FCC 47 CFR § 2.1093
IEEE Std 1528-2013

SAR EVALUATION REPORT
(Part 1 : Test in Static Transmission Condition)

FOR

WCDMA/LTE/5G NR Laptop + BT/BLE, DTS/UNII a/b/g/n/ac/ax

MODEL NUMBER: NP545XLA

FCC ID: A3LNP545XLA1

REPORT NUMBER: 4790047184-S1V2

ISSUE DATE: 9/15/2021

Prepared for
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IAS ACCREDITED

Testing Laboratory

TL-637

Revision History

Rev.	Date	Revisions	Revised By
V1	9/6/2021	Initial Issue	--
V2	9/15/2021	Revised section.1.4 in Report.	Sunghoon.Kim

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1. Attestation of Test Results

Applicant Name	SAMSUNG ELECTRONICS CO.,LTD.			
FCC ID	A3LNP545XLA1			
Model Number	NP545XLA			
Applicable Standards	FCC 47 CFR § 2.1093 IEEE Std 1528-2013 Published RF exposure KDB procedures			
Exposure Category	SAR Limits (W/Kg)			
	Peak spatial-average (1g of tissue)			
General population / Uncontrolled exposure	1.6			
RF Exposure Conditions	Equipment Class - The Highest Reported SAR (W/kg)			
	PCB	DTS	U-NII	DSS
Standalone	1.25	0.77	1.20	0.36
Simultaneous TX	1.58	1.53	1.58	1.56
Date Tested	Reference model : 4/21/2021 to 6/14/2021 Variant model : 8/10/2021 to 9/3/2021			
Test Results	Pass			

UL Korea, Ltd. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL Korea, Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL Korea, Ltd. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Korea, Ltd. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by IAS, any agency of the Federal Government, or any agency of any government.

Approved & Released By:	Prepared By:
	
Justin Park Operations Leader UL Korea, Ltd. Suwon Laboratory	Sunghoon Kim Test Engineer UL Korea, Ltd. Suwon Laboratory

1.1. The Highest Reported SAR for RF exposure conditions for each bands

Equipment Class	Band	The Highest Reported SAR (W/kg)
		1g of tissue
		Standalone exposure condition
PCB	WCDMA Band II	1.078
	WCDMA Band IV	0.933
	WCDMA Band V	0.716
	LTE Band 2	N/A
	LTE Band 4	N/A
	LTE Band 5	N/A
	LTE Band 7	1.177
	LTE Band 12	0.629
	LTE Band 13	0.844
	LTE Band 25	1.088
	LTE Band 26	0.976
	LTE Band 41	0.959
	LTE Band 66	1.177
	LTE Band 71	1.110
	NR Band n2	N/A
	NR Band n25	1.188
	NR Band n41	1.082
	NR Band n66	**1.247**
	NR Band n71	1.031
DTS	2.4GHz WLAN	**0.765**
UNII	5GHz WLAN	**1.199**
DSS	Bluetooth	**0.361**

1.2. Introduction Of Test Data Reuse

This report referenced from the FCC ID: A3LNP545XLA SAR (FCC 47 CFR § 2.1093, IEEE 1528-2013).

And the applicant takes full responsibility that the test data as referenced in this report represent compliance for this FCC ID..

1.3. Difference

The FCC ID: A3LNP545XLA1 shares the same enclosure and circuit board as FCC ID: A3LNP545XLA.

The antennas and surrounding circuitry and layout are identical between these two units.

Only supported bands are different by S/W enable.

After confirming through Spot-check SAR evaluation that the performance of the FCC ID: A3LNP545XLA remains representative of FCC ID: A3LNP545XLA1. The test data of FCC ID: A3LNP545XLA being submitted for this application to cover WWAN & WLAN & BT features.

Supported bands by S/W enable

Model	Reference model	Variant model
FCC ID	A3LNP545XLA	A3LNP545XLA1
Supported Bands	WCDMA Band II, IV, V LTE Band 2, 4, 5, 7, 12, 13, 14, 66 29 & 46(Rx only) NR(Sub6) Band n2, n5, n66, n77, n78 NR(mmW) Band n261, n260 WLAN(2.4GHz & 5GHz) & BT	WCDMA Band II, IV, V (Added DC-HSDPA) LTE Band 2, 4, 5, 7, 12, 13, 25, 26, 41, 66, 71 46 (Rx only) NR(Sub6) Band n2, n25, n41, n66, n71 NR(mmW) Band n261, n260 WLAN(2.4GHz & 5GHz) & BT

1.4 Reference Detail

Reference application that contains the reused reference data.

Equipment Class	Reference FCC ID (Parent)	Application Type	Reference Test report number	Exhibit Type	Varient Test report number	Data Re-used
PCB	A3LNP545XLA	Original Grant	4789893923-S1	Test Report	4790047184-S1	All (Test results) ***Note.1 & 2***
DTS	A3LNP545XLA	Original Grant	4789893923-S1	Test Report	4790047184-S1	All (Test results)
DSS	A3LNP545XLA	Original Grant	4789893923-S1	Test Report	4790047184-S1	All (Test results)
NII	A3LNP545XLA	Original Grant	4789893923-S1	Test Report	4790047184-S1	All (Test results)

Note(s):

1. Except some bands (LTE Band 14 & NR Band n5, n77, n78), All Test results referenced from Reference model(FCC ID : A3LNP545XLA).

2. Some bands (LTE Band 25, 26, 41, 71 & NR Band n25, n41, n71) tested using Variant model(FCC ID : A3LNP545XLA1).

2. Test Specification, Methods and Procedures

The tests documented in this report were performed in accordance with FCC 47 CFR § 2.1093, IEEE STD 1528-2013, ANSI C63.26-2015 the following FCC Published RF exposure KDB procedures:

- 248227 D01 802.11 Wi-Fi SAR v02r02
- 447498 D01 General RF Exposure Guidance v06
- 616217 D04 SAR for laptop and tablets v01r02
- 690783 D01 SAR Listings on Grants v01r03
- 865664 D01 SAR measurement 100 MHz to 6 GHz v01r04
- 865664 D02 RF Exposure Reporting v01r02
- 941225 D01 3G SAR Procedures v03r01
- 941225 D05 SAR for LTE Devices v02r05
- 941225 D05A LTE Rel.10 KDB Inquiry Sheet v01r02
- 941225 D06 Hotspot Mode v02r01
- 971168 D01 Power Meas License Digital System v03r01

In addition to the above, the following information was used:

- TCB workshop October, 2014; Page 36, RF Exposure Procedures Update (Overlapping LTE Bands)
- TCB workshop October, 2016; Page 7, RF Exposure Procedures (Bluetooth Duty Factor)
- TCB workshop October, 2016; Page 18, RF Exposure Procedures (DUT Holder Perturbations)
- TCB workshop May, 2017; Page 6, RF Exposure Procedures (LTE Test Conditions)
- TCB workshop November, 2017; Page 4, RF Exposure Procedures (LTE UL/DL Carrier Aggregation SAR)
- TCB workshop April, 2018; Page 3, RF Exposure Procedures (LTE DL CA SAR Test Exclusion Update)
- TCB workshop April, 2019 Page 19, RF Exposure Procedures (Tissue Simulating Liquids (TSL))
- TCB workshop November, 2019 Page 5, RF Exposure Procedures (SPLSR Hotspot Combination)
- TCB workshop November, 2019 Page 3, RF Exposure Policy Updates (5G NR FR1 NSA EN-DC UE SAR Evaluations)

3. Facilities and Accreditation

The test sites and measurement facilities used to collect data are located at

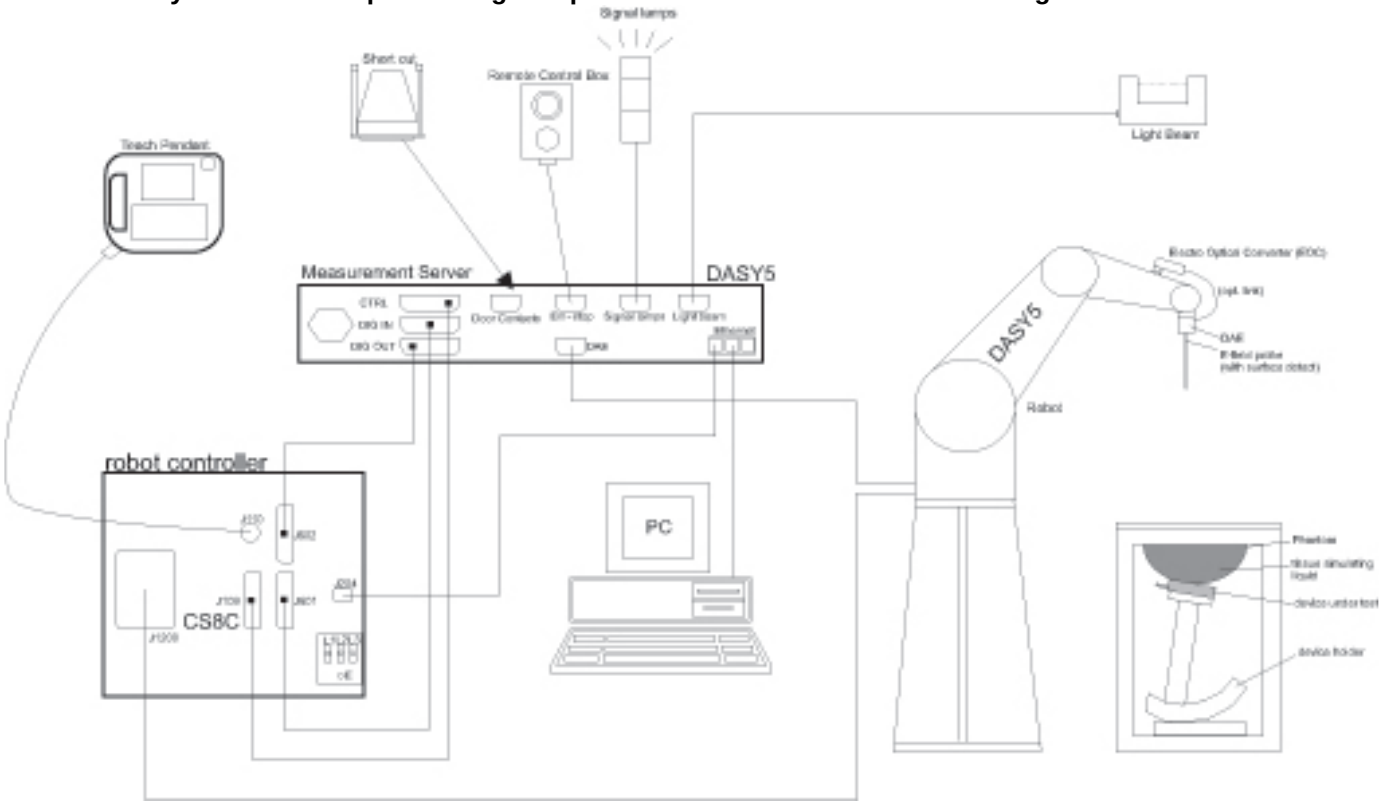
Suwon
SAR 1 Room
SAR 2 Room
SAR 3 Room
SAR 4 Room
SAR 5 Room

UL Korea, Ltd. is accredited by IAS, Laboratory Code TL-637.
The full scope of accreditation can be viewed at https://www.iasonline.org/wp-content/uploads/2017/05/TL-637 -cert-New.pdf.

4. SAR Measurement System & Test Equipment

4.1. SAR Measurement System

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



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

4.2. SAR Scan Procedures

Step 1: 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. The minimum distance of probe sensors to surface is 2.1 mm. This distance cannot be smaller than the distance of sensor calibration points to probe tip as defined in the probe properties.

Step 2: 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 locations even in relatively coarse grids. When an Area Scan has measured all reachable points, it computes the field maximal found in the scanned area, within a range of the global maximum. The range (in dB) is specified in the standards for compliance testing. For example, a 2 dB range is required in IEEE Standard 1528 and IEC 62209 standards, whereby 3 dB is a requirement when compliance is assessed in accordance with the ARIB standard (Japan). If only one Zoom Scan follows the Area Scan, then only the absolute maximum will be taken as reference. For cases where multiple maximums are detected, the number of Zoom Scans has to be increased accordingly.

Area Scan Parameters extracted from KDB 865664 D01 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	½·δ·ln(2) ± 0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	30° ± 1°	20° ± 1°
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 ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	

Step 3: Zoom Scan

Zoom Scans are used to assess the peak spatial SAR values within a cubic averaging volume containing 1 g and 10 g 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 g and 10 g and displays these values next to the job's label.

Zoom Scan Parameters extracted from KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz

			≤ 3 GHz	> 3 GHz
Maximum zoom scan spatial resolution: Δx_{Zoom}, Δy_{Zoom}			≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	≤ 1.5·$\Delta z_{Zoom}(n-1)$	
Minimum zoom scan volume	x, y, z		≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm

Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.

* When zoom scan is required and the *reported* SAR from the *area scan based 1-g SAR estimation* 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.

Step 4: Power drift measurement

The Power Drift Measurement measures the field at the same location as the most recent power reference measurement within the same procedure, and with the same settings. The Power Drift Measurement gives the field difference in dB from the reading conducted within the last Power Reference Measurement. This allows a user to monitor the power drift of the device under test within a batch process. The measurement procedure is the same as Step 1.

Step 5: Z-Scan (FCC only)

The Z Scan measures points along a vertical straight line. The line runs along the Z-axis of a one-dimensional grid. In order to get a reasonable extrapolation the extrapolated distance should not be larger than the step size in Z-direction.

4.3. Test Equipment

The measuring equipment used to perform the tests documented in this report has been calibrated in accordance with the manufacturers' recommendations, and is traceable to recognized national standards.

Dielectric Property Measurements

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
Network Analyzer	Agilent	E5071C	MY46522054	8-6-2022
Dielectric Assessment Kit	SPEAG	DAK-3.5	1196	7-21-2022
Shorting block	SPEAG	DAK-3.5 Short	SM DAK 200 BA	N/A
Thermometer	LKM	DTM3000	3851	8-4-2022

System Check

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
MXG Analog Signal Generator	Agilent	N5181A	MY50145882	8-4-2022
Power Sensor	Agilent	U2000A	MY54260007	8-4-2022
Power Sensor	Agilent	U2000A	MY60180020	8-4-2022
Power Amplifier	EXODUS	1410025-AMP2027-10003	10003	8-4-2022
Directional Coupler	Agilent	772D	MY52180193	8-3-2022
Directional Coupler	Agilent	778D	MY52180432	8-3-2022
Low Pass Filter	MINI-CIRCUITS	NLP-1200	VUU19301915	8-4-2022
Low Pass Filter	MICROLAB	LA-15N	3943	8-3-2022
Low Pass Filter	FILTRON	L14012FL	1410003S	8-3-2022
Attenuator	MINI-CIRCUITS	BW-N3W5+	N/A	8-4-2022
Attenuator	Agilent	8491B/003	MY39272275	8-17-2022
Attenuator	Agilent	8491B/010	MY39272011	8-4-2022
Attenuator	Agilent	8491B/020	MY39271973	8-4-2022
E-Field Probe	SPEAG	EX3DV4	7645	4-15-2022
E-Field Probe	SPEAG	EX3DV4	7330	1-26-2022
E-Field Probe	SPEAG	EX3DV4	7376	7-30-2022
Data Acquisition Electronics (SAR3)	SPEAG	DAE4	614	3-5-2022
Data Acquisition Electronics (SAR4)	SPEAG	DAE4	1591	3-26-2022
Data Acquisition Electronics (SAR5)	SPEAG	DAE4	1494	7-27-2022
System Validation Dipole	SPEAG	D750V3	1122	2-24-2022
System Validation Dipole	SPEAG	D835V2	4d194	3-20-2022
System Validation Dipole	SPEAG	D1900V2	5d199	3-19-2022
System Validation Dipole	SPEAG	D2600V2	1097	9-19-2021
Thermometer (SAR3)	Lutron	MHB-382SD	AH.50213	8-4-2022
Thermometer (SAR4)	Lutron	MHB-382SD	AJ.45903	8-3-2022
Thermometer (SAR5)	Lutron	MHB-382SD	AK.12123	8-3-2022

Others

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
Base Station Simulator	R & S	CMW500	169801	8-3-2022
Base Station Simulator	R & S	CMW500	169799	8-3-2022
Base Station Simulator	R & S	CMW500	169800	8-3-2022
Base Station Simulator	R & S	CMW500	169798	8-3-2022
Base Station Simulator	R & S	CMW500	169797	8-3-2022
Base Station Simulator	R & S	CMW500	150313	8-3-2022
Base Station Simulator	R & S	CMW500	150314	8-4-2022
Base Station Simulator	R & S	CMW500	162790	8-3-2022
UXM 5G Wireless Test Platform	Keysight	E7515B	MY57510596	8-6-2022

Note(s):

1. For System Validation Dipole, Calibration interval applied every 2 years according to referencing KDB 865664 guidance.
2. Refer to Appendix F that mentioned about justification for Extended SAR Dipole Calibrations. (for blue box items)
3. All equipments were used until Cal.Due data.
4. Above equipment are list of used for the SAR test in variant model.

5. Measurement Uncertainty

Per KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz, 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 ≤ 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.

5.1. DECISION RULE

Decision rule for statement(s) of conformity is based on Accuracy Method specified in Procedure 2, Clause 4.4.3 in IEC Guide 115:2007.

6. Device Under Test (DUT) Information

6.1. DUT Description

Device Dimension	Refer to Appendix A.		
Back Cover	☒ The Back Cover is not removable.		
Battery Options	☒ The rechargeable battery is not user accessible		
Wireless Router (Hotspot)	Wi-Fi Hotspot mode permits the device to share its cellular data connection with other Wi-Fi-enabled devices. ☒ Mobile Hotspot (Wi-Fi 2.4 GHz) ☒ Mobile Hotspot (Wi-Fi 5.8 GHz)		
Wi-Fi Direct	Wi-Fi Direct enabled devices transfer data directly between each other ☒ Wi-Fi Direct (Wi-Fi 2.4 GHz) ☒ Wi-Fi Direct (Wi-Fi 5 GHz : Ch.36 – Ch.48, Ch.149 – Ch.165))		
Test Sample Information	**No.**	**S/N**	**Notes**
	1	GE5J930R700054Y	Conducted
	2	GE5J930R700062R	Conducted
	3	GE5J930R700035X	SAR
	4	GE5J930R700033M	SAR
	5	GE5J930R700038D	SAR
	6	GE5J930R700059M	SAR
	7	GE5J930R700033M	SAR

6.2. Wireless Technologies

Wireless technologies	Frequency bands	Operating mode	Duty Cycle used for SAR testing
W-CDMA (UMTS)	Band II Band IV Band V	UMTS Rel. 99 (Voice & Data) HSDPA (Category 24) HSUPA (Category 6) DC-HSDPA (Category 24) HSPA+ (DL only)	100%
LTE	FDD Band 2 FDD Band 4 FDD Band 5 FDD Band 7 FDD Band 12 FDD Band 13 FDD Band 25 FDD Band 26 TDD Band 41 (Power Class 2 & 3) FDD Band 46 (Rx only) FDD Band 66 FDD Band 71	QPSK 16QAM 64QAM 256QAM Rel. 15 Carrier Aggregation (2 Uplink and 6 Downlinks)	100% (FDD) 63.3% (TDD) Power Class 3 43.3% (TDD) Power Class 2
LTE UL CA (2CC)	TDD Band 41 (Power Class 2 & 3)		
	Does this device support SV-LTE (1xRTT-LTE)? ☐ Yes ☒ No		
5G NR (Sub 6)	FDD Band n2 FDD Band n25 TDD Band n41 (Power Class 2 & 3) FDD Band n66 FDD Band n71	DFT-s-ODFM: ■ π/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM CP-ODFM: ■QPSK, 16QAM, 64QAM, 256QAM	100%
Wi-Fi	2.4 GHz	802.11b 802.11g 802.11n (HT20) 802.11ax (HE20)	SISO mode : 99.4% (802.11b) MIMO mode : 96.4% (802.11g)
	5 GHz	802.11a 802.11n (HT20), 802.11n (HT40) 802.11ac (VHT20), 802.11ac (VHT40), 802.11ac (VHT80) 802.11ax (HE20), 802.11ax (HE40), 802.11ax (HE80),	SISO mode: 96.6% (802.11a) 95.8% (802.11ac VHT80) MIMO mode: 96.7% (802.11a) 92.1% (802.11ac VHT80)
	Does this device support bands 5.60 ~ 5.65 GHz? ☒ Yes ☐ No		
	Does this device support Band gap channel(s)? ☒ Yes ☐ No		
Bluetooth	2.4 GHz	Version 5.0 LE	76.7% (DH5)

Notes:

1. The Bluetooth protocol is considered source-based averaging. Bluetooth GFSK (DH5) was verified to have the highest duty cycle of 76.7% and was considered and used for SAR Testing.
2. Duty cycle for Wi-Fi is referenced from the DTS and UNII report.
3. This device supports LTE Uplink CA-contiguous for LTE Band 41 (PC2 & PC3).
4. NR Band SAR test were evaluated using 100% duty cycle.

6.3. Time-Averaging feature

The equipment under test (EUT) contains the Qualcomm modems supporting 3G/4G technologies and 5G NR bands. these modem is enabled with Qualcomm Smart Transmit feature to control and manage transmitting power in real time and to ensure at all times the time-averaged RF exposure is in compliance with the FCC requirement. Refer to Compliance Summary document for detailed description of Qualcomm Smart Transmit feature.

The Smart Transmit algorithm maintains the time-averaged transmit power, in turn, time-averaged RF exposure of *SAR_design_target* or *PD_design_target*, below the predefined time-average power limit, for each characterized technology and band.

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

The maximum time-averaged output power (dBm) for any 3G/4G/5G NR WWAN technology band, and DSI = minimum of " P_{Limit} EFS" and "Maximum tune up output power P_{max}" + 1 dB device uncertainty. SAR values in this report were scaled to this maximum time-averaged output power to determine compliance per KDB 447498 D01.

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

Device State Index (DSI)		0	1	Pmax (Maximum tune-up Power) (dBm)	Note.
Exposure scenario		Standalone SAR without triggering sensor	Standalone SAR with triggering sensor		
Test Distance (mm)		Refet to Section 7.3 in Part.0 report			
Spatial-average		1g	1g		
WWAN Bands	Antenna	PLimit (dBm)			
WCDMA Band II	Main.2	24.8	16.5	**22.5**	
WCDMA Band IV	Main.2	24.7	16.0	**22.5**	
WCDMA Band V	Main.1	26.9	20.0	**23.5**	
LTE Band 7	Main.2	24.6	16.5	**23.0**	
LTE Band 12	Main.1	27.7	20.0	**23.5**	
LTE Band 13	Main.1	26.1	20.0	**23.5**	
LTE Band 25 / 2	Main.2	25.2	16.5	**23.5**	
LTE Band 26 / 5	Main.1	27.3	20.5	**23.5**	
LTE Band 41-Power Class 3	Main.2	24.7	15.0	**22.0**	1
LTE Band 41-Power Class 2	Main.2	23.9	14.9	**22.4**	1
LTE Band 66 / 4	Main.2	24.3	16.5	**23.5**	
LTE Band 71	Main.1	27.9	20.0	**23.5**	
NR Band n25 / n2	Main.2	24.3	16.5	**23.5**	
NR Band n41-Power Class 3	Main.2	26.0	15.0	**23.5**	
NR Band n41-Power Class 2	Main.2	27.2	15.0	**26.0**	
NR Band n66	Main.2	24.2	16.5	**23.5**	
NR Band n71	Main.1	28.6	20.0	**23.5**	

Notes:

1. All P_{Limit} EFS and maximum tune up output P_{max} levels entered in above Table correspond to average power levels after accounting for duty cycle in the case of LTE TDD modulation schemes.
2. Maximum tune up output power P_{max} is used to configure EUT during RF tune up procedures. The maximum allowed output power is equal to maximum tune up output power + 1dB device design uncertainty.
3. Measurement Condition : All conducted power and SAR measurements in this report (Part 1 test) were performed by setting *Reserve_power_margin* (Smart Transmit EFS entry) to 0 dB.
4. If P_{Limit} is higher than P_{max} for some modes / bands, The modes/bands will operate at a power level up to P_{max}.

6.4. Maximum Allowed Output Power

Maximum allowed output power means that Pmax or PLimit + 1dB device uncertainty for each DSI.

RF Air interface	Antenna	Mode	Maximum allowed output power (dBm)	
			DSI = 0	DSI = 1
W-CDMA Band II	Main 2 Ant.	R99	**23.5**	**17.5**
		HSDPA	**22.5**	**17.0**
		HSUPA	**22.5**	**17.0**
		DC-HSDPA	**22.5**	**17.0**
W-CDMA Band IV	Main 2 Ant.	R99	**23.5**	**17.0**
		HSDPA	**22.5**	**16.0**
		HSUPA	**22.5**	**16.0**
		DC-HSDPA	**22.5**	**16.0**
W-CDMA Band V	Main 1 Ant.	R99	**24.5**	**21.0**
		HSDPA	**23.5**	**20.0**
		HSUPA	**23.5**	**20.0**
		DC-HSDPA	**23.5**	**20.0**

RF Air interface	Antenna	Mode	Maximum allowed output Power (dBm)	
			DSI = 0	DSI =1
LTE Band 2	Main.2	QPSK	**24.5**	**17.5**
LTE Band 4	Main.2	QPSK	**24.5**	**17.5**
LTE Band 5	Main.1	QPSK	**24.5**	**21.5**
LTE Band 7	Main.2	QPSK	**24.0**	**17.5**
LTE Band 12	Main.1	QPSK	**24.5**	**21.0**
LTE Band 13	Main.1	QPSK	**24.5**	**21.0**
LTE Band 25	Main.2	QPSK	**24.5**	**17.5**
LTE Band 26	Main.1	QPSK	**24.5**	**21.5**
LTE Band 41-PC3	Main.2	QPSK	**25.0**	**18.0**
LTE Band 41-PC2	Main.2	QPSK	**27.0**	**19.5**
LTE Band 66	Main.2	QPSK	**24.5**	**17.5**
LTE Band 71	Main.1	QPSK	**24.5**	**21.0**

RF Air interface	Antenna	Mode	Maximum allowed output Power (dBm)	
			DSI = 0	DSI =1
NR Band n2	Main.2	DFT-s-OFDM QPSK	**24.5**	**16.5**
NR Band n25	Main.2	DFT-s-OFDM QPSK	**24.5**	**17.5**
NR Band n41-PC3	Main.2	DFT-s-OFDM QPSK	**24.5**	**16.0**
NR Band n41-PC2	Main.2	DFT-s-OFDM QPSK	**27.0**	**16.0**
NR Band n66	Main.2	DFT-s-OFDM QPSK	**24.5**	**17.5**
NR Band n71	Main.1	DFT-s-OFDM QPSK	**24.5**	**21.0**

Note(s):

1. Detail of DSI(Device State Index) conditions, please refer to Sec.6.5.
2. LTE Band 41(PC2 & PC3) has support UL CA intra-band-continues mode with same target power in each standalone LTE bands. Details of configuration are refer to Appendix H.
3. NR Bands support SA and NSA mode as same target power.

WLAN maximum output power

RF Air interface	Mode	Max. RF Output Power (dBm)		Reduced. RF Output Power (dBm) *-Note.2 & 3-*	
		Wi-Fi SISO (Ant.1 / Ant.2)	Wi-Fi MIMO (Ant.1 + Ant.2)	Wi-Fi SISO (Ant.1 / Ant.2)	Wi-Fi MIMO (Ant.1 + Ant.2)
WiFi 2.4 GHz	802.11b	**17.0**		**13.0**	
	802.11g	**16.0**	**19.0**	**13.0**	**16.0**
	802.11n HT20	**16.0**	**19.0**	**13.0**	**16.0**
	802.11ax HE20	**15.0**	**18.0**	**13.0**	**16.0**
WiFi 5 GHz	802.11a	**15.0**	**18.0**	**11.0**	**14.0**
	802.11n HT20	**15.0**	**18.0**	**11.0**	**14.0**
	802.11n HT40	**13.0**	**16.0**	**11.0**	**14.0**
	802.11ac VHT20	**14.0**	**17.0**	**11.0**	**14.0**
	802.11ac VHT40	**13.0**	**16.0**	**11.0**	**14.0**
	802.11ac VHT80	**13.0**	**16.0**	**11.0**	**14.0**
	802.11ax HE20	**14.0**	**17.0**	**11.0**	**14.0**
	802.11ax HE40	**11.0**	**14.0**	**11.0**	**14.0**
	802.11ax HE80	**11.0**	**14.0**	**11.0**	**14.0**
Bluetooth-BR		**16.0**			
Bluetooth-EDR		**15.0**			
Bluetooth-LE_1Mbps		**8.0**			
Bluetooth-LE_2Mbps		**8.0**			

Notes:

1. Only Wi-Fi Ant.1 has support Bluetooth tech.
2. When proximity sensor are triggering for 2.4GHz/5GHz antennas, Output power operates as table of Note.2.
3. When WLAN operate RSDB mode or RSDB mode with triggering proximity sensor , Output power operates as table of Note.2.
4. WLAN operation scenarios are refer to section.12.

6.5. Power Back-off Operation

This device supports power back-off modes using triggering proximity sensor. For full details on how power back-off mode operates, refer to the Operational Description.

Technologies Supported	Power Back-off mode	Standalone Exposure Conditions
All WWAN bands	Proximity sensor triggering	O
Wi-Fi 2.4GHz & 5GHz	Proximity sensor triggering	O
Bluetooth	N/A	N/A

Note(s):

Please refer to Section.9 for all power measurements, and Proximity sensor verification is mention at Appendix G.

RF exposure Conditions	Technologuies Supported	DSI conditions	Supportd Power Back-off mode	Description
Standalone	All WWAN bands	DSI = 0	Proximity sensor -Not triggering-	When Device is not within certain distance of user, Proximity sensor is not triggered.
Standalone	All WWAN bands	DSI = 1	Proximity sensor -Triggering-	When Device is within certain distance of user, Proximity sensor is triggered.

Note(s):

This device uses different Device State Index (DSI) to configure different time averaged power levels based on exposure scenarios for WWAN bands.

6.6. General LTE SAR Test and Reporting Considerations

Item	Description						
Frequency range, Channel Bandwidth, Numbers and Frequencies	Band 2	Frequency range: 1850 - 1910 MHz					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low	18700 /1860	18675/ 1857.5	18650/ 1855	18625/ 1852.5	18615/ 1851.5	18607/ 1850.7
	Mid	18900/ 1880	18900/ 1880	18900/ 1880	18900/ 1880	18900/ 1880	18900/ 1880
	High	19100/ 1900	19125/ 1902.5	19150/ 1905	19175/ 1907.5	19185/ 1908.5	19193/ 1909.3
	Band 4	Frequency range: 1710 - 1755 MHz					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low	20050/ 1720	20025/ 1717.5	20000/ 1715	19975/ 1712.5	19965/ 1711.5	19957/ 1710.7
	Mid	20175/ 1732.5	20175/ 1732.5	20175/ 1732.5	20175/ 1732.5	20175/ 1732.5	20175/ 1732.5
	High	20300/ 1745	20325/ 1747.5	20350/ 1750	20375/ 1752.5	20385/ 1753.5	20393/ 1754.3
	Band 5	Frequency range: 824 - 849 MHz					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low			20450/ 829	20425/ 826.5	20415/ 825.5	20407/ 824.7
	Mid			20525/ 836.5	20525/ 836.5	20525/ 836.5	20525/ 836.5
	High			20600/ 844	20625/ 846.5	20635/ 847.5	20643/ 848.3
	Band 7	Frequency range: 2500 - 2570 MHz					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low	20850 2510	20825 2507.5	20800 2505	20775 2502.5		
	Mid	21100 2535	21100 2535	21100 2535	21100 2535		
	High	21350 2560	21375 2562.5	21400 2565	21425 2567.5		
	Band 12	Frequency range: 699 – 716 MHz					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low			23060/ 704	23035/ 701.5	23025/ 700.5	23017/ 699.7
	Mid			23095/ 707.5	23095/ 707.5	23095/ 707.5	23095/ 707.5
	High			23130/ 711	23155/ 713.5	23165/ 714.5	23173/ 715.3
	Band 13	Frequency range: 777 - 787 MHz					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low				23205/ 779.5		
	Mid			23230/ 782	23230/ 782		
	High				23255/ 784.5		

General LTE SAR Test and Reporting Considerations (Continued)

Frequency range, Channel Bandwidth, Numbers and Frequencies

Band 25	Frequency range: 1850 - 1915 MHz					
	Channel Bandwidth					
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
Low	26140/ 1860	26115/ 1857.5	26090/ 1855	26065/ 1852.5	26055/ 1851.5	26047/ 1850.7
Mid	26365/ 1882.5	26365/ 1882.5	26365/ 1882.5	26365/ 1882.5	26365/ 1882.5	26365/ 1882.5
High	26590/ 1905	26615/ 1907.5	26640/ 1910	26665/ 1912.5	26675/ 1913.5	26683/ 1914.3

Band 26	Frequency range: 814 - 849 MHz					
	Channel Bandwidth					
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
Low		26765/ 821.5	26740/ 819	26715/ 816.5	26705/ 815.5	26697/ 814.7
Mid		26865/ 831.5	26865/ 831.5	26865/ 831.5	26865/ 831.5	26865/ 831.5
High		26965/ 841.5	26990/ 844	27015/ 846.5	27025/ 847.5	27033/ 848.3

Band 41	Frequency range: 2496 - 2690 MHz					
	Channel Bandwidth					
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
Low	39750 / 2506.0					
Low-Mid	40185 / 2549.5					
Mid	40620 / 2593.0					
Mid-High	41055 / 2636.5					
High	41490 / 2680.0					

Band 66	Frequency range: 1710 - 1780 MHz					
	Channel Bandwidth					
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
Low	132072/ 1720	132047/ 1717.5	132022/ 1715	131997/ 1712.5	131987/ 1711.5	131979/ 1710.7
Mid	132322/ 1745	132322/ 1745	132322/ 1745	132322/ 1745	132322/ 1745	132322/ 1745
High	132572/ 1770	132597/ 1772.5	132622/ 1775	132647/ 1777.5	132657/ 1778.5	132665/ 1779.3

Band 71	Frequency range: 663 - 698 MHz					
	Channel Bandwidth					
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
Low	133222/ 673	133197/ 670.5	133172/ 668	133147/ 665.5		
Mid	133297/ 680.5	133297/ 680.5	133297/ 680.5	133297/ 680.5		
High	133372/ 688	133397/ 690.5	133422/ 693	133447/ 695.5		

General LTE SAR Test and Reporting Considerations (Continued)

LTE transmitter and antenna implementation	Refer to Appendix A.
Maximum power reduction (MPR)	**Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3** MPR Built-in by design The manufacturer MPR values are always within the 3GPP maximum MPR allowance but may not follow the default MPR values. A-MPR (additional MPR) was disabled during SAR testing
Power reduction	Yes
Spectrum plots for RB configurations	A properly configured base station simulator was used for the SAR and power measurements; therefore, spectrum plots for each RB allocation and offset configuration are not included in the SAR report.

Modulation	Channel bandwidth / Transmission bandwidth (N_{RB})						MPR (dB)
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1
16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2
64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2
64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3
256 QAM	≥ 1						≤ 5

Notes:

1. Maximum bandwidth does not support at least three non-overlapping channels in certain channel bandwidths. 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 per KDB 941225 D05 SAR for LTE devices.
2. SAR Testing for LTE was performed with the same number of RB and RB offsets transmitting on all TTI frames (maximum TTI).

6.7. NR (Sub 6GHz) SAR Test and Reporting Considerations

Item	Description												
Frequency range, Channel Bandwidth, Numbers and Frequencies	Band n2	Frequency range: 1850 - 1910 MHz											
		Channel Bandwidth (MHz)											
		100	90	80	70	60	50	40	30	25	20	15	10	5
	Low										372000 /1860	371500 /1857.5	371000 /1855	370500/ 1852.5
	Mid										376000 /1880	376000 /1880	376000 /1880	376000/ 1880
	High										380000 /1900	380500 /1902.5	381000 /1905	381500/ 1907.5
	Band n25	Frequency range: 1850 - 1915 MHz											
		Channel Bandwidth (MHz)											
		100	90	80	70	60	50	40	30	25	20	15	10	5
	Low										372000 /1860	371500 /1857.5	371000 /1855	370500 /1852.5
	Mid										376500 /1882.5	376500 /1882.5	376500 /1882.5	376500 /1882.5
	High										381000 /1905	381500 /1907.5	382000 /1910	382500 /1912.5
	Band n41	Frequency range: 2496 - 2690 MHz											
		Channel Bandwidth (MHz)											
		100	90	80	70	60	50	40	30	25	20	15	10	5
	Low	509202 /2546.01	508200/ 2541	507204 /2536.02		505200 /2526	504204 /2512.02	503202 /2516.01	502200 /2511		501204 /2506.02			
	Low-Mid							513468 /2567.34	510402 /2552.01		509898 /2549.49			
	Mid	518598 /2592.99				518598 /2592.99	518598 /2592.99		518598 /2592.99		518598 /2592.99			
	Mid-High	528000 /2640	528996 /2644.98	529998 /2649.99		532998 /2664.99	523734 /2618.67	523734 /2618.67	526800 /2634		527298 /2636.49			
	High							534000 /2670	534996 /2674.98		535998 /2679.99			
	Band n66	Frequency range: 1710 - 1780 MHz											
		Channel Bandwidth (MHz)											
		100	90	80	70	60	50	40	30	25	20	15	10	5
	Low										344000 /1720	343500 /1717.5	343000 /1715	342500 /1712.5
	Mid										349000 /1745	349000 /1745	349000 /1745	349000 /1745
	High										354000 /1770	354500 /1772.5	355000 /1775	355500 /1777.5
	Band n71	Frequency range: 663 - 698 MHz											
		Channel Bandwidth (MHz)											
		100	90	80	70	60	50	40	30	25	20	15	10	5
	Low										134600 /673	134100 /670.5	133600 /668	133147 /665.5
	Mid										136100 /680.5	136100 /680.5	136100 /680.5	136100 /680.5
	High										137600 /688	138100 /690.5	138600 /693	133447 /695.5

NR (Sub 6GHz) SAR Test and Reporting Considerations_(Continued)

Item	Description
SCS	NR FDD Bands (n2, n25, n66, n71): 15 kHz, NR TDD Bands (n41): 30 kHz
Modulations Supported in UL	DFT-s-OFDM: π/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM CP-OFDM: QPSK, 16QAM, 64QAM, 256QAM
A-MPR (Additional MPR) disabled for SAR Testing?	Yes
EN-DC Carrier Aggregation Possible Combinations	
LTE Anchor Bands for NR Band n2	LTE Band 12
LTE Anchor Bands for NR Band n25	LTE Band 12
LTE Anchor Bands for NR Band n41	LTE Band 2 / 66
LTE Anchor Bands for NR Band n66	LTE Band 12
LTE Anchor Bands for NR Band n71	LTE Band 12

Notes:

1. SAR test for NR bands and LTE anchor Bands were performed separately due to limitations in SAR probe calibration factors. And, Due to test setup limitations, SAR testing for NR was performed using test mode software to establish the connection.
2. NR configurations of SAR test were determined according to Section 5.2 of KDB 941225 D05.
3. Except NR Band n41, NR Bands has supports both SA and NSA mode.
4. NR Band n41-PC3 has support only NSA mode, and NR Band n41-PC2 has support only SA mode.

6.8. LTE (TDD) Considerations

According to KDB 941225 D05 SAR for LTE Devices, for Time-Division Duplex (TDD) systems, SAR must be tested using a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by the defined 3GPP LTE TDD configurations.

LTE TDD Bands support 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table 4.2-2 for uplink-downlink configurations and Table 4.2-1 for Special subframe configurations.

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	$26336 \cdot T_s$			$7680 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
5	$6592 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$20480 \cdot T_s$		
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			$12800 \cdot T_s$		
8	$24144 \cdot T_s$			-	-	-
9	$13168 \cdot T_s$			-	-	-

Calculated Duty Cycle

Uplink-Downlink Configuration	Downlink-to-Uplink Switch-point Periodicity	Subframe Number										Calculated Duty Cycle (%)
		0	1	2	3	4	5	6	7	8	9	
0	5 ms	D	S	U	U	U	D	S	U	U	U	63.33
1	5 ms	D	S	U	U	D	D	S	U	U	D	43.33
2	5 ms	D	S	U	D	D	D	S	U	D	D	23.33
3	10 ms	D	S	U	U	U	D	D	D	D	D	31.67
4	10 ms	D	S	U	U	D	D	D	D	D	D	21.67
5	10 ms	D	S	U	D	D	D	D	D	D	D	11.67
6	5 ms	D	S	U	U	U	D	S	U	U	D	53.33

Calculated Duty Cycle = Extended cyclic prefix in uplink x (T_s) x # of S + # of U

Example for Calculated Duty Cycle for Uplink-Downlink Configuration 0:
Calculated Duty Cycle = 5120 x [1/(15000 x 2048)] x 2 + 6 ms = 63.33%
where
T_s = 1/(15000 x 2048) seconds

Note(s):
This device supports uplink-downlink configurations 0-6. The configuration with highest duty cycle was used for SAR Testing: configuration 0 at 63.3% duty cycle. Only LTE Band 41 Power Class 2 was used configuration 1 at 43.3% duty cycle for SAR testing.

7. RF Exposure Conditions (Test Configurations)

This device's all antennas located in keyboard section of laptop. And This device has not support tablet use conditions. So SAR is required for the bottom surface of the keyboard section with display screen opened at an angle of 90 degree according to KDB 616217 D04.

7.1 Required Test Configurations

The table below identifies the standalone test configurations required for this device.

Antenna	Tx Interface	Pwr Back-off	Rear (bottom of keyboard section)
Main 2	W-CDMA Band II	OFF	Yes
		ON	Yes
Main 2	W-CDMA Band IV	OFF	Yes
		ON	Yes
Main 1	W-CDMA Band V	OFF	Yes
		ON	Yes
Main 2	LTE Band 7	OFF	Yes
		ON	Yes
Main 1	LTE Band 12	OFF	Yes
		ON	Yes
Main 1	LTE Band 13	OFF	Yes
		ON	Yes
Main 2	LTE Band 25 / 2	OFF	Yes
		ON	Yes
Main 1	LTE Band 26 / 5	OFF	Yes
		ON	Yes
Main 2	LTE Band 41	OFF	Yes
		ON	Yes
Main 2	LTE Band 66 / 4	OFF	Yes
		ON	Yes
Main 1	LTE Band 71	OFF	Yes
		ON	Yes
Main 2	NR Band n2	OFF	Yes
		ON	Yes
Main 2	NR Band n25	OFF	Yes
		ON	Yes
Main 2	NR Band n41	OFF	Yes
		ON	Yes
Main 2	NR Band n66	OFF	Yes
		ON	Yes
Main 1	NR Band n71	OFF	Yes
		ON	Yes
WLAN Ant.1 & WLAN Ant.2	2.4GHz DTS	OFF	Yes
		ON	Yes
	5GHz UNII	OFF	Yes
		ON	Yes
WLAN MIMO (Ant.1 + Ant.2)	2.4GHz DTS	OFF	Yes
		ON	Yes
	5GHz UNII	OFF	Yes
		ON	Yes
Bluetooth Ant.1	2.4GHz GFSK	N/A	Yes

8. Dielectric Property Measurements & System Check

8.1 Dielectric Property Measurements

The temperature of the tissue-equivalent medium used during measurement must also be within 18°C to 25°C and within ± 2°C of the temperature when the tissue parameters are characterized.
The dielectric parameters must be measured before the tissue-equivalent medium is used in a series of SAR measurements. The parameters should be re-measured after each 3 – 4 days of use; or earlier if the dielectric parameters can become out of tolerance; for example, when the parameters are marginal at the beginning of the measurement series.
Tissue dielectric parameters were measured at the low, middle and high frequency of each operating frequency range of the test device.

Tissue Dielectric Parameters

FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz

Target Frequency (MHz)	Head		Body	
	ε_r	σ (S/m)	ε_r	σ (S/m)
150	52.3	0.76	61.9	0.80
300	45.3	0.87	58.2	0.92
450	43.5	0.87	56.7	0.94
835	41.5	0.90	55.2	0.97
900	41.5	0.97	55.0	1.05
915	41.5	0.98	55.0	1.06
1450	40.5	1.20	54.0	1.30
1610	40.3	1.29	53.8	1.40
1800 – 2000	40.0	1.40	53.3	1.52
2450	39.2	1.80	52.7	1.95
3000	38.5	2.40	52.0	2.73
5000	36.2	4.45	49.3	5.07
5100	36.1	4.55	49.1	5.18
5200	36.0	4.66	49.0	5.30
5300	35.9	4.76	48.9	5.42
5400	35.8	4.86	48.7	5.53
5500	35.6	4.96	48.6	5.65
5600	35.5	5.07	48.5	5.77
5700	35.4	5.17	48.3	5.88
5800	35.3	5.27	48.2	6.00

SAR test were performed in All RF exposure conditions using Head tissue according to TCB workshop note of April. 2019.

IEEE Std 1528-2013

Refer to Table 3 within the IEEE Std 1528-2013

Dielectric Property Measurements Results:

SAR 3 Room

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
8-10-2021	Head 1900	e'	40.6900	Relative Permittivity (ε_r):	40.69	40.00	1.72	5
		e"	13.6500	Conductivity (σ):	1.44	1.40	3.00	5
	Head 1850	e'	40.8000	Relative Permittivity (ε_r):	40.80	40.00	2.00	5
		e"	13.8000	Conductivity (σ):	1.42	1.40	1.40	5
	Head 1910	e'	40.6700	Relative Permittivity (ε_r):	40.67	40.00	1.68	5
		e"	13.6300	Conductivity (σ):	1.45	1.40	3.40	5
8-18-2021	Head 1900	e'	39.8200	Relative Permittivity (ε_r):	39.82	40.00	-0.45	5
		e"	13.7100	Conductivity (σ):	1.45	1.40	3.46	5
	Head 1850	e'	39.8100	Relative Permittivity (ε_r):	39.81	40.00	-0.47	5
		e"	13.7300	Conductivity (σ):	1.41	1.40	0.88	5
	Head 1910	e'	39.8100	Relative Permittivity (ε_r):	39.81	40.00	-0.47	5
		e"	13.7000	Conductivity (σ):	1.45	1.40	3.93	5
8-18-2021	Head 2600	e'	38.5700	Relative Permittivity (ε_r):	38.57	39.01	-1.13	5
		e"	13.2700	Conductivity (σ):	1.92	1.96	-2.23	5
	Head 2500	e'	38.7600	Relative Permittivity (ε_r):	38.76	39.14	-0.96	5
		e"	13.2900	Conductivity (σ):	1.85	1.85	-0.36	5
	Head 2700	e'	38.2600	Relative Permittivity (ε_r):	38.26	38.88	-1.61	5
		e"	13.2600	Conductivity (σ):	1.99	2.07	-3.84	5
8-23-2021	Head 1900	e'	38.9000	Relative Permittivity (ε_r):	38.90	40.00	-2.75	5
		e"	13.5900	Conductivity (σ):	1.44	1.40	2.55	5
	Head 1850	e'	38.7800	Relative Permittivity (ε_r):	38.78	40.00	-3.05	5
		e"	13.6900	Conductivity (σ):	1.41	1.40	0.59	5
	Head 1910	e'	38.9300	Relative Permittivity (ε_r):	38.93	40.00	-2.68	5
		e"	13.5900	Conductivity (σ):	1.44	1.40	3.09	5
8-26-2021	Head 1900	e'	40.9400	Relative Permittivity (ε_r):	40.94	40.00	2.35	5
		e"	13.0000	Conductivity (σ):	1.37	1.40	-1.90	5
	Head 1850	e'	40.9300	Relative Permittivity (ε_r):	40.93	40.00	2.33	5
		e"	13.1800	Conductivity (σ):	1.36	1.40	-3.16	5
	Head 1910	e'	40.9300	Relative Permittivity (ε_r):	40.93	40.00	2.33	5
		e"	12.9900	Conductivity (σ):	1.38	1.40	-1.46	5
8-30-2021	Head 1900	e'	39.0800	Relative Permittivity (ε_r):	39.08	40.00	-2.30	5
		e"	13.7600	Conductivity (σ):	1.45	1.40	3.83	5
	Head 1850	e'	39.1200	Relative Permittivity (ε_r):	39.12	40.00	-2.20	5
		e"	13.8400	Conductivity (σ):	1.42	1.40	1.69	5
	Head 1910	e'	39.0600	Relative Permittivity (ε_r):	39.06	40.00	-2.35	5
		e"	13.7400	Conductivity (σ):	1.46	1.40	4.23	5

SAR 4 Room

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
8-30-2021	Head 2600	e'	39.9400	Relative Permittivity (ε_r):	39.94	39.01	2.38	5
		e"	13.6600	Conductivity (σ):	1.97	1.96	0.64	5
	Head 2500	e'	39.9300	Relative Permittivity (ε_r):	39.93	39.14	2.03	5
		e"	13.2600	Conductivity (σ):	1.84	1.85	-0.58	5
	Head 2700	e'	39.3200	Relative Permittivity (ε_r):	39.32	38.88	1.12	5
		e"	14.2800	Conductivity (σ):	2.14	2.07	3.55	5

SAR 5 Room

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
8-11-2021	Head 835	e'	40.6500	Relative Permittivity (ϵ_r):	40.65	41.50	-2.05	5
		e''	19.0800	Conductivity (σ):	0.89	0.90	-1.57	5
	Head 820	e'	40.7100	Relative Permittivity (ϵ_r):	40.71	41.60	-2.15	5
		e''	19.4500	Conductivity (σ):	0.89	0.90	-1.30	5
	Head 850	e'	40.5900	Relative Permittivity (ϵ_r):	40.59	41.50	-2.19	5
		e''	18.7500	Conductivity (σ):	0.89	0.92	-3.15	5
8-17-2021	Head 750	e'	42.0100	Relative Permittivity (ϵ_r):	42.01	41.96	0.12	5
		e''	21.8500	Conductivity (σ):	0.91	0.89	2.03	5
	Head 680	e'	42.2400	Relative Permittivity (ϵ_r):	42.24	42.32	-0.19	5
		e''	23.5100	Conductivity (σ):	0.89	0.89	0.14	5
	Head 790	e'	41.9000	Relative Permittivity (ϵ_r):	41.90	41.76	0.34	5
		e''	21.0500	Conductivity (σ):	0.92	0.90	3.18	5
8-17-2021	Head 835	e'	41.7800	Relative Permittivity (ϵ_r):	41.78	41.50	0.67	5
		e''	20.2500	Conductivity (σ):	0.94	0.90	4.46	5
	Head 820	e'	41.8100	Relative Permittivity (ϵ_r):	41.81	41.60	0.50	5
		e''	20.5100	Conductivity (σ):	0.94	0.90	4.08	5
	Head 850	e'	41.7500	Relative Permittivity (ϵ_r):	41.75	41.50	0.60	5
		e''	19.9900	Conductivity (σ):	0.94	0.92	3.25	5
8-23-2021	Head 750	e'	41.1200	Relative Permittivity (ϵ_r):	41.12	41.96	-2.01	5
		e''	21.0000	Conductivity (σ):	0.88	0.89	-1.94	5
	Head 680	e'	41.3500	Relative Permittivity (ϵ_r):	41.35	42.32	-2.29	5
		e''	22.5900	Conductivity (σ):	0.85	0.89	-3.78	5
	Head 790	e'	40.8700	Relative Permittivity (ϵ_r):	40.87	41.76	-2.12	5
		e''	20.0300	Conductivity (σ):	0.88	0.90	-1.82	5
8-26-2021	Head 750	e'	43.0100	Relative Permittivity (ϵ_r):	43.01	41.96	2.50	5
		e''	20.7400	Conductivity (σ):	0.86	0.89	-3.15	5
	Head 680	e'	43.4000	Relative Permittivity (ϵ_r):	43.40	42.32	2.55	5
		e''	22.7800	Conductivity (σ):	0.86	0.89	-2.97	5
	Head 790	e'	42.8500	Relative Permittivity (ϵ_r):	42.85	41.76	2.62	5
		e''	19.8000	Conductivity (σ):	0.87	0.90	-2.95	5
8-26-2021	Head 2600	e'	38.1000	Relative Permittivity (ϵ_r):	38.10	39.01	-2.33	5
		e''	13.4500	Conductivity (σ):	1.94	1.96	-0.90	5
	Head 2500	e'	38.2200	Relative Permittivity (ϵ_r):	38.22	39.14	-2.34	5
		e''	13.4100	Conductivity (σ):	1.86	1.85	0.54	5
	Head 2700	e'	37.9000	Relative Permittivity (ϵ_r):	37.90	38.88	-2.53	5
		e''	13.5000	Conductivity (σ):	2.03	2.07	-2.10	5

8.2 System Check

SAR system verification is required to confirm measurement accuracy, according to the tissue dielectric media, probe calibration points and other system operating parameters required for measuring the SAR of a test device. The system verification must be performed for each frequency band and within the valid range of each probe calibration point required for testing the device. The same SAR probe(s) and tissue-equivalent media combinations used with each specific SAR system for system verification must be used for device testing. When multiple probe calibration points are required to cover substantially large transmission bands, independent system verifications are required for each probe calibration point. A system verification must be performed before each series of SAR measurements using the same probe calibration point and tissue-equivalent medium. Additional system verification should be considered according to the conditions of the tissue-equivalent medium and measured tissue dielectric parameters, typically every three to four days when the liquid parameters are re-measured or sooner when marginal liquid parameters are used at the beginning of a series of measurements.

System Performance Check Measurement Conditions:

- The measurements were performed in the flat section of the TWIN SAM or ELI phantom, shell thickness: 2.0 ±0.2 mm (bottom plate) filled with Body or Head simulating liquid of the following parameters.
- The depth of tissue-equivalent liquid in a phantom must be ≥ 15.0 cm for SAR measurements ≤ 3 GHz and ≥ 10.0 cm for measurements > 3 GHz.
- The DASY system with an E-Field Probe was used for the measurements.
- The dipole was mounted on the small tripod so that the dipole feed point was positioned below the center marking of the flat phantom section and the dipole was oriented parallel to the body axis (the long side of the phantom). The standard measuring distance was 10 mm (above 1 GHz) and 15 mm (below 1 GHz) from dipole center to the simulating liquid surface.
- The coarse grid with a grid spacing of 15 mm was aligned with the dipole.
  For 5 GHz band - The coarse grid with a grid spacing of 10 mm was aligned with the dipole.
- Special 7x7x7 (below 3 GHz) and/or 8x8x7 (above 3 GHz) fine cube was chosen for the cube.
- Distance between probe sensors and phantom surface was set to 2.5 mm.
  For 5 GHz band - Distance between probe sensors and phantom surface was set to 1.4 mm
- The dipole input power (forward power) was 100 mW.
- The results are normalized to 1 W input power.

Reference Target SAR Values

The reference SAR values can be obtained from the calibration certificate of system validation dipoles.

System Dipole	Serial No.	Cal. Date	Freq. (MHz)	Target SAR Values (W/kg)	
				1g/10g	Head
D750V3	1122	2020-02-24	750	1g	8.54
				10g	5.59
D835V2	4d194	2020-03-20	835	1g	9.76
				10g	6.42
D1900V2	5d199	2020-03-19	1900	1g	40.50
				10g	21.00
D2600V2	1097	2019-09-19	2600	1g	57.30
				10g	25.70

System Check Results

The 1-g and 10-g SAR measured with a reference dipole, using the required tissue-equivalent medium at the test frequency, must be within 10% of the manufacturer calibrated dipole SAR target.

SAR 3 Room

Date Tested	System Dipole		T.S. Liquid		Measured Results		Target (Ref. Value)	Delta ±10 %	Plot No.
	Type	Serial #			Zoom Scan to 100 mW	Normalize to 1 W			
8-10-2021	D1900V2	5d199	Head	1g	4.18	41.8	40.50	3.21	1, 2
				10g	2.14	21.4	21.00	1.90	
8-18-2021	D1900V2	5d199	Head	1g	3.97	39.7	40.50	-1.98	
				10g	2.05	20.5	21.00	-2.38	
8-18-2021	D2600V2	1097	Head	1g	5.52	55.2	57.30	-3.66	3, 4
				10g	2.45	24.5	25.70	-4.67	
8-23-2021	D1900V2	5d199	Head	1g	4.05	40.5	40.50	0.00	
				10g	2.09	20.9	21.00	-0.48	
8-26-2021	D1900V2	5d199	Head	1g	3.92	39.2	40.50	-3.21	
				10g	2.02	20.2	21.00	-3.81	
8-30-2021	D1900V2	5d199	Head	1g	4.09	40.9	40.50	0.99	
				10g	2.10	21.0	21.00	0.00	

SAR 4 Room

Date Tested	System Dipole		T.S. Liquid		Measured Results		Target (Ref. Value)	Delta ±10 %	Plot No.
	Type	Serial #			Zoom Scan to 100 mW	Normalize to 1 W			
8-30-2021	D2600V2	1097	Head	1g	5.70	57.0	57.30	-0.52	5, 6
				10g	2.50	25.0	25.70	-2.72	

SAR 5 Room

Date Tested	System Dipole		T.S. Liquid		Measured Results		Target (Ref. Value)	Delta ±10 %	Plot No.
	Type	Serial #			Zoom Scan to 100 mW	Normalize to 1 W			
8-11-2021	D835V2	4d194	Head	1g	0.96	9.6	9.76	-1.33	
				10g	0.64	6.4	6.42	-0.47	
8-17-2021	D750V3	1122	Head	1g	0.88	8.8	8.54	2.58	7, 8
				10g	0.58	5.8	5.59	3.40	
8-17-2021	D835V2	4d194	Head	1g	1.02	10.2	9.76	4.51	9, 10
				10g	0.67	6.7	6.42	4.83	
8-23-2021	D750V3	1122	Head	1g	0.87	8.7	8.54	1.29	
				10g	0.58	5.8	5.59	3.76	
8-26-2021	D750V3	1122	Head	1g	0.86	8.6	8.54	0.35	
				10g	0.57	5.7	5.59	2.33	
8-26-2021	D2600V2	1097	Head	1g	5.67	56.7	57.30	-1.05	
				10g	2.60	26.0	25.70	1.17	

9. Conducted Output Power Measurements

9.1 W-CDMA

Release 99 Setup Procedures used to establish the test signals

The following tests were completed according to the test requirements outlined in section 5.2 of the 3GPP TS34.121-1 specification. The DUT supports power Class 3, which has a nominal maximum output power of 24 dBm (+1.7/-3.7).

Mode	Subtest	Rel99
WCDMA General Settings	Loopback Mode	Test Mode 2
	Rel99 RMC	12.2kbps RMC
	Power Control Algorithm	Algorithm2
	βc/βd	8/15

HSDPA Setup Procedures used to establish the test signals

The following 4 Sub-tests were completed according to Release 5 procedures in section 5.2 of 3GPP TS34.121. A summary of these settings are illustrated below:

	Mode	HSDPA	HSDPA	HSDPA	HSDPA
	Subtest	1	2	3	4
W-CDMA General Settings	Loopback Mode	Test Mode 1			
	Rel99 RMC	12.2kbps RMC			
	HSDPA FRC	H-Set 1			
	Power Control Algorithm	Algorithm 2			
	βc	2/15	11/15	15/15	15/15
	βd	15/15	15/15	8/15	4/15
	Bd (SF)	64			
	βc/βd	2/15	11/15	15/8	15/4
	βhs	4/15	24/15	30/15	30/15
	MPR (dB)	0	0	0.5	0.5
HSDPA Specific Settings	D_{ACK}	8			
	D_{NAK}	8			
	DCQI	8			
	Ack-Nack repetition factor	3			
	CQI Feedback (Table 5.2B.4)	4ms			
	CQI Repetition Factor (Table 5.2B.4)	2			
	Ahs=βhs/βc	30/15			

HSPA (HSDPA & HSUPA) Setup Procedures used to establish the test signals

The following 5 Sub-tests were completed according to Release 6 procedures in table C,11.1.3 of 3GPP TS 34.121-1 v13.
A summary of these settings are illustrated below:

	Mode	HSPA				
	Subtest	1	2	3	4	5
WCDMA General Settings	Loopback Mode	Test Mode 1				
	Rel99 RMC	12.2 kbps RMC				
	HSDPA FRC	H-Set 1				
	HSUPA Test	HSPA				
	Power Control Algorithm	Algorithm 2				Algorithm 1
	βc	11/15	6/15	15/15	2/15	15/15
	βd	15/15	15/15	9/15	15/15	0
	βec	209/225	12/15	30/15	2/15	5/15
	βc/βd	11/15	6/15	15/9	2/15	-
	βhs	22/15	12/15	30/15	4/15	5/15
	βed	1309/225	94/75	47/15	56/75	47/15
	CM (dB)	1	3	2	3	1
	MPR (dB)	0	2	1	2	0
HSDPA Specific Settings	DACK	8				0
	DNAK	8				0
	DCQI	8				0
	Ack-Nack repetition factor	3				
	CQI Feedback (Table 5.2B.4)	4ms				
	CQI Repetition Factor (Table 5.2B.4)	2				
	Ahs = βhs/βc	30/15				
HSUPA Specific Settings	E-DPDCH	6	8	8	5	0
	DHARQ	0	0	0	0	0
	AG Index	20	12	15	17	12
	ETFCI (from 34.121 Table C.11.1.3)	75	67	92	71	67
	Associated Max UL Data Rate kbps	242.1	174.9	482.8	205.8	308.9
	Reference E-TFCIs	5	5	2	5	1
	Reference E-TFCI	11	11	11	11	67
	Reference E-TFCI PO	4	4	4	4	18
	Reference E-TFCI	67	67	92	67	67
	Reference E-TFCI PO	18	18	18	18	18
	Reference E-TFCI	71	71	71	71	71
	Reference E-TFCI PO	23	23	23	23	23
	Reference E-TFCI	75	75	75	75	75
	Reference E-TFCI PO	26	26	26	26	26
	Reference E-TFCI	81	81	81	81	81
	Reference E-TFCI PO	27	27	27	27	27
	Maximum Channelization Codes	2xSF2				SF4

DC-HSDPA Setup Procedures used to establish the test signals

The following tests were completed according to procedures in section 7.3.13 of 3GPP TS34.108 v9.5.0. A summary of these settings are illustrated below:

Downlink Physical Channels are set as per 3GPP TS34.121-1 v9.0.0 E.5.0

Table E.5.0: Levels for HSDPA connection setup

Parameter During Connection setup	Unit	Value
P-CPICH_Ec/Ior	dB	-10
P-CCPCH and SCH_Ec/Ior	dB	-12
PICH _Ec/Ior	dB	-15
HS-PDSCH	dB	off
HS-SCCH_1	dB	off
DPCH_Ec/Ior	dB	-5
OCNS_Ec/Ior	dB	-3.1

Call is set up as per 3GPP TS34.108 v9.5.0 sub clause 7.3.13

The configurations of the fixed reference channels for HSDPA RF tests are described in 3GPP TS 34.121, annex C for FDD and 3GPP TS 34.122.

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.		

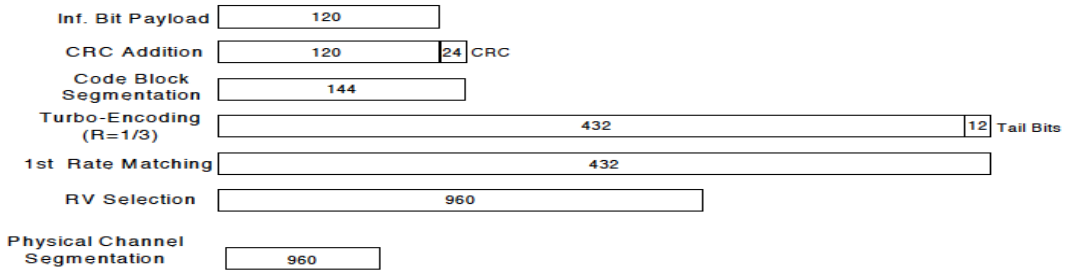


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

The following 4 Sub-tests for HSDPA were completed according to Release 8 procedures in section 5.2 of 3GPP TS34.121. A summary of subtest settings are illustrated below:

	Mode	HSDPA	HSDPA	HSDPA	HSDPA
	Subtest	1	2	3	4
WCDMA General Settings	Loopback Mode	Test Mode 1			
	Rel99 RMC	12.2kbps RMC			
	HSDPA FRC	H-Set 12			
	Power Control Algorithm	Algorithm2			
	βc	2/15	11/15	15/15	15/15
	βd	15/15	15/15	8/15	4/15
	βd (SF)	64			
	βc/βd	2/15	11/15	15/8	15/4
	βhs	4/15	24/15	30/15	30/15
	MPR (dB)	0	0	0.5	0.5
HSDPA Specific Settings	DACK	8			
	DNAK	8			
	DCQI	8			
	Ack-Nack Repetition factor	3			
	CQI Feedback	4ms			
	CQI Repetition Factor	2			
	Ahs = βhs/ βc	30/15			

HSPA+

HSPA+ is only support to down link. Therefore, the RF conducted power is not measured.

W-CDMA Band II Measured Results

Except DC-HSDPA mode, Test results were refer to reference model (FCC ID : A3LNP545XLA).

Mode		UL Ch No.	Freq. (MHz)	Maximum Allowed Average Power (dBm)					
				DSI = 0			DSI = 1		
				Measured Pwr	MPR	Tune-up Limit	Measured Pwr	MPR	Tune-up Limit
Release 99	Rel 99 (RMC, 12.2 kbps)	9262	1852.4	23.0	N/A	23.5	17.0	N/A	17.5
		9400	1880.0	22.9			17.0		
		9538	1907.6	23.0			17.0		
HSDPA	Subtest 1	9262	1852.4	22.0	0	22.5	16.0	0	17.0
		9400	1880.0	21.9			16.0		
		9538	1907.6	22.0			16.0		
	Subtest 2	9262	1852.4	22.0	0	22.5	16.0	0	17.0
		9400	1880.0	21.9			16.0		
		9538	1907.6	22.0			16.0		
	Subtest 3	9262	1852.4	21.5	0.5	22.0	15.5	0.5	16.5
		9400	1880.0	21.4			15.5		
		9538	1907.6	21.5			15.5		
	Subtest 4	9262	1852.4	21.5	0.5	22.0	15.5	0.5	16.5
		9400	1880.0	21.4			15.5		
		9538	1907.6	21.5			15.5		
HSUPA	Subtest 1	9262	1852.4	22.0	0	22.5	16.0	0	17.0
		9400	1880.0	21.9			15.9		
		9538	1907.6	22.0			16.0		
	Subtest 2	9262	1852.4	20.0	2	20.5	14.1	2	15.0
		9400	1880.0	19.9			14.0		
		9538	1907.6	20.0			14.0		
	Subtest 3	9262	1852.4	21.0	1	21.5	15.0	1	16.0
		9400	1880.0	21.0			14.9		
		9538	1907.6	21.0			14.9		
	Subtest 4	9262	1852.4	20.0	2	20.5	14.0	2	15.0
		9400	1880.0	20.0			13.9		
		9538	1907.6	20.0			14.0		
	Subtest 5	9262	1852.4	22.0	0	22.5	16.0	0	17.0
		9400	1880.0	22.0			15.9		
		9538	1907.6	22.0			16.0		
DC-HSDPA	Subtest 1	9262	1852.4	21.9	0	22.5	16.0	0	17.0
		9400	1880.0	21.9			15.9		
		9538	1907.6	21.9			16.0		
	Subtest 2	9262	1852.4	21.9	0	22.5	16.0	0	17.0
		9400	1880.0	21.8			15.9		
		9538	1907.6	21.8			15.9		
	Subtest 3	9262	1852.4	21.4	0.5	22.0	15.5	0.5	16.5
		9400	1880.0	21.4			15.4		
		9538	1907.6	21.3			15.5		
	Subtest 4	9262	1852.4	21.4	0.5	22.0	15.5	0.5	16.5
		9400	1880.0	21.4			15.4		
		9538	1907.6	21.3			15.5		

W-CDMA Band IV Measured Results

Except DC-HSDPA mode, Test results were refer to reference model (FCC ID : A3LNP545XLA).

Mode		UL Ch No.	Freq. (MHz)	Maximum Allowed Average Power (dBm)					
				DSI = 0			DSI = 1		
				Measured Pwr	MPR	Tune-up Limit	Measured Pwr	MPR	Tune-up Limit
Release 99	Rel 99 (RMC, 12.2 kbps)	1312	1712.4	23.0	N/A	23.5	16.5	N/A	17.0
		1413	1732.6	22.9			16.5		
		1513	1752.6	22.8			16.3		
HSDPA	Subtest 1	1312	1712.4	22.0	0	22.5	15.5	0	16.0
		1413	1732.6	21.9			15.4		
		1513	1752.6	21.8			15.3		
	Subtest 2	1312	1712.4	22.0	0	22.5	15.5	0	16.0
		1413	1732.6	21.9			15.4		
		1513	1752.6	21.8			15.3		
	Subtest 3	1312	1712.4	21.5	0.5	22.0	15.0	0.5	15.5
		1413	1732.6	21.4			14.9		
		1513	1752.6	21.3			14.8		
	Subtest 4	1312	1712.4	21.5	0.5	22.0	15.0	0.5	15.5
		1413	1732.6	21.4			14.9		
		1513	1752.6	21.3			14.8		
HSUPA	Subtest 1	1312	1712.4	22.0	0	22.5	15.5	0	16.0
		1413	1732.6	22.0			15.4		
		1513	1752.6	22.0			15.3		
	Subtest 2	1312	1712.4	20.0	2	20.5	13.5	2	14.0
		1413	1732.6	20.0			13.4		
		1513	1752.6	20.0			13.3		
	Subtest 3	1312	1712.4	21.0	1	21.5	14.5	1	15.0
		1413	1732.6	21.0			14.4		
		1513	1752.6	21.0			14.5		
	Subtest 4	1312	1712.4	20.0	2	20.5	13.5	2	14.0
		1413	1732.6	20.0			13.5		
		1513	1752.6	20.0			13.4		
	Subtest 5	1312	1712.4	22.0	0	22.5	15.5	0	16.0
		1413	1732.6	22.0			15.5		
		1513	1752.6	22.0			15.4		
DC-HSDPA	Subtest 1	1312	1712.4	21.8	0	22.5	15.3	0	16.0
		1413	1732.6	21.7			15.2		
		1513	1752.6	21.6			15.2		
	Subtest 2	1312	1712.4	21.7	0	22.5	15.3	0	16.0
		1413	1732.6	21.8			15.3		
		1513	1752.6	21.6			15.2		
	Subtest 3	1312	1712.4	21.2	0.5	22.0	14.8	0.5	15.5
		1413	1732.6	21.2			14.7		
		1513	1752.6	21.1			14.7		
	Subtest 4	1312	1712.4	21.3	0.5	22.0	14.8	0.5	15.5
		1413	1732.6	21.3			14.7		
		1513	1752.6	21.1			14.6		

W-CDMA Band V Measured Results

Except DC-HSDPA mode, Test results were refer to reference model (FCC ID : A3LNP545XLA).

Mode		UL Ch No.	Freq. (MHz)	Maximum Allowed Average Power (dBm)					
				DSI = 0			DSI = 1		
				Measured Pwr	MPR	Tune-up Limit	Measured Pwr	MPR	Tune-up Limit
Release 99	Rel 99 (RMC, 12.2 kbps)	4132	826.4	24.0	N/A	24.5	20.4	N/A	21.0
		4183	836.6	24.0			20.4		
		4233	846.6	24.0			20.4		
HSDPA	Subtest 1	4132	826.4	23.0	0	23.5	19.4	0	20.0
		4183	836.6	23.0			19.4		
		4233	846.6	23.0			19.4		
	Subtest 2	4132	826.4	23.0	0	23.5	19.4	0	20.0
		4183	836.6	23.0			19.4		
		4233	846.6	23.0			19.4		
	Subtest 3	4132	826.4	22.5	0.5	23.0	18.9	0.5	19.5
		4183	836.6	22.5			18.9		
		4233	846.6	22.5			18.9		
	Subtest 4	4132	826.4	22.5	0.5	23.0	18.9	0.5	19.5
		4183	836.6	22.5			18.9		
		4233	846.6	22.5			18.9		
HSUPA	Subtest 1	4132	826.4	23.0	0	23.5	19.4	0	20.0
		4183	836.6	23.0			19.4		
		4233	846.6	23.0			19.4		
	Subtest 2	4132	826.4	21.0	2	21.5	17.4	2	18.0
		4183	836.6	21.0			17.4		
		4233	846.6	21.0			17.4		
	Subtest 3	4132	826.4	22.0	1	22.5	18.4	1	19.0
		4183	836.6	22.0			18.4		
		4233	846.6	22.0			18.4		
	Subtest 4	4132	826.4	21.0	2	21.5	17.4	2	18.0
		4183	836.6	21.0			17.4		
		4233	846.6	21.0			17.4		
	Subtest 5	4132	826.4	22.5	0	23.5	18.8	0	20.0
		4183	836.6	22.5			18.9		
		4233	846.6	22.6			18.9		
DC-HSDPA	Subtest 1	4132	826.4	22.7	0	23.5	19.3	0	20.0
		4183	836.6	22.8			19.3		
		4233	846.6	22.7			19.3		
	Subtest 2	4132	826.4	22.7	0	23.5	19.3	0	20.0
		4183	836.6	22.8			19.3		
		4233	846.6	22.8			19.3		
	Subtest 3	4132	826.4	22.2	0.5	23.0	18.8	0.5	19.5
		4183	836.6	22.3			18.8		
		4233	846.6	22.3			18.8		
	Subtest 4	4132	826.4	22.2	0.5	23.0	18.8	0.5	19.5
		4183	836.6	22.2			18.8		
		4233	846.6	22.3			18.8		

9.2 LTE

The following tests were conducted according to the test requirements outlined in section 6.2 of the 3GPP TS36.101 specification.

UE Power Class: 3 (23 +/- 2dBm). The allowed Maximum Power Reduction (MPR) for the maximum output power due to higher order modulation and transmit bandwidth configuration (resource blocks) is specified in Table 6.2.3-1 of the 3GPP TS36.101.

Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3

Modulation	Channel bandwidth / Transmission bandwidth (N_{RB})						MPR (dB)
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1
16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2
64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2
64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3
256 QAM	≥ 1						≤ 5

The allowed A-MPR values specified below in Table 6.2.4.-1 of 3GPP TS36.101 are in addition to the allowed MPR requirements. All the measurements below were performed with A-MPR disabled, by using Network Signaling Value of “NS_01”.

Table 6.2.4-1: Additional Maximum Power Reduction (A-MPR)

Network Signalling value	Requirements (subclause)	E-UTRA Band	Channel bandwidth (MHz)	Resources Blocks (N_{RB})	A-MPR (dB)
NS_01	6.6.2.1.1	Table 5.5-1	1.4, 3, 5, 10, 15, 20	Table 5.6-1	N/A

Maximum Output Power (Tune-up Limit) for LTE

According to April 2015 TCB workshop, SAR test exclusion can be applied for testing overlapping LTE bands as follows :

a) The maximum output power, including tolerance, for the smaller band must be ≤ the larger band to qualify for the SAR test exclusion.
b) The channel bandwidth and other operating parameters for the smaller band must be fully supported by the larger band.

- LTE Band 2 (1850 – 1910 MHz) is covered by LTE Band 25 (1850 – 1915 MHz)
- LTE Band 4 (1710 – 1755 MHz) is covered by LTE Band 66 (1710 – 1780 MHz)
- LTE Band 5 (824 – 849 MHz) is covered by LTE Band 26 (814 – 849 MHz)

Maximum bandwidth does not support at least three non-overlapping channels in certain channel bandwidths.

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 per KDB 941225 D05 SAR for LTE Devices.

LTE QPSK configuration has the highest maximum average output power per 3GPP standard.

SAR measurement is not required for Higher order modulations . When the highest maximum output power for Higher order modulations are ≤ 0.5 dB higher than the QPSK or when the reported SAR for QPSK configuration is ≤ 1.45 W/kg.

LTE Band 7 Measured Results

Test results were refer to reference model (FCC ID : A3LNP545XLA).

LTE Band 7 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)									
				DSI = 0					DSI = 1				
				Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				20850	21100	21350			20850	21100	21350		
				2510 MHz	2535 MHz	2560 MHz			2510 MHz	2535 MHz	2560 MHz		
20 MHz	QPSK	1	0	23.3	23.4	23.4	0.0	24.0	16.7	16.7	16.8	0.0	17.5
		1	49	23.3	23.4	23.3	0.0	24.0	16.7	16.8	16.8	0.0	17.5
		1	99	23.4	23.4	23.1	0.0	24.0	16.7	16.8	16.6	0.0	17.5
		50	0	22.2	22.4	22.4	1.0	23.0	16.6	16.8	16.8	0.0	17.5
		50	24	22.4	22.5	22.3	1.0	23.0	16.8	16.9	16.7	0.0	17.5
		50	50	22.4	22.4	22.2	1.0	23.0	16.8	16.8	16.6	0.0	17.5
		100	0	22.3	22.4	22.2	1.0	23.0	16.7	16.8	16.6	0.0	17.5
	16QAM	1	0	22.7	23.0	22.9	1.0	23.0	17.1	17.1	17.3	0.0	17.5
		1	49	22.7	22.9	22.9	1.0	23.0	17.1	17.2	17.2	0.0	17.5
		1	99	22.8	23.0	22.9	1.0	23.0	17.2	17.0	17.0	0.0	17.5
		50	0	21.2	21.4	21.4	2.0	22.0	16.6	16.8	16.8	0.0	17.5
		50	24	21.4	21.5	21.4	2.0	22.0	16.8	16.9	16.8	0.0	17.5
		50	50	21.3	21.5	21.2	2.0	22.0	16.7	16.9	16.7	0.0	17.5
		100	0	21.3	21.4	21.3	2.0	22.0	16.7	16.8	16.7	0.0	17.5
	64QAM	1	0	21.5	21.7	21.9	2.0	22.0	16.9	17.1	16.9	0.0	17.5
		1	49	21.5	21.7	22.0	2.0	22.0	17.0	17.2	16.8	0.0	17.5
		1	99	21.6	21.7	21.9	2.0	22.0	17.1	17.2	16.6	0.0	17.5
		50	0	20.2	20.5	20.4	3.0	21.0	16.7	16.9	16.9	0.0	17.5
		50	24	20.4	20.5	20.4	3.0	21.0	16.9	17.0	16.8	0.0	17.5
		50	50	20.4	20.5	20.2	3.0	21.0	16.8	16.9	16.7	0.0	17.5
		100	0	20.3	20.4	20.2	3.0	21.0	16.8	16.9	16.7	0.0	17.5
	256QAM	1	0	17.9	18.4	18.5	5.0	19.0	16.3	16.9	16.9	0.0	17.5
		1	49	18.2	18.7	18.5	5.0	19.0	16.7	17.1	17.0	0.0	17.5
		1	99	18.1	18.5	18.0	5.0	19.0	16.6	16.9	16.4	0.0	17.5
		50	0	18.2	18.4	18.4	5.0	19.0	16.7	16.9	16.8	0.0	17.5
		50	24	18.4	18.5	18.4	5.0	19.0	16.9	16.9	16.8	0.0	17.5
		50	50	18.4	18.4	18.3	5.0	19.0	16.8	16.9	16.7	0.0	17.5
		100	0	18.3	18.4	18.3	5.0	19.0	16.8	16.8	16.7	0.0	17.5
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				20825	21100	21375			20825	21100	21375		
				2507.5 MHz	2535 MHz	2562.5 MHz			2507.5 MHz	2535 MHz	2562.5 MHz		
15 MHz	QPSK	1	0	23.3	23.4	23.4	0.0	24.0	16.7	16.8	16.8	0.0	17.5
		1	37	23.3	23.4	23.2	0.0	24.0	16.7	16.8	16.7	0.0	17.5
		1	74	23.3	23.4	23.1	0.0	24.0	16.7	16.8	16.6	0.0	17.5
		36	0	22.2	22.4	22.3	1.0	23.0	16.6	16.8	16.8	0.0	17.5
		36	20	22.4	22.4	22.3	1.0	23.0	16.8	16.9	16.8	0.0	17.5
		36	39	22.4	22.4	22.3	1.0	23.0	16.8	16.9	16.7	0.0	17.5
		75	0	22.3	22.4	22.2	1.0	23.0	16.7	16.8	16.7	0.0	17.5
	16QAM	1	0	22.7	22.9	22.4	1.0	23.0	17.3	16.8	17.3	0.0	17.5
		1	37	22.7	22.9	22.3	1.0	23.0	17.3	16.9	17.1	0.0	17.5
		1	74	22.7	22.9	22.2	1.0	23.0	17.3	16.8	17.0	0.0	17.5
		36	0	21.3	21.4	21.3	2.0	22.0	16.6	16.8	16.8	0.0	17.5
		36	20	21.5	21.4	21.4	2.0	22.0	16.8	16.9	16.9	0.0	17.5
		36	39	21.4	21.4	21.3	2.0	22.0	16.7	16.9	16.8	0.0	17.5
		75	0	21.4	21.4	21.3	2.0	22.0	16.7	16.8	16.7	0.0	17.5
	64QAM	1	0	21.8	21.7	21.5	2.0	22.0	16.9	17.1	17.1	0.0	17.5
		1	37	21.9	21.8	21.5	2.0	22.0	16.9	17.2	17.0	0.0	17.5
		1	74	22.0	21.7	21.4	2.0	22.0	16.9	17.1	16.9	0.0	17.5
		36	0	20.3	20.5	20.4	3.0	21.0	16.8	16.9	16.8	0.0	17.5
		36	20	20.4	20.5	20.5	3.0	21.0	16.9	16.9	16.9	0.0	17.5
		36	39	20.4	20.5	20.4	3.0	21.0	16.9	16.9	16.8	0.0	17.5
		75	0	20.4	20.4	20.3	3.0	21.0	16.8	16.9	16.7	0.0	17.5
	256QAM	1	0	18.3	18.8	18.1	5.0	19.0	16.4	16.9	17.2	0.0	17.5
		1	37	18.6	18.9	18.1	5.0	19.0	16.6	17.1	17.2	0.0	17.5
		1	74	18.5	18.8	17.9	5.0	19.0	16.6	17.0	17.0	0.0	17.5
		36	0	18.2	18.5	18.4	5.0	19.0	16.7	16.9	16.8	0.0	17.5
		36	20	18.4	18.5	18.4	5.0	19.0	16.9	16.9	16.9	0.0	17.5
		36	39	18.4	18.5	18.3	5.0	19.0	16.9	16.9	16.8	0.0	17.5
		75	0	18.4	18.5	18.3	5.0	19.0	16.8	16.9	16.8	0.0	17.5

LTE Band 7 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				20800	21100	21400			20800	21100	21400		
				2505 MHz	2535 MHz	2565 MHz			2505 MHz	2535 MHz	2565 MHz		
10 MHz	QPSK	1	0	23.3	23.4	23.3	0.0	24.0	16.6	17.0	16.8	0.0	17.5
		1	25	23.3	23.4	23.2	0.0	24.0	16.6	16.9	16.8	0.0	17.5
		1	49	23.3	23.4	23.1	0.0	24.0	16.6	17.0	16.7	0.0	17.5
		25	0	22.4	22.5	22.3	1.0	23.0	16.8	16.9	16.8	0.0	17.5
		25	12	22.4	22.4	22.3	1.0	23.0	16.8	16.9	16.7	0.0	17.5
		25	25	22.4	22.5	22.3	1.0	23.0	16.7	17.0	16.7	0.0	17.5
		50	0	22.3	22.4	22.2	1.0	23.0	16.7	16.8	16.6	0.0	17.5
	16QAM	1	0	22.7	22.6	22.4	1.0	23.0	16.8	16.8	17.3	0.0	17.5
		1	25	22.7	22.5	22.3	1.0	23.0	16.7	16.8	17.1	0.0	17.5
		1	49	22.8	22.5	22.3	1.0	23.0	16.8	16.8	17.0	0.0	17.5
		25	0	21.4	21.6	21.3	2.0	22.0	16.9	17.0	16.9	0.0	17.5
		25	12	21.5	21.6	21.3	2.0	22.0	16.9	17.0	16.8	0.0	17.5
		25	25	21.4	21.6	21.3	2.0	22.0	16.9	17.0	16.8	0.0	17.5
		50	0	21.3	21.5	21.2	2.0	22.0	16.7	16.8	16.6	0.0	17.5
	64QAM	1	0	21.6	21.8	21.5	2.0	22.0	16.8	17.1	17.2	0.0	17.5
		1	25	21.6	21.9	21.6	2.0	22.0	16.8	17.1	17.1	0.0	17.5
		1	49	21.6	21.9	21.5	2.0	22.0	16.8	17.1	17.0	0.0	17.5
		25	0	20.4	20.5	20.4	3.0	21.0	16.9	17.0	16.8	0.0	17.5
		25	12	20.4	20.5	20.4	3.0	21.0	17.0	17.1	16.9	0.0	17.5
		25	25	20.4	20.6	20.4	3.0	21.0	16.9	17.1	16.8	0.0	17.5
		50	0	20.3	20.4	20.3	3.0	21.0	16.8	16.9	16.7	0.0	17.5
	256QAM	1	0	18.2	18.8	17.9	5.0	19.0	16.4	16.9	17.0	0.0	17.5
		1	25	18.5	18.9	18.1	5.0	19.0	16.6	17.1	17.3	0.0	17.5
		1	49	18.2	18.8	17.7	5.0	19.0	16.4	16.7	17.1	0.0	17.5
		25	0	18.4	18.5	18.4	5.0	19.0	16.9	16.9	16.8	0.0	17.5
		25	12	18.5	18.5	18.4	5.0	19.0	16.9	17.0	16.8	0.0	17.5
		25	25	18.4	18.6	18.3	5.0	19.0	16.9	17.0	16.8	0.0	17.5
		50	0	18.4	18.5	18.2	5.0	19.0	16.8	16.9	16.7	0.0	17.5
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				20775	21100	21425			20775	21100	21425		
				2502.5 MHz	2535 MHz	2567.5 MHz			2502.5 MHz	2535 MHz	2567.5 MHz		
5 MHz	QPSK	1	0	23.3	23.5	23.3	0.0	24.0	16.9	16.8	16.8	0.0	17.5
		1	12	23.3	23.5	23.2	0.0	24.0	16.8	16.8	16.7	0.0	17.5
		1	24	23.3	23.5	23.2	0.0	24.0	16.8	16.9	16.7	0.0	17.5
		12	0	22.4	22.5	22.3	1.0	23.0	16.8	16.9	16.7	0.0	17.5
		12	7	22.4	22.5	22.3	1.0	23.0	16.8	16.9	16.8	0.0	17.5
		12	13	22.3	22.5	22.3	1.0	23.0	16.8	17.0	16.7	0.0	17.5
		25	0	22.3	22.4	22.3	1.0	23.0	16.7	16.9	16.7	0.0	17.5
	16QAM	1	0	22.5	22.7	22.8	1.0	23.0	17.0	17.2	17.0	0.0	17.5
		1	12	22.5	22.8	22.7	1.0	23.0	17.0	17.3	17.0	0.0	17.5
		1	24	22.7	22.8	22.7	1.0	23.0	17.0	17.3	16.9	0.0	17.5
		12	0	21.4	21.5	21.4	2.0	22.0	16.8	17.0	16.8	0.0	17.5
		12	7	21.4	21.6	21.5	2.0	22.0	16.9	17.1	16.8	0.0	17.5
		12	13	21.4	21.6	21.4	2.0	22.0	16.8	17.1	16.8	0.0	17.5
		25	0	21.3	21.5	21.3	2.0	22.0	16.8	17.0	16.7	0.0	17.5
	64QAM	1	0	21.3	21.9	21.7	2.0	22.0	17.1	16.9	17.2	0.0	17.5
		1	12	21.2	21.9	21.6	2.0	22.0	17.2	16.9	17.1	0.0	17.5
		1	24	21.3	21.8	21.6	2.0	22.0	17.1	16.9	17.1	0.0	17.5
		12	0	20.3	20.4	20.4	3.0	21.0	16.9	17.0	16.7	0.0	17.5
		12	7	20.4	20.4	20.4	3.0	21.0	16.9	17.0	16.8	0.0	17.5
		12	13	20.4	20.5	20.3	3.0	21.0	16.9	17.0	16.7	0.0	17.5
		25	0	20.3	20.4	20.3	3.0	21.0	16.8	16.9	16.8	0.0	17.5
	256QAM	1	0	18.1	18.6	18.4	5.0	19.0	16.9	16.7	16.9	0.0	17.5
		1	12	18.1	18.7	18.4	5.0	19.0	17.0	16.8	16.9	0.0	17.5
		1	24	18.5	18.6	18.3	5.0	19.0	16.8	16.7	16.8	0.0	17.5
		12	0	18.4	18.5	18.3	5.0	19.0	16.8	16.9	16.8	0.0	17.5
		12	7	18.5	18.5	18.4	5.0	19.0	16.9	17.0	16.8	0.0	17.5
		12	13	18.4	18.6	18.3	5.0	19.0	16.8	17.0	16.8	0.0	17.5
		25	0	18.4	18.5	18.3	5.0	19.0	16.9	17.0	16.8	0.0	17.5

LTE Band 12 Measured Results

Test results were refer to reference model (FCC ID : A3LNP545XLA).

LTE Band 12 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)									
				DSI = 0					DSI = 1				
				Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				23060	23095	23130			23060	23095	23130		
				704 MHz	707.5 MHz	711 MHz			704 MHz	707.5 MHz	711 MHz		
10 MHz	QPSK	1	0		23.8		0.0	24.5		20.3		0.0	21.0
		1	25		23.8		0.0	24.5		20.2		0.0	21.0
		1	49		23.7		0.0	24.5		20.2		0.0	21.0
		25	0		22.9		1.0	23.5		20.2		0.0	21.0
		25	12		23.0		1.0	23.5		20.4		0.0	21.0
		25	25		22.9		1.0	23.5		20.2		0.0	21.0
		50	0		22.9		1.0	23.5		20.3		0.0	21.0
	16QAM	1	0		23.0		1.0	23.5		20.3		0.0	21.0
		1	25		22.9		1.0	23.5		20.2		0.0	21.0
		1	49		22.8		1.0	23.5		20.2		0.0	21.0
		25	0		21.9		2.0	22.5		20.2		0.0	21.0
		25	12		22.0		2.0	22.5		20.4		0.0	21.0
		25	25		21.9		2.0	22.5		20.3		0.0	21.0
		50	0		21.9		2.0	22.5		20.3		0.0	21.0
	64QAM	1	0		22.4		2.0	22.5		20.5		0.0	21.0
		1	25		22.3		2.0	22.5		20.5		0.0	21.0
		1	49		22.1		2.0	22.5		20.4		0.0	21.0
		25	0		20.9		3.0	21.5		20.8		0.0	21.0
		25	12		21.0		3.0	21.5		20.5		0.0	21.0
		25	25		21.0		3.0	21.5		20.4		0.0	21.0
		50	0		20.9		3.0	21.5		20.8		0.0	21.0
	256QAM	1	0		18.7		5.0	19.5		18.8		2.0	19.0
		1	25		19.0		5.0	19.5		18.9		2.0	19.0
		1	49		18.8		5.0	19.5		19.0		2.0	19.0
		25	0		18.9		5.0	19.5		18.6		2.0	19.0
		25	12		19.1		5.0	19.5		18.8		2.0	19.0
		25	25		19.0		5.0	19.5		18.8		2.0	19.0
		50	0		18.9		5.0	19.5		18.7		2.0	19.0
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				23035	23095	23155			23035	23095	23155		
				701.5 MHz	707.5 MHz	713.5 MHz			701.5 MHz	707.5 MHz	713.5 MHz		
5 MHz	QPSK	1	0	23.9	23.9	23.8	0.0	24.5	20.3	20.3	20.1	0.0	21.0
		1	12	23.9	23.9	23.8	0.0	24.5	20.3	20.3	20.2	0.0	21.0
		1	24	23.9	23.9	23.8	0.0	24.5	20.3	20.3	20.2	0.0	21.0
		12	0	23.0	22.9	22.9	1.0	23.5	20.3	20.3	20.2	0.0	21.0
		12	7	23.0	23.0	22.9	1.0	23.5	20.4	20.4	20.3	0.0	21.0
		12	13	23.0	23.0	22.9	1.0	23.5	20.3	20.4	20.3	0.0	21.0
		25	0	23.0	23.0	22.9	1.0	23.5	20.3	20.3	20.3	0.0	21.0
	16QAM	1	0	23.1	23.0	23.5	1.0	23.5	20.4	20.4	20.8	0.0	21.0
		1	12	23.1	23.1	23.4	1.0	23.5	20.4	20.5	20.8	0.0	21.0
		1	24	23.1	23.1	23.3	1.0	23.5	20.4	20.5	20.8	0.0	21.0
		12	0	22.0	22.0	22.0	2.0	22.5	20.4	20.4	20.4	0.0	21.0
		12	7	22.1	22.1	22.0	2.0	22.5	20.4	20.4	20.4	0.0	21.0
		12	13	22.1	22.0	22.0	2.0	22.5	20.4	20.4	20.4	0.0	21.0
		25	0	22.0	22.0	21.9	2.0	22.5	20.3	20.4	20.3	0.0	21.0
	64QAM	1	0	22.2	22.1	21.7	2.0	22.5	20.6	20.5	20.2	0.0	21.0
		1	12	22.2	22.2	21.8	2.0	22.5	20.6	20.6	20.2	0.0	21.0
		1	24	22.2	22.2	21.8	2.0	22.5	20.6	20.6	20.2	0.0	21.0
		12	0	20.9	21.0	20.9	3.0	21.5	20.2	20.4	20.8	0.0	21.0
		12	7	21.0	21.0	20.9	3.0	21.5	20.3	20.4	20.8	0.0	21.0
		12	13	20.9	21.0	20.9	3.0	21.5	20.3	20.4	20.8	0.0	21.0
		25	0	21.0	21.0	20.8	3.0	21.5	20.3	20.4	20.7	0.0	21.0
	256QAM	1	0	19.1	18.9	18.6	5.0	19.5	18.9	18.7	18.4	2.0	19.0
		1	12	19.1	19.1	18.6	5.0	19.5	18.9	18.8	18.4	2.0	19.0
		1	24	19.1	18.9	18.6	5.0	19.5	18.9	18.7	18.3	2.0	19.0
		12	0	19.0	18.9	18.8	5.0	19.5	18.8	18.7	18.6	2.0	19.0
		12	7	19.0	19.0	18.9	5.0	19.5	18.9	18.8	18.7	2.0	19.0
		12	13	19.0	19.0	18.9	5.0	19.5	18.8	18.8	18.6	2.0	19.0
		25	0	19.0	19.0	18.9	5.0	19.5	18.8	18.8	18.7	2.0	19.0

LTE Band 12 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				23025	23095	23165			23025	23095	23165		
				700.5 MHz	707.5 MHz	714.5 MHz			700.5 MHz	707.5 MHz	714.5 MHz		
3 MHz	QPSK	1	0	23.9	23.8	23.8	0.0	24.5	20.2	20.2	20.2	0.0	21.0
		1	8	23.8	23.8	23.8	0.0	24.5	20.2	20.2	20.3	0.0	21.0
		1	14	23.8	23.8	23.8	0.0	24.5	20.2	20.3	20.2	0.0	21.0
		8	0	22.9	22.9	22.8	1.0	23.5	20.3	20.2	20.3	0.0	21.0
		8	4	23.0	23.0	22.8	1.0	23.5	20.4	20.3	20.3	0.0	21.0
		8	7	23.0	23.0	22.8	1.0	23.5	20.3	20.4	20.3	0.0	21.0
		15	0	23.0	23.0	22.8	1.0	23.5	20.3	20.3	20.2	0.0	21.0
	16QAM	1	0	22.9	22.8	23.3	1.0	23.5	20.3	20.2	20.6	0.0	21.0
		1	8	22.9	22.8	23.3	1.0	23.5	20.3	20.2	20.7	0.0	21.0
		1	14	22.9	22.9	23.3	1.0	23.5	20.3	20.2	20.6	0.0	21.0
		8	0	22.0	22.0	21.9	2.0	22.5	20.3	20.4	20.3	0.0	21.0
		8	4	22.1	22.1	22.0	2.0	22.5	20.4	20.5	20.4	0.0	21.0
		8	7	22.1	22.1	21.9	2.0	22.5	20.4	20.5	20.4	0.0	21.0
		15	0	22.0	22.0	21.8	2.0	22.5	20.3	20.4	20.3	0.0	21.0
	64QAM	1	0	22.2	22.2	22.0	2.0	22.5	20.4	20.6	20.6	0.0	21.0
		1	8	22.1	22.2	22.0	2.0	22.5	20.4	20.5	20.6	0.0	21.0
		1	14	22.2	22.2	22.0	2.0	22.5	20.4	20.5	20.5	0.0	21.0
		8	0	20.9	21.0	20.9	3.0	21.5	20.3	20.3	20.3	0.0	21.0
		8	4	21.0	21.0	20.9	3.0	21.5	20.4	20.3	20.3	0.0	21.0
		8	7	21.0	21.1	20.9	3.0	21.5	20.4	20.3	20.4	0.0	21.0
		15	0	21.0	21.0	20.9	3.0	21.5	20.4	20.4	20.2	0.0	21.0
	256QAM	1	0	18.9	19.4	18.7	5.0	19.5	18.7	18.5	18.6	2.0	19.0
		1	8	18.9	19.3	18.5	5.0	19.5	18.8	18.6	18.3	2.0	19.0
		1	14	18.9	19.4	18.6	5.0	19.5	18.8	18.5	18.4	2.0	19.0
		8	0	19.0	19.0	18.8	5.0	19.5	18.8	18.7	18.6	2.0	19.0
		8	4	19.1	19.0	18.8	5.0	19.5	18.9	18.8	18.6	2.0	19.0
		8	7	19.1	19.1	18.8	5.0	19.5	18.9	18.9	18.6	2.0	19.0
		15	0	19.1	19.0	19.0	5.0	19.5	18.9	18.8	18.7	2.0	19.0

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				23017	23095	23173			23017	23095	23173		
				699.7 MHz	707.5 MHz	715.3 MHz			699.7 MHz	707.5 MHz	715.3 MHz		
1.4 MHz	QPSK	1	0	23.7	23.8	23.7	0.0	24.5	20.1	20.1	20.1	0.0	21.0
		1	3	23.8	23.9	23.8	0.0	24.5	20.2	20.3	20.2	0.0	21.0
		1	5	23.8	23.8	23.7	0.0	24.5	20.2	20.2	20.1	0.0	21.0
		3	0	23.8	23.7	23.7	0.0	24.5	20.2	20.2	20.1	0.0	21.0
		3	1	23.8	23.8	23.8	0.0	24.5	20.2	20.2	20.2	0.0	21.0
		3	3	23.8	23.8	23.8	0.0	24.5	20.2	20.2	20.2	0.0	21.0
		6	0	22.9	22.9	22.8	1.0	23.5	20.3	20.3	20.2	0.0	21.0
	16QAM	1	0	22.8	22.9	23.2	1.0	23.5	20.2	20.3	20.6	0.0	21.0
		1	3	23.0	23.0	23.2	1.0	23.5	20.4	20.4	20.7	0.0	21.0
		1	5	22.9	23.0	23.2	1.0	23.5	20.4	20.3	20.6	0.0	21.0
		3	0	23.0	22.8	22.9	1.0	23.5	20.4	20.2	20.3	0.0	21.0
		3	1	23.1	22.9	23.0	1.0	23.5	20.5	20.3	20.4	0.0	21.0
		3	3	23.1	22.9	23.0	1.0	23.5	20.5	20.3	20.3	0.0	21.0
		6	0	22.1	22.0	21.7	2.0	22.5	20.5	20.4	20.1	0.0	21.0
	64QAM	1	0	22.1	22.2	21.9	2.0	22.5	20.5	20.3	20.4	0.0	21.0
		1	3	22.2	22.3	22.0	2.0	22.5	20.7	20.4	20.5	0.0	21.0
		1	5	22.2	22.2	22.0	2.0	22.5	20.6	20.3	20.4	0.0	21.0
		3	0	21.9	22.2	21.7	2.0	22.5	20.5	20.4	20.1	0.0	21.0
		3	1	21.9	22.3	21.8	2.0	22.5	20.6	20.4	20.2	0.0	21.0
		3	3	21.9	22.2	21.9	2.0	22.5	20.6	20.4	20.1	0.0	21.0
		6	0	21.0	20.8	20.8	3.0	21.5	20.2	20.5	20.3	0.0	21.0
	256QAM	1	0	18.8	18.9	18.8	5.0	19.5	18.8	18.4	18.3	2.0	19.0
		1	3	19.0	19.1	18.9	5.0	19.5	19.0	18.5	18.4	2.0	19.0
		1	5	18.9	19.0	18.8	5.0	19.5	18.8	18.8	18.4	2.0	19.0
		3	0	19.0	18.8	18.9	5.0	19.5	18.7	18.6	18.4	2.0	19.0
		3	1	19.1	18.9	19.0	5.0	19.5	18.8	18.7	18.5	2.0	19.0
		3	3	19.1	18.9	19.0	5.0	19.5	18.8	18.7	18.5	2.0	19.0
		6	0	18.9	18.8	18.9	5.0	19.5	18.6	18.6	18.7	2.0	19.0

LTE Band 13 Measured Results

Test results were refer to reference model (FCC ID : A3LNP545XLA).

LTE Band 13 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)								
				DSI = 0					DSI = 1			
				Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)		MPR	Tune-up Limit
				23230					23230			
				782 MHz					782 MHz			
10 MHz	QPSK	1	0	23.6			0.0	24.5	19.9		0.0	21.0
		1	25	23.6			0.0	24.5	19.8		0.0	21.0
		1	49	23.5			0.0	24.5	19.7		0.0	21.0
		25	0	22.5			1.0	23.5	19.9		0.0	21.0
		25	12	22.5			1.0	23.5	19.9		0.0	21.0
		25	25	22.5			1.0	23.5	19.9		0.0	21.0
		50	0	22.4			1.0	23.5	19.8		0.0	21.0
	16QAM	1	0	23.0			1.0	23.5	20.0		0.0	21.0
		1	25	22.9			1.0	23.5	19.8		0.0	21.0
		1	49	22.9			1.0	23.5	19.9		0.0	21.0
		25	0	21.6			2.0	22.5	20.0		0.0	21.0
		25	12	21.6			2.0	22.5	20.0		0.0	21.0
		25	25	21.6			2.0	22.5	20.0		0.0	21.0
		50	0	21.5			2.0	22.5	19.8		0.0	21.0
	64QAM	1	0	21.7			2.0	22.5	20.2		0.0	21.0
		1	25	21.6			2.0	22.5	20.2		0.0	21.0
		1	49	21.7			2.0	22.5	20.3		0.0	21.0
		25	0	20.7			3.0	21.5	19.9		1.0	20.0
		25	12	20.6			3.0	21.5	20.0		1.0	20.0
		25	25	20.6			3.0	21.5	19.9		1.0	20.0
		50	0	20.5			3.0	21.5	19.9		1.0	20.0
	256QAM	1	0	18.1			5.0	19.5	18.0		2.0	19.0
		1	25	18.3			5.0	19.5	18.2		2.0	19.0
		1	49	18.2			5.0	19.5	18.0		2.0	19.0
		25	0	18.5			5.0	19.5	18.4		2.0	19.0
		25	12	18.6			5.0	19.5	18.4		2.0	19.0
		25	25	18.6			5.0	19.5	18.4		2.0	19.0
		50	0	18.4			5.0	19.5	18.2		2.0	19.0
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				23205	23230	23255			23205	23230	23255		
				779.5 MHz	782 MHz	784.5 MHz			779.5 MHz	782 MHz	784.5 MHz		
5 MHz	QPSK	1	0	23.6			0.0	24.5	19.9			0.0	21.0
		1	12	23.6			0.0	24.5	19.9			0.0	21.0
		1	24	23.6			0.0	24.5	19.9			0.0	21.0
		12	0	22.5			1.0	23.5	19.9			0.0	21.0
		12	7	22.5			1.0	23.5	19.9			0.0	21.0
		12	13	22.6			1.0	23.5	19.9			0.0	21.0
		25	0	22.5			1.0	23.5	19.9			0.0	21.0
	16QAM	1	0	22.7			1.0	23.5	20.1			0.0	21.0
		1	12	22.7			1.0	23.5	20.1			0.0	21.0
		1	24	22.8			1.0	23.5	20.1			0.0	21.0
		12	0	21.6			2.0	22.5	19.9			0.0	21.0
		12	7	21.6			2.0	22.5	20.0			0.0	21.0
		12	13	21.6			2.0	22.5	20.0			0.0	21.0
		25	0	21.5			2.0	22.5	19.8			0.0	21.0
	64QAM	1	0	21.9			2.0	22.5	19.8			0.0	21.0
		1	12	21.9			2.0	22.5	19.8			0.0	21.0
		1	24	21.9			2.0	22.5	19.8			0.0	21.0
		12	0	20.4			3.0	21.5	19.9			1.0	20.0
		12	7	20.5			3.0	21.5	19.9			1.0	20.0
		12	13	20.5			3.0	21.5	19.9			1.0	20.0
		25	0	20.5			3.0	21.5	19.8			1.0	20.0
	256QAM	1	0	18.6			5.0	19.5	18.1			2.0	19.0
		1	12	18.7			5.0	19.5	18.3			2.0	19.0
		1	24	18.7			5.0	19.5	18.3			2.0	19.0
		12	0	18.5			5.0	19.5	18.1			2.0	19.0
		12	7	18.5			5.0	19.5	18.2			2.0	19.0
		12	13	18.6			5.0	19.5	18.2			2.0	19.0
		25	0	18.5			5.0	19.5	18.2			2.0	19.0

LTE Band 25 Measured Results

LTE Band 25 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)									
				DSI = 0					DSI = 1				
				Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				26140	26365	26590			26140	26365	26590		
				1860 MHz	1882.5 MHz	1905 MHz			1860 MHz	1882.5 MHz	1905 MHz		
20 MHz	QPSK	1	0	23.9	24.0	24.1	0.0	24.5	17.0	17.0	17.1	0.0	17.5
		1	49	24.0	24.0	24.1	0.0	24.5	17.0	17.0	17.1	0.0	17.5
		1	99	24.0	24.0	24.1	0.0	24.5	17.0	17.0	17.1	0.0	17.5
		50	0	23.1	23.1	23.2	1.0	23.5	17.0	17.0	17.1	0.0	17.5
		50	24	23.2	23.2	23.3	1.0	23.5	17.1	17.1	17.2	0.0	17.5
		50	50	23.1	23.1	23.3	1.0	23.5	17.1	17.1	17.2	0.0	17.5
		100	0	23.1	23.1	23.1	1.0	23.5	17.0	17.0	17.1	0.0	17.5
	16QAM	1	0	23.4	23.5	23.5	1.0	23.5	17.3	17.3	17.5	0.0	17.5
		1	49	23.5	23.4	23.5	1.0	23.5	17.4	17.4	17.4	0.0	17.5
		1	99	23.5	23.5	23.5	1.0	23.5	17.2	17.3	17.4	0.0	17.5
		50	0	22.1	22.1	22.2	2.0	22.5	17.1	17.0	17.1	0.0	17.5
		50	24	22.1	22.2	22.3	2.0	22.5	17.1	17.1	17.2	0.0	17.5
		50	50	22.1	22.2	22.3	2.0	22.5	17.1	17.1	17.2	0.0	17.5
		100	0	22.1	22.1	22.1	2.0	22.5	17.0	17.0	17.0	0.0	17.5
	64QAM	1	0	22.4	22.4	22.4	2.0	22.5	17.3	17.3	17.3	0.0	17.5
		1	49	22.4	22.4	22.5	2.0	22.5	17.3	17.3	17.4	0.0	17.5
		1	99	22.4	22.4	22.5	2.0	22.5	17.3	17.3	17.4	0.0	17.5
		50	0	21.2	21.2	21.2	3.0	21.5	17.1	17.1	17.1	0.0	17.5
		50	24	21.2	21.2	21.3	3.0	21.5	17.1	17.1	17.2	0.0	17.5
		50	50	21.2	21.2	21.3	3.0	21.5	17.2	17.1	17.2	0.0	17.5
		100	0	21.1	21.1	21.2	3.0	21.5	17.0	17.0	17.1	0.0	17.5
	256QAM	1	0	18.3	18.0	18.3	5.0	19.5	15.9	16.2	16.2	0.0	17.5
		1	49	18.7	18.4	18.6	5.0	19.5	16.3	16.6	16.5	0.0	17.5
		1	99	18.4	18.1	18.4	5.0	19.5	16.0	16.3	16.3	0.0	17.5
		50	0	18.4	18.3	18.3	5.0	19.5	16.3	16.2	16.2	0.0	17.5
		50	24	18.6	18.5	18.5	5.0	19.5	16.5	16.4	16.4	0.0	17.5
		50	50	18.5	18.5	18.4	5.0	19.5	16.4	16.3	16.4	0.0	17.5
		100	0	18.5	18.4	18.3	5.0	19.5	16.4	16.3	16.2	0.0	17.5
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				26115	26365	26615			26115	26365	26615		
				1857.5 MHz	1882.5 MHz	1907.5 MHz			1857.5 MHz	1882.5 MHz	1907.5 MHz		
15 MHz	QPSK	1	0	23.8	24.0	24.0	0.0	24.5	16.8	17.0	17.1	0.0	17.5
		1	37	24.0	24.0	24.0	0.0	24.5	17.0	16.9	17.0	0.0	17.5
		1	74	23.8	24.0	24.0	0.0	24.5	17.0	17.0	17.1	0.0	17.5
		36	0	23.1	23.0	23.1	1.0	23.5	17.0	16.9	17.0	0.0	17.5
		36	20	23.2	23.2	23.2	1.0	23.5	17.1	17.1	17.1	0.0	17.5
		36	39	23.2	23.2	23.3	1.0	23.5	17.1	17.1	17.2	0.0	17.5
		75	0	23.1	23.1	23.2	1.0	23.5	17.1	17.0	17.0	0.0	17.5
	16QAM	1	0	23.3	23.1	23.2	1.0	23.5	16.8	17.5	17.1	0.0	17.5
		1	37	23.2	23.1	23.3	1.0	23.5	17.5	17.0	16.7	0.0	17.5
		1	74	23.4	23.0	23.3	1.0	23.5	17.4	17.4	16.7	0.0	17.5
		36	0	22.2	22.0	22.1	2.0	22.5	17.0	16.9	17.0	0.0	17.5
		36	20	22.3	22.2	22.2	2.0	22.5	17.1	17.1	17.1	0.0	17.5
		36	39	22.3	22.2	22.3	2.0	22.5	17.2	17.1	17.2	0.0	17.5
		75	0	22.2	22.1	22.2	2.0	22.5	17.1	17.1	17.2	0.0	17.5
	64QAM	1	0	22.5	22.5	22.4	2.0	22.5	16.9	17.3	17.2	0.0	17.5
		1	37	22.3	22.1	22.4	2.0	22.5	16.7	16.9	17.4	0.0	17.5
		1	74	22.4	22.1	22.4	2.0	22.5	17.3	17.1	17.1	0.0	17.5
		36	0	21.2	21.0	21.2	3.0	21.5	17.0	16.9	17.1	0.0	17.5
		36	20	21.3	21.3	21.2	3.0	21.5	17.2	17.1	17.1	0.0	17.5
		36	39	21.2	21.2	21.3	3.0	21.5	17.1	17.2	17.2	0.0	17.5
		75	0	21.2	21.2	21.2	3.0	21.5	17.1	17.0	17.2	0.0	17.5
	256QAM	1	0	18.1	18.4	18.6	5.0	19.5	16.4	16.3	15.9	0.0	17.5
		1	37	18.3	18.7	18.9	5.0	19.5	16.6	16.8	16.2	0.0	17.5
		1	74	18.2	18.6	18.8	5.0	19.5	16.5	16.7	16.0	0.0	17.5
		36	0	18.5	18.3	18.4	5.0	19.5	16.4	16.3	16.3	0.0	17.5
		36	20	18.6	18.5	18.5	5.0	19.5	16.4	16.4	16.4	0.0	17.5
		36	39	18.5	18.5	18.5	5.0	19.5	16.4	16.4	16.4	0.0	17.5
		75	0	18.5	18.5	18.4	5.0	19.5	16.4	16.4	16.3	0.0	17.5

LTE Band 25 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				26090	26365	26640			26090	26365	26640		
				1855 MHz	1882.5 MHz	1910 MHz			1855 MHz	1882.5 MHz	1910 MHz		
10 MHz	QPSK	1	0	23.6	23.7	23.9	0.0	24.5	16.8	16.9	17.0	0.0	17.5
		1	25	23.8	23.8	23.9	0.0	24.5	16.7	16.9	17.0	0.0	17.5
		1	49	23.6	23.7	23.9	0.0	24.5	16.7	16.6	17.0	0.0	17.5
		25	0	23.1	23.0	23.2	1.0	23.5	17.1	16.9	17.0	0.0	17.5
		25	12	23.2	23.2	23.3	1.0	23.5	17.1	16.8	17.1	0.0	17.5
		25	25	23.2	23.1	23.3	1.0	23.5	17.1	17.0	17.1	0.0	17.5
		50	0	23.1	23.1	23.1	1.0	23.5	17.0	17.0	17.1	0.0	17.5
	16QAM	1	0	22.9	23.2	23.2	1.0	23.5	17.2	17.1	17.1	0.0	17.5
		1	25	23.1	23.4	23.2	1.0	23.5	16.9	17.0	17.0	0.0	17.5
		1	49	22.9	23.3	23.3	1.0	23.5	16.8	16.7	17.1	0.0	17.5
		25	0	22.2	22.1	22.3	2.0	22.5	17.1	17.0	17.0	0.0	17.5
		25	12	22.3	22.2	22.3	2.0	22.5	17.1	17.1	17.1	0.0	17.5
		25	25	22.2	22.2	22.4	2.0	22.5	17.0	16.9	17.1	0.0	17.5
		50	0	22.1	22.1	22.2	2.0	22.5	17.0	17.0	17.0	0.0	17.5
	64QAM	1	0	22.1	22.2	22.3	2.0	22.5	16.9	16.9	17.4	0.0	17.5
		1	25	22.2	22.3	22.4	2.0	22.5	17.1	17.2	17.4	0.0	17.5
		1	49	22.3	22.0	21.8	2.0	22.5	16.9	17.0	17.5	0.0	17.5
		25	0	21.2	21.1	21.2	3.0	21.5	17.1	17.0	17.0	0.0	17.5
		25	12	21.4	21.3	21.3	3.0	21.5	17.2	17.1	17.1	0.0	17.5
		25	25	21.2	21.3	21.4	3.0	21.5	17.1	17.1	17.1	0.0	17.5
		50	0	21.2	21.2	21.2	3.0	21.5	17.1	17.0	17.0	0.0	17.5
	256QAM	1	0	18.2	18.2	18.6	5.0	19.5	16.3	16.5	15.9	0.0	17.5
		1	25	18.3	18.5	18.9	5.0	19.5	16.5	16.8	16.1	0.0	17.5
		1	49	18.1	18.3	18.7	5.0	19.5	16.2	16.6	15.9	0.0	17.5
		25	0	18.6	18.4	18.3	5.0	19.5	16.4	16.3	16.3	0.0	17.5
		25	12	18.7	18.6	18.4	5.0	19.5	16.6	16.4	16.4	0.0	17.5
		25	25	18.6	18.5	18.5	5.0	19.5	16.4	16.4	16.4	0.0	17.5
		50	0	18.5	18.4	18.4	5.0	19.5	16.4	16.4	16.3	0.0	17.5

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				26065	26365	26665			26065	26365	26665		
				1852.5 MHz	1882.5 MHz	1912.5 MHz			1852.5 MHz	1882.5 MHz	1912.5 MHz		
5 MHz	QPSK	1	0	23.9	23.8	24.1	0.0	24.5	17.0	15.9	17.1	0.0	17.5
		1	12	23.9	23.9	24.0	0.0	24.5	16.9	17.0	17.1	0.0	17.5
		1	24	24.0	23.9	24.0	0.0	24.5	16.9	17.0	17.1	0.0	17.5
		12	0	23.2	23.0	23.3	1.0	23.5	17.0	16.9	17.1	0.0	17.5
		12	7	23.2	23.1	23.3	1.0	23.5	17.1	17.1	17.2	0.0	17.5
		12	13	23.2	23.1	23.4	1.0	23.5	17.0	17.1	17.2	0.0	17.5
		25	0	23.2	23.1	23.3	1.0	23.5	17.0	17.0	17.2	0.0	17.5
	16QAM	1	0	23.3	23.2	23.1	1.0	23.5	17.2	17.1	17.0	0.0	17.5
		1	12	23.3	23.2	23.1	1.0	23.5	17.2	17.1	17.2	0.0	17.5
		1	24	23.3	23.3	23.1	1.0	23.5	17.1	17.2	17.3	0.0	17.5
		12	0	22.2	22.1	22.4	2.0	22.5	17.2	17.1	17.2	0.0	17.5
		12	7	22.3	22.2	22.5	2.0	22.5	17.2	17.1	17.3	0.0	17.5
		12	13	22.3	22.2	22.1	2.0	22.5	17.1	17.0	17.2	0.0	17.5
		25	0	22.2	22.2	22.4	2.0	22.5	17.1	17.0	17.1	0.0	17.5
	64QAM	1	0	22.4	22.3	22.2	2.0	22.5	17.4	17.2	17.5	0.0	17.5
		1	12	22.1	22.5	22.2	2.0	22.5	17.0	17.3	17.5	0.0	17.5
		1	24	22.2	22.2	22.2	2.0	22.5	17.0	17.0	17.5	0.0	17.5
		12	0	21.2	21.2	21.3	3.0	21.5	17.2	17.0	17.1	0.0	17.5
		12	7	21.2	21.3	21.4	3.0	21.5	17.2	17.1	17.1	0.0	17.5
		12	13	21.2	21.3	21.4	3.0	21.5	17.2	17.1	17.1	0.0	17.5
		25	0	21.2	21.2	21.3	3.0	21.5	17.1	17.0	17.1	0.0	17.5
	256QAM	1	0	18.7	18.5	18.2	5.0	19.5	16.5	16.0	16.5	0.0	17.5
		1	12	18.7	18.5	18.2	5.0	19.5	16.5	16.1	16.5	0.0	17.5
		1	24	18.7	18.6	18.2	5.0	19.5	16.5	16.1	16.5	0.0	17.5
		12	0	18.6	18.4	18.5	5.0	19.5	16.4	16.3	16.4	0.0	17.5
		12	7	18.6	18.5	18.5	5.0	19.5	16.5	16.4	16.4	0.0	17.5
		12	13	18.6	18.5	18.5	5.0	19.5	16.5	16.4	16.4	0.0	17.5
		25	0	18.6	18.5	18.6	5.0	19.5	16.5	16.4	16.4	0.0	17.5

LTE Band 25 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				26055	26365	26675			26055	26365	26675		
				1851.5 MHz	1882.5 MHz	1913.5 MHz			1851.5 MHz	1882.5 MHz	1913.5 MHz		
3 MHz	QPSK	1	0	23.9	23.8	24.0	0.0	24.5	16.9	16.9	17.0	0.0	17.5
		1	8	23.8	23.8	24.0	0.0	24.5	17.0	16.9	17.0	0.0	17.5
		1	14	23.9	23.9	24.1	0.0	24.5	17.0	17.0	17.1	0.0	17.5
		8	0	23.1	23.1	23.2	1.0	23.5	17.0	16.9	17.1	0.0	17.5
		8	4	23.2	23.1	23.3	1.0	23.5	17.0	17.0	17.2	0.0	17.5
		8	7	23.2	23.1	23.3	1.0	23.5	17.0	17.0	17.2	0.0	17.5
		15	0	23.2	23.1	23.3	1.0	23.5	17.0	17.1	17.2	0.0	17.5
	16QAM	1	0	23.2	23.0	23.1	1.0	23.5	17.0	17.3	17.2	0.0	17.5
		1	8	23.1	23.0	23.2	1.0	23.5	17.1	17.3	17.1	0.0	17.5
		1	14	23.2	23.1	23.1	1.0	23.5	17.4	17.4	17.2	0.0	17.5
		8	0	22.2	22.2	22.3	2.0	22.5	17.1	17.0	17.1	0.0	17.5
		8	4	22.2	22.2	22.4	2.0	22.5	17.2	17.1	17.2	0.0	17.5
		8	7	22.3	22.3	22.4	2.0	22.5	17.1	17.1	17.2	0.0	17.5
		15	0	22.2	22.2	22.4	2.0	22.5	17.2	17.0	17.1	0.0	17.5
	64QAM	1	0	22.3	22.3	22.3	2.0	22.5	17.3	17.0	17.4	0.0	17.5
		1	8	22.3	22.4	22.4	2.0	22.5	17.3	17.3	17.2	0.0	17.5
		1	14	22.4	22.4	22.4	2.0	22.5	17.4	17.2	17.3	0.0	17.5
		8	0	21.3	21.1	21.3	3.0	21.5	17.2	17.0	17.1	0.0	17.5
		8	4	21.3	21.1	21.4	3.0	21.5	17.1	17.1	17.2	0.0	17.5
		8	7	21.3	21.2	21.4	3.0	21.5	17.2	17.2	17.2	0.0	17.5
		15	0	21.3	21.2	21.3	3.0	21.5	17.2	17.1	17.1	0.0	17.5
	256QAM	1	0	18.6	18.9	18.3	5.0	19.5	16.4	16.7	16.1	0.0	17.5
		1	8	18.6	18.9	18.2	5.0	19.5	16.5	16.8	16.1	0.0	17.5
		1	14	18.6	19.0	18.3	5.0	19.5	16.5	16.9	16.2	0.0	17.5
		8	0	18.7	18.5	18.4	5.0	19.5	16.5	16.4	16.3	0.0	17.5
		8	4	18.8	18.6	18.5	5.0	19.5	16.6	16.5	16.4	0.0	17.5
		8	7	18.8	18.6	18.5	5.0	19.5	16.6	16.5	16.4	0.0	17.5
		15	0	18.7	18.5	18.6	5.0	19.5	16.6	16.4	16.5	0.0	17.5

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				26047	26365	26683			26047	26365	26683		
				1850.7 MHz	1882.5 MHz	1914.3 MHz			1850.7 MHz	1882.5 MHz	1914.3 MHz		
1.4 MHz	QPSK	1	0	23.8	23.8	23.9	0.0	24.5	16.9	16.9	16.9	0.0	17.5
		1	3	23.9	23.8	23.9	0.0	24.5	16.9	16.9	17.0	0.0	17.5
		1	5	23.8	23.8	23.9	0.0	24.5	16.9	16.9	16.9	0.0	17.5
		3	0	23.8	23.7	23.9	0.0	24.5	16.8	16.8	16.9	0.0	17.5
		3	1	23.9	23.8	24.0	0.0	24.5	16.9	16.9	17.0	0.0	17.5
		3	3	23.9	23.8	23.9	0.0	24.5	16.9	16.9	17.0	0.0	17.5
		6	0	23.1	23.0	23.2	1.0	23.5	16.9	17.0	17.0	0.0	17.5
	16QAM	1	0	23.1	23.1	22.8	1.0	23.5	17.1	17.3	17.1	0.0	17.5
		1	3	23.2	23.2	22.9	1.0	23.5	17.1	17.3	17.1	0.0	17.5
		1	5	23.1	23.2	22.8	1.0	23.5	17.1	17.3	17.1	0.0	17.5
		3	0	23.3	23.0	23.3	1.0	23.5	17.0	17.1	17.2	0.0	17.5
		3	1	23.3	23.1	23.4	1.0	23.5	17.0	17.1	17.2	0.0	17.5
		3	3	23.4	23.2	23.4	1.0	23.5	17.0	17.1	17.2	0.0	17.5
		6	0	22.3	22.1	22.1	2.0	22.5	17.1	16.8	17.2	0.0	17.5
	64QAM	1	0	22.5	22.1	22.2	2.0	22.5	17.4	17.3	17.1	0.0	17.5
		1	3	22.2	22.2	22.3	2.0	22.5	17.2	17.2	17.2	0.0	17.5
		1	5	22.5	22.2	22.2	2.0	22.5	17.3	17.3	17.2	0.0	17.5
		3	0	22.5	22.2	22.2	2.0	22.5	17.1	16.9	17.4	0.0	17.5
		3	1	22.0	22.2	22.3	2.0	22.5	17.4	16.9	17.1	0.0	17.5
		3	3	21.9	22.2	22.3	2.0	22.5	17.0	17.3	17.3	0.0	17.5
		6	0	21.1	21.4	21.5	3.0	21.5	17.3	17.0	17.1	0.0	17.5
	256QAM	1	0	18.6	18.1	18.5	5.0	19.5	16.5	16.0	16.3	0.0	17.5
		1	3	18.7	18.4	18.6	5.0	19.5	16.7	16.2	16.4	0.0	17.5
		1	5	18.6	18.4	18.5	5.0	19.5	16.5	16.1	16.3	0.0	17.5
		3	0	18.5	18.5	18.3	5.0	19.5	16.3	16.1	16.4	0.0	17.5
		3	1	18.5	18.5	18.4	5.0	19.5	16.4	16.2	16.4	0.0	17.5
		3	3	18.5	18.5	18.4	5.0	19.5	16.4	16.2	16.4	0.0	17.5
		6	0	18.4	18.4	18.3	5.0	19.5	16.3	16.4	16.3	0.0	17.5

LTE Band 26 Measured Results

LTE Band 26 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)									
				DSI = 0					DSI = 1				
				Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				26765	26865	26965			26765	26865	26965		
				821.5 MHz	831.5 MHz	841.5 MHz			821.5 MHz	831.5 MHz	841.5 MHz		
15 MHz	QPSK	1	0		23.7		0.0	24.5		20.7		0.0	21.5
		1	37		23.6		0.0	24.5		20.6		0.0	21.5
		1	74		23.7		0.0	24.5		20.7		0.0	21.5
		36	0		22.6		1.0	23.5		20.6		0.0	21.5
		36	20		22.6		1.0	23.5		20.7		0.0	21.5
		36	39		22.6		1.0	23.5		20.7		0.0	21.5
		75	0		22.6		1.0	23.5		20.6		0.0	21.5
	16QAM	1	0		23.1		1.0	23.5		21.1		0.0	21.5
		1	37		23.0		1.0	23.5		21.0		0.0	21.5
		1	74		23.1		1.0	23.5		21.2		0.0	21.5
		36	0		21.6		2.0	22.5		20.7		0.0	21.5
		36	20		21.7		2.0	22.5		20.7		0.0	21.5
		36	39		21.7		2.0	22.5		20.7		0.0	21.5
		75	0		21.6		2.0	22.5		20.6		0.0	21.5
	64QAM	1	0		21.9		2.0	22.5		20.9		0.0	21.5
		1	37		21.9		2.0	22.5		20.9		0.0	21.5
		1	74		21.9		2.0	22.5		20.9		0.0	21.5
		36	0		20.7		3.0	21.5		20.8		0.0	21.5
		36	20		20.8		3.0	21.5		20.9		0.0	21.5
		36	39		20.8		3.0	21.5		20.8		0.0	21.5
		75	0		20.7		3.0	21.5		20.7		0.0	21.5
	256QAM	1	0		18.1		5.0	19.5		18.1		2.0	19.5
		1	37		18.3		5.0	19.5		18.3		2.0	19.5
		1	74		18.3		5.0	19.5		18.2		2.0	19.5
		36	0		18.5		5.0	19.5		18.5		2.0	19.5
		36	20		18.5		5.0	19.5		18.5		2.0	19.5
		36	39		18.5		5.0	19.5		18.5		2.0	19.5
		75	0		18.4		5.0	19.5		18.4		2.0	19.5
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				26740	26865	26990			26740	26865	26990		
				819 MHz	831.5 MHz	844 MHz			819 MHz	831.5 MHz	844 MHz		
10 MHz	QPSK	1	0	23.9	23.8	23.9	0.0	24.5	20.9	20.8	20.9	0.0	21.5
		1	25	23.9	23.8	23.7	0.0	24.5	20.9	20.7	20.8	0.0	21.5
		1	49	23.8	23.7	23.7	0.0	24.5	20.8	20.7	20.7	0.0	21.5
		25	0	22.8	22.7	22.8	1.0	23.5	20.9	20.7	20.8	0.0	21.5
		25	12	23.0	22.8	22.8	1.0	23.5	21.0	20.8	20.8	0.0	21.5
		25	25	22.9	22.8	22.8	1.0	23.5	20.9	20.8	20.7	0.0	21.5
		50	0	22.9	22.8	22.7	1.0	23.5	20.9	20.7	20.7	0.0	21.5
	16QAM	1	0	23.0	23.0	23.0	1.0	23.5	20.7	21.0	21.3	0.0	21.5
		1	25	23.3	22.8	22.9	1.0	23.5	20.9	21.2	21.2	0.0	21.5
		1	49	23.3	22.9	22.8	1.0	23.5	20.9	20.8	21.1	0.0	21.5
		25	0	21.9	21.8	21.8	2.0	22.5	21.0	20.8	20.8	0.0	21.5
		25	12	22.1	21.8	21.8	2.0	22.5	21.0	20.9	20.9	0.0	21.5
		25	25	22.0	21.8	21.8	2.0	22.5	20.9	20.8	20.8	0.0	21.5
		50	0	21.9	21.7	21.7	2.0	22.5	20.9	20.7	20.8	0.0	21.5
	64QAM	1	0	22.2	22.3	22.3	2.0	22.5	21.1	21.1	21.2	0.0	21.5
		1	25	22.1	22.2	22.3	2.0	22.5	21.1	21.1	21.2	0.0	21.5
		1	49	22.2	22.1	22.1	2.0	22.5	21.1	21.0	21.1	0.0	21.5
		25	0	20.9	20.8	20.8	3.0	21.5	20.9	20.8	20.8	0.0	21.5
		25	12	21.1	20.9	20.9	3.0	21.5	21.0	20.9	20.9	0.0	21.5
		25	25	21.0	20.9	20.9	3.0	21.5	21.0	20.9	20.9	0.0	21.5
		50	0	21.0	20.8	20.7	3.0	21.5	20.9	20.7	20.7	0.0	21.5
	256QAM	1	0	18.4	18.4	18.2	5.0	19.5	18.2	18.4	18.2	2.0	19.5
		1	25	18.7	18.7	18.5	5.0	19.5	18.5	18.7	18.5	2.0	19.5
		1	49	18.5	18.4	18.1	5.0	19.5	18.2	18.5	18.1	2.0	19.5
		25	0	18.6	18.6	18.7	5.0	19.5	18.7	18.6	18.6	2.0	19.5
		25	12	18.8	18.7	18.7	5.0	19.5	18.8	18.7	18.7	2.0	19.5
		25	25	18.7	18.7	18.6	5.0	19.5	18.7	18.7	18.6	2.0	19.5
		50	0	18.7	18.6	18.6	5.0	19.5	18.7	18.5	18.5	2.0	19.5

LTE Band 26 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				26715	26865	27015			26715	26865	27015		
				816.5 MHz	831.5 MHz	846.5 MHz			816.5 MHz	831.5 MHz	846.5 MHz		
5 MHz	QPSK	1	0	23.8	23.9	23.8	0.0	24.5	20.8	20.8	20.9	0.0	21.5
		1	12	23.9	23.8	23.7	0.0	24.5	21.0	20.8	20.8	0.0	21.5
		1	24	23.9	23.9	23.7	0.0	24.5	21.0	20.8	20.8	0.0	21.5
		12	0	23.0	22.8	22.8	1.0	23.5	21.0	20.8	20.7	0.0	21.5
		12	7	23.0	22.9	22.8	1.0	23.5	21.0	20.8	20.8	0.0	21.5
		12	13	22.9	22.9	22.8	1.0	23.5	20.9	20.9	20.8	0.0	21.5
		25	0	22.9	22.9	22.8	1.0	23.5	21.0	20.8	20.7	0.0	21.5
	16QAM	1	0	23.0	23.2	23.0	1.0	23.5	21.0	21.3	21.0	0.0	21.5
		1	12	23.5	23.3	22.9	1.0	23.5	21.1	21.0	20.9	0.0	21.5
		1	24	23.1	23.4	22.9	1.0	23.5	21.1	21.0	20.9	0.0	21.5
		12	0	22.0	22.0	21.8	2.0	22.5	21.1	20.9	20.8	0.0	21.5
		12	7	22.1	22.0	21.8	2.0	22.5	21.1	21.0	20.9	0.0	21.5
		12	13	22.0	22.1	21.8	2.0	22.5	21.0	20.9	20.8	0.0	21.5
		25	0	22.0	21.9	21.7	2.0	22.5	20.9	20.8	20.8	0.0	21.5
	64QAM	1	0	22.1	22.2	21.8	2.0	22.5	21.2	21.1	20.8	0.0	21.5
		1	12	22.2	22.2	21.7	2.0	22.5	21.3	21.1	20.7	0.0	21.5
		1	24	22.2	22.2	21.7	2.0	22.5	21.2	21.2	20.7	0.0	21.5
		12	0	20.9	20.9	20.9	3.0	21.5	20.9	20.9	20.8	0.0	21.5
		12	7	21.0	21.0	20.9	3.0	21.5	20.9	20.9	20.9	0.0	21.5
		12	13	20.9	21.0	20.8	3.0	21.5	20.9	21.0	20.8	0.0	21.5
		25	0	20.9	20.9	20.8	3.0	21.5	20.9	20.9	20.8	0.0	21.5
	256QAM	1	0	18.7	18.7	18.7	5.0	19.5	18.7	18.7	18.7	2.0	19.5
		1	12	18.8	18.8	18.7	5.0	19.5	18.8	18.8	18.7	2.0	19.5
		1	24	18.8	18.8	18.6	5.0	19.5	18.7	18.8	18.7	2.0	19.5
		12	0	18.7	18.6	18.6	5.0	19.5	18.7	18.6	18.6	2.0	19.5
		12	7	18.8	18.7	18.6	5.0	19.5	18.7	18.7	18.6	2.0	19.5
		12	13	18.7	18.7	18.6	5.0	19.5	18.7	18.7	18.6	2.0	19.5
		25	0	18.7	18.6	18.5	5.0	19.5	18.7	18.7	18.5	2.0	19.5

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				26705	26865	27025			26705	26865	27025		
				815.5 MHz	831.5 MHz	847.5 MHz			815.5 MHz	831.5 MHz	847.5 MHz		
3 MHz	QPSK	1	0	23.7	23.5	23.6	0.0	24.5	20.9	20.8	20.7	0.0	21.5
		1	8	23.7	23.4	23.6	0.0	24.5	20.9	20.8	20.6	0.0	21.5
		1	14	23.7	23.5	23.6	0.0	24.5	20.9	20.8	20.6	0.0	21.5
		8	0	22.9	22.6	22.7	1.0	23.5	21.0	20.8	20.7	0.0	21.5
		8	4	22.9	23.5	22.8	1.0	23.5	21.0	20.8	20.7	0.0	21.5
		8	7	22.9	22.7	22.7	1.0	23.5	21.0	20.8	20.8	0.0	21.5
		15	0	22.9	22.7	22.8	1.0	23.5	20.9	20.8	20.7	0.0	21.5
	16QAM	1	0	22.7	22.6	22.8	1.0	23.5	21.0	21.3	20.8	0.0	21.5
		1	8	22.8	22.6	22.8	1.0	23.5	21.3	21.2	20.7	0.0	21.5
		1	14	23.3	22.7	22.7	1.0	23.5	20.9	21.3	20.8	0.0	21.5
		8	0	21.9	21.7	21.8	2.0	22.5	21.1	20.9	20.8	0.0	21.5
		8	4	22.0	21.9	21.8	2.0	22.5	21.0	20.9	20.8	0.0	21.5
		8	7	22.0	21.9	21.8	2.0	22.5	21.1	20.9	20.8	0.0	21.5
		15	0	21.9	21.9	21.7	2.0	22.5	21.0	20.9	20.7	0.0	21.5
	64QAM	1	0	22.1	22.0	22.1	2.0	22.5	21.0	21.1	21.1	0.0	21.5
		1	8	22.1	22.1	22.0	2.0	22.5	21.1	21.1	21.0	0.0	21.5
		1	14	22.1	22.2	22.0	2.0	22.5	21.1	21.1	21.1	0.0	21.5
		8	0	21.0	20.8	20.8	3.0	21.5	21.0	20.8	20.8	0.0	21.5
		8	4	21.0	20.8	20.8	3.0	21.5	21.0	20.8	20.8	0.0	21.5
		8	7	21.1	20.9	20.9	3.0	21.5	21.0	20.9	20.8	0.0	21.5
		15	0	21.0	20.9	20.8	3.0	21.5	21.0	20.9	20.8	0.0	21.5
	256QAM	1	0	18.7	18.5	18.5	5.0	19.5	18.7	19.0	19.0	2.0	19.5
		1	8	18.7	18.6	18.5	5.0	19.5	18.7	19.1	19.0	2.0	19.5
		1	14	18.7	18.6	18.5	5.0	19.5	18.7	19.1	19.0	2.0	19.5
		8	0	18.8	18.6	18.7	5.0	19.5	18.8	18.7	18.6	2.0	19.5
		8	4	18.9	18.6	18.7	5.0	19.5	18.9	18.7	18.7	2.0	19.5
		8	7	18.8	18.8	18.7	5.0	19.5	18.9	18.8	18.7	2.0	19.5
		15	0	18.8	18.7	18.6	5.0	19.5	18.8	18.7	18.6	2.0	19.5

LTE Band 26 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				26697	26865	27033			26697	26865	27033		
				814.7 MHz	831.5 MHz	848.3 MHz			814.7 MHz	831.5 MHz	848.3 MHz		
1.4 MHz	QPSK	1	0	23.7	23.4	23.3	0.0	24.5	20.8	20.7	20.6	0.0	21.5
		1	3	23.7	23.5	23.4	0.0	24.5	20.9	20.8	20.6	0.0	21.5
		1	5	23.7	23.5	23.3	0.0	24.5	20.8	20.7	20.6	0.0	21.5
		3	0	23.6	23.4	23.4	0.0	24.5	20.8	20.6	20.6	0.0	21.5
		3	1	23.6	23.5	23.4	0.0	24.5	20.8	20.7	20.6	0.0	21.5
		3	3	23.7	23.5	23.4	0.0	24.5	20.8	20.7	20.6	0.0	21.5
		6	0	22.8	22.6	22.5	1.0	23.5	20.8	20.7	20.6	0.0	21.5
	16QAM	1	0	22.9	22.9	22.5	1.0	23.5	21.3	20.8	21.0	0.0	21.5
		1	3	23.1	23.0	22.6	1.0	23.5	21.1	21.0	21.1	0.0	21.5
		1	5	22.9	22.9	22.5	1.0	23.5	20.9	20.9	21.1	0.0	21.5
		3	0	22.8	22.7	22.7	1.0	23.5	20.9	20.7	20.8	0.0	21.5
		3	1	22.9	22.8	22.8	1.0	23.5	20.9	20.8	20.8	0.0	21.5
		3	3	22.9	22.8	22.8	1.0	23.5	21.1	20.9	20.8	0.0	21.5
		6	0	21.9	21.7	21.7	2.0	22.5	21.1	20.8	20.6	0.0	21.5
	64QAM	1	0	22.1	22.1	21.8	2.0	22.5	21.3	20.9	20.9	0.0	21.5
		1	3	22.2	22.2	21.9	2.0	22.5	21.2	21.0	20.9	0.0	21.5
		1	5	22.1	22.2	21.8	2.0	22.5	21.1	21.1	20.9	0.0	21.5
		3	0	21.8	22.1	21.8	2.0	22.5	21.0	20.9	20.6	0.0	21.5
		3	1	21.9	22.2	21.8	2.0	22.5	21.0	20.9	20.7	0.0	21.5
		3	3	21.9	22.2	21.9	2.0	22.5	21.3	21.0	20.7	0.0	21.5
		6	0	21.0	20.7	21.0	3.0	21.5	21.0	21.1	20.8	0.0	21.5
	256QAM	1	0	18.7	18.5	18.4	5.0	19.5	18.6	18.6	18.5	2.0	19.5
		1	3	18.8	18.7	18.5	5.0	19.5	18.8	18.8	18.7	2.0	19.5
		1	5	18.7	18.6	18.4	5.0	19.5	18.6	18.7	18.5	2.0	19.5
		3	0	18.6	18.6	18.5	5.0	19.5	18.7	18.5	18.4	2.0	19.5
		3	1	18.7	18.6	18.5	5.0	19.5	18.8	18.5	18.5	2.0	19.5
		3	3	18.7	18.7	18.5	5.0	19.5	18.8	18.6	18.5	2.0	19.5
		6	0	18.5	18.5	18.4	5.0	19.5	18.7	18.4	18.3	2.0	19.5

LTE Band 41 Power Class 3 Measured Results

LTE Band 41 Power Class 3 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)													
				DSI = 0							DSI = 1						
				Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490			39750	40185	40620	41055	41490		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
20 MHz	QPSK	1	0	23.8	23.8	23.6	23.6	23.9	0.0	25.0	17.4	17.4	16.8	17.1	17.1	0.0	18.0
		1	49	23.8	23.8	23.6	23.7	23.8	0.0	25.0	17.4	17.3	16.9	17.3	17.6	0.0	18.0
		1	99	23.9	23.8	23.3	23.2	23.8	0.0	25.0	17.4	17.3	16.6	16.8	17.5	0.0	18.0
		50	0	22.7	23.0	22.7	22.6	23.1	1.0	24.0	17.2	17.3	16.9	17.2	17.5	0.0	18.0
		50	24	22.9	23.0	22.7	22.6	23.0	1.0	24.0	17.4	17.4	17.0	17.2	17.4	0.0	18.0
		50	50	22.8	23.0	22.7	22.5	23.0	1.0	24.0	17.3	17.3	16.9	17.1	17.4	0.0	18.0
		100	0	22.8	23.0	22.7	22.5	22.9	1.0	24.0	17.3	17.3	16.9	17.1	17.5	0.0	18.0
	16QAM	1	0	22.8	23.1	22.6	22.3	22.4	1.0	24.0	17.2	17.4	16.9	16.9	17.0	0.0	18.0
		1	49	22.7	23.1	22.8	22.6	22.9	1.0	24.0	17.2	17.3	17.0	17.1	17.5	0.0	18.0
		1	99	22.8	23.0	22.5	22.1	22.9	1.0	24.0	17.2	17.2	16.7	16.7	17.4	0.0	18.0
		50	0	21.7	22.0	21.7	21.6	21.8	2.0	23.0	17.2	17.3	16.9	17.2	17.4	0.0	18.0
		50	24	21.9	22.1	21.8	21.6	22.0	2.0	23.0	17.4	17.4	17.1	17.2	17.6	0.0	18.0
		50	50	21.9	22.0	21.7	21.6	22.0	2.0	23.0	17.4	17.3	17.0	17.2	17.6	0.0	18.0
		100	0	21.8	22.0	21.7	21.5	21.9	2.0	23.0	17.3	17.3	17.0	17.1	17.5	0.0	18.0
	64QAM	1	0	21.8	22.2	21.8	21.3	21.5	2.0	23.0	17.3	17.8	16.6	17.0	17.4	0.0	18.0
		1	49	21.8	22.1	22.1	21.5	22.0	2.0	23.0	17.3	17.5	16.9	17.2	17.9	0.0	18.0
		1	99	21.8	22.1	21.8	21.1	22.0	2.0	23.0	17.4	17.7	16.5	16.8	17.8	0.0	18.0
		50	0	20.8	21.1	20.7	20.6	20.9	3.0	22.0	17.3	17.4	17.0	17.3	17.5	0.0	18.0
		50	24	21.0	21.2	20.8	20.7	21.1	3.0	22.0	17.5	17.5	17.1	17.3	17.6	0.0	18.0
		50	50	20.9	21.1	20.7	20.6	21.1	3.0	22.0	17.4	17.4	17.0	17.2	17.7	0.0	18.0
		100	0	20.9	21.1	20.7	20.5	21.0	3.0	22.0	17.4	17.4	17.0	17.2	17.5	0.0	18.0
	256QAM	1	0	18.7	18.9	18.5	18.6	18.6	5.0	20.0	17.3	17.2	16.8	17.5	17.2	0.0	18.0
		1	49	19.1	19.2	18.7	18.9	19.0	5.0	20.0	17.7	17.6	17.1	17.6	17.7	0.0	18.0
		1	99	18.8	18.7	18.4	18.4	19.0	5.0	20.0	17.5	17.1	16.7	17.2	17.7	0.0	18.0
		50	0	18.7	19.0	18.6	18.6	18.8	5.0	20.0	17.3	17.4	17.0	17.3	17.4	0.0	18.0
		50	24	18.9	19.2	18.7	18.6	19.0	5.0	20.0	17.5	17.5	17.1	17.3	17.6	0.0	18.0
		50	50	18.9	19.0	18.6	18.6	19.0	5.0	20.0	17.5	17.3	17.0	17.3	17.6	0.0	18.0
		100	0	18.8	19.0	18.7	18.5	18.9	5.0	20.0	17.4	17.4	17.0	17.2	17.6	0.0	18.0
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490			39750	40185	40620	41055	41490		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
15 MHz	QPSK	1	0	23.8	23.9	23.6	23.5	23.6	0.0	25.0	17.4	17.2	16.9	17.2	17.2	0.0	18.0
		1	37	23.8	24.0	23.7	23.5	23.9	0.0	25.0	17.4	17.3	16.9	17.3	17.4	0.0	18.0
		1	74	23.8	23.7	23.5	23.3	23.9	0.0	25.0	17.4	17.1	16.8	17.0	17.5	0.0	18.0
		36	0	22.8	23.0	22.6	22.6	22.8	1.0	24.0	17.3	17.4	17.0	17.2	17.5	0.0	18.0
		36	20	22.9	23.1	22.7	22.6	23.0	1.0	24.0	17.4	17.5	17.1	17.3	17.7	0.0	18.0
		36	39	22.9	23.0	22.7	22.6	23.0	1.0	24.0	17.4	17.4	17.1	17.3	17.7	0.0	18.0
		75	0	22.9	23.0	22.7	22.5	23.0	1.0	24.0	17.4	17.4	17.0	17.2	17.6	0.0	18.0
	16QAM	1	0	22.9	22.9	22.7	22.6	22.6	1.0	24.0	17.6	17.4	16.9	17.4	17.4	0.0	18.0
		1	37	22.9	23.1	22.8	22.7	22.9	1.0	24.0	17.6	17.5	17.0	17.5	17.7	0.0	18.0
		1	74	22.9	22.8	22.6	22.4	23.0	1.0	24.0	17.6	17.2	16.8	17.2	17.7	0.0	18.0
		36	0	21.7	22.0	21.6	21.6	21.8	2.0	23.0	17.3	17.4	16.9	17.3	17.5	0.0	18.0
		36	20	21.9	22.1	21.7	21.6	22.0	2.0	23.0	17.4	17.5	17.1	17.3	17.7	0.0	18.0
		36	39	21.9	22.0	21.7	21.6	22.0	2.0	23.0	17.4	17.4	17.1	17.3	17.7	0.0	18.0
		75	0	21.9	22.1	21.7	21.5	21.9	2.0	23.0	17.4	17.4	17.0	17.2	17.6	0.0	18.0
	64QAM	1	0	21.3	21.7	21.9	21.0	21.4	2.0	23.0	17.6	17.1	16.6	17.4	17.1	0.0	18.0
		1	37	21.4	21.9	21.9	21.2	21.7	2.0	23.0	17.7	17.2	16.6	17.6	17.3	0.0	18.0
		1	74	21.4	21.6	21.8	20.9	21.8	2.0	23.0	17.7	17.0	16.4	17.3	17.4	0.0	18.0
		36	0	20.8	21.0	20.7	20.7	20.8	3.0	22.0	17.4	17.5	17.1	17.3	17.5	0.0	18.0
		36	20	21.0	21.1	20.8	20.7	20.9	3.0	22.0	17.6	17.6	17.2	17.4	17.6	0.0	18.0
		36	39	20.9	21.0	20.8	20.6	21.0	3.0	22.0	17.6	17.5	17.2	17.4	17.6	0.0	18.0
		75	0	20.9	21.1	20.7	20.5	21.0	3.0	22.0	17.5	17.5	17.1	17.2	17.6	0.0	18.0
	256QAM	1	0	18.7	19.0	18.3	18.6	18.7	5.0	20.0	17.3	17.4	16.7	17.3	17.4	0.0	18.0
		1	37	18.9	19.2	18.4	18.7	19.0	5.0	20.0	17.6	17.6	16.9	17.4	17.7	0.0	18.0
		1	74	18.9	18.9	18.3	18.5	19.0	5.0	20.0	17.5	17.3	16.7	17.2	17.7	0.0	18.0
		36	0	18.7	19.1	18.6	18.6	18.8	5.0	20.0	17.4	17.5	17.0	17.3	17.5	0.0	18.0
		36	20	18.8	19.2	18.8	18.6	19.0	5.0	20.0	17.5	17.6	17.1	17.3	17.7	0.0	18.0
		36	39	18.8	19.0	18.7	18.6	19.0	5.0	20.0	17.5	17.5	17.1	17.3	17.7	0.0	18.0
		75	0	18.9	19.1	18.7	18.6	19.0	5.0	20.0	17.5	17.5	17.0	17.3	17.6	0.0	18.0

LTE Band 41 Power Class 3 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490			39750	40185	40620	41055	41490		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
10 MHz	QPSK	1	0	23.8	23.9	23.5	23.4	23.7	0.0	25.0	17.3	17.2	16.7	17.0	17.3	0.0	18.0
		1	25	23.8	24.1	23.6	23.6	23.9	0.0	25.0	17.3	17.4	16.9	17.3	17.5	0.0	18.0
		1	49	23.8	23.8	23.4	23.3	23.7	0.0	25.0	17.3	17.1	16.6	16.9	17.3	0.0	18.0
		25	0	22.9	23.1	22.7	22.6	23.0	1.0	24.0	17.4	17.4	17.0	17.2	17.6	0.0	18.0
		25	12	23.0	23.2	22.8	22.7	23.1	1.0	24.0	17.5	17.5	17.1	17.3	17.7	0.0	18.0
		25	25	22.9	23.1	22.7	22.7	23.0	1.0	24.0	17.5	17.4	17.0	17.3	17.6	0.0	18.0
		50	0	22.9	23.1	22.7	22.6	23.0	1.0	24.0	17.4	17.5	17.0	17.2	17.6	0.0	18.0
	16QAM	1	0	23.0	22.9	22.5	22.6	22.7	1.0	24.0	17.5	17.2	16.8	17.2	17.3	0.0	18.0
		1	25	23.0	23.2	22.6	22.7	23.0	1.0	24.0	17.5	17.4	16.9	17.4	17.5	0.0	18.0
		1	49	23.0	22.9	22.4	22.5	22.8	1.0	24.0	17.5	17.1	16.7	17.1	17.3	0.0	18.0
		25	0	21.9	22.1	21.7	21.6	22.0	2.0	23.0	17.5	17.4	17.0	17.3	17.6	0.0	18.0
		25	12	22.0	22.2	21.8	21.6	22.0	2.0	23.0	17.6	17.5	17.2	17.4	17.7	0.0	18.0
		25	25	22.0	22.1	21.7	21.7	22.0	2.0	23.0	17.5	17.4	17.0	17.3	17.6	0.0	18.0
		50	0	21.9	22.1	21.7	21.6	22.0	2.0	23.0	17.4	17.5	17.1	17.2	17.6	0.0	18.0
	64QAM	1	0	22.0	22.2	21.0	21.5	21.8	2.0	23.0	17.5	16.8	17.2	17.1	16.9	0.0	18.0
		1	25	22.0	22.4	21.2	21.7	22.3	2.0	23.0	17.5	17.0	17.3	17.3	17.1	0.0	18.0
		1	49	22.0	22.1	21.0	21.5	22.1	2.0	23.0	17.6	16.8	17.1	17.1	16.9	0.0	18.0
		25	0	20.8	21.1	20.7	20.5	21.0	3.0	22.0	17.4	17.5	17.1	17.2	17.6	0.0	18.0
		25	12	20.9	21.2	20.8	20.5	21.1	3.0	22.0	17.5	17.6	17.2	17.2	17.7	0.0	18.0
		25	25	20.9	21.1	20.7	20.6	21.0	3.0	22.0	17.5	17.6	17.0	17.2	17.7	0.0	18.0
		50	0	20.9	21.1	20.7	20.6	20.9	3.0	22.0	17.5	17.5	17.0	17.2	17.6	0.0	18.0
	256QAM	1	0	18.6	19.0	18.2	18.4	18.8	5.0	20.0	17.3	17.5	16.7	17.1	17.5	0.0	18.0
		1	25	18.8	19.3	18.4	18.6	19.1	5.0	20.0	17.6	17.7	16.8	17.3	17.8	0.0	18.0
		1	49	18.6	19.0	18.2	18.4	18.9	5.0	20.0	17.3	17.4	16.6	17.1	17.5	0.0	18.0
		25	0	18.8	19.1	18.7	18.5	18.9	5.0	20.0	17.4	17.5	17.1	17.2	17.6	0.0	18.0
		25	12	18.9	19.2	18.8	18.6	19.0	5.0	20.0	17.6	17.6	17.2	17.3	17.7	0.0	18.0
		25	25	18.8	19.1	18.6	18.6	19.0	5.0	20.0	17.5	17.5	17.1	17.3	17.6	0.0	18.0
		50	0	18.8	19.2	18.6	18.5	19.0	5.0	20.0	17.5	17.6	17.1	17.2	17.7	0.0	18.0

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490			39750	40185	40620	41055	41490		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
5 MHz	QPSK	1	0	23.8	24.0	23.6	23.6	23.9	0.0	25.0	17.3	17.4	17.0	17.2	17.5	0.0	18.0
		1	12	23.8	24.0	23.6	23.7	23.9	0.0	25.0	17.4	17.4	17.0	17.2	17.5	0.0	18.0
		1	24	23.9	24.0	23.6	23.6	23.9	0.0	25.0	17.4	17.4	17.0	17.2	17.5	0.0	18.0
		12	0	22.9	23.2	22.7	22.7	23.0	1.0	24.0	17.4	17.5	17.0	17.2	17.6	0.0	18.0
		12	7	22.9	23.2	22.8	22.7	23.1	1.0	24.0	17.5	17.5	17.1	17.3	17.7	0.0	18.0
		12	13	23.0	23.1	22.7	22.6	23.0	1.0	24.0	17.5	17.5	17.0	17.3	17.7	0.0	18.0
		25	0	22.9	23.2	22.7	22.6	23.0	1.0	24.0	17.5	17.5	17.1	17.3	17.7	0.0	18.0
	16QAM	1	0	23.0	23.0	22.7	22.8	23.0	1.0	24.0	17.4	17.5	17.2	17.2	17.6	0.0	18.0
		1	12	23.2	23.1	22.7	22.9	22.9	1.0	24.0	17.4	17.6	17.3	17.2	17.7	0.0	18.0
		1	24	23.1	23.1	22.7	22.8	22.9	1.0	24.0	17.4	17.5	17.2	17.2	17.6	0.0	18.0
		12	0	21.9	22.2	21.7	21.7	22.1	2.0	23.0	17.4	17.5	17.1	17.3	17.6	0.0	18.0
		12	7	22.0	22.2	21.7	21.7	22.1	2.0	23.0	17.5	17.5	17.2	17.3	17.6	0.0	18.0
		12	13	22.0	22.2	21.7	21.7	22.1	2.0	23.0	17.5	17.4	17.1	17.3	17.6	0.0	18.0
		25	0	21.9	22.2	21.7	21.6	22.0	2.0	23.0	17.5	17.6	17.1	17.3	17.7	0.0	18.0
	64QAM	1	0	21.9	22.3	22.1	21.3	22.1	2.0	23.0	17.6	17.2	17.5	17.3	17.2	0.0	18.0
		1	12	21.6	22.3	22.1	21.3	22.2	2.0	23.0	17.6	17.2	17.6	17.4	17.3	0.0	18.0
		1	24	21.6	22.2	22.1	21.3	22.1	2.0	23.0	17.6	17.1	17.5	17.3	17.2	0.0	18.0
		12	0	20.9	21.1	20.7	20.7	20.9	3.0	22.0	17.4	17.6	17.2	17.2	17.6	0.0	18.0
		12	7	21.0	21.1	20.8	20.6	21.0	3.0	22.0	17.5	17.6	17.3	17.2	17.7	0.0	18.0
		12	13	20.9	21.1	20.8	20.6	21.0	3.0	22.0	17.5	17.6	17.2	17.2	17.6	0.0	18.0
		25	0	21.0	21.2	20.7	20.7	20.9	3.0	22.0	17.4	17.6	17.2	17.2	17.7	0.0	18.0
	256QAM	1	0	19.2	19.2	18.8	18.9	19.1	5.0	20.0	17.7	17.9	17.2	17.5	18.0	0.0	18.0
		1	12	19.2	19.2	18.8	18.9	19.0	5.0	20.0	17.7	17.9	17.2	17.5	17.8	0.0	18.0
		1	24	19.3	19.3	18.8	19.0	19.1	5.0	20.0	17.8	17.9	17.2	17.5	17.9	0.0	18.0
		12	0	18.9	19.3	18.7	18.6	18.9	5.0	20.0	17.6	17.6	17.1	17.4	17.7	0.0	18.0
		12	7	19.0	19.3	18.7	18.6	19.0	5.0	20.0	17.7	17.7	17.2	17.4	17.7	0.0	18.0
		12	13	18.9	19.2	18.7	18.6	19.0	5.0	20.0	17.7	17.6	17.2	17.3	17.7	0.0	18.0
		25	0	19.0	19.2	18.8	18.6	19.0	5.0	20.0	17.7	17.7	17.2	17.3	17.7	0.0	18.0

LTE Band 41 Power Class 2 Measured Results

LTE Band 41 Power Class 2 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)													
				DSI = 0							DSI = 1						
				Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490			39750	40185	40620	41055	41490		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
20 MHz	QPSK	1	0	25.6	26.0	25.4	25.3	26.0	0.0	27.0	18.7	18.8	18.4	18.6	18.5	0.0	19.5
		1	49	25.6	26.0	25.6	25.5	25.8	0.0	27.0	18.8	18.8	18.5	18.8	18.9	0.0	19.5
		1	99	25.7	26.0	25.3	25.1	25.8	0.0	27.0	18.8	18.7	18.2	18.4	18.9	0.0	19.5
		50	0	24.6	24.9	24.6	24.5	24.7	1.0	26.0	18.5	18.7	18.5	18.7	18.9	0.0	19.5
		50	24	24.8	25.0	24.7	24.5	25.0	1.0	26.0	18.8	18.9	18.6	18.7	19.1	0.0	19.5
		50	50	24.7	24.9	24.6	24.4	24.9	1.0	26.0	18.7	18.7	18.6	18.7	19.1	0.0	19.5
		100	0	24.7	24.9	24.6	24.4	24.8	1.0	26.0	18.7	18.8	18.5	18.6	19.0	0.0	19.5
	16QAM	1	0	25.1	25.4	25.0	24.7	24.8	1.0	26.0	18.8	19.1	18.8	18.6	18.8	0.0	19.5
		1	49	25.0	25.4	25.1	24.9	25.3	1.0	26.0	18.8	19.0	19.0	18.8	19.3	0.0	19.5
		1	99	25.1	25.2	24.9	24.5	25.4	1.0	26.0	18.8	19.0	18.8	18.4	19.3	0.0	19.5
		50	0	23.5	23.9	23.7	23.5	23.8	2.0	25.0	18.6	18.8	18.5	18.7	18.9	0.0	19.5
		50	24	23.7	24.0	23.8	23.5	23.9	2.0	25.0	18.8	18.9	18.7	18.7	19.1	0.0	19.5
		50	50	23.7	23.9	23.7	23.5	23.9	2.0	25.0	18.7	18.7	18.6	18.6	19.1	0.0	19.5
		100	0	23.7	23.9	23.6	23.5	23.8	2.0	25.0	18.7	18.8	18.5	18.7	19.0	0.0	19.5
	64QAM	1	0	24.1	24.4	23.6	23.7	24.0	2.0	25.0	18.9	19.3	18.9	18.7	19.0	0.0	19.5
		1	49	24.2	24.0	23.8	24.0	24.5	2.0	25.0	19.0	19.3	19.0	18.9	19.4	0.0	19.5
		1	99	24.3	23.9	23.5	23.6	24.5	2.0	25.0	19.0	19.3	18.6	18.5	19.4	0.0	19.5
		50	0	22.7	23.0	22.6	22.6	22.8	3.0	24.0	18.7	18.8	18.6	18.7	18.9	0.0	19.5
		50	24	22.9	23.1	22.7	22.6	23.0	3.0	24.0	18.8	19.0	18.6	18.7	19.1	0.0	19.5
		50	50	22.9	23.0	22.6	22.6	23.0	3.0	24.0	18.8	18.8	18.6	18.6	19.1	0.0	19.5
		100	0	22.8	23.0	22.6	22.5	22.9	3.0	24.0	18.8	18.9	18.5	18.6	19.0	0.0	19.5
	256QAM	1	0	20.7	21.1	21.1	20.6	20.7	5.0	22.0	18.9	19.0	19.2	19.2	19.0	0.0	19.5
		1	49	21.1	21.4	21.3	20.9	21.2	5.0	22.0	19.3	19.3	19.5	19.5	19.5	0.0	19.5
		1	99	20.9	20.9	21.0	20.5	21.2	5.0	22.0	19.1	18.9	19.0	19.0	19.4	0.0	19.5
		50	0	20.8	21.1	20.7	20.6	20.9	5.0	22.0	18.9	19.0	18.8	18.8	19.1	0.0	19.5
		50	24	21.0	21.2	20.7	20.6	21.0	5.0	22.0	19.1	19.1	18.9	18.9	19.3	0.0	19.5
		50	50	20.9	21.0	20.7	20.6	21.1	5.0	22.0	19.0	19.0	18.8	18.8	19.2	0.0	19.5
		100	0	20.9	21.1	20.7	20.5	21.0	5.0	22.0	19.0	19.0	18.8	18.8	19.2	0.0	19.5
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490			39750	40185	40620	41055	41490		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
15 MHz	QPSK	1	0	25.6	25.9	25.7	25.5	25.6	0.0	27.0	18.7	18.7	18.5	18.6	18.7	0.0	19.5
		1	37	25.6	26.1	25.7	25.5	25.9	0.0	27.0	18.7	18.9	18.6	18.6	18.9	0.0	19.5
		1	74	25.6	25.8	25.6	25.2	25.9	0.0	27.0	18.7	18.6	18.5	18.4	19.0	0.0	19.5
		36	0	24.6	25.0	24.7	24.6	24.8	1.0	26.0	18.7	18.9	18.6	18.8	19.0	0.0	19.5
		36	20	24.8	25.1	24.8	24.6	24.9	1.0	26.0	18.9	19.0	18.7	18.8	19.1	0.0	19.5
		36	39	24.8	25.0	24.8	24.6	24.9	1.0	26.0	18.9	18.9	18.7	18.7	19.1	0.0	19.5
		75	0	24.7	25.0	24.7	24.5	24.9	1.0	26.0	18.9	18.9	18.7	18.7	19.0	0.0	19.5
	16QAM	1	0	25.1	25.2	25.1	24.9	24.9	1.0	26.0	19.1	19.3	19.1	19.1	19.2	0.0	19.5
		1	37	25.0	25.4	25.2	24.9	25.1	1.0	26.0	19.1	19.4	19.1	19.1	19.5	0.0	19.5
		1	74	25.0	25.1	25.0	24.6	25.1	1.0	26.0	19.1	19.2	18.9	18.7	19.5	0.0	19.5
		36	0	23.6	24.0	23.7	23.6	23.8	2.0	25.0	18.7	18.9	18.7	18.7	18.9	0.0	19.5
		36	20	23.8	24.2	23.8	23.6	24.0	2.0	25.0	18.9	19.0	18.8	18.8	19.1	0.0	19.5
		36	39	23.8	24.0	23.8	23.6	24.0	2.0	25.0	18.9	18.9	18.8	18.7	19.1	0.0	19.5
		75	0	23.7	24.0	23.8	23.5	23.9	2.0	25.0	18.8	18.9	18.7	18.7	19.0	0.0	19.5
	64QAM	1	0	23.5	24.3	23.5	23.7	24.1	2.0	25.0	19.0	18.8	19.2	18.9	18.6	0.0	19.5
		1	37	23.6	24.4	23.6	23.5	24.3	2.0	25.0	19.0	18.8	19.3	18.9	18.8	0.0	19.5
		1	74	23.6	24.3	23.5	23.2	24.3	2.0	25.0	19.0	18.5	19.2	18.6	18.9	0.0	19.5
		36	0	22.7	23.1	22.8	22.7	22.8	3.0	24.0	18.8	19.0	18.7	18.8	19.1	0.0	19.5
		36	20	22.9	23.2	22.9	22.7	23.0	3.0	24.0	19.0	19.1	18.8	18.8	19.1	0.0	19.5
		36	39	22.9	23.1	22.8	22.7	23.0	3.0	24.0	18.9	19.0	18.8	18.8	19.2	0.0	19.5
		75	0	22.7	23.0	22.8	22.5	22.9	3.0	24.0	18.9	19.0	18.7	18.8	19.1	0.0	19.5
	256QAM	1	0	20.9	21.2	20.5	20.8	20.9	5.0	22.0	19.1	18.8	19.0	18.8	18.8	0.0	19.5
		1	37	21.2	21.3	20.6	20.9	21.2	5.0	22.0	19.4	19.1	19.1	18.8	19.0	0.0	19.5
		1	74	21.1	21.0	20.4	20.7	21.2	5.0	22.0	19.1	19.1	18.9	18.7	18.7	0.0	19.5
		36	0	20.8	21.1	20.7	20.6	20.9	5.0	22.0	18.9	19.1	18.8	18.6	19.1	0.0	19.5
		36	20	20.9	21.2	20.8	20.6	21.0	5.0	22.0	19.1	19.2	18.8	18.7	19.2	0.0	19.5
		36	39	20.9	21.1	20.7	20.6	21.1	5.0	22.0	19.1	19.3	18.8	18.7	19.1	0.0	19.5
		75	0	20.9	21.1	20.7	20.6	21.0	5.0	22.0	19.1	19.2	18.8	18.6	19.1	0.0	19.5

LTE Band 41 Power Class 2 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490			39750	40185	40620	41055	41490		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
10 MHz	QPSK	1	0	25.8	25.8	25.6	25.4	25.4	0.0	27.0	18.8	18.7	18.5	18.5	18.6	0.0	19.5
		1	25	25.7	26.0	25.7	25.6	25.7	0.0	27.0	18.9	19.0	18.6	18.7	18.9	0.0	19.5
		1	49	25.8	25.7	25.4	25.2	25.7	0.0	27.0	18.9	18.6	18.3	18.4	18.7	0.0	19.5
		25	0	24.8	25.0	24.7	24.6	24.8	1.0	26.0	18.9	19.0	18.7	18.8	19.0	0.0	19.5
		25	12	24.9	25.2	24.8	24.6	24.9	1.0	26.0	18.9	19.1	18.8	18.8	19.1	0.0	19.5
		25	25	24.9	25.1	24.7	24.6	24.8	1.0	26.0	19.0	19.0	18.7	18.8	19.0	0.0	19.5
		50	0	24.8	25.1	24.7	24.5	24.8	1.0	26.0	18.8	19.0	18.7	18.7	19.0	0.0	19.5
	16QAM	1	0	25.2	25.3	25.0	24.8	24.9	1.0	26.0	19.4	19.3	19.1	19.1	19.3	0.0	19.5
		1	25	25.1	25.5	25.2	25.0	25.2	1.0	26.0	19.4	19.1	19.2	19.3	19.2	0.0	19.5
		1	49	25.2	25.2	24.9	24.7	24.9	1.0	26.0	19.1	19.0	18.7	18.8	19.3	0.0	19.5
		25	0	23.9	24.1	23.8	23.6	23.9	2.0	25.0	18.9	19.0	18.7	18.8	19.0	0.0	19.5
		25	12	23.8	24.2	23.9	23.6	23.9	2.0	25.0	19.0	19.2	18.8	18.8	19.0	0.0	19.5
		25	25	23.9	24.2	23.8	23.6	23.9	2.0	25.0	18.9	19.1	18.7	18.8	19.1	0.0	19.5
		50	0	23.8	24.2	23.8	23.6	23.9	2.0	25.0	18.9	19.0	18.6	18.7	19.1	0.0	19.5
	64QAM	1	0	24.2	23.8	24.2	23.8	23.5	2.0	25.0	19.1	18.7	19.3	18.9	18.7	0.0	19.5
		1	25	24.2	24.1	24.3	24.1	23.8	2.0	25.0	19.2	18.8	19.3	19.1	18.9	0.0	19.5
		1	49	24.2	23.8	24.0	23.8	23.5	2.0	25.0	19.2	18.7	19.1	18.8	18.7	0.0	19.5
		25	0	22.7	23.2	22.8	22.6	23.0	3.0	24.0	18.8	19.0	18.7	18.8	19.1	0.0	19.5
		25	12	22.8	23.3	22.9	22.6	23.1	3.0	24.0	18.9	19.2	18.8	18.8	19.2	0.0	19.5
		25	25	22.8	23.2	22.7	22.6	23.0	3.0	24.0	18.9	19.1	18.7	18.8	19.1	0.0	19.5
		50	0	22.8	23.1	22.8	22.6	22.9	3.0	24.0	18.9	19.0	18.7	18.8	19.1	0.0	19.5
	256QAM	1	0	20.8	21.2	20.5	20.7	21.1	5.0	22.0	19.4	19.2	18.9	18.3	19.0	0.0	19.5
		1	25	21.1	21.5	20.6	20.9	21.3	5.0	22.0	19.5	19.4	19.3	18.5	19.3	0.0	19.5
		1	49	20.9	21.2	20.3	20.6	21.1	5.0	22.0	19.4	19.2	18.9	18.2	19.0	0.0	19.5
		25	0	20.9	21.2	20.8	20.6	21.0	5.0	22.0	19.1	19.2	18.8	18.6	19.1	0.0	19.5
		25	12	21.0	21.3	20.8	20.7	21.1	5.0	22.0	19.2	19.3	18.9	18.8	19.2	0.0	19.5
		25	25	20.9	21.2	20.7	20.7	21.0	5.0	22.0	19.2	19.2	18.9	18.6	19.1	0.0	19.5
		50	0	20.9	21.2	20.7	20.6	21.0	5.0	22.0	19.1	19.2	18.8	18.6	19.1	0.0	19.5
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
				39750	40185	40620	41055	41490			39750	40185	40620	41055	41490		
				2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz			2506 MHz	2549.5 MHz	2593 MHz	2636.5 MHz	2680 MHz		
5 MHz	QPSK	1	0	25.8	26.1	25.8	25.6	25.8	0.0	27.0	18.8	18.8	18.6	18.7	18.9	0.0	19.5
		1	12	25.8	26.1	25.8	25.6	25.7	0.0	27.0	18.8	18.8	18.6	18.8	18.9	0.0	19.5
		1	24	25.9	26.1	25.8	25.6	25.7	0.0	27.0	18.9	18.9	18.6	18.8	18.9	0.0	19.5
		12	0	24.8	25.2	24.8	24.7	25.0	1.0	26.0	18.8	19.0	18.7	18.8	19.1	0.0	19.5
		12	7	24.9	25.3	24.9	24.7	25.0	1.0	26.0	18.9	19.1	18.7	18.8	19.1	0.0	19.5
		12	13	24.9	25.2	24.8	24.7	25.0	1.0	26.0	18.9	19.1	18.7	18.8	19.1	0.0	19.5
		25	0	24.9	25.2	24.8	24.6	24.9	1.0	26.0	18.9	19.1	18.7	18.8	19.1	0.0	19.5
	16QAM	1	0	25.3	25.3	25.1	25.1	25.0	1.0	26.0	19.1	19.3	19.1	19.1	19.4	0.0	19.5
		1	12	25.4	25.4	25.1	25.1	25.0	1.0	26.0	19.2	19.4	19.2	19.1	19.5	0.0	19.5
		1	24	25.4	25.3	25.0	25.1	25.0	1.0	26.0	19.2	19.3	19.1	19.1	19.3	0.0	19.5
		12	0	24.0	24.2	23.8	23.8	24.0	2.0	25.0	18.9	19.0	18.8	18.9	19.1	0.0	19.5
		12	7	24.1	24.3	23.9	23.8	24.0	2.0	25.0	19.0	19.1	18.9	18.9	19.1	0.0	19.5
		12	13	24.0	24.3	23.8	23.8	24.0	2.0	25.0	19.0	19.1	18.8	18.9	19.1	0.0	19.5
		25	0	24.0	24.2	23.9	23.6	23.9	2.0	25.0	18.9	19.1	18.8	18.8	19.1	0.0	19.5
	64QAM	1	0	23.9	24.4	23.9	24.2	24.2	2.0	25.0	19.0	19.3	18.8	19.2	19.4	0.0	19.5
		1	12	23.9	24.4	23.9	24.2	24.2	2.0	25.0	19.1	19.3	18.9	19.4	19.4	0.0	19.5
		1	24	24.0	24.5	23.9	24.2	24.2	2.0	25.0	19.1	19.2	18.8	19.4	19.4	0.0	19.5
		12	0	22.8	23.3	22.8	22.8	22.9	3.0	24.0	19.0	19.2	18.8	19.0	19.1	0.0	19.5
		12	7	22.9	23.4	22.9	22.8	22.9	3.0	24.0	19.1	19.3	18.9	19.0	19.1	0.0	19.5
		12	13	22.9	23.3	22.9	22.8	22.9	3.0	24.0	19.1	19.2	18.8	19.0	19.1	0.0	19.5
		25	0	22.9	23.2	22.9	22.6	22.9	3.0	24.0	19.0	19.1	18.8	18.8	19.0	0.0	19.5
	256QAM	1	0	21.2	21.5	20.9	21.0	21.3	5.0	22.0	19.5	19.2	18.9	19.4	19.4	0.0	19.5
		1	12	21.3	21.6	20.9	21.0	21.4	5.0	22.0	19.4	19.3	18.8	19.4	19.5	0.0	19.5
		1	24	21.2	21.5	20.9	21.0	21.3	5.0	22.0	19.4	19.2	18.8	19.4	19.4	0.0	19.5
		12	0	21.0	21.3	20.7	20.7	21.1	5.0	22.0	19.3	18.9	18.7	19.2	19.1	0.0	19.5
		12	7	21.0	21.3	20.8	20.7	21.1	5.0	22.0	19.3	19.0	18.8	19.3	19.2	0.0	19.5
		12	13	21.0	21.3	20.8	20.7	21.1	5.0	22.0	19.3	18.9	18.7	19.2	19.2	0.0	19.5
		25	0	21.0	21.2	20.7	20.7	21.1	5.0	22.0	19.3	18.9	18.7	19.2	19.1	0.0	19.5

LTE Band 66 Measured Results

Test results were refer to reference model (FCC ID : A3LNP545XLA).

LTE Band 66 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)									
				DSI = 0					DSI = 1				
				Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				132072	132322	132572			132072	132322	132572		
				1720 MHz	1745 MHz	1770 MHz			1720 MHz	1745 MHz	1770 MHz		
20 MHz	QPSK	1	0	23.6	23.6	23.8	0.0	24.5	16.5	16.3	16.5	0.0	17.5
		1	49	23.7	23.6	23.6	0.0	24.5	16.7	16.5	16.5	0.0	17.5
		1	99	23.8	23.7	23.7	0.0	24.5	16.4	16.3	16.4	0.0	17.5
		50	0	22.9	22.8	22.7	1.0	23.5	16.8	16.6	16.5	0.0	17.5
		50	24	22.9	22.8	22.7	1.0	23.5	16.8	16.6	16.5	0.0	17.5
		50	50	22.8	22.7	22.7	1.0	23.5	16.6	16.5	16.5	0.0	17.5
		100	0	22.9	22.8	22.6	1.0	23.5	16.7	16.6	16.5	0.0	17.5
	16QAM	1	0	23.3	23.0	23.3	1.0	23.5	16.9	16.8	17.1	0.0	17.5
		1	49	23.4	23.2	23.3	1.0	23.5	17.0	17.0	17.0	0.0	17.5
		1	99	23.1	22.9	23.3	1.0	23.5	16.8	16.7	17.0	0.0	17.5
		50	0	21.9	21.8	21.7	2.0	22.5	16.8	16.6	16.5	0.0	17.5
		50	24	21.9	21.8	21.8	2.0	22.5	16.8	16.6	16.5	0.0	17.5
		50	50	21.9	21.7	21.7	2.0	22.5	16.7	16.5	16.5	0.0	17.5
		100	0	21.9	21.8	21.7	2.0	22.5	16.7	16.6	16.5	0.0	17.5
	64QAM	1	0	22.4	21.8	22.1	2.0	22.5	16.8	16.6	17.1	0.0	17.5
		1	49	22.4	22.0	22.1	2.0	22.5	17.0	16.8	17.1	0.0	17.5
		1	99	22.3	21.7	22.0	2.0	22.5	16.7	16.5	17.1	0.0	17.5
		50	0	21.0	20.8	20.8	3.0	21.5	16.8	16.7	16.5	0.0	17.5
		50	24	21.0	20.9	20.8	3.0	21.5	16.8	16.7	16.6	0.0	17.5
		50	50	20.9	20.7	20.8	3.0	21.5	16.7	16.6	16.5	0.0	17.5
		100	0	20.9	20.8	20.7	3.0	21.5	16.7	16.6	16.5	0.0	17.5
	256QAM	1	0	18.8	18.5	18.7	5.0	19.5	16.7	16.3	16.4	0.0	17.5
		1	49	19.1	18.6	18.9	5.0	19.5	16.9	16.5	16.7	0.0	17.5
		1	99	18.8	18.4	18.7	5.0	19.5	16.7	16.2	16.5	0.0	17.5
		50	0	18.9	18.8	18.7	5.0	19.5	16.7	16.6	16.5	0.0	17.5
		50	24	19.0	18.9	18.7	5.0	19.5	16.8	16.7	16.6	0.0	17.5
		50	50	18.9	18.7	18.7	5.0	19.5	16.7	16.6	16.5	0.0	17.5
		100	0	18.9	18.8	18.7	5.0	19.5	16.7	16.6	16.5	0.0	17.5
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				132047	132322	132597			132047	132322	132597		
				1717.5 MHz	1745 MHz	1772.5 MHz			1717.5 MHz	1745 MHz	1772.5 MHz		
15 MHz	QPSK	1	0	23.8	23.7	23.7	0.0	24.5	16.6	16.5	16.5	0.0	17.5
		1	37	23.8	23.8	23.7	0.0	24.5	16.6	16.5	16.5	0.0	17.5
		1	74	23.7	23.6	23.6	0.0	24.5	16.5	16.4	16.4	0.0	17.5
		36	0	22.9	22.8	22.7	1.0	23.5	16.8	16.7	16.5	0.0	17.5
		36	20	22.9	22.8	22.8	1.0	23.5	16.8	16.6	16.6	0.0	17.5
		36	39	22.8	22.7	22.7	1.0	23.5	16.7	16.6	16.6	0.0	17.5
		75	0	22.9	22.8	22.7	1.0	23.5	16.7	16.6	16.6	0.0	17.5
	16QAM	1	0	23.2	23.2	22.8	1.0	23.5	17.1	17.0	16.6	0.0	17.5
		1	37	23.2	23.2	22.7	1.0	23.5	17.1	17.1	16.5	0.0	17.5
		1	74	23.1	23.1	22.7	1.0	23.5	16.9	16.9	16.5	0.0	17.5
		36	0	22.0	21.8	21.8	2.0	22.5	16.8	16.6	16.5	0.0	17.5
		36	20	22.0	21.8	21.8	2.0	22.5	16.8	16.6	16.6	0.0	17.5
		36	39	21.9	21.7	21.7	2.0	22.5	16.7	16.6	16.6	0.0	17.5
		75	0	21.9	21.8	21.8	2.0	22.5	16.8	16.6	16.6	0.0	17.5
	64QAM	1	0	22.4	22.1	21.9	2.0	22.5	16.8	16.8	17.1	0.0	17.5
		1	37	22.4	22.1	21.9	2.0	22.5	16.8	16.8	17.0	0.0	17.5
		1	74	22.4	21.9	21.9	2.0	22.5	16.6	16.6	17.1	0.0	17.5
		36	0	21.0	20.9	20.9	3.0	21.5	16.8	16.7	16.5	0.0	17.5
		36	20	21.0	20.9	20.9	3.0	21.5	16.8	16.7	16.6	0.0	17.5
		36	39	20.9	20.8	20.9	3.0	21.5	16.8	16.6	16.6	0.0	17.5
		75	0	21.0	20.8	20.8	3.0	21.5	16.8	16.6	16.6	0.0	17.5
	256QAM	1	0	19.0	19.2	18.4	5.0	19.5	16.4	17.0	16.6	0.0	17.5
		1	37	19.0	19.2	18.6	5.0	19.5	16.5	17.0	16.8	0.0	17.5
		1	74	18.8	19.1	18.4	5.0	19.5	16.3	16.8	16.6	0.0	17.5
		36	0	19.0	18.9	18.8	5.0	19.5	16.8	16.7	16.5	0.0	17.5
		36	20	19.0	18.8	18.8	5.0	19.5	16.8	16.6	16.6	0.0	17.5
		36	39	18.9	18.8	18.8	5.0	19.5	16.7	16.6	16.6	0.0	17.5
		75	0	18.9	18.8	18.8	5.0	19.5	16.7	16.6	16.6	0.0	17.5

LTE Band 66 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				132022	132322	132622			132022	132322	132622		
				1715 MHz	1745 MHz	1775 MHz			1715 MHz	1745 MHz	1775 MHz		
10 MHz	QPSK	1	0	23.6	23.5	23.4	0.0	24.5	16.3	16.4	16.3	0.0	17.5
		1	25	23.8	23.6	23.6	0.0	24.5	16.7	16.5	16.5	0.0	17.5
		1	49	23.9	23.7	23.7	0.0	24.5	16.3	16.4	16.3	0.0	17.5
		25	0	22.9	22.8	22.7	1.0	23.5	16.7	16.6	16.5	0.0	17.5
		25	12	22.9	22.8	22.8	1.0	23.5	16.8	16.6	16.6	0.0	17.5
		25	25	22.9	22.7	22.7	1.0	23.5	16.6	16.5	16.5	0.0	17.5
		50	0	22.9	22.7	22.7	1.0	23.5	16.7	16.5	16.5	0.0	17.5
	16QAM	1	0	23.1	22.6	22.5	1.0	23.5	16.5	16.2	16.7	0.0	17.5
		1	25	23.2	22.8	22.7	1.0	23.5	16.7	16.4	17.0	0.0	17.5
		1	49	23.0	22.5	22.5	1.0	23.5	16.5	16.2	16.7	0.0	17.5
		25	0	22.0	21.9	21.7	2.0	22.5	16.8	16.6	16.6	0.0	17.5
		25	12	22.0	21.9	21.8	2.0	22.5	16.9	16.7	16.7	0.0	17.5
		25	25	21.9	21.8	21.8	2.0	22.5	16.8	16.5	16.6	0.0	17.5
		50	0	21.9	21.8	21.7	2.0	22.5	16.8	16.5	16.6	0.0	17.5
	64QAM	1	0	21.9	21.8	21.8	2.0	22.5	16.9	16.6	16.3	0.0	17.5
		1	25	22.1	22.1	22.2	2.0	22.5	17.0	16.8	16.6	0.0	17.5
		1	49	21.8	21.7	21.9	2.0	22.5	16.8	16.5	16.3	0.0	17.5
		25	0	21.0	20.8	20.7	3.0	21.5	16.7	16.6	16.6	0.0	17.5
		25	12	21.1	20.9	20.9	3.0	21.5	16.8	16.7	16.7	0.0	17.5
		25	25	21.0	20.8	20.8	3.0	21.5	16.8	16.6	16.6	0.0	17.5
		50	0	21.0	20.7	20.7	3.0	21.5	16.7	16.6	16.6	0.0	17.5
	256QAM	1	0	18.5	18.6	18.9	5.0	19.5	16.9	16.5	16.1	0.0	17.5
		1	25	18.7	18.8	19.2	5.0	19.5	17.1	16.6	16.4	0.0	17.5
		1	49	18.5	18.7	19.0	5.0	19.5	16.9	16.5	16.1	0.0	17.5
		25	0	19.0	18.8	18.7	5.0	19.5	16.6	16.7	16.6	0.0	17.5
		25	12	19.1	18.9	18.9	5.0	19.5	16.6	16.7	16.7	0.0	17.5
		25	25	19.0	18.8	18.8	5.0	19.5	16.5	16.6	16.6	0.0	17.5
		50	0	18.9	18.8	18.8	5.0	19.5	16.6	16.6	16.5	0.0	17.5

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				131997	132322	132647			131997	132322	132647		
				1712.5 MHz	1745 MHz	1777.5 MHz			1712.5 MHz	1745 MHz	1777.5 MHz		
5 MHz	QPSK	1	0	23.9	23.8	23.8	0.0	24.5	16.8	16.7	16.4	0.0	17.5
		1	12	23.9	23.8	23.8	0.0	24.5	16.7	16.6	16.5	0.0	17.5
		1	24	23.8	23.7	23.7	0.0	24.5	16.7	16.6	16.4	0.0	17.5
		12	0	23.0	22.9	22.8	1.0	23.5	16.8	16.6	16.6	0.0	17.5
		12	7	23.0	22.8	22.8	1.0	23.5	16.8	16.7	16.6	0.0	17.5
		12	13	22.9	22.8	22.8	1.0	23.5	16.7	16.6	16.6	0.0	17.5
		25	0	23.0	22.8	22.8	1.0	23.5	16.8	16.6	16.6	0.0	17.5
	16QAM	1	0	23.4	22.9	22.9	1.0	23.5	17.0	16.8	17.1	0.0	17.5
		1	12	23.4	23.0	23.0	1.0	23.5	17.0	16.8	17.1	0.0	17.5
		1	24	23.4	22.9	22.9	1.0	23.5	16.9	16.7	17.1	0.0	17.5
		12	0	22.1	21.9	21.8	2.0	22.5	16.9	16.7	16.7	0.0	17.5
		12	7	22.1	21.9	21.9	2.0	22.5	16.9	16.7	16.8	0.0	17.5
		12	13	22.0	21.8	21.9	2.0	22.5	16.8	16.7	16.7	0.0	17.5
		25	0	22.0	21.8	21.8	2.0	22.5	16.7	16.6	16.7	0.0	17.5
	64QAM	1	0	22.3	21.7	22.0	2.0	22.5	16.7	16.9	16.9	0.0	17.5
		1	12	22.3	21.7	22.1	2.0	22.5	16.7	16.9	17.0	0.0	17.5
		1	24	22.2	21.6	22.0	2.0	22.5	16.6	16.8	16.8	0.0	17.5
		12	0	21.1	20.9	20.7	3.0	21.5	16.9	16.8	16.5	0.0	17.5
		12	7	21.1	20.9	20.8	3.0	21.5	16.9	16.7	16.6	0.0	17.5
		12	13	21.0	20.8	20.7	3.0	21.5	16.8	16.7	16.5	0.0	17.5
		25	0	21.0	20.8	20.8	3.0	21.5	16.8	16.7	16.5	0.0	17.5
	256QAM	1	0	19.1	18.6	18.9	5.0	19.5	16.5	16.7	16.7	0.0	17.5
		1	12	19.1	18.6	19.0	5.0	19.5	16.5	16.7	16.8	0.0	17.5
		1	24	19.0	18.5	18.9	5.0	19.5	16.4	16.6	16.7	0.0	17.5
		12	0	19.0	18.8	18.8	5.0	19.5	16.8	16.7	16.6	0.0	17.5
		12	7	19.0	18.9	18.9	5.0	19.5	16.8	16.7	16.7	0.0	17.5
		12	13	19.0	18.8	18.8	5.0	19.5	16.8	16.6	16.6	0.0	17.5
		25	0	19.0	18.8	18.8	5.0	19.5	16.8	16.7	16.6	0.0	17.5

LTE Band 66 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				131987	132322	132657			131987	132322	132657		
				1711.5 MHz	1745 MHz	1778.5 MHz			1711.5 MHz	1745 MHz	1778.5 MHz		
3 MHz	QPSK	1	0	24.0	23.8	23.7	0.0	24.5	16.7	16.6	16.5	0.0	17.5
		1	8	23.9	23.7	23.6	0.0	24.5	16.6	16.5	16.6	0.0	17.5
		1	14	23.9	23.6	23.7	0.0	24.5	16.6	16.5	16.5	0.0	17.5
		8	0	22.9	22.8	22.8	1.0	23.5	16.8	16.6	16.6	0.0	17.5
		8	4	22.9	22.8	22.8	1.0	23.5	16.8	16.6	16.5	0.0	17.5
		8	7	22.9	22.8	22.7	1.0	23.5	16.8	16.6	16.6	0.0	17.5
		15	0	22.9	22.8	22.7	1.0	23.5	16.8	16.7	16.5	0.0	17.5
	16QAM	1	0	23.4	22.9	23.1	1.0	23.5	16.9	16.7	16.9	0.0	17.5
		1	8	23.3	22.8	22.7	1.0	23.5	16.8	16.5	17.0	0.0	17.5
		1	14	23.3	22.7	22.6	1.0	23.5	16.7	16.5	16.9	0.0	17.5
		8	0	22.0	21.9	21.9	2.0	22.5	16.9	16.8	16.7	0.0	17.5
		8	4	22.1	21.9	21.9	2.0	22.5	16.9	16.8	16.7	0.0	17.5
		8	7	22.0	21.8	21.9	2.0	22.5	16.9	16.8	16.6	0.0	17.5
		15	0	22.0	21.8	21.8	2.0	22.5	16.7	16.7	16.6	0.0	17.5
	64QAM	1	0	22.3	22.2	21.9	2.0	22.5	17.1	17.0	16.7	0.0	17.5
		1	8	22.2	22.1	21.9	2.0	22.5	17.1	16.8	16.7	0.0	17.5
		1	14	22.2	22.0	21.8	2.0	22.5	17.0	16.7	16.6	0.0	17.5
		8	0	21.0	20.9	20.8	3.0	21.5	16.9	16.6	16.6	0.0	17.5
		8	4	21.0	20.9	20.8	3.0	21.5	16.9	16.6	16.6	0.0	17.5
		8	7	21.0	20.9	20.8	3.0	21.5	16.9	16.6	16.6	0.0	17.5
		15	0	21.0	20.8	20.8	3.0	21.5	16.8	16.7	16.6	0.0	17.5
	256QAM	1	0	19.0	19.4	18.5	5.0	19.5	16.4	16.7	16.4	0.0	17.5
		1	8	19.0	19.3	18.5	5.0	19.5	16.4	16.6	16.2	0.0	17.5
		1	14	18.9	19.3	18.4	5.0	19.5	16.3	16.6	16.3	0.0	17.5
		8	0	19.1	18.9	18.7	5.0	19.5	16.7	16.8	16.5	0.0	17.5
		8	4	19.1	19.0	18.7	5.0	19.5	16.7	16.8	16.5	0.0	17.5
		8	7	19.2	18.9	18.7	5.0	19.5	16.6	16.8	16.5	0.0	17.5
		15	0	19.1	18.9	18.8	5.0	19.5	16.6	16.7	16.7	0.0	17.5

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				131979	132322	132665			131979	132322	132665		
				1710.7 MHz	1745 MHz	1779.3 MHz			1710.7 MHz	1745 MHz	1779.3 MHz		
1.4 MHz	QPSK	1	0	23.8	23.6	23.7	0.0	24.5	16.7	16.5	16.4	0.0	17.5
		1	3	23.9	23.7	23.7	0.0	24.5	16.7	16.6	16.5	0.0	17.5
		1	5	23.8	23.6	23.6	0.0	24.5	16.6	16.5	16.4	0.0	17.5
		3	0	23.8	23.6	23.6	0.0	24.5	16.6	16.4	16.4	0.0	17.5
		3	1	23.9	23.6	23.7	0.0	24.5	16.7	16.5	16.5	0.0	17.5
		3	3	23.8	23.6	23.7	0.0	24.5	16.7	16.5	16.5	0.0	17.5
		6	0	22.8	22.7	22.7	1.0	23.5	16.7	16.6	16.5	0.0	17.5
	16QAM	1	0	23.3	22.7	22.8	1.0	23.5	16.3	16.7	16.6	0.0	17.5
		1	3	23.3	22.7	22.9	1.0	23.5	16.3	16.8	16.6	0.0	17.5
		1	5	23.2	22.7	22.8	1.0	23.5	16.3	16.6	16.6	0.0	17.5
		3	0	23.1	22.9	22.8	1.0	23.5	16.6	16.6	16.7	0.0	17.5
		3	1	23.1	22.9	22.8	1.0	23.5	16.6	16.7	16.8	0.0	17.5
		3	3	23.1	22.9	22.8	1.0	23.5	16.5	16.6	16.8	0.0	17.5
		6	0	21.8	21.9	21.8	2.0	22.5	16.7	16.7	16.8	0.0	17.5
	64QAM	1	0	22.3	21.9	22.1	2.0	22.5	16.6	16.7	16.7	0.0	17.5
		1	3	22.4	22.0	22.2	2.0	22.5	16.6	16.8	16.7	0.0	17.5
		1	5	22.2	21.8	22.1	2.0	22.5	16.6	16.6	16.6	0.0	17.5
		3	0	22.3	21.9	21.9	2.0	22.5	16.5	16.7	16.7	0.0	17.5
		3	1	22.3	21.9	21.9	2.0	22.5	16.6	16.8	16.7	0.0	17.5
		3	3	22.3	21.9	22.1	2.0	22.5	16.5	16.7	16.7	0.0	17.5
		6	0	20.9	21.1	20.7	3.0	21.5	16.6	16.9	16.8	0.0	17.5
	256QAM	1	0	19.1	18.5	18.9	5.0	19.5	16.2	16.3	16.5	0.0	17.5
		1	3	19.2	18.9	19.1	5.0	19.5	16.3	16.9	16.7	0.0	17.5
		1	5	19.0	18.8	18.9	5.0	19.5	16.2	16.7	16.5	0.0	17.5
		3	0	18.9	18.9	18.7	5.0	19.5	16.6	16.6	16.7	0.0	17.5
		3	1	18.9	18.9	18.8	5.0	19.5	16.6	16.6	16.7	0.0	17.5
		3	3	19.0	18.9	18.8	5.0	19.5	16.5	16.6	16.7	0.0	17.5
		6	0	18.8	18.8	18.7	5.0	19.5	16.6	16.5	16.5	0.0	17.5

LTE Band 71 Measured Results

LTE Band 71 Measured Results

BW (MHz)	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)										
				DSI = 0					DSI = 1					
				Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				133222	133297	133372			133222	133297	133372		
				673 MHz	680.5 MHz	688 MHz			673 MHz	680.5 MHz	688 MHz		
20 MHz	QPSK	1	0		23.3		0.0	24.5		19.9		0.0	21
		1	49		23.4		0.0	24.5		20.0		0.0	21
		1	99		23.4		0.0	24.5		19.9		0.0	21
		50	0		22.4		1.0	23.5		19.9		0.0	21
		50	24		22.4		1.0	23.5		19.9		0.0	21
		50	50		22.4		1.0	23.5		19.9		0.0	21
		100	0		22.4		1.0	23.5		19.7		0.0	21
	16QAM	1	0		23.1		1.0	23.5		20.2		0.0	21
		1	49		23.0		1.0	23.5		20.1		0.0	21
		1	99		23.1		1.0	23.5		20.2		0.0	21
		50	0		21.4		2.0	22.5		19.7		0.0	21
		50	24		21.4		2.0	22.5		19.8		0.0	21
		50	50		21.5		2.0	22.5		19.8		0.0	21
		100	0		21.4		2.0	22.5		19.7		0.0	21
	64QAM	1	0		22.1		2.0	22.5		20.2		0.0	21
		1	49		22.0		2.0	22.5		20.0		0.0	21
		1	99		22.1		2.0	22.5		19.6		0.0	21
		50	0		20.4		3.0	21.5		19.8		0.0	21
		50	24		20.5		3.0	21.5		19.9		0.0	21
		50	50		20.5		3.0	21.5		19.9		0.0	21
		100	0		20.4		3.0	21.5		19.8		0.0	21
	256QAM	1	0		19.0		5.0	19.5		19.0		1.0	20
		1	49		19.3		5.0	19.5		19.0		1.0	20
		1	99		19.2		5.0	19.5		18.6		1.0	20
		50	0		19.0		5.0	19.5		18.9		1.0	20
		50	24		19.0		5.0	19.5		18.9		1.0	20
		50	50		19.1		5.0	19.5		19.0		1.0	20
		100	0		18.9		5.0	19.5		18.8		1.0	20
BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				133197	133297	133397			133197	133297	133397		
				670.5 MHz	680.5 MHz	690.5 MHz			670.5 MHz	680.5 MHz	690.5 MHz		
15 MHz	QPSK	1	0		23.5		0.0	24.5		20.0		0.0	21
		1	37		23.5		0.0	24.5		20.0		0.0	21
		1	74		23.4		0.0	24.5		19.9		0.0	21
		36	0		22.5		1.0	23.5		20.0		0.0	21
		36	20		22.5		1.0	23.5		20.1		0.0	21
		36	39		22.5		1.0	23.5		20.0		0.0	21
		75	0		22.4		1.0	23.5		19.9		0.0	21
	16QAM	1	0		22.9		1.0	23.5		20.1		0.0	21
		1	37		22.9		1.0	23.5		20.1		0.0	21
		1	74		22.8		1.0	23.5		20.0		0.0	21
		36	0		21.5		2.0	22.5		20.0		0.0	21
		36	20		21.5		2.0	22.5		20.0		0.0	21
		36	39		21.5		2.0	22.5		20.0		0.0	21
		75	0		21.4		2.0	22.5		20.0		0.0	21
	64QAM	1	0		21.8		2.0	22.5		19.9		0.0	21
		1	37		21.8		2.0	22.5		19.8		0.0	21
		1	74		21.8		2.0	22.5		19.7		0.0	21
		36	0		20.6		3.0	21.5		20.1		0.0	21
		36	20		20.6		3.0	21.5		20.1		0.0	21
		36	39		20.6		3.0	21.5		20.1		0.0	21
		75	0		20.4		3.0	21.5		20.1		0.0	21
	256QAM	1	0		19.2		5.0	19.5		19.0		1.0	20
		1	37		19.5		5.0	19.5		19.0		1.0	20
		1	74		19.4		5.0	19.5		19.0		1.0	20
		36	0		19.0		5.0	19.5		18.9		1.0	20
		36	20		19.1		5.0	19.5		19.0		1.0	20
		36	39		19.1		5.0	19.5		19.0		1.0	20
		75	0		19.0		5.0	19.5		19.0		1.0	20

LTE Band 71 Measured Results (Continued)

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				133172	133297	133422			133172	133297	133422		
				668 MHz	680.5 MHz	693 MHz			668 MHz	680.5 MHz	693 MHz		
10 MHz	QPSK	1	0	23.6	23.4	23.4	0.0	24.5	19.9	19.9	19.9	0.0	21
		1	25	23.3	23.4	23.5	0.0	24.5	19.7	19.9	20.1	0.0	21
		1	49	23.4	23.4	23.6	0.0	24.5	19.8	20.0	20.1	0.0	21
		25	0	22.5	22.5	22.6	1.0	23.5	20.0	20.0	20.0	0.0	21
		25	12	22.5	22.5	22.6	1.0	23.5	19.9	20.0	20.1	0.0	21
		25	25	22.4	22.5	22.6	1.0	23.5	19.8	20.0	20.1	0.0	21
		50	0	22.4	22.4	22.5	1.0	23.5	19.9	19.9	20.0	0.0	21
	16QAM	1	0	22.9	22.6	22.5	1.0	23.5	20.1	20.0	20.4	0.0	21
		1	25	22.7	22.5	22.6	1.0	23.5	19.8	19.9	20.5	0.0	21
		1	49	22.8	22.5	22.6	1.0	23.5	19.9	19.9	20.5	0.0	21
		25	0	21.6	21.6	21.5	2.0	22.5	20.1	20.0	20.1	0.0	21
		25	12	21.5	21.6	21.5	2.0	22.5	20.0	20.0	20.1	0.0	21
		25	25	21.5	21.5	21.6	2.0	22.5	20.0	20.0	20.2	0.0	21
		50	0	21.4	21.4	21.4	2.0	22.5	19.8	19.9	20.0	0.0	21
	64QAM	1	0	21.8	21.8	21.9	2.0	22.5	20.2	20.2	20.4	0.0	21
		1	25	21.5	21.8	21.9	2.0	22.5	19.9	20.2	20.4	0.0	21
		1	49	21.6	21.8	21.9	2.0	22.5	20.1	20.2	20.4	0.0	21
		25	0	20.6	20.6	20.6	3.0	21.5	20.1	20.1	20.1	0.0	21
		25	12	20.5	20.6	20.7	3.0	21.5	20.0	20.0	20.1	0.0	21
		25	25	20.5	20.6	20.7	3.0	21.5	19.9	20.0	20.2	0.0	21
		50	0	20.4	20.4	20.5	3.0	21.5	19.9	19.9	20.0	0.0	21
	256QAM	1	0	19.0	19.4	19.2	5.0	19.5	19.0	18.9	19.0	1.0	20
		1	25	19.0	19.5	19.4	5.0	19.5	18.9	19.0	19.1	1.0	20
		1	49	19.0	19.4	19.3	5.0	19.5	18.9	19.0	19.1	1.0	20
		25	0	19.0	19.0	19.1	5.0	19.5	18.9	18.9	19.0	1.0	20
		25	12	19.1	19.0	19.2	5.0	19.5	19.0	18.9	19.0	1.0	20
		25	25	19.0	19.1	19.2	5.0	19.5	18.8	18.9	19.2	1.0	20
		50	0	18.9	19.0	19.0	5.0	19.5	18.9	19.0	19.1	1.0	20

BW (MHz)	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
				133147	133297	133447			133147	133297	133447		
				665.5 MHz	680.5 MHz	695.5 MHz			665.5 MHz	680.5 MHz	695.5 MHz		
5 MHz	QPSK	1	0	23.6	23.5	23.4	0.0	24.5	20.2	19.8	20.0	0.0	21
		1	12	23.5	23.5	23.5	0.0	24.5	20.1	19.9	20.1	0.0	21
		1	24	23.5	23.5	23.5	0.0	24.5	20.0	19.9	20.1	0.0	21
		12	0	22.6	22.5	22.5	1.0	23.5	20.0	20.0	20.1	0.0	21
		12	7	22.6	22.5	22.6	1.0	23.5	20.0	20.0	20.1	0.0	21
		12	13	22.5	22.6	22.6	1.0	23.5	20.0	20.1	20.2	0.0	21
		25	0	22.5	22.5	22.5	1.0	23.5	20.0	20.0	20.1	0.0	21
	16QAM	1	0	22.8	22.6	23.0	1.0	23.5	20.3	20.0	20.1	0.0	21
		1	12	22.7	22.7	23.2	1.0	23.5	20.2	20.1	20.3	0.0	21
		1	24	22.6	22.7	23.1	1.0	23.5	20.1	20.1	20.3	0.0	21
		12	0	21.6	21.6	21.7	2.0	22.5	20.1	20.1	20.1	0.0	21
		12	7	21.6	21.6	21.8	2.0	22.5	20.1	20.2	20.2	0.0	21
		12	13	21.6	21.6	21.8	2.0	22.5	20.1	20.2	20.2	0.0	21
		25	0	21.5	21.5	21.6	2.0	22.5	20.0	20.1	20.1	0.0	21
	64QAM	1	0	21.6	21.7	21.8	2.0	22.5	20.1	20.3	20.3	0.0	21
		1	12	21.4	21.9	21.9	2.0	22.5	19.9	20.5	20.4	0.0	21
		1	24	21.3	21.8	21.9	2.0	22.5	19.9	20.4	20.4	0.0	21
		12	0	20.6	20.5	20.6	3.0	21.5	20.1	20.0	20.1	0.0	21
		12	7	20.6	20.5	20.7	3.0	21.5	20.1	20.0	20.2	0.0	21
		12	13	20.5	20.5	20.7	3.0	21.5	20.1	20.0	20.3	0.0	21
		25	0	20.5	20.5	20.6	3.0	21.5	20.1	20.0	20.1	0.0	21
	256QAM	1	0	19.4	19.0	18.9	5.0	19.5	19.3	18.4	18.5	1.0	20
		1	12	19.4	19.2	19.1	5.0	19.5	19.4	18.5	18.6	1.0	20
		1	24	19.3	18.7	19.0	5.0	19.5	19.3	18.5	18.5	1.0	20
		12	0	19.0	18.9	19.3	5.0	19.5	19.0	19.0	19.0	1.0	20
		12	7	19.0	19.0	19.4	5.0	19.5	19.1	19.1	19.1	1.0	20
		12	13	19.0	19.1	19.3	5.0	19.5	19.0	19.0	19.1	1.0	20
		25	0	19.1	19.0	19.2	5.0	19.5	19.0	19.1	19.2	1.0	20

9.3 NR (Sub 6GHz)

The following tests were conducted according to the test requirements outlined in section 6.2 of the 3GPP TS 138.521-1 specification.

UE Power Class: 3 (23 +/- 2dBm). The allowed Maximum Power Reduction (MPR) for the maximum output power due to higher order modulation and transmit bandwidth configuration (resource blocks) is specified in Table 6.2.3-1 of the 3GPP TS138.521-1.

Table 6.2.2.3-1: Maximum Power Reduction (MPR) for Power 3

Modulation	MPR (dB)		
	Edge RB allocations	Outer RB allocations	Inner RB allocations
DFT-s-OFDM PI/2 BPSK	≤ 3.5[1]	≤ 1.2[1]	≤ 0.2[1]
	≤ 0.5[2]		0[2]
DFT-s-OFDM QPSK	≤ 1		0
DFT-s-OFDM 16 QAM	≤ 2		≤ 1
DFT-s-OFDM 64 QAM	≤ 2.5		
DFT-s-OFDM 256 QAM	≤ 4.5		
CP-OFDM QPSK	≤ 3		≤ 1.5
CP-OFDM 16 QAM	≤ 3		≤ 2
CP-OFDM 64 QAM	≤ 3.5		
CP-OFDM 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 0dB MPR is 26dBm.

NOTE 2: Applicable for UE operating in FDD mode, or in TDD mode in bands other than n40, n41, n77, n78 and n79 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.

The allowed A-MPR values specified below in Table 6.2.3.3.1-1 of 3GPP TS138.521-1 are in addition to the allowed MPR requirements. All the measurements below were performed with A-MPR disabled, by using Network Signaling Value of “NS_01”

Table 6.2.3.3.1-1: Additional maximum power reduction (A-MPR)

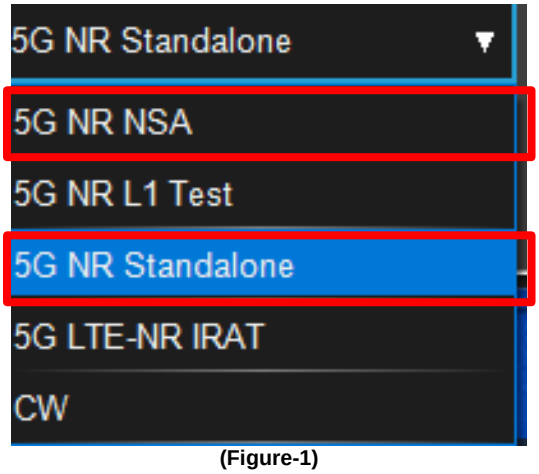
Network Signalling label	Requirements (subclause)	NR Band	Channel bandwidth (MHz)	Resources Blocks (N_{RB})	A-MPR (dB)
NS_01		Table 5.2-1	5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 90, 100	Table 5.3.2-1	N/A

Uplink RB allocations were used to Table 6.1-1 of the 3GPP TS 138.521-1.

Channel Bandwidth	SCS(kHz)	OFDM	RB allocation							
			Edge_Full_Left	Edge_Full_Right	Edge_1RB_Left	Edge_1RB_Right	Outer_Full	Inner_Full	Inner_1RB_Left	Inner_1RB_Right
5MHz	15	DFT-s	2@0	2@23	1@0	1@24	25@0	12@6	1@1	1@23
		CP	2@0	2@23	1@0	1@24	25@0	13@6	1@1	1@23
	30	DFT-s	2@0	2@9	1@0	1@10	10@0	5@2[1]	1@1	1@9
		CP	2@0	2@9	1@0	1@10	11@0	5@2[1]	1@1	1@9
	60	DFT-s	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		CP	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10MHz	15	DFT-s	2@0	2@50	1@0	1@51	50@0	25@12	1@1	1@50
		CP	2@0	2@50	1@0	1@51	52@0	26@13	1@1	1@50
	30	DFT-s	2@0	2@22	1@0	1@23	24@0	12@6	1@1	1@22
		CP	2@0	2@22	1@0	1@23	24@0	12@6	1@1	1@22
	60	DFT-s	2@0	2@9	1@0	1@10	10@0	5@2[1]	1@1	1@9
		CP	2@0	2@9	1@0	1@10	11@0	5@2[1]	1@1	1@9
15MHz	15	DFT-s	2@0	2@77	1@0	1@78	75@0	36@18	1@1	1@77
		CP	2@0	2@77	1@0	1@78	79@0	39@19[1]	1@1	1@77
	30	DFT-s	2@0	2@36	1@0	1@37	36@0	18@9	1@1	1@36
		CP	2@0	2@36	1@0	1@37	38@0	19@9	1@1	1@36
	60	DFT-s	2@0	2@16	1@0	1@17	18@0	9@4	1@1	1@16
		CP	2@0	2@16	1@0	1@17	18@0	9@4	1@1	1@16
20MHz	15	DFT-s	2@0	2@104	1@0	1@105	100@0	50@25	1@1	1@104
		CP	2@0	2@104	1@0	1@105	106@0	53@26	1@1	1@104
	30	DFT-s	2@0	2@49	1@0	1@50	50@0	25@12	1@1	1@49
		CP	2@0	2@49	1@0	1@50	51@0	25@12[1]	1@1	1@49
	60	DFT-s	2@0	2@22	1@0	1@23	24@0	12@6	1@1	1@22
		CP	2@0	2@22	1@0	1@23	24@0	12@6	1@1	1@22

Procedure used to establish power measurement for NR Bands

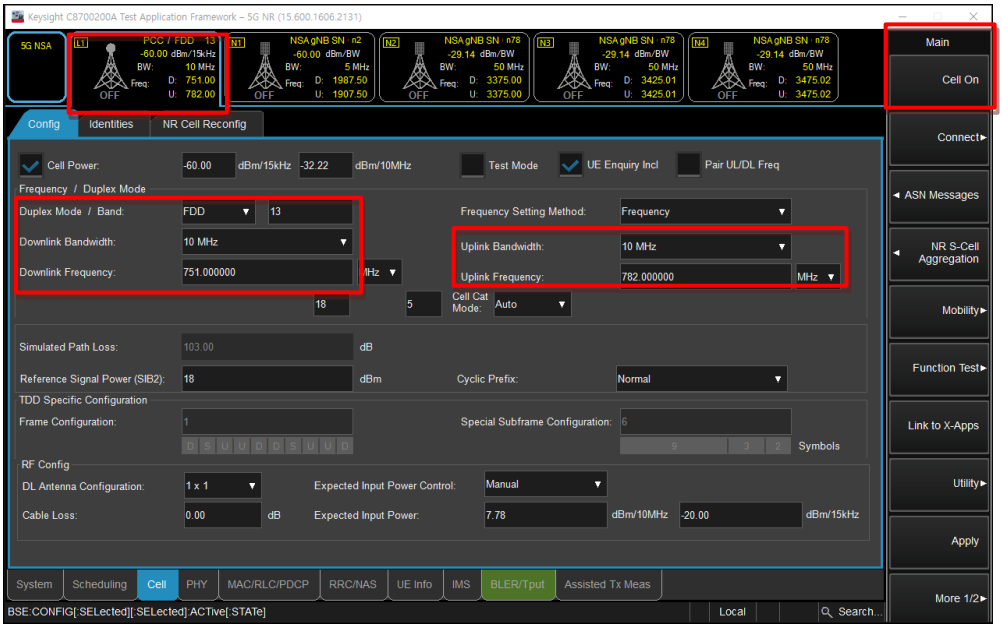
- **SA mode** : Select 5G NR Standalone in Test application Mode, then select Switch TA mode.
- **NSA mode** : Select 5G NR NSA in Test application Mode, then select Switch TA mode.



(Figure-1)

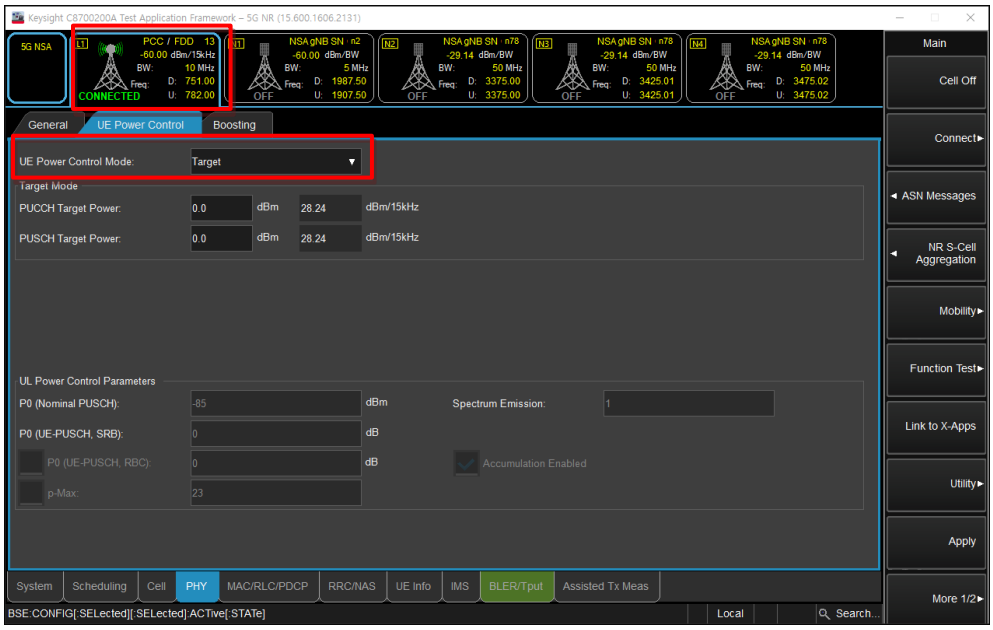
Setup for LTE Band (Apply to Only NSA mode)

- Select operating band, BW and Channel.
- Click Cell on button in the right of Test application screen.
- Turn the LTE Cell On using “ON I OFF” Key.



(Figure-2)

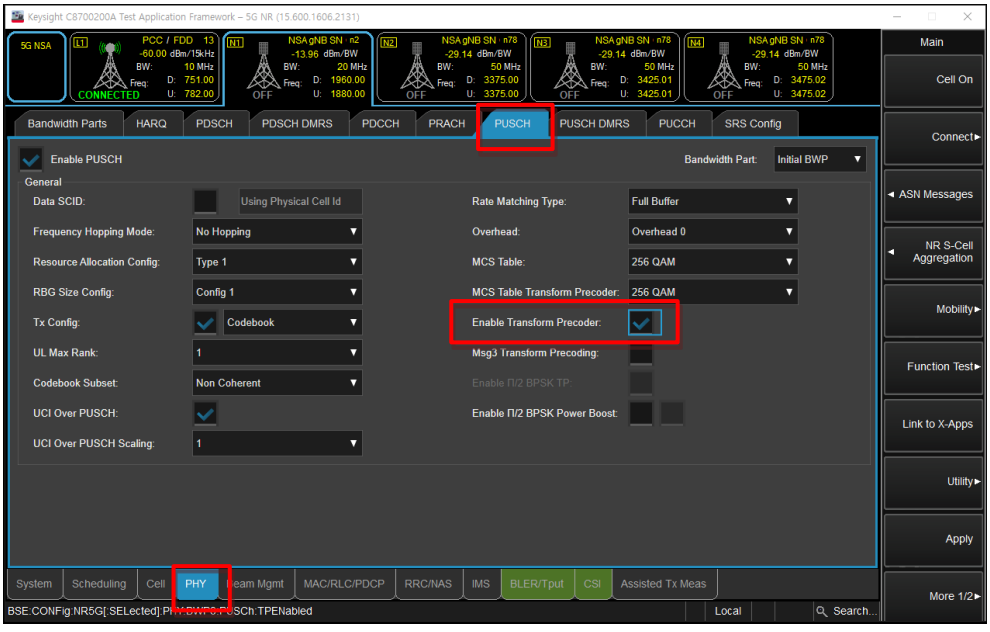
- Turn the Airplane Mode On and then turn the Airplane mode off.
- Select All down bits for UL Power control Mode in LTE.



(Figure-3)

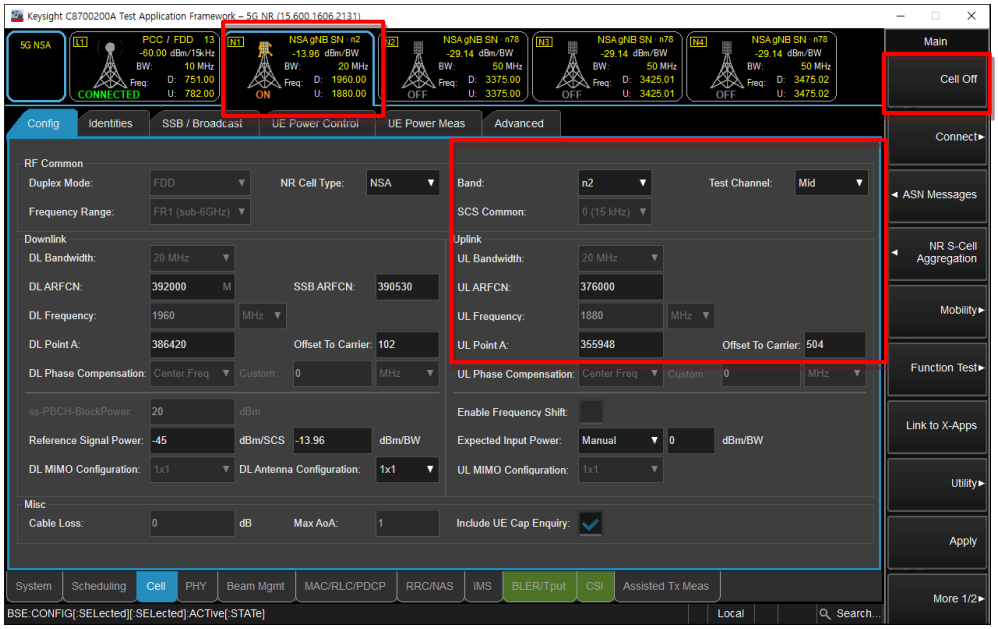
Setup for NR Band (Apply to Both SA / NSA mode)

- Select waveform for Setting NR Band (PHY -> PUSCH -> Enable Transform Precoder).
  - Enable : DFT-s-OFDM, Disable : CP-OFDM



(Figure-4)

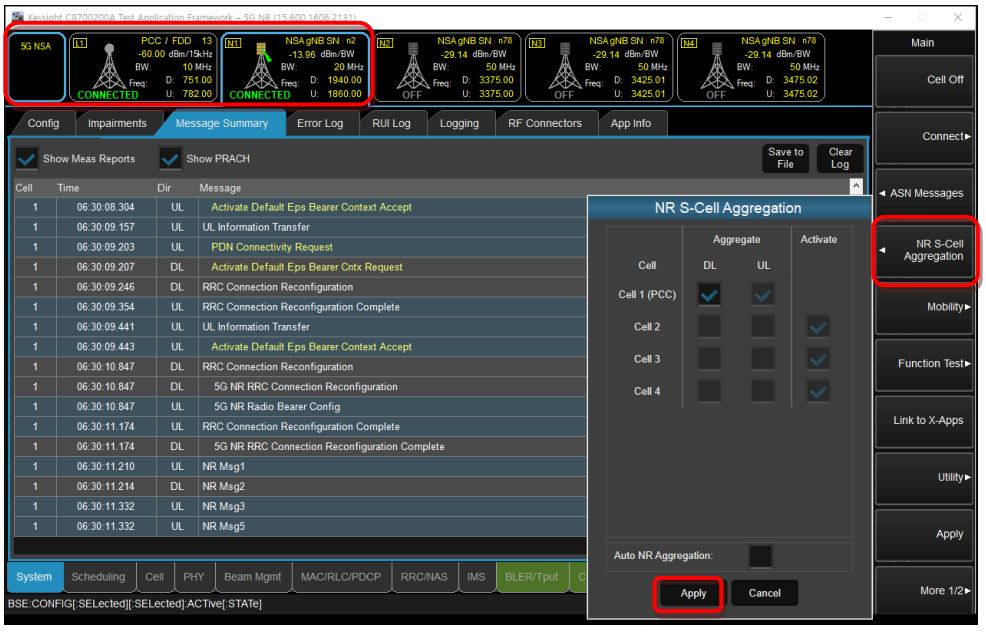
- Select operating band, BW, SCS and Channel.
- Turn the NR Cell On using “ON I OFF” Key.



(Figure-5)

Connect NR S-Cell Aggregation

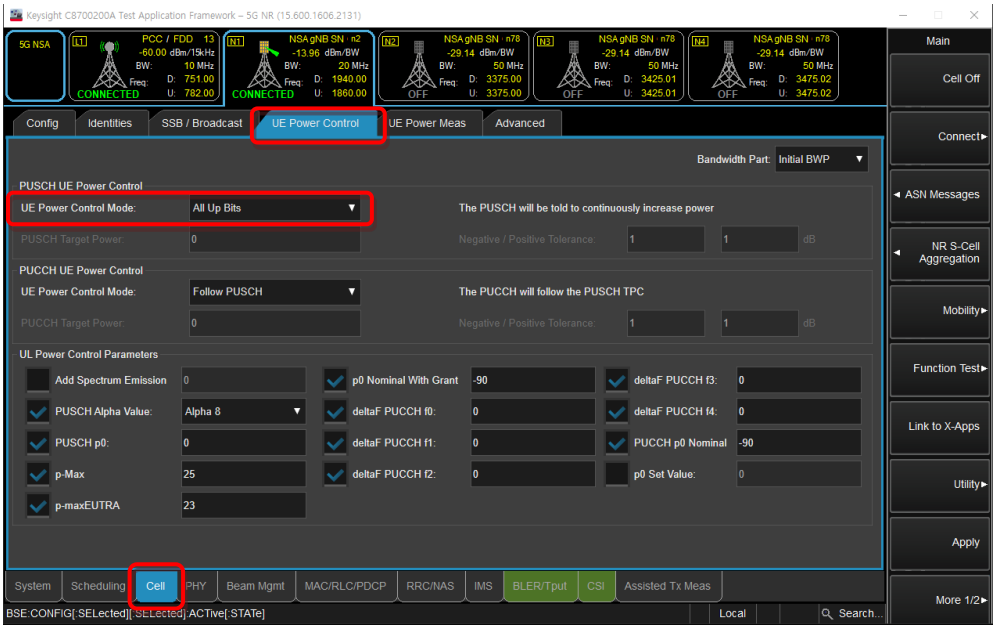
- Click NR S-Cell Aggregation.
- Check the Cell 1’s DL and UL box (PCC) and than Click Apply.
- Check the message summary If message shows NR Msg 5, It is connected.



(Figure-6)

Max power setting

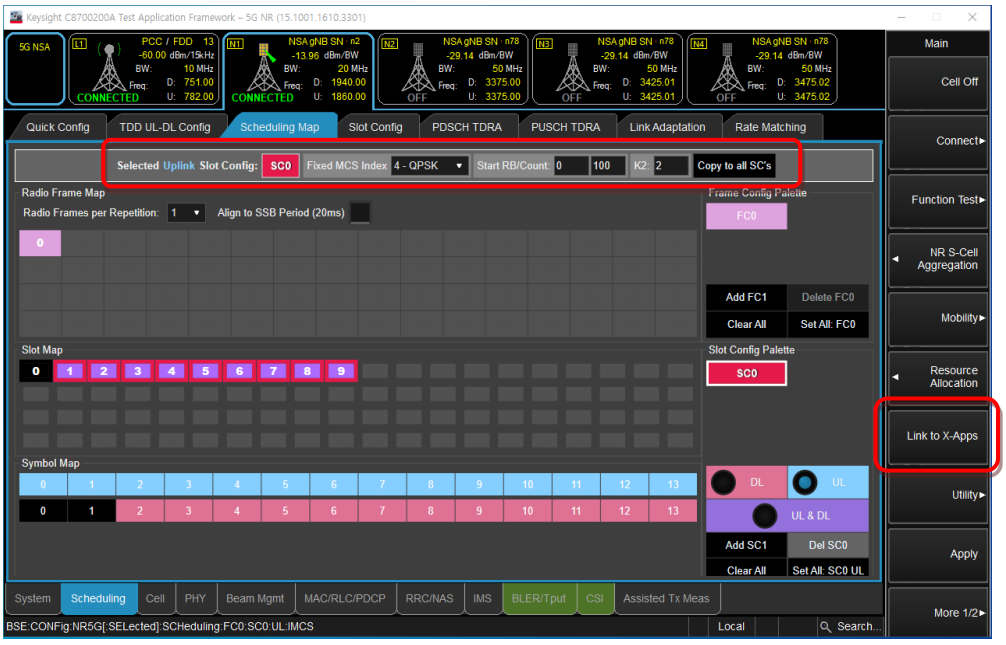
- Click “Cell” in the bottom of screen.
- Click “UE Power control” than change UE Power control mode to All Up bits.



(Figure-7)

Selecting Start RB/Count/MCS

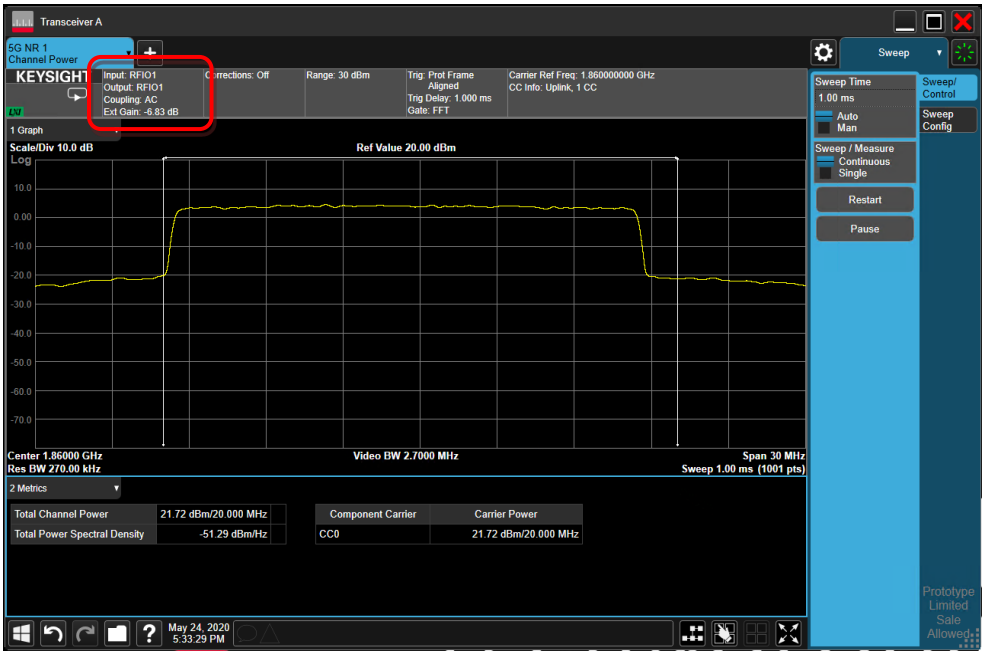
- Select the each test configuration (Start RB, Count, MCS).



(Figure-8)

View Tx Power

- Click “Link to X-Apps”. (Please refer to Figure-7)
- Select “ Channel Power”.



(Figure-9)

NR Band n25 Measured Results

NR Band n25 Measured Results

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)									
					DSI = 0					DSI = 1				
					Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					372000	376500	381000			372000	376500	381000		
					1860 MHz	1882.5 MHz	1905 MHz			1860 MHz	1882.5 MHz	1905 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.8	23.7	23.7	0.0	24.5	17.3	17.3	17.2	0.0	17.5
			1	53	23.8	23.5	23.7	0.0	24.5	17.4	17.1	17.1	0.0	17.5
			1	104	23.7	23.6	23.8	0.0	24.5	17.3	17.1	17.1	0.0	17.5
			50	0	23.2	23.1	23.3	0.5	24.0	17.3	17.2	17.2	0.0	17.5
			50	28	23.8	23.7	23.7	0.0	24.5	17.4	17.2	17.2	0.0	17.5
			50	56	23.1	23.1	23.2	0.5	24.0	17.3	17.1	17.2	0.0	17.5
			100	0	23.2	23.1	23.2	0.5	24.0	17.2	17.2	17.2	0.0	17.5
		QPSK	1	1	23.7	23.6	23.7	0.0	24.5	17.2	17.1	17.0	0.0	17.5
			1	53	23.7	23.5	23.6	0.0	24.5	17.2	17.1	17.1	0.0	17.5
			1	104	23.6	23.5	23.6	0.0	24.5	17.1	17.0	17.0	0.0	17.5
			50	0	22.7	22.5	22.6	1.0	23.5	17.3	17.2	17.2	0.0	17.5
			50	28	23.8	23.7	23.8	0.0	24.5	17.4	17.3	17.2	0.0	17.5
			50	56	22.6	22.6	22.7	1.0	23.5	17.3	17.1	17.1	0.0	17.5
			100	0	22.7	22.6	22.7	1.0	23.5	17.3	17.2	17.2	0.0	17.5
		16QAM	1	1	23.0	23.0	23.0	1.0	23.5	17.2	17.2	17.5	0.0	17.5
		64QAM	1	1	21.5	21.4	21.4	2.5	22.0	17.5	17.4	17.3	0.0	17.5
		256QAM	1	1	19.5	19.4	19.4	4.5	20.0	17.4	17.3	17.1	0.0	17.5
	CP-OFDM	QPSK	1	1	22.4	22.2	22.2	1.5	23.0	16.9	17.3	17.2	0.0	17.5
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					371500	376500	381500			371500	376500	381500		
					1857.5 MHz	1882.5 MHz	1907.5 MHz			1857.5 MHz	1882.5 MHz	1907.5 MHz		
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.7	23.7	23.7	0.0	24.5	17.3	17.2	17.2	0.0	17.5
			1	40	23.8	23.7	23.8	0.0	24.5	17.3	17.1	17.2	0.0	17.5
			1	77	23.8	23.7	23.6	0.0	24.5	17.3	17.1	17.2	0.0	17.5
			36	0	23.2	23.2	23.2	0.5	24.0	17.3	17.2	17.2	0.0	17.5
			36	22	23.7	23.7	23.6	0.0	24.5	17.4	17.1	17.2	0.0	17.5
			36	43	23.2	23.2	23.2	0.5	24.0	17.3	17.1	17.2	0.0	17.5
			75	0	23.2	23.2	23.2	0.5	24.0	17.4	17.2	17.2	0.0	17.5
		QPSK	1	1	23.5	23.6	23.7	0.0	24.5	17.2	17.1	17.1	0.0	17.5
			1	40	23.6	23.6	23.7	0.0	24.5	17.2	17.1	17.1	0.0	17.5
			1	77	23.6	23.6	23.7	0.0	24.5	17.2	17.1	17.1	0.0	17.5
			36	0	22.8	22.8	22.7	1.0	23.5	17.3	17.2	17.3	0.0	17.5
			36	22	23.7	23.7	23.6	0.0	24.5	17.4	17.1	17.2	0.0	17.5
			36	43	22.7	22.8	22.7	1.0	23.5	17.4	17.2	17.2	0.0	17.5
			75	0	22.7	22.8	22.7	1.0	23.5	17.4	17.2	17.2	0.0	17.5
		16QAM	1	1	23.0	23.1	23.1	1.0	23.5	17.5	17.5	17.5	0.0	17.5
		64QAM	1	1	21.4	21.4	21.4	2.5	22.0	17.4	17.4	17.4	0.0	17.5
		256QAM	1	1	19.4	19.4	19.3	4.5	20.0	17.3	16.9	17.3	0.0	17.5
	CP-OFDM	QPSK	1	1	22.2	22.2	22.2	1.5	23.0	17.3	17.2	17.1	0.0	17.5

Note(s):

For NR Band n2 and NR Band n25, NR Band n25 was only measured output power. because NR Band n2 is covered by NR Band n25.

NR Band n25 Measured Results (Continued)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					371000	376500	382000			371000	376500	382000		
					1855 MHz	1882.5 MHz	1910 MHz			1855 MHz	1882.5 MHz	1910 MHz		
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.8	23.7	23.7	0.0	24.5	17.3	17.1	17.2	0.0	17.5
			1	26	23.8	23.7	23.8	0.0	24.5	17.3	17.1	17.2	0.0	17.5
			1	50	23.8	23.7	23.8	0.0	24.5	17.2	17.1	17.3	0.0	17.5
			25	0	23.2	23.2	23.2	0.5	24.0	17.2	17.2	17.2	0.0	17.5
			25	14	23.8	23.7	23.8	0.0	24.5	17.2	17.2	17.2	0.0	17.5
			25	27	23.2	23.1	23.2	0.5	24.0	17.2	17.2	17.2	0.0	17.5
			50	0	23.2	23.2	23.2	0.5	24.0	17.3	17.1	17.1	0.0	17.5
		QPSK	1	1	23.7	23.6	23.6	0.0	24.5	17.2	16.9	17.0	0.0	17.5
			1	26	23.7	23.6	23.7	0.0	24.5	17.1	17.0	17.1	0.0	17.5
			1	50	23.7	23.6	23.7	0.0	24.5	17.1	17.1	16.0	0.0	17.5
			25	0	22.3	22.4	22.4	1.0	23.5	17.2	17.2	17.2	0.0	17.5
			25	14	23.8	23.7	23.8	0.0	24.5	17.3	17.2	17.2	0.0	17.5
			25	27	22.6	22.6	22.8	1.0	23.5	17.2	17.2	17.3	0.0	17.5
			50	0	22.7	22.7	22.7	1.0	23.5	17.2	17.2	17.2	0.0	17.5
		16QAM	1	1	23.0	23.1	23.0	1.0	23.5	17.5	17.4	17.4	0.0	17.5
		64QAM	1	1	21.5	21.4	21.4	2.5	22.0	17.5	17.4	17.4	0.0	17.5
		256QAM	1	1	19.3	19.4	19.4	4.5	20.0	17.3	17.2	17.2	0.0	17.5
	CP-OFDM	QPSK	1	1	22.2	22.1	22.2	1.5	23.0	17.2	17.1	17.1	0.0	17.5
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					370500	376500	382500			370500	376500	382500		
					1852.5 MHz	1882.5 MHz	1912.5 MHz			1852.5 MHz	1882.5 MHz	1912.5 MHz		
5 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.8	23.7	23.8	0.0	24.5	17.2	17.2	17.3	0.0	17.5
			1	13	23.8	23.8	23.8	0.0	24.5	17.3	17.2	17.4	0.0	17.5
			1	23	23.8	23.7	23.7	0.0	24.5	17.3	17.2	17.3	0.0	17.5
			12	0	23.2	23.2	23.2	0.5	24.0	17.2	17.1	17.2	0.0	17.5
			12	7	23.8	23.7	23.8	0.0	24.5	17.2	17.1	17.3	0.0	17.5
			12	13	23.3	23.2	23.3	0.5	24.0	17.3	17.2	17.3	0.0	17.5
			25	0	23.2	23.2	23.2	0.5	24.0	17.2	17.1	17.3	0.0	17.5
		QPSK	1	1	23.6	23.5	23.7	0.0	24.5	17.1	17.0	17.1	0.0	17.5
			1	13	23.7	23.6	23.7	0.0	24.5	17.2	17.1	17.3	0.0	17.5
			1	23	23.7	23.6	23.7	0.0	24.5	17.2	17.1	17.2	0.0	17.5
			12	0	22.6	22.6	22.6	1.0	23.5	17.2	17.1	17.2	0.0	17.5
			12	7	23.8	23.7	23.8	0.0	24.5	17.2	17.1	17.3	0.0	17.5
			12	13	22.8	22.7	22.7	1.0	23.5	17.2	17.2	17.3	0.0	17.5
			25	0	22.7	22.7	22.8	1.0	23.5	17.2	17.1	17.2	0.0	17.5
		16QAM	1	1	22.9	22.8	22.9	1.0	23.5	17.5	17.4	17.5	0.0	17.5
		64QAM	1	1	21.5	21.3	21.4	2.5	22.0	17.5	17.3	17.5	0.0	17.5
		256QAM	1	1	19.5	19.3	19.5	4.5	20.0	17.3	17.2	17.3	0.0	17.5
	CP-OFDM	QPSK	1	1	22.2	22.0	22.2	1.5	23.0	17.1	17.0	17.2	0.0	17.5

Note(s):

For NR Band n2 and NR Band n25, NR Band n25 was only measured output power. because NR Band n2 is covered by NR Band n25.

NR Band n41 Power Class 3 Measured Results

NR Band n41 Power Class 3 Measured Results

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)													
					DSI = 0							DSI = 1						
					Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
					509202		518598		528000			509202		518598		528000		
					2546.01 MHz		2592.99 MHz		2640 MHz			2546.01 MHz		2592.99 MHz		2640 MHz		
100 MHz	DFT-s-OFDM	π/2 BPSK	1	1	[redacted]		24.3		[redacted]	0.0	24.5	[redacted]		15.1		[redacted]	0.0	16.0
			1	137			24.0			0.0	24.5			15.3			0.0	16.0
			1	271			24.1			0.0	24.5			15.3			0.0	16.0
			135	0			23.6			0.5	24.0			15.3			0.0	16.0
			135	69			24.0			0.0	24.5			15.3			0.0	16.0
			135	138			23.5			0.5	24.0			15.5			0.0	16.0
			270	0			23.7			0.5	24.0			15.4			0.0	16.0
		QPSK	1	1			24.2			0.0	24.5			15.3			0.0	16.0
			1	137			23.9			0.0	24.5			15.2			0.0	16.0
			1	271			24.1			0.0	24.5			15.3			0.0	16.0
			135	0			23.1			1.0	23.5			15.2			0.0	16.0
			135	69			24.0			0.0	24.5			15.4			0.0	16.0
			135	138			23.1			1.0	23.5			15.4			0.0	16.0
			270	0			23.1			1.0	23.5			15.4			0.0	16.0
		16QAM	1	1			23.3			1.0	23.5			15.3			0.0	16.0
		64QAM	1	1			21.6			2.5	22.0			15.2			0.0	16.0
		256QAM	1	1			20.0			4.5	20.0			15.2			0.0	16.0
	CP-OFDM	QPSK	1	1			22.9			1.5	23.0			15.3			0.0	16.0

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
					508200				528996			508200				528996		
					2541 MHz				2644.98 MHz			2541 MHz				2644.98 MHz		
90 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.9	[redacted]			24.2	0.0	24.5	15.2	[redacted]			15.4	0.0	16.0
			1	123	24.2				24.2	0.0	24.5	15.0				15.1	0.0	16.0
			1	243	24.0				23.7	0.0	24.5	15.2				14.4	0.0	16.0
			120	0	23.7				23.7	0.5	24.0	15.1				15.3	0.0	16.0
			120	63	24.2				24.2	0.0	24.5	15.2				15.2	0.0	16.0
			120	125	23.6				23.6	0.5	24.0	15.2				14.9	0.0	16.0
			243	0	23.7				23.6	0.5	24.0	15.2				15.2	0.0	16.0
		QPSK	1	1	23.9				24.2	0.0	24.5	15.1				15.5	0.0	16.0
			1	123	24.2				24.2	0.0	24.5	15.1				15.2	0.0	16.0
			1	243	24.0				23.7	0.0	24.5	15.2				14.5	0.0	16.0
			120	0	23.2				23.2	1.0	23.5	15.2				15.5	0.0	16.0
			120	63	24.2				24.2	0.0	24.5	15.2				15.2	0.0	16.0
			120	125	23.1				23.1	1.0	23.5	15.1				15.1	0.0	16.0
			243	0	23.2				23.2	1.0	23.5	15.2				15.3	0.0	16.0
		16QAM	1	1	23.0				23.3	1.0	23.5	15.3				15.4	0.0	16.0
		64QAM	1	1	21.8				21.9	2.5	22.0	15.2				15.4	0.0	16.0
		256QAM	1	1	19.6				19.8	4.5	20.0	15.4				15.7	0.0	16.0
	CP-OFDM	QPSK	1	1	22.5				22.8	1.5	23.0	15.4				15.6	0.0	16.0

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
					507204				529998			507204				529998		
					2536.02 MHz				2649.99 MHz			2536.02 MHz				2649.99 MHz		
80 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.9	[redacted]			24.2	0.0	24.5	15.0	[redacted]			15.4	0.0	16.0
			1	109	24.2				24.2	0.0	24.5	15.0				15.1	0.0	16.0
			1	215	24.0				23.7	0.0	24.5	15.1				14.2	0.0	16.0
			108	0	23.6				23.7	0.5	24.0	15.0				15.3	0.0	16.0
			108	55	24.3				24.1	0.0	24.5	15.0				15.2	0.0	16.0
			108	109	23.7				23.5	0.5	24.0	15.1				14.8	0.0	16.0
			216	0	23.7				23.6	0.5	24.0	15.1				15.1	0.0	16.0
		QPSK	1	1	23.9				24.2	0.0	24.5	15.1				15.4	0.0	16.0
			1	109	24.2				24.2	0.0	24.5	15.0				15.1	0.0	16.0
			1	215	24.0				23.7	0.0	24.5	15.1				14.5	0.0	16.0
			108	0	23.1				23.2	1.0	23.5	15.0				15.3	0.0	16.0
			108	55	24.2				24.1	0.0	24.5	15.1				15.1	0.0	16.0
			108	109	23.2				23.0	1.0	23.5	15.1				14.9	0.0	16.0
			216	0	23.3				23.2	1.0	23.5	15.1				15.1	0.0	16.0
		16QAM	1	1	22.7				23.2	1.0	23.5	15.1				15.4	0.0	16.0
		64QAM	1	1	21.5				21.9	2.5	22.0	15.1				15.2	0.0	16.0
		256QAM	1	1	19.6				19.8	4.5	20.0	15.5				15.8	0.0	16.0
	CP-OFDM	QPSK	1	1	22.4				22.7	1.5	23.0	15.4				15.6	0.0	16.0

NR Band n41 Power Class 3 Results (Continued)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
					505200		518598		531996			505200		518598		531996		
					2526 MHz		2592.99 MHz		2659.98 MHz			2526 MHz		2592.99 MHz		2659.98 MHz		
60 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.8		24.0		24.2	0.0	24.5	15.1		15.1		15.3	0.0	16.0
			1	81	24.2		24.0		24.1	0.0	24.5	15.2		15.0		14.9	0.0	16.0
			1	160	24.2		24.1		23.7	0.0	24.5	15.0		15.3		14.2	0.0	16.0
			81	0	23.5		23.5		23.7	0.5	24.0	15.0		15.2		15.2	0.0	16.0
			81	41	24.3		24.0		24.1	0.0	24.5	15.1		15.3		14.9	0.0	16.0
			81	81	23.8		23.5		23.4	0.5	24.0	15.3		15.3		14.7	0.0	16.0
			162	0	23.7		23.5		23.5	0.5	24.0	15.1		15.2		15.0	0.0	16.0
		QPSK	1	1	23.8		24.0		24.1	0.0	24.5	15.1		15.2		15.3	0.0	16.0
			1	81	24.2		23.9		24.0	0.0	24.5	15.1		15.2		15.0	0.0	16.0
			1	160	24.2		24.1		23.7	0.0	24.5	15.0		15.3		14.3	0.0	16.0
			81	0	23.1		23.0		23.1	1.0	23.5	15.2		15.1		15.2	0.0	16.0
			81	41	24.3		23.9		24.1	0.0	24.5	15.1		15.3		14.9	0.0	16.0
			81	81	23.2		23.0		23.0	1.0	23.5	15.2		15.3		14.7	0.0	16.0
			162	0	23.2		23.0		23.1	1.0	23.5	15.1		15.3		15.0	0.0	16.0
		16QAM	1	1	22.8		23.1		23.2	1.0	23.5	15.2		15.1		15.3	0.0	16.0
		64QAM	1	1	21.4		21.7		21.9	2.5	22.0	15.1		15.1		15.1	0.0	16.0
		256QAM	1	1	19.3		19.4		19.5	4.5	20.0	15.7		15.4		15.9	0.0	16.0
	CP-OFDM	QPSK	1	1	22.3		22.5		22.8	1.5	23.0	15.3		15.1		15.4	0.0	16.0

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
					504204		518598		532998			504204		518598		532998		
					2521.02 MHz		2592.99MHz		2664.99 MHz			2521.02 MHz		2592.99MHz		2664.99 MHz		
50 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.9		24.0		24.3	0.0	24.5	15.5		15.4		15.6	0.0	16.0
			1	67	24.1		23.8		23.9	0.0	24.5	15.6		15.2		15.2	0.0	16.0
			1	131	24.2		24.0		23.7	0.0	24.5	15.5		15.5		15.0	0.0	16.0
			64	0	23.6		23.5		23.6	0.5	24.0	15.6		15.4		15.3	0.0	16.0
			64	35	24.2		23.9		24.0	0.0	24.5	15.6		15.3		15.3	0.0	16.0
			64	69	23.8		23.5		23.4	0.5	24.0	15.7		15.4		15.2	0.0	16.0
			128	0	23.7		23.5		23.5	0.5	24.0	15.7		15.5		15.3	0.0	16.0
		QPSK	1	1	23.8		24.1		24.2	0.0	24.5	15.6		15.5		15.5	0.0	16.0
			1	67	24.1		23.9		24.0	0.0	24.5	15.7		15.3		15.3	0.0	16.0
			1	131	24.2		24.1		23.7	0.0	24.5	15.7		15.3		15.0	0.0	16.0
			64	0	23.1		22.8		23.1	1.0	23.5	15.8		15.4		15.3	0.0	16.0
			64	35	24.2		24.0		24.0	0.0	24.5	15.6		15.2		15.3	0.0	16.0
			64	69	23.3		23.0		22.9	1.0	23.5	15.7		15.4		15.2	0.0	16.0
			128	0	23.2		23.0		23.0	1.0	23.5	15.7		15.4		15.2	0.0	16.0
		16QAM	1	1	22.8		23.1		23.2	1.0	23.5	15.7		15.4		15.5	0.0	16.0
		64QAM	1	1	21.4		21.9		21.9	2.5	22.0	15.7		15.4		15.5	0.0	16.0
		256QAM	1	1	19.3		19.7		19.6	4.5	20.0	15.8		15.7		15.6	0.0	16.0
	CP-OFDM	QPSK	1	1	22.4		22.6		22.8	1.5	23.0	15.6		15.4		15.4	0.0	16.0

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
					503202	513468		523734	534000			503202	513468		523734	534000		
					2516.01 MHz	2567.34 MHz		2618.67 MHz	2670 MHz			2516.01 MHz	2567.34 MHz		2618.67 MHz	2670 MHz		
40 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.7	24.0		24.0	24.0	0.0	24.5	15.5	15.8		15.5	15.5	0.0	16.0
			1	53	23.9	23.8		23.9	23.7	0.0	24.5	15.8	15.5		15.5	15.4	0.0	16.0
			1	104	24.1	24.1		24.0	23.4	0.0	24.5	15.9	15.8		15.8	15.2	0.0	16.0
			50	0	23.3	23.5		23.7	23.4	0.5	24.0	15.8	15.6		15.6	15.5	0.0	16.0
			50	28	23.9	23.9		23.9	23.8	0.0	24.5	15.9	15.7		15.6	15.6	0.0	16.0
			50	56	23.5	23.3		23.4	23.2	0.5	24.0	15.8	15.8		15.7	15.5	0.0	16.0
			100	0	23.5	23.6		23.5	23.4	0.5	24.0	15.9	15.7		15.8	15.4	0.0	16.0
		QPSK	1	1	23.7	24.1		24.0	24.0	0.0	24.5	15.6	15.8		15.7	15.6	0.0	16.0
			1	53	23.9	23.8		23.8	23.7	0.0	24.5	15.8	15.6		15.6	15.3	0.0	16.0
			1	104	24.1	24.0		24.2	23.5	0.0	24.5	15.9	15.8		15.8	15.4	0.0	16.0
			50	0	22.9	22.9		23.1	23.0	1.0	23.5	15.8	15.9		15.6	15.7	0.0	16.0
			50	28	23.9	23.9		24.1	23.8	0.0	24.5	15.8	15.6		15.8	15.3	0.0	16.0
			50	56	23.1	22.9		23.0	22.7	1.0	23.5	16.0	15.6		15.7	15.4	0.0	16.0
			100	0	22.9	22.8		23.0	22.7	1.0	23.5	15.9	15.6		15.7	15.6	0.0	16.0
		16QAM	1	1	22.8	22.9		23.1	23.1	1.0	23.5	15.7	15.8		15.7	15.6	0.0	16.0
		64QAM	1	1	21.3	21.6		21.7	21.5	2.5	22.0	15.8	15.5		15.7	15.5	0.0	16.0
		256QAM	1	1	19.2	19.5		19.4	19.4	4.5	20.0	15.7	15.5		15.5	15.5	0.0	16.0
	CP-OFDM	QPSK	1	1	22.1	22.5		22.6	22.6	1.5	23.0	15.5	15.7		15.5	15.5	0.0	16.0

NR Band n41 Power Class 3 Results (Continued)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
					502200	510402	518598	526800	534996			502200	510402	518598	526800	534996		
					2511 MHz	2552.01 MHz	2592.99 MHz	2634 MHz	2674.98 MHz			2511 MHz	2552.01 MHz	2592.99 MHz	2634 MHz	2674.98 MHz		
30 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.2	24.5	24.3	24.4	24.4	0.0	24.5	15.6	15.9	15.6	15.6	15.7	0.0	16.0
			1	39	24.3	24.4	24.2	24.3	24.1	0.0	24.5	15.5	15.8	15.6	15.5	15.3	0.0	16.0
			1	76	24.4	24.4	24.3	24.4	24.0	0.0	24.5	15.9	15.7	15.7	15.8	15.4	0.0	16.0
			36	0	23.8	24.0	23.8	23.9	23.8	0.5	24.0	15.9	15.8	15.7	15.6	15.6	0.0	16.0
			36	21	24.4	24.4	24.2	24.3	24.2	0.0	24.5	15.8	15.7	15.5	15.6	15.4	0.0	16.0
			36	42	24.0	24.0	23.8	23.9	23.6	0.5	24.0	16.0	15.7	15.7	15.7	15.4	0.0	16.0
			75	0	23.9	23.9	23.8	23.8	23.8	0.5	24.0	16.0	15.7	15.6	15.8	15.5	0.0	16.0
		QPSK	1	1	24.2	24.4	24.3	24.4	24.5	0.0	24.5	15.7	15.9	15.8	15.7	15.6	0.0	16.0
			1	39	24.3	24.2	24.2	24.3	24.1	0.0	24.5	15.9	15.6	15.6	15.6	15.4	0.0	16.0
			1	76	24.5	24.3	24.4	24.5	24.1	0.0	24.5	16.0	15.7	15.8	15.7	15.4	0.0	16.0
			36	0	23.2	23.4	23.2	23.4	23.4	1.0	23.5	15.8	15.8	15.6	15.6	15.6	0.0	16.0
			36	21	24.3	24.3	24.2	24.4	24.2	0.0	24.5	15.8	15.9	15.6	15.7	15.4	0.0	16.0
			36	42	23.5	23.3	23.3	23.5	23.2	1.0	23.5	16.0	15.7	15.6	15.8	15.3	0.0	16.0
			75	0	23.4	23.4	23.4	23.3	23.2	1.0	23.5	15.8	15.7	15.5	15.8	15.5	0.0	16.0
		16QAM	1	1	23.3	23.5	23.3	23.4	23.5	1.0	23.5	15.7	15.9	15.8	15.5	15.7	0.0	16.0
		64QAM	1	1	21.9	22.0	22.0	21.9	22.0	2.5	22.0	15.5	15.9	15.8	15.7	15.8	0.0	16.0
		256QAM	1	1	19.8	20.0	19.8	19.9	20.0	4.5	20.0	15.6	15.9	16.0	15.9	15.5	0.0	16.0
	CP-OFDM	QPSK	1	1	22.7	23.0	22.9	22.9	22.9	1.5	23.0	15.6	15.8	15.9	15.7	15.7	0.0	16.0

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
					501204	509898	518598	527298	535998			501204	509898	518598	527298	535998		
					2506.02 MHz	2549.49 MHz	2592.99 MHz	2636.49 MHz	2679.99 MHz			2506.02 MHz	2549.49 MHz	2592.99 MHz	2636.49 MHz	2679.99 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	24.1	24.4	23.8	23.9	23.9	0.0	24.5	15.5	15.4	15.3	15.3	15.1	0.0	16.0
			1	26	24.3	24.2	23.8	23.9	23.7	0.0	24.5	15.6	15.3	15.2	15.2	14.8	0.0	16.0
			1	49	24.4	24.2	23.9	23.1	23.6	0.0	24.5	15.9	15.2	15.3	15.4	14.8	0.0	16.0
			25	0	23.6	23.6	23.4	23.5	23.3	0.5	24.0	15.7	15.3	15.3	15.2	15.1	0.0	16.0
			25	13	24.3	24.2	23.9	24.0	23.8	0.0	24.5	15.9	15.2	15.2	15.4	15.0	0.0	16.0
			25	26	23.9	23.9	23.5	23.5	23.2	0.5	24.0	15.9	15.3	15.2	15.3	14.8	0.0	16.0
			50	0	23.8	23.6	23.4	23.6	23.3	0.5	24.0	15.7	15.5	15.1	15.4	14.9	0.0	16.0
		QPSK	1	1	24.1	24.1	23.9	24.0	23.9	0.0	24.5	15.5	15.3	15.2	15.4	15.2	0.0	16.0
			1	26	24.3	24.2	23.8	23.9	23.7	0.0	24.5	15.7	15.3	15.1	15.3	14.9	0.0	16.0
			1	49	24.5	24.2	23.9	24.0	23.6	0.0	24.5	15.7	15.4	15.2	15.4	14.8	0.0	16.0
			25	0	23.2	23.3	22.9	23.0	22.9	1.0	23.5	15.6	15.4	15.1	15.4	15.1	0.0	16.0
			25	13	24.3	24.2	23.9	24.0	23.8	0.0	24.5	15.7	15.3	15.3	15.4	15.0	0.0	16.0
			25	26	23.3	23.3	23.0	23.0	22.7	1.0	23.5	15.7	15.4	15.3	15.3	14.8	0.0	16.0
			50	0	23.3	23.5	23.0	23.1	22.9	1.0	23.5	15.7	15.5	15.1	15.2	14.9	0.0	16.0
		16QAM	1	1	23.2	23.2	23.0	23.1	22.9	1.0	23.5	15.9	15.6	15.4	15.4	15.1	0.0	16.0
		64QAM	1	1	21.8	21.9	21.8	21.6	21.6	2.5	22.0	15.4	15.5	15.2	15.3	15.2	0.0	16.0
		256QAM	1	1	19.7	19.6	19.4	19.6	19.6	4.5	20.0	15.6	15.6	15.6	15.4	15.2	0.0	16.0
	CP-OFDM	QPSK	1	1	22.6	22.6	22.4	22.5	22.4	1.5	23.0	15.5	15.7	15.3	15.4	15.1	0.0	16.0

NR Band n41 Power Class 2 Measured Results

NR Band n41 Power Class 2 Measured Results

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Aloowed Average Power (dBm)													
					DSI = 0							DSI = 1						
					Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
					509202		518598		528000			509202		518598		528000		
					2546.01 MHz		2592.99 MHz		2640 MHz			2546.01 MHz		2592.99 MHz		2640 MHz		
100 MHz	DFT-s-OFDM	π/2 BPSK	1	1	[redacted]		26.2		[redacted]	0.0	27.0	[redacted]		15.1		[redacted]	0.0	16.0
			1	137			25.7			0.0	27.0			15.3			0.0	16.0
			1	271			25.6			0.0	27.0			15.3			0.0	16.0
			135	0			25.5			0.5	26.5			15.3			0.0	16.0
			135	69			25.9			0.0	27.0			15.3			0.0	16.0
			135	138			25.1			0.5	26.5			15.5			0.0	16.0
			270	0			25.3			0.5	26.5			15.4			0.0	16.0
		QPSK	1	1			26.2			0.0	27.0			15.3			0.0	16.0
			1	137			25.8			0.0	27.0			15.2			0.0	16.0
			1	271			25.5			0.0	27.0			15.3			0.0	16.0
			135	0			25.0			1.0	26.0			15.2			0.0	16.0
			135	69			25.8			0.0	27.0			15.4			0.0	16.0
			135	138			24.7			1.0	26.0			15.4			0.0	16.0
			270	0			24.9			1.0	26.0			15.4			0.0	16.0
		16QAM	1	1			25.2			1.0	26.0			15.3			0.0	16.0
		64QAM	1	1			23.9			2.5	24.5			15.2			0.0	16.0
		256QAM	1	1			21.6			4.5	22.5			15.2			0.0	16.0
	CP-OFDM	QPSK	1	1			24.6			1.5	25.5			15.3			0.0	16.0
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
					508200				528996			508200				528996		
					2541 MHz				2644.98 MHz			2541 MHz				2644.98 MHz		
90 MHz	DFT-s-OFDM	π/2 BPSK	1	1	26.4	[redacted]			25.5	0.0	27.0	15.2	[redacted]			15.4	0.0	16.0
			1	123	26.3				25.7	0.0	27.0	15.0				15.1	0.0	16.0
			1	243	25.6				25.7	0.0	27.0	15.2				14.4	0.0	16.0
			120	0	26.1				25.1	0.5	26.5	15.1				15.3	0.0	16.0
			120	63	26.4				25.6	0.0	27.0	15.2				15.2	0.0	16.0
			120	125	25.5				25.1	0.5	26.5	15.2				14.9	0.0	16.0
			243	0	25.8				25.2	0.5	26.5	15.2				15.2	0.0	16.0
		QPSK	1	1	26.3				25.8	0.0	27.0	15.1				15.5	0.0	16.0
			1	123	26.1				25.5	0.0	27.0	15.1				15.2	0.0	16.0
			1	243	25.8				25.4	0.0	27.0	15.2				14.5	0.0	16.0
			120	0	25.4				24.8	1.0	26.0	15.2				15.5	0.0	16.0
			120	63	26.3				25.6	0.0	27.0	15.2				15.2	0.0	16.0
			120	125	25.1				24.6	1.0	26.0	15.1				15.1	0.0	16.0
			243	0	25.3				24.8	1.0	26.0	15.2				15.3	0.0	16.0
		16QAM	1	1	25.6				25.2	1.0	26.0	15.3				15.4	0.0	16.0
		64QAM	1	1	24.0				23.6	2.5	24.5	15.2				15.4	0.0	16.0
		256QAM	1	1	21.8				21.5	4.5	22.5	15.4				15.7	0.0	16.0
	CP-OFDM	QPSK	1	1	24.8				24.4	1.5	25.5	15.4				15.6	0.0	16.0
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
					507204				529998			507204				529998		
					2536.02 MHz				2649.99 MHz			2536.02 MHz				2649.99 MHz		
80 MHz	DFT-s-OFDM	π/2 BPSK	1	1	26.3	[redacted]			25.7	0.0	27.0	15.0	[redacted]			15.4	0.0	16.0
			1	109	26.3				25.6	0.0	27.0	15.0				15.1	0.0	16.0
			1	215	26.0				25.5	0.0	27.0	15.1				14.2	0.0	16.0
			108	0	25.8				25.2	0.5	26.5	15.0				15.3	0.0	16.0
			108	55	26.4				25.7	0.0	27.0	15.0				15.2	0.0	16.0
			108	109	25.7				25.2	0.5	26.5	15.1				14.8	0.0	16.0
			216	0	25.8				25.2	0.5	26.5	15.1				15.1	0.0	16.0
		QPSK	1	1	26.2				25.7	0.0	27.0	15.1				15.4	0.0	16.0
			1	109	26.2				25.5	0.0	27.0	15.0				15.1	0.0	16.0
			1	215	25.9				25.4	0.0	27.0	15.1				14.5	0.0	16.0
			108	0	25.4				24.7	1.0	26.0	15.0				15.3	0.0	16.0
			108	55	26.4				25.7	0.0	27.0	15.1				15.1	0.0	16.0
			108	109	25.3				24.7	1.0	26.0	15.1				14.9	0.0	16.0
			216	0	25.3				24.7	1.0	26.0	15.1				15.1	0.0	16.0
		16QAM	1	1	25.6				25.1	1.0	26.0	15.1				15.4	0.0	16.0
		64QAM	1	1	23.9				23.3	2.5	24.5	15.1				15.2	0.0	16.0
		256QAM	1	1	21.8				21.4	4.5	22.5	15.5				15.8	0.0	16.0
	CP-OFDM	QPSK	1	1	24.8				24.2	1.5	25.5	15.4				15.6	0.0	16.0

NR Band n41 Power Class 2 Measured Results

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
					505200		518598		531996			505200		518598		531996		
					2526 MHz		2592.99 MHz		2659.98 MHz			2526 MHz		2592.99 MHz		2659.98 MHz		
60 MHz	DFT-s-OFDM	π/2 BPSK	1	1	26.2		26.0		25.7	0.0	27.0	15.1		15.1		15.3	0.0	16.0
			1	81	26.4		25.8		25.6	0.0	27.0	15.2		15.0		14.9	0.0	16.0
			1	160	26.2		25.6		25.6	0.0	27.0	15.0		15.3		14.2	0.0	16.0
			81	0	25.8		25.3		25.2	0.5	26.5	15.0		15.2		15.2	0.0	16.0
			81	41	26.4		25.8		25.6	0.0	27.0	15.1		15.3		14.9	0.0	16.0
			81	81	25.8		25.3		25.1	0.5	26.5	15.3		15.3		14.7	0.0	16.0
			162	0	25.9		25.3		25.2	0.5	26.5	15.1		15.2		15.0	0.0	16.0
		QPSK	1	1	26.1		25.9		25.6	0.0	27.0	15.1		15.2		15.3	0.0	16.0
			1	81	26.3		25.7		25.5	0.0	27.0	15.1		15.2		15.0	0.0	16.0
			1	160	26.1		25.5		25.4	0.0	27.0	15.0		15.3		14.3	0.0	16.0
			81	0	25.3		25.0		24.7	1.0	26.0	15.2		15.1		15.2	0.0	16.0
			81	41	26.4		25.8		25.7	0.0	27.0	15.1		15.3		14.9	0.0	16.0
			81	81	25.3		24.7		24.6	1.0	26.0	15.2		15.3		14.7	0.0	16.0
			162	0	25.4		24.7		24.6	1.0	26.0	15.1		15.3		15.0	0.0	16.0
		16QAM	1	1	25.5		25.0		24.9	1.0	26.0	15.2		15.1		15.3	0.0	16.0
		64QAM	1	1	24.0		23.5		23.4	2.5	24.5	15.1		15.1		15.1	0.0	16.0
		256QAM	1	1	21.8		21.7		21.3	4.5	22.5	15.7		15.4		15.9	0.0	16.0
	CP-OFDM	QPSK	1	1	24.8		24.5		24.1	1.5	25.5	15.3		15.1		15.4	0.0	16.0

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
					504204		518598		532998			504204		518598		532998		
					2521.02 MHz		2592.99MHz		2664.99 MHz			2521.02 MHz		2592.99MHz		2664.99 MHz		
50 MHz	DFT-s-OFDM	π/2 BPSK	1	1	26.3		26.1		25.8	0.0	27.0	15.5		15.4		15.6	0.0	16.0
			1	67	26.3		26.0		25.6	0.0	27.0	15.6		15.2		15.2	0.0	16.0
			1	131	26.3		25.7		25.6	0.0	27.0	15.5		15.5		15.0	0.0	16.0
			64	0	25.9		25.4		25.1	0.5	26.5	15.6		15.4		15.3	0.0	16.0
			64	35	26.4		25.8		25.6	0.0	27.0	15.6		15.3		15.3	0.0	16.0
			64	69	26.0		25.2		25.1	0.5	26.5	15.7		15.4		15.2	0.0	16.0
			128	0	26.0		25.4		25.2	0.5	26.5	15.7		15.5		15.3	0.0	16.0
		QPSK	1	1	26.3		26.0		25.7	0.0	27.0	15.6		15.5		15.5	0.0	16.0
			1	67	26.3		25.7		25.5	0.0	27.0	15.7		15.3		15.3	0.0	16.0
			1	131	26.2		25.6		25.6	0.0	27.0	15.7		15.3		15.0	0.0	16.0
			64	0	25.4		25.0		24.7	1.0	26.0	15.8		15.4		15.3	0.0	16.0
			64	35	26.4		25.8		25.7	0.0	27.0	15.6		15.2		15.3	0.0	16.0
			64	69	25.5		24.8		24.6	1.0	26.0	15.7		15.4		15.2	0.0	16.0
			128	0	25.4		24.7		24.6	1.0	26.0	15.7		15.4		15.2	0.0	16.0
		16QAM	1	1	25.6		25.4		25.0	1.0	26.0	15.7		15.4		15.5	0.0	16.0
		64QAM	1	1	24.1		23.7		24.4	2.5	24.5	15.7		15.4		15.5	0.0	16.0
		256QAM	1	1	21.9		21.7		21.4	4.5	22.5	15.8		15.7		15.6	0.0	16.0
	CP-OFDM	QPSK	1	1	24.8		24.6		24.2	1.5	25.5	15.6		15.4		15.4	0.0	16.0

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
					503202	513468		523734	534000			503202	513468		523734	534000		
					2516.01 MHz	2567.34 MHz		2618.67 MHz	2670 MHz			2516.01 MHz	2567.34 MHz		2618.67 MHz	2670 MHz		
40 MHz	DFT-s-OFDM	π/2 BPSK	1	1	26.7	26.6		26.3	26.1	0.0	27.0	15.5	15.8		15.5	15.5	0.0	16.0
			1	53	26.6	26.5		26.5	25.8	0.0	27.0	15.8	15.5		15.5	15.4	0.0	16.0
			1	104	26.7	26.4		25.9	25.9	0.0	27.0	15.9	15.8		15.8	15.2	0.0	16.0
			50	0	26.2	26.1		25.8	25.5	0.5	26.5	15.8	15.6		15.6	15.5	0.0	16.0
			50	28	26.7	26.6		26.2	26.0	0.0	27.0	15.9	15.7		15.6	15.6	0.0	16.0
			50	56	26.3	26.1		25.6	25.5	0.5	26.5	15.8	15.8		15.7	15.5	0.0	16.0
			100	0	26.3	26.1		25.7	25.5	0.5	26.5	15.9	15.7		15.8	15.4	0.0	16.0
		QPSK	1	1	26.4	26.7		26.5	25.9	0.0	27.0	15.6	15.8		15.7	15.6	0.0	16.0
			1	53	26.5	26.4		26.4	25.8	0.0	27.0	15.8	15.6		15.6	15.3	0.0	16.0
			1	104	26.6	26.3		25.7	25.8	0.0	27.0	15.9	15.8		15.8	15.4	0.0	16.0
			50	0	25.7	25.9		25.8	25.0	1.0	26.0	15.8	15.9		15.6	15.7	0.0	16.0
			50	28	26.7	26.5		26.2	26.0	0.0	27.0	15.8	15.6		15.8	15.3	0.0	16.0
			50	56	25.8	25.9		25.6	24.9	1.0	26.0	16.0	15.6		15.7	15.4	0.0	16.0
			100	0	25.8	26.0		25.8	25.0	1.0	26.0	15.9	15.6		15.7	15.6	0.0	16.0
		16QAM	1	1	25.7	25.7		25.2	25.3	1.0	26.0	15.7	15.8		15.7	15.6	0.0	16.0
		64QAM	1	1	24.2	24.3		23.7	23.7	2.5	24.5	15.8	15.5		15.7	15.5	0.0	16.0
		256QAM	1	1	22.1	22.1		21.6	21.6	4.5	22.5	15.7	15.5		15.5	15.5	0.0	16.0
	CP-OFDM	QPSK	1	1	25.0	25.2		24.3	24.6	1.5	25.5	15.5	15.7		15.5	15.5	0.0	16.0

NR Band n41 Power Class 2 Measured Results

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
					502200	510402	518598	526800	534996			502200	510402	518598	526800	534996		
					2511 MHz	2552.01 MHz	2592.99 MHz	2634 MHz	2674.98 MHz			2511 MHz	2552.01 MHz	2592.99 MHz	2634 MHz	2674.98 MHz		
30 MHz	DFT-s-OFDM	π/2 BPSK	1	1	26.5	26.7	26.2	26.2	25.9	0.0	27.0	15.6	15.9	15.6	15.6	15.7	0.0	16.0
			1	39	26.6	26.6	26.0	25.9	25.7	0.0	27.0	15.5	15.8	15.6	15.5	15.3	0.0	16.0
			1	76	26.8	26.6	25.9	26.0	25.8	0.0	27.0	15.9	15.7	15.7	15.8	15.4	0.0	16.0
			36	0	26.1	26.2	25.7	25.6	25.4	0.5	26.5	15.9	15.8	15.7	15.6	15.6	0.0	16.0
			36	21	26.7	26.6	26.1	26.0	25.8	0.0	27.0	15.8	15.7	15.5	15.6	15.4	0.0	16.0
			36	42	26.3	26.0	25.5	25.5	25.4	0.5	26.5	16.0	15.7	15.7	15.7	15.4	0.0	16.0
			75	0	26.2	26.2	25.6	25.5	25.4	0.5	26.5	16.0	15.7	15.6	15.8	15.5	0.0	16.0
		QPSK	1	1	26.4	26.8	26.1	26.2	25.9	0.0	27.0	15.7	15.9	15.8	15.7	15.6	0.0	16.0
			1	39	26.5	26.5	26.0	25.9	25.8	0.0	27.0	15.9	15.6	15.6	15.6	15.4	0.0	16.0
			1	76	26.7	26.6	26.0	26.0	25.9	0.0	27.0	16.0	15.7	15.8	15.7	15.4	0.0	16.0
			36	0	25.7	25.8	25.2	25.6	24.9	1.0	26.0	15.8	15.8	15.6	15.6	15.6	0.0	16.0
			36	21	26.7	26.6	26.0	26.0	25.8	0.0	27.0	15.8	15.9	15.6	15.7	15.4	0.0	16.0
			36	42	25.8	25.7	25.1	25.4	24.9	1.0	26.0	16.0	15.7	15.6	15.8	15.3	0.0	16.0
			75	0	25.7	25.7	25.1	25.6	24.9	1.0	26.0	15.8	15.7	15.5	15.8	15.5	0.0	16.0
		16QAM	1	1	25.5	25.9	25.4	25.1	24.8	1.0	26.0	15.7	15.9	15.8	15.5	15.7	0.0	16.0
		64QAM	1	1	24.1	24.1	24.0	23.7	23.6	2.5	24.5	15.5	15.9	15.8	15.7	15.8	0.0	16.0
		256QAM	1	1	22.3	22.0	22.0	22.4	21.7	4.5	22.5	15.6	15.9	16.0	15.9	15.5	0.0	16.0
	CP-OFDM	QPSK	1	1	25.1	25.1	24.8	24.9	24.4	1.5	25.5	15.6	15.8	15.9	15.7	15.7	0.0	16.0

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)					MPR	Tune-up Limit	Measured Pwr (dBm)					MPR	Tune-up Limit
					501204	509898	518598	527298	535998			501204	509898	518598	527298	535998		
					2506.02 MHz	2549.49 MHz	2592.99 MHz	2636.49 MHz	2679.99 MHz			2506.02 MHz	2549.49 MHz	2592.99 MHz	2636.49 MHz	2679.99 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	26.3	26.3	25.8	25.8	25.5	0.0	27.0	15.5	15.4	15.3	15.3	15.1	0.0	16.0
			1	26	26.3	26.1	25.6	25.6	25.3	0.0	27.0	15.6	15.3	15.2	15.2	14.8	0.0	16.0
			1	49	26.4	26.1	25.6	25.7	25.5	0.0	27.0	15.9	15.2	15.3	15.4	14.8	0.0	16.0
			25	0	25.7	25.8	25.2	25.3	25.0	0.5	26.5	15.7	15.3	15.3	15.2	15.1	0.0	16.0
			25	13	26.3	26.3	25.7	25.8	25.5	0.0	27.0	15.9	15.2	15.2	15.4	15.0	0.0	16.0
			25	26	25.9	25.7	25.2	25.2	25.0	0.5	26.5	15.9	15.3	15.2	15.3	14.8	0.0	16.0
			50	0	25.9	25.7	25.2	25.2	25.0	0.5	26.5	15.7	15.5	15.1	15.4	14.9	0.0	16.0
		QPSK	1	1	26.2	26.3	25.7	25.7	25.5	0.0	27.0	15.5	15.3	15.2	15.4	15.2	0.0	16.0
			1	26	26.1	26.1	25.5	25.6	25.3	0.0	27.0	15.7	15.3	15.1	15.3	14.9	0.0	16.0
			1	49	26.3	26.1	25.5	25.7	25.3	0.0	27.0	15.7	15.4	15.2	15.4	14.8	0.0	16.0
			25	0	25.3	25.3	24.8	25.2	24.5	1.0	26.0	15.6	15.4	15.1	15.4	15.1	0.0	16.0
			25	13	26.3	26.2	25.7	25.8	25.5	0.0	27.0	15.7	15.3	15.3	15.4	15.0	0.0	16.0
			25	26	25.4	25.3	24.7	25.3	24.5	1.0	26.0	15.7	15.4	15.3	15.3	14.8	0.0	16.0
			50	0	25.4	25.3	24.7	25.1	24.5	1.0	26.0	15.7	15.5	15.1	15.2	14.9	0.0	16.0
		16QAM	1	1	25.5	25.5	25.1	24.5	24.7	1.0	26.0	15.9	15.6	15.4	15.4	15.1	0.0	16.0
		64QAM	1	1	24.0	23.9	23.4	23.3	23.1	2.5	24.5	15.4	15.5	15.2	15.3	15.2	0.0	16.0
		256QAM	1	1	22.0	21.8	21.2	21.2	21.2	4.5	22.5	15.6	15.6	15.6	15.4	15.2	0.0	16.0
	CP-OFDM	QPSK	1	1	24.8	24.8	24.2	24.2	24.1	1.5	25.5	15.5	15.7	15.3	15.4	15.1	0.0	16.0

NR Band n66 Measured Results

Test results were refer to reference model (FCC ID : A3LNP545XLA).

NR Band n66 Measured Results

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)								
					DSI = 0					DSI = 1			
					Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					344000	349000	354000			344000	349000	354000		
					1720 MHz	1745 MHz	1770 MHz			1720 MHz	1745 MHz	1770 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.5	23.4	23.3	0.0	24.5	17.1	16.6	16.9	0.0	17.5
			1	53	23.4	23.3	23.2	0.0	24.5	17.0	16.8	16.7	0.0	17.5
			1	104	23.4	23.3	23.2	0.0	24.5	17.0	16.7	16.7	0.0	17.5
			50	0	23.0	22.9	22.9	0.5	24.0	17.0	17.0	16.9	0.0	17.5
			50	28	23.5	23.4	23.3	0.0	24.5	17.0	16.9	16.8	0.0	17.5
			50	56	23.0	22.8	22.8	0.5	24.0	17.0	16.9	16.8	0.0	17.5
			100	0	23.0	22.9	22.9	0.5	24.0	17.1	16.9	16.8	0.0	17.5
		QPSK	1	1	23.6	23.4	23.4	0.0	24.5	17.0	16.9	16.8	0.0	17.5
			1	53	23.5	23.3	23.3	0.0	24.5	17.0	16.8	16.7	0.0	17.5
			1	104	23.4	23.2	23.2	0.0	24.5	16.9	16.8	16.6	0.0	17.5
			50	0	22.6	22.5	22.5	1.0	23.5	17.1	17.0	16.8	0.0	17.5
			50	28	23.5	23.4	23.4	0.0	24.5	17.1	16.9	16.7	0.0	17.5
			50	56	22.5	22.4	22.5	1.0	23.5	17.0	16.8	16.7	0.0	17.5
			100	0	22.6	22.5	22.5	1.0	23.5	17.1	16.9	16.8	0.0	17.5
		16QAM	1	1	22.7	22.6	22.6	1.0	23.5	17.0	16.8	16.7	0.0	17.5
		64QAM	1	1	21.7	21.7	21.7	2.5	22.0	17.2	17.0	17.0	0.0	17.5
		256QAM	1	1	19.0	19.0	18.9	4.5	20.0	17.0	16.8	16.8	0.0	17.5
	CP-OFDM	QPSK	1	1	22.0	22.0	22.0	1.5	23.0	17.0	16.9	16.8	0.0	17.5
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					343500	349000	354500			343500	349000	354500		
					1717.5 MHz	1745 MHz	1772.5 MHz			1717.5 MHz	1745 MHz	1772.5 MHz		
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.7	23.5	23.4	0.0	24.5	17.1	16.9	16.7	0.0	17.5
			1	40	23.5	23.3	23.2	0.0	24.5	16.9	16.7	16.7	0.0	17.5
			1	77	23.5	23.3	23.2	0.0	24.5	16.9	16.7	16.6	0.0	17.5
			36	0	23.1	23.0	22.9	0.5	24.0	17.0	16.9	16.8	0.0	17.5
			36	22	23.6	23.4	23.3	0.0	24.5	16.9	16.8	16.7	0.0	17.5
			36	43	23.1	22.9	22.8	0.5	24.0	16.9	16.8	16.7	0.0	17.5
			75	0	23.1	22.9	22.8	0.5	24.0	17.0	16.8	16.8	0.0	17.5
		QPSK	1	1	23.7	23.5	23.4	0.0	24.5	17.1	16.9	16.8	0.0	17.5
			1	40	23.5	23.4	23.3	0.0	24.5	16.9	16.7	16.7	0.0	17.5
			1	77	23.5	23.3	23.2	0.0	24.5	16.9	16.7	16.6	0.0	17.5
			36	0	22.7	22.6	22.5	1.0	23.5	17.1	16.9	16.8	0.0	17.5
			36	22	23.6	23.4	23.3	0.0	24.5	16.9	16.8	16.7	0.0	17.5
			36	43	22.6	22.4	22.4	1.0	23.5	17.0	16.8	16.7	0.0	17.5
			75	0	22.6	22.5	22.5	1.0	23.5	17.0	16.9	16.7	0.0	17.5
		16QAM	1	1	22.8	22.7	22.6	1.0	23.5	16.9	16.8	16.7	0.0	17.5
		64QAM	1	1	21.6	21.5	21.4	2.5	22.0	17.0	16.9	16.6	0.0	17.5
		256QAM	1	1	19.1	19.0	18.9	4.5	20.0	17.1	16.9	16.8	0.0	17.5
	CP-OFDM	QPSK	1	1	22.1	22.0	21.9	1.5	23.0	17.0	16.9	16.8	0.0	17.5

NR Band n66 Measured Results (Continued)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					343000	349000	355000			343000	349000	355000		
					1715 MHz	1745 MHz	1775 MHz			1715 MHz	1745 MHz	1775 MHz		
10 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.4	23.3	23.3	0.0	24.5	16.8	16.7	16.8	0.0	17.5
			1	26	23.4	23.3	23.2	0.0	24.5	16.9	16.8	16.8	0.0	17.5
			1	50	23.4	23.3	23.2	0.0	24.5	16.8	16.8	16.8	0.0	17.5
			25	0	22.9	22.9	22.7	0.5	24.0	16.8	16.8	16.8	0.0	17.5
			25	14	23.4	23.4	23.3	0.0	24.5	16.9	16.8	16.8	0.0	17.5
			25	27	22.9	22.9	22.8	0.5	24.0	16.9	16.8	16.9	0.0	17.5
			50	0	22.9	22.9	22.8	0.5	24.0	16.9	16.8	16.8	0.0	17.5
		QPSK	1	1	23.4	23.3	23.3	0.0	24.5	16.8	16.8	16.8	0.0	17.5
			1	26	23.4	23.3	23.2	0.0	24.5	16.8	16.8	16.8	0.0	17.5
			1	50	23.4	23.3	23.2	0.0	24.5	16.8	16.7	16.8	0.0	17.5
			25	0	22.5	22.4	22.5	1.0	23.5	16.8	16.8	16.8	0.0	17.5
			25	14	23.4	23.3	23.3	0.0	24.5	16.9	16.8	16.8	0.0	17.5
			25	27	22.5	22.5	22.5	1.0	23.5	16.9	16.8	16.8	0.0	17.5
			50	0	22.5	22.4	22.5	1.0	23.5	16.8	16.8	16.8	0.0	17.5
		16QAM	1	1	22.6	22.5	22.5	1.0	23.5	16.6	16.6	16.6	0.0	17.5
		64QAM	1	1	21.5	21.4	21.5	2.5	22.0	16.8	16.8	16.8	0.0	17.5
		256QAM	1	1	18.9	18.9	18.9	4.5	20.0	16.8	16.7	16.8	0.0	17.5
	CP-OFDM	QPSK	1	1	21.9	21.8	21.9	1.5	23.0	16.8	16.7	16.8	0.0	17.5
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					342500	349000	355500			342500	349000	355500		
					1712.5 MHz	1745 MHz	1777.5 MHz			1712.5 MHz	1745 MHz	1777.5 MHz		
5 MHz	DFT-s-OFDM	π/2 BPSK	1	1	23.4	22.8	22.5	0.0	24.5	16.8	16.7	16.8	0.0	17.5
			1	13	23.4	23.3	23.2	0.0	24.5	16.8	16.8	16.8	0.0	17.5
			1	23	23.4	23.3	23.2	0.0	24.5	16.8	16.8	16.8	0.0	17.5
			12	0	22.9	22.8	22.8	0.5	24.0	16.8	16.8	16.8	0.0	17.5
			12	7	23.5	23.4	23.3	0.0	24.5	16.9	16.8	16.8	0.0	17.5
			12	13	22.9	22.9	22.8	0.5	24.0	16.9	16.8	16.8	0.0	17.5
			25	0	22.9	22.8	22.7	0.5	24.0	16.9	16.8	16.8	0.0	17.5
		QPSK	1	1	23.4	23.3	23.2	0.0	24.5	16.8	16.7	16.7	0.0	17.5
			1	13	23.4	23.4	23.3	0.0	24.5	16.9	16.8	16.8	0.0	17.5
			1	23	23.4	23.4	23.2	0.0	24.5	16.9	16.8	16.8	0.0	17.5
			12	0	22.5	22.4	22.4	1.0	23.5	16.9	16.8	16.8	0.0	17.5
			12	7	23.4	23.4	23.3	0.0	24.5	16.8	16.8	16.8	0.0	17.5
			12	13	22.5	22.5	22.5	1.0	23.5	16.9	16.8	16.8	0.0	17.5
			25	0	22.5	22.4	22.4	1.0	23.5	16.9	16.8	16.8	0.0	17.5
		16QAM	1	1	22.6	22.5	22.5	1.0	23.5	16.7	16.6	16.6	0.0	17.5
		64QAM	1	1	21.6	21.5	21.5	2.5	22.0	16.7	16.6	16.6	0.0	17.5
		256QAM	1	1	18.8	18.8	18.8	4.5	20.0	16.8	16.7	16.8	0.0	17.5
	CP-OFDM	QPSK	1	1	21.9	21.8	21.8	1.5	23.0	16.7	16.7	16.8	0.0	17.5

NR Band n71 Measured Results

NR Band n71 Measured Results

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)										
					DSI = 0					DSI = 1					
					Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					134600	136100	137600			134600	136100	137600		
					673 MHz	680.5 MHz	688 MHz			673 MHz	680.5 MHz	688 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1		23.8		0.0	24.5		20.7		0.0	21
			1	53		23.7		0.0	24.5		20.6		0.0	21
			1	104		23.6		0.0	24.5		20.5		0.0	21
			50	0		23.3		0.5	24		20.6		0.0	21
			50	28		23.8		0.0	24.5		20.6		0.0	21
			50	56		23.2		0.5	24		20.4		0.0	21
			100	0		23.4		0.5	24		20.6		0.0	21
		QPSK	1	1		23.8		0.0	24.5		20.6		0.0	21
			1	53		23.7		0.0	24.5		20.5		0.0	21
			1	104		23.6		0.0	24.5		20.4		0.0	21
			50	0		22.9		1.0	23.5		20.6		0.0	21
			50	28		23.9		0.0	24.5		20.6		0.0	21
			50	56		22.6		1.0	23.5		20.4		0.0	21
			100	0		22.8		1.0	23.5		20.6		0.0	21
		16QAM	1	1		23.2		1.0	23.5		20.9		0.0	21
		64QAM	1	1		21.6		2.5	22		20.9		0.0	21
		256QAM	1	1		19.6		4.5	20		19.6		0.0	21
	CP-OFDM	QPSK	1	1		22.4		1.5	23		20.7		0.0	21
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					134100	136100	138100			134100	136100	138100		
					670.5 MHz	680.5 MHz	690.5 MHz			670.5 MHz	680.5 MHz	690.5 MHz		
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1		23.4		0.0	24.5		20.2		0.0	21
			1	40		23.3		0.0	24.5		20.1		0.0	21
			1	77		23.2		0.0	24.5		20.1		0.0	21
			36	0		23.0		0.5	24		20.3		0.0	21
			36	22		23.3		0.0	24.5		20.1		0.0	21
			36	43		22.8		0.5	24		20.0		0.0	21
			75	0		22.8		0.5	24		20.0		0.0	21
		QPSK	1	1		23.3		0.0	24.5		20.1		0.0	21
			1	40		23.2		0.0	24.5		20.0		0.0	21
			1	77		23.2		0.0	24.5		19.9		0.0	21
			36	0		22.5		1.0	23.5		20.3		0.0	21
			36	22		23.3		0.0	24.5		20.1		0.0	21
			36	43		22.2		1.0	23.5		20.0		0.0	21
			75	0		22.4		1.0	23.5		20.1		0.0	21
		16QAM	1	1		22.7		1.0	23.5		20.5		0.0	21
		64QAM	1	1		21.1		2.5	22		20.4		0.0	21
		256QAM	1	1		19.1		4.5	20		19.2		0.0	21
	CP-OFDM	QPSK	1	1		21.9		1.5	23		20.2		0.0	21

NR Band n71 Measured Results (Continued)

BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Maximum Allowed Average Power (dBm)										
					DSI = 0					DSI = 1					
					Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					134600	136100	137600			134600	136100	137600		
					673 MHz	680.5 MHz	688 MHz			673 MHz	680.5 MHz	688 MHz		
20 MHz	DFT-s-OFDM	π/2 BPSK	1	1		23.8		0.0	24.5		20.7		0.0	21
			1	53		23.7		0.0	24.5		20.6		0.0	21
			1	104		23.6		0.0	24.5		20.5		0.0	21
			50	0		23.3		0.5	24		20.6		0.0	21
			50	28		23.8		0.0	24.5		20.6		0.0	21
			50	56		23.2		0.5	24		20.4		0.0	21
			100	0		23.4		0.5	24		20.6		0.0	21
		QPSK	1	1		23.8		0.0	24.5		20.6		0.0	21
			1	53		23.7		0.0	24.5		20.5		0.0	21
			1	104		23.6		0.0	24.5		20.4		0.0	21
			50	0		22.9		1.0	23.5		20.6		0.0	21
			50	28		23.9		0.0	24.5		20.6		0.0	21
			50	56		22.6		1.0	23.5		20.4		0.0	21
			100	0		22.8		1.0	23.5		20.6		0.0	21
		16QAM	1	1		23.2		1.0	23.5		20.9		0.0	21
		64QAM	1	1		21.6		2.5	22		20.9		0.0	21
		256QAM	1	1		19.6		4.5	20		19.6		0.0	21
	CP-OFDM	QPSK	1	1		22.4		1.5	23		20.7		0.0	21
BW (MHz)	Modulation	Mode	RB Allocation	RB offset	Measured Pwr (dBm)			MPR	Tune-up Limit	Measured Pwr (dBm)			MPR	Tune-up Limit
					134100	136100	138100			134100	136100	138100		
					670.5 MHz	680.5 MHz	690.5 MHz			670.5 MHz	680.5 MHz	690.5 MHz		
15 MHz	DFT-s-OFDM	π/2 BPSK	1	1		23.4		0.0	24.5		20.2		0.0	21
			1	40		23.3		0.0	24.5		20.1		0.0	21
			1	77		23.2		0.0	24.5		20.1		0.0	21
			36	0		23.0		0.5	24		20.3		0.0	21
			36	22		23.3		0.0	24.5		20.1		0.0	21
			36	43		22.8		0.5	24		20.0		0.0	21
			75	0		22.8		0.5	24		20.0		0.0	21
		QPSK	1	1		23.3		0.0	24.5		20.1		0.0	21
			1	40		23.2		0.0	24.5		20.0		0.0	21
			1	77		23.2		0.0	24.5		19.9		0.0	21
			36	0		22.5		1.0	23.5		20.3		0.0	21
			36	22		23.3		0.0	24.5		20.1		0.0	21
			36	43		22.2		1.0	23.5		20.0		0.0	21
			75	0		22.4		1.0	23.5		20.1		0.0	21
		16QAM	1	1		22.7		1.0	23.5		20.5		0.0	21
		64QAM	1	1		21.1		2.5	22		20.4		0.0	21
		256QAM	1	1		19.1		4.5	20		19.2		0.0	21
	CP-OFDM	QPSK	1	1		21.9		1.5	23		20.2		0.0	21

9.4 Wi-Fi 2.4 GHz (DTS Band)

Test results were refer to reference model (FCC ID : A3LNP545XLA).

Measured Results

Band (GHz)	Antenna	Mode	Data Rate	Ch #	Freq. (MHz)	Meas. Avg Pwr (dBm)	Max Output Power (dBm)	SAR Test (Yes/No)	Meas. Avg Pwr (dBm)	Reduced. Output Power (dBm)	SAR Test (Yes/No)
2.4	WiFi SISO Ant.1	802.11b	1 Mbps	1	2412.0	**16.8**	17.0	Yes	**12.5**	13.0	Yes
				6	2437.0	**15.9**			**12.0**		
				11	2462.0	**16.9**			**12.8**		
		802.11g	6 Mbps	1	2412.0	Not Required	16.0	No	Not Required	13.0	No
				6	2437.0						
				11	2462.0						
		802.11n (HT20)	6.5 Mbps	1	2412.0	Not Required	16.0	No	Not Required	13.0	No
				6	2437.0						
				11	2462.0						
		802.11ax (HE20)	7.3 Mbps	1	2412.0	Not Required	15.0	No	Not Required	13.0	No
				6	2437.0						
				11	2462.0						
	WiFi SISO Ant.2	802.11b	1 Mbps	1	2412.0	**17.0**	17.0	Yes	**12.9**	13.0	Yes
				6	2437.0	**16.9**			**12.9**		
				11	2462.0	**16.8**			**12.5**		
		802.11g	6 Mbps	1	2412.0	Not Required	16.0	No	Not Required	13.0	No
				6	2437.0						
				11	2462.0						
		802.11n (HT20)	6.5 Mbps	1	2412.0	Not Required	16.0	No	Not Required	13.0	No
				6	2437.0						
				11	2462.0						
		802.11ax (HE20)	7.3 Mbps	1	2412.0	Not Required	15.0	No	Not Required	13.0	No
				6	2437.0						
				11	2462.0						

Band (GHz)	Antenna	Mode	Data Rate	Ch #	Freq. (MHz)	Meas. Avg Pwr (dBm)	Max Output Power (dBm)	SAR Test (Yes/No)	Meas. Avg Pwr (dBm)	Reduced. Output Power (dBm)	SAR Test (Yes/No)
2.4	WiFi MIMO Ant.1	802.11g	6 Mbps	1	2412.0	**14.7**	16.0	Yes	**11.8**	13.0	Yes
				6	2437.0	**15.0**			**12.0**		
				11	2462.0	**14.9**			**12.0**		
		802.11n (HT20)	6.5 Mbps	1	2412.0	Not Required	16.0	No	Not Required	13.0	No
				6	2437.0						
				11	2462.0						
		802.11ax (HE20)	7.3 Mbps	1	2412.0	Not Required	15.0	No	Not Required	13.0	No
				6	2437.0						
				11	2462.0						
	WiFi MIMO Ant.2	802.11g	6 Mbps	1	2412.0	**14.7**	16.0	Yes	**11.9**	13.0	Yes
				6	2437.0	**14.9**			**11.9**		
				11	2462.0	**14.6**			**11.5**		
		802.11n (HT20)	6.5 Mbps	1	2412.0	Not Required	16.0	No	Not Required	13.0	No
				6	2437.0						
				11	2462.0						
		802.11ax (HE20)	7.3 Mbps	1	2412.0	Not Required	15.0	No	Not Required	13.0	No
				6	2437.0						
				11	2462.0						

Note(s):

1. SAR is not required for 802.11g/n modes when the adjusted SAR for 802.11b is < 1.2 W/kg.
2. 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 802.11n/g/ax mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band. Additional output power measurements were not deemed necessary.
3. MIMO DTS SAR test were additionally evaluated.

9.5 Wi-Fi 5GHz (U-NII Bands)

Test results were refer to reference model (FCC ID : A3LNP545XLA).

Measured Results of WLAN SISO Ant.1

Antenna	Band (GHz)	Mode	Data Rate	Ch #	Freq. (MHz)	Max Pwr.			Reduction Pwr.		
						Avg Pwr (dBm)	Max Output Power (dBm)	SAR Test (Yes/No)	Avg Pwr (dBm)	Max Output Power (dBm)	SAR Test (Yes/No)
SISO Ant.1	5.3 (UNII 2A)	802.11a	6 Mbps	52	5260.0	**13.7**	15.0	Yes	Not Required	11.0	No
				56	5280.0	**13.4**			Not Required		
				60	5300.0	**14.1**			Not Required		
				64	5320.0	**13.9**			Not Required		
		802.11n (HT20)	6.5 Mbps	52	5260.0	Not Required	15.0	No	Not Required	11.0	No
				56	5280.0	Not Required			Not Required		
				60	5300.0	Not Required			Not Required		
				64	5320.0	Not Required			Not Required		
		802.11n (HT40)	13.5 Mbps	54	5270.0	Not Required	13.0	No	Not Required	11.0	No
				62	5310.0	Not Required			Not Required		
		802.11ac (VHT20)	6.5 Mbps	52	5260.0	Not Required	14.0	No	Not Required	11.0	No
				56	5280.0	Not Required			Not Required		
				60	5300.0	Not Required			Not Required		
				64	5320.0	Not Required			Not Required		
		802.11ac (VHT40)	13.5 Mbps	54	5270.0	Not Required	13.0	No	Not Required	11.0	No
				62	5310.0	Not Required			Not Required		
		802.11ac (VHT80)	29.3 Mbps	58	5290.0	Not Required	13.0	No	**10.0**	11.0	Yes
		802.11ax (HE20)	7.3 Mbps	52	5260.0	Not Required	14.0	No	Not Required	11.0	No
				56	5280.0	Not Required			Not Required		
				60	5300.0	Not Required			Not Required		
				64	5320.0	Not Required			Not Required		
		802.11ax (HE40)	14.6 Mbps	54	5270.0	Not Required	11.0	No	Not Required	11.0	No
				62	5310.0	Not Required			Not Required		
		802.11ax (HE80)	30.6 Mbps	58	5290.0	Not Required	11.0	No	Not Required	11.0	No
	5.5 (U-NII 2C)	802.11a	6 Mbps	100	5500.0	**13.9**	15.0	Yes	Not Required	11.0	No
				120	5600.0	**13.9**			Not Required		
				124	5620.0	**13.9**			Not Required		
				144	5720.0	**13.7**			Not Required		
		802.11n (HT20)	6.5 Mbps	100	5500.0	Not Required	15.0	No	Not Required	11.0	No
				120	5600.0	Not Required			Not Required		
				124	5620.0	Not Required			Not Required		
				144	5720.0	Not Required			Not Required		
		802.11n (HT40)	13.5 Mbps	102	5510.0	Not Required	13.0	No	Not Required	11.0	No
				118	5590.0	Not Required			Not Required		
				126	5630.0	Not Required			Not Required		
				142	5710.0	Not Required			Not Required		
		802.11ac (VHT20)	6.5 Mbps	110	5550.0	Not Required	14.0	No	Not Required	11.0	No
				120	5600.0	Not Required			Not Required		
				124	5620.0	Not Required			Not Required		
				144	5720.0	Not Required			Not Required		
		802.11ac (VHT40)	13.5 Mbps	102	5510.0	Not Required	13.0	No	Not Required	11.0	No
				118	5590.0	Not Required			Not Required		
				126	5630.0	Not Required			Not Required		
				142	5710.0	Not Required			Not Required		
		802.11ac (VHT80)	29.3 Mbps	106	5530.0	Not Required	13.0	No	**9.2**	11.0	No
				122	5610.0	Not Required			**8.7**		
				138	5690.0	Not Required			**9.5**		
		802.11ax (HE20)	7.3 Mbps	100	5500.0	Not Required	14.0	No	Not Required	11.0	No
				120	5600.0	Not Required			Not Required		
				124	5620.0	Not Required			Not Required		
				144	5720.0	Not Required			Not Required		
		802.11ax (HE40)	14.6 Mbps	102	5510.0	Not Required	11.0	No	Not Required	11.0	No
				118	5590.0	Not Required			Not Required		
				126	5630.0	Not Required			Not Required		
				142	5710.0	Not Required			Not Required		
		802.11ax (HE80)	30.6 Mbps	106	5530.0	Not Required	11.0	No	Not Required	11.0	No
				122	5610.0	Not Required			Not Required		
				138	5690.0	Not Required			Not Required		
	5.8 (U-NII 3)	802.11a	6 Mbps	149	5745.0	**13.8**	15.0	Yes	Not Required	11.0	No
				157	5785.0	**13.9**			Not Required		
				165	5825.0	**13.9**			Not Required		
		802.11n (HT20)	6.5 Mbps	149	5745.0	Not Required	15.0	No	Not Required	11.0	No
				157	5785.0	Not Required			Not Required		
				165	5825.0	Not Required			Not Required		
		802.11n (HT40)	13.5 Mbps	151	5755.0	Not Required	13.0	No	Not Required	11.0	No
				159	5795.0	Not Required			Not Required		
		802.11ac (VHT20)	6.5 Mbps	151	5755.0	Not Required	14.0	No	Not Required	11.0	No
				159	5795.0	Not Required			Not Required		
				151	5755.0	Not Required			Not Required		
		802.11ac (VHT40)	13.5 Mbps	151	5755.0	Not Required	13.0	No	Not Required	11.0	No
				159	5795.0	Not Required			Not Required		
		802.11ac (VHT80)	29.3 Mbps	155	5775.0	Not Required	13.0	No	**9.4**	11.0	No
		802.11ax (HE20)	7.3 Mbps	149	5745.0	Not Required	14.0	No	Not Required	11.0	No
				157	5785.0	Not Required			Not Required		
				165	5825.0	Not Required			Not Required		
		802.11ax (HE40)	14.6 Mbps	151	5755.0	Not Required	11.0	No	Not Required	11.0	No
				159	5795.0	Not Required			Not Required		
		802.11ax (HE80)	30.6 Mbps	155	5775.0	Not Required	11.0	No	Not Required	11.0	Yes

Measured Results of WLAN SISO Ant.2

Antenna	Band (GHz)	Mode	Data Rate	Ch #	Freq. (MHz)	Max Pwr.			Reduction Pwr.		
						Avg Pwr (dBm)	Max Output Power (dBm)	SAR Test (Yes/No)	Avg Pwr (dBm)	Max Output Power (dBm)	SAR Test (Yes/No)
SISO Ant.2	5.3 (UNII 2A)	802.11a	6 Mbps	52	5260.0	**14.4**	15.0	Yes	Not Required	11.0	No
				56	5280.0	**14.1**			Not Required		
				60	5300.0	**14.6**			Not Required		
				64	5320.0	**14.6**			Not Required		
		802.11n (HT20)	6.5 Mbps	52	5260.0	Not Required	15.0	No	Not Required	11.0	No
				56	5280.0	Not Required			Not Required		
				60	5300.0	Not Required			Not Required		
				64	5320.0	Not Required			Not Required		
		802.11n (HT40)	13.5 Mbps	54	5270.0	Not Required	13.0	No	Not Required	11.0	No
				62	5310.0	Not Required			Not Required		
		802.11ac (VHT20)	6.5 Mbps	62	5310.0	Not Required	14.0	No	Not Required	11.0	No
				54	5270.0	Not Required			Not Required		
				62	5310.0	Not Required			Not Required		
				54	5270.0	Not Required			Not Required		
		802.11ac (VHT40)	13.5 Mbps	54	5270.0	Not Required	13.0	No	Not Required	11.0	No
				62	5310.0	Not Required			Not Required		
		802.11ac (VHT80)	29.3 Mbps	58	5290.0	Not Required	13.0	No	**9.1**	11.0	Yes
		802.11ax (HE20)	7.3 Mbps	52	5260.0	Not Required	14.0	No	Not Required	11.0	No
				56	5280.0	Not Required			Not Required		
				60	5300.0	Not Required			Not Required		
				64	5320.0	Not Required			Not Required		
		802.11ax (HE40)	14.6 Mbps	54	5270.0	Not Required	11.0	No	Not Required	11.0	No
				62	5310.0	Not Required			Not Required		
		802.11ax (HE80)	30.6 Mbps	58	5290.0	Not Required	11.0	No	Not Required	11.0	No
	5.5 (U-NII 2C)	802.11a	6 Mbps	100	5500.0	**14.2**	15.0	Yes	Not Required	11.0	No
				120	5600.0	**13.4**			Not Required		
				124	5620.0	**13.5**			Not Required		
				144	5720.0	**14.5**			Not Required		
		802.11n (HT20)	6.5 Mbps	100	5500.0	Not Required	15.0	No	Not Required	11.0	No
				120	5600.0	Not Required			Not Required		
				124	5620.0	Not Required			Not Required		
				144	5720.0	Not Required			Not Required		
		802.11n (HT40)	13.5 Mbps	102	5510.0	Not Required	13.0	No	Not Required	11.0	No
				118	5590.0	Not Required			Not Required		
				126	5630.0	Not Required			Not Required		
				142	5710.0	Not Required			Not Required		
		802.11ac (VHT20)	6.5 Mbps	110	5550.0	Not Required	14.0	No	Not Required	11.0	No
				120	5600.0	Not Required			Not Required		
				124	5620.0	Not Required			Not Required		
				144	5720.0	Not Required			Not Required		
		802.11ac (VHT40)	13.5 Mbps	102	5510.0	Not Required	13.0	No	Not Required	11.0	No
				118	5590.0	Not Required			Not Required		
				126	5630.0	Not Required			Not Required		
				142	5710.0	Not Required			Not Required		
		802.11ac (VHT80)	29.3 Mbps	106	5530.0	Not Required	13.0	No	**9.7**	11.0	Yes
				122	5610.0	Not Required			**8.5**		
				138	5690.0	Not Required			**9.3**		
		802.11ax (HE20)	7.3 Mbps	100	5500.0	Not Required	14.0	No	Not Required	11.0	No
				120	5600.0	Not Required			Not Required		
				124	5620.0	Not Required			Not Required		
				144	5720.0	Not Required			Not Required		
		802.11ax (HE40)	14.6 Mbps	102	5510.0	Not Required	11.0	No	Not Required	11.0	No
				118	5590.0	Not Required			Not Required		
				126	5630.0	Not Required			Not Required		
				142	5710.0	Not Required			Not Required		
		802.11ax (HE80)	30.6 Mbps	106	5530.0	Not Required	11.0	No	Not Required	11.0	No
				122	5610.0	Not Required			Not Required		
				138	5690.0	Not Required			Not Required		
	5.8 (U-NII 3)	802.11a	6 Mbps	149	5745.0	**13.8**	15.0	Yes	Not Required	11.0	No
				157	5785.0	**13.9**			Not Required		
				165	5825.0	**13.7**			Not Required		
		802.11n (HT20)	6.5 Mbps	149	5745.0	Not Required	15.0	No	Not Required	11.0	No
				157	5785.0	Not Required			Not Required		
				165	5825.0	Not Required			Not Required		
		802.11n (HT40)	13.5 Mbps	151	5755.0	Not Required	13.0	No	Not Required	11.0	No
				159	5795.0	Not Required			Not Required		
		802.11ac (VHT20)	6.5 Mbps	151	5755.0	Not Required	14.0	No	Not Required	11.0	No
				159	5795.0	Not Required			Not Required		
				151	5755.0	Not Required			Not Required		
		802.11ac (VHT40)	13.5 Mbps	151	5755.0	Not Required	13.0	No	Not Required	11.0	No
				159	5795.0	Not Required			Not Required		
		802.11ac (VHT80)	29.3 Mbps	155	5775.0	Not Required	13.0	No	**9.1**	11.0	No
		802.11ax (HE20)	7.3 Mbps	149	5745.0	Not Required	14.0	No	Not Required	11.0	No
				157	5785.0	Not Required			Not Required		
				165	5825.0	Not Required			Not Required		
		802.11ax (HE40)	14.6 Mbps	151	5755.0	Not Required	11.0	No	Not Required	11.0	No
				159	5795.0	Not Required			Not Required		
		802.11ax (HE80)	30.6 Mbps	155	5775.0	Not Required	11.0	No	Not Required	11.0	Yes

Measured Results of WLAN MIMO Ant.1

Antenna	Band (GHz)	Mode	Data Rate	Ch #	Freq. (MHz)	Max Pwr.			Reduction Pwr.		
						Avg Pwr (dBm)	Max Output Power (dBm)	SAR Test (Yes/No)	Avg Pwr (dBm)	Max Output Power (dBm)	SAR Test (Yes/No)
MIMO Ant.1	5.3 (UNII 2A)	802.11a	6 Mbps	52	5260.0	**13.6**	15.0	Yes	Not Required	11.0	No
				56	5280.0	**13.4**			Not Required		
				60	5300.0	**14.1**			Not Required		
				64	5320.0	**13.8**			Not Required		
		802.11n (HT20)	6.5 Mbps	52	5260.0	Not Required	15.0	No	Not Required	11.0	No
				56	5280.0	Not Required			Not Required		
				60	5300.0	Not Required			Not Required		
				64	5320.0	Not Required			Not Required		
		802.11n (HT40)	13.5 Mbps	54	5270.0	Not Required	13.0	No	Not Required	11.0	No
				62	5310.0	Not Required			Not Required		
		802.11ac (VHT20)	6.5 Mbps	52	5260.0	Not Required	14.0	No	Not Required	11.0	No
				56	5280.0	Not Required			Not Required		
				60	5300.0	Not Required			Not Required		
				64	5320.0	Not Required			Not Required		
		802.11ac (VHT40)	13.5 Mbps	54	5270.0	Not Required	13.0	No	Not Required	11.0	No
				62	5310.0	Not Required			Not Required		
		802.11ac (VHT80)	29.3 Mbps	58	5290.0	Not Required	13.0	No	**9.8**	11.0	Yes
		802.11ax (HE20)	7.3 Mbps	52	5260.0	Not Required	14.0	No	Not Required	11.0	No
				56	5280.0	Not Required			Not Required		
				60	5300.0	Not Required			Not Required		
				64	5320.0	Not Required			Not Required		
		802.11ax (HE40)	14.6 Mbps	54	5270.0	Not Required	11.0	No	Not Required	11.0	No
				62	5310.0	Not Required			Not Required		
		802.11ax (HE80)	30.6 Mbps	58	5290.0	Not Required	11.0	No	Not Required	11.0	No
	5.5 (U-NII 2C)	802.11a	6 Mbps	100	5500.0	**13.8**	15.0	Yes	Not Required	11.0	No
				120	5600.0	**14.0**			Not Required		
				124	5620.0	**13.8**			Not Required		
				144	5720.0	**13.6**			Not Required		
		802.11n (HT20)	6.5 Mbps	100	5500.0	Not Required	15.0	No	Not Required	11.0	No
				120	5600.0	Not Required			Not Required		
				124	5620.0	Not Required			Not Required		
				144	5720.0	Not Required			Not Required		
		802.11n (HT40)	13.5 Mbps	102	5510.0	Not Required	13.0	No	Not Required	11.0	No
				118	5590.0	Not Required			Not Required		
				126	5630.0	Not Required			Not Required		
				142	5710.0	Not Required			Not Required		
		802.11ac (VHT20)	6.5 Mbps	110	5550.0	Not Required	14.0	No	Not Required	11.0	No
				120	5600.0	Not Required			Not Required		
				124	5620.0	Not Required			Not Required		
				144	5720.0	Not Required			Not Required		
		802.11ac (VHT40)	13.5 Mbps	102	5510.0	Not Required	13.0	No	Not Required	11.0	No
				118	5590.0	Not Required			Not Required		
				126	5630.0	Not Required			Not Required		
				142	5710.0	Not Required			Not Required		
		802.11ac (VHT80)	29.3 Mbps	106	5530.0	Not Required	13.0	No	**9.2**	11.0	No
				122	5610.0	Not Required			**8.7**		
				138	5690.0	Not Required			**9.4**		
		802.11ax (HE20)	7.3 Mbps	100	5500.0	Not Required	14.0	No	Not Required	11.0	No
				120	5600.0	Not Required			Not Required		
				124	5620.0	Not Required			Not Required		
				144	5720.0	Not Required			Not Required		
		802.11ax (HE40)	14.6 Mbps	102	5510.0	Not Required	11.0	No	Not Required	11.0	No
				118	5590.0	Not Required			Not Required		
				126	5630.0	Not Required			Not Required		
				142	5710.0	Not Required			Not Required		
		802.11ax (HE80)	30.6 Mbps	106	5530.0	Not Required	11.0	No	Not Required	11.0	No
				122	5610.0	Not Required			Not Required		
				138	5690.0	Not Required			Not Required		
	5.8 (U-NII 3)	802.11a	6 Mbps	149	5745.0	**13.7**	15.0	Yes	Not Required	11.0	No
				157	5785.0	**13.8**			Not Required		
				165	5825.0	**13.8**			Not Required		
		802.11n (HT20)	6.5 Mbps	149	5745.0	Not Required	15.0	No	Not Required	11.0	No
				157	5785.0	Not Required			Not Required		
				165	5825.0	Not Required			Not Required		
		802.11n (HT40)	13.5 Mbps	151	5755.0	Not Required	13.0	No	Not Required	11.0	No
				159	5795.0	Not Required			Not Required		
		802.11ac (VHT20)	6.5 Mbps	151	5755.0	Not Required	14.0	No	Not Required	11.0	No
				159	5795.0	Not Required			Not Required		
				151	5755.0	Not Required			Not Required		
		802.11ac (VHT40)	13.5 Mbps	151	5755.0	Not Required	13.0	No	Not Required	11.0	No
				159	5795.0	Not Required			Not Required		
		802.11ac (VHT80)	29.3 Mbps	155	5775.0	Not Required	13.0	No	**9.2**	11.0	No
		802.11ax (HE20)	7.3 Mbps	149	5745.0	Not Required	14.0	No	Not Required	11.0	No
				157	5785.0	Not Required			Not Required		
				165	5825.0	Not Required			Not Required		
		802.11ax (HE40)	14.6 Mbps	151	5755.0	Not Required	11.0	No	Not Required	11.0	No
				159	5795.0	Not Required			Not Required		
		802.11ax (HE80)	30.6 Mbps	155	5775.0	Not Required	11.0	No	Not Required	11.0	Yes

Measured Results of WLAN MIMO Ant.2

Antenna	Band (GHz)	Mode	Data Rate	Ch #	Freq. (MHz)	Max Pwr.			Reduction Pwr.		
						Avg Pwr (dBm)	Max Output Power (dBm)	SAR Test (Yes/No)	Avg Pwr (dBm)	Max Output Power (dBm)	SAR Test (Yes/No)
SISO Ant.2	5.3 (UNII 2A)	802.11a	6 Mbps	52	5260.0	**13.3**	15.0	Yes	Not Required	11.0	No
				56	5280.0	**13.1**			Not Required		
				60	5300.0	**13.5**			Not Required		
				64	5320.0	**13.6**			Not Required		
		802.11n (HT20)	6.5 Mbps	52	5260.0	Not Required	15.0	No	Not Required	11.0	No
				56	5280.0	Not Required			Not Required		
				60	5300.0	Not Required			Not Required		
				64	5320.0	Not Required			Not Required		
		802.11n (HT40)	13.5 Mbps	54	5270.0	Not Required	13.0	No	Not Required	11.0	No
				62	5310.0	Not Required			Not Required		
		802.11ac (VHT20)	6.5 Mbps	62	5310.0	Not Required	14.0	No	Not Required	11.0	No
				54	5270.0	Not Required			Not Required		
				62	5310.0	Not Required			Not Required		
				54	5270.0	Not Required			Not Required		
		802.11ac (VHT40)	13.5 Mbps	54	5270.0	Not Required	13.0	No	Not Required	11.0	No
				62	5310.0	Not Required			Not Required		
		802.11ac (VHT80)	29.3 Mbps	58	5290.0	Not Required	13.0	No	**9.0**	11.0	Yes
		802.11ax (HE20)	7.3 Mbps	52	5260.0	Not Required	14.0	No	Not Required	11.0	No
				56	5280.0	Not Required			Not Required		
				60	5300.0	Not Required			Not Required		
				64	5320.0	Not Required			Not Required		
		802.11ax (HE40)	14.6 Mbps	54	5270.0	Not Required	11.0	No	Not Required	11.0	No
				62	5310.0	Not Required			Not Required		
		802.11ax (HE80)	30.6 Mbps	58	5290.0	Not Required	11.0	No	Not Required	11.0	No
	5.5 (U-NII 2C)	802.11a	6 Mbps	100	5500.0	**14.1**	15.0	Yes	Not Required	11.0	No
				120	5600.0	**13.4**			Not Required		
				124	5620.0	**13.5**			Not Required		
				144	5720.0	**14.4**			Not Required		
		802.11n (HT20)	6.5 Mbps	100	5500.0	Not Required	15.0	No	Not Required	11.0	No
				120	5600.0	Not Required			Not Required		
				124	5620.0	Not Required			Not Required		
				144	5720.0	Not Required			Not Required		
		802.11n (HT40)	13.5 Mbps	102	5510.0	Not Required	13.0	No	Not Required	11.0	No
				118	5590.0	Not Required			Not Required		
				126	5630.0	Not Required			Not Required		
				142	5710.0	Not Required			Not Required		
		802.11ac (VHT20)	6.5 Mbps	110	5550.0	Not Required	14.0	No	Not Required	11.0	No
				120	5600.0	Not Required			Not Required		
				124	5620.0	Not Required			Not Required		
				144	5720.0	Not Required			Not Required		
		802.11ac (VHT40)	13.5 Mbps	102	5510.0	Not Required	13.0	No	Not Required	11.0	No
				118	5590.0	Not Required			Not Required		
				126	5630.0	Not Required			Not Required		
				142	5710.0	Not Required			Not Required		
		802.11ac (VHT80)	29.3 Mbps	106	5530.0	Not Required	13.0	No	**9.6**	11.0	Yes
				122	5610.0	Not Required			**8.5**		
				138	5690.0	Not Required			**9.3**		
		802.11ax (HE20)	7.3 Mbps	100	5500.0	Not Required	14.0	No	Not Required	11.0	No
				120	5600.0	Not Required			Not Required		
				124	5620.0	Not Required			Not Required		
				144	5720.0	Not Required			Not Required		
		802.11ax (HE40)	14.6 Mbps	102	5510.0	Not Required	11.0	No	Not Required	11.0	No
				118	5590.0	Not Required			Not Required		
				126	5630.0	Not Required			Not Required		
				142	5710.0	Not Required			Not Required		
		802.11ax (HE80)	30.6 Mbps	106	5530.0	Not Required	11.0	No	Not Required	11.0	No
				122	5610.0	Not Required			Not Required		
				138	5690.0	Not Required			Not Required		
	5.8 (U-NII 3)	802.11a	6 Mbps	149	5745.0	**13.7**	15.0	Yes	Not Required	11.0	No
				157	5785.0	**13.8**			Not Required		
				165	5825.0	**13.6**			Not Required		
		802.11n (HT20)	6.5 Mbps	149	5745.0	Not Required	15.0	No	Not Required	11.0	No
				157	5785.0	Not Required			Not Required		
				165	5825.0	Not Required			Not Required		
		802.11n (HT40)	13.5 Mbps	151	5755.0	Not Required	13.0	No	Not Required	11.0	No
				159	5795.0	Not Required			Not Required		
		802.11ac (VHT20)	6.5 Mbps	151	5755.0	Not Required	14.0	No	Not Required	11.0	No
				159	5795.0	Not Required			Not Required		
				151	5755.0	Not Required			Not Required		
		802.11ac (VHT40)	13.5 Mbps	151	5755.0	Not Required	13.0	No	Not Required	11.0	No
				159	5795.0	Not Required			Not Required		
		802.11ac (VHT80)	29.3 Mbps	155	5775.0	Not Required	13.0	No	**9.0**	11.0	No
		802.11ax (HE20)	7.3 Mbps	149	5745.0	Not Required	14.0	No	Not Required	11.0	No
				157	5785.0	Not Required			Not Required		
				165	5825.0	Not Required			Not Required		
		802.11ax (HE40)	14.6 Mbps	151	5755.0	Not Required	11.0	No	Not Required	11.0	No
				159	5795.0	Not Required			Not Required		
		802.11ax (HE80)	30.6 Mbps	155	5775.0	Not Required	11.0	No	Not Required	11.0	Yes

Note(s):

1. 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, for each frequency band.
2. When the same transmission mode configurations have the same maximum output power on the same channel for the 802.11 a/g/n/ac/ax modes, the channel in the lower order/sequence 802.11 mode (i.e. a, g, n ac then ax) is selected.
3. When the specified maximum output power is the same for both UNII band I and UNII band 2A, begin SAR measurement in UNII band 2A; and if the highest *reported* SAR for UNII band 2A is
   - ≤ 1.2 W/kg, SAR is not required for UNII band I
   - > 1.2 W/kg, both bands should be tested independently for SAR.
4. MIMO SAR test were additionally evaluated.

9.6 Bluetooth

Test results were refer to reference model (FCC ID : A3LNP545XLA).

Measured Results

Band (GHz)	Mode	Ch #	Freq. (MHz)	Maximum Average Power (dBm)	
				Meas Pwr	Tune-up Limit
2.4	GFSK	0	2402	13.5	16.0
		39	2441	15.4	
		78	2480	13.0	
	EDR, 8-DPSK	0	2402	12.8	15.0
		39	2441	14.7	
		78	2480	12.2	
	LE, GFSK-1M, 125/500 kbps	0	2402	5.2	8.0
		19	2440	7.6	
		39	2480	5.6	
	LE, GFSK-2M	0	2402	5.0	8.0
		19	2440	7.3	
		39	2480	5.4	

Note(s):

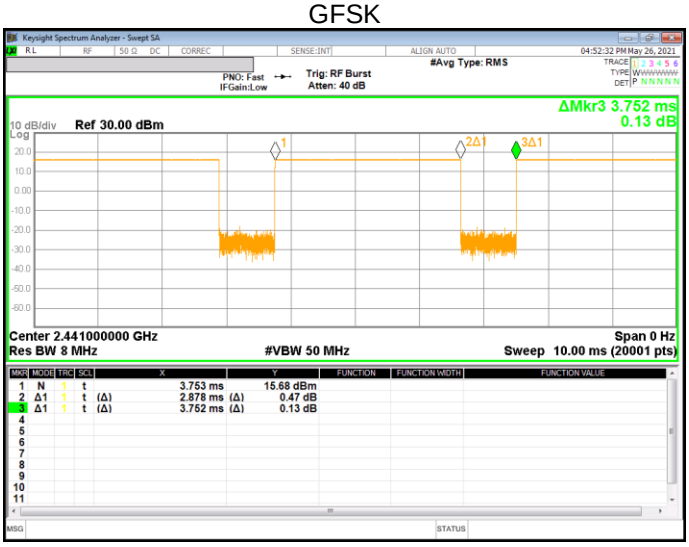
SAR test is evaluated at GFSK mode in Bluetooth

Duty Factor Measured Results

Mode	Type	T on (ms)	Period (ms)	Duty Cycle	Crest Factor (1/duty cycle)
GFSK	DH5	2.878	3.752	76.7%	1.30

Duty Cycle plots

GFSK



10. Measured and Reported (Scaled) SAR Results

SAR Test Reduction criteria are as follows:

- Reported SAR(W/kg) for WWAN= Measured SAR *Tune-up Scaling Factor
- Reported SAR(W/kg) for Wi-Fi and Bluetooth= Measured SAR * Tune-up scaling factor * Duty Cycle scaling factor
- Duty Cycle scaling factor = 1 / Duty cycle (%)

KDB 447498 D01 General RF Exposure Guidance:

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

KDB 648474 D04 Handset SAR:

With headset attached, when the reported SAR for body-worn accessory, measured without a headset connected to the handset, is > 1.2 W/kg, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a headset attached to the handset.

KDB 648474 D04 Handset SAR (Phablet Only):

For smart phones, with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm.
When hotspot mode does not apply, 10-g extremity SAR is required for all surfaces and edges with an antenna located at ≤ 25mm From that surface or edge in direct contact with a flat phantom, to address interactive hand use exposure conditions. When hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg; However, when power reduction applies to hotspot mode the measured SAR must be scaled to the maximum output power, Including tolerance, allowed for phablet modes to compare with the 1.2 W/kg SAR test reduction threshold.

Additional 1-g SAR testing at 5 mm is not required when hotspot mode 10-g extremity SAR is not required for the surfaces and edges; since all 1-g reported SAR < 1.2 W/kg.

KDB 941225 D01 SAR test for 3G devices:

When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ ¼ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.

KDB 941225 D05 SAR for LTE Devices:

SAR test reduction is applied using the following criteria:

- Start with the largest channel bandwidth and measure SAR for QPSK with 1 RB, and 50% RB allocation, using the RB offset and required test channel combination with the highest maximum output power among RB offsets at the upper edge, middle and lower edge of each required test channel.
- When the reported SAR is > 0.8 W/kg, testing for other Channels is performed at the highest output power level for 1RB, and 50% RB configuration for that channel.
- Testing for 100% RB configuration is performed at the highest output power level for 100% RB configuration across the Low, Mid and High Channel when the highest reported SAR for 1 RB and 50% RB are > 0.8 W/kg. Testing for the remaining required channels is not needed because the reported SAR for 100% RB Allocation < 1.45 W/kg.
- Testing for 16-QAM modulation is not required because the reported SAR for QPSK is < 1.45 W/Kg and its output power is not more than 0.5 dB higher than that of QPSK.
- Testing for the other channel bandwidths is not required because the reported SAR for the highest channel bandwidth is < 1.45 W/Kg and its output power is not more than 0.5 dB higher than that of the highest channel bandwidth.
- For LTE bands that do not support at least three non-overlapping channels in certain channel bandwidths, test the available non-overlapping channels instead. 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; therefore, the requirement for H, M and L channels may not fully apply.

KDB 248227 D01 SAR meas for 802.11:

SAR test reduction for 802.11 Wi-Fi transmission mode configurations are considered separately for DSSS and OFDM. An initial test position is determined to reduce the number of tests required for certain exposure configurations with multiple test positions. An initial test configuration is determined for each frequency band and aggregated band according to maximum output power, channel bandwidth, wireless mode configurations and other operating parameters to streamline the measurement requirements. For 2.4 GHz DSSS, either the initial test position or DSSS procedure is applied to reduce the number of SAR tests; these are mutually exclusive. For OFDM, an initial test position is only applicable to next to the ear, UMPC mini-tablet and hotspot mode configurations, which is tested using the initial test configuration to facilitate test reduction. For other exposure conditions with a fixed test position, SAR test reduction is determined using only the initial test configuration.

The multiple test positions require SAR measurements in head, hotspot mode or UMPC mini-tablet configurations may be reduced according to the highest reported SAR determined using the *initial test position(s)* by applying the DSSS or OFDM SAR measurement procedures in the required wireless mode test configuration(s). The *initial test position(s)* is measured using the highest measured maximum output power channel in the required wireless mode test configuration(s). When the *reported* SAR for the *initial test position* is:

- ≤ 0.4 W/kg, further SAR measurement is not required for the other test positions in that exposure configuration and wireless mode combination within the frequency band or aggregated band. DSSS and OFDM configurations are considered separately according to the required SAR procedures.
- > 0.4 W/kg, SAR is repeated using the same wireless mode test 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 *reported* SAR is ≤ 0.8 W/kg or all required test positions are tested.
  - For subsequent test positions with equivalent test separation distance or when exposure is dominated by coupling conditions, the position for maximum coupling condition should be tested.
  - When it is unclear, all equivalent conditions must be tested.
- For all positions/configurations tested using the *initial test position* and subsequent test positions, when the *reported* SAR is > 0.8 W/kg, measure the SAR for these positions/configurations on the subsequent next highest measured output power channel(s) until the *reported* SAR is ≤ 1.2 W/kg or all required test channels are considered.
  - The additional power measurements required for this step should be limited to those necessary for identifying subsequent highest output power channels to apply the test reduction.
- When the specified maximum output power is the same for both UNII 1 and UNII 2A, begin SAR measurements in UNII 2A with the channel with the highest measured output power. If the reported SAR for UNII 2A is ≤ 1.2 W/kg, SAR is not required for UNII 1; otherwise treat the remaining bands separately and test them independently for SAR.
- When the specified maximum output power is different between UNII 1 and UNII 2A, begin SAR with the band that has the higher specified maximum output. If the highest reported SAR for the band with the highest specified power is ≤ 1.2 W/kg, testing for the band with the lower specified output power is not required; otherwise test the remaining bands independently for SAR.

To determine the *initial test position*, Area Scans were performed to determine the position with the *Maximum Value of SAR (measured)*. The position that produced the highest *Maximum Value of SAR* is considered the worst case position; thus used as the *initial test position*.

10.1 W-CDMA Band II

RF Exposure Conditions	Antenna	Mode	Pwr back Off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	
Standalone	Main 2 Ant.	Rel 99 RMC	Off	11	Rear	9400	1880.0	23.5	22.9	0.647	0.740	
		Rel 99 RMC	On	0	Rear	9262	1852.4	17.5	17.0	0.810	0.901	
						9400	1880.0	17.5	17.0	0.951	1.078	1
						9538	1907.6	17.5	17.0	0.787	0.881	

Note(s):
1. Test results were refer to reference model (FCC ID : A3LNP545XLA).

10.2 W-CDMA Band IV

RF Exposure Conditions	Antenna	Mode	Pwr back Off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	
Standalone	Main 2 Ant.	Rel 99 RMC	Off	11	Rear	1413	1732.6	23.5	22.9	0.668	0.768	
		Rel 99 RMC	On	0	Rear	1312	1712.4	17.0	16.5	0.724	0.812	
						1413	1732.6	17.0	16.5	0.822	0.933	2
						1513	1752.6	17.0	16.3	0.748	0.878	

Note(s):
1. Test results were refer to reference model (FCC ID : A3LNP545XLA).

10.3 W-CDMA Band V

RF Exposure Conditions	Antenna	Mode	Pwr back Off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		Plot No.
								Tune-up limit	Meas.	Meas.	Scaled	
Standalone	Main 1 Ant.	Rel 99 RMC	Off	14	Rear	4183	836.6	24.5	24.0	0.509	0.577	
		Rel 99 RMC	On	0	Rear	4183	836.6	21.0	20.4	0.620	0.716	3

Note(s):
1. Test results were refer to reference model (FCC ID : A3LNP545XLA).

10.4 LTE Band 7 (20MHz Bandwidth)

RF Exposure Conditions	Antenna	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Standalone	Main 2 Ant.	QPSK	Off	11	Rear	20850	2510.0	1	49	24.0	23.3	0.862	1.024	
						21100	2535.0	1	49	24.0	23.4	0.766	0.875	
								50	24	23.0	22.5	0.641	0.726	
						21350	2560.0	1	49	24.0	23.3	0.715	0.843	
		QPSK	On	0	Rear	20850	2510.0	1	49	17.5	16.7	0.950	1.152	
								50	24	17.5	16.8	0.919	1.082	
						21100	2535.0	1	49	17.5	16.8	0.927	1.089	
								50	24	17.5	16.9	0.943	1.092	
								100	0	17.5	16.8	0.993	1.177	4
						21350	2560.0	1	49	17.5	16.8	0.958	1.132	
								50	24	17.5	16.7	0.961	1.143	

Note(s):
1. Test results were refer to reference model (FCC ID : A3LNP545XLA).

10.5 LTE Band 12 (10MHz Bandwidth)

RF Exposure Conditions	Antenna	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Standalone	Main 1 Ant.	QPSK	Off	14	Rear	23095	707.5	1	0	24.5	23.8	0.406	0.475	
								25	12	23.5	23.0	0.342	0.383	
		QPSK	On	0	Rear	23095	707.5	1	0	21.0	20.3	0.506	0.594	
								25	12	21.0	20.4	0.546	0.629	5

Note(s):
1. Test results were refer to reference model (FCC ID : A3LNP545XLA).

10.6 LTE Band 13 (10MHz Bandwidth)

RF Exposure Conditions	Antenna	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Standalone	Main 1 Ant.	QPSK	Off	14	Rear	23230	782.0	1	0	24.5	23.6	0.561	0.689	
								25	0	23.5	22.5	0.450	0.561	
		QPSK	On	0	Rear	23230	782.0	1	0	21.0	19.9	0.637	0.826	
								25	0	21.0	19.9	0.653	0.843	
								50	0	21.0	19.8	0.641	0.844	6

Note(s):
1. Test results were refer to reference model (FCC ID : A3LNP545XLA).

10.7 LTE Band 25 (20MHz Bandwidth)

RF Exposure Conditions	Antenna	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Standalone	Main 2 Ant.	QPSK	Off	11	Rear	26140	1860.0	1	99	24.5	24.0	0.647	0.725	
						26365	1882.5	1	99	24.5	24.0	0.647	0.721	
						26590	1905.0	1	99	24.5	24.1	0.781	0.858	
								50	24	23.5	23.3	0.654	0.686	
		QPSK	On	0	Rear	26140	1860.0	1	99	17.5	17.0	0.929	1.050	
								50	24	17.5	17.1	0.950	1.040	
						26365	1882.5	1	99	17.5	17.0	0.948	1.053	
								50	24	17.5	17.1	0.964	1.055	
						26590	1905.0	1	99	17.5	17.1	0.980	1.070	
								50	24	17.5	17.2	0.984	1.057	
								100	0	17.5	17.1	0.981	1.088	7

10.8 LTE Band 26 (15MHz Bandwidth)

RF Exposure Conditions	Antenna	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Standalone	Main 1 Ant.	QPSK	Off	14	Rear	26865	831.5	1	0	24.5	23.7	0.440	0.529	
								36	20	23.5	22.6	0.347	0.423	
		QPSK	On	0	Rear	26865	831.5	1	0	21.5	20.7	0.740	0.884	
								36	20	21.5	20.7	0.726	0.879	
								75	0	21.5	20.6	0.794	0.976	8

10.9 LTE Band 41 (20MHz Bandwidth)

LTE Band 41 Power Class 3

RF Exposure Conditions	Antenna	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Standalone	Main 2 Ant.	QPSK	Off	11	Rear	39750	2506.0	1	0	25.0	23.8	0.380	0.506	
						40185	2549.5	1	0	25.0	23.8	0.471	0.617	
						40620	2593.0	1	0	25.0	23.6	0.543	0.746	
						41055	2636.5	1	0	25.0	23.6	0.582	0.811	
						41490	2680.0	1	0	25.0	23.9	0.528	0.683	
								50	0	24.0	23.1	0.481	0.592	
		QPSK	On	0	Rear	39750	2506.0	1	49	18.0	17.4	0.732	0.840	
								50	0	18.0	17.2	0.756	0.907	
						40185	2549.5	1	49	18.0	17.3	0.757	0.879	
								50	0	18.0	17.3	0.775	0.912	
						40620	2593.0	1	49	18.0	16.9	0.713	0.913	
								50	0	18.0	16.9	0.747	0.959	9
						41055	2636.5	1	49	18.0	17.3	0.692	0.815	
								50	0	18.0	17.2	0.719	0.869	
						41490	2680.0	1	49	18.0	17.6	0.729	0.808	
								50	0	18.0	17.5	0.750	0.850	
								100	0	18.0	17.5	0.794	0.884	

LTE Band 41 Power Class 2

RF Exposure Conditions	Antenna	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Standalone	Main 2 Ant.	QPSK	Off	11	Rear	41055	2636.5	1	0	27.0	25.3	0.595	0.877	
		QPSK	On	0	Rear	40620	2593.0	50	0	19.5	18.5	0.721	0.902	

UL CA 41C Power Class 3

RF Exposure Conditions	Antenna	Mode	PWR Back-off	Dist. (mm)	Test Position	PCC UL				SCC UL				Power (dBm)		1-g SAR (W/kg)		Plot No.
						Ch #.	Freq. (MHz)	RB Allocation	RB offest	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Tune-up limit	Meas.	Meas.	Scaled	
Standalone	Main 2 Ant.	QPSK	On	0	Rear	40620	2593.0	50	0	40422	2573.2	50	50	18.0	17.1	0.598	0.744	

UL CA 41C Power Class 2

RF Exposure Conditions	Antenna	Mode	PWR Back-off	Dist. (mm)	Test Position	PCC UL				SCC UL				Power (dBm)		1-g SAR (W/kg)		Plot No.
						Ch #.	Freq. (MHz)	RB Allocation	RB offest	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Tune-up limit	Meas.	Meas.	Scaled	
Standalone	Main 2 Ant.	QPSK	On	0	Rear	40620	2593.0	50	0	40422	2573.2	50	50	19.5	18.7	0.621	0.747	

From May 2017 TCB workshop, SAR tested were performed using Power Class 3. SAR test for 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 UL-DL configurations, configuration # 1 with duty cycle 43.3% is used for Power Class 2 SAR test.

Additional SAR testing for Power Class 2 is not required when:

- The reported SAR vs. output power can be linearly scaled with < 10% discrepancy between power classes and all reported SAR are < 1.4 or 3.5 W/kg (1-g or 10-g respectively)

LTE Band 41 : Reported SAR vs. Output power linearly scaled

RF Exposure Conditions	Antenna	Power Class 2				Power Class 3				PC2 linearly scaled Reported SAR (W/kg)	Linearly scaled (<10%)
		Duty Cycle (%)	Tune-up Power (dBm)	Fram Avg. Power (dBm)	Reported SAR (W/kg)	Duty Cycle	Tune-up Power (dBm)	Fram Avg. Power (dBm)	Reported SAR (W/kg)		
Standalone	Main 2 Ant.	43.3	27.0	217.0	0.877	63.3	25.0	200.2	0.811	0.879	-0.3
		43.3	19.5	38.6	0.902	63.3	18.0	39.9	0.959	0.927	-2.7

UL CA 41C : Reported SAR vs. Output power linearly scaled

RF Exposure Conditions	Antenna	Power Class 2				Power Class 3				PC2 linearly scaled Reported SAR (W/kg)	Linearly scaled (<10%)
		Duty Cycle (%)	Tune-up Power (dBm)	Fram Avg. Power (dBm)	Reported SAR (W/kg)	Duty Cycle	Tune-up Power (dBm)	Fram Avg. Power (dBm)	Reported SAR (W/kg)		
Standalone	Main 2 Ant.	43.3	19.5	38.6	0.747	63.3	18.0	39.9	0.744	0.719	3.9

Note(s):

SAR test for Power Class 2 is not required base on the reported SAR < 1.4 or 3.5 W/kg (1-g or 10-g respectively) and reported SAR vs. output power linearly scaled < 10%.

10.10 LTE Band 66 (20MHz Bandwidth)

RF Exposure Conditions	Antenna	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Standalone	Main 2 Ant.	QPSK	Off	11	Rear	132072	1720.0	1	99	24.5	23.8	0.883	1.032	
								50	0	23.5	22.9	0.776	0.884	
								100	0	23.5	22.9	0.758	0.878	
						132322	1745.0	1	99	24.5	23.7	0.988	1.177	10
								50	0	23.5	22.8	0.795	0.934	
						132572	1770.0	1	99	24.5	23.7	0.928	1.114	
								50	0	23.5	22.7	0.823	0.990	
		QPSK	On	0	Rear	132072	1720.0	1	49	17.5	16.7	0.789	0.950	
								50	0	17.5	16.8	0.807	0.952	
								100	0	17.5	16.7	0.802	0.968	
						132322	1745.0	1	49	17.5	16.5	0.876	1.105	
								50	0	17.5	16.6	0.863	1.056	
						132572	1770.0	1	49	17.5	16.5	0.865	1.088	
								50	0	17.5	16.5	0.871	1.094	

Note(s):

1. Test results were refer to reference model (FCC ID : A3LNP545XLA).

10.11 LTE Band 71 (20MHz Bandwidth)

RF Exposure Conditions	Antenna	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Plot No.
										Tune-up limit	Meas.	Meas.	Scaled	
Standalone	Main 1 Ant.	QPSK	Off	14	Rear	133297	680.5	1	49	24.5	23.4	0.356	0.463	
								50	24	23.5	22.4	0.284	0.363	
		QPSK	On	0	Rear	133297	680.5	1	49	21.0	20.0	0.839	1.066	
								50	24	21.0	19.9	0.852	1.093	
								100	0	21.0	19.7	0.827	1.110	11

10.12 NR Band n25 (20MHz Bandwidth)

RF Exposure Conditions	Antenna	Modulation	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Note	Plot No.
											Tune-up limit	Meas.	Meas.	Scaled		
Standalone	Main 2 Ant.	DFT-s-OFDM	QPSK	Off	11	Rear	372000	1860.0	1	1	24.5	23.7	0.870	1.037		
									50	28	24.5	23.8	0.855	1.001		
									100	0	23.5	22.7	0.721	0.871		
							376500	1882.5	1	1	24.5	23.6	0.967	1.188		12
									50	28	24.5	23.7	0.907	1.086		
							381000	1905.0	1	1	24.5	23.7	0.710	0.858		
									50	28	24.5	23.8	0.849	1.008		
		DFT-s-OFDM	QPSK	On	0	Rear	372000	1860.0	1	1	17.5	17.2	0.996	1.057		
									50	28	17.5	17.4	0.989	1.011		
									100	0	17.5	17.3	0.946	0.988		
							376500	1882.5	1	1	17.5	17.1	0.978	1.064		
									50	28	17.5	17.3	0.963	1.011		
							381000	1905.0	1	1	17.5	17.0	0.959	1.070		
									50	28	17.5	17.2	0.961	1.028		
		CP-OFDM	QPSK	Off	11	Rear	376500	1882.5	1	1	23.0	22.2	0.688	0.826	1	

Note(s):

1. CP-OFDM mode were evaluated at worst configuration of DFT-s-OFDM in standalone exposure conditions.

10.13 NR Band n41 (100MHz Bandwidth)

RF Exposure Conditions	Antenna	Power Class	Modulation	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Note	Plot No.
												Tune-up limit	Meas.	Meas.	Scaled		
Standalone	Main 2 Ant.	Power Class 3	DFT-s-OFDM	QPSK	Off	11	Rear	518598	2593.0	1	1	24.5	24.2	0.659	0.709		
										135	69	24.5	24.0	0.682	0.764		
										270	0	23.5	23.1	0.549	0.603		
		Power Class 2	DFT-s-OFDM	QPSK	Off	11	Rear	518598	2593.0	1	1	27.0	26.2	0.793	0.958		
										135	69	27.0	25.8	0.795	1.043		
										270	0	26.0	24.9	0.754	0.976		
		Power Class 2 & 3	DFT-s-OFDM	QPSK	On	0	Rear	518598	2593.0	1	1	16.0	15.3	0.923	1.082		13
										135	69	16.0	15.4	0.822	0.946		
										270	0	16.0	15.4	0.821	0.949		
			CP-OFDM	QPSK	Off	0	Rear	518598	2593.0	1	1	16.0	15.3	0.879	1.030	1	

Note(s):

1. CP-OFDM mode were evaluated at worst configuration of DFT-s-OFDM in standalone exposure conditions.

10.14 NR Band n66 (20MHz Bandwidth)

RF Exposure Conditions	Antenna	Modulation	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Note	Plot No.
											Tune-up limit	Meas.	Meas.	Scaled		
Standalone	Main 2 Ant.	DFT-s-OFDM	QPSK	Off	11	Rear	344000	1720.0	1	1	24.5	23.6	0.879	1.093		
									50	28	24.5	23.5	0.941	1.196		
									100	0	23.5	22.6	0.739	0.907		
							349000	1745.0	1	1	24.5	23.4	0.927	1.195		
									50	28	24.5	23.4	0.964	1.246		
							354000	1770.0	1	1	24.5	23.4	0.972	1.239		
									50	28	24.5	23.4	0.977	1.247		14
		DFT-s-OFDM	QPSK	On	0	Rear	344000	1720.0	1	1	17.5	17.0	0.784	0.870		
									50	28	17.5	17.1	0.924	1.012		
									100	0	17.5	17.1	0.797	0.881		
							349000	1745.0	1	1	17.5	16.9	0.853	0.975		
									50	28	17.5	16.9	0.904	1.047		
							354000	1770.0	1	1	17.5	16.8	0.930	1.083		
									50	28	17.5	16.7	0.914	1.087		
		CP-OFDM	QPSK	Off	11	Rear	354000	1770.0	1	1	23.0	22.0	0.667	0.838	1	

Note(s):

1. Test results were refer to reference model (FCC ID : A3LNP545XLA).

10.15 NR Band n71 (20MHz Bandwidth)

RF Exposure Conditions	Antenna	Modulation	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	RB Allocation	RB offest	Power (dBm)		1-g SAR (W/kg)		Note	Plot No.
											Tune-up limit	Meas.	Meas.	Scaled		
Standalone	Main 1 Ant.	DFT-s-OFDM	QPSK	Off	14	Rear	136100	680.5	1	1	24.5	23.8	0.334	0.391		
									50	28	24.5	23.9	0.347	0.401		
		DFT-s-OFDM	QPSK	On	0	Rear	136100	680.5	1	1	21.0	20.6	0.782	0.854		
									50	28	21.0	20.6	0.836	0.912		
									100	0	21.0	20.6	0.936	1.031		15
		CP-OFDM	QPSK	On	0	Rear	136100	680.5	1	1	21.0	20.7	0.739	0.800	1	

Note(s):

2. CP-OFDM mode were evaluated at worst configuration of DFT-s-OFDM in standalone exposure conditions.

10.16 Wi-Fi (DTS Band)

Frequency Band	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle (%)	Power (dBm)		1-g SAR (W/kg)		Note	Plot No.
									Tune-up limit	Meas.	Meas.	Scaled		
2.4GHz SISO Ant 1	802.11b 1 Mbps	Standalone	Off	3	Rear	11	2462.0	99.4%	17.0	16.9	0.410	0.418		16
			On	0	Rear	11	2462.0	99.4%	13.0	12.8	0.277	0.291		
2.4GHz SISO Ant 2	802.11b 1 Mbps	Standalone	Off	3	Rear	1	2412.0	99.4%	17.0	17.0	0.387	0.391		
			On	0	Rear	6	2437.0	99.4%	13.0	12.9	0.290	0.301		
2.4GHz MIMO Ant 1	802.11g 6 Mbps	Standalone	Off	3	Rear	6	2437.0	96.4%	16.0	15.0	0.544	0.709		
			On	0	Rear	6	2437.0	96.4%	13.0	12.0	0.369	0.480		
2.4GHz MIMO Ant 2	802.11g 6 Mbps	Standalone	Off	3	Rear	6	2437.0	96.4%	16.0	14.9	0.567	0.765		17
			On	0	Rear	6	2437.0	96.4%	13.0	11.9	0.364	0.486		

Note(s):

1. Testing for a second channel was required because the reported SAR for this test position was > 0.8 or 2.0 W/kg (1-g or 10-g respectively).
2. SAR testing is not required for OFDM mode(s) 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.
3. Testing for a second channel was required because the reported SAR for this test position was > 0.8 or 2.0 W/kg (1-g or 10-g respectively).
4. MIMO SAR test were additionally evaluated for determining simultaneous transmission SAR test exclusion.
5. Test results were refer to reference model (FCC ID : A3LNP545XLA).

10.17 Wi-Fi (U-NII Bands)

U-NII 2A Results

Frequency Band	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle (%)	Power (dBm)		1-g SAR (W/kg)		Note	Plot No.
									Tune-up limit	Meas.	Meas.	Scaled		
5.3 GHz U-NII 2A (SISO Ant 1)	802.11a 6 Mbps	Standalone	Off	3	Rear	60	5300.0	96.6%	15.0	14.1	0.307	0.389		
	802.11ac (VHT80) MCS0		On	0	Rear	58	5290.0	95.8%	11.0	10.0	0.281	0.373		
5.3 GHz U-NII 2A (SISO Ant 2)	802.11a 6 Mbps	Standalone	Off	3	Rear	60	5300.0	96.6%	15.0	14.6	0.403	0.457		
	802.11ac (VHT80) MCS0		On	0	Rear	58	5290.0	95.8%	11.0	9.1	0.360	0.578		18
5.3 GHz U-NII 2A (MIMO Ant 1)	802.11a 6 Mbps	Standalone	Off	3	Rear	60	5300.0	96.7%	15.0	14.1				
					Rear	64	5320.0	96.7%	15.0	13.8	0.351	0.481		
	802.11ac (VHT80) MCS0		On	0	Rear	58	5290.0	92.1%	11.0	9.8	0.251	0.357		
5.3 GHz U-NII 2A (MIMO Ant 2)	802.11a 6 Mbps	Standalone	Off	3	Rear	60	5300.0	96.7%	15.0	13.5	0.562	0.814	3	19
					Rear	64	5320.0	96.7%	15.0	13.6	0.560	0.805		
	802.11ac (VHT80) MCS0		On	0	Rear	58	5290.0	92.1%	11.0	9.0	0.422	0.724		

U-NII 2C Results

Frequency Band	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle (%)	Power (dBm)		1-g SAR (W/kg)		Note	Plot No.
									Tune-up limit	Meas.	Meas.	Scaled		
5.5 GHz U-NII 2C (SISO Ant 1)	802.11a 6 Mbps	Standalone	Off	3	Rear	124	5620.0	96.6%	15.0	13.9	0.275	0.368		
	802.11ac (VHT80) MCS0		On	0	Rear	138	5690.0	95.8%	11.0	9.5	0.314	0.463		
5.5 GHz U-NII 2C (SISO Ant 2)	802.11a 6 Mbps	Standalone	Off	3	Rear	100	5500.0	96.6%	15.0	14.2	0.531	0.658	3	
					Rear	144	5720.0	96.6%	15.0	14.5	0.818	0.941		20
	802.11ac (VHT80) MCS0		On	0	Rear	106	5530.0	95.8%	11.0	9.7	0.463	0.656		
5.5 GHz U-NII 2C (MIMO Ant 1)	802.11a 6 Mbps	Standalone	Off	3	Rear	100	5500.0	96.7%	15.0	13.8				
					Rear	144	5720.0	96.7%	15.0	13.6				
	802.11ac (VHT80) MCS0		On	0	Rear	106	5530.0	92.1%	11.0	9.2				
					Rear	138	5690.0	92.1%	11.0	9.4				
5.5 GHz U-NII 2C (MIMO Ant 2)	802.11a 6 Mbps	Standalone	Off	3	Rear	100	5500.0	96.7%	15.0	14.1	0.571	0.720	3	
					Rear	144	5720.0	96.7%	15.0	14.4	0.767	0.903		21
	802.11ac (VHT80) MCS0		On	0	Rear	106	5530.0	92.1%	11.0	9.6	0.553	0.832		
					Rear	138	5690.0	92.1%	11.0	9.3	0.533	0.856	3	

Note(s):

1. Testing for a second channel was required because the reported SAR for this test position was > 0.8 or 2.0 W/kg (1-g or 10-g respectively).
2. SAR testing is not required for OFDM mode(s) 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.
3. Testing for a second channel was required because the reported SAR for this test position was > 0.8 or 2.0 W/kg (1-g or 10-g respectively).
4. MIMO SAR test were additionally evaluated for determining simultaneous transmission SAR test exclusion.
5. Test results were refer to reference model (FCC ID : A3LNP545XLA).

U-NII 3 Results

Frequency Band	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle (%)	Power (dBm)		1-g SAR (W/kg)		Note	Plot No.
									Tune-up limit	Meas.	Meas.	Scaled		
5.8 GHz U-NII 3 (SISO Ant 1)	802.11a 6 Mbps	Standalone	Off	3	Rear	157	5785.0	96.6%	15.0	13.9	0.295	0.398		
	802.11ac (VHT80) MCS0		On	0	Rear	155	5775.0	95.8%	11.0	9.4	0.360	0.549		
5.8 GHz U-NII 3 (SISO Ant 2)	802.11a 6 Mbps	Standalone	Off	3	Rear	149	5745.0	96.6%	15.0	13.8	0.632	0.856	3	
					Rear	157	5785.0	96.6%	15.0	13.9	0.618	0.830		
	802.11ac (VHT80) MCS0		On	0	Rear	155	5775.0	95.8%	11.0	9.1	0.672	1.094		22
5.8 GHz U-NII 3 (MIMO Ant 1)	802.11a 6 Mbps	Standalone	Off	3	Rear	157	5785.0	96.7%	15.0	13.8				
					Rear	165	5825.0	96.7%	15.0	13.8				
	802.11ac (VHT80) MCS0		On	0	Rear	155	5775.0	92.1%	11.0	9.2				
5.8 GHz U-NII 3 (MIMO Ant 2)	802.11a 6 Mbps	Standalone	Off	3	Rear	157	5785.0	96.7%	15.0	13.8	0.644	0.887		
					Rear	165	5825.0	96.7%	15.0	13.6	0.648	0.928		
	802.11ac (VHT80) MCS0		On	0	Rear	155	5775.0	92.1%	11.0	9.0	0.697	1.199		23

Note(s):

1. Testing for a second channel was required because the reported SAR for this test position was > 0.8 or 2.0 W/kg (1-g or 10-g respectively).
2. SAR testing is not required for OFDM mode(s) 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.
3. Testing for a second channel was required because the reported SAR for this test position was > 0.8 or 2.0 W/kg (1-g or 10-g respectively).
4. MIMO SAR test were additionally evaluated for determining simultaneous transmission SAR test exclusion.
5. Test results were refer to reference model (FCC ID : A3LNP545XLA).

10.18 Bluetooth

Frequency Band	Mode	RF Exposure Conditions	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle (%)	Power (dBm)		1-g SAR (W/kg)		Plot No.
									Tune-up limit	Meas.	Meas.	Scaled	
2.4GHz	GFSK	Standalone	N/A	0	Rear	39	2441.0	76.7%	16.0	15.4	0.241	0.361	24

Note(s):

1. Test results were refer to reference model (FCC ID : A3LNP545XLA).

11. SAR Measurement Variability

In accordance with published RF Exposure KDB 865664 D01 SAR measurement 100 MHz to 6 GHz. These additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

1) Repeated measurement is not required when the original highest measured SAR is <0.8 or 2 W/kg (1-g or 10-g respectively); steps 2) through 4) do not apply.
2) When the original highest measured SAR is ≥ 0.8 or 2 W/kg (1-g or 10-g respectively), repeat that measurement once.
3) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is ≥ 1.45 or 3.6 W/kg (~ 10% from the 1-g or 10-g respective SAR limit).
4) Perform a third repeated measurement only if the original, first, or second repeated measurement is ≥ 1.5 or 3.75 W/kg (1-g or 10-g respectively) and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.

Peak spatial-average (1g of tissue)

Frequency Band (MHz)	Air Interface	RF Exposure Conditions	Test Position	Repeated SAR (Yes/No)	Highest Measured SAR (W/kg)	Repeated Measured SAR (W/kg)	Largest to Smallest SAR Ratio
700	LTE Band 12	Standalone	Rear	No	0.546	N/A	N/A
	LTE Band 13	Standalone	Rear	No	0.653	N/A	N/A
	LTE Band 71	Standalone	Rear	No	0.852	N/A	N/A
	NR Band n71	Standalone	Rear	Yes	0.936	0.918	1.02
835	WCDMA Band V	Standalone	Rear	No	0.620	N/A	N/A
	LTE Band 26	Standalone	Rear	No	0.794	N/A	N/A
1750	WCDMA Band IV	Standalone	Rear	No	0.822	N/A	N/A
	LTE Band 66	Standalone	Rear	Yes	1.000	0.951	1.05
	NR Band n66	Standalone	Rear	No	0.977	N/A	N/A
1900	WCDMA Band II	Standalone	Rear	No	0.951	N/A	N/A
	LTE Band 25	Standalone	Rear	No	0.984	N/A	N/A
	NR Band n25	Standalone	Rear	Yes	0.996	0.985	1.01
2400	Wi-Fi 802.11b/g/n	Standalone	Rear	No	0.567	N/A	N/A
	Bluetooth	Standalone	Rear	No	0.241	N/A	N/A
2600	LTE Band 7	Standalone	Rear	Yes	0.993	0.962	1.03
	LTE Band 41	Standalone	Rear	No	0.794	N/A	N/A
	NR Band n41	Standalone	Rear	No	0.923	N/A	N/A
5250	Wi-Fi 802.11a/n	Standalone	Rear	No	0.562	N/A	N/A
5500	Wi-Fi 802.11a/n	Standalone	Rear	Yes	0.818	0.801	1.02
5800	Wi-Fi 802.11a/n	Standalone	Rear	No	0.697	N/A	N/A

Note(s):

Second Repeated Measurement is not required since the ratio of the largest to smallest SAR for the original and first repeated measurement is not > 1.20.

12. Simultaneous Transmission SAR Analysis

Simultaneous Transmission Condition

RF Exposure Condition	Item	Capable Transmit Configurations					
Standalone	1		DTS_Ant.1	+	DTS_Ant.2		Non-RSDB
	2		UNII Ant.1				Non-RSDB
	3		UNII Ant.2				Non-RSDB
	4		UNII Ant.1	+	UNII Ant.2		Non-RSDB
	5		UNII Ant.1 + UNII Ant.2	+	BT		Non-RSDB
	6		DTS_Ant.1 + DTS Ant_2	+	UNII Ant.1 + UNII Ant.2		RSDB
	7		BT + DTS Ant_2	+	UNII Ant.1 + UNII Ant.2		RSDB
	8		DTS_Ant.1	+	DTS_Ant.2		Non-RSDB
	9		UNII Ant.1				Non-RSDB
	10		UNII Ant.2				Non-RSDB
	11		UNII Ant.1	+	UNII Ant.2		Non-RSDB
	12		UNII Ant.1 + UNII Ant.2	+	BT		Non-RSDB
	13		DTS_Ant.1 + DTS Ant_2	+	UNII Ant.1 + UNII Ant.2		RSDB
	14		BT + DTS Ant_2	+	UNII Ant.1 + UNII Ant.2		RSDB
	15	W-CDMA or LTE	+ DTS_Ant.1	+	DTS_Ant.2		Non-RSDB
	16	W-CDMA or LTE	+ UNII Ant.1				Non-RSDB
	17	W-CDMA or LTE	+ UNII Ant.2				Non-RSDB
	18	W-CDMA or LTE	+ UNII Ant.1	+	UNII Ant.2		Non-RSDB
	19	W-CDMA or LTE	+ UNII Ant.1 + UNII Ant.2	+	BT		Non-RSDB
	20	W-CDMA or LTE	+ DTS_Ant.1 + DTS Ant_2	+	UNII Ant.1 + UNII Ant.2		RSDB
	21	W-CDMA or LTE	+ BT + DTS Ant_2	+	UNII Ant.1 + UNII Ant.2		RSDB
	22	NR or EN-DC (LTE + NR)	+ DTS_Ant.1	+	DTS_Ant.2		Non-RSDB
	23	NR or EN-DC (LTE + NR)	+ UNII Ant.1				Non-RSDB
	24	NR or EN-DC (LTE + NR)	+ UNII Ant.2				Non-RSDB
	25	NR or EN-DC (LTE + NR)	+ UNII Ant.1	+	UNII Ant.2		Non-RSDB
	26	NR or EN-DC (LTE + NR)	+ UNII Ant.1 + UNII Ant.2	+	BT		Non-RSDB
	27	NR or EN-DC (LTE + NR)	+ DTS_Ant.1 + DTS Ant_2	+	UNII Ant.1 + UNII Ant.2		RSDB
	28	NR or EN-DC (LTE + NR)	+ BT + DTS Ant_2	+	UNII Ant.1 + UNII Ant.2		RSDB

Notes:

1. DTS supports Wi-Fi Direct, Hotspot and VoIP.
2. U-NII supports Wi-Fi Direct, Hotspot and VoIP.
3. DTS Radio and Bluetooth cannot transmit SISO mode.
4. U-NII Radio can transmit simultaneously with Bluetooth Radio.
5. DTS Ant.2 Radio only can transmit simultaneously with Bluetooth Radio.
6. NR Radio can transmit through both SA & NSA(EN-DC) modes.

Note(s):

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 FCC limit. Therefore, simultaneous transmission compliance between 4G+5G NR operation is demonstrated in the Part 2 Report during algorithm validation. In Part 1 Report, simultaneous transmission compliance was evaluated individually with other Radios (WLAN or BT) using one of 4G or 5G NR.

Simultaneous transmission SAR test exclusion considerations

KDB 447498 D01 General RF Exposure Guidance provides two procedures for determining simultaneous transmission SAR test exclusion: Sum of SAR and SAR to Peak Location Ratio (SPLSR)

Sum of SAR

To qualify for simultaneous transmission SAR test exclusion based upon Sum of SAR the sum of the reported standalone SARs for all simultaneously transmitting antennas shall be below the applicable standalone SAR limit. If the sum of the SARs is above the applicable limit then simultaneous transmission SAR test exclusion may still apply if the requirements of the SAR to Peak Location Ratio (SPLSR) evaluation are met.

SAR to Peak Location Ratio (SPLSR)

KDB 447498 D01 General RF Exposure Guidance explains how to calculate the SAR to Peak Location Ratio (SPLSR) between pairs of simultaneously transmitting antennas:

$$SPLSR = (SAR_1 + SAR_2)^{1.5} / Ri$$

Where:

SAR_1 is the highest reported or estimated SAR for the first of a pair of simultaneous transmitting antennas, in a specific test operating mode and exposure condition

SAR_2 is the highest reported or estimated SAR for the second of a pair of simultaneous transmitting antennas, in the same test operating mode and exposure condition as the first

Ri is the separation distance between the pair of simultaneous transmitting antennas. When the SAR is measured, for both antennas in the pair, it is determined by the actual x, y and z coordinates in the 1-g SAR for each SAR peak location, based on the extrapolated and interpolated result in the zoom scan measurement, using the formula of

$$[(x_1-x_2)^2 + (y_1-y_2)^2 + (z_1-z_2)^2]$$

In order for a pair of simultaneous transmitting antennas with the sum of 1-g SAR > 1.6 W/kg to qualify for exemption from Simultaneous Transmission SAR measurements, it has to satisfy the condition of:

$$(SAR_1 + SAR_2)^{1.5} / Ri \leq 0.04$$

When an individual antenna transmits at on two bands simultaneously, the sum of the highest *reported* SAR for the frequency bands should be used to determine SAR_1.or SAR_2. When SPLSR is necessary, the smallest distance between the peak SAR locations for the antenna pair with respect to the peaks from each antenna should be used.

The antennas in all antenna pairs that do not qualify for simultaneous transmission SAR test exclusion must be tested for SAR compliance, according to the enlarged zoom scan and volume scan post-processing procedures in KDB Publication 865664 D01

The antennas for the unlicensed transmitters are closely situated. As a result, the associated SAR hotspots are also closely situated. Some of the sum of SAR calculations yielded results over 1.6 W/kg. The SPSLR calculations for these situations were performed by treating the unlicensed SAR values as a single transmitter. The most conservative distance between all the unlicensed hotspots to the licensed hotspot was used for the value of *d* in the SPSLR calculation.

Simultaneous transmission SAR measurement

When simultaneous transmission SAR measurements are required in different frequency bands not covered by a single probe calibration point then separate tests for each frequency band are performed. The tests are performed using enlarged zoom scans which are processed, by means of superposition, using the DASY5 volume scan postprocessing procedures to determine the 1-g SAR for the aggregate SAR distribution.

The spatial resolution used for all enlarged zoom scans is the same as used for the most stringent zoom scans. I.E. the scan parameters required for the highest frequency assessed are used for all enlarged zoom scans. The scans cover the complete area of the device to ensure all transmitting antennas and radiating structures are assessed.

DASY5 provides the ability to perform Multiband Evaluations according to the latest standards using the Volume Scan job as well as appropriate routines for the Post-processing.

In order to extract and process measurements within different frequency bands, the SEMCAD X Post-processor performs the combination and subsequent superposition of these measurement data via DASY5= Combined MultiBand Averaged SAR.

Combined Multi Band Averaged SAR allows - in addition to the data extraction - an evaluation of the 1 g, 10 g and/or arbitrary averaged mass SAR.
Power Scaling Factor is used to allow the volume scans to be scaled by a value other than "1", this is important when the results need to be scaled to different maximum power levels. The Power Scaling Factor is applied to each individual point of the scan. When power scaling is used in multi-band combinations the scaling factor is applied to each individual point of the first scan, the second factor is then applied to each individual point of the second scan and so on. The scans are then combined.

SPLSR Hotspot Combination

Per November 2019 TCB Workshop Notes, SPLSR Hotspot Combination procedure can be applied to evaluate to simultaneous transmission SAR analysis.
Hybrid SPLSR and enlarged zoom scan (Volume scan) can be applied when Simultaneous transmission SAR is over 1.6 or 4.0 W/kg (1-g or 10-g respectively), it does not meet SPLSR criteria, and antenna pair is co-located. Antenna co-location means that SAR distributions overlap because the antennas are not significantly spatially separated.

Test procedure

Step.1 Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR.

Step.2 Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair.

12.1 Sum of the SAR for WCDMA Band II & Wi-Fi & BT

Test results were refer to reference model (FCC ID : A3LNP545XLA).

Test Position	Standalone SAR (W/kg)											∑ 1-g SAR (W/kg)						
	WWAN	Non RSDB			RSDB			Non RSDB & RSDB			BT	Non RSDB scenarios					RSDB scenarios	
		DTS Ant 1	DTS Ant 2	DTS MIMO	DTS Ant 1	DTS Ant 2	DTS MIMO	U-NII Ant 1	U-NII Ant 2	U-NII MIMO		WWAN + DTS Ant 1 + DTS Ant 2	WWAN + U-NII Ant.1	WWAN + U-NII Ant.2	WWAN + U-NII Ant.1 + U-NII Ant.2	WWAN + UNII Ant.1 + UNII Ant.2 + BT	WWAN + DTS (Ant.1 + Ant.2) + U-NII (Ant.1 + Ant.2)	WWAN + BT + DTS Ant.2 + U-NII (Ant.1 + Ant.2)
	1	2	3	4	5	6	7	8	9	10	11	1+2+3	1+8	1+9	1+8+9	1+8+9+11	1+5+6+8+9	1+6+8+9+11
Rear	1.078	0.418	0.391	0.765	0.291	0.301	0.486	0.549	1.094	1.199	0.361	1.887	1.627	2.172	2.721	3.082	3.313	3.383

SAR to Peak Location Separation Ratio (SPLSR)

Test Position	Hybrid SPLSR	Standalone SAR (W/kg)											SUM 1-g SAR (W/kg)		Calculated distance (mm)	SPLSR (=< 0.04)	Volume Scan (Yes/No) Note.1	Figure
		WWAN	Non RSDB			RSDB			Non RSDB & RSDB			BT						
			DTS Ant 1	DTS Ant 2	DTS MIMO	DTS Ant 1	DTS Ant 2	DTS MIMO	U-NII Ant 1	U-NII Ant 2	U-NII MIMO							
		1	2	3	4	5	6	7	8	9	10	11						
Rear	N/A	1.078	0.418	0.391									1+2+3	1.887				1
		1.078	0.418										1+2	1.496	213.9	0.01	No	
		1.078		0.391									1+3	1.469	168.3	0.01	No	
			0.418	0.391									2+3	0.809	56.8	0.01	No	
Rear	N/A	1.078							0.549				1+8	1.627	202.4	0.01	No	2
Rear	N/A	1.078								1.094			1+9	2.172	165.0	0.02	No	
Rear	N/A	1.078							0.549	1.094			1+8+9	2.721				
		1.078							0.549				1+8	1.627	202.4	0.01	No	
		1.078								1.094			1+9	2.172	165.0	0.02	No	
									0.549	1.094			8+9	1.643	51.2	0.04	No	
Rear		1.078							0.549	1.094		0.361	1+8+9+11	3.082				3
	MIMO SAR Note.3								1.199				(8+9)	1.199				
		1.078							1.199			0.361	1+(8+9)+11	2.638				
		1.078							1.199				1+(8+9)	2.277	166.9	0.02	No	
		1.078										0.361	1+11	1.439	212.3	0.01	No	
									1.199			0.361	(8+9)+11	1.560	55.0	0.04	No	
Rear		1.078				0.291	0.301		0.549	1.094			1+5+6+8+9	3.313				4
	MIMO SAR Note.3					0.486							(5+6)	0.486				
	MIMO SAR Note.3								1.199				(8+9)	1.199				
		1.078				0.486			1.199				1+(5+6)+(8+9)	2.763				
		1.078				0.486							1+(5+6)	1.564	170.4	0.01	No	
		1.078							1.199				1+(8+9)	2.277	166.9	0.02	No	
						0.486			1.199				(5+6)+(8+9)	1.685	5.2	0.42	Yes	
	Hybrid SPLSR Note.2	1.078						1.320					1+(5+6)+(8+9)	2.398	157.8	0.02	No	4-a
Rear		1.078					0.301		0.549	1.094		0.361	1+6+8+9+11	3.383				5
	MIMO SAR Note.3								1.199				(8+9)	1.199				
	Volume Scan Note.4							0.478					(6+11)	0.478				
		1.078							1.199			0.478	1+(8+9)+(6+11)	2.755				
		1.078							1.199				1+(8+9)	2.277	166.9	0.02	No	
		1.078										0.478	1+(6+11)	1.556	160.8	0.01	No	
									1.199			0.478	(8+9)+(6+11)	1.677	6.4	0.34	Yes	
	Hybrid SPLSR Note.2	1.078						1.310					1+(8+9+6+11)	2.388	157.8	0.02	No	5-a

Note(s):

1. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.16 for detailed Volume Scan Result.
2. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
3. MIMO SAR was used for Simultaneous transmission analysis.
4. Volume Scan SAR was used for Simultaneous transmission analysis.

12.2 Sum of the SAR for WCDMA Band IV & Wi-Fi & BT

Test results were refer to reference model (FCC ID : A3LNP545XLA).

Test Position	Standalone SAR (W/kg)											∑ 1-g SAR (W/kg)						
	WWAN	Non RSDB			RSDB			Non RSDB & RSDB			BT	Non RSDB scenarios					RSDB scenarios	
		DTS Ant 1	DTS Ant 2	DTS MIMO	DTS Ant 1	DTS Ant 2	DTS MIMO	U-NII Ant 1	U-NII Ant 2	U-NII MIMO		WWAN + DTS Ant 1 + DTS Ant 2	WWAN + U-NII Ant.1	WWAN + U-NII Ant.2	WWAN + U-NII Ant.1 + U-NII Ant.2	WWAN + UNII Ant.1 + UNII Ant.2 + BT	WWAN + DTS (Ant.1 + Ant.2) + U-NII (Ant.1 + Ant.2)	WWAN + BT + DTS Ant.2 + U-NII (Ant.1 + Ant.2)
	1	2	3	4	5	6	7	8	9	10	11	1+2+3	1+8	1+9	1+8+9	1+8+9+11	1+5+6+8+9	1+6+8+9+11
Rear	0.933	0.418	0.391	0.765	0.291	0.301	0.486	0.549	1.094	1.199	0.361	1.742	1.482	2.027	2.576	2.937	3.168	3.238

SAR to Peak Location Separation Ratio (SPLSR)

Test Position	Hybrid SPLSR	Standalone SAR (W/kg)											SUM 1-g SAR (W/kg)		Calculated distance (mm)	SPLSR (=< 0.04)	Volume Scan (Yes/No) Note.1	Figure
		WWAN	Non RSDB			RSDB			Non RSDB & RSDB			BT						
			DTS Ant 1	DTS Ant 2	DTS MIMO	DTS Ant 1	DTS Ant 2	DTS MIMO	U-NII Ant 1	U-NII Ant 2	U-NII MIMO							
		1	2	3	4	5	6	7	8	9	10	11						
Rear	N/A	0.933	0.418	0.391									1+2+3	1.742				6
		0.933	0.418										1+2	1.351	213.9	0.01	No	
		0.933		0.391									1+3	1.324	168.3	0.01	No	
			0.418	0.391									2+3	0.809	56.8	0.01	No	
Rear	N/A	0.933								1.094			1+9	2.027	165.0	0.02	No	7
Rear	N/A	0.933							0.549	1.094			1+8+9	2.576				
		0.933							0.549				1+8	1.482	202.4	0.01	No	
		0.933								1.094			1+9	2.027	165.0	0.02	No	
									0.549	1.094			8+9	1.643	51.2	0.04	No	
Rear		0.933							0.549	1.094		0.361	1+8+9+11	2.937				8
	MIMO SAR Note.3								1.199				(8+9)	1.199				
		0.933							1.199			0.361	1+(8+9)+11	2.493				
		0.933							1.199				1+(8+9)	2.132	166.9	0.02	No	
		0.933										0.361	1+11	1.294	212.3	0.01	No	
									1.199			0.361	(8+9)+11	1.560	55.0	0.04	No	
Rear		0.933				0.291	0.301		0.549	1.094			1+5+6+8+9	3.168				9
	MIMO SAR Note.3					0.486							(5+6)	0.486				
	MIMO SAR Note.3								1.199				(8+9)	1.199				
		0.933				0.486			1.199				1+(5+6)+(8+9)	2.618				
		0.933				0.486							1+(5+6)	1.419	170.3	0.01	No	
		0.933							1.199				1+(8+9)	2.132	166.9	0.02	No	
						0.486			1.199				(5+6)+(8+9)	1.685	5.2	0.42	Yes	
	Hybrid SPLSR Note.2	0.933				1.320							1+(5+6)+(8+9)	2.253	157.8	0.02	No	9-a
Rear		0.933					0.301		0.549	1.094		0.361	1+6+8+9+11	3.238				10
	MIMO SAR Note.3								1.199				(8+9)	1.199				
	Volume Scan Note.4						0.478						(6+11)	0.478				
		0.933							1.199			0.478	1+(8+9)+(6+11)	2.610				
		0.933							1.199				1+(8+9)	2.132	166.9	0.02	No	
		0.933										0.478	1+(6+11)	1.411	160.8	0.01	No	
									1.199			0.478	(8+9)+(6+11)	1.677	6.4	0.34	Yes	
	Hybrid SPLSR Note.2	0.933					1.310						1+(8+9+6+11)	2.243	157.8	0.02	No	10-a

Note(s):

1. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.16 for detailed Volume Scan Result.
2. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
3. MIMO SAR was used for Simultaneous transmission analysis.
4. Volume Scan SAR was used for Simultaneous transmission analysis.

12.3 Sum of the SAR for WCDMA Band V & Wi-Fi & BT

Test results were refer to reference model (FCC ID : A3LNP545XLA).

Test Position	Standalone SAR (W/kg)											∑ 1-g SAR (W/kg)						
	WWAN	Non RSDB			RSDB			Non RSDB & RSDB			BT	Non RSDB scenarios					RSDB scenarios	
		DTS Ant 1	DTS Ant 2	DTS MIMO	DTS Ant 1	DTS Ant 2	DTS MIMO	U-NII Ant 1	U-NII Ant 2	U-NII MIMO		WWAN + DTS Ant 1 + DTS Ant 2	WWAN + U-NII Ant.1	WWAN + U-NII Ant.2	WWAN + U-NII Ant.1 + U-NII Ant.2	WWAN + UNII Ant.1 + UNII Ant.2 + BT	WWAN + DTS (Ant.1 + Ant.2) + U-NII (Ant.1 + Ant.2)	WWAN + BT + DTS Ant.2 + U-NII (Ant.1 + Ant.2)
	1	2	3	4	5	6	7	8	9	10	11	1+2+3	1+8	1+9	1+8+9	1+8+9+11	1+5+6+8+9	1+6+8+9+11
Rear	0.716	0.418	0.391	0.765	0.291	0.301	0.486	0.549	1.094	1.199	0.361	1.525	1.265	1.810	2.359	2.720	2.951	3.021

SAR to Peak Location Separation Ratio (SPLSR)

Test Position	Hybrid SPLSR	Standalone SAR (W/kg)											SUM 1-g SAR (W/kg)		Calculated distance (mm)	SPLSR (=< 0.04)	Volume Scan (Yes/No) Note.1	Figure
		WWAN	Non RSDB			RSDB			Non RSDB & RSDB			BT						
			DTS Ant 1	DTS Ant 2	DTS MIMO	DTS Ant 1	DTS Ant 2	DTS MIMO	U-NII Ant 1	U-NII Ant 2	U-NII MIMO							
		1	2	3	4	5	6	7	8	9	10	11						
Rear	N/A	0.716								1.094			1+9	1.810	202.3	0.01	No	
Rear	N/A	0.716							0.549	1.094			1+8+9	2.359				11
		0.716							0.549				1+8	1.265	225.9	0.01	No	
		0.716								1.094			1+9	1.810	202.3	0.01	No	
									0.549	1.094			8+9	1.643	51.2	0.04	No	
Rear		0.716							0.549	1.094		0.361	1+8+9+11	2.720				
	MIMO SAR Note.3								1.199				(8+9)	1.199				
		0.716							1.199			0.361	1+(8+9)+11	2.276				12
		0.716							1.199				1+(8+9)	1.915	203.6	0.01	No	
		0.716										0.361	1+11	1.077	236.5	0.00	No	
									1.199			0.361	(8+9)+11	1.560	55.0	0.04	No	
Rear		0.716				0.291	0.301		0.549	1.094			1+5+6+8+9	2.951				
	MIMO SAR Note.3					0.486							(5+6)	0.486				
	MIMO SAR Note.3								1.199				(8+9)	1.199				13
		0.716				0.486			1.199				1+(5+6)+(8+9)	2.401				
		0.716				0.486							1+(5+6)	1.202	207.6	0.01	No	
		0.716							1.199				1+(8+9)	1.915	203.6	0.01	No	
						0.486			1.199				(5+6)+(8+9)	1.685	5.2	0.42	Yes	
	Hybrid SPLSR Note.2	0.716				1.320							1+(5+6)+(8+9)	2.036	194.6	0.01	No	13-a
Rear		0.716					0.301		0.549	1.094		0.361	1+6+8+9+11	3.021				
	MIMO SAR Note.3								1.199				(8+9)	1.199				
	Volume Scan Note.4						0.478						(6+11)	0.478				14
		0.716							1.199			0.478	1+(8+9)+(6+11)	2.393				
		0.716							1.199				1+(8+9)	1.915	203.6	0.01	No	
		0.716										0.478	1+(6+11)	1.194	198.3	0.01	No	
									1.199			0.478	(8+9)+(6+11)	1.677	6.4	0.34	Yes	
	Hybrid SPLSR Note.2	0.716					1.310						1+(8+9+6+11)	2.026	194.6	0.01	No	14-a

Note(s):

1. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.16 for detailed Volume Scan Result.
2. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
3. MIMO SAR was used for Simultaneous transmission analysis.
4. Volume Scan SAR was used for Simultaneous transmission analysis.

12.4 Sum of the SAR for LTE Band 7 & Wi-Fi & BT

Test results were refer to reference model (FCC ID : A3LNP545XLA).

Test Position	Standalone SAR (W/kg)											∑ 1-g SAR (W/kg)						
	WWAN	Non RSDB			RSDB			Non RSDB & RSDB			BT	Non RSDB scenarios					RSDB scenarios	
		DTS Ant 1	DTS Ant 2	DTS MIMO	DTS Ant 1	DTS Ant 2	DTS MIMO	U-NII Ant 1	U-NII Ant 2	U-NII MIMO		WWAN + DTS Ant 1+ DTS Ant.2	WWAN + U-NII Ant.1	WWAN + U-NII Ant.2	WWAN + U-NII Ant 1 + U-NII Ant.2	WWAN + UNII Ant.1 + UNII Ant.2 + BT	WWAN + DTS (Ant.1 + Ant.2) + U-NII (Ant.1 + Ant.2)	WWAN + BT + DTS Ant.2 + U-NII (Ant.1 + Ant.2)
	1	2	3	4	5	6	7	8	9	10	11	1+2+3	1+8	1+9	1+8+9	1+8+9+11	1+5+6+8+9	1+6+8+9+11
Rear	1.177	0.418	0.391	0.765	0.291	0.301	0.486	0.549	1.094	1.199	0.361	1.986	1.726	2.271	2.820	3.181	3.412	3.482

SAR to Peak Location Separation Ratio (SPLSR)

Test Position	Hybrid SPLSR	Standalone SAR (W/kg)											SUM 1-g SAR (W/kg)		Calculated distance (mm)	SPLSR (=< 0.04)	Volume Scan (Yes/No) Note.1	Figure
		WWAN	Non RSDB			RSDB			Non RSDB & RSDB			BT						
			DTS Ant 1	DTS Ant 2	DTS MIMO	DTS Ant 1	DTS Ant 2	DTS MIMO	U-NII Ant 1	U-NII Ant 2	U-NII MIMO							
		1	2	3	4	5	6	7	8	9	10	11						
Rear	N/A	1.177	0.418	0.391									1+2+3	1.986				15
		1.177	0.418										1+2	1.595	211.4	0.01	No	
		1.177		0.391									1+3	1.568	165.9	0.01	No	
			0.418	0.391									2+3	0.809	56.8	0.01	No	
Rear	N/A	1.177							0.549				1+8	1.726	199.9	0.01	No	16
Rear	N/A	1.177								1.094			1+9	2.271	162.7	0.02	No	
Rear	N/A	1.177							0.549	1.094			1+8+9	2.820				
		1.177							0.549				1+8	1.726	199.9	0.01	No	
		1.177								1.094			1+9	2.271	162.7	0.02	No	
									0.549	1.094			8+9	1.643	51.2	0.04	No	
Rear		1.177							0.549	1.094		0.361	1+8+9+11	3.181				17
	MIMO SAR Note.3								1.199				(8+9)	1.199				
		1.177							1.199			0.361	1+(8+9)+11	2.737				
		1.177							1.199				1+(8+9)	2.376	164.6	0.02	No	
		1.177										0.361	1+11	1.538	209.8	0.01	No	
									1.199			0.361	(8+9)+11	1.560	55.0	0.04	No	
Rear		1.177				0.291	0.301		0.549	1.094			1+5+6+8+9	3.412				18
	MIMO SAR Note.3					0.486							(5+6)	0.486				
	MIMO SAR Note.3								1.199				(8+9)	1.199				
		1.177				0.486			1.199				1+(5+6)+(8+9)	2.862				
		1.177				0.486							1+(5+6)	1.663	168.0	0.01	No	
		1.177							1.199				1+(8+9)	2.376	164.6	0.02	No	
						0.486			1.199				(5+6)+(8+9)	1.685	5.2	0.42	Yes	
	Hybrid SPLSR Note.2	1.177				1.320							1+(5+6)+(8+9)	2.497	155.5	0.03	No	18-a
Rear		1.177					0.301		0.549	1.094		0.361	1+6+8+9+11	3.482				19
	MIMO SAR Note.3								1.199				(8+9)	1.199				
	Volume Scan Note.4						0.478						(6+11)	0.478				
		1.177							1.199			0.478	1+(8+9)+(6+11)	2.854				
		1.177							1.199				1+(8+9)	2.376	164.6	0.02	No	
		1.177										0.478	1+(6+11)	1.655	158.4	0.01	No	
									1.199			0.478	(8+9)+(6+11)	1.677	6.4	0.34	Yes	
	Hybrid SPLSR Note.2	1.177					1.310						1+(8+9+6+11)	2.487	155.5	0.03	No	19-a

Note(s):

1. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.16 for detailed Volume Scan Result.
2. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
3. MIMO SAR was used for Simultaneous transmission analysis.
4. Volume Scan SAR was used for Simultaneous transmission analysis.

12.5 Sum of the SAR for LTE Band 12 & Wi-Fi & BT

Test results were refer to reference model (FCC ID : A3LNP545XLA).

Test Position	Standalone SAR (W/kg)											∑ 1-g SAR (W/kg)						
	WWAN	Non RSDB			RSDB			Non RSDB & RSDB			BT	Non RSDB scenarios					RSDB scenarios	
		DTS Ant 1	DTS Ant 2	DTS MIMO	DTS Ant 1	DTS Ant 2	DTS MIMO	U-NII Ant 1	U-NII Ant 2	U-NII MIMO		WWAN + DTS Ant 1 + DTS Ant.2	WWAN + U-NII Ant.1	WWAN + U-NII Ant.2	WWAN + U-NII Ant 1 + U-NII Ant.2	WWAN + UNII Ant.1 + UNII Ant.2 + BT	WWAN + DTS (Ant.1 + Ant.2) + U-NII (Ant.1 + Ant.2)	WWAN + BT + DTS Ant.2 + U-NII (Ant.1 + Ant.2)
	1	2	3	4	5	6	7	8	9	10	11	1+2+3	1+8	1+9	1+8+9	1+8+9+11	1+5+6+8+9	1+6+8+9+11
Rear	0.629	0.418	0.391	0.765	0.291	0.301	0.486	0.549	1.094	1.199	0.361	1.438	1.178	1.723	2.272	2.633	2.864	2.934

SAR to Peak Location Separation Ratio (SPLSR)

Test Position	Hybrid SPLSR	Standalone SAR (W/kg)											SUM 1-g SAR (W/kg)		Calculated distance (mm)	SPLSR (=< 0.04)	Volume Scan (Yes/No) Note.1	Figure
		WWAN	Non RSDB			RSDB			Non RSDB & RSDB			BT						
			DTS Ant 1	DTS Ant 2	DTS MIMO	DTS Ant 1	DTS Ant 2	DTS MIMO	U-NII Ant 1	U-NII Ant 2	U-NII MIMO							
		1	2	3	4	5	6	7	8	9	10	11						
Rear	N/A	0.629								1.094			1+9	1.723	201.1	0.01	No	
Rear	N/A	0.629							0.549	1.094			1+8+9	2.272				20
		0.629							0.549				1+8	1.178	224.2	0.01	No	
		0.629								1.094			1+9	1.723	201.1	0.01	No	
									0.549	1.094			8+9	1.643	51.2	0.04	No	
Rear		0.629							0.549	1.094		0.361	1+8+9+11	2.633				21
	MIMO SAR Note.3								1.199				(8+9)	1.199				
		0.629							1.199			0.361	1+(8+9)+11	2.189				
		0.629							1.199				1+(8+9)	1.828	202.4	0.01	No	
		0.629										0.361	1+11	0.990	234.8	0.00	No	
									1.199			0.361	(8+9)+11	1.560	55.0	0.04	No	
Rear		0.629				0.291	0.301		0.549	1.094			1+5+6+8+9	2.864				22
	MIMO SAR Note.3					0.486							(5+6)	0.486				
	MIMO SAR Note.3								1.199				(8+9)	1.199				
		0.629				0.486			1.199				1+(5+6)+(8+9)	2.314				
		0.629				0.486							1+(5+6)	1.115	206.4	0.01	No	
		0.629							1.199				1+(8+9)	1.828	202.4	0.01	No	
						0.486			1.199				(5+6)+(8+9)	1.685	5.2	0.42	Yes	
	Hybrid SPLSR Note.2	0.629				1.320							1+(5+6)+(8+9)	1.949	193.4	0.01	No	22-a
Rear		0.629					0.301		0.549	1.094		0.361	1+6+8+9+11	2.934				23
	MIMO SAR Note.3								1.199				(8+9)	1.199				
	Volume Scan Note.4						0.478						(6+11)	0.478				
		0.629							1.199			0.478	1+(8+9)+(6+11)	2.306				
		0.629							1.199				1+(8+9)	1.828	202.4	0.01	No	
		0.629										0.478	1+(6+11)	1.107	197.1	0.01	No	
									1.199			0.478	(8+9)+(6+11)	1.677	6.4	0.34	Yes	
	Hybrid SPLSR Note.2	0.629					1.310						1+(8+9+6+11)	1.939	193.4	0.01	No	23-a

Note(s):

1. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.16 for detailed Volume Scan Result.
2. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
3. MIMO SAR was used for Simultaneous transmission analysis.
4. Volume Scan SAR was used for Simultaneous transmission analysis.

12.6 Sum of the SAR for LTE Band 13 & Wi-Fi & BT

Test results were refer to reference model (FCC ID : A3LNP545XLA).

Test Position	Standalone SAR (W/kg)											∑ 1-g SAR (W/kg)						
	WWAN	Non RSDB			RSDB			Non RSDB & RSDB			BT	Non RSDB scenarios					RSDB scenarios	
		DTS Ant 1	DTS Ant 2	DTS MIMO	DTS Ant 1	DTS Ant 2	DTS MIMO	U-NII Ant 1	U-NII Ant 2	U-NII MIMO		WWAN + DTS Ant 1 + DTS Ant 2	WWAN + U-NII Ant 1	WWAN + U-NII Ant 2	WWAN + U-NII Ant 1 + U-NII Ant 2	WWAN + UNII Ant 1 + UNII Ant 2 + BT	WWAN + DTS (Ant 1 + Ant 2) + U-NII (Ant 1 + Ant 2)	WWAN + BT + DTS Ant 2 + U-NII (Ant 1 + Ant 2)
	1	2	3	4	5	6	7	8	9	10	11	1+2+3	1+8	1+9	1+8+9	1+8+9+11	1+5+6+8+9	1+6+8+9+11
Rear	0.844	0.418	0.391	0.765	0.291	0.301	0.486	0.549	1.094	1.199	0.361	1.653	1.393	1.938	2.487	2.848	3.079	3.149

SAR to Peak Location Separation Ratio (SPLSR)

Test Position	Hybrid SPLSR	Standalone SAR (W/kg)											SUM 1-g SAR (W/kg)		Calculated distance (mm)	SPLSR (=< 0.04)	Volume Scan (Yes/No) Note.1	Figure
		WWAN	Non RSDB			RSDB			Non RSDB & RSDB			BT						
			DTS Ant 1	DTS Ant 2	DTS MIMO	DTS Ant 1	DTS Ant 2	DTS MIMO	U-NII Ant 1	U-NII Ant 2	U-NII MIMO							
		1	2	3	4	5	6	7	8	9	10	11						
Rear	N/A	0.844	0.418	0.391									1+2+3	1.653				24
		0.844	0.418										1+2	1.262	255.0	0.01	No	
		0.844		0.391									1+3	1.235	217.6	0.01	No	
			0.418	0.391									2+3	0.809	56.8	0.01	No	
Rear	N/A	0.844								1.094			1+9	1.938	201.1	0.01	No	25
Rear	N/A	0.844							0.549	1.094			1+8+9	2.487				
		0.844							0.549				1+8	1.393	243.2	0.01	No	
		0.844								1.094			1+9	1.938	214.6	0.01	No	
									0.549	1.094			8+9	1.643	51.2	0.04	No	
Rear		0.844							0.549	1.094		0.361	1+8+9+11	2.848				26
	MIMO SAR Note.3								1.199				(8+9)	1.199				
		0.844							1.199			0.361	1+(8+9)+11	2.404				
		0.844							1.199				1+(8+9)	2.043	216.2	0.01	No	
		0.844										0.361	1+11	1.205	253.7	0.01	No	
									1.199			0.361	(8+9)+11	1.560	55.0	0.04	No	
Rear		0.844				0.291	0.301		0.549	1.094			1+5+6+8+9	3.079				27
	MIMO SAR Note.3					0.486							(5+6)	0.486				
	MIMO SAR Note.3								1.199				(8+9)	1.199				
		0.844				0.486			1.199				1+(5+6)+(8+9)	2.529				
		0.844				0.486							1+(5+6)	1.330	220.0	0.01	No	
		0.844							1.199				1+(8+9)	2.043	216.2	0.01	No	
						0.486			1.199				(5+6)+(8+9)	1.685	5.2	0.42	Yes	
	Hybrid SPLSR Note.2	0.844				1.320							1+(5+6)+(8+9)	2.164	207	0.02	No	27-a
Rear		0.844					0.301		0.549	1.094		0.361	1+6+8+9+11	3.149				28
	MIMO SAR Note.3								1.199				(8+9)	1.199				
	Volume Scan Note.4						0.478						(6+11)	0.478				
		0.844							1.199			0.478	1+(8+9)+(6+11)	2.521				
		0.844							1.199				1+(8+9)	2.043	216.2	0.01	No	
		0.844										0.478	1+(6+11)	1.322	210.5	0.01	No	
									1.199			0.478	(8+9)+(6+11)	1.677	6.4	0.34	Yes	
	Hybrid SPLSR Note.2	0.844					1.310						1+(8+9+6+11)	2.154	207	0.02	No	28-a

Note(s):

1. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.16 for detailed Volume Scan Result.
2. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
3. MIMO SAR was used for Simultaneous transmission analysis.
4. Volume Scan SAR was used for Simultaneous transmission analysis.

12.7 Sum of the SAR for LTE Band 25 & Wi-Fi & BT

Test Position	Standalone SAR (W/kg)											∑ 1-g SAR (W/kg)						
	WWAN	Non RSDB			RSDB			Non RSDB & RSDB			BT	Non RSDB scenarios					RSDB scenarios	
		DTS Ant 1	DTS Ant 2	DTS MIMO	DTS Ant 1	DTS Ant 2	DTS MIMO	U-NII Ant 1	U-NII Ant 2	U-NII MIMO		WWAN + DTS Ant 1 + DTS Ant.2	WWAN + U-NII Ant.1	WWAN + U-NII Ant.2	WWAN + U-NII Ant 1 + U-NII Ant.2	WWAN + UNII Ant.1 + UNII Ant.2 + BT	WWAN + DTS (Ant.1 + Ant.2) + U-NII (Ant.1 + Ant.2)	WWAN + BT + DTS Ant.2 + U-NII (Ant.1 + Ant.2)
	1	2	3	4	5	6	7	8	9	10	11	1+2+3	1+8	1+9	1+8+9	1+8+9+11	1+5+6+8+9	1+6+8+9+11
Rear	1.088	0.418	0.391	0.765	0.291	0.301	0.486	0.549	1.094	1.199	0.361	1.897	1.637	2.182	2.731	3.092	3.323	3.393

SAR to Peak Location Separation Ratio (SPLSR)

Test Position	Hybrid SPLSR	Standalone SAR (W/kg)											SUM 1-g SAR (W/kg)		Calculated distance (mm)	SPLSR (=< 0.04)	Volume Scan (Yes/No) Note.1	Figure
		WWAN	Non RSDB			RSDB			Non RSDB & RSDB			BT						
			DTS Ant 1	DTS Ant 2	DTS MIMO	DTS Ant 1	DTS Ant 2	DTS MIMO	U-NII Ant 1	U-NII Ant 2	U-NII MIMO							
		1	2	3	4	5	6	7	8	9	10	11						
Rear	N/A	1.088	0.418	0.391									1+2+3	1.897				29
		1.088	0.418										1+2	1.506	210.4	0.01	No	
		1.088		0.391									1+3	1.479	165.4	0.01	No	
			0.418	0.391									2+3	0.809	56.8	0.01	No	
Rear	N/A	1.088							0.549				1+8	1.637	198.8	0.01	No	30
Rear	N/A	1.088								1.094			1+9	2.182	162.1	0.02	No	
Rear	N/A	1.088							0.549	1.094			1+8+9	2.731				
		1.088							0.549				1+8	1.637	198.8	0.01	No	
		1.088								1.094			1+9	2.182	162.1	0.02	No	
									0.549	1.094			8+9	1.643	51.2	0.04	No	
Rear		1.088							0.549	1.094		0.361	1+8+9+11	3.092				31
	MIMO SAR Note.3								1.199				(8+9)	1.199				
		1.088							1.199			0.361	1+(8+9)+11	2.648				
		1.088							1.199				1+(8+9)	2.287	164.0	0.02	No	
		1.088										0.361	1+11	1.449	208.8	0.01	No	
									1.199			0.361	(8+9)+11	1.560	55.0	0.04	No	
Rear		1.088				0.291	0.301		0.549	1.094			1+5+6+8+9	3.323				32
	MIMO SAR Note.3					0.486							(5+6)	0.486				
	MIMO SAR Note.3								1.199				(8+9)	1.199				
		1.088				0.486			1.199				1+(5+6)+(8+9)	2.773				
		1.088				0.486							1+(5+6)	1.574	167.5	0.01	No	
		1.088							1.199				1+(8+9)	2.287	164.0	0.02	No	
						0.486			1.199				(5+6)+(8+9)	1.685	5.2	0.42	Yes	
	Hybrid SPLSR Note.2	1.088						1.320					1+(5+6)+(8+9)	2.408	154.8	0.02	No	32-a
Rear		1.088					0.301		0.549	1.094		0.361	1+6+8+9+11	3.393				33
	MIMO SAR Note.3								1.199				(8+9)	1.199				
	Volume Scan Note.4						0.478						(6+11)	0.478				
		1.088							1.199			0.478	1+(8+9)+(6+11)	2.765				
		1.088							1.199				1+(8+9)	2.287	164.0	0.02	No	
		1.088										0.478	1+(6+11)	1.566	157.9	0.01	No	
									1.199			0.478	(8+9)+(6+11)	1.677	6.4	0.34	Yes	
	Hybrid SPLSR Note.2	1.088						1.310					1+(8+9+6+11)	2.398	154.8	0.02	No	33-a

Note(s):

1. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.16 for detailed Volume Scan Result.
2. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
3. MIMO SAR was used for Simultaneous transmission analysis.
4. Volume Scan SAR was used for Simultaneous transmission analysis.

12.8 Sum of the SAR for LTE Band 26 & Wi-Fi & BT

Test Position	Standalone SAR (W/kg)											∑ 1-g SAR (W/kg)						
	WWAN	Non RSDB			RSDB			Non RSDB & RSDB			BT	Non RSDB scenarios					RSDB scenarios	
		DTS Ant 1	DTS Ant 2	DTS MIMO	DTS Ant 1	DTS Ant 2	DTS MIMO	U-NII Ant 1	U-NII Ant 2	U-NII MIMO		WWAN + DTS Ant 1 + DTS Ant.2	WWAN + U-NII Ant.1	WWAN + U-NII Ant.2	WWAN + U-NII Ant 1 + U-NII Ant.2	WWAN + UNII Ant.1 + UNII Ant.2 + BT	WWAN + DTS (Ant.1 + Ant.2) + U-NII (Ant.1 + Ant.2)	WWAN + BT + DTS Ant.2 + U-NII (Ant.1 + Ant.2)
	1	2	3	4	5	6	7	8	9	10	11	1+2+3	1+8	1+9	1+8+9	1+8+9+11	1+5+6+8+9	1+6+8+9+11
Rear	0.976	0.418	0.391	0.765	0.291	0.301	0.486	0.549	1.094	1.199	0.361	1.785	1.525	2.070	2.619	2.980	3.211	3.281

SAR to Peak Location Separation Ratio (SPLSR)

Test Position	Hybrid SPLSR	Standalone SAR (W/kg)											SUM 1-g SAR (W/kg)		Calculated distance (mm)	SPLSR (=< 0.04)	Volume Scan (Yes/No) Note.1	Figure
		WWAN	Non RSDB			RSDB			Non RSDB & RSDB			BT						
			DTS Ant 1	DTS Ant 2	DTS MIMO	DTS Ant 1	DTS Ant 2	DTS MIMO	U-NII Ant 1	U-NII Ant 2	U-NII MIMO							
		1	2	3	4	5	6	7	8	9	10	11						
Rear	N/A	0.976	0.418	0.391									1+2+3	1.785				34
		0.976	0.418										1+2	1.394	240.6	0.01	No	
		0.976		0.391									1+3	1.367	207.6	0.01	No	
			0.418	0.391									2+3	0.809	56.8	0.01	No	
Rear	N/A	0.976								1.094			1+9	2.070	204.8	0.01	No	35
Rear	N/A	0.976							0.549	1.094			1+8+9	2.619				
		0.976							0.549				1+8	1.525	228.8	0.01	No	
		0.976								1.094			1+9	2.070	204.8	0.01	No	
									0.549	1.094			8+9	1.643	51.2	0.04	No	
Rear		0.976							0.549	1.094		0.361	1+8+9+11	2.980				36
	MIMO SAR Note.3								1.199				(8+9)	1.199				
		0.976							1.199			0.361	1+(8+9)+11	2.536				
		0.976							1.199				1+(8+9)	2.175	206.1	0.02	No	
		0.976										0.361	1+11	1.337	239.4	0.01	No	
									1.199			0.361	(8+9)+11	1.560	55.0	0.04	No	
Rear		0.976				0.291	0.301		0.549	1.094			1+5+6+8+9	3.211				37
	MIMO SAR Note.3					0.486							(5+6)	0.486				
	MIMO SAR Note.3								1.199				(8+9)	1.199				
		0.976				0.486			1.199				1+(5+6)+(8+9)	2.661				
		0.976				0.486							1+(5+6)	1.462	210.1	0.01	No	
		0.976							1.199				1+(8+9)	2.175	206.1	0.02	No	
						0.486			1.199				(5+6)+(8+9)	1.685	5.2	0.42	Yes	
	Hybrid SPLSR Note.2	0.976				1.320							1+(5+6)+(8+9)	2.296	197.1	0.02	No	37-a
Rear		0.976					0.301		0.549	1.094		0.361	1+6+8+9+11	3.281				38
	MIMO SAR Note.3								1.199				(8+9)	1.199				
	Volume Scan Note.4						0.478						(6+11)	0.478				
		0.976							1.199			0.478	1+(8+9)+(6+11)	2.653				
		0.976							1.199				1+(8+9)	2.175	206.1	0.02	No	
		0.976										0.478	1+(6+11)	1.454	200.8	0.01	No	
									1.199			0.478	(8+9)+(6+11)	1.677	6.4	0.34	Yes	
	Hybrid SPLSR Note.2	0.976					1.310						1+(8+9+6+11)	2.286	197.1	0.02	No	38-a

Note(s):

1. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.16 for detailed Volume Scan Result.
2. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
3. MIMO SAR was used for Simultaneous transmission analysis.
4. Volume Scan SAR was used for Simultaneous transmission analysis.

12.9 Sum of the SAR for LTE Band 41 & Wi-Fi & BT

Test Position	Standalone SAR (W/kg)											∑ 1-g SAR (W/kg)						
	WWAN	Non RSDB			RSDB			Non RSDB & RSDB			BT	Non RSDB scenarios					RSDB scenarios	
		DTS Ant 1	DTS Ant 2	DTS MIMO	DTS Ant 1	DTS Ant 2	DTS MIMO	U-NII Ant 1	U-NII Ant 2	U-NII MIMO		WWAN + DTS Ant 1 + DTS Ant.2	WWAN + U-NII Ant.1	WWAN + U-NII Ant.2	WWAN + U-NII Ant 1 + U-NII Ant.2	WWAN + UNII Ant.1 + UNII Ant.2 + BT	WWAN + DTS (Ant.1 + Ant.2) + U-NII (Ant.1 + Ant.2)	WWAN + BT + DTS Ant.2 + U-NII (Ant.1 + Ant.2)
	1	2	3	4	5	6	7	8	9	10	11	1+2+3	1+8	1+9	1+8+9	1+8+9+11	1+5+6+8+9	1+6+8+9+11
Rear	0.959	0.418	0.391	0.765	0.291	0.301	0.486	0.549	1.094	1.199	0.361	1.768	1.508	2.053	2.602	2.963	3.194	3.264

SAR to Peak Location Separation Ratio (SPLSR)

Test Position	Hybrid SPLSR	Standalone SAR (W/kg)											SUM 1-g SAR (W/kg)		Calculated distance (mm)	SPLSR (=< 0.04)	Volume Scan (Yes/No) Note.1	Figure
		WWAN	Non RSDB			RSDB			Non RSDB & RSDB			BT						
			DTS Ant 1	DTS Ant 2	DTS MIMO	DTS Ant 1	DTS Ant 2	DTS MIMO	U-NII Ant 1	U-NII Ant 2	U-NII MIMO							
		1	2	3	4	5	6	7	8	9	10	11						
Rear	N/A	0.959	0.418	0.391									1+2+3	1.768				
		0.959	0.418										1+2	1.377	211.6	0.01	No	39
		0.959		0.391									1+3	1.35	167.0	0.01	No	
			0.418	0.391									2+3	0.809	56.8	0.01	No	
Rear	N/A	0.959								1.094			1+9	2.053	163.7	0.02	No	
Rear	N/A	0.959							0.549	1.094			1+8+9	2.602				40
		0.959							0.549				1+8	1.508	200.1	0.01	No	
		0.959								1.094			1+9	2.053	163.7	0.02	No	
									0.549	1.094			8+9	1.643	51.2	0.04	No	
Rear		0.959							0.549	1.094		0.361	1+8+9+11	2.963				41
	MIMO SAR Note.3								1.199				(8+9)	1.199				
		0.959							1.199			0.361	1+(8+9)+11	2.519				
		0.959							1.199				1+(8+9)	2.158	165.6	0.02	No	
		0.959										0.361	1+11	1.320	210.1	0.01	No	
									1.199			0.361	(8+9)+11	1.560	55.0	0.04	No	
Rear		0.959				0.291	0.301		0.549	1.094			1+5+6+8+9	3.194				42
	MIMO SAR Note.3					0.486							(5+6)	0.486				
	MIMO SAR Note.3								1.199				(8+9)	1.199				
		0.959				0.486			1.199				1+(5+6)+(8+9)	2.644				
		0.959				0.486							1+(5+6)	1.445	169.1	0.01	No	
		0.959							1.199				1+(8+9)	2.158	165.6	0.02	No	
						0.486			1.199				(5+6)+(8+9)	1.685	5.2	0.42	Yes	
	Hybrid SPLSR Note.2	0.959				1.320							1+(5+6)+(8+9)	2.279	156.4	0.02	No	42-a
Rear		0.959					0.301		0.549	1.094		0.361	1+6+8+9+11	3.264				43
	MIMO SAR Note.3								1.199				(8+9)	1.199				
	Volume Scan Note.4						0.478						(6+11)	0.478				
		0.959							1.199			0.478	1+(8+9)+(6+11)	2.636				
		0.959							1.199				1+(8+9)	2.158	165.6	0.02	No	
		0.959										0.478	1+(6+11)	1.437	159.5	0.01	No	
									1.199			0.478	(8+9)+(6+11)	1.677	6.4	0.34	Yes	
	Hybrid SPLSR Note.2	0.959					1.310						1+(8+9+6+11)	2.269	156.4	0.02	No	43-a

Note(s):

1. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.16 for detailed Volume Scan Result.
2. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
3. MIMO SAR was used for Simultaneous transmission analysis.
4. Volume Scan SAR was used for Simultaneous transmission analysis.

12.10 Sum of the SAR for LTE Band 66 & Wi-Fi & BT

Test results were refer to reference model (FCC ID : A3LNP545XLA).

Test Position	Standalone SAR (W/kg)											∑ 1-g SAR (W/kg)						
	WWAN	Non RSDB			RSDB			Non RSDB & RSDB			BT	Non RSDB scenarios					RSDB scenarios	
		DTS Ant 1	DTS Ant 2	DTS MIMO	DTS Ant 1	DTS Ant 2	DTS MIMO	U-NII Ant 1	U-NII Ant 2	U-NII MIMO		WWAN + DTS Ant 1+ DTS Ant.2	WWAN + U-NII Ant.1	WWAN + U-NII Ant.2	WWAN + U-NII Ant 1 + U-NII Ant.2	WWAN + UNII Ant.1 + UNII Ant.2 + BT	WWAN + DTS (Ant.1 + Ant.2) + U-NII (Ant.1 + Ant.2)	WWAN + BT + DTS Ant.2 + U-NII (Ant.1 + Ant.2)
	1	2	3	4	5	6	7	8	9	10	11	1+2+3	1+8	1+9	1+8+9	1+8+9+11	1+5+6+8+9	1+6+8+9+11
Rear	1.177	0.418	0.391	0.765	0.291	0.301	0.486	0.549	1.094	1.199	0.361	1.986	1.726	2.271	2.820	3.181	3.412	3.482

SAR to Peak Location Separation Ratio (SPLSR)

Test Position	Hybrid SPLSR	Standalone SAR (W/kg)											SUM 1-g SAR (W/kg)		Calculated distance (mm)	SPLSR (=< 0.04)	Volume Scan (Yes/No) Note.1	Figure
		WWAN	Non RSDB			RSDB			Non RSDB & RSDB			BT						
			DTS Ant 1	DTS Ant 2	DTS MIMO	DTS Ant 1	DTS Ant 2	DTS MIMO	U-NII Ant 1	U-NII Ant 2	U-NII MIMO							
		1	2	3	4	5	6	7	8	9	10	11						
Rear	N/A	1.177	0.418	0.391									1+2+3	1.986				44
		1.177	0.418										1+2	1.595	211.6	0.01	No	
		1.177		0.391									1+3	1.568	166	0.01	No	
			0.418	0.391									2+3	0.809	56.8	0.01	No	
Rear	N/A	1.177							0.549				1+8	1.726	200.1	0.01	No	45
Rear	N/A	1.177								1.094			1+9	2.271	162.8	0.02	No	
Rear	N/A	1.177							0.549	1.094			1+8+9	2.820				
		1.177							0.549				1+8	1.726	200.1	0.01	No	
		1.177								1.094			1+9	2.271	162.8	0.02	No	
									0.549	1.094			8+9	1.643	51.2	0.04	No	
Rear		1.177							0.549	1.094		0.361	1+8+9+11	3.181				46
	MIMO SAR Note.3								1.199				(8+9)	1.199				
		1.177							1.199			0.361	1+(8+9)+11	2.737				
		1.177							1.199				1+(8+9)	2.376	164.7	0.02	No	
		1.177										0.361	1+11	1.538	210.0	0.01	No	
									1.199			0.361	(8+9)+11	1.560	55.0	0.04	No	
Rear		1.177				0.291	0.301		0.549	1.094			1+5+6+8+9	3.412				47
	MIMO SAR Note.3					0.486							(5+6)	0.486				
	MIMO SAR Note.3								1.199				(8+9)	1.199				
		1.177				0.486			1.199				1+(5+6)+(8+9)	2.862				
		1.177				0.486							1+(5+6)	1.663	168.1	0.01	No	
		1.177							1.199				1+(8+9)	2.376	164.7	0.02	No	
						0.486			1.199				(5+6)+(8+9)	1.685	5.2	0.42	Yes	
	Hybrid SPLSR Note.2	1.177				1.320							1+(5+6)+(8+9)	2.497	155.6	0.03	No	47-a
Rear		1.177					0.301		0.549	1.094		0.361	1+6+8+9+11	3.482				48
	MIMO SAR Note.3								1.199				(8+9)	1.199				
	Volume Scan Note.4						0.478						(6+11)	0.478				
		1.177							1.199			0.478	1+(8+9)+(6+11)	2.854				
		1.177							1.199				1+(8+9)	2.376	164.7	0.02	No	
		1.177										0.478	1+(6+11)	1.655	158.5	0.01	No	
									1.199			0.478	(8+9)+(6+11)	1.677	6.4	0.34	Yes	
	Hybrid SPLSR Note.2	1.177					1.310						1+(8+9+6+11)	2.487	155.6	0.03	No	48-a

Note(s):

1. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.16 for detailed Volume Scan Result.
2. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
3. MIMO SAR was used for Simultaneous transmission analysis.
4. Volume Scan SAR was used for Simultaneous transmission analysis.

12.11 Sum of the SAR for LTE Band 71 & Wi-Fi & BT

Test Position	Standalone SAR (W/kg)											∑ 1-g SAR (W/kg)						
	WWAN	Non RSDB			RSDB			Non RSDB & RSDB			BT	Non RSDB scenarios					RSDB scenarios	
		DTS Ant 1	DTS Ant 2	DTS MIMO	DTS Ant 1	DTS Ant 2	DTS MIMO	U-NII Ant 1	U-NII Ant 2	U-NII MIMO		WWAN + DTS Ant 1 + DTS Ant 2	WWAN + U-NII Ant 1	WWAN + U-NII Ant 2	WWAN + U-NII Ant 1 + U-NII Ant 2	WWAN + UNII Ant 1 + UNII Ant 2 + BT	WWAN + DTS (Ant 1 + Ant 2) + U-NII (Ant 1 + Ant 2)	WWAN + BT + DTS Ant 2 + U-NII (Ant 1 + Ant 2)
	1	2	3	4	5	6	7	8	9	10	11	1+2+3	1+8	1+9	1+8+9	1+8+9+11	1+5+6+8+9	1+6+8+9+11
Rear	1.110	0.418	0.391	0.765	0.291	0.301	0.486	0.549	1.094	1.199	0.361	1.919	1.659	2.204	2.753	3.114	3.345	3.415

SAR to Peak Location Separation Ratio (SPLSR)

Test Position	Hybrid SPLSR	Standalone SAR (W/kg)											SUM 1-g SAR (W/kg)		Calculated distance (mm)	SPLSR (=< 0.04)	Volume Scan (Yes/No) Note.1	Figure
		WWAN	Non RSDB			RSDB			Non RSDB & RSDB			BT						
			DTS Ant 1	DTS Ant 2	DTS MIMO	DTS Ant 1	DTS Ant 2	DTS MIMO	U-NII Ant 1	U-NII Ant 2	U-NII MIMO							
		1	2	3	4	5	6	7	8	9	10	11						
Rear	N/A	1.110	0.418	0.391									1+2+3	1.919				49
		1.110	0.418										1+2	1.528	238.8	0.01	No	
		1.110		0.391									1+3	1.501	206.4	0.01	No	
			0.418	0.391									2+3	0.809	56.8	0.01	No	
Rear	N/A	1.110							0.549				1+8	1.659	227.1	0.01	No	50
Rear	N/A	1.110								1.094			1+9	2.204	203.6	0.02	No	
Rear	N/A	1.110							0.549	1.094			1+8+9	2.753				
		1.110							0.549				1+8	1.659	227.1	0.01	No	
		1.110								1.094			1+9	2.204	203.6	0.02	No	
									0.549	1.094			8+9	1.643	51.2	0.04	No	
Rear		1.110							0.549	1.094		0.361	1+8+9+11	3.114				51
	MIMO SAR Note.3								1.199				(8+9)	1.199				
		1.110							1.199			0.361	1+(8+9)+11	2.670				
		1.110							1.199				1+(8+9)	2.309	204.9	0.02	No	
		1.110										0.361	1+11	1.471	237.7	0.01	No	
									1.199			0.361	(8+9)+11	1.560	55.0	0.04	No	
Rear		1.110				0.291	0.301		0.549	1.094			1+5+6+8+9	3.345				52
	MIMO SAR Note.3					0.486							(5+6)	0.486				
	MIMO SAR Note.3								1.199				(8+9)	1.199				
		1.110				0.486			1.199				1+(5+6)+(8+9)	2.795				
		1.110				0.486							1+(5+6)	1.596	209.0	0.01	No	
		1.110							1.199				1+(8+9)	2.309	204.9	0.02	No	
						0.486			1.199				(5+6)+(8+9)	1.685	5.2	0.42	Yes	
	Hybrid SPLSR Note.2	1.110				1.320							1+(5+6)+(8+9)	2.430	195.9	0.02	No	52-a
Rear		1.110					0.301		0.549	1.094		0.361	1+6+8+9+11	3.415				53
	MIMO SAR Note.3								1.199				(8+9)	1.199				
	Volume Scan Note.4						0.478						(6+11)	0.478				
		1.110							1.199			0.478	1+(8+9)+(6+11)	2.787				
		1.110							1.199				1+(8+9)	2.309	204.9	0.02	No	
		1.110										0.478	1+(6+11)	1.588	199.6	0.01	No	
									1.199			0.478	(8+9)+(6+11)	1.677	6.4	0.34	Yes	
	Hybrid SPLSR Note.2	1.110					1.310						1+(8+9+6+11)	2.420	195.9	0.02	No	53-a

Note(s):

1. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.16 for detailed Volume Scan Result.
2. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
3. MIMO SAR was used for Simultaneous transmission analysis.
4. Volume Scan SAR was used for Simultaneous transmission analysis.

12.12 Sum of the SAR for NR Band n25 & Wi-Fi & BT

Test Position	Standalone SAR (W/kg)											∑ 1-g SAR (W/kg)						
	WWAN	Non RSDB			RSDB			Non RSDB & RSDB			BT	Non RSDB scenarios					RSDB scenarios	
		DTS Ant 1	DTS Ant 2	DTS MIMO	DTS Ant 1	DTS Ant 2	DTS MIMO	U-NII Ant 1	U-NII Ant 2	U-NII MIMO		WWAN + DTS Ant 1 + DTS Ant.2	WWAN + U-NII Ant.1	WWAN + U-NII Ant.2	WWAN + U-NII Ant 1 + U-NII Ant.2	WWAN + UNII Ant.1 + UNII Ant.2 + BT	WWAN + DTS (Ant.1 + Ant.2) + U-NII (Ant.1 + Ant.2)	WWAN + BT + DTS Ant.2 + U-NII (Ant.1 + Ant.2)
	1	2	3	4	5	6	7	8	9	10	11	1+2+3	1+8	1+9	1+8+9	1+8+9+11	1+5+6+8+9	1+6+8+9+11
Rear	1.188	0.418	0.391	0.765	0.291	0.301	0.486	0.549	1.094	1.199	0.361	1.997	1.737	2.282	2.831	3.192	3.423	3.493

SAR to Peak Location Separation Ratio (SPLSR)

Test Position	Hybrid SPLSR	Standalone SAR (W/kg)											SUM 1-g SAR (W/kg)		Calculated distance (mm)	SPLSR (=< 0.04)	Volume Scan (Yes/No) Note.1	Figure
		WWAN	Non RSDB			RSDB			Non RSDB & RSDB			BT						
			DTS Ant 1	DTS Ant 2	DTS MIMO	DTS Ant 1	DTS Ant 2	DTS MIMO	U-NII Ant 1	U-NII Ant 2	U-NII MIMO							
		1	2	3	4	5	6	7	8	9	10	11						
Rear	N/A	1.188	0.418	0.391									1+2+3	1.997				54
		1.188	0.418										1+2	1.606	209.4	0.01	No	
		1.188		0.391									1+3	1.579	164.1	0.01	No	
			0.418	0.391									2+3	0.809	56.8	0.01	No	
Rear	N/A	1.188							0.549				1+8	1.737	197.8	0.01	No	55
Rear	N/A	1.188								1.094			1+9	2.282	160.9	0.02	No	
Rear	N/A	1.188							0.549	1.094			1+8+9	2.831				
		1.188							0.549				1+8	1.737	197.8	0.01	No	
		1.188								1.094			1+9	2.282	160.9	0.02	No	
									0.549	1.094			8+9	1.643	51.2	0.04	No	
Rear		1.188							0.549	1.094		0.361	1+8+9+11	3.192				56
	MIMO SAR Note.3								1.199				(8+9)	1.199				
		1.188							1.199			0.361	1+(8+9)+11	2.748				
		1.188							1.199				1+(8+9)	2.387	162.7	0.02	No	
		1.188										0.361	1+11	1.549	207.8	0.01	No	
									1.199			0.361	(8+9)+11	1.560	55.0	0.04	No	
Rear		1.188				0.291	0.301		0.549	1.094			1+5+6+8+9	3.423				57
	MIMO SAR Note.3					0.486							(5+6)	0.486				
	MIMO SAR Note.3								1.199				(8+9)	1.199				
		1.188				0.486			1.199				1+(5+6)+(8+9)	2.873				
		1.188				0.486							1+(5+6)	1.674	166.2	0.01	No	
		1.188							1.199				1+(8+9)	2.387	162.7	0.02	No	
						0.486			1.199				(5+6)+(8+9)	1.685	5.2	0.42	Yes	
	Hybrid SPLSR Note.2	1.188						1.320					1+(5+6)+(8+9)	2.508	153.6	0.03	No	57-a
Rear		1.188					0.301		0.549	1.094		0.361	1+6+8+9+11	3.493				58
	MIMO SAR Note.3								1.199				(8+9)	1.199				
	Volume Scan Note.4						0.478						(6+11)	0.478				
		1.188							1.199			0.478	1+(8+9)+(6+11)	2.865				
		1.188							1.199				1+(8+9)	2.387	162.7	0.02	No	
		1.188										0.478	1+(6+11)	1.666	156.6	0.01	No	
									1.199			0.478	(8+9)+(6+11)	1.677	6.4	0.34	Yes	
	Hybrid SPLSR Note.2	1.188						1.310					1+(8+9+6+11)	2.498	153.6	0.03	No	58-a

Note(s):

1. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.16 for detailed Volume Scan Result.
2. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
3. MIMO SAR was used for Simultaneous transmission analysis.
4. Volume Scan SAR was used for Simultaneous transmission analysis.

12.13 Sum of the SAR for NR Band n41 & Wi-Fi & BT

Test Position	Standalone SAR (W/kg)											∑ 1-g SAR (W/kg)						
	WWAN	Non RSDB			RSDB			Non RSDB & RSDB			BT	Non RSDB scenarios					RSDB scenarios	
		DTS Ant 1	DTS Ant 2	DTS MIMO	DTS Ant 1	DTS Ant 2	DTS MIMO	U-NII Ant 1	U-NII Ant 2	U-NII MIMO		WWAN + DTS Ant 1 + DTS Ant 2	WWAN + U-NII Ant 1	WWAN + U-NII Ant 2	WWAN + U-NII Ant 1 + U-NII Ant 2	WWAN + UNII Ant 1 + UNII Ant 2 + BT	WWAN + DTS (Ant 1 + Ant 2) + U-NII (Ant 1 + Ant 2)	WWAN + BT + DTS Ant 2 + U-NII (Ant 1 + Ant 2)
	1	2	3	4	5	6	7	8	9	10	11	1+2+3	1+8	1+9	1+8+9	1+8+9+11	1+5+6+8+9	1+6+8+9+11
Rear	1.082	0.418	0.391	0.765	0.291	0.301	0.486	0.549	1.094	1.199	0.361	1.891	1.631	2.176	2.725	3.086	3.317	3.387

SAR to Peak Location Separation Ratio (SPLSR)

Test Position	Hybrid SPLSR	Standalone SAR (W/kg)											SUM 1-g SAR (W/kg)		Calculated distance (mm)	SPLSR (=< 0.04)	Volume Scan (Yes/No) Note.1	Figure
		WWAN	Non RSDB			RSDB			Non RSDB & RSDB			BT						
			DTS Ant 1	DTS Ant 2	DTS MIMO	DTS Ant 1	DTS Ant 2	DTS MIMO	U-NII Ant 1	U-NII Ant 2	U-NII MIMO							
		1	2	3	4	5	6	7	8	9	10	11						
Rear	N/A	1.082	0.418	0.391									1+2+3	1.891				59
		1.082	0.418										1+2	1.5	212.3	0.01	No	
		1.082		0.391									1+3	1.473	168.6	0.01	No	
			0.418	0.391									2+3	0.809	56.8	0.01	No	
Rear	N/A	1.082							0.549				1+8	1.631	200.7	0.01	No	60
Rear	N/A	1.082								1.094			1+9	2.176	165.4	0.02	No	
Rear	N/A	1.082							0.549	1.094			1+8+9	2.725				
		1.082							0.549				1+8	1.631	200.7	0.01	No	
		1.082								1.094			1+9	2.176	165.4	0.02	No	
									0.549	1.094			8+9	1.643	51.2	0.04	No	
Rear		1.082							0.549	1.094		0.361	1+8+9+11	3.086				61
	MIMO SAR Note.3								1.199				(8+9)	1.199				
		1.082							1.199			0.361	1+(8+9)+11	2.642				
		1.082							1.199				1+(8+9)	2.281	167.2	0.02	No	
		1.082										0.361	1+11	1.443	210.9	0.01	No	
									1.199			0.361	(8+9)+11	1.560	55.0	0.04	No	
Rear		1.082				0.291	0.301		0.549	1.094			1+5+6+8+9	3.317				62
	MIMO SAR Note.3					0.486							(5+6)	0.486				
	MIMO SAR Note.3								1.199				(8+9)	1.199				
		1.082				0.486			1.199				1+(5+6)+(8+9)	2.767				
		1.082				0.486							1+(5+6)	1.568	170.8	0.01	No	
		1.082							1.199				1+(8+9)	2.281	167.2	0.02	No	
						0.486			1.199				(5+6)+(8+9)	1.685	5.2	0.42	Yes	
	Hybrid SPLSR Note.2	1.082				1.320							1+(5+6)+(8+9)	2.402	158.0	0.02	No	62-a
Rear		1.082					0.301		0.549	1.094		0.361	1+6+8+9+11	3.387				63
	MIMO SAR Note.3								1.199				(8+9)	1.199	167.2			
	Volume Scan Note.4						0.478						(6+11)	0.478	161.2			
		1.082							1.199			0.478	1+(8+9)+(6+11)	2.759				
		1.082							1.199				1+(8+9)	2.281	167.2	0.02	No	
		1.082										0.478	1+(6+11)	1.560	161.2	0.01	No	
									1.199			0.478	(8+9)+(6+11)	1.677	6.4	0.34	Yes	
	Hybrid SPLSR Note.2	1.082					1.310						1+(8+9+6+11)	2.392	158.0	0.02	No	63-a

Note(s):

1. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.16 for detailed Volume Scan Result.
2. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
3. MIMO SAR was used for Simultaneous transmission analysis.
4. Volume Scan SAR was used for Simultaneous transmission analysis.

12.14 Sum of the SAR for NR Band n66 & Wi-Fi & BT

Test results were refer to reference model (FCC ID : A3LNP545XLA).

Test Position	Standalone SAR (W/kg)											∑ 1-g SAR (W/kg)						
	WWAN	Non RSDB			RSDB			Non RSDB & RSDB			BT	Non RSDB scenarios					RSDB scenarios	
		DTS Ant 1	DTS Ant 2	DTS MIMO	DTS Ant 1	DTS Ant 2	DTS MIMO	U-NII Ant 1	U-NII Ant 2	U-NII MIMO		WWAN + DTS Ant 1+ DTS Ant.2	WWAN + U-NII Ant.1	WWAN + U-NII Ant.2	WWAN + U-NII Ant 1 + U-NII Ant.2	WWAN + UNII Ant.1 + UNII Ant.2 + BT	WWAN + DTS (Ant.1 + Ant.2) + U-NII (Ant.1 + Ant.2)	WWAN + BT + DTS Ant.2 + U-NII (Ant.1 + Ant.2)
	1	2	3	4	5	6	7	8	9	10	11	1+2+3	1+8	1+9	1+8+9	1+8+9+11	1+5+6+8+9	1+6+8+9+11
Rear	1.247	0.418	0.391	0.765	0.291	0.301	0.486	0.549	1.094	1.199	0.361	2.056	1.796	2.341	2.890	3.251	3.482	3.552

SAR to Peak Location Separation Ratio (SPLSR)

Test Position	Hybrid SPLSR	Standalone SAR (W/kg)											SUM 1-g SAR (W/kg)		Calculated distance (mm)	SPLSR (=< 0.04)	Volume Scan (Yes/No) Note.1	Figure
		WWAN	Non RSDB			RSDB			Non RSDB & RSDB			BT						
			DTS Ant 1	DTS Ant 2	DTS MIMO	DTS Ant 1	DTS Ant 2	DTS MIMO	U-NII Ant 1	U-NII Ant 2	U-NII MIMO							
		1	2	3	4	5	6	7	8	9	10	11						
Rear	N/A	1.247	0.418	0.391									1+2+3	2.056				64
		1.247	0.418										1+2	1.665	210.6	0.01	No	
		1.247		0.391									1+3	1.638	165.1	0.01	No	
			0.418	0.391									2+3	0.809	56.8	0.01	No	
Rear	N/A	1.247							0.549				1+8	1.796	199.0	0.01	No	65
Rear	N/A	1.247								1.094			1+9	2.341	161.8	0.02	No	
Rear	N/A	1.247							0.549	1.094			1+8+9	2.890				
		1.247							0.549				1+8	1.796	199	0.01	No	
		1.247								1.094			1+9	2.341	161.8	0.02	No	
									0.549	1.094			8+9	1.643	51.2	0.04	No	
Rear		1.247							0.549	1.094		0.361	1+8+9+11	3.251				66
	MIMO SAR Note.3								1.199				(8+9)	1.199				
		1.247							1.199			0.361	1+(8+9)+11	2.807				
		1.247							1.199				1+(8+9)	2.446	163.7	0.02	No	
		1.247										0.361	1+11	1.608	209.0	0.01	No	
									1.199			0.361	(8+9)+11	1.560	55.0	0.04	No	
Rear		1.247				0.291	0.301		0.549	1.094			1+5+6+8+9	3.482				67
	MIMO SAR Note.3					0.486							(5+6)	0.486				
	MIMO SAR Note.3								1.199				(8+9)	1.199				
		1.247				0.486			1.199				1+(5+6)+(8+9)	2.932				
		1.247				0.486							1+(5+6)	1.733	167.2	0.01	No	
		1.247							1.199				1+(8+9)	2.446	163.7	0.02	No	
						0.486			1.199				(5+6)+(8+9)	1.685	5.2	0.42	Yes	
	Hybrid SPLSR Note.2	1.247				1.320							1+(5+6)+(8+9)	2.567	154.6	0.03	No	67-a
Rear		1.247					0.301		0.549	1.094		0.361	1+6+8+9+11	3.552				68
	MIMO SAR Note.3								1.199				(8+9)	1.199				
	Volume Scan Note.4						0.478						(6+11)	0.478				
		1.247							1.199			0.478	1+(8+9)+(6+11)	2.924				
		1.247							1.199				1+(8+9)	2.446	163.7	0.02	No	
		1.247										0.478	1+(6+11)	1.725	157.6	0.01	No	
									1.199			0.478	(8+9)+(6+11)	1.677	6.4	0.34	Yes	
	Hybrid SPLSR Note.2	1.247					1.310						1+(8+9+6+11)	2.557	154.6	0.03	No	68-a

Note(s):

1. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.16 for detailed Volume Scan Result.
2. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
3. MIMO SAR was used for Simultaneous transmission analysis.
4. Volume Scan SAR was used for Simultaneous transmission analysis.

12.15 Sum of the SAR for NR Band n71 & Wi-Fi & BT

Test Position	Standalone SAR (W/kg)											∑ 1-g SAR (W/kg)						
	WWAN	Non RSDB			RSDB			Non RSDB & RSDB			BT	Non RSDB scenarios					RSDB scenarios	
		DTS Ant 1	DTS Ant 2	DTS MIMO	DTS Ant 1	DTS Ant 2	DTS MIMO	U-NII Ant 1	U-NII Ant 2	U-NII MIMO		WWAN + DTS Ant 1 + DTS Ant.2	WWAN + U-NII Ant.1	WWAN + U-NII Ant.2	WWAN + U-NII Ant 1 + U-NII Ant.2	WWAN + UNII Ant.1 + UNII Ant.2 + BT	WWAN + DTS (Ant.1 + Ant.2) + U-NII (Ant.1 + Ant.2)	WWAN + BT + DTS Ant.2 + U-NII (Ant.1 + Ant.2)
	1	2	3	4	5	6	7	8	9	10	11	1+2+3	1+8	1+9	1+8+9	1+8+9+11	1+5+6+8+9	1+6+8+9+11
Rear	1.031	0.418	0.391	0.765	0.291	0.301	0.486	0.549	1.094	1.199	0.361	1.840	1.580	2.125	2.674	3.035	3.266	3.336

SAR to Peak Location Separation Ratio (SPLSR)

Test Position	Hybrid SPLSR	Standalone SAR (W/kg)											SUM 1-g SAR (W/kg)		Calculated distance (mm)	SPLSR (=< 0.04)	Volume Scan (Yes/No) Note.1	Figure
		WWAN	Non RSDB			RSDB			Non RSDB & RSDB			BT						
			DTS Ant 1	DTS Ant 2	DTS MIMO	DTS Ant 1	DTS Ant 2	DTS MIMO	U-NII Ant 1	U-NII Ant 2	U-NII MIMO							
		1	2	3	4	5	6	7	8	9	10	11						
Rear	N/A	1.031	0.418	0.391									1+2+3	1.840				69
		1.031	0.418										1+2	1.449	240.5	0.01	No	
		1.031		0.391									1+3	1.422	209.0	0.01	No	
			0.418	0.391									2+3	0.809	56.8	0.01	No	
Rear	N/A	1.031								1.094			1+9	2.125	206.3	0.02	No	70
Rear	N/A	1.031							0.549	1.094			1+8+9	2.674				
		1.031							0.549				1+8	1.580	228.8	0.01	No	
		1.031								1.094			1+9	2.125	206.3	0.02	No	
									0.549	1.094			8+9	1.643	51.2	0.04	No	
Rear		1.031							0.549	1.094		0.361	1+8+9+11	3.035				71
	MIMO SAR Note.3								1.199				(8+9)	1.199				
		1.031							1.199			0.361	1+(8+9)+11	2.591				
		1.031							1.199				1+(8+9)	2.230	207.5	0.02	No	
		1.031										0.361	1+11	1.392	239.4	0.01	No	
									1.199			0.361	(8+9)+11	1.560	55.0	0.04	No	
Rear		1.031				0.291	0.301		0.549	1.094			1+5+6+8+9	3.266				72
	MIMO SAR Note.3					0.486							(5+6)	0.486				
	MIMO SAR Note.3								1.199				(8+9)	1.199				
		1.031				0.486			1.199				1+(5+6)+(8+9)	2.716				
		1.031				0.486							1+(5+6)	1.517	211.6	0.01	No	
		1.031							1.199				1+(8+9)	2.230	207.5	0.02	No	
						0.486			1.199				(5+6)+(8+9)	1.685	5.2	0.42	Yes	
	Hybrid SPLSR Note.2	1.031				1.320							1+(5+6)+(8+9)	2.351	198.6	0.02	No	72-a
Rear		1.031					0.301		0.549	1.094		0.361	1+6+8+9+11	3.336				73
	MIMO SAR Note.3								1.199				(8+9)	1.199				
	Volume Scan Note.4						0.478						(6+11)	0.478				
		1.031							1.199			0.478	1+(8+9)+(6+11)	2.708				
		1.031							1.199				1+(8+9)	2.230	207.5	0.02	No	
		1.031										0.478	1+(6+11)	1.509	202.3	0.01	No	
									1.199			0.478	(8+9)+(6+11)	1.677	6.4	0.34	Yes	
	Hybrid SPLSR Note.2	1.031					1.310						1+(8+9+6+11)	2.341	198.6	0.02	No	73-a

Note(s):

1. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.16 for detailed Volume Scan Result.
2. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
3. MIMO SAR was used for Simultaneous transmission analysis.
4. Volume Scan SAR was used for Simultaneous transmission analysis.

12.16 Sum of the SAR for Wi-Fi (RSDB & Non RSDB) & BT

Test results were refer to reference model (FCC ID : A3LNP545XLA).

Test Position	Standalone SAR (W/kg)										∑ 1-g SAR (W/kg)				
	Non RSDB			RSDB			Non RSDB & RSDB			BT	Non RSDB scenarios			RSDB scenarios	
	DTS Ant 1	DTS Ant 2	DTS MIMO	DTS Ant 1	DTS Ant 2	DTS MIMO	U-NII Ant 1	U-NII Ant 2	U-NII MIMO		DTS Ant.1 + DTS Ant.2	U-NII Ant.1 + U-NII Ant.2	UNII Ant.1 + UNII Ant.2 + BT	DTS (Ant.1 + Ant.2) + U-NII (Ant.1 + Ant.2)	BT + DTS Ant.2 + U-NII (Ant.1 + Ant.2)
	2	3	4	5	6	7	8	9	10	11	2+3	8+9	8+9+11	5+6+8+9	6+8+9+11
Rear	0.418	0.391	0.765	0.291	0.301	0.486	0.549	1.094	1.199	0.361	0.809	1.199	1.560	2.235	2.305

SAR to Peak Location Separation Ratio (SPLSR)

Test Position	Hybrid SPLSR	Standalone SAR (W/kg)										SUM 1-g SAR (W/kg)		Calculated distance (mm)	SPLSR (=< 0.04)	Volume Scan (Yes/No) Note.1
		Non RSDB			RSDB			Non RSDB & RSDB			BT					
		DTS Ant 1	DTS Ant 2	DTS MIMO	DTS Ant 1	DTS Ant 2	DTS MIMO	U-NII Ant 1	U-NII Ant 2	U-NII MIMO						
		2	3	4	5	6	7	8	9	10	11					
Rear					0.291	0.301		0.549	1.094			5+6+8+9	2.235			
	MIMO SAR Note.3				0.486							(5+6)	0.486			
	MIMO SAR Note.3							1.199				(8+9)	1.199			
					0.486			1.199				(5+6)+(8+9)	1.685	5.2	0.42	Yes
					1.320											
Rear						0.301		0.549	1.094		0.361	6+8+9+11	2.305			
	MIMO SAR Note.3							1.199				(8+9)	1.199			
	Volume Scan Note.4					0.478						(6+11)	0.478			
								1.199			0.478	(8+9)+(6+11)	1.677	6.4	0.34	Yes
						1.310										

Note(s):

1. SPLSR Hotspot Combination Step.1) Perform enlarged zoom scan (Volume scan) on the co-located antenna pair to determine 1g/10g aggregate SAR. Refer to the Sec.12.16 for detailed Volume Scan Result.
2. SPLSR Hotspot Combination Step.2) Apply SPLSR procedure for the spatially separated antenna and aggregate SAR distribution of the co-located antenna pair. Hybrid SPLSR procedure was applied for the spatially separated main bands and unlicensed bands for Multi-band Combined results.
3. MIMO SAR was used for Simultaneous transmission analysis.
4. Volume Scan SAR was used for Simultaneous transmission analysis.
5. Blue value is the result including MIMO SAR test result of UNII Ant.1 and UNII Ant.2.

12.17 Volume Scan Results

Test results were refer to reference model (FCC ID : A3LNP545XLA).

RF Exposure	Test Position	Configuration	Band	Original Measured SAR (W/kg)	Volume Scan Result	Plot No.	Multi-Band Combined factor	Multi-Band Combined Result	Plot No.
Standalone	Rear	BT +DTS Ant 2 + UNII MIMO	BT	0.241	0.226	1	1.499	1.310	6, 7
			DTS Ant 2	0.290	0.333	2	1.036		
			UNII Ant 1	0.360	0.275	3	1.526		
			UNII Ant 2	0.672	0.555	4	1.628		
		DTS MIMO + UNII MIMO	DTS Ant 1	0.277	0.351	5	1.051	1.320	8, 9
			DTS Ant 2	0.290	0.333		1.036		
			UNII Ant 1	0.360	0.275		1.526		
			UNII Ant 2	0.672	0.555		1.628		
		BT +DTS Ant 2	BT	0.241	0.226		1.499	0.478	10
			DTS Ant 2	0.290	0.333		1.036		

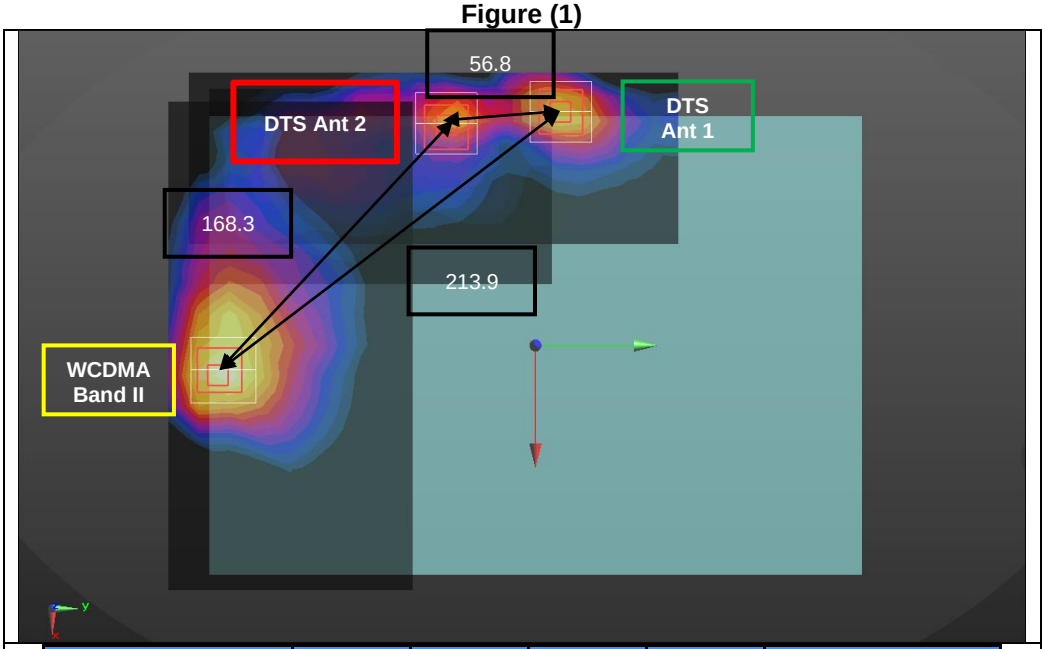
Note(s):

1. Multi-band Combined factor is the compensation value of power and duty.
2. For Volume Scan plot number in this section, please refer to the Appendix Ⅰ.

Conclusion:

Simultaneous Transmission SAR analysis results is satisfied the FCC Limit requirement according to follow procedures with “Sum of SAR” or “SPLSR” or “SPLSR Hotspot combination(including Volume Scan)”.

Figure (1)

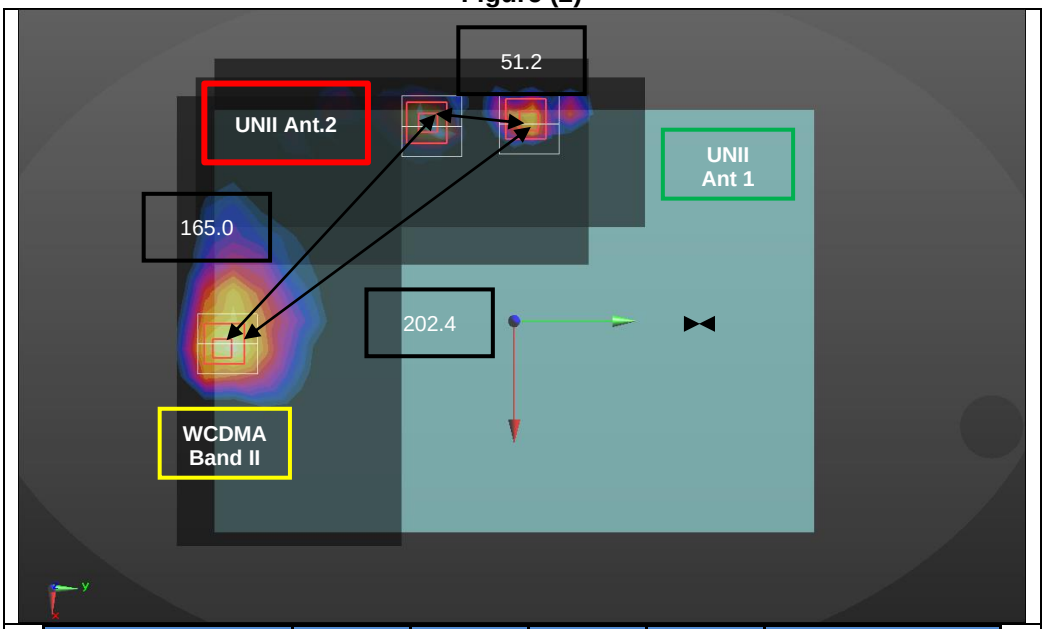


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
WCDMA Band II	1	1.078	0.0168	-0.1562	-0.0013	1 + 2	213.9
DTS Ant.1	2	0.418	-0.1148	0.0124	0.0019	1 + 3	168.3
DTS Ant.2	3	0.391	-0.1082	-0.0436	-0.0047	2 + 3	56.8

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (2)

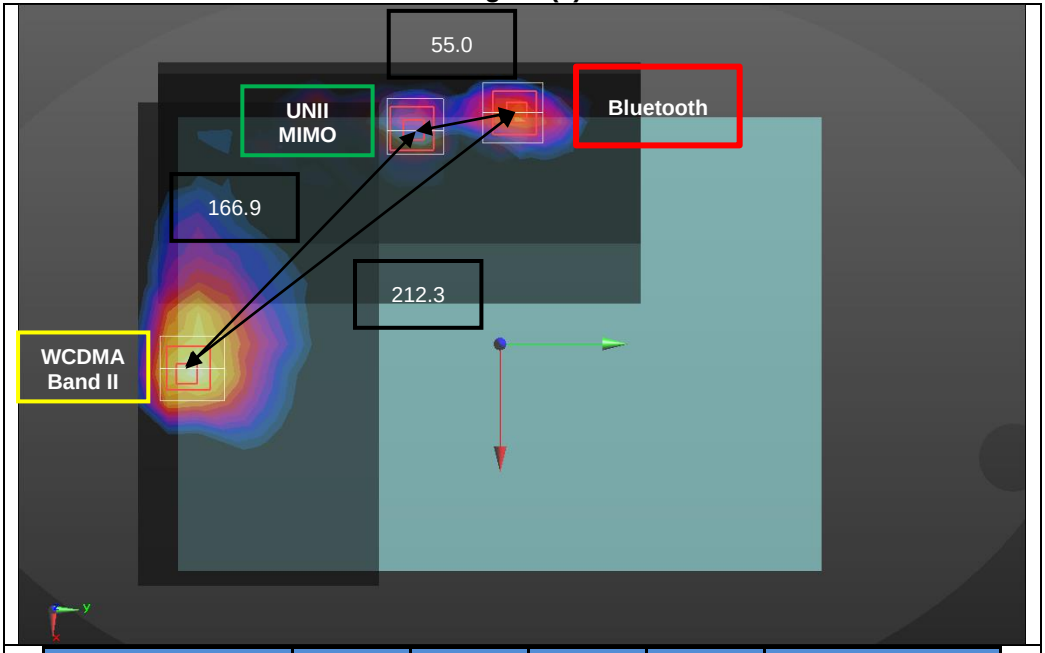


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
WCDMA Band II	1	1.078	0.0168	-0.1562	-0.0013	1 + 2	202.4
UNII Ant.1	2	0.549	-0.1058	0.0048	-0.0010	1 + 3	165.0
UNII Ant.2	3	1.094	-0.1064	-0.0464	-0.0012	2 + 3	51.2

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (3)

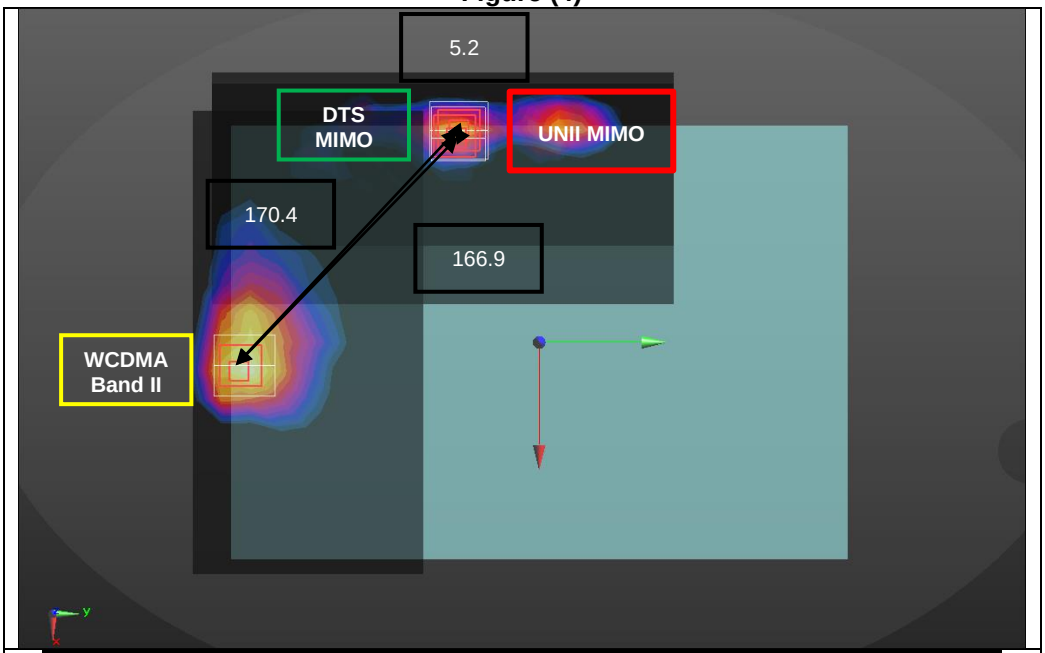


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
WCDMA Band II	1	1.078	0.0168	-0.1562	-0.0013	1 + 2	166.9
UNII MIMO	2	1.199	-0.1068	-0.0440	-0.0011	1 + 3	212.3
BT	3	0.361	-0.1148	0.0104	-0.0031	2 + 3	55.0

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (4)

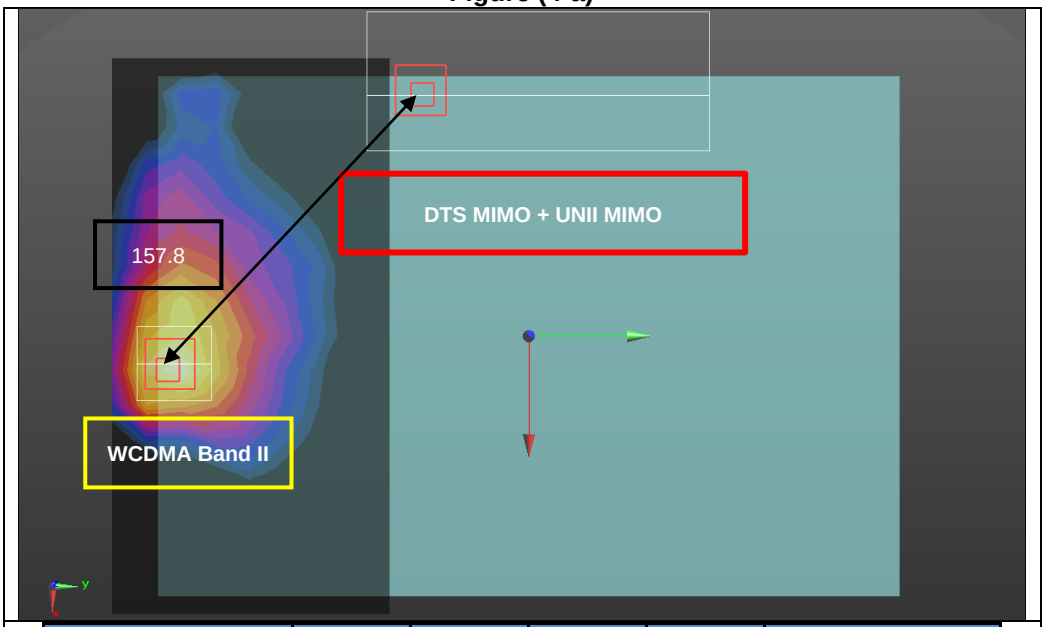


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
WCDMA Band II	1	1.078	0.0168	-0.1562	-0.0013	1 + 2	170.4
DTS MIMO	2	0.486	-0.1110	-0.0436	-0.0042	1 + 3	166.9
UNII MIMO	3	1.199	-0.1068	-0.0440	-0.0011	2 + 3	5.2

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (4-a)

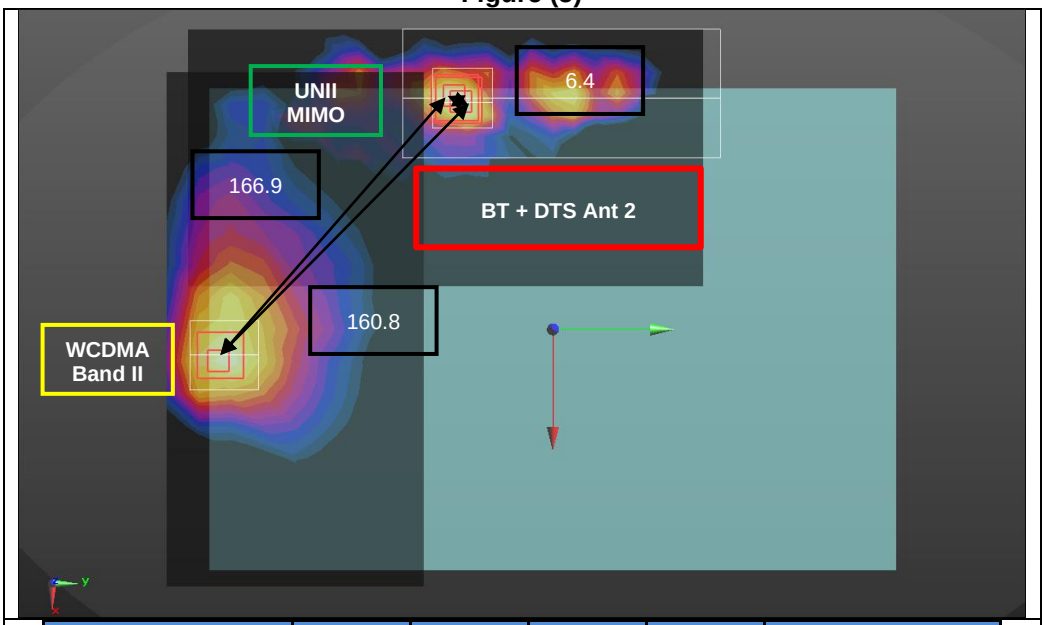


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
WCDMA Band II	1	1.078	0.0168	-0.1562	-0.0013	1 + 2	157.8
DTS MIMO + UNII MIMO	2	1.320	-0.0992	-0.0492	-0.0023		

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (5)

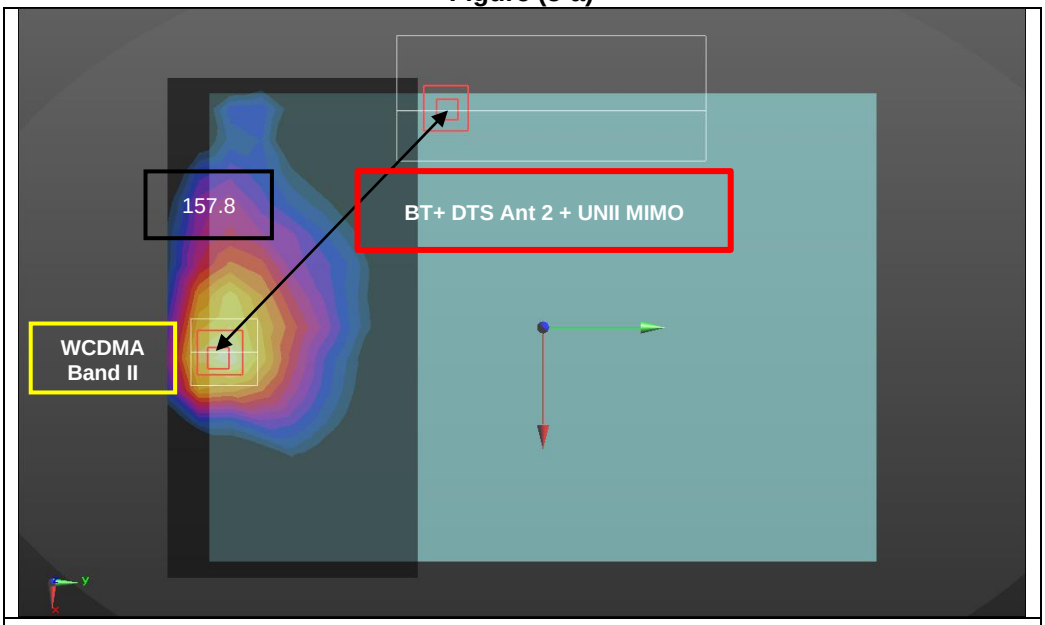


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
WCDMA Band II	1	1.078	0.0168	-0.1562	-0.0013	1 + 2	160.8
BT+DTS Ant.2	2	0.478	-0.1032	-0.0492	-0.0023	1 + 3	166.9
UNII MIMO	3	1.199	-0.1068	-0.0440	-0.0011	2 + 3	6.4

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (5-a)

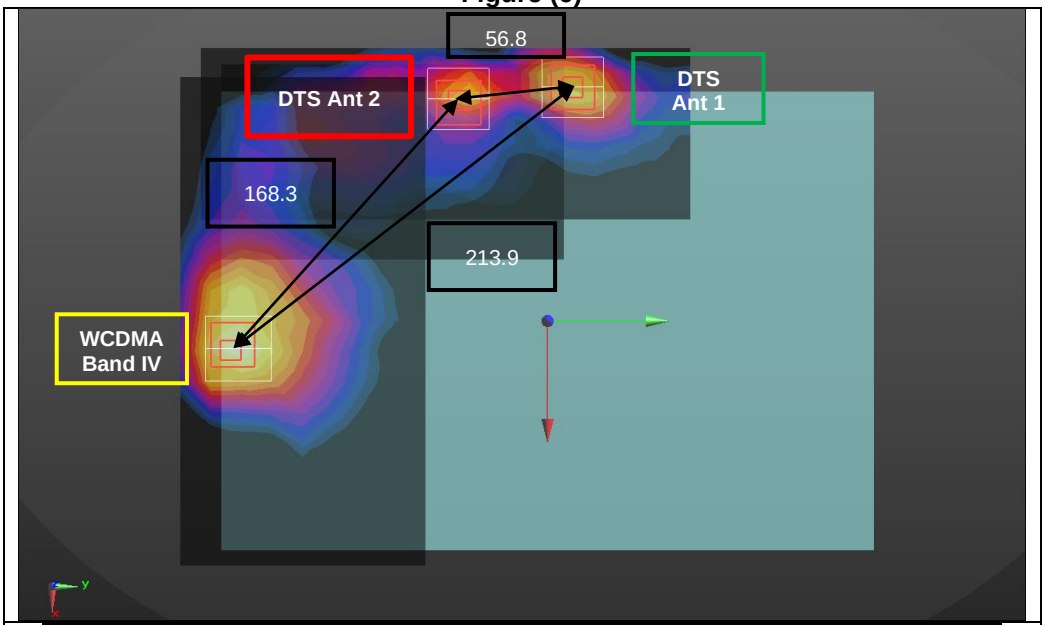


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
WCDMA Band II	1	1.078	0.0168	-0.1562	-0.0013	1 + 2	157.8
BT+DTS Ant.2 UNII MIMO	2	1.310	-0.0992	-0.0492	-0.0023		

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (6)

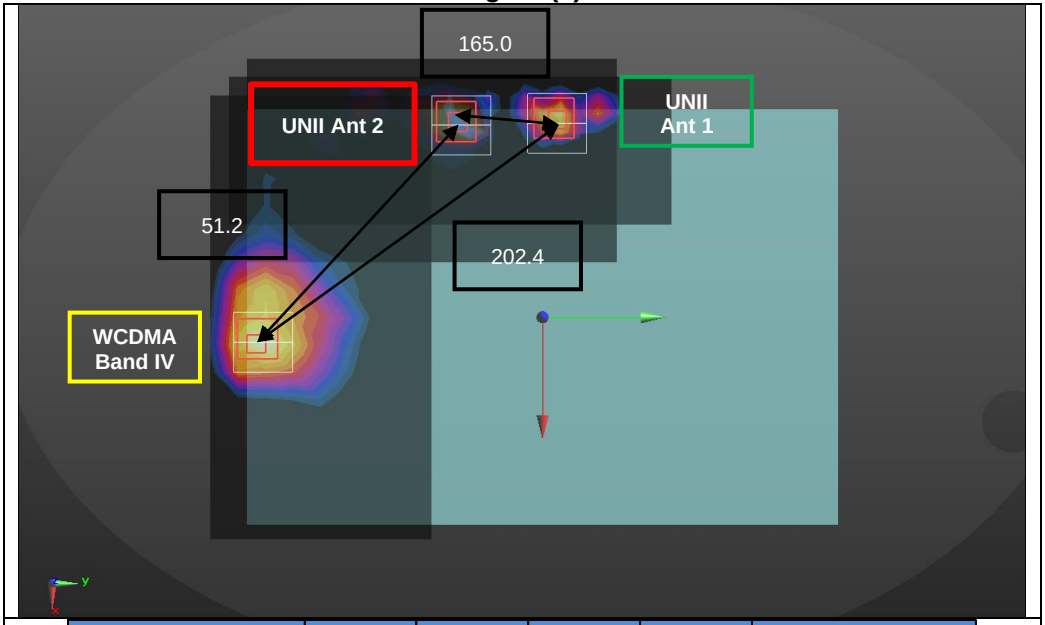


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
WCDMA Band IV	1	0.933	0.0167	-0.1563	-0.0014	1 + 2	213.9
DTS Ant.1	2	0.418	-0.1148	0.0124	0.0019	1 + 3	168.3
DTS Ant.2	3	0.391	-0.1082	-0.0436	-0.0047	2 + 3	56.8

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (7)

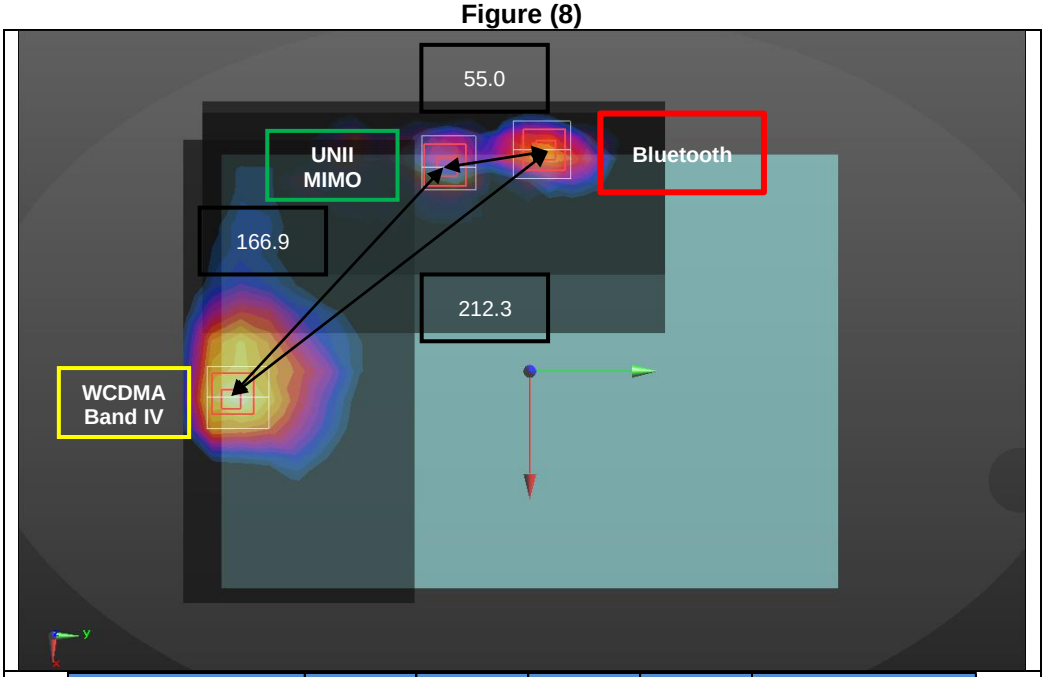


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
WCDMA Band IV	1	0.933	0.0167	-0.1563	-0.0014	1 + 2	202.4
UNII Ant.1	2	0.549	-0.1058	0.0048	-0.0010	1 + 3	165.0
UNII Ant.2	3	1.094	-0.1064	-0.0464	-0.0012	2 + 3	51.2

The Peak Location Separation Distance is computed by using the formula below :

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (8)

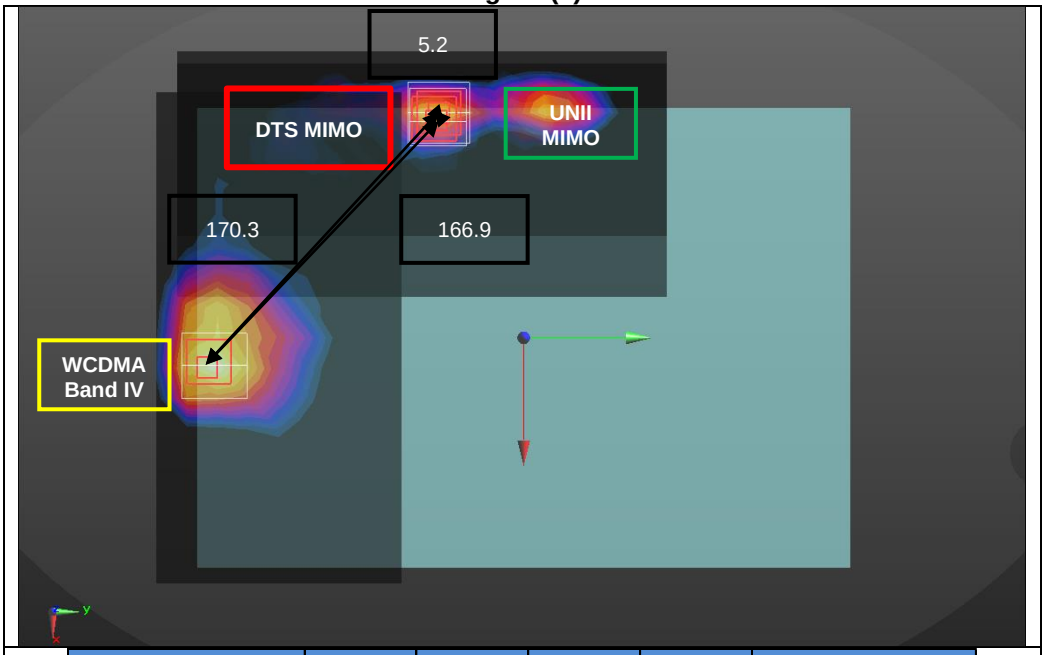


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
WCDMA Band IV	1	0.933	0.0167	-0.1563	-0.0014	1 + 2	166.9
UNII MIMO	2	1.199	-0.1068	-0.0440	-0.0011	1 + 3	212.3
BT	3	0.361	-0.1148	0.0104	-0.0031	2 + 3	55.0

The Peak Location Separation Distance is computed by using the formula below :

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (9)

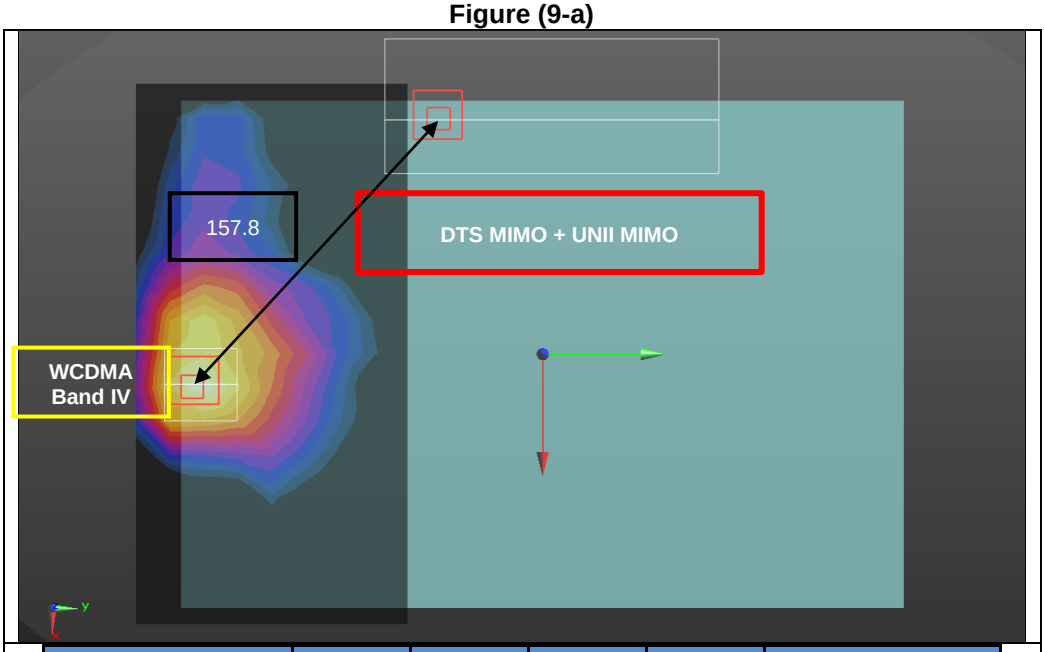


Mode		SAR W/kg	X m	Y m	Z m	d: Calculated distance (mm)	
WCDMA Band IV	1	0.933	0.0167	-0.1563	-0.0014	1 + 2	170.3
DTS MIMO	2	0.486	-0.1110	-0.0436	-0.0042	1 + 3	166.9
UNII MIMO	3	1.199	-0.1068	-0.0440	-0.0011	2 + 3	5.2

The Peak Location Separation Distance is computed by using the formula below :

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (9-a)

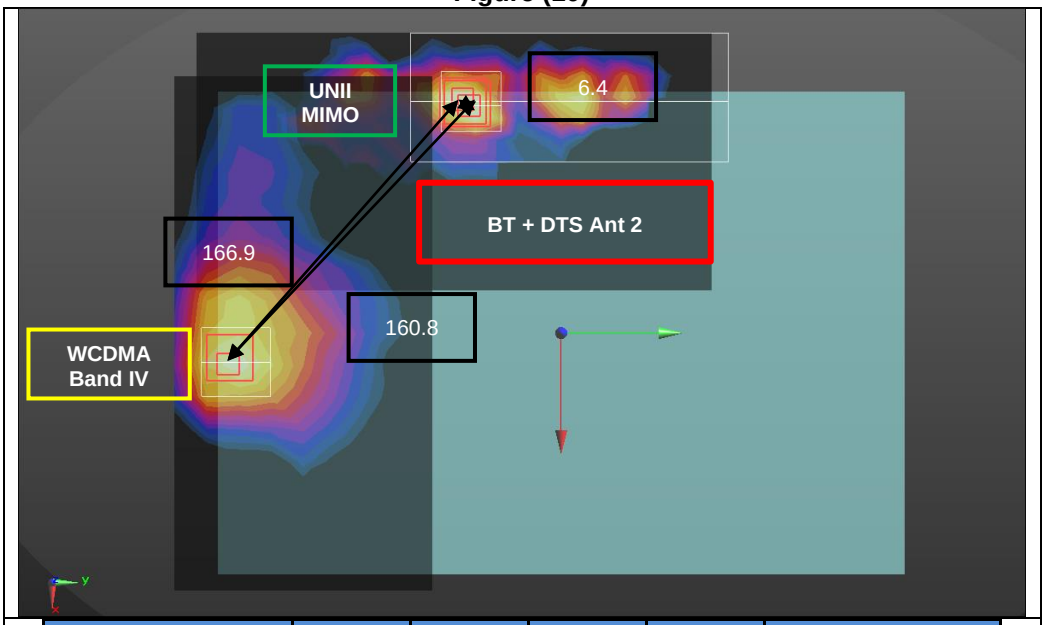


Mode		SAR W/kg	X m	Y m	Z m	d: Calculated distance (mm)	
WCDMA Band IV	1	0.933	0.0167	-0.1563	-0.0014	1 + 2	157.8
DTS MIMO + UNII MIMO	2	1.320	-0.0992	-0.0492	-0.0023		

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (10)

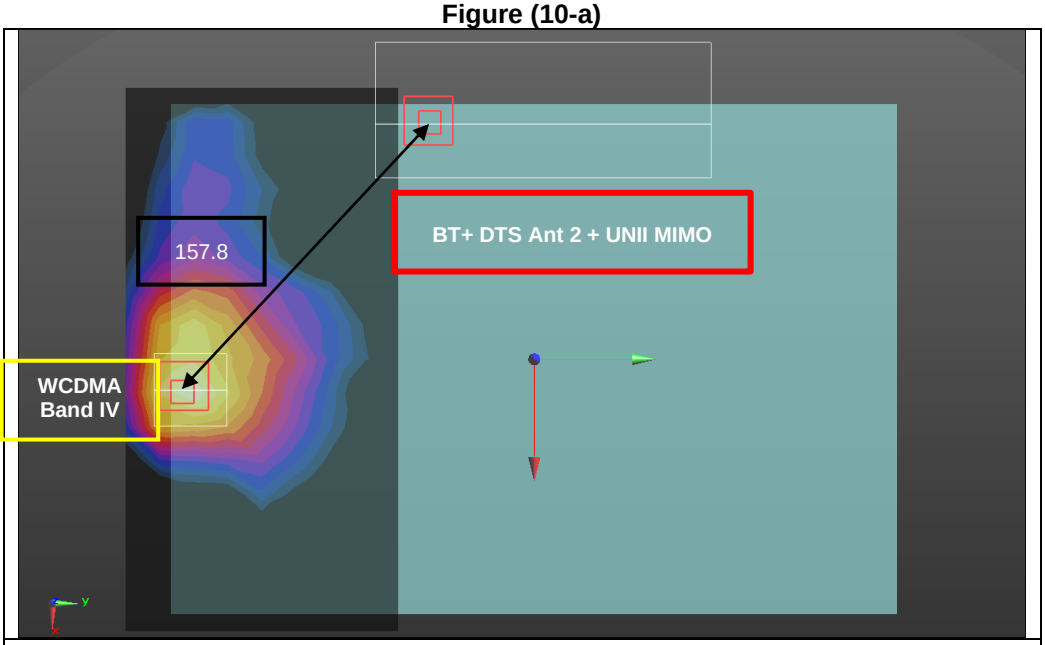


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
WCDMA Band IV	1	0.933	0.0167	-0.1563	-0.0014	1 + 2	160.8
BT+DTS Ant.2	2	0.478	-0.1032	-0.0492	-0.0023	1 + 3	166.9
UNII MIMO	3	1.199	-0.1068	-0.0440	-0.0011	2 + 3	6.4

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (10-a)

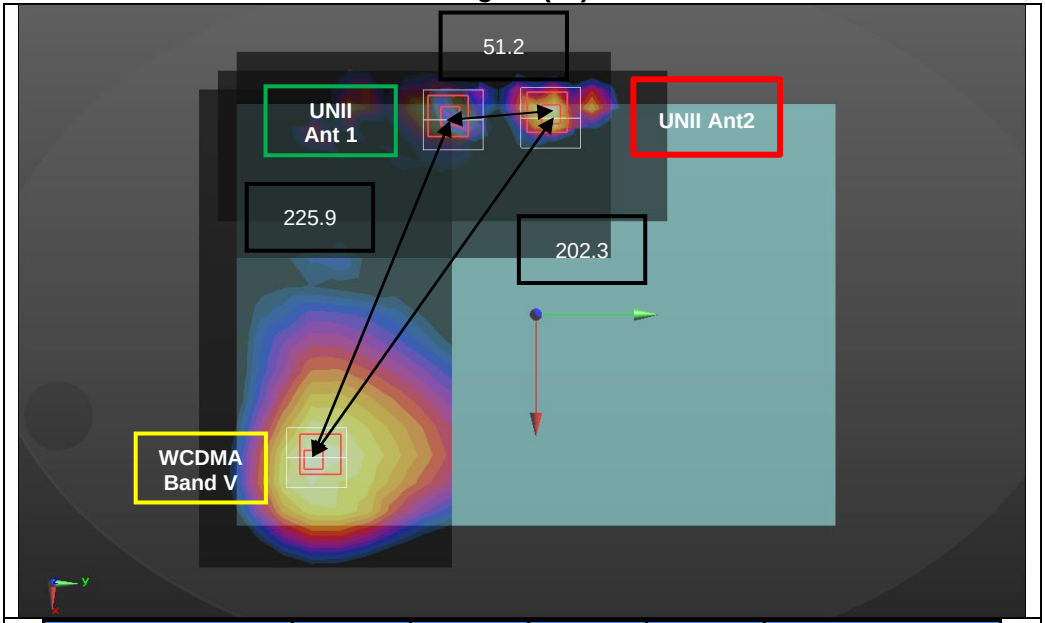


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
WCDMA Band IV	1	0.933	0.0167	-0.1563	-0.0014	1 + 2	157.8
BT+DTS Ant.2 UNII MIMO	2	1.310	-0.0992	-0.0492	-0.0023		

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (11)

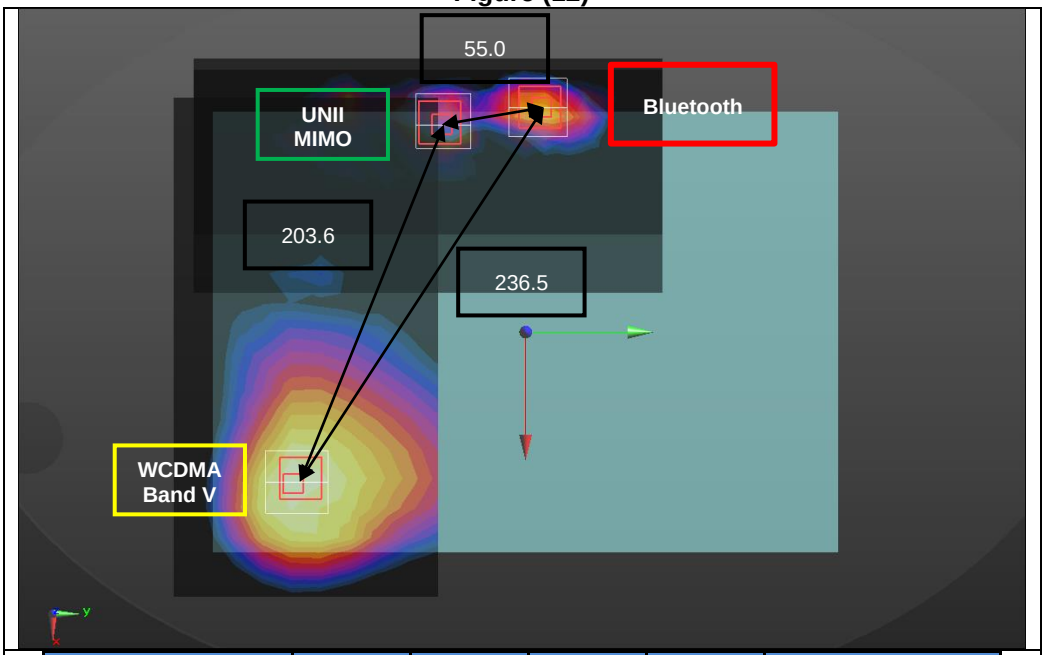


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
WCDMA Band V	1	0.716	0.0813	-0.1218	-0.0033	1 + 2	225.9
UNII Ant.1	2	0.549	-0.1058	0.0048	-0.0010	1 + 3	202.3
UNII Ant.2	3	1.094	-0.1064	-0.0464	-0.0012	2 + 3	51.2

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (12)

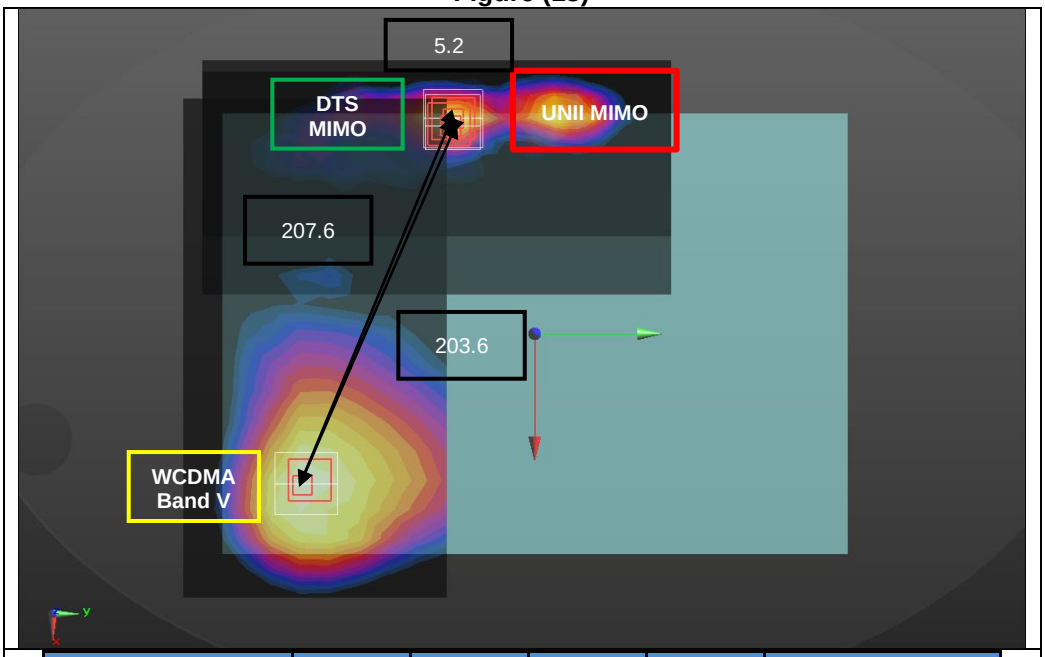


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
WCDMA Band V	1	0.716	0.0813	-0.1218	-0.0033	1 + 2	203.6
UNII MIMO	2	1.199	-0.1068	-0.0440	-0.0011	1 + 3	236.5
BT	3	0.361	-0.1148	0.0104	-0.0031	2 + 3	55.0

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (13)

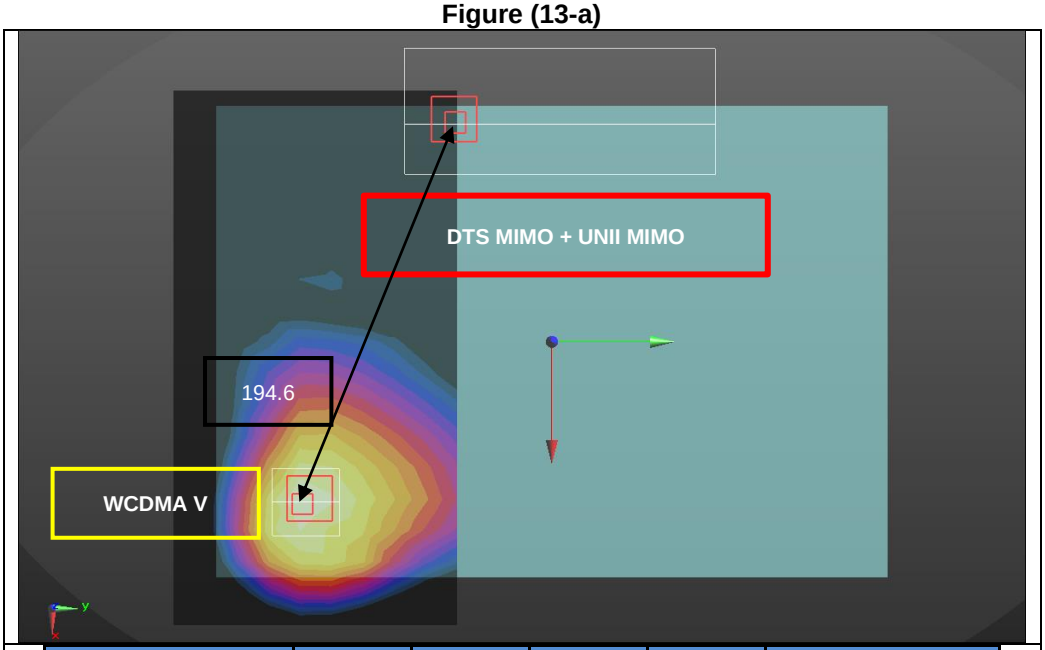


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
WCDMA Band V	1	0.716	0.0813	-0.1218	-0.0033	1 + 2	207.6
DTS MIMO	2	0.486	-0.1110	-0.0436	-0.0042	1 + 3	203.6
UNII MIMO	3	1.199	-0.1068	-0.0440	-0.0011	2 + 3	5.2

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (13-a)

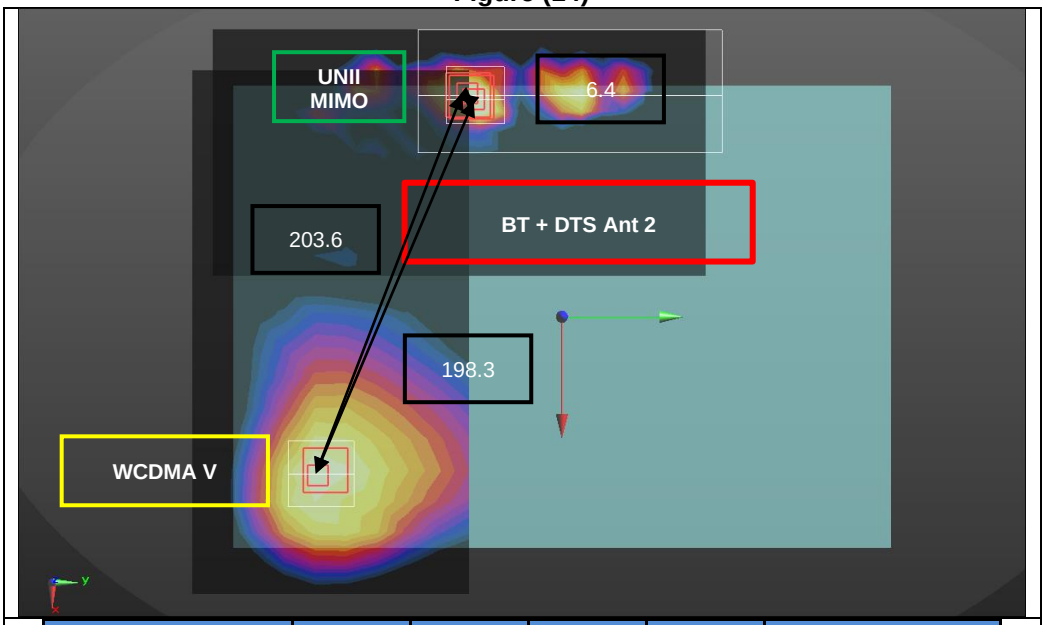


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
WCDMA Band V	1	0.716	0.0813	-0.1218	-0.0033	1 + 2	194.6
DTS MIMO + UNII MIMO	2	1.320	-0.0992	-0.0492	-0.0023		

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (14)

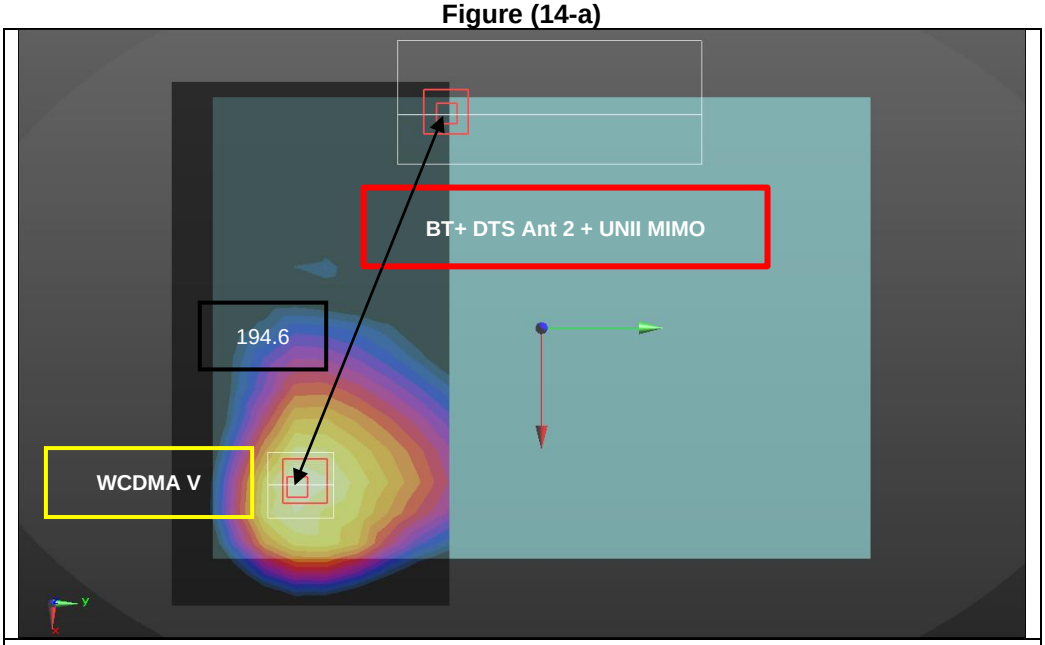


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
WCDMA Band V	1	0.716	0.0813	-0.1218	-0.0033	1 + 2	198.3
BT+DTS Ant.2	2	0.478	-0.1032	-0.0492	-0.0023	1 + 3	203.6
UNII MIMO	3	1.199	-0.1068	-0.0440	-0.0011	2 + 3	6.4

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (14-a)

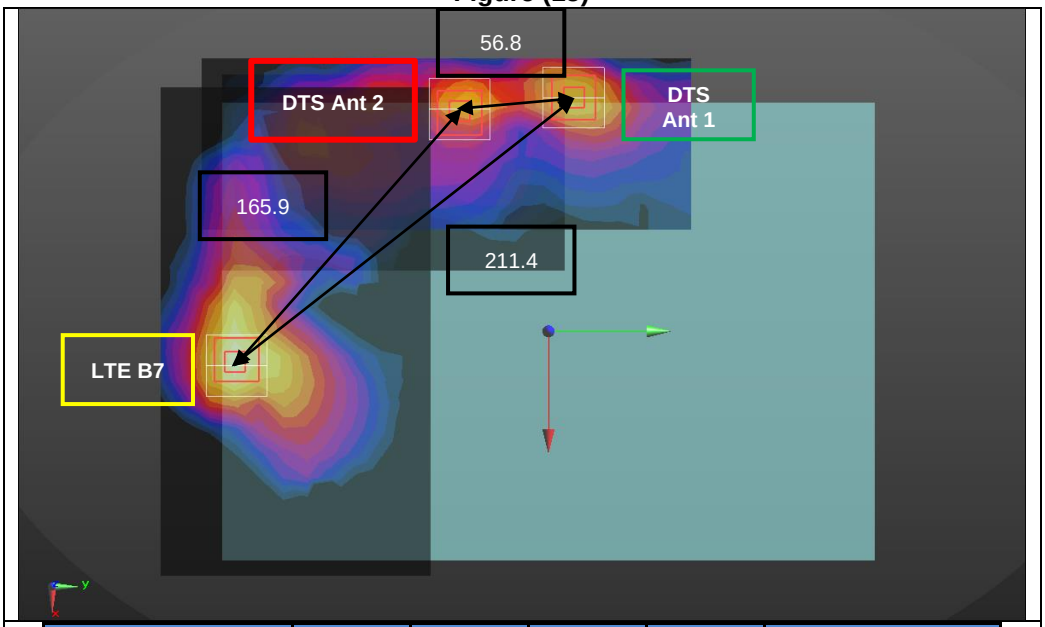


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
WCDMA Band V	1	0.716	0.0813	-0.1218	-0.0033	1 + 2	194.6
BT+DTS Ant.2 UNII MIMO	2	1.310	-0.0992	-0.0492	-0.0023		

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (15)

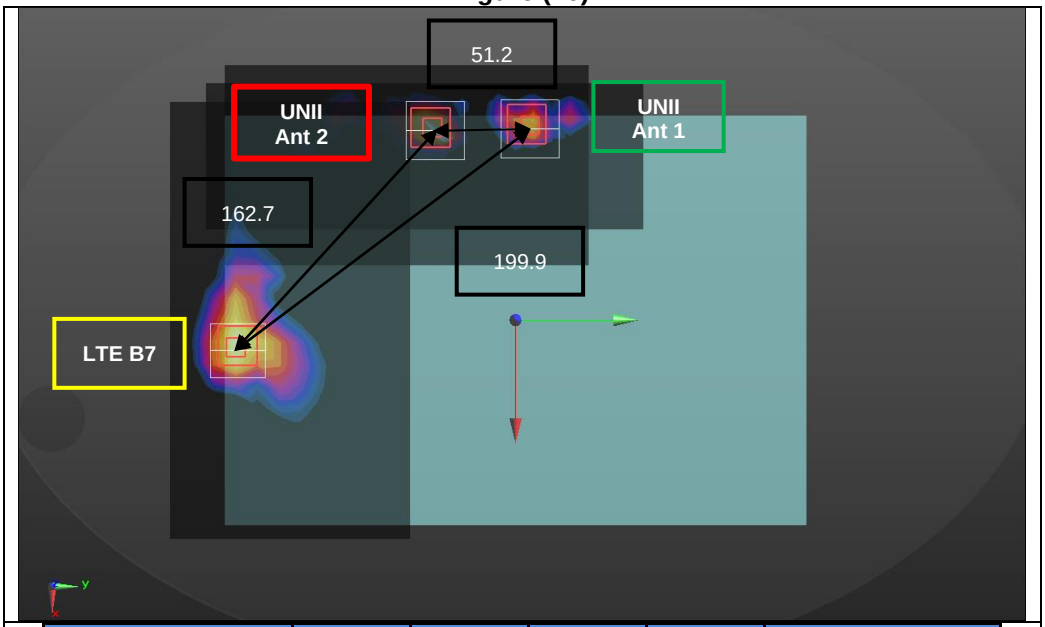


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 7	1	1.177	0.0158	-0.1538	-0.0035	1 + 2	211.4
DTS Ant.1	2	0.418	-0.1148	0.0124	0.0019	1 + 3	165.9
DTS Ant.2	3	0.391	-0.1082	-0.0436	-0.0047	2 + 3	56.8

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (16)

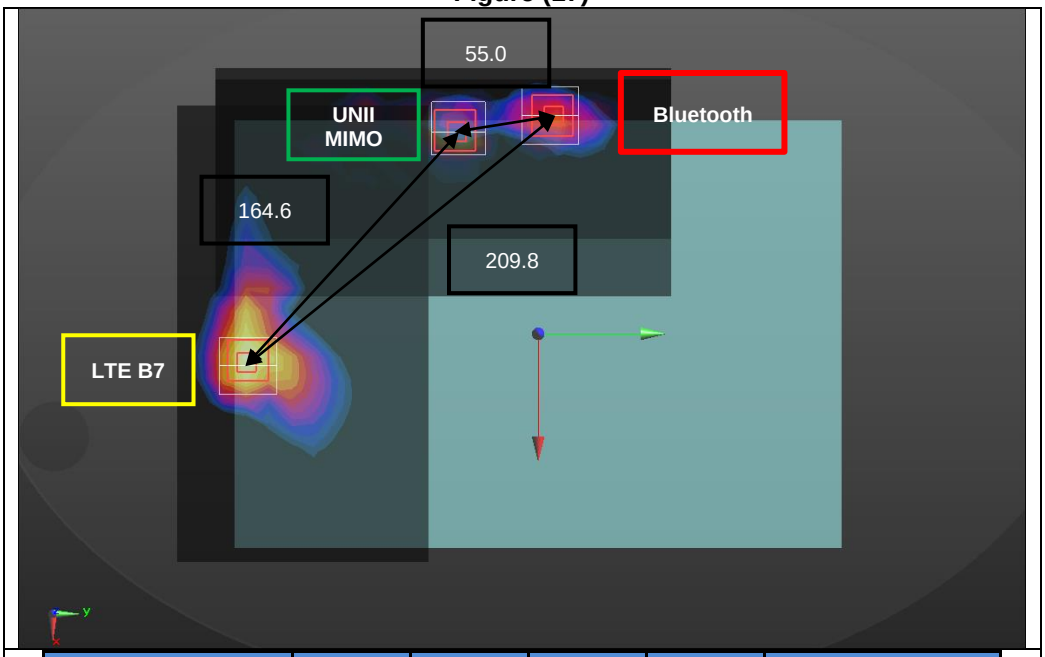


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 7	1	1.177	0.0158	-0.1538	-0.0035	1 + 2	199.9
UNII Ant.1	2	0.549	-0.1058	0.0048	-0.0010	1 + 3	162.7
UNII Ant.2	3	1.094	-0.1064	-0.0464	-0.0012	2 + 3	51.2

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (17)

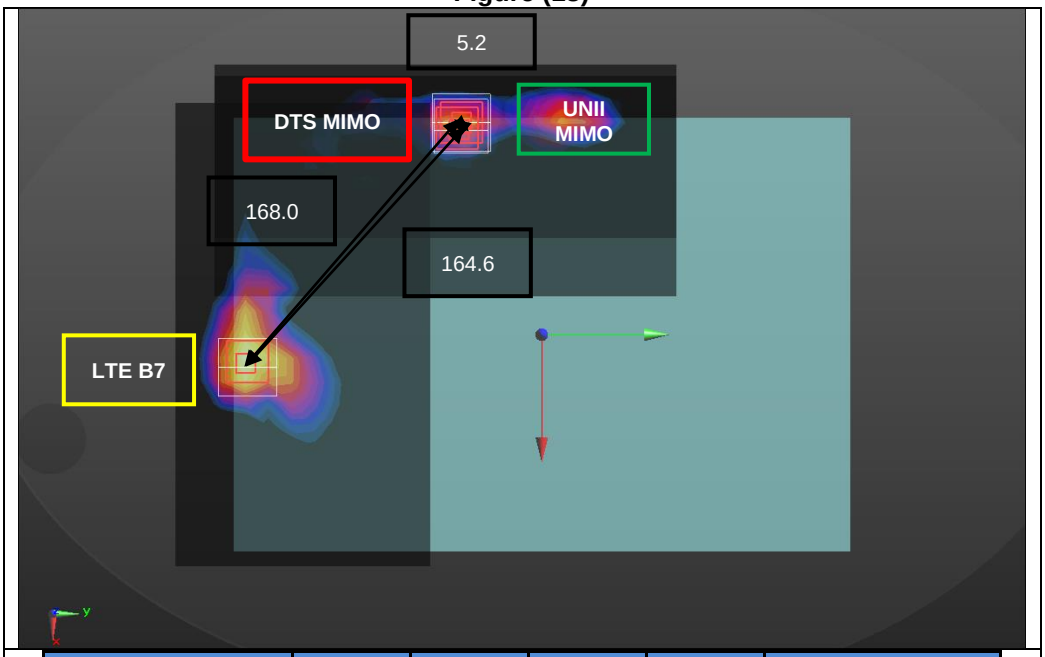


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 7	1	1.177	0.0158	-0.1538	-0.0035	1 + 2	164.6
UNII MIMO	2	1.199	-0.1068	-0.0440	-0.0011	1 + 3	209.8
BT	3	0.361	-0.1148	0.0104	-0.0031	2 + 3	55.0

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (18)

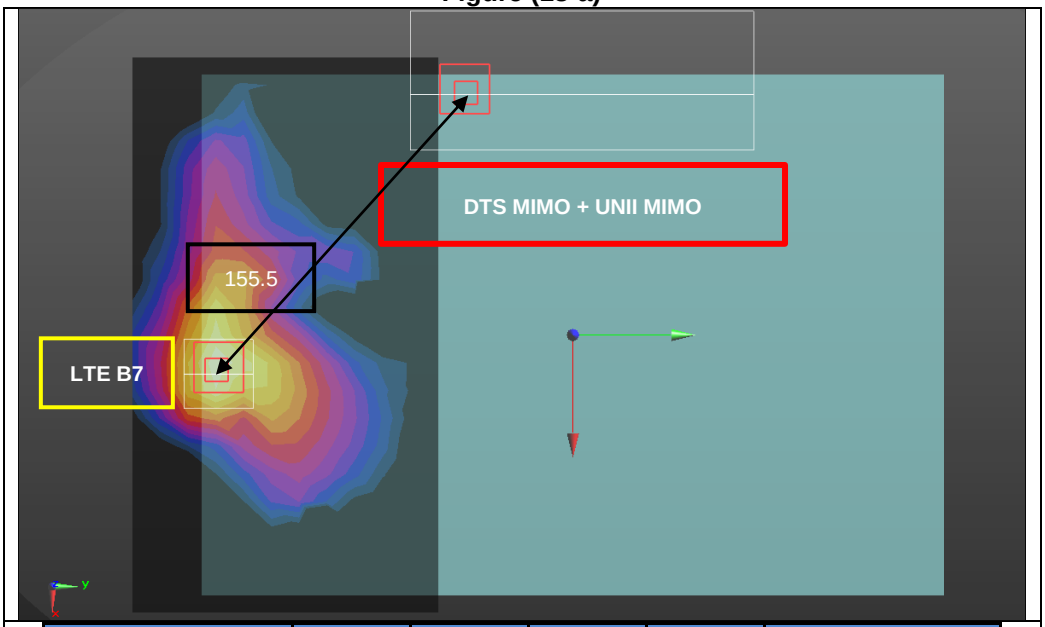


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 7	1	1.177	0.0158	-0.1538	-0.0035	1 + 2	168.0
DTS MIMO	2	0.486	-0.1110	-0.0436	-0.0042	1 + 3	164.6
UNII MIMO	3	1.199	-0.1068	-0.0440	-0.0011	2 + 3	5.2

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (18-a)

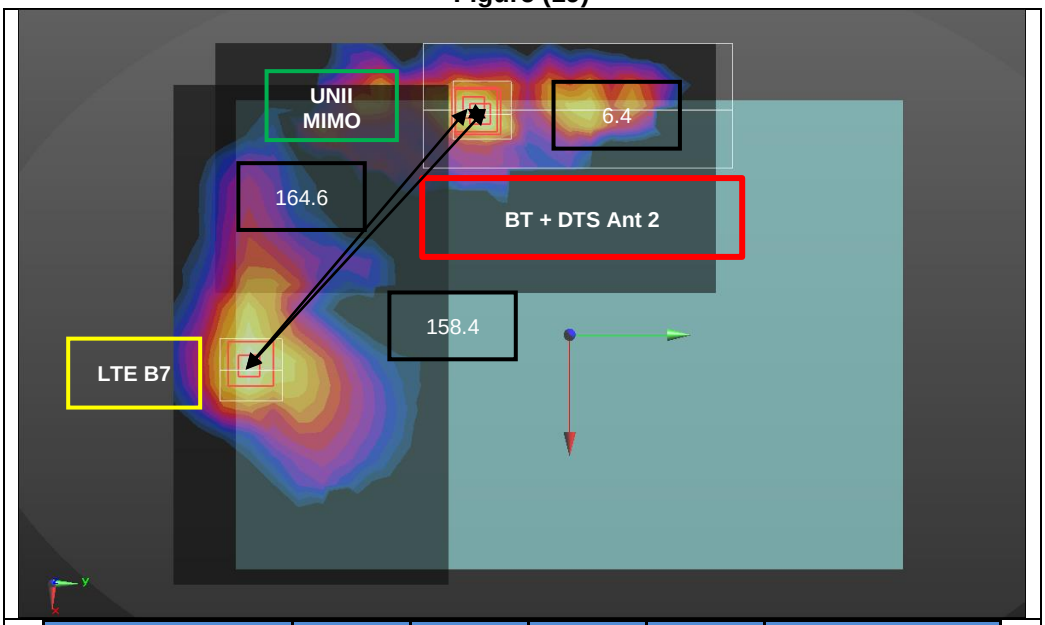


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 7	1	1.177	0.0158	-0.1538	-0.0035	1 + 2	155.5
DTS MIMO + UNII MIMO	2	1.320	-0.0992	-0.0492	-0.0023		

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (19)

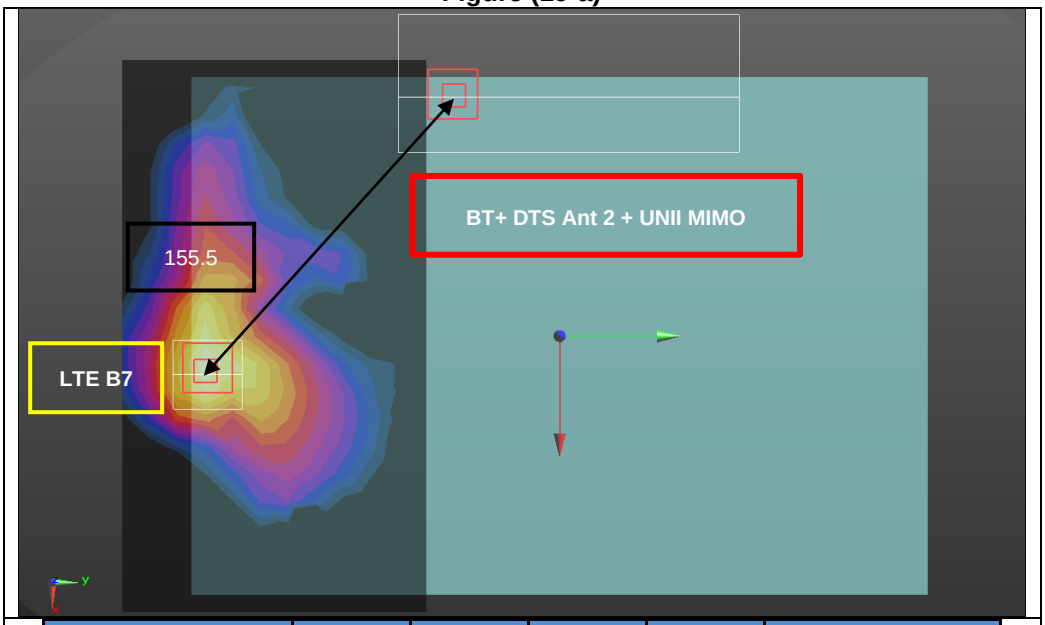


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 7	1	1.177	0.0158	-0.1538	-0.0035	1 + 2	158.4
BT+DTS Ant.2	2	0.478	-0.1032	-0.0492	-0.0023	1 + 3	164.6
UNII MIMO	3	1.199	-0.1068	-0.0440	-0.0011	2 + 3	6.4

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (19-a)

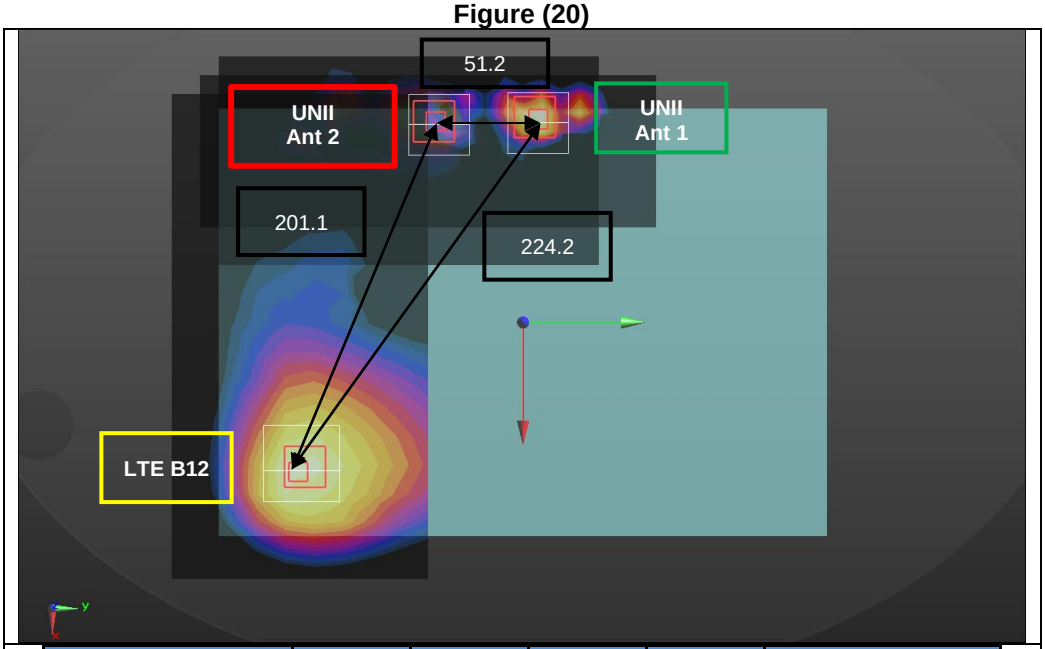


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 7	1	1.177	0.0158	-0.1538	-0.0035	1 + 2	155.5
BT+DTS Ant.2 UNII MIMO	2	1.310	-0.0992	-0.0492	-0.0023		

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (20)

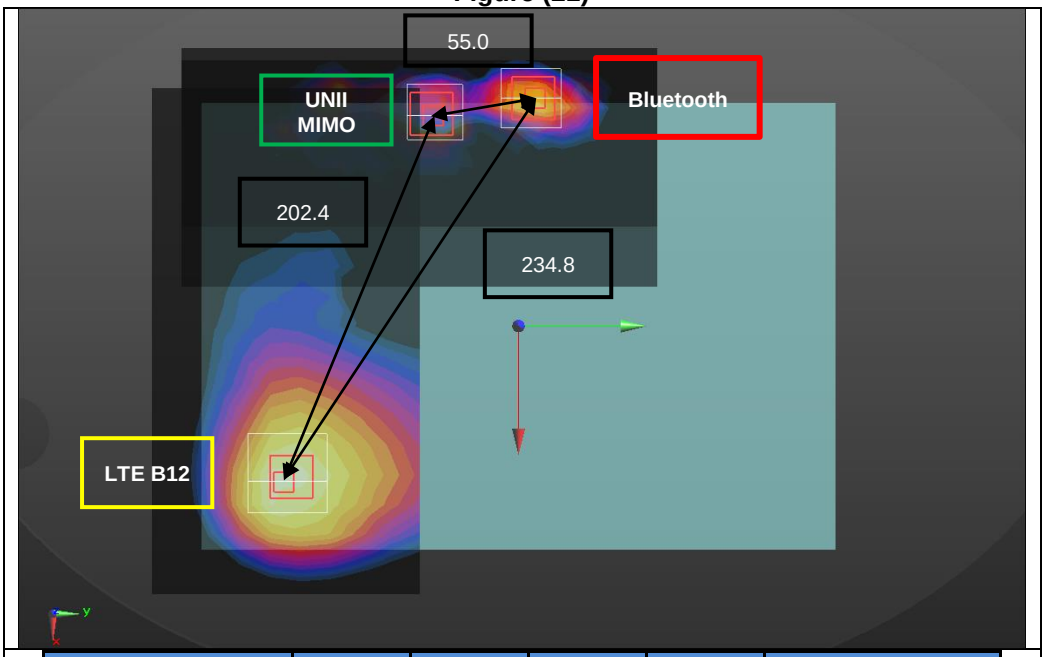


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 12	1	0.629	0.0812	-0.1189	-0.0034	1 + 2	224.2
UNII Ant.1	2	0.549	-0.1058	0.0048	-0.0010	1 + 3	201.1
UNII Ant.2	3	1.094	-0.1064	-0.0464	-0.0012	2 + 3	51.2

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (21)

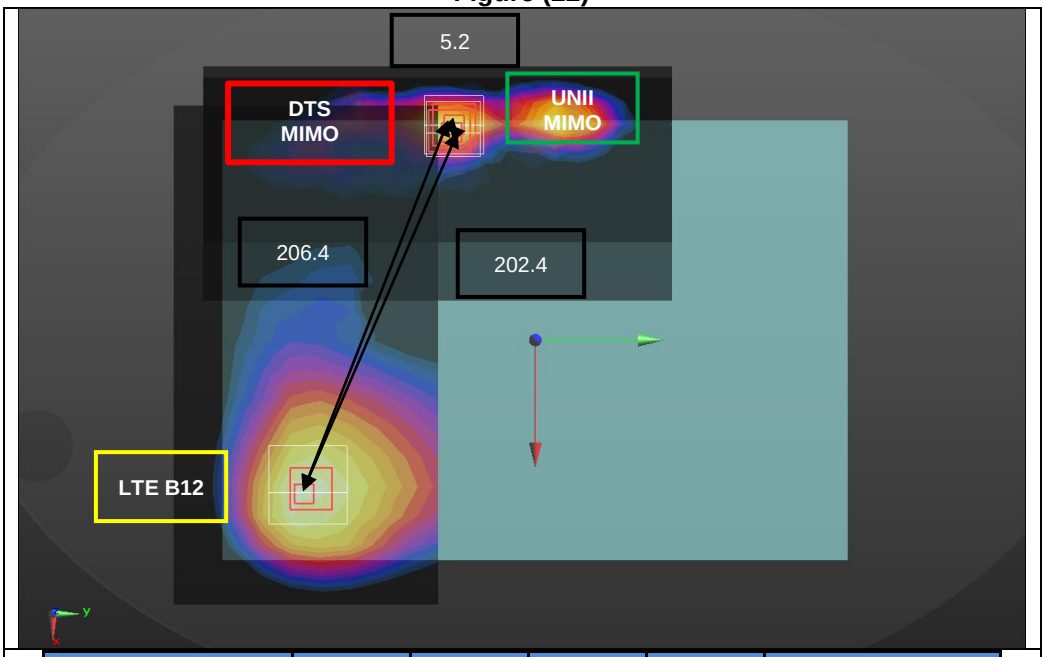


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 12	1	0.629	0.0812	-0.1189	-0.0034	1 + 2	202.4
UNII MIMO	2	1.199	-0.1068	-0.0440	-0.0011	1 + 3	234.8
BT	3	0.361	-0.1148	0.0104	-0.0031	2 + 3	55.0

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (22)

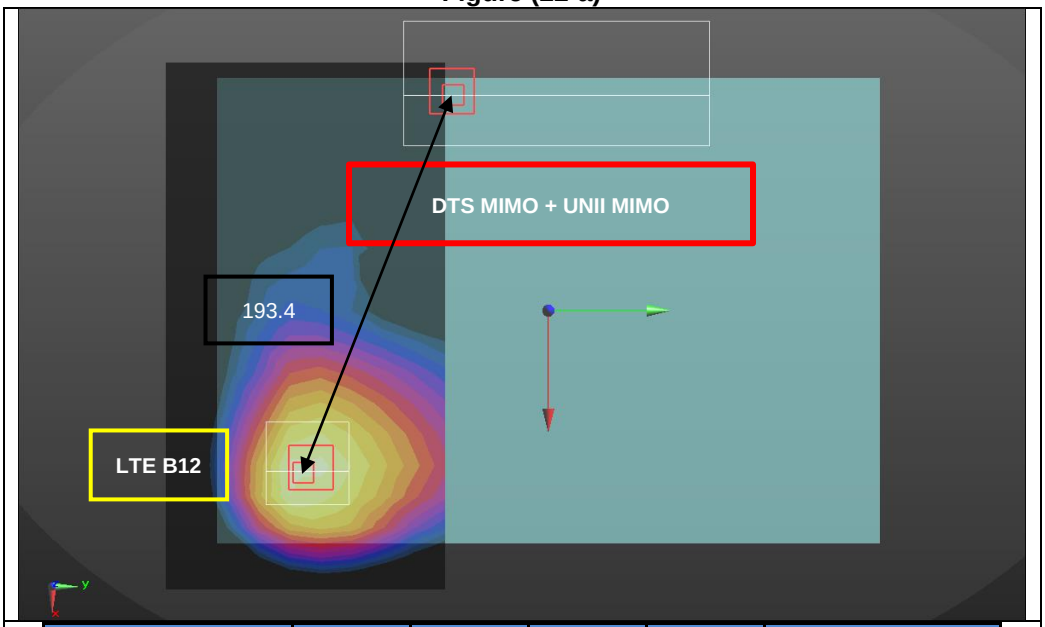


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 12	1	0.629	0.0812	-0.1189	-0.0034	1 + 2	206.4
DTS MIMO	2	0.486	-0.1110	-0.0436	-0.0042	1 + 3	202.4
UNII MIMO	3	1.199	-0.1068	-0.0440	-0.0011	2 + 3	5.2

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (22-a)

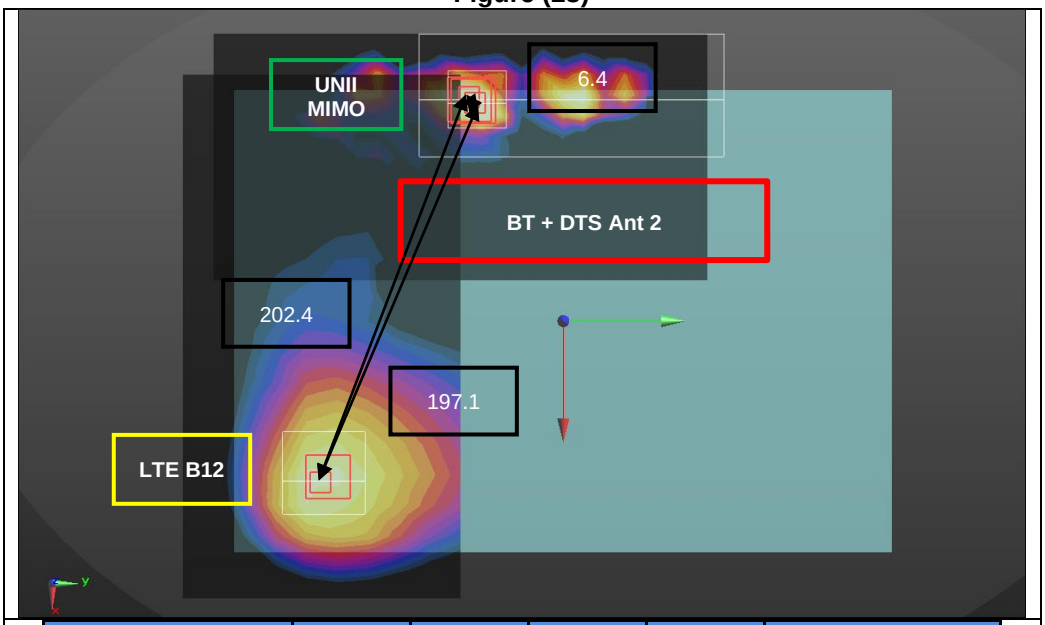


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 12	1	0.629	0.0812	-0.1189	-0.0034	1 + 2	193.4
DTS MIMO + UNII MIMO	2	1.320	-0.0992	-0.0492	-0.0023		

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (23)

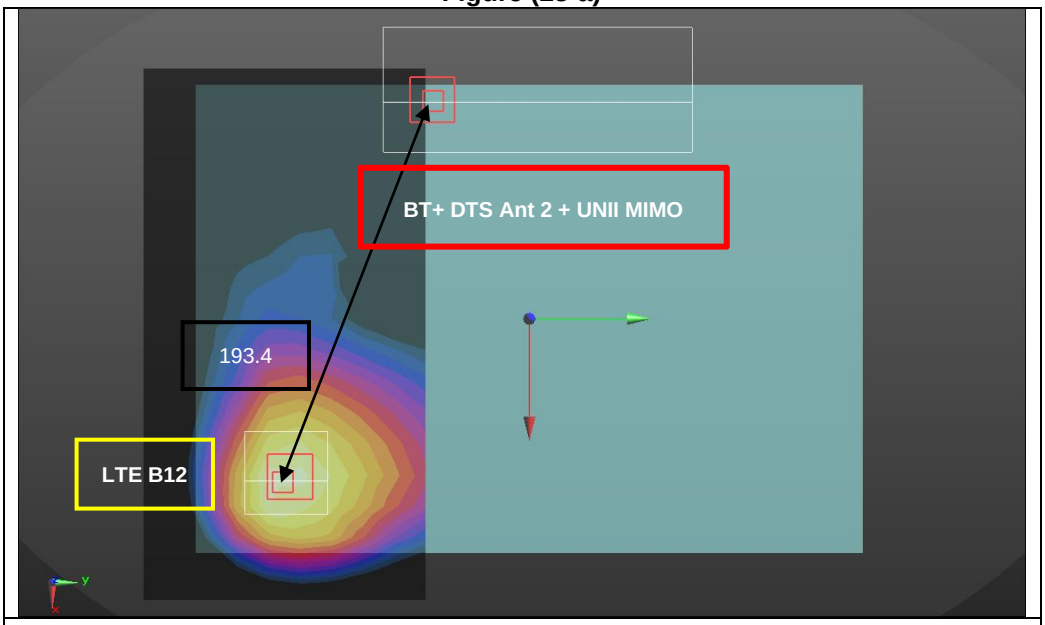


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 12	1	0.629	0.0812	-0.1189	-0.0034	1 + 2	197.1
BT+DTS Ant.2	2	0.478	-0.1032	-0.0492	-0.0023	1 + 3	202.4
UNII MIMO	3	1.199	-0.1068	-0.0440	-0.0011	2 + 3	6.4

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (23-a)

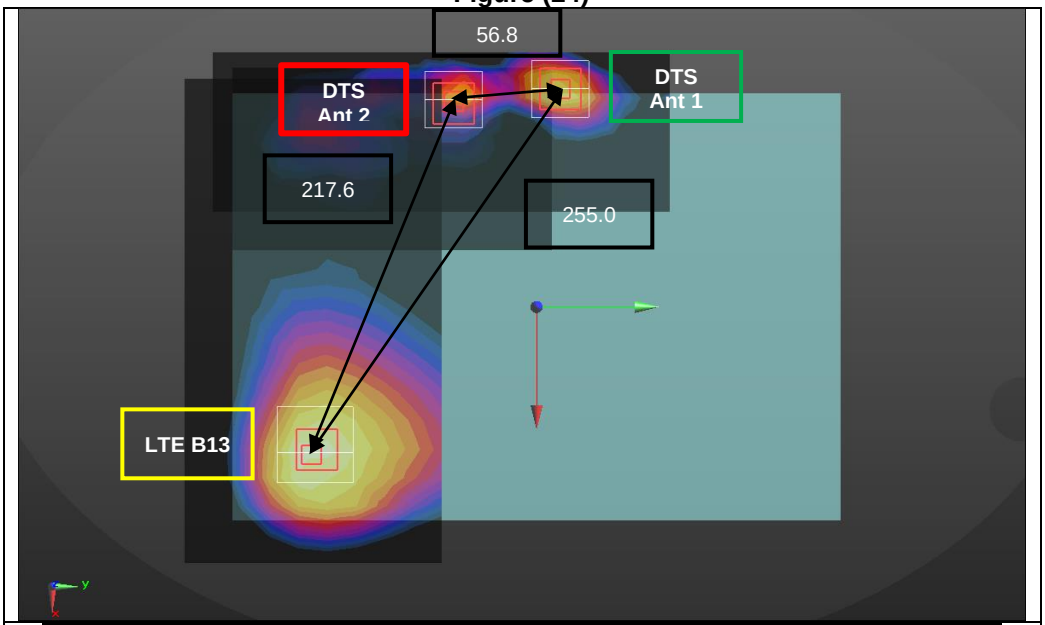


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 12	1	0.629	0.0812	-0.1189	-0.0034	1 + 2	193.4
BT+DTS Ant.2 UNII MIMO	2	1.310	-0.0992	-0.0492	-0.0023		

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (24)

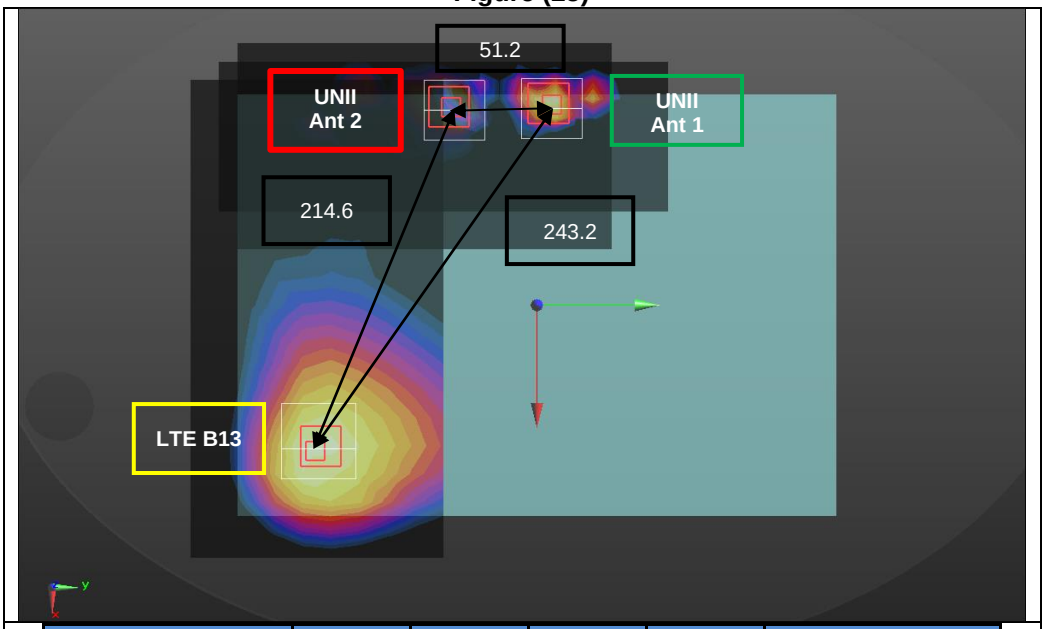


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 13	1	0.844	0.0813	-0.1505	-0.0034	1 + 2	255.0
DTS Ant.1	2	0.418	-0.1148	0.0124	0.0019	1 + 3	217.6
DTS Ant.2	3	0.391	-0.1082	-0.0436	-0.0047	2 + 3	56.8

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (25)

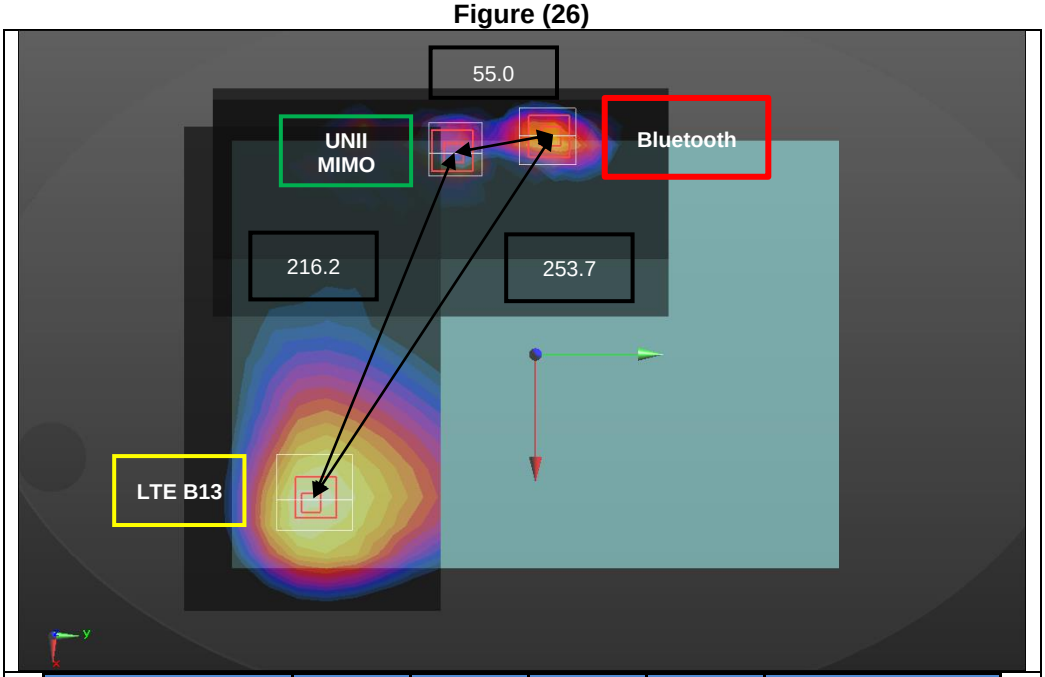


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 13	1	0.844	0.0813	-0.1505	-0.0034	1 + 2	243.2
UNII Ant.1	2	0.549	-0.1058	0.0048	-0.0010	1 + 3	214.6
UNII Ant.2	3	1.094	-0.1064	-0.0464	-0.0012	2 + 3	51.2

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (26)

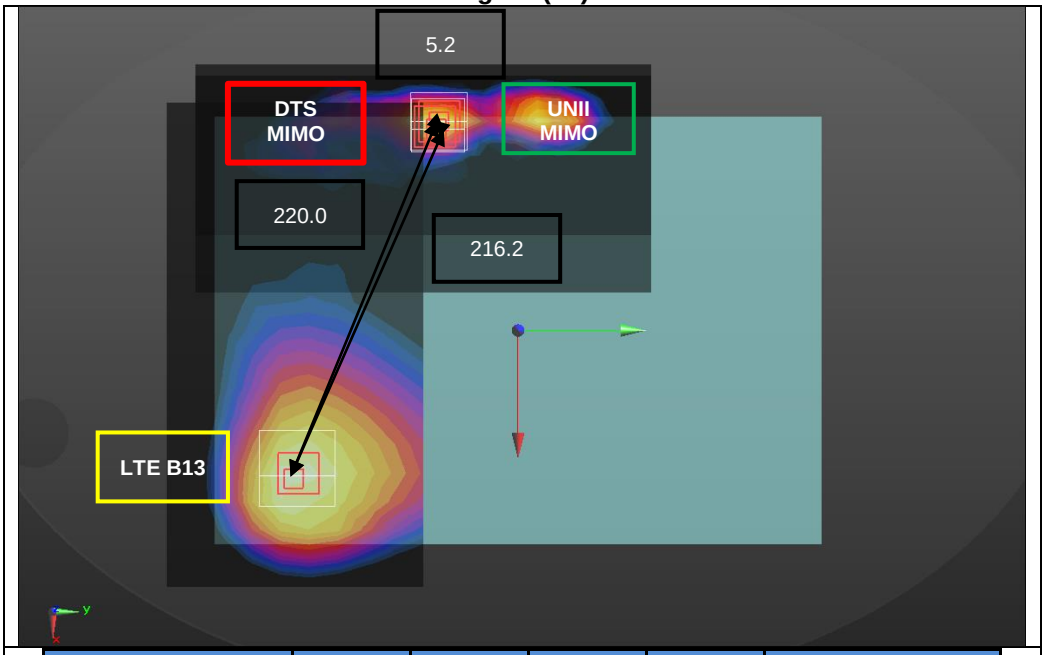


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 13	1	0.844	0.0813	-0.1505	-0.0034	1 + 2	216.2
UNII MIMO	2	1.199	-0.1068	-0.0440	-0.0011	1 + 3	253.7
BT	3	0.361	-0.1148	0.0104	-0.0031	2 + 3	55.0

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (27)

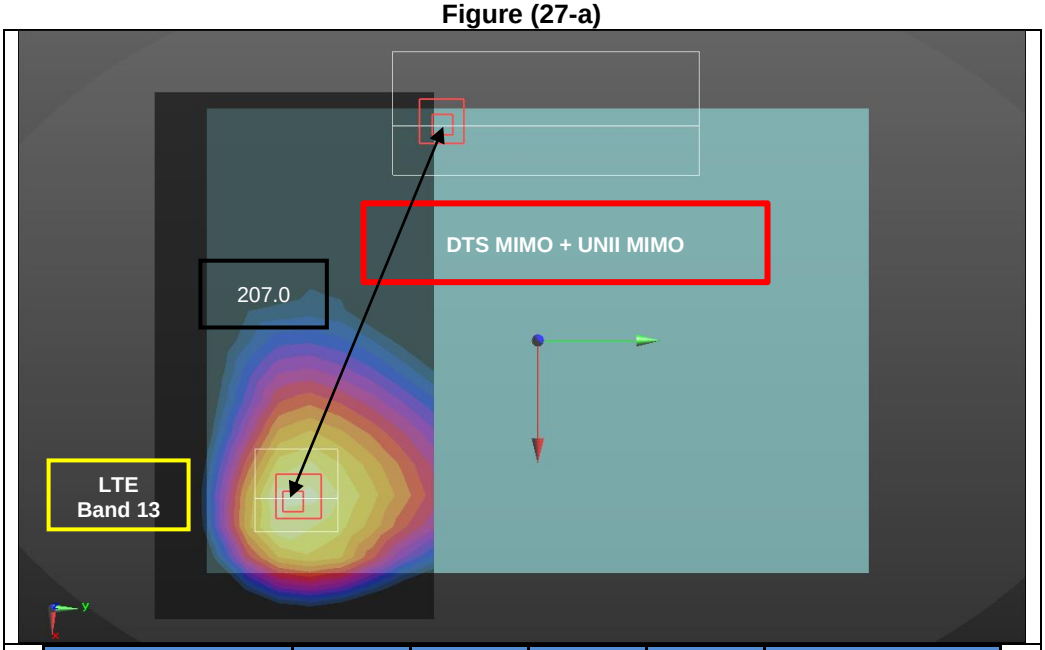


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 13	1	0.844	0.0813	-0.1505	-0.0034	1 + 2	220.0
DTS MIMO	2	0.486	-0.1110	-0.0436	-0.0042	1 + 3	216.2
UNII MIMO	3	1.199	-0.1068	-0.0440	-0.0011	2 + 3	5.2

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (27-a)

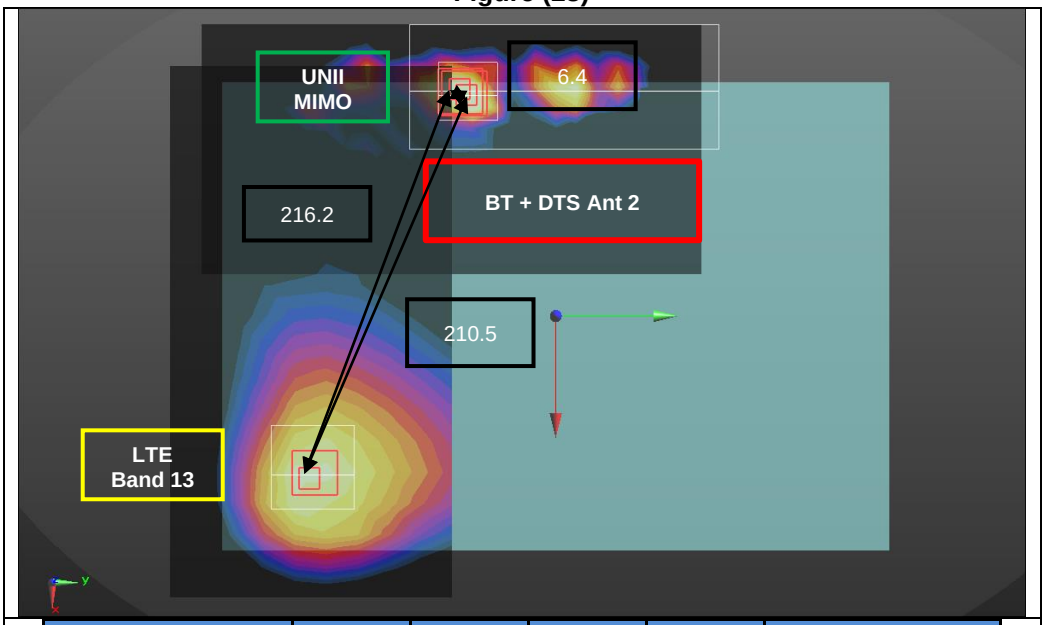


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 13	1	0.844	0.0813	-0.1505	-0.0034	1 + 2	207.0
DTS MIMO + UNII MIMO	2	1.320	-0.0992	-0.0492	-0.0023		

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (28)

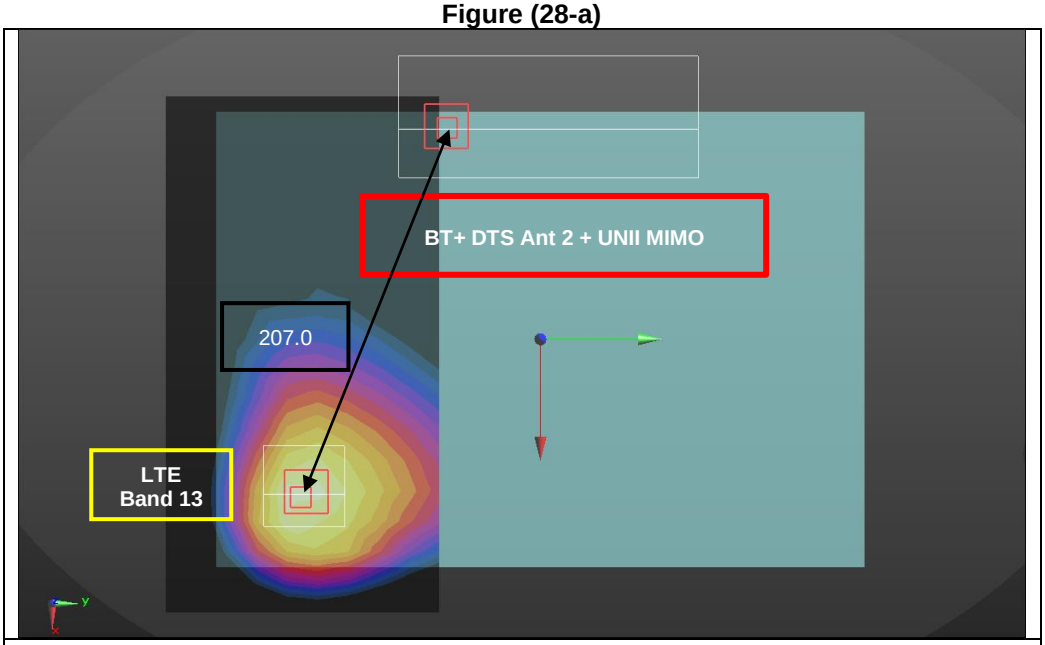


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 13	1	0.844	0.0813	-0.1505	-0.0034	1 + 2	210.5
BT+DTS Ant.2	2	0.478	-0.1032	-0.0492	-0.0023	1 + 3	216.2
UNII MIMO	3	1.199	-0.1068	-0.0440	-0.0011	2 + 3	6.4

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (28-a)

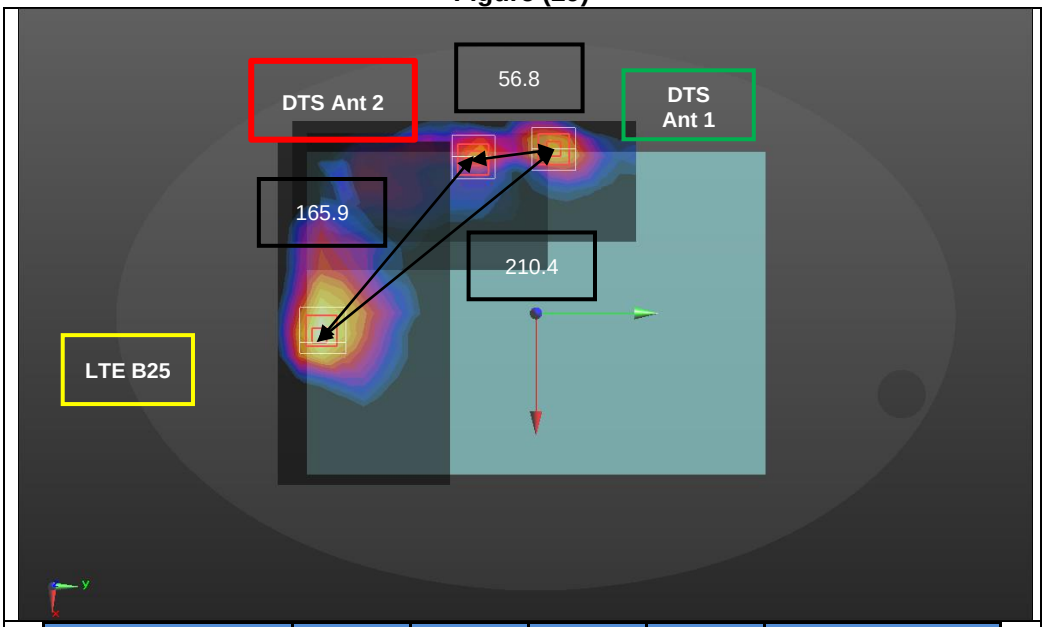


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 13	1	0.844	0.0813	-0.1505	-0.0034	1 + 2	207.0
BT+DTS Ant.2 UNII MIMO	2	1.310	-0.0992	-0.0492	-0.0023		

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (29)

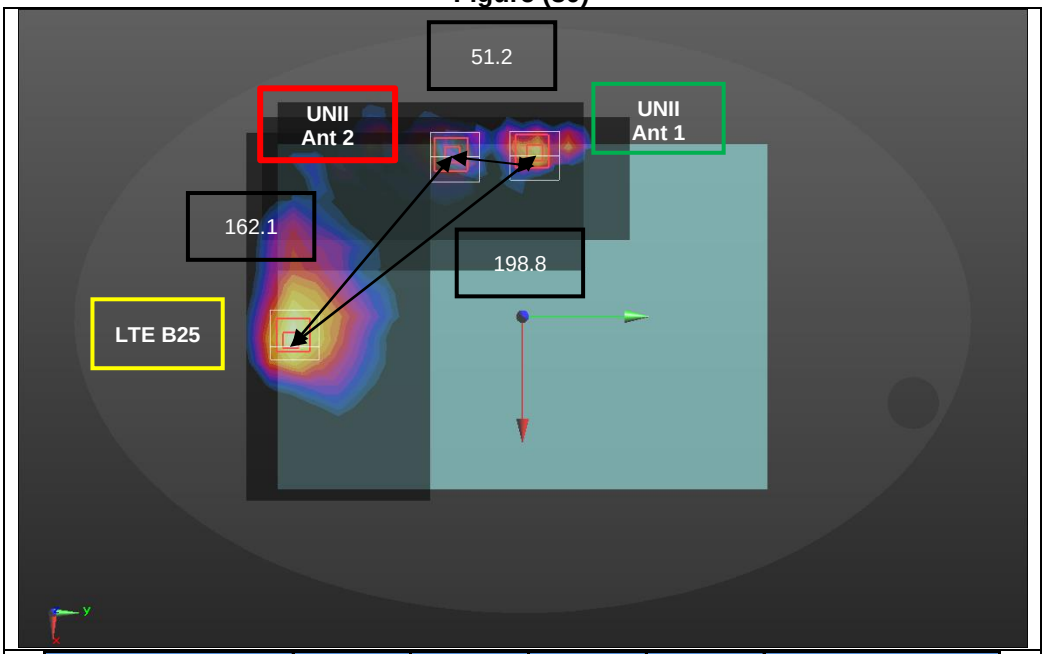


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 25	1	1.088	0.0168	-0.1517	0.0009	1 + 2	210.4
DTS Ant.1	2	0.418	-0.1148	0.0124	0.0019	1 + 3	165.4
DTS Ant.2	3	0.391	-0.1082	-0.0436	-0.0047	2 + 3	56.8

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (30)

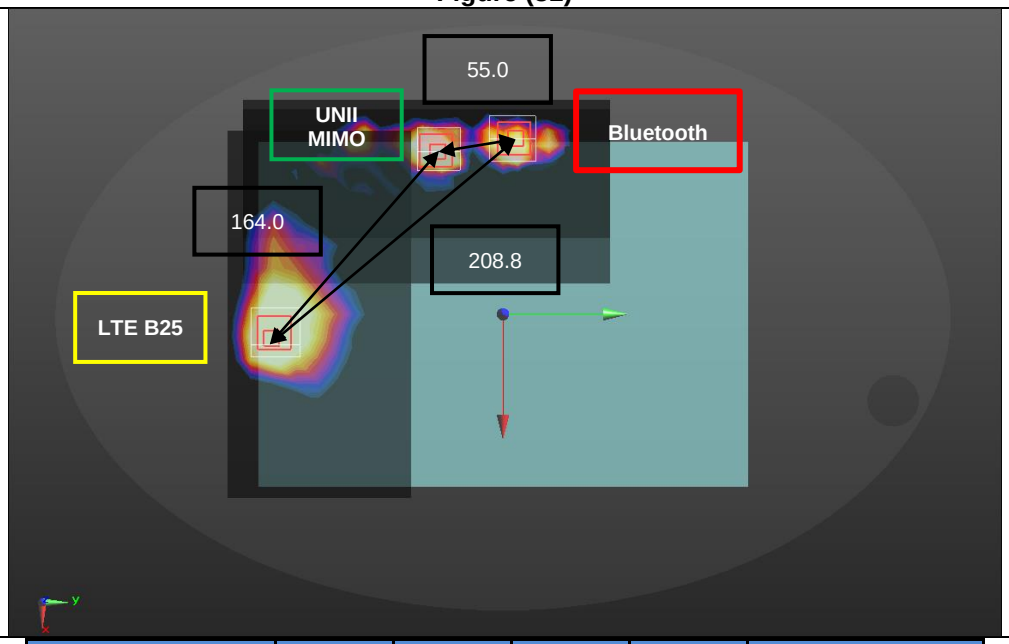


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 25	1	1.088	0.0168	-0.1517	0.0009	1 + 2	198.8
UNII Ant.1	2	0.549	-0.1058	0.0048	-0.0010	1 + 3	162.1
UNII Ant.2	3	1.094	-0.1064	-0.0464	-0.0012	2 + 3	51.2

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (31)

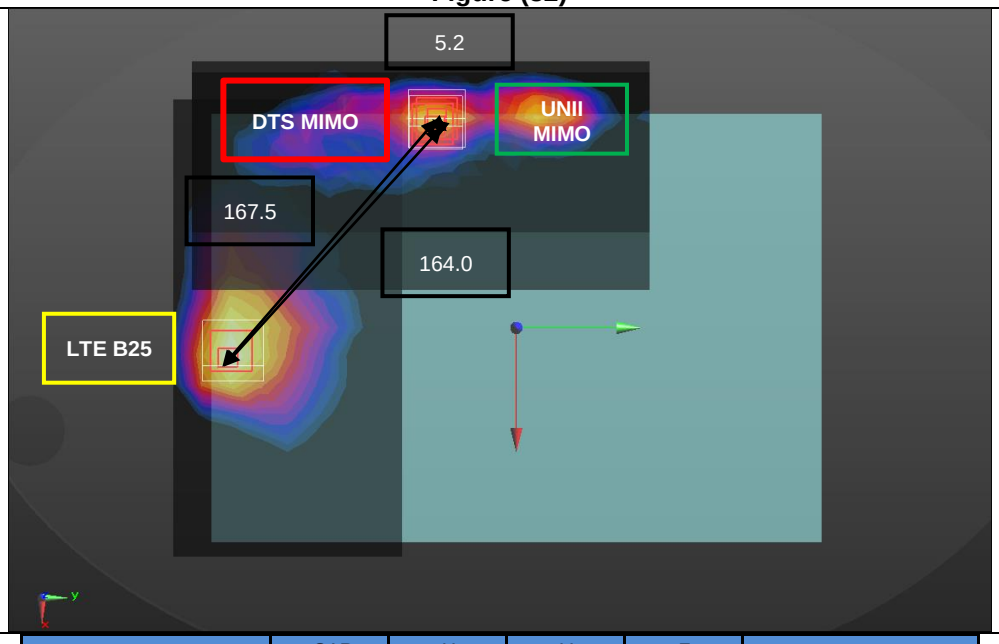


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 25	1	1.088	0.0168	-0.1517	0.0009	1 + 2	164.0
UNII MIMO	2	1.199	-0.1068	-0.0440	-0.0011	1 + 3	208.8
BT	3	0.361	-0.1148	0.0104	-0.0031	2 + 3	55.0

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (32)

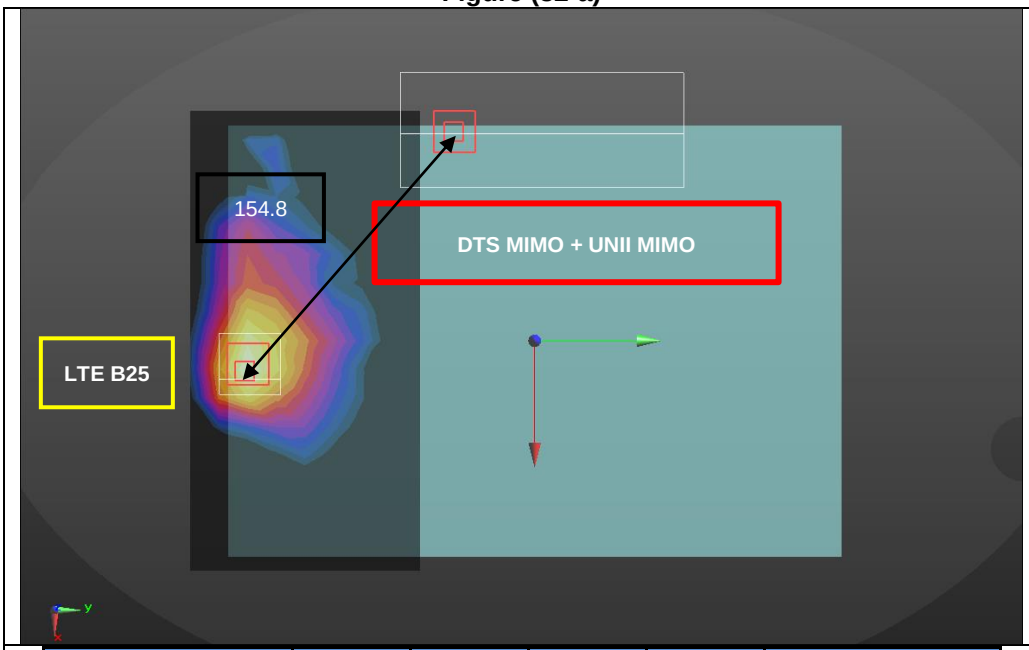


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 25	1	1.088	0.0168	-0.1517	0.0009	1 + 2	167.5
DTS MIMO	2	0.486	-0.1110	-0.0436	-0.0042	1 + 3	164.0
UNII MIMO	3	1.199	-0.1068	-0.0440	-0.0011	2 + 3	5.2

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (32-a)

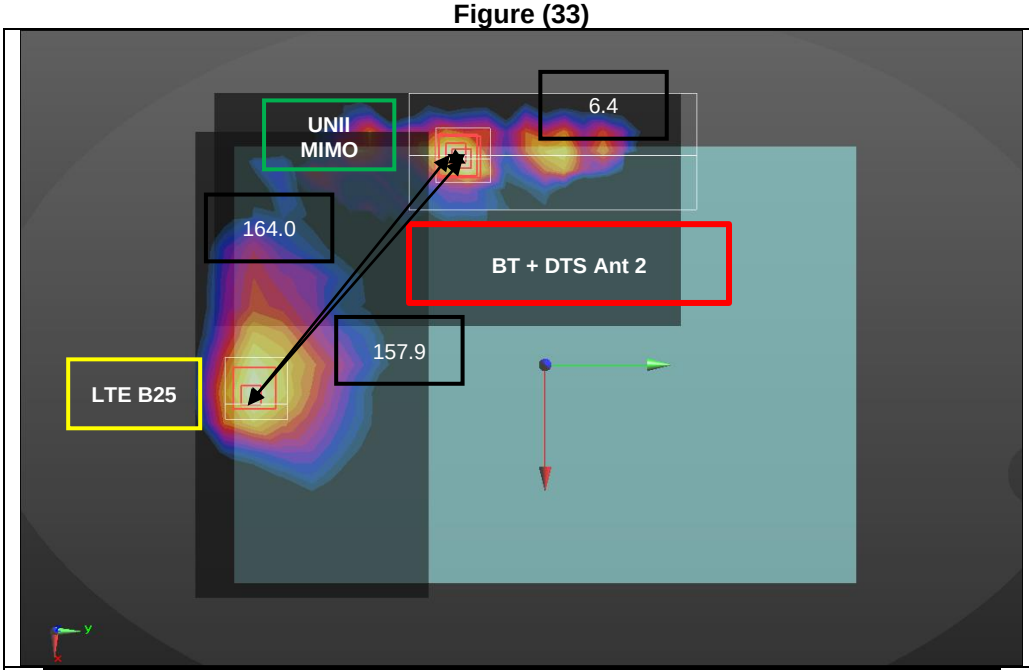


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 25	1	1.088	0.0168	-0.1517	0.0009	1 + 2	154.8
DTS MIMO + UNII MIMO	2	1.320	-0.0992	-0.0492	-0.0023		

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (33)

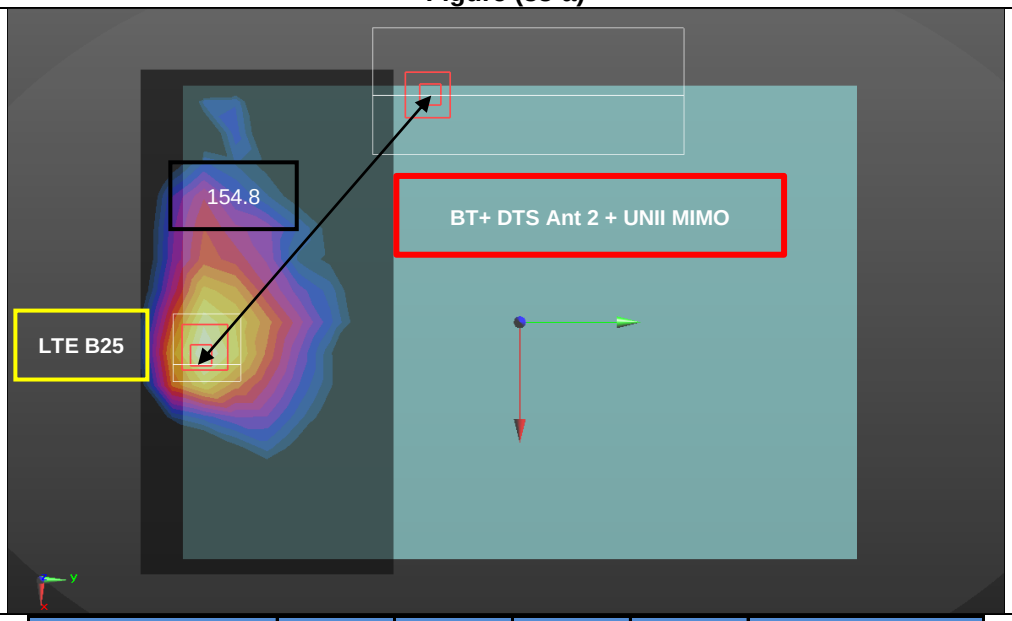


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 25	1	1.088	0.0168	-0.1517	0.0009	1 + 2	157.9
BT+DTS Ant.2	2	0.478	-0.1032	-0.0492	-0.0023	1 + 3	164.0
UNII MIMO	3	1.199	-0.1068	-0.0440	-0.0011	2 + 3	6.4

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (33-a)

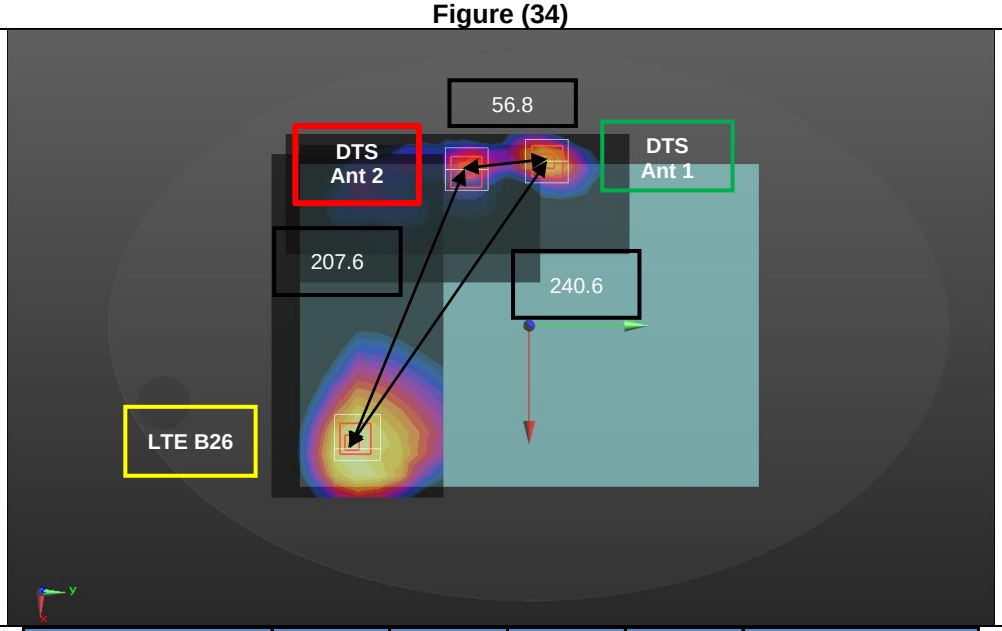


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 25	1	1.088	0.0168	-0.1517	0.0009	1 + 2	154.8
BT+DTS Ant.2 UNII MIMO	2	1.310	-0.0992	-0.0492	-0.0023		

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (34)

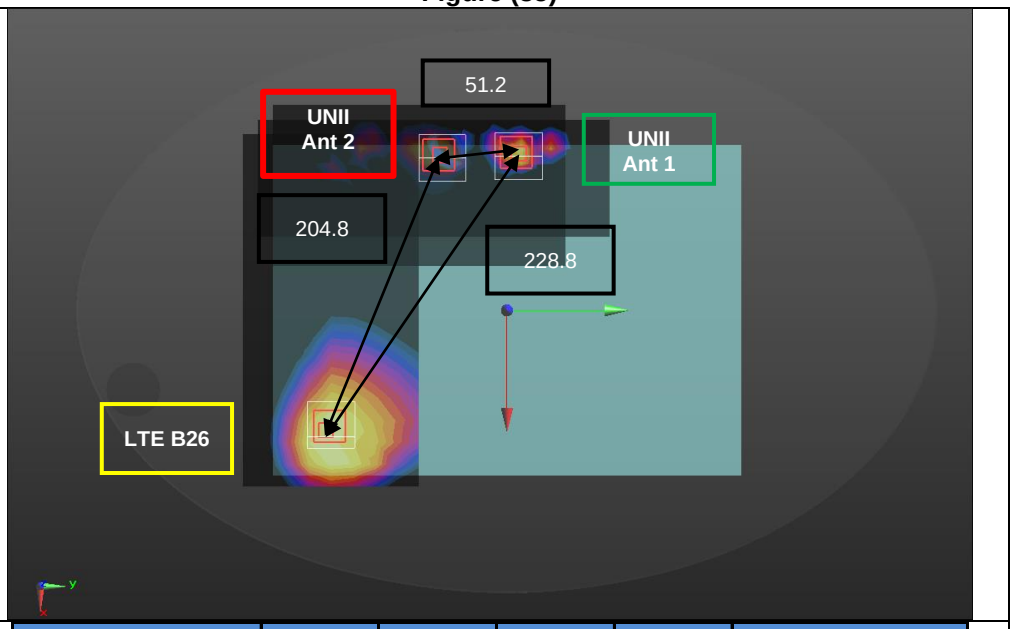


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 26	1	0.976	0.0828	-0.1248	-0.0014	1 + 2	240.6
DTS Ant.1	2	0.418	-0.1148	0.0124	0.0019	1 + 3	207.6
DTS Ant.2	3	0.391	-0.1082	-0.0436	-0.0047	2 + 3	56.8

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (35)

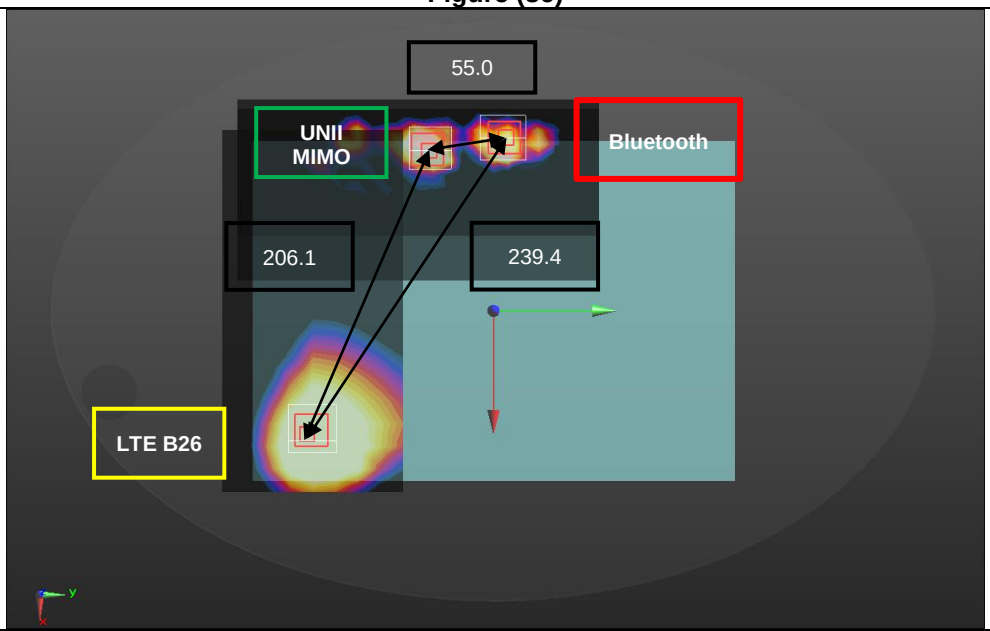


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 26	1	0.976	0.0828	-0.1248	-0.0014	1 + 2	228.8
UNII Ant.1	2	0.549	-0.1058	0.0048	-0.0010	1 + 3	204.8
UNII Ant.2	3	1.094	-0.1064	-0.0464	-0.0012	2 + 3	51.2

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (36)

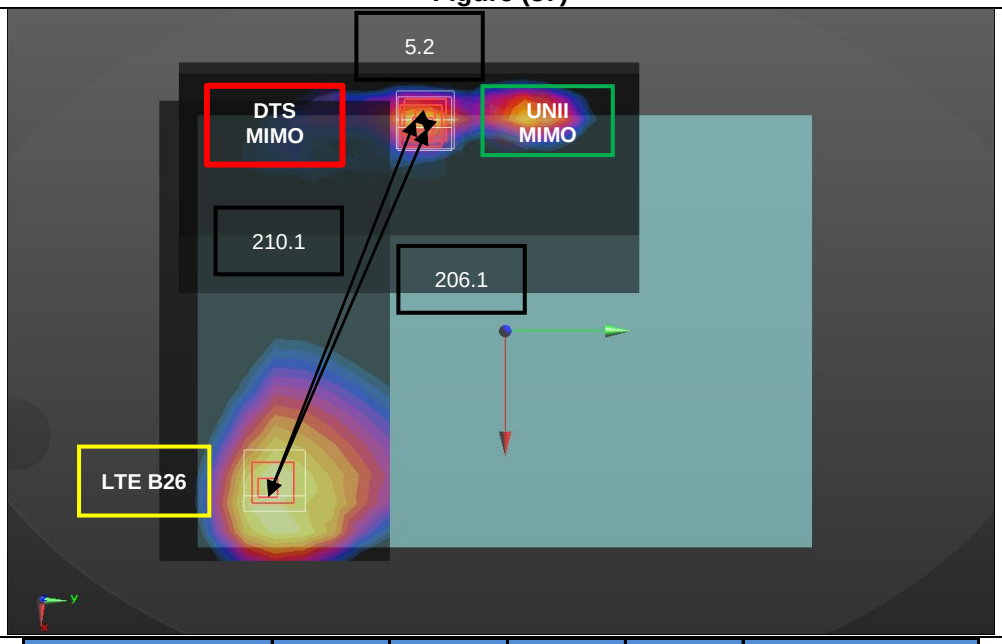


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 26	1	0.976	0.0828	-0.1248	-0.0014	1 + 2	206.1
UNII MIMO	2	1.199	-0.1068	-0.0440	-0.0011	1 + 3	239.4
BT	3	0.361	-0.1148	0.0104	-0.0031	2 + 3	55.0

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (37)

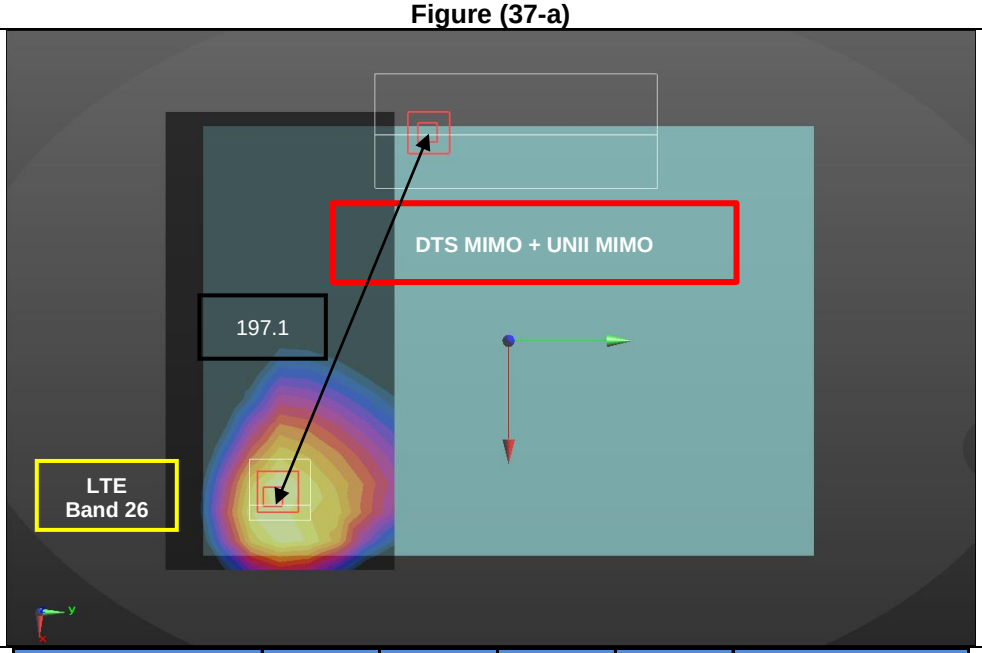


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 26	1	0.976	0.0828	-0.1248	-0.0014	1 + 2	210.1
DTS MIMO	2	0.486	-0.1110	-0.0436	-0.0042	1 + 3	206.1
UNII MIMO	3	1.199	-0.1068	-0.0440	-0.0011	2 + 3	5.2

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (37-a)

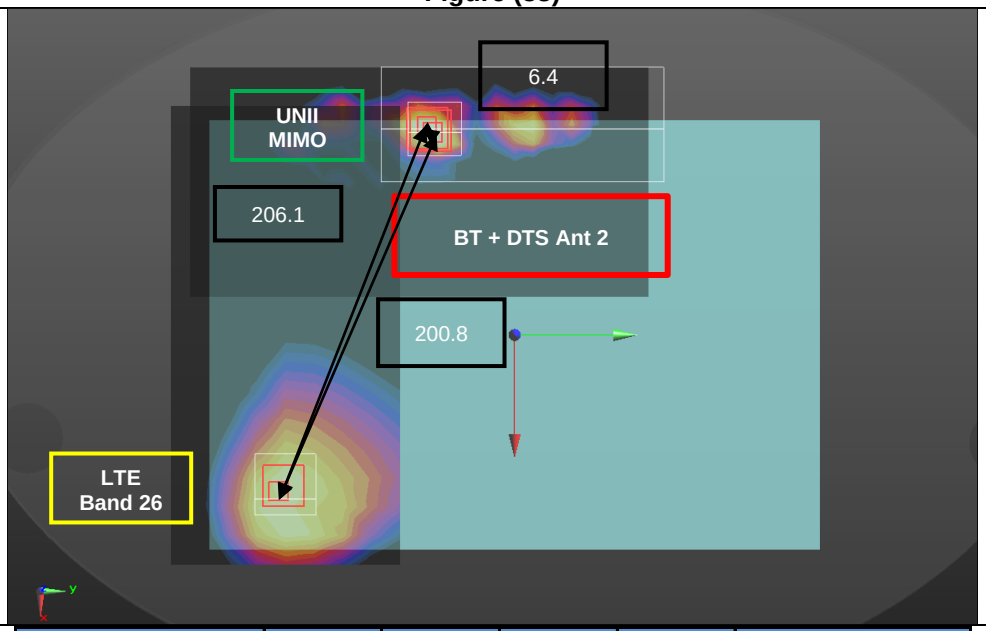


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 26	1	0.976	0.0828	-0.1248	-0.0014	1 + 2	197.1
DTS MIMO + UNII MIMO	2	1.320	-0.0992	-0.0492	-0.0023		

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (38)

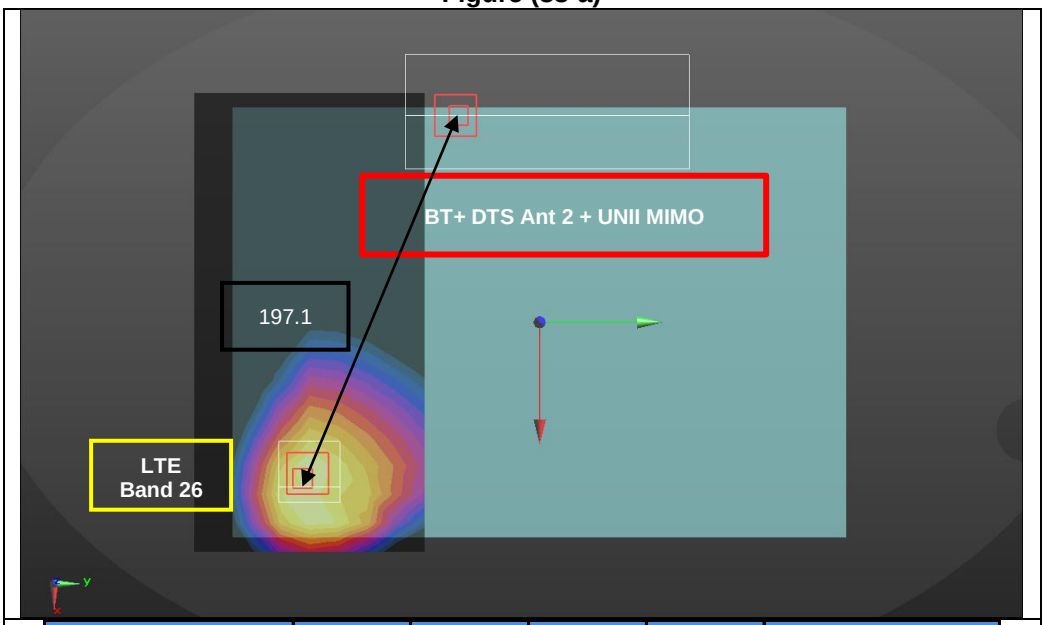


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 26	1	0.976	0.0828	-0.1248	-0.0014	1 + 2	200.8
BT+DTS Ant.2	2	0.478	-0.1032	-0.0492	-0.0023	1 + 3	206.1
UNII MIMO	3	1.199	-0.1068	-0.0440	-0.0011	2 + 3	6.4

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (38-a)

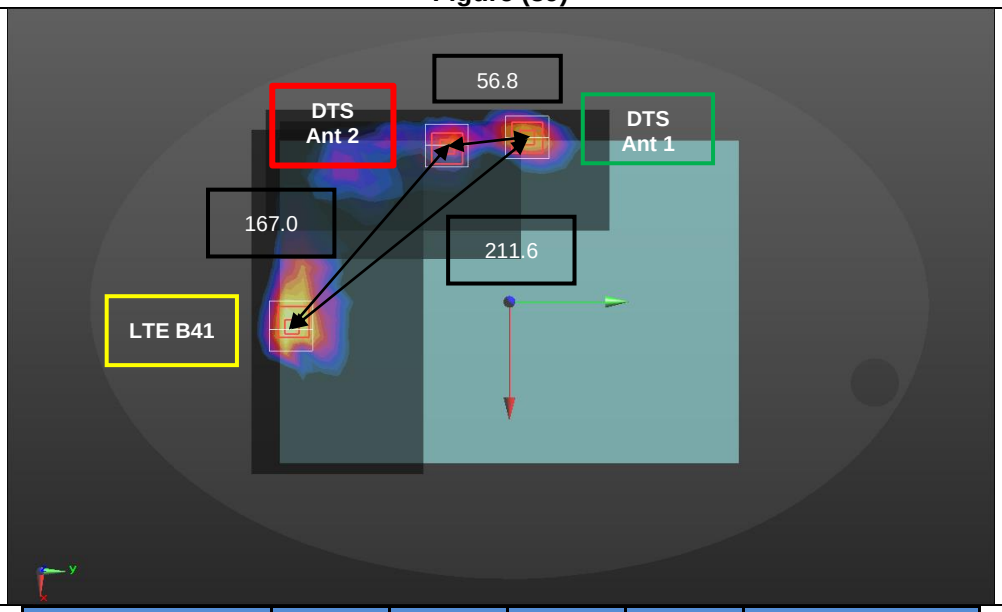


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 26	1	0.976	0.0828	-0.1248	-0.0014	1 + 2	197.1
BT+DTS Ant.2 UNII MIMO	2	1.310	-0.0992	-0.0492	-0.0023		

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (39)

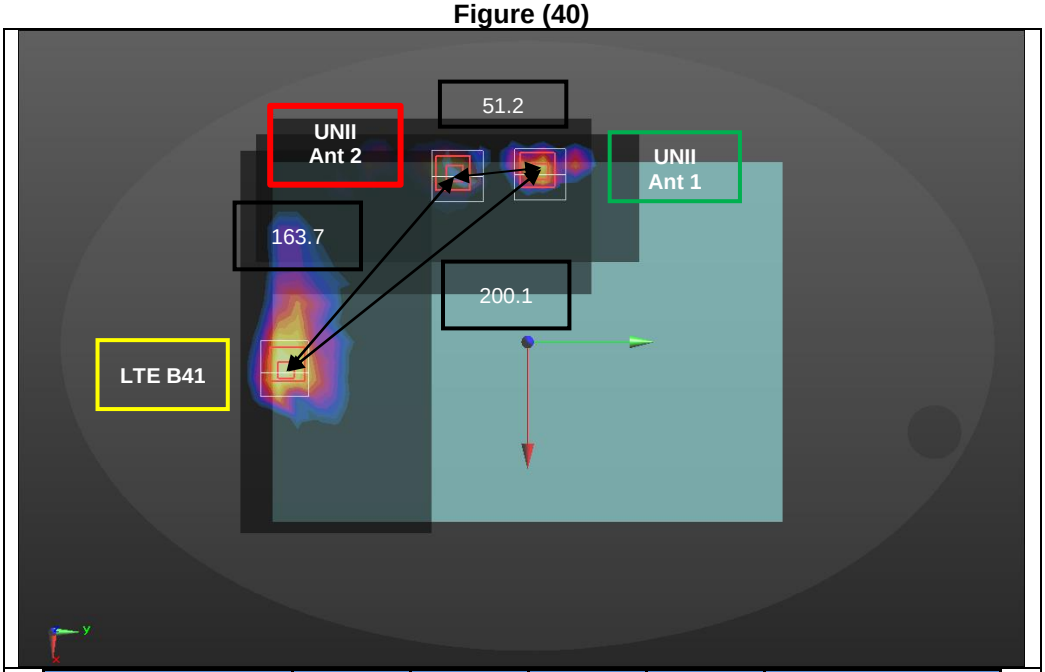


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 41	1	0.959	0.0192	-0.1514	0.0006	1 + 2	211.6
DTS Ant.1	2	0.418	-0.1148	0.0124	0.0019	1 + 3	167.0
DTS Ant.2	3	0.391	-0.1082	-0.0436	-0.0047	2 + 3	56.8

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (40)

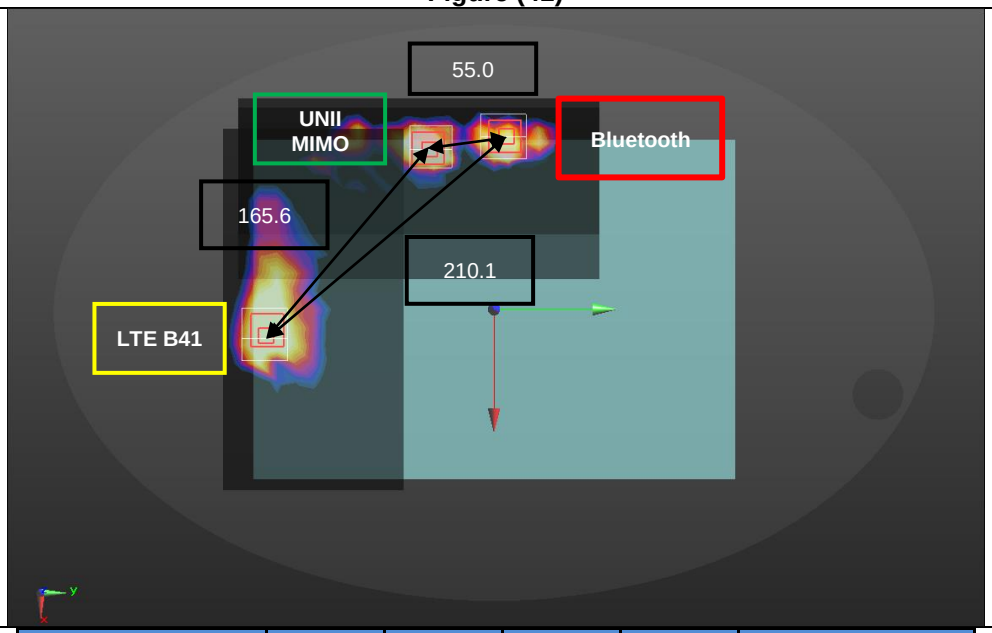


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 41	1	0.959	0.0192	-0.1514	0.0006	1 + 2	200.1
UNII Ant.1	2	0.549	-0.1058	0.0048	-0.0010	1 + 3	163.7
UNII Ant.2	3	1.094	-0.1064	-0.0464	-0.0012	2 + 3	51.2

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (41)

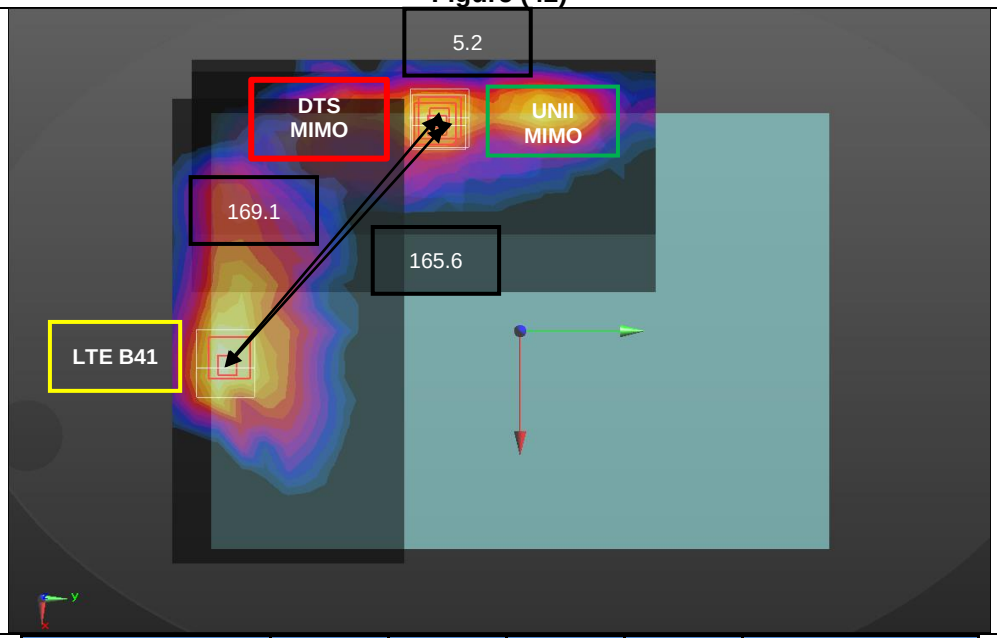


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 41	1	0.959	0.0192	-0.1514	0.0006	1 + 2	165.6
UNII MIMO	2	1.199	-0.1068	-0.0440	-0.0011	1 + 3	210.1
BT	3	0.361	-0.1148	0.0104	-0.0031	2 + 3	55.0

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (42)

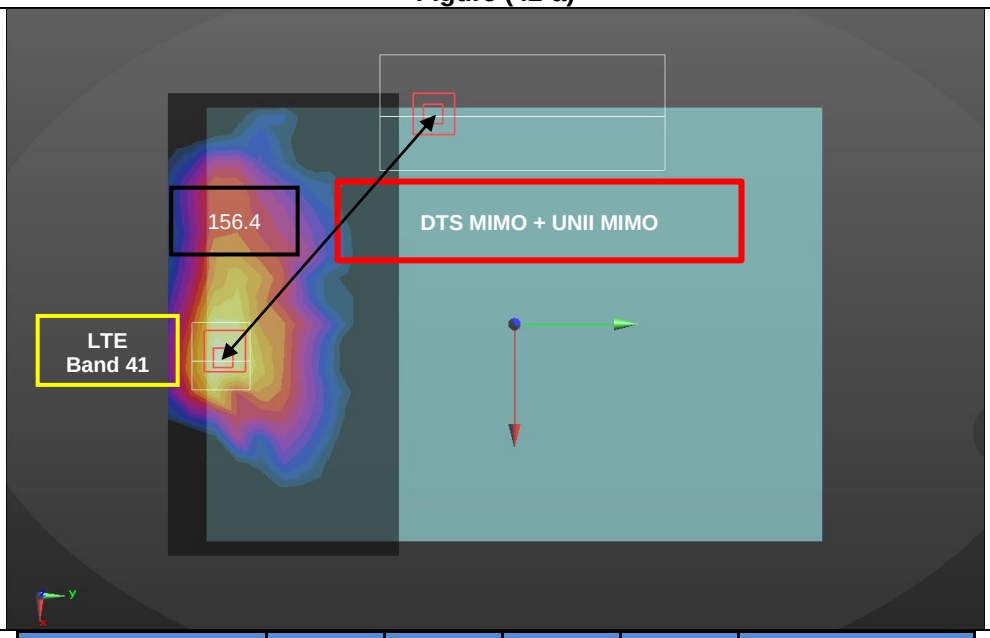


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 41	1	0.959	0.0192	-0.1514	0.0006	1 + 2	169.1
DTS MIMO	2	0.486	-0.1110	-0.0436	-0.0042	1 + 3	165.6
UNII MIMO	3	1.199	-0.1068	-0.0440	-0.0011	2 + 3	5.2

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (42-a)

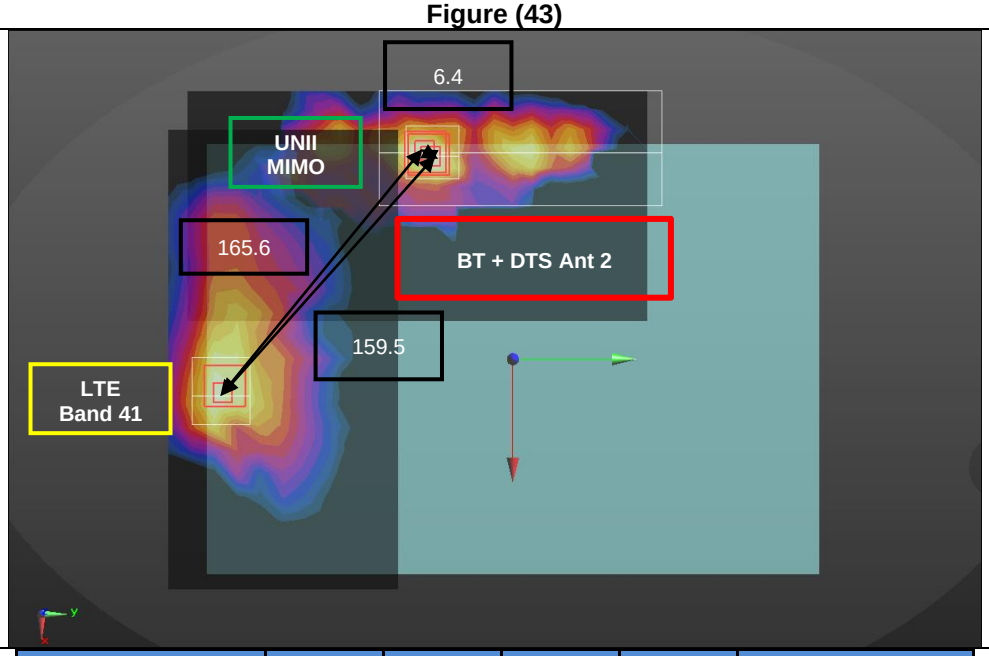


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 41	1	0.959	0.0192	-0.1514	0.0006	1 + 2	156.4
DTS MIMO + UNII MIMO	2	1.320	-0.0992	-0.0492	-0.0023		

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (43)

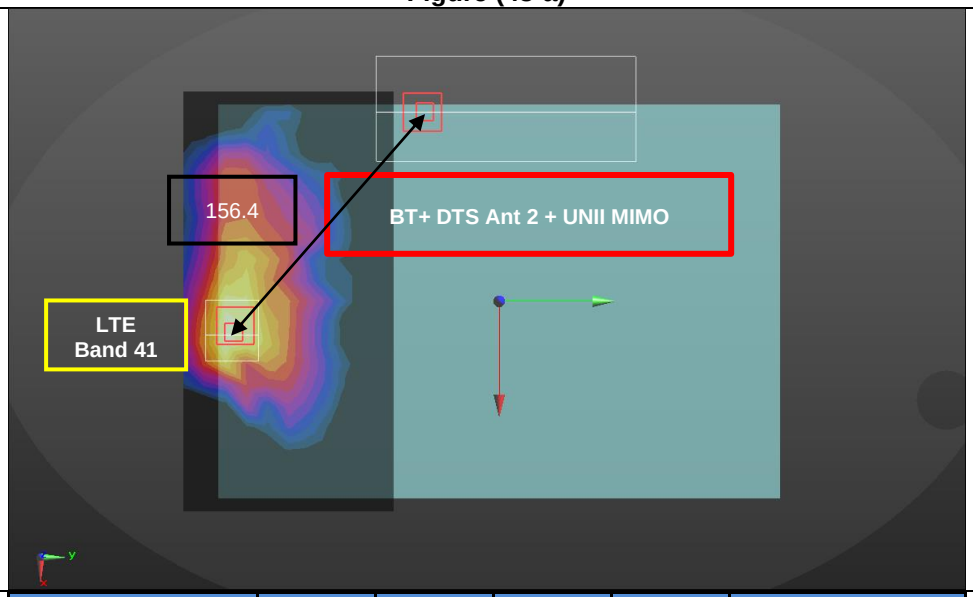


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 41	1	0.959	0.0192	-0.1514	0.0006	1 + 2	159.5
BT+DTS Ant.2	2	0.478	-0.1032	-0.0492	-0.0023	1 + 3	165.6
UNII MIMO	3	1.199	-0.1068	-0.0440	-0.0011	2 + 3	6.4

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (43-a)

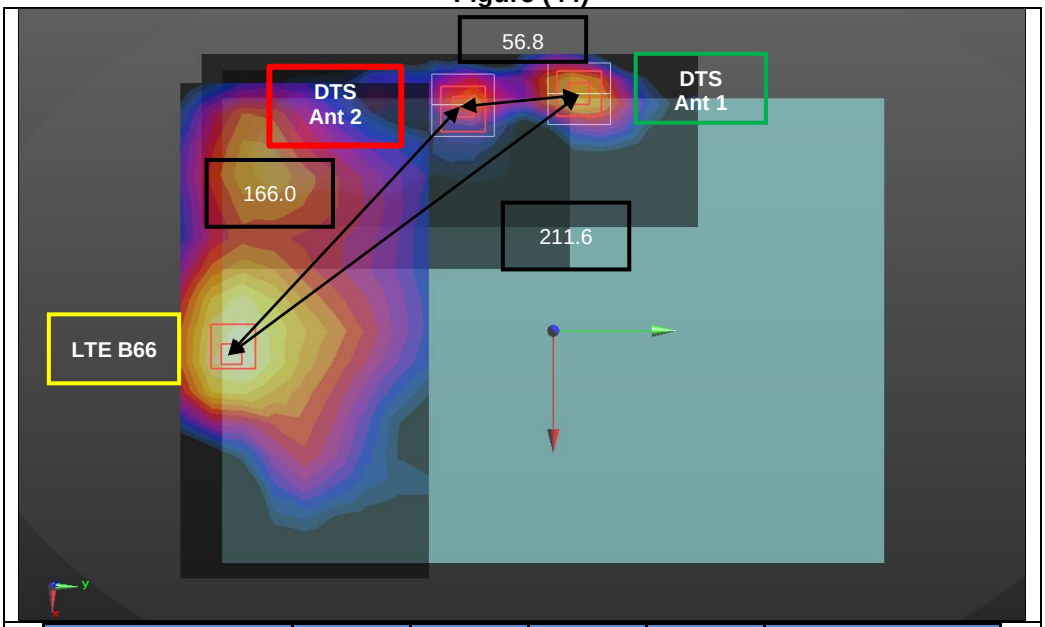


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 41	1	0.959	0.0192	-0.1514	0.0006	1 + 2	156.4
BT+DTS Ant.2 UNII MIMO	2	1.310	-0.0992	-0.0492	-0.0023		

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (44)

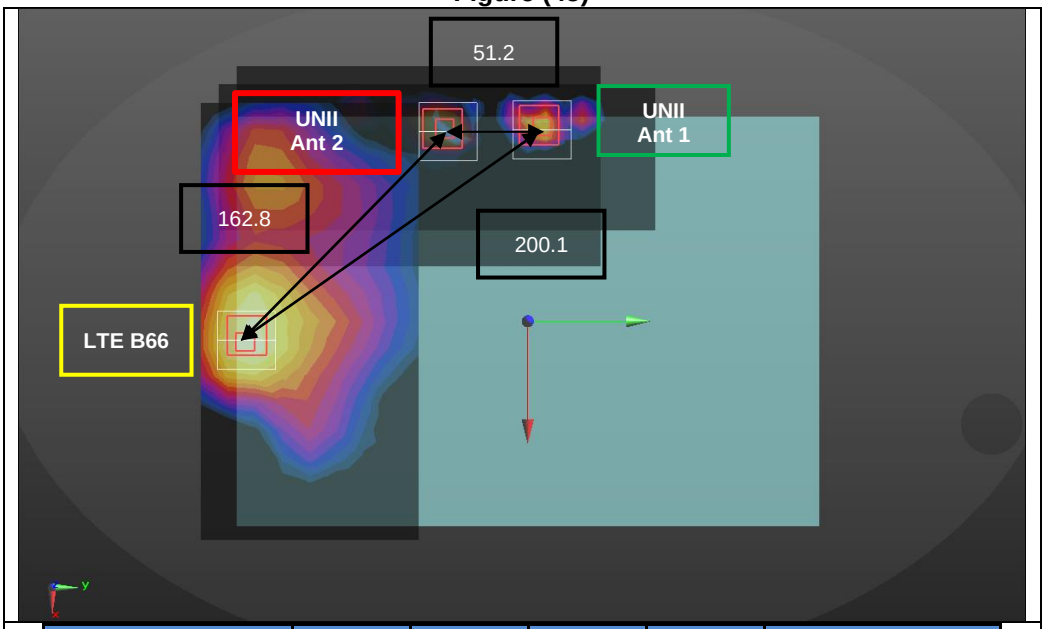


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 66	1	1.177	0.0153	-0.1545	-0.0014	1 + 2	211.6
DTS Ant.1	2	0.418	-0.1148	0.0124	0.0019	1 + 3	166.0
DTS Ant.2	3	0.391	-0.1082	-0.0436	-0.0047	2 + 3	56.8

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (45)

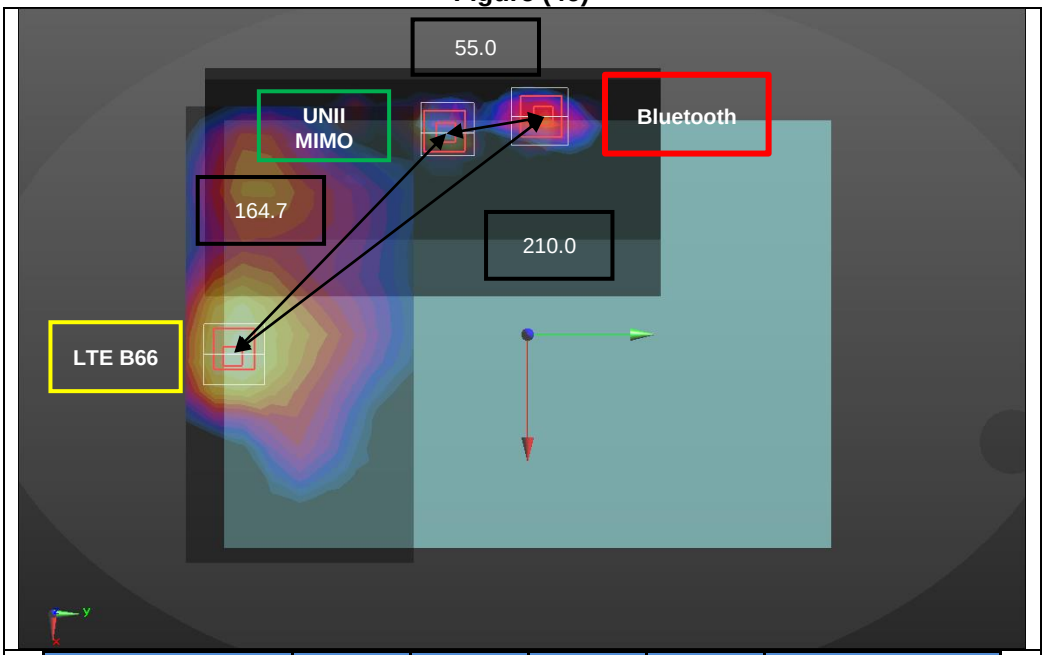


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 66	1	1.177	0.0153	-0.1545	-0.0014	1 + 2	200.1
UNII Ant.1	2	0.549	-0.1058	0.0048	-0.0010	1 + 3	162.8
UNII Ant.2	3	1.094	-0.1064	-0.0464	-0.0012	2 + 3	51.2

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (46)

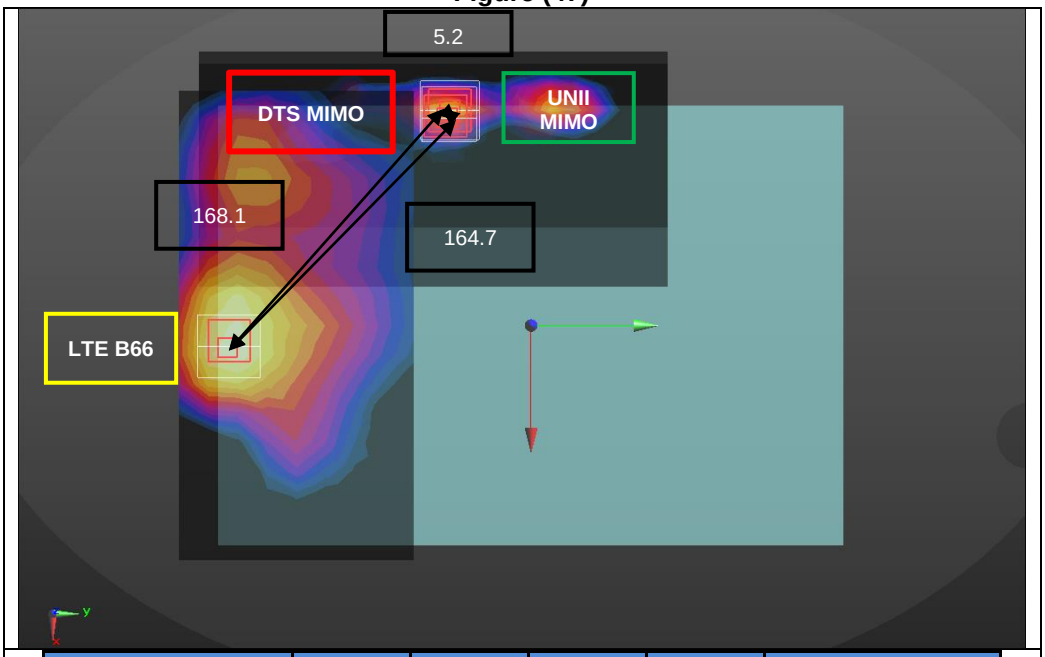


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 66	1	1.177	0.0153	-0.1545	-0.0014	1 + 2	164.7
UNII MIMO	2	1.199	-0.1068	-0.0440	-0.0011	1 + 3	210.0
BT	3	0.361	-0.1148	0.0104	-0.0031	2 + 3	55.0

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (47)

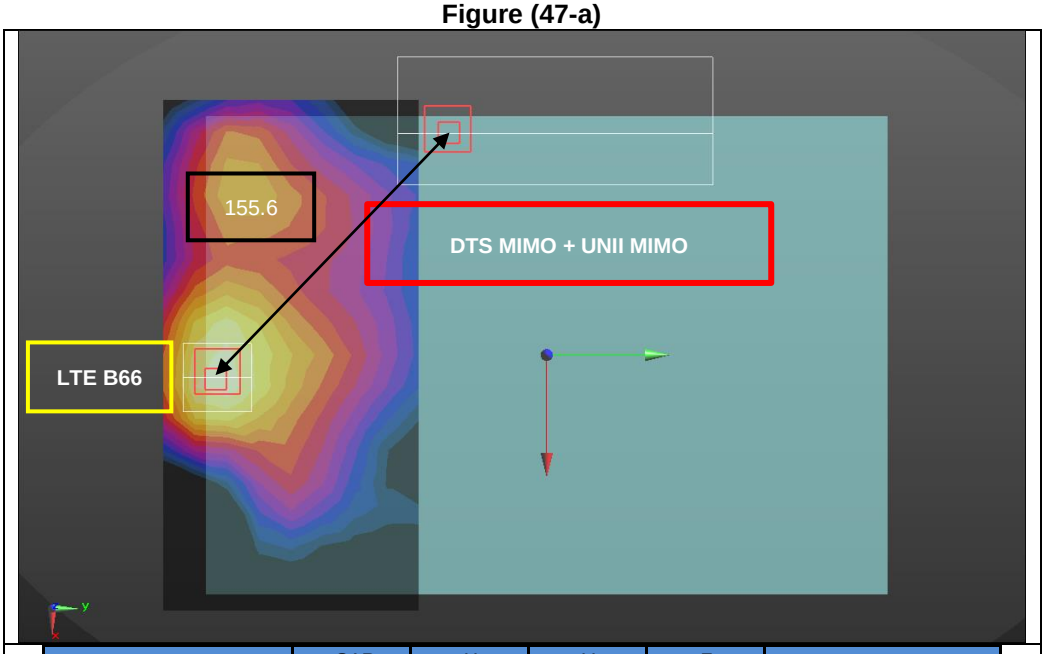


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 66	1	1.177	0.0153	-0.1545	-0.0014	1 + 2	168.1
DTS MIMO	2	0.486	-0.1110	-0.0436	-0.0042	1 + 3	164.7
UNII MIMO	3	1.199	-0.1068	-0.0440	-0.0011	2 + 3	5.2

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (47-a)

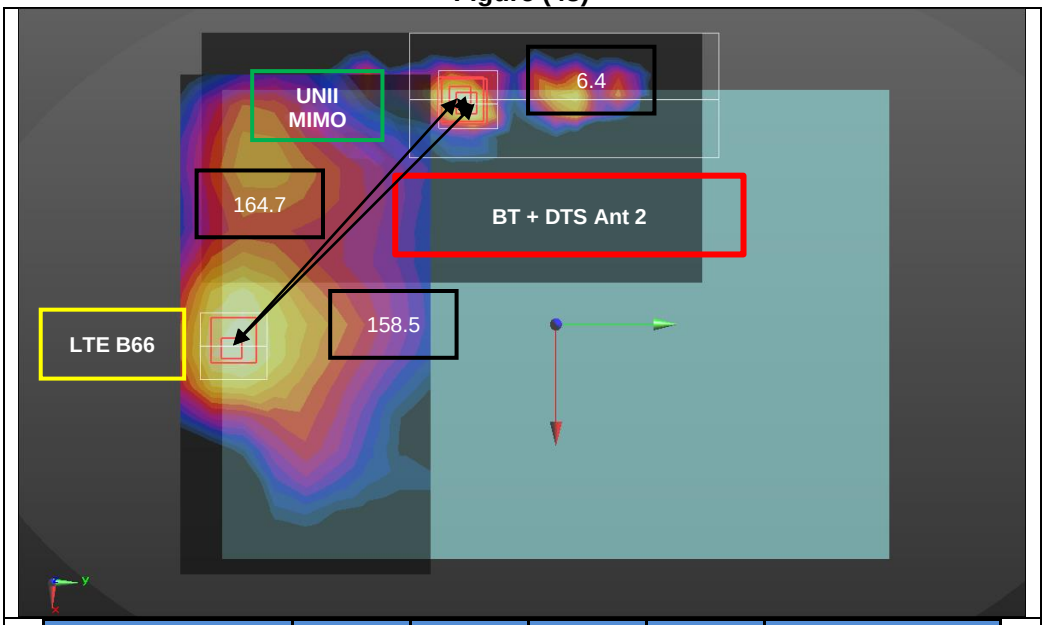


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 66	1	1.177	0.0153	-0.1545	-0.0014	1 + 2	155.6
DTS MIMO + UNII MIMO	2	1.320	-0.0992	-0.0492	-0.0023		

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (48)

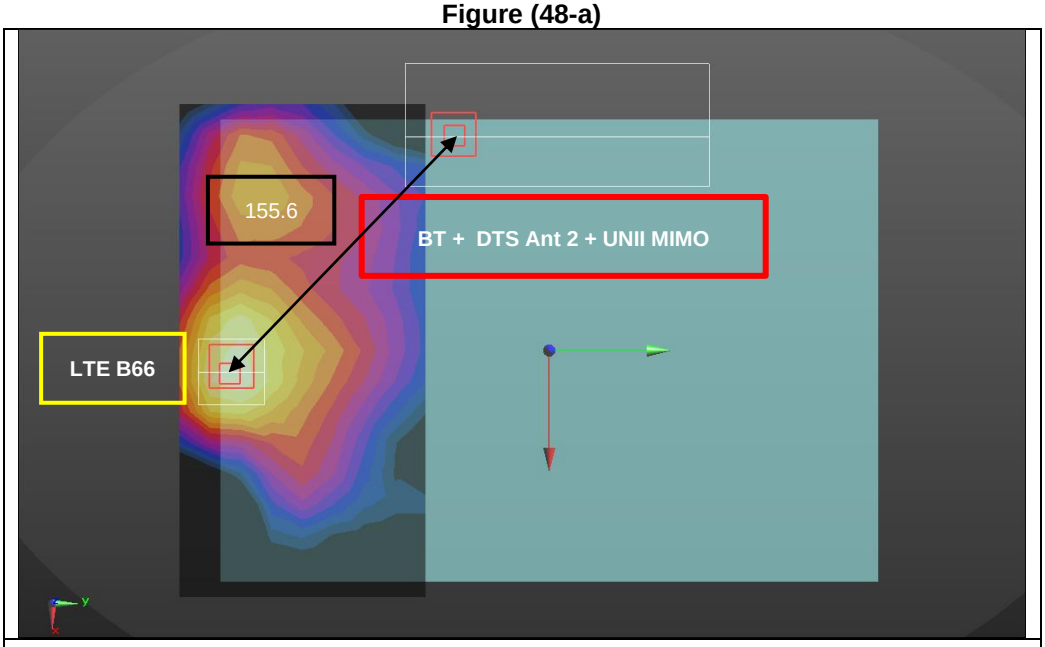


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 66	1	1.177	0.0153	-0.1545	-0.0014	1 + 2	158.5
BT+DTS Ant.2	2	0.478	-0.1032	-0.0492	-0.0023	1 + 3	164.7
UNII MIMO	3	1.199	-0.1068	-0.0440	-0.0011	2 + 3	6.4

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (48-a)

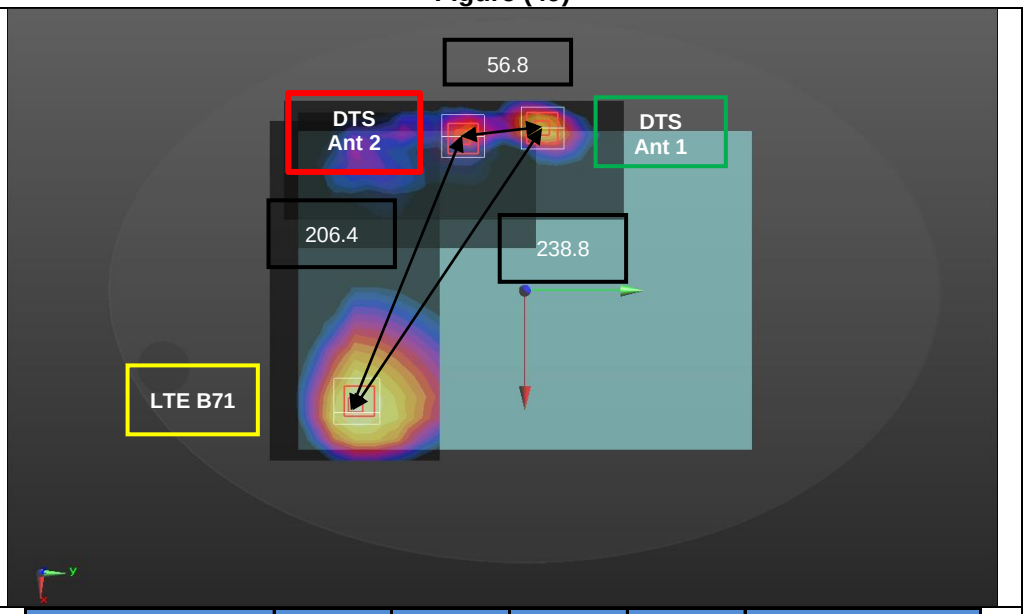


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 66	1	1.177	0.0153	-0.1545	-0.0014	1 + 2	155.6
BT+DTS Ant.2 UNII MIMO	2	1.310	-0.0992	-0.0492	-0.0023		

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (49)

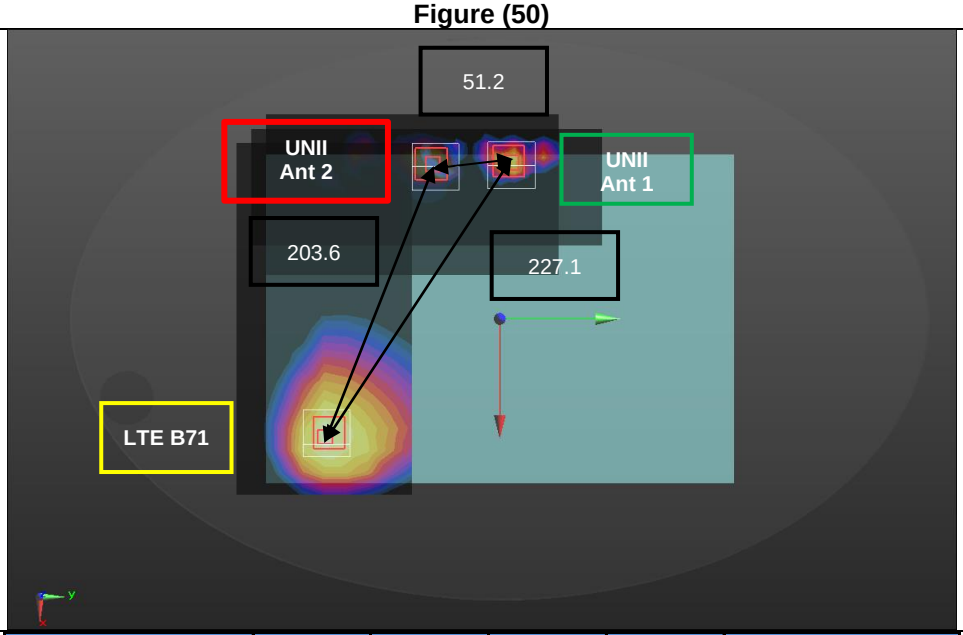


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 71	1	1.110	0.0828	-0.1217	-0.0016	1 + 2	238.8
DTS Ant.1	2	0.418	-0.1148	0.0124	0.0019	1 + 3	206.4
DTS Ant.2	3	0.391	-0.1082	-0.0436	-0.0047	2 + 3	56.8

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (50)

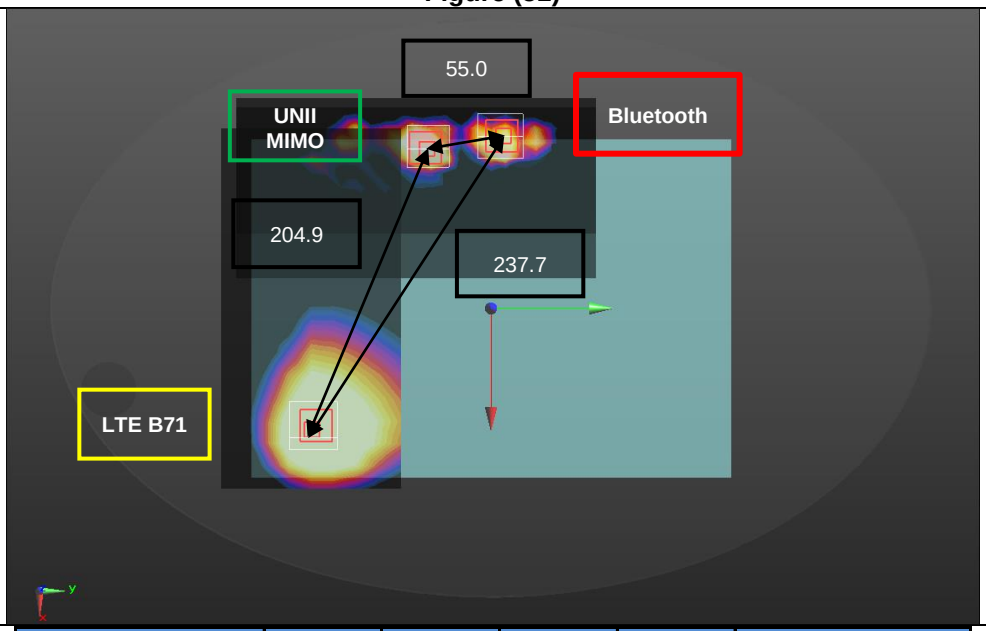


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 71	1	1.110	0.0828	-0.1217	-0.0016	1 + 2	227.1
UNII Ant.1	2	0.549	-0.1058	0.0048	-0.0010	1 + 3	203.6
UNII Ant.2	3	1.094	-0.1064	-0.0464	-0.0012	2 + 3	51.2

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (51)

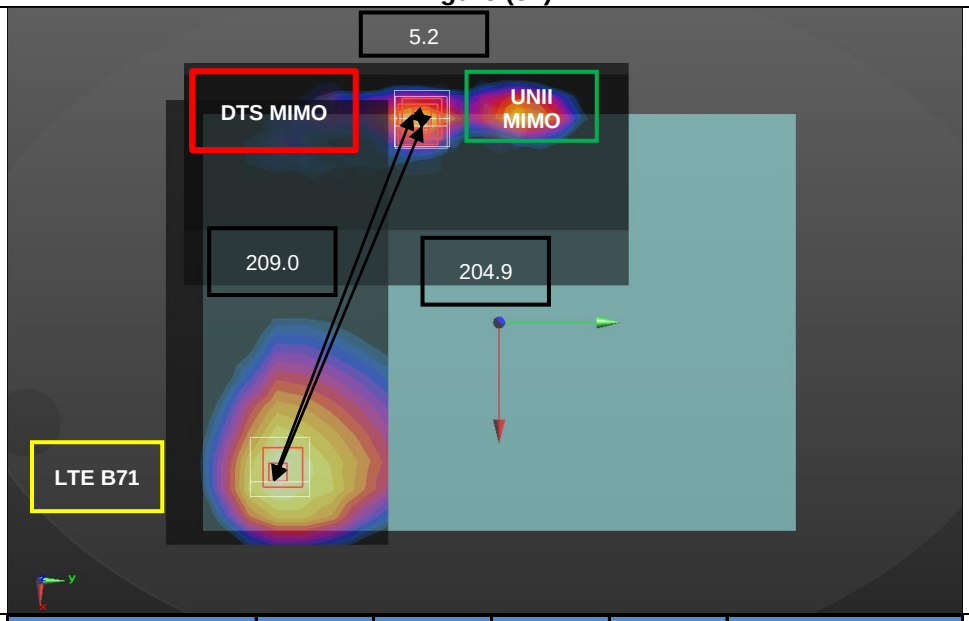


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 71	1	1.110	0.0828	-0.1217	-0.0016	1 + 2	204.9
UNII MIMO	2	1.199	-0.1068	-0.0440	-0.0011	1 + 3	237.7
BT	3	0.361	-0.1148	0.0104	-0.0031	2 + 3	55.0

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (52)

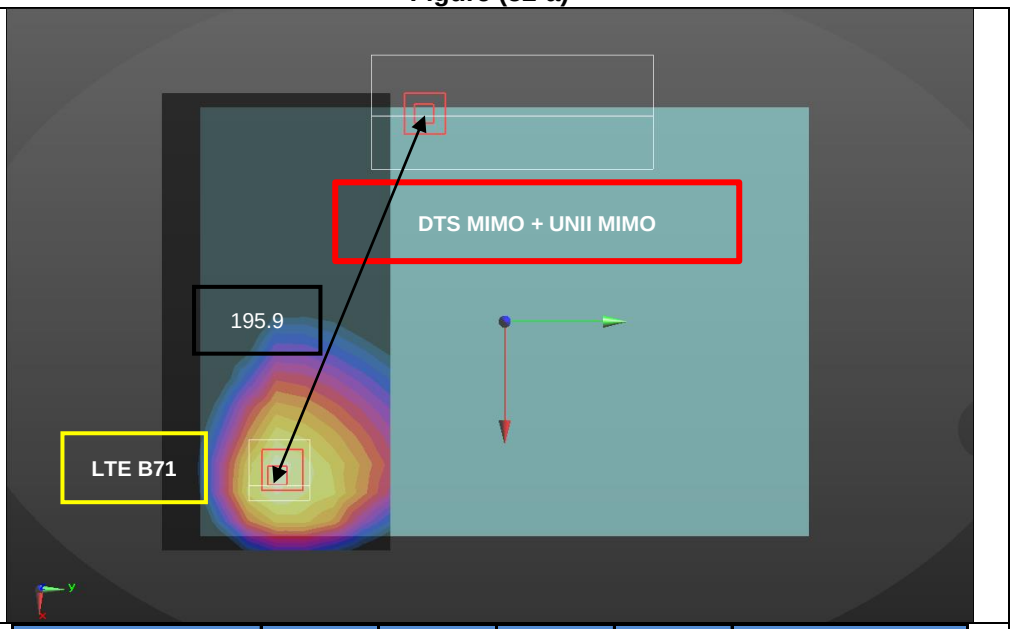


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 71	1	1.110	0.0828	-0.1217	-0.0016	1 + 2	209.0
DTS MIMO	2	0.486	-0.1110	-0.0436	-0.0042	1 + 3	204.9
UNII MIMO	3	1.199	-0.1068	-0.0440	-0.0011	2 + 3	5.2

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (52-a)

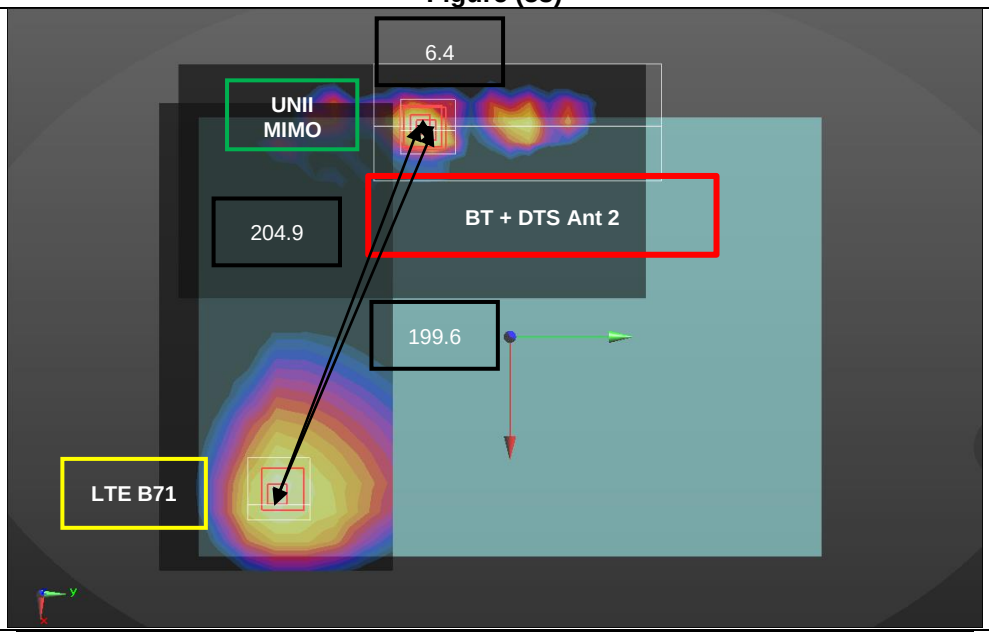


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 71	1	1.110	0.0828	-0.1217	-0.0016	1 + 2	195.9
DTS MIMO + UNII MIMO	2	1.320	-0.0992	-0.0492	-0.0023		

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (53)

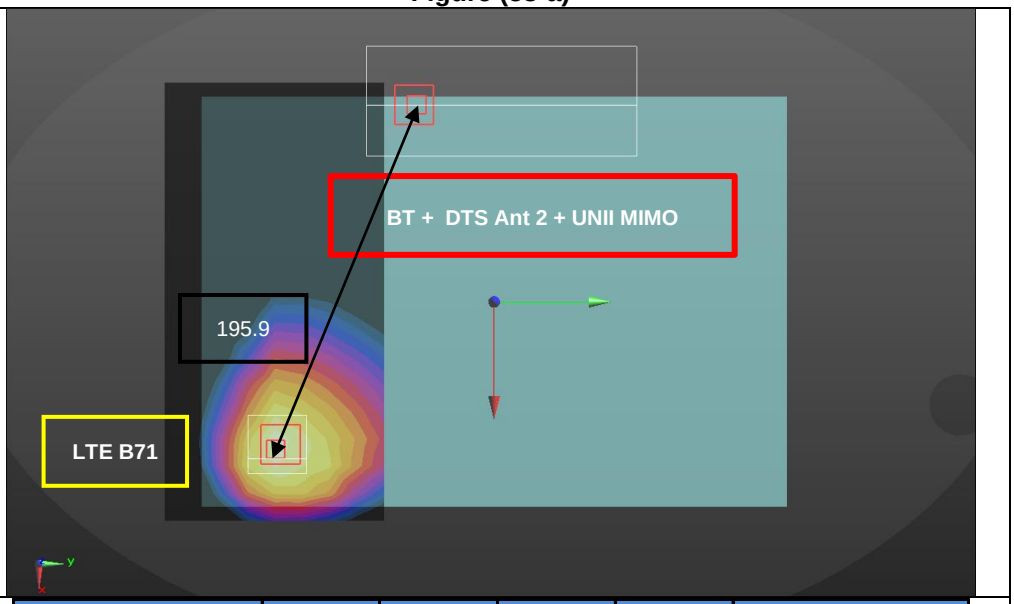


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 71	1	1.110	0.0828	-0.1217	-0.0016	1 + 2	199.6
BT+DTS Ant.2	2	0.478	-0.1032	-0.0492	-0.0023	1 + 3	204.9
UNII MIMO	3	1.199	-0.1068	-0.0440	-0.0011	2 + 3	6.4

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (53-a)

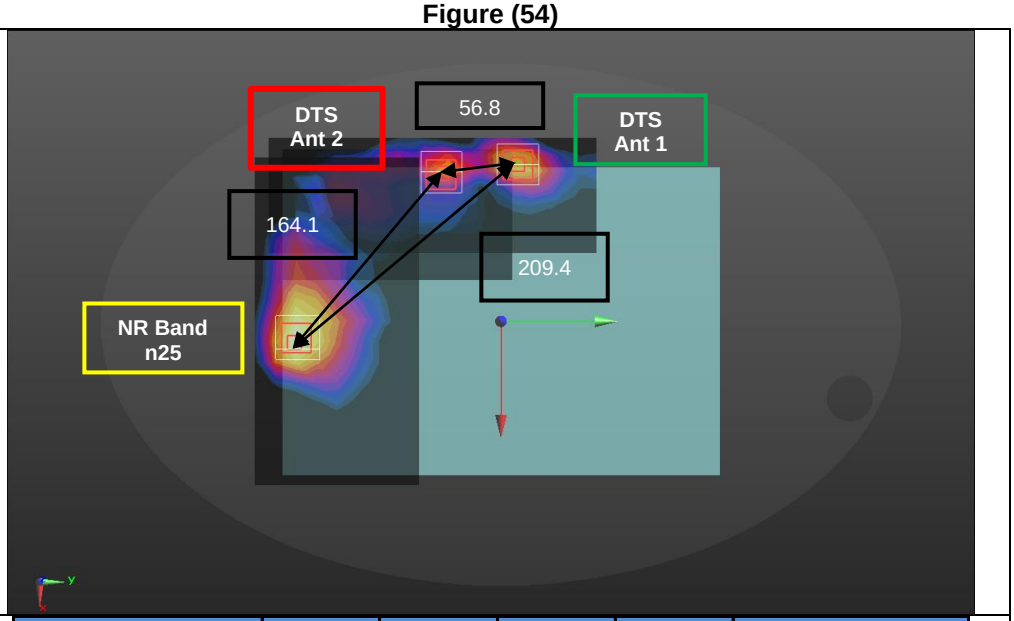


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
LTE Band 71	1	1.110	0.0828	-0.1217	-0.0016	1 + 2	195.9
BT+DTS Ant.2 UNII MIMO	2	1.310	-0.0992	-0.0492	-0.0023		

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (54)

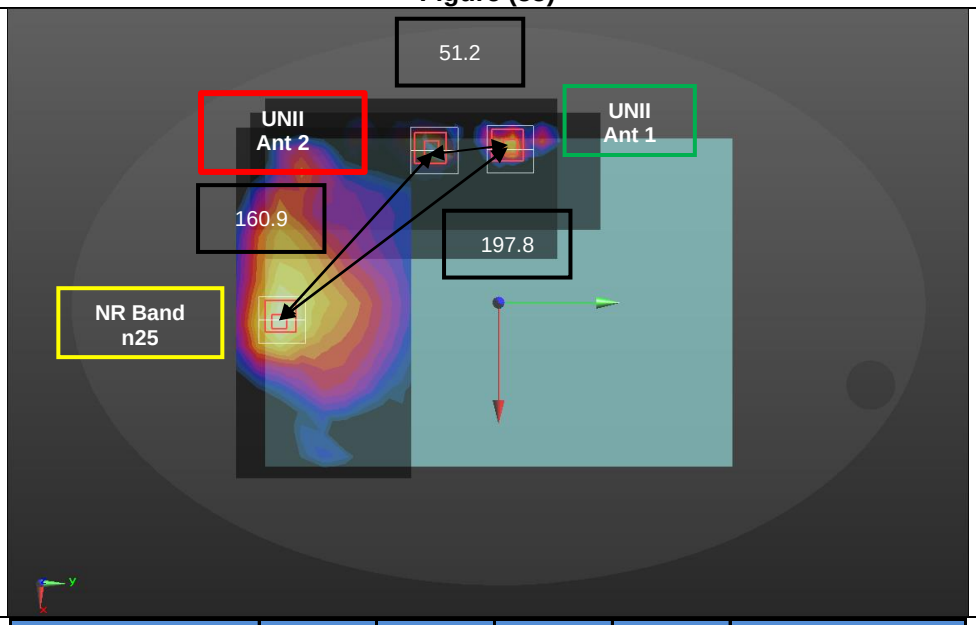


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
NR Band n25	1	1.188	0.0152	-0.1517	-0.0004	1 + 2	209.4
DTS Ant.1	2	0.418	-0.1148	0.0124	0.0019	1 + 3	164.1
DTS Ant.2	3	0.391	-0.1082	-0.0436	-0.0047	2 + 3	56.8

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (55)

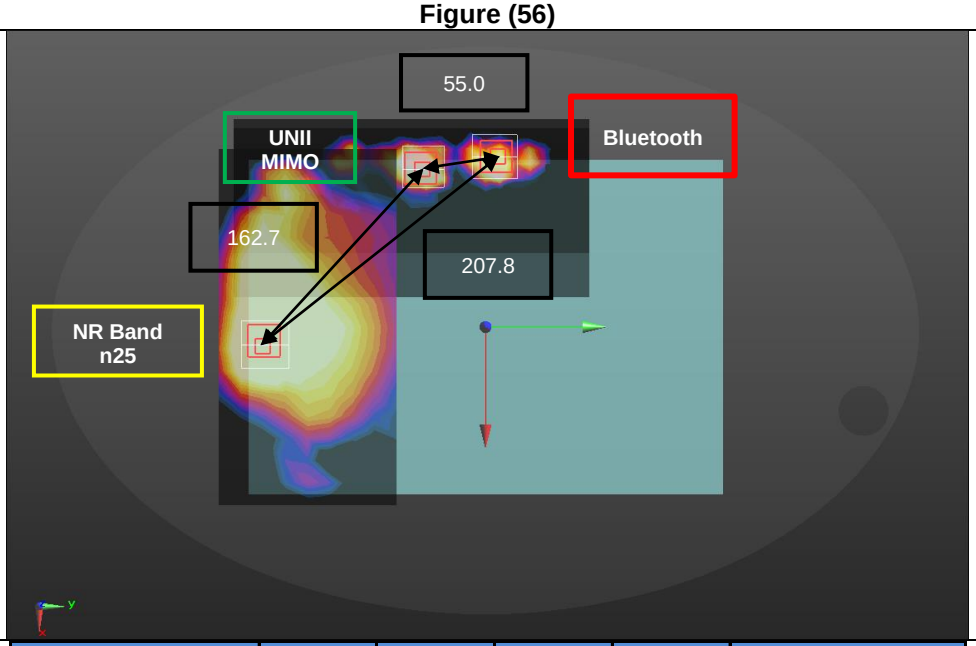


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
NR Band n25	1	1.188	0.0152	-0.1517	-0.0004	1 + 2	197.8
UNII Ant.1	2	0.549	-0.1058	0.0048	-0.0010	1 + 3	160.9
UNII Ant.2	3	1.094	-0.1064	-0.0464	-0.0012	2 + 3	51.2

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (56)

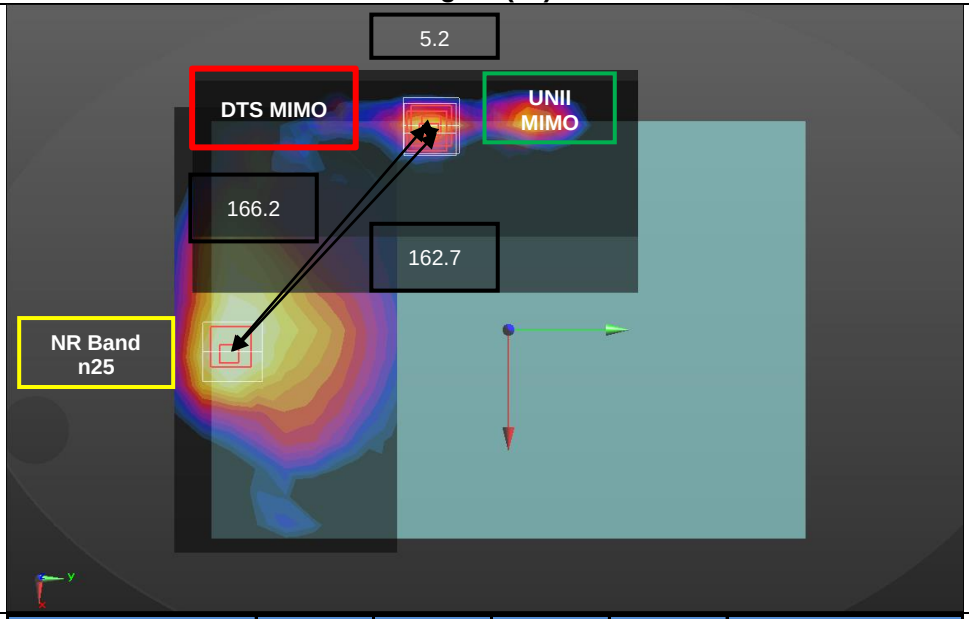


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
NR Band n25	1	1.188	0.0152	-0.1517	-0.0004	1 + 2	162.7
UNII MIMO	2	1.199	-0.1068	-0.0440	-0.0011	1 + 3	207.8
BT	3	0.361	-0.1148	0.0104	-0.0031	2 + 3	55.0

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (57)

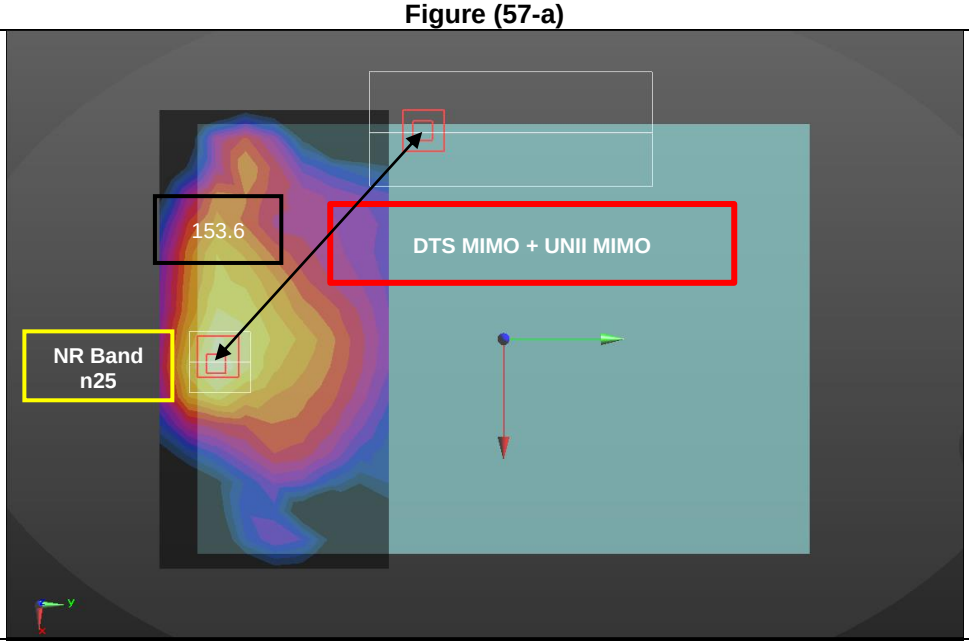


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
NR Band n25	1	1.188	0.0152	-0.1517	-0.0004	1 + 2	166.2
DTS MIMO	2	0.486	-0.1110	-0.0436	-0.0042	1 + 3	162.7
UNII MIMO	3	1.199	-0.1068	-0.0440	-0.0011	2 + 3	5.2

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (57-a)

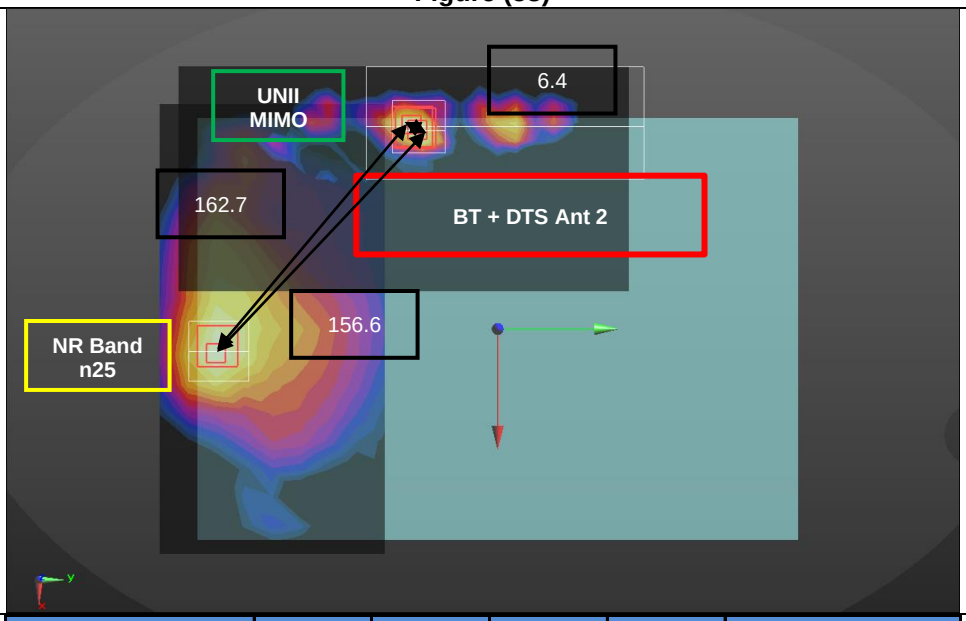


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
NR Band n25	1	1.188	0.0152	-0.1517	-0.0004	1 + 2	153.6
DTS MIMO + UNII MIMO	2	1.320	-0.0992	-0.0492	-0.0023		

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (58)

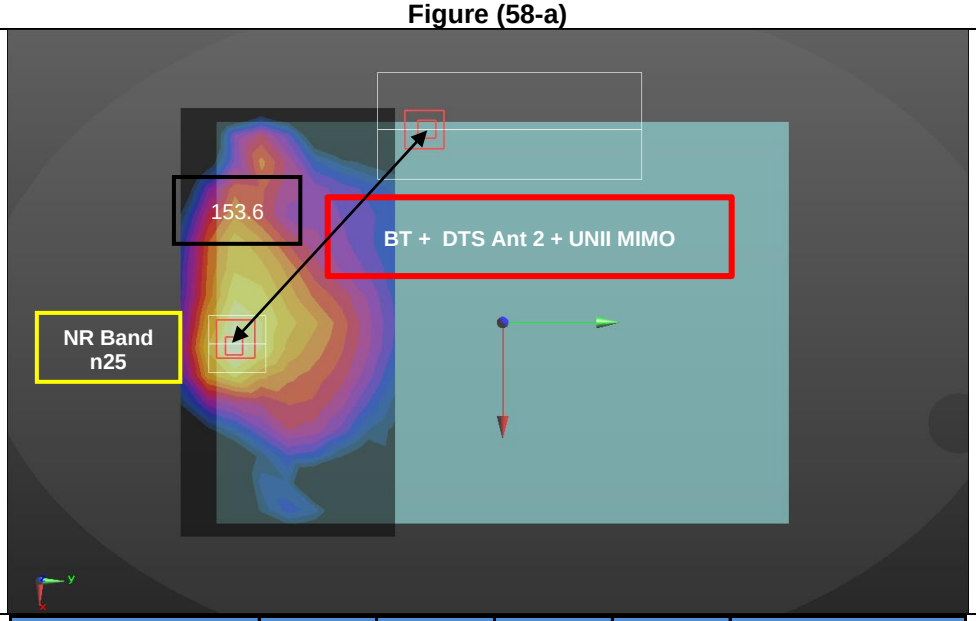


Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
NR Band n25	1	1.188	0.0152	-0.1517	-0.0004	1 + 2	156.6
BT+DTS Ant.2	2	0.478	-0.1032	-0.0492	-0.0023	1 + 3	162.7
UNII MIMO	3	1.199	-0.1068	-0.0440	-0.0011	2 + 3	6.4

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (58-a)



Mode		SAR	X	Y	Z	d: Calculated distance (mm)	
		W/kg	m	m	m		
NR Band n25	1	1.188	0.0152	-0.1517	-0.0004	1 + 2	153.6
BT+DTS Ant.2 UNII MIMO	2	1.310	-0.0992	-0.0492	-0.0023		

The Peak Location Separation Distance is computed by using the formula below:

SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)