

FCC SAR Test Report

APPLICANT : Zebra Technologies Corporation
EQUIPMENT : Enterprise Tablet
BRAND NAME : Zebra
MODEL NAME : ET401EB
FCC ID : UZ7ET401EB
STANDARD : FCC 47 CFR Part 2 (2.1093)

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

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



Approved by: Si Zhang

Sporton International Inc. (Kunshan)

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People's Republic of China



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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA591015	Rev. 01	Initial issue of report	Dec. 31, 2025



1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **Zebra Technologies Corporation, Enterprise Tablet, ET401EB**, are as follows.

Highest 1g SAR Summary				
Equipment Class	Frequency Band		Body (Separation 0mm)	Highest Simultaneous Transmission 1g SAR (W/kg)
			1g SAR (W/kg)	
Licensed	GSM	GSM850	1.03	1.17
		GSM1900	1.14	
	WCDMA	WCDMA V	1.11	
		WCDMA II	1.11	
		WCDMA IV	1.06	
	LTE	LTE Band 7	1.12	
		LTE Band 12/17	1.11	
		LTE Band 13	1.10	
		LTE Band 14	1.08	
		LTE Band 25/2	1.12	
		LTE Band 26/5	1.09	
		LTE Band 30	1.12	
		LTE Band 41/38	1.13	
		LTE Band 48	1.12	
		LTE Band 66/4	1.15	
		LTE Band 71	1.08	
		LTE Band 53	1.09	
		LTE Band 106	0.85	
		LTE Band 70	1.17	
	5G NR	FR1 n7	1.11	
		FR1 n12	1.10	
		FR1 n13	1.09	
		FR1 n14	1.08	
		FR1 n25/n2	1.10	
		FR1 n26/n5	1.10	
		FR1 n30	1.09	
		FR1 n41/n38	1.07	
		FR1 n48	1.13	
		FR1 n66	1.10	
		FR1 n70	1.02	
		FR1 n71	1.11	
		FR1 n77/n78	1.01	
		FR1 n53	1.05	
DTS	WLAN	2.4GHz WLAN	1.14	1.14
NII		5GHz WLAN	1.18	1.18
6CD		6GHz WLAN	1.18	1.18
VLP		6GHz WLAN	0.84	
DSS	Bluetooth	2.4GHz Bluetooth	0.24	0.24
DXX	NFC	13.56MHz	<0.10	1.15
DSS	RFID	RFID	1.11	1.11

Remark:

- This device supports LTE B2 / B4 / B5 / B17 / B38 and B25 / B66 / B26 / B12 / B41. Since the supported frequency span for LTE B2 / B4 / B5 / B17 / B38 falls completely within the support's frequency span for LTE B25 / B66 / B26 / B12 / B41, both LTE bands have the same target power, and both LTE bands share the same transmission path; therefore, SAR was only assessed for LTE B25 / B66 / B26 / B12 / B41.
- This device supports 5G NR n38/n5/n78/n2 and n41/n26/n77/n25. Since the supported frequency span for 5G NR n38/n5/n78/n2 falls completely within the support's frequency span for n41/n26/n77/n25, 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/n25.

Equipment Class	Frequency Band	Measured APD	Scaled PD
		Body (W/m^2)	psPD (W/m^2)
6CD	6GHz WLAN	7.34	7.43
VLP	6GHz WLAN	5.11	
Date of Testing:		2025/9/23 ~ 2025/12/4	

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) specified in FCC 47 CFR part 2 (2.1093), and Human Exposure to RF Radiation Limits (1.0 mW/cm^2=10 W/m^2) 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 5145.02.

Testing Laboratory			
Test Firm	Sporton International Inc. (Kunshan)		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	SAR01-KS SAR04-KS SAR05-KS	CN1257	314309

Applicant	
Company Name	Zebra Technologies Corporation
Address	3 Overlook Point, Lincolnshire, IL 60069 USA

Manufacturer	
Company Name	Zebra Technologies Corporation
Address	3 Overlook Point, Lincolnshire, IL 60069 USA

3. Guidance Applied

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

- FCC 47 CFR Part 2 (2.1093)
- ANSI/IEEE C95.1-1992
- IEEE 1528-2013
- IEC/IEEE 62209-1528:2020
- IEC TR 63170:2018
- IEC 62479:2010
- 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 248227 D01 802.11 Wi-Fi SAR v02r02
- FCC KDB 941225 D01 3G SAR Procedures v03r01
- FCC KDB 941225 D05 SAR for LTE Devices v02r05
- FCC KDB 941225 D05A Rel.10 LTE SAR Test Guidance v01r02
- FCC KDB 616217 D04 SAR for laptop and tablets v01r02
- SPEAG DASY6 Application Note (Interim Procedure for Device Operation at 6GHz-10GHz)



4. Equipment Under Test (EUT) Information

4.1 General Information

Product Feature & Specification	
Equipment Name	Enterprise Tablet
Brand Name	Zebra
Model Name	ET401EB
FCC ID	UZ7ET401EB
IMEI Code	Sample 1: 356424630014423/356424630014431, 356424630013284/356424630013292 Sample 2: 356424630001891/356424630001909
Wireless Technology and Frequency Range	GSM850: 824 MHz ~ 849 MHz GSM1900: 1850 MHz ~ 1910 MHz WCDMA Band II: 1850 MHz ~ 1910 MHz WCDMA Band IV: 1710 MHz ~ 1755 MHz WCDMA Band V: 824 MHz ~ 849 MHz LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 13: 777 MHz ~ 787 MHz LTE Band 14: 788 MHz ~ 798 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 25: 1850 MHz ~ 1915 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 30: 2305 MHz ~ 2315 MHz LTE Band 53: 2483.5 MHz ~ 2495 MHz LTE Band 66: 1710 MHz ~ 1780 MHz LTE Band 70: 1695 MHz ~ 1710 MHz LTE Band 71: 663 MHz ~ 698 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 48: 3550 MHz ~ 3700 MHz LTE Band 106: 897.5 MHz ~ 900.5 MHz 5G NR n2: 1850 MHz ~ 1910 MHz 5G NR n5: 824 MHz ~ 849 MHz 5G NR n7: 2500 MHz ~ 2570 MHz 5G NR n12: 699 MHz ~ 716 MHz 5G NR n13: 777 MHz ~ 787 MHz 5G NR n14: 788 MHz ~ 798 MHz 5G NR n25: 1850 MHz ~ 1915 MHz 5G NR n26: 814 MHz ~ 849 MHz 5G NR n30: 2305 MHz ~ 2315 MHz 5G NR n38: 2570 MHz ~ 2620 MHz 5G NR n41: 2496 MHz ~ 2690 MHz 5G NR n48: 3550 MHz ~ 3700 MHz 5G NR n53: 2483.5 MHz ~ 2495 MHz 5G NR n66: 1710 MHz ~ 1780 MHz 5G NR n70: 1695 MHz ~ 1710 MHz 5G NR n71: 663 MHz ~ 698 MHz 5G NR n77: 3450 MHz ~ 3980 MHz 5G NR n78: 3450 MHz ~ 3800 MHz WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz WLAN 5.2GHz Band: 5180 MHz ~ 5240 MHz WLAN 5.3GHz Band: 5260 MHz ~ 5320 MHz WLAN 5.5GHz Band: 5500 MHz ~ 5720 MHz WLAN 5.8GHz Band: 5745 MHz ~ 5825 MHz WLAN 6GHz U-NII 5: 5925 MHz ~ 6425 MHz WLAN 6GHz U-NII 6: 6425 MHz ~ 6525 MHz WLAN 6GHz U-NII 7: 6525 MHz ~ 6875 MHz WLAN 6GHz U-NII 8: 6875 MHz ~ 7125 MHz

	Bluetooth: 2402 MHz ~ 2480 MHz NFC: 13.56 MHz RFID: 902.75 MHz ~ 927.25 MHz
Mode	GPRS/EGPRS RMC 12.2Kbps HSDPA HSUPA DC-HSDPA HSPA+(16QAM uplink is not supported) LTE: QPSK, 16QAM, 64QAM, 256QAM 5G NR: DFT-s-OFDM/CP-OFDM, Pi/2 BPSK/QPSK/16QAM/64QAM/256QAM WLAN 2.4GHz 802.11b/g/n HT20 WLAN 2.4GHz 802.11ac/ax VHT20/HE20 WLAN 2.4GHz 802.11be EHT20 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80/VHT160 WLAN 5GHz 802.11ax/be HE20/HE40/HE80/HE160/EHT20/EHT40/EHT80/EHT160 WLAN 6GHz 802.11a/ax HE20/HE40/HE80/HE160 WLAN 6GHz 802.11be EHT20/EHT40/EHT80/EHT160/EHT320 Bluetooth BR/EDR/LE NFC: ASK RFID: ASK
HW Version	EV2
SW Version	qssi_64-userdebug 15 15-11-10.00-VG-U00-PRD-ERS-04 777 release-keys
MFD	13SEP2025
(E)GPRS Transfer mode	Class C – EUT can only support either Packet Switched service or Circuit Switched service.
EUT Stage	Identical Prototype
Remark: 1. This device does not support voice function. 2. This device does not support DTM operation and supports GPRS/EGPRS mode up to multi-slot class 33. 3. This device supports dual SIM dual standby. The WWAN radio transmission will be enabled by either one SIM at a time (single active). 4. The device implements Proximity sensors trigger reduced power for SAR compliance at different exposure conditions (body) and the Qualcomm smart transmit will manage to ensure the power level not exceeding the associated power table. Details about sensor detection are provided in the operational description. The device will invoke corresponding work scenarios power level base on frequency bands/antennas, which can refer to power table at appendix E. 5. This device supports HPUE mode for LTE Band 41 and 5GNR n41/n77(Part 27O&27Q)/n78 (Part 27O&27Q) 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. 6. For 5GNR n77/n78 HPUE, 5GNR 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. 7. RFID tested using FTM (Factory Test Mode) to perform SAR testing. 8. The device supports HPUE (power class 2) under SISO mode and HPUE (power class 1.5) under UL MIMO mode for 5G NR n41/n77/n78. 9. The device supports WLAN2.4GHz MIMO CDD mode for 11b/g/n/ac/ax/be and WLAN5GHz MIMO CDD mode for 11a/n/ac/ax/be and Tx Beamforming mode for 11ax/be. 10. The device supports WIFI6GHz MIMO CDD mode for 802.11a, and support CDD & SDM & TXBF mode for 802.11ax/be. 11. The device supports 1S2T (CDD) and 2S2T (SDM) mode; 1S2T: Nss=1, MIMO 2Tx; 2S2T: Nss=2, MIMO 2Tx. 12. The device support HBS (High Band Simultaneous) function, when the device WLAN 2.4GHz and WLAN 5GHz (or WLAN 6GHz) transmit at the same time it will limit different output power for simultaneous transmission compliance. 13. There are two samples: Sample 1 without Scanner and Sample 2 with Scanner. According to the difference, sample 1 was chosen to perform full testing, and the sample 2 are verified the difference with the sample 1. 14. This device supports 5GNR FR1 bands as following table, including NSA mode and SA mode. NSA and SA mode performed SAR separately.	

<5G NR>

Mode	Band	Duplex	SCS(KHz)	Bandwidths(BW)
NSA	n2	FDD	15	5, 10, 15, 20, 25, 30, 35, 40
	n5	FDD	15	5, 10, 15, 20
	n7	FDD	15	5, 10, 15, 20, 25, 30, 35, 40, 50
	n12	FDD	15	5, 10, 15
	n14	FDD	15	5, 10
	n25	FDD	15	5, 10, 15, 20, 25, 30, 35, 40
	n26	FDD	15	5, 10, 15, 20
	n30	FDD	15	5, 10
	n66	FDD	15	5, 10, 15, 20, 25, 30, 35, 40
	n71	FDD	15	5, 10, 15, 20
	n38	TDD	30	10, 15, 20, 25, 30, 40
	n41	TDD	30	10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100
	n77	TDD	30	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100
	n78	TDD	30	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100
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
	n12	FDD	15	5, 10, 15
	n13	FDD	15	5, 10
	n14	FDD	15	5, 10
	n25	FDD	15	5, 10, 15, 20, 25, 30, 35, 40
	n26	FDD	15	5, 10, 15, 20
	n30	FDD	15	5, 10
	n66	FDD	15	5, 10, 15, 20, 25, 30, 35, 40
	n70	FDD	15	5, 10, 15
	n71	FDD	15	5, 10, 15, 20
	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
	n53	TDD	30	10
	n77	TDD	30	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100
	n78	TDD	30	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100



Accessories Information			
Description	Brand	Model name	Zebra PN
AC Adapter 1 (TYPE C Wall Charger 1)	Zebra	SAWA-102-22520A	PWR-WUA5V45W1US
Earphone 1 (Wired headset USB-C)	Zebra	-	HDST-USBC-PTT 1-01
Earphone 2 (Rugged Bluetooth Headset)	Zebra	-	HS3100-0TH
Earphone 3 (3.5mm PTT Headset)	Zebra	-	HDST-35MM-PTT 1-02
Earphone 4 (Rugged Headset)	Zebra	-	HS2100-0TH
Battery	Zebra	-	BT-000528
3.5mm to 3.5mm audio connector	Zebra	-	CBL-HS2100-3MS1-01
Type C-Audio Cable Type C to 3.5mm	Zebra	-	ADP-USBC-35MM1-01
USB Cable 1 USB-C to C Cable	Zebra	-	CBL-EC5X-USBC3A-01
USB Cable 3 USB-C to C Cable	Zebra	-	CBL-TN28-USBC2C-01

4.2 General LTE SAR Test and Reporting Considerations

Summarized necessary items addressed in KDB 941225 D05 v02r05																																																																							
FCC ID	UZ7ET401EB																																																																						
Equipment Name	Enterprise Tablet																																																																						
Operating Frequency Range of each LTE transmission band	LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 13: 777 MHz ~ 787 MHz LTE Band 14: 788 MHz ~ 798 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 25: 1850 MHz ~ 1915 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 30: 2305 MHz ~ 2315 MHz LTE Band 53: 2483.5 MHz ~ 2495 MHz LTE Band 66: 1710 MHz ~ 1780 MHz LTE Band 70: 1695 MHz ~ 1710 MHz LTE Band 71: 663 MHz ~ 698 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 48: 3550 MHz ~ 3700 MHz LTE Band 106: 897.5 MHz ~ 900.5 MHz																																																																						
Channel Bandwidth	LTE Band 2:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 4:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 5:1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 7: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 12:1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 13: 5MHz, 10MHz LTE Band 14: 5MHz, 10MHz LTE Band 17: 5MHz, 10MHz LTE Band 25:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 26:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz LTE Band 30: 5MHz, 10MHz LTE Band 53: 1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 66:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 70: 5MHz, 10MHz, 15MHz LTE Band 71: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 38: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 41: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 48: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 106: 1.4MHz, 3MHz																																																																						
uplink modulations used	QPSK / 16QAM / 64QAM / 256QAM																																																																						
LTE Voice / Data requirements	Data only																																																																						
LTE Release Version	R16																																																																						
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>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>256 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	64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2	256 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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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 detect mechanism, body will trigger reduced power for some bands applied to satisfy SAR compliance, the detail please referred to section 14.																																																																						
LTE Carrier Aggregation Combinations	Inter-Band and Intra-Band possible combinations and the detail power verification please																																																																						



				referred to section 14.								
LTE Carrier Aggregation Additional Information				1. This device supports LTE Carrier Aggregation (CA) in the uplink for intra-band and inter-band with two component carriers in the uplink. SAR Measurements and conducted powers were evaluated per FCC Guidance. 2. This device supports maximum of 2 carriers in the uplink.								
Transmission (H, M, L) channel numbers and frequencies in each LTE band												
LTE Band 2												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	18607	1850.7	18615	1851.5	18625	1852.5	18650	1855	18675	1857.5	18700	1860
M	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880
H	19193	1909.3	19185	1908.5	19175	1907.5	19150	1905	19125	1902.5	19100	1900
LTE Band 4												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	19957	1710.7	19965	1711.5	19975	1712.5	20000	1715	20025	1717.5	20050	1720
M	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5
H	20393	1754.3	20385	1753.5	20375	1752.5	20350	1750	20325	1747.5	20300	1745
LTE Band 5												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz					
	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					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	20775	2502.5	20800	2505	20825	2507.5	20850	2510	20850	2510	20850	2510
M	21100	2535	21100	2535	21100	2535	21100	2535	21100	2535	21100	2535
H	21425	2567.5	21400	2565	21375	2562.5	21350	2560	21350	2560	21350	2560
LTE Band 12												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	23017	699.7	23025	700.5	23035	701.5	23060	704	23060	704	23060	704
M	23095	707.5	23095	707.5	23095	707.5	23095	707.5	23095	707.5	23095	707.5
H	23173	715.3	23165	714.5	23155	713.5	23130	711	23130	711	23130	711
LTE Band 14												
	Bandwidth 5 MHz				Bandwidth 10 MHz							
	Channel #		Channel #		Channel #		Channel #		Freq.(MHz)		Freq.(MHz)	
L	23305		790.5		23330		23330		793		793	
M	23330		793		23330		23330		793		793	
H	23355		795.5		23355		23355		795.5		795.5	
LTE Band 17												
	Bandwidth 5 MHz				Bandwidth 10 MHz							
	Channel #		Freq.(MHz)		Channel #		Freq. (MHz)		Channel #		Freq. (MHz)	
L	23755		706.5		23780		709		23780		709	
M	23790		710		23790		710		23790		710	
H	23825		713.5		23800		711		23800		711	
LTE Band 13												
	Bandwidth 5 MHz				Bandwidth 10 MHz							
	Channel #		Freq.(MHz)		Channel #		Freq.(MHz)		Channel #		Freq.(MHz)	
L	23205		779.5		23230		782		23230		782	
M	23230		782		23230		782		23230		782	
H	23255		784.5		23255		784.5		23255		784.5	
LTE Band 26												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz			
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	26697	814.7	26705	815.5	26715	816.5	26740	819	26765	821.5	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 25												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	26047	1850.7	26055	1851.5	26065	1852.5	26090	1855	26115	1857.5	26140	1860
M	26340	1880	26340	1880	26340	1880	26340	1880	26340	1880	26340	1880
H	26683	1914.3	26675	1913.5	26665	1912.5	26640	1910	26615	1907.5	26590	1905

LTE Band 30				
	Bandwidth 5 MHz		Bandwidth 10 MHz	
	Channel #	Freq.(MHz)	Channel #	Freq.(MHz)
L	27685	2307.5	27710	2310
M	27710	2310		
H	27735	2312.5		

LTE Band 38								
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	37775	2572.5	37800	2575	37825	2577.5	37850	2580
M	38000	2595	38000	2595	38000	2595	38000	2595
H	38225	2617.5	38200	2615	38175	2612.5	38150	2610

LTE Band 41								
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	39675	2498.5	39700	2501	39725	2503.5	39750	2506
LM	40148	2545.8	40160	2547	40173	2548.3	40185	2549.5
M	40620	2593	40620	2593	40620	2593	40620	2593
HM	41093	2640.3	41080	2639	41068	2637.8	41055	2636.5
H	41565	2687.5	41540	2685	41515	2682.5	41490	2680

LTE Band 66												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	131979	1710.7	131987	1711.5	131997	1712.5	132022	1715	132047	1717.5	132072	1720
M	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745
H	132665	1779.3	132657	1778.5	132647	1777.5	132622	1775	132597	1772.5	132572	1770

LTE Band 71								
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	133147	665.5	133172	668	133197	670.5	133222	673
M	133247	675.5	133272	678	133297	680.5	133322	683
H	133447	695.5	133422	693	133397	690.5	133372	688

LTE Band 48								
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	55265	3552.5	55290	3555	55315	3557.5	55340	3560
LM	55810	3607	55815	3607.5	55820	3608	55830	3609
MH	56170	3643	56165	3642.5	56160	3642	56150	3641
H	56715	3697.5	56690	3695	56665	3692.5	56640	3690

LTE Band 53								
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	60147	2484.2	60155	2485	60165	2486	60190	2488.5
M	60197.5	2489.25	60197.5	2489.25	60197.5	2489.25	60197.5	2489.25
H	60248	2494.3	60240	2493.5	60230	2492.5	60205	2490

LTE Band 70						
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	132997	1697.5	133022	1700		
M	133047	1702.5	133047	1702.5	133047	1702.5
H	133097	1707.5	133072	1705		



LTE Band 106				
	Bandwidth 1.4 MHz		Bandwidth 3 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	134314	898.2		
M	134322	899	134322	899
H	134330	899.8		

<For LTE Overlap Bands Description>

1) LTE Bands BW

Band	1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz
LTE Band 2	Yes	Yes	Yes	Yes	Yes	Yes
LTE Band 25	Yes	Yes	Yes	Yes	Yes	Yes
LTE Band 4	Yes	Yes	Yes	Yes	Yes	Yes
LTE Band 66	Yes	Yes	Yes	Yes	Yes	Yes
LTE Band 5	Yes	Yes	Yes	Yes		
LTE Band 26	Yes	Yes	Yes	Yes	Yes	
LTE Band 12	Yes	Yes	Yes	Yes		
LTE Band 17			Yes	Yes		
LTE Band 38			Yes	Yes	Yes	Yes
LTE Band 41			Yes	Yes	Yes	Yes

2) LTE Bands tune up:

Band	Antenna	Sensor on	Sensor off	Default
		DSI 7	DSI 0	
		Tune-up Limit	Tune-up Limit	Tune-up Limit
LTE Band 2	Ant 1	20.0	25.1	25.1
LTE Band 25	Ant 1	20.0	25.1	25.1
LTE Band 2	Ant 5	16.8	25.1	25.1
LTE Band 25	Ant 5	16.8	25.1	25.1
LTE Band 12	Ant 8	22.0	25.1	25.1
LTE Band 17	Ant 8	22.0	25.1	25.1
LTE Band 5	Ant 8	21.6	25.1	25.1
LTE Band 26	Ant 8	21.6	25.1	25.1
LTE Band 4	Ant 1	19.4	25.1	25.1
LTE Band 66	Ant 1	19.4	25.1	25.1
LTE Band 4	Ant 5	17.7	25.1	25.1
LTE Band 66	Ant 5	17.7	25.1	25.1
LTE Band 38	Ant 5	18.0	25.1	25.1
LTE Band 41	Ant 5	18.0	25.1	25.1
LTE Band 38	Ant 8	20.3	25.1	25.1
LTE Band 41	Ant 8	20.3	25.1	25.1

4.3 General 5G NR SAR Test and Reporting Considerations

5G NR Information	
Operating Frequency Range of each 5G NR transmission band	5G NR n2: 1850 MHz ~ 1910 MHz 5G NR n5: 824 MHz ~ 849 MHz 5G NR n7: 2500 MHz ~ 2570 MHz 5G NR n12: 699 MHz ~ 716 MHz 5G NR n13: 777 MHz ~ 787 MHz 5G NR n14: 788 MHz ~ 798 MHz 5G NR n25: 1850 MHz ~ 1915 MHz 5G NR n26: 814 MHz ~ 849 MHz 5G NR n30: 2305 MHz ~ 2315 MHz 5G NR n38: 2570 MHz ~ 2620 MHz 5G NR n41: 2496 MHz ~ 2690 MHz 5G NR n48: 3550 MHz ~ 3700 MHz 5G NR n53: 2483.5 MHz ~ 2495 MHz 5G NR n66: 1710 MHz ~ 1780 MHz 5G NR n70: 1695 MHz ~ 1710 MHz 5G NR n71: 663 MHz ~ 698 MHz 5G NR n77: 3450 MHz ~ 3980 MHz 5G NR n78: 3450 MHz ~ 3800 MHz
Channel Bandwidth	The detail please refers to section 4.1 5G NR FR1 bands table.
SCS	FDD: SCS15KHz, TDD: SCS30KHz
uplink modulations used	DFT-s-OFDM: PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM CP-OFDM: QPSK / 16QAM / 64QAM / 256QAM
A-MPR (Additional MPR) disabled for SAR Testing?	Yes
LTE Anchor Bands for n2	LTE B4/5/7/12/13/14/30/48/66/71
LTE Anchor Bands for n5	LTE B2/7/12/30/48/66
LTE Anchor Bands for n7	LTE B2/4/5/12/13/66/71
LTE Anchor Bands for n12	LTE B2/5/7/30/48/66
LTE Anchor Bands for n14	LTE B2/30/66
LTE Anchor Bands for n25	LTE B5/7/12/13/26/66/71
LTE Anchor Bands for n26	LTE B7
LTE Anchor Bands for n30	LTE B2/5/12/14/66
LTE Anchor Bands for n38	LTE B2/4/5/12/66/71
LTE Anchor Bands for n41	LTE B2/4/5/12/25/26/66/71
LTE Anchor Bands for n66	LTE B2/5/7/12/13/14/30/48/71
LTE Anchor Bands for n71	LTE B2/7/48/66
LTE Anchor Bands for n77	LTE B2/5/7/12/13/14/25/30/41/66/71
LTE Anchor Bands for n78	LTE B2/4/5/7/12/13/25/26/38/41/66/71

Transmission (H, M, L) channel numbers and frequencies in each 5G NR band																
NR Band 2																
Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 35MHz		Bandwidth 40MHz		
Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	
L 370500	1852.5	371000	1855	371500	1857.5	372000	1860	372500	1862.5	373000	1865	373500	1867.5	374000	1870	
M 376000	1880	376000	1880	376000	1880	376000	1880	376000	1880	376000	1880	376000	1880	376000	1880	
H 381500	1907.5	381000	1905	380500	1902.5	380000	1900	379500	1897.5	379000	1895	378500	1892.5	378000	1890	

NR Band 5								
Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		
Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	
L 165300	826.5	165800	829	166300	831.5	166800	834	
M 167300	836.5	167300	836.5	167300	836.5	167300	836.5	
H 169300	846.5	168800	844	168300	841.5	167800	839	

NR Band 7																		
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 35MHz		Bandwidth 40MHz		Bandwidth 50MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	500500	2502.5	501000	2505	501500	2507.5	502000	2510	502500	2512.5	503000	2515	503500	2517.5	504000	2520	505000	2525
M	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535
H	513500	2567.5	513000	2565	512500	2562.5	512000	2560	511500	2557.5	511000	2555	510500	2552.5	510000	2550	509000	2545



NR Band 12						
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	140300	701.5	140800	704	141300	706.5
M	141500	707.5	141500	707.5	141500	707.5
H	142700	713.5	142200	711	141700	708.5

NR Band 13				
	Bandwidth 5MHz		Bandwidth 10MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	155900	779.5	156400	782
M	156400	782		
H	156900	784.5		

NR Band 14				
	Bandwidth 5MHz		Bandwidth 10MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	158100	790.5	158600	793
M	158600	793		
H	159100	795.5		

NR Band 25																
	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	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5
H	382500	1912.5	382000	1910	381500	1907.5	381000	1905	380500	1902.5	380000	1900	379500	1897.5	379000	1895

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 30				
	Bandwidth 5MHz		Bandwidth 10MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	461500	2307.5	462000	2310
M	462000	2310		
H	462500	2312.5		

NR Band 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	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	133100	665.5	133600	668	134100	670.5	134600	673
M	136100	680.5	136100	680.5	136100	680.5	136100	680.5
H	139100	695.5	138600	693	138100	690.5	137600	688

NR Band 38												
	Bandwidth10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	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	520000	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	500202	2501.01	507204	2536.02	508200	2541	509202	2546.01
M 518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99
H 537000	2685	536496	2682.48	535998	2679.99	535500	2677.5	534996	2674.98	534498	2672.49	534000	2670	533496	2667.48	532998	2664.99	531996	2659.98	531000	2655	529998	2649.99	528996	2644.98	528000	2640

NR Band 48									
Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz	
Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
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	3750.00	650000	3750.00	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750
H 653000	3795	652832	3792.48	652666	3789.99	652500	3787.5	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																							
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	633334	3500.01	633332	3499.98	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01
H 636332	3544.98	636166	3542.49	636000	3540	635832	3537.48	635668	3535.02	635334	3530.01	635000	3525	634668	3520.02	634334	3515.01	634000	3510	633668	3505.02		

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

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 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	633334	3500.01	633332	3499.98	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01
H 636332	3544.98	636166	3542.49	636000	3540	635832	3537.48	635668	3535.02	635334	3530.01	635000	3525	634668	3520.02	634334	3515.01	634000	3510	633668	3505.02		



For Part96

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 637000	3555	637168	3557.52	637334	3560.01	637500	3562.5	637668	3565.02	638000	3570	638334	3575.01	638668	3580.02	639000	3585	639334	3590.01	639668	3595.02	640000	3600
M 641666	3624.99	641666	3624.99	641666	3624.99	641666	3624.99	641666	3624.99	641666	3624.99	641666	3624.99	641666	3624.99	641666	3624.99	641666	3624.99	641666	3624.99	641666	3624.99
H 646332	3694.98	646166	3692.49	646000	3690	645832	3687.48	645666	3684.99	645332	3624.99	645000	3675	644666	3669.99	644332	3664.98	644000	3660	643666	3654.99	643332	3649.98

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	637000	3555	637168	3557.52	637334	3560.01	637500	3562.5	637668	3565.02	638000	3570	638334	3575.01	638668	3580.02	639000	3585	639334	3590.01	639668	3595.02	640000	3600
M	641666	3624.99	641666	3624.99	641666	3624.99	641666	3624.99	641666	3624.99	641666	3624.99	641666	3624.99	641666	3624.99	641666	3624.99	641666	3624.99	641666	3624.99	641666	3624.99
H	646332	3694.98	646166	3692.49	646000	3690	645832	3687.48	645666	3684.99	645332	3624.99	645000	3675	644666	3669.99	644332	3664.98	644000	3660	643666	3654.99	643332	3649.98

NR Band 70						
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	339500	1697.5	340000	1700	340500	1702.5
M	340500	1702.5	340500	1702.5		
H	341500	1707.5	341000	1705		

NR Band 53		
	Bandwidth 10MHz	
	Ch. #	Freq. (MHz)
L	497700	2488.5
M	497850	2489.25
H	498000	2490

<For NR Overlap Bands Description>

1) NR Bands BW

Band	Duplex	SCS(KHz)	Bandwidths(BW)
n2	FDD	15	5, 10, 15, 20, 25, 30, 35, 40
n5	FDD	15	5, 10, 15, 20
n25	FDD	15	5, 10, 15, 20, 25, 30, 35, 40
n26	FDD	15	5, 10, 15, 20
n38	TDD	30	10, 15, 20, 25, 30, 40
n41	TDD	30	10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100
n77	TDD	30	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100
n78	TDD	30	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100

2) NR Bands Tune up:

Band	Antenna	Sensor on DSI 7 Tune-up Limit	Sensor off DSI 0 Tune-up Limit	Default
				Tune-up Limit
FR1 n2	Ant 1	17.9	25.2	25.2
FR1 n25	Ant 1	17.9	25.2	25.2
FR1 n2	Ant 5	17.3	25.2	25.2
FR1 n25	Ant 5	17.3	25.2	25.2
FR1 n5	Ant 8	21.9	25.2	25.2
FR1 n26	Ant 8	21.9	25.2	25.2
FR1 n38	Ant 5	18.1	25.2	25.2
FR1 n41	Ant 5	18.1	25.2	25.2
FR1 n38	Ant 8	11.2	25.2	25.2
FR1 n41	Ant 8	11.2	25.2	25.2
FR1 n77(78) 27Q	Ant 3	9.2	9.2	25.7
FR1 n77(78) 27Q HPUE	Ant 3	12.2	12.2	25.7
FR1 n77(78) 96	Ant 3	9.2	9.2	18.5
FR1 n77(78) 27O	Ant 3	9.2	9.2	25.7
FR1 n77(78) 27O HPUE	Ant 3	12.2	12.2	25.7
FR1 n77(78) 27Q	Ant 4	15.2	15.2	25.7
FR1 n77(78) 27Q HPUE	Ant 4	18.2	18.2	25.7
FR1 n77(78) 96	Ant 4	15.2	15.2	18.5
FR1 n77(78) 27O	Ant 4	15.2	15.2	25.7
FR1 n77(78) 27O HPUE	Ant 4	18.2	18.2	25.7
FR1 n77(78) 27Q	Ant 8	13.6	25.7	25.7
FR1 n77(78) 27Q HPUE	Ant 8	16.6	25.7	25.7
FR1 n77(78) 96	Ant 8	13.6	18.5	18.5
FR1 n77(78) 27O	Ant 8	13.6	25.7	25.7
FR1 n77(78) 27O HPUE	Ant 8	16.6	25.7	25.7
FR1 n77(78) 27Q	Ant 9	14.7	25.7	25.7
FR1 n77(78) 27Q HPUE	Ant 9	17.7	25.7	25.7
FR1 n77(78) 96	Ant 9	14.7	18.5	18.5
FR1 n77(78) 27O	Ant 9	14.7	25.7	25.7
FR1 n77(78) 27O HPUE	Ant 9	17.7	25.7	25.7

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 FCC 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/RFID transmitter to ensure the product in compliance with FCC RF exposure limit over a defined time window. 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 22 to enable the Smart Transmit GEN1 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/RFID bands. It will then be used as input for Smart Transmit to control and manage RF exposure for WWAN and WLAN/BT/RFID bands.

<SAR design target and uncertainty>

Item		Uncertainty dB (k=2)
Total uncertainty	WWAN/RFID	1.0
	WLAN/BT	1.5

To account for total uncertainty, SAR_{design_target} should be determined as:

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



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 Pmax, when needed, but enforces power limiting to maintain time-averaged transmit power to Plimit. Below table shows Plimit EFS settings and maximum tune up output power Pmax configured for this EUT for various transmit conditions (Device State Index DSI).

<Plimit for supported technologies and bands (Plimit in EFS file)>

Band	Antenna	Sensor on DSI 7	Sensor off DSI 0	Pmax*
GSM850	Ant 8	19.7	28.5	28.5
GSM1900	Ant 1	19.2	24.0	24.0
WCDMA II	Ant 1	17.3	24.0	24.0
WCDMA IV	Ant 1	18.6	24.0	24.0
WCDMA V	Ant 8	19.7	24.0	24.0
LTE Band 5	Ant 10	21.1	24.1	24.1
LTE Band 7	Ant 5	16.8	24.1	24.1
LTE Band 7	Ant 8	15.1	24.1	24.1
LTE Band 12(17)	Ant 8	21.0	24.1	24.1
LTE Band 13	Ant 8	21.0	23.5	23.5
LTE Band 14	Ant 8	21.1	23.5	23.5
LTE Band 25(2)	Ant 1	19.0	24.1	24.1
LTE Band 25(2)	Ant 5	15.8	24.1	24.1
LTE Band 26(5)	Ant 8	20.6	24.1	24.1
LTE Band 30	Ant 5	17.5	24.1	24.1
LTE Band 30	Ant 8	19.3	24.1	24.1
LTE Band 53	Ant 8	14.9	22.1	22.1
LTE Band 66(4)	Ant 1	18.4	24.1	24.1
LTE Band 66(4)	Ant 5	16.7	24.1	24.1
LTE Band 70	Ant 1	16.9	24.1	24.1
LTE Band 71	Ant 8	24.3	24.1	24.1
LTE Band 106	Ant 8	18.9	24.1	24.1
LTE Band 41(38)	Ant 5	15.0	22.1	22.1
LTE Band 41(38)	Ant 8	17.3	22.4	22.1
LTE Band 41_HPUE	Ant 8	17.3	22.4	22.4
LTE Band 48	Ant 8	15.9	19.0	19.0
LTE Band 48	Ant 9	14.4	19.5	19.5
FR1 n5	Ant 10	20.7	24.2	24.2
FR1 n7	Ant 5	16.7	24.2	24.2
FR1 n7	Ant 8	15.3	24.2	24.2
FR1 n12	Ant 8	22.2	24.2	24.2
FR1 n13	Ant 8	21.5	23.5	23.5
FR1 n14	Ant 8	21.9	23.5	23.5
FR1 n25(2)	Ant 1	16.9	24.2	24.2
FR1 n25(2)	Ant 5	16.3	24.2	24.2
FR1 n26(5)	Ant 8	20.9	24.2	24.2
FR1 n30	Ant 5	17.3	24.2	24.2
FR1 n30	Ant 8	17.4	24.2	24.2
FR1 n53	Ant 8	15.1	24.2	24.2
FR1 n66	Ant 1	17.6	24.2	24.2
FR1 n66	Ant 5	17.4	24.2	24.2
FR1 n70	Ant 1	17.2	24.2	24.2
FR1 n71	Ant 8	24.0	24.2	24.2
FR1 n41	Ant 3	8.5	8.5	24.2
FR1 n41 HPUE	Ant 3	8.5	8.5	23.0
FR1 n41	Ant 4	7.5	7.5	24.2
FR1 n41 HPUE	Ant 4	7.5	7.5	23.0



FR1 n41(38)	Ant 5	17.1	24.2	24.2
FR1 n41 HPUE	Ant 5	17.1	24.2	23.0
FR1 n41(38)	Ant 8	10.2	24.2	24.2
FR1 n41 HPUE	Ant 8	10.2	24.2	23.0
FR1 n48	Ant 8	13.4	17.0	17.0
FR1 n48	Ant 9	14.5	17.0	17.0
FR1 n77(78) 27Q	Ant 3	8.2	8.2	24.7
FR1 n77(78) 27Q HPUE	Ant 3	8.2	8.2	21.7
FR1 n77(78) 96	Ant 3	8.2	8.2	17.5
FR1 n77(78) 27O	Ant 3	8.2	8.2	24.7
FR1 n77(78) 27O HPUE	Ant 3	8.2	8.2	21.7
FR1 n77(78) 27Q	Ant 4	14.2	14.2	24.7
FR1 n77(78) 27Q HPUE	Ant 4	14.2	14.2	21.7
FR1 n77(78) 96	Ant 4	14.2	14.2	17.5
FR1 n77(78) 27O	Ant 4	14.2	14.2	24.7
FR1 n77(78) 27O HPUE	Ant 4	14.2	14.2	21.7
FR1 n77(78) 27Q	Ant 8	12.6	24.7	24.7
FR1 n77(78) 27Q HPUE	Ant 8	12.6	24.7	21.7
FR1 n77(78) 96	Ant 8	12.6	24.7	17.5
FR1 n77(78) 27O	Ant 8	12.6	24.7	24.7
FR1 n77(78) 27O HPUE	Ant 8	12.6	24.7	21.7
FR1 n77(78) 27Q	Ant 9	13.7	24.7	24.7
FR1 n77(78) 27Q HPUE	Ant 9	13.7	24.7	21.7
FR1 n77(78) 96	Ant 9	13.7	24.7	17.5
FR1 n77(78) 27O	Ant 9	13.7	24.7	24.7
FR1 n77(78) 27O HPUE	Ant 9	13.7	24.7	21.7
RFID	Ant 8	20.0	25.0	25.0
WLAN2.4GHz	Ant 6	12.5	21.5	21.5
WLAN2.4GHz	Ant 7	10.5	24.0	24.0
WLAN2.4GHz	Ant 6+7	11.6	22.9	25.9
Bluetooth	Ant 6	14.9	7.5	7.5
Bluetooth	Ant 7	14.3	7.0	7.0
WLAN5GHz	Ant 6	8.5	17.5	17.5
WLAN5GHz	Ant 7	6.5	17.5	17.5
WLAN5GHz	Ant 6+7	7.6	17.5	20.5
WLAN5GHz	Ant 6	8.5	16.5	16.5
WLAN5GHz	Ant 7	6.5	17.0	17.0
WLAN5GHz	Ant 6+7	7.6	16.8	19.8
WLAN5GHz	Ant 6	7.5	17.5	17.5
WLAN5GHz	Ant 7	6.5	18.0	18.0
WLAN5GHz	Ant 6+7	7.0	17.8	20.8
WLAN5GHz	Ant 6	7.5	17.0	17.0
WLAN5GHz	Ant 7	6.5	17.5	17.5
WLAN5GHz	Ant 6+7	7.0	17.3	20.3
WLAN5GHz	Ant 6	7.0	17.5	17.5
WLAN5GHz	Ant 7	4.5	18.5	18.5
WLAN5GHz	Ant 6+7	5.9	18.0	21.0
WLAN5GHz	Ant 6	9.0	18.0	18.0
WLAN5GHz	Ant 7	6.0	18.5	18.5
WLAN5GHz	Ant 6+7	7.8	18.0	21.0
WLAN6.5GHz	Ant 6	10.0	18.0	18.0
WLAN6.5GHz	Ant 7	7.5	18.0	18.0
WLAN6.5GHz	Ant 6+7	8.9	18.0	21.0
WLAN6.6GHz	Ant 6	10.0	18.0	18.0
WLAN6.6GHz	Ant 7	10.0	18.0	18.0
WLAN6.6GHz	Ant 6+7	10.0	18.0	21.0

WLAN6.7GHz	Ant 6	9.5	18.5	18.5
WLAN6.7GHz	Ant 7	8.5	16.0	16.0
WLAN6.7GHz	Ant 6+7	9.0	18.5	21.5
WLAN6.8GHz	Ant 6	10.5	15.5	15.5
WLAN6.8GHz	Ant 7	9.5	16.0	16.0
WLAN6.8GHz	Ant 6+7	11.0	16.0	19.0
WLAN6.5GHz VLP	Ant 6	10.0	18.0	8.5
WLAN6.5GHz VLP	Ant 7	7.5	18.0	8.5
WLAN6.5GHz VLP	Ant 6+7	8.9	18.0	11.5
WLAN6.6GHz VLP	Ant 6	10.0	18.0	9.5
WLAN6.6GHz VLP	Ant 7	10.0	18.0	9.5
WLAN6.6GHz VLP	Ant 6+7	10.0	18.0	12.5
WLAN6.7GHz VLP	Ant 6	9.5	18.5	9.0
WLAN6.7GHz VLP	Ant 7	8.5	16.0	9.0
WLAN6.7GHz VLP	Ant 6+7	9.0	18.5	12.0
WLAN6.8GHz VLP	Ant 6	10.5	15.5	9.5
WLAN6.8GHz VLP	Ant 7	9.5	16.0	9.5
WLAN6.8GHz VLP	Ant 6+7	11.0	16.0	12.5

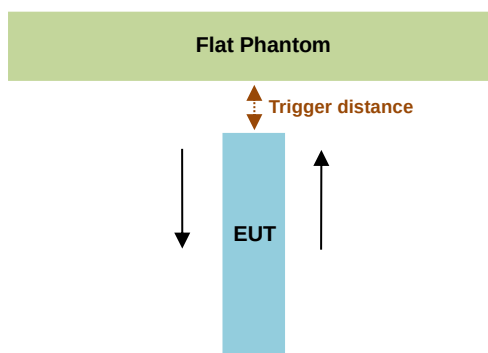
Note:

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

6. Proximity Sensor Triggering Test

<Proximity Sensor Triggering Distance (KDB 616217 D04 section 6.2)>:

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 (7125MHz) and lowest frequency (750MHz) was used for proximity sensor triggering testing.
2. Capacitive proximity sensor placed coincident with antenna elements at the bottom face, Edge1, Edge2 and Edge4 of the device are utilized to determine when the device comes in proximity of the user's body at the bottom face, Edge1, Edge2 and Edge4 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. When the sensor is active, all WWAN/WLAN bands reduced power will be active.
4. The sensors used to detect the proximity of the user's body at the Bottom Face or Edge 1 for Ant6/9/1 and Bottom Face or Edge 2 side for Ant7 and Bottom Face or Edge 4 side for Ant10 and Bottom Face or Edge 1 or Edge 2 side for Ant8 and Bottom Face or Edge 1 or Edge 4 side for Ant5 of the device use a detection threshold distance. The data shown in the sections below shows the distance(s).



<Ant1 Frequency Bands>

Proximity Sensor Triggering Distance (mm)				
Position	Bottom Face		Edge 1	
	Moving away	Moving towards	Moving away	Moving towards
Minimum	41	21	36	24

<Ant5 Frequency Bands>

Proximity Sensor Triggering Distance (mm)						
Position	Bottom Face		Edge 1		Edge 4	
	Moving away	Moving towards	Moving away	Moving towards	Moving away	Moving towards
Minimum	25	21	28	19	14	8

<Ant8 Frequency Bands>

Proximity Sensor Triggering Distance (mm)						
Position	Bottom Face		Edge 1		Edge 2	
	Moving away	Moving towards	Moving away	Moving towards	Moving away	Moving towards
Minimum	54	45	61	50	29	18

<Ant9 Frequency Bands>

Proximity Sensor Triggering Distance (mm)				
Position	Bottom Face		Edge 1	
	Moving away	Moving towards	Moving away	Moving towards
Minimum	17	16	20	12

<Ant10 Frequency Bands>

Proximity Sensor Triggering Distance (mm)				
Position	Bottom Face		Edge 4	
	Moving away	Moving towards	Moving away	Moving towards
Minimum	30	29	32	26

<Ant6 Frequency Bands>

Proximity Sensor Triggering Distance (mm)				
Position	Bottom Face		Edge 1	
	Moving away	Moving towards	Moving away	Moving towards
Minimum	31	22	26	19

<Ant7 Frequency Bands>

Proximity Sensor Triggering Distance (mm)				
Position	Bottom Face		Edge 2	
	Moving away	Moving towards	Moving away	Moving towards
Minimum	30	23	28	25

<Proximity Sensor Triggering Coverage (KDB 616217 D04 section 6.3)>:

If a sensor is spatially offset from the antenna(s), it is necessary to verify sensor triggering for conditions where the antenna is next to the user but the sensor is laterally further away to ensure sensor coverage is sufficient for reducing the power to maintain compliance. For p-sensor coverage testing, the device is moved and “along the direction of maximum antenna and sensor offset”.

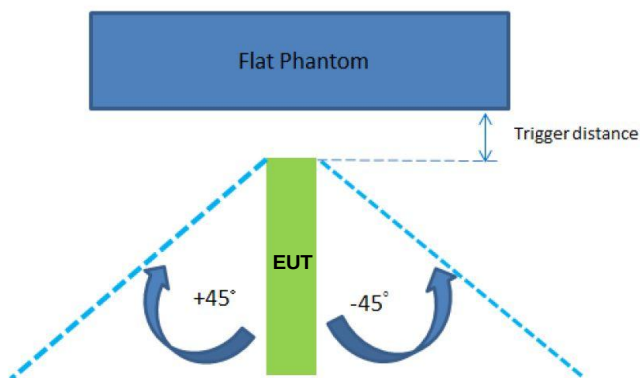
Illustrated in the internal photo exhibit, although the sensor is spatially offset, there is no trigger condition where the antenna is next to the user but the sensor is laterally further away, therefore proximity sensor coverage testing is not required.

This procedure is not required because antenna and sensor are collocated and the peak SAR location is overlapping with the sensor.

<Tablet Tilt angle influences to proximity sensor triggering (KDB 616217 D04 section 6.4)>:

The influence of table tilt angles to proximity sensor triggering was determined by positioning each tablet edge that contains a transmitting antenna, perpendicular to the flat phantom, the detail please refers to following tables.

Rotating the tablet around the edge next to the phantom in $\leq 10^\circ$ increments until the tablet is $\pm 45^\circ$ from the vertical position at 0° , and the maximum output power remains in the reduced mode.



<Ant1 Frequency Bands>

The Sensor Trigger Distance (mm)	
Position	Edge 1
Minimum	24

< Ant5 Frequency Bands>

The Sensor Trigger Distance (mm)		
Position	Edge 1	Edge 4
Minimum	19	8

< Ant8 Frequency Bands>

The Sensor Trigger Distance (mm)		
Position	Edge 1	Edge 2
Minimum	50	18

<Ant9 Frequency Bands>

The Sensor Trigger Distance (mm)	
Position	Edge 1
Minimum	12

<Ant10 Frequency Bands>

The Sensor Trigger Distance (mm)	
Position	Edge 4
Minimum	26

<Ant6 Frequency Bands>

The Sensor Trigger Distance (mm)	
Position	Edge 1
Minimum	19

<Ant7 Frequency Bands>

The Sensor Trigger Distance (mm)	
Position	Edge 2
Minimum	25

Proximity sensor power reduction

Exposure Position / wireless mode for Ant1	Bottom Face ⁽¹⁾	Edge 1 ⁽¹⁾	Edge 2	Edge 3	Edge 4
GSM1900(GPRS 4 Tx slots)	4.8 dB	4.8 dB	0 dB	0 dB	0 dB
WCDMA II	6.7 dB	6.7 dB	0 dB	0 dB	0 dB
WCDMA IV	5.4 dB	5.4 dB	0 dB	0 dB	0 dB
LTE Band 25(2)	5.1 dB	5.1 dB	0 dB	0 dB	0 dB
LTE Band 66(4)	5.7 dB	5.7 dB	0 dB	0 dB	0 dB
LTE Band 70	7.2 dB	7.2 dB	0 dB	0 dB	0 dB
FR1 n25(2)	7.3 dB	7.3 dB	0 dB	0 dB	0 dB
FR1 n66	6.6 dB	6.6 dB	0 dB	0 dB	0 dB
FR1 n70	7.0 dB	7.0 dB	0 dB	0 dB	0 dB

Exposure Position / wireless mode for Ant5	Bottom Face ⁽¹⁾	Edge 1 ⁽¹⁾	Edge 2	Edge 3	Edge 4 ⁽¹⁾
LTE Band 7	7.3 dB	7.3 dB	0 dB	0 dB	7.3 dB
LTE Band 25(2)	8.3 dB	8.3 dB	0 dB	0 dB	8.3 dB
LTE Band 30	6.6 dB	6.6 dB	0 dB	0 dB	6.6 dB
LTE Band 66(4)	7.4 dB	7.4 dB	0 dB	0 dB	7.4 dB
LTE Band 41(38)	7.1 dB	7.1 dB	0 dB	0 dB	7.1 dB
FR1 n7	7.5 dB	7.5 dB	0 dB	0 dB	7.5 dB
FR1 n25(2)	7.9 dB	7.9 dB	0 dB	0 dB	7.9 dB
FR1 n30	6.9 dB	6.9 dB	0 dB	0 dB	6.9 dB
FR1 n66	6.8 dB	6.8 dB	0 dB	0 dB	6.8 dB
FR1 n41(38)	7.1 dB	7.1 dB	0 dB	0 dB	7.1 dB
FR1 n41 HPUE	5.9 dB	5.9 dB	0 dB	0 dB	5.9 dB

Exposure Position / wireless mode for Ant8	Bottom Face ⁽¹⁾	Edge 1 ⁽¹⁾	Edge 2 ⁽¹⁾	Edge 3	Edge 4
GSM850(GPRS 4 Tx slots)	8.8 dB	8.8 dB	8.8 dB	0 dB	0 dB
WCDMA V	4.3 dB	4.3 dB	4.3 dB	0 dB	0 dB
LTE Band 7	9.0 dB	9.0 dB	9.0 dB	0 dB	0 dB
LTE Band 12(17)	3.1 dB	3.1 dB	3.1 dB	0 dB	0 dB
LTE Band 13	2.5 dB	2.5 dB	2.5 dB	0 dB	0 dB
LTE Band 14	2.4 dB	2.4 dB	2.4 dB	0 dB	0 dB
LTE Band 26(5)	3.5 dB	3.5 dB	3.5 dB	0 dB	0 dB
LTE Band 30	4.8 dB	4.8 dB	4.8 dB	0 dB	0 dB
LTE Band 53	7.2 dB	7.2 dB	7.2 dB	0 dB	0 dB
LTE Band 106	5.2 dB	5.2 dB	5.2 dB	0 dB	0 dB
LTE Band 41(38)	4.8 dB	4.8 dB	4.8 dB	0 dB	0 dB
LTE Band 41_HPUE	5.1 dB	5.1 dB	5.1 dB	0 dB	0 dB
LTE Band 48	3.1 dB	3.1 dB	3.1 dB	0 dB	0 dB
FR1 n7	8.9 dB	8.9 dB	8.9 dB	0 dB	0 dB
FR1 n12	2.0 dB	2.0 dB	2.0 dB	0 dB	0 dB
FR1 n13	2.0 dB	2.0 dB	2.0 dB	0 dB	0 dB
FR1 n14	1.6 dB	1.6 dB	1.6 dB	0 dB	0 dB
FR1 n26(5)	3.3 dB	3.3 dB	3.3 dB	0 dB	0 dB
FR1 n30	6.8 dB	6.8 dB	6.8 dB	0 dB	0 dB
FR1 n53	9.1 dB	9.1 dB	9.1 dB	0 dB	0 dB
FR1 n71	0.2 dB	0.2 dB	0.2 dB	0 dB	0 dB
FR1 n41(38)	14.0 dB	14.0 dB	14.0 dB	0 dB	0 dB
FR1 n41 HPUE	12.8 dB	12.8 dB	12.8 dB	0 dB	0 dB
FR1 n48	3.6 dB	3.6 dB	3.6 dB	0 dB	0 dB
FR1 n77 27Q	12.1 dB	12.1 dB	12.1 dB	0 dB	0 dB



FR1 n77 27Q HPUE	9.1 dB	9.1 dB	9.1 dB	0 dB	0 dB
FR1 n77 96	4.9 dB	4.9 dB	4.9 dB	0 dB	0 dB
FR1 n77 O	12.1 dB	12.1 dB	12.1 dB	0 dB	0 dB
FR1 n77 O HPUE	9.1 dB	9.1 dB	9.1 dB	0 dB	0 dB
RFID	5.0 dB	5.0 dB	5.0 dB	0 dB	0 dB

Exposure Position / wireless mode for Ant9	Bottom Face ⁽¹⁾	Edge 1 ⁽¹⁾	Edge 2	Edge 3	Edge 4
LTE Band 48	5.1 dB	5.1 dB	0 dB	0 dB	0 dB
FR1 n48	2.5 dB	2.5 dB	0 dB	0 dB	0 dB
FR1 n77 27Q	11.0 dB	11.0 dB	0 dB	0 dB	0 dB
FR1 n77 27Q HPUE	8.0 dB	8.0 dB	0 dB	0 dB	0 dB
FR1 n77 96	3.8 dB	3.8 dB	0 dB	0 dB	0 dB
FR1 n77 27O	11.0 dB	11.0 dB	0 dB	0 dB	0 dB
FR1 n77 27O HPUE	8.0 dB	8.0 dB	0 dB	0 dB	0 dB

Exposure Position / wireless mode for Ant10	Bottom Face ⁽¹⁾	Edge 1	Edge 2	Edge 3	Edge 4 ⁽¹⁾
LTE Band 5	3.0 dB	0 dB	0 dB	0 dB	3.0 dB
FR1 n5	3.5 dB	0 dB	0 dB	0 dB	3.5 dB

Exposure Position / wireless mode for Ant6	Bottom Face ⁽¹⁾	Edge 1 ⁽¹⁾	Edge 2	Edge 3	Edge 4
WLAN 2.4GHz	9.0 dB	9.0 dB	0 dB	0 dB	0 dB
WLAN 5.2GHz	9.0 dB	9.0 dB	0 dB	0 dB	0 dB
WLAN 5.3GHz	10.0 dB	10.0 dB	0 dB	0 dB	0 dB
WLAN 5.5GHz	10.5 dB	10.5 dB	0 dB	0 dB	0 dB
WLAN 5.8GHz	9.0 dB	9.0 dB	0 dB	0 dB	0 dB
WLAN 6GHz U-NII 5	8.0 dB	8.0 dB	0 dB	0 dB	0 dB
WLAN 6GHz U-NII 6	6.0 dB	6.0 dB	0 dB	0 dB	0 dB
WLAN 6GHz U-NII 7	9.0 dB	9.0 dB	0 dB	0 dB	0 dB
WLAN 6GHz U-NII 8	4.5 dB	4.5 dB	0 dB	0 dB	0 dB

Exposure Position / wireless mode for Ant7	Bottom Face ⁽¹⁾	Edge 1	Edge 2 ⁽¹⁾	Edge 3	Edge 4
WLAN 2.4GHz	13.5 dB	0 dB	13.5 dB	0 dB	0 dB
WLAN 5.2GHz	11.0 dB	0 dB	11.0 dB	0 dB	0 dB
WLAN 5.3GHz	11.5 dB	0 dB	11.5 dB	0 dB	0 dB
WLAN 5.5GHz	14.0 dB	0 dB	14.0 dB	0 dB	0 dB
WLAN 5.8GHz	12.5 dB	0 dB	12.5 dB	0 dB	0 dB
WLAN 6GHz U-NII 5	8.5 dB	0 dB	8.5 dB	0 dB	0 dB
WLAN 6GHz U-NII 6	6.0 dB	0 dB	6.0 dB	0 dB	0 dB
WLAN 6GHz U-NII 7	7.5 dB	0 dB	7.5 dB	0 dB	0 dB
WLAN 6GHz U-NII 8	6.0 dB	0 dB	6.0 dB	0 dB	0 dB

Remark:

1. ⁽¹⁾: Reduced maximum limit applied by activation of proximity sensor.
2. Power reduction is not applicable for Bluetooth.
3. Tests were performed in accordance with KDB 616217 D04 section 6.1, 6.2, 6.3, 6.4 and 6.5 and compliant results are shown and described in exhibit "P-Sensor operational description"
4. For verification of compliance of power reduction scheme, additional SAR testing with EUT transmitting at full RF power at a conservative trigger distance was performed:

For Ant 1:

- Bottom Face: 20mm
- Edge 1: 23mm

For Ant 5:

- Bottom Face: 20mm
- Edge 1: 18mm
- Edge 4: 7mm

For Ant 8:

- Bottom Face: 44mm
- Edge 1: 49mm
- Edge 2: 17mm

For Ant 9:

- Bottom Face: 15mm
- Edge 1: 11mm

For Ant 10:

- Bottom Face: 28mm
- Edge 4: 25mm

For Ant 6:

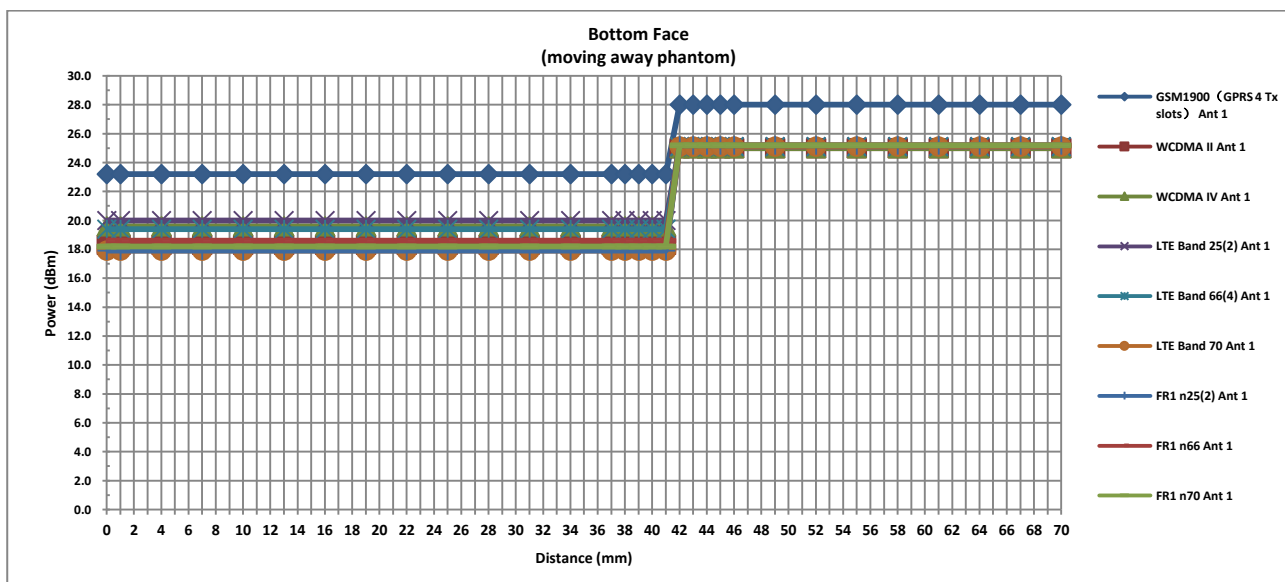
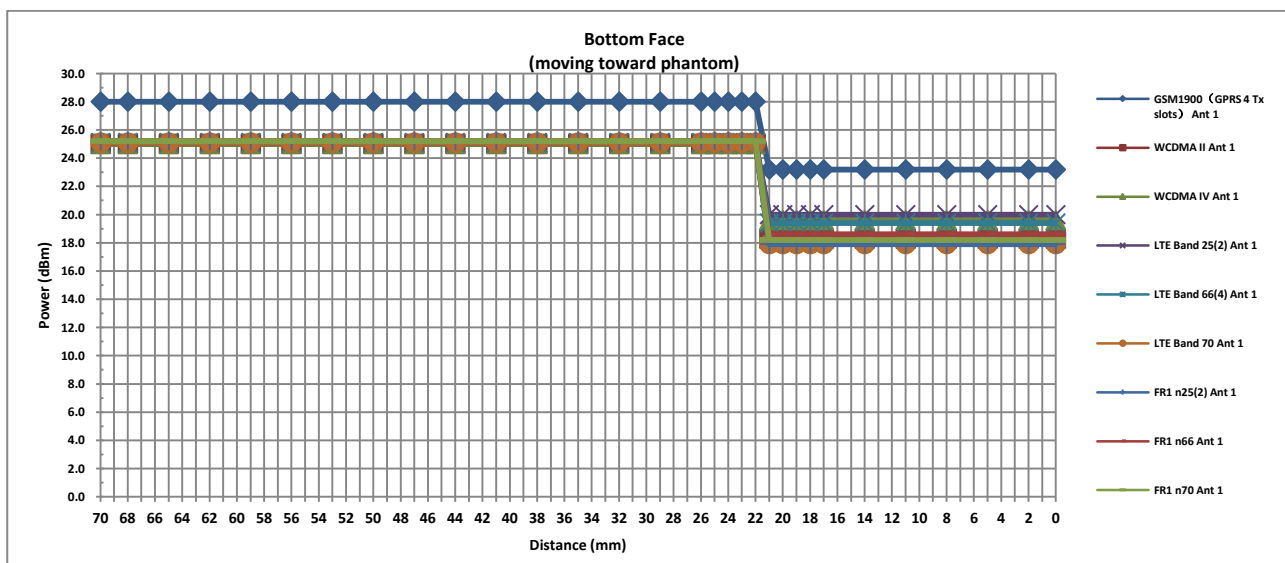
- Bottom Face: 21mm
- Edge 1: 18mm

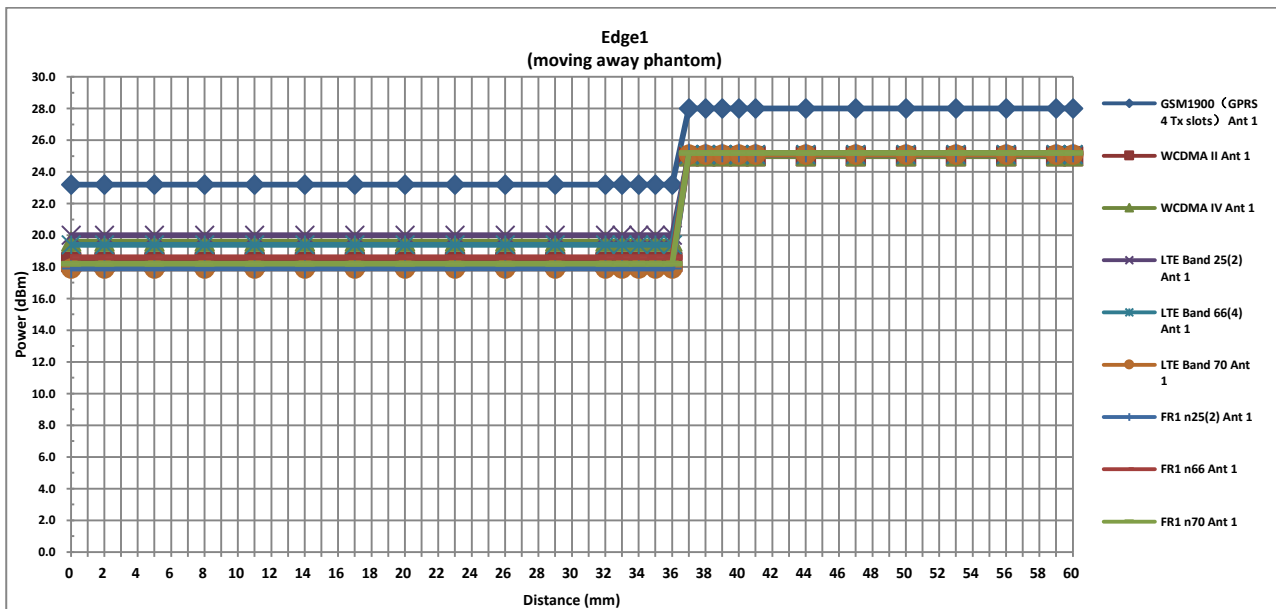
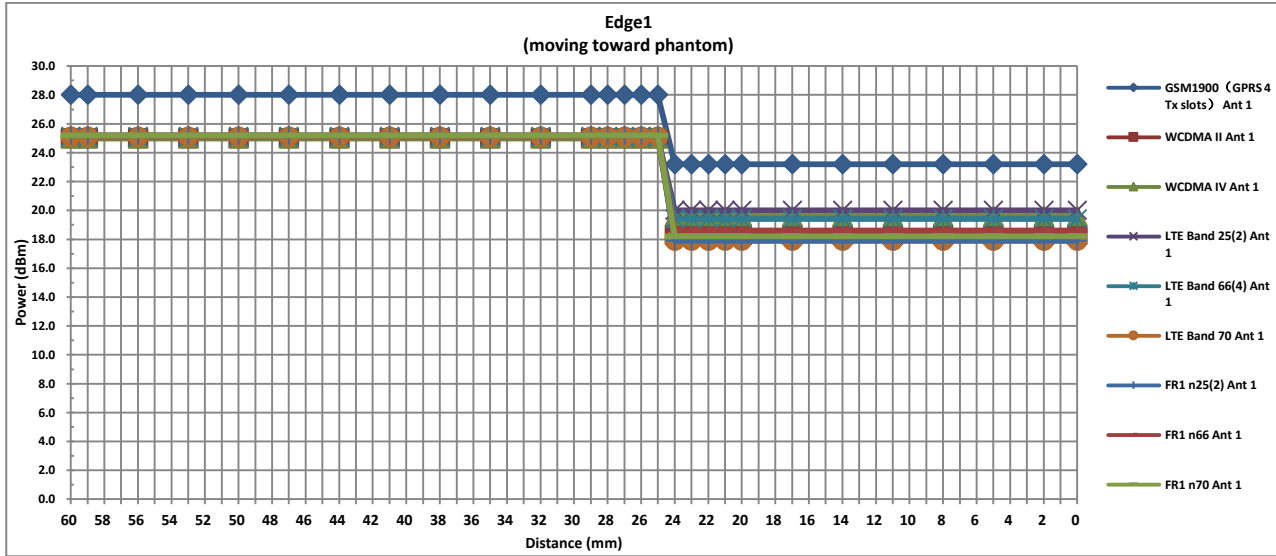
For Ant 7:

- Bottom Face: 22mm
- Edge 2: 24mm

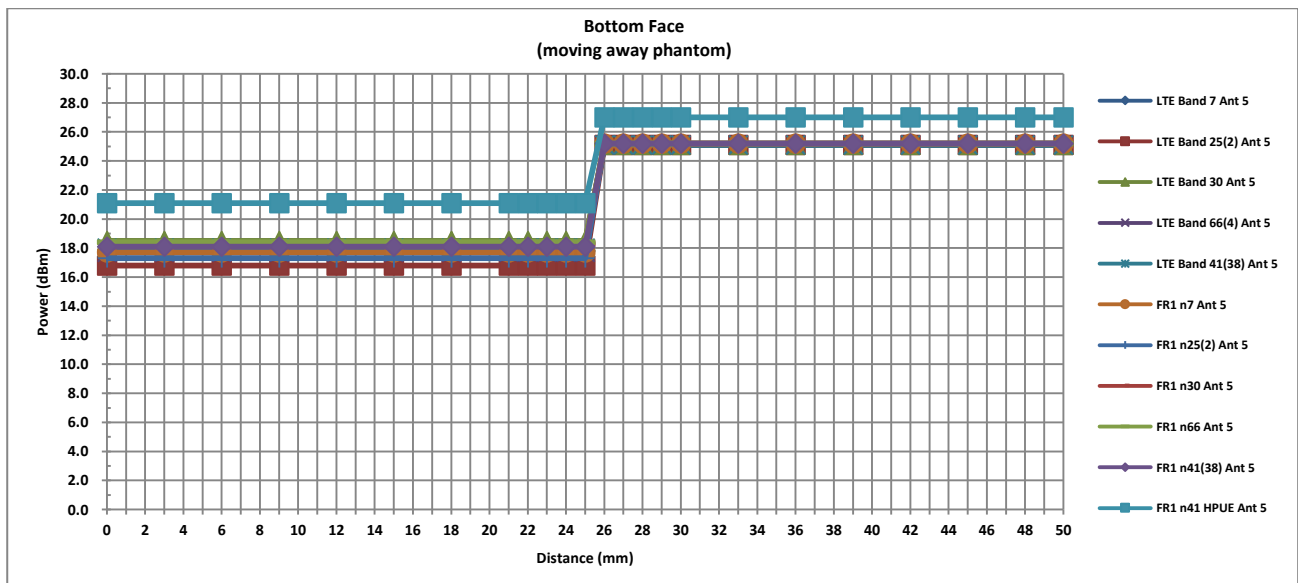
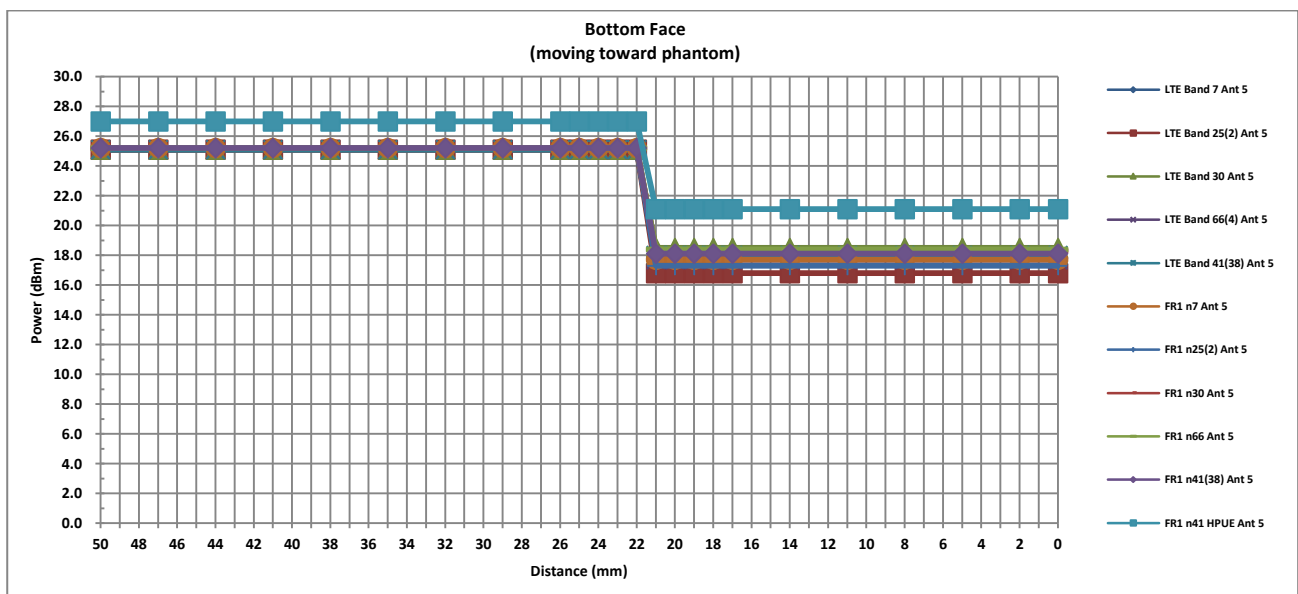
Power Measurement during Sensor Trigger distance testing

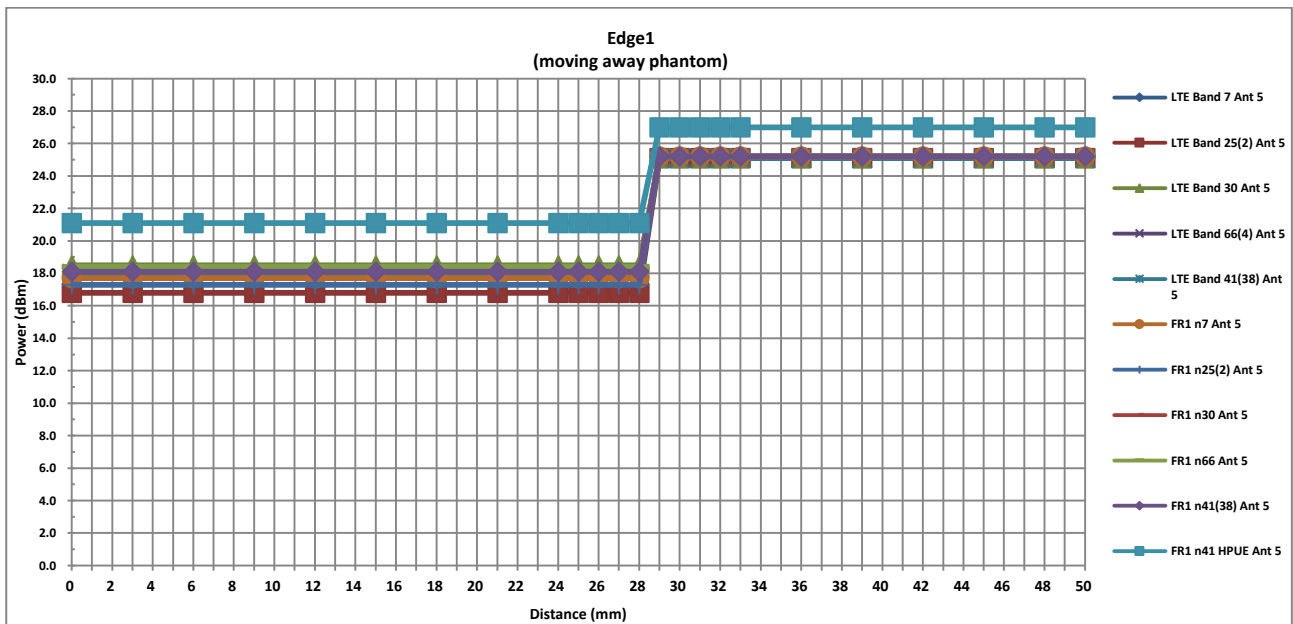
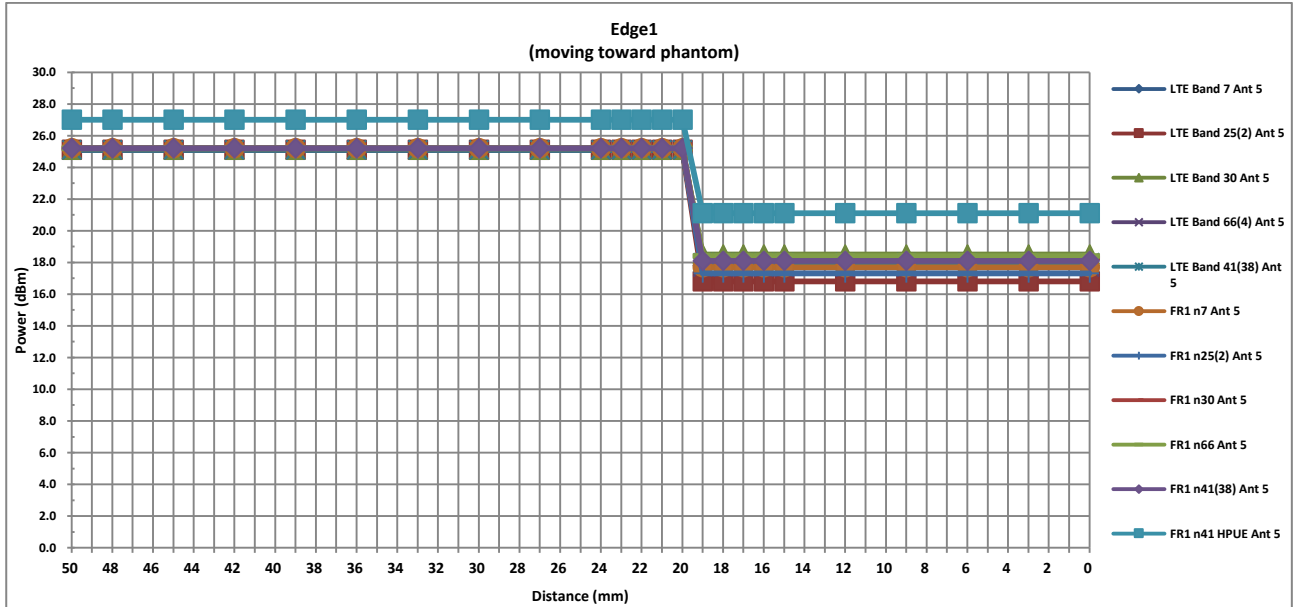
Band/Mode for Ant1	Measured power reduction (dBm)		Reduction Levels (dB)
	w/o power back-off	w/ power back-off	
GSM1900(GPRS 4 Tx slots)	28.00	23.20	4.8
WCDMA II	25.00	18.30	6.7
WCDMA IV	25.00	19.60	5.4
LTE Band 25(2)	25.10	20.00	5.1
LTE Band 66(4)	25.10	19.40	5.7
LTE Band 70	25.10	17.90	7.2
FR1 n25(2)	25.20	17.90	7.3
FR1 n66	25.20	18.60	6.6
FR1 n70	25.20	18.20	7.0

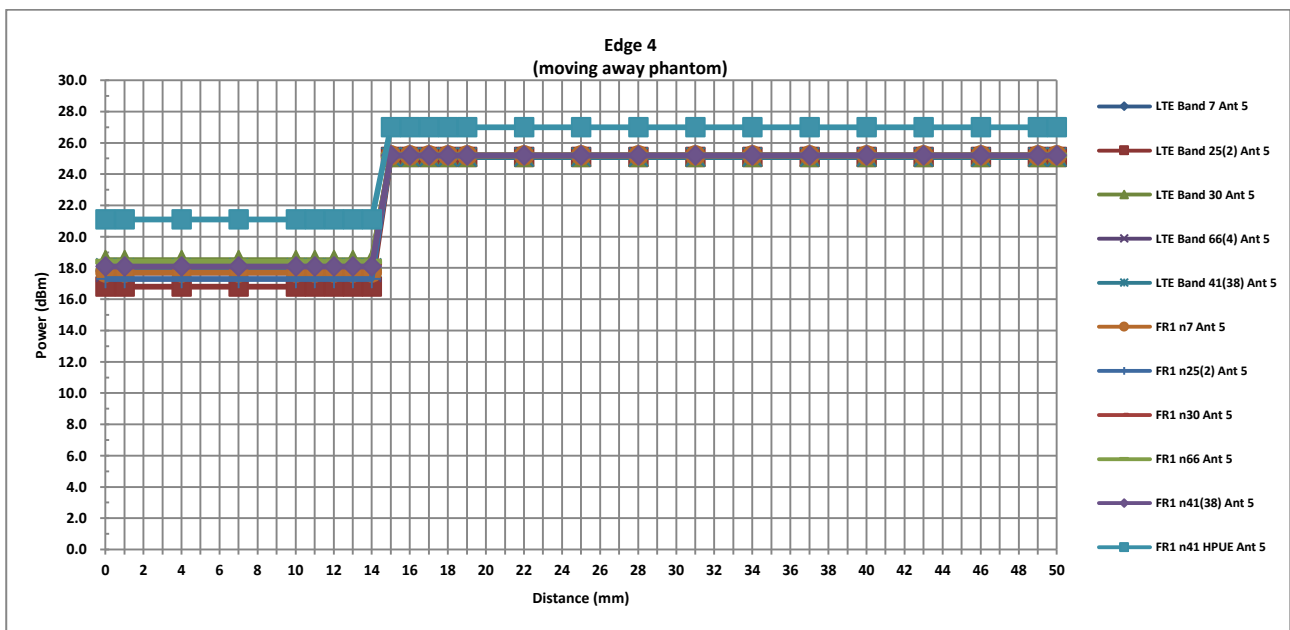
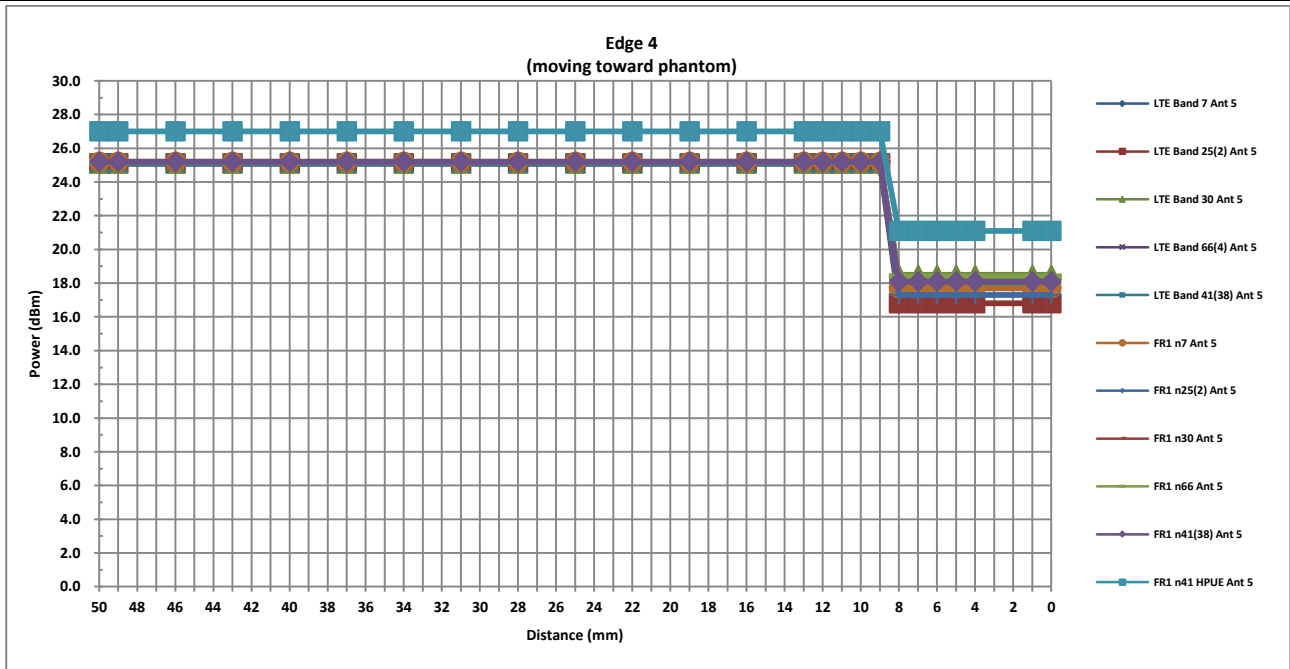




Band/Mode for Ant5	Measured power reduction (dBm)		Reduction Levels (dB)
	w/o power back-off	w/ power back-off	
LTE Band 7	25.10	17.80	7.3
LTE Band 25(2)	25.10	16.80	8.3
LTE Band 30	25.10	18.50	6.6
LTE Band 66(4)	25.10	17.70	7.4
LTE Band 41(38)	25.10	18.00	7.1
FR1 n7	25.20	17.70	7.5
FR1 n25(2)	25.20	17.30	7.9
FR1 n30	25.20	18.30	6.9
FR1 n66	25.20	18.40	6.8
FR1 n41(38)	25.20	18.10	7.1
FR1 n41 HPUE	27.00	21.10	5.9

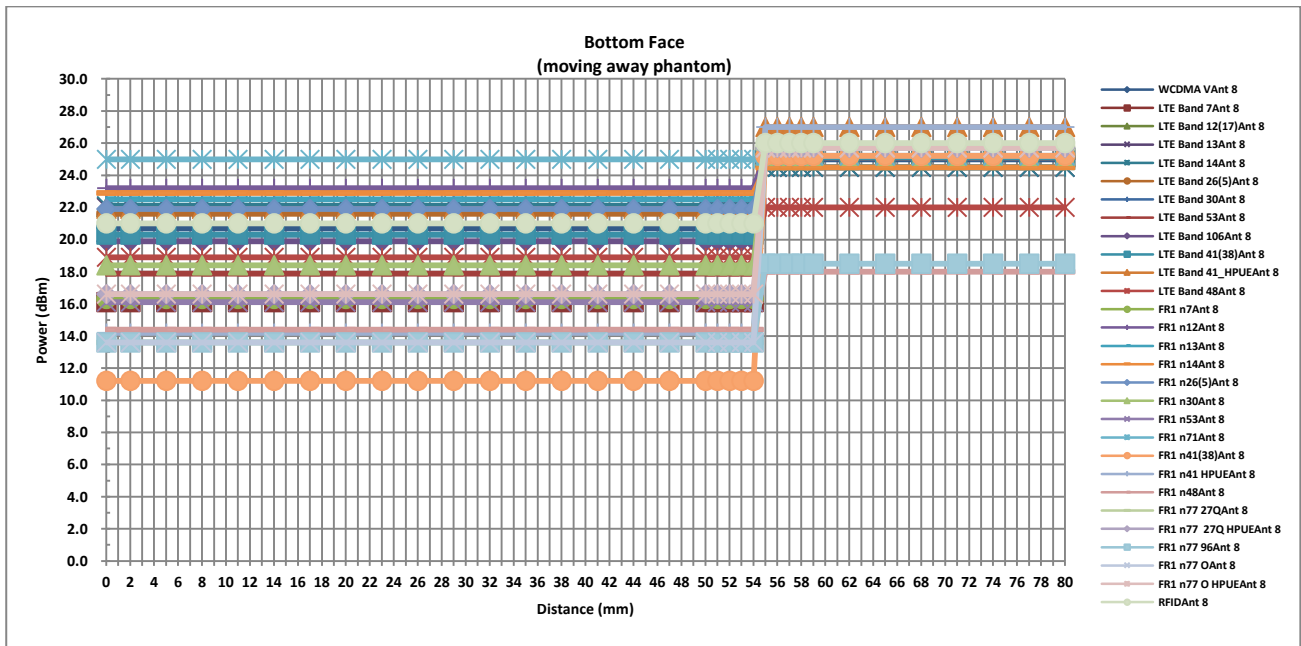
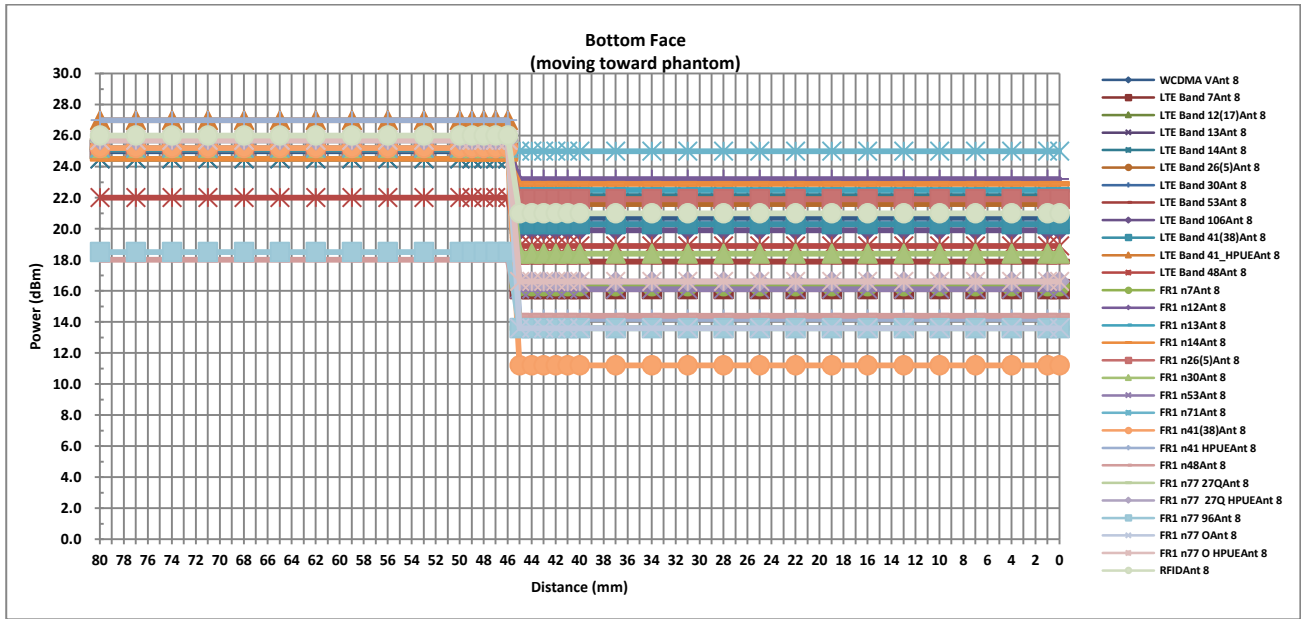


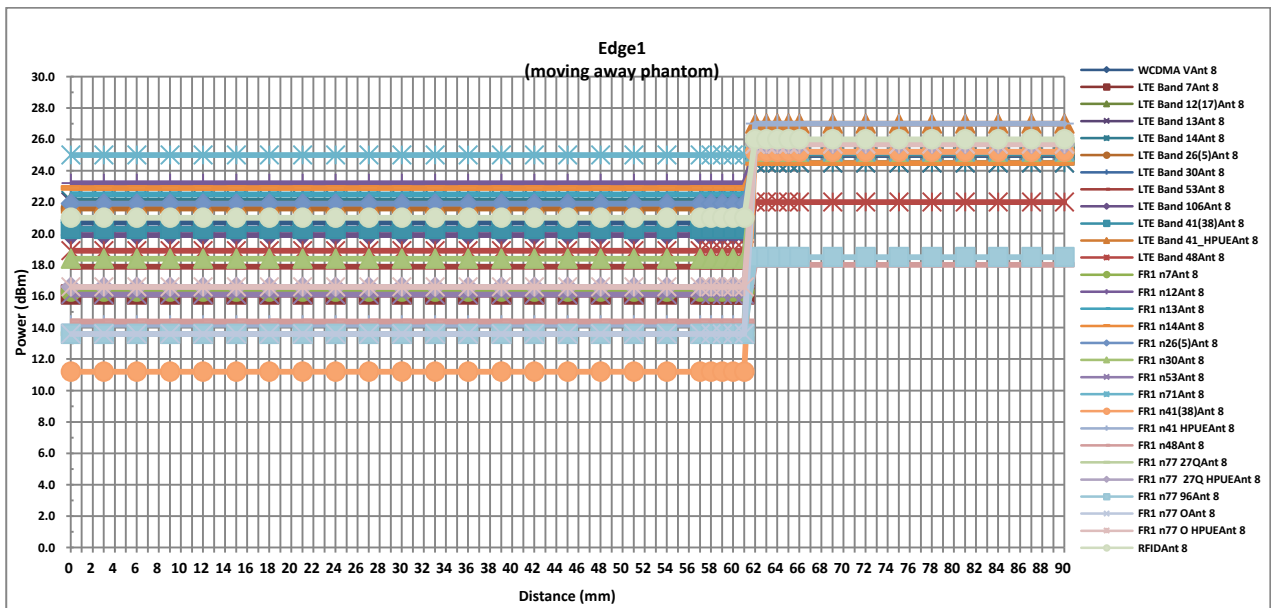
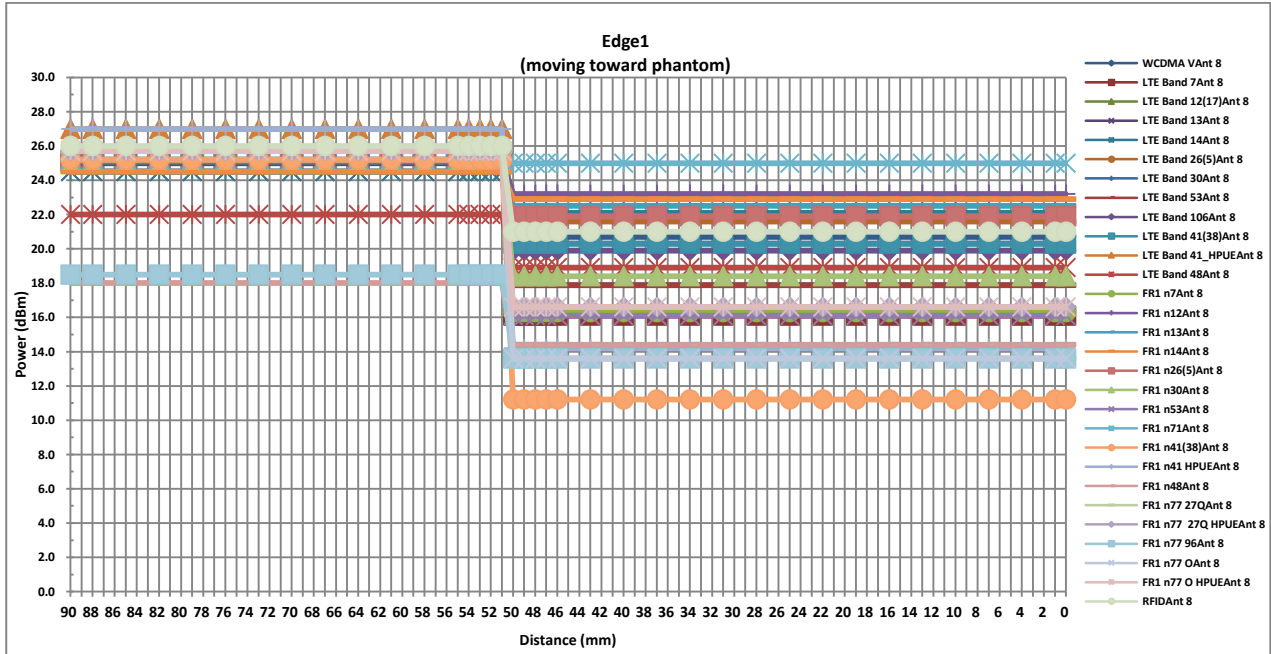


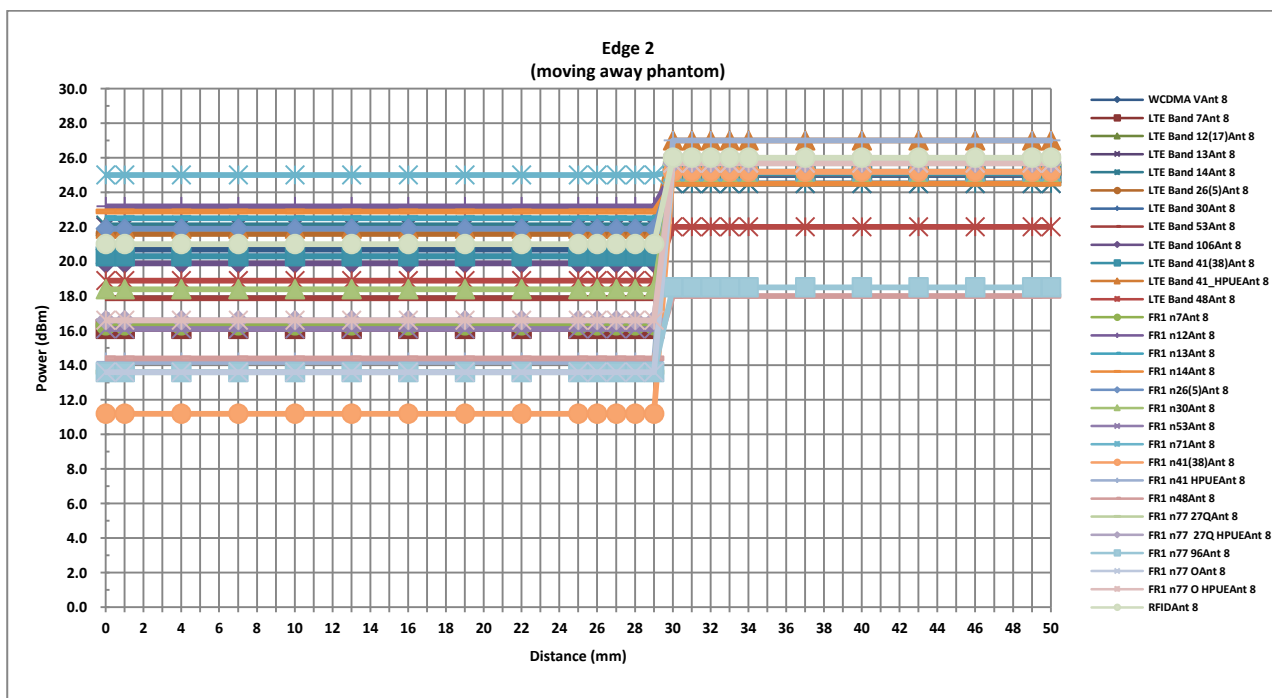
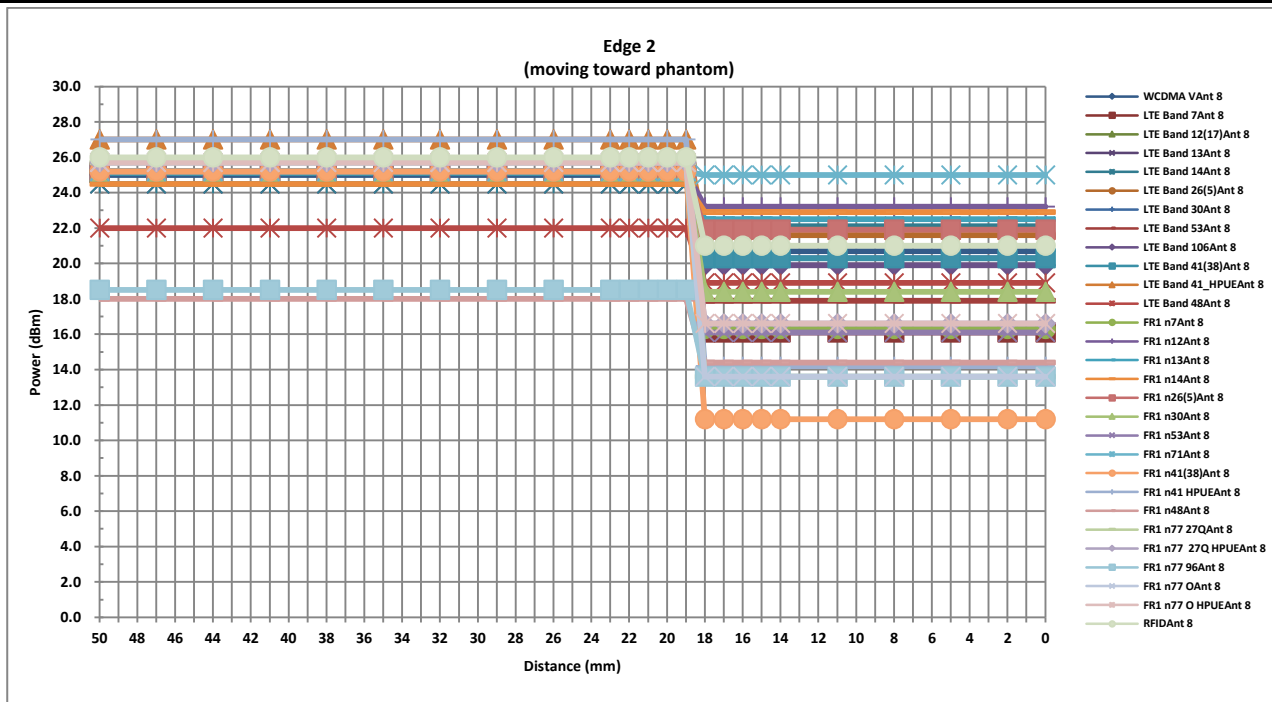




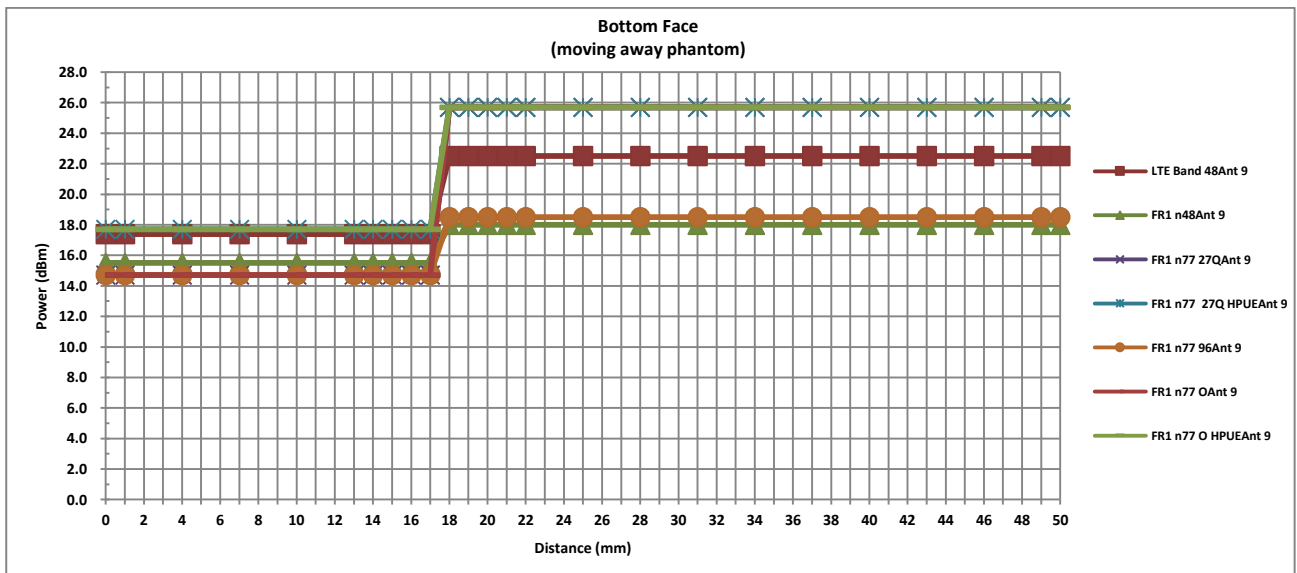
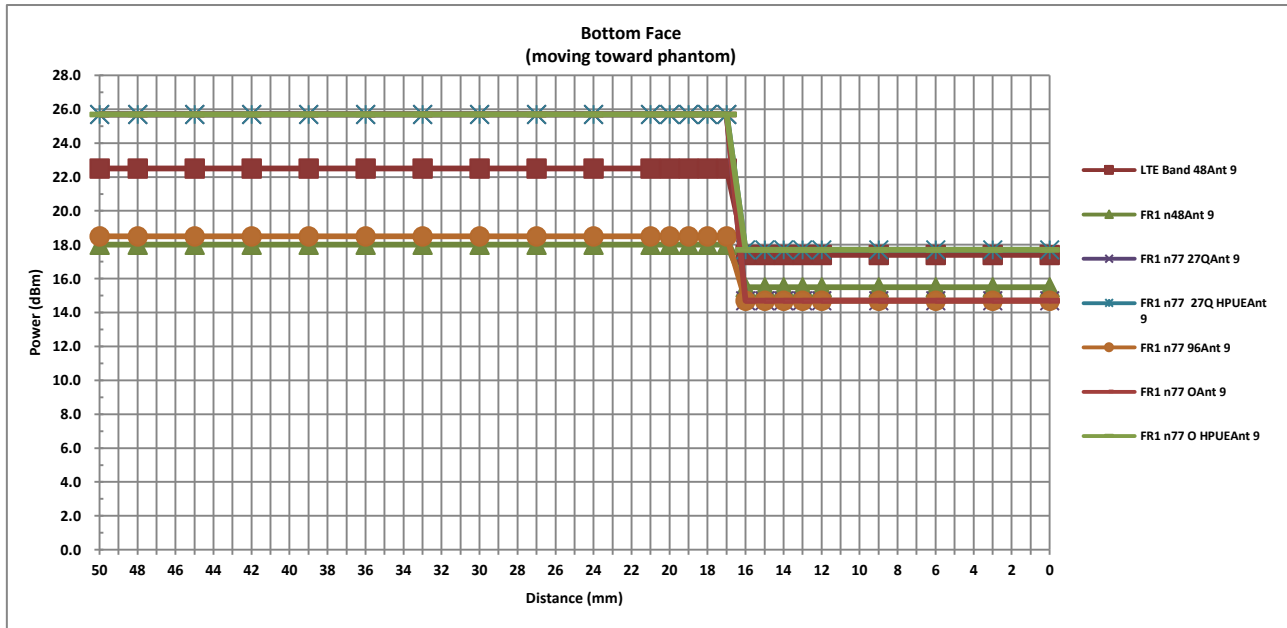
Band/Mode for Ant8	Measured power reduction (dBm)		Reduction Levels
	w/o power back-off	w/ power back-off	(dB)
GSM850(GPRS 4 Tx slots)	32.50	23.70	8.8
WCDMA V	25.00	20.70	4.3
LTE Band 7	25.10	16.10	9.0
LTE Band 12(17)	25.10	22.00	3.1
LTE Band 13	24.50	22.00	2.5
LTE Band 14	24.50	22.10	2.4
LTE Band 26(5)	25.10	21.60	3.5
LTE Band 30	25.10	20.30	4.8
LTE Band 53	25.10	17.89	7.2
LTE Band 106	25.10	19.90	5.2
LTE Band 41(38)	25.10	20.30	4.8
LTE Band 41_HPUE	27.00	21.90	5.1
LTE Band 48	22.00	18.90	3.1
FR1 n7	25.20	16.30	8.9
FR1 n12	25.20	23.20	2.0
FR1 n13	24.50	22.50	2.0
FR1 n14	24.50	22.90	1.6
FR1 n26(5)	25.20	21.90	3.3
FR1 n30	25.20	18.40	6.8
FR1 n53	25.20	16.10	9.1
FR1 n71	25.20	25.00	0.2
FR1 n41(38)	25.20	11.20	14.0
FR1 n41 HPUE	27.00	14.20	12.8
FR1 n48	18.00	14.40	3.6
FR1 n77 27Q	25.70	13.60	12.1
FR1 n77 27Q HPUE	25.70	16.60	9.1
FR1 n77 96	18.50	13.60	4.9
FR1 n77 27O	25.70	13.60	12.1
FR1 n77 27O HPUE	25.70	16.60	9.1
RFID	26.00	21.00	5.0

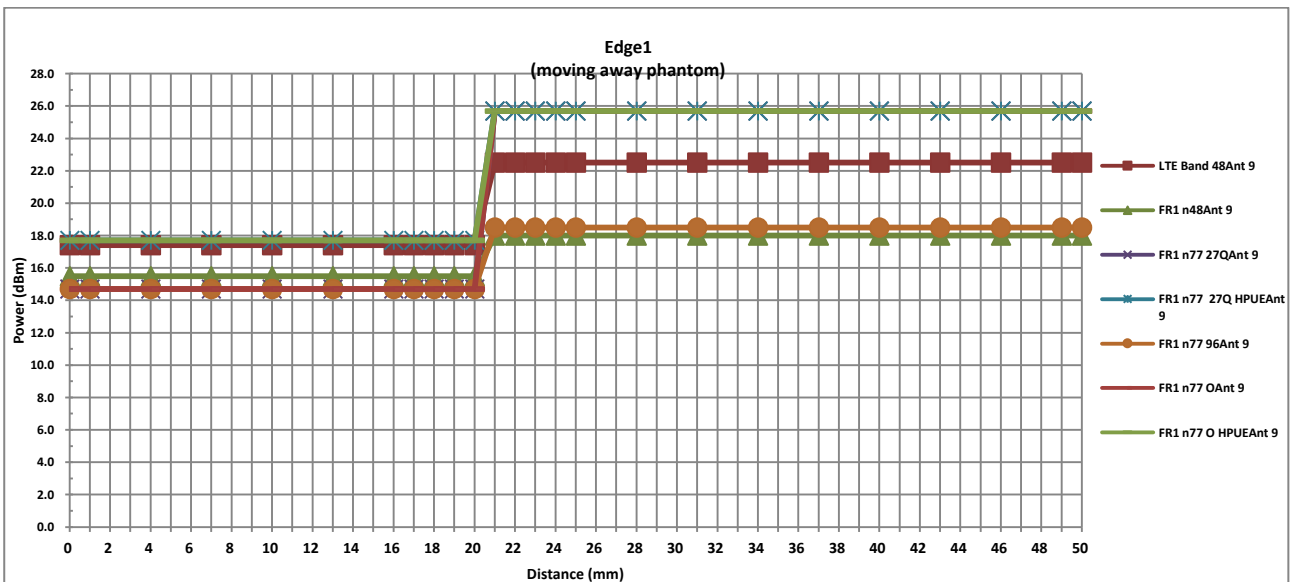
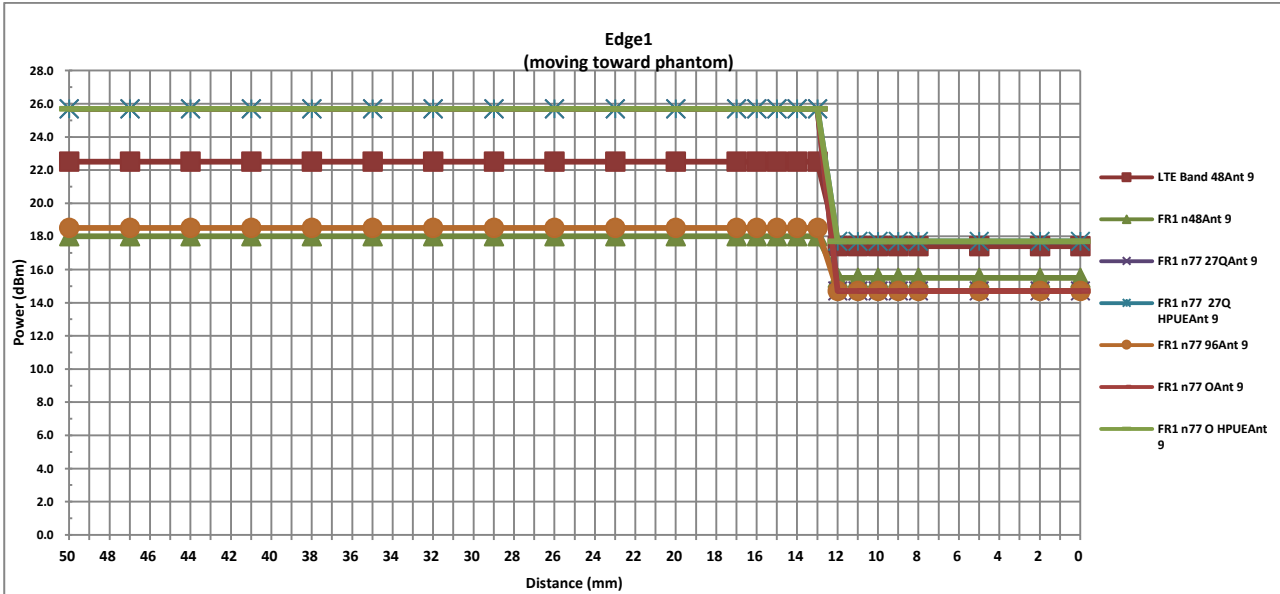




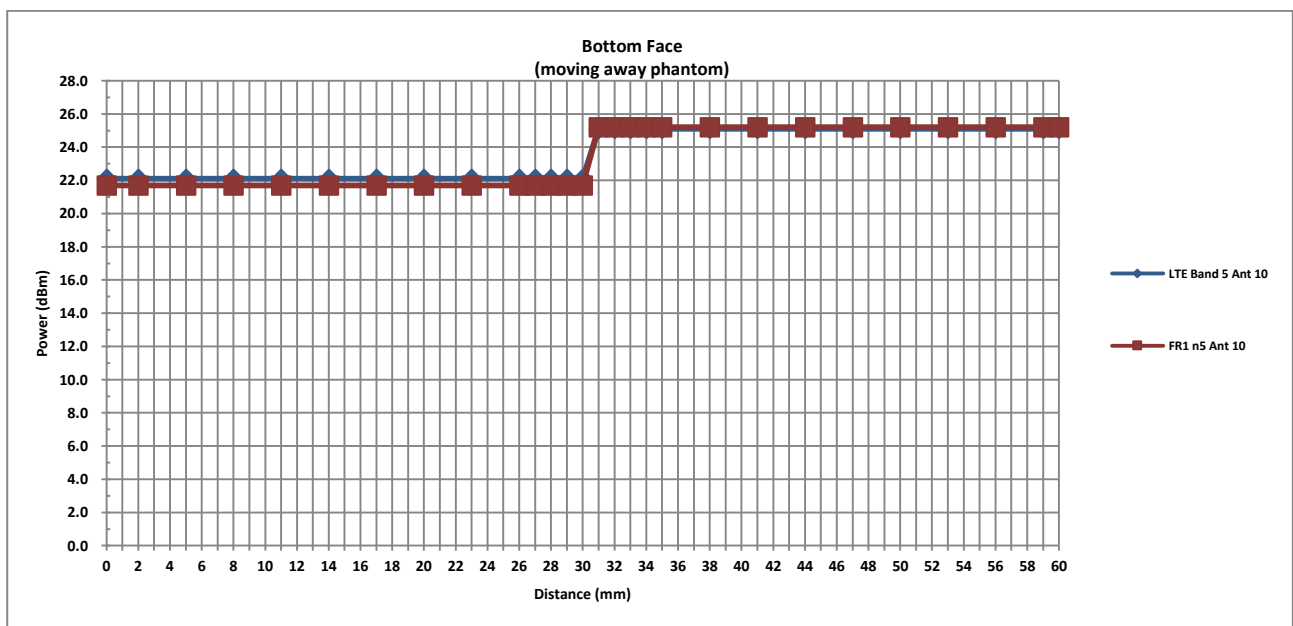
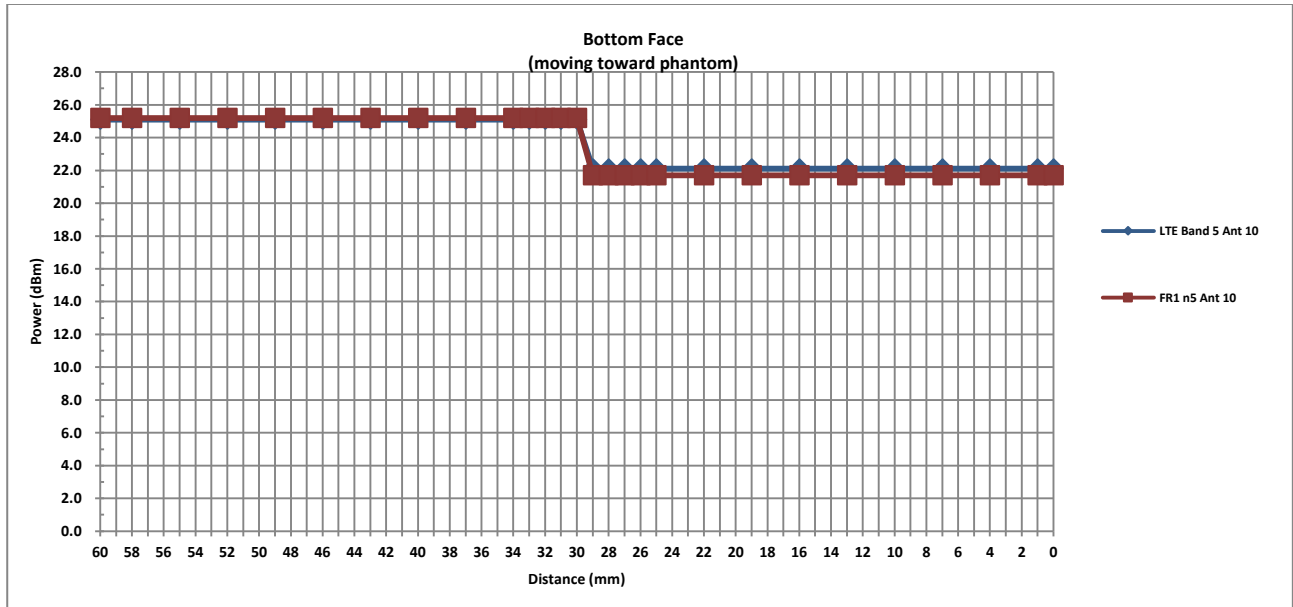


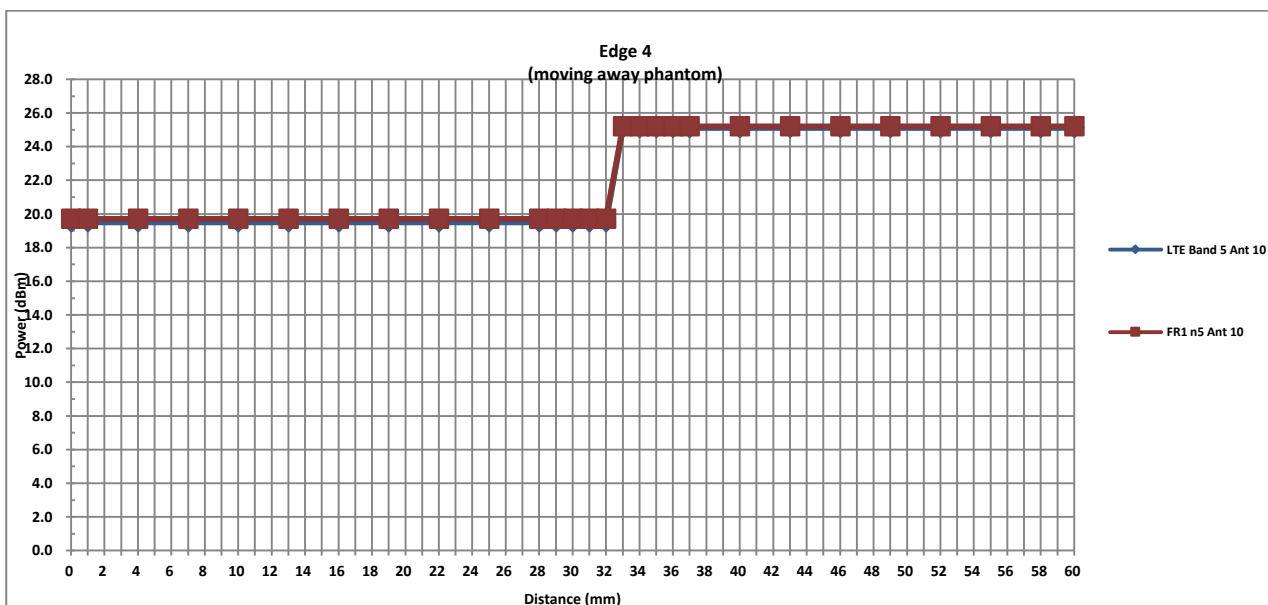
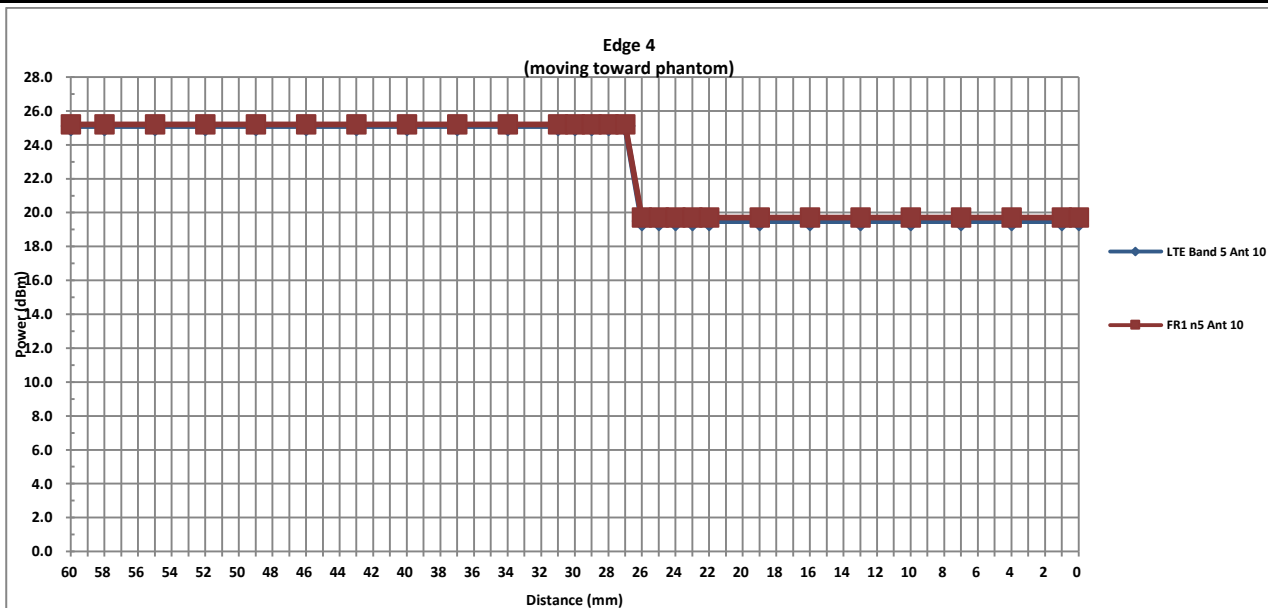
Band/Mode for Ant9	Measured power reduction (dBm)		Reduction Levels (dB)
	w/o power back-off	w/ power back-off	
LTE Band 48	22.50	17.40	5.1
FR1 n48	18.00	15.50	2.5
FR1 n77 27Q	25.70	14.70	11.0
FR1 n77 27Q HPUE	25.70	17.70	8.0
FR1 n77 96	18.50	14.70	3.8
FR1 n77 27O	25.70	14.70	11.0
FR1 n77 27O HPUE	25.70	17.70	8.0



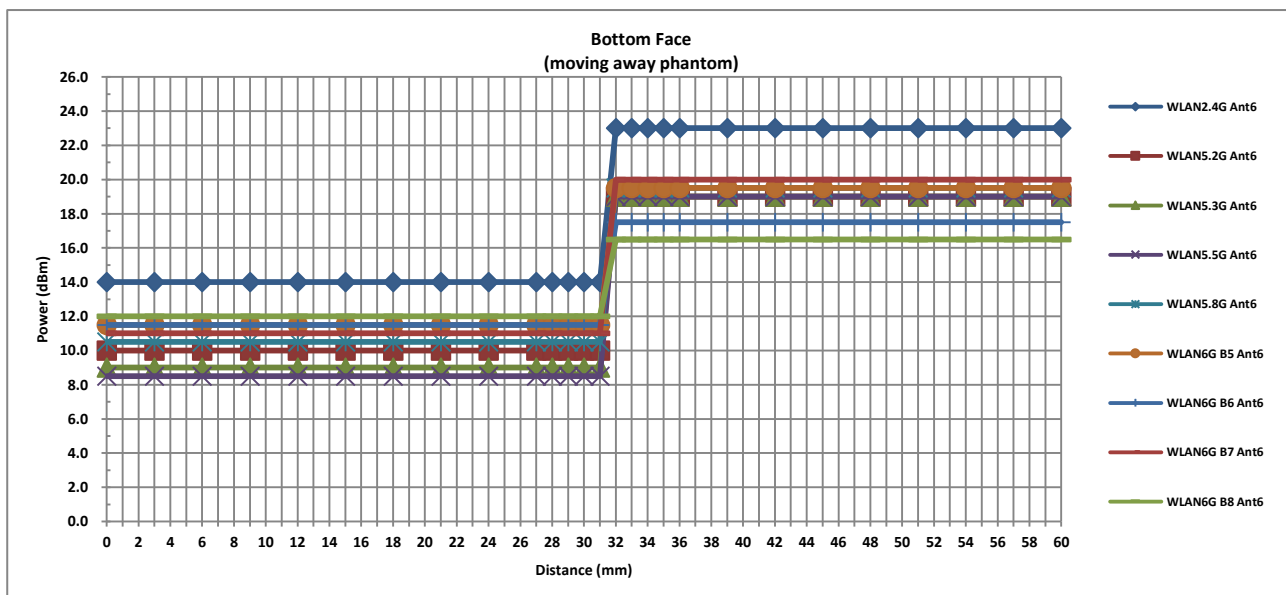
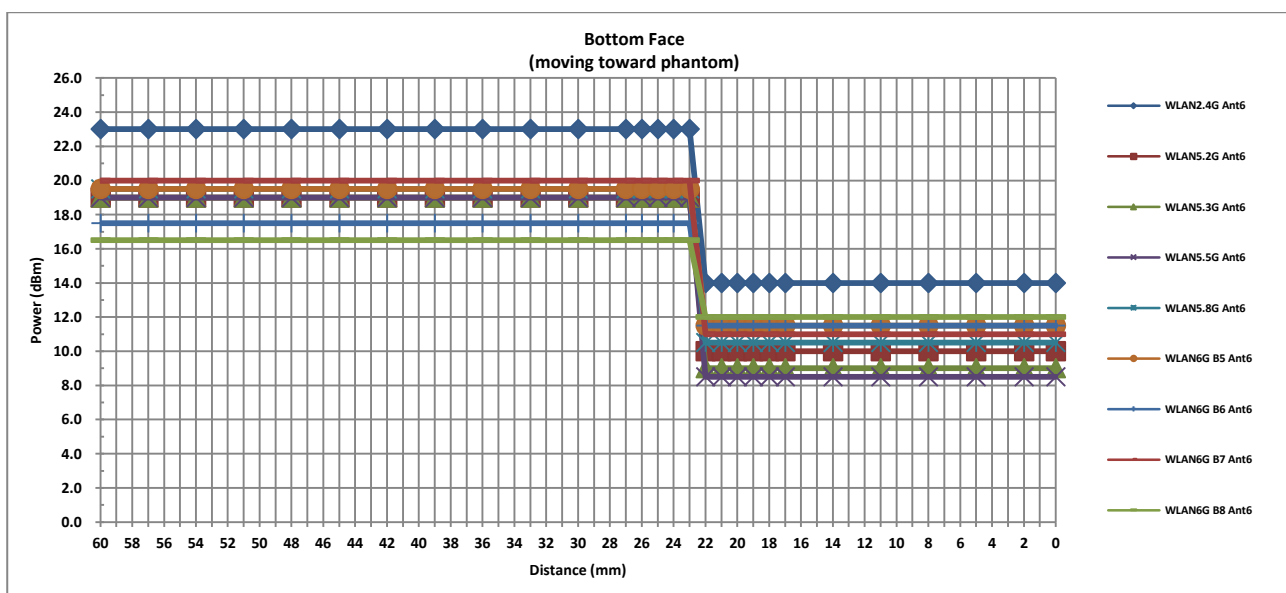


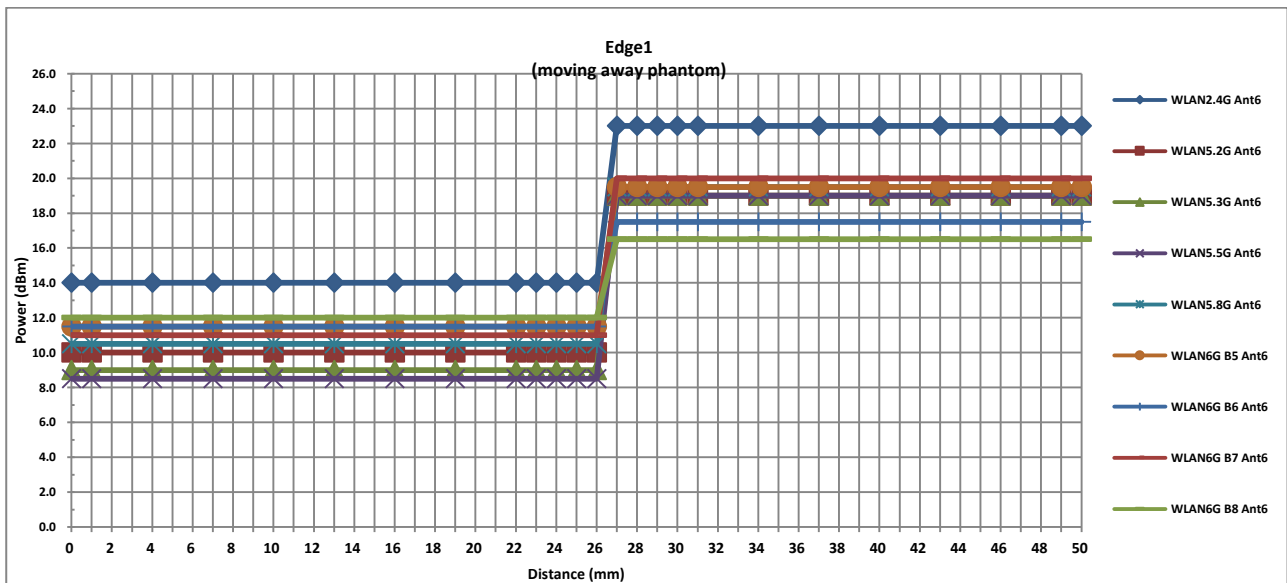
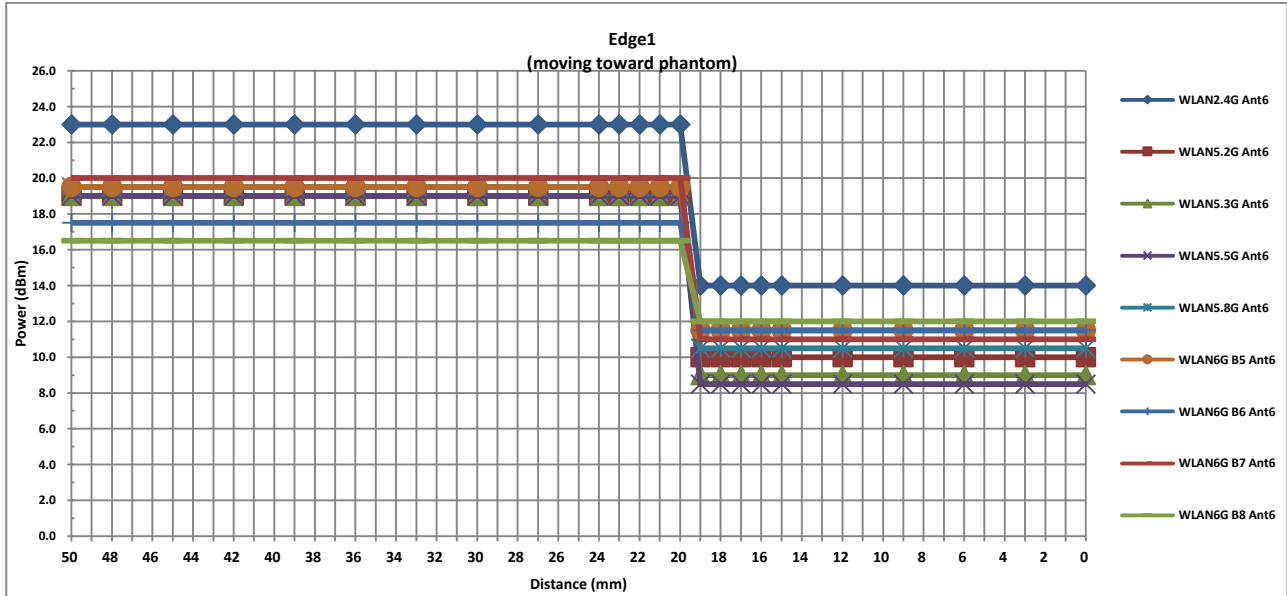
Band/Mode for Ant10	Measured power reduction (dBm)		Reduction Levels (dB)
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LTE Band 5	25.10	22.10	3.0
FR1 n5	25.20	21.70	3.5



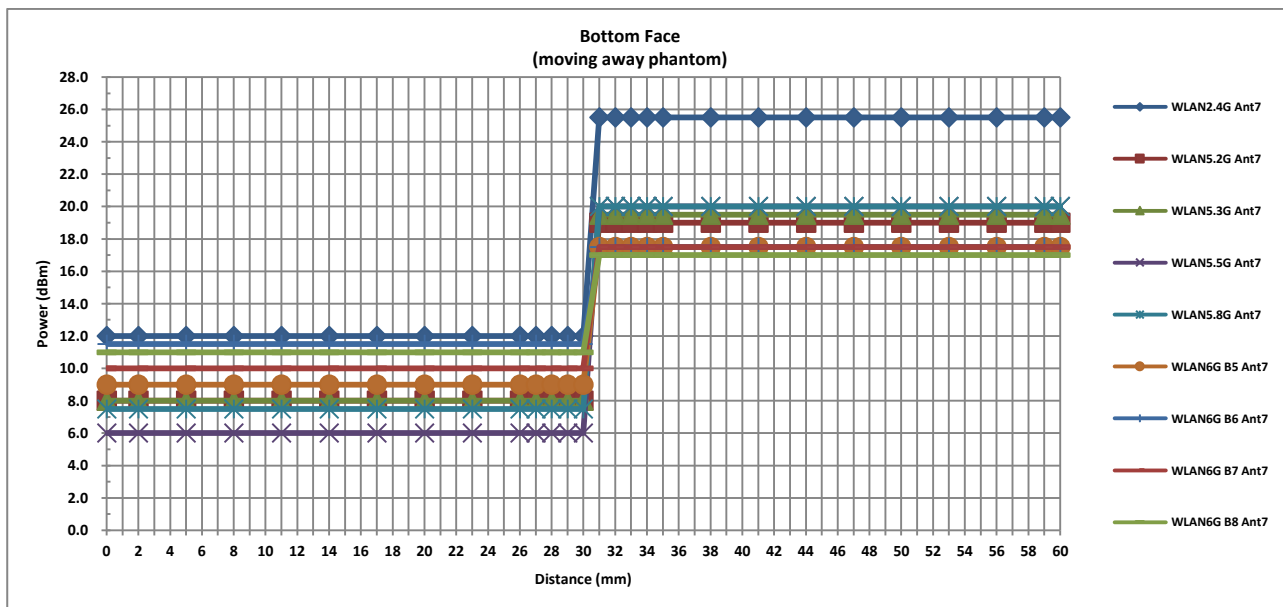
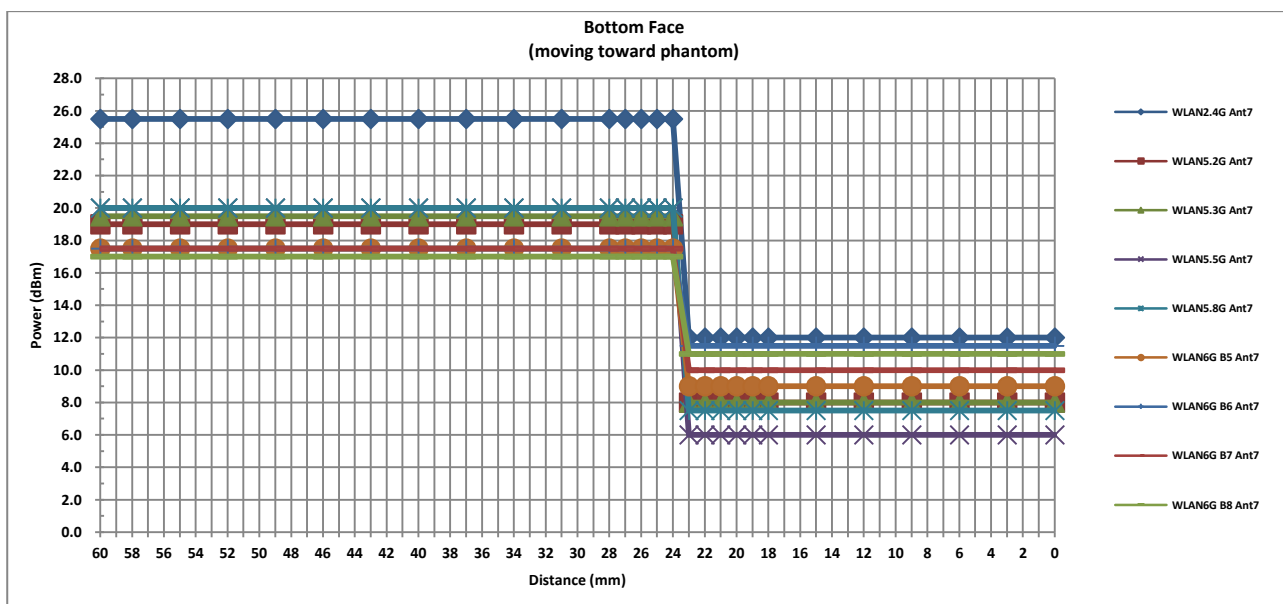


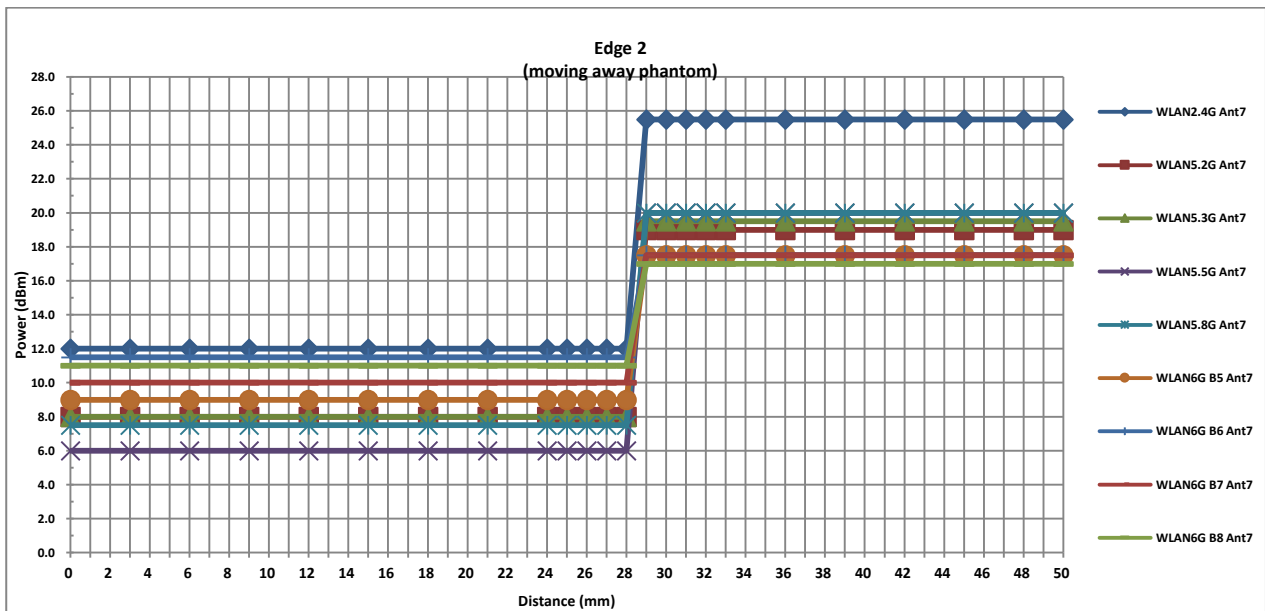
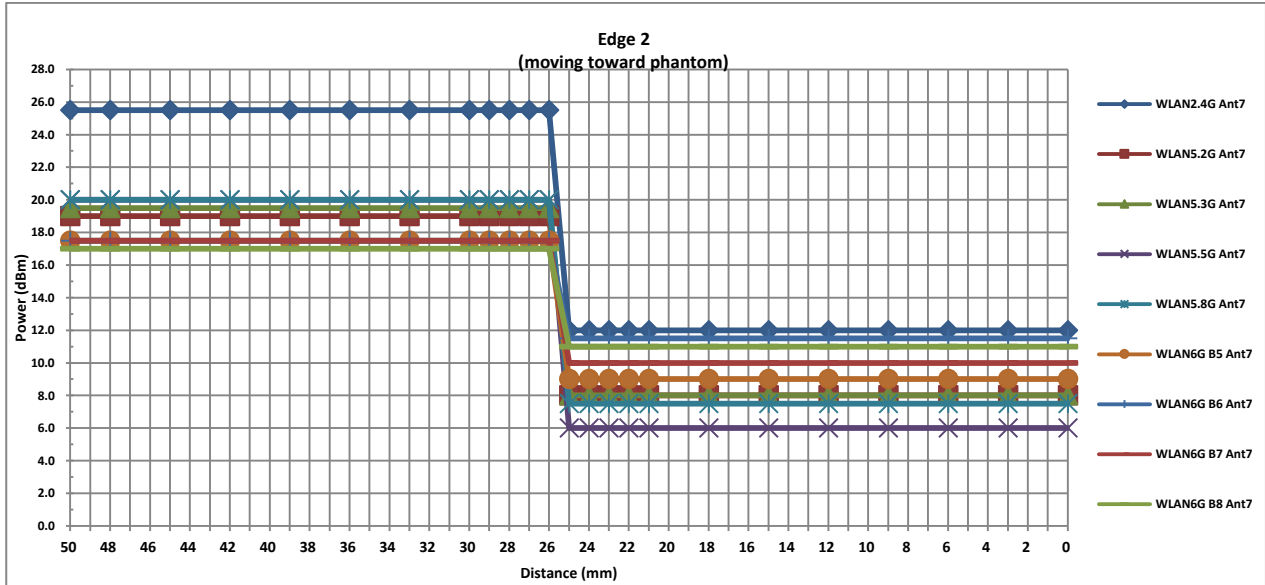
Band/Mode for Ant6	Measured power reduction (dBm)		Reduction Levels (dB)
	w/o power back-off	w/ power back-off	
WLAN 2.4GHz	23.00	14.00	9.0
WLAN 5.2GHz	19.00	10.00	9.0
WLAN 5.3GHz	19.00	9.00	10.0
WLAN 5.5GHz	19.00	8.50	10.5
WLAN 5.8GHz	19.50	10.50	9.0
WLAN 6GHz U-NII 5	19.50	11.50	8.0
WLAN 6GHz U-NII 6	17.50	11.50	6.0
WLAN 6GHz U-NII 7	20.00	11.00	9.0
WLAN 6GHz U-NII 8	16.50	12.00	4.5





Band/Mode for Ant7	Measured power reduction (dBm)		Reduction Levels (dB)
	w/o power back-off	w/ power back-off	
WLAN 2.4GHz	25.50	12.00	13.5
WLAN 5.2GHz	19.00	8.00	11.0
WLAN 5.3GHz	19.50	8.00	11.5
WLAN 5.5GHz	20.00	6.00	14.0
WLAN 5.8GHz	20.00	7.50	12.5
WLAN 6GHz U-NII 5	17.50	9.00	8.5
WLAN 6GHz U-NII 6	17.50	11.50	6.0
WLAN 6GHz U-NII 7	17.50	10.00	7.5
WLAN 6GHz U-NII 8	17.00	11.00	6.0





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.

7.3 RF Exposure limit for above 6GHz

According to ANSI/IEEE C95.1-1992, the criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310. The unit of power density evaluation is W/m² or mW/cm².

Peak Spatially Averaged Power Density was evaluated over a square area of 4cm² per interim FCC Guidance for near-field power density evaluations per October 2018 TCB Workshop notes

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

Note: 1.0 mW/cm² is 10 W/m²

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:

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

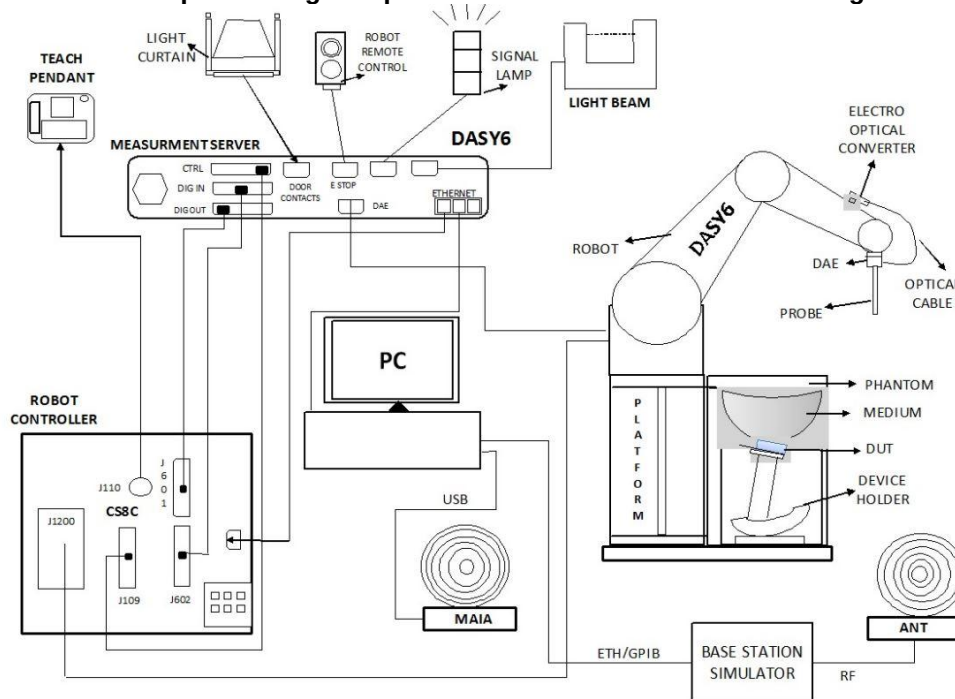
SAR is expressed in units of Watts per kilogram (W/kg)

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

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



- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic Field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running Win7 or Win10 and the DASY5 or DASY6/8⁽¹⁾ 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.

Note: 1. DASY6 software used: DASY6 mmWave V3.2.0.1840 and older generations and used the developed Plane-to-Plane Phase Reconstruction (PTP-PR) Algorithm which was used in PD 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

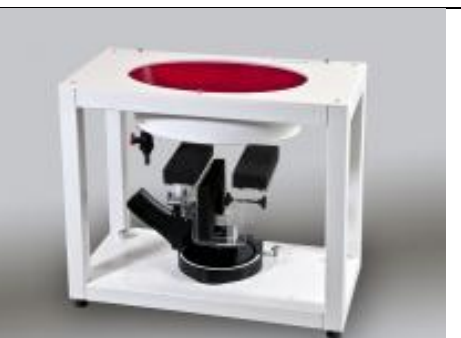
9.3 Phantom

<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 dB0) is specified in the standards for compliance testing. For example, a 2 dB range is required in IEEE standard 1528 and IEC 62209 standards, whereby 3 dB is a requirement when compliance is assessed in accordance with the ARIB standard (Japan), if only one zoom scan follows the area scan, then only the absolute maximum will be taken as reference. For cases where multiple maximums are detected, the number of zoom scans has to be increased accordingly.

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

	≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	5 ± 1 mm	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5$ mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	$30^\circ \pm 1^\circ$	$20^\circ \pm 1^\circ$
Maximum area scan spatial resolution: 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 <i>reported</i> SAR from the <i>area scan based 1-g SAR estimation</i> procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.				

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	900MHz System Validation Kit	D900V2	1d186	Mar. 12, 2025	Mar. 11, 2026
SPEAG	1750MHz System Validation Kit	D1750V2	1090	Mar. 12, 2025	Mar. 11, 2026
SPEAG	1750MHz System Validation Kit	D1750V2	1137	Oct. 15, 2024	Oct. 14, 2025
SPEAG	1900MHz System Validation Kit	D1900V2	5d182	Dec. 16, 2024	Dec. 15, 2025
SPEAG	2300MHz System Validation Kit	D2300V2	1056	Oct. 16, 2024	Oct. 15, 2025
SPEAG	2450MHz System Validation Kit	D2450V2	1095	Feb. 08, 2024	Feb. 06, 2026
SPEAG	2600MHz System Validation Kit	D2600V2	1112	Dec. 18, 2023	Dec. 16, 2025
SPEAG	3500MHz System Validation Kit	D3500V2	1037	Nov. 20, 2023	Nov. 17, 2026
SPEAG	3700MHz System Validation Kit	D3700V2	1008	Nov. 20, 2023	Nov. 17, 2026
SPEAG	3900MHz System Validation Kit	D3900V2	1048	Mar. 09, 2023	Mar. 06, 2026
SPEAG	5000MHz System Validation Kit	D5GHzV2	1113	Sep. 17, 2025	Sep. 16, 2026
SPEAG	6500MHz System Validation Kit	D6.5GHzV2	1026	Jan. 28, 2025	Jan. 27, 2026
SPEAG	13MHz System Validation Kit	CLA13	1020	Jun. 05, 2025	Jun. 04, 2026
SPEAG	5G Verification Source	10GHz	2002	Feb. 20, 2025	Feb. 19, 2026
SPEAG	Data Acquisition Electronics	DAE4	1303	Dec. 06, 2024	Dec. 05, 2025
SPEAG	Data Acquisition Electronics	DAE4	1338	Mar. 18, 2025	Mar. 17, 2026
SPEAG	Data Acquisition Electronics	DAE4	690	Oct. 08, 2024	Oct. 07, 2025
SPEAG	Dosimetric E-Field Probe	EX3DV4	3857	Feb. 19, 2025	Feb. 18, 2026
SPEAG	Dosimetric E-Field Probe	EX3DV4	7627	Jul. 01, 2025	Jun. 30, 2026
SPEAG	Dosimetric E-Field Probe	EX3DV4	7706	May 22, 2025	May 21, 2026
SPEAG	EUmmWV Probe Tip Protection	EUmmWV4	9441	Nov. 17, 2025	Nov. 16, 2026
SPEAG	mmWave Phantom	mmWave	1065	NCR	NCR
SPEAG	ELI Phantom	ELI4	TP-1201	NCR	NCR
SPEAG	ELI Phantom	ELI V8.0	TP-2151	NCR	NCR
Beichuang	Thermo-Hygrometer	HTC-1	1959633	May 27, 2025	May 26, 2026
Beichuang	Thermo-Hygrometer	HTC-1	1959630	May 27, 2025	May 26, 2026
Testo	Thermo-Hygrometer	HTC-1	55011	Jan. 02, 2025	Jan. 01, 2026
SPEAG	Phone Positioner	N/A	N/A	NCR	NCR
Rohde & Schwarz	Signal Generator	SMB100A	100455	Jan. 02, 2025	Jan. 01, 2026
Rohde & Schwarz	Vector Signal Generator	SMBV100A	258305	Jan. 02, 2025	Jan. 01, 2026
Keysight	Preamplifier	83017A	MY57280106	Apr. 18, 2025	Apr. 17, 2026
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
SPEAG	Dielectric Probe Kit	DAK-12	1173	Nov. 19, 2024	Nov. 18, 2025
Anritsu	Vector Signal Generator	MG3710A	6201682672	Jan. 03, 2025	Jan. 02, 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
Rohde & Schwarz	Power Sensor	NRV-Z5	100539	Jul. 02, 2025	Jul. 01, 2026
Rohde & Schwarz	Power Sensor	NRP50S	101385	Oct. 14, 2025	Oct. 13, 2026
R&S	BLUETOOTH TESTER	CBT	101246	Jul. 03, 2025	Jul. 02, 2026
Rohde & Schwarz	Spectrum Analyzer	FSV7	101631	Oct. 11, 2024	Oct. 10, 2025
Rohde & Schwarz	Spectrum Analyzer	FSV7	101631	Oct. 11, 2025	Oct. 10, 2026
TES	DIGITAC THERMOMETER	TYPE-K	220305411	Jan. 02, 2025	Jan. 01, 2026
ARRA	Power Divider	A3200-2	N/A	Note 1	

MCL	Attenuation1	BW-S10W5+	N/A	Note 1
MCL	Attenuation2	BW-S10W5+	N/A	Note 1
MCL	Attenuation3	BW-S10W5+	N/A	Note 1
BONN	POWER AMPLIFIER	BLMA 0830-3	087193A	Note 1
BONN	POWER AMPLIFIER	BLMA 2060-2	087193B	Note 1
BONN Elektronik	Power Amplifier	BSA 0125-150	076577A	Note 1
mini-circuits	amplifier	ZVE-3W-83+	162601250	Note 1
Agilent	Dual Directional Coupler	778D	20500	Note 1
Agilent	Dual Directional Coupler	11691D	MY48151020	Note 1
ET Industries	Dual Directional Coupler	C-058-10	N/A	Note 1
ATM	Dual Directional Coupler	C122H-10	P610410z-02	Note 1

Note:

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

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 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. 10.1.



Fig 10.1 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
900	40.3	57.9	0.2	1.4	0.2	0	0.97	41.5
1800, 1900, 2000	55.2	0	0	0.3	0	44.5	1.40	40.0
2450	55.0	0	0	0	0	45.0	1.80	39.2
2600	54.8	0	0	0.1	0	45.1	1.96	39.0

Simulating Liquid for 5GHz, Manufactured by SPEAG

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



<Tissue Dielectric Parameter Check Results>

Frequency (MHz)	Tissue Type	Liquid Temp (°C)	Conductivity (σ)	Permittivity (ϵ_r)	Conductivity Target (σ)	Permittivity Target (ϵ_r)	Delta (σ) (%)	Delta (ϵ_r) (%)	Limit (%)	Date
750	Head	22.8	0.89	42.923	0.89	41.9	0	2.44	±5.0	2025/9/27
750	Head	22.7	0.89	42.9	0.89	41.9	0	2.39	±5.0	2025/9/28
835	Head	22.9	0.919	42.6	0.9	41.5	2.11	2.65	±5.0	2025/9/29
835	Head	22.8	0.919	42.552	0.9	41.5	2.11	2.53	±5.0	2025/9/29
900	Head	22.8	0.942	42.416	0.97	41.5	-2.89	2.21	±5.0	2025/12/4
1750	Head	22.6	1.39	40.4	1.37	40.1	1.46	0.75	±5.0	2025/9/30
1750	Head	22.8	1.395	40.358	1.37	40.1	1.82	0.64	±5.0	2025/9/30
1900	Head	22.7	1.45	39.2	1.4	40	3.57	-2	±5.0	2025/10/1
1900	Head	22.8	1.446	39.199	1.4	40	3.29	-2	±5.0	2025/10/1
2300	Head	22.7	1.616	39.567	1.67	39.5	-3.23	0.17	±5.0	2025/10/3
2450	Head	22.8	1.77	39.3	1.8	39.2	-1.67	0.26	±5.0	2025/10/13
2450	Head	22.9	1.776	39.291	1.8	39.2	-1.33	0.23	±5.0	2025/10/22
2600	Head	22.7	1.906	38.805	1.96	39	-2.76	-0.5	±5.0	2025/10/5
3500	Head	22.7	2.979	37.767	2.91	37.9	2.37	-0.35	±5.0	2025/10/7
3700	Head	22.8	3.187	37.6	3.12	37.7	2.15	-0.27	±5.0	2025/10/9
3900	Head	22.6	3.403	37.391	3.33	37.51	2.19	-0.32	±5.0	2025/10/11
5250	Head	22.8	4.64	36.5	4.71	35.95	-1.49	1.53	±5.0	2025/10/15
5600	Head	22.7	5.03	35.7	5.07	35.5	-0.79	0.56	±5.0	2025/10/17
5800	Head	22.7	5.19	35.5	5.27	35.3	-1.52	0.57	±5.0	2025/10/19
6500	Head	22.6	6.09	34.1	6.07	34.5	0.33	-1.16	±5.0	2025/10/16
13	Head	22.8	0.729	54.5	0.75	55.00	-2.80	-0.91	±5	2025/9/23

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)	Tissue Type	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 1g SAR (W/kg)	Targeted 1g SAR (W/kg)	Normalized 1g SAR (W/kg)	Deviation (%)	Measured 10g SAR (W/kg)	Targeted 10g SAR (W/kg)	Normalized 10g SAR (W/kg)	Deviation (%) ²
2025/9/27	750	Head	50	D750V3 - 1087	EX3DV4 - SN3857	DAE4 Sn1303	0.422	8.68	8.44	-2.76	0.283	5.61	5.66	0.89
2025/9/28	750	Head	50	D750V3 - 1087	EX3DV4 - SN7627	DAE4 Sn1338	0.396	8.68	7.92	-8.76	0.263	5.61	5.26	-6.24
2025/9/29	835	Head	50	D835V2 - 4d298	EX3DV4 - SN7627	DAE4 Sn1338	0.488	9.89	9.76	-1.31	0.311	6.45	6.22	-3.57
2025/9/29	835	Head	50	D835V2 - 4d298	EX3DV4 - SN3857	DAE4 Sn1303	0.475	9.89	9.5	-3.94	0.318	6.45	6.36	-1.4
2025/12/4	900	Head	50	D900V2 - 1d186	EX3DV4 - SN3857	DAE4 Sn1303	0.508	10.8	10.16	-5.93	0.336	6.93	6.72	-3.03
2025/9/30	1750	Head	50	D1750V2 - 1090	EX3DV4 - SN7627	DAE4 Sn1338	1.95	36.6	39	6.56	1	19.5	20	2.56
2025/9/30	1750	Head	50	D1750V2 - 1137	EX3DV4 - SN3857	DAE4 Sn1303	1.87	36.8	37.4	1.63	1.02	19.6	20.4	4.08
2025/10/1	1900	Head	50	D1900V2 - 5d182	EX3DV4 - SN7627	DAE4 Sn1338	1.83	39.8	36.6	-8.04	0.949	21	18.98	-9.62
2025/10/1	1900	Head	50	D1900V2 - 5d182	EX3DV4 - SN3857	DAE4 Sn1303	2.02	39.8	40.4	1.51	1.07	21	21.4	1.9
2025/10/3	2300	Head	50	D2300V2 - 1056	EX3DV4 - SN3857	DAE4 Sn1303	2.27	48.6	45.4	-6.58	1.11	23.4	22.2	-5.13
2025/10/13	2450	Head	50	D2450V2 - 1095	EX3DV4 - SN7627	DAE4 Sn1338	2.47	52.6	49.4	-6.08	1.14	24.7	22.8	-7.69
2025/10/22	2450	Head	50	D2450V2 - 1095	EX3DV4 - SN3857	DAE4 Sn1303	2.49	52.6	49.8	-5.32	1.16	24.7	23.2	-6.07
2025/10/5	2600	Head	50	D2600V2 - 1112	EX3DV4 - SN3857	DAE4 Sn1303	2.53	55.1	50.6	-8.17	1.15	24.8	23	-7.26
2025/10/7	3500	Head	50	D3500V2 - 1037	EX3DV4 - SN3857	DAE4 Sn1303	3.52	65.4	70.4	7.65	1.26	24.7	25.2	2.02
2025/10/9	3700	Head	50	D3700V2 - 1008	EX3DV4 - SN3857	DAE4 Sn1303	3.45	67.2	69	2.68	1.29	24.4	25.8	5.74
2025/10/11	3900	Head	50	D3900V2 - 1048	EX3DV4 - SN3857	DAE4 Sn1303	3.26	69.1	65.2	-5.64	1.17	24.1	23.4	-2.9
2025/10/15	5250	Head	50	D5GHzV2 - 1113	EX3DV4 - SN7627	DAE4 Sn1338	3.74	78.1	74.8	-4.23	1.08	22.4	21.6	-3.57
2025/10/17	5600	Head	50	D5GHzV2 - 1113	EX3DV4 - SN7627	DAE4 Sn1338	3.99	80	79.8	-0.25	1.14	23	22.8	-0.87
2025/10/19	5800	Head	50	D5GHzV2 - 1113	EX3DV4 - SN7627	DAE4 Sn1338	3.76	77.9	75.2	-3.47	1.06	22.3	21.2	-4.93
2025/10/16	6500	Head	50	D6.5GHzV2 - 1026	EX3DV4 - SN7706	DAE4 Sn1338	14.5	296	290	-2.03	2.77	54.8	55.4	1.09
2025/9/23	13	Head	1000	CLA13 - SN:1020	EX3DV4 - SN7627	DAE4 Sn690	0.531	0.548	0.531	-3.45	0.328	0.338	0.328	-3.53

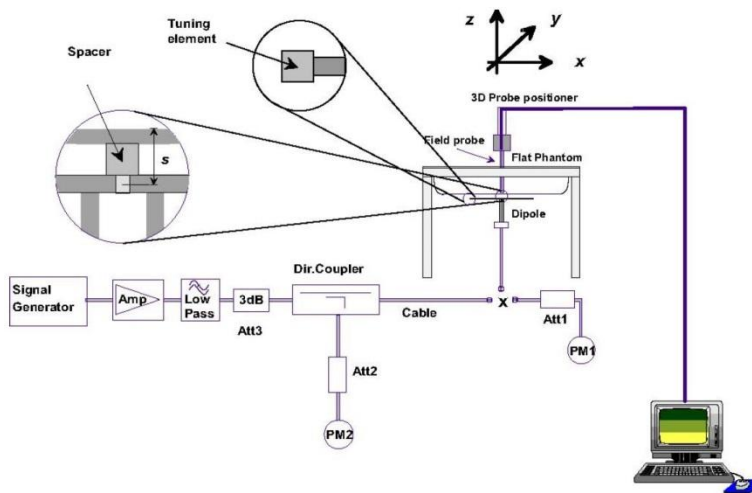


Fig 10.3.1 System Performance Check Setup



Fig 10.3.2 Setup Photo



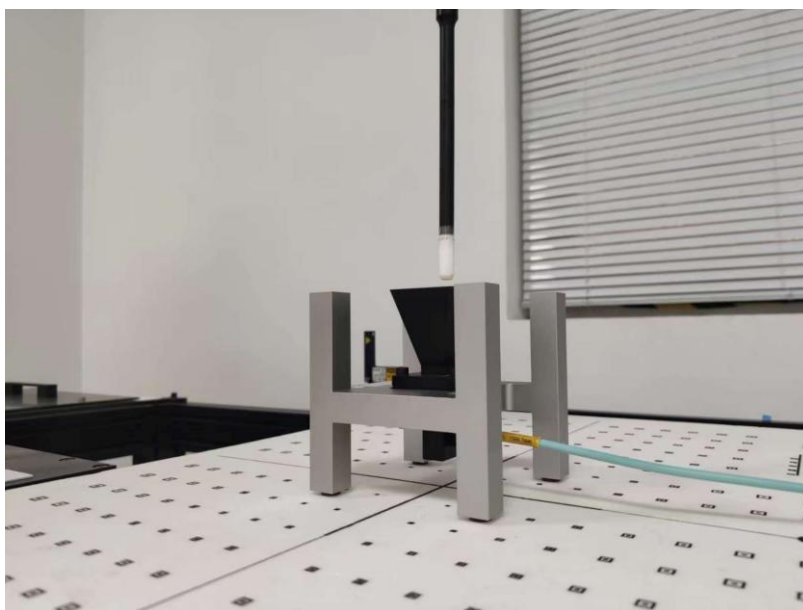
Fig 10.3.3 Setup Photo

12.4 PD System Verification Results

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

Frequency (GHz)	5G Verification Source	Probe S/N	DAE S/N	Distance (mm)	Input Power (mW)	Measured psPDn+ 4 cm ² (W/m ²)	Normalized ⁽¹⁾ psPDn+ 4 cm ² (W/m ²)	Targeted psPDn+ 4 cm ² (W/m ²)	Deviation (dB)	Measured psPDtot+ 4 cm ² (W/m ²)	Normalized ⁽¹⁾ psPDtot+ 4 cm ² (W/m ²)	Targeted psPDtot+ 4 cm ² (W/m ²)	Deviation (dB)	Measured psPDmod+ 4 cm ² (W/m ²)	Normalized ⁽¹⁾ psPDmod+ 4 cm ² (W/m ²)	Targeted psPDmod+ 4 cm ² (W/m ²)	Deviation (dB)	Date
10	10GHz_2002	9441	1338	10	100	98.7	156.4	166	-0.26	99.3	157.3	167	-0.26	102	161.6	172	-0.27	2025/12/3

Note: (1) means the measured PD was normalized to Prad power which can be referred to DASY Calibration Certificate in appendix C.



System Verification Setup Photo

13. RF Exposure Positions

13.1 SAR Testing for Tablet

This device can be used also in full sized tablet exposure conditions, due to its size. Per FCC KDB 616217, the back surface and edges of the tablet should be tested for SAR compliance with the tablet touching the phantom. The SAR exclusion threshold in KDB 447498 D01v06 can be applied to determine SAR test exclusion for adjacent edge configurations. The closest distance from the antenna to an adjacent tablet edge is used to determine if SAR testing is required for the adjacent edges, with the adjacent edge positioned against the phantom and the edge containing the antenna positioned perpendicular to the phantom.

13.2 Miscellaneous Testing Considerations

- Evaluate SAR using 6-7 GHz parameters per IEC/IEEE 62209-1528:2020.
- Per procedures of KDB Pubs. 447498 and 248227, and applicable product-specific procedures among KDB Pubs.
- Where supported by the test system, also report estimated absorbed (epithelial) power density (for reference purposes only, not specifically for compliance) and estimated incident PD, derived from measured SAR.
- In addition, for the highest SAR test configurations evaluate incident PD using the mmw near-field probe and total-field/power-density reconstruction method (2 mm closest meas. plane)
 - Adjust measured results per amount that measurement uncertainty exceeds 30 % (see e.g. IEC 62479:2010)

<EUT Setup Photos>

Please refer to Appendix D for the test setup photos.



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 $\leq \frac{1}{4}$ dB higher than the primary mode, SAR measurement is not required for the secondary mode.

<WCDMA Conducted Power>

1. The following tests were conducted according to the test requirements outlines in 3GPP TS 34.121 specification.
2. The procedures in KDB 941225 D01v03r01 are applied for 3GPP Rel. 6 HSPA to configure the device in the required sub-test mode(s) to determine SAR test exclusion.
3. For DC-HSDPA, the device was configured according to the H-Set 12, Fixed Reference Channel (FRC) configuration in Table C.8.1.12 of 3GPP TS 34.121-1, with the primary and the secondary serving HS-DSCH Cell enabled during the power measurement.

A summary of these settings are illustrated below:

HSDPA Setup Configuration:

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

Table C.10.1.4: β values for transmitter characteristics tests with HS-DPCCH

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{hs} (Note 1, Note 2)	CM (dB) (Note 3)	MPR (dB) (Note 3)
1	2/15	15/15	64	2/15	4/15	0.0	0.0
2	12/15 (Note 4)	15/15 (Note 4)	64	12/15 (Note 4)	24/15	1.0	0.0
3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5
Note 1: Δ_{ACK}, Δ_{NACK} and $\Delta_{CQI} = 30/15$ with $\beta_{hs} = 30/15 * \beta_c$. Note 2: For the HS-DPCCH power mask requirement test in clause 5.2C, 5.7A, and the Error Vector Magnitude (EVM) with HS-DPCCH test in clause 5.13.1A, and HSDPA EVM with phase discontinuity in clause 5.13.1AA, Δ_{ACK} and $\Delta_{NACK} = 30/15$ with $\beta_{hs} = 30/15 * \beta_c$, and $\Delta_{CQI} = 24/15$ with $\beta_{hs} = 24/15 * \beta_c$. Note 3: CM = 1 for $\beta_c/\beta_d = 12/15$, $\beta_{hs}/\beta_c = 24/15$. For all other combinations of DPDCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases. Note 4: For subtest 2 the β_c/β_d ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 11/15$ and $\beta_d = 15/15$.							

Setup Configuration

HSUPA Setup Configuration:

- The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration.
- The RF path losses were compensated into the measurements.
- A call was established between EUT and Base Station with following setting * :
 - Call Configs = 5.2B, 5.9B, 5.10B, and 5.13.2B with QPSK
 - 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
 - Set Cell Power = -86 dBm
 - Set Channel Type = 12.2k + HSPA
 - Set UE Target Power
 - Power Ctrl Mode= Alternating bits
 - Set and observe the E-TFCI
 - Confirm that E-TFCI is equal to the target E-TFCI of 75 for sub-test 1, and other subtest's E-TFCI
- 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	$\beta_{ed1}: 47/15$ $\beta_{ed2}: 47/15$	4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15	0	-	-	5/15	5/15	47/15	4	1	1.0	0.0	12	67

Note 1: For sub-test 1 to 4, 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 $\beta_d/\beta_c = 12/15$, $\beta_{hs}/\beta_c = 24/15$. 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:

- The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration below
- The RF path losses were compensated into the measurements.
- A call was established between EUT and Base Station with following setting:
 - Set RMC 12.2Kbps + HSDPA mode.
 - Set Cell Power = -25 dBm
 - Set HS-DSCH Configuration Type to FRC (H-set 12, QPSK)
 - Select HSDPA Uplink Parameters
 - 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
 - Subtest 1: $\beta_c/\beta_d=2/15$
 - Subtest 2: $\beta_c/\beta_d=12/15$
 - Subtest 3: $\beta_c/\beta_d=15/8$
 - Subtest 4: $\beta_c/\beta_d=15/4$
 - Set Delta ACK, Delta NACK and Delta CQI = 8
 - Set Ack-Nack Repetition Factor to 3
 - Set CQI Feedback Cycle (k) to 4 ms
 - Set CQI Repetition Factor to 2
 - Power Ctrl Mode = All Up bits
- The transmitted maximum output power was recorded.

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

C.8.1.12 Fixed Reference Channel Definition H-Set 12

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

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

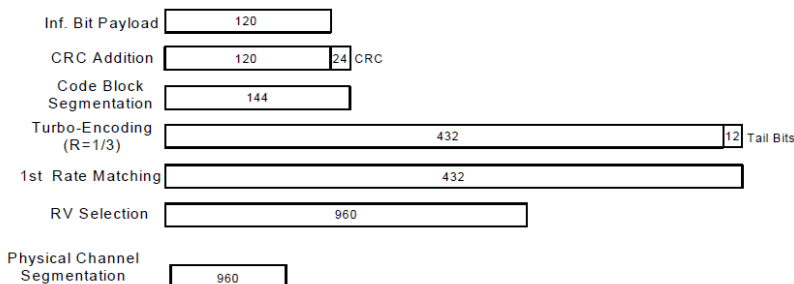


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

Setup Configuration

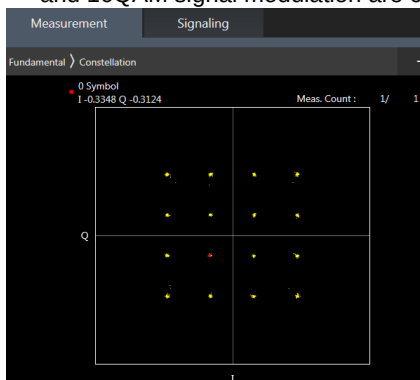
**<WCDMA Conducted Power>****General Note:**

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:

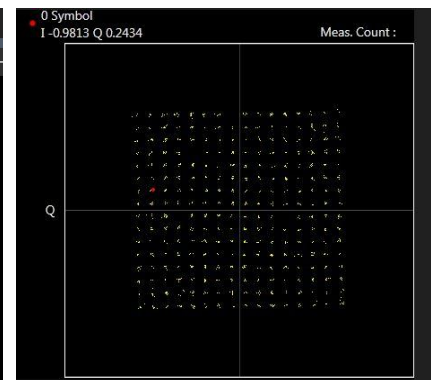
1. Anritsu MT8821C base station simulator was used to setup the connection with EUT; the frequency band, channel bandwidth, RB allocation configuration, modulation type are set in the base station simulator to configure EUT transmitting at maximum power and at different configurations which are requested to be reported to FCC, for conducted power measurement and SAR testing.
2. Per KDB 941225 D05v02r05, when a properly configured base station simulator is used for the SAR and power measurements, spectrum plots for each RB allocation and offset configuration is not required.
3. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
4. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
5. Per KDB 941225 D05v02r05, for QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
6. Per KDB 941225 D05v02r05, 16QAM/64QAM/256QAM output power for each RB allocation configuration is $>$ not $\frac{1}{2}$ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, 16QAM/64QAM/256QAM SAR testing is not required.
7. Per KDB 941225 D05v02r05, smaller bandwidth output power for each RB allocation configuration is $>$ not $\frac{1}{2}$ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
8. For LTE B4 / B5 / B12 / B17 / B26 / B38 / B71 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
9. LTE B2 / B4 / B5 / B17 / B38 SAR test was covered by B25 / B66 / B26 / B12 / B41; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
 - a. the maximum output power, including tolerance, for the smaller band is $\leq$ the larger band to qualify for the SAR test exclusion
 - b. the channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band
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.



16QAM



64QAM



256QAM

<TDD LTE SAR Measurement>

TDD LTE configuration setup for SAR measurement

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

- 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table 4.2-2 for uplink-downlink configurations
- “special subframe S” contains both uplink and downlink transmissions, it has been taken into consideration to determine the transmission duty factor according to the worst case uplink and downlink cyclic prefix requirements for UpPTS
- Establishing connections with base station simulators ensure a consistent means for testing SAR and recommended for evaluating SAR. The Anritsu MT8820C (firmware: #22.52#004) was used for LTE output power measurements and SAR testing.

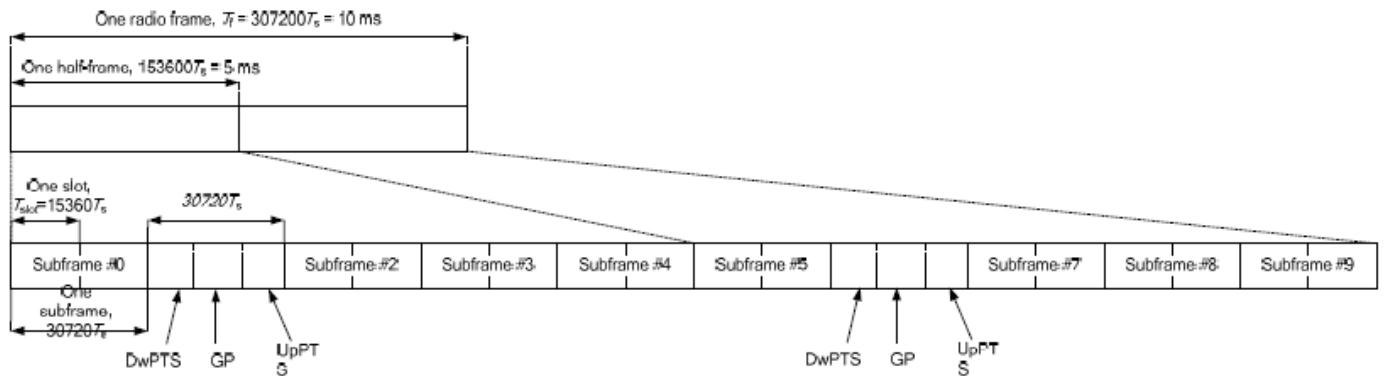


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

Table 4.2-2: Uplink-downlink configurations.

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

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

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

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

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

The highest duty factor is resulted from:

For LTE TDD Power class 2

- Uplink-downlink configuration: 1. In a half-frame consisted of 5 subframes, uplink operation is in 2 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: $(2+0.167)/5 = 43.3\%$
- for special subframe with normal cyclic prefix in uplink, the total uplink duty factor in one half-frame is: $(2+0.143)/5 = 42.9\%$
- For TDD LTE SAR measurement, the duty cycle 1:2.33 (42.9 %) was used perform testing and considering the theoretical duty cycle of 43.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 42.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix $43.3\%/42.9\% = 1.009$ 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.

For LTE TDD Power class 3

- Uplink-downlink configuration: 0. In a half-frame consisted of 5 subframes, uplink operation is in 3 uplink subframes and 1 special subframe.
- special subframe configuration: 5-9 for normal cyclic prefix in downlink, 4-7 for extended cyclic prefix in downlink
- for special subframe with extended cyclic prefix in uplink, the total uplink duty factor in one half-frame is: $(3+0.167)/5 = 63.3\%$
- for special subframe with normal cyclic prefix in uplink, the total uplink duty factor in one half-frame is: $(3+0.143)/5 = 62.9\%$
- For TDD LTE SAR measurement, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix $63.3\%/62.9\% = 1.006$ is applied to scale-up the measured SAR result. The scaled TDD LTE SAR = measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.

The device can adjust uplink/downlink configuration automatically according to the transmitting power class level, as followings:

LTE TDD Band	Power Class level	support uplink/downlink configuration
LTE Band 41	> 23	1,2,3,4,5
	=23	0,1,2,3,4,5,6
	< 23	0,1,2,3,4,5,6

<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_5B	8
CA_7C	8
CA_38C	8
CA_66B	1
CA_66C	1
CA_41C	8
CA_48B	8
CA_48C	8

<Intra-band>

General Note:

- i. The device supports intra-band uplink carrier aggregation for LTE B5/38/41/42/43/66 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.
- iv. LTE CA_66B, LTE CA_48B test was covered by CA_66C, LTE CA_48C; therefore, SAR was only assessed for CA_66C, LTE CA_48C.

<Inter-band CA Configuration>
General Note:

1. The single carrier of inter band CA uplink power level is the same as Non-CA standalone LTE power level.
2. The product implements Qualcomm Smart Transmit feature which controls the instantaneous transmitting power for WWAN transmitter to ensure the product in compliance with FCC RF exposure limit over a defined time window. 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.
3. For LTE inter-band CA mode, Qualcomm Smart Transmit algorithm in WWAN adds directly the time-averaged RF exposure between two LTE bands. Smart Transmit algorithm controls the total RF exposure base on LTE inter CA bands to not exceed FCC limit.

LTE Uplink CA	2CC Uplink Carrier Aggregation	
Inter-band	PCC Antenna Tx	SCC Antenna Tx
CA_2A-4A	1	5
CA_2A-5A	5	8
CA_2A-7A	5	8
CA_2A-12A	5	8
CA_2A-13A	5	8
CA_2A-14A	5	8
CA_2A-17A	5	8
CA_2A-26A	5	8
CA_2A-30A	5	8
CA_2A-66A	1	5
CA_2A-71A	5	8
CA_4A-5A	5	8
CA_4A-7A	5	8
CA_4A-12A	5	8
CA_4A-13A	5	8
CA_4A-17A	5	8
CA_4A-30A	5	8
CA_4A-71A	5	8
CA_5A-7A	8	5
CA_5A-25A	8	5
CA_5A-30A	8	5
CA_5A-66A	8	5
CA_7A-12A	5	8
CA_7A-13A	5	8
CA_7A-25A	8	5
CA_7A-26A	5	8
CA_7A-66A	8	5
CA_7A-71A	5	8
CA_12A-25A	8	5
CA_12A-30A	8	5
CA_12A-66A	8	5
CA_13A-66A	8	5
CA_14A-30A	8	5
CA_14A-66A	8	5
CA_25A-26A	5	8
CA_25A-66A	1	5
CA_26A-66A	8	5
CA_30A-66A	8	5
CA_66A-71A	5	8

5G NR Output Power (Unit: dBm)**General Note:**

1. 5G NR n2/n5/n7/n12/n14/n25/n26/n30/n38/n41/n66/n71/n77/n78 is NSA mode.
2. 5G NR n2/n5/n7/n12/n13/n14/n25/n26/n30/n38/n41/n48/n53/n66/n70/n71/n77/n78 is SA mode.
3. 5G NR n89 is only operated in band combination for SUL mode.
4. 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 $\frac{1}{2}$ 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 $\frac{1}{2}$ 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 $\frac{1}{2}$ 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.
 - g. 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
5. This device supports HPUE mode for 5G NR n41/n77/n78 with higher power, so power class 2 was chosen to perform full SAR testing and power class 2 SAR can represent power class 3 SAR.
6. 5G NR supports CP-OFDM and DFT-s-OFDM modulation, for DFT-s-OFDM power is higher than CP-OFDM, so only show DFT-s-OFDM power table and chose DFT-s-OFDM to perform SAR testing.
7. For DFT-s-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for the CP-OFDM mode will not higher than DFT-s-OFDM mode, therefore, CP-OFDM measurement is unnecessary.
8. NSA and SA mode should perform SAR separately. For the maximum power of NSA mode is the same as SA total power level, so SA SAR can represent NSA mode SAR.
9. 5G NR NSA mode, the power level is the same as 5G NR SA mode, so 5G NR NSA mode and SA mode power table only show one time.
10. For NR inter-band CA mode, Qualcomm Smart Transmit algorithm in WWAN adds directly the time-averaged RF exposure between two NR bands. Smart Transmit algorithm controls the total RF exposure base on NR inter band ULCA bands to not exceed FCC limit.
11. For 5G NR n77/n78 HPUE, 5G NR 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.
12. 5G NR n38/n41/n48/n77/n78 supports UL MIMO mode.

<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	LTE Antenna Tx	NR Antenna Tx
DC_2A_n5A	5	8
DC_2A_n7A	5	8
DC_2A_n12A	5	8
DC_2A_n14A	5	8
DC_2A_n30A	5	8
DC_2A_n38A	1	5
DC_2A_n41A	5	8/5/3/4
DC_2A_n66A	5	1
DC_2A_n71A	5	8
DC_2A_n77A	5	8/9/3/4
DC_2A_n78A	5	8/9/3/4
DC_4A_n2A	1	5
DC_4A_n7A	5	8
DC_4A_n38A	1	5
DC_4A_n41A	5	8/5/3/4
DC_4A_n78A	5	8/9/3/4
DC_5A_n2A	8	5
DC_5A_n3A	8	5
DC_5A_n7A	8	5
DC_5A_n12A	10	8
DC_5A_n25A	8	5
DC_5A_n30A	8	5
DC_5A_n38A	8	5
DC_5A_n41A	8	5/8/4/3
DC_5A_n66A	8	5
DC_5A_n77A	8	9/8/4/3
DC_5A_n78A	8	9/8/4/3
DC_7A_n2A	8	5
DC_7A_n5A	5	8
DC_7A_n12A	5	8
DC_7A_n25A	8	5
DC_7A_n26A	5	8
DC_7A_n66A	8	5
DC_7A_n71A	5	8
DC_7A_n77A	5	8/9/3/4
DC_7A_n78A	5	8/9/3/4
DC_12A_n2A	8	5
DC_12A_n5A	8	10
DC_12A_n7A	8	5
DC_12A_n25A	8	5
DC_12A_n30A	8	5
DC_12A_n38A	8	5
DC_12A_n41A	8	5/8/4/3
DC_12A_n66A	8	5
DC_12A_n77A	8	9/8/4/3
DC_12A_n78A	8	9/8/4/3
DC_13A_n2A	8	5
DC_13A_n7A	8	5
DC_13A_n25A	8	5
DC_13A_n66A	8	5
DC_13A_n77A	8	9/8/4/3
DC_13A_n78A	8	9/8/4/3
DC_14A_n2A	8	5
DC_14A_n30A	8	5



DC_14A_n66A	8	5
DC_14A_n77A	8	9/8/4/3
DC_25A_n41A	5	8/5/3/4
DC_25A_n77A	5	8/9/3/4
DC_25A_n78A	5	8/9/3/4
DC_26A_n25A	8	5
DC_26A_n41A	8	5/8/4/3
DC_26A_n78A	8	9/8/4/3
DC_30A_n2A	8	5
DC_30A_n5A	5	8
DC_30A_n12A	5	8
DC_30A_n14A	5	8
DC_30A_n66A	8	5
DC_30A_n77A	5	8/9/3/4
DC_38A_n78A	5	8/9/3/4
DC_41A_n77A	5	8/9/3/4
DC_41A_n78A	5	8/9/3/4
DC_48A_n2A	8	5
DC_48A_n5A	9	8
DC_48A_n12A	9	8
DC_48A_n66A	9	1
DC_48A_n71A	9	8
DC_66A_n2A	5	1
DC_66A_n5A	5	8
DC_66A_n7A	5	8
DC_66A_n12A	5	8
DC_66A_n14A	5	8
DC_66A_n25A	1	5
DC_66A_n30A	5	8
DC_66A_n38A	1	5
DC_66A_n41A	5	8/5/3/4
DC_66A_n71A	5	8
DC_66A_n77A	5	8/9/3/4
DC_66A_n78A	5	8/9/3/4
DC_71A_n2A	8	5
DC_71A_n7A	8	5
DC_71A_n25A	8	5
DC_71A_n38A	8	5
DC_71A_n41A	8	5/8/4/3
DC_71A_n66A	8	5
DC_71A_n77A	8	9/8/4/3
DC_71A_n78A	8	9/8/4/3

Inter-Band CA Configuration:

Inter-band	PCC Antenna Tx	SCC Antenna Tx
CA_n2A_n5A	5	8
CA_n2A_n7A	5	8
CA_n2A_n12A	5	8
CA_n2A_n14A	5	8
CA_n2A_n30A	5	8
CA_n2A_n41A	1	5/8/4/3
CA_n2A_n48A	1	9
CA_n2A_n66A	1	5
CA_n2A_n71A	5	8
CA_n2A_n77A	1	9/8/4/3



CA_n2A_n78A	1	9/8/4/3
CA_n5A_n7A	8	5
CA_n5A_n12A	10	8
CA_n5A_n25A	8	5
CA_n5A_n30A	8	5
CA_n5A_n41A	8	5/8/4/3
CA_n5A_n48A	8	9
CA_n5A_n66A	8	5
CA_n5A_n77A	8	9/8/4/3
CA_n5A_n78A	8	9/8/4/3
CA_n7A_n12A	5	8
CA_n7A_n25A	8	5
CA_n7A_n26A	5	8
CA_n7A_n66A	8	5
CA_n7A_n71A	5	8
CA_n7A_n77A	8	9/8/4/3
CA_n7A_n78A	8	9/8/4/3
CA_n12A_n25A	8	5
CA_n12A_n30A	8	5
CA_n12A_n41A	8	5/8/4/3
CA_n12A_n48A	8	9
CA_n12A_n66A	8	5
CA_n12A_n77A	8	9/8/4/3
CA_n12A_n78A	8	9/8/4/3
CA_n13A_n25A	8	5
CA_n13A_n66A	8	5
CA_n13A_n77A	8	9/8/4/3
CA_n14A_n30A	8	5
CA_n14A_n66A	8	5

UL MIMO combination:

ULMIMO	Ant
n48	Ant8+9
n77	Ant8+9
n78	Ant8+9
n38	Ant8+5
n41	Ant8+5

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

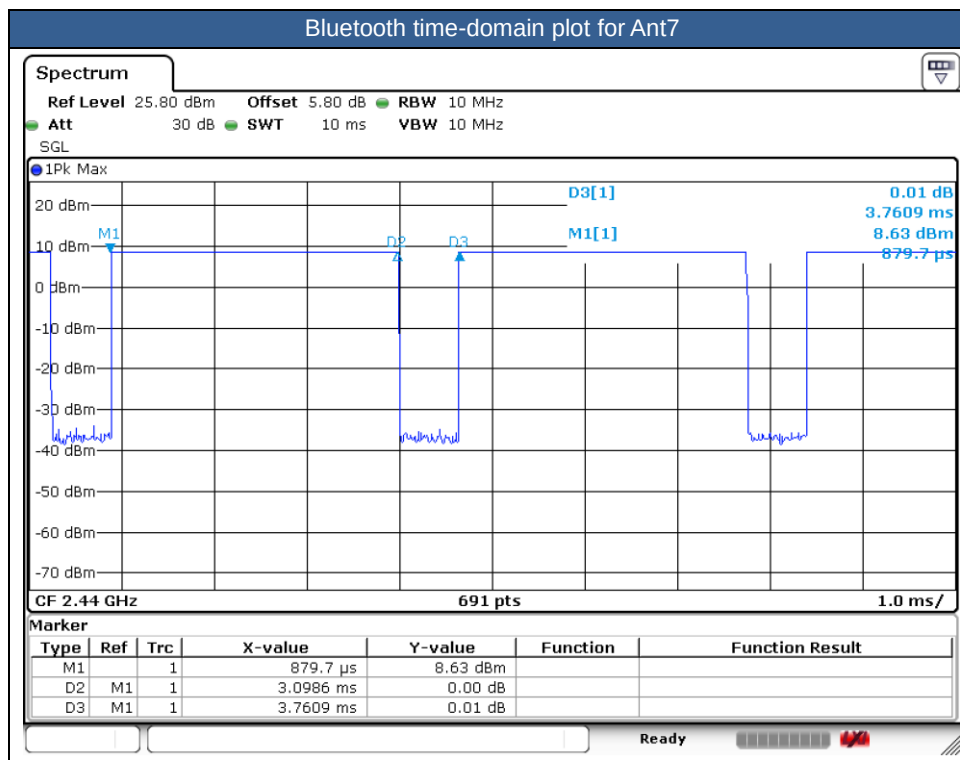
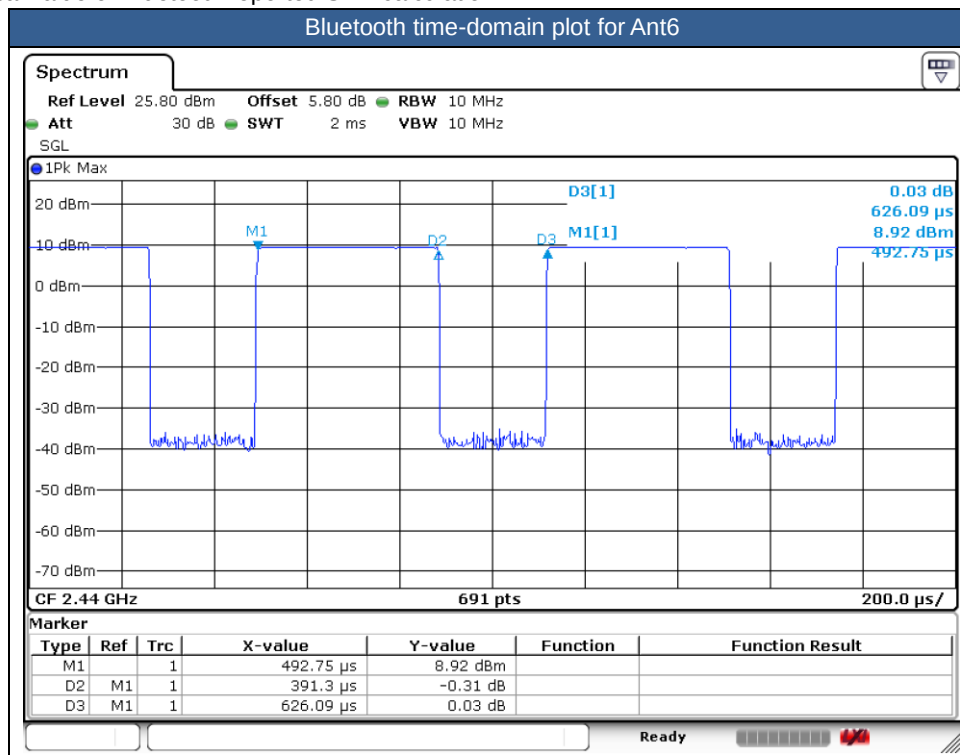
1. For each antenna, transmit power in SISO operation is larger than (or equal to) the power in MIMO operation, RF exposure compliance of MIMO mode can be deduced from the compliance simultaneous transmission of antennas operating in SISO mode.
2. For each frequency band or when MIMO mode was not performed, due to for each antenna, transmit power in SISO operation is larger than (or equal to) the power in MIMO operation, RF exposure compliance of MIMO mode can be deduced from the compliance simultaneous transmission of antennas operating in SISO mode.
3. Per KDB 248227 D01v02r02, the simultaneous SAR provisions in KDB publication 447498 should be applied to determine simultaneous transmission SAR test exclusion for WiFi MIMO. If the sum of 1g single transmission chain SAR measurements is $< 1.6\text{W/kg}$ and SAR peak to location ratio ≤ 0.04 , no additional SAR measurements for MIMO.
4. 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.
5. 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.
6. 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).
7. 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.
8. DSSS and OFDM configurations are considered separately according to the required SAR procedures. SAR is measured in the initial test position using the 802.11 transmission mode configuration required by the DSSS procedure or initial test configuration and subsequent test configuration(s) according to the OFDM procedures.¹⁸ The initial test position procedure is described in the following:
 - a. When the reported SAR of the initial test position is $\leq 0.4\text{ W/kg}$, 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 $> 0.4\text{ W/kg}$, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is $\leq 0.8\text{ W/kg}$ or all required test position are tested.
 - c. For all positions/configurations, when the reported SAR is $> 0.8\text{ W/kg}$, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is $\leq 1.2\text{ W/kg}$ or all required channels are tested.
9. Per April 2019 TCB workshops, General principles of FCC KDB Publication 248227 D01 can be applied to determine the SAR Initial Test Configurations and test reduction for 802.11ax SAR testing. For the table below the 802.11ax maximum power is SU (non-OFDMA), and the SU maximum power also higher than RU (OFDMA)
10. In applying the test guidance, the IEEE 802.11 mode with the maximum output power (out of all modes) should be considered for testing

11. For modes with the same maximum output power, the guidance from section 5.3.2 a) of FCC KDB Publication 248227 D01 should be applied, with 802.11ax being considered as the highest 802.11 mode for the appropriate frequency bands
12. When SAR testing for 802.11ax is required
 - a. If the maximum output power is highest for OFDMA scenarios, choose the tone size with the maximum number of tones and the highest maximum output power
 - b. Otherwise, consider the fully allocated channel for SAR testing
 - c. When SAR testing is required on RU sizes less than the fully allocated channel, use the RU number closest to the middle of the channel, choosing the higher RU number when two RUs are equidistant to the middle of the channel
13. 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.
14. The 2.4GHz/5GHz/6GHz WLAN can transmit in SISO/MIMO antenna mode.
15. 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.
16. The device supports WLAN 2.4GHz/5GHz Tx Beamforming mode for 11ax/be, and the Tx Beamforming power/EIRP is not greater than CDD mode, so conducted power of CDD mode can represent Tx Beamforming mode.
17. For WLAN6GHz SISO & MIMO(CDD) & MIMO(SDM) & TX Beamforming mode of 802.11ax, follow the steps below:
 - 1) For Standard Client, due to WLAN SISO & TX Beamforming mode power level is not greater than WLAN MIMO(SDM) & MIMO(CDD) mode, so conducted power of WLAN SISO &Tx Beamforming mode is not required.
 - 2) For Indoor Client, due to WLAN SISO & MIMO(CDD) & TX Beamforming mode power level is not greater than WLAN MIMO(SDM) mode, so conducted power of WLAN SISO & MIMO(CDD) &Tx Beamforming mode is not required.

<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 62.5 for Ant6 and 82.39 for Ant7 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.

<SAR test exclusion table>

General Note:

- The below table, when the distance is < 50 mm exclusion threshold is "Ratio", when the distance is > 50 mm exclusion threshold is "mW"
- Maximum power is the source-based time-average power and represents the maximum RF output power among production units
- Per KDB 447498 D01v06, for larger devices, the test separation distance of adjacent edge configuration is determined by the closest separation between the antenna and the user.
- Per KDB 447498 D01v06, standalone SAR test exclusion threshold is applied; If the test separation distance is < 5mm, 5mm is used to determine SAR exclusion threshold.
- Per KDB 447498 D01v06, the 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at *test separation distances* ≤ 50 mm are determined by:

$$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR}$$
 - f(GHz) is the RF channel transmit frequency in GHz
 - Power and distance are rounded to the nearest mW and mm before calculation
 - The result is rounded to one decimal place for comparison
- Per KDB 447498 D01v06, at 100 MHz to 6 GHz and for *test separation distances* > 50 mm, the SAR test exclusion threshold is determined according to the following
 - [Threshold at 50 mm in step 1) + (test separation distance - 50 mm) · (f(MHz)/150)] mW, at 100 MHz to 1500 MHz
 - [Threshold at 50 mm in step 1) + (test separation distance - 50 mm) · 10] mW at > 1500 MHz and ≤ 6 GHz

<Ant 8>

	Wireless Interface	GPRS 850	WCDMA Band V	LTE Band 71	LTE Band 12	LTE Band 13	LTE Band 14	LTE Band 17	LTE Band 5	LTE Band 26	LTE Band 30	LTE Band 7	LTE Band 38	LTE Band 41	LTE Band 41 HPUE	LTE Band 48	LTE Band 53	LTE Band 106	NR Band n5	NR Band n7	NR Band n12	NR Band n13	NR Band n14	NR Band n26	NR Band n30	NR Band n53	NR Band n71	NR Band n38	NR Band n41	NR Band n48	NR Band n77	NR Band n78	RFID
Exposure Position	Calculated Frequency (MHz)	848.8	846.6	688	711	782	793	711	844	841.5	2310	2560	2610	2680	2680	3690	2490	899	839	2545	708.5	782	793	839	2310	2490	688	2600	2640	3679.98	3930	3750	927.25
	Maximum power (dBm)	32.5	25.0	25.1	25.1	24.5	24.5	25.1	25.1	25.1	25.1	25.1	25.1	25.1	27.0	22.0	25.1	25.1	25.2	25.2	25.2	24.5	24.5	25.2	25.2	25.2	25.2	25.2	27.0	18.0	25.7	25.7	26.0
	Maximum rated power(mW)	1778.28	316.23	323.59	323.59	281.84	281.84	323.59	323.59	323.59	323.59	323.59	323.59	323.59	501.19	158.49	323.59	323.59	331.13	331.13	331.13	281.84	281.84	331.13	331.13	331.13	331.13	331.13	501.19	63.10	371.54	371.54	398.11
	Separation distance(mm)	5.0																															
Bottom Face	exclusion threshold	327.5	58.2	54.0	54.7	49.9	50.3	54.7	59.6	59.6	98.4	103.7	104.7	106.1	106.1	61.0	102.1	61.4	60.7	105.7	55.7	48.1	50.2	60.7	100.7	104.5	54.9	106.8	162.9	24.2	147.3	143.9	76.7
	Testing required?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Edge 1	Separation distance(mm)	5.0																															
	exclusion threshold	327.5	58.2	54.0	54.7	49.9	50.3	54.7	59.6	59.6	98.4	103.7	104.7	106.1	106.1	61.0	102.1	61.4	60.7	105.7	55.7	48.1	50.2	60.7	100.7	104.5	54.9	106.8	162.9	24.2	147.3	143.9	76.7
	Testing required?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Edge 2	Separation distance(mm)	10.5																															
	exclusion threshold	156.0	27.7	25.7	26.1	23.8	23.9	26.0	28.4	28.4	46.9	49.4	49.9	50.5	50.5	29.0	48.6	29.2	28.9	50.3	26.5	22.9	23.9	28.9	47.9	49.8	26.2	50.9	77.6	24.2	147.3	143.9	76.7
	Testing required?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Edge 3	Separation distance(mm)	154.4																															
	exclusion threshold	753.0	1207.0	664.0	1221.0	1213.0	722.0	674.0	1207.0	1207.0	1708.0	1880.0	1914.0	1962.0	1962.0	2651.0	1827.0	1202.0	1208.0	1138.0	1222.0	1220.0	1212.0	1208.0	1143.0	1139.0	1225.0	1137.0	1136.0	24.2	147.3	143.9	76.7
	Testing required?	Yes	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	Yes
Edge 4	Separation distance(mm)	182.5																															
	exclusion threshold	912.0	1488.0	794.0	1502.0	1494.0	870.0	807.0	1488.0	1488.0	2140.0	2361.0	2404.0	2464.0	2464.0	3343.0	2293.0	1483.0	1488.0	1419.0	1503.0	1501.0	1493.0	1488.0	1423.0	1420.0	1506.0	1418.0	1417.0	24.2	147.3	143.9	76.7
	Testing required?	Yes	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	Yes

<Ant 1>

Exposure Position	Wireless Interface	GPRS 1900	WCDMA Band IV	WCDMA Band II	LTE Band 4	LTE Band 66	LTE Band 2	LTE Band 25	LTE Band 70	NR Band n2	NR Band n25	NR Band n66	NR Band n70
	Calculated Frequency (MHz)	1909.8	1752.6	1907.6	1745	1770	1900	1905	1702.5	1890	1895	1760	1702.5
	Maximum power (dBm)	28.0	25.0	25.0	25.1	25.1	25.1	25.1	25.1	25.2	25.2	25.2	25.2
	Maximum rated power(mW)	630.96	316.23	316.23	323.59	323.59	323.59	323.59	323.59	331.13	331.13	331.13	331.13
Bottom Face	Separation distance(mm)	5.0											
	exclusion threshold	116.2	87.4	58.2	85.6	89.4	59.5	59.6	85.6	91.5	55.2	56.0	58.6
	Testing required?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Edge 1	Separation distance(mm)	5.0											
	exclusion threshold	116.2	87.4	58.2	85.6	89.4	59.5	59.6	85.6	91.5	55.2	56.0	58.6
	Testing required?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Edge 2	Separation distance(mm)	94.0											
	exclusion threshold	412.0	549.0	411.0	553.0	549.0	411.0	412.0	553.0	549.0	384.0	387.0	399.0
	Testing required?	Yes	No	No	No	No	No	No	No	No	No	No	No
Edge 3	Separation distance(mm)	154.4											
	exclusion threshold	753.0	1153.0	752.0	1157.0	1153.0	752.0	753.0	1157.0	1153.0	664.0	675.0	715.0
	Testing required?	No	No	No	No	No	No	No	No	No	No	No	No
Edge 4	Separation distance(mm)	154.2											
	exclusion threshold	752.0	1151.0	751.0	1155.0	1151.0	751.0	752.0	1155.0	1151.0	663.0	674.0	714.0
	Testing required?	No	No	No	No	No	No	No	No	No	No	No	No

<Ant 3>

Exposure Position	Wireless Interface	NR Band n41	NR Band n77	NR Band n78
	Calculated Frequency (MHz)	2640	3930	3750
	Maximum power (dBm)	27.0	25.7	25.7
	Maximum rated power(mW)	501.19	371.54	371.54
Bottom Face	Separation distance(mm)	5.0		
	exclusion threshold	162.9	147.3	143.9
	Testing required?	Yes	Yes	Yes
Edge 1	Separation distance(mm)	5.0		
	exclusion threshold	162.9	147.3	143.9
	Testing required?	Yes	Yes	Yes
Edge 2	Separation distance(mm)	245.3		
	exclusion threshold	3530.0	2029.0	4960.0
	Testing required?	No	No	No
Edge 3	Separation distance(mm)	122.5		
	exclusion threshold	1368.0	801.0	1890.0
	Testing required?	No	No	No
Edge 4	Separation distance(mm)	5.0		
	exclusion threshold	162.9	147.3	143.9
	Testing required?	Yes	Yes	Yes

<Ant 4>

Exposure Position	Wireless Interface	NR Band n41	NR Band n77	NR Band n78
	Calculated Frequency (MHz)	2640	3930	3750
	Maximum power (dBm)	27.0	25.7	25.7
	Maximum rated power(mW)	501.19	371.54	371.54
Bottom Face	Separation distance(mm)	5.0		
	exclusion threshold	162.9	147.3	143.9
	Testing required?	Yes	Yes	Yes
Edge 1	Separation distance(mm)	153.6		
	exclusion threshold	1916.0	1112.0	2667.0
	Testing required?	No	No	No
Edge 2	Separation distance(mm)	74.6		
	exclusion threshold	525.0	322.0	692.0
	Testing required?	No	Yes	No
Edge 3	Separation distance(mm)	5.0		
	exclusion threshold	162.9	147.3	143.9
	Testing required?	Yes	Yes	Yes
Edge 4	Separation distance(mm)	149.1		
	exclusion threshold	1836.0	1067.0	2555.0
	Testing required?	No	No	No

<Ant 5>

Exposure Position	Wireless Interface	LTE Band 4	LTE Band 66	LTE Band 2	LTE Band 25	LTE Band 30	LTE Band 7	LTE Band 41	NR Band n2	NR Band n25	NR Band n66	NR Band n30	NR Band n7	NR Band n41
	Calculated Frequency (MHz)	1745	1770	1900	1905	2310	2560	2680	1890	1895	1760	2310	2545	2640
	Maximum power (dBm)	25.1	25.1	25.1	25.1	25.1	25.1	25.1	25.2	25.2	25.2	25.2	25.2	27.0
	Maximum rated power(mW)	323.59	323.59	323.59	323.59	323.59	323.59	323.59	331.13	331.13	331.13	331.13	331.13	501.19
Bottom Face	Separation distance(mm)	5.0												
	exclusion threshold	85.7	86.3	89.4	89.5	98.4	103.7	106.1	91.1	91.2	87.9	100.7	105.7	162.9
	Testing required?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Edge 1	Separation distance(mm)	5.0												
	exclusion threshold	85.7	86.3	89.4	89.5	98.4	103.7	106.1	91.1	91.2	87.9	100.7	105.7	162.9
	Testing required?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Edge 2	Separation distance(mm)	225.4												
	exclusion threshold	2164.0	1866.0	2341.0	1862.0	1853.0	3095.0	3234.0	1863.0	1863.0	2171.0	2800.0	3070.0	3179.0
	Testing required?	No	No	No	No	No	No	No	No	No	No	No	No	No
Edge 3	Separation distance(mm)	154.4												
	exclusion threshold	1334.0	1156.0	1437.0	1152.0	1143.0	1880.0	1962.0	1153.0	1153.0	1338.0	1706.0	1865.0	1930.0
	Testing required?	No	No	No	No	No	No	No	No	No	No	No	No	No
Edge 4	Separation distance(mm)	5.0												
	exclusion threshold	85.7	86.3	89.4	89.5	98.4	103.7	106.1	91.1	91.2	87.9	100.7	105.7	162.9
	Testing required?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

<Ant 9>

Exposure Position	Wireless Interface	LTE Band 48	NR Band n48	NR Band n77	NR Band n78
	Calculated Frequency (MHz)	3690	3679.98	3930	3750
	Maximum power (dBm)	22.5	18.0	25.7	25.7
	Maximum rated power(mW)	177.83	63.10	371.54	371.54
Bottom Face	Separation distance(mm)	5.0			
	exclusion threshold	68.4	24.2	147.3	143.9
	Testing required?	Yes	Yes	Yes	Yes
Edge 1	Separation distance(mm)	5.0			
	exclusion threshold	68.4	24.2	147.3	143.9
	Testing required?	Yes	Yes	Yes	Yes
Edge 2	Separation distance(mm)	207.7			
	exclusion threshold	1655.0	3946.0	1653.0	1654.0
	Testing required?	No	No	No	No
Edge 3	Separation distance(mm)	154.4			
	exclusion threshold	1122.0	2639.0	1120.0	1121.0
	Testing required?	No	No	No	No
Edge 4	Separation distance(mm)	42.5			
	exclusion threshold	8.1	2.9	17.3	16.9
	Testing required?	Yes	No	Yes	Yes

<Ant 10>

Exposure Position	Wireless Interface	LTE Band 5	NR Band n5
	Calculated Frequency (MHz)	844	839
	Maximum power (dBm)	25.1	25.2
	Maximum rated power(mW)	323.59	331.13
Bottom Face	Separation distance(mm)	5.0	
	exclusion threshold	59.6	60.7
	Testing required?	Yes	Yes
Edge 1	Separation distance(mm)	76.4	
	exclusion threshold	312.0	428.0
	Testing required?	Yes	No
Edge 2	Separation distance(mm)	245.3	
	exclusion threshold	1267.0	2117.0
	Testing required?	No	No
Edge 3	Separation distance(mm)	47.6	
	exclusion threshold	6.3	6.4
	Testing required?	Yes	Yes
Edge 4	Separation distance(mm)	5.0	
	exclusion threshold	59.6	60.7
	Testing required?	Yes	Yes



<Ant 6&7>

Exposure Position	Wireless Interface	BT ANT 6	BT ANT 7	2.4GHz WLAN ANT 6	2.4GHz WLAN ANT 7	5GHz WLAN ANT 6	5GHz WLAN ANT 7	6GHz WLAN ANT 6	6GHz WLAN ANT 7
	Calculated Frequency (MHz)	2480	2440	2412	2412	5825	5745	5955	5955
	Maximum power (dBm)	9.0	8.5	21.0	21.0	20.0	20.0	19.5	20.5
	Maximum rated power(mW)	7.94	7.08	125.89	125.89	100.00	100.00	89.13	112.20
Bottom Face	Separation distance(mm)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
	exclusion threshold	2.5	2.2	39.1	39.1	48.3	60.4	61.4	48.8
	Testing required?	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Edge 1	Separation distance(mm)	5.0	15.6	5.0	15.6	5.0	15.6	5.0	15.6
	exclusion threshold	2.5	0.7	39.1	12.5	48.3	19.3	61.4	15.6
	Testing required?	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Edge 2	Separation distance(mm)	129.6	5.0	129.6	5.0	129.6	5.0	129.6	5.0
	exclusion threshold	891.0	2.2	893.0	39.1	858.0	60.4	857.0	48.8
	Testing required?	No	No	No	Yes	No	Yes	No	Yes
Edge 3	Separation distance(mm)	154.4	114.1	154.4	114.1	154.4	114.1	154.4	114.1
	exclusion threshold	1139.0	737.0	1141.0	738.0	1106.0	704.0	1105.0	702.0
	Testing required?	No	No	No	No	No	No	No	No
Edge 4	Separation distance(mm)	99.3	243.2	99.3	243.2	99.3	243.2	99.3	243.2
	exclusion threshold	588.0	2028.0	590.0	2029.0	555.0	1995.0	554.0	1993.0
	Testing required?	No	No	No	No	No	No	No	No

16. SAR Test Results

General Note:

1. Per KDB 447498 D01v06, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
 - a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
 - b. For SAR testing of WLAN signal with non-100% duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle)"
 - c. For SAR testing of Bluetooth signal with 83.3% theoretical duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle) *83.3%".
 - d. For WWAN: Reported SAR(W/kg)= Measured SAR(W/kg)*Tune-up Scaling Factor
 - e. For WLAN/Bluetooth: Reported SAR(W/kg)= Measured SAR(W/kg)* Duty Cycle scaling factor * Tune-up scaling factor
 - f. For TDD LTE SAR measurement of power class 3, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix 63.3%/62.9% = 1.006 is applied to scale-up the measured SAR result. The reported TDD LTE SAR (W/kg) = Measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.
 - g. For TDD LTE SAR measurement of power class 2, the duty cycle 1:2.33 (42.9 %) was used perform testing and considering the theoretical duty cycle of 43.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 42.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix 43.3%/42.9% = 1.009 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 only when the measured SAR is ≥ 0.8 W/kg.
4. Standalone body SAR testing for NFC will be performed with active mode and max power mode by test software with 100% duty cycle at 0mm separation distance.
5. SAR test tissue-simulating liquid parameter: refer to IEC/IEEE 62209-1528:2020.
6. Per FCC guidance, SAR was performed using 6.5 GHz SAR probe calibration factors.
7. Per October 2020 TCB Workshop Interim procedures, start instead with a minimum of 5 test channels across the full band, then adapt and apply conducted power and SAR test reduction procedures of KDB Pub. 248227 v02r02.
8. For testing the WLAN 6GHz of this DUT, the selection of test channels was based on FCC guidance, with five channels selected across the entire WLAN 6GHz Bands. For the U-NII-5/U-NII-7 band supporting Standard AP mode and indoor Client mode, the higher output mode was measured among the selected channels.
9. 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.
10. Absorbed power density (APD) using a 4cm² averaging area is reported based on SAR measurements.
11. WLAN 6GHz is categorized into three classes: Standard Client, Indoor Client and VLP (Very Low Power). Since the power level of Standard Client and Indoor Client is not less than power VLP (Very Low Power), so SAR for Standard Client and Indoor Client is evaluated more conservatively than VLP (Very Low Power) SAR. However, VLP (Very Low Power) SAR still spot-checks the worst-case SAR of Standard Client and Indoor Client.

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 $> \text{not } \frac{1}{2}$ 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 $> \text{not } \frac{1}{2}$ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
6. For LTE B4 / B5 / B12 / B26 / B71 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
7. LTE B2 / B4 / B5 / B17 / B38 SAR test was covered by B25 / B66 / B26 / B12 / B41; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
 - a. the maximum output power, including tolerance, for the smaller band is $\leq$ the larger band to qualify for the SAR test exclusion
 - b. the channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band

5G NR Note:

1. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
 - a. SAR testing start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
 - b. 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure
 - c. QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
 - d. $\pi/2$ BPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will not $\frac{1}{2}$ dB higher than the same configuration in QPSK, also reported SAR for the QPSK configuration is less than 1.45 W/kg, $\pi/2$ BPSK /16QAM/64QAM/256QAM SAR testing are not required.
 - e. Smaller bandwidth output power for each RB allocation configuration for this device will not $\frac{1}{2}$ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device
 - f. For 5G FR1 n2/n5/n7/n25/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.
6. 802.11ax/be supports full tone size and partial tone size, after verification for the partial tone size mode power level will not higher than full tone size power level, so chose full tone power to be measured in this report.
7. The 2.4GHz/5GHz/6GHz WLAN can transmit in SISO/MIMO antenna mode.
8. For each antenna, transmit power in SISO operation is larger than or equal to the power in MIMO operation, RF exposure compliance of MIMO mode can be deduced from the compliance simultaneous transmission of antennas operating in SISO mode. So WLAN SAR testing was performed on SISO antenna, MIMO SAR base on standalone SAR summed together as MIMO SAR.

Power Density General Notes:

1. The manufacturer has confirmed that the devices tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units.
2. Batteries are fully charged at the beginning of the measurements.
3. Absorbed power density (APD) using a 4cm² averaging area is reported based on SAR measurements.
4. Power density was calculated by repeated E-field measurements on two measurement planes separated by $\lambda/4$.
5. The device was configured to transmit continuously at the required data rate, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools.
6. Per FCC guidance and equipment manufacturer guidance, power density results were scaled according to IEC 62479:2010 for the portion of the measurement uncertainty > 30%. Total expanded uncertainty of 2.68 dB (85.4%) was used to determine the psPD measurement scaling factor.
7. Per April 2021 TCB Workshop and KDB 388624 D02v18r08, For the highest SAR test configurations also measure incident PD (total) using power-density reconstruction method in 2 mm closest measurement plane.
8. Per October 2020 TCB Workshop, PTP-PR algorithm was used during psPD measurement and calculations.
9. The measurement procedure consists of measuring the PD_{inc} at two different distances: 2 mm (compliance distance) and $\lambda/5$. The grid extents should be large enough to fully capture the transmitted energy. The grid step should be fine enough to demonstrate that the integrated Power Density iPD_n fulfill the criterion described below. Since iPD ratio between the two distances is ≥ -1 dB, the grid step (0.0625) was sufficient for determining compliance at d=2mm.

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

DSI status description:

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

This WWAN/WLAN/BT/RFID bands enabled with Qualcomm Smart Transmit feature which located at chapter 5. The default power is P_{max} power, When P_{limit} power higher than P_{max} power, the output power will be limited at P_{max}, and so the SAR will use P_{max} power to do the testing.

Exposure Condition	DSI	Trigger Conditions
Body SAR	DSI 7	Sensor On
Body Sensor Off	DSI 0	Sensor Off



16.1 Body SAR

【GSM SAR】

Plot No	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
01	GSM850	GPRS 4 Tx slots	Bottom Face	0mm	Ant 8	DS17	251	848.8	Without Scanner	22.87	23.70	1.211	0.02	0.846	1.025
	GSM850	GPRS 4 Tx slots	Bottom Face	0mm	Ant 8	DS17	128	824.2	Without Scanner	22.79	23.70	1.233	0.14	0.652	0.804
	GSM850	GPRS 4 Tx slots	Bottom Face	0mm	Ant 8	DS17	189	836.4	Without Scanner	22.86	23.70	1.213	-0.07	0.721	0.875
	GSM850	GPRS 4 Tx slots	Edge 1	0mm	Ant 8	DS17	251	848.8	Without Scanner	22.87	23.70	1.211	-0.08	0.852	1.032
	GSM850	GPRS 4 Tx slots	Edge 1	0mm	Ant 8	DS17	128	824.2	Without Scanner	22.79	23.70	1.233	0.15	0.610	0.752
	GSM850	GPRS 4 Tx slots	Edge 1	0mm	Ant 8	DS17	189	836.4	Without Scanner	22.86	23.70	1.213	-0.04	0.803	0.974
	GSM850	GPRS 4 Tx slots	Edge 2	0mm	Ant 8	DS17	251	848.8	Without Scanner	22.87	23.70	1.211	0.03	0.203	0.246
	GSM850	GPRS 4 Tx slots	Edge 3	0mm	Ant 8	DS10	251	848.8	Without Scanner	30.91	32.50	1.442	-0.12	0.195	0.281
	GSM850	GPRS 4 Tx slots	Edge 4	0mm	Ant 8	DS10	251	848.8	Without Scanner	30.91	32.50	1.442	-0.10	0.245	0.353
	GSM850	GPRS 4 Tx slots	Bottom Face	44mm	Ant 8	DS10	251	848.8	Without Scanner	30.91	32.50	1.442	0.12	0.256	0.369
	GSM850	GPRS 4 Tx slots	Edge 1	49mm	Ant 8	DS10	251	848.8	Without Scanner	30.91	32.50	1.442	-0.11	0.001	0.001
	GSM850	GPRS 4 Tx slots	Edge 2	17mm	Ant 8	DS10	251	848.8	Without Scanner	30.91	32.50	1.442	0.01	0.344	0.496
	GSM850	GPRS 4 Tx slots	Edge 1	0mm	Ant 8	DS17	251	848.8	With Scanner	22.87	23.70	1.211	0.03	0.811	0.982
	GSM1900	GPRS 4 Tx slots	Bottom Face	0mm	Ant 1	DS17	661	1880	Without Scanner	22.49	23.20	1.178	0.13	0.829	0.977
	GSM1900	GPRS 4 Tx slots	Bottom Face	0mm	Ant 1	DS17	512	1850.2	Without Scanner	22.34	23.20	1.219	-0.03	0.875	1.067
02	GSM1900	GPRS 4 Tx slots	Bottom Face	0mm	Ant 1	DS17	810	1909.8	Without Scanner	22.48	23.20	1.18	0.15	0.962	1.135
	GSM1900	GPRS 4 Tx slots	Edge 1	0mm	Ant 1	DS17	661	1880	Without Scanner	22.49	23.20	1.178	0.00	0.645	0.760
	GSM1900	GPRS 4 Tx slots	Edge 2	0mm	Ant 1	DS10	661	1880	Without Scanner	21.67	23.20	1.422	0.03	0.475	0.675
	GSM1900	GPRS 4 Tx slots	Edge 3	0mm	Ant 1	DS10	661	1880	Without Scanner	21.67	23.20	1.422	0.09	0.087	0.124
	GSM1900	GPRS 4 Tx slots	Edge 4	0mm	Ant 1	DS10	661	1880	Without Scanner	21.67	23.20	1.422	-0.04	0.113	0.161
	GSM1900	GPRS 4 Tx slots	Bottom Face	20mm	Ant 1	DS10	661	1880	Without Scanner	21.67	23.20	1.422	0.06	0.274	0.390
	GSM1900	GPRS 4 Tx slots	Edge 1	23mm	Ant 1	DS10	661	1880	Without Scanner	21.67	23.20	1.422	-0.04	0.168	0.239
	GSM1900	GPRS 4 Tx slots	Bottom Face	0mm	Ant 1	DS17	810	1909.8	With Scanner	22.48	23.20	1.18	0.03	0.928	1.095

【WCDMA SAR】

Plot No	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
03	WCDMA II	RMC 12.2Kbps	Bottom Face	0mm	Ant 1	DS17	9400	1880	Without Scanner	17.37	18.30	1.239	-0.11	0.888	1.100
	WCDMA II	RMC 12.2Kbps	Bottom Face	0mm	Ant 1	DS17	9262	1852.4	Without Scanner	17.29	18.30	1.262	0.01	0.879	1.109
	WCDMA II	RMC 12.2Kbps	Bottom Face	0mm	Ant 1	DS17	9538	1907.6	Without Scanner	17.28	18.30	1.265	-0.11	0.861	1.089
	WCDMA II	RMC 12.2Kbps	Edge 1	0mm	Ant 1	DS17	9400	1880	Without Scanner	17.37	18.30	1.239	0.06	0.641	0.794
	WCDMA II	RMC 12.2Kbps	Edge 2	0mm	Ant 1	DS10	9400	1880	Without Scanner	24.26	25.00	1.186	-0.12	0.573	0.680
	WCDMA II	RMC 12.2Kbps	Edge 3	0mm	Ant 1	DS10	9400	1880	Without Scanner	24.26	25.00	1.186	0.10	0.041	0.049
	WCDMA II	RMC 12.2Kbps	Edge 4	0mm	Ant 1	DS10	9400	1880	Without Scanner	24.26	25.00	1.186	-0.01	0.099	0.117
	WCDMA II	RMC 12.2Kbps	Bottom Face	20mm	Ant 1	DS10	9400	1880	Without Scanner	24.26	25.00	1.186	-0.09	0.314	0.372
	WCDMA II	RMC 12.2Kbps	Edge 1	23mm	Ant 1	DS10	9400	1880	Without Scanner	24.26	25.00	1.186	0.08	0.161	0.191
	WCDMA II	RMC 12.2Kbps	Bottom Face	0mm	Ant 1	DS17	9262	1852.4	With Scanner	17.29	18.30	1.262	0.04	0.842	1.063
	WCDMA IV	RMC 12.2Kbps	Bottom Face	0mm	Ant 1	DS17	1413	1732.6	Without Scanner	18.48	19.60	1.294	0.08	0.778	1.007
	WCDMA IV	RMC 12.2Kbps	Bottom Face	0mm	Ant 1	DS17	1312	1712.4	Without Scanner	18.42	19.60	1.312	0.03	0.809	1.061
04	WCDMA IV	RMC 12.2Kbps	Bottom Face	0mm	Ant 1	DS17	1513	1752.6	Without Scanner	18.40	19.60	1.318	0.04	0.724	0.954
	WCDMA IV	RMC 12.2Kbps	Edge 1	0mm	Ant 1	DS17	1413	1732.6	Without Scanner	18.48	19.60	1.294	-0.16	0.520	0.673
	WCDMA IV	RMC 12.2Kbps	Edge 2	0mm	Ant 1	DS10	1413	1732.6	Without Scanner	24.31	25.00	1.172	-0.09	0.743	0.871
	WCDMA IV	RMC 12.2Kbps	Edge 2	0mm	Ant 1	DS10	1312	1712.4	Without Scanner	24.23	25.00	1.194	-0.01	0.740	0.884
	WCDMA IV	RMC 12.2Kbps	Edge 2	0mm	Ant 1	DS10	1513	1752.6	Without Scanner	24.25	25.00	1.189	-0.10	0.737	0.876
	WCDMA IV	RMC 12.2Kbps	Edge 3	0mm	Ant 1	DS10	1413	1732.6	Without Scanner	24.31	25.00	1.172	0.16	0.046	0.054
	WCDMA IV	RMC 12.2Kbps	Edge 4	0mm	Ant 1	DS10	1413	1732.6	Without Scanner	24.31	25.00	1.172	0.12	0.073	0.086
	WCDMA IV	RMC 12.2Kbps	Bottom Face	20mm	Ant 1	DS10	1413	1732.6	Without Scanner	24.31	25.00	1.172	-0.17	0.215	0.252
	WCDMA IV	RMC 12.2Kbps	Edge 1	23mm	Ant 1	DS10	1413	1732.6	Without Scanner	24.31	25.00	1.172	0.03	0.143	0.168
	WCDMA IV	RMC 12.2Kbps	Bottom Face	0mm	Ant 1	DS17	1312	1712.4	With Scanner	18.42	19.60	1.312	-0.06	0.754	0.989
	WCDMA V	RMC 12.2Kbps	Bottom Face	0mm	Ant 8	DS17	4182	836.4	Without Scanner	19.89	20.70	1.205	0.11	0.870	1.048
	WCDMA V	RMC 12.2Kbps	Bottom Face	0mm	Ant 8	DS17	4132	826.4	Without Scanner	19.78	20.70	1.236	0.07	0.876	1.083
	WCDMA V	RMC 12.2Kbps	Bottom Face	0mm	Ant 8	DS17	4233	846.6	Without Scanner	19.71	20.70	1.256	0.04	0.882	1.108
	WCDMA V	RMC 12.2Kbps	Edge 1	0mm	Ant 8	DS17	4182	836.4	Without Scanner	19.89	20.70	1.205	0.08	0.708	0.853
	WCDMA V	RMC 12.2Kbps	Edge 1	0mm	Ant 8	DS17	4132	826.4	Without Scanner	19.78	20.70	1.236	-0.07	0.689	0.852
	WCDMA V	RMC 12.2Kbps	Edge 1	0mm	Ant 8	DS17	4233	846.6	Without Scanner	19.71	20.70	1.256	-0.14	0.677	0.850
05	WCDMA V	RMC 12.2Kbps	Edge 2	0mm	Ant 8	DS17	4182	836.4	Without Scanner	19.89	20.70	1.205	-0.19	0.230	0.277
	WCDMA V	RMC 12.2Kbps	Edge 3	0mm	Ant 8	DS10	4182	836.4	Without Scanner	24.32	25.00	1.169	0.03	0.069	0.081
	WCDMA V	RMC 12.2Kbps	Edge 4	0mm	Ant 8	DS10	4182	836.4	Without Scanner	24.32	25.00	1.169	0.05	0.085	0.099
	WCDMA V	RMC 12.2Kbps	Bottom Face	44mm	Ant 8	DS10	4182	836.4	Without Scanner	24.32	25.00	1.169	-0.11	0.088	0.103
	WCDMA V	RMC 12.2Kbps	Edge 1	49mm	Ant 8	DS10	4182	836.4	Without Scanner	24.32	25.00	1.169	-0.06	0.001	0.001
	WCDMA V	RMC 12.2Kbps	Edge 2	17mm	Ant 8	DS10	4182	836.4	Without Scanner	24.32	25.00	1.169	0.09	0.147	0.172
	WCDMA V	RMC 12.2Kbps	Bottom Face	0mm	Ant 8	DS17	4233	846.6	With Scanner	19.71	20.70	1.256	-0.07	0.811	1.019
	WCDMA V	RMC 12.2Kbps	Bottom Face	0mm	Ant 8	DS17	4233	846.6	With Scanner	19.71	20.70	1.256	-0.07	0.811	1.019



【LTE SAR】

Plot No	Band	BW	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 5	10M	QPSK	1	0	Bottom Face	0mm	Ant 10	DSI7	20525	836.5	Without Scanner	21.50	22.10	1.148			0.13	0.688	0.790
	LTE Band 5	10M	QPSK	25	0	Bottom Face	0mm	Ant 10	DSI7	20525	836.5	Without Scanner	21.48	22.10	1.153			-0.04	0.699	0.806
	LTE Band 5	10M	QPSK	50	0	Bottom Face	0mm	Ant 10	DSI7	20525	836.5	Without Scanner	21.23	22.10	1.222			0.14	0.510	0.623
	LTE Band 5	10M	QPSK	1	0	Edge 1	0mm	Ant 10	DSI0	20525	836.5	Without Scanner	24.42	25.00	1.143			0.03	0.135	0.154
	LTE Band 5	10M	QPSK	25	0	Edge 1	0mm	Ant 10	DSI0	20525	836.5	Without Scanner	23.43	24.00	1.14			0.01	0.143	0.163
	LTE Band 5	10M	QPSK	1	0	Edge 2	0mm	Ant 10	DSI0	20525	836.5	Without Scanner	24.42	25.00	1.143			0.05	0.112	0.128
	LTE Band 5	10M	QPSK	25	0	Edge 2	0mm	Ant 10	DSI0	20525	836.5	Without Scanner	23.43	24.00	1.14			-0.01	0.121	0.138
	LTE Band 5	10M	QPSK	1	0	Edge 3	0mm	Ant 10	DSI0	20525	836.5	Without Scanner	24.42	25.00	1.143			0.05	0.102	0.117
	LTE Band 5	10M	QPSK	25	0	Edge 3	0mm	Ant 10	DSI0	20525	836.5	Without Scanner	23.43	24.00	1.14			0.09	0.096	0.109
06	LTE Band 5	10M	QPSK	1	0	Edge 4	0mm	Ant 10	DSI7	20525	836.5	Without Scanner	21.50	22.10	1.148			0.14	0.949	1.089
	LTE Band 5	10M	QPSK	25	0	Edge 4	0mm	Ant 10	DSI7	20525	836.5	Without Scanner	21.48	22.10	1.153			-0.06	0.750	0.865
	LTE Band 5	10M	QPSK	50	0	Edge 4	0mm	Ant 10	DSI7	20525	836.5	Without Scanner	21.23	22.10	1.222			-0.03	0.625	0.764
	LTE Band 5	10M	QPSK	1	0	Bottom Face	28mm	Ant 10	DSI0	20525	836.5	Without Scanner	24.42	25.00	1.143			0.03	0.184	0.210
	LTE Band 5	10M	QPSK	25	0	Bottom Face	28mm	Ant 10	DSI0	20525	836.5	Without Scanner	23.43	24.00	1.14			0.06	0.169	0.193
	LTE Band 5	10M	QPSK	1	0	Edge 4	25mm	Ant 10	DSI0	20525	836.5	Without Scanner	24.42	25.00	1.143			-0.04	0.120	0.137
	LTE Band 5	10M	QPSK	25	0	Edge 4	25mm	Ant 10	DSI0	20525	836.5	Without Scanner	23.43	24.00	1.14			0.09	0.121	0.138
	LTE Band 5	10M	QPSK	1	0	Edge 4	0mm	Ant 10	DSI7	20525	836.5	With Scanner	21.50	22.10	1.148			0.02	0.911	1.046
	LTE Band 7	20M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI7	21100	2535	Without Scanner	14.79	16.10	1.352			-0.01	0.505	0.683
	LTE Band 7	20M	QPSK	50	0	Bottom Face	0mm	Ant 8	DSI7	21100	2535	Without Scanner	14.79	16.10	1.352			0.11	0.402	0.544
	LTE Band 7	20M	QPSK	1	0	Edge 1	0mm	Ant 8	DSI7	21100	2535	Without Scanner	14.79	16.10	1.352			-0.19	0.787	1.064
	LTE Band 7	20M	QPSK	1	0	Edge 1	0mm	Ant 8	DSI7	20850	2510	Without Scanner	14.73	16.10	1.371			-0.19	0.756	1.036
	LTE Band 7	20M	QPSK	1	0	Edge 1	0mm	Ant 8	DSI7	21350	2560	Without Scanner	14.70	16.10	1.38			0.09	0.809	1.116
	LTE Band 7	20M	QPSK	50	0	Edge 1	0mm	Ant 8	DSI7	21100	2535	Without Scanner	14.79	16.10	1.352			0.07	0.620	0.838
	LTE Band 7	20M	QPSK	50	0	Edge 1	0mm	Ant 8	DSI7	20850	2510	Without Scanner	14.71	16.10	1.377			0.10	0.572	0.788
	LTE Band 7	20M	QPSK	50	0	Edge 1	0mm	Ant 8	DSI7	21350	2560	Without Scanner	14.63	16.10	1.403			-0.06	0.653	0.916
	LTE Band 7	20M	QPSK	100	0	Edge 1	0mm	Ant 8	DSI7	21100	2535	Without Scanner	14.59	16.10	1.416			0.04	0.624	0.884
	LTE Band 7	20M	QPSK	1	0	Edge 2	0mm	Ant 8	DSI7	21100	2535	Without Scanner	14.79	16.10	1.352			0.11	0.304	0.411
	LTE Band 7	20M	QPSK	50	0	Edge 2	0mm	Ant 8	DSI7	21100	2535	Without Scanner	14.79	16.10	1.352			0.09	0.230	0.311
	LTE Band 7	20M	QPSK	1	0	Edge 3	0mm	Ant 8	DSI0	21100	2535	Without Scanner	24.25	25.10	1.216			0.03	0.040	0.049
	LTE Band 7	20M	QPSK	50	0	Edge 3	0mm	Ant 8	DSI0	21100	2535	Without Scanner	23.55	24.10	1.135			0.12	0.001	0.001
	LTE Band 7	20M	QPSK	1	0	Edge 4	0mm	Ant 8	DSI0	21100	2535	Without Scanner	24.25	25.10	1.216			-0.07	0.001	0.001
	LTE Band 7	20M	QPSK	50	0	Edge 4	0mm	Ant 8	DSI0	21100	2535	Without Scanner	23.55	24.10	1.135			-0.06	0.001	0.001
	LTE Band 7	20M	QPSK	1	0	Bottom Face	44mm	Ant 8	DSI0	21100	2535	Without Scanner	24.25	25.10	1.216			-0.17	0.199	0.242
	LTE Band 7	20M	QPSK	50	0	Bottom Face	44mm	Ant 8	DSI0	21100	2535	Without Scanner	23.55	24.10	1.135			0.06	0.186	0.211
	LTE Band 7	20M	QPSK	1	0	Edge 1	49mm	Ant 8	DSI0	21100	2535	Without Scanner	24.25	25.10	1.216			-0.14	0.267	0.325
	LTE Band 7	20M	QPSK	50	0	Edge 1	49mm	Ant 8	DSI0	21100	2535	Without Scanner	23.55	24.10	1.135			-0.04	0.253	0.287
	LTE Band 7	20M	QPSK	1	0	Edge 2	17mm	Ant 8	DSI0	21100	2535	Without Scanner	24.25	25.10	1.216			-0.10	0.346	0.421
	LTE Band 7	20M	QPSK	50	0	Edge 2	17mm	Ant 8	DSI0	21100	2535	Without Scanner	23.55	24.10	1.135			-0.01	0.328	0.372
	LTE Band 7	20M	QPSK	1	0	Edge 1	0mm	Ant 8	DSI7	21350	2560	With Scanner	14.70	16.10	1.38			0.06	0.733	1.012
	LTE Band 7C	20M	QPSK	1	0	Edge 1	0mm	Ant 8	DSI7	21350+21152	2560+2540.2	Without Scanner	14.68	16.10	1.387			0.03	0.756	1.049
07	LTE Band 7	20M	QPSK	1	0	Bottom Face	0mm	Ant 5	DSI7	21100	2535	Without Scanner	16.79	17.80	1.262			0.01	0.888	1.121
	LTE Band 7	20M	QPSK	1	0	Bottom Face	0mm	Ant 5	DSI7	20850	2510	Without Scanner	16.75	17.80	1.274			0.16	0.798	1.017
	LTE Band 7	20M	QPSK	1	0	Bottom Face	0mm	Ant 5	DSI7	21350	2560	Without Scanner	16.74	17.80	1.276			0.08	0.825	1.053
	LTE Band 7	20M	QPSK	50	0	Bottom Face	0mm	Ant 5	DSI7	21100	2535	Without Scanner	16.70	17.80	1.288			0.01	0.587	0.756
	LTE Band 7	20M	QPSK	100	0	Bottom Face	0mm	Ant 5	DSI7	21100	2535	Without Scanner	16.56	17.80	1.33			-0.07	0.633	0.842
	LTE Band 7	20M	QPSK	1	0	Edge 1	0mm	Ant 5	DSI7	21100	2535	Without Scanner	16.79	17.80	1.262			-0.13	0.455	0.574
	LTE Band 7	20M	QPSK	50	0	Edge 1	0mm	Ant 5	DSI7	21100	2535	Without Scanner	16.70	17.80	1.288			-0.13	0.326	0.420
	LTE Band 7	20M	QPSK	1	0	Edge 2	0mm	Ant 5	DSI0	21100	2535	Without Scanner	24.26	25.10	1.213			-0.16	0.001	0.001
	LTE Band 7	20M	QPSK	50	0	Edge 2	0mm	Ant 5	DSI0	21100	2535	Without Scanner	23.46	24.10	1.159			-0.09	0.001	0.001
	LTE Band 7	20M	QPSK	1	0	Edge 3	0mm	Ant 5	DSI0	21100	2535	Without Scanner	24.26	25.10	1.213			-0.13	0.045	0.055
	LTE Band 7	20M	QPSK	50	0	Edge 3	0mm	Ant 5	DSI0	21100	2535	Without Scanner	23.46	24.10	1.159			-0.19	0.001	0.001
	LTE Band 7	20M	QPSK	1	0	Edge 4	0mm	Ant 5	DSI7	21100	2535	Without Scanner	16.79	17.80	1.262			0.06	0.240	0.303
	LTE Band 7	20M	QPSK	50	0	Edge 4	0mm	Ant 5	DSI7	21100	2535	Without Scanner	16.70	17.80	1.288			0.10	0.183	0.236
	LTE Band 7	20M	QPSK	1	0	Bottom Face	20mm	Ant 5	DSI0	21100	2535	Without Scanner	24.26	25.10	1.213			0.16	0.449	0.545
	LTE Band 7	20M	QPSK	50	0	Bottom Face	20mm	Ant 5	DSI0	21100	2535	Without Scanner	23.46	24.10	1.159			0.03	0.336	0.389
	LTE Band 7	20M	QPSK	1	0	Edge 1	18mm	Ant 5	DSI0	21100	2535	Without Scanner	24.26	25.10	1.213			-0.00	0.307	0.372
	LTE Band 7	20M	QPSK	50	0	Edge 1	18mm	Ant 5	DSI0	21100	2535	Without Scanner	23.46	24.10	1.159			0.04	0.269	0.312
	LTE Band 7	20M	QPSK	1	0	Edge 4	7mm	Ant 5	DSI0	21100	2535	Without Scanner	24.26	25.10	1.213			0.15	0.411	0.499
	LTE Band 7	20M	QPSK	50	0	Edge 4	7mm	Ant 5	DSI0	21100	2535	Without Scanner	23.46	24.10	1.159			0.08	0.406	0.471
	LTE Band 7	20M	QPSK	1	0	Bottom Face	0mm	Ant 5	DSI7	21100	2535	With Scanner	16.79	17.80	1.262			-0.03	0.851	1.074
08	LTE Band 12	10M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI7	23095	707.5	Without Scanner	20.69	22.00	1.352			0.02	0.823	1.113
	LTE Band 12	10M	QPSK	25	0	Bottom Face	0mm	Ant 8	DSI7	23095	707.5	Without Scanner	20.60	22.00	1.38			0.02	0.654	0.903
	LTE Band 12	10M	QPSK	50	0	Bottom Face	0mm	Ant 8	DSI7	23095	707.5	Without Scanner	20.51	22.00	1.409			0.07	0.666	0.938
	LTE Band 12	10M	QPSK	1	0	Edge 1	0mm	Ant 8	DSI7	23095	707.5	Without Scanner	20.69	22.00	1.352			-0.12	0.670	0.906
	LTE Band 12	10M	QPSK	25	0	Edge 1	0mm	Ant 8	DSI7	23095	707.5	Without Scanner	20.60	22.00	1.38			0.13	0.527	0.727
	LTE Band 12	10M	QPSK	50	0	Edge 1	0mm	Ant 8	DSI7	23095	707.5	Without Scanner	20.51	22.00	1.409			-0.09	0.546	0.769
	LTE Band 12	10M	QPSK	1	0	Edge 2	0mm	Ant 8	DSI7	23095	707.5	Without Scanner	20.69	22.00	1.352			-0.09	0.317	0.429



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	LTE Band 12	10M	QPSK	25	0	Edge 2	0mm	Ant 8	DSI7	23095	707.5	Without Scanner	20.60	22.00	1.38			-0.18	0.285	0.393
	LTE Band 12	10M	QPSK	1	0	Edge 3	0mm	Ant 8	DSI0	23095	707.5	Without Scanner	24.38	25.10	1.18			0.13	0.074	0.087
	LTE Band 12	10M	QPSK	25	0	Edge 3	0mm	Ant 8	DSI0	23095	707.5	Without Scanner	23.32	24.10	1.197			0.15	0.058	0.069
	LTE Band 12	10M	QPSK	1	0	Edge 4	0mm	Ant 8	DSI0	23095	707.5	Without Scanner	24.38	25.10	1.18			0.03	0.136	0.160
	LTE Band 12	10M	QPSK	25	0	Edge 4	0mm	Ant 8	DSI0	23095	707.5	Without Scanner	23.32	24.10	1.197			0.01	0.114	0.136
	LTE Band 12	10M	QPSK	1	0	Bottom Face	44mm	Ant 8	DSI0	23095	707.5	Without Scanner	24.38	25.10	1.18			-0.14	0.081	0.096
	LTE Band 12	10M	QPSK	25	0	Bottom Face	44mm	Ant 8	DSI0	23095	707.5	Without Scanner	23.32	24.10	1.197			-0.11	0.069	0.083
	LTE Band 12	10M	QPSK	1	0	Edge 1	49mm	Ant 8	DSI0	23095	707.5	Without Scanner	24.38	25.10	1.18			-0.14	0.001	0.001
	LTE Band 12	10M	QPSK	25	0	Edge 1	49mm	Ant 8	DSI0	23095	707.5	Without Scanner	23.32	24.10	1.197			0.03	0.001	0.001
	LTE Band 12	10M	QPSK	1	0	Edge 2	17mm	Ant 8	DSI0	23095	707.5	Without Scanner	24.38	25.10	1.18			0.18	0.120	0.142
	LTE Band 12	10M	QPSK	25	0	Edge 2	17mm	Ant 8	DSI0	23095	707.5	Without Scanner	23.32	24.10	1.197			-0.14	0.106	0.127
	LTE Band 12	10M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI7	23095	707.5	With Scanner	20.69	22.00	1.352			-0.01	0.785	1.061
09	LTE Band 13	10M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI7	23230	782	Without Scanner	20.84	22.00	1.306			0.01	0.839	1.096
	LTE Band 13	10M	QPSK	25	0	Bottom Face	0mm	Ant 8	DSI7	23230	782	Without Scanner	20.80	22.00	1.318			0.17	0.666	0.878
	LTE Band 13	10M	QPSK	50	0	Bottom Face	0mm	Ant 8	DSI7	23230	782	Without Scanner	20.60	22.00	1.38			-0.14	0.681	0.940
	LTE Band 13	10M	QPSK	1	0	Edge 1	0mm	Ant 8	DSI7	23230	782	Without Scanner	20.84	22.00	1.306			-0.17	0.720	0.940
	LTE Band 13	10M	QPSK	25	0	Edge 1	0mm	Ant 8	DSI7	23230	782	Without Scanner	20.80	22.00	1.318			0.07	0.602	0.793
	LTE Band 13	10M	QPSK	50	0	Edge 1	0mm	Ant 8	DSI7	23230	782	Without Scanner	20.60	22.00	1.38			0.13	0.604	0.834
	LTE Band 13	10M	QPSK	1	0	Edge 2	0mm	Ant 8	DSI7	23230	782	Without Scanner	20.84	22.00	1.306			-0.01	0.318	0.415
	LTE Band 13	10M	QPSK	25	0	Edge 2	0mm	Ant 8	DSI7	23230	782	Without Scanner	20.80	22.00	1.318			-0.11	0.249	0.328
	LTE Band 13	10M	QPSK	1	0	Edge 3	0mm	Ant 8	DSI0	23230	782	Without Scanner	23.78	24.50	1.18			0.03	0.066	0.078
	LTE Band 13	10M	QPSK	25	0	Edge 3	0mm	Ant 8	DSI0	23230	782	Without Scanner	22.77	23.50	1.183			-0.10	0.056	0.066
	LTE Band 13	10M	QPSK	1	0	Edge 4	0mm	Ant 8	DSI0	23230	782	Without Scanner	23.78	24.50	1.18			-0.02	0.087	0.103
	LTE Band 13	10M	QPSK	25	0	Edge 4	0mm	Ant 8	DSI0	23230	782	Without Scanner	22.77	23.50	1.183			-0.02	0.067	0.079
	LTE Band 13	10M	QPSK	1	0	Bottom Face	44mm	Ant 8	DSI0	23230	782	Without Scanner	23.78	24.50	1.18			0.02	0.084	0.099
	LTE Band 13	10M	QPSK	25	0	Bottom Face	44mm	Ant 8	DSI0	23230	782	Without Scanner	22.77	23.50	1.183			0.01	0.081	0.096
	LTE Band 13	10M	QPSK	1	0	Edge 1	49mm	Ant 8	DSI0	23230	782	Without Scanner	23.78	24.50	1.18			-0.10	0.001	0.001
	LTE Band 13	10M	QPSK	25	0	Edge 1	49mm	Ant 8	DSI0	23230	782	Without Scanner	22.77	23.50	1.183			-0.03	0.001	0.001
	LTE Band 13	10M	QPSK	1	0	Edge 2	17mm	Ant 8	DSI0	23230	782	Without Scanner	23.78	24.50	1.18			0.04	0.125	0.147
	LTE Band 13	10M	QPSK	25	0	Edge 2	17mm	Ant 8	DSI0	23230	782	Without Scanner	22.77	23.50	1.183			-0.04	0.119	0.141
	LTE Band 13	10M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI7	23230	782	With Scanner	20.84	22.00	1.306			0.07	0.796	1.040
10	LTE Band 14	10M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI7	23330	793	Without Scanner	20.88	22.10	1.324			0.02	0.816	1.080
	LTE Band 14	10M	QPSK	25	0	Bottom Face	0mm	Ant 8	DSI7	23330	793	Without Scanner	20.73	22.10	1.371			0.13	0.632	0.866
	LTE Band 14	10M	QPSK	50	0	Bottom Face	0mm	Ant 8	DSI7	23330	793	Without Scanner	20.60	22.10	1.413			0.10	0.629	0.889
	LTE Band 14	10M	QPSK	1	0	Edge 1	0mm	Ant 8	DSI7	23330	793	Without Scanner	20.88	22.10	1.324			0.16	0.708	0.937
	LTE Band 14	10M	QPSK	25	0	Edge 1	0mm	Ant 8	DSI7	23330	793	Without Scanner	20.73	22.10	1.371			0.03	0.562	0.771
	LTE Band 14	10M	QPSK	50	0	Edge 1	0mm	Ant 8	DSI7	23330	793	Without Scanner	20.60	22.10	1.413			0.12	0.522	0.738
	LTE Band 14	10M	QPSK	1	0	Edge 2	0mm	Ant 8	DSI7	23330	793	Without Scanner	20.88	22.10	1.324			-0.00	0.259	0.343
	LTE Band 14	10M	QPSK	25	0	Edge 2	0mm	Ant 8	DSI7	23330	793	Without Scanner	20.73	22.10	1.371			-0.07	0.195	0.267
	LTE Band 14	10M	QPSK	1	0	Edge 3	0mm	Ant 8	DSI0	23330	793	Without Scanner	23.77	24.50	1.183			0.09	0.070	0.083
	LTE Band 14	10M	QPSK	25	0	Edge 3	0mm	Ant 8	DSI0	23330	793	Without Scanner	22.75	23.50	1.189			0.19	0.056	0.067
	LTE Band 14	10M	QPSK	1	0	Edge 4	0mm	Ant 8	DSI0	23330	793	Without Scanner	23.77	24.50	1.183			0.14	0.071	0.084
	LTE Band 14	10M	QPSK	25	0	Edge 4	0mm	Ant 8	DSI0	23330	793	Without Scanner	22.75	23.50	1.189			-0.10	0.044	0.052
	LTE Band 14	10M	QPSK	1	0	Bottom Face	44mm	Ant 8	DSI0	23330	793	Without Scanner	23.77	24.50	1.183			-0.19	0.080	0.095
	LTE Band 14	10M	QPSK	25	0	Bottom Face	44mm	Ant 8	DSI0	23330	793	Without Scanner	22.75	23.50	1.189			0.03	0.069	0.082
	LTE Band 14	10M	QPSK	1	0	Edge 1	49mm	Ant 8	DSI0	23330	793	Without Scanner	23.77	24.50	1.183			-0.14	0.001	0.001
	LTE Band 14	10M	QPSK	25	0	Edge 1	49mm	Ant 8	DSI0	23330	793	Without Scanner	22.75	23.50	1.189			-0.06	0.001	0.001
	LTE Band 14	10M	QPSK	1	0	Edge 2	17mm	Ant 8	DSI0	23330	793	Without Scanner	23.77	24.50	1.183			-0.02	0.110	0.130
	LTE Band 14	10M	QPSK	25	0	Edge 2	17mm	Ant 8	DSI0	23330	793	Without Scanner	22.75	23.50	1.189			0.04	0.109	0.130
	LTE Band 14	10M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI7	23330	793	With Scanner	20.88	22.10	1.324			-0.05	0.738	0.977
	LTE Band 25	20M	QPSK	1	0	Bottom Face	0mm	Ant 1	DSI7	26340	1880	Without Scanner	18.49	20.00	1.416			-0.06	0.750	1.062
11	LTE Band 25	20M	QPSK	1	0	Bottom Face	0mm	Ant 1	DSI7	26140	1860	Without Scanner	18.37	20.00	1.455			0.02	0.766	1.115
	LTE Band 25	20M	QPSK	1	0	Bottom Face	0mm	Ant 1	DSI7	26590	1905	Without Scanner	18.27	20.00	1.489			-0.03	0.727	1.083
	LTE Band 25	20M	QPSK	50	0	Bottom Face	0mm	Ant 1	DSI7	26340	1880	Without Scanner	18.42	20.00	1.439			0.02	0.641	0.922
	LTE Band 25	20M	QPSK	50	0	Bottom Face	0mm	Ant 1	DSI7	26140	1860	Without Scanner	18.19	20.00	1.517			-0.01	0.617	0.936
	LTE Band 25	20M	QPSK	50	50	Bottom Face	0mm	Ant 1	DSI7	26590	1905	Without Scanner	18.19	20.00	1.517			0.12	0.609	0.924
	LTE Band 25	20M	QPSK	100	0	Bottom Face	0mm	Ant 1	DSI7	26340	1880	Without Scanner	18.37	20.00	1.455			0.16	0.648	0.943
	LTE Band 25	20M	QPSK	1	0	Edge 1	0mm	Ant 1	DSI7	26340	1880	Without Scanner	18.49	20.00	1.416			-0.08	0.452	0.640
	LTE Band 25	20M	QPSK	50	0	Edge 1	0mm	Ant 1	DSI7	26340	1880	Without Scanner	18.42	20.00	1.439			-0.07	0.356	0.512
	LTE Band 25	20M	QPSK	1	0	Edge 2	0mm	Ant 1	DSI0	26340	1880	Without Scanner	23.99	25.10	1.291			0.14	0.446	0.576
	LTE Band 25	20M	QPSK	50	0	Edge 2	0mm	Ant 1	DSI0	26340	1880	Without Scanner	22.98	24.10	1.294			0.08	0.291	0.377
	LTE Band 25	20M	QPSK	1	0	Edge 3	0mm	Ant 1	DSI0	26340	1880	Without Scanner	23.99	25.10	1.291			0.18	0.067	0.086
	LTE Band 25	20M	QPSK	50	0	Edge 3	0mm	Ant 1	DSI0	26340	1880	Without Scanner	22.98	24.10	1.294			-0.15	0.052	0.067
	LTE Band 25	20M	QPSK	1	0	Edge 4	0mm	Ant 1	DSI0	26340	1880	Without Scanner	23.99	25.10	1.291			-0.06	0.097	0.125
	LTE Band 25	20M	QPSK	50	0	Edge 4	0mm	Ant 1	DSI0	26340	1880	Without Scanner	22.98	24.10	1.294			-0.17	0.075	0.097
	LTE Band 25	20M	QPSK	1	0	Bottom Face	20mm	Ant 1	DSI0	26340	1880	Without Scanner	23.99	25.10	1.291			0.07	0.251	0.324
	LTE Band 25	20M	QPSK	50	0	Bottom Face	20mm	Ant 1	DSI0	26340	1880	Without Scanner	22.98	24.10	1.294			0.02	0.243	0.314
	LTE Band 25	20M	QPSK	1	0	Edge 1	23mm	Ant 1	DSI0	26340	1880	Without Scanner	23.99	25.10	1.291			-0.06	0.177	0.229
	LTE Band 25	20M	QPSK	50	0	Edge 1	23mm	Ant 1	DSI0	26340	1880	Without Scanner	22.98	24.10	1.294			0.06	0.169	0.219
	LTE Band 25	20M	QPSK	1	0	Bottom Face	0mm	Ant 1	DSI7	26140	1860	With Scanner	18.37	20.00	1.455			-0.04	0.712	1.036
	LTE Band 25	20M	QPSK	1	0	Bottom Face	0mm	Ant 5	DSI7	26340	1880	Without Scanner	16.29	16.80	1.125			0.04	0.860	0.968
	LTE Band 25	20M	QPSK	1	0	Bottom Face	0mm	Ant 5	DSI7	26140	1860	Without Scanner	16.18	16.80	1.153			-0.09	0.829	0.956



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	LTE Band 25	20M	QPSK	100	0	Bottom Face	0mm	Ant 5	DSI7	26340	1880	Without Scanner	16.02	16.80	1.197			0.14	0.603	0.722
	LTE Band 25	20M	QPSK	1	0	Edge 1	0mm	Ant 5	DSI7	26340	1880	Without Scanner	16.29	16.80	1.125			-0.14	0.488	0.549
	LTE Band 25	20M	QPSK	50	0	Edge 1	0mm	Ant 5	DSI7	26340	1880	Without Scanner	16.14	16.80	1.164			-0.18	0.384	0.447
	LTE Band 25	20M	QPSK	1	0	Edge 2	0mm	Ant 5	DSI0	26340	1880	Without Scanner	23.67	25.10	1.39			0.09	0.186	0.259
	LTE Band 25	20M	QPSK	50	0	Edge 2	0mm	Ant 5	DSI0	26340	1880	Without Scanner	22.53	24.10	1.435			-0.08	0.121	0.174
	LTE Band 25	20M	QPSK	1	0	Edge 3	0mm	Ant 5	DSI0	26340	1880	Without Scanner	23.67	25.10	1.39			0.11	0.089	0.124
	LTE Band 25	20M	QPSK	50	0	Edge 3	0mm	Ant 5	DSI0	26340	1880	Without Scanner	22.53	24.10	1.435			0.02	0.063	0.090
	LTE Band 25	20M	QPSK	1	0	Edge 4	0mm	Ant 5	DSI7	26340	1880	Without Scanner	16.29	16.80	1.125			0.11	0.232	0.261
	LTE Band 25	20M	QPSK	50	0	Edge 4	0mm	Ant 5	DSI7	26340	1880	Without Scanner	16.14	16.80	1.164			-0.17	0.167	0.194
	LTE Band 25	20M	QPSK	1	0	Bottom Face	20mm	Ant 5	DSI0	26340	1880	Without Scanner	23.67	25.10	1.39			-0.03	0.429	0.596
	LTE Band 25	20M	QPSK	50	0	Bottom Face	20mm	Ant 5	DSI0	26340	1880	Without Scanner	22.53	24.10	1.435			0.06	0.411	0.590
	LTE Band 25	20M	QPSK	1	0	Edge 1	18mm	Ant 5	DSI0	26340	1880	Without Scanner	23.67	25.10	1.39			0.07	0.312	0.434
	LTE Band 25	20M	QPSK	50	0	Edge 1	18mm	Ant 5	DSI0	26340	1880	Without Scanner	22.53	24.10	1.435			0.07	0.302	0.433
	LTE Band 25	20M	QPSK	1	0	Edge 4	7mm	Ant 5	DSI0	26340	1880	Without Scanner	23.67	25.10	1.39			-0.06	0.426	0.592
	LTE Band 25	20M	QPSK	50	0	Edge 4	7mm	Ant 5	DSI0	26340	1880	Without Scanner	22.53	24.10	1.435			-0.01	0.408	0.585
	LTE Band 25	20M	QPSK	1	0	Bottom Face	0mm	Ant 5	DSI7	26340	1880	With Scanner	16.29	16.80	1.125			0.01	0.832	0.936
12	LTE Band 26	15M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI7	26865	831.5	Without Scanner	20.89	21.60	1.178			0.09	0.902	1.063
	LTE Band 26	15M	QPSK	36	0	Bottom Face	0mm	Ant 8	DSI7	26865	831.5	Without Scanner	20.79	21.60	1.205			-0.14	0.737	0.888
	LTE Band 26	15M	QPSK	75	0	Bottom Face	0mm	Ant 8	DSI7	26865	831.5	Without Scanner	20.54	21.60	1.276			-0.06	0.737	0.940
	LTE Band 26	15M	QPSK	1	0	Edge 1	0mm	Ant 8	DSI7	26865	831.5	Without Scanner	20.89	21.60	1.178			-0.08	0.695	0.819
	LTE Band 26	15M	QPSK	36	0	Edge 1	0mm	Ant 8	DSI7	26865	831.5	Without Scanner	20.79	21.60	1.205			-0.12	0.572	0.689
	LTE Band 26	15M	QPSK	75	0	Edge 1	0mm	Ant 8	DSI7	26865	831.5	Without Scanner	20.54	21.60	1.276			-0.15	0.571	0.729
	LTE Band 26	15M	QPSK	1	0	Edge 2	0mm	Ant 8	DSI7	26865	831.5	Without Scanner	20.89	21.60	1.178			0.15	0.246	0.290
	LTE Band 26	15M	QPSK	36	0	Edge 2	0mm	Ant 8	DSI7	26865	831.5	Without Scanner	20.79	21.60	1.205			0.06	0.203	0.245
	LTE Band 26	15M	QPSK	1	0	Edge 3	0mm	Ant 8	DSI0	26865	831.5	Without Scanner	24.25	25.10	1.216			0.12	0.074	0.090
	LTE Band 26	15M	QPSK	36	0	Edge 3	0mm	Ant 8	DSI0	26865	831.5	Without Scanner	23.19	24.10	1.233			-0.11	0.067	0.083
	LTE Band 26	15M	QPSK	1	0	Edge 4	0mm	Ant 8	DSI0	26865	831.5	Without Scanner	24.25	25.10	1.216			0.13	0.074	0.090
	LTE Band 26	15M	QPSK	36	0	Edge 4	0mm	Ant 8	DSI0	26865	831.5	Without Scanner	23.19	24.10	1.233			-0.08	0.061	0.075
	LTE Band 26	15M	QPSK	1	0	Bottom Face	44mm	Ant 8	DSI0	26865	831.5	Without Scanner	24.25	25.10	1.216			0.01	0.076	0.092
	LTE Band 26	15M	QPSK	36	0	Bottom Face	44mm	Ant 8	DSI0	26865	831.5	Without Scanner	23.19	24.10	1.233			0.02	0.072	0.089
	LTE Band 26	15M	QPSK	1	0	Edge 1	49mm	Ant 8	DSI0	26865	831.5	Without Scanner	24.25	25.10	1.216			0.01	0.001	0.001
	LTE Band 26	15M	QPSK	36	0	Edge 1	49mm	Ant 8	DSI0	26865	831.5	Without Scanner	23.19	24.10	1.233			0.06	0.001	0.001
	LTE Band 26	15M	QPSK	1	0	Edge 2	17mm	Ant 8	DSI0	26865	831.5	Without Scanner	24.25	25.10	1.216			-0.09	0.130	0.158
	LTE Band 26	15M	QPSK	36	0	Edge 2	17mm	Ant 8	DSI0	26865	831.5	Without Scanner	23.19	24.10	1.233			0.04	0.126	0.155
	LTE Band 26	15M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI7	26865	831.5	With Scanner	20.89	21.60	1.178			0.03	0.854	1.006
	LTE Band 5B	15M	QPSK	1	49	Bottom Face	0mm	Ant 8	DSI7	20475+20574	831.5+841.4	Without Scanner	20.76	21.60	1.213			0.03	0.865	1.049
	LTE Band 30	10M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI7	27710	2310	Without Scanner	19.45	20.30	1.216			0.01	0.867	1.054
	LTE Band 30	10M	QPSK	25	0	Bottom Face	0mm	Ant 8	DSI7	27710	2310	Without Scanner	19.25	20.30	1.274			0.16	0.691	0.880
	LTE Band 30	10M	QPSK	50	0	Bottom Face	0mm	Ant 8	DSI7	27710	2310	Without Scanner	19.11	20.30	1.315			0.18	0.696	0.915
	LTE Band 30	10M	QPSK	1	0	Edge 1	0mm	Ant 8	DSI7	27710	2310	Without Scanner	19.45	20.30	1.216			0.08	0.908	1.104
	LTE Band 30	10M	QPSK	25	0	Edge 1	0mm	Ant 8	DSI7	27710	2310	Without Scanner	19.25	20.30	1.274			-0.17	0.725	0.924
	LTE Band 30	10M	QPSK	50	0	Edge 1	0mm	Ant 8	DSI7	27710	2310	Without Scanner	19.11	20.30	1.315			-0.10	0.722	0.949
	LTE Band 30	10M	QPSK	1	0	Edge 2	0mm	Ant 8	DSI7	27710	2310	Without Scanner	19.45	20.30	1.216			-0.05	0.720	0.876
	LTE Band 30	10M	QPSK	25	0	Edge 2	0mm	Ant 8	DSI7	27710	2310	Without Scanner	19.25	20.30	1.274			-0.11	0.561	0.715
	LTE Band 30	10M	QPSK	50	0	Edge 2	0mm	Ant 8	DSI7	27710	2310	Without Scanner	19.11	20.30	1.315			-0.16	0.571	0.751
	LTE Band 30	10M	QPSK	1	0	Edge 3	0mm	Ant 8	DSI0	27710	2310	Without Scanner	24.35	25.10	1.189			0.18	0.090	0.107
	LTE Band 30	10M	QPSK	25	0	Edge 3	0mm	Ant 8	DSI0	27710	2310	Without Scanner	23.35	24.10	1.189			-0.09	0.070	0.083
	LTE Band 30	10M	QPSK	1	0	Edge 4	0mm	Ant 8	DSI0	27710	2310	Without Scanner	24.35	25.10	1.189			0.17	0.001	0.001
	LTE Band 30	10M	QPSK	25	0	Edge 4	0mm	Ant 8	DSI0	27710	2310	Without Scanner	23.35	24.10	1.189			-0.12	0.001	0.001
	LTE Band 30	10M	QPSK	1	0	Bottom Face	44mm	Ant 8	DSI0	27710	2310	Without Scanner	24.35	25.10	1.189			0.10	0.177	0.210
	LTE Band 30	10M	QPSK	25	0	Bottom Face	44mm	Ant 8	DSI0	27710	2310	Without Scanner	23.35	24.10	1.189			0.03	0.169	0.201
	LTE Band 30	10M	QPSK	1	0	Edge 1	49mm	Ant 8	DSI0	27710	2310	Without Scanner	24.35	25.10	1.189			0.04	0.179	0.213
	LTE Band 30	10M	QPSK	25	0	Edge 1	49mm	Ant 8	DSI0	27710	2310	Without Scanner	23.35	24.10	1.189			0.09	0.173	0.206
	LTE Band 30	10M	QPSK	1	0	Edge 2	17mm	Ant 8	DSI0	27710	2310	Without Scanner	24.35	25.10	1.189			-0.07	0.637	0.757
	LTE Band 30	10M	QPSK	25	0	Edge 2	17mm	Ant 8	DSI0	27710	2310	Without Scanner	23.35	24.10	1.189			0.03	0.623	0.741
	LTE Band 30	10M	QPSK	1	0	Edge 1	0mm	Ant 8	DSI7	27710	2310	With Scanner	19.45	20.30	1.216			0.01	0.795	0.967
13	LTE Band 30	10M	QPSK	1	0	Bottom Face	0mm	Ant 5	DSI7	27710	2310	Without Scanner	17.73	18.50	1.194			0.02	0.937	1.119
	LTE Band 30	10M	QPSK	25	0	Bottom Face	0mm	Ant 5	DSI7	27710	2310	Without Scanner	17.73	18.50	1.194			0.02	0.756	0.903
	LTE Band 30	10M	QPSK	50	0	Bottom Face	0mm	Ant 5	DSI7	27710	2310	Without Scanner	17.61	18.50	1.227			0.08	0.751	0.921
	LTE Band 30	10M	QPSK	1	0	Edge 1	0mm	Ant 5	DSI7	27710	2310	Without Scanner	17.73	18.50	1.194			-0.17	0.262	0.313
	LTE Band 30	10M	QPSK	25	0	Edge 1	0mm	Ant 5	DSI7	27710	2310	Without Scanner	17.73	18.50	1.194			-0.15	0.232	0.277
	LTE Band 30	10M	QPSK	1	0	Edge 2	0mm	Ant 5	DSI0	27710	2310	Without Scanner	24.24	25.10	1.219			-0.12	0.021	0.026
	LTE Band 30	10M	QPSK	25	0	Edge 2	0mm	Ant 5	DSI0	27710	2310	Without Scanner	23.36	24.10	1.186			0.09	0.001	0.001
	LTE Band 30	10M	QPSK	1	0	Edge 3	0mm	Ant 5	DSI0	27710	2310	Without Scanner	24.24	25.10	1.219			0.07	0.108	0.132
	LTE Band 30	10M	QPSK	25	0	Edge 3	0mm	Ant 5	DSI0	27710	2310	Without Scanner	23.36	24.10	1.186			-0.15	0.078	0.093
	LTE Band 30	10M	QPSK	1	0	Edge 4	0mm	Ant 5	DSI7	27710	2310	Without Scanner	17.73	18.50	1.194			0.18	0.218	0.260
	LTE Band 30	10M	QPSK	25	0	Edge 4	0mm	Ant 5	DSI7	27710	2310	Without Scanner	17.73	18.50	1.194			-0.06	0.171	0.204
	LTE Band 30	10M	QPSK	1	0	Bottom Face	20mm	Ant 5	DSI0	27710	2310	Without Scanner	24.24	25.10	1.219			0.03	0.368	0.449
	LTE Band 30	10M	QPSK	25	0	Bottom Face	20mm	Ant 5	DSI0	27710	2310	Without Scanner	23.36	24.10	1.186			0.03	0.352	0.417
	LTE Band 30	10M	QPSK	1	0	Edge 1	18mm	Ant 5	DSI0	27710	2310	Without Scanner	24.24	25.10	1.219			0.02	0.098	0.119
	LTE Band 30	10M	QPSK	25	0	Edge 1	18mm	Ant 5	DSI0	27710	2310	Without Scanner	23.36	24.10	1.186			-0.04	0.091	0.108
	LTE Band 30	10M	QPSK	1	0	Edge 4	7mm	Ant 5	DSI0	27710	2310	Without Scanner								



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	LTE Band 30	10M	QPSK	1	0	Bottom Face	0mm	Ant 5	DSI7	27710	2310	With Scanner	17.73	18.50	1.194			-0.08	0.865	1.033
	LTE Band 66	20M	QPSK	1	0	Bottom Face	0mm	Ant 1	DSI7	132322	1745	Without Scanner	18.12	19.40	1.343			0.08	0.800	1.074
	LTE Band 66	20M	QPSK	1	0	Bottom Face	0mm	Ant 1	DSI7	132072	1720	Without Scanner	17.99	19.40	1.384			-0.16	0.754	1.044
	LTE Band 66	20M	QPSK	1	0	Bottom Face	0mm	Ant 1	DSI7	132572	1770	Without Scanner	18.02	19.40	1.374			-0.08	0.775	1.065
	LTE Band 66	20M	QPSK	50	0	Bottom Face	0mm	Ant 1	DSI7	132322	1745	Without Scanner	18.00	19.40	1.38			0.05	0.622	0.858
	LTE Band 66	20M	QPSK	50	0	Bottom Face	0mm	Ant 1	DSI7	132072	1720	Without Scanner	17.90	19.40	1.413			-0.17	0.620	0.876
	LTE Band 66	20M	QPSK	50	0	Bottom Face	0mm	Ant 1	DSI7	132572	1770	Without Scanner	17.89	19.40	1.416			-0.15	0.622	0.881
	LTE Band 66	20M	QPSK	100	0	Bottom Face	0mm	Ant 1	DSI7	132322	1745	Without Scanner	17.90	19.40	1.413			-0.08	0.625	0.883
	LTE Band 66	20M	QPSK	1	0	Edge 1	0mm	Ant 1	DSI7	132322	1745	Without Scanner	18.12	19.40	1.343			0.15	0.533	0.716
	LTE Band 66	20M	QPSK	50	0	Edge 1	0mm	Ant 1	DSI7	132322	1745	Without Scanner	18.00	19.40	1.38			-0.12	0.440	0.607
	LTE Band 66	20M	QPSK	1	0	Bottom Face	20mm	Ant 1	DSI0	132322	1745	Without Scanner	23.98	25.10	1.294			-0.02	0.190	0.246
	LTE Band 66	20M	QPSK	50	0	Bottom Face	20mm	Ant 1	DSI0	132322	1745	Without Scanner	23.05	24.10	1.274			0.03	0.186	0.237
	LTE Band 66	20M	QPSK	1	0	Edge 1	23mm	Ant 1	DSI0	132322	1745	Without Scanner	23.98	25.10	1.294			-0.12	0.139	0.180
	LTE Band 66	20M	QPSK	50	0	Edge 1	23mm	Ant 1	DSI0	132322	1745	Without Scanner	23.05	24.10	1.274			0.09	0.127	0.162
	LTE Band 66	20M	QPSK	1	0	Bottom Face	0mm	Ant 1	DSI7	132322	1745	With Scanner	18.12	19.40	1.343			-0.03	0.711	0.955
	LTE Band 66C	20M	QPSK	1	99	Bottom Face	0mm	Ant 1	DSI7	132322+132124	1745+1725.2	Without Scanner	17.94	19.40	1.4			0.02	0.723	1.012
	LTE Band 66	20M	QPSK	1	0	Bottom Face	0mm	Ant 5	DSI7	132322	1745	Without Scanner	16.76	17.70	1.242			-0.19	0.772	0.959
	LTE Band 66	20M	QPSK	1	0	Bottom Face	0mm	Ant 5	DSI7	132072	1720	Without Scanner	16.72	17.70	1.253			-0.14	0.748	0.937
14	LTE Band 66	20M	QPSK	1	99	Bottom Face	0mm	Ant 5	DSI7	132572	1770	Without Scanner	16.72	17.70	1.253			0.09	0.918	1.150
	LTE Band 66	20M	QPSK	50	0	Bottom Face	0mm	Ant 5	DSI7	132322	1745	Without Scanner	16.76	17.70	1.242			-0.15	0.718	0.892
	LTE Band 66	20M	QPSK	50	0	Bottom Face	0mm	Ant 5	DSI7	132072	1720	Without Scanner	16.61	17.70	1.285			-0.09	0.596	0.766
	LTE Band 66	20M	QPSK	50	0	Bottom Face	0mm	Ant 5	DSI7	132572	1770	Without Scanner	16.68	17.70	1.265			0.18	0.721	0.912
	LTE Band 66	20M	QPSK	100	0	Bottom Face	0mm	Ant 5	DSI7	132322	1745	Without Scanner	16.52	17.70	1.312			-0.07	0.667	0.875
	LTE Band 66	20M	QPSK	1	0	Edge 1	0mm	Ant 5	DSI7	132322	1745	Without Scanner	16.76	17.70	1.242			0.19	0.337	0.419
	LTE Band 66	20M	QPSK	50	0	Edge 1	0mm	Ant 5	DSI7	132322	1745	Without Scanner	16.76	17.70	1.242			0.11	0.281	0.349
	LTE Band 66	20M	QPSK	1	0	Edge 2	0mm	Ant 5	DSI0	132322	1745	Without Scanner	24.29	25.10	1.205			0.14	0.073	0.088
	LTE Band 66	20M	QPSK	50	0	Edge 2	0mm	Ant 5	DSI0	132322	1745	Without Scanner	23.35	24.10	1.189			0.04	0.055	0.065
	LTE Band 66	20M	QPSK	1	0	Edge 3	0mm	Ant 5	DSI0	132322	1745	Without Scanner	24.29	25.10	1.205			0.17	0.034	0.041
	LTE Band 66	20M	QPSK	50	0	Edge 3	0mm	Ant 5	DSI0	132322	1745	Without Scanner	23.35	24.10	1.189			-0.11	0.026	0.031
	LTE Band 66	20M	QPSK	1	0	Edge 4	0mm	Ant 5	DSI7	132322	1745	Without Scanner	16.76	17.70	1.242			-0.03	0.347	0.431
	LTE Band 66	20M	QPSK	50	0	Edge 4	0mm	Ant 5	DSI7	132322	1745	Without Scanner	16.76	17.70	1.242			-0.04	0.292	0.363
	LTE Band 66	20M	QPSK	1	0	Bottom Face	20mm	Ant 5	DSI0	132322	1745	Without Scanner	24.29	25.10	1.205			0.12	0.426	0.513
	LTE Band 66	20M	QPSK	50	0	Bottom Face	20mm	Ant 5	DSI0	132322	1745	Without Scanner	23.35	24.10	1.189			0.04	0.413	0.491
	LTE Band 66	20M	QPSK	1	0	Edge 1	18mm	Ant 5	DSI0	132322	1745	Without Scanner	24.29	25.10	1.205			0.10	0.174	0.210
	LTE Band 66	20M	QPSK	50	0	Edge 1	18mm	Ant 5	DSI0	132322	1745	Without Scanner	23.35	24.10	1.189			-0.06	0.156	0.185
	LTE Band 66	20M	QPSK	1	0	Edge 4	7mm	Ant 5	DSI0	132322	1745	Without Scanner	24.29	25.10	1.205			0.08	0.475	0.572
	LTE Band 66	20M	QPSK	50	0	Edge 4	7mm	Ant 5	DSI0	132322	1745	Without Scanner	23.35	24.10	1.189			-0.01	0.458	0.545
	LTE Band 66	20M	QPSK	1	99	Bottom Face	0mm	Ant 5	DSI7	132572	1770	With Scanner	16.72	17.70	1.253			-0.05	0.853	1.069
15	LTE Band 71	20M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI7	133297	680.5	Without Scanner	24.15	25.10	1.245			0.05	0.867	1.079
	LTE Band 71	20M	QPSK	50	0	Bottom Face	0mm	Ant 8	DSI7	133297	680.5	Without Scanner	23.15	24.10	1.245			-0.12	0.665	0.828
	LTE Band 71	20M	QPSK	100	0	Bottom Face	0mm	Ant 8	DSI7	133297	680.5	Without Scanner	23.09	24.10	1.262			0.17	0.654	0.825
	LTE Band 71	20M	QPSK	1	0	Edge 1	0mm	Ant 8	DSI7	133297	680.5	Without Scanner	24.15	25.10	1.245			0.04	0.831	1.035
	LTE Band 71	20M	QPSK	50	0	Edge 1	0mm	Ant 8	DSI7	133297	680.5	Without Scanner	23.15	24.10	1.245			0.02	0.671	0.835
	LTE Band 71	20M	QPSK	100	0	Edge 1	0mm	Ant 8	DSI7	133297	680.5	Without Scanner	23.09	24.10	1.262			-0.08	0.677	0.854
	LTE Band 71	20M	QPSK	1	0	Edge 2	0mm	Ant 8	DSI7	133297	680.5	Without Scanner	24.15	25.10	1.245			0.07	0.395	0.492
	LTE Band 71	20M	QPSK	50	0	Edge 2	0mm	Ant 8	DSI7	133297	680.5	Without Scanner	23.15	24.10	1.245			0.10	0.309	0.385
	LTE Band 71	20M	QPSK	1	0	Edge 3	0mm	Ant 8	DSI0	133297	680.5	Without Scanner	24.15	25.10	1.245			-0.03	0.069	0.086
	LTE Band 71	20M	QPSK	50	0	Edge 3	0mm	Ant 8	DSI0	133297	680.5	Without Scanner	23.15	24.10	1.245			0.13	0.048	0.060
	LTE Band 71	20M	QPSK	1	0	Edge 4	0mm	Ant 8	DSI0	133297	680.5	Without Scanner	24.15	25.10	1.245			-0.04	0.049	0.061
	LTE Band 71	20M	QPSK	50	0	Edge 4	0mm	Ant 8	DSI0	133297	680.5	Without Scanner	23.15	24.10	1.245			-0.12	0.044	0.055
	LTE Band 71	20M	QPSK	1	0	Bottom Face	44mm	Ant 8	DSI0	133297	680.5	Without Scanner	24.15	25.10	1.245			0.17	0.055	0.068
	LTE Band 71	20M	QPSK	50	0	Bottom Face	44mm	Ant 8	DSI0	133297	680.5	Without Scanner	23.15	24.10	1.245			0.02	0.042	0.052
	LTE Band 71	20M	QPSK	1	0	Edge 1	49mm	Ant 8	DSI0	133297	680.5	Without Scanner	24.15	25.10	1.245			0.09	0.001	0.001
	LTE Band 71	20M	QPSK	50	0	Edge 1	49mm	Ant 8	DSI0	133297	680.5	Without Scanner	23.15	24.10	1.245			-0.06	0.001	0.001
	LTE Band 71	20M	QPSK	1	0	Edge 2	17mm	Ant 8	DSI0	133297	680.5	Without Scanner	24.15	25.10	1.245			-0.16	0.104	0.129
	LTE Band 71	20M	QPSK	50	0	Edge 2	17mm	Ant 8	DSI0	133297	680.5	Without Scanner	23.15	24.10	1.245			0.07	0.102	0.127
	LTE Band 71	20M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI7	133297	680.5	With Scanner	24.15	25.10	1.245			-0.06	0.778	0.969
	LTE Band 41	20M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI7	40620	2593	Without Scanner	19.01	20.30	1.346	62.9	1.006	0.03	0.567	0.768
	LTE Band 41	20M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI7	39750	2506	Without Scanner	18.91	20.30	1.377	62.9	1.006	-0.13	0.499	0.691
	LTE Band 41	20M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI7	40185	2549.5	Without Scanner	18.98	20.30	1.355	62.9	1.006	0.12	0.495	0.675
	LTE Band 41	20M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI7	41055	2636.5	Without Scanner	18.87	20.30	1.39	62.9	1.006	-0.17	0.543	0.759
	LTE Band 41	20M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI7	41490	2680	Without Scanner	18.86	20.30	1.393	62.9	1.006	0.10	0.550	0.771
	LTE Band 41	20M	QPSK	50	0	Bottom Face	0mm	Ant 8	DSI7	40620	2593	Without Scanner	18.93	20.30	1.371	62.9	1.006	-0.14	0.455	0.628
	LTE Band 41	20M	QPSK	50	0	Bottom Face	0mm	Ant 8	DSI7	39750	2506	Without Scanner	18.74	20.30	1.432	62.9	1.006	0.09	0.393	0.566
	LTE Band 41	20M	QPSK	50	0	Bottom Face	0mm	Ant 8	DSI7	40185	2549.5	Without Scanner	18.85	20.30	1.396	62.9	1.006	0.17	0.411	0.577
	LTE Band 41	20M	QPSK	50	0	Bottom Face	0mm	Ant 8	DSI7	41055	2636.5	Without Scanner	18.87	20.30	1.39	62.9	1.006	0.01	0.435	0.608
	LTE Band 41	20M	QPSK	50	0	Bottom Face	0mm	Ant 8	DSI7	41490	2680	Without Scanner	18.77	20.30	1.422	62.9	1.006	0.09	0.442	0.632
	LTE Band 41	20M	QPSK	100	0	Bottom Face	0mm	Ant 8	DSI7	40620	2593	Without Scanner	18.73	20.30	1.435	62.9	1.006	0.03	0.553	0.798
	LTE Band 41	20M	QPSK	1	0	Edge 1	0mm	Ant 8	DSI7	40620	2593	Without Scanner	19.01	20.30	1.346	62.9	1.006	-0.11	0.815	1.104
	LTE Band 41	20M	QPSK	1	0	Edge 1	0mm	Ant 8	DSI7	39750	2506	Without Scanner	18.91	20.30	1.377	62.9	1.006	0.08	0.707	0.979
	LTE Band 41	20M	QPSK	1	0	Edge 1	0mm	Ant 8	DSI7	40185										



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	LTE Band 41	20M	QPSK	50	0	Edge 1	0mm	Ant 8	DSI7	40620	2593	Without Scanner	18.93	20.30	1.371	62.9	1.006	-0.03	0.636	0.877
	LTE Band 41	20M	QPSK	50	0	Edge 1	0mm	Ant 8	DSI7	39750	2506	Without Scanner	18.74	20.30	1.432	62.9	1.006	-0.10	0.585	0.843
	LTE Band 41	20M	QPSK	50	0	Edge 1	0mm	Ant 8	DSI7	40185	2549.5	Without Scanner	18.85	20.30	1.396	62.9	1.006	0.09	0.658	0.924
	LTE Band 41	20M	QPSK	50	0	Edge 1	0mm	Ant 8	DSI7	41055	2636.5	Without Scanner	18.87	20.30	1.39	62.9	1.006	0.13	0.598	0.836
	LTE Band 41	20M	QPSK	50	0	Edge 1	0mm	Ant 8	DSI7	41490	2680	Without Scanner	18.77	20.30	1.422	62.9	1.006	0.14	0.556	0.795
	LTE Band 41	20M	QPSK	100	0	Edge 1	0mm	Ant 8	DSI7	40620	2593	Without Scanner	18.73	20.30	1.435	62.9	1.006	0.08	0.640	0.924
	LTE Band 41	20M	QPSK	1	0	Edge 2	0mm	Ant 8	DSI7	40620	2593	Without Scanner	19.01	20.30	1.346	62.9	1.006	0.09	0.347	0.470
	LTE Band 41	20M	QPSK	50	0	Edge 2	0mm	Ant 8	DSI7	40620	2593	Without Scanner	18.93	20.30	1.371	62.9	1.006	-0.07	0.263	0.363
	LTE Band 41	20M	QPSK	1	0	Edge 3	0mm	Ant 8	DSI0	40620	2593	Without Scanner	24.47	25.10	1.156	62.9	1.006	-0.05	0.001	0.001
	LTE Band 41	20M	QPSK	50	0	Edge 3	0mm	Ant 8	DSI0	40620	2593	Without Scanner	23.38	24.10	1.18	62.9	1.006	-0.03	0.001	0.001
	LTE Band 41	20M	QPSK	1	0	Edge 4	0mm	Ant 8	DSI0	40620	2593	Without Scanner	24.47	25.10	1.156	62.9	1.006	-0.14	0.027	0.031
	LTE Band 41	20M	QPSK	50	0	Edge 4	0mm	Ant 8	DSI0	40620	2593	Without Scanner	23.38	24.10	1.18	62.9	1.006	-0.02	0.001	0.001
	LTE Band 41	20M	QPSK	1	0	Bottom Face	44mm	Ant 8	DSI0	40620	2593	Without Scanner	24.47	25.10	1.156	62.9	1.006	-0.11	0.148	0.172
	LTE Band 41	20M	QPSK	50	0	Bottom Face	44mm	Ant 8	DSI0	40620	2593	Without Scanner	23.38	24.10	1.18	62.9	1.006	0.03	0.135	0.160
	LTE Band 41	20M	QPSK	1	0	Edge 1	49mm	Ant 8	DSI0	40620	2593	Without Scanner	24.47	25.10	1.156	62.9	1.006	0.06	0.175	0.204
	LTE Band 41	20M	QPSK	50	0	Edge 1	49mm	Ant 8	DSI0	40620	2593	Without Scanner	23.38	24.10	1.18	62.9	1.006	0.07	0.168	0.199
	LTE Band 41 HPUE	20M	QPSK	1	0	Edge 1	49mm	Ant 8	DSI0	40620	2593	Without Scanner	26.10	27.00	1.23	42.9	1.009	0.03	0.159	0.197
	LTE Band 41	20M	QPSK	1	0	Edge 2	17mm	Ant 8	DSI0	40620	2593	Without Scanner	24.47	25.10	1.156	62.9	1.006	0.05	0.160	0.186
	LTE Band 41	20M	QPSK	50	0	Edge 2	17mm	Ant 8	DSI0	40620	2593	Without Scanner	23.38	24.10	1.18	62.9	1.006	0.09	0.156	0.185
	LTE Band 41 HPUE	20M	QPSK	1	0	Edge 1	0mm	Ant 8	DSI7	40185	2549.5	Without Scanner	20.60	21.90	1.349	42.9	1.009	-0.06	0.808	1.100
	LTE Band 41	20M	QPSK	1	0	Edge 1	0mm	Ant 8	DSI7	40185	2549.5	With Scanner	18.98	20.30	1.355	62.9	1.006	0.06	0.753	1.026
	LTE Band 41C	20M	QPSK	1	99	Edge 1	0mm	Ant 8	DSI7	40185+39987	2549.5+2529.7	Without Scanner	18.78	20.30	1.419	62.9	1.006	0.02	0.786	1.122
16	LTE Band 41	20M	QPSK	1	0	Bottom Face	0mm	Ant 5	DSI7	40620	2593	Without Scanner	16.87	18.00	1.297	62.9	1.006	0.09	0.866	1.130
	LTE Band 41	20M	QPSK	1	0	Bottom Face	0mm	Ant 5	DSI7	39750	2506	Without Scanner	16.80	18.00	1.318	62.9	1.006	-0.13	0.713	0.945
	LTE Band 41	20M	QPSK	1	0	Bottom Face	0mm	Ant 5	DSI7	40185	2549.5	Without Scanner	16.82	18.00	1.312	62.9	1.006	-0.17	0.826	1.090
	LTE Band 41	20M	QPSK	1	0	Bottom Face	0mm	Ant 5	DSI7	41055	2636.5	Without Scanner	16.84	18.00	1.306	62.9	1.006	0.13	0.767	1.008
	LTE Band 41	20M	QPSK	1	0	Bottom Face	0mm	Ant 5	DSI7	41490	2680	Without Scanner	16.79	18.00	1.321	62.9	1.006	0.00	0.765	1.017
	LTE Band 41	20M	QPSK	50	0	Bottom Face	0mm	Ant 5	DSI7	40620	2593	Without Scanner	16.81	18.00	1.315	62.9	1.006	0.09	0.688	0.910
	LTE Band 41	20M	QPSK	50	0	Bottom Face	0mm	Ant 5	DSI7	39750	2506	Without Scanner	16.71	18.00	1.346	62.9	1.006	0.02	0.459	0.622
	LTE Band 41	20M	QPSK	50	0	Bottom Face	0mm	Ant 5	DSI7	40185	2549.5	Without Scanner	16.79	18.00	1.321	62.9	1.006	-0.08	0.666	0.885
	LTE Band 41	20M	QPSK	50	0	Bottom Face	0mm	Ant 5	DSI7	41055	2636.5	Without Scanner	16.76	18.00	1.33	62.9	1.006	0.09	0.736	0.985
	LTE Band 41	20M	QPSK	50	0	Bottom Face	0mm	Ant 5	DSI7	41490	2680	Without Scanner	16.71	18.00	1.346	62.9	1.006	-0.09	0.722	0.978
	LTE Band 41	20M	QPSK	100	0	Bottom Face	0mm	Ant 5	DSI7	40620	2593	Without Scanner	16.66	18.00	1.361	62.9	1.006	-0.10	0.729	0.998
	LTE Band 41	20M	QPSK	1	0	Edge 1	0mm	Ant 5	DSI7	40620	2593	Without Scanner	16.87	18.00	1.297	62.9	1.006	0.08	0.434	0.566
	LTE Band 41	20M	QPSK	50	0	Edge 1	0mm	Ant 5	DSI7	40620	2593	Without Scanner	16.81	18.00	1.315	62.9	1.006	0.15	0.306	0.405
	LTE Band 41	20M	QPSK	1	0	Edge 2	0mm	Ant 5	DSI0	40620	2593	Without Scanner	24.36	25.10	1.186	62.9	1.006	-0.14	0.001	0.001
	LTE Band 41	20M	QPSK	50	0	Edge 2	0mm	Ant 5	DSI0	40620	2593	Without Scanner	23.23	24.10	1.222	62.9	1.006	-0.07	0.001	0.001
	LTE Band 41	20M	QPSK	1	0	Edge 3	0mm	Ant 5	DSI0	40620	2593	Without Scanner	24.36	25.10	1.186	62.9	1.006	0.10	0.036	0.043
	LTE Band 41	20M	QPSK	50	0	Edge 3	0mm	Ant 5	DSI0	40620	2593	Without Scanner	23.23	24.10	1.222	62.9	1.006	0.08	0.021	0.026
	LTE Band 41	20M	QPSK	1	0	Edge 4	0mm	Ant 5	DSI7	40620	2593	Without Scanner	16.87	18.00	1.297	62.9	1.006	-0.17	0.301	0.393
	LTE Band 41	20M	QPSK	50	0	Edge 4	0mm	Ant 5	DSI7	40620	2593	Without Scanner	16.81	18.00	1.315	62.9	1.006	0.06	0.225	0.298
	LTE Band 41	20M	QPSK	1	0	Bottom Face	20mm	Ant 5	DSI0	40620	2593	Without Scanner	24.36	25.10	1.186	62.9	1.006	-0.09	0.289	0.345
	LTE Band 41	20M	QPSK	50	0	Bottom Face	20mm	Ant 5	DSI0	40620	2593	Without Scanner	23.23	24.10	1.222	62.9	1.006	0.03	0.268	0.329
	LTE Band 41	20M	QPSK	1	0	Edge 1	18mm	Ant 5	DSI0	40620	2593	Without Scanner	24.36	25.10	1.186	62.9	1.006	-0.05	0.223	0.266
	LTE Band 41	20M	QPSK	50	0	Edge 1	18mm	Ant 5	DSI0	40620	2593	Without Scanner	23.23	24.10	1.222	62.9	1.006	0.04	0.212	0.261
	LTE Band 41	20M	QPSK	1	0	Edge 4	7mm	Ant 5	DSI0	40620	2593	Without Scanner	24.36	25.10	1.186	62.9	1.006	0.15	0.297	0.354
	LTE Band 41	20M	QPSK	50	0	Edge 4	7mm	Ant 5	DSI0	40620	2593	Without Scanner	23.23	24.10	1.222	62.9	1.006	0.06	0.286	0.352
	LTE Band 41	20M	QPSK	1	0	Bottom Face	0mm	Ant 5	DSI7	40620	2593	With Scanner	16.87	18.00	1.297	62.9	1.006	0.03	0.812	1.059
	LTE Band 48	20M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI7	56150	3641	Without Scanner	17.66	18.90	1.33	62.9	1.006	0.00	0.505	0.676
	LTE Band 48	20M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI7	55340	3560	Without Scanner	17.60	18.90	1.349	62.9	1.006	-0.06	0.446	0.605
	LTE Band 48	20M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI7	55830	3609	Without Scanner	17.57	18.90	1.358	62.9	1.006	0.03	0.478	0.653
	LTE Band 48	20M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI7	55990	3625	Without Scanner	17.53	18.90	1.371	62.9	1.006	-0.03	0.423	0.583
	LTE Band 48	20M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI7	56640	3690	Without Scanner	17.55	18.90	1.365	62.9	1.006	-0.16	0.500	0.687
	LTE Band 48	20M	QPSK	50	0	Bottom Face	0mm	Ant 8	DSI7	56150	3641	Without Scanner	17.51	18.90	1.377	62.9	1.006	-0.04	0.399	0.553
17	LTE Band 48	20M	QPSK	1	0	Edge 1	0mm	Ant 8	DSI7	56150	3641	Without Scanner	17.66	18.90	1.33	62.9	1.006	0.01	0.837	1.120
	LTE Band 48	20M	QPSK	1	0	Edge 1	0mm	Ant 8	DSI7	55340	3560	Without Scanner	17.60	18.90	1.349	62.9	1.006	0.13	0.814	1.105
	LTE Band 48	20M	QPSK	1	0	Edge 1	0mm	Ant 8	DSI7	55830	3609	Without Scanner	17.57	18.90	1.358	62.9	1.006	0.09	0.809	1.105
	LTE Band 48	20M	QPSK	1	0	Edge 1	0mm	Ant 8	DSI7	55990	3625	Without Scanner	17.53	18.90	1.371	62.9	1.006	-0.03	0.765	1.055
	LTE Band 48	20M	QPSK	1	0	Edge 1	0mm	Ant 8	DSI7	56640	3690	Without Scanner	17.55	18.90	1.365	62.9	1.006	-0.02	0.814	1.118
	LTE Band 48	20M	QPSK	50	0	Edge 1	0mm	Ant 8	DSI7	56150	3641	Without Scanner	17.51	18.90	1.377	62.9	1.006	0.03	0.658	0.912
	LTE Band 48	20M	QPSK	50	0	Edge 1	0mm	Ant 8	DSI7	55340	3560	Without Scanner	17.41	18.90	1.409	62.9	1.006	0.03	0.648	0.919
	LTE Band 48	20M	QPSK	50	0	Edge 1	0mm	Ant 8	DSI7	55830	3609	Without Scanner	17.49	18.90	1.384	62.9	1.006	0.07	0.674	0.938
	LTE Band 48	20M	QPSK	50	0	Edge 1	0mm	Ant 8	DSI7	55990	3625	Without Scanner	17.38	18.90	1.419	62.9	1.006	0.03	0.652	0.931
	LTE Band 48	20M	QPSK	50	0	Edge 1	0mm	Ant 8	DSI7	56640	3690	Without Scanner	17.44	18.90	1.4	62.9	1.006	0.04	0.660	0.930
	LTE Band 48	20M	QPSK	100	0	Edge 1	0mm	Ant 8	DSI7	56150	3641	Without Scanner	17.30	18.90	1.445	62.9	1.006	0.18	0.663	0.964
	LTE Band 48	20M	QPSK	1	0	Edge 2	0mm	Ant 8	DSI7	56150	3641	Without Scanner	17.66	18.90	1.33	62.9	1.006	-0.15	0.423	0.566
	LTE Band 48	20M	QPSK	50	0	Edge 2	0mm	Ant 8	DSI7	56150	3641	Without Scanner	17.51	18.90	1.377	62.9	1.006	0.18	0.334	0.463
	LTE Band 48	20M	QPSK	1	0	Edge 1	0mm													



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	LTE Band 48	20M	QPSK	1	0	Bottom Face	44mm	Ant 8	DSi0	55990	3625	Without Scanner	20.14	22.00	1.535	62.9	1.006	-0.13	0.165	0.255
	LTE Band 48	20M	QPSK	50	0	Bottom Face	44mm	Ant 8	DSi0	55990	3625	Without Scanner	19.35	21.00	1.462	62.9	1.006	0.01	0.155	0.228
	LTE Band 48	20M	QPSK	1	0	Edge 1	49mm	Ant 8	DSi0	55990	3625	Without Scanner	20.14	22.00	1.535	62.9	1.006	0.14	0.091	0.141
	LTE Band 48	20M	QPSK	50	0	Edge 1	49mm	Ant 8	DSi0	55990	3625	Without Scanner	19.35	21.00	1.462	62.9	1.006	0.03	0.086	0.126
	LTE Band 48	20M	QPSK	1	0	Edge 2	17mm	Ant 8	DSi0	55990	3625	Without Scanner	20.14	22.00	1.535	62.9	1.006	0.02	0.360	0.556
	LTE Band 48	20M	QPSK	50	0	Edge 2	17mm	Ant 8	DSi0	55990	3625	Without Scanner	19.35	21.00	1.462	62.9	1.006	0.01	0.355	0.522
	LTE Band 48C	20M	QPSK	1	99	Edge 1	0mm	Ant 8	DSi7	55830+56028	3690+3628.8	Without Scanner	17.53	18.90	1.371	62.9	1.006	0.06	0.786	1.084
	LTE Band 48	20M	QPSK	1	0	Bottom Face	0mm	Ant 9	DSi7	56150	3641	Without Scanner	16.57	17.40	1.211	62.9	1.006	0.06	0.737	0.898
	LTE Band 48	20M	QPSK	1	0	Bottom Face	0mm	Ant 9	DSi7	55340	3560	Without Scanner	16.50	17.40	1.23	62.9	1.006	0.01	0.772	0.955
	LTE Band 48	20M	QPSK	1	0	Bottom Face	0mm	Ant 9	DSi7	55830	3609	Without Scanner	16.53	17.40	1.222	62.9	1.006	0.02	0.745	0.916
	LTE Band 48	20M	QPSK	1	0	Bottom Face	0mm	Ant 9	DSi7	55990	3625	Without Scanner	16.44	17.40	1.247	62.9	1.006	0.01	0.711	0.892
	LTE Band 48	20M	QPSK	1	0	Bottom Face	0mm	Ant 9	DSi7	56640	3690	Without Scanner	16.53	17.40	1.222	62.9	1.006	0.03	0.826	1.015
	LTE Band 48	20M	QPSK	50	0	Bottom Face	0mm	Ant 9	DSi7	56150	3641	Without Scanner	16.55	17.40	1.216	62.9	1.006	-0.04	0.545	0.667
	LTE Band 48	20M	QPSK	50	0	Bottom Face	0mm	Ant 9	DSi7	55340	3560	Without Scanner	16.52	17.40	1.225	62.9	1.006	-0.10	0.559	0.689
	LTE Band 48	20M	QPSK	50	0	Bottom Face	0mm	Ant 9	DSi7	55830	3609	Without Scanner	16.48	17.40	1.236	62.9	1.006	0.17	0.503	0.625
	LTE Band 48	20M	QPSK	50	0	Bottom Face	0mm	Ant 9	DSi7	55990	3625	Without Scanner	16.42	17.40	1.253	62.9	1.006	-0.03	0.456	0.575
	LTE Band 48	20M	QPSK	50	0	Bottom Face	0mm	Ant 9	DSi7	56640	3690	Without Scanner	16.35	17.40	1.274	62.9	1.006	0.04	0.563	0.722
	LTE Band 48	20M	QPSK	100	0	Bottom Face	0mm	Ant 9	DSi7	56150	3641	Without Scanner	16.28	17.40	1.294	62.9	1.006	0.10	0.493	0.642
	LTE Band 48	20M	QPSK	1	0	Edge 1	0mm	Ant 9	DSi7	56150	3641	Without Scanner	16.57	17.40	1.211	62.9	1.006	-0.17	0.367	0.447
	LTE Band 48	20M	QPSK	50	0	Edge 1	0mm	Ant 9	DSi7	56150	3641	Without Scanner	16.55	17.40	1.216	62.9	1.006	-0.04	0.303	0.371
	LTE Band 48	20M	QPSK	1	0	Bottom Face	0mm	Ant 9	DSi7	56640	3690	With Scanner	16.53	17.40	1.222	62.9	1.006	0.01	0.743	0.913
	LTE Band 48	20M	QPSK	1	0	Edge 2	0mm	Ant 9	DSi0	55990	3625	Without Scanner	21.75	22.50	1.189	62.9	1.006	-0.14	0.176	0.211
	LTE Band 48	20M	QPSK	50	0	Edge 2	0mm	Ant 9	DSi0	55990	3625	Without Scanner	21.72	22.50	1.197	62.9	1.006	-0.17	0.147	0.177
	LTE Band 48	20M	QPSK	1	0	Edge 3	0mm	Ant 9	DSi0	55990	3625	Without Scanner	21.75	22.50	1.189	62.9	1.006	0.01	0.042	0.050
	LTE Band 48	20M	QPSK	50	0	Edge 3	0mm	Ant 9	DSi0	55990	3625	Without Scanner	21.72	22.50	1.197	62.9	1.006	0.08	0.027	0.033
	LTE Band 48	20M	QPSK	1	0	Edge 4	0mm	Ant 9	DSi0	55990	3625	Without Scanner	21.75	22.50	1.189	62.9	1.006	0.10	0.349	0.417
	LTE Band 48	20M	QPSK	50	0	Edge 4	0mm	Ant 9	DSi0	55990	3625	Without Scanner	21.72	22.50	1.197	62.9	1.006	0.12	0.273	0.329
	LTE Band 48	20M	QPSK	1	0	Bottom Face	15mm	Ant 9	DSi0	55990	3625	Without Scanner	21.75	22.50	1.189	62.9	1.006	0.17	0.416	0.498
	LTE Band 48	20M	QPSK	50	0	Bottom Face	15mm	Ant 9	DSi0	55990	3625	Without Scanner	21.72	22.50	1.197	62.9	1.006	0.04	0.402	0.484
	LTE Band 48	20M	QPSK	1	0	Edge 1	11mm	Ant 9	DSi0	55990	3625	Without Scanner	21.75	22.50	1.189	62.9	1.006	0.18	0.408	0.488
	LTE Band 48	20M	QPSK	50	0	Edge 1	11mm	Ant 9	DSi0	55990	3625	Without Scanner	21.72	22.50	1.197	62.9	1.006	-0.07	0.395	0.476



【FR1 SAR】

Plot No	Band	BW	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
18	FR1 n5	20M	BPSK	1	1	Bottom Face	0mm	Ant 10	DSi7	167300	836.5	Without Scanner	21.00	21.70	1.175			0.01	0.933	1.096
	FR1 n5	20M	BPSK	50	28	Bottom Face	0mm	Ant 10	DSi7	167300	836.5	Without Scanner	20.96	21.70	1.186			-0.01	0.554	0.657
	FR1 n5	20M	BPSK	100	0	Bottom Face	0mm	Ant 10	DSi7	167300	836.5	Without Scanner	20.94	21.70	1.191			0.18	0.541	0.644
	FR1 n5	20M	BPSK	1	1	Edge 1	0mm	Ant 10	DSi0	167300	836.5	Without Scanner	24.41	25.20	1.199			0.03	0.125	0.150
	FR1 n5	20M	BPSK	50	28	Edge 1	0mm	Ant 10	DSi0	167300	836.5	Without Scanner	24.31	25.20	1.227			-0.04	0.121	0.148
	FR1 n5	20M	BPSK	1	1	Edge 2	0mm	Ant 10	DSi0	167300	836.5	Without Scanner	24.41	25.20	1.199			0.07	0.119	0.143
	FR1 n5	20M	BPSK	50	28	Edge 2	0mm	Ant 10	DSi0	167300	836.5	Without Scanner	24.31	25.20	1.227			0.01	0.106	0.130
	FR1 n5	20M	BPSK	1	1	Edge 3	0mm	Ant 10	DSi0	167300	836.5	Without Scanner	24.41	25.20	1.199			-0.01	0.111	0.133
	FR1 n5	20M	BPSK	50	28	Edge 3	0mm	Ant 10	DSi0	167300	836.5	Without Scanner	24.31	25.20	1.227			0.02	0.096	0.118
	FR1 n5	20M	BPSK	1	1	Edge 4	0mm	Ant 10	DSi7	167300	836.5	Without Scanner	21.00	21.70	1.175			-0.08	0.887	1.042
	FR1 n5	20M	BPSK	50	28	Edge 4	0mm	Ant 10	DSi7	167300	836.5	Without Scanner	20.96	21.70	1.186			0.02	0.716	0.849
	FR1 n5	20M	BPSK	100	0	Edge 4	0mm	Ant 10	DSi7	167300	836.5	Without Scanner	20.94	21.70	1.191			-0.16	0.750	0.893
	FR1 n5	20M	BPSK	1	1	Bottom Face	28mm	Ant 10	DSi0	167300	836.5	Without Scanner	24.41	25.20	1.199			0.03	0.183	0.219
	FR1 n5	20M	BPSK	50	28	Bottom Face	28mm	Ant 10	DSi0	167300	836.5	Without Scanner	24.31	25.20	1.227			0.05	0.171	0.210
	FR1 n5	20M	BPSK	1	1	Edge 4	25mm	Ant 10	DSi0	167300	836.5	Without Scanner	24.41	25.20	1.199			0.02	0.123	0.147
	FR1 n5	20M	BPSK	50	28	Edge 4	25mm	Ant 10	DSi0	167300	836.5	Without Scanner	24.31	25.20	1.227			0.01	0.111	0.136
	FR1 n5	20M	BPSK	1	1	Bottom Face	0mm	Ant 10	DSi7	167300	836.5	With Scanner	21.00	21.70	1.175			-0.06	0.869	1.021
	FR1 n7	50M	BPSK	1	1	Bottom Face	0mm	Ant 8	DSi7	507000	2535	Without Scanner	15.60	16.30	1.175			-0.09	0.610	0.717
	FR1 n7	50M	BPSK	135	68	Bottom Face	0mm	Ant 8	DSi7	507000	2535	Without Scanner	15.58	16.30	1.18			-0.02	0.628	0.741
	FR1 n7	50M	BPSK	1	1	Edge 1	0mm	Ant 8	DSi7	507000	2535	Without Scanner	15.60	16.30	1.175			0.13	0.921	1.082
19	FR1 n7	50M	BPSK	135	68	Edge 1	0mm	Ant 8	DSi7	507000	2535	Without Scanner	15.58	16.30	1.18			-0.01	0.941	1.110
	FR1 n7	50M	BPSK	270	0	Edge 1	0mm	Ant 8	DSi7	507000	2535	Without Scanner	15.58	16.30	1.18			0.03	0.809	0.955
	FR1 n7	50M	BPSK	1	1	Edge 2	0mm	Ant 8	DSi7	507000	2535	Without Scanner	15.60	16.30	1.175			-0.11	0.357	0.419
	FR1 n7	50M	BPSK	135	68	Edge 2	0mm	Ant 8	DSi7	507000	2535	Without Scanner	15.58	16.30	1.18			-0.11	0.360	0.425
	FR1 n7	50M	BPSK	1	1	Edge 3	0mm	Ant 8	DSi0	507000	2535	Without Scanner	24.08	25.20	1.294			-0.02	0.022	0.028
	FR1 n7	50M	BPSK	135	68	Edge 3	0mm	Ant 8	DSi0	507000	2535	Without Scanner	23.41	25.20	1.51			-0.18	0.001	0.002
	FR1 n7	50M	BPSK	1	1	Edge 4	0mm	Ant 8	DSi0	507000	2535	Without Scanner	24.08	25.20	1.294			-0.10	0.001	0.001
	FR1 n7	50M	BPSK	135	68	Edge 4	0mm	Ant 8	DSi0	507000	2535	Without Scanner	23.41	25.20	1.51			0.01	0.001	0.002
	FR1 n7	50M	BPSK	1	1	Bottom Face	44mm	Ant 8	DSi0	507000	2535	Without Scanner	24.08	25.20	1.294			-0.17	0.200	0.259
	FR1 n7	50M	BPSK	135	68	Bottom Face	44mm	Ant 8	DSi0	507000	2535	Without Scanner	23.41	25.20	1.51			0.03	0.198	0.299
	FR1 n7	50M	BPSK	1	1	Edge 1	49mm	Ant 8	DSi0	507000	2535	Without Scanner	24.08	25.20	1.294			-0.15	0.245	0.317
	FR1 n7	50M	BPSK	135	68	Edge 1	49mm	Ant 8	DSi0	507000	2535	Without Scanner	23.41	25.20	1.51			0.05	0.236	0.356
	FR1 n7	50M	BPSK	1	1	Edge 2	17mm	Ant 8	DSi0	507000	2535	Without Scanner	24.08	25.20	1.294			0.12	0.431	0.558
	FR1 n7	50M	BPSK	135	68	Edge 2	17mm	Ant 8	DSi0	507000	2535	Without Scanner	23.41	25.20	1.51			0.07	0.426	0.643
	FR1 n7	50M	BPSK	135	68	Edge 1	0mm	Ant 8	DSi7	507000	2535	With Scanner	15.58	16.30	1.18			-0.03	0.912	1.076
	FR1 n7	50M	BPSK	1	1	Bottom Face	0mm	Ant 5	DSi7	507000	2535	Without Scanner	16.88	17.70	1.208			0.13	0.858	1.036
	FR1 n7	50M	BPSK	135	68	Bottom Face	0mm	Ant 5	DSi7	507000	2535	Without Scanner	16.85	17.70	1.216			-0.06	0.879	1.069
	FR1 n7	50M	BPSK	270	0	Bottom Face	0mm	Ant 5	DSi7	507000	2535	Without Scanner	16.80	17.70	1.23			0.08	0.901	1.108
	FR1 n7	50M	BPSK	1	1	Edge 1	0mm	Ant 5	DSi7	507000	2535	Without Scanner	16.88	17.70	1.208			0.17	0.524	0.633
	FR1 n7	50M	BPSK	135	68	Edge 1	0mm	Ant 5	DSi7	507000	2535	Without Scanner	16.85	17.70	1.216			-0.18	0.512	0.623
	FR1 n7	50M	BPSK	1	1	Edge 2	0mm	Ant 5	DSi0	507000	2535	Without Scanner	24.41	25.20	1.199			-0.07	0.001	0.001
	FR1 n7	50M	BPSK	135	68	Edge 2	0mm	Ant 5	DSi0	507000	2535	Without Scanner	23.72	25.20	1.406			-0.01	0.001	0.001
	FR1 n7	50M	BPSK	1	1	Edge 3	0mm	Ant 5	DSi0	507000	2535	Without Scanner	24.41	25.20	1.199			-0.02	0.066	0.079
	FR1 n7	50M	BPSK	135	68	Edge 3	0mm	Ant 5	DSi0	507000	2535	Without Scanner	23.72	25.20	1.406			-0.08	0.055	0.077
	FR1 n7	50M	BPSK	1	1	Edge 4	0mm	Ant 5	DSi7	507000	2535	Without Scanner	16.88	17.70	1.208			-0.14	0.273	0.330
	FR1 n7	50M	BPSK	135	68	Edge 4	0mm	Ant 5	DSi7	507000	2535	Without Scanner	16.85	17.70	1.216			-0.07	0.284	0.345
	FR1 n7	50M	BPSK	1	1	Bottom Face	20mm	Ant 5	DSi0	507000	2535	Without Scanner	24.41	25.20	1.199			0.02	0.436	0.523
	FR1 n7	50M	BPSK	135	68	Bottom Face	20mm	Ant 5	DSi0	507000	2535	Without Scanner	23.72	25.20	1.406			0.03	0.428	0.602
	FR1 n7	50M	BPSK	1	1	Edge 1	18mm	Ant 5	DSi0	507000	2535	Without Scanner	24.41	25.20	1.199			-0.16	0.265	0.318
	FR1 n7	50M	BPSK	135	68	Edge 1	18mm	Ant 5	DSi0	507000	2535	Without Scanner	23.72	25.20	1.406			0.08	0.253	0.356
	FR1 n7	50M	BPSK	1	1	Edge 4	7mm	Ant 5	DSi0	507000	2535	Without Scanner	24.41	25.20	1.199			-0.11	0.677	0.812
	FR1 n7	50M	BPSK	135	68	Edge 4	7mm	Ant 5	DSi0	507000	2535	Without Scanner	23.72	25.20	1.406			0.09	0.653	0.918
	FR1 n7	50M	BPSK	270	0	Edge 4	7mm	Ant 5	DSi0	507000	2535	Without Scanner	23.87	24.70	1.211			0.04	0.622	0.753
	FR1 n7	50M	BPSK	270	0	Bottom Face	0mm	Ant 5	DSi7	507000	2535	With Scanner	16.80	17.70	1.23			0.03	0.812	0.999
20	FR1 n12	15M	BPSK	1	1	Bottom Face	0mm	Ant 8	DSi7	141500	707.5	Without Scanner	21.94	23.20	1.337			-0.05	0.822	1.099
	FR1 n12	15M	BPSK	36	22	Bottom Face	0mm	Ant 8	DSi7	141500	707.5	Without Scanner	21.91	23.20	1.346			-0.08	0.791	1.065
	FR1 n12	15M	BPSK	75	0	Bottom Face	0mm	Ant 8	DSi7	141500	707.5	Without Scanner	21.95	23.20	1.334			0.18	0.791	1.055
	FR1 n12	15M	BPSK	1	1	Edge 1	0mm	Ant 8	DSi7	141500	707.5	Without Scanner	21.94	23.20	1.337			-0.13	0.668	0.893
	FR1 n12	15M	BPSK	36	22	Edge 1	0mm	Ant 8	DSi7	141500	707.5	Without Scanner	21.91	23.20	1.346			-0.05	0.697	0.938
	FR1 n12	15M	BPSK	75	0	Edge 1	0mm	Ant 8	DSi7	141500	707.5	Without Scanner	21.95	23.20	1.334			0.08	0.585	0.780
	FR1 n12	15M	BPSK	1	1	Edge 2	0mm	Ant 8	DSi7	141500	707.5	Without Scanner	21.94	23.20	1.337			0.01	0.298	0.398
	FR1 n12	15M	BPSK	36	22	Edge 2	0mm	Ant 8	DSi7	141500	707.5	Without Scanner	21.91	23.20	1.346			-0.19	0.295	0.397
	FR1 n12	15M	BPSK	1	1	Edge 3	0mm	Ant 8	DSi0	141500	707.5	Without Scanner	24.53	25.20	1.167			0.07	0.088	0.103
	FR1 n12	15M	BPSK	36	22	Edge 3	0mm	Ant 8	DSi0	141500	707.5	Without Scanner	24.39	25.20	1.205			0.01	0.081	0.098
	FR1 n12	15M	BPSK	1	1	Edge 4	0mm	Ant 8	DSi0	141500	707.5	Without Scanner	24.53	25.20	1.167			0.10	0.083	0.097
	FR1 n12	15M	BPSK	36	22	Edge 4	0mm	Ant 8	DSi0	141500	707.5	Without Scanner	24.39	25.20	1.205			-0.06	0.090	0.108
	FR1 n12	15M	BPSK	1	1	Bottom Face	44mm	Ant 8	DSi0	141500	707.5	Without Scanner	24.53	25.20	1.167			-0.13	0.081	0.095



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	FR1 n12	15M	BPSK	36	22	Bottom Face	44mm	Ant 8	DSi0	141500	707.5	Without Scanner	24.39	25.20	1.205		0.09	0.076	0.092
	FR1 n12	15M	BPSK	1	1	Edge 1	49mm	Ant 8	DSi0	141500	707.5	Without Scanner	24.53	25.20	1.167		0.15	0.001	0.001
	FR1 n12	15M	BPSK	36	22	Edge 1	49mm	Ant 8	DSi0	141500	707.5	Without Scanner	24.39	25.20	1.205		0.01	0.001	0.001
	FR1 n12	15M	BPSK	1	1	Edge 2	17mm	Ant 8	DSi0	141500	707.5	Without Scanner	24.53	25.20	1.167		0.11	0.200	0.233
	FR1 n12	15M	BPSK	36	22	Edge 2	17mm	Ant 8	DSi0	141500	707.5	Without Scanner	24.39	25.20	1.205		-0.06	0.196	0.236
	FR1 n12	15M	BPSK	1	1	Bottom Face	0mm	Ant 8	DSi7	141500	707.5	With Scanner	21.94	23.20	1.337		0.01	0.785	1.050
21	FR1 n13	10M	BPSK	1	1	Bottom Face	0mm	Ant 8	DSi7	156400	782	Without Scanner	21.75	22.50	1.189		-0.03	0.918	1.092
	FR1 n13	10M	BPSK	25	14	Bottom Face	0mm	Ant 8	DSi7	156400	782	Without Scanner	21.73	22.50	1.194		0.00	0.880	1.051
	FR1 n13	10M	BPSK	50	0	Bottom Face	0mm	Ant 8	DSi7	156400	782	Without Scanner	21.80	22.50	1.175		0.02	0.842	0.989
	FR1 n13	10M	BPSK	1	1	Edge 1	0mm	Ant 8	DSi7	156400	782	Without Scanner	21.75	22.50	1.189		0.06	0.881	1.048
	FR1 n13	10M	BPSK	25	14	Edge 1	0mm	Ant 8	DSi7	156400	782	Without Scanner	21.73	22.50	1.194		-0.02	0.843	1.007
	FR1 n13	10M	BPSK	50	0	Edge 1	0mm	Ant 8	DSi7	156400	782	Without Scanner	21.80	22.50	1.175		-0.10	0.816	0.959
	FR1 n13	10M	BPSK	1	1	Edge 2	0mm	Ant 8	DSi7	156400	782	Without Scanner	21.75	22.50	1.189		0.17	0.292	0.347
	FR1 n13	10M	BPSK	25	14	Edge 2	0mm	Ant 8	DSi7	156400	782	Without Scanner	21.73	22.50	1.194		-0.17	0.313	0.374
	FR1 n13	10M	BPSK	1	1	Edge 3	0mm	Ant 8	DSi0	156400	782	Without Scanner	23.75	25.20	1.396		-0.14	0.070	0.098
	FR1 n13	10M	BPSK	25	14	Edge 3	0mm	Ant 8	DSi0	156400	782	Without Scanner	23.26	25.20	1.563		0.14	0.068	0.106
	FR1 n13	10M	BPSK	1	1	Edge 4	0mm	Ant 8	DSi0	156400	782	Without Scanner	23.75	25.20	1.396		0.01	0.074	0.103
	FR1 n13	10M	BPSK	25	14	Edge 4	0mm	Ant 8	DSi0	156400	782	Without Scanner	23.26	25.20	1.563		0.05	0.070	0.109
	FR1 n13	10M	BPSK	1	1	Bottom Face	44mm	Ant 8	DSi0	156400	782	Without Scanner	23.75	25.20	1.396		0.12	0.080	0.112
	FR1 n13	10M	BPSK	25	14	Bottom Face	44mm	Ant 8	DSi0	156400	782	Without Scanner	23.26	25.20	1.563		0.03	0.076	0.119
	FR1 n13	10M	BPSK	1	1	Edge 1	49mm	Ant 8	DSi0	156400	782	Without Scanner	23.75	25.20	1.396		0.16	0.001	0.001
	FR1 n13	10M	BPSK	25	14	Edge 1	49mm	Ant 8	DSi0	156400	782	Without Scanner	23.26	25.20	1.563		-0.07	0.001	0.002
	FR1 n13	10M	BPSK	1	1	Edge 2	17mm	Ant 8	DSi0	156400	782	Without Scanner	23.75	25.20	1.396		0.04	0.155	0.216
	FR1 n13	10M	BPSK	25	14	Edge 2	17mm	Ant 8	DSi0	156400	782	Without Scanner	23.26	25.20	1.563		0.09	0.136	0.213
	FR1 n13	10M	BPSK	1	1	Bottom Face	0mm	Ant 8	DSi7	156400	782	With Scanner	21.75	22.50	1.189		0.07	0.832	0.989
	FR1 n14	10M	BPSK	1	1	Bottom Face	0mm	Ant 8	DSi7	158600	793	Without Scanner	21.82	22.90	1.282		-0.15	0.798	1.023
22	FR1 n14	10M	BPSK	25	14	Bottom Face	0mm	Ant 8	DSi7	158600	793	Without Scanner	21.79	22.90	1.291		0.04	0.836	1.079
	FR1 n14	10M	BPSK	50	0	Bottom Face	0mm	Ant 8	DSi7	158600	793	Without Scanner	21.80	22.90	1.288		-0.01	0.698	0.899
	FR1 n14	10M	BPSK	1	1	Edge 1	0mm	Ant 8	DSi7	158600	793	Without Scanner	21.82	22.90	1.282		0.18	0.813	1.042
	FR1 n14	10M	BPSK	25	14	Edge 1	0mm	Ant 8	DSi7	158600	793	Without Scanner	21.79	22.90	1.291		-0.13	0.797	1.029
	FR1 n14	10M	BPSK	50	0	Edge 1	0mm	Ant 8	DSi7	158600	793	Without Scanner	21.80	22.90	1.288		-0.12	0.755	0.972
	FR1 n14	10M	BPSK	1	1	Edge 2	0mm	Ant 8	DSi7	158600	793	Without Scanner	21.82	22.90	1.282		0.10	0.241	0.309
	FR1 n14	10M	BPSK	25	14	Edge 2	0mm	Ant 8	DSi7	158600	793	Without Scanner	21.79	22.90	1.291		-0.16	0.257	0.332
	FR1 n14	10M	BPSK	1	1	Edge 3	0mm	Ant 8	DSi0	158600	793	Without Scanner	23.70	25.20	1.413		0.17	0.065	0.092
	FR1 n14	10M	BPSK	25	14	Edge 3	0mm	Ant 8	DSi0	158600	793	Without Scanner	23.60	25.20	1.445		-0.08	0.068	0.098
	FR1 n14	10M	BPSK	1	1	Edge 4	0mm	Ant 8	DSi0	158600	793	Without Scanner	23.70	25.20	1.413		-0.09	0.071	0.100
	FR1 n14	10M	BPSK	25	14	Edge 4	0mm	Ant 8	DSi0	158600	793	Without Scanner	23.60	25.20	1.445		0.13	0.066	0.095
	FR1 n14	10M	BPSK	1	1	Bottom Face	44mm	Ant 8	DSi0	158600	793	Without Scanner	23.70	25.20	1.413		0.13	0.081	0.114
	FR1 n14	10M	BPSK	25	14	Bottom Face	44mm	Ant 8	DSi0	158600	793	Without Scanner	23.60	25.20	1.445		-0.03	0.075	0.108
	FR1 n14	10M	BPSK	1	1	Edge 1	49mm	Ant 8	DSi0	158600	793	Without Scanner	23.70	25.20	1.413		0.18	0.001	0.001
	FR1 n14	10M	BPSK	25	14	Edge 1	49mm	Ant 8	DSi0	158600	793	Without Scanner	23.60	25.20	1.445		0.01	0.001	0.001
	FR1 n14	10M	BPSK	1	1	Edge 2	17mm	Ant 8	DSi0	158600	793	Without Scanner	23.70	25.20	1.413		-0.13	0.141	0.199
	FR1 n14	10M	BPSK	25	14	Edge 2	17mm	Ant 8	DSi0	158600	793	Without Scanner	23.60	25.20	1.445		-0.08	0.139	0.201
	FR1 n14	10M	BPSK	25	14	Bottom Face	0mm	Ant 8	DSi7	158600	793	With Scanner	21.79	22.90	1.291		0.07	0.796	1.028
	FR1 n25	40M	BPSK	1	1	Bottom Face	0mm	Ant 1	DSi7	376500	1882.5	Without Scanner	16.83	17.90	1.279		-0.04	0.780	0.998
23	FR1 n25	40M	BPSK	108	54	Bottom Face	0mm	Ant 1	DSi7	376500	1882.5	Without Scanner	16.71	17.90	1.315		-0.01	0.835	1.098
	FR1 n25	40M	BPSK	216	0	Bottom Face	0mm	Ant 1	DSi7	376500	1882.5	Without Scanner	16.80	17.90	1.288		-0.13	0.760	0.979
	FR1 n25	40M	BPSK	1	1	Edge 1	0mm	Ant 1	DSi7	376500	1882.5	Without Scanner	16.83	17.90	1.279		-0.14	0.513	0.656
	FR1 n25	40M	BPSK	108	54	Edge 1	0mm	Ant 1	DSi7	376500	1882.5	Without Scanner	16.71	17.90	1.315		-0.01	0.522	0.686
	FR1 n25	40M	BPSK	1	1	Edge 2	0mm	Ant 1	DSi0	376500	1882.5	Without Scanner	24.23	25.20	1.25		0.08	0.682	0.853
	FR1 n25	40M	BPSK	108	54	Edge 2	0mm	Ant 1	DSi0	376500	1882.5	Without Scanner	24.17	25.20	1.268		-0.08	0.627	0.795
	FR1 n25	40M	BPSK	216	0	Edge 2	0mm	Ant 1	DSi0	376500	1882.5	Without Scanner	23.74	24.70	1.247		0.07	0.593	0.739
	FR1 n25	40M	BPSK	1	1	Edge 3	0mm	Ant 1	DSi0	376500	1882.5	Without Scanner	24.23	25.20	1.25		-0.05	0.047	0.059
	FR1 n25	40M	BPSK	108	54	Edge 3	0mm	Ant 1	DSi0	376500	1882.5	Without Scanner	24.17	25.20	1.268		0.18	0.052	0.066
	FR1 n25	40M	BPSK	1	1	Edge 4	0mm	Ant 1	DSi0	376500	1882.5	Without Scanner	24.23	25.20	1.25		-0.09	0.091	0.114
	FR1 n25	40M	BPSK	108	54	Edge 4	0mm	Ant 1	DSi0	376500	1882.5	Without Scanner	24.17	25.20	1.268		-0.06	0.088	0.112
	FR1 n25	40M	BPSK	1	1	Bottom Face	20mm	Ant 1	DSi0	376500	1882.5	Without Scanner	24.23	25.20	1.25		0.08	0.255	0.319
	FR1 n25	40M	BPSK	108	54	Bottom Face	20mm	Ant 1	DSi0	376500	1882.5	Without Scanner	24.17	25.20	1.268		0.05	0.238	0.302
	FR1 n25	40M	BPSK	1	1	Edge 1	23mm	Ant 1	DSi0	376500	1882.5	Without Scanner	24.23	25.20	1.25		0.15	0.139	0.174
	FR1 n25	40M	BPSK	108	54	Edge 1	23mm	Ant 1	DSi0	376500	1882.5	Without Scanner	24.17	25.20	1.268		0.01	0.134	0.170
	FR1 n25	40M	BPSK	108	54	Bottom Face	0mm	Ant 1	DSi7	376500	1882.5	With Scanner	16.71	17.90	1.315		0.09	0.805	1.059
	FR1 n25	40M	BPSK	1	1	Bottom Face	0mm	Ant 5	DSi7	376500	1882.5	Without Scanner	16.95	17.30	1.084		0.01	0.733	0.795
	FR1 n25	40M	BPSK	108	54	Bottom Face	0mm	Ant 5	DSi7	376500	1882.5	Without Scanner	17.04	17.30	1.062		0.04	0.863	0.917
	FR1 n25	40M	BPSK	216	0	Bottom Face	0mm	Ant 5	DSi7	376500	1882.5	Without Scanner	17.03	17.30	1.064		0.08	0.846	0.900
	FR1 n25	40M	BPSK	1	1	Edge 1	0mm	Ant 5	DSi7	376500	1882.5	Without Scanner	16.95	17.30	1.084		0.06	0.395	0.428
	FR1 n25	40M	BPSK	108	54	Edge 1	0mm	Ant 5	DSi7	376500	1882.5	Without Scanner	17.04	17.30	1.062		0.11	0.575	0.611
	FR1 n25	40M	BPSK	1	1	Edge 2	0mm	Ant 5	DSi0	376500	1882.5	Without Scanner	24.63	25.20	1.14		-0.11	0.216	0.246
	FR1 n25	40M	BPSK	108	54	Edge 2	0mm	Ant 5	DSi0	376500	1882.5	Without Scanner	24.57	25.20	1.156		-0.08	0.074	0.086
	FR1 n25	40M	BPSK	1	1	Edge 3	0mm	Ant 5	DSi0	376500	1882.5	Without Scanner	24.63	25.20	1.14		-0.05	0.070	0.080
	FR1 n25	40M	BPSK	108	54	Edge 3	0mm	Ant 5	DSi0	376500	1882.5	Without Scanner	24.57	25.20	1.156		0.10	0.067	0.077
	FR1 n25	40M	BPSK	1	1	Edge 4	0mm	Ant 5	DSi7	376500	1882.5	Without Scanner	16.95	17.30	1.084		-0.06	0.234	0.254
	FR1 n25	40M	BPSK	108	54	Edge 4	0mm	Ant 5	DSi7	376500	1882.5	Without Scanner	17.04	17.30	1.062		-0.08	0.227	0.241
	FR1 n25	40M	BPSK	1	1	Bottom Face	20mm	Ant 5	DSi0	376500	1882.5	Without Scanner	24.63	25.20	1.14		-0.06	0.433	0.494
	FR1 n2																		



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	FR1 n25	40M	BPSK	1	1	Edge 1	18mm	Ant 5	DSi0	376500	1882.5	Without Scanner	24.63	25.20	1.14			-0.03	0.235	0.268
	FR1 n25	40M	BPSK	108	54	Edge 1	18mm	Ant 5	DSi0	376500	1882.5	Without Scanner	24.57	25.20	1.156			0.01	0.229	0.265
	FR1 n25	40M	BPSK	1	1	Edge 4	7mm	Ant 5	DSi0	376500	1882.5	Without Scanner	24.63	25.20	1.14			0.01	0.656	0.748
	FR1 n25	40M	BPSK	108	54	Edge 4	7mm	Ant 5	DSi0	376500	1882.5	Without Scanner	24.57	25.20	1.156			0.09	0.648	0.749
	FR1 n25	40M	BPSK	108	54	Bottom Face	0mm	Ant 5	DSi7	376500	1882.5	With Scanner	17.04	17.30	1.062			0.03	0.821	0.872
24	FR1 n26	20M	BPSK	1	1	Bottom Face	0mm	Ant 8	DSi7	166300	831.5	Without Scanner	20.93	21.90	1.25			-0.09	0.861	1.076
	FR1 n26	20M	BPSK	50	28	Bottom Face	0mm	Ant 8	DSi7	166300	831.5	Without Scanner	20.90	21.90	1.259			-0.16	0.835	1.051
	FR1 n26	20M	BPSK	100	0	Bottom Face	0mm	Ant 8	DSi7	166300	831.5	Without Scanner	20.92	21.90	1.253			-0.17	0.821	1.029
	FR1 n26	20M	BPSK	1	1	Edge 1	0mm	Ant 8	DSi7	166300	831.5	Without Scanner	20.93	21.90	1.25			-0.05	0.729	0.911
	FR1 n26	20M	BPSK	50	28	Edge 1	0mm	Ant 8	DSi7	166300	831.5	Without Scanner	20.90	21.90	1.259			-0.13	0.709	0.893
	FR1 n26	20M	BPSK	100	0	Edge 1	0mm	Ant 8	DSi7	166300	831.5	Without Scanner	20.92	21.90	1.253			-0.03	0.657	0.823
	FR1 n26	20M	BPSK	1	1	Edge 2	0mm	Ant 8	DSi7	166300	831.5	Without Scanner	20.93	21.90	1.25			-0.14	0.281	0.351
	FR1 n26	20M	BPSK	50	28	Edge 2	0mm	Ant 8	DSi7	166300	831.5	Without Scanner	20.90	21.90	1.259			0.03	0.253	0.319
	FR1 n26	20M	BPSK	1	1	Edge 3	0mm	Ant 8	DSi0	166300	831.5	Without Scanner	24.33	25.20	1.222			0.07	0.069	0.084
	FR1 n26	20M	BPSK	50	28	Edge 3	0mm	Ant 8	DSi0	166300	831.5	Without Scanner	24.30	25.20	1.23			-0.08	0.065	0.080
	FR1 n26	20M	BPSK	1	1	Edge 4	0mm	Ant 8	DSi0	166300	831.5	Without Scanner	24.33	25.20	1.222			-0.02	0.082	0.100
	FR1 n26	20M	BPSK	50	28	Edge 4	0mm	Ant 8	DSi0	166300	831.5	Without Scanner	24.30	25.20	1.23			-0.10	0.086	0.106
	FR1 n26	20M	BPSK	1	1	Bottom Face	44mm	Ant 8	DSi0	166300	831.5	Without Scanner	24.33	25.20	1.222			0.03	0.084	0.103
	FR1 n26	20M	BPSK	50	28	Bottom Face	44mm	Ant 8	DSi0	166300	831.5	Without Scanner	24.30	25.20	1.23			0.06	0.078	0.096
	FR1 n26	20M	BPSK	1	1	Edge 1	49mm	Ant 8	DSi0	166300	831.5	Without Scanner	24.33	25.20	1.222			-0.17	0.001	0.001
	FR1 n26	20M	BPSK	50	28	Edge 1	49mm	Ant 8	DSi0	166300	831.5	Without Scanner	24.30	25.20	1.23			-0.07	0.001	0.001
	FR1 n26	20M	BPSK	1	1	Edge 2	17mm	Ant 8	DSi0	166300	831.5	Without Scanner	24.33	25.20	1.222			-0.09	0.153	0.187
	FR1 n26	20M	BPSK	50	28	Edge 2	17mm	Ant 8	DSi0	166300	831.5	Without Scanner	24.30	25.20	1.23			-0.02	0.146	0.180
	FR1 n26	20M	BPSK	1	1	Bottom Face	0mm	Ant 8	DSi7	166300	831.5	With Scanner	20.93	21.90	1.25			-0.07	0.834	1.042
	FR1 n30	10M	BPSK	1	1	Bottom Face	0mm	Ant 8	DSi7	462000	2310	Without Scanner	17.55	18.40	1.216			0.00	0.683	0.831
	FR1 n30	10M	BPSK	25	14	Bottom Face	0mm	Ant 8	DSi7	462000	2310	Without Scanner	17.47	18.40	1.239			-0.11	0.624	0.773
	FR1 n30	10M	BPSK	50	0	Bottom Face	0mm	Ant 8	DSi7	462000	2310	Without Scanner	17.43	18.40	1.25			-0.05	0.591	0.739
	FR1 n30	10M	BPSK	1	1	Edge 1	0mm	Ant 8	DSi7	462000	2310	Without Scanner	17.55	18.40	1.216			0.03	0.703	0.855
	FR1 n30	10M	BPSK	25	14	Edge 1	0mm	Ant 8	DSi7	462000	2310	Without Scanner	17.47	18.40	1.239			-0.14	0.687	0.851
	FR1 n30	10M	BPSK	50	0	Edge 1	0mm	Ant 8	DSi7	462000	2310	Without Scanner	17.43	18.40	1.25			0.01	0.660	0.825
	FR1 n30	10M	BPSK	1	1	Edge 2	0mm	Ant 8	DSi7	462000	2310	Without Scanner	17.55	18.40	1.216			-0.10	0.566	0.688
	FR1 n30	10M	BPSK	25	14	Edge 2	0mm	Ant 8	DSi7	462000	2310	Without Scanner	17.47	18.40	1.239			-0.12	0.581	0.720
	FR1 n30	10M	BPSK	1	1	Edge 3	0mm	Ant 8	DSi0	462000	2310	Without Scanner	24.48	25.20	1.18			-0.06	0.082	0.097
	FR1 n30	10M	BPSK	25	14	Edge 3	0mm	Ant 8	DSi0	462000	2310	Without Scanner	24.42	25.20	1.197			-0.16	0.015	0.018
	FR1 n30	10M	BPSK	1	1	Edge 4	0mm	Ant 8	DSi0	462000	2310	Without Scanner	24.48	25.20	1.18			0.02	0.001	0.001
	FR1 n30	10M	BPSK	25	14	Edge 4	0mm	Ant 8	DSi0	462000	2310	Without Scanner	24.42	25.20	1.197			0.17	0.001	0.001
	FR1 n30	10M	BPSK	1	1	Bottom Face	44mm	Ant 8	DSi0	462000	2310	Without Scanner	24.48	25.20	1.18			-0.08	0.162	0.191
	FR1 n30	10M	BPSK	25	14	Bottom Face	44mm	Ant 8	DSi0	462000	2310	Without Scanner	24.42	25.20	1.197			0.03	0.157	0.188
	FR1 n30	10M	BPSK	1	1	Edge 1	49mm	Ant 8	DSi0	462000	2310	Without Scanner	24.48	25.20	1.18			-0.19	0.170	0.201
	FR1 n30	10M	BPSK	25	14	Edge 1	49mm	Ant 8	DSi0	462000	2310	Without Scanner	24.42	25.20	1.197			0.01	0.163	0.195
	FR1 n30	10M	BPSK	1	1	Edge 2	17mm	Ant 8	DSi0	462000	2310	Without Scanner	24.48	25.20	1.18			0.16	0.546	0.644
	FR1 n30	10M	BPSK	25	14	Edge 2	17mm	Ant 8	DSi0	462000	2310	Without Scanner	24.42	25.20	1.197			0.09	0.533	0.638
	FR1 n30	10M	BPSK	1	1	Edge 1	0mm	Ant 8	DSi7	462000	2310	With Scanner	17.55	18.40	1.216			-0.01	0.653	0.794
	FR1 n30	10M	BPSK	1	1	Bottom Face	0mm	Ant 5	DSi7	462000	2310	Without Scanner	16.61	18.30	1.476			-0.06	0.668	0.986
25	FR1 n30	10M	BPSK	25	14	Bottom Face	0mm	Ant 5	DSi7	462000	2310	Without Scanner	16.60	18.30	1.479			0.04	0.739	1.093
	FR1 n30	10M	BPSK	50	0	Bottom Face	0mm	Ant 5	DSi7	462000	2310	Without Scanner	16.46	18.30	1.528			-0.10	0.569	0.869
	FR1 n30	10M	BPSK	1	1	Edge 1	0mm	Ant 5	DSi7	462000	2310	Without Scanner	16.61	18.30	1.476			0.10	0.222	0.328
	FR1 n30	10M	BPSK	25	14	Edge 1	0mm	Ant 5	DSi7	462000	2310	Without Scanner	16.60	18.30	1.479			0.16	0.244	0.361
	FR1 n30	10M	BPSK	1	1	Edge 2	0mm	Ant 5	DSi0	462000	2310	Without Scanner	24.04	25.20	1.306			-0.14	0.001	0.001
	FR1 n30	10M	BPSK	25	14	Edge 2	0mm	Ant 5	DSi0	462000	2310	Without Scanner	23.97	25.20	1.327			0.04	0.001	0.001
	FR1 n30	10M	BPSK	1	1	Edge 3	0mm	Ant 5	DSi0	462000	2310	Without Scanner	24.04	25.20	1.306			0.19	0.087	0.114
	FR1 n30	10M	BPSK	25	14	Edge 3	0mm	Ant 5	DSi0	462000	2310	Without Scanner	23.97	25.20	1.327			-0.18	0.066	0.088
	FR1 n30	10M	BPSK	1	1	Edge 4	0mm	Ant 5	DSi7	462000	2310	Without Scanner	16.61	18.30	1.476			0.05	0.184	0.272
	FR1 n30	10M	BPSK	25	14	Edge 4	0mm	Ant 5	DSi7	462000	2310	Without Scanner	16.60	18.30	1.479			-0.03	0.201	0.297
	FR1 n30	10M	BPSK	1	1	Bottom Face	20mm	Ant 5	DSi0	462000	2310	Without Scanner	24.04	25.20	1.306			-0.09	0.380	0.496
	FR1 n30	10M	BPSK	25	14	Bottom Face	20mm	Ant 5	DSi0	462000	2310	Without Scanner	23.97	25.20	1.327			0.03	0.372	0.494
	FR1 n30	10M	BPSK	1	1	Edge 1	18mm	Ant 5	DSi0	462000	2310	Without Scanner	24.04	25.20	1.306			-0.07	0.105	0.137
	FR1 n30	10M	BPSK	25	14	Edge 1	18mm	Ant 5	DSi0	462000	2310	Without Scanner	23.97	25.20	1.327			0.08	0.100	0.133
	FR1 n30	10M	BPSK	1	1	Edge 4	7mm	Ant 5	DSi0	462000	2310	Without Scanner	24.04	25.20	1.306			-0.04	0.442	0.577
	FR1 n30	10M	BPSK	25	14	Edge 4	7mm	Ant 5	DSi0	462000	2310	Without Scanner	23.97	25.20	1.327			0.01	0.431	0.572
	FR1 n30	10M	BPSK	25	14	Bottom Face	0mm	Ant 5	DSi7	462000	2310	With Scanner	16.60	18.30	1.479			0.03	0.702	1.038
	FR1 n66	40M	BPSK	1	1	Bottom Face	0mm	Ant 1	DSi7	349000	1745	Without Scanner	17.52	18.60	1.282			-0.04	0.855	1.096
	FR1 n66	40M	BPSK	108	54	Bottom Face	0mm	Ant 1	DSi7	349000	1745	Without Scanner	17.47	18.60	1.297			-0.04	0.660	0.856
	FR1 n66	40M	BPSK	216	0	Bottom Face	0mm	Ant 1	DSi7	349000	1745	Without Scanner	17.30	18.60	1.349			0.16	0.633	0.854
	FR1 n66	40M	BPSK	1	1	Edge 1	0mm	Ant 1	DSi7	349000	1745	Without Scanner	17.52	18.60	1.282			0.08	0.475	0.609
	FR1 n66	40M	BPSK	108	54	Edge 1	0mm	Ant 1	DSi7	349000	1745	Without Scanner	17.47	18.60	1.297			0.12	0.436	0.565
	FR1 n66	40M	BPSK	1	1	Edge 2	0mm	Ant 1	DSi0	349000	1745	Without Scanner	23.89	25.20	1.352			0.16	0.608	0.822
	FR1 n66	40M	BPSK	108	54	Edge 2	0mm	Ant 1	DSi0	349000	1745	Without Scanner	23.81	25.20	1.377			0.04	0.780	1.074
	FR1 n66	40M	BPSK	216	0	Edge 2	0mm	Ant 1	DSi0	349000	1745	Without Scanner	23.32	24.70	1.374			-0.07	0.771	1.059
	FR1 n66	40M	BPSK	1	1	Edge 3	0mm	Ant 1	DSi0	349000	1745	Without Scanner	23.89	25.20	1.352			0.14	0.050	0.068
	FR1 n66	40M	BPSK	108	54	Edge 3	0mm	Ant 1	DSi0	349000	1745	Without Scanner	23.81	25.20	1.377			-0.10	0.001	0.001
	FR1 n66	40M	BPSK	1	1	Edge 4	0mm	Ant 1	DSi0	3										



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	FR1 n66	40M	BPSK	108	54	Bottom Face	20mm	Ant 1	DSi0	349000	1745	Without Scanner	23.81	25.20	1.377			0.03	0.161	0.222
	FR1 n66	40M	BPSK	1	1	Edge 1	23mm	Ant 1	DSi0	349000	1745	Without Scanner	23.89	25.20	1.352			-0.03	0.139	0.188
	FR1 n66	40M	BPSK	108	54	Edge 1	23mm	Ant 1	DSi0	349000	1745	Without Scanner	23.81	25.20	1.377			0.01	0.130	0.179
	FR1 n66	40M	BPSK	1	1	Bottom Face	0mm	Ant 1	DSi7	349000	1745	With Scanner	17.52	18.60	1.282			-0.03	0.824	1.056
	FR1 n66	40M	BPSK	1	1	Bottom Face	0mm	Ant 5	DSi7	349000	1745	Without Scanner	17.50	18.40	1.23			0.17	0.859	1.057
26	FR1 n66	40M	BPSK	108	54	Bottom Face	0mm	Ant 5	DSi7	349000	1745	Without Scanner	17.46	18.40	1.242			-0.02	0.887	1.102
	FR1 n66	40M	BPSK	216	0	Bottom Face	0mm	Ant 5	DSi7	349000	1745	Without Scanner	17.38	18.40	1.265			-0.05	0.869	1.099
	FR1 n66	40M	BPSK	1	1	Edge 1	0mm	Ant 5	DSi7	349000	1745	Without Scanner	17.50	18.40	1.23			0.05	0.422	0.519
	FR1 n66	40M	BPSK	108	54	Edge 1	0mm	Ant 5	DSi7	349000	1745	Without Scanner	17.46	18.40	1.242			-0.07	0.400	0.497
	FR1 n66	40M	BPSK	1	1	Edge 2	0mm	Ant 5	DSi0	349000	1745	Without Scanner	24.40	25.20	1.202			-0.10	0.361	0.434
	FR1 n66	40M	BPSK	108	54	Edge 2	0mm	Ant 5	DSi0	349000	1745	Without Scanner	24.34	25.20	1.219			0.06	0.334	0.407
	FR1 n66	40M	BPSK	1	1	Edge 3	0mm	Ant 5	DSi0	349000	1745	Without Scanner	24.40	25.20	1.202			-0.04	0.208	0.250
	FR1 n66	40M	BPSK	108	54	Edge 3	0mm	Ant 5	DSi0	349000	1745	Without Scanner	24.34	25.20	1.219			0.15	0.169	0.206
	FR1 n66	40M	BPSK	1	1	Edge 4	0mm	Ant 5	DSi7	349000	1745	Without Scanner	17.50	18.40	1.23			-0.05	0.350	0.430
	FR1 n66	40M	BPSK	108	54	Edge 4	0mm	Ant 5	DSi7	349000	1745	Without Scanner	17.46	18.40	1.242			0.11	0.414	0.514
	FR1 n66	40M	BPSK	1	1	Bottom Face	20mm	Ant 5	DSi0	349000	1745	Without Scanner	24.40	25.20	1.202			-0.05	0.412	0.495
	FR1 n66	40M	BPSK	108	54	Bottom Face	20mm	Ant 5	DSi0	349000	1745	Without Scanner	24.34	25.20	1.219			0.08	0.403	0.491
	FR1 n66	40M	BPSK	1	1	Edge 1	18mm	Ant 5	DSi0	349000	1745	Without Scanner	24.40	25.20	1.202			0.09	0.190	0.228
	FR1 n66	40M	BPSK	108	54	Edge 1	18mm	Ant 5	DSi0	349000	1745	Without Scanner	24.34	25.20	1.219			0.10	0.179	0.218
	FR1 n66	40M	BPSK	1	1	Edge 4	7mm	Ant 5	DSi0	349000	1745	Without Scanner	24.40	25.20	1.202			0.10	0.442	0.531
	FR1 n66	40M	BPSK	108	54	Edge 4	7mm	Ant 5	DSi0	349000	1745	Without Scanner	24.34	25.20	1.219			0.03	0.438	0.534
	FR1 n66	40M	BPSK	108	54	Bottom Face	0mm	Ant 5	DSi7	349000	1745	With Scanner	17.46	18.40	1.242			0.09	0.832	1.033
	FR1 n70	15M	BPSK	1	1	Bottom Face	0mm	Ant 1	DSi7	340500	1702.5	Without Scanner	17.49	18.20	1.178			0.10	0.590	0.695
27	FR1 n70	15M	BPSK	36	22	Bottom Face	0mm	Ant 1	DSi7	340500	1702.5	Without Scanner	17.46	18.20	1.186			0.09	0.863	1.024
	FR1 n70	15M	BPSK	75	0	Bottom Face	0mm	Ant 1	DSi7	340500	1702.5	Without Scanner	17.50	18.20	1.175			-0.03	0.796	0.935
	FR1 n70	15M	BPSK	1	1	Edge 1	0mm	Ant 1	DSi7	340500	1702.5	Without Scanner	17.49	18.20	1.178			-0.15	0.319	0.376
	FR1 n70	15M	BPSK	36	22	Edge 1	0mm	Ant 1	DSi7	340500	1702.5	Without Scanner	17.46	18.20	1.186			-0.11	0.500	0.593
	FR1 n70	15M	BPSK	1	1	Edge 2	0mm	Ant 1	DSi0	340500	1702.5	Without Scanner	23.90	25.20	1.349			-0.10	0.486	0.656
	FR1 n70	15M	BPSK	36	22	Edge 2	0mm	Ant 1	DSi0	340500	1702.5	Without Scanner	23.57	25.20	1.455			0.18	0.646	0.940
	FR1 n70	15M	BPSK	75	0	Edge 2	0mm	Ant 1	DSi0	340500	1702.5	Without Scanner	23.17	24.70	1.422			0.16	0.177	0.252
	FR1 n70	15M	BPSK	1	1	Edge 3	0mm	Ant 1	DSi0	340500	1702.5	Without Scanner	23.90	25.20	1.349			-0.16	0.001	0.001
	FR1 n70	15M	BPSK	36	22	Edge 3	0mm	Ant 1	DSi0	340500	1702.5	Without Scanner	23.57	25.20	1.455			-0.01	0.001	0.001
	FR1 n70	15M	BPSK	1	1	Edge 4	0mm	Ant 1	DSi0	340500	1702.5	Without Scanner	23.90	25.20	1.349			0.06	0.044	0.059
	FR1 n70	15M	BPSK	36	22	Edge 4	0mm	Ant 1	DSi0	340500	1702.5	Without Scanner	23.57	25.20	1.455			0.19	0.061	0.089
	FR1 n70	15M	BPSK	1	1	Bottom Face	20mm	Ant 1	DSi0	340500	1702.5	Without Scanner	23.90	25.20	1.349			-0.10	0.113	0.152
	FR1 n70	15M	BPSK	36	22	Bottom Face	20mm	Ant 1	DSi0	340500	1702.5	Without Scanner	23.57	25.20	1.455			0.03	0.110	0.160
	FR1 n70	15M	BPSK	1	1	Edge 1	23mm	Ant 1	DSi0	340500	1702.5	Without Scanner	23.90	25.20	1.349			-0.17	0.081	0.109
	FR1 n70	15M	BPSK	36	22	Edge 1	23mm	Ant 1	DSi0	340500	1702.5	Without Scanner	23.57	25.20	1.455			0.01	0.070	0.102
	FR1 n70	15M	BPSK	36	22	Bottom Face	0mm	Ant 1	DSi7	340500	1702.5	With Scanner	17.46	18.20	1.186			-0.03	0.812	0.963
28	FR1 n71	20M	BPSK	1	1	Bottom Face	0mm	Ant 8	DSi7	136100	680.5	Without Scanner	24.10	25.00	1.23			-0.09	0.901	1.108
	FR1 n71	20M	BPSK	50	28	Bottom Face	0mm	Ant 8	DSi7	136100	680.5	Without Scanner	23.94	25.00	1.276			0.12	0.791	1.009
	FR1 n71	20M	BPSK	100	0	Bottom Face	0mm	Ant 8	DSi7	136100	680.5	Without Scanner	23.50	25.00	1.413			-0.18	0.718	1.015
	FR1 n71	20M	BPSK	1	1	Edge 1	0mm	Ant 8	DSi7	136100	680.5	Without Scanner	24.10	25.00	1.23			-0.08	0.766	0.942
	FR1 n71	20M	BPSK	50	28	Edge 1	0mm	Ant 8	DSi7	136100	680.5	Without Scanner	23.94	25.00	1.276			-0.08	0.745	0.951
	FR1 n71	20M	BPSK	100	0	Edge 1	0mm	Ant 8	DSi7	136100	680.5	Without Scanner	23.50	25.00	1.413			-0.16	0.714	1.009
	FR1 n71	20M	BPSK	1	1	Edge 2	0mm	Ant 8	DSi7	136100	680.5	Without Scanner	24.10	25.00	1.23			0.02	0.380	0.467
	FR1 n71	20M	BPSK	50	28	Edge 2	0mm	Ant 8	DSi7	136100	680.5	Without Scanner	23.94	25.00	1.276			-0.09	0.328	0.419
	FR1 n71	20M	BPSK	1	1	Edge 3	0mm	Ant 8	DSi0	136100	680.5	Without Scanner	24.56	25.20	1.159			-0.15	0.075	0.087
	FR1 n71	20M	BPSK	50	28	Edge 3	0mm	Ant 8	DSi0	136100	680.5	Without Scanner	24.54	25.20	1.164			0.17	0.079	0.092
	FR1 n71	20M	BPSK	1	1	Edge 4	0mm	Ant 8	DSi0	136100	680.5	Without Scanner	24.56	25.20	1.159			-0.18	0.063	0.073
	FR1 n71	20M	BPSK	50	28	Edge 4	0mm	Ant 8	DSi0	136100	680.5	Without Scanner	24.54	25.20	1.164			0.12	0.063	0.073
	FR1 n71	20M	BPSK	1	1	Bottom Face	44mm	Ant 8	DSi0	136100	680.5	Without Scanner	24.56	25.20	1.159			0.08	0.055	0.064
	FR1 n71	20M	BPSK	50	28	Bottom Face	44mm	Ant 8	DSi0	136100	680.5	Without Scanner	24.54	25.20	1.164			0.03	0.051	0.059
	FR1 n71	20M	BPSK	1	1	Edge 1	49mm	Ant 8	DSi0	136100	680.5	Without Scanner	24.56	25.20	1.159			0.02	0.001	0.001
	FR1 n71	20M	BPSK	50	28	Edge 1	49mm	Ant 8	DSi0	136100	680.5	Without Scanner	24.54	25.20	1.164			0.09	0.001	0.001
	FR1 n71	20M	BPSK	1	1	Edge 2	17mm	Ant 8	DSi0	136100	680.5	Without Scanner	24.56	25.20	1.159			-0.17	0.119	0.138
	FR1 n71	20M	BPSK	50	28	Edge 2	17mm	Ant 8	DSi0	136100	680.5	Without Scanner	24.54	25.20	1.164			-0.05	0.106	0.123
	FR1 n71	20M	BPSK	1	1	Bottom Face	0mm	Ant 8	DSi7	136100	680.5	With Scanner	24.10	25.00	1.23			0.01	0.855	1.052
	FR1 n41	100M	BPSK	1	1	Bottom Face	0mm	Ant 8	DSi7	518598	2592.99	Without Scanner	10.17	11.20	1.268			0.04	0.537	0.681
	FR1 n41	100M	BPSK	135	69	Bottom Face	0mm	Ant 8	DSi7	518598	2592.99	Without Scanner	10.11	11.20	1.285			-0.13	0.526	0.676
	FR1 n41	100M	BPSK	1	1	Edge 1	0mm	Ant 8	DSi7	518598	2592.99	Without Scanner	10.17	11.20	1.268			0.09	0.782	0.992
	FR1 n41	100M	BPSK	135	69	Edge 1	0mm	Ant 8	DSi7	518598	2592.99	Without Scanner	10.11	11.20	1.285			-0.01	0.801	1.029
	FR1 n41	100M	BPSK	270	0	Edge 1	0mm	Ant 8	DSi7	518598	2592.99	Without Scanner	10.03	11.20	1.309			-0.02	0.781	1.022
	FR1 n41	100M	BPSK	1	1	Edge 2	0mm	Ant 8	DSi7	518598	2592.99	Without Scanner	10.17	11.20	1.268			-0.07	0.315	0.399
	FR1 n41	100M	BPSK	135	69	Edge 2	0mm	Ant 8	DSi7	518598	2592.99	Without Scanner	10.11	11.20	1.285			-0.04	0.359	0.461
	FR1 n41	100M	BPSK	1	1	Edge 3	0mm	Ant 8	DSi0	518598	2592.99	Without Scanner	24.72	25.20	1.117			0.16	0.042	0.047
	FR1 n41	100M	BPSK	135	69	Edge 3	0mm	Ant 8	DSi0	518598	2592.99	Without Scanner	24.66	25.20	1.132			0.02	0.001	0.001
	FR1 n41	100M	BPSK	1	1	Edge 4	0mm	Ant 8	DSi0	518598	2592.99	Without Scanner	24.72	25.20	1.117			0.08	0.024	0.027
	FR1 n41	100M	BPSK	135	69	Edge 4	0mm	Ant 8	DSi0	518598	2592.99	Without Scanner	24.66	25.20	1.132			0.14	0.010	0.011
	FR1 n41	100M	BPSK	1	1	Bottom Face	44mm	Ant 8	DSi0	518598	2592.99	Without Scanner	24.72	25.20	1.117			-0.11	0.222	0.248
	FR1 n41	100M	BPSK	135	69	Bottom Face	44mm	Ant 8	DSi0	518598	2592.99	Without Scanner	24.66	25.20	1.132			0.03		



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	FR1 n41	100M	BPSK	135	69	Edge 2	17mm	Ant 8	DSIO	518598	2592.99	Without Scanner	24.66	25.20	1.132			0.08	0.271	0.307
	FR1 n41 HPUE	100M	BPSK	1	1	Edge 1	0mm	Ant 8	DSI7	518598	2592.99	Without Scanner	13.08	14.20	1.294	50.0	1.0	0.19	0.787	1.018
	FR1 n41 HPUE	100M	BPSK	135	69	Edge 1	0mm	Ant 8	DSI7	518598	2592.99	Without Scanner	13.03	14.20	1.309	50.0	1.0	0.04	0.778	1.018
	FR1 n41 HPUE	100M	BPSK	1	1	Edge 1	49mm	Ant 8	DSIO	518598	2592.99	Without Scanner	26.79	27.00	1.05	50.0	1.0	-0.07	0.247	0.259
	FR1 n41 HPUE	100M	BPSK	135	69	Edge 1	49mm	Ant 8	DSIO	518598	2592.99	Without Scanner	26.74	27.00	1.062	50.0	1.0	0.03	0.213	0.226
	FR1 n41	100M	BPSK	135	69	Edge 1	0mm	Ant 8	DSI7	518598	2592.99	With Scanner	10.11	11.20	1.285			0.03	0.771	0.991
	FR1 n41	100M	BPSK	1	1	Bottom Face	0mm	Ant 3	DSIO	518598	2592.99	Without Scanner	8.10	9.50	1.38			0.01	0.773	1.067
	FR1 n41	100M	BPSK	135	69	Bottom Face	0mm	Ant 3	DSIO	518598	2592.99	Without Scanner	8.08	9.50	1.387			-0.04	0.676	0.938
	FR1 n41	100M	BPSK	270	0	Bottom Face	0mm	Ant 3	DSIO	518598	2592.99	Without Scanner	7.80	9.50	1.479			0.12	0.585	0.865
	FR1 n41	100M	BPSK	1	1	Edge 1	0mm	Ant 3	DSIO	518598	2592.99	Without Scanner	8.10	9.50	1.38			-0.08	0.009	0.012
	FR1 n41	100M	BPSK	135	69	Edge 1	0mm	Ant 3	DSIO	518598	2592.99	Without Scanner	8.08	9.50	1.387			0.03	0.003	0.004
	FR1 n41	100M	BPSK	1	1	Edge 2	0mm	Ant 3	DSIO	518598	2592.99	Without Scanner	8.10	9.50	1.38			-0.16	0.001	0.001
	FR1 n41	100M	BPSK	135	69	Edge 2	0mm	Ant 3	DSIO	518598	2592.99	Without Scanner	8.08	9.50	1.387			0.04	0.001	0.001
	FR1 n41	100M	BPSK	1	1	Edge 3	0mm	Ant 3	DSIO	518598	2592.99	Without Scanner	8.10	9.50	1.38			-0.12	0.009	0.012
	FR1 n41	100M	BPSK	135	69	Edge 3	0mm	Ant 3	DSIO	518598	2592.99	Without Scanner	8.08	9.50	1.387			-0.04	0.014	0.019
	FR1 n41	100M	BPSK	1	1	Edge 4	0mm	Ant 3	DSIO	518598	2592.99	Without Scanner	8.10	9.50	1.38			0.16	0.372	0.513
	FR1 n41	100M	BPSK	135	69	Edge 4	0mm	Ant 3	DSIO	518598	2592.99	Without Scanner	8.08	9.50	1.387			-0.16	0.300	0.416
	FR1 n41 HPUE	100M	BPSK	1	1	Bottom Face	0mm	Ant 3	DSIO	518598	2592.99	Without Scanner	11.02	12.50	1.406	50.0	1.0	0.08	0.755	1.062
	FR1 n41 HPUE	100M	BPSK	270	0	Bottom Face	0mm	Ant 3	DSIO	518598	2592.99	Without Scanner	10.82	12.50	1.472	50.0	1.0	-0.10	0.585	0.861
	FR1 n41	100M	BPSK	1	1	Bottom Face	0mm	Ant 3	DSIO	518598	2592.99	With Scanner	8.10	9.50	1.38			0.06	0.753	1.039
	FR1 n41	100M	BPSK	1	1	Bottom Face	0mm	Ant 4	DSIO	518598	2592.99	Without Scanner	7.42	8.50	1.282			0.03	0.424	0.544
	FR1 n41	100M	BPSK	135	69	Bottom Face	0mm	Ant 4	DSIO	518598	2592.99	Without Scanner	7.37	8.50	1.297			-0.01	0.290	0.376
	FR1 n41	100M	BPSK	1	1	Edge 1	0mm	Ant 4	DSIO	518598	2592.99	Without Scanner	7.42	8.50	1.282			-0.07	0.001	0.001
	FR1 n41	100M	BPSK	135	69	Edge 1	0mm	Ant 4	DSIO	518598	2592.99	Without Scanner	7.37	8.50	1.297			-0.18	0.001	0.001
	FR1 n41	100M	BPSK	1	1	Edge 2	0mm	Ant 4	DSIO	518598	2592.99	Without Scanner	7.42	8.50	1.282			0.18	0.001	0.001
	FR1 n41	100M	BPSK	135	69	Edge 2	0mm	Ant 4	DSIO	518598	2592.99	Without Scanner	7.37	8.50	1.297			0.05	0.001	0.001
29	FR1 n41	100M	BPSK	1	1	Edge 3	0mm	Ant 4	DSIO	518598	2592.99	Without Scanner	7.42	8.50	1.282			0.05	0.835	1.070
	FR1 n41	100M	BPSK	135	69	Edge 3	0mm	Ant 4	DSIO	518598	2592.99	Without Scanner	7.37	8.50	1.297			-0.03	0.607	0.787
	FR1 n41	100M	BPSK	270	0	Edge 3	0mm	Ant 4	DSIO	518598	2592.99	Without Scanner	7.28	8.50	1.324			-0.13	0.531	0.703
	FR1 n41	100M	BPSK	1	1	Edge 4	0mm	Ant 4	DSIO	518598	2592.99	Without Scanner	7.42	8.50	1.282			-0.12	0.009	0.012
	FR1 n41	100M	BPSK	135	69	Edge 4	0mm	Ant 4	DSIO	518598	2592.99	Without Scanner	7.37	8.50	1.297			-0.13	0.005	0.006
	FR1 n41 HPUE	100M	BPSK	1	1	Edge 3	0mm	Ant 4	DSIO	518598	2592.99	Without Scanner	10.31	11.50	1.315	50.0	1.0	-0.07	0.812	1.068
	FR1 n41	100M	BPSK	1	1	Edge 3	0mm	Ant 4	DSIO	518598	2592.99	With Scanner	7.42	8.50	1.282			-0.01	0.784	1.005
	FR1 n41	100M	BPSK	1	1	Bottom Face	0mm	Ant 5	DSI7	518598	2592.99	Without Scanner	17.10	18.10	1.259			0.07	0.844	1.063
	FR1 n41	100M	BPSK	135	69	Bottom Face	0mm	Ant 5	DSI7	518598	2592.99	Without Scanner	16.98	18.10	1.294			-0.04	0.404	0.523
	FR1 n41	100M	BPSK	270	0	Bottom Face	0mm	Ant 5	DSI7	518598	2592.99	Without Scanner	16.84	18.10	1.337			-0.01	0.462	0.618
	FR1 n41	100M	BPSK	1	1	Edge 1	0mm	Ant 5	DSI7	518598	2592.99	Without Scanner	17.10	18.10	1.259			0.05	0.368	0.463
	FR1 n41	100M	BPSK	135	69	Edge 1	0mm	Ant 5	DSI7	518598	2592.99	Without Scanner	16.98	18.10	1.294			0.14	0.200	0.259
	FR1 n41	100M	BPSK	1	1	Edge 2	0mm	Ant 5	DSIO	518598	2592.99	Without Scanner	24.65	25.20	1.135			-0.16	0.001	0.001
	FR1 n41	100M	BPSK	135	69	Edge 2	0mm	Ant 5	DSIO	518598	2592.99	Without Scanner	24.59	25.20	1.151			0.06	0.001	0.001
	FR1 n41	100M	BPSK	1	1	Edge 3	0mm	Ant 5	DSIO	518598	2592.99	Without Scanner	24.65	25.20	1.135			-0.09	0.001	0.001
	FR1 n41	100M	BPSK	135	69	Edge 3	0mm	Ant 5	DSIO	518598	2592.99	Without Scanner	24.59	25.20	1.151			-0.06	0.030	0.035
	FR1 n41	100M	BPSK	1	1	Edge 4	0mm	Ant 5	DSI7	518598	2592.99	Without Scanner	17.10	18.10	1.259			0.14	0.237	0.298
	FR1 n41	100M	BPSK	135	69	Edge 4	0mm	Ant 5	DSI7	518598	2592.99	Without Scanner	16.98	18.10	1.294			-0.13	0.135	0.175
	FR1 n41	100M	BPSK	1	1	Bottom Face	20mm	Ant 5	DSIO	518598	2592.99	Without Scanner	24.65	25.20	1.135			0.14	0.472	0.536
	FR1 n41	100M	BPSK	135	69	Bottom Face	20mm	Ant 5	DSIO	518598	2592.99	Without Scanner	24.59	25.20	1.151			0.10	0.462	0.532
	FR1 n41	100M	BPSK	1	1	Edge 1	18mm	Ant 5	DSIO	518598	2592.99	Without Scanner	24.65	25.20	1.135			-0.01	0.366	0.415
	FR1 n41	100M	BPSK	135	69	Edge 1	18mm	Ant 5	DSIO	518598	2592.99	Without Scanner	24.59	25.20	1.151			0.01	0.353	0.406
	FR1 n41	100M	BPSK	1	1	Edge 4	7mm	Ant 5	DSIO	518598	2592.99	Without Scanner	24.65	25.20	1.135			-0.04	0.432	0.490
	FR1 n41	100M	BPSK	135	69	Edge 4	7mm	Ant 5	DSIO	518598	2592.99	Without Scanner	24.59	25.20	1.151			0.03	0.427	0.491
	FR1 n41 HPUE	100M	BPSK	1	1	Bottom Face	0mm	Ant 5	DSI7	518598	2592.99	Without Scanner	19.99	21.10	1.291	50.0	1.0	-0.14	0.819	1.057
	FR1 n41 HPUE	100M	BPSK	1	1	Bottom Face	20mm	Ant 5	DSIO	518598	2592.99	Without Scanner	26.89	27.00	1.026	50.0	1.0	-0.14	0.426	0.437
	FR1 n41 HPUE	100M	BPSK	135	69	Bottom Face	20mm	Ant 5	DSIO	518598	2592.99	Without Scanner	26.80	27.00	1.047	50.0	1.0	0.08	0.419	0.439
	FR1 n41	100M	BPSK	1	1	Bottom Face	0mm	Ant 5	DSI7	518598	2592.99	With Scanner	17.10	18.10	1.259			0.01	0.803	1.011
	FR1 n48	40M	BPSK	1	1	Bottom Face	0mm	Ant 8	DSI7	641666	3624.99	Without Scanner	13.68	14.40	1.18			-0.08	0.481	0.568
	FR1 n48	40M	BPSK	50	28	Bottom Face	0mm	Ant 8	DSI7	641666	3624.99	Without Scanner	13.64	14.40	1.191			0.09	0.474	0.565
	FR1 n48	40M	BPSK	1	1	Edge 1	0mm	Ant 8	DSI7	641666	3624.99	Without Scanner	13.68	14.40	1.18			-0.17	0.744	0.878
	FR1 n48	40M	BPSK	1	104	Edge 1	0mm	Ant 8	DSI7	638000	3570	Without Scanner	13.58	14.40	1.208			0.17	0.778	0.940
	FR1 n48	40M	BPSK	1	53	Edge 1	0mm	Ant 8	DSI7	645332	3679.98	Without Scanner	13.38	14.40	1.265			0.02	0.872	1.103
	FR1 n48	40M	BPSK	50	28	Edge 1	0mm	Ant 8	DSI7	641666	3624.99	Without Scanner	13.64	14.40	1.191			0.15	0.749	0.892
	FR1 n48	40M	BPSK	50	28	Edge 1	0mm	Ant 8	DSI7	638000	3570	Without Scanner	13.60	14.40	1.202			0.14	0.774	0.930
	FR1 n48	40M	BPSK	50	28	Edge 1	0mm	Ant 8	DSI7	645332	3679.98	Without Scanner	13.45	14.40	1.245			-0.06	0.802	0.998
	FR1 n48	40M	BPSK	100	0	Edge 1	0mm	Ant 8	DSI7	641666	3624.99	Without Scanner	13.59	14.40	1.205			-0.07	0.741	0.893
	FR1 n48	40M	BPSK	1	1	Edge 2	0mm	Ant 8	DSI7	641666	3624.99	Without Scanner	13.68	14.40	1.18			-0.00	0.441	0.520
	FR1 n48	40M	BPSK	50	28	Edge 2	0mm	Ant 8	DSI7	641666	3624.99	Without Scanner	13.64	14.40	1.191			-0.07	0.434	0.517
	FR1 n48	40M	BPSK	1	1	Edge 3	0mm	Ant 8	DSIO	641666	3624.99	Without Scanner	16.88	18.00	1.294			0.03	0.020	0.026
	FR1 n48	40M	BPSK	50	28	Edge 3	0mm	Ant 8	DSIO	641666	3624.99	Without Scanner	16.71	18.00	1.346			-0.01	0.020	0.027
	FR1 n48	40M	BPSK	1	1	Edge 4	0mm	Ant 8	DSIO	641666	3624.99	Without Scanner	16.88	18.00	1.294			0.05	0.014	0.018



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	FR1 n48	40M	BPSK	50	28	Edge 4	0mm	Ant 8	DSIO	641666	3624.99	Without Scanner	16.71	18.00	1.346			-0.04	0.015	0.020
	FR1 n48	40M	BPSK	1	1	Bottom Face	44mm	Ant 8	DSIO	641666	3624.99	Without Scanner	16.88	18.00	1.294			0.01	0.050	0.065
	FR1 n48	40M	BPSK	50	28	Bottom Face	44mm	Ant 8	DSIO	641666	3624.99	Without Scanner	16.71	18.00	1.346			0.08	0.048	0.065
	FR1 n48	40M	BPSK	1	1	Edge 1	49mm	Ant 8	DSIO	641666	3624.99	Without Scanner	16.88	18.00	1.294			-0.02	0.027	0.035
	FR1 n48	40M	BPSK	50	28	Edge 1	49mm	Ant 8	DSIO	641666	3624.99	Without Scanner	16.71	18.00	1.346			0.01	0.024	0.032
	FR1 n48	40M	BPSK	1	1	Edge 2	17mm	Ant 8	DSIO	641666	3624.99	Without Scanner	16.88	18.00	1.294			-0.06	0.122	0.158
	FR1 n48	40M	BPSK	50	28	Edge 2	17mm	Ant 8	DSIO	641666	3624.99	Without Scanner	16.71	18.00	1.346			-0.04	0.100	0.135
	FR1 n48	40M	BPSK	1	53	Edge 1	0mm	Ant 8	DSI7	645332	3679.98	With Scanner	13.38	14.40	1.265			-0.03	0.812	1.027
30	FR1 n48	40M	BPSK	1	1	Bottom Face	0mm	Ant 9	DSI7	641666	3624.99	Without Scanner	14.59	15.50	1.233			0.08	0.918	1.132
	FR1 n48	40M	BPSK	1	1	Bottom Face	0mm	Ant 9	DSI7	638000	3570	Without Scanner	14.54	15.50	1.247			0.05	0.850	1.060
	FR1 n48	40M	BPSK	1	1	Bottom Face	0mm	Ant 9	DSI7	645332	3679.98	Without Scanner	14.49	15.50	1.262			-0.11	0.863	1.089
	FR1 n48	40M	BPSK	50	28	Bottom Face	0mm	Ant 9	DSI7	641666	3624.99	Without Scanner	14.56	15.50	1.242			-0.13	0.903	1.122
	FR1 n48	40M	BPSK	50	28	Bottom Face	0mm	Ant 9	DSI7	638000	3570	Without Scanner	14.52	15.50	1.253			0.07	0.853	1.069
	FR1 n48	40M	BPSK	50	28	Bottom Face	0mm	Ant 9	DSI7	645332	3679.98	Without Scanner	14.50	15.50	1.259			-0.15	0.821	1.034
	FR1 n48	40M	BPSK	100	0	Bottom Face	0mm	Ant 9	DSI7	641666	3624.99	Without Scanner	14.54	15.50	1.247			0.19	0.828	1.033
	FR1 n48	40M	BPSK	1	1	Edge 1	0mm	Ant 9	DSI7	641666	3624.99	Without Scanner	14.59	15.50	1.233			-0.11	0.451	0.556
	FR1 n48	40M	BPSK	50	28	Edge 1	0mm	Ant 9	DSI7	641666	3624.99	Without Scanner	14.56	15.50	1.242			0.05	0.463	0.575
	FR1 n48	40M	BPSK	1	1	Edge 2	0mm	Ant 9	DSIO	641666	3624.99	Without Scanner	16.80	18.00	1.318			0.03	0.067	0.088
	FR1 n48	40M	BPSK	50	28	Edge 2	0mm	Ant 9	DSIO	641666	3624.99	Without Scanner	16.69	18.00	1.352			-0.05	0.069	0.093
	FR1 n48	40M	BPSK	1	1	Edge 3	0mm	Ant 9	DSIO	641666	3624.99	Without Scanner	16.80	18.00	1.318			-0.01	0.007	0.009
	FR1 n48	40M	BPSK	50	28	Edge 3	0mm	Ant 9	DSIO	641666	3624.99	Without Scanner	16.69	18.00	1.352			0.08	0.006	0.008
	FR1 n48	40M	BPSK	1	1	Edge 4	0mm	Ant 9	DSIO	641666	3624.99	Without Scanner	16.80	18.00	1.318			0.09	0.123	0.162
	FR1 n48	40M	BPSK	50	28	Edge 4	0mm	Ant 9	DSIO	641666	3624.99	Without Scanner	16.69	18.00	1.352			-0.01	0.106	0.143
	FR1 n48	40M	BPSK	1	1	Bottom Face	15mm	Ant 9	DSIO	641666	3624.99	Without Scanner	16.80	18.00	1.318			0.05	0.123	0.162
	FR1 n48	40M	BPSK	50	28	Bottom Face	15mm	Ant 9	DSIO	641666	3624.99	Without Scanner	16.69	18.00	1.352			-0.01	0.121	0.164
	FR1 n48	40M	BPSK	1	1	Edge 1	11mm	Ant 9	DSIO	641666	3624.99	Without Scanner	16.80	18.00	1.318			0.05	0.167	0.220
	FR1 n48	40M	BPSK	50	28	Edge 1	11mm	Ant 9	DSIO	641666	3624.99	Without Scanner	16.69	18.00	1.352			-0.02	0.160	0.216
	FR1 n48	40M	BPSK	1	1	Bottom Face	0mm	Ant 9	DSI7	641666	3624.99	With Scanner	14.59	15.50	1.233			0.03	0.862	1.063
	FR1 n77	100M	BPSK	1	1	Bottom Face	0mm	Ant 8	DSI7	633332	3499.98	Without Scanner	13.33	13.60	1.064			0.03	0.322	0.343
	FR1 n77	100M	BPSK	135	69	Bottom Face	0mm	Ant 8	DSI7	633332	3499.98	Without Scanner	13.21	13.60	1.094			0.03	0.308	0.337
	FR1 n77	100M	BPSK	1	1	Edge 1	0mm	Ant 8	DSI7	633332	3499.98	Without Scanner	13.33	13.60	1.064			-0.01	0.582	0.619
	FR1 n77	100M	BPSK	135	69	Edge 1	0mm	Ant 8	DSI7	633332	3499.98	Without Scanner	13.21	13.60	1.094			-0.10	0.721	0.789
	FR1 n77	100M	BPSK	1	1	Edge 2	0mm	Ant 8	DSI7	633332	3499.98	Without Scanner	13.33	13.60	1.064			0.11	0.388	0.413
	FR1 n77	100M	BPSK	135	69	Edge 2	0mm	Ant 8	DSI7	633332	3499.98	Without Scanner	13.21	13.60	1.094			-0.08	0.378	0.414
	FR1 n77	100M	BPSK	135	69	Edge 1	0mm	Ant 8	DSI7	633332	3499.98	With Scanner	13.21	13.60	1.094			0.02	0.703	0.769
	FR1 n77	100M	BPSK	1	1	Edge 3	0mm	Ant 8	DSIO	633332	3499.98	Without Scanner	24.29	25.70	1.384			-0.16	0.198	0.274
	FR1 n77	100M	BPSK	135	69	Edge 3	0mm	Ant 8	DSIO	633332	3499.98	Without Scanner	24.10	25.70	1.445			-0.10	0.140	0.202
	FR1 n77	100M	BPSK	1	1	Edge 4	0mm	Ant 8	DSIO	633332	3499.98	Without Scanner	24.29	25.70	1.384			-0.16	0.068	0.094
	FR1 n77	100M	BPSK	135	69	Edge 4	0mm	Ant 8	DSIO	633332	3499.98	Without Scanner	24.10	25.70	1.445			-0.09	0.057	0.082
	FR1 n77	100M	BPSK	1	1	Bottom Face	44mm	Ant 8	DSIO	633332	3499.98	Without Scanner	24.29	25.70	1.384			0.15	0.186	0.257
	FR1 n77	100M	BPSK	135	69	Bottom Face	44mm	Ant 8	DSIO	633332	3499.98	Without Scanner	24.10	25.70	1.445			0.01	0.180	0.260
	FR1 n77	100M	BPSK	1	1	Edge 1	49mm	Ant 8	DSIO	633332	3499.98	Without Scanner	24.29	25.70	1.384			0.02	0.121	0.167
	FR1 n77	100M	BPSK	135	69	Edge 1	49mm	Ant 8	DSIO	633332	3499.98	Without Scanner	24.10	25.70	1.445			0.06	0.117	0.169
	FR1 n77	100M	BPSK	1	1	Edge 2	17mm	Ant 8	DSIO	633332	3499.98	Without Scanner	24.29	25.70	1.384			-0.03	0.558	0.772
	FR1 n77	100M	BPSK	135	69	Edge 2	17mm	Ant 8	DSIO	633332	3499.98	Without Scanner	24.10	25.70	1.445			0.05	0.523	0.756
	FR1 n77 HPUE	100M	BPSK	135	69	Edge 1	0mm	Ant 8	DSI7	633332	3499.98	Without Scanner	16.03	16.60	1.14	50.0	1.0	0.01	0.639	0.728
	FR1 n77 HPUE	100M	BPSK	1	1	Edge 2	17mm	Ant 8	DSIO	633332	3499.98	Without Scanner	24.29	25.70	1.384	50.0	1.0	-0.07	0.283	0.392
	FR1 n77	100M	BPSK	1	1	Bottom Face	0mm	Ant 3	DSIO	633332	3499.98	Without Scanner	8.59	9.20	1.151			0.02	0.732	0.843
	FR1 n77	100M	BPSK	135	69	Bottom Face	0mm	Ant 3	DSIO	633332	3499.98	Without Scanner	8.51	9.20	1.172			0.01	0.833	0.976
	FR1 n77	100M	BPSK	270	0	Bottom Face	0mm	Ant 3	DSIO	633332	3499.98	Without Scanner	8.31	9.20	1.227			0.14	0.755	0.926
	FR1 n77	100M	BPSK	1	1	Edge 1	0mm	Ant 3	DSIO	633332	3499.98	Without Scanner	8.59	9.20	1.151			-0.08	0.036	0.041
	FR1 n77	100M	BPSK	135	69	Edge 1	0mm	Ant 3	DSIO	633332	3499.98	Without Scanner	8.51	9.20	1.172			0.03	0.043	0.050
	FR1 n77	100M	BPSK	1	1	Edge 2	0mm	Ant 3	DSIO	633332	3499.98	Without Scanner	8.59	9.20	1.151			-0.06	0.001	0.001
	FR1 n77	100M	BPSK	135	69	Edge 2	0mm	Ant 3	DSIO	633332	3499.98	Without Scanner	8.51	9.20	1.172			0.03	0.001	0.001
	FR1 n77	100M	BPSK	1	1	Edge 3	0mm	Ant 3	DSIO	633332	3499.98	Without Scanner	8.59	9.20	1.151			-0.15	0.013	0.015
	FR1 n77	100M	BPSK	135	69	Edge 3	0mm	Ant 3	DSIO	633332	3499.98	Without Scanner	8.51	9.20	1.172			0.06	0.010	0.012
	FR1 n77	100M	BPSK	1	1	Edge 4	0mm	Ant 3	DSIO	633332	3499.98	Without Scanner	8.59	9.20	1.151			-0.12	0.605	0.696
	FR1 n77	100M	BPSK	135	69	Edge 4	0mm	Ant 3	DSIO	633332	3499.98	Without Scanner	8.51	9.20	1.172			-0.00	0.559	0.655
	FR1 n77	100M	BPSK	135	69	Bottom Face	0mm	Ant 3	DSIO	633332	3499.98	With Scanner	8.51	9.20	1.172			0.07	0.798	0.935
	FR1 n77 HPUE	100M	BPSK	135	69	Bottom Face	0mm	Ant 3	DSIO	633332	3499.98	Without Scanner	11.30	12.20	1.23	50.0	1.0	0.01	0.759	0.934
	FR1 n77	100M	BPSK	1	1	Bottom Face	0mm	Ant 4	DSIO	633332	3499.98	Without Scanner	14.82	15.20	1.091			0.05	0.604	0.659
	FR1 n77	100M	BPSK	135	69	Bottom Face	0mm	Ant 4	DSIO	633332	3499.98	Without Scanner	14.68	15.20	1.127			0.05	0.646	0.728
	FR1 n77	100M	BPSK	1	1	Edge 1	0mm	Ant 4	DSIO	633332	3499.98	Without Scanner	14.82	15.20	1.091			0.12	0.005	0.005
	FR1 n77	100M	BPSK	135	69	Edge 1	0mm	Ant 4	DSIO	633332	3499.98	Without Scanner	14.68	15.20	1.127			-0.05	0.006	0.007
	FR1 n77	100M	BPSK	1	1	Edge 2	0mm	Ant 4	DSIO	633332	3499.98	Without Scanner	14.82	15.20	1.091			0.01	0.023	0.025
	FR1 n77	100M	BPSK	135	69	Edge 2	0mm	Ant 4	DSIO	633332	3499.98	Without Scanner	14.68	15.20	1.127			-0.10	0.023	0.026
	FR1 n77	100M	BPSK	1	1	Edge 3	0mm	Ant 4	DSIO	633332	3499.98	Without Scanner	14.82	15.20	1.091			0.14	0.787	0.859
	FR1 n77	100M	BPSK	135	69	Edge 3	0mm	Ant 4	DSIO	633332	3499.98	Without Scanner	14.68	15.20	1.127			0.05	0.893	1.006
	FR1 n77	100M	BPSK	270	0	Edge 3	0mm	Ant 4	DSIO	633332	3499.98	Without Scanner	14.54	15.20	1.164			0.16	0.821	0.956
	FR1 n77	100M	BPSK	1	1	Edge 4	0mm	Ant 4	DSIO	633332	3499.98	Without Scanner	14.82	15.20	1.091			-0.02	0.053	0.058
	FR1 n77	100M	BPSK	135	69															



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FR1 n77 HPUE	100M	BPSK	135	69	Edge 3	0mm	Ant 4	DSi0	633332	3499.98	Without Scanner	17.46	18.20	1.186	50.0	1.0	-0.02	0.844	1.001
FR1 n77	100M	BPSK	1	1	Bottom Face	0mm	Ant 9	DSi7	633332	3499.98	Without Scanner	13.98	14.70	1.18			0.01	0.628	0.741
FR1 n77	100M	BPSK	135	69	Bottom Face	0mm	Ant 9	DSi7	633332	3499.98	Without Scanner	13.78	14.70	1.236			0.01	0.789	0.975
FR1 n77	100M	BPSK	270	0	Bottom Face	0mm	Ant 9	DSi7	633332	3499.98	Without Scanner	13.58	14.70	1.294			-0.09	0.626	0.810
FR1 n77	100M	BPSK	1	1	Edge 1	0mm	Ant 9	DSi7	633332	3499.98	Without Scanner	13.98	14.70	1.18			0.07	0.280	0.330
FR1 n77	100M	BPSK	135	69	Edge 1	0mm	Ant 9	DSi7	633332	3499.98	Without Scanner	13.78	14.70	1.236			0.03	0.363	0.449
FR1 n77	100M	BPSK	1	1	Edge 2	0mm	Ant 9	DSi0	633332	3499.98	Without Scanner	24.65	25.70	1.274			-0.07	0.081	0.103
FR1 n77	100M	BPSK	135	69	Edge 2	0mm	Ant 9	DSi0	633332	3499.98	Without Scanner	24.56	25.70	1.3			-0.12	0.127	0.165
FR1 n77	100M	BPSK	1	1	Edge 3	0mm	Ant 9	DSi0	633332	3499.98	Without Scanner	24.65	25.70	1.274			-0.08	0.049	0.062
FR1 n77	100M	BPSK	135	69	Edge 3	0mm	Ant 9	DSi0	633332	3499.98	Without Scanner	24.56	25.70	1.3			-0.13	0.001	0.001
FR1 n77	100M	BPSK	1	1	Edge 4	0mm	Ant 9	DSi0	633332	3499.98	Without Scanner	24.65	25.70	1.274			-0.09	0.442	0.563
FR1 n77	100M	BPSK	135	69	Edge 4	0mm	Ant 9	DSi0	633332	3499.98	Without Scanner	24.56	25.70	1.3			-0.15	0.643	0.836
FR1 n77	100M	BPSK	270	0	Edge 4	0mm	Ant 9	DSi0	633332	3499.98	Without Scanner	24.06	25.20	1.3			0.06	0.559	0.727
FR1 n77	100M	BPSK	1	1	Bottom Face	15mm	Ant 9	DSi0	633332	3499.98	Without Scanner	24.65	25.70	1.274			-0.01	0.496	0.632
FR1 n77	100M	BPSK	135	69	Bottom Face	15mm	Ant 9	DSi0	633332	3499.98	Without Scanner	24.56	25.70	1.3			0.03	0.481	0.625
FR1 n77	100M	BPSK	1	1	Edge 1	11mm	Ant 9	DSi0	633332	3499.98	Without Scanner	24.65	25.70	1.274			0.17	0.510	0.650
FR1 n77	100M	BPSK	135	69	Edge 1	11mm	Ant 9	DSi0	633332	3499.98	Without Scanner	24.56	25.70	1.3			0.01	0.524	0.681
FR1 n77	100M	BPSK	135	69	Bottom Face	0mm	Ant 9	DSi7	633332	3499.98	With Scanner	13.78	14.70	1.236			-0.04	0.755	0.933
FR1 n77 HPUE	100M	BPSK	135	69	Bottom Face	0mm	Ant 9	DSi7	633332	3499.98	Without Scanner	16.65	17.70	1.274	50.0	1.0	-0.12	0.759	0.967
FR1 n77 HPUE	100M	BPSK	135	69	Edge 1	11mm	Ant 9	DSi0	633332	3499.98	Without Scanner	24.56	25.70	1.3	50.0	1.0	0.06	0.263	0.342
FR1 n77/n78	100M	BPSK	1	1	Bottom Face	0mm	Ant 8	DSi7	641666	3624.99	Without Scanner	13.29	13.60	1.074			-0.04	0.375	0.403
FR1 n77/n78	100M	BPSK	135	69	Bottom Face	0mm	Ant 8	DSi7	641666	3624.99	Without Scanner	13.29	13.60	1.074			0.09	0.373	0.401
FR1 n77/n78	100M	BPSK	1	1	Edge 1	0mm	Ant 8	DSi7	641666	3624.99	Without Scanner	13.29	13.60	1.074			-0.06	0.668	0.717
FR1 n77/n78	100M	BPSK	135	69	Edge 1	0mm	Ant 8	DSi7	641666	3624.99	Without Scanner	13.29	13.60	1.074			-0.11	0.684	0.735
FR1 n77/n78	100M	BPSK	1	1	Edge 2	0mm	Ant 8	DSi7	641666	3624.99	Without Scanner	13.29	13.60	1.074			-0.07	0.500	0.537
FR1 n77/n78	100M	BPSK	135	69	Edge 2	0mm	Ant 8	DSi7	641666	3624.99	Without Scanner	13.29	13.60	1.074			-0.07	0.504	0.541
FR1 n77/n78	100M	BPSK	1	1	Edge 3	0mm	Ant 8	DSi0	641666	3624.99	Without Scanner	24.46	25.70	1.33			-0.08	0.175	0.233
FR1 n77/n78	100M	BPSK	135	69	Edge 3	0mm	Ant 8	DSi0	641666	3624.99	Without Scanner	24.27	25.70	1.39			-0.04	0.204	0.284
FR1 n77/n78	100M	BPSK	1	1	Edge 4	0mm	Ant 8	DSi0	641666	3624.99	Without Scanner	24.46	25.70	1.33			0.09	0.083	0.110
FR1 n77/n78	100M	BPSK	135	69	Edge 4	0mm	Ant 8	DSi0	641666	3624.99	Without Scanner	24.27	25.70	1.39			0.10	0.092	0.128
FR1 n77/n78	100M	BPSK	1	1	Bottom Face	44mm	Ant 8	DSi0	641666	3624.99	Without Scanner	24.46	25.70	1.33			-0.12	0.221	0.294
FR1 n77/n78	100M	BPSK	135	69	Bottom Face	44mm	Ant 8	DSi0	641666	3624.99	Without Scanner	24.27	25.70	1.39			0.01	0.213	0.296
FR1 n77/n78	100M	BPSK	1	1	Edge 1	49mm	Ant 8	DSi0	641666	3624.99	Without Scanner	24.46	25.70	1.33			-0.01	0.100	0.133
FR1 n77/n78	100M	BPSK	135	69	Edge 1	49mm	Ant 8	DSi0	641666	3624.99	Without Scanner	24.27	25.70	1.39			0.03	0.093	0.129
FR1 n77/n78	100M	BPSK	1	1	Edge 2	17mm	Ant 8	DSi0	641666	3624.99	Without Scanner	24.46	25.70	1.33			0.18	0.531	0.706
FR1 n77/n78	100M	BPSK	135	69	Edge 2	17mm	Ant 8	DSi0	641666	3624.99	Without Scanner	24.27	25.70	1.39			0.02	0.517	0.719
FR1 n77/n78	100M	BPSK	135	69	Edge 1	0mm	Ant 8	DSi7	641666	3624.99	With Scanner	13.29	13.60	1.074			0.03	0.655	0.703
FR1 n77/n78	100M	BPSK	1	1	Bottom Face	0mm	Ant 3	DSi0	641666	3624.99	Without Scanner	8.56	9.20	1.159			-0.05	0.783	0.907
FR1 n77/n78	100M	BPSK	135	69	Bottom Face	0mm	Ant 3	DSi0	641666	3624.99	Without Scanner	8.44	9.20	1.191			-0.04	0.757	0.902
FR1 n77/n78	100M	BPSK	270	0	Bottom Face	0mm	Ant 3	DSi0	641666	3624.99	Without Scanner	8.22	9.20	1.253			-0.07	0.681	0.853
FR1 n77/n78	100M	BPSK	1	1	Edge 1	0mm	Ant 3	DSi0	641666	3624.99	Without Scanner	8.56	9.20	1.159			0.05	0.048	0.056
FR1 n77/n78	100M	BPSK	135	69	Edge 1	0mm	Ant 3	DSi0	641666	3624.99	Without Scanner	8.44	9.20	1.191			-0.05	0.051	0.061
FR1 n77/n78	100M	BPSK	1	1	Edge 2	0mm	Ant 3	DSi0	641666	3624.99	Without Scanner	8.56	9.20	1.159			-0.18	0.001	0.001
FR1 n77/n78	100M	BPSK	135	69	Edge 2	0mm	Ant 3	DSi0	641666	3624.99	Without Scanner	8.44	9.20	1.191			-0.06	0.002	0.002
FR1 n77/n78	100M	BPSK	1	1	Edge 3	0mm	Ant 3	DSi0	641666	3624.99	Without Scanner	8.56	9.20	1.159			0.14	0.007	0.008
FR1 n77/n78	100M	BPSK	135	69	Edge 3	0mm	Ant 3	DSi0	641666	3624.99	Without Scanner	8.44	9.20	1.191			0.02	0.006	0.007
FR1 n77/n78	100M	BPSK	1	1	Edge 4	0mm	Ant 3	DSi0	641666	3624.99	Without Scanner	8.56	9.20	1.159			-0.08	0.414	0.480
FR1 n77/n78	100M	BPSK	135	69	Edge 4	0mm	Ant 3	DSi0	641666	3624.99	Without Scanner	8.44	9.20	1.191			-0.06	0.396	0.472
FR1 n77/n78	100M	BPSK	1	1	Bottom Face	0mm	Ant 3	DSi0	641666	3624.99	With Scanner	8.56	9.20	1.159			0.04	0.768	0.890
FR1 n77/n78	100M	BPSK	1	1	Bottom Face	0mm	Ant 4	DSi0	641666	3624.99	Without Scanner	14.88	15.20	1.076			0.08	0.345	0.371
FR1 n77/n78	100M	BPSK	135	69	Bottom Face	0mm	Ant 4	DSi0	641666	3624.99	Without Scanner	14.89	15.20	1.074			-0.00	0.294	0.316
FR1 n77/n78	100M	BPSK	1	1	Edge 1	0mm	Ant 4	DSi0	641666	3624.99	Without Scanner	14.88	15.20	1.076			0.15	0.006	0.006
FR1 n77/n78	100M	BPSK	135	69	Edge 1	0mm	Ant 4	DSi0	641666	3624.99	Without Scanner	14.89	15.20	1.074			-0.08	0.008	0.009
FR1 n77/n78	100M	BPSK	1	1	Edge 2	0mm	Ant 4	DSi0	641666	3624.99	Without Scanner	14.88	15.20	1.076			-0.04	0.010	0.011
FR1 n77/n78	100M	BPSK	135	69	Edge 2	0mm	Ant 4	DSi0	641666	3624.99	Without Scanner	14.89	15.20	1.074			0.05	0.014	0.015
FR1 n77/n78	100M	BPSK	1	1	Edge 3	0mm	Ant 4	DSi0	641666	3624.99	Without Scanner	14.88	15.20	1.076			0.14	0.410	0.441
FR1 n77/n78	100M	BPSK	135	69	Edge 3	0mm	Ant 4	DSi0	641666	3624.99	Without Scanner	14.89	15.20	1.074			0.09	0.484	0.520
FR1 n77/n78	100M	BPSK	1	1	Edge 4	0mm	Ant 4	DSi0	641666	3624.99	Without Scanner	14.88	15.20	1.076			-0.09	0.026	0.028
FR1 n77/n78	100M	BPSK	135	69	Edge 4	0mm	Ant 4	DSi0	641666	3624.99	Without Scanner	14.89	15.20	1.074			-0.02	0.026	0.028
FR1 n77/n78	100M	BPSK	135	69	Edge 3	0mm	Ant 4	DSi0	641666	3624.99	With Scanner	14.89	15.20	1.074			0.05	0.436	0.468
FR1 n77/n78	100M	BPSK	1	1	Bottom Face	0mm	Ant 9	DSi7	641666	3624.99	Without Scanner	13.91	14.70	1.199			-0.05	0.501	0.601
FR1 n77/n78	100M	BPSK	135	69	Bottom Face	0mm	Ant 9	DSi7	641666	3624.99	Without Scanner	13.79	14.70	1.233			0.03	0.576	0.710
FR1 n77/n78	100M	BPSK	1	1	Edge 1	0mm	Ant 9	DSi7	641666	3624.99	Without Scanner	13.91	14.70	1.199			0.01	0.219	0.263
FR1 n77/n78	100M	BPSK	135	69	Edge 1	0mm	Ant 9	DSi7	641666	3624.99	Without Scanner	13.79	14.70	1.233			0.07	0.323	0.398
FR1 n77/n78	100M	BPSK	1	1	Edge 2	0mm	Ant 9	DSi0	641666	3624.99	Without Scanner	24.62	25.70	1.282			0.12	0.009	0.012
FR1 n77/n78	100M	BPSK	135	69	Edge 2	0mm	Ant 9	DSi0	641666	3624.99	Without Scanner	24.51	25.70	1.315			-0.02	0.017	0.022
FR1 n77/n78	100M	BPSK	1	1	Edge 3	0mm	Ant 9	DSi0	641666	3624.99	Without Scanner	24.62	25.70	1.282			-0.14	0.003	0.004
FR1 n77/n78	100M	BPSK	135	69	Edge 3	0mm	Ant 9	DSi0	641666	3624.99	Without Scanner	24.51	25.70	1.315			-0.10	0.003	0.004
FR1 n77/n78	100M	BPSK	1	1	Edge 4	0mm	Ant 9	DSi0	641666	3624.99	Without Scanner	24.62	25.70	1.282			0.14	0.038	0.049
FR1 n77/n78	100M	BPSK	135	69	Edge 4	0mm	Ant 9	DSi0	641666	3624.99	Without Scanner	24.51	25.70	1.315			0.10	0.040	0.053
FR1 n77/n78	100M	BPSK	1	1	Bottom Face	15mm	Ant 9	DSi0	641666	3624.99	Without Scanner								



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	FR1 n77/n78	100M	BPSK	1	1	Edge 1	11mm	Ant 9	DSi0	641666	3624.99	Without Scanner	24.62	25.70	1.282			0.06	0.540	0.692
	FR1 n77/n78	100M	BPSK	135	69	Edge 1	11mm	Ant 9	DSi0	641666	3624.99	Without Scanner	24.51	25.70	1.315			0.02	0.539	0.709
	FR1 n77/n78	100M	BPSK	135	69	Bottom Face	0mm	Ant 9	DSi7	641666	3624.99	With Scanner	13.79	14.70	1.233			0.05	0.565	0.697
	FR1 n77	100M	BPSK	1	1	Bottom Face	0mm	Ant 8	DSi7	656000	3840	Without Scanner	13.20	13.60	1.096			-0.08	0.459	0.503
	FR1 n77	100M	BPSK	135	69	Bottom Face	0mm	Ant 8	DSi7	656000	3840	Without Scanner	13.09	13.60	1.125			0.19	0.454	0.511
31	FR1 n77	100M	BPSK	1	1	Edge 1	0mm	Ant 8	DSi7	656000	3840	Without Scanner	13.20	13.60	1.096			0.05	0.921	1.009
	FR1 n77	100M	BPSK	135	69	Edge 1	0mm	Ant 8	DSi7	656000	3840	Without Scanner	13.09	13.60	1.125			-0.10	0.725	0.816
	FR1 n77	100M	BPSK	270	0	Edge 1	0mm	Ant 8	DSi7	656000	3840	Without Scanner	12.92	13.60	1.169			0.09	0.767	0.897
	FR1 n77	100M	BPSK	1	1	Edge 2	0mm	Ant 8	DSi7	656000	3840	Without Scanner	13.20	13.60	1.096			0.09	0.829	0.909
	FR1 n77	100M	BPSK	135	69	Edge 2	0mm	Ant 8	DSi7	656000	3840	Without Scanner	13.09	13.60	1.125			-0.13	0.673	0.757
	FR1 n77	100M	BPSK	270	0	Edge 2	0mm	Ant 8	DSi7	656000	3840	Without Scanner	12.92	13.60	1.169			-0.16	0.751	0.878
	FR1 n77	100M	BPSK	1	1	Edge 1	0mm	Ant 8	DSi7	656000	3840	With Scanner	13.20	13.60	1.096			-0.02	0.886	0.971
	FR1 n77	100M	BPSK	1	1	Edge 3	0mm	Ant 8	DSi0	656000	3840	Without Scanner	24.24	25.70	1.4			-0.06	0.173	0.242
	FR1 n77	100M	BPSK	135	69	Edge 3	0mm	Ant 8	DSi0	656000	3840	Without Scanner	24.10	25.70	1.445			0.04	0.184	0.266
	FR1 n77	100M	BPSK	1	1	Edge 4	0mm	Ant 8	DSi0	656000	3840	Without Scanner	24.24	25.70	1.4			0.05	0.112	0.157
	FR1 n77	100M	BPSK	135	69	Edge 4	0mm	Ant 8	DSi0	656000	3840	Without Scanner	24.10	25.70	1.445			0.15	0.109	0.158
	FR1 n77	100M	BPSK	1	1	Bottom Face	44mm	Ant 8	DSi0	656000	3840	Without Scanner	24.24	25.70	1.4			0.05	0.150	0.210
	FR1 n77	100M	BPSK	135	69	Bottom Face	44mm	Ant 8	DSi0	656000	3840	Without Scanner	24.10	25.70	1.445			0.08	0.143	0.207
	FR1 n77	100M	BPSK	1	1	Edge 1	49mm	Ant 8	DSi0	656000	3840	Without Scanner	24.24	25.70	1.4			-0.11	0.207	0.290
	FR1 n77	100M	BPSK	135	69	Edge 1	49mm	Ant 8	DSi0	656000	3840	Without Scanner	24.10	25.70	1.445			0.03	0.201	0.290
	FR1 n77	100M	BPSK	1	1	Edge 2	17mm	Ant 8	DSi0	656000	3840	Without Scanner	24.24	25.70	1.4			0.00	0.674	0.944
	FR1 n77	100M	BPSK	135	69	Edge 2	17mm	Ant 8	DSi0	656000	3840	Without Scanner	24.10	25.70	1.445			0.05	0.649	0.938
	FR1 n77	100M	BPSK	270	0	Edge 2	17mm	Ant 8	DSi0	656000	3840	Without Scanner	23.84	25.20	1.368			0.03	0.623	0.852
	FR1 n77_HPUE	100M	BPSK	1	1	Edge 1	0mm	Ant 8	DSi7	656000	3840	Without Scanner	15.92	16.60	1.169	50.0	1.0	-0.06	0.847	0.990
	FR1 n77_HPUE	100M	BPSK	1	1	Edge 2	17mm	Ant 8	DSi0	656000	3840	Without Scanner	24.24	25.70	1.4	50.0	1.0	0.02	0.341	0.477
	FR1 n77	100M	BPSK	1	1	Bottom Face	0mm	Ant 3	DSi0	656000	3840	Without Scanner	8.90	9.20	1.072			0.02	0.697	0.747
	FR1 n77	100M	BPSK	135	69	Bottom Face	0mm	Ant 3	DSi0	656000	3840	Without Scanner	8.91	9.20	1.069			-0.06	0.707	0.756
	FR1 n77	100M	BPSK	1	1	Edge 1	0mm	Ant 3	DSi0	656000	3840	Without Scanner	8.90	9.20	1.072			0.01	0.044	0.047
	FR1 n77	100M	BPSK	135	69	Edge 1	0mm	Ant 3	DSi0	656000	3840	Without Scanner	8.91	9.20	1.069			0.03	0.045	0.048
	FR1 n77	100M	BPSK	1	1	Edge 2	0mm	Ant 3	DSi0	656000	3840	Without Scanner	8.90	9.20	1.072			-0.18	0.002	0.002
	FR1 n77	100M	BPSK	135	69	Edge 2	0mm	Ant 3	DSi0	656000	3840	Without Scanner	8.91	9.20	1.069			-0.07	0.002	0.002
	FR1 n77	100M	BPSK	1	1	Edge 3	0mm	Ant 3	DSi0	656000	3840	Without Scanner	8.90	9.20	1.072			0.03	0.007	0.008
	FR1 n77	100M	BPSK	135	69	Edge 3	0mm	Ant 3	DSi0	656000	3840	Without Scanner	8.91	9.20	1.069			-0.15	0.003	0.003
	FR1 n77	100M	BPSK	1	1	Edge 4	0mm	Ant 3	DSi0	656000	3840	Without Scanner	8.90	9.20	1.072			0.05	0.638	0.684
	FR1 n77	100M	BPSK	135	69	Edge 4	0mm	Ant 3	DSi0	656000	3840	Without Scanner	8.91	9.20	1.069			-0.02	0.699	0.747
	FR1 n77	100M	BPSK	135	69	Bottom Face	0mm	Ant 3	DSi0	656000	3840	With Scanner	8.91	9.20	1.069			-0.03	0.696	0.744
	FR1 n77_HPUE	100M	BPSK	135	69	Bottom Face	0mm	Ant 3	DSi0	656000	3840	Without Scanner	11.64	12.20	1.138	50.0	1.0	0.03	0.646	0.735
	FR1 n77	100M	BPSK	1	1	Bottom Face	0mm	Ant 4	DSi0	656000	3840	Without Scanner	15.06	16.20	1.3			-0.19	0.503	0.654
	FR1 n77	100M	BPSK	135	69	Bottom Face	0mm	Ant 4	DSi0	656000	3840	Without Scanner	14.96	16.20	1.33			-0.09	0.504	0.670
	FR1 n77	100M	BPSK	1	1	Edge 1	0mm	Ant 4	DSi0	656000	3840	Without Scanner	15.06	16.20	1.3			0.02	0.003	0.004
	FR1 n77	100M	BPSK	135	69	Edge 1	0mm	Ant 4	DSi0	656000	3840	Without Scanner	14.96	16.20	1.33			-0.06	0.004	0.005
	FR1 n77	100M	BPSK	1	1	Edge 2	0mm	Ant 4	DSi0	656000	3840	Without Scanner	15.06	16.20	1.3			-0.16	0.015	0.019
	FR1 n77	100M	BPSK	135	69	Edge 2	0mm	Ant 4	DSi0	656000	3840	Without Scanner	14.96	16.20	1.33			-0.13	0.016	0.021
	FR1 n77	100M	BPSK	1	1	Edge 3	0mm	Ant 4	DSi0	656000	3840	Without Scanner	15.06	16.20	1.3			0.04	0.566	0.736
	FR1 n77	100M	BPSK	135	69	Edge 3	0mm	Ant 4	DSi0	656000	3840	Without Scanner	14.96	16.20	1.33			0.09	0.523	0.696
	FR1 n77	100M	BPSK	1	1	Edge 4	0mm	Ant 4	DSi0	656000	3840	Without Scanner	15.06	16.20	1.3			-0.08	0.014	0.018
	FR1 n77	100M	BPSK	135	69	Edge 4	0mm	Ant 4	DSi0	656000	3840	Without Scanner	14.96	16.20	1.33			-0.08	0.021	0.028
	FR1 n77	100M	BPSK	1	1	Edge 3	0mm	Ant 4	DSi0	656000	3840	With Scanner	15.06	16.20	1.3			0.03	0.522	0.679
	FR1 n77_HPUE	100M	BPSK	1	1	Edge 3	0mm	Ant 4	DSi0	656000	3840	Without Scanner	17.72	18.20	1.117	50.0	1.0	0.08	0.573	0.640
	FR1 n77	100M	BPSK	1	1	Bottom Face	0mm	Ant 9	DSi7	656000	3840	Without Scanner	13.81	14.70	1.227			0.09	0.640	0.785
	FR1 n77	100M	BPSK	135	69	Bottom Face	0mm	Ant 9	DSi7	656000	3840	Without Scanner	13.69	14.70	1.262			0.01	0.611	0.771
	FR1 n77	100M	BPSK	1	1	Edge 1	0mm	Ant 9	DSi7	656000	3840	Without Scanner	13.81	14.70	1.227			0.02	0.264	0.324
	FR1 n77	100M	BPSK	135	69	Edge 1	0mm	Ant 9	DSi7	656000	3840	Without Scanner	13.69	14.70	1.262			-0.00	0.213	0.269
	FR1 n77	100M	BPSK	1	1	Edge 2	0mm	Ant 9	DSi0	656000	3840	Without Scanner	24.85	25.70	1.216			0.13	0.599	0.728
	FR1 n77	100M	BPSK	135	69	Edge 2	0mm	Ant 9	DSi0	656000	3840	Without Scanner	24.83	25.70	1.222			0.04	0.553	0.676
	FR1 n77	100M	BPSK	1	1	Edge 3	0mm	Ant 9	DSi0	656000	3840	Without Scanner	24.85	25.70	1.216			0.11	0.057	0.069
	FR1 n77	100M	BPSK	135	69	Edge 3	0mm	Ant 9	DSi0	656000	3840	Without Scanner	24.83	25.70	1.222			0.06	0.049	0.060
	FR1 n77	100M	BPSK	1	1	Edge 4	0mm	Ant 9	DSi0	656000	3840	Without Scanner	24.85	25.70	1.216			-0.00	0.463	0.563
	FR1 n77	100M	BPSK	135	69	Edge 4	0mm	Ant 9	DSi0	656000	3840	Without Scanner	24.83	25.70	1.222			-0.14	0.513	0.627
	FR1 n77	100M	BPSK	1	1	Bottom Face	15mm	Ant 9	DSi0	656000	3840	Without Scanner	24.85	25.70	1.216			0.03	0.469	0.570
	FR1 n77	100M	BPSK	135	69	Bottom Face	15mm	Ant 9	DSi0	656000	3840	Without Scanner	24.83	25.70	1.222			0.02	0.453	0.554
	FR1 n77	100M	BPSK	1	1	Edge 1	11mm	Ant 9	DSi0	656000	3840	Without Scanner	24.85	25.70	1.216			0.06	0.532	0.647
	FR1 n77	100M	BPSK	135	69	Edge 1	11mm	Ant 9	DSi0	656000	3840	Without Scanner	24.83	25.70	1.222			0.09	0.513	0.627
	FR1 n77	100M	BPSK	1	1	Bottom Face	0mm	Ant 9	DSi7	656000	3840	With Scanner	13.81	14.70	1.227			0.03	0.623	0.764
	FR1 n77_HPUE	100M	BPSK	1	1	Bottom Face	0mm	Ant 9	DSi7	656000	3840	Without Scanner	16.87	17.70	1.211	50.0	1.0	0.01	0.653	0.791
	FR1 n77_HPUE	100M	BPSK	1	1	Edge 1	11mm	Ant 9	DSi0	656000	3840	Without Scanner	24.85	25.70	1.216	50.0	1.0	-0.01	0.269	0.327



FCC SAR Test Report

Report No. : FA591015

Plot No	Band	BW	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	Power State	Sample	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)
32	LTE Band 53	10M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI7	Without Scanner	60197.5	2489.25	16.93	17.9	1.25	0.01	0.870	1.088
	LTE Band 53	10M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI7	Without Scanner	60190	2488.5	17.01	17.9	1.227	0.03	0.833	1.022
	LTE Band 53	10M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI7	Without Scanner	60205	2490	16.91	17.9	1.256	-0.04	0.840	1.055
	LTE Band 53	10M	QPSK	25	0	Bottom Face	0mm	Ant 8	DSI7	Without Scanner	60197.5	2489.25	16.83	14.4	0.571	0.01	0.716	0.409
	LTE Band 53	10M	QPSK	50	0	Bottom Face	0mm	Ant 8	DSI7	Without Scanner	60197.5	2489.25	16.68	14.4	0.592	0.02	0.712	0.422
	LTE Band 53	10M	QPSK	1	0	Edge 1	0mm	Ant 8	DSI7	Without Scanner	60197.5	2489.25	16.93	14.4	0.558	-0.06	0.564	0.315
	LTE Band 53	10M	QPSK	25	0	Edge 1	0mm	Ant 8	DSI7	Without Scanner	60197.5	2489.25	16.83	14.4	0.571	0.08	0.490	0.28
	LTE Band 53	10M	QPSK	1	0	Edge 2	0mm	Ant 8	DSI7	Without Scanner	60197.5	2489.25	16.93	14.4	0.558	-0.06	0.230	0.128
	LTE Band 53	10M	QPSK	25	0	Edge 2	0mm	Ant 8	DSI7	Without Scanner	60197.5	2489.25	16.83	14.4	0.571	0.01	0.175	0.1
	LTE Band 53	10M	QPSK	1	0	Bottom Face	44mm	Ant 8	DSI0	Without Scanner	60197.5	2489.25	24.48	25.1	1.153	-0.01	0.129	0.149
	LTE Band 53	10M	QPSK	1	0	Edge 1	49mm	Ant 8	DSI0	Without Scanner	60197.5	2489.25	24.48	25.1	1.153	0.06	0.145	0.167
	LTE Band 53	10M	QPSK	1	0	Edge 2	17mm	Ant 8	DSI0	Without Scanner	60197.5	2489.25	24.48	25.1	1.153	0.04	0.208	0.24
	LTE Band 53	10M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI7	With Scanner	60197.5	2489.25	16.93	17.9	1.25	-0.01	0.862	1.078
33	LTE Band 106	3M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI7	Without Scanner	134322	899	19.04	19.9	1.219	0.07	0.699	0.852
	LTE Band 106	3M	QPSK	8	0	Bottom Face	0mm	Ant 8	DSI7	Without Scanner	134322	899	18.85	19.9	1.274	0.06	0.610	0.777
	LTE Band 106	3M	QPSK	1	0	Edge 1	0mm	Ant 8	DSI7	Without Scanner	134322	899	19.04	19.9	1.219	-0.01	0.387	0.472
	LTE Band 106	3M	QPSK	8	0	Edge 1	0mm	Ant 8	DSI7	Without Scanner	134322	899	18.85	19.9	1.274	0.15	0.298	0.38
	LTE Band 106	3M	QPSK	1	0	Edge 2	0mm	Ant 8	DSI7	Without Scanner	134322	899	19.04	19.9	1.219	0.11	0.085	0.104
	LTE Band 106	3M	QPSK	8	0	Edge 2	0mm	Ant 8	DSI7	Without Scanner	134322	899	18.85	19.9	1.274	-0.12	0.073	0.093
	LTE Band 106	3M	QPSK	1	0	Bottom Face	44mm	Ant 8	DSI0	Without Scanner	134322	899	23.48	25.1	1.452	0.04	0.055	0.08
	LTE Band 106	3M	QPSK	1	0	Edge 1	49mm	Ant 8	DSI0	Without Scanner	134322	899	23.48	25.1	1.452	0.07	0.000	0
	LTE Band 106	3M	QPSK	1	0	Edge 2	17mm	Ant 8	DSI0	Without Scanner	134322	899	23.48	25.1	1.452	-0.01	0.071	0.103
	LTE Band 106	3M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI7	With Scanner	134322	899	19.04	19.9	1.219	0.06	0.623	0.759
	LTE Band 70	15M	QPSK	1	0	Bottom Face	0mm	Ant 1	DSI7	Without Scanner	133047	1702.5	16.98	17.9	1.236	0.03	0.879	1.086
	LTE Band 70	15M	QPSK	36	0	Bottom Face	0mm	Ant 1	DSI7	Without Scanner	133047	1702.5	16.8	17.9	1.288	-0.01	0.744	0.958
34	LTE Band 70	15M	QPSK	75	0	Bottom Face	0mm	Ant 1	DSI7	Without Scanner	133047	1702.5	16.65	17.9	1.334	0.01	0.879	1.173
	LTE Band 70	15M	QPSK	1	0	Edge 1	0mm	Ant 1	DSI7	Without Scanner	133047	1702.5	16.98	17.9	1.236	-0.03	0.416	0.514
	LTE Band 70	15M	QPSK	36	0	Edge 1	0mm	Ant 1	DSI7	Without Scanner	133047	1702.5	16.8	17.9	1.288	0.04	0.370	0.477
	LTE Band 70	15M	QPSK	1	0	Bottom Face	20mm	Ant 1	DSI0	Without Scanner	133047	1702.5	23.85	25.1	1.334	0.09	0.175	0.233
	LTE Band 70	15M	QPSK	1	0	Edge 1	23mm	Ant 1	DSI0	Without Scanner	133047	1702.5	23.85	25.1	1.334	0.12	0.089	0.119
	LTE Band 70	15M	QPSK	75	0	Bottom Face	0mm	Ant 1	DSI7	With Scanner	133047	1702.5	16.65	17.9	1.334	0.11	0.811	1.082
	FR1 n53	10M	BPSK	1	1	Bottom Face	0mm	Ant 8	DSI7	Without Scanner	497850	2489.25	15.19	16.1	1.233	0.06	0.810	0.999
35	FR1 n53	10M	BPSK	1	1	Bottom Face	0mm	Ant 8	DSI7	Without Scanner	497700	2488.5	15.08	16.1	1.265	0.02	0.828	1.047
	FR1 n53	10M	BPSK	1	1	Bottom Face	0mm	Ant 8	DSI7	Without Scanner	498000	2490	15.1	16.1	1.259	0.04	0.827	1.041
	FR1 n53	10M	BPSK	12	6	Bottom Face	0mm	Ant 8	DSI7	Without Scanner	497850	2489.25	15.09	16.1	1.262	0.01	0.784	0.989
	FR1 n53	10M	BPSK	24	0	Bottom Face	0mm	Ant 8	DSI7	Without Scanner	497850	2489.25	15.01	16.1	1.285	-0.01	0.784	1.007
	FR1 n53	10M	BPSK	1	1	Edge 1	0mm	Ant 8	DSI7	Without Scanner	497850	2489.25	15.19	16.1	1.233	0.02	0.557	0.687
	FR1 n53	10M	BPSK	12	6	Edge 1	0mm	Ant 8	DSI7	Without Scanner	497850	2489.25	15.09	16.1	1.262	0.08	0.546	0.689
	FR1 n53	10M	BPSK	1	1	Edge 2	0mm	Ant 8	DSI7	Without Scanner	497850	2489.25	15.19	16.1	1.233	-0.01	0.203	0.25
	FR1 n53	10M	BPSK	12	6	Edge 2	0mm	Ant 8	DSI7	Without Scanner	497850	2489.25	15.09	16.1	1.262	0.01	0.181	0.228
	FR1 n53	10M	BPSK	1	1	Bottom Face	44mm	Ant 8	DSI0	Without Scanner	497850	2489.25	23.91	25.2	1.346	-0.06	0.185	0.249
	FR1 n53	10M	BPSK	1	1	Edge 1	49mm	Ant 8	DSI0	Without Scanner	497850	2489.25	23.91	25.2	1.346	-0.04	0.255	0.343
	FR1 n53	10M	BPSK	1	1	Edge 2	17mm	Ant 8	DSI0	Without Scanner	497850	2489.25	23.91	25.2	1.346	0.01	0.292	0.393
	FR1 n53	10M	BPSK	1	1	Bottom Face	0mm	Ant 8	DSI7	With Scanner	497700	2488.5	15.08	16.1	1.265	0.06	0.796	1.007



<RFID SAR>

Plot No.	Band	Test Position	Gap (mm)	Antenna	Power State	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
36	UHF RFID	Bottom Face	0mm	Ant 8	DSI 7	914.75	Without Scanner	19.89	21.00	1.291	100	1.000	0.17	0.858	1.108
	UHF RFID	Edge 1	0mm	Ant 8	DSI 7	914.75	Without Scanner	19.89	21.00	1.291	100	1.000	0.05	0.850	1.098
	UHF RFID	Edge 1	0mm	Ant 8	DSI 7	902.75	Without Scanner	19.71	21.00	1.346	100	1.000	0.03	0.809	1.089
	UHF RFID	Edge 1	0mm	Ant 8	DSI 7	927.25	Without Scanner	19.75	21.00	1.334	100	1.000	0.09	0.802	1.069
	UHF RFID	Edge 2	0mm	Ant 8	DSI 7	914.75	Without Scanner	19.89	21.00	1.291	100	1.000	0.09	0.178	0.230
	UHF RFID	Edge 3	0mm	Ant 8	DSI 0	927.25	Without Scanner	25.28	26.00	1.180	100	1.000	0.11	0.001	0.001
	UHF RFID	Edge 4	0mm	Ant 8	DSI 0	927.25	Without Scanner	25.28	26.00	1.180	100	1.000	-0.05	0.171	0.202
	UHF RFID	Bottom Face	0mm	Ant 8	DSI 7	902.75	Without Scanner	19.71	21.00	1.346	100	1.000	-0.01	0.812	1.093
	UHF RFID	Bottom Face	0mm	Ant 8	DSI 7	927.25	Without Scanner	19.75	21.00	1.334	100	1.000	0.07	0.811	1.081
	UHF RFID	Bottom Face	44mm	Ant 8	DSI 0	914.75	Without Scanner	25.28	26.00	1.180	100	1.000	0.01	0.268	0.316
	UHF RFID	Edge 1	49mm	Ant 8	DSI 0	914.75	Without Scanner	25.28	26.00	1.180	100	1.000	-0.08	0.098	0.116
	UHF RFID	Edge 2	17mm	Ant 8	DSI 0	914.75	Without Scanner	25.28	26.00	1.180	100	1.000	-0.04	0.361	0.426
	UHF RFID	Bottom Face	0mm	Ant 8	DSI 7	914.75	With Scanner	19.89	21.00	1.291	100	1.000	-0.06	0.811	1.047

[WLAN 2.4GHz_5GHz SAR]

Plot No	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	0mm	Ant 6	DSI7	6	2437	Without Scanner	13.98	14.00	1.005	97.03	1.031	0.19	0.833	0.863
37	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	0mm	Ant 6	DSI7	1	2412	Without Scanner	13.67	14.00	1.079	97.03	1.031	-0.02	1.020	1.135
	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	0mm	Ant 6	DSI7	11	2462	Without Scanner	13.71	14.00	1.069	97.03	1.031	-0.18	0.699	0.770
	WLAN2.4GHz	802.11b 1Mbps	Edge 1	0mm	Ant 6	DSI7	6	2437	Without Scanner	13.98	14.00	1.005	97.03	1.031	-0.08	0.214	0.222
	WLAN2.4GHz	802.11b 1Mbps	Edge 2	0mm	Ant 6	DSI0	1	2412	Without Scanner	22.84	23.00	1.038	97.03	1.031	0.16	0.001	0.001
	WLAN2.4GHz	802.11b 1Mbps	Edge 3	0mm	Ant 6	DSI0	1	2412	Without Scanner	22.84	23.00	1.038	97.03	1.031	0.18	0.001	0.001
	WLAN2.4GHz	802.11b 1Mbps	Edge 4	0mm	Ant 6	DSI0	1	2412	Without Scanner	22.84	23.00	1.038	97.03	1.031	-0.14	0.080	0.086
	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	21mm	Ant 6	DSI0	1	2412	Without Scanner	22.84	23.00	1.038	97.03	1.031	0.03	0.104	0.111
	WLAN2.4GHz	802.11b 1Mbps	Edge 1	18mm	Ant 6	DSI0	1	2412	Without Scanner	22.84	23.00	1.038	97.03	1.031	0.05	0.117	0.125
	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	0mm	Ant 6	DSI7	1	2412	With Scanner	13.67	14.00	1.079	97.03	1.031	0.04	0.926	1.030
	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	0mm	Ant 7	DSI7	6	2437	Without Scanner	11.96	12.00	1.009	97.03	1.031	-0.04	0.885	0.921
	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	0mm	Ant 7	DSI7	1	2412	Without Scanner	11.73	12.00	1.064	97.03	1.031	0.08	0.999	1.096
	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	0mm	Ant 7	DSI7	11	2462	Without Scanner	11.76	12.00	1.057	97.03	1.031	-0.08	0.850	0.926
	WLAN2.4GHz	802.11b 1Mbps	Edge 1	0mm	Ant 7	DSI0	11	2462	Without Scanner	25.17	25.50	1.079	97.03	1.031	0.09	0.175	0.195
	WLAN2.4GHz	802.11b 1Mbps	Edge 2	0mm	Ant 7	DSI7	6	2437	Without Scanner	11.96	12.00	1.009	97.03	1.031	-0.05	0.277	0.288
	WLAN2.4GHz	802.11b 1Mbps	Edge 3	0mm	Ant 7	DSI0	11	2462	Without Scanner	25.17	25.50	1.079	97.03	1.031	0.04	0.107	0.119
	WLAN2.4GHz	802.11b 1Mbps	Edge 4	0mm	Ant 7	DSI0	11	2462	Without Scanner	25.17	25.50	1.079	97.03	1.031	-0.18	0.001	0.001
	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	22mm	Ant 7	DSI0	11	2462	Without Scanner	25.17	25.50	1.079	97.03	1.031	-0.02	0.274	0.305
	WLAN2.4GHz	802.11b 1Mbps	Edge 2	24mm	Ant 7	DSI0	11	2462	Without Scanner	25.17	25.50	1.079	97.03	1.031	-0.08	0.363	0.404
	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	0mm	Ant 7	DSI7	1	2412	With Scanner	11.73	12.00	1.064	97.03	1.031	0.03	0.869	0.953
38	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 6	DSI7	42	5210	Without Scanner	9.65	10.00	1.084	100.0	1.0	-0.06	1.090	1.182
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 1	0mm	Ant 6	DSI7	42	5210	Without Scanner	9.65	10.00	1.084	100.0	1.0	0.09	0.703	0.762
	WLAN5GHz	802.11ax-HE40 MCS0	Edge 2	0mm	Ant 6	DSI0	38	5190	Without Scanner	18.53	19.00	1.114	100.0	1.0	-0.08	0.057	0.063
	WLAN5GHz	802.11ax-HE40 MCS0	Edge 3	0mm	Ant 6	DSI0	38	5190	Without Scanner	18.53	19.00	1.114	100.0	1.0	-0.04	0.001	0.001
	WLAN5GHz	802.11ax-HE40 MCS0	Edge 4	0mm	Ant 6	DSI0	38	5190	Without Scanner	18.53	19.00	1.114	100.0	1.0	-0.00	0.082	0.091
	WLAN5GHz	802.11ax-HE40 MCS0	Bottom Face	21mm	Ant 6	DSI0	38	5190	Without Scanner	18.53	19.00	1.114	100.0	1.0	0.03	0.253	0.282
	WLAN5GHz	802.11ax-HE40 MCS0	Edge 1	18mm	Ant 6	DSI0	38	5190	Without Scanner	18.53	19.00	1.114	100.0	1.0	-0.01	0.233	0.260
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 6	DSI7	42	5210	With Scanner	9.65	10.00	1.084	100.0	1.0	0.05	0.965	1.046
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 7	DSI7	42	5210	Without Scanner	7.79	8.00	1.05	100.0	1.0	0.01	1.080	1.134
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 1	0mm	Ant 7	DSI0	42	5210	Without Scanner	18.88	19.00	1.028	100.0	1.0	0.08	0.047	0.048
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 2	0mm	Ant 7	DSI7	42	5210	Without Scanner	7.79	8.00	1.05	100.0	1.0	0.06	0.431	0.453
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 3	0mm	Ant 7	DSI0	42	5210	Without Scanner	18.88	19.00	1.028	100.0	1.0	-0.05	0.041	0.042
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 4	0mm	Ant 7	DSI0	42	5210	Without Scanner	18.88	19.00	1.028	100.0	1.0	-0.10	0.001	0.001
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	22mm	Ant 7	DSI0	42	5210	Without Scanner	18.88	19.00	1.028	100.0	1.0	0.06	0.586	0.602
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 2	24mm	Ant 7	DSI0	42	5210	Without Scanner	18.88	19.00	1.028	100.0	1.0	-0.03	0.284	0.292
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 7	DSI7	42	5210	With Scanner	7.79	8.00	1.05	100.0	1.0	-0.04	0.956	1.004
	WLAN5GHz	802.11ac-VHT160 MCS0	Bottom Face	0mm	Ant 6	DSI7	50	5250	Without Scanner	8.58	9.00	1.102	100.0	1.0	0.08	1.040	1.146
	WLAN5GHz	802.11ac-VHT160 MCS0	Edge 1	0mm	Ant 6	DSI7	50	5250	Without Scanner	8.58	9.00	1.102	100.0	1.0	0.06	0.429	0.473
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 2	0mm	Ant 6	DSI0	58	5290	Without Scanner	18.70	19.00	1.072	100.0	1.0	0.06	0.045	0.048
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 3	0mm	Ant 6	DSI0	58	5290	Without Scanner	18.70	19.00	1.072	100.0	1.0	0.03	0.012	0.013
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 4	0mm	Ant 6	DSI0	58	5290	Without Scanner	18.70	19.00	1.072	100.0	1.0	-0.02	0.144	0.154
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	21mm	Ant 6	DSI0	58	5290	Without Scanner	18.70	19.00	1.072	100.0	1.0	0.15	0.237	0.254
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 1	18mm	Ant 6	DSI0	58	5290	Without Scanner	18.70	19.00	1.072	100.0	1.0	0.11	0.223	0.239
	WLAN5GHz	802.11ac-VHT160 MCS0	Bottom Face	0mm	Ant 6	DSI7	50	5250	With Scanner	8.58	9.00	1.102	100.0	1.0	0.09	0.926	1.020
39	WLAN5GHz	802.11ac-VHT160 MCS0	Bottom Face	0mm	Ant 7	DSI7	50	5250	Without Scanner	7.53	8.00	1.114	100.0	1.0	0.05	1.060	1.181



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	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 1	0mm	Ant 7	DSI0	58	5290	Without Scanner	19.20	19.50	1.072	100.0	1.0	-0.06	0.150	0.161
	WLAN5GHz	802.11ac-VHT160 MCS0	Edge 2	0mm	Ant 7	DSI7	50	5250	Without Scanner	7.53	8.00	1.114	100.0	1.0	-0.09	0.265	0.295
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 3	0mm	Ant 7	DSI0	58	5290	Without Scanner	19.20	19.50	1.072	100.0	1.0	-0.09	0.070	0.075
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 4	0mm	Ant 7	DSI0	58	5290	Without Scanner	19.20	19.50	1.072	100.0	1.0	0.11	0.001	0.001
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	22mm	Ant 7	DSI0	58	5290	Without Scanner	19.20	19.50	1.072	100.0	1.0	0.12	0.665	0.713
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 2	24mm	Ant 7	DSI0	58	5290	Without Scanner	19.20	19.50	1.072	100.0	1.0	0.08	0.312	0.334
	WLAN5GHz	802.11ac-VHT160 MCS0	Bottom Face	0mm	Ant 7	DSI7	50	5250	With Scanner	7.53	8.00	1.114	100.0	1.0	-0.03	0.938	1.045
	WLAN5GHz	802.11ac-VHT160 MCS0	Bottom Face	0mm	Ant 6	DSI7	114	5570	Without Scanner	8.06	8.50	1.107	100.0	1.0	0.06	0.821	0.909
	WLAN5GHz	802.11ac-VHT160 MCS0	Edge 1	0mm	Ant 6	DSI7	114	5570	Without Scanner	8.06	8.50	1.107	100.0	1.0	-0.10	0.525	0.581
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 2	0mm	Ant 6	DSI0	106	5530	Without Scanner	18.84	19.00	1.038	100.0	1.0	0.04	0.060	0.062
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 3	0mm	Ant 6	DSI0	106	5530	Without Scanner	18.84	19.00	1.038	100.0	1.0	-0.07	0.001	0.001
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 4	0mm	Ant 6	DSI0	106	5530	Without Scanner	18.84	19.00	1.038	100.0	1.0	-0.02	0.044	0.046
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	21mm	Ant 6	DSI0	106	5530	Without Scanner	18.84	19.00	1.038	100.0	1.0	-0.06	0.409	0.425
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 1	18mm	Ant 6	DSI0	106	5530	Without Scanner	18.84	19.00	1.038	100.0	1.0	-0.11	0.310	0.322
	WLAN5GHz	802.11ac-VHT160 MCS0	Bottom Face	0mm	Ant 6	DSI7	114	5570	With Scanner	8.06	8.50	1.107	100.0	1.0	-0.01	0.769	0.851
40	WLAN5GHz	802.11ac-VHT160 MCS0	Bottom Face	0mm	Ant 7	DSI7	114	5570	Without Scanner	5.63	6.00	1.089	100.0	1.0	-0.04	0.845	0.920
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 1	0mm	Ant 7	DSI0	106	5530	Without Scanner	19.54	20.00	1.112	100.0	1.0	-0.18	0.006	0.007
	WLAN5GHz	802.11ac-VHT160 MCS0	Edge 2	0mm	Ant 7	DSI7	114	5570	Without Scanner	5.63	6.00	1.089	100.0	1.0	0.13	0.280	0.305
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 3	0mm	Ant 7	DSI0	106	5530	Without Scanner	19.54	20.00	1.112	100.0	1.0	0.00	0.096	0.107
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 4	0mm	Ant 7	DSI0	106	5530	Without Scanner	19.54	20.00	1.112	100.0	1.0	0.06	0.001	0.001
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	22mm	Ant 7	DSI0	106	5530	Without Scanner	19.54	20.00	1.112	100.0	1.0	0.09	0.633	0.704
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 2	24mm	Ant 7	DSI0	106	5530	Without Scanner	19.54	20.00	1.112	100.0	1.0	-0.06	0.479	0.533
	WLAN5GHz	802.11ac-VHT160 MCS0	Bottom Face	0mm	Ant 7	DSI7	114	5570	With Scanner	5.63	6.00	1.089	100.0	1.0	-0.07	0.811	0.883
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 6	DSI7	155	5775	Without Scanner	10.45	10.50	1.012	100.0	1.0	-0.09	1.020	1.032
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 1	0mm	Ant 6	DSI7	155	5775	Without Scanner	10.45	10.50	1.012	100.0	1.0	0.17	0.726	0.735
	WLAN5GHz	802.11a 6Mbps	Edge 2	0mm	Ant 6	DSI0	149	5745	Without Scanner	19.06	19.50	1.107	99.32	1.007	0.04	0.073	0.081
	WLAN5GHz	802.11a 6Mbps	Edge 3	0mm	Ant 6	DSI0	149	5745	Without Scanner	19.06	19.50	1.107	99.32	1.007	-0.03	0.064	0.071
	WLAN5GHz	802.11a 6Mbps	Edge 4	0mm	Ant 6	DSI0	149	5745	Without Scanner	19.06	19.50	1.107	99.32	1.007	0.01	0.056	0.062
	WLAN5GHz	802.11a 6Mbps	Bottom Face	21mm	Ant 6	DSI0	149	5745	Without Scanner	19.06	19.50	1.107	99.32	1.007	0.01	0.286	0.319
	WLAN5GHz	802.11a 6Mbps	Edge 1	18mm	Ant 6	DSI0	149	5745	Without Scanner	19.06	19.50	1.107	99.32	1.007	0.08	0.300	0.334
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 6	DSI7	155	5775	With Scanner	10.45	10.50	1.012	100.0	1.0	0.03	0.956	0.967
41	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 7	DSI7	155	5775	Without Scanner	7.37	7.50	1.03	100.0	1.0	0.07	1.140	1.174
	WLAN5GHz	802.11be-EHT80 MCS0	Edge 1	0mm	Ant 7	DSI0	155	5775	Without Scanner	19.52	20.00	1.117	100.0	1.0	-0.14	0.067	0.075
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 2	0mm	Ant 7	DSI7	155	5775	Without Scanner	7.37	7.50	1.03	100.0	1.0	0.05	0.278	0.286
	WLAN5GHz	802.11be-EHT80 MCS0	Edge 3	0mm	Ant 7	DSI0	155	5775	Without Scanner	19.52	20.00	1.117	100.0	1.0	-0.09	0.057	0.064
	WLAN5GHz	802.11be-EHT80 MCS0	Edge 4	0mm	Ant 7	DSI0	155	5775	Without Scanner	19.52	20.00	1.117	100.0	1.0	0.01	0.001	0.001
	WLAN5GHz	802.11be-EHT80 MCS0	Bottom Face	22mm	Ant 7	DSI0	155	5775	Without Scanner	19.52	20.00	1.117	100.0	1.0	0.03	0.438	0.489
	WLAN5GHz	802.11be-EHT80 MCS0	Edge 2	24mm	Ant 7	DSI0	155	5775	Without Scanner	19.52	20.00	1.117	100.0	1.0	0.15	0.351	0.392
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 7	DSI7	155	5775	With Scanner	7.37	7.50	1.03	100.0	1.0	0.03	0.989	1.019

【Bluetooth SAR】

Plot No	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
42	Bluetooth	LE 1Mbps	Bottom Face	0mm	Ant 6	Full power	0	2402	Without Scanner	8.56	9.00	1.107	62.5	1.333	-0.15	0.162	0.239
	Bluetooth	LE 1Mbps	Edge 1	0mm	Ant 6	Full power	0	2402	Without Scanner	8.56	9.00	1.107	62.5	1.333	-0.06	0.049	0.072
	Bluetooth	LE 1Mbps	Edge 2	0mm	Ant 6	Full power	0	2402	Without Scanner	8.56	9.00	1.107	62.5	1.333	-0.07	0.001	0.001
	Bluetooth	LE 1Mbps	Edge 3	0mm	Ant 6	Full power	0	2402	Without Scanner	8.56	9.00	1.107	62.5	1.333	0.06	0.001	0.001
	Bluetooth	LE 1Mbps	Edge 4	0mm	Ant 6	Full power	0	2402	Without Scanner	8.56	9.00	1.107	62.5	1.333	-0.01	0.001	0.001
	Bluetooth	LE 1Mbps	Bottom Face	0mm	Ant 6	Full power	0	2402	With Scanner	8.56	9.00	1.107	62.5	1.333	-0.07	0.153	0.226
	Bluetooth	LE 125kbps	Bottom Face	0mm	Ant 7	Full power	0	2402	Without Scanner	8.18	8.50	1.076	82.39	1.011	0.06	0.168	0.183
	Bluetooth	LE 125kbps	Edge 1	0mm	Ant 7	Full power	0	2402	Without Scanner	8.18	8.50	1.076	82.39	1.011	-0.18	0.001	0.001
	Bluetooth	LE 125kbps	Edge 2	0mm	Ant 7	Full power	0	2402	Without Scanner	8.18	8.50	1.076	82.39	1.011	0.17	0.069	0.075
	Bluetooth	LE 125kbps	Edge 3	0mm	Ant 7	Full power	0	2402	Without Scanner	8.18	8.50	1.076	82.39	1.011	-0.05	0.001	0.001
	Bluetooth	LE 125kbps	Edge 4	0mm	Ant 7	Full power	0	2402	Without Scanner	8.18	8.50	1.076	82.39	1.011	0.11	0.001	0.001
	Bluetooth	LE 125kbps	Bottom Face	0mm	Ant 7	Full power	0	2402	With Scanner	8.18	8.50	1.076	82.39	1.011	0.04	0.149	0.162

**<WLAN6GHz SAR>**

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)	Measured APD (W/m ²)
43	WLAN6GHz	802.11be-EHT320 MCS0	Bottom Face	0mm	Ant 6	DSI7	31	6105	Without Scanner	11.23	11.5	1.064	100	1	0.08	1.11	1.181	7.34
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom Face	0mm	Ant 6	DSI7	63	6265	Without Scanner	11.31	11.5	1.045	100	1	-0.04	1.08	1.129	7.1
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom Face	0mm	Ant 6	DSI7	95	6425	Without Scanner	11.42	11.5	1.019	100	1	0.01	1.06	1.080	6.81
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom Face	0mm	Ant 6	DSI7	127	6585	Without Scanner	11.33	11.5	1.04	100	1	0.06	0.924	0.961	5.83
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom Face	0mm	Ant 6	DSI7	159	6745	Without Scanner	10.86	11	1.033	100	1	0.07	0.909	0.939	5.87
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom Face	0mm	Ant 6	DSI7	191	6905	Without Scanner	11.85	12	1.035	100	1	-0.09	0.99	1.025	6.7
	WLAN6GHz	802.11be-EHT320 MCS0	Edge 1	0mm	Ant 6	DSI7	31	6105	Without Scanner	11.23	11.5	1.064	100	1	-0.02	0.821	0.874	4
	WLAN6GHz	802.11be-EHT320 MCS0	Edge 1	0mm	Ant 6	DSI7	63	6265	Without Scanner	11.31	11.5	1.045	100	1	-0.03	0.798	0.834	3.86
	WLAN6GHz	802.11be-EHT320 MCS0	Edge 1	0mm	Ant 6	DSI7	95	6425	Without Scanner	11.42	11.5	1.019	100	1	0.06	0.764	0.779	3.7
	WLAN6GHz	802.11be-EHT320 MCS0	Edge 1	0mm	Ant 6	DSI7	127	6585	Without Scanner	11.33	11.5	1.04	100	1	-0.04	0.683	0.710	3.09
	WLAN6GHz	802.11be-EHT320 MCS0	Edge 1	0mm	Ant 6	DSI7	159	6745	Without Scanner	10.86	11	1.033	100	1	0.01	0.658	0.680	3.11
	WLAN6GHz	802.11be-EHT320 MCS0	Edge 1	0mm	Ant 6	DSI7	191	6905	Without Scanner	11.85	12	1.035	100	1	-0.06	0.711	0.736	3.65
	WLAN6GHz	802.11ax-HE40 MCS0	Bottom Face	21mm	Ant 6	DSI7	107	6485	Without Scanner	18.63	19	1.089	100	1	0.02	0.338	0.368	1.96
	WLAN6GHz	802.11ax-HE40 MCS0	Edge 1	18mm	Ant 6	DSI7	107	6485	Without Scanner	18.63	19	1.089	100	1	0.08	0.332	0.362	1.89
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom Face	0mm	Ant 6	DSI7	95	6425	Without Scanner	9.98	10	1.005	100	1	0.06	0.612	0.615	4.11
	WLAN6GHz VLP	802.11be-EHT320 MCS0	Bottom Face	0mm	Ant 6	DSI7	191	6905	Without Scanner	10.77	11	1.054	100	1	0.09	0.798	0.841	5.11
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom Face	0mm	Ant 6	DSI7	31	6105	With Scanner	11.23	11.5	1.064	100	1	0.03	1.02	1.085	7.11
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom Face	0mm	Ant 7	DSI7	127	6585	Without Scanner	11.43	11.5	1.016	100	1	0.01	1.09	1.107	6.100
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom Face	0mm	Ant 7	DSI7	31	6105	Without Scanner	8.71	9	1.069	100	1	0.15	1.01	1.080	5.090
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom Face	0mm	Ant 7	DSI7	63	6265	Without Scanner	8.77	9	1.054	100	1	0.06	0.964	1.016	5.140
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom Face	0mm	Ant 7	DSI7	95	6425	Without Scanner	8.89	9	1.026	100	1	-0.03	1	1.026	5.320
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom Face	0mm	Ant 7	DSI7	159	6745	Without Scanner	9.71	10	1.069	100	1	0.13	1.01	1.080	5.300
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom Face	0mm	Ant 7	DSI7	191	6905	Without Scanner	10.79	11	1.05	100	1	-0.13	0.984	1.033	4.780
	WLAN6GHz	802.11a 6Mbps	Edge 1	0mm	Ant 7	DSI0	113	6515	Without Scanner	19.13	19.5	1.088	100	1	0.09	0.093	0.101	0.754
	WLAN6GHz	802.11be-EHT320 MCS0	Edge 2	0mm	Ant 7	DSI7	127	6585	Without Scanner	11.43	11.5	1.016	100	1	0.01	0.285	0.290	2.220
	WLAN6GHz	802.11a 6Mbps	Bottom Face	22mm	Ant 7	DSI7	113	6515	Without Scanner	19.13	19.5	1.088	100	1	0.06	0.252	0.274	1.390
	WLAN6GHz	802.11a 6Mbps	Edge 2	24mm	Ant 7	DSI7	113	6515	Without Scanner	19.13	19.5	1.088	100	1	-0.01	0.193	0.210	1.160
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom Face	0mm	Ant 7	DSI7	95	6425	Without Scanner	9.85	10	1.035	100	1	0.03	0.598	0.619	3.440
	WLAN6GHz VLP	802.11ax-EHT320 MCS0	Bottom Face	0mm	Ant 7	DSI7	191	6905	Without Scanner	10.95	11	1.012	100	1	0.01	0.779	0.788	4.69
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom Face	0mm	Ant 7	DSI7	127	6585	With Scanner	11.43	11.5	1.016	100	1	-0.02	0.963	0.978	5.790

<NFC SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Freq. (MHz)	Sample	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
44	NFC	ASK	Front Face	0mm	13.56	Without Scanner	-0.01	0.042	0.042
	NFC	ASK	Bottom Face	0mm	13.56	Without Scanner	-0.04	0.001	0.001
	NFC	ASK	Edge 1	0mm	13.56	Without Scanner	0.02	0.001	0.001
	NFC	ASK	Edge 2	0mm	13.56	Without Scanner	-0.03	0.001	0.001
	NFC	ASK	Edge 3	0mm	13.56	Without Scanner	0.01	0.001	0.001
	NFC	ASK	Edge 4	0mm	13.56	Without Scanner	0.04	0.001	0.001
	NFC	ASK	Front Face	0mm	13.56	With Scanner	0.03	0.036	0.036



16.2 6GHz PD Test Result

<WLAN PD>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Sample	Ch.	Freq. (MHz)	Average Power (dBm)	Grid Step (λ)	iPDn	iPD ratio (≥ -1)	Normal psPD (W/m ²)	Total psPD (W/m ²)
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	2mm	Ant 6	Standalone	Without Scanner	31	6105	11.23	0.0625	2.68	0.39	2.79	4.15
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	10mm	Ant 6	Standalone	Without Scanner	31	6105	11.23	0.25	2.45		1.3	1.37
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	2mm	Ant 6	Standalone	Without Scanner	191	6905	11.85	0.0625	2.03	1.52	2.61	3.06
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	8.59mm	Ant 6	Standalone	Without Scanner	191	6905	11.85	0.25	1.43		1.23	1.29

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Sample	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Grid Step (λ)	Scaling Factor for Measurement Uncertainty	Power Drift (dB)	Normal psPD (W/m ²)	Scaled Normal psPD (W/m ²)	Total psPD (W/m ²)	Scaled Total psPD (W/m ²)
01	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	2mm	Ant 6	Standalone	without Scanner	31	6105	11.23	11.50	1.064	100	1.000	0.0625	1.5535	0.09	2.79	4.61	4.15	6.86
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	2mm	Ant 6	Standalone	without Scanner	63	6265	11.31	11.50	1.045	100	1.000	0.0625	1.5535	0.15	3.38	5.49	4.58	7.43
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	2mm	Ant 6	Standalone	without Scanner	95	6425	11.42	11.50	1.019	100	1.000	0.0625	1.5535	0.01	2.82	4.46	4.25	6.73
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	2mm	Ant 6	Standalone	without Scanner	127	6585	11.33	11.50	1.040	100	1.000	0.0625	1.5535	-0.16	2.86	4.62	3.77	6.09
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	2mm	Ant 6	Standalone	without Scanner	159	6745	10.86	11.00	1.033	100	1.000	0.0625	1.5535	0.04	3.36	5.39	4.11	6.59
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	2mm	Ant 6	Standalone	without Scanner	191	6905	11.85	12.00	1.035	100	1.000	0.0625	1.5535	0.02	2.61	4.20	3.06	4.92
	WLAN6GHz	802.11a 6Mbps	Bottom face	21mm	Ant 6	Full Power	without Scanner	97	6435	19.67	20.00	1.078	98.97	1.010	0.0625	1.5535	0.07	2.57	4.35	2.71	4.58
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	2mm	Ant 6	Standalone	With Scanner	63	6265	11.31	11.50	1.045	100	1.000	0.0625	1.5535	-0.02	3.05	4.95	4.35	7.06
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	2mm	Ant 7	Standalone	without Scanner	31	6105	8.71	9.00	1.069	100	1.000	0.0625	1.5535	0.02	1.41	2.34	2.07	3.44
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	2mm	Ant 7	Standalone	without Scanner	63	6265	8.77	9.00	1.054	100	1.000	0.0625	1.5535	0.19	1.61	2.64	2.65	4.34
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	2mm	Ant 7	Standalone	without Scanner	95	6425	8.89	9.00	1.026	100	1.000	0.0625	1.5535	-0.02	1.81	2.88	2.55	4.06
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	2mm	Ant 7	Standalone	without Scanner	127	6585	11.43	11.50	1.016	100	1.000	0.0625	1.5535	0.04	1.66	2.62	2.43	3.84
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	2mm	Ant 7	Standalone	without Scanner	159	6745	9.71	10.00	1.069	100	1.000	0.0625	1.5535	-0.06	1.11	1.84	1.9	3.16
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	2mm	Ant 7	Standalone	without Scanner	191	6905	10.79	11.00	1.050	100	1.000	0.0625	1.5535	0.02	1.83	2.98	2.25	3.67
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face-Top	2mm	Ant 7	Standalone	without Scanner	63	6265	8.77	9.00	1.054	100	1.000	0.0625	1.5535	0.04	1.47	2.41	2.18	3.57
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face-Left	2mm	Ant 7	Standalone	without Scanner	63	6265	8.77	9.00	1.054	100	1.000	0.0625	1.5535	0.05	1.05	1.72	1.13	1.85
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face-Right	2mm	Ant 7	Standalone	without Scanner	63	6265	8.77	9.00	1.054	100	1.000	0.0625	1.5535	0.01	0.873	1.43	1.05	1.72
	WLAN6GHz	802.11a 6Mbps	Bottom face	22mm	Ant 7	Full Power	without Scanner	117	6535	19.17	19.50	1.078	100	1.000	0.0625	1.5535	-0.01	0.186	0.31	0.213	0.36
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	2mm	Ant 7	Standalone	With Scanner	63	6265	8.77	9.00	1.054	100	1.000	0.0625	1.5535	0.03	1.21	1.98	1.5	2.46



16.3 Repeated SAR Measurement

[Repeat SAR 1g - FCC]

No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-Up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)	Ratio
1st	FR1 n13	10M_BPSK_1_1	Bottom Face	0.0	Ant 8	DSI7	156400	782	Without Scanner	21.75	22.50	1.189	100.0	1.0	-0.03	0.918	1.092	-
2nd	FR1 n13	10M_BPSK_1_1	Bottom Face	0.0	Ant 8	DSI7	156400	782	Without Scanner	21.75	22.50	1.189	100.0	1.0	0.02	0.895	1.064	1.03
1st	LTE Band 5	10M_QPSK_1_0	Edge 4	0.0	Ant 10	DSI7	20525	836.5	Without Scanner	21.50	22.10	1.148	100.0	1.0	0.14	0.949	1.089	-
2nd	LTE Band 5	10M_QPSK_1_0	Edge 4	0.0	Ant 10	DSI7	20525	836.5	Without Scanner	21.50	22.10	1.148	100.0	1.0	0.01	0.911	1.046	1.04
1st	LTE Band 66	20M_QPSK_1_99	Bottom Face	0.0	Ant 5	DSI7	132572	1770	Without Scanner	16.72	17.70	1.253	100.0	1.0	0.09	0.918	1.150	-
2nd	LTE Band 66	20M_QPSK_1_99	Bottom Face	0.0	Ant 5	DSI7	132572	1770	Without Scanner	16.72	17.70	1.253	100.0	1.0	-0.07	0.879	1.101	1.04
1st	GSM1900	GPRS 4 Tx slots	Bottom Face	0.0	Ant 1	DSI7	810	1909.8	Without Scanner	22.48	23.20	1.18	100.0	1.0	0.15	0.962	1.135	-
2nd	GSM1900	GPRS 4 Tx slots	Bottom Face	0.0	Ant 1	DSI7	810	1909.8	Without Scanner	22.48	23.20	1.18	100.0	1.0	0.01	0.951	1.122	1.01
1st	LTE Band 30	10M_QPSK_1_0	Bottom Face	0.0	Ant 5	DSI7	27710	2310	Without Scanner	17.73	18.50	1.194	100.0	1.0	0.02	0.937	1.119	-
2nd	LTE Band 30	10M_QPSK_1_0	Bottom Face	0.0	Ant 5	DSI7	27710	2310	Without Scanner	17.73	18.50	1.194	100.0	1.0	0.08	0.922	1.101	1.02
1st	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	0.0	Ant 6	DSI7	1	2412	Without Scanner	13.67	14.00	1.079	97.03	1.031	-0.02	1.020	1.135	-
2nd	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	0.0	Ant 6	DSI7	1	2412	Without Scanner	13.67	14.00	1.079	97.03	1.031	0.04	0.989	1.100	1.03
1st	FR1 n7	50M_BPSK_135_68	Edge 1	0.0	Ant 8	DSI7	507000	2535	Without Scanner	15.58	16.30	1.18	100.0	1.0	-0.01	0.941	1.110	-
2nd	FR1 n7	50M_BPSK_135_68	Edge 1	0.0	Ant 8	DSI7	507000	2535	Without Scanner	15.58	16.30	1.18	100.0	1.0	-0.07	0.914	1.079	1.03
1st	FR1 n77	100M_BPSK_1_1	Edge 1	0.0	Ant 8	DSI7	656000	3840	Without Scanner	13.20	13.60	1.096	100.0	1.0	0.05	0.921	1.009	-
2nd	FR1 n77	100M_BPSK_1_1	Edge 1	0.0	Ant 8	DSI7	656000	3840	Without Scanner	13.20	13.60	1.096	100.0	1.0	0.03	0.895	0.981	1.03
1st	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0.0	Ant 6	DSI7	42	5210	Without Scanner	9.65	10.00	1.084	100.0	1.0	-0.06	1.090	1.182	-
2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0.0	Ant 6	DSI7	42	5210	Without Scanner	9.65	10.00	1.084	100.0	1.0	0.03	0.988	1.071	1.10
1st	WLAN5GHz	802.11ac-VHT160 MCS0	Bottom Face	0.0	Ant 7	DSI7	114	5570	Without Scanner	5.63	6.00	1.089	100.0	1.0	-0.04	0.845	0.920	-
2nd	WLAN5GHz	802.11ac-VHT160 MCS0	Bottom Face	0.0	Ant 7	DSI7	114	5570	Without Scanner	5.63	6.00	1.089	100.0	1.0	0.01	0.815	0.888	1.04
1st	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0.0	Ant 7	DSI7	155	5775	Without Scanner	7.37	7.50	1.03	100.0	1.0	0.07	1.140	1.174	-
2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0.0	Ant 7	DSI7	155	5775	Without Scanner	7.37	7.50	1.03	100.0	1.0	0.04	1.010	1.040	1.13
1st	UHF RFID	-	Bottom Face	0mm	Ant 8	DSI 7	-	914.75	Without Scanner	19.89	21.00	1.291	100	1.000	0.17	0.858	1.108	-
2nd	UHF RFID	-	Bottom Face	0mm	Ant 8	DSI 7	-	914.75	Without Scanner	19.89	21.00	1.291	100	1.000	0.06	0.832	1.074	1.03
1st	WLAN6GHz	802.11be-EHT320 MCS0	Bottom Face	0mm	Ant 6	DSI7	31	6105	Without Scanner	11.23	11.5	1.064	100	1	0.08	1.11	1.181	-
2nd	WLAN6GHz	802.11be-EHT320 MCS0	Bottom Face	0mm	Ant 6	DSI7	31	6105	Without Scanner	11.23	11.5	1.064	100	1	0.03	0.983	1.046	1.13

General Note:

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

16.4 TDD LTE/FR1 Linearity Data Analysis

General Note:

This device support Power Class 2 and Power Class 3 operations for LTE Band 41 and FR1 n41/n77/n78. The highest available duty cycle for Power Class 2 operation is 43.3% using UL-DL configuration 1. Per FCC Guidance based on the device behavior, all SAR tests were performed using Power Class 3. Power Class 2 is tested using the highest SAR test configuration in Power Class 3 for each LTE configuration and exposure condition combination, according to the highest time averaged power for all applicable uplink-downlink configurations in Power Class 2. When the reported SAR vs. output power is linearly scaled with < 10% discrepancy between power classes and all reported SAR are < 1.4 W/kg for 1g and < 3.5 W/kg for 10g, Separate SAR testing for Power Class 2 is not required.

LTE B41-Linearity Data for Ant 8					
	LTE B41 (Power Class 3)	LTE B41 (Power Class 2)			
Maximum Tune up Power (dBm)	20.30	21.90			
Reported 1g SAR (W/kg)	1.129	1.100			
Duty Cycle	63.30%	43.30%			
Frame Averaged (mW)	67.83	67.06			
Linearity SAR (W/kg)	1.116				
% deviation from expected linearity		-1.46%			
FR1 n41(HPUE)-Linearity Data for Ant 8			FR1 n41(HPUE)-Linearity Data for Ant 3		
	FR1 n41 (Power Class 3)	FR1 n41 (Power Class 2)		FR1 n41 (Power Class 3)	FR1 n41 (Power Class 2)
Maximum Tune up Power (dBm)	11.20	14.20	Maximum Tune up Power (dBm)	9.50	12.50
Reported 1g SAR (W/kg)	1.029	1.019	Reported 1g SAR (W/kg)	1.067	1.062
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	13.18	13.15	Frame Averaged (mW)	8.91	8.89
Linearity SAR (W/kg)	1.027		Linearity SAR (W/kg)	1.064	
% deviation from expected linearity		-0.74%	% deviation from expected linearity		-0.23%
FR1 n41(HPUE)-Linearity Data for Ant 4			FR1 n41(HPUE)-Linearity Data for Ant 5		
	FR1 n41 (Power Class 3)	FR1 n41 (Power Class 2)		FR1 n41 (Power Class 3)	FR1 n41 (Power Class 2)
Maximum Tune up Power (dBm)	8.50	11.50	Maximum Tune up Power (dBm)	18.10	21.10
Reported 1g SAR (W/kg)	1.070	1.067	Reported 1g SAR (W/kg)	1.063	1.058
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	7.08	7.06	Frame Averaged (mW)	64.57	64.41
Linearity SAR (W/kg)	1.067		Linearity SAR (W/kg)	1.060	
% deviation from expected linearity		-0.04%	% deviation from expected linearity		-0.23%
FR1 n77 Part 27Q(HPUE)-Linearity Data for Ant 8			FR1 n77 Part 27Q(HPUE)-Linearity Data for Ant 3		
	FR1 n77 Part 27Q (Power Class 3)	FR1 n77 Part 27Q (Power Class 2)		FR1 n77 Part 27Q (Power Class 3)	FR1 n77 Part 27Q (Power Class 2)
Maximum Tune up Power (dBm)	13.60	16.60	Maximum Tune up Power (dBm)	9.20	12.20
Reported 1g SAR (W/kg)	0.789	0.728	Reported 1g SAR (W/kg)	0.976	0.934
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	22.91	22.85	Frame Averaged (mW)	8.32	8.30
Linearity SAR (W/kg)	0.787		Linearity SAR (W/kg)	0.974	
% deviation from expected linearity		-7.51%	% deviation from expected linearity		-4.08%
FR1 n77 Part 27O(HPUE)-Linearity Data for Ant 8			FR1 n77 Part 27O(HPUE)-Linearity Data for Ant 3		
	FR1 n77 Part 27O (Power Class 3)	FR1 n77 Part 27O (Power Class 2)		FR1 n77 Part 27O (Power Class 3)	FR1 n77 Part 27O (Power Class 2)
Maximum Tune up Power (dBm)	13.60	16.60	Maximum Tune up Power (dBm)	9.20	12.20
Reported 1g SAR (W/kg)	1.009	0.990	Reported 1g SAR (W/kg)	0.755	0.744
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	22.91	22.85	Frame Averaged (mW)	8.32	8.30
Linearity SAR (W/kg)	1.007		Linearity SAR (W/kg)	0.753	
% deviation from expected linearity		-1.65%	% deviation from expected linearity		-1.22%



FR1 n77 Part 27Q(HPUE)-Linearity Data for Ant 4			FR1 n77 Part 27Q(HPUE)-Linearity Data for Ant 9		
	FR1 n77 Part 27Q (Power Class 3)	FR1 n77 Part 27Q (Power Class 2)		FR1 n77 Part 27Q (Power Class 3)	FR1 n77 Part 27Q (Power Class 2)
Maximum Tune up Power (dBm)	15.20	18.20	Maximum Tune up Power (dBm)	14.70	17.70
Reported 1g SAR (W/kg)	1.006	1.001	Reported 1g SAR (W/kg)	0.975	0.967
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	33.11	33.03	Frame Averaged (mW)	29.51	29.44
Linearity SAR (W/kg)	1.004		Linearity SAR (W/kg)	0.973	
% deviation from expected linearity		-0.26%	% deviation from expected linearity		-0.59%
FR1 n77 Part 27O(HPUE)-Linearity Data for Ant 4			FR1 n77 Part 27O(HPUE)-Linearity Data for Ant 9		
	FR1 n77 Part 27O (Power Class 3)	FR1 n77 Part 27O (Power Class 2)		FR1 n77 Part 27O (Power Class 3)	FR1 n77 Part 27O (Power Class 2)
Maximum Tune up Power (dBm)	16.20	18.20	Maximum Tune up Power (dBm)	14.70	17.70
Reported 1g SAR (W/kg)	0.736	0.640	Reported 1g SAR (W/kg)	0.785	0.791
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	41.69	33.03	Frame Averaged (mW)	29.51	29.44
Linearity SAR (W/kg)	0.583		Linearity SAR (W/kg)	0.783	
% deviation from expected linearity		9.73%	% deviation from expected linearity		1.00%

<Sensor off>

LTE B41-Linearity Data for Ant 8		
	LTE B41 (Power Class 3)	LTE B41 (Power Class 2)
Maximum Tune up Power (dBm)	25.10	27.00
Reported 1g SAR (W/kg)	0.204	0.197
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	204.83	217.01
Linearity SAR (W/kg)	0.216	
% deviation from expected linearity		-8.85%
FR1 n41(HPUE)-Linearity Data for Ant 8		
	FR1 n41 (Power Class 3)	FR1 n41 (Power Class 2)
Maximum Tune up Power (dBm)	25.20	27.00
Reported 1g SAR (W/kg)	0.321	0.259
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	331.13	250.59
Linearity SAR (W/kg)	0.243	
% deviation from expected linearity		6.62%
FR1 n41(HPUE)-Linearity Data for Ant 5		
	FR1 n41 (Power Class 3)	FR1 n41 (Power Class 2)
Maximum Tune up Power (dBm)	25.20	27.00
Reported 1g SAR (W/kg)	0.536	0.439
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	331.13	250.59
Linearity SAR (W/kg)	0.406	
% deviation from expected linearity		8.23%

FR1 n77 Part 27Q(HPUE)-Linearity Data for Ant 8			FR1 n77 Part 27Q(HPUE)-Linearity Data for Ant 9		
	FR1 n77 Part 27Q (Power Class 3)	FR1 n77 Part 27Q (Power Class 2)		FR1 n77 Part 27Q (Power Class 3)	FR1 n77 Part 27Q (Power Class 2)
Maximum Tune up Power (dBm)	25.70	25.70	Maximum Tune up Power (dBm)	25.70	25.70
Reported 1g SAR (W/kg)	0.772	0.392	Reported 1g SAR (W/kg)	0.681	0.342
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	371.54	185.77	Frame Averaged (mW)	371.54	185.77
Linearity SAR (W/kg)	0.386		Linearity SAR (W/kg)	0.341	
% deviation from expected linearity		1.55%	% deviation from expected linearity		0.44%
FR1 n77 Part 27O(HPUE)-Linearity Data for Ant 8			FR1 n77 Part 27O(HPUE)-Linearity Data for Ant 9		
	FR1 n77 Part 27O (Power Class 3)	FR1 n77 Part 27O (Power Class 2)		FR1 n77 Part 27O (Power Class 3)	FR1 n77 Part 27O (Power Class 2)
Maximum Tune up Power (dBm)	25.70	25.70	Maximum Tune up Power (dBm)	25.70	25.70
Reported 1g SAR (W/kg)	0.944	0.477	Reported 1g SAR (W/kg)	0.647	0.327
Duty Cycle	100.00%	50.00%	Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	371.54	185.77	Frame Averaged (mW)	371.54	185.77
Linearity SAR (W/kg)	0.472		Linearity SAR (W/kg)	0.324	
% deviation from expected linearity		1.06%	% deviation from expected linearity		1.08%

17. Simultaneous Transmission Analysis

No.	Simultaneous Transmission Configurations	Touch Computer
		Body
1.	WLAN2.4GHz + Bluetooth	Yes
2.	WLAN5GHz + Bluetooth	Yes
3.	WLAN6GHz + Bluetooth	Yes
4.	WLAN5.2GHz/5.3GHz + WLAN6GHz	Yes
5.	WLAN2.4GHz + WLAN5GHz	Yes
6.	WLAN2.4GHz + WLAN6GHz	Yes
7.	WLAN5.2GHz/5.3GHz + WLAN5.5GHz/5.8GHz	Yes
8.	WLAN2.4GHz + WLAN5GHz + Bluetooth	Yes
9.	WLAN2.4GHz + WLAN6GHz + Bluetooth	Yes
10.	WLAN5.2GHz/5.3GHz + WLAN6GHz + Bluetooth	Yes
11.	WLAN5.2GHz/5.3GHz + WLAN5.5GHz/5.8GHz + Bluetooth	Yes
12.	WLAN2.4GHz + Bluetooth + NFC	Yes
13.	WLAN5GHz + Bluetooth+ NFC	Yes
14.	WLAN6GHz + Bluetooth+ NFC	Yes
15.	WLAN2.4GHz + WLAN5GHz+ NFC	Yes
16.	WLAN2.4GHz + WLAN6GHz+ NFC	Yes
17.	WLAN2.4GHz + WLAN5GHz + Bluetooth+ NFC	Yes
18.	WLAN2.4GHz + WLAN6GHz + Bluetooth+ NFC	Yes
19.	WLAN5.2GHz/5.3GHz + WLAN6GHz + Bluetooth+ NFC	Yes
20.	WLAN5.2GHz/5.3GHz + WLAN5.5GHz/5.8GHz + Bluetooth + NFC	Yes
21.	WWAN +WLAN2.4GHz + Bluetooth	Yes
22.	WWAN +WLAN5GHz + Bluetooth	Yes
23.	WWAN +WLAN6GHz + Bluetooth	Yes
24.	WWAN +WLAN5.2GHz/5.3GHz + WLAN6GHz	Yes
25.	WWAN +WLAN2.4GHz + WLAN5GHz	Yes
26.	WWAN +WLAN2.4GHz + WLAN6GHz	Yes
27.	WWAN +WLAN5.2GHz/5.3GHz + WLAN5.5GHz/5.8GHz	Yes
28.	WWAN +WLAN2.4GHz + WLAN5GHz + Bluetooth	Yes
29.	WWAN +WLAN2.4GHz + WLAN6GHz + Bluetooth	Yes
30.	WWAN +WLAN5.2GHz/5.3GHz + WLAN6GHz + Bluetooth	Yes
31.	WWAN +WLAN5.2GHz/5.3GHz + WLAN5.5GHz/5.8GHz + Bluetooth	Yes
32.	WWAN +WLAN2.4GHz + Bluetooth + NFC	Yes
33.	WWAN +WLAN5GHz + Bluetooth+ NFC	Yes
34.	WWAN +WLAN6GHz + Bluetooth+ NFC	Yes
35.	WWAN +WLAN2.4GHz + WLAN5GHz+ NFC	Yes
36.	WWAN +WLAN2.4GHz + WLAN6GHz+ NFC	Yes
37.	WWAN +WLAN2.4GHz + WLAN5GHz + Bluetooth+ NFC	Yes
38.	WWAN +WLAN2.4GHz + WLAN6GHz + Bluetooth+ NFC	Yes
39.	WWAN +WLAN5.2GHz/5.3GHz + WLAN6GHz + Bluetooth+ NFC	Yes
40.	WWAN + WLAN5.2GHz/5.3GHz + WLAN5.5GHz/5.8GHz + Bluetooth + NFC	Yes

General Note:

1. EUT will choose each GSM, WCDMA, LTE and 5G NR according to the network signal condition; therefore, they will not operate simultaneously at any moment.
2. WWAN above includes 5G NR bands and EN-DC combination.
3. EUT will choose each GSM, WCDMA, LTE and 5G NR according to the network signal condition; therefore, they will not operate simultaneously at any moment.
4. 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.



5. According to the EUT characteristic, when WLAN 2.4GHz and Bluetooth share the same antenna path and cannot transmit simultaneously; when WLAN 2.4GHz Ant 7 and Bluetooth Ant 6 are located on different antennas, they can transmit simultaneously.
6. According to the EUT characteristic, WLAN 5GHz and WLAN 6GHz can transmit simultaneously.
7. WLAN standalone SAR summed together as WLAN MIMO SAR.
8. The Bluetooth can transmit in SISO mode only and they have no MIMO mode.
9. According to the EUT characteristic, WLAN 5GHz/WLAN 6GHz and Bluetooth can transmit simultaneously.
10. According to the EUT characteristic, WLAN 5GHz/WLAN 6GHz and WLAN 2.4GHz can transmit simultaneously.
11. NFC can transmit simultaneously with other Radios in extremity exposure condition.
12. For distance SAR and non-distance SAR always choose higher SAR to do co-located analysis.
13. For standalone WWAN/WLAN/BT/RFID, always choose the highest SAR among all WWAN/WLAN/BT/RFID bands within the selected antenna for each exposure position to perform simultaneous transmission analysis with NFC. This is the worst co-located analysis and can represent each band.
14. The equipment under test (EUT) contains the Qualcomm modems supporting 2G/3G/4G/5G technologies and WLAN/BT/RFID 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/RFID to not exceed FCC limit. In addition, each antenna needs to satisfy simultaneous transmission analysis with External radios (NFC) in this report at extremity exposure condition.
15. All licensed modes share the same antenna part and cannot transmit simultaneously.
16. The reported SAR summation is calculated based on the same configuration and test position.
17. 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) $SPLSR = (SAR1 + SAR2)^{1.5} / (\text{min. separation distance, mm})$, and the peak separation distance is determined from the square root of $[(x1-x2)^2 + (y1-y2)^2 + (z1-z2)^2]$, where (x1, y1, z1) and (x2, y2, z2) are the coordinates of the extrapolated peak SAR locations in the zoom scan.
 - iii) If $SPLSR \leq 0.04$ for 1g SAR and $SPLSR \leq 0.10$ for 10g SAR, simultaneously transmission SAR measurement is not necessary.
 - iv) Simultaneously transmission SAR measurement, and the reported multi-band 1g SAR < 1.6W/kg and 10g SAR < 4.0W/kg.
 - v) The SPLSR calculated results please refer to section 17.4.

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

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

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

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

$$x\% * A + (100-x)\% * B \leq 1.0,$$

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

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

$$x\% * A + (100-x)\% * B + C \leq 1.0 \quad (1)$$

$$x\% * A + (100-x)\% * B \leq x\% * \max(A, B) + (100-x)\% * \max(A, B) \leq \max(A, B)$$

$$x\% * A + (100-x)\% * B + C \leq \max(A, B) + C \leq 1.0 \quad (2)$$

If $A + C \leq 1.0$ and $B + C \leq 1.0$ can be proven, then " $x\% * A + (100-x)\% * B + C \leq 1.0$ ". Therefore simultaneous transmission analysis for 5G NR + LTE + WLAN + BT can be performed in two steps

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

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

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

i. A and C are decoupled based on the SPLSR criteria, and

ii. $(100-x)\% * B + C \leq 1.0$, and

iii. $x\% * A + (100-x)\% * B \leq 1.0$

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

Above analysis is also apply to LTE/NR inter-band uplink CA, LTE(NR)1 + LTE(NR)2 + WLAN + BT simultaneous transmission, So inter-band uplink CA no need to do additional simultaneously analysis again. Only required comply with total exposure ratio (TER) of LTE/NR + WLAN + BT < 1.

17.2 MIMO SAR Test condition and verification

General Note:

- Smart Transmit EFS v20 (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:
 - Below procedure should also be performed for Smart Transmit EFS v21 (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).
- Measure SAR for supported MIMO scenarios in FTM mode with each of the MIMO antennas set to transmit continuously at $P_{test} = \text{minimum} \{Plimit(i), P_{max}(i); i=1 \text{ to } n \text{ MIMO antennas}\}$, where $Plimit(i)$ 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):

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

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

Here,

 - n is number of MIMO antennas (in case of 2x2MIMO, $n=2$).
 - $Plimit(i)$ is EFS $Plimit$ for antenna $i \in$ MIMO for a given tech/band/DSI. $Plimit$ corresponds to SAR_design_target .
 - $backoff(i)$ is backoff from SAR_design_target used for the i th antenna's $Plimit$ to meet TER with external radios (i.e., radios outside of Smart Transmit control). If EFS $Plimit$ of antenna i corresponds to SAR_design_target , then $backoff(i) = 0$ in the above equation.
 - P_{test} (i.e., power level used for MIMO SAR measurement, $MIMO.SAR @ P_{test}$) = $\min \{Plimit(i), P_{max}(i), i = 1 \text{ to } n \text{ MIMO antenna}\}$. To further clarify, $P_{test} = \min \{Plimit(i), SISO.P_{max}(i), MIMO.P_{max}, i = 1 \text{ to } n \text{ antenna} \in MIMO\}$, where, $Plimit$ 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.
- If the $reported\ SAR_{MIMO}$ does not meet the above condition, then $Plimit(i)$ for each of the MIMO antenna in the Smart Transmit EFS should be reduced by $10 * \log_{10}[reported\ SAR_{MIMO} / calc.\ SAR]$ dB.
- This test is not needed if MIMO antennas are in different AGs.
- Per Qualcomm's document guideline, NR MIMO Plimit is not populated in the EFS, but MIMO operation is supported for antennas belonging to the same antenna group, the detail NR MIMO analysis results please referred to appendix G.



17.3 Body Exposure Conditions

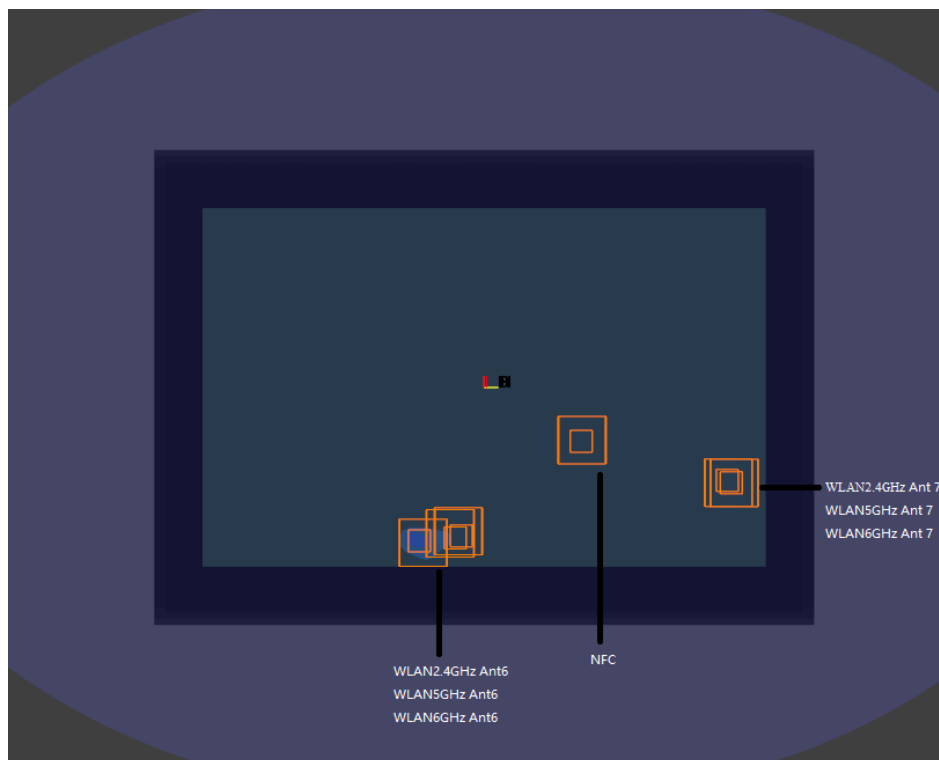
WWAN Band	Exposure Position	1	2	3	4	5	6	7	8	9	10	13
		WWAN 1g SAR (W/kg)	WLAN2.4GHz Ant 6 1g SAR (W/kg)	WLAN2.4GHz Ant 7 1g SAR (W/kg)	WLAN5GHz Ant 6 1g SAR (W/kg)	WLAN5GHz Ant 7 1g SAR (W/kg)	WLAN6GHz Ant 6 1g SAR (W/kg)	WLAN6GHz Ant 7 1g SAR (W/kg)	Bluetooth Ant 6 1g SAR (W/kg)	Bluetooth Ant 7 1g SAR (W/kg)	NFC 1g SAR (W/kg)	RFID 1g SAR (W/kg)
ALL	Bottom Face	1.150	1.135	1.096	1.182	1.181	1.181	1.107	0.239	0.183	0.001	1.108
	Edge 1	1.129	0.222	0.195	0.762	0.161	0.874	0.101	0.072	0.001	0.001	1.098
	Edge 2	1.074	0.001	0.404	0.081	0.533	0.030	0.290	0.002	0.075	0.001	0.230
	Edge 3	1.070	0.001	0.119	0.071	0.107	0.005	0.040	0.002	0.001	0.001	0.001
	Edge 4	1.089	0.086	0.001	0.154	0.001	0.029	0.010	0.002	0.001	0.001	0.202

WWAN Band	Exposure Position	1+10	8+10	9+10	13+10	2+3+10	4+5+10	6+7+10	SPLSR
		Summed	Summed	Summed	Summed	Summed	Summed	Summed	
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	
ALL	Bottom Face	1.15	0.24	0.18	1.11	2.23	2.36	2.29	1&2&3
	Edge 1	1.13	0.07	0.00	1.10	0.42	0.92	0.98	
	Edge 2	1.08	0.00	0.08	0.23	0.41	0.62	0.32	
	Edge 3	1.07	0.00	0.00	0.00	0.12	0.18	0.05	
	Edge 4	1.09	0.00	0.00	0.20	0.09	0.16	0.04	

17.4 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. $SPLSR = (SAR_1 + SAR_2)1.5 / (\text{min. separation distance, mm})$. If $SPLSR \leq 0.04$ for 1g SAR, simultaneously transmission SAR measurement is not necessary.



Body_ Bottom Face 0mm

	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Case 1	WLAN2.4GHz Ant 6	Bottom Face	1.135	0	74	-6	-177	134.7	2.23	0.02	Not required
	WLAN2.4GHz Ant 7		1.096	0	43	125	-174				
	NFC		0.001	0							
	WLAN2.4GHz Ant 6	Bottom Face	1.135	0	74	-6	-177	133.2	2.23	0.03	Not required
	WLAN2.4GHz Ant 7		1.096	0							
	NFC		0.001	0	-26.2	81.8	-177				
	WLAN2.4GHz Ant 6	Bottom Face	1.135	0				81.6	2.23	0.04	Not required
	WLAN2.4GHz Ant 7		1.096	0	43	125	-174				
	NFC		0.001	0	-26.2	81.8	-177				
Case 2	Band	Position	SAR (W/kg)	Gap (mm)	X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WLAN5GHz Ant 6	Bottom Face	1.182	0	80	-19	-174	140.8	2.36	0.03	Not required
	WLAN5GHz Ant 7		1.181	0	46.5	117.7	-177				
	NFC		0.001	0							
	WLAN5GHz Ant 6	Bottom Face	1.182	0	80	-19	-174	146.5	2.36	0.02	Not required
	WLAN5GHz Ant 7		1.181	0							
	NFC		0.001	0	-26.2	81.8	-177				
	WLAN5GHz Ant 6	Bottom Face	1.182	0				81.1	2.36	0.04	Not required
	WLAN5GHz Ant 7		1.181	0	46.5	117.7	-177				
	NFC		0.001	0	-26.2	81.8	-177				
Case 3	Band	Position	SAR (W/kg)	Gap (mm)	X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WLAN6GHz Ant 6	Bottom Face	1.181	0	72.8	-11.5	-177	127.9	2.29	0.03	Not required
	WLAN6GHz Ant 7		1.107	0	48.3	114	-177				
	NFC		0.001	0							
	WLAN6GHz Ant 6	Bottom Face	1.181	0	72.8	-11.5	-177	136.0	2.29	0.03	Not required
	WLAN6GHz Ant 7		1.107	0							
	NFC		0.001	0	-26.2	81.8	-177				
	WLAN6GHz Ant 6	Bottom Face	1.181	0				81.2	2.29	0.04	Not required
	WLAN6GHz Ant 7		1.107	0	48.3	114	-177				
	NFC		0.001	0	-26.2	81.8	-177				

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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.

Declaration of Conformity:

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

Comments and Explanations:

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

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

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

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

Uncertainty Distributions	Normal	Rectangular	Triangular	U-Shape
Multi-plying Factor ^(a)	$1/k^{(b)}$	$1/\sqrt{3}$	$1/\sqrt{6}$	$1/\sqrt{2}$

(a) standard uncertainty is determined as the product of the multiplying factor and the estimated range of variations in the measured quantity

(b) k is the coverage factor

Standard Uncertainty for Assumed Distribution

The combined standard uncertainty of the measurement result represents the estimated standard deviation of the result. It is obtained by combining the individual standard uncertainties of both Type A and Type B evaluation using the usual "root-sum-squares" (RSS) methods of combining standard deviations by taking the positive square root of the estimated variances.

Expanded uncertainty is a measure of uncertainty that defines an interval about the measurement result within which the measured value is confidently believed to lie. It is obtained by multiplying the combined standard uncertainty by a coverage factor. Typically, the coverage factor ranges from 2 to 3. Using a coverage factor allows the true value of a measured quantity to be specified with a defined probability within the specified uncertainty range. For purpose of this document, a coverage factor two is used, which corresponds to confidence interval of about 95 %. The DASY uncertainty Budget is shown in the following tables.

The judgment of conformity in the report is based on the measurement results excluding the measurement uncertainty.

Uncertainty Budget According to IEC/IEEE 62209-1528 (Frequency band: 4 MHz - 10 GHz range)							
Error Description	Uncert. Value (±%)	Prob. Dist.	Div.	(Ci) 1g	(Ci) 10g	Standard Uncertainty (1g) (±%)	Standard Uncertainty (10g) (±%)
Measurement System errors							
Probe calibration	18.6	N	2	1	1	9.3	9.3
Probe calibration drift	1.7	R	1.732	1	1	1.0	1.0
Probe linearity and detection Limit	4.7	R	1.732	1	1	2.7	2.7
Broadband signal	2.8	R	1.732	1	1	1.6	1.6
Probe isotropy	7.6	R	1.732	1	1	4.4	4.4
Other probe and data acquisition errors	2.4	N	1	1	1	2.4	2.4
RF ambient and noise	1.8	N	1	1	1	1.8	1.8
Probe positioning errors	0.006	N	1	0.5	0.5	0.0	0.0
Data processing errors	4.0	N	1	1	1	4.0	4.0
Phantom and Device Errors							
Measurement of phantom conductivity (σ)	2.5	N	1	0.78	0.71	2.0	1.8
Temperature effects (medium)	5.4	R	1.732	0.78	0.71	2.4	2.2
Shell permittivity	14.0	R	1.732	0.5	0.5	4.0	4.0
Distance between the radiating element of the DUT and the phantom medium	2.0	N	1	2	2	4.0	4.0
Repeatability of positioning the DUT or source against the phantom	1.0	N	1	1	1	1.0	1.0
Device holder effects	3.6	N	1	1	1	3.6	3.6
Effect of operating mode on probe sensitivity	2.4	R	1.732	1	1	1.4	1.4
Time-average SAR	1.7	R	1.732	1	1	1.0	1.0
Variation in SAR due to drift in output of DUT	2.5	N	1	1	1	2.5	2.5
Validation antenna uncertainty (validation measurement only)	0.0	N	1	1	1	0.0	0.0
Uncertainty in accepted power (validation measurement only)	0.0	N	1	1	1	0.0	0.0
Correction to the SAR results							
Phantom deviation from target (ϵ', σ)	1.9	N	1	1	0.84	1.9	1.6
SAR scaling	0.0	R	1.732	1	1	0.0	0.0
Combined Std. Uncertainty						14.5%	14.4%
Coverage Factor for 95 %						K=2	K=2
Expanded STD Uncertainty						29.0%	28.8%

SAR Uncertainty Budget for frequency range 4MHz to 10GHz

cDASY6 Module mmWave Uncertainty Budget Evaluation Distances to the Antennas $\lambda/2\pi$ In Compliance with IEC TR 63170					
Error Description	Uncertainty Value ($\pm$ dB)	Probability	Divisor	(Ci)	Standard Uncertainty ($\pm$ dB)
Uncertainty terms dependent on the measurement system					
Probe Calibration	0.49	N	1	1	0.49
Probe correction	0.00	R	1.732	1	0.00
Frequency response	0.20	R	1.732	1	0.12
Sensor cross coupling	0.00	R	1.732	1	0.00
Isotropy	0.50	R	1.732	1	0.29
Linearity	0.20	R	1.732	1	0.12
Probe scattering	0.00	R	1.732	1	0.00
Probe positioning offset	0.30	R	1.732	1	0.17
Probe positioning repeatability	0.04	R	1.732	1	0.02
Sensor mechanical offset	0.00	R	1.732	1	0.00
Probe spatial resolution	0.00	R	1.732	1	0.00
Field impedance dependence	0.00	R	1.732	1	0.00
Amplitude and phase drift	0.00	R	1.732	1	0.00
Amplitude and phase noise	0.04	R	1.732	1	0.02
Measurement area truncation	0.00	R	1.732	1	0.00
Data acquisition	0.03	N	1	1	0.03
Sampling	0.00	R	1.732	1	0.00
Field reconstruction	2.00	R	1.732	1	1.15
Forward transformation	0.00	R	1.732	1	0.00
Power density scaling	0.00	R	1.732	1	0.00
Spatial averaging	0.10	R	1.732	1	0.06
System detection limit	0.04	R	1.732	1	0.02
Uncertainty terms dependent on the DUT and environmental factors					
Probe coupling with DUT	0.00	R	1.732	1	0.0
Modulation response	0.40	R	1.732	1	0.2
Integration time	0.00	R	1.732	1	0.0
Response time	0.00	R	1.732	1	0.0
Device holder influence	0.10	R	1.732	1	0.1
DUT alignment	0.00	R	1.732	1	0.0
RF ambient conditions	0.04	R	1.732	1	0.0
Ambient reflections	0.04	R	1.732	1	0.0
Immunity / secondary reception	0.00	R	1.732	1	0.0
Drift of the DUT		R	1.732	1	
Combined Std. Uncertainty					1.34
Expanded STD Uncertainty (95%)					2.68

PD Uncertainty Budget

19. References

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- [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
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- [5] FCC KDB 248227 D01 v02r02, "SAR Guidance for IEEE 802.11 (WiFi) Transmitters", Oct 2015.
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- [15] IEC TR 63170: 2018 Measurement procedure for the evaluation of power density related to human exposure to radio frequency fields from wireless communication devices operating between 6 GHz and 100 GHz
- [16] SPEAG DASY6 System Handbook
- [17] SPEAG DASY6 Application Note (Interim Procedures for Devices Operating at 6-10 GHz)

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. Verify MIMO SAR analysis results

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