMC 12.2Kbps	Right Side	5mm	Ant 0	ECI 7	9400	1880	1	17.71	19.00	1.346	-0.10	0.069	0.093
	WCDMA II	RMC 12.2Kbps	Top Side	5mm	Ant 0	ECI 7	9400	1880	1	17.71	19.00	1.346	0.15	0.009	0.012
	WCDMA II	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	ECI 7	9400	1880	1	17.71	19.00	1.346	0.09	0.920	1.238
	WCDMA II	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	ECI 7	9262	1852.4	1	17.67	19.00	1.358	-0.01	0.908	1.233
	WCDMA II	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	ECI 7	9538	1907.6	1	17.68	19.00	1.355	-0.03	0.850	1.152
	WCDMA IV	RMC 12.2Kbps	Front	5mm	Ant 0	ECI 7	1413	1732.6	1	17.00	18.20	1.318	-0.08	0.437	0.575
	WCDMA IV	RMC 12.2Kbps	Back	5mm	Ant 0	ECI 7	1413	1732.6	1	17.00	18.20	1.318	0.07	0.965	1.272
	WCDMA IV	RMC 12.2Kbps	Back	5mm	Ant 0	ECI 7	1312	1712.4	1	16.92	18.20	1.343	-0.15	0.895	1.202
	WCDMA IV	RMC 12.2Kbps	Back	5mm	Ant 0	ECI 7	1513	1752.6	1	16.93	18.20	1.34	-0.02	0.834	1.117
	WCDMA IV	RMC 12.2Kbps	Left Side	5mm	Ant 0	ECI 7	1413	1732.6	1	17.00	18.20	1.318	0.18	0.052	0.069
	WCDMA IV	RMC 12.2Kbps	Right Side	5mm	Ant 0	ECI 7	1413	1732.6	1	17.00	18.20	1.318	0.04	0.136	0.179
	WCDMA IV	RMC 12.2Kbps	Top Side	5mm	Ant 0	ECI 7	1413	1732.6	1	17.00	18.20	1.318	-0.03	0.009	0.012
	WCDMA IV	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	ECI 7	1413	1732.6	1	17.00	18.20	1.318	0.09	0.980	1.292
	WCDMA IV	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	ECI 7	1413	1732.6	2	17.00	18.20	1.318	0.08	0.723	0.953
	WCDMA IV	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	ECI 7	1413	1732.6	3	17.00	18.20	1.318	0.02	0.702	0.925
30	WCDMA IV	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	ECI 7	1312	1712.4	1	16.92	18.20	1.343	0.02	0.943	1.267
	WCDMA IV	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	ECI 7	1513	1752.6	1	16.93	18.20	1.34	-0.09	0.918	1.231
	WCDMA V	RMC 12.2Kbps	Front	5mm	Ant 0	ECI 7	4182	836.4	1	22.99	24.00	1.262	0.03	0.549	0.693
	WCDMA V	RMC 12.2Kbps	Back	5mm	Ant 0	ECI 7	4182	836.4	1	22.99	24.00	1.262	0.06	0.946	1.194
	WCDMA V	RMC 12.2Kbps	Back	5mm	Ant 0	ECI 7	4132	826.4	1	22.91	24.00	1.285	0.18	0.948	1.219
	WCDMA V	RMC 12.2Kbps	Back	5mm	Ant 0	ECI 7	4233	846.6	1	22.89	24.00	1.291	0.08	0.948	1.224
	WCDMA V	RMC 12.2Kbps	Left Side	5mm	Ant 0	ECI 7	4182	836.4	1	22.99	24.00	1.262	-0.10	0.179	0.225
	WCDMA V	RMC 12.2Kbps	Right Side	5mm	Ant 0	ECI 7	4182	836.4	1	22.99	24.00	1.262	0.02	0.415	0.524
	WCDMA V	RMC 12.2Kbps	Top Side	5mm	Ant 0	ECI 7	4182	836.4	1	22.99	24.00	1.262	-0.07	0.001	0.001
	WCDMA V	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	ECI 7	4182	836.4	1	22.99	24.00	1.262	0.13	0.735	0.928
31	WCDMA V	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	ECI 7	4132	826.4	1	22.91	24.00	1.285	-0.18	0.667	0.857
	WCDMA V	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	ECI 7	4233	846.6	1	22.89	24.00	1.291	-0.15	0.701	0.905



【FDD LTE SAR】

Plot No	Band	BW	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	Power State	PA Note	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 2	20M	QPSK	1	0	Front	5mm	Ant 0	ECI 7-1	PA (Reference Designator)	18900	1880	1	15.60	17.00	1.38	0.18	0.262	0.362
	LTE Band 2	20M	QPSK	50	0	Front	5mm	Ant 0	ECI 7-1	PA (Reference Designator)	18900	1880	1	15.58	17.00	1.387	0.12	0.210	0.291
	LTE Band 2	20M	QPSK	1	0	Back	5mm	Ant 0	ECI 7-1	PA (Reference Designator)	18900	1880	1	15.60	17.00	1.38	0.01	0.506	0.699
	LTE Band 2	20M	QPSK	50	0	Back	5mm	Ant 0	ECI 7-1	PA (Reference Designator)	18900	1880	1	15.58	17.00	1.387	0.12	0.397	0.551
	LTE Band 2	20M	QPSK	1	0	Left Side	5mm	Ant 0	ECI 7-1	PA (Reference Designator)	18900	1880	1	15.60	17.00	1.38	0.07	0.040	0.055
	LTE Band 2	20M	QPSK	50	0	Left Side	5mm	Ant 0	ECI 7-1	PA (Reference Designator)	18900	1880	1	15.58	17.00	1.387	-0.01	0.032	0.044
	LTE Band 2	20M	QPSK	1	0	Right Side	5mm	Ant 0	ECI 7-1	PA (Reference Designator)	18900	1880	1	15.60	17.00	1.38	0.08	0.036	0.050
	LTE Band 2	20M	QPSK	50	0	Right Side	5mm	Ant 0	ECI 7-1	PA (Reference Designator)	18900	1880	1	15.58	17.00	1.387	0.10	0.029	0.041
	LTE Band 2	20M	QPSK	1	0	Top Side	5mm	Ant 0	ECI 7-1	PA (Reference Designator)	18900	1880	1	15.60	17.00	1.38	0.18	0.005	0.007
	LTE Band 2	20M	QPSK	50	0	Top Side	5mm	Ant 0	ECI 7-1	PA (Reference Designator)	18900	1880	1	15.58	17.00	1.387	-0.14	0.001	0.001
	LTE Band 2	20M	QPSK	1	0	Bottom Side	5mm	Ant 0	ECI 7-1	PA (Reference Designator)	18900	1880	1	15.60	17.00	1.38	0.01	0.585	0.807
32	LTE Band 2	20M	QPSK	1	0	Bottom Side	5mm	Ant 0	ECI 7-1	PA (Reference Designator)	18700	1860	1	15.45	17.00	1.429	0.07	0.587	0.839
	LTE Band 2C	20M	QPSK	1	0	Bottom Side	5mm	Ant 0	ECI 7-1	PA (Reference Designator)	18700+18898	1860+1879.8	1	15.48	17	1.419	0.03	0.550	0.78
	LTE Band 2	20M	QPSK	1	0	Bottom Side	5mm	Ant 0	ECI 7-1	PA (Reference Designator)	19100	1900	1	15.23	17.00	1.503	0.15	0.537	0.808
	LTE Band 2	20M	QPSK	50	0	Bottom Side	5mm	Ant 0	ECI 7-1	PA (Reference Designator)	18900	1880	1	15.58	17.00	1.387	-0.02	0.465	0.645
	LTE Band 2	20M	QPSK	100	0	Bottom Side	5mm	Ant 0	ECI 7-1	PA (Reference Designator)	18900	1880	1	15.47	17.00	1.422	-0.02	0.463	0.658
	LTE Band 7	20M	QPSK	1	0	Front	5mm	Ant 4	ECI 7		21100	2535	1	14.54	15.60	1.276	-0.15	0.172	0.219
	LTE Band 7	20M	QPSK	50	0	Front	5mm	Ant 4	ECI 7		21100	2535	1	14.55	15.60	1.274	0.12	0.133	0.170
	LTE Band 7	20M	QPSK	1	0	Back	5mm	Ant 4	ECI 7		21100	2535	1	14.54	15.60	1.276	0.07	0.438	0.559
	LTE Band 7	20M	QPSK	50	0	Back	5mm	Ant 4	ECI 7		21100	2535	1	14.55	15.60	1.274	-0.07	0.400	0.510
	LTE Band 7	20M	QPSK	1	0	Left Side	5mm	Ant 4	ECI 7		21100	2535	1	14.54	15.60	1.276	-0.14	0.115	0.146
	LTE Band 7	20M	QPSK	50	0	Left Side	5mm	Ant 4	ECI 7		21100	2535	1	14.55	15.60	1.274	-0.08	0.083	0.105
	LTE Band 7	20M	QPSK	1	0	Right Side	5mm	Ant 4	ECI 7		21100	2535	1	14.54	15.60	1.276	0.05	0.001	0.001
	LTE Band 7	20M	QPSK	50	0	Right Side	5mm	Ant 4	ECI 7		21100	2535	1	14.55	15.60	1.274	-0.01	0.001	0.001
	LTE Band 7	20M	QPSK	1	0	Top Side	5mm	Ant 4	ECI 7		21100	2535	1	14.54	15.60	1.276	0.08	0.482	0.615
	LTE Band 7	20M	QPSK	50	0	Top Side	5mm	Ant 4	ECI 7		21100	2535	1	14.55	15.60	1.274	-0.12	0.399	0.508
	LTE Band 7	20M	QPSK	1	0	Bottom Side	5mm	Ant 4	ECI 7		21100	2535	1	14.54	15.60	1.276	-0.01	0.012	0.015
	LTE Band 7	20M	QPSK	50	0	Bottom Side	5mm	Ant 4	ECI 7		21100	2535	1	14.55	15.60	1.274	-0.02	0.009	0.012
	LTE Band 7	20M	QPSK	1	0	Front	5mm	Ant 1	ECI 7		21100	2535	1	16.86	18.30	1.393	-0.09	0.693	0.965
	LTE Band 7	20M	QPSK	1	0	Front	5mm	Ant 1	ECI 7		20850	2510	1	16.80	18.30	1.413	-0.13	0.642	0.907
	LTE Band 7	20M	QPSK	1	0	Front	5mm	Ant 1	ECI 7		21350	2560	1	16.81	18.30	1.409	0.01	0.691	0.973
	LTE Band 7	20M	QPSK	50	0	Front	5mm	Ant 1	ECI 7		21100	2535	1	16.82	18.30	1.406	-0.12	0.558	0.785
	LTE Band 7	20M	QPSK	100	0	Front	5mm	Ant 1	ECI 7		21100	2535	1	16.82	18.30	1.406	-0.08	0.535	0.752
	LTE Band 7	20M	QPSK	1	0	Back	5mm	Ant 1	ECI 7		21100	2535	1	16.86	18.30	1.393	-0.07	0.891	1.241
	LTE Band 7	20M	QPSK	1	0	Back	5mm	Ant 1	ECI 7		20850	2510	1	16.80	18.30	1.413	0.07	0.809	1.144
33	LTE Band 7	20M	QPSK	1	0	Back	5mm	Ant 1	ECI 7		21350	2560	1	16.81	18.30	1.409	-0.14	0.914	1.288
	LTE Band 7C	20M	QPSK	1	0	Back	5mm	Ant 1	ECI 7		21350+21152	2560+2540.2	1	16.72	18.3	1.439	0.03	0.813	1.17
	LTE Band 7	20M	QPSK	50	0	Back	5mm	Ant 1	ECI 7		21100	2535	1	16.82	18.30	1.406	0.03	0.709	0.997
	LTE Band 7	20M	QPSK	50	0	Back	5mm	Ant 1	ECI 7		20850	2510	1	16.78	18.30	1.419	-0.06	0.656	0.931
	LTE Band 7	20M	QPSK	50	0	Back	5mm	Ant 1	ECI 7		21350	2560	1	16.77	18.30	1.422	0.02	0.730	1.038
	LTE Band 7	20M	QPSK	100	0	Back	5mm	Ant 1	ECI 7		21100	2535	1	16.82	18.30	1.406	-0.14	0.707	0.994
	LTE Band 7	20M	QPSK	1	0	Left Side	5mm	Ant 1	ECI 7		21100	2535	1	16.86	18.30	1.393	0.16	0.251	0.350
	LTE Band 7	20M	QPSK	50	0	Left Side	5mm	Ant 1	ECI 7		21100	2535	1	16.82	18.30	1.406	-0.13	0.200	0.282
	LTE Band 7	20M	QPSK	1	0	Right Side	5mm	Ant 1	ECI 7		21100	2535	1	16.86	18.30	1.393	0.11	0.067	0.093
	LTE Band 7	20M	QPSK	50	0	Right Side	5mm	Ant 1	ECI 7		21100	2535	1	16.82	18.30	1.406	0.17	0.052	0.073
	LTE Band 7	20M	QPSK	1	0	Top Side	5mm	Ant 1	ECI 7		21100	2535	1	16.86	18.30	1.393	-0.04	0.034	0.047
	LTE Band 7	20M	QPSK	50	0	Top Side	5mm	Ant 1	ECI 7		21100	2535	1	16.82	18.30	1.406	0.15	0.026	0.037
	LTE Band 7	20M	QPSK	1	0	Bottom Side	5mm	Ant 1	ECI 7		21100	2535	1	16.86	18.30	1.393	-0.18	0.570	0.794
	LTE Band 7	20M	QPSK	50	0	Bottom Side	5mm	Ant 1	ECI 7		21100	2535	1	16.82	18.30	1.406	-0.05	0.447	0.628
	LTE Band 12	10M	QPSK	1	0	Front	5mm	Ant 0	ECI 7		23095	707.5	1	22.66	24.00	1.361	0.10	0.458	0.623
	LTE Band 12	10M	QPSK	25	0	Front	5mm	Ant 0	ECI 7		23095	707.5	1	21.58	23.00	1.387	0.11	0.357	0.496
34	LTE Band 12	10M	QPSK	1	0	Back	5mm	Ant 0	ECI 7		23095	707.5	1	22.66	24.00	1.361	0.09	0.841	1.145
	LTE Band 12	10M	QPSK	25	0	Back	5mm	Ant 0	ECI 7		23095	707.5	1	21.58	23.00	1.387	0.14	0.710	0.985
	LTE Band 12	10M	QPSK	50	0	Back	5mm	Ant 0	ECI 7		23095	707.5	1	21.46	23.00	1.426	0.13	0.733	1.046
	LTE Band 12	10M	QPSK	1	0	Left Side	5mm	Ant 0	ECI 7		23095	707.5	1	22.66	24.00	1.361	0.09	0.286	0.389
	LTE Band 12	10M	QPSK	25	0	Left Side	5mm	Ant 0	ECI 7		23095	707.5	1	21.58	23.00	1.387	0.02	0.224	0.311
	LTE Band 12	10M	QPSK	1	0	Right Side	5mm	Ant 0	ECI 7		23095	707.5	1	22.66	24.00	1.361	0.02	0.710	0.966
	LTE Band 12	10M	QPSK	25	0	Right Side	5mm	Ant 0	ECI 7		23095	707.5	1	21.58	23.00	1.387	-0.01	0.548	0.760
	LTE Band 12	10M	QPSK	50	0	Right Side	5mm	Ant 0	ECI 7		23095	707.5	1	21.46	23.00	1.426	0.17	0.566	0.808
	LTE Band 12	10M	QPSK	1	0	Top Side	5mm	Ant 0	ECI 7		23095	707.5	1	22.66	24.00	1.361	-0.08	0.001	0.002
	LTE Band 12	10M	QPSK	25	0	Top Side	5mm	Ant 0	ECI 7		23095	707.5	1	21.58	23.00	1.387	-0.05	0.001	0.002
	LTE Band 12	10M	QPSK	1	0	Bottom Side	5mm	Ant 0	ECI 7		23095	707.5	1	22.66	24.00	1.361	0.03	0.764	1.039
	LTE Band 12	10M	QPSK	25	0	Bottom Side	5mm	Ant 0	ECI 7		23095	707.5	1	21.58	23.00	1.387	-0.03	0.593	0.823
	LTE Band 12	10M	QPSK	50	0	Bottom Side	5mm	Ant 0	ECI 7		23095	707.5	1	21.46	23.00	1.426	0.02	0.611	0.871
	LTE Band 12	10M	QPSK	1	0	Front	5mm	Ant 4	ECI 7		23095	707.5	1	22.18	23.00	1.208	0.15	0.163	0.197
	LTE Band 12	10M	QPSK	25	0	Front	5mm	Ant 4	ECI 7		23095	707.5	1	21.15	22.00	1.216	0.01	0.146	0.177
	LTE Band 12	10M	QPSK	1	0	Back	5mm	Ant 4	ECI 7		23095	707.5	1	22.18	23.00	1.208	-0.02	0.326	0.394



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	LTE Band 12	10M	QPSK	25	0	Back	5mm	Ant 4	ECI 7		23095	707.5	1	21.15	22.00	1.216	-0.10	0.286	0.348
	LTE Band 12	10M	QPSK	1	0	Left Side	5mm	Ant 4	ECI 7		23095	707.5	1	22.18	23.00	1.208	0.14	0.151	0.182
	LTE Band 12	10M	QPSK	25	0	Left Side	5mm	Ant 4	ECI 7		23095	707.5	1	21.15	22.00	1.216	0.00	0.123	0.150
	LTE Band 12	10M	QPSK	1	0	Right Side	5mm	Ant 4	ECI 7		23095	707.5	1	22.18	23.00	1.208	-0.15	0.092	0.111
	LTE Band 12	10M	QPSK	25	0	Right Side	5mm	Ant 4	ECI 7		23095	707.5	1	21.15	22.00	1.216	-0.15	0.073	0.089
	LTE Band 12	10M	QPSK	1	0	Top Side	5mm	Ant 4	ECI 7		23095	707.5	1	22.18	23.00	1.208	0.17	0.322	0.389
	LTE Band 12	10M	QPSK	25	0	Top Side	5mm	Ant 4	ECI 7		23095	707.5	1	21.15	22.00	1.216	0.11	0.238	0.289
	LTE Band 12	10M	QPSK	1	0	Bottom Side	5mm	Ant 4	ECI 7		23095	707.5	1	22.18	23.00	1.208	0.18	0.001	0.002
	LTE Band 12	10M	QPSK	25	0	Bottom Side	5mm	Ant 4	ECI 7		23095	707.5	1	21.15	22.00	1.216	-0.05	0.001	0.002
	LTE Band 13	10M	QPSK	1	0	Front	5mm	Ant 0	ECI 7		23230	782	1	22.39	24.00	1.449	-0.19	0.463	0.671
	LTE Band 13	10M	QPSK	25	0	Front	5mm	Ant 0	ECI 7		23230	782	1	21.39	23.00	1.449	-0.04	0.377	0.546
35	LTE Band 13	10M	QPSK	1	0	Back	5mm	Ant 0	ECI 7		23230	782	1	22.39	24.00	1.449	0.05	0.807	1.169
	LTE Band 13	10M	QPSK	1	0	Back	5mm	Ant 0	ECI 7		23230	782	2	22.39	24.00	1.449	0.03	0.748	1.084
	LTE Band 13	10M	QPSK	1	0	Back	5mm	Ant 0	ECI 7		23230	782	3	22.39	24.00	1.449	0.08	0.625	0.906
	LTE Band 13	10M	QPSK	25	0	Back	5mm	Ant 0	ECI 7		23230	782	1	21.39	23.00	1.449	-0.06	0.714	1.034
	LTE Band 13	10M	QPSK	50	0	Back	5mm	Ant 0	ECI 7		23230	782	1	21.31	23.00	1.476	0.05	0.704	1.040
	LTE Band 13	10M	QPSK	1	0	Left Side	5mm	Ant 0	ECI 7		23230	782	1	22.39	24.00	1.449	-0.18	0.260	0.377
	LTE Band 13	10M	QPSK	25	0	Left Side	5mm	Ant 0	ECI 7		23230	782	1	21.39	23.00	1.449	0.18	0.210	0.304
	LTE Band 13	10M	QPSK	1	0	Right Side	5mm	Ant 0	ECI 7		23230	782	1	22.39	24.00	1.449	0.11	0.587	0.851
	LTE Band 13	10M	QPSK	25	0	Right Side	5mm	Ant 0	ECI 7		23230	782	1	21.39	23.00	1.449	-0.05	0.486	0.704
	LTE Band 13	10M	QPSK	50	0	Right Side	5mm	Ant 0	ECI 7		23230	782	1	21.31	23.00	1.476	0.06	0.485	0.716
	LTE Band 13	10M	QPSK	1	0	Top Side	5mm	Ant 0	ECI 7		23230	782	1	22.39	24.00	1.449	-0.07	0.001	0.002
	LTE Band 13	10M	QPSK	25	0	Top Side	5mm	Ant 0	ECI 7		23230	782	1	21.39	23.00	1.449	-0.05	0.001	0.002
	LTE Band 13	10M	QPSK	1	0	Bottom Side	5mm	Ant 0	ECI 7		23230	782	1	22.39	24.00	1.449	0.18	0.722	1.046
	LTE Band 13	10M	QPSK	25	0	Bottom Side	5mm	Ant 0	ECI 7		23230	782	1	21.39	23.00	1.449	0.16	0.598	0.866
	LTE Band 13	10M	QPSK	50	0	Bottom Side	5mm	Ant 0	ECI 7		23230	782	1	21.31	23.00	1.476	-0.19	0.584	0.863
	LTE Band 25	20M	QPSK	1	0	Front	5mm	Ant 0	ECI 7		26340	1880	1	15.57	17.00	1.39	0.18	0.412	0.572
	LTE Band 25	20M	QPSK	50	0	Front	5mm	Ant 0	ECI 7		26340	1880	1	15.53	17.00	1.403	0.05	0.330	0.463
	LTE Band 25	20M	QPSK	1	0	Back	5mm	Ant 0	ECI 7		26340	1880	1	15.57	17.00	1.39	0.10	0.796	1.107
	LTE Band 25	20M	QPSK	1	0	Back	5mm	Ant 0	ECI 7		26140	1860	1	15.54	17.00	1.4	-0.11	0.780	1.092
	LTE Band 25	20M	QPSK	1	0	Back	5mm	Ant 0	ECI 7		26590	1905	1	15.53	17.00	1.403	-0.03	0.706	0.991
	LTE Band 25	20M	QPSK	50	0	Back	5mm	Ant 0	ECI 7		26340	1880	1	15.53	17.00	1.403	-0.04	0.625	0.877
	LTE Band 25	20M	QPSK	50	0	Back	5mm	Ant 0	ECI 7		26140	1860	1	15.48	17.00	1.419	-0.06	0.620	0.879
	LTE Band 25	20M	QPSK	50	0	Back	5mm	Ant 0	ECI 7		26590	1905	1	15.49	17.00	1.416	0.09	0.571	0.809
	LTE Band 25	20M	QPSK	100	0	Back	5mm	Ant 0	ECI 7		26340	1880	1	15.51	17.00	1.409	-0.01	0.623	0.878
	LTE Band 25	20M	QPSK	1	0	Left Side	5mm	Ant 0	ECI 7		26340	1880	1	15.57	17.00	1.39	0.15	0.063	0.088
	LTE Band 25	20M	QPSK	50	0	Left Side	5mm	Ant 0	ECI 7		26340	1880	1	15.53	17.00	1.403	-0.13	0.050	0.070
	LTE Band 25	20M	QPSK	1	0	Right Side	5mm	Ant 0	ECI 7		26340	1880	1	15.57	17.00	1.39	0.18	0.057	0.079
	LTE Band 25	20M	QPSK	50	0	Right Side	5mm	Ant 0	ECI 7		26340	1880	1	15.53	17.00	1.403	-0.17	0.046	0.065
	LTE Band 25	20M	QPSK	1	0	Top Side	5mm	Ant 0	ECI 7		26340	1880	1	15.57	17.00	1.39	0.07	0.008	0.012
	LTE Band 25	20M	QPSK	50	0	Top Side	5mm	Ant 0	ECI 7		26340	1880	1	15.53	17.00	1.403	0.16	0.001	0.001
	LTE Band 25	20M	QPSK	1	0	Bottom Side	5mm	Ant 0	ECI 7		26340	1880	1	15.57	17.00	1.39	-0.01	0.920	1.278
36	LTE Band 25	20M	QPSK	1	0	Bottom Side	5mm	Ant 0	ECI 7		26140	1860	1	15.54	17.00	1.4	-0.06	0.923	1.292
	LTE Band 25	20M	QPSK	1	0	Bottom Side	5mm	Ant 0	ECI 7		26590	1905	1	15.53	17.00	1.403	-0.12	0.845	1.185
	LTE Band 25	20M	QPSK	50	0	Bottom Side	5mm	Ant 0	ECI 7		26340	1880	1	15.53	17.00	1.403	0.14	0.731	1.026
	LTE Band 25	20M	QPSK	50	0	Bottom Side	5mm	Ant 0	ECI 7		26140	1860	1	15.48	17.00	1.419	0.11	0.718	1.019
	LTE Band 25	20M	QPSK	50	0	Bottom Side	5mm	Ant 0	ECI 7		26590	1905	1	15.49	17.00	1.416	-0.03	0.661	0.937
	LTE Band 25	20M	QPSK	100	0	Bottom Side	5mm	Ant 0	ECI 7		26340	1880	1	15.51	17.00	1.409	-0.14	0.728	1.026
	LTE Band 25	20M	QPSK	1	0	Front	5mm	Ant 4	ECI 7		26340	1880	1	15.65	16.70	1.274	-0.05	0.223	0.284
	LTE Band 25	20M	QPSK	50	0	Front	5mm	Ant 4	ECI 7		26340	1880	1	15.62	16.70	1.282	0.01	0.179	0.229
	LTE Band 25	20M	QPSK	1	0	Back	5mm	Ant 4	ECI 7		26340	1880	1	15.65	16.70	1.274	-0.06	0.340	0.433
	LTE Band 25	20M	QPSK	50	0	Back	5mm	Ant 4	ECI 7		26340	1880	1	15.62	16.70	1.282	-0.13	0.269	0.345
	LTE Band 25	20M	QPSK	1	0	Left Side	5mm	Ant 4	ECI 7		26340	1880	1	15.65	16.70	1.274	0.10	0.035	0.045
	LTE Band 25	20M	QPSK	50	0	Left Side	5mm	Ant 4	ECI 7		26340	1880	1	15.62	16.70	1.282	0.16	0.028	0.036
	LTE Band 25	20M	QPSK	1	0	Right Side	5mm	Ant 4	ECI 7		26340	1880	1	15.65	16.70	1.274	0.19	0.021	0.027
	LTE Band 25	20M	QPSK	50	0	Right Side	5mm	Ant 4	ECI 7		26340	1880	1	15.62	16.70	1.282	0.18	0.016	0.021
	LTE Band 25	20M	QPSK	1	0	Top Side	5mm	Ant 4	ECI 7		26340	1880	1	15.65	16.70	1.274	0.01	0.486	0.619
	LTE Band 25	20M	QPSK	50	0	Top Side	5mm	Ant 4	ECI 7		26340	1880	1	15.62	16.70	1.282	-0.12	0.386	0.495
	LTE Band 25	20M	QPSK	1	0	Bottom Side	5mm	Ant 4	ECI 7		26340	1880	1	15.65	16.70	1.274	-0.00	0.009	0.011
	LTE Band 25	20M	QPSK	50	0	Bottom Side	5mm	Ant 4	ECI 7		26340	1880	1	15.62	16.70	1.282	0.03	0.001	0.001
	LTE Band 26	15M	QPSK	1	0	Front	5mm	Ant 0	ECI 7		26865	831.5	1	22.38	24.00	1.452	0.10	0.596	0.866
	LTE Band 26	15M	QPSK	36	0	Front	5mm	Ant 0	ECI 7		26865	831.5	1	21.24	23.00	1.5	-0.07	0.464	0.696
	LTE Band 26	15M	QPSK	75	0	Front	5mm	Ant 0	ECI 7		26865	831.5	1	21.25	23.00	1.496	0.10	0.455	0.681
37	LTE Band 26	15M	QPSK	1	0	Back	5mm	Ant 0	ECI 7		26865	831.5	1	22.38	24.00	1.452	0.10	0.846	1.228
	LTE Band 26	15M	QPSK	36	0	Back	5mm	Ant 0	ECI 7		26865	831.5	1	21.24	23.00	1.5	0.13	0.818	1.227
	LTE Band 26	15M	QPSK	75	0	Back	5mm	Ant 0	ECI 7		26865	831.5	1	21.25	23.00	1.496	0.18	0.820	1.227
	LTE Band 26	15M	QPSK	1	0	Back	5mm	Ant 0	ECI 7-1	PA (Reference Designator)	26865	831.5	1	22.67	24.00	1.358	0.06	0.405	0.550
	LTE Band 26	15M	QPSK	1	0	Left Side	5mm	Ant 0	ECI 7		26865	831.5	1	22.38	24.00	1.452	0.03	0.202	0.293
	LTE Band 26	15M	QPSK	36	0	Left Side	5mm	Ant 0	ECI 7		26865	831.5	1	21.24	23.00	1.5	-0.16	0.157	0.236
	LTE Band 26	15M	QPSK	1	0	Right Side	5mm	Ant 0	ECI 7		26865	831.5	1	22.38	24.00	1.452	0.06	0.423	0.614
	LTE Band 26	15M	QPSK	36	0	Right Side	5mm	Ant 0	ECI 7		26865	831.5	1	21.24	23.00	1.5	-0.14	0.330	0.494
	LTE Band 26	15M	QPSK	1	0	Top Side	5mm	Ant 0	ECI 7		26865	831.5	1	22.38	24.00	1.452	-0.11	0.001	0.002
	LTE Band 26	15M	QPSK	36	0	Top Side	5mm	Ant 0	ECI 7		26865	831.5	1	21.24	23.00	1.5	0.03	0.001	0.002
	LTE Band 26	15M	QPSK	1	0	Bottom Side	5mm	Ant 0	ECI 7		26865	831.5	1	22.38	24.00	1.452	-0.16	0.724	1.051



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	LTE Band 26	15M	QPSK	36	0	Bottom Side	5mm	Ant 0	ECI 7		26865	831.5	1	21.24	23.00	1.5	0.12	0.547	0.820
	LTE Band 26	15M	QPSK	75	0	Bottom Side	5mm	Ant 0	ECI 7		26865	831.5	1	21.25	23.00	1.496	-0.05	0.544	0.813
	LTE Band 26	15M	QPSK	1	0	Front	5mm	Ant 4	ECI 7		26865	831.5	1	19.33	20.10	1.194	-0.09	0.255	0.305
	LTE Band 26	15M	QPSK	36	0	Front	5mm	Ant 4	ECI 7		26865	831.5	1	19.31	20.10	1.199	0.16	0.201	0.241
	LTE Band 26	15M	QPSK	1	0	Back	5mm	Ant 4	ECI 7		26865	831.5	1	19.33	20.10	1.194	0.07	0.525	0.627
	LTE Band 26	15M	QPSK	1	0	Back	5mm	Ant 4	ECI 7		26865	831.5	2	19.33	20.10	1.194	-0.03	0.343	0.41
	LTE Band 26	15M	QPSK	1	0	Back	5mm	Ant 4	ECI 7		26865	831.5	3	19.33	20.10	1.194	0.08	0.352	0.42
	LTE Band 26	15M	QPSK	36	0	Back	5mm	Ant 4	ECI 7		26865	831.5	1	19.31	20.10	1.199	-0.11	0.410	0.491
	LTE Band 26	15M	QPSK	1	0	Left Side	5mm	Ant 4	ECI 7		26865	831.5	1	19.33	20.10	1.194	0.18	0.067	0.080
	LTE Band 26	15M	QPSK	36	0	Left Side	5mm	Ant 4	ECI 7		26865	831.5	1	19.31	20.10	1.199	-0.18	0.052	0.062
	LTE Band 26	15M	QPSK	1	0	Right Side	5mm	Ant 4	ECI 7		26865	831.5	1	19.33	20.10	1.194	-0.06	0.056	0.067
	LTE Band 26	15M	QPSK	36	0	Right Side	5mm	Ant 4	ECI 7		26865	831.5	1	19.31	20.10	1.199	-0.16	0.045	0.053
	LTE Band 26	15M	QPSK	1	0	Top Side	5mm	Ant 4	ECI 7		26865	831.5	1	19.33	20.10	1.194	0.02	0.314	0.375
	LTE Band 26	15M	QPSK	36	0	Top Side	5mm	Ant 4	ECI 7		26865	831.5	1	19.31	20.10	1.199	-0.07	0.243	0.292
	LTE Band 26	15M	QPSK	1	0	Bottom Side	5mm	Ant 4	ECI 7		26865	831.5	1	19.33	20.10	1.194	0.05	0.001	0.001
	LTE Band 26	15M	QPSK	36	0	Bottom Side	5mm	Ant 4	ECI 7		26865	831.5	1	19.31	20.10	1.199	-0.05	0.001	0.001

Plot No	Band	BW	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	Power State	PA Note	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 66	20M	QPSK	1	0	Front	5mm	Ant 0	ECI 7		132322	1745	1	15.94	17.40	1.4	0.07	0.403	0.565
	LTE Band 66	20M	QPSK	50	0	Front	5mm	Ant 0	ECI 7		132322	1745	1	15.90	17.40	1.413	0.00	0.319	0.451
	LTE Band 66	20M	QPSK	1	0	Back	5mm	Ant 0	ECI 7		132322	1745	1	15.94	17.40	1.4	0.05	0.817	1.144
	LTE Band 66	20M	QPSK	1	0	Back	5mm	Ant 0	ECI 7		132072	1720	1	15.92	17.40	1.406	0.11	0.828	1.164
	LTE Band 66	20M	QPSK	1	0	Back	5mm	Ant 0	ECI 7		132572	1770	1	15.93	17.40	1.403	0.06	0.636	0.893
	LTE Band 66	20M	QPSK	50	0	Back	5mm	Ant 0	ECI 7		132322	1745	1	15.90	17.40	1.413	-0.08	0.647	0.914
	LTE Band 66	20M	QPSK	50	0	Back	5mm	Ant 0	ECI 7		132072	1720	1	15.88	17.40	1.419	0.07	0.663	0.941
	LTE Band 66	20M	QPSK	50	0	Back	5mm	Ant 0	ECI 7		132572	1770	1	15.86	17.40	1.426	0.16	0.514	0.734
	LTE Band 66	20M	QPSK	100	0	Back	5mm	Ant 0	ECI 7		132322	1745	1	15.91	17.40	1.409	-0.15	0.642	0.904
	LTE Band 66	20M	QPSK	1	0	Left Side	5mm	Ant 0	ECI 7		132322	1745	1	15.94	17.40	1.4	-0.15	0.048	0.067
	LTE Band 66	20M	QPSK	50	0	Left Side	5mm	Ant 0	ECI 7		132322	1745	1	15.90	17.40	1.413	-0.09	0.038	0.053
	LTE Band 66	20M	QPSK	1	0	Right Side	5mm	Ant 0	ECI 7		132322	1745	1	15.94	17.40	1.4	-0.17	0.118	0.165
	LTE Band 66	20M	QPSK	50	0	Right Side	5mm	Ant 0	ECI 7		132322	1745	1	15.90	17.40	1.413	0.03	0.091	0.129
	LTE Band 66	20M	QPSK	1	0	Top Side	5mm	Ant 0	ECI 7		132322	1745	1	15.94	17.40	1.4	0.14	0.009	0.012
	LTE Band 66	20M	QPSK	50	0	Top Side	5mm	Ant 0	ECI 7		132322	1745	1	15.90	17.40	1.413	-0.09	0.001	0.001
38	LTE Band 66	20M	QPSK	1	0	Bottom Side	5mm	Ant 0	ECI 7		132322	1745	1	15.94	17.40	1.4	0.08	0.907	1.270
	LTE Band 66C	20M	QPSK	1	0	Bottom Side	5mm	Ant 0	ECI 7		132322+132124	1745+1725.2	1	15.79	17.4	1.449	0.04	0.736	1.066
	LTE Band 66	20M	QPSK	1	0	Bottom Side	5mm	Ant 0	ECI 7		132072	1720	1	15.92	17.40	1.406	-0.08	0.878	1.235
	LTE Band 66	20M	QPSK	1	0	Bottom Side	5mm	Ant 0	ECI 7		132572	1770	1	15.93	17.40	1.403	-0.04	0.769	1.079
	LTE Band 66	20M	QPSK	50	0	Bottom Side	5mm	Ant 0	ECI 7		132322	1745	1	15.90	17.40	1.413	0.12	0.717	1.013
	LTE Band 66	20M	QPSK	50	0	Bottom Side	5mm	Ant 0	ECI 7		132072	1720	1	15.88	17.40	1.419	0.06	0.706	1.002
	LTE Band 66	20M	QPSK	50	0	Bottom Side	5mm	Ant 0	ECI 7		132572	1770	1	15.86	17.40	1.426	-0.08	0.608	0.867
	LTE Band 66	20M	QPSK	100	0	Bottom Side	5mm	Ant 0	ECI 7		132322	1745	1	15.91	17.40	1.409	-0.13	0.712	1.003
	LTE Band 66	20M	QPSK	1	0	Bottom Side	5mm	Ant 0	ECI 7-1	PA (Reference Designator)	132322	1745	1	15.79	17.40	1.449	0.08	0.490	0.710
	LTE Band 66	20M	QPSK	1	0	Front	5mm	Ant 4	ECI 7		132322	1745	1	16.02	16.70	1.169	-0.18	0.320	0.374
	LTE Band 66	20M	QPSK	50	0	Front	5mm	Ant 4	ECI 7		132322	1745	1	15.96	16.70	1.186	0.13	0.254	0.302
	LTE Band 66	20M	QPSK	1	0	Back	5mm	Ant 4	ECI 7		132322	1745	1	16.02	16.70	1.169	-0.03	0.403	0.471
	LTE Band 66	20M	QPSK	50	0	Back	5mm	Ant 4	ECI 7		132322	1745	1	15.96	16.70	1.186	0.07	0.314	0.372
	LTE Band 66	20M	QPSK	1	0	Left Side	5mm	Ant 4	ECI 7		132322	1745	1	16.02	16.70	1.169	0.03	0.070	0.082
	LTE Band 66	20M	QPSK	50	0	Left Side	5mm	Ant 4	ECI 7		132322	1745	1	15.96	16.70	1.186	-0.06	0.054	0.065
	LTE Band 66	20M	QPSK	1	0	Right Side	5mm	Ant 4	ECI 7		132322	1745	1	16.02	16.70	1.169	-0.03	0.036	0.042
	LTE Band 66	20M	QPSK	50	0	Right Side	5mm	Ant 4	ECI 7		132322	1745	1	15.96	16.70	1.186	-0.15	0.029	0.035
	LTE Band 66	20M	QPSK	1	0	Top Side	5mm	Ant 4	ECI 7		132322	1745	1	16.02	16.70	1.169	-0.05	0.528	0.617
	LTE Band 66	20M	QPSK	50	0	Top Side	5mm	Ant 4	ECI 7		132322	1745	1	15.96	16.70	1.186	-0.13	0.409	0.485
	LTE Band 66	20M	QPSK	1	0	Top Side	5mm	Ant 4	ECI 7-1	PA (Reference Designator)	132322	1745	1	15.99	16.70	1.178	0.05	0.237	0.279
	LTE Band 66	20M	QPSK	1	0	Bottom Side	5mm	Ant 4	ECI 7		132322	1745	1	16.02	16.70	1.169	0.05	0.015	0.017
	LTE Band 66	20M	QPSK	50	0	Bottom Side	5mm	Ant 4	ECI 7		132322	1745	1	15.96	16.70	1.186	-0.09	0.012	0.015



【TDD LTE SAR】

Plot No	Band	BW	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	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)
39	LTE Band 38	20M	QPSK	1	0	Front	5mm	Ant 1	ECI 7	38000	2595	1	17.96	19.10	1.3	62.9	1.006	-0.10	0.806	1.054
	LTE Band 38	20M	QPSK	50	0	Front	5mm	Ant 1	ECI 7	38000	2595	1	17.94	19.10	1.306	62.9	1.006	-0.11	0.582	0.765
	LTE Band 38	20M	QPSK	100	0	Front	5mm	Ant 1	ECI 7	38000	2595	1	17.89	19.10	1.321	62.9	1.006	0.17	0.627	0.833
	LTE Band 38	20M	QPSK	1	0	Back	5mm	Ant 1	ECI 7	38000	2595	1	17.96	19.10	1.3	62.9	1.006	-0.18	0.991	1.296
	LTE Band 38	20M	QPSK	1	0	Back	5mm	Ant 1	ECI 7	38000	2595	2	17.96	19.10	1.3	62.9	1.006	0.06	0.702	0.918
	LTE Band 38	20M	QPSK	1	0	Back	5mm	Ant 1	ECI 7	38000	2595	3	17.96	19.10	1.3	62.9	1.006	0.08	0.868	1.135
	LTE Band 38	20M	QPSK	50	0	Back	5mm	Ant 1	ECI 7	38000	2595	1	17.94	19.10	1.306	62.9	1.006	0.12	0.745	0.978
	LTE Band 38	20M	QPSK	100	0	Back	5mm	Ant 1	ECI 7	38000	2595	1	17.89	19.10	1.321	62.9	1.006	0.11	0.806	1.071
	LTE Band 38	20M	QPSK	1	0	Left Side	5mm	Ant 1	ECI 7	38000	2595	1	17.96	19.10	1.3	62.9	1.006	-0.05	0.320	0.419
	LTE Band 38	20M	QPSK	50	0	Left Side	5mm	Ant 1	ECI 7	38000	2595	1	17.94	19.10	1.306	62.9	1.006	-0.10	0.253	0.332
	LTE Band 38	20M	QPSK	1	0	Right Side	5mm	Ant 1	ECI 7	38000	2595	1	17.96	19.10	1.3	62.9	1.006	-0.12	0.083	0.109
	LTE Band 38	20M	QPSK	50	0	Right Side	5mm	Ant 1	ECI 7	38000	2595	1	17.94	19.10	1.306	62.9	1.006	-0.09	0.074	0.098
40	LTE Band 38	20M	QPSK	1	0	Top Side	5mm	Ant 1	ECI 7	38000	2595	1	17.96	19.10	1.3	62.9	1.006	-0.12	0.029	0.037
	LTE Band 38	20M	QPSK	50	0	Top Side	5mm	Ant 1	ECI 7	38000	2595	1	17.94	19.10	1.306	62.9	1.006	-0.15	0.022	0.029
	LTE Band 38	20M	QPSK	1	0	Bottom Side	5mm	Ant 1	ECI 7	38000	2595	1	17.96	19.10	1.3	62.9	1.006	0.01	0.638	0.835
	LTE Band 38	20M	QPSK	50	0	Bottom Side	5mm	Ant 1	ECI 7	38000	2595	1	17.94	19.10	1.306	62.9	1.006	-0.12	0.463	0.608
	LTE Band 38	20M	QPSK	100	0	Bottom Side	5mm	Ant 1	ECI 7	38000	2595	1	17.89	19.10	1.321	62.9	1.006	-0.05	0.466	0.620
	LTE Band 41	20M	QPSK	1	0	Front	5mm	Ant 4	ECI 7	40620	2593	1	16.72	18.20	1.406	62.9	1.006	0.16	0.150	0.213
	LTE Band 41	20M	QPSK	50	0	Front	5mm	Ant 4	ECI 7	40620	2593	1	16.68	18.20	1.419	62.9	1.006	0.16	0.118	0.169
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant 4	ECI 7	40620	2593	1	16.72	18.20	1.406	62.9	1.006	0.11	0.449	0.635
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant 4	ECI 7	39750	2506	1	16.62	18.20	1.439	62.9	1.006	-0.18	0.326	0.471
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant 4	ECI 7	40185	2549.5	1	16.62	18.20	1.439	62.9	1.006	-0.18	0.324	0.469
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant 4	ECI 7	41055	2636.5	1	16.62	18.20	1.439	62.9	1.006	0.01	0.464	0.672
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant 4	ECI 7	41055	2636.5	2	16.62	18.20	1.439	62.9	1.006	0.06	0.458	0.663
41	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant 4	ECI 7	41055	2636.5	3	16.62	18.20	1.439	62.9	1.006	0.08	0.448	0.649
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant 4	ECI 7	41490	2680	1	16.70	18.20	1.413	62.9	1.006	-0.17	0.442	0.628
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant 4	ECI 7	40620	2593	1	16.68	18.20	1.419	62.9	1.006	-0.14	0.315	0.450
	LTE Band 41	20M	QPSK	1	0	Left Side	5mm	Ant 4	ECI 7	40620	2593	1	16.72	18.20	1.406	62.9	1.006	0.10	0.103	0.145
	LTE Band 41	20M	QPSK	50	0	Left Side	5mm	Ant 4	ECI 7	40620	2593	1	16.68	18.20	1.419	62.9	1.006	0.19	0.081	0.115
	LTE Band 41	20M	QPSK	1	0	Right Side	5mm	Ant 4	ECI 7	40620	2593	1	16.72	18.20	1.406	62.9	1.006	-0.09	0.001	0.001
	LTE Band 41	20M	QPSK	50	0	Right Side	5mm	Ant 4	ECI 7	40620	2593	1	16.68	18.20	1.419	62.9	1.006	0.02	0.001	0.001
	LTE Band 41	20M	QPSK	1	0	Top Side	5mm	Ant 4	ECI 7	40620	2593	1	16.72	18.20	1.406	62.9	1.006	0.01	0.330	0.466
	LTE Band 41	20M	QPSK	50	0	Top Side	5mm	Ant 4	ECI 7	40620	2593	1	16.68	18.20	1.419	62.9	1.006	0.16	0.258	0.369
	LTE Band 41	20M	QPSK	1	0	Bottom Side	5mm	Ant 4	ECI 7	40620	2593	1	16.72	18.20	1.406	62.9	1.006	-0.11	0.011	0.015
	LTE Band 41	20M	QPSK	50	0	Bottom Side	5mm	Ant 4	ECI 7	40620	2593	1	16.68	18.20	1.419	62.9	1.006	-0.18	0.008	0.011
	LTE Band 42	20M	QPSK	1	0	Front	5mm	Ant 5	ECI 7	42590	3500	1	13.86	15.40	1.426	62.9	1.006	-0.09	0.147	0.211
41	LTE Band 42	20M	QPSK	50	0	Front	5mm	Ant 5	ECI 7	42590	3500	1	13.82	15.40	1.439	62.9	1.006	-0.09	0.117	0.169
	LTE Band 42	20M	QPSK	1	0	Back	5mm	Ant 5	ECI 7	42590	3500	1	13.86	15.40	1.426	62.9	1.006	-0.09	0.436	0.625
	LTE Band 42C	20M	QPSK	1	0	Back	5mm	Ant 5	ECI 7	42590+3500+427883519.8	3500	1	13.73	15.4	1.469	62.9	1.006	0.01	0.410	0.606
	LTE Band 42	20M	QPSK	1	0	Back	5mm	Ant 5	ECI 7	42590	3500	2	13.86	15.40	1.426	62.9	1.006	0.03	0.429	0.615
	LTE Band 42	20M	QPSK	1	0	Back	5mm	Ant 5	ECI 7	42590	3500	3	13.86	15.40	1.426	62.9	1.006	0.06	0.422	0.605
	LTE Band 42	20M	QPSK	50	0	Back	5mm	Ant 5	ECI 7	42590	3500	1	13.82	15.40	1.439	62.9	1.006	-0.15	0.344	0.498
	LTE Band 42	20M	QPSK	1	0	Left Side	5mm	Ant 5	ECI 7	42590	3500	1	13.86	15.40	1.426	62.9	1.006	-0.12	0.009	0.013
	LTE Band 42	20M	QPSK	50	0	Left Side	5mm	Ant 5	ECI 7	42590	3500	1	13.82	15.40	1.439	62.9	1.006	-0.02	0.007	0.010
	LTE Band 42	20M	QPSK	1	0	Right Side	5mm	Ant 5	ECI 7	42590	3500	1	13.86	15.40	1.426	62.9	1.006	0.03	0.040	0.057
	LTE Band 42	20M	QPSK	50	0	Right Side	5mm	Ant 5	ECI 7	42590	3500	1	13.82	15.40	1.439	62.9	1.006	-0.08	0.031	0.046
	LTE Band 42	20M	QPSK	1	0	Top Side	5mm	Ant 5	ECI 7	42590	3500	1	13.86	15.40	1.426	62.9	1.006	0.16	0.296	0.425
	LTE Band 42	20M	QPSK	50	0	Top Side	5mm	Ant 5	ECI 7	42590	3500	1	13.82	15.40	1.439	62.9	1.006	-0.09	0.233	0.338
	LTE Band 42	20M	QPSK	1	0	Bottom Side	5mm	Ant 5	ECI 7	42590	3500	1	13.86	15.40	1.426	62.9	1.006	0.07	0.007	0.010
	LTE Band 42	20M	QPSK	50	0	Bottom Side	5mm	Ant 5	ECI 7	42590	3500	1	13.82	15.40	1.439	62.9	1.006	0.16	0.005	0.007



【FR1 SAR】

Plot No	Band	BW	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	Power State	PA Note	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	FR1 n2	40M	BPSK	1	1	Front	5mm	Ant 0	ECI 7		376000	1880	1	16.31	17.10	1.199	0.06	0.513	0.615
	FR1 n2	40M	BPSK	108	54	Front	5mm	Ant 0	ECI 7		376000	1880	1	16.30	17.10	1.202	-0.10	0.491	0.590
	FR1 n2	40M	BPSK	1	1	Back	5mm	Ant 0	ECI 7		376000	1880	1	16.31	17.10	1.199	0.17	0.996	1.194
	FR1 n2	40M	BPSK	108	54	Back	5mm	Ant 0	ECI 7		376000	1880	1	16.30	17.10	1.202	0.05	0.982	1.180
	FR1 n2	40M	BPSK	216	0	Back	5mm	Ant 0	ECI 7		376000	1880	1	16.24	17.10	1.219	-0.14	0.921	1.123
	FR1 n2	40M	BPSK	1	1	Left Side	5mm	Ant 0	ECI 7		376000	1880	1	16.31	17.10	1.199	-0.08	0.074	0.089
	FR1 n2	40M	BPSK	108	54	Left Side	5mm	Ant 0	ECI 7		376000	1880	1	16.30	17.10	1.202	-0.08	0.073	0.088
	FR1 n2	40M	BPSK	1	1	Right Side	5mm	Ant 0	ECI 7		376000	1880	1	16.31	17.10	1.199	0.01	0.078	0.093
	FR1 n2	40M	BPSK	108	54	Right Side	5mm	Ant 0	ECI 7		376000	1880	1	16.30	17.10	1.202	0.11	0.075	0.090
	FR1 n2	40M	BPSK	1	1	Top Side	5mm	Ant 0	ECI 7		376000	1880	1	16.31	17.10	1.199	0.05	0.001	0.001
	FR1 n2	40M	BPSK	108	54	Top Side	5mm	Ant 0	ECI 7		376000	1880	1	16.30	17.10	1.202	0.03	0.001	0.001
	FR1 n2	40M	BPSK	1	1	Bottom Side	5mm	Ant 0	ECI 7		376000	1880	1	16.31	17.10	1.199	0.18	1.030	1.235
42	FR1 n2	40M	BPSK	108	54	Bottom Side	5mm	Ant 0	ECI 7		376000	1880	1	16.30	17.10	1.202	0.19	1.070	1.286
	FR1 n2	40M	BPSK	216	0	Bottom Side	5mm	Ant 0	ECI 7		376000	1880	1	16.24	17.10	1.219	-0.15	1.010	1.231
	FR1 n2	40M	BPSK	108	54	Bottom Side	5mm	Ant 0	ECI 7-1	PA (Reference Designator)	376000	1880	1	16.20	17.10	1.23	-0.01	0.586	0.721
	FR1 n2	40M	BPSK	1	1	Front	5mm	Ant 4	ECI 7		376000	1880	1	17.08	17.90	1.208	0.17	0.278	0.336
	FR1 n2	40M	BPSK	108	54	Front	5mm	Ant 4	ECI 7		376000	1880	1	17.04	17.90	1.219	-0.08	0.317	0.387
	FR1 n2	40M	BPSK	1	1	Back	5mm	Ant 4	ECI 7		376000	1880	1	17.08	17.90	1.208	0.13	0.405	0.489
	FR1 n2	40M	BPSK	108	54	Back	5mm	Ant 4	ECI 7		376000	1880	1	17.04	17.90	1.219	0.02	0.427	0.521
	FR1 n2	40M	BPSK	1	1	Left Side	5mm	Ant 4	ECI 7		376000	1880	1	17.08	17.90	1.208	0.11	0.060	0.072
	FR1 n2	40M	BPSK	108	54	Left Side	5mm	Ant 4	ECI 7		376000	1880	1	17.04	17.90	1.219	0.12	0.064	0.078
	FR1 n2	40M	BPSK	1	1	Right Side	5mm	Ant 4	ECI 7		376000	1880	1	17.08	17.90	1.208	0.19	0.036	0.043
	FR1 n2	40M	BPSK	108	54	Right Side	5mm	Ant 4	ECI 7		376000	1880	1	17.04	17.90	1.219	-0.08	0.044	0.054
	FR1 n2	40M	BPSK	1	1	Top Side	5mm	Ant 4	ECI 7		376000	1880	1	17.08	17.90	1.208	-0.08	0.487	0.589
	FR1 n2	40M	BPSK	108	54	Top Side	5mm	Ant 4	ECI 7		376000	1880	1	17.04	17.90	1.219	0.10	0.511	0.623
	FR1 n2	40M	BPSK	108	54	Top Side	5mm	Ant 4	ECI 7-1	PA (Reference Designator)	376000	1880	1	16.98	17.90	1.236	0.01	0.294	0.363
	FR1 n2	40M	BPSK	1	1	Bottom Side	5mm	Ant 4	ECI 7		376000	1880	1	17.08	17.90	1.208	-0.07	0.001	0.001
	FR1 n2	40M	BPSK	108	54	Bottom Side	5mm	Ant 4	ECI 7		376000	1880	1	17.04	17.90	1.219	0.05	0.001	0.001
	FR1 n7	50M	BPSK	1	1	Front	5mm	Ant 4	ECI 7		507000	2535	1	14.25	15.50	1.334	-0.12	0.171	0.228
	FR1 n7	50M	BPSK	135	68	Front	5mm	Ant 4	ECI 7		507000	2535	1	14.24	15.50	1.337	0.11	0.147	0.196
	FR1 n7	50M	BPSK	1	1	Back	5mm	Ant 4	ECI 7		507000	2535	1	14.25	15.50	1.334	0.10	0.471	0.628
	FR1 n7	50M	BPSK	135	68	Back	5mm	Ant 4	ECI 7		507000	2535	1	14.24	15.50	1.337	0.00	0.411	0.549
	FR1 n7	50M	BPSK	1	1	Left Side	5mm	Ant 4	ECI 7		507000	2535	1	14.25	15.50	1.334	-0.15	0.120	0.160
	FR1 n7	50M	BPSK	135	68	Left Side	5mm	Ant 4	ECI 7		507000	2535	1	14.24	15.50	1.337	-0.03	0.103	0.138
	FR1 n7	50M	BPSK	1	1	Right Side	5mm	Ant 4	ECI 7		507000	2535	1	14.25	15.50	1.334	0.07	0.001	0.001
	FR1 n7	50M	BPSK	135	68	Right Side	5mm	Ant 4	ECI 7		507000	2535	1	14.24	15.50	1.337	-0.06	0.001	0.001
	FR1 n7	50M	BPSK	1	1	Top Side	5mm	Ant 4	ECI 7		507000	2535	1	14.25	15.50	1.334	0.10	0.420	0.560
	FR1 n7	50M	BPSK	135	68	Top Side	5mm	Ant 4	ECI 7		507000	2535	1	14.24	15.50	1.337	0.08	0.398	0.532
	FR1 n7	50M	BPSK	1	1	Bottom Side	5mm	Ant 4	ECI 7		507000	2535	1	14.25	15.50	1.334	-0.19	0.010	0.013
	FR1 n7	50M	BPSK	135	68	Bottom Side	5mm	Ant 4	ECI 7		507000	2535	1	14.24	15.50	1.337	0.08	0.011	0.015
	FR1 n7	50M	BPSK	1	1	Front	5mm	Ant 1	ECI 7		507000	2535	1	16.79	18.20	1.384	0.01	0.620	0.858
	FR1 n7	50M	BPSK	135	68	Front	5mm	Ant 1	ECI 7		507000	2535	1	16.73	18.20	1.403	-0.09	0.714	1.001
	FR1 n7	50M	BPSK	270	0	Front	5mm	Ant 1	ECI 7		507000	2535	1	16.75	18.20	1.396	0.03	0.671	0.937
	FR1 n7	50M	BPSK	1	1	Back	5mm	Ant 1	ECI 7		507000	2535	1	16.79	18.20	1.384	0.02	0.811	1.122
43	FR1 n7	50M	BPSK	135	68	Back	5mm	Ant 1	ECI 7		507000	2535	1	16.73	18.20	1.403	0.05	0.899	1.261
	FR1 n7	50M	BPSK	270	0	Back	5mm	Ant 1	ECI 7		507000	2535	1	16.75	18.20	1.396	-0.02	0.887	1.238
	FR1 n7	50M	BPSK	1	1	Left Side	5mm	Ant 1	ECI 7		507000	2535	1	16.79	18.20	1.384	0.08	0.275	0.381
	FR1 n7	50M	BPSK	135	68	Left Side	5mm	Ant 1	ECI 7		507000	2535	1	16.73	18.20	1.403	0.00	0.296	0.415
	FR1 n7	50M	BPSK	1	1	Right Side	5mm	Ant 1	ECI 7		507000	2535	1	16.79	18.20	1.384	-0.18	0.063	0.088
	FR1 n7	50M	BPSK	135	68	Right Side	5mm	Ant 1	ECI 7		507000	2535	1	16.73	18.20	1.403	0.05	0.075	0.105
	FR1 n7	50M	BPSK	1	1	Top Side	5mm	Ant 1	ECI 7		507000	2535	1	16.79	18.20	1.384	0.18	0.032	0.044
	FR1 n7	50M	BPSK	135	68	Top Side	5mm	Ant 1	ECI 7		507000	2535	1	16.73	18.20	1.403	0.02	0.034	0.047
	FR1 n7	50M	BPSK	1	1	Bottom Side	5mm	Ant 1	ECI 7		507000	2535	1	16.79	18.20	1.384	0.11	0.480	0.664
	FR1 n7	50M	BPSK	135	68	Bottom Side	5mm	Ant 1	ECI 7		507000	2535	1	16.73	18.20	1.403	0.13	0.498	0.699
	FR1 n26	20M	BPSK	1	1	Front	5mm	Ant 0	ECI 7		166300	831.5	1	22.93	24.00	1.279	-0.14	0.504	0.645
	FR1 n26	20M	BPSK	50	28	Front	5mm	Ant 0	ECI 7		166300	831.5	1	22.95	24.00	1.274	-0.07	0.557	0.710
	FR1 n26	20M	BPSK	1	1	Back	5mm	Ant 0	ECI 7		166300	831.5	1	22.93	24.00	1.279	-0.13	0.964	1.233
44	FR1 n26	20M	BPSK	50	28	Back	5mm	Ant 0	ECI 7		166300	831.5	1	22.95	24.00	1.274	0.02	1.030	1.312
	FR1 n26	20M	BPSK	50	28	Back	5mm	Ant 0	ECI 7		166300	831.5	2	22.95	24.00	1.274	0.08	0.691	0.88
	FR1 n26	20M	BPSK	50	28	Back	5mm	Ant 0	ECI 7		166300	831.5	3	22.95	24.00	1.274	0.03	0.695	0.885
	FR1 n26	20M	BPSK	100	0	Back	5mm	Ant 0	ECI 7		166300	831.5	1	22.55	23.50	1.245	0.10	0.967	1.203
	FR1 n26	20M	BPSK	1	1	Left Side	5mm	Ant 0	ECI 7		166300	831.5	1	22.93	24.00	1.279	-0.10	0.168	0.214
	FR1 n26	20M	BPSK	50	28	Left Side	5mm	Ant 0	ECI 7		166300	831.5	1	22.95	24.00	1.274	0.03	0.157	0.200
	FR1 n26	20M	BPSK	1	1	Right Side	5mm	Ant 0	ECI 7		166300	831.5	1	22.93	24.00	1.279	0.17	0.351	0.449
	FR1 n26	20M	BPSK	50	28	Right Side	5mm	Ant 0	ECI 7		166300	831.5	1	22.95	24.00	1.274	-0.02	0.358	0.456



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	FR1 n26	20M	BPSK	1	1	Top Side	5mm	Ant 0	ECI 7		166300	831.5	1	22.93	24.00	1.279	0.07	0.001	0.002
	FR1 n26	20M	BPSK	50	28	Top Side	5mm	Ant 0	ECI 7		166300	831.5	1	22.95	24.00	1.274	-0.15	0.001	0.002
	FR1 n26	20M	BPSK	1	1	Bottom Side	5mm	Ant 0	ECI 7		166300	831.5	1	22.93	24.00	1.279	-0.04	0.543	0.694
	FR1 n26	20M	BPSK	50	28	Bottom Side	5mm	Ant 0	ECI 7		166300	831.5	1	22.95	24.00	1.274	0.16	0.598	0.762
	FR1 n26	20M	BPSK	1	1	Front	5mm	Ant 4	ECI 7		166300	831.5	1	19.52	20.90	1.374	-0.16	0.196	0.269
	FR1 n26	20M	BPSK	50	28	Front	5mm	Ant 4	ECI 7		166300	831.5	1	19.50	20.90	1.38	0.15	0.237	0.327
	FR1 n26	20M	BPSK	1	1	Back	5mm	Ant 4	ECI 7		166300	831.5	1	19.52	20.90	1.374	0.17	0.392	0.538
	FR1 n26	20M	BPSK	50	28	Back	5mm	Ant 4	ECI 7		166300	831.5	1	19.50	20.90	1.38	0.07	0.451	0.622
	FR1 n26	20M	BPSK	1	1	Left Side	5mm	Ant 4	ECI 7		166300	831.5	1	19.52	20.90	1.374	0.04	0.047	0.065
	FR1 n26	20M	BPSK	50	28	Left Side	5mm	Ant 4	ECI 7		166300	831.5	1	19.50	20.90	1.38	0.14	0.056	0.077
	FR1 n26	20M	BPSK	1	1	Right Side	5mm	Ant 4	ECI 7		166300	831.5	1	19.52	20.90	1.374	0.00	0.050	0.069
	FR1 n26	20M	BPSK	50	28	Right Side	5mm	Ant 4	ECI 7		166300	831.5	1	19.50	20.90	1.38	-0.09	0.056	0.078
	FR1 n26	20M	BPSK	1	1	Top Side	5mm	Ant 4	ECI 7		166300	831.5	1	19.52	20.90	1.374	0.02	0.270	0.371
	FR1 n26	20M	BPSK	50	28	Top Side	5mm	Ant 4	ECI 7		166300	831.5	1	19.50	20.90	1.38	-0.18	0.331	0.457
	FR1 n26	20M	BPSK	1	1	Bottom Side	5mm	Ant 4	ECI 7		166300	831.5	1	19.52	20.90	1.374	-0.16	0.001	0.001
	FR1 n26	20M	BPSK	50	28	Bottom Side	5mm	Ant 4	ECI 7		166300	831.5	1	19.50	20.90	1.38	0.10	0.001	0.001
	FR1 n66	45M	BPSK	1	1	Front	5mm	Ant 0	ECI 7		349000	1745	1	16.17	17.40	1.327	0.09	0.421	0.559
	FR1 n66	45M	BPSK	120	60	Front	5mm	Ant 0	ECI 7		349000	1745	1	16.15	17.40	1.334	-0.15	0.423	0.565
	FR1 n66	45M	BPSK	1	1	Back	5mm	Ant 0	ECI 7		349000	1745	1	16.17	17.40	1.327	0.16	0.887	1.177
	FR1 n66	45M	BPSK	120	60	Back	5mm	Ant 0	ECI 7		349000	1745	1	16.15	17.40	1.334	-0.03	0.859	1.146
	FR1 n66	45M	BPSK	240	0	Back	5mm	Ant 0	ECI 7		349000	1745	1	16.08	17.40	1.355	0.08	0.854	1.158
	FR1 n66	45M	BPSK	1	1	Left Side	5mm	Ant 0	ECI 7		349000	1745	1	16.17	17.40	1.327	-0.03	0.048	0.063
	FR1 n66	45M	BPSK	120	60	Left Side	5mm	Ant 0	ECI 7		349000	1745	1	16.15	17.40	1.334	-0.03	0.044	0.059
	FR1 n66	45M	BPSK	1	1	Right Side	5mm	Ant 0	ECI 7		349000	1745	1	16.17	17.40	1.327	-0.09	0.137	0.182
	FR1 n66	45M	BPSK	120	60	Right Side	5mm	Ant 0	ECI 7		349000	1745	1	16.15	17.40	1.334	-0.13	0.138	0.184
	FR1 n66	45M	BPSK	1	1	Top Side	5mm	Ant 0	ECI 7		349000	1745	1	16.17	17.40	1.327	0.09	0.001	0.001
	FR1 n66	45M	BPSK	120	60	Top Side	5mm	Ant 0	ECI 7		349000	1745	1	16.15	17.40	1.334	-0.19	0.001	0.001
	FR1 n66	45M	BPSK	1	1	Bottom Side	5mm	Ant 0	ECI 7		349000	1745	1	16.17	17.40	1.327	-0.06	0.917	1.217
45	FR1 n66	45M	BPSK	120	60	Bottom Side	5mm	Ant 0	ECI 7		349000	1745	1	16.15	17.40	1.334	0.02	0.962	1.283
	FR1 n66	45M	BPSK	240	0	Bottom Side	5mm	Ant 0	ECI 7		349000	1745	1	16.08	17.40	1.355	0.16	0.872	1.181
	FR1 n66	45M	BPSK	120	60	Bottom Side	5mm	Ant 0	ECI 7-1	PA (Reference Designator)	349000	1745	1	16.03	17.40	1.371	-0.00	0.696	0.954
	FR1 n66	45M	BPSK	1	1	Front	5mm	Ant 4	ECI 7		349000	1745	1	15.24	16.50	1.337	0.17	0.320	0.428
	FR1 n66	45M	BPSK	120	60	Front	5mm	Ant 4	ECI 7		349000	1745	1	15.23	16.50	1.34	-0.10	0.289	0.388
	FR1 n66	45M	BPSK	1	1	Back	5mm	Ant 4	ECI 7		349000	1745	1	15.24	16.50	1.337	-0.01	0.359	0.480
	FR1 n66	45M	BPSK	120	60	Back	5mm	Ant 4	ECI 7		349000	1745	1	15.23	16.50	1.34	0.13	0.359	0.481
	FR1 n66	45M	BPSK	1	1	Left Side	5mm	Ant 4	ECI 7		349000	1745	1	15.24	16.50	1.337	0.13	0.067	0.090
	FR1 n66	45M	BPSK	120	60	Left Side	5mm	Ant 4	ECI 7		349000	1745	1	15.23	16.50	1.34	-0.07	0.072	0.096
	FR1 n66	45M	BPSK	1	1	Right Side	5mm	Ant 4	ECI 7		349000	1745	1	15.24	16.50	1.337	-0.11	0.030	0.040
	FR1 n66	45M	BPSK	120	60	Right Side	5mm	Ant 4	ECI 7		349000	1745	1	15.23	16.50	1.34	0.08	0.029	0.039
	FR1 n66	45M	BPSK	1	1	Top Side	5mm	Ant 4	ECI 7		349000	1745	1	15.24	16.50	1.337	-0.16	0.462	0.618
	FR1 n66	45M	BPSK	120	60	Top Side	5mm	Ant 4	ECI 7		349000	1745	1	15.23	16.50	1.34	0.08	0.465	0.623
	FR1 n66	45M	BPSK	120	60	Top Side	5mm	Ant 4	ECI 7		349000	1745	2	15.23	16.50	1.34	0.03	0.441	0.591
	FR1 n66	45M	BPSK	120	60	Top Side	5mm	Ant 4	ECI 7		349000	1745	3	15.23	16.50	1.34	0.08	0.402	0.539
	FR1 n66	45M	BPSK	120	60	Top Side	5mm	Ant 4	ECI 7-1	PA (Reference Designator)	349000	1745	1	15.18	16.50	1.355	0.06	0.353	0.478
	FR1 n66	45M	BPSK	1	1	Bottom Side	5mm	Ant 4	ECI 7		349000	1745	1	15.24	16.50	1.337	-0.13	0.001	0.001
	FR1 n66	45M	BPSK	120	60	Bottom Side	5mm	Ant 4	ECI 7		349000	1745	1	15.23	16.50	1.34	-0.18	0.001	0.001
	FR1 n41	100M	BPSK	1	1	Front	5mm	Ant 4	ECI 7		518598	2592.99	1	14.77	15.80	1.268	-0.13	0.074	0.094
	FR1 n41	100M	BPSK	135	69	Front	5mm	Ant 4	ECI 7		518598	2592.99	1	14.75	15.80	1.274	0.12	0.160	0.204
	FR1 n41	100M	BPSK	1	1	Back	5mm	Ant 4	ECI 7		518598	2592.99	1	14.77	15.80	1.268	-0.04	0.210	0.266
46	FR1 n41	100M	BPSK	135	69	Back	5mm	Ant 4	ECI 7		518598	2592.99	1	14.75	15.80	1.274	-0.03	0.484	0.617
	FR1 n41	100M	BPSK	1	1	Left Side	5mm	Ant 4	ECI 7		518598	2592.99	1	14.77	15.80	1.268	-0.16	0.040	0.050
	FR1 n41	100M	BPSK	135	69	Left Side	5mm	Ant 4	ECI 7		518598	2592.99	1	14.75	15.80	1.274	0.07	0.100	0.128
	FR1 n41	100M	BPSK	1	1	Right Side	5mm	Ant 4	ECI 7		518598	2592.99	1	14.77	15.80	1.268	0.10	0.001	0.001
	FR1 n41	100M	BPSK	135	69	Right Side	5mm	Ant 4	ECI 7		518598	2592.99	1	14.75	15.80	1.274	0.14	0.007	0.009
	FR1 n41	100M	BPSK	1	1	Top Side	5mm	Ant 4	ECI 7		518598	2592.99	1	14.77	15.80	1.268	0.09	0.214	0.271
	FR1 n41	100M	BPSK	135	69	Top Side	5mm	Ant 4	ECI 7		518598	2592.99	1	14.75	15.80	1.274	-0.06	0.478	0.609
	FR1 n41	100M	BPSK	1	1	Bottom Side	5mm	Ant 4	ECI 7		518598	2592.99	1	14.77	15.80	1.268	0.12	0.005	0.006
	FR1 n41	100M	BPSK	135	69	Bottom Side	5mm	Ant 4	ECI 7		518598	2592.99	1	14.75	15.80	1.274	-0.01	0.011	0.014
	FR1 n77	100M	BPSK	1	1	Front	5mm	Ant 5	ECI 7		656000	3840	1	14.65	15.90	1.334	-0.14	0.306	0.408
	FR1 n77	100M	BPSK	135	69	Front	5mm	Ant 5	ECI 7		656000	3840	1	14.61	15.90	1.346	0.04	0.182	0.245
	FR1 n77	100M	BPSK	1	1	Back	5mm	Ant 5	ECI 7		656000	3840	1	14.65	15.90	1.334	-0.02	0.443	0.591
	FR1 n77	100M	BPSK	135	69	Back	5mm	Ant 5	ECI 7		656000	3840	1	14.61	15.90	1.346	-0.05	0.459	0.618
	FR1 n77	100M	BPSK	135	69	Back	5mm	Ant 5	ECI 7		656000	3840	2	14.61	15.90	1.346	0.06	0.453	0.61
	FR1 n77	100M	BPSK	135	69	Back	5mm	Ant 5	ECI 7		656000	3840	3	14.61	15.90	1.346	0.08	0.449	0.604
	FR1 n77	100M	BPSK	1	1	Left Side	5mm	Ant 5	ECI 7		656000	3840	1	14.65	15.90	1.334	0.00	0.023	0.030
	FR1 n77	100M	BPSK	135	69	Left Side	5mm	Ant 5	ECI 7		656000	3840	1	14.61	15.90	1.346	-0.13	0.016	0.022
	FR1 n77	100M	BPSK	1	1	Right Side	5mm	Ant 5	ECI 7		656000	3840	1	14.65	15.90	1.334	-0.05	0.109	0.146
	FR1 n77	100M	BPSK	135	69	Right Side	5mm	Ant 5	ECI 7		656000	3840	1	14.61	15.90	1.346	-0.15	0.061	0.082
	FR1 n77	100M	BPSK	1	1	Top Side	5mm	Ant 5	ECI 7		656000	3840	1	14.65	15.90	1.334	-0.14	0.454	0.605
	FR1 n77	100M	BPSK	135	69	Top Side	5mm	Ant 5	ECI 7		656000	3840	1	14.61	15.90	1.346	0.09	0.317	0.426
	FR1 n77	100M	BPSK	1	1	Bottom Side	5mm	Ant 5	ECI 7		656000	3840	1	14.65	15.90	1.334	0.10	0.001	0.001



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	FR1 n77	100M	BPSK	135	69	Bottom Side	5mm	Ant 5	ECI 7		656000	3840	1	14.61	15.90	1.346	-0.16	0.001	0.001
	FR1 n77	100M	BPSK	1	1	Front	5mm	Ant 1	ECI 7		656000	3840	1	14.20	15.00	1.202	0.14	0.280	0.336
	FR1 n77	100M	BPSK	135	69	Front	5mm	Ant 1	ECI 7		656000	3840	1	14.11	15.00	1.227	0.15	0.157	0.192
	FR1 n77	100M	BPSK	1	1	Back	5mm	Ant 1	ECI 7		656000	3840	1	14.20	15.00	1.202	-0.10	0.845	1.016
	FR1 n77	100M	BPSK	135	69	Back	5mm	Ant 1	ECI 7		656000	3840	1	14.11	15.00	1.227	0.05	0.442	0.542
	FR1 n77	100M	BPSK	270	0	Back	5mm	Ant 1	ECI 7		656000	3840	1	14.05	15.00	1.245	-0.13	0.784	0.976
	FR1 n77	100M	BPSK	1	1	Left Side	5mm	Ant 1	ECI 7		656000	3840	1	14.20	15.00	1.202	-0.04	0.114	0.137
	FR1 n77	100M	BPSK	135	69	Left Side	5mm	Ant 1	ECI 7		656000	3840	1	14.11	15.00	1.227	0.19	0.088	0.107
	FR1 n77	100M	BPSK	1	1	Right Side	5mm	Ant 1	ECI 7		656000	3840	1	14.20	15.00	1.202	0.19	0.024	0.028
	FR1 n77	100M	BPSK	135	69	Right Side	5mm	Ant 1	ECI 7		656000	3840	1	14.11	15.00	1.227	-0.09	0.001	0.001
	FR1 n77	100M	BPSK	1	1	Top Side	5mm	Ant 1	ECI 7		656000	3840	1	14.20	15.00	1.202	0.12	0.018	0.022
	FR1 n77	100M	BPSK	135	69	Top Side	5mm	Ant 1	ECI 7		656000	3840	1	14.11	15.00	1.227	-0.01	0.001	0.001
	FR1 n77	100M	BPSK	1	1	Bottom Side	5mm	Ant 1	ECI 7		656000	3840	1	14.20	15.00	1.202	-0.08	0.907	1.090
	FR1 n77	100M	BPSK	135	69	Bottom Side	5mm	Ant 1	ECI 7		656000	3840	1	14.11	15.00	1.227	-0.12	0.574	0.704
47	FR1 n77	100M	BPSK	270	0	Bottom Side	5mm	Ant 1	ECI 7		656000	3840	1	14.05	15.00	1.245	0.08	1.040	1.295
	FR1 n77	100M	BPSK	270	0	Bottom Side	5mm	Ant 1	ECI 7		656000	3840	2	14.05	15.00	1.245	0.08	1.020	1.27
	FR1 n77	100M	BPSK	270	0	Bottom Side	5mm	Ant 1	ECI 7		656000	3840	3	14.05	15.00	1.245	0.03	1.000	1.245
	FR1 n77	100M	BPSK	1	1	Front	5mm	Ant 8	ECI 7		656000	3840	1	8.74	10.10	1.368	-0.03	0.027	0.037
	FR1 n77	100M	BPSK	135	69	Front	5mm	Ant 8	ECI 7		656000	3840	1	8.65	10.10	1.396	-0.04	0.015	0.021
	FR1 n77	100M	BPSK	1	1	Back	5mm	Ant 8	ECI 7		656000	3840	1	8.74	10.10	1.368	-0.09	0.451	0.617
	FR1 n77	100M	BPSK	1	1	Back	5mm	Ant 8	ECI 7		656000	3840	2	8.74	10.10	1.368	0.04	0.428	0.586
	FR1 n77	100M	BPSK	1	1	Back	5mm	Ant 8	ECI 7		656000	3840	3	8.74	10.10	1.368	0.02	0.448	0.613
	FR1 n77	100M	BPSK	135	69	Back	5mm	Ant 8	ECI 7		656000	3840	1	8.65	10.10	1.396	0.11	0.398	0.555
	FR1 n77	100M	BPSK	1	1	Left Side	5mm	Ant 8	ECI 7		656000	3840	1	8.74	10.10	1.368	0.17	0.008	0.011
	FR1 n77	100M	BPSK	135	69	Left Side	5mm	Ant 8	ECI 7		656000	3840	1	8.65	10.10	1.396	0.01	0.005	0.007
	FR1 n77	100M	BPSK	1	1	Right Side	5mm	Ant 8	ECI 7		656000	3840	1	8.74	10.10	1.368	-0.12	0.121	0.166
	FR1 n77	100M	BPSK	135	69	Right Side	5mm	Ant 8	ECI 7		656000	3840	1	8.65	10.10	1.396	-0.01	0.058	0.081
	FR1 n77	100M	BPSK	1	1	Top Side	5mm	Ant 8	ECI 7		656000	3840	1	8.74	10.10	1.368	-0.05	0.060	0.082
	FR1 n77	100M	BPSK	135	69	Top Side	5mm	Ant 8	ECI 7		656000	3840	1	8.65	10.10	1.396	0.03	0.036	0.050
	FR1 n77	100M	BPSK	1	1	Bottom Side	5mm	Ant 8	ECI 7		656000	3840	1	8.74	10.10	1.368	0.00	0.005	0.006
	FR1 n77	100M	BPSK	135	69	Bottom Side	5mm	Ant 8	ECI 7		656000	3840	1	8.65	10.10	1.396	-0.18	0.002	0.003
	FR1 n77	100M	BPSK	1	1	Front	5mm	Ant 2	ECI 7		656000	3840	1	14.24	15.40	1.306	0.11	0.017	0.022
	FR1 n77	100M	BPSK	135	69	Front	5mm	Ant 2	ECI 7		656000	3840	1	14.20	15.40	1.318	-0.05	0.001	0.001
	FR1 n77	100M	BPSK	1	1	Back	5mm	Ant 2	ECI 7		656000	3840	1	14.24	15.40	1.306	-0.08	0.471	0.615
	FR1 n77	100M	BPSK	1	1	Back	5mm	Ant 2	ECI 7		656000	3840	2	14.24	15.40	1.306	0.09	0.470	0.614
	FR1 n77	100M	BPSK	1	1	Back	5mm	Ant 2	ECI 7		656000	3840	3	14.24	15.40	1.306	0.04	0.396	0.517
	FR1 n77	100M	BPSK	135	69	Back	5mm	Ant 2	ECI 7		656000	3840	1	14.20	15.40	1.318	0.13	0.338	0.446
	FR1 n77	100M	BPSK	1	1	Left Side	5mm	Ant 2	ECI 7		656000	3840	1	14.24	15.40	1.306	0.17	0.087	0.114
	FR1 n77	100M	BPSK	135	69	Left Side	5mm	Ant 2	ECI 7		656000	3840	1	14.20	15.40	1.318	-0.14	0.056	0.074
	FR1 n77	100M	BPSK	1	1	Right Side	5mm	Ant 2	ECI 7		656000	3840	1	14.24	15.40	1.306	-0.16	0.001	0.001
	FR1 n77	100M	BPSK	135	69	Right Side	5mm	Ant 2	ECI 7		656000	3840	1	14.20	15.40	1.318	0.14	0.001	0.001
	FR1 n77	100M	BPSK	1	1	Top Side	5mm	Ant 2	ECI 7		656000	3840	1	14.24	15.40	1.306	-0.14	0.015	0.019
	FR1 n77	100M	BPSK	135	69	Top Side	5mm	Ant 2	ECI 7		656000	3840	1	14.20	15.40	1.318	0.00	0.001	0.001
	FR1 n77	100M	BPSK	1	1	Bottom Side	5mm	Ant 2	ECI 7		656000	3840	1	14.24	15.40	1.306	-0.14	0.015	0.019
	FR1 n77	100M	BPSK	135	69	Bottom Side	5mm	Ant 2	ECI 7		656000	3840	1	14.20	15.40	1.318	-0.07	0.001	0.001

【WLAN 2.4GHz_5GHz SAR】

Plot No	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	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)
48	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	Ant 6	Hotspot	1	2412	1	13.75	15.00	1.334	100.0	1.0	-0.14	0.162	0.216
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 6	Hotspot	1	2412	1	13.75	15.00	1.334	100.0	1.0	0.03	0.468	0.624
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 6	Hotspot	1	2412	2	13.75	15.00	1.334	100.0	1.0	0.05	0.466	0.622
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 6	Hotspot	1	2412	3	13.75	15.00	1.334	100.0	1.0	0.03	0.463	0.618
	WLAN2.4GHz	802.11b 1Mbps	Left Side	5mm	Ant 6	Hotspot	1	2412	1	13.75	15.00	1.334	100.0	1.0	0.08	0.020	0.027
	WLAN2.4GHz	802.11b 1Mbps	Right Side	5mm	Ant 6	Hotspot	1	2412	1	13.75	15.00	1.334	100.0	1.0	-0.10	0.082	0.110
	WLAN2.4GHz	802.11b 1Mbps	Top Side	5mm	Ant 6	Hotspot	1	2412	1	13.75	15.00	1.334	100.0	1.0	-0.19	0.149	0.198
	WLAN2.4GHz	802.11b 1Mbps	Bottom Side	5mm	Ant 6	Hotspot	1	2412	1	13.75	15.00	1.334	100.0	1.0	-0.10	0.001	0.001
49	WLAN5GHz	802.11n-HT40 MCS0	Front	5mm	Ant 6	Hotspot	46	5230	1	13.66	15.00	1.361	94.92	1.054	0.09	0.181	0.260
	WLAN5GHz	802.11n-HT40 MCS0	Back	5mm	Ant 6	Hotspot	46	5230	1	13.66	15.00	1.361	94.92	1.054	-0.06	0.413	0.592
	WLAN5GHz	802.11n-HT40 MCS0	Back	5mm	Ant 6	Hotspot	46	5230	2	13.66	15.00	1.361	94.92	1.054	0.03	0.404	0.58
	WLAN5GHz	802.11n-HT40 MCS0	Back	5mm	Ant 6	Hotspot	46	5230	3	13.66	15.00	1.361	94.92	1.054	0.08	0.411	0.59
	WLAN5GHz	802.11n-HT40 MCS0	Left Side	5mm	Ant 6	Hotspot	46	5230	1	13.66	15.00	1.361	94.92	1.054	-0.15	0.001	0.001
	WLAN5GHz	802.11n-HT40 MCS0	Right Side	5mm	Ant 6	Hotspot	46	5230	1	13.66	15.00	1.361	94.92	1.054	-0.08	0.117	0.168
	WLAN5GHz	802.11n-HT40 MCS0	Top Side	5mm	Ant 6	Hotspot	46	5230	1	13.66	15.00	1.361	94.92	1.054	-0.10	0.393	0.563
	WLAN5GHz	802.11n-HT40 MCS0	Bottom Side	5mm	Ant 6	Hotspot	46	5230	1	13.66	15.00	1.361	94.92	1.054	0.16	0.001	0.001
50	WLAN5GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 6	Hotspot	155	5775	1	15.16	17.00	1.528	84.27	1.187	0.08	0.131	0.237
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 6	Hotspot	155	5775	1	15.16	17.00	1.528	84.27	1.187	-0.08	0.311	0.565
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Side	5mm	Ant 6	Hotspot	155	5775	1	15.16	17.00	1.528	84.27	1.187	0.07	0.043	0.079
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Side	5mm	Ant 6	Hotspot	155	5775	1	15.16	17.00	1.528	84.27	1.187	0.02	0.072	0.131
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	5mm	Ant 6	Hotspot	155	5775	1	15.16	17.00	1.528	84.27	1.187	0.15	0.330	0.599
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	5mm	Ant 6	Hotspot	155	5775	2	15.16	17.00	1.528	84.27	1.187	0.13	0.325	0.589
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	5mm	Ant 6	Hotspot	155	5775	3	15.16	17.00	1.528	84.27	1.187	0.08	0.313	0.568
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Side	5mm	Ant 6	Hotspot	155	5775	1	15.16	17.00	1.528	84.27	1.187	-0.10	0.001	0.002

【Bluetooth SAR】

Plot No	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	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)
51	Bluetooth	1Mbps	Front	5mm	Ant 6	Full Power	78	2480	1	13.86	15.00	1.3	76.94	1.083	0.12	0.070	0.098
	Bluetooth	1Mbps	Back	5mm	Ant 6	Full Power	78	2480	1	13.86	15.00	1.3	76.94	1.083	0.05	0.211	0.297
	Bluetooth	1Mbps	Left Side	5mm	Ant 6	Full Power	78	2480	1	13.86	15.00	1.3	76.94	1.083	-0.09	0.001	0.001
	Bluetooth	1Mbps	Right Side	5mm	Ant 6	Full Power	78	2480	1	13.86	15.00	1.3	76.94	1.083	0.07	0.063	0.088
	Bluetooth	1Mbps	Top Side	5mm	Ant 6	Full Power	78	2480	1	13.86	15.00	1.3	76.94	1.083	0.01	0.072	0.101
	Bluetooth	1Mbps	Bottom Side	5mm	Ant 6	Full Power	78	2480	1	13.86	15.00	1.3	76.94	1.083	-0.16	0.001	0.001

16.3 Body Worn Accessory SAR

【GSM SAR】

Plot No	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	GSM850	GPRS 4 Tx slots	Front	5mm	Ant 0	ECI 3	189	836.4	1	27.04	27.90	1.219	0.19	0.638	0.778
52	GSM850	GPRS 4 Tx slots	Back	5mm	Ant 0	ECI 3	189	836.4	1	27.04	27.90	1.219	0.01	1.040	1.268
	GSM850	GPRS 4 Tx slots	Back	5mm	Ant 0	ECI 3	128	824.2	1	26.95	27.90	1.245	0.18	0.958	1.193
	GSM850	GPRS 4 Tx slots	Back	5mm	Ant 0	ECI 3	251	848.8	1	26.99	27.90	1.233	0.05	0.958	1.181
	GSM850	GPRS 4 Tx slots	Front	14mm	Ant 0	ECI 4	189	836.4	1	28.32	29.50	1.312	0.06	0.248	0.325
	GSM850	GPRS 4 Tx slots	Back	21mm	Ant 0	ECI 4	189	836.4	1	28.32	29.50	1.312	-0.05	0.292	0.383
	GSM1900	GPRS 4 Tx slots	Front	5mm	Ant 0	ECI 3	661	1880	1	21.61	23.00	1.377	0.18	0.408	0.562
	GSM1900	GPRS 4 Tx slots	Back	5mm	Ant 0	ECI 3	661	1880	1	21.61	23.00	1.377	-0.14	0.826	1.137
53	GSM1900	GPRS 4 Tx slots	Back	5mm	Ant 0	ECI 3	512	1850.2	1	21.58	23.00	1.387	0.04	0.926	1.284
	GSM1900	GPRS 4 Tx slots	Back	5mm	Ant 0	ECI 3	810	1909.8	1	21.45	23.00	1.429	0.01	0.886	1.266
	GSM1900	GPRS 4 Tx slots	Front	14mm	Ant 0	ECI 4	661	1880	1	25.66	26.50	1.213	0.09	0.308	0.374
	GSM1900	GPRS 4 Tx slots	Back	21mm	Ant 0	ECI 4	661	1880	1	25.66	26.50	1.213	-0.11	0.226	0.274

【WCDMA SAR】

Plot No	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA II	RMC 12.2Kbps	Front	5mm	Ant 0	ECI 3	9400	1880	1	17.71	19.00	1.346	-0.03	0.449	0.604
54	WCDMA II	RMC 12.2Kbps	Back	5mm	Ant 0	ECI 3	9400	1880	1	17.71	19.00	1.346	-0.04	0.952	1.281
	WCDMA II	RMC 12.2Kbps	Back	5mm	Ant 0	ECI 3	9262	1852.4	1	17.67	19.00	1.358	-0.17	0.893	1.213
	WCDMA II	RMC 12.2Kbps	Back	5mm	Ant 0	ECI 3	9538	1907.6	1	17.68	19.00	1.355	0.09	0.759	1.029
	WCDMA II	RMC 12.2Kbps	Front	14mm	Ant 0	ECI 4	9400	1880	1	23.22	24.00	1.197	0.03	0.598	0.716
	WCDMA II	RMC 12.2Kbps	Back	21mm	Ant 0	ECI 4	9400	1880	1	23.22	24.00	1.197	-0.02	0.486	0.582
	WCDMA IV	RMC 12.2Kbps	Front	5mm	Ant 0	ECI 3	1413	1732.6	1	17.51	18.70	1.315	-0.01	0.441	0.580
55	WCDMA IV	RMC 12.2Kbps	Back	5mm	Ant 0	ECI 3	1413	1732.6	1	17.51	18.70	1.315	-0.02	0.975	1.282
	WCDMA IV	RMC 12.2Kbps	Back	5mm	Ant 0	ECI 3	1312	1712.4	1	17.47	18.70	1.327	0.02	0.904	1.200
	WCDMA IV	RMC 12.2Kbps	Back	5mm	Ant 0	ECI 3	1513	1752.6	1	17.46	18.70	1.33	-0.05	0.842	1.120
	WCDMA IV	RMC 12.2Kbps	Front	14mm	Ant 0	ECI 4	1413	1732.6	1	23.46	24.00	1.132	0.01	0.651	0.737
	WCDMA IV	RMC 12.2Kbps	Back	21mm	Ant 0	ECI 4	1413	1732.6	1	23.46	24.00	1.132	0.08	0.623	0.705
	WCDMA V	RMC 12.2Kbps	Front	5mm	Ant 0	ECI 3	4182	836.4	1	22.99	24.00	1.262	-0.03	0.549	0.693
	WCDMA V	RMC 12.2Kbps	Back	5mm	Ant 0	ECI 3	4182	836.4	1	22.99	24.00	1.262	0.06	0.946	1.194
	WCDMA V	RMC 12.2Kbps	Back	5mm	Ant 0	ECI 3	4132	826.4	1	22.91	24.00	1.285	-0.01	0.947	1.217
56	WCDMA V	RMC 12.2Kbps	Back	5mm	Ant 0	ECI 3	4233	846.6	1	22.89	24.00	1.291	0.08	0.948	1.224
	WCDMA V	RMC 12.2Kbps	Front	14mm	Ant 0	ECI 4	4182	836.4	1	23.25	24.00	1.189	0.06	0.187	0.222
	WCDMA V	RMC 12.2Kbps	Back	21mm	Ant 0	ECI 4	4182	836.4	1	23.25	24.00	1.189	0.08	0.198	0.235



【FDD LTE SAR】

Plot No	Band	BW	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	Power State	Power State Note	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 2	20M	QPSK	1	0	Front	5mm	Ant 0	ECI 3-1	PA (Reference Designator)	18900	1880	1	17.08	18.00	1.236	-0.01	0.334	0.413
	LTE Band 2	20M	QPSK	50	0	Front	5mm	Ant 0	ECI 3-1	PA (Reference Designator)	18900	1880	1	17.06	18.00	1.242	0.04	0.268	0.333
57	LTE Band 2	20M	QPSK	1	0	Back	5mm	Ant 0	ECI 3-1	PA (Reference Designator)	18900	1880	1	17.08	18.00	1.236	-0.14	0.638	0.789
	LTE Band 2C	20M	QPSK	1	0	Back	5mm	Ant 0	ECI 3-1	PA (Reference Designator)	18900+19098	1880+1899.8	1	17.03	18	1.250	0.03	0.622	0.778
	LTE Band 2	20M	QPSK	50	0	Back	5mm	Ant 0	ECI 3-1	PA (Reference Designator)	18900	1880	1	17.06	18.00	1.242	0.13	0.507	0.630
	LTE Band 7	20M	QPSK	1	0	Front	5mm	Ant 4	ECI 3		21100	2535	1	16.48	17.60	1.294	-0.04	0.224	0.290
	LTE Band 7	20M	QPSK	50	0	Front	5mm	Ant 4	ECI 3		21100	2535	1	16.46	17.60	1.3	0.04	0.174	0.226
	LTE Band 7	20M	QPSK	1	0	Back	5mm	Ant 4	ECI 3		21100	2535	1	16.48	17.60	1.294	0.12	0.643	0.832
	LTE Band 7	20M	QPSK	1	0	Back	5mm	Ant 4	ECI 3		20850	2510	1	16.46	17.60	1.3	0.03	0.637	0.828
	LTE Band 7	20M	QPSK	1	0	Back	5mm	Ant 4	ECI 3		21350	2560	1	16.42	17.60	1.312	-0.02	0.668	0.876
	LTE Band 7	20M	QPSK	50	0	Back	5mm	Ant 4	ECI 3		21100	2535	1	16.46	17.60	1.3	0.01	0.522	0.679
	LTE Band 7	20M	QPSK	100	0	Back	5mm	Ant 4	ECI 3		21100	2535	1	16.42	17.60	1.312	-0.18	0.545	0.715
	LTE Band 7	20M	QPSK	1	0	Front	14mm	Ant 4	ECI 4		21100	2535	1	22.79	24.00	1.321	0.06	0.303	0.400
	LTE Band 7	20M	QPSK	1	0	Back	21mm	Ant 4	ECI 4		21100	2535	1	22.79	24.00	1.321	0.08	0.277	0.366
	LTE Band 7	20M	QPSK	1	0	Front	5mm	Ant 1	ECI 3		21100	2535	1	16.85	18.30	1.396	-0.02	0.693	0.968
	LTE Band 7	20M	QPSK	1	0	Front	5mm	Ant 1	ECI 3		20850	2510	1	16.82	18.30	1.406	0.16	0.642	0.903
	LTE Band 7	20M	QPSK	1	0	Front	5mm	Ant 1	ECI 3		21350	2560	1	16.82	18.30	1.406	0.09	0.691	0.971
	LTE Band 7	20M	QPSK	50	0	Front	5mm	Ant 1	ECI 3		21100	2535	1	16.83	18.30	1.403	0.02	0.558	0.783
	LTE Band 7	20M	QPSK	100	0	Front	5mm	Ant 1	ECI 3		20850	2510	1	16.82	18.30	1.406	-0.18	0.563	0.791
	LTE Band 7	20M	QPSK	1	0	Back	5mm	Ant 1	ECI 3		21100	2535	1	16.85	18.30	1.396	0.11	0.891	1.243
	LTE Band 7	20M	QPSK	1	0	Back	5mm	Ant 1	ECI 3		20850	2510	1	16.82	18.30	1.406	0.13	0.809	1.138
58	LTE Band 7	20M	QPSK	1	0	Back	5mm	Ant 1	ECI 3		21350	2560	1	16.82	18.30	1.406	-0.14	0.914	1.285
	LTE Band 7C	20M	QPSK	1	0	Back	5mm	Ant 1	ECI 3		21350+21152	2560+2540.2	1	16.72	18.3	1.439	0.06	0.818	1.177
	LTE Band 7	20M	QPSK	50	0	Back	5mm	Ant 1	ECI 3		21100	2535	1	16.83	18.30	1.403	-0.06	0.709	0.995
	LTE Band 7	20M	QPSK	50	0	Back	5mm	Ant 1	ECI 3		20850	2510	1	16.80	18.30	1.413	-0.12	0.656	0.927
	LTE Band 7	20M	QPSK	50	0	Back	5mm	Ant 1	ECI 3		21350	2560	1	16.78	18.30	1.419	-0.09	0.730	1.036
	LTE Band 7	20M	QPSK	100	0	Back	5mm	Ant 1	ECI 3		20850	2510	1	16.82	18.30	1.406	-0.02	0.744	1.046
	LTE Band 7	20M	QPSK	1	0	Front	14mm	Ant 1	ECI 4		21100	2535	1	22.29	24.00	1.483	0.03	0.604	0.896
	LTE Band 7	20M	QPSK	1	0	Front	14mm	Ant 1	ECI 4		20850	2510	1	22.18	24.00	1.521	0.02	0.586	0.891
	LTE Band 7	20M	QPSK	1	0	Front	14mm	Ant 1	ECI 4		21350	2560	1	22.26	24.00	1.493	0.05	0.611	0.912
	LTE Band 7	20M	QPSK	100	0	Front	14mm	Ant 1	ECI 4		21100	2535	1	21.22	23.00	1.507	-0.11	0.583	0.879
	LTE Band 7	20M	QPSK	1	0	Back	21mm	Ant 1	ECI 4		21100	2535	1	22.29	24.00	1.483	0.03	0.350	0.519
	LTE Band 12	10M	QPSK	1	0	Front	5mm	Ant 0	ECI 3		23095	707.5	1	22.66	24.00	1.361	-0.04	0.458	0.623
	LTE Band 12	10M	QPSK	25	0	Front	5mm	Ant 0	ECI 3		23095	707.5	1	21.58	23.00	1.387	-0.01	0.357	0.496
59	LTE Band 12	10M	QPSK	1	0	Back	5mm	Ant 0	ECI 3		23095	707.5	1	22.66	24.00	1.361	0.09	0.841	1.145
	LTE Band 12	10M	QPSK	25	0	Back	5mm	Ant 0	ECI 3		23095	707.5	1	21.58	23.00	1.387	0.03	0.710	0.985
	LTE Band 12	10M	QPSK	50	0	Back	5mm	Ant 0	ECI 3		23095	707.5	1	21.46	23.00	1.426	-0.15	0.733	1.046
	LTE Band 12	10M	QPSK	1	0	Front	5mm	Ant 4	ECI 3		23095	707.5	1	22.18	23.00	1.208	-0.14	0.163	0.197
	LTE Band 12	10M	QPSK	25	0	Front	5mm	Ant 4	ECI 3		23095	707.5	1	21.15	22.00	1.216	-0.16	0.146	0.177
	LTE Band 12	10M	QPSK	1	0	Back	5mm	Ant 4	ECI 3		23095	707.5	1	22.18	23.00	1.208	-0.02	0.326	0.394
	LTE Band 12	10M	QPSK	25	0	Back	5mm	Ant 4	ECI 3		23095	707.5	1	21.15	22.00	1.216	-0.06	0.286	0.348
	LTE Band 13	10M	QPSK	1	0	Front	5mm	Ant 0	ECI 3		23230	782	1	22.39	24.00	1.449	-0.05	0.463	0.671
	LTE Band 13	10M	QPSK	25	0	Front	5mm	Ant 0	ECI 3		23230	782	1	21.39	23.00	1.449	0.10	0.377	0.546
60	LTE Band 13	10M	QPSK	1	0	Back	5mm	Ant 0	ECI 3		23230	782	1	22.39	24.00	1.449	0.05	0.807	1.169
	LTE Band 13	10M	QPSK	1	0	Back	5mm	Ant 0	ECI 3		23230	782	2	22.39	24.00	1.449	0.08	0.708	1.026
	LTE Band 13	10M	QPSK	1	0	Back	5mm	Ant 0	ECI 3		23230	782	3	22.39	24.00	1.449	0.06	0.624	0.904
	LTE Band 13	10M	QPSK	25	0	Back	5mm	Ant 0	ECI 3		23230	782	1	21.39	23.00	1.449	-0.00	0.714	1.034
	LTE Band 13	10M	QPSK	50	0	Back	5mm	Ant 0	ECI 3		23230	782	1	21.31	23.00	1.476	-0.16	0.704	1.040
	LTE Band 25	20M	QPSK	1	0	Front	5mm	Ant 0	ECI 3		26340	1880	1	17.15	18.00	1.216	-0.06	0.543	0.660
	LTE Band 25	20M	QPSK	50	0	Front	5mm	Ant 0	ECI 3		26340	1880	1	17.13	18.00	1.222	0.10	0.435	0.531
61	LTE Band 25	20M	QPSK	1	0	Back	5mm	Ant 0	ECI 3		26340	1880	1	17.15	18.00	1.216	0.01	1.050	1.277
	LTE Band 25	20M	QPSK	1	0	Back	5mm	Ant 0	ECI 3		26140	1860	1	17.11	18.00	1.227	-0.05	1.030	1.264
	LTE Band 25	20M	QPSK	1	0	Back	5mm	Ant 0	ECI 3		26590	1905	1	17.14	18.00	1.219	0.09	0.931	1.135
	LTE Band 25	20M	QPSK	50	0	Back	5mm	Ant 0	ECI 3		26340	1880	1	17.13	18.00	1.222	0.18	0.824	1.007
	LTE Band 25	20M	QPSK	50	0	Back	5mm	Ant 0	ECI 3		26140	1860	1	17.10	18.00	1.23	0.03	0.817	1.005
	LTE Band 25	20M	QPSK	50	0	Back	5mm	Ant 0	ECI 3		26590	1905	1	17.06	18.00	1.242	-0.09	0.753	0.936
	LTE Band 25	20M	QPSK	100	0	Back	5mm	Ant 0	ECI 3		26340	1880	1	17.03	18.00	1.25	0.04	0.822	1.027
	LTE Band 25	20M	QPSK	1	0	Front	14mm	Ant 0	ECI 4		26340	1880	1	22.49	24.00	1.416	0.03	0.614	0.869
	LTE Band 25	20M	QPSK	1	0	Front	14mm	Ant 0	ECI 4		26140	1860	1	22.34	24.00	1.466	0.08	0.603	0.884
	LTE Band 25	20M	QPSK	1	0	Front	14mm	Ant 0	ECI 4		26590	1905	1	22.27	24.00	1.489	0.01	0.598	0.890
	LTE Band 25	20M	QPSK	100	0	Front	14mm	Ant 0	ECI 4		26340	1880	1	21.34	23.00	1.466	0.15	0.586	0.859
	LTE Band 25	20M	QPSK	1	0	Back	21mm	Ant 0	ECI 4		26340	1880	1	22.49	24.00	1.416	-0.06	0.412	0.583
	LTE Band 25	20M	QPSK	1	0	Front	5mm	Ant 4	ECI 3		26340	1880	1	18.72	20.10	1.374	0.07	0.421	0.579
	LTE Band 25	20M	QPSK	50	0	Front	5mm	Ant 4	ECI 3		26340	1880	1	18.68	20.10	1.387	0.09	0.338	0.469



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	LTE Band 25	20M	QPSK	1	0	Back	5mm	Ant 4	ECI 3		26340	1880	1	18.72	20.10	1.374	0.14	0.642	0.882
	LTE Band 25	20M	QPSK	1	0	Back	5mm	Ant 4	ECI 3		26140	1860	1	18.71	20.10	1.377	-0.17	0.630	0.868
	LTE Band 25	20M	QPSK	1	0	Back	5mm	Ant 4	ECI 3		26590	1905	1	18.68	20.10	1.387	-0.17	0.633	0.878
	LTE Band 25	20M	QPSK	50	0	Back	5mm	Ant 4	ECI 3		26340	1880	1	18.68	20.10	1.387	0.01	0.508	0.705
	LTE Band 25	20M	QPSK	100	0	Back	5mm	Ant 4	ECI 3		26340	1880	1	18.64	20.10	1.4	0.15	0.492	0.689
	LTE Band 25	20M	QPSK	1	0	Front	14mm	Ant 4	ECI 4		26340	1880	1	21.19	22.00	1.205	0.03	0.204	0.246
	LTE Band 25	20M	QPSK	1	0	Back	21mm	Ant 4	ECI 4		26340	1880	1	21.19	22.00	1.205	0.08	0.110	0.133
	LTE Band 26	15M	QPSK	1	0	Front	5mm	Ant 0	ECI 3		26865	831.5	1	22.38	24.00	1.452	0.05	0.532	0.772
	LTE Band 26	15M	QPSK	36	0	Front	5mm	Ant 0	ECI 3		26865	831.5	1	21.24	23.00	1.5	-0.16	0.414	0.621
62	LTE Band 26	15M	QPSK	1	0	Back	5mm	Ant 0	ECI 3		26865	831.5	1	22.38	24.00	1.452	0.10	0.846	1.228
	LTE Band 26	15M	QPSK	36	0	Back	5mm	Ant 0	ECI 3		26865	831.5	1	21.24	23.00	1.5	-0.10	0.740	1.110
	LTE Band 26	15M	QPSK	75	0	Back	5mm	Ant 0	ECI 3		26865	831.5	1	21.25	23.00	1.496	-0.12	0.736	1.101
	LTE Band 26	15M	QPSK	1	0	Back	5mm	Ant 0	ECI 3-1	PA (Reference Designator)	26865	831.5	1	22.67	24.00	1.358	0.06	0.438	0.595
	LTE Band 26	15M	QPSK	1	0	Front	14mm	Ant 0	ECI 4		26865	831.5	1	22.38	24.00	1.452	0.06	0.149	0.216
	LTE Band 26	15M	QPSK	36	0	Front	14mm	Ant 0	ECI 4		26865	831.5	1	21.24	23.00	1.5	0.03	0.122	0.183
	LTE Band 26	15M	QPSK	1	0	Back	21mm	Ant 0	ECI 4		26865	831.5	1	22.38	24.00	1.452	-0.15	0.187	0.272
	LTE Band 26	15M	QPSK	36	0	Back	21mm	Ant 0	ECI 4		26865	831.5	1	21.24	23.00	1.5	0.11	0.153	0.229
	LTE Band 26	15M	QPSK	1	0	Front	5mm	Ant 4	ECI 3		26865	831.5	1	21.55	22.50	1.245	0.16	0.342	0.426
	LTE Band 26	15M	QPSK	36	0	Front	5mm	Ant 4	ECI 3		26865	831.5	1	21.46	21.80	1.081	-0.14	0.269	0.291
	LTE Band 26	15M	QPSK	1	0	Back	5mm	Ant 4	ECI 3		26865	831.5	1	21.55	22.50	1.245	-0.04	0.703	0.875
	LTE Band 26	15M	QPSK	36	0	Back	5mm	Ant 4	ECI 3		26865	831.5	1	21.46	21.80	1.081	-0.17	0.549	0.593
	LTE Band 26	15M	QPSK	75	0	Back	5mm	Ant 4	ECI 3		26865	831.5	1	21.43	21.80	1.089	0.06	0.548	0.597
	LTE Band 26	15M	QPSK	1	0	Front	14mm	Ant 4	ECI 4		26865	831.5	1	21.79	23.00	1.321	0.03	0.115	0.152
	LTE Band 26	15M	QPSK	1	0	Back	21mm	Ant 4	ECI 4		26865	831.5	1	21.79	23.00	1.321	-0.11	0.091	0.120
	LTE Band 66	20M	QPSK	1	0	Front	5mm	Ant 0	ECI 3		132322	1745	1	17.04	17.90	1.219	-0.09	0.506	0.617
	LTE Band 66	20M	QPSK	50	0	Front	5mm	Ant 0	ECI 3		132322	1745	1	16.96	17.90	1.242	0.03	0.401	0.498
	LTE Band 66	20M	QPSK	1	0	Back	5mm	Ant 0	ECI 3		132322	1745	1	17.04	17.90	1.219	-0.13	1.030	1.256
63	LTE Band 66	20M	QPSK	1	0	Back	5mm	Ant 0	ECI 3		132072	1720	1	16.97	17.90	1.239	0.04	1.040	1.289
	LTE Band 66C	20M	QPSK	1	0	Back	5mm	Ant 0	ECI 3		132072+ 132270	1720+ 1739.8	1	16.83	17.9	1.279	0.06	0.882	1.128
	LTE Band 66	20M	QPSK	1	0	Back	5mm	Ant 0	ECI 3		132572	1770	1	17.03	17.90	1.222	-0.12	0.799	0.977
	LTE Band 66	20M	QPSK	50	0	Back	5mm	Ant 0	ECI 3		132322	1745	1	16.96	17.90	1.242	0.08	0.813	1.009
	LTE Band 66	20M	QPSK	50	0	Back	5mm	Ant 0	ECI 3		132072	1720	1	16.93	17.90	1.25	0.11	0.833	1.041
	LTE Band 66	20M	QPSK	50	0	Back	5mm	Ant 0	ECI 3		132572	1770	1	16.93	17.90	1.25	0.13	0.646	0.808
	LTE Band 66	20M	QPSK	100	0	Back	5mm	Ant 0	ECI 3		132322	1745	1	16.94	17.90	1.247	-0.16	0.806	1.005
	LTE Band 66	20M	QPSK	1	0	Back	5mm	Ant 0	ECI 3-1	PA (Reference Designator)	132322	1745	1	16.84	17.90	1.276	0.01	0.380	0.485
	LTE Band 66	20M	QPSK	1	0	Front	14mm	Ant 0	ECI 4		132322	1745	1	22.54	24.00	1.4	0.06	0.640	0.896
	LTE Band 66	20M	QPSK	1	0	Front	14mm	Ant 0	ECI 4		132072	1720	1	22.53	24.00	1.403	0.02	0.596	0.836
	LTE Band 66	20M	QPSK	1	0	Front	14mm	Ant 0	ECI 4		132572	1770	1	22.33	24.00	1.469	0.16	0.608	0.893
	LTE Band 66	20M	QPSK	100	0	Front	14mm	Ant 0	ECI 4		132322	1745	1	21.48	23.00	1.419	-0.11	0.600	0.851
	LTE Band 66	20M	QPSK	1	0	Back	21mm	Ant 0	ECI 4		132322	1745	1	22.54	24.00	1.4	-0.03	0.632	0.885
	LTE Band 66	20M	QPSK	1	0	Back	21mm	Ant 0	ECI 4		132072	1720	1	22.53	24.00	1.403	0.08	0.622	0.873
	LTE Band 66	20M	QPSK	1	0	Back	21mm	Ant 0	ECI 4		132572	1770	1	22.33	24.00	1.469	-0.16	0.603	0.886
	LTE Band 66	20M	QPSK	100	0	Back	21mm	Ant 0	ECI 4		132322	1745	1	21.48	23.00	1.419	0.03	0.610	0.866
	LTE Band 66	20M	QPSK	1	0	Front	5mm	Ant 4	ECI 3		132322	1745	1	18.59	19.50	1.233	-0.17	0.566	0.698
	LTE Band 66	20M	QPSK	50	0	Front	5mm	Ant 4	ECI 3		132322	1745	1	18.52	19.50	1.253	-0.12	0.450	0.563
	LTE Band 66	20M	QPSK	1	0	Back	5mm	Ant 4	ECI 3		132322	1745	1	18.59	19.50	1.233	-0.04	0.712	0.878
	LTE Band 66	20M	QPSK	1	0	Back	5mm	Ant 4	ECI 3		132322	1745	2	18.59	19.50	1.233	0.06	0.671	0.827
	LTE Band 66	20M	QPSK	1	0	Back	5mm	Ant 4	ECI 3		132322	1745	3	18.59	19.50	1.233	0.08	0.550	0.678
	LTE Band 66	20M	QPSK	1	0	Back	5mm	Ant 4	ECI 3		132072	1720	1	18.51	19.50	1.256	0.06	0.690	0.866
	LTE Band 66	20M	QPSK	1	0	Back	5mm	Ant 4	ECI 3		132572	1770	1	18.54	19.50	1.247	0.02	0.660	0.822
	LTE Band 66	20M	QPSK	50	0	Back	5mm	Ant 4	ECI 3		132322	1745	1	18.52	19.50	1.253	0.01	0.555	0.695
	LTE Band 66	20M	QPSK	100	0	Back	5mm	Ant 4	ECI 3		132322	1745	1	18.46	19.50	1.271	-0.07	0.555	0.705
	LTE Band 66	20M	QPSK	1	0	Back	5mm	Ant 4	ECI 3-1	PA (Reference Designator)	132322	1745	1	18.54	19.50	1.247	0.15	0.511	0.637
	LTE Band 66	20M	QPSK	1	0	Front	14mm	Ant 4	ECI 4		132322	1745	1	21.38	22.00	1.153	0.06	0.390	0.450
	LTE Band 66	20M	QPSK	1	0	Back	21mm	Ant 4	ECI 4		132322	1745	1	21.38	22.00	1.153	0.08	0.237	0.273



【TDD LTE SAR】

Plot No	Band	BW	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 38	20M	QPSK	1	0	Front	5mm	Ant 1	ECI 3	38000	2595	1	17.96	19.10	1.3	62.9	1.006	-0.05	0.806	1.054
	LTE Band 38	20M	QPSK	50	0	Front	5mm	Ant 1	ECI 3	38000	2595	1	17.94	19.10	1.306	62.9	1.006	0.10	0.582	0.765
	LTE Band 38	20M	QPSK	100	0	Front	5mm	Ant 1	ECI 3	38000	2595	1	17.89	19.10	1.321	62.9	1.006	-0.11	0.627	0.833
64	LTE Band 38	20M	QPSK	1	0	Back	5mm	Ant 1	ECI 3	38000	2595	1	17.96	19.10	1.3	62.9	1.006	-0.18	0.991	1.296
	LTE Band 38	20M	QPSK	1	0	Back	5mm	Ant 1	ECI 3	38000	2595	2	17.96	19.10	1.3	62.9	1.006	0.06	0.702	0.918
	LTE Band 38	20M	QPSK	1	0	Back	5mm	Ant 1	ECI 3	38000	2595	3	17.96	19.10	1.3	62.9	1.006	0.05	0.868	1.135
	LTE Band 38	20M	QPSK	50	0	Back	5mm	Ant 1	ECI 3	38000	2595	1	17.94	19.10	1.306	62.9	1.006	0.00	0.745	0.978
	LTE Band 38	20M	QPSK	100	0	Back	5mm	Ant 1	ECI 3	38000	2595	1	17.89	19.10	1.321	62.9	1.006	-0.11	0.806	1.071
	LTE Band 38	20M	QPSK	1	0	Front	14mm	Ant 1	ECI 4	38000	2595	1	21.44	23.00	1.432	62.9	1.006	0.06	0.337	0.485
	LTE Band 38	20M	QPSK	1	0	Back	21mm	Ant 1	ECI 4	38000	2595	1	21.44	23.00	1.432	62.9	1.006	0.08	0.213	0.307
	LTE Band 41	20M	QPSK	1	0	Front	5mm	Ant 4	ECI 3	40620	2593	1	18.04	19.30	1.337	62.9	1.006	-0.03	0.210	0.283
	LTE Band 41	20M	QPSK	50	0	Front	5mm	Ant 4	ECI 3	40620	2593	1	17.95	19.30	1.365	62.9	1.006	-0.01	0.165	0.227
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant 4	ECI 3	40620	2593	1	18.04	19.30	1.337	62.9	1.006	0.17	0.561	0.754
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant 4	ECI 3	39750	2506	1	18.01	19.30	1.346	62.9	1.006	-0.11	0.455	0.617
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant 4	ECI 3	40185	2549.5	1	17.99	19.30	1.352	62.9	1.006	0.03	0.454	0.617
65	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant 4	ECI 3	41055	2636.5	1	17.99	19.30	1.352	62.9	1.006	-0.02	0.649	0.883
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant 4	ECI 3	41490	2680	1	18.03	19.30	1.34	62.9	1.006	-0.01	0.618	0.833
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant 4	ECI 3	40620	2593	1	17.95	19.30	1.365	62.9	1.006	-0.04	0.441	0.605
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant 4	ECI 3	39750	2506	1	17.92	19.30	1.374	62.9	1.006	0.04	0.367	0.507
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant 4	ECI 3	40185	2549.5	1	17.90	19.30	1.38	62.9	1.006	0.14	0.356	0.494
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant 4	ECI 3	41055	2636.5	1	17.89	19.30	1.384	62.9	1.006	0.17	0.513	0.714
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant 4	ECI 3	41490	2680	1	17.94	19.30	1.368	62.9	1.006	0.05	0.494	0.680
	LTE Band 41	20M	QPSK	100	0	Back	5mm	Ant 4	ECI 3	40620	2593	1	17.95	19.30	1.365	62.9	1.006	0.05	0.439	0.603
	LTE Band 41	20M	QPSK	1	0	Front	14mm	Ant 4	ECI 4	40620	2593	1	23.34	24.00	1.164	62.9	1.006	-0.18	0.307	0.359
	LTE Band 41	20M	QPSK	1	0	Back	21mm	Ant 4	ECI 4	40620	2593	1	23.34	24.00	1.164	62.9	1.006	-0.06	0.300	0.351
	LTE Band 42	20M	QPSK	1	0	Front	5mm	Ant 5	ECI 3	42590	3500	1	14.83	16.20	1.371	62.9	1.006	0.16	0.206	0.284
	LTE Band 42	20M	QPSK	50	0	Front	5mm	Ant 5	ECI 3	42590	3500	1	14.73	16.20	1.403	62.9	1.006	0.04	0.163	0.230
	LTE Band 42	20M	QPSK	1	0	Back	5mm	Ant 5	ECI 3	42590	3500	1	14.83	16.20	1.371	62.9	1.006	0.07	0.610	0.841
66	LTE Band 42	20M	QPSK	1	0	Back	5mm	Ant 5	ECI 3	42190	3460	1	14.74	16.20	1.4	62.9	1.006	-0.02	0.636	0.896
	LTE Band 42C	20M	QPSK	1	0	Back	5mm	Ant 5	ECI 3	42190+ 42388	3460+ 3479.8	1	14.66	16.2	1.426	62.9	1.006	0.09	0.611	0.877
	LTE Band 42	20M	QPSK	1	0	Back	5mm	Ant 5	ECI 3	42190	3460	2	14.74	16.20	1.4	62.9	1.006	0.04	0.626	0.882
	LTE Band 42	20M	QPSK	1	0	Back	5mm	Ant 5	ECI 3	42190	3460	3	14.74	16.20	1.4	62.9	1.006	0.05	0.622	0.876
	LTE Band 42	20M	QPSK	1	0	Back	5mm	Ant 5	ECI 3	42990	3540	1	14.76	16.20	1.393	62.9	1.006	-0.18	0.581	0.814
	LTE Band 42	20M	QPSK	50	0	Back	5mm	Ant 5	ECI 3	42590	3500	1	14.73	16.20	1.403	62.9	1.006	0.18	0.481	0.679
	LTE Band 42	20M	QPSK	100	0	Back	5mm	Ant 5	ECI 3	42590	3500	1	14.76	16.20	1.393	62.9	1.006	-0.07	0.481	0.674
	LTE Band 42	20M	QPSK	1	0	Front	14mm	Ant 5	ECI 4	42590	3500	1	22.29	23.00	1.178	62.9	1.006	0.06	0.276	0.327
	LTE Band 42	20M	QPSK	1	0	Back	21mm	Ant 5	ECI 4	42590	3500	1	22.29	23.00	1.178	62.9	1.006	0.07	0.322	0.382

【FR1 SAR】

Plot No	Band	BW	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	Power State	PA Note	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	FR1 n2	40M	BPSK	1	1	Front	5mm	Ant 0	ECI 3		376000	1880	1	16.31	17.50	1.315	0.06	0.502	0.660
	FR1 n2	40M	BPSK	108	54	Front	5mm	Ant 0	ECI 3		376000	1880	1	16.30	17.50	1.318	0.17	0.480	0.633
	FR1 n2	40M	BPSK	1	1	Back	5mm	Ant 0	ECI 3		376000	1880	1	16.31	17.50	1.315	0.12	0.974	1.280
67	FR1 n2	40M	BPSK	108	54	Back	5mm	Ant 0	ECI 3		376000	1880	1	16.30	17.50	1.318	0.06	0.979	1.290
	FR1 n2	40M	BPSK	108	54	Back	5mm	Ant 0	ECI 3		376000	1880	2	16.30	17.50	1.318	0.03	0.757	0.998
	FR1 n2	40M	BPSK	108	54	Back	5mm	Ant 0	ECI 3		376000	1880	3	16.30	17.50	1.318	0.08	0.735	0.969
	FR1 n2	40M	BPSK	216	0	Back	5mm	Ant 0	ECI 3		376000	1880	1	16.24	17.50	1.337	0.11	0.901	1.204
	FR1 n2	40M	BPSK	108	54	Back	5mm	Ant 0	ECI 3-1 (Reference Designator)		376000	1880	1	16.20	17.50	1.349	-0.15	0.273	0.368
	FR1 n2	40M	BPSK	1	1	Front	14mm	Ant 0	ECI 4		376000	1880	1	22.73	24.00	1.34	0.03	0.423	0.567
	FR1 n2	40M	BPSK	1	1	Back	21mm	Ant 0	ECI 4		376000	1880	1	22.73	24.00	1.34	-0.18	0.294	0.394
	FR1 n2	40M	BPSK	1	1	Front	5mm	Ant 4	ECI 3		376000	1880	1	19.62	21.00	1.374	0.06	0.413	0.567
	FR1 n2	40M	BPSK	108	54	Front	5mm	Ant 4	ECI 3		376000	1880	1	19.60	21.00	1.38	-0.15	0.472	0.651
	FR1 n2	40M	BPSK	1	1	Back	5mm	Ant 4	ECI 3		376000	1880	1	19.62	21.00	1.374	-0.19	0.601	0.826
	FR1 n2	40M	BPSK	108	54	Back	5mm	Ant 4	ECI 3		376000	1880	1	19.60	21.00	1.38	-0.19	0.635	0.876
	FR1 n2	40M	BPSK	216	0	Back	5mm	Ant 4	ECI 3		376000	1880	1	19.53	21.00	1.403	0.14	0.602	0.845
	FR1 n2	40M	BPSK	108	54	Back	5mm	Ant 4	ECI 3-1 (Reference Designator)		376000	1880	1	19.48	21.00	1.419	0.05	0.577	0.819
	FR1 n2	40M	BPSK	1	1	Front	14mm	Ant 4	ECI 4		376000	1880	1	21.12	22.00	1.225	0.03	0.125	0.153
	FR1 n2	40M	BPSK	1	1	Back	21mm	Ant 4	ECI 4		376000	1880	1	21.12	22.00	1.225	0.08	0.087	0.107
	FR1 n7	50M	BPSK	1	1	Front	5mm	Ant 4	ECI 3		507000	2535	1	15.76	16.90	1.3	0.01	0.267	0.347
	FR1 n7	50M	BPSK	135	68	Front	5mm	Ant 4	ECI 3		507000	2535	1	15.74	16.90	1.306	-0.05	0.229	0.299



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	FR1 n7	50M	BPSK	1	1	Back	5mm	Ant 4	ECI 3		507000	2535	1	15.76	16.90	1.3	-0.16	0.647	0.841
	FR1 n7	50M	BPSK	135	68	Back	5mm	Ant 4	ECI 3		507000	2535	1	15.74	16.90	1.306	0.01	0.675	0.882
	FR1 n7	50M	BPSK	270	0	Back	5mm	Ant 4	ECI 3		507000	2535	1	15.64	16.90	1.337	0.18	0.591	0.790
	FR1 n7	50M	BPSK	1	1	Front	14mm	Ant 4	ECI 4		507000	2535	1	22.76	24.00	1.33	0.03	0.341	0.454
	FR1 n7	50M	BPSK	1	1	Back	21mm	Ant 4	ECI 4		507000	2535	1	22.76	24.00	1.33	0.08	0.313	0.416
	FR1 n7	50M	BPSK	1	1	Front	5mm	Ant 1	ECI 3		507000	2535	1	16.79	18.20	1.384	-0.11	0.633	0.877
	FR1 n7	50M	BPSK	135	68	Front	5mm	Ant 1	ECI 3		507000	2535	1	16.73	18.20	1.403	-0.02	0.730	1.024
	FR1 n7	50M	BPSK	270	0	Front	5mm	Ant 1	ECI 3		507000	2535	1	16.75	18.20	1.396	0.16	0.686	0.958
	FR1 n7	50M	BPSK	1	1	Back	5mm	Ant 1	ECI 3		507000	2535	1	16.79	18.20	1.384	0.11	0.829	1.147
68	FR1 n7	50M	BPSK	135	68	Back	5mm	Ant 1	ECI 3		507000	2535	1	16.73	18.20	1.403	-0.13	0.919	1.289
	FR1 n7	50M	BPSK	270	0	Back	5mm	Ant 1	ECI 3		507000	2535	1	16.75	18.20	1.396	0.01	0.907	1.266
	FR1 n7	50M	BPSK	1	1	Front	14mm	Ant 1	ECI 4		507000	2535	1	22.26	24.00	1.493	0.02	0.407	0.608
	FR1 n7	50M	BPSK	1	1	Back	21mm	Ant 1	ECI 4		507000	2535	1	22.26	24.00	1.493	-0.06	0.323	0.482
	FR1 n26	20M	BPSK	1	1	Front	5mm	Ant 0	ECI 3		166300	831.5	1	22.93	24.00	1.279	-0.09	0.504	0.645
	FR1 n26	20M	BPSK	50	28	Front	5mm	Ant 0	ECI 3		166300	831.5	1	22.95	24.00	1.274	-0.19	0.557	0.710
	FR1 n26	20M	BPSK	1	1	Back	5mm	Ant 0	ECI 3		166300	831.5	1	22.93	24.00	1.279	-0.15	0.964	1.233
69	FR1 n26	20M	BPSK	50	28	Back	5mm	Ant 0	ECI 3		166300	831.5	1	22.95	24.00	1.274	0.02	1.030	1.312
	FR1 n26	20M	BPSK	50	28	Back	5mm	Ant 0	ECI 3		166300	831.5	2	22.95	24.00	1.274	0.06	0.691	0.88
	FR1 n26	20M	BPSK	50	28	Back	5mm	Ant 0	ECI 3		166300	831.5	3	22.95	24.00	1.274	0.08	0.695	0.885
	FR1 n26	20M	BPSK	100	0	Back	5mm	Ant 0	ECI 3		166300	831.5	1	22.55	23.50	1.245	0.13	0.967	1.203
	FR1 n26	20M	BPSK	1	1	Front	5mm	Ant 4	ECI 3		166300	831.5	1	20.53	21.90	1.371	0.14	0.279	0.383
	FR1 n26	20M	BPSK	50	28	Front	5mm	Ant 4	ECI 3		166300	831.5	1	20.51	21.90	1.377	0.09	0.338	0.465
	FR1 n26	20M	BPSK	1	1	Back	5mm	Ant 4	ECI 3		166300	831.5	1	20.53	21.90	1.371	-0.17	0.558	0.765
	FR1 n26	20M	BPSK	50	28	Back	5mm	Ant 4	ECI 3		166300	831.5	1	20.51	21.90	1.377	0.01	0.643	0.885
	FR1 n26	20M	BPSK	50	28	Back	5mm	Ant 4	ECI 3		166300	831.5	2	20.51	21.90	1.377	0.06	0.473	0.651
	FR1 n26	20M	BPSK	50	28	Back	5mm	Ant 4	ECI 3		166300	831.5	3	20.51	21.90	1.377	0.01	0.454	0.625
	FR1 n26	20M	BPSK	100	0	Back	5mm	Ant 4	ECI 3		166300	831.5	1	20.49	21.90	1.384	0.11	0.630	0.872
	FR1 n26	20M	BPSK	1	1	Front	14mm	Ant 4	ECI 4		166300	831.5	1	22.05	23.00	1.245	0.09	0.073	0.091
	FR1 n26	20M	BPSK	1	1	Back	21mm	Ant 4	ECI 4		166300	831.5	1	22.05	23.00	1.245	0.01	0.059	0.073
	FR1 n66	45M	BPSK	1	1	Front	5mm	Ant 0	ECI 3		349000	1745	1	16.17	17.60	1.39	0.16	0.442	0.615
	FR1 n66	45M	BPSK	120	60	Front	5mm	Ant 0	ECI 3		349000	1745	1	16.15	17.60	1.396	-0.18	0.445	0.621
70	FR1 n66	45M	BPSK	1	1	Back	5mm	Ant 0	ECI 3		349000	1745	1	16.17	17.60	1.39	-0.01	0.932	1.295
	FR1 n66	45M	BPSK	1	1	Back	5mm	Ant 0	ECI 3		349000	1745	2	16.17	17.60	1.39	0.08	0.724	1.006
	FR1 n66	45M	BPSK	1	1	Back	5mm	Ant 0	ECI 3		349000	1745	3	16.17	17.60	1.39	0.03	0.680	0.945
	FR1 n66	45M	BPSK	120	60	Back	5mm	Ant 0	ECI 3		349000	1745	1	16.15	17.60	1.396	0.03	0.903	1.261
	FR1 n66	45M	BPSK	240	0	Back	5mm	Ant 0	ECI 3		349000	1745	1	16.08	17.60	1.419	-0.15	0.898	1.274
	FR1 n66	45M	BPSK	1	1	Back	5mm	Ant 0	ECI 3-1 (Reference Designator)		349000	1745	1	16.05	17.60	1.429	0.15	0.305	0.436
	FR1 n66	45M	BPSK	1	1	Front	14mm	Ant 0	ECI 4		349000	1745	1	22.65	24.00	1.365	0.06	0.486	0.663
	FR1 n66	45M	BPSK	1	1	Back	21mm	Ant 0	ECI 4		349000	1745	1	22.65	24.00	1.365	-0.08	0.501	0.684
	FR1 n66	45M	BPSK	1	1	Front	5mm	Ant 4	ECI 3		349000	1745	1	17.79	18.80	1.262	0.10	0.616	0.778
	FR1 n66	45M	BPSK	120	60	Front	5mm	Ant 4	ECI 3		349000	1745	1	17.77	18.80	1.268	0.15	0.557	0.706
	FR1 n66	45M	BPSK	1	1	Back	5mm	Ant 4	ECI 3		349000	1745	1	17.79	18.80	1.262	0.11	0.690	0.871
	FR1 n66	45M	BPSK	120	60	Back	5mm	Ant 4	ECI 3		349000	1745	1	17.77	18.80	1.268	-0.13	0.691	0.876
	FR1 n66	45M	BPSK	240	0	Back	5mm	Ant 4	ECI 3		349000	1745	1	17.70	18.80	1.288	-0.12	0.671	0.864
	FR1 n66	45M	BPSK	120	60	Back	5mm	Ant 4	ECI 3-1 (Reference Designator)		349000	1745	1	17.72	18.80	1.282	0.15	0.456	0.585
	FR1 n66	45M	BPSK	1	1	Front	14mm	Ant 4	ECI 4		349000	1745	1	21.21	22.00	1.199	0.03	0.277	0.332
	FR1 n66	45M	BPSK	1	1	Back	21mm	Ant 4	ECI 4		349000	1745	1	21.21	22.00	1.199	0.08	0.152	0.182
	FR1 n41	100M	BPSK	1	1	Front	5mm	Ant 4	ECI 3		518598	2592.99	1	15.78	16.70	1.236	-0.04	0.107	0.132
	FR1 n41	100M	BPSK	135	69	Front	5mm	Ant 4	ECI 3		518598	2592.99	1	15.69	16.70	1.262	-0.16	0.232	0.293
	FR1 n41	100M	BPSK	1	1	Back	5mm	Ant 4	ECI 3		518598	2592.99	1	15.78	16.70	1.236	-0.09	0.303	0.375
71	FR1 n41	100M	BPSK	135	69	Back	5mm	Ant 4	ECI 3		518598	2592.99	1	15.69	16.70	1.262	-0.03	0.700	0.883
	FR1 n41	100M	BPSK	135	69	Back	5mm	Ant 4	ECI 3		518598	2592.99	2	15.69	16.70	1.262	0.08	0.329	0.415
	FR1 n41	100M	BPSK	135	69	Back	5mm	Ant 4	ECI 3		518598	2592.99	3	15.69	16.70	1.262	0.03	0.347	0.438
	FR1 n41	100M	BPSK	270	0	Back	5mm	Ant 4	ECI 3		518598	2592.99	1	15.68	16.70	1.265	0.15	0.352	0.445
	FR1 n41	100M	BPSK	1	1	Front	14mm	Ant 4	ECI 4		518598	2592.99	1	22.79	24.00	1.321	0.03	0.310	0.410
	FR1 n41	100M	BPSK	1	1	Back	21mm	Ant 4	ECI 4		518598	2592.99	1	22.79	24.00	1.321	0.08	0.313	0.413
	FR1 n77	100M	BPSK	1	1	Front	5mm	Ant 5	ECI 3		656000	3840	1	16.71	17.80	1.285	-0.16	0.287	0.369
	FR1 n77	100M	BPSK	135	69	Front	5mm	Ant 5	ECI 3		656000	3840	1	16.65	17.80	1.303	-0.04	0.171	0.222
	FR1 n77	100M	BPSK	1	1	Back	5mm	Ant 5	ECI 3		656000	3840	1	16.71	17.80	1.285	-0.06	0.688	0.884
	FR1 n77	100M	BPSK	135	69	Back	5mm	Ant 5	ECI 3		656000	3840	1	16.65	17.80	1.303	0.19	0.431	0.561
	FR1 n77	100M	BPSK	270	0	Back	5mm	Ant 5	ECI 3		656000	3840	1	16.57	17.80	1.327	0.07	0.648	0.860
	FR1 n77	100M	BPSK	1	1	Front	14mm	Ant 5	ECI 4		656000	3840	1	22.67	24.00	1.358	0.02	0.305	0.414
	FR1 n77	100M	BPSK	1	1	Back	21mm	Ant 5	ECI 4		656000	3840	1	22.67	24.00	1.358	-0.04	0.495	0.672
	FR1 n77	100M	BPSK	1	1	Front	5mm	Ant 1	ECI 3		656000	3840	1	15.19	16.30	1.291	0.10	0.311	0.402
	FR1 n77	100M	BPSK	135	69	Front	5mm	Ant 1	ECI 3		656000	3840	1	15.11	16.30	1.315	0.17	0.174	0.229
	FR1 n77	100M	BPSK	1	1	Back	5mm	Ant 1	ECI 3		656000	3840	1	15.19	16.30	1.291	-0.01	0.940	1.214
	FR1 n77	100M	BPSK	135	69	Back	5mm	Ant 1	ECI 3		656000	3840	1	15.11	16.30	1.315	-0.17	0.492	0.647
72	FR1 n77	100M	BPSK	270	0	Back	5mm	Ant 1	ECI 3		656000	3840	1	15.03	16.30	1.34	-0.13	0.946	1.268
	FR1 n77	100M	BPSK	1	1	Front	14mm	Ant 1	ECI 4		656000	3840	1	17.67	19.00	1.358	0.08	0.120	0.163
	FR1 n77	100M	BPSK	1	1	Back	21mm	Ant 1	ECI 4		656000	3840	1	17.67	19.00	1.358	0.02	0.219	0.297



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	FR1 n77	100M	BPSK	1	1	Front	5mm	Ant 8	ECI 3		656000	3840	1	10.74	12.10	1.368	0.18	0.039	0.053
	FR1 n77	100M	BPSK	135	69	Front	5mm	Ant 8	ECI 3		656000	3840	1	10.59	12.10	1.416	-0.15	0.021	0.030
	FR1 n77	100M	BPSK	1	1	Back	5mm	Ant 8	ECI 3		656000	3840	1	10.74	12.10	1.368	-0.04	0.646	0.884
	FR1 n77	100M	BPSK	135	69	Back	5mm	Ant 8	ECI 3		656000	3840	1	10.59	12.10	1.416	-0.16	0.570	0.807
	FR1 n77	100M	BPSK	270	0	Back	5mm	Ant 8	ECI 3		656000	3840	1	10.64	12.10	1.4	-0.12	0.608	0.851
	FR1 n77	100M	BPSK	1	1	Front	14mm	Ant 8	ECI 4		656000	3840	1	22.19	23.00	1.205	0.03	0.154	0.186
	FR1 n77	100M	BPSK	1	1	Back	21mm	Ant 8	ECI 4		656000	3840	1	22.19	23.00	1.205	0.08	0.842	1.015
	FR1 n77	100M	BPSK	1	1	Front	5mm	Ant 2	ECI 3		656000	3840	1	16.64	17.90	1.337	0.16	0.022	0.030
	FR1 n77	100M	BPSK	135	69	Front	5mm	Ant 2	ECI 3		656000	3840	1	16.63	17.90	1.34	0.11	0.001	0.001
	FR1 n77	100M	BPSK	1	1	Back	5mm	Ant 2	ECI 3		656000	3840	1	16.64	17.90	1.337	-0.04	0.659	0.881
	FR1 n77	100M	BPSK	135	69	Back	5mm	Ant 2	ECI 3		656000	3840	1	16.63	17.90	1.34	-0.13	0.444	0.595
	FR1 n77	100M	BPSK	270	0	Back	5mm	Ant 2	ECI 3		656000	3840	1	16.62	17.90	1.343	-0.17	0.639	0.858
	FR1 n77	100M	BPSK	1	1	Front	14mm	Ant 2	ECI 4		656000	3840	1	19.23	20.00	1.194	0.06	0.001	0.001
	FR1 n77	100M	BPSK	1	1	Back	21mm	Ant 2	ECI 4		656000	3840	1	19.23	20.00	1.194	0.11	0.062	0.074

【WLAN 2.4GHz_5GHz SAR】

Plot No	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	Ant 6	Body-worn Standalone	1	2412	1	17.21	18.50	1.346	100.0	1.0	-0.13	0.353	0.475
73	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 6	Body-worn Standalone	1	2412	1	17.21	18.50	1.346	100.0	1.0	0.08	1.020	1.373
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 6	Body-worn Standalone	1	2412	2	17.21	18.50	1.346	100.0	1.0	0.08	1.010	1.359
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 6	Body-worn Standalone	1	2412	3	17.21	18.50	1.346	100.0	1.0	0.01	1.000	1.346
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 6	Body-worn Standalone	6	2437	1	17.16	18.50	1.361	100.0	1.0	0.00	0.703	0.957
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 6	Body-worn Standalone	11	2462	1	17.00	18.50	1.413	100.0	1.0	0.08	0.887	1.253
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 6	Body-worn Simultaneous	1	2412	1	11.76	13.00	1.33	100.0	1.0	-0.11	0.292	0.388
	WLAN2.4GHz	802.11b 1Mbps	Front	14mm	Ant 6	Full Power	1	2412	1	18.64	20.00	1.368	100.0	1.0	-0.05	0.102	0.140
	WLAN2.4GHz	802.11b 1Mbps	Back	21mm	Ant 6	Full Power	1	2412	1	18.64	20.00	1.368	100.0	1.0	-0.16	0.083	0.114
	WLAN5GHz	802.11n-HT40 MCS0	Front	5mm	Ant 6	Body-worn Standalone	54	5270	1	15.66	16.50	1.213	94.92	1.054	-0.15	0.300	0.384
	WLAN5GHz	802.11n-HT40 MCS0	Front	5mm	Ant 6	Body-worn Simultaneous	58	5290	1	9.26	11	1.493	94.92	1.054	0.05	0.073	0.115
74	WLAN5GHz	802.11n-HT40 MCS0	Back	5mm	Ant 6	Body-worn Standalone	54	5270	1	15.66	16.50	1.213	94.92	1.054	-0.03	0.855	1.093
	WLAN5GHz	802.11n-HT40 MCS0	Back	5mm	Ant 6	Body-worn Standalone	54	5270	2	15.66	16.50	1.213	94.92	1.054	0.08	0.853	1.091
	WLAN5GHz	802.11n-HT40 MCS0	Back	5mm	Ant 6	Body-worn Standalone	54	5270	3	15.66	16.50	1.213	94.92	1.054	0.05	0.822	1.051
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 6	Body-worn Simultaneous	58	5290	1	9.26	11.00	1.493	84.27	1.187	-0.11	0.225	0.399
	WLAN5GHz	802.11n-HT40 MCS0	Back	5mm	Ant 6	Body-worn Standalone	62	5310	1	13.16	14.50	1.361	94.92	1.054	0.01	0.439	0.630
	WLAN5GHz	802.11a 6Mbps	Front	14mm	Ant 6	Full Power	56	5280	1	17.66	19.00	1.361	97.46	1.026	0.06	0.111	0.155
	WLAN5GHz	802.11a 6Mbps	Back	21mm	Ant 6	Full Power	56	5280	1	17.66	19.00	1.361	97.46	1.026	0.18	0.091	0.127
	WLAN5GHz	802.11a 6Mbps	Front	5mm	Ant 6	Body-worn Standalone	116	5580	1	17.80	19.00	1.318	97.46	1.026	0.10	0.312	0.422
	WLAN5GHz	802.11a 6Mbps	Front	5mm	Ant 6	Body-worn Simultaneous	122	5610	1	12.88	14	1.294	97.46	1.026	0.03	0.093	0.123
75	WLAN5GHz	802.11a 6Mbps	Back	5mm	Ant 6	Body-worn Standalone	116	5580	1	17.80	19.00	1.318	97.46	1.026	0.04	0.799	1.080
	WLAN5GHz	802.11a 6Mbps	Back	5mm	Ant 6	Body-worn Standalone	116	5580	2	17.80	19.00	1.318	97.46	1.026	0.03	0.782	1.057
	WLAN5GHz	802.11a 6Mbps	Back	5mm	Ant 6	Body-worn Standalone	116	5580	3	17.80	19.00	1.318	97.46	1.026	0.07	0.759	1.026
	WLAN5GHz	802.11a 6Mbps	Back	5mm	Ant 6	Body-worn Standalone	124	5620	1	17.69	19.00	1.352	97.46	1.026	0.09	0.749	1.040
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 6	Body-worn Simultaneous	122	5610	1	12.88	14.00	1.294	84.27	1.187	0.06	0.256	0.393
	WLAN5GHz	802.11a 6Mbps	Front	14mm	Ant 6	Full Power	116	5580	1	17.80	19.00	1.318	97.46	1.026	-0.11	0.090	0.122
	WLAN5GHz	802.11a 6Mbps	Back	21mm	Ant 6	Full Power	116	5580	1	17.80	19.00	1.318	97.46	1.026	-0.08	0.104	0.141
	WLAN5GHz	802.11a 6Mbps	Front	5mm	Ant 6	Body-worn Standalone	149	5745	1	17.24	19.00	1.5	97.46	1.026	0.01	0.205	0.316
	WLAN5GHz	802.11a 6Mbps	Front	5mm	Ant 6	Body-worn Simultaneous	155	5775	1	13.68	15.5	1.521	97.46	1.026	0.04	0.062	0.097
76	WLAN5GHz	802.11a 6Mbps	Back	5mm	Ant 6	Body-worn Standalone	149	5745	1	17.24	19.00	1.5	97.46	1.026	-0.08	0.489	0.753
	WLAN5GHz	802.11a 6Mbps	Back	5mm	Ant 6	Body-worn Standalone	149	5745	2	17.24	19.00	1.5	97.46	1.026	0.02	0.481	0.74
	WLAN5GHz	802.11a 6Mbps	Back	5mm	Ant 6	Body-worn Standalone	149	5745	3	17.24	19.00	1.5	97.46	1.026	0.08	0.472	0.726
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 6	Body-worn Simultaneous	155	5775	1	13.68	15.50	1.521	84.27	1.187	0.03	0.220	0.397
	WLAN5GHz	802.11a 6Mbps	Front	14mm	Ant 6	Full Power	149	5745	1	17.24	19.00	1.5	97.46	1.026	0.02	0.088	0.135
	WLAN5GHz	802.11a 6Mbps	Back	21mm	Ant 6	Full Power	149	5745	1	17.24	19.00	1.5	97.46	1.026	0.08	0.084	0.129

【Bluetooth SAR】

Plot No	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	Bluetooth	1Mbps	Front	5mm	Ant 6	Full Power	78	2480	1	13.86	15.00	1.3	76.94	1.083	0.10	0.070	0.098
77	Bluetooth	1Mbps	Back	5mm	Ant 6	Full Power	78	2480	1	13.86	15.00	1.3	76.94	1.083	0.05	0.211	0.297

For Headset

Plot No	Band	BW	Modulation	RB Size	RB Offset	Mode	Test Position	Gap (mm)	Headset	Antenna	Power State	Ch.	Freq. (MHz)	Sample	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)
	GSM850					GPRS 4 Tx slots	Back	5mm	Headset	Ant 0	ECI 3	189	836.4	1	27.04	27.9	1.219	100	1.000	0.06	0.980	1.195
	GSM1900					GPRS 4 Tx slots	Back	5mm	Headset	Ant 0	ECI 3	661	1880	1	21.61	23	1.377	100	1.000	0.02	0.822	1.132
	WCDMA II					RMC 12.2Kbps	Back	5mm	Headset	Ant 0	ECI 3	9400	1880	1	17.71	19	1.346	100	1.000	0.05	0.926	1.246
	WCDMA IV					RMC 12.2Kbps	Back	5mm	Headset	Ant 0	ECI 3	1413	1732.6	1	17.51	18.7	1.315	100	1.000	0.07	0.953	1.253
	WCDMA V					RMC 12.2Kbps	Back	5mm	Headset	Ant 0	ECI 3	4182	836.4	1	22.99	24	1.262	100	1.000	0.09	0.931	1.175
	LTE Band 7	20M	QPSK	1	0		Back	5mm	Headset	Ant 1	ECI 3	21100	2535	1	16.85	18.3	1.396	100	1.000	0.02	0.873	1.219
	LTE Band 25	20M	QPSK	1	0		Back	5mm	Headset	Ant 0	ECI 3	26340	1880	1	17.15	18	1.216	100	1.000	0.09	0.993	1.207
	LTE Band 26	15M	QPSK	1	0		Back	5mm	Headset	Ant 0	ECI 3	26865	831.5	1	22.38	24	1.452	100	1.000	0.08	0.822	1.194
	LTE Band 66	20M	QPSK	1	0		Back	5mm	Headset	Ant 0	ECI 3	132322	1745	1	17.04	17.9	1.219	100	1.000	0.02	0.989	1.206
	LTE Band 38	20M	QPSK	1	0		Back	5mm	Headset	Ant 1	ECI 3	38000	2595	1	17.96	19.1	1.300	62.9	1.006	0.08	0.976	1.276
	FR1 n2	40M	BPSK	108	54		Back	5mm	Headset	Ant 0	ECI 3	376000	1880	1	16.3	17.5	1.318	100	1.000	0.03	0.955	1.259
	FR1 n7	50M	BPSK	135	68		Back	5mm	Headset	Ant 1	ECI 3	507000	2535	1	16.73	18.2	1.403	100	1.000	0.05	0.906	1.271
	FR1 n26	20M	BPSK	50	28		Back	5mm	Headset	Ant 0	ECI 3	166300	831.5	1	22.95	24	1.274	100	1.000	-0.16	0.993	1.265
	FR1 n66	45M	BPSK	1	1		Back	5mm	Headset	Ant 0	ECI 3	349000	1745	1	16.17	17.6	1.390	100	1.000	0.04	0.926	1.287
	FR1 n77	100M	BPSK	1	1		Back	5mm	Headset	Ant 1	ECI 3	656000	3840	1	15.19	16.3	1.291	100	1.000	0.06	0.933	1.205

Plot No	Band	Mode	Test Position	Gap (mm)	Headset	Antenna	Power State	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Headset	Ant 6	Body-worn Standalone	1	2412	1	17.21	18.5	1.346	100	1.000	0.02	0.988	1.33

16.4 Product specific 10g SAR

【GSM SAR】

Plot No	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
	GSM850	GPRS 4 Tx slots	Front	0mm	Ant 0	ECI 6	189	836.4	1	28.32	29.50	1.312	-0.09	1.320	1.732
	GSM850	GPRS 4 Tx slots	Back	0mm	Ant 0	ECI 6	189	836.4	1	28.32	29.50	1.312	0.11	1.400	1.837
	GSM850	GPRS 4 Tx slots	Bottom Side	0mm	Ant 0	ECI 6	189	836.4	1	28.32	29.50	1.312	-0.05	1.690	2.217
78	GSM850	GPRS 4 Tx slots	Bottom Side	0mm	Ant 0	ECI 6	128	824.2	1	28.18	29.50	1.355	0.03	1.800	2.439
	GSM850	GPRS 4 Tx slots	Bottom Side	0mm	Ant 0	ECI 6	128	824.2	2	28.18	29.50	1.355	0.01	1.460	1.978
	GSM850	GPRS 4 Tx slots	Bottom Side	0mm	Ant 0	ECI 6	128	824.2	3	28.18	29.50	1.355	0.14	1.490	2.019
	GSM850	GPRS 4 Tx slots	Bottom Side	0mm	Ant 0	ECI 6	251	848.8	1	28.26	29.50	1.33	-0.19	1.530	2.035
	GSM850	GPRS 4 Tx slots	Front	12mm	Ant 0	ECI 4	189	836.4	1	28.32	29.50	1.312	0.09	0.163	0.214
	GSM850	GPRS 4 Tx slots	Back	19mm	Ant 0	ECI 4	189	836.4	1	28.32	29.50	1.312	0.10	0.226	0.297
	GSM850	GPRS 4 Tx slots	Right Side	8mm	Ant 0	ECI 4	189	836.4	1	28.32	29.50	1.312	0.18	0.313	0.411
	GSM850	GPRS 4 Tx slots	Bottom Side	15mm	Ant 0	ECI 4	189	836.4	1	28.32	29.50	1.312	-0.08	0.112	0.147
	GSM1900	GPRS 4 Tx slots	Front	0mm	Ant 0	ECI 6	661	1880	1	24.56	25.60	1.271	0.17	1.120	1.424
	GSM1900	GPRS 4 Tx slots	Back	0mm	Ant 0	ECI 6	661	1880	1	24.56	25.60	1.271	-0.10	1.920	2.440
	GSM1900	GPRS 4 Tx slots	Back	0mm	Ant 0	ECI 6	512	1850.2	1	24.53	25.60	1.279	-0.15	1.850	2.366
	GSM1900	GPRS 4 Tx slots	Back	0mm	Ant 0	ECI 6	810	1909.8	1	24.45	25.60	1.303	0.18	2.040	2.658
79	GSM1900	GPRS 4 Tx slots	Bottom Side	0mm	Ant 0	ECI 6	661	1880	1	24.56	25.60	1.271	0.07	2.290	2.911
	GSM1900	GPRS 4 Tx slots	Bottom Side	0mm	Ant 0	ECI 6	661	1880	2	24.56	25.60	1.271	0.06	2.110	2.682
	GSM1900	GPRS 4 Tx slots	Bottom Side	0mm	Ant 0	ECI 6	661	1880	3	24.56	25.60	1.271	0.07	2.260	2.872
	GSM1900	GPRS 4 Tx slots	Bottom Side	0mm	Ant 0	ECI 6	512	1850.2	1	24.53	25.60	1.279	0.11	2.120	2.711
	GSM1900	GPRS 4 Tx slots	Bottom Side	0mm	Ant 0	ECI 6	810	1909.8	1	24.45	25.60	1.303	0.05	2.110	2.749
	GSM1900	GPRS 4 Tx slots	Front	12mm	Ant 0	ECI 4	661	1880	1	25.66	26.50	1.213	-0.06	0.209	0.254
	GSM1900	GPRS 4 Tx slots	Back	19mm	Ant 0	ECI 4	661	1880	1	25.66	26.50	1.213	-0.11	0.146	0.177
	GSM1900	GPRS 4 Tx slots	Bottom Side	15mm	Ant 0	ECI 4	661	1880	1	25.66	26.50	1.213	0.08	0.301	0.365

【WCDMA SAR】

Plot No	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
	WCDMA II	RMC 12.2Kbps	Front	0mm	Ant 0	ECI 6	9400	1880	1	20.77	22.10	1.358	0.15	1.350	1.833
	WCDMA II	RMC 12.2Kbps	Back	0mm	Ant 0	ECI 6	9400	1880	1	20.77	22.10	1.358	-0.03	2.100	2.852
80	WCDMA II	RMC 12.2Kbps	Back	0mm	Ant 0	ECI 6	9262	1852.4	1	20.74	22.10	1.368	-0.02	2.320	3.174
	WCDMA II	RMC 12.2Kbps	Back	0mm	Ant 0	ECI 6	9538	1907.6	1	20.76	22.10	1.361	0.12	1.840	2.504
	WCDMA II	RMC 12.2Kbps	Bottom Side	0mm	Ant 0	ECI 6	9400	1880	1	20.77	22.10	1.358	-0.08	1.790	2.431
	WCDMA II	RMC 12.2Kbps	Bottom Side	0mm	Ant 0	ECI 6	9262	1852.4	1	20.74	22.10	1.368	0.14	1.990	2.722
	WCDMA II	RMC 12.2Kbps	Bottom Side	0mm	Ant 0	ECI 6	9538	1907.6	1	20.76	22.10	1.361	-0.15	1.500	2.042
	WCDMA II	RMC 12.2Kbps	Front	12mm	Ant 0	ECI 4	9400	1880	1	23.22	24.00	1.197	0.08	0.442	0.529
	WCDMA II	RMC 12.2Kbps	Back	19mm	Ant 0	ECI 4	9400	1880	1	23.22	24.00	1.197	0.16	0.307	0.367
	WCDMA II	RMC 12.2Kbps	Bottom Side	15mm	Ant 0	ECI 4	9400	1880	1	23.22	24.00	1.197	-0.18	0.563	0.674
	WCDMA IV	RMC 12.2Kbps	Front	0mm	Ant 0	ECI 6	1413	1732.6	1	20.99	22.10	1.291	-0.10	1.400	1.807
	WCDMA IV	RMC 12.2Kbps	Back	0mm	Ant 0	ECI 6	1413	1732.6	1	20.99	22.10	1.291	0.15	2.300	2.969
81	WCDMA IV	RMC 12.2Kbps	Back	0mm	Ant 0	ECI 6	1312	1712.4	1	20.92	22.10	1.312	-0.16	2.410	3.162
	WCDMA IV	RMC 12.2Kbps	Back	0mm	Ant 0	ECI 6	1513	1752.6	1	20.97	22.10	1.297	0.14	2.120	2.750
	WCDMA IV	RMC 12.2Kbps	Bottom Side	0mm	Ant 0	ECI 6	1413	1732.6	1	20.99	22.10	1.291	-0.12	2.010	2.595
	WCDMA IV	RMC 12.2Kbps	Bottom Side	0mm	Ant 0	ECI 6	1312	1712.4	1	20.92	22.10	1.312	0.06	1.850	2.427
	WCDMA IV	RMC 12.2Kbps	Bottom Side	0mm	Ant 0	ECI 6	1513	1752.6	1	20.97	22.10	1.297	0.11	2.020	2.620
	WCDMA IV	RMC 12.2Kbps	Front	12mm	Ant 0	ECI 4	1413	1732.6	1	23.46	24.00	1.132	0.03	0.471	0.533
	WCDMA IV	RMC 12.2Kbps	Back	19mm	Ant 0	ECI 4	1413	1732.6	1	23.46	24.00	1.132	-0.18	0.421	0.477
	WCDMA IV	RMC 12.2Kbps	Bottom Side	15mm	Ant 0	ECI 4	1413	1732.6	1	23.46	24.00	1.132	0.09	0.677	0.766
	WCDMA V	RMC 12.2Kbps	Back	0mm	Ant 0	ECI 6	4182	836.4	1	23.25	24.00	1.189	0.15	1.380	1.641
82	WCDMA V	RMC 12.2Kbps	Bottom Side	0mm	Ant 0	ECI 6	4182	836.4	1	23.25	24.00	1.189	0.05	1.490	1.772



【FDD LTE SAR】

Plot No	Band	BW	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	Power State	Power State Note	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
	LTE Band 2	20M	QPSK	1	0	Front	0mm	Ant 0	ECI 6-1	PA (Reference Designator)	18900	1880	1	20.61	21.70	1.285	0.18	0.991	1.274
	LTE Band 2	20M	QPSK	50	0	Front	0mm	Ant 0	ECI 6-1	PA (Reference Designator)	18900	1880	1	20.53	21.70	1.309	-0.04	0.778	1.019
	LTE Band 2	20M	QPSK	1	0	Back	0mm	Ant 0	ECI 6-1	PA (Reference Designator)	18900	1880	1	20.61	21.70	1.285	0.17	1.560	2.005
83	LTE Band 2	20M	QPSK	1	0	Back	0mm	Ant 0	ECI 6-1	PA (Reference Designator)	18700	1860	1	20.43	21.70	1.34	0.17	1.550	2.077
	LTE Band 2C	20M	QPSK	1	0	Back	0mm	Ant 0	ECI 6-1	PA (Reference Designator)	18700+18898	1860+1879.8	1	20.52	21.7	1.312	0.06	1.500	1.968
	LTE Band 2	20M	QPSK	1	0	Back	0mm	Ant 0	ECI 6-1	PA (Reference Designator)	19100	1900	1	20.38	21.70	1.355	0.05	1.280	1.734
	LTE Band 2	20M	QPSK	50	0	Back	0mm	Ant 0	ECI 6-1	PA (Reference Designator)	18900	1880	1	20.53	21.70	1.309	-0.02	1.170	1.532
	LTE Band 2	20M	QPSK	100	0	Back	0mm	Ant 0	ECI 6-1	PA (Reference Designator)	18900	1880	1	20.46	21.70	1.33	0.18	1.160	1.543
	LTE Band 2	20M	QPSK	1	0	Bottom Side	0mm	Ant 0	ECI 6-1	PA (Reference Designator)	18900	1880	1	20.61	21.70	1.285	-0.07	1.260	1.619
	LTE Band 2	20M	QPSK	50	0	Bottom Side	0mm	Ant 0	ECI 6-1	PA (Reference Designator)	18900	1880	1	20.53	21.70	1.309	0.14	0.966	1.265
	LTE Band 2	20M	QPSK	1	0	Front	12mm	Ant 0	ECI 6-1	PA (Reference Designator)	18900	1880	1	22.44	24	1.432	0.05	0.338	0.484
	LTE Band 2	20M	QPSK	1	0	Back	19mm	Ant 0	ECI 6-1	PA (Reference Designator)	18900	1880	1	22.44	24	1.432	0.04	0.184	0.263
	LTE Band 2	20M	QPSK	1	0	Bottom Side	15mm	Ant 0	ECI 6-1	PA (Reference Designator)	18900	1880	1	22.44	24	1.432	0.02	0.263	0.377
	LTE Band 7	20M	QPSK	1	0	Front	0mm	Ant 4	ECI 6		21100	2535	1	20.56	21.50	1.242	-0.15	0.946	1.175
	LTE Band 7	20M	QPSK	50	0	Front	0mm	Ant 4	ECI 6		21100	2535	1	20.43	21.50	1.279	0.07	0.697	0.892
	LTE Band 7	20M	QPSK	1	0	Back	0mm	Ant 4	ECI 6		21100	2535	1	20.56	21.50	1.242	-0.01	1.310	1.627
	LTE Band 7	20M	QPSK	50	0	Back	0mm	Ant 4	ECI 6		21100	2535	1	20.43	21.50	1.279	-0.07	0.995	1.272
	LTE Band 7	20M	QPSK	1	0	Top Side	0mm	Ant 4	ECI 6		21100	2535	1	20.56	21.50	1.242	0.16	1.650	2.049
	LTE Band 7	20M	QPSK	1	0	Top Side	0mm	Ant 4	ECI 6		20850	2510	1	20.43	21.50	1.279	0.07	1.930	2.468
	LTE Band 7	20M	QPSK	1	0	Top Side	0mm	Ant 4	ECI 6		21350	2560	1	20.52	21.50	1.253	0.17	1.740	2.180
	LTE Band 7	20M	QPSK	50	0	Top Side	0mm	Ant 4	ECI 6		21100	2535	1	20.43	21.50	1.279	0.16	1.290	1.650
	LTE Band 7	20M	QPSK	100	0	Top Side	0mm	Ant 4	ECI 6		21100	2535	1	20.39	21.50	1.291	0.00	1.310	1.691
	LTE Band 7	20M	QPSK	1	0	Front	10mm	Ant 4	ECI 4		21100	2535	1	22.79	24.00	1.321	0.06	0.267	0.353
	LTE Band 7	20M	QPSK	1	0	Back	14mm	Ant 4	ECI 4		21100	2535	1	22.79	24.00	1.321	-0.11	0.202	0.267
	LTE Band 7	20M	QPSK	1	0	Top Side	16mm	Ant 4	ECI 4		21100	2535	1	22.79	24.00	1.321	-0.09	0.251	0.332
	LTE Band 7	20M	QPSK	1	0	Front	0mm	Ant 1	ECI 6		21100	2535	1	20.37	21.20	1.211	0.15	2.510	3.040
	LTE Band 7	20M	QPSK	1	0	Front	0mm	Ant 1	ECI 6		20850	2510	1	20.29	21.20	1.233	0.02	2.450	3.021
	LTE Band 7	20M	QPSK	1	0	Front	0mm	Ant 1	ECI 6		21350	2560	1	20.35	21.20	1.216	0.10	2.480	3.016
	LTE Band 7	20M	QPSK	50	0	Front	0mm	Ant 1	ECI 6		21100	2535	1	20.28	21.20	1.236	0.05	1.970	2.435
	LTE Band 7	20M	QPSK	50	0	Front	0mm	Ant 1	ECI 6		20850	2510	1	20.24	21.20	1.247	-0.10	1.930	2.407
	LTE Band 7	20M	QPSK	50	0	Front	0mm	Ant 1	ECI 6		21350	2560	1	20.26	21.20	1.242	0.12	1.960	2.434
	LTE Band 7	20M	QPSK	100	0	Front	0mm	Ant 1	ECI 6		21100	2535	1	20.27	21.20	1.239	-0.05	1.970	2.441
	LTE Band 7	20M	QPSK	1	0	Back	0mm	Ant 1	ECI 6		21100	2535	1	20.37	21.20	1.211	-0.08	2.600	3.149
	LTE Band 7	20M	QPSK	1	0	Back	0mm	Ant 1	ECI 6		20850	2510	1	20.29	21.20	1.233	-0.16	2.500	3.083
84	LTE Band 7	20M	QPSK	1	0	Back	0mm	Ant 1	ECI 6		21350	2560	1	20.35	21.20	1.216	0.02	2.620	3.186
	LTE Band 7C	20M	QPSK	1	0	Back	0mm	Ant 1	ECI 6		21350+21152	2560+2540.2	1	20.26	21.2	1.242	0.06	2.330	2.894
	LTE Band 7	20M	QPSK	50	0	Back	0mm	Ant 1	ECI 6		21100	2535	1	20.28	21.20	1.236	0.15	2.070	2.559
	LTE Band 7	20M	QPSK	50	0	Back	0mm	Ant 1	ECI 6		20850	2510	1	20.24	21.20	1.247	0.03	2.010	2.506
	LTE Band 7	20M	QPSK	50	0	Back	0mm	Ant 1	ECI 6		21350	2560	1	20.26	21.20	1.242	0.17	2.120	2.633
	LTE Band 7	20M	QPSK	100	0	Back	0mm	Ant 1	ECI 6		21100	2535	1	20.27	21.20	1.239	0.05	2.060	2.552
	LTE Band 7	20M	QPSK	1	0	Left Side	0mm	Ant 1	ECI 6		21100	2535	1	20.37	21.20	1.211	-0.18	0.959	1.161
	LTE Band 7	20M	QPSK	50	0	Left Side	0mm	Ant 1	ECI 6		21100	2535	1	20.28	21.20	1.236	-0.08	0.758	0.937
	LTE Band 7	20M	QPSK	1	0	Bottom Side	0mm	Ant 1	ECI 6		21100	2535	1	20.37	21.20	1.211	0.14	1.530	1.853
	LTE Band 7	20M	QPSK	50	0	Bottom Side	0mm	Ant 1	ECI 6		21100	2535	1	20.28	21.20	1.236	-0.00	1.190	1.471
	LTE Band 7	20M	QPSK	1	0	Front	7mm	Ant 1	ECI 4		21100	2535	1	22.29	24.00	1.483	0.06	0.924	1.370
	LTE Band 7	20M	QPSK	1	0	Back	16mm	Ant 1	ECI 4		21100	2535	1	22.29	24.00	1.483	-0.08	0.310	0.460
	LTE Band 7	20M	QPSK	1	0	Left Side	4mm	Ant 1	ECI 4		21100	2535	1	22.29	24.00	1.483	-0.13	0.738	1.094
	LTE Band 7	20M	QPSK	1	0	Bottom Side	13mm	Ant 1	ECI 4		21100	2535	1	22.29	24.00	1.483	0.09	0.325	0.482
	LTE Band 25	20M	QPSK	1	0	Front	0mm	Ant 0	ECI 6		26340	1880	1	20.68	21.70	1.265	-0.11	1.580	1.999
	LTE Band 25	20M	QPSK	50	0	Front	0mm	Ant 0	ECI 6		26340	1880	1	20.58	21.70	1.294	-0.05	1.240	1.605



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	LTE Band 25	20M	QPSK	1	0	Back	0mm	Ant 0	ECI 6		26340	1880	1	20.68	21.70	1.265	0.05	2.360	2.985
85	LTE Band 25	20M	QPSK	1	0	Back	0mm	Ant 0	ECI 6		26140	1860	1	20.65	21.70	1.274	-0.05	2.470	3.147
	LTE Band 25	20M	QPSK	1	0	Back	0mm	Ant 0	ECI 6		26590	1905	1	20.58	21.70	1.294	-0.04	2.040	2.640
	LTE Band 25	20M	QPSK	50	0	Back	0mm	Ant 0	ECI 6		26340	1880	1	20.58	21.70	1.294	-0.02	1.870	2.420
	LTE Band 25	20M	QPSK	50	0	Back	0mm	Ant 0	ECI 6		26140	1860	1	20.54	21.70	1.306	0.02	2.000	2.612
	LTE Band 25	20M	QPSK	50	0	Back	0mm	Ant 0	ECI 6		26590	1905	1	20.56	21.70	1.3	-0.16	1.640	2.132
	LTE Band 25	20M	QPSK	100	0	Back	0mm	Ant 0	ECI 6		26340	1880	1	20.55	21.70	1.303	0.12	1.850	2.411
	LTE Band 25	20M	QPSK	1	0	Bottom Side	0mm	Ant 0	ECI 6		26340	1880	1	20.68	21.70	1.265	-0.14	2.000	2.530
	LTE Band 25	20M	QPSK	1	0	Bottom Side	0mm	Ant 0	ECI 6		26140	1860	1	20.65	21.70	1.274	-0.01	2.060	2.624
	LTE Band 25	20M	QPSK	1	0	Bottom Side	0mm	Ant 0	ECI 6		26590	1905	1	20.58	21.70	1.294	-0.06	1.740	2.252
	LTE Band 25	20M	QPSK	50	0	Bottom Side	0mm	Ant 0	ECI 6		26340	1880	1	20.58	21.70	1.294	0.16	1.540	1.993
	LTE Band 25	20M	QPSK	100	0	Bottom Side	0mm	Ant 0	ECI 6		26340	1880	1	20.55	21.70	1.303	-0.07	1.530	1.994
	LTE Band 25	20M	QPSK	1	0	Front	12mm	Ant 0	ECI 4		26340	1880	1	22.49	24.00	1.416	0.03	0.438	0.620
	LTE Band 25	20M	QPSK	1	0	Back	19mm	Ant 0	ECI 4		26340	1880	1	22.49	24.00	1.416	0.08	0.298	0.422
	LTE Band 25	20M	QPSK	1	0	Bottom Side	15mm	Ant 0	ECI 4		26340	1880	1	22.49	24.00	1.416	-0.11	0.619	0.877
	LTE Band 25	20M	QPSK	1	0	Front	0mm	Ant 4	ECI 6		26340	1880	1	20.59	21.40	1.205	0.14	0.847	1.020
	LTE Band 25	20M	QPSK	50	0	Front	0mm	Ant 4	ECI 6		26340	1880	1	20.55	20.90	1.084	-0.08	0.686	0.743
	LTE Band 25	20M	QPSK	1	0	Back	0mm	Ant 4	ECI 6		26340	1880	1	20.59	21.40	1.205	0.09	0.634	0.764
	LTE Band 25	20M	QPSK	50	0	Back	0mm	Ant 4	ECI 6		26340	1880	1	20.55	20.90	1.084	0.03	0.508	0.551
	LTE Band 25	20M	QPSK	1	0	Top Side	0mm	Ant 4	ECI 6		26340	1880	1	20.59	21.40	1.205	-0.06	1.890	2.277
	LTE Band 25	20M	QPSK	1	0	Top Side	0mm	Ant 4	ECI 6		26140	1860	1	20.56	21.40	1.213	0.13	1.780	2.159
	LTE Band 25	20M	QPSK	1	0	Top Side	0mm	Ant 4	ECI 6		26590	1905	1	20.56	21.40	1.213	0.01	2.020	2.450
	LTE Band 25	20M	QPSK	50	0	Top Side	0mm	Ant 4	ECI 6		26340	1880	1	20.55	20.90	1.084	-0.14	1.330	1.442
	LTE Band 25	20M	QPSK	100	0	Top Side	0mm	Ant 4	ECI 6		26340	1880	1	20.54	20.90	1.086	0.01	1.280	1.390
	LTE Band 25	20M	QPSK	1	0	Front	10mm	Ant 4	ECI 4		26340	1880	1	21.19	22.00	1.205	0.06	0.185	0.223
	LTE Band 25	20M	QPSK	1	0	Back	14mm	Ant 4	ECI 4		26340	1880	1	21.19	22.00	1.205	-0.11	0.187	0.225
	LTE Band 25	20M	QPSK	1	0	Top Side	16mm	Ant 4	ECI 4		26340	1880	1	21.19	22.00	1.205	-0.03	0.198	0.239
86	LTE Band 26	15M	QPSK	1	0	Back	0mm	Ant 0	ECI 6		26865	831.5	1	22.38	24.00	1.452	0.15	1.240	1.800
	LTE Band 26	15M	QPSK	36	0	Back	0mm	Ant 0	ECI 6		26865	831.5	1	21.24	23.00	1.5	-0.12	0.950	1.425
	LTE Band 26	15M	QPSK	1	0	Back	0mm	Ant 0	ECI 6-1 (Reference Designator)		26865	831.5	1	23.69	24.00	1.074	0.06	0.690	0.741
	LTE Band 26	15M	QPSK	1	0	Back	0mm	Ant 4	ECI 6		26865	831.5	1	21.79	23.00	1.321	-0.02	1.020	1.347
	LTE Band 26	15M	QPSK	36	0	Back	0mm	Ant 4	ECI 6		26865	831.5	1	20.82	22.00	1.312	0.13	0.810	1.063
	LTE Band 66	20M	QPSK	1	0	Front	0mm	Ant 0	ECI 6		132322	1745	1	20.04	21.20	1.306	0.01	1.490	1.946
	LTE Band 66	20M	QPSK	50	0	Front	0mm	Ant 0	ECI 6		132322	1745	1	19.98	21.20	1.324	-0.07	1.150	1.523
	LTE Band 66	20M	QPSK	1	0	Back	0mm	Ant 0	ECI 6		132322	1745	1	20.04	21.20	1.306	0.17	2.340	3.056
87	LTE Band 66	20M	QPSK	1	0	Back	0mm	Ant 0	ECI 6		132072	1720	1	19.98	21.20	1.324	0.02	2.420	3.204
	LTE Band 66	20M	QPSK	1	0	Back	0mm	Ant 0	ECI 6-1 (Reference Designator)		132072	1720	1	19.74	21.20	1.4	0.16	0.866	1.212
	LTE Band 66C	20M	QPSK	1	0	Back	0mm	Ant 0	ECI 6		132072+ 132270	1720+ 1739.8	1	19.87	21.2	1.358	0.11	2.030	2.757
	LTE Band 66	20M	QPSK	1	0	Back	0mm	Ant 0	ECI 6		132072	1720	2	19.98	21.20	1.324	0.1	1.370	1.814
	LTE Band 66	20M	QPSK	1	0	Back	0mm	Ant 0	ECI 6		132072	1720	3	19.98	21.20	1.324	0.16	1.890	2.502
	LTE Band 66	20M	QPSK	1	0	Back	0mm	Ant 0	ECI 6		132572	1770	1	20.01	21.20	1.315	-0.08	2.240	2.946
	LTE Band 66	20M	QPSK	50	0	Back	0mm	Ant 0	ECI 6		132322	1745	1	19.98	21.20	1.324	0.03	1.850	2.449
	LTE Band 66	20M	QPSK	50	0	Back	0mm	Ant 0	ECI 6		132072	1720	1	19.92	21.20	1.343	0.11	1.950	2.619
	LTE Band 66	20M	QPSK	50	0	Back	0mm	Ant 0	ECI 6		132572	1770	1	19.96	21.20	1.33	-0.10	1.800	2.394
	LTE Band 66	20M	QPSK	100	0	Back	0mm	Ant 0	ECI 6		132322	1745	1	19.92	21.20	1.343	0.08	1.830	2.458
	LTE Band 66	20M	QPSK	1	0	Bottom Side	0mm	Ant 0	ECI 6		132322	1745	1	20.04	21.20	1.306	0.04	2.090	2.730
	LTE Band 66	20M	QPSK	1	0	Bottom Side	0mm	Ant 0	ECI 6		132072	1720	1	19.98	21.20	1.324	0.02	2.000	2.648
	LTE Band 66	20M	QPSK	1	0	Bottom Side	0mm	Ant 0	ECI 6		132572	1770	1	20.01	21.20	1.315	-0.09	2.080	2.735
	LTE Band 66	20M	QPSK	50	0	Bottom Side	0mm	Ant 0	ECI 6		132322	1745	1	19.98	21.20	1.324	-0.14	1.660	2.198
	LTE Band 66	20M	QPSK	50	0	Bottom Side	0mm	Ant 0	ECI 6		132072	1720	1	19.92	21.20	1.343	0.01	1.620	2.176
	LTE Band 66	20M	QPSK	50	0	Bottom Side	0mm	Ant 0	ECI 6		132572	1770	1	19.96	21.20	1.33	0.00	1.680	2.234
	LTE Band 66	20M	QPSK	100	0	Bottom Side	0mm	Ant 0	ECI 6		132322	1745	1	19.92	21.20	1.343	0.10	1.650	2.216
	LTE Band 66	20M	QPSK	1	0	Front	12mm	Ant 0	ECI 4		132322	1745	1	22.54	24.00	1.4	0.03	0.457	0.640
	LTE Band 66	20M	QPSK	1	0	Back	19mm	Ant 0	ECI 4		132322	1745	1	22.54	24.00	1.4	-0.08	0.441	0.617
	LTE Band 66	20M	QPSK	1	0	Bottom Side	15mm	Ant 0	ECI 4		132322	1745	1	22.54	24.00	1.4	-0.10	0.736	1.030
	LTE Band 66	20M	QPSK	1	0	Front	0mm	Ant 4	ECI 6		132322	1745	1	21.03	22.00	1.25	-0.08	1.470	1.837
	LTE Band 66	20M	QPSK	50	0	Front	0mm	Ant 4	ECI 6		132322	1745	1	21.00	21.00	1.0	0.02	1.170	1.170
	LTE Band 66	20M	QPSK	1	0	Back	0mm	Ant 4	ECI 6		132322	1745	1	21.03	22.00	1.25	0.05	1.100	1.375
	LTE Band 66	20M	QPSK	50	0	Back	0mm	Ant 4	ECI 6		132322	1745	1	21.00	21.00	1.0	-0.08	0.862	0.862
	LTE Band 66	20M	QPSK	1	0	Top Side	0mm	Ant 4	ECI 6		132322	1745	1	21.03	22.00	1.25	0.03	1.990	2.487
	LTE Band 66	20M	QPSK	1	0	Top Side	0mm	Ant 4	ECI 6		132072	1720	1	20.98	22.00	1.265	-0.10	1.920	2.429
	LTE Band 66	20M	QPSK	1	0	Top Side	0mm	Ant 4	ECI 6		132572	1770	1	20.99	22.00	1.262	-0.07	1.810	2.284
	LTE Band 66	20M	QPSK	50	0	Top Side	0mm	Ant 4	ECI 6		132322	1745	1	21.00	21.00	1.0	-0.13	1.550	1.550
	LTE Band 66	20M	QPSK	100	0	Top Side	0mm	Ant 4	ECI 6		132322	1745	1	20.98	21.00	1.005	0.07	1.550	1.558
	LTE Band 66	20M	QPSK	1	0	Top Side	0mm	Ant 4	ECI 6-1 (Reference Designator)		132322	1745	1	20.98	22.00	1.265	0.04	1.360	1.720
	LTE Band 66	20M	QPSK	1	0	Front	10mm	Ant 4	ECI 4		132322	1745	1	21.38	22.00	1.153	0.03	0.335	0.386
	LTE Band 66	20M	QPSK	1	0	Back	14mm	Ant 4	ECI 4		132322	1745	1	21.38	22.00	1.153	0.09	0.291	0.336
	LTE Band 66	20M	QPSK	1	0	Top Side	16mm	Ant 4	ECI 4		132322	1745	1	21.38	22.00	1.153	-0.13	0.248	0.286



【TDD LTE SAR】

Plot No	Band	BW	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	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)
	LTE Band 38	20M	QPSK	1	0	Front	0mm	Ant 1	ECI 6	38000	2595	1	21.44	22.50	1.276	62.9	1.006	-0.11	2.330	2.991
	LTE Band 38	20M	QPSK	50	0	Front	0mm	Ant 1	ECI 6	38000	2595	1	20.47	21.50	1.268	62.9	1.006	0.11	1.810	2.309
	LTE Band 38	20M	QPSK	100	0	Front	0mm	Ant 1	ECI 6	38000	2595	1	20.41	21.50	1.285	62.9	1.006	0.18	1.810	2.340
88	LTE Band 38	20M	QPSK	1	0	Back	0mm	Ant 1	ECI 6	38000	2595	1	21.44	22.50	1.276	62.9	1.006	-0.03	2.520	3.235
	LTE Band 38	20M	QPSK	1	0	Back	0mm	Ant 1	ECI 6	38000	2595	2	21.44	22.50	1.276	62.9	1.006	0.06	2.300	2.952
	LTE Band 38	20M	QPSK	1	0	Back	0mm	Ant 1	ECI 6	38000	2595	3	21.44	22.50	1.276	62.9	1.006	0.04	0.450	0.578
	LTE Band 38	20M	QPSK	50	0	Back	0mm	Ant 1	ECI 6	38000	2595	1	20.47	21.50	1.268	62.9	1.006	-0.01	1.990	2.538
	LTE Band 38	20M	QPSK	100	0	Back	0mm	Ant 1	ECI 6	38000	2595	1	20.41	21.50	1.285	62.9	1.006	-0.05	1.890	2.443
	LTE Band 38	20M	QPSK	1	0	Bottom Side	0mm	Ant 1	ECI 6	38000	2595	1	21.44	22.50	1.276	62.9	1.006	-0.11	1.380	1.771
	LTE Band 38	20M	QPSK	50	0	Bottom Side	0mm	Ant 1	ECI 6	38000	2595	1	20.47	21.50	1.268	62.9	1.006	0.12	1.120	1.429
	LTE Band 38	20M	QPSK	1	0	Front	7mm	Ant 1	ECI 4	38000	2595	1	21.44	23.00	1.432	62.9	1.006	-0.03	0.483	0.696
	LTE Band 38	20M	QPSK	1	0	Back	16mm	Ant 1	ECI 4	38000	2595	1	21.44	23.00	1.432	62.9	1.006	0.08	0.194	0.279
	LTE Band 38	20M	QPSK	1	0	Bottom Side	13mm	Ant 1	ECI 4	38000	2595	1	21.44	23.00	1.432	62.9	1.006	-0.16	0.177	0.255
	LTE Band 41	20M	QPSK	1	0	Front	0mm	Ant 4	ECI 6	40620	2593	1	23.34	24.00	1.164	62.9	1.006	-0.04	1.360	1.593
	LTE Band 41	20M	QPSK	1	0	Front	0mm	Ant 4	ECI 6	39750	2506	1	22.90	24.00	1.288	62.9	1.006	-0.15	1.100	1.425
	LTE Band 41	20M	QPSK	1	0	Front	0mm	Ant 4	ECI 6	40185	2549.5	1	22.92	24.00	1.282	62.9	1.006	-0.09	1.160	1.496
	LTE Band 41	20M	QPSK	1	0	Front	0mm	Ant 4	ECI 6	41055	2636.5	1	23.09	24.00	1.233	62.9	1.006	-0.01	1.530	1.898
	LTE Band 41	20M	QPSK	1	0	Front	0mm	Ant 4	ECI 6	41490	2680	1	23.31	24.00	1.172	62.9	1.006	-0.09	1.300	1.533
	LTE Band 41	20M	QPSK	50	0	Front	0mm	Ant 4	ECI 6	40620	2593	1	22.14	23.00	1.219	62.9	1.006	-0.06	1.080	1.324
	LTE Band 41	20M	QPSK	1	0	Back	0mm	Ant 4	ECI 6	40620	2593	1	23.34	24.00	1.164	62.9	1.006	-0.02	1.610	1.885
	LTE Band 41	20M	QPSK	1	0	Back	0mm	Ant 4	ECI 6	39750	2506	1	22.90	24.00	1.288	62.9	1.006	0.01	1.360	1.762
	LTE Band 41	20M	QPSK	1	0	Back	0mm	Ant 4	ECI 6	40185	2549.5	1	22.92	24.00	1.282	62.9	1.006	0.10	1.410	1.818
	LTE Band 41	20M	QPSK	1	0	Back	0mm	Ant 4	ECI 6	41055	2636.5	1	23.09	24.00	1.233	62.9	1.006	-0.08	1.720	2.133
	LTE Band 41	20M	QPSK	1	0	Back	0mm	Ant 4	ECI 6	41490	2680	1	23.31	24.00	1.172	62.9	1.006	0.16	1.720	2.028
	LTE Band 41	20M	QPSK	50	0	Back	0mm	Ant 4	ECI 6	40620	2593	1	22.14	23.00	1.219	62.9	1.006	0.00	1.250	1.533
	LTE Band 41	20M	QPSK	50	0	Back	0mm	Ant 4	ECI 6	39750	2506	1	21.65	23.00	1.365	62.9	1.006	-0.17	1.130	1.552
	LTE Band 41	20M	QPSK	50	0	Back	0mm	Ant 4	ECI 6	40185	2549.5	1	21.80	23.00	1.318	62.9	1.006	0.01	1.130	1.498
	LTE Band 41	20M	QPSK	50	0	Back	0mm	Ant 4	ECI 6	41055	2636.5	1	21.83	23.00	1.309	62.9	1.006	-0.04	1.400	1.844
	LTE Band 41	20M	QPSK	50	0	Back	0mm	Ant 4	ECI 6	41490	2680	1	22.09	23.00	1.233	62.9	1.006	0.09	1.330	1.650
	LTE Band 41	20M	QPSK	100	0	Back	0mm	Ant 4	ECI 6	40620	2593	1	22.09	23.00	1.233	62.9	1.006	0.02	1.280	1.588
	LTE Band 41	20M	QPSK	1	0	Top Side	0mm	Ant 4	ECI 6	40620	2593	1	23.34	24.00	1.164	62.9	1.006	0.09	1.780	2.084
89	LTE Band 41	20M	QPSK	1	0	Top Side	0mm	Ant 4	ECI 6	39750	2506	1	22.90	24.00	1.288	62.9	1.006	0.04	1.820	2.358
	LTE Band 41	20M	QPSK	1	0	Top Side	0mm	Ant 4	ECI 6	40185	2549.5	1	22.92	24.00	1.282	62.9	1.006	0.13	1.760	2.270
	LTE Band 41	20M	QPSK	1	0	Top Side	0mm	Ant 4	ECI 6	41055	2636.5	1	23.09	24.00	1.233	62.9	1.006	0.07	1.580	1.960
	LTE Band 41	20M	QPSK	1	0	Top Side	0mm	Ant 4	ECI 6	41490	2680	1	23.31	24.00	1.172	62.9	1.006	0.11	1.280	1.509
	LTE Band 41	20M	QPSK	50	0	Top Side	0mm	Ant 4	ECI 6	40620	2593	1	22.14	23.00	1.219	62.9	1.006	-0.19	1.030	1.263
	LTE Band 41	20M	QPSK	100	0	Top Side	0mm	Ant 4	ECI 6	40620	2593	1	22.09	23.00	1.233	62.9	1.006	-0.00	1.040	1.290
	LTE Band 41	20M	QPSK	1	0	Front	10mm	Ant 4	ECI 4	40620	2593	1	23.34	24.00	1.164	62.9	1.006	0.09	0.280	0.328
	LTE Band 41	20M	QPSK	1	0	Back	14mm	Ant 4	ECI 4	40620	2593	1	23.34	24.00	1.164	62.9	1.006	0.02	0.336	0.393
	LTE Band 41	20M	QPSK	1	0	Top Side	16mm	Ant 4	ECI 4	40620	2593	1	23.34	24.00	1.164	62.9	1.006	0.18	0.201	0.235
	LTE Band 42	20M	QPSK	1	0	Front	0mm	Ant 5	ECI 6	42590	3500	1	21.61	22.60	1.256	62.9	1.006	-0.16	1.410	1.782
	LTE Band 42	20M	QPSK	50	0	Front	0mm	Ant 5	ECI 6	42590	3500	1	21.14	21.60	1.112	62.9	1.006	0.11	1.270	1.421
	LTE Band 42	20M	QPSK	100	0	Front	0mm	Ant 5	ECI 6	42590	3500	1	21.09	21.60	1.125	62.9	1.006	0.03	1.270	1.437
	LTE Band 42	20M	QPSK	1	0	Back	0mm	Ant 5	ECI 6	42590	3500	1	21.61	22.60	1.256	62.9	1.006	-0.13	1.120	1.415
	LTE Band 42	20M	QPSK	50	0	Back	0mm	Ant 5	ECI 6	42590	3500	1	21.14	21.60	1.112	62.9	1.006	0.02	0.893	0.999
	LTE Band 42	20M	QPSK	1	0	Top Side	0mm	Ant 5	ECI 6	42590	3500	1	21.61	22.60	1.256	62.9	1.006	-0.02	1.870	2.363
90	LTE Band 42	20M	QPSK	1	0	Top Side	0mm	Ant 5	ECI 6	42190	3460	1	21.44	22.60	1.306	62.9	1.006	0.03	1.880	2.470
	LTE Band 42C	20M	QPSK	1	0	Top Side	0mm	Ant 5	ECI 6	42190+ 42388	3460+ 3479.8	1	21.44	22.60	1.306	62.9	1.006	0.06	1.730	2.273
	LTE Band 42	20M	QPSK	1	0	Top Side	0mm	Ant 5	ECI 6	42190	3460	2	21.44	22.60	1.306	62.9	1.006	0.06	1.870	2.457
	LTE Band 42	20M	QPSK	1	0	Top Side	0mm	Ant 5	ECI 6	42190	3460	3	21.44	22.60	1.306	62.9	1.006	0.07	1.860	2.444
	LTE Band 42	20M	QPSK	1	0	Top Side	0mm	Ant 5	ECI 6	42990	3540	1	21.37	22.60	1.327	62.9	1.006	-0.06	1.800	2.403
	LTE Band 42	20M	QPSK	50	0	Top Side	0mm	Ant 5	ECI 6	42590	3500	1	21.14	21.60	1.112	62.9	1.006	-0.10	1.480	1.656
	LTE Band 42	20M	QPSK	100	0	Top Side	0mm	Ant 5	ECI 6	42590	3500	1	21.09	21.60	1.125	62.9	1.006	-0.01	1.480	1.675
	LTE Band 42	20M	QPSK	1	0	Front	2mm	Ant 5	ECI 4	42590	3500	1	22.29	23	1.178	62.9	1.006	0.03	0.874	1.036
	LTE Band 42	20M	QPSK	1	0	Back	4mm	Ant 5	ECI 4	42590	3500	1	22.29	23	1.178	62.9	1.006	0.05	1.050	1.244
	LTE Band 42	20M	QPSK	1	0	Top Side	9mm	Ant 5	ECI 4	42590	3500	1	22.29	23	1.178	62.9	1.006	-0.01	0.397	0.47

【FR1 SAR】

Plot No	Band	BW	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	Power State	PA Note	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
	FR1 n2	40M	BPSK	1	1	Front	0mm	Ant 0	ECI 6		376000	1880	1	20.29	21.70	1.384	-0.07	1.440	1.993
	FR1 n2	40M	BPSK	108	54	Front	0mm	Ant 0	ECI 6		376000	1880	1	20.24	21.70	1.4	0.09	1.470	2.058
	FR1 n2	40M	BPSK	216	0	Front	0mm	Ant 0	ECI 6		376000	1880	1	20.26	21.70	1.393	0.18	1.410	1.964
91	FR1 n2	40M	BPSK	1	1	Back	0mm	Ant 0	ECI 6		376000	1880	1	20.29	21.70	1.384	-0.09	2.280	3.156
	FR1 n2	40M	BPSK	108	54	Back	0mm	Ant 0	ECI 6		376000	1880	1	20.24	21.70	1.4	0.07	2.230	3.122
	FR1 n2	40M	BPSK	216	0	Back	0mm	Ant 0	ECI 6		376000	1880	1	20.26	21.70	1.393	0.06	2.060	2.870
	FR1 n2	40M	BPSK	1	1	Back	0mm	Ant 0	ECI 6-1	PA (Reference Designator)	376000	1880	1	20.32	21.70	1.374	0.17	1.040	1.429
	FR1 n2	40M	BPSK	1	1	Bottom Side	0mm	Ant 0	ECI 6		376000	1880	1	20.29	21.70	1.384	0.13	1.740	2.408
	FR1 n2	40M	BPSK	108	54	Bottom Side	0mm	Ant 0	ECI 6		376000	1880	1	20.24	21.70	1.4	0.07	1.760	2.464
	FR1 n2	40M	BPSK	216	0	Bottom Side	0mm	Ant 0	ECI 6		376000	1880	1	20.26	21.70	1.393	0.18	1.920	2.675
	FR1 n2	40M	BPSK	1	1	Front	12mm	Ant 0	ECI 4		376000	1880	1	22.73	24.00	1.34	0.03	0.299	0.401
	FR1 n2	40M	BPSK	1	1	Back	19mm	Ant 0	ECI 4		376000	1880	1	22.73	24.00	1.34	-0.08	0.204	0.273
	FR1 n2	40M	BPSK	1	1	Bottom Side	15mm	Ant 0	ECI 4		376000	1880	1	22.73	24.00	1.34	-0.13	0.386	0.517
	FR1 n2	40M	BPSK	108	54	Top Side	0mm	Ant 4	ECI 6		376000	1880	1	20.99	22.00	1.262	0.01	1.810	2.284
	FR1 n2	40M	BPSK	1	1	Top Side	0mm	Ant 4	ECI 6-1	PA (Reference Designator)	376000	1880	1	21.74	22.00	1.062	0.02	1.750	1.859
	FR1 n2	40M	BPSK	108	54	Top Side	0mm	Ant 4	ECI 6-1	PA (Reference Designator)	376000	1880	1	21.68	22.00	1.076	0.06	1.880	2.023
	FR1 n2	40M	BPSK	216	0	Top Side	0mm	Ant 4	ECI 6-1	PA (Reference Designator)	376000	1880	1	21.60	22.00	1.096	0.06	1.770	1.940
	FR1 n7	50M	BPSK	1	1	Front	0mm	Ant 4	ECI 6		507000	2535	1	20.28	21.60	1.355	0.12	1.370	1.856
	FR1 n7	50M	BPSK	135	68	Front	0mm	Ant 4	ECI 6		507000	2535	1	20.24	21.60	1.368	0.04	1.240	1.696
	FR1 n7	50M	BPSK	1	1	Back	0mm	Ant 4	ECI 6		507000	2535	1	20.28	21.60	1.355	-0.09	1.730	2.344
	FR1 n7	50M	BPSK	135	68	Back	0mm	Ant 4	ECI 6		507000	2535	1	20.24	21.60	1.368	0.03	1.650	2.257
	FR1 n7	50M	BPSK	270	0	Back	0mm	Ant 4	ECI 6		507000	2535	1	20.17	21.60	1.39	0.18	1.650	2.293
	FR1 n7	50M	BPSK	1	1	Top Side	0mm	Ant 4	ECI 6		507000	2535	1	20.28	21.60	1.355	-0.17	1.780	2.412
	FR1 n7	50M	BPSK	135	68	Top Side	0mm	Ant 4	ECI 6		507000	2535	1	20.24	21.60	1.368	0.04	1.800	2.462
	FR1 n7	50M	BPSK	270	0	Top Side	0mm	Ant 4	ECI 6		507000	2535	1	20.17	21.60	1.39	-0.14	1.770	2.460
	FR1 n7	50M	BPSK	1	1	Front	10mm	Ant 4	ECI 4		507000	2535	1	22.76	24.00	1.33	0.06	0.298	0.396
	FR1 n7	50M	BPSK	1	1	Back	14mm	Ant 4	ECI 4		507000	2535	1	22.76	24.00	1.33	0.09	0.379	0.504
	FR1 n7	50M	BPSK	1	1	Top Side	16mm	Ant 4	ECI 4		507000	2535	1	22.76	24.00	1.33	-0.11	0.298	0.396
	FR1 n7	50M	BPSK	1	1	Front	0mm	Ant 1	ECI 6		507000	2535	1	19.80	20.70	1.23	-0.13	2.140	2.632
	FR1 n7	50M	BPSK	135	68	Front	0mm	Ant 1	ECI 6		507000	2535	1	19.73	20.70	1.25	0.17	2.290	2.862
	FR1 n7	50M	BPSK	270	0	Front	0mm	Ant 1	ECI 6		507000	2535	1	19.65	20.70	1.274	0.16	2.370	3.019
	FR1 n7	50M	BPSK	1	1	Back	0mm	Ant 1	ECI 6		507000	2535	1	19.80	20.70	1.23	-0.16	2.500	3.075
92	FR1 n7	50M	BPSK	135	68	Back	0mm	Ant 1	ECI 6		507000	2535	1	19.73	20.70	1.25	-0.01	2.520	3.150
	FR1 n7	50M	BPSK	270	0	Back	0mm	Ant 1	ECI 6		507000	2535	1	19.65	20.70	1.274	-0.08	2.470	3.147
	FR1 n7	50M	BPSK	1	1	Bottom Side	0mm	Ant 1	ECI 6		507000	2535	1	19.80	20.70	1.23	-0.02	1.610	1.980
	FR1 n7	50M	BPSK	135	68	Bottom Side	0mm	Ant 1	ECI 6		507000	2535	1	19.73	20.70	1.25	0.14	1.530	1.913
	FR1 n7	50M	BPSK	1	1	Front	7mm	Ant 1	ECI 4		507000	2535	1	22.26	24.00	1.493	0.06	0.796	1.188
	FR1 n7	50M	BPSK	1	1	Back	16mm	Ant 1	ECI 4		507000	2535	1	22.26	24.00	1.493	-0.02	0.274	0.409
	FR1 n7	50M	BPSK	1	1	Bottom Side	13mm	Ant 1	ECI 4		507000	2535	1	22.26	24.00	1.493	0.07	0.268	0.400
	FR1 n26	20M	BPSK	1	1	Back	0mm	Ant 0	ECI 6		166300	831.5	1	22.93	24.00	1.279	-0.10	0.819	1.047
93	FR1 n26	20M	BPSK	50	28	Back	0mm	Ant 0	ECI 6		166300	831.5	1	22.95	24.00	1.274	0.10	0.848	1.080
	FR1 n66	45M	BPSK	1	1	Front	0mm	Ant 0	ECI 6		349000	1745	1	20.68	21.80	1.294	-0.15	1.490	1.928
	FR1 n66	45M	BPSK	120	60	Front	0mm	Ant 0	ECI 6		349000	1745	1	20.69	21.80	1.291	-0.08	1.550	2.001
	FR1 n66	45M	BPSK	240	0	Front	0mm	Ant 0	ECI 6		349000	1745	1	20.61	21.80	1.315	-0.05	1.500	1.972
	FR1 n66	45M	BPSK	1	1	Back	0mm	Ant 0	ECI 6		349000	1745	1	20.68	21.80	1.294	0.12	2.380	3.080
94	FR1 n66	45M	BPSK	120	60	Back	0mm	Ant 0	ECI 6		349000	1745	1	20.69	21.80	1.291	-0.04	2.470	3.189
	FR1 n66	45M	BPSK	240	0	Back	0mm	Ant 0	ECI 6		349000	1745	1	20.61	21.80	1.315	0.14	2.410	3.169
	FR1 n66	45M	BPSK	120	60	Back	0mm	Ant 0	ECI 6-1	PA (Reference Designator)	349000	1745	1	20.62	21.80	1.312	0.06	1.210	1.588
	FR1 n66	45M	BPSK	1	1	Bottom Side	0mm	Ant 0	ECI 6		349000	1745	1	20.68	21.80	1.294	0.02	2.160	2.795
	FR1 n66	45M	BPSK	120	60	Bottom Side	0mm	Ant 0	ECI 6		349000	1745	1	20.69	21.80	1.291	-0.07	2.170	2.801
	FR1 n66	45M	BPSK	240	0	Bottom Side	0mm	Ant 0	ECI 6		349000	1745	1	20.61	21.80	1.315	0.01	2.280	2.998
	FR1 n66	45M	BPSK	1	1	Front	12mm	Ant 0	ECI 4		349000	1745	1	22.65	24.00	1.365	0.02	0.341	0.465
	FR1 n66	45M	BPSK	1	1	Back	19mm	Ant 0	ECI 4		349000	1745	1	22.65	24.00	1.365	0.16	0.312	0.426
	FR1 n66	45M	BPSK	1	1	Bottom Side	15mm	Ant 0	ECI 4		349000	1745	1	22.65	24.00	1.365	-0.08	0.444	0.606
	FR1 n66	45M	BPSK	1	1	Front	0mm	Ant 4	ECI 6		349000	1745	1	20.22	21.40	1.312	-0.17	1.220	1.601
	FR1 n66	45M	BPSK	120	60	Front	0mm	Ant 4	ECI 6		349000	1745	1	20.19	21.40	1.321	0.17	1.160	1.532
	FR1 n66	45M	BPSK	1	1	Back	0mm	Ant 4	ECI 6		349000	1745	1	20.22	21.40	1.312	-0.12	1.080	1.417
	FR1 n66	45M	BPSK	120	60	Back	0mm	Ant 4	ECI 6		349000	1745	1	20.19	21.40	1.321	0.03	1.010	1.334
	FR1 n66	45M	BPSK	1	1	Top Side	0mm	Ant 4	ECI 6		349000	1745	1	20.22	21.40	1.312	-0.12	1.830	2.401
	FR1 n66	45M	BPSK	120	60	Top Side	0mm	Ant 4	ECI 6		349000	1745	1	20.19	21.40	1.321	0.09	1.870	2.470
	FR1 n66	45M	BPSK	240	0	Top Side	0mm	Ant 4	ECI 6		349000	1745	1	20.14	21.40	1.337	-0.06	1.660	2.219



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	FR1 n66	45M	BPSK	120	60	Top Side	0mm	Ant 4	ECI 6-1	PA (Reference Designator)	349000	1745	1	20.15	21.40	1.334	0.05	1.170	1.561
	FR1 n66	45M	BPSK	1	1	Front	10mm	Ant 4	ECI 4		349000	1745	1	21.21	22.00	1.199	0.06	0.265	0.318
	FR1 n66	45M	BPSK	1	1	Back	14mm	Ant 4	ECI 4		349000	1745	1	21.21	22.00	1.199	-0.11	0.224	0.269
	FR1 n66	45M	BPSK	1	1	Top Side	16mm	Ant 4	ECI 4		349000	1745	1	21.21	22.00	1.199	0.03	0.128	0.153
	FR1 n41	100M	BPSK	1	1	Front	0mm	Ant 4	ECI 6		518598	2592.99	1	21.33	22.10	1.194	-0.19	0.735	0.878
	FR1 n41	100M	BPSK	135	69	Front	0mm	Ant 4	ECI 6		518598	2592.99	1	21.25	22.10	1.216	-0.10	1.320	1.605
	FR1 n41	100M	BPSK	1	1	Back	0mm	Ant 4	ECI 6		518598	2592.99	1	21.33	22.10	1.194	-0.02	0.997	1.190
	FR1 n41	100M	BPSK	135	69	Back	0mm	Ant 4	ECI 6		518598	2592.99	1	21.25	22.10	1.216	0.01	1.690	2.055
	FR1 n41	100M	BPSK	270	0	Back	0mm	Ant 4	ECI 6		518598	2592.99	1	21.18	22.10	1.236	0.18	0.997	1.232
	FR1 n41	100M	BPSK	1	1	Left Side	0mm	Ant 4	ECI 6		518598	2592.99	1	21.33	22.10	1.194	0.11	0.527	0.629
	FR1 n41	100M	BPSK	135	69	Left Side	0mm	Ant 4	ECI 6		518598	2592.99	1	21.25	22.10	1.216	-0.09	0.866	1.053
	FR1 n41	100M	BPSK	1	1	Top Side	0mm	Ant 4	ECI 6		518598	2592.99	1	21.33	22.10	1.194	0.14	1.320	1.576
95	FR1 n41	100M	BPSK	135	69	Top Side	0mm	Ant 4	ECI 6		518598	2592.99	1	21.25	22.10	1.216	0.09	2.030	2.468
	FR1 n41	100M	BPSK	270	0	Top Side	0mm	Ant 4	ECI 6		518598	2592.99	1	21.18	22.10	1.236	0.08	1.250	1.545
	FR1 n41	100M	BPSK	1	1	Front	10mm	Ant 4	ECI 4		518598	2592.99	1	22.79	24.00	1.321	0.03	0.271	0.358
	FR1 n41	100M	BPSK	1	1	Back	14mm	Ant 4	ECI 4		518598	2592.99	1	22.79	24.00	1.321	-0.11	0.335	0.443
	FR1 n41	100M	BPSK	1	1	Left Side	5mm	Ant 4	ECI 4		518598	2592.99	1	22.79	24.00	1.321	-0.08	0.311	0.411
	FR1 n41	100M	BPSK	1	1	Top Side	16mm	Ant 4	ECI 4		518598	2592.99	1	22.79	24.00	1.321	0.05	0.269	0.355
	FR1 n77	100M	BPSK	1	1	Front	0mm	Ant 5	ECI 6		656000	3840	1	20.64	21.80	1.306	0.13	0.853	1.114
	FR1 n77	100M	BPSK	135	69	Front	0mm	Ant 5	ECI 6		656000	3840	1	20.62	21.80	1.312	-0.16	0.646	0.847
	FR1 n77	100M	BPSK	1	1	Back	0mm	Ant 5	ECI 6		656000	3840	1	20.64	21.80	1.306	-0.04	0.704	0.920
	FR1 n77	100M	BPSK	135	69	Back	0mm	Ant 5	ECI 6		656000	3840	1	20.62	21.80	1.312	0.09	0.414	0.543
	FR1 n77	100M	BPSK	1	1	Top Side	0mm	Ant 5	ECI 6		656000	3840	1	20.64	21.80	1.306	0.18	1.830	2.390
	FR1 n77	100M	BPSK	135	69	Top Side	0mm	Ant 5	ECI 6		656000	3840	1	20.62	21.80	1.312	-0.17	1.780	2.335
	FR1 n77	100M	BPSK	270	0	Top Side	0mm	Ant 5	ECI 6		656000	3840	1	20.60	21.80	1.318	0.13	1.870	2.465
	FR1 n77	100M	BPSK	1	1	Front	2mm	Ant 5	ECI 4		656000	3840	1	22.67	24.00	1.358	0.06	0.783	1.063
	FR1 n77	100M	BPSK	1	1	Back	4mm	Ant 5	ECI 4		656000	3840	1	22.67	24.00	1.358	0.04	1.040	1.412
	FR1 n77	100M	BPSK	1	1	Top Side	9mm	Ant 5	ECI 4		656000	3840	1	22.67	24.00	1.358	-0.11	0.330	0.448
	FR1 n77	100M	BPSK	1	1	Back	0mm	Ant 1	ECI 6		656000	3840	1	17.67	19.00	1.358	0.04	1.790	2.431
	FR1 n77	100M	BPSK	135	69	Back	0mm	Ant 1	ECI 6		656000	3840	1	17.57	19.00	1.39	-0.05	1.260	1.751
96	FR1 n77	100M	BPSK	270	0	Back	0mm	Ant 1	ECI 6		656000	3840	1	17.30	18.50	1.318	-0.13	2.130	2.807
	FR1 n77	100M	BPSK	270	0	Back	0mm	Ant 1	ECI 6		656000	3840	2	17.30	18.50	1.318	0.03	2.090	2.755
	FR1 n77	100M	BPSK	270	0	Back	0mm	Ant 1	ECI 6		656000	3840	3	17.30	18.50	1.318	0.08	2.070	2.728
	FR1 n77	100M	BPSK	1	1	Bottom Side	0mm	Ant 1	ECI 6		656000	3840	1	17.67	19.00	1.358	-0.18	1.650	2.241
	FR1 n77	100M	BPSK	135	69	Bottom Side	0mm	Ant 1	ECI 6		656000	3840	1	17.57	19.00	1.39	0.07	1.130	1.571
	FR1 n77	100M	BPSK	270	0	Bottom Side	0mm	Ant 1	ECI 6		656000	3840	1	17.30	18.50	1.318	0.04	1.790	2.359
	FR1 n77	100M	BPSK	1	1	Back	0mm	Ant 8	ECI 4		656000	3840	1	18.67	20.00	1.358	0.02	1.490	2.023
	FR1 n77	100M	BPSK	135	69	Back	0mm	Ant 8	ECI 4		656000	3840	1	18.65	20.00	1.365	0.01	0.755	1.030
	FR1 n77	100M	BPSK	270	0	Back	0mm	Ant 8	ECI 4		656000	3840	1	18.55	20.00	1.396	0.02	1.270	1.773
	FR1 n77	100M	BPSK	1	1	Right Side	0mm	Ant 8	ECI 4		656000	3840	1	18.67	20.00	1.358	-0.18	0.867	1.177
	FR1 n77	100M	BPSK	135	69	Right Side	0mm	Ant 8	ECI 4		656000	3840	1	18.65	20.00	1.365	0.02	0.560	0.764
	FR1 n77	100M	BPSK	1	1	Top Side	0mm	Ant 8	ECI 4		656000	3840	1	18.67	20.00	1.358	0.07	0.316	0.429
	FR1 n77	100M	BPSK	135	69	Top Side	0mm	Ant 8	ECI 4		656000	3840	1	18.65	20.00	1.365	0.17	0.187	0.255
	FR1 n77	100M	BPSK	1	1	Back	0mm	Ant 2	ECI 4		656000	3840	1	19.23	20.00	1.194	-0.07	1.710	2.042
	FR1 n77	100M	BPSK	135	69	Back	0mm	Ant 2	ECI 4		656000	3840	1	19.16	20.00	1.213	-0.02	1.530	1.856



[WLAN 2.4GHz_5GHz SAR]

Plot No	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	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)
97	WLAN2.4GHz	802.11b 1Mbps	Back	0mm	Ant 6	Extremity Standalone	1	2412	1	18.64	20.00	1.368	100.0	1.0	0.03	0.791	1.082
	WLAN2.4GHz	802.11b 1Mbps	Back	0mm	Ant 6	Extremity Simultaneous	1	2412	1	15.66	17.00	1.361	100.0	1.0	0.02	0.393	0.535
	WLAN2.4GHz	802.11b 1Mbps	Back	0mm	Ant 6	Extremity Standalone	1	2412	2	18.64	20.00	1.368	100.0	1.0	0.03	0.700	0.958
	WLAN2.4GHz	802.11b 1Mbps	Back	0mm	Ant 6	Extremity Standalone	1	2412	3	18.64	20.00	1.368	100.0	1.0	0.08	0.699	0.956
	WLAN2.4GHz	802.11b 1Mbps	Front	8mm	Ant 6	Full Power	1	2412	1	18.64	20.00	1.368	100.0	1.0	0.06	0.131	0.179
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 6	Full Power	1	2412	1	18.64	20.00	1.368	100.0	1.0	0.03	0.245	0.335
	WLAN2.4GHz	802.11b 1Mbps	Right Side	8mm	Ant 6	Full Power	1	2412	1	18.64	20.00	1.368	100.0	1.0	0.08	0.084	0.115
	WLAN2.4GHz	802.11b 1Mbps	Top Side	12mm	Ant 6	Full Power	1	2412	1	18.64	20.00	1.368	100.0	1.0	-0.02	0.082	0.112
	WLAN5GHz	802.11a 6Mbps	Front	0mm	Ant 6	Extremity Standalone	56	5280	1	17.66	19.00	1.361	97.46	1.026	0.05	0.448	0.626
	WLAN5GHz	802.11a 6Mbps	Back	0mm	Ant 6	Extremity Standalone	56	5280	1	17.66	19.00	1.361	97.46	1.026	-0.03	0.404	0.564
	WLAN5GHz	802.11n-HT40 MCS0	Back	0mm	Ant 6	Extremity Simultaneous	54	5270	1	15.12	16.50	1.374	94.92	1.054	0.09	0.232	0.336
	WLAN5GHz	802.11a 6Mbps	Left Side	0mm	Ant 6	Extremity Standalone	56	5280	1	17.66	19.00	1.361	97.46	1.026	-0.17	0.064	0.090
	WLAN5GHz	802.11a 6Mbps	Right Side	0mm	Ant 6	Extremity Standalone	56	5280	1	17.66	19.00	1.361	97.46	1.026	0.05	0.178	0.249
98	WLAN5GHz	802.11a 6Mbps	Top Side	0mm	Ant 6	Extremity Standalone	56	5280	1	17.66	19.00	1.361	97.46	1.026	0.17	1.230	1.718
	WLAN5GHz	802.11a 6Mbps	Top Side	0mm	Ant 6	Extremity Standalone	56	5280	2	17.66	19.00	1.361	97.46	1.026	0.09	0.964	1.346
	WLAN5GHz	802.11a 6Mbps	Top Side	0mm	Ant 6	Extremity Standalone	56	5280	3	17.66	19.00	1.361	97.46	1.026	0.01	0.992	1.385
	WLAN5GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 6	Extremity Simultaneous	54	5270	1	15.12	16.50	1.374	94.92	1.054	0.03	0.688	0.996
	WLAN5GHz	802.11a 6Mbps	Bottom Side	0mm	Ant 6	Extremity Standalone	56	5280	1	17.66	19.00	1.361	97.46	1.026	0.07	0.001	0.002
	WLAN5GHz	802.11a 6Mbps	Front	8mm	Ant 6	Full Power	56	5280	1	17.66	19.00	1.361	97.46	1.026	0.02	0.096	0.134
	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 6	Full Power	56	5280	1	17.66	19.00	1.361	97.46	1.026	0.01	0.146	0.204
	WLAN5GHz	802.11a 6Mbps	Right Side	8mm	Ant 6	Full Power	56	5280	1	17.66	19.00	1.361	97.46	1.026	-0.08	0.055	0.077
	WLAN5GHz	802.11a 6Mbps	Top Side	12mm	Ant 6	Full Power	56	5280	1	17.66	19.00	1.361	97.46	1.026	-0.16	0.123	0.172
	WLAN5GHz	802.11a 6Mbps	Front	0mm	Ant 6	Extremity Standalone	116	5580	1	17.80	19.00	1.318	97.46	1.026	-0.18	0.522	0.706
	WLAN5GHz	802.11a 6Mbps	Back	0mm	Ant 6	Extremity Standalone	116	5580	1	17.80	19.00	1.318	97.46	1.026	0.11	0.383	0.518
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 6	Extremity Simultaneous	122	5610	1	14.92	16.00	1.282	84.27	1.187	0.02	0.196	0.298
	WLAN5GHz	802.11a 6Mbps	Left Side	0mm	Ant 6	Extremity Standalone	116	5580	1	17.80	19.00	1.318	97.46	1.026	0.07	0.083	0.112
	WLAN5GHz	802.11a 6Mbps	Right Side	0mm	Ant 6	Extremity Standalone	116	5580	1	17.80	19.00	1.318	97.46	1.026	0.02	0.156	0.211
99	WLAN5GHz	802.11a 6Mbps	Top Side	0mm	Ant 6	Extremity Standalone	116	5580	1	17.80	19.00	1.318	97.46	1.026	0.06	1.340	1.812
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 6	Extremity Simultaneous	122	5610	1	14.92	16.00	1.282	84.27	1.187	0.03	0.656	0.998
	WLAN5GHz	802.11a 6Mbps	Top Side	0mm	Ant 6	Extremity Standalone	116	5580	2	17.80	19.00	1.318	97.46	1.026	0.08	1.030	1.393
	WLAN5GHz	802.11a 6Mbps	Top Side	0mm	Ant 6	Extremity Standalone	116	5580	3	17.80	19.00	1.318	97.46	1.026	0.11	1.040	1.406
	WLAN5GHz	802.11a 6Mbps	Bottom Side	0mm	Ant 6	Extremity Standalone	116	5580	1	17.80	19.00	1.318	97.46	1.026	-0.06	0.001	0.002
	WLAN5GHz	802.11a 6Mbps	Front	8mm	Ant 6	Full Power	116	5580	1	17.80	19.00	1.318	97.46	1.026	0.08	0.070	0.095
	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 6	Full Power	116	5580	1	17.80	19.00	1.318	97.46	1.026	0.04	0.111	0.150
	WLAN5GHz	802.11a 6Mbps	Right Side	8mm	Ant 6	Full Power	116	5580	1	17.80	19.00	1.318	97.46	1.026	-0.17	0.048	0.065
	WLAN5GHz	802.11a 6Mbps	Top Side	12mm	Ant 6	Full Power	116	5580	1	17.80	19.00	1.318	97.46	1.026	0.07	0.118	0.160

16.5 Repeated SAR Measurement

【Repeat SAR 1g - FCC】

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)	Ratio
1st	LTE Band 12	10M_QPSK_1_0	Back	5.0	Ant 0	ECI 7	23095	707.5	22.66	24.00	1.361			0.07	0.919	1.251	-
2nd	LTE Band 12	10M_QPSK_1_0	Back	5.0	Ant 0	ECI 7	23095	707.5	22.66	24.00	1.361			0.09	0.887	1.207	1.04
1st	GSM850	GPRS 4 Tx slots	Back	5.0	Ant 0	ECI 7	189	836.4	27.04	27.90	1.219			0.01	1.040	1.268	-
2nd	GSM850	GPRS 4 Tx slots	Back	5.0	Ant 0	ECI 7	189	836.4	27.04	27.90	1.219			0.14	0.956	1.165	1.09
1st	LTE Band 66	20M_QPSK_1_0	Back	5.0	Ant 0	ECI 3	132072	1720	16.97	17.90	1.239			0.04	1.040	1.289	-
2nd	LTE Band 66	20M_QPSK_1_0	Back	5.0	Ant 0	ECI 3	132072	1720	16.97	17.90	1.239			-0.04	0.978	1.212	1.06
1st	FR1 n2	40M_BPSK_108_54	Bottom Side	5.0	Ant 0	ECI 7	376000	1880	16.30	17.10	1.202			0.19	1.070	1.286	-
2nd	FR1 n2	40M_BPSK_108_54	Bottom Side	5.0	Ant 0	ECI 7	376000	1880	16.30	17.10	1.202			0.11	0.955	1.148	1.12
1st	WLAN2.4GHz	802.11b 1Mbps	Back	5.0	Ant 6	Body-worn Standalone	1	2412	17.21	18.50	1.346			0.08	1.020	1.373	-
2nd	WLAN2.4GHz	802.11b 1Mbps	Back	5.0	Ant 6	Body-worn Standalone	1	2412	17.21	18.50	1.346			-0.01	0.913	1.229	1.12
1st	LTE Band 38	20M_QPSK_1_0	Back	5.0	Ant 1	ECI 7	38000	2595	17.96	19.10	1.3	62.9	1.006	-0.18	0.991	1.296	-
2nd	LTE Band 38	20M_QPSK_1_0	Back	5.0	Ant 1	ECI 7	38000	2595	17.96	19.10	1.3	62.9	1.006	0.04	0.956	1.250	1.04
1st	FR1 n77	100M_BPSK_270_0	Bottom Side	5.0	Ant 1	ECI 7	656000	3840	14.05	15.00	1.245			0.08	1.040	1.295	-
2nd	FR1 n77	100M_BPSK_270_0	Bottom Side	5.0	Ant 1	ECI 7	656000	3840	14.05	15.00	1.245			0.11	0.991	1.234	1.05
1st	WLAN5GHz	802.11n-HT40 MCS0	Back	5.0	Ant 6	Body-worn Standalone	54	5270	15.66	16.50	1.213	94.92	1.054	-0.03	0.855	1.093	-
2nd	WLAN5GHz	802.11n-HT40 MCS0	Back	5.0	Ant 6	Body-worn Standalone	54	5270	15.66	16.50	1.213	94.92	1.054	0.04	0.833	1.065	1.03

【Repeat SAR 10g - FCC】

No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)	Ratio
1st	FR1 n66	45M_BPSK_120_60	Back	0.0	Ant 0	ECI 6	349000	1745	20.69	21.80	1.291	-0.04	2.470	3.189	-
2nd	FR1 n66	45M_BPSK_120_60	Back	0.0	Ant 0	ECI 6	349000	1745	20.69	21.80	1.291	-0.01	2.330	3.008	1.06
1st	LTE Band 25	20M_QPSK_1_0	Back	0.0	Ant 0	ECI 6	26140	1860	20.65	21.70	1.274	-0.05	2.470	3.147	-
2nd	LTE Band 25	20M_QPSK_1_0	Back	0.0	Ant 0	ECI 6	26140	1860	20.65	21.70	1.274	0.04	2.400	3.058	1.03
1st	LTE Band 7	20M_QPSK_1_0	Back	0.0	Ant 1	ECI 6	21350	2560	20.35	21.20	1.216	0.02	2.620	3.186	-
2nd	LTE Band 7	20M_QPSK_1_0	Back	0.0	Ant 1	ECI 6	21350	2560	20.35	21.20	1.216	-0.01	2.580	3.137	1.02
1st	FR1 n77	100M_BPSK_270_0	Back	0.0	Ant 1	ECI 6	656000	3840	17.30	18.50	1.318	-0.13	2.130	2.807	-
2nd	FR1 n77	100M_BPSK_270_0	Back	0.0	Ant 1	ECI 6	656000	3840	17.30	18.50	1.318	0.01	2.030	2.676	1.05

General Note:

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

17. 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	Yes	Yes	Yes	Yes
3.	WWAN + Bluetooth	Yes	Yes	Yes	Yes
4.	WLAN5GHz + Bluetooth	Yes	Yes	Yes	Yes
5.	WWAN + WLAN5GHz + Bluetooth	Yes	Yes	Yes	Yes
6.	WWAN + WLAN2.4GHz + NFC				Yes
7.	WWAN + WLAN5GHz + NFC				Yes
8.	WWAN + Bluetooth + NFC				Yes
9.	WLAN5GHz + Bluetooth + NFC				Yes
10.	WWAN + WLAN5GHz + Bluetooth + NFC				Yes

General Note:

- This device supports VoIP in GPRS, EGPRS, WCDMA, LTE and 5GNR (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.
- WWAN above includes 5G NR bands and EN-DC combination.
- EUT will choose each GSM, WCDMA, LTE and 5GNR according to the network signal condition; therefore, they will not operate simultaneously at any moment.
- For EN-DC mode, MediaTek TA-SAR algorithm in WWAN adds directly the time-averaged RF exposure from 4G(LTE) and time-averaged RF exposure from 5G NR. TA-SAR algorithm controls the total RF exposure from both 4G and 5G NR to not exceed SAR exposure limit. Therefore, simultaneous transmission compliance between 4G+5G NR operation is demonstrated in the Part 2 Report during algorithm validation. In this Report, simultaneous transmission compliance was evaluated individually with other Radios (WLAN or BT) using one of 4G or 5G NR.
- 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).
- The worst case 5 GHz WLAN SAR for each configuration was used for SAR summation.
- According to the EUT characteristic, WLAN 5GHz and Bluetooth can transmit simultaneously.
- According to the EUT characteristic, WLAN 5GHz and WLAN 2.4GHz cannot transmit simultaneously.
- WLAN 2.4GHz and Bluetooth share the same antenna, and they cannot transmit simultaneously.
- NFC can transmit simultaneously with other Radios in extremity exposure condition.
- For Headset SAR and non-Headset SAR always chose higher SAR to do co-located analysis.
- For distance SAR and non-distance SAR at extremity exposure conditions always chose higher SAR to do co-located analysis.
- 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 together. This is the worst co-located analysis and can represent each band.
- The maximum SAR summation is calculated based on the same configuration and test position.
- 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.
 - $SPLSR = (SAR1 + SAR2)^{1.5} / (\min. \text{ separation distance, mm})$, and the peak separation distance is determined from the square root of $[(x1-x2)^2 + (y1-y2)^2 + (z1-z2)^2]$, where (x1, y1, z1) and (x2, y2, z2) are the coordinates of the extrapolated peak SAR locations in the zoom scan.
 - If $SPLSR \leq 0.04$ for 1g SAR and $SPLSR \leq 0.10$ for 10g SAR, simultaneously transmission SAR measurement is not necessary.
 - Simultaneously transmission SAR measurement, and the reported multi-band 1g SAR < 1.6W/kg and 10g SAR < 4.0W/kg.
 - The SPLSR calculated results please refer to section 17.6.

17.1 5G NR + LTE + WLAN + BT Sim-Tx analysis

In 5G NR + LTE + WLAN + BT simultaneous transmission, 5G NR and LTE transmission are managed and controlled by MediaTek TA-SAR, while the RF exposure from WLAN and BT radios is managed using legacy approach, i.e., through a fixed power back-off if needed.

Since WLAN and BT do not employ time-averaging, 1gSAR and 10gSAR measurement for WLAN and BT need to be conducted at their corresponding rated power following current FCC test procedures to determine reported SAR values.

TA-SAR current implementation assumes hotspots from 5G NR and LTE are collocated. Therefore, for a total of 100% exposure margin, if LTE uses x, then the exposure margin left for 5G NR is capped to y. Thus, the compliance equation for LTE + 5G NR is

$$\begin{aligned} x \cdot A + y \cdot B + m &\leq 1 \\ x + y &= g \leq 1 \\ g + m &\leq 1 \end{aligned}$$

Where, A is normalized reported time-averaged SAR exposure ratio from LTE, and $A \leq 1.0$; B is normalized reported time-averaged exposure ratio from 5G NR (i.e., PD exposure for 5G FR2 or SAR exposure for 5G FR1), and $B \leq 1.0$.

Let m = normalized reported SAR exposure ratio from WLAN+BT, then for compliance,

$$x \cdot A + y \cdot B + m \leq 1.0 \quad (1)$$

$$x \cdot A + y \cdot B \leq x \cdot \max(A, B) + (g-x) \cdot \max(A, B) \leq \max(A, B)$$

$$x \cdot A + (g-x) \cdot B + m \leq \max(A, B) + m \leq 1.0 \quad (2)$$

If $A + m \leq 1.0$ and $B + m \leq 1.0$ can be proven, then " $x \cdot A + y \cdot B + m \leq 1.0$ ". Therefore simultaneous transmission analysis for 5G NR + LTE + WLAN + BT can be performed in two steps

Step 1: Prove total exposure ratio (TER) of LTE + WLAN + BT < 1

Step 2: Prove total exposure ratio (TER) of 5G NR + WLAN + BT < 1

Else, if $A + m > 1.0$ and/or $B + m > 1.0$, then the followings need to hold true for compliance:

- i. A and m are decoupled based on the SPLSR criteria, and
- ii. $y \cdot B + m \leq 1.0$, and
- iii. $x \cdot A + y \cdot B \leq 1.0$

Note iii. is covered in Part 2 report; i. and ii. should be addressed in Part 1 report.

Above analysis is also apply to LTE inter-band uplink, LTE1 + LTE2 + WLAN + BT simultaneous transmission, so inter-band uplink CA no need to do additional simultaneously analysis again. Only required comply with total exposure ratio (TER) of LTE + WLAN + BT < 1.

The device also enabled Mediatek's TA-SAR algorithm to improve antenna performance by applying separate SAR budgets to each predefined antenna group. There are two predefined antenna groups of AG0, AG1, more detail as following table. Each antenna group is spatially separated to others. Simultaneous transmission analysis is performed per antenna group. Below analysis demonstrates the spatially separation of AG0, AG1, and the compliance between AG0 and BT/WLAN/NFC and between AG1 and BT/WLAN/NFC.

Thus, the concept was to split the SAR/TER on the transmitting RATs even they are transmitting on different antennas. Such approach is considered as a worst-case scenario in terms of transmitting power. Thus, to enhance the performance of the transmission power of RATs, consider the spatial properties of each antenna and the correlations between the antenna's transmissions.

SPLSR_Group (Antenna Group):

Antenna Group 0 (AG0)	ANT0 & ANT1
Antenna Group 1 (AG1)	ANT2 & ANT4 & ANT5 & ANT8

Note that WLAN/BT operations are not enabled with TA-SAR feature.

The verification of spatial separation of the antenna groups is demonstrated through the following steps, together with WIF/BT simultaneous transmission analysis results.

- i) The highest reported SAR at Plimit (or Pmax when Plimit > Pmax) for each antenna should be obtained out of all supported technologies and frequency bands for each power index. Demonstrate that the sum of reported SAR of one antenna from each of the antenna groups and the sum of RF exposure from all supported radios outside of TAS feature should be less than the regulatory limit as given below for each power index.
- ii) If the sum of SAR from step i) is over 1.6 W/kg for 1g, demonstrate for a given power index that every antenna from one antenna group meets SPLSR criteria with every antenna in another antenna group for all frequency bands. SPLSR criteria must be demonstrated for all antenna pair combinations irrespective of supported simultaneous transmission scenarios, SPLSR Hotspot combination procedure (Hybrid SPLSR) also be considered for simultaneous transmission analysis.
- iii) If SPLSR evaluation and analysis is needed to determine compliance for a certain power index configuration, SPLSR is performed by taking the highest summation SAR for each of the supported technologies and bands per antenna, along with the minimum of peak SAR location distance. The minimum of peak location distance is documented in the Highest Report SAR and Hotspot Location below for each power index configuration.
- iv) In section 17.6 SPLSR analysis only evaluation Sim-Tx SAR configuration are rounded to two decimal higher or equal to 1.6W/kg.
- v) The analysis addresses the simultaneous transmission and the transition among non-simultaneous transmission radios

For summed SAR results and SPLSR detailed analysis, please refer to section 17.2/17.3 / 17.4 / 17.5 / 17.6 of this report. All of the combinations of sub6 antenna groups are sufficient to show that AG0 is mutually exclusive from AG1 and that simultaneous transmission cases will not exceed the SAR limit and therefore no measured volumetric simultaneous SAR summation is required per FCC KDB Publication 447498 D01v06 and IEEE 1528- 2013 Section 6.3.4.1.

17.2 Head Exposure Conditions

General Note: The unit of SAR evaluation is W/kg.

Simultaneous Transmission Evaluation of WWAN+WLAN+BT:

<AG0 maximum reported SAR>:

Test Position	Ant0	Ant1	MAX
Right Cheek	0.483	0.419	0.483
Right Tilted	0.256	0.378	0.378
Left Cheek	0.428	0.788	0.788
Left Tilted	0.232	0.229	0.232

<AG1 maximum reported SAR>:

Test Position	Ant4	Ant5	Ant8	Ant2	MAX
Right Cheek	0.889	0.581	0.406	0.081	0.889
Right Tilted	0.892	0.689	0.296	0.059	0.892
Left Cheek	0.625	0.891	0.808	0.070	0.891
Left Tilted	0.683	0.891	0.330	0.052	0.891

<WLAN2.4GHz/5GHz +BT Worse-case SAR>:

Test Position	WLAN2.4GHz Ant6	WLAN5GHz Ant6	BT Ant6	WLAN5GHz Ant6+BT Ant6	MAX
Right Cheek	0.386	0.398	0.076	0.474	0.474
Right Tilted	0.386	0.398	0.070	0.468	0.468
Left Cheek	0.386	0.398	0.214	0.612	0.612
Left Tilted	0.386	0.398	0.147	0.545	0.545

<Simultaneous Transmission analysis of AG0 + AG1 + WLAN+BT Worse-case>:

Test Position	AG0	AG1	WLAN/BT worst case	AG1+AG0+WLAN +BT worse case
Right Cheek	0.483	0.889	0.474	1.85
Right Tilted	0.378	0.892	0.468	1.74
Left Cheek	0.788	0.891	0.612	2.29
Left Tilted	0.232	0.891	0.545	1.67

Note: The results marked yellow in above table refers to the detailed analysis corresponding to each position below tables.

Right Cheek					
Ant combination	AG0	AG1	WLAN/BT worst case	AG1+AG0+WLAN +BT worse case	SPLSR
	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	
Ant0-Ant4	0.483	0.889	0.474	1.85	1
Ant0-Ant5	0.483	0.581	0.474	1.54	
Ant0-Ant8	0.483	0.406	0.474	1.36	
Ant0-Ant2	0.483	0.081	0.474	1.04	
Ant1-Ant4	0.419	0.889	0.474	1.78	2
Ant1-Ant5	0.419	0.581	0.474	1.47	
Ant1-Ant8	0.419	0.406	0.474	1.30	
Ant1-Ant2	0.419	0.081	0.474	0.97	

Right Tilted					
Ant combination	AG0	AG1	WLAN/BT worst case	AG1+AG0+WLAN +BT worse case	SPLSR
	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	
Ant0-Ant4	0.256	0.892	0.468	1.62	3
Ant0-Ant5	0.256	0.689	0.468	1.41	
Ant0-Ant8	0.256	0.296	0.468	1.02	
Ant0-Ant2	0.256	0.059	0.468	0.78	
Ant1-Ant4	0.378	0.892	0.468	1.74	4
Ant1-Ant5	0.378	0.689	0.468	1.54	
Ant1-Ant8	0.378	0.296	0.468	1.14	
Ant1-Ant2	0.378	0.059	0.468	0.91	

Left Cheek					
Ant combination	AG0	AG1	WLAN/BT worst case	AG1+AG0+WLAN +BT worse case	SPLSR
	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	
Ant0-Ant4	0.428	0.625	0.612	1.67	5
Ant0-Ant5	0.428	0.891	0.612	1.93	6
Ant0-Ant8	0.428	0.808	0.612	1.85	7
Ant0-Ant2	0.428	0.070	0.612	1.11	
Ant1-Ant4	0.788	0.625	0.612	2.03	8
Ant1-Ant5	0.788	0.891	0.612	2.29	9
Ant1-Ant8	0.788	0.808	0.612	2.21	10
Ant1-Ant2	0.788	0.070	0.612	1.47	

Left Tilted					
Ant combination	AG0	AG1	WLAN/BT worst case	AG1+AG0+WLAN +BT worse case	SPLSR
	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	
Ant0-Ant4	0.232	0.683	0.545	1.46	
Ant0-Ant5	0.232	0.891	0.545	1.67	11
Ant0-Ant8	0.232	0.330	0.545	1.11	
Ant0-Ant2	0.232	0.052	0.545	0.83	
Ant1-Ant4	0.229	0.683	0.545	1.46	
Ant1-Ant5	0.229	0.891	0.545	1.67	12
Ant1-Ant8	0.229	0.330	0.545	1.10	
Ant1-Ant2	0.229	0.052	0.545	0.83	

<Simultaneous Transmission analysis of WLAN 5GHz+BT only and WWAN cell-off >:

Test Position	WLAN2.4GHz Ant6	WLAN5GHz Ant6	BT Ant 6	WLAN5GHz Ant6+BT Ant 6	WLAN+BT worst case
Right Cheek	0.429	0.789	0.076	0.865	0.87
Right Tilted	0.433	0.918	0.070	0.988	0.99
Left Cheek	1.200	1.066	0.214	1.280	1.28
Left Tilted	0.794	1.074	0.147	1.221	1.22

17.3 Hotspot Exposure Conditions

General Note: The unit of SAR evaluation is W/kg.

Simultaneous Transmission Evaluation of WWAN+WLAN+BT:

<AG0 maximum reported SAR>:

Test Position	Ant0	Ant1	MAX
Front	0.866	1.054	1.054
Back	1.312	1.296	1.312
Left Side	0.389	0.419	0.419
Right Side	0.966	0.109	0.966
Top Side	0.012	0.047	0.047
Bottom Side	1.292	1.295	1.295

<AG1 maximum reported SAR>:

Test Position	Ant4	Ant5	Ant8	Ant2	MAX
Front	0.428	0.408	0.037	0.022	0.428
Back	0.672	0.625	0.617	0.615	0.672
Left Side	0.182	0.030	0.011	0.114	0.182
Right Side	0.111	0.146	0.166	0.001	0.166
Top Side	0.623	0.605	0.082	0.019	0.623
Bottom Side	0.017	0.010	0.006	0.019	0.019

<WLAN2.4GHz/5GHz +BT Worse-case SAR>:

Test Position	WLAN2.4GHz Ant6	WLAN5GHz Ant6	BT Ant6	WLAN5GHz Ant6+BT Ant6	MAX
Front	0.216	0.260	0.098	0.358	0.358
Back	0.624	0.592	0.297	0.889	0.889
Left Side	0.027	0.079	0.001	0.080	0.080
Right Side	0.110	0.168	0.088	0.256	0.256
Top Side	0.198	0.599	0.101	0.700	0.700
Bottom Side	0.001	0.002	0.001	0.003	0.003

<Simultaneous Transmission analysis of AG0 + AG1 + WLAN+BT Worse-case>:

Test Position	AG0	AG1	WLAN/BT worst case	AG1+AG0+WLAN +BT worse case
Front	1.054	0.428	0.358	1.84
Back	1.312	0.672	0.889	2.87
Left Side	0.419	0.182	0.080	0.68
Right Side	0.966	0.166	0.256	1.39
Top Side	0.047	0.623	0.700	1.37
Bottom Side	1.295	0.019	0.003	1.32

Note: The results marked yellow in above table refers to the detailed analysis corresponding to each position below tables.

Front					
Ant combination	AG0	AG1	WLAN/BT worst case	AG1+AG0+WLAN +BT worse case	SPLSR
	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	
Ant0-Ant4	0.866	0.428	0.358	1.65	27
Ant0-Ant5	0.866	0.408	0.358	1.63	28
Ant0-Ant8	0.866	0.037	0.358	1.26	
Ant0-Ant2	0.866	0.022	0.358	1.25	
Ant1-Ant4	1.054	0.428	0.358	1.84	29
Ant1-Ant5	1.054	0.408	0.358	1.82	30
Ant1-Ant8	1.054	0.037	0.358	1.45	
Ant1-Ant2	1.054	0.022	0.358	1.43	

Back					
Ant combination	AG0	AG1	WLAN/BT worst case	AG1+AG0+WLAN +BT worse case	SPLSR
	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	
Ant0-Ant4	1.312	0.672	0.889	2.87	31
Ant0-Ant5	1.312	0.625	0.889	2.83	32
Ant0-Ant8	1.312	0.617	0.889	2.82	33
Ant0-Ant2	1.312	0.615	0.889	2.82	34
Ant1-Ant4	1.296	0.672	0.889	2.86	35
Ant1-Ant5	1.296	0.625	0.889	2.81	36
Ant1-Ant8	1.296	0.617	0.889	2.80	37
Ant1-Ant2	1.296	0.615	0.889	2.80	38

<Simultaneous Transmission analysis of WLAN 5GHz+BT only and WWAN cell-off >:

Test Position	WLAN2.4GHz Ant6	WLAN5GHz Ant6	BT Ant 6	WLAN5GHz Ant6+BT Ant 6	WLAN+BT worst case
Front	0.216	0.260	0.098	0.358	0.36
Back	0.624	0.592	0.297	0.889	0.89
Left Side	0.027	0.079	0.001	0.080	0.08
Right Side	0.110	0.168	0.088	0.256	0.26
Top Side	0.198	0.599	0.101	0.700	0.70

17.4 Body-Worn Accessory Exposure Conditions

General Note: The unit of SAR evaluation is W/kg.

Simultaneous Transmission Evaluation of WWAN+WLAN+BT:

<AG0 maximum reported SAR>:

Test Position	Ant0	Ant1	MAX
Front	0.778	1.054	1.054
Back	1.312	1.296	1.312

<AG1 maximum reported SAR>:

Test Position	Ant4	Ant5	Ant8	Ant2	MAX
Front	0.778	0.369	0.053	0.030	0.778
Back	0.885	0.896	0.884	0.881	0.896

<WLAN2.4GHz/5GHz +BT Worse-case SAR>:

Test Position	WLAN2.4GHz Ant6	WLAN5GHz Ant6	BT Ant6	WLAN5GHz Ant6+BT Ant6	MAX
Front	0.388	0.123	0.098	0.221	0.388
Back	0.388	0.399	0.297	0.696	0.696

<Simultaneous Transmission analysis of AG0 + AG1 + WLAN+BT Worse-case>:

Test Position	AG0	AG1	WLAN/BT worst case	AG1+AG0+WLAN +BT worse case
Front	1.054	0.778	0.388	2.22
Back	1.312	0.896	0.696	2.90

Note: The results marked yellow in above table refers to the detailed analysis corresponding to each position below tables.

Front					
Ant combination	AG0	AG1	WLAN/BT worst case	AG1+AG0+WLAN +BT worse case	SPLSR
	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	
Ant0-Ant4	0.778	0.778	0.388	1.94	13
Ant0-Ant5	0.778	0.369	0.388	1.54	
Ant0-Ant8	0.778	0.053	0.388	1.22	
Ant0-Ant2	0.778	0.030	0.388	1.20	
Ant1-Ant4	1.054	0.778	0.388	2.22	14
Ant1-Ant5	1.054	0.369	0.388	1.81	15
Ant1-Ant8	1.054	0.053	0.388	1.50	
Ant1-Ant2	1.054	0.030	0.388	1.47	

Back					
Ant combination	AG0	AG1	WLAN/BT worst case	AG1+AG0+WLAN +BT worse case	SPLSR
	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	
Ant0-Ant4	1.312	0.885	0.696	2.89	16
Ant0-Ant5	1.312	0.896	0.696	2.90	17
Ant0-Ant8	1.312	0.884	0.696	2.89	18
Ant0-Ant2	1.312	0.881	0.696	2.89	19
Ant1-Ant4	1.296	0.885	0.696	2.88	20
Ant1-Ant5	1.296	0.896	0.696	2.89	21
Ant1-Ant8	1.296	0.884	0.696	2.88	22
Ant1-Ant2	1.296	0.881	0.696	2.87	23

<Simultaneous Transmission analysis of WLAN 5GHz+BT only and WWAN cell-off >:

Test Position	WLAN2.4GHz Ant6	WLAN5GHz Ant6	BT Ant 6	WLAN5GHz Ant6+BT Ant 6	WLAN+BT worst case
Front	0.475	0.422	0.098	0.520	0.52
Back	1.373	1.093	0.297	1.390	1.39

<Sensor off>

General Note: The unit of SAR evaluation is W/kg.

Simultaneous Transmission Evaluation of WWAN+WLAN+BT:

<AG0 maximum reported SAR>:

Test Position	Ant0	Ant1	MAX
Front	0.896	0.912	0.912
Back	0.886	0.519	0.886

<AG1 maximum reported SAR>:

Test Position	Ant4	Ant5	Ant8	Ant2	MAX
Front	0.454	0.414	0.186	0.001	0.454
Back	0.416	0.672	1.015	0.074	1.015

<WLAN2.4GHz/5GHz+BT Worse-case SAR

Test Position	WLAN2.4GHz Ant6	WLAN5GHz Ant6	BT Ant6	WLAN5GHz Ant6+BT Ant6	MAX
Front	0.140	0.155		0.155	0.155
Back	0.114	0.141		0.141	0.141

<Simultaneous Transmission analysis of AG0 + AG1 + WLAN + BT Worse-case>:

Test Position	AG0	AG1	WLAN/BT worst case	AG1+AG0+WLAN +BT worse case
Front	0.912	0.454	0.155	1.52
Back	0.886	1.015	0.141	2.04

Note: The results marked yellow in above table refers to the detailed analysis corresponding to each position below tables.

Back					
Ant combination	AG0	AG1	WLAN/BT worst case	AG1+AG0+WLAN +BT worse case	SPLSR
	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	
Ant0-Ant4	0.886	0.416	0.141	1.44	
Ant0-Ant5	0.886	0.672	0.141	1.70	24
Ant0-Ant8	0.886	1.015	0.141	2.04	25
Ant0-Ant2	0.886	0.074	0.141	1.10	
Ant1-Ant4	0.519	0.416	0.141	1.08	
Ant1-Ant5	0.519	0.672	0.141	1.33	
Ant1-Ant8	0.519	1.015	0.141	1.68	26
Ant1-Ant2	0.519	0.074	0.141	0.73	

17.5 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.

General Note: The unit of SAR evaluation is W/kg.

Simultaneous Transmission Evaluation of WWAN+WLAN+BT+NFC:

<AG0 maximum reported SAR>:

Test Position	Ant0	Ant1	MAX
Front	2.058	3.040	3.040
Back	3.204	3.235	3.235
Left Side		1.161	1.161
Right Side			0.000
Top Side			0.000
Bottom Side	2.910	2.359	2.910

<AG1 maximum reported SAR>:

Test Position	Ant4	Ant5	Ant8	Ant2	MAX
Front	1.898	1.74			1.898
Back	2.344	1.382	2.023	2.09	2.344
Left Side	1.053				1.053
Right Side			1.177		1.177
Top Side	2.488	2.465	0.429		2.488
Bottom Side					0.000

<WLAN2.4GHz/5GHz/BT Worse-case SAR>

Test Position	WLAN2.4GHz Ant6	WLAN5GHz Ant6	BT Ant6	WLAN5GHz Ant6+BT Ant6	MAX
Front		0.988		0.988	0.988
Back	0.535	0.336		0.336	0.535
Left Side		0.988		0.988	0.988
Right Side		0.988		0.988	0.988
Top Side		0.988		0.988	0.988
Bottom Side		0.988		0.988	0.988

<Simultaneous Transmission analysis of AG0 + AG1 + WLAN/BT Worse-case+NFC>:

Test Position	AG0	AG1	WLAN/BT worst case	NFC	AG1+AG0+WLAN +BT+NFC worse case
Front	3.040	1.898	0.988	0.001	5.93
Back	3.235	2.344	0.535	0.018	6.13
Left Side	1.161	1.053	0.988	0.001	3.20
Right Side		1.177	0.988	0.001	2.17
Top Side		2.488	0.988	0.001	3.48
Bottom Side	2.910		0.988	0.001	3.90

Note: The results marked yellow in above table refers to the detailed analysis corresponding to each position below tables.

Back						
Ant combination	AG0	AG1	WLAN/BT worst case	NFC	AG1+AG0+WLAN +BT worse case	SPLSR
	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	
Ant0-Ant4	3.204	2.344	0.535	0.018	6.10	39
Ant0-Ant5	3.204	1.382	0.535	0.018	5.14	40
Ant0-Ant8	3.204	2.023	0.535	0.018	5.78	41
Ant0-Ant2	3.204	2.090	0.535	0.018	5.85	42
Ant1-Ant4	3.235	2.344	0.535	0.018	6.13	43
Ant1-Ant5	3.235	1.382	0.535	0.018	5.17	44
Ant1-Ant8	3.235	2.023	0.535	0.018	5.81	45
Ant1-Ant2	3.235	2.090	0.535	0.018	5.88	46

Front						
Ant combination	AG0	AG1	WLAN/BT worst case	NFC	AG1+AG0+WLAN +BT worse case	SPLSR
	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	
Ant0-Ant4	2.058	1.898	0.988	0.001	4.95	47
Ant0-Ant5	2.058	1.740	0.988	0.001	4.79	48
Ant0-Ant8	2.058		0.988	0.001	3.05	
Ant0-Ant2	2.058		0.988	0.001	3.05	
Ant1-Ant4	3.040	1.898	0.988	0.001	5.93	49
Ant1-Ant5	3.040	1.740	0.988	0.001	5.77	50
Ant1-Ant8	3.040		0.988	0.001	4.03	51
Ant1-Ant2	3.040		0.988	0.001	4.03	52

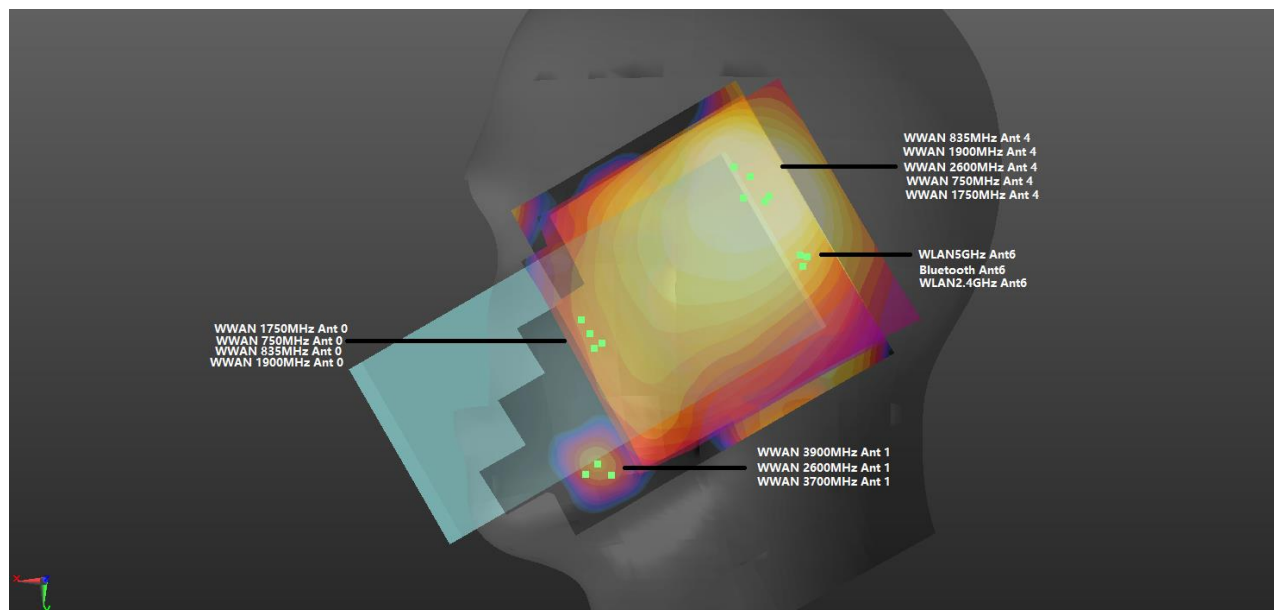
<Simultaneous Transmission analysis of WLAN/BT+NFC only and WWAN cell-off >:

Test Position	WLAN2.4GHz Ant6	WLAN5GHz Ant6	BT Ant 6	WLAN5GHz Ant6+BT Ant 6	NFC	NFC+WLAN+BT worst case
Front		0.706		0.706	0.001	0.71
Back	1.082	0.564		0.564	0.018	1.10
Left Side		0.112		0.112	0.001	0.11
Right Side		0.249		0.249	0.001	0.25
Top Side		1.812		1.812	0.001	1.81

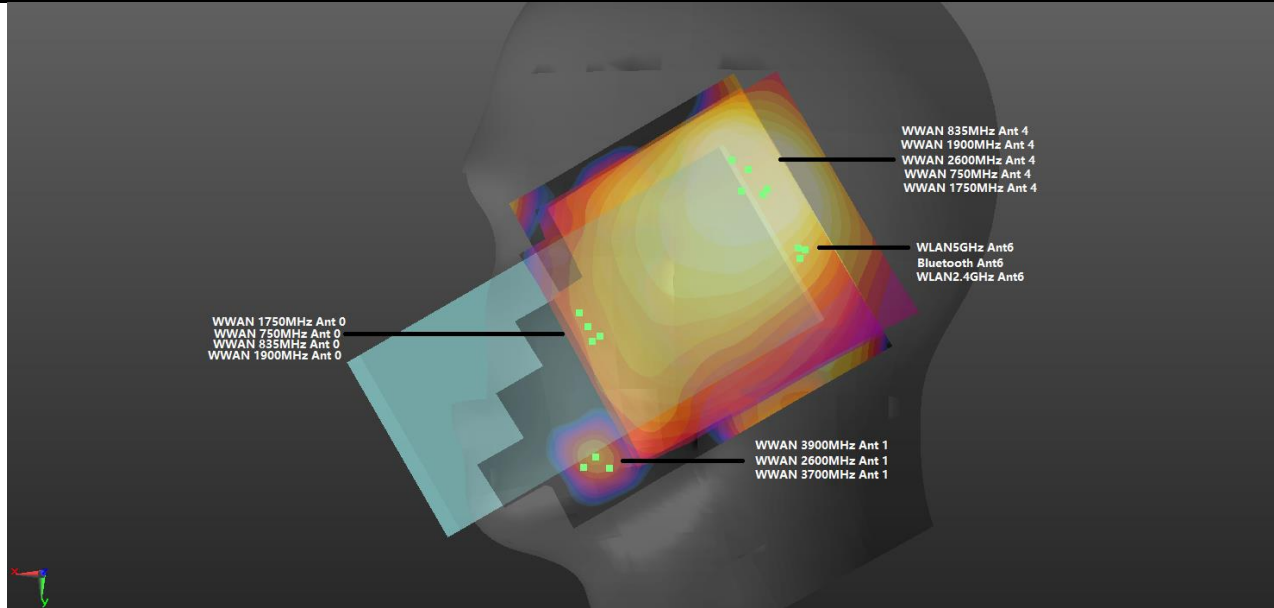
17.6 SPLSR Evaluation and Analysis

General Note:

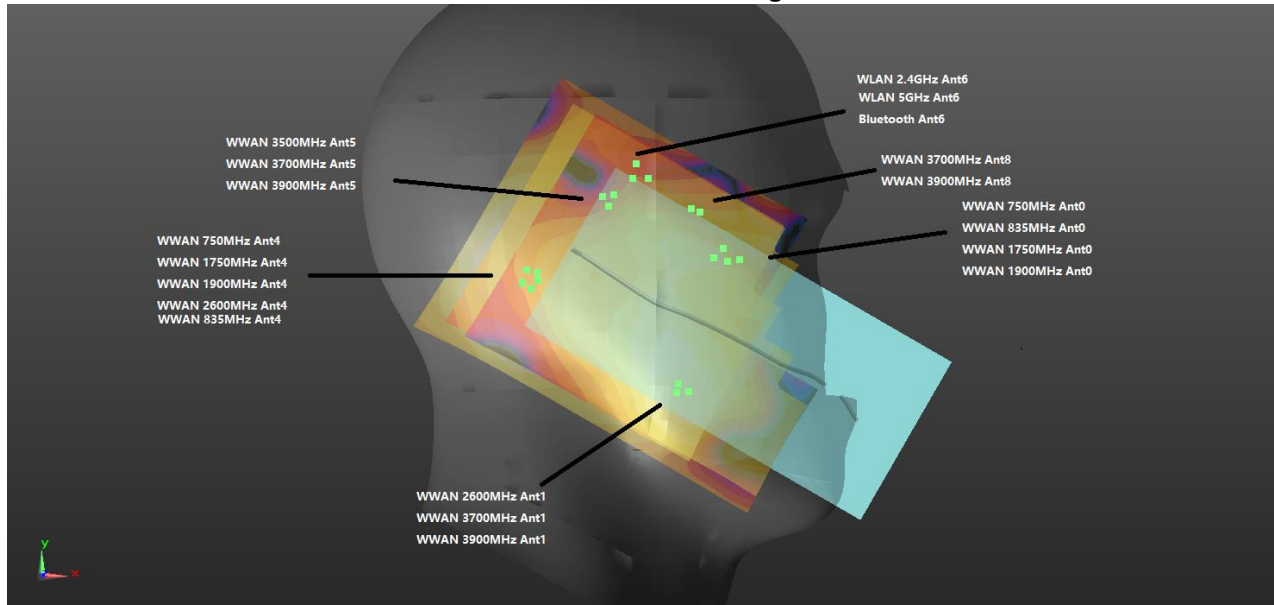
1. When standalone SAR is measured for both antennas in the pair, the peak location separation distance is computed by the square root of $[(x1-x2)^2 + (y1-y2)^2 + (z1-z2)^2]$, where $(x1, y1, z1)$ and $(x2, y2, z2)$ are the coordinates in the area scans or extrapolated peak SAR locations in the zoom scans, as appropriate.
2. $SPLSR = (SAR1 + SAR2)1.5 / (\text{min. separation distance, mm})$. If $SPLSR \leq 0.04$ for 1g SAR and $SPLSR \leq 0.10$ for 10g SAR, simultaneously transmission SAR measurement is not necessary.
3. Per April 2022 TCB Workshop Notes, WLAN /BT/ NFC was summed algebraically with the AG1 for the purposes of hybrid SPLSR combination and they are located at the top of the device
4. Per April 2022 TCB Workshop, instead of doing a small volume scan over a co-located antenna pair, used summing the SAR values of the co-located pair and using that value in SPLSR calculation. In the calculation used the minimum distance between the spatially separated antenna and the closest antenna of the co-located antenna pair to be conservative.
5. The detail hotspot point for each transmitter in each exposure condition are showing as below figure and the minimum 3D distance for each sum combination is used for SPLSR analysis.
6. The axis peak locations refer to Section 17.7.



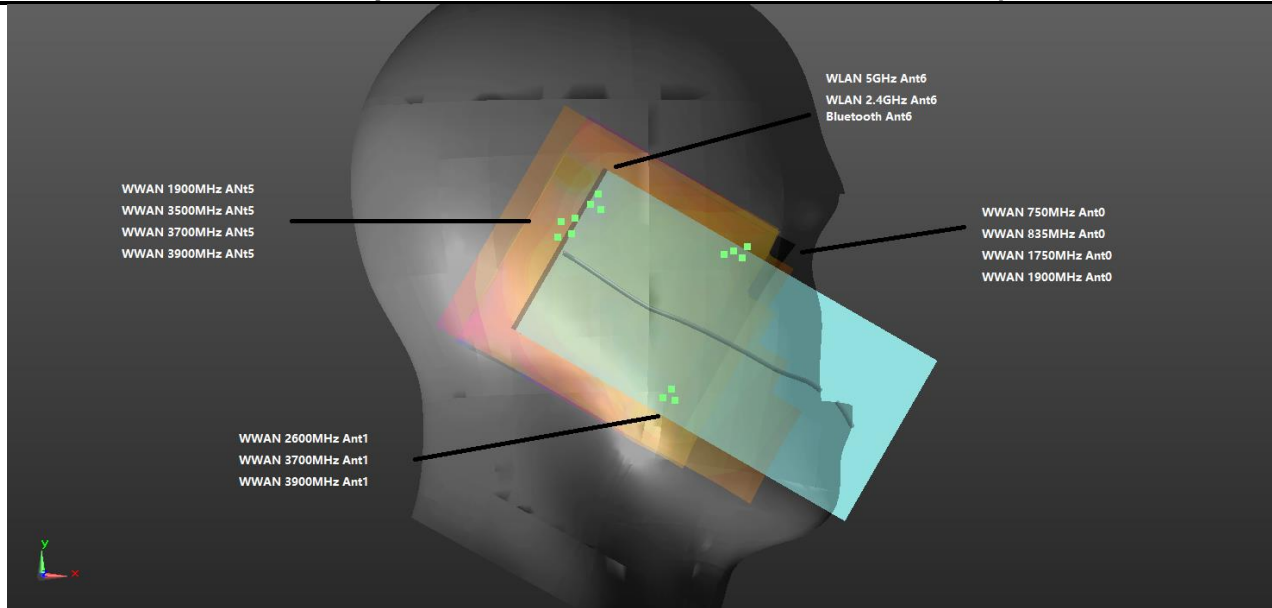
Head WWAN+WWAN+WLAN+BT Right Cheek 0mm



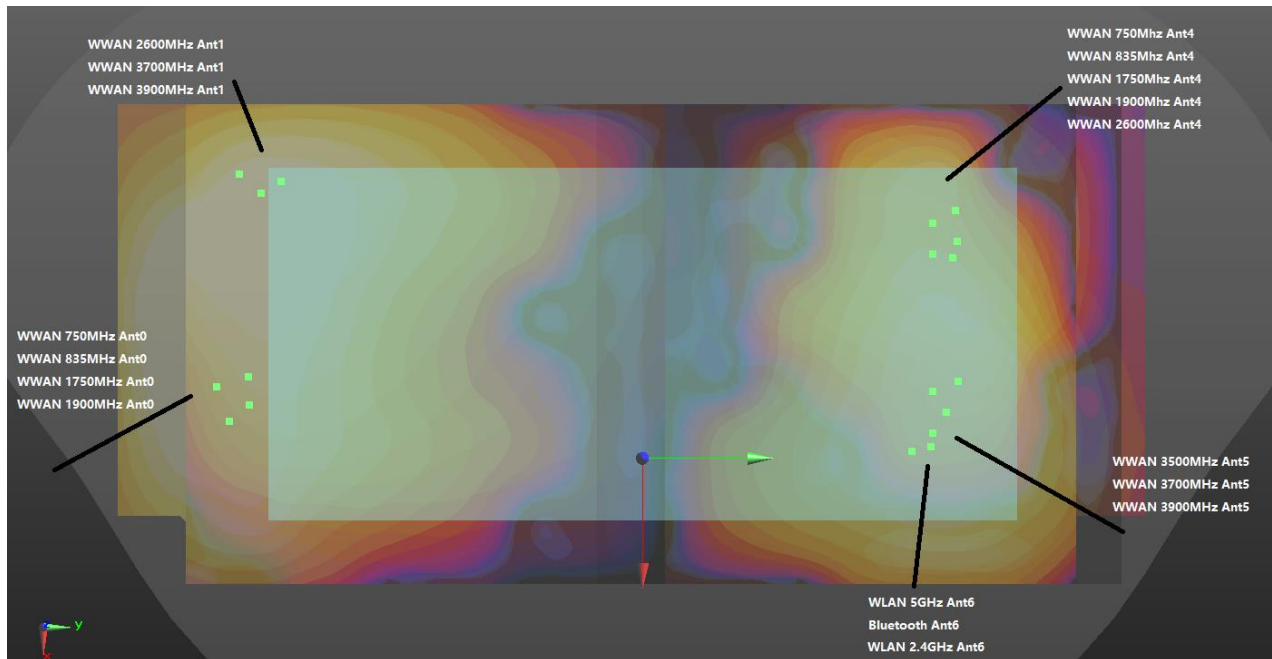
Head WWAN+WWAN+WLAN+BT Right Tilted 0mm



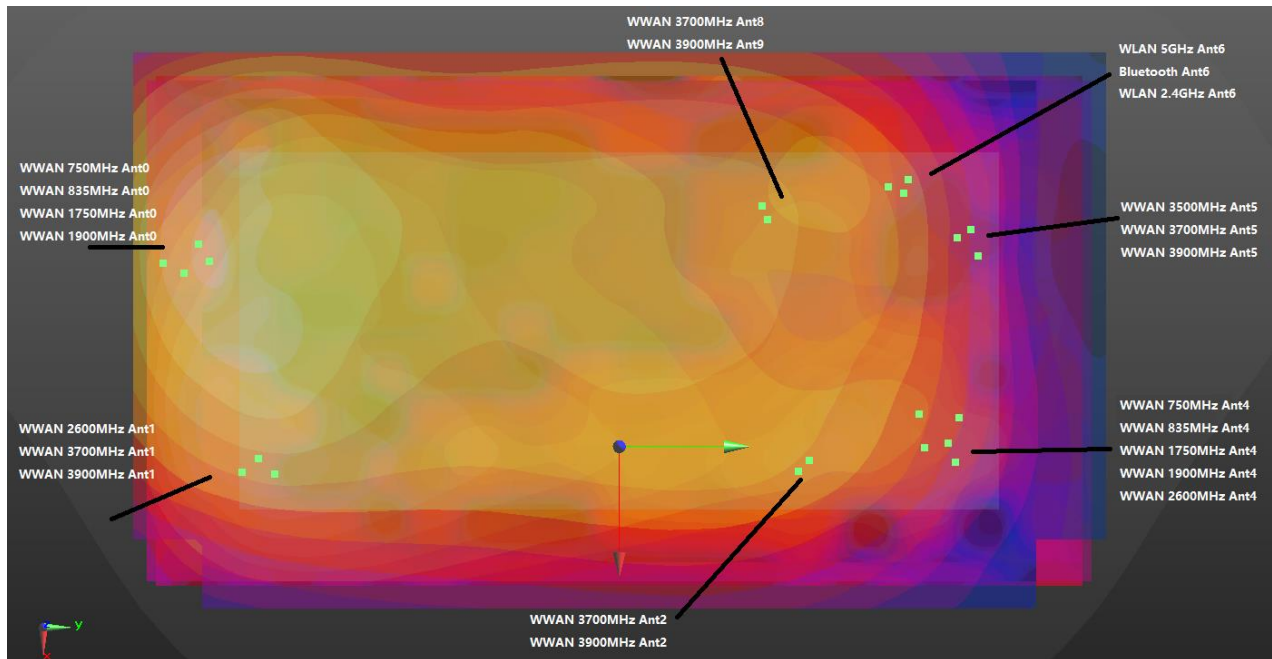
Head WWAN+WWAN+WLAN+BT Left Cheek 0mm



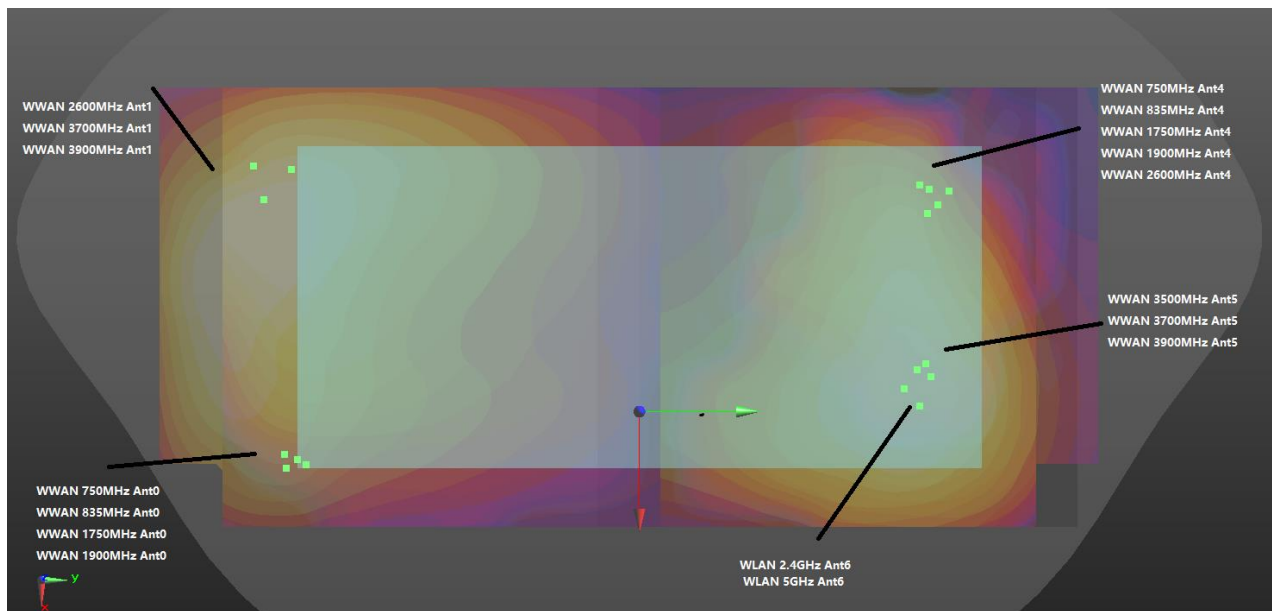
Head WWAN+WWAN+WLAN+BT Left Tilted 0mm



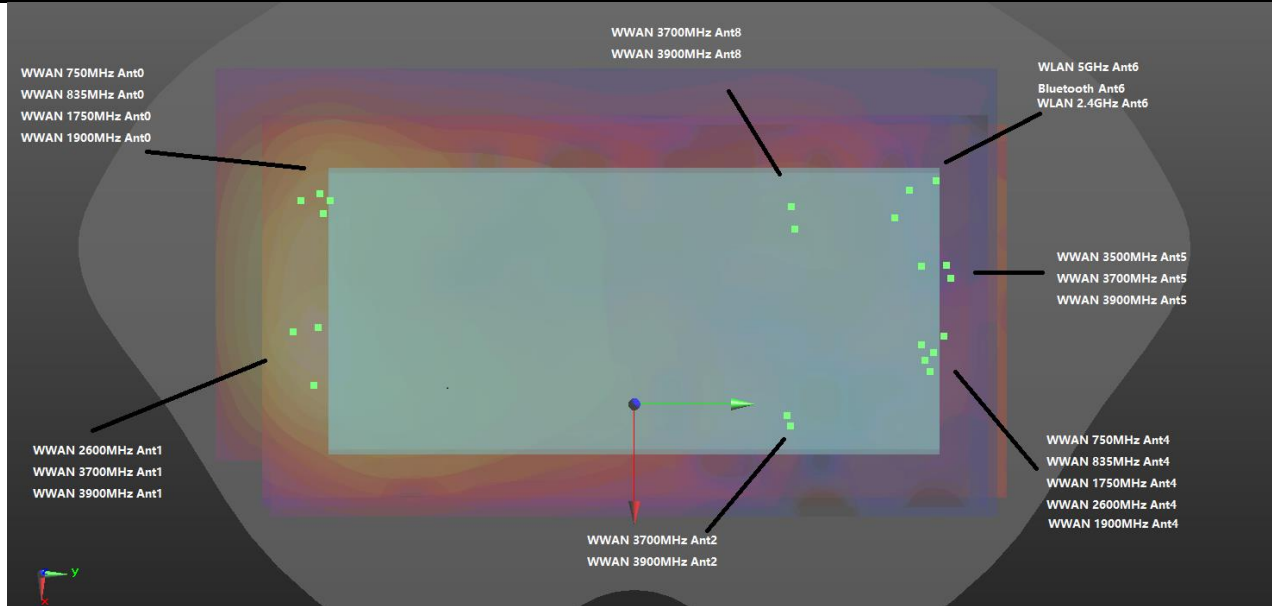
Hotspot WWAN+WWAN+WLAN+BT Front 5mm



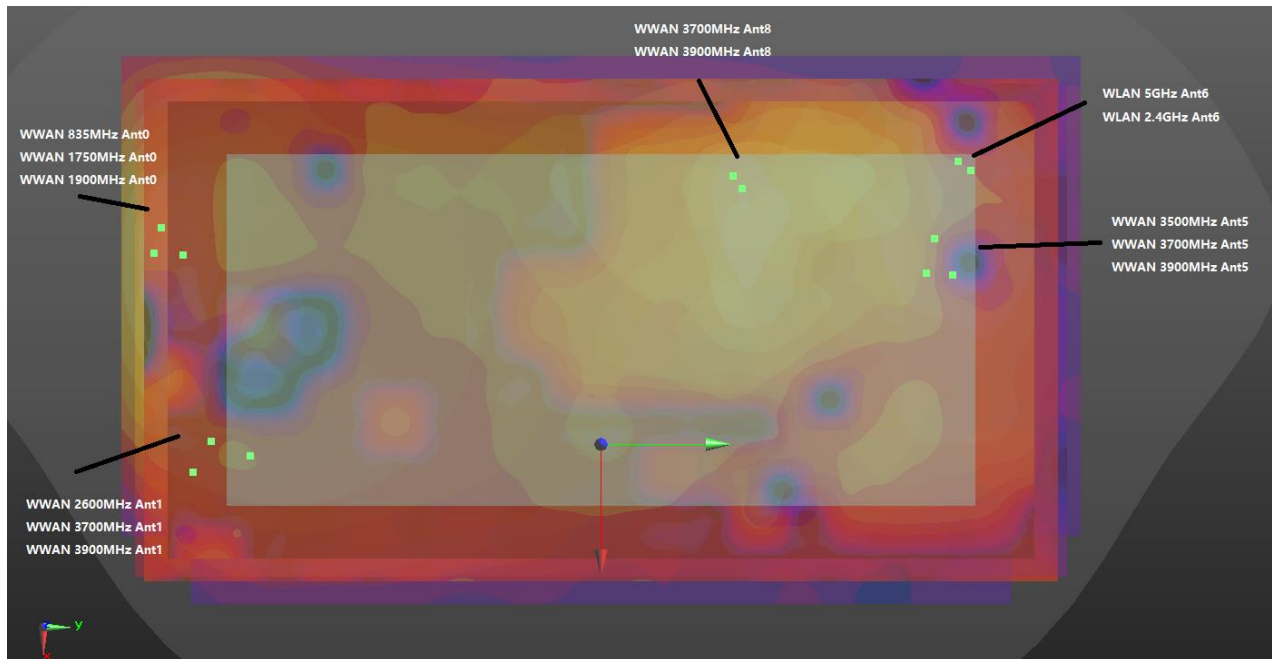
Hotspot WWAN+WWAN+WLAN+BT Back 5mm



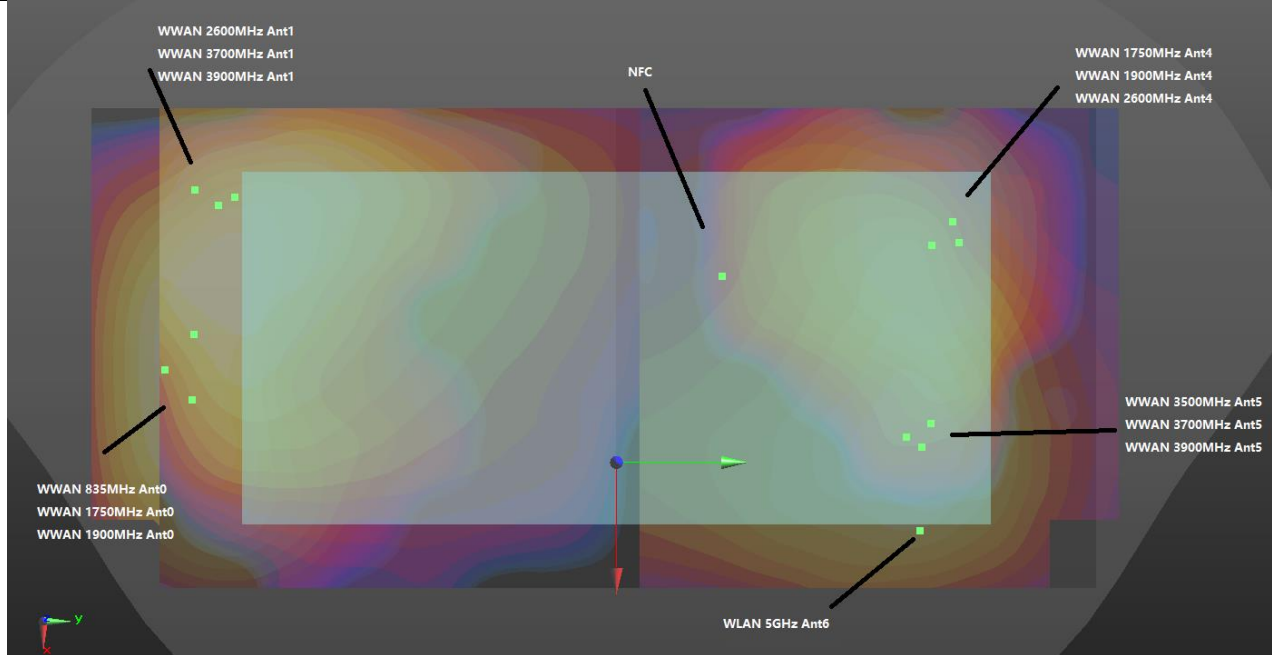
Body worn WWAN+WWAN+WLAN Front 5mm



Body worn WWAN+WWAN+WLAN+BT Back 5mm



Body worn WWAN+WWAN+WLAN Back 21mm



Extremity WWAN+WWAN+WLAN+NFC Front 0mm



Extremity WWAN+WWAN+WLAN+NFC Back 0mm



<Head>

No.1 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant0	Right Cheek	0.483	0.483	0mm	62.19	62.88	-1.46	101.0	1.85	0.02	Not required
Ant4		0.889	1.363	0mm	5.8	-20.95	-1.23				
WLAN5GHz Ant6		0.398		0mm							
BT Ant6		0.076		0mm							
Ant0	Right Cheek	0.483	0.483	0mm	62.19	62.88	-1.46	95.9	1.85	0.03	Not required
Ant4		0.889	1.363	0mm							
WLAN5GHz Ant6		0.398		0mm	-14.64	5.52	1.31				
BT Ant6		0.076		0mm							
Ant0	Right Cheek	0.483	0.483	0mm	62.19	62.88	-1.46	94.5	1.85	0.03	Not required
Ant4		0.889	1.363	0mm							
WLAN5GHz Ant6		0.398		0mm							
BT Ant6		0.076		0mm	-14.65	7.9	1.58				
No.2 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant1	Right Cheek	0.419	0.419	0mm	70.94	20.14	-2.68	77.0	1.78	0.03	Not required
Ant4		0.889	1.363	0mm	5.8	-20.95	-1.23				
WLAN5GHz Ant6		0.398		0mm							
BT Ant6		0.076		0mm							
Ant1	Right Cheek	0.419	0.419	0mm	70.94	20.14	-2.68	86.9	1.78	0.03	Not required
Ant4		0.889	1.363	0mm							
WLAN5GHz Ant6		0.398		0mm	-14.64	5.52	1.31				
BT Ant6		0.076		0mm							
Ant1	Right Cheek	0.419	0.419	0mm	70.94	20.14	-2.68	86.6	1.78	0.03	Not required
Ant4		0.889	1.363	0mm							
WLAN5GHz Ant6		0.398		0mm							
BT Ant6		0.076		0mm	-14.65	7.9	1.58				

No.3 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant0	Right Tilted	0.256	0.256	0mm	61.35	60.87	-2.77	100.3	1.62	0.02	Not required
Ant4		0.892	1.360	0mm	-1.01	-17.71	-0.75				
WLAN5GHz Ant6		0.398		0mm							
BT Ant6		0.070		0mm							
Ant0	Right Tilted	0.256	0.256	0mm	61.35	60.87	-2.77	94.2	1.62	0.02	Not required
Ant4		0.892	1.360	0mm							
WLAN5GHz Ant6		0.398		0mm	-14.77	5.48	1.31				
BT Ant6		0.070		0mm							
Ant0	Right Tilted	0.256	0.256	0mm	61.35	60.87	-2.77	92.7	1.62	0.02	Not required
Ant4		0.892	1.360	0mm							
WLAN5GHz Ant6		0.398		0mm							
BT Ant6		0.070		0mm	-14.61	7.88	1.53				
No.4 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant1	Right Tilted	0.378	0.378	0mm	69.95	18.51	1.07	78.9	1.74	0.03	Not required
Ant4		0.892	1.360	0mm	3.78	-24.36	-0.97				
WLAN5GHz Ant6		0.398		0mm							
BT Ant6		0.070		0mm							
Ant1	Right Tilted	0.378	0.378	0mm	69.95	18.51	1.07	85.7	1.74	0.03	Not required
Ant4		0.892	1.360	0mm							
WLAN5GHz Ant6		0.398		0mm	-14.77	5.48	1.31				
BT Ant6		0.070		0mm							
Ant1	Right Tilted	0.378	0.378	0mm	69.95	18.51	1.07	85.2	1.74	0.03	Not required



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Ant4		0.892	1.360	0mm						
WLAN5GHz Ant6		0.398		0mm						
BT Ant6		0.070		0mm	-14.61	7.88	1.53			

No.5 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant0	Left Cheek	0.428	0.428	0mm	44.38	-74.58	-1.57	88.4	1.67	0.02	Not required
Ant4		0.625	1.237	0mm	-17.8	-11.84	2.19				
WLAN5GHz Ant6		0.398		0mm							
BT Ant6		0.214		0mm							
Ant0	Left Cheek	0.428	0.428	0mm	44.38	-74.58	-1.57	95.7	1.67	0.02	Not required
Ant4		0.625	1.237	0mm							
WLAN5GHz Ant6		0.398		0mm	4.62	12.42	-2.26				
BT Ant6		0.214		0mm							
Ant0	Left Cheek	0.428	0.428	0mm	44.38	-74.58	-1.57	97.6	1.67	0.02	Not required
Ant4		0.625	1.237	0mm							
WLAN5GHz Ant6		0.398		0mm							
BT Ant6		0.214		0mm	4.48	14.52	-2.29				
No.6 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant0	Left Cheek	0.428	0.428	0mm	44.38	-74.58	-1.57	101.7	1.93	0.03	Not required
Ant5		0.891	1.503	0mm	4.15	18.82	-1.34				
WLAN5GHz Ant6		0.398		0mm							
BT Ant6		0.214		0mm							
Ant0	Left Cheek	0.428	0.428	0mm	44.38	-74.58	-1.57	95.7	1.93	0.03	Not required
Ant5		0.891	1.503	0mm							
WLAN5GHz Ant6		0.398		0mm	4.62	12.42	-2.26				
BT Ant6		0.214		0mm							
Ant0	Left Cheek	0.428	0.428	0mm	44.38	-74.58	-1.57	97.6	1.93	0.03	Not required
Ant5		0.891	1.503	0mm							
WLAN5GHz Ant6		0.398		0mm							
BT Ant6		0.214		0mm	4.48	14.52	-2.29				
No.7 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant0	Left Cheek	0.428	0.428	0mm	44.38	-74.58	-1.57	89.2	1.85	0.03	Not required
Ant8		0.808	1.420	0mm	46.48	14.54	-0.28				
WLAN5GHz Ant6		0.398		0mm							
BT Ant6		0.214		0mm							
Ant0	Left Cheek	0.428	0.428	0mm	44.38	-74.58	-1.57	95.7	1.85	0.03	Not required
Ant8		0.808	1.420	0mm							
WLAN5GHz Ant6		0.398		0mm	4.62	12.42	-2.26				
BT Ant6		0.214		0mm							
Ant0	Left Cheek	0.428	0.428	0mm	44.38	-74.58	-1.57	97.6	1.85	0.03	Not required
Ant8		0.808	1.420	0mm							
WLAN5GHz Ant6		0.398		0mm							
BT Ant6		0.214		0mm	4.48	14.52	-2.29				
No.8 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant1	Left Cheek	0.788	0.788	0mm	44.19	-69.36	-1.13	96.8	2.03	0.03	Not required
Ant4		0.625	1.237	0mm	4.15	18.82	-1.34				
WLAN5GHz Ant6		0.398		0mm							
BT Ant6		0.214		0mm							
Ant1	Left Cheek	0.788	0.788	0mm	44.19	-69.36	-1.13	90.9	2.03	0.03	Not required
Ant4		0.625	1.237	0mm							
WLAN5GHz Ant6		0.398		0mm	4.62	12.42	-2.26				
BT Ant6		0.214		0mm							

Ant1	Left Cheek	0.788	0.788	0mm	44.19	-69.36	-1.13	92.8	2.03	0.03	Not required
Ant4		0.625	1.237	0mm							
WLAN5GHz Ant6		0.398		0mm							
BT Ant6		0.214		0mm	4.48	14.52	-2.29				
No.9 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
Ant1	Left Cheek	0.788	0.788	0mm	44.19	-69.36	-1.13	96.8	2.29	0.04	Not required
Ant5		0.891	1.503	0mm	4.15	18.82	-1.34				
WLAN5GHz Ant6		0.398		0mm							
BT Ant6		0.214		0mm							
Ant1	Left Cheek	0.788	0.788	0mm	44.19	-69.36	-1.13	90.9	2.29	0.04	Not required
Ant5		0.891	1.503	0mm							
WLAN5GHz Ant6		0.398		0mm	4.62	12.42	-2.26				
BT Ant6		0.214		0mm							
Ant1	Left Cheek	0.788	0.788	0mm	44.19	-69.36	-1.13	92.8	2.29	0.04	Not required
Ant5		0.891	1.503	0mm							
WLAN5GHz Ant6		0.398		0mm							
BT Ant6		0.214		0mm	4.48	14.52	-2.29				
No.10 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
Ant1	Left Cheek	0.788	0.788	0mm	44.19	-69.36	-1.13	83.9	2.21	0.04	Not required
Ant8		0.808	1.420	0mm	46.48	14.54	-0.28				
WLAN5GHz Ant6		0.398		0mm							
BT Ant6		0.214		0mm							
Ant1	Left Cheek	0.788	0.788	0mm	44.19	-69.36	-1.13	90.9	2.21	0.04	Not required
Ant8		0.808	1.420	0mm							
WLAN5GHz Ant6		0.398		0mm	4.62	12.42	-2.26				
BT Ant6		0.214		0mm							
Ant1	Left Cheek	0.788	0.788	0mm	44.19	-69.36	-1.13	92.8	2.21	0.04	Not required
Ant8		0.808	1.420	0mm							
WLAN5GHz Ant6		0.398		0mm							
BT Ant6		0.214		0mm	4.48	14.52	-2.29				

No.11 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
Ant0	Left Tilted	0.232	0.232	0mm	47.53	-77.73	-1.08	101.3	1.67	0.02	Not required
Ant5		0.891	1.436	0mm	3.16	13.34	-1.28				
WLAN5GHz Ant6		0.398		0mm							
BT Ant6		0.147		0mm							
Ant0	Left Tilted	0.232	0.232	0mm	47.53	-77.73	-1.08	103.6	1.67	0.02	Not required
Ant5		0.891	1.436	0mm							
WLAN5GHz Ant6		0.398		0mm	1.18	14.89	-1.86				
BT Ant6		0.147		0mm							
Ant0	Left Tilted	0.232	0.232	0mm	47.53	-77.73	-1.08	103.6	1.67	0.02	Not required
Ant5		0.891	1.436	0mm							
WLAN5GHz Ant6		0.398		0mm							
BT Ant6		0.147		0mm	1.11	14.91	-1.89				
No.12 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
Ant1	Left Tilted	0.229	0.229	0mm	43.53	-66.97	-0.71	89.9	1.67	0.02	Not required
Ant5		0.891	1.436	0mm	3.18	13.41	-1.19				
WLAN5GHz Ant6		0.398		0mm							
BT Ant6		0.147		0mm							
Ant1	Left Tilted	0.229	0.229	0mm	43.53	-66.97	-0.71	92.2	1.67	0.02	Not required
Ant5		0.891	1.436	0mm							
WLAN5GHz Ant6		0.398		0mm	1.18	14.89	-1.86				

BT Ant6		0.147		0mm							
Ant1	Left Tilted	0.229	0.229	0mm	43.53	-66.97	-0.71	92.2	1.67	0.02	Not required
Ant5		0.891	1.436	0mm							
WLAN5GHz Ant6		0.398		0mm							
BT Ant6		0.147		0mm	1.11	14.91	-1.89				

<Hotspot>

No.27 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant0	Front	0.866	0.866	5mm	-5.5	-85.5	-0.61	154.4	1.65	0.01	Not required
Ant4		0.428		5mm	-25.2	67.6	-0.82				
WLAN5GHz Ant6		0.260		5mm							
BT Ant6		0.098		5mm							
Ant0	Front	0.866	0.866	5mm	-5.5	-85.5	-0.61	157.2	1.65	0.01	Not required
Ant4		0.428		5mm							
WLAN5GHz Ant6		0.260		5mm	24.8	68.8	-0.73				
BT Ant6		0.098		5mm							
Ant0	Front	0.866	0.866	5mm	-5.5	-85.5	-0.61	157.2	1.65	0.01	Not required
Ant4		0.428		5mm							
WLAN5GHz Ant6		0.260		5mm							
BT Ant6		0.098		5mm	22.6	69.2	-0.69				
No.28 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant0	Front	0.866	0.866	5mm	9.3	-85.6	-0.75	156.3	1.63	0.01	Not required
Ant5		0.408		5mm	15.9	70.6	-0.73				
WLAN5GHz Ant6		0.260		5mm							
BT Ant6		0.098		5mm							
Ant0	Front	0.866	0.866	5mm	9.3	-85.6	-0.75	155.2	1.63	0.01	Not required
Ant5		0.408		5mm							
WLAN5GHz Ant6		0.260		5mm	24.8	68.8	-0.73				
BT Ant6		0.098		5mm							
Ant0	Front	0.866	0.866	5mm	9.3	-85.6	-0.75	155.4	1.63	0.01	Not required
Ant5		0.408		5mm							
WLAN5GHz Ant6		0.260		5mm							
BT Ant6		0.098		5mm	22.6	69.2	-0.69				
No.29 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant1	Front	1.054	1.054	5mm	-24.4	-82.3	-0.35	149.9	1.84	0.02	Not required
Ant4		0.428		5mm	-25.2	67.6	-0.82				
WLAN5GHz Ant6		0.260		5mm							
BT Ant6		0.098		5mm							
Ant1	Front	1.054	1.054	5mm	-24.4	-82.3	-0.35	158.9	1.84	0.02	Not required
Ant4		0.428		5mm							
WLAN5GHz Ant6		0.260		5mm	24.8	68.8	-0.73				
BT Ant6		0.098		5mm							
Ant1	Front	1.054	1.054	5mm	-24.4	-82.3	-0.35	158.6	1.84	0.02	Not required
Ant4		0.428		5mm							
WLAN5GHz Ant6		0.260		5mm							
BT Ant6		0.098		5mm	22.6	69.2	-0.69				
No.30 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant1	Front	1.054	1.054	5mm	-24.4	-82.3	-0.35	157.8	1.82	0.02	Not required
Ant5		0.408		5mm	11.8	71.3	-0.77				
WLAN5GHz Ant6		0.260		5mm							
BT Ant6		0.098		5mm							
Ant1	Front	1.054	1.054	5mm	-24.4	-82.3	-0.35	158.9	1.82	0.02	Not required



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Ant5	Front	0.408	0.766	5mm				158.6	1.82	0.02	Not required
WLAN5GHz		0.260		5mm	24.8	68.8	-0.73				
Ant6		0.098		5mm							
BT Ant6		0.098		5mm							
Ant1	Front	1.054	0.766	5mm	-24.4	-82.3	-0.35	158.6	1.82	0.02	Not required
Ant5		0.408		5mm							
WLAN5GHz		0.260		5mm							
Ant6		0.260		5mm							
BT Ant6	Front	0.098		5mm	22.6	69.2	-0.69				

No.31 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant0	Back	1.312	1.561	5mm	-12.5	-81	-0.65	154.3	2.87	0.03	Not required
Ant4		0.672		5mm	16.7	70.5	-0.63				
WLAN5GHz		0.592		5mm							
Ant6		0.297		5mm							
BT Ant6	Back	1.312	1.561	5mm	-12.5	-81	-0.65	147.0	2.87	0.03	Not required
Ant0		0.672		5mm							
WLAN5GHz		0.592		5mm	-25.4	65.4	-0.77				
Ant6		0.297		5mm							
BT Ant6	Back	1.312	1.561	5mm	-12.5	-81	-0.65	149.9	2.87	0.03	Not required
Ant0		0.672		5mm							
WLAN5GHz		0.592		5mm							
Ant6		0.297		5mm	-29.2	68	-0.79				
BT Ant6	Back	1.312	1.561	5mm	-12.5	-81	-0.65	152.3	2.83	0.03	Not required
Ant0		0.625		5mm	-24.2	70.8	-0.67				
WLAN5GHz		0.592		5mm							
Ant6		0.297		5mm							
BT Ant6	Back	1.312	1.561	5mm	-12.5	-81	-0.65	147.0	2.83	0.03	Not required
Ant0		0.625		5mm							
WLAN5GHz		0.592		5mm	-25.4	65.4	-0.77				
Ant6		0.297		5mm							
BT Ant6	Back	1.312	1.561	5mm	-12.5	-81	-0.65	149.9	2.83	0.03	Not required
Ant0		0.625		5mm							
WLAN5GHz		0.592		5mm							
Ant6		0.297		5mm	-29.2	68	-0.79				
BT Ant6	Back	1.312	1.561	5mm	-12.5	-81	-0.65	127.6	2.82	0.04	Not required
Ant0		0.617		5mm	-22.8	46.2	-0.78				
WLAN5GHz		0.592		5mm							
Ant6		0.297		5mm							
BT Ant6	Back	1.312	1.561	5mm	-12.5	-81	-0.65	147.0	2.82	0.03	Not required
Ant0		0.617		5mm							
WLAN5GHz		0.592		5mm	-25.4	65.4	-0.77				
Ant6		0.297		5mm							
BT Ant6	Back	1.312	1.561	5mm	-12.5	-81	-0.65	149.9	2.82	0.03	Not required
Ant0		0.617		5mm							
WLAN5GHz		0.592		5mm							
Ant6		0.297		5mm	-29.2	68	-0.79				
BT Ant6	Back	1.312	1.561	5mm	-12.5	-81	-0.65	129.9	2.82	0.04	Not required
Ant0		0.615		5mm	30.4	43.4	-0.49				
WLAN5GHz		0.592		5mm							
Ant6		0.297		5mm							



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Ant0	Back	1.312	1.312	5mm	4.5	-83.9	-0.55	152.3	2.82	0.03	Not required
Ant2		0.615	1.504	5mm							
WLAN5GHz Ant6		0.592		5mm	-25.4	65.4	-0.77				
BT Ant6		0.297		5mm							
Ant0	Back	1.312	1.312	5mm	4.5	-83.9	-0.55	155.6	2.82	0.03	Not required
Ant2		0.615	1.504	5mm							
WLAN5GHz Ant6		0.592		5mm							
BT Ant6		0.297		5mm	-29.2	68	-0.79				
No.35 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant1	Back	1.296	1.296	5mm	19.7	-77.8	-0.53	148.2	2.86	0.03	Not required
Ant4		0.672	1.561	5mm	18.8	70.4	-0.64				
WLAN5GHz Ant6		0.592		5mm							
BT Ant6		0.297		5mm							
Ant1	Back	1.296	1.296	5mm	19.7	-77.8	-0.53	150.1	2.86	0.03	Not required
Ant4		0.672	1.561	5mm							
WLAN5GHz Ant6		0.592		5mm	-25.4	65.4	-0.77				
BT Ant6		0.297		5mm							
Ant1	Back	1.296	1.296	5mm	19.7	-77.8	-0.53	153.8	2.86	0.03	Not required
Ant4		0.672	1.561	5mm							
WLAN5GHz Ant6		0.592		5mm							
BT Ant6		0.297		5mm	-29.2	68	-0.79				
No.36 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant1	Back	1.296	1.296	5mm	19.7	-77.8	-0.53	154.9	2.81	0.03	Not required
Ant5		0.625	1.514	5mm	-24.2	70.8	-0.67				
WLAN5GHz Ant6		0.592		5mm							
BT Ant6		0.297		5mm							
Ant1	Back	1.296	1.296	5mm	19.7	-77.8	-0.53	150.1	2.81	0.03	Not required
Ant5		0.625	1.514	5mm							
WLAN5GHz Ant6		0.592		5mm	-25.4	65.4	-0.77				
BT Ant6		0.297		5mm							
Ant1	Back	1.296	1.296	5mm	19.7	-77.8	-0.53	153.8	2.81	0.03	Not required
Ant5		0.625	1.514	5mm							
WLAN5GHz Ant6		0.592		5mm							
BT Ant6		0.297		5mm	-29.2	68	-0.79				
No.37 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant1	Back	1.296	1.296	5mm	19.7	-77.8	-0.53	131.1	2.80	0.04	Not required
Ant8		0.617	1.506	5mm	-22.8	46.2	-0.78				
WLAN5GHz Ant6		0.592		5mm							
BT Ant6		0.297		5mm							
Ant1	Back	1.296	1.296	5mm	19.7	-77.8	-0.53	150.1	2.80	0.03	Not required
Ant8		0.617	1.506	5mm							
WLAN5GHz Ant6		0.592		5mm	-25.4	65.4	-0.77				
BT Ant6		0.297		5mm							
Ant1	Back	1.296	1.296	5mm	19.7	-77.8	-0.53	153.8	2.80	0.03	Not required
Ant8		0.617	1.506	5mm							
WLAN5GHz Ant6		0.592		5mm							
BT Ant6		0.297		5mm	-29.2	68	-0.79				
No.38 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant1	Back	1.296	1.296	5mm	19.7	-77.8	-0.53	121.7	2.80	0.04	Not required
Ant2		0.615	1.504	5mm	30.4	43.4	-0.49				
WLAN5GHz Ant6		0.592		5mm							
BT Ant6		0.297		5mm							



Ant1	Back	1.296	1.296	5mm	19.7	-77.8	-0.53	150.1	2.80	0.03	Not required
Ant2		0.615	1.504	5mm							
WLAN5GHz Ant6		0.592		5mm	-25.4	65.4	-0.77				
BT Ant6		0.297		5mm							
Ant1	Back	1.296	1.296	5mm	19.7	-77.8	-0.53	153.8	2.80	0.03	Not required
Ant2		0.615	1.504	5mm							
WLAN5GHz Ant6		0.592		5mm							
BT Ant6		0.297		5mm	-29.2	68	-0.79				

<Body-worn>

No.13 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant0	Front	0.778	0.778	5mm	-5.5	-85.5	-0.61	154.4	1.94	0.02	Not required
Ant4		0.778	1.166	5mm	-25.2	67.6	-0.82				
WLAN2.4GHz Ant6		0.388		5mm							
Ant0	Front	0.778	0.778	5mm	-5.5	-85.5	-0.61	156.1	1.94	0.02	Not required
Ant4		0.778	1.166	5mm							
WLAN2.4GHz Ant6		0.388		5mm	21.1	68.3	-0.85				
No.14 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant1	Front	1.054	1.054	5mm	-24.4	-82.3	-0.35	149.9	2.22	0.02	Not required
Ant4		0.778	1.166	5mm	-25.2	67.6	-0.82				
WLAN2.4GHz Ant6		0.388		5mm							
Ant1	Front	1.054	1.054	5mm	-24.4	-82.3	-0.35	157.3	2.22	0.02	Not required
Ant4		0.778	1.166	5mm							
WLAN2.4GHz Ant6		0.388		5mm	21.1	68.3	-0.85				
No.15 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant1	Front	1.054	1.054	5mm	-24.4	-82.3	-0.35	157.8	1.81	0.02	Not required
Ant5		0.369	0.757	5mm	11.8	71.3	-0.77				
WLAN2.4GHz Ant6		0.388		5mm							
Ant1	Front	1.054	1.054	5mm	-24.4	-82.3	-0.35	157.3	1.81	0.02	Not required
Ant5		0.369	0.757	5mm							
WLAN2.4GHz Ant6		0.388		5mm	21.1	68.3	-0.85				

No.16 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant0	Back	1.312	1.312	5mm	-12.5	-81	-0.65	154.3	2.89	0.03	Not required
Ant4		0.885	1.581	5mm	16.7	70.5	-0.63				
WLAN5GHz Ant6		0.399		5mm							
BT Ant6		0.297		5mm							
Ant0	Back	1.312	1.312	5mm	-12.5	-81	-0.65	147.0	2.89	0.03	Not required
Ant4		0.885	1.581	5mm							
WLAN5GHz Ant6		0.399		5mm	-25.4	65.4	-0.77				
BT Ant6		0.297		5mm							
Ant0	Back	1.312	1.312	5mm	-12.5	-81	-0.65	149.9	2.89	0.03	Not required
Ant4		0.885	1.581	5mm							
WLAN5GHz Ant6		0.399		5mm							
BT Ant6		0.297		5mm	-29.2	68	-0.79				
No.17 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant0	Back	1.312	1.312	5mm	-12.5	-81	-0.65	152.3	2.90	0.03	Not required
Ant5		0.896	1.592	5mm	-24.2	70.8	-0.67				
WLAN5GHz		0.399		5mm							



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Ant6												
BT Ant6		0.297		5mm								
Ant0	Back	1.312	1.312	5mm	-12.5	-81	-0.65	147.0	2.90	0.03	Not required	
Ant5		0.896		5mm								
WLAN5GHz		0.399	1.592	5mm	-25.4	65.4	-0.77					
Ant6		0.297		5mm								
BT Ant6		0.297		5mm								
Ant0	Back	1.312	1.312	5mm	-12.5	-81	-0.65	149.9	2.90	0.03	Not required	
Ant5		0.896		5mm								
WLAN5GHz		0.399	1.592	5mm								
Ant6		0.297		5mm	-29.2	68	-0.79					
BT Ant6		0.297		5mm								
No.18 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR	
					X	Y	Z					
Ant0	Back	1.312	1.312	5mm	-12.5	-81	-0.65	127.6	2.89	0.04	Not required	
Ant8		0.884		5mm	-22.8	46.2	-0.78					
WLAN5GHz		0.399	1.580	5mm								
Ant6		0.297		5mm								
BT Ant6		0.297		5mm								
Ant0	Back	1.312	1.312	5mm	-12.5	-81	-0.65	147.0	2.89	0.03	Not required	
Ant8		0.884		5mm								
WLAN5GHz		0.399	1.580	5mm	-25.4	65.4	-0.77					
Ant6		0.297		5mm								
BT Ant6		0.297		5mm								
Ant0	Back	1.312	1.312	5mm	-12.5	-81	-0.65	149.9	2.89	0.03	Not required	
Ant8		0.884		5mm								
WLAN5GHz		0.399	1.580	5mm								
Ant6		0.297		5mm	-29.2	68	-0.79					
BT Ant6		0.297		5mm								
No.19 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR	
					X	Y	Z					
Ant0	Back	1.312	1.312	5mm	4.5	-83.9	-0.55	129.9	2.89	0.04	Not required	
Ant2		0.881		5mm	30.4	43.4	-0.49					
WLAN5GHz		0.399	1.577	5mm								
Ant6		0.297		5mm								
BT Ant6		0.297		5mm								
Ant0	Back	1.312	1.312	5mm	4.5	-83.9	-0.55	152.3	2.89	0.03	Not required	
Ant2		0.881		5mm								
WLAN5GHz		0.399	1.577	5mm	-25.4	65.4	-0.77					
Ant6		0.297		5mm								
BT Ant6		0.297		5mm								
Ant0	Back	1.312	1.312	5mm	4.5	-83.9	-0.55	155.6	2.89	0.03	Not required	
Ant2		0.881		5mm								
WLAN5GHz		0.399	1.577	5mm								
Ant6		0.297		5mm	-29.2	68	-0.79					
BT Ant6		0.297		5mm								
No.20 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR	
					X	Y	Z					
Ant1	Back	1.296	1.296	5mm	19.7	-77.8	-0.53	148.2	2.88	0.03	Not required	
Ant4		0.885		5mm	18.8	70.4	-0.64					
WLAN5GHz		0.399	1.581	5mm								
Ant6		0.297		5mm								
BT Ant6		0.297		5mm								
Ant1	Back	1.296	1.296	5mm	19.7	-77.8	-0.53	150.1	2.88	0.03	Not required	
Ant4		0.885		5mm								
WLAN5GHz		0.399	1.581	5mm	-25.4	65.4	-0.77					
Ant6		0.297		5mm								
BT Ant6		0.297		5mm								
Ant1	Back	1.296	1.296	5mm	19.7	-77.8	-0.53	153.8	2.88	0.03	Not required	
Ant4		0.885		5mm								
WLAN5GHz		0.399	1.581	5mm								
Ant6		0.297		5mm	-29.2	68	-0.79					
BT Ant6		0.297		5mm								
No.21 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR	
					X	Y	Z					
Ant1	Back	1.296	1.296	5mm	19.7	-77.8	-0.53	154.9	2.89	0.03	Not required	
Ant5		0.896	1.592	5mm	-24.2	70.8	-0.67					

WLAN5GHz Ant6		0.399		5mm							
BT Ant6		0.297		5mm							
Ant1	Back	1.296	1.296	5mm	19.7	-77.8	-0.53	150.1	2.89	0.03	Not required
Ant5		0.896		5mm							
WLAN5GHz Ant6		0.399	1.592	5mm	-25.4	65.4	-0.77				
BT Ant6		0.297		5mm							
Ant1	Back	1.296	1.296	5mm	19.7	-77.8	-0.53	153.8	2.89	0.03	Not required
Ant5		0.896		5mm							
WLAN5GHz Ant6		0.399	1.592	5mm							
BT Ant6		0.297		5mm	-29.2	68	-0.79				
No.22 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant1	Back	1.296	1.296	5mm	19.7	-77.8	-0.53	131.1	2.88	0.04	Not required
Ant8		0.884		5mm	-22.8	46.2	-0.78				
WLAN5GHz Ant6		0.399	1.580	5mm							
BT Ant6		0.297		5mm							
Ant1	Back	1.296	1.296	5mm	19.7	-77.8	-0.53	150.1	2.88	0.03	Not required
Ant8		0.884		5mm							
WLAN5GHz Ant6		0.399	1.580	5mm	-25.4	65.4	-0.77				
BT Ant6		0.297		5mm							
Ant1	Back	1.296	1.296	5mm	19.7	-77.8	-0.53	153.8	2.88	0.03	Not required
Ant8		0.884		5mm							
WLAN5GHz Ant6		0.399	1.580	5mm							
BT Ant6		0.297		5mm	-29.2	68	-0.79				
No.23 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant1	Back	1.296	1.296	5mm	19.7	-77.8	-0.53	121.7	2.87	0.04	Not required
Ant2		0.881		5mm	30.4	43.4	-0.49				
WLAN5GHz Ant6		0.399	1.577	5mm							
BT Ant6		0.297		5mm							
Ant1	Back	1.296	1.296	5mm	19.7	-77.8	-0.53	150.1	2.87	0.03	Not required
Ant2		0.881		5mm							
WLAN5GHz Ant6		0.399	1.577	5mm	-25.4	65.4	-0.77				
BT Ant6		0.297		5mm							
Ant1	Back	1.296	1.296	5mm	19.7	-77.8	-0.53	153.8	2.87	0.03	Not required
Ant2		0.881		5mm							
WLAN5GHz Ant6		0.399	1.577	5mm							
BT Ant6		0.297		5mm	-29.2	68	-0.79				

<Sensor off>

No.24 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant0	Back	0.886	0.886	21mm	-12.5	-81.4	-0.65	152.6	1.70	0.01	Not required
Ant5		0.672		21mm	-24.2	70.8	-0.67				
WLAN5GHz Ant6		0.141	0.813	21mm							
Ant0	Back	0.886	0.886	21mm	19.7	-77.8	-0.53	150.1	1.70	0.01	Not required
Ant5		0.672		21mm							
WLAN5GHz Ant6		0.141	0.813	21mm	-25.4	65.4	-0.77				
No.25 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant0	Back	0.886	0.886	21mm	-12.5	-81.4	-0.65	128.0	2.04	0.02	Not required
Ant8		1.015		21mm	-22.8	46.2	-0.78				
WLAN5GHz Ant6		0.141	1.156	21mm							
Ant0	Back	0.886	0.886	21mm	19.7	-77.8	-0.53	150.1	2.04	0.02	Not required

Ant8		1.015		21mm							
WLAN5GHz		0.141	1.156	21mm	-25.4	65.4	-0.77				
Ant6											
No.26 Band	Position	SAR 1g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant1	Back	0.519	0.519	21mm	19.7	-77.8	-0.53	131.1	1.68	0.02	Not required
Ant8		1.015	1.156	21mm	-22.8	46.2	-0.78				
WLAN5GHz		0.141		21mm							
Ant6	Back	0.519	0.519	21mm	19.7	-77.8	-0.53	150.1	1.68	0.01	Not required
Ant8		1.015	1.156	21mm							
WLAN5GHz		0.141		21mm	-25.4	65.4	-0.77				
Ant6											

<Extremity>

No.39 Band	Position	SAR 10g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant0	Back	3.204	3.204	0mm	-31.8	-85.4	-0.68	168.9	6.10	0.09	Not required
Ant4		2.344	2.897	0mm	23.8	74.1	-0.68				
WLAN2.4GHz		0.535		0mm							
Ant6		0.018		0mm							
NFC	Back	3.204	3.204	0mm	-31.8	-85.4	-0.68	161.6	6.10	0.09	Not required
Ant0		2.344	2.897	0mm							
WLAN2.4GHz		0.535		0mm	-25.1	76.1	-0.74				
Ant6		0.018		0mm							
NFC	Back	3.204	3.204	0mm	-31.8	-85.4	-0.68	150.8	6.10	0.10	Not required
Ant0		2.344	2.897	0mm							
WLAN2.4GHz		0.535		0mm							
Ant6		0.018		0mm	11.6	59	-0.63				
NFC	Back	3.204	3.204	0mm	-31.8	-85.4	-0.68	163.8	5.14	0.07	Not required
Ant0		1.382	1.935	0mm	-15.3	77.6	-1.6				
WLAN2.4GHz		0.535		0mm							
Ant6		0.018		0mm							
NFC	Back	3.204	3.204	0mm	-31.8	-85.4	-0.68	161.6	5.14	0.07	Not required
Ant0		1.382	1.935	0mm							
WLAN2.4GHz		0.535		0mm	-25.1	76.1	-0.74				
Ant6		0.018		0mm							
NFC	Back	3.204	3.204	0mm	-31.8	-85.4	-0.68	150.8	5.14	0.08	Not required
Ant0		1.382	1.935	0mm							
WLAN2.4GHz		0.535		0mm							
Ant6		0.018		0mm	11.6	59	-0.63				
NFC	Back	3.204	3.204	0mm	-31.8	-85.4	-0.68	140.9	5.78	0.10	Not required
Ant0		2.023	2.576	0mm	-22.8	55.2	-0.78				
WLAN2.4GHz		0.535		0mm							
Ant6		0.018		0mm							
NFC	Back	3.204	3.204	0mm	-31.8	-85.4	-0.68	161.6	5.78	0.09	Not required
Ant0		2.023	2.576	0mm							
WLAN2.4GHz		0.535		0mm	-25.1	76.1	-0.74				
Ant6		0.018		0mm							
NFC	Back	3.204	3.204	0mm	-31.8	-85.4	-0.68	150.8	5.78	0.09	Not required
Ant0		2.023	2.576	0mm							
WLAN2.4GHz		0.535		0mm							
Ant6		0.018		0mm	11.6	59	-0.63				
NFC	Back	3.204	3.204	0mm	-31.8	-85.4	-0.68	150.8	5.78	0.09	Not required
Ant0		2.023	2.576	0mm							
WLAN2.4GHz		0.535		0mm							
Ant6		0.018		0mm							

No.42 Band	Position	SAR 10g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant0	Back	3.204	3.204	0mm	-31.8	-85.4	-0.68	145.1	5.85	0.10	Not required
Ant2		2.090	2.643	0mm	31.6	45.1	-1.23				
WLAN2.4GHz Ant6		0.535		0mm							
NFC		0.018		0mm							
Ant0	Back	3.204	3.204	0mm	-31.8	-85.4	-0.68	161.6	5.85	0.09	Not required
Ant2		2.090	2.643	0mm							
WLAN2.4GHz Ant6		0.535		0mm	-25.1	76.1	-0.74				
NFC		0.018		0mm							
Ant0	Back	3.204	3.204	0mm	-31.8	-85.4	-0.68	150.8	5.85	0.09	Not required
Ant2		2.090	2.643	0mm							
WLAN2.4GHz Ant6		0.535		0mm							
NFC		0.018		0mm	11.6	59	-0.63				
No.43 Band	Position	SAR 10g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
An1	Back	3.235	3.235	0mm	18.4	-85	-0.4	169.2	6.13	0.09	Not required
Ant4		2.344	2.897	0mm	23.8	84.1	-0.68				
WLAN2.4GHz Ant6		0.535		0mm							
NFC		0.018		0mm							
An1	Back	3.235	3.235	0mm	18.4	-85	-0.4	166.9	6.13	0.09	Not required
Ant4		2.344	2.897	0mm							
WLAN2.4GHz Ant6		0.535		0mm	-25.1	76.1	-0.74				
NFC		0.018		0mm							
An1	Back	3.235	3.235	0mm	18.4	-85	-0.4	170.1	6.13	0.09	Not required
Ant4		2.344	2.897	0mm							
WLAN2.4GHz Ant6		0.535		0mm							
NFC		0.018		0mm	11.6	85	-0.63				
No.44 Band	Position	SAR 10g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
An1	Back	3.235	3.235	0mm	18.4	-85	-0.4	166.1	5.17	0.07	Not required
Ant5		1.382	1.935	0mm	-15.3	77.6	-1.6				
WLAN2.4GHz Ant6		0.535		0mm							
NFC		0.018		0mm							
An1	Back	3.235	3.235	0mm	18.4	-85	-0.4	166.9	5.17	0.07	Not required
Ant5		1.382	1.935	0mm							
WLAN2.4GHz Ant6		0.535		0mm	-25.1	76.1	-0.74				
NFC		0.018		0mm							
An1	Back	3.235	3.235	0mm	18.4	-85	-0.4	144.2	5.17	0.08	Not required
Ant5		1.382	1.935	0mm							
WLAN2.4GHz Ant6		0.535		0mm							
NFC		0.018		0mm	11.6	59	-0.63				
No.45 Band	Position	SAR 10g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
An1	Back	3.235	3.235	0mm	18.4	-85	-0.4	146.1	5.81	0.10	Not required
Ant8		2.023	2.576	0mm	-22.8	55.2	-0.78				
WLAN2.4GHz Ant6		0.535		0mm							
NFC		0.018		0mm							
An1	Back	3.235	3.235	0mm	18.4	-85	-0.4	166.9	5.81	0.08	Not required
Ant8		2.023	2.576	0mm							
WLAN2.4GHz Ant6		0.535		0mm	-25.1	76.1	-0.74				
NFC		0.018		0mm							
An1	Back	3.235	3.235	0mm	18.4	-85	-0.4	144.2	5.81	0.10	Not required
Ant8		2.023	2.576	0mm							
WLAN2.4GHz Ant6		0.535		0mm							

NFC		0.018		0mm	11.6	59	-0.63				
No.46 Band	Position	SAR 10g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
An1	Back	3.235	3.235	0mm	18.4	-85	-0.4	145.0	5.88	0.10	Not required
Ant2		2.090	2.643	0mm	31.6	45.1	-1.23				
WLAN2.4GHz Ant6		0.535		0mm							
NFC		0.018		0mm							
An1	Back	3.235	3.235	0mm	18.4	-85	-0.4	166.9	5.88	0.09	Not required
Ant2		2.090	2.643	0mm							
WLAN2.4GHz Ant6		0.535		0mm	-25.1	76.1	-0.74				
NFC		0.018		0mm							
An1	Back	3.235	3.235	0mm	18.4	-85	-0.4	144.2	5.88	0.10	Not required
Ant2		2.090	2.643	0mm							
WLAN2.4GHz Ant6		0.535		0mm							
NFC		0.018		0mm	11.6	59	-0.63				

No.47 Band	Position	SAR 10g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant0	Front	2.058	2.058	0mm	5.9	-80.6	-0.75	153.7	4.95	0.07	Not required
Ant4		1.898	2.887	0mm	-24.4	70.1	-0.8				
WLAN5GHz Ant6		0.988		0mm							
NFC		0.001		0mm							
Ant0	Front	2.058	2.058	0mm	5.9	-80.6	-0.75	150.1	4.95	0.07	Not required
Ant4		1.898	2.887	0mm							
WLAN5GHz Ant6		0.988		0mm	23.3	68.5	-0.71				
NFC		0.001		0mm							
Ant0	Front	2.058	2.058	0mm	5.9	-80.6	-0.75	144.6	4.95	0.08	Not required
Ant4		1.898	2.887	0mm							
WLAN5GHz Ant6		0.988		0mm							
NFC		0.001		0mm	-9.6	63.2	-0.82				
No.48 Band	Position	SAR 10g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant0	Front	2.058	2.058	0mm	5.9	-80.6	-0.75	152.2	4.79	0.07	Not required
Ant5		1.740	2.729	0mm	18.6	71.1	-0.71				
WLAN5GHz Ant6		0.988		0mm							
NFC		0.001		0mm							
Ant0	Front	2.058	2.058	0mm	5.9	-80.6	-0.75	150.1	4.79	0.07	Not required
Ant5		1.740	2.729	0mm							
WLAN5GHz Ant6		0.988		0mm	23.3	68.5	-0.71				
NFC		0.001		0mm							
Ant0	Front	2.058	2.058	0mm	5.9	-80.6	-0.75	144.6	4.79	0.07	Not required
Ant5		1.740	2.729	0mm							
WLAN5GHz Ant6		0.988		0mm							
NFC		0.001		0mm	-9.6	63.2	-0.82				
No.49 Band	Position	SAR 10g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant1	Front	3.040	3.040	0mm	-24.4	-80.5	-0.76	150.2	5.93	0.10	Not required
Ant4		1.898	2.887	0mm	-26.5	69.7	-0.81				
WLAN5GHz Ant6		0.988		0mm							
NFC		0.001		0mm							
Ant1	Front	3.040	3.040	0mm	-24.4	-80.5	-0.76	156.4	5.93	0.09	Not required
Ant4		1.898	2.887	0mm							
WLAN5GHz Ant6		0.988		0mm	23.3	68.5	-0.71				
NFC		0.001		0mm							
Ant1	Front	3.040	3.040	0mm	-24.4	-80.5	-0.76	144.5	5.93	0.10	Not required
Ant4		1.898	2.887	0mm							

WLAN5GHz Ant6		0.988		0mm							
NFC		0.001		0mm	-9.6	63.2	-0.82				
No.50 Band	Position	SAR 10g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant1	Front	3.040	3.040	0mm	-24.4	-80.5	-0.76	157.0	5.77	0.09	Not required
Ant5		1.740	2.729	0mm	12.5	72.1	-0.72				
WLAN5GHz Ant6		0.988		0mm							
NFC		0.001		0mm							
Ant1	Front	3.040	3.040	0mm	-24.4	-80.5	-0.76	156.4	5.77	0.09	Not required
Ant5		1.740	2.729	0mm							
WLAN5GHz Ant6		0.988		0mm	23.3	68.5	-0.71				
NFC		0.001		0mm							
Ant1	Front	3.040	3.040	0mm	-24.4	-80.5	-0.76	144.5	5.77	0.10	Not required
Ant5		1.740	2.729	0mm							
WLAN5GHz Ant6		0.988		0mm							
NFC		0.001		0mm	-9.6	63.2	-0.82				
No.51&52 Band	Position	SAR 10g SAR (W/kg)	Summed	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Ant1	Front	3.040	3.040	0mm	-24.4	-80.5	-0.76	156.4	4.03	0.05	Not required
Ant8			0.989	0mm							
WLAN5GHz Ant6		0.988		0mm	23.3	68.5	-0.71				
NFC		0.001		0mm							
Ant1	Front	3.040	3.040	0mm	-24.4	-80.5	-0.76	144.5	4.03	0.06	Not required
Ant8			0.989	0mm							
WLAN5GHz Ant6		0.988		0mm							
NFC		0.001		0mm	-9.6	63.2	-0.82				

17.7 Maximum Reported SAR and SAR Peak Locations

General Note:

1. The maximum reported SAR and SAR Peak Locations corresponding to each position of each frequency band of each antenna in the below tables are as follows.
2. The unit of SAR evaluation is W/kg. The unit of x, y, z with Axis evaluation is mm.

<Head>

Right Cheek									
Band		Ant0			Ant1			Ant4	
GSM850	SAR	0.483							
	Axis	67.47	66.65	-1.08					
GSM1900	SAR	0.150							
	Axis	65.39	79.09	-0.5					
WCDMA II	SAR	0.324							
	Axis	66.41	78.22	-0.15					
WCDMA IV	SAR	0.299							
	Axis	64.84	77.37	-0.48					
WCDMA V	SAR	0.377							
	Axis	66.68	67.91	-1.2					
LTE Band 2	SAR	0.102							
	Axis	66.59	76.3	-3.54					
LTE Band 7	SAR				0.419			0.826	
	Axis				70.94	20.14	-2.68	5.1	-20.8 -1.16
LTE Band 12(17)	SAR	0.284						0.557	
	Axis	69.68	67.75	-0.72				5.8	-20.95 -1.23
LTE Band 13	SAR	0.270							
	Axis	67.74	65.28	-1.19					
LTE Band 25	SAR	0.306						0.736	
	Axis	67.68	65.46	-1.19				5.2	-20.82 -1.16
LTE Band 26(5)	SAR	0.308						0.810	
	Axis	67.25	63.35	-1.45				6.87	-25.82 -0.82
LTE Band 66(4)	SAR	0.215						0.757	
	Axis	63.24	72.97	-1.46				5.33	-21.62 -1.16
LTE Band 38	SAR				0.200				
	Axis				71.11	20.19	-2.61		
LTE Band 41	SAR							0.830	
	Axis							5.26	-21.71 -2.41
FR1 n2	SAR	0.167						0.835	
	Axis	66.51	75.2	-3.29				5.42	-22.34 -2.19
FR1 n7	SAR				0.411			0.863	
	Axis				71.26	20.23	-1.91	5.37	-23.49 -2.33
FR1 n26	SAR	0.194						0.889	
	Axis	66.21	66.68	-1.37				5.87	-28.14 0.82
FR1 n66	SAR	0.208						0.799	
	Axis	62.19	62.88	-1.46				5.29	-26.63 -1.68
FR1 n41	SAR							0.874	
	Axis							6.62	-28.06 -0.91
FR1 n77(78)	SAR				0.115				
	Axis				71.33	21.18	-2.48		

WLAN5GHz Ant6	SAR (W/kg)	0.398			BT Ant6	SAR (W/kg)	0.076		
	Axis	-14.64	5.520	1.31		Axis	-14.65	7.900	1.58

WLAN2.4GHz Ant6	SAR (W/kg)	0.386							
	Axis	-14.79			7.15			1.48	

Right Tilted									
Band		Ant0			Ant1			Ant4	
GSM850	SAR	0.256							
	Axis	64.19	63.21	-1.18					
GSM1900	SAR	0.090							
	Axis	61.35	60.87	-2.77					
WCDMA II	SAR	0.215							
	Axis	63.66	61.7	-3.34					
WCDMA IV	SAR	0.176							
	Axis	63.47	60.57	-1.19					
WCDMA V	SAR	0.197							
	Axis	65.68	62.06	-2.98					
LTE Band 2	SAR	0.059							
	Axis	64.82	62.79	0.84					
LTE Band 7	SAR				0.378			0.874	
	Axis				70.74	20.42	-2.08	3.51	-25.91 -0.9
LTE Band 12	SAR	0.149						0.500	
	Axis	64.1	61.11	-1.12				3.29	-24.8 -0.4
LTE Band 13	SAR	0.163							
	Axis	63	60.91	0.91					
LTE Band 25	SAR	0.177						0.892	
	Axis	64.39	61.85	-0.66				-2.3	-18.55 -0.67
LTE Band 26	SAR	0.173						0.727	
	Axis	63.22	65.81	-0.43				3.18	-25.1 -0.51
LTE Band 66	SAR	0.161						0.879	
	Axis	66.71	65.78	-3.31				-1.01	-17.71 -0.75
LTE Band 38	SAR				0.171				
	Axis				71.2	19.62	-4.06		
LTE Band 41	SAR							0.882	
	Axis							3.78	-24.36 -0.97
FR1 n2	SAR	0.135						0.882	
	Axis	61.57	63.95	-3.29				0.79	-22.01 -0.72
FR1 n7	SAR				0.342			0.886	
	Axis				69.95	18.51	1.07	3	-25.04 -0.87
FR1 n26	SAR	0.112						0.717	
	Axis	64.29	62.01	-0.76				3.11	-23.62 -0.46
FR1 n66	SAR	0.103						0.876	
	Axis	66.95	64.81	-3.75				-2.06	-20.07 -0.43
FR1 n41	SAR							0.872	
	Axis							0.63	-22.19 -0.66
FR1 n77	SAR				0.106				
	Axis				65.16	63.71	-2.24		

WLAN5GHz Ant6	SAR (W/kg)	0.398			BT Ant6	SAR (W/kg)	0.070		
	Axis	-14.77	5.48	1.31		Axis	-14.61	7.88	1.53

WLAN2.4GHz Ant6	SAR (W/kg)	0.386		
	Axis	-14.82	7.11	1.45



Left Cheek													
Band		Ant0			Ant1			Ant4			Ant5		
GSM850	SAR	0.428											
	Axis	45.07	-78.01	-1.9									
GSM1900	SAR	0.131											
	Axis	44.38	-74.58	-1.57									
WCDMA II	SAR	0.212											
	Axis	49.09	-75.38	-1.08									
WCDMA IV	SAR	0.224											
	Axis	49.92	-76.79	-0.09									
WCDMA V	SAR	0.373											
	Axis	46.12	-79.11	-1.01									
LTE Band 2	SAR	0.072											
	Axis	49.89	-78.14	-0.34									
LTE Band 7	SAR				0.771			0.265					
	Axis				45.96	-69.95	-0.75	-18.69	-10.85	2.62			
LTE Band 12	SAR	0.233						0.366					
	Axis	49.88	-78.91	-1.66				-17.84	-10.51	3.24			
LTE Band 13	SAR	0.219											
	Axis	45.13	-75.01	-1.61									
LTE Band 25	SAR	0.217						0.539					
	Axis	48.75	-74.76	-0.79				-17.8	-11.84	2.19			
LTE Band 26	SAR	0.294						0.595					
	Axis	44.72	-78.18	-1.36				-18.23	-10.35	3.52			
LTE Band 66	SAR	0.214						0.528					
	Axis	44.45	-75.66	-1.23				-18.42	-10.76	3.61			
LTE Band 38	SAR				0.367								
	Axis				45.43	-69.47	-0.98						
LTE Band 41	SAR							0.262					
	Axis							-18.25	-11	3.01			
LTE Band 42	SAR										0.844		
	Axis										4.08	18.99	-1.34
FR1 n2	SAR	0.143						0.587					
	Axis	45.35	-76.26	-0.65				-18.09	-11.65	2.97			
FR1 n7	SAR				0.423			0.317					
	Axis				44.19	-69.36	-1.13	-18.15	-11.8	2.06			
FR1 n26	SAR	0.182						0.625					
	Axis	46.36	-76.81	-1.78				-18.62	-11.04	3.3			
FR1 n66	SAR	0.149						0.556					
	Axis	47.98	-78.17	-0.17				-18.33	-9.99	1.66			
FR1 n41	SAR							0.303					
	Axis							-18.03	-11.27	2.37			
FR1 n77	SAR				0.156						0.891		
	Axis				46.28	-69.91	-1.06				4.15	18.82	-1.34
											46.48	14.54	-0.28

WLAN5GHz Ant6	SAR (W/kg)	0.398			BT Ant6	SAR (W/kg)	0.214		
	Axis	4.62	12.42	-2.26		Axis	4.48	14.52	-2.29

WLAN2.4GHz Ant6	SAR (W/kg)	0.386		
	Axis	4.32	15.55	-2.11

Left Tilted										
Band		Ant0			Ant1			Ant5		
GSM850	SAR	0.232								
	Axis	50	-81.56	-1.78						
GSM1900	SAR	0.110								
	Axis	50.22	-78.42	-1.86						
WCDMA II	SAR	0.213								
	Axis	49.64	-77.55	-1.07						
WCDMA IV	SAR	0.180								
	Axis	47.53	-77.73	-1.08						
WCDMA V	SAR	0.216								
	Axis	48.68	-78.99	-1.04						
LTE Band 2	SAR	0.070								
	Axis	48.42	-77.83	-1						
LTE Band 7	SAR				0.229					
	Axis				44.97	-69.14	-0.77			
LTE Band 12	SAR	0.111								
	Axis	51.34	-80.81	-1.21						
LTE Band 13	SAR	0.124								
	Axis	51.07	-76.39	-1.75						
LTE Band 25	SAR	0.211								
	Axis	51.24	-81.56	-1.63						
LTE Band 26	SAR	0.165								
	Axis	50.04	-78.41	-1.52						
LTE Band 66	SAR	0.179								
	Axis	48.62	-81.74	-1.76						
LTE Band 38	SAR				0.099					
	Axis				43.53	-66.97	-0.71			
LTE Band 42	SAR							0.891		
	Axis							3.16	13.34	-1.28
FR1 n2	SAR	0.155						0.673		
	Axis	46.89	-80.64	0.57				3.18	13.41	-1.19
FR1 n7	SAR				0.205					
	Axis				48.12	-71.44	-0.82			
FR1 n26	SAR	0.101								
	Axis	47.12	-81.33	-1.2						
FR1 n66	SAR	0.111								
	Axis	46.89	-80.64	-1.57						
FR1 n77	SAR				0.053			0.882		
	Axis				47.88	-71.34	-0.79	3.24	13.53	-1.21

WLAN5GHz Ant6	SAR (W/kg)	0.398			BT Ant6	SAR (W/kg)	0.147		
	Axis	1.18	14.89	-1.86		Axis	1.11	14.91	-1.89

WLAN2.4GHz Ant6	SAR (W/kg)	0.386								
	Axis	1.12			15.03			-1.89		

<Hotspot>

Front												
Band		Ant0			Ant1			Ant4			Ant5	
GSM850	SAR	0.778										
	Axis	6.6	-85.9	-0.79								
GSM1900	SAR	0.448										
	Axis	-3.8	-86.7	-0.81								
WCDMA II	SAR	0.604										
	Axis	-5.5	-85.5	-0.61								
WCDMA IV	SAR	0.575										
	Axis	8.9	-87.7	-0.68								
WCDMA V	SAR	0.693										
	Axis	9.1	-85.4	-0.72								
LTE Band 2	SAR	0.362										
	Axis	4.6	-88.6	-0.65								
LTE Band 7	SAR				0.973			0.219				
	Axis				-24.5	-86.6	-0.31	-25.5	70.6	-0.87		
LTE Band 12	SAR	0.623						0.197				
	Axis	7.9	-86.9	-0.68				-20.1	72.1	-0.79		
LTE Band 13	SAR	0.671										
	Axis	6.8	-85.7	-0.65								
LTE Band 25	SAR	0.572						0.284				
	Axis	-4.1	-88.6	-0.79				-26.1	73.3	-0.82		
LTE Band 26	SAR	0.866						0.305				
	Axis	4.4	-87.9	-0.69				-23.5	71.6	-0.77		
LTE Band 66	SAR	0.565						0.374				
	Axis	5	-91.5	-0.81				-22.9	68.6	-0.85		
LTE Band 38	SAR				1.054							
	Axis				-22.6	-84.3	-0.86					
LTE Band 41	SAR							0.213				
	Axis							-24.8	69.7	-0.82		
LTE Band 42	SAR										0.211	
	Axis										11.8	71.3 -0.77
FR1 n2	SAR	0.615						0.387				
	Axis	-3.3	-86.6	-0.81				-24.5	67.9	-0.84		
FR1 n7	SAR				1.001			0.228				
	Axis				-25.9	-83.1	-0.76	-25.9	69.4	-0.83		
FR1 n26	SAR	0.710						0.327				
	Axis	8.9	-87.3	-0.69				-25.2	67.6	-0.82		
FR1 n66	SAR	0.565						0.428				
	Axis	9.3	-85.6	-0.75				-27.8	68.3	-0.83		
FR1 n41	SAR							0.204				
	Axis							-22.5	71.2	-0.8		
FR1 n77	SAR				0.336						0.408	
	Axis				-24.4	-82.3	-0.35				15.9	70.6 -0.73

WLAN5GHz Ant6	SAR (W/kg)	0.260			BT Ant6	SAR (W/kg)	0.098		
	Axis	24.8	68.8	-0.73		Axis	22.6	69.2	-0.69

WLAN2.4GHz Ant6	SAR (W/kg)	0.216		
	Axis	25.5	69.8	-0.75



Back																
Band		Ant0			Ant1			Ant2			Ant4			Ant5		
GSM850	SAR	1.268														
	Axis	-7.4	-87	-0.65												
GSM1900	SAR	0.906														
	Axis	5.5	-89.9	-0.64												
WCDMA II	SAR	1.281														
	Axis	4.5	-83.9	-0.55												
WCDMA IV	SAR	1.272														
	Axis	-14.7	-82.3	-0.63												
WCDMA V	SAR	1.224														
	Axis	-14.6	-85.4	-0.76												
LTE Band 2	SAR	0.699														
	Axis	-10.1	-84.9	-0.7												
LTE Band 7	SAR				1.288						0.559					
	Axis				23.6	-84	-0.3				17.8	73	-0.68			
LTE Band 12	SAR	1.145									0.394					
	Axis	-13.4	-87	-0.7							18	74.9	-0.67			
LTE Band 13	SAR	1.269														
	Axis	-15	-88.5	-0.69												
LTE Band 25	SAR	1.107									0.433					
	Axis	1.6	-90	-0.65							10.5	79.7	-0.66			
LTE Band 26	SAR	1.228									0.627					
	Axis	-12.5	-81.4	-0.65							16.7	70.5	-0.63			
LTE Band 66	SAR	1.164									0.471					
	Axis	-14.9	-89.9	-0.62							23	72.1	-0.7			
LTE Band 38	SAR				1.296											
	Axis				24.6	-79.8	-0.52									
LTE Band 41	SAR										0.672					
	Axis										18.8	70.4	-0.64			
LTE Band 42	SAR													0.625		
	Axis													-16.6	76.2	-1.7
FR1 n2	SAR	1.194									0.521					
	Axis	4.5	-86.6	-0.63							15.4	75.4	-0.65			
FR1 n7	SAR				1.261						0.628					
	Axis				19.7	-77.8	-0.53				20	74.4	-0.62			
FR1 n26	SAR	1.312									0.622					
	Axis	-12.5	-81	-0.65							13.9	77	-0.64			
FR1 n66	SAR	1.177									0.481					
	Axis	-14.8	-88	-0.76							21.2	72.3	-0.63			
FR1 n41	SAR										0.617					
	Axis										23.8	75.6	-0.62			
FR1 n77	SAR				1.016			0.615						0.618		
	Axis				23.2	-84.4	-0.31	30.4	43.4	-0.49				-24.2	70.8	-0.67
														-22.8	46.2	-0.78

WLAN5GHz Ant6	SAR (W/kg)	0.592			BT Ant6	SAR (W/kg)	0.297		
	Axis	-25.4	65.4	-0.77		Axis	-29.2	68	-0.79

WLAN2.4GHz Ant6	SAR (W/kg)	0.624				
	Axis	-28.7		68.5		-0.77

<Body-worn>

Front													
Band		Ant0			Ant1			Ant4			Ant5		
GSM850	SAR	0.778											
	Axis	6.6	-85.9	-0.79									
GSM1900	SAR	0.562											
	Axis	-3.8	-86.7	-0.81									
WCDMA II	SAR	0.604											
	Axis	-5.5	-85.5	-0.61									
WCDMA IV	SAR	0.580											
	Axis	8.9	-87.7	-0.68									
WCDMA V	SAR	0.693											
	Axis	9.1	-85.4	-0.72									
LTE Band 2	SAR	0.413											
	Axis	4.6	-88.6	-0.65									
LTE Band 7	SAR				0.971			0.290					
	Axis				-24.5	-86.6	-0.31	-25.5	70.6	-0.87			
LTE Band 12	SAR	0.623						0.197					
	Axis	7.9	-86.9	-0.68				-20.1	72.1	-0.79			
LTE Band 13	SAR	0.671											
	Axis	6.8	-85.7	-0.65									
LTE Band 25	SAR	0.660						0.579					
	Axis	-4.1	-88.6	-0.79				-26.1	73.3	-0.82			
LTE Band 26	SAR	0.772						0.426					
	Axis	4.4	-87.9	-0.69				-23.5	71.6	-0.77			
LTE Band 66	SAR	0.617						0.698					
	Axis	5	-91.5	-0.81				-22.9	68.6	-0.85			
LTE Band 38	SAR				1.054								
	Axis				-22.6	-84.3	-0.86						
LTE Band 41	SAR							0.283					
	Axis							-24.8	69.7	-0.82			
LTE Band 42	SAR										0.284		
	Axis										11.8	71.3	-0.77
FR1 n2	SAR	0.660						0.651					
	Axis	-3.3	-86.6	-0.81				-24.5	67.9	-0.84			
FR1 n7	SAR				1.024			0.347					
	Axis				-25.9	-83.1	-0.76	-25.9	69.4	-0.83			
FR1 n26	SAR	0.710						0.465					
	Axis	8.9	-87.3	-0.69				-25.2	67.6	-0.82			
FR1 n66	SAR	0.621						0.778					
	Axis	9.3	-85.6	-0.75				-27.8	68.3	-0.83			
FR1 n41	SAR							0.293					
	Axis							-22.5	71.2	-0.8			
FR1 n77	SAR				0.402						0.369		
	Axis				-24.4	-82.3	-0.35				15.9	70.6	-0.73

WLAN2.4GHz Ant6	SAR (W/kg)	0.388											
	Axis	21.1				68.3				-0.85			

WLAN5GHz Ant6	SAR (W/kg)	0.388											
	Axis	23.2				69.5				-0.83			



Back																			
Band		Ant0			Ant1			Ant2			Ant4			Ant5			Ant8		
GSM850	SAR	1.268																	
	Axis	-7.4	-87	-0.65															
GSM1900	SAR	1.284																	
	Axis	5.5	-89.9	-0.64															
WCDMA II	SAR	1.281																	
	Axis	4.5	-83.9	-0.55															
WCDMA IV	SAR	1.282																	
	Axis	-14.7	-82.3	-0.63															
WCDMA V	SAR	1.224																	
	Axis	-14.6	-85.4	-0.76															
LTE Band 2	SAR	0.789																	
	Axis	-10.1	-84.9	-0.7															
LTE Band 7	SAR				1.285						0.876								
	Axis				23.6	-84	-0.3				17.8	73	-0.68						
LTE Band 12	SAR	1.145									0.394								
	Axis	-13.4	-87	-0.7							18	74.9	-0.67						
LTE Band 13	SAR	1.269																	
	Axis	-15	-88.5	-0.69															
LTE Band 25	SAR	1.277									0.882								
	Axis	1.6	-90	-0.65							10.5	79.7	-0.66						
LTE Band 26	SAR	1.228									0.875								
	Axis	-12.5	-81.4	-0.65							16.7	70.5	-0.63						
LTE Band 66	SAR	1.289									0.878								
	Axis	-14.9	-89.9	-0.62							23	72.1	-0.7						
LTE Band 38	SAR				1.296														
	Axis				24.6	-79.8	-0.52												
LTE Band 41	SAR										0.883								
	Axis										18.8	70.4	-0.64						
LTE Band 42	SAR													0.896					
	Axis													-16.6	76.2	-1.7			
FR1 n2	SAR	1.290									0.876								
	Axis	4.5	-86.6	-0.63							15.4	75.4	-0.65						
FR1 n7	SAR				1.289						0.882								
	Axis				19.7	-77.8	-0.53				20	74.4	-0.62						
FR1 n26	SAR	1.312									0.885								
	Axis	-12.5	-81	-0.65							13.9	77	-0.64						
FR1 n66	SAR	1.295									0.876								
	Axis	-14.8	-88	-0.76							21.2	72.3	-0.63						
FR1 n41	SAR										0.883								
	Axis										23.8	75.6	-0.62						
FR1 n77	SAR				1.268			0.881						0.884			0.851		
	Axis				23.2	-84.4	-0.31	30.4	43.4	-0.49				-24.2	70.8	-0.67	-22.8	46.2	-0.78

WLAN5GHz Ant6	SAR (W/kg)	0.399			BT Ant6	SAR (W/kg)	0.297		
	Axis	-25.4	65.4	-0.77		Axis	-29.2	68	-0.79

WLAN2.4GHz Ant6	SAR (W/kg)	0.388		
	Axis	-25.9	67.4	-0.81

<Sensor off>

Back													
Band		Ant0			Ant1			Ant5			Ant8		
GSM850	SAR	0.383											
	Axis	-7.4	-87	-0.65									
GSM1900	SAR	0.274											
	Axis	5.5	-89.9	-0.64									
WCDMA II	SAR	0.582											
	Axis	4.5	-83.9	-0.55									
WCDMA IV	SAR	0.705											
	Axis	-14.7	-82.3	-0.63									
WCDMA V	SAR	0.235											
	Axis	-14.6	-85.4	-0.76									
LTE Band 7	SAR				0.519								
	Axis				23.6	-84	-0.3						
LTE Band 25	SAR	0.583											
	Axis	1.6	-90	-0.65									
LTE Band 26	SAR	0.272											
	Axis	-12.5	-81.4	-0.65									
LTE Band 66	SAR	0.886											
	Axis	-14.9	-89.9	-0.62									
LTE Band 38	SAR				0.307								
	Axis				24.6	-79.8	-0.52						
LTE Band 42	SAR							0.382					
	Axis							-16.6	76.2	-1.7			
FR1 n2	SAR	0.394											
	Axis	4.5	-86.6	-0.63									
FR1 n7	SAR				0.482								
	Axis				19.7	-77.8	-0.53						
FR1 n66	SAR	0.684											
	Axis	-14.8	-88	-0.76									
FR1 n77	SAR				0.297			0.672			1.015		
	Axis				23.2	-84.4	-0.31	-24.2	70.8	-0.67	-22.8	46.2	-0.78

WLAN5GHz Ant6	SAR (W/kg)	0.141										
	Axis	-25.4						65.4			-0.77	

WLAN2.4GHz Ant6	SAR (W/kg)	0.114										
	Axis	-26.6						67.9			-0.85	



<Extremity>

Back																			
Band		Ant0			Ant1			Ant2			Ant4			Ant5			Ant8		
GSM850	SAR	1.837																	
	Axis	-6.5	-84.8	-0.64															
GSM1900	SAR	2.658																	
	Axis	3.3	-86.5	-0.66															
WCDMA II	SAR	3.174																	
	Axis	1.4	-88.5	-0.52															
WCDMA IV	SAR	3.162																	
	Axis	-12	-86.9	-0.62															
WCDMA V	SAR	1.641																	
	Axis	-6	-87.3	-0.63															
LTE Band 2	SAR	2.077																	
	Axis	1.7	-85.4	-0.7															
LTE Band 7	SAR				3.186						1.627								
	Axis				18.4	-85	-0.4				16.3	70	-0.63						
LTE Band 25	SAR	3.147									0.764								
	Axis	1.6	-88.5	-0.58							13.5	76.7	-0.64						
LTE Band 26	SAR	1.800									1.347								
	Axis	-31.8	-85.4	-0.68							10.1	75.2	-0.62						
LTE Band 66	SAR	3.204									1.375								
	Axis	-10.1	-88.5	-0.7							14	73.3	-0.68						
LTE Band 38	SAR				3.235														
	Axis				21.2	-81.8	-0.39												
LTE Band 41	SAR										5.334								
	Axis										13.1	71.1	-0.65						
LTE Band 42	SAR													1.415					
	Axis													-15.3	77.6	-1.6			
FR1 n2	SAR	3.156																	
	Axis	2.8	-88.2	-0.42															
FR1 n7	SAR				3.150						2.344								
	Axis				21	-82.8	-0.29				19.4	73.8	-0.64						
FR1 n26	SAR	1.080																	
	Axis	-26.5	-74.9	-2															
FR1 n66	SAR	3.189									1.417								
	Axis	1	-86.4	-0.45							23.8	74.1	-0.68						
FR1 n41	SAR										2.055								
	Axis										20.1	74.4	-0.67						
FR1 n77	SAR				2.090			2.400						0.920			2.023		
	Axis				29.4	-78	-1.04	31.6	45.1	-1.23				-21	83	-0.31	-22.8	55.2	-0.78

WLAN2.4GHz Ant6	SAR (W/kg)	0.535			NFC	SAR (W/kg)	0.018		
	Axis	-25.1	76.1	-0.74		Axis	11.6	59	-0.63

WLAN5GHz Ant6	SAR (W/kg)	0.336		
	Axis	-26.8	77.4	-0.74

Front													
Band		Ant0			Ant1			Ant4			Ant5		
GSM850	SAR	1.732											
	Axis	5.9	-86.9	-0.81									
GSM1900	SAR	1.424											
	Axis	-2.8	-87.9	-0.77									
WCDMA II	SAR	1.833											
	Axis	-4.4	-86.3	-0.63									
WCDMA IV	SAR	1.807											
	Axis	7.6	-88.9	-0.71									
LTE Band 2	SAR	1.274											
	Axis	3.7	-85.9	-0.66									
LTE Band 7	SAR				3.040			1.175					
	Axis				-24.8	-83.4	-0.35	-26.6	72.3	-0.82			
LTE Band 25	SAR	1.999						1.020					
	Axis	8.6	-86.9	-0.05				-24.25	71.1	-0.71			
LTE Band 66	SAR	1.946						1.837					
	Axis	5.9	-80.6	-0.75				-25.1	70.6	-0.65			
LTE Band 38	SAR				2.991								
	Axis				-23.3	-82.1	-0.81						
LTE Band 41	SAR							1.898					
	Axis							-25.8	69.9	-0.72			
LTE Band 42	SAR										2.168		
	Axis										12.5	72.1	-0.72
FR1 n2	SAR	2.058											
	Axis	-2.1	-87.9	-0.77									
FR1 n7	SAR				3.019			1.856					
	Axis				-24.4	-80.5	-0.76	-25.9	72.7	-0.69			
FR1 n66	SAR	2.001						1.601					
	Axis	7.9	-89.4	-0.69				-26.5	69.7	-0.81			
FR1 n41	SAR							1.605					
	Axis							-24.4	70.1	-0.8			
FR1 n77	SAR										1.114		
	Axis										18.6	71.1	-0.71

WLAN5GHz Ant6	SAR (W/kg)	0.988			NFC	SAR (W/kg)	0.001		
	Axis	23.3	68.5	-0.71		Axis	-9.6	63.2	-0.82

Test Engineer : Martin Li, Varus Wang, Light Wang

18. 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.

19. References

- [1] FCC 47 CFR Part 2 "Frequency Allocations and Radio Treaty Matters; General Rules and Regulations"
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- [5] FCC KDB 865664 D01 v01r04, "SAR Measurement Requirements for 100 MHz to 6 GHz", Aug 2015.
- [6] FCC KDB 865664 D02 v01r02, "RF Exposure Compliance Reporting and Documentation Considerations" Oct 2015.
- [7] FCC KDB 648474 D04 v01r03, "SAR Evaluation Considerations for Wireless Handsets", Oct 2015.
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- [13] FCC KDB 941225 D06 v02r01, "SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities", Oct 2015.
- [14] FCC KDB 447498 D01 v06, "Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies", Oct 2015

Appendixes

Please refer to separated files for the following appendixes

Appendix A. Plots of System Performance Check

Appendix B. Plots of High SAR Measurement

Appendix C. DASY Calibration Certificate

Appendix D. Test Setup Photos

Appendix E. Conducted RF Output Power Table

Appendix F. Power measurement connection diagram and CA Conducted RF Output Power Table

Appendix G. Power reduction mechanism verification

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