

FCC SAR Test Report

APPLICANT : Xiaomi Communications Co., Ltd.
EQUIPMENT : Mobile Phone
BRAND NAME : POCO
MODEL NAME : 25102PCBEG
FCC ID : 2AFZZPCBEG
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

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People's Republic of China

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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA581310	Rev. 01	Initial issue of report.	Sep. 26, 2025

1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **Xiaomi Communications Co., Ltd., Mobile Phone, 25102PCBEG**, are as follows.

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 10mm)	Body-worn (Separation 5mm)	Extremity (Separation 0mm)		
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	10g SAR (W/kg)		
GSM	GSM850	0.61	0.67	0.93		1.55	
	GSM1900	1.09	0.58	1.04			
WCDMA	WCDMA V	0.73	0.72	0.93			
	WCDMA II	0.72	0.63	0.96			
	WCDMA IV	0.93	0.46	0.91			
LTE	LTE Band 2	0.77	0.62	0.97			
	LTE Band 7	0.88	0.51	1.03			
	LTE Band 26/5	0.79	0.64	0.96			
	LTE Band 41/38	1.06	0.53	1.02			
	LTE Band 48	0.88	0.39	0.76			
	LTE Band 66/4	0.89	0.54	1.09			
	LTE Band 71	0.57	0.35	0.50			
	LTE Band 42	1.06	0.60	0.95			
FR1	FR1 n2	0.69	0.63	0.98			
	FR1 n7	1.07	0.64	1.05			
	FR1 n26/n5	0.84	0.80	1.04			
	FR1 n41/n38	1.01	0.44	1.01			
	FR1 n48	1.09	0.41	1.07			
	FR1 n66	1.02	0.46	1.06			
WLAN	2.4GHz WLAN	1.09	0.95	0.91		1.55	2.40
	5GHz WLAN	1.02	1.06	1.06	2.40		
Bluetooth	Bluetooth	1.09	0.52	0.96		1.55	
Date of Testing:		2025/08/26 ~ 2025/09/17					

Remark:

1. This device supports LTE B4 / B5 / B38 and B66 / B26 / B41. Since the supported frequency span for LTE B4 / B5 / B38 falls completely within the support's frequency span for LTE B66 / B26 / B41, both LTE bands have the same target power, and both LTE bands share the same transmission path; therefore, SAR was only assessed for LTE B66 / B26 / B41.
2. This device supports 5G NR n38/n5 /n78 and n41/n26 /n77. Since the supported frequency span for 5G NR n38/n5 /n78 falls completely within the support's frequency span for n41/n26 /n77, both 5G NR bands have the same target power, and both 5G NR bands share the same transmission path; therefore, SAR was only assessed for n41/n26 /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 Human Exposure to RF Radiation Limits (1.0 mW/cm²=10 W/m²) specified in FCC 47 CFR part 1.1310 and ANSI/IEEE C95.1-1992, and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528-2013 and FCC KDB publications.

2. Administration Data

Sporton International Inc. (Kunshan) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.01.

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.
	SAR06-KS	CN1257	314309

Applicant	
Company Name	Xiaomi Communications Co., Ltd.
Address	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085

Manufacturer	
Company Name	Xiaomi Communications Co., Ltd.
Address	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085

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 Phone
Brand Name	POCO
Model Name	25102PCBEG
FCC ID	2AFZZPCBEG
IMEI Code	863784080033926/863784080033934, 863784080036143/863784080036150, 863784080033801/863784080033819, 863784080036267/863784080036275, 863784080034064/863784080034072, 863784080039600/863784080039618
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 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 48: 3550 MHz ~ 3700 MHz LTE Band 66: 1710 MHz ~ 1780 MHz LTE Band 71: 663 MHz ~ 698 MHz 5G NR n2: 1850 MHz ~ 1910 MHz 5G NR n5: 824 MHz ~ 849 MHz 5G NR n7: 2500 MHz ~ 2570 MHz 5G NR n26: 814 MHz ~ 849 MHz 5G NR n66: 1710 MHz ~ 1780 MHz 5G NR n71: 663 MHz ~ 698 MHz 5G NR n38: 2570 MHz ~ 2620 MHz 5G NR n41: 2496 MHz ~ 2690 MHz 5G NR n48: 3550 MHz ~ 3700 MHz 5G NR n77: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3980 MHz 5G NR n78: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3800 MHz WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz WLAN 5.2GHz Band: 5180 MHz ~ 5240 MHz WLAN 5.3GHz Band: 5260 MHz ~ 5320 MHz WLAN 5.5GHz Band: 5500 MHz ~ 5720 MHz WLAN 5.8GHz Band: 5745 MHz ~ 5825 MHz Bluetooth: 2402 MHz ~ 2480 MHz NFC: 13.56 MHz WPT: 111 kHz ~ 148.5 kHz
Mode	GSM/GPRS/EGPRS RMC/AMR 12.2Kbps HSDPA HSUPA DC-HSDPA HSPA+(16QAM uplink is not supported) LTE: QPSK, 16QAM, 64QAM, 256QAM 5G NR: CP-OFDM / DFT-s-OFDM, PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM WLAN 2.4GHz 802.11b/g/n HT20/HT40 WLAN 2.4GHz 802.11ax/be HE20/HE40/EHT20/EHT40 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80/VHT160 WLAN 5GHz 802.11ax HE20/HE40/HE80/HE160 WLAN 5GHz 802.11be EHT20/EHT40/EHT80/EHT160



	Bluetooth BR/EDR/LE NFC: ASK WPT: ASK
HW Version	1351P2501
SW Version	Xiaomi HyperOS 3.0
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. The 2.4GHz/5GHz WLAN can transmit in SISO/MIMO antenna mode. And 802.11b/g supports SISO mode for 2.4GHz WLAN.
5. This device does not support DTM operation and supports GPRS/EGPRS mode up to multi-slot class 33
6. For dual SIM card mobile has two SIM slots and supports supports dual SIM dual standby. The WWAN radio transmission will be enabled by either one SIM at a time (single active).
7. The device implements proximity sensor/receiver detection/hotspot mode for SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity) and the Qualcomm smart transmit will manage to ensure the power level not exceeding the associated power table. Details about the sensor detection are provided in the operational description. And the device will invoke corresponding work scenarios power level base on frequency bands/antennas, which can refer to power table at appendix E.
8. For 5GNR n41/n77/n78 HPUE, 5GNR n41/n77/n78 PC2 Maximum Duty Cycle is 50%, using FTM (Factory Test Mode) with 50% duty cycle is considered during SAR testing. For 5G NR other bands, using FTM to perform SAR with default 100% transmission.
9. This device supports HPUE mode for 5GNR n41/n77/n78 with higher power. For HPUE power is higher than power class 3 but with lower duty cycle, the maximum average power for class 2 and class 3 is almost the same, so power class 3 was chosen to perform full SAR testing and power class 2 verified the worst case of power class 3 SAR.
10. Bluetooth BR/EDR supports Beamforming mode, and BLE don't supports Beamforming mode.
11. For 5GNR, the simultaneous transmission analysis is used standalone SAR at total power level to show compliance.
12. There are three samples. The difference between them is memory/storage capacity and & back cover: sample 1 is 16+512G memory & PU back cover, sample 2 is 16+512 memory & Fiberglass back cover and sample 3 is 12+256G memory & Fiberglass back cover. According to the difference, sample 1 was chosen to perform full SAR testing.
13. This device has NFC function and the NFC SAR report will be separately submitted.
14. RF exposure report for WPC (Wireless power charging) will be separately submitted.
15. 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)
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
	n71	FDD	15	5, 10, 15, 20, 25, 30, 35
	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
	n48	TDD	30	10, 15, 20, 30, 40
	n77	TDD	30	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100
NSA	n78	TDD	30	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100
	n5	FDD	15	5, 10, 15, 20
	n7	FDD	15	5, 10, 15, 20, 25, 30, 35, 40, 50
	n66	FDD	15	5, 10, 15, 20, 25, 30, 35, 40, 45
	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	2AFZZPCBEG																																																																												
Equipment Name	Mobile 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 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 48: 3550 MHz ~ 3700 MHz LTE Band 66: 1710 MHz ~ 1780 MHz LTE Band 71: 663 MHz ~ 698 MHz																																																																												
Channel Bandwidth	LTE Band 2:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 4:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 5:1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 7: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 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 48: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 66:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 71: 5MHz, 10MHz, 15MHz, 20MHz																																																																												
uplink modulations used	QPSK / 16QAM / 64QAM / 256QAM																																																																												
LTE Voice / Data requirements	Voice and Data																																																																												
LTE 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	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 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 10 MHz		Bandwidth 10 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 20 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	20775	2502.5	20800	2505	20825	2507.5	20850	2510	20850	2510	20850	2510
M	21100	2535	21100	2535	21100	2535	21100	2535	21100	2535	21100	2535
H	21425	2567.5	21400	2565	21375	2562.5	21350	2560	21350	2560	21350	2560
LTE Band 26												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 15 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	26697	814.7	26705	815.5	26715	816.5	26740	819	26765	821.5	26765	821.5
M	26865	831.5	26865	831.5	26865	831.5	26865	831.5	26865	831.5	26865	831.5
H	27033	848.3	27025	847.5	27015	846.5	26990	844	26965	841.5	26965	841.5
LTE Band 38												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz		Bandwidth 20 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	37775	2572.5	37800	2575	37825	2577.5	37850	2580	37850	2580	37850	2580
M	38000	2595	38000	2595	38000	2595	38000	2595	38000	2595	38000	2595
H	38225	2617.5	38200	2615	38175	2612.5	38150	2610	38150	2610	38150	2610
LTE Band 41												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz		Bandwidth 20 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	39675	2498.5	39700	2501	39725	2503.5	39750	2506	39750	2506	39750	2506
LM	40148	2545.8	40160	2547	40173	2548.3	40185	2549.5	40185	2549.5	40185	2549.5
M	40620	2593	40620	2593	40620	2593	40620	2593	40620	2593	40620	2593
HM	41093	2640.3	41080	2639	41068	2637.8	41055	2636.5	41055	2636.5	41055	2636.5
H	41565	2687.5	41540	2685	41515	2682.5	41490	2680	41490	2680	41490	2680
LTE Band 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		Bandwidth 20 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	42115	3452.5	42140	3455	42165	3457.5	42190	3460	42190	3460	42190	3460
M	42590	3500	42590	3500	42590	3500	42590	3500	42590	3500	42590	3500
H	43065	3547.5	43040	3545	43015	3542.5	42990	3540	42990	3540	42990	3540
LTE Band 48												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz		Bandwidth 20 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	55265	3552.5	55290	3555	55315	3557.5	55340	3560	55340	3560	55340	3560
LM	55810	3607	55815	3607.5	55820	3608	55830	3609	55830	3609	55830	3609
MH	56170	3643	56165	3642.5	56160	3642	56150	3641	56150	3641	56150	3641
H	56715	3697.5	56690	3695	56665	3692.5	56640	3690	56640	3690	56640	3690
LTE Band 71												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz		Bandwidth 20 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	133147	665.5	133172	668	133197	670.5	133222	673	133222	673	133222	673
M	133247	675.5	133272	678	133297	680.5	133322	683	133322	683	133322	683
H	133447	695.5	133422	693	133397	690.5	133372	688	133372	688	133372	688



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

2) LTE Bands tune up:

Band	Antenna	Full Power	DSI1	DSI5	DSI3	DSI4
			Receiver on	Hotspot	Sensor on	Sensor off
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
LTE Band 5	Ant 0	25.7	25.7	25.2	25.2	25.2
LTE Band 26	Ant 0	25.7	25.7	25.2	25.2	25.2
LTE Band 5 Other PA	Ant 0	25	25	25	25	25
LTE Band 5	Ant 1	25.7	19.7	19.7	19.7	25.7
LTE Band 26	Ant 1	25.7	19.7	19.7	19.7	25.7
LTE Band 5 Other PA	Ant 1	25	20	20	20	25
LTE Band 4	Ant 4	25.7	18.7	18.7	20.2	25.7
LTE Band 66	Ant 4	25.7	18.7	18.7	20.2	25.7
LTE Band 4	Ant 5	25	16.5	16.5	18	25
LTE Band 66	Ant 5	25	16.5	16.5	18	25
LTE Band 4	Ant 6	25.5	25.5	19	19	19
LTE Band 66	Ant 6	25.5	25.5	19	19	19
LTE Band 4	Ant 7	25	19	19	19.5	19.5
LTE Band 66	Ant 7	25	19	19	19.5	19.5
LTE Band 38	Ant 4	25.7	19.2	19.2	20.2	25.7
LTE Band 41	Ant 4	25.7	19.7	19.7	20.2	25.7
LTE Band 38	Ant 5	25	19.5	19.5	21	25
LTE Band 41	Ant 5	25	19.5	19.5	21	25
LTE Band 38	Ant 6	25.5	25.5	21.5	21.5	21.5
LTE Band 41	Ant 6	25.5	25.5	21.5	21.5	21.5
LTE Band 38	Ant 7	24.5	20.5	20.5	20.5	20.5
LTE Band 41	Ant 7	24.5	20.5	20.5	20.5	20.5

Note: For some bands/antennas at some exposure conditions which cannot be covered were fully tested for RF exposure compliance.

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 n66: 1710 MHz ~ 1780 MHz 5G NR n71: 663 MHz ~ 698 MHz 5G NR n38: 2570 MHz ~ 2620 MHz 5G NR n41: 2496 MHz ~ 2690 MHz 5G NR n48: 3550 MHz ~ 3700 MHz 5G NR n77: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3980 MHz 5G NR n78: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3800 MHz
Channel Bandwidth	The detail please refers to section 4.1 5GNR FR1 bands table.
SCS	FDD: 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 n5	LTE B7
LTE Anchor Bands for n7	LTE B5
LTE Anchor Bands for n66	LTE B5/7
LTE Anchor Bands for n78	LTE B2/5/7/26/38/41

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	
	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
M	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535
H	513500	2567.5	513000	2565	512500	2562.5	512000	2560	511500	2557.5	511000	2555	510500	2552.5	510000	2550

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	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	342500	1712.5	343000	1715	343500	1717.5	344000	1720	344500	1722.5	345000	1725	345500	1727.5	346000	1730
M	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745
H	355500	1777.5	355000	1775	354500	1772.5	354000	1770	353500	1767.5	353000	1765	352500	1762.5	352000	1760

NR Band 71														
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 35MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	133100	665.5	133600	668	134100	670.5	134600	673	135100	675.5	135600	678		
M	136100	680.5	136100	680.5	136100	680.5	136100	680.5	136100	680.5	136100	680.5	136100	680.5
H	139100	695.5	138600	693	138100	690.5	137600	688	137100	685.5	136600	683		



NR Band 38												
	Bandwidth10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	515000	2575	515500	2577.5	516000	2580	516500	2582.5	517000	2585	518000	2590
M	519000	2595	519000	2595	519000	2595	519000	2595	519000	2595	519000	2595
H	523000	2615	522500	2612.5	522000	2610	521500	2607.5	521000	2605	5120000	2600

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	506202	2531.01	507204	2536.02	508200	2541	509202	2546.01
M	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	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	533498	2667.48	532998	2664.99	531996	2659.98	537000	2685	529998	2649.99	528996	2644.98	528000	2640

NR Band 48										
	Bandwidth 10MHz		Bandwidth15MHz		Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	637000	3555	637168	3557.52	637334	3560.01	637668	3565.02	638000	3570
M	641666	3624.99	641666	3624.99	641666	3624.99	641666	3624.99	641666	3624.99
H	646332	3694.98	646166	3692.49	646000	3690	645666	3684.99	645332	3679.98

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	664832	3972.48	664666	3969.99	664500	3967.50	664332	3964.98	664000	3960	663666	3954.99	663332	3949.98	663000	3945	662666	3939.99	662332	3934.98	662000	3930

NR Band 78																								
	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	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750
H	653000	3795	652832	3792.49	652666	3789.99	652500	3787.5	652332	3784.98	652000	3780	651666	3774.99	651332	3769.98	651000	3765	650666	3759.99	650332	3754.98		



For <3450 MHz ~ 3550 MHz >

NR Band 77 SCS30KHz																							
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 630334	3455.01	630500	3457.5	630668	3460.02	630834	3462.51	631000	3465	631334	3470.01	631668	3475.02	632000	3480	632334	3485.01	632668	3490.02	633000	3495		
M 633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98
H 636332	3544.98	636166	3542.49	636000	3540	635832	3537.48	635666	3534.99	635332	3529.98	635000	3525	634666	3519.99	634332	3514.98	634000	3510	633666	3504.99		

NR Band 78 SCS30KHz																							
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 630334	3455.01	630500	3457.5	630668	3460.02	630834	3462.51	631000	3465	631334	3470.01	631668	3475.02	632000	3480	632334	3485.01	632668	3490.02	633000	3495		
M 633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98
H 636332	3544.98	636166	3542.49	636000	3540	635832	3537.48	635666	3534.99	635332	3529.98	635000	3525	634666	3519.99	634332	3514.98	634000	3510	633666	3504.99		

<For NR Overlap Bands Description>

1) NR Bands BW

Band	5 MHz	10 MHz	15 MHz	20 MHz	25 MHz	30 MHz	35 MHz	40 MHz	45 MHz	50 MHz	60 MHz	70 MHz	80 MHz	90 MHz	100 MHz
FR1 n5	Yes	Yes	Yes	Yes											
FR1 n26	Yes	Yes	Yes	Yes											
FR1 n38		Yes	Yes	Yes	Yes	Yes		Yes							
FR1 n41		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FR1 n77		Yes	Yes	Yes	Yes	Yes		Yes		Yes	Yes	Yes	Yes	Yes	Yes
FR1 n78		Yes	Yes	Yes	Yes	Yes		Yes		Yes	Yes	Yes	Yes	Yes	Yes

2) NR Bands Tune up:

Band	Antenna	Full Power	DSI1	DSI5	DSI3	DSI4
			Receiver on	Hotspot	Sensor on	Sensor off
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
FR1 n5	Ant 0	25.7	25.7	24.7	24.7	24.7
FR1 n26	Ant 0	25.7	25.7	24.7	24.7	24.7
FR1 n5 Other PA	Ant 0	25	25	25	25	25
FR1 n5	Ant 1	25.7	19.2	19.2	20.2	25.7
FR1 n26	Ant 1	25.7	20.7	20.7	20.7	25.7
FR1 n5 Other PA	Ant 1	25	19.5	19.5	20.5	25
FR1 n38	Ant 4	25.7	16.7	16.7	17.7	25.7
FR1 n41 PC3	Ant 4	25.7	16.7	16.7	17.7	25.7
FR1 n41 PC2	Ant 4	28	20	20	21	28
FR1 n38	Ant 5	25	16	16	18	25
FR1 n41 PC3	Ant 5	25	16	16	18	25
FR1 n41 PC2	Ant 5	27	19	19	21	27
FR1 n38	Ant 6	25.5	25.5	19	19	19
FR1 n41 PC3	Ant 6	25.5	25.5	19	19	19
FR1 n41 PC2	Ant 6	27.5	27.5	22	22	22
FR1 n38	Ant 7	24.5	17.5	17.5	18.5	18.5
FR1 n41 PC3	Ant 7	24.5	17.5	17.5	18.5	18.5
FR1 n41 PC2	Ant 7	26.5	20.5	20.5	21.5	21.5



FCC SAR Test Report

Report No. : FA581310

FR1 n77 Part27Q PC3	Ant 8	26	17	17	18.5	18.5
FR1 n77 Part27Q PC2	Ant 8	28.5	20.5	20.5	22	22
FR1 n77 Part27O PC3	Ant 8	26	17	17	18.5	18.5
FR1 n77 Part27O PC2	Ant 8	28.5	20.5	20.5	22	22
FR1 n78 Part27Q PC3	Ant 8	26	17	17	18.5	18.5
FR1 n78 Part27Q PC2	Ant 8	29	20.5	20.5	22	22
FR1 n78 Part27O PC3	Ant 8	26	17	17	18.5	18.5
FR1 n78 Part27O PC2	Ant 8	29	20.5	20.5	22	22
FR1 n77 Part27Q PC3	Ant 9	25.2	25.2	21.7	25.2	21.7
FR1 n77 Part27Q PC2	Ant 9	24.2	24.2	20.7	24.2	20.7
FR1 n77 Part27O PC3	Ant 9	25.2	25.2	23.7	25.2	23.7
FR1 n77 Part27O PC2	Ant 9	21.7	19.2	20.2	20.2	19.2
FR1 n78 Part27Q PC3	Ant 9	23.5	18	21.5	21.5	18
FR1 n78 Part27Q PC2	Ant 9	24.5	21	24.5	24.5	21
FR1 n78 Part27O PC3	Ant 9	23.7	19.2	20.2	20.2	19.2
FR1 n78 Part27O PC2	Ant 9	22.7	18.2	21.7	21.7	18.2
FR1 n77 Part27Q PC3	Ant 10	23.7	21.2	23.7	23.7	21.2
FR1 n77 Part27Q PC2	Ant 10	25.7	14.7	16.2	22.7	14.7
FR1 n77 Part27O PC3	Ant 10	25.7	14.7	16.2	22.7	14.7
FR1 n77 Part27O PC2	Ant 10	29	18	19.5	26	18
FR1 n78 Part27Q PC3	Ant 10	29	18	19.5	26	18
FR1 n78 Part27Q PC2	Ant 10	25.7	17.2	18.7	18.7	17.2
FR1 n78 Part27O PC3	Ant 10	25.7	17.2	18.7	18.7	17.2
FR1 n78 Part27O PC2	Ant 10	28.8	20.3	21.8	21.8	20.3
FR1 n77 Part27Q PC3	Ant 11	23	15	15	20	23
FR1 n77 Part27Q PC2	Ant 11	25	18	18	23	25
FR1 n77 Part27O PC3	Ant 11	23	15	15	20	23
FR1 n77 Part27O PC2	Ant 11	24.5	18	18	23	24.5
FR1 n78 Part27Q PC3	Ant 11	23	15	15	20	23
FR1 n78 Part27Q PC2	Ant 11	25	18	18	23	25
FR1 n78 Part27O PC3	Ant 11	23	15	15	20	23
FR1 n78 Part27O PC2	Ant 11	25	18	18	23	25

Note: For some bands/antennas at some exposure conditions which cannot be covered were fully tested for RF exposure compliance.

5. Smart Transmit feature for RF Exposure compliance

The Qualcomm® Smart Transmit™ Plus of Smart Transmit (GEN2) Feature operates based on pre-defined sub6 antenna groups (AG). This Device is enabled with the Qualcomm® Smart Transmit Gen2 feature. The RF exposure limit is defined based on time-averaged RF exposure. The product implements Qualcomm Smart Transmit feature which controls the instantaneous transmitting power for WWAN and WLAN/BT 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.

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 Smart Transmit. SAR char will be entered via the Embedded File System (EFS) version 24 to enable the Smart Transmit GEN2 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 DSI

<SAR Characterization>

SAR char must be generated to cover all radio configurations and usage scenarios that the wireless device supports for operating at WWAN and WLAN/BT bands. It will then be used as input for Smart Transmit to control and manage RF exposure for WWAN and WLAN/BT bands.

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

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

Antenna Group:

Antenna Group 0 (AG0)	ANT1 & ANT4 & ANT5 & ANT7 & ANT8 & ANT9 & ANT10 & ANT11& ANT12
Antenna Group 1 (AG1)	ANT0 & ANT6

The Smart Transmit 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.

Smart Transmit allows the device to transmit at higher power instantaneously, as high as P_{max}, when needed, but enforces power limiting to maintain time-averaged transmit power to P_{limit}. Below table shows P_{limit} EFS settings and maximum tune up output power P_{max} configured for this EUT for various transmit conditions (Device State Index DSI).

<P_{limit} for supported technologies and bands (P_{limit} in EFS file)>

Band	Antenna	DSI1	DSI3	DSI4	DSI5	Pmax*	Total Uncertainty dB (k=2)
GSM850	Ant 0	29.90	24.40	24.40	26.70	24.00	1.00
GSM850	Ant 1	19.50	19.00	24.00	19.00	24.00	1.50
GSM1900	Ant 4	18.50	18.00	21.00	18.00	21.00	1.50
GSM1900	Ant 6	33.80	20.00	20.00	20.00	21.00	1.00
WCDMA II	Ant 4	17.00	18.00	24.00	17.00	24.00	1.50
WCDMA II	Ant 6	32.10	19.00	19.00	19.00	24.00	1.00
WCDMA IV	Ant 4	17.00	18.50	24.00	17.00	24.00	1.00
WCDMA IV	Ant 5	15.00	17.50	22.50	15.00	22.50	1.50
WCDMA IV	Ant 6	31.10	18.50	18.50	18.50	23.00	1.50
WCDMA IV	Ant 7	17.00	17.50	17.50	17.00	22.50	1.50
WCDMA V	Ant 0	29.10	23.50	23.50	23.50	24.0	1.00
WCDMA V	Ant 1	18.50	18.50	24.00	18.50	24.0	1.50
LTE Band 2	Ant 4	17.00	18.00	24.00	17.00	24.0	1.50
LTE Band 2	Ant 5	18.50	20.50	23.00	18.50	23.0	1.50
LTE Band 2	Ant 6	32.10	18.50	18.50	18.50	24.0	1.00
LTE Band 26(5)	Ant 0	29.70	24.50	24.50	24.50	25.0	0.70
LTE Band 5 Other PA	Ant 0	29.70	24.00	24.00	24.00	24.0	1.00
LTE Band 26(5)	Ant 1	18.50	18.50	24.50	18.50	24.5	1.20
LTE Band 5 Other PA	Ant 1	18.50	18.50	23.50	18.50	23.5	1.50
LTE Band 7	Ant 4	16.50	18.00	25.00	16.50	25.0	0.70
LTE Band 7	Ant 5	15.50	17.50	23.50	15.50	23.5	1.50
LTE Band 7	Ant 6	29.40	18.00	18.00	18.00	24.0	1.50
LTE Band 7	Ant 7	16.00	17.00	17.00	16.00	23.0	1.50
LTE Band 66(4)	Ant 4	18.00	19.50	25.00	18.00	25.0	0.70
LTE Band 66(4)	Ant 5	15.00	16.50	23.50	15.00	23.5	1.50
LTE Band 66(4)	Ant 6	31.10	17.50	17.50	17.50	24.0	1.50
LTE Band 66(4)	Ant 7	17.50	18.00	18.00	17.50	23.5	1.50
LTE Band 71	Ant 0	33.80	28.00	28.00	29.00	24.0	1.00
LTE Band 71	Ant 1	21.50	21.00	23.50	21.00	23.5	1.50
LTE Band 38	Ant 4	16.50	17.50	23.00	16.50	23.0	0.70
LTE Band 41	Ant 4	17.00	17.50	23.00	17.00	23.0	0.70
LTE Band 41(38)	Ant 5	16.00	17.50	21.50	16.00	21.5	1.50
LTE Band 41(38)	Ant 6	30.60	18.00	18.00	18.00	22.0	1.50
LTE Band 41(38)	Ant 7	17.00	17.00	17.00	17.00	21.0	1.50
LTE Band 42	Ant 8	16.00	17.50	17.50	16.00	23.0	1.00
LTE Band 42	Ant 9	16.00	16.50	18.50	16.00	18.5	1.50
LTE Band 42	Ant 10	12.50	16.00	22.50	12.50	22.5	1.50
LTE Band 42	Ant 11	17.00	17.00	19.50	17.00	19.5	1.50
LTE Band 48	Ant 8	15.50	17.50	17.50	15.50	22.0	1.00
LTE Band 48	Ant 9	15.00	15.50	17.50	15.00	17.5	1.50
LTE Band 48	Ant 10	12.50	15.00	21.50	12.50	21.5	1.50
LTE Band 48	Ant 11	16.50	17.50	18.50	16.50	18.5	1.50
FR1 n2	Ant 4	16.50	18.00	24.00	16.50	24.0	1.50
FR1 n2	Ant 6	31.70	18.50	18.50	18.50	24.0	1.00
FR1 n26(5)	Ant 0	28.70	24.00	24.00	24.00	25.0	0.70
FR1 n5 Other PA	Ant 0	28.70	24.00	24.00	24.00	24.0	1.00
FR1 n26	Ant 1	19.50	19.50	24.50	19.50	24.5	1.20
FR1 n5	Ant 1	18.00	19.00	24.50	18.00	24.5	1.20
FR1 n5 Other PA	Ant 1	18.00	19.00	23.50	18.00	23.5	1.50
FR1 n7	Ant 4	16.50	17.50	25.00	16.50	25.0	0.70
FR1 n7	Ant 5	15.00	17.50	23.50	15.00	23.5	1.50
FR1 n7	Ant 6	29.50	18.00	18.00	18.00	24.0	1.50



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FR1 n7	Ant 7	16.00	16.50	16.50	16.00	23.0	1.50
FR1 n66	Ant 4	17.00	18.50	25.00	17.00	25.0	0.70
FR1 n66 Other PA	Ant 4	17.00	18.50	24.00	17.00	24.0	1.50
FR1 n66	Ant 5	14.50	17.00	23.50	14.50	23.5	1.50
FR1 n66 Other PA	Ant 5	14.50	17.00	23.00	14.50	23.0	1.50
FR1 n66	Ant 6	32.30	18.50	18.50	18.50	24.0	1.50
FR1 n66 Other PA	Ant 6	32.30	18.50	18.50	18.50	24.0	1.00
FR1 n66	Ant 7	16.50	17.00	17.00	16.50	23.0	1.50
FR1 n66 Other PA	Ant 7	16.50	17.00	17.00	16.50	22.5	1.50
FR1 n71	Ant 0	32.90	27.70	27.70	28.10	24.0	1.00
FR1 n71	Ant 1	21.50	22.00	23.50	21.50	23.5	1.50
FR1 n41(38) PC3	Ant 4	16.00	17.00	25.00	16.00	25.0	0.70
FR1 n41 PC2	Ant 4	16.00	17.00	25.00	16.00	24.0	1.00
FR1 n41(38) PC3	Ant 5	14.50	16.50	23.50	14.50	23.5	1.50
FR1 n41 PC2	Ant 5	14.50	16.50	23.50	14.50	22.5	1.50
FR1 n41(38) PC3	Ant 6	29.20	17.50	17.50	17.50	24.0	1.50
FR1 n41 PC2	Ant 6	29.20	17.50	17.50	17.50	23.0	1.50
FR1 n41(38) PC3	Ant 7	16.00	17.00	17.00	16.00	23.0	1.50
FR1 n41 PC2	Ant 7	16.00	17.00	17.00	16.00	22.0	1.50
FR1 n48	Ant 8	16.50	18.50	18.50	16.50	24.0	1.00
FR1 n48	Ant 9	15.50	17.50	19.50	15.50	19.5	1.50
FR1 n48	Ant 10	12.00	15.50	23.50	12.00	23.5	1.50
FR1 n48	Ant 11	13.50	19.50	20.50	13.50	20.5	1.50
FR1 n77(78) Part27Q PC3	Ant 8	16.00	17.50	17.50	16.00	25.0	1.00
FR1 n77 Part27Q PC2	Ant 8	16.00	17.50	17.50	16.00	24.0	1.50
FR1 n78 Part27Q PC2	Ant 8	16.00	17.50	17.50	16.00	24.5	1.50
FR1 n77(78) Part27O PC3	Ant 8	16.00	17.50	17.50	16.00	25.0	1.00
FR1 n77 Part27O PC2	Ant 8	16.00	17.50	17.50	16.00	24.0	1.50
FR1 n78 Part27O PC2	Ant 8	16.00	17.50	17.50	16.00	24.5	1.50
FR1 n77 Part27Q PC3	Ant 9	17.00	18.50	21.00	17.00	21.0	1.50
FR1 n77 Part27Q PC2	Ant 9	17.00	18.50	21.00	17.00	20.0	1.50
FR1 n77 Part27O PC3	Ant 9	17.00	18.50	21.00	17.00	21.0	1.50
FR1 n77 Part27O PC2	Ant 9	17.00	18.50	21.00	17.00	20.0	1.50
FR1 n78 Part27Q PC3	Ant 9	15.00	16.50	21.00	15.00	21.0	1.50
FR1 n78 Part27Q PC2	Ant 9	15.00	16.50	21.00	15.00	20.0	1.50
FR1 n78 Part27O PC3	Ant 9	15.00	16.50	21.00	15.00	21.0	1.50
FR1 n78 Part27O PC2	Ant 9	15.00	16.50	21.00	15.00	20.0	1.50
FR1 n77 Part27Q PC3	Ant 10	12.00	16.00	24.50	12.00	24.5	1.50
FR1 n77 Part27Q PC2	Ant 10	12.00	16.00	24.50	12.00	23.5	1.50
FR1 n77 Part27O PC3	Ant 10	12.00	16.00	24.50	12.00	24.5	1.50
FR1 n77 Part27O PC2	Ant 10	12.00	16.00	24.50	12.00	23.5	1.50
FR1 n78 Part27Q PC3	Ant 10	12.00	15.50	24.50	12.00	24.5	1.50
FR1 n78 Part27Q PC2	Ant 10	12.00	15.50	24.50	12.00	24.0	1.50
FR1 n78 Part27O PC3	Ant 10	12.00	15.50	24.50	12.00	24.5	1.50
FR1 n78 Part27O PC2	Ant 10	12.00	15.50	24.50	12.00	24.0	1.50
FR1 n77(78) Part27Q PC3	Ant 11	13.50	18.50	21.50	13.50	21.5	1.50
FR1 n77(78) Part27Q PC2	Ant 11	13.50	18.50	21.50	13.50	20.5	1.50
FR1 n77(78) Part27O PC3	Ant 11	13.50	18.50	21.50	13.50	21.5	1.50
FR1 n77 Part27O PC2	Ant 11	13.50	18.50	21.50	13.50	20.0	1.50
FR1 n78 Part27O PC2	Ant 11	13.50	18.50	21.50	13.50	20.5	1.50

Band	Antenna	Head DSI1	Bodyworn& Extremity DSI4	Hotspot DSI5	Pmax*	Total Uncertainty dB (k=2)
WLAN2.4GHz	Ant 7	17.00	17.70	21.10	18.90	2.00
WLAN2.4GHz	Ant 12	17.00	17.70	18.60	18.40	2.00
WLAN2.4GHz	Ant 7+12	17,17	17.7,17.7	21.1,18.6	21.00	2.00
Bluetooth	Ant 7	16.40	16.40	16.40	18.90	2.00
Bluetooth	Ant 12	16.90	16.90	16.90	17.90	2.00
WLAN5GHz(B1)	Ant 8	13.00	16.50	18.00	18.00	2.00
WLAN5GHz(B1)	Ant 10	13.00	16.50	18.00	18.00	2.00
WLAN5GHz(B1)	Ant 8+10	13,13	16.5,16.5	18,18	21.00	2.00
WLAN5GHz(B2)	Ant 8	13.00	16.50		18.00	2.00
WLAN5GHz(B2)	Ant 10	13.00	16.50		18.00	2.00
WLAN5GHz(B2)	Ant 8+10	13,13	16.5,16.5		21.00	2.00
WLAN5GHz(B3)	Ant 8	15.00	16.50		18.50	2.00
WLAN5GHz(B3)	Ant 10	15.00	16.50		18.50	2.00
WLAN5GHz(B3)	Ant 8+10	15,15	16.5,16.5		21.50	2.00
WLAN5GHz(B4)	Ant 8	13.50	18.00	18.50	19.00	2.00
WLAN5GHz(B4)	Ant 10	13.50	18.00	18.50	19.00	2.00
WLAN5GHz(B4)	Ant 8+10	13.5,13.5	18,18	18.5,18.5	22.00	2.00

Note: 1) *P_{max} is used for RF tune up procedure. The maximum allowed output power is equal to Pmax + Total uncertainty.

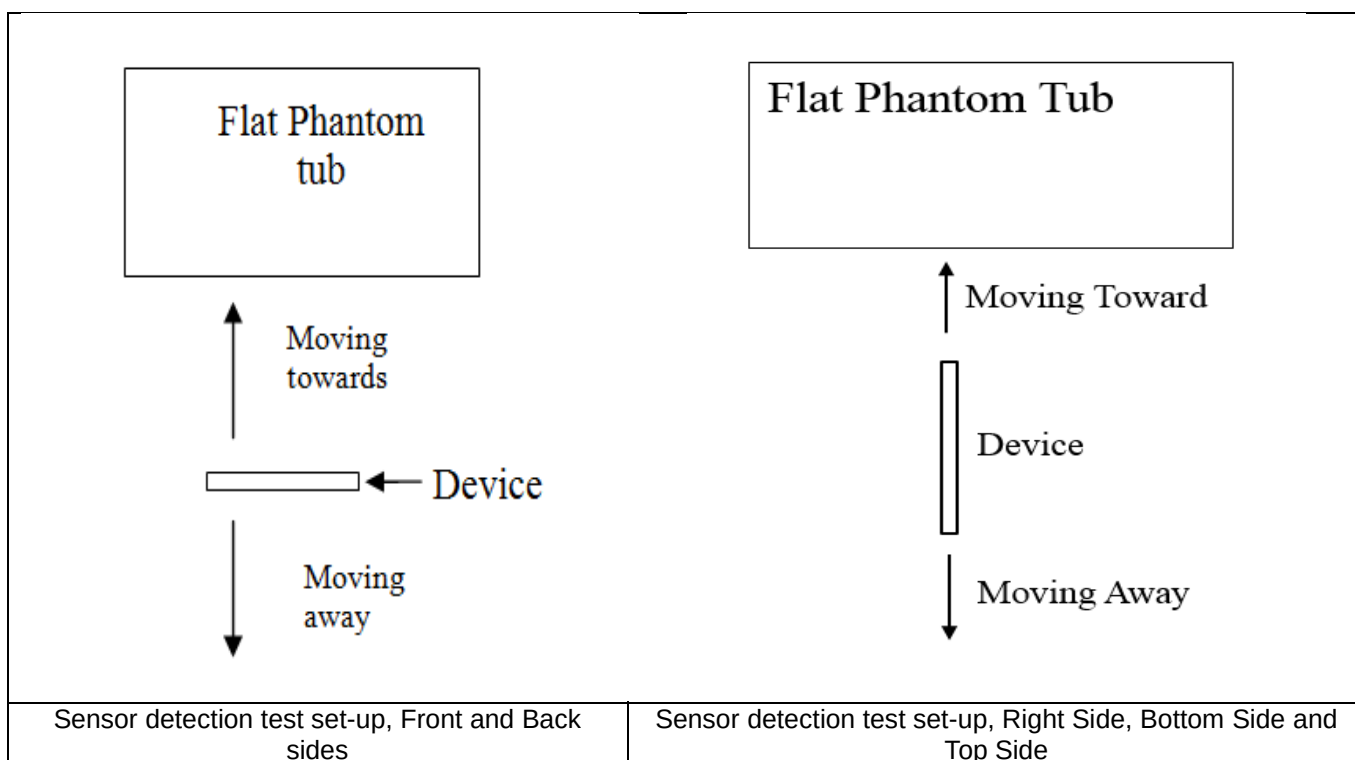
2) All P_{limit} power levels entered in the Table correspond to average power levels after accounting for duty cycle in the case TDD modulation schemes (for e.g., GSM & LTE TDD & NR TDD & WLAN/BT).

3) The max allowed output power is the P_{limit} + Total uncertainty, and if P_{limit} 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 (3980MHz) and lowest (750MHz) frequency was used for proximity sensor triggering testing.
2. Capacitive proximity sensors placed coincident with antenna elements at the top of left ends of the phone are utilized to determine when the device comes in proximity of the user's body or finger or hand at the front or back or bottom or right or top side of the device. There is no need to do sensor coverage testing for the proximity sensor is designed to support sufficient detection range and sensitivity to cover regions of the sensors in all applicable directions since the proximity sensor entirely covers the antenna.
3. The sensors can use to detect the proximity of the user's body or handheld states at the front or back or right or bottom or top side of the device use a detection threshold distance. When front/back/top/right /bottom sides of body or handheld condition is detected reduced power will be active. The trigger distance shown in the sections below.
4. For verification of compliance of power reduction scheme, additional SAR testing with EUT transmitting at full RF power at a conservative trigger distance -1mm was performed.



<Sensor for Ant 1&4&5&9&10&11>

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	16	16	16	16	16	16	16	16

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:

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

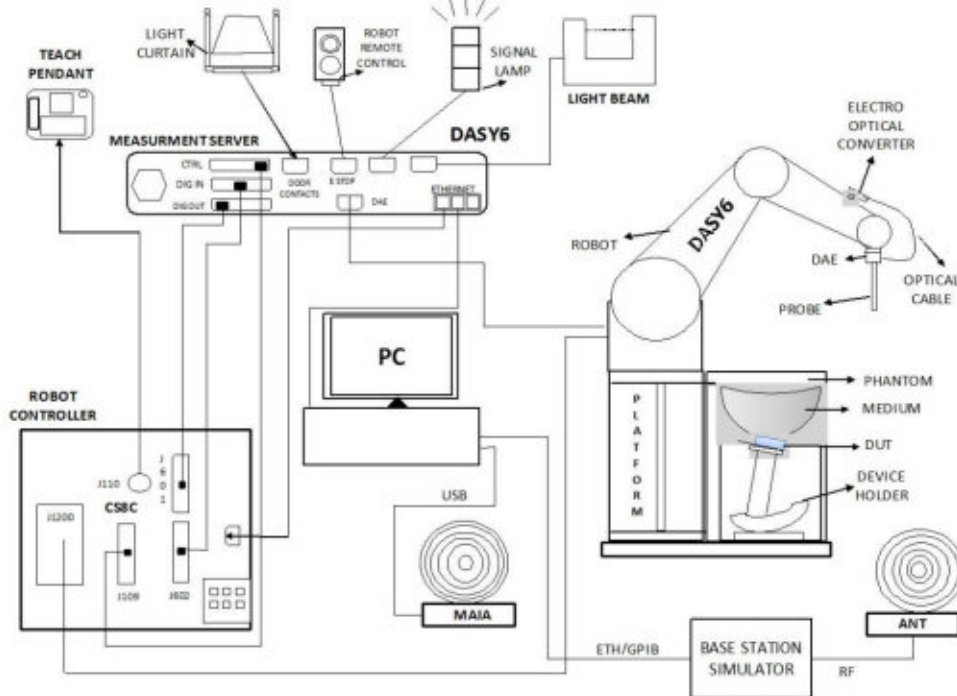
SAR is expressed in units of Watts per kilogram (W/kg)

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

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

9. System Description and Setup

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



- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic Field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running Win7 or Win10 and the DASY5 or DASY6 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

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: Δx_{Area} , Δy_{Area}	≤ 2 GHz: ≤ 15 mm $2 - 3$ GHz: ≤ 12 mm	$3 - 4$ GHz: ≤ 12 mm $4 - 6$ GHz: ≤ 10 mm
	When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be $\leq$ 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 <i>area scan based 1-g SAR estimation</i> procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.				

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. 18, 2025
SPEAG	3700MHz System Validation Kit	D3700V2	1008	Nov. 20, 2023	Nov. 18, 2025
SPEAG	3900MHz System Validation Kit	D3900V2	1048	Mar. 09, 2023	Mar. 06, 2026
SPEAG	5000MHz System Validation Kit	D5GHzV2	1113	Sep. 23, 2022	Sep. 21, 2025
SPEAG	Data Acquisition Electronics	DAE4	1691	Jun. 04, 2025	Jun. 03, 2026
SPEAG	Dosimetric E-Field Probe	EX3DV4	7774	Jul. 25, 2025	Jul. 24, 2026
SPEAG	SAM Twin Phantom	SAM Twin	TP-2022	None	None
Beichuang	Thermo-Hygrometer	HTC-1	1949250	Jan. 11, 2025	Jan. 10, 2026
SPEAG	Phone Positioner	N/A	N/A	None	None
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
SPEAG	Dielectric Probe Kit	DAK-3.5	1071	Feb. 24, 2025	Feb. 23, 2026
Anritsu	Vector Signal Generator	MG3710A	6201682672	Jan. 03, 2025	Jan. 02, 2026
BONN	POWER AMPLIFIER	BLMA 0830-3	087193A	N/A	N/A
BONN	POWER AMPLIFIER	BLMA 2060-2	087193B	None	None
Agilent	Dual Directional Coupler	778D	20500	Jul. 02, 2025	Jul. 01, 2026
Agilent	Dual Directional Coupler	11691D	MY48151020	Jul. 02, 2025	Jul. 01, 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
ARRA	Power Divider	A3200-2	N/A	None	None
MCL	Attenuation1	BW-S10W5+	N/A	None	None
R&S	BLUETOOTH TESTER	CBT	101246	Jul. 03, 2025	Jul. 02, 2026
Rohde & Schwarz	Spectrum Analyzer	FSV7	101631	Oct. 11, 2024	Oct. 10, 2025
TES	DIGITAC THERMOMETER	TYPE-K	220305411	Jan. 02, 2025	Jan. 01, 2026

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.

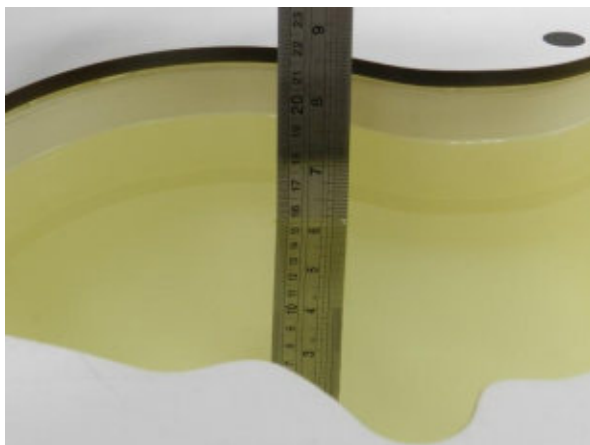


Fig 11.1 Photo of Liquid Height for Head SAR



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 (ε _r)	Conductivity Target (σ)	Permittivity Target (ε _r)	Delta (σ) (%)	Delta (ε _r) (%)	Limit (%)	Date
750	22.8	0.888	43.1	0.89	41.9	-0.22	2.86	±5.0	2025-08-26
750	22.7	0.888	43.0	0.89	41.9	-0.22	2.63	±5.0	2025-09-03
835	22.6	0.915	42.6	0.9	41.5	1.67	2.65	±5.0	2025-08-27
835	22.6	0.915	42.5	0.9	41.5	1.67	2.41	±5.0	2025-09-04
1750	22.7	1.36	40.6	1.37	40.1	-0.73	1.25	±5.0	2025-08-29
1750	22.6	1.37	40.7	1.37	40.1	0.00	1.50	±5.0	2025-09-06
1900	22.7	1.44	39.1	1.4	40.0	2.86	-2.25	±5.0	2025-08-30
1900	22.6	1.46	39.2	1.4	40.0	4.29	-2.00	±5.0	2025-09-07
2450	22.6	1.76	39.3	1.8	39.2	-2.22	0.26	±5.0	2025-09-11
2600	22.6	1.9	38.8	1.96	39.0	-3.06	-0.51	±5.0	2025-08-31
2600	22.8	1.92	38.8	1.96	39.0	-2.04	-0.51	±5.0	2025-09-08
3500	22.7	2.97	37.6	2.91	37.9	2.06	-0.79	±5.0	2025-09-01
3500	22.8	2.97	37.7	2.91	37.9	2.06	-0.53	±5.0	2025-09-09
3700	22.8	3.16	37.6	3.12	37.7	1.28	-0.27	±5.0	2025-09-01
3700	22.8	3.16	37.5	3.12	37.7	1.28	-0.53	±5.0	2025-09-10
3900	22.7	3.38	37.3	3.33	37.51	1.50	-0.56	±5.0	2025-09-02
3900	22.8	3.39	37.4	3.33	37.51	1.80	-0.29	±5.0	2025-09-10
5250	22.7	4.72	36.3	4.71	35.95	0.21	0.97	±5.0	2025-09-13
5600	22.9	5.08	35.8	5.07	35.5	0.20	0.85	±5.0	2025-09-15
5750	22.8	5.19	35.5	5.22	35.35	-0.57	0.42	±5.0	2025-09-17

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 (%)
2025-08-26	750	50.00	D750V3 - 1087	EX3DV4 - SN7774	DAE4 Sn1691	0.427	8.680	8.540	-1.61	0.285	5.610	5.700	1.60
2025-09-03	750	50.00	D750V3 - 1087	EX3DV4 - SN7774	DAE4 Sn1691	0.428	8.680	8.560	-1.38	0.286	5.610	5.720	1.96
2025-08-27	835	50.00	D835V2 - 4d298	EX3DV4 - SN7774	DAE4 Sn1691	0.520	9.890	10.400	5.16	0.344	6.450	6.880	6.67
2025-09-04	835	50.00	D835V2 - 4d298	EX3DV4 - SN7774	DAE4 Sn1691	0.526	9.890	10.520	6.37	0.347	6.450	6.940	7.60
2025-08-29	1750	50.00	D1750V2 - 1090	EX3DV4 - SN7774	DAE4 Sn1691	1.980	36.600	39.600	8.20	1.060	19.500	21.200	8.72
2025-09-06	1750	50.00	D1750V2 - 1090	EX3DV4 - SN7774	DAE4 Sn1691	1.890	36.600	37.800	3.28	1.020	19.500	20.400	4.62
2025-08-30	1900	50.00	D1900V2 - 5d170	EX3DV4 - SN7774	DAE4 Sn1691	2.030	39.100	40.600	3.84	1.070	20.600	21.400	3.88
2025-09-07	1900	50.00	D1900V2 - 5d170	EX3DV4 - SN7774	DAE4 Sn1691	2.040	39.100	40.800	4.35	1.070	20.600	21.400	3.88
2025-09-11	2450	50.00	D2450V2 - 1095	EX3DV4 - SN7774	DAE4 Sn1691	2.500	52.600	50.000	-4.94	1.170	24.700	23.400	-5.26
2025-08-31	2600	50.00	D2600V2 - 1112	EX3DV4 - SN7774	DAE4 Sn1691	2.580	55.100	51.600	-6.35	1.170	24.800	23.400	-5.65
2025-09-08	2600	50.00	D2600V2 - 1112	EX3DV4 - SN7774	DAE4 Sn1691	2.680	55.100	53.600	-2.72	1.210	24.800	24.200	-2.42
2025-09-01	3500	50.00	D3500V2 - 1037	EX3DV4 - SN7774	DAE4 Sn1691	3.550	65.400	71.000	8.56	1.340	24.700	26.800	8.50
2025-09-09	3500	50.00	D3500V2 - 1037	EX3DV4 - SN7774	DAE4 Sn1691	3.500	65.400	70.000	7.03	1.310	24.700	26.200	6.07
2025-09-01	3700	50.00	D3700V2 - 1008	EX3DV4 - SN7774	DAE4 Sn1691	3.120	67.200	62.400	-7.14	1.190	24.400	23.800	-2.46
2025-09-10	3700	50.00	D3700V2 - 1008	EX3DV4 - SN7774	DAE4 Sn1691	3.270	67.200	65.400	-2.68	1.250	24.400	25.000	2.46
2025-09-02	3900	50.00	D3900V2 - 1048	EX3DV4 - SN7774	DAE4 Sn1691	3.570	69.100	71.400	3.33	1.280	24.100	25.600	6.22
2025-09-10	3900	50.00	D3900V2 - 1048	EX3DV4 - SN7774	DAE4 Sn1691	3.660	69.100	73.200	5.93	1.310	24.100	26.200	8.71
2025-09-13	5250	50.00	D5GHzV2 - 1113	EX3DV4 - SN7774	DAE4 Sn1691	3.850	81.500	77.000	-5.52	1.110	23.300	22.200	-4.72
2025-09-15	5600	50.00	D5GHzV2 - 1113	EX3DV4 - SN7774	DAE4 Sn1691	4.000	82.600	80.000	-3.15	1.130	23.700	22.600	-4.64
2025-09-17	5750	50.00	D5GHzV2 - 1113	EX3DV4 - SN7774	DAE4 Sn1691	4.070	80.800	81.400	0.74	1.150	23.000	23.000	0.00

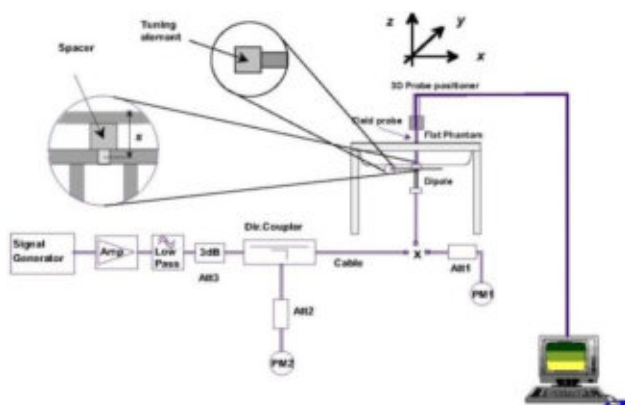


Fig 11.3.1 System Performance Check Setup



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.

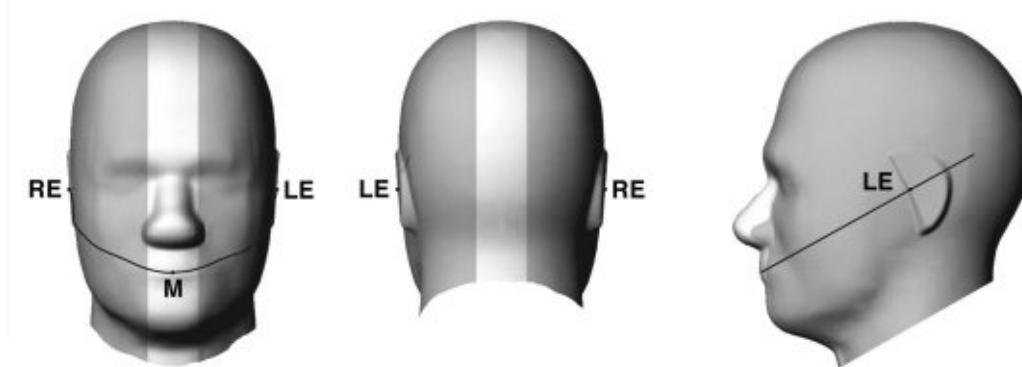


Fig 12.1.1 Front, back, and side views of SAM twin phantom

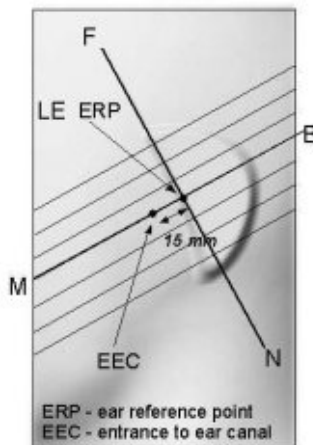


Fig 12.1.2 Close-up side view of phantom showing the ear region.

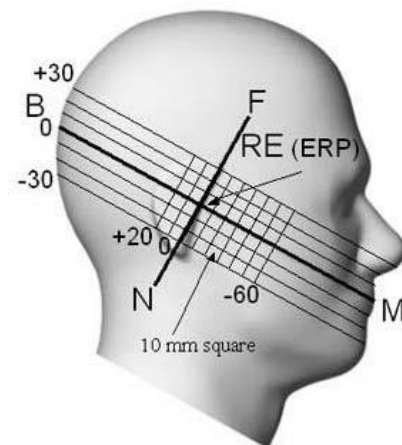


Fig 12.1.3 Side view of the phantom showing relevant markings and seven cross-sectional plane locations

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 horizontal line. Also note that the vertical centerline is not necessarily parallel to the front face of the handset (see Figure 12.2.2), especially for clamshell handsets, handsets with flip covers, and other irregularly-shaped handsets.
3. Position the handset close to the surface of the phantom such that point A is on the (virtual) extension of the line passing through points RE and LE on the phantom (see Figure 12.2.3), such that the plane defined by the vertical centerline and the horizontal line of the handset is approximately parallel to the sagittal plane of the phantom.
4. Translate the handset towards the phantom along the line passing through RE and LE until handset point A touches the pinna at the ERP.
5. While maintaining the handset in this plane, rotate it around the LE-RE line until the vertical centerline is in the plane normal to the plane containing B-M and N-F lines, i.e., the Reference Plane.
6. Rotate the handset around the vertical centerline until the handset (horizontal line) is parallel to the N-F line.
7. While maintaining the vertical centerline in the Reference Plane, keeping point A on the line passing through RE and LE, and maintaining the handset contact with the pinna, rotate the handset about the N-F line until any point on the handset is in contact with a phantom point below the pinna on the cheek. See Figure 12.2.3. The actual rotation angles should be documented in the test report.

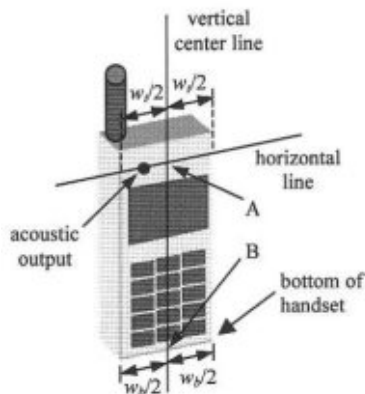


Fig 12.2.1 Handset vertical and horizontal reference lines—"fixed case"

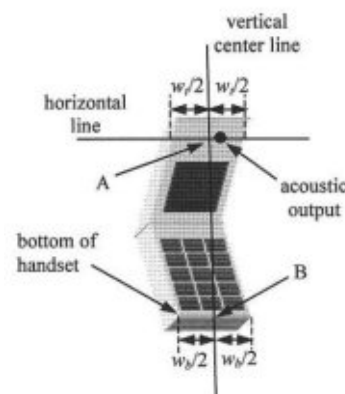


Fig 12.2.2 Handset vertical and horizontal reference lines—"clam-shell case"

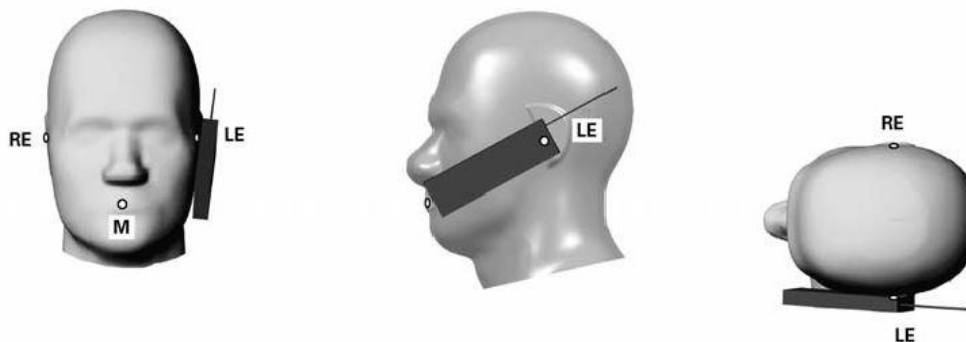


Fig 12.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

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

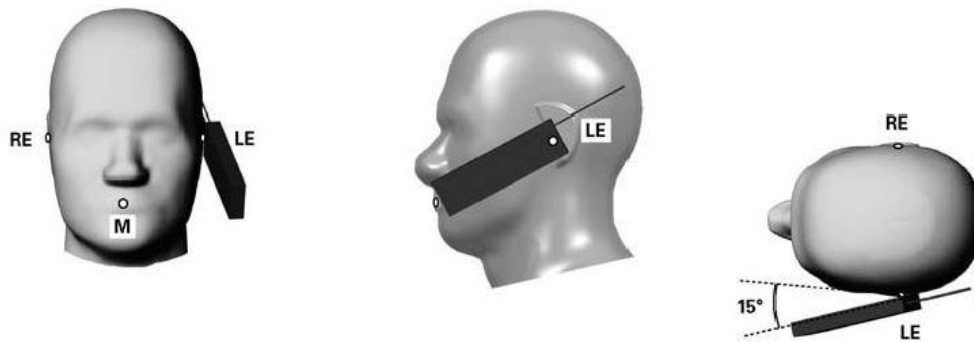


Fig 12.3.1 Tilt position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which define the Reference Plane for handset positioning, are indicated.

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 11.4). Per KDB648474 D04v01r03, body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in FCC KDB 447498 D01v06 should be used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode, when applicable. When the reported SAR for body-worn accessory, measured without a headset connected to the handset is $> 1.2 \text{ W/kg}$, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a 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.

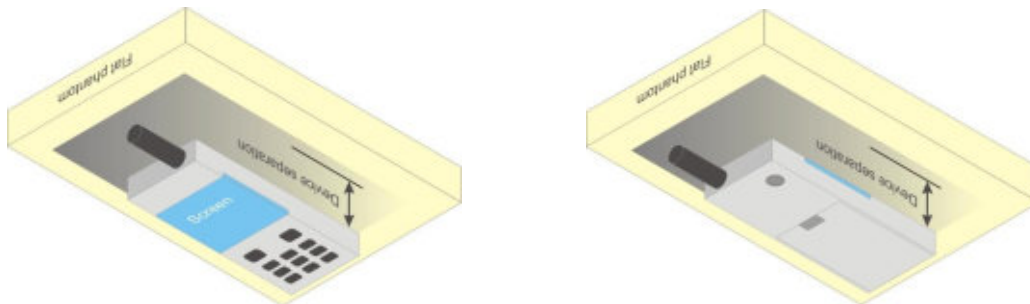


Fig 12.4 Body Worn Position

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_o/β_d	β_{HS} (Note 1, Note 2)	CM (dB) (Note 3)	MPR (dB) (Note 3)
1	2/15	15/15	64	2/15	4/15	0.0	0.0
2	12/15 (Note 4)	15/15 (Note 4)	64	12/15 (Note 4)	24/15	1.0	0.0
3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5
Note 1: 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 $\beta_o/\beta_d = 12/15$, $\beta_{HS}/\beta_c = 24/15$. For all other combinations of DPDCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases. Note 4: For subtest 2 the β_o/β_d ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 11/15$ and $\beta_d = 15/15$.							

Setup Configuration

HSUPA Setup Configuration:

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

Table C.11.1.3: β values for transmitter characteristics tests with HS-DPCCH and E-DCH

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{HS} (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 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_{DP})	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.

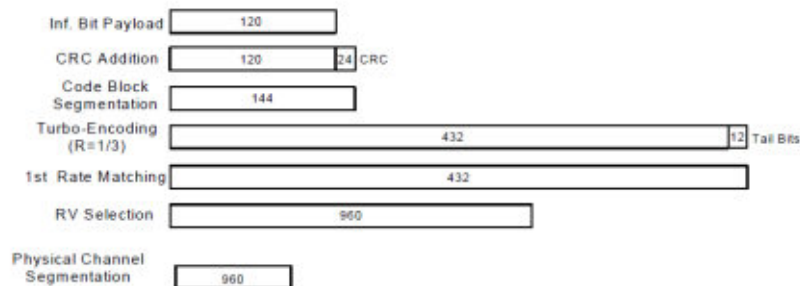


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)
Setup Configuration

<WCDMA Conducted Power>

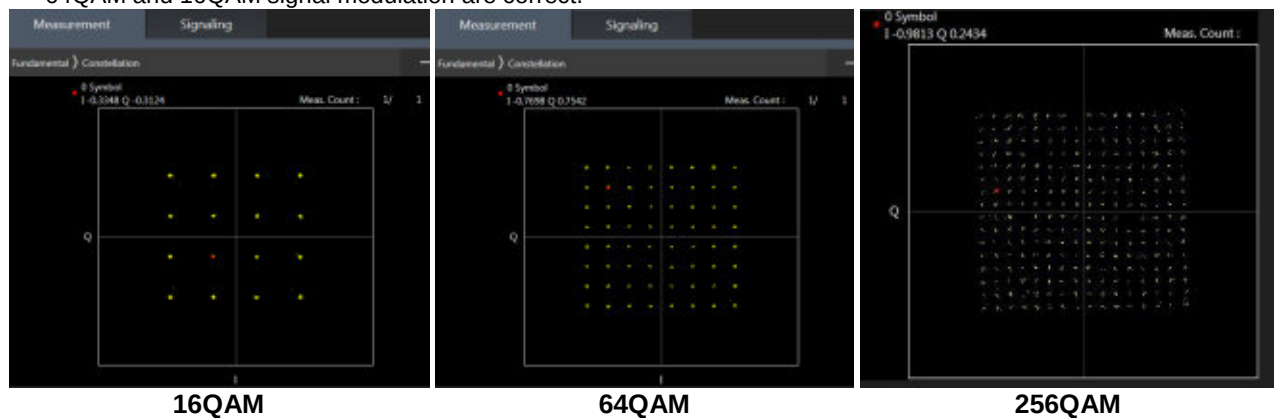
General Note:

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

<LTE Conducted Power>

General Note:

1. Anritsu MT8820C base station simulator was used to setup the connection with EUT; the frequency band, channel bandwidth, RB allocation configuration, modulation type are set in the base station simulator to configure EUT transmitting at maximum power and at different configurations which are requested to be reported to FCC, for conducted power measurement and SAR testing.
2. Per KDB 941225 D05v02r05, when a properly configured base station simulator is used for the SAR and power measurements, spectrum plots for each RB allocation and offset configuration is not required.
3. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
4. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
5. Per KDB 941225 D05v02r05, for QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
6. Per KDB 941225 D05v02r05, 16QAM/64QAM/256QAM output power for each RB allocation configuration is $>$ not $\frac{1}{2}$ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, 16QAM/64QAM/256QAM SAR testing is not required.
7. Per KDB 941225 D05v02r05, smaller bandwidth output power for each RB allocation configuration is $>$ not $\frac{1}{2}$ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
8. For LTE B4 / B5 / 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. LTEB4 / B5 / B38 SAR test was covered by 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.

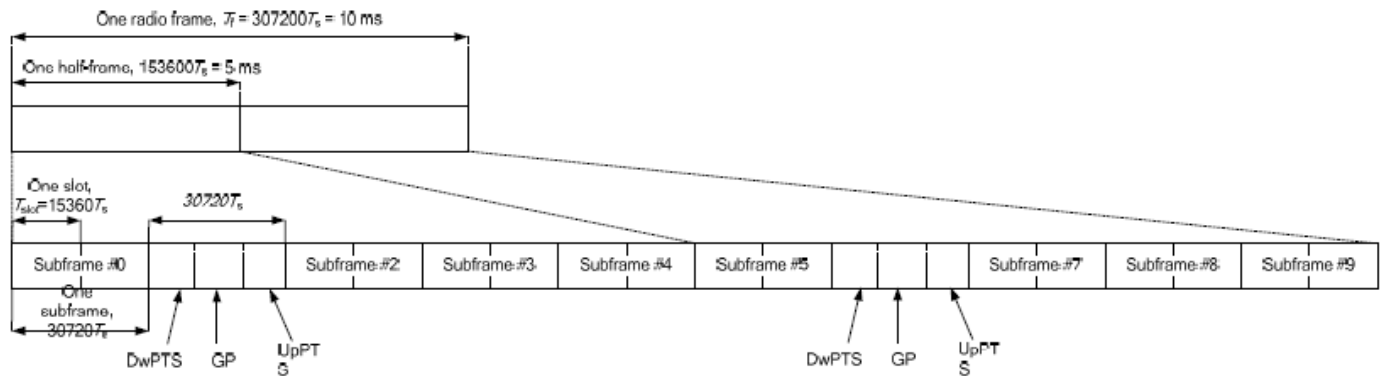


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

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:

- 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_7C	Ant4/5/6/7
CA_38C	Ant4/5/6/7

<Intra-band>
General Note:

- i. The device supports intra-band uplink carrier aggregation for LTE B7/38 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.
- ii. 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.
- iii. 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.

5G NR Output Power (Unit: dBm)

General Note:

1. 5G NR n5/n7/n66/n78 is NSA mode.
2. 5G NR n2/n5/n7/n26/n66/n71/n38/n41/n48/n77/n78 is SA mode.
3. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
 - a. For DFT-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class2 and 3, the CP-OFDM mode will not higher than DFT-OFDM mode, therefore, similar FCC KDB 941225 D05 procedure for other modulation output power for each RB allocation configuration is > not ½ dB higher than the same configuration in DFT-s QPSK and the reported SAR for the DFT-s QPSK configuration is ≤ 1.45 W/kg; CP-OFDM testing is not required.
 - b. For DFT-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class2 and 3, for 16QAM/64QAM/256QAM and smaller bandwidth output power will spot check largest channel bandwidth worst RB configuration to ensure the 16QAM/64QAM/256QAM and smaller bandwidth output power will not ½ dB higher than the same configuration in the largest supported bandwidth.
 - c. SAR testing start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel
 - d. 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure
 - e. QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested
 - f. PI/2 BPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will not ½ dB higher than the same configuration in QPSK, also reported SAR for the QPSK configuration is less than 1.45 W/kg, PI/2 BPSK /16QAM/64QAM/256QAM SAR testing are not required.
 - g. Smaller bandwidth output power for each RB allocation configuration for this device will not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device
4. For 5G NR, the simultaneous transmission analysis is used standalone SAR at total power level to show compliance.
5. 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.
6. 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.
7. 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.
8. 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.
9. For 5G NR n41/n77/n78 HPUE, 5G NR n41/n77/n78 PC2 Maximum Duty Cycle is 50%, using FTM (Factory Test Mode) with 50% duty cycle is considered during SAR testing. For 5G NR other bands, using FTM to perform SAR with default 100% transmission.
10. This device supports HPUE mode for 5G NR n41/n77/n78 with higher power. For HPUE power is higher than power class 3 but with lower duty cycle, the maximum average power for class 2 and class 3 is almost the same, so we chose power class 3 full SAR testing and power class 2 verify the worst case of power class 3 SAR.

<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	PA	NR TX	PA
DC_2A_n78A	B2:ANT4/5	Main_PA	n78:ANT8/9/10/11	Main_PA
DC_38A_n78A	B38:ANT4/5/6/7	Main_PA	n78:ANT8/9/10/11	Main_PA
DC_41A_n78A	B41:ANT4/5/6/7	Main_PA	n78:ANT8/9/10/11	Main_PA
DC_5A_n78A	B5:ANT0/1	Main_PA	n78:ANT8/9/10/11	Main_PA
DC_7A_n78A	B7:ANT4/5/6/7	Main_PA	n78:ANT8/9/10/11	Main_PA
DC_7A_n5A	B7:ANT4/5/6/7	Main_PA	n5:ANT0/1	Other_PA
DC_5A_n7A	B5:ANT0/1	Other_PA	n7:ANT4/5/6/7	Main_PA
DC_5A_n66A	B5:ANT0/1	Main_PA	n66:ANT6/7/4/5	Other_PA
DC_7A_n66A	B7:ANT4/5	Main_PA	n66:ANT6/7/4/5	Other_PA
DC_26A_n78A	B26:ANT0/1	Main_PA	n78: ANT8/9/10/11	Main_PA

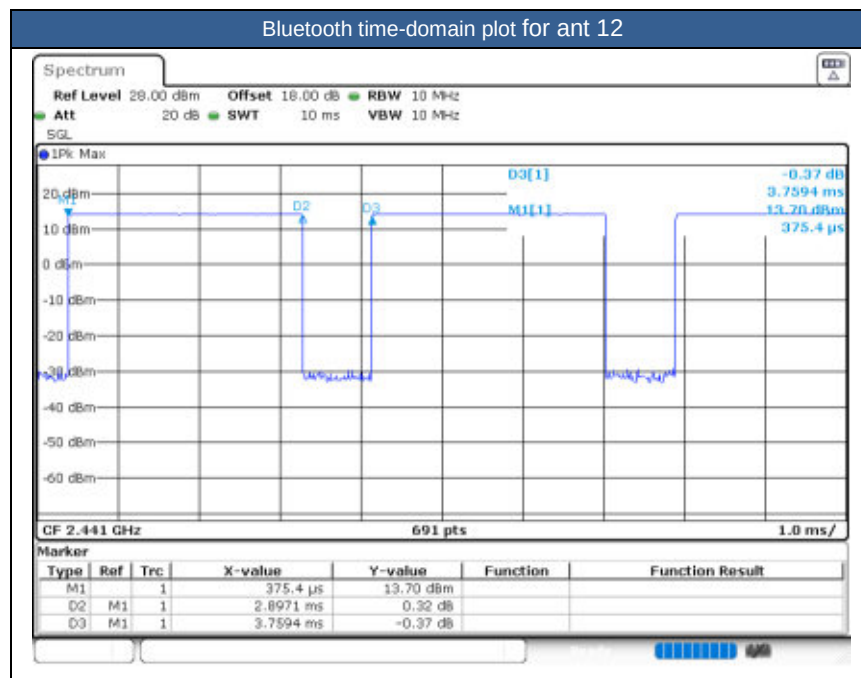
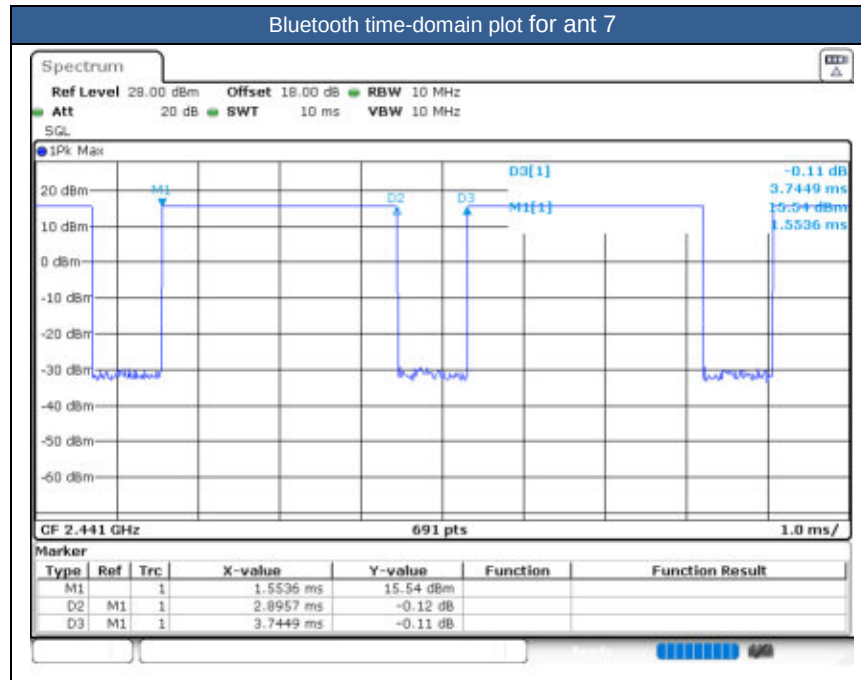
<WLAN Conducted Power>**General Note:**

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 closest/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is ≤ 0.8 W/kg or all required test position are tested.
 - c. For all positions/configurations, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.
6. 802.11 ax/be supports both full tone size mode and partial tone size mode, after verification on partial tone size mode that partial size tone mode power will not be higher than full tone size mode, therefore, full tone mode power was chosen to be measured in this report.
7. SISO and MIMO all supported by WLAN2.4GHz/WLAN5GHz, for SISO mode power is less than per chain power of MIMO mode. For WLAN SISO & MIMO mode, the whole testing has assessed only MIMO mode by referring to their higher conducted power, so only chose MIMO mode to perform SAR testing. However, in order to do SISO simultaneous transmission, we tested the WLAN 2.4G SISO antenna.
8. For the conducted power measurement is MIMO chains transmitting simultaneously and measured the separately conducted power for both chains and then based on the conducted power of two antennas respectively to calculate sum of the power for MIMO mode.

<2.4GHz Bluetooth>

General Note:

1. For 2.4GHz Bluetooth SAR testing was selected 1Mbps, due to its highest average power.
2. The Bluetooth duty cycle are 77.32% for ant 7 and 77.06% for ant 12 as following figure, Bluetooth SAR scaling need further consideration and the theoretical duty cycle is 83.3%, therefore the actual duty cycle will be scaled up to the theoretical value of Bluetooth reported SAR calculation.





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 BT/WLAN: Reported SAR(W/kg)= Measured SAR(W/kg)* Duty Cycle scaling factor * Tune-up scaling factor
 - f. For TDD LTE SAR measurement of power class 3, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix 63.3%/62.9% = 1.006 is applied to scale-up the measured SAR result. The reported TDD LTE SAR (W/kg) = Measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.
2. Per KDB 447498 D01v06, for each exposure position, testing of other required channels within the operating mode of a frequency band is not required when the *reported* 1-g or 10-g SAR for the mid-band or highest output power channel is:
 - ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
 - ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
 - ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz
3. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required when the measured SAR is ≥ 0.8 W/kg. Per KDB 865664 D01v01r04, if the extremity repeated SAR is necessary, the same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.
4. Per KDB 648474 D04v01r03, when the reported SAR for a body-worn accessory measured without a headset connected to the handset is ≤ 1.2 W/kg, SAR testing with a headset connected to the handset is not required.
5. The device implements proximity sensor/receiver detection/hotspot mode for SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity) and the Qualcomm smart transmit will manage to ensure the power level not exceeding the associated power table. Details about the sensor detection are provided in the operational description. And the device will invoke corresponding work scenarios power level base on frequency bands/antennas, which can refer to power table at appendix E.
6. 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 (for handheld on state, the maximum full power means reduced power), including tolerance, allowed for phablet modes to compare with the 1.2 W/kg SAR test reduction threshold.
 - a. WLAN 5.3/5.5GHz tested the product specific 10g SAR since it has no hotspot mode.
 - b. 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.
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. Based on Qualcomm Smart Transmit algorithm, the BT MIMO antennas located in same AGs and the MIMO Plimit is not populated in the EFS file, so additional verification tests need to be added, the more detail UL MIMO analysis results please referred to appendix H.
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.
11. 5GNR n66 at ant4/5/6/7, LTE B5 and 5GNR n5 at ant0/1 support different PAs for same antennas. And some LTE/NR bands support Other PA 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 other PA, 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.

12. For determination of the scaling factor for report SAR of MIMO mode, if the hot spots are separated the scaling factors are individually determined from each transmit chain. Further simplification chose the worse SAR value and the worst scaling factor from each transmit chain perform reported SAR calculation conservatively. If the hot spots are not spatially separated, the scaling factor is determined from the worst number of each transmit chain.

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 is $\leq \frac{1}{4}$ dB higher than RMC 12.2Kbps or when the highest reported SAR of the RMC12.2Kbps is scaled by the ratio of specified maximum output power and tune-up tolerance of HSDPA / HSUPA / DC-HSDPA to RMC12.2Kbps and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA, and according to the following RF output power, the output power results of the secondary modes (HSDPA / HSUPA / DC-HSDPA) are less than $\frac{1}{4}$ dB higher than the primary modes; therefore, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA.

LTE 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 / 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 B4 / B5 / B38 SAR test was covered by 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

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/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.

DSI status description:

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

This WWAN/WLAN/BT bands enabled with Qualcomm Smart Transmit 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	DSI	Trigger conditions
Head SAR	DSI 1	Earpiece On
Hotspot SAR	DSI 5	Hotspot On
Body worn SAR	DSI 3	Sensor On
Body worn SAR (Sensor Trigger Distance -1mm)	DSI 4	Sensor Off/ receiver off
Extremity SAR	DSI 3	Sensor On
Extremity SAR (Sensor Trigger Distance -1mm)	DSI 4	Sensor Off/ receiver off



16.1 Head SAR

【GSM SAR】

Plot No	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	GSM850	GPRS 4 Tx slots	Right Cheek	0mm	Ant0	DS11	189	836.4	26.73	28.00	1.34	-0.01	0.209	0.280
	GSM850	GPRS 4 Tx slots	Right Tilted	0mm	Ant0	DS11	189	836.4	26.73	28.00	1.34	-0.12	0.117	0.157
	GSM850	GPRS 4 Tx slots	Left Cheek	0mm	Ant0	DS11	189	836.4	26.73	28.00	1.34	0.03	0.167	0.224
	GSM850	GPRS 4 Tx slots	Left Tilted	0mm	Ant0	DS11	189	836.4	26.73	28.00	1.34	-0.01	0.089	0.119
	GSM850	GPRS 4 Tx slots	Right Cheek	0mm	Ant1	DS11	189	836.4	22.62	24.00	1.374	0.12	0.243	0.334
	GSM850	GPRS 4 Tx slots	Right Tilted	0mm	Ant1	DS11	189	836.4	22.62	24.00	1.374	0.10	0.047	0.065
01	GSM850	GPRS 4 Tx slots	Left Cheek	0mm	Ant1	DS11	189	836.4	22.62	24.00	1.374	0.02	0.443	0.609
	GSM850	GPRS 4 Tx slots	Left Tilted	0mm	Ant1	DS11	189	836.4	22.62	24.00	1.374	-0.12	0.063	0.087
02	GSM1900	GPRS 4 Tx slots	Right Cheek	0mm	Ant4	DS11	661	1880	21.78	23.00	1.324	0.03	0.822	1.088
	GSM1900	GPRS 4 Tx slots	Right Cheek	0mm	Ant4	DS11	512	1850.2	21.69	23.00	1.352	0.15	0.797	1.078
	GSM1900	GPRS 4 Tx slots	Right Cheek	0mm	Ant4	DS11	810	1909.8	21.72	23.00	1.343	0.11	0.777	1.044
	GSM1900	GPRS 4 Tx slots	Right Tilted	0mm	Ant4	DS11	661	1880	21.78	23.00	1.324	-0.08	0.270	0.357
	GSM1900	GPRS 4 Tx slots	Left Cheek	0mm	Ant4	DS11	661	1880	21.78	23.00	1.324	0.12	0.262	0.347
	GSM1900	GPRS 4 Tx slots	Left Tilted	0mm	Ant4	DS11	661	1880	21.78	23.00	1.324	-0.03	0.160	0.212
	GSM1900	GPRS 4 Tx slots	Right Cheek	0mm	Ant6	DS11	661	1880	24.18	25.00	1.208	0.04	0.046	0.056
	GSM1900	GPRS 4 Tx slots	Right Tilted	0mm	Ant6	DS11	661	1880	24.18	25.00	1.208	-0.08	0.001	0.001
	GSM1900	GPRS 4 Tx slots	Left Cheek	0mm	Ant6	DS11	661	1880	24.18	25.00	1.208	-0.04	0.048	0.058
	GSM1900	GPRS 4 Tx slots	Left Tilted	0mm	Ant6	DS11	661	1880	24.18	25.00	1.208	-0.10	0.001	0.001

【WCDMA SAR】

Plot No	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
03	WCDMA II	RMC 12.2Kbps	Right Cheek	0mm	Ant4	DS11	9400	1880	17.86	18.50	1.159	-0.05	0.622	0.721
	WCDMA II	RMC 12.2Kbps	Right Tilted	0mm	Ant4	DS11	9400	1880	17.86	18.50	1.159	0.11	0.212	0.246
	WCDMA II	RMC 12.2Kbps	Left Cheek	0mm	Ant4	DS11	9400	1880	17.86	18.50	1.159	-0.15	0.203	0.235
	WCDMA II	RMC 12.2Kbps	Left Tilted	0mm	Ant4	DS11	9400	1880	17.86	18.50	1.159	-0.01	0.137	0.159
	WCDMA II	RMC 12.2Kbps	Right Cheek	0mm	Ant6	DS11	9400	1880	24.28	25.00	1.18	0.18	0.135	0.159
	WCDMA II	RMC 12.2Kbps	Right Tilted	0mm	Ant6	DS11	9400	1880	24.28	25.00	1.18	-0.05	0.100	0.118
	WCDMA II	RMC 12.2Kbps	Left Cheek	0mm	Ant6	DS11	9400	1880	24.28	25.00	1.18	-0.07	0.145	0.171
	WCDMA II	RMC 12.2Kbps	Left Tilted	0mm	Ant6	DS11	9400	1880	24.28	25.00	1.18	-0.04	0.072	0.085
	WCDMA IV	RMC 12.2Kbps	Right Cheek	0mm	Ant4	DS11	1413	1732.6	17.18	18.00	1.208	0.06	0.737	0.890
	WCDMA IV	RMC 12.2Kbps	Right Cheek	0mm	Ant4	DS11	1312	1712.4	17.16	18.00	1.213	-0.05	0.717	0.870
	WCDMA IV	RMC 12.2Kbps	Right Cheek	0mm	Ant4	DS11	1513	1752.6	17.06	18.00	1.242	0.10	0.715	0.888
	WCDMA IV	RMC 12.2Kbps	Right Tilted	0mm	Ant4	DS11	1413	1732.6	17.18	18.00	1.208	-0.01	0.275	0.332
	WCDMA IV	RMC 12.2Kbps	Left Cheek	0mm	Ant4	DS11	1413	1732.6	17.18	18.00	1.208	-0.13	0.272	0.329
	WCDMA IV	RMC 12.2Kbps	Left Tilted	0mm	Ant4	DS11	1413	1732.6	17.18	18.00	1.208	0.12	0.167	0.202
	WCDMA IV	RMC 12.2Kbps	Right Cheek	0mm	Ant5	DS11	1413	1732.6	15.65	16.50	1.216	-0.18	0.729	0.886
	WCDMA IV	RMC 12.2Kbps	Right Cheek	0mm	Ant5	DS11	1312	1712.4	15.61	16.50	1.227	-0.04	0.673	0.826
	WCDMA IV	RMC 12.2Kbps	Right Cheek	0mm	Ant5	DS11	1513	1752.6	15.64	16.50	1.219	0.06	0.734	0.895
	WCDMA IV	RMC 12.2Kbps	Right Tilted	0mm	Ant5	DS11	1413	1732.6	15.65	16.50	1.216	0.15	0.752	0.914
	WCDMA IV	RMC 12.2Kbps	Right Tilted	0mm	Ant5	DS11	1312	1712.4	15.61	16.50	1.227	-0.06	0.719	0.882
04	WCDMA IV	RMC 12.2Kbps	Right Tilted	0mm	Ant5	DS11	1513	1752.6	15.64	16.50	1.219	0.14	0.763	0.930
	WCDMA IV	RMC 12.2Kbps	Left Cheek	0mm	Ant5	DS11	1413	1732.6	15.65	16.50	1.216	0.04	0.524	0.637
	WCDMA IV	RMC 12.2Kbps	Left Tilted	0mm	Ant5	DS11	1413	1732.6	15.65	16.50	1.216	-0.06	0.594	0.722
	WCDMA IV	RMC 12.2Kbps	Right Cheek	0mm	Ant6	DS11	1413	1732.6	23.52	24.50	1.253	0.11	0.112	0.140
	WCDMA IV	RMC 12.2Kbps	Right Tilted	0mm	Ant6	DS11	1413	1732.6	23.52	24.50	1.253	0.06	0.082	0.103
	WCDMA IV	RMC 12.2Kbps	Left Cheek	0mm	Ant6	DS11	1413	1732.6	23.52	24.50	1.253	-0.07	0.135	0.169
	WCDMA IV	RMC 12.2Kbps	Left Tilted	0mm	Ant6	DS11	1413	1732.6	23.52	24.50	1.253	-0.13	0.077	0.096
	WCDMA IV	RMC 12.2Kbps	Right Cheek	0mm	Ant7	DS11	1413	1732.6	17.36	18.50	1.3	-0.17	0.512	0.666
	WCDMA IV	RMC 12.2Kbps	Right Tilted	0mm	Ant7	DS11	1413	1732.6	17.36	18.50	1.3	-0.13	0.067	0.087
	WCDMA IV	RMC 12.2Kbps	Left Cheek	0mm	Ant7	DS11	1413	1732.6	17.36	18.50	1.3	0.04	0.606	0.788
	WCDMA IV	RMC 12.2Kbps	Left Tilted	0mm	Ant7	DS11	1413	1732.6	17.36	18.50	1.3	0.19	0.096	0.125
	WCDMA V	RMC 12.2Kbps	Right Cheek	0mm	Ant0	DS11	4182	836.4	24.17	25.00	1.211	-0.17	0.252	0.305
	WCDMA V	RMC 12.2Kbps	Right Tilted	0mm	Ant0	DS11	4182	836.4	24.17	25.00	1.211	0.17	0.159	0.193
	WCDMA V	RMC 12.2Kbps	Left Cheek	0mm	Ant0	DS11	4182	836.4	24.17	25.00	1.211	-0.04	0.278	0.337
	WCDMA V	RMC 12.2Kbps	Left Tilted	0mm	Ant0	DS11	4182	836.4	24.17	25.00	1.211	0.02	0.121	0.147
	WCDMA V	RMC 12.2Kbps	Right Cheek	0mm	Ant1	DS11	4182	836.4	18.63	20.00	1.371	-0.03	0.289	0.396
	WCDMA V	RMC 12.2Kbps	Right Tilted	0mm	Ant1	DS11	4182	836.4	18.63	20.00	1.371	-0.00	0.058	0.080
05	WCDMA V	RMC 12.2Kbps	Left Cheek	0mm	Ant1	DS11	4182	836.4	18.63	20.00	1.371	-0.16	0.535	0.733
	WCDMA V	RMC 12.2Kbps	Left Tilted	0mm	Ant1	DS11	4182	836.4	18.63	20.00	1.371	0.01	0.076	0.104



[LTE SAR]

Plot No	Band	BW	Modulation	RB Size	RB Offset	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)
06	LTE Band 2	20M	QPSK	1	0	Right Cheek	0mm	Ant4	DSI1	18900	1880	17.45	18.50	1.274			-0.15	0.589	0.750
	LTE Band 2	20M	QPSK	50	0	Right Cheek	0mm	Ant4	DSI1	18900	1880	17.43	18.50	1.279			-0.07	0.603	0.771
	LTE Band 2	20M	QPSK	1	0	Right Tilted	0mm	Ant4	DSI1	18900	1880	17.45	18.50	1.274			0.19	0.203	0.259
	LTE Band 2	20M	QPSK	50	0	Right Tilted	0mm	Ant4	DSI1	18900	1880	17.43	18.50	1.279			-0.14	0.208	0.266
	LTE Band 2	20M	QPSK	1	0	Left Cheek	0mm	Ant4	DSI1	18900	1880	17.45	18.50	1.274			0.12	0.191	0.243
	LTE Band 2	20M	QPSK	50	0	Left Cheek	0mm	Ant4	DSI1	18900	1880	17.43	18.50	1.279			-0.12	0.198	0.253
	LTE Band 2	20M	QPSK	1	0	Left Tilted	0mm	Ant4	DSI1	18900	1880	17.45	18.50	1.274			-0.04	0.129	0.164
	LTE Band 2	20M	QPSK	50	0	Left Tilted	0mm	Ant4	DSI1	18900	1880	17.43	18.50	1.279			-0.07	0.134	0.171
	LTE Band 2	20M	QPSK	1	0	Right Cheek	0mm	Ant5	DSI1	18900	1880	19.39	20.00	1.151			0.15	0.569	0.655
	LTE Band 2	20M	QPSK	50	0	Right Cheek	0mm	Ant5	DSI1	18900	1880	19.33	20.00	1.167			-0.11	0.556	0.649
	LTE Band 2	20M	QPSK	1	0	Right Tilted	0mm	Ant5	DSI1	18900	1880	19.39	20.00	1.151			0.04	0.619	0.712
	LTE Band 2	20M	QPSK	50	0	Right Tilted	0mm	Ant5	DSI1	18900	1880	19.33	20.00	1.167			-0.01	0.609	0.711
	LTE Band 2	20M	QPSK	1	0	Left Cheek	0mm	Ant5	DSI1	18900	1880	19.39	20.00	1.151			0.15	0.373	0.429
	LTE Band 2	20M	QPSK	50	0	Left Cheek	0mm	Ant5	DSI1	18900	1880	19.33	20.00	1.167			-0.18	0.358	0.418
	LTE Band 2	20M	QPSK	1	0	Left Tilted	0mm	Ant5	DSI1	18900	1880	19.39	20.00	1.151			-0.17	0.446	0.513
	LTE Band 2	20M	QPSK	50	0	Left Tilted	0mm	Ant5	DSI1	18900	1880	19.33	20.00	1.167			0.06	0.428	0.499
	LTE Band 2	20M	QPSK	1	0	Right Cheek	0mm	Ant6	DSI1	18900	1880	24.10	25.00	1.23			0.01	0.137	0.169
	LTE Band 2	20M	QPSK	50	0	Right Cheek	0mm	Ant6	DSI1	18900	1880	23.08	24.00	1.236			0.09	0.109	0.135
	LTE Band 2	20M	QPSK	1	0	Right Tilted	0mm	Ant6	DSI1	18900	1880	24.10	25.00	1.23			-0.08	0.079	0.097
	LTE Band 2	20M	QPSK	50	0	Right Tilted	0mm	Ant6	DSI1	18900	1880	23.08	24.00	1.236			0.11	0.064	0.079
	LTE Band 2	20M	QPSK	1	0	Left Cheek	0mm	Ant6	DSI1	18900	1880	24.10	25.00	1.23			0.16	0.135	0.166
	LTE Band 2	20M	QPSK	50	0	Left Cheek	0mm	Ant6	DSI1	18900	1880	23.08	24.00	1.236			0.11	0.111	0.137
	LTE Band 2	20M	QPSK	1	0	Left Tilted	0mm	Ant6	DSI1	18900	1880	24.10	25.00	1.23			0.13	0.066	0.081
	LTE Band 2	20M	QPSK	50	0	Left Tilted	0mm	Ant6	DSI1	18900	1880	23.08	24.00	1.236			-0.08	0.054	0.067
	LTE Band 5 Other PA	10M	QPSK	1	0	Right Cheek	0mm	Ant1	DSI 1	20525	836.5	18.85	20.00	1.303			-0.04	0.327	0.426
	LTE Band 5 Other PA	10M	QPSK	25	0	Right Cheek	0mm	Ant1	DSI 1	20525	836.5	18.83	20.00	1.309			-0.10	0.332	0.435
	LTE Band 5 Other PA	10M	QPSK	1	0	Right Tilted	0mm	Ant1	DSI 1	20525	836.5	18.85	20.00	1.303			-0.18	0.061	0.079
	LTE Band 5 Other PA	10M	QPSK	25	0	Right Tilted	0mm	Ant1	DSI 1	20525	836.5	18.83	20.00	1.309			-0.06	0.067	0.088
	LTE Band 5 Other PA	10M	QPSK	1	0	Left Cheek	0mm	Ant1	DSI 1	20525	836.5	18.85	20.00	1.303			0.00	0.604	0.787
	LTE Band 5 Other PA	10M	QPSK	25	0	Left Cheek	0mm	Ant1	DSI 1	20525	836.5	18.83	20.00	1.309			-0.10	0.599	0.784
	LTE Band 5 Other PA	10M	QPSK	1	0	Left Tilted	0mm	Ant1	DSI 1	20525	836.5	18.85	20.00	1.303			-0.09	0.086	0.112
	LTE Band 5 Other PA	10M	QPSK	25	0	Left Tilted	0mm	Ant1	DSI 1	20525	836.5	18.83	20.00	1.309			-0.07	0.087	0.114
	LTE Band 7	20M	QPSK	1	0	Right Cheek	0mm	Ant4	DSI1	21100	2535	16.82	17.20	1.091			-0.14	0.643	0.702
	LTE Band 7	20M	QPSK	50	0	Right Cheek	0mm	Ant4	DSI1	21100	2535	16.78	17.20	1.102			-0.07	0.633	0.698
	LTE Band 7	20M	QPSK	1	0	Right Tilted	0mm	Ant4	DSI1	21100	2535	16.82	17.20	1.091			0.14	0.265	0.289
	LTE Band 7	20M	QPSK	50	0	Right Tilted	0mm	Ant4	DSI1	21100	2535	16.78	17.20	1.102			-0.10	0.270	0.298
	LTE Band 7	20M	QPSK	1	0	Left Cheek	0mm	Ant4	DSI1	21100	2535	16.82	17.20	1.091			0.05	0.261	0.285
	LTE Band 7	20M	QPSK	50	0	Left Cheek	0mm	Ant4	DSI1	21100	2535	16.78	17.20	1.102			0.15	0.270	0.298
	LTE Band 7	20M	QPSK	1	0	Left Tilted	0mm	Ant4	DSI1	21100	2535	16.82	17.20	1.091			0.01	0.134	0.146
	LTE Band 7	20M	QPSK	50	0	Left Tilted	0mm	Ant4	DSI1	21100	2535	16.78	17.20	1.102			-0.10	0.137	0.151
	LTE Band 7	20M	QPSK	1	0	Right Cheek	0mm	Ant5	DSI1	21100	2535	16.14	17.00	1.219			-0.19	0.544	0.663
	LTE Band 7	20M	QPSK	50	0	Right Cheek	0mm	Ant5	DSI1	21100	2535	16.07	17.00	1.239			-0.14	0.552	0.684
	LTE Band 7	20M	QPSK	1	0	Right Tilted	0mm	Ant5	DSI1	21100	2535	16.14	17.00	1.219			0.01	0.724	0.883
	LTE Band 7	20M	QPSK	1	0	Right Tilted	0mm	Ant5	DSI1	20850	2510	16.07	17.00	1.239			-0.15	0.684	0.847
	LTE Band 7	20M	QPSK	1	0	Right Tilted	0mm	Ant5	DSI1	21350	2560	16.07	17.00	1.239			-0.01	0.694	0.860
	LTE Band 7	20M	QPSK	50	0	Right Tilted	0mm	Ant5	DSI1	21100	2535	16.07	17.00	1.239			-0.11	0.711	0.881
	LTE Band 7	20M	QPSK	50	0	Right Tilted	0mm	Ant5	DSI1	20850	2510	16.04	17.00	1.247			0.12	0.706	0.880
	LTE Band 7	20M	QPSK	50	0	Right Tilted	0mm	Ant5	DSI1	21350	2560	16.03	17.00	1.25			-0.07	0.700	0.875
	LTE Band 7	20M	QPSK	100	0	Right Tilted	0mm	Ant5	DSI1	21100	2535	16.03	17.00	1.25			-0.18	0.701	0.876
	LTE Band 7	20M	QPSK	1	0	Left Cheek	0mm	Ant5	DSI1	21100	2535	16.14	17.00	1.219			0.02	0.361	0.440
	LTE Band 7	20M	QPSK	50	0	Left Cheek	0mm	Ant5	DSI1	21100	2535	16.07	17.00	1.239			-0.13	0.369	0.457
	LTE Band 7	20M	QPSK	1	0	Left Tilted	0mm	Ant5	DSI1	21100	2535	16.14	17.00	1.219			0.11	0.468	0.570
	LTE Band 7	20M	QPSK	50	0	Left Tilted	0mm	Ant5	DSI1	21100	2535	16.07	17.00	1.239			-0.07	0.473	0.586
	LTE Band 7	20M	QPSK	1	0	Right Cheek	0mm	Ant6	DSI1	21100	2535	24.73	25.50	1.194			0.00	0.158	0.189
	LTE Band 7	20M	QPSK	50	0	Right Cheek	0mm	Ant6	DSI1	21100	2535	23.71	24.50	1.199			-0.11	0.133	0.159
	LTE Band 7	20M	QPSK	1	0	Right Tilted	0mm	Ant6	DSI1	21100	2535	24.73	25.50	1.194			-0.04	0.048	0.057
	LTE Band 7	20M	QPSK	50	0	Right Tilted	0mm	Ant6	DSI1	21100	2535	23.71	24.50	1.199			-0.05	0.001	0.001
	LTE Band 7	20M	QPSK	1	0	Left Cheek	0mm	Ant6	DSI1	21100	2535	24.73	25.50	1.194			-0.07	0.268	0.320
	LTE Band 7	20M	QPSK	50	0	Left Cheek	0mm	Ant6	DSI1	21100	2535	23.71	24.50	1.199			0.01	0.220	0.264
	LTE Band 7	20M	QPSK	1	0	Left Tilted	0mm	Ant6	DSI1	21100	2535	24.73	25.50	1.194			-0.12	0.050	0.060
	LTE Band 7	20M	QPSK	50	0	Left Tilted	0mm	Ant6	DSI1	21100	2535	23.71	24.50	1.199			0.17	0.040	0.048
	LTE Band 7	20M	QPSK	1	0	Right Cheek	0mm	Ant7	DSI1	21100	2535	16.39	17.50	1.291			-0.03	0.426	0.550
	LTE Band 7	20M	QPSK	50	0	Right Cheek	0mm	Ant7	DSI1	21100	2535	16.35	17.50	1.303			0.11	0.430	0.560
	LTE Band 7	20M	QPSK	1	0	Right Tilted	0mm	Ant7	DSI1	21100	2535	16.39	17.50	1.291			-0.13	0.101	0.130
	LTE Band 7	20M	QPSK	50	0	Right Tilted	0mm	Ant7	DSI1	21100	2535	16.35	17.50	1.303			0.04	0.101	0.132
	LTE Band 7	20M	QPSK	1	0	Left Cheek	0mm	Ant7	DSI1	21100	2535	16.39	17.50	1.291			-0.04	0.639	0.825
	LTE Band 7	20M	QPSK	1	0	Left Cheek	0mm	Ant7	DSI1	21100	2535	16.39	17.50	1.291			-0.04	0.639	0.825



FCC SAR Test Report

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	LTE Band 7	20M	QPSK	1	0	Left Cheek	Omm	Ant7	DS11	20850	2510	16.32	17.50	1.312			0.05	0.621	0.815
	LTE Band 7	20M	QPSK	1	0	Left Cheek	Omm	Ant7	DS11	21350	2560	16.35	17.50	1.303			-0.18	0.627	0.817
	LTE Band 7	20M	QPSK	50	0	Left Cheek	Omm	Ant7	DS11	21100	2535	16.35	17.50	1.303			0.03	0.620	0.808
	LTE Band 7	20M	QPSK	50	0	Left Cheek	Omm	Ant7	DS11	20850	2510	16.25	17.50	1.334			0.05	0.602	0.803
	LTE Band 7	20M	QPSK	50	0	Left Cheek	Omm	Ant7	DS11	21350	2560	16.27	17.50	1.327			-0.18	0.608	0.807
	LTE Band 7	20M	QPSK	100	0	Left Cheek	Omm	Ant7	DS11	21100	2535	16.30	17.50	1.318			0.08	0.597	0.787
	LTE Band 7	20M	QPSK	1	0	Left Tilted	Omm	Ant7	DS11	21100	2535	16.39	17.50	1.291			0.04	0.242	0.312
	LTE Band 7	20M	QPSK	50	0	Left Tilted	Omm	Ant7	DS11	21100	2535	16.35	17.50	1.303			-0.14	0.239	0.311
	LTE Band 26	15M	QPSK	1	0	Right Cheek	Omm	Ant0	DS11	26865	831.5	25.05	25.70	1.161			0.06	0.298	0.346
	LTE Band 26	15M	QPSK	36	0	Right Cheek	Omm	Ant0	DS11	26865	831.5	24.03	24.70	1.167			-0.07	0.235	0.274
	LTE Band 26	15M	QPSK	1	0	Right Tilted	Omm	Ant0	DS11	26865	831.5	25.05	25.70	1.161			0.12	0.177	0.205
	LTE Band 26	15M	QPSK	36	0	Right Tilted	Omm	Ant0	DS11	26865	831.5	24.03	24.70	1.167			0.11	0.140	0.163
	LTE Band 26	15M	QPSK	1	0	Left Cheek	Omm	Ant0	DS11	26865	831.5	25.05	25.70	1.161			-0.02	0.308	0.358
	LTE Band 26	15M	QPSK	36	0	Left Cheek	Omm	Ant0	DS11	26865	831.5	24.03	24.70	1.167			-0.19	0.245	0.286
	LTE Band 26	15M	QPSK	1	0	Left Tilted	Omm	Ant0	DS11	26865	831.5	25.05	25.70	1.161			0.09	0.136	0.158
	LTE Band 26	15M	QPSK	36	0	Left Tilted	Omm	Ant0	DS11	26865	831.5	24.03	24.70	1.167			0.16	0.110	0.128
	LTE Band 5	10M	QPSK	1	0	Left Cheek	Omm	Ant0	DS11	20525	836.5	24.18	25.00	1.208			0.02	0.244	0.295
	LTE Band 26	15M	QPSK	1	0	Right Cheek	Omm	Ant1	DS11	26865	831.5	18.71	19.70	1.256			-0.17	0.246	0.309
	LTE Band 26	15M	QPSK	36	0	Right Cheek	Omm	Ant1	DS11	26865	831.5	18.69	19.70	1.262			0.05	0.250	0.316
	LTE Band 26	15M	QPSK	1	0	Right Tilted	Omm	Ant1	DS11	26865	831.5	18.71	19.70	1.256			0.07	0.046	0.058
	LTE Band 26	15M	QPSK	36	0	Right Tilted	Omm	Ant1	DS11	26865	831.5	18.69	19.70	1.262			0.09	0.051	0.064
	LTE Band 26	15M	QPSK	1	0	Left Cheek	Omm	Ant1	DS11	26865	831.5	18.71	19.70	1.256			0.01	0.451	0.566
09	LTE Band 26	15M	QPSK	36	0	Left Cheek	Omm	Ant1	DS11	26865	831.5	18.69	19.70	1.262			-0.14	0.455	0.574
	LTE Band 26	15M	QPSK	1	0	Left Tilted	Omm	Ant1	DS11	26865	831.5	18.71	19.70	1.256			-0.07	0.065	0.082
	LTE Band 26	15M	QPSK	36	0	Left Tilted	Omm	Ant1	DS11	26865	831.5	18.69	19.70	1.262			-0.02	0.066	0.083
	LTE Band 66	20M	QPSK	1	0	Right Cheek	Omm	Ant4	DS11	132322	1745	18.03	18.70	1.167			-0.06	0.656	0.766
	LTE Band 66	20M	QPSK	50	0	Right Cheek	Omm	Ant4	DS11	132322	1745	17.97	18.70	1.183			-0.14	0.648	0.767
	LTE Band 66	20M	QPSK	1	0	Right Tilted	Omm	Ant4	DS11	132322	1745	18.03	18.70	1.167			-0.06	0.242	0.282
	LTE Band 66	20M	QPSK	50	0	Right Tilted	Omm	Ant4	DS11	132322	1745	17.97	18.70	1.183			0.11	0.245	0.290
	LTE Band 66	20M	QPSK	1	0	Left Cheek	Omm	Ant4	DS11	132322	1745	18.03	18.70	1.167			-0.17	0.233	0.272
	LTE Band 66	20M	QPSK	50	0	Left Cheek	Omm	Ant4	DS11	132322	1745	17.97	18.70	1.183			0.15	0.234	0.277
	LTE Band 66	20M	QPSK	1	0	Left Tilted	Omm	Ant4	DS11	132322	1745	18.03	18.70	1.167			0.01	0.158	0.184
	LTE Band 66	20M	QPSK	50	0	Left Tilted	Omm	Ant4	DS11	132322	1745	17.97	18.70	1.183			-0.18	0.157	0.186
	LTE Band 66	20M	QPSK	1	0	Right Cheek	Omm	Ant5	DS11	132322	1745	15.43	16.50	1.279			-0.05	0.607	0.776
	LTE Band 66	20M	QPSK	50	0	Right Cheek	Omm	Ant5	DS11	132322	1745	15.40	16.50	1.288			-0.10	0.611	0.787
	LTE Band 66	20M	QPSK	1	0	Right Tilted	Omm	Ant5	DS11	132322	1745	15.43	16.50	1.279			0.07	0.672	0.859
	LTE Band 66	20M	QPSK	1	0	Right Tilted	Omm	Ant5	DS11	132072	1720	15.38	16.50	1.294			0.07	0.647	0.837
	LTE Band 66	20M	QPSK	1	0	Right Tilted	Omm	Ant5	DS11	132572	1770	15.29	16.50	1.321			0.15	0.605	0.799
	LTE Band 66	20M	QPSK	50	0	Right Tilted	Omm	Ant5	DS11	132322	1745	15.40	16.50	1.288			-0.18	0.665	0.857
	LTE Band 66	20M	QPSK	50	0	Right Tilted	Omm	Ant5	DS11	132072	1720	15.36	16.50	1.3			-0.09	0.646	0.840
	LTE Band 66	20M	QPSK	50	0	Right Tilted	Omm	Ant5	DS11	132572	1770	15.30	16.50	1.318			0.02	0.627	0.826
	LTE Band 66	20M	QPSK	100	0	Right Tilted	Omm	Ant5	DS11	132322	1745	15.31	16.50	1.315			0.00	0.618	0.813
	LTE Band 66	20M	QPSK	1	0	Left Cheek	Omm	Ant5	DS11	132322	1745	15.43	16.50	1.279			-0.10	0.458	0.586
	LTE Band 66	20M	QPSK	50	0	Left Cheek	Omm	Ant5	DS11	132322	1745	15.40	16.50	1.288			0.07	0.453	0.583
	LTE Band 66	20M	QPSK	1	0	Left Tilted	Omm	Ant5	DS11	132322	1745	15.43	16.50	1.279			-0.06	0.505	0.646
	LTE Band 66	20M	QPSK	50	0	Left Tilted	Omm	Ant5	DS11	132322	1745	15.40	16.50	1.288			0.18	0.506	0.652
	LTE Band 66	20M	QPSK	1	0	Right Cheek	Omm	Ant6	DS11	132322	1745	24.24	25.50	1.337			-0.16	0.137	0.183
	LTE Band 66	20M	QPSK	50	0	Right Cheek	Omm	Ant6	DS11	132322	1745	23.18	24.50	1.355			-0.10	0.107	0.145
	LTE Band 66	20M	QPSK	1	0	Right Tilted	Omm	Ant6	DS11	132322	1745	24.24	25.50	1.337			0.11	0.093	0.124
	LTE Band 66	20M	QPSK	50	0	Right Tilted	Omm	Ant6	DS11	132322	1745	23.18	24.50	1.355			0.02	0.074	0.100
	LTE Band 66	20M	QPSK	1	0	Left Cheek	Omm	Ant6	DS11	132322	1745	24.24	25.50	1.337			-0.04	0.160	0.214
	LTE Band 66	20M	QPSK	50	0	Left Cheek	Omm	Ant6	DS11	132322	1745	23.18	24.50	1.355			-0.15	0.126	0.171
	LTE Band 66	20M	QPSK	1	0	Left Tilted	Omm	Ant6	DS11	132322	1745	24.24	25.50	1.337			-0.11	0.080	0.107
	LTE Band 66	20M	QPSK	50	0	Left Tilted	Omm	Ant6	DS11	132322	1745	23.18	24.50	1.355			-0.06	0.061	0.083
	LTE Band 66	20M	QPSK	1	0	Right Cheek	Omm	Ant7	DS11	132322	1745	17.67	19.00	1.358			0.14	0.551	0.748
	LTE Band 66	20M	QPSK	50	0	Right Cheek	Omm	Ant7	DS11	132322	1745	17.64	19.00	1.368			-0.06	0.553	0.757
	LTE Band 66	20M	QPSK	1	0	Right Tilted	Omm	Ant7	DS11	132322	1745	17.67	19.00	1.358			0.04	0.074	0.100
	LTE Band 66	20M	QPSK	50	0	Right Tilted	Omm	Ant7	DS11	132322	1745	17.64	19.00	1.368			0.04	0.073	0.100
10	LTE Band 66	20M	QPSK	1	0	Left Cheek	Omm	Ant7	DS11	132322	1745	17.67	19.00	1.358			0.06	0.653	0.887
	LTE Band 66	20M	QPSK	1	0	Left Cheek	Omm	Ant7	DS11	132072	1720	17.62	19.00	1.374			-0.02	0.636	0.874
	LTE Band 66	20M	QPSK	1	0	Left Cheek	Omm	Ant7	DS11	132572	1770	17.65	19.00	1.365			0.18	0.628	0.857
	LTE Band 66	20M	QPSK	50	0	Left Cheek	Omm	Ant7	DS11	132322	1745	17.64	19.00	1.368			-0.12	0.594	0.813
	LTE Band 66	20M	QPSK	50	0	Left Cheek	Omm	Ant7	DS11	132072	1720	17.57	19.00	1.39			-0.05	0.545	0.758
	LTE Band 66	20M	QPSK	50	0	Left Cheek	Omm	Ant7	DS11	132572	1770	17.59	19.00	1.384			0.08	0.567	0.785
	LTE Band 66	20M	QPSK	100	0	Left Cheek	Omm	Ant7	DS11	132322	1745	17.61	19.00	1.377			-0.10	0.592	0.815
	LTE Band 66	20M	QPSK	1	0	Left Tilted	Omm	Ant7	DS11	132322	1745	17.67	19.00	1.358			-0.16	0.106	0.144
	LTE Band 66	20M	QPSK	50	0	Left Tilted	Omm	Ant7	DS11	132322	1745	17.64	19.00	1.368			0.16	0.106	0.145
	LTE Band 71	20M	QPSK	1	0	Right Cheek	Omm	Ant0	DS11	133297	680.5	23.98	25.00	1.265			-0.16	0.082	0.104
	LTE Band 71	20M	QPSK	50	0	Right Cheek	Omm	Ant0	DS11	133297	680.5	23.01	24.00	1.256			0.13	0.059	0.074
	LTE Band 71	20M	QPSK	1	0	Right Tilted	Omm	Ant0	DS11	133297	680.5	23.98	25.00	1.265			-0.05	0.046	0.058
	LTE Band 71	20M	QPSK	50	0	Right Tilted	Omm	Ant0	DS11	133297	680.5	23.01	24.00	1.256			0.17	0.001	0.001
	LTE Band 71	20M	QPSK	1	0	Left Cheek	Omm	Ant0	DS11	133297	680.5	23.98	25.00	1.265			-0.07	0.091	0.115
	LTE Band 71	20M	QPSK	50	0	Left Cheek	Omm	Ant0	DS11	133297	680.5	23.01	24.00	1.256			-0.04	0.065	0.082



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	LTE Band 71	20M	QPSK	1	0	Left Tilted	0mm	Ant0	DS11	133297	680.5	23.98	25.00	1.265			0.03	0.001	0.001
	LTE Band 71	20M	QPSK	50	0	Left Tilted	0mm	Ant0	DS11	133297	680.5	23.01	24.00	1.256			-0.05	0.001	0.001
	LTE Band 71	20M	QPSK	1	0	Right Cheek	0mm	Ant1	DS11	133297	680.5	21.71	23.00	1.346			0.13	0.182	0.245
	LTE Band 71	20M	QPSK	50	0	Right Cheek	0mm	Ant1	DS11	133297	680.5	21.68	23.00	1.355			0.03	0.157	0.213
	LTE Band 71	20M	QPSK	1	0	Right Tilted	0mm	Ant1	DS11	133297	680.5	21.71	23.00	1.346			-0.09	0.001	0.001
	LTE Band 71	20M	QPSK	50	0	Right Tilted	0mm	Ant1	DS11	133297	680.5	21.68	23.00	1.355			-0.03	0.001	0.001
11	LTE Band 71	20M	QPSK	1	0	Left Cheek	0mm	Ant1	DS11	133297	680.5	21.71	23.00	1.346			-0.08	0.425	0.572
	LTE Band 71	20M	QPSK	50	0	Left Cheek	0mm	Ant1	DS11	133297	680.5	21.68	23.00	1.355			-0.17	0.400	0.542
	LTE Band 71	20M	QPSK	1	0	Left Tilted	0mm	Ant1	DS11	133297	680.5	21.71	23.00	1.346			0.11	0.057	0.077
	LTE Band 71	20M	QPSK	50	0	Left Tilted	0mm	Ant1	DS11	133297	680.5	21.68	23.00	1.355			-0.18	0.057	0.077
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant4	DS11	40620	2593	19.38	19.70	1.076	62.9	1.006	0.04	0.940	1.018
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant4	DS11	39750	2506	19.17	19.70	1.13	62.9	1.006	-0.10	0.767	0.872
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant4	DS11	40185	2549.5	19.30	19.70	1.096	62.9	1.006	0.08	0.848	0.935
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant4	DS11	41055	2636.5	19.22	19.70	1.117	62.9	1.006	0.01	0.841	0.945
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant4	DS11	41490	2680	19.37	19.70	1.079	62.9	1.006	0.13	0.873	0.948
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant4	DS11	40620	2593	19.32	19.70	1.091	62.9	1.006	0.07	0.920	1.010
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant4	DS11	39750	2506	19.17	19.70	1.13	62.9	1.006	0.02	0.801	0.911
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant4	DS11	40185	2549.5	19.21	19.70	1.119	62.9	1.006	0.03	0.856	0.964
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant4	DS11	41055	2636.5	19.21	19.70	1.119	62.9	1.006	-0.11	0.850	0.957
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant4	DS11	41490	2680	19.25	19.70	1.109	62.9	1.006	-0.02	0.860	0.959
	LTE Band 41	20M	QPSK	100	0	Right Cheek	0mm	Ant4	DS11	40620	2593	19.22	19.70	1.117	62.9	1.006	-0.01	0.903	1.015
	LTE Band 41	20M	QPSK	1	0	Right Tilted	0mm	Ant4	DS11	40620	2593	19.38	19.70	1.076	62.9	1.006	-0.00	0.373	0.404
	LTE Band 41	20M	QPSK	50	0	Right Tilted	0mm	Ant4	DS11	40620	2593	19.32	19.70	1.091	62.9	1.006	-0.18	0.367	0.403
	LTE Band 41	20M	QPSK	1	0	Left Cheek	0mm	Ant4	DS11	40620	2593	19.38	19.70	1.076	62.9	1.006	0.04	0.382	0.413
	LTE Band 41	20M	QPSK	50	0	Left Cheek	0mm	Ant4	DS11	40620	2593	19.32	19.70	1.091	62.9	1.006	0.11	0.381	0.418
	LTE Band 41	20M	QPSK	1	0	Left Tilted	0mm	Ant4	DS11	40620	2593	19.38	19.70	1.076	62.9	1.006	-0.13	0.142	0.154
	LTE Band 41	20M	QPSK	50	0	Left Tilted	0mm	Ant4	DS11	40620	2593	19.32	19.70	1.091	62.9	1.006	0.18	0.142	0.156
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant5	DS11	40620	2593	18.61	19.50	1.227	62.9	1.006	0.12	0.537	0.663
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant5	DS11	39750	2506	18.54	19.50	1.247	62.9	1.006	0.10	0.530	0.665
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant5	DS11	40185	2549.5	18.48	19.50	1.265	62.9	1.006	0.08	0.598	0.761
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant5	DS11	41055	2636.5	18.57	19.50	1.239	62.9	1.006	0.00	0.525	0.654
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant5	DS11	41490	2680	18.48	19.50	1.265	62.9	1.006	0.11	0.456	0.580
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant5	DS11	40620	2593	18.56	19.50	1.242	62.9	1.006	0.18	0.529	0.661
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant5	DS11	39750	2506	18.46	19.50	1.271	62.9	1.006	0.14	0.540	0.690
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant5	DS11	40185	2549.5	18.43	19.50	1.279	62.9	1.006	-0.18	0.612	0.787
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant5	DS11	41055	2636.5	18.51	19.50	1.256	62.9	1.006	-0.06	0.535	0.676
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant5	DS11	41490	2680	18.43	19.50	1.279	62.9	1.006	0.14	0.464	0.597
	LTE Band 41	20M	QPSK	1	0	Right Tilted	0mm	Ant5	DS11	40620	2593	18.61	19.50	1.227	62.9	1.006	0.07	0.673	0.831
	LTE Band 41	20M	QPSK	1	0	Right Tilted	0mm	Ant5	DS11	39750	2506	18.54	19.50	1.247	62.9	1.006	-0.17	0.690	0.866
	LTE Band 41	20M	QPSK	1	0	Right Tilted	0mm	Ant5	DS11	40185	2549.5	18.48	19.50	1.265	62.9	1.006	-0.14	0.791	1.007
	LTE Band 41	20M	QPSK	1	0	Right Tilted	0mm	Ant5	DS11	41055	2636.5	18.57	19.50	1.239	62.9	1.006	0.09	0.672	0.838
	LTE Band 41	20M	QPSK	1	0	Right Tilted	0mm	Ant5	DS11	41490	2680	18.48	19.50	1.265	62.9	1.006	0.08	0.594	0.756
	LTE Band 41	20M	QPSK	50	0	Right Tilted	0mm	Ant5	DS11	40620	2593	18.56	19.50	1.242	62.9	1.006	-0.01	0.654	0.817
	LTE Band 41	20M	QPSK	50	0	Right Tilted	0mm	Ant5	DS11	39750	2506	18.46	19.50	1.271	62.9	1.006	-0.15	0.698	0.892
	LTE Band 41	20M	QPSK	50	0	Right Tilted	0mm	Ant5	DS11	40185	2549.5	18.43	19.50	1.279	62.9	1.006	0.02	0.797	1.025
	LTE Band 41	20M	QPSK	50	0	Right Tilted	0mm	Ant5	DS11	41055	2636.5	18.51	19.50	1.256	62.9	1.006	0.09	0.689	0.871
	LTE Band 41	20M	QPSK	50	0	Right Tilted	0mm	Ant5	DS11	41490	2680	18.43	19.50	1.279	62.9	1.006	0.12	0.604	0.777
	LTE Band 41	20M	QPSK	100	0	Right Tilted	0mm	Ant5	DS11	40620	2593	18.52	19.50	1.253	62.9	1.006	-0.03	0.654	0.824
	LTE Band 41	20M	QPSK	1	0	Left Cheek	0mm	Ant5	DS11	40620	2593	18.61	19.50	1.227	62.9	1.006	0.14	0.368	0.454
	LTE Band 41	20M	QPSK	50	0	Left Cheek	0mm	Ant5	DS11	40620	2593	18.56	19.50	1.242	62.9	1.006	0.19	0.366	0.457
	LTE Band 41	20M	QPSK	1	0	Left Tilted	0mm	Ant5	DS11	40620	2593	18.61	19.50	1.227	62.9	1.006	0.11	0.481	0.594
	LTE Band 41	20M	QPSK	50	0	Left Tilted	0mm	Ant5	DS11	40620	2593	18.56	19.50	1.242	62.9	1.006	0.10	0.476	0.595
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant6	DS11	40620	2593	24.80	25.50	1.175	62.9	1.006	0.04	0.079	0.093
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant6	DS11	40620	2593	23.76	24.50	1.186	62.9	1.006	0.17	0.061	0.073
	LTE Band 41	20M	QPSK	1	0	Right Tilted	0mm	Ant6	DS11	40620	2593	24.80	25.50	1.175	62.9	1.006	-0.04	0.054	0.064
	LTE Band 41	20M	QPSK	50	0	Right Tilted	0mm	Ant6	DS11	40620	2593	23.76	24.50	1.186	62.9	1.006	0.11	0.042	0.050
	LTE Band 41	20M	QPSK	1	0	Left Cheek	0mm	Ant6	DS11	40620	2593	24.80	25.50	1.175	62.9	1.006	-0.02	0.129	0.152
	LTE Band 41	20M	QPSK	50	0	Left Cheek	0mm	Ant6	DS11	40620	2593	23.76	24.50	1.186	62.9	1.006	0.14	0.106	0.126
	LTE Band 41	20M	QPSK	1	0	Left Tilted	0mm	Ant6	DS11	40620	2593	24.80	25.50	1.175	62.9	1.006	0.06	0.045	0.053
	LTE Band 41	20M	QPSK	50	0	Left Tilted	0mm	Ant6	DS11	40620	2593	23.76	24.50	1.186	62.9	1.006	0.03	0.001	0.001
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant7	DS11	40620	2593	19.39	20.50	1.291	62.9	1.006	0.18	0.452	0.587
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant7	DS11	40620	2593	19.37	20.50	1.297	62.9	1.006	0.02	0.457	0.596
	LTE Band 41	20M	QPSK	1	0	Right Tilted	0mm	Ant7	DS11	40620	2593	19.39	20.50	1.291	62.9	1.006	-0.05	0.103	0.134
	LTE Band 41	20M	QPSK	50	0	Right Tilted	0mm	Ant7	DS11	40620	2593	19.37	20.50	1.297	62.9	1.006	-0.17	0.105	0.137
	LTE Band 41	20M	QPSK	1	0	Left Cheek	0mm	Ant7	DS11	40620	2593	19.39	20.50	1.291	62.9	1.006	0.15	0.670	0.870
	LTE Band 41	20M	QPSK	1	0	Left Cheek	0mm	Ant7	DS11	39750	2506	19.29	20.50	1.321	62.9	1.006	-0.05	0.769	1.022
	LTE Band 41	20M	QPSK	1	0	Left Cheek	0mm	Ant7	DS11	40185	2549.5	19.35	20.50	1.303	62.9	1.006	0.11	0.786	1.030
	LTE Band 41	20M	QPSK	1	0	Left Cheek	0mm	Ant7	DS11	41055	2636.5	19.31	20.50	1.315	62.9	1.006	0.18	0.701	0.927
	LTE Band 41	20M	QPSK	1	0	Left Cheek	0mm	Ant7	DS11	41490	2680	19.33	20.50	1.309	62.9	1.006	-0.08	0.740	0.974
	LTE Band 41	20M	QPSK	50	0	Left Cheek	0mm	Ant7	DS11	40620	2593	19.37	20.50	1.297	62.9	1.006	-0.16	0.684	0.892
	LTE Band 41	20M	QPSK	50	0	Left Cheek	0mm	Ant7	DS11	39750	2506	19.24	20.50	1.337	62.				



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	LTE Band 41	20M	QPSK	50	0	Left Cheek	0mm	Ant7	DS11	41490	2680	19.31	20.50	1.315	62.9	1.006	0.03	0.743	0.983
	LTE Band 41	20M	QPSK	100	0	Left Cheek	0mm	Ant7	DS11	40620	2593	19.32	20.50	1.312	62.9	1.006	-0.11	0.675	0.891
	LTE Band 41	20M	QPSK	1	0	Left Tilted	0mm	Ant7	DS11	40620	2593	19.39	20.50	1.291	62.9	1.006	-0.10	0.257	0.334
	LTE Band 41	20M	QPSK	50	0	Left Tilted	0mm	Ant7	DS11	40620	2593	19.37	20.50	1.297	62.9	1.006	0.12	0.261	0.341
	LTE Band 42	20M	QPSK	1	0	Right Cheek	0mm	Ant8	DS11	42590	3500	18.15	19.00	1.216	62.9	1.006	-0.03	0.136	0.166
	LTE Band 42	20M	QPSK	50	0	Right Cheek	0mm	Ant8	DS11	42590	3500	18.11	19.00	1.227	62.9	1.006	-0.08	0.136	0.168
	LTE Band 42	20M	QPSK	1	0	Right Tilted	0mm	Ant8	DS11	42590	3500	18.15	19.00	1.216	62.9	1.006	-0.02	0.097	0.119
	LTE Band 42	20M	QPSK	50	0	Right Tilted	0mm	Ant8	DS11	42590	3500	18.11	19.00	1.227	62.9	1.006	-0.16	0.127	0.157
	LTE Band 42	20M	QPSK	1	0	Left Cheek	0mm	Ant8	DS11	42590	3500	18.15	19.00	1.216	62.9	1.006	-0.02	0.736	0.900
	LTE Band 42	20M	QPSK	1	0	Left Cheek	0mm	Ant8	DS11	42190	3460	18.11	19.00	1.227	62.9	1.006	0.05	0.721	0.890
	LTE Band 42	20M	QPSK	1	0	Left Cheek	0mm	Ant8	DS11	42990	3540	18.09	19.00	1.233	62.9	1.006	-0.14	0.708	0.878
13	LTE Band 42	20M	QPSK	50	0	Left Cheek	0mm	Ant8	DS11	42590	3500	18.11	19.00	1.227	62.9	1.006	-0.01	0.859	1.060
	LTE Band 42	20M	QPSK	50	0	Left Cheek	0mm	Ant8	DS11	42190	3460	18.05	19.00	1.245	62.9	1.006	-0.04	0.834	1.045
	LTE Band 42	20M	QPSK	50	0	Left Cheek	0mm	Ant8	DS11	42990	3540	18.08	19.00	1.236	62.9	1.006	-0.08	0.835	1.038
	LTE Band 42	20M	QPSK	100	0	Left Cheek	0mm	Ant8	DS11	42590	3500	18.09	19.00	1.233	62.9	1.006	-0.15	0.816	1.012
	LTE Band 42	20M	QPSK	1	0	Left Tilted	0mm	Ant8	DS11	42590	3500	18.15	19.00	1.216	62.9	1.006	-0.18	0.325	0.398
	LTE Band 42	20M	QPSK	50	0	Left Tilted	0mm	Ant8	DS11	42590	3500	18.11	19.00	1.227	62.9	1.006	-0.02	0.382	0.472
	LTE Band 42	20M	QPSK	1	0	Right Cheek	0mm	Ant9	DS11	42590	3500	18.85	19.50	1.161	62.9	1.006	0.11	0.271	0.317
	LTE Band 42	20M	QPSK	50	0	Right Cheek	0mm	Ant9	DS11	42590	3500	18.83	19.50	1.167	62.9	1.006	-0.01	0.277	0.325
	LTE Band 42	20M	QPSK	1	0	Right Tilted	0mm	Ant9	DS11	42590	3500	18.85	19.50	1.161	62.9	1.006	0.13	0.181	0.211
	LTE Band 42	20M	QPSK	50	0	Right Tilted	0mm	Ant9	DS11	42590	3500	18.83	19.50	1.167	62.9	1.006	0.09	0.181	0.212
	LTE Band 42	20M	QPSK	1	0	Left Cheek	0mm	Ant9	DS11	42590	3500	18.85	19.50	1.161	62.9	1.006	-0.07	0.121	0.141
	LTE Band 42	20M	QPSK	50	0	Left Cheek	0mm	Ant9	DS11	42590	3500	18.83	19.50	1.167	62.9	1.006	-0.07	0.123	0.144
	LTE Band 42	20M	QPSK	1	0	Left Tilted	0mm	Ant9	DS11	42590	3500	18.85	19.50	1.161	62.9	1.006	-0.01	0.069	0.081
	LTE Band 42	20M	QPSK	50	0	Left Tilted	0mm	Ant9	DS11	42590	3500	18.83	19.50	1.167	62.9	1.006	0.14	0.068	0.080
	LTE Band 42	20M	QPSK	1	0	Right Cheek	0mm	Ant10	DS11	42590	3500	15.29	16.00	1.178	62.9	1.006	0.04	0.343	0.406
	LTE Band 42	20M	QPSK	50	0	Right Cheek	0mm	Ant10	DS11	42590	3500	15.27	16.00	1.183	62.9	1.006	-0.05	0.347	0.413
	LTE Band 42	20M	QPSK	1	0	Right Tilted	0mm	Ant10	DS11	42590	3500	15.29	16.00	1.178	62.9	1.006	0.13	0.420	0.498
	LTE Band 42	20M	QPSK	50	0	Right Tilted	0mm	Ant10	DS11	42590	3500	15.27	16.00	1.183	62.9	1.006	-0.05	0.440	0.524
	LTE Band 42	20M	QPSK	1	0	Left Cheek	0mm	Ant10	DS11	42590	3500	15.29	16.00	1.178	62.9	1.006	0.10	0.605	0.717
	LTE Band 42	20M	QPSK	50	0	Left Cheek	0mm	Ant10	DS11	42590	3500	15.27	16.00	1.183	62.9	1.006	0.03	0.599	0.713
	LTE Band 42	20M	QPSK	1	0	Left Tilted	0mm	Ant10	DS11	42590	3500	15.29	16.00	1.178	62.9	1.006	0.00	0.722	0.856
	LTE Band 42	20M	QPSK	1	0	Left Tilted	0mm	Ant10	DS11	42190	3460	15.22	16.00	1.197	62.9	1.006	0.00	0.740	0.891
	LTE Band 42	20M	QPSK	1	0	Left Tilted	0mm	Ant10	DS11	42990	3540	15.26	16.00	1.186	62.9	1.006	-0.15	0.746	0.890
	LTE Band 42	20M	QPSK	50	0	Left Tilted	0mm	Ant10	DS11	42590	3500	15.27	16.00	1.183	62.9	1.006	-0.18	0.733	0.872
	LTE Band 42	20M	QPSK	50	0	Left Tilted	0mm	Ant10	DS11	42190	3460	15.15	16.00	1.216	62.9	1.006	-0.01	0.755	0.924
	LTE Band 42	20M	QPSK	50	0	Left Tilted	0mm	Ant10	DS11	42990	3540	15.21	16.00	1.199	62.9	1.006	0.07	0.744	0.897
	LTE Band 42	20M	QPSK	100	0	Left Tilted	0mm	Ant10	DS11	42590	3500	15.25	16.00	1.189	62.9	1.006	-0.02	0.752	0.899
	LTE Band 42	20M	QPSK	1	0	Right Cheek	0mm	Ant11	DS11	42590	3500	19.51	20.50	1.256	62.9	1.006	-0.01	0.396	0.500
	LTE Band 42	20M	QPSK	50	0	Right Cheek	0mm	Ant11	DS11	42590	3500	19.46	20.50	1.271	62.9	1.006	-0.04	0.476	0.609
	LTE Band 42	20M	QPSK	1	0	Right Tilted	0mm	Ant11	DS11	42590	3500	19.51	20.50	1.256	62.9	1.006	-0.02	0.355	0.449
	LTE Band 42	20M	QPSK	50	0	Right Tilted	0mm	Ant11	DS11	42590	3500	19.46	20.50	1.271	62.9	1.006	-0.04	0.360	0.460
	LTE Band 42	20M	QPSK	1	0	Left Cheek	0mm	Ant11	DS11	42590	3500	19.51	20.50	1.256	62.9	1.006	0.14	0.205	0.259
	LTE Band 42	20M	QPSK	50	0	Left Cheek	0mm	Ant11	DS11	42590	3500	19.46	20.50	1.271	62.9	1.006	-0.07	0.215	0.275
	LTE Band 42	20M	QPSK	1	0	Left Tilted	0mm	Ant11	DS11	42590	3500	19.51	20.50	1.256	62.9	1.006	0.00	0.263	0.332
	LTE Band 42	20M	QPSK	50	0	Left Tilted	0mm	Ant11	DS11	42590	3500	19.46	20.50	1.271	62.9	1.006	-0.18	0.267	0.341
	LTE Band 48	20M	QPSK	1	0	Right Cheek	0mm	Ant8	DS11	55990	3625	17.61	18.50	1.227	62.9	1.006	-0.03	0.147	0.181
	LTE Band 48	20M	QPSK	50	0	Right Cheek	0mm	Ant8	DS11	55990	3625	17.54	18.50	1.247	62.9	1.006	-0.08	0.152	0.191
	LTE Band 48	20M	QPSK	1	0	Right Tilted	0mm	Ant8	DS11	55990	3625	17.61	18.50	1.227	62.9	1.006	0.02	0.103	0.127
	LTE Band 48	20M	QPSK	50	0	Right Tilted	0mm	Ant8	DS11	55990	3625	17.54	18.50	1.247	62.9	1.006	0.03	0.106	0.133
	LTE Band 48	20M	QPSK	1	0	Left Cheek	0mm	Ant8	DS11	55990	3625	17.61	18.50	1.227	62.9	1.006	-0.18	0.596	0.736
14	LTE Band 48	20M	QPSK	1	0	Left Cheek	0mm	Ant8	DS11	55340	3560	17.54	18.50	1.247	62.9	1.006	-0.11	0.699	0.877
	LTE Band 48	20M	QPSK	1	0	Left Cheek	0mm	Ant8	DS11	55830	3609	17.58	18.50	1.236	62.9	1.006	-0.09	0.611	0.760
	LTE Band 48	20M	QPSK	1	0	Left Cheek	0mm	Ant8	DS11	56150	3641	17.53	18.50	1.25	62.9	1.006	-0.06	0.569	0.716
	LTE Band 48	20M	QPSK	1	0	Left Cheek	0mm	Ant8	DS11	56640	3690	17.59	18.50	1.233	62.9	1.006	-0.10	0.571	0.708
	LTE Band 48	20M	QPSK	50	0	Left Cheek	0mm	Ant8	DS11	55990	3625	17.54	18.50	1.247	62.9	1.006	-0.12	0.591	0.741
	LTE Band 48	20M	QPSK	50	0	Left Cheek	0mm	Ant8	DS11	55340	3560	17.44	18.50	1.276	62.9	1.006	-0.11	0.679	0.872
	LTE Band 48	20M	QPSK	50	0	Left Cheek	0mm	Ant8	DS11	55830	3609	17.39	18.50	1.291	62.9	1.006	-0.11	0.607	0.788
	LTE Band 48	20M	QPSK	50	0	Left Cheek	0mm	Ant8	DS11	56150	3641	17.42	18.50	1.282	62.9	1.006	-0.17	0.581	0.749
	LTE Band 48	20M	QPSK	50	0	Left Cheek	0mm	Ant8	DS11	56640	3690	17.48	18.50	1.265	62.9	1.006	-0.13	0.584	0.743
	LTE Band 48	20M	QPSK	100	0	Left Cheek	0mm	Ant8	DS11	55990	3625	17.51	18.50	1.256	62.9	1.006	0.01	0.578	0.730
	LTE Band 48	20M	QPSK	1	0	Left Tilted	0mm	Ant8	DS11	55990	3625	17.61	18.50	1.227	62.9	1.006	-0.00	0.312	0.385
	LTE Band 48	20M	QPSK	50	0	Left Tilted	0mm	Ant8	DS11	55990	3625	17.54	18.50	1.247	62.9	1.006	0.11	0.321	0.403
	LTE Band 48	20M	QPSK	1	0	Right Cheek	0mm	Ant9	DS11	55990	3625	17.80	18.50	1.175	62.9	1.006	-0.04	0.354	0.418
	LTE Band 48	20M	QPSK	50	0	Right Cheek	0mm	Ant9	DS11	55990	3625	17.78	18.50	1.18	62.9	1.006	-0.03	0.347	0.412
	LTE Band 48	20M	QPSK	1	0	Right Tilted	0mm	Ant9	DS11	55990	3625	17.80	18.50	1.175	62.9	1.006	-0.14	0.263	0.311
	LTE Band 48	20M	QPSK	50	0	Right Tilted	0mm	Ant9	DS11	55990	3625	17.78	18.50	1.18	62.9	1.006	-0.12	0.266	0.316
	LTE Band 48	20M	QPSK	1	0	Left Cheek	0mm	Ant9	DS11	55990	3625	17.80	18.50	1.175	62.9	1.006	0.04	0.179	0.212
	LTE Band 48	20M	QPSK	50	0	Left Cheek	0mm	Ant9	DS11	55990	3625	17.78	18.50	1.18	62.9	1.006	0.01	0.184	0.218
	LTE Band 48	20M	QPSK	1	0	Left Tilted	0mm	Ant9	DS11	55990	3625	17.80	18.50	1.175	62.9	1.006	-0.16	0.090	0.106
	LTE Band 48	20M	QPSK	50															



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	LTE Band 48	20M	QPSK	1	0	Right Tilted	0mm	Ant10	DS11	55990	3625	15.53	16.00	1.114	62.9	1.006	0.10	0.461	0.517
	LTE Band 48	20M	QPSK	50	0	Right Tilted	0mm	Ant10	DS11	55990	3625	15.51	16.00	1.119	62.9	1.006	-0.19	0.472	0.531
	LTE Band 48	20M	QPSK	1	0	Left Cheek	0mm	Ant10	DS11	55990	3625	15.53	16.00	1.114	62.9	1.006	-0.11	0.643	0.721
	LTE Band 48	20M	QPSK	1	0	Left Cheek	0mm	Ant10	DS11	55340	3560	15.46	16.00	1.132	62.9	1.006	0.10	0.659	0.750
	LTE Band 48	20M	QPSK	1	0	Left Cheek	0mm	Ant10	DS11	55830	3609	15.49	16.00	1.125	62.9	1.006	-0.01	0.641	0.725
	LTE Band 48	20M	QPSK	1	0	Left Cheek	0mm	Ant10	DS11	56150	3641	15.51	16.00	1.119	62.9	1.006	-0.04	0.629	0.708
	LTE Band 48	20M	QPSK	1	0	Left Cheek	0mm	Ant10	DS11	56640	3690	15.48	16.00	1.127	62.9	1.006	0.11	0.609	0.690
	LTE Band 48	20M	QPSK	50	0	Left Cheek	0mm	Ant10	DS11	55990	3625	15.51	16.00	1.119	62.9	1.006	-0.07	0.647	0.728
	LTE Band 48	20M	QPSK	50	0	Left Cheek	0mm	Ant10	DS11	55340	3560	15.39	16.00	1.151	62.9	1.006	0.17	0.655	0.758
	LTE Band 48	20M	QPSK	50	0	Left Cheek	0mm	Ant10	DS11	55830	3609	15.46	16.00	1.132	62.9	1.006	0.11	0.634	0.722
	LTE Band 48	20M	QPSK	50	0	Left Cheek	0mm	Ant10	DS11	56150	3641	15.48	16.00	1.127	62.9	1.006	0.14	0.625	0.709
	LTE Band 48	20M	QPSK	50	0	Left Cheek	0mm	Ant10	DS11	56640	3690	15.47	16.00	1.13	62.9	1.006	-0.16	0.617	0.701
	LTE Band 48	20M	QPSK	1	0	Left Tilted	0mm	Ant10	DS11	55990	3625	15.53	16.00	1.114	62.9	1.006	0.05	0.737	0.826
	LTE Band 48	20M	QPSK	1	0	Left Tilted	0mm	Ant10	DS11	55340	3560	15.46	16.00	1.132	62.9	1.006	0.01	0.762	0.868
	LTE Band 48	20M	QPSK	1	0	Left Tilted	0mm	Ant10	DS11	55830	3609	15.49	16.00	1.125	62.9	1.006	0.18	0.740	0.837
	LTE Band 48	20M	QPSK	1	0	Left Tilted	0mm	Ant10	DS11	56150	3641	15.51	16.00	1.119	62.9	1.006	-0.00	0.722	0.813
	LTE Band 48	20M	QPSK	1	0	Left Tilted	0mm	Ant10	DS11	56640	3690	15.48	16.00	1.127	62.9	1.006	0.01	0.700	0.794
	LTE Band 48	20M	QPSK	50	0	Left Tilted	0mm	Ant10	DS11	55990	3625	15.51	16.00	1.119	62.9	1.006	-0.09	0.734	0.826
	LTE Band 48	20M	QPSK	50	0	Left Tilted	0mm	Ant10	DS11	55340	3560	15.39	16.00	1.151	62.9	1.006	-0.03	0.733	0.849
	LTE Band 48	20M	QPSK	50	0	Left Tilted	0mm	Ant10	DS11	55830	3609	15.46	16.00	1.132	62.9	1.006	0.16	0.740	0.843
	LTE Band 48	20M	QPSK	50	0	Left Tilted	0mm	Ant10	DS11	56150	3641	15.48	16.00	1.127	62.9	1.006	-0.06	0.727	0.824
	LTE Band 48	20M	QPSK	50	0	Left Tilted	0mm	Ant10	DS11	56640	3690	15.47	16.00	1.13	62.9	1.006	-0.04	0.718	0.816
	LTE Band 48	20M	QPSK	100	0	Left Tilted	0mm	Ant10	DS11	55990	3625	15.50	16.00	1.122	62.9	1.006	0.09	0.717	0.809
	LTE Band 48	20M	QPSK	1	0	Right Cheek	0mm	Ant11	DS11	55990	3625	18.69	20.00	1.352	62.9	1.006	0.15	0.465	0.632
	LTE Band 48	20M	QPSK	1	0	Right Cheek	0mm	Ant11	DS11	55340	3560	18.62	20.00	1.374	62.9	1.006	0.13	0.467	0.646
	LTE Band 48	20M	QPSK	1	0	Right Cheek	0mm	Ant11	DS11	55830	3609	18.65	20.00	1.365	62.9	1.006	0.07	0.459	0.630
	LTE Band 48	20M	QPSK	1	0	Right Cheek	0mm	Ant11	DS11	56150	3641	18.59	20.00	1.384	62.9	1.006	0.10	0.464	0.646
	LTE Band 48	20M	QPSK	1	0	Right Cheek	0mm	Ant11	DS11	56640	3690	18.63	20.00	1.371	62.9	1.006	0.17	0.491	0.677
	LTE Band 48	20M	QPSK	50	0	Right Cheek	0mm	Ant11	DS11	55990	3625	18.67	20.00	1.358	62.9	1.006	-0.13	0.469	0.641
	LTE Band 48	20M	QPSK	50	0	Right Cheek	0mm	Ant11	DS11	55340	3560	18.57	20.00	1.39	62.9	1.006	-0.18	0.474	0.663
	LTE Band 48	20M	QPSK	50	0	Right Cheek	0mm	Ant11	DS11	55830	3609	18.62	20.00	1.374	62.9	1.006	-0.15	0.466	0.644
	LTE Band 48	20M	QPSK	50	0	Right Cheek	0mm	Ant11	DS11	56150	3641	18.61	20.00	1.377	62.9	1.006	0.18	0.474	0.657
	LTE Band 48	20M	QPSK	50	0	Right Cheek	0mm	Ant11	DS11	56640	3690	18.58	20.00	1.387	62.9	1.006	0.09	0.497	0.693
	LTE Band 48	20M	QPSK	1	0	Right Tilted	0mm	Ant11	DS11	55990	3625	18.69	20.00	1.352	62.9	1.006	-0.07	0.562	0.764
	LTE Band 48	20M	QPSK	1	0	Right Tilted	0mm	Ant11	DS11	55340	3560	18.62	20.00	1.374	62.9	1.006	-0.01	0.560	0.774
	LTE Band 48	20M	QPSK	1	0	Right Tilted	0mm	Ant11	DS11	55830	3609	18.65	20.00	1.365	62.9	1.006	-0.15	0.563	0.773
	LTE Band 48	20M	QPSK	1	0	Right Tilted	0mm	Ant11	DS11	56150	3641	18.59	20.00	1.384	62.9	1.006	-0.03	0.568	0.791
	LTE Band 48	20M	QPSK	1	0	Right Tilted	0mm	Ant11	DS11	56640	3690	18.63	20.00	1.371	62.9	1.006	0.18	0.606	0.836
	LTE Band 48	20M	QPSK	50	0	Right Tilted	0mm	Ant11	DS11	55990	3625	18.67	20.00	1.358	62.9	1.006	0.17	0.576	0.787
	LTE Band 48	20M	QPSK	50	0	Right Tilted	0mm	Ant11	DS11	55340	3560	18.57	20.00	1.39	62.9	1.006	0.00	0.569	0.796
	LTE Band 48	20M	QPSK	50	0	Right Tilted	0mm	Ant11	DS11	55830	3609	18.62	20.00	1.374	62.9	1.006	-0.19	0.572	0.791
	LTE Band 48	20M	QPSK	50	0	Right Tilted	0mm	Ant11	DS11	56150	3641	18.61	20.00	1.377	62.9	1.006	-0.11	0.583	0.808
	LTE Band 48	20M	QPSK	50	0	Right Tilted	0mm	Ant11	DS11	56640	3690	18.58	20.00	1.387	62.9	1.006	0.00	0.620	0.865
	LTE Band 48	20M	QPSK	100	0	Right Tilted	0mm	Ant11	DS11	55990	3625	18.62	20.00	1.374	62.9	1.006	0.05	0.566	0.782
	LTE Band 48	20M	QPSK	1	0	Left Cheek	0mm	Ant11	DS11	55990	3625	18.69	20.00	1.352	62.9	1.006	0.02	0.295	0.401
	LTE Band 48	20M	QPSK	50	0	Left Cheek	0mm	Ant11	DS11	55990	3625	18.67	20.00	1.358	62.9	1.006	-0.18	0.297	0.406
	LTE Band 48	20M	QPSK	1	0	Left Tilted	0mm	Ant11	DS11	55990	3625	18.69	20.00	1.352	62.9	1.006	-0.05	0.349	0.475
	LTE Band 48	20M	QPSK	50	0	Left Tilted	0mm	Ant11	DS11	55990	3625	18.67	20.00	1.358	62.9	1.006	-0.18	0.360	0.492

【ULCA SAR】

Plot No	Band	BW	Modulation	RB Size	RB Offset	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)
	LTE Band 7C	20M	QPSK	1	99	Right Cheek	0mm	Ant4	DS11	21100+21298	2535+2554.8	16.38	17.2	1.208	100	1.000	-0.14	0.567	0.685
	LTE Band 7C	20M	QPSK	1	99	Right Tilted	0mm	Ant5	DS11	21100+21298	2535+2554.8	15.93	17	1.279	100	1.000	0.05	0.673	0.861
	LTE Band 7C	20M	QPSK	1	99	Left Cheek	0mm	Ant6	DS11	21100+21298	2535+2554.8	23.03	23.5	1.114	100	1.000	0.19	0.241	0.268
	LTE Band 7C	20M	QPSK	1	99	Left Cheek	0mm	Ant7	DS11	21100+21298	2535+2554.8	16.21	17.5	1.346	100	1.000	0.11	0.605	0.814
	LTE Band 38C	20M	QPSK	1	99	Right Cheek	0mm	Ant4	DS11	37901+38099	2585.1+2604.9	18.48	19.2	1.18	62.9	1.006	0.04	0.837	0.994
	LTE Band 38C	20M	QPSK	50	50	Right Tilted	0mm	Ant5	DS11	37850+38048	2580+2599.8	18.33	19.5	1.309	62.9	1.006	-0.16	0.745	0.981
	LTE Band 38C	20M	QPSK	1	99	Left Cheek	0mm	Ant6	DS11	37901+38099	2585.1+2604.9	22.86	23.5	1.159	62.9	1.006	-0.17	0.117	0.136
	LTE Band 38C	20M	QPSK	50	50	Left Cheek	0mm	Ant7	DS11	37850+38048	2580+2599.8	19.25	20.5	1.334	62.9	1.006	0.06	0.748	1.004



【FR1 SAR】

Plot No	Band	BW	Modulation	RB Size	RB Offset	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)
15	FR1 n2	40M	BPSK	1	1	Right Cheek	0mm	Ant4	DS11	376000	1880	17.12	18.00	1.225			-0.04	0.548	0.671
	FR1 n2	40M	BPSK	108	54	Right Cheek	0mm	Ant4	DS11	376000	1880	17.08	18.00	1.236			-0.08	0.560	0.692
	FR1 n2	40M	BPSK	1	1	Right Tilted	0mm	Ant4	DS11	376000	1880	17.12	18.00	1.225			0.01	0.212	0.260
	FR1 n2	40M	BPSK	108	54	Right Tilted	0mm	Ant4	DS11	376000	1880	17.08	18.00	1.236			0.08	0.210	0.260
	FR1 n2	40M	BPSK	1	1	Left Cheek	0mm	Ant4	DS11	376000	1880	17.12	18.00	1.225			-0.03	0.200	0.245
	FR1 n2	40M	BPSK	108	54	Left Cheek	0mm	Ant4	DS11	376000	1880	17.08	18.00	1.236			0.10	0.209	0.258
	FR1 n2	40M	BPSK	1	1	Left Tilted	0mm	Ant4	DS11	376000	1880	17.12	18.00	1.225			-0.04	0.157	0.192
	FR1 n2	40M	BPSK	108	54	Left Tilted	0mm	Ant4	DS11	376000	1880	17.08	18.00	1.236			-0.13	0.162	0.200
	FR1 n2	40M	BPSK	1	1	Right Cheek	0mm	Ant6	DS11	376000	1880	24.23	25.00	1.194			-0.17	0.146	0.174
	FR1 n2	40M	BPSK	108	54	Right Cheek	0mm	Ant6	DS11	376000	1880	24.06	25.00	1.242			0.07	0.150	0.186
	FR1 n2	40M	BPSK	1	1	Right Tilted	0mm	Ant6	DS11	376000	1880	24.23	25.00	1.194			0.09	0.063	0.075
	FR1 n2	40M	BPSK	108	54	Right Tilted	0mm	Ant6	DS11	376000	1880	24.06	25.00	1.242			0.16	0.076	0.094
	FR1 n2	40M	BPSK	1	1	Left Cheek	0mm	Ant6	DS11	376000	1880	24.23	25.00	1.194			-0.03	0.157	0.187
	FR1 n2	40M	BPSK	108	54	Left Cheek	0mm	Ant6	DS11	376000	1880	24.06	25.00	1.242			0.09	0.150	0.186
	FR1 n2	40M	BPSK	1	1	Left Tilted	0mm	Ant6	DS11	376000	1880	24.23	25.00	1.194			-0.16	0.065	0.078
16	FR1 n2	40M	BPSK	108	54	Left Tilted	0mm	Ant6	DS11	376000	1880	24.06	25.00	1.242			-0.09	0.069	0.086
	FR1 n7	50M	BPSK	1	1	Right Cheek	0mm	Ant4	DS11	507000	2535	16.69	17.20	1.125			-0.05	0.818	0.920
	FR1 n7	50M	BPSK	135	68	Right Cheek	0mm	Ant4	DS11	507000	2535	16.68	17.20	1.127			-0.04	0.780	0.879
	FR1 n7	50M	BPSK	270	0	Right Cheek	0mm	Ant4	DS11	507000	2535	16.67	17.20	1.13			0.05	0.806	0.911
	FR1 n7	50M	BPSK	1	1	Right Tilted	0mm	Ant4	DS11	507000	2535	16.69	17.20	1.125			0.06	0.368	0.414
	FR1 n7	50M	BPSK	135	68	Right Tilted	0mm	Ant4	DS11	507000	2535	16.68	17.20	1.127			0.12	0.341	0.384
	FR1 n7	50M	BPSK	1	1	Left Cheek	0mm	Ant4	DS11	507000	2535	16.69	17.20	1.125			-0.03	0.309	0.348
	FR1 n7	50M	BPSK	135	68	Left Cheek	0mm	Ant4	DS11	507000	2535	16.68	17.20	1.127			-0.04	0.335	0.378
	FR1 n7	50M	BPSK	1	1	Left Tilted	0mm	Ant4	DS11	507000	2535	16.69	17.20	1.125			0.17	0.202	0.227
	FR1 n7	50M	BPSK	135	68	Left Tilted	0mm	Ant4	DS11	507000	2535	16.68	17.20	1.127			-0.19	0.180	0.203
	FR1 n7	50M	BPSK	1	1	Right Cheek	0mm	Ant5	DS11	507000	2535	15.44	16.50	1.276			0.17	0.572	0.730
	FR1 n7	50M	BPSK	135	68	Right Cheek	0mm	Ant5	DS11	507000	2535	15.38	16.50	1.294			0.08	0.612	0.792
	FR1 n7	50M	BPSK	1	1	Right Tilted	0mm	Ant5	DS11	507000	2535	15.44	16.50	1.276			-0.12	0.748	0.954
	FR1 n7	50M	BPSK	135	68	Right Tilted	0mm	Ant5	DS11	507000	2535	15.38	16.50	1.294			-0.02	0.828	1.071
17	FR1 n7	50M	BPSK	270	0	Right Tilted	0mm	Ant5	DS11	507000	2535	15.33	16.50	1.309			-0.19	0.687	0.899
	FR1 n7	50M	BPSK	1	1	Left Cheek	0mm	Ant5	DS11	507000	2535	15.44	16.50	1.276			-0.14	0.374	0.477
	FR1 n7	50M	BPSK	135	68	Left Cheek	0mm	Ant5	DS11	507000	2535	15.38	16.50	1.294			0.08	0.441	0.571
	FR1 n7	50M	BPSK	1	1	Left Tilted	0mm	Ant5	DS11	507000	2535	15.44	16.50	1.276			0.11	0.459	0.586
	FR1 n7	50M	BPSK	135	68	Left Tilted	0mm	Ant5	DS11	507000	2535	15.38	16.50	1.294			0.04	0.595	0.770
	FR1 n7	50M	BPSK	1	1	Right Cheek	0mm	Ant6	DS11	507000	2535	24.71	25.50	1.191			-0.09	0.117	0.139
	FR1 n7	50M	BPSK	135	68	Right Cheek	0mm	Ant6	DS11	507000	2535	24.71	25.50	1.199			-0.11	0.173	0.207
	FR1 n7	50M	BPSK	1	1	Right Tilted	0mm	Ant6	DS11	507000	2535	24.74	25.50	1.191			-0.13	0.057	0.068
	FR1 n7	50M	BPSK	135	68	Right Tilted	0mm	Ant6	DS11	507000	2535	24.71	25.50	1.199			0.01	0.087	0.104
	FR1 n7	50M	BPSK	1	1	Left Cheek	0mm	Ant6	DS11	507000	2535	24.74	25.50	1.191			-0.04	0.177	0.211
	FR1 n7	50M	BPSK	135	68	Left Cheek	0mm	Ant6	DS11	507000	2535	24.71	25.50	1.199			-0.09	0.256	0.307
	FR1 n7	50M	BPSK	1	1	Left Tilted	0mm	Ant6	DS11	507000	2535	24.74	25.50	1.191			-0.15	0.101	0.120
	FR1 n7	50M	BPSK	135	68	Left Tilted	0mm	Ant6	DS11	507000	2535	24.71	25.50	1.199			0.12	0.134	0.161
	FR1 n7	50M	BPSK	1	1	Right Cheek	0mm	Ant7	DS11	507000	2535	16.62	17.50	1.225			-0.03	0.521	0.638
	FR1 n7	50M	BPSK	135	68	Right Cheek	0mm	Ant7	DS11	507000	2535	16.60	17.50	1.23			-0.14	0.477	0.587
18	FR1 n7	50M	BPSK	1	1	Right Tilted	0mm	Ant7	DS11	507000	2535	16.62	17.50	1.225			-0.02	0.107	0.131
	FR1 n7	50M	BPSK	135	68	Right Tilted	0mm	Ant7	DS11	507000	2535	16.60	17.50	1.23			0.06	0.105	0.129
	FR1 n7	50M	BPSK	1	1	Left Cheek	0mm	Ant7	DS11	507000	2535	16.62	17.50	1.225			-0.19	0.707	0.866
	FR1 n7	50M	BPSK	135	68	Left Cheek	0mm	Ant7	DS11	507000	2535	16.60	17.50	1.23			-0.09	0.715	0.879
	FR1 n7	50M	BPSK	270	0	Left Cheek	0mm	Ant7	DS11	507000	2535	16.59	17.50	1.233			-0.04	0.709	0.874
	FR1 n7	50M	BPSK	1	1	Left Tilted	0mm	Ant7	DS11	507000	2535	16.62	17.50	1.225			-0.03	0.238	0.292
	FR1 n7	50M	BPSK	135	68	Left Tilted	0mm	Ant7	DS11	507000	2535	16.60	17.50	1.23			0.03	0.258	0.317
	FR1 n26	20M	BPSK	1	1	Right Cheek	0mm	Ant0	DS11	166300	831.5	25.05	25.70	1.161			0.04	0.302	0.351
	FR1 n26	20M	BPSK	50	28	Right Cheek	0mm	Ant0	DS11	166300	831.5	24.94	25.70	1.191			-0.02	0.312	0.372
	FR1 n26	20M	BPSK	1	1	Right Tilted	0mm	Ant0	DS11	166300	831.5	25.05	25.70	1.161			0.17	0.203	0.236
	FR1 n26	20M	BPSK	50	28	Right Tilted	0mm	Ant0	DS11	166300	831.5	24.94	25.70	1.191			0.02	0.203	0.242
	FR1 n26	20M	BPSK	1	1	Left Cheek	0mm	Ant0	DS11	166300	831.5	25.05	25.70	1.161			0.09	0.285	0.331
	FR1 n26	20M	BPSK	50	28	Left Cheek	0mm	Ant0	DS11	166300	831.5	24.94	25.70	1.191			0.17	0.310	0.369
	FR1 n26	20M	BPSK	1	1	Left Tilted	0mm	Ant0	DS11	166300	831.5	25.05	25.70	1.161			0.14	0.141	0.164
	FR1 n26	20M	BPSK	50	28	Left Tilted	0mm	Ant0	DS11	166300	831.5	24.94	25.70	1.191			-0.13	0.144	0.172
	FR1 n5	20M	BPSK	50	28	Right Cheek	0mm	Ant0	DS11	167300	836.5	24.11	25.00	1.227			-0.15	0.299	0.367
19	FR1 n26	20M	BPSK	1	1	Right Cheek	0mm	Ant1	DS11	166300	831.5	19.74	20.70	1.247			0.03	0.310	0.387
	FR1 n26	20M	BPSK	50	28	Right Cheek	0mm	Ant1	DS11	166300	831.5	19.72	20.70	1.253			-0.07	0.363	0.455
	FR1 n26	20M	BPSK	1	1	Right Tilted	0mm	Ant1	DS11	166300	831.5	19.74	20.70	1.247			0.17	0.065	0.081
	FR1 n26	20M	BPSK	50	28	Right Tilted	0mm	Ant1	DS11	166300	831.5	19.72	20.70	1.253			0.12	0.074	0.093
	FR1 n26	20M	BPSK	1	1	Left Cheek	0mm	Ant1	DS11	166300	831.5	19.74	20.70	1.247			-0.15	0.559	0.697
	FR1 n26	20M	BPSK	50	28	Left Cheek	0mm	Ant1	DS11	166300	831.5	19.72	20.70	1.253			-0.09	0.669	0.838
	FR1 n26	20M	BPSK	100	0	Left Cheek	0mm	Ant1	DS11	166300	831.5	19.69	20.70	1.262			0.13	0.643	0.811
	FR1 n26	20M	BPSK	1	1	Left Tilted	0mm	Ant1	DS11	166300	831.5	19.74	20.70	1.247			-0.18	0.086	0.107



FCC SAR Test Report

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	FR1 n26	20M	BPSK	50	28	Left Tilted	0mm	Ant1	DS11	166300	831.5	19.72	20.70	1.253			0.04	0.100	0.125
	FR1 n5	20M	BPSK	50	28	Left Cheek	0mm	Ant1	DS11	167300	836.5	18.51	19.50	1.256			0.16	0.536	0.673
	FR1 n66	45M	BPSK	1	1	Right Cheek	0mm	Ant4	DS11	349000	1745	17.21	17.70	1.119			0.06	0.660	0.739
18	FR1 n66_Other PA	45M	BPSK	1	1	Right Cheek	0mm	Ant4	DS11	349000	1745	17.26	18.50	1.33			-0.06	0.764	1.016
	FR1 n66_Other PA	45M	BPSK	120	60	Right Cheek	0mm	Ant4	DS11	349000	1745	17.24	18.50	1.337			-0.08	0.747	0.999
	FR1 n66_Other PA	45M	BPSK	240	0	Right Cheek	0mm	Ant4	DS11	349000	1745	17.19	18.50	1.352			0.13	0.747	1.009
	FR1 n66_Other PA	45M	BPSK	1	1	Right Tilted	0mm	Ant4	DS11	349000	1745	17.26	18.50	1.33			0.03	0.276	0.367
	FR1 n66_Other PA	45M	BPSK	120	60	Right Tilted	0mm	Ant4	DS11	349000	1745	17.24	18.50	1.337			-0.07	0.265	0.354
	FR1 n66_Other PA	45M	BPSK	1	1	Left Cheek	0mm	Ant4	DS11	349000	1745	17.26	18.50	1.33			0.06	0.280	0.372
	FR1 n66_Other PA	45M	BPSK	120	60	Left Cheek	0mm	Ant4	DS11	349000	1745	17.24	18.50	1.337			-0.14	0.265	0.354
	FR1 n66_Other PA	45M	BPSK	1	1	Left Tilted	0mm	Ant4	DS11	349000	1745	17.26	18.50	1.33			-0.13	0.185	0.246
	FR1 n66_Other PA	45M	BPSK	120	60	Left Tilted	0mm	Ant4	DS11	349000	1745	17.24	18.50	1.337			0.06	0.169	0.226
	FR1 n66_Other PA	45M	BPSK	1	1	Right Cheek	0mm	Ant5	DS11	349000	1745	15.33	16.00	1.167			-0.08	0.619	0.722
	FR1 n66_Other PA	45M	BPSK	120	60	Right Cheek	0mm	Ant5	DS11	349000	1745	15.31	16.00	1.172			-0.14	0.687	0.805
	FR1 n66_Other PA	45M	BPSK	240	0	Right Cheek	0mm	Ant5	DS11	349000	1745	15.28	16.00	1.18			0.02	0.654	0.772
	FR1 n66	45M	BPSK	120	60	Right Tilted	0mm	Ant5	DS11	349000	1745	15.23	16.00	1.194			-0.10	0.688	0.821
	FR1 n66_Other PA	45M	BPSK	1	1	Right Tilted	0mm	Ant5	DS11	349000	1745	15.33	16.00	1.167			-0.12	0.715	0.834
	FR1 n66_Other PA	45M	BPSK	120	60	Right Tilted	0mm	Ant5	DS11	349000	1745	15.31	16.00	1.172			-0.01	0.746	0.874
	FR1 n66_Other PA	45M	BPSK	240	0	Right Tilted	0mm	Ant5	DS11	349000	1745	15.28	16.00	1.18			-0.04	0.723	0.853
	FR1 n66_Other PA	45M	BPSK	1	1	Left Cheek	0mm	Ant5	DS11	349000	1745	15.33	16.00	1.167			-0.18	0.481	0.561
	FR1 n66_Other PA	45M	BPSK	120	60	Left Cheek	0mm	Ant5	DS11	349000	1745	15.31	16.00	1.172			-0.05	0.529	0.620
	FR1 n66_Other PA	45M	BPSK	1	1	Left Tilted	0mm	Ant5	DS11	349000	1745	15.33	16.00	1.167			-0.17	0.540	0.630
	FR1 n66_Other PA	45M	BPSK	120	60	Left Tilted	0mm	Ant5	DS11	349000	1745	15.31	16.00	1.172			0.17	0.579	0.679
	FR1 n66	45M	BPSK	1	1	Right Cheek	0mm	Ant6	DS11	349000	1745	24.72	25.50	1.197			-0.02	0.119	0.142
	FR1 n66	45M	BPSK	120	60	Right Cheek	0mm	Ant6	DS11	349000	1745	24.65	25.50	1.216			0.03	0.131	0.159
	FR1 n66	45M	BPSK	1	1	Right Tilted	0mm	Ant6	DS11	349000	1745	24.72	25.50	1.197			0.19	0.070	0.084
	FR1 n66	45M	BPSK	120	60	Right Tilted	0mm	Ant6	DS11	349000	1745	24.65	25.50	1.216			0.17	0.087	0.106
	FR1 n66	45M	BPSK	1	1	Left Cheek	0mm	Ant6	DS11	349000	1745	24.72	25.50	1.197			0.01	0.131	0.157
	FR1 n66	45M	BPSK	120	60	Left Cheek	0mm	Ant6	DS11	349000	1745	24.65	25.50	1.216			-0.07	0.134	0.163
	FR1 n66_Other PA	45M	BPSK	120	60	Left Cheek	0mm	Ant6	DS11	349000	1745	24.50	25.00	1.122			-0.04	0.128	0.144
	FR1 n66	45M	BPSK	1	1	Left Tilted	0mm	Ant6	DS11	349000	1745	24.72	25.50	1.197			-0.03	0.069	0.083
	FR1 n66	45M	BPSK	120	60	Left Tilted	0mm	Ant6	DS11	349000	1745	24.65	25.50	1.216			0.06	0.083	0.101
	FR1 n66_Other PA	45M	BPSK	1	1	Right Cheek	0mm	Ant7	DS11	349000	1745	17.54	18.00	1.112			0.07	0.535	0.595
	FR1 n66_Other PA	45M	BPSK	120	60	Right Cheek	0mm	Ant7	DS11	349000	1745	17.48	18.00	1.127			0.10	0.547	0.616
	FR1 n66_Other PA	45M	BPSK	1	1	Right Tilted	0mm	Ant7	DS11	349000	1745	17.54	18.00	1.112			-0.01	0.066	0.073
	FR1 n66_Other PA	45M	BPSK	120	60	Right Tilted	0mm	Ant7	DS11	349000	1745	17.48	18.00	1.127			-0.16	0.069	0.078
	FR1 n66	45M	BPSK	120	60	Left Cheek	0mm	Ant7	DS11	349000	1745	17.25	18.00	1.189			0.05	0.551	0.655
	FR1 n66_Other PA	45M	BPSK	1	1	Left Cheek	0mm	Ant7	DS11	349000	1745	17.54	18.00	1.112			-0.11	0.655	0.728
	FR1 n66_Other PA	45M	BPSK	120	60	Left Cheek	0mm	Ant7	DS11	349000	1745	17.48	18.00	1.127			-0.00	0.659	0.743
	FR1 n66_Other PA	45M	BPSK	1	1	Left Tilted	0mm	Ant7	DS11	349000	1745	17.54	18.00	1.112			-0.05	0.102	0.113
	FR1 n66_Other PA	45M	BPSK	120	60	Left Tilted	0mm	Ant7	DS11	349000	1745	17.48	18.00	1.127			-0.16	0.103	0.116
	FR1 n71	35M	BPSK	1	1	Right Cheek	0mm	Ant0	DS11	136100	680.5	24.14	25.00	1.219			-0.13	0.096	0.117
	FR1 n71	35M	BPSK	90	45	Right Cheek	0mm	Ant0	DS11	136100	680.5	24.13	25.00	1.222			0.11	0.061	0.075
	FR1 n71	35M	BPSK	1	1	Right Tilted	0mm	Ant0	DS11	136100	680.5	24.14	25.00	1.219			-0.13	0.059	0.072
	FR1 n71	35M	BPSK	90	45	Right Tilted	0mm	Ant0	DS11	136100	680.5	24.13	25.00	1.222			-0.18	0.001	0.001
	FR1 n71	35M	BPSK	1	1	Left Cheek	0mm	Ant0	DS11	136100	680.5	24.14	25.00	1.219			-0.07	0.115	0.140
	FR1 n71	35M	BPSK	90	45	Left Cheek	0mm	Ant0	DS11	136100	680.5	24.13	25.00	1.222			0.03	0.078	0.095
	FR1 n71	35M	BPSK	1	1	Left Tilted	0mm	Ant0	DS11	136100	680.5	24.14	25.00	1.219			0.00	0.047	0.057
	FR1 n71	35M	BPSK	90	45	Left Tilted	0mm	Ant0	DS11	136100	680.5	24.13	25.00	1.222			0.11	0.001	0.001
	FR1 n71	35M	BPSK	1	1	Right Cheek	0mm	Ant1	DS11	136100	680.5	21.98	23.00	1.265			0.01	0.245	0.310
	FR1 n71	35M	BPSK	90	45	Right Cheek	0mm	Ant1	DS11	136100	680.5	21.95	23.00	1.274			0.05	0.198	0.252
	FR1 n71	35M	BPSK	1	1	Right Tilted	0mm	Ant1	DS11	136100	680.5	21.98	23.00	1.265			0.01	0.047	0.059
	FR1 n71	35M	BPSK	90	45	Right Tilted	0mm	Ant1	DS11	136100	680.5	21.95	23.00	1.274			-0.09	0.069	0.088
19	FR1 n71	35M	BPSK	1	1	Left Cheek	0mm	Ant1	DS11	136100	680.5	21.98	23.00	1.265			0.14	0.580	0.734
	FR1 n71	35M	BPSK	90	45	Left Cheek	0mm	Ant1	DS11	136100	680.5	21.95	23.00	1.274			-0.17	0.548	0.698
	FR1 n71	35M	BPSK	1	1	Left Tilted	0mm	Ant1	DS11	136100	680.5	21.98	23.00	1.265			0.06	0.081	0.102
	FR1 n71	35M	BPSK	90	45	Left Tilted	0mm	Ant1	DS11	136100	680.5	21.95	23.00	1.274			0.06	0.104	0.132
	FR1 n41	100M	BPSK	1	1	Right Cheek	0mm	Ant4	DS11	518598	2592.99	16.23	16.70	1.114			0.12	0.762	0.849
	FR1 n41	100M	BPSK	135	69	Right Cheek	0mm	Ant4	DS11	518598	2592.99	16.21	16.70	1.119			0.06	0.846	0.947
	FR1 n41	100M	BPSK	270	0	Right Cheek	0mm	Ant4	DS11	518598	2592.99	16.17	16.70	1.13			0.06	0.805	0.910
	FR1 n41	100M	BPSK	1	1	Right Tilted	0mm	Ant4	DS11	518598	2592.99	16.23	16.70	1.114			0.04	0.290	0.323
	FR1 n41	100M	BPSK	135	69	Right Tilted	0mm	Ant4	DS11	518598	2592.99	16.21	16.70	1.119			0.16	0.335	0.375
	FR1 n41	100M	BPSK	1	1	Left Cheek	0mm	Ant4	DS11	518598	2592.99	16.23	16.70	1.114			-0.12	0.287	0.320
	FR1 n41	100M	BPSK	135	69	Left Cheek	0mm	Ant4	DS11	518598	2592.99	16.21	16.70	1.119			0.14	0.333	0.373
	FR1 n41	100M	BPSK	1	1	Left Tilted	0mm	Ant4	DS11	518598	2592.99	16.23	16.70	1.114			-0.01	0.125	0.139
	FR1 n41	100M	BPSK	135	69	Left Tilted	0mm	Ant4	DS11	518598	2592.99	16.21	16.70	1.119			0.17	0.135	0.151
20	FR1 n41_HPUE	100M	BPSK	135	69	Right Cheek	0mm	Ant4	DS11	518598	2592.99	19.12	20.00	1.225	50.0	1.0	-0.17	0.828	1.014
	FR1 n41	100M	BPSK	1	1	Right Cheek	0mm	Ant5	DS11	518598	2592.99	15.08	16.00	1.236			-0.09	0.462	0.571
	FR1 n41	100M	BPSK	135	69	Right Cheek	0mm	Ant5	DS11	518598	2592.99	15.06	16.00	1.242			-0.12	0.388	0.482
	FR1 n41	100M	BPSK	1	1	Right Tilted	0mm	Ant5	DS11	518598	2592.99	15.08	16.00	1.236			0.11	0.599	0.740
	FR1 n41	100M	BPSK	135	69	Right Tilted	0mm	Ant5	DS11	518598	2592.99	15.06	16.00	1.242			-0.13	0.478	0.594
	FR1 n41	100M	BPSK	1	1	Left Cheek	0mm	Ant5	DS11	518598	2592.99	15.08	16.00	1.236			0.16	0.328	0.405
	FR1 n41	100M	BPSK	135	69	Left Cheek	0mm	Ant5	DS11	518598	2592.99	15.06	16.00	1.242			-0.12	0.280	0.348



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	FR1 n41	100M	BPSK	1	1	Left Tilted	0mm	Ant5	DS11	518598	2592.99	15.08	16.00	1.236			-0.05	0.425	0.525
	FR1 n41	100M	BPSK	135	69	Left Tilted	0mm	Ant5	DS11	518598	2592.99	15.06	16.00	1.242			0.00	0.384	0.477
	FR1 n41_HPUE	100M	BPSK	1	1	Right Tilted	0mm	Ant5	DS11	518598	2592.99	18.02	19.00	1.253	50.0	1.0	0.05	0.622	0.779
	FR1 n41	100M	BPSK	1	1	Right Cheek	0mm	Ant6	DS11	518598	2592.99	25.02	25.50	1.117			-0.17	0.188	0.210
	FR1 n41	100M	BPSK	135	69	Right Cheek	0mm	Ant6	DS11	518598	2592.99	24.92	25.50	1.143			0.02	0.162	0.185
	FR1 n41	100M	BPSK	1	1	Right Tilted	0mm	Ant6	DS11	518598	2592.99	25.02	25.50	1.117			-0.18	0.102	0.114
	FR1 n41	100M	BPSK	135	69	Right Tilted	0mm	Ant6	DS11	518598	2592.99	24.92	25.50	1.143			0.16	0.124	0.142
	FR1 n41	100M	BPSK	1	1	Left Cheek	0mm	Ant6	DS11	518598	2592.99	25.02	25.50	1.117			-0.07	0.263	0.294
	FR1 n41	100M	BPSK	135	69	Left Cheek	0mm	Ant6	DS11	518598	2592.99	24.92	25.50	1.143			0.03	0.288	0.329
	FR1 n41	100M	BPSK	1	1	Left Tilted	0mm	Ant6	DS11	518598	2592.99	25.02	25.50	1.117			0.19	0.138	0.154
	FR1 n41	100M	BPSK	135	69	Left Tilted	0mm	Ant6	DS11	518598	2592.99	24.92	25.50	1.143			0.03	0.107	0.122
	FR1 n41_HPUE	100M	BPSK	135	69	Left Cheek	0mm	Ant6	DS11	518598	2592.99	26.82	27.50	1.169	50.0	1.0	0.18	0.241	0.282
	FR1 n41	100M	BPSK	1	1	Right Cheek	0mm	Ant7	DS11	518598	2592.99	16.65	17.50	1.216			-0.10	0.364	0.443
	FR1 n41	100M	BPSK	135	69	Right Cheek	0mm	Ant7	DS11	518598	2592.99	16.63	17.50	1.222			-0.10	0.406	0.496
	FR1 n41	100M	BPSK	1	1	Right Tilted	0mm	Ant7	DS11	518598	2592.99	16.65	17.50	1.216			-0.15	0.076	0.092
	FR1 n41	100M	BPSK	135	69	Right Tilted	0mm	Ant7	DS11	518598	2592.99	16.63	17.50	1.222			0.17	0.082	0.100
	FR1 n41	100M	BPSK	1	1	Left Cheek	0mm	Ant7	DS11	518598	2592.99	16.65	17.50	1.216			-0.17	0.533	0.648
	FR1 n41	100M	BPSK	135	69	Left Cheek	0mm	Ant7	DS11	518598	2592.99	16.63	17.50	1.222			0.13	0.577	0.705
	FR1 n41	100M	BPSK	1	1	Left Tilted	0mm	Ant7	DS11	518598	2592.99	16.65	17.50	1.216			0.02	0.198	0.241
	FR1 n41	100M	BPSK	135	69	Left Tilted	0mm	Ant7	DS11	518598	2592.99	16.63	17.50	1.222			0.11	0.206	0.252
	FR1 n41_HPUE	100M	BPSK	135	69	Left Cheek	0mm	Ant7	DS11	518598	2592.99	19.59	20.50	1.233	50.0	1.0	-0.14	0.588	0.725
	FR1 n48	40M	BPSK	1	1	Right Cheek	0mm	Ant8	DS11	641666	3624.99	16.68	17.50	1.208			0.16	0.253	0.306
	FR1 n48	40M	BPSK	50	28	Right Cheek	0mm	Ant8	DS11	641666	3624.99	16.65	17.50	1.216			-0.12	0.253	0.308
	FR1 n48	40M	BPSK	1	1	Right Tilted	0mm	Ant8	DS11	641666	3624.99	16.68	17.50	1.208			-0.19	0.138	0.167
	FR1 n48	40M	BPSK	50	28	Right Tilted	0mm	Ant8	DS11	641666	3624.99	16.65	17.50	1.216			-0.13	0.138	0.168
	FR1 n48	40M	BPSK	1	1	Left Cheek	0mm	Ant8	DS11	641666	3624.99	16.68	17.50	1.208			0.09	0.851	1.028
	FR1 n48	40M	BPSK	1	1	Left Cheek	0mm	Ant8	DS11	638000	3570	16.59	17.50	1.233			-0.01	0.870	1.073
	FR1 n48	40M	BPSK	1	1	Left Cheek	0mm	Ant8	DS11	645332	3679.98	16.62	17.50	1.225			0.14	0.777	0.952
	FR1 n48	40M	BPSK	50	28	Left Cheek	0mm	Ant8	DS11	641666	3624.99	16.65	17.50	1.216			0.12	0.829	1.008
	FR1 n48	40M	BPSK	50	28	Left Cheek	0mm	Ant8	DS11	638000	3570	16.49	17.50	1.262			-0.08	0.768	0.969
	FR1 n48	40M	BPSK	50	28	Left Cheek	0mm	Ant8	DS11	645332	3679.98	16.55	17.50	1.245			0.05	0.732	0.911
	FR1 n48	40M	BPSK	100	0	Left Cheek	0mm	Ant8	DS11	641666	3624.99	16.62	17.50	1.225			-0.05	0.729	0.893
	FR1 n48	40M	BPSK	1	1	Left Tilted	0mm	Ant8	DS11	641666	3624.99	16.68	17.50	1.208			0.04	0.310	0.374
	FR1 n48	40M	BPSK	50	28	Left Tilted	0mm	Ant8	DS11	641666	3624.99	16.65	17.50	1.216			-0.17	0.303	0.368
	FR1 n48	40M	BPSK	1	1	Right Cheek	0mm	Ant9	DS11	641666	3624.99	16.40	17.00	1.148			-0.13	0.743	0.853
	FR1 n48	40M	BPSK	1	1	Right Cheek	0mm	Ant9	DS11	638000	3570	16.38	17.00	1.153			0.11	0.812	0.936
	FR1 n48	40M	BPSK	1	1	Right Cheek	0mm	Ant9	DS11	645332	3679.98	16.33	17.00	1.167			-0.08	0.628	0.733
	FR1 n48	40M	BPSK	50	28	Right Cheek	0mm	Ant9	DS11	641666	3624.99	16.36	17.00	1.159			0.14	0.720	0.834
	FR1 n48	40M	BPSK	50	28	Right Cheek	0mm	Ant9	DS11	638000	3570	16.32	17.00	1.169			0.03	0.818	0.956
	FR1 n48	40M	BPSK	50	28	Right Cheek	0mm	Ant9	DS11	645332	3679.98	16.27	17.00	1.183			-0.17	0.499	0.590
	FR1 n48	40M	BPSK	100	0	Right Cheek	0mm	Ant9	DS11	641666	3624.99	16.31	17.00	1.172			-0.03	0.622	0.729
	FR1 n48	40M	BPSK	1	1	Right Tilted	0mm	Ant9	DS11	641666	3624.99	16.40	17.00	1.148			0.17	0.474	0.544
	FR1 n48	40M	BPSK	50	28	Right Tilted	0mm	Ant9	DS11	641666	3624.99	16.36	17.00	1.159			0.09	0.448	0.519
	FR1 n48	40M	BPSK	1	1	Left Cheek	0mm	Ant9	DS11	641666	3624.99	16.40	17.00	1.148			0.04	0.454	0.521
	FR1 n48	40M	BPSK	50	28	Left Cheek	0mm	Ant9	DS11	641666	3624.99	16.36	17.00	1.159			0.01	0.435	0.504
	FR1 n48	40M	BPSK	1	1	Left Tilted	0mm	Ant9	DS11	641666	3624.99	16.40	17.00	1.148			0.11	0.172	0.197
	FR1 n48	40M	BPSK	50	28	Left Tilted	0mm	Ant9	DS11	641666	3624.99	16.36	17.00	1.159			-0.05	0.162	0.188
	FR1 n48	40M	BPSK	1	1	Right Cheek	0mm	Ant10	DS11	641666	3624.99	12.59	13.50	1.233			0.14	0.399	0.492
	FR1 n48	40M	BPSK	50	28	Right Cheek	0mm	Ant10	DS11	641666	3624.99	12.57	13.50	1.238			-0.11	0.388	0.480
	FR1 n48	40M	BPSK	1	1	Right Tilted	0mm	Ant10	DS11	641666	3624.99	12.59	13.50	1.233			-0.06	0.491	0.605
	FR1 n48	40M	BPSK	1	1	Right Tilted	0mm	Ant10	DS11	638000	3570	12.52	13.50	1.253			-0.18	0.458	0.574
	FR1 n48	40M	BPSK	1	1	Right Tilted	0mm	Ant10	DS11	645332	3679.98	12.55	13.50	1.245			-0.18	0.461	0.574
	FR1 n48	40M	BPSK	50	28	Right Tilted	0mm	Ant10	DS11	641666	3624.99	12.57	13.50	1.238			-0.00	0.474	0.587
	FR1 n48	40M	BPSK	1	1	Left Cheek	0mm	Ant10	DS11	641666	3624.99	12.59	13.50	1.233			0.05	0.630	0.777
	FR1 n48	40M	BPSK	1	1	Left Cheek	0mm	Ant10	DS11	638000	3570	12.52	13.50	1.253			0.06	0.609	0.763
	FR1 n48	40M	BPSK	1	1	Left Cheek	0mm	Ant10	DS11	645332	3679.98	12.55	13.50	1.245			0.14	0.610	0.759
	FR1 n48	40M	BPSK	50	28	Left Cheek	0mm	Ant10	DS11	641666	3624.99	12.57	13.50	1.238			0.14	0.637	0.789
	FR1 n48	40M	BPSK	50	28	Left Cheek	0mm	Ant10	DS11	638000	3570	12.51	13.50	1.256			-0.01	0.614	0.771
	FR1 n48	40M	BPSK	50	28	Left Cheek	0mm	Ant10	DS11	645332	3679.98	12.48	13.50	1.265			-0.16	0.595	0.753
	FR1 n48	40M	BPSK	1	1	Left Tilted	0mm	Ant10	DS11	641666	3624.99	12.59	13.50	1.233			-0.01	0.839	1.034
	FR1 n48	40M	BPSK	1	1	Left Tilted	0mm	Ant10	DS11	638000	3570	12.52	13.50	1.253			-0.11	0.777	0.974
	FR1 n48	40M	BPSK	1	1	Left Tilted	0mm	Ant10	DS11	645332	3679.98	12.55	13.50	1.245			-0.07	0.795	0.990
	FR1 n48	40M	BPSK	50	28	Left Tilted	0mm	Ant10	DS11	641666	3624.99	12.57	13.50	1.238			-0.00	0.796	0.985
	FR1 n48	40M	BPSK	50	28	Left Tilted	0mm	Ant10	DS11	638000	3570	12.51	13.50	1.256			-0.07	0.775	0.973
	FR1 n48	40M	BPSK	50	28	Left Tilted	0mm	Ant10	DS11	645332	3679.98	12.48	13.50	1.265			0.04	0.751	0.950
	FR1 n48	40M	BPSK	100	0	Left Tilted	0mm	Ant10	DS11	641666	3624.99	12.54	13.50	1.247			0.06	0.698	0.870
	FR1 n48	40M	BPSK	1	1	Right Cheek	0mm	Ant11	DS11	641666	3624.99	13.85	15.00	1.303			-0.03	0.812	1.058
	FR1 n48	40M	BPSK	1	1	Right Cheek	0mm	Ant11	DS11	638000	3570	13.82	15.00	1.312			-0.04	0.797	1.046
	FR1 n48	40M	BPSK	1	1	Right Cheek	0mm	Ant11	DS11	645332	3679.98	13.79	15.00	1.321			-0.00	0.762	1.007
	FR1 n48	40M	BPSK	50	28	Right Cheek	0mm	Ant11	DS11	641666	3624.99	13.79	15.00	1.321			0.04	0.629	0.831
21	FR1 n48	40M	BPSK	50	28	Right Cheek	0mm	Ant11	DS11	638000	3570	13.73	15.00	1.34			-0.14	0.816	1.093
	FR1 n48	40M	BPSK	50	28	Right Cheek	0mm	Ant11	DS11	645332	3679.98	13.75	15.00	1.334			-0.10	0.602	0.803
	FR1 n48	40M	BPSK	100	0	Right Cheek	0mm	Ant11	DS11	641666	3624.99	13.75	15.00	1.334			-0.16	0.626	0.835



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	FR1 n48	40M	BPSK	1	1	Right Tilted	0mm	Ant11	DS11	641666	3624.99	13.85	15.00	1.303			0.05	0.762	0.993
	FR1 n48	40M	BPSK	1	1	Right Tilted	0mm	Ant11	DS11	638000	3570	13.82	15.00	1.312			-0.12	0.762	1.000
	FR1 n48	40M	BPSK	1	1	Right Tilted	0mm	Ant11	DS11	645332	3679.98	13.79	15.00	1.321			0.06	0.703	0.929
	FR1 n48	40M	BPSK	50	28	Right Tilted	0mm	Ant11	DS11	641666	3624.99	13.79	15.00	1.321			0.07	0.598	0.790
	FR1 n48	40M	BPSK	50	28	Right Tilted	0mm	Ant11	DS11	638000	3570	13.73	15.00	1.34			0.02	0.731	0.980
	FR1 n48	40M	BPSK	50	28	Right Tilted	0mm	Ant11	DS11	645332	3679.98	13.75	15.00	1.334			0.15	0.587	0.783
	FR1 n48	40M	BPSK	100	0	Right Tilted	0mm	Ant11	DS11	641666	3624.99	13.75	15.00	1.334			0.17	0.525	0.700
	FR1 n48	40M	BPSK	1	1	Left Cheek	0mm	Ant11	DS11	641666	3624.99	13.85	15.00	1.303			-0.13	0.345	0.450
	FR1 n48	40M	BPSK	50	28	Left Cheek	0mm	Ant11	DS11	641666	3624.99	13.79	15.00	1.321			-0.08	0.275	0.363
	FR1 n48	40M	BPSK	1	1	Left Tilted	0mm	Ant11	DS11	641666	3624.99	13.85	15.00	1.303			0.07	0.396	0.516
	FR1 n48	40M	BPSK	50	28	Left Tilted	0mm	Ant11	DS11	641666	3624.99	13.79	15.00	1.321			-0.07	0.312	0.412
	FR1 n77	100M	BPSK	1	1	Right Cheek	0mm	Ant8	DS11	633332	3499.98	16.16	17.00	1.213			0.18	0.150	0.182
	FR1 n77	100M	BPSK	135	69	Right Cheek	0mm	Ant8	DS11	633332	3499.98	16.14	17.00	1.219			-0.05	0.141	0.172
	FR1 n77	100M	BPSK	1	1	Right Tilted	0mm	Ant8	DS11	633332	3499.98	16.16	17.00	1.213			0.06	0.105	0.127
	FR1 n77	100M	BPSK	135	69	Right Tilted	0mm	Ant8	DS11	633332	3499.98	16.14	17.00	1.219			-0.05	0.096	0.117
	FR1 n77	100M	BPSK	1	1	Left Cheek	0mm	Ant8	DS11	633332	3499.98	16.16	17.00	1.213			-0.02	0.732	0.888
	FR1 n77	100M	BPSK	135	69	Left Cheek	0mm	Ant8	DS11	633332	3499.98	16.14	17.00	1.219			-0.04	0.591	0.720
	FR1 n77	100M	BPSK	270	0	Left Cheek	0mm	Ant8	DS11	633332	3499.98	16.12	17.00	1.225			0.03	0.596	0.730
	FR1 n77	100M	BPSK	1	1	Left Tilted	0mm	Ant8	DS11	633332	3499.98	16.16	17.00	1.213			-0.04	0.264	0.320
	FR1 n77	100M	BPSK	135	69	Left Tilted	0mm	Ant8	DS11	633332	3499.98	16.14	17.00	1.219			-0.17	0.234	0.285
	FR1 n77_HPUE	100M	BPSK	1	1	Left Cheek	0mm	Ant8	DS11	633332	3499.98	19.42	20.50	1.282	50.0	1.0	0.06	0.704	0.903
	FR1 n77	100M	BPSK	1	1	Right Cheek	0mm	Ant9	DS11	633332	3499.98	17.48	18.50	1.265			-0.19	0.707	0.894
	FR1 n77	100M	BPSK	135	69	Right Cheek	0mm	Ant9	DS11	633332	3499.98	17.47	18.50	1.268			-0.03	0.782	0.992
	FR1 n77	100M	BPSK	270	0	Right Cheek	0mm	Ant9	DS11	633332	3499.98	17.45	18.50	1.274			0.05	0.772	0.984
	FR1 n77	100M	BPSK	1	1	Right Tilted	0mm	Ant9	DS11	633332	3499.98	17.48	18.50	1.265			-0.07	0.407	0.515
	FR1 n77	100M	BPSK	135	69	Right Tilted	0mm	Ant9	DS11	633332	3499.98	17.47	18.50	1.268			-0.15	0.530	0.672
	FR1 n77	100M	BPSK	1	1	Left Cheek	0mm	Ant9	DS11	633332	3499.98	17.48	18.50	1.265			0.03	0.360	0.455
	FR1 n77	100M	BPSK	135	69	Left Cheek	0mm	Ant9	DS11	633332	3499.98	17.47	18.50	1.268			0.17	0.413	0.524
	FR1 n77	100M	BPSK	1	1	Left Tilted	0mm	Ant9	DS11	633332	3499.98	17.48	18.50	1.265			-0.17	0.159	0.201
	FR1 n77	100M	BPSK	135	69	Left Tilted	0mm	Ant9	DS11	633332	3499.98	17.47	18.50	1.268			-0.13	0.189	0.240
	FR1 n77_HPUE	100M	BPSK	135	69	Right Cheek	0mm	Ant9	DS11	633332	3499.98	20.46	21.50	1.271	50.0	1.0	0.08	0.726	0.923
	FR1 n77	100M	BPSK	1	1	Right Cheek	0mm	Ant10	DS11	633332	3499.98	12.45	13.50	1.274			0.08	0.380	0.484
	FR1 n77	100M	BPSK	135	69	Right Cheek	0mm	Ant10	DS11	633332	3499.98	12.44	13.50	1.276			-0.14	0.355	0.453
	FR1 n77	100M	BPSK	1	1	Right Tilted	0mm	Ant10	DS11	633332	3499.98	12.45	13.50	1.274			-0.07	0.462	0.589
	FR1 n77	100M	BPSK	135	69	Right Tilted	0mm	Ant10	DS11	633332	3499.98	12.44	13.50	1.276			-0.10	0.443	0.565
	FR1 n77	100M	BPSK	1	1	Left Cheek	0mm	Ant10	DS11	633332	3499.98	12.45	13.50	1.274			0.02	0.676	0.861
	FR1 n77	100M	BPSK	135	69	Left Cheek	0mm	Ant10	DS11	633332	3499.98	12.44	13.50	1.276			0.11	0.603	0.769
	FR1 n77	100M	BPSK	270	0	Left Cheek	0mm	Ant10	DS11	633332	3499.98	12.39	13.50	1.291			0.03	0.596	0.769
22	FR1 n77	100M	BPSK	1	1	Left Tilted	0mm	Ant10	DS11	633332	3499.98	12.45	13.50	1.274			0.15	0.779	0.992
	FR1 n77	100M	BPSK	135	69	Left Tilted	0mm	Ant10	DS11	633332	3499.98	12.44	13.50	1.276			-0.07	0.746	0.952
	FR1 n77	100M	BPSK	270	0	Left Tilted	0mm	Ant10	DS11	633332	3499.98	12.39	13.50	1.291			-0.03	0.736	0.950
	FR1 n77_HPUE	100M	BPSK	1	1	Left Tilted	0mm	Ant10	DS11	633332	3499.98	15.47	16.50	1.268	50.0	1.0	0.08	0.777	0.985
	FR1 n77	100M	BPSK	1	1	Right Cheek	0mm	Ant11	DS11	633332	3499.98	14.05	15.00	1.245			0.02	0.712	0.886
	FR1 n77	100M	BPSK	135	69	Right Cheek	0mm	Ant11	DS11	633332	3499.98	14.02	15.00	1.253			-0.10	0.641	0.803
	FR1 n77	100M	BPSK	270	0	Right Cheek	0mm	Ant11	DS11	633332	3499.98	13.97	15.00	1.268			-0.01	0.606	0.768
	FR1 n77	100M	BPSK	1	1	Right Tilted	0mm	Ant11	DS11	633332	3499.98	14.05	15.00	1.245			0.08	0.662	0.824
	FR1 n77	100M	BPSK	135	69	Right Tilted	0mm	Ant11	DS11	633332	3499.98	14.02	15.00	1.253			0.11	0.608	0.762
	FR1 n77	100M	BPSK	270	0	Right Tilted	0mm	Ant11	DS11	633332	3499.98	13.97	15.00	1.268			0.15	0.578	0.733
	FR1 n77	100M	BPSK	1	1	Left Cheek	0mm	Ant11	DS11	633332	3499.98	14.05	15.00	1.245			-0.03	0.346	0.431
	FR1 n77	100M	BPSK	135	69	Left Cheek	0mm	Ant11	DS11	633332	3499.98	14.02	15.00	1.253			-0.17	0.302	0.378
	FR1 n77	100M	BPSK	1	1	Left Tilted	0mm	Ant11	DS11	633332	3499.98	14.05	15.00	1.245			0.10	0.360	0.448
	FR1 n77	100M	BPSK	135	69	Left Tilted	0mm	Ant11	DS11	633332	3499.98	14.02	15.00	1.253			-0.11	0.322	0.403
	FR1 n77_HPUE	100M	BPSK	1	1	Right Cheek	0mm	Ant11	DS11	633332	3499.98	17.05	18.00	1.245	50.0	1.0	0.13	0.711	0.885
	FR1 n77	100M	BPSK	1	1	Right Cheek	0mm	Ant8	DS11	656000	3840	16.13	17.00	1.222			-0.04	0.212	0.259
	FR1 n77	100M	BPSK	135	69	Right Cheek	0mm	Ant8	DS11	656000	3840	16.11	17.00	1.227			-0.01	0.199	0.244
	FR1 n77	100M	BPSK	1	1	Right Tilted	0mm	Ant8	DS11	656000	3840	16.13	17.00	1.222			0.08	0.123	0.150
	FR1 n77	100M	BPSK	135	69	Right Tilted	0mm	Ant8	DS11	656000	3840	16.11	17.00	1.227			-0.17	0.117	0.144
	FR1 n77	100M	BPSK	1	1	Left Cheek	0mm	Ant8	DS11	656000	3840	16.13	17.00	1.222			-0.04	0.754	0.921
	FR1 n77	100M	BPSK	135	69	Left Cheek	0mm	Ant8	DS11	656000	3840	16.11	17.00	1.227			-0.18	0.747	0.917
	FR1 n77	100M	BPSK	270	0	Left Cheek	0mm	Ant8	DS11	656000	3840	16.09	17.00	1.233			0.11	0.727	0.896
	FR1 n77	100M	BPSK	1	1	Left Tilted	0mm	Ant8	DS11	656000	3840	16.13	17.00	1.222			0.16	0.233	0.285
	FR1 n77	100M	BPSK	135	69	Left Tilted	0mm	Ant8	DS11	656000	3840	16.11	17.00	1.227			0.03	0.223	0.274
	FR1 n77_HPUE	100M	BPSK	1	1	Left Cheek	0mm	Ant8	DS11	656000	3840	19.25	20.50	1.334	50.0	1.0	-0.10	0.742	0.990
	FR1 n77	100M	BPSK	1	1	Right Cheek	0mm	Ant9	DS11	656000	3840	17.43	18.50	1.279			-0.16	0.528	0.675
	FR1 n77	100M	BPSK	135	69	Right Cheek	0mm	Ant9	DS11	656000	3840	17.42	18.50	1.282			0.04	0.552	0.708
	FR1 n77	100M	BPSK	1	1	Right Tilted	0mm	Ant9	DS11	656000	3840	17.43	18.50	1.279			-0.14	0.368	0.471
	FR1 n77	100M	BPSK	135	69	Right Tilted	0mm	Ant9	DS11	656000	3840	17.42	18.50	1.282			0.07	0.371	0.476
	FR1 n77	100M	BPSK	1	1	Left Cheek	0mm	Ant9	DS11	656000	3840	17.43	18.50	1.279			0.11	0.451	0.577
	FR1 n77	100M	BPSK	135	69	Left Cheek	0mm	Ant9	DS11	656000	3840	17.42	18.50	1.282			0.15	0.502	0.644
	FR1 n77	100M	BPSK	1	1	Left Tilted	0mm	Ant9	DS11	656000	3840	17.43	18.50	1.279			0.10	0.126	0.161
	FR1 n77	100M	BPSK	135	69	Left Tilted	0mm	Ant9	DS11	656000	3840	17.42	18.50	1.282			-0.15	0.125	0.160
	FR1 n77_HPUE	100M	BPSK	135	69	Right Cheek	0mm	Ant9	DS11	656000	3840	20.43	21.50	1.279	50.0	1.0	0.15	0.521	0.666
	FR1 n77	100M	BPSK	1	1	Right Cheek	0mm	Ant10	DS11	656000	3840	12.35	13.50	1.303</					



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	FR1 n77	100M	BPSK	135	69	Right Cheek	0mm	Ant10	DS11	656000	3840	12.34	13.50	1.306			-0.17	0.314	0.410
	FR1 n77	100M	BPSK	1	1	Right Tilted	0mm	Ant10	DS11	656000	3840	12.35	13.50	1.303			-0.01	0.447	0.582
	FR1 n77	100M	BPSK	135	69	Right Tilted	0mm	Ant10	DS11	656000	3840	12.34	13.50	1.306			-0.01	0.392	0.512
	FR1 n77	100M	BPSK	1	1	Left Cheek	0mm	Ant10	DS11	656000	3840	12.35	13.50	1.303			0.09	0.592	0.771
	FR1 n77	100M	BPSK	135	69	Left Cheek	0mm	Ant10	DS11	656000	3840	12.34	13.50	1.306			-0.10	0.513	0.670
	FR1 n77	100M	BPSK	1	1	Left Tilted	0mm	Ant10	DS11	656000	3840	12.35	13.50	1.303			-0.02	0.743	0.968
	FR1 n77	100M	BPSK	135	69	Left Tilted	0mm	Ant10	DS11	656000	3840	12.34	13.50	1.306			0.17	0.650	0.849
	FR1 n77	100M	BPSK	270	0	Left Tilted	0mm	Ant10	DS11	656000	3840	12.10	13.50	1.38			0.05	0.655	0.904
	FR1 n77_HPUE	100M	BPSK	1	1	Left Tilted	0mm	Ant10	DS11	656000	3840	15.44	16.50	1.276	50.0	1.0	0.03	0.723	0.923
	FR1 n77	100M	BPSK	1	1	Right Cheek	0mm	Ant11	DS11	656000	3840	13.61	15.00	1.377			-0.09	0.487	0.671
	FR1 n77	100M	BPSK	135	69	Right Cheek	0mm	Ant11	DS11	656000	3840	13.58	15.00	1.387			-0.13	0.476	0.660
	FR1 n77	100M	BPSK	1	1	Right Tilted	0mm	Ant11	DS11	656000	3840	13.61	15.00	1.377			-0.00	0.509	0.701
	FR1 n77	100M	BPSK	135	69	Right Tilted	0mm	Ant11	DS11	656000	3840	13.58	15.00	1.387			0.11	0.489	0.678
	FR1 n77	100M	BPSK	1	1	Left Cheek	0mm	Ant11	DS11	656000	3840	13.61	15.00	1.377			-0.14	0.251	0.346
	FR1 n77	100M	BPSK	135	69	Left Cheek	0mm	Ant11	DS11	656000	3840	13.58	15.00	1.387			0.11	0.252	0.350
	FR1 n77	100M	BPSK	1	1	Left Tilted	0mm	Ant11	DS11	656000	3840	13.61	15.00	1.377			0.14	0.280	0.386
	FR1 n77	100M	BPSK	135	69	Left Tilted	0mm	Ant11	DS11	656000	3840	13.58	15.00	1.387			-0.05	0.283	0.393
	FR1 n77_HPUE	100M	BPSK	1	1	Right Tilted	0mm	Ant11	DS11	656000	3840	16.62	18.00	1.374	50.0	1.0	-0.12	0.501	0.688

【WLAN 2.4GHz_5GHz SAR】

Plot No	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant7	Head Standalone	1	2412	18.32	19.00	1.169	97.1	1.03	-0.13	0.652	0.785
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant7	Head Standalone	1	2412	18.32	19.00	1.169	97.1	1.03	0.08	0.105	0.126
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant7	Head Standalone	1	2412	18.32	19.00	1.169	97.1	1.03	-0.11	0.807	0.972
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant7	Head Standalone	6	2437	18.24	19.00	1.191	97.1	1.03	-0.00	0.820	1.006
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant7	Head Standalone	11	2462	18.27	19.00	1.183	97.1	1.03	-0.04	0.763	0.930
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant7	Head Standalone	1	2412	18.32	19.00	1.169	97.1	1.03	0.09	0.208	0.250
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant12	Head Standalone	1	2412	17.82	18.50	1.169	98.53	1.015	0.10	0.501	0.594
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant12	Head Standalone	1	2412	17.82	18.50	1.169	98.53	1.015	0.04	0.731	0.867
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant12	Head Standalone	6	2437	17.78	18.50	1.18	98.53	1.015	0.02	0.616	0.738
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant12	Head Standalone	11	2462	17.71	18.50	1.199	98.53	1.015	0.14	0.731	0.890
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant12	Head Standalone	1	2412	17.82	18.50	1.169	98.53	1.015	0.07	0.737	0.874
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant12	Head Standalone	6	2437	17.78	18.50	1.18	98.53	1.015	0.14	0.610	0.731
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant12	Head Standalone	11	2462	17.71	18.50	1.199	98.53	1.015	0.03	0.840	1.022
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant12	Head Standalone	1	2412	17.82	18.50	1.169	98.53	1.015	0.00	0.810	0.961
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant12	Head Standalone	6	2437	17.78	18.50	1.18	98.53	1.015	-0.11	0.665	0.796
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant12	Head Standalone	11	2462	17.71	18.50	1.199	98.53	1.015	0.11	0.822	1.000
	WLAN2.4GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 7+12	Head Standalone	6	2437	21.20	22.00	1.202	99.82	1.002	-0.02	0.549	0.661
	WLAN2.4GHz	802.11n-HT40 MCS0	Right Tilted	0mm	Ant 7+12	Head Standalone	6	2437	21.20	22.00	1.202	99.82	1.002	0.06	0.683	0.823
	WLAN2.4GHz	802.11n-HT40 MCS0	Right Tilted	0mm	Ant 7+12	Head Standalone	3	2422	21.10	22.00	1.23	99.82	1.002	0.12	0.744	0.917
	WLAN2.4GHz	802.11n-HT40 MCS0	Right Tilted	0mm	Ant 7+12	Head Standalone	9	2452	21.11	22.00	1.227	99.82	1.002	0.18	0.738	0.907
23	WLAN2.4GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 7+12	Head Standalone	6	2437	21.20	22.00	1.202	99.82	1.002	0.00	0.908	1.094
	WLAN2.4GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 7+12	Head Standalone	3	2422	21.10	22.00	1.23	99.82	1.002	0.01	0.811	1.000
	WLAN2.4GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 7+12	Head Standalone	9	2452	21.11	22.00	1.227	99.82	1.002	-0.00	0.826	1.016
	WLAN2.4GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 7+12	Head Standalone	6	2437	21.20	22.00	1.202	99.82	1.002	0.09	0.759	0.914
	WLAN2.4GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 7+12	Head Standalone	3	2422	21.10	22.00	1.23	99.82	1.002	-0.02	0.826	1.018
	WLAN2.4GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 7+12	Head Standalone	9	2452	21.11	22.00	1.227	99.82	1.002	-0.01	0.804	0.988
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 8+10(10)	Head Standalone	50	5250	13.87	14.50	1.156	100.0	1.0	0.04	0.466	0.539
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 8+10(10)	Head Standalone	50	5250	13.87	14.50	1.156	100.0	1.0	0.09	0.512	0.592
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 8+10(10)	Head Standalone	50	5250	13.87	14.50	1.156	100.0	1.0	0.07	0.782	0.904
24	WLAN5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 8+10(10)	Head Standalone	50	5250	13.87	14.50	1.156	100.0	1.0	0.17	0.878	1.015
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 8+10(8)	Head Standalone	114	5570	16.58	17.50	1.236	100.0	1.0	0.03	0.418	0.517
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 8+10(8)	Head Standalone	114	5570	16.58	17.50	1.236	100.0	1.0	0.14	0.523	0.646
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 8+10(8)	Head Standalone	114	5570	16.58	17.50	1.236	100.0	1.0	-0.02	0.644	0.796
25	WLAN5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 8+10(8)	Head Standalone	114	5570	16.58	17.50	1.236	100.0	1.0	0.10	0.765	0.946
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 8+10(10)	Head Standalone	155	5775	13.72	14.50	1.197	100.0	1.0	-0.03	0.425	0.509
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 8+10(10)	Head Standalone	155	5775	13.72	14.50	1.197	100.0	1.0	0.03	0.515	0.616
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 8+10(10)	Head Standalone	155	5775	13.72	14.50	1.197	100.0	1.0	-0.14	0.689	0.825
26	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 8+10(10)	Head Standalone	155	5775	13.72	14.50	1.197	100.0	1.0	0.03	0.829	0.992

**【 Bluetooth SAR 】**

Plot No	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	Bluetooth	1Mbps	Right Cheek	0mm	Ant7	Head Standalone	39	2441	18.47	19.50	1.268	77.32	1.077	-0.13	0.637	0.870
	Bluetooth	1Mbps	Right Cheek	0mm	Ant7	Head Standalone	0	2402	18.37	19.50	1.297	77.32	1.077	0.19	0.239	0.334
	Bluetooth	1Mbps	Right Cheek	0mm	Ant7	Head Standalone	78	2480	17.96	19.50	1.426	77.32	1.077	-0.10	0.490	0.753
	Bluetooth	1Mbps	Right Tilted	0mm	Ant7	Head Standalone	39	2441	18.47	19.50	1.268	77.32	1.077	0.12	0.096	0.131
27	Bluetooth	1Mbps	Left Cheek	0mm	Ant7	Head Standalone	39	2441	18.47	19.50	1.268	77.32	1.077	-0.05	0.795	1.086
	Bluetooth	1Mbps	Left Cheek	0mm	Ant7	Head Standalone	0	2402	18.37	19.50	1.297	77.32	1.077	-0.18	0.308	0.430
	Bluetooth	1Mbps	Left Cheek	0mm	Ant7	Head Standalone	78	2480	17.96	19.50	1.426	77.32	1.077	0.04	0.631	0.969
	Bluetooth	1Mbps	Left Tilted	0mm	Ant7	Head Standalone	39	2441	18.47	19.50	1.268	77.32	1.077	-0.02	0.214	0.292
	Bluetooth	1Mbps	Right Cheek	0mm	Ant12	Head Standalone	39	2441	18.51	20.00	1.409	77.06	1.081	-0.14	0.235	0.358
	Bluetooth	1Mbps	Right Tilted	0mm	Ant12	Head Standalone	39	2441	18.51	20.00	1.409	77.06	1.081	-0.10	0.266	0.405
	Bluetooth	1Mbps	Left Cheek	0mm	Ant12	Head Standalone	39	2441	18.51	20.00	1.409	77.06	1.081	0.09	0.335	0.510
	Bluetooth	1Mbps	Left Tilted	0mm	Ant12	Head Standalone	39	2441	18.51	20.00	1.409	77.06	1.081	-0.05	0.447	0.681



16.2 Hotspot SAR

【GSM SAR】

Plot No	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	GSM850	GPRS 4 Tx slots	Front	10mm	Ant0	DSi5	189	836.4	26.73	28.00	1.34	0.12	0.355	0.476
	GSM850	GPRS 4 Tx slots	Back	10mm	Ant0	DSi5	189	836.4	26.73	28.00	1.34	0.12	0.426	0.571
	GSM850	GPRS 4 Tx slots	Left Edge	10mm	Ant0	DSi5	189	836.4	26.73	28.00	1.34	-0.13	0.156	0.209
	GSM850	GPRS 4 Tx slots	Right Edge	10mm	Ant0	DSi5	189	836.4	26.73	28.00	1.34	0.04	0.441	0.591
	GSM850	GPRS 4 Tx slots	Top Edge	10mm	Ant0	DSi5	189	836.4	26.73	28.00	1.34	0.07	0.002	0.003
	GSM850	GPRS 4 Tx slots	Bottom Edge	10mm	Ant0	DSi5	189	836.4	26.73	28.00	1.34	-0.14	0.283	0.379
	GSM850	GPRS 4 Tx slots	Front	10mm	Ant1	DSi5	189	836.4	22.18	23.50	1.355	-0.01	0.286	0.388
	GSM850	GPRS 4 Tx slots	Back	10mm	Ant1	DSi5	189	836.4	22.18	23.50	1.355	0.01	0.346	0.469
28	GSM850	GPRS 4 Tx slots	Left Edge	10mm	Ant1	DSi5	189	836.4	22.18	23.50	1.355	0.04	0.493	0.668
	GSM850	GPRS 4 Tx slots	Right Edge	10mm	Ant1	DSi5	189	836.4	22.18	23.50	1.355	-0.08	0.001	0.001
	GSM850	GPRS 4 Tx slots	Top Edge	10mm	Ant1	DSi5	189	836.4	22.18	23.50	1.355	0.07	0.001	0.001
	GSM850	GPRS 4 Tx slots	Bottom Edge	10mm	Ant1	DSi5	189	836.4	22.18	23.50	1.355	-0.01	0.001	0.001
	GSM1900	GPRS 4 Tx slots	Front	10mm	Ant4	DSi5	661	1880	21.33	22.50	1.309	0.03	0.109	0.143
	GSM1900	GPRS 4 Tx slots	Back	10mm	Ant4	DSi5	661	1880	21.33	22.50	1.309	0.01	0.140	0.183
	GSM1900	GPRS 4 Tx slots	Left Edge	10mm	Ant4	DSi5	661	1880	21.33	22.50	1.309	0.16	0.210	0.275
	GSM1900	GPRS 4 Tx slots	Right Edge	10mm	Ant4	DSi5	661	1880	21.33	22.50	1.309	-0.12	0.001	0.001
	GSM1900	GPRS 4 Tx slots	Top Edge	10mm	Ant4	DSi5	661	1880	21.33	22.50	1.309	-0.14	0.061	0.080
	GSM1900	GPRS 4 Tx slots	Bottom Edge	10mm	Ant4	DSi5	661	1880	21.33	22.50	1.309	0.04	0.001	0.001
	GSM1900	GPRS 4 Tx slots	Front	10mm	Ant6	DSi5	661	1880	23.20	24.00	1.202	0.15	0.298	0.358
	GSM1900	GPRS 4 Tx slots	Back	10mm	Ant6	DSi5	661	1880	23.20	24.00	1.202	0.03	0.318	0.382
	GSM1900	GPRS 4 Tx slots	Left Edge	10mm	Ant6	DSi5	661	1880	23.20	24.00	1.202	-0.16	0.107	0.129
	GSM1900	GPRS 4 Tx slots	Right Edge	10mm	Ant6	DSi5	661	1880	23.20	24.00	1.202	-0.19	0.054	0.065
	GSM1900	GPRS 4 Tx slots	Top Edge	10mm	Ant6	DSi5	661	1880	23.20	24.00	1.202	0.05	0.001	0.001
29	GSM1900	GPRS 4 Tx slots	Bottom Edge	10mm	Ant6	DSi5	661	1880	23.20	24.00	1.202	0.01	0.483	0.581

【WCDMA SAR】

Plot No	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA II	RMC 12.2Kbps	Front	10mm	Ant4	DSi5	9400	1880	17.86	18.50	1.159	0.06	0.133	0.154
	WCDMA II	RMC 12.2Kbps	Back	10mm	Ant4	DSi5	9400	1880	17.86	18.50	1.159	0.09	0.168	0.195
	WCDMA II	RMC 12.2Kbps	Left Edge	10mm	Ant4	DSi5	9400	1880	17.86	18.50	1.159	0.09	0.278	0.322
	WCDMA II	RMC 12.2Kbps	Right Edge	10mm	Ant4	DSi5	9400	1880	17.86	18.50	1.159	0.07	0.001	0.001
	WCDMA II	RMC 12.2Kbps	Top Edge	10mm	Ant4	DSi5	9400	1880	17.86	18.50	1.159	-0.12	0.071	0.082
	WCDMA II	RMC 12.2Kbps	Bottom Edge	10mm	Ant4	DSi5	9400	1880	17.86	18.50	1.159	-0.11	0.001	0.001
	WCDMA II	RMC 12.2Kbps	Front	10mm	Ant6	DSi5	9400	1880	19.19	20.00	1.205	-0.03	0.258	0.311
	WCDMA II	RMC 12.2Kbps	Back	10mm	Ant6	DSi5	9400	1880	19.19	20.00	1.205	-0.11	0.302	0.364
	WCDMA II	RMC 12.2Kbps	Left Edge	10mm	Ant6	DSi5	9400	1880	19.19	20.00	1.205	-0.07	0.106	0.128
	WCDMA II	RMC 12.2Kbps	Right Edge	10mm	Ant6	DSi5	9400	1880	19.19	20.00	1.205	0.10	0.069	0.083
	WCDMA II	RMC 12.2Kbps	Top Edge	10mm	Ant6	DSi5	9400	1880	19.19	20.00	1.205	0.07	0.001	0.001
30	WCDMA II	RMC 12.2Kbps	Bottom Edge	10mm	Ant6	DSi5	9400	1880	19.19	20.00	1.205	0.01	0.524	0.631
	WCDMA IV	RMC 12.2Kbps	Front	10mm	Ant4	DSi5	1413	1732.6	17.18	18.00	1.208	-0.07	0.130	0.157
	WCDMA IV	RMC 12.2Kbps	Back	10mm	Ant4	DSi5	1413	1732.6	17.18	18.00	1.208	-0.01	0.179	0.216
	WCDMA IV	RMC 12.2Kbps	Left Edge	10mm	Ant4	DSi5	1413	1732.6	17.18	18.00	1.208	-0.15	0.245	0.296
	WCDMA IV	RMC 12.2Kbps	Right Edge	10mm	Ant4	DSi5	1413	1732.6	17.18	18.00	1.208	0.14	0.001	0.001
	WCDMA IV	RMC 12.2Kbps	Top Edge	10mm	Ant4	DSi5	1413	1732.6	17.18	18.00	1.208	0.18	0.094	0.114
	WCDMA IV	RMC 12.2Kbps	Bottom Edge	10mm	Ant4	DSi5	1413	1732.6	17.18	18.00	1.208	-0.17	0.001	0.001
	WCDMA IV	RMC 12.2Kbps	Front	10mm	Ant5	DSi5	1413	1732.6	15.65	16.50	1.216	0.13	0.148	0.180
	WCDMA IV	RMC 12.2Kbps	Back	10mm	Ant5	DSi5	1413	1732.6	15.65	16.50	1.216	0.14	0.177	0.215
	WCDMA IV	RMC 12.2Kbps	Left Edge	10mm	Ant5	DSi5	1413	1732.6	15.65	16.50	1.216	-0.13	0.001	0.001
	WCDMA IV	RMC 12.2Kbps	Right Edge	10mm	Ant5	DSi5	1413	1732.6	15.65	16.50	1.216	0.02	0.001	0.001
	WCDMA IV	RMC 12.2Kbps	Top Edge	10mm	Ant5	DSi5	1413	1732.6	15.65	16.50	1.216	-0.03	0.266	0.323
	WCDMA IV	RMC 12.2Kbps	Bottom Edge	10mm	Ant5	DSi5	1413	1732.6	15.65	16.50	1.216	0.04	0.001	0.001
	WCDMA IV	RMC 12.2Kbps	Front	10mm	Ant6	DSi5	1413	1732.6	19.11	20.00	1.227	0.00	0.215	0.264
	WCDMA IV	RMC 12.2Kbps	Back	10mm	Ant6	DSi5	1413	1732.6	19.11	20.00	1.227	-0.17	0.250	0.307
	WCDMA IV	RMC 12.2Kbps	Left Edge	10mm	Ant6	DSi5	1413	1732.6	19.11	20.00	1.227	-0.02	0.137	0.168
	WCDMA IV	RMC 12.2Kbps	Right Edge	10mm	Ant6	DSi5	1413	1732.6	19.11	20.00	1.227	0.07	0.039	0.048
	WCDMA IV	RMC 12.2Kbps	Top Edge	10mm	Ant6	DSi5	1413	1732.6	19.11	20.00	1.227	-0.01	0.001	0.001
31	WCDMA IV	RMC 12.2Kbps	Bottom Edge	10mm	Ant6	DSi5	1413	1732.6	19.11	20.00	1.227	0.04	0.376	0.461
	WCDMA IV	RMC 12.2Kbps	Front	10mm	Ant7	DSi5	1413	1732.6	17.36	18.50	1.3	0.04	0.145	0.189
	WCDMA IV	RMC 12.2Kbps	Back	10mm	Ant7	DSi5	1413	1732.6	17.36	18.50	1.3	-0.05	0.172	0.224
	WCDMA IV	RMC 12.2Kbps	Left Edge	10mm	Ant7	DSi5	1413	1732.6	17.36	18.50	1.3	0.06	0.001	0.001
	WCDMA IV	RMC 12.2Kbps	Right Edge	10mm	Ant7	DSi5	1413	1732.6	17.36	18.50	1.3	0.03	0.272	0.354



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	WCDMA IV	RMC 12.2Kbps	Top Edge	10mm	Ant7	DSi5	1413	1732.6	17.36	18.50	1.3	-0.09	0.001	0.001
	WCDMA IV	RMC 12.2Kbps	Bottom Edge	10mm	Ant7	DSi5	1413	1732.6	17.36	18.50	1.3	0.08	0.001	0.001
	WCDMA V	RMC 12.2Kbps	Front	10mm	Ant0	DSi5	4182	836.4	23.67	24.50	1.211	-0.07	0.354	0.429
	WCDMA V	RMC 12.2Kbps	Back	10mm	Ant0	DSi5	4182	836.4	23.67	24.50	1.211	0.11	0.435	0.527
	WCDMA V	RMC 12.2Kbps	Left Edge	10mm	Ant0	DSi5	4182	836.4	23.67	24.50	1.211	-0.09	0.156	0.189
	WCDMA V	RMC 12.2Kbps	Right Edge	10mm	Ant0	DSi5	4182	836.4	23.67	24.50	1.211	-0.02	0.485	0.587
	WCDMA V	RMC 12.2Kbps	Top Edge	10mm	Ant0	DSi5	4182	836.4	23.67	24.50	1.211	-0.07	0.001	0.001
	WCDMA V	RMC 12.2Kbps	Bottom Edge	10mm	Ant0	DSi5	4182	836.4	23.67	24.50	1.211	-0.12	0.295	0.357
	WCDMA V	RMC 12.2Kbps	Front	10mm	Ant1	DSi5	4182	836.4	18.63	20.00	1.371	0.15	0.344	0.472
	WCDMA V	RMC 12.2Kbps	Back	10mm	Ant1	DSi5	4182	836.4	18.63	20.00	1.371	-0.15	0.398	0.546
32	WCDMA V	RMC 12.2Kbps	Left Edge	10mm	Ant1	DSi5	4182	836.4	18.63	20.00	1.371	0.04	0.523	0.717
	WCDMA V	RMC 12.2Kbps	Right Edge	10mm	Ant1	DSi5	4182	836.4	18.63	20.00	1.371	0.09	0.001	0.001
	WCDMA V	RMC 12.2Kbps	Top Edge	10mm	Ant1	DSi5	4182	836.4	18.63	20.00	1.371	-0.17	0.001	0.001
	WCDMA V	RMC 12.2Kbps	Bottom Edge	10mm	Ant1	DSi5	4182	836.4	18.63	20.00	1.371	-0.11	0.001	0.001

【LTE SAR】

Plot No	Band	BW	Modulation	RB Size	RB Offset	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)
	LTE Band 2	20M	QPSK	1	0	Front	10mm	Ant4	DSi5	18900	1880	17.45	18.50	1.274			-0.16	0.113	0.144
	LTE Band 2	20M	QPSK	50	0	Front	10mm	Ant4	DSi5	18900	1880	17.43	18.50	1.279			0.09	0.095	0.122
	LTE Band 2	20M	QPSK	1	0	Back	10mm	Ant4	DSi5	18900	1880	17.45	18.50	1.274			0.09	0.142	0.181
	LTE Band 2	20M	QPSK	50	0	Back	10mm	Ant4	DSi5	18900	1880	17.43	18.50	1.279			0.13	0.145	0.185
	LTE Band 2	20M	QPSK	1	0	Left Edge	10mm	Ant4	DSi5	18900	1880	17.45	18.50	1.274			0.07	0.245	0.312
	LTE Band 2	20M	QPSK	50	0	Left Edge	10mm	Ant4	DSi5	18900	1880	17.43	18.50	1.279			-0.08	0.236	0.302
	LTE Band 2	20M	QPSK	1	0	Right Edge	10mm	Ant4	DSi5	18900	1880	17.45	18.50	1.274			-0.09	0.001	0.001
	LTE Band 2	20M	QPSK	50	0	Right Edge	10mm	Ant4	DSi5	18900	1880	17.43	18.50	1.279			-0.14	0.001	0.001
	LTE Band 2	20M	QPSK	1	0	Top Edge	10mm	Ant4	DSi5	18900	1880	17.45	18.50	1.274			-0.04	0.063	0.080
	LTE Band 2	20M	QPSK	50	0	Top Edge	10mm	Ant4	DSi5	18900	1880	17.43	18.50	1.279			-0.01	0.065	0.083
	LTE Band 2	20M	QPSK	1	0	Bottom Edge	10mm	Ant4	DSi5	18900	1880	17.45	18.50	1.274			0.05	0.001	0.001
	LTE Band 2	20M	QPSK	50	0	Bottom Edge	10mm	Ant4	DSi5	18900	1880	17.43	18.50	1.279			0.19	0.001	0.001
	LTE Band 2	20M	QPSK	1	0	Front	10mm	Ant5	DSi5	18900	1880	19.39	20.00	1.151			-0.18	0.128	0.147
	LTE Band 2	20M	QPSK	50	0	Front	10mm	Ant5	DSi5	18900	1880	19.33	20.00	1.167			-0.08	0.123	0.144
	LTE Band 2	20M	QPSK	1	0	Back	10mm	Ant5	DSi5	18900	1880	19.39	20.00	1.151			0.01	0.156	0.180
	LTE Band 2	20M	QPSK	50	0	Back	10mm	Ant5	DSi5	18900	1880	19.33	20.00	1.167			-0.09	0.146	0.170
	LTE Band 2	20M	QPSK	1	0	Left Edge	10mm	Ant5	DSi5	18900	1880	19.39	20.00	1.151			-0.03	0.001	0.001
	LTE Band 2	20M	QPSK	50	0	Left Edge	10mm	Ant5	DSi5	18900	1880	19.33	20.00	1.167			-0.02	0.001	0.001
	LTE Band 2	20M	QPSK	1	0	Right Edge	10mm	Ant5	DSi5	18900	1880	19.39	20.00	1.151			0.16	0.001	0.001
	LTE Band 2	20M	QPSK	50	0	Right Edge	10mm	Ant5	DSi5	18900	1880	19.33	20.00	1.167			0.11	0.001	0.001
	LTE Band 2	20M	QPSK	1	0	Top Edge	10mm	Ant5	DSi5	18900	1880	19.39	20.00	1.151			-0.11	0.263	0.303
	LTE Band 2	20M	QPSK	50	0	Top Edge	10mm	Ant5	DSi5	18900	1880	19.33	20.00	1.167			-0.18	0.250	0.292
	LTE Band 2	20M	QPSK	1	0	Bottom Edge	10mm	Ant5	DSi5	18900	1880	19.39	20.00	1.151			-0.11	0.001	0.001
	LTE Band 2	20M	QPSK	50	0	Bottom Edge	10mm	Ant5	DSi5	18900	1880	19.33	20.00	1.167			-0.06	0.001	0.001
	LTE Band 2	20M	QPSK	1	0	Front	10mm	Ant6	DSi5	18900	1880	18.65	19.50	1.216			-0.10	0.252	0.306
	LTE Band 2	20M	QPSK	50	0	Front	10mm	Ant6	DSi5	18900	1880	18.62	19.50	1.225			0.02	0.260	0.319
	LTE Band 2	20M	QPSK	1	0	Back	10mm	Ant6	DSi5	18900	1880	18.65	19.50	1.216			0.02	0.282	0.343
	LTE Band 2	20M	QPSK	50	0	Back	10mm	Ant6	DSi5	18900	1880	18.62	19.50	1.225			-0.11	0.324	0.397
	LTE Band 2	20M	QPSK	1	0	Left Edge	10mm	Ant6	DSi5	18900	1880	18.65	19.50	1.216			0.06	0.103	0.125
	LTE Band 2	20M	QPSK	50	0	Left Edge	10mm	Ant6	DSi5	18900	1880	18.62	19.50	1.225			-0.16	0.101	0.124
	LTE Band 2	20M	QPSK	1	0	Right Edge	10mm	Ant6	DSi5	18900	1880	18.65	19.50	1.216			-0.06	0.051	0.062
	LTE Band 2	20M	QPSK	50	0	Right Edge	10mm	Ant6	DSi5	18900	1880	18.62	19.50	1.225			-0.06	0.052	0.064
	LTE Band 2	20M	QPSK	1	0	Top Edge	10mm	Ant6	DSi5	18900	1880	18.65	19.50	1.216			-0.17	0.001	0.001
	LTE Band 2	20M	QPSK	50	0	Top Edge	10mm	Ant6	DSi5	18900	1880	18.62	19.50	1.225			-0.14	0.001	0.001
33	LTE Band 2	20M	QPSK	1	0	Bottom Edge	10mm	Ant6	DSi5	18900	1880	18.65	19.50	1.216			-0.07	0.506	0.615
	LTE Band 2	20M	QPSK	50	0	Bottom Edge	10mm	Ant6	DSi5	18900	1880	18.62	19.50	1.225			-0.15	0.499	0.611
	LTE Band 5 Other PA	10M	QPSK	1	0	Front	10mm	Ant1	DSi 5	20525	836.5	18.85	20.00	1.303			0.01	0.317	0.413
	LTE Band 5 Other PA	10M	QPSK	25	0	Front	10mm	Ant1	DSi 5	20525	836.5	18.83	20.00	1.309			0.10	0.323	0.423
	LTE Band 5 Other PA	10M	QPSK	1	0	Back	10mm	Ant1	DSi 5	20525	836.5	18.85	20.00	1.303			-0.05	0.367	0.478
	LTE Band 5 Other PA	10M	QPSK	25	0	Back	10mm	Ant1	DSi 5	20525	836.5	18.83	20.00	1.309			-0.10	0.371	0.486
	LTE Band 5 Other PA	10M	QPSK	1	0	Left Edge	10mm	Ant1	DSi 5	20525	836.5	18.85	20.00	1.303			-0.17	0.476	0.620
34	LTE Band 5 Other PA	10M	QPSK	25	0	Left Edge	10mm	Ant1	DSi 5	20525	836.5	18.83	20.00	1.309			0.02	0.492	0.644
	LTE Band 5 Other PA	10M	QPSK	1	0	Right Edge	10mm	Ant1	DSi 5	20525	836.5	18.85	20.00	1.303			0.08	0.001	0.001
	LTE Band 5 Other PA	10M	QPSK	25	0	Right Edge	10mm	Ant1	DSi 5	20525	836.5	18.83	20.00	1.309			0.07	0.001	0.001
	LTE Band 5 Other PA	10M	QPSK	1	0	Top Edge	10mm	Ant1	DSi 5	20525	836.5	18.85	20.00	1.303			0.04	0.001	0.001
	LTE Band 5 Other PA	10M	QPSK	25	0	Top Edge	10mm	Ant1	DSi 5	20525	836.5	18.83	20.00	1.309			0.16	0.001	0.001
	LTE Band 5 Other PA	10M	QPSK	1	0	Bottom Edge	10mm	Ant1	DSi 5	20525	836.5	18.85	20.00	1.303			0.01	0.001	0.001
	LTE Band 5 Other PA	10M	QPSK	25	0	Bottom Edge	10mm	Ant1	DSi 5	20525	836.5	18.83	20.00	1.309			0.09	0.001	0.001



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	LTE Band 7	20M	QPSK	1	0	Front	10mm	Ant4	DSIS	21100	2535	16.82	17.20	1.091			-0.03	0.167	0.182
	LTE Band 7	20M	QPSK	50	0	Front	10mm	Ant4	DSIS	21100	2535	16.78	17.20	1.102			0.05	0.172	0.190
	LTE Band 7	20M	QPSK	1	0	Back	10mm	Ant4	DSIS	21100	2535	16.82	17.20	1.091			-0.12	0.202	0.220
	LTE Band 7	20M	QPSK	50	0	Back	10mm	Ant4	DSIS	21100	2535	16.78	17.20	1.102			0.12	0.206	0.227
	LTE Band 7	20M	QPSK	1	0	Left Edge	10mm	Ant4	DSIS	21100	2535	16.82	17.20	1.091			-0.10	0.312	0.340
	LTE Band 7	20M	QPSK	50	0	Left Edge	10mm	Ant4	DSIS	21100	2535	16.78	17.20	1.102			-0.01	0.327	0.360
	LTE Band 7	20M	QPSK	1	0	Right Edge	10mm	Ant4	DSIS	21100	2535	16.82	17.20	1.091			-0.09	0.001	0.001
	LTE Band 7	20M	QPSK	50	0	Right Edge	10mm	Ant4	DSIS	21100	2535	16.78	17.20	1.102			-0.18	0.001	0.001
	LTE Band 7	20M	QPSK	1	0	Top Edge	10mm	Ant4	DSIS	21100	2535	16.82	17.20	1.091			-0.02	0.076	0.083
	LTE Band 7	20M	QPSK	50	0	Top Edge	10mm	Ant4	DSIS	21100	2535	16.78	17.20	1.102			-0.12	0.076	0.084
	LTE Band 7	20M	QPSK	1	0	Bottom Edge	10mm	Ant4	DSIS	21100	2535	16.82	17.20	1.091			0.15	0.001	0.001
	LTE Band 7	20M	QPSK	50	0	Bottom Edge	10mm	Ant4	DSIS	21100	2535	16.78	17.20	1.102			0.12	0.001	0.001
	LTE Band 7	20M	QPSK	1	0	Front	10mm	Ant5	DSIS	21100	2535	16.14	17.00	1.219			-0.06	0.101	0.123
	LTE Band 7	20M	QPSK	50	0	Front	10mm	Ant5	DSIS	21100	2535	16.07	17.00	1.239			0.16	0.090	0.112
	LTE Band 7	20M	QPSK	1	0	Back	10mm	Ant5	DSIS	21100	2535	16.14	17.00	1.219			0.06	0.105	0.128
	LTE Band 7	20M	QPSK	50	0	Back	10mm	Ant5	DSIS	21100	2535	16.07	17.00	1.239			0.13	0.101	0.125
	LTE Band 7	20M	QPSK	1	0	Left Edge	10mm	Ant5	DSIS	21100	2535	16.14	17.00	1.219			-0.08	0.158	0.193
	LTE Band 7	20M	QPSK	50	0	Left Edge	10mm	Ant5	DSIS	21100	2535	16.07	17.00	1.239			0.07	0.132	0.164
	LTE Band 7	20M	QPSK	1	0	Right Edge	10mm	Ant5	DSIS	21100	2535	16.14	17.00	1.219			0.15	0.001	0.001
	LTE Band 7	20M	QPSK	50	0	Right Edge	10mm	Ant5	DSIS	21100	2535	16.07	17.00	1.239			-0.13	0.001	0.001
	LTE Band 7	20M	QPSK	1	0	Top Edge	10mm	Ant5	DSIS	21100	2535	16.14	17.00	1.219			-0.01	0.256	0.312
	LTE Band 7	20M	QPSK	50	0	Top Edge	10mm	Ant5	DSIS	21100	2535	16.07	17.00	1.239			-0.11	0.196	0.243
	LTE Band 7	20M	QPSK	1	0	Bottom Edge	10mm	Ant5	DSIS	21100	2535	16.14	17.00	1.219			0.11	0.001	0.001
	LTE Band 7	20M	QPSK	50	0	Bottom Edge	10mm	Ant5	DSIS	21100	2535	16.07	17.00	1.239			0.02	0.001	0.001
	LTE Band 7	20M	QPSK	1	0	Front	10mm	Ant6	DSIS	21100	2535	18.41	19.50	1.285			0.05	0.212	0.272
	LTE Band 7	20M	QPSK	50	0	Front	10mm	Ant6	DSIS	21100	2535	18.39	19.50	1.291			-0.18	0.226	0.292
	LTE Band 7	20M	QPSK	1	0	Back	10mm	Ant6	DSIS	21100	2535	18.41	19.50	1.285			0.16	0.264	0.339
	LTE Band 7	20M	QPSK	50	0	Back	10mm	Ant6	DSIS	21100	2535	18.39	19.50	1.291			0.05	0.277	0.358
	LTE Band 7	20M	QPSK	1	0	Left Edge	10mm	Ant6	DSIS	21100	2535	18.41	19.50	1.285			-0.01	0.072	0.093
	LTE Band 7	20M	QPSK	50	0	Left Edge	10mm	Ant6	DSIS	21100	2535	18.39	19.50	1.291			-0.17	0.090	0.116
	LTE Band 7	20M	QPSK	1	0	Right Edge	10mm	Ant6	DSIS	21100	2535	18.41	19.50	1.285			0.17	0.051	0.066
	LTE Band 7	20M	QPSK	50	0	Right Edge	10mm	Ant6	DSIS	21100	2535	18.39	19.50	1.291			-0.18	0.056	0.072
	LTE Band 7	20M	QPSK	1	0	Top Edge	10mm	Ant6	DSIS	21100	2535	18.41	19.50	1.285			-0.19	0.027	0.035
	LTE Band 7	20M	QPSK	50	0	Top Edge	10mm	Ant6	DSIS	21100	2535	18.39	19.50	1.291			0.01	0.001	0.001
35	LTE Band 7	20M	QPSK	1	0	Bottom Edge	10mm	Ant6	DSIS	21100	2535	18.41	19.50	1.285			0.03	0.398	0.511
	LTE Band 7	20M	QPSK	50	0	Bottom Edge	10mm	Ant6	DSIS	21100	2535	18.39	19.50	1.291			-0.13	0.387	0.500
	LTE Band 7	20M	QPSK	1	0	Front	10mm	Ant7	DSIS	21100	2535	16.39	17.50	1.291			-0.03	0.168	0.217
	LTE Band 7	20M	QPSK	50	0	Front	10mm	Ant7	DSIS	21100	2535	16.35	17.50	1.303			0.06	0.161	0.210
	LTE Band 7	20M	QPSK	1	0	Back	10mm	Ant7	DSIS	21100	2535	16.39	17.50	1.291			0.13	0.201	0.259
	LTE Band 7	20M	QPSK	50	0	Back	10mm	Ant7	DSIS	21100	2535	16.35	17.50	1.303			-0.12	0.196	0.255
	LTE Band 7	20M	QPSK	1	0	Left Edge	10mm	Ant7	DSIS	21100	2535	16.39	17.50	1.291			-0.13	0.001	0.001
	LTE Band 7	20M	QPSK	50	0	Left Edge	10mm	Ant7	DSIS	21100	2535	16.35	17.50	1.303			-0.00	0.001	0.001
	LTE Band 7	20M	QPSK	1	0	Right Edge	10mm	Ant7	DSIS	21100	2535	16.39	17.50	1.291			-0.04	0.277	0.358
	LTE Band 7	20M	QPSK	50	0	Right Edge	10mm	Ant7	DSIS	21100	2535	16.35	17.50	1.303			0.03	0.278	0.362
	LTE Band 7	20M	QPSK	1	0	Top Edge	10mm	Ant7	DSIS	21100	2535	16.39	17.50	1.291			-0.13	0.045	0.058
	LTE Band 7	20M	QPSK	50	0	Top Edge	10mm	Ant7	DSIS	21100	2535	16.35	17.50	1.303			0.14	0.001	0.001
	LTE Band 7	20M	QPSK	1	0	Bottom Edge	10mm	Ant7	DSIS	21100	2535	16.39	17.50	1.291			-0.01	0.001	0.001
	LTE Band 7	20M	QPSK	50	0	Bottom Edge	10mm	Ant7	DSIS	21100	2535	16.35	17.50	1.303			0.16	0.001	0.001
	LTE Band 26	15M	QPSK	1	0	Front	10mm	Ant0	DSIS	26865	831.5	24.56	25.20	1.159			-0.05	0.458	0.531
	LTE Band 26	15M	QPSK	36	0	Front	10mm	Ant0	DSIS	26865	831.5	24.03	24.70	1.167			-0.01	0.392	0.457
	LTE Band 26	15M	QPSK	1	0	Back	10mm	Ant0	DSIS	26865	831.5	24.56	25.20	1.159			0.03	0.526	0.610
	LTE Band 26	15M	QPSK	36	0	Back	10mm	Ant0	DSIS	26865	831.5	24.03	24.70	1.167			-0.00	0.463	0.540
	LTE Band 26	15M	QPSK	1	0	Left Edge	10mm	Ant0	DSIS	26865	831.5	24.56	25.20	1.159			0.12	0.073	0.085
	LTE Band 26	15M	QPSK	36	0	Left Edge	10mm	Ant0	DSIS	26865	831.5	24.03	24.70	1.167			0.09	0.059	0.069
36	LTE Band 26	15M	QPSK	1	0	Right Edge	10mm	Ant0	DSIS	26865	831.5	24.56	25.20	1.159			0.00	0.537	0.622
	LTE Band 26	15M	QPSK	36	0	Right Edge	10mm	Ant0	DSIS	26865	831.5	24.03	24.70	1.167			0.05	0.466	0.544
	LTE Band 26	15M	QPSK	1	0	Top Edge	10mm	Ant0	DSIS	26865	831.5	24.56	25.20	1.159			-0.10	0.001	0.001
	LTE Band 26	15M	QPSK	36	0	Top Edge	10mm	Ant0	DSIS	26865	831.5	24.03	24.70	1.167			-0.04	0.001	0.001
	LTE Band 26	15M	QPSK	1	0	Bottom Edge	10mm	Ant0	DSIS	26865	831.5	24.56	25.20	1.159			0.10	0.359	0.416
	LTE Band 26	15M	QPSK	36	0	Bottom Edge	10mm	Ant0	DSIS	26865	831.5	24.03	24.70	1.167			0.13	0.312	0.364
	LTE Band 5	10M	QPSK	1	0	Right Edge	10mm	Ant0	DSIS	20525	836.5	24.18	25.00	1.208			-0.03	0.428	0.517
	LTE Band 26	15M	QPSK	1	0	Front	10mm	Ant1	DSIS	26865	831.5	18.71	19.70	1.256			-0.10	0.257	0.323
	LTE Band 26	15M	QPSK	36	0	Front	10mm	Ant1	DSIS	26865	831.5	18.69	19.70	1.262			-0.10	0.263	0.332
	LTE Band 26	15M	QPSK	1	0	Back	10mm	Ant1	DSIS	26865	831.5	18.71	19.70	1.256			0.02	0.299	0.376
	LTE Band 26	15M	QPSK	36	0	Back	10mm	Ant1	DSIS	26865	831.5	18.69	19.70	1.262			0.05	0.302	0.381
	LTE Band 26	15M	QPSK	1	0	Left Edge	10mm	Ant1	DSIS	26865	831.5	18.71	19.70	1.256			0.03	0.387	0.486
	LTE Band 26	15M	QPSK	36	0	Left Edge	10mm	Ant1	DSIS	26865	831.5	18.69	19.70	1.262			-0.01	0.400	0.505
	LTE Band 26	15M	QPSK	1	0	Right Edge	10mm	Ant1	DSIS	26865	831.5	18.71	19.70	1.256			-0.16	0.001	0.001
	LTE Band 26	15M	QPSK	36	0	Right Edge	10mm	Ant1	DSIS	26865	831.5	18.69	19.70	1.262			0.09	0.001	0.001
	LTE Band 26	15M	QPSK	1	0	Top Edge	10mm	Ant1	DSIS	26865	831.5	18.71	19.70	1.256			0.04	0.001	0.001
	LTE Band 26	15M	QPSK	36	0	Top Edge	10mm	Ant1	DSIS	26865	831.5	18.69	19.70	1.262			-0.11	0.001	0.001
	LTE Band 26	15M	QPSK	1	0	Bottom Edge	10mm	Ant1	DSIS	26865	831.5	18.71	19.70	1.256			-0.17	0.001	0.001
	LTE Band 26	15M	QPSK	36	0	Bottom Edge	10mm	Ant1	DSIS	26865	831.5	18.69	19.70	1.262			-0.04	0.001	0.001



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	LTE Band 66	20M	QPSK	1	0	Front	10mm	Ant4	DSI5	132322	1745	18.03	18.70	1.167			0.06	0.133	0.155
	LTE Band 66	20M	QPSK	50	0	Front	10mm	Ant4	DSI5	132322	1745	17.97	18.70	1.183			0.13	0.135	0.160
	LTE Band 66	20M	QPSK	1	0	Back	10mm	Ant4	DSI5	132322	1745	18.03	18.70	1.167			-0.16	0.182	0.212
	LTE Band 66	20M	QPSK	50	0	Back	10mm	Ant4	DSI5	132322	1745	17.97	18.70	1.183			-0.06	0.186	0.220
	LTE Band 66	20M	QPSK	1	0	Left Edge	10mm	Ant4	DSI5	132322	1745	18.03	18.70	1.167			-0.05	0.260	0.303
	LTE Band 66	20M	QPSK	50	0	Left Edge	10mm	Ant4	DSI5	132322	1745	17.97	18.70	1.183			0.12	0.252	0.298
	LTE Band 66	20M	QPSK	1	0	Right Edge	10mm	Ant4	DSI5	132322	1745	18.03	18.70	1.167			0.16	0.001	0.001
	LTE Band 66	20M	QPSK	50	0	Right Edge	10mm	Ant4	DSI5	132322	1745	17.97	18.70	1.183			0.18	0.001	0.001
	LTE Band 66	20M	QPSK	1	0	Top Edge	10mm	Ant4	DSI5	132322	1745	18.03	18.70	1.167			0.14	0.096	0.112
	LTE Band 66	20M	QPSK	50	0	Top Edge	10mm	Ant4	DSI5	132322	1745	17.97	18.70	1.183			-0.12	0.093	0.110
	LTE Band 66	20M	QPSK	1	0	Bottom Edge	10mm	Ant4	DSI5	132322	1745	18.03	18.70	1.167			-0.15	0.001	0.001
	LTE Band 66	20M	QPSK	50	0	Bottom Edge	10mm	Ant4	DSI5	132322	1745	17.97	18.70	1.183			-0.01	0.001	0.001
	LTE Band 66	20M	QPSK	1	0	Front	10mm	Ant5	DSI5	132322	1745	15.43	16.50	1.279			-0.17	0.141	0.180
	LTE Band 66	20M	QPSK	50	0	Front	10mm	Ant5	DSI5	132322	1745	15.40	16.50	1.288			0.16	0.148	0.191
	LTE Band 66	20M	QPSK	1	0	Back	10mm	Ant5	DSI5	132322	1745	15.43	16.50	1.279			0.06	0.150	0.192
	LTE Band 66	20M	QPSK	50	0	Back	10mm	Ant5	DSI5	132322	1745	15.40	16.50	1.288			0.02	0.162	0.209
	LTE Band 66	20M	QPSK	1	0	Left Edge	10mm	Ant5	DSI5	132322	1745	15.43	16.50	1.279			0.17	0.001	0.001
	LTE Band 66	20M	QPSK	50	0	Left Edge	10mm	Ant5	DSI5	132322	1745	15.40	16.50	1.288			-0.17	0.001	0.001
	LTE Band 66	20M	QPSK	1	0	Right Edge	10mm	Ant5	DSI5	132322	1745	15.43	16.50	1.279			-0.10	0.001	0.001
	LTE Band 66	20M	QPSK	50	0	Right Edge	10mm	Ant5	DSI5	132322	1745	15.40	16.50	1.288			0.14	0.001	0.001
	LTE Band 66	20M	QPSK	1	0	Top Edge	10mm	Ant5	DSI5	132322	1745	15.43	16.50	1.279			-0.15	0.223	0.285
	LTE Band 66	20M	QPSK	50	0	Top Edge	10mm	Ant5	DSI5	132322	1745	15.40	16.50	1.288			0.03	0.229	0.295
	LTE Band 66	20M	QPSK	1	0	Bottom Edge	10mm	Ant5	DSI5	132322	1745	15.43	16.50	1.279			-0.02	0.001	0.001
	LTE Band 66	20M	QPSK	50	0	Bottom Edge	10mm	Ant5	DSI5	132322	1745	15.40	16.50	1.288			0.11	0.001	0.001
	LTE Band 66	20M	QPSK	1	0	Front	10mm	Ant6	DSI5	132322	1745	17.69	19.00	1.352			-0.06	0.223	0.301
	LTE Band 66	20M	QPSK	50	0	Front	10mm	Ant6	DSI5	132322	1745	17.67	19.00	1.358			-0.18	0.230	0.312
	LTE Band 66	20M	QPSK	1	0	Back	10mm	Ant6	DSI5	132322	1745	17.69	19.00	1.352			0.06	0.255	0.345
	LTE Band 66	20M	QPSK	50	0	Back	10mm	Ant6	DSI5	132322	1745	17.67	19.00	1.358			0.08	0.268	0.364
	LTE Band 66	20M	QPSK	1	0	Left Edge	10mm	Ant6	DSI5	132322	1745	17.69	19.00	1.352			-0.05	0.131	0.177
	LTE Band 66	20M	QPSK	50	0	Left Edge	10mm	Ant6	DSI5	132322	1745	17.67	19.00	1.358			0.13	0.128	0.174
	LTE Band 66	20M	QPSK	1	0	Right Edge	10mm	Ant6	DSI5	132322	1745	17.69	19.00	1.352			0.08	0.042	0.057
	LTE Band 66	20M	QPSK	50	0	Right Edge	10mm	Ant6	DSI5	132322	1745	17.67	19.00	1.358			0.10	0.001	0.001
	LTE Band 66	20M	QPSK	1	0	Top Edge	10mm	Ant6	DSI5	132322	1745	17.69	19.00	1.352			0.05	0.001	0.001
	LTE Band 66	20M	QPSK	50	0	Top Edge	10mm	Ant6	DSI5	132322	1745	17.67	19.00	1.358			-0.16	0.001	0.001
37	LTE Band 66	20M	QPSK	1	0	Bottom Edge	10mm	Ant6	DSI5	132322	1745	17.69	19.00	1.352			-0.04	0.399	0.539
	LTE Band 66	20M	QPSK	50	0	Bottom Edge	10mm	Ant6	DSI5	132322	1745	17.67	19.00	1.358			-0.00	0.381	0.517
	LTE Band 66	20M	QPSK	1	0	Front	10mm	Ant7	DSI5	132322	1745	17.67	19.00	1.358			-0.15	0.180	0.244
	LTE Band 66	20M	QPSK	50	0	Front	10mm	Ant7	DSI5	132322	1745	17.64	19.00	1.368			0.05	0.174	0.238
	LTE Band 66	20M	QPSK	1	0	Back	10mm	Ant7	DSI5	132322	1745	17.67	19.00	1.358			0.09	0.226	0.307
	LTE Band 66	20M	QPSK	50	0	Back	10mm	Ant7	DSI5	132322	1745	17.64	19.00	1.368			0.11	0.200	0.274
	LTE Band 66	20M	QPSK	1	0	Left Edge	10mm	Ant7	DSI5	132322	1745	17.67	19.00	1.358			-0.18	0.001	0.001
	LTE Band 66	20M	QPSK	50	0	Left Edge	10mm	Ant7	DSI5	132322	1745	17.64	19.00	1.368			0.01	0.001	0.001
	LTE Band 66	20M	QPSK	1	0	Right Edge	10mm	Ant7	DSI5	132322	1745	17.67	19.00	1.358			-0.03	0.299	0.406
	LTE Band 66	20M	QPSK	50	0	Right Edge	10mm	Ant7	DSI5	132322	1745	17.64	19.00	1.368			0.02	0.290	0.397
	LTE Band 66	20M	QPSK	1	0	Top Edge	10mm	Ant7	DSI5	132322	1745	17.67	19.00	1.358			-0.18	0.001	0.001
	LTE Band 66	20M	QPSK	50	0	Top Edge	10mm	Ant7	DSI5	132322	1745	17.64	19.00	1.368			-0.14	0.001	0.001
	LTE Band 66	20M	QPSK	1	0	Bottom Edge	10mm	Ant7	DSI5	132322	1745	17.67	19.00	1.358			0.15	0.001	0.001
	LTE Band 66	20M	QPSK	50	0	Bottom Edge	10mm	Ant7	DSI5	132322	1745	17.64	19.00	1.368			0.13	0.001	0.001
	LTE Band 71	20M	QPSK	1	0	Front	10mm	Ant0	DSI5	133297	680.5	23.98	25.00	1.265			-0.05	0.230	0.291
	LTE Band 71	20M	QPSK	50	0	Front	10mm	Ant0	DSI5	133297	680.5	23.01	24.00	1.256			-0.16	0.170	0.214
	LTE Band 71	20M	QPSK	1	0	Back	10mm	Ant0	DSI5	133297	680.5	23.98	25.00	1.265			0.01	0.238	0.301
	LTE Band 71	20M	QPSK	50	0	Back	10mm	Ant0	DSI5	133297	680.5	23.01	24.00	1.256			-0.14	0.183	0.230
	LTE Band 71	20M	QPSK	1	0	Left Edge	10mm	Ant0	DSI5	133297	680.5	23.98	25.00	1.265			0.08	0.001	0.001
	LTE Band 71	20M	QPSK	50	0	Left Edge	10mm	Ant0	DSI5	133297	680.5	23.01	24.00	1.256			-0.07	0.001	0.001
38	LTE Band 71	20M	QPSK	1	0	Right Edge	10mm	Ant0	DSI5	133297	680.5	23.98	25.00	1.265			-0.07	0.276	0.349
	LTE Band 71	20M	QPSK	50	0	Right Edge	10mm	Ant0	DSI5	133297	680.5	23.01	24.00	1.256			-0.06	0.198	0.249
	LTE Band 71	20M	QPSK	1	0	Top Edge	10mm	Ant0	DSI5	133297	680.5	23.98	25.00	1.265			-0.09	0.001	0.001
	LTE Band 71	20M	QPSK	50	0	Top Edge	10mm	Ant0	DSI5	133297	680.5	23.01	24.00	1.256			-0.11	0.001	0.001
	LTE Band 71	20M	QPSK	1	0	Bottom Edge	10mm	Ant0	DSI5	133297	680.5	23.98	25.00	1.265			0.00	0.104	0.132
	LTE Band 71	20M	QPSK	50	0	Bottom Edge	10mm	Ant0	DSI5	133297	680.5	23.01	24.00	1.256			0.05	0.079	0.099
	LTE Band 71	20M	QPSK	1	0	Front	10mm	Ant1	DSI5	133297	680.5	21.22	22.50	1.343			0.10	0.207	0.278
	LTE Band 71	20M	QPSK	50	0	Front	10mm	Ant1	DSI5	133297	680.5	21.19	22.50	1.352			-0.18	0.208	0.281
	LTE Band 71	20M	QPSK	1	0	Back	10mm	Ant1	DSI5	133297	680.5	21.22	22.50	1.343			-0.16	0.238	0.320
	LTE Band 71	20M	QPSK	50	0	Back	10mm	Ant1	DSI5	133297	680.5	21.19	22.50	1.352			0.01	0.240	0.324
	LTE Band 71	20M	QPSK	1	0	Left Edge	10mm	Ant1	DSI5	133297	680.5	21.22	22.50	1.343			-0.04	0.219	0.294
	LTE Band 71	20M	QPSK	50	0	Left Edge	10mm	Ant1	DSI5	133297	680.5	21.19	22.50	1.352			0.03	0.219	0.296
	LTE Band 71	20M	QPSK	1	0	Right Edge	10mm	Ant1	DSI5	133297	680.5	21.22	22.50	1.343			-0.06	0.001	0.001
	LTE Band 71	20M	QPSK	50	0	Right Edge	10mm	Ant1	DSI5	133297	680.5	21.19	22.50	1.352			0.19	0.001	0.001
	LTE Band 71	20M	QPSK	1	0	Top Edge	10mm	Ant1	DSI5	133297	680.5	21.22	22.50	1.343			0.08	0.001	0.001
	LTE Band 71	20M	QPSK	50	0	Top Edge	10mm	Ant1	DSI5	133297	680.5	21.19	22.50	1.352			-0.13	0.001	0.001
	LTE Band 71	20M	QPSK	1	0	Bottom Edge	10mm	Ant1	DSI5	133297	680.5	21.22	22.50	1.343			-0.01	0.001	0.001
	LTE Band 71	20M	QPSK	50	0	Bottom Edge	10mm	Ant1	DSI5	133297	680.5	21.19	22.50	1.352			-0.02	0.001	0.001
	LTE Band 41	20M	QPSK	1	0	Front	10mm	Ant4	DSI5	40620	2593	19.38	19.70	1.076	62.9	1.006	0.03	0.231	0.250



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	LTE Band 41	20M	QPSK	50	0	Front	10mm	Ant4	DSIS	40620	2593	19.32	19.70	1.091	62.9	1.006	-0.13	0.241	0.265
	LTE Band 41	20M	QPSK	1	0	Back	10mm	Ant4	DSIS	40620	2593	19.38	19.70	1.076	62.9	1.006	0.17	0.285	0.308
	LTE Band 41	20M	QPSK	50	0	Back	10mm	Ant4	DSIS	40620	2593	19.32	19.70	1.091	62.9	1.006	0.15	0.294	0.323
	LTE Band 41	20M	QPSK	1	0	Left Edge	10mm	Ant4	DSIS	40620	2593	19.38	19.70	1.076	62.9	1.006	0.09	0.462	0.500
39	LTE Band 41	20M	QPSK	50	0	Left Edge	10mm	Ant4	DSIS	40620	2593	19.32	19.70	1.091	62.9	1.006	-0.04	0.486	0.533
	LTE Band 41	20M	QPSK	1	0	Right Edge	10mm	Ant4	DSIS	40620	2593	19.38	19.70	1.076	62.9	1.006	0.04	0.001	0.001
	LTE Band 41	20M	QPSK	50	0	Right Edge	10mm	Ant4	DSIS	40620	2593	19.32	19.70	1.091	62.9	1.006	-0.13	0.001	0.001
	LTE Band 41	20M	QPSK	1	0	Top Edge	10mm	Ant4	DSIS	40620	2593	19.38	19.70	1.076	62.9	1.006	-0.02	0.001	0.001
	LTE Band 41	20M	QPSK	50	0	Top Edge	10mm	Ant4	DSIS	40620	2593	19.32	19.70	1.091	62.9	1.006	-0.17	0.001	0.001
	LTE Band 41	20M	QPSK	1	0	Bottom Edge	10mm	Ant4	DSIS	40620	2593	19.38	19.70	1.076	62.9	1.006	-0.01	0.001	0.001
	LTE Band 41	20M	QPSK	50	0	Bottom Edge	10mm	Ant4	DSIS	40620	2593	19.32	19.70	1.091	62.9	1.006	0.19	0.001	0.001
	LTE Band 41	20M	QPSK	1	0	Front	10mm	Ant5	DSIS	40620	2593	18.61	19.50	1.227	62.9	1.006	-0.15	0.141	0.174
	LTE Band 41	20M	QPSK	50	0	Front	10mm	Ant5	DSIS	40620	2593	18.56	19.50	1.242	62.9	1.006	-0.01	0.098	0.122
	LTE Band 41	20M	QPSK	1	0	Back	10mm	Ant5	DSIS	40620	2593	18.61	19.50	1.227	62.9	1.006	-0.15	0.143	0.177
	LTE Band 41	20M	QPSK	50	0	Back	10mm	Ant5	DSIS	40620	2593	18.56	19.50	1.242	62.9	1.006	0.16	0.151	0.189
	LTE Band 41	20M	QPSK	1	0	Left Edge	10mm	Ant5	DSIS	40620	2593	18.61	19.50	1.227	62.9	1.006	0.16	0.257	0.317
	LTE Band 41	20M	QPSK	50	0	Left Edge	10mm	Ant5	DSIS	40620	2593	18.56	19.50	1.242	62.9	1.006	-0.00	0.264	0.330
	LTE Band 41	20M	QPSK	1	0	Right Edge	10mm	Ant5	DSIS	40620	2593	18.61	19.50	1.227	62.9	1.006	0.10	0.001	0.001
	LTE Band 41	20M	QPSK	50	0	Right Edge	10mm	Ant5	DSIS	40620	2593	18.56	19.50	1.242	62.9	1.006	0.03	0.001	0.001
	LTE Band 41	20M	QPSK	1	0	Top Edge	10mm	Ant5	DSIS	40620	2593	18.61	19.50	1.227	62.9	1.006	-0.13	0.226	0.279
	LTE Band 41	20M	QPSK	50	0	Top Edge	10mm	Ant5	DSIS	40620	2593	18.56	19.50	1.242	62.9	1.006	0.18	0.216	0.270
	LTE Band 41	20M	QPSK	1	0	Bottom Edge	10mm	Ant5	DSIS	40620	2593	18.61	19.50	1.227	62.9	1.006	-0.08	0.001	0.001
	LTE Band 41	20M	QPSK	50	0	Bottom Edge	10mm	Ant5	DSIS	40620	2593	18.56	19.50	1.242	62.9	1.006	-0.17	0.001	0.001
	LTE Band 41	20M	QPSK	1	0	Front	10mm	Ant6	DSIS	40620	2593	20.59	21.50	1.233	62.9	1.006	0.18	0.227	0.282
	LTE Band 41	20M	QPSK	50	0	Front	10mm	Ant6	DSIS	40620	2593	20.58	21.50	1.236	62.9	1.006	0.04	0.239	0.297
	LTE Band 41	20M	QPSK	1	0	Back	10mm	Ant6	DSIS	40620	2593	20.59	21.50	1.233	62.9	1.006	-0.05	0.287	0.356
	LTE Band 41	20M	QPSK	50	0	Back	10mm	Ant6	DSIS	40620	2593	20.58	21.50	1.236	62.9	1.006	0.05	0.293	0.364
	LTE Band 41	20M	QPSK	1	0	Left Edge	10mm	Ant6	DSIS	40620	2593	20.59	21.50	1.233	62.9	1.006	0.15	0.056	0.069
	LTE Band 41	20M	QPSK	50	0	Left Edge	10mm	Ant6	DSIS	40620	2593	20.58	21.50	1.236	62.9	1.006	-0.16	0.055	0.068
	LTE Band 41	20M	QPSK	1	0	Right Edge	10mm	Ant6	DSIS	40620	2593	20.59	21.50	1.233	62.9	1.006	0.00	0.051	0.063
	LTE Band 41	20M	QPSK	50	0	Right Edge	10mm	Ant6	DSIS	40620	2593	20.58	21.50	1.236	62.9	1.006	0.18	0.043	0.053
	LTE Band 41	20M	QPSK	1	0	Top Edge	10mm	Ant6	DSIS	40620	2593	20.59	21.50	1.233	62.9	1.006	0.12	0.001	0.001
	LTE Band 41	20M	QPSK	50	0	Top Edge	10mm	Ant6	DSIS	40620	2593	20.58	21.50	1.236	62.9	1.006	0.00	0.001	0.001
	LTE Band 41	20M	QPSK	1	0	Bottom Edge	10mm	Ant6	DSIS	40620	2593	20.59	21.50	1.233	62.9	1.006	0.03	0.378	0.469
	LTE Band 41	20M	QPSK	50	0	Bottom Edge	10mm	Ant6	DSIS	40620	2593	20.58	21.50	1.236	62.9	1.006	0.06	0.376	0.468
	LTE Band 41	20M	QPSK	1	0	Front	10mm	Ant7	DSIS	40620	2593	19.39	20.50	1.291	62.9	1.006	-0.05	0.157	0.204
	LTE Band 41	20M	QPSK	50	0	Front	10mm	Ant7	DSIS	40620	2593	19.37	20.50	1.297	62.9	1.006	-0.16	0.165	0.215
	LTE Band 41	20M	QPSK	1	0	Back	10mm	Ant7	DSIS	40620	2593	19.39	20.50	1.291	62.9	1.006	0.08	0.195	0.253
	LTE Band 41	20M	QPSK	50	0	Back	10mm	Ant7	DSIS	40620	2593	19.37	20.50	1.297	62.9	1.006	0.16	0.193	0.252
	LTE Band 41	20M	QPSK	1	0	Left Edge	10mm	Ant7	DSIS	40620	2593	19.39	20.50	1.291	62.9	1.006	-0.17	0.001	0.001
	LTE Band 41	20M	QPSK	50	0	Left Edge	10mm	Ant7	DSIS	40620	2593	19.37	20.50	1.297	62.9	1.006	0.11	0.001	0.001
	LTE Band 41	20M	QPSK	1	0	Right Edge	10mm	Ant7	DSIS	40620	2593	19.39	20.50	1.291	62.9	1.006	0.05	0.268	0.348
	LTE Band 41	20M	QPSK	50	0	Right Edge	10mm	Ant7	DSIS	40620	2593	19.37	20.50	1.297	62.9	1.006	0.16	0.262	0.342
	LTE Band 41	20M	QPSK	1	0	Top Edge	10mm	Ant7	DSIS	40620	2593	19.39	20.50	1.291	62.9	1.006	-0.02	0.045	0.058
	LTE Band 41	20M	QPSK	50	0	Top Edge	10mm	Ant7	DSIS	40620	2593	19.37	20.50	1.297	62.9	1.006	0.02	0.045	0.059
	LTE Band 41	20M	QPSK	1	0	Bottom Edge	10mm	Ant7	DSIS	40620	2593	19.39	20.50	1.291	62.9	1.006	0.08	0.001	0.001
	LTE Band 41	20M	QPSK	50	0	Bottom Edge	10mm	Ant7	DSIS	40620	2593	19.37	20.50	1.297	62.9	1.006	-0.09	0.001	0.001
	LTE Band 42	20M	QPSK	1	0	Front	10mm	Ant8	DSIS	42590	3500	18.15	19.00	1.216	62.9	1.006	0.07	0.277	0.339
	LTE Band 42	20M	QPSK	50	0	Front	10mm	Ant8	DSIS	42590	3500	18.11	19.00	1.227	62.9	1.006	0.19	0.292	0.360
	LTE Band 42	20M	QPSK	1	0	Back	10mm	Ant8	DSIS	42590	3500	18.15	19.00	1.216	62.9	1.006	-0.04	0.342	0.418
	LTE Band 42	20M	QPSK	50	0	Back	10mm	Ant8	DSIS	42590	3500	18.11	19.00	1.227	62.9	1.006	-0.12	0.343	0.423
	LTE Band 42	20M	QPSK	1	0	Left Edge	10mm	Ant8	DSIS	42590	3500	18.15	19.00	1.216	62.9	1.006	-0.14	0.001	0.001
	LTE Band 42	20M	QPSK	50	0	Left Edge	10mm	Ant8	DSIS	42590	3500	18.11	19.00	1.227	62.9	1.006	-0.06	0.001	0.001
40	LTE Band 42	20M	QPSK	1	0	Right Edge	10mm	Ant8	DSIS	42590	3500	18.15	19.00	1.216	62.9	1.006	0.07	0.494	0.604
	LTE Band 42	20M	QPSK	50	0	Right Edge	10mm	Ant8	DSIS	42590	3500	18.11	19.00	1.227	62.9	1.006	0.13	0.430	0.531
	LTE Band 42	20M	QPSK	1	0	Top Edge	10mm	Ant8	DSIS	42590	3500	18.15	19.00	1.216	62.9	1.006	0.12	0.001	0.001
	LTE Band 42	20M	QPSK	50	0	Top Edge	10mm	Ant8	DSIS	42590	3500	18.11	19.00	1.227	62.9	1.006	-0.08	0.001	0.001
	LTE Band 42	20M	QPSK	1	0	Bottom Edge	10mm	Ant8	DSIS	42590	3500	18.15	19.00	1.216	62.9	1.006	-0.05	0.001	0.001
	LTE Band 42	20M	QPSK	50	0	Bottom Edge	10mm	Ant8	DSIS	42590	3500	18.11	19.00	1.227	62.9	1.006	0.05	0.001	0.001
	LTE Band 42	20M	QPSK	1	0	Front	10mm	Ant9	DSIS	42590	3500	18.85	19.50	1.161	62.9	1.006	0.05	0.132	0.154
	LTE Band 42	20M	QPSK	50	0	Front	10mm	Ant9	DSIS	42590	3500	18.83	19.50	1.167	62.9	1.006	0.09	0.102	0.120
	LTE Band 42	20M	QPSK	1	0	Back	10mm	Ant9	DSIS	42590	3500	18.85	19.50	1.161	62.9	1.006	0.11	0.101	0.118
	LTE Band 42	20M	QPSK	50	0	Back	10mm	Ant9	DSIS	42590	3500	18.83	19.50	1.167	62.9	1.006	0.01	0.112	0.131
	LTE Band 42	20M	QPSK	1	0	Left Edge	10mm	Ant9	DSIS	42590	3500	18.85	19.50	1.161	62.9	1.006	-0.09	0.258	0.301
	LTE Band 42	20M	QPSK	50	0	Left Edge	10mm	Ant9	DSIS	42590	3500	18.83	19.50	1.167	62.9	1.006	0.02	0.310	0.364
	LTE Band 42	20M	QPSK	1	0	Right Edge	10mm	Ant9	DSIS	42590	3500	18.85	19.50	1.161	62.9	1.006	-0.11	0.001	0.001
	LTE Band 42	20M	QPSK	50	0	Right Edge	10mm	Ant9	DSIS	42590	3500	18.83	19.50	1.167	62.9	1.006	0.14	0.001	0.001
	LTE Band 42	20M	QPSK	1	0	Top Edge	10mm	Ant9	DSIS	42590	3500	18.85	19.50	1.161	62.9	1.006	0.17	0.001	0.001
	LTE Band 42	20M	QPSK	50	0	Top Edge	10mm	Ant9	DSIS	42590	3500	18.83	19.50	1.167	62.9	1.006	0.06	0.052	0.061
	LTE Band 42	20M	QPSK	1	0	Bottom Edge	10mm	Ant9	DSIS	42590	3500	18.85	19.50	1.161	62.9	1.006	-0.09	0.001	0.001
	LTE Band 42	20M	QPSK	50	0	Bottom Edge	10mm	Ant9	DSIS	42590	3500	18.83	19.50	1.167	62.9	1.006	-0.18	0.001	0.001
	LTE Band 4																		



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	LTE Band 42	20M	QPSK	1	0	Back	10mm	Ant10	DSIS	42590	3500	15.29	16.00	1.178	62.9	1.006	0.11	0.183	0.217
	LTE Band 42	20M	QPSK	50	0	Back	10mm	Ant10	DSIS	42590	3500	15.27	16.00	1.183	62.9	1.006	-0.11	0.192	0.228
	LTE Band 42	20M	QPSK	1	0	Left Edge	10mm	Ant10	DSIS	42590	3500	15.29	16.00	1.178	62.9	1.006	-0.18	0.042	0.050
	LTE Band 42	20M	QPSK	50	0	Left Edge	10mm	Ant10	DSIS	42590	3500	15.27	16.00	1.183	62.9	1.006	0.08	0.001	0.001
	LTE Band 42	20M	QPSK	1	0	Right Edge	10mm	Ant10	DSIS	42590	3500	15.29	16.00	1.178	62.9	1.006	0.16	0.059	0.070
	LTE Band 42	20M	QPSK	50	0	Right Edge	10mm	Ant10	DSIS	42590	3500	15.27	16.00	1.183	62.9	1.006	0.07	0.030	0.036
	LTE Band 42	20M	QPSK	1	0	Top Edge	10mm	Ant10	DSIS	42590	3500	15.29	16.00	1.178	62.9	1.006	-0.08	0.291	0.345
	LTE Band 42	20M	QPSK	50	0	Top Edge	10mm	Ant10	DSIS	42590	3500	15.27	16.00	1.183	62.9	1.006	-0.02	0.312	0.371
	LTE Band 42	20M	QPSK	1	0	Bottom Edge	10mm	Ant10	DSIS	42590	3500	15.29	16.00	1.178	62.9	1.006	0.19	0.027	0.032
	LTE Band 42	20M	QPSK	50	0	Bottom Edge	10mm	Ant10	DSIS	42590	3500	15.27	16.00	1.183	62.9	1.006	0.16	0.001	0.001
	LTE Band 42	20M	QPSK	1	0	Front	10mm	Ant11	DSIS	42590	3500	19.51	20.50	1.256	62.9	1.006	0.14	0.139	0.176
	LTE Band 42	20M	QPSK	50	0	Front	10mm	Ant11	DSIS	42590	3500	19.46	20.50	1.271	62.9	1.006	0.17	0.124	0.159
	LTE Band 42	20M	QPSK	1	0	Back	10mm	Ant11	DSIS	42590	3500	19.51	20.50	1.256	62.9	1.006	-0.09	0.127	0.160
	LTE Band 42	20M	QPSK	50	0	Back	10mm	Ant11	DSIS	42590	3500	19.46	20.50	1.271	62.9	1.006	0.10	0.116	0.148
	LTE Band 42	20M	QPSK	1	0	Left Edge	10mm	Ant11	DSIS	42590	3500	19.51	20.50	1.256	62.9	1.006	0.01	0.002	0.003
	LTE Band 42	20M	QPSK	50	0	Left Edge	10mm	Ant11	DSIS	42590	3500	19.46	20.50	1.271	62.9	1.006	0.04	0.066	0.084
	LTE Band 42	20M	QPSK	1	0	Right Edge	10mm	Ant11	DSIS	42590	3500	19.51	20.50	1.256	62.9	1.006	0.06	0.002	0.003
	LTE Band 42	20M	QPSK	50	0	Right Edge	10mm	Ant11	DSIS	42590	3500	19.46	20.50	1.271	62.9	1.006	-0.02	0.002	0.003
	LTE Band 42	20M	QPSK	1	0	Top Edge	10mm	Ant11	DSIS	42590	3500	19.51	20.50	1.256	62.9	1.006	0.17	0.302	0.382
	LTE Band 42	20M	QPSK	50	0	Top Edge	10mm	Ant11	DSIS	42590	3500	19.46	20.50	1.271	62.9	1.006	0.02	0.326	0.417
	LTE Band 42	20M	QPSK	1	0	Bottom Edge	10mm	Ant11	DSIS	42590	3500	19.51	20.50	1.256	62.9	1.006	-0.09	0.002	0.003
	LTE Band 42	20M	QPSK	50	0	Bottom Edge	10mm	Ant11	DSIS	42590	3500	19.46	20.50	1.271	62.9	1.006	-0.05	0.049	0.063
	LTE Band 48	20M	QPSK	1	0	Front	10mm	Ant8	DSIS	55990	3625	17.61	18.50	1.227	62.9	1.006	0.07	0.141	0.174
	LTE Band 48	20M	QPSK	50	0	Front	10mm	Ant8	DSIS	55990	3625	17.54	18.50	1.247	62.9	1.006	-0.18	0.142	0.178
	LTE Band 48	20M	QPSK	1	0	Back	10mm	Ant8	DSIS	55990	3625	17.61	18.50	1.227	62.9	1.006	-0.06	0.163	0.201
	LTE Band 48	20M	QPSK	50	0	Back	10mm	Ant8	DSIS	55990	3625	17.54	18.50	1.247	62.9	1.006	-0.13	0.169	0.212
	LTE Band 48	20M	QPSK	1	0	Left Edge	10mm	Ant8	DSIS	55990	3625	17.61	18.50	1.227	62.9	1.006	0.02	0.001	0.001
	LTE Band 48	20M	QPSK	50	0	Left Edge	10mm	Ant8	DSIS	55990	3625	17.54	18.50	1.247	62.9	1.006	-0.11	0.001	0.001
	LTE Band 48	20M	QPSK	1	0	Right Edge	10mm	Ant8	DSIS	55990	3625	17.61	18.50	1.227	62.9	1.006	-0.10	0.247	0.305
41	LTE Band 48	20M	QPSK	50	0	Right Edge	10mm	Ant8	DSIS	55990	3625	17.54	18.50	1.247	62.9	1.006	0.06	0.309	0.388
	LTE Band 48	20M	QPSK	1	0	Top Edge	10mm	Ant8	DSIS	55990	3625	17.61	18.50	1.227	62.9	1.006	0.09	0.001	0.001
	LTE Band 48	20M	QPSK	50	0	Top Edge	10mm	Ant8	DSIS	55990	3625	17.54	18.50	1.247	62.9	1.006	0.01	0.043	0.054
	LTE Band 48	20M	QPSK	1	0	Bottom Edge	10mm	Ant8	DSIS	55990	3625	17.61	18.50	1.227	62.9	1.006	-0.05	0.001	0.001
	LTE Band 48	20M	QPSK	50	0	Bottom Edge	10mm	Ant8	DSIS	55990	3625	17.54	18.50	1.247	62.9	1.006	-0.17	0.001	0.001
	LTE Band 48	20M	QPSK	1	0	Front	10mm	Ant9	DSIS	55990	3625	17.80	18.50	1.175	62.9	1.006	0.05	0.093	0.110
	LTE Band 48	20M	QPSK	50	0	Front	10mm	Ant9	DSIS	55990	3625	17.78	18.50	1.18	62.9	1.006	-0.18	0.067	0.080
	LTE Band 48	20M	QPSK	1	0	Back	10mm	Ant9	DSIS	55990	3625	17.80	18.50	1.175	62.9	1.006	-0.03	0.074	0.087
	LTE Band 48	20M	QPSK	50	0	Back	10mm	Ant9	DSIS	55990	3625	17.78	18.50	1.18	62.9	1.006	0.02	0.085	0.101
	LTE Band 48	20M	QPSK	1	0	Left Edge	10mm	Ant9	DSIS	55990	3625	17.80	18.50	1.175	62.9	1.006	-0.18	0.168	0.199
	LTE Band 48	20M	QPSK	50	0	Left Edge	10mm	Ant9	DSIS	55990	3625	17.78	18.50	1.18	62.9	1.006	-0.01	0.237	0.281
	LTE Band 48	20M	QPSK	1	0	Right Edge	10mm	Ant9	DSIS	55990	3625	17.80	18.50	1.175	62.9	1.006	-0.17	0.035	0.041
	LTE Band 48	20M	QPSK	50	0	Right Edge	10mm	Ant9	DSIS	55990	3625	17.78	18.50	1.18	62.9	1.006	-0.02	0.059	0.070
	LTE Band 48	20M	QPSK	1	0	Top Edge	10mm	Ant9	DSIS	55990	3625	17.80	18.50	1.175	62.9	1.006	0.10	0.001	0.001
	LTE Band 48	20M	QPSK	50	0	Top Edge	10mm	Ant9	DSIS	55990	3625	17.78	18.50	1.18	62.9	1.006	-0.15	0.001	0.001
	LTE Band 48	20M	QPSK	1	0	Bottom Edge	10mm	Ant9	DSIS	55990	3625	17.80	18.50	1.175	62.9	1.006	0.00	0.001	0.001
	LTE Band 48	20M	QPSK	50	0	Bottom Edge	10mm	Ant9	DSIS	55990	3625	17.78	18.50	1.18	62.9	1.006	-0.07	0.001	0.001
	LTE Band 48	20M	QPSK	1	0	Front	10mm	Ant10	DSIS	55990	3625	15.53	16.00	1.114	62.9	1.006	-0.06	0.120	0.134
	LTE Band 48	20M	QPSK	50	0	Front	10mm	Ant10	DSIS	55990	3625	15.51	16.00	1.119	62.9	1.006	0.11	0.123	0.138
	LTE Band 48	20M	QPSK	1	0	Back	10mm	Ant10	DSIS	55990	3625	15.53	16.00	1.114	62.9	1.006	-0.15	0.151	0.169
	LTE Band 48	20M	QPSK	50	0	Back	10mm	Ant10	DSIS	55990	3625	15.51	16.00	1.119	62.9	1.006	-0.02	0.143	0.161
	LTE Band 48	20M	QPSK	1	0	Left Edge	10mm	Ant10	DSIS	55990	3625	15.53	16.00	1.114	62.9	1.006	0.07	0.001	0.001
	LTE Band 48	20M	QPSK	50	0	Left Edge	10mm	Ant10	DSIS	55990	3625	15.51	16.00	1.119	62.9	1.006	0.18	0.053	0.060
	LTE Band 48	20M	QPSK	1	0	Right Edge	10mm	Ant10	DSIS	55990	3625	15.53	16.00	1.114	62.9	1.006	-0.19	0.068	0.076
	LTE Band 48	20M	QPSK	50	0	Right Edge	10mm	Ant10	DSIS	55990	3625	15.51	16.00	1.119	62.9	1.006	-0.15	0.073	0.082
	LTE Band 48	20M	QPSK	1	0	Top Edge	10mm	Ant10	DSIS	55990	3625	15.53	16.00	1.114	62.9	1.006	0.08	0.262	0.294
	LTE Band 48	20M	QPSK	50	0	Top Edge	10mm	Ant10	DSIS	55990	3625	15.51	16.00	1.119	62.9	1.006	0.04	0.256	0.288
	LTE Band 48	20M	QPSK	1	0	Bottom Edge	10mm	Ant10	DSIS	55990	3625	15.53	16.00	1.114	62.9	1.006	-0.06	0.051	0.057
	LTE Band 48	20M	QPSK	50	0	Bottom Edge	10mm	Ant10	DSIS	55990	3625	15.51	16.00	1.119	62.9	1.006	0.14	0.035	0.039
	LTE Band 48	20M	QPSK	1	0	Front	10mm	Ant11	DSIS	55990	3625	18.69	20.00	1.352	62.9	1.006	-0.10	0.099	0.135
	LTE Band 48	20M	QPSK	50	0	Front	10mm	Ant11	DSIS	55990	3625	18.67	20.00	1.358	62.9	1.006	-0.13	0.094	0.128
	LTE Band 48	20M	QPSK	1	0	Back	10mm	Ant11	DSIS	55990	3625	18.69	20.00	1.352	62.9	1.006	-0.17	0.082	0.112
	LTE Band 48	20M	QPSK	50	0	Back	10mm	Ant11	DSIS	55990	3625	18.67	20.00	1.358	62.9	1.006	0.18	0.085	0.116
	LTE Band 48	20M	QPSK	1	0	Left Edge	10mm	Ant11	DSIS	55990	3625	18.69	20.00	1.352	62.9	1.006	0.12	0.001	0.001
	LTE Band 48	20M	QPSK	50	0	Left Edge	10mm	Ant11	DSIS	55990	3625	18.67	20.00	1.358	62.9	1.006	-0.06	0.030	0.041
	LTE Band 48	20M	QPSK	1	0	Right Edge	10mm	Ant11	DSIS	55990	3625	18.69	20.00	1.352	62.9	1.006	-0.18	0.034	0.046
	LTE Band 48	20M	QPSK	50	0	Right Edge	10mm	Ant11	DSIS	55990	3625	18.67	20.00	1.358	62.9	1.006	0.19	0.033	0.045
	LTE Band 48	20M	QPSK	1	0	Top Edge	10mm	Ant11	DSIS	55990	3625	18.69	20.00	1.352	62.9	1.006	-0.06	0.199	0.271
	LTE Band 48	20M	QPSK	50	0	Top Edge	10mm	Ant11	DSIS	55990	3625	18.67	20.00	1.358	62.9	1.006	0.02	0.201	0.275
	LTE Band 48	20M	QPSK	1	0	Bottom Edge	10mm	Ant11	DSIS	55990	3625	18.69	20.00	1.352	62.9	1.006	0.18	0.001	0.001
	LTE Band 48	20M	QPSK	50	0	Bottom Edge	10mm	Ant11	DSIS	55990	3625	18.67	20.00	1.358	62.9	1.006	0.03	0.001	0.001



【ULCA SAR】

Plot No	Band	BW	Modulation	RB Size	RB Offset	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)
	LTE Band 7	20M	QPSK	50	50	Left Edge	10mm	Ant4	DSIS	21100+21298	2535+2554.8	16.37	17.2	1.211	100	1.000	-0.01	0.294	0.356
	LTE Band 7	20M	QPSK	1	99	Top Edge	10mm	Ant5	DSIS	21100+21298	2535+2554.8	15.93	17	1.279	100	1.000	-0.14	0.224	0.286
	LTE Band 7	20M	QPSK	1	99	Bottom Edge	10mm	Ant6	DSIS	21100+21298	2535+2554.8	18.35	19.5	1.303	100	1.000	0.13	0.375	0.489
	LTE Band 7	20M	QPSK	50	50	Right Edge	10mm	Ant7	DSIS	21100+21298	2535+2554.8	16.19	17.5	1.352	100	1.000	0.19	0.256	0.346
	LTE Band 38	20M	QPSK	50	50	Left Edge	10mm	Ant4	DSIS	37901+38099	2585.1+2604.9	18.41	19.2	1.199	62.9	1.006	0.17	0.427	0.515
	LTE Band 38	20M	QPSK	50	50	Left Edge	10mm	Ant5	DSIS	37901+38099	2585.1+2604.9	18.38	19.5	1.294	62.9	1.006	0.12	0.241	0.314
	LTE Band 38	20M	QPSK	1	99	Bottom Edge	10mm	Ant6	DSIS	37901+38099	2585.1+2604.9	20.39	21.5	1.291	62.9	1.006	0.03	0.345	0.448
	LTE Band 38	20M	QPSK	1	99	Right Edge	10mm	Ant7	DSIS	37901+38099	2585.1+2604.9	19.28	20.5	1.324	62.9	1.006	-0.18	0.237	0.316

【FR1 SAR】

Plot No	Band	BW	Modulation	RB Size	RB Offset	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)
	FR1 n2	40M	BPSK	1	1	Front	10mm	Ant4	DSIS	376000	1880	17.12	18.00	1.225			-0.18	0.117	0.143
	FR1 n2	40M	BPSK	108	54	Front	10mm	Ant4	DSIS	376000	1880	17.08	18.00	1.236			0.12	0.114	0.141
	FR1 n2	40M	BPSK	1	1	Back	10mm	Ant4	DSIS	376000	1880	17.12	18.00	1.225			0.13	0.162	0.198
	FR1 n2	40M	BPSK	108	54	Back	10mm	Ant4	DSIS	376000	1880	17.08	18.00	1.236			-0.12	0.154	0.190
	FR1 n2	40M	BPSK	1	1	Left Edge	10mm	Ant4	DSIS	376000	1880	17.12	18.00	1.225			0.01	0.242	0.296
	FR1 n2	40M	BPSK	108	54	Left Edge	10mm	Ant4	DSIS	376000	1880	17.08	18.00	1.236			0.18	0.229	0.283
	FR1 n2	40M	BPSK	1	1	Right Edge	10mm	Ant4	DSIS	376000	1880	17.12	18.00	1.225			-0.10	0.001	0.001
	FR1 n2	40M	BPSK	108	54	Right Edge	10mm	Ant4	DSIS	376000	1880	17.08	18.00	1.236			0.13	0.001	0.001
	FR1 n2	40M	BPSK	1	1	Top Edge	10mm	Ant4	DSIS	376000	1880	17.12	18.00	1.225			-0.01	0.077	0.094
	FR1 n2	40M	BPSK	108	54	Top Edge	10mm	Ant4	DSIS	376000	1880	17.08	18.00	1.236			0.16	0.073	0.090
	FR1 n2	40M	BPSK	1	1	Bottom Edge	10mm	Ant4	DSIS	376000	1880	17.12	18.00	1.225			-0.16	0.001	0.001
	FR1 n2	40M	BPSK	108	54	Bottom Edge	10mm	Ant4	DSIS	376000	1880	17.08	18.00	1.236			-0.10	0.001	0.001
	FR1 n2	40M	BPSK	1	1	Front	10mm	Ant6	DSIS	376000	1880	18.63	19.50	1.222			0.09	0.279	0.341
	FR1 n2	40M	BPSK	108	54	Front	10mm	Ant6	DSIS	376000	1880	18.61	19.50	1.227			0.17	0.260	0.319
	FR1 n2	40M	BPSK	1	1	Back	10mm	Ant6	DSIS	376000	1880	18.63	19.50	1.222			0.03	0.309	0.378
	FR1 n2	40M	BPSK	108	54	Back	10mm	Ant6	DSIS	376000	1880	18.61	19.50	1.227			0.15	0.292	0.358
	FR1 n2	40M	BPSK	1	1	Left Edge	10mm	Ant6	DSIS	376000	1880	18.63	19.50	1.222			0.10	0.106	0.130
	FR1 n2	40M	BPSK	108	54	Left Edge	10mm	Ant6	DSIS	376000	1880	18.61	19.50	1.227			-0.01	0.108	0.133
	FR1 n2	40M	BPSK	1	1	Right Edge	10mm	Ant6	DSIS	376000	1880	18.63	19.50	1.222			-0.14	0.062	0.076
	FR1 n2	40M	BPSK	108	54	Right Edge	10mm	Ant6	DSIS	376000	1880	18.61	19.50	1.227			0.13	0.062	0.076
	FR1 n2	40M	BPSK	1	1	Top Edge	10mm	Ant6	DSIS	376000	1880	18.63	19.50	1.222			0.13	0.001	0.001
	FR1 n2	40M	BPSK	108	54	Top Edge	10mm	Ant6	DSIS	376000	1880	18.61	19.50	1.227			-0.15	0.001	0.001
42	FR1 n2	40M	BPSK	1	1	Bottom Edge	10mm	Ant6	DSIS	376000	1880	18.63	19.50	1.222			0.12	0.516	0.631
	FR1 n2	40M	BPSK	108	54	Bottom Edge	10mm	Ant6	DSIS	376000	1880	18.61	19.50	1.227			0.02	0.491	0.602
	FR1 n7	50M	BPSK	1	1	Front	10mm	Ant4	DSIS	507000	2535	16.69	17.20	1.125			0.04	0.188	0.211
	FR1 n7	50M	BPSK	135	68	Front	10mm	Ant4	DSIS	507000	2535	16.68	17.20	1.127			0.16	0.186	0.210
	FR1 n7	50M	BPSK	1	1	Back	10mm	Ant4	DSIS	507000	2535	16.69	17.20	1.125			-0.19	0.243	0.273
	FR1 n7	50M	BPSK	135	68	Back	10mm	Ant4	DSIS	507000	2535	16.68	17.20	1.127			-0.05	0.253	0.285
	FR1 n7	50M	BPSK	1	1	Left Edge	10mm	Ant4	DSIS	507000	2535	16.69	17.20	1.125			0.16	0.344	0.387
	FR1 n7	50M	BPSK	135	68	Left Edge	10mm	Ant4	DSIS	507000	2535	16.68	17.20	1.127			0.00	0.373	0.420
	FR1 n7	50M	BPSK	1	1	Right Edge	10mm	Ant4	DSIS	507000	2535	16.69	17.20	1.125			-0.11	0.001	0.001
	FR1 n7	50M	BPSK	135	68	Right Edge	10mm	Ant4	DSIS	507000	2535	16.68	17.20	1.127			0.15	0.001	0.001
	FR1 n7	50M	BPSK	1	1	Top Edge	10mm	Ant4	DSIS	507000	2535	16.69	17.20	1.125			0.06	0.081	0.091
	FR1 n7	50M	BPSK	135	68	Top Edge	10mm	Ant4	DSIS	507000	2535	16.68	17.20	1.127			-0.13	0.089	0.100
	FR1 n7	50M	BPSK	1	1	Bottom Edge	10mm	Ant4	DSIS	507000	2535	16.69	17.20	1.125			-0.05	0.001	0.001
	FR1 n7	50M	BPSK	135	68	Bottom Edge	10mm	Ant4	DSIS	507000	2535	16.68	17.20	1.127			0.10	0.001	0.001
	FR1 n7	50M	BPSK	1	1	Front	10mm	Ant5	DSIS	507000	2535	15.44	16.50	1.276			0.01	0.111	0.142
	FR1 n7	50M	BPSK	135	68	Front	10mm	Ant5	DSIS	507000	2535	15.38	16.50	1.294			0.14	0.118	0.153
	FR1 n7	50M	BPSK	1	1	Back	10mm	Ant5	DSIS	507000	2535	15.44	16.50	1.276			0.18	0.162	0.207
	FR1 n7	50M	BPSK	135	68	Back	10mm	Ant5	DSIS	507000	2535	15.38	16.50	1.294			0.10	0.147	0.190
	FR1 n7	50M	BPSK	1	1	Left Edge	10mm	Ant5	DSIS	507000	2535	15.44	16.50	1.276			0.15	0.156	0.199
	FR1 n7	50M	BPSK	135	68	Left Edge	10mm	Ant5	DSIS	507000	2535	15.38	16.50	1.294			-0.10	0.169	0.219
	FR1 n7	50M	BPSK	1	1	Right Edge	10mm	Ant5	DSIS	507000	2535	15.44	16.50	1.276			0.07	0.001	0.001
	FR1 n7	50M	BPSK	135	68	Right Edge	10mm	Ant5	DSIS	507000	2535	15.38	16.50	1.294			0.14	0.001	0.001
	FR1 n7	50M	BPSK	1	1	Top Edge	10mm	Ant5	DSIS	507000	2535	15.44	16.50	1.276			-0.03	0.225	0.287
	FR1 n7	50M	BPSK	135	68	Top Edge	10mm	Ant5	DSIS	507000	2535	15.38	16.50	1.294			0.02	0.286	0.370
	FR1 n7	50M	BPSK	1	1	Bottom Edge	10mm	Ant5	DSIS	507000	2535	15.44	16.50	1.276			0.01	0.001	0.001
	FR1 n7	50M	BPSK	135	68	Bottom Edge	10mm	Ant5	DSIS	507000	2535	15.38	16.50	1.294			-0.13	0.001	0.001
	FR1 n7	50M	BPSK	1	1	Front	10mm	Ant6	DSIS	507000	2535	18.61	19.50	1.227			0.11	0.304	0.373
	FR1 n7	50M	BPSK	135	68	Front	10mm	Ant6	DSIS	507000	2535	18.58	19.50	1.236			0.07	0.292	0.361
	FR1 n7	50M	BPSK	1	1	Back	10mm	Ant6	DSIS	507000	2535	18.61	19.50	1.227			0.08	0.361	0.443
	FR1 n7	50M	BPSK	135	68	Back	10mm	Ant6	DSIS	507000	2535	18.58	19.50	1.236			0.16	0.365	0.451
	FR1 n7	50M	BPSK	1	1	Left Edge	10mm	Ant6	DSIS	507000	2535	18.61	19.50	1.227			0.13	0.105	0.129



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	FR1 n7	50M	BPSK	135	68	Left Edge	10mm	Ant6	DSi5	507000	2535	18.58	19.50	1.236			-0.05	0.095	0.117
	FR1 n7	50M	BPSK	1	1	Right Edge	10mm	Ant6	DSi5	507000	2535	18.61	19.50	1.227			-0.08	0.068	0.083
	FR1 n7	50M	BPSK	135	68	Right Edge	10mm	Ant6	DSi5	507000	2535	18.58	19.50	1.236			-0.10	0.067	0.083
	FR1 n7	50M	BPSK	1	1	Top Edge	10mm	Ant6	DSi5	507000	2535	18.61	19.50	1.227			0.08	0.001	0.001
	FR1 n7	50M	BPSK	135	68	Top Edge	10mm	Ant6	DSi5	507000	2535	18.58	19.50	1.236			-0.11	0.001	0.001
43	FR1 n7	50M	BPSK	1	1	Bottom Edge	10mm	Ant6	DSi5	507000	2535	18.61	19.50	1.227			0.01	0.519	0.637
	FR1 n7	50M	BPSK	135	68	Bottom Edge	10mm	Ant6	DSi5	507000	2535	18.58	19.50	1.236			0.04	0.512	0.633
	FR1 n7	50M	BPSK	1	1	Front	10mm	Ant7	DSi5	507000	2535	16.62	17.50	1.225			0.02	0.196	0.240
	FR1 n7	50M	BPSK	135	68	Front	10mm	Ant7	DSi5	507000	2535	16.60	17.50	1.23			0.17	0.185	0.228
	FR1 n7	50M	BPSK	1	1	Back	10mm	Ant7	DSi5	507000	2535	16.62	17.50	1.225			-0.04	0.235	0.288
	FR1 n7	50M	BPSK	135	68	Back	10mm	Ant7	DSi5	507000	2535	16.60	17.50	1.23			0.11	0.232	0.285
	FR1 n7	50M	BPSK	1	1	Left Edge	10mm	Ant7	DSi5	507000	2535	16.62	17.50	1.225			0.00	0.001	0.001
	FR1 n7	50M	BPSK	135	68	Left Edge	10mm	Ant7	DSi5	507000	2535	16.60	17.50	1.23			-0.18	0.001	0.001
	FR1 n7	50M	BPSK	1	1	Right Edge	10mm	Ant7	DSi5	507000	2535	16.62	17.50	1.225			-0.11	0.381	0.467
	FR1 n7	50M	BPSK	135	68	Right Edge	10mm	Ant7	DSi5	507000	2535	16.60	17.50	1.23			-0.13	0.348	0.428
	FR1 n7	50M	BPSK	1	1	Top Edge	10mm	Ant7	DSi5	507000	2535	16.62	17.50	1.225			0.06	0.001	0.001
	FR1 n7	50M	BPSK	135	68	Top Edge	10mm	Ant7	DSi5	507000	2535	16.60	17.50	1.23			-0.01	0.001	0.001
	FR1 n7	50M	BPSK	1	1	Bottom Edge	10mm	Ant7	DSi5	507000	2535	16.62	17.50	1.225			0.11	0.001	0.001
	FR1 n7	50M	BPSK	135	68	Bottom Edge	10mm	Ant7	DSi5	507000	2535	16.60	17.50	1.23			-0.16	0.001	0.001
	FR1 n26	20M	BPSK	1	1	Front	10mm	Ant0	DSi5	166300	831.5	24.15	24.70	1.135			-0.07	0.314	0.356
	FR1 n26	20M	BPSK	50	28	Front	10mm	Ant0	DSi5	166300	831.5	24.11	24.70	1.146			0.09	0.342	0.392
	FR1 n26	20M	BPSK	1	1	Back	10mm	Ant0	DSi5	166300	831.5	24.15	24.70	1.135			0.09	0.400	0.454
	FR1 n26	20M	BPSK	50	28	Back	10mm	Ant0	DSi5	166300	831.5	24.11	24.70	1.146			-0.01	0.422	0.484
	FR1 n26	20M	BPSK	1	1	Left Edge	10mm	Ant0	DSi5	166300	831.5	24.15	24.70	1.135			-0.05	0.056	0.064
	FR1 n26	20M	BPSK	50	28	Left Edge	10mm	Ant0	DSi5	166300	831.5	24.11	24.70	1.146			-0.07	0.052	0.060
	FR1 n26	20M	BPSK	1	1	Right Edge	10mm	Ant0	DSi5	166300	831.5	24.15	24.70	1.135			0.08	0.499	0.566
	FR1 n26	20M	BPSK	50	28	Right Edge	10mm	Ant0	DSi5	166300	831.5	24.11	24.70	1.146			-0.03	0.515	0.590
	FR1 n26	20M	BPSK	1	1	Top Edge	10mm	Ant0	DSi5	166300	831.5	24.15	24.70	1.135			0.14	0.001	0.001
	FR1 n26	20M	BPSK	50	28	Top Edge	10mm	Ant0	DSi5	166300	831.5	24.11	24.70	1.146			-0.03	0.001	0.001
	FR1 n26	20M	BPSK	1	1	Bottom Edge	10mm	Ant0	DSi5	166300	831.5	24.15	24.70	1.135			0.16	0.270	0.306
	FR1 n26	20M	BPSK	50	28	Bottom Edge	10mm	Ant0	DSi5	166300	831.5	24.11	24.70	1.146			-0.03	0.285	0.327
	FR1 n5	20M	BPSK	50	28	Right Edge	10mm	Ant0	DSi5	167300	836.5	24.11	25.00	1.227			0.02	0.470	0.577
	FR1 n26	20M	BPSK	1	1	Front	10mm	Ant1	DSi5	166300	831.5	19.74	20.70	1.247			-0.17	0.328	0.409
	FR1 n26	20M	BPSK	50	28	Front	10mm	Ant1	DSi5	166300	831.5	19.72	20.70	1.253			-0.09	0.392	0.491
	FR1 n26	20M	BPSK	1	1	Back	10mm	Ant1	DSi5	166300	831.5	19.74	20.70	1.247			0.00	0.389	0.485
	FR1 n26	20M	BPSK	50	28	Back	10mm	Ant1	DSi5	166300	831.5	19.72	20.70	1.253			-0.09	0.459	0.575
	FR1 n26	20M	BPSK	1	1	Left Edge	10mm	Ant1	DSi5	166300	831.5	19.74	20.70	1.247			0.06	0.571	0.712
44	FR1 n26	20M	BPSK	50	28	Left Edge	10mm	Ant1	DSi5	166300	831.5	19.72	20.70	1.253			-0.02	0.638	0.799
	FR1 n26	20M	BPSK	1	1	Right Edge	10mm	Ant1	DSi5	166300	831.5	19.74	20.70	1.247			0.06	0.001	0.001
	FR1 n26	20M	BPSK	50	28	Right Edge	10mm	Ant1	DSi5	166300	831.5	19.72	20.70	1.253			-0.12	0.001	0.001
	FR1 n26	20M	BPSK	1	1	Top Edge	10mm	Ant1	DSi5	166300	831.5	19.74	20.70	1.247			-0.11	0.001	0.001
	FR1 n26	20M	BPSK	50	28	Top Edge	10mm	Ant1	DSi5	166300	831.5	19.72	20.70	1.253			-0.13	0.001	0.001
	FR1 n26	20M	BPSK	1	1	Bottom Edge	10mm	Ant1	DSi5	166300	831.5	19.74	20.70	1.247			-0.19	0.001	0.001
	FR1 n26	20M	BPSK	50	28	Bottom Edge	10mm	Ant1	DSi5	166300	831.5	19.72	20.70	1.253			-0.19	0.001	0.001
	FR1 n5	20M	BPSK	50	28	Left Edge	10mm	Ant1	DSi5	167300	836.5	18.51	19.50	1.256			0.04	0.541	0.679
	FR1 n66_Other PA	45M	BPSK	1	1	Front	10mm	Ant4	DSI 5	349000	1745	17.26	18.50	1.33			-0.00	0.139	0.185
	FR1 n66_Other PA	45M	BPSK	120	60	Front	10mm	Ant4	DSI 5	349000	1745	17.24	18.50	1.337			-0.13	0.140	0.187
	FR1 n66_Other PA	45M	BPSK	1	1	Back	10mm	Ant4	DSI 5	349000	1745	17.26	18.50	1.33			-0.11	0.202	0.269
	FR1 n66_Other PA	45M	BPSK	120	60	Back	10mm	Ant4	DSI 5	349000	1745	17.24	18.50	1.337			0.18	0.193	0.258
	FR1 n66	45M	BPSK	1	1	Left Edge	10mm	Ant4	DSi5	349000	1745	17.21	17.70	1.119			0.02	0.219	0.245
	FR1 n66_Other PA	45M	BPSK	1	1	Left Edge	10mm	Ant4	DSI 5	349000	1745	17.26	18.50	1.33			-0.07	0.283	0.376
	FR1 n66_Other PA	45M	BPSK	120	60	Left Edge	10mm	Ant4	DSI 5	349000	1745	17.24	18.50	1.337			-0.04	0.277	0.370
	FR1 n66_Other PA	45M	BPSK	1	1	Right Edge	10mm	Ant4	DSI 5	349000	1745	17.26	18.50	1.33			0.10	0.001	0.001
	FR1 n66_Other PA	45M	BPSK	120	60	Right Edge	10mm	Ant4	DSI 5	349000	1745	17.24	18.50	1.337			-0.10	0.001	0.001
	FR1 n66_Other PA	45M	BPSK	1	1	Top Edge	10mm	Ant4	DSI 5	349000	1745	17.26	18.50	1.33			-0.06	0.111	0.148
	FR1 n66_Other PA	45M	BPSK	120	60	Top Edge	10mm	Ant4	DSI 5	349000	1745	17.24	18.50	1.337			-0.17	0.100	0.134
	FR1 n66_Other PA	45M	BPSK	1	1	Bottom Edge	10mm	Ant4	DSI 5	349000	1745	17.26	18.50	1.33			-0.15	0.001	0.001
	FR1 n66_Other PA	45M	BPSK	120	60	Bottom Edge	10mm	Ant4	DSI 5	349000	1745	17.24	18.50	1.337			0.12	0.001	0.001
	FR1 n66	45M	BPSK	1	1	Front	10mm	Ant5	DSi5	349000	1745	15.25	16.00	1.189			-0.08	0.146	0.174
	FR1 n66	45M	BPSK	120	60	Front	10mm	Ant5	DSi5	349000	1745	15.23	16.00	1.194			0.17	0.153	0.183
	FR1 n66	45M	BPSK	1	1	Back	10mm	Ant5	DSi5	349000	1745	15.25	16.00	1.189			-0.18	0.165	0.196
	FR1 n66	45M	BPSK	120	60	Back	10mm	Ant5	DSi5	349000	1745	15.23	16.00	1.194			-0.05	0.178	0.213
	FR1 n66	45M	BPSK	1	1	Left Edge	10mm	Ant5	DSi5	349000	1745	15.25	16.00	1.189			-0.17	0.001	0.001
	FR1 n66	45M	BPSK	120	60	Left Edge	10mm	Ant5	DSi5	349000	1745	15.23	16.00	1.194			-0.12	0.001	0.001
	FR1 n66	45M	BPSK	1	1	Right Edge	10mm	Ant5	DSi5	349000	1745	15.25	16.00	1.189			0.00	0.001	0.001
	FR1 n66	45M	BPSK	120	60	Right Edge	10mm	Ant5	DSi5	349000	1745	15.23	16.00	1.194			-0.07	0.001	0.001
	FR1 n66	45M	BPSK	1	1	Top Edge	10mm	Ant5	DSi5	349000	1745	15.25	16.00	1.189			0.05	0.267	0.317
	FR1 n66	45M	BPSK	120	60	Top Edge	10mm	Ant5	DSi5	349000	1745	15.23	16.00	1.194			0.02	0.268	0.320
	FR1 n66_Other PA	45M	BPSK	120	60	Top Edge	10mm	Ant5	DSI 5	349000	1745	15.31	16.00	1.172			-0.01	0.245	0.287
	FR1 n66	45M	BPSK	1	1	Bottom Edge	10mm	Ant5	DSi5	349000	1745	15.25	16.00	1.189			0.18	0.001	0.001
	FR1 n66	45M	BPSK	120	60	Bottom Edge	10mm	Ant5	DSi5	349000	1745	15.23	16.00	1.194			-0.12	0.001	0.001
	FR1 n66	45M	BPSK	1	1	Front	10mm	Ant6	DSi5	349000	1745	19.10	20.00	1.23			-0.17	0.175	0.215
	FR1 n66	45M	BPSK	120	60	Front	10mm	Ant6	DSi5	349000	1745	19.06	20.00	1.242			0.14	0.207	0.257



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	FR1 n66	45M	BPSK	1	1	Back	10mm	Ant6	DSi5	349000	1745	19.10	20.00	1.23			0.08	0.200	0.246
	FR1 n66	45M	BPSK	120	60	Back	10mm	Ant6	DSi5	349000	1745	19.06	20.00	1.242			-0.02	0.237	0.294
	FR1 n66	45M	BPSK	1	1	Left Edge	10mm	Ant6	DSi5	349000	1745	19.10	20.00	1.23			0.04	0.118	0.145
	FR1 n66	45M	BPSK	120	60	Left Edge	10mm	Ant6	DSi5	349000	1745	19.06	20.00	1.242			-0.15	0.120	0.149
	FR1 n66	45M	BPSK	1	1	Right Edge	10mm	Ant6	DSi5	349000	1745	19.10	20.00	1.23			-0.03	0.001	0.001
	FR1 n66	45M	BPSK	120	60	Right Edge	10mm	Ant6	DSi5	349000	1745	19.06	20.00	1.242			0.12	0.001	0.001
	FR1 n66	45M	BPSK	1	1	Top Edge	10mm	Ant6	DSi5	349000	1745	19.10	20.00	1.23			-0.13	0.001	0.001
	FR1 n66	45M	BPSK	120	60	Top Edge	10mm	Ant6	DSi5	349000	1745	19.06	20.00	1.242			-0.15	0.001	0.001
	FR1 n66	45M	BPSK	1	1	Bottom Edge	10mm	Ant6	DSi5	349000	1745	19.10	20.00	1.23			0.05	0.342	0.421
45	FR1 n66	45M	BPSK	120	60	Bottom Edge	10mm	Ant6	DSi5	349000	1745	19.06	20.00	1.242			0.04	0.372	0.462
	FR1 n66_Other PA	45M	BPSK	120	60	Bottom Edge	10mm	Ant6	DSi 5	349000	1745	19.18	19.50	1.076			0.05	0.376	0.405
	FR1 n66_Other PA	45M	BPSK	1	1	Front	10mm	Ant7	DSi 5	349000	1745	17.54	18.00	1.112			0.05	0.181	0.201
	FR1 n66_Other PA	45M	BPSK	120	60	Front	10mm	Ant7	DSi 5	349000	1745	17.48	18.00	1.127			0.05	0.168	0.189
	FR1 n66_Other PA	45M	BPSK	1	1	Back	10mm	Ant7	DSi 5	349000	1745	17.54	18.00	1.112			-0.13	0.218	0.242
	FR1 n66_Other PA	45M	BPSK	120	60	Back	10mm	Ant7	DSi 5	349000	1745	17.48	18.00	1.127			0.08	0.211	0.238
	FR1 n66_Other PA	45M	BPSK	1	1	Left Edge	10mm	Ant7	DSi 5	349000	1745	17.54	18.00	1.112			0.06	0.001	0.001
	FR1 n66_Other PA	45M	BPSK	120	60	Left Edge	10mm	Ant7	DSi 5	349000	1745	17.48	18.00	1.127			0.00	0.001	0.001
	FR1 n66	45M	BPSK	1	1	Right Edge	10mm	Ant7	DSi5	349000	1745	17.29	18.00	1.178			-0.02	0.296	0.349
	FR1 n66_Other PA	45M	BPSK	1	1	Right Edge	10mm	Ant7	DSi 5	349000	1745	17.54	18.00	1.112			-0.15	0.325	0.361
	FR1 n66_Other PA	45M	BPSK	120	60	Right Edge	10mm	Ant7	DSi 5	349000	1745	17.48	18.00	1.127			0.09	0.311	0.350
	FR1 n66_Other PA	45M	BPSK	1	1	Top Edge	10mm	Ant7	DSi 5	349000	1745	17.54	18.00	1.112			0.14	0.001	0.001
	FR1 n66_Other PA	45M	BPSK	120	60	Top Edge	10mm	Ant7	DSi 5	349000	1745	17.48	18.00	1.127			-0.01	0.001	0.001
	FR1 n66_Other PA	45M	BPSK	1	1	Bottom Edge	10mm	Ant7	DSi 5	349000	1745	17.54	18.00	1.112			-0.06	0.001	0.001
	FR1 n66_Other PA	45M	BPSK	120	60	Bottom Edge	10mm	Ant7	DSi 5	349000	1745	17.48	18.00	1.127			-0.05	0.001	0.001
	FR1 n71	35M	BPSK	1	1	Front	10mm	Ant0	DSi5	136100	680.5	24.14	25.00	1.219			-0.08	0.236	0.288
	FR1 n71	35M	BPSK	90	45	Front	10mm	Ant0	DSi5	136100	680.5	24.13	25.00	1.222			-0.10	0.196	0.240
	FR1 n71	35M	BPSK	1	1	Back	10mm	Ant0	DSi5	136100	680.5	24.14	25.00	1.219			-0.10	0.257	0.313
	FR1 n71	35M	BPSK	90	45	Back	10mm	Ant0	DSi5	136100	680.5	24.13	25.00	1.222			0.11	0.212	0.259
	FR1 n71	35M	BPSK	1	1	Left Edge	10mm	Ant0	DSi5	136100	680.5	24.14	25.00	1.219			-0.15	0.001	0.001
	FR1 n71	35M	BPSK	90	45	Left Edge	10mm	Ant0	DSi5	136100	680.5	24.13	25.00	1.222			-0.13	0.001	0.001
	FR1 n71	35M	BPSK	1	1	Right Edge	10mm	Ant0	DSi5	136100	680.5	24.14	25.00	1.219			0.06	0.347	0.423
	FR1 n71	35M	BPSK	90	45	Right Edge	10mm	Ant0	DSi5	136100	680.5	24.13	25.00	1.222			-0.06	0.220	0.269
	FR1 n71	35M	BPSK	1	1	Top Edge	10mm	Ant0	DSi5	136100	680.5	24.14	25.00	1.219			0.05	0.001	0.001
	FR1 n71	35M	BPSK	90	45	Top Edge	10mm	Ant0	DSi5	136100	680.5	24.13	25.00	1.222			0.00	0.001	0.001
	FR1 n71	35M	BPSK	1	1	Bottom Edge	10mm	Ant0	DSi5	136100	680.5	24.14	25.00	1.219			-0.15	0.086	0.105
	FR1 n71	35M	BPSK	90	45	Bottom Edge	10mm	Ant0	DSi5	136100	680.5	24.13	25.00	1.222			-0.17	0.078	0.095
	FR1 n71	35M	BPSK	1	1	Front	10mm	Ant1	DSi5	136100	680.5	21.98	23.00	1.265			0.05	0.307	0.388
	FR1 n71	35M	BPSK	90	45	Front	10mm	Ant1	DSi5	136100	680.5	21.95	23.00	1.274			-0.15	0.278	0.354
46	FR1 n71	35M	BPSK	1	1	Back	10mm	Ant1	DSi5	136100	680.5	21.98	23.00	1.265			-0.07	0.358	0.453
	FR1 n71	35M	BPSK	90	45	Back	10mm	Ant1	DSi5	136100	680.5	21.95	23.00	1.274			-0.09	0.342	0.436
	FR1 n71	35M	BPSK	1	1	Left Edge	10mm	Ant1	DSi5	136100	680.5	21.98	23.00	1.265			-0.12	0.173	0.219
	FR1 n71	35M	BPSK	90	45	Left Edge	10mm	Ant1	DSi5	136100	680.5	21.95	23.00	1.274			-0.09	0.299	0.381
	FR1 n71	35M	BPSK	1	1	Right Edge	10mm	Ant1	DSi5	136100	680.5	21.98	23.00	1.265			-0.11	0.001	0.001
	FR1 n71	35M	BPSK	90	45	Right Edge	10mm	Ant1	DSi5	136100	680.5	21.95	23.00	1.274			-0.06	0.001	0.001
	FR1 n71	35M	BPSK	1	1	Top Edge	10mm	Ant1	DSi5	136100	680.5	21.98	23.00	1.265			0.04	0.001	0.001
	FR1 n71	35M	BPSK	90	45	Top Edge	10mm	Ant1	DSi5	136100	680.5	21.95	23.00	1.274			0.16	0.001	0.001
	FR1 n71	35M	BPSK	1	1	Bottom Edge	10mm	Ant1	DSi5	136100	680.5	21.98	23.00	1.265			-0.07	0.001	0.001
	FR1 n71	35M	BPSK	90	45	Bottom Edge	10mm	Ant1	DSi5	136100	680.5	21.95	23.00	1.274			-0.07	0.001	0.001
	FR1 n41	100M	BPSK	1	1	Front	10mm	Ant4	DSi5	518598	2592.99	16.23	16.70	1.114			0.11	0.175	0.195
	FR1 n41	100M	BPSK	135	69	Front	10mm	Ant4	DSi5	518598	2592.99	16.21	16.70	1.119			0.04	0.186	0.208
	FR1 n41	100M	BPSK	1	1	Back	10mm	Ant4	DSi5	518598	2592.99	16.23	16.70	1.114			0.10	0.227	0.253
	FR1 n41	100M	BPSK	135	69	Back	10mm	Ant4	DSi5	518598	2592.99	16.21	16.70	1.119			-0.16	0.250	0.280
	FR1 n41	100M	BPSK	1	1	Left Edge	10mm	Ant4	DSi5	518598	2592.99	16.23	16.70	1.114			-0.14	0.361	0.402
47	FR1 n41	100M	BPSK	135	69	Left Edge	10mm	Ant4	DSi5	518598	2592.99	16.21	16.70	1.119			-0.06	0.391	0.438
	FR1 n41	100M	BPSK	1	1	Right Edge	10mm	Ant4	DSi5	518598	2592.99	16.23	16.70	1.114			0.17	0.001	0.001
	FR1 n41	100M	BPSK	135	69	Right Edge	10mm	Ant4	DSi5	518598	2592.99	16.21	16.70	1.119			0.08	0.001	0.001
	FR1 n41	100M	BPSK	1	1	Top Edge	10mm	Ant4	DSi5	518598	2592.99	16.23	16.70	1.114			0.09	0.001	0.001
	FR1 n41	100M	BPSK	135	69	Top Edge	10mm	Ant4	DSi5	518598	2592.99	16.21	16.70	1.119			0.04	0.001	0.001
	FR1 n41	100M	BPSK	1	1	Bottom Edge	10mm	Ant4	DSi5	518598	2592.99	16.23	16.70	1.114			0.16	0.001	0.001
	FR1 n41	100M	BPSK	135	69	Bottom Edge	10mm	Ant4	DSi5	518598	2592.99	16.21	16.70	1.119			-0.05	0.001	0.001
	FR1 n41_HPUE	100M	BPSK	135	69	Left Edge	10mm	Ant4	DSi5	518598	2592.99	19.12	20.00	1.225	50.0	1.0	-0.05	0.351	0.430
	FR1 n41	100M	BPSK	1	1	Front	10mm	Ant5	DSi5	518598	2592.99	15.08	16.00	1.236			0.07	0.098	0.121
	FR1 n41	100M	BPSK	135	69	Front	10mm	Ant5	DSi5	518598	2592.99	15.06	16.00	1.242			0.09	0.074	0.092
	FR1 n41	100M	BPSK	1	1	Back	10mm	Ant5	DSi5	518598	2592.99	15.08	16.00	1.236			0.05	0.120	0.148
	FR1 n41	100M	BPSK	135	69	Back	10mm	Ant5	DSi5	518598	2592.99	15.06	16.00	1.242			-0.03	0.091	0.113
	FR1 n41	100M	BPSK	1	1	Left Edge	10mm	Ant5	DSi5	518598	2592.99	15.08	16.00	1.236			0.19	0.068	0.084
	FR1 n41	100M	BPSK	135	69	Left Edge	10mm	Ant5	DSi5	518598	2592.99	15.06	16.00	1.242			0.04	0.087	0.108
	FR1 n41	100M	BPSK	1	1	Right Edge	10mm	Ant5	DSi5	518598	2592.99	15.08	16.00	1.236			-0.02	0.001	0.001
	FR1 n41	100M	BPSK	135	69	Right Edge	10mm	Ant5	DSi5	518598	2592.99	15.06	16.00	1.242			-0.01	0.001	0.001
	FR1 n41	100M	BPSK	1	1	Top Edge	10mm	Ant5	DSi5	518598	2592.99	15.08	16.00	1.236			-0.07	0.258	0.319
	FR1 n41	100M	BPSK	135	69	Top Edge	10mm	Ant5	DSi5	518598	2592.99	15.06	16.00	1.242			0.12	0.230	0.286
	FR1 n41	100M	BPSK	1	1	Bottom Edge	10mm	Ant5	DSi5	518598	2592.99	15.08	16.00	1.236			0.19	0.001	0.001
	FR1 n41	100M	BPSK	135	69	Bottom Edge	10mm	Ant5	DSi5	518598	2592.99	15.06	16.00	1.242			0.18	0.001	0.001



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	FR1 n41_HPUE	100M	BPSK	1	1	Top Edge	10mm	Ant5	DSi5	518598	2592.99	18.02	19.00	1.253	50.0	1.0	0.04	0.265	0.332
	FR1 n41	100M	BPSK	1	1	Front	10mm	Ant6	DSi5	518598	2592.99	18.36	19.00	1.159			-0.19	0.193	0.224
	FR1 n41	100M	BPSK	135	69	Front	10mm	Ant6	DSi5	518598	2592.99	18.32	19.00	1.169			0.12	0.194	0.227
	FR1 n41	100M	BPSK	1	1	Back	10mm	Ant6	DSi5	518598	2592.99	18.36	19.00	1.159			0.00	0.267	0.309
	FR1 n41	100M	BPSK	135	69	Back	10mm	Ant6	DSi5	518598	2592.99	18.32	19.00	1.169			-0.03	0.244	0.285
	FR1 n41	100M	BPSK	1	1	Left Edge	10mm	Ant6	DSi5	518598	2592.99	18.36	19.00	1.159			-0.00	0.059	0.068
	FR1 n41	100M	BPSK	135	69	Left Edge	10mm	Ant6	DSi5	518598	2592.99	18.32	19.00	1.169			-0.10	0.080	0.094
	FR1 n41	100M	BPSK	1	1	Right Edge	10mm	Ant6	DSi5	518598	2592.99	18.36	19.00	1.159			0.16	0.015	0.017
	FR1 n41	100M	BPSK	135	69	Right Edge	10mm	Ant6	DSi5	518598	2592.99	18.32	19.00	1.169			0.06	0.001	0.001
	FR1 n41	100M	BPSK	1	1	Top Edge	10mm	Ant6	DSi5	518598	2592.99	18.36	19.00	1.159			-0.08	0.001	0.001
	FR1 n41	100M	BPSK	135	69	Top Edge	10mm	Ant6	DSi5	518598	2592.99	18.32	19.00	1.169			0.15	0.001	0.001
	FR1 n41	100M	BPSK	1	1	Bottom Edge	10mm	Ant6	DSi5	518598	2592.99	18.36	19.00	1.159			0.09	0.332	0.385
	FR1 n41	100M	BPSK	135	69	Bottom Edge	10mm	Ant6	DSi5	518598	2592.99	18.32	19.00	1.169			-0.01	0.320	0.374
	FR1 n41_HPUE	100M	BPSK	1	1	Bottom Edge	10mm	Ant6	DSi5	518598	2592.99	21.32	22.00	1.169	50.0	1.0	0.16	0.331	0.387
	FR1 n41	100M	BPSK	1	1	Front	10mm	Ant7	DSi5	518598	2592.99	16.65	17.50	1.216			0.19	0.144	0.175
	FR1 n41	100M	BPSK	135	69	Front	10mm	Ant7	DSi5	518598	2592.99	16.63	17.50	1.222			-0.05	0.132	0.161
	FR1 n41	100M	BPSK	1	1	Back	10mm	Ant7	DSi5	518598	2592.99	16.65	17.50	1.216			-0.18	0.171	0.208
	FR1 n41	100M	BPSK	135	69	Back	10mm	Ant7	DSi5	518598	2592.99	16.63	17.50	1.222			-0.18	0.177	0.216
	FR1 n41	100M	BPSK	1	1	Left Edge	10mm	Ant7	DSi5	518598	2592.99	16.65	17.50	1.216			0.11	0.001	0.001
	FR1 n41	100M	BPSK	135	69	Left Edge	10mm	Ant7	DSi5	518598	2592.99	16.63	17.50	1.222			-0.13	0.001	0.001
	FR1 n41	100M	BPSK	1	1	Right Edge	10mm	Ant7	DSi5	518598	2592.99	16.65	17.50	1.216			-0.10	0.233	0.283
	FR1 n41	100M	BPSK	135	69	Right Edge	10mm	Ant7	DSi5	518598	2592.99	16.63	17.50	1.222			-0.00	0.258	0.315
	FR1 n41	100M	BPSK	1	1	Top Edge	10mm	Ant7	DSi5	518598	2592.99	16.65	17.50	1.216			0.02	0.001	0.001
	FR1 n41	100M	BPSK	135	69	Top Edge	10mm	Ant7	DSi5	518598	2592.99	16.63	17.50	1.222			-0.01	0.001	0.001
	FR1 n41	100M	BPSK	1	1	Bottom Edge	10mm	Ant7	DSi5	518598	2592.99	16.65	17.50	1.216			0.13	0.001	0.001
	FR1 n41	100M	BPSK	135	69	Bottom Edge	10mm	Ant7	DSi5	518598	2592.99	16.63	17.50	1.222			-0.17	0.001	0.001
	FR1 n41_HPUE	100M	BPSK	135	69	Right Edge	10mm	Ant7	DSi5	518598	2592.99	19.59	20.50	1.233	50.0	1.0	-0.16	0.232	0.286
	FR1 n48	40M	BPSK	1	1	Front	10mm	Ant8	DSi5	641666	3624.99	16.68	17.50	1.208			-0.01	0.137	0.165
	FR1 n48	40M	BPSK	50	28	Front	10mm	Ant8	DSi5	641666	3624.99	16.65	17.50	1.216			-0.10	0.128	0.156
	FR1 n48	40M	BPSK	1	1	Back	10mm	Ant8	DSi5	641666	3624.99	16.68	17.50	1.208			0.07	0.161	0.194
	FR1 n48	40M	BPSK	50	28	Back	10mm	Ant8	DSi5	641666	3624.99	16.65	17.50	1.216			0.02	0.152	0.185
	FR1 n48	40M	BPSK	1	1	Left Edge	10mm	Ant8	DSi5	641666	3624.99	16.68	17.50	1.208			0.14	0.009	0.011
	FR1 n48	40M	BPSK	50	28	Left Edge	10mm	Ant8	DSi5	641666	3624.99	16.65	17.50	1.216			0.00	0.007	0.009
	FR1 n48	40M	BPSK	1	1	Right Edge	10mm	Ant8	DSi5	641666	3624.99	16.68	17.50	1.208			-0.01	0.327	0.395
48	FR1 n48	40M	BPSK	50	28	Right Edge	10mm	Ant8	DSi5	641666	3624.99	16.65	17.50	1.216			0.01	0.335	0.407
	FR1 n48	40M	BPSK	1	1	Top Edge	10mm	Ant8	DSi5	641666	3624.99	16.68	17.50	1.208			0.06	0.045	0.054
	FR1 n48	40M	BPSK	50	28	Top Edge	10mm	Ant8	DSi5	641666	3624.99	16.65	17.50	1.216			-0.17	0.045	0.055
	FR1 n48	40M	BPSK	1	1	Bottom Edge	10mm	Ant8	DSi5	641666	3624.99	16.68	17.50	1.208			0.09	0.020	0.024
	FR1 n48	40M	BPSK	50	28	Bottom Edge	10mm	Ant8	DSi5	641666	3624.99	16.65	17.50	1.216			0.12	0.019	0.023
	FR1 n48	40M	BPSK	1	1	Front	10mm	Ant9	DSi5	641666	3624.99	16.40	16.70	1.072			0.11	0.136	0.146
	FR1 n48	40M	BPSK	50	28	Front	10mm	Ant9	DSi5	641666	3624.99	16.36	16.70	1.081			0.17	0.129	0.139
	FR1 n48	40M	BPSK	1	1	Back	10mm	Ant9	DSi5	641666	3624.99	16.40	16.70	1.072			0.16	0.168	0.180
	FR1 n48	40M	BPSK	50	28	Back	10mm	Ant9	DSi5	641666	3624.99	16.36	16.70	1.081			-0.18	0.149	0.161
	FR1 n48	40M	BPSK	1	1	Left Edge	10mm	Ant9	DSi5	641666	3624.99	16.40	16.70	1.072			-0.01	0.295	0.316
	FR1 n48	40M	BPSK	50	28	Left Edge	10mm	Ant9	DSi5	641666	3624.99	16.36	16.70	1.081			-0.15	0.254	0.275
	FR1 n48	40M	BPSK	1	1	Right Edge	10mm	Ant9	DSi5	641666	3624.99	16.40	16.70	1.072			0.12	0.001	0.001
	FR1 n48	40M	BPSK	50	28	Right Edge	10mm	Ant9	DSi5	641666	3624.99	16.36	16.70	1.081			0.04	0.001	0.001
	FR1 n48	40M	BPSK	1	1	Top Edge	10mm	Ant9	DSi5	641666	3624.99	16.40	16.70	1.072			-0.08	0.046	0.049
	FR1 n48	40M	BPSK	50	28	Top Edge	10mm	Ant9	DSi5	641666	3624.99	16.36	16.70	1.081			0.08	0.049	0.053
	FR1 n48	40M	BPSK	1	1	Bottom Edge	10mm	Ant9	DSi5	641666	3624.99	16.40	16.70	1.072			0.16	0.001	0.001
	FR1 n48	40M	BPSK	50	28	Bottom Edge	10mm	Ant9	DSi5	641666	3624.99	16.36	16.70	1.081			0.10	0.001	0.001
	FR1 n48	40M	BPSK	1	1	Front	10mm	Ant10	DSi5	641666	3624.99	12.59	13.50	1.233			0.08	0.083	0.102
	FR1 n48	40M	BPSK	50	28	Front	10mm	Ant10	DSi5	641666	3624.99	12.57	13.50	1.239			-0.05	0.086	0.107
	FR1 n48	40M	BPSK	1	1	Back	10mm	Ant10	DSi5	641666	3624.99	12.59	13.50	1.233			-0.14	0.094	0.116
	FR1 n48	40M	BPSK	50	28	Back	10mm	Ant10	DSi5	641666	3624.99	12.57	13.50	1.239			0.11	0.095	0.118
	FR1 n48	40M	BPSK	1	1	Left Edge	10mm	Ant10	DSi5	641666	3624.99	12.59	13.50	1.233			-0.18	0.015	0.018
	FR1 n48	40M	BPSK	50	28	Left Edge	10mm	Ant10	DSi5	641666	3624.99	12.57	13.50	1.239			0.15	0.014	0.017
	FR1 n48	40M	BPSK	1	1	Right Edge	10mm	Ant10	DSi5	641666	3624.99	12.59	13.50	1.233			-0.09	0.030	0.037
	FR1 n48	40M	BPSK	50	28	Right Edge	10mm	Ant10	DSi5	641666	3624.99	12.57	13.50	1.239			0.04	0.028	0.035
	FR1 n48	40M	BPSK	1	1	Top Edge	10mm	Ant10	DSi5	641666	3624.99	12.59	13.50	1.233			-0.01	0.190	0.234
	FR1 n48	40M	BPSK	50	28	Top Edge	10mm	Ant10	DSi5	641666	3624.99	12.57	13.50	1.239			0.18	0.153	0.190
	FR1 n48	40M	BPSK	1	1	Bottom Edge	10mm	Ant10	DSi5	641666	3624.99	12.59	13.50	1.233			0.17	0.002	0.002
	FR1 n48	40M	BPSK	50	28	Bottom Edge	10mm	Ant10	DSi5	641666	3624.99	12.57	13.50	1.239			-0.10	0.001	0.001
	FR1 n48	40M	BPSK	1	1	Front	10mm	Ant11	DSi5	641666	3624.99	13.85	15.00	1.303			0.06	0.073	0.095
	FR1 n48	40M	BPSK	50	28	Front	10mm	Ant11	DSi5	641666	3624.99	13.79	15.00	1.321			-0.02	0.068	0.090
	FR1 n48	40M	BPSK	1	1	Back	10mm	Ant11	DSi5	641666	3624.99	13.85	15.00	1.303			-0.12	0.040	0.052
	FR1 n48	40M	BPSK	50	28	Back	10mm	Ant11	DSi5	641666	3624.99	13.79	15.00	1.321			-0.10	0.039	0.052
	FR1 n48	40M	BPSK	1	1	Left Edge	10mm	Ant11	DSi5	641666	3624.99	13.85	15.00	1.303			0.14	0.012	0.016
	FR1 n48	40M	BPSK	50	28	Left Edge	10mm	Ant11	DSi5	641666	3624.99	13.79	15.00	1.321			0.17	0.013	0.017
	FR1 n48	40M	BPSK	1	1	Right Edge	10mm	Ant11	DSi5	641666	3624.99	13.85	15.00	1.303			0.15	0.001	0.001
	FR1 n48	40M	BPSK	50	28	Right Edge	10mm	Ant11	DSi5	641666	3624.99	13.79	15.00	1.321			-0.11	0.008	0.011
	FR1 n48	40M	BPSK	1	1	Top Edge	10mm	Ant11	DSi5	641666	3624.99	13.85	15.00	1.303			0.01	0.097	0.126
	FR1 n48	40M	BPSK	50	28	Top Edge	10mm	Ant11	DSi5	641666	3624.99	13.79	15.00	1.321			0.02	0.078	0.103



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	FR1 n48	40M	BPSK	1	1	Bottom Edge	10mm	Ant11	DSi5	641666	3624.99	13.85	15.00	1.303			0.03	0.001	0.001
	FR1 n48	40M	BPSK	50	28	Bottom Edge	10mm	Ant11	DSi5	641666	3624.99	13.79	15.00	1.321			0.12	0.001	0.001
	FR1 n77	100M	BPSK	1	1	Front	10mm	Ant8	DSi5	633332	3499.98	16.16	17.00	1.213			-0.16	0.123	0.149
	FR1 n77	100M	BPSK	135	69	Front	10mm	Ant8	DSi5	633332	3499.98	16.14	17.00	1.219			-0.01	0.111	0.135
	FR1 n77	100M	BPSK	1	1	Back	10mm	Ant8	DSi5	633332	3499.98	16.16	17.00	1.213			-0.05	0.136	0.165
	FR1 n77	100M	BPSK	135	69	Back	10mm	Ant8	DSi5	633332	3499.98	16.14	17.00	1.219			-0.12	0.126	0.154
	FR1 n77	100M	BPSK	1	1	Left Edge	10mm	Ant8	DSi5	633332	3499.98	16.16	17.00	1.213			-0.18	0.001	0.001
	FR1 n77	100M	BPSK	135	69	Left Edge	10mm	Ant8	DSi5	633332	3499.98	16.14	17.00	1.219			0.17	0.001	0.001
	FR1 n77	100M	BPSK	1	1	Right Edge	10mm	Ant8	DSi5	633332	3499.98	16.16	17.00	1.213			0.05	0.275	0.334
	FR1 n77	100M	BPSK	135	69	Right Edge	10mm	Ant8	DSi5	633332	3499.98	16.14	17.00	1.219			0.06	0.237	0.289
	FR1 n77	100M	BPSK	1	1	Top Edge	10mm	Ant8	DSi5	633332	3499.98	16.16	17.00	1.213			-0.18	0.039	0.047
	FR1 n77	100M	BPSK	135	69	Top Edge	10mm	Ant8	DSi5	633332	3499.98	16.14	17.00	1.219			-0.01	0.040	0.049
	FR1 n77	100M	BPSK	1	1	Bottom Edge	10mm	Ant8	DSi5	633332	3499.98	16.16	17.00	1.213			0.17	0.001	0.001
	FR1 n77	100M	BPSK	135	69	Bottom Edge	10mm	Ant8	DSi5	633332	3499.98	16.14	17.00	1.219			-0.04	0.001	0.001
	FR1 n77_HPUE	100M	BPSK	1	1	Right Edge	10mm	Ant8	DSi5	633332	3499.98	19.42	20.50	1.282	50.0	1.0	0.13	0.279	0.358
	FR1 n77	100M	BPSK	1	1	Front	10mm	Ant9	DSi5	633332	3499.98	17.48	18.50	1.265			-0.14	0.156	0.197
	FR1 n77	100M	BPSK	135	69	Front	10mm	Ant9	DSi5	633332	3499.98	17.47	18.50	1.268			-0.03	0.174	0.221
	FR1 n77	100M	BPSK	1	1	Back	10mm	Ant9	DSi5	633332	3499.98	17.48	18.50	1.265			-0.11	0.177	0.224
	FR1 n77	100M	BPSK	135	69	Back	10mm	Ant9	DSi5	633332	3499.98	17.47	18.50	1.268			-0.07	0.189	0.240
	FR1 n77	100M	BPSK	1	1	Left Edge	10mm	Ant9	DSi5	633332	3499.98	17.48	18.50	1.265			0.03	0.321	0.406
49	FR1 n77	100M	BPSK	135	69	Left Edge	10mm	Ant9	DSi5	633332	3499.98	17.47	18.50	1.268			-0.13	0.351	0.445
	FR1 n77	100M	BPSK	1	1	Right Edge	10mm	Ant9	DSi5	633332	3499.98	17.48	18.50	1.265			-0.14	0.026	0.033
	FR1 n77	100M	BPSK	135	69	Right Edge	10mm	Ant9	DSi5	633332	3499.98	17.47	18.50	1.268			-0.15	0.017	0.022
	FR1 n77	100M	BPSK	1	1	Top Edge	10mm	Ant9	DSi5	633332	3499.98	17.48	18.50	1.265			-0.05	0.057	0.072
	FR1 n77	100M	BPSK	135	69	Top Edge	10mm	Ant9	DSi5	633332	3499.98	17.47	18.50	1.268			-0.01	0.076	0.096
	FR1 n77	100M	BPSK	1	1	Bottom Edge	10mm	Ant9	DSi5	633332	3499.98	17.48	18.50	1.265			0.15	0.001	0.001
	FR1 n77	100M	BPSK	135	69	Bottom Edge	10mm	Ant9	DSi5	633332	3499.98	17.47	18.50	1.268			-0.18	0.001	0.001
	FR1 n77_HPUE	100M	BPSK	135	69	Left Edge	10mm	Ant9	DSi5	633332	3499.98	20.46	21.50	1.271	50.0	1.0	0.04	0.329	0.418
	FR1 n77	100M	BPSK	1	1	Front	10mm	Ant10	DSi5	633332	3499.98	12.45	13.50	1.274			0.07	0.074	0.094
	FR1 n77	100M	BPSK	135	69	Front	10mm	Ant10	DSi5	633332	3499.98	12.44	13.50	1.276			-0.00	0.064	0.082
	FR1 n77	100M	BPSK	1	1	Back	10mm	Ant10	DSi5	633332	3499.98	12.45	13.50	1.274			0.12	0.084	0.107
	FR1 n77	100M	BPSK	135	69	Back	10mm	Ant10	DSi5	633332	3499.98	12.44	13.50	1.276			0.15	0.079	0.101
	FR1 n77	100M	BPSK	1	1	Left Edge	10mm	Ant10	DSi5	633332	3499.98	12.45	13.50	1.274			-0.18	0.008	0.010
	FR1 n77	100M	BPSK	135	69	Left Edge	10mm	Ant10	DSi5	633332	3499.98	12.44	13.50	1.276			0.10	0.006	0.008
	FR1 n77	100M	BPSK	1	1	Right Edge	10mm	Ant10	DSi5	633332	3499.98	12.45	13.50	1.274			-0.11	0.028	0.036
	FR1 n77	100M	BPSK	135	69	Right Edge	10mm	Ant10	DSi5	633332	3499.98	12.44	13.50	1.276			0.01	0.026	0.033
	FR1 n77	100M	BPSK	1	1	Top Edge	10mm	Ant10	DSi5	633332	3499.98	12.45	13.50	1.274			-0.14	0.139	0.177
	FR1 n77	100M	BPSK	135	69	Top Edge	10mm	Ant10	DSi5	633332	3499.98	12.44	13.50	1.276			-0.06	0.144	0.184
	FR1 n77	100M	BPSK	1	1	Bottom Edge	10mm	Ant10	DSi5	633332	3499.98	12.45	13.50	1.274			0.14	0.001	0.001
	FR1 n77	100M	BPSK	135	69	Bottom Edge	10mm	Ant10	DSi5	633332	3499.98	12.44	13.50	1.276			-0.10	0.001	0.001
	FR1 n77_HPUE	100M	BPSK	135	69	Top Edge	10mm	Ant10	DSi5	633332	3499.98	15.34	16.50	1.306	50.0	1.0	-0.03	0.152	0.199
	FR1 n77	100M	BPSK	1	1	Front	10mm	Ant11	DSi5	633332	3499.98	14.05	15.00	1.245			-0.17	0.106	0.132
	FR1 n77	100M	BPSK	135	69	Front	10mm	Ant11	DSi5	633332	3499.98	14.02	15.00	1.253			-0.14	0.105	0.132
	FR1 n77	100M	BPSK	1	1	Back	10mm	Ant11	DSi5	633332	3499.98	14.05	15.00	1.245			-0.07	0.046	0.057
	FR1 n77	100M	BPSK	135	69	Back	10mm	Ant11	DSi5	633332	3499.98	14.02	15.00	1.253			-0.11	0.052	0.065
	FR1 n77	100M	BPSK	1	1	Left Edge	10mm	Ant11	DSi5	633332	3499.98	14.05	15.00	1.245			0.14	0.018	0.022
	FR1 n77	100M	BPSK	135	69	Left Edge	10mm	Ant11	DSi5	633332	3499.98	14.02	15.00	1.253			-0.07	0.025	0.031
	FR1 n77	100M	BPSK	1	1	Right Edge	10mm	Ant11	DSi5	633332	3499.98	14.05	15.00	1.245			-0.07	0.001	0.001
	FR1 n77	100M	BPSK	135	69	Right Edge	10mm	Ant11	DSi5	633332	3499.98	14.02	15.00	1.253			0.07	0.001	0.001
	FR1 n77	100M	BPSK	1	1	Top Edge	10mm	Ant11	DSi5	633332	3499.98	14.05	15.00	1.245			-0.08	0.116	0.144
	FR1 n77	100M	BPSK	135	69	Top Edge	10mm	Ant11	DSi5	633332	3499.98	14.02	15.00	1.253			-0.02	0.131	0.164
	FR1 n77	100M	BPSK	1	1	Bottom Edge	10mm	Ant11	DSi5	633332	3499.98	14.05	15.00	1.245			0.14	0.018	0.022
	FR1 n77	100M	BPSK	135	69	Bottom Edge	10mm	Ant11	DSi5	633332	3499.98	14.02	15.00	1.253			0.04	0.031	0.039
	FR1 n77_HPUE	100M	BPSK	135	69	Top Edge	10mm	Ant11	DSi5	633332	3499.98	17.02	18.00	1.253	50.0	1.0	0.05	0.131	0.164
	FR1 n77	100M	BPSK	1	1	Front	10mm	Ant8	DSi5	656000	3840	16.13	17.00	1.222			-0.09	0.134	0.164
	FR1 n77	100M	BPSK	135	69	Front	10mm	Ant8	DSi5	656000	3840	16.11	17.00	1.227			-0.16	0.132	0.162
	FR1 n77	100M	BPSK	1	1	Back	10mm	Ant8	DSi5	656000	3840	16.13	17.00	1.222			-0.07	0.143	0.175
	FR1 n77	100M	BPSK	135	69	Back	10mm	Ant8	DSi5	656000	3840	16.11	17.00	1.227			-0.04	0.131	0.161
	FR1 n77	100M	BPSK	1	1	Left Edge	10mm	Ant8	DSi5	656000	3840	16.13	17.00	1.222			-0.11	0.001	0.001
	FR1 n77	100M	BPSK	135	69	Left Edge	10mm	Ant8	DSi5	656000	3840	16.11	17.00	1.227			0.05	0.001	0.001
	FR1 n77	100M	BPSK	1	1	Right Edge	10mm	Ant8	DSi5	656000	3840	16.13	17.00	1.222			0.04	0.322	0.393
	FR1 n77	100M	BPSK	135	69	Right Edge	10mm	Ant8	DSi5	656000	3840	16.11	17.00	1.227			0.15	0.272	0.334
	FR1 n77	100M	BPSK	1	1	Top Edge	10mm	Ant8	DSi5	656000	3840	16.13	17.00	1.222			0.11	0.049	0.060
	FR1 n77	100M	BPSK	135	69	Top Edge	10mm	Ant8	DSi5	656000	3840	16.11	17.00	1.227			-0.04	0.033	0.040
	FR1 n77	100M	BPSK	1	1	Bottom Edge	10mm	Ant8	DSi5	656000	3840	16.13	17.00	1.222			0.03	0.001	0.001
	FR1 n77	100M	BPSK	135	69	Bottom Edge	10mm	Ant8	DSi5	656000	3840	16.11	17.00	1.227			-0.08	0.001	0.001
	FR1 n77_HPUE	100M	BPSK	1	1	Right Edge	10mm	Ant8	DSi5	656000	3840	19.25	20.50	1.334	50.0	1.0	-0.02	0.311	0.415
	FR1 n77	100M	BPSK	1	1	Front	10mm	Ant9	DSi5	656000	3840	17.43	18.50	1.279			-0.14	0.088	0.113
	FR1 n77	100M	BPSK	135	69	Front	10mm	Ant9	DSi5	656000	3840	17.42	18.50	1.282			0.10	0.094	0.121
	FR1 n77	100M	BPSK	1	1	Back	10mm	Ant9	DSi5	656000	3840	17.43	18.50	1.279			0.09	0.112	0.143
	FR1 n77	100M	BPSK	135	69	Back	10mm	Ant9	DSi5	656000	3840	17.42	18.50	1.282			0.07	0.104	0.133
	FR1 n77	100M	BPSK	1	1	Left Edge	10mm	Ant9	DSi5	656000	3840	17.43	18.50	1.279			0.15	0.187	0.239
	FR1 n77	100M	BPSK	135	69	Left Edge	10mm	Ant9	DSi5	656000	3840	17.42	18.50	1.282			0.06	0.151	0.194



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	FR1 n77	100M	BPSK	1	1	Right Edge	10mm	Ant9	DSi5	656000	3840	17.43	18.50	1.279			0.10	0.026	0.033
	FR1 n77	100M	BPSK	135	69	Right Edge	10mm	Ant9	DSi5	656000	3840	17.42	18.50	1.282			0.02	0.029	0.037
	FR1 n77	100M	BPSK	1	1	Top Edge	10mm	Ant9	DSi5	656000	3840	17.43	18.50	1.279			0.15	0.044	0.056
	FR1 n77	100M	BPSK	135	69	Top Edge	10mm	Ant9	DSi5	656000	3840	17.42	18.50	1.282			-0.02	0.047	0.060
	FR1 n77	100M	BPSK	1	1	Bottom Edge	10mm	Ant9	DSi5	656000	3840	17.43	18.50	1.279			-0.02	0.001	0.001
	FR1 n77	100M	BPSK	135	69	Bottom Edge	10mm	Ant9	DSi5	656000	3840	17.42	18.50	1.282			-0.17	0.001	0.001
	FR1 n77_HPUE	100M	BPSK	1	1	Left Edge	10mm	Ant9	DSi5	656000	3840	20.44	21.50	1.276	50.0	1.0	-0.07	0.183	0.234
	FR1 n77	100M	BPSK	1	1	Front	10mm	Ant10	DSi5	656000	3840	12.35	13.50	1.303			0.04	0.062	0.081
	FR1 n77	100M	BPSK	135	69	Front	10mm	Ant10	DSi5	656000	3840	12.34	13.50	1.306			-0.10	0.051	0.067
	FR1 n77	100M	BPSK	1	1	Back	10mm	Ant10	DSi5	656000	3840	12.35	13.50	1.303			-0.10	0.071	0.093
	FR1 n77	100M	BPSK	135	69	Back	10mm	Ant10	DSi5	656000	3840	12.34	13.50	1.306			-0.09	0.063	0.082
	FR1 n77	100M	BPSK	1	1	Left Edge	10mm	Ant10	DSi5	656000	3840	12.35	13.50	1.303			0.11	0.016	0.021
	FR1 n77	100M	BPSK	135	69	Left Edge	10mm	Ant10	DSi5	656000	3840	12.34	13.50	1.306			0.02	0.012	0.016
	FR1 n77	100M	BPSK	1	1	Right Edge	10mm	Ant10	DSi5	656000	3840	12.35	13.50	1.303			-0.02	0.026	0.034
	FR1 n77	100M	BPSK	135	69	Right Edge	10mm	Ant10	DSi5	656000	3840	12.34	13.50	1.306			0.02	0.025	0.033
	FR1 n77	100M	BPSK	1	1	Top Edge	10mm	Ant10	DSi5	656000	3840	12.35	13.50	1.303			-0.11	0.139	0.181
	FR1 n77	100M	BPSK	135	69	Top Edge	10mm	Ant10	DSi5	656000	3840	12.34	13.50	1.306			0.13	0.138	0.180
	FR1 n77	100M	BPSK	1	1	Bottom Edge	10mm	Ant10	DSi5	656000	3840	12.35	13.50	1.303			-0.06	0.001	0.001
	FR1 n77	100M	BPSK	135	69	Bottom Edge	10mm	Ant10	DSi5	656000	3840	12.34	13.50	1.306			-0.03	0.001	0.001
	FR1 n77_HPUE	100M	BPSK	1	1	Top Edge	10mm	Ant10	DSi5	656000	3840	15.44	16.50	1.276	50.0	1.0	-0.05	0.149	0.190
	FR1 n77	100M	BPSK	1	1	Front	10mm	Ant11	DSi5	656000	3840	13.61	15.00	1.377			0.16	0.070	0.096
	FR1 n77	100M	BPSK	135	69	Front	10mm	Ant11	DSi5	656000	3840	13.58	15.00	1.387			0.15	0.063	0.087
	FR1 n77	100M	BPSK	1	1	Back	10mm	Ant11	DSi5	656000	3840	13.61	15.00	1.377			-0.13	0.048	0.066
	FR1 n77	100M	BPSK	135	69	Back	10mm	Ant11	DSi5	656000	3840	13.58	15.00	1.387			0.12	0.051	0.071
	FR1 n77	100M	BPSK	1	1	Left Edge	10mm	Ant11	DSi5	656000	3840	13.61	15.00	1.377			-0.18	0.024	0.033
	FR1 n77	100M	BPSK	135	69	Left Edge	10mm	Ant11	DSi5	656000	3840	13.58	15.00	1.387			0.14	0.022	0.031
	FR1 n77	100M	BPSK	1	1	Right Edge	10mm	Ant11	DSi5	656000	3840	13.61	15.00	1.377			0.10	0.001	0.001
	FR1 n77	100M	BPSK	135	69	Right Edge	10mm	Ant11	DSi5	656000	3840	13.58	15.00	1.387			0.18	0.001	0.001
	FR1 n77	100M	BPSK	1	1	Top Edge	10mm	Ant11	DSi5	656000	3840	13.61	15.00	1.377			-0.06	0.089	0.123
	FR1 n77	100M	BPSK	135	69	Top Edge	10mm	Ant11	DSi5	656000	3840	13.58	15.00	1.387			0.06	0.091	0.126
	FR1 n77	100M	BPSK	1	1	Bottom Edge	10mm	Ant11	DSi5	656000	3840	13.61	15.00	1.377			0.02	0.001	0.001
	FR1 n77	100M	BPSK	135	69	Bottom Edge	10mm	Ant11	DSi5	656000	3840	13.58	15.00	1.387			0.18	0.001	0.001
	FR1 n77_HPUE	100M	BPSK	135	69	Top Edge	10mm	Ant11	DSi5	656000	3840	16.58	18.00	1.387	50.0	1.0	-0.16	0.090	0.125

【WLAN 2.4GHz_5GHz SAR】

Plot No	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant7	Hotspot	1	2412	20.37	21.00	1.156	97.1	1.03	0.18	0.397	0.473
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant7	Hotspot	1	2412	20.37	21.00	1.156	97.1	1.03	-0.09	0.456	0.543
	WLAN2.4GHz	802.11b 1Mbps	Left Edge	10mm	Ant7	Hotspot	1	2412	20.37	21.00	1.156	97.1	1.03	0.17	0.001	0.001
	WLAN2.4GHz	802.11b 1Mbps	Right Edge	10mm	Ant7	Hotspot	1	2412	20.37	21.00	1.156	97.1	1.03	0.00	0.572	0.681
	WLAN2.4GHz	802.11b 1Mbps	Top Edge	10mm	Ant7	Hotspot	1	2412	20.37	21.00	1.156	97.1	1.03	0.15	0.071	0.085
	WLAN2.4GHz	802.11b 1Mbps	Bottom Edge	10mm	Ant7	Hotspot	1	2412	20.37	21.00	1.156	97.1	1.03	0.07	0.001	0.001
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant12	Hotspot	1	2412	19.86	20.50	1.159	98.53	1.015	0.03	0.254	0.299
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant12	Hotspot	1	2412	19.86	20.50	1.159	98.53	1.015	0.16	0.333	0.392
	WLAN2.4GHz	802.11b 1Mbps	Left Edge	10mm	Ant12	Hotspot	1	2412	19.86	20.50	1.159	98.53	1.015	-0.04	0.001	0.001
	WLAN2.4GHz	802.11b 1Mbps	Right Edge	10mm	Ant12	Hotspot	1	2412	19.86	20.50	1.159	98.53	1.015	-0.01	0.107	0.126
	WLAN2.4GHz	802.11b 1Mbps	Top Edge	10mm	Ant12	Hotspot	1	2412	19.86	20.50	1.159	98.53	1.015	0.04	0.767	0.902
	WLAN2.4GHz	802.11b 1Mbps	Top Edge	10mm	Ant12	Hotspot	6	2437	19.81	20.50	1.172	98.53	1.015	-0.19	0.660	0.785
50	WLAN2.4GHz	802.11b 1Mbps	Top Edge	10mm	Ant12	Hotspot	11	2462	19.34	20.00	1.164	98.53	1.015	0.02	0.803	0.949
	WLAN2.4GHz	802.11b 1Mbps	Bottom Edge	10mm	Ant12	Hotspot	1	2412	19.86	20.50	1.159	98.53	1.015	-0.16	0.001	0.001
	WLAN2.4GHz	802.11ax-HE40 MCS0	Front	10mm	Ant 7+12	Hotspot	6	2437	22.44	23.00	1.138	99.82	1.002	0.06	0.323	0.368
	WLAN2.4GHz	802.11ax-HE40 MCS0	Back	10mm	Ant 7+12	Hotspot	6	2437	22.44	23.00	1.138	99.82	1.002	0.09	0.382	0.436
	WLAN2.4GHz	802.11ax-HE40 MCS0	Left Edge	10mm	Ant 7+12	Hotspot	6	2437	22.44	23.00	1.138	99.82	1.002	0.04	0.001	0.001
	WLAN2.4GHz	802.11ax-HE40 MCS0	Right Edge	10mm	Ant 7+12	Hotspot	6	2437	22.44	23.00	1.138	99.82	1.002	-0.02	0.496	0.566
	WLAN2.4GHz	802.11ax-HE40 MCS0	Top Edge	10mm	Ant 7+12	Hotspot	6	2437	22.44	23.00	1.138	99.82	1.002	-0.02	0.535	0.610
	WLAN2.4GHz	802.11ax-HE40 MCS0	Bottom Edge	10mm	Ant 7+12	Hotspot	6	2437	22.44	23.00	1.138	99.82	1.002	-0.03	0.001	0.001
	WLAN5GHz	802.11ax-HE40 MCS0	Front	10mm	Ant 8+10(10)	Hotspot	46	5230	18.64	19.50	1.219	100.0	1.0	-0.15	0.391	0.477
	WLAN5GHz	802.11ax-HE40 MCS0	Back	10mm	Ant 8+10(10)	Hotspot	46	5230	18.64	19.50	1.219	100.0	1.0	0.01	0.479	0.584
	WLAN5GHz	802.11ax-HE40 MCS0	Left Edge	10mm	Ant 8+10(10)	Hotspot	46	5230	18.64	19.50	1.219	100.0	1.0	0.11	0.115	0.140
	WLAN5GHz	802.11ax-HE40 MCS0	Right Edge	10mm	Ant 8+10(10)	Hotspot	46	5230	18.64	19.50	1.219	100.0	1.0	-0.12	0.584	0.712
51	WLAN5GHz	802.11ax-HE40 MCS0	Top Edge	10mm	Ant 8+10(10)	Hotspot	46	5230	18.64	19.50	1.219	100.0	1.0	-0.09	0.813	0.991
	WLAN5GHz	802.11ax-HE40 MCS0	Bottom Edge	10mm	Ant 8+10(10)	Hotspot	46	5230	18.64	19.50	1.219	100.0	1.0	0.08	0.055	0.067
	WLAN5GHz	802.11ax-HE40 MCS0	Top Edge	10mm	Ant 8+10(10)	Hotspot	38	5190	18.25	19.00	1.189	100.0	1.0	0.18	0.741	0.881
	WLAN5GHz	802.11a 6Mbps	Front	10mm	Ant 8+10(8)	Hotspot	157	5785	20.32	21.00	1.169	99.06	1.009	-0.12	0.425	0.501
	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 8+10(8)	Hotspot	157	5785	20.32	21.00	1.169	99.06	1.009	-0.08	0.453	0.534
	WLAN5GHz	802.11a 6Mbps	Left Edge	10mm	Ant 8+10(8)	Hotspot	157	5785	20.32	21.00	1.169	99.06	1.009	0.01	0.166	0.196
	WLAN5GHz	802.11a 6Mbps	Right Edge	10mm	Ant 8+10(8)	Hotspot	157	5785	20.32	21.00	1.169	99.06	1.009	-0.15	0.503	0.593
	WLAN5GHz	802.11a 6Mbps	Top Edge	10mm	Ant 8+10(8)	Hotspot	157	5785	20.32	21.00	1.169	99.06	1.009	0.09	0.838	0.988
52	WLAN5GHz	802.11a 6Mbps	Top Edge	10mm	Ant 8+10(8)	Hotspot	149	5745	20.15	21.00	1.216	99.06	1.009	-0.04	0.862	1.058
	WLAN5GHz	802.11a 6Mbps	Top Edge	10mm	Ant 8+10(8)	Hotspot	165	5825	20.06	21.00	1.242	99.06	1.009	0.07	0.806	1.010
	WLAN5GHz	802.11a 6Mbps	Top Edge	10mm	Ant 8+10(10)	Hotspot	165	5825	18.67	19.50	1.211	99.06	1.009	0.18	0.806	0.985



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	WLAN5GHz	802.11a 6Mbps	Bottom Edge	10mm	Ant 8+10(8)	Hotspot	157	5785	20.32	21.00	1.169	99.06	1.009	0.17	0.062	0.073
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【Bluetooth SAR】

Plot No	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	Bluetooth	1Mbps	Front	10mm	Ant7	Hotspot	39	2441	18.47	19.50	1.268	77.32	1.077	0.13	0.204	0.279
	Bluetooth	1Mbps	Back	10mm	Ant7	Hotspot	39	2441	18.47	19.50	1.268	77.32	1.077	-0.03	0.229	0.313
	Bluetooth	1Mbps	Left Edge	10mm	Ant7	Hotspot	39	2441	18.47	19.50	1.268	77.32	1.077	0.12	0.007	0.010
	Bluetooth	1Mbps	Right Edge	10mm	Ant7	Hotspot	39	2441	18.47	19.50	1.268	77.32	1.077	-0.18	0.353	0.482
	Bluetooth	1Mbps	Top Edge	10mm	Ant7	Hotspot	39	2441	18.47	19.50	1.268	77.32	1.077	0.17	0.044	0.060
	Bluetooth	1Mbps	Bottom Edge	10mm	Ant7	Hotspot	39	2441	18.47	19.50	1.268	77.32	1.077	-0.05	0.014	0.019
	Bluetooth	1Mbps	Front	10mm	Ant12	Hotspot	39	2441	18.51	20.00	1.409	77.06	1.081	0.01	0.075	0.114
	Bluetooth	1Mbps	Back	10mm	Ant12	Hotspot	39	2441	18.51	20.00	1.409	77.06	1.081	-0.01	0.036	0.055
	Bluetooth	1Mbps	Left Edge	10mm	Ant12	Hotspot	39	2441	18.51	20.00	1.409	77.06	1.081	-0.08	0.001	0.002
	Bluetooth	1Mbps	Right Edge	10mm	Ant12	Hotspot	39	2441	18.51	20.00	1.409	77.06	1.081	0.17	0.036	0.055
53	Bluetooth	1Mbps	Top Edge	10mm	Ant12	Hotspot	39	2441	18.51	20.00	1.409	77.06	1.081	-0.14	0.340	0.518
	Bluetooth	1Mbps	Bottom Edge	10mm	Ant12	Hotspot	39	2441	18.51	20.00	1.409	77.06	1.081	-0.05	0.001	0.002



16.3 Body Worn Accessory SAR

【GSM SAR】

Plot No	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	GSM850	GPRS 4 Tx slots	Front	5mm	Ant0	DSI3	189	836.4	26.73	28.00	1.34	-0.07	0.630	0.844
	GSM850	GPRS 4 Tx slots	Front	5mm	Ant0	DSI3	128	824.2	26.06	28.00	1.563	0.04	0.552	0.863
	GSM850	GPRS 4 Tx slots	Front	5mm	Ant0	DSI3	251	848.8	26.41	28.00	1.442	0.08	0.624	0.900
	GSM850	GPRS 4 Tx slots	Back	5mm	Ant0	DSI3	189	836.4	26.73	28.00	1.34	-0.10	0.663	0.888
	GSM850	GPRS 4 Tx slots	Back	5mm	Ant0	DSI3	128	824.2	26.06	28.00	1.563	-0.10	0.548	0.857
	GSM850	GPRS 4 Tx slots	Back	5mm	Ant0	DSI3	251	848.8	26.41	28.00	1.442	-0.12	0.627	0.904
	GSM850	GPRS 4 Tx slots	Front	5mm	Ant1	DSI3	189	836.4	22.18	23.50	1.355	0.05	0.561	0.760
54	GSM850	GPRS 4 Tx slots	Back	5mm	Ant1	DSI3	189	836.4	22.18	23.50	1.355	-0.07	0.687	0.931
	GSM850	GPRS 4 Tx slots	Back	5mm	Ant1	DSI3	128	824.2	22.11	23.50	1.377	-0.09	0.660	0.909
	GSM850	GPRS 4 Tx slots	Back	5mm	Ant1	DSI3	251	848.8	22.08	23.50	1.387	0.07	0.669	0.928
	GSM850	GPRS 4 Tx slots	Front	15mm	Ant1	DSI4	189	836.4	26.98	28.50	1.419	0.06	0.441	0.626
	GSM850	GPRS 4 Tx slots	Back	15mm	Ant1	DSI4	189	836.4	26.98	28.50	1.419	-0.11	0.505	0.717
	GSM1900	GPRS 4 Tx slots	Front	5mm	Ant4	DSI3	661	1880	21.33	22.50	1.309	-0.05	0.273	0.357
	GSM1900	GPRS 4 Tx slots	Back	5mm	Ant4	DSI3	661	1880	21.33	22.50	1.309	-0.03	0.389	0.509
	GSM1900	GPRS 4 Tx slots	Front	15mm	Ant4	DSI4	661	1880	24.31	25.50	1.315	0.06	0.103	0.135
	GSM1900	GPRS 4 Tx slots	Back	15mm	Ant4	DSI4	661	1880	24.31	25.50	1.315	0.03	0.130	0.171
	GSM1900	GPRS 4 Tx slots	Front	5mm	Ant6	DSI3	661	1880	23.20	24.00	1.202	0.17	0.726	0.873
	GSM1900	GPRS 4 Tx slots	Front	5mm	Ant6	DSI3	512	1850.2	23.16	24.00	1.213	0.16	0.759	0.921
	GSM1900	GPRS 4 Tx slots	Front	5mm	Ant6	DSI3	810	1909.8	23.14	24.00	1.219	0.08	0.598	0.729
55	GSM1900	GPRS 4 Tx slots	Back	5mm	Ant6	DSI3	661	1880	23.20	24.00	1.202	-0.09	0.867	1.042
	GSM1900	GPRS 4 Tx slots	Back	5mm	Ant6	DSI3	512	1850.2	23.16	24.00	1.213	0.17	0.788	0.956
	GSM1900	GPRS 4 Tx slots	Back	5mm	Ant6	DSI3	810	1909.8	23.14	24.00	1.219	-0.03	0.661	0.806

【WCDMA SAR】

Plot No	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA II	RMC 12.2Kbps	Front	5mm	Ant4	DSI3	9400	1880	18.84	19.50	1.164	0.07	0.415	0.483
	WCDMA II	RMC 12.2Kbps	Back	5mm	Ant4	DSI3	9400	1880	18.84	19.50	1.164	-0.02	0.574	0.668
	WCDMA II	RMC 12.2Kbps	Front	15mm	Ant4	DSI4	9400	1880	24.84	25.50	1.164	0.02	0.273	0.318
	WCDMA II	RMC 12.2Kbps	Back	15mm	Ant4	DSI4	9400	1880	24.84	25.50	1.164	0.09	0.374	0.435
	WCDMA II	RMC 12.2Kbps	Front	5mm	Ant6	DSI3	9400	1880	19.19	20.00	1.205	-0.08	0.635	0.765
	WCDMA II	RMC 12.2Kbps	Back	5mm	Ant6	DSI3	9400	1880	19.19	20.00	1.205	-0.00	0.790	0.952
56	WCDMA II	RMC 12.2Kbps	Back	5mm	Ant6	DSI3	9262	1852.4	19.17	20.00	1.211	-0.07	0.795	0.963
	WCDMA II	RMC 12.2Kbps	Back	5mm	Ant6	DSI3	9538	1907.6	19.13	20.00	1.222	0.11	0.702	0.858
	WCDMA IV	RMC 12.2Kbps	Front	5mm	Ant4	DSI3	1413	1732.6	18.71	19.50	1.199	-0.15	0.432	0.518
	WCDMA IV	RMC 12.2Kbps	Back	5mm	Ant4	DSI3	1413	1732.6	18.71	19.50	1.199	-0.06	0.710	0.851
	WCDMA IV	RMC 12.2Kbps	Back	5mm	Ant4	DSI3	1312	1712.4	18.65	19.50	1.216	-0.13	0.707	0.860
	WCDMA IV	RMC 12.2Kbps	Back	5mm	Ant4	DSI3	1513	1752.6	18.57	19.50	1.239	-0.04	0.733	0.908
	WCDMA IV	RMC 12.2Kbps	Front	15mm	Ant4	DSI4	1413	1732.6	24.18	25.00	1.208	0.03	0.282	0.341
	WCDMA IV	RMC 12.2Kbps	Back	15mm	Ant4	DSI4	1413	1732.6	24.18	25.00	1.208	0.08	0.363	0.439
	WCDMA IV	RMC 12.2Kbps	Front	5mm	Ant5	DSI3	1413	1732.6	18.17	19.00	1.211	0.03	0.588	0.712
	WCDMA IV	RMC 12.2Kbps	Back	5mm	Ant5	DSI3	1413	1732.6	18.17	19.00	1.211	-0.06	0.669	0.810
	WCDMA IV	RMC 12.2Kbps	Back	5mm	Ant5	DSI3	1312	1712.4	18.15	19.00	1.216	0.13	0.591	0.719
57	WCDMA IV	RMC 12.2Kbps	Back	5mm	Ant5	DSI3	1513	1752.6	18.10	19.00	1.23	-0.03	0.742	0.913
	WCDMA IV	RMC 12.2Kbps	Front	15mm	Ant5	DSI4	1413	1732.6	23.16	24.00	1.213	0.09	0.449	0.545
	WCDMA IV	RMC 12.2Kbps	Back	15mm	Ant5	DSI4	1413	1732.6	23.16	24.00	1.213	0.06	0.447	0.542
	WCDMA IV	RMC 12.2Kbps	Front	5mm	Ant6	DSI3	1413	1732.6	19.11	20.00	1.227	0.01	0.528	0.648
	WCDMA IV	RMC 12.2Kbps	Back	5mm	Ant6	DSI3	1413	1732.6	19.11	20.00	1.227	-0.07	0.650	0.798
	WCDMA IV	RMC 12.2Kbps	Front	5mm	Ant7	DSI3	1413	1732.6	17.81	19.00	1.315	-0.13	0.465	0.611
	WCDMA IV	RMC 12.2Kbps	Back	5mm	Ant7	DSI3	1413	1732.6	17.81	19.00	1.315	0.17	0.614	0.807
	WCDMA IV	RMC 12.2Kbps	Back	5mm	Ant7	DSI3	1312	1712.4	17.74	19.00	1.337	0.02	0.591	0.790
	WCDMA IV	RMC 12.2Kbps	Back	5mm	Ant7	DSI3	1513	1752.6	17.79	19.00	1.321	-0.18	0.612	0.808
	WCDMA V	RMC 12.2Kbps	Front	5mm	Ant0	DSI3	4182	836.4	23.67	24.50	1.211	0.17	0.543	0.658
	WCDMA V	RMC 12.2Kbps	Back	5mm	Ant0	DSI3	4182	836.4	23.67	24.50	1.211	-0.14	0.688	0.833
	WCDMA V	RMC 12.2Kbps	Back	5mm	Ant0	DSI3	4132	826.4	23.62	24.50	1.225	-0.12	0.702	0.860
	WCDMA V	RMC 12.2Kbps	Back	5mm	Ant0	DSI3	4233	846.6	23.65	24.50	1.216	0.19	0.689	0.838
	WCDMA V	RMC 12.2Kbps	Front	5mm	Ant1	DSI3	4182	836.4	18.63	20.00	1.371	0.05	0.576	0.790
58	WCDMA V	RMC 12.2Kbps	Back	5mm	Ant1	DSI3	4182	836.4	18.63	20.00	1.371	-0.18	0.679	0.931
	WCDMA V	RMC 12.2Kbps	Back	5mm	Ant1	DSI3	4132	826.4	18.61	20.00	1.377	-0.17	0.667	0.918
	WCDMA V	RMC 12.2Kbps	Back	5mm	Ant1	DSI3	4233	846.6	18.56	20.00	1.393	0.02	0.665	0.926
	WCDMA V	RMC 12.2Kbps	Front	15mm	Ant1	DSI4	4182	836.4	24.18	25.50	1.355	0.03	0.610	0.827
	WCDMA V	RMC 12.2Kbps	Front	15mm	Ant1	DSI4	4132	826.4	24.14	25.50	1.368	0.01	0.574	0.785



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	WCDMA V	RMC 12.2Kbps	Front	15mm	Ant1	DS14	4233	846.6	24.11	25.50	1.377	-0.06	0.583	0.803
	WCDMA V	RMC 12.2Kbps	Back	15mm	Ant1	DS14	4182	836.4	24.18	25.50	1.355	-0.08	0.671	0.909
	WCDMA V	RMC 12.2Kbps	Back	15mm	Ant1	DS14	4132	826.4	24.14	25.50	1.368	0.09	0.503	0.688
	WCDMA V	RMC 12.2Kbps	Back	15mm	Ant1	DS14	4233	846.6	24.11	25.50	1.377	-0.13	0.668	0.920

【LTE SAR】

Plot No	Band	BW	Modulation	RB Size	RB Offset	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)
	LTE Band 2	20M	QPSK	1	0	Front	5mm	Ant4	DS13	18900	1880	18.47	19.50	1.268			0.05	0.452	0.573
	LTE Band 2	20M	QPSK	50	0	Front	5mm	Ant4	DS13	18900	1880	18.41	19.50	1.285			-0.04	0.470	0.604
	LTE Band 2	20M	QPSK	1	0	Back	5mm	Ant4	DS13	18900	1880	18.47	19.50	1.268			-0.12	0.735	0.932
	LTE Band 2	20M	QPSK	1	0	Back	5mm	Ant4	DS13	18700	1860	18.39	19.50	1.291			-0.09	0.737	0.951
	LTE Band 2	20M	QPSK	1	0	Back	5mm	Ant4	DS13	19100	1900	18.43	19.50	1.279			-0.11	0.747	0.955
59	LTE Band 2	20M	QPSK	50	0	Back	5mm	Ant4	DS13	18900	1880	18.41	19.50	1.285			0.15	0.755	0.970
	LTE Band 2	20M	QPSK	50	0	Back	5mm	Ant4	DS13	18700	1860	18.38	19.50	1.294			0.16	0.742	0.960
	LTE Band 2	20M	QPSK	50	0	Back	5mm	Ant4	DS13	19100	1900	18.32	19.50	1.312			0.10	0.737	0.967
	LTE Band 2	20M	QPSK	100	0	Back	5mm	Ant4	DS13	18900	1880	18.41	19.50	1.285			-0.09	0.746	0.959
	LTE Band 2	20M	QPSK	1	0	Front	15mm	Ant4	DS14	18900	1880	24.45	25.50	1.274			0.06	0.258	0.329
	LTE Band 2	20M	QPSK	1	0	Back	15mm	Ant4	DS14	18900	1880	24.45	25.50	1.274			0.02	0.346	0.441
	LTE Band 2	20M	QPSK	1	0	Front	5mm	Ant5	DS13	18900	1880	21.38	22.00	1.153			0.00	0.542	0.625
	LTE Band 2	20M	QPSK	50	0	Front	5mm	Ant5	DS13	18900	1880	21.34	22.00	1.164			-0.08	0.525	0.611
	LTE Band 2	20M	QPSK	1	0	Back	5mm	Ant5	DS13	18900	1880	21.38	22.00	1.153			-0.18	0.608	0.701
	LTE Band 2	20M	QPSK	50	0	Back	5mm	Ant5	DS13	18900	1880	21.34	22.00	1.164			-0.04	0.594	0.691
	LTE Band 2	20M	QPSK	1	0	Front	15mm	Ant5	DS14	18900	1880	23.85	24.50	1.161			0.03	0.166	0.193
	LTE Band 2	20M	QPSK	1	0	Back	15mm	Ant5	DS14	18900	1880	23.85	24.50	1.161			0.08	0.192	0.223
	LTE Band 2	20M	QPSK	1	0	Front	5mm	Ant6	DS13	18900	1880	18.65	19.50	1.216			0.16	0.550	0.669
	LTE Band 2	20M	QPSK	50	0	Front	5mm	Ant6	DS13	18900	1880	18.62	19.50	1.225			-0.04	0.553	0.677
	LTE Band 2	20M	QPSK	1	0	Back	5mm	Ant6	DS13	18900	1880	18.65	19.50	1.216			0.11	0.704	0.856
	LTE Band 2	20M	QPSK	1	0	Back	5mm	Ant6	DS13	18700	1860	18.62	19.50	1.225			0.17	0.713	0.873
	LTE Band 2	20M	QPSK	1	0	Back	5mm	Ant6	DS13	19100	1900	18.59	19.50	1.233			-0.13	0.641	0.790
	LTE Band 2	20M	QPSK	50	0	Back	5mm	Ant6	DS13	18900	1880	18.62	19.50	1.225			-0.12	0.754	0.924
	LTE Band 2	20M	QPSK	50	0	Back	5mm	Ant6	DS13	18700	1860	18.53	19.50	1.25			-0.18	0.711	0.889
	LTE Band 2	20M	QPSK	50	0	Back	5mm	Ant6	DS13	19100	1900	18.54	19.50	1.247			-0.10	0.735	0.917
	LTE Band 2	20M	QPSK	100	0	Back	5mm	Ant6	DS13	18900	1880	18.59	19.50	1.233			0.07	0.664	0.819
	LTE Band 7	20M	QPSK	1	0	Front	5mm	Ant4	DS13	21100	2535	18.36	18.70	1.081			-0.04	0.736	0.796
	LTE Band 7	20M	QPSK	50	0	Front	5mm	Ant4	DS13	21100	2535	18.28	18.70	1.102			0.16	0.748	0.824
	LTE Band 7	20M	QPSK	50	0	Front	5mm	Ant4	DS13	20850	2510	18.26	18.70	1.107			-0.14	0.711	0.787
	LTE Band 7	20M	QPSK	50	0	Front	5mm	Ant4	DS13	21350	2560	18.21	18.70	1.119			0.08	0.796	0.891
	LTE Band 7	20M	QPSK	100	0	Front	5mm	Ant4	DS13	20850	2510	18.24	18.70	1.112			-0.05	0.776	0.863
	LTE Band 7	20M	QPSK	1	0	Back	5mm	Ant4	DS13	21100	2535	18.36	18.70	1.081			-0.02	0.847	0.916
	LTE Band 7	20M	QPSK	1	0	Back	5mm	Ant4	DS13	20850	2510	18.31	18.70	1.094			-0.03	0.864	0.945
60	LTE Band 7	20M	QPSK	1	0	Back	5mm	Ant4	DS13	21350	2560	18.21	18.70	1.119			-0.17	0.919	1.028
	LTE Band 7	20M	QPSK	50	0	Back	5mm	Ant4	DS13	21100	2535	18.28	18.70	1.102			0.17	0.858	0.946
	LTE Band 7	20M	QPSK	50	0	Back	5mm	Ant4	DS13	20850	2510	18.26	18.70	1.107			0.16	0.913	1.011
	LTE Band 7	20M	QPSK	50	0	Back	5mm	Ant4	DS13	21350	2560	18.21	18.70	1.119			0.03	0.902	1.009
	LTE Band 7	20M	QPSK	100	0	Back	5mm	Ant4	DS13	20850	2510	18.24	18.70	1.112			0.08	0.876	0.974
	LTE Band 7	20M	QPSK	1	0	Front	15mm	Ant4	DS14	21100	2535	25.32	25.70	1.091			0.03	0.554	0.604
	LTE Band 7	20M	QPSK	1	0	Back	15mm	Ant4	DS14	21100	2535	25.32	25.70	1.091			0.06	0.656	0.716
	LTE Band 7	20M	QPSK	1	0	Front	5mm	Ant5	DS13	21100	2535	18.15	19.00	1.216			-0.03	0.489	0.595
	LTE Band 7	20M	QPSK	50	0	Front	5mm	Ant5	DS13	21100	2535	18.13	19.00	1.222			-0.05	0.473	0.578
	LTE Band 7	20M	QPSK	1	0	Back	5mm	Ant5	DS13	21100	2535	18.15	19.00	1.216			0.05	0.745	0.906
	LTE Band 7	20M	QPSK	1	0	Back	5mm	Ant5	DS13	20850	2510	18.10	19.00	1.23			0.17	0.669	0.823
	LTE Band 7	20M	QPSK	1	0	Back	5mm	Ant5	DS13	21350	2560	18.13	19.00	1.222			-0.07	0.803	0.981
	LTE Band 7	20M	QPSK	50	0	Back	5mm	Ant5	DS13	21100	2535	18.13	19.00	1.222			0.17	0.735	0.898
	LTE Band 7	20M	QPSK	50	0	Back	5mm	Ant5	DS13	20850	2510	18.04	19.00	1.247			0.01	0.680	0.848
	LTE Band 7	20M	QPSK	50	0	Back	5mm	Ant5	DS13	21350	2560	18.11	19.00	1.227			-0.08	0.783	0.961
	LTE Band 7	20M	QPSK	100	0	Back	5mm	Ant5	DS13	21100	2535	18.08	19.00	1.236			-0.11	0.736	0.910
	LTE Band 7	20M	QPSK	1	0	Front	15mm	Ant5	DS14	21100	2535	24.13	25.00	1.222			0.03	0.406	0.496
	LTE Band 7	20M	QPSK	1	0	Back	15mm	Ant5	DS14	21100	2535	24.13	25.00	1.222			0.09	0.417	0.510
	LTE Band 7	20M	QPSK	1	0	Front	5mm	Ant6	DS13	21100	2535	18.41	19.50	1.285			0.09	0.550	0.707
	LTE Band 7	20M	QPSK	50	0	Front	5mm	Ant6	DS13	21100	2535	18.39	19.50	1.291			-0.01	0.551	0.711
	LTE Band 7	20M	QPSK	1	0	Back	5mm	Ant6	DS13	21100	2535	18.41	19.50	1.285			-0.17	0.736	0.946
	LTE Band 7	20M	QPSK	1	0	Back	5mm	Ant6	DS13	20850	2510	18.36	19.50	1.3			0.14	0.677	0.880
	LTE Band 7	20M	QPSK	1	0	Back	5mm	Ant6	DS13	21350	2560	18.39	19.50	1.291			-0.02	0.740	0.955
	LTE Band 7	20M	QPSK	50	0	Back	5mm	Ant6	DS13	21100	2535	18.39	19.50	1.291			0.02	0.718	0.927
	LTE Band 7	20M	QPSK	50	0	Back	5mm	Ant6	DS13	20850	2510	18.28	19.50	1.324			-0.07	0.716	0.948
	LTE Band 7	20M	QPSK	50	0	Back	5mm	Ant6	DS13	21350	2560	18.34	19.50	1.306			0.14	0.724	0.946
	LTE Band 7	20M	QPSK	100	0	Back	5mm	Ant6	DS13	21100	2535	18.35	19.50	1.303			0.14	0.707	0.921
	LTE Band 7	20M	QPSK	1	0	Front	5mm	Ant7	DS13	21100	2535	17.41	18.50	1.285			0.08	0.685	0.880
	LTE Band 7	20M	QPSK	1	0	Front	5mm	Ant7	DS13	20850	2510	17.34	18.50	1.306			0.02	0.547	0.714



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	LTE Band 7	20M	QPSK	1	0	Front	5mm	Ant7	DSI3	21350	2560	17.39	18.50	1.291			0.08	0.654	0.844
	LTE Band 7	20M	QPSK	50	0	Front	5mm	Ant7	DSI3	21100	2535	17.37	18.50	1.297			0.05	0.667	0.865
	LTE Band 7	20M	QPSK	50	0	Front	5mm	Ant7	DSI3	20850	2510	17.32	18.50	1.312			0.03	0.561	0.736
	LTE Band 7	20M	QPSK	50	0	Front	5mm	Ant7	DSI3	21350	2560	17.34	18.50	1.306			0.04	0.634	0.828
	LTE Band 7	20M	QPSK	100	0	Front	5mm	Ant7	DSI3	21100	2535	17.35	18.50	1.303			-0.08	0.628	0.818
	LTE Band 7	20M	QPSK	1	0	Back	5mm	Ant7	DSI3	21100	2535	17.41	18.50	1.285			0.06	0.737	0.947
	LTE Band 7	20M	QPSK	1	0	Back	5mm	Ant7	DSI3	20850	2510	17.34	18.50	1.306			-0.14	0.627	0.819
	LTE Band 7	20M	QPSK	1	0	Back	5mm	Ant7	DSI3	21350	2560	17.39	18.50	1.291			0.09	0.715	0.923
	LTE Band 7	20M	QPSK	50	0	Back	5mm	Ant7	DSI3	21100	2535	17.37	18.50	1.297			-0.03	0.760	0.986
	LTE Band 7	20M	QPSK	50	0	Back	5mm	Ant7	DSI3	20850	2510	17.32	18.50	1.312			-0.16	0.600	0.787
	LTE Band 7	20M	QPSK	50	0	Back	5mm	Ant7	DSI3	21350	2560	17.34	18.50	1.306			0.16	0.705	0.921
	LTE Band 7	20M	QPSK	100	0	Back	5mm	Ant7	DSI3	21100	2535	17.35	18.50	1.303			0.16	0.713	0.929
	LTE Band 26	15M	QPSK	1	0	Front	5mm	Ant0	DSI3	26865	831.5	24.56	25.20	1.159			0.14	0.615	0.713
	LTE Band 26	15M	QPSK	36	0	Front	5mm	Ant0	DSI3	26865	831.5	24.03	24.70	1.167			-0.12	0.529	0.617
61	LTE Band 26	15M	QPSK	1	0	Back	5mm	Ant0	DSI3	26865	831.5	24.56	25.20	1.159			0.03	0.831	0.963
	LTE Band 26	15M	QPSK	36	0	Back	5mm	Ant0	DSI3	26865	831.5	24.03	24.70	1.167			0.13	0.717	0.837
	LTE Band 26	15M	QPSK	75	0	Back	5mm	Ant0	DSI3	26865	831.5	23.99	24.70	1.178			0.10	0.693	0.816
	LTE Band 5	15M	QPSK	1	0	Back	5mm	Ant0	DSI3	20525	836.5	24.18	25.00	1.208			-0.14	0.785	0.948
	LTE Band 26	15M	QPSK	1	0	Front	5mm	Ant1	DSI3	26865	831.5	18.71	19.70	1.256			0.03	0.491	0.617
	LTE Band 26	15M	QPSK	36	0	Front	5mm	Ant1	DSI3	26865	831.5	18.69	19.70	1.262			-0.11	0.506	0.639
	LTE Band 26	15M	QPSK	1	0	Back	5mm	Ant1	DSI3	26865	831.5	18.71	19.70	1.256			0.10	0.591	0.742
	LTE Band 26	15M	QPSK	36	0	Back	5mm	Ant1	DSI3	26865	831.5	18.69	19.70	1.262			-0.03	0.605	0.764
	LTE Band 5	15M	QPSK	36	0	Back	5mm	Ant1	DSI3	20525	836.5	18.83	20.00	1.309			0.02	0.581	0.761
	LTE Band 26	15M	QPSK	1	0	Front	15mm	Ant1	DSI4	26865	831.5	24.70	25.70	1.259			0.09	0.512	0.645
	LTE Band 26	15M	QPSK	1	0	Back	15mm	Ant1	DSI4	26865	831.5	24.70	25.70	1.259			0.04	0.551	0.694
	LTE Band 66	20M	QPSK	1	0	Front	5mm	Ant4	DSI3	132322	1745	19.52	20.20	1.169			-0.15	0.505	0.590
	LTE Band 66	20M	QPSK	50	0	Front	5mm	Ant4	DSI3	132322	1745	19.47	20.20	1.183			-0.05	0.520	0.615
	LTE Band 66	20M	QPSK	1	0	Back	5mm	Ant4	DSI3	132322	1745	19.52	20.20	1.169			-0.13	0.678	0.793
	LTE Band 66	20M	QPSK	50	0	Back	5mm	Ant4	DSI3	132322	1745	19.47	20.20	1.183			0.06	0.776	0.918
	LTE Band 66	20M	QPSK	50	0	Back	5mm	Ant4	DSI3	132072	1720	19.45	20.20	1.189			0.10	0.755	0.898
	LTE Band 66	20M	QPSK	50	0	Back	5mm	Ant4	DSI3	132572	1770	19.40	20.20	1.202			0.14	0.771	0.927
	LTE Band 66	20M	QPSK	100	0	Back	5mm	Ant4	DSI3	132322	1745	19.36	20.20	1.213			-0.16	0.684	0.830
	LTE Band 66	20M	QPSK	1	0	Front	15mm	Ant4	DSI4	132322	1745	24.98	25.70	1.18			0.03	0.300	0.354
	LTE Band 66	20M	QPSK	1	0	Back	15mm	Ant4	DSI4	132322	1745	24.98	25.70	1.18			0.07	0.352	0.415
	LTE Band 66	20M	QPSK	1	0	Front	5mm	Ant5	DSI3	132322	1745	16.92	18.00	1.282			-0.15	0.609	0.781
	LTE Band 66	20M	QPSK	50	0	Front	5mm	Ant5	DSI3	132322	1745	16.87	18.00	1.297			0.16	0.606	0.786
	LTE Band 66	20M	QPSK	1	0	Back	5mm	Ant5	DSI3	132322	1745	16.92	18.00	1.282			-0.04	0.715	0.917
	LTE Band 66	20M	QPSK	1	0	Back	5mm	Ant5	DSI3	132072	1720	16.87	18.00	1.297			0.06	0.584	0.757
	LTE Band 66	20M	QPSK	1	0	Back	5mm	Ant5	DSI3	132572	1770	16.82	18.00	1.312			0.16	0.702	0.921
	LTE Band 66	20M	QPSK	50	0	Back	5mm	Ant5	DSI3	132322	1745	16.87	18.00	1.297			-0.14	0.674	0.874
	LTE Band 66	20M	QPSK	50	0	Back	5mm	Ant5	DSI3	132072	1720	16.84	18.00	1.306			0.10	0.594	0.776
	LTE Band 66	20M	QPSK	50	0	Back	5mm	Ant5	DSI3	132572	1770	16.83	18.00	1.309			0.05	0.694	0.908
	LTE Band 66	20M	QPSK	100	0	Back	5mm	Ant5	DSI3	132322	1745	16.81	18.00	1.315			0.06	0.667	0.877
	LTE Band 66	20M	QPSK	1	0	Front	15mm	Ant5	DSI4	132322	1745	23.91	25.00	1.285			-0.01	0.445	0.572
	LTE Band 66	20M	QPSK	1	0	Back	15mm	Ant5	DSI4	132322	1745	23.91	25.00	1.285			-0.13	0.500	0.642
	LTE Band 66	20M	QPSK	1	0	Front	5mm	Ant6	DSI3	132322	1745	17.69	19.00	1.352			0.10	0.539	0.729
	LTE Band 66	20M	QPSK	50	0	Front	5mm	Ant6	DSI3	132322	1745	17.67	19.00	1.358			0.16	0.535	0.727
	LTE Band 66	20M	QPSK	1	0	Back	5mm	Ant6	DSI3	132322	1745	17.69	19.00	1.352			-0.03	0.662	0.895
	LTE Band 66	20M	QPSK	1	0	Back	5mm	Ant6	DSI3	132072	1720	17.65	19.00	1.365			-0.08	0.570	0.778
	LTE Band 66	20M	QPSK	1	0	Back	5mm	Ant6	DSI3	132572	1770	17.63	19.00	1.371			-0.09	0.775	1.063
	LTE Band 66	20M	QPSK	50	0	Back	5mm	Ant6	DSI3	132322	1745	17.67	19.00	1.358			-0.16	0.690	0.937
	LTE Band 66	20M	QPSK	50	0	Back	5mm	Ant6	DSI3	132072	1720	17.62	19.00	1.374			-0.05	0.596	0.819
	LTE Band 66	20M	QPSK	50	0	Back	5mm	Ant6	DSI3	132572	1770	17.59	19.00	1.384			-0.16	0.755	1.045
	LTE Band 66	20M	QPSK	100	0	Back	5mm	Ant6	DSI3	132322	1745	17.66	19.00	1.361			0.18	0.673	0.916
	LTE Band 66	20M	QPSK	1	0	Front	5mm	Ant7	DSI3	132322	1745	18.21	19.50	1.346			-0.00	0.688	0.926
	LTE Band 66	20M	QPSK	1	0	Front	5mm	Ant7	DSI3	132072	1720	18.18	19.50	1.355			0.15	0.667	0.904
	LTE Band 66	20M	QPSK	1	0	Front	5mm	Ant7	DSI3	132572	1770	18.20	19.50	1.349			0.04	0.689	0.929
	LTE Band 66	20M	QPSK	50	0	Front	5mm	Ant7	DSI3	132322	1745	18.19	19.50	1.352			-0.16	0.675	0.913
	LTE Band 66	20M	QPSK	50	0	Front	5mm	Ant7	DSI3	132072	1720	18.14	19.50	1.368			0.11	0.642	0.878
	LTE Band 66	20M	QPSK	50	0	Front	5mm	Ant7	DSI3	132572	1770	18.11	19.50	1.377			0.10	0.683	0.940
	LTE Band 66	20M	QPSK	100	0	Front	5mm	Ant7	DSI3	132322	1745	18.06	19.50	1.393			-0.03	0.663	0.924
	LTE Band 66	20M	QPSK	1	0	Back	5mm	Ant7	DSI3	132322	1745	18.21	19.50	1.346			0.05	0.777	1.046
	LTE Band 66	20M	QPSK	1	0	Back	5mm	Ant7	DSI3	132072	1720	18.18	19.50	1.355			0.04	0.726	0.984
62	LTE Band 66	20M	QPSK	1	0	Back	5mm	Ant7	DSI3	132572	1770	18.20	19.50	1.349			-0.04	0.810	1.093
	LTE Band 66	20M	QPSK	50	0	Back	5mm	Ant7	DSI3	132322	1745	18.19	19.50	1.352			0.07	0.776	1.049
	LTE Band 66	20M	QPSK	50	0	Back	5mm	Ant7	DSI3	132072	1720	18.14	19.50	1.368			-0.01	0.749	1.025
	LTE Band 66	20M	QPSK	50	0	Back	5mm	Ant7	DSI3	132572	1770	18.11	19.50	1.377			0.09	0.776	1.069
	LTE Band 66	20M	QPSK	100	0	Back	5mm	Ant7	DSI3	132322	1745	18.06	19.50	1.393			-0.11	0.762	1.061
	LTE Band 71	20M	QPSK	1	0	Front	5mm	Ant0	DSI3	133297	680.5	23.98	25.00	1.265			0.08	0.332	0.420
	LTE Band 71	20M	QPSK	50	0	Front	5mm	Ant0	DSI3	133297	680.5	23.01	24.00	1.256			-0.00	0.245	0.308
	LTE Band 71	20M	QPSK	1	0	Back	5mm	Ant0	DSI3	133297	680.5	23.98	25.00	1.265			0.14	0.346	0.438
	LTE Band 71	20M	QPSK	50	0	Back	5mm	Ant0	DSI3	133297	680.5	23.01	24.00	1.256			0.13	0.263	0.330
	LTE Band 71	20M	QPSK	1	0	Front	5mm	Ant1	DSI3	133297	680.5	21.22	22.50	1.343			0.05	0.306	0.411



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	LTE Band 71	20M	QPSK	50	0	Front	5mm	Ant1	DSI3	133297	680.5	21.19	22.50	1.352			-0.08	0.314	0.425
	LTE Band 71	20M	QPSK	1	0	Back	5mm	Ant1	DSI3	133297	680.5	21.22	22.50	1.343			0.07	0.362	0.486
63	LTE Band 71	20M	QPSK	50	0	Back	5mm	Ant1	DSI3	133297	680.5	21.19	22.50	1.352			-0.06	0.373	0.504
	LTE Band 71	20M	QPSK	1	0	Front	15mm	Ant1	DSI4	133297	680.5	23.76	25.00	1.33			0.01	0.151	0.201
	LTE Band 71	20M	QPSK	1	0	Back	15mm	Ant1	DSI4	133297	680.5	23.76	25.00	1.33			0.18	0.176	0.234
	LTE Band 41	20M	QPSK	1	0	Front	5mm	Ant4	DSI3	40620	2593	19.82	20.20	1.091	62.9	1.006	-0.05	0.653	0.717
	LTE Band 41	20M	QPSK	1	0	Front	5mm	Ant4	DSI3	39750	2506	19.74	20.20	1.112	62.9	1.006	0.09	0.577	0.645
	LTE Band 41	20M	QPSK	1	0	Front	5mm	Ant4	DSI3	40185	2549.5	19.80	20.20	1.096	62.9	1.006	0.17	0.607	0.669
	LTE Band 41	20M	QPSK	1	0	Front	5mm	Ant4	DSI3	41055	2636.5	19.79	20.20	1.099	62.9	1.006	-0.14	0.674	0.745
	LTE Band 41	20M	QPSK	1	0	Front	5mm	Ant4	DSI3	41490	2680	19.78	20.20	1.102	62.9	1.006	-0.10	0.696	0.772
	LTE Band 41	20M	QPSK	50	0	Front	5mm	Ant4	DSI3	40620	2593	19.78	20.20	1.102	62.9	1.006	-0.07	0.674	0.747
	LTE Band 41	20M	QPSK	50	0	Front	5mm	Ant4	DSI3	39750	2506	19.68	20.20	1.127	62.9	1.006	0.01	0.707	0.802
	LTE Band 41	20M	QPSK	50	0	Front	5mm	Ant4	DSI3	40185	2549.5	19.74	20.20	1.112	62.9	1.006	-0.04	0.737	0.824
	LTE Band 41	20M	QPSK	50	0	Front	5mm	Ant4	DSI3	41055	2636.5	19.68	20.20	1.127	62.9	1.006	-0.07	0.774	0.878
	LTE Band 41	20M	QPSK	50	0	Front	5mm	Ant4	DSI3	41490	2680	19.77	20.20	1.104	62.9	1.006	-0.19	0.908	1.008
	LTE Band 41	20M	QPSK	100	0	Front	5mm	Ant4	DSI3	40620	2593	19.76	20.20	1.107	62.9	1.006	-0.03	0.710	0.791
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant4	DSI3	40620	2593	19.82	20.20	1.091	62.9	1.006	-0.13	0.847	0.930
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant4	DSI3	39750	2506	19.74	20.20	1.112	62.9	1.006	0.17	0.693	0.775
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant4	DSI3	40185	2549.5	19.80	20.20	1.096	62.9	1.006	0.08	0.727	0.802
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant4	DSI3	41055	2636.5	19.79	20.20	1.099	62.9	1.006	-0.07	0.765	0.846
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant4	DSI3	41490	2680	19.78	20.20	1.102	62.9	1.006	0.05	0.792	0.878
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant4	DSI3	40620	2593	19.78	20.20	1.102	62.9	1.006	0.14	0.877	0.972
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant4	DSI3	39750	2506	19.68	20.20	1.127	62.9	1.006	0.03	0.699	0.792
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant4	DSI3	40185	2549.5	19.74	20.20	1.112	62.9	1.006	-0.02	0.734	0.821
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant4	DSI3	41055	2636.5	19.68	20.20	1.127	62.9	1.006	-0.09	0.776	0.880
64	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant4	DSI3	41490	2680	19.77	20.20	1.104	62.9	1.006	0.12	0.914	1.015
	LTE Band 41	20M	QPSK	100	0	Back	5mm	Ant4	DSI3	40620	2593	19.76	20.20	1.107	62.9	1.006	0.15	0.877	0.977
	LTE Band 41	20M	QPSK	1	0	Front	15mm	Ant4	DSI4	40620	2593	25.36	25.70	1.081	62.9	1.006	0.03	0.387	0.421
	LTE Band 41	20M	QPSK	1	0	Back	15mm	Ant4	DSI4	40620	2593	25.36	25.70	1.081	62.9	1.006	-0.08	0.462	0.502
	LTE Band 41	20M	QPSK	1	0	Front	5mm	Ant5	DSI3	40620	2593	20.11	21.00	1.227	62.9	1.006	0.03	0.454	0.560
	LTE Band 41	20M	QPSK	50	0	Front	5mm	Ant5	DSI3	40620	2593	20.06	21.00	1.242	62.9	1.006	0.14	0.496	0.620
	LTE Band 41	20M	QPSK	50	0	Front	5mm	Ant5	DSI3	39750	2506	19.99	21.00	1.262	62.9	1.006	0.11	0.412	0.523
	LTE Band 41	20M	QPSK	50	0	Front	5mm	Ant5	DSI3	40185	2549.5	19.93	21.00	1.279	62.9	1.006	-0.01	0.526	0.677
	LTE Band 41	20M	QPSK	50	0	Front	5mm	Ant5	DSI3	41055	2636.5	20.03	21.00	1.25	62.9	1.006	0.16	0.475	0.597
	LTE Band 41	20M	QPSK	50	0	Front	5mm	Ant5	DSI3	41490	2680	20.03	21.00	1.25	62.9	1.006	-0.02	0.465	0.585
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant5	DSI3	40620	2593	20.11	21.00	1.227	62.9	1.006	-0.19	0.694	0.857
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant5	DSI3	39750	2506	20.01	21.00	1.256	62.9	1.006	-0.18	0.585	0.739
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant5	DSI3	40185	2549.5	19.94	21.00	1.276	62.9	1.006	-0.19	0.667	0.856
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant5	DSI3	41055	2636.5	20.04	21.00	1.247	62.9	1.006	-0.17	0.678	0.851
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant5	DSI3	41490	2680	20.03	21.00	1.25	62.9	1.006	0.08	0.688	0.865
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant5	DSI3	40620	2593	20.06	21.00	1.242	62.9	1.006	-0.17	0.705	0.881
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant5	DSI3	39750	2506	19.99	21.00	1.262	62.9	1.006	0.18	0.597	0.758
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant5	DSI3	40185	2549.5	19.93	21.00	1.279	62.9	1.006	-0.04	0.765	0.984
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant5	DSI3	41055	2636.5	20.03	21.00	1.25	62.9	1.006	-0.02	0.693	0.871
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant5	DSI3	41490	2680	20.03	21.00	1.25	62.9	1.006	0.02	0.699	0.879
	LTE Band 41	20M	QPSK	100	0	Back	5mm	Ant5	DSI3	41055	2636.5	19.98	21.00	1.265	62.9	1.006	0.05	0.685	0.872
	LTE Band 41	20M	QPSK	1	0	Front	15mm	Ant5	DSI4	40620	2593	24.07	25.00	1.239	62.9	1.006	0.03	0.170	0.212
	LTE Band 41	20M	QPSK	1	0	Back	15mm	Ant5	DSI4	40620	2593	24.07	25.00	1.239	62.9	1.006	0.08	0.196	0.244
	LTE Band 41	20M	QPSK	1	0	Front	5mm	Ant6	DSI3	40620	2593	20.59	21.50	1.233	62.9	1.006	0.11	0.616	0.764
	LTE Band 41	20M	QPSK	1	0	Front	5mm	Ant6	DSI3	39750	2506	20.52	21.50	1.253	62.9	1.006	-0.10	0.682	0.860
	LTE Band 41	20M	QPSK	1	0	Front	5mm	Ant6	DSI3	40185	2549.5	20.55	21.50	1.245	62.9	1.006	-0.19	0.663	0.830
	LTE Band 41	20M	QPSK	1	0	Front	5mm	Ant6	DSI3	41055	2636.5	20.52	21.50	1.253	62.9	1.006	0.18	0.647	0.816
	LTE Band 41	20M	QPSK	1	0	Front	5mm	Ant6	DSI3	41490	2680	20.57	21.50	1.239	62.9	1.006	-0.05	0.583	0.727
	LTE Band 41	20M	QPSK	50	0	Front	5mm	Ant6	DSI3	40620	2593	20.58	21.50	1.236	62.9	1.006	-0.04	0.599	0.745
	LTE Band 41	20M	QPSK	50	0	Front	5mm	Ant6	DSI3	39750	2506	20.49	21.50	1.262	62.9	1.006	0.10	0.679	0.862
	LTE Band 41	20M	QPSK	50	0	Front	5mm	Ant6	DSI3	40185	2549.5	20.52	21.50	1.253	62.9	1.006	-0.18	0.677	0.853
	LTE Band 41	20M	QPSK	50	0	Front	5mm	Ant6	DSI3	41055	2636.5	20.48	21.50	1.265	62.9	1.006	-0.11	0.655	0.834
	LTE Band 41	20M	QPSK	50	0	Front	5mm	Ant6	DSI3	41490	2680	20.51	21.50	1.256	62.9	1.006	-0.01	0.559	0.706
	LTE Band 41	20M	QPSK	100	0	Front	5mm	Ant6	DSI3	40620	2593	20.53	21.50	1.25	62.9	1.006	0.06	0.566	0.712
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant6	DSI3	40620	2593	20.59	21.50	1.233	62.9	1.006	-0.06	0.752	0.933
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant6	DSI3	39750	2506	20.52	21.50	1.253	62.9	1.006	0.05	0.723	0.911
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant6	DSI3	40185	2549.5	20.55	21.50	1.245	62.9	1.006	0.16	0.735	0.921
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant6	DSI3	41055	2636.5	20.52	21.50	1.253	62.9	1.006	0.01	0.706	0.890
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant6	DSI3	41490	2680	20.57	21.50	1.239	62.9	1.006	-0.15	0.725	0.904
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant6	DSI3	40620	2593	20.58	21.50	1.236	62.9	1.006	0.12	0.740	0.920
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant6	DSI3	39750	2506	20.49	21.50	1.262	62.9	1.006	0.16	0.726	0.922
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant6	DSI3	40185	2549.5	20.52	21.50	1.253	62.9	1.006	-0.19	0.730	0.920
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant6	DSI3	41055	2636.5	20.48	21.50	1.265	62.9	1.006	-0.14	0.719	0.915
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant6	DSI3	41490	2680	20.51	21.50	1.256	62.9	1.006	-0.04	0.722	0.912
	LTE Band 41	20M	QPSK	100	0	Back	5mm	Ant6	DSI3	40620	2593	20.53	21.50	1.25	62.9	1.006	0.13	0.687	0.864
	LTE Band 41	20M	QPSK	1	0	Front	5mm	Ant7	DSI3	40620	2593	19.39	20.50	1.291	62.9	1.006	-0.13	0.519	0.674
	LTE Band 41	20M	QPSK	1	0	Front	5mm												



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	LTE Band 41	20M	QPSK	1	0	Front	5mm	Ant7	DSI3	41490	2680	19.33	20.50	1.309	62.9	1.006	0.01	0.459	0.604
	LTE Band 41	20M	QPSK	50	0	Front	5mm	Ant7	DSI3	40620	2593	19.37	20.50	1.297	62.9	1.006	-0.04	0.506	0.660
	LTE Band 41	20M	QPSK	50	0	Front	5mm	Ant7	DSI3	39750	2506	19.24	20.50	1.337	62.9	1.006	-0.11	0.633	0.851
	LTE Band 41	20M	QPSK	50	0	Front	5mm	Ant7	DSI3	40185	2549.5	19.28	20.50	1.324	62.9	1.006	-0.02	0.549	0.731
	LTE Band 41	20M	QPSK	50	0	Front	5mm	Ant7	DSI3	41055	2636.5	19.26	20.50	1.33	62.9	1.006	-0.10	0.476	0.637
	LTE Band 41	20M	QPSK	50	0	Front	5mm	Ant7	DSI3	41490	2680	19.31	20.50	1.315	62.9	1.006	0.19	0.505	0.668
	LTE Band 41	20M	QPSK	100	0	Front	5mm	Ant7	DSI3	40620	2593	19.32	20.50	1.312	62.9	1.006	-0.11	0.471	0.622
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant7	DSI3	40620	2593	19.39	20.50	1.291	62.9	1.006	-0.15	0.559	0.726
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant7	DSI3	39750	2506	19.29	20.50	1.321	62.9	1.006	0.02	0.701	0.932
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant7	DSI3	40185	2549.5	19.35	20.50	1.303	62.9	1.006	-0.11	0.657	0.861
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant7	DSI3	41055	2636.5	19.31	20.50	1.315	62.9	1.006	0.05	0.559	0.739
	LTE Band 41	20M	QPSK	1	0	Back	5mm	Ant7	DSI3	41490	2680	19.33	20.50	1.309	62.9	1.006	-0.14	0.555	0.731
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant7	DSI3	40620	2593	19.37	20.50	1.297	62.9	1.006	0.10	0.564	0.736
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant7	DSI3	39750	2506	19.24	20.50	1.337	62.9	1.006	-0.17	0.676	0.909
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant7	DSI3	40185	2549.5	19.28	20.50	1.324	62.9	1.006	-0.08	0.655	0.872
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant7	DSI3	41055	2636.5	19.26	20.50	1.33	62.9	1.006	-0.02	0.565	0.756
	LTE Band 41	20M	QPSK	50	0	Back	5mm	Ant7	DSI3	41490	2680	19.31	20.50	1.315	62.9	1.006	0.19	0.576	0.762
	LTE Band 41	20M	QPSK	100	0	Back	5mm	Ant7	DSI3	40620	2593	19.32	20.50	1.312	62.9	1.006	-0.12	0.552	0.729
	LTE Band 42	20M	QPSK	1	0	Front	5mm	Ant8	DSI3	42590	3500	19.67	20.50	1.211	62.9	1.006	0.09	0.485	0.591
	LTE Band 42	20M	QPSK	50	0	Front	5mm	Ant8	DSI3	42590	3500	19.65	20.50	1.216	62.9	1.006	0.07	0.454	0.555
	LTE Band 42	20M	QPSK	1	0	Back	5mm	Ant8	DSI3	42590	3500	19.67	20.50	1.211	62.9	1.006	-0.12	0.691	0.842
	LTE Band 42	20M	QPSK	1	0	Back	5mm	Ant8	DSI3	42190	3460	19.59	20.50	1.233	62.9	1.006	0.18	0.644	0.799
	LTE Band 42	20M	QPSK	1	0	Back	5mm	Ant8	DSI3	42990	3540	19.62	20.50	1.225	62.9	1.006	0.16	0.496	0.611
	LTE Band 42	20M	QPSK	50	0	Back	5mm	Ant8	DSI3	42590	3500	19.65	20.50	1.216	62.9	1.006	-0.03	0.701	0.858
	LTE Band 42	20M	QPSK	50	0	Back	5mm	Ant8	DSI3	42190	3460	19.55	20.50	1.245	62.9	1.006	0.04	0.682	0.854
	LTE Band 42	20M	QPSK	50	0	Back	5mm	Ant8	DSI3	42990	3540	19.59	20.50	1.233	62.9	1.006	-0.03	0.494	0.613
	LTE Band 42	20M	QPSK	100	0	Back	5mm	Ant8	DSI3	42590	3500	19.63	20.50	1.222	62.9	1.006	-0.04	0.679	0.835
	LTE Band 42	20M	QPSK	1	0	Front	5mm	Ant9	DSI3	42590	3500	19.33	20.00	1.167	62.9	1.006	-0.02	0.342	0.402
	LTE Band 42	20M	QPSK	50	0	Front	5mm	Ant9	DSI3	42590	3500	19.28	20.00	1.18	62.9	1.006	0.06	0.187	0.222
	LTE Band 42	20M	QPSK	1	0	Back	5mm	Ant9	DSI3	42590	3500	19.33	20.00	1.167	62.9	1.006	0.06	0.279	0.328
	LTE Band 42	20M	QPSK	50	0	Back	5mm	Ant9	DSI3	42590	3500	19.28	20.00	1.18	62.9	1.006	0.02	0.289	0.343
	LTE Band 42	20M	QPSK	1	0	Front	15mm	Ant9	DSI4	42590	3500	21.53	22.00	1.114	62.9	1.006	0.06	0.136	0.152
	LTE Band 42	20M	QPSK	1	0	Back	15mm	Ant9	DSI4	42590	3500	21.53	22.00	1.114	62.9	1.006	-0.15	0.106	0.119
	LTE Band 42	20M	QPSK	1	0	Front	5mm	Ant10	DSI3	42590	3500	18.86	19.50	1.159	62.9	1.006	0.07	0.585	0.682
	LTE Band 42	20M	QPSK	50	0	Front	5mm	Ant10	DSI3	42590	3500	18.82	19.50	1.169	62.9	1.006	-0.02	0.629	0.740
	LTE Band 42	20M	QPSK	1	0	Back	5mm	Ant10	DSI3	42590	3500	18.86	19.50	1.159	62.9	1.006	-0.08	0.753	0.878
	LTE Band 42	20M	QPSK	1	0	Back	5mm	Ant10	DSI3	42190	3460	18.79	19.50	1.178	62.9	1.006	-0.02	0.770	0.913
	LTE Band 42	20M	QPSK	1	0	Back	5mm	Ant10	DSI3	42990	3540	18.83	19.50	1.167	62.9	1.006	0.16	0.696	0.817
	LTE Band 42	20M	QPSK	50	0	Back	5mm	Ant10	DSI3	42590	3500	18.82	19.50	1.169	62.9	1.006	0.04	0.765	0.900
65	LTE Band 42	20M	QPSK	50	0	Back	5mm	Ant10	DSI3	42190	3460	18.72	19.50	1.197	62.9	1.006	0.08	0.786	0.946
	LTE Band 42	20M	QPSK	50	0	Back	5mm	Ant10	DSI3	42990	3540	18.79	19.50	1.178	62.9	1.006	-0.18	0.726	0.860
	LTE Band 42	20M	QPSK	100	0	Back	5mm	Ant10	DSI3	42590	3500	18.79	19.50	1.178	62.9	1.006	0.12	0.743	0.881
	LTE Band 42	20M	QPSK	1	0	Front	15mm	Ant10	DSI4	42590	3500	25.50	26.00	1.122	62.9	1.006	0.03	0.308	0.348
	LTE Band 42	20M	QPSK	1	0	Back	15mm	Ant10	DSI4	42590	3500	25.50	26.00	1.122	62.9	1.006	0.08	0.330	0.372
	LTE Band 42	20M	QPSK	1	0	Front	5mm	Ant11	DSI3	42590	3500	19.51	20.50	1.256	62.9	1.006	-0.06	0.259	0.327
	LTE Band 42	20M	QPSK	50	0	Front	5mm	Ant11	DSI3	42590	3500	19.46	20.50	1.271	62.9	1.006	-0.06	0.264	0.338
	LTE Band 42	20M	QPSK	1	0	Back	5mm	Ant11	DSI3	42590	3500	19.51	20.50	1.256	62.9	1.006	0.12	0.257	0.325
	LTE Band 42	20M	QPSK	50	0	Back	5mm	Ant11	DSI3	42590	3500	19.46	20.50	1.271	62.9	1.006	0.03	0.249	0.318
	LTE Band 42	20M	QPSK	1	0	Front	15mm	Ant11	DSI4	42590	3500	22.09	23.00	1.233	62.9	1.006	0.06	0.089	0.110
	LTE Band 42	20M	QPSK	1	0	Back	15mm	Ant11	DSI4	42590	3500	22.09	23.00	1.233	62.9	1.006	0.09	0.086	0.107
	LTE Band 48	20M	QPSK	1	0	Front	5mm	Ant8	DSI3	55990	3625	19.61	20.50	1.227	62.9	1.006	0.09	0.371	0.458
	LTE Band 48	20M	QPSK	50	0	Front	5mm	Ant8	DSI3	55990	3625	19.58	20.50	1.236	62.9	1.006	-0.17	0.373	0.464
	LTE Band 48	20M	QPSK	1	0	Back	5mm	Ant8	DSI3	55990	3625	19.61	20.50	1.227	62.9	1.006	0.00	0.462	0.570
	LTE Band 48	20M	QPSK	50	0	Back	5mm	Ant8	DSI3	55990	3625	19.58	20.50	1.236	62.9	1.006	-0.07	0.498	0.619
66	LTE Band 48	20M	QPSK	50	0	Back	5mm	Ant8	DSI3	55340	3560	19.48	20.50	1.265	62.9	1.006	0.01	0.595	0.757
	LTE Band 48	20M	QPSK	50	0	Back	5mm	Ant8	DSI3	55830	3609	19.53	20.50	1.25	62.9	1.006	0.09	0.518	0.651
	LTE Band 48	20M	QPSK	50	0	Back	5mm	Ant8	DSI3	56150	3641	19.50	20.50	1.259	62.9	1.006	0.13	0.529	0.670
	LTE Band 48	20M	QPSK	50	0	Back	5mm	Ant8	DSI3	56640	3690	19.45	20.50	1.274	62.9	1.006	-0.10	0.540	0.692
	LTE Band 48	20M	QPSK	1	0	Front	5mm	Ant9	DSI3	55990	3625	18.34	19.00	1.164	62.9	1.006	0.13	0.310	0.363
	LTE Band 48	20M	QPSK	50	0	Front	5mm	Ant9	DSI3	55990	3625	18.31	19.00	1.172	62.9	1.006	0.06	0.252	0.297
	LTE Band 48	20M	QPSK	1	0	Back	5mm	Ant9	DSI3	55990	3625	18.34	19.00	1.164	62.9	1.006	-0.03	0.372	0.436
	LTE Band 48	20M	QPSK	50	0	Back	5mm	Ant9	DSI3	55990	3625	18.31	19.00	1.172	62.9	1.006	0.07	0.372	0.439
	LTE Band 48	20M	QPSK	1	0	Front	15mm	Ant9	DSI4	55990	3625	20.54	21.00	1.112	62.9	1.006	-0.13	0.081	0.091
	LTE Band 48	20M	QPSK	1	0	Back	15mm	Ant9	DSI4	55990	3625	20.54	21.00	1.112	62.9	1.006	-0.08	0.075	0.084
	LTE Band 48	20M	QPSK	1	0	Front	5mm	Ant10	DSI3	55990	3625	17.99	18.50	1.125	62.9	1.006	0.11	0.457	0.517
	LTE Band 48	20M	QPSK	50	0	Front	5mm	Ant10	DSI3	55990	3625	17.97	18.50	1.13	62.9	1.006	0.14	0.483	0.549
	LTE Band 48	20M	QPSK	1	0	Back	5mm	Ant10	DSI3	55990	3625	17.99	18.50	1.125	62.9	1.006	0.08	0.525	0.594
	LTE Band 48	20M	QPSK	50	0	Back	5mm	Ant10	DSI3	55990	3625	17.97	18.50	1.13	62.9	1.006	0.02	0.548	0.623
	LTE Band 48	20M	QPSK	50	0	Back	5mm	Ant10	DSI3	55340	3560	17.86	18.50	1.159	62.9	1.006	0.06	0.568	0.662
	LTE Band 48	20M	QPSK	50	0	Back	5mm	Ant10	DSI3	55830	3609	17.88	18.50	1.153	62.9	1.006	0.03	0.566	0.657
	LTE Band 48	20M	QPSK	50	0	Back	5mm	Ant10	DSI3	56150	3641	17.93	18.50	1.14	62.9	1.006	-0.12	0.551	0.632
	LTE Band 48																		



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	LTE Band 48	20M	QPSK	1	0	Back	15mm	Ant10	DSI4	55990	3625	24.64	25.00	1.086	62.9	1.006	-0.05	0.258	0.282
	LTE Band 48	20M	QPSK	1	0	Front	5mm	Ant11	DSI3	55990	3625	19.71	21.00	1.346	62.9	1.006	0.02	0.288	0.390
	LTE Band 48	20M	QPSK	50	0	Front	5mm	Ant11	DSI3	55990	3625	19.68	21.00	1.355	62.9	1.006	0.03	0.281	0.383
	LTE Band 48	20M	QPSK	1	0	Back	5mm	Ant11	DSI3	55990	3625	19.71	21.00	1.346	62.9	1.006	0.05	0.268	0.363
	LTE Band 48	20M	QPSK	50	0	Back	5mm	Ant11	DSI3	55990	3625	19.68	21.00	1.355	62.9	1.006	-0.01	0.263	0.359
	LTE Band 48	20M	QPSK	1	0	Front	15mm	Ant11	DSI4	55990	3625	20.71	22.00	1.346	62.9	1.006	0.02	0.059	0.080
	LTE Band 48	20M	QPSK	1	0	Back	15mm	Ant11	DSI4	55990	3625	20.71	22.00	1.346	62.9	1.006	0.08	0.049	0.066

【ULCA SAR】

Plot No	Band	BW	Modulation	RB Size	RB Offset	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)
	LTE Band 7	20M	QPSK	1	0	Back	5mm	Ant4	DSI3	21350+21152	2560+2540.2	18.26	18.7	1.107	100	1.000	0.13	0.889	0.984
	LTE Band 7	20M	QPSK	1	0	Back	5mm	Ant5	DSI3	21350+21152	2560+2540.2	17.87	19	1.297	100	1.000	0.16	0.727	0.943
	LTE Band 7	20M	QPSK	1	0	Back	5mm	Ant6	DSI3	21350+21152	2560+2540.2	18.32	19.5	1.312	100	1.000	-0.18	0.716	0.939
	LTE Band 7	20M	QPSK	50	50	Back	5mm	Ant7	DSI3	21100+21298	2535+2554.8	17.23	18.5	1.34	100	1.000	0.05	0.728	0.976
	LTE Band 38	20M	QPSK	50	0	Back	5mm	Ant4	DSI3	38150+37952	2610+2590.2	19.45	20.2	1.189	62.9	1.006	0.08	0.837	1.001
	LTE Band 38	20M	QPSK	50	50	Back	5mm	Ant5	DSI3	37850+38048	2580+2599.8	19.79	21	1.321	62.9	1.006	0.07	0.723	0.961
	LTE Band 38	20M	QPSK	1	99	Back	5mm	Ant6	DSI3	37901+38099	2585.1+2604.9	20.39	21.5	1.291	62.9	1.006	0.15	0.714	0.927
	LTE Band 38	20M	QPSK	1	99	Back	5mm	Ant7	DSI3	37850+38048	2580+2599.8	19.15	20.5	1.365	62.9	1.006	0.19	0.654	0.898

【FR1 SAR】

Plot No	Band	BW	Modulation	RB Size	RB Offset	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)
	FR1 n2	40M	BPSK	1	1	Front	5mm	Ant4	DSI3	376000	1880	18.59	19.50	1.233			0.19	0.388	0.478
	FR1 n2	40M	BPSK	108	54	Front	5mm	Ant4	DSI3	376000	1880	18.56	19.50	1.242			-0.03	0.361	0.448
	FR1 n2	40M	BPSK	1	1	Back	5mm	Ant4	DSI3	376000	1880	18.59	19.50	1.233			0.02	0.608	0.750
	FR1 n2	40M	BPSK	108	54	Back	5mm	Ant4	DSI3	376000	1880	18.56	19.50	1.242			-0.05	0.578	0.718
	FR1 n2	40M	BPSK	1	1	Front	15mm	Ant4	DSI4	376000	1880	24.78	25.50	1.18			0.06	0.286	0.337
	FR1 n2	40M	BPSK	1	1	Back	15mm	Ant4	DSI4	376000	1880	24.78	25.50	1.18			0.07	0.369	0.435
	FR1 n2	40M	BPSK	1	1	Front	5mm	Ant6	DSI3	376000	1880	18.63	19.50	1.222			-0.01	0.665	0.813
	FR1 n2	40M	BPSK	108	54	Front	5mm	Ant6	DSI3	376000	1880	18.61	19.50	1.227			-0.09	0.679	0.833
	FR1 n2	40M	BPSK	216	0	Front	5mm	Ant6	DSI3	376000	1880	18.58	19.50	1.236			0.18	0.678	0.838
	FR1 n2	40M	BPSK	1	1	Back	5mm	Ant6	DSI3	376000	1880	18.63	19.50	1.222			-0.06	0.737	0.901
67	FR1 n2	40M	BPSK	108	54	Back	5mm	Ant6	DSI3	376000	1880	18.61	19.50	1.227			0.19	0.801	0.983
	FR1 n2	40M	BPSK	216	0	Back	5mm	Ant6	DSI3	376000	1880	18.58	19.50	1.236			0.11	0.789	0.975
	FR1 n7	50M	BPSK	1	1	Front	5mm	Ant4	DSI3	507000	2535	17.67	18.20	1.13			0.17	0.599	0.677
	FR1 n7	50M	BPSK	135	68	Front	5mm	Ant4	DSI3	507000	2535	17.65	18.20	1.135			-0.04	0.592	0.672
	FR1 n7	50M	BPSK	1	1	Back	5mm	Ant4	DSI3	507000	2535	17.67	18.20	1.13			0.05	0.836	0.945
	FR1 n7	50M	BPSK	135	68	Back	5mm	Ant4	DSI3	507000	2535	17.65	18.20	1.135			-0.18	0.800	0.908
	FR1 n7	50M	BPSK	270	0	Back	5mm	Ant4	DSI3	507000	2535	17.61	18.20	1.146			-0.07	0.793	0.909
	FR1 n7	50M	BPSK	1	1	Front	15mm	Ant4	DSI4	507000	2535	25.30	25.70	1.096			0.08	0.512	0.561
	FR1 n7	50M	BPSK	1	1	Back	15mm	Ant4	DSI4	507000	2535	25.30	25.70	1.096			0.11	0.552	0.605
	FR1 n7	50M	BPSK	1	1	Front	5mm	Ant5	DSI3	507000	2535	17.91	19.00	1.285			-0.05	0.455	0.585
	FR1 n7	50M	BPSK	135	68	Front	5mm	Ant5	DSI3	507000	2535	17.86	19.00	1.3			0.00	0.507	0.659
	FR1 n7	50M	BPSK	1	1	Back	5mm	Ant5	DSI3	507000	2535	17.91	19.00	1.285			0.06	0.722	0.928
	FR1 n7	50M	BPSK	135	68	Back	5mm	Ant5	DSI3	507000	2535	17.86	19.00	1.3			-0.10	0.774	1.006
	FR1 n7	50M	BPSK	270	0	Back	5mm	Ant5	DSI3	507000	2535	17.83	19.00	1.309			0.01	0.764	1.000
	FR1 n7	50M	BPSK	1	1	Front	15mm	Ant5	DSI4	507000	2535	24.07	25.00	1.239			0.09	0.380	0.471
	FR1 n7	50M	BPSK	1	1	Back	15mm	Ant5	DSI4	507000	2535	24.07	25.00	1.239			-0.02	0.409	0.507
	FR1 n7	50M	BPSK	1	1	Front	5mm	Ant6	DSI3	507000	2535	18.61	19.50	1.227			-0.10	0.618	0.758
	FR1 n7	50M	BPSK	135	68	Front	5mm	Ant6	DSI3	507000	2535	18.58	19.50	1.236			0.18	0.655	0.810
	FR1 n7	50M	BPSK	270	0	Front	5mm	Ant6	DSI3	507000	2535	18.55	19.50	1.245			0.18	0.572	0.712
	FR1 n7	50M	BPSK	1	1	Back	5mm	Ant6	DSI3	507000	2535	18.61	19.50	1.227			0.09	0.809	0.993
68	FR1 n7	50M	BPSK	135	68	Back	5mm	Ant6	DSI3	507000	2535	18.58	19.50	1.236			-0.00	0.853	1.054
	FR1 n7	50M	BPSK	270	0	Back	5mm	Ant6	DSI3	507000	2535	18.55	19.50	1.245			0.14	0.795	0.990
	FR1 n7	50M	BPSK	1	1	Front	5mm	Ant7	DSI3	507000	2535	17.18	18.00	1.208			0.10	0.535	0.646
	FR1 n7	50M	BPSK	135	68	Front	5mm	Ant7	DSI3	507000	2535	17.16	18.00	1.213			0.01	0.524	0.636
	FR1 n7	50M	BPSK	1	1	Back	5mm	Ant7	DSI3	507000	2535	17.18	18.00	1.208			-0.15	0.744	0.899
	FR1 n7	50M	BPSK	135	68	Back	5mm	Ant7	DSI3	507000	2535	17.16	18.00	1.213			-0.07	0.586	0.711
	FR1 n7	50M	BPSK	270	0	Back	5mm	Ant7	DSI3	507000	2535	17.12	18.00	1.225			0.16	0.650	0.796
	FR1 n26	20M	BPSK	1	1	Front	5mm	Ant0	DSI3	166300	831.5	24.15	24.70	1.135			0.15	0.600	0.681
	FR1 n26	20M	BPSK	50	28	Front	5mm	Ant0	DSI3	166300	831.5	24.11	24.70	1.146			0.19	0.645	0.739
	FR1 n26	20M	BPSK	1	1	Back	5mm	Ant0	DSI3	166300	831.5	24.15	24.70	1.135			-0.02	0.826	0.938
	FR1 n26	20M	BPSK	50	28	Back	5mm	Ant0	DSI3	166300	831.5	24.11	24.70	1.146			0.02	0.847	0.971
	FR1 n26	20M	BPSK	100	0	Back	5mm	Ant0	DSI3	166300	831.5	24.08	24.70	1.153			0.07	0.817	0.942
	FR1 n5	20M	BPSK	50	28	Back	5mm	Ant0	DSI3	167300	836.5	24.11	25.00	1.227			0.01	0.790	0.969
	FR1 n26	20M	BPSK	1	1	Front	5mm	Ant1	DSI3	166300	831.5	19.74	20.70	1.247			-0.05	0.633	0.789
	FR1 n26	20M	BPSK	50	28	Front	5mm	Ant1	DSI3	166300	831.5	19.72	20.70	1.253			-0.09	0.703	0.881
	FR1 n26	20M	BPSK	100	0	Front	5mm	Ant1	DSI3	166300	831.5	19.69	20.70	1.262			0.04	0.687	0.867



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	FR1 n26	20M	BPSK	1	1	Back	5mm	Ant1	DSI3	166300	831.5	19.74	20.70	1.247			0.10	0.727	0.907
69	FR1 n26	20M	BPSK	50	28	Back	5mm	Ant1	DSI3	166300	831.5	19.72	20.70	1.253			-0.09	0.827	1.036
	FR1 n26	20M	BPSK	100	0	Back	5mm	Ant1	DSI3	166300	831.5	19.69	20.70	1.262			0.18	0.803	1.013
	FR1 n26	20M	BPSK	1	1	Front	15mm	Ant1	DSI4	166300	831.5	24.87	25.70	1.211			0.03	0.504	0.610
	FR1 n26	20M	BPSK	1	1	Back	15mm	Ant1	DSI4	166300	831.5	24.87	25.70	1.211			0.06	0.569	0.689
	FR1 n5	20M	BPSK	50	28	Back	5mm	Ant1	DSI3	167300	836.5	19.45	20.50	1.274			0.05	0.801	1.020
	FR1 n66_Other PA	45M	BPSK	1	1	Front	5mm	Ant4	DSI 3	349000	1745	18.74	20.00	1.337			0.07	0.474	0.634
	FR1 n66_Other PA	45M	BPSK	120	60	Front	5mm	Ant4	DSI 3	349000	1745	18.73	20.00	1.34			-0.02	0.509	0.682
	FR1 n66	45M	BPSK	120	60	Back	5mm	Ant4	DSI3	349000	1745	18.65	19.20	1.135			-0.03	0.714	0.810
	FR1 n66_Other PA	45M	BPSK	1	1	Back	5mm	Ant4	DSI 3	349000	1745	18.74	20.00	1.337			-0.03	0.790	1.056
70	FR1 n66_Other PA	45M	BPSK	120	60	Back	5mm	Ant4	DSI 3	349000	1745	18.73	20.00	1.34			-0.00	0.792	1.061
	FR1 n66_Other PA	45M	BPSK	240	0	Back	5mm	Ant4	DSI 3	349000	1745	18.72	20.00	1.343			0.09	0.779	1.046
	FR1 n66	45M	BPSK	1	1	Front	15mm	Ant4	DSI 4	349000	1745	24.25	25.50	1.334			0.06	0.500	0.667
	FR1 n66	45M	BPSK	1	1	Back	15mm	Ant4	DSI 4	349000	1745	24.25	25.50	1.334			-0.02	0.558	0.744
	FR1 n66_Other PA	45M	BPSK	1	1	Front	5mm	Ant5	DSI 3	349000	1745	17.84	18.50	1.164			-0.16	0.668	0.778
	FR1 n66_Other PA	45M	BPSK	120	60	Front	5mm	Ant5	DSI 3	349000	1745	17.81	18.50	1.172			0.18	0.687	0.805
	FR1 n66_Other PA	45M	BPSK	240	0	Front	5mm	Ant5	DSI 3	349000	1745	17.79	18.50	1.178			0.10	0.654	0.770
	FR1 n66	45M	BPSK	240	0	Back	5mm	Ant5	DSI3	349000	1745	17.73	18.50	1.194			0.02	0.761	0.909
	FR1 n66_Other PA	45M	BPSK	1	1	Back	5mm	Ant5	DSI 3	349000	1745	17.84	18.50	1.164			-0.17	0.769	0.895
	FR1 n66_Other PA	45M	BPSK	120	60	Back	5mm	Ant5	DSI 3	349000	1745	17.81	18.50	1.172			-0.05	0.783	0.918
	FR1 n66_Other PA	45M	BPSK	240	0	Back	5mm	Ant5	DSI 3	349000	1745	17.79	18.50	1.178			0.01	0.794	0.935
	FR1 n66	45M	BPSK	1	1	Front	15mm	Ant5	DSI 4	349000	1745	23.53	24.50	1.25			0.06	0.500	0.625
	FR1 n66	45M	BPSK	1	1	Back	15mm	Ant5	DSI 4	349000	1745	23.53	24.50	1.25			-0.11	0.558	0.698
	FR1 n66_Other PA	45M	BPSK	1	1	Front	5mm	Ant6	DSI 3	349000	1745	19.19	19.50	1.074			-0.14	0.578	0.621
	FR1 n66_Other PA	45M	BPSK	120	60	Front	5mm	Ant6	DSI 3	349000	1745	19.18	19.50	1.076			0.18	0.609	0.655
	FR1 n66	45M	BPSK	1	1	Back	5mm	Ant6	DSI3	349000	1745	19.10	20.00	1.23			-0.06	0.608	0.748
	FR1 n66_Other PA	45M	BPSK	1	1	Back	5mm	Ant6	DSI 3	349000	1745	19.19	19.50	1.074			-0.02	0.734	0.788
	FR1 n66_Other PA	45M	BPSK	120	60	Back	5mm	Ant6	DSI 3	349000	1745	19.18	19.50	1.076			-0.11	0.729	0.784
	FR1 n66	45M	BPSK	1	1	Front	5mm	Ant7	DSI3	349000	1745	17.88	18.50	1.153			-0.08	0.516	0.595
	FR1 n66	45M	BPSK	120	60	Front	5mm	Ant7	DSI3	349000	1745	17.85	18.50	1.161			0.18	0.470	0.546
	FR1 n66	45M	BPSK	1	1	Back	5mm	Ant7	DSI3	349000	1745	17.88	18.50	1.153			0.02	0.745	0.859
	FR1 n66	45M	BPSK	120	60	Back	5mm	Ant7	DSI3	349000	1745	17.85	18.50	1.161			-0.09	0.634	0.736
	FR1 n66	45M	BPSK	240	0	Back	5mm	Ant7	DSI3	349000	1745	17.83	18.50	1.167			0.02	0.648	0.756
	FR1 n66_Other PA	45M	BPSK	1	1	Back	5mm	Ant7	DSI 3	349000	1745	17.98	18.50	1.127			-0.14	0.678	0.764
	FR1 n71	35M	BPSK	1	1	Front	5mm	Ant0	DSI3	136100	680.5	24.14	25.00	1.219			0.03	0.356	0.434
	FR1 n71	35M	BPSK	90	45	Front	5mm	Ant0	DSI3	136100	680.5	24.13	25.00	1.222			-0.11	0.283	0.346
	FR1 n71	35M	BPSK	1	1	Back	5mm	Ant0	DSI3	136100	680.5	24.14	25.00	1.219			0.05	0.379	0.462
	FR1 n71	35M	BPSK	90	45	Back	5mm	Ant0	DSI3	136100	680.5	24.13	25.00	1.222			0.13	0.322	0.393
	FR1 n71	35M	BPSK	1	1	Front	5mm	Ant1	DSI3	136100	680.5	22.51	23.50	1.256			0.03	0.597	0.750
	FR1 n71	35M	BPSK	90	45	Front	5mm	Ant1	DSI3	136100	680.5	22.48	23.50	1.265			-0.15	0.525	0.664
71	FR1 n71	35M	BPSK	1	1	Back	5mm	Ant1	DSI3	136100	680.5	22.51	23.50	1.256			-0.05	0.637	0.800
	FR1 n71	35M	BPSK	90	45	Back	5mm	Ant1	DSI3	136100	680.5	22.48	23.50	1.265			-0.12	0.601	0.760
	FR1 n71	35M	BPSK	180	0	Back	5mm	Ant1	DSI3	136100	680.5	22.43	23.50	1.279			0.03	0.624	0.798
	FR1 n71	35M	BPSK	1	1	Front	15mm	Ant1	DSI4	136100	680.5	24.22	25.00	1.197			0.08	0.228	0.273
	FR1 n71	35M	BPSK	1	1	Back	15mm	Ant1	DSI4	136100	680.5	24.22	25.00	1.197			0.06	0.272	0.326
	FR1 n41	100M	BPSK	1	1	Front	5mm	Ant4	DSI3	518598	2592.99	17.26	17.70	1.107			-0.18	0.632	0.700
	FR1 n41	100M	BPSK	135	69	Front	5mm	Ant4	DSI3	518598	2592.99	17.23	17.70	1.114			-0.01	0.669	0.745
	FR1 n41	100M	BPSK	1	1	Back	5mm	Ant4	DSI3	518598	2592.99	17.26	17.70	1.107			0.04	0.863	0.955
	FR1 n41	100M	BPSK	135	69	Back	5mm	Ant4	DSI3	518598	2592.99	17.23	17.70	1.114			0.02	0.873	0.973
	FR1 n41	100M	BPSK	270	0	Back	5mm	Ant4	DSI3	518598	2592.99	17.18	17.70	1.127			-0.02	0.857	0.966
	FR1 n41	100M	BPSK	1	1	Front	15mm	Ant4	DSI4	518598	2592.99	25.58	25.70	1.028			0.06	0.712	0.732
	FR1 n41	100M	BPSK	1	1	Back	15mm	Ant4	DSI4	518598	2592.99	25.58	25.70	1.028			0.05	0.813	0.836
	FR1 n41_HPUE	100M	BPSK	135	69	Back	15mm	Ant4	DSI4	518598	2592.99	27.33	28.00	1.167	50.0	1.0	0.05	0.804	0.938
72	FR1 n41_HPUE	100M	BPSK	135	69	Back	5mm	Ant4	DSI3	518598	2592.99	20.23	21.00	1.194	50.0	1.0	-0.03	0.848	1.013
	FR1 n41	100M	BPSK	135	69	Back	15mm	Ant4	DSI4	518598	2592.99	25.54	25.70	1.038			0.06	0.973	1.010
	FR1 n41	100M	BPSK	270	0	Back	15mm	Ant4	DSI4	518598	2592.99	25.52	25.70	1.042			0.11	0.842	0.877
	FR1 n41	100M	BPSK	1	1	Front	5mm	Ant5	DSI3	518598	2592.99	17.06	18.00	1.242			-0.16	0.504	0.626
	FR1 n41	100M	BPSK	135	69	Front	5mm	Ant5	DSI3	518598	2592.99	17.03	18.00	1.25			-0.02	0.407	0.509
	FR1 n41	100M	BPSK	1	1	Back	5mm	Ant5	DSI3	518598	2592.99	17.06	18.00	1.242			-0.04	0.741	0.920
	FR1 n41	100M	BPSK	135	69	Back	5mm	Ant5	DSI3	518598	2592.99	17.03	18.00	1.25			0.17	0.542	0.677
	FR1 n41	100M	BPSK	270	0	Back	5mm	Ant5	DSI3	518598	2592.99	16.96	18.00	1.271			0.02	0.550	0.699
	FR1 n41_HPUE	100M	BPSK	1	1	Back	5mm	Ant5	DSI3	518598	2592.99	19.98	21.00	1.265	50.0	1.0	0.02	0.749	0.947
	FR1 n41	100M	BPSK	1	1	Front	15mm	Ant5	DSI4	518598	2592.99	24.34	25.00	1.164			-0.09	0.417	0.485
	FR1 n41	100M	BPSK	1	1	Back	15mm	Ant5	DSI4	518598	2592.99	24.34	25.00	1.164			-0.02	0.443	0.516
	FR1 n41_HPUE	100M	BPSK	1	1	Back	15mm	Ant5	DSI4	518598	2592.99	26.23	27.00	1.194	50.0	1.0	0.02	0.367	0.438
	FR1 n41	100M	BPSK	1	1	Front	5mm	Ant6	DSI3	518598	2592.99	18.36	19.00	1.159			0.09	0.554	0.642
	FR1 n41	100M	BPSK	135	69	Front	5mm	Ant6	DSI3	518598	2592.99	18.32	19.00	1.169			0.11	0.520	0.608
	FR1 n41	100M	BPSK	1	1	Back	5mm	Ant6	DSI3	518598	2592.99	18.36	19.00	1.159			-0.03	0.757	0.877
	FR1 n41	100M	BPSK	135	69	Back	5mm	Ant6	DSI3	518598	2592.99	18.32	19.00	1.169			-0.01	0.716	0.837
	FR1 n41	100M	BPSK	270	0	Back	5mm	Ant6	DSI3	518598	2592.99	18.29	19.00	1.178			-0.04	0.681	0.802
	FR1 n41_HPUE	100M	BPSK	1	1	Back	5mm	Ant6	DSI3	518598	2592.99	21.32	22.00	1.169	50.0	1.0	0.04	0.715	0.836
	FR1 n41	100M	BPSK	1	1	Front	5mm	Ant7	DSI3	518598	2592.99	17.65	18.50	1.216			-0.16	0.497	0.604
	FR1 n41	100M	BPSK	135	69	Front	5mm	Ant7	DSI3	518598	2592.99	17.62	18.50	1.225			-0.18	0.557	0.682



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	FR1 n41	100M	BPSK	1	1	Back	5mm	Ant7	DSI3	518598	2592.99	17.65	18.50	1.216			-0.03	0.641	0.779
	FR1 n41	100M	BPSK	135	69	Back	5mm	Ant7	DSI3	518598	2592.99	17.62	18.50	1.225			0.18	0.622	0.762
	FR1 n41_HPUE	100M	BPSK	1	1	Back	5mm	Ant7	DSI3	518598	2592.99	20.64	21.50	1.219	50.0	1.0	-0.04	0.642	0.783
	FR1 n48	40M	BPSK	1	1	Front	5mm	Ant8	DSI3	641666	3624.99	18.67	19.50	1.211			0.19	0.649	0.786
	FR1 n48	40M	BPSK	1	1	Front	5mm	Ant8	DSI3	638000	3570	18.58	19.50	1.236			0.03	0.562	0.695
	FR1 n48	40M	BPSK	1	1	Front	5mm	Ant8	DSI3	645332	3679.98	18.64	19.50	1.219			-0.01	0.175	0.213
	FR1 n48	40M	BPSK	50	28	Front	5mm	Ant8	DSI3	641666	3624.99	18.65	19.50	1.216			0.07	0.600	0.730
	FR1 n48	40M	BPSK	50	28	Front	5mm	Ant8	DSI3	638000	3570	18.56	19.50	1.242			-0.01	0.565	0.702
	FR1 n48	40M	BPSK	50	28	Front	5mm	Ant8	DSI3	645332	3679.98	18.61	19.50	1.227			-0.12	0.542	0.665
	FR1 n48	40M	BPSK	1	1	Back	5mm	Ant8	DSI3	641666	3624.99	18.67	19.50	1.211			0.15	0.843	1.021
	FR1 n48	40M	BPSK	1	1	Back	5mm	Ant8	DSI3	638000	3570	18.58	19.50	1.236			-0.01	0.818	1.011
	FR1 n48	40M	BPSK	1	1	Back	5mm	Ant8	DSI3	645332	3679.98	18.64	19.50	1.219			-0.05	0.661	0.806
73	FR1 n48	40M	BPSK	50	28	Back	5mm	Ant8	DSI3	641666	3624.99	18.65	19.50	1.216			-0.05	0.881	1.071
	FR1 n48	40M	BPSK	50	28	Back	5mm	Ant8	DSI3	638000	3570	18.56	19.50	1.242			-0.16	0.801	0.995
	FR1 n48	40M	BPSK	50	28	Back	5mm	Ant8	DSI3	645332	3679.98	18.61	19.50	1.227			-0.05	0.606	0.744
	FR1 n48	40M	BPSK	100	0	Back	5mm	Ant8	DSI3	641666	3624.99	18.62	19.50	1.225			0.03	0.771	0.944
	FR1 n48	40M	BPSK	1	1	Front	5mm	Ant9	DSI3	641666	3624.99	18.39	19.00	1.151			0.03	0.562	0.647
	FR1 n48	40M	BPSK	1	1	Front	5mm	Ant9	DSI3	638000	3570	18.34	19.00	1.164			0.05	0.590	0.687
	FR1 n48	40M	BPSK	1	1	Front	5mm	Ant9	DSI3	645332	3679.98	18.35	19.00	1.161			-0.09	0.330	0.383
	FR1 n48	40M	BPSK	50	28	Front	5mm	Ant9	DSI3	641666	3624.99	18.37	19.00	1.156			0.04	0.529	0.612
	FR1 n48	40M	BPSK	50	28	Front	5mm	Ant9	DSI3	638000	3570	18.31	19.00	1.172			-0.13	0.524	0.614
	FR1 n48	40M	BPSK	50	28	Front	5mm	Ant9	DSI3	645332	3679.98	18.34	19.00	1.164			0.19	0.305	0.355
	FR1 n48	40M	BPSK	1	1	Back	5mm	Ant9	DSI3	641666	3624.99	18.39	19.00	1.151			0.13	0.770	0.886
	FR1 n48	40M	BPSK	1	1	Back	5mm	Ant9	DSI3	638000	3570	18.34	19.00	1.164			0.06	0.677	0.788
	FR1 n48	40M	BPSK	1	1	Back	5mm	Ant9	DSI3	645332	3679.98	18.35	19.00	1.161			-0.11	0.562	0.652
	FR1 n48	40M	BPSK	50	28	Back	5mm	Ant9	DSI3	641666	3624.99	18.37	19.00	1.156			0.00	0.737	0.852
	FR1 n48	40M	BPSK	50	28	Back	5mm	Ant9	DSI3	638000	3570	18.31	19.00	1.172			-0.04	0.715	0.838
	FR1 n48	40M	BPSK	50	28	Back	5mm	Ant9	DSI3	645332	3679.98	18.34	19.00	1.164			-0.08	0.474	0.552
	FR1 n48	40M	BPSK	100	0	Back	5mm	Ant9	DSI3	641666	3624.99	18.36	19.00	1.159			0.02	0.661	0.766
	FR1 n48	40M	BPSK	1	1	Front	15mm	Ant9	DSI4	641666	3624.99	20.77	21.00	1.054			0.08	0.153	0.161
	FR1 n48	40M	BPSK	1	1	Back	15mm	Ant9	DSI4	641666	3624.99	20.77	21.00	1.054			0.01	0.177	0.187
	FR1 n48	40M	BPSK	1	1	Front	5mm	Ant10	DSI3	641666	3624.99	16.13	17.00	1.222			-0.09	0.599	0.732
	FR1 n48	40M	BPSK	1	1	Front	5mm	Ant10	DSI3	638000	3570	16.11	17.00	1.227			-0.16	0.505	0.620
	FR1 n48	40M	BPSK	1	1	Front	5mm	Ant10	DSI3	645332	3679.98	16.08	17.00	1.236			-0.09	0.570	0.705
	FR1 n48	40M	BPSK	50	28	Front	5mm	Ant10	DSI3	641666	3624.99	16.12	17.00	1.225			0.01	0.591	0.724
	FR1 n48	40M	BPSK	50	28	Front	5mm	Ant10	DSI3	638000	3570	16.04	17.00	1.247			-0.00	0.528	0.658
	FR1 n48	40M	BPSK	50	28	Front	5mm	Ant10	DSI3	645332	3679.98	15.99	17.00	1.262			0.14	0.606	0.765
	FR1 n48	40M	BPSK	1	1	Back	5mm	Ant10	DSI3	641666	3624.99	16.13	17.00	1.222			-0.05	0.823	1.006
	FR1 n48	40M	BPSK	1	1	Back	5mm	Ant10	DSI3	638000	3570	16.11	17.00	1.227			-0.11	0.705	0.865
	FR1 n48	40M	BPSK	1	1	Back	5mm	Ant10	DSI3	645332	3679.98	16.08	17.00	1.236			0.06	0.722	0.892
	FR1 n48	40M	BPSK	50	28	Back	5mm	Ant10	DSI3	641666	3624.99	16.12	17.00	1.225			-0.14	0.809	0.991
	FR1 n48	40M	BPSK	50	28	Back	5mm	Ant10	DSI3	638000	3570	16.04	17.00	1.247			0.00	0.669	0.834
	FR1 n48	40M	BPSK	50	28	Back	5mm	Ant10	DSI3	645332	3679.98	15.99	17.00	1.262			0.16	0.686	0.866
	FR1 n48	40M	BPSK	100	0	Back	5mm	Ant10	DSI3	641666	3624.99	16.05	17.00	1.245			0.03	0.725	0.903
	FR1 n48	40M	BPSK	1	1	Front	15mm	Ant10	DSI4	641666	3624.99	24.41	25.00	1.146			0.01	0.586	0.672
	FR1 n48	40M	BPSK	1	1	Front	15mm	Ant10	DSI4	638000	3570	24.33	25.00	1.167			0.06	0.558	0.651
	FR1 n48	40M	BPSK	1	1	Front	15mm	Ant10	DSI4	645332	3679.98	24.38	25.00	1.153			0.09	0.635	0.732
	FR1 n48	40M	BPSK	50	28	Front	15mm	Ant10	DSI4	641666	3624.99	24.61	25.00	1.094			0.06	0.612	0.670
	FR1 n48	40M	BPSK	50	28	Front	15mm	Ant10	DSI4	638000	3570	24.44	25.00	1.138			0.08	0.569	0.648
	FR1 n48	40M	BPSK	50	28	Front	15mm	Ant10	DSI4	645332	3679.98	24.46	25.00	1.132			-0.15	0.612	0.693
	FR1 n48	40M	BPSK	1	1	Back	15mm	Ant10	DSI4	641666	3624.99	24.41	25.00	1.146			0.16	0.737	0.845
	FR1 n48	40M	BPSK	1	1	Back	15mm	Ant10	DSI4	638000	3570	24.33	25.00	1.167			0.08	0.690	0.805
	FR1 n48	40M	BPSK	1	1	Back	15mm	Ant10	DSI4	645332	3679.98	24.38	25.00	1.153			0.18	0.750	0.865
	FR1 n48	40M	BPSK	50	28	Back	15mm	Ant10	DSI4	641666	3624.99	24.61	25.00	1.094			0.03	0.775	0.848
	FR1 n48	40M	BPSK	50	28	Back	15mm	Ant10	DSI4	638000	3570	24.44	25.00	1.138			-0.02	0.700	0.797
	FR1 n48	40M	BPSK	50	28	Back	15mm	Ant10	DSI4	645332	3679.98	24.46	25.00	1.132			0.02	0.702	0.795
	FR1 n48	40M	BPSK	100	0	Back	15mm	Ant10	DSI4	641666	3624.99	23.97	24.50	1.113			-0.01	0.657	0.742
	FR1 n48	40M	BPSK	1	1	Front	5mm	Ant11	DSI3	641666	3624.99	19.79	21.00	1.321			-0.03	0.722	0.954
	FR1 n48	40M	BPSK	1	1	Front	5mm	Ant11	DSI3	638000	3570	19.72	21.00	1.343			0.05	0.661	0.888
	FR1 n48	40M	BPSK	1	1	Front	5mm	Ant11	DSI3	645332	3679.98	19.69	21.00	1.352			-0.11	0.527	0.713
	FR1 n48	40M	BPSK	50	28	Front	5mm	Ant11	DSI3	641666	3624.99	19.75	21.00	1.334			0.13	0.655	0.874
	FR1 n48	40M	BPSK	50	28	Front	5mm	Ant11	DSI3	638000	3570	19.69	21.00	1.352			0.07	0.616	0.833
	FR1 n48	40M	BPSK	50	28	Front	5mm	Ant11	DSI3	645332	3679.98	19.66	21.00	1.361			0.17	0.514	0.700
	FR1 n48	40M	BPSK	100	0	Front	5mm	Ant11	DSI3	641666	3624.99	19.73	21.00	1.34			-0.07	0.589	0.789
	FR1 n48	40M	BPSK	1	1	Back	5mm	Ant11	DSI3	641666	3624.99	19.79	21.00	1.321			0.13	0.321	0.424
	FR1 n48	40M	BPSK	50	28	Back	5mm	Ant11	DSI3	641666	3624.99	19.75	21.00	1.334			-0.08	0.297	0.396
	FR1 n48	40M	BPSK	1	1	Front	15mm	Ant11	DSI4	641666	3624.99	20.91	22.00	1.285			0.06	0.176	0.226
	FR1 n48	40M	BPSK	1	1	Back	15mm	Ant11	DSI4	641666	3624.99	20.91	22.00	1.285			0.08	0.087	0.112
	FR1 n77	100M	BPSK	1	1	Front	5mm	Ant8	DSI3	633332	3499.98	17.67	18.50	1.211			0.04	0.466	0.564
	FR1 n77	100M	BPSK	135	69	Front	5mm	Ant8	DSI3	633332	3499.98	17.65	18.50	1.216			0.16	0.400	0.486
	FR1 n77	100M	BPSK	1	1	Back	5mm	Ant8	DSI3	633332	3499.98	17.67	18.50	1.211			-0.16	0.614	0.744
	FR1 n77	100M	BPSK	135	69	Back	5mm	Ant8	DSI3	633332	3499.98	17.65	18.50	1.216			-0.04	0.553	0.672
	FR1 n77_HPUE	100M	BPSK	1	1	Back	5mm	Ant8	DSI3	633332	3499.98	20.75	22.00	1.334	50.0	1.0	0.10	0.594	0.792



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	FR1 n77	100M	BPSK	1	1	Front	5mm	Ant9	DSI3	633332	3499.98	18.98	20.00	1.265			0.07	0.544	0.688
	FR1 n77	100M	BPSK	135	69	Front	5mm	Ant9	DSI3	633332	3499.98	18.97	20.00	1.268			-0.14	0.555	0.704
	FR1 n77	100M	BPSK	1	1	Back	5mm	Ant9	DSI3	633332	3499.98	18.98	20.00	1.265			-0.13	0.800	1.012
74	FR1 n77	100M	BPSK	135	69	Back	5mm	Ant9	DSI3	633332	3499.98	18.97	20.00	1.268			-0.05	0.863	1.094
	FR1 n77	100M	BPSK	270	0	Back	5mm	Ant9	DSI3	633332	3499.98	18.92	20.00	1.282			-0.11	0.834	1.069
	FR1 n77_HPUE	100M	BPSK	135	69	Back	5mm	Ant9	DSI3	633332	3499.98	22.01	23.00	1.256	50.0	1.0	0.03	0.821	1.031
	FR1 n77	100M	BPSK	1	1	Front	15mm	Ant9	DSI4	633332	3499.98	21.68	22.50	1.208			0.06	0.210	0.254
	FR1 n77	100M	BPSK	1	1	Back	15mm	Ant9	DSI4	633332	3499.98	21.68	22.50	1.208			0.08	0.209	0.252
	FR1 n77_HPUE	100M	BPSK	1	1	Front	15mm	Ant9	DSI4	633332	3499.98	23.56	24.50	1.242	50.0	1.0	0.05	0.172	0.214
	FR1 n77	100M	BPSK	1	1	Front	5mm	Ant10	DSI3	633332	3499.98	16.48	17.50	1.265			0.14	0.506	0.640
	FR1 n77	100M	BPSK	135	69	Front	5mm	Ant10	DSI3	633332	3499.98	16.45	17.50	1.274			0.09	0.484	0.617
	FR1 n77	100M	BPSK	1	1	Back	5mm	Ant10	DSI3	633332	3499.98	16.48	17.50	1.265			0.06	0.642	0.812
	FR1 n77	100M	BPSK	135	69	Back	5mm	Ant10	DSI3	633332	3499.98	16.45	17.50	1.274			-0.18	0.600	0.764
	FR1 n77	100M	BPSK	270	0	Back	5mm	Ant10	DSI3	633332	3499.98	16.42	17.50	1.282			0.05	0.615	0.788
	FR1 n77_HPUE	100M	BPSK	1	1	Back	5mm	Ant10	DSI3	633332	3499.98	19.48	20.50	1.265	50.0	1.0	-0.05	0.635	0.803
	FR1 n77	100M	BPSK	1	1	Front	15mm	Ant10	DSI4	633332	3499.98	25.24	26.00	1.191			0.06	0.645	0.768
	FR1 n77	100M	BPSK	1	1	Back	15mm	Ant10	DSI4	633332	3499.98	25.24	26.00	1.191			0.05	0.713	0.849
	FR1 n77	100M	BPSK	135	69	Back	15mm	Ant10	DSI4	633332	3499.98	25.23	26.00	1.194			0.03	0.683	0.816
	FR1 n77	100M	BPSK	270	0	Back	15mm	Ant10	DSI4	633332	3499.98	25.17	26.00	1.211			0.05	0.568	0.688
	FR1 n77	100M	BPSK	1	1	Front	5mm	Ant11	DSI3	633332	3499.98	18.99	20.00	1.262			0.06	0.787	0.993
	FR1 n77	100M	BPSK	135	69	Front	5mm	Ant11	DSI3	633332	3499.98	18.95	20.00	1.274			0.12	0.766	0.976
	FR1 n77	100M	BPSK	270	0	Front	5mm	Ant11	DSI3	633332	3499.98	18.89	20.00	1.291			-0.02	0.767	0.990
	FR1 n77_HPUE	100M	BPSK	1	1	Front	5mm	Ant11	DSI3	633332	3499.98	21.98	23.00	1.265	50.0	1.0	0.13	0.718	0.908
	FR1 n77	100M	BPSK	1	1	Back	5mm	Ant11	DSI3	633332	3499.98	18.99	20.00	1.262			-0.11	0.403	0.509
	FR1 n77	100M	BPSK	135	69	Back	5mm	Ant11	DSI3	633332	3499.98	18.95	20.00	1.274			-0.07	0.447	0.569
	FR1 n77	100M	BPSK	1	1	Front	15mm	Ant11	DSI4	633332	3499.98	22.32	23.00	1.169			0.05	0.309	0.361
	FR1 n77	100M	BPSK	1	1	Back	15mm	Ant11	DSI4	633332	3499.98	22.32	23.00	1.169			0.08	0.113	0.132
	FR1 n77_HPUE	100M	BPSK	1	1	Front	15mm	Ant11	DSI4	633332	3499.98	24.25	25.00	1.189	50.0	1.0	0.08	0.234	0.278
	FR1 n77	100M	BPSK	1	1	Front	5mm	Ant8	DSI3	656000	3840	17.62	18.50	1.225			-0.05	0.323	0.396
	FR1 n77	100M	BPSK	135	69	Front	5mm	Ant8	DSI3	656000	3840	17.58	18.50	1.236			-0.13	0.326	0.403
	FR1 n77	100M	BPSK	1	1	Back	5mm	Ant8	DSI3	656000	3840	17.62	18.50	1.225			-0.04	0.434	0.532
	FR1 n77	100M	BPSK	135	69	Back	5mm	Ant8	DSI3	656000	3840	17.58	18.50	1.236			-0.06	0.401	0.496
	FR1 n77_HPUE	100M	BPSK	1	1	Back	5mm	Ant8	DSI3	656000	3840	20.69	22.00	1.352	50.0	1.0	-0.08	0.427	0.577
	FR1 n77	100M	BPSK	1	1	Front	5mm	Ant9	DSI3	656000	3840	18.96	20.00	1.271			0.09	0.328	0.417
	FR1 n77	100M	BPSK	135	69	Front	5mm	Ant9	DSI3	656000	3840	18.95	20.00	1.274			0.18	0.325	0.414
	FR1 n77	100M	BPSK	1	1	Back	5mm	Ant9	DSI3	656000	3840	18.96	20.00	1.271			-0.06	0.391	0.497
	FR1 n77	100M	BPSK	135	69	Back	5mm	Ant9	DSI3	656000	3840	18.95	20.00	1.274			-0.08	0.346	0.441
	FR1 n77_HPUE	100M	BPSK	1	1	Back	5mm	Ant9	DSI3	656000	3840	21.98	23.00	1.265	50.0	1.0	0.17	0.360	0.455
	FR1 n77	100M	BPSK	1	1	Front	15mm	Ant9	DSI4	656000	3840	21.63	22.50	1.222			0.06	0.108	0.132
	FR1 n77	100M	BPSK	1	1	Back	15mm	Ant9	DSI4	656000	3840	21.63	22.50	1.222			-0.15	0.142	0.174
	FR1 n77_HPUE	100M	BPSK	1	1	Back	15mm	Ant9	DSI4	656000	3840	23.59	24.50	1.233	50.0	1.0	0.03	0.112	0.138
	FR1 n77	100M	BPSK	1	1	Front	5mm	Ant10	DSI3	656000	3840	16.36	17.50	1.3			-0.05	0.412	0.536
	FR1 n77	100M	BPSK	135	69	Front	5mm	Ant10	DSI3	656000	3840	16.34	17.50	1.306			0.00	0.361	0.471
	FR1 n77	100M	BPSK	1	1	Back	5mm	Ant10	DSI3	656000	3840	16.36	17.50	1.3			-0.03	0.500	0.650
	FR1 n77	100M	BPSK	135	69	Back	5mm	Ant10	DSI3	656000	3840	16.34	17.50	1.306			-0.12	0.449	0.586
	FR1 n77_HPUE	100M	BPSK	1	1	Back	5mm	Ant10	DSI3	656000	3840	19.35	20.50	1.303	50.0	1.0	0.02	0.501	0.653
	FR1 n77	100M	BPSK	1	1	Front	15mm	Ant10	DSI4	656000	3840	25.09	26.00	1.233			0.06	0.686	0.846
	FR1 n77	100M	BPSK	135	69	Front	15mm	Ant10	DSI4	656000	3840	25.08	26.00	1.236			0.08	0.603	0.745
	FR1 n77	100M	BPSK	270	0	Front	15mm	Ant10	DSI4	656000	3840	25.05	26.00	1.245			-0.13	0.569	0.708
	FR1 n77	100M	BPSK	1	1	Back	15mm	Ant10	DSI4	656000	3840	25.09	26.00	1.233			0.08	0.815	1.005
	FR1 n77	100M	BPSK	135	69	Back	15mm	Ant10	DSI4	656000	3840	25.08	26.00	1.236			0.02	0.694	0.858
	FR1 n77	100M	BPSK	270	0	Back	15mm	Ant10	DSI4	656000	3840	25.05	26.00	1.245			-0.18	0.614	0.764
	FR1 n77_HPUE	100M	BPSK	1	1	Back	15mm	Ant10	DSI4	656000	3840	27.06	28.00	1.242	50.0	1.0	0.09	0.684	0.850
	FR1 n77	100M	BPSK	1	1	Front	5mm	Ant11	DSI3	656000	3840	18.57	20.00	1.39			0.03	0.566	0.787
	FR1 n77	100M	BPSK	135	69	Front	5mm	Ant11	DSI3	656000	3840	18.52	20.00	1.406			0.03	0.541	0.761
	FR1 n77_HPUE	100M	BPSK	1	1	Front	5mm	Ant11	DSI3	656000	3840	21.60	23.00	1.38	50.0	1.0	-0.04	0.521	0.719
	FR1 n77	100M	BPSK	1	1	Back	5mm	Ant11	DSI3	656000	3840	18.57	20.00	1.39			0.10	0.458	0.637
	FR1 n77	100M	BPSK	135	69	Back	5mm	Ant11	DSI3	656000	3840	18.52	20.00	1.406			-0.07	0.482	0.678
	FR1 n77	100M	BPSK	1	1	Front	15mm	Ant11	DSI4	656000	3840	21.32	23.00	1.472			0.03	0.195	0.287
	FR1 n77	100M	BPSK	1	1	Back	15mm	Ant11	DSI4	656000	3840	21.32	23.00	1.472			0.15	0.152	0.224
	FR1 n77_HPUE	100M	BPSK	1	1	Front	15mm	Ant11	DSI4	656000	3840	23.05	24.50	1.396	50.0	1.0	0.08	0.137	0.191



【WLAN 2.4GHz_5GHz SAR】

Plot No	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	Ant7	Body-worn Standalone	1	2412	18.32	19.00	1.169	97.1	1.03	0.06	0.627	0.755
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant7	Body-worn Standalone	1	2412	18.32	19.00	1.169	97.1	1.03	0.05	0.736	0.886
75	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant7	Body-worn Standalone	6	2437	18.24	19.00	1.191	97.1	1.03	-0.07	0.743	0.911
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant7	Body-worn Standalone	11	2462	18.27	19.00	1.183	97.1	1.03	-0.18	0.713	0.869
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	Ant12	Body-worn Standalone	1	2412	17.82	18.50	1.169	98.53	1.015	0.15	0.403	0.478
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant12	Body-worn Standalone	1	2412	17.82	18.50	1.169	98.53	1.015	-0.17	0.655	0.777
	WLAN2.4GHz	802.11n-HT40 MCS0	Front	5mm	Ant 7+12	Body-worn Standalone	6	2437	21.20	22.00	1.202	99.82	1.002	0.01	0.519	0.625
	WLAN2.4GHz	802.11n-HT40 MCS0	Back	5mm	Ant 7+12	Body-worn Standalone	6	2437	21.20	22.00	1.202	99.82	1.002	-0.19	0.733	0.883
	WLAN2.4GHz	802.11n-HT40 MCS0	Back	5mm	Ant 7+12	Body-worn Standalone	3	2422	21.10	22.00	1.23	99.82	1.002	-0.07	0.712	0.878
	WLAN2.4GHz	802.11n-HT40 MCS0	Back	5mm	Ant 7+12	Body-worn Standalone	9	2452	21.11	22.00	1.227	99.82	1.002	-0.01	0.667	0.820
	WLAN5GHz	802.11n-HT40 MCS0	Front	5mm	Ant 8+10(8)	Body-worn Standalone	62	5310	18.21	19.00	1.199	100.0	1.0	-0.07	0.804	0.964
76	WLAN5GHz	802.11n-HT40 MCS0	Back	5mm	Ant 8+10(8)	Body-worn Standalone	62	5310	18.21	19.00	1.199	100.0	1.0	0.05	0.882	1.058
	WLAN5GHz	802.11n-HT40 MCS0	Back	5mm	Ant 8+10(8)	Body-worn Standalone	54	5270	18.18	19.00	1.208	100.0	1.0	0.09	0.837	1.011
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 8+10(8)	Body-worn Standalone	138	5690	18.25	19.00	1.189	100.0	1.0	0.15	0.394	0.468
77	WLAN5GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 8+10(8)	Body-worn Standalone	138	5690	18.25	19.00	1.189	100.0	1.0	-0.08	0.436	0.518
	WLAN5GHz	802.11ax-HE80 MCS0	Front	5mm	Ant 8+10(10)	Body-worn Standalone	155	5775	18.70	19.50	1.202	100.0	1.0	-0.10	0.677	0.814
78	WLAN5GHz	802.11ax-HE80 MCS0	Back	5mm	Ant 8+10(10)	Body-worn Standalone	155	5775	18.70	19.50	1.202	100.0	1.0	-0.03	0.872	1.048

【Bluetooth SAR】

Plot No	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	Bluetooth	1Mbps	Front	5mm	Ant7	Body-worn Standalone	39	2441	18.47	19.50	1.268	77.32	1.077	0.05	0.545	0.744
79	Bluetooth	1Mbps	Back	5mm	Ant7	Body-worn Standalone	39	2441	18.47	19.50	1.268	77.32	1.077	0.02	0.705	0.963
	Bluetooth	1Mbps	Back	5mm	Ant7	Body-worn Standalone	0	2402	18.37	19.50	1.297	77.32	1.077	0.11	0.275	0.384
	Bluetooth	1Mbps	Back	5mm	Ant7	Body-worn Standalone	78	2480	17.96	19.50	1.426	77.32	1.077	-0.18	0.538	0.826
	Bluetooth	1Mbps	Front	5mm	Ant12	Body-worn Standalone	39	2441	18.51	20.00	1.409	77.06	1.081	-0.12	0.291	0.443
	Bluetooth	1Mbps	Back	5mm	Ant12	Body-worn Standalone	39	2441	18.51	20.00	1.409	77.06	1.081	-0.03	0.467	0.711



16.4 Product specific 10g SAR

【WLAN 5GHz SAR】

Plot No	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
	WLAN5GHz	802.11n-HT40 MCS0	Front	0mm	Ant 8+10(8)	Extremity Standalone	62	5310	18.21	19.00	1.199	100.0	1.0	-0.13	1.060	1.271
	WLAN5GHz	802.11n-HT40 MCS0	Back	0mm	Ant 8+10(8)	Extremity Standalone	62	5310	18.21	19.00	1.199	100.0	1.0	-0.00	0.288	0.345
	WLAN5GHz	802.11n-HT40 MCS0	Left Edge	0mm	Ant 8+10(8)	Extremity Standalone	62	5310	18.21	19.00	1.199	100.0	1.0	-0.01	0.862	1.034
	WLAN5GHz	802.11n-HT40 MCS0	Right Edge	0mm	Ant 8+10(8)	Extremity Standalone	62	5310	18.21	19.00	1.199	100.0	1.0	-0.12	0.090	0.108
80	WLAN5GHz	802.11n-HT40 MCS0	Top Edge	0mm	Ant 8+10(8)	Extremity Standalone	62	5310	18.21	19.00	1.199	100.0	1.0	0.08	2.000	2.398
	WLAN5GHz	802.11n-HT40 MCS0	Top Edge	0mm	Ant 8+10(8)	Extremity Standalone	54	5270	18.18	19.00	1.208	100.0	1.0	-0.04	1.930	2.331
	WLAN5GHz	802.11n-HT40 MCS0	Bottom Edge	0mm	Ant 8+10(8)	Extremity Standalone	62	5310	18.21	19.00	1.199	100.0	1.0	-0.05	0.039	0.047
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 8+10(8)	Extremity Standalone	138	5690	18.25	19.00	1.189	100.0	1.0	-0.10	0.778	0.925
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 8+10(8)	Extremity Standalone	138	5690	18.25	19.00	1.189	100.0	1.0	-0.15	0.276	0.328
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Edge	0mm	Ant 8+10(8)	Extremity Standalone	138	5690	18.25	19.00	1.189	100.0	1.0	-0.15	0.076	0.090
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Edge	0mm	Ant 8+10(8)	Extremity Standalone	138	5690	18.25	19.00	1.189	100.0	1.0	-0.15	1.150	1.367
81	WLAN5GHz	802.11ac-VHT80 MCS0	Top Edge	0mm	Ant 8+10(8)	Extremity Standalone	138	5690	18.25	19.00	1.189	100.0	1.0	0.04	1.810	2.152
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Edge	0mm	Ant 8+10(8)	Extremity Standalone	122	5610	18.39	19.00	1.151	100.0	1.0	0.02	1.720	1.980
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Edge	0mm	Ant 8+10(8)	Extremity Standalone	138	5690	18.25	19.00	1.189	100.0	1.0	0.06	0.046	0.055



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	FR1 n26	20M_BPSK_50_28	Back	5.0	Ant0	DSI3	166300	831.5	24.11	24.70	1.146			0.02	0.847	0.971	-
2nd	FR1 n26	20M_BPSK_50_28	Back	5.0	Ant0	DSI3	166300	831.5	24.11	24.70	1.146			-0.15	0.815	0.934	1.04
1st	LTE Band 66	20M_QPSK_1_0	Back	5.0	Ant7	DSI3	132572	1770	18.20	19.50	1.349			-0.04	0.810	1.093	-
2nd	LTE Band 66	20M_QPSK_1_0	Back	5.0	Ant7	DSI3	132572	1770	18.20	19.50	1.349			0.09	0.764	1.031	1.06
1st	GSM1900	GPRS 4 Tx slots	Back	5.0	Ant6	DSI3	661	1880	23.20	24.00	1.202			-0.09	0.867	1.042	-
2nd	GSM1900	GPRS 4 Tx slots	Back	5.0	Ant6	DSI3	661	1880	23.20	24.00	1.202			0.15	0.837	1.006	1.04
1st	WLAN2.4GHz	802.11n-HT40 MCS0	Left Cheek	0.0	Ant 7+12	Head Standalone	6	2437	21.20	22.00	1.202	99.82	1.002	0.00	0.908	1.094	-
2nd	WLAN2.4GHz	802.11n-HT40 MCS0	Left Cheek	0.0	Ant 7+12	Head Standalone	6	2437	21.20	22.00	1.202	99.82	1.002	-0.07	0.876	1.055	1.04
1st	FR1 n41	100M_BPSK_135_69	Back	15.0	Ant4	DSI4	518598	2592.99	25.54	25.70	1.038			0.06	0.973	1.010	-
2nd	FR1 n41	100M_BPSK_135_69	Back	15.0	Ant4	DSI4	518598	2592.99	25.54	25.70	1.038			0.11	0.954	0.990	1.02
1st	FR1 n48	40M_BPSK_1_1	Left Cheek	0.0	Ant8	DSI1	638000	3570	16.59	17.50	1.233			-0.01	0.870	1.073	-
2nd	FR1 n48	40M_BPSK_1_1	Left Cheek	0.0	Ant8	DSI1	638000	3570	16.59	17.50	1.233			0.16	0.853	1.052	1.02
1st	FR1 n48	40M_BPSK_50_28	Back	5.0	Ant8	DSI3	641666	3624.99	18.65	19.50	1.216			-0.05	0.881	1.071	-
2nd	FR1 n48	40M_BPSK_50_28	Back	5.0	Ant8	DSI3	641666	3624.99	18.65	19.50	1.216			0.19	0.867	1.054	1.02
1st	FR1 n77	100M_BPSK_1_1	Back	15.0	Ant10	DSI4	656000	3840	25.09	26.00	1.233			0.08	0.815	1.005	-
2nd	FR1 n77	100M_BPSK_1_1	Back	15.0	Ant10	DSI4	656000	3840	25.09	26.00	1.233			0.16	0.801	0.988	1.02
1st	WLAN5GHz	802.11n-HT40 MCS0	Back	5.0	Ant 8+10(8)	Body-worn Standalone	62	5310	18.21	19.00	1.199			0.05	0.882	1.058	-
2nd	WLAN5GHz	802.11n-HT40 MCS0	Back	5.0	Ant 8+10(8)	Body-worn Standalone	62	5310	18.21	19.00	1.199			-0.15	0.857	1.028	1.03
1st	WLAN5GHz	802.11ax-HE80 MCS0	Back	5.0	Ant 8+10(10)	Body-worn Standalone	155	5775	18.70	19.50	1.202			-0.03	0.872	1.048	-
2nd	WLAN5GHz	802.11ax-HE80 MCS0	Back	5.0	Ant 8+10(10)	Body-worn Standalone	155	5775	18.70	19.50	1.202			0.11	0.827	0.994	1.05

【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	WLAN5GHz	802.11n-HT40 MCS0	Top Edge	0mm	Ant 8+10(8)	Extremity Standalone	62	5310	18.21	19	1.199	0.08	2	2.398	-
2nd	WLAN5GHz	802.11n-HT40 MCS0	Top Edge	0mm	Ant 8+10(8)	Extremity Standalone	62	5310	18.21	19	1.199	0.08	1.87	2.242	1.07

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.

16.6 TDD 5G NR Linearity Data Analysis

General Note:

This device support Power Class 2 and Power Class 3 operations for 5G NR n41/n77/n78. The highest available duty cycle for Power Class 2 operation is 50% using UL-DL configuration 1. Per FCC Guidance based on the device behavior, all SAR tests were performed using Power Class 3. Power Class 2 is tested using the highest SAR test configuration in Power Class 3 for each 5G NR configuration and exposure condition combination, according to the highest time averaged power for all applicable uplink-downlink configurations in Power Class 2. When the reported SAR vs. output power is linearly scaled with < 10% discrepancy between power classes and all reported SAR are <1.4 W/kg for 1g and < 3.5 W/kg for 10g, Separate SAR testing for Power Class 2 is not required.

NR n77 Part27Q (HPUE)-Linearity Data for Head Ant8			NR n77 Part27O (HPUE)-Linearity Data for Head Ant8		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)		NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	17.00	20.50	Maximum Tune up Power (dBm)	17.00	20.50
Reported 1g SAR (W/kg)	0.888	0.903	Reported 1g SAR (W/kg)	0.921	0.990
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	50.12	56.10	Frame Averaged (mW)	50.12	56.10
Linearity SAR (W/kg)	0.994		Linearity SAR (W/kg)	1.031	
% deviation from expected linearity		-9.15%	% deviation from expected linearity		-3.97%
NR n77 Part27Q (HPUE)-Linearity Data for Body-worn Ant8			NR n77 Part27O (HPUE)-Linearity Data for Body-worn Ant8		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)		NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	18.50	22.00	Maximum Tune up Power (dBm)	18.50	22.00
Reported 1g SAR (W/kg)	0.744	0.792	Reported 1g SAR (W/kg)	0.532	0.577
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	70.79	79.24	Frame Averaged (mW)	70.79	79.24
Linearity SAR (W/kg)	0.833		Linearity SAR (W/kg)	0.595	
% deviation from expected linearity		-4.90%	% deviation from expected linearity		-3.11%
NR n77 Part27Q (HPUE)-Linearity Data for Hotspot Ant8			NR n77 Part27O (HPUE)-Linearity Data for Hotspot Ant8		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)		NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	17.00	20.50	Maximum Tune up Power (dBm)	17.00	20.50
Reported 1g SAR (W/kg)	0.334	0.358	Reported 1g SAR (W/kg)	0.393	0.415
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	50.12	56.10	Frame Averaged (mW)	50.12	56.10
Linearity SAR (W/kg)	0.374		Linearity SAR (W/kg)	0.440	
% deviation from expected linearity		-4.24%	% deviation from expected linearity		-5.66%
NR n41(HPUE)-Linearity Data for Head Ant4			NR n41(HPUE)-Linearity Data for Head Ant5		
	NR n41 (Power Class 3)	NR n41 (Power Class 2)		NR n41 (Power Class 3)	NR n41 (Power Class 2)
Maximum Tune up Power (dBm)	16.70	20.00	Maximum Tune up Power (dBm)	16.00	19.00
Reported 1g SAR (W/kg)	0.947	1.014	Reported 1g SAR (W/kg)	0.740	0.779
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	46.77	50.00	Frame Averaged (mW)	39.81	39.72
Linearity SAR (W/kg)	1.012		Linearity SAR (W/kg)	0.738	
% deviation from expected linearity		0.17%	% deviation from expected linearity		5.52%
NR n41(HPUE)-Linearity Data for Body worn Ant4			NR n41(HPUE)-Linearity Data for Body worn Ant5		
	NR n41 (Power Class 3)	NR n41 (Power Class 2)		NR n41 (Power Class 3)	NR n41 (Power Class 2)
Maximum Tune up Power (dBm)	17.70	21.00	Maximum Tune up Power (dBm)	18.00	21.00
Reported 1g SAR (W/kg)	0.973	1.013	Reported 1g SAR (W/kg)	0.920	0.947
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	58.88	62.95	Frame Averaged (mW)	63.10	62.95
Linearity SAR (W/kg)	1.040		Linearity SAR (W/kg)	0.918	
% deviation from expected linearity		-2.61%	% deviation from expected linearity		3.18%
NR n41(HPUE)-Linearity Data for Hotspot Ant4			NR n41(HPUE)-Linearity Data for Hotspot Ant5		
	NR n41 (Power Class 3)	NR n41 (Power Class 2)		NR n41 (Power Class 3)	NR n41 (Power Class 2)
Maximum Tune up Power (dBm)	16.70	20.00	Maximum Tune up Power (dBm)	16.00	19.00
Reported 1g SAR (W/kg)	0.438	0.430	Reported 1g SAR (W/kg)	0.319	0.332
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%



Frame Averaged (mW)	46.77	50.00	Frame Averaged (mW)	39.81	39.72
Linearity SAR (W/kg)	0.468		Linearity SAR (W/kg)	0.318	
% deviation from expected linearity		-8.16%	% deviation from expected linearity		4.32%

NR n77 Part27Q (HPUE)-Linearity Data for Head Ant9			NR n77 Part27O (HPUE)-Linearity Data for Head Ant9		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)		NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	18.50	21.50	Maximum Tune up Power (dBm)	18.50	21.50
Reported 1g SAR (W/kg)	0.992	0.923	Reported 1g SAR (W/kg)	0.708	0.666
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	70.79	70.63	Frame Averaged (mW)	70.79	70.63
Linearity SAR (W/kg)	0.990		Linearity SAR (W/kg)	0.706	
% deviation from expected linearity		-6.73%	% deviation from expected linearity		-5.71%
NR n77 Part27Q (HPUE)-Linearity Data for Body-worn Ant9			NR n77 Part27O (HPUE)-Linearity Data for Body-worn Ant9		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)		NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	20.00	23.00	Maximum Tune up Power (dBm)	20.00	23.00
Reported 1g SAR (W/kg)	1.094	1.031	Reported 1g SAR (W/kg)	0.497	0.455
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	100.00	99.76	Frame Averaged (mW)	100.00	99.76
Linearity SAR (W/kg)	1.091		Linearity SAR (W/kg)	0.496	
% deviation from expected linearity		-5.53%	% deviation from expected linearity		-8.23%
NR n77 Part27Q (HPUE)-Linearity Data for Hotspot Ant9			NR n77 Part27O (HPUE)-Linearity Data for Hotspot Ant9		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)		NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	18.50	21.50	Maximum Tune up Power (dBm)	18.50	21.50
Reported 1g SAR (W/kg)	0.445	0.418	Reported 1g SAR (W/kg)	0.239	0.234
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	70.79	70.63	Frame Averaged (mW)	70.79	70.63
Linearity SAR (W/kg)	0.444		Linearity SAR (W/kg)	0.238	
% deviation from expected linearity		-5.84%	% deviation from expected linearity		-1.86%
NR n41(HPUE)-Linearity Data for Head Ant6			NR n41(HPUE)-Linearity Data for Head Ant7		
	NR n41 (Power Class 3)	NR n41 (Power Class 2)		NR n41 (Power Class 3)	NR n41 (Power Class 2)
Maximum Tune up Power (dBm)	25.50	27.50	Maximum Tune up Power (dBm)	17.50	20.50
Reported 1g SAR (W/kg)	0.329	0.282	Reported 1g SAR (W/kg)	0.705	0.725
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	354.81	281.17	Frame Averaged (mW)	56.23	56.10
Linearity SAR (W/kg)	0.261		Linearity SAR (W/kg)	0.703	
% deviation from expected linearity		8.16%	% deviation from expected linearity		3.08%
NR n41(HPUE)-Linearity Data for Body worn Ant6			NR n41(HPUE)-Linearity Data for Body worn Ant7		
	NR n41 (Power Class 3)	NR n41 (Power Class 2)		NR n41 (Power Class 3)	NR n41 (Power Class 2)
Maximum Tune up Power (dBm)	19.00	22.00	Maximum Tune up Power (dBm)	18.50	21.50
Reported 1g SAR (W/kg)	0.877	0.836	Reported 1g SAR (W/kg)	0.779	0.783
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	79.43	79.24	Frame Averaged (mW)	70.79	70.63
Linearity SAR (W/kg)	0.875		Linearity SAR (W/kg)	0.777	
% deviation from expected linearity		-4.45%	% deviation from expected linearity		0.75%
NR n41(HPUE)-Linearity Data for Hotspot Ant6			NR n41(HPUE)-Linearity Data for Hotspot Ant7		
	NR n41 (Power Class 3)	NR n41 (Power Class 2)		NR n41 (Power Class 3)	NR n41 (Power Class 2)
Maximum Tune up Power (dBm)	19.00	22.00	Maximum Tune up Power (dBm)	17.50	20.50
Reported 1g SAR (W/kg)	0.385	0.387	Reported 1g SAR (W/kg)	0.315	0.286
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	79.43	79.24	Frame Averaged (mW)	56.23	56.10
Linearity SAR (W/kg)	0.384		Linearity SAR (W/kg)	0.314	
% deviation from expected linearity		0.76%	% deviation from expected linearity		-8.99%



NR n77 Part27Q (HPUE)-Linearity Data for Head Ant10			NR n77 Part27O (HPUE)-Linearity Data for Head Ant10		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)		NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	13.50	16.50	Maximum Tune up Power (dBm)	13.50	16.50
Reported 1g SAR (W/kg)	0.992	0.985	Reported 1g SAR (W/kg)	0.968	0.923
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	22.39	22.33	Frame Averaged (mW)	22.39	22.33
Linearity SAR (W/kg)	0.990		Linearity SAR (W/kg)	0.966	
% deviation from expected linearity		-0.47%	% deviation from expected linearity		-4.42%
NR n77 Part27Q (HPUE)-Linearity Data for Body-worn Ant10			NR n77 Part27O (HPUE)-Linearity Data for Body-worn Ant10		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)		NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	17.50	20.50	Maximum Tune up Power (dBm)	17.50	20.50
Reported 1g SAR (W/kg)	0.812	0.803	Reported 1g SAR (W/kg)	0.650	0.653
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	56.23	56.10	Frame Averaged (mW)	56.23	56.10
Linearity SAR (W/kg)	0.810		Linearity SAR (W/kg)	0.648	
% deviation from expected linearity		-0.87%	% deviation from expected linearity		0.70%
NR n77 Part27Q (HPUE)-Linearity Data for Hotspot Ant10			NR n77 Part27O (HPUE)-Linearity Data for Hotspot Ant10		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)		NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	13.50	16.50	Maximum Tune up Power (dBm)	13.50	16.50
Reported 1g SAR (W/kg)	0.184	0.199	Reported 1g SAR (W/kg)	0.181	0.190
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	22.39	22.33	Frame Averaged (mW)	22.39	22.33
Linearity SAR (W/kg)	0.184		Linearity SAR (W/kg)	0.181	
% deviation from expected linearity		8.41%	% deviation from expected linearity		5.22%
NR n77 Part27Q (HPUE)-Linearity Data for Head Ant11			NR n77 Part27O (HPUE)-Linearity Data for Head Ant11		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)		NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	15.00	18.00	Maximum Tune up Power (dBm)	15.00	18.00
Reported 1g SAR (W/kg)	0.886	0.885	Reported 1g SAR (W/kg)	0.701	0.688
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	31.62	31.55	Frame Averaged (mW)	31.62	31.55
Linearity SAR (W/kg)	0.884		Linearity SAR (W/kg)	0.699	
% deviation from expected linearity		0.12%	% deviation from expected linearity		-1.62%
NR n77 Part27Q (HPUE)-Linearity Data for Body-worn Ant11			NR n77 Part27O (HPUE)-Linearity Data for Body-worn Ant11		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)		NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	20.00	23.00	Maximum Tune up Power (dBm)	20.00	23.00
Reported 1g SAR (W/kg)	0.993	0.908	Reported 1g SAR (W/kg)	0.787	0.719
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	100.00	99.76	Frame Averaged (mW)	100.00	99.76
Linearity SAR (W/kg)	0.991		Linearity SAR (W/kg)	0.785	
% deviation from expected linearity		-8.34%	% deviation from expected linearity		-8.42%
NR n77 Part27Q (HPUE)-Linearity Data for Hotspot Ant11			NR n77 Part27O (HPUE)-Linearity Data for Hotspot Ant11		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)		NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	15.00	18.00	Maximum Tune up Power (dBm)	15.00	18.00
Reported 1g SAR (W/kg)	0.164	0.164	Reported 1g SAR (W/kg)	0.126	0.125
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	31.62	31.55	Frame Averaged (mW)	31.62	31.55
Linearity SAR (W/kg)	0.164		Linearity SAR (W/kg)	0.126	
% deviation from expected linearity		0.24%	% deviation from expected linearity		-0.56%



NR n77 Part27Q (HPUE)-Linearity Data for Body-worn Ant9			NR n77 Part27O (HPUE)-Linearity Data for Body-worn Ant9		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)		NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	22.50	24.50	Maximum Tune up Power (dBm)	22.50	24.50
Reported 1g SAR (W/kg)	0.254	0.214	Reported 1g SAR (W/kg)	0.174	0.138
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	177.83	140.92	Frame Averaged (mW)	177.83	140.92
Linearity SAR (W/kg)	0.201		Linearity SAR (W/kg)	0.138	
% deviation from expected linearity		6.32%	% deviation from expected linearity		0.08%
NR n41(HPUE)-Linearity Data for Body worn Ant4			NR n41(HPUE)-Linearity Data for Body worn Ant5		
	NR n41 (Power Class 3)	NR n41 (Power Class 2)		NR n41 (Power Class 3)	NR n41 (Power Class 2)
Maximum Tune up Power (dBm)	25.70	28.00	Maximum Tune up Power (dBm)	25.00	27.00
Reported 1g SAR (W/kg)	1.010	0.938	Reported 1g SAR (W/kg)	0.516	0.438
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	371.54	315.48	Frame Averaged (mW)	316.23	250.59
Linearity SAR (W/kg)	0.858		Linearity SAR (W/kg)	0.409	
% deviation from expected linearity		9.37%	% deviation from expected linearity		7.12%

NR n77 Part27Q (HPUE)-Linearity Data for Body-worn Ant10			NR n77 Part27O (HPUE)-Linearity Data for Body-worn Ant10		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)		NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	26.00	28.00	Maximum Tune up Power (dBm)	26.00	28.00
Reported 1g SAR (W/kg)	0.849	0.673	Reported 1g SAR (W/kg)	1.005	0.850
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	398.11	315.48	Frame Averaged (mW)	398.11	315.48
Linearity SAR (W/kg)	0.673		Linearity SAR (W/kg)	0.796	
% deviation from expected linearity		0.03%	% deviation from expected linearity		6.73%

NR n77 Part27Q (HPUE)-Linearity Data for Body-worn Ant11			NR n77 Part27O (HPUE)-Linearity Data for Body-worn Ant11		
	NR n77 (Power Class 3)	NR n77 (Power Class 2)		NR n77 (Power Class 3)	NR n77 (Power Class 2)
Maximum Tune up Power (dBm)	23.00	25.00	Maximum Tune up Power (dBm)	23.00	24.50
Reported 1g SAR (W/kg)	0.361	0.278	Reported 1g SAR (W/kg)	0.287	0.191
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	199.53	158.11	Frame Averaged (mW)	199.53	140.92
Linearity SAR (W/kg)	0.286		Linearity SAR (W/kg)	0.203	
% deviation from expected linearity		-2.82%	% deviation from expected linearity		-5.77%

17. Simultaneous Transmission Analysis

No.	Simultaneous Transmission Configurations	Portable Handset			
		Head	Body-worn	Hotspot	Product specific 10g SAR
1.	WWAN + WLAN 2.4GHz	Yes	Yes	Yes	Yes
2.	WWAN + WLAN 5GHz	Yes	Yes	Yes	Yes
3.	WWAN + Bluetooth	Yes	Yes	Yes	Yes
4.	5GHz WLAN + Bluetooth	Yes	Yes	Yes	Yes
5.	5GHz WLAN + 2.4GHz WLAN	Yes	Yes	Yes	Yes
6.	WWAN +5GHz WLAN + Bluetooth	Yes	Yes	Yes	Yes
7.	WWAN +5GHz WLAN + 2.4GHz WLAN	Yes	Yes	Yes	Yes
8.	WWAN + WLAN 2.4GHz+ NFC				Yes
9.	WWAN + WLAN 5GHz+ NFC				Yes
10.	WWAN + Bluetooth+ NFC				Yes
11.	5GHz WLAN + Bluetooth+ NFC				Yes
12.	5GHz WLAN + 2.4GHz WLAN+ NFC				Yes
13.	WWAN +5GHz WLAN + Bluetooth+ NFC				Yes
14.	WWAN +5GHz WLAN + 2.4GHz WLAN+ NFC				Yes

General Note:

- This device supports VoIP in GPRS, EGPRS, WCDMA and LTE (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.
- WWAN above includes 5G NR bands and EN-DC combination.
- WLAN2.4GHz/WLAN5GHz MIMO SAR can represent SISO SAR to do co-located SAR analysis.
- 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, Qualcomm Smart Transmit algorithm in WWAN adds directly the time-averaged RF exposure from 4G(LTE) and time-averaged RF exposure from 5G NR. Smart Transmit 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 operations within an antenna group is demonstrated in the Part 2 Report during algorithm validation.
- 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).
- According to the EUT characteristic, WLAN 5GHz and Bluetooth can transmit simultaneously.
- According to the EUT characteristic, WLAN 5GHz and WLAN 2.4GHz can transmit simultaneously.
- According to the EUT characteristic, when WLAN 2.4GHz and Bluetooth share the same antenna and cannot transmit simultaneously.
- Bluetooth BR/EDR supports Beamforming mode, so Bluetooth BR/EDR standalone SAR summed together as Bluetooth BR/EDR Beamforming SAR.
- NFC can transmit simultaneously with other Radios in extremity exposure condition.
- For distance SAR and non-distance SAR always chose higher SAR to do co-located analysis.
- The worst case 5 GHz WLAN SAR for each configuration was used for SAR summation.
- When stand-alone SAR is not required for a transmitter or antenna, its SAR is considered zero in the SAR summing process to assess Multi-band transmission SAR compliance.
- For standalone WWAN, always choose the highest SAR among all WWAN bands within the selected antenna for each exposure position to perform simultaneous transmission analysis with WLAN/BT. This is the worst co-located analysis and can represent each band.
- The equipment under test (EUT) contains the Qualcomm modems supporting 2G/3G/4G/5G technologies and WLAN/BT technologies. these modems are always enabled with Qualcomm Smart Transmit feature to control and manage transmitting power in real time and to ensure the time-averaged RF exposure follows the FCC requirement. Smart Transmit algorithm controls the total RF exposure from all WWAN/WLAN/BT to not exceed FCC limit and each antenna group has controlled the total RF exposure from all transmitter to not exceed FCC limit. Therefore, in Part.1 report, it is evaluated whether the sum of the groups of each antenna does not exceed FCC limit or spatial separation is applied. In addition, each antenna needs to satisfy simultaneous transmission analysis with External radios (NFC) in this report at extremity exposure condition.
- The maximum SAR summation is calculated based on the same configuration and test position.
- Per KDB 447498 D01v06, simultaneous transmission SAR is compliant if,

- i) 1g Scalar SAR summation < 1.6W/kg and 10g Scalar SAR summation < 4.0W/kg.
 - ii) SPLSR = (SAR1 + SAR2)^1.5 / (min. separation distance, mm), and the peak separation distance is determined from the square root of [(x1-x2)2 + (y1-y2)2 + (z1-z2)2], where (x1, y1, z1) and (x2, y2, z2) are the coordinates of the extrapolated peak SAR locations in the zoom scan.
 - iii) If SPLSR ≤ 0.04 for 1g SAR and SPLSR ≤ 0.10 for 10g SAR, simultaneously transmission SAR measurement is not necessary.
 - iv) Simultaneously transmission SAR measurement, and the reported multi-band 1g SAR < 1.6W/kg and 10g SAR 4.0W/kg.
 - v) The SPLSR calculated results please refer to section 17.8.
20. Since the WPT will only operate on body condition, therefore, WPT transmit with WWAN/WLAN/BT only consider at hotspot / body-worn/extremity conditions, the further Sim-Tx analysis include in section 17.7.

17.1 MIMO SAR Test condition and verification

General Note:

1. Smart Transmit EFS v24 (or lower) uses SISO Plimit to calculate RF exposure from MIMO transmission scenario. Therefore, if MIMO is supported for WWAN technologies (including 5G sub6 NR), below procedure should be performed for validity of Smart Transmit operation:
 - 1) Below procedure should also be performed for Smart Transmit EFS v24 (or higher) if MIMO Plimit is not populated in the EFS but MIMO operation is supported for antennas belonging to the same antenna group (refer to Section 4.2.5 of Qualcomm's document 80-W2112-4).
2. Measure SAR for supported MIMO scenarios in FTM mode with each of the MIMO antennas set to transmit continuously at $P_{test} = \text{minimum } \{P_{limit}(i), P_{max}(i); i=1 \text{ to } n \text{ MIMO antennas}\}$, where $P_{limit}(i)$ is the power level entered in the Smart Transmit EFS for antenna i under the corresponding tech/band/DSI. For Smart Transmit to ensure the compliance in MIMO transmission scenario, the below criteria should be met for measured MIMO SAR (i.e., highest peak spatial-average SAR from the measurement):

$$\text{reported } SAR_{MIMO} = \text{Measured MIMO } SAR_{MIMO} \text{ at } (P_{test} + \text{device total uncertainty}) \leq \text{calc. SAR}$$

$$\text{Where } \text{calc. SAR} = \sum_{i=1}^n \left[SAR_{design_target} * 10^{\left(\frac{\text{total uncertainty} + P_{test} - P_{limit}(i) - \text{backoff}(i)}{10} \right)} \right]$$

Here,

- n is number of MIMO antennas (in case of 2x2MIMO, $n=2$).
 - $P_{limit}(i)$ is EFS P_{limit} for antenna $i \in$ MIMO for a given tech/band/DSI. P_{limit} corresponds to SAR_{design_target} .
 - $\text{backoff}(i)$ is backoff from SAR_{design_target} used for the i th antenna's P_{limit} to meet TER with external radios (i.e., radios outside of Smart Transmit control). If EFS P_{limit} of antenna i corresponds to SAR_{design_target} , then $\text{backoff}(i) = 0$ in the above equation.
 - P_{test} (i.e., power level used for MIMO SAR measurement, $MIMO.SAR @ P_{test}$) = $\min \{P_{limit}(i), P_{max}(i), i = 1 \text{ to } n \text{ MIMO antenna}\}$. To further clarify, $P_{test} = \min \{P_{limit}(i), SISO.P_{max}(i), MIMO.P_{max}, i = 1 \text{ to } n \text{ antenna} \in MIMO\}$, where, P_{limit} corresponds to SAR_{design_target} ; $SISO.P_{max}$ and $MIMO.P_{max}$ correspond to the maximum output power (nominal levels without device uncertainty) that device is capable; here, P_{test} is nominal power level, not measured level.
3. If the $\text{reported } SAR_{MIMO}$ does not meet the above condition, then $P_{limit}(i)$ for each of the MIMO antenna in the Smart Transmit EFS should be reduced by $10 * \log_{10}[\text{reported } SAR_{MIMO} / \text{calc. SAR}]$ dB.
 4. Per Qualcomm's document guideline, WLAN MIMO Plimit is configured in the EFS and WLAN MIMO antennas belong to the same antenna group, then SAR measurement results at MIMO Plimit for the corresponding WLAN MIMO transmission scenario can be referred to section 16 in this report.
 5. Per Qualcomm's document guideline, BT MIMO Plimit is not populated in the EFS, but MIMO operation is supported for antennas belonging to the same antenna group, the detail BT MIMO analysis results please referred to appendix H.

17.2 Sub6 Antenna Groups

The Qualcomm® Smart Transmit™ Plus of Smart Transmit (GEN2) Feature operates based on pre-defined sub6 antenna groups (AG). Sub6 Tx antennas in the device are grouped based on spatial variation of RF exposure distributions, where the RF exposure of one AG is mutually exclusive from other AG. This is accomplished by demonstrating below conditions for all exposure positions under each DSI for a given exposure category.

- 1) Case 1: Demonstrate that Sum of maximum reported SAR from each of the sub6 AGs and the reported normalized SAR values from radios outside Smart Transmit should be less than regulatory limits for each supported DSI. This condition must be demonstrated for all antenna combinations of sub6 AGs.
 - i. For a given DSI, obtain the highest *reported* SAR for each antenna out of all supported technologies and frequency bands. Obtain the maximum *reported* SAR for each AG by taking the maximum out of *reported* SAR for all antennas belonging to each AG.
 - ii. Demonstrate that the sum of maximum reported SAR (normalized to regulatory limit) from each of the sub6 AGs and the sum of reported SAR (normalized to regulatory limit) from all supported radios outside of Smart Transmit should be less than 1.0
- 2) Case 2: If the Case 1 is NOT met, then for a given antenna grouping scheme plus external radios/antennas (ERs) (referred to as 'configuration'), demonstrate all AG pairs, all ER pairs and all (AG, ER) pairs in the configuration meet SPLSR criteria (Section 4.3.2 (c) in FCC KDB 447498 D01 v06) for each exposure position under each supported DSI. For a given exposure position under a given DSI, prove all AG pairs, all ER pairs and all (AG, ER) pairs (if there are external radios outside Smart Transmit) in the configuration meet SPLSR.

This device supports two sub6 AG: AG0 and AG1, the detailed please refer to the below table:

Antenna Group 0 (AG0)	ANT1 & ANT4 & ANT5 & ANT7 & ANT8 & ANT9 & ANT10 & ANT11& ANT12
Antenna Group 1 (AG1)	ANT0 & ANT6

- 3) This model's multi_Tx_factor is 1.0.

The conditions are verified through the following criterias:

- i) (SAR1 + SAR2 criteria): If SPLSR criteria is not used, then the highest reported SAR at *Plimit* for each antenna should be obtained out of all supported technologies and frequency bands for each DSI. Demonstrate that the sum of reported SAR of one antenna from each of the sub6 AGs and the sum of RF exposure from all supported radios outside of Smart Transmit should be less than the regulatory limit as given below for each DSI.
 1. Obtain the worst-case reported SAR for each antenna group (i.e., maximum *reported* SAR at *Plimit* out of all supported technologies, frequency bands and antennas in AG0 and AG1), denoted as max.SAR.AG0 and max.SAR.AG1, and obtain the worst-case RF exposure for each external radio, and demonstrate that the sum of these RF exposures meets: $\{ [\text{max.SAR.AG0} + \text{max.SAR.AG1}] + \text{each external radio worst-case reported SAR (ex: NFC)} \} \leq 1.6$ (for 1g, or 4.0 for 10g). (each external radio worst-case reported SAR is the worst SAR in all combinations of each external radio simultaneous transmission).
- ii) (SPLSR criteria): For each antenna, obtain the highest reported SAR value at *Plimit* out of all supported technologies for each frequency band. Using these values, demonstrate for a given DSI that every antenna from one sub6 AG meets SPLSR criteria with every antenna in another sub6 AG for all frequency bands. This criteria must be demonstrated for all antenna pair combinations irrespective of supported simultaneous transmission scenarios as given below for each DSI:
 - a. SPLSR criteria should be met for all antenna pair combinations of AG0 and AG1. As it can be seen, these include all combinations of antenna groups, antennas, and frequency bands.
 - b. Obtain combined SAR per AG: Obtain the worst-case conservative combined SAR and its peak location for each AG.
 - c. Use the 'closest' peak location out of all antennas of AGj to evaluate SPLSR with other AGs in the configuration. Note, by 'closest', select the peak location out of all antennas (ε AGj) that is closest to the peak location of other AG where SPLSR is evaluated.
- iii) (combination of SPLSR SAR1+SAR2 criteria): If SPLSR criteria for all the combinations of sub6g antenna groups in (i) is demonstrated to show that each AG is mutually exclusive from other AGs, and if the WIFI/BT antennas supported outside of Smart Transmit do not meet SPLSR criteria, then the condition in (ii) reduces to: $\{\text{max.SAR.AG0} + \text{worst-case reported SAR}\} \leq 1.6$ and $\{\text{max.SAR.AG1} + \text{worst-case reported SAR}\} \leq 1.6$ for compliance demonstration (for 1g, or 4.0 for 10g).
- iv) Obtain the worst-case reported SAR for each antenna group, (i.e., maximum *reported* SAR at *Plimit* out of all supported technologies, frequency bands and antennas in AG0 and AG1), denoted as max.SAR.AG0 and max.SAR.AG1, and WIFI/BT antennas supported Smart Transmit technology and there is no other radios in this report, and demonstrate that the sum of these RF exposures meets: $\{ [\text{max.SAR.AG0} + \text{max.SAR.AG1}] \} \leq 1.6$ (for 1g, or 4.0 for 10g).

For summed SAR results and SPLSR detailed analysis please refer to section 17.3 / 17.4 / 17.5 / 17.6/ 17.7/ 17.8 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.

17.3 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	Ant1	Ant4	Ant5	Ant7	Ant8	Ant9	Ant10	Ant11	WLAN2.4GHz Ant7	WLAN2.4GHz Ant12	WLAN2.4GHz Ant7+12	WLAN5GHz Ant8+10	BT Ant7	BT Ant12	MAX
Right Cheek	0.455	1.088	0.895	0.757	0.308	0.992	0.492	1.093	0.785	0.594	0.661	0.539	0.870	0.358	1.093
Right Tilted	0.093	0.414	1.071	0.137	0.168	0.672	0.605	1.000	0.126	0.890	0.917	0.646	0.131	0.405	1.071
Left Cheek	0.838	0.418	0.637	1.063	1.073	0.644	0.861	0.450	1.006	1.022	1.094	0.904	1.086	0.510	1.094
Left Tilted	0.132	0.246	0.770	0.341	0.472	0.240	1.034	0.516	0.250	1.000	1.018	1.015	0.292	0.681	1.034

<AG1 maximum reported SAR>:

Test Position	Ant0	Ant6	MAX
Right Cheek	0.372	0.210	0.372
Right Tilted	0.242	0.142	0.242
Left Cheek	0.369	0.329	0.369
Left Tilted	0.172	0.161	0.172

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

Test Position	AG0	AG1	AG0+AG1
Right Cheek	1.093	0.372	1.47
Right Tilted	1.071	0.242	1.31
Left Cheek	1.094	0.369	1.46
Left Tilted	1.034	0.172	1.21

17.4 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	Ant1	Ant4	Ant5	Ant7	Ant8	Ant9	Ant10	Ant11	WLAN2.4GHz Ant7	WLAN2.4GHz Ant12	WLAN2.4GHz Ant7+12	WLAN5GHz Ant8+10	BT Ant7	BT Ant12	MAX
Front	0.491	0.265	0.191	0.244	0.360	0.221	0.187	0.176	0.473	0.299	0.368	0.501	0.279	0.114	0.501
Back	0.575	0.323	0.215	0.307	0.423	0.240	0.228	0.160	0.543	0.392	0.436	0.584	0.313	0.055	0.584
Left Edge	0.799	0.533	0.330	0.001	0.011	0.445	0.060	0.084	0.001	0.001	0.001	0.196	0.010	0.002	0.799
Right Edge	0.001	0.001	0.001	0.467	0.604	0.070	0.082	0.046	0.681	0.126	0.566	0.881	0.482	0.055	0.881
Top Edge	0.001	0.148	0.370	0.059	0.060	0.096	0.371	0.417	0.085	0.949	0.610	1.058	0.060	0.518	1.058
Bottom Edge	0.001	0.001	0.001	0.001	0.024	0.001	0.057	0.063	0.001	0.001	0.001	0.073	0.019	0.002	0.073

<AG1 maximum reported SAR>:

Test Position	Ant0	Ant6	MAX
Front	0.531	0.373	0.531
Back	0.610	0.451	0.610
Left Edge	0.209	0.177	0.209
Right Edge	0.622	0.083	0.622
Top Edge	0.003	0.035	0.035
Bottom Edge	0.416	0.637	0.637

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

Test Position	AG0	AG1	AG0+AG1
Front	0.501	0.531	1.03
Back	0.584	0.610	1.19
Left Edge	0.799	0.209	1.01
Right Edge	0.881	0.622	1.50
Top Edge	1.058	0.035	1.09
Bottom Edge	0.073	0.637	0.71

17.5 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	Ant1	Ant4	Ant5	Ant7	Ant8	Ant9	Ant10	Ant11	WLAN2.4GHz Ant7	WLAN2.4GHz Ant12	WLAN2.4GHz Ant7+12	WLAN5GHz Ant8+10	BT Ant7	BT Ant12	MAX
Front	0.881	1.008	0.805	0.940	0.786	0.704	0.765	0.993	0.755	0.478	0.625	0.964	0.744	0.443	1.008
Back	1.036	1.061	1.006	1.093	1.071	1.094	1.006	0.678	0.911	0.777	0.883	1.058	0.963	0.711	1.094

<AG1 maximum reported SAR>:

Test Position	Ant0	Ant6	MAX
Front	0.900	0.921	0.921
Back	0.971	1.063	1.063

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

Test Position	AG0	AG1	AG0+AG1
Front	1.008	0.921	1.93
Back	1.094	1.063	2.16

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

Front 5mm				
Ant combination	AG1	AG0	AG0+AG1	SPLSR
	SAR	SAR		
Ant0-Ant1	0.900	0.881	1.78	1
Ant0-Ant4	0.900	1.008	1.91	2
Ant0-Ant5	0.900	0.805	1.71	3
Ant0-Ant7	0.900	0.940	1.84	4
Ant0-Ant8	0.900	0.786	1.69	5
Ant0-Ant9	0.900	0.704	1.60	6
Ant0-Ant10	0.900	0.765	1.67	7
Ant0-Ant11	0.900	0.993	1.89	8
Ant0-WLAN2.4GHz Ant7	0.900	0.755	1.66	9
Ant0-WLAN2.4GHz Ant12	0.900	0.478	1.38	
Ant0-WLAN2.4GHz Ant7+12	0.900	0.625	1.53	
Ant0-WLAN5GHz Ant8+10	0.900	0.964	1.86	10
Ant0-BT Ant7	0.900	0.744	1.64	11
Ant0-BT Ant12	0.900	0.443	1.34	
Ant6-Ant1	0.921	0.881	1.80	12
Ant6-Ant4	0.921	1.008	1.93	13
Ant6-Ant5	0.921	0.805	1.73	14
Ant6-Ant7	0.921	0.940	1.86	15
Ant6-Ant8	0.921	0.786	1.71	16
Ant6-Ant9	0.921	0.704	1.63	17
Ant6-Ant10	0.921	0.765	1.69	18
Ant6-Ant11	0.921	0.993	1.91	19
Ant0-WLAN2.4GHz Ant7	0.921	0.755	1.68	20
Ant0-WLAN2.4GHz Ant12	0.921	0.478	1.40	
Ant0-WLAN2.4GHz Ant7+12	0.921	0.625	1.55	
Ant0-WLAN5GHz Ant8+10	0.921	0.964	1.89	21
Ant6-BT Ant7	0.921	0.744	1.67	22
Ant6-BT Ant12	0.921	0.443	1.36	



Back 5mm				
Ant combination	AG1	AG0	AG0+AG1	SPLSR
	SAR	SAR		
Ant0-Ant1	0.971	1.036	2.01	23
Ant0-Ant4	0.971	1.061	2.03	24
Ant0-Ant5	0.971	1.006	1.98	25
Ant0-Ant7	0.971	1.093	2.06	26
Ant0-Ant8	0.971	1.071	2.04	27
Ant0-Ant9	0.971	1.094	2.07	28
Ant0-Ant10	0.971	1.006	1.98	29
Ant0-Ant11	0.971	0.678	1.65	30
Ant0-WLAN2.4GHz Ant7	0.971	0.911	1.88	31
Ant0-WLAN2.4GHz Ant12	0.971	0.777	1.75	32
Ant0-WLAN2.4GHz Ant7+12	0.971	0.883	1.85	33
Ant0-WLAN5GHz Ant8+10	0.971	1.058	2.03	34
Ant0-BT Ant7	0.971	0.963	1.93	35
Ant0-BT Ant12	0.971	0.711	1.68	36
Ant6-Ant1	1.063	1.036	2.10	37
Ant6-Ant4	1.063	1.061	2.12	38
Ant6-Ant5	1.063	1.006	2.07	39
Ant6-Ant7	1.063	1.093	2.16	40
Ant6-Ant8	1.063	1.071	2.13	41
Ant6-Ant9	1.063	1.094	2.16	42
Ant6-Ant10	1.063	1.006	2.07	43
Ant6-Ant11	1.063	0.678	1.74	44
Ant0-WLAN2.4GHz Ant7	1.063	0.911	1.97	45
Ant0-WLAN2.4GHz Ant12	1.063	0.777	1.84	46
Ant0-WLAN2.4GHz Ant7+12	1.063	0.883	1.95	47
Ant0-WLAN5GHz Ant8+10	1.063	1.058	2.12	48
Ant6-BT Ant7	1.063	0.963	2.03	49
Ant6-BT Ant12	1.063	0.711	1.77	50

17.6 Product specific 10g SAR Exposure Conditions

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

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

<AG0 maximum reported SAR>:

Test Position	WLAN5GHz Ant8+10	MAX
Front	1.271	1.271
Back	0.345	0.345
Left Edge	1.034	1.034
Right Edge	1.367	1.367
Top Edge	2.398	2.398
Bottom Edge	0.055	0.055

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

Test Position	AG0	AG1	NFC	AG0+AG1+NFC
Front	1.271		0.001	1.27
Back	0.345		0.012	0.36
Left Edge	1.034		0.001	1.04
Right Edge	1.367		0.001	1.37
Top Edge	2.398		0.001	2.40
Bottom Edge	0.055		0.001	0.06

17.7 Total Exposure Ratio

<Total exposure ratio>

Max 1g SAR	WPT SAR	TER
(W/Kg)	(W/Kg)	Reported SAR/1.6 + WPT SAR /1.6 Summation
1.55	0.000000977	0.969

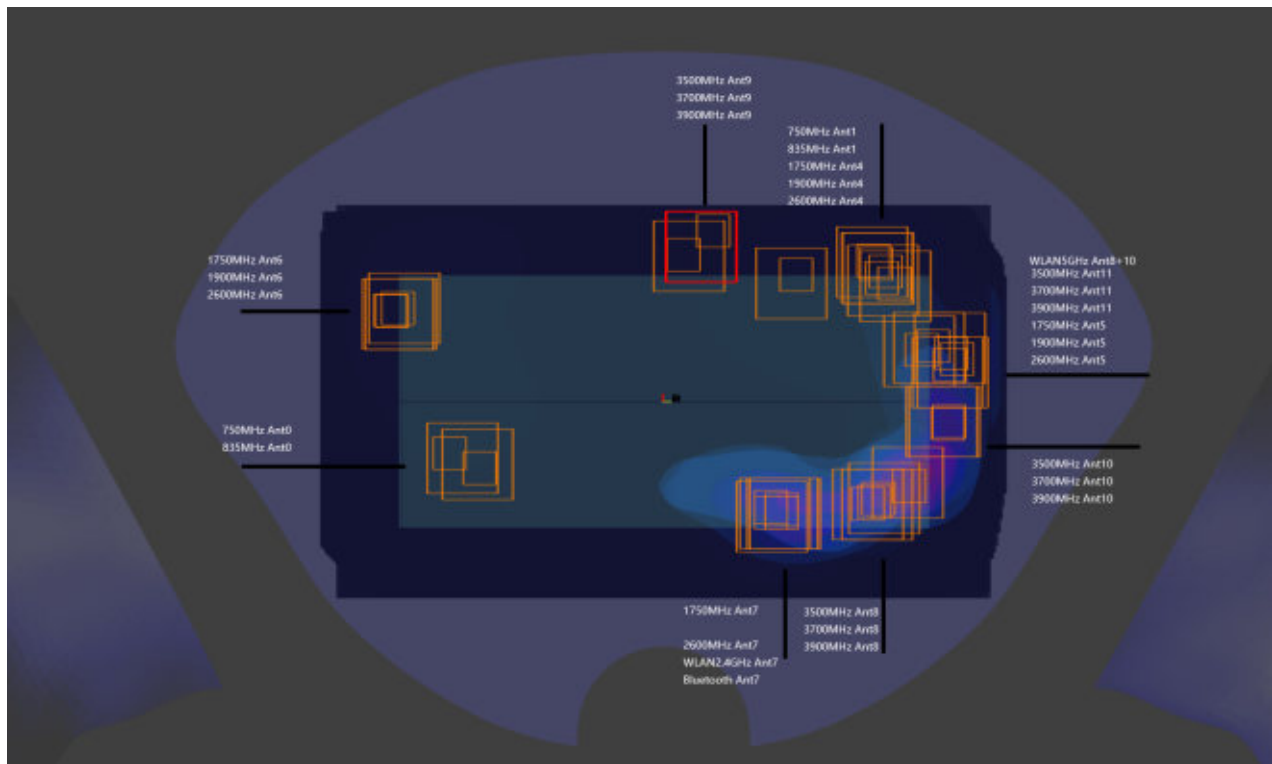
Max 10g SAR	WPT SAR	TER
(W/Kg)	(W/Kg)	Reported SAR/4.0 + WPT SAR /4.0 Summation
2.40	0.000000581	0.600

Remark: WPT SAR value is from another WPT SAR report which is submitted separately.

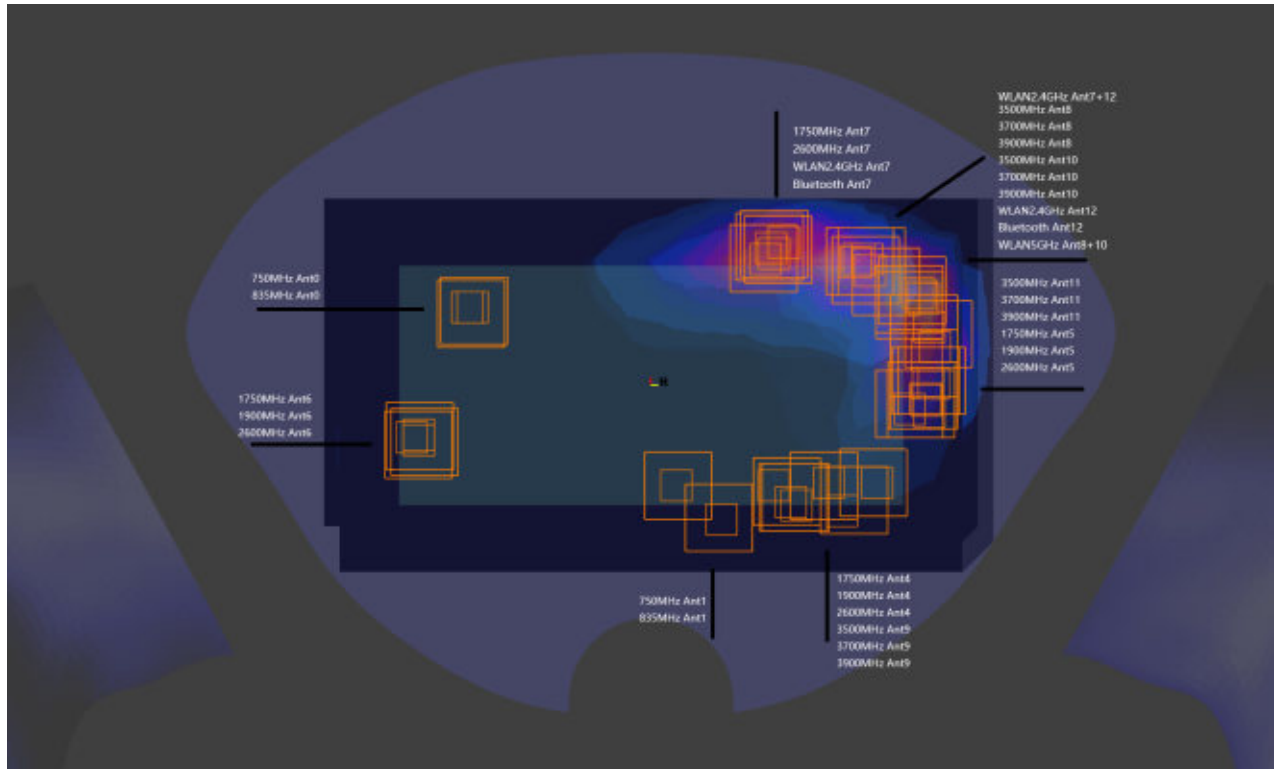
17.8 SPLSR Evaluation and Analysis

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 $[(x_1-x_2)^2 + (y_1-y_2)^2 + (z_1-z_2)^2]$, where (x_1, y_1, z_1) and (x_2, y_2, z_2) are the coordinates in the area scans or extrapolated peak SAR locations in the zoom scans, as appropriate.
2. $SPLSR = (SAR1 + SAR2)1.5 / (\text{min. separation distance, mm})$. If $SPLSR \leq 0.04$ for 1g SAR, simultaneously transmission SAR measurement is not necessary.
3. Per April 2022 TCB Workshop Notes, AG0 was summed algebraically with the WIFI Antenna 10/12/7/8 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 17.9.



Body-worn WWAN+WWAN+BT Front 5mm



Body-worn WWAN+WWAN+BT Back 5mm



<Body-worn>

No.1	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	0.900	1.78	5mm	-10	-58.9	-203	96.9	1.78	0.02	Not required
Ant1		0.881		5mm	-70	17.2	-203				
No.2	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	0.900	1.91	5mm	-10	-58.9	-203	126.4	1.91	0.02	Not required
Ant4		1.008		5mm	-75	49.5	-203				
No.3	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	0.900	1.71	5mm	-10	-58.9	-203	149.7	1.71	0.01	Not required
Ant5		0.805		5mm	-40	87.8	-203				
No.4	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	0.900	1.84	5mm	-10	-58.9	-203	90.4	1.84	0.03	Not required
Ant7		0.940		5mm	5	30.2	-203				
No.5	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	0.900	1.69	5mm	-10	-58.9	-203	124.0	1.69	0.02	Not required
Ant8		0.786		5mm	5	64.2	-203				
No.6	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	0.900	1.60	5mm	-10	-58.9	-203	132.1	1.60	0.02	Not required
Ant9		0.704		5mm	-65	61.2	-203				
No.7	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	0.900	1.67	5mm	-10	-58.9	-203	145.4	1.67	0.01	Not required
Ant10		0.765		5mm	-15	86.4	-203				
No.8	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	0.900	1.89	5mm	-10	-58.9	-203	141.0	1.89	0.02	Not required
Ant11		0.993		5mm	-45	77.7	-203				
No.9	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	0.900	1.66	5mm	-10	-58.9	-203	93.7	1.66	0.02	Not required
WLAN2.4GHz Ant7		0.755		5mm	5	33.6	-203				
No.10	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	0.900	1.86	5mm	-10	-58.9	-203	132.3	1.86	0.02	Not required
WLAN5GHz Ant8+10		0.964		5mm	5	72.5	-203				
No.11	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	0.900	1.64	5mm	-10	-58.9	-203	93.7	1.64	0.02	Not required
BT Ant7		0.744		5mm	5	33.6	-203				
No.12	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				
Ant6	Front	0.921	1.80	5mm	-55	-80.4	-203	98.7	1.80	0.02	Not required
Ant1		0.881		5mm	-70	17.2	-203				
No.13	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				
Ant6	Front	0.921	1.93	5mm	-55	-80.4	-203	131.4	1.93	0.02	Not required
Ant4		1.008		5mm	-75	49.5	-203				



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No.14	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				
Ant6	Front	0.921	1.73	5mm	-55	-80.4	-203	168.9	1.73	0.01	Not required
Ant5		0.805		5mm	-40	87.8	-203				
No.15	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				
Ant6	Front	0.921	1.86	5mm	-55	-80.4	-203	125.8	1.86	0.02	Not required
Ant7		0.940		5mm	5	30.2	-203				
No.16	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				
Ant6	Front	0.921	1.71	5mm	-55	-80.4	-203	156.6	1.71	0.01	Not required
Ant8		0.786		5mm	5	64.2	-203				
No.17	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				
Ant6	Front	0.921	1.63	5mm	-55	-80.4	-203	142.0	1.63	0.01	Not required
Ant9		0.704		5mm	-65	61.2	-203				
No.18	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				
Ant6	Front	0.921	1.69	5mm	-55	-80.4	-203	171.5	1.69	0.01	Not required
Ant10		0.765		5mm	-15	86.4	-203				
No.19	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				
Ant6	Front	0.921	1.91	5mm	-55	-80.4	-203	158.4	1.91	0.02	Not required
Ant11		0.993		5mm	-45	77.7	-203				
No.20	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				
Ant6	Front	0.921	1.68	5mm	-55	-80.4	-203	128.8	1.68	0.02	Not required
WLAN2.4GHz Ant7		0.755		5mm	5	33.6	-203				
No.21	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				
Ant6	Front	0.921	1.89	5mm	-55	-80.4	-203	164.3	1.89	0.02	Not required
WLAN5GHz Ant8+10		0.964		5mm	5	72.5	-203				
No.22	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				
Ant6	Front	0.921	1.67	5mm	-55	-80.4	-203	128.8	1.67	0.02	Not required
BT Ant7		0.744		5mm	5	33.6	-203				

No.23	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	0.971	2.01	5mm	-52	-57	-204	87.9	2.01	0.03	Not required
Ant1		1.036		5mm	6	9	-204				
No.24	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	0.971	2.03	5mm	-52	-57	-204	134.3	2.03	0.02	Not required
Ant4		1.061		5mm	14	60	-204				
No.25	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	0.971	1.98	5mm	-52	-57	-204	147.0	1.98	0.02	Not required
Ant5		1.006		5mm	-25	87.5	-204				
No.26	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	0.971	2.06	5mm	-52	-57	-204	94.9	2.06	0.03	Not required
Ant7		1.093		5mm	-65	37	-204				
No.27	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				



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Ant0	Back	0.971	2.04	5mm	-52	-57	-204	124.9	2.04	0.02	Not required
Ant8		1.071		5mm	-62.5	67.5	-204				
No.28	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	0.971	2.07	5mm	-52	-57	-204	119.7	2.07	0.02	Not required
Ant9		1.094		5mm	9	46	-204				
No.29	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	0.971	1.98	5mm	-52	-57	-204	146.1	1.98	0.02	Not required
Ant10		1.006		5mm	-46	89	-204				
No.30	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	0.971	1.65	5mm	-52	-57	-204	143.3	1.65	0.01	Not required
Ant11		0.678		5mm	-17	82	-204				
No.31	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	0.971	1.88	5mm	-52	-57	-204	97.5	1.88	0.03	Not required
WLAN2.4GHz Ant7		0.911		5mm	-69	39	-204				
No.32	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	0.971	1.75	5mm	-52	-57	-204	145.0	1.75	0.02	Not required
WLAN2.4GHz Ant12		0.777		5mm	-54	88	-204				
No.33	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	0.971	1.85	5mm	-52	-57	-204	97.9	1.85	0.03	Not required
WLAN2.4GHz Ant7+12		0.883		5mm	-65	40	-204				
No.34	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	0.971	2.03	5mm	-52	-57	-204	145.0	2.03	0.02	Not required
WLAN5GHz Ant8+10		1.058		5mm	-55	88	-204				
No.35	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	0.971	1.93	5mm	-52	-57	-204	97.9	1.93	0.03	Not required
BT Ant7		0.963		5mm	-71	39	-204				
No.36	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	0.971	1.68	5mm	-52	-57	-204	143.0	1.68	0.02	Not required
BT Ant12		0.711		5mm	-50	86	-207				
No.37	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				
Ant6	Back	1.063	2.10	5mm	3	-73.5	-204	82.6	2.10	0.04	Not required
Ant1		1.036		5mm	6	9	-204				
No.38	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				
Ant6	Back	1.063	2.12	5mm	3	-73.5	-204	134.0	2.12	0.02	Not required
Ant4		1.061		5mm	14	60	-204				
No.39	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				
Ant6	Back	1.063	2.07	5mm	-10	-73.5	-204	161.7	2.07	0.02	Not required
Ant5		1.006		5mm	-25	87.5	-204				
No.40	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				
Ant6	Back	1.063	2.16	5mm	-10	-73.5	-204	123.4	2.16	0.03	Not required
Ant7		1.093		5mm	-65	37	-204				
No.41	Position	SAR 1g	Summed	Gap	SAR peak location (mm)			3D	Summed	SPLSR	Simultaneous



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		SAR (W/kg)			X	Y	Z	distance (mm)	SAR (W/kg)		
Ant6	Back	1.063	2.13	5mm	-10	-73.5	-204	150.5	2.13	0.02	Not required
Ant8		1.071		5mm	-62.5	67.5	-204				
No.42	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				
Ant6	Back	1.063	2.16	5mm	3	-73.5	-204	119.7	2.16	0.03	Not required
Ant9		1.094		5mm	9	46	-204				
No.43	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				
Ant6	Back	1.063	2.07	5mm	-10	-73.5	-204	165.0	2.07	0.02	Not required
Ant10		1.006		5mm	-38.5	89	-204				
No.44	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				
Ant6	Back	1.063	1.74	5mm	-10	-73.5	-204	155.7	1.74	0.01	Not required
Ant11		0.678		5mm	-17	82	-204				
No.45	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				
Ant6	Back	1.063	1.97	5mm	-10	-73.5	-204	127.0	1.97	0.02	Not required
WLAN2.4GHz Ant7		0.911		5mm	-69	39	-204				
No.46	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				
Ant6	Back	1.063	1.84	5mm	-10	-73.5	-204	167.4	1.84	0.01	Not required
WLAN2.4GHz Ant12		0.777		5mm	-54	88	-204				
No.47	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				
Ant6	Back	1.063	1.95	5mm	-10	-73.5	-204	126.1	1.95	0.02	Not required
WLAN2.4GHz Ant7+12		0.883		5mm	-65	40	-204				
No.48	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				
Ant6	Back	1.063	2.12	5mm	-10	-73.5	-204	167.7	2.12	0.02	Not required
WLAN5GHz Ant8+10		1.058		5mm	-55	88	-204				
No.49	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				
Ant6	Back	1.063	2.03	5mm	-10	-73.5	-204	128.0	2.03	0.02	Not required
BT Ant7		0.963		5mm	-71	39	-204				
No.50	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				
Ant6	Back	1.063	1.77	5mm	-10	-73.5	-204	164.5	1.77	0.01	Not required
BT Ant12		0.711		5mm	-50	86	-207				



17.9 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.

Front 5mm																													
Band		Ant0			Ant1			Ant4			Ant5			Ant6			Ant7			Ant8		Ant9		Ant10		Ant11			
GSM850	SAR	0.900			0.931																								
	Axis	10.0	64.3	-203.0	85.0	16.1	-203.0																						
GSM1900	SAR							0.357						0.921															
	Axis							-70.0	68.1	-203.0				-55.0	-81.0	-203.0													
WCDMA II	SAR							0.483						0.765															
	Axis							-70.0	65.5	-203.0				-55.0	-81.3	-203.0													
WCDMA IV	SAR							0.518			0.712			0.648			0.611												
	Axis							-70.0	66.0	-203.0	-40.0	87.8	-203.0	-55.0	-80.7	-203.0	5.0	30.5	-203.0										
WCDMA V	SAR	0.658			0.790																								
	Axis	10.0	65.4	-203.0	85.0	18.8	-203.0																						
LTE Band 2	SAR							0.604			0.625			0.677															
	Axis							-70.0	67.8	-203.0	-40.0	87.8	-203.0	-55.0	-82.2	-203.0													
LTE Band 26	SAR	0.713			0.639																								
	Axis	10.0	63.7	-203.0	85.0	18.5	-203.0																						
LTE Band 7	SAR							0.891			0.595			0.711			0.880												
	Axis							-75.0	58.6	-203.0	-45.0	89.7	-203.0	-55.0	-80.4	-203.0	5.0	36.2	-203.0										
LTE Band 66	SAR							0.615			0.786			0.729			0.940												
	Axis							-70.0	69.3	-203.0	-40.0	89.0	-203.0	-55.0	-81.1	-203.0	5.0	30.2	-203.0										
LTE Band 71	SAR	0.420			0.425																								
	Axis	10.0	59.5	-203.0	85.0	17.3	-203.0																						
LTE Band 41	SAR							1.008			0.677			0.862			0.851												
	Axis							-75.0	49.5	-203.0	-45.0	89.3	-203.0	-55.0	-82.2	-203.0	5.0	38.4	-203.0										
LTE Band 42	SAR																		0.591	0.402	0.740	0.338							
	Axis																		5.0	64.8	-203.0	63.0	67.0	-204.0	-15.0	87.6	-203.0	-35.0	100.0
LTE Band 48	SAR																		0.464	0.363	0.549	0.390							
	Axis																		5.0	64.5	-203.0	58.0	65.0	-204.0	-15.0	86.4	-203.0	-35.0	99.0
FR1 n2	SAR							0.478						0.838															
	Axis							-70.0	65.4	-203.0				-55.0	-80.7	-203.0													
FR1 n26	SAR	0.739			0.881																								
	Axis	10.0	63.1	-203.0	85.0	18.2	-203.0																						
FR1 n7	SAR							0.677			0.659			0.810			0.646												
	Axis							-65.0	67.0	-203.0	-45.0	90.3	-203.0	-55.0	-81.8	-203.0	5.0	35.1	-203.0										
FR1 n66	SAR							0.682			0.805			0.655			0.595												
	Axis							-70.0	66.6	-203.0	-40.0	88.4	-203.0	-55.0	-81.3	-203.0	5.0	30.8	-203.0										
FR1 n71	SAR	0.434			0.750																								
	Axis	10.0	58.9	-203.0	70.0	17.2	-203.0																						
FR1 n41	SAR							0.745			0.626			0.642			0.682												
	Axis							-75.0	57.3	-203.0	-45.0	89.2	-203.0	-55.0	-82.2	-203.0	5.0	36.6	-203.0										
FR1 n48	SAR																		0.786	0.687	0.765	0.954							
	Axis																		5.0	65.1	-203.0	65.0	71.4	-203.0	-15.0	87.3	-203.0	-45.0	82.5
FR1 n77	SAR																		0.564	0.704	0.640	0.993							
	Axis																		5.0	64.2	-203.0	65.0	61.2	-203.0	-15.0	87.3	-203.0	-45.0	77.7
WLAN2.4GHz Ant7	SAR	0.755				Bluetooth Ant7	SAR	0.747																					
	Axis	5.0	33.6	-203.0			Axis	5.0	33.6	-203.0																			
WLAN5GHz Ant8+10	SAR	0.964																											
	Axis	5.0	72.5	-203.0																									



Back 5mm																															
Band		Ant0			Ant1			Ant4			Ant5			Ant6			Ant7			Ant8			Ant9			Ant10			Ant11		
GSM850	SAR	0.904			0.928																										
	Axis	52.0	57.0	204.0	18.5	28.5	-204.0																								
GSM1900	SAR							0.509					1.042																		
	Axis							5.0	72.0	204.0				-10.0	73.5	204.0															
WCDMA II	SAR							0.668					0.963																		
	Axis							5.0	72.0	204.0				-10.0	74.2	204.0															
WCDMA IV	SAR							0.908			0.913			0.798			0.807														
	Axis							5.0	72.0	204.0	25.0	88.5	-204.0	-10.0	73.5	204.0	70.0	43.5	204.0												
WCDMA V	SAR	0.860			0.931																										
	Axis	52.0	57.0	204.0	18.5	27.0	-204.0																								
LTE Band 2	SAR							0.970			0.701			0.924																	
	Axis							5.0	68.5	204.0	25.0	88.5	-204.0	-10.0	75.0	204.0															
LTE Band 26	SAR	0.963			0.764																										
	Axis	49.0	64.5	204.0	18.5	23.5	-204.0																								
LTE Band 7	SAR							1.028			0.981			0.955			0.986														
	Axis							15.0	60.0	204.0	15.0	89.0	-204.0	-7.0	77.0	204.0	66.0	40.0	204.0												
LTE Band 66	SAR							0.927			0.921			1.063			1.093														
	Axis							17.0	61.5	204.0	25.0	88.5	-204.0	-10.0	73.5	204.0	70.0	43.5	204.0												
LTE Band 71	SAR	0.438			0.504																										
	Axis	52.0	57.0	204.0	8.5	11.5	-204.0																								
LTE Band 41	SAR							1.015			0.984			0.933			0.932														
	Axis							14.0	60.0	204.0	15.0	89.0	-204.0	-7.0	77.0	204.0	65.0	37.0	204.0												
LTE Band 42	SAR																			0.858			0.343			0.946			0.325		
	Axis																			-65.0	69.0	204.0	9.0	46.0	204.0	46.0	39.0	204.0	-15.0	85.0	204.0
LTE Band 48	SAR																			0.757			0.439			0.662			0.363		
	Axis																			-65.0	70.0	204.0	11.0	48.0	204.0	36.0	31.0	204.0	-18.0	89.0	204.0
FR1 n2	SAR							0.750						0.983																	
	Axis							15.5	72.0	204.0				3.0	73.5	204.0															
FR1 n26	SAR	0.971			1.036																										
	Axis	51.0	61.5	204.0	18.5	25.5	-204.0																								
FR1 n7	SAR							0.945			1.006			1.054			0.899														
	Axis							15.0	61.3	204.0	15.0	88.5	-204.0	-7.0	76.5	204.0	63.0	41.2	204.0												
FR1 n66	SAR							1.061			0.935			0.788			0.859														
	Axis							17.0	60.8	204.0	25.0	87.5	-204.0	-10.0	75.4	204.0	73.0	42.1	204.0												
FR1 n71	SAR	0.462			0.800																										
	Axis	52.0	58.5	204.0	6.0	9.0	-204.0																								
FR1 n41	SAR							1.013			0.947			0.877			0.783														
	Axis							15.0	60.8	204.0	15.0	88.8	-204.0	-7.5	76.5	204.0	66.0	40.5	204.0												
FR1 n48	SAR																			1.071			0.886			1.006			0.424		
	Axis																			-65.0	72.5	204.0	14.0	50.0	204.0	41.0	39.5	204.0	-25.0	90.0	204.0
FR1 n77	SAR																			0.792			1.094			0.812			0.678		
	Axis																			-62.5	67.5	204.0	15.0	60.0	204.0	38.5	39.0	204.0	-17.0	82.0	204.0
WLAN2.4GHz Ant7	SAR	0.911				WLAN2.4GHz Ant12	SAR	0.777				WLAN2.4GHz Ant7+12	SAR	0.883																	
	Axis	69.0	39.0	204.0			Axis	54.0	88.0	204.0			Axis	65.0	40.0	204.0															
Bluetooth Ant7	SAR	0.966				Bluetooth Ant12	SAR	0.711																							
	Axis	71.0	39.0	204.0			Axis	50.0	86.0	207.0																					
WLAN5GHz Ant8+10	SAR	1.058																													
	Axis	55.0	88.0	204.0																											

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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"
- [2] ANSI/IEEE Std. C95.1-1992, "IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz", September 1992
- [3] IEEE Std. 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", Sep 2013
- [4] SPEAG DASY System Handbook
- [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.
- [8] FCC KDB 248227 D01 v02r02, "SAR Guidance for IEEE 802.11 (WiFi) Transmitters", Oct 2015.
- [9] FCC KDB 616217 D04 v01r02, "SAR Evaluation Considerations for Laptop, Notebook, Netbook and Tablet Computers", Oct 2015
- [10] FCC KDB 941225 D01 v03r01, "3G SAR MEAUREMENT PROCEDURES", Oct 2015
- [11] FCC KDB 941225 D05 v02r05, "SAR Evaluation Considerations for LTE Devices", Dec 2015
- [12] FCC KDB 941225 D05A v01r02, "Rel. 10 LTE SAR Test Guidance and KDB Inquiries", Oct 2015
- [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

Appendix H. Verify MIMO SAR analysis results

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