

FCC SAR Test Report

APPLICANT : Zebra Technologies Corporation
EQUIPMENT : Enterprise Tablet
BRAND NAME : Zebra
MODEL NAME : ET401EA
FCC ID : UZ7ET401EA
STANDARD : FCC 47 CFR Part 2 (2.1093)

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

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



Approved by: Si Zhang

Sporton International Inc. (Kunshan)

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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA591010	Rev. 01	Initial issue of report	Dec. 09, 2025



1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **Zebra Technologies Corporation, Enterprise TABLET, ET401EA**, 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	1.14	1.15
		GSM1900	1.14	
	WCDMA	WCDMA V	1.11	
		WCDMA II	1.12	
		WCDMA IV	1.12	
	LTE	LTE Band 7	1.13	
		LTE Band 12/17	1.12	
		LTE Band 13	1.12	
		LTE Band 14	1.13	
		LTE Band 25/2	1.13	
		LTE Band 26/5	1.13	
		LTE Band 30	1.11	
		LTE Band 41/38	1.13	
		LTE Band 48	1.12	
		LTE Band 66/4	1.13	
		LTE Band 71	1.13	
		LTE Band 53	1.13	
		LTE Band 106	1.09	
		LTE Band 70	1.12	
	5GNR	FR1 n7	1.12	
		FR1 n12	1.13	
		FR1 n13	1.12	
		FR1 n14	1.12	
		FR1 n25/n2	1.12	
		FR1 n26/n5	1.14	
		FR1 n30	1.12	
		FR1 n41/n38	1.11	
		FR1 n48	1.12	
		FR1 n66	1.12	
		FR1 n70	1.12	
		FR1 n71	1.12	
		FR1 n77/n78	1.15	
		FR1 n53	1.11	
DTS	WLAN	2.4GHz WLAN	1.18	1.18
NII		5GHz WLAN	1.19	1.19
6CD		6GHz WLAN	1.18	1.18
VLP		6GHz WLAN	0.99	
DSS	Bluetooth	2.4GHz Bluetooth	0.13	0.13
DXX	NFC	13.56MHz	<0.10	1.15
DSS	RFID	RFID	1.12	1.12

Remark:

- This device supports LTE B2 / B4 / B5 / B17 / B38 and B25 / B66 / B26 / B12 / B41. Since the supported frequency span for LTE B2 / B4 / B5 / B17 / B38 falls completely within the support's frequency span for LTE B25 / B66 / B26 / B12 / B41, both LTE bands have the same target power, and both LTE bands share the same transmission path; therefore, SAR was only assessed for LTE B25 / B66 / B26 / B12 / B41.
- This device supports 5GNR n38/n5/n78/n2 and n41/n26/n77/n25. Since the supported frequency span for 5GNR n38/n5/n78/n2 falls completely within the support's frequency span for n41/n26/n77/n25, both 5GNR bands have the same target power, and both 5GNR 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	7.45	7.82
VLP	6GHz WLAN	6.42	
Date of Testing:		2025/9/23 ~ 2025/11/30	

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/cm²=10 W/m²) specified in FCC 47 CFR part 1.1310 and ANSI/IEEE C95.1-1992, and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528-2013 and FCC KDB publications.

2. Administration Data

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

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	ET401EA
FCC ID	UZ7ET401EA
IMEI Code	Sample 1: 354137290013897/354137290013913, 354137290013780/354137290013798 Sample 2: 354137290013228/354137290013236
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 270&27Q)/n78 (Part 270&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
	Zebra	SAWA-102-22520A	PWR-WUA5V45W1EU
	Zebra	SAWA-102-22520A	PWR-WUA5V45W1AU
	Zebra	SAWA-102-22520A	PWR-WUA5V45W1GB
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
Type C-Audio Cable Type C to 3.5mm	Zebra	-	ADP-USBC-35MM1-01
3.5mm to 3.5mm audio connector	Zebra	-	CBL-HS2100-3MS1-01
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	UZ7ET401EA																																																																						
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	20525	836.5	20600	844
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	21100	2535	21100	2535
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	23095	707.5	23095	707.5
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 #		Freq.(MHz)					
L	23305		790.5		23330		793					
M	23330		793									
H	23355		795.5									
LTE Band 17												
	Bandwidth 5 MHz				Bandwidth 10 MHz							
	Channel #		Freq.(MHz)		Channel #		Freq. (MHz)					
L	23755		706.5		23780		709					
M	23790		710		23790		710					
H	23825		713.5		23800		711					
LTE Band 13												
	Bandwidth 5 MHz				Bandwidth 10 MHz							
	Channel #		Freq.(MHz)		Channel #		Freq. (MHz)					
L	23205		779.5		23230		782					
M	23230		782									
H	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	15.90	25.10	25.10
LTE Band 25	Ant 1	15.90	25.10	25.10
LTE Band 2	Ant 5	16.00	25.10	25.10
LTE Band 25	Ant 5	16.00	25.10	25.10
LTE Band 12	Ant 8	21.80	25.10	25.10
LTE Band 17	Ant 8	21.80	25.10	25.10
LTE Band 5	Ant 8	21.00	25.10	25.10
LTE Band 26	Ant 8	21.00	25.10	25.10
LTE Band 4	Ant 1	16.00	25.10	25.10
LTE Band 66	Ant 1	16.00	25.10	25.10
LTE Band 4	Ant 5	17.70	25.10	25.10
LTE Band 66	Ant 5	17.70	25.10	25.10
LTE Band 38	Ant 5	15.40	25.10	25.10
LTE Band 41	Ant 5	15.40	25.10	25.10
LTE Band 38	Ant 8	17.10	25.10	25.10
LTE Band 41	Ant 8	17.10	25.10	25.10

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	
Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L 500500	2502.5	501000	2505	501500	2507.5	502000	2510	502500	2512.5	503000	2515	503500	2517.5	504000	2520
M 507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535
H 513500	2567.5	513000	2565	512500	2562.5	512000	2560	511500	2557.5	511000	2555	510500	2552.5	510000	2550



NR Band 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	Sensor off	Default
		DSI 7	DSI 0	
		Tune-up Limit	Tune-up Limit	
FR1 n2	Ant 1	16.8	25.2	25.2
FR1 n25	Ant 1	16.8	25.2	25.2
FR1 n2	Ant 5	17.6	25.2	25.2
FR1 n25	Ant 5	17.6	25.2	25.2
FR1 n5	Ant 8	20.6	25.2	25.2
FR1 n26	Ant 8	20.6	25.2	25.2
FR1 n38	Ant 5	13.5	25.2	25.2
FR1 n41	Ant 5	13.5	25.2	25.2
FR1 n41 HPUE	Ant 5	16.5	27	27
FR1 n38	Ant 8	14.4	25.2	25.2
FR1 n41	Ant 8	14.4	25.2	25.2
FR1 n41 HPUE	Ant 8	17.4	27	27
FR1 n77 (78) 27Q	Ant 3	11.0	11.0	25.7
FR1 n77 (78) 27Q HPUE	Ant 3	14.0	14.0	25.7
FR1 n77(78) 96	Ant 3	11.0	11.0	19
FR1 n77(78) 27O	Ant 3	14.0	14.0	25.7
FR1 n77(78) 27O HPUE	Ant 3	11.0	11.0	25.7
FR1 n77 (78) 27Q	Ant 4	19	19	25.7
FR1 n77 (78) 27Q HPUE	Ant 4	22	22	25.7
FR1 n77(78) 96	Ant 4	19	19	19
FR1 n77(78) 27O	Ant 4	19	19	25.7
FR1 n77(78) 27O HPUE	Ant 4	22	22	25.7
FR1 n77 (78) 27Q	Ant 8	12.4	25.7	25.7
FR1 n77 (78) 27Q HPUE	Ant 8	15.4	25.7	25.7
FR1 n77(78) 96	Ant 8	12.40	19	19
FR1 n77(78) 27O	Ant 8	12.40	25.7	25.7
FR1 n77(78) 27O HPUE	Ant 8	15.40	25.7	25.7
FR1 n77 (78) 27Q	Ant 9	13.90	25.7	25.7
FR1 n77 (78) 27Q HPUE	Ant 9	16.90	25.7	25.7
FR1 n77(78) 96	Ant 9	13.90	19	19
FR1 n77(78) 27O	Ant 9	13.90	25.7	25.7
FR1 n77(78) 27O HPUE	Ant 9	16.90	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	18.5	28.5	28.5
GSM1900	Ant 1	14.9	24.0	24.0
WCDMA II	Ant 1	18.4	24.0	24.0
WCDMA IV	Ant 1	15.6	24.0	24.0
WCDMA V	Ant 8	20.5	24.0	24.0
LTE Band 5	Ant 10	18.5	24.1	24.1
LTE Band 7	Ant 5	13.5	24.1	24.1
LTE Band 7	Ant 8	13.9	24.1	24.1
LTE Band 12(17)	Ant 8	20.8	24.1	24.1
LTE Band 13	Ant 8	20.5	23.5	23.5
LTE Band 14	Ant 8	20.6	23.5	23.5
LTE Band 25(2)	Ant 1	14.9	24.1	24.1
LTE Band 25(2)	Ant 5	15.0	24.1	24.1
LTE Band 26(5)	Ant 8	20.0	24.1	24.1
LTE Band 30	Ant 5	15.1	22.0	22.0
LTE Band 30	Ant 8	13.4	22.0	22.0
LTE Band 53	Ant 8	14.4	22.1	22.1
LTE Band 66(4)	Ant 1	15.0	24.1	24.1
LTE Band 66(4)	Ant 5	16.7	24.1	24.1
LTE Band 70	Ant 1	15.0	24.1	24.1
LTE Band 71	Ant 8	22.3	24.1	24.1
LTE Band 106	Ant 8	19.8	24.1	24.1
LTE Band 41(38)	Ant 5	12.4	22.1	22.1
LTE Band 41(38)	Ant 8	14.1	22.4	22.1
LTE Band 41 HPUE	Ant 8	14.1	22.4	22.4
LTE Band 48	Ant 8	11.7	19.0	19.0
LTE Band 48	Ant 9	13.6	19.0	19.0
FR1 n5	Ant 10	18.8	24.2	24.2
FR1 n7	Ant 5	12.8	24.2	24.2
FR1 n7	Ant 8	13.0	24.2	24.2
FR1 n12	Ant 8	21.7	24.2	24.2
FR1 n13	Ant 8	20.5	23.5	23.5
FR1 n14	Ant 8	20.7	23.5	23.5
FR1 n25(2)	Ant 1	15.8	24.2	24.2
FR1 n25(2)	Ant 5	16.6	24.2	24.2
FR1 n26(5)	Ant 8	19.6	24.2	24.2
FR1 n30	Ant 5	16.1	22.0	22.0
FR1 n30	Ant 8	14.1	21.5	21.5
FR1 n53	Ant 8	11.9	24.2	24.2
FR1 n66	Ant 1	14.5	24.2	24.2
FR1 n66	Ant 5	16.7	24.2	24.2
FR1 n70	Ant 1	15.0	24.2	24.2
FR1 n71	Ant 8	22.0	24.2	24.2
FR1 n41	Ant 3	11.2	11.2	24.2
FR1 n41 HPUE	Ant 3	11.2	11.2	23.0
FR1 n41	Ant 4	20.2	20.2	24.2
FR1 n41 HPUE	Ant 4	20.2	20.2	23.0
FR1 n41(38)	Ant 5	12.5	24.2	24.2
FR1 n41 HPUE	Ant 5	12.5	24.2	23.0
FR1 n41(38)	Ant 8	13.4	24.2	24.2
FR1 n41 HPUE	Ant 8	13.4	24.2	23.0
FR1 n48	Ant 8	12.0	17.0	17.0
FR1 n48	Ant 9	13.9	17.0	17.0
FR1 n77 (78) 27Q	Ant 3	10.0	10.0	24.7
FR1 n77 (78) 27Q HPUE	Ant 3	10.0	10.0	21.7
FR1 n77(78) 96	Ant 3	10.0	10.0	18.0
FR1 n77(78) 27O	Ant 3	10.0	10.0	24.7

FR1 n77(78) 270 HPUE	Ant 3	10.0	10.0	21.7
FR1 n77 (78) 27Q	Ant 4	18.0	18.0	24.7
FR1 n77 (78) 27Q HPUE	Ant 4	18.0	18.0	21.7
FR1 n77(78) 96	Ant 4	18.0	18.0	18.0
FR1 n77(78) 27Q	Ant 4	18.0	18.0	24.7
FR1 n77(78) 270 HPUE	Ant 4	18.0	18.0	21.7
FR1 n77 (78) 27Q	Ant 8	11.4	24.7	24.7
FR1 n77 (78) 27Q HPUE	Ant 8	11.4	24.7	21.7
FR1 n77(78) 96	Ant 8	11.4	24.7	18.0
FR1 n77(78) 27Q	Ant 8	11.4	24.7	24.7
FR1 n77(78) 270 HPUE	Ant 8	11.4	24.7	21.7
FR1 n77 (78) 27Q	Ant 9	12.9	24.7	24.7
FR1 n77 (78) 27Q HPUE	Ant 9	12.9	24.7	21.7
FR1 n77(78) 96	Ant 9	12.9	24.7	18.0
FR1 n77(78) 27Q	Ant 9	12.9	24.7	24.7
FR1 n77(78) 270 HPUE	Ant 9	12.9	24.7	21.7
WLAN2.4GHz	Ant 6	12.5	19.5	19.5
WLAN2.4GHz	Ant 7	13.0	19.5	19.5
WLAN2.4GHz	Ant 6+7	12.5	19.5	22.5
Bluetooth	Ant 6	6.5	6.5	5.9
Bluetooth	Ant 7	6.0	6.0	5.7
WLAN5.2GHz	Ant 6	7.5	17.5	17.5
WLAN5.2GHz	Ant 7	10.5	18.0	18.0
WLAN5.2GHz	Ant 6+7	7.5	17.5	20.5
WLAN5.3GHz	Ant 6	7.5	18.0	18.0
WLAN5.3GHz	Ant 7	10.5	18.0	18.0
WLAN5.3GHz	Ant 6+7	7.5	18.0	21.0
WLAN5.5GHz	Ant 6	7.5	18.0	18.0
WLAN5.5GHz	Ant 7	8.5	18.5	18.5
WLAN5.5GHz	Ant 6+7	7.5	18.0	21.0
WLAN5.8GHz	Ant 6	9.0	18.5	18.5
WLAN5.8GHz	Ant 7	11.0	18.5	18.5
WLAN5.8GHz	Ant 6+7	9.0	18.5	21.5
WLAN6.5GHz dual client	Ant 6	10.5	17.0	17.0
WLAN6.5GHz dual client	Ant 7	11.0	17.0	17.0
WLAN6.5GHz dual client	Ant 6+7	11.0	17.0	20.0
WLAN6.6GHz dual client	Ant 6	10.5	16.5	16.5
WLAN6.6GHz dual client	Ant 7	12.5	17.0	17.0
WLAN6.6GHz dual client	Ant 6+7	11.5	17.0	20.0
WLAN6.7GHz dual client	Ant 6	11.5	16.5	16.5
WLAN6.7GHz dual client	Ant 7	12.0	17.0	17.0
WLAN6.7GHz dual client	Ant 6+7	11.5	16.5	19.5
WLAN6.8GHz dual client	Ant 6	12.0	17.0	17.0
WLAN6.8GHz dual client	Ant 7	13.0	17.0	17.0
WLAN6.8GHz dual client	Ant 6+7	12.0	17.0	20.0
WLAN6.5GHz VLP	Ant 6	10.5	17.0	10.0
WLAN6.5GHz VLP	Ant 7	11.0	17.0	9.5
WLAN6.5GHz VLP	Ant 6+7	11.0	17.0	12.5
WLAN6.6GHz VLP	Ant 6	10.5	16.5	9.0
WLAN6.6GHz VLP	Ant 7	12.5	17.0	9.0
WLAN6.6GHz VLP	Ant 6+7	11.5	17.0	12.0
WLAN6.7GHz VLP	Ant 6	11.5	16.5	9.5
WLAN6.7GHz VLP	Ant 7	12.0	17.0	9.5
WLAN6.7GHz VLP	Ant 6+7	11.5	16.5	12.5
WLAN6.8GHz VLP	Ant 6	12.0	17.0	10.0
WLAN6.8GHz VLP	Ant 7	13.0	17.0	10.0
WLAN6.8GHz VLP	Ant 6+7	12.0	17.0	13.0
RFID	Ant 8	19.6	25.0	25.0

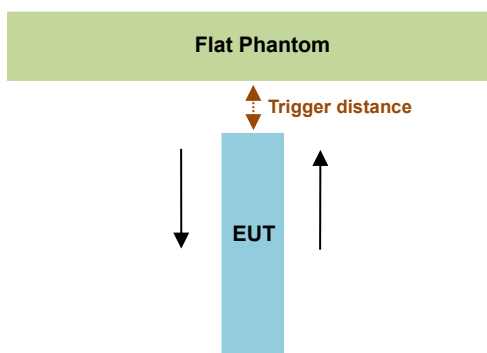
Note:

- 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 (650MHz) was used for proximity sensor triggering testing.
2. Capacitive proximity sensor placed coincident with antenna elements at the bottom face, Edge1, Edge3 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, Edge3 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 4 for Ant6/9/1 and Bottom Face or Edge 1 side for Ant7 and Bottom Face or Edge 3 side for Ant10 and Bottom Face or Edge 1 or Edge 4 side for Ant8 and Bottom Face or Edge 3 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).



<Ant6 Frequency Bands>

Proximity Sensor Triggering Distance (mm)				
Position	Bottom Face		Edge 4	
	Moving away	Moving towards	Moving away	Moving towards
Minimum	30	23	19	27

<Ant7 Frequency Bands>

Proximity Sensor Triggering Distance (mm)				
Position	Bottom Face		Edge 1	
	Moving away	Moving towards	Moving away	Moving towards
Minimum	32	25	19	15

<Ant10 Frequency Bands>

Proximity Sensor Triggering Distance (mm)				
Position	Bottom Face		Edge 3	
	Moving away	Moving towards	Moving away	Moving towards
Minimum	40	21	42	31

<Ant8 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	52	42	31	19	65	45

<Ant5 Frequency Bands>

Proximity Sensor Triggering Distance (mm)						
Position	Bottom Face		Edge 3		Edge 4	
	Moving away	Moving towards	Moving away	Moving towards	Moving away	Moving towards
Minimum	32	20	30	18	25	25

<Ant9 Frequency Bands>

Proximity Sensor Triggering Distance (mm)				
Position	Bottom Face		Edge 4	
	Moving away	Moving towards	Moving away	Moving towards
Minimum	31	17	28	31

<Ant1 Frequency Bands>

Proximity Sensor Triggering Distance (mm)				
Position	Bottom Face		Edge 4	
	Moving away	Moving towards	Moving away	Moving towards
Minimum	39	25	45	23

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

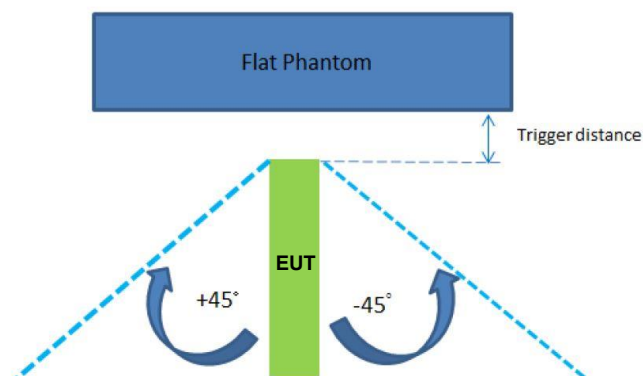
If a sensor is spatially offset from the antenna(s), it is necessary to verify sensor triggering for conditions where the antenna is next to the user but the sensor is laterally further away to ensure sensor coverage is sufficient for reducing the power to maintain compliance. For p-sensor coverage testing,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



<Ant6 Frequency Bands>

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

<Ant7 Frequency Bands>

The Sensor Trigger Distance (mm)	
Position	Edge 1
Minimum	15

<Ant10 Frequency Bands>

The Sensor Trigger Distance (mm)	
Position	Edge 3
Minimum	31

< Ant8 Frequency Bands>

The Sensor Trigger Distance (mm)		
Position	Edge 1	Edge 4
Minimum	19	45

< Ant5 Frequency Bands>

The Sensor Trigger Distance (mm)		
Position	Edge 3	Edge 4
Minimum	18	25

<Ant9 Frequency Bands>

The Sensor Trigger Distance (mm)	
Position	Edge 4
Minimum	28

<Ant1 Frequency Bands>

The Sensor Trigger Distance (mm)	
Position	Edge 4
Minimum	23

Proximity sensor power reduction

Exposure Position / wireless mode for Ant1	Bottom Face ⁽¹⁾	Edge 1	Edge 2	Edge 3	Edge 4 ⁽¹⁾
GSM1900 (GPRS 4 Tx slots)	9.1 dB	0 dB	0 dB	0 dB	9.1 dB
WCDMA II	5.6 dB	0 dB	0 dB	0 dB	5.6 dB
WCDMA IV	8.4 dB	0 dB	0 dB	0 dB	8.4 dB
LTE Band 25 (2)	9.2 dB	0 dB	0 dB	0 dB	9.2 dB
LTE Band 66 (4)	9.1 dB	0 dB	0 dB	0 dB	9.1 dB
LTE Band 70	9.1 dB	0 dB	0 dB	0 dB	9.1 dB
FR1 n25(2)	8.4 dB	0 dB	0 dB	0 dB	8.4 dB
FR1 n66	9.7 dB	0 dB	0 dB	0 dB	9.7 dB
FR1 n70	9.2 dB	0 dB	0 dB	0 dB	9.2 dB

Exposure Position / wireless mode for Ant5	Bottom Face ⁽¹⁾	Edge 1	Edge 2	Edge 3 ⁽¹⁾	Edge 4 ⁽¹⁾
LTE Band 7	10.6 dB	0 dB	0 dB	10.6 dB	10.6 dB
LTE Band 25 (2)	9.1 dB	0 dB	0 dB	9.1 dB	9.1 dB
LTE Band 30	6.9 dB	0 dB	0 dB	6.9 dB	6.9 dB
LTE Band 66 (4)	7.4 dB	0 dB	0 dB	7.4 dB	7.4 dB
LTE Band 41(38)	9.7 dB	0 dB	0 dB	9.7 dB	9.7 dB
FR1 n2	7.6 dB	0 dB	0 dB	7.6 dB	7.6 dB
FR1 n7	11.4 dB	0 dB	0 dB	11.4 dB	11.4 dB
FR1 n25(2)	7.6 dB	0 dB	0 dB	7.6 dB	7.6 dB
FR1 n30	5.9 dB	0 dB	0 dB	5.9 dB	5.9 dB
FR1 n66	7.5 dB	0 dB	0 dB	7.5 dB	7.5 dB
FR1 n41(38)	11.7 dB	0 dB	0 dB	11.7 dB	11.7 dB
FR1 n41 HPUE	10.5 dB	0 dB	0 dB	10.5 dB	10.5 dB

Exposure Position / wireless mode for Ant8	Bottom Face ⁽¹⁾	Edge 1 ⁽¹⁾	Edge 2	Edge 3	Edge 4 ⁽¹⁾
GSM850 (GPRS 4 Tx slots)	10.0 dB	10.0 dB	0 dB	0 dB	10.0 dB
WCDMA V	3.5 dB	3.5 dB	0 dB	0 dB	3.5 dB
LTE Band 7	10.2 dB	10.2 dB	0 dB	0 dB	10.2 dB
LTE Band 12(17)	3.3 dB	3.3 dB	0 dB	0 dB	3.3 dB
LTE Band 13	3.0 dB	3.0 dB	0 dB	0 dB	3.0 dB
LTE Band 14	2.9 dB	2.9 dB	0 dB	0 dB	2.9 dB
LTE Band 26 (5)	4.1 dB	4.1 dB	0 dB	0 dB	4.1 dB
LTE Band 30	8.6 dB	8.6 dB	0 dB	0 dB	8.6 dB
LTE Band 53	7.7 dB	7.7 dB	0 dB	0 dB	7.7 dB
LTE Band 71	1.8 dB	1.8 dB	0 dB	0 dB	1.8 dB
LTE Band 106	4.3 dB	4.3 dB	0 dB	0 dB	4.3 dB
LTE Band 41(38)	8.0 dB	8.0 dB	0 dB	0 dB	8.0 dB
LTE Band 41 HPUE	8.3 dB	8.3 dB	0 dB	0 dB	8.3 dB
LTE Band 48	7.3 dB	7.3 dB	0 dB	0 dB	7.3 dB
FR1 n7	11.2 dB	11.2 dB	0 dB	0 dB	11.2 dB
FR1 n12	2.5 dB	2.5 dB	0 dB	0 dB	2.5 dB
FR1 n13	3.0 dB	3.0 dB	0 dB	0 dB	3.0 dB
FR1 n14	2.8 dB	2.8 dB	0 dB	0 dB	2.8 dB
FR1 n26(5)	4.6 dB	4.6 dB	0 dB	0 dB	4.6 dB
FR1 n30	7.4 dB	7.4 dB	0 dB	0 dB	7.4 dB
FR1 n53	12.3 dB	12.3 dB	0 dB	0 dB	12.3 dB
FR1 n71	2.2 dB	2.2 dB	0 dB	0 dB	2.2 dB
FR1 n41(38)	10.8 dB	10.8 dB	0 dB	0 dB	10.8 dB
FR1 n41 HPUE	9.6 dB	9.6 dB	0 dB	0 dB	9.6 dB

FR1 n48	5.0 dB	5.0 dB	0 dB	0 dB	5.0 dB
FR1 n77(78) 27Q	13.3 dB	13.3 dB	0 dB	0 dB	13.3 dB
FR1 n77(78) 27Q HPUE	10.3 dB	10.3 dB	0 dB	0 dB	10.3 dB
FR1 n77 96 (78)	6.6 dB	6.6 dB	0 dB	0 dB	6.6 dB
FR1 n77(78) 27O	13.3 dB	13.3 dB	0 dB	0 dB	13.3 dB
FR1 n77(78) 27O Ant 8 HPUE	10.3 dB	10.3 dB	0 dB	0 dB	10.3 dB
RFID	5.4 dB	5.4 dB	0 dB	0 dB	5.4 dB

Exposure Position / wireless mode for Ant9	Bottom Face ⁽¹⁾	Edge 1	Edge 2	Edge 3	Edge 4 ⁽¹⁾
LTE Band 48	5.4 dB	0 dB	0 dB	0 dB	5.4 dB
FR1 n48	3.1 dB	0 dB	0 dB	0 dB	3.1 dB
FR1 n77(78) 27Q	11.8 dB	0 dB	0 dB	0 dB	11.8 dB
FR1 n77(78) 27Q HPUE	8.8 dB	0 dB	0 dB	0 dB	8.8 dB
FR1 n77 96 (78)	5.1 dB	0 dB	0 dB	0 dB	5.1 dB
FR1 n77(78) 27O	11.8 dB	0 dB	0 dB	0 dB	11.8 dB
FR1 n77(78) 27O HPUE	8.8 dB	0 dB	0 dB	0 dB	8.8 dB

Exposure Position / wireless mode for Ant10	Bottom Face ⁽¹⁾	Edge 1	Edge 2	Edge 3 ⁽¹⁾	Edge 4
LTE Band 5	5.6 dB	0 dB	0 dB	5.6 dB	0 dB
FR1 n5	5.4 dB	0 dB	0 dB	5.4 dB	0 dB

Exposure Position / wireless mode for Ant6	Bottom Face ⁽¹⁾	Edge 1	Edge 2	Edge 3	Edge 4 ⁽¹⁾
WLAN 2.4GHz	7.0 dB	0 dB	0 dB	0 dB	7.0 dB
WLAN 5.2GHz	10.0 dB	0 dB	0 dB	0 dB	10.0 dB
WLAN 5.3GHz	10.5 dB	0 dB	0 dB	0 dB	10.5 dB
WLAN 5.5GHz	10.5 dB	0 dB	0 dB	0 dB	10.5 dB
WLAN 5.8GHz	9.5 dB	0 dB	0 dB	0 dB	9.5 dB
WLAN 6GHz U-NII 5	7.5 dB	0 dB	0 dB	0 dB	7.5 dB
WLAN 6GHz U-NII 6	6.0 dB	0 dB	0 dB	0 dB	6.0 dB
WLAN 6GHz U-NII 7	6.5 dB	0 dB	0 dB	0 dB	6.5 dB
WLAN 6GHz U-NII 8	6.0 dB	0 dB	0 dB	0 dB	6.0 dB

Exposure Position / wireless mode for Ant7	Bottom Face ⁽¹⁾	Edge 1 ⁽¹⁾	Edge 2	Edge 3	Edge 4
WLAN 2.4GHz	6.5 dB	6.5 dB	0 dB	0 dB	0 dB
WLAN 5.2GHz	7.5 dB	7.5 dB	0 dB	0 dB	0 dB
WLAN 5.3GHz	8.0 dB	8.0 dB	0 dB	0 dB	0 dB
WLAN 5.5GHz	10.0 dB	10.0 dB	0 dB	0 dB	0 dB
WLAN 5.8GHz	7.5 dB	7.5 dB	0 dB	0 dB	0 dB
WLAN 6GHz U-NII 5	7.5 dB	7.5 dB	0 dB	0 dB	0 dB
WLAN 6GHz U-NII 6	4.5 dB	4.5 dB	0 dB	0 dB	0 dB
WLAN 6GHz U-NII 7	7.0 dB	7.0 dB	0 dB	0 dB	0 dB
WLAN 6GHz U-NII 8	5.5 dB	5.5 dB	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 6:

- Bottom Face: 22mm
- Edge 4: 18mm

For Ant 7:

- Bottom Face: 24mm
- Edge 1: 14mm

For Ant 10:

- Bottom Face: 20mm
- Edge 3: 30mm

For Ant 8:

- Bottom Face: 41mm
- Edge 1: 18mm
- Edge 4: 44mm

For Ant 5:

- Bottom Face: 19mm
- Edge 3: 17mm
- Edge 4: 24mm
-

For Ant 9:

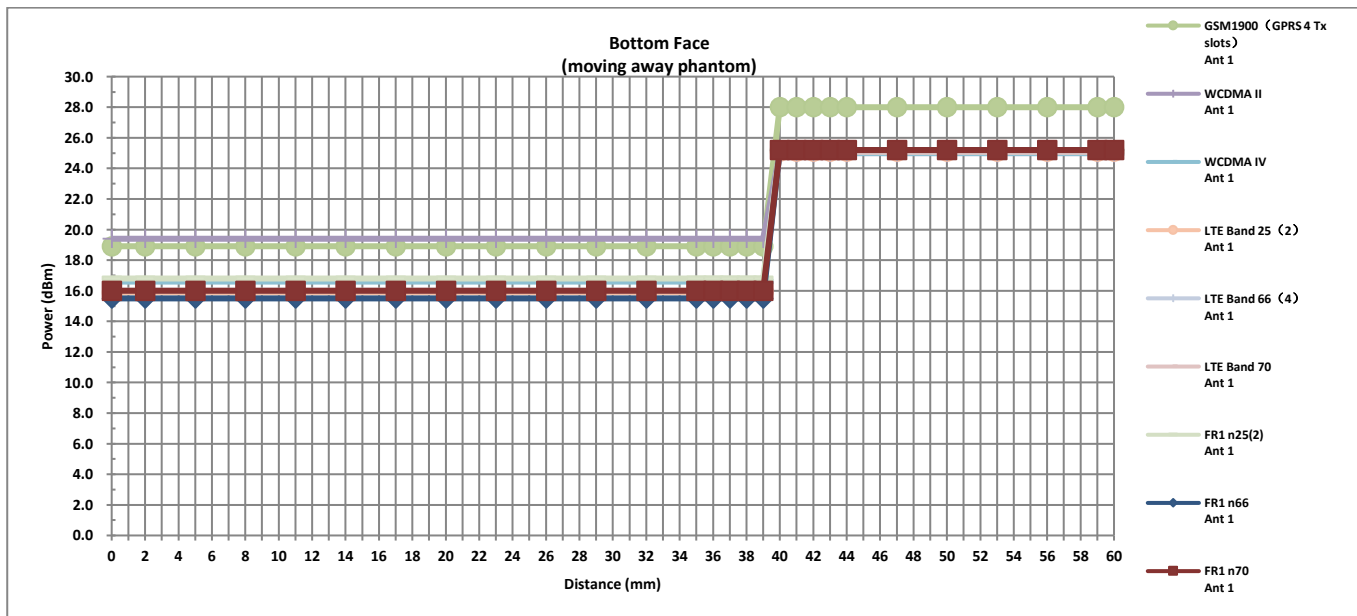
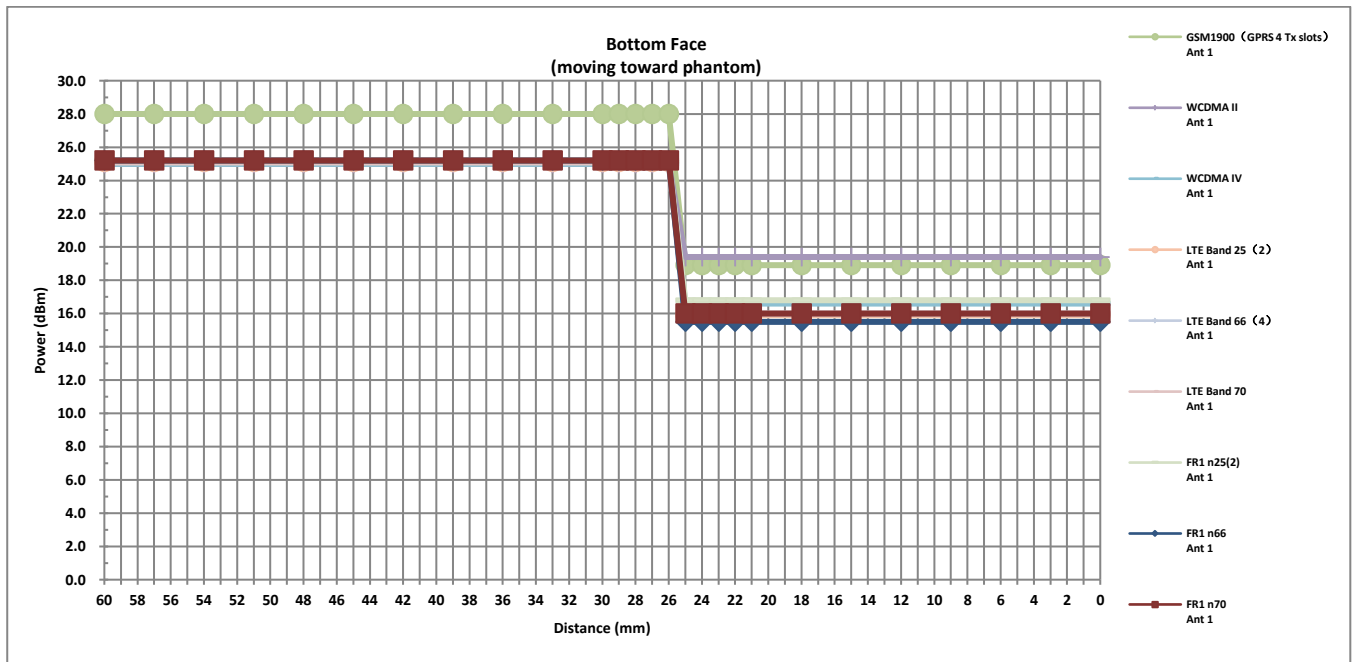
- Bottom Face: 16mm
- Edge 4: 27mm

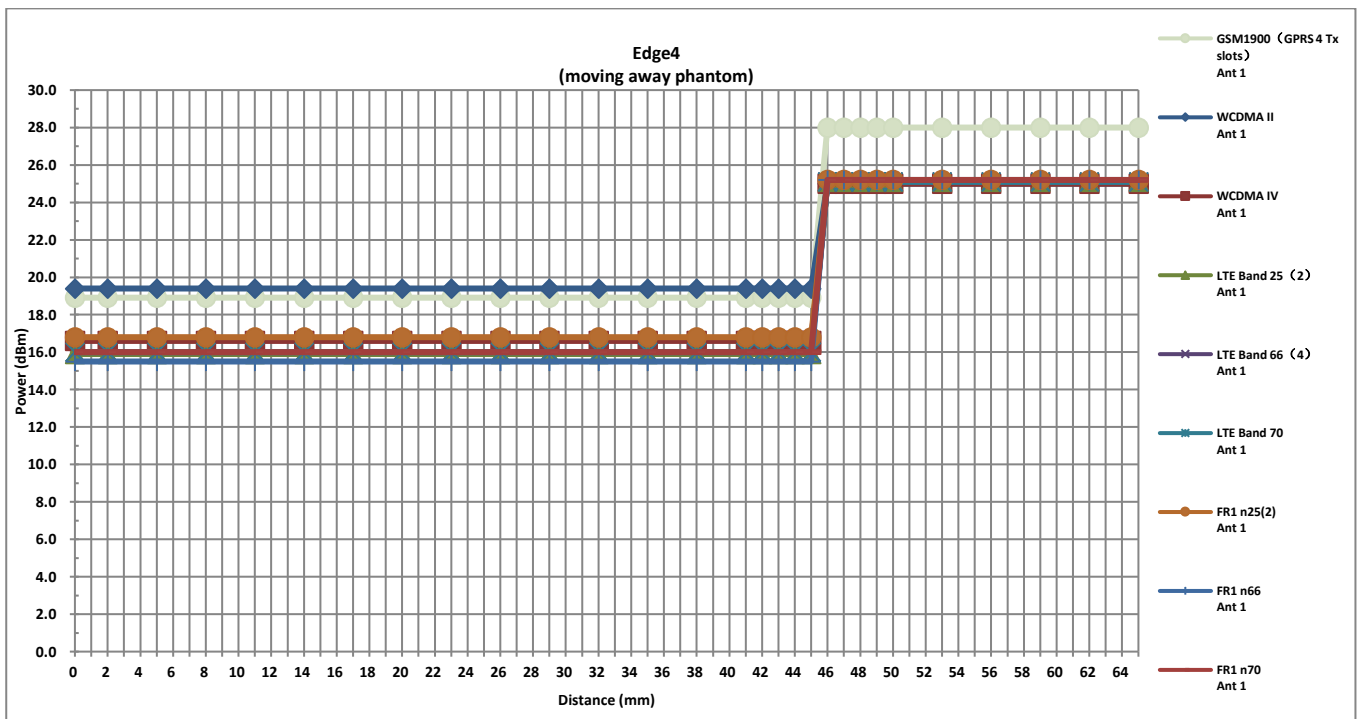
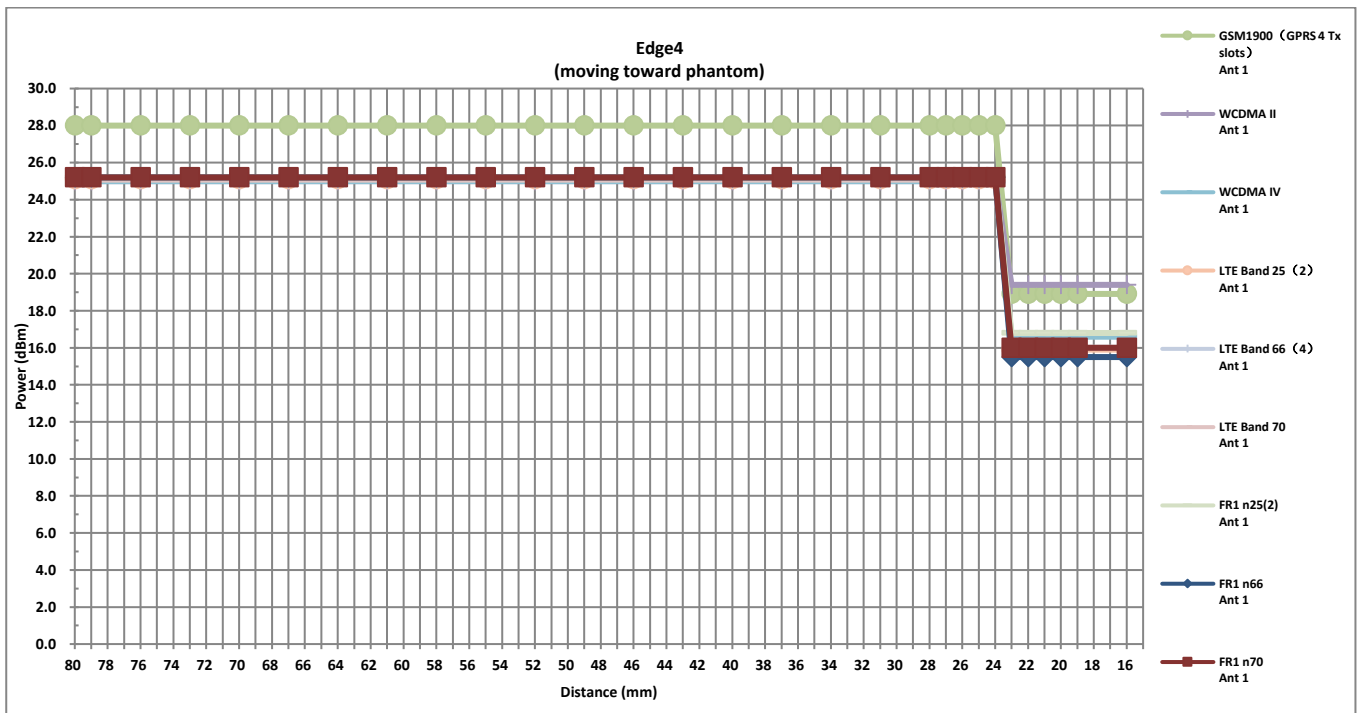
For Ant 1:

- Bottom Face: 24mm
- Edge 4: 22mm

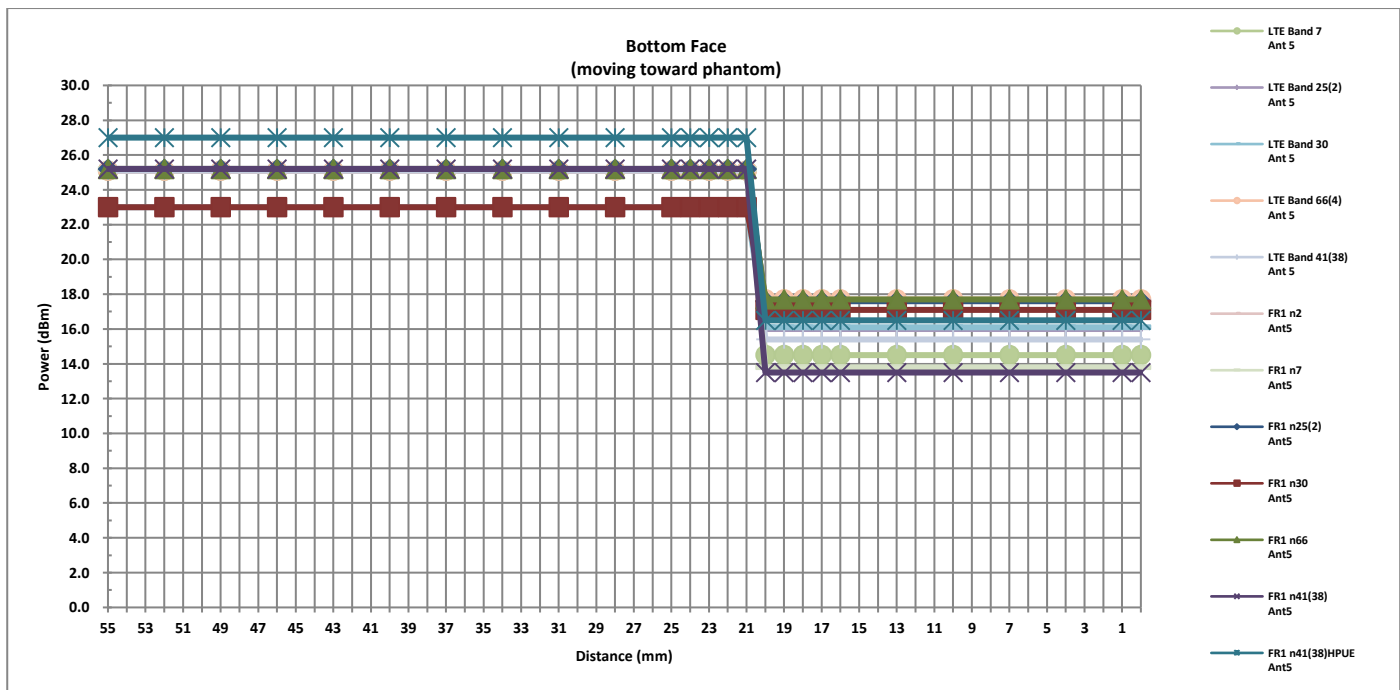
Power Measurement during Sensor Trigger distance testing

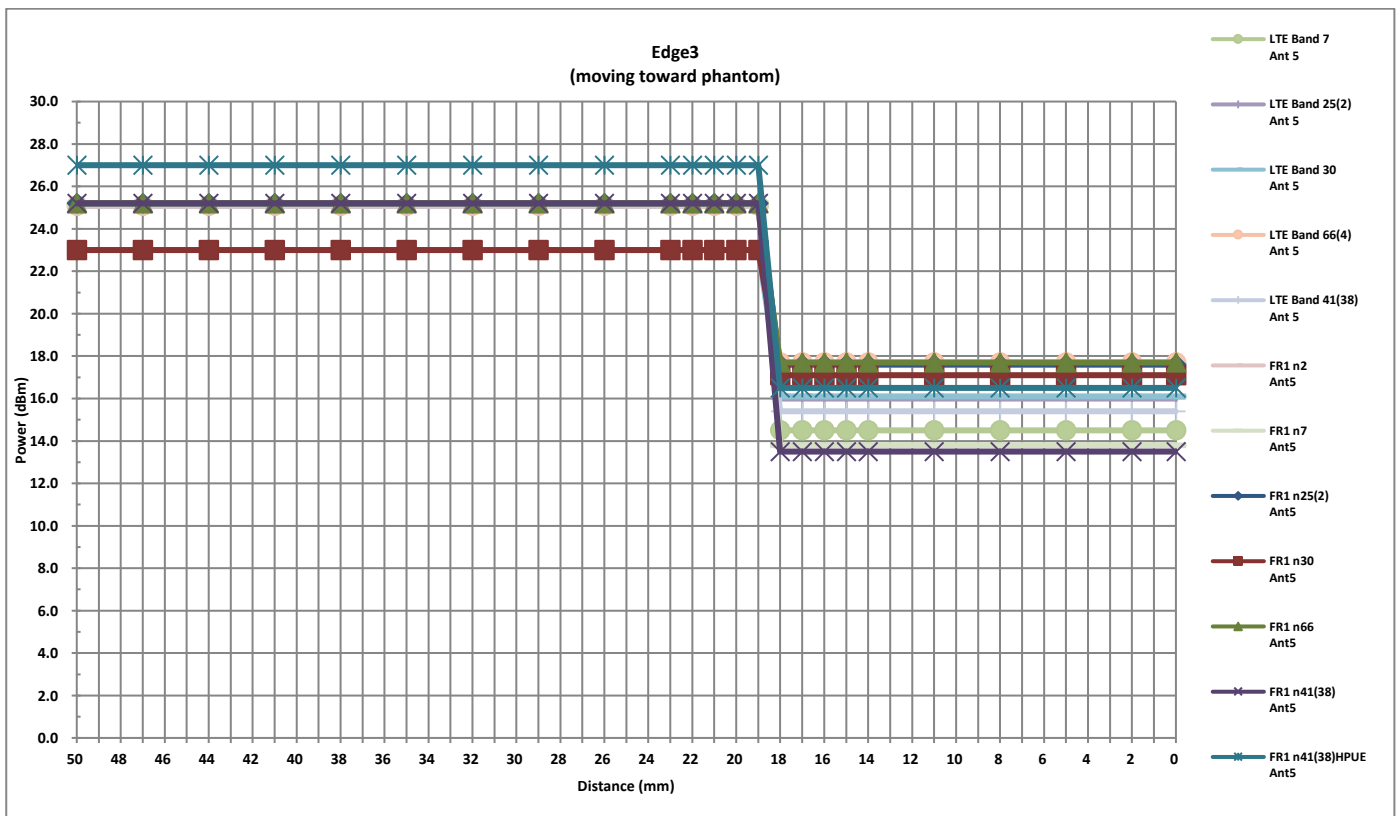
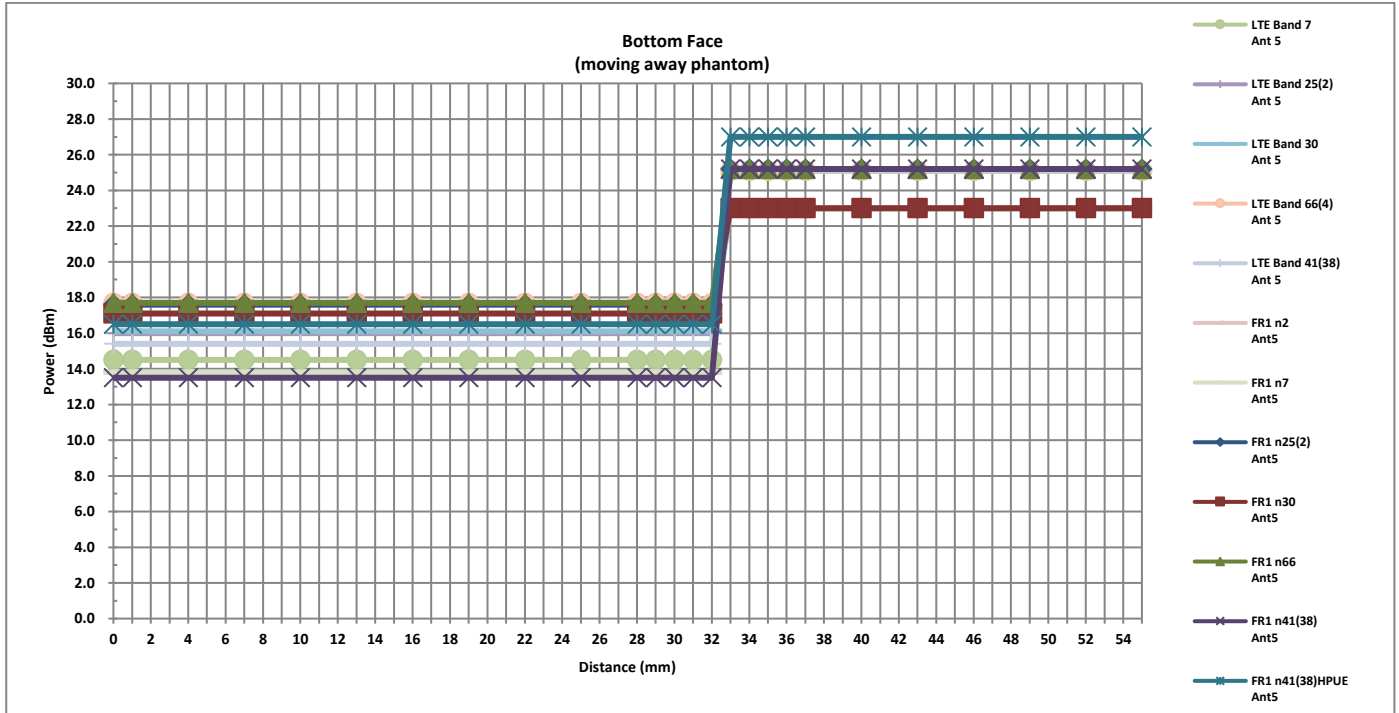
Band/Mode for Ant1	Measured power reduction (dBm)		Reduction Levels (dB)
	w/o power back-off	w/ power back-off	
GSM1900 (GPRS 4 Tx slots)	28.00	18.90	9.1
WCDMA II	25.00	19.40	5.6
WCDMA IV	25.00	16.60	8.4
LTE Band 25 (2)	25.10	15.90	9.2
LTE Band 66 (4)	25.10	16.00	9.1
LTE Band 70	25.10	16.00	9.1
FR1 n25(2)	25.20	16.80	8.4
FR1 n66	25.20	15.50	9.7
FR1 n70	25.20	16.00	9.2

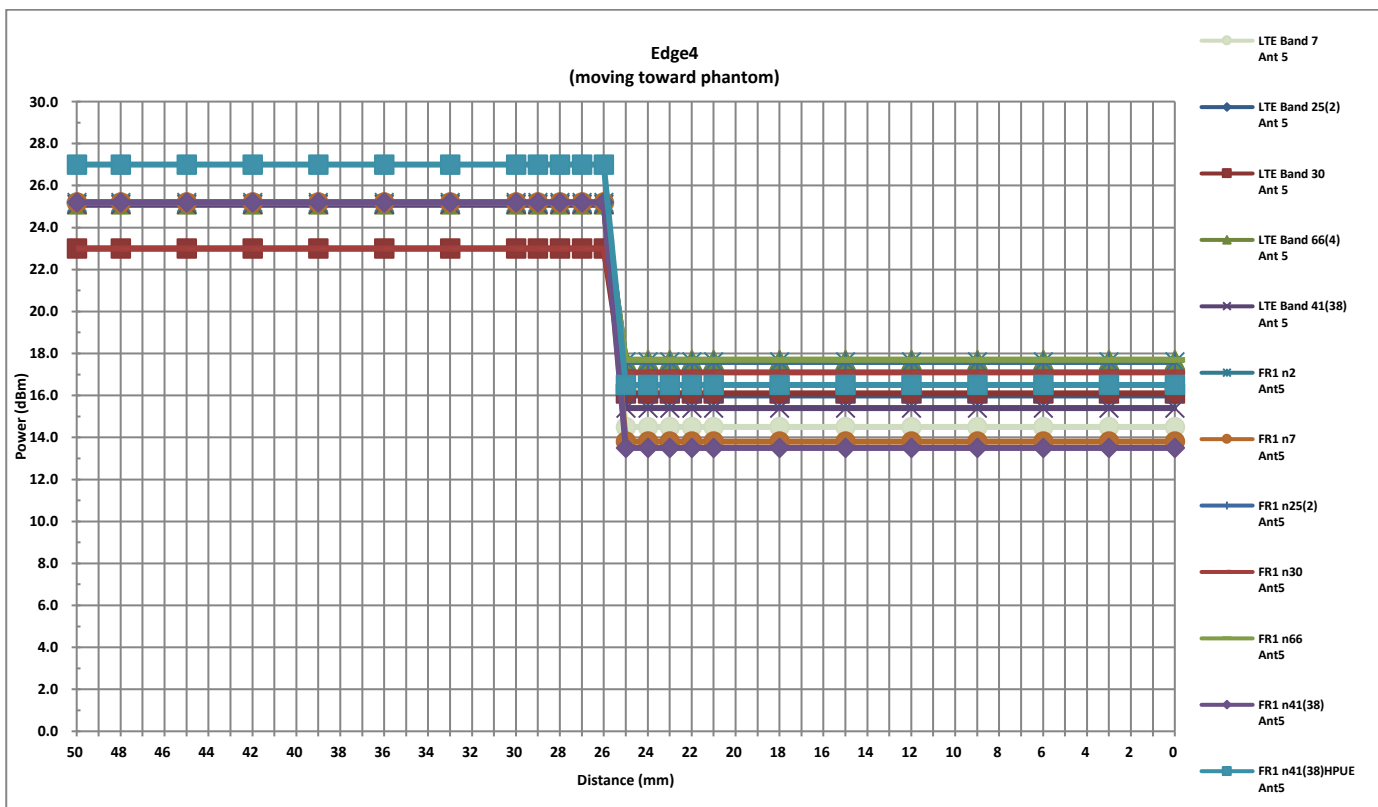
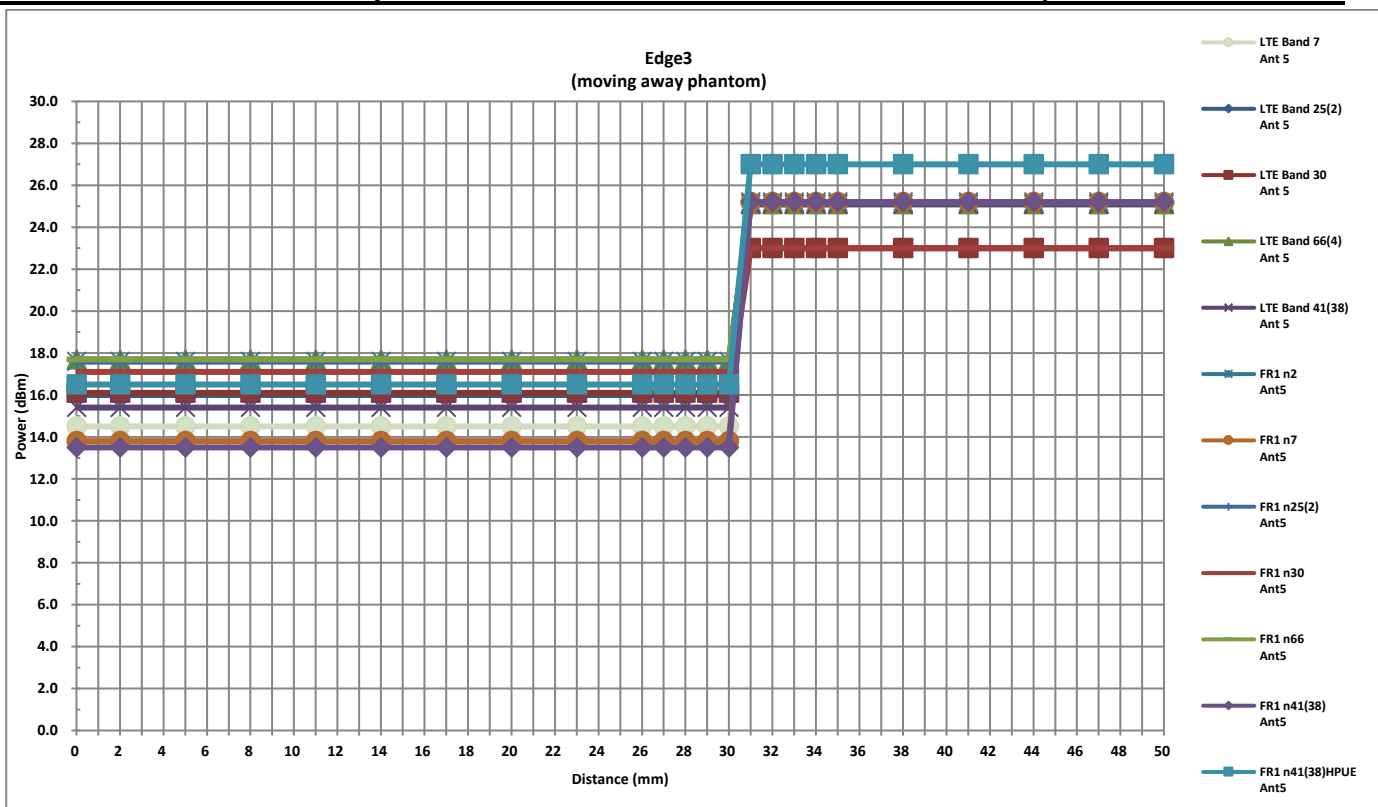


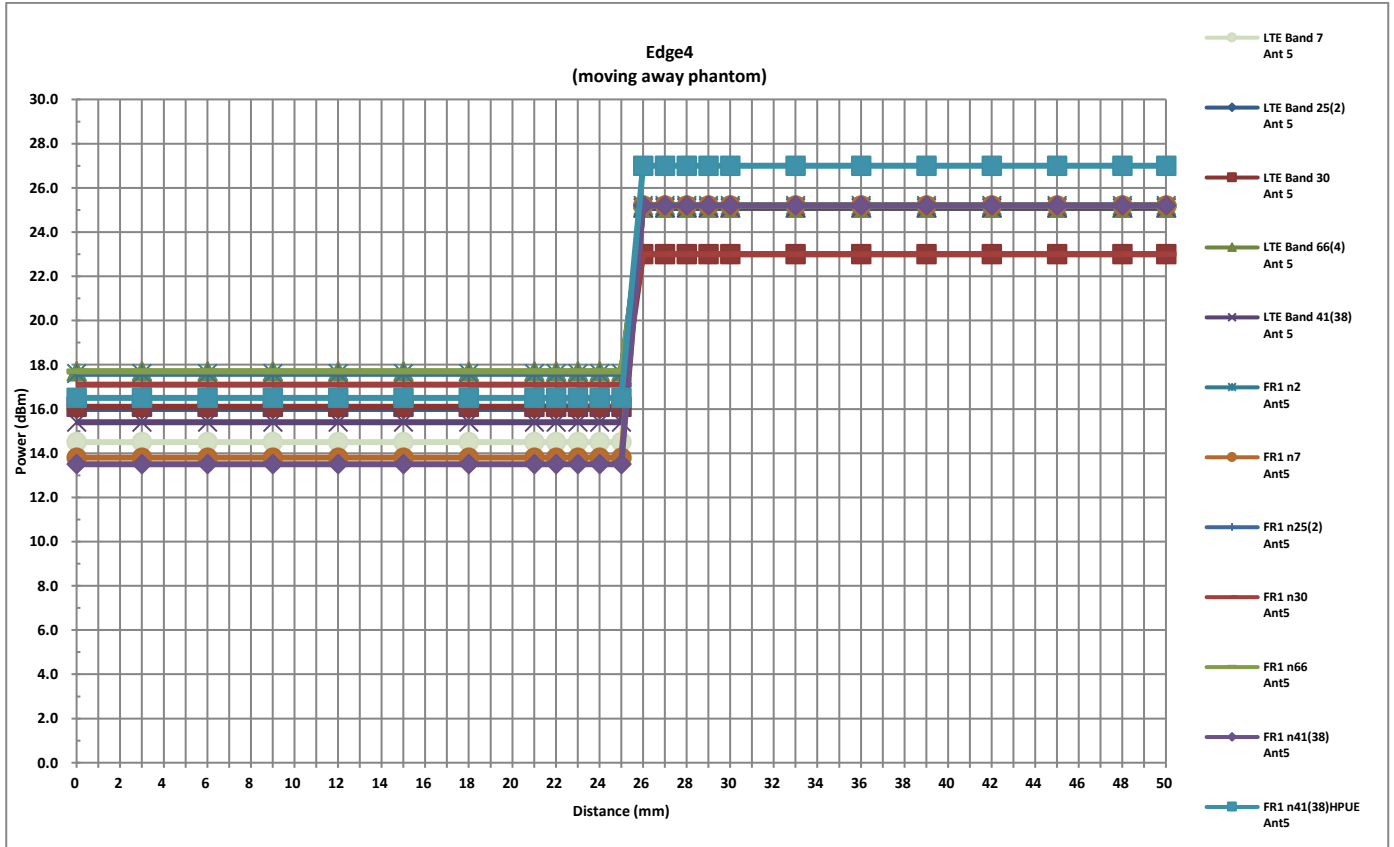


Band/Mode for Ant5	Measured power reduction (dBm)		Reduction Levels (dB)
	w/o power back-off	w/ power back-off	
LTE Band 7	25.10	14.50	10.6
LTE Band 25 (2)	25.10	16.00	9.1
LTE Band 30	23.00	16.10	6.9
LTE Band 66 (4)	25.10	17.70	7.4
LTE Band 41(38)	25.10	15.40	9.7
FR1 n2	25.20	17.60	7.6
FR1 n7	25.20	13.80	11.4
FR1 n25(2)	25.20	17.60	7.6
FR1 n30	23.00	17.10	5.9
FR1 n66	25.20	17.70	7.5
FR1 n41(38)	25.20	13.50	11.7
FR1 n41 HPUE	27.00	16.50	10.5



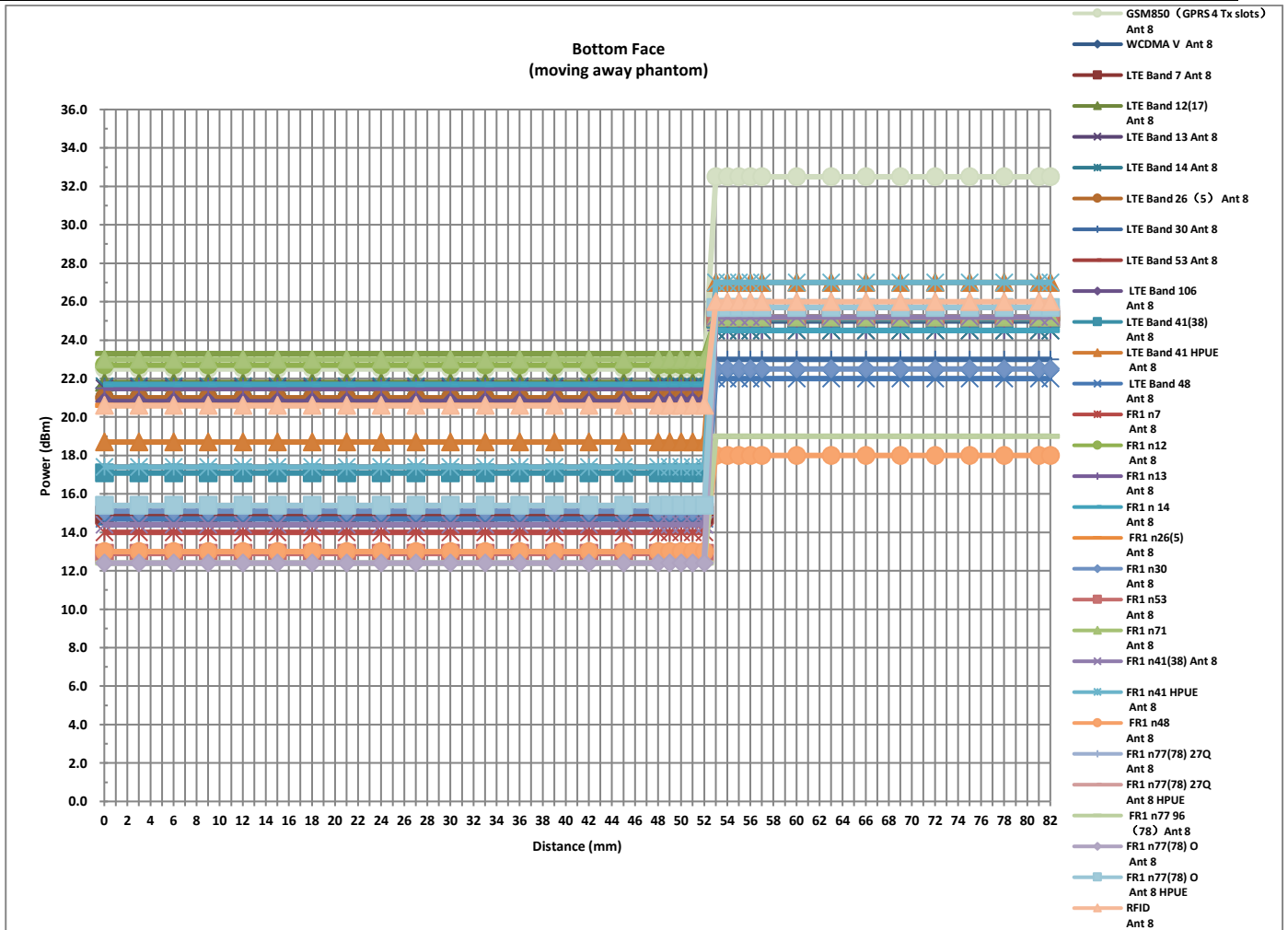


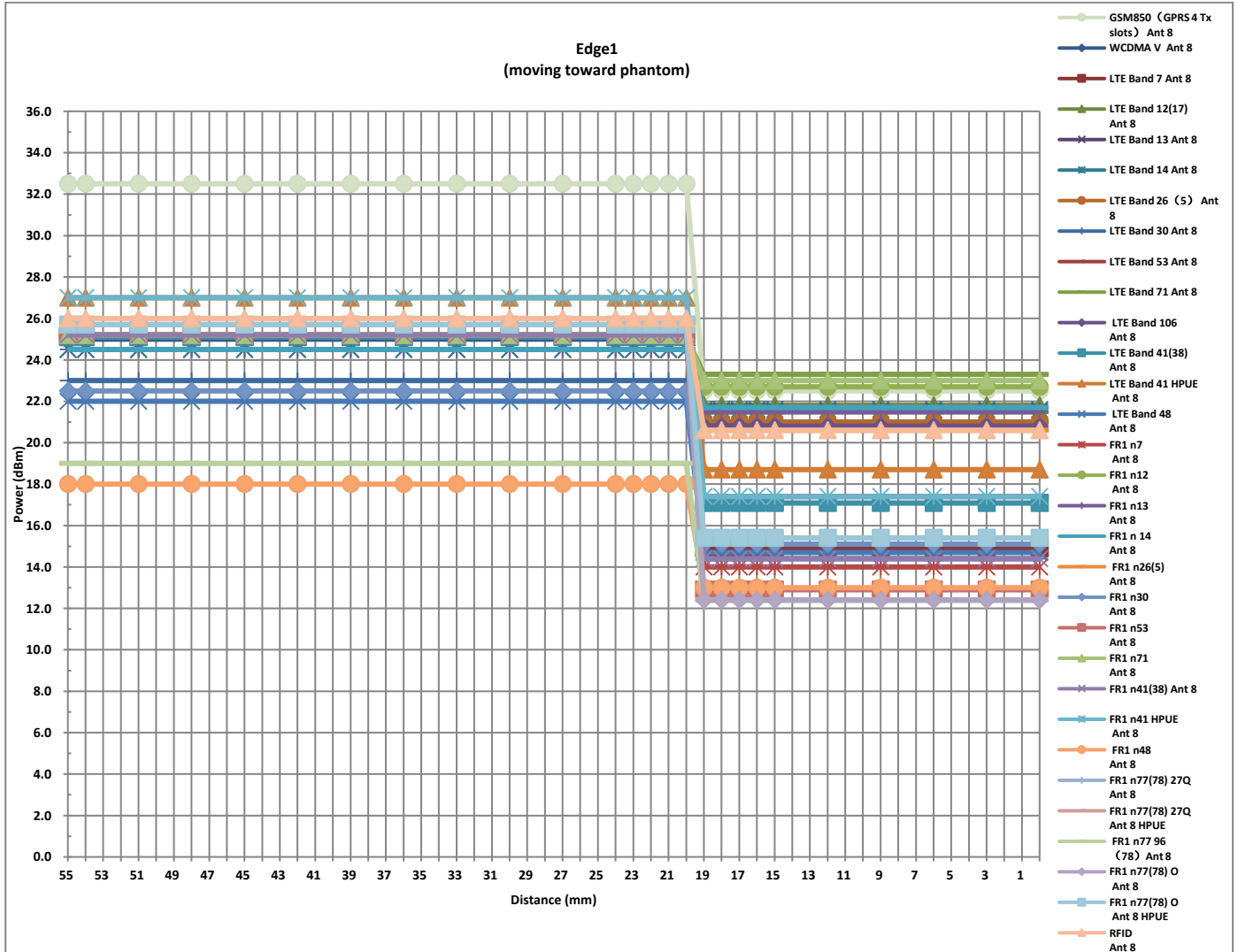


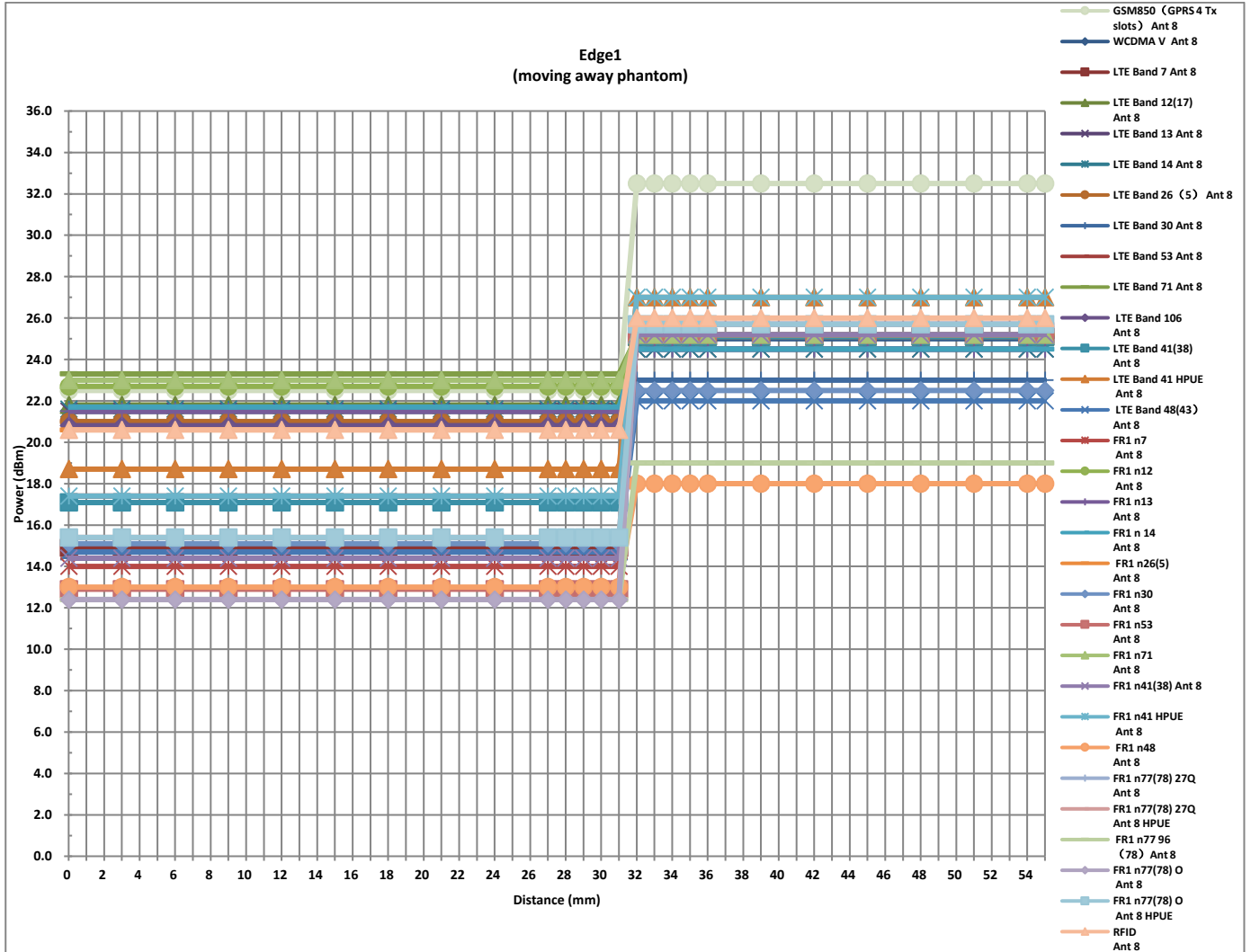


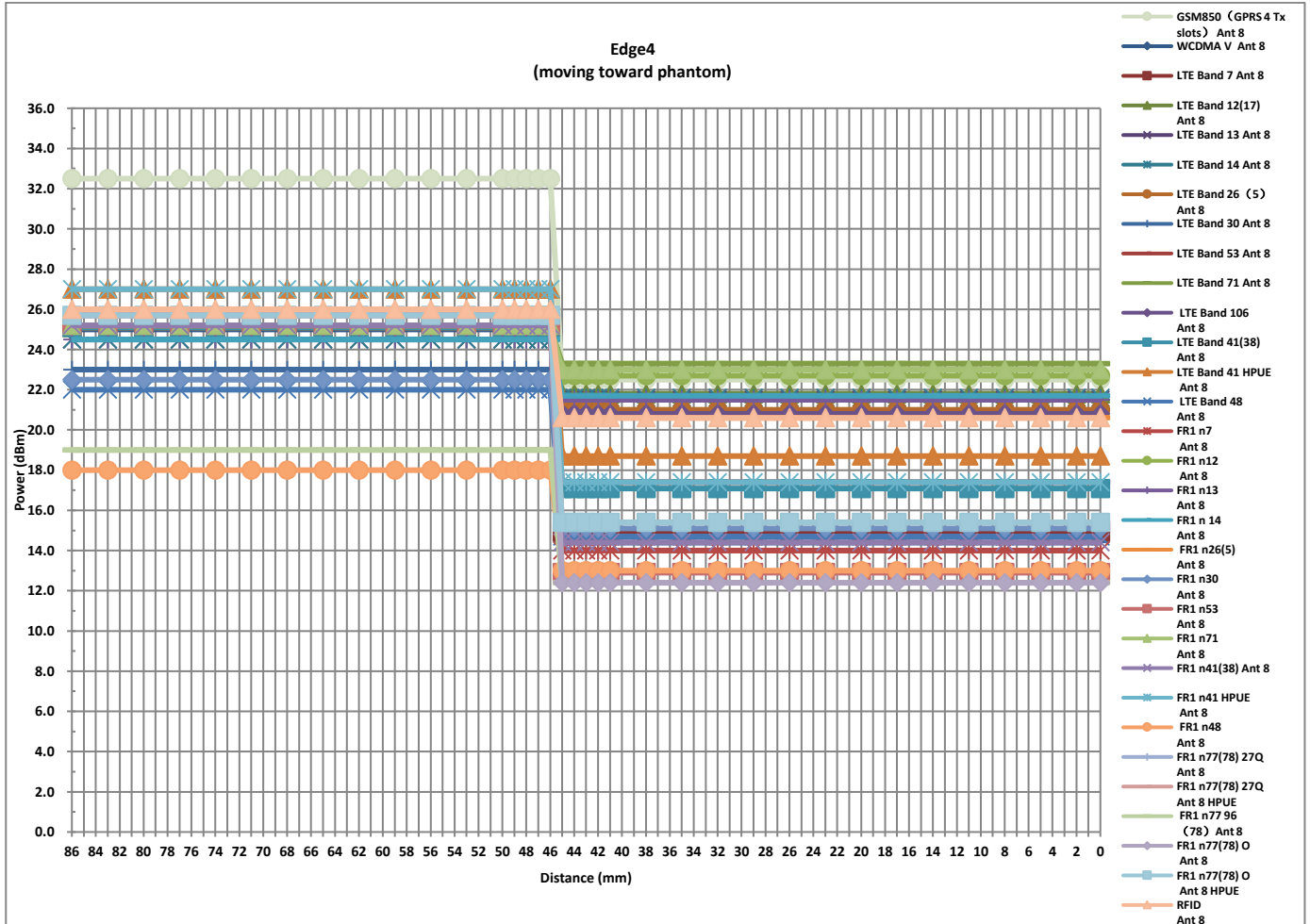
Band/Mode for Ant8	Measured power reduction (dBm)		Reduction Levels
	w/o power back-off	w/ power back-off	(dB)
GSM850 (GPRS 4 Tx slots) Ant 8	32.50	22.50	10.0
WCDMA V Ant 8	25.00	21.50	3.5
LTE Band 7 Ant 8	25.10	14.90	10.2
LTE Band 12(17) Ant 8	25.10	21.80	3.3
LTE Band 13 Ant 8	24.50	21.50	3.0
LTE Band 14 Ant 8	24.50	21.60	2.9
LTE Band 26 (5) Ant 8	25.10	21.00	4.1
LTE Band 30 Ant 8	23.00	14.40	8.6
LTE Band 53 Ant 8	25.10	17.40	7.7
LTE Band 71 Ant 8	25.10	23.30	1.8
LTE Band 106 Ant 8	25.10	20.80	4.3
LTE Band 41(38) Ant 8	25.10	17.09	8.0
LTE Band 41 HPUE Ant 8	27.00	18.70	8.3
LTE Band 48 Ant 8	22.00	14.70	7.3
FR1 n7 Ant 8	25.20	14.00	11.2
FR1 n12 Ant 8	25.20	22.70	2.5
FR1 n13 = Ant 8	24.50	21.50	3.0
FR1 n 14 Ant 8	24.50	21.70	2.8
FR1 n26(5) Ant 8	25.20	20.60	4.6
FR1 n30 Ant 8	22.50	15.10	7.4
FR1 n53 Ant 8	25.20	12.90	12.3
FR1 n71 Ant 8	25.20	23.00	2.2
FR1 n41(38) Ant 8	25.20	14.40	10.8
FR1 n41 HPUE Ant 8	27.00	17.40	9.6
FR1 n48 Ant 8	18.00	13.00	5.0
FR1 n77(78) 27Q Ant 8	25.70	12.40	13.3
FR1 n77(78) 27Q Ant 8 HPUE	25.70	15.40	10.3
FR1 n77 96 (78) Ant 8	19.00	12.40	6.6
FR1 n77(78) 27O Ant 8	25.70	12.40	13.3
FR1 n77(78) 27O Ant 8 HPUE	25.70	15.40	10.3
RFID Ant 8	26.00	20.60	5.4

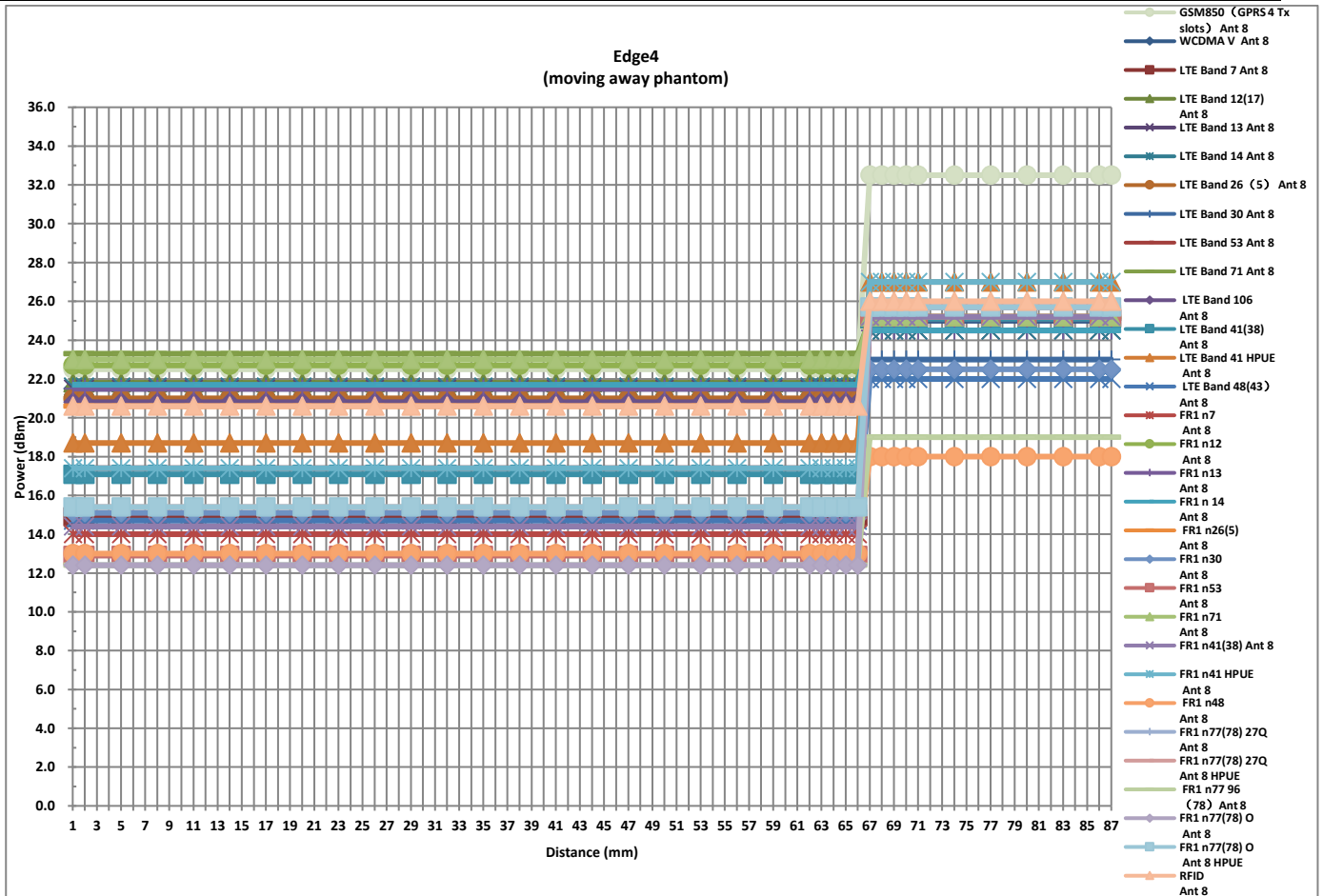




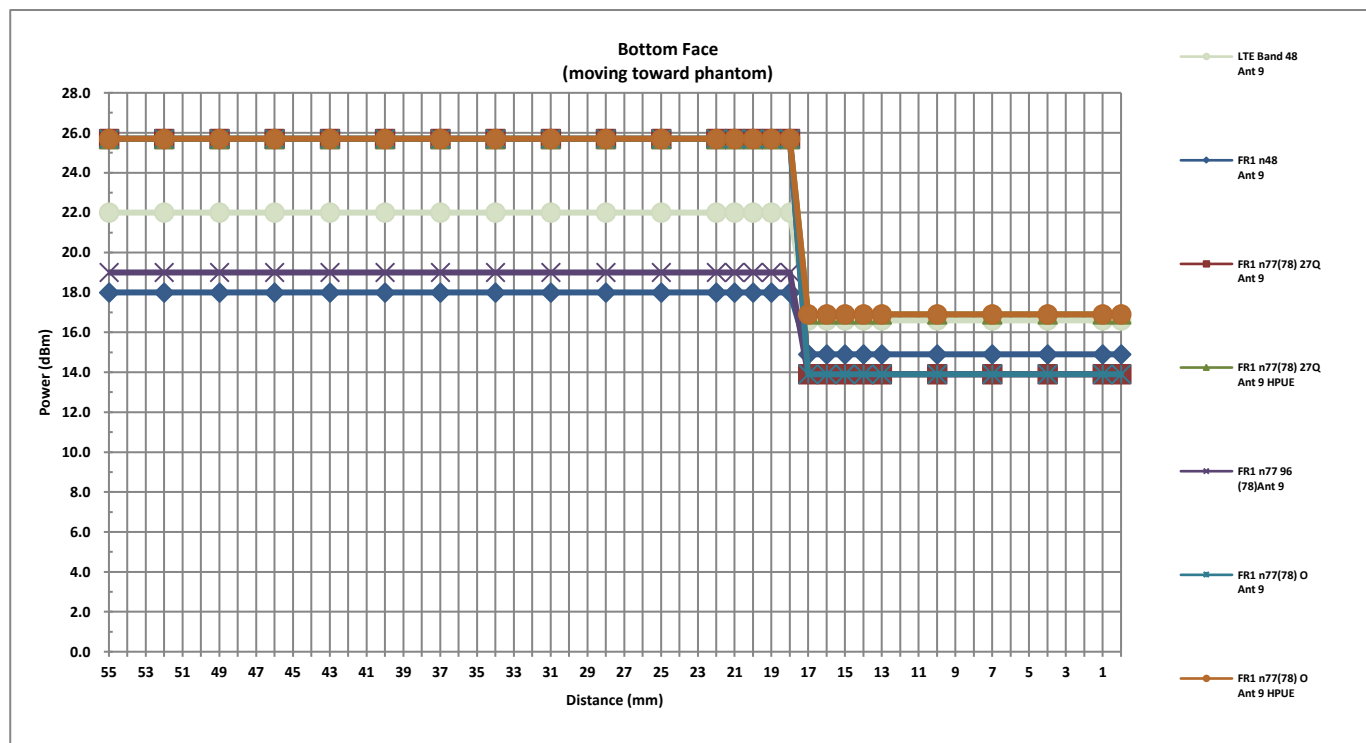


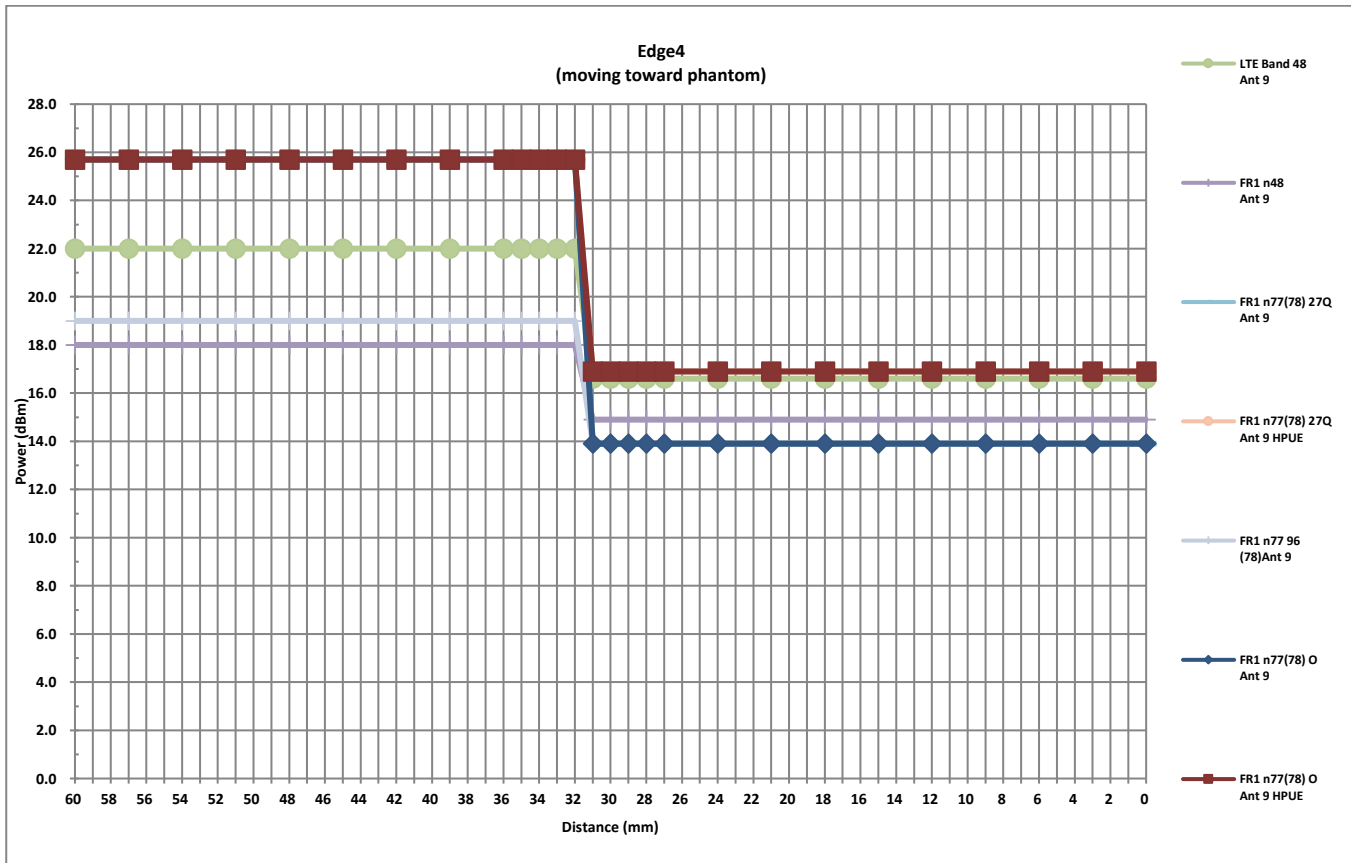
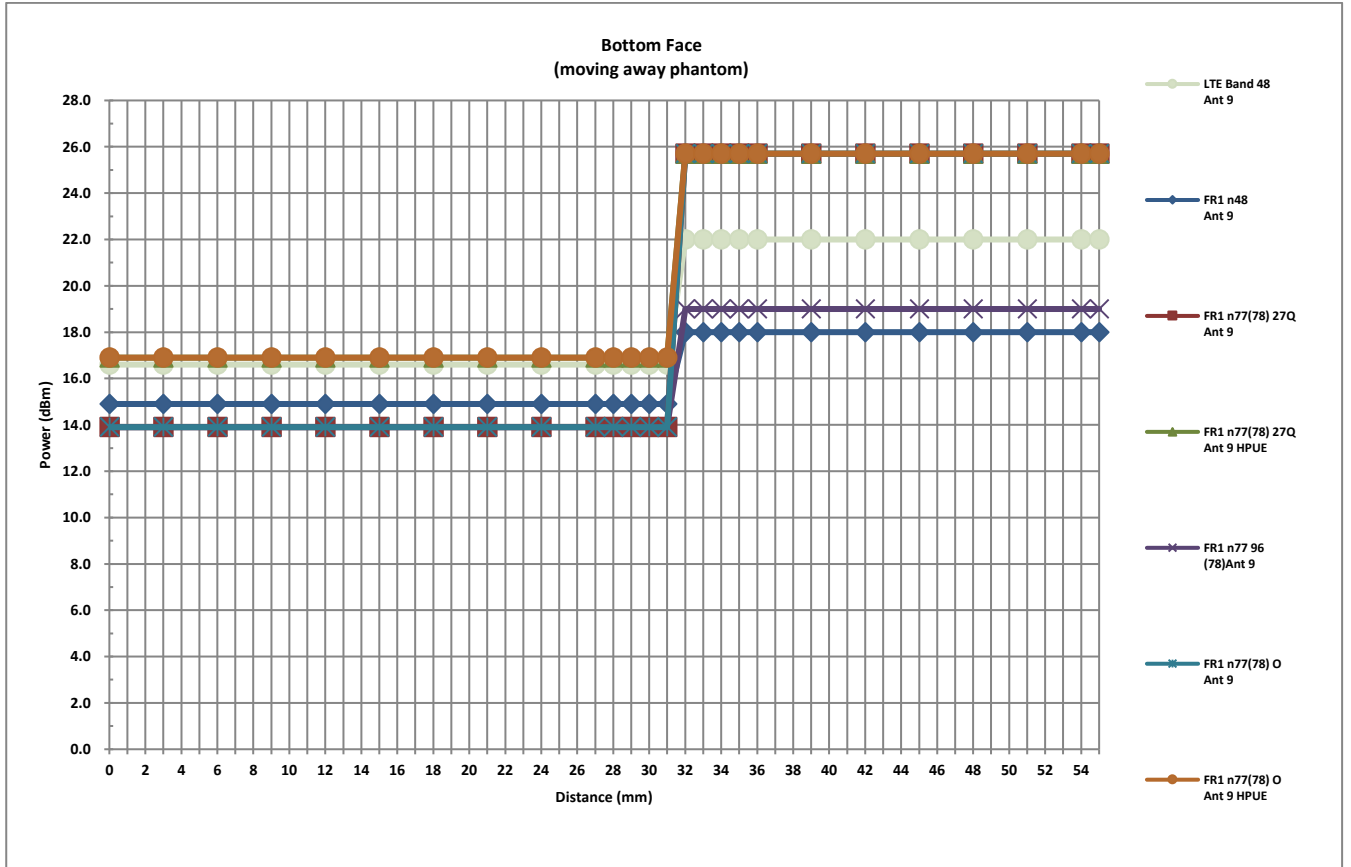


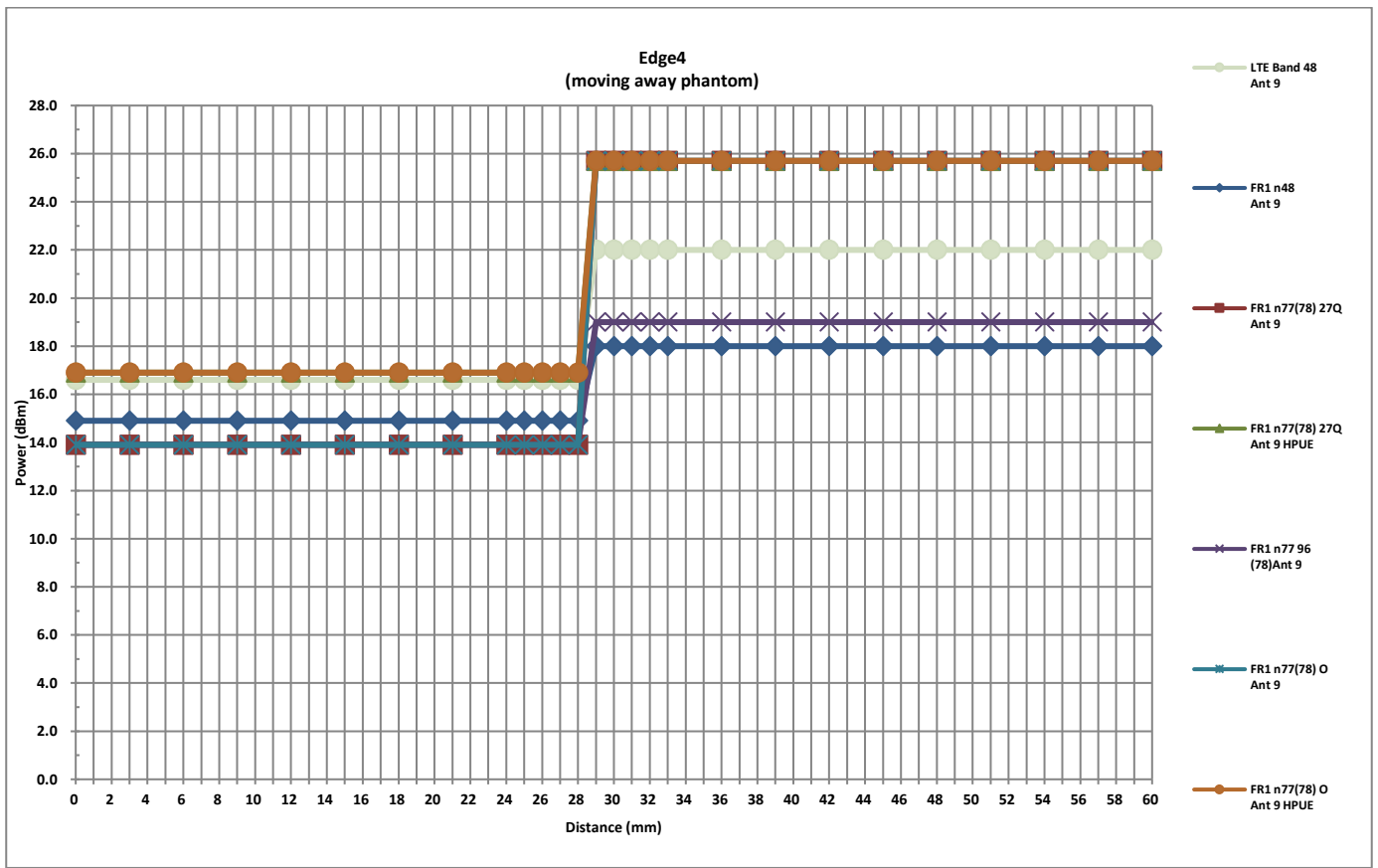




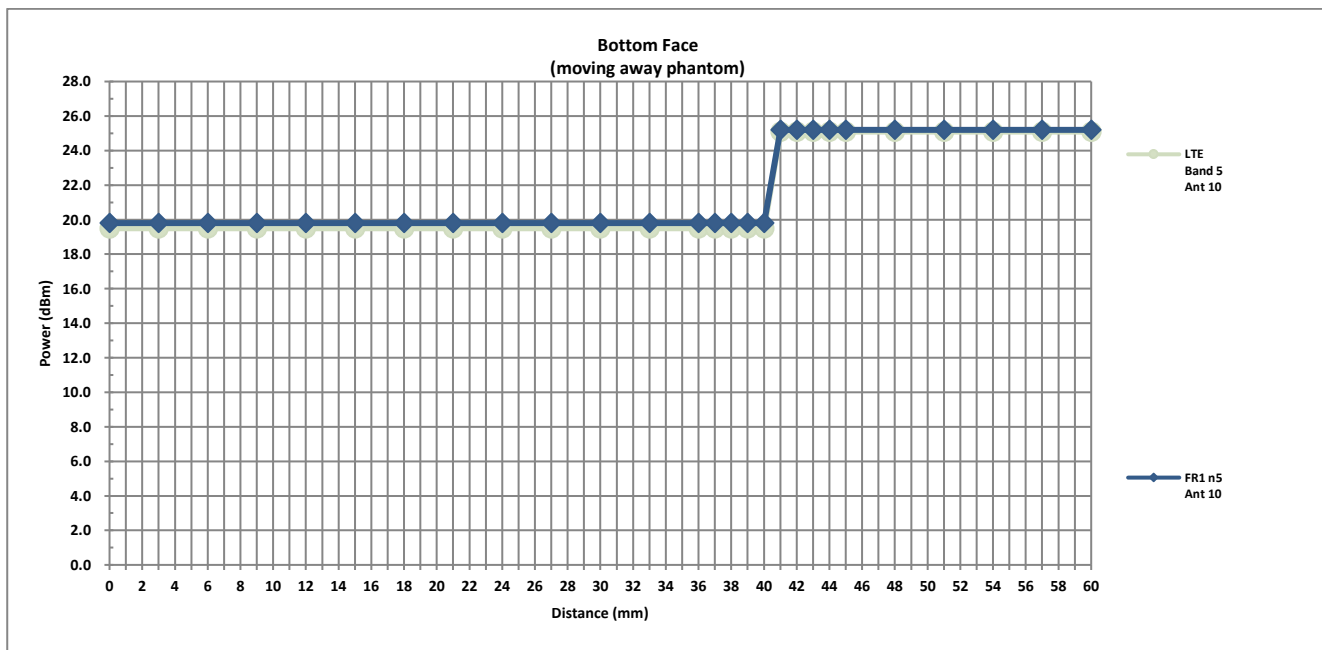
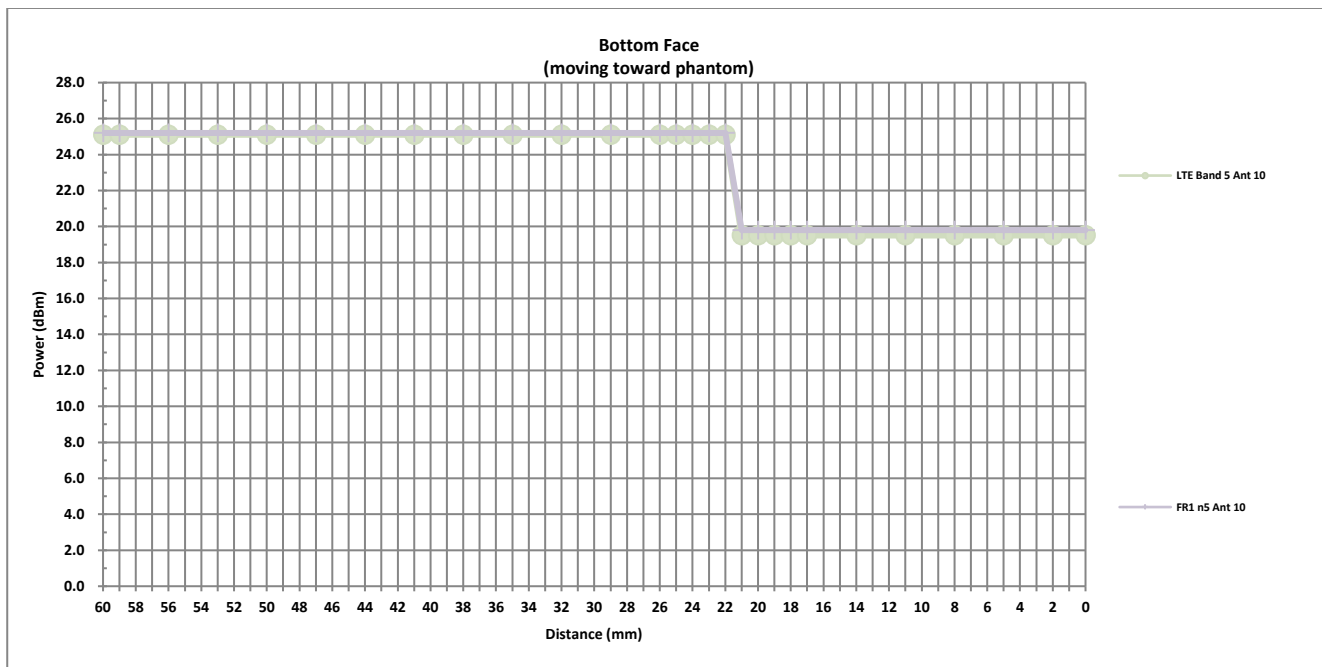
Band/Mode for Ant9	Measured power reduction (dBm)		Reduction Levels
	w/o power back-off	w/ power back-off	(dB)
LTE Band 48	22.00	16.60	5.4
FR1 n48	18.00	14.90	3.1
FR1 n77(78) 27Q	25.70	13.90	11.8
FR1 n77(78) 27Q HPUE	25.70	16.90	8.8
FR1 n77 96 (78)	19.00	13.90	5.1
FR1 n77(78) 27O	25.70	13.90	11.8
FR1 n77(78) 27O HPUE	25.70	16.90	8.8

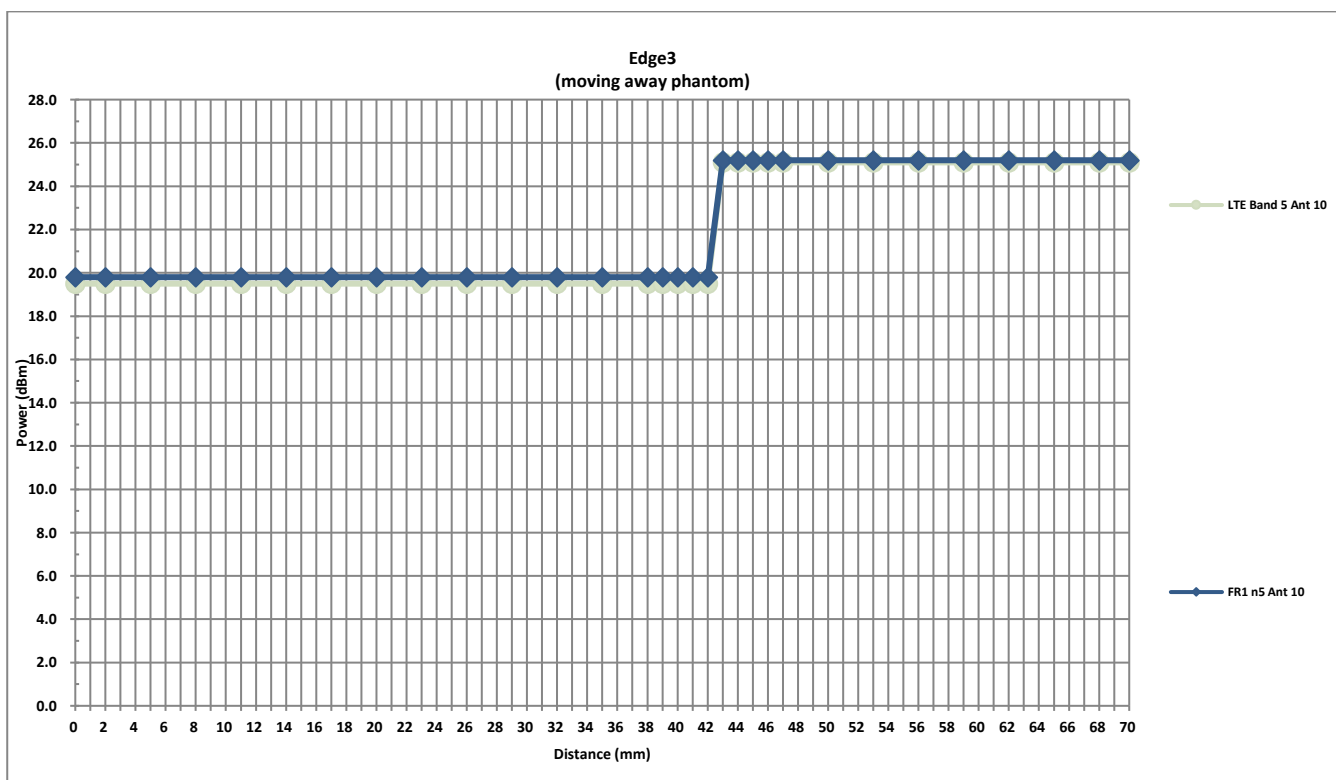
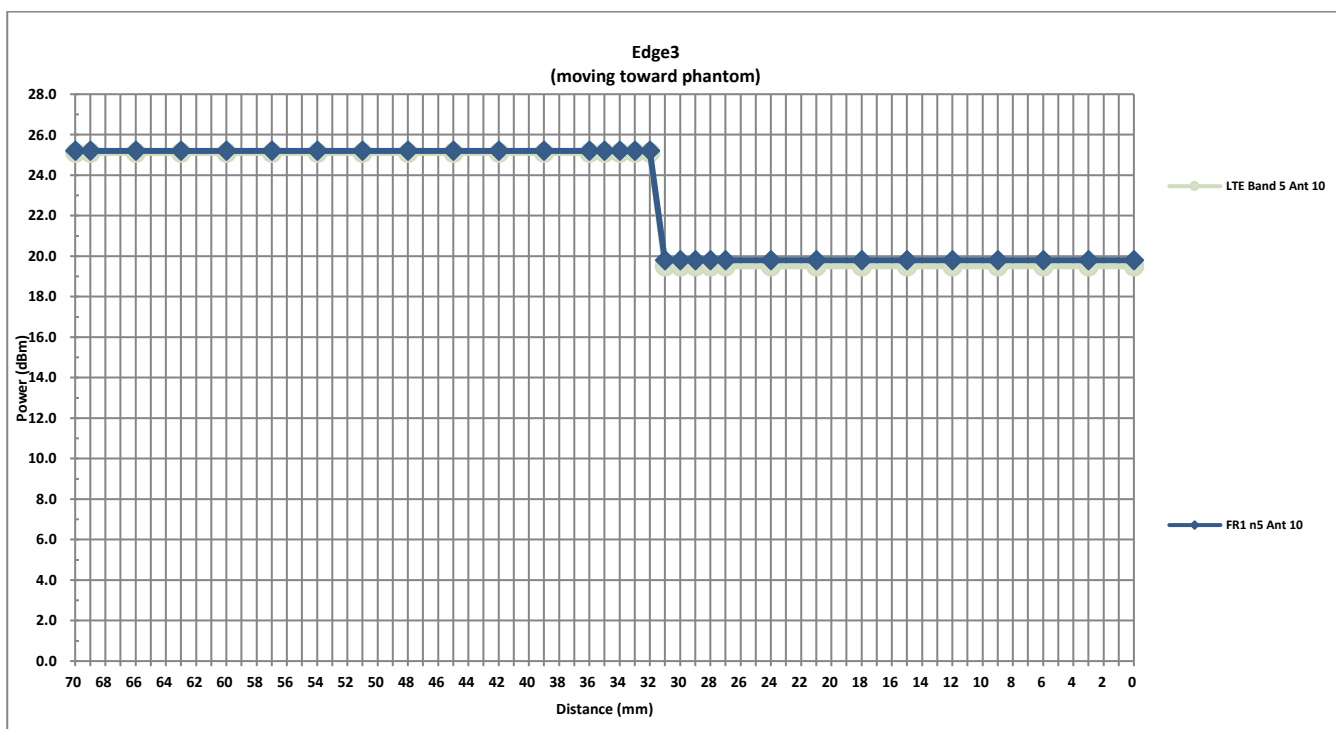




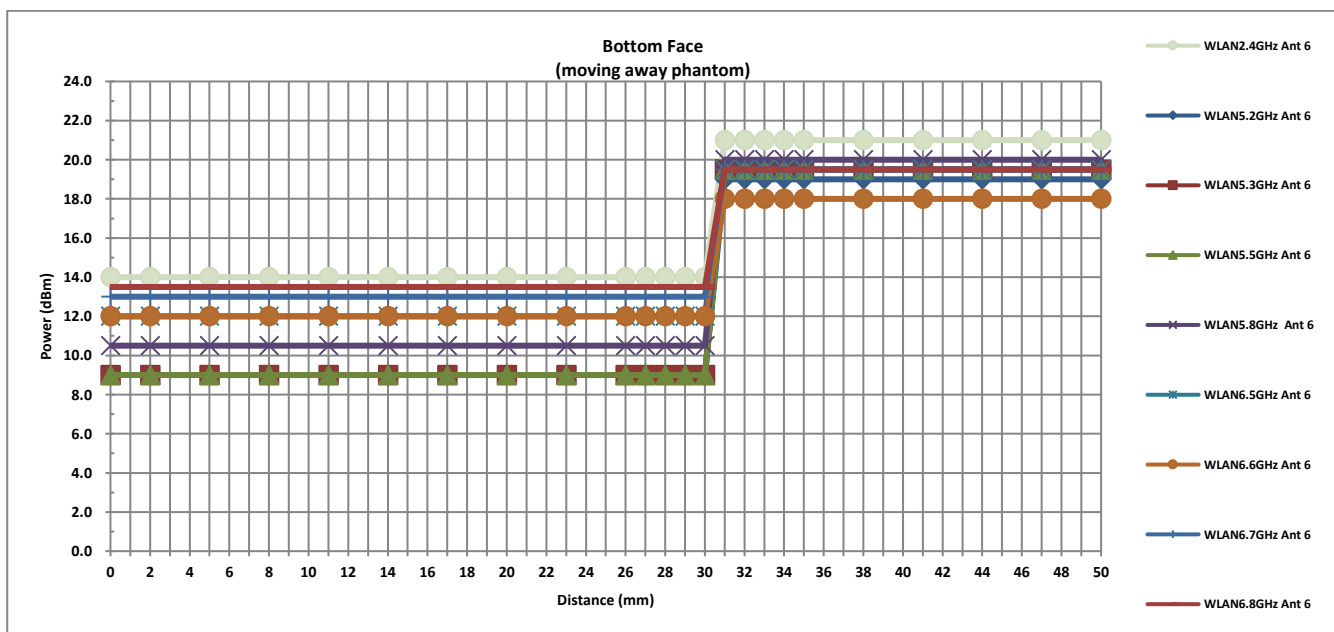
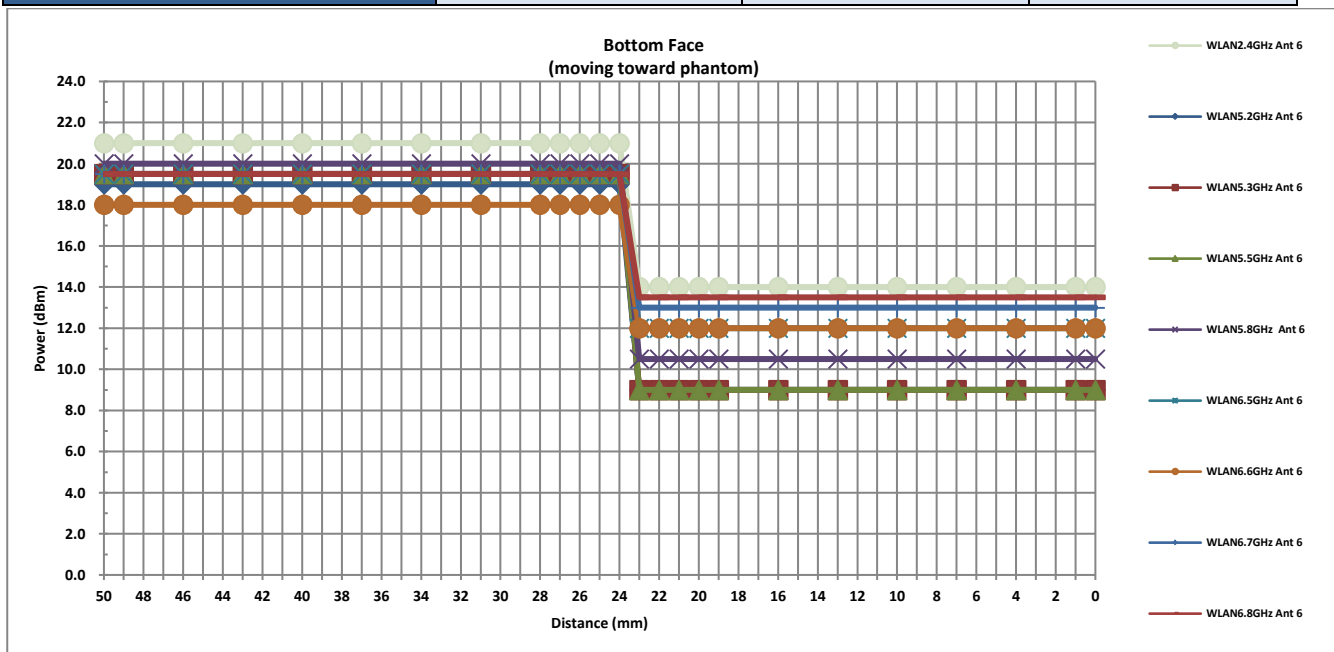


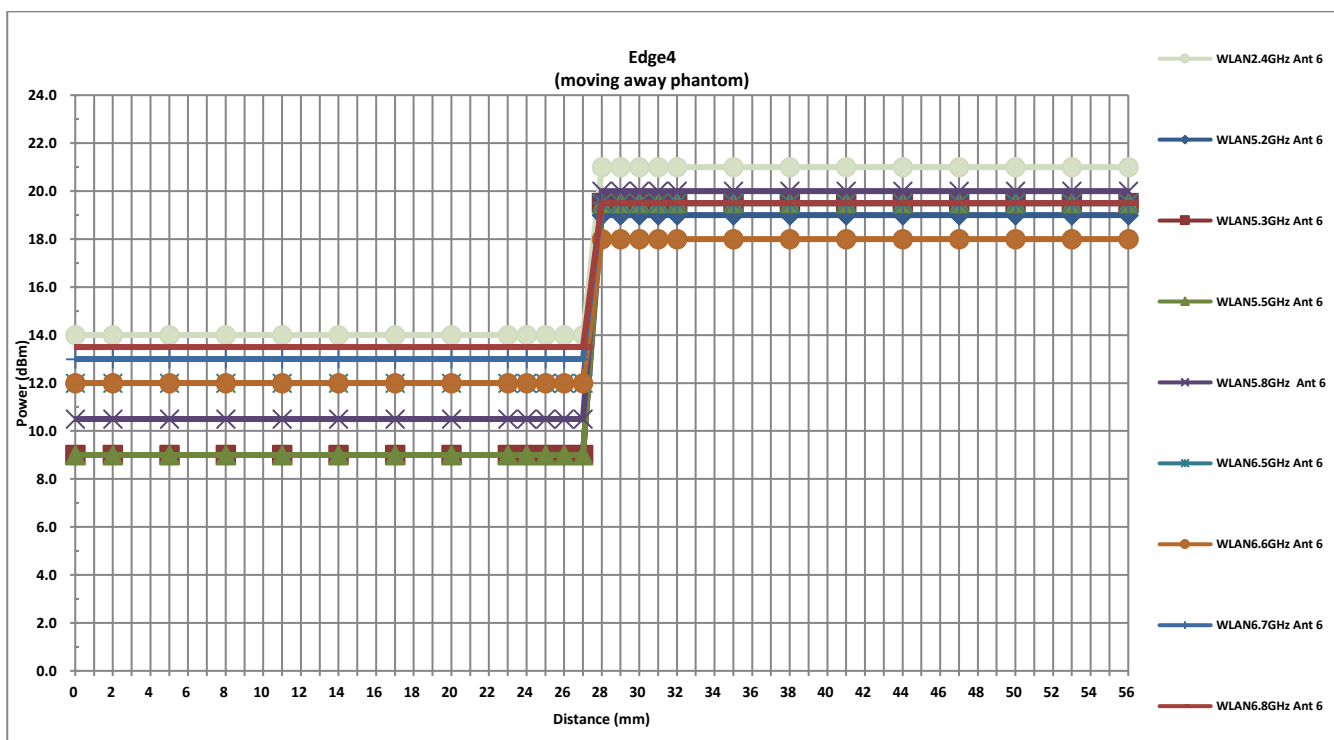
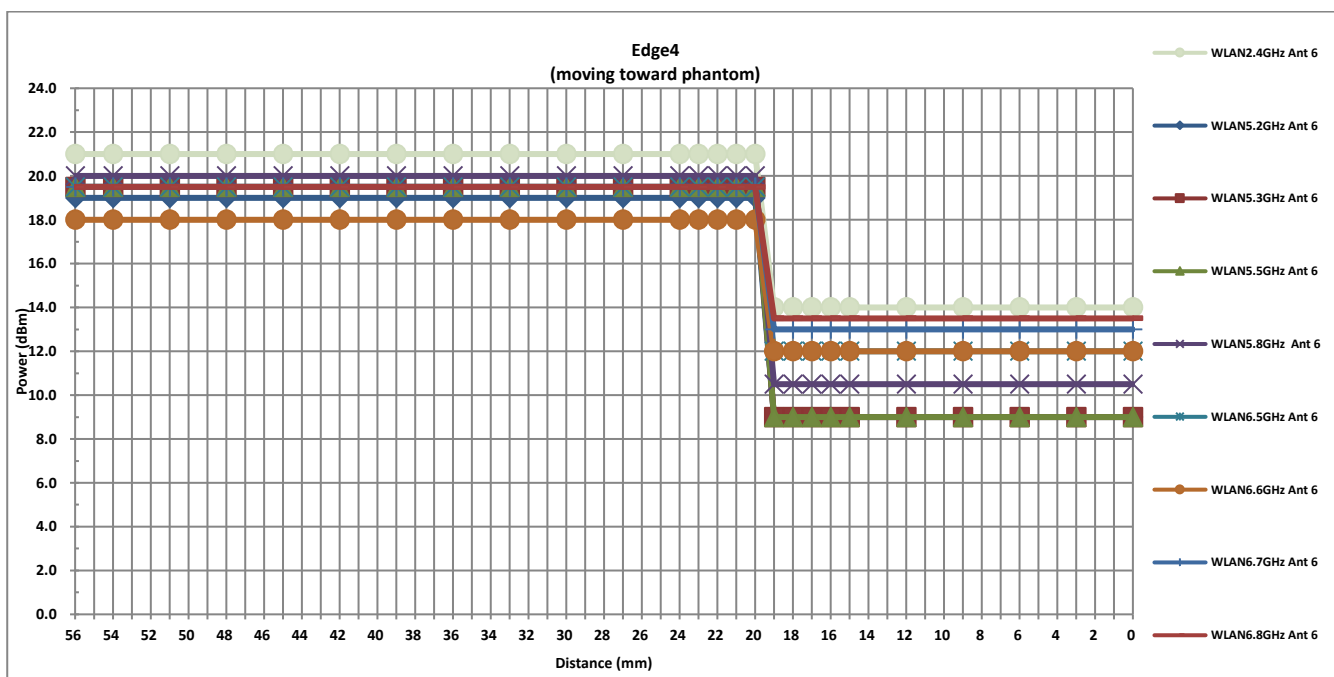
Band/Mode for Ant10	Measured power reduction (dBm)		Reduction Levels (dB)
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LTE Band 5	25.10	19.50	5.6
FR1 n5	25.20	19.80	5.4



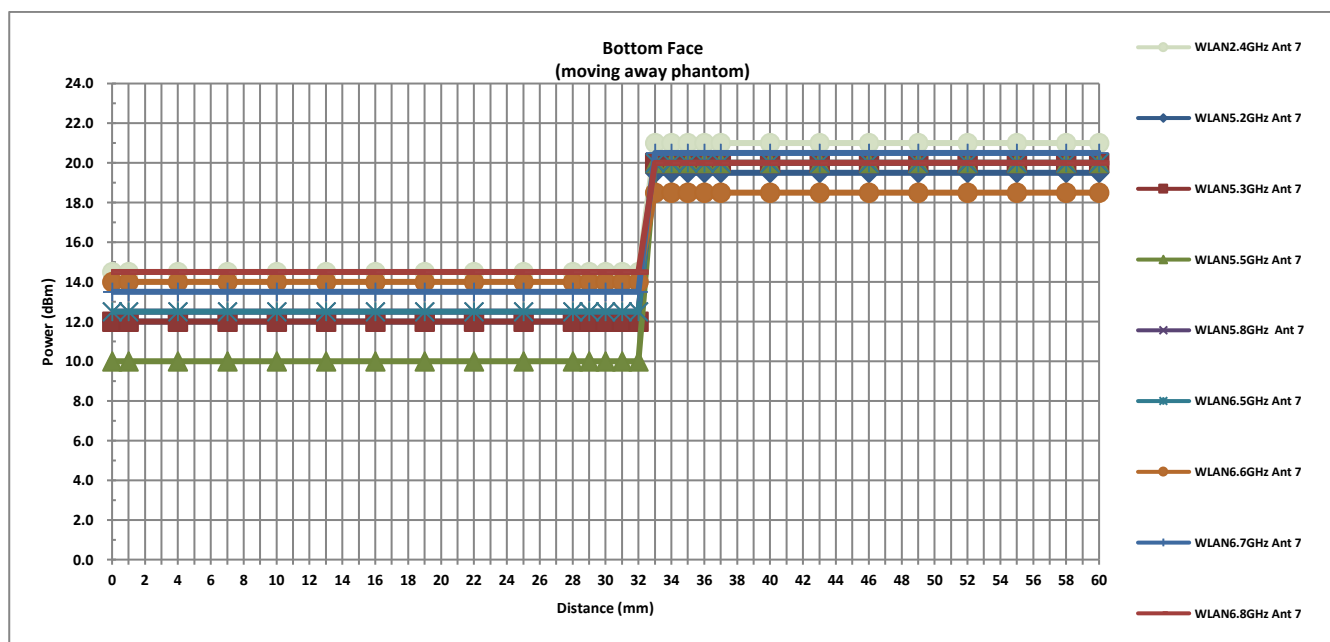
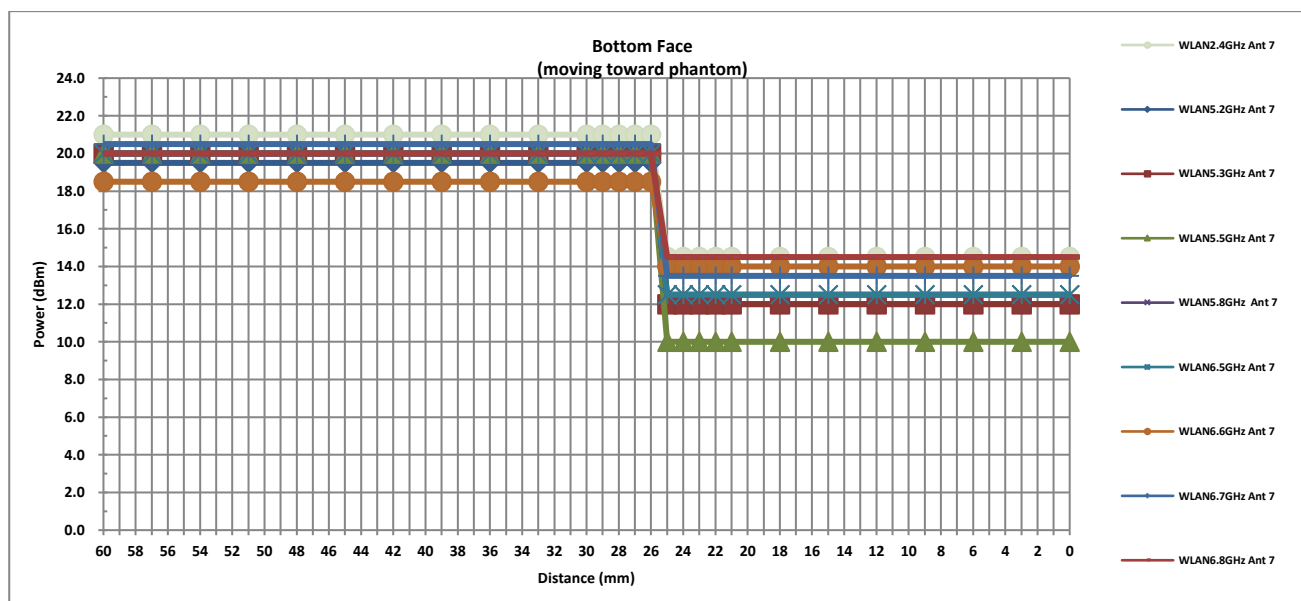


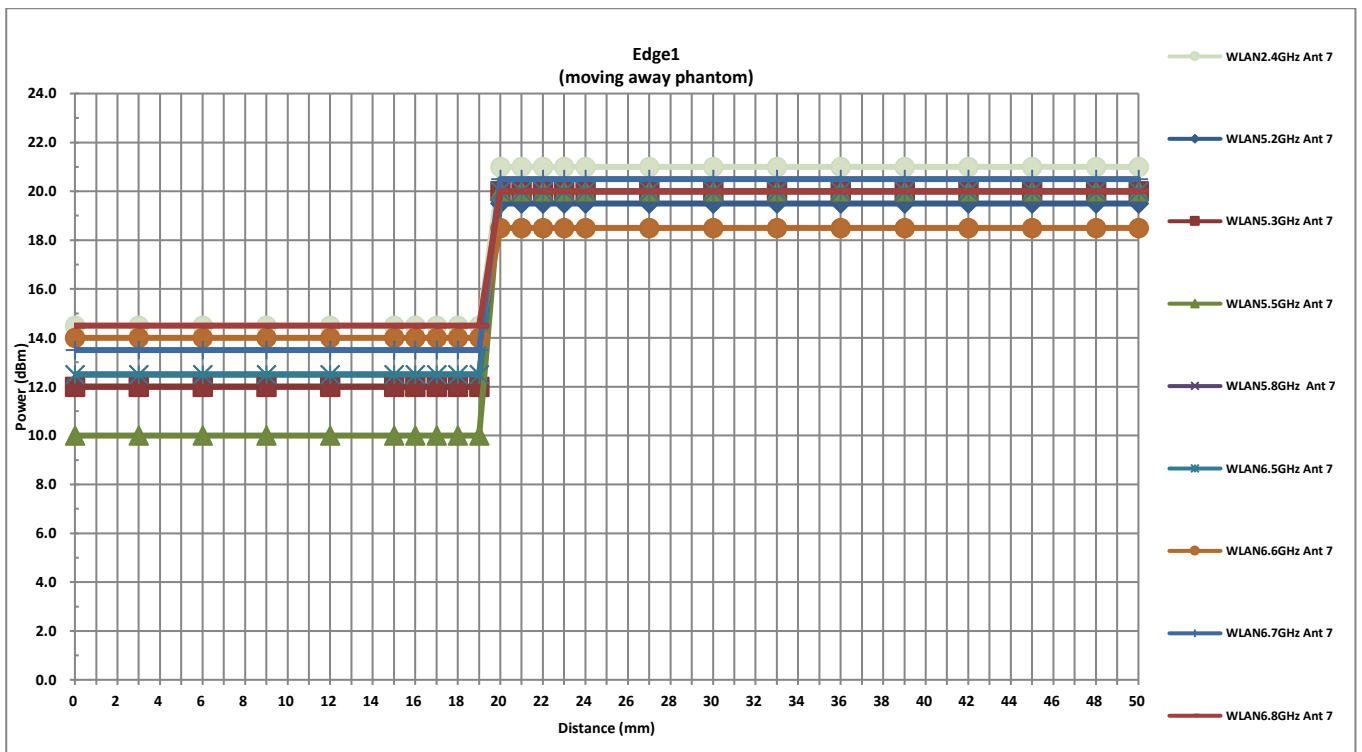
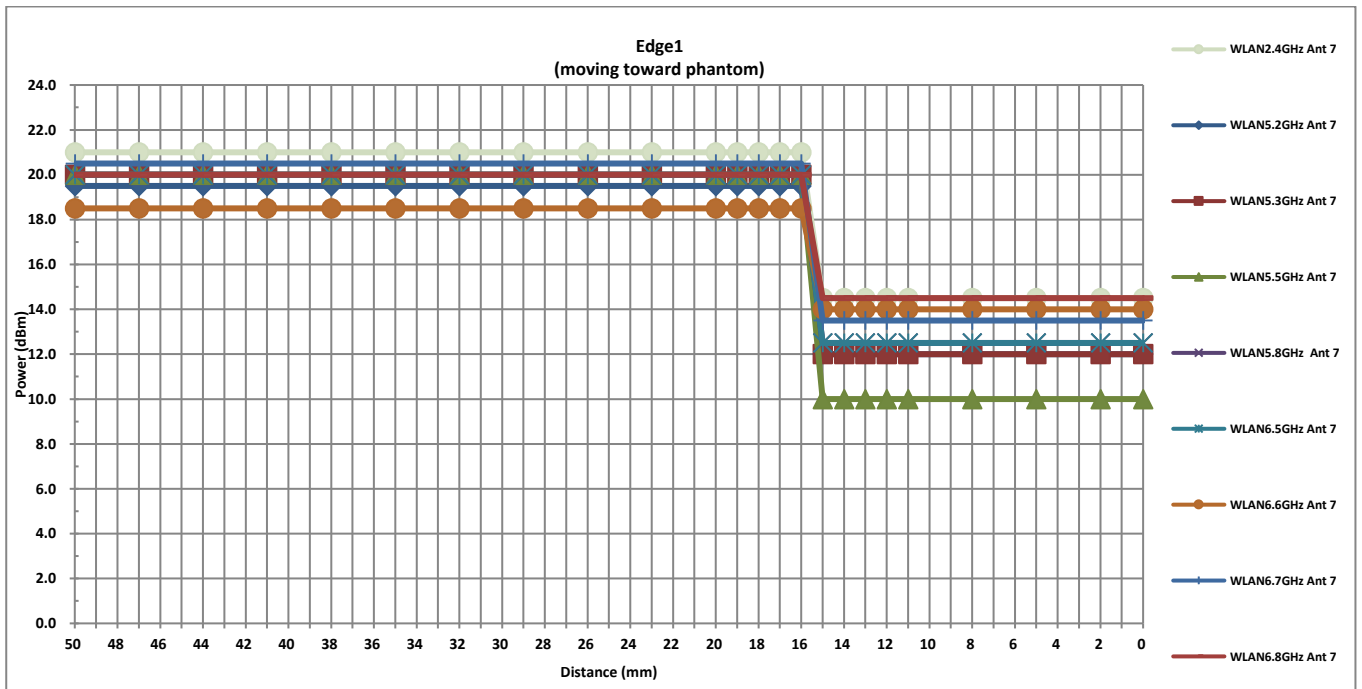
Band/Mode for Ant6	Measured power reduction (dBm)		Reduction Levels (dB)
	w/o power back-off	w/ power back-off	
WLAN 2.4GHz	21.00	14.00	7.0
WLAN 5.2GHz	19.00	9.00	10.0
WLAN 5.3GHz	19.50	9.00	10.5
WLAN 5.5GHz	19.50	9.00	10.5
WLAN 5.8GHz	20.00	10.50	9.5
WLAN 6GHz U-NII 5	19.50	12.00	7.5
WLAN 6GHz U-NII 6	18.00	12.00	6.0
WLAN 6GHz U-NII 7	19.50	13.00	6.5
WLAN 6GHz U-NII 8	19.50	13.50	6.0





Band/Mode for Ant7	Measured power reduction (dBm)		Reduction Levels (dB)
	w/o power back-off	w/ power back-off	
WLAN 2.4GHz	14.50	21.00	6.5
WLAN 5.2GHz	12.00	19.50	7.5
WLAN 5.3GHz	12.00	20.00	8.0
WLAN 5.5GHz	10.00	20.00	10.0
WLAN 5.8GHz	12.50	20.00	7.5
WLAN 6GHz U-NII 5	12.50	20.00	7.5
WLAN 6GHz U-NII 6	14.00	18.50	4.5
WLAN 6GHz U-NII 7	13.50	20.50	7.0
WLAN 6GHz U-NII 8	14.50	20.00	5.5





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:

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

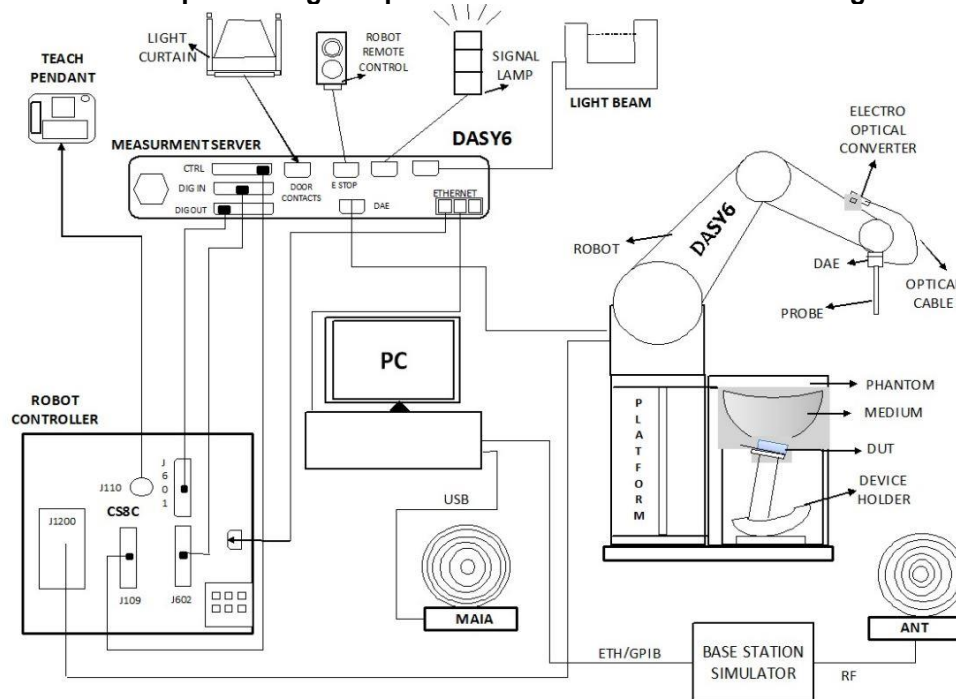
SAR is expressed in units of Watts per kilogram (W/kg)

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

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

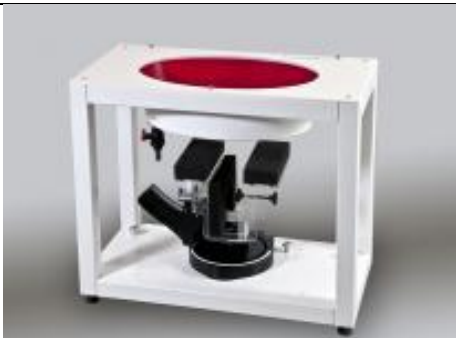
9.3 Phantom

<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 DASYS 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	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	2005	Dec. 04, 2024	Dec. 03, 2025
SPEAG	Data Acquisition Electronics	DAE4	1338	Mar. 18, 2025	Mar. 17, 2026
SPEAG	Data Acquisition Electronics	DAE4	1303	Dec. 06, 2024	Dec. 05, 2025
SPEAG	Data Acquisition Electronics	DAE4	690	Oct. 28, 2024	Oct. 27, 2025
SPEAG	Data Acquisition Electronics	DAE4	1650	Nov. 25, 2024	Nov. 24, 2025
SPEAG	Dosimetric E-Field Probe	EX3DV4	7706	May. 22, 2025	May. 21, 2026
SPEAG	Dosimetric E-Field Probe	EX3DV4	3857	Feb. 19, 2025	Feb. 18, 2026
SPEAG	Dosimetric E-Field Probe	EX3DV4	7918	Mar. 24, 2025	Mar. 23, 2026
SPEAG	Dosimetric E-Field Probe	EX3DV4	7627	Jul. 01, 2025	Jun. 30, 2026
SPEAG	EUmmWV Probe Tip Protection	EUmmWV4	9553	Nov. 15, 2024	Nov. 14, 2025
SPEAG	ELI Phantom	ELI4	TP-1201	None	None
SPEAG	ELI Phantom	ELI V8.0	TP-2134	None	None
SPEAG	ELI Phantom	ELI V8.0	TP-2151	NCR	NCR
Agilent	ENA Series Network Analyzer	E5071C	MY46112129	Jul. 02, 2025	Jul. 01, 2026
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	None	None
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
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
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
ARRA	Power Divider	A3200-2	N/A	Note 1	
mini-circuits	amplifier	ZVE-3W-83+	162601250	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
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								
2450	55.0	0	0	0	0	45.0	1.80	39.2

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	0.892	42.839	0.89	41.9	0.22	2.24	±5.0	2025/10/5
835	Head	22.7	0.916	42.473	0.9	41.5	1.78	2.34	±5.0	2025/10/6
900	Head	22.8	0.952	42.547	0.97	41.5	-1.86	2.52	±5.0	2025/12/5
1750	Head	22.6	1.374	40.66	1.37	40.1	0.29	1.4	±5.0	2025/10/9
1900	Head	22.6	1.457	39.183	1.4	40	4.07	-2.04	±5.0	2025/10/10
2300	Head	22.7	1.609	39.636	1.67	39.5	-3.65	0.34	±5.0	2025/10/11
2450	Head	22.9	1.77	39.228	1.8	39.2	-1.67	0.07	±5.0	2025/11/30
2450	Head	22.6	1.77	39	1.8	39.2	-1.67	-0.51	±5.0	2025/11/30
2600	Head	22.6	1.913	38.747	1.96	39	-2.4	-0.65	±5.0	2025/10/15
3500	Head	22.8	2.955	37.784	2.91	37.9	1.55	-0.31	±5.0	2025/10/17
3700	Head	22.8	3.178	37.567	3.12	37.7	1.86	-0.35	±5.0	2025/10/19
3900	Head	22.8	3.395	37.39	3.33	37.51	1.95	-0.32	±5.0	2025/10/21
5250	Head	22.6	4.62	35.6	4.71	35.95	-1.91	-0.97	±5.0	2025/10/27
5600	Head	22.7	5.01	35	5.07	35.5	-1.18	-1.41	±5.0	2025/10/28
5800	Head	22.9	5.22	34.8	5.27	35.3	-0.95	-1.42	±5.0	2025/10/29
6500	Head	22.7	6.06	34.1	6.07	34.5	-0.16	-1.16	±5.0	2025/10/23
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 (%)
2025/10/5	750	Head	50	D750V3 - 1087	EX3DV4 - SN3857	DAE4 Sn1303	0.422	8.68	8.44	-2.76	0.284	5.61	5.68	1.25
2025/10/6	835	Head	50	D835V2 - 4d298	EX3DV4 - SN3857	DAE4 Sn1303	0.474	9.89	9.48	-4.15	0.316	6.45	6.32	-2.02
2025/12/5	900	Head	50	D900V2 - 1d186	EX3DV4 - SN3857	DAE4 Sn1303	0.516	10.8	10.32	-4.44	0.341	6.93	6.82	-1.59
2025/10/9	1750	Head	50	D1750V2 - 1090	EX3DV4 - SN3857	DAE4 Sn1303	1.84	36.6	36.8	0.55	1	19.5	20	2.56
2025/10/10	1900	Head	50	D1900V2 - 5d182	EX3DV4 - SN3857	DAE4 Sn1303	2.03	39.8	40.6	2.01	1.08	21	21.6	2.86
2025/10/11	2300	Head	50	D2300V2 - 1056	EX3DV4 - SN3857	DAE4 Sn1303	2.28	48.6	45.6	-6.17	1.11	23.4	22.2	-5.13
2025/11/30	2450	Head	50	D2450V2 - 1095	EX3DV4 - SN3857	DAE4 Sn1303	2.45	52.6	49	-6.84	1.17	24.7	23.4	-5.26
2025/11/30	2450	Head	50	D2450V2 - 1095	EX3DV4 - SN7918	DAE4 Sn1338	2.56	52.6	51.2	-2.66	1.21	24.7	24.2	-2.02
2025/10/15	2600	Head	50	D2600V2 - 1112	EX3DV4 - SN3857	DAE4 Sn1303	2.54	55.1	50.8	-7.8	1.15	24.8	23	-7.26
2025/10/17	3500	Head	50	D3500V2 - 1037	EX3DV4 - SN3857	DAE4 Sn1303	3.5	65.4	70	7.03	1.35	24.7	27	9.31
2025/10/19	3700	Head	50	D3700V2 - 1008	EX3DV4 - SN3857	DAE4 Sn1303	3.44	67.2	68.8	2.38	1.28	24.4	25.6	4.92
2025/10/21	3900	Head	50	D3900V2 - 1048	EX3DV4 - SN3857	DAE4 Sn1303	3.25	69.1	65	-5.93	1.16	24.1	23.2	-3.73
2025/10/27	5250	Head	50	D5GHzV2 - 1113	EX3DV4 - SN7918	DAE4 Sn1338	3.98	78.1	79.6	1.92	1.16	22.4	23.2	3.57
2025/10/28	5600	Head	50	D5GHzV2 - 1113	EX3DV4 - SN7918	DAE4 Sn1338	4.34	80	86.8	8.5	1.25	23	25	8.7
2025/10/29	5800	Head	50	D5GHzV2 - 1113	EX3DV4 - SN7918	DAE4 Sn1338	4.1	77.9	82	5.26	1.17	22.3	23.4	4.93
2025/10/23	6500	Head	50	D6.5GHzV2 - 1026	EX3DV4 - SN7706	DAE4 Sn1338	14.3	296	286	-3.38	2.68	54.8	53.6	-2.19
2025/9/23	13	Head	1000	CLA13 - SN:1020	EX3DV4 - SN7627	DAE4 Sn690	0.531	0.568	0.531	-6.84	0.328	0.338	0.328	-3.53

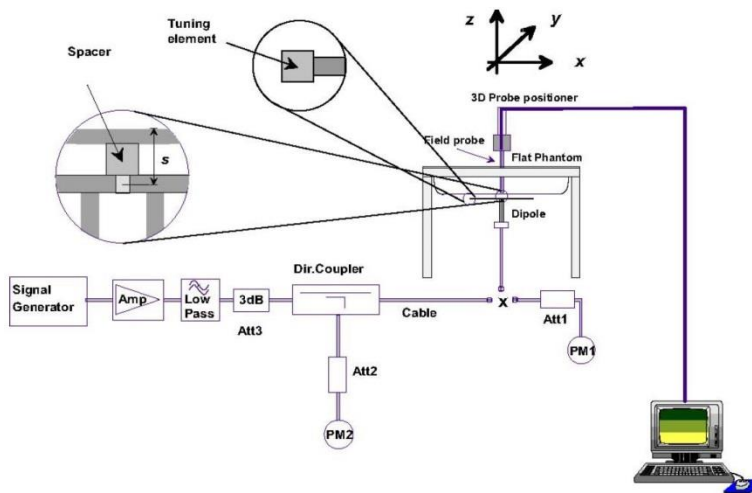


Fig 10.3.1 System Performance Check Setup



Fig 10.3.2 Setup Photo



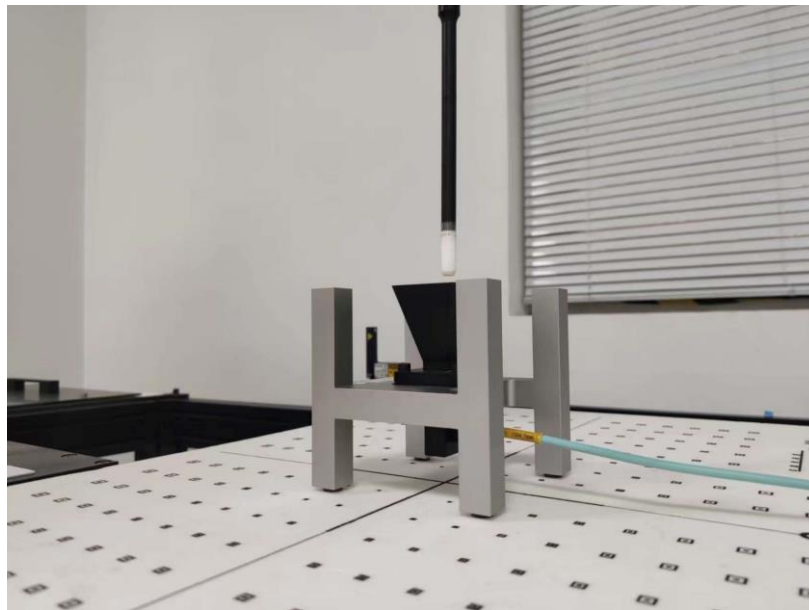
Fig 10.3.3 Setup Photo

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_2005	9553	1650	10	100	98.7	156.4	171	-0.39	99.3	157.3	172	-0.39	102	161.6	177	-0.39	2025/11/13

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:

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

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

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{HS} (Note 1)	β_{ec}	β_{ed} (Note 4) (Note 5)	β_{ed} (SF)	β_{ed} (Codes)	CM (dB) (Note 2)	MPR (dB) (Note 2) (Note 6)	AG Index (Note 5)	E-TFCI
1	11/15 (Note 3)	15/15 (Note 3)	64	11/15 (Note 3)	22/15	209/25	1309/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	$\beta_{ed1}: 47/15$ $\beta_{ed2}: 47/15$	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 $\beta_c/\beta_d = 12/15$, $\beta_{hs}/\beta_c = 24/15$. For all other combinations of DPDCH, DPCCH, HS-DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.

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

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

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

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

Setup Configuration

DC-HSDPA 3GPP release 8 Setup Configuration:

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

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

C.8.1.12 Fixed Reference Channel Definition H-Set 12

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

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

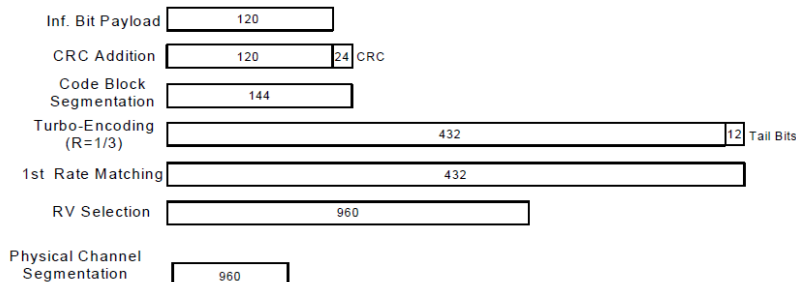


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

Setup Configuration

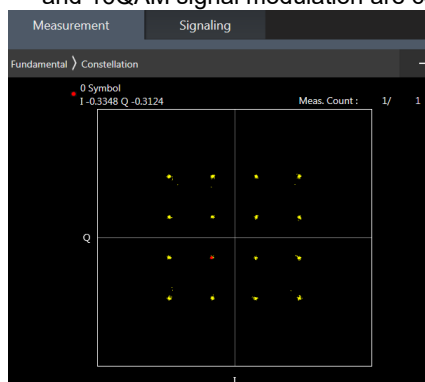
**<WCDMA Conducted Power>****General Note:**

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.

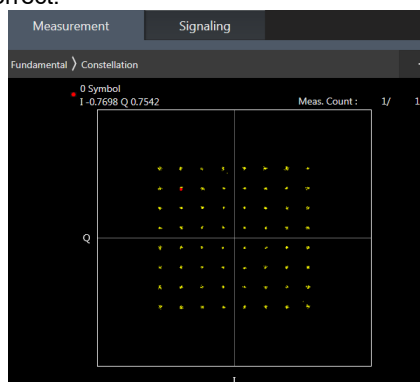
<LTE Conducted Power>

General Note:

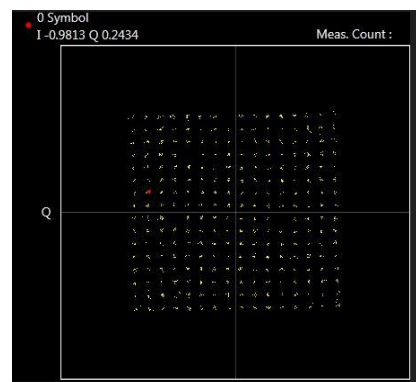
1. Anritsu MT8821C base station simulator was used to setup the connection with EUT; the frequency band, channel bandwidth, RB allocation configuration, modulation type are set in the base station simulator to configure EUT transmitting at maximum power and at different configurations which are requested 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.

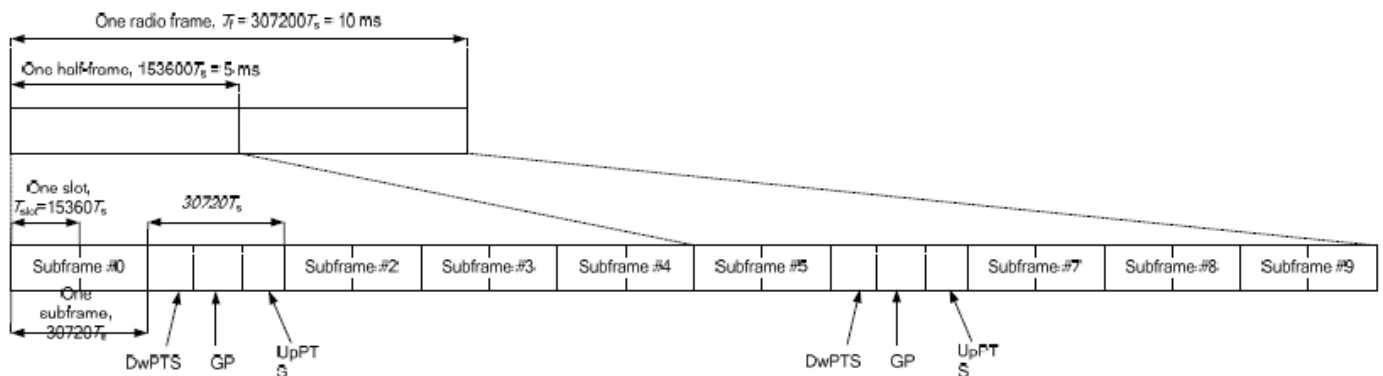


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

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:**

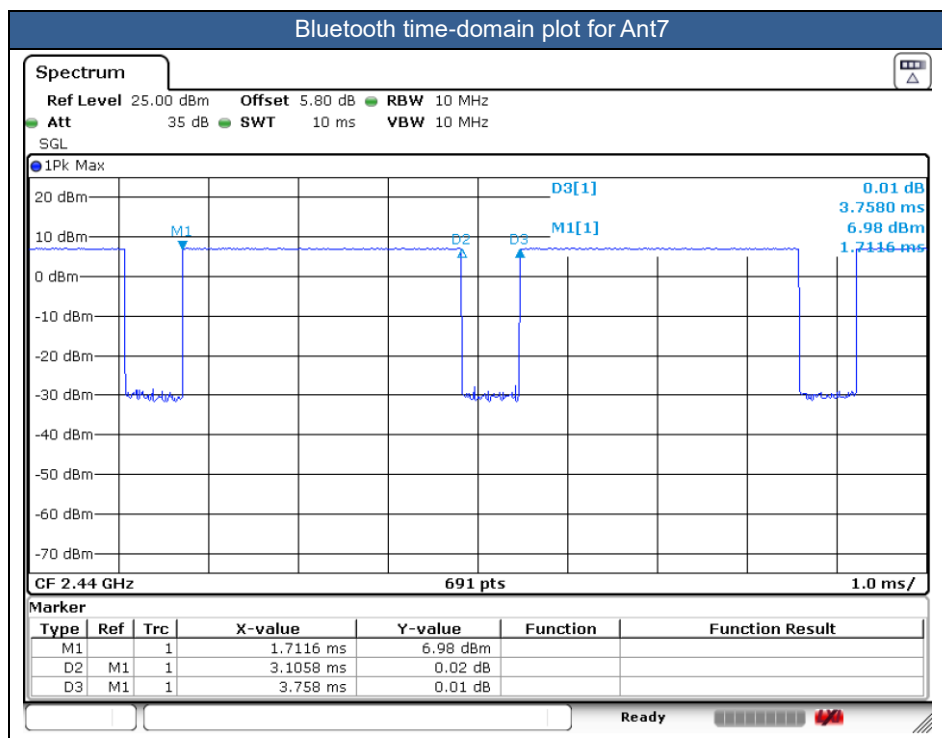
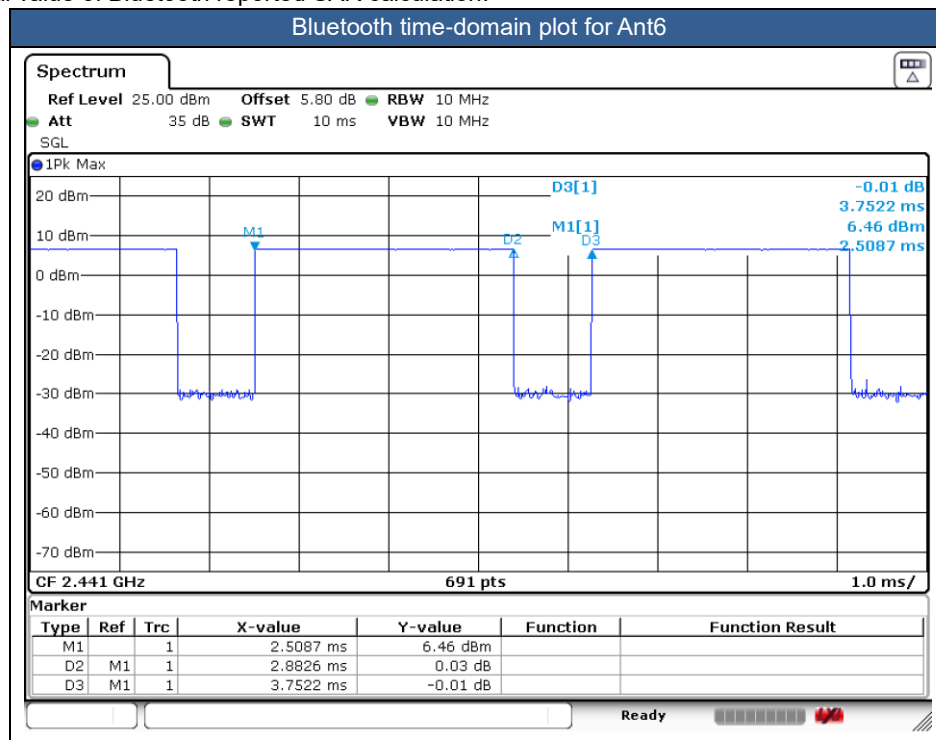
1. For each antenna, transmit power in SISO operation is larger than (or equal to) the power in MIMO operation, RF exposure compliance of MIMO mode can be deduced from the compliance simultaneous transmission of antennas operating in SISO mode.
2. For each frequency band or when MIMO mode was not performed, 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 76.82 for Ant6 and 82.65 for Ant6, 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	846	695	715	784	795	713	848	848	2312	2567	2617	2687	2687	3697	2489	899	839	2545	708	728	793	839	2310	2489	688	2600	2640	3679	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	23.0	25.1	25.1	25.1	27.0	22.0	25.1	25.1	25.2	25.2	24.5	24.5	25.2	22.5	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	199.53	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	177.83	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	60.7	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	54.1	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			
	Separation distance(mm)	5.0																																		
Edge 1	exclusion threshold	327.5	58.2	54.0	54.7	49.9	50.3	54.7	59.6	59.6	60.7	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	54.1	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			
	Separation distance(mm)	126.2																																		
Edge 2	exclusion threshold	594.0	925.0	533.0	939.0	931.0	572.0	540.0	925.0	925.0	1273.0	1397.0	1422.0	1456.0	1456.0	1955.0	1359.0	920.0	925.0	856.0	940.0	938.0	930.0	925.0	860.0	857.0	943.0	855.0	854.0	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	Yes	Yes	Yes	Yes			
	Separation distance(mm)	142.5																																		
Edge 3	exclusion threshold	686.0	1088.0	609.0	1103.0	1095.0	659.0	617.0	1088.0	1088.0	1525.0	1677.0	1707.0	1749.0	1749.0	2358.0	1630.0	1083.0	1089.0	1019.0	1103.0	1101.0	1094.0	1089.0	1024.0	1020.0	1106.0	1018.0	1018.0	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	Yes	Yes	Yes	Yes			
	Separation distance(mm)	5.0																																		
Edge 4	exclusion threshold	327.5	58.2	54.0	54.7	49.9	50.3	54.7	59.6	59.6	60.7	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	54.1	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			

<Ant 1>

Exposure Position	Wireless Interface	GPFS 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)	1880	1732.6	1880	1732.5	1745	1880	1880	1750	1880	1882.5	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)	78.7											
	exclusion threshold	325.0	395.0	325.0	400.0	395.0	325.0	325.0	400.0	395.0	313.0	314.0	319.0
	Testing required?	Yes	No	No	No	No	No	No	No	No	Yes	Yes	Yes
Edge 2	Separation distance(mm)	126.2											
	exclusion threshold	594.0	871.0	593.0	875.0	871.0	593.0	594.0	875.0	871.0	533.0	541.0	568.0
	Testing required?	Yes	No	No	No	No	No	No	No	No	No	No	No
Edge 3	Separation distance(mm)	113.9											
	exclusion threshold	524.0	747.0	523.0	752.0	747.0	523.0	524.0	752.0	747.0	476.0	482.0	503.0
	Testing required?	Yes	No	No	No	No	No	No	No	No	No	No	No
Edge 4	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

<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)	203.9		
	exclusion threshold	2800.0	1614.0	3924.0
	Testing required?	No	No	No
Edge 2	Separation distance(mm)	79.9		
	exclusion threshold	619.0	375.0	825.0
	Testing required?	No	No	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)	36.2		
	exclusion threshold	22.5	20.4	19.9
	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)	73.6		
	exclusion threshold	508.0	312.0	667.0
	Testing required?	No	Yes	No
Edge 2	Separation distance(mm)	5.0		
	exclusion threshold	162.9	147.3	143.9
	Testing required?	Yes	Yes	Yes
Edge 3	Separation distance(mm)	116.0		
	exclusion threshold	1254.0	736.0	1727.0
	Testing required?	No	No	No
Edge 4	Separation distance(mm)	126.2		
	exclusion threshold	1433.0	838.0	1982.0
	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(38)	NR Band n2	NR Band n25	NR Band n66	NR Band n30	NR Band n7	NR Band n41
	Calculated Frequency (MHz)	1754	1779	1909	1914	2312	2567	2687	1890	1895	1760	2310	2545	2640
	Maximum power (dBm)	25.1	25.1	25.1	25.1	23.0	25.1	25.1	25.2	25.2	25.2	23.0	25.2	27.0
	Maximum rated power(mW)	323.59	323.59	323.59	323.59	199.53	323.59	323.59	331.13	331.13	331.13	199.53	331.13	501.19
Bottom Face	Separation distance(mm)	5.0												
	exclusion threshold	85.7	86.3	89.4	89.5	60.7	103.7	106.1	91.1	91.2	87.9	60.7	105.7	162.9
	Testing required?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Edge 1	Separation distance(mm)	175.4												
	exclusion threshold	1579.0	1366.0	1704.0	1362.0	1352.0	2239.0	2337.0	1363.0	1363.0	1584.0	2029.0	2221.0	2299.0
	Testing required?	No	No	No	No	No	No	No	No	No	No	No	No	No
Edge 2	Separation distance(mm)	126.2												
	exclusion threshold	1004.0	874.0	1078.0	870.0	860.0	1397.0	1456.0	871.0	871.0	1007.0	1272.0	1386.0	1433.0
	Testing required?	No	No	No	No	No	No	No	No	No	No	No	No	No
Edge 3	Separation distance(mm)	20.0												
	exclusion threshold	21.4	21.6	22.4	22.4	15.2	25.9	26.5	22.8	22.8	22.0	15.2	26.4	40.7
	Testing required?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Edge 4	Separation distance(mm)	5.0												
	exclusion threshold	85.7	86.3	89.4	89.5	60.7	103.7	106.1	91.1	91.2	87.9	60.7	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)	3697	3679	3930	3750
	Maximum power (dBm)	22.0	18.0	25.7	25.7
	Maximum rated power(mW)	158.49	63.10	371.54	371.54
Bottom Face	Separation distance(mm)	5.0			
	exclusion threshold	61.0	24.2	147.3	143.9
	Testing required?	Yes	Yes	Yes	Yes
Edge 1	Separation distance(mm)	164.4			
	exclusion threshold	1222.0	2884.0	1219.0	1221.0
	Testing required?	No	No	No	No
Edge 2	Separation distance(mm)	126.2			
	exclusion threshold	840.0	1947.0	838.0	839.0
	Testing required?	No	No	No	No
Edge 3	Separation distance(mm)	43.8			
	exclusion threshold	7.0	2.8	16.8	16.4
	Testing required?	Yes	No	Yes	Yes
Edge 4	Separation distance(mm)	5.0			
	exclusion threshold	61.0	24.2	147.3	143.9
	Testing required?	Yes	Yes	Yes	Yes

<Ant 10>

Exposure Position	Wireless Interface	NR Band 5	NR Band n5
	Calculated Frequency (MHz)	848	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)	203.9	
	exclusion threshold	1033.0	1703.0
	Testing required?	No	No
Edge 2	Separation distance(mm)	30.3	
	exclusion threshold	9.8	10.0
	Testing required?	Yes	Yes
Edge 3	Separation distance(mm)	5.0	
	exclusion threshold	59.6	60.7
	Testing required?	Yes	Yes
Edge 4	Separation distance(mm)	63.0	
	exclusion threshold	236.0	293.0
	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)	8.5	8.0	21.0	21.0	20.0	20.0	19.5	20.5
	Maximum rated power(mW)	7.08	6.31	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	2.2	2.0	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)	125.2	5.0	125.2	5.0	125.2	5.0	125.2	5.0
	exclusion threshold	847.0	2.0	849.0	39.1	814.0	60.4	813.0	48.8
	Testing required?	No	No	No	Yes	No	Yes	No	Yes
Edge 2	Separation distance(mm)	126.2	87.0	126.2	87.0	126.2	87.0	126.2	87.0
	exclusion threshold	857.0	466.0	859.0	466.0	824.0	432.0	823.0	431.0
	Testing required?	No	No	No	No	No	No	No	No
Edge 3	Separation distance(mm)	63.2	204.0	63.2	204.0	63.2	204.0	63.2	204.0
	exclusion threshold	228.0	1636.0	229.0	1636.0	195.0	1602.0	194.0	1601.0
	Testing required?	No	No	No	No	No	No	No	No
Edge 4	Separation distance(mm)	5.0	28.6	5.0	28.6	5.0	28.6	5.0	28.6
	exclusion threshold	2.2	0.3	39.1	6.8	48.3	10.5	61.4	8.5
	Testing required?	No	No	Yes	Yes	Yes	Yes	Yes	Yes

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	DSI 7	189	836.4	Without Scanner	21.13	22.50	1.371	-0.05	0.758	1.039
	GSM850	GPRS 4 Tx slots	Bottom Face	0mm	Ant 8	DSI 7	128	824.2	Without Scanner	21.11	22.50	1.377	-0.07	0.759	1.046
	GSM850	GPRS 4 Tx slots	Bottom Face	0mm	Ant 8	DSI 7	251	848.8	Without Scanner	21.05	22.50	1.396	0.03	0.819	1.143
	GSM850	GPRS 4 Tx slots	Edge 1	0mm	Ant 8	DSI 7	189	836.4	Without Scanner	21.13	22.50	1.371	-0.09	0.323	0.443
	GSM850	GPRS 4 Tx slots	Edge 2	0mm	Ant 8	DSI 0	189	836.4	Without Scanner	30.92	32.50	1.439	-0.12	0.069	0.099
	GSM850	GPRS 4 Tx slots	Edge 3	0mm	Ant 8	DSI 0	189	836.4	Without Scanner	30.92	32.50	1.439	-0.09	0.050	0.072
	GSM850	GPRS 4 Tx slots	Edge 4	0mm	Ant 8	DSI 7	189	836.4	Without Scanner	21.13	22.50	1.371	-0.01	0.626	0.858
	GSM850	GPRS 4 Tx slots	Edge 4	0mm	Ant 8	DSI 7	128	824.2	Without Scanner	21.11	22.50	1.377	0.19	0.615	0.847
	GSM850	GPRS 4 Tx slots	Edge 4	0mm	Ant 8	DSI 7	251	848.8	Without Scanner	21.05	22.50	1.396	-0.17	0.666	0.929
	GSM850	GPRS 4 Tx slots	Bottom Face	41mm	Ant 8	DSI 0	189	836.4	Without Scanner	30.92	32.50	1.439	0.11	0.334	0.481
	GSM850	GPRS 4 Tx slots	Edge 1	18mm	Ant 8	DSI 0	189	836.4	Without Scanner	30.92	32.50	1.439	-0.16	0.526	0.757
	GSM850	GPRS 4 Tx slots	Edge 4	44mm	Ant 8	DSI 0	189	836.4	Without Scanner	30.92	32.50	1.439	-0.15	0.096	0.138
02	GSM850	GPRS 4 Tx slots	Bottom Face	0mm	Ant 8	DSI 7	251	848.8	With Scanner	21.05	22.50	1.396	0.01	0.805	1.124
	GSM1900	GPRS 4 Tx slots	Bottom Face	0mm	Ant 1	DSI 7	661	1880	Without Scanner	17.37	18.90	1.422	0.04	0.581	0.826
	GSM1900	GPRS 4 Tx slots	Bottom Face	0mm	Ant 1	DSI 7	512	1850.2	Without Scanner	17.25	18.90	1.462	0.06	0.756	1.106
	GSM1900	GPRS 4 Tx slots	Bottom Face	0mm	Ant 1	DSI 7	810	1909.8	Without Scanner	17.31	18.90	1.442	0.05	0.789	1.138
	GSM1900	GPRS 4 Tx slots	Edge 1	0mm	Ant 1	DSI 0	661	1880	Without Scanner	27.53	28.00	1.114	0.17	0.023	0.025
	GSM1900	GPRS 4 Tx slots	Edge 2	0mm	Ant 1	DSI 0	661	1880	Without Scanner	27.53	28.00	1.114	-0.18	0.005	0.006
	GSM1900	GPRS 4 Tx slots	Edge 3	0mm	Ant 1	DSI 0	661	1880	Without Scanner	27.53	28.00	1.114	-0.16	0.021	0.023
	GSM1900	GPRS 4 Tx slots	Edge 4	0mm	Ant 1	DSI 7	661	1880	Without Scanner	17.37	18.90	1.422	0.13	0.367	0.522
	GSM1900	GPRS 4 Tx slots	Bottom Face	24mm	Ant 1	DSI 0	661	1880	Without Scanner	27.53	28.00	1.114	0.08	0.273	0.304
	GSM1900	GPRS 4 Tx slots	Edge 4	22mm	Ant 1	DSI 0	661	1880	Without Scanner	27.53	28.00	1.114	0.18	0.261	0.291
	GSM1900	GPRS 4 Tx slots	Bottom Face	0mm	Ant 1	DSI 7	810	1909.8	With Scanner	17.31	18.90	1.442	0.03	0.701	1.011

[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	DSI 7	9400	1880	Without Scanner	18.68	19.40	1.18	-0.00	0.431	0.509
	WCDMA II	RMC 12.2Kbps	Edge 1	0mm	Ant 1	DSI 0	9400	1880	Without Scanner	24.14	25.00	1.219	-0.18	0.213	0.260
	WCDMA II	RMC 12.2Kbps	Edge 2	0mm	Ant 1	DSI 0	9400	1880	Without Scanner	24.14	25.00	1.219	-0.12	0.048	0.059
	WCDMA II	RMC 12.2Kbps	Edge 3	0mm	Ant 1	DSI 0	9400	1880	Without Scanner	24.14	25.00	1.219	-0.09	0.123	0.150
	WCDMA II	RMC 12.2Kbps	Edge 4	0mm	Ant 1	DSI 7	9400	1880	Without Scanner	18.68	19.40	1.18	0.16	0.859	1.014
	WCDMA II	RMC 12.2Kbps	Edge 4	0mm	Ant 1	DSI 7	9262	1852.4	Without Scanner	18.64	19.40	1.191	0.17	0.886	1.055
	WCDMA II	RMC 12.2Kbps	Edge 4	0mm	Ant 1	DSI 7	9538	1907.6	Without Scanner	18.61	19.40	1.199	0.14	0.936	1.122
	WCDMA II	RMC 12.2Kbps	Bottom Face	24mm	Ant 1	DSI 0	9400	1880	Without Scanner	24.14	25.00	1.219	-0.12	0.072	0.088
	WCDMA II	RMC 12.2Kbps	Edge 4	22mm	Ant 1	DSI 0	9400	1880	Without Scanner	24.14	25.00	1.219	0.00	0.074	0.090
	WCDMA II	RMC 12.2Kbps	Edge 4	0mm	Ant 1	DSI 7	9538	1907.6	With Scanner	18.61	19.40	1.199	0.03	0.901	1.080
	WCDMA IV	RMC 12.2Kbps	Bottom Face	0mm	Ant 1	DSI 7	1413	1732.6	Without Scanner	15.23	16.60	1.371	-0.02	0.814	1.116
	WCDMA IV	RMC 12.2Kbps	Bottom Face	0mm	Ant 1	DSI 7	1312	1712.4	Without Scanner	15.14	16.60	1.4	-0.05	0.786	1.101
05	WCDMA IV	RMC 12.2Kbps	Bottom Face	0mm	Ant 1	DSI 7	1513	1752.6	Without Scanner	15.18	16.60	1.387	-0.19	0.789	1.095
	WCDMA IV	RMC 12.2Kbps	Edge 1	0mm	Ant 1	DSI 0	1413	1732.6	Without Scanner	24.11	25.00	1.227	0.08	0.324	0.398
	WCDMA IV	RMC 12.2Kbps	Edge 2	0mm	Ant 1	DSI 0	1413	1732.6	Without Scanner	24.11	25.00	1.227	-0.16	0.101	0.124
	WCDMA IV	RMC 12.2Kbps	Edge 3	0mm	Ant 1	DSI 0	1413	1732.6	Without Scanner	24.11	25.00	1.227	0.02	0.192	0.236
	WCDMA IV	RMC 12.2Kbps	Edge 4	0mm	Ant 1	DSI 7	1413	1732.6	Without Scanner	15.23	16.60	1.371	0.08	0.499	0.683
	WCDMA IV	RMC 12.2Kbps	Bottom Face	24mm	Ant 1	DSI 0	1413	1732.6	Without Scanner	24.11	25.00	1.227	-0.09	0.249	0.306
	WCDMA IV	RMC 12.2Kbps	Edge 4	22mm	Ant 1	DSI 0	1413	1732.6	Without Scanner	24.11	25.00	1.227	-0.01	0.254	0.312
	WCDMA IV	RMC 12.2Kbps	Bottom Face	0mm	Ant 1	DSI 7	1413	1732.6	With Scanner	15.23	16.60	1.371	0.02	0.786	1.078
	WCDMA V	RMC 12.2Kbps	Bottom Face	0mm	Ant 8	DSI 7	4182	836.4	Without Scanner	20.57	21.50	1.239	0.01	0.830	1.028
	WCDMA V	RMC 12.2Kbps	Bottom Face	0mm	Ant 8	DSI 7	4132	826.4	Without Scanner	20.41	21.50	1.285	0.11	0.804	1.034
	WCDMA V	RMC 12.2Kbps	Bottom Face	0mm	Ant 8	DSI 7	4233	846.6	Without Scanner	20.41	21.50	1.285	0.01	0.865	1.112
	WCDMA V	RMC 12.2Kbps	Edge 1	0mm	Ant 8	DSI 7	4182	836.4	Without Scanner	20.57	21.50	1.239	-0.02	0.436	0.540
06	WCDMA V	RMC 12.2Kbps	Edge 2	0mm	Ant 8	DSI 0	4182	836.4	Without Scanner	24.45	25.00	1.135	-0.19	0.116	0.132
	WCDMA V	RMC 12.2Kbps	Edge 3	0mm	Ant 8	DSI 0	4182	836.4	Without Scanner	24.45	25.00	1.135	0.14	0.112	0.127
	WCDMA V	RMC 12.2Kbps	Edge 4	0mm	Ant 8	DSI 7	4182	836.4	Without Scanner	20.57	21.50	1.239	-0.12	0.531	0.658
	WCDMA V	RMC 12.2Kbps	Bottom Face	41mm	Ant 8	DSI 0	4182	836.4	Without Scanner	24.45	25.00	1.135	0.03	0.144	0.163
	WCDMA V	RMC 12.2Kbps	Edge 1	18mm	Ant 8	DSI 0	4182	836.4	Without Scanner	24.45	25.00	1.135	0.06	0.108	0.123
	WCDMA V	RMC 12.2Kbps	Edge 4	44mm	Ant 8	DSI 0	4182	836.4	Without Scanner	24.45	25.00	1.135	-0.14	0.001	0.001
07	WCDMA V	RMC 12.2Kbps	Bottom Face	0mm	Ant 8	DSI 7	4233	846.6	With Scanner	20.41	21.50	1.285	0.03	0.801	1.029



【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)
06	LTE Band 5	10M	QPSK	1	0	Bottom Face	0mm	Ant 10	DSI 7	20525	836.5	Without Scanner	18.35	19.50	1.303			0.08	0.863	1.124
	LTE Band 5	10M	QPSK	25	0	Bottom Face	0mm	Ant 10	DSI 7	20525	836.5	Without Scanner	18.28	19.50	1.324			0.07	0.775	1.026
	LTE Band 5	10M	QPSK	50	0	Bottom Face	0mm	Ant 10	DSI 7	20525	836.5	Without Scanner	18.26	19.50	1.33			0.09	0.787	1.046
	LTE Band 5	10M	QPSK	1	0	Edge 2	0mm	Ant 10	DSI 0	20525	836.5	Without Scanner	24.27	25.10	1.211			0.01	0.356	0.431
	LTE Band 5	10M	QPSK	25	0	Edge 2	0mm	Ant 10	DSI 0	20525	836.5	Without Scanner	23.29	24.10	1.205			0.03	0.305	0.368
	LTE Band 5	10M	QPSK	1	0	Edge 3	0mm	Ant 10	DSI 7	20525	836.5	Without Scanner	18.35	19.50	1.303			0.08	0.735	0.957
	LTE Band 5	10M	QPSK	25	0	Edge 3	0mm	Ant 10	DSI 7	20525	836.5	Without Scanner	18.28	19.50	1.324			-0.13	0.499	0.661
	LTE Band 5	10M	QPSK	50	0	Edge 3	0mm	Ant 10	DSI 7	20525	836.5	Without Scanner	18.26	19.50	1.33			0.12	0.641	0.853
	LTE Band 5	10M	QPSK	1	0	Edge 4	0mm	Ant 10	DSI 0	20525	836.5	Without Scanner	24.27	25.10	1.211			0.02	0.293	0.355
	LTE Band 5	10M	QPSK	25	0	Edge 4	0mm	Ant 10	DSI 0	20525	836.5	Without Scanner	23.29	24.10	1.205			0.03	0.256	0.308
	LTE Band 5	10M	QPSK	1	0	Bottom Face	20mm	Ant 10	DSI 0	20525	836.5	Without Scanner	24.27	25.10	1.211			-0.16	0.157	0.190
	LTE Band 5	10M	QPSK	25	0	Bottom Face	20mm	Ant 10	DSI 0	20525	836.5	Without Scanner	23.29	24.10	1.205			-0.12	0.151	0.182
	LTE Band 5	10M	QPSK	1	0	Edge 3	30mm	Ant 10	DSI 0	20525	836.5	Without Scanner	24.27	25.10	1.211			-0.07	0.049	0.059
	LTE Band 5	10M	QPSK	25	0	Edge 3	30mm	Ant 10	DSI 0	20525	836.5	Without Scanner	23.29	24.10	1.205			0.02	0.041	0.049
	LTE Band 5	10M	QPSK	1	0	Bottom Face	0mm	Ant 10	DSI 7	20525	836.5	With Scanner	18.35	19.50	1.303			0.01	0.803	1.046
1	LTE Band 7	20M	QPSK	1	0	Bottom Face	0mm	Ant 5	DSI 7	21100	2535	Without Scanner	13.25	14.50	1.334			0.02	0.839	1.119
	LTE Band 7	20M	QPSK	1	0	Bottom Face	0mm	Ant 5	DSI 7	21350	2560	Without Scanner	13.18	14.50	1.355			-0.17	0.678	0.918
	LTE Band 7	20M	QPSK	50	0	Bottom Face	0mm	Ant 5	DSI 7	21100	2535	Without Scanner	13.21	14.50	1.346			0.17	0.590	0.794
	LTE Band 7	20M	QPSK	100	0	Bottom Face	0mm	Ant 5	DSI 7	21100	2535	Without Scanner	13.20	14.50	1.349			0.05	0.642	0.866
	LTE Band 7	20M	QPSK	1	0	Edge 1	0mm	Ant 5	DSI 0	21100	2535	Without Scanner	24.19	25.10	1.233			0.14	0.001	0.001
	LTE Band 7	20M	QPSK	50	0	Edge 1	0mm	Ant 5	DSI 0	21100	2535	Without Scanner	23.27	24.10	1.211			0.03	0.001	0.001
	LTE Band 7	20M	QPSK	1	0	Edge 2	0mm	Ant 5	DSI 0	21100	2535	Without Scanner	24.19	25.10	1.233			0.17	0.017	0.021
	LTE Band 7	20M	QPSK	50	0	Edge 2	0mm	Ant 5	DSI 0	21100	2535	Without Scanner	23.27	24.10	1.211			0.13	0.013	0.016
	LTE Band 7	20M	QPSK	1	0	Edge 3	0mm	Ant 5	DSI 7	21100	2535	Without Scanner	13.25	14.50	1.334			0.17	0.081	0.108
	LTE Band 7	20M	QPSK	50	0	Edge 3	0mm	Ant 5	DSI 7	21100	2535	Without Scanner	13.21	14.50	1.346			-0.14	0.068	0.091
	LTE Band 7	20M	QPSK	1	0	Edge 4	0mm	Ant 5	DSI 7	21100	2535	Without Scanner	13.25	14.50	1.334			-0.02	0.434	0.579
	LTE Band 7	20M	QPSK	50	0	Edge 4	0mm	Ant 5	DSI 7	21100	2535	Without Scanner	13.21	14.50	1.346			0.13	0.341	0.460
	LTE Band 7	20M	QPSK	1	0	Bottom Face	19mm	Ant 5	DSI 0	21100	2535	Without Scanner	24.19	25.10	1.233			-0.19	0.821	1.012
	LTE Band 7	20M	QPSK	1	0	Bottom Face	19mm	Ant 5	DSI 0	20850	2510	Without Scanner	24.14	25.10	1.247			0.10	0.709	0.884
	LTE Band 7	20M	QPSK	1	0	Bottom Face	19mm	Ant 5	DSI 0	21350	2560	Without Scanner	24.15	25.10	1.245			0.16	0.701	0.873
	LTE Band 7	20M	QPSK	50	0	Bottom Face	19mm	Ant 5	DSI 0	21100	2535	Without Scanner	23.27	24.10	1.211			0.14	0.603	0.730
	LTE Band 7	20M	QPSK	100	0	Bottom Face	19mm	Ant 5	DSI 0	21100	2535	Without Scanner	23.23	24.10	1.222			0.15	0.605	0.739
	LTE Band 7	20M	QPSK	1	0	Edge 3	17mm	Ant 5	DSI 0	21100	2535	Without Scanner	24.19	25.10	1.233			-0.03	0.216	0.266
	LTE Band 7	20M	QPSK	50	0	Edge 3	17mm	Ant 5	DSI 0	21100	2535	Without Scanner	23.27	24.10	1.211			0.02	0.208	0.252
	LTE Band 7	20M	QPSK	1	0	Edge 4	24mm	Ant 5	DSI 0	21100	2535	Without Scanner	24.19	25.10	1.233			0.13	0.451	0.556
	LTE Band 7	20M	QPSK	50	0	Edge 4	24mm	Ant 5	DSI 0	21100	2535	Without Scanner	23.27	24.10	1.211			0.02	0.425	0.515
	LTE Band 7	20M	QPSK	1	0	Bottom Face	0mm	Ant 5	DSI 7	21100	2535	With Scanner	13.25	14.50	1.334			0.02	0.798	1.065
	LTE Band 7	20M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI 7	21100	2535	Without Scanner	13.85	14.90	1.274			-0.14	0.625	0.796
	LTE Band 7	20M	QPSK	50	0	Bottom Face	0mm	Ant 8	DSI 7	21100	2535	Without Scanner	13.79	14.90	1.291			0.06	0.502	0.648
	LTE Band 7	20M	QPSK	1	0	Edge 1	0mm	Ant 8	DSI 7	21100	2535	Without Scanner	13.85	14.90	1.274			-0.02	0.392	0.499
	LTE Band 7	20M	QPSK	50	0	Edge 1	0mm	Ant 8	DSI 7	21100	2535	Without Scanner	13.79	14.90	1.291			-0.18	0.318	0.410
	LTE Band 7	20M	QPSK	1	0	Edge 2	0mm	Ant 8	DSI 0	21100	2535	Without Scanner	24.27	25.10	1.211			0.16	0.025	0.031
	LTE Band 7	20M	QPSK	50	0	Edge 2	0mm	Ant 8	DSI 0	21100	2535	Without Scanner	23.37	24.10	1.183			-0.03	0.020	0.024
	LTE Band 7	20M	QPSK	1	0	Edge 3	0mm	Ant 8	DSI 0	21100	2535	Without Scanner	24.27	25.10	1.211			-0.08	0.003	0.004
	LTE Band 7	20M	QPSK	50	0	Edge 3	0mm	Ant 8	DSI 0	21100	2535	Without Scanner	23.37	24.10	1.183			-0.16	0.003	0.003
07	LTE Band 7	20M	QPSK	1	0	Edge 4	0mm	Ant 8	DSI 7	21100	2535	Without Scanner	13.85	14.90	1.274			0.09	0.890	1.134
	LTE Band 7	20M	QPSK	1	0	Edge 4	0mm	Ant 8	DSI 7	20850	2510	Without Scanner	13.72	14.90	1.312			-0.15	0.860	1.129
	LTE Band 7	20M	QPSK	1	0	Edge 4	0mm	Ant 8	DSI 7	21350	2560	Without Scanner	13.73	14.90	1.309			0.14	0.826	1.081
	LTE Band 7	20M	QPSK	50	0	Edge 4	0mm	Ant 8	DSI 7	21100	2535	Without Scanner	13.79	14.90	1.291			0.14	0.705	0.910
	LTE Band 7	20M	QPSK	50	0	Edge 4	0mm	Ant 8	DSI 7	20850	2510	Without Scanner	13.76	14.90	1.3			0.02	0.682	0.887
	LTE Band 7	20M	QPSK	50	0	Edge 4	0mm	Ant 8	DSI 7	21350	2560	Without Scanner	13.75	14.90	1.303			0.17	0.680	0.886
	LTE Band 7	20M	QPSK	100	0	Edge 4	0mm	Ant 8	DSI 7	21100	2535	Without Scanner	13.71	14.90	1.315			0.11	0.615	0.808
	LTE Band 7	20M	QPSK	1	0	Bottom Face	41mm	Ant 8	DSI 0	21100	2535	Without Scanner	24.27	25.10	1.211			0.15	0.156	0.189
	LTE Band 7	20M	QPSK	50	0	Bottom Face	41mm	Ant 8	DSI 0	21100	2535	Without Scanner	23.37	24.10	1.183			-0.15	0.134	0.159
	LTE Band 7	20M	QPSK	1	0	Edge 1	18mm	Ant 8	DSI 0	21100	2535	Without Scanner	24.27	25.10	1.211			0.16	0.523	0.633
	LTE Band 7	20M	QPSK	50	0	Edge 1	18mm	Ant 8	DSI 0	21100	2535	Without Scanner	23.37	24.10	1.183			0.03	0.521	0.616
	LTE Band 7	20M	QPSK	1	0	Edge 4	44mm	Ant 8	DSI 0	21100	2535	Without Scanner	24.27	25.10	1.211			0.15	0.311	0.377
	LTE Band 7	20M	QPSK	50	0	Edge 4	44mm	Ant 8	DSI 0	21100	2535	Without Scanner	23.37	24.10	1.183			0.00	0.312	0.369
	LTE Band 7	20M	QPSK	1	0	Edge 4	0mm	Ant 8	DSI 7	21100	2535	With Scanner	13.85	14.90	1.274			0.03	0.810	1.032
	LTE Band 7	20M	QPSK	1	99	Edge 4	0mm	Ant 8	DSI 7	21100+21298	2535+2554.8	Without Scanner	13.75	14.90	1.303			0.01	0.835	1.088
08	LTE Band 12	10M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI 7	23095	707.5	Without Scanner	20.63	21.80	1.309			-0.06	0.855	1.119
	LTE Band 12	10M	QPSK	25	0	Bottom Face	0mm	Ant 8	DSI 7	23095	707.5	Without Scanner	20.55	21.80	1.334			-0.12	0.662	0.883
	LTE Band 12	10M	QPSK	50	0	Bottom Face	0mm	Ant 8	DSI 7	23095	707.5	Without Scanner	20.54	21.80	1.337			0.15	0.656	0.878
	LTE Band 12	10M	QPSK	1	0	Edge 1	0mm	Ant 8	DSI 7	23095	707.5	Without Scanner	20.63	21.80	1.309			0.14	0.396	0.518
	LTE Band 12	10M	QPSK	25	0	Edge 1	0mm	Ant 8	DSI 7	23095	707.5	Without Scanner	20.55	21.80	1.334			0.03	0.314	0.419
	LTE Band 12	10M	QPSK	1	0	Edge 2	0mm	Ant 8	DSI 0	23095	707.5	Without Scanner	24.05	25.10	1.274			-0.14	0.148	0.189
	LTE Band 12	10M	QPSK	25	0	Edge 2	0mm	Ant 8	DSI 0	23095	707.5	Without Scanner	23.16	24.10	1.242			-0.17	0.115	0.143



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	LTE Band 12	10M	QPSK	1	0	Edge 3	0mm	Ant 8	DSI 0	23095	707.5	Without Scanner	24.05	25.10	1.274		-0.19	0.454	0.578
	LTE Band 12	10M	QPSK	25	0	Edge 3	0mm	Ant 8	DSI 0	23095	707.5	Without Scanner	23.16	24.10	1.242		-0.04	0.359	0.446
	LTE Band 12	10M	QPSK	1	0	Edge 4	0mm	Ant 8	DSI 7	23095	707.5	Without Scanner	20.63	21.80	1.309		0.00	0.720	0.943
	LTE Band 12	10M	QPSK	25	0	Edge 4	0mm	Ant 8	DSI 7	23095	707.5	Without Scanner	20.55	21.80	1.334		-0.06	0.572	0.762
	LTE Band 12	10M	QPSK	50	0	Edge 4	0mm	Ant 8	DSI 7	23095	707.5	Without Scanner	20.54	21.80	1.337		-0.11	0.568	0.759
	LTE Band 12	10M	QPSK	1	0	Bottom Face	41mm	Ant 8	DSI 0	23095	707.5	Without Scanner	24.05	25.10	1.274		0.07	0.083	0.106
	LTE Band 12	10M	QPSK	25	0	Bottom Face	41mm	Ant 8	DSI 0	23095	707.5	Without Scanner	23.16	24.10	1.242		0.00	0.081	0.101
	LTE Band 12	10M	QPSK	1	0	Edge 1	18mm	Ant 8	DSI 0	23095	707.5	Without Scanner	24.05	25.10	1.274		0.03	0.110	0.140
	LTE Band 12	10M	QPSK	25	0	Edge 1	18mm	Ant 8	DSI 0	23095	707.5	Without Scanner	23.16	24.10	1.242		-0.10	0.105	0.130
	LTE Band 12	10M	QPSK	1	0	Edge 4	44mm	Ant 8	DSI 0	23095	707.5	Without Scanner	24.05	25.10	1.274		0.06	0.001	0.001
	LTE Band 12	10M	QPSK	25	0	Edge 4	44mm	Ant 8	DSI 0	23095	707.5	Without Scanner	23.16	24.10	1.242		-0.10	0.001	0.001
	LTE Band 12	10M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI 7	23095	707.5	With Scanner	20.63	21.80	1.309		0.03	0.801	1.049
09	LTE Band 13	10M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI 7	23230	782	Without Scanner	20.21	21.50	1.346		0.06	0.831	1.119
	LTE Band 13	10M	QPSK	25	0	Bottom Face	0mm	Ant 8	DSI 7	23230	782	Without Scanner	20.19	21.50	1.352		0.03	0.658	0.890
	LTE Band 13	10M	QPSK	50	0	Bottom Face	0mm	Ant 8	DSI 7	23230	782	Without Scanner	20.11	21.50	1.377		-0.14	0.659	0.908
	LTE Band 13	10M	QPSK	1	0	Edge 1	0mm	Ant 8	DSI 7	23230	782	Without Scanner	20.21	21.50	1.346		0.10	0.368	0.496
	LTE Band 13	10M	QPSK	25	0	Edge 1	0mm	Ant 8	DSI 7	23230	782	Without Scanner	20.19	21.50	1.352		0.05	0.285	0.386
	LTE Band 13	10M	QPSK	1	0	Edge 2	0mm	Ant 8	DSI 0	23230	782	Without Scanner	23.60	24.50	1.23		-0.06	0.099	0.122
	LTE Band 13	10M	QPSK	25	0	Edge 2	0mm	Ant 8	DSI 0	23230	782	Without Scanner	22.64	23.50	1.219		0.10	0.079	0.096
	LTE Band 13	10M	QPSK	1	0	Edge 3	0mm	Ant 8	DSI 0	23230	782	Without Scanner	23.60	24.50	1.23		0.11	0.202	0.248
	LTE Band 13	10M	QPSK	25	0	Edge 3	0mm	Ant 8	DSI 0	23230	782	Without Scanner	22.64	23.50	1.219		0.14	0.165	0.201
	LTE Band 13	10M	QPSK	1	0	Edge 4	0mm	Ant 8	DSI 7	23230	782	Without Scanner	20.21	21.50	1.346		-0.09	0.756	1.017
	LTE Band 13	10M	QPSK	25	0	Edge 4	0mm	Ant 8	DSI 7	23230	782	Without Scanner	20.19	21.50	1.352		-0.17	0.600	0.811
	LTE Band 13	10M	QPSK	50	0	Edge 4	0mm	Ant 8	DSI 7	23230	782	Without Scanner	20.11	21.50	1.377		-0.12	0.598	0.824
	LTE Band 13	10M	QPSK	1	0	Bottom Face	41mm	Ant 8	DSI 0	23230	782	Without Scanner	23.60	24.50	1.23		-0.09	0.079	0.097
	LTE Band 13	10M	QPSK	25	0	Bottom Face	41mm	Ant 8	DSI 0	23230	782	Without Scanner	22.64	23.50	1.219		0.19	0.083	0.101
	LTE Band 13	10M	QPSK	1	0	Edge 1	18mm	Ant 8	DSI 0	23230	782	Without Scanner	23.60	24.50	1.23		0.15	0.075	0.092
	LTE Band 13	10M	QPSK	25	0	Edge 1	18mm	Ant 8	DSI 0	23230	782	Without Scanner	22.64	23.50	1.219		0.19	0.110	0.134
	LTE Band 13	10M	QPSK	1	0	Edge 4	44mm	Ant 8	DSI 0	23230	782	Without Scanner	23.60	24.50	1.23		-0.07	0.001	0.001
	LTE Band 13	10M	QPSK	25	0	Edge 4	44mm	Ant 8	DSI 0	23230	782	Without Scanner	22.64	23.50	1.219		-0.17	0.001	0.001
	LTE Band 13	10M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI 7	23230	782	With Scanner	20.21	21.50	1.346		0.02	0.756	1.018
10	LTE Band 14	10M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI 7	23330	793	Without Scanner	20.12	21.60	1.406		0.02	0.804	1.130
	LTE Band 14	10M	QPSK	25	0	Bottom Face	0mm	Ant 8	DSI 7	23330	793	Without Scanner	20.09	21.60	1.416		-0.16	0.637	0.901
	LTE Band 14	10M	QPSK	50	0	Bottom Face	0mm	Ant 8	DSI 7	23330	793	Without Scanner	20.04	21.60	1.432		-0.05	0.620	0.888
	LTE Band 14	10M	QPSK	1	0	Edge 1	0mm	Ant 8	DSI 7	23330	793	Without Scanner	20.12	21.60	1.406		-0.11	0.313	0.440
	LTE Band 14	10M	QPSK	25	0	Edge 1	0mm	Ant 8	DSI 7	23330	793	Without Scanner	20.09	21.60	1.416		0.00	0.243	0.345
	LTE Band 14	10M	QPSK	1	0	Edge 2	0mm	Ant 8	DSI 0	23330	793	Without Scanner	23.52	24.50	1.253		-0.11	0.090	0.113
	LTE Band 14	10M	QPSK	25	0	Edge 2	0mm	Ant 8	DSI 0	23330	793	Without Scanner	22.51	23.50	1.256		-0.10	0.073	0.092
	LTE Band 14	10M	QPSK	1	0	Edge 3	0mm	Ant 8	DSI 0	23330	793	Without Scanner	23.52	24.50	1.253		-0.02	0.142	0.178
	LTE Band 14	10M	QPSK	25	0	Edge 3	0mm	Ant 8	DSI 0	23330	793	Without Scanner	22.51	23.50	1.256		-0.13	0.086	0.108
	LTE Band 14	10M	QPSK	1	0	Edge 4	0mm	Ant 8	DSI 7	23330	793	Without Scanner	20.12	21.60	1.406		-0.05	0.738	1.038
	LTE Band 14	10M	QPSK	25	0	Edge 4	0mm	Ant 8	DSI 7	23330	793	Without Scanner	20.09	21.60	1.416		0.08	0.596	0.844
	LTE Band 14	10M	QPSK	50	0	Edge 4	0mm	Ant 8	DSI 7	23330	793	Without Scanner	20.04	21.60	1.432		-0.06	0.581	0.833
	LTE Band 14	10M	QPSK	1	0	Bottom Face	41mm	Ant 8	DSI 0	23330	793	Without Scanner	23.52	24.50	1.253		-0.12	0.066	0.083
	LTE Band 14	10M	QPSK	25	0	Bottom Face	41mm	Ant 8	DSI 0	23330	793	Without Scanner	22.51	23.50	1.256		0.06	0.056	0.070
	LTE Band 14	10M	QPSK	1	0	Edge 1	18mm	Ant 8	DSI 0	23330	793	Without Scanner	23.52	24.50	1.253		-0.07	0.092	0.115
	LTE Band 14	10M	QPSK	25	0	Edge 1	18mm	Ant 8	DSI 0	23330	793	Without Scanner	22.51	23.50	1.256		-0.01	0.089	0.112
	LTE Band 14	10M	QPSK	1	0	Edge 4	44mm	Ant 8	DSI 0	23330	793	Without Scanner	23.52	24.50	1.253		-0.13	0.001	0.001
	LTE Band 14	10M	QPSK	25	0	Edge 4	44mm	Ant 8	DSI 0	23330	793	Without Scanner	22.51	23.50	1.256		-0.19	0.001	0.001
	LTE Band 14	10M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI 7	23330	793	With Scanner	20.12	21.60	1.406		0.01	0.751	1.056
11	LTE Band 25	20M	QPSK	1	0	Bottom Face	0mm	Ant 1	DSI 7	26340	1880	Without Scanner	14.85	15.90	1.274		0.08	0.889	1.133
	LTE Band 25	20M	QPSK	1	0	Bottom Face	0mm	Ant 1	DSI 7	26140	1860	Without Scanner	14.76	15.90	1.3		0.03	0.863	1.122
	LTE Band 25	20M	QPSK	1	0	Bottom Face	0mm	Ant 1	DSI 7	26590	1905	Without Scanner	14.80	15.90	1.288		-0.13	0.861	1.109
	LTE Band 25	20M	QPSK	50	0	Bottom Face	0mm	Ant 1	DSI 7	26340	1880	Without Scanner	14.83	15.90	1.279		0.06	0.705	0.902
	LTE Band 25	20M	QPSK	50	0	Bottom Face	0mm	Ant 1	DSI 7	26140	1860	Without Scanner	14.79	15.90	1.291		-0.00	0.675	0.872
	LTE Band 25	20M	QPSK	50	0	Bottom Face	0mm	Ant 1	DSI 7	26590	1905	Without Scanner	14.81	15.90	1.285		-0.00	0.685	0.880
	LTE Band 25	20M	QPSK	100	0	Bottom Face	0mm	Ant 1	DSI 7	26340	1880	Without Scanner	14.81	15.90	1.285		-0.16	0.695	0.893
	LTE Band 25	20M	QPSK	1	0	Edge 1	0mm	Ant 1	DSI 0	26340	1880	Without Scanner	23.42	25.10	1.472		0.03	0.197	0.290
	LTE Band 25	20M	QPSK	50	0	Edge 1	0mm	Ant 1	DSI 0	26340	1880	Without Scanner	22.47	24.10	1.455		-0.11	0.164	0.239
	LTE Band 25	20M	QPSK	1	0	Edge 2	0mm	Ant 1	DSI 0	26340	1880	Without Scanner	23.42	25.10	1.472		0.16	0.048	0.071
	LTE Band 25	20M	QPSK	50	0	Edge 2	0mm	Ant 1	DSI 0	26340	1880	Without Scanner	22.47	24.10	1.455		0.17	0.042	0.061
	LTE Band 25	20M	QPSK	1	0	Edge 3	0mm	Ant 1	DSI 0	26340	1880	Without Scanner	23.42	25.10	1.472		-0.04	0.129	0.190
	LTE Band 25	20M	QPSK	50	0	Edge 3	0mm	Ant 1	DSI 0	26340	1880	Without Scanner	22.47	24.10	1.455		0.05	0.103	0.150
	LTE Band 25	20M	QPSK	1	0	Edge 4	0mm	Ant 1	DSI 7	26340	1880	Without Scanner	14.85	15.90	1.274		0.12	0.537	0.684
	LTE Band 25	20M	QPSK	50	0	Edge 4	0mm	Ant 1	DSI 7	26340	1880	Without Scanner	14.83	15.90	1.279		-0.03	0.438	0.560
	LTE Band 25	20M	QPSK	1	0	Bottom Face	24mm	Ant 1	DSI 0	26340	1880	Without Scanner	23.42	25.10	1.472		-0.12	0.206	0.303
	LTE Band 25	20M	QPSK	50	0	Bottom Face	24mm	Ant 1	DSI 0	26340	1880	Without Scanner	22.47	24.10	1.455		-0.07	0.201	0.292
	LTE Band 25	20M	QPSK	1	0	Edge 4	22mm	Ant 1	DSI 0	26340	1880	Without Scanner	23.42	25.10	1.472		0.11	0.119	0.175
	LTE Band 25	20M	QPSK	50	0	Edge 4	22mm	Ant 1	DSI 0	26340	1880	Without Scanner	22.47	24.10	1.455		-0.03	0.105	0.153
	LTE Band 25	20M	QPSK	1	0	Bottom Face	0mm	Ant 1	DSI 7	26340	1880	With Scanner	14.85	15.90	1.274		0.08	0.803	1.023
1	LTE Band 25	20M	QPSK	1	0	Bottom Face	0mm	Ant 5	DSI 7	26340	1880	Without Scanner	15.03	16.00	1.25		-0.06	0.901	1.126
	LTE Band 25	20M	QPSK	1	0	Bottom Face	0mm	Ant 5	DSI 7	26140	1860	Without Scanner	14.80	16.00	1.318		-0.15	0.688	0.907
	LTE Band 25	20M	QPSK	1	0	Bottom Face	0mm	Ant 5	DSI 7	26590	1905	Without Scanner	14.77	16.00	1.327		0.13	0.660	0.876
	LTE Band 25	20M	QPSK	50	0														



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	LTE Band 25	20M	QPSK	50	0	Bottom Face	0mm	Ant 5	DSI 7	26140	1860	Without Scanner	14.71	16.00	1.346			0.19	0.641	0.863
	LTE Band 25	20M	QPSK	50	0	Bottom Face	0mm	Ant 5	DSI 7	26590	1905	Without Scanner	14.79	16.00	1.321			0.13	0.668	0.882
	LTE Band 25	20M	QPSK	100	0	Bottom Face	0mm	Ant 5	DSI 7	26340	1880	Without Scanner	14.94	16.00	1.276			0.17	0.683	0.871
	LTE Band 25	20M	QPSK	1	0	Edge 1	0mm	Ant 5	DSI 0	26340	1880	Without Scanner	23.49	25.10	1.449			0.06	0.065	0.094
	LTE Band 25	20M	QPSK	50	0	Edge 1	0mm	Ant 5	DSI 0	26340	1880	Without Scanner	22.36	24.10	1.493			0.12	0.043	0.064
	LTE Band 25	20M	QPSK	1	0	Edge 2	0mm	Ant 5	DSI 0	26340	1880	Without Scanner	23.49	25.10	1.449			-0.01	0.342	0.496
	LTE Band 25	20M	QPSK	50	0	Edge 2	0mm	Ant 5	DSI 0	26340	1880	Without Scanner	22.36	24.10	1.493			0.14	0.226	0.337
	LTE Band 25	20M	QPSK	1	0	Edge 3	0mm	Ant 5	DSI 7	26340	1880	Without Scanner	15.03	16.00	1.25			0.14	0.305	0.381
	LTE Band 25	20M	QPSK	50	0	Edge 3	0mm	Ant 5	DSI 7	26340	1880	Without Scanner	14.95	16.00	1.274			0.01	0.243	0.309
	LTE Band 25	20M	QPSK	1	0	Edge 4	0mm	Ant 5	DSI 7	26340	1880	Without Scanner	15.03	16.00	1.25			0.05	0.641	0.802
	LTE Band 25	20M	QPSK	1	0	Edge 4	0mm	Ant 5	DSI 7	26140	1860	Without Scanner	14.80	16.00	1.318			0.16	0.623	0.821
	LTE Band 25	20M	QPSK	1	0	Edge 4	0mm	Ant 5	DSI 7	26590	1905	Without Scanner	14.77	16.00	1.327			0.14	0.611	0.811
	LTE Band 25	20M	QPSK	50	0	Edge 4	0mm	Ant 5	DSI 7	26340	1880	Without Scanner	14.95	16.00	1.274			-0.16	0.543	0.692
	LTE Band 25	20M	QPSK	100	0	Edge 4	0mm	Ant 5	DSI 7	26340	1880	Without Scanner	14.94	16.00	1.276			-0.01	0.476	0.607
	LTE Band 25	20M	QPSK	1	0	Bottom Face	19mm	Ant 5	DSI 0	26340	1880	Without Scanner	23.49	25.10	1.449			-0.13	0.101	0.147
	LTE Band 25	20M	QPSK	50	0	Bottom Face	19mm	Ant 5	DSI 0	26340	1880	Without Scanner	22.36	24.10	1.493			-0.19	0.100	0.149
	LTE Band 25	20M	QPSK	1	0	Edge 3	17mm	Ant 5	DSI 0	26340	1880	Without Scanner	23.49	25.10	1.449			0.07	0.040	0.057
	LTE Band 25	20M	QPSK	50	0	Edge 3	17mm	Ant 5	DSI 0	26340	1880	Without Scanner	22.36	24.10	1.493			0.18	0.041	0.062
	LTE Band 25	20M	QPSK	1	0	Edge 4	24mm	Ant 5	DSI 0	26340	1880	Without Scanner	23.49	25.10	1.449			-0.14	0.133	0.192
	LTE Band 25	20M	QPSK	50	0	Edge 4	24mm	Ant 5	DSI 0	26340	1880	Without Scanner	22.36	24.10	1.493			0.02	0.117	0.174
	LTE Band 25	20M	QPSK	1	0	Bottom Face	0mm	Ant 5	DSI 7	26340	1880	With Scanner	15.03	16.00	1.25			0.01	0.803	1.004
12	LTE Band 26	15M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI 7	26865	831.5	Without Scanner	19.83	21.00	1.309			0.03	0.865	1.132
	LTE Band 26	15M	QPSK	36	0	Bottom Face	0mm	Ant 8	DSI 7	26865	831.5	Without Scanner	19.82	21.00	1.312			0.14	0.690	0.905
	LTE Band 26	15M	QPSK	75	0	Bottom Face	0mm	Ant 8	DSI 7	26865	831.5	Without Scanner	19.74	21.00	1.337			0.00	0.655	0.875
	LTE Band 26	15M	QPSK	1	0	Edge 1	0mm	Ant 8	DSI 7	26865	831.5	Without Scanner	19.83	21.00	1.309			0.06	0.469	0.614
	LTE Band 26	15M	QPSK	36	0	Edge 1	0mm	Ant 8	DSI 7	26865	831.5	Without Scanner	19.82	21.00	1.312			-0.04	0.375	0.492
	LTE Band 26	15M	QPSK	1	0	Edge 2	0mm	Ant 8	DSI 0	26865	831.5	Without Scanner	24.22	25.10	1.225			0.01	0.092	0.113
	LTE Band 26	15M	QPSK	36	0	Edge 2	0mm	Ant 8	DSI 0	26865	831.5	Without Scanner	23.34	24.10	1.191			-0.16	0.072	0.086
	LTE Band 26	15M	QPSK	1	0	Edge 3	0mm	Ant 8	DSI 0	26865	831.5	Without Scanner	24.22	25.10	1.225			0.00	0.115	0.141
	LTE Band 26	15M	QPSK	36	0	Edge 3	0mm	Ant 8	DSI 0	26865	831.5	Without Scanner	23.34	24.10	1.191			-0.06	0.094	0.112
	LTE Band 26	15M	QPSK	1	0	Edge 4	0mm	Ant 8	DSI 7	26865	831.5	Without Scanner	19.83	21.00	1.309			0.08	0.544	0.712
	LTE Band 26	15M	QPSK	36	0	Edge 4	0mm	Ant 8	DSI 7	26865	831.5	Without Scanner	19.82	21.00	1.312			-0.06	0.447	0.587
	LTE Band 26	15M	QPSK	1	0	Bottom Face	41mm	Ant 8	DSI 0	26865	831.5	Without Scanner	24.22	25.10	1.225			-0.09	0.109	0.134
	LTE Band 26	15M	QPSK	36	0	Bottom Face	41mm	Ant 8	DSI 0	26865	831.5	Without Scanner	23.34	24.10	1.191			-0.12	0.105	0.125
	LTE Band 26	15M	QPSK	1	0	Edge 1	18mm	Ant 8	DSI 0	26865	831.5	Without Scanner	24.22	25.10	1.225			-0.02	0.182	0.223
	LTE Band 26	15M	QPSK	36	0	Edge 1	18mm	Ant 8	DSI 0	26865	831.5	Without Scanner	23.34	24.10	1.191			-0.07	0.175	0.208
	LTE Band 26	15M	QPSK	1	0	Edge 4	44mm	Ant 8	DSI 0	26865	831.5	Without Scanner	24.22	25.10	1.225			0.07	0.001	0.001
	LTE Band 26	15M	QPSK	36	0	Edge 4	44mm	Ant 8	DSI 0	26865	831.5	Without Scanner	23.34	24.10	1.191			0.03	0.001	0.001
	LTE Band 5	10M	QPSK	1	49	Bottom Face	0mm	Ant 8	DSI 7	20476+20575	831.6+841.5	Without Scanner	19.65	21.00	1.365			0.01	0.751	1.025
	LTE Band 26	15M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI 7	26865	831.5	With Scanner	19.83	21.00	1.309			0.02	0.805	1.054
1	LTE Band 30	10M	QPSK	1	0	Bottom Face	0mm	Ant 5	DSI 7	27710	2310	Without Scanner	15.06	16.10	1.271			0.02	0.867	1.102
	LTE Band 30	10M	QPSK	25	0	Bottom Face	0mm	Ant 5	DSI 7	27710	2310	Without Scanner	14.94	16.10	1.306			0.06	0.754	0.985
	LTE Band 30	10M	QPSK	50	0	Bottom Face	0mm	Ant 5	DSI 7	27710	2310	Without Scanner	14.93	16.10	1.309			-0.10	0.761	0.997
	LTE Band 30	10M	QPSK	1	0	Edge 1	0mm	Ant 5	DSI 0	27710	2310	Without Scanner	21.88	23.00	1.294			-0.11	0.048	0.062
	LTE Band 30	10M	QPSK	25	0	Edge 1	0mm	Ant 5	DSI 0	27710	2310	Without Scanner	21.87	23.00	1.297			0.13	0.041	0.053
	LTE Band 30	10M	QPSK	1	0	Edge 2	0mm	Ant 5	DSI 0	27710	2310	Without Scanner	21.88	23.00	1.294			0.15	0.175	0.226
	LTE Band 30	10M	QPSK	25	0	Edge 2	0mm	Ant 5	DSI 0	27710	2310	Without Scanner	21.87	23.00	1.297			0.04	0.159	0.206
	LTE Band 30	10M	QPSK	1	0	Edge 3	0mm	Ant 5	DSI 7	27710	2310	Without Scanner	15.06	16.10	1.271			0.06	0.318	0.404
	LTE Band 30	10M	QPSK	25	0	Edge 3	0mm	Ant 5	DSI 7	27710	2310	Without Scanner	14.94	16.10	1.306			-0.06	0.258	0.337
	LTE Band 30	10M	QPSK	1	0	Edge 4	0mm	Ant 5	DSI 7	27710	2310	Without Scanner	15.06	16.10	1.271			0.06	0.426	0.542
	LTE Band 30	10M	QPSK	25	0	Edge 4	0mm	Ant 5	DSI 7	27710	2310	Without Scanner	14.94	16.10	1.306			-0.02	0.369	0.482
	LTE Band 30	10M	QPSK	1	0	Bottom Face	19mm	Ant 5	DSI 0	27710	2310	Without Scanner	21.88	23.00	1.294			0.09	0.205	0.265
	LTE Band 30	10M	QPSK	25	0	Bottom Face	19mm	Ant 5	DSI 0	27710	2310	Without Scanner	21.87	23.00	1.297			0.04	0.213	0.276
	LTE Band 30	10M	QPSK	1	0	Edge 3	17mm	Ant 5	DSI 0	27710	2310	Without Scanner	21.88	23.00	1.294			0.15	0.251	0.325
	LTE Band 30	10M	QPSK	25	0	Edge 3	17mm	Ant 5	DSI 0	27710	2310	Without Scanner	21.87	23.00	1.297			0.18	0.201	0.261
	LTE Band 30	10M	QPSK	1	0	Edge 4	24mm	Ant 5	DSI 0	27710	2310	Without Scanner	21.88	23.00	1.294			-0.10	0.235	0.304
	LTE Band 30	10M	QPSK	1	0	Bottom Face	0mm	Ant 5	DSI 7	27710	2310	With Scanner	15.06	16.10	1.271			0.01	0.721	0.916
	LTE Band 30	10M	QPSK	25	0	Edge 4	24mm	Ant 5	DSI 0	27710	2310	Without Scanner	21.87	23.00	1.297			-0.14	0.201	0.261
13	LTE Band 30	10M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI 7	27710	2310	Without Scanner	13.51	14.40	1.227			0.08	0.906	1.112
	LTE Band 30	10M	QPSK	25	0	Bottom Face	0mm	Ant 8	DSI 7	27710	2310	Without Scanner	13.50	14.40	1.23			-0.11	0.729	0.896
	LTE Band 30	10M	QPSK	50	0	Bottom Face	0mm	Ant 8	DSI 7	27710	2310	Without Scanner	13.45	14.40	1.245			-0.18	0.721	0.898
	LTE Band 30	10M	QPSK	1	0	Edge 1	0mm	Ant 8	DSI 7	27710	2310	Without Scanner	13.51	14.40	1.227			-0.10	0.217	0.267
	LTE Band 30	10M	QPSK	25	0	Edge 1	0mm	Ant 8	DSI 7	27710	2310	Without Scanner	13.50	14.40	1.23			0.06	0.175	0.215
	LTE Band 30	10M	QPSK	1	0	Edge 2	0mm	Ant 8	DSI 0	27710	2310	Without Scanner	21.97	23.00	1.268			0.05	0.231	0.293
	LTE Band 30	10M	QPSK	25	0	Edge 2	0mm	Ant 8	DSI 0	27710	2310	Without Scanner	20.86	22.00	1.3			0.04	0.226	0.294
	LTE Band 30	10M	QPSK	1	0	Edge 3	0mm	Ant 8	DSI 0	27710	2310	Without Scanner	21.97	23.00	1.268			-0.10	0.001	0.001
	LTE Band 30	10M	QPSK	25	0	Edge 3	0mm	Ant 8	DSI 0	27710	2310	Without Scanner	20.86	22.00	1.3			-0.15	0.001	0.001
	LTE Band 30	10M	QPSK	1	0	Edge 4	0mm	Ant 8	DSI 7	27710	2310	Without Scanner	13.51	14.40	1.227			-0.11	0.801	0.983
	LTE Band 30	10M	QPSK	25	0	Edge 4	0mm	Ant 8	DSI 7	27710	2310	Without Scanner	13.50	14.40	1.23			-0.18	0.872	1.073
	LTE Band 30	10M	QPSK	50	0	Edge 4	0mm	Ant 8	DSI 7	27710	2310	Without Scanner	13.45	14.40	1.245			-0.05	0.863	1.075
	LTE Band 30	10M	QPSK	1	0	Bottom Face	41mm	Ant 8	DSI 0	27710	2310	Without Scanner	21.97	23.00	1.268			-0.15	0.098	0.124
	LTE Band 30	10M	QPSK	25																



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	LTE Band 30	10M	QPSK	1	0	Edge 4	44mm	Ant 8	DSI 0	27710	2310	Without Scanner	21.97	23.00	1.268		-0.10	0.135	0.171	
	LTE Band 30	10M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI 7	27710	2310	With Scanner	13.51	14.40	1.227		0.03	0.821	1.007	
	LTE Band 30	10M	QPSK	25	0	Edge 4	44mm	Ant 8	DSI 0	27710	2310	Without Scanner	20.86	22.00	1.3		0.18	0.141	0.183	
	LTE Band 66	20M	QPSK	1	0	Bottom Face	0mm	Ant 1	DSI 7	132322	1745	Without Scanner	14.56	16.00	1.393		0.04	0.810	1.128	
	LTE Band 66	20M	QPSK	1	0	Bottom Face	0mm	Ant 1	DSI 7	132072	1720	Without Scanner	14.47	16.00	1.422		-0.02	0.788	1.121	
	LTE Band 66	20M	QPSK	1	0	Bottom Face	0mm	Ant 1	DSI 7	132572	1770	Without Scanner	14.43	16.00	1.435		-0.19	0.773	1.109	
	LTE Band 66	20M	QPSK	50	0	Bottom Face	0mm	Ant 1	DSI 7	132322	1745	Without Scanner	14.50	16.00	1.413		0.18	0.779	1.101	
	LTE Band 66	20M	QPSK	50	0	Bottom Face	0mm	Ant 1	DSI 7	132072	1720	Without Scanner	14.41	16.00	1.442		0.06	0.751	1.082	
	LTE Band 66	20M	QPSK	50	0	Bottom Face	0mm	Ant 1	DSI 7	132572	1770	Without Scanner	14.41	16.00	1.442		-0.12	0.735	1.060	
	LTE Band 66	20M	QPSK	100	0	Bottom Face	0mm	Ant 1	DSI 7	132322	1745	Without Scanner	14.48	16.00	1.419		0.09	0.790	1.121	
	LTE Band 66	20M	QPSK	1	0	Edge 1	0mm	Ant 1	DSI 0	132322	1745	Without Scanner	23.54	25.10	1.432		-0.04	0.320	0.458	
	LTE Band 66	20M	QPSK	50	0	Edge 1	0mm	Ant 1	DSI 0	132322	1745	Without Scanner	22.59	24.10	1.416		-0.10	0.250	0.354	
	LTE Band 66	20M	QPSK	1	0	Edge 2	0mm	Ant 1	DSI 0	132322	1745	Without Scanner	23.54	25.10	1.432		-0.07	0.074	0.106	
	LTE Band 66	20M	QPSK	50	0	Edge 2	0mm	Ant 1	DSI 0	132322	1745	Without Scanner	22.59	24.10	1.416		-0.02	0.150	0.212	
	LTE Band 66	20M	QPSK	1	0	Edge 3	0mm	Ant 1	DSI 0	132322	1745	Without Scanner	23.54	25.10	1.432		-0.10	0.151	0.216	
	LTE Band 66	20M	QPSK	50	0	Edge 3	0mm	Ant 1	DSI 0	132322	1745	Without Scanner	22.59	24.10	1.416		0.17	0.084	0.119	
	LTE Band 66	20M	QPSK	1	0	Edge 4	0mm	Ant 1	DSI 7	132322	1745	Without Scanner	14.56	16.00	1.393		-0.12	0.645	0.898	
	LTE Band 66	20M	QPSK	1	0	Edge 4	0mm	Ant 1	DSI 7	132072	1720	Without Scanner	14.47	16.00	1.422		-0.09	0.641	0.911	
	LTE Band 66	20M	QPSK	1	0	Edge 4	0mm	Ant 1	DSI 7	132572	1770	Without Scanner	14.43	16.00	1.435		0.05	0.636	0.913	
	LTE Band 66	20M	QPSK	50	0	Edge 4	0mm	Ant 1	DSI 7	132322	1745	Without Scanner	14.50	16.00	1.413		0.12	0.522	0.737	
	LTE Band 66	20M	QPSK	100	0	Edge 4	0mm	Ant 1	DSI 7	132322	1745	Without Scanner	14.48	16.00	1.419		0.09	0.517	0.734	
	LTE Band 66	20M	QPSK	1	0	Bottom Face	24mm	Ant 1	DSI 0	132322	1745	Without Scanner	23.54	25.10	1.432		0.12	0.251	0.359	
	LTE Band 66	20M	QPSK	50	0	Bottom Face	24mm	Ant 1	DSI 0	132322	1745	Without Scanner	22.59	24.10	1.416		0.15	0.241	0.341	
	LTE Band 66	20M	QPSK	1	0	Edge 4	22mm	Ant 1	DSI 0	132322	1745	Without Scanner	23.54	25.10	1.432		0.14	0.239	0.342	
	LTE Band 66	20M	QPSK	50	0	Edge 4	22mm	Ant 1	DSI 0	132322	1745	Without Scanner	22.59	24.10	1.416		-0.19	0.221	0.313	
	LTE Band 66	20M	QPSK	1	99	Bottom Face	0mm	Ant 1	DSI 7	132322+132520	1745+1764.8	Without Scanner	14.45	16.00	1.429		0.01	0.751	1.073	
	LTE Band 66	15M	QPSK	1	74	Bottom Face	0mm	Ant 1	DSI 7	132322+132415	1745+1754.3	Without Scanner	14.51	16.00	1.409		0.01	0.745	1.050	
	LTE Band 66	20M	QPSK	1	0	Bottom Face	0mm	Ant 1	DSI 7	132322	1745	With Scanner	14.56	16.00	1.393		0.01	0.753	1.049	
14	LTE Band 66	20M	QPSK	1	0	Bottom Face	0mm	Ant 5	DSI 7	132322	1745	Without Scanner	16.25	17.70	1.396		0.08	0.809	1.129	
	LTE Band 66	20M	QPSK	1	0	Bottom Face	0mm	Ant 5	DSI 7	132072	1720	Without Scanner	16.19	17.70	1.416		0.08	0.671	0.950	
	LTE Band 66	20M	QPSK	1	0	Bottom Face	0mm	Ant 5	DSI 7	132572	1770	Without Scanner	16.20	17.70	1.413		0.10	0.668	0.943	
	LTE Band 66	20M	QPSK	50	0	Bottom Face	0mm	Ant 5	DSI 7	132322	1745	Without Scanner	16.24	17.70	1.4		0.13	0.658	0.921	
	LTE Band 66	20M	QPSK	50	0	Bottom Face	0mm	Ant 5	DSI 7	132072	1720	Without Scanner	16.11	17.70	1.442		-0.10	0.601	0.867	
	LTE Band 66	20M	QPSK	50	0	Bottom Face	0mm	Ant 5	DSI 7	132572	1770	Without Scanner	16.17	17.70	1.422		-0.16	0.658	0.935	
	LTE Band 66	20M	QPSK	100	0	Bottom Face	0mm	Ant 5	DSI 7	132322	1745	Without Scanner	16.22	17.70	1.406		-0.13	0.673	0.947	
	LTE Band 66	20M	QPSK	1	0	Edge 1	0mm	Ant 5	DSI 0	132322	1745	Without Scanner	24.21	25.10	1.227		-0.11	0.061	0.075	
	LTE Band 66	20M	QPSK	50	0	Edge 1	0mm	Ant 5	DSI 0	132322	1745	Without Scanner	23.25	24.10	1.216		0.07	0.001	0.001	
	LTE Band 66	20M	QPSK	1	0	Edge 2	0mm	Ant 5	DSI 0	132322	1745	Without Scanner	24.21	25.10	1.227		-0.11	0.269	0.330	
	LTE Band 66	20M	QPSK	50	0	Edge 2	0mm	Ant 5	DSI 0	132322	1745	Without Scanner	23.25	24.10	1.216		-0.14	0.226	0.275	
	LTE Band 66	20M	QPSK	1	0	Edge 3	0mm	Ant 5	DSI 7	132322	1745	Without Scanner	16.25	17.70	1.396		0.05	0.319	0.445	
	LTE Band 66	20M	QPSK	50	0	Edge 3	0mm	Ant 5	DSI 7	132322	1745	Without Scanner	16.24	17.70	1.4		-0.10	0.290	0.406	
	LTE Band 66	20M	QPSK	1	0	Edge 4	0mm	Ant 5	DSI 7	132322	1745	Without Scanner	16.25	17.70	1.396		0.11	0.299	0.417	
	LTE Band 66	20M	QPSK	50	0	Edge 4	0mm	Ant 5	DSI 7	132322	1745	Without Scanner	16.24	17.70	1.4		0.15	0.296	0.414	
	LTE Band 66	20M	QPSK	1	0	Bottom Face	19mm	Ant 5	DSI 0	132322	1745	Without Scanner	24.21	25.10	1.227		-0.02	0.503	0.617	
	LTE Band 66	20M	QPSK	50	0	Bottom Face	19mm	Ant 5	DSI 0	132322	1745	Without Scanner	23.25	24.10	1.216		0.04	0.501	0.609	
	LTE Band 66	20M	QPSK	1	0	Edge 3	17mm	Ant 5	DSI 0	132322	1745	Without Scanner	24.21	25.10	1.227		-0.14	0.310	0.380	
	LTE Band 66	20M	QPSK	50	0	Edge 3	17mm	Ant 5	DSI 0	132322	1745	Without Scanner	23.25	24.10	1.216		0.15	0.288	0.350	
	LTE Band 66	20M	QPSK	1	0	Edge 4	24mm	Ant 5	DSI 0	132322	1745	Without Scanner	24.21	25.10	1.227		0.02	0.258	0.317	
	LTE Band 66	20M	QPSK	50	0	Edge 4	24mm	Ant 5	DSI 0	132322	1745	Without Scanner	23.25	24.10	1.216		0.17	0.254	0.309	
	LTE Band 66	20M	QPSK	1	0	Bottom Face	0mm	Ant 5	DSI 7	132322	1745	With Scanner	16.25	17.70	1.396		0.02	0.753	1.051	
	LTE Band 71	20M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI 7	133297	680.5	Without Scanner	21.61	23.30	1.476		-0.18	0.697	1.029	
	LTE Band 71	20M	QPSK	50	0	Bottom Face	0mm	Ant 8	DSI 7	133297	680.5	Without Scanner	21.60	23.30	1.479		0.08	0.555	0.821	
	LTE Band 71	20M	QPSK	100	0	Bottom Face	0mm	Ant 8	DSI 7	133297	680.5	Without Scanner	21.51	23.30	1.51		0.12	0.558	0.842	
	LTE Band 71	20M	QPSK	1	0	Edge 1	0mm	Ant 8	DSI 7	133297	680.5	Without Scanner	21.61	23.30	1.476		-0.06	0.284	0.419	
	LTE Band 71	20M	QPSK	50	0	Edge 1	0mm	Ant 8	DSI 7	133297	680.5	Without Scanner	21.60	23.30	1.479		0.11	0.230	0.341	
	LTE Band 71	20M	QPSK	1	0	Edge 2	0mm	Ant 8	DSI 0	133297	680.5	Without Scanner	24.03	25.10	1.279		0.06	0.112	0.143	
	LTE Band 71	20M	QPSK	50	0	Edge 2	0mm	Ant 8	DSI 0	133297	680.5	Without Scanner	23.16	24.10	1.242		0.04	0.089	0.111	
	LTE Band 71	20M	QPSK	1	0	Edge 3	0mm	Ant 8	DSI 0	133297	680.5	Without Scanner	24.03	25.10	1.279		0.17	0.230	0.294	
	LTE Band 71	20M	QPSK	50	0	Edge 3	0mm	Ant 8	DSI 0	133297	680.5	Without Scanner	23.16	24.10	1.242		0.06	0.180	0.224	
15	LTE Band 71	20M	QPSK	1	0	Edge 4	0mm	Ant 8	DSI 7	133297	680.5	Without Scanner	21.61	23.30	1.476		0.08	0.763	1.126	
	LTE Band 71	20M	QPSK	50	0	Edge 4	0mm	Ant 8	DSI 7	133297	680.5	Without Scanner	21.60	23.30	1.479		-0.08	0.608	0.900	
	LTE Band 71	20M	QPSK	100	0	Edge 4	0mm	Ant 8	DSI 7	133297	680.5	Without Scanner	21.51	23.30	1.51		0.11	0.622	0.939	
	LTE Band 71	20M	QPSK	1	0	Bottom Face	41mm	Ant 8	DSI 0	133297	680.5	Without Scanner	24.03	25.10	1.279		0.16	0.063	0.081	
	LTE Band 71	20M	QPSK	50	0	Bottom Face	41mm	Ant 8	DSI 0	133297	680.5	Without Scanner	23.16	24.10	1.242		-0.03	0.061	0.076	
	LTE Band 71	20M	QPSK	1	0	Edge 1	18mm	Ant 8	DSI 0	133297	680.5	Without Scanner	24.03	25.10	1.279		-0.01	0.077	0.098	
	LTE Band 71	20M	QPSK	50	0	Edge 1	18mm	Ant 8	DSI 0	133297	680.5	Without Scanner	23.16	24.10	1.242		-0.09	0.065	0.081	
	LTE Band 71	20M	QPSK	1	0	Edge 4	44mm	Ant 8	DSI 0	133297	680.5	Without Scanner	24.03	25.10	1.279		-0.02	0.001	0.001	
	LTE Band 71	20M	QPSK	50	0	Edge 4	44mm	Ant 8	DSI 0	133297	680.5	Without Scanner	23.16	24.10	1.242		-0.05	0.001	0.001	
	LTE Band 71	20M	QPSK	1	0	Edge 4	0mm	Ant 8	DSI 7	133297	680.5	With Scanner	21.61	23.30	1.476		0.03	0.703	1.038	
	LTE Band 41	20M	QPSK	1	0	Bottom Face	0mm	Ant 5	DSI 7	40620	2593	Without Scanner	14.02	15.40	1.374	62.9	1.006	0.13	0.662	0.915
	LTE Band 41	20M	QPSK	1	0	Bottom Face	0mm	Ant 5	DSI 7	39750	2506	Without Scanner	13.81	15.40	1.442	62.9	1.006	-0.01	0.692	1.004
1	LTE Band 41	20M	QPSK	1	0	Bottom Face	0mm	Ant 5	DSI 7	40185	2549.5	Without Scanner	13.96	15.40	1.393	62.9	1.006	0.01	0.801	1.122
	LTE Band 41	20M	QPSK	1																



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	LTE Band 41	20M	QPSK	50	0	Bottom Face	0mm	Ant 5	DSI 7	40620	2593	Without Scanner	13.89	15.40	1.416	62.9	1.006	-0.14	0.519	0.739
	LTE Band 41	20M	QPSK	50	0	Bottom Face	0mm	Ant 5	DSI 7	39750	2506	Without Scanner	13.77	15.40	1.455	62.9	1.006	-0.08	0.554	0.811
	LTE Band 41	20M	QPSK	50	0	Bottom Face	0mm	Ant 5	DSI 7	40185	2549.5	Without Scanner	13.76	15.40	1.459	62.9	1.006	0.04	0.542	0.795
	LTE Band 41	20M	QPSK	50	0	Bottom Face	0mm	Ant 5	DSI 7	41055	2636.5	Without Scanner	13.75	15.40	1.462	62.9	1.006	0.08	0.492	0.723
	LTE Band 41	20M	QPSK	50	0	Bottom Face	0mm	Ant 5	DSI 7	41490	2680	Without Scanner	13.82	15.40	1.439	62.9	1.006	0.12	0.470	0.681
	LTE Band 41	20M	QPSK	100	0	Bottom Face	0mm	Ant 5	DSI 7	40620	2593	Without Scanner	13.86	15.40	1.426	62.9	1.006	0.04	0.592	0.849
	LTE Band 41	20M	QPSK	1	0	Edge 1	0mm	Ant 5	DSI 0	40620	2593	Without Scanner	24.03	25.10	1.279	62.9	1.006	0.04	0.001	0.001
	LTE Band 41	20M	QPSK	50	0	Edge 1	0mm	Ant 5	DSI 0	40620	2593	Without Scanner	23.10	24.10	1.259	62.9	1.006	-0.17	0.001	0.001
	LTE Band 41	20M	QPSK	1	0	Edge 2	0mm	Ant 5	DSI 0	40620	2593	Without Scanner	24.03	25.10	1.279	62.9	1.006	-0.10	0.075	0.097
	LTE Band 41	20M	QPSK	50	0	Edge 2	0mm	Ant 5	DSI 0	40620	2593	Without Scanner	23.10	24.10	1.259	62.9	1.006	-0.18	0.099	0.125
	LTE Band 41	20M	QPSK	1	0	Edge 3	0mm	Ant 5	DSI 7	40620	2593	Without Scanner	14.02	15.40	1.374	62.9	1.006	-0.15	0.044	0.060
	LTE Band 41	20M	QPSK	50	0	Edge 3	0mm	Ant 5	DSI 7	40620	2593	Without Scanner	13.89	15.40	1.416	62.9	1.006	0.02	0.038	0.055
	LTE Band 41	20M	QPSK	1	0	Edge 4	0mm	Ant 5	DSI 7	40620	2593	Without Scanner	14.02	15.40	1.374	62.9	1.006	0.16	0.486	0.672
	LTE Band 41	20M	QPSK	1	0	Edge 4	0mm	Ant 5	DSI 7	39750	2506	Without Scanner	13.81	15.40	1.442	62.9	1.006	-0.17	0.338	0.490
	LTE Band 41	20M	QPSK	1	0	Edge 4	0mm	Ant 5	DSI 7	40185	2549.5	Without Scanner	13.96	15.40	1.393	62.9	1.006	0.18	0.431	0.604
	LTE Band 41	20M	QPSK	1	0	Edge 4	0mm	Ant 5	DSI 7	41055	2636.5	Without Scanner	13.81	15.40	1.442	62.9	1.006	0.02	0.387	0.562
	LTE Band 41	20M	QPSK	1	0	Edge 4	0mm	Ant 5	DSI 7	41490	2680	Without Scanner	13.79	15.40	1.449	62.9	1.006	-0.08	0.377	0.549
	LTE Band 41	20M	QPSK	50	0	Edge 4	0mm	Ant 5	DSI 7	40620	2593	Without Scanner	13.89	15.40	1.416	62.9	1.006	0.06	0.351	0.500
	LTE Band 41	20M	QPSK	100	0	Edge 4	0mm	Ant 5	DSI 7	40620	2593	Without Scanner	13.86	15.40	1.426	62.9	1.006	0.01	0.301	0.432
	LTE Band 41	20M	QPSK	1	0	Bottom Face	19mm	Ant 5	DSI 0	40620	2593	Without Scanner	24.03	25.10	1.279	62.9	1.006	0.12	0.408	0.525
	LTE Band 41	20M	QPSK	50	0	Bottom Face	19mm	Ant 5	DSI 0	40620	2593	Without Scanner	23.10	24.10	1.259	62.9	1.006	0.15	0.401	0.508
	LTE Band 41	20M	QPSK	1	0	Edge 3	17mm	Ant 5	DSI 0	40620	2593	Without Scanner	24.03	25.10	1.279	62.9	1.006	-0.04	0.142	0.183
	LTE Band 41	20M	QPSK	50	0	Edge 3	17mm	Ant 5	DSI 0	40620	2593	Without Scanner	23.10	24.10	1.259	62.9	1.006	0.06	0.135	0.171
	LTE Band 41	20M	QPSK	1	0	Edge 4	24mm	Ant 5	DSI 0	40620	2593	Without Scanner	24.03	25.10	1.279	62.9	1.006	0.09	0.396	0.510
	LTE Band 41	20M	QPSK	50	0	Edge 4	24mm	Ant 5	DSI 0	40620	2593	Without Scanner	23.10	24.10	1.259	62.9	1.006	-0.07	0.346	0.438
	LTE Band 41	20M	QPSK	1	0	Bottom Face	0mm	Ant 5	DSI 7	40185	2549.5	With Scanner	13.96	15.40	1.393	62.9	1.006	0.03	0.553	0.775
	LTE Band 41	20M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI 7	40620	2593	Without Scanner	16.35	17.10	1.189	62.9	1.006	-0.08	0.840	1.005
	LTE Band 41	20M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI 7	39750	2506	Without Scanner	16.07	17.10	1.268	62.9	1.006	-0.12	0.652	0.832
	LTE Band 41	20M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI 7	40185	2549.5	Without Scanner	16.05	17.10	1.274	62.9	1.006	-0.05	0.768	0.985
	LTE Band 41	20M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI 7	41055	2636.5	Without Scanner	16.20	17.10	1.23	62.9	1.006	0.10	0.782	0.967
	LTE Band 41	20M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI 7	41490	2680	Without Scanner	16.26	17.10	1.213	62.9	1.006	0.00	0.688	0.840
	LTE Band 41	20M	QPSK	50	0	Bottom Face	0mm	Ant 8	DSI 7	40620	2593	Without Scanner	16.34	17.10	1.191	62.9	1.006	-0.02	0.661	0.792
	LTE Band 41	20M	QPSK	50	0	Bottom Face	0mm	Ant 8	DSI 7	39750	2506	Without Scanner	16.06	17.10	1.271	62.9	1.006	-0.07	0.513	0.656
	LTE Band 41	20M	QPSK	50	0	Bottom Face	0mm	Ant 8	DSI 7	40185	2549.5	Without Scanner	16.04	17.10	1.276	62.9	1.006	-0.10	0.644	0.827
	LTE Band 41	20M	QPSK	50	0	Bottom Face	0mm	Ant 8	DSI 7	41055	2636.5	Without Scanner	16.25	17.10	1.216	62.9	1.006	0.02	0.644	0.788
	LTE Band 41	20M	QPSK	50	0	Bottom Face	0mm	Ant 8	DSI 7	41490	2680	Without Scanner	16.22	17.10	1.225	62.9	1.006	0.08	0.557	0.686
	LTE Band 41	20M	QPSK	100	0	Bottom Face	0mm	Ant 8	DSI 7	41490	2680	Without Scanner	16.25	17.10	1.216	62.9	1.006	0.08	0.658	0.804
	LTE Band 41	20M	QPSK	1	0	Edge 1	0mm	Ant 8	DSI 7	40620	2593	Without Scanner	16.35	17.10	1.189	62.9	1.006	0.02	0.411	0.491
	LTE Band 41	20M	QPSK	50	0	Edge 1	0mm	Ant 8	DSI 7	40620	2593	Without Scanner	16.34	17.10	1.191	62.9	1.006	0.15	0.330	0.396
	LTE Band 41	20M	QPSK	1	0	Edge 2	0mm	Ant 8	DSI 0	40620	2593	Without Scanner	24.32	25.10	1.197	62.9	1.006	-0.14	0.232	0.279
	LTE Band 41	20M	QPSK	50	0	Edge 2	0mm	Ant 8	DSI 0	40620	2593	Without Scanner	23.37	24.10	1.183	62.9	1.006	-0.03	0.184	0.219
	LTE Band 41	20M	QPSK	1	0	Edge 3	0mm	Ant 8	DSI 0	40620	2593	Without Scanner	24.32	25.10	1.197	62.9	1.006	0.10	0.001	0.001
	LTE Band 41	20M	QPSK	50	0	Edge 3	0mm	Ant 8	DSI 0	40620	2593	Without Scanner	23.37	24.10	1.183	62.9	1.006	0.19	0.001	0.001
16	LTE Band 41	20M	QPSK	1	0	Edge 4	0mm	Ant 8	DSI 7	40620	2593	Without Scanner	16.35	17.10	1.189	62.9	1.006	0.02	0.942	1.127
	LTE Band 41	20M	QPSK	1	0	Edge 4	0mm	Ant 8	DSI 7	39750	2506	Without Scanner	16.07	17.10	1.268	62.9	1.006	0.14	0.796	1.015
	LTE Band 41	20M	QPSK	1	0	Edge 4	0mm	Ant 8	DSI 7	40185	2549.5	Without Scanner	16.05	17.10	1.274	62.9	1.006	0.05	0.859	1.100
	LTE Band 41	20M	QPSK	1	0	Edge 4	0mm	Ant 8	DSI 7	41055	2636.5	Without Scanner	16.20	17.10	1.23	62.9	1.006	0.13	0.884	1.094
	LTE Band 41	20M	QPSK	1	0	Edge 4	0mm	Ant 8	DSI 7	41490	2680	Without Scanner	16.26	17.10	1.213	62.9	1.006	0.03	0.887	1.083
	LTE Band 41	20M	QPSK	50	0	Edge 4	0mm	Ant 8	DSI 7	40620	2593	Without Scanner	16.34	17.10	1.191	62.9	1.006	-0.05	0.746	0.894
	LTE Band 41	20M	QPSK	50	0	Edge 4	0mm	Ant 8	DSI 7	39750	2506	Without Scanner	16.06	17.10	1.271	62.9	1.006	0.14	0.741	0.947
	LTE Band 41	20M	QPSK	50	0	Edge 4	0mm	Ant 8	DSI 7	40185	2549.5	Without Scanner	16.04	17.10	1.276	62.9	1.006	-0.12	0.785	1.008
	LTE Band 41	20M	QPSK	50	0	Edge 4	0mm	Ant 8	DSI 7	41055	2636.5	Without Scanner	16.25	17.10	1.216	62.9	1.006	0.02	0.724	0.886
	LTE Band 41	20M	QPSK	50	0	Edge 4	0mm	Ant 8	DSI 7	41490	2680	Without Scanner	16.22	17.10	1.225	62.9	1.006	0.07	0.729	0.898
	LTE Band 41	20M	QPSK	100	0	Edge 4	0mm	Ant 8	DSI 7	41490	2680	Without Scanner	16.25	17.10	1.216	62.9	1.006	-0.04	0.746	0.913
	LTE Band 41	20M	QPSK	1	0	Bottom Face	41mm	Ant 8	DSI 0	40620	2593	Without Scanner	24.32	25.10	1.197	62.9	1.006	0.11	0.118	0.142
	LTE Band 41 HPUE	20M	QPSK	1	99	Edge 4	0mm	Ant 8	DSI 7	40620+40818	2593+2612.8	Without Scanner	18.15	18.70	1.135	42.9	1.009	0.01	0.903	1.034
	LTE Band 41	20M	QPSK	50	0	Bottom Face	41mm	Ant 8	DSI 0	40620	2593	Without Scanner	23.37	24.10	1.183	62.9	1.006	-0.02	0.105	0.125
	LTE Band 41	20M	QPSK	1	0	Edge 1	18mm	Ant 8	DSI 0	40620	2593	Without Scanner	24.32	25.10	1.197	62.9	1.006	0.10	0.349	0.420
	LTE Band 41	20M	QPSK	50	0	Edge 1	18mm	Ant 8	DSI 0	40620	2593	Without Scanner	23.37	24.10	1.183	62.9	1.006	0.06	0.341	0.406
	LTE Band 41 HPUE	20M	QPSK	1	0	Edge 1	18mm	Ant 8	DSI 0	40620	2593	Without Scanner	26.19	27.00	1.205	42.9	1.009	0.08	0.331	0.402
	LTE Band 41	20M	QPSK	1	0	Edge 4	44mm	Ant 8	DSI 0	40620	2593	Without Scanner	24.32	25.10	1.197	62.9	1.006	0.13	0.178	0.214
	LTE Band 41	20M	QPSK	50	0	Edge 4	44mm	Ant 8	DSI 0	40620	2593	Without Scanner	23.37	24.10	1.183	62.9	1.006	0.18	0.171	0.204
	LTE Band 41 HPUE	20M	QPSK	1	0	Edge 4	0mm	Ant 8	DSI 7	40620	2593	Without Scanner	18.23	18.70	1.114	42.9	1.009	0.01	0.955	1.073
	LTE Band 41	20M	QPSK	1	99	Edge 4	0mm	Ant 8	DSI 7	40620+40818	2593+2612.8	Without Scanner	16.25	17.10	1.216	62.9	1.006	0.01	0.895	1.095
	LTE Band 38	20M	QPSK	1	99	Edge 4	0mm	Ant 8	DSI 7	37901+38099	2593+2604.9	Without Scanner	16.28	17.10	1.208	62.9	1.006	0.01	0.835	1.015
	LTE Band 41	20M	QPSK	1	0	Edge 4	0mm	Ant 8	DSI 7	40620	2593	With Scanner	16.35	17.10	1.189	62.9	1.006	0.02	0.801	0.958
	LTE Band 48	20M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI 7	55990	3625	Without Scanner	13.54	14.70	1.306					



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	LTE Band 48	20M	QPSK	1	0	Edge 4	0mm	Ant 8	DSI 7	55830	3609	Without Scanner	13.25	14.70	1.396	62.9	1.006	0.08	0.693	0.973
	LTE Band 48	20M	QPSK	1	0	Edge 4	0mm	Ant 8	DSI 7	56150	3641	Without Scanner	13.30	14.70	1.38	62.9	1.006	0.02	0.638	0.886
	LTE Band 48	20M	QPSK	1	0	Edge 4	0mm	Ant 8	DSI 7	56640	3690	Without Scanner	13.23	14.70	1.403	62.9	1.006	0.08	0.649	0.916
	LTE Band 48	20M	QPSK	50	0	Edge 4	0mm	Ant 8	DSI 7	55990	3625	Without Scanner	13.51	14.70	1.315	62.9	1.006	-0.09	0.545	0.722
	LTE Band 48	20M	QPSK	50	0	Edge 4	0mm	Ant 8	DSI 7	55340	3560	Without Scanner	13.26	14.70	1.393	62.9	1.006	0.15	0.654	0.916
	LTE Band 48	20M	QPSK	50	0	Edge 4	0mm	Ant 8	DSI 7	55830	3609	Without Scanner	13.21	14.70	1.409	62.9	1.006	0.13	0.572	0.810
	LTE Band 48	20M	QPSK	50	0	Edge 4	0mm	Ant 8	DSI 7	56150	3641	Without Scanner	13.34	14.70	1.368	62.9	1.006	-0.09	0.518	0.713
	LTE Band 48	20M	QPSK	50	0	Edge 4	0mm	Ant 8	DSI 7	56640	3690	Without Scanner	13.29	14.70	1.384	62.9	1.006	-0.09	0.521	0.726
	LTE Band 48	20M	QPSK	100	0	Edge 4	0mm	Ant 8	DSI 7	55990	3625	Without Scanner	13.41	14.70	1.346	62.9	1.006	-0.06	0.508	0.688
	LTE Band 48	10M	QPSK	1	0	Edge 2	0mm	Ant 8	DSI 0	55990	3625	Without Scanner	21.47	22.00	1.13	62.9	1.006	0.08	0.034	0.039
	LTE Band 48	10M	QPSK	25	0	Edge 2	0mm	Ant 8	DSI 0	55990	3625	Without Scanner	20.32	21.00	1.169	62.9	1.006	0.14	0.031	0.036
	LTE Band 48	10M	QPSK	1	0	Edge 3	0mm	Ant 8	DSI 0	55990	3625	Without Scanner	21.47	22.00	1.13	62.9	1.006	0.00	0.067	0.076
	LTE Band 48	10M	QPSK	25	0	Edge 3	0mm	Ant 8	DSI 0	55990	3625	Without Scanner	20.32	21.00	1.169	62.9	1.006	-0.10	0.056	0.066
	LTE Band 48	10M	QPSK	1	0	Bottom Face	41mm	Ant 8	DSI 0	55990	3625	Without Scanner	21.47	22.00	1.13	62.9	1.006	0.15	0.177	0.201
	LTE Band 48	10M	QPSK	25	0	Bottom Face	41mm	Ant 8	DSI 0	55990	3625	Without Scanner	20.32	21.00	1.169	62.9	1.006	0.14	0.168	0.198
	LTE Band 48	10M	QPSK	1	0	Edge 1	18mm	Ant 8	DSI 0	55990	3625	Without Scanner	21.47	22.00	1.13	62.9	1.006	-0.02	0.160	0.182
	LTE Band 48	10M	QPSK	25	0	Edge 1	18mm	Ant 8	DSI 0	55990	3625	Without Scanner	20.32	21.00	1.169	62.9	1.006	-0.05	0.158	0.186
	LTE Band 48	10M	QPSK	1	0	Edge 4	44mm	Ant 8	DSI 0	55990	3625	Without Scanner	21.47	22.00	1.13	62.9	1.006	0.11	0.132	0.150
	LTE Band 48	10M	QPSK	25	0	Edge 4	44mm	Ant 8	DSI 0	55990	3625	Without Scanner	20.32	21.00	1.169	62.9	1.006	0.19	0.133	0.156
	LTE Band 48	20M	QPSK	1	0	Edge 4	0mm	Ant 8	DSI 7	55340	3560	With Scanner	13.31	14.70	1.377	62.9	1.006	0.02	0.713	0.988
	LTE Band 48	20M	QPSK	1	99	Edge 4	0mm	Ant 8	DSI 7	55340+55538	3560+3579.8	Without Scanner	13.11	14.70	1.442	62.9	1.006	0.01	0.756	1.097
	LTE Band 48	20M	QPSK	1	0	Bottom Face	0mm	Ant 9	DSI 7	55990	3625	Without Scanner	15.50	16.60	1.288	62.9	1.006	0.05	0.607	0.787
	LTE Band 48	20M	QPSK	1	0	Bottom Face	0mm	Ant 9	DSI 7	55340	3560	Without Scanner	15.41	16.60	1.315	62.9	1.006	-0.18	0.704	0.931
	LTE Band 48	20M	QPSK	1	0	Bottom Face	0mm	Ant 9	DSI 7	55830	3609	Without Scanner	15.37	16.60	1.327	62.9	1.006	-0.11	0.653	0.871
	LTE Band 48	20M	QPSK	1	0	Bottom Face	0mm	Ant 9	DSI 7	56150	3641	Without Scanner	15.41	16.60	1.315	62.9	1.006	-0.00	0.639	0.845
	LTE Band 48	20M	QPSK	1	0	Bottom Face	0mm	Ant 9	DSI 7	56640	3690	Without Scanner	15.34	16.60	1.337	62.9	1.006	0.15	0.621	0.836
	LTE Band 48	20M	QPSK	50	0	Bottom Face	0mm	Ant 9	DSI 7	55990	3625	Without Scanner	15.48	16.60	1.294	62.9	1.006	0.09	0.493	0.642
	LTE Band 48	20M	QPSK	50	0	Bottom Face	0mm	Ant 9	DSI 7	55340	3560	Without Scanner	15.41	16.60	1.315	62.9	1.006	0.06	0.669	0.884
	LTE Band 48	20M	QPSK	50	0	Bottom Face	0mm	Ant 9	DSI 7	55830	3609	Without Scanner	15.37	16.60	1.327	62.9	1.006	0.03	0.552	0.737
	LTE Band 48	20M	QPSK	50	0	Bottom Face	0mm	Ant 9	DSI 7	56150	3641	Without Scanner	15.40	16.60	1.318	62.9	1.006	0.17	0.519	0.688
	LTE Band 48	20M	QPSK	50	0	Bottom Face	0mm	Ant 9	DSI 7	56640	3690	Without Scanner	15.33	16.60	1.34	62.9	1.006	0.12	0.556	0.750
	LTE Band 48	20M	QPSK	100	0	Bottom Face	0mm	Ant 9	DSI 7	55990	3625	Without Scanner	15.45	16.60	1.303	62.9	1.006	0.11	0.540	0.708
	LTE Band 48	20M	QPSK	1	0	Edge 1	0mm	Ant 9	DSI 0	55990	3625	Without Scanner	21.23	22.00	1.194	62.9	1.006	0.10	0.099	0.119
	LTE Band 48	20M	QPSK	50	0	Edge 1	0mm	Ant 9	DSI 0	55990	3625	Without Scanner	21.21	22.00	1.199	62.9	1.006	-0.17	0.079	0.095
	LTE Band 48	20M	QPSK	1	0	Edge 2	0mm	Ant 9	DSI 0	55990	3625	Without Scanner	21.23	22.00	1.194	62.9	1.006	-0.16	0.001	0.001
	LTE Band 48	20M	QPSK	50	0	Edge 2	0mm	Ant 9	DSI 0	55990	3625	Without Scanner	21.21	22.00	1.199	62.9	1.006	-0.05	0.001	0.001
	LTE Band 48	20M	QPSK	1	0	Edge 3	0mm	Ant 9	DSI 0	55990	3625	Without Scanner	21.23	22.00	1.194	62.9	1.006	0.10	0.056	0.067
	LTE Band 48	20M	QPSK	50	0	Edge 3	0mm	Ant 9	DSI 0	55990	3625	Without Scanner	21.21	22.00	1.199	62.9	1.006	0.08	0.045	0.054
	LTE Band 48	20M	QPSK	1	0	Edge 4	0mm	Ant 9	DSI 7	55990	3625	Without Scanner	15.50	16.60	1.288	62.9	1.006	-0.02	0.759	0.984
	LTE Band 48	20M	QPSK	1	0	Edge 4	0mm	Ant 9	DSI 7	55340	3560	Without Scanner	15.41	16.60	1.315	62.9	1.006	-0.04	0.742	0.981
	LTE Band 48	20M	QPSK	1	0	Edge 4	0mm	Ant 9	DSI 7	55830	3609	Without Scanner	15.37	16.60	1.327	62.9	1.006	0.03	0.745	0.995
18	LTE Band 48	20M	QPSK	1	0	Edge 4	0mm	Ant 9	DSI 7	56150	3641	Without Scanner	15.41	16.60	1.315	62.9	1.006	0.08	0.848	1.122
	LTE Band 48	20M	QPSK	1	0	Edge 4	0mm	Ant 9	DSI 7	56640	3690	Without Scanner	15.34	16.60	1.337	62.9	1.006	-0.04	0.809	1.088
	LTE Band 48	20M	QPSK	50	0	Edge 4	0mm	Ant 9	DSI 7	55990	3625	Without Scanner	15.48	16.60	1.294	62.9	1.006	0.05	0.669	0.870
	LTE Band 48	20M	QPSK	50	0	Edge 4	0mm	Ant 9	DSI 7	55340	3560	Without Scanner	15.41	16.60	1.315	62.9	1.006	0.16	0.688	0.910
	LTE Band 48	20M	QPSK	50	0	Edge 4	0mm	Ant 9	DSI 7	55830	3609	Without Scanner	15.37	16.60	1.327	62.9	1.006	0.00	0.724	0.966
	LTE Band 48	20M	QPSK	50	0	Edge 4	0mm	Ant 9	DSI 7	56150	3641	Without Scanner	15.40	16.60	1.318	62.9	1.006	-0.16	0.671	0.889
	LTE Band 48	20M	QPSK	50	0	Edge 4	0mm	Ant 9	DSI 7	56640	3690	Without Scanner	15.33	16.60	1.34	62.9	1.006	-0.00	0.771	1.039
	LTE Band 48	20M	QPSK	100	0	Edge 4	0mm	Ant 9	DSI 7	55990	3625	Without Scanner	15.45	16.60	1.303	62.9	1.006	0.15	0.601	0.788
	LTE Band 48	20M	QPSK	1	0	Bottom Face	16mm	Ant 9	DSI 0	55990	3625	Without Scanner	21.23	22.00	1.194	62.9	1.006	0.18	0.256	0.307
	LTE Band 48	20M	QPSK	50	0	Bottom Face	16mm	Ant 9	DSI 0	55990	3625	Without Scanner	21.21	22.00	1.199	62.9	1.006	-0.07	0.241	0.291
	LTE Band 48	20M	QPSK	1	0	Edge 4	27mm	Ant 9	DSI 0	55990	3625	Without Scanner	21.23	22.00	1.194	62.9	1.006	-0.03	0.236	0.283
	LTE Band 48	20M	QPSK	1	0	Edge 4	0mm	Ant 9	DSI 7	56150	3641	With Scanner	15.41	16.60	1.315	62.9	1.006	0.02	0.813	1.076
	LTE Band 48	20M	QPSK	50	0	Edge 4	27mm	Ant 9	DSI 0	55990	3625	Without Scanner	21.21	22.00	1.199	62.9	1.006	-0.11	0.231	0.279



【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)
19	FR1 n5	20M	BPSK	1	1	Bottom Face	0mm	Ant 10	DSI 7	167300	836.5	Without Scanner	18.41	19.80	1.377			0.08	0.826	1.137
	FR1 n5	20M	BPSK	50	28	Bottom Face	0mm	Ant 10	DSI 7	167300	836.5	Without Scanner	18.35	19.80	1.396			0.12	0.724	1.010
	FR1 n5	20M	BPSK	100	0	Bottom Face	0mm	Ant 10	DSI 7	167300	836.5	Without Scanner	18.29	19.80	1.416			-0.10	0.753	1.067
	FR1 n5	20M	BPSK	1	1	Edge 2	0mm	Ant 10	DSI 0	167300	836.5	Without Scanner	24.31	25.20	1.227			0.01	0.321	0.394
	FR1 n5	20M	BPSK	50	28	Edge 2	0mm	Ant 10	DSI 0	167300	836.5	Without Scanner	24.12	25.20	1.282			0.02	0.305	0.391
	FR1 n5	20M	BPSK	1	1	Edge 3	0mm	Ant 10	DSI 7	167300	836.5	Without Scanner	18.41	19.80	1.377			0.05	0.740	1.019
	FR1 n5	20M	BPSK	50	28	Edge 3	0mm	Ant 10	DSI 7	167300	836.5	Without Scanner	18.35	19.80	1.396			-0.11	0.581	0.811
	FR1 n5	20M	BPSK	100	0	Edge 3	0mm	Ant 10	DSI 7	167300	836.5	Without Scanner	18.29	19.80	1.416			0.19	0.578	0.819
	FR1 n5	20M	BPSK	1	1	Edge 4	0mm	Ant 10	DSI 0	167300	836.5	Without Scanner	24.31	25.20	1.227			0.01	0.285	0.350
	FR1 n5	20M	BPSK	50	28	Edge 4	0mm	Ant 10	DSI 0	167300	836.5	Without Scanner	24.12	25.20	1.282			0.03	0.271	0.347
	FR1 n5	20M	BPSK	1	1	Bottom Face	20mm	Ant 10	DSI 0	167300	836.5	Without Scanner	24.31	25.20	1.227			0.00	0.258	0.317
	FR1 n5	20M	BPSK	50	28	Bottom Face	20mm	Ant 10	DSI 0	167300	836.5	Without Scanner	24.12	25.20	1.282			0.14	0.241	0.309
	FR1 n5	20M	BPSK	1	1	Edge 3	30mm	Ant 10	DSI 0	167300	836.5	Without Scanner	24.31	25.20	1.227			-0.12	0.055	0.067
	FR1 n5	20M	BPSK	50	28	Edge 3	30mm	Ant 10	DSI 0	167300	836.5	Without Scanner	24.12	25.20	1.282			-0.05	0.051	0.065
	FR1 n5	20M	BPSK	1	1	Bottom Face	0mm	Ant 10	DSI 7	167300	836.5	With Scanner	18.41	19.80	1.377			0.01	0.759	1.045
	FR1 n7	50M	BPSK	1	1	Bottom Face	0mm	Ant 5	DSI 7	507000	2535	Without Scanner	12.69	13.80	1.291			-0.09	0.710	0.917
20	FR1 n7	50M	BPSK	135	68	Bottom Face	0mm	Ant 5	DSI 7	507000	2535	Without Scanner	12.61	13.80	1.315			0.09	0.852	1.120
	FR1 n7	50M	BPSK	270	0	Bottom Face	0mm	Ant 5	DSI 7	507000	2535	Without Scanner	12.44	13.80	1.368			-0.19	0.736	1.007
	FR1 n7	50M	BPSK	1	1	Edge 1	0mm	Ant 5	DSI 0	507000	2535	Without Scanner	24.22	25.20	1.252			0.12	0.001	0.001
	FR1 n7	50M	BPSK	135	68	Edge 1	0mm	Ant 5	DSI 0	507000	2535	Without Scanner	24.14	25.20	1.276			0.13	0.001	0.001
	FR1 n7	50M	BPSK	1	1	Edge 2	0mm	Ant 5	DSI 0	507000	2535	Without Scanner	24.22	25.20	1.252			-0.01	0.228	0.285
	FR1 n7	50M	BPSK	135	68	Edge 2	0mm	Ant 5	DSI 0	507000	2535	Without Scanner	24.14	25.20	1.276			0.03	0.206	0.263
	FR1 n7	50M	BPSK	1	1	Edge 3	0mm	Ant 5	DSI 7	507000	2535	Without Scanner	12.69	13.80	1.291			-0.18	0.088	0.113
	FR1 n7	50M	BPSK	135	68	Edge 3	0mm	Ant 5	DSI 7	507000	2535	Without Scanner	12.61	13.80	1.315			0.12	0.103	0.135
	FR1 n7	50M	BPSK	1	1	Edge 4	0mm	Ant 5	DSI 7	507000	2535	Without Scanner	12.69	13.80	1.291			0.03	0.449	0.579
	FR1 n7	50M	BPSK	135	68	Edge 4	0mm	Ant 5	DSI 7	507000	2535	Without Scanner	12.61	13.80	1.315			0.07	0.444	0.584
	FR1 n7	50M	BPSK	1	1	Bottom Face	19mm	Ant 5	DSI 0	507000	2535	Without Scanner	24.22	25.20	1.252			-0.05	0.806	1.009
	FR1 n7	50M	BPSK	135	68	Bottom Face	19mm	Ant 5	DSI 0	507000	2535	Without Scanner	24.14	25.20	1.276			-0.15	0.853	1.088
	FR1 n7	50M	BPSK	270	0	Bottom Face	19mm	Ant 5	DSI 0	507000	2535	Without Scanner	23.69	24.70	1.262			0.01	0.821	1.036
	FR1 n7	50M	BPSK	1	1	Edge 3	17mm	Ant 5	DSI 0	507000	2535	Without Scanner	24.22	25.20	1.252			-0.16	0.216	0.270
	FR1 n7	50M	BPSK	135	68	Edge 3	17mm	Ant 5	DSI 0	507000	2535	Without Scanner	24.14	25.20	1.276			0.03	0.208	0.265
	FR1 n7	50M	BPSK	1	1	Edge 4	24mm	Ant 5	DSI 0	507000	2535	Without Scanner	24.22	25.20	1.252			0.09	0.753	0.943
	FR1 n7	50M	BPSK	135	68	Edge 4	24mm	Ant 5	DSI 0	507000	2535	Without Scanner	24.14	25.20	1.276			-0.12	0.706	0.901
	FR1 n7	50M	BPSK	270	0	Edge 4	24mm	Ant 5	DSI 0	507000	2535	Without Scanner	23.69	24.70	1.262			0.05	0.701	0.885
	FR1 n7	50M	BPSK	135	68	Bottom Face	0mm	Ant 5	DSI 7	507000	2535	With Scanner	12.61	13.80	1.315			0.02	0.765	1.006
	FR1 n7	50M	BPSK	1	1	Bottom Face	0mm	Ant 8	DSI 7	507000	2535	Without Scanner	12.85	14.00	1.303			-0.02	0.557	0.725
	FR1 n7	50M	BPSK	135	68	Bottom Face	0mm	Ant 8	DSI 7	507000	2535	Without Scanner	12.81	14.00	1.315			0.18	0.566	0.744
	FR1 n7	50M	BPSK	1	1	Edge 1	0mm	Ant 8	DSI 7	507000	2535	Without Scanner	12.85	14.00	1.303			0.07	0.361	0.470
	FR1 n7	50M	BPSK	135	68	Edge 1	0mm	Ant 8	DSI 7	507000	2535	Without Scanner	12.81	14.00	1.315			-0.15	0.355	0.467
	FR1 n7	50M	BPSK	1	1	Edge 2	0mm	Ant 8	DSI 0	507000	2535	Without Scanner	23.83	25.20	1.371			-0.07	0.406	0.557
	FR1 n7	50M	BPSK	135	68	Edge 2	0mm	Ant 8	DSI 0	507000	2535	Without Scanner	23.77	25.20	1.39			-0.07	0.261	0.363
	FR1 n7	50M	BPSK	1	1	Edge 3	0mm	Ant 8	DSI 0	507000	2535	Without Scanner	23.83	25.20	1.371			0.03	0.001	0.001
	FR1 n7	50M	BPSK	135	68	Edge 3	0mm	Ant 8	DSI 0	507000	2535	Without Scanner	23.77	25.20	1.39			0.06	0.001	0.001
	FR1 n7	50M	BPSK	1	1	Edge 4	0mm	Ant 8	DSI 7	507000	2535	Without Scanner	12.85	14.00	1.303			-0.12	0.698	0.910
	FR1 n7	50M	BPSK	135	68	Edge 4	0mm	Ant 8	DSI 7	507000	2535	Without Scanner	12.81	14.00	1.315			-0.04	0.847	1.114
	FR1 n7	50M	BPSK	270	0	Edge 4	0mm	Ant 8	DSI 7	507000	2535	Without Scanner	12.80	14.00	1.318			-0.11	0.484	0.637
	FR1 n7	50M	BPSK	1	1	Bottom Face	41mm	Ant 8	DSI 0	507000	2535	Without Scanner	23.83	25.20	1.371			0.05	0.129	0.177
	FR1 n7	50M	BPSK	135	68	Bottom Face	41mm	Ant 8	DSI 0	507000	2535	Without Scanner	23.77	25.20	1.39			-0.13	0.121	0.168
	FR1 n7	50M	BPSK	1	1	Edge 1	18mm	Ant 8	DSI 0	507000	2535	Without Scanner	23.83	25.20	1.371			0.06	0.502	0.688
	FR1 n7	50M	BPSK	135	68	Edge 1	18mm	Ant 8	DSI 0	507000	2535	Without Scanner	23.77	25.20	1.39			-0.01	0.489	0.680
	FR1 n7	50M	BPSK	1	1	Edge 4	44mm	Ant 8	DSI 0	507000	2535	Without Scanner	23.83	25.20	1.371			0.11	0.308	0.422
	FR1 n7	50M	BPSK	135	68	Edge 4	44mm	Ant 8	DSI 0	507000	2535	Without Scanner	23.77	25.20	1.39			0.11	0.301	0.418
	FR1 n7	50M	BPSK	135	68	Edge 4	0mm	Ant 8	DSI 7	507000	2535	With Scanner	12.81	14.00	1.315			0.01	0.772	1.015
21	FR1 n12	15M	BPSK	1	1	Bottom Face	0mm	Ant 8	DSI 7	141500	707.5	Without Scanner	21.41	22.70	1.346			0.04	0.840	1.131
	FR1 n12	15M	BPSK	36	22	Bottom Face	0mm	Ant 8	DSI 7	141500	707.5	Without Scanner	21.39	22.70	1.352			-0.17	0.772	1.044
	FR1 n12	15M	BPSK	75	0	Bottom Face	0mm	Ant 8	DSI 7	141500	707.5	Without Scanner	21.35	22.70	1.365			-0.18	0.544	0.743
	FR1 n12	15M	BPSK	1	1	Edge 1	0mm	Ant 8	DSI 7	141500	707.5	Without Scanner	21.41	22.70	1.346			0.01	0.428	0.577
	FR1 n12	15M	BPSK	36	22	Edge 1	0mm	Ant 8	DSI 7	141500	707.5	Without Scanner	21.39	22.70	1.352			-0.07	0.362	0.489
	FR1 n12	15M	BPSK	1	1	Edge 2	0mm	Ant 8	DSI 0	141500	707.5	Without Scanner	24.31	25.20	1.227			0.18	0.133	0.163
	FR1 n12	15M	BPSK	36	22	Edge 2	0mm	Ant 8	DSI 0	141500	707.5	Without Scanner	24.20	25.20	1.259			0.03	0.119	0.150
	FR1 n12	15M	BPSK	1	1	Edge 3	0mm	Ant 8	DSI 0	141500	707.5	Without Scanner	24.31	25.20	1.227			0.13	0.407	0.499
	FR1 n12	15M	BPSK	36	22	Edge 3	0mm	Ant 8	DSI 0	141500	707.5	Without Scanner	24.20	25.20	1.259			-0.05	0.339	0.427
	FR1 n12	15M	BPSK	1	1	Edge 4	0mm	Ant 8	DSI 7	141500	707.5	Without Scanner	21.41	22.70	1.346			-0.08	0.726	0.978
	FR1 n12	15M	BPSK	36	22	Edge 4	0mm	Ant 8	DSI 7	141500	707.5	Without Scanner	21.39	22.70	1.352			0.16	0.682	0.922
	FR1 n12	15M	BPSK	75	0	Edge 4	0mm	Ant 8	DSI 7	141500	707.5	Without Scanner	21.35	22.70	1.365			-0.06	0.511	0.697
	FR1 n12	15M	BPSK	1	1	Bottom Face	41mm	Ant 8	DSI 0	141500	707.5	Without Scanner	24.31	25.20	1.227			0.14	0.088	0.108
	FR1 n12	15M	BPSK	36	22	Bottom Face	41mm	Ant 8	DSI 0	141500	707.5	Without Scanner	24.20	25.20	1.259			0.11	0.081	0.102



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	FR1 n12	15M	BPSK	1	1	Edge 1	18mm	Ant 8	DSI 0	141500	707.5	Without Scanner	24.31	25.20	1.227		0.14	0.111	0.136
	FR1 n12	15M	BPSK	36	22	Edge 1	18mm	Ant 8	DSI 0	141500	707.5	Without Scanner	24.20	25.20	1.259		-0.18	0.102	0.128
	FR1 n12	15M	BPSK	1	1	Edge 4	44mm	Ant 8	DSI 0	141500	707.5	Without Scanner	24.31	25.20	1.227		0.15	0.001	0.001
	FR1 n12	15M	BPSK	36	22	Edge 4	44mm	Ant 8	DSI 0	141500	707.5	Without Scanner	24.20	25.20	1.259		0.04	0.001	0.001
	FR1 n12	15M	BPSK	1	1	Bottom Face	0mm	Ant 8	DSI 7	141500	707.5	With Scanner	21.41	22.70	1.346		0.02	0.751	1.011
	FR1 n13	10M	BPSK	1	1	Bottom Face	0mm	Ant 8	DSI 7	156400	782	Without Scanner	20.45	21.50	1.274		-0.03	0.733	0.934
	FR1 n13	10M	BPSK	25	14	Bottom Face	0mm	Ant 8	DSI 7	156400	782	Without Scanner	20.41	21.50	1.285		-0.17	0.735	0.944
	FR1 n13	10M	BPSK	50	0	Bottom Face	0mm	Ant 8	DSI 7	156400	782	Without Scanner	20.35	21.50	1.303		-0.08	0.666	0.868
	FR1 n13	10M	BPSK	1	1	Edge 1	0mm	Ant 8	DSI 7	156400	782	Without Scanner	20.45	21.50	1.274		-0.19	0.377	0.480
	FR1 n13	10M	BPSK	25	14	Edge 1	0mm	Ant 8	DSI 7	156400	782	Without Scanner	20.41	21.50	1.285		0.09	0.353	0.453
	FR1 n13	10M	BPSK	1	1	Edge 2	0mm	Ant 8	DSI 0	156400	782	Without Scanner	23.55	24.50	1.245		-0.05	0.107	0.133
	FR1 n13	10M	BPSK	25	14	Edge 2	0mm	Ant 8	DSI 0	156400	782	Without Scanner	23.21	24.50	1.346		0.09	0.107	0.144
	FR1 n13	10M	BPSK	1	1	Edge 3	0mm	Ant 8	DSI 0	156400	782	Without Scanner	23.55	24.50	1.245		-0.03	0.096	0.120
	FR1 n13	10M	BPSK	25	14	Edge 3	0mm	Ant 8	DSI 0	156400	782	Without Scanner	23.21	24.50	1.346		0.01	0.254	0.342
	FR1 n13	10M	BPSK	1	1	Edge 4	0mm	Ant 8	DSI 7	156400	782	Without Scanner	20.45	21.50	1.274		0.18	0.796	1.015
	FR1 n13	10M	BPSK	25	14	Edge 4	0mm	Ant 8	DSI 7	156400	782	Without Scanner	20.41	21.50	1.285		-0.05	0.811	1.043
22	FR1 n13	10M	BPSK	50	0	Edge 4	0mm	Ant 8	DSI 7	156400	782	Without Scanner	20.35	21.50	1.303		0.05	0.856	1.115
	FR1 n13	10M	BPSK	1	1	Bottom Face	41mm	Ant 8	DSI 0	156400	782	Without Scanner	23.55	24.50	1.245		-0.06	0.077	0.096
	FR1 n13	10M	BPSK	25	14	Bottom Face	41mm	Ant 8	DSI 0	156400	782	Without Scanner	23.21	24.50	1.346		-0.15	0.071	0.096
	FR1 n13	10M	BPSK	1	1	Edge 1	18mm	Ant 8	DSI 0	156400	782	Without Scanner	23.55	24.50	1.245		0.12	0.108	0.134
	FR1 n13	10M	BPSK	25	14	Edge 1	18mm	Ant 8	DSI 0	156400	782	Without Scanner	23.21	24.50	1.346		0.09	0.105	0.141
	FR1 n13	10M	BPSK	1	1	Edge 4	44mm	Ant 8	DSI 0	156400	782	Without Scanner	23.55	24.50	1.245		0.02	0.001	0.001
	FR1 n13	10M	BPSK	25	14	Edge 4	44mm	Ant 8	DSI 0	156400	782	Without Scanner	23.21	24.50	1.346		0.13	0.001	0.001
	FR1 n13	10M	BPSK	50	0	Edge 4	0mm	Ant 8	DSI 7	156400	782	With Scanner	20.35	21.50	1.303		0.04	0.784	1.022
	FR1 n14	10M	BPSK	1	1	Bottom Face	0mm	Ant 8	DSI 7	158600	793	Without Scanner	20.61	21.70	1.285		0.15	0.660	0.849
	FR1 n14	10M	BPSK	25	14	Bottom Face	0mm	Ant 8	DSI 7	158600	793	Without Scanner	20.54	21.70	1.306		0.13	0.642	0.838
	FR1 n14	10M	BPSK	50	0	Bottom Face	0mm	Ant 8	DSI 7	158600	793	Without Scanner	20.46	21.70	1.33		-0.18	0.594	0.791
	FR1 n14	10M	BPSK	1	1	Edge 1	0mm	Ant 8	DSI 7	158600	793	Without Scanner	20.61	21.70	1.285		0.03	0.287	0.369
	FR1 n14	10M	BPSK	25	14	Edge 1	0mm	Ant 8	DSI 7	158600	793	Without Scanner	20.54	21.70	1.306		-0.07	0.272	0.356
	FR1 n14	10M	BPSK	1	1	Edge 2	0mm	Ant 8	DSI 0	158600	793	Without Scanner	23.52	24.50	1.253		0.07	0.093	0.117
	FR1 n14	10M	BPSK	25	14	Edge 2	0mm	Ant 8	DSI 0	158600	793	Without Scanner	23.34	24.50	1.306		-0.13	0.091	0.119
	FR1 n14	10M	BPSK	1	1	Edge 3	0mm	Ant 8	DSI 0	158600	793	Without Scanner	23.52	24.50	1.253		0.15	0.141	0.177
	FR1 n14	10M	BPSK	25	14	Edge 3	0mm	Ant 8	DSI 0	158600	793	Without Scanner	23.34	24.50	1.306		-0.18	0.111	0.145
23	FR1 n14	10M	BPSK	1	1	Edge 4	0mm	Ant 8	DSI 7	158600	793	Without Scanner	20.61	21.70	1.285		0.08	0.868	1.115
	FR1 n14	10M	BPSK	25	14	Edge 4	0mm	Ant 8	DSI 7	158600	793	Without Scanner	20.54	21.70	1.306		0.15	0.660	0.863
	FR1 n14	10M	BPSK	50	0	Edge 4	0mm	Ant 8	DSI 7	158600	793	Without Scanner	20.46	21.70	1.33		0.05	0.698	0.929
	FR1 n14	10M	BPSK	1	1	Bottom Face	41mm	Ant 8	DSI 0	158600	793	Without Scanner	23.52	24.50	1.253		-0.03	0.061	0.076
	FR1 n14	10M	BPSK	25	14	Bottom Face	41mm	Ant 8	DSI 0	158600	793	Without Scanner	23.34	24.50	1.306		-0.18	0.065	0.085
	FR1 n14	10M	BPSK	1	1	Edge 1	18mm	Ant 8	DSI 0	158600	793	Without Scanner	23.52	24.50	1.253		0.10	0.085	0.107
	FR1 n14	10M	BPSK	25	14	Edge 1	18mm	Ant 8	DSI 0	158600	793	Without Scanner	23.34	24.50	1.306		0.15	0.076	0.099
	FR1 n14	10M	BPSK	1	1	Edge 4	44mm	Ant 8	DSI 0	158600	793	Without Scanner	23.52	24.50	1.253		0.11	0.001	0.001
	FR1 n14	10M	BPSK	25	14	Edge 4	44mm	Ant 8	DSI 0	158600	793	Without Scanner	23.34	24.50	1.306		0.02	0.001	0.001
	FR1 n14	10M	BPSK	1	1	Edge 4	0mm	Ant 8	DSI 7	158600	793	With Scanner	20.61	21.70	1.285		0.05	0.779	1.001
	FR1 n25	40M	BPSK	1	1	Bottom Face	0mm	Ant 1	DSI 7	376500	1882.5	Without Scanner	15.85	16.80	1.245		-0.06	0.808	1.006
24	FR1 n25	40M	BPSK	108	54	Bottom Face	0mm	Ant 1	DSI 7	376500	1882.5	Without Scanner	15.71	16.80	1.285		-0.14	0.871	1.119
	FR1 n25	40M	BPSK	216	0	Bottom Face	0mm	Ant 1	DSI 7	376500	1882.5	Without Scanner	15.60	16.80	1.318		-0.03	0.774	1.020
	FR1 n25	40M	BPSK	1	1	Edge 1	0mm	Ant 1	DSI 0	376500	1882.5	Without Scanner	24.10	25.20	1.288		-0.02	0.351	0.452
	FR1 n25	40M	BPSK	108	54	Edge 1	0mm	Ant 1	DSI 0	376500	1882.5	Without Scanner	23.94	25.20	1.337		0.19	0.294	0.393
	FR1 n25	40M	BPSK	1	1	Edge 2	0mm	Ant 1	DSI 0	376500	1882.5	Without Scanner	24.10	25.20	1.288		0.14	0.046	0.059
	FR1 n25	40M	BPSK	108	54	Edge 2	0mm	Ant 1	DSI 0	376500	1882.5	Without Scanner	23.94	25.20	1.337		0.00	0.044	0.059
	FR1 n25	40M	BPSK	1	1	Edge 3	0mm	Ant 1	DSI 0	376500	1882.5	Without Scanner	24.10	25.20	1.288		-0.04	0.143	0.184
	FR1 n25	40M	BPSK	108	54	Edge 3	0mm	Ant 1	DSI 0	376500	1882.5	Without Scanner	23.94	25.20	1.337		-0.08	0.128	0.171
	FR1 n25	40M	BPSK	1	1	Edge 4	0mm	Ant 1	DSI 7	376500	1882.5	Without Scanner	15.85	16.80	1.245		0.15	0.583	0.726
	FR1 n25	40M	BPSK	108	54	Edge 4	0mm	Ant 1	DSI 7	376500	1882.5	Without Scanner	15.71	16.80	1.285		-0.14	0.638	0.820
	FR1 n25	40M	BPSK	216	0	Edge 4	0mm	Ant 1	DSI 7	376500	1882.5	Without Scanner	15.60	16.80	1.318		-0.18	0.517	0.681
	FR1 n25	40M	BPSK	1	1	Bottom Face	24mm	Ant 1	DSI 0	376500	1882.5	Without Scanner	24.10	25.20	1.288		-0.14	0.212	0.273
	FR1 n25	40M	BPSK	108	54	Bottom Face	24mm	Ant 1	DSI 0	376500	1882.5	Without Scanner	23.94	25.20	1.337		-0.10	0.213	0.285
	FR1 n25	40M	BPSK	1	1	Edge 4	22mm	Ant 1	DSI 0	376500	1882.5	Without Scanner	24.10	25.20	1.288		-0.12	0.207	0.267
	FR1 n25	40M	BPSK	108	54	Edge 4	22mm	Ant 1	DSI 0	376500	1882.5	Without Scanner	23.94	25.20	1.337		0.06	0.201	0.269
	FR1 n25	40M	BPSK	108	54	Bottom Face	0mm	Ant 1	DSI 7	376500	1882.5	With Scanner	15.71	16.80	1.285		-0.03	0.792	1.018
	FR1 n25	40M	BPSK	1	1	Bottom Face	0mm	Ant 5	DSI 7	376500	1882.5	Without Scanner	16.53	17.60	1.279		0.01	0.871	1.114
	FR1 n25	40M	BPSK	108	54	Bottom Face	0mm	Ant 5	DSI 7	376500	1882.5	Without Scanner	16.46	17.60	1.3		-0.09	0.765	0.994
	FR1 n25	40M	BPSK	216	0	Bottom Face	0mm	Ant 5	DSI 7	376500	1882.5	Without Scanner	16.39	17.60	1.321		0.08	0.814	1.076
	FR1 n25	40M	BPSK	1	1	Edge 1	0mm	Ant 5	DSI 0	376500	1882.5	Without Scanner	24.48	25.20	1.18		-0.09	0.087	0.103
	FR1 n25	40M	BPSK	108	54	Edge 1	0mm	Ant 5	DSI 0	376500	1882.5	Without Scanner	24.38	25.20	1.208		-0.10	0.101	0.122
	FR1 n25	40M	BPSK	1	1	Edge 2	0mm	Ant 5	DSI 0	376500	1882.5	Without Scanner	24.48	25.20	1.18		-0.17	0.241	0.284
	FR1 n25	40M	BPSK	108	54	Edge 2	0mm	Ant 5	DSI 0	376500	1882.5	Without Scanner	24.38	25.20	1.208		0.17	0.316	0.382
	FR1 n25	40M	BPSK	1	1	Edge 3	0mm	Ant 5	DSI 7	376500	1882.5	Without Scanner	16.53	17.60	1.279		-0.18	0.290	0.371
	FR1 n25	40M	BPSK	108	54	Edge 3	0mm	Ant 5	DSI 7	376500	1882.5	Without Scanner	16.46	17.60	1.3		-0.03	0.309	0.402
	FR1 n25	40M	BPSK	1	1	Edge 4	0mm	Ant 5	DSI 7	376500	1882.5	Without Scanner	16.53	17.60	1.279		0.04	0.643	0.823
	FR1 n25	40M	BPSK	108	54	Edge 4	0mm	Ant 5	DSI 7	376500	1882.5	Without Scanner	16.46	17.60	1.3		0.10	0.624	0.811
	FR1 n25	40M	BPSK	216	0	Edge 4	0mm	Ant 5	DSI 7	376500	1882.5	Without Scanner	16.39	17.60	1.321		0.07	0.620	0.819
	FR1 n25	40M	BPSK	1	1	Bottom Face	19mm	Ant 5	DSI 0	376500	1882.5	Without Scanner							



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	FR1 n25	40M	BPSK	1	1	Edge 3	17mm	Ant 5	DSI 0	376500	1882.5	Without Scanner	24.48	25.20	1.18			-0.06	0.301	0.355
	FR1 n25	40M	BPSK	108	54	Edge 3	17mm	Ant 5	DSI 0	376500	1882.5	Without Scanner	24.38	25.20	1.208			0.06	0.312	0.377
	FR1 n25	40M	BPSK	1	1	Edge 4	24mm	Ant 5	DSI 0	376500	1882.5	Without Scanner	24.48	25.20	1.18			-0.03	0.493	0.582
	FR1 n25	40M	BPSK	108	54	Edge 4	24mm	Ant 5	DSI 0	376500	1882.5	Without Scanner	24.38	25.20	1.208			0.13	0.481	0.581
	FR1 n25	40M	BPSK	1	1	Bottom Face	0mm	Ant 5	DSI 7	376500	1882.5	With Scanner	16.53	17.60	1.279			0.03	0.753	0.963
	FR1 n26	20M	BPSK	1	1	Bottom Face	0mm	Ant 8	DSI 7	166300	831.5	Without Scanner	19.21	20.60	1.377			-0.15	0.751	1.034
25	FR1 n26	20M	BPSK	50	28	Bottom Face	0mm	Ant 8	DSI 7	166300	831.5	Without Scanner	19.15	20.60	1.396			0.04	0.761	1.062
	FR1 n26	20M	BPSK	100	0	Bottom Face	0mm	Ant 8	DSI 7	166300	831.5	Without Scanner	19.13	20.60	1.403			-0.00	0.652	0.915
	FR1 n26	20M	BPSK	1	1	Edge 1	0mm	Ant 8	DSI 7	166300	831.5	Without Scanner	19.21	20.60	1.377			0.06	0.407	0.561
	FR1 n26	20M	BPSK	50	28	Edge 1	0mm	Ant 8	DSI 7	166300	831.5	Without Scanner	19.15	20.60	1.396			0.13	0.422	0.589
	FR1 n26	20M	BPSK	1	1	Edge 2	0mm	Ant 8	DSI 0	166300	831.5	Without Scanner	24.25	25.20	1.245			-0.11	0.113	0.141
	FR1 n26	20M	BPSK	50	28	Edge 2	0mm	Ant 8	DSI 0	166300	831.5	Without Scanner	24.05	25.20	1.303			-0.10	0.101	0.132
	FR1 n26	20M	BPSK	1	1	Edge 3	0mm	Ant 8	DSI 0	166300	831.5	Without Scanner	24.25	25.20	1.245			-0.15	0.131	0.163
	FR1 n26	20M	BPSK	50	28	Edge 3	0mm	Ant 8	DSI 0	166300	831.5	Without Scanner	24.05	25.20	1.303			-0.12	0.121	0.158
	FR1 n26	20M	BPSK	1	1	Edge 4	0mm	Ant 8	DSI 7	166300	831.5	Without Scanner	19.21	20.60	1.377			-0.06	0.642	0.885
	FR1 n26	20M	BPSK	50	28	Edge 4	0mm	Ant 8	DSI 7	166300	831.5	Without Scanner	19.15	20.60	1.396			0.02	0.459	0.640
	FR1 n26	20M	BPSK	100	0	Edge 4	0mm	Ant 8	DSI 7	166300	831.5	Without Scanner	19.13	20.60	1.403			0.08	0.450	0.632
	FR1 n26	20M	BPSK	1	1	Bottom Face	41mm	Ant 8	DSI 0	166300	831.5	Without Scanner	24.25	25.20	1.245			0.05	0.107	0.133
	FR1 n26	20M	BPSK	50	28	Bottom Face	41mm	Ant 8	DSI 0	166300	831.5	Without Scanner	24.05	25.20	1.303			-0.02	0.105	0.137
	FR1 n26	20M	BPSK	1	1	Edge 1	18mm	Ant 8	DSI 0	166300	831.5	Without Scanner	24.25	25.20	1.245			-0.11	0.179	0.223
	FR1 n26	20M	BPSK	50	28	Edge 1	18mm	Ant 8	DSI 0	166300	831.5	Without Scanner	24.05	25.20	1.303			-0.04	0.168	0.219
	FR1 n26	20M	BPSK	1	1	Edge 4	44mm	Ant 8	DSI 0	166300	831.5	Without Scanner	24.25	25.20	1.245			0.08	0.001	0.001
	FR1 n26	20M	BPSK	50	28	Edge 4	44mm	Ant 8	DSI 0	166300	831.5	Without Scanner	24.05	25.20	1.303			-0.14	0.001	0.001
	FR1 n26	20M	BPSK	50	28	Bottom Face	0mm	Ant 8	DSI 7	166300	831.5	With Scanner	19.15	20.60	1.396			0.02	0.694	0.969
	FR1 n30	10M	BPSK	1	1	Bottom Face	0mm	Ant 5	DSI 7	462000	2310	Without Scanner	15.96	17.10	1.3			0.11	0.769	1.000
	FR1 n30	10M	BPSK	25	14	Bottom Face	0mm	Ant 5	DSI 7	462000	2310	Without Scanner	15.93	17.10	1.309			0.02	0.850	1.113
	FR1 n30	10M	BPSK	50	0	Bottom Face	0mm	Ant 5	DSI 7	462000	2310	Without Scanner	15.77	17.10	1.358			-0.10	0.378	0.513
	FR1 n30	10M	BPSK	1	1	Edge 1	0mm	Ant 5	DSI 0	462000	2310	Without Scanner	21.79	23	1.321			0.07	0.052	0.069
	FR1 n30	10M	BPSK	25	14	Edge 1	0mm	Ant 5	DSI 0	462000	2310	Without Scanner	21.78	23	1.324			0.03	0.054	0.071
	FR1 n30	10M	BPSK	1	1	Edge 2	0mm	Ant 5	DSI 0	462000	2310	Without Scanner	21.79	23	1.321			0.12	0.171	0.226
	FR1 n30	10M	BPSK	25	14	Edge 2	0mm	Ant 5	DSI 0	462000	2310	Without Scanner	21.78	23	1.324			-0.08	0.156	0.207
	FR1 n30	10M	BPSK	1	1	Edge 3	0mm	Ant 5	DSI 7	462000	2310	Without Scanner	15.96	17.10	1.3			-0.00	0.344	0.447
	FR1 n30	10M	BPSK	25	14	Edge 3	0mm	Ant 5	DSI 7	462000	2310	Without Scanner	15.93	17.10	1.309			0.06	0.359	0.470
	FR1 n30	10M	BPSK	1	1	Edge 4	0mm	Ant 5	DSI 7	462000	2310	Without Scanner	15.96	17.10	1.3			-0.17	0.502	0.653
	FR1 n30	10M	BPSK	25	14	Edge 4	0mm	Ant 5	DSI 7	462000	2310	Without Scanner	15.93	17.10	1.309			-0.13	0.533	0.698
	FR1 n30	10M	BPSK	1	1	Bottom Face	19mm	Ant 5	DSI 0	462000	2310	Without Scanner	21.79	23	1.321			-0.11	0.507	0.67
	FR1 n30	10M	BPSK	25	14	Bottom Face	19mm	Ant 5	DSI 0	462000	2310	Without Scanner	21.78	23	1.324			0.15	0.476	0.63
	FR1 n30	10M	BPSK	1	1	Edge 3	17mm	Ant 5	DSI 0	462000	2310	Without Scanner	21.79	23	1.321			0.14	0.329	0.435
	FR1 n30	10M	BPSK	25	14	Edge 3	17mm	Ant 5	DSI 0	462000	2310	Without Scanner	21.78	23	1.324			0.1	0.321	0.425
	FR1 n30	10M	BPSK	1	1	Edge 4	24mm	Ant 5	DSI 0	462000	2310	Without Scanner	21.79	23	1.321			0.15	0.461	0.609
	FR1 n30	10M	BPSK	25	14	Edge 4	24mm	Ant 5	DSI 0	462000	2310	Without Scanner	21.78	23	1.324			0.11	0.489	0.647
	FR1 n30	10M	BPSK	25	14	Bottom Face	0mm	Ant 5	DSI 7	462000	2310	With Scanner	15.93	17.10	1.309			0.07	0.753	0.986
	FR1 n30	10M	BPSK	1	1	Bottom Face	0mm	Ant 8	DSI 7	462000	2310	Without Scanner	13.95	15.10	1.303			0.12	0.741	0.965
	FR1 n30	10M	BPSK	25	14	Bottom Face	0mm	Ant 8	DSI 7	462000	2310	Without Scanner	13.91	15.10	1.315			0.19	0.694	0.912
	FR1 n30	10M	BPSK	50	0	Bottom Face	0mm	Ant 8	DSI 7	462000	2310	Without Scanner	13.61	15.10	1.409			-0.12	0.698	0.984
	FR1 n30	10M	BPSK	1	1	Edge 1	0mm	Ant 8	DSI 7	462000	2310	Without Scanner	13.95	15.10	1.303			0.00	0.187	0.244
	FR1 n30	10M	BPSK	25	14	Edge 1	0mm	Ant 8	DSI 7	462000	2310	Without Scanner	13.91	15.10	1.315			-0.00	0.169	0.222
	FR1 n30	10M	BPSK	1	1	Edge 2	0mm	Ant 8	DSI 0	462000	2310	Without Scanner	21.79	22.5	1.178			0	0.565	0.666
	FR1 n30	10M	BPSK	25	14	Edge 2	0mm	Ant 8	DSI 0	462000	2310	Without Scanner	21.78	22.5	1.180			0.01	0.464	0.548
	FR1 n30	10M	BPSK	1	1	Edge 3	0mm	Ant 8	DSI 0	462000	2310	Without Scanner	21.79	22.5	1.178			-0.17	0.001	0.001
	FR1 n30	10M	BPSK	25	14	Edge 3	0mm	Ant 8	DSI 0	462000	2310	Without Scanner	21.78	22.5	1.180			0.05	0.001	0.001
	FR1 n30	10M	BPSK	1	1	Edge 4	0mm	Ant 8	DSI 7	462000	2310	Without Scanner	13.95	15.10	1.303			-0.04	0.781	1.018
26	FR1 n30	10M	BPSK	25	14	Edge 4	0mm	Ant 8	DSI 7	462000	2310	Without Scanner	13.91	15.10	1.315			0.07	0.850	1.118
	FR1 n30	10M	BPSK	50	0	Edge 4	0mm	Ant 8	DSI 7	462000	2310	Without Scanner	13.61	15.10	1.409			-0.04	0.774	1.090
	FR1 n30	10M	BPSK	1	1	Bottom Face	41mm	Ant 8	DSI 0	462000	2310	Without Scanner	21.79	22.5	1.178			-0.02	0.165	0.194
	FR1 n30	10M	BPSK	25	14	Bottom Face	41mm	Ant 8	DSI 0	462000	2310	Without Scanner	21.78	22.5	1.180			-0.05	0.161	0.19
	FR1 n30	10M	BPSK	1	1	Edge 1	18mm	Ant 8	DSI 0	462000	2310	Without Scanner	21.79	22.5	1.178			-0.12	0.281	0.331
	FR1 n30	10M	BPSK	25	14	Edge 1	18mm	Ant 8	DSI 0	462000	2310	Without Scanner	21.78	22.5	1.180			-0.08	0.275	0.325
	FR1 n30	10M	BPSK	1	1	Edge 4	44mm	Ant 8	DSI 0	462000	2310	Without Scanner	21.79	22.5	1.178			-0.03	0.266	0.313
	FR1 n30	10M	BPSK	25	14	Edge 4	44mm	Ant 8	DSI 0	462000	2310	Without Scanner	21.78	22.5	1.180			0.02	0.261	0.308
	FR1 n30	10M	BPSK	25	14	Edge 4	0mm	Ant 8	DSI 7	462000	2310	With Scanner	13.91	15.10	1.315			0.01	0.810	1.065
	FR1 n66	40M	BPSK	1	1	Bottom Face	0mm	Ant 1	DSI 7	349000	1745	Without Scanner	14.32	15.50	1.312			-0.14	0.794	1.042
	FR1 n66	40M	BPSK	108	54	Bottom Face	0mm	Ant 1	DSI 7	349000	1745	Without Scanner	14.30	15.50	1.318			0.10	0.806	1.063
	FR1 n66	40M	BPSK	216	0	Bottom Face	0mm	Ant 1	DSI 7	349000	1745	Without Scanner	14.25	15.50	1.334			0.03	0.837	1.117
	FR1 n66	40M	BPSK	1	1	Edge 1	0mm	Ant 1	DSI 0	349000	1745	Without Scanner	23.71	25.20	1.409			-0.02	0.277	0.390
	FR1 n66	40M	BPSK	108	54	Edge 1	0mm	Ant 1	DSI 0	349000	1745	Without Scanner	23.51	25.20	1.476			0.06	0.318	0.469
	FR1 n66	40M	BPSK	1	1	Edge 2	0mm	Ant 1	DSI 0	349000	1745	Without Scanner	23.71	25.20	1.409			0.05	0.108	0.152
	FR1 n66	40M	BPSK	108	54	Edge 2	0mm	Ant 1	DSI 0	349000	1745	Without Scanner	23.51	25.20	1.476			-0.15	0.116	0.171
	FR1 n66	40M	BPSK	1	1	Edge 3	0mm	Ant 1	DSI 0	349000	1745	Without Scanner	23.71	25.20	1.409			-0.07	0.115	0.162
	FR1 n66	40M	BPSK	108	54	Edge 3	0mm	Ant 1	DSI 0	349000	1745	Without Scanner	23.51	25.20	1.476			-0.10	0.096	0.142
	FR1 n66	40M	BPSK	1	1	Edge 4	0mm	Ant 1	DSI 7	349000	1745	Without Scanner	14.32	15.50	1.312			0.07	0.498	0.653
	FR1 n66	40M	BPSK	108																



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	FR1 n66	40M	BPSK	1	1	Edge 4	22mm	Ant 1	DSI 0	349000	1745	Without Scanner	23.71	25.20	1.409		0.05	0.220	0.310	
	FR1 n66	40M	BPSK	108	54	Edge 4	22mm	Ant 1	DSI 0	349000	1745	Without Scanner	23.51	25.20	1.476		-0.07	0.202	0.298	
	FR1 n66	40M	BPSK	216	0	Bottom Face	0mm	Ant 1	DSI 7	349000	1745	With Scanner	14.25	15.50	1.334		0.01	0.791	1.055	
	FR1 n66	40M	BPSK	1	1	Bottom Face	0mm	Ant 5	DSI 7	349000	1745	Without Scanner	16.44	17.70	1.337		0.14	0.818	1.094	
27	FR1 n66	40M	BPSK	108	54	Bottom Face	0mm	Ant 5	DSI 7	349000	1745	Without Scanner	16.38	17.70	1.355		0.04	0.825	1.118	
	FR1 n66	40M	BPSK	216	0	Bottom Face	0mm	Ant 5	DSI 7	349000	1745	Without Scanner	16.24	17.70	1.4		0.10	0.740	1.035	
	FR1 n66	40M	BPSK	1	1	Edge 1	0mm	Ant 5	DSI 0	349000	1745	Without Scanner	24.27	25.20	1.239		0.18	0.068	0.084	
	FR1 n66	40M	BPSK	108	54	Edge 1	0mm	Ant 5	DSI 0	349000	1745	Without Scanner	24.19	25.20	1.262		-0.06	0.041	0.052	
	FR1 n66	40M	BPSK	1	1	Edge 2	0mm	Ant 5	DSI 0	349000	1745	Without Scanner	24.27	25.20	1.239		0.06	0.247	0.306	
	FR1 n66	40M	BPSK	108	54	Edge 2	0mm	Ant 5	DSI 0	349000	1745	Without Scanner	24.19	25.20	1.262		-0.16	0.267	0.337	
	FR1 n66	40M	BPSK	1	1	Edge 3	0mm	Ant 5	DSI 7	349000	1745	Without Scanner	16.44	17.70	1.337		0.11	0.321	0.429	
	FR1 n66	40M	BPSK	108	54	Edge 3	0mm	Ant 5	DSI 7	349000	1745	Without Scanner	16.38	17.70	1.355		-0.06	0.352	0.477	
	FR1 n66	40M	BPSK	1	1	Edge 4	0mm	Ant 5	DSI 7	349000	1745	Without Scanner	16.44	17.70	1.337		-0.15	0.369	0.493	
	FR1 n66	40M	BPSK	108	54	Edge 4	0mm	Ant 5	DSI 7	349000	1745	Without Scanner	16.38	17.70	1.355		-0.13	0.333	0.451	
	FR1 n66	40M	BPSK	1	1	Bottom Face	19mm	Ant 5	DSI 0	349000	1745	Without Scanner	24.27	25.20	1.239		0.14	0.646	0.800	
	FR1 n66	40M	BPSK	108	54	Bottom Face	19mm	Ant 5	DSI 0	349000	1745	Without Scanner	24.19	25.20	1.262		-0.01	0.641	0.809	
	FR1 n66	40M	BPSK	216	0	Bottom Face	19mm	Ant 5	DSI 0	349000	1745	Without Scanner	23.78	24.70	1.236		0.01	0.635	0.785	
	FR1 n66	40M	BPSK	1	1	Edge 3	17mm	Ant 5	DSI 0	349000	1745	Without Scanner	24.27	25.20	1.239		-0.04	0.306	0.379	
	FR1 n66	40M	BPSK	108	54	Edge 3	17mm	Ant 5	DSI 0	349000	1745	Without Scanner	24.19	25.20	1.262		-0.04	0.301	0.380	
	FR1 n66	40M	BPSK	1	1	Edge 4	24mm	Ant 5	DSI 0	349000	1745	Without Scanner	24.27	25.20	1.239		-0.09	0.118	0.146	
	FR1 n66	40M	BPSK	108	54	Edge 4	24mm	Ant 5	DSI 0	349000	1745	Without Scanner	24.19	25.20	1.262		0.09	0.111	0.140	
	FR1 n66	40M	BPSK	108	54	Bottom Face	0mm	Ant 5	DSI 7	349000	1745	With Scanner	16.38	17.70	1.355		0.01	0.785	1.064	
	FR1 n70	15M	BPSK	1	1	Bottom Face	0mm	Ant 1	DSI 7	340500	1702.5	Without Scanner	15.11	16.00	1.227		0.06	0.857	1.052	
28	FR1 n70	15M	BPSK	36	22	Bottom Face	0mm	Ant 1	DSI 7	340500	1702.5	Without Scanner	15.03	16.00	1.25		0.08	0.895	1.119	
	FR1 n70	15M	BPSK	75	0	Bottom Face	0mm	Ant 1	DSI 7	340500	1702.5	Without Scanner	14.88	16.00	1.294		-0.12	0.787	1.019	
	FR1 n70	15M	BPSK	1	1	Edge 1	0mm	Ant 1	DSI 0	340500	1702.5	Without Scanner	23.69	25.20	1.416		-0.17	0.259	0.367	
	FR1 n70	15M	BPSK	36	22	Edge 1	0mm	Ant 1	DSI 0	340500	1702.5	Without Scanner	23.43	25.20	1.503		0.02	0.281	0.422	
	FR1 n70	15M	BPSK	1	1	Edge 2	0mm	Ant 1	DSI 0	340500	1702.5	Without Scanner	23.69	25.20	1.416		0.17	0.084	0.119	
	FR1 n70	15M	BPSK	36	22	Edge 2	0mm	Ant 1	DSI 0	340500	1702.5	Without Scanner	23.43	25.20	1.503		0.06	0.082	0.123	
	FR1 n70	15M	BPSK	1	1	Edge 3	0mm	Ant 1	DSI 0	340500	1702.5	Without Scanner	23.69	25.20	1.416		-0.15	0.074	0.105	
	FR1 n70	15M	BPSK	36	22	Edge 3	0mm	Ant 1	DSI 0	340500	1702.5	Without Scanner	23.43	25.20	1.503		0.16	0.114	0.171	
	FR1 n70	15M	BPSK	1	1	Edge 4	0mm	Ant 1	DSI 7	340500	1702.5	Without Scanner	15.11	16.00	1.227		0.02	0.455	0.558	
	FR1 n70	15M	BPSK	36	22	Edge 4	0mm	Ant 1	DSI 7	340500	1702.5	Without Scanner	15.03	16.00	1.25		-0.16	0.638	0.798	
	FR1 n70	15M	BPSK	1	1	Bottom Face	24mm	Ant 1	DSI 0	340500	1702.5	Without Scanner	23.69	25.20	1.416		-0.05	0.209	0.296	
	FR1 n70	15M	BPSK	36	22	Bottom Face	24mm	Ant 1	DSI 0	340500	1702.5	Without Scanner	23.43	25.20	1.503		0.10	0.201	0.302	
	FR1 n70	15M	BPSK	1	1	Edge 4	22mm	Ant 1	DSI 0	340500	1702.5	Without Scanner	23.69	25.20	1.416		-0.14	0.183	0.259	
	FR1 n70	15M	BPSK	36	22	Edge 4	22mm	Ant 1	DSI 0	340500	1702.5	Without Scanner	23.43	25.20	1.503		-0.03	0.181	0.272	
	FR1 n70	15M	BPSK	36	22	Bottom Face	0mm	Ant 1	DSI 7	340500	1702.5	With Scanner	15.03	16.00	1.25		0.04	0.821	1.026	
	FR1 n71	20M	BPSK	1	1	Bottom Face	0mm	Ant 8	DSI 7	136100	680.5	Without Scanner	21.56	23.00	1.393		0.10	0.635	0.885	
	FR1 n71	20M	BPSK	50	28	Bottom Face	0mm	Ant 8	DSI 7	136100	680.5	Without Scanner	21.55	23.00	1.396		0.16	0.654	0.912	
	FR1 n71	20M	BPSK	100	0	Bottom Face	0mm	Ant 8	DSI 7	136100	680.5	Without Scanner	21.48	23.00	1.419		0.18	0.525	0.744	
	FR1 n71	20M	BPSK	1	1	Edge 1	0mm	Ant 8	DSI 7	136100	680.5	Without Scanner	21.56	23.00	1.393		-0.10	0.226	0.314	
	FR1 n71	20M	BPSK	50	28	Edge 1	0mm	Ant 8	DSI 7	136100	680.5	Without Scanner	21.55	23.00	1.396		-0.03	0.203	0.283	
	FR1 n71	20M	BPSK	1	1	Edge 2	0mm	Ant 8	DSI 0	136100	680.5	Without Scanner	24.47	25.20	1.183		-0.00	0.133	0.157	
	FR1 n71	20M	BPSK	50	28	Edge 2	0mm	Ant 8	DSI 0	136100	680.5	Without Scanner	24.36	25.20	1.213		0.15	0.110	0.133	
	FR1 n71	20M	BPSK	1	1	Edge 3	0mm	Ant 8	DSI 0	136100	680.5	Without Scanner	24.47	25.20	1.183		0.10	0.151	0.179	
	FR1 n71	20M	BPSK	50	28	Edge 3	0mm	Ant 8	DSI 0	136100	680.5	Without Scanner	24.36	25.20	1.213		-0.07	0.172	0.209	
29	FR1 n71	20M	BPSK	1	1	Edge 4	0mm	Ant 8	DSI 7	136100	680.5	Without Scanner	21.56	23.00	1.393		-0.14	0.807	1.124	
	FR1 n71	20M	BPSK	50	28	Edge 4	0mm	Ant 8	DSI 7	136100	680.5	Without Scanner	21.55	23.00	1.396		-0.17	0.535	0.747	
	FR1 n71	20M	BPSK	100	0	Edge 4	0mm	Ant 8	DSI 7	136100	680.5	Without Scanner	21.48	23.00	1.419		0.09	0.699	0.992	
	FR1 n71	20M	BPSK	1	1	Bottom Face	41mm	Ant 8	DSI 0	136100	680.5	Without Scanner	24.47	25.20	1.183		0.06	0.063	0.075	
	FR1 n71	20M	BPSK	50	28	Bottom Face	41mm	Ant 8	DSI 0	136100	680.5	Without Scanner	24.36	25.20	1.213		-0.17	0.061	0.074	
	FR1 n71	20M	BPSK	1	1	Edge 1	18mm	Ant 8	DSI 0	136100	680.5	Without Scanner	24.47	25.20	1.183		0.08	0.076	0.090	
	FR1 n71	20M	BPSK	50	28	Edge 1	18mm	Ant 8	DSI 0	136100	680.5	Without Scanner	24.36	25.20	1.213		0.11	0.073	0.089	
	FR1 n71	20M	BPSK	1	1	Edge 4	44mm	Ant 8	DSI 0	136100	680.5	Without Scanner	24.47	25.20	1.183		0.16	0.001	0.001	
	FR1 n71	20M	BPSK	50	28	Edge 4	44mm	Ant 8	DSI 0	136100	680.5	Without Scanner	24.36	25.20	1.213		-0.07	0.001	0.001	
	FR1 n71	20M	BPSK	1	1	Edge 4	0mm	Ant 8	DSI 7	136100	680.5	With Scanner	21.56	23.00	1.393		0.01	0.752	1.048	
	FR1 n41	100M	BPSK	1	1	Bottom Face	0mm	Ant 3	DSI 0	518598	2592.99	Without Scanner	11.21	12.20	1.256		0.09	0.868	1.090	
	FR1 n41	100M	BPSK	135	69	Bottom Face	0mm	Ant 3	DSI 0	518598	2592.99	Without Scanner	11.17	12.20	1.268		-0.14	0.685	0.869	
	FR1 n41	100M	BPSK	270	0	Bottom Face	0mm	Ant 3	DSI 0	518598	2592.99	Without Scanner	11.15	12.20	1.274		0.06	0.573	0.730	
	FR1 n41	100M	BPSK	1	1	Edge 1	0mm	Ant 3	DSI 0	518598	2592.99	Without Scanner	11.21	12.20	1.256		-0.15	0.001	0.001	
	FR1 n41	100M	BPSK	135	69	Edge 1	0mm	Ant 3	DSI 0	518598	2592.99	Without Scanner	11.17	12.20	1.268		-0.17	0.001	0.001	
	FR1 n41	100M	BPSK	1	1	Edge 2	0mm	Ant 3	DSI 0	518598	2592.99	Without Scanner	11.21	12.20	1.256		0.10	0.015	0.019	
	FR1 n41	100M	BPSK	135	69	Edge 2	0mm	Ant 3	DSI 0	518598	2592.99	Without Scanner	11.17	12.20	1.268		-0.19	0.010	0.013	
	FR1 n41	100M	BPSK	1	1	Edge 3	0mm	Ant 3	DSI 0	518598	2592.99	Without Scanner	11.21	12.20	1.256		-0.02	0.595	0.748	
	FR1 n41	100M	BPSK	135	69	Edge 3	0mm	Ant 3	DSI 0	518598	2592.99	Without Scanner	11.17	12.20	1.268		0.14	0.395	0.501	
	FR1 n41	100M	BPSK	1	1	Edge 4	0mm	Ant 3	DSI 0	518598	2592.99	Without Scanner	11.21	12.20	1.256		-0.06	0.136	0.171	
	FR1 n41	100M	BPSK	135	69	Edge 4	0mm	Ant 3	DSI 0	518598	2592.99	Without Scanner	11.17	12.20	1.268		-0.19	0.130	0.165	
	FR1 n41 HPUE	100M	BPSK	1	1	Bottom Face	0mm	Ant 3	DSI 0	518598	2592.99	Without Scanner	14.35	15.20	1.216	50.0	1.0	0.03	0.833	1.013
	FR1 n41	100M	BPSK	1	1	Bottom Face	0mm	Ant 3	DSI 0	518598	2592.99	With Scanner	11.21	12.20	1.256		0.05	0.796	1.000	
	FR1 n41	100M	BPSK	1	1	Bottom Face	0mm	Ant 4	DSI 0	518598	2592.99	Without Scanner	20.15	21.20	1.274		-0.06	0.627	0.799	
	FR1 n41	100M	BPSK	135	69	Bottom Face	0mm	Ant 4	DSI 0	518598	2592.99	Without Scanner	20.14	21.20	1.276		-0.01	0.416	0.531	



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30	FR1 n41	100M	BPSK	135	69	Edge 1	0mm	Ant 4	DSI 0	518598	2592.99	Without Scanner	20.14	21.20	1.276			0.01	0.024	0.030
	FR1 n41	100M	BPSK	1	1	Edge 2	0mm	Ant 4	DSI 0	518598	2592.99	Without Scanner	20.15	21.20	1.274			-0.05	0.871	1.110
	FR1 n41	100M	BPSK	135	69	Edge 2	0mm	Ant 4	DSI 0	518598	2592.99	Without Scanner	20.14	21.20	1.276			0.13	0.638	0.814
	FR1 n41	100M	BPSK	270	0	Edge 2	0mm	Ant 4	DSI 0	518598	2592.99	Without Scanner	20.14	21.20	1.276			-0.14	0.576	0.736
	FR1 n41	100M	BPSK	1	1	Edge 3	0mm	Ant 4	DSI 0	518598	2592.99	Without Scanner	20.15	21.20	1.274			-0.04	0.034	0.043
	FR1 n41	100M	BPSK	135	69	Edge 3	0mm	Ant 4	DSI 0	518598	2592.99	Without Scanner	20.14	21.20	1.276			0.11	0.001	0.001
	FR1 n41	100M	BPSK	1	1	Edge 4	0mm	Ant 4	DSI 0	518598	2592.99	Without Scanner	20.15	21.20	1.274			0.16	0.001	0.001
	FR1 n41	100M	BPSK	135	69	Edge 4	0mm	Ant 4	DSI 0	518598	2592.99	Without Scanner	20.14	21.20	1.276			0.13	0.001	0.001
	FR1 n41 HPUE	100M	BPSK	1	1	Edge 2	0mm	Ant 4	DSI 0	518598	2592.99	Without Scanner	23.21	24.20	1.256	50.0	1.0	-0.04	0.837	1.051
	FR1 n41	100M	BPSK	1	1	Edge 2	0mm	Ant 4	DSI 0	518598	2592.99	With Scanner	20.15	21.20	1.274			0.02	0.788	1.004
	FR1 n41	100M	BPSK	1	1	Bottom Face	0mm	Ant 5	DSI 7	518598	2592.99	Without Scanner	24.58	25.20	1.153			0.09	0.772	0.890
	FR1 n41	100M	BPSK	135	69	Bottom Face	0mm	Ant 5	DSI 7	518598	2592.99	Without Scanner	24.34	25.20	1.219			-0.08	0.755	0.920
	FR1 n41	100M	BPSK	270	0	Bottom Face	0mm	Ant 5	DSI 7	518598	2592.99	Without Scanner	23.89	24.70	1.205			0.01	0.869	1.047
	FR1 n41	100M	BPSK	1	1	Edge 1	0mm	Ant 5	DSI 0	518598	2592.99	Without Scanner	24.58	25.20	1.153			0.16	0.001	0.001
	FR1 n41	100M	BPSK	135	69	Edge 1	0mm	Ant 5	DSI 0	518598	2592.99	Without Scanner	24.34	25.20	1.219			0.18	0.001	0.001
	FR1 n41	100M	BPSK	1	1	Edge 2	0mm	Ant 5	DSI 0	518598	2592.99	Without Scanner	24.58	25.20	1.153			-0.11	0.253	0.292
	FR1 n41	100M	BPSK	135	69	Edge 2	0mm	Ant 5	DSI 0	518598	2592.99	Without Scanner	24.34	25.20	1.219			-0.13	0.183	0.223
	FR1 n41	100M	BPSK	1	1	Edge 3	0mm	Ant 5	DSI 7	518598	2592.99	Without Scanner	24.58	25.20	1.153			-0.16	0.063	0.073
	FR1 n41	100M	BPSK	135	69	Edge 3	0mm	Ant 5	DSI 7	518598	2592.99	Without Scanner	24.34	25.20	1.219			0.14	0.053	0.065
	FR1 n41	100M	BPSK	1	1	Edge 4	0mm	Ant 5	DSI 7	518598	2592.99	Without Scanner	24.58	25.20	1.153			-0.12	0.640	0.738
	FR1 n41	100M	BPSK	135	69	Edge 4	0mm	Ant 5	DSI 7	518598	2592.99	Without Scanner	24.34	25.20	1.219			0.15	0.468	0.571
	FR1 n41	100M	BPSK	1	1	Bottom Face	19mm	Ant 5	DSI 0	518598	2592.99	Without Scanner	24.58	25.20	1.153			0.12	0.761	0.877
	FR1 n41	100M	BPSK	135	69	Bottom Face	19mm	Ant 5	DSI 0	518598	2592.99	Without Scanner	24.34	25.20	1.219			-0.15	0.705	0.859
	FR1 n41	100M	BPSK	270	0	Bottom Face	19mm	Ant 5	DSI 0	518598	2592.99	Without Scanner	23.89	24.70	1.205			0.01	0.703	0.847
	FR1 n41 HPUE	100M	BPSK	270	0	Bottom Face	0mm	Ant 5	DSI 7	518598	2592.99	Without Scanner	15.51	16.50	1.256	50.0	1.0	0.17	0.831	1.044
	FR1 n41 HPUE	100M	BPSK	1	1	Bottom Face	19mm	Ant 5	DSI 0	518598	2592.99	Without Scanner	26.85	27.00	1.035	50.0	1.0	-0.14	0.701	0.726
	FR1 n41	100M	BPSK	1	1	Edge 3	17mm	Ant 5	DSI 0	518598	2592.99	Without Scanner	24.58	25.20	1.153			0.07	0.149	0.172
	FR1 n41	100M	BPSK	135	69	Edge 3	17mm	Ant 5	DSI 0	518598	2592.99	Without Scanner	24.34	25.20	1.219			0.09	0.141	0.172
	FR1 n41	100M	BPSK	1	1	Edge 4	24mm	Ant 5	DSI 0	518598	2592.99	Without Scanner	24.58	25.20	1.153			-0.03	0.705	0.813
	FR1 n41	100M	BPSK	135	69	Edge 4	24mm	Ant 5	DSI 0	518598	2592.99	Without Scanner	24.34	25.20	1.219			0.04	0.701	0.855
	FR1 n41	100M	BPSK	270	0	Edge 4	24mm	Ant 5	DSI 0	518598	2592.99	Without Scanner	23.89	24.70	1.205			0.02	0.703	0.847
	FR1 n41	100M	BPSK	270	0	Bottom Face	0mm	Ant 5	DSI 7	518598	2592.99	With Scanner	23.89	24.70	1.205			0.03	0.765	0.922
	FR1 n41	100M	BPSK	1	1	Bottom Face	0mm	Ant 8	DSI 7	518598	2592.99	Without Scanner	13.35	14.40	1.274			0.08	0.672	0.856
	FR1 n41	100M	BPSK	135	69	Bottom Face	0mm	Ant 8	DSI 7	518598	2592.99	Without Scanner	13.33	14.40	1.279			0.07	0.765	0.979
	FR1 n41	100M	BPSK	270	0	Bottom Face	0mm	Ant 8	DSI 7	518598	2592.99	Without Scanner	13.31	14.40	1.285			-0.16	0.772	0.992
	FR1 n41	100M	BPSK	1	1	Edge 1	0mm	Ant 8	DSI 7	518598	2592.99	Without Scanner	13.35	14.40	1.274			-0.17	0.381	0.485
	FR1 n41	100M	BPSK	135	69	Edge 1	0mm	Ant 8	DSI 7	518598	2592.99	Without Scanner	13.33	14.40	1.279			-0.12	0.411	0.526
	FR1 n41	100M	BPSK	1	1	Edge 2	0mm	Ant 8	DSI 0	518598	2592.99	Without Scanner	24.61	25.20	1.146			0.15	0.399	0.457
	FR1 n41	100M	BPSK	135	69	Edge 2	0mm	Ant 8	DSI 0	518598	2592.99	Without Scanner	24.31	25.20	1.227			0.14	0.523	0.642
	FR1 n41	100M	BPSK	1	1	Edge 3	0mm	Ant 8	DSI 0	518598	2592.99	Without Scanner	24.61	25.20	1.146			0.11	0.010	0.011
	FR1 n41	100M	BPSK	135	69	Edge 3	0mm	Ant 8	DSI 0	518598	2592.99	Without Scanner	24.31	25.20	1.227			-0.10	0.066	0.081
	FR1 n41	100M	BPSK	1	1	Edge 4	0mm	Ant 8	DSI 7	518598	2592.99	Without Scanner	13.35	14.40	1.274			0.09	0.697	0.888
	FR1 n41	100M	BPSK	135	69	Edge 4	0mm	Ant 8	DSI 7	518598	2592.99	Without Scanner	13.33	14.40	1.279			-0.05	0.759	0.971
	FR1 n41	100M	BPSK	270	0	Edge 4	0mm	Ant 8	DSI 7	518598	2592.99	Without Scanner	13.31	14.40	1.285			0.08	0.852	1.095
	FR1 n41	100M	BPSK	1	1	Bottom Face	41mm	Ant 8	DSI 0	518598	2592.99	Without Scanner	24.61	25.20	1.146			-0.05	0.185	0.212
	FR1 n41	100M	BPSK	135	69	Bottom Face	41mm	Ant 8	DSI 0	518598	2592.99	Without Scanner	24.31	25.20	1.227			0.10	0.181	0.222
	FR1 n41	100M	BPSK	1	1	Edge 1	18mm	Ant 8	DSI 0	518598	2592.99	Without Scanner	24.61	25.20	1.146			-0.18	0.612	0.701
	FR1 n41	100M	BPSK	135	69	Edge 1	18mm	Ant 8	DSI 0	518598	2592.99	Without Scanner	24.31	25.20	1.227			-0.04	0.561	0.688
	FR1 n41 HPUE	100M	BPSK	1	1	Edge 1	18mm	Ant 8	DSI 0	518598	2592.99	Without Scanner	26.84	27.00	1.038	50.0	1.0	0.03	0.601	0.624
	FR1 n41	100M	BPSK	1	1	Edge 4	44mm	Ant 8	DSI 0	518598	2592.99	Without Scanner	24.61	25.20	1.146			-0.17	0.344	0.394
	FR1 n41 HPUE	100M	BPSK	270	0	Edge 4	0mm	Ant 8	DSI 7	518598	2592.99	Without Scanner	16.31	17.40	1.285	50.0	1.0	0.06	0.801	1.029
	FR1 n41	100M	BPSK	135	69	Edge 4	44mm	Ant 8	DSI 0	518598	2592.99	Without Scanner	24.31	25.20	1.227			-0.05	0.321	0.394
	FR1 n41	100M	BPSK	270	0	Edge 4	0mm	Ant 8	DSI 7	518598	2592.99	With Scanner	13.31	14.40	1.285			0.01	0.791	1.016
	FR1 n48	40M	BPSK	1	1	Bottom Face	0mm	Ant 8	DSI 7	641666	3624.99	Without Scanner	12.05	13.00	1.245			0.12	0.390	0.486
	FR1 n48	40M	BPSK	50	28	Bottom Face	0mm	Ant 8	DSI 7	641666	3624.99	Without Scanner	11.91	13.00	1.285			-0.16	0.357	0.459
	FR1 n48	40M	BPSK	1	1	Edge 1	0mm	Ant 8	DSI 7	641666	3624.99	Without Scanner	12.05	13.00	1.245			-0.06	0.068	0.085
	FR1 n48	40M	BPSK	50	28	Edge 1	0mm	Ant 8	DSI 7	641666	3624.99	Without Scanner	11.91	13.00	1.285			0.19	0.063	0.081
	FR1 n48	40M	BPSK	1	1	Edge 2	0mm	Ant 8	DSI 0	641666	3624.99	Without Scanner	16.78	18.00	1.324			-0.14	0.063	0.083
	FR1 n48	40M	BPSK	50	28	Edge 2	0mm	Ant 8	DSI 0	641666	3624.99	Without Scanner	16.77	18.00	1.327			-0.05	0.068	0.090
	FR1 n48	40M	BPSK	1	1	Edge 3	0mm	Ant 8	DSI 0	641666	3624.99	Without Scanner	16.78	18.00	1.324			0.11	0.086	0.114
	FR1 n48	40M	BPSK	50	28	Edge 3	0mm	Ant 8	DSI 0	641666	3624.99	Without Scanner	16.77	18.00	1.327			-0.07	0.101	0.134
	FR1 n48	40M	BPSK	1	1	Edge 4	0mm	Ant 8	DSI 7	641666	3624.99	Without Scanner	12.05	13.00	1.245			0.09	0.774	0.964
	FR1 n48	40M	BPSK	1	1	Edge 4	0mm	Ant 8	DSI 7	638000	3570	Without Scanner	11.86	13.00	1.3			-0.06	0.768	0.999
	FR1 n48	40M	BPSK	1	1	Edge 4	0mm	Ant 8	DSI 7	645332	3679.98	Without Scanner	11.78	13.00	1.324			0.06	0.835	1.105
	FR1 n48	40M	BPSK	50	28	Edge 4	0mm	Ant 8	DSI 7	641666	3624.99	Without Scanner	11.91	13.00	1.285			0.02	0.865	1.112
	FR1 n48	40M	BPSK	50	28	Edge 4	0mm	Ant 8	DSI 7	638000	3570	Without Scanner	11.73	13.00	1.34			-0.12	0.798	1.070
	FR1 n48	40M	BPSK	50	28	Edge 4	0mm	Ant 8	DSI 7	645332	3679.98	Without Scanner	11.79	13.00	1.321			0.09	0.684	0.903
	FR1 n48	40M	BPSK	100	0	Edge 4	0mm	Ant 8	DSI 7	641666	3624.99	Without Scanner	11.72	13.00	1.343			0.18	0.732	0.983
	FR1 n48	40M	BPSK	1	1	Bottom Face	41mm	Ant 8	DSI 0	641666	3624.99	Without Scanner	16.78	18.00	1.324			-0.09	0.215	0.285
	FR1 n48	40M																		



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	FR1 n48	40M	BPSK	50	28	Edge 1	18mm	Ant 8	DSI 0	641666	3624.99	Without Scanner	16.77	18.00	1.327			0.08	0.121	0.161
	FR1 n48	40M	BPSK	1	1	Edge 4	44mm	Ant 8	DSI 0	641666	3624.99	Without Scanner	16.78	18.00	1.324			-0.15	0.156	0.207
	FR1 n48	40M	BPSK	50	28	Edge 4	44mm	Ant 8	DSI 0	641666	3624.99	Without Scanner	16.77	18.00	1.327			0.18	0.125	0.166
	FR1 n48	40M	BPSK	50	28	Edge 4	0mm	Ant 8	DSI 7	641666	3624.99	With Scanner	11.91	13.00	1.285			0.05	0.795	1.022
	FR1 n48	40M	BPSK	1	1	Bottom Face	0mm	Ant 9	DSI 7	641666	3624.99	Without Scanner	13.65	14.90	1.334			-0.07	0.693	0.924
	FR1 n48	40M	BPSK	1	1	Bottom Face	0mm	Ant 9	DSI 7	638000	3570	Without Scanner	13.51	14.90	1.377			-0.11	0.730	1.005
	FR1 n48	40M	BPSK	1	1	Bottom Face	0mm	Ant 9	DSI 7	645332	3679.98	Without Scanner	13.53	14.90	1.371			-0.11	0.637	0.873
	FR1 n48	40M	BPSK	50	28	Bottom Face	0mm	Ant 9	DSI 7	641666	3624.99	Without Scanner	13.57	14.90	1.358			-0.12	0.611	0.830
	FR1 n48	40M	BPSK	50	28	Bottom Face	0mm	Ant 9	DSI 7	638000	3570	Without Scanner	13.49	14.90	1.384			-0.05	0.697	0.964
	FR1 n48	40M	BPSK	50	28	Bottom Face	0mm	Ant 9	DSI 7	645332	3679.98	Without Scanner	13.56	14.90	1.361			0.07	0.629	0.856
	FR1 n48	40M	BPSK	100	0	Bottom Face	0mm	Ant 9	DSI 7	641666	3624.99	Without Scanner	13.42	14.90	1.406			0.13	0.603	0.848
	FR1 n48	40M	BPSK	1	1	Edge 1	0mm	Ant 9	DSI 0	641666	3624.99	Without Scanner	16.68	18.00	1.355			-0.04	0.091	1.023
	FR1 n48	40M	BPSK	50	28	Edge 1	0mm	Ant 9	DSI 0	641666	3624.99	Without Scanner	16.67	18.00	1.358			0.03	0.083	0.113
	FR1 n48	40M	BPSK	1	1	Edge 2	0mm	Ant 9	DSI 0	641666	3624.99	Without Scanner	16.68	18.00	1.355			-0.09	0.032	0.043
	FR1 n48	40M	BPSK	50	28	Edge 2	0mm	Ant 9	DSI 0	641666	3624.99	Without Scanner	16.67	18.00	1.358			-0.06	0.025	0.034
	FR1 n48	40M	BPSK	1	1	Edge 3	0mm	Ant 9	DSI 0	641666	3624.99	Without Scanner	16.68	18.00	1.355			-0.17	0.081	0.110
	FR1 n48	40M	BPSK	50	28	Edge 3	0mm	Ant 9	DSI 0	641666	3624.99	Without Scanner	16.67	18.00	1.358			0.13	0.083	0.113
	FR1 n48	40M	BPSK	1	1	Edge 4	0mm	Ant 9	DSI 7	641666	3624.99	Without Scanner	13.65	14.90	1.334			0.00	0.813	1.084
	FR1 n48	40M	BPSK	1	1	Edge 4	0mm	Ant 9	DSI 7	638000	3570	Without Scanner	13.51	14.90	1.377			0.11	0.803	1.105
	FR1 n48	40M	BPSK	1	1	Edge 4	0mm	Ant 9	DSI 7	645332	3679.98	Without Scanner	13.53	14.90	1.371			0.09	0.780	1.069
	FR1 n48	40M	BPSK	50	28	Edge 4	0mm	Ant 9	DSI 7	641666	3624.99	Without Scanner	13.57	14.90	1.358			-0.03	0.705	0.957
	FR1 n48	40M	BPSK	50	28	Edge 4	0mm	Ant 9	DSI 7	638000	3570	Without Scanner	13.49	14.90	1.384			0.01	0.700	0.968
31	FR1 n48	40M	BPSK	50	28	Edge 4	0mm	Ant 9	DSI 7	645332	3679.98	Without Scanner	13.56	14.90	1.361			0.04	0.821	1.117
	FR1 n48	40M	BPSK	100	0	Edge 4	0mm	Ant 9	DSI 7	641666	3624.99	Without Scanner	13.42	14.90	1.406			-0.01	0.661	0.929
	FR1 n48	40M	BPSK	1	1	Bottom Face	16mm	Ant 9	DSI 0	641666	3624.99	Without Scanner	16.68	18.00	1.355			-0.13	0.201	0.272
	FR1 n48	40M	BPSK	50	28	Bottom Face	16mm	Ant 9	DSI 0	641666	3624.99	Without Scanner	16.67	18.00	1.358			-0.09	0.205	0.278
	FR1 n48	40M	BPSK	1	1	Edge 4	27mm	Ant 9	DSI 0	641666	3624.99	Without Scanner	16.68	18.00	1.355			0.18	0.213	0.289
	FR1 n48	40M	BPSK	50	28	Edge 4	27mm	Ant 9	DSI 0	641666	3624.99	Without Scanner	16.67	18.00	1.358			0.05	0.201	0.273
	FR1 n48	40M	BPSK	50	28	Edge 4	0mm	Ant 9	DSI 7	645332	3679.98	With Scanner	13.56	14.90	1.361			0.05	0.758	1.032

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)
	FR1 n77	100M	BPSK	1	1	Bottom Face	0mm	Ant 3	DSI 0	633332	3499.98	Without Scanner	9.85	11	1.303	100	1.000	0.04	0.852	1.11
	FR1 n77	100M	BPSK	135	69	Bottom Face	0mm	Ant 3	DSI 0	633332	3499.98	Without Scanner	9.81	11	1.315	100	1.000	0.09	0.858	1.128
	FR1 n77	100M	BPSK	270	0	Bottom Face	0mm	Ant 3	DSI 0	633332	3499.98	Without Scanner	9.71	11	1.346	100	1.000	0.17	0.757	1.018
	FR1 n77	100M	BPSK	1	1	Edge 3	0mm	Ant 3	DSI 0	633332	3499.98	Without Scanner	9.85	11	1.303	100	1.000	-0.02	0.478	0.623
	FR1 n77	100M	BPSK	135	69	Edge 3	0mm	Ant 3	DSI 0	633332	3499.98	Without Scanner	9.81	11	1.315	100	1.000	-0.03	0.538	0.708
	FR1 n77	100M	BPSK	1	1	Edge 4	0mm	Ant 3	DSI 0	633332	3499.98	Without Scanner	9.85	11	1.303	100	1.000	0.05	0.015	0.02
	FR1 n77	100M	BPSK	135	69	Edge 4	0mm	Ant 3	DSI 0	633332	3499.98	Without Scanner	9.81	11	1.315	100	1.000	-0.01	0.016	0.021
	FR1 n77	100M	BPSK	135	69	Bottom Face	0mm	Ant 3	DSI 0	633332	3499.98	With Scanner	9.81	11	1.315	100	1.000	0.06	0.788	1.036
	FR1 n77 HPUE	100M	BPSK	135	69	Bottom Face	0mm	Ant 3	DSI 0	633332	3499.98	Without Scanner	12.88	14	1.294	50	1.000	0.09	0.801	1.036
	FR1 n77	100M	BPSK	1	1	Bottom Face	0mm	Ant 4	DSI 0	633332	3499.98	Without Scanner	17.69	19	1.352	100	1.000	0.03	0.336	0.455
	FR1 n77	100M	BPSK	135	69	Bottom Face	0mm	Ant 4	DSI 0	633332	3499.98	Without Scanner	17.61	19	1.377	100	1.000	0.08	0.404	0.556
	FR1 n77	100M	BPSK	1	1	Edge 1	0mm	Ant 4	DSI 0	633332	3499.98	Without Scanner	17.69	19	1.352	100	1.000	0	0.089	0.12
	FR1 n77	100M	BPSK	135	69	Edge 1	0mm	Ant 4	DSI 0	633332	3499.98	Without Scanner	17.61	19	1.377	100	1.000	0.14	0.109	0.15
	FR1 n77	100M	BPSK	1	1	Edge 2	0mm	Ant 4	DSI 0	633332	3499.98	Without Scanner	17.69	19	1.352	100	1.000	0.05	0.733	0.991
32	FR1 n77	100M	BPSK	135	69	Edge 2	0mm	Ant 4	DSI 0	633332	3499.98	Without Scanner	17.61	19	1.377	100	1.000	0.13	0.836	1.151
	FR1 n77	100M	BPSK	270	0	Edge 2	0mm	Ant 4	DSI 0	633332	3499.98	Without Scanner	17.56	19	1.393	100	1.000	-0.17	0.723	1.007
	FR1 n77	100M	BPSK	135	69	Edge 2	0mm	Ant 4	DSI 0	633332	3499.98	With Scanner	17.61	19	1.377	100	1.000	0.03	0.758	1.044
	FR1 n77 HPUE	100M	BPSK	135	69	Edge 2	0mm	Ant 4	DSI 0	633332	3499.98	Without Scanner	21.41	22	1.146	50	1.000	0.01	0.926	1.061
	FR1 n77	100M	BPSK	1	1	Bottom Face	0mm	Ant 8	DSI 7	633332	3499.98	Without Scanner	11.21	12.4	1.315	100	1.000	-0.15	0.392	0.515
	FR1 n77	100M	BPSK	135	69	Bottom Face	0mm	Ant 8	DSI 7	633332	3499.98	Without Scanner	11.2	12.4	1.318	100	1.000	-0.19	0.395	0.521
	FR1 n77	100M	BPSK	1	1	Edge 1	0mm	Ant 8	DSI 7	633332	3499.98	Without Scanner	11.21	12.4	1.315	100	1.000	0.15	0.084	0.11
	FR1 n77	100M	BPSK	135	69	Edge 1	0mm	Ant 8	DSI 7	633332	3499.98	Without Scanner	11.2	12.4	1.318	100	1.000	-0.06	0.077	0.102
	FR1 n77	100M	BPSK	1	1	Edge 2	0mm	Ant 8	DSI 0	633332	3499.98	Without Scanner	24.11	25.7	1.442	100	1.000	0.09	0.066	0.095
	FR1 n77	100M	BPSK	135	69	Edge 2	0mm	Ant 8	DSI 0	633332	3499.98	Without Scanner	24.03	25.7	1.469	100	1.000	-0.12	0.068	0.1
	FR1 n77	100M	BPSK	1	1	Edge 3	0mm	Ant 8	DSI 0	633332	3499.98	Without Scanner	24.11	25.7	1.442	100	1.000	-0.01	0.174	0.251
	FR1 n77	100M	BPSK	135	69	Edge 3	0mm	Ant 8	DSI 0	633332	3499.98	Without Scanner	24.03	25.7	1.469	100	1.000	-0.05	0.123	0.181
	FR1 n77	100M	BPSK	1	1	Edge 4	0mm	Ant 8	DSI 7	633332	3499.98	Without Scanner	11.21	12.4	1.315	100	1.000	0.08	0.858	1.128
	FR1 n77	100M	BPSK	135	69	Edge 4	0mm	Ant 8	DSI 7	633332	3499.98	Without Scanner	11.2	12.4	1.318	100	1.000	-0.05	0.770	1.015
	FR1 n77	100M	BPSK	270	0	Edge 4	0mm	Ant 8	DSI 7	633332	3499.98	Without Scanner	11.17	12.4	1.327	100	1.000	-0.03	0.689	0.914
	FR1 n77	100M	BPSK	1	1	Edge 4	0mm	Ant 8	DSI 7	633332	3499.98	With Scanner	11.21	12.4	1.315	100	1.000	0.05	0.782	1.028



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FR1 n77	100M	BPSK	1	1	Bottom Face	41mm	Ant 8	DSI 0	6333323499.98	Without Scanner	24.11	25.7	1.442	100	1.000	0.03	0.351	0.506
FR1 n77	100M	BPSK	135	69	Bottom Face	41mm	Ant 8	DSI 0	6333323499.98	Without Scanner	24.03	25.7	1.469	100	1.000	-0.09	0.332	0.488
FR1 n77	100M	BPSK	1	1	Edge 1	18mm	Ant 8	DSI 0	6333323499.98	Without Scanner	24.11	25.7	1.442	100	1.000	-0.04	0.321	0.463
FR1 n77	100M	BPSK	135	69	Edge 1	18mm	Ant 8	DSI 0	6333323499.98	Without Scanner	24.03	25.7	1.469	100	1.000	-0.13	0.315	0.463
FR1 n77	100M	BPSK	1	1	Edge 4	44mm	Ant 8	DSI 0	6333323499.98	Without Scanner	24.11	25.7	1.442	100	1.000	-0.15	0.278	0.401
FR1 n77	100M	BPSK	135	69	Edge 4	44mm	Ant 8	DSI 0	6333323499.98	Without Scanner	24.03	25.7	1.469	100	1.000	-0.08	0.271	0.398
FR1 n77 HPUE	100M	BPSK	1	1	Edge 4	0mm	Ant 8	DSI 7	6333323499.98	Without Scanner	14.25	15.4	1.303	50	1.000	0.06	0.788	1.027
FR1 n77	100M	BPSK	1	1	Bottom Face	0mm	Ant 9	DSI 7	6333323499.98	Without Scanner	13.81	13.9	1.021	100	1.000	0.05	0.621	0.634
FR1 n77	100M	BPSK	135	69	Bottom Face	0mm	Ant 9	DSI 7	6333323499.98	Without Scanner	13.75	13.9	1.035	100	1.000	-0.13	0.615	0.636
FR1 n77	100M	BPSK	1	1	Bottom Face	16mm	Ant 9	DSI 0	6333323499.98	With Scanner	24.51	25.7	1.315	100	1.000	0.05	0.468	0.615
FR1 n77	100M	BPSK	1	1	Edge 3	0mm	Ant 9	DSI 0	6333323499.98	Without Scanner	24.51	25.7	1.315	100	1.000	-0.18	0.127	0.167
FR1 n77	100M	BPSK	135	69	Edge 3	0mm	Ant 9	DSI 0	6333323499.98	Without Scanner	24.46	25.7	1.330	100	1.000	0.02	0.183	0.243
FR1 n77	100M	BPSK	1	1	Edge 4	0mm	Ant 9	DSI 7	6333323499.98	Without Scanner	13.81	13.9	1.021	100	1.000	-0.16	0.423	0.432
FR1 n77	100M	BPSK	135	69	Edge 4	0mm	Ant 9	DSI 7	6333323499.98	Without Scanner	13.75	13.9	1.035	100	1.000	-0.18	0.537	0.555
FR1 n77	100M	BPSK	1	1	Bottom Face	16mm	Ant 9	DSI 0	6333323499.98	Without Scanner	24.51	25.7	1.315	100	1.000	0.14	0.571	0.751
FR1 n77	100M	BPSK	135	69	Bottom Face	16mm	Ant 9	DSI 0	6333323499.98	Without Scanner	24.46	25.7	1.330	100	1.000	0.08	0.561	0.746
FR1 n77	100M	BPSK	1	1	Edge 4	27mm	Ant 9	DSI 0	6333323499.98	Without Scanner	24.51	25.7	1.315	100	1.000	-0.15	0.323	0.425
FR1 n77	100M	BPSK	135	69	Edge 4	27mm	Ant 9	DSI 0	6333323499.98	Without Scanner	24.46	25.7	1.330	100	1.000	0.11	0.321	0.427
FR1 n77 HPUE	100M	BPSK	1	1	Bottom Face	16mm	Ant 9	DSI 0	6333323499.98	Without Scanner	24.51	25.7	1.315	50	1.000	0.01	0.309	0.406
FR1 n77/n78	100M	BPSK	1	1	Bottom Face	0mm	Ant 3	DSI 0	6416663624.99	Without Scanner	9.45	11	1.429	100	1.000	0.04	0.473	0.676
FR1 n77/n78	100M	BPSK	135	69	Bottom Face	0mm	Ant 3	DSI 0	6416663624.99	Without Scanner	9.41	11	1.442	100	1.000	0.04	0.569	0.82
FR1 n77/n78	100M	BPSK	270	0	Bottom Face	0mm	Ant 3	DSI 0	6416663624.99	Without Scanner	9.42	11	1.439	100	1.000	0	0.501	0.722
FR1 n77/n78	100M	BPSK	1	1	Edge 3	0mm	Ant 3	DSI 0	6416663624.99	Without Scanner	9.45	11	1.429	100	1.000	-0.02	0.323	0.461
FR1 n77/n78	100M	BPSK	135	69	Edge 3	0mm	Ant 3	DSI 0	6416663624.99	Without Scanner	9.41	11	1.442	100	1.000	0.11	0.373	0.538
FR1 n77/n78	100M	BPSK	1	1	Edge 4	0mm	Ant 3	DSI 0	6416663624.99	Without Scanner	9.45	11	1.429	100	1.000	-0.03	0.009	0.013
FR1 n77/n78	100M	BPSK	135	69	Edge 4	0mm	Ant 3	DSI 0	6416663624.99	Without Scanner	9.41	11	1.442	100	1.000	-0.16	0.005	0.007
FR1 n77/n78	100M	BPSK	135	69	Bottom Face	0mm	Ant 3	DSI 0	6416663624.99	With Scanner	9.41	11	1.442	100	1.000	0.01	0.492	0.709
FR1 n77/n78	100M	BPSK	1	1	Bottom Face	0mm	Ant 4	DSI 0	6416663624.99	Without Scanner	17.79	19	1.321	100	1.000	-0.13	0.189	0.25
FR1 n77/n78	100M	BPSK	135	69	Bottom Face	0mm	Ant 4	DSI 0	6416663624.99	Without Scanner	17.73	19	1.340	100	1.000	-0.01	0.231	0.31
FR1 n77/n78	100M	BPSK	1	1	Edge 1	0mm	Ant 4	DSI 0	6416663624.99	Without Scanner	17.79	19	1.321	100	1.000	0.12	0.055	0.073
FR1 n77/n78	100M	BPSK	135	69	Edge 1	0mm	Ant 4	DSI 0	6416663624.99	Without Scanner	17.73	19	1.340	100	1.000	0.12	0.062	0.083
FR1 n77/n78	100M	BPSK	1	1	Edge 2	0mm	Ant 4	DSI 0	6416663624.99	Without Scanner	17.79	19	1.321	100	1.000	0.02	0.620	0.819
FR1 n77/n78	100M	BPSK	135	69	Edge 2	0mm	Ant 4	DSI 0	6416663624.99	Without Scanner	17.73	19	1.340	100	1.000	0.11	0.580	0.777
FR1 n77/n78	100M	BPSK	270	0	Edge 2	0mm	Ant 4	DSI 0	6416663624.99	Without Scanner	17.69	19	1.352	100	1.000	0.02	0.531	0.718
FR1 n77/n78	100M	BPSK	1	1	Edge 2	0mm	Ant 4	DSI 0	6416663624.99	With Scanner	17.79	19	1.321	100	1.000	0.03	0.595	0.786
FR1 n77/n78	100M	BPSK	1	1	Bottom Face	0mm	Ant 8	DSI 7	6416663624.99	Without Scanner	11.31	12.4	1.285	100	1.000	-0.04	0.346	0.445
FR1 n77/n78	100M	BPSK	135	69	Bottom Face	0mm	Ant 8	DSI 7	6416663624.99	Without Scanner	11.2	12.4	1.318	100	1.000	-0.1	0.300	0.395
FR1 n77/n78	100M	BPSK	1	1	Edge 1	0mm	Ant 8	DSI 7	6416663624.99	Without Scanner	11.31	12.4	1.285	100	1.000	-0.15	0.060	0.077
FR1 n77/n78	100M	BPSK	135	69	Edge 1	0mm	Ant 8	DSI 7	6416663624.99	Without Scanner	11.2	12.4	1.318	100	1.000	0.02	0.049	0.064
FR1 n77/n78	100M	BPSK	1	1	Edge 2	0mm	Ant 8	DSI 0	6416663624.99	Without Scanner	17.98	19	1.265	100	1.000	-0.18	0.078	0.099
FR1 n77/n78	100M	BPSK	135	69	Edge 2	0mm	Ant 8	DSI 0	6416663624.99	Without Scanner	17.97	19	1.268	100	1.000	-0.14	0.073	0.093
FR1 n77/n78	100M	BPSK	1	1	Edge 3	0mm	Ant 8	DSI 0	6416663624.99	Without Scanner	17.98	19	1.265	100	1.000	0.17	0.122	0.154
FR1 n77/n78	100M	BPSK	135	69	Edge 3	0mm	Ant 8	DSI 0	6416663624.99	Without Scanner	17.97	19	1.268	100	1.000	0.11	0.149	0.189
FR1 n77/n78	100M	BPSK	1	1	Edge 4	0mm	Ant 8	DSI 7	6416663624.99	Without Scanner	11.31	12.4	1.285	100	1.000	0.06	0.679	0.873
FR1 n77/n78	100M	BPSK	135	69	Edge 4	0mm	Ant 8	DSI 7	6416663624.99	Without Scanner	11.2	12.4	1.318	100	1.000	-0.11	0.572	0.754
FR1 n77/n78	100M	BPSK	270	0	Edge 4	0mm	Ant 8	DSI 7	6416663624.99	Without Scanner	11.12	12.4	1.343	100	1.000	0.17	0.601	0.807
FR1 n77/n78	100M	BPSK	1	1	Edge 4	0mm	Ant 8	DSI 7	6416663624.99	With Scanner	11.31	12.4	1.285	100	1.000	0.03	0.545	0.7
FR1 n77/n78	100M	BPSK	1	1	Bottom Face	41mm	Ant 8	DSI 0	6416663624.99	Without Scanner	17.98	19	1.265	100	1.000	0.06	0.322	0.407
FR1 n77/n78	100M	BPSK	135	69	Bottom Face	41mm	Ant 8	DSI 0	6416663624.99	Without Scanner	17.97	19	1.268	100	1.000	0.09	0.301	0.382
FR1 n77/n78	100M	BPSK	1	1	Edge 1	18mm	Ant 8	DSI 0	6416663624.99	Without Scanner	17.98	19	1.265	100	1.000	0.15	0.221	0.28
FR1 n77/n78	100M	BPSK	135	69	Edge 1	18mm	Ant 8	DSI 0	6416663624.99	Without Scanner	17.97	19	1.268	100	1.000	0.04	0.215	0.273
FR1 n77/n78	100M	BPSK	1	1	Edge 4	44mm	Ant 8	DSI 0	6416663624.99	Without Scanner	17.98	19	1.265	100	1.000	0.17	0.280	0.354
FR1 n77/n78	100M	BPSK	135	69	Edge 4	44mm	Ant 8	DSI 0	6416663624.99	Without Scanner	17.97	19	1.268	100	1.000	0.09	0.261	0.331
FR1 n77/n78	100M	BPSK	1	1	Bottom Face	0mm	Ant 9	DSI 7	6416663624.99	Without Scanner	13.89	13.9	1.002	100	1.000	-0.01	0.539	0.54
FR1 n77/n78	100M	BPSK	135	69	Bottom Face	0mm	Ant 9	DSI 7	6416663624.99	Without Scanner	13.85	13.9	1.012	100	1.000	-0.18	0.526	0.532
FR1 n77/n78	100M	BPSK	1	1	Edge 3	0mm	Ant 9	DSI 0	6416663624.99	Without Scanner	17.78	19	1.324	100	1.000	-0.07	0.149	0.197



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FR1 n77/n78	100M	BPSK	135	69	Edge 3	0mm	Ant 9	DSI 0	641666	3624.99	Without Scanner	17.76	19	1.330	100	1.000	0.08	0.139	0.185
FR1 n77/n78	100M	BPSK	1	1	Edge 4	0mm	Ant 9	DSI 7	641666	3624.99	Without Scanner	13.89	13.9	1.002	100	1.000	0.02	0.676	0.677
FR1 n77/n78	100M	BPSK	135	69	Edge 4	0mm	Ant 9	DSI 7	641666	3624.99	Without Scanner	13.85	13.9	1.012	100	1.000	0.02	0.656	0.664
FR1 n77/n78	100M	BPSK	1	1	Edge 4	0mm	Ant 9	DSI 7	641666	3624.99	With Scanner	13.89	13.9	1.002	100	1.000	0.04	0.588	0.589
FR1 n77/n78	100M	BPSK	1	1	Bottom Face	16mm	Ant 9	DSI 0	641666	3624.99	Without Scanner	17.78	19	1.324	100	1.000	-0.06	0.451	0.597
FR1 n77/n78	100M	BPSK	135	69	Bottom Face	16mm	Ant 9	DSI 0	641666	3624.99	Without Scanner	17.76	19	1.330	100	1.000	0.01	0.452	0.601
FR1 n77/n78	100M	BPSK	1	1	Edge 4	27mm	Ant 9	DSI 0	641666	3624.99	Without Scanner	17.78	19	1.324	100	1.000	-0.14	0.465	0.616
FR1 n77/n78	100M	BPSK	135	69	Edge 4	27mm	Ant 9	DSI 0	641666	3624.99	Without Scanner	17.76	19	1.330	100	1.000	-0.13	0.461	0.613
FR1 n77	100M	BPSK	1	1	Bottom Face	0mm	Ant 3	DSI 0	656000	3840	Without Scanner	10.21	11	1.199	100	1.000	-0.06	0.732	0.878
FR1 n77	100M	BPSK	135	69	Bottom Face	0mm	Ant 3	DSI 0	656000	3840	Without Scanner	10.16	11	1.213	100	1.000	-0.09	0.596	0.723
FR1 n77	100M	BPSK	270	0	Bottom Face	0mm	Ant 3	DSI 0	656000	3840	Without Scanner	10.09	11	1.233	100	1.000	0.06	0.579	0.713
FR1 n77	100M	BPSK	1	1	Edge 3	0mm	Ant 3	DSI 0	656000	3840	Without Scanner	10.21	11	1.199	100	1.000	-0.1	0.325	0.389
FR1 n77	100M	BPSK	135	69	Edge 3	0mm	Ant 3	DSI 0	656000	3840	Without Scanner	10.16	11	1.213	100	1.000	0.15	0.470	0.57
FR1 n77	100M	BPSK	1	1	Edge 4	0mm	Ant 3	DSI 0	656000	3840	Without Scanner	10.21	11	1.199	100	1.000	0.17	0.043	0.052
FR1 n77	100M	BPSK	135	69	Edge 4	0mm	Ant 3	DSI 0	656000	3840	Without Scanner	10.16	11	1.213	100	1.000	0	0.051	0.062
FR1 n77	100M	BPSK	1	1	Bottom Face	0mm	Ant 3	DSI 0	656000	3840	With Scanner	10.21	11	1.199	100	1.000	0.07	0.681	0.817
FR1 n77 HPUE	100M	BPSK	1	1	Bottom Face	0mm	Ant 3	DSI 0	656000	3840	Without Scanner	13.25	14	1.189	50	1.000	0.01	0.704	0.837
FR1 n77	100M	BPSK	1	1	Bottom Face	0mm	Ant 4	DSI 0	656000	3840	Without Scanner	17.75	19	1.334	100	1.000	-0.18	0.434	0.58
FR1 n77	100M	BPSK	135	69	Bottom Face	0mm	Ant 4	DSI 0	656000	3840	Without Scanner	17.72	19	1.343	100	1.000	0.11	0.349	0.469
FR1 n77	100M	BPSK	1	1	Edge 1	0mm	Ant 4	DSI 0	656000	3840	Without Scanner	17.75	19	1.334	100	1.000	0.17	0.060	0.08
FR1 n77	100M	BPSK	135	69	Edge 1	0mm	Ant 4	DSI 0	656000	3840	Without Scanner	17.72	19	1.343	100	1.000	0.14	0.094	0.126
FR1 n77	100M	BPSK	1	1	Edge 2	0mm	Ant 4	DSI 0	656000	3840	Without Scanner	17.75	19	1.334	100	1.000	0.19	0.692	0.923
FR1 n77	100M	BPSK	135	69	Edge 2	0mm	Ant 4	DSI 0	656000	3840	Without Scanner	17.72	19	1.343	100	1.000	-0.02	0.655	0.88
FR1 n77	100M	BPSK	270	0	Edge 2	0mm	Ant 4	DSI 0	656000	3840	Without Scanner	17.63	19	1.371	100	1.000	0.01	0.605	0.829
FR1 n77	100M	BPSK	1	1	Edge 2	0mm	Ant 4	DSI 0	656000	3840	With Scanner	17.75	19	1.334	100	1.000	0.05	0.615	0.82
FR1 n77 HPUE	100M	BPSK	1	1	Edge 2	0mm	Ant 4	DSI 0	656000	3840	Without Scanner	21.73	22	1.064	50	1.000	0.02	0.787	0.837
FR1 n77	100M	BPSK	1	1	Bottom Face	0mm	Ant 8	DSI 7	656000	3840	Without Scanner	11.33	12.4	1.279	100	1.000	0.06	0.202	0.258
FR1 n77	100M	BPSK	135	69	Bottom Face	0mm	Ant 8	DSI 7	656000	3840	Without Scanner	11.13	12.4	1.340	100	1.000	-0.08	0.178	0.238
FR1 n77	100M	BPSK	1	1	Edge 1	0mm	Ant 8	DSI 7	656000	3840	Without Scanner	11.33	12.4	1.279	100	1.000	-0.05	0.081	0.104
FR1 n77	100M	BPSK	135	69	Edge 1	0mm	Ant 8	DSI 7	656000	3840	Without Scanner	11.13	12.4	1.340	100	1.000	0.02	0.104	0.139
FR1 n77	100M	BPSK	1	1	Edge 2	0mm	Ant 8	DSI 0	656000	3840	Without Scanner	24.13	25.7	1.435	100	1.000	0.15	0.049	0.07
FR1 n77	100M	BPSK	135	69	Edge 2	0mm	Ant 8	DSI 0	656000	3840	Without Scanner	23.99	25.7	1.483	100	1.000	-0.03	0.050	0.074
FR1 n77	100M	BPSK	1	1	Edge 3	0mm	Ant 8	DSI 0	656000	3840	Without Scanner	24.13	25.7	1.435	100	1.000	0.13	0.162	0.232
FR1 n77	100M	BPSK	135	69	Edge 3	0mm	Ant 8	DSI 0	656000	3840	Without Scanner	23.99	25.7	1.483	100	1.000	-0.08	0.172	0.255
FR1 n77	100M	BPSK	1	1	Edge 4	0mm	Ant 8	DSI 7	656000	3840	Without Scanner	11.33	12.4	1.279	100	1.000	0.14	0.351	0.449
FR1 n77	100M	BPSK	135	69	Edge 4	0mm	Ant 8	DSI 7	656000	3840	Without Scanner	11.13	12.4	1.340	100	1.000	0.01	0.434	0.582
FR1 n77	100M	BPSK	135	69	Edge 4	0mm	Ant 8	DSI 7	656000	3840	With Scanner	11.13	12.4	1.340	100	1.000	0.03	0.391	0.524
FR1 n77	100M	BPSK	1	1	Bottom Face	41mm	Ant 8	DSI 0	656000	3840	Without Scanner	24.13	25.7	1.435	100	1.000	0.05	0.248	0.356
FR1 n77	100M	BPSK	135	69	Bottom Face	41mm	Ant 8	DSI 0	656000	3840	Without Scanner	23.99	25.7	1.483	100	1.000	0.14	0.231	0.343
FR1 n77	100M	BPSK	1	1	Edge 1	18mm	Ant 8	DSI 0	656000	3840	Without Scanner	24.13	25.7	1.435	100	1.000	0.14	0.180	0.258
FR1 n77	100M	BPSK	135	69	Edge 1	18mm	Ant 8	DSI 0	656000	3840	Without Scanner	23.99	25.7	1.483	100	1.000	-0.05	0.181	0.268
FR1 n77	100M	BPSK	1	1	Edge 4	44mm	Ant 8	DSI 0	656000	3840	Without Scanner	24.13	25.7	1.435	100	1.000	0.19	0.158	0.227
FR1 n77	100M	BPSK	135	69	Edge 4	44mm	Ant 8	DSI 0	656000	3840	Without Scanner	23.99	25.7	1.483	100	1.000	0.06	0.151	0.224
FR1 n77 HPUE	100M	BPSK	135	69	Edge 4	0mm	Ant 8	DSI 7	656000	3840	Without Scanner	14.15	15.4	1.334	50	1.000	-0.05	0.430	0.574
FR1 n77	100M	BPSK	1	1	Bottom Face	0mm	Ant 9	DSI 7	656000	3840	Without Scanner	13.85	13.9	1.012	100	1.000	-0.17	0.726	0.735
FR1 n77	100M	BPSK	135	69	Bottom Face	0mm	Ant 9	DSI 7	656000	3840	Without Scanner	13.76	13.9	1.033	100	1.000	0.06	0.738	0.762
FR1 n77	100M	BPSK	1	1	Edge 3	0mm	Ant 9	DSI 0	656000	3840	Without Scanner	24.77	25.7	1.239	100	1.000	0.02	0.152	0.188
FR1 n77	100M	BPSK	135	69	Edge 3	0mm	Ant 9	DSI 0	656000	3840	Without Scanner	24.75	25.7	1.245	100	1.000	0.15	0.131	0.163
FR1 n77	100M	BPSK	1	1	Edge 4	0mm	Ant 9	DSI 7	656000	3840	Without Scanner	13.85	13.9	1.012	100	1.000	-0.13	0.924	0.935
FR1 n77	100M	BPSK	135	69	Edge 4	0mm	Ant 9	DSI 7	656000	3840	Without Scanner	13.76	13.9	1.033	100	1.000	-0.08	0.901	0.93
FR1 n77	100M	BPSK	270	0	Edge 4	0mm	Ant 9	DSI 7	656000	3840	Without Scanner	13.77	13.9	1.030	100	1.000	0.09	0.697	0.718
FR1 n77	100M	BPSK	1	1	Edge 4	0mm	Ant 9	DSI 7	656000	3840	With Scanner	13.85	13.9	1.012	100	1.000	0.03	0.882	0.893
FR1 n77	100M	BPSK	1	1	Bottom Face	16mm	Ant 9	DSI 0	656000	3840	Without Scanner	24.77	25.7	1.239	100	1.000	-0.02	0.659	0.817
FR1 n77	100M	BPSK	135	69	Bottom Face	16mm	Ant 9	DSI 0	656000	3840	Without Scanner	24.75	25.7	1.245	100	1.000	-0.05	0.651	0.81
FR1 n77	100M	BPSK	270	0	Bottom Face	16mm	Ant 9	DSI 0	656000	3840	Without Scanner	24.24	25.2	1.247	100	1.000	0.01	0.603	0.752
FR1 n77	100M	BPSK	1	1	Edge 4	27mm	Ant 9	DSI 0	656000	3840	Without Scanner	24.77	25.7	1.239	100	1.000	0.16	0.518	0.642



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	FR1 n77	100M	BPSK	135	69	Edge 4	27mm	Ant 9	DSI 0	656000	3840	Without Scanner	24.75	25.7	1.245	100	1.000	0.08	0.515	0.641
	FR1 n77	100M	BPSK	1	1	Edge 4	0mm	Ant 9	DSI 7	656000	3840	Without Scanner	16.22	16.9	1.169	50	1.000	0.05	0.754	0.881

Plot No	Band	BW	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Power Setting	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 53	10M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI7	60197.5	2489.25	Without Scanner	16.15	17.40	1.334	100	1.000	-0.12	0.641	0.855
	LTE Band 53	10M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI7	60190	2488.5	Without Scanner	16.11	17.40	1.346	100	1.000	0.03	0.601	0.809
	LTE Band 53	10M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI7	60205	2490	Without Scanner	16.13	17.40	1.34	100	1.000	-0.16	0.598	0.801
	LTE Band 53	10M	QPSK	25	0	Bottom Face	0mm	Ant 8	DSI7	60197.5	2489.25	Without Scanner	16.10	17.40	1.349	100	1.000	-0.02	0.584	0.788
	LTE Band 53	10M	QPSK	50	0	Bottom Face	0mm	Ant 8	DSI7	60197.5	2489.25	Without Scanner	16.00	17.40	1.38	100	1.000	0.15	0.581	0.802
	LTE Band 53	10M	QPSK	1	0	Edge 1	0mm	Ant 8	DSI7	60197.5	2489.25	Without Scanner	16.15	17.40	1.334	100	1.000	-0.09	0.170	0.227
	LTE Band 53	10M	QPSK	25	0	Edge 1	0mm	Ant 8	DSI7	60197.5	2489.25	Without Scanner	16.10	17.40	1.349	100	1.000	0.11	0.146	0.197
	LTE Band 53	10M	QPSK	1	0	Edge 2	0mm	Ant 8	DSI0	60197.5	2489.25	Without Scanner	24.55	25.10	1.135	100	1.000	-0.05	0.215	0.244
	LTE Band 53	10M	QPSK	25	0	Edge 2	0mm	Ant 8	DSI0	60197.5	2489.25	Without Scanner	23.49	24.10	1.151	100	1.000	-0.08	0.188	0.216
	LTE Band 53	10M	QPSK	1	0	Edge 3	0mm	Ant 8	DSI0	60197.5	2489.25	Without Scanner	24.55	25.10	1.135	100	1.000	0.16	0.001	0.001
	LTE Band 53	10M	QPSK	25	0	Edge 3	0mm	Ant 8	DSI0	60197.5	2489.25	Without Scanner	23.49	24.10	1.151	100	1.000	0.05	0.001	0.001
33	LTE Band 53	10M	QPSK	1	0	Edge 4	0mm	Ant 8	DSI7	60197.5	2489.25	Without Scanner	16.15	17.40	1.334	100	1.000	0.01	0.845	1.127
	LTE Band 53	10M	QPSK	1	0	Edge 4	0mm	Ant 8	DSI7	60190	2488.5	Without Scanner	16.11	17.40	1.346	100	1.000	0.05	0.811	1.092
	LTE Band 53	10M	QPSK	1	0	Edge 4	0mm	Ant 8	DSI7	60205	2490	Without Scanner	16.13	17.40	1.34	100	1.000	-0.03	0.805	1.079
	LTE Band 53	10M	QPSK	25	0	Edge 4	0mm	Ant 8	DSI7	60197.5	2489.25	Without Scanner	16.10	17.40	1.349	100	1.000	-0.15	0.624	0.842
	LTE Band 53	10M	QPSK	25	0	Edge 4	0mm	Ant 8	DSI7	60190	2488.5	Without Scanner	16.05	17.40	1.365	100	1.000	0.02	0.605	0.826
	LTE Band 53	10M	QPSK	25	0	Edge 4	0mm	Ant 8	DSI7	60205	2490	Without Scanner	16.09	17.40	1.352	100	1.000	0.07	0.710	0.96
	LTE Band 53	10M	QPSK	50	0	Edge 4	0mm	Ant 8	DSI7	60197.5	2489.25	Without Scanner	16.00	17.40	1.38	100	1.000	0.16	0.615	0.849
	LTE Band 53	10M	QPSK	1	0	Bottom Face	41mm	Ant 8	DSI0	60197.5	2489.25	Without Scanner	24.55	25.10	1.135	100	1.000	0.13	0.143	0.162
	LTE Band 53	10M	QPSK	1	0	Edge 1	18mm	Ant 8	DSI0	60197.5	2489.25	Without Scanner	24.55	25.10	1.135	100	1.000	-0.18	0.161	0.183
	LTE Band 53	10M	QPSK	1	0	Edge 4	44mm	Ant 8	DSI0	60197.5	2489.25	Without Scanner	24.55	25.10	1.135	100	1.000	0.02	0.229	0.26
	LTE Band 53	10M	QPSK	1	0	Edge 4	0mm	Ant 8	DSI7	60197.5	2489.25	With Scanner	16.15	17.40	1.334	100	1.000	0.02	0.805	1.074
34	LTE Band 106 3M	3M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI7	134322	899	Without Scanner	19.68	20.80	1.294	100	1.000	0.08	0.845	1.093
	LTE Band 106 3M	3M	QPSK	8	0	Bottom Face	0mm	Ant 8	DSI7	134322	899	Without Scanner	19.65	20.80	1.303	100	1.000	-0.08	0.777	1.012
	LTE Band 106 3M	3M	QPSK	15	0	Bottom Face	0mm	Ant 8	DSI7	134322	899	Without Scanner	19.64	20.80	1.306	100	1.000	0.18	0.751	0.981
	LTE Band 106 3M	3M	QPSK	1	0	Edge 1	0mm	Ant 8	DSI7	134322	899	Without Scanner	19.68	20.80	1.294	100	1.000	-0.04	0.272	0.352
	LTE Band 106 3M	3M	QPSK	8	0	Edge 1	0mm	Ant 8	DSI7	134322	899	Without Scanner	19.65	20.80	1.303	100	1.000	-0.08	0.246	0.321
	LTE Band 106 3M	3M	QPSK	1	0	Edge 2	0mm	Ant 8	DSI0	134322	899	Without Scanner	23.59	25.10	1.416	100	1.000	-0.13	0.095	0.135
	LTE Band 106 3M	3M	QPSK	8	0	Edge 2	0mm	Ant 8	DSI0	134322	899	Without Scanner	22.51	24.10	1.442	100	1.000	-0.13	0.084	0.121
	LTE Band 106 3M	3M	QPSK	1	0	Edge 3	0mm	Ant 8	DSI0	134322	899	Without Scanner	23.59	25.10	1.416	100	1.000	0.06	0.136	0.193
	LTE Band 106 3M	3M	QPSK	8	0	Edge 3	0mm	Ant 8	DSI0	134322	899	Without Scanner	22.51	24.10	1.442	100	1.000	-0.03	0.122	0.176
	LTE Band 106 3M	3M	QPSK	1	0	Edge 4	0mm	Ant 8	DSI7	134322	899	Without Scanner	19.68	20.80	1.294	100	1.000	-0.03	0.310	0.401
	LTE Band 106 3M	3M	QPSK	8	0	Edge 4	0mm	Ant 8	DSI7	134322	899	Without Scanner	19.65	20.80	1.303	100	1.000	0.08	0.260	0.339
	LTE Band 106 3M	3M	QPSK	1	0	Bottom Face	41mm	Ant 8	DSI0	134322	899	Without Scanner	23.59	25.10	1.416	100	1.000	-0.07	0.152	0.215
	LTE Band 106 3M	3M	QPSK	1	0	Edge 1	18mm	Ant 8	DSI0	134322	899	Without Scanner	23.59	25.10	1.416	100	1.000	0.05	0.155	0.219
	LTE Band 106 3M	3M	QPSK	1	0	Edge 4	44mm	Ant 8	DSI0	134322	899	Without Scanner	23.59	25.10	1.416	100	1.000	-0.11	0.057	0.081
	LTE Band 106 3M	3M	QPSK	1	0	Bottom Face	0mm	Ant 8	DSI7	134322	899	With Scanner	19.68	20.80	1.294	100	1.000	0.03	0.801	1.036
35	LTE Band 70	15M	QPSK	1	0	Bottom Face	0mm	Ant 1	DSI7	133047	1702.5	Without Scanner	14.91	16.00	1.285	100	1.000	-0.01	0.869	1.117
	LTE Band 70	15M	QPSK	36	0	Bottom Face	0mm	Ant 1	DSI7	133047	1702.5	Without Scanner	14.89	16.00	1.291	100	1.000	-0.08	0.807	1.042
	LTE Band 70	15M	QPSK	75	0	Bottom Face	0mm	Ant 1	DSI7	133047	1702.5	Without Scanner	14.84	16.00	1.306	100	1.000	0.05	0.755	0.986
	LTE Band 70	15M	QPSK	1	0	Edge 1	0mm	Ant 1	DSI0	133047	1702.5	Without Scanner	23.81	25.10	1.346	100	1.000	0.06	0.237	0.319
	LTE Band 70	15M	QPSK	36	0	Edge 1	0mm	Ant 1	DSI0	133047	1702.5	Without Scanner	22.72	24.10	1.374	100	1.000	-0.09	0.213	0.293
	LTE Band 70	15M	QPSK	1	0	Edge 2	0mm	Ant 1	DSI0	133047	1702.5	Without Scanner	23.81	25.10	1.346	100	1.000	-0.08	0.062	0.083
	LTE Band 70	15M	QPSK	36	0	Edge 2	0mm	Ant 1	DSI0	133047	1702.5	Without Scanner	22.72	24.10	1.374	100	1.000	0.13	0.051	0.07
	LTE Band 70	15M	QPSK	1	0	Edge 3	0mm	Ant 1	DSI0	133047	1702.5	Without Scanner	23.81	25.10	1.346	100	1.000	0.12	0.088	0.118
	LTE Band 70	15M	QPSK	36	0	Edge 3	0mm	Ant 1	DSI0	133047	1702.5	Without Scanner	22.72	24.10	1.374	100	1.000	0.03	0.076	0.104
	LTE Band 70	15M	QPSK	1	0	Edge 4	0mm	Ant 1	DSI7	133047	1702.5	Without Scanner	14.91	16.00	1.285	100	1.000	0.18	0.371	0.477
	LTE Band 70	15M	QPSK	36	0	Edge 4	0mm	Ant 1	DSI7	133047	1702.5	Without Scanner	14.89	16.00	1.291	100	1.000	0.16	0.403	0.52
	LTE Band 70	15M	QPSK	1	0	Bottom Face	24mm	Ant 1	DSI0	133047	1702.5	Without Scanner	23.81	25.10	1.346	100	1.000	-0.1	0.193	0.26
	LTE Band 70	15M	QPSK	1	0	Edge 4	22mm	Ant 1	DSI0	133047	1702.5	Without Scanner	22.72	24.10	1.374	100	1.000	0.07	0.205	0.282



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	LTE Band 70	15M	QPSK	1	0	Bottom Face	0mm	Ant 1	DSI7	133047	1702.5	With Scanner	14.91	16.00	1.285	100	1.000	0.02	0.805	1.034
	FR1 n53	10M	BPSK	1	1	Bottom Face	0mm	Ant 8	DSI7	497850	2489.25	Without Scanner	12.05	12.90	1.216	100	1.000	0.18	0.637	0.775
	FR1 n53	10M	BPSK	12	0	Bottom Face	0mm	Ant 8	DSI7	497850	2489.25	Without Scanner	12.03	12.90	1.222	100	1.000	-0.1	0.620	0.758
	FR1 n53	10M	BPSK	1	1	Edge 1	0mm	Ant 8	DSI7	497850	2489.25	Without Scanner	12.05	12.90	1.216	100	1.000	0.01	0.172	0.209
	FR1 n53	10M	BPSK	12	0	Edge 1	0mm	Ant 8	DSI7	497850	2489.25	Without Scanner	12.03	12.90	1.222	100	1.000	-0.15	0.135	0.165
	FR1 n53	10M	BPSK	1	1	Edge 2	0mm	Ant 8	DSI0	497850	2489.25	Without Scanner	23.95	25.20	1.334	100	1.000	0.19	0.345	0.46
	FR1 n53	10M	BPSK	12	0	Edge 2	0mm	Ant 8	DSI0	497850	2489.25	Without Scanner	23.90	25.20	1.349	100	1.000	0.07	0.331	0.447
	FR1 n53	10M	BPSK	1	1	Edge 3	0mm	Ant 8	DSI0	497850	2489.25	Without Scanner	23.95	25.20	1.334	100	1.000	-0.18	0.001	0.001
	FR1 n53	10M	BPSK	12	0	Edge 3	0mm	Ant 8	DSI0	497850	2489.25	Without Scanner	23.90	25.20	1.349	100	1.000	0.03	0.001	0.001
36	FR1 n53	10M	BPSK	1	1	Edge 4	0mm	Ant 8	DSI7	497850	2489.25	Without Scanner	12.05	12.90	1.216	100	1.000	0.01	0.916	1.114
	FR1 n53	10M	BPSK	1	1	Edge 4	0mm	Ant 8	DSI7	497700	2488.5	Without Scanner	12.01	12.90	1.227	100	1.000	-0.15	0.766	0.94
	FR1 n53	10M	BPSK	1	1	Edge 4	0mm	Ant 8	DSI7	498000	2490	Without Scanner	12.03	12.90	1.222	100	1.000	-0.15	0.809	0.989
	FR1 n53	10M	BPSK	12	6	Edge 4	0mm	Ant 8	DSI7	497850	2489.25	Without Scanner	12.03	12.90	1.222	100	1.000	0.11	0.731	0.893
	FR1 n53	10M	BPSK	12	6	Edge 4	0mm	Ant 8	DSI7	497700	2488.5	Without Scanner	12.01	12.90	1.227	100	1.000	-0.08	0.766	0.94
	FR1 n53	10M	BPSK	12	6	Edge 4	0mm	Ant 8	DSI7	498000	2490	Without Scanner	12.00	12.90	1.23	100	1.000	-0.17	0.809	0.995
	FR1 n53	10M	BPSK	24	0	Edge 4	0mm	Ant 8	DSI7	497850	2489.25	Without Scanner	11.91	12.90	1.256	100	1.000	-0.08	0.712	0.894
	FR1 n53	10M	BPSK	1	1	Bottom Face	41mm	Ant 8	DSI0	497850	2489.25	Without Scanner	23.95	25.20	1.334	100	1.000	-0.04	0.228	0.304
	FR1 n53	10M	BPSK	1	1	Edge 1	18mm	Ant 8	DSI0	497850	2489.25	Without Scanner	23.95	25.20	1.334	100	1.000	-0.08	0.210	0.28
	FR1 n53	10M	BPSK	1	1	Edge 4	44mm	Ant 8	DSI0	497850	2489.25	Without Scanner	23.95	25.20	1.334	100	1.000	0.17	0.343	0.458
	FR1 n53	10M	BPSK	1	1	Edge 4	0mm	Ant 8	DSI7	497850	2489.25	With Scanner	12.05	12.90	1.216	100	1.000	0.02	0.806	0.98

<RFID SAR>

Plot No.	Band	Test Position	Gap (mm)	Sample	Antenna	Power State	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
37	UHF RFID	Bottom Face	0mm	Without Scanner	Ant 8	DSI 7	914.75	19.35	20.60	1.334	100	1.000	0.1	0.841	1.121
	UHF RFID	Edge 1	0mm	Without Scanner	Ant 8	DSI 7	914.75	19.35	20.60	1.334	100	1.000	0.02	0.217	0.289
	UHF RFID	Edge 2	0mm	Without Scanner	Ant 8	DSI 0	927.25	25.45	26.00	1.135	100	1.000	-0.09	0.043	0.049
	UHF RFID	Edge 3	0mm	Without Scanner	Ant 8	DSI 0	927.25	25.45	26.00	1.135	100	1.000	-0.11	0.036	0.041
	UHF RFID	Edge 4	0mm	Without Scanner	Ant 8	DSI 7	914.75	19.35	20.60	1.334	100	1.000	0.03	0.249	0.332
	UHF RFID	Bottom Face	0mm	Without Scanner	Ant 8	DSI 7	902.75	19.31	20.60	1.346	100	1.000	0.05	0.781	1.051
	UHF RFID	Bottom Face	0mm	Without Scanner	Ant 8	DSI 7	927.25	19.33	20.60	1.340	100	1.000	-0.1	0.765	1.025
	UHF RFID	Bottom Face	0mm	With Scanner	Ant 8	DSI 7	914.75	19.35	20.60	1.334	100	1.000	0.02	0.809	1.079
	UHF RFID	Bottom Face	41mm	Without Scanner	Ant 8	DSI 0	927.25	25.45	26.00	1.135	100	1.000	0.02	0.331	0.376
	UHF RFID	Edge 1	18mm	Without Scanner	Ant 8	DSI 0	927.25	25.45	26.00	1.135	100	1.000	0.03	0.523	0.594
	UHF RFID	Edge 4	44mm	Without Scanner	Ant 8	DSI 0	927.25	25.45	26.00	1.135	100	1.000	0.01	0.091	0.103



[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)
38	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	0mm	Ant 6	DSI 7	1	2412	Without Scanner	13.57	14.00	1.104	97.03	1.031	0.01	1.040	1.184
	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	0mm	Ant 6	DSI 7	6	2437	Without Scanner	13.53	14.00	1.114	97.03	1.031	-0.11	0.891	1.023
	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	0mm	Ant 6	DSI 7	11	2462	Without Scanner	13.52	14.00	1.117	97.03	1.031	0.17	0.677	0.779
	WLAN2.4GHz	802.11b 1Mbps	Edge 4	0mm	Ant 6	DSI 7	1	2412	Without Scanner	13.57	14.00	1.104	97.03	1.031	0.03	0.272	0.310
	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	22mm	Ant 6	DSI 0	1	2412	Without Scanner	20.55	21.00	1.109	97.03	1.031	-0.04	0.141	0.161
	WLAN2.4GHz	802.11b 1Mbps	Edge 4	18mm	Ant 6	DSI 0	1	2412	Without Scanner	20.55	21.00	1.109	97.03	1.031	0.00	0.168	0.192
	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	0mm	Ant 6	DSI 7	1	2412	With Scanner	13.57	14.00	1.104	97.03	1.031	0.02	0.873	0.994
	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	0mm	Ant 7	DSI 7	1	2412	Without Scanner	14.23	14.50	1.064	97.03	1.031	0.04	0.808	0.887
	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	0mm	Ant 7	DSI 7	6	2437	Without Scanner	14.14	14.50	1.086	97.03	1.031	0.03	0.965	1.080
	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	0mm	Ant 7	DSI 7	11	2462	Without Scanner	14.23	14.50	1.064	97.03	1.031	0.08	0.766	0.841
	WLAN2.4GHz	802.11b 1Mbps	Edge 1	0mm	Ant 7	DSI 7	1	2412	Without Scanner	14.23	14.50	1.064	97.03	1.031	-0.18	0.383	0.420
	WLAN2.4GHz	802.11b 1Mbps	Edge 4	0mm	Ant 7	DSI 0	1	2412	Without Scanner	20.73	21.00	1.064	97.03	1.031	-0.08	0.223	0.245
	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	24mm	Ant 7	DSI 0	1	2412	Without Scanner	20.73	21.00	1.064	97.03	1.031	0.04	0.167	0.183
	WLAN2.4GHz	802.11b 1Mbps	Edge 1	14mm	Ant 7	DSI 0	1	2412	Without Scanner	20.73	21.00	1.064	97.03	1.031	0.10	0.460	0.505
	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	0mm	Ant 7	DSI 7	6	2437	With Scanner	14.14	14.50	1.086	97.03	1.031	0.02	0.812	0.909
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 6	DSI 7	42	5210	Without Scanner	8.72	9.00	1.067	100.0	1.0	-0.07	0.997	1.064
	WLAN5GHz	802.11n-HT40 MCS0	Bottom Face	0mm	Ant 6	DSI 7	46	5230	Without Scanner	8.75	9.00	1.059	100.0	1.0	-0.16	0.745	0.789
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 4	0mm	Ant 6	DSI 7	42	5210	Without Scanner	8.72	9.00	1.067	100.0	1.0	0.15	0.266	0.284
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	22mm	Ant 6	DSI 0	42	5210	Without Scanner	18.55	19.00	1.109	100.0	1.0	-0.05	0.332	0.368
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 4	18mm	Ant 6	DSI 0	42	5210	Without Scanner	18.55	19.00	1.109	100.0	1.0	-0.10	0.351	0.389
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 6	DSI 7	42	5210	With Scanner	8.72	9.00	1.067	100.0	1.0	-0.03	0.824	0.879
39	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 7	DSI 7	42	5210	Without Scanner	11.83	12.00	1.04	100.0	1.0	0.06	1.050	1.092
	WLAN5GHz	802.11n-HT40 MCS0	Bottom Face	0mm	Ant 7	DSI 7	46	5230	Without Scanner	11.64	12.00	1.086	100.0	1.0	0.03	1.000	1.086
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 1	0mm	Ant 7	DSI 7	42	5210	Without Scanner	11.83	12.00	1.04	100.0	1.0	0.02	0.666	0.693
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 4	0mm	Ant 7	DSI 0	42	5210	Without Scanner	19.23	19.50	1.064	100.0	1.0	0.06	0.078	0.083
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	24mm	Ant 7	DSI 0	42	5210	Without Scanner	19.23	19.50	1.064	100.0	1.0	-0.14	0.175	0.186
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 1	14mm	Ant 7	DSI 0	42	5210	Without Scanner	19.23	19.50	1.064	100.0	1.0	-0.10	0.171	0.182
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 7	DSI 7	42	5210	With Scanner	11.83	12.00	1.04	100.0	1.0	0.02	0.863	0.898
	WLAN5GHz	802.11ac-VHT160 MCS0	Bottom Face	0mm	Ant 6	DSI 7	50	5250	Without Scanner	8.51	9.00	1.119	100.0	1.0	0.04	0.955	1.069
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 6	DSI 7	58	5290	Without Scanner	8.95	9.00	1.012	100.0	1.0	-0.06	0.855	0.865
	WLAN5GHz	802.11ac-VHT160 MCS0	Edge 4	0mm	Ant 6	DSI 7	50	5250	Without Scanner	8.51	9.00	1.119	100.0	1.0	-0.05	0.621	0.695
	WLAN5GHz	802.11be-EHT80 MCS0	Bottom Face	22mm	Ant 6	DSI 0	58	5290	Without Scanner	19.06	19.50	1.107	100.0	1.0	0.11	0.254	0.281
	WLAN5GHz	802.11be-EHT80 MCS0	Edge 4	18mm	Ant 6	DSI 0	58	5290	Without Scanner	19.06	19.50	1.107	100.0	1.0	0.04	0.372	0.412
	WLAN5GHz	802.11ac-VHT160 MCS0	Bottom Face	0mm	Ant 6	DSI 7	50	5250	With Scanner	8.51	9.00	1.119	100.0	1.0	0.03	0.729	0.816
	WLAN5GHz	802.11ac-VHT160 MCS0	Bottom Face	0mm	Ant 7	DSI 7	50	5250	Without Scanner	11.65	12.00	1.084	100.0	1.0	-0.01	1.100	1.192
40	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 7	DSI 7	58	5290	Without Scanner	11.70	12.00	1.072	100.0	1.0	-0.17	1.020	1.093
	WLAN5GHz	802.11ac-VHT160 MCS0	Edge 1	0mm	Ant 7	DSI 7	50	5250	Without Scanner	11.65	12.00	1.084	100.0	1.0	-0.07	0.743	0.805
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 1	0mm	Ant 7	DSI 7	58	5290	Without Scanner	11.70	12.00	1.072	100.0	1.0	0.01	0.651	0.698
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 4	0mm	Ant 7	DSI 0	58	5290	Without Scanner	19.53	20.00	1.114	100.0	1.0	0.11	0.077	0.086
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	24mm	Ant 7	DSI 0	58	5290	Without Scanner	19.53	20.00	1.114	100.0	1.0	0.08	0.245	0.273
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 1	14mm	Ant 7	DSI 0	58	5290	Without Scanner	19.53	20.00	1.114	100.0	1.0	0.14	0.271	0.302
	WLAN5GHz	802.11ac-VHT160 MCS0	Bottom Face	0mm	Ant 7	DSI 7	50	5250	With Scanner	11.65	12.00	1.084	100.0	1.0	-0.02	0.753	0.816
41	WLAN5GHz	802.11ac-VHT160 MCS0	Bottom Face	0mm	Ant 6	DSI 7	114	5570	Without Scanner	8.98	9.00	1.005	100.0	1.0	0.03	1.060	1.065
	WLAN5GHz	802.11n-HT40 MCS0	Bottom Face	0mm	Ant 6	DSI 7	106	5530	Without Scanner	8.99	9.00	1.002	100.0	1.0	0.13	1.030	1.032
	WLAN5GHz	802.11ac-VHT160 MCS0	Edge 4	0mm	Ant 6	DSI 7	114	5570	Without Scanner	8.98	9.00	1.005	100.0	1.0	0.10	0.646	0.649
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	22mm	Ant 6	DSI 0	106	5530	Without Scanner	19.31	19.50	1.045	100.0	1.0	0.18	0.365	0.381
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 4	18mm	Ant 6	DSI 0	106	5530	Without Scanner	19.31	19.50	1.045	100.0	1.0	0.12	0.388	0.405
	WLAN5GHz	802.11ac-VHT160 MCS0	Bottom Face	0mm	Ant 6	DSI 7	114	5570	With Scanner	8.98	9.00	1.005	100.0	1.0	0.01	0.850	0.854
	WLAN5GHz	802.11ac-VHT160 MCS0	Bottom Face	0mm	Ant 7	DSI 7	114	5570	Without Scanner	9.88	10.00	1.028	100.0	1.0	0.04	0.991	1.019
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 7	DSI 7	138	5690	Without Scanner	9.95	10.00	1.012	100.0	1.0	0.18	0.814	0.824
	WLAN5GHz	802.11ac-VHT160 MCS0	Edge 1	0mm	Ant 7	DSI 7	114	5570	Without Scanner	9.88	10.00	1.028	100.0	1.0	-0.18	0.612	0.629
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 4	0mm	Ant 7	DSI 0	122	5610	Without Scanner	19.87	20.00	1.03	100.0	1.0	-0.16	0.206	0.212
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	24mm	Ant 7	DSI 0	122	5610	Without Scanner	19.87	20.00	1.03	100.0	1.0	-0.08	0.253	0.261
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 1	14mm	Ant 7	DSI 0	122	5610	Without Scanner	19.87	20.00	1.03	100.0	1.0	-0.09	0.300	0.309
	WLAN5GHz	802.11ac-VHT160 MCS0	Bottom Face	0mm	Ant 7	DSI 7	114	5570	With Scanner	9.88	10.00	1.028	100.0	1.0	-0.02	0.721	0.741
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 6	DSI 7	155	5775	Without Scanner	10.26	10.50	1.057	100.0	1.0	0.06	0.964	1.019
	WLAN5GHz	802.11n-HT40 MCS0	Bottom Face	0mm	Ant 6	DSI 7	159	5795	Without Scanner	10.28	10.50	1.052	100.0	1.0	0.08	0.952	1.002
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 4	0mm	Ant 6	DSI 7	155	5775	Without Scanner	10.26	10.50	1.057	100.0	1.0	0.12	0.688	0.727
	WLAN5GHz	802.11be-EHT80 MCS0	Bottom Face	22mm	Ant 6	DSI 0	155	5775	Without Scanner	19.50	20.00	1.122	100.0	1.0	-0.01	0.308	0.346
	WLAN5GHz	802.11be-EHT80 MCS0	Edge 4	18mm	Ant 6	DSI 0	155	5775	Without Scanner	19.50	20.00	1.122	100.0	1.0	-0.19	0.309	0.347
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 6	DSI 7	155	5775	With Scanner	10.26	10.50	1.057	100.0	1.0	0.03	0.736	0.778
42	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 7	DSI 7	155	5775	Without Scanner	12.27	12.50	1.054	100.0	1.0	-0.07	1.070	1.128
	WLAN5GHz	802.11n-HT40 MCS0	Bottom Face	0mm	Ant 7	DSI 7	151	5755	Without Scanner	12.38	12.50	1.028	100.0	1.0	-0.18	0.899	0.924
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 1	0mm	Ant 7	DSI 7	155	5775	Without Scanner	12.27	12.50	1.054	100.0	1.0	0.11	0.831	0.876
	WLAN5GHz	802.11n-HT40 MCS0	Edge 1	0mm	Ant 7	DSI 7	151	5755	Without Scanner	12.38	12.50	1.028	100.0	1.0	0.01	0.832	0.855
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 4	0mm	Ant 7	DSI 0	155	5775	Without Scanner	19.83	20.00	1.04	100.0	1.0	-0.06	0.232	0.241
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	24mm	Ant 7	DSI 0	155	5775	Without Scanner	19.83	20.00	1.04	100.0	1.0	0.08	0.150	0.156
	WLAN5GHz	802.11ac-VHT80 MCS0	Edge 1	14mm	Ant 7	DSI 0	155	5775	Without Scanner	19.83	20.00	1.04	100.0	1.0	-0.06	0.261	0.271
	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0mm	Ant 7	DSI 7	155	5775	With Scanner	12.27	12.50	1.054	100.0	1.0	-0.03	0.852	0.898



【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)
43	Bluetooth	1Mbps	Bottom Face	0mm	Ant 6	DSI 0	78	2480	Without Scanner	7.66	8.5	1.213	76.82	1.084	0.05	0.095	0.125
	Bluetooth	1Mbps	Edge 4	0mm	Ant 6	DSI 0	78	2480	Without Scanner	7.66	8.5	1.213	76.82	1.084	0.16	0.007	0.01
	Bluetooth	1Mbps	Bottom Face	0mm	Ant 6	DSI 0	78	2480	With Scanner	7.66	8.5	1.213	76.82	1.084	0.02	0.043	0.057
	Bluetooth	LE 125kbps	Bottom Face	0mm	Ant 7	DSI 0	19	2440	Without Scanner	7.25	8	1.189	82.65	1.008	0.01	0.061	0.073
	Bluetooth	LE 125kbps	Edge 1	0mm	Ant 7	DSI 0	19	2440	Without Scanner	7.25	8	1.189	82.65	1.008	0.02	0.008	0.01
	Bluetooth	LE 125kbps	Bottom Face	0mm	Ant 7	DSI 0	19	2440	With Scanner	7.25	8	1.189	82.65	1.008	0.02	0.034	0.041

<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)
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	0mm	Ant 6	DSI 7	63	6265	Without Scanner	11.89	12.00	1.026	100	1	0.07	0.992	1.018	5.470
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	0mm	Ant 6	DSI 7	95	6425	Without Scanner	11.83	12.00	1.04	100	1	0.08	0.95	0.988	5.530
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	0mm	Ant 6	DSI 7	127	6585	Without Scanner	11.71	12.00	1.069	100	1	0.05	0.921	0.985	5.720
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	0mm	Ant 6	DSI 7	159	6745	Without Scanner	12.93	13.00	1.016	100	1	-0.06	1.09	1.107	7.100
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	0mm	Ant 6	DSI 7	191	6905	Without Scanner	13.03	13.50	1.114	100	1	0.05	0.919	1.024	6.160
	WLAN6GHz	802.11be-EHT320 MCS0	Edge4	0mm	Ant 6	DSI 7	31	6105	Without Scanner	11.81	12.00	1.045	100	1	0.03	0.76	0.794	4.700
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	22mm	Ant 6	DSI 0	95	6425	Without Scanner	19.11	19.50	1.094	100	1	0.01	0.192	0.21	1.740
	WLAN6GHz	802.11be-EHT320 MCS0	Edge4	18mm	Ant 6	DSI 0	95	6425	Without Scanner	19.11	19.50	1.094	100	1	0.02	0.171	0.187	1.470
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	0mm	Ant 6	DSI 7	159	6745	With Scanner	12.93	13.00	1.016	100	1	0.01	1.05	1.067	6.800
	WLAN6GHz VLP	802.11be-EHT320 MCS0	Bottom face	0mm	Ant 6	DSI 7	191	6905	Without Scanner	11.12	11.50	1.091	100	1	-0.02	0.911	0.994	6.420
44	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	0mm	Ant 7	DSI 7	191	6905	Without Scanner	14.33	14.50	1.04	100	1	-0.04	1.13	1.175	7.450
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	0mm	Ant 7	DSI 7	31	6105	Without Scanner	12.13	12.50	1.089	100	1	-0.06	1.06	1.154	6.730
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	0mm	Ant 7	DSI 7	63	6265	Without Scanner	12.05	12.50	1.109	100	1	0.03	1.05	1.164	6.680
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	0mm	Ant 7	DSI 7	95	6425	Without Scanner	12.21	12.50	1.069	100	1	0.07	1.08	1.155	6.990
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	0mm	Ant 7	DSI 7	127	6585	Without Scanner	13.81	14.00	1.045	100	1	0.01	0.807	0.843	5.140
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	0mm	Ant 7	DSI 7	159	6745	Without Scanner	13.19	13.50	1.074	100	1	0.09	0.877	0.942	6.530
	WLAN6GHz	802.11be-EHT320 MCS0	Edge1	0mm	Ant 7	DSI 7	191	6905	Without Scanner	14.33	14.50	1.04	100	1	0.01	0.683	0.71	0.526
	WLAN6GHz	802.11a 6Mbps	Edge4	0mm	Ant 7	DSI 0	173	6815	Without Scanner	20.01	20.50	1.119	98.97	1.01	-0.02	0.869	0.982	0.287
	WLAN6GHz	802.11a 6Mbps	Edge4	0mm	Ant 7	DSI 0	1	5955	Without Scanner	19.57	20.00	1.104	98.97	1.01	0.01	0.756	0.843	0.237
	WLAN6GHz	802.11a 6Mbps	Edge4	0mm	Ant 7	DSI 0	49	6195	Without Scanner	19.07	19.50	1.104	98.97	1.01	0.02	0.766	0.854	0.241
	WLAN6GHz	802.11be-EHT320 MCS0	Edge4	0mm	Ant 7	DSI 0	127	6585	Without Scanner	19.75	20.00	1.059	100	1	0.05	0.801	0.848	0.298
	WLAN6GHz	802.11be-EHT320 MCS0	Edge4	0mm	Ant 7	DSI 0	191	6905	Without Scanner	19.54	20.00	1.112	100	1	0.03	0.701	0.78	0.198
	WLAN6GHz	802.11a 6Mbps	Bottom face	24mm	Ant 7	DSI 0	173	6815	Without Scanner	20.01	20.50	1.119	98.97	1.01	0.02	0.131	0.148	0.149
	WLAN6GHz	802.11a 6Mbps	Edge1	14mm	Ant 7	DSI 0	173	6815	Without Scanner	20.01	20.50	1.119	98.97	1.01	0.02	0.583	0.659	0.501
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	0mm	Ant 7	DSI 7	191	6905	With Scanner	14.33	14.50	1.04	100	1	0.01	1.05	1.092	7.310
	WLAN6GHz VLP	802.11be-EHT320 MCS0	Bottom face	0mm	Ant 7	DSI 7	191	6905	Without Scanner	11.14	11.50	1.086	100	1	-0.02	0.533	0.579	3.890

<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)
45	NFC	ASK	Front Face	0mm	13.56	Without Scanner	-0.01	0.045	0.045
	NFC	ASK	Bottom Face	0mm	13.56	Without Scanner	0.01	0.003	0.003
	NFC	ASK	Edge 1	0mm	13.56	Without Scanner	-0.03	0.002	0.002
	NFC	ASK	Edge 2	0mm	13.56	Without Scanner	-0.04	0.010	0.010
	NFC	ASK	Edge 3	0mm	13.56	Without Scanner	0.03	0.000	0.000
	NFC	ASK	Edge 4	0mm	13.56	Without Scanner	-0.01	0.000	0.000
	NFC	ASK	Front Face	0mm	13.56	With Scanner	-0.01	0.041	0.041



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	11.81	0.0625	2.31	1.4	4.16	4.82
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	10mm	Ant 6	Standalone	Without Scanner	31	6105	11.81	0.25	1.66		1.19	1.22
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	2mm	Ant 6	Standalone	Without Scanner	191	6905	13.03	0.0625	3.15	3.2	3.12	3.98
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	8.59mm	Ant 6	Standalone	Without Scanner	191	6905	13.03	0.25	1.52		1.09	1.18

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	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	11.81	12.00	1.045	100	1.000	0.0625	1.5535	-0.14	4.16	6.75	4.82	7.82
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	2mm	Ant 6	Standalone	Without Scanner	63	6265	11.89	12.00	1.026	100	1.000	0.0625	1.5535	-0.12	3.74	5.96	4.32	6.88
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	2mm	Ant 6	Standalone	Without Scanner	95	6425	11.83	12.00	1.040	100	1.000	0.0625	1.5535	0.19	3.32	5.36	4.02	6.49
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	2mm	Ant 6	Standalone	Without Scanner	127	6585	11.71	12.00	1.069	100	1.000	0.0625	1.5535	-0.06	3.49	5.80	3.75	6.23
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	2mm	Ant 6	Standalone	Without Scanner	159	6745	12.93	13.00	1.016	100	1.000	0.0625	1.5535	0.01	2.92	4.61	3.9	6.16
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	2mm	Ant 6	Standalone	Without Scanner	191	6905	13.03	13.50	1.114	100	1.000	0.0625	1.5535	-0.06	3.12	5.40	3.98	6.89
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	22mm	Ant 6	Full Power	Without Scanner	95	6425	19.11	19.50	1.094	100	1.000	0.0625	1.5535	0.06	1.89	3.21	2.05	3.48
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	2mm	Ant 6	Standalone	With Scanner	31	6105	11.81	12.00	1.045	100	1.000	0.0625	1.5535	0.05	3.02	4.90	3.98	6.46
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	2mm	Ant 7	Standalone	Without Scanner	31	6105	12.13	12.50	1.089	100	1.000	0.0625	1.5535	0.11	2.84	4.80	4.17	7.05
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	2mm	Ant 7	Standalone	Without Scanner	63	6265	12.05	12.50	1.109	100	1.000	0.0625	1.5535	0.02	1.68	2.89	3.47	5.98
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	2mm	Ant 7	Standalone	Without Scanner	95	6425	12.21	12.50	1.069	100	1.000	0.0625	1.5535	0.15	2.96	4.92	4.23	7.03
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	2mm	Ant 7	Standalone	Without Scanner	127	6585	13.81	14.00	1.045	100	1.000	0.0625	1.5535	-0.13	3.18	5.16	4.52	7.34
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	2mm	Ant 7	Standalone	Without Scanner	159	6745	13.19	13.50	1.074	100	1.000	0.0625	1.5535	0.18	3.65	6.09	4.41	7.36
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	2mm	Ant 7	Standalone	Without Scanner	191	6905	14.33	14.50	1.040	100	1.000	0.0625	1.5535	-0.11	3.89	6.28	4.61	7.45
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face-Top	2mm	Ant 7	Standalone	Without Scanner	191	6905	14.33	14.50	1.040	100	1.000	0.0625	1.5535	0.03	3.37	5.44	3.67	5.93
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face-Left	2mm	Ant 7	Standalone	Without Scanner	191	6905	14.33	14.50	1.040	100	1.000	0.0625	1.5535	0.05	1.03	1.66	1.58	2.55
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face-Right	2mm	Ant 7	Standalone	Without Scanner	191	6905	14.33	14.50	1.040	100	1.000	0.0625	1.5535	0.08	0.537	0.87	0.49	0.79
	WLAN6GHz	802.11a 6Mbps	Bottom face	24mm	Ant 7	Full Power	Without Scanner	173	6815	20.01	20.50	1.119	100	1.000	0.0625	1.5535	-0.09	1.47	2.56	1.62	2.82
	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	2mm	Ant 7	Standalone	With Scanner	191	6905	14.33	14.50	1.040	100	1.000	0.0625	1.5535	-0.01	1.6	2.58	2	3.23



16.3 Repeated SAR Measurement

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 n14	10M_BPSK_1_1	Edge 4	0.0	Ant 8	DSI 7	158600	793	Without Scanner	20.61	21.70	1.285			0.08	0.868	1.115	-
2nd	FR1 n14	10M_BPSK_1_1	Edge 4	0.0	Ant 8	DSI 7	158600	793		20.61	21.70	1.285			0.01	0.801	1.029	1.08
1st	WCDMA V	RMC 12.2Kbps	Bottom Face	0.0	Ant 8	DSI 7	4233	846.6	Without Scanner	20.41	21.50	1.285			0.01	0.865	1.112	-
2nd	WCDMA V	RMC 12.2Kbps	Bottom Face	0.0	Ant 8	DSI 7	4233	846.6		20.41	21.50	1.285			0.03	0.805	1.034	1.08
1st	FR1 n70	15M_BPSK_36_22	Bottom Face	0.0	Ant 1	DSI 7	340500	1702.5	Without Scanner	15.03	16.00	1.25			0.08	0.895	1.119	-
2nd	FR1 n70	15M_BPSK_36_22	Bottom Face	0.0	Ant 1	DSI 7	340500	1702.5		15.03	16.00	1.25			0.02	0.845	1.056	1.06
1st	WCDMA II	RMC 12.2Kbps	Edge 4	0.0	Ant 1	DSI 7	9538	1907.6	Without Scanner	18.61	19.40	1.199			0.14	0.936	1.122	-
2nd	WCDMA II	RMC 12.2Kbps	Edge 4	0.0	Ant 1	DSI 7	9538	1907.6		18.61	19.40	1.199			0.01	0.905	1.085	1.03
1st	LTE Band 30	10M_QPSK_1_0	Bottom Face	0.0	Ant 8	DSI 7	27710	2310	Without Scanner	13.51	14.40	1.227			0.08	0.906	1.112	-
2nd	LTE Band 30	10M_QPSK_1_0	Bottom Face	0.0	Ant 8	DSI 7	27710	2310		13.51	14.40	1.227			0.02	0.901	1.106	1.01
1st	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	0.0	Ant 6	DSI 7	1	2412	Without Scanner	13.57	14.00	1.104	97.03	1.031	0.01	1.040	1.184	-
2nd	WLAN2.4GHz	802.11b 1Mbps	Bottom Face	0.0	Ant 6	DSI 7	1	2412		13.57	14.00	1.104	97.03	1.031	0.03	1.000	1.138	1.04
1st	LTE Band 41 HPUE	20M_QPSK_1_0	Edge 4	0.0	Ant 8	DSI 7	40620	2593	Without Scanner	18.23	18.70	1.114	42.9	1.009	0.01	0.955	1.073	-
2nd	LTE Band 41 HPUE	20M_QPSK_1_0	Edge 4	0.0	Ant 8	DSI 7	40620	2593		18.23	18.70	1.114	42.9	1.009	0.01	0.935	1.051	1.02
1st	FR1 n77	100M_BPSK_1_1	Edge 4	0.0	Ant 9	DSI 7	656000	3840	Without Scanner	13.85	13.90	1.012	100.0	1.0	-0.13	0.924	0.935	-
2nd	FR1 n77	100M_BPSK_1_1	Edge 4	0.0	Ant 9	DSI 7	656000	3840		13.85	13.90	1.012	100.0	1.0	0.05	0.921	0.932	1.00
1st	FR1 n77	100M_BPSK_135_69	Edge 2	0.0	Ant 4	DSI 0	633332	3499.98	Without Scanner	17.61	19.00	1.377			0.13	0.836	1.151	-
2nd	FR1 n77	100M_BPSK_135_69	Edge 2	0.0	Ant 4	DSI 0	633332	3499.98	Without Scanner	17.61	19.00	1.377			0.01	0.801	1.103	1.04
1st	FR1 n48	40M_BPSK_50_28	Edge 4	0.0	Ant 8	DSI 7	641666	3624.99	Without Scanner	11.91	13.00	1.285			0.02	0.865	1.112	-
2nd	FR1 n48	40M_BPSK_50_28	Edge 4	0.0	Ant 8	DSI 7	641666	3624.99	Without Scanner	11.91	13.00	1.285			0.01	0.835	1.073	1.04
1st	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0.0	Ant 7	DSI 7	42	5210	Without Scanner	11.83	12.00	1.04			0.06	1.130	1.175	-
2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0.0	Ant 7	DSI 7	42	5210		11.83	12.00	1.04			0.06	1.050	1.092	1.08
1st	WLAN5GHz	802.11ac-VHT160 MCS0	Bottom Face	0.0	Ant 6	DSI 7	114	5570	Without Scanner	8.98	9.00	1.005			0.03	1.060	1.065	-
2nd	WLAN5GHz	802.11ac-VHT160 MCS0	Bottom Face	0.0	Ant 6	DSI 7	114	5570		8.98	9.00	1.005			0.08	1.030	1.035	1.03
1st	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0.0	Ant 7	DSI 7	155	5775	Without Scanner	12.27	12.50	1.054			-0.07	1.070	1.128	-
2nd	WLAN5GHz	802.11ac-VHT80 MCS0	Bottom Face	0.0	Ant 7	DSI 7	155	5775		12.27	12.50	1.054			0.01	1.050	1.107	1.02
1st	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	0mm	Ant 7	DSI 7	191	6905	Without Scanner	14.33	14.50	1.04			-0.04	1.13	1.175	-
2nd	WLAN6GHz	802.11be-EHT320 MCS0	Bottom face	0mm	Ant 7	DSI 7	191	6905	Without Scanner	14.33	14.50	1.04			0.01	1.05	1.092	1.08
1st	LTE Band 106	3M_QPSK_1_0	Bottom Face	0mm	Ant 8	DSI7	134322	899	Without Scanner	19.68	20.80	1.294			0.08	0.845	1.093	-
2nd	LTE Band 106	3M_QPSK_1_0	Bottom Face	0mm	Ant 8	DSI7	134322	899	Without Scanner	19.68	20.80	1.294			0.01	0.805	1.042	1.05
1st	UHF RFID	-	Bottom Face	0mm	Ant 8	DSI 7	-	914.75	Without Scanner	19.35	20.60	1.334			0.1	0.841	1.121	-
2nd	UHF RFID	-	Bottom Face	0mm	Ant 8	DSI 7	-	914.75	Without Scanner	19.35	20.60	1.334			0.02	0.803	1.071	1.05

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 Band 41_Ant 8	Power Class 3	Power Class 2
Max Tune Up Power (dBm)	16.35	18.23
Reported 1g SAR (W/kg)	1.127	1.073
Duty Cycle (%)	63.30%	43.30%
Frame Averaged (mW)	27.32	28.81
Linearity SAR(W/kg)	1.19	
% deviation from Expected Linearity		-9.72%
LTE Band 41_Ant 8 sensor off	Power Class 3	Power Class 2
Max Tune Up Power (dBm)	24.32	26.19
Reported 1g SAR (W/kg)	0.420	0.402
Duty Cycle (%)	63.30%	43.30%
Frame Averaged (mW)	171.16	180.09
Linearity SAR(W/kg)	0.44	
% deviation from Expected Linearity		-9.03%
FR1 n41_Ant 3	Power Class 3	Power Class 2
Max Tune Up Power (dBm)	11.21	14.35
Reported 1g SAR (W/kg)	1.090	1.013
Duty Cycle (%)	100.00%	50.00%
Frame Averaged (mW)	13.21	13.61
Linearity SAR(W/kg)	1.12	
% deviation from Expected Linearity		-9.80%
FR1 n41_Ant 4	Power Class 3	Power Class 2
Max Tune Up Power (dBm)	20.15	23.21
Reported 1g SAR (W/kg)	1.110	1.051
Duty Cycle (%)	100.00%	50.00%
Frame Averaged (mW)	103.51	104.71
Linearity SAR(W/kg)	1.12	
% deviation from Expected Linearity		-6.40%
FR1 n41_Ant 5	Power Class 3	Power Class 2
Max Tune Up Power (dBm)	12.41	15.51
Reported 1g SAR (W/kg)	1.117	1.044
Duty Cycle (%)	100.00%	50.00%
Frame Averaged (mW)	17.42	17.78
Linearity SAR(W/kg)	1.14	
% deviation from Expected Linearity		-1.85%
FR1 n41_Ant 5 sensor off	Power Class 3	Power Class 2
Max Tune Up Power (dBm)	24.58	26.85
Reported 1g SAR (W/kg)	0.877	0.726
Duty Cycle (%)	100.00%	50.00%
Frame Averaged (mW)	287.08	242.09
Linearity SAR(W/kg)	0.74	
% deviation from Expected Linearity		-1.83%
FR1 n41_Ant 8	Power Class 3	Power Class 2
Max Tune Up Power (dBm)	13.31	16.31
Reported 1g SAR (W/kg)	1.095	1.029
Duty Cycle (%)	100.00%	50.00%
Frame Averaged (mW)	21.34	21.38



Linearity SAR(W/kg)	1.12	
% deviation from Expected Linearity		-5.81
FR1 n41_Ant 8 sensor off	Power Class 3	Power Class 2
Max Tune Up Power (dBm)	24.61	26.84
Reported 1g SAR (W/kg)	0.701	0.624
Duty Cycle (%)	100.00%	50.00%
Frame Averaged (mW)	289.07	241.53
Linearity SAR(W/kg)	0.59	
% deviation from Expected Linearity		6.54%
FR1 n41_Ant 5	Power Class 3	Power Class 2
Max Tune Up Power (dBm)	12.41	15.51
Reported 1g SAR (W/kg)	1.117	1.044
Duty Cycle (%)	100.00%	50.00%
Frame Averaged (mW)	17.42	17.78
Linearity SAR(W/kg)	1.14	
% deviation from Expected Linearity		-1.85%

FR1 n77 Part 27Q(HPUE)-Linearity Data for Body Ant 3		
	FR1 n77 Part 27Q (Power Class 3)	FR1 n77 Part 27Q (Power Class 2)
Maximum Tune up Power (dBm)	11.00	14.00
Reported 1g SAR (W/kg)	1.128	1.036
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	12.59	12.56
Linearity SAR (W/kg)	1.125	
% deviation from expected linearity		-7.94%

FR1 n77 Part 27Q(HPUE)-Linearity Data for Body Ant 4		
	FR1 n77 Part 27Q (Power Class 3)	FR1 n77 Part 27Q (Power Class 2)
Maximum Tune up Power (dBm)	19.00	22.00
Reported 1g SAR (W/kg)	1.151	1.061
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	79.43	79.24
Linearity SAR (W/kg)	1.148	
% deviation from expected linearity		-7.60%

FR1 n77 Part 27Q(HPUE)-Linearity Data for Body Ant 8		
	FR1 n77 Part 27Q (Power Class 3)	FR1 n77 Part 27Q (Power Class 2)
Maximum Tune up Power (dBm)	12.40	15.40
Reported 1g SAR (W/kg)	1.128	1.027
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	17.38	17.34
Linearity SAR (W/kg)	1.125	
% deviation from expected linearity		-8.74%

FR1 n77 Part 27Q(HPUE)-Linearity Data for Body Ant 9		
	FR1 n77 Part 27Q (Power Class 3)	FR1 n77 Part 27Q (Power Class 2)
Maximum Tune up Power (dBm)	25.70	25.70
Reported 1g SAR (W/kg)	0.751	0.406
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	371.54	185.77
Linearity SAR (W/kg)	0.376	
% deviation from expected linearity		8.12%

FR1 n77 Part 27Q(HPUE)-Linearity Data for Body Ant 3		
	FR1 n77 Part 27Q (Power Class 3)	FR1 n77 Part 27Q (Power Class 2)
Maximum Tune up Power (dBm)	11.00	14.00
Reported 1g SAR (W/kg)	0.878	0.837

Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	12.59	12.56
Linearity SAR (W/kg)	0.876	
% deviation from expected linearity		-4.44%
FR1 n77 Part 270(HPUE)-Linearity Data for Body Ant 4		
	FR1 n77 Part 270 (Power Class 3)	FR1 n77 Part 270 (Power Class 2)
Maximum Tune up Power (dBm)	19.00	22.00
Reported 1g SAR (W/kg)	0.923	0.837
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	79.43	79.24
Linearity SAR (W/kg)	0.921	
% deviation from expected linearity		-9.10%
FR1 n77 Part 270(HPUE)-Linearity Data for Body Ant 8		
	FR1 n77 Part 270 (Power Class 3)	FR1 n77 Part 270 (Power Class 2)
Maximum Tune up Power (dBm)	12.40	15.40
Reported 1g SAR (W/kg)	0.582	0.574
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	17.38	17.34
Linearity SAR (W/kg)	0.581	
% deviation from expected linearity		-1.14%
FR1 n77 Part 270(HPUE)-Linearity Data for Body Ant 9		
	FR1 n77 Part 270 (Power Class 3)	FR1 n77 Part 270 (Power Class 2)
Maximum Tune up Power (dBm)	13.90	16.90
Reported 1g SAR (W/kg)	0.935	0.881
Duty Cycle	100.00%	50.00%
Frame Averaged (mW)	24.55	24.49
Linearity SAR (W/kg)	0.933	
% deviation from expected linearity		-5.55%

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 5GNR 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 5GNR 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) $SPLSR = (SAR1 + SAR2)^{1.5} / (\min. \text{ separation distance, mm})$, and the peak separation distance is determined from the square root of $[(x1-x2)^2 + (y1-y2)^2 + (z1-z2)^2]$, where (x1, y1, z1) and (x2, y2, z2) are the coordinates of the extrapolated peak SAR locations in the zoom scan.
 - 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:

1. 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:
 - 1) 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).
2. Measure SAR for supported MIMO scenarios in FTM mode with each of the MIMO antennas set to transmit continuously at $P_{test} = \text{minimum} \{Plimit(i), Pmax(i); i=1 \text{ to } n \text{ MIMO antennas}\}$, 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, $MIMO.SAR @ P_{test}$) = $\min \{Plimit(i), Pmax(i), i = 1 \text{ to } n \text{ MIMO antenna}\}$. To further clarify, $P_{test} = \min \{Plimit(i), SISO.Pmax(i), MIMO.Pmax, i = 1 \text{ to } n \text{ antenna} \in MIMO\}$, where, $Plimit$ corresponds to SAR_design_target ; $SISO.Pmax$ and $MIMO.Pmax$ correspond to the maximum output power (nominal levels without device uncertainty) that device is capable; here, P_{test} is nominal power level, not measured level.
3. If the $reported\ SAR_{MIMO}$ 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.
4. This test is not needed if MIMO antennas are in different AGs.
5. 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

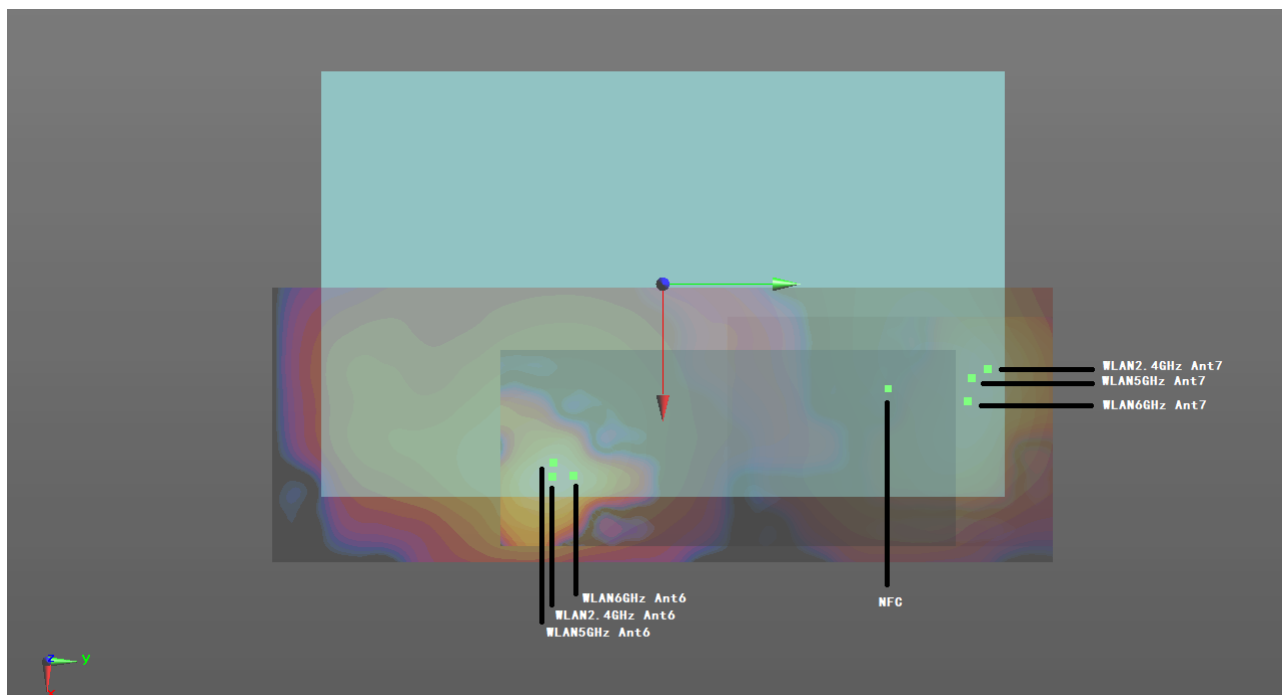
WWAN Band	Exposure Position	1	2	3	4	5	6	7	8	9	10	13
		WWAN	WLAN2.4GHz Ant 6	WLAN2.4GHz Ant 7	WLAN5GHz Ant 6	WLAN5GHz Ant 7	WLAN6GHz Ant 6	WLAN6GHz Ant 7	Bluetooth Ant 6	Bluetooth Ant 7	NFC	RFID
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
ALL	Bottom Face	1.143	1.184	1.080	1.069	1.192	1.107	1.175	0.125	0.073	0.003	1.121
	Edge 1	0.757		0.420		0.876		0.710		0.010	0.002	0.289
	Edge 2	1.151									0.010	0.049
	Edge 3	1.019										0.041
	Edge 4	1.134	0.310	0.245	0.727	0.241	0.794	0.982	0.010			0.332

WWAN Band	Exposure Position	1+10	2+3+10	4+5+10	6+7+10	8+10	9+10	13+10	No
		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	2.27	2.26	2.29	0.13	0.08	1.12	Case 1&2&3
	Edge 1	0.76	0.42	0.88	0.71	0.00	0.01	0.29	
	Edge 2	1.16	0.01	0.01	0.01	0.01	0.01	0.06	
	Edge 3	1.02	0.00	0.00	0.00	0.00	0.00	0.04	
	Edge 4	1.13	0.56	0.97	1.78	0.01	0.00	0.33	Case 4

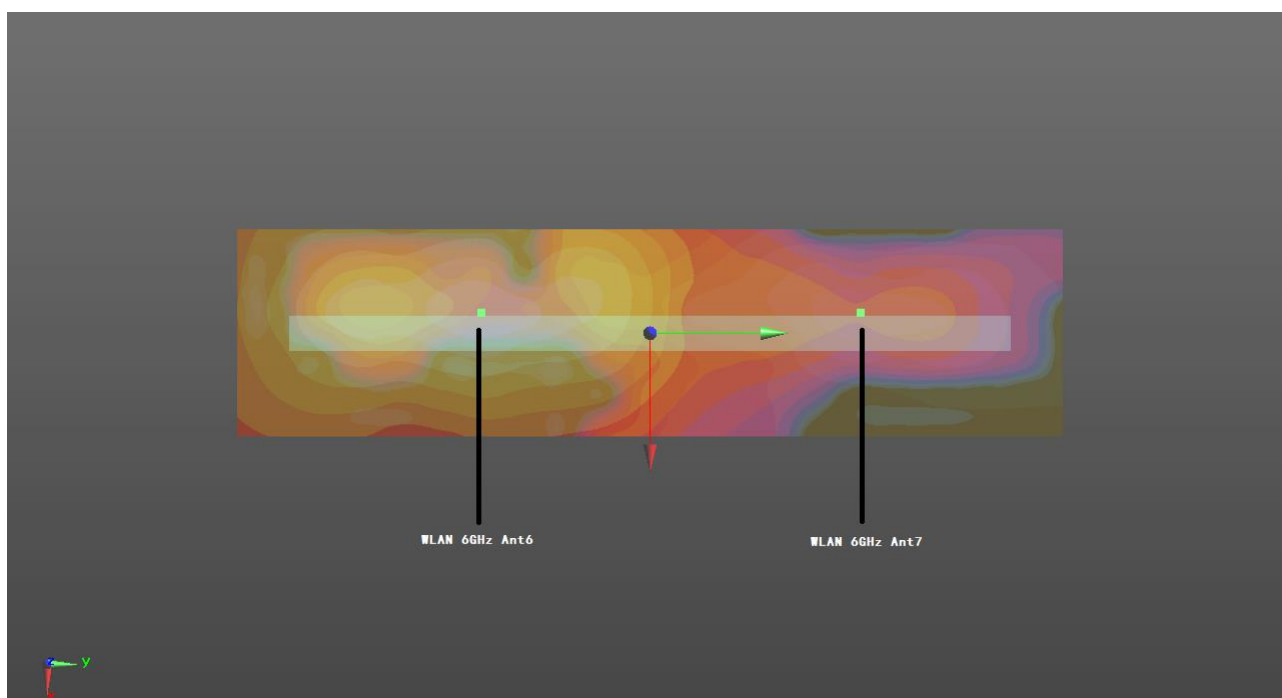
17.4 SPLSR Evaluation and Analysis

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 WLAN5G+WLAN2.4G+WLAN6G+NFC Bottom Face 0mm



Body WLAN6G Edge 4 0mm

Case 1	Band	Position	1g 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	1.184	0	59.6	-28.6	2.73	125.0	2.26	0.03	Not required
	WLAN2.4GHz Ant 7	Face	1.08	0	33.8	93.6	-2.42				
	WLAN2.4GHz Ant 7	Bottom	1.08	0	33.8	93.6	-2.42	27.0	1.08	0.04	Not required
	NFC	Face	0.003	0	59.8	100.8	-3				
	WLAN2.4GHz Ant 6	Bottom	1.184	0	59.6	-28.6	2.73	129.5	1.19	0.01	Not required
	NFC	Face	0.003	0	59.8	100.8	-3				
Case 2	Band	Position	1g SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	WLAN5GHz Ant 6	Bottom	1.129	0	58.2	-34	-4.17	138.4	2.32	0.03	Not required
	WLAN5GHz Ant 7	Face	1.192	0	26.8	100.8	-4				
	WLAN5GHz Ant 6	Bottom	1.129	0	58.2	-34	-4.17	134.8	1.13	0.01	Not required
	NFC	Face	0.003	0	59.8	100.8	-3				
Case 3	WLAN5GHz Ant 7	Bottom	1.192	0	26.8	100.8	-4	33.0	1.20	0.04	Not required
	NFC	Face	0.003	0	59.8	100.8	-3				
Case 3	Band	Position	1g SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	WLAN6GHz Ant 6	Bottom	1.107	0	57.8	-32	-4.08	134.9	2.28	0.03	Not required
	WLAN6GHz Ant 7	Face	1.175	0	24.9	98.8	-3				
	WLAN6GHz Ant 6	Bottom	1.107	0	57.8	-32	-4.08	132.8	1.11	0.01	Not required
	NFC	Face	0.003	0	59.8	100.8	-3				
Case 4	WLAN6GHz Ant 7	Bottom	1.107	0	24.9	98.8	-3	35.0	1.11	0.03	Not required
	NFC	Face	0.003	0	59.8	100.8	-3				
Case 4	Band	Position	1g SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	WLAN6GHz Ant 6	Edge 4	0.794	0	-8	-44.2	-3.21	106.4	1.78	0.02	Not required
	WLAN6GHz Ant 7		0.982	0	-5	62.2	-2.96				

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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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- [5] FCC KDB 248227 D01 v02r02, "SAR Guidance for IEEE 802.11 (WiFi) Transmitters", Oct 2015.
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- [11] FCC KDB 941225 D05 v02r05, "SAR Evaluation Considerations for LTE Devices", Dec 2015
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- [14] IEC 62479:2010 Assessment of the compliance of low power electronic and electrical equipment with the basic restrictions related to human exposure to electromagnetic fields (10 MHz to 300 GHz)
- [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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