TESTING
NVLAP LAB CODE 600118-0

SAR TEST REPORT

No. I21Z62393-SEM03

For

TCL Communication Ltd.

GSM/UMTS/LTE Mobile phone

Model name: T603DL

With

Hardware Version: PIO

Software Version: vR4G

FCC ID: 2ACCJH143

Issued Date: 2022-1-19

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of CTTL.

Test Laboratory:

CTTL, Telecommunication Technology Labs, CAICT

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REPORT HISTORY

Report Number	Revision	Issue Date	Description
I21Z62393-SEM03	Rev.0	2022-1-5	Initial creation of test report
I21Z62393-SEM03	Rev.1	2022-1-19	Updated the tune-up power for EGPRS GMSK 1900 3Tx and 4Tx on page 29.

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1 Test Laboratory

1.1 Testing Location

Company Name:	CTTL(Shouxiang)
Address:	No. 51 Shouxiang Science Building, Xueyuan Road, Haidian District, Beijing, P. R. China100191

1.2 Testing Environment

Temperature:	18°C~25°C,
Relative humidity:	30%~ 70%
Ground system resistance:	< 0.5 Ω
Ambient noise & Reflection:	< 0.012 W/kg

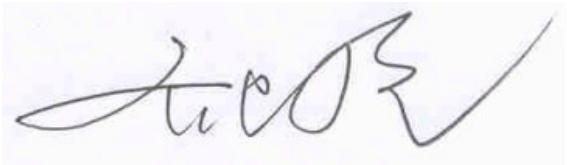
1.3 Project Data

Project Leader:	Qi Dianyuan
Test Engineer:	Lin Xiaojun
Testing Start Date:	December 14, 2021
Testing End Date:	December 28, 2021

1.4 Signature

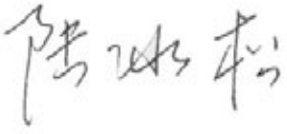
Lin Xiaojun

(Prepared this test report)



Qi Dianyuan

(Reviewed this test report)



Lu Bingsong

Deputy Director of the laboratory

(Approved this test report)

2 Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for TCL Communication Ltd. GSM/UMTS/LTE Mobile phone T603DL are as follows:

Table 2.1: Highest Reported SAR (1g)

Mode		Highest Reported SAR (1g)			
		1g SAR Head	1g SAR Hotspot 10mm	1g SAR Body-worn 15mm	10g Product Specific 10-g SAR 0mm
GSM	GSM 850	0.16	0.17	/	/
	PCS 1900	0.07	0.84	0.34	/
WCDMA	UMTS FDD 2	0.21	0.91	0.44	/
	UMTS FDD 4	0.12	1.13	0.49	1.96
	UMTS FDD 5	0.37	0.49	/	/
	LTE Band 12	0.46	0.52	/	/
	LTE Band 13	0.48	0.48	/	/
	LTE Band 25	0.13	0.65	0.29	/
	LTE Band 26	0.44	0.40	/	/
	LTE Band 41PC3	0.11	0.18	0.08	/
	LTE Band 41PC2	0.13	0.18	0.14	/
	LTE Band 66	0.09	1.04	0.47	/
	LTE Band 71	0.35	0.50	/	/
WLAN 2.4 GHz（Standalone)		0.52	0.36	/	/
WLAN 2.4 GHz（Simultaneous）		0.11	0.08	0.04	0.21
WLAN 5GHz（Standalone)		0.29	0.64	/	/
WLAN 5GHz（Simultaneous）		0.02	0.19	0.01	0.45

The SAR values found for the Mobile Phone are below the maximum recommended levels of 1.6 W/kg as averaged over any 1g tissue according to the ANSI C95.1-1992.

For body operation, this device has been tested and meets FCC RF exposure guidelines when used with any accessory that contains no metal and which provides a minimum separation distance of 10 mm for hotspot and 15mm for body worn between this device and the body of the user. Use of other accessories may not ensure compliance with FCC RF exposure guidelines.

The EUT battery must be fully charged and checked periodically during the test to ascertain uniform power output.

The measurement together with the test system set-up is described in annex C of this test report. A detailed description of the equipment under test can be found in chapter 4 of this test report. The highest reported SAR value is obtained at the case of **(Table 2.1),** and the values are**: 1.13W/kg(1g).**

Table 2.2: The sum of reported SAR values for Main antenna and WiFi2.4G+BT

	Position	Cellular antenna	WiFi	BT	Sum	Limited
Highest reported SAR value for Head	Right hand, Cheek (LTE Band13)	0.48	0.11	0.26	**0.85**	**1.6**
Maximum reported SAR value for Body	Rear 10mm (WCDMA1700)	0.99	0.08	0.13	**1.20**	
	Bottom 10mm (WCDMA1700)	1.13	/	0.13	**1.26**	
	Front 15mm (WCDMA1900)	0.22	0.02	0.09	**0.33**	
	Rear 15mm (WCDMA1700)	0.49	0.04	0.09	**0.62**	
Maximum reported SAR value for Body	Rear 0mm (LTE Band66)	1.67	0.21	0.13	**2.01**	**4.0**
	Bottom 0mm (LTE Band66)	1.85	/	0.13	**1.98**	

[1] - Estimated SAR for Bluetooth (see the table 13.3)

Table 2.3: The sum of reported SAR values for Main antenna and WiFi5G+BT

	Position	Cellular antenna	WiFi	BT	Sum	Limited
Highest reported SAR value for Head	Right hand, Cheek (LTE Band13)	0.48	0.01	0.26	**0.75**	**1.6**
Maximum reported SAR value for Body	Rear 10mm (WCDMA1700)	0.99	0.19	0.13	**1.31**	
	Bottom 10mm (WCDMA1700)	1.13	0.06	0.13	**1.32**	
	Front 15mm (WCDMA1900)	0.22	0.01	0.09	**0.32**	
	Rear 15mm (WCDMA1700)	0.49	0.01	0.09	**0.59**	
Maximum reported SAR value for Body	Rear 0mm (LTE Band66)	1.67	0.45	0.13	**2.25**	**4.0**
	Bottom 0mm (LTE Band66)	1.85	0.01	0.13	**1.99**	

[1] - Estimated SAR for Bluetooth (see the table 13.3)

Note：WiFi2.4G&BT antenna is located at the top of the device, the distance from the bottom is greater than 25mm, so the test is exempt.

Note1: we have evaluated and chose the highest value of body 10mm and 15mm in the above table.

According to the above tables, the highest sum of reported SAR values is **1.32 W/kg (1g)**. The detail for simultaneous transmission consideration is described in chapter 13.

According to the KDB648474 D04, the UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna located at ≤ 25 mm from that surface or edge, in direct contact with a flat phantom, for 10-g extremity SAR according to the body-equivalent tissue dielectric parameters in KDB Publication 865664 D01 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

3 Client Information

3.1 Applicant Information

Company Name:	TCL Communication Ltd.
Address/Post:	5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong
Contact Person:	Gong Zhizhou
E-mail:	zhizhou.gong@tcl.com
Telephone:	0086-755-36611722
Fax:	/

3.2 Manufacturer Information

Company Name:	TCL Communication Ltd.
Address/Post:	5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong
Contact Person:	Gong Zhizhou
E-mail:	zhizhou.gong@tcl.com
Telephone:	0086-755-36611722
Fax:	/

4 Equipment Under Test (EUT) and Ancillary Equipment (AE)

4.1 About EUT

Description:	GSM/UMTS/LTE Mobile phone
Model name:	T603DL
Operating mode(s):	GSM850/900/1800/1900,WCDMA850/1700/1900,BT,Wi-Fi(2.4G/5G), LTE Band2/4/5/12/13/25/26/41/66/71
Tested Tx Frequency:	824 – 849 MHz (GSM 850)
	1850 – 1910 MHz (GSM 1900)
	824–849 MHz (WCDMA 850 Band V)
	1710 – 1755 MHz (WCDMA 1700 Band IV)
	1850–1910 MHz (WCDMA1900 Band II)
	699 – 716 MHz (LTE Band 12)
	779.5 –784.5 MHz (LTE Band 13)
	1850.7 – 1914.3 MHz (LTE Band 25)
	814 – 849 MHz (LTE Band 26)
	2496 – 2690 MHz (LTE Band 41)
	1710 – 1780 MHz (LTE Band 66)
	665.5 – 695.5 MHz (LTE Band 71)
	2412 – 2462 MHz (Wi-Fi 2.4G)
	5150-5825 MHz (Wi-Fi 5G)
GPRS/EGPRS Multislot Class:	12
GPRS capability Class:	B
Test device Production information:	Production unit
Device type:	Portable device
Antenna type:	Integrated antenna
Hotspot mode:	Support

4.2Internal Identification of EUT used during the test

EUT ID*	IMEI	HW	SW Version
EUT1	016052000214877	PIO	vR4G
EUT2	016052000214836	PIO	vR4G
EUT3	016052000214851	PIO	vR4G
EUT4	016052000214810	PIO	vR4G
EUT5	016052000214216	PIO	vR4G
EUT6	016052000212699	PIO	vR4G

*EUT ID: is used to identify the test sample in the lab internally.

Note: It is performed to test SAR with the EUT1-4 and conducted power with the EUT5-6.

4.3 Internal Identification of AE used during the test

AE ID*	Description	Model	SN	Manufacturer
AE1	Battery	TLp038D7	/	VEKEN

*AE ID: is used to identify the test sample in the lab internally.

5 TEST METHODOLOGY

5.1 Applicable Limit Regulations

ANSI C95.1–1992:IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.

It specifies the maximum exposure limit of **1.6 W/kg** as averaged over any 1 gram of tissue for portable devices being used within 20 cm of the user in the uncontrolled environment.

5.2 Applicable Measurement Standards

IEEE 1528–2013: Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques.

KDB447498 D01: General RF Exposure Guidance v06: Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies.

KDB648474 D04 Handset SAR v01r03: SAR Evaluation Considerations for Wireless Handsets.

KDB941225 D01 SAR test for 3G devices v03r01: SAR Measurement Procedures for 3G Devices

KDB941225 D05 SAR for LTE Devices v02r05: SAR Evaluation Considerations for LTE Devices

KDB941225 D06 Hotspot Mode SAR v02r01: SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities

KDB248227 D01 802.11 Wi-Fi SAR v02r02: SAR GUIDANCE FOR IEEE 802.11 (Wi-Fi) TRANSMITTERS

KDB865664 D01SAR measurement 100 MHz to 6 GHz v01r04: SAR Measurement Requirements for 100 MHz to 6 GHz.

KDB865664 D02RF Exposure Reporting v01r02: RF Exposure Compliance Reporting and Documentation Considerations

6 Specific Absorption Rate (SAR)

6.1 Introduction

SAR is related to the rate at which energy is absorbed per unit mass in an object exposed to a radio field. The SAR distribution in a biological body is complicated and is usually carried out by experimental techniques or numerical modeling. The standard recommends limits for two tiers of groups, occupational/controlled and general population/uncontrolled, based on a person's awareness and ability to exercise control over his or her exposure. In general, occupational/controlled exposure limits are higher than the limits for general population/uncontrolled.

6.2 SAR Definition

The SAR definition is the time derivative (rate) of the incremental energy (dW) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dv) of a given density (ρ). The equation description is as below:

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

SAR is expressed in units of Watts per kilogram (W/kg)
SAR measurement can be either related to the temperature elevation in tissue by

$$SAR = c\left(\frac{\delta T}{\delta t}\right)$$

Where: C is the specific head capacity, δT is the temperature rise and δt is the exposure duration, or related to the electrical field in the tissue by

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

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

However for evaluating SAR of low power transmitter, electrical field measurement is typically applied.

7 Tissue Simulating Liquids

7.1 Targets for tissue simulating liquid

Table 7.1: Targets for tissue simulating liquid

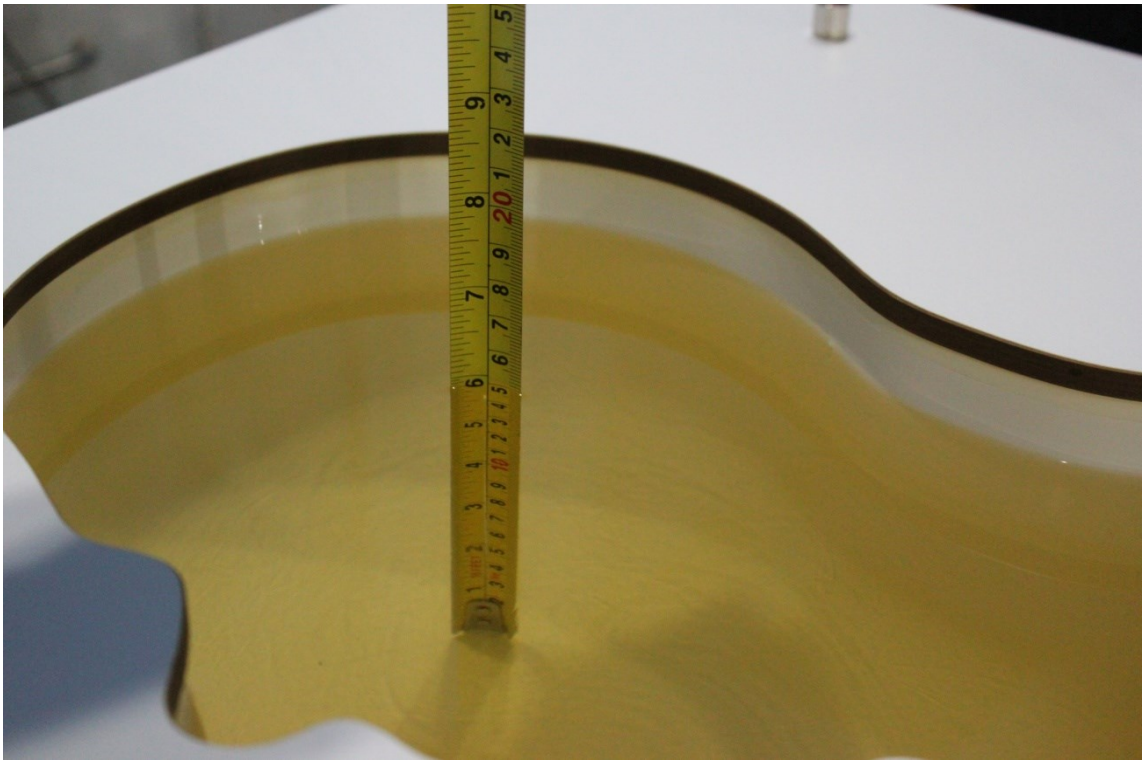
Frequency(MHz)	Liquid Type	Conductivity(σ)	±10% Range	Permittivity(ε)	± 10% Range
750	Head	0.89	0.80～0.98	41.94	37.75～46.13
835	Head	0.90	0.81～0.99	41.5	37.35～45.65
1750	Head	1.40	1.26～1.54	40.0	36～44
1900	Head	1.40	1.26～1.54	40.0	36～44
2300	Head	1.67	1.59～1.75	39.47	37.5～41.4
2450	Head	1.80	1.62～1.98	39.2	35.28～43.12
2600	Head	1.96	1.76～2.16	39.01	35.11～42.91
5250	Head	4.71	4.47～4.95	35.93	34.13～37.73
5600	Head	5.07	4.82～5.32	35.53	33.8～37.3
5750	Head	5.22	4.96～5.48	35.36	33.59～37.13

7.2 Dielectric Performance

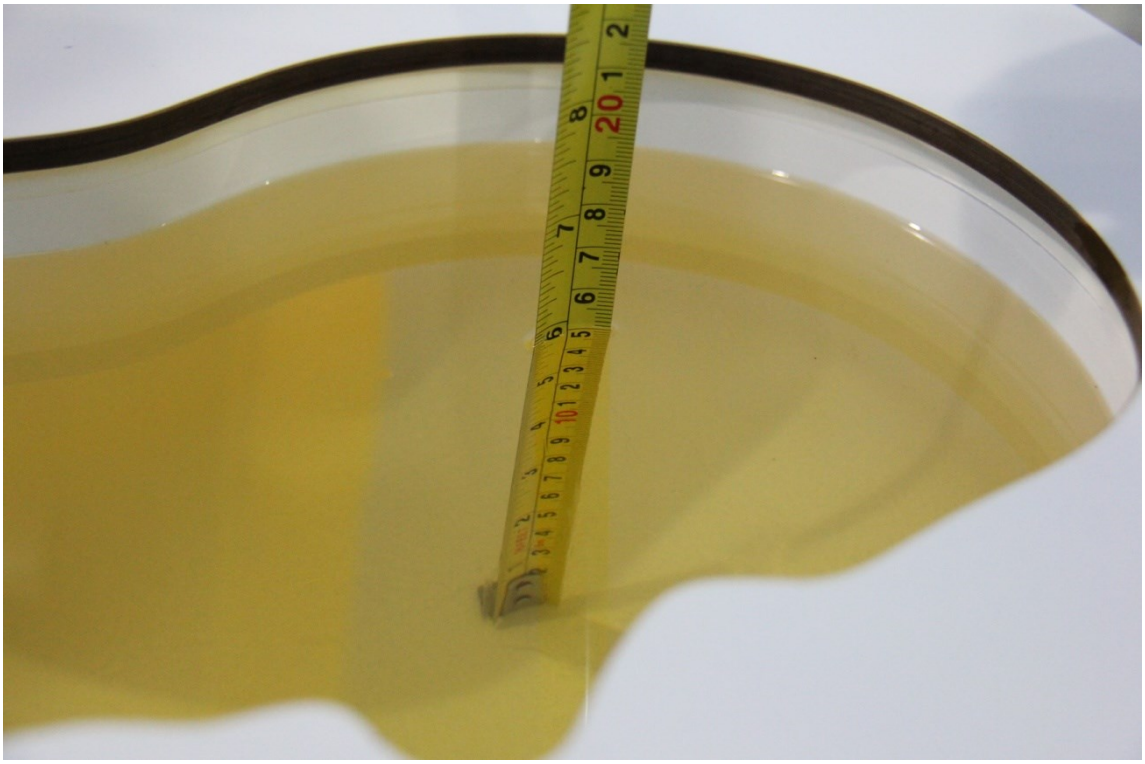
Table 7.2: Dielectric Performance of Tissue Simulating Liquid

Measurement Date (yyyy-mm-dd)	Type	Frequency	Permittivity ε	Drift (%)	Conductivity σ (S/m)	Drift (%)
2021/12/14	Head	750 MHz	42.06	0.29	0.88	-1.12
2021/12/15	Head	750 MHz	41.29	-1.55	0.897	0.79
2021/12/16	Head	835 MHz	42.17	1.61	0.909	1.00
2021/12/17	Head	835 MHz	41.5	0.00	0.898	-0.22
2021/12/18	Head	1750 MHz	40.23	0.37	1.376	0.44
2021/12/19	Head	1750 MHz	40.33	0.62	1.392	1.61
2021/12/20	Head	1900 MHz	40.42	1.05	1.395	-0.36
2021/12/21	Head	1900 MHz	40.26	0.65	1.386	-1.00
2021/12/22	Head	1900 MHz	40.76	1.90	1.382	-1.29
2021/12/23	Head	2450 MHz	39.19	-0.03	1.836	2.00
2021/12/24	Head	2450 MHz	38.58	-1.58	1.82	1.11
2021/12/25	Head	2600 MHz	38.46	-1.41	1.956	-0.20
2021/12/26	Head	2600 MHz	38.44	-1.46	1.963	0.15
2021/12/27	Head	5250 MHz	35.58	-0.97	4.667	-0.91
2021/12/28	Head	5250 MHz	35.53	-1.11	4.681	-0.62
2021/12/27	Head	5600 MHz	34.17	-3.83	5.043	-0.53
2021/12/28	Head	5750 MHz	33.86	-4.24	5.211	-0.17

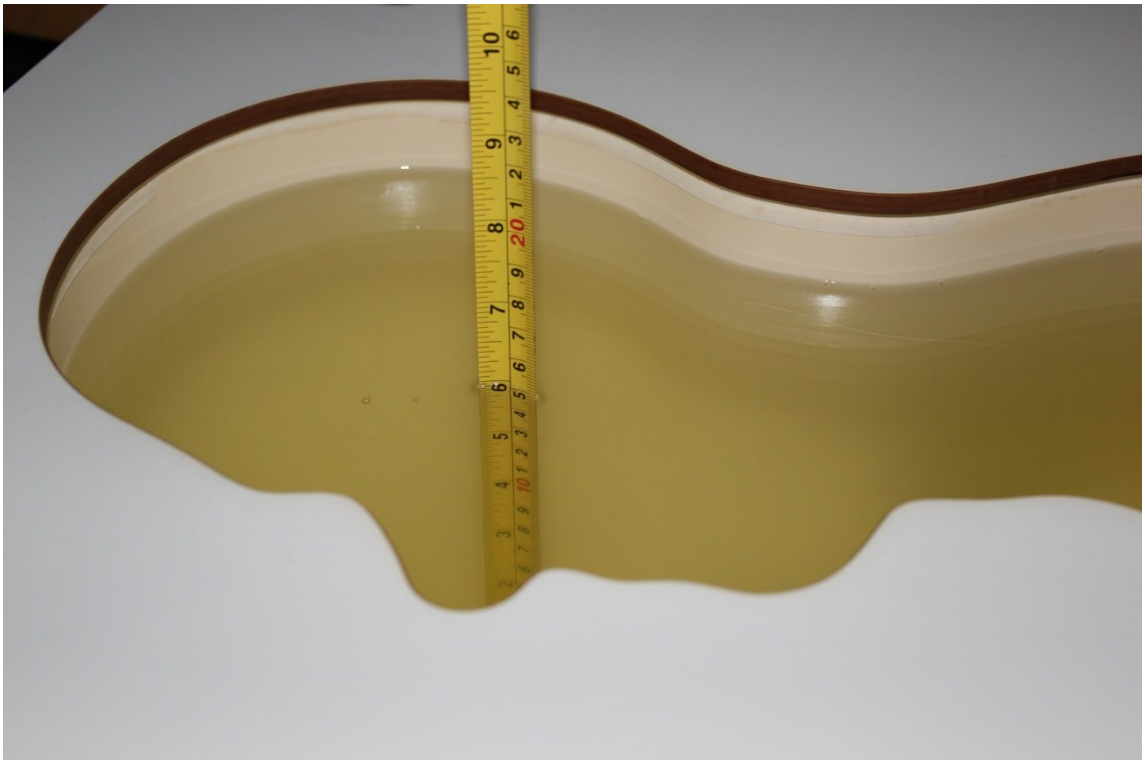
Note: The liquid temperature is 23.0℃



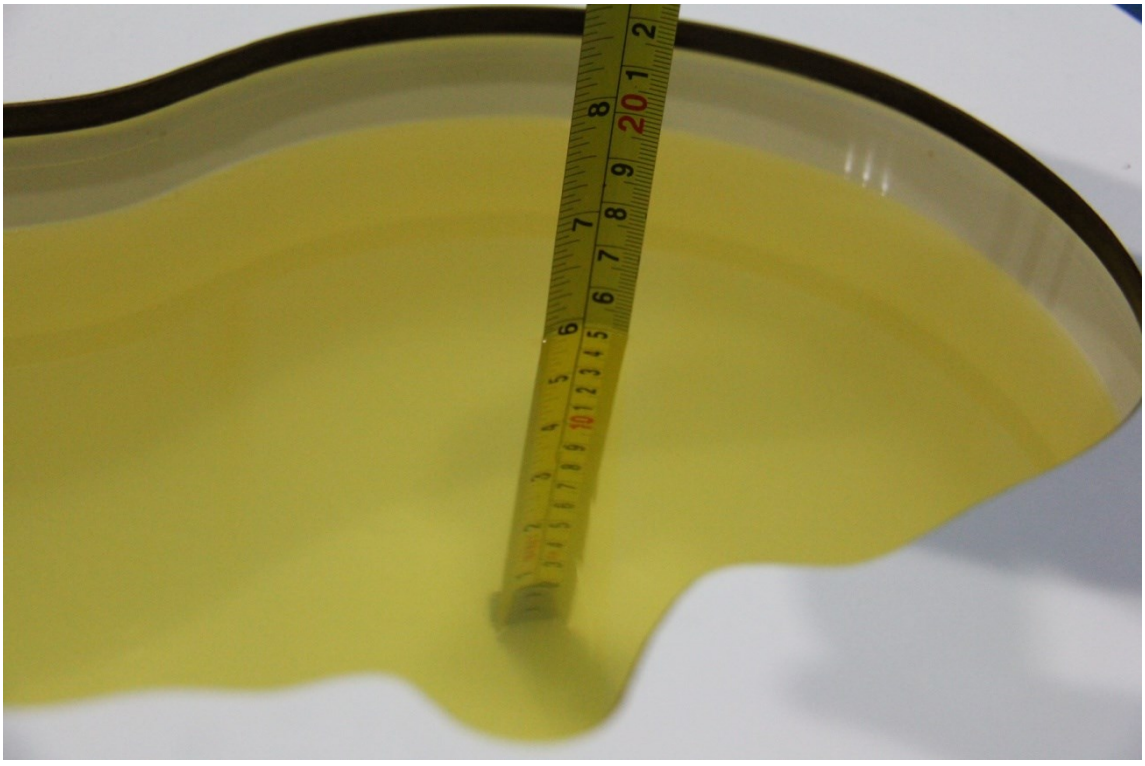
Picture 7-1 Liquid depth in the Head Phantom (750MHz)



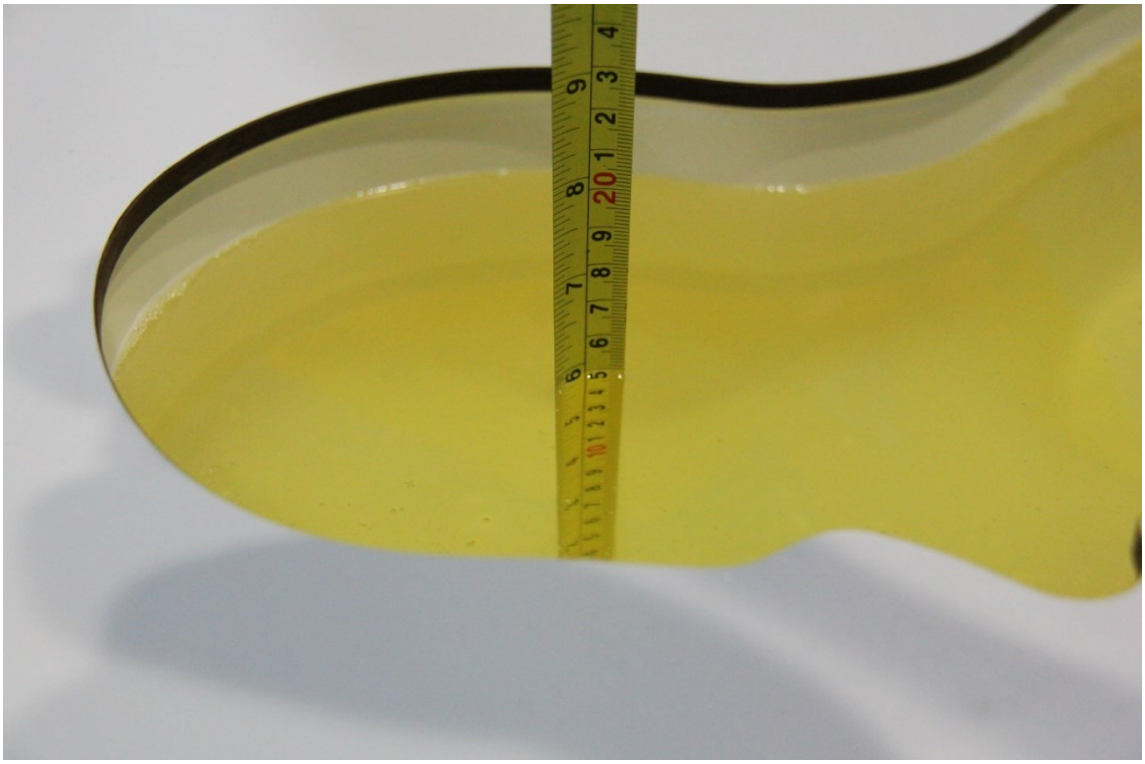
Picture 7-2 Liquid depth in the Head Phantom (835 MHz)



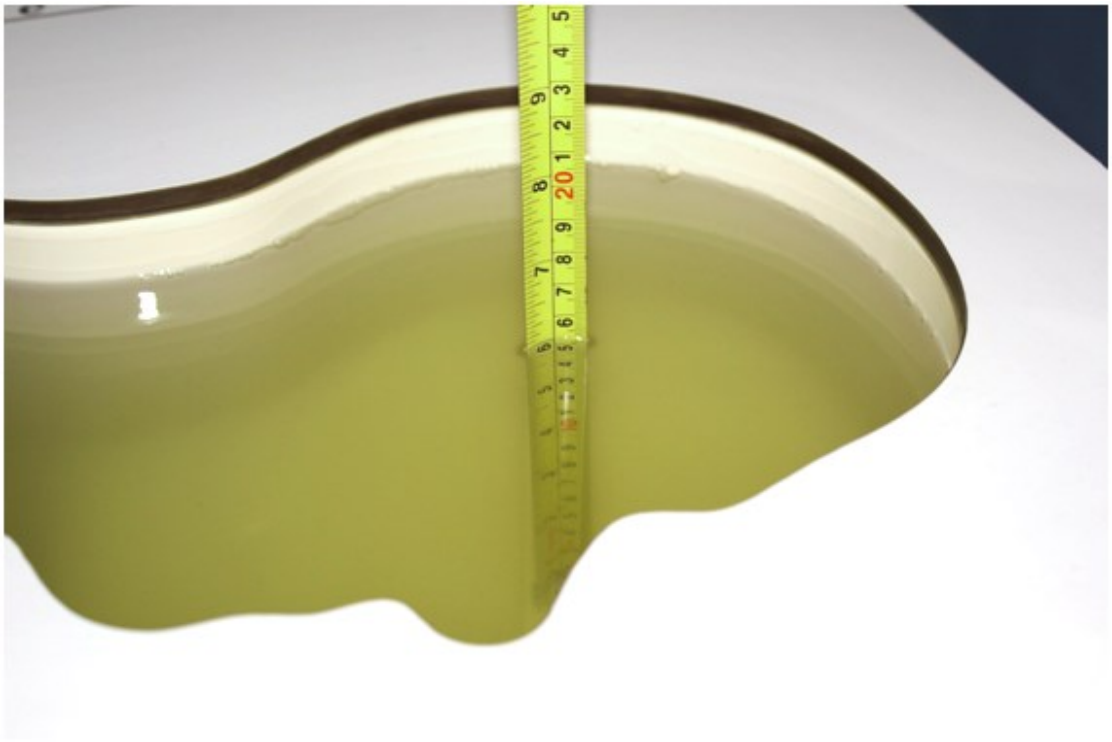
Picture 7-3 Liquid depth in the Head Phantom (1750 MHz)



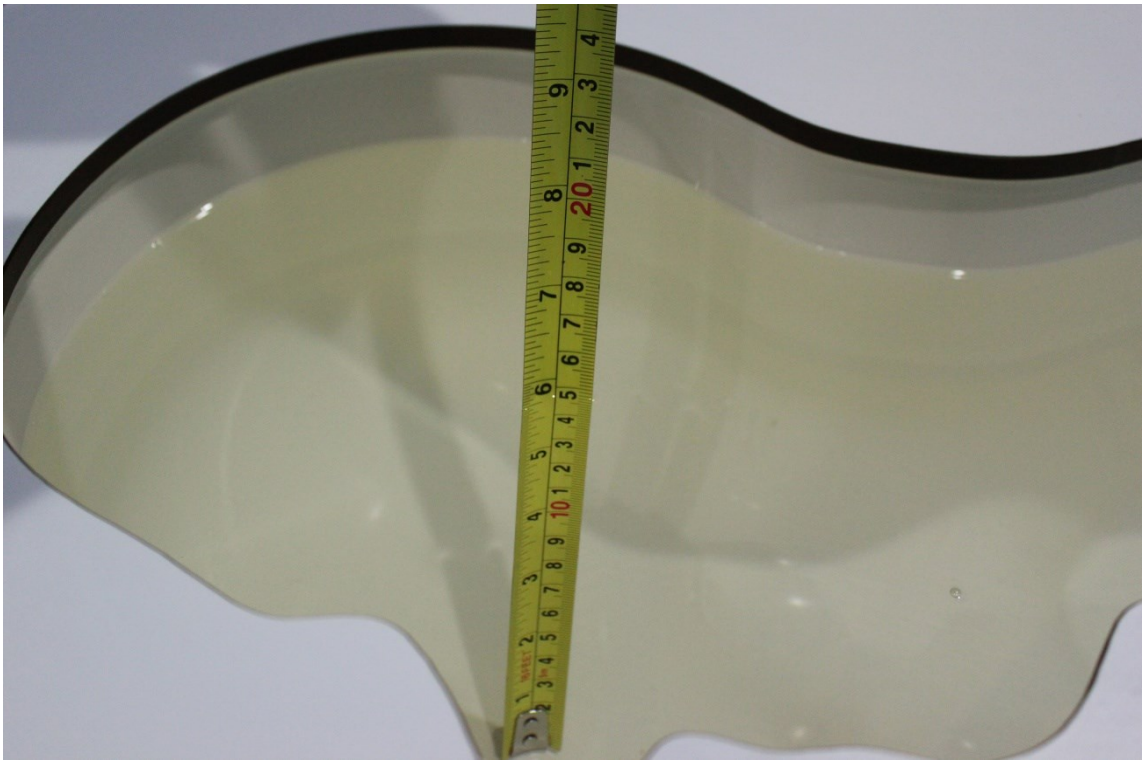
Picture 7-4 Liquid depth in the Head Phantom (1900 MHz)



Picture 7-5 Liquid depth in the Head Phantom (2450MHz)



Picture 7-6 Liquid depth in the Head Phantom (2600 MHz)

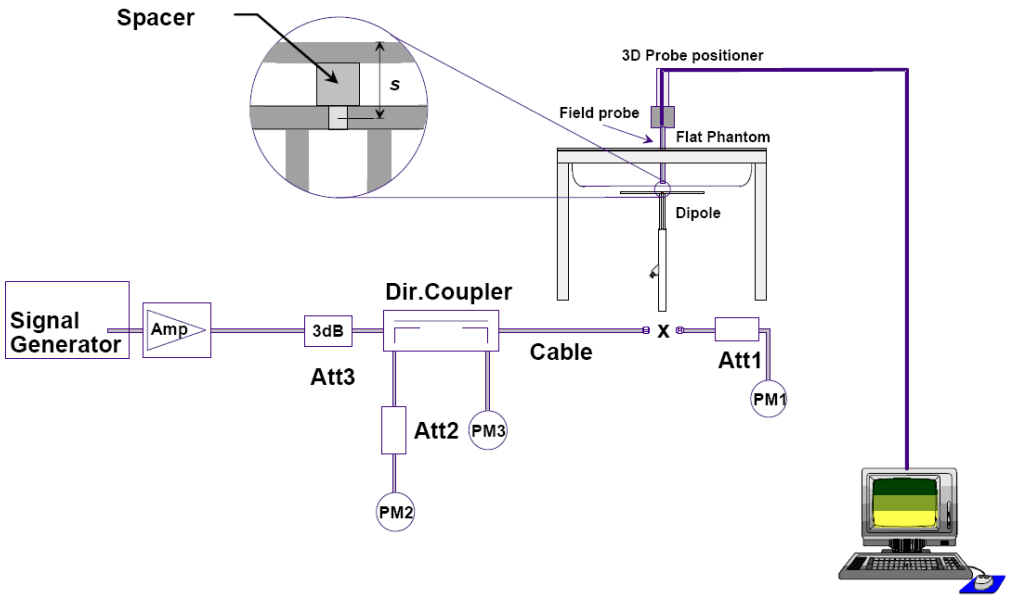


Picture 7-7 Liquid depth in the Head Phantom (5GHz)

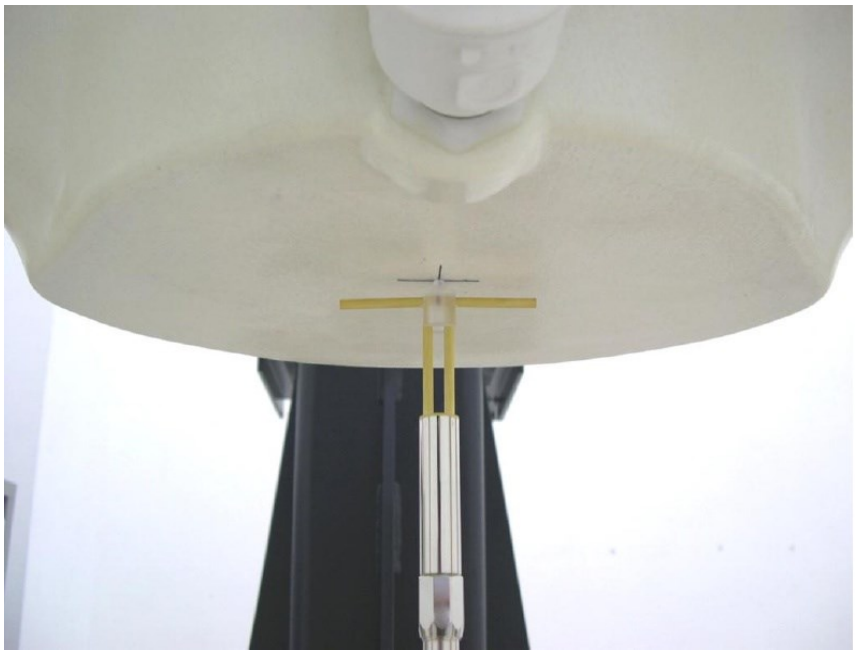
8 System verification

8.1 System Setup

In the simplified setup for system evaluation, the DUT is replaced by a calibrated dipole and the power source is replaced by a continuous wave that comes from a signal generator. The calibrated dipole must be placed beneath the flat phantom section of the SAM twin phantom with the correct distance holder. The distance holder should touch the phantom surface with a light pressure at the reference marking and be oriented parallel to the long side of the phantom. The equipment setup is shown below:



Picture 8.1 System Setup for System Evaluation



Picture 8.2 Photo of Dipole Setup

8.2 System Verification

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 system verification results are required that the area scan estimated 1-g SAR is within 3% of the zoom scan 1-g SAR. The details are presented in annex B.

Table 8.1: System Verification of Head

Measurement Date (yyyy-mm-dd)	Frequency	Target value (W/kg)		Measured value(W/kg)		Deviation	
		10 g Average	1 g Average	10 g Average	1 g Average	10 g Average	1 g Average
2021/12/14	750 MHz	5.65	8.68	5.76	8.64	1.95%	-0.46%
2021/12/15	750 MHz	5.65	8.68	5.64	8.76	-0.18%	0.92%
2021/12/16	835 MHz	6.24	9.63	6.32	9.56	1.28%	-0.73%
2021/12/17	835 MHz	6.24	9.63	6.24	9.6	0.00%	-0.31%
2021/12/18	1750 MHz	19.4	36.9	19.64	36.68	1.24%	-0.60%
2021/12/19	1750 MHz	19.4	36.9	19.32	37	-0.41%	0.27%
2021/12/20	1900 MHz	20.9	40.1	21.16	39.68	1.24%	-1.05%
2021/12/21	1900 MHz	20.9	40.1	20.6	40.24	-1.44%	0.35%
2021/12/22	1900 MHz	20.9	40.1	20.84	40.52	-0.29%	1.05%
2021/12/23	2450 MHz	24.9	53.3	25.28	53.04	1.53%	-0.49%
2021/12/24	2450 MHz	24.9	53.3	24.64	53.72	-1.04%	0.79%
2021/12/25	2600 MHz	25.5	57.1	25.4	56.32	-0.39%	-1.37%
2021/12/26	2600 MHz	25.5	57.1	25.92	57.24	1.65%	0.25%
2021/12/27	5250 MHz	22.7	79.5	21.7	75.6	-4.41%	-4.91%
2021/12/28	5250 MHz	22.7	79.5	23.9	77.9	5.29%	-2.01%
2021/12/27	5600 MHz	23.7	83.8	22.0	76.9	-7.17%	-8.23%
2021/12/28	5750 MHz	22.7	81	21.2	74.1	-6.61%	-8.52%

9 Measurement Procedures

9.1 Tests to be performed

In order to determine the highest value of the peak spatial-average SAR of a handset, all device positions, configurations and operational modes shall be tested for each frequency band according to steps 1 to 3 below. A flowchart of the test process is shown in picture 9.1.

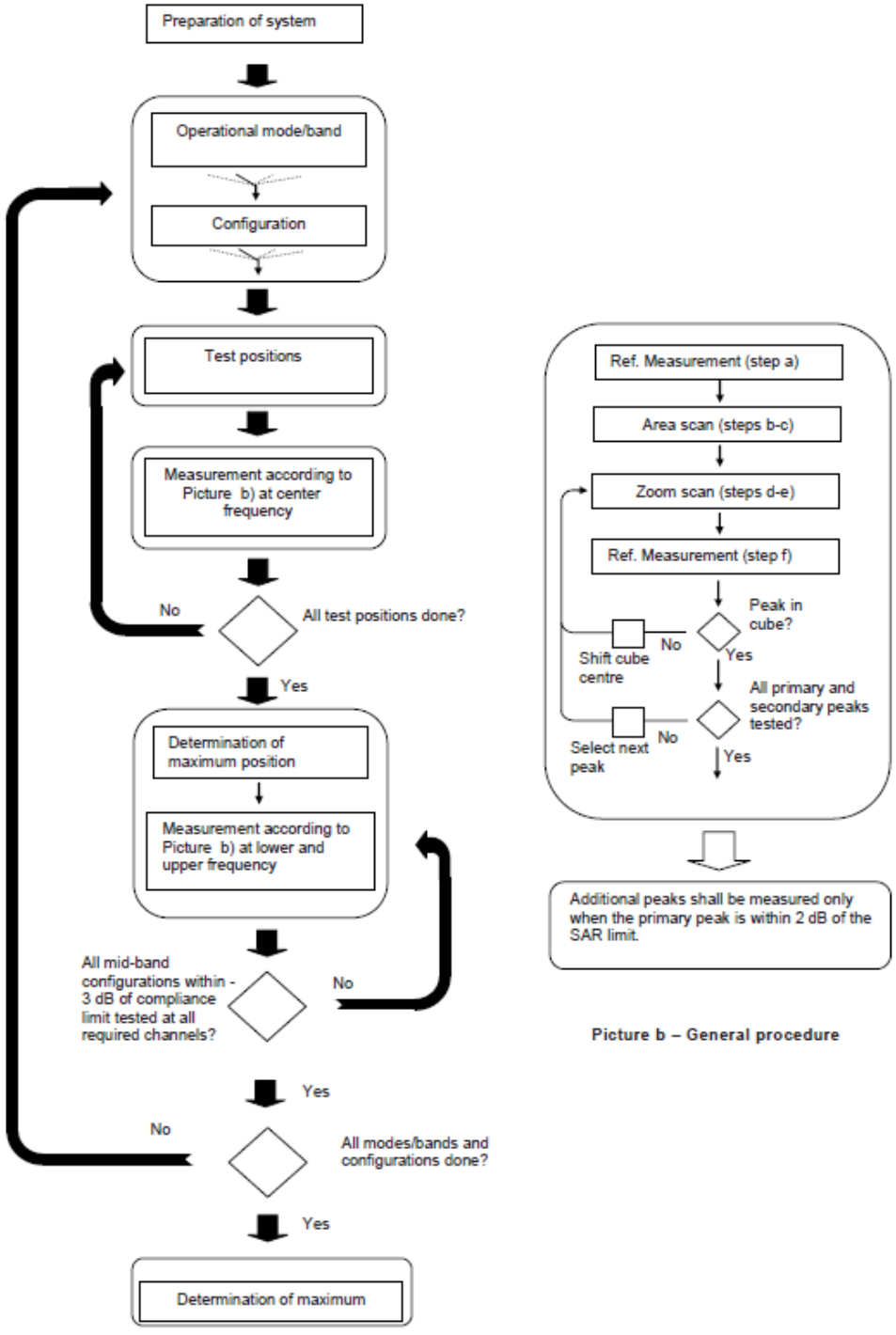
Step 1: The tests described in 9.2 shall be performed at the channel that is closest to the centre of the transmit frequency band (f_c) for:

a) all device positions (cheek and tilt, for both left and right sides of the SAM phantom, as described in annex D),
b) all configurations for each device position in a), e.g., antenna extended and retracted, and
c) all operational modes, e.g., analogue and digital, for each device position in a) and configuration in b) in each frequency band.

If more than three frequencies need to be tested according to 11.1 (i.e., N_c > 3), then all frequencies, configurations and modes shall be tested for all of the above test conditions.

Step 2: For the condition providing highest peak spatial-average SAR determined in Step 1,perform all tests described in 9.2 at all other test frequencies, i.e., lowest and highest frequencies. In addition, for all other conditions (device position, configuration and operational mode) where the peak spatial-average SAR value determined in Step 1 is within3 dB of the applicable SAR limit, it is recommended that all other test frequencies shall be tested as well.

Step 3: Examine all data to determine the highest value of the peak spatial-average SAR found in Steps 1 to 2.



Picture 9.1Block diagram of the tests to be performed

9.2 General Measurement Procedure

The area and zoom scan resolutions specified in the table below must be applied to the SAR measurements and fully documented in SAR reports to qualify for TCB approval. Probe boundary effect error compensation is required for measurements with the probe tip closer than half a probe tip diameter to the phantom surface. Both the probe tip diameter and sensor offset distance must satisfy measurement protocols; to ensure probe boundary effect errors are minimized and the

higher fields closest to the phantom surface can be correctly measured and extrapolated to the phantom surface for computing 1-g SAR. Tolerances of the post-processing algorithms must be verified by the test laboratory for the scan resolutions used in the SAR measurements, according to the reference distribution functions specified in IEEE Std 1528-2013. The results should be documented as part of the system validation records and may be requested to support test results when all the measurement parameters in the following table are not satisfied.

<table>
<tr><td colspan="3"></td><td>≤ 3 GHz</td><td>> 3 GHz</td></tr>
<tr><td colspan="3">Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface</td><td>5 ± 1 mm</td><td>½·δ·ln(2) ± 0.5 mm</td></tr>
<tr><td colspan="3">Maximum probe angle from probe axis to phantom surface normal at the measurement location</td><td>30° ± 1°</td><td>20° ± 1°</td></tr>
<tr><td colspan="3" rowspan="2">Maximum area scan spatial resolution: Δx_{Area}, Δy_{Area}</td><td>≤ 2 GHz: ≤ 15 mm
2 – 3 GHz: ≤ 12 mm</td><td>3 – 4 GHz: ≤ 12 mm
4 – 6 GHz: ≤ 10 mm</td></tr>
<tr><td colspan="2">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.</td></tr>
<tr><td colspan="3">Maximum zoom scan spatial resolution: Δx_{Zoom}, Δy_{Zoom}</td><td>≤ 2 GHz: ≤ 8 mm
2 – 3 GHz: ≤ 5 mm*</td><td>3 – 4 GHz: ≤ 5 mm*
4 – 6 GHz: ≤ 4 mm*</td></tr>
<tr><td rowspan="3">Maximum zoom scan spatial resolution, normal to phantom surface</td><td colspan="2">uniform grid: $\Delta z_{Zoom}(n)$</td><td>≤ 5 mm</td><td>3 – 4 GHz: ≤ 4 mm
4 – 5 GHz: ≤ 3 mm
5 – 6 GHz: ≤ 2 mm</td></tr>
<tr><td rowspan="2">graded grid</td><td>$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface</td><td>≤ 4 mm</td><td>3 – 4 GHz: ≤ 3 mm
4 – 5 GHz: ≤ 2.5 mm
5 – 6 GHz: ≤ 2 mm</td></tr>
<tr><td>$\Delta z_{Zoom}(n>1)$: between subsequent points</td><td colspan="2">≤ 1.5·$\Delta z_{Zoom}(n-1)$</td></tr>
<tr><td>Minimum zoom scan volume</td><td colspan="2">x, y, z</td><td>≥ 30 mm</td><td>3 – 4 GHz: ≥ 28 mm
4 – 5 GHz: ≥ 25 mm
5 – 6 GHz: ≥ 22 mm</td></tr>
<tr><td colspan="5">Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.
* When zoom scan is required and the <u>reported</u> SAR from the 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.</td></tr>
</table>

9.3 WCDMA Measurement Procedures for SAR

The following procedures are applicable to WCDMA handsets operating under 3GPP Release99, Release 5 and Release 6. The default test configuration is to measure SAR with an established radio link between the DUT and a communication test set using a 12.2kbps RMC (reference measurement channel) configured in Test Loop Mode 1. SAR is selectively confirmed for other physical channel configurations (DPCCH & $DPDCH_n$), HSDPA and HSPA (HSUPA/HSDPA) modes according to output power, exposure conditions and device operating capabilities. Both uplink and downlink should be configured with the same RMC or AMR, when required. SAR for Release 5 HSDPA and Release 6 HSPA are measured using the applicable FRC (fixed reference channel) and E-DCH reference channel configurations. Maximum output power is verified according to applicable versions of 3GPP TS 34.121 and SAR must be measured according to these maximum output conditions. When Maximum Power Reduction (MPR) is not implemented according to Cubic Metric (CM) requirements for Release 6 HSPA, the following procedures do not apply.

For Release 5 HSDPA Data Devices:

Sub-test	β_c	β_d	β_d （SF）	β_c/β_d	β_{hs}	CM/dB
1	2/15	15/15	64	2/15	4/15	0.0
2	12/15	15/15	64	12/15	24/25	1.0
3	15/15	8/15	64	15/8	30/15	1.5
4	15/15	4/15	64	15/4	30/15	1.5

For Release 6 HSPA Data Devices

Sub-test	β_c	β_d	β_d （SF）	β_c/β_d	β_{hs}	β_{ec}	β_{ed}	β_{ed} （SF）	β_{ed} （codes）	CM (dB)	MPR (dB)	AG Index	E-TFCI
1	11/15	15/15	64	11/15	22/15	209/225	1039/225	4	1	1.5	1.5	20	75
2	6/15	15/15	64	6/15	12/15	12/15	12/15	4	1	1.5	1.5	12	67
3	15/15	9/15	64	15/9	30/15	30/15	β_{ed1}:47/15 β_{ed2}:47/15	4	2	1.5	1.5	15	92
4	2/15	15/15	64	2/15	4/15	4/15	56/75	4	1	1.5	1.5	17	71
5	15/15	15/15	64	15/15	24/15	30/15	134/15	4	1	1.5	1.5	21	81

Rel.8 DC-HSDPA (Cat 24)

SAR test exclusion for Rel.8 DC-HSDPA must satisfy the SAR test exclusion requirements of Rel.5 HSDPA. SAR test exclusion for DC-HSDPA devices is determined by power measurements according to the H-Set 12, Fixed Reference Channel (FRC) configuration in Table C.8.1.12 of 3GPP TS 34.121-1. A primary and a secondary serving HS-DSCH Cell are required to perform the power measurement and for the results to qualify for SAR test exclusion.

9.4 SAR Measurement for LTE

SAR tests for LTE are performed with a base station simulator, Rohde & Rchwarz CMW500. Closed loop power control was used so the UE transmits with maximum output power during SAR testing. All powers were measured with the CMW 500.
It is performed for conducted power and SAR based on the KDB941225 D05.
SAR is evaluated separately according to the following procedures for the different test positions in each exposure condition – head, body, body-worn accessories and other use conditions. The procedures in the following subsections are applied separately to test each LTE frequency band.

1) QPSK with 1 RB allocation
   Start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power 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 of the remaining RB offset configurations and required test channels is not required for 1 RB allocation; otherwise, SAR is required for the remaining required test channels and only for the RB offset configuration with the highest output power for that channel. When the reported SAR of a required test channel is > 1.45 W/kg, SAR is required for all three RB offset configurations for that required test channel.
2) QPSK with 50% RB allocation
   The procedures required for 1 RB allocation in 1) are applied to measure the SAR for QPSK with 50% RB allocation.
3) QPSK with 100% RB allocation
   For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation in 1) and 2) are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.

TDD test:

TDD testing is performed using guidance from FCC KDB 941225 D05 v02r05 and the SAR test guidance provided in April 2013 TCB works hop notes. TDD is tested at the highest duty factor using UL-DL configuration 0 with special subframe configuration 6 and applying the FDD LTE procedures in KDB 941225 D05 v02r05. SAR testing is performed using the extended cyclic prefix listed in 3GPP TS 36.211.

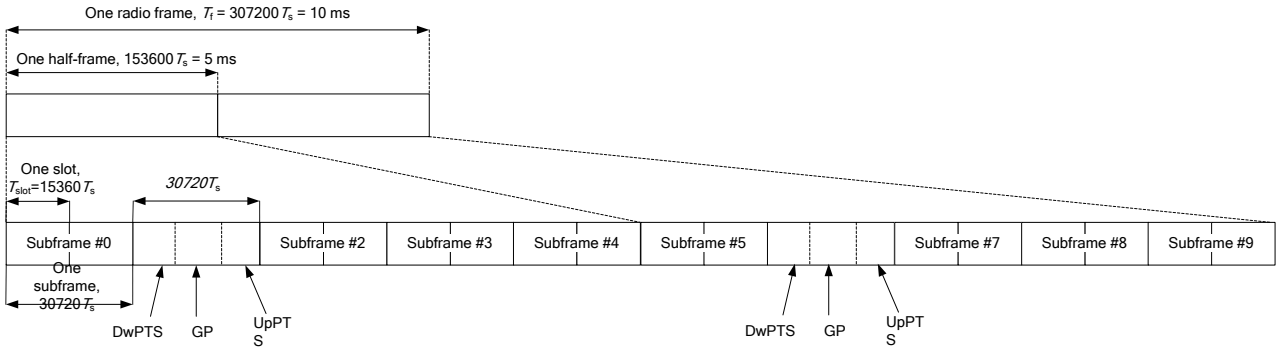


Figure 9.2: Frame structure type 2 (for 5 ms switch-point periodicity)

Table 9.1: 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	$13168 \cdot T_s$			-	-	-

Table 9.2: Uplink-downlink configurations

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

Duty factor is calculated by:

Duty factor = uplink frame*6+UpPTS*2/one frame length

= (30720.T_s * 6+5120. T_s*2)/307200.T_s

= 0.633

According to the KDB 447498 D01, SAR should be evaluated at more than 3 frequencies for devices supporting transmit bands wider than 100MHz. Oct.2014 FCC-TCB conference notes (Dec. 2014 rev.) specifies the 5 test channels to use for 3GPP band 41 SAR evaluation.

9.5 Bluetooth & Wi-Fi Measurement Procedures for SAR

Normal network operating configurations are not suitable for measuring the SAR of 802.11 transmitters in general. Unpredictable fluctuations in network traffic and antenna diversity conditions can introduce undesirable variations in SAR results. The SAR for these devices should be measured using chipset based test mode software to ensure that the results are consistent and reliable.

Chipset based test mode software is hardware dependent and generally varies among manufacturers. The device operating parameters established in a test mode for SAR measurements must be identical to those programmed in production units, including output power levels, amplifier gain settings and other RF performance tuning parameters. The test frequencies should correspond to actual channel frequencies defined for domestic use. SAR for devices with switched diversity should be measured with only one antenna transmitting at a time during each SAR measurement, according to a fixed modulation and data rate. The same data pattern should be used for all measurements.

9.6 Power Drift

To control the output power stability during the SAR test, DASY5 system calculates the power drift by measuring the E-field at the same location at the beginning and at the end of the measurement for each test position. These drift values can be found in section14 labeled as: (Power Drift [dB]). This ensures that the power drift during one measurement is within 5%.

10 Area Scan Based 1-g SAR

10.1 Requirement of KDB

According to the KDB447498 D01 v06, when the implementation is based the specific polynomial fit algorithm as presented at the 29th Bioelectromagnetics Society meeting (2007) and the estimated 1-gSAR is ≤ 1.2 W/kg, a zoom scan measurement is not required provided it is also not needed for any other purpose; for example, if the peak SAR location required for simultaneous transmission SAR test exclusion can be determined accurately by the SAR system or manually to discriminate between distinctive peaks and scattered noisy SAR distributions from area scans.

There must not be any warning or alert messages due to various measurement concerns identified by the SAR system; for example, noise in measurements, peaks too close to scan boundary, peaks are too sharp, spatial resolution and uncertainty issues etc. The SAR system verification must also demonstrate that the area scan estimated 1-g SAR is within 3% of the zoom scan 1-g SAR (See Annex B). When all the SAR results for each exposure condition in a frequency band and wireless mode are based on estimated 1-g SAR, the 1-g SAR for the highest SAR configuration must be determined by a zoom scan.

10.2 Fast SAR Algorithms

The approach is based on the area scan measurement applying a frequency dependent attenuation parameter. This attenuation parameter was empirically determined by analyzing a large number of phones. The MOTOROLA FAST SAR was developed and validated by the MOTOROLA Research Group in Ft. Lauderdale.

In the initial study, an approximation algorithm based on Linear fit was developed. The accuracy of the algorithm has been demonstrated across a broad frequency range (136-2450 MHz)and for both 1- and 10-g averaged SAR using a sample of 264 SAR measurements from 55wireless handsets. For the sample size studied, the root-mean-squared errors of the algorithm mare 1.2% and 5.8% for 1- and 10-g averaged SAR, respectively. The paper describing the algorithm in detail is expected to be published in August 2004 within the Special Issue of Transactions on MTT.

In the second step, the same research group optimized the fitting algorithm to an Polynomial fit whereby the frequency validity was extended to cover the range 30-6000MHz. Details of this study can be found in the BEMS 2007 Proceedings.

Both algorithms are implemented in DASY software.

11 Conducted Output Power

Table1: Summery of Receiver detection mechanism

Antenna	Receiver OFF +Hotspot OFF (Body scenario)	Receiver ON/Hotspot OFF&ON (Head scenario)	Receiver OFF +Hotspot ON (Body scenario)
Standalone	DSI0	DSI1/DSI3	DSI2

11.1 GSM Measurement result

Table 11.1-1: The conducted power measurement results for GSM, GPRS and EGPRS-DSI1/2/3/4

GSM 850	Measured Power (dBm)			Tune up	calculation	Averaged Power (dBm)		
Speech (GMSK)	251	190	128			251	190	128
1 Txslot	31.82	31.92	31.89	33.30	/	/	/	/
GSM 850	Measured Power (dBm)				calculation	Averaged Power (dBm)		
GPRS (GMSK)	251	190	128			251	190	128
1 Txslot	31.83	31.94	31.89	33.30	-9.03	22.80	22.91	22.86
2 Txslots	27.97	28.25	28.28	30.50	-6.02	21.95	22.23	22.26
3Txslots	26.92	27.23	27.33	28.00	-4.26	22.66	22.97	23.07
4 Txslots	**26.01**	**26.09**	**26.19**	**27.00**	**-3.01**	**23.00**	**23.08**	**23.18**
GSM 850	Measured Power (dBm)				calculation	Averaged Power (dBm)		
EGPRS (GMSK)	251	190	128			251	190	128
1 Txslot	31.86	31.92	31.87	33.30	-9.03	22.83	22.89	22.84
2 Txslots	27.98	28.22	28.26	30.50	-6.02	21.96	22.20	22.24
3Txslots	26.92	27.21	27.30	28.00	-4.26	22.66	22.95	23.04
4 Txslots	**25.94**	**26.06**	**26.17**	**27.00**	**-3.01**	**22.93**	**23.05**	**23.16**
GSM 850	Measured Power (dBm)				calculation	Averaged Power (dBm)		
EGPRS (8PSK)	251	190	128			251	190	128
1 Txslot	25.97	26.11	26.28	27.00	-9.03	16.94	17.08	17.25
2 Txslots	21.97	22.06	22.33	23.50	-6.02	15.95	16.04	16.31
3Txslots	20.87	20.91	21.67	22.50	-4.26	16.61	16.65	17.41
4 Txslots	19.75	19.70	20.02	21.00	-3.01	16.74	16.69	17.01

NOTES:

1) Division Factors

To average the power, the division factor is as follows:

1TX-slot = 1 transmit time slot out of 8 time slots=> conducted power divided by (8/1) => -9.03dB

2TX-slots = 2 transmit time slots out of 8 time slots=> conducted power divided by (8/2) => -6.02dB

3TX-slots = 3 transmit time slots out of 8 time slots=> conducted power divided by (8/3) => -4.26dB

4TX-slots = 4 transmit time slots out of 8 time slots=> conducted power divided by (8/4) => -3.01dB

According to the conducted power as above, the body measurements are performed with 4Txslots for GSM850

Table 11.1-2: The conducted power measurement results for GSM, GPRS and EGPRS

DSI1/3

PCS1900	Measured Power (dBm)			Tune up	calculation	Averaged Power (dBm)		
Speech (GMSK)	810	661	512			810	661	512
1 Txslot	29.53	29.64	29.75	30.00	/	/	/	/
PCS1900	Measured Power (dBm)				calculation	Averaged Power (dBm)		
GPRS (GMSK)	810	661	512			810	661	512
1 Txslot	29.14	29.29	29.38	30.00	-9.03	20.11	20.26	20.35
2 Txslots	26.23	26.39	26.58	27.00	-6.02	20.21	20.37	20.56
3Txslots	25.14	25.31	25.48	26.80	-4.26	20.88	21.05	21.22
4 Txslots	**24.08**	**24.22**	**24.35**	24.80	**-3.01**	**21.07**	**21.21**	**21.34**
PCS1900	Measured Power (dBm)				calculation	Averaged Power (dBm)		
EGPRS (GMSK)	810	661	512			810	661	512
1 Txslot	29.15	29.30	29.40	30.00	-9.03	20.12	20.27	20.37
2 Txslots	26.23	26.40	26.59	27.00	-6.02	20.21	20.38	20.57
3Txslots	25.15	25.31	25.49	26.80	-4.26	20.89	21.05	21.23
4 Txslots	**24.07**	**24.22**	**24.36**	24.80	**-3.01**	**21.06**	**21.21**	**21.35**
PCS1900	Measured Power (dBm)				calculation	Averaged Power (dBm)		
EGPRS (8PSK)	810	661	512			810	661	512
1 Txslot	25.45	25.75	25.72	27.00	-9.03	16.42	16.72	16.69
2 Txslots	21.97	22.22	22.36	24.00	-6.02	15.95	16.20	16.34
3Txslots	20.89	21.09	21.35	23.00	-4.26	16.63	16.83	17.09
4 Txslots	19.88	20.05	20.47	21.50	-3.01	16.87	17.04	17.46

NOTES:

1) Division Factors

To average the power, the division factor is as follows:

1TX-slot = 1 transmit time slot out of 8 time slots=> conducted power divided by (8/1) => -9.03dB

2TX-slots = 2 transmit time slots out of 8 time slots=> conducted power divided by (8/2) => -6.02dB

3TX-slots = 3 transmit time slots out of 8 time slots=> conducted power divided by (8/3) => -4.26dB

4TX-slots = 4 transmit time slots out of 8 time slots=> conducted power divided by (8/4) => -3.01dB

According to the conducted power as above, the body measurements are performed with 4Txslots for GSM1900.

Table 11.1-3: The conducted power measurement results for GSM, GPRS and EGPRS

DSI0

PCS1900 GPRS (GMSK)	Measured Power (dBm)				calculation	Averaged Power (dBm)		
	810	661	512			810	661	512
1 Txslot	25.52	25.77	26.07	26.50	-9.03	16.49	16.74	17.04
2 Txslots	23.54	23.68	23.91	24.50	-6.02	17.52	17.66	17.89
3Txslots	22.51	22.63	22.83	23.50	-4.26	18.25	18.37	18.57
4 Txslots	**21.42**	**21.52**	**21.71**	22.50	**-3.01**	**18.41**	**18.51**	**18.70**
PCS1900 EGPRS (GMSK)	Measured Power (dBm)				calculation	Averaged Power (dBm)		
	810	661	512			810	661	512
1 Txslot	25.56	25.82	26.10	26.50	-9.03	16.53	16.79	17.07
2 Txslots	23.58	23.72	23.94	24.50	-6.02	17.56	17.70	17.92
3Txslots	22.55	22.67	22.86	23.50	-4.26	18.29	18.41	18.60
4 Txslots	**21.46**	**21.74**	**21.57**	22.50	**-3.01**	**18.45**	**18.73**	**18.56**
PCS1900 EGPRS (8PSK)	Measured Power (dBm)				calculation	Averaged Power (dBm)		
	810	661	512			810	661	512
1 Txslot	21.77	21.82	22.10	24.00	-9.03	12.74	12.79	13.07
2 Txslots	19.62	19.75	20.06	21.00	-6.02	13.60	13.73	14.04
3Txslots	18.53	18.71	19.20	20.50	-4.26	14.27	14.45	14.94
4 Txslots	17.47	17.97	17.99	19.00	-3.01	14.46	14.96	14.98

NOTES:

1) Division Factors

To average the power, the division factor is as follows:

1TX-slot = 1 transmit time slot out of 8 time slots=> conducted power divided by (8/1) => -9.03dB

2TX-slots = 2 transmit time slots out of 8 time slots=> conducted power divided by (8/2) => -6.02dB

3TX-slots = 3 transmit time slots out of 8 time slots=> conducted power divided by (8/3) => -4.26dB

4TX-slots = 4 transmit time slots out of 8 time slots=> conducted power divided by (8/4) => -3.01dB

According to the conducted power as above, the body measurements are performed with 4Txslots for GSM1900.

Table 11.1-4: The conducted power measurement results for GSM, GPRS and EGPRS

DSI2

PCS1900 GPRS (GMSK)	Measured Power (dBm)				calculation	Averaged Power (dBm)		
	810	661	512			810	661	512
1 Txslot	25.64	25.84	25.91	26.30	-9.03	16.61	16.81	16.88
2 Txslots	23.64	23.74	23.95	24.00	-6.02	17.62	17.72	17.93
3Txslots	22.59	22.68	22.87	23.00	-4.26	18.33	18.42	18.61
4 Txslots	**21.49**	**21.57**	**21.75**	22.00	**-3.01**	**18.48**	**18.56**	**18.74**
PCS1900 EGPRS (GMSK)	Measured Power (dBm)				calculation			
	810	661	512			810	661	512
1 Txslot	24.40	24.69	24.98	26.30	-9.03	15.37	15.66	15.95
2 Txslots	22.46	22.63	22.84	24.00	-6.02	16.44	16.61	16.82
3Txslots	22.39	22.54	22.73	23.00	-4.26	18.13	18.28	18.47
4 Txslots	**21.38**	**21.50**	**21.69**	22.00	**-3.01**	**18.37**	**18.49**	**18.68**
PCS1900 EGPRS (8PSK)	Measured Power (dBm)				calculation			
	810	661	512			810	661	512
1 Txslot	20.76	21.14	21.13	22.50	-9.03	11.73	12.11	12.10
2 Txslots	18.62	18.87	19.09	20.00	-6.02	12.60	12.85	13.07
3Txslots	17.55	17.76	18.06	19.00	-4.26	13.29	13.50	13.80
4 Txslots	16.49	16.70	17.14	18.00	-3.01	13.48	13.69	14.13

NOTES:

1) Division Factors

To average the power, the division factor is as follows:

1TX-slot = 1 transmit time slot out of 8 time slots=> conducted power divided by (8/1) => -9.03dB

2TX-slots = 2 transmit time slots out of 8 time slots=> conducted power divided by (8/2) => -6.02dB

3TX-slots = 3 transmit time slots out of 8 time slots=> conducted power divided by (8/3) => -4.26dB

4TX-slots = 4 transmit time slots out of 8 time slots=> conducted power divided by (8/4) => -3.01dB

According to the conducted power as above, the body measurements are performed with 4Txslots for GSM1900.

11.2 WCDMA Measurement result

Table 11.2-1: The conducted Power for WCDMA DSI0/2

Item	band	FDDV result			
	ARFCN	4233 (846.6MHz)	4182 (836.4MHz)	4132 (826.4MHz)	Tune up
WCDMA	\	23.17	23.14	23.21	24.50
HSUPA	1	20.55	21.10	21.15	22.00
	2	20.78	20.68	20.75	21.50
	3	21.77	21.66	21.71	22.00
	4	20.25	20.14	20.21	21.50
	5	21.71	21.60	21.65	22.00
HSPA+		22.31	22.27	22.27	22.50
DC-HSDPA	1	22.75	22.68	22.74	23.00
	2	22.74	22.70	22.75	23.00
	3	22.24	22.20	22.25	22.50
	4	22.23	22.21	22.26	22.50

Table 11.2-1: The conducted Power for WCDMA DSI1/3

Item	band	FDDV result			
	ARFCN	4233 (846.6MHz)	4182 (836.4MHz)	4132 (826.4MHz)	Tune up
WCDMA	\	21.91	21.91	22.06	22.50
HSUPA	1	19.1	19.10	19.18	20.50
	2	19.11	19.09	19.17	20.00
	3	20.11	20.10	20.18	20.50
	4	18.64	18.62	18.68	20.00
	5	20.08	20.06	20.16	20.50
HSPA+		20.65	20.63	20.72	21.00
DC-HSDPA	1	21.2	21.18	21.28	21.50
	2	21.18	21.15	21.26	21.50
	3	20.68	20.66	20.75	21.00
	4	20.67	20.65	20.74	21.00

Table 11.2-3: The conducted Power for WCDMA DSI0

Item	band	FDDIV result			
	ARFCN	1513 (1752.6MHz)	1412 (1732.4MHz)	1312 (1712.4MHz)	
WCDMA	\	18.07	18.15	18.18	19.00
HSUPA	1	17.13	17.15	17.20	18.00
	2	16.75	16.77	16.80	17.50
	3	17.73	17.74	17.78	18.00
	4	16.29	16.32	16.36	17.50
	5	17.75	17.76	17.80	18.00
HSPA+		18.39	18.40	18.42	18.50
DC-HSDPA	1	18.85	18.86	18.88	19.00
	2	18.84	18.85	18.89	19.00

	3	18.35	18.36	18.38	18.50
	4	18.35	18.35	18.39	18.50
Item	band	FDDII result			
	ARFCN	9538 (1907.6MHz)	9400 (1880MHz)	9262 (1852.4MHz)	
WCDMA	\	19.70	19.56	19.64	20.50
HSUPA	1	17.1	17.01	17.06	18.00
	2	16.7	16.60	16.65	17.00
	3	17.71	17.60	17.62	18.00
	4	16.24	16.15	16.20	17.00
	5	17.73	17.62	17.64	18.00
HSPA+		18.22	18.11	18.15	18.50
DC-HSDPA	1	18.66	18.56	18.60	19.00
	2	18.65	18.55	18.58	19.00
	3	18.14	18.13	18.18	18.50
	4	18.15	18.14	18.17	18.50

Table 11.2-4: The conducted Power for WCDMA DSI1/3

Item	band	FDDIV result			
	ARFCN	1513 (1752.6MHz)	1412 (1732.4MHz)	1312 (1712.4MHz)	
WCDMA	\	23.66	23.65	23.76	24.50
HSUPA	1	21.2	21.22	21.19	22.00
	2	20.8	20.78	20.80	21.50
	3	21.79	21.79	21.78	22.00
	4	20.28	20.29	20.31	21.50
	5	21.76	21.75	21.74	22.00
HSPA+		22.44	22.35	22.29	22.50
DC-HSDPA	1	22.86	22.80	22.78	23.00
	2	22.85	22.78	22.77	23.00
	3	22.35	22.27	22.25	22.50
	4	22.34	22.26	22.24	22.50
Item	band	FDDII result			
	ARFCN	9538 (1907.6MHz)	9400 (1880MHz)	9262 (1852.4MHz)	
WCDMA	\	23.67	23.55	23.59	24.50
HSUPA	1	21.48	21.20	21.24	22.00
	2	21.1	21.20	21.06	21.50
	3	22.09	21.83	21.85	22.00
	4	20.6	20.32	20.36	21.50
	5	22.05	21.80	21.83	22.00
HSPA+		22.55	22.30	22.35	22.50
DC-HSDPA	1	23.05	22.80	22.85	23.00
	2	23.03	22.81	22.84	23.00
	3	22.53	22.31	22.33	22.50
	4	22.52	22.30	22.32	22.50

Table 11.2-5: The conducted Power for WCDMA DSI2

Item	band	FDDIV result			
	ARFCN	1513 (1752.6MHz)	1412 (1732.4MHz)	1312 (1712.4MHz)	
WCDMA	\	17.11	17.17	17.22	18.00
HSUPA	1	15.81	16.21	16.26	17.00
	2	15.77	15.79	15.84	16.50
	3	16.78	16.80	16.85	17.00
	4	15.33	15.35	15.40	16.50
	5	16.76	16.78	16.82	17.00
HSPA+		17.09	17.20	17.04	17.50
DC-HSDPA	1	17.57	17.58	17.69	18.00
	2	17.56	17.58	17.70	18.00
	3	17	17.02	17.23	17.50
	4	16.98	17.00	17.22	17.50
Item	band	FDDII result			
	ARFCN	9538 (1907.6MHz)	9400 (1880MHz)	9262 (1852.4MHz)	
WCDMA	\	18.55	18.53	18.50	19.50
HSUPA	1	16.23	15.71	15.76	17.00
	2	15.72	15.64	15.68	16.50
	3	16.74	16.66	16.70	17.00
	4	15.29	15.16	15.20	16.50
	5	16.72	16.65	16.68	17.00
HSPA+		16.94	16.91	16.90	17.00
DC-HSDPA	1	17.73	17.63	17.60	18.50
	2	17.72	17.62	17.58	18.50
	3	17.05	16.95	16.91	17.00
	4	17.04	16.94	16.90	17.00

11.3 LTE Measurement result

Table 11.3-1: Maximum Power Reduction (MPR) for LTE-Normal Power

Modulation	Channel bandwidth / Transmission bandwidth configuration [RB]						MPR (dB)
	1.4	3	5	10	15	20	
	MHz	MHz	MHz	MHz	MHz	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

Table 11.3-2: Maximum Power Reduction (MPR) for LTE- Low Power

Modulation	Channel bandwidth / Transmission bandwidth configuration [RB]						MPR (dB)
	1.4	3	5	10	15	20	
	MHz	MHz	MHz	MHz	MHz	MHz	
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	0
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	0
16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	0
64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	0
64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	0

Table 11.3-3: The tune up for LTE

Mode/Band	DSI0	DSI1	DSI2	DSI3
FDD Band 12	25	23.5	25	23.5
FDD Band 13	25	23	25	23
FDD Band 25	21.5	24.5	20.5	24.5
FDD Band 26	24.5	23	24.5	23
TDD Band 41(PC3)	21	24.5	20.5	24.5
TDD Band 41(PC2)	24	26.5	23.5	26.5
FDD Band 66	20	24.5	19.5	24.5
FDD Band 71	24.5	23	24.5	23

DSI1/3

Band 12					
Bandwidth (MHz)	RB allocation RB offset (Start RB)	Frequency (MHz)	QPSK Actual output power (dBm)	16QAM Actual output power (dBm)	64QAM Actual output power (dBm)
1.4 MHz	1RB High (5)	715.3	22.12	22.38	22.23
		707.5	22.36	22.61	22.52
		699.7	22.25	22.50	22.44
	1RB Middle	715.3	22.26	22.43	22.35
		707.5	22.49	22.81	22.64

	(3)	699.7	22.40	22.72	22.55
	1RB Low (0)	715.3	22.16	22.41	22.4
		707.5	22.36	22.64	22.59
		699.7	22.25	22.59	22.36
	3RB High (3)	715.3	22.24	22.23	22.32
		707.5	22.43	22.42	22.48
		699.7	22.40	22.28	22.46
	3RB Middle (1)	715.3	22.25	22.31	22.35
		707.5	22.51	22.47	22.61
		699.7	22.40	22.33	22.43
	3RB Low (0)	715.3	22.23	22.25	22.29
		707.5	22.46	22.46	22.51
		699.7	22.32	22.32	22.42
	6RB (0)	715.3	22.24	22.33	21.22
		707.5	22.46	22.53	21.44
		699.7	22.34	22.43	21.38
3 MHz	1RB High (14)	714.5	22.13	22.33	22.25
		707.5	22.32	22.65	22.56
		700.5	22.27	22.49	22.44
	1RB Middle (7)	714.5	22.32	22.59	22.47
		707.5	22.53	22.83	22.71
		700.5	22.40	22.74	22.6
	1RB Low (0)	714.5	22.22	22.51	22.32
		707.5	22.38	22.73	22.52
		700.5	22.27	22.56	22.41
	8RB High (7)	714.5	22.16	22.20	21.2
		707.5	22.38	22.46	22.39
		700.5	22.28	22.30	21.32
	8RB Middle (4)	714.5	22.17	22.22	21.24
		707.5	22.40	22.48	22.44
		700.5	22.30	22.36	21.35
	8RB Low (0)	714.5	22.21	22.27	21.26
		707.5	22.37	22.44	22.41
		700.5	22.28	22.36	21.34
	15RB (0)	714.5	22.18	22.18	21.18
		707.5	22.35	22.38	21.36
		700.5	22.28	22.30	21.31
5 MHz	1RB High (24)	713.5	22.10	22.37	22.19
		707.5	22.26	22.60	22.41
		701.5	22.32	22.49	22.44
	1RB Middle (12)	713.5	22.38	22.62	22.55
		707.5	22.61	22.86	22.7
		701.5	22.54	22.81	22.69
	1RB Low (0)	713.5	22.28	22.59	22.42
		707.5	22.36	22.67	22.54
		701.5	22.24	22.52	22.33
	12RB High (13)	713.5	22.25	22.20	21.22
		707.5	22.45	22.42	21.42

		701.5	22.35	22.36	21.35
	12RB Middle (6)	713.5	22.35	22.30	21.32
		707.5	22.49	22.50	21.47
		701.5	22.43	22.42	21.41
	12RB Low (0)	713.5	22.37	22.33	21.37
		707.5	22.44	22.44	21.45
		701.5	22.40	22.37	21.36
	25RB (0)	713.5	22.30	22.30	21.26
		707.5	22.45	22.45	21.44
		701.5	22.40	22.38	21.35
10 MHz	1RB High (49)	711	22.29	22.51	22.27
		707.5	22.38	22.73	22.52
		704	22.51	22.87	22.71
	1RB Middle (24)	711	22.59	22.87	22.6
		707.5	22.66	22.99	22.84
		704	22.63	22.81	22.83
	1RB Low (0)	711	22.59	22.85	22.57
		707.5	22.51	22.80	22.65
		704	22.46	22.66	22.62
	25RB High (25)	711	22.37	22.38	21.38
		707.5	22.61	22.62	21.64
		704	22.65	22.68	21.65
	25RB Middle (12)	711	22.50	22.51	21.54
		707.5	22.62	22.63	21.64
		704	22.58	22.63	21.6
	25RB Low (0)	711	22.52	22.52	21.58
		707.5	22.59	22.60	21.59
		704	22.64	22.64	21.66
	50RB (0)	711	22.47	22.48	21.46
		707.5	22.62	22.62	21.65
		704	22.65	22.68	21.67

DSI0/2

Band 12					
Bandwidth (MHz)	RB allocation RB offset (Start RB)	Frequency (MHz)	QPSK Actual output power (dBm)	16QAM Actual output power (dBm)	64QAM Actual output power (dBm)
1.4 MHz	1RB High (5)	715.3	23.91	23.23	22.10
		707.5	24.10	23.37	22.33
		699.7	23.98	23.32	23.99
	1RB Middle (3)	715.3	24.08	23.21	22.25
		707.5	24.21	23.29	22.45
		699.7	24.13	23.35	24.11
	1RB Low (0)	715.3	23.97	23.24	22.26
		707.5	24.13	23.31	22.33
		699.7	24.01	23.31	24.00
	3RB	715.3	24.03	22.96	22.17

	High (3)	707.5	24.20	23.22	22.32
		699.7	24.10	23.12	22.24
	3RB Middle (1)	715.3	24.09	23.06	22.23
		707.5	24.29	23.33	22.44
		699.7	24.16	23.11	22.34
	3RB Low (0)	715.3	24.04	23.10	22.19
		707.5	24.24	23.26	22.44
		699.7	24.10	23.14	22.22
	6RB (0)	715.3	23.09	22.13	21.08
		707.5	23.24	22.35	21.26
		699.7	23.17	22.27	21.18
3 MHz	1RB High (14)	714.5	23.92	23.20	22.17
		707.5	24.09	23.33	22.39
		700.5	24.06	23.35	22.28
	1RB Middle (7)	714.5	24.16	23.34	22.41
		707.5	24.32	23.31	22.68
		700.5	24.20	23.35	22.36
	1RB Low (0)	714.5	24.06	23.36	22.28
		707.5	24.16	23.23	22.41
		700.5	24.06	23.26	22.31
	8RB High (7)	714.5	23.02	22.11	21.10
		707.5	23.21	22.31	21.27
		700.5	23.10	22.14	21.17
	8RB Middle (4)	714.5	23.13	22.19	21.19
		707.5	23.26	22.33	21.30
		700.5	23.15	22.21	21.22
	8RB Low (0)	714.5	23.11	22.19	21.16
		707.5	23.23	22.31	21.30
		700.5	23.13	22.21	21.18
	15RB (0)	714.5	23.08	22.09	21.13
		707.5	23.22	22.25	21.26
		700.5	23.11	22.15	21.10
5 MHz	1RB High (24)	713.5	23.83	23.12	22.01
		707.5	24.03	23.29	22.31
		701.5	23.97	23.30	22.15
	1RB Middle (12)	713.5	24.26	23.23	22.41
		707.5	24.37	23.26	22.59
		701.5	24.19	23.20	22.42
	1RB Low (0)	713.5	23.99	23.25	22.26
		707.5	24.04	23.18	22.30
		701.5	23.94	23.32	22.18
	12RB High (13)	713.5	23.04	22.03	21.08
		707.5	23.23	22.23	21.24
		701.5	23.12	22.09	21.14
	12RB Middle (6)	713.5	23.16	22.16	21.20
		707.5	23.27	22.24	21.30
		701.5	23.20	22.16	21.23
	12RB	713.5	23.18	22.20	21.19

	Low (0)	707.5	23.22	22.22	21.23
		701.5	23.16	22.15	21.17
	25RB (0)	713.5	23.10	22.14	21.09
		707.5	23.21	22.24	21.22
		701.5	23.12	22.17	21.13
10 MHz	1RB High (49)	711	24.11	23.45	22.13
		707.5	24.23	23.30	22.28
		704	24.29	23.38	22.37
	1RB Middle (24)	711	24.38	23.42	22.47
		707.5	24.48	23.50	22.56
		704	24.42	23.48	22.48
	1RB Low (0)	711	24.37	23.42	22.42
		707.5	24.26	23.31	22.34
		704	24.24	23.30	22.34
	25RB High (25)	711	23.25	22.25	21.13
		707.5	23.46	22.45	21.32
		704	23.47	22.47	21.33
	25RB Middle (12)	711	23.42	22.40	21.25
		707.5	23.46	22.46	21.3
		704	23.41	22.43	21.28
	25RB Low (0)	711	23.38	22.38	21.24
		707.5	23.40	22.44	21.29
		704	23.46	22.43	21.32
	50RB (0)	711	23.33	22.32	21.19
		707.5	23.46	22.45	21.32
		704	23.46	22.45	21.32

DSI1/3

Band 13					
Bandwidth (MHz)	RB allocation RB offset (Start RB)	Frequency (MHz)	QPSK Actual output power (dBm)	16QAM Actual output power (dBm)	64QAM Actual output power (dBm)
5 MHz	1RB High (24)	784.5	24.27	23.51	22.41
		782	24.32	23.44	22.47
		779.5	23.99	23.15	22.21
	1RB Middle (12)	784.5	24.03	23.14	22.14
		782	24.08	23.25	22.30
		779.5	23.15	22.19	21.19
	1RB Low (0)	784.5	23.06	22.10	21.14
		782	23.14	22.12	21.19
		779.5	23.19	22.25	21.28
	12RB High (13)	784.5	23.19	22.19	21.26
		782	23.21	22.20	21.23
		779.5	23.18	22.21	21.24
	12RB Middle (6)	784.5	23.19	22.20	21.26
		782	23.04	22.05	21.08
		779.5	23.17	22.19	21.21
	12RB	784.5	23.16	22.18	21.19

	Low (0)	782	23.10	22.11	21.13
		779.5	24.18	23.49	22.32
	25RB (0)	784.5	24.33	23.54	22.42
		782	24.31	23.40	22.36
		779.5	23.25	22.30	21.2
10 MHz	1RB High (49)	782	23.36	22.37	21.28
	1RB Middle (24)	782	23.30	22.30	21.2
	1RB Low (0)	782	23.29	22.28	21.19
	25RB High (25)	782	24.27	23.51	22.41
	25RB Middle (12)	782	24.32	23.44	22.47
	25RB Low (0)	782	23.99	23.15	22.21
	50RB (0)	782	24.03	23.14	22.14

DSI0/2

Band 13					
Bandwidth (MHz)	RB allocation RB offset (Start RB)	Frequency (MHz)	QPSK Actual output power (dBm)	16QAM Actual output power (dBm)	64QAM Actual output power (dBm)
5 MHz	1RB High (24)	784.5	22.01	22.37	22.16
		782	22.01	22.38	22.24
		779.5	22.06	22.34	22.21
	1RB Middle (12)	784.5	22.33	22.53	22.53
		782	22.43	22.67	22.56
		779.5	22.44	22.53	22.5
	1RB Low (0)	784.5	22.11	22.37	22.3
		782	22.13	22.32	22.26
		779.5	22.18	22.46	22.29
	12RB High (13)	784.5	22.18	22.20	21.22
		782	22.19	22.19	21.22
		779.5	22.21	22.19	21.2
	12RB Middle (6)	784.5	22.23	22.24	21.28
		782	22.31	22.30	21.34
		779.5	22.31	22.25	21.32
	12RB	784.5	22.21	22.21	21.24

	Low (0)	782	22.30	22.26	21.31
		779.5	22.08	22.07	21.11
	25RB (0)	784.5	22.19	22.23	21.22
		782	22.25	22.25	21.25
		779.5	22.17	22.15	21.15
10 MHz	1RB High (49)	782	22.26	22.58	22.47
	1RB Middle (24)	782	22.53	22.83	22.7
	1RB Low (0)	782	22.46	22.69	22.56
	25RB High (25)	782	22.40	22.44	21.39
	25RB Middle (12)	782	22.47	22.48	21.49
	25RB Low (0)	782	22.45	22.47	21.46
	50RB (0)	782	22.42	22.45	21.44

DSI1/3

Band 25					
Bandwidth (MHz)	RB allocation RB offset (Start RB)	Frequency (MHz)	QPSK Actual output power (dBm)	16QAM Actual output power (dBm)	64QAM Actual output power (dBm)
1.4 MHz	1RB High (5)	1914.3	24.19	23.33	22.27
		1882.5	24.06	23.31	22.24
		1850.7	24.19	23.27	22.39
	1RB Middle (3)	1914.3	24.29	23.30	22.48
		1882.5	24.16	23.31	22.31
		1850.7	24.33	23.28	22.45
	1RB Low (0)	1914.3	24.19	23.15	22.32
		1882.5	24.06	23.33	22.25
		1850.7	24.20	23.27	22.36
	3RB High (3)	1914.3	24.28	23.21	22.32
		1882.5	24.17	23.10	22.20
		1850.7	24.30	23.20	22.34
	3RB Middle (1)	1914.3	24.33	23.26	22.37
		1882.5	24.22	23.24	22.26
		1850.7	24.34	23.28	22.38
	3RB	1914.3	24.27	23.22	22.31

	Low (0)	1882.5	24.16	23.17	22.23
		1850.7	24.32	23.24	22.33
	6RB (0)	1914.3	23.30	22.28	21.28
		1882.5	23.18	22.28	21.11
		1850.7	23.30	22.28	21.28
3 MHz	1RB High (14)	1913.5	24.26	23.22	22.17
		1882.5	24.19	23.30	22.08
		1851.5	24.28	23.16	22.24
	1RB Middle (7)	1913.5	24.30	23.34	22.27
		1882.5	24.27	23.28	22.26
		1851.5	24.29	23.29	22.30
	1RB Low (0)	1913.5	24.25	23.29	22.13
		1882.5	23.83	23.17	22.12
		1851.5	24.31	23.33	22.15
	8RB High (7)	1913.5	23.30	22.32	21.33
		1882.5	23.16	22.24	21.24
		1851.5	23.32	22.35	21.35
	8RB Middle (4)	1913.5	23.33	22.34	21.38
		1882.5	23.20	22.25	21.25
		1851.5	23.35	22.34	21.38
	8RB Low (0)	1913.5	23.32	22.34	21.34
		1882.5	23.18	22.23	21.22
		1851.5	23.26	22.28	21.30
	15RB (0)	1913.5	23.34	22.32	21.33
		1882.5	23.21	22.20	21.18
		1851.5	23.32	22.31	21.29
5 MHz	1RB High (24)	1912.5	24.16	23.12	22.29
		1882.5	24.04	23.16	22.22
		1852.5	24.13	23.13	22.35
	1RB Middle (12)	1912.5	24.27	23.24	22.58
		1882.5	24.30	23.17	22.49
		1852.5	24.31	23.16	22.62
	1RB Low (0)	1912.5	24.16	23.09	22.37
		1882.5	24.08	23.13	22.26
		1852.5	24.20	23.13	22.39
	12RB High (13)	1912.5	23.31	22.29	21.35
		1882.5	23.20	22.19	21.23
		1852.5	23.31	22.27	21.33
	12RB Middle (6)	1912.5	23.26	22.34	21.37
		1882.5	23.23	22.20	21.26
		1852.5	23.34	22.35	21.37
	12RB Low (0)	1912.5	23.32	22.27	21.29
		1882.5	23.16	22.13	21.17
		1852.5	23.29	22.26	21.30
	25RB (0)	1912.5	23.34	22.34	21.34
		1882.5	23.20	22.20	21.20
		1852.5	23.31	22.31	21.33
10 MHz	1RB	1910	24.02	23.27	22.16

	High (49)	1882.5	23.97	23.33	22.06
		1855	24.02	23.19	22.25
	1RB Middle (24)	1910	24.18	23.20	22.36
		1882.5	24.10	23.28	22.27
		1855	24.17	23.23	22.38
	1RB Low (0)	1910	24.08	23.28	22.24
		1882.5	23.96	23.15	22.20
		1855	24.07	23.19	22.23
	25RB High (25)	1910	23.21	22.16	21.19
		1882.5	23.06	22.05	21.06
		1855	23.15	22.13	21.16
	25RB Middle (12)	1910	23.19	22.16	21.20
		1882.5	23.04	22.05	21.05
		1855	23.18	22.15	21.17
	25RB Low (0)	1910	23.24	22.20	21.23
		1882.5	23.03	22.02	21.03
		1855	23.15	22.11	21.15
	50RB (0)	1910	23.24	22.19	21.19
		1882.5	23.09	22.07	21.08
		1855	23.18	22.14	21.16
15 MHz	1RB High (74)	1907.5	23.99	23.15	22.14
		1882.5	23.91	23.11	22.12
		1857.5	23.87	23.08	22.05
	1RB Middle (37)	1907.5	24.07	23.32	22.19
		1882.5	23.93	23.27	22.15
		1857.5	24.04	23.35	22.17
	1RB Low (0)	1907.5	24.00	23.31	22.19
		1882.5	23.91	23.21	22.15
		1857.5	24.01	23.30	22.19
	36RB High (38)	1907.5	23.09	22.07	21.09
		1882.5	23.00	21.98	21.00
		1857.5	23.07	22.04	21.07
	36RB Middle (19)	1907.5	23.13	22.07	21.13
		1882.5	23.03	21.99	21.03
		1857.5	23.11	22.06	21.10
	36RB Low (0)	1907.5	23.14	22.09	21.16
		1882.5	23.00	21.95	21.00
		1857.5	23.11	22.05	21.10
	75RB (0)	1907.5	23.12	22.06	21.10
		1882.5	22.99	22.01	21.09
		1857.5	23.06	22.03	21.04
20 MHz	1RB High (99)	1905	24.19	23.40	22.39
		1882.5	24.15	23.37	22.37
		1860	24.14	23.48	22.25
	1RB Middle (50)	1905	24.39	23.64	22.57
		1882.5	24.28	23.50	22.53
		1860	24.34	23.61	22.66
	1RB	1905	24.19	23.40	22.44

	Low (0)	1882.5	24.14	23.40	22.35
		1860	24.23	23.51	22.46
	50RB High (50)	1905	23.28	22.25	21.25
		1882.5	23.26	22.27	21.28
		1860	23.29	22.26	21.29
	50RB Middle (25)	1905	23.44	22.43	21.43
		1882.5	23.32	22.33	21.32
		1860	23.36	22.37	21.35
	50RB Low (0)	1905	23.35	22.34	21.35
		1882.5	23.22	22.22	21.23
		1860	23.36	22.35	21.36
	100RB (0)	1905	23.30	22.27	21.29
		1882.5	23.24	22.22	21.24
		1860	23.29	22.27	21.27

DSI0

Band 25					
Bandwidth (MHz)	RB allocation RB offset (Start RB)	Frequency (MHz)	QPSK Actual output power (dBm)	16QAM Actual output power (dBm)	64QAM Actual output power (dBm)
1.4 MHz	1RB High (5)	1914.3	20.10	20.39	20.36
		1882.5	20.10	20.37	20.31
		1850.7	20.11	20.37	20.31
	1RB Middle (3)	1914.3	20.25	20.61	20.47
		1882.5	20.28	20.66	20.45
		1850.7	20.21	20.62	20.38
	1RB Low (0)	1914.3	20.11	20.35	20.36
		1882.5	20.11	20.43	20.37
		1850.7	20.09	20.46	20.24
	3RB High (3)	1914.3	20.23	20.20	20.37
		1882.5	20.23	20.27	20.28
		1850.7	20.20	20.13	20.33
	3RB Middle (1)	1914.3	20.28	20.23	20.38
		1882.5	20.28	20.29	20.39
		1850.7	20.24	20.31	20.40
	3RB Low (0)	1914.3	20.24	20.17	20.35
		1882.5	20.22	20.24	20.35
		1850.7	20.18	20.21	20.30
	6RB (0)	1914.3	20.24	20.36	20.21
		1882.5	20.23	20.36	20.28
		1850.7	20.21	20.31	20.17
3 MHz	1RB High (14)	1913.5	20.09	20.43	20.31
		1882.5	20.10	20.40	20.35
		1851.5	20.02	20.26	20.23
	1RB Middle (7)	1913.5	20.30	20.59	20.41
		1882.5	20.33	20.54	20.53
		1851.5	20.27	20.58	20.54
	1RB	1913.5	20.08	20.34	20.31

	Low (0)	1882.5	20.07	20.37	20.32
		1851.5	20.05	20.28	20.23
	8RB High (7)	1913.5	20.13	20.19	20.20
		1882.5	20.15	20.23	20.20
		1851.5	20.06	20.13	20.15
	8RB Middle (4)	1913.5	20.18	20.29	20.26
		1882.5	20.20	20.30	20.26
		1851.5	20.15	20.23	20.19
	8RB Low (0)	1913.5	20.13	20.21	20.17
		1882.5	20.12	20.24	20.21
		1851.5	20.11	20.19	20.13
	15RB (0)	1913.5	20.17	20.18	20.16
		1882.5	20.13	20.20	20.13
		1851.5	20.07	20.10	20.05
5 MHz	1RB High (24)	1912.5	19.97	20.29	20.18
		1882.5	19.96	20.34	20.23
		1852.5	19.86	20.23	20.12
	1RB Middle (12)	1912.5	20.25	20.67	20.49
		1882.5	20.30	20.50	20.54
		1852.5	20.24	20.58	20.42
	1RB Low (0)	1912.5	19.95	20.31	20.13
		1882.5	19.97	20.34	20.15
		1852.5	19.95	20.33	20.16
	12RB High (13)	1912.5	20.14	20.16	20.16
		1882.5	20.13	20.15	20.15
		1852.5	20.09	20.04	20.08
	12RB Middle (6)	1912.5	20.19	20.20	20.20
		1882.5	20.21	20.23	20.22
		1852.5	20.12	20.15	20.17
	12RB Low (0)	1912.5	20.13	20.16	20.17
		1882.5	20.12	20.14	20.15
		1852.5	20.09	20.06	20.08
	25RB (0)	1912.5	20.14	20.14	20.15
		1882.5	20.15	20.17	20.18
		1852.5	20.08	20.09	20.09
10 MHz	1RB High (49)	1910	20.06	20.43	20.25
		1882.5	20.09	20.36	20.29
		1855	19.98	20.22	20.17
	1RB Middle (24)	1910	20.14	20.53	20.34
		1882.5	20.21	20.61	20.35
		1855	20.14	20.51	20.34
	1RB Low (0)	1910	19.98	20.31	20.20
		1882.5	20.05	20.39	20.27
		1855	20.05	20.37	20.21
	25RB High (25)	1910	20.14	20.16	20.15
		1882.5	20.17	20.19	20.17
		1855	20.06	20.10	20.09
	25RB	1910	20.14	20.15	20.16

	Middle (12)	1882.5	20.15	20.16	20.17
		1855	20.08	20.11	20.11
	25RB Low (0)	1910	20.20	20.19	20.23
		1882.5	20.18	20.18	20.22
		1855	20.07	20.09	20.08
	50RB (0)	1910	20.19	20.19	20.19
		1882.5	20.18	20.20	20.19
		1855	20.08	20.12	20.10
15 MHz	1RB High (74)	1907.5	20.04	20.38	20.23
		1882.5	20.03	20.39	20.19
		1857.5	19.96	20.30	6.39
	1RB Middle (37)	1907.5	20.10	20.30	20.29
		1882.5	20.16	20.38	20.39
		1857.5	20.03	20.38	6.01
	1RB Low (0)	1907.5	19.96	20.22	20.11
		1882.5	20.02	20.23	20.22
		1857.5	20.00	20.37	6.36
	36RB High (38)	1907.5	20.11	20.10	20.11
		1882.5	20.16	20.15	20.17
		1857.5	20.06	20.05	20.05
	36RB Middle (19)	1907.5	20.15	20.09	20.10
		1882.5	20.21	20.18	20.20
		1857.5	20.10	20.07	20.09
	36RB Low (0)	1907.5	20.11	20.08	20.06
		1882.5	20.17	20.12	20.16
		1857.5	20.09	20.06	20.07
	75RB (0)	1907.5	20.07	20.07	20.05
		1882.5	20.15	20.15	20.15
		1857.5	20.07	20.08	20.05
20 MHz	1RB High (99)	1905	20.15	20.52	20.35
		1882.5	20.10	20.50	20.33
		1860	20.08	20.35	20.27
	1RB Middle (50)	1905	20.27	20.59	20.44
		1882.5	20.38	20.70	20.55
		1860	20.23	20.64	20.5
	1RB Low (0)	1905	20.09	20.34	20.29
		1882.5	20.13	20.39	20.37
		1860	20.10	20.52	20.33
	50RB High (50)	1905	20.09	20.10	20.1
		1882.5	20.23	20.25	20.2
		1860	20.22	20.23	20.22
	50RB Middle (25)	1905	20.25	20.26	20.23
		1882.5	20.34	20.34	20.3
		1860	20.22	20.26	20.23
	50RB Low (0)	1905	20.18	20.17	20.17
		1882.5	20.24	20.27	20.22
		1860	20.19	20.24	20.22
	100RB	1905	20.13	20.12	20.11

	(0)	1882.5	20.24	20.23	20.22
		1860	20.18	20.20	20.2

DSI2

Band 25					
Bandwidth (MHz)	RB allocation RB offset (Start RB)	Frequency (MHz)	QPSK Actual output power (dBm)	16QAM Actual output power (dBm)	64QAM Actual output power (dBm)
1.4 MHz	1RB High (5)	1914.3	20.23	20.29	20.19
		1882.5	20.26	20.35	20.23
		1850.7	20.18	20.34	20.23
	1RB Middle (3)	1914.3	20.37	20.48	20.38
		1882.5	20.42	20.49	20.42
		1850.7	20.31	20.52	20.36
	1RB Low (0)	1914.3	20.23	20.34	20.26
		1882.5	20.23	20.36	20.26
		1850.7	20.21	20.25	20.24
	3RB High (3)	1914.3	20.37	20.16	20.21
		1882.5	20.34	20.17	20.24
		1850.7	20.29	20.13	20.27
	3RB Middle (1)	1914.3	20.39	20.25	20.31
		1882.5	20.43	20.24	20.34
		1850.7	20.39	20.23	20.28
	3RB Low (0)	1914.3	20.35	20.11	20.23
		1882.5	20.36	20.20	20.24
		1850.7	20.30	20.16	20.20
	6RB (0)	1914.3	20.34	20.24	20.15
		1882.5	20.37	20.24	20.12
		1850.7	20.32	20.20	20.14
3 MHz	1RB High (14)	1913.5	20.23	20.31	20.25
		1882.5	20.23	20.41	20.27
		1851.5	20.17	20.33	20.12
	1RB Middle (7)	1913.5	20.36	20.48	20.50
		1882.5	20.47	20.56	20.40
		1851.5	20.36	20.64	20.38
	1RB Low (0)	1913.5	20.19	20.39	20.21
		1882.5	20.21	20.39	20.22
		1851.5	20.19	20.37	20.22
	8RB High (7)	1913.5	20.28	20.19	20.13
		1882.5	20.30	20.17	20.12
		1851.5	20.20	20.10	20.06
	8RB Middle (4)	1913.5	20.34	20.22	20.16
		1882.5	20.35	20.21	20.17
		1851.5	20.29	20.14	20.14
	8RB Low (0)	1913.5	20.27	20.19	20.13
		1882.5	20.29	20.15	20.12
		1851.5	20.25	20.13	20.11
	15RB	1913.5	20.29	20.12	20.09

	(0)	1882.5	20.29	20.10	20.08
		1851.5	20.20	20.03	20.02
5 MHz	1RB High (24)	1912.5	20.07	20.26	20.05
		1882.5	20.08	20.32	20.07
		1852.5	20.02	20.23	20.05
	1RB Middle (12)	1912.5	20.42	20.56	20.37
		1882.5	20.45	20.63	20.39
		1852.5	20.45	20.53	20.42
	1RB Low (0)	1912.5	20.05	20.26	20.12
		1882.5	20.10	20.24	20.15
		1852.5	20.08	20.26	20.13
	12RB High (13)	1912.5	20.30	20.10	20.10
		1882.5	20.26	20.09	20.10
		1852.5	20.18	20.01	20.02
	12RB Middle (6)	1912.5	20.30	20.09	20.14
		1882.5	20.33	20.16	20.18
		1852.5	20.25	20.07	20.07
	12RB Low (0)	1912.5	20.26	20.07	20.08
		1882.5	20.24	20.05	20.08
		1852.5	20.19	20.03	20.06
	25RB (0)	1912.5	20.24	20.09	20.06
		1882.5	20.28	20.12	20.10
		1852.5	20.20	20.05	20.02
10 MHz	1RB High (49)	1910	20.24	20.27	20.26
		1882.5	20.24	20.42	20.30
		1855	20.14	20.28	20.05
	1RB Middle (24)	1910	20.29	20.44	20.31
		1882.5	20.37	20.53	20.31
		1855	20.29	20.45	20.30
	1RB Low (0)	1910	20.10	20.21	20.20
		1882.5	20.21	20.31	20.19
		1855	20.21	20.42	20.16
	25RB High (25)	1910	20.29	20.10	20.09
		1882.5	20.30	20.14	20.14
		1855	20.23	20.04	20.03
	25RB Middle (12)	1910	20.30	20.10	20.09
		1882.5	20.29	20.12	20.11
		1855	20.25	20.06	20.04
	25RB Low (0)	1910	20.36	20.17	20.12
		1882.5	20.33	20.14	20.13
		1855	20.23	20.04	20.02
	50RB (0)	1910	20.34	20.17	20.12
		1882.5	20.33	20.15	20.15
		1855	20.22	20.05	20.03
15 MHz	1RB High (74)	1907.5	20.18	20.22	20.21
		1882.5	20.14	20.34	20.21
		1857.5	20.07	20.10	20.14
	1RB	1907.5	20.21	20.34	20.25

	Middle (37)	1882.5	20.25	20.46	20.33
		1857.5	20.16	20.35	20.25
	1RB Low (0)	1907.5	20.09	20.23	20.16
		1882.5	20.17	20.22	20.23
		1857.5	20.12	20.27	20.20
	36RB High (38)	1907.5	20.22	20.01	20.04
		1882.5	20.29	20.07	20.12
		1857.5	20.19	19.98	20.02
	36RB Middle (19)	1907.5	20.25	20.00	20.10
		1882.5	20.30	20.10	20.18
		1857.5	20.20	20.03	20.08
	36RB Low (0)	1907.5	20.19	20.01	20.05
		1882.5	20.29	20.07	20.15
		1857.5	20.20	19.98	20.05
	75RB (0)	1907.5	20.19	20.00	20.05
		1882.5	20.29	20.08	20.11
		1857.5	20.18	20.04	20.02
20 MHz	1RB High (99)	1905	20.12	20.55	20.37
		1882.5	20.13	20.53	20.29
		1860	20.10	20.49	20.32
	1RB Middle (50)	1905	20.26	20.67	20.5
		1882.5	20.34	20.65	20.61
		1860	20.33	20.60	20.46
	1RB Low (0)	1905	20.08	20.36	20.39
		1882.5	20.17	20.54	20.4
		1860	20.13	20.50	20.37
	50RB High (50)	1905	20.06	20.15	20.14
		1882.5	20.24	20.28	20.27
		1860	20.24	20.25	20.23
	50RB Middle (25)	1905	20.22	20.28	20.27
		1882.5	20.36	20.36	20.38
		1860	20.27	20.28	20.28
	50RB Low (0)	1905	20.13	20.21	20.21
		1882.5	20.27	20.29	20.29
		1860	20.24	20.26	20.28
	100RB (0)	1905	20.13	20.18	20.17
		1882.5	20.28	20.29	20.27
		1860	20.21	20.24	20.25

DSI1/3

Band 26					
Bandwidth (MHz)	RB allocation	Frequency (MHz)	QPSK	16QAM	64QAM
	RB offset (Start RB)		Actual output power (dBm)	Actual output power (dBm)	Actual output power (dBm)
1.4 MHz	1RB High (5)	848.3	24.00	23.23	22.19
		831.5	24.07	23.21	22.33
		814.7	24.01	23.22	22.20
	1RB	848.3	24.10	23.35	22.31

	Middle (3)	831.5	24.20	23.40	22.47
		814.7	24.15	23.35	22.34
	1RB Low (0)	848.3	23.99	23.18	22.24
		831.5	24.05	23.20	22.21
		814.7	24.03	23.26	22.25
	3RB High (3)	848.3	24.12	23.03	22.24
		831.5	24.20	23.07	22.32
		814.7	24.08	23.05	22.19
	3RB Middle (1)	848.3	24.21	23.11	22.26
		831.5	24.21	23.15	22.33
		814.7	24.19	23.12	22.25
	3RB Low (0)	848.3	24.13	23.01	22.22
		831.5	24.17	23.08	22.30
		814.7	24.10	23.09	22.21
	6RB (0)	848.3	23.13	22.21	21.13
		831.5	23.19	22.29	21.22
		814.7	23.14	22.25	21.15
3 MHz	1RB High (14)	847.5	24.05	23.28	22.19
		831.5	24.10	23.37	22.34
		815.5	24.17	23.46	22.34
	1RB Middle (7)	847.5	24.20	23.49	22.36
		831.5	24.22	23.55	22.53
		815.5	24.35	23.45	22.46
	1RB Low (0)	847.5	24.10	23.31	22.25
		831.5	24.12	23.47	22.31
		815.5	24.12	23.37	22.33
	8RB High (7)	847.5	23.09	22.18	21.16
		831.5	23.15	22.25	21.22
		815.5	23.15	22.26	21.23
	8RB Middle (4)	847.5	23.12	22.21	21.22
		831.5	23.19	22.25	21.27
		815.5	23.17	22.29	21.28
	8RB Low (0)	847.5	23.12	22.20	21.20
		831.5	23.16	22.28	21.25
		815.5	23.14	22.23	21.22
	15RB (0)	847.5	23.09	22.15	21.14
		831.5	23.14	22.19	21.15
		815.5	23.16	22.19	21.16
5 MHz	1RB High (24)	846.5	23.92	23.08	22.18
		831.5	23.96	23.24	22.22
		816.5	23.96	23.18	22.21
	1RB Middle (12)	846.5	24.24	23.46	22.44
		831.5	24.24	23.57	22.47
		816.5	24.22	23.43	22.47
	1RB Low (0)	846.5	23.96	23.18	22.22
		831.5	24.00	23.27	22.30
		816.5	23.94	23.22	22.23
	12RB	846.5	23.07	22.07	21.15

	High (13)	831.5	23.13	22.17	21.25
		816.5	23.10	22.13	21.17
	12RB Middle (6)	846.5	23.15	22.18	21.22
		831.5	23.20	22.24	21.28
		816.5	23.15	22.19	21.23
	12RB Low (0)	846.5	23.10	22.14	21.17
		831.5	23.11	22.17	21.20
		816.5	23.11	22.13	21.12
	25RB (0)	846.5	23.12	22.17	21.17
		831.5	23.13	22.21	21.17
		816.5	23.14	22.19	21.17
10 MHz	1RB High (49)	844	24.02	23.20	22.23
		831.5	23.96	23.18	22.11
		820	24.03	23.30	22.30
	1RB Middle (24)	844	24.21	23.51	22.36
		831.5	24.23	23.48	22.43
		820	24.19	23.40	22.39
	1RB Low (0)	844	24.08	23.28	22.25
		831.5	24.06	23.27	22.24
		820	24.04	23.33	22.28
	25RB High (25)	844	23.21	22.20	21.24
		831.5	23.18	22.20	21.21
		820	23.07	22.11	21.14
	25RB Middle (12)	844	23.19	22.22	21.23
		831.5	23.17	22.22	21.24
		820	23.12	22.16	21.17
	25RB Low (0)	844	23.26	22.27	21.29
		831.5	23.18	22.18	21.21
		820	23.09	22.14	21.17
	50RB (0)	844	23.23	22.31	21.26
		831.5	23.19	22.22	21.23
		820	23.11	22.14	21.16
15 MHz	1RB High (74)	841.5	24.13	23.35	22.16
		831.5	24.04	23.36	22.09
		822.5	24.18	23.44	22.23
	1RB Middle (37)	841.5	24.27	23.45	22.22
		831.5	24.26	23.50	22.32
		822.5	24.26	23.43	22.26
	1RB Low (0)	841.5	24.16	23.36	22.24
		831.5	24.20	23.40	22.12
		822.5	24.17	23.33	22.13
	36RB High (38)	841.5	23.32	22.33	21.16
		831.5	23.27	22.27	21.09
		822.5	23.27	22.27	21.09
	36RB Middle (19)	841.5	23.33	22.35	21.14
		831.5	23.34	22.36	21.17
		822.5	23.33	22.34	21.14
	36RB	841.5	23.32	22.31	21.14

	Low (0)	831.5	23.31	22.38	21.16
		822.5	23.26	22.27	21.11
	75RB (0)	841.5	23.33	22.35	21.14
		831.5	23.31	22.32	21.11
		822.5	23.28	22.32	21.08

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Band 26					
Bandwidth (MHz)	RB allocation RB offset (Start RB)	Frequency (MHz)	QPSK Actual output power (dBm)	16QAM Actual output power (dBm)	64QAM Actual output power (dBm)
1.4 MHz	1RB High (5)	848.3	22.26	22.57	22.42
		831.5	22.36	22.69	22.56
		814.7	22.27	22.45	22.44
	1RB Middle (3)	848.3	22.43	22.63	22.5
		831.5	22.51	22.77	22.66
		814.7	22.40	22.70	22.49
	1RB Low (0)	848.3	22.27	22.46	22.4
		831.5	22.36	22.58	22.57
		814.7	22.27	22.51	22.44
	3RB High (3)	848.3	22.37	22.29	22.43
		831.5	22.46	22.44	22.51
		814.7	22.40	22.37	22.41
	3RB Middle (1)	848.3	22.42	22.35	22.46
		831.5	22.53	22.46	22.58
		814.7	22.40	22.45	22.52
	3RB Low (0)	848.3	22.38	22.36	22.44
		831.5	22.46	22.48	22.54
		814.7	22.39	22.36	22.41
	6RB (0)	848.3	22.39	22.45	21.37
		831.5	22.47	22.56	21.46
		814.7	22.38	22.44	21.37
3 MHz	1RB High (14)	847.5	22.33	22.52	22.43
		831.5	22.37	22.54	22.56
		815.5	22.06	22.46	22.5
	1RB Middle (7)	847.5	22.53	22.76	22.58
		831.5	22.52	22.79	22.73
		815.5	22.61	22.85	22.71
	1RB Low (0)	847.5	22.24	22.53	22.42
		831.5	22.37	22.66	22.52
		815.5	22.38	22.66	22.51
	8RB High (7)	847.5	22.32	22.37	21.38
		831.5	22.43	22.48	21.43
		815.5	22.40	22.49	21.51
	8RB Middle (4)	847.5	22.38	22.43	21.42
		831.5	22.47	22.54	21.5
		815.5	22.45	22.55	21.53
	8RB	847.5	22.37	22.43	21.4

	Low (0)	831.5	22.41	22.43	21.45
		815.5	22.38	22.44	21.46
	15RB (0)	847.5	22.34	22.37	21.33
		831.5	22.42	22.43	21.46
		815.5	22.39	22.46	21.45
5 MHz	1RB High (24)	846.5	22.22	22.38	22.37
		831.5	22.28	22.56	22.47
		816.5	22.21	22.43	22.34
	1RB Middle (12)	846.5	22.43	22.67	22.7
		831.5	22.57	22.85	22.79
		816.5	22.50	22.74	22.67
	1RB Low (0)	846.5	22.18	22.51	22.38
		831.5	22.25	22.64	22.47
		816.5	22.21	22.51	22.38
	12RB High (13)	846.5	22.31	22.32	21.33
		831.5	22.41	22.42	21.43
		816.5	22.37	22.37	21.39
	12RB Middle (6)	846.5	22.39	22.37	21.42
		831.5	22.47	22.47	21.48
		816.5	22.41	22.42	21.44
	12RB Low (0)	846.5	22.29	22.29	21.34
		831.5	22.39	22.38	21.41
		816.5	22.35	22.34	21.39
	25RB (0)	846.5	22.31	22.31	21.34
		831.5	22.40	22.45	21.43
		816.5	22.40	22.41	21.4
10 MHz	1RB High (49)	844	22.30	22.53	22.51
		831.5	22.29	22.61	22.4
		820	22.33	22.60	22.45
	1RB Middle (24)	844	22.35	22.67	22.5
		831.5	22.52	22.88	22.73
		820	22.42	22.63	22.53
	1RB Low (0)	844	22.30	22.55	22.49
		831.5	22.32	22.64	22.48
		820	22.40	22.67	22.54
	25RB High (25)	844	22.38	22.38	21.42
		831.5	22.49	22.49	21.49
		820	22.32	22.33	21.32
	25RB Middle (12)	844	22.35	22.37	21.37
		831.5	22.44	22.48	21.47
		820	22.39	22.38	21.42
	25RB Low (0)	844	22.42	22.44	21.41
		831.5	22.40	22.45	21.44
		820	22.40	22.41	21.41
	50RB (0)	844	22.41	22.42	21.45
		831.5	22.44	22.45	21.46
		820	22.37	22.37	21.4
15 MHz	1RB	841.5	22.35	22.60	22.5

	High (74)	831.5	22.29	22.51	22.53
		822.5	22.40	22.54	22.62
	1RB Middle (37)	841.5	22.43	22.77	22.65
		831.5	22.52	22.80	22.79
		822.5	22.45	22.73	22.65
	1RB Low (0)	841.5	22.45	22.63	22.64
		831.5	22.40	22.69	22.61
		822.5	22.44	22.60	22.59
	36RB High (38)	841.5	22.46	22.43	21.45
		831.5	22.48	22.46	21.49
		822.5	22.42	22.43	21.44
	36RB Middle (19)	841.5	22.47	22.44	21.48
		831.5	22.56	22.52	21.56
		822.5	22.50	22.49	21.52
	36RB Low (0)	841.5	22.51	22.49	21.52
		831.5	22.54	22.51	21.54
		822.5	22.48	22.44	21.49
	75RB (0)	841.5	22.47	22.49	21.48
		831.5	22.51	22.48	21.5
		822.5	22.49	22.46	21.46

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Band 41-PC2					
Bandwidth (MHz)	RB allocation RB offset (Start RB)	Frequency (MHz)	QPSK Actual output power (dBm)	16QAM Actual output power (dBm)	64QAM Actual output power (dBm)
5 MHz	1RB High (24)	2687.5	26.31	25.45	24.31
		2640.3	26.20	25.29	24.16
		2593	26.00	25.00	23.89
		2545.8	25.58	24.74	23.54
		2498.5	25.64	24.78	23.58
	1RB Middle (12)	2687.5	26.41	25.49	24.46
		2640.3	26.33	25.40	24.26
		2593	26.21	25.19	24.08
		2545.8	25.69	24.84	23.66
		2498.5	25.76	24.94	23.72
	1RB Low (0)	2687.5	26.36	25.47	24.34
		2640.3	26.13	25.21	24.09
		2593	26.01	25.05	23.90
		2545.8	25.64	24.79	23.62
		2498.5	25.72	24.88	23.65
	12RB High (13)	2687.5	25.42	24.49	23.52
		2640.3	25.34	24.31	23.29
		2593	25.15	24.10	23.08

		2545.8	24.72	23.71	22.71
		2498.5	24.81	23.76	22.75
	12RB Middle (6)	2687.5	25.40	24.45	23.59
		2640.3	25.40	24.34	23.34
		2593	25.21	24.15	23.15
		2545.8	24.81	23.78	22.76
		2498.5	24.86	23.79	22.80
	12RB Low (0)	2687.5	25.44	24.48	23.52
		2640.3	25.34	24.27	23.29
		2593	25.18	24.10	23.11
		2545.8	24.73	23.72	22.75
		2498.5	24.81	23.79	22.78
	25RB (0)	2687.5	25.40	24.43	23.51
		2640.3	25.29	24.31	23.28
		2593	25.12	24.14	23.08
		2545.8	24.69	23.74	22.71
		2498.5	24.76	23.82	22.81
10 MHz	1RB High (49)	2685	26.41	25.45	24.42
		2639	26.31	25.41	24.26
		2593	26.07	25.10	23.98
		2547	25.60	24.77	23.56
		2501	25.66	24.83	23.57
	1RB Middle (24)	2685	26.35	25.37	24.51
		2639	26.31	25.38	24.24
		2593	26.19	25.24	24.11
		2547	25.75	24.91	23.73
		2501	25.80	24.96	23.76
	1RB Low (0)	2685	26.47	25.32	24.46
		2639	26.13	25.25	24.08
		2593	26.06	25.17	23.98
		2547	25.75	24.92	23.72
		2501	25.80	24.94	23.76
	25RB High (25)	2685	25.37	24.38	23.61
		2639	25.37	24.37	23.37
		2593	25.16	24.12	23.14
		2547	24.71	23.75	22.73
		2501	24.77	23.77	22.79
	25RB Middle (12)	2685	25.35	24.36	23.59
		2639	25.32	24.33	23.34
		2593	25.14	24.14	23.09
		2547	24.70	23.71	22.73

		2501	24.77	23.81	22.81
	25RB Low (0)	2685	25.39	24.30	23.63
		2639	25.28	24.26	23.28
		2593	25.14	24.13	23.12
		2547	24.75	23.80	22.83
		2501	24.80	23.88	22.82
	50RB (0)	2685	25.31	24.34	23.60
		2639	25.40	24.39	23.33
		2593	25.22	24.17	23.14
		2547	24.79	23.84	22.75
		2501	24.81	23.84	22.77
15 MHz	1RB High (74)	2682.5	26.26	25.44	24.28
		2637.8	26.19	25.30	24.17
		2593	25.90	24.99	23.85
		2548.3	25.41	24.60	23.43
		2503.5	25.41	24.62	23.39
	1RB Middle (37)	2682.5	26.37	25.32	24.38
		2637.8	26.15	25.24	24.10
		2593	26.07	25.18	24.01
		2548.3	25.62	24.79	23.62
		2503.5	25.64	24.79	23.63
	1RB Low (0)	2682.5	26.34	25.49	24.34
		2637.8	25.99	25.10	23.96
		2593	25.92	25.05	23.89
		2548.3	25.64	24.82	23.64
		2503.5	25.65	24.87	23.63
	36RB High (38)	2682.5	25.45	24.42	23.40
		2637.8	25.32	24.24	23.24
		2593	25.09	24.01	23.00
		2548.3	24.60	23.56	22.53
		2503.5	24.59	23.56	22.55
	36RB Middle (19)	2682.5	25.31	24.48	23.47
		2637.8	25.27	24.23	23.21
		2593	25.11	24.04	23.02
		2548.3	24.67	23.64	22.59
		2503.5	24.65	23.62	22.58
	36RB Low (0)	2682.5	25.50	24.48	23.46
		2637.8	25.20	24.13	23.12
		2593	25.11	24.05	23.03
		2548.3	24.72	23.68	22.65
		2503.5	24.71	23.67	22.65

	75RB (0)	2682.5	25.49	24.50	23.50
		2637.8	25.21	24.22	23.16
		2593	25.08	24.05	23.03
		2548.3	24.63	23.66	22.63
		2503.5	24.66	23.67	22.03
20 MHz	1RB High (99)	2680	26.40	25.33	23.78
		2636.5	26.31	25.42	23.69
		2593	25.97	25.09	23.32
		2549.5	25.55	24.76	22.98
		2506	25.60	24.75	23.04
	1RB Middle (50)	2680	26.44	25.37	24.02
		2636.5	26.36	25.45	23.7
		2593	26.34	25.41	23.66
		2549.5	25.85	25.03	23.24
		2506	25.84	25.03	23.25
	1RB Low (0)	2680	26.34	25.36	23.91
		2636.5	26.07	25.18	23.42
		2593	26.02	25.14	23.4
		2549.5	25.76	24.97	23.2
		2506	25.81	24.99	23.21
	50RB High (50)	2680	25.39	24.38	23.08
		2636.5	25.29	24.50	22.86
		2593	25.27	24.24	22.63
		2549.5	24.83	23.84	22.21
		2506	24.77	23.85	22.19
	50RB Middle (25)	2680	25.33	24.33	23.13
		2636.5	25.40	24.43	22.81
		2593	25.37	24.36	22.75
		2549.5	24.91	23.94	22.3
		2506	24.87	23.89	22.27
	50RB Low (0)	2680	25.46	24.37	23.14
		2636.5	25.39	24.41	22.78
		2593	25.33	24.34	22.72
		2549.5	24.94	23.98	22.33
		2506	24.91	23.97	22.35
	100RB (0)	2680	25.38	24.36	23.16
		2636.5	25.33	24.47	22.84
		2593	25.39	24.35	22.7
		2549.5	24.92	23.94	22.3
		2506	24.91	23.92	22.31

DSI0

Band 41-PC2					
Bandwidth (MHz)	RB allocation RB offset (Start RB)	Frequency (MHz)	QPSK Actual output power (dBm)	16QAM Actual output power (dBm)	64QAM Actual output power (dBm)
5 MHz	1RB High (24)	2687.5	22.82	22.81	22.72
		2640.3	22.27	22.41	22.21
		2593	22.11	22.26	22.01
		2545.8	21.92	22.06	22.02
		2498.5	21.84	22.15	21.92
	1RB Middle (12)	2687.5	22.88	22.82	22.92
		2640.3	22.51	22.64	22.41
		2593	22.20	22.50	22.26
		2545.8	22.15	22.29	22.06
		2498.5	22.27	22.34	22.04
	1RB Low (0)	2687.5	22.71	22.98	22.67
		2640.3	22.49	22.60	22.45
		2593	22.17	22.41	22.06
		2545.8	21.83	21.94	21.66
		2498.5	21.78	22.15	21.83
	12RB High (13)	2687.5	22.54	22.85	22.88
		2640.3	22.31	22.33	22.40
		2593	22.15	22.23	22.24
		2545.8	22.03	22.01	21.97
		2498.5	22.05	22.11	22.14
	12RB Middle (6)	2687.5	22.92	22.72	22.81
		2640.3	22.44	22.42	22.49
		2593	22.19	22.24	22.22
		2545.8	21.91	22.07	21.95
		2498.5	22.06	22.10	22.14
	12RB Low (0)	2687.5	22.84	22.96	22.96
		2640.3	22.49	22.54	22.44
		2593	22.20	22.24	22.28
		2545.8	21.86	21.91	21.85
		2498.5	21.97	22.06	22.09
	25RB (0)	2687.5	22.90	22.90	22.85
		2640.3	22.52	22.53	22.42
		2593	22.27	22.20	22.18
		2545.8	22.02	21.92	22.05
		2498.5	22.10	22.16	21.99
10 MHz	1RB High (49)	2685	22.88	22.71	22.71
		2639	22.31	22.38	22.19

		2593	22.17	22.35	22.06
		2547	21.91	22.15	21.89
		2501	21.96	22.19	21.89
	1RB Middle (24)	2685	22.87	23.20	22.97
		2639	22.51	22.70	22.49
		2593	22.27	22.46	22.24
		2547	22.11	22.24	22.07
		2501	22.25	22.45	22.04
	1RB Low (0)	2685	22.73	22.96	22.65
		2639	22.39	22.61	22.49
		2593	22.10	22.37	22.12
		2547	21.75	21.96	21.76
		2501	21.89	22.17	21.74
	25RB High (25)	2685	22.53	22.71	22.86
		2639	22.39	22.45	22.42
		2593	22.15	22.30	22.28
		2547	21.99	22.06	21.99
		2501	22.07	22.13	22.05
	25RB Middle (12)	2685	22.99	22.78	22.85
		2639	22.50	22.55	22.51
		2593	22.21	22.22	22.21
		2547	22.04	22.05	21.91
		2501	22.08	22.20	22.10
	25RB Low (0)	2685	22.89	22.98	22.81
		2639	22.59	22.56	22.52
		2593	22.19	22.25	22.25
		2547	21.91	21.98	21.87
		2501	22.00	22.03	22.04
	50RB (0)	2685	22.87	22.81	22.76
		2639	22.50	22.55	22.45
		2593	22.18	22.22	22.18
		2547	21.97	22.03	21.93
		2501	22.08	22.09	21.98
15 MHz	1RB High (74)	2682.5	22.89	22.73	22.77
		2637.8	22.24	22.45	22.19
		2593	22.18	22.30	22.09
		2548.3	21.96	22.13	21.97
		2503.5	21.92	22.22	21.94
	1RB Middle (37)	2682.5	22.90	22.79	22.81
		2637.8	22.50	22.70	22.49
		2593	22.26	22.54	22.28

		2548.3	22.16	22.27	22.06
		2503.5	22.25	22.41	22.06
	1RB Low (0)	2682.5	22.69	22.97	22.65
		2637.8	22.50	22.59	22.45
		2593	22.12	22.39	22.12
		2548.3	21.84	21.95	21.71
		2503.5	21.86	22.17	21.81
	36RB High (38)	2682.5	22.61	22.74	22.92
		2637.8	22.37	22.41	22.45
		2593	22.23	22.24	22.28
		2548.3	22.00	22.04	21.95
		2503.5	22.10	22.14	22.09
	36RB Middle (19)	2682.5	22.89	22.71	22.70
		2637.8	22.42	22.47	22.46
		2593	22.17	22.24	22.17
		2548.3	21.95	22.07	21.98
		2503.5	22.08	22.11	22.16
	36RB Low (0)	2682.5	22.81	22.73	22.98
		2637.8	22.55	22.57	22.51
		2593	22.25	22.26	22.27
		2548.3	21.86	21.93	21.91
		2503.5	21.96	22.11	22.10
	75RB (0)	2682.5	22.79	22.76	22.84
		2637.8	22.48	22.55	22.46
		2593	22.24	22.24	22.25
		2548.3	21.99	21.99	22.01
		2503.5	22.09	22.14	22.06
20 MHz	1RB High (99)	2680	22.92	22.90	22.84
		2636.5	22.26	22.44	22.18
		2593	22.13	22.36	22.11
		2549.5	22.09	22.19	22.03
		2506	22.04	22.18	22.01
	1RB Middle (50)	2680	22.96	22.92	22.9
		2636.5	22.57	22.75	22.49
		2593	22.32	22.51	22.25
		2549.5	22.11	22.30	22.04
		2506	22.21	22.43	22.14
	1RB Low (0)	2680	22.76	22.95	22.71
		2636.5	22.47	22.63	22.42
		2593	22.16	22.38	22.13
		2549.5	22.08	22.00	22.06
		2506	22.03	22.15	22.08

	50RB High (50)	2680	22.59	22.90	22.98
		2636.5	22.39	22.45	22.41
		2593	22.22	22.30	22.24
		2549.5	22.01	22.06	22.01
		2506	22.13	22.17	22.17
	50RB Middle (25)	2680	22.95	22.80	22.01
		2636.5	22.50	22.53	22.5
		2593	22.25	22.29	22.25
		2549.5	22.01	22.05	22.01
		2506	22.14	22.18	22.15
	50RB Low (0)	2680	22.88	22.70	22.99
		2636.5	22.57	22.60	22.56
		2593	22.23	22.27	22.23
		2549.5	22.03	22.07	22.06
		2506	22.04	22.09	22.07
	100RB (0)	2680	22.90	22.78	22.91
		2636.5	22.48	22.53	22.5
		2593	22.21	22.25	22.24
		2549.5	22.05	22.04	22.06
		2506	22.11	22.15	22.12

DSI3

Band 41-PC2					
Bandwidth (MHz)	RB allocation RB offset (Start RB)	Frequency (MHz)	QPSK Actual output power (dBm)	16QAM Actual output power (dBm)	64QAM Actual output power (dBm)
5 MHz	1RB High (24)	2687.5	22.43	22.65	22.39
		2640.3	21.89	22.08	21.84
		2593	21.70	21.90	21.66
		2545.8	21.59	21.64	21.55
		2498.5	21.77	21.88	21.99
	1RB Middle (12)	2687.5	22.55	22.74	22.52
		2640.3	21.99	22.13	21.89
		2593	21.83	22.03	21.78
		2545.8	21.59	21.70	21.56
		2498.5	21.78	21.79	21.77
	1RB Low (0)	2687.5	22.41	22.59	22.39
		2640.3	21.93	22.12	21.90
		2593	21.70	21.92	21.66
		2545.8	21.53	21.56	21.60
		2498.5	21.50	21.59	21.52
	12RB	2687.5	22.52	22.55	22.55

	High (13)	2640.3	21.99	21.98	22.03
		2593	21.78	21.80	21.84
		2545.8	21.64	21.66	21.50
		2498.5	21.67	21.64	21.63
	12RB Middle (6)	2687.5	22.60	22.60	22.62
		2640.3	22.10	22.07	22.10
		2593	21.85	21.87	21.89
		2545.8	21.69	21.51	21.55
		2498.5	21.62	21.67	21.65
	12RB Low (0)	2687.5	22.54	22.54	22.60
		2640.3	21.95	21.95	21.99
		2593	21.77	21.80	21.84
		2545.8	21.68	21.61	21.65
		2498.5	21.64	21.61	21.59
	25RB (0)	2687.5	22.53	22.54	22.57
		2640.3	21.99	22.04	22.06
		2593	21.80	21.84	21.86
		2545.8	21.62	21.66	21.51
		2498.5	21.59	21.64	22.03
10 MHz	1RB High (49)	2685	22.50	22.69	22.43
		2639	21.92	22.11	21.86
		2593	21.82	22.02	21.74
		2547	21.52	21.72	21.46
		2501	21.65	21.70	21.61
	1RB Middle (24)	2685	22.62	22.65	22.57
		2639	22.10	22.23	22.00
		2593	21.90	22.11	21.83
		2547	21.59	21.81	21.56
		2501	21.79	21.95	21.73
	1RB Low (0)	2685	22.48	21.78	22.45
		2639	22.03	22.25	21.99
		2593	21.78	22.01	21.74
		2547	21.69	21.63	21.65
		2501	21.64	22.07	21.78
	25RB High (25)	2685	22.53	22.55	22.62
		2639	21.95	21.90	22.07
		2593	21.84	21.85	21.92
		2547	21.51	21.52	21.59
		2501	21.63	21.68	21.77
	25RB Middle (12)	2685	22.55	22.57	22.62
		2639	22.03	22.08	22.09

		2593	21.81	21.83	21.89
		2547	21.52	21.54	21.58
		2501	21.64	21.71	21.73
	25RB Low (0)	2685	22.56	22.59	22.63
		2639	22.01	22.05	22.12
		2593	21.83	21.85	21.88
		2547	21.65	21.66	21.52
		2501	21.72	21.66	21.68
	50RB (0)	2685	22.58	22.63	22.60
		2639	22.05	22.08	22.07
		2593	21.83	21.88	21.86
		2547	21.69	21.52	21.52
		2501	21.62	20.72	21.66
15 MHz	1RB High (74)	2682.5	22.40	22.59	22.35
		2637.8	21.87	22.02	21.78
		2593	21.74	21.93	21.68
		2548.3	21.68	21.69	21.67
		2503.5	21.65	21.70	21.79
	1RB Middle (37)	2682.5	22.49	22.68	22.42
		2637.8	22.00	22.26	21.99
		2593	21.80	21.99	21.75
		2548.3	21.50	21.71	21.65
		2503.5	21.67	21.61	21.67
	1RB Low (0)	2682.5	22.37	22.58	22.32
		2637.8	22.02	22.20	21.96
		2593	21.74	21.94	21.69
		2548.3	21.62	21.57	21.60
		2503.5	21.67	21.73	21.62
	36RB High (38)	2682.5	22.49	22.45	22.47
		2637.8	21.94	21.91	21.93
		2593	21.76	21.73	21.75
		2548.3	21.51	21.65	21.69
		2503.5	21.87	21.58	21.58
	36RB Middle (19)	2682.5	22.47	22.43	22.46
		2637.8	22.02	21.99	22.02
		2593	21.79	21.76	21.77
		2548.3	21.67	21.64	21.65
		2503.5	21.59	21.77	21.69
	36RB Low (0)	2682.5	22.47	22.44	22.46
		2637.8	22.04	21.98	22.01
		2593	21.78	21.72	21.76

		2548.3	21.64	21.69	21.61
		2503.5	21.54	22.07	21.53
	75RB (0)	2682.5	22.49	22.52	22.49
		2637.8	21.98	21.98	22.00
		2593	21.76	21.79	21.78
		2548.3	21.66	21.68	21.67
		2503.5	21.59	21.65	21.62
20 MHz	1RB High (99)	2680	22.89	23.07	22.8
		2636.5	22.26	22.43	22.19
		2593	22.18	22.33	22.08
		2549.5	21.96	22.17	21.91
		2506	21.96	22.17	21.9
	1RB Middle (50)	2680	23.07	23.20	22.97
		2636.5	22.56	22.71	22.47
		2593	22.29	22.49	22.22
		2549.5	22.07	22.27	22.01
		2506	22.21	22.41	22.15
	1RB Low (0)	2680	22.77	22.93	22.69
		2636.5	22.48	22.65	22.41
		2593	22.17	22.34	22.08
		2549.5	21.80	21.97	21.71
		2506	21.93	22.14	21.87
	50RB High (50)	2680	22.98	23.02	22.97
		2636.5	22.38	22.42	22.36
		2593	22.22	22.27	22.24
		2549.5	22.00	22.03	22.01
		2506	22.11	22.15	22.14
	50RB Middle (25)	2680	23.03	23.06	23.04
		2636.5	22.50	22.51	22.47
		2593	22.23	22.27	22.24
		2549.5	22.00	22.04	22.01
		2506	22.14	22.15	22.15
	50RB Low (0)	2680	22.98	23.01	22.98
		2636.5	22.54	22.58	22.55
		2593	22.23	22.27	22.24
		2549.5	21.89	21.96	21.92
		2506	22.02	22.06	22.04
	100RB (0)	2680	23.03	23.06	23.02
		2636.5	22.47	22.50	22.48
		2593	22.21	22.26	22.21
		2549.5	21.94	21.98	21.95

		2506	22.09	22.13	22.13

DSI1/2

Band 41-PC3					
Bandwidth (MHz)	RB allocation RB offset (Start RB)	Frequency (MHz)	QPSK Actual output power (dBm)	16QAM Actual output power (dBm)	64QAM Actual output power (dBm)
5 MHz	1RB High (24)	2687.5	23.70	22.77	21.46
		2640.3	23.59	22.64	21.28
		2593	23.37	22.41	21.04
		2545.8	22.92	22.01	20.61
		2498.5	22.97	22.03	20.60
	1RB Middle (12)	2687.5	24.07	23.12	21.66
		2640.3	23.86	22.88	21.45
		2593	23.69	22.75	21.29
		2545.8	23.18	22.28	20.86
		2498.5	23.21	22.30	20.90
	1RB Low (0)	2687.5	23.77	22.80	21.46
		2640.3	23.54	22.58	21.23
		2593	23.39	22.44	21.05
		2545.8	22.99	22.07	20.65
		2498.5	23.06	22.14	20.71
	12RB High (13)	2687.5	22.87	21.82	20.88
		2640.3	22.68	21.66	20.73
		2593	22.58	21.46	20.48
		2545.8	22.08	21.00	20.07
		2498.5	22.11	21.05	20.07
	12RB Middle (6)	2687.5	22.96	21.90	20.96
		2640.3	22.75	21.72	20.69
		2593	22.58	21.50	20.57
		2545.8	22.15	21.05	20.11
		2498.5	22.19	21.09	20.14
	12RB Low (0)	2687.5	22.85	21.81	20.87
		2640.3	22.67	21.60	20.65
		2593	22.54	21.44	20.47
		2545.8	22.07	20.98	20.05
		2498.5	22.10	21.06	20.11
	25RB (0)	2687.5	22.89	21.92	20.98
		2640.3	22.66	21.70	20.71
		2593	22.53	21.50	20.55
		2545.8	22.09	21.08	20.08
		2498.5	22.12	21.10	20.11

10 MHz	1RB High (49)	2685	23.84	22.92	21.54
		2639	23.73	22.77	21.42
		2593	23.45	22.53	21.13
		2547	22.98	22.07	20.64
		2501	22.95	22.04	20.64
	1RB Middle (24)	2685	23.89	22.96	21.64
		2639	23.72	22.76	21.36
		2593	23.54	22.59	21.29
		2547	23.12	22.21	20.79
		2501	23.17	22.22	20.82
	1RB Low (0)	2685	23.89	22.96	21.59
		2639	23.56	22.63	21.24
		2593	23.47	22.51	21.14
		2547	23.12	22.24	20.80
		2501	23.19	22.27	20.80
	25RB High (25)	2685	22.95	21.94	21.01
		2639	22.73	21.76	20.78
		2593	22.59	21.51	20.55
		2547	22.05	21.05	20.07
		2501	22.07	21.05	20.10
	25RB Middle (12)	2685	22.91	21.95	20.97
		2639	22.71	21.70	20.75
		2593	22.57	21.51	20.53
		2547	22.08	21.06	20.08
		2501	22.10	21.14	20.15
	25RB Low (0)	2685	22.98	21.98	21.01
		2639	22.65	21.68	20.67
		2593	22.56	21.56	20.56
		2547	22.12	21.14	20.14
		2501	22.19	21.16	20.17
	50RB (0)	2685	22.87	21.97	20.94
		2639	22.62	21.69	20.68
		2593	22.50	21.53	20.50
		2547	22.07	21.15	20.07
		2501	22.11	21.15	20.10
15 MHz	1RB High (74)	2682.5	23.84	22.85	21.47
		2637.8	23.70	22.76	21.35
		2593	23.43	22.45	21.04
		2548.3	22.87	21.98	20.52
		2503.5	22.82	21.91	20.43
	1RB	2682.5	23.95	22.94	21.57

	Middle (37)	2637.8	23.72	22.68	21.29
		2593	23.61	22.59	21.17
		2548.3	23.09	22.13	20.72
		2503.5	23.05	22.11	20.70
	1RB Low (0)	2682.5	23.89	22.91	21.52
		2637.8	23.48	22.49	21.11
		2593	23.42	22.46	21.01
		2548.3	23.09	22.18	20.73
		2503.5	23.08	22.17	20.70
	36RB High (38)	2682.5	22.90	21.82	20.82
		2637.8	22.75	21.68	20.67
		2593	22.58	21.46	20.41
		2548.3	22.02	20.97	19.92
		2503.5	21.96	20.87	19.88
	36RB Middle (19)	2682.5	22.95	21.88	20.87
		2637.8	22.74	21.66	20.60
		2593	22.61	21.50	20.43
		2548.3	22.14	20.99	19.98
		2503.5	22.05	20.96	19.95
	36RB Low (0)	2682.5	22.91	21.87	20.86
		2637.8	22.64	21.56	20.51
		2593	22.60	21.46	20.49
		2548.3	22.13	21.07	20.06
		2503.5	22.10	21.00	20.00
	75RB (0)	2682.5	22.91	21.94	20.91
		2637.8	22.63	21.65	20.59
		2593	22.52	21.46	20.48
		2548.3	22.04	21.05	20.04
		2503.5	22.05	21.06	20.02
20 MHz	1RB High (99)	2680	23.62	22.71	21.29
		2636.5	23.53	22.59	21.2
		2593	23.17	22.25	20.86
		2549.5	22.75	21.81	20.4
		2506	22.68	21.77	20.35
	1RB Middle (50)	2680	23.87	22.95	21.55
		2636.5	23.57	22.62	21.26
		2593	23.54	22.54	21.17
		2549.5	23.03	22.13	20.69
		2506	22.95	22.03	20.63
	1RB Low (0)	2680	23.77	22.78	21.41
		2636.5	23.30	22.32	20.93
		2593	23.22	22.26	20.88

		2549.5	22.98	22.05	20.62
		2506	22.97	22.05	20.57
	50RB High (50)	2680	22.66	21.80	20.78
		2636.5	22.48	21.57	20.57
		2593	22.29	21.30	20.3
		2549.5	21.86	20.89	19.89
		2506	21.78	20.90	19.8
	50RB Middle (25)	2680	22.68	21.82	20.8
		2636.5	22.40	21.52	20.47
		2593	22.37	21.41	20.39
		2549.5	21.95	21.01	19.98
		2506	21.88	20.93	19.89
	50RB Low (0)	2680	22.71	21.84	20.82
		2636.5	22.38	21.49	20.45
		2593	22.35	21.39	20.38
		2549.5	21.96	21.05	20.01
		2506	21.90	21.02	19.95
	100RB (0)	2680	22.83	21.87	20.83
		2636.5	22.52	21.57	20.51
		2593	22.35	21.40	20.34
		2549.5	21.93	20.96	19.96
		2506	21.91	20.95	19.87

DSI0

Band 41-PC3					
Bandwidth (MHz)	RB allocation RB offset (Start RB)	Frequency (MHz)	QPSK Actual output power (dBm)	16QAM Actual output power (dBm)	64QAM Actual output power (dBm)
5 MHz	1RB High (24)	2687.5	20.09	20.18	19.77
		2640.3	19.45	19.51	19.11
		2593	19.24	19.33	19.05
		2545.8	19.11	19.05	19.12
		2498.5	19.14	19.21	19.18
	1RB Middle (12)	2687.5	20.37	20.37	20.00
		2640.3	19.67	19.86	19.50
		2593	19.54	19.53	19.14
		2545.8	19.11	19.30	19.32
		2498.5	19.37	19.41	19.03
	1RB Low (0)	2687.5	20.10	20.15	19.73
		2640.3	19.51	19.56	19.17
		2593	19.27	19.34	19.14

		2545.8	19.28	19.28	19.16
		2498.5	19.08	19.18	19.54
	12RB High (13)	2687.5	20.20	20.14	20.21
		2640.3	19.54	19.50	19.55
		2593	19.35	19.29	19.35
		2545.8	19.00	19.00	19.06
		2498.5	19.17	19.15	19.23
	12RB Middle (6)	2687.5	20.23	20.23	20.27
		2640.3	19.61	19.57	19.63
		2593	19.44	19.37	19.44
		2545.8	19.07	19.06	19.11
		2498.5	19.26	19.19	19.28
	12RB Low (0)	2687.5	20.22	20.11	20.20
		2640.3	19.57	19.53	19.58
		2593	19.35	19.30	19.36
		2545.8	18.97	18.94	19.01
		2498.5	19.14	19.10	19.17
	25RB (0)	2687.5	20.21	20.22	20.24
		2640.3	19.59	19.59	19.63
		2593	19.38	19.38	19.43
		2545.8	19.00	19.04	19.07
		2498.5	19.18	19.21	19.24
10 MHz	1RB High (49)	2685	20.14	20.25	19.83
		2639	19.49	19.56	19.17
		2593	19.36	19.45	19.03
		2547	19.06	19.16	19.17
		2501	19.20	19.32	19.19
	1RB Middle (24)	2685	20.27	20.36	19.98
		2639	19.72	19.70	19.32
		2593	19.47	19.56	19.15
		2547	19.14	19.30	19.18
		2501	19.33	19.41	19.02
	1RB Low (0)	2685	20.11	20.25	19.88
		2639	19.58	19.69	19.30
		2593	19.35	19.45	19.04
		2547	18.94	19.08	18.64
		2501	19.14	19.23	18.83
	25RB High (25)	2685	20.14	20.21	20.25
		2639	19.55	19.59	19.62
		2593	19.40	19.42	19.50
		2547	19.06	19.13	19.17

		2501	19.25	19.28	19.35
	25RB Middle (12)	2685	20.19	20.21	20.26
		2639	19.60	19.70	19.73
		2593	19.37	19.41	19.44
		2547	19.07	19.12	19.15
		2501	19.24	19.28	19.32
	25RB Low (0)	2685	20.20	20.23	20.25
		2639	19.64	19.68	19.70
		2593	19.39	19.41	19.45
		2547	19.01	19.05	19.09
		2501	19.25	19.23	19.26
	50RB (0)	2685	20.18	20.26	20.23
		2639	19.55	19.67	19.64
		2593	19.39	19.46	19.43
		2547	19.04	19.12	19.10
		2501	19.21	19.29	19.26
15 MHz	1RB High (74)	2682.5	20.07	20.18	19.75
		2637.8	19.44	19.52	19.11
		2593	19.32	19.42	19.18
		2548.3	19.04	19.15	19.17
		2503.5	19.20	19.28	19.19
	1RB Middle (37)	2682.5	20.15	20.26	19.82
		2637.8	19.59	19.78	19.31
		2593	19.34	19.44	19.03
		2548.3	19.08	19.17	19.17
		2503.5	19.22	19.34	19.18
	1RB Low (0)	2682.5	20.05	20.14	19.70
		2637.8	19.60	19.69	19.26
		2593	19.30	19.39	19.19
		2548.3	18.93	19.02	19.15
		2503.5	19.08	19.16	19.17
	36RB High (38)	2682.5	20.12	20.13	20.10
		2637.8	19.52	19.49	19.48
		2593	19.35	19.31	19.31
		2548.3	19.07	19.04	19.07
		2503.5	19.23	19.17	19.19
	36RB Middle (19)	2682.5	20.17	20.11	20.11
		2637.8	19.59	19.57	19.57
		2593	19.40	19.36	19.37
		2548.3	19.09	19.03	19.04
		2503.5	19.22	19.19	19.21
	36RB	2682.5	20.11	20.08	20.10

	Low (0)	2637.8	19.64	19.59	19.60
		2593	19.35	19.33	19.33
		2548.3	19.00	19.19	19.09
		2503.5	19.15	19.12	19.12
	75RB (0)	2682.5	20.12	20.18	20.18
		2637.8	19.55	19.60	19.59
		2593	19.33	19.37	19.37
		2548.3	19.04	19.07	19.06
		2503.5	19.18	19.24	19.21
20 MHz	1RB High (99)	2680	20.21	20.25	19.89
		2636.5	19.54	19.63	19.24
		2593	19.44	19.60	19.17
		2549.5	19.22	19.33	18.93
		2506	19.21	19.35	18.95
	1RB Middle (50)	2680	20.33	20.42	20.03
		2636.5	19.86	19.96	19.55
		2593	19.62	19.71	19.31
		2549.5	19.33	19.46	19.02
		2506	19.47	19.58	19.19
	1RB Low (0)	2680	20.06	20.13	19.76
		2636.5	19.76	19.88	19.49
		2593	19.45	19.54	19.17
		2549.5	19.04	19.15	18.74
		2506	19.20	19.30	18.89
	50RB High (50)	2680	20.23	20.30	20.3
		2636.5	19.67	19.74	19.72
		2593	19.51	19.60	19.56
		2549.5	19.26	19.34	19.31
		2506	19.39	19.46	19.44
	50RB Middle (25)	2680	20.30	20.34	20.33
		2636.5	19.79	19.86	19.83
		2593	19.51	19.61	19.6
		2549.5	19.24	19.33	19.31
		2506	19.38	19.47	19.47
	50RB Low (0)	2680	20.21	20.29	20.28
		2636.5	19.85	19.89	19.88
		2593	19.50	19.60	19.56
		2549.5	19.15	19.25	19.25
		2506	19.30	19.38	19.35
	100RB (0)	2680	20.28	20.35	20.33
		2636.5	19.77	19.84	19.85

		2593	19.50	19.56	19.6
		2549.5	19.22	19.30	19.28
		2506	19.36	19.44	19.46

DSI3

Band 41-PC3					
Bandwidth (MHz)	RB allocation RB offset (Start RB)	Frequency (MHz)	QPSK Actual output power (dBm)	16QAM Actual output power (dBm)	64QAM Actual output power (dBm)
5 MHz	1RB High (24)	2687.5	19.16	19.24	18.84
		2640.3	18.56	18.63	18.23
		2593	18.39	18.49	18.07
		2545.8	18.09	18.14	17.74
		2498.5	18.23	18.32	17.88
	1RB Middle (12)	2687.5	19.42	19.47	19.12
		2640.3	18.80	18.88	18.50
		2593	18.59	18.72	18.33
		2545.8	18.25	18.31	17.92
		2498.5	18.41	18.51	18.13
	1RB Low (0)	2687.5	19.16	19.23	18.87
		2640.3	18.64	18.68	18.29
		2593	18.39	18.50	18.06
		2545.8	18.00	18.10	17.68
		2498.5	18.18	18.28	17.87
	12RB High (13)	2687.5	19.28	19.21	19.28
		2640.3	18.66	18.60	18.66
		2593	18.49	18.43	18.51
		2545.8	18.13	18.09	18.15
		2498.5	18.27	18.23	18.30
	12RB Middle (6)	2687.5	19.32	19.24	19.36
		2640.3	18.76	18.65	18.71
		2593	18.57	18.49	18.57
		2545.8	18.18	18.12	18.18
		2498.5	18.34	18.33	18.40
	12RB Low (0)	2687.5	19.25	19.20	19.28
		2640.3	18.70	18.63	18.70
		2593	18.47	18.43	18.50
		2545.8	18.09	18.04	18.11
		2498.5	18.24	18.19	18.26
	25RB (0)	2687.5	19.29	19.28	19.31
		2640.3	18.71	18.71	18.73

		2593	18.51	18.53	18.55
		2545.8	18.16	18.15	18.17
		2498.5	18.29	18.36	18.35
10 MHz	1RB High (49)	2685	19.28	19.34	18.92
		2639	18.63	18.69	18.29
		2593	18.51	18.58	18.24
		2547	18.19	18.27	17.85
		2501	18.34	18.40	18.00
	1RB Middle (24)	2685	19.42	19.48	19.08
		2639	18.84	18.92	18.49
		2593	18.66	18.61	18.23
		2547	18.26	18.38	17.96
		2501	18.47	18.53	18.11
	1RB Low (0)	2685	19.26	19.33	18.93
		2639	18.75	18.83	18.41
		2593	18.51	18.58	18.17
		2547	18.10	18.18	17.77
		2501	18.26	18.34	17.93
	25RB High (25)	2685	19.27	19.29	19.30
		2639	18.71	18.69	18.72
		2593	18.58	18.57	18.61
		2547	18.22	18.22	18.25
		2501	18.38	18.37	18.43
	25RB Middle (12)	2685	19.34	19.32	19.33
		2639	18.76	18.76	18.80
		2593	18.53	18.53	18.58
		2547	18.23	18.20	18.23
		2501	18.38	18.38	18.42
	25RB Low (0)	2685	19.33	19.32	19.36
		2639	18.78	18.80	18.83
		2593	18.56	18.54	18.60
		2547	18.18	18.17	18.21
		2501	18.32	18.34	18.35
	50RB (0)	2685	19.32	19.34	19.33
		2639	18.72	18.71	18.74
		2593	18.55	18.60	18.56
		2547	18.19	18.19	18.19
		2501	18.34	18.39	18.34
15 MHz	1RB High (74)	2682.5	19.27	19.30	18.86
		2637.8	18.64	18.67	18.24
		2593	18.54	18.57	18.16

		2548.3	18.26	18.27	17.87
		2503.5	18.35	18.41	17.97
	1RB Middle (37)	2682.5	19.36	19.38	18.95
		2637.8	18.83	18.85	18.42
		2593	18.59	18.60	18.21
		2548.3	18.27	18.30	17.90
		2503.5	18.40	18.45	18.06
	1RB Low (0)	2682.5	19.25	19.27	18.81
		2637.8	18.82	18.86	18.43
		2593	18.52	18.59	18.16
		2548.3	18.10	18.18	17.72
		2503.5	18.27	18.30	17.86
	36RB High (38)	2682.5	19.35	19.24	19.23
		2637.8	18.73	18.63	18.65
		2593	18.59	18.49	18.47
		2548.3	18.28	18.20	18.19
		2503.5	18.41	18.32	18.32
	36RB Middle (19)	2682.5	19.37	19.26	19.25
		2637.8	18.83	18.73	18.72
		2593	18.62	18.54	18.50
		2548.3	18.28	18.17	18.21
		2503.5	18.43	18.32	18.31
	36RB Low (0)	2682.5	19.31	19.21	19.20
		2637.8	18.89	18.77	18.74
		2593	18.57	18.49	18.48
		2548.3	18.21	18.13	18.14
		2503.5	18.33	18.24	18.24
	75RB (0)	2682.5	19.35	19.32	19.26
		2637.8	18.80	18.75	18.73
		2593	18.57	18.56	18.52
		2548.3	18.23	18.22	18.19
		2503.5	18.37	18.38	18.33
20 MHz	1RB High (99)	2680	19.91	19.96	19.56
		2636.5	19.25	19.28	18.91
		2593	19.09	19.25	18.82
		2549.5	18.89	19.00	18.57
		2506	18.86	18.98	18.57
	1RB Middle (50)	2680	19.97	20.14	19.73
		2636.5	19.51	19.60	19.22
		2593	19.25	19.35	18.94
		2549.5	19.00	19.12	18.69
		2506	19.15	19.24	18.82

	1RB Low (0)	2680	19.80	19.83	19.46
		2636.5	19.43	19.54	19.13
		2593	19.11	19.20	18.79
		2549.5	18.70	18.78	18.39
		2506	18.84	18.95	18.55
	50RB High (50)	2680	19.91	19.99	20.02
		2636.5	19.33	19.42	19.41
		2593	19.18	19.27	19.19
		2549.5	18.90	19.01	18.94
		2506	19.02	19.11	19.09
	50RB Middle (25)	2680	19.94	20.07	20.04
		2636.5	19.43	19.50	19.48
		2593	19.17	19.24	19.21
		2549.5	18.91	18.98	18.96
		2506	19.03	19.12	19.1
	50RB Low (0)	2680	19.92	19.99	19.97
		2636.5	19.53	19.56	19.54
		2593	19.18	19.24	19.24
		2549.5	18.84	18.90	18.88
		2506	18.95	19.02	19
	100RB (0)	2680	19.98	20.05	20.07
		2636.5	19.43	19.50	19.48
		2593	19.16	19.22	19.2
		2549.5	18.86	18.93	18.9
		2506	19.01	19.06	19.05

DSI1/3

Band 66					
BANDWIDTH	**Number of RBs**	**Frequency**	**QPSK**	**16QAM**	**64QAM**
1.4MHz	1RB-High (5)	1779.3 (132665)	24.13	23.34	22.32
		1745 (132322)	24.14	23.38	22.31
		1710.7 (131979)	24.11	23.34	22.26
	1RB-Middle (3)	1779.3 (132665)	24.32	23.44	22.35
		1745 (132322)	24.30	23.48	22.42
		1710.7 (131979)	24.30	23.44	22.33
	1RB-Low (0)	1779.3 (132665)	24.14	23.40	22.31
		1745 (132322)	24.16	23.31	22.30
		1710.7 (131979)	24.13	23.34	22.28
	3RB-High (3)	1779.3 (132665)	24.27	23.13	22.32
		1745 (132322)	24.26	23.20	22.30

		1710.7 (131979)	24.22	23.09	22.25
	3RB-Middle (1)	1779.3 (132665)	24.29	23.25	22.39
		1745 (132322)	24.34	23.29	22.33
		1710.7 (131979)	24.26	23.22	22.30
	3RB-Low (0)	1779.3 (132665)	24.25	23.21	22.30
		1745 (132322)	24.27	23.22	22.36
		1710.7 (131979)	24.22	23.15	22.28
	6RB (0)	1779.3 (132665)	23.29	22.32	21.28
		1745 (132322)	23.28	22.37	21.24
		1710.7 (131979)	23.25	22.31	21.21
3MHz	1RB-High (14)	1778.5 (132657)	24.19	23.34	22.37
		1745 (132322)	24.18	23.41	22.39
		1711.5 (131987)	24.15	23.30	22.25
	1RB-Middle (7)	1778.5 (132657)	24.35	23.48	22.48
		1745 (132322)	24.38	23.46	22.50
		1711.5 (131987)	24.27	23.43	22.40
	1RB-Low (0)	1778.5 (132657)	24.16	23.37	22.32
		1745 (132322)	24.24	23.32	22.34
		1711.5 (131987)	24.17	23.35	22.23
	8RB-High (7)	1778.5 (132657)	23.21	22.26	21.30
		1745 (132322)	23.25	22.31	21.28
		1711.5 (131987)	23.21	22.23	21.23
	8RB-Middle (4)	1778.5 (132657)	23.25	22.28	21.30
		1745 (132322)	23.28	22.32	21.30
		1711.5 (131987)	23.25	22.27	21.27
	8RB-Low (0)	1778.5 (132657)	23.24	22.28	21.30
		1745 (132322)	23.26	22.30	21.28
		1711.5 (131987)	23.21	22.26	21.24
	15RB (0)	1778.5 (132657)	23.24	22.23	21.26
		1745 (132322)	23.26	22.26	21.26
		1711.5 (131987)	23.22	22.21	21.19
5MHz	1RB-High (24)	1777.5 (132647)	24.07	23.21	22.30
		1745 (132322)	24.09	23.27	22.27
		1712.5 (131997)	24.02	23.25	22.26
	1RB-Middle (12)	1777.5 (132647)	24.32	23.48	22.43
		1745 (132322)	24.43	23.48	22.46
		1712.5 (131997)	24.34	23.44	22.44
	1RB-Low (0)	1777.5 (132647)	24.07	23.21	22.21
		1745 (132322)	24.13	23.28	22.25
		1712.5 (131997)	24.05	23.23	22.21
	12RB-High (13)	1777.5 (132647)	23.23	22.18	21.22
		1745 (132322)	23.25	22.21	21.23
		1712.5 (131997)	23.21	22.19	21.19

	12RB-Middle (6)	1777.5 (132647)	23.32	22.27	21.30
		1745 (132322)	23.33	22.25	21.30
		1712.5 (131997)	23.28	22.21	21.26
	12RB-Low (0)	1777.5 (132647)	23.21	22.15	21.22
		1745 (132322)	23.25	22.24	21.24
		1712.5 (131997)	23.21	22.17	21.18
	25RB (0)	1777.5 (132647)	23.27	22.23	21.26
		1745 (132322)	23.27	22.26	21.28
		1712.5 (131997)	23.21	22.20	21.21
10MHz	1RB-High (49)	1775 (132622)	24.15	23.38	22.35
		1745 (132322)	24.10	23.33	22.22
		1715 (132022)	24.11	23.38	22.21
	1RB-Middle (24)	1775 (132622)	24.28	23.43	22.46
		1745 (132322)	24.30	23.48	22.45
		1715 (132022)	24.27	23.50	22.41
	1RB-Low (0)	1775 (132622)	24.09	23.31	22.19
		1745 (132322)	24.20	23.43	22.31
		1715 (132022)	24.15	23.31	22.29
	25RB-High (25)	1775 (132622)	23.28	22.26	21.25
		1745 (132322)	23.24	22.23	21.23
		1715 (132022)	23.28	22.24	21.26
	25RB-Middle (12)	1775 (132622)	23.31	22.27	21.30
		1745 (132322)	23.34	22.30	21.31
		1715 (132022)	23.27	22.24	21.25
	25RB-Low (0)	1775 (132622)	23.31	22.25	21.29
		1745 (132322)	23.33	22.32	21.32
		1715 (132022)	23.26	22.25	21.25
	50RB (0)	1775 (132622)	23.28	22.26	21.30
		1745 (132322)	23.33	22.31	21.28
		1715 (132022)	23.28	22.25	21.24
15MHz	1RB-High (74)	1772.5 (132597)	24.07	23.29	22.25
		1745 (132322)	24.07	23.18	22.18
		1717.5 (132047)	24.07	23.23	22.30
	1RB-Middle (37)	1772.5 (132597)	24.17	23.43	22.33
		1745 (132322)	24.23	23.37	22.38
		1717.5 (132047)	24.19	23.33	22.36
	1RB-Low (0)	1772.5 (132597)	24.06	23.30	22.19
		1745 (132322)	24.17	23.34	22.33
		1717.5 (132047)	24.11	23.29	22.29
	36RB-High (38)	1772.5 (132597)	23.23	22.15	21.24
		1745 (132322)	23.24	22.19	21.21
		1717.5 (132047)	23.24	22.19	21.22
	36RB-Middle	1772.5 (132597)	23.24	22.17	21.24

	(19)	1745 (132322)	23.31	22.26	21.31
		1717.5 (132047)	23.21	22.19	21.22
	36RB-Low (0)	1772.5 (132597)	23.20	22.17	21.20
		1745 (132322)	23.29	22.24	21.26
		1717.5 (132047)	23.21	22.17	21.21
	75RB (0)	1772.5 (132597)	23.21	22.19	21.20
		1745 (132322)	23.26	22.23	21.21
		1717.5 (132047)	23.22	22.20	21.18
20MHz	1RB-High (99)	1770 (132572)	24.14	23.31	22.33
		1745 (132322)	24.12	23.40	22.28
		1720 (132072)	24.17	23.39	22.31
	1RB-Middle (50)	1770 (132572)	24.29	23.46	22.54
		1745 (132322)	24.40	23.45	22.52
		1720 (132072)	24.33	23.47	22.55
	1RB-Low (0)	1770 (132572)	24.13	23.31	22.38
		1745 (132322)	24.22	23.39	22.43
		1720 (132072)	24.17	23.34	22.39
	50RB-High (50)	1770 (132572)	23.29	22.29	21.3
		1745 (132322)	23.34	22.33	21.33
		1720 (132072)	23.40	22.41	21.4
	50RB-Middle (25)	1770 (132572)	23.34	22.33	21.34
		1745 (132322)	23.44	22.42	21.42
		1720 (132072)	23.37	22.38	21.37
	50RB-Low (0)	1770 (132572)	23.33	22.32	21.36
		1745 (132322)	23.42	22.42	21.4
		1720 (132072)	23.31	22.30	21.31
	100RB (0)	1770 (132572)	23.29	22.28	21.31
		1745 (132322)	23.36	22.34	21.33
		1720 (132072)	23.34	22.30	21.33

DSI0

Band 66					
BANDWIDTH	**Number of RBs**	**Frequency**	**QPSK**	**16QAM**	**64QAM**
1.4MHz	1RB-High (5)	1779.3 (132665)	18.91	18.96	18.77
		1745 (132322)	18.99	18.97	18.90
		1710.7 (131979)	18.86	19.00	18.84
	1RB-Middle (3)	1779.3 (132665)	18.93	19.11	19.00
		1745 (132322)	19.05	19.13	19.04
		1710.7 (131979)	18.98	19.04	19.00
	1RB-Low (0)	1779.3 (132665)	18.88	19.01	18.84
		1745 (132322)	18.94	19.08	19.01
		1710.7 (131979)	18.88	18.97	18.89

	3RB-High (3)	1779.3 (132665)	18.99	18.81	18.83
		1745 (132322)	19.07	18.86	18.90
		1710.7 (131979)	18.94	18.70	18.80
	3RB-Middle (1)	1779.3 (132665)	19.04	18.84	18.89
		1745 (132322)	19.10	18.89	18.93
		1710.7 (131979)	19.00	18.86	18.83
	3RB-Low (0)	1779.3 (132665)	18.97	18.80	18.81
		1745 (132322)	19.06	18.82	18.96
		1710.7 (131979)	18.94	18.72	18.81
	6RB (0)	1779.3 (132665)	18.97	18.85	18.69
		1745 (132322)	19.03	18.86	18.80
		1710.7 (131979)	18.96	18.84	18.72
3MHz	1RB-High (14)	1778.5 (132657)	18.98	19.12	18.96
		1745 (132322)	19.04	19.21	19.06
		1711.5 (131987)	18.98	19.13	18.97
	1RB-Middle (7)	1778.5 (132657)	19.13	19.17	19.11
		1745 (132322)	19.20	19.20	19.26
		1711.5 (131987)	19.23	19.23	19.23
	1RB-Low (0)	1778.5 (132657)	19.01	19.03	18.93
		1745 (132322)	19.06	19.18	19.02
		1711.5 (131987)	18.96	19.01	18.96
	8RB-High (7)	1778.5 (132657)	19.05	18.90	18.85
		1745 (132322)	19.10	18.97	18.91
		1711.5 (131987)	19.03	18.86	18.85
	8RB-Middle (4)	1778.5 (132657)	19.06	18.92	18.88
		1745 (132322)	19.13	18.99	18.97
		1711.5 (131987)	19.03	18.90	18.87
	8RB-Low (0)	1778.5 (132657)	19.01	18.90	18.89
		1745 (132322)	19.11	18.97	18.93
		1711.5 (131987)	18.99	18.86	18.86
	15RB (0)	1778.5 (132657)	18.99	18.84	18.80
		1745 (132322)	19.08	18.91	18.86
		1711.5 (131987)	19.02	18.82	18.80
5MHz	1RB-High (24)	1777.5 (132647)	18.85	19.01	18.82
		1745 (132322)	18.95	19.03	18.91
		1712.5 (131997)	18.89	18.90	18.77
	1RB-Middle (12)	1777.5 (132647)	19.19	19.35	19.21
		1745 (132322)	19.21	19.29	19.30
		1712.5 (131997)	19.19	19.19	19.15
	1RB-Low (0)	1777.5 (132647)	18.85	19.04	18.85
		1745 (132322)	18.96	19.02	18.94
		1712.5 (131997)	18.88	18.96	18.83
	12RB-High	1777.5 (132647)	19.02	18.80	18.82

	(13)	1745 (132322)	19.11	18.90	18.90
		1712.5 (131997)	19.03	18.83	18.84
	12RB-Middle (6)	1777.5 (132647)	19.11	18.85	18.90
		1745 (132322)	19.15	18.96	18.97
		1712.5 (131997)	19.06	18.84	18.84
	12RB-Low (0)	1777.5 (132647)	19.05	18.83	18.83
		1745 (132322)	19.11	18.88	18.90
		1712.5 (131997)	18.98	18.79	18.79
	25RB (0)	1777.5 (132647)	19.04	18.83	18.83
		1745 (132322)	19.10	18.92	18.92
		1712.5 (131997)	18.99	18.80	18.78
10MHz	1RB-High (49)	1775 (132622)	18.96	19.02	18.88
		1745 (132322)	19.00	19.13	18.96
		1715 (132022)	18.94	19.02	18.94
	1RB-Middle (24)	1775 (132622)	19.10	19.16	19.06
		1745 (132322)	19.18	19.20	19.18
		1715 (132022)	19.09	19.16	19.08
	1RB-Low (0)	1775 (132622)	18.93	19.05	18.89
		1745 (132322)	19.09	19.22	19.07
		1715 (132022)	18.97	18.96	18.92
	25RB-High (25)	1775 (132622)	19.07	18.88	18.86
		1745 (132322)	19.11	18.89	18.91
		1715 (132022)	19.10	18.85	18.87
	25RB-Middle (12)	1775 (132622)	19.07	18.87	18.87
		1745 (132322)	19.18	18.96	18.96
		1715 (132022)	19.08	18.88	18.87
	25RB-Low (0)	1775 (132622)	19.10	18.89	18.89
		1745 (132322)	19.19	19.00	19.00
		1715 (132022)	19.07	18.82	18.81
	50RB (0)	1775 (132622)	19.07	18.88	18.87
		1745 (132322)	19.19	18.98	18.97
		1715 (132022)	19.07	18.87	18.86
15MHz	1RB-High (74)	1772.5 (132597)	18.98	19.07	18.94
		1745 (132322)	18.98	19.10	19.00
		1717.5 (132047)	18.97	18.91	18.92
	1RB-Middle (37)	1772.5 (132597)	19.05	19.06	19.01
		1745 (132322)	19.12	19.22	19.10
		1717.5 (132047)	19.03	19.11	19.03
	1RB-Low (0)	1772.5 (132597)	18.98	19.12	18.90
		1745 (132322)	19.10	19.12	19.02
		1717.5 (132047)	18.97	19.12	18.86
	36RB-High (38)	1772.5 (132597)	19.10	18.84	18.91
		1745 (132322)	19.10	18.84	18.89

		1717.5 (132047)	19.10	18.84	18.88
	36RB-Middle (19)	1772.5 (132597)	19.09	18.85	18.86
		1745 (132322)	19.17	18.95	18.93
		1717.5 (132047)	19.08	18.85	18.84
	36RB-Low (0)	1772.5 (132597)	19.05	18.81	18.84
		1745 (132322)	19.18	18.92	18.93
		1717.5 (132047)	19.02	18.79	18.79
	75RB (0)	1772.5 (132597)	19.06	18.85	18.82
		1745 (132322)	19.11	18.89	18.90
		1717.5 (132047)	19.04	18.85	18.84
20MHz	1RB-High (99)	1770 (132572)	18.97	19.17	19.13
		1745 (132322)	19.01	19.28	19.13
		1720 (132072)	19.01	19.32	19.18
	1RB-Middle (50)	1770 (132572)	19.09	19.41	19.26
		1745 (132322)	19.21	19.52	19.33
		1720 (132072)	19.07	19.33	19.29
	1RB-Low (0)	1770 (132572)	18.95	19.22	19.12
		1745 (132322)	19.08	19.39	19.23
		1720 (132072)	18.94	19.25	19.11
	50RB-High (50)	1770 (132572)	19.04	19.03	19
		1745 (132322)	19.06	19.05	19.02
		1720 (132072)	19.10	19.09	19.11
	50RB-Middle (25)	1770 (132572)	19.13	19.14	19.1
		1745 (132322)	19.20	19.19	19.19
		1720 (132072)	19.12	19.11	19.09
	50RB-Low (0)	1770 (132572)	19.12	19.11	19.11
		1745 (132322)	19.18	19.17	19.15
		1720 (132072)	19.04	19.04	19
	100RB (0)	1770 (132572)	19.05	19.01	18.99
		1745 (132322)	19.12	19.10	19.06
		1720 (132072)	19.06	19.06	19.03

DSI2

Band 66					
BANDWIDTH	**Number of RBs**	**Frequency**	**QPSK**	**16QAM**	**64QAM**
1.4MHz	1RB-High (5)	1779.3 (132665)	17.96	18.26	18.27
		1745 (132322)	18.06	18.38	18.26
		1710.7 (131979)	17.96	18.33	18.24
	1RB-Middle (3)	1779.3 (132665)	18.04	18.37	18.26
		1745 (132322)	18.13	18.45	18.35
		1710.7 (131979)	18.07	18.49	18.29
	1RB-Low (0)	1779.3 (132665)	17.98	18.36	18.14

		1745 (132322)	18.06	18.30	18.29
		1710.7 (131979)	17.96	18.26	18.16
	3RB-High (3)	1779.3 (132665)	18.06	18.11	18.15
		1745 (132322)	18.14	18.13	18.22
		1710.7 (131979)	18.07	18.12	18.15
	3RB-Middle (1)	1779.3 (132665)	18.12	18.11	18.24
		1745 (132322)	18.19	18.21	18.30
		1710.7 (131979)	18.07	18.10	18.21
	3RB-Low (0)	1779.3 (132665)	18.09	18.11	18.15
		1745 (132322)	18.13	18.13	18.24
		1710.7 (131979)	18.05	18.02	18.16
	6RB (0)	1779.3 (132665)	18.07	18.21	18.09
		1745 (132322)	18.17	18.27	18.13
		1710.7 (131979)	18.06	18.14	18.04
3MHz	1RB-High (14)	1778.5 (132657)	18.05	18.37	18.26
		1745 (132322)	18.14	18.49	18.37
		1711.5 (131987)	18.08	18.41	18.31
	1RB-Middle (7)	1778.5 (132657)	18.20	18.51	18.50
		1745 (132322)	18.40	18.56	18.50
		1711.5 (131987)	18.18	18.53	18.39
	1RB-Low (0)	1778.5 (132657)	18.07	18.49	18.24
		1745 (132322)	18.16	18.46	18.41
		1711.5 (131987)	18.07	18.38	18.23
	8RB-High (7)	1778.5 (132657)	18.10	18.22	18.18
		1745 (132322)	18.22	18.25	18.22
		1711.5 (131987)	18.11	18.17	18.17
	8RB-Middle (4)	1778.5 (132657)	18.15	18.22	18.18
		1745 (132322)	18.22	18.34	18.25
		1711.5 (131987)	18.13	18.24	18.20
	8RB-Low (0)	1778.5 (132657)	18.11	18.21	18.17
		1745 (132322)	18.18	18.29	18.24
		1711.5 (131987)	18.08	18.20	18.18
	15RB (0)	1778.5 (132657)	18.12	18.13	18.12
		1745 (132322)	18.19	18.21	18.16
		1711.5 (131987)	18.08	18.13	18.10
5MHz	1RB-High (24)	1777.5 (132647)	17.97	18.28	18.17
		1745 (132322)	17.98	18.37	18.23
		1712.5 (131997)	17.94	18.28	18.16
	1RB-Middle (12)	1777.5 (132647)	18.28	18.46	18.40
		1745 (132322)	18.33	18.66	18.51
		1712.5 (131997)	18.22	18.56	18.44
	1RB-Low (0)	1777.5 (132647)	17.92	18.19	18.10
		1745 (132322)	18.05	18.28	18.22

		1712.5 (131997)	17.91	18.20	18.09
	12RB-High (13)	1777.5 (132647)	18.06	18.09	18.14
		1745 (132322)	18.16	18.16	18.20
		1712.5 (131997)	18.09	18.10	18.14
	12RB-Middle (6)	1777.5 (132647)	18.15	18.17	18.21
		1745 (132322)	18.23	18.26	18.28
		1712.5 (131997)	18.13	18.14	18.17
	12RB-Low (0)	1777.5 (132647)	18.13	18.12	18.15
		1745 (132322)	18.20	18.18	18.24
		1712.5 (131997)	18.07	18.06	18.10
	25RB (0)	1777.5 (132647)	18.12	18.14	18.14
		1745 (132322)	18.20	18.19	18.21
		1712.5 (131997)	18.08	18.10	18.08
10MHz	1RB-High (49)	1775 (132622)	18.03	18.37	18.15
		1745 (132322)	18.03	18.35	18.23
		1715 (132022)	18.01	18.32	18.20
	1RB-Middle (24)	1775 (132622)	18.10	18.45	18.45
		1745 (132322)	18.20	18.54	18.50
		1715 (132022)	18.11	18.50	18.39
	1RB-Low (0)	1775 (132622)	17.99	18.32	18.23
		1745 (132322)	18.14	18.50	18.30
		1715 (132022)	18.01	18.26	18.18
	25RB-High (25)	1775 (132622)	18.11	18.12	18.15
		1745 (132322)	18.16	18.18	18.17
		1715 (132022)	18.13	18.17	18.16
	25RB-Middle (12)	1775 (132622)	18.11	18.13	18.13
		1745 (132322)	18.25	18.23	18.23
		1715 (132022)	18.13	18.14	18.15
	25RB-Low (0)	1775 (132622)	18.14	18.18	18.15
		1745 (132322)	18.27	18.27	18.28
		1715 (132022)	18.09	18.10	18.09
	50RB (0)	1775 (132622)	18.13	18.13	18.14
		1745 (132322)	18.26	18.25	18.25
		1715 (132022)	18.12	18.15	18.13
15MHz	1RB-High (74)	1772.5 (132597)	17.96	18.31	18.10
		1745 (132322)	17.97	18.37	18.21
		1717.5 (132047)	17.95	18.37	18.20
	1RB-Middle (37)	1772.5 (132597)	18.04	18.41	18.30
		1745 (132322)	18.16	18.48	18.34
		1717.5 (132047)	18.00	18.33	18.23
	1RB-Low (0)	1772.5 (132597)	17.99	18.25	18.24
		1745 (132322)	18.09	18.40	18.27
		1717.5 (132047)	17.95	18.26	18.15

	36RB-High (38)	1772.5 (132597)	18.09	18.06	18.09
		1745 (132322)	18.13	18.10	18.12
		1717.5 (132047)	18.12	18.11	18.15
	36RB-Middle (19)	1772.5 (132597)	18.11	18.07	18.15
		1745 (132322)	18.20	18.17	18.17
		1717.5 (132047)	18.10	18.10	18.10
	36RB-Low (0)	1772.5 (132597)	18.08	18.04	18.07
		1745 (132322)	18.21	18.16	18.20
		1717.5 (132047)	18.06	18.03	18.07
	75RB (0)	1772.5 (132597)	18.10	18.08	18.06
		1745 (132322)	18.16	18.14	18.14
		1717.5 (132047)	18.08	18.07	18.07
20MHz	1RB-High (99)	1770 (132572)	17.93	18.20	18.16
		1745 (132322)	17.95	18.24	18.25
		1720 (132072)	17.98	18.36	18.23
	1RB-Middle (50)	1770 (132572)	18.07	18.40	18.25
		1745 (132322)	18.17	18.50	18.39
		1720 (132072)	18.04	18.31	18.23
	1RB-Low (0)	1770 (132572)	17.97	18.23	18.18
		1745 (132322)	18.06	18.39	18.27
		1720 (132072)	17.91	18.28	18.17
	50RB-High (50)	1770 (132572)	18.03	18.01	18.02
		1745 (132322)	18.06	18.06	18.04
		1720 (132072)	18.12	18.10	18.11
	50RB-Middle (25)	1770 (132572)	18.13	18.11	18.13
		1745 (132322)	18.22	18.20	18.22
		1720 (132072)	18.10	18.12	18.12
	50RB-Low (0)	1770 (132572)	18.12	18.11	18.11
		1745 (132322)	18.18	18.18	18.17
		1720 (132072)	18.06	18.06	18.03
	100RB (0)	1770 (132572)	18.03	18.04	18.04
		1745 (132322)	18.11	18.12	18.09
		1720 (132072)	18.06	18.09	18.07

DSI1/3

Band 71					
Bandwidth (MHz)	RB allocation RB offset (Start RB)	Frequency (MHz)	QPSK Actual output power (dBm)	16QAM Actual output power (dBm)	64QAM Actual output power (dBm)
5 MHz	1RB High (24)	695.5	22.05	22.28	22.2
		680.5	22.09	22.32	22.2
		665.5	22.13	22.30	22.24
	1RB Middle (12)	695.5	22.42	22.53	22.53
		680.5	22.44	22.77	22.52

		665.5	22.43	22.62	22.65
	1RB Low (0)	695.5	22.15	22.37	22.32
		680.5	22.10	22.36	22.31
		665.5	22.24	22.54	22.42
	12RB High (13)	695.5	22.20	22.18	21.21
		680.5	22.27	22.22	21.28
		665.5	22.24	22.20	21.3
	12RB Middle (6)	695.5	22.29	22.26	21.32
		680.5	22.27	22.30	21.32
		665.5	22.32	22.32	21.34
	12RB Low (0)	695.5	22.25	22.25	21.29
		680.5	22.24	22.22	21.28
		665.5	22.31	22.31	21.37
	25RB (0)	695.5	22.24	22.22	21.22
		680.5	22.26	22.28	21.26
		665.5	22.27	22.27	21.28
10 MHz	1RB High (49)	693	22.16	22.35	22.33
		680.5	22.23	22.46	22.33
		668	22.17	22.37	22.31
	1RB Middle (24)	693	22.35	22.54	22.44
		680.5	22.35	22.55	22.48
		668	22.37	22.60	22.5
	1RB Low (0)	693	22.28	22.45	22.42
		680.5	22.22	22.56	22.41
		668	22.37	22.74	22.53
	25RB High (25)	693	22.28	22.28	21.34
		680.5	22.28	22.30	21.31
		668	22.32	22.28	21.35
	25RB Middle (12)	693	22.29	22.28	21.31
		680.5	22.30	22.33	21.33
		668	22.34	22.37	21.37
	25RB Low (0)	693	22.31	22.29	21.36
		680.5	22.25	22.25	21.26
		668	22.43	22.40	21.42
	50RB (0)	693	22.31	22.27	21.33
		680.5	22.27	22.29	21.31
		668	22.36	22.36	21.37
15 MHz	1RB High (74)	690.5	22.09	22.31	22.37
		680.5	22.16	22.39	22.31
		670.5	22.11	22.38	22.27
	1RB Middle (37)	690.5	22.26	22.58	22.44
		680.5	22.28	22.63	22.44
		670.5	22.27	22.62	22.42
	1RB Low (0)	690.5	22.24	22.40	22.43
		680.5	22.21	22.41	22.42
		670.5	22.49	22.67	22.58
	36RB High (38)	690.5	22.24	22.20	21.26
		680.5	22.28	22.26	21.29

		670.5	22.31	22.26	21.31
	36RB Middle (19)	690.5	22.31	22.25	21.3
		680.5	22.30	22.27	21.31
		670.5	22.36	22.34	21.37
	36RB Low (0)	690.5	22.35	22.33	21.36
		680.5	22.25	22.23	21.3
		670.5	22.39	22.37	21.41
	75RB (0)	690.5	22.27	22.26	21.29
		680.5	22.24	22.26	21.24
		670.5	22.32	22.33	21.32
20 MHz	1RB High (99)	688	22.19	22.40	22.34
		683	22.16	22.46	22.32
		673	22.19	22.39	22.33
	1RB Middle (50)	688	22.48	22.70	22.67
		683	22.46	22.73	22.62
		673	22.41	22.69	22.63
	1RB Low (0)	688	22.30	22.65	22.43
		683	22.28	22.56	22.45
		673	22.57	22.83	22.73
	50RB High (50)	688	22.37	22.38	21.39
		683	22.36	22.38	21.36
		673	22.47	22.47	21.52
	50RB Middle (25)	688	22.45	22.47	21.47
		683	22.45	22.45	21.45
		673	22.43	22.44	21.45
	50RB Low (0)	688	22.46	22.46	21.48
		683	22.30	22.31	21.34
		673	22.44	22.46	21.49
	100RB (0)	688	22.38	22.37	21.38
		683	22.33	22.31	21.33
		673	22.47	22.46	21.48

DSI0/2

Band 71					
Bandwidth (MHz)	RB allocation RB offset (Start RB)	Frequency (MHz)	QPSK Actual output power (dBm)	16QAM Actual output power (dBm)	64QAM Actual output power (dBm)
5 MHz	1RB High (24)	695.5	24.04	23.13	22.02
		680.5	24.15	23.26	22.12
		665.5	24.21	23.37	22.24
	1RB Middle (12)	695.5	24.35	23.49	22.28
		680.5	24.48	23.40	22.50
		665.5	24.47	23.40	22.50
	1RB Low (0)	695.5	24.10	23.15	22.07
		680.5	24.20	23.34	22.23
		665.5	24.28	23.32	22.29
	12RB High (13)	695.5	23.25	22.03	21.05
		680.5	23.36	22.13	21.14

		665.5	23.38	22.14	21.18
	12RB Middle (6)	695.5	23.28	22.07	21.08
		680.5	23.42	22.21	21.18
		665.5	23.47	22.25	21.25
	12RB Low (0)	695.5	23.28	22.08	21.07
		680.5	23.33	22.12	21.13
		665.5	23.42	22.21	21.23
	25RB (0)	695.5	23.25	22.08	21.05
		680.5	23.35	22.16	21.17
		665.5	23.42	22.21	21.22
10 MHz	1RB High (49)	693	24.11	23.13	22.12
		680.5	24.19	23.19	22.16
		668	24.23	23.38	22.26
	1RB Middle (24)	693	24.25	23.32	22.24
		680.5	24.39	23.42	22.41
		668	24.43	23.44	22.45
	1RB Low (0)	693	24.21	23.29	22.21
		680.5	24.29	23.34	22.31
		668	24.39	23.45	22.48
	25RB High (25)	693	23.32	22.11	21.14
		680.5	23.37	22.18	21.16
		668	23.46	22.25	21.26
	25RB Middle (12)	693	23.32	22.10	21.11
		680.5	23.39	22.18	21.16
		668	23.46	22.28	21.27
	25RB Low (0)	693	23.35	22.16	21.13
		680.5	23.35	22.14	21.13
		668	23.32	22.28	21.30
	50RB (0)	693	23.35	22.15	21.12
		680.5	23.37	22.15	21.12
		668	23.48	22.29	21.30
15 MHz	1RB High (74)	690.5	24.12	23.26	22.10
		680.5	24.14	23.20	22.20
		670.5	24.17	23.38	22.25
	1RB Middle (37)	690.5	24.21	23.32	22.23
		680.5	24.31	23.34	22.31
		670.5	24.36	23.49	22.40
	1RB Low (0)	690.5	24.22	23.35	22.24
		680.5	24.32	23.47	22.33
		670.5	24.42	23.43	22.48
	36RB High (38)	690.5	23.30	22.08	21.10
		680.5	23.33	22.12	21.12
		670.5	23.44	22.22	21.24
	36RB Middle (19)	690.5	23.33	22.10	21.08
		680.5	23.41	22.12	21.15
		670.5	23.47	22.21	21.25
	36RB Low (0)	690.5	23.39	22.13	21.16
		680.5	23.36	22.11	21.10

		670.5	23.49	22.25	21.24
	75RB (0)	690.5	23.31	22.12	21.09
		680.5	23.33	22.12	21.08
		670.5	23.44	22.25	21.21
20 MHz	1RB High (99)	688	24.02	23.17	22.13
		683	23.98	22.99	22.03
		673	24.08	23.23	22.12
	1RB Middle (50)	688	24.28	23.44	22.28
		683	24.34	23.36	22.38
		673	24.41	23.41	22.43
	1RB Low (0)	688	24.20	23.24	22.26
		683	24.21	23.38	22.26
		673	24.32	23.43	22.43
	50RB High (50)	688	23.26	22.08	21.05
		683	23.28	22.09	21.06
		673	23.46	22.28	21.28
	50RB Middle (25)	688	23.36	22.15	21.14
		683	23.37	22.17	21.15
		673	23.44	22.23	21.18
	50RB Low (0)	688	23.37	22.19	21.16
		683	23.26	22.05	21.04
		673	23.42	22.22	21.2
	100RB (0)	688	23.29	22.09	21.08
		683	23.24	22.05	21.01
		673	23.44	22.23	21.24

The conducted power measurement results of downlink LTE CA Conduted Power are as below:

DSI0											
DL LTE CA Class	SCC1					SCC2				Power	
	PCC Bandwidth	UL channel	DL channel	UL RB	UL RB OFFSET	SCC Bandwidth	DL channel	RB	RB OFFSET	tune up	conducted power（dBm）
66B	66	132572	67036	1	99	66	67108	1	99	20	18.95
66C	66	132323	66787	1	50	66	66985	1	50	20	19.2
DSI1/3											
DL LTE CA Class	SCC1					SCC2				Power	
	PCC Bandwidth	UL channel	DL channel	UL RB	UL RB OFFSET	SCC Bandwidth	DL channel	RB	RB OFFSET	tune up	conducted power（dBm）
66B	66	132572	67036	1	99	66	67108	1	99	24.5	24.11
66C	66	132323	66787	1	50	66	66985	1	50	24.5	24.35
DSI2											
DL LTE CA Class	SCC1					SCC2				Power	
	PCC Bandwidth	UL channel	DL channel	UL RB	UL RB OFFSET	SCC Bandwidth	DL channel	RB	RB OFFSET	tune up	conducted power（dBm）
66B	66	132572	67036	1	99	66	67108	1	99	19.5	17.89
66C	66	132323	66787	1	50	66	66985	1	50	19.5	18.12

11.4 Wi-Fi and BT Measurement result

The maximum output power of BT is 6.99dBm.
The maximum tune up of BT is 8.0dBm.

The conducted output power for WLAN 2.4 GHz（Standalone) power is as following

802.11b	Channel\data rate	1Mbps
WLAN2450	11(2462MHz)	21.13
	6(2437(MHz)	21.37
	1(2412MHz)	20.43
	tuneup	21.50
802.11g	Channel\data rate	6Mbps
WLAN2450	11(2462MHz)	19.55
	6(2437(MHz)	19.01
	1(2412MHz)	18.51
	tuneup	20.00
802.11n-20MHz	Channel\data rate	MCS0
WLAN2450	11(2462MHz)	19.46
	6(2437(MHz)	18.89
	1(2412MHz)	18.35
	tuneup	20.00
802.11n-40MHz	Channel\data rate	MCS0
WLAN2450	9(2452MHz)	19.03
	6(2437MHz)	18.74
	3(2422MHz)	18.34
	tuneup	19.50

The conducted output power for WLAN 2.4 GHz（Simultaneous）power is as following

802.11b	Channel\data rate	1Mbps
WLAN2450	11(2462MHz)	15.60
	6(2437(MHz)	15.62
	1(2412MHz)	14.54
	tuneup	16.50
802.11g	Channel\data rate	6Mbps
WLAN2450	11(2462MHz)	13.95
	6(2437(MHz)	13.27
	1(2412MHz)	13.11
	tuneup	15.00
802.11n-20MHz	Channel\data rate	MCS0
WLAN2450	11(2462MHz)	13.78
	6(2437(MHz)	13.04
	1(2412MHz)	13.05
	tuneup	15.00

802.11n-40MHz	Channel\data rate	MCS0
WLAN2450	9(2452MHz)	13.13
	6(2437MHz)	13.05
	3(2422MHz)	13.02
	tuneup	15.00

The conducted output power for WLAN 5GHz（Standalone) power is as following

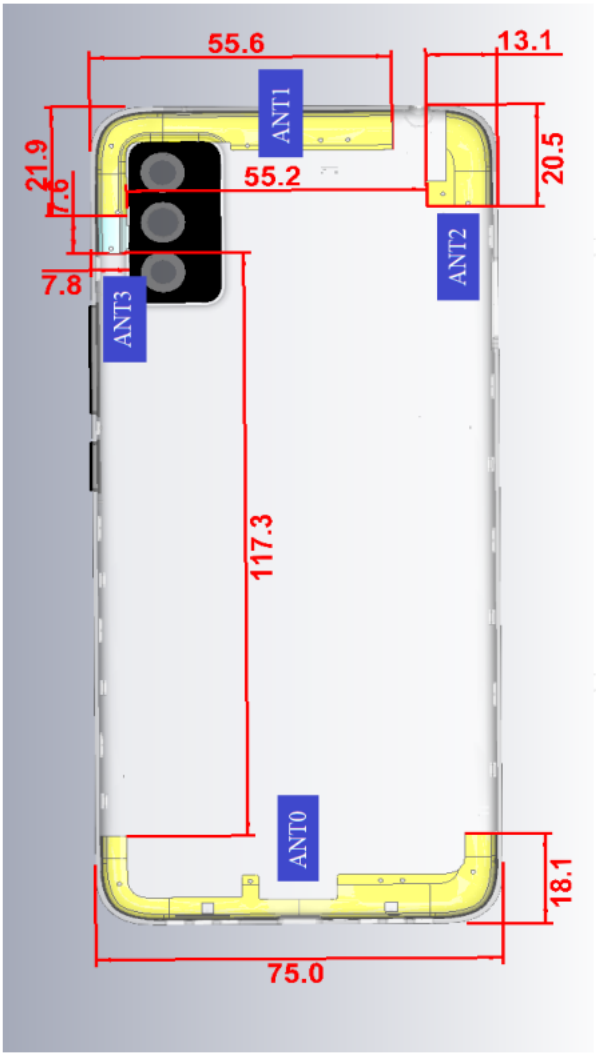
802.11ac(dBm)-80MHz	
Channel\data rate	MCS0
42(5210 MHz)	17.39
58(5290 MHz)	17.11
106(5530 MHz)	18.96
122(5610 MHz)	17.73
138(5690 MHz)	17.15
155(5775 MHz)	18.86
tuneup	19

The conducted output power for WLAN 5GHz（Simultaneous）power is as following

802.11ac(dBm)-80MHz	
Channel\data rate	MCS0
42(5210 MHz)	10.42
58(5290 MHz)	11.15
106(5530 MHz)	11.77
122(5610 MHz)	11.31
tuneup	12.00
138(5690 MHz)	13.43
155(5775 MHz)	15.07
tuneup	15.2

12 Simultaneous TX SAR Considerations

12.1 Transmit Antenna Separation Distances



Picture 12.1 Antenna Locations

12.2 SAR Measurement Positions

According to the KDB941225 D06 Hot Spot SAR v01, the edges with less than 2.5 cm distance to the antennas need to be tested for SAR.

SAR measurement positions						
Mode	Front	Rear	Left edge	Right edge	Top edge	Bottom edge
ANT0	Yes	Yes	Yes	Yes	No	Yes
ANT1	Yes	Yes	Yes	Yes	Yes	No
ANT2	Yes	Yes	Yes	No	Yes	No
ANT3	Yes	Yes	No	Yes	Yes	Yes

12.3 Standalone SAR Test Exclusion Considerations

Standalone 1-g head or body SAR evaluation by measurement or numerical simulation is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied. The 1-g SAR test exclusion threshold for 100 MHz to 6 GHz at test separation distances≤ 50 mm are determined by:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [√f(GHz)] ≤ 3.0 for 1-g SAR, where

- f(GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

Table 12.1: Standalone SAR test exclusion considerations

Band/Mode	F(GHz)	Position	SAR test exclusion threshold(mW)	RF output power		SAR test exclusion
				dBm	mW	
Bluetooth	2.441	Head	9.60	8	6.3	YES
		Body	19.20	8	6.3	YES
2.4GHz WLAN	2.45	Head	9.58	16.5	44.6	No
		Body	19.17	16.5	44.6	No

13 Evaluation of Simultaneous

Table 13.1: The sum of reported SAR values for Main antenna and WiFi2.4G+BT

	Position	Cellular antenna	WiFi	BT	Sum
Highest reported SAR value for Head	Right hand, Cheek (LTE Band13)	0.48	0.11	0.26	**0.85**
Maximum reported SAR value for Body	Rear 10mm (WCDMA1700)	0.99	0.08	0.13	**1.20**
	Bottom 10mm (WCDMA1700)	1.13	/	0.13	**1.26**
	Front 15mm (WCDMA1900)	0.22	0.02	0.09	**0.33**
	Rear 15mm (WCDMA1700)	0.49	0.04	0.09	**0.62**
Maximum reported SAR value for Body	Rear 0mm (LTE Band66)	1.67	0.21	0.13	**2.01**
	Bottom 0mm (LTE Band66)	1.85	/	0.13	**1.98**

[1] - Estimated SAR for Bluetooth (see the table 13.3)

Table 13.2: The sum of reported SAR values for Main antenna and WiFi5G+BT

	Position	Cellular antenna	WiFi	BT	Sum
Highest reported SAR value for Head	Right hand, Cheek (LTE Band13)	0.48	0.01	0.26	**0.75**
Maximum reported SAR value for Body	Rear 10mm (WCDMA1700)	0.99	0.19	0.13	**1.31**
	Bottom 10mm (WCDMA1700)	1.13	0.06	0.13	**1.32**
	Front 15mm (WCDMA1900)	0.22	0.01	0.09	**0.32**
	Rear 15mm (WCDMA1700)	0.49	0.01	0.09	**0.59**
Maximum reported SAR value for Body	Rear 0mm (LTE Band66)	1.67	0.45	0.13	**2.25**
	Bottom 0mm (LTE Band66)	1.85	0.01	0.13	**1.99**

[1] - Estimated SAR for Bluetooth (see the table 13.3)

Table 13.3: Estimated SAR for Bluetooth

Mode/Band	F (GHz)	Position	Distance (mm)	Upper limit of power *		Estimated$_{1g}$ (W/kg)
				dBm	mW	
Bluetooth	2.441	Head	5	8	6.31	**0.26**
Bluetooth	2.441	Body	10	8	6.31	**0.13**
Bluetooth	2.441	Head	15	8	6.31	**0.09**

* - Maximum possible output power declared by manufacturer

When standalone SAR test exclusion applies to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to following to determine simultaneous transmission SAR test exclusion:
(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance,mm)]·[√f(GHz)/x] W/kg for test separation distances ≤ 50 mm;
where x = 7.5 for 1-g SAR.
When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion

Conclusion:
According to the above tables, the sum of reported SAR values is<1.6W/kg. So the simultaneous transmission SAR with volume scans is not required.

14 SAR Test Result

It is determined by user manual for the distance between the EUT and the phantom bottom. The distance is 10 mm or 15mm and just applied to the condition of body worn accessory.

It is performed for all SAR measurements with area scan based 1-g SAR estimation (Fast SAR). A zoom scan measurement is added when the estimated 1-gSAR is the highest measured SAR in each exposure configuration, wireless mode and frequency band combination or more than 1.2W/kg.

The calculated SAR is obtained by the following formula:

$$\text{Reported SAR} = \text{Measured SAR} \times 10^{(P_{Target}-P_{Measured})/10}$$

Where P_{Target} is the power of manufacturing upper limit;

$P_{Measured}$ is the measured power in chapter 11.

Table 14.1: Duty Cycle

Mode	Duty Cycle
GSM850&GSM1900	1:8.3
GPRS&EGPRS for GSM850/GSM1900	1:2
LTE B41 PC3	1:1.58
LTE B41 PC2	1:2.309
WCDMA&LTE FDD	1:1

14.1 SAR results for Fast SAR

RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Mode/RB	Test Position	Distance	Figure No./Note	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
Head	GSM850	251	848.8	\	Left Cheek	0mm	Fig.A1	31.82	33.30	0.111	0.16	0.081	0.11	0.16
Head	GSM850	190	836.6	\	Left Cheek	0mm	\	31.92	33.30	0.100	0.14	0.073	0.10	-0.15
Head	GSM850	128	824.2	\	Left Cheek	0mm	\	31.89	33.30	0.092	0.13	0.067	0.09	-0.16
Head	GSM850	190	836.6	\	Left Tilt	0mm	\	31.92	33.30	0.057	0.08	0.044	0.06	0.14
Head	GSM850	190	836.6	\	Right Cheek	0mm	\	31.92	33.30	0.093	0.13	0.069	0.09	0.12
Head	GSM850	190	836.6	\	Right Tilt	0mm	\	31.92	33.30	0.063	0.09	0.048	0.07	0.17
Body	GSM850	190	836.6	GPRS(4TX)	Front	10mm	\	26.09	27.00	0.068	0.08	0.060	0.07	-0.09
Body	GSM850	251	848.8	GPRS(4TX)	Rear	10mm	Fig.A2	26.01	27.00	0.139	0.17	0.104	0.13	0.16
Body	GSM850	190	836.6	GPRS(4TX)	Rear	10mm	\	26.09	27.00	0.128	0.16	0.096	0.12	-0.04
Body	GSM850	128	824.2	GPRS(4TX)	Rear	10mm	\	26.19	27.00	0.133	0.16	0.104	0.13	-0.03
Body	GSM850	190	836.6	GPRS(4TX)	Left Edge	10mm	\	26.09	27.00	0.085	0.10	0.069	0.09	-0.10
Body	GSM850	190	836.6	GPRS(4TX)	Right Edge	10mm	\	26.09	27.00	0.072	0.09	0.060	0.07	0.13
Body	GSM850	190	836.6	GPRS(4TX)	Bottom Edge	10mm	\	26.09	27.00	0.112	0.14	0.096	0.12	-0.07
Body	GSM850	128	824.2	EGPRS(4TX)	Rear	10mm	\	26.17	27.00	0.114	0.14	0.101	0.12	-0.09
Head	GSM1900	661	1880	\	Left Cheek	0mm	\	29.64	30.00	0.055	0.06	0.036	0.04	-0.07
Head	GSM1900	661	1880	\	Left Tilt	0mm	\	29.64	30.00	0.042	0.05	0.026	0.03	0.06
Head	GSM1900	810	1909.8	\	Right Cheek	0mm	\	29.53	30.00	0.055	0.06	0.033	0.04	-0.14
Head	GSM1900	661	1880	\	Right Cheek	0mm	\	29.64	30.00	0.060	0.06	0.037	0.04	0.06
Head	GSM1900	512	1850.2	\	Right Cheek	0mm	Fig.A3	29.75	30.00	0.062	0.07	0.039	0.04	-0.08
Head	GSM1900	661	1880	\	Right Tilt	0mm	\	29.64	30.00	0.045	0.05	0.027	0.03	-0.06
Body	GSM1900	661	1880	GPRS(4TX)	Front	10mm	\	21.57	22.00	0.261	0.29	0.161	0.18	0.02
Body	GSM1900	661	1880	GPRS(4TX)	Rear	10mm	\	21.57	22.00	0.591	0.65	0.326	0.36	-0.18
Body	GSM1900	661	1880	GPRS(4TX)	Left Edge	10mm	\	21.57	22.00	0.112	0.12	0.070	0.08	-0.03
Body	GSM1900	661	1880	GPRS(4TX)	Right Edge	10mm	\	21.57	22.00	0.058	0.06	0.035	0.04	0.01
Body	GSM1900	810	1909.8	GPRS(4TX)	Bottom Edge	10mm	\	21.49	22.00	0.479	0.54	0.265	0.30	-0.09
Body	GSM1900	661	1880	GPRS(4TX)	Bottom Edge	10mm	\	21.57	22.00	0.731	0.81	0.396	0.44	-0.03
Body	GSM1900	512	1850.2	GPRS(4TX)	Bottom Edge	10mm	Fig.A4	21.75	22.00	0.792	0.84	0.419	0.44	-0.07
Body	GSM1900	512	1850.2	EGPRS(4TX)	Bottom Edge	10mm	\	21.69	22.00	0.730	0.78	0.407	0.44	0.08
Body	GSM1900	661	1880	GPRS(4TX)	Front	15mm	\	21.52	22.50	0.142	0.18	0.089	0.11	0.02
Body	GSM1900	661	1880	GPRS(4TX)	Rear	15mm	Fig.A5	21.52	22.50	0.270	0.34	0.156	0.20	0.01
Body	GSM1900	810	1909.8	GPRS(4TX)	Rear	15mm	\	21.42	22.50	0.135	0.17	0.080	0.10	-0.19
Body	GSM1900	512	1850.2	GPRS(4TX)	Rear	15mm	\	21.71	22.50	0.248	0.30	0.143	0.17	0.15
Body	GSM1900	661	1880	EGPRS(4TX)	Rear	15mm	\	21.74	22.50	0.270	0.32	0.156	0.19	0.01
RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Mode/RB	Test Position	Distance	Figure No./Note	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
Head	WCDMA1900	9400	1880	RMC	Left Cheek	0mm	\	23.55	24.50	0.157	0.20	0.095	0.12	0.06
Head	WCDMA1900	9400	1880	RMC	Left Tilt	0mm	\	23.55	24.50	0.127	0.16	0.074	0.09	-0.09
Head	WCDMA1900	9538	1907.6	RMC	Right Cheek	0mm	Fig.A6	23.59	24.50	0.171	0.21	0.105	0.13	0.07
Head	WCDMA1900	9400	1880	RMC	Right Cheek	0mm	\	23.55	24.50	0.161	0.20	0.100	0.12	-0.17
Head	WCDMA1900	9262	1852.4	RMC	Right Cheek	0mm	\	23.67	24.50	0.165	0.20	0.101	0.12	-0.07
Head	WCDMA1900	9400	1880	RMC	Right Tilt	0mm	\	23.55	24.50	0.112	0.14	0.068	0.08	-0.19
Body	WCDMA1900	9400	1880	RMC	Front	10mm	\	18.53	19.50	0.200	0.25	0.123	0.15	-0.03
Body	WCDMA1900	9400	1880	RMC	Rear	10mm	\	18.53	19.50	0.453	0.57	0.251	0.31	-0.03
Body	WCDMA1900	9400	1880	RMC	Left Edge	10mm	\	18.53	19.50	0.058	0.07	0.035	0.04	0.11
Body	WCDMA1900	9400	1880	RMC	Right Edge	10mm	\	18.53	19.50	0.024	0.03	0.018	0.02	-0.12
Body	WCDMA1900	9538	1907.6	RMC	Bottom Edge	10mm	\	18.50	19.50	0.622	0.78	0.333	0.42	0.03
Body	WCDMA1900	9400	1880	RMC	Bottom Edge	10mm	\	18.53	19.50	0.661	0.83	0.351	0.44	0.09
Body	WCDMA1900	9262	1852.4	RMC	Bottom Edge	10mm	Fig.A7	18.55	19.50	0.735	0.91	0.389	0.48	0.03
Body	WCDMA1900	9400	1880	RMC	Front	15mm	\	19.56	20.50	0.173	0.22	0.106	0.13	0.00
Body	WCDMA1900	9538	1907.6	RMC	Rear	15mm	\	19.64	20.50	0.306	0.37	0.179	0.22	-0.10
Body	WCDMA1900	9400	1880	RMC	Rear	15mm	\	19.56	20.50	0.319	0.40	0.184	0.23	-0.08
Body	WCDMA1900	9262	1852.4	RMC	Rear	15mm	Fig.A8	19.70	20.50	0.363	0.44	0.206	0.25	0.04
Head	WCDMA1700	1412	1732.4	RMC	Left Cheek	0mm	\	23.65	24.50	0.078	0.09	0.053	0.06	-0.11
Head	WCDMA1700	1412	1732.4	RMC	Left Tilt	0mm	\	23.65	24.50	0.054	0.07	0.037	0.04	0.04
Head	WCDMA1700	1412	1732.4	RMC	Right Cheek	0mm	\	23.65	24.50	0.091	0.11	0.063	0.08	0.20
Head	WCDMA1700	1513	1752.6	RMC	Right Cheek	0mm	Fig.A9	23.76	24.50	0.101	0.12	0.066	0.08	-0.01
Head	WCDMA1700	1312	1712.4	RMC	Right Cheek	0mm	\	23.66	24.50	0.094	0.11	0.062	0.07	-0.17
Head	WCDMA1700	1412	1732.4	RMC	Right Tilt	0mm	\	23.65	24.50	0.056	0.07	0.038	0.05	0.18
Body	WCDMA1700	1412	1732.5	RMC	Front	15mm	\	18.15	19.00	0.155	0.19	0.095	0.12	0.00
Body	WCDMA1700	1513	1752.6	RMC	Rear	15mm	\	18.18	19.00	0.317	0.38	0.186	0.22	0.10
Body	WCDMA1700	1412	1732.5	RMC	Rear	15mm	Fig.A10	18.15	19.00	0.399	0.49	0.228	0.28	0.01
Body	WCDMA1700	1312	1712.4	RMC	Rear	15mm	\	18.07	19.00	0.348	0.43	0.228	0.28	0.03
Body	WCDMA1700	1412	1732.5	RMC	Front	10mm	\	17.17	18.00	0.274	0.33	0.157	0.19	-0.08
Body	WCDMA1700	1513	1752.6	RMC	Rear	10mm	\	17.22	18.00	0.670	0.80	0.349	0.42	-0.07
Body	WCDMA1700	1412	1732.5	RMC	Rear	10mm	\	17.17	18.00	0.744	0.90	0.386	0.47	0.03
Body	WCDMA1700	1312	1712.4	RMC	Rear	10mm	\	17.11	18.00	0.809	0.99	0.417	0.51	-0.09
Body	WCDMA1700	1412	1732.5	RMC	Left Edge	10mm	\	17.17	18.00	0.025	0.03	0.018	0.02	-0.11
Body	WCDMA1700	1412	1732.5	RMC	Right Edge	10mm	\	17.17	18.00	0.029	0.04	0.015	0.02	0.16
Body	WCDMA1700	1513	1752.6	RMC	Bottom Edge	10mm	\	17.22	18.00	0.809	0.97	0.429	0.51	0.00
Body	WCDMA1700	1412	1732.5	RMC	Bottom Edge	10mm	\	17.17	18.00	0.871	1.05	0.461	0.56	-0.10
Body	WCDMA1700	1312	1712.4	RMC	Bottom Edge	10mm	Fig.A11	17.11	18.00	0.917	1.13	0.486	0.60	-0.03
Head	WCDMA 850	4183	836.6	RMC	Left Cheek	0mm	\	21.91	22.5	0.181	0.21	0.120	0.14	-0.07
Head	WCDMA 850	4183	836.6	RMC	Left Tilt	0mm	\	21.91	22.5	0.183	0.21	0.112	0.13	-0.11
Head	WCDMA 850	4183	836.6	RMC	Right Cheek	0mm	\	21.91	22.5	0.198	0.23	0.119	0.14	0.18
Head	WCDMA 850	4233	846.6	RMC	Right Cheek	0mm	\	22.06	22.5	0.189	0.21	0.107	0.12	-0.08
Head	WCDMA 850	4132	826.4	RMC	Right Cheek	0mm	\	21.91	22.5	0.181	0.21	0.103	0.12	0.15
Head	WCDMA 850	4183	836.6	RMC	Right Tilt	0mm	Fig.A12	21.91	22.5	0.319	0.37	0.181	0.21	-0.16
Body	WCDMA 850	4183	836.6	RMC	Front	10mm	\	23.14	24.50	0.155	0.21	0.096	0.13	-0.19
Body	WCDMA 850	4233	846.6	RMC	Rear	10mm	\	23.21	24.50	0.305	0.41	0.184	0.25	0.03
Body	WCDMA 850	4183	836.6	RMC	Rear	10mm	Fig.A13	23.14	24.50	0.360	0.49	0.218	0.30	-0.10
Body	WCDMA 850	4132	826.4	RMC	Rear	10mm	\	23.17	24.50	0.316	0.43	0.191	0.26	0.09
Body	WCDMA 850	4183	836.6	RMC	Left Edge	10mm	\	23.14	24.50	0.103	0.14	0.074	0.10	0.19
Body	WCDMA 850	4183	836.6	RMC	Right Edge	10mm	\	23.14	24.50	0.165	0.23	0.117	0.16	0.15
Body	WCDMA 850	4183	836.6	RMC	Top Edge	10mm	\	23.14	24.50	0.230	0.31	0.120	0.16	-0.08

RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Mode/RB	Test Position	Distance	Figure No./Note	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
Head	LTE Band12	23095	707.5	1RB-Middle	Left Cheek	0mm	Fig.A14	22.66	23.5	0.375	0.46	0.236	0.29	-0.08
Head	LTE Band12	23095	707.5	1RB-Middle	Left Tilt	0mm	\	22.66	23.5	0.318	0.39	0.182	0.22	-0.08
Head	LTE Band12	23095	707.5	1RB-Middle	Right Cheek	0mm	\	22.66	23.5	0.316	0.38	0.176	0.21	0.05
Head	LTE Band12	23095	707.5	1RB-Middle	Right Tilt	0mm	\	22.66	23.5	0.355	0.43	0.185	0.22	0.11
Head	LTE Band12	23060	704	25RB-High	Left Cheek	0mm	\	22.65	23.5	0.302	0.37	0.182	0.22	0.12
Head	LTE Band12	23060	704	25RB-High	Left Tilt	0mm	\	22.65	23.5	0.306	0.37	0.160	0.19	0.05
Head	LTE Band12	23060	704	25RB-High	Right Cheek	0mm	\	22.65	23.5	0.306	0.37	0.171	0.21	0.13
Head	LTE Band12	23060	704	25RB-High	Right Tilt	0mm	\	22.65	23.5	0.330	0.40	0.172	0.21	0.20
Body	LTE Band12	23095	707.5	1RB-Middle	Front	10mm	\	24.48	25	0.181	0.20	0.139	0.16	-0.14
Body	LTE Band12	23095	707.5	1RB-Middle	Rear	10mm	Fig.A15	24.48	25	0.462	0.52	0.350	0.39	-0.06
Body	LTE Band12	23095	707.5	1RB-Middle	Left Edge	10mm	\	24.48	25	0.189	0.21	0.135	0.15	0.10
Body	LTE Band12	23095	707.5	1RB-Middle	Right Edge	10mm	\	24.48	25	0.299	0.34	0.213	0.24	-0.07
Body	LTE Band12	23095	707.5	1RB-Middle	Top Edge	10mm	\	24.48	25	0.202	0.23	0.120	0.14	0.19
Body	LTE Band12	23060	704	25RB-High	Front	10mm	\	23.47	24.00	0.187	0.21	0.144	0.16	0.14
Body	LTE Band12	23060	704	25RB-High	Rear	10mm	\	23.47	24.00	0.327	0.37	0.246	0.28	0.19
Body	LTE Band12	23060	704	25RB-High	Left Edge	10mm	\	23.47	24.00	0.212	0.24	0.149	0.17	-0.14
Body	LTE Band12	23060	704	25RB-High	Right Edge	10mm	\	23.47	24.00	0.281	0.32	0.200	0.23	0.08
Body	LTE Band12	23060	704	25RB-High	Top Edge	10mm	\	23.47	24.00	0.156	0.18	0.094	0.11	-0.18
Head	LTE Band13	23230	782	1RB-Middle	Left Cheek	0mm	\	22.53	23	0.407	0.45	0.275	0.31	0.10
Head	LTE Band13	23230	782	1RB-Middle	Left Tilt	0mm	\	22.53	23	0.392	0.44	0.232	0.26	0.12
Head	LTE Band13	23230	782	1RB-Middle	Right Cheek	0mm	\	22.53	23	0.392	0.44	0.243	0.27	0.09
Head	LTE Band13	23230	782	1RB-Middle	Right Tilt	0mm	\	22.53	23	0.369	0.41	0.207	0.23	0.00
Head	LTE Band13	23230	782	25RB-Middle	Left Cheek	0mm	\	22.47	23	0.396	0.45	0.265	0.30	0.12
Head	LTE Band13	23230	782	25RB-Middle	Left Tilt	0mm	\	22.47	23	0.374	0.42	0.211	0.24	0.06
Head	LTE Band13	23230	782	25RB-Middle	Right Cheek	0mm	Fig.A16	22.47	23	0.427	0.48	0.264	0.30	-0.03
Head	LTE Band13	23230	782	25RB-Middle	Right Tilt	0mm	\	22.47	23	0.375	0.42	0.203	0.23	0.12
Body	LTE Band13	23230	782	1RB-Middle	Rear	10mm	\	24.33	25	0.381	0.45	0.284	0.33	-0.03
Body	LTE Band13	23230	782	1RB-Middle	Left Edge	10mm	\	24.33	25	0.299	0.35	0.209	0.24	0.20
Body	LTE Band13	23230	782	1RB-Middle	Right Edge	10mm	Fig.A17	24.33	25	0.413	0.48	0.285	0.33	0.03
Body	LTE Band13	23230	782	1RB-Middle	Top Edge	10mm	\	24.33	25	0.237	0.28	0.136	0.16	-0.05
Body	LTE Band13	23230	782	25RB-Middle	Front	10mm	\	23.36	24.00	0.184	0.21	0.139	0.16	-0.14
Body	LTE Band13	23230	782	25RB-Middle	Rear	10mm	\	23.36	24.00	0.289	0.33	0.176	0.20	-0.11
Body	LTE Band13	23230	782	25RB-Middle	Left Edge	10mm	\	23.36	24.00	0.192	0.22	0.134	0.16	-0.05
Body	LTE Band13	23230	782	25RB-Middle	Right Edge	10mm	\	23.36	24.00	0.302	0.35	0.211	0.24	-0.05
Body	LTE Band13	23230	782	25RB-Middle	Top Edge	10mm	\	23.36	24.00	0.184	0.21	0.107	0.12	0.12
Head	LTE Band25	26590	1905	1RB-Middle	Left Cheek	0mm	\	24.39	24.5	0.124	0.13	0.078	0.08	0.09
Head	LTE Band25	26590	1905	1RB-Middle	Left Tilt	0mm	\	24.39	24.5	0.126	0.13	0.076	0.08	-0.19
Head	LTE Band25	26590	1905	1RB-Middle	Right Cheek	0mm	Fig.A18	24.39	24.5	0.131	0.13	0.083	0.09	0.12
Head	LTE Band25	26590	1905	1RB-Middle	Right Tilt	0mm	\	24.39	24.5	0.098	0.10	0.063	0.06	-0.01
Head	LTE Band25	26590	1905	50RB-Middle	Left Cheek	0mm	\	23.44	23.50	0.099	0.10	0.063	0.06	-0.09
Head	LTE Band25	26590	1905	50RB-Middle	Left Tilt	0mm	\	23.44	23.50	0.076	0.08	0.047	0.05	0.18
Head	LTE Band25	26590	1905	50RB-Middle	Right Cheek	0mm	\	23.44	23.50	0.100	0.10	0.063	0.06	-0.13
Head	LTE Band25	26590	1905	50RB-Middle	Right Tilt	0mm	\	23.44	23.50	0.075	0.08	0.048	0.05	-0.05
Body	LTE Band25	26365	1882.5	1RB-Middle	Front	10mm	\	20.34	20.5	0.207	0.21	0.123	0.13	0.07
Body	LTE Band25	26365	1882.5	1RB-Middle	Rear	10mm	\	20.34	20.5	0.459	0.48	0.254	0.26	-0.18
Body	LTE Band25	26365	1882.5	1RB-Middle	Left Edge	10mm	\	20.34	20.5	0.062	0.06	0.036	0.04	0.12
Body	LTE Band25	26365	1882.5	1RB-Middle	Right Edge	10mm	\	20.34	20.5	0.024	0.02	0.014	0.01	0.02
Body	LTE Band25	26365	1882.5	1RB-Middle	Bottom Edge	10mm	Fig.A19	20.34	20.5	0.627	0.65	0.332	0.34	0.02
Body	LTE Band25	26365	1882.5	50RB-Middle	Front	10mm	\	20.36	20.5	0.204	0.21	0.124	0.13	0.03
Body	LTE Band25	26365	1882.5	50RB-Middle	Rear	10mm	\	20.36	20.5	0.463	0.48	0.251	0.26	0.09
Body	LTE Band25	26365	1882.5	50RB-Middle	Left Edge	10mm	\	20.36	20.5	0.058	0.06	0.035	0.04	-0.12
Body	LTE Band25	26365	1882.5	50RB-Middle	Right Edge	10mm	\	20.36	20.5	0.022	0.02	0.011	0.01	0.03
Body	LTE Band25	26365	1882.5	50RB-Middle	Bottom Edge	10mm	\	20.36	20.5	0.580	0.60	0.309	0.32	0.06
Body	LTE Band25	26365	1882.5	1RB-Middle	Front	15mm	\	20.38	21.5	0.097	0.13	0.061	0.08	0.06
Body	LTE Band25	26365	1882.5	1RB-Middle	Rear	15mm	Fig.A20	20.38	21.5	0.223	0.29	0.132	0.17	-0.18
Body	LTE Band25	26365	1882.5	50RB-Middle	Front	15mm	\	20.34	21.5	0.098	0.13	0.061	0.08	-0.07
Body	LTE Band25	26365	1882.5	50RB-Middle	Rear	15mm	\	20.34	21.5	0.210	0.27	0.125	0.16	-0.18

RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Mode/RB	Test Position	Distance	Figure No./Note	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
Head	LTE Band26	26865	831.5	1RB-Middle	Left Cheek	0mm	Fig.A21	22.52	23	0.396	0.44	0.256	0.29	0.03
Head	LTE Band26	26865	831.5	1RB-Middle	Left Tilt	0mm	\	22.52	23	0.357	0.40	0.195	0.22	0.00
Head	LTE Band26	26865	831.5	1RB-Middle	Right Cheek	0mm	\	22.52	23	0.325	0.36	0.202	0.23	-0.06
Head	LTE Band26	26865	831.5	1RB-Middle	Right Tilt	0mm	\	22.52	23	0.322	0.36	0.171	0.19	0.03
Head	LTE Band26	26865	831.5	36RB-Middle	Left Cheek	0mm	\	22.56	23	0.358	0.40	0.231	0.26	0.11
Head	LTE Band26	26865	831.5	36RB-Middle	Left Tilt	0mm	\	22.56	23	0.354	0.39	0.192	0.21	-0.14
Head	LTE Band26	26865	831.5	36RB-Middle	Right Cheek	0mm	\	22.56	23	0.350	0.39	0.212	0.24	-0.04
Head	LTE Band26	26865	831.5	36RB-Middle	Right Tilt	0mm	\	22.56	23	0.318	0.35	0.169	0.19	0.08
Body	LTE Band26	26965	841.5	1RB-Middle	Front	10mm	\	24.27	24.5	0.156	0.16	0.102	0.11	0.12
Body	LTE Band26	26965	841.5	1RB-Middle	Rear	10mm	Fig.A22	24.27	24.5	0.383	0.40	0.230	0.24	0.18
Body	LTE Band26	26965	841.5	1RB-Middle	Left Edge	10mm	\	24.27	24.5	0.124	0.13	0.085	0.09	0.10
Body	LTE Band26	26965	841.5	1RB-Middle	Right Edge	10mm	\	24.27	24.5	0.223	0.24	0.155	0.16	-0.01
Body	LTE Band26	26965	841.5	1RB-Middle	Top Edge	10mm	\	24.27	24.5	0.184	0.19	0.104	0.11	0.11
Body	LTE Band26	26865	831.5	36RB-Middle	Front	10mm	\	23.34	23.5	0.114	0.12	0.076	0.08	-0.18
Body	LTE Band26	26865	831.5	36RB-Middle	Rear	10mm	\	23.34	23.5	0.273	0.28	0.166	0.17	0.16
Body	LTE Band26	26865	831.5	36RB-Middle	Left Edge	10mm	\	23.34	23.5	0.102	0.11	0.071	0.07	0.09
Body	LTE Band26	26865	831.5	36RB-Middle	Right Edge	10mm	\	23.34	23.5	0.177	0.18	0.123	0.13	0.11
Body	LTE Band26	26865	831.5	36RB-Middle	Top Edge	10mm	\	23.34	23.5	0.144	0.15	0.081	0.08	-0.03
Head	LTE Band41 pc3	41490	2680	1RB-Middle	Left Cheek	0mm	Fig.A23	23.87	24.5	0.095	0.11	0.051	0.06	0.02
Head	LTE Band41 pc3	41490	2680	1RB-Middle	Left Tilt	0mm	\	23.87	24.5	0.065	0.07	0.034	0.04	-0.18
Head	LTE Band41 pc3	41490	2680	1RB-Middle	Right Cheek	0mm	\	23.87	24.5	0.085	0.10	0.047	0.05	-0.03
Head	LTE Band41 pc3	41490	2680	1RB-Middle	Right Tilt	0mm	\	23.87	24.5	0.073	0.08	0.037	0.04	-0.08
Head	LTE Band41 pc3	41490	2680	50RB-Low	Left Cheek	0mm	\	22.71	23.50	0.078	0.09	0.041	0.05	0.00
Head	LTE Band41 pc3	41490	2680	50RB-Low	Left Tilt	0mm	\	22.71	23.50	0.000	0.00	0.000	0.00	0.14
Head	LTE Band41 pc3	41490	2680	50RB-Low	Right Cheek	0mm	\	22.71	23.50	0.066	0.08	0.037	0.04	-0.13
Head	LTE Band41 pc3	41490	2680	50RB-Low	Right Tilt	0mm	\	22.71	23.50	0.055	0.07	0.028	0.03	0.04
Body	LTE Band41 pc3	41490	2680	1RB-Middle	Front	10mm	\	19.97	20.5	0.054	0.06	0.031	0.04	0.00
Body	LTE Band41 pc3	41490	2680	1RB-Middle	Rear	10mm	Fig.A24	19.97	20.5	0.161	0.18	0.076	0.09	-0.17
Body	LTE Band41 pc3	41490	2680	1RB-Middle	Left Edge	10mm	\	19.97	20.5	0.027	0.03	0.017	0.02	-0.04
Body	LTE Band41 pc3	41490	2680	1RB-Middle	Right Edge	10mm	\	19.97	20.5	0.037	0.04	0.012	0.01	-0.06
Body	LTE Band41 pc3	41490	2680	1RB-Middle	Bottom Edge	10mm	\	19.97	20.5	0.143	0.16	0.073	0.08	-0.07
Body	LTE Band41 pc3	41490	2680	50RB-Middle	Front	10mm	\	19.94	20.5	0.059	0.07	0.033	0.04	0.06
Body	LTE Band41 pc3	41490	2680	50RB-Middle	Rear	10mm	\	19.94	20.5	0.140	0.16	0.063	0.07	0.14
Body	LTE Band41 pc3	41490	2680	50RB-Middle	Left Edge	10mm	\	19.94	20.5	0.022	0.03	0.018	0.02	-0.13
Body	LTE Band41 pc3	41490	2680	50RB-Middle	Right Edge	10mm	\	19.94	20.5	0.031	0.04	0.020	0.02	0.20
Body	LTE Band41 pc3	41490	2680	50RB-Middle	Bottom Edge	10mm	\	19.94	20.5	0.135	0.15	0.068	0.08	-0.12
Body	LTE Band41 pc3	41490	2680	1RB-Middle	Front	15mm	\	20.33	21	0.040	0.05	0.022	0.03	0.03
Body	LTE Band41 pc3	41490	2680	1RB-Middle	Rear	15mm	Fig.A25	20.33	21	0.069	0.08	0.036	0.04	-0.12
Body	LTE Band41 pc3	41490	2680	50RB-Middle	Front	15mm	\	20.30	21	0.033	0.04	0.019	0.02	0.13
Body	LTE Band41 pc3	41490	2680	50RB-Middle	Rear	15mm	\	20.30	21	0.061	0.07	0.033	0.04	-0.17
Head	LTE Band41 pc2	41490	2680	1RB-Middle	Left Cheek	0mm	Fig.A26	26.44	26.5	0.129	0.13	0.069	0.07	-0.04
Head	LTE Band41 pc2	41490	2680	1RB-Middle	Left Tilt	0mm	\	26.44	26.5	0.068	0.07	0.034	0.03	0.17
Head	LTE Band41 pc2	41490	2680	1RB-Middle	Right Cheek	0mm	\	26.44	26.5	0.118	0.12	0.062	0.06	0.08
Head	LTE Band41 pc2	41490	2680	1RB-Middle	Right Tilt	0mm	\	26.44	26.5	0.103	0.10	0.053	0.05	-0.01
Head	LTE Band41 pc2	41490	2680	50RB-Low	Left Cheek	0mm	\	25.46	25.50	0.096	0.10	0.050	0.05	0.09
Head	LTE Band41 pc2	41490	2680	50RB-Low	Left Tilt	0mm	\	25.46	25.50	0.063	0.06	0.033	0.03	-0.17
Head	LTE Band41 pc2	41490	2680	50RB-Low	Right Cheek	0mm	\	25.46	25.50	0.086	0.09	0.045	0.05	0.06
Head	LTE Band41 pc2	41490	2680	50RB-Low	Right Tilt	0mm	\	25.46	25.50	0.074	0.08	0.038	0.04	-0.14
Body	LTE Band41 pc2	41490	2680	1RB-Middle	Front	10mm	\	23.07	23.5	0.064	0.07	0.034	0.04	-0.14
Body	LTE Band41 pc2	41490	2680	1RB-Middle	Rear	10mm	Fig.A27	23.07	23.5	0.167	0.18	0.078	0.09	0.11
Body	LTE Band41 pc2	41490	2680	1RB-Middle	Left Edge	10mm	\	23.07	23.5	0.028	0.03	0.017	0.02	0.17
Body	LTE Band41 pc2	41490	2680	1RB-Middle	Right Edge	10mm	\	23.07	23.5	0.031	0.03	0.016	0.02	0.12
Body	LTE Band41 pc2	41490	2680	1RB-Middle	Bottom Edge	10mm	\	23.07	23.5	0.158	0.17	0.076	0.08	0.03
Body	LTE Band41 pc2	41490	2680	50RB-Middle	Front	10mm	\	23.03	23.5	0.064	0.07	0.033	0.04	0.15
Body	LTE Band41 pc2	41490	2680	50RB-Middle	Rear	10mm	\	23.03	23.5	0.163	0.18	0.077	0.09	0.14
Body	LTE Band41 pc2	41490	2680	50RB-Middle	Left Edge	10mm	\	23.03	23.5	0.024	0.03	0.016	0.02	-0.11
Body	LTE Band41 pc2	41490	2680	50RB-Middle	Right Edge	10mm	\	23.03	23.5	0.028	0.03	0.015	0.02	-0.13
Body	LTE Band41 pc2	41490	2680	50RB-Middle	Bottom Edge	10mm	\	23.03	23.5	0.160	0.18	0.079	0.09	0.13
Body	LTE Band41 pc2	41490	2680	1RB-Middle	Front	15mm	\	22.96	24	0.053	0.07	0.029	0.04	-0.17
Body	LTE Band41 pc2	41490	2680	1RB-Middle	Rear	15mm	Fig.A28	22.96	24	0.107	0.14	0.057	0.07	-0.06
Body	LTE Band41 pc2	41490	2680	50RB-Middle	Front	15mm	\	22.95	24	0.055	0.07	0.032	0.04	0.13
Body	LTE Band41 pc2	41490	2680	50RB-Middle	Rear	15mm	\	22.95	24	0.098	0.13	0.051	0.06	0.14

RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Mode/RB	Test Position	Distance	Figure No./Note	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
Head	LTE Band66	132322	1745	1RB-Middle	Left Cheek	0mm	\	24.40	24.5	0.066	0.07	0.044	0.05	0.02
Head	LTE Band66	132322	1745	1RB-Middle	Left Tilt	0mm	\	24.40	24.5	0.062	0.06	0.039	0.04	-0.15
Head	LTE Band66	132322	1745	1RB-Middle	Right Cheek	0mm	Fig.A29	24.40	24.5	0.088	0.09	0.056	0.06	-0.18
Head	LTE Band66	132322	1745	1RB-Middle	Right Tilt	0mm	\	24.40	24.5	0.053	0.05	0.035	0.04	0.12
Head	LTE Band66	132322	1745	50RB-Middle	Left Cheek	0mm	\	23.44	23.50	0.062	0.06	0.040	0.04	0.09
Head	LTE Band66	132322	1745	50RB-Middle	Left Tilt	0mm	\	23.44	23.50	0.039	0.04	0.025	0.03	0.06
Head	LTE Band66	132322	1745	50RB-Middle	Right Cheek	0mm	\	23.44	23.50	0.068	0.07	0.043	0.04	-0.05
Head	LTE Band66	132322	1745	50RB-Middle	Right Tilt	0mm	\	23.44	23.50	0.041	0.04	0.027	0.03	0.01
Body	LTE Band66	132322	1745	1RB-Middle	Front	10mm	\	18.17	19.5	0.220	0.30	0.128	0.17	-0.14
Body	LTE Band66	132322	1745	1RB-Middle	Rear	10mm	\	18.17	19.5	0.591	0.80	0.318	0.43	0.03
Body	LTE Band66	132572	1770	1RB-Middle	Rear	10mm	\	18.07	19.5	0.510	0.71	0.277	0.39	-0.09
Body	LTE Band66	132072	1720	1RB-Middle	Rear	10mm	\	18.04	19.5	0.665	0.93	0.360	0.50	0.10
Body	LTE Band66	132322	1745	1RB-Middle	Left Edge	10mm	\	18.17	19.5	0.029	0.04	0.018	0.02	0.11
Body	LTE Band66	132322	1745	1RB-Middle	Right Edge	10mm	\	18.17	19.5	0.022	0.03	0.018	0.02	0.17
Body	LTE Band66	132572	1770	1RB-Middle	Bottom Edge	10mm	\	18.07	19.5	0.630	0.88	0.335	0.47	-0.12
Body	LTE Band66	132322	1745	1RB-Middle	Bottom Edge	10mm	\	18.17	19.5	0.675	0.92	0.367	0.50	0.12
Body	LTE Band66	132072	1720	1RB-Middle	Bottom Edge	10mm	\	18.04	19.5	0.748	1.05	0.400	0.56	0.11
Body	LTE Band66	132322	1745	100RB	Bottom Edge	10mm	\	18.11	19.5	0.688	0.95	0.365	0.50	0.15
Body	LTE Band66	132322	1745	50RB-Middle	Front	10mm	\	18.22	19.5	0.200	0.27	0.113	0.15	-0.02
Body	LTE Band66	132572	1770	50RB-Middle	Rear	10mm	\	18.13	19.5	0.498	0.68	0.273	0.37	-0.07
Body	LTE Band66	132322	1745	50RB-Middle	Rear	10mm	\	18.22	19.5	0.593	0.80	0.314	0.42	0.12
Body	LTE Band66	132072	1720	50RB-Middle	Rear	10mm	\	18.10	19.5	0.659	0.91	0.349	0.48	0.05
Body	LTE Band66	132322	1745	50RB-Middle	Rear	10mm	\	18.11	19.5	0.645	0.89	0.342	0.47	-0.11
Body	LTE Band66	132322	1745	50RB-Middle	Left Edge	10mm	\	18.22	19.5	0.030	0.04	0.017	0.02	-0.08
Body	LTE Band66	132322	1745	50RB-Middle	Right Edge	10mm	\	18.22	19.5	0.025	0.03	0.013	0.02	0.04
Body	LTE Band66	132572	1770	50RB-Middle	Bottom Edge	10mm	\	18.13	19.5	0.605	0.83	0.323	0.44	0.00
Body	LTE Band66	132322	1745	50RB-Middle	Bottom Edge	10mm	\	18.22	19.5	0.695	0.93	0.366	0.49	0.02
Body	LTE Band66	132072	1720	50RB-Middle	Bottom Edge	10mm	Fig.A30	18.10	19.5	0.755	1.04	0.404	0.56	0.09
Body	LTE Band66	132322	1745	100RB	Bottom Edge	10mm	\	18.11	19.5	0.742	1.02	0.398	0.55	-0.16
Body	LTE Band66	132322	1745	1RB-Middle	Front	15mm	\	19.21	20	0.161	0.19	0.098	0.12	-0.14
Body	LTE Band66	132322	1745	1RB-Middle	Rear	15mm	Fig.A31	19.21	20	0.388	0.47	0.220	0.26	0.12
Body	LTE Band66	132322	1745	50RB-Middle	Front	15mm	\	19.20	20	0.159	0.19	0.096	0.12	-0.02
Body	LTE Band66	132322	1745	50RB-Middle	Rear	15mm	\	19.20	20	0.380	0.46	0.218	0.26	0.08
Head	LTE Band71	133222	673	1RB-Low	Left Cheek	0mm	\	22.57	23	0.191	0.21	0.121	0.13	-0.18
Head	LTE Band71	133222	673	1RB-Low	Left Tilt	0mm	\	22.57	23	0.212	0.23	0.120	0.13	0.14
Head	LTE Band71	133222	673	1RB-Low	Right Cheek	0mm	\	22.57	23	0.203	0.22	0.124	0.14	-0.02
Head	LTE Band71	133222	673	1RB-Low	Right Tilt	0mm	\	22.57	23	0.209	0.23	0.121	0.13	-0.13
Head	LTE Band71	133222	673	50RB-High	Left Cheek	0mm	\	22.47	23	0.218	0.25	0.130	0.15	-0.09
Head	LTE Band71	133222	673	50RB-High	Left Tilt	0mm	Fig.A32	22.47	23	0.312	0.35	0.181	0.20	0.11
Head	LTE Band71	133222	673	50RB-High	Right Cheek	0mm	\	22.47	23	0.211	0.24	0.129	0.15	-0.15
Head	LTE Band71	133222	673	50RB-High	Right Tilt	0mm	\	22.47	23	0.200	0.23	0.115	0.13	-0.04
Body	LTE Band71	133222	673	1RB-Middle	Front	10mm	\	24.41	24.5	0.209	0.21	0.160	0.16	0.07
Body	LTE Band71	133222	673	1RB-Middle	Rear	10mm	Fig.A33	24.41	24.5	0.490	0.50	0.375	0.38	-0.11
Body	LTE Band71	133222	673	1RB-Middle	Left Edge	10mm	\	24.41	24.5	0.136	0.14	0.097	0.10	0.16
Body	LTE Band71	133222	673	1RB-Middle	Right Edge	10mm	\	24.41	24.5	0.286	0.29	0.203	0.21	-0.05
Body	LTE Band71	133222	673	1RB-Middle	Bottom Edge	10mm	\	24.41	24.5	0.309	0.32	0.183	0.19	-0.03
Body	LTE Band71	133222	673	50RB-High	Front	10mm	\	23.46	23.50	0.274	0.28	0.211	0.21	-0.03
Body	LTE Band71	133222	673	50RB-High	Rear	10mm	\	23.46	23.50	0.426	0.43	0.323	0.33	0.17
Body	LTE Band71	133222	673	50RB-High	Left Edge	10mm	\	23.46	23.50	0.152	0.15	0.106	0.11	0.14
Body	LTE Band71	133222	673	50RB-High	Right Edge	10mm	\	23.46	23.50	0.215	0.22	0.154	0.16	0.15
Body	LTE Band71	133222	673	50RB-High	Bottom Edge	10mm	\	23.46	23.50	0.000	0.00	0.000	0.00	0.13

14.2 SAR results for Standard procedure

There is zoom scan measurement to be added for the highest measured SAR in each exposure configuration/band.

RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Mode/RB	Test Position	Distance	Figure No./Note	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
Head	GSM850	251	848.8	\	Left Cheek	0mm	Fig.A1	31.82	33.30	0.111	0.16	0.081	0.11	0.16
Body	GSM850	251	848.8	GPRS(4TX)	Rear	10mm	Fig.A2	26.01	27.00	0.139	0.17	0.104	0.13	0.16
Head	GSM1900	512	1850.2	\	Right Cheek	0mm	Fig.A3	29.75	30.00	0.062	0.07	0.039	0.04	-0.08
Body	GSM1900	512	1850.2	GPRS(4TX)	Bottom Edge	10mm	Fig.A4	21.75	22.00	0.792	0.84	0.419	0.44	-0.07
Body	GSM1900	661	1880	GPRS(4TX)	Rear	15mm	Fig.A5	21.52	22.50	0.270	0.34	0.156	0.20	0.01
Head	WCDMA1900	9538	1907.6	RMC	Right Cheek	0mm	Fig.A6	23.59	24.50	0.171	0.21	0.105	0.13	0.07
Body	WCDMA1900	9262	1852.4	RMC	Bottom Edge	10mm	Fig.A7	18.55	19.50	0.735	0.91	0.389	0.48	0.03
Body	WCDMA1900	9262	1852.4	RMC	Rear	15mm	Fig.A8	19.70	20.50	0.363	0.44	0.206	0.25	0.04
Head	WCDMA1700	1513	1752.6	RMC	Right Cheek	0mm	Fig.A9	23.76	24.50	0.101	0.12	0.066	0.08	-0.01
Body	WCDMA1700	1412	1732.5	RMC	Rear	15mm	Fig.A10	18.15	19.00	0.399	0.49	0.228	0.28	0.01
Body	WCDMA1700	1312	1712.4	RMC	Bottom Edge	10mm	Fig.A11	17.11	18.00	0.917	1.13	0.486	0.60	-0.03
Head	WCDMA 850	4183	836.6	RMC	Right Tilt	0mm	Fig.A12	21.91	22.5	0.319	0.37	0.181	0.21	-0.16
Body	WCDMA 850	4183	836.6	RMC	Rear	10mm	Fig.A13	23.14	24.50	0.360	0.49	0.218	0.30	-0.10
Head	LTE Band12	23095	707.5	1RB-Middle	Left Cheek	0mm	Fig.A14	22.66	23.5	0.375	0.46	0.236	0.29	-0.08
Body	LTE Band12	23095	707.5	1RB-Middle	Rear	10mm	Fig.A15	24.48	25	0.462	0.52	0.350	0.39	-0.06
Head	LTE Band13	23230	782	25RB-Middle	Right Cheek	0mm	Fig.A16	22.47	23	0.427	0.48	0.264	0.30	-0.03
Body	LTE Band13	23230	782	1RB-Middle	Right Edge	10mm	Fig.A17	24.33	25	0.413	0.48	0.285	0.33	0.03
Head	LTE Band25	26590	1905	1RB-Middle	Right Cheek	0mm	Fig.A18	24.39	24.5	0.131	0.13	0.083	0.09	0.12
Body	LTE Band25	26365	1882.5	1RB-Middle	Bottom Edge	10mm	Fig.A19	20.34	20.5	0.627	0.65	0.332	0.34	0.02
Body	LTE Band25	26365	1882.5	1RB-Middle	Rear	15mm	Fig.A20	20.38	21.5	0.223	0.29	0.132	0.17	-0.18
Head	LTE Band26	26865	831.5	1RB-Middle	Left Cheek	0mm	Fig.A21	22.52	23	0.396	0.44	0.256	0.29	0.03
Body	LTE Band26	26965	841.5	1RB-Middle	Rear	10mm	Fig.A22	24.27	24.5	0.383	0.40	0.230	0.24	0.18
Head	LTE Band41 pc3	41490	2680	1RB-Middle	Left Cheek	0mm	Fig.A23	23.87	24.5	0.095	0.11	0.051	0.06	0.02
Body	LTE Band41 pc3	41490	2680	1RB-Middle	Rear	10mm	Fig.A24	19.97	20.5	0.161	0.18	0.076	0.09	-0.17
Body	LTE Band41 pc3	41490	2680	1RB-Middle	Rear	15mm	Fig.A25	20.33	21	0.069	0.08	0.036	0.04	-0.12
Head	LTE Band41 pc2	41490	2680	1RB-Middle	Left Cheek	0mm	Fig.A26	26.44	26.5	0.129	0.13	0.069	0.07	-0.04
Body	LTE Band41 pc2	41490	2680	1RB-Middle	Rear	10mm	Fig.A27	23.07	23.5	0.167	0.18	0.078	0.09	0.11
Body	LTE Band41 pc2	41490	2680	1RB-Middle	Rear	15mm	Fig.A28	22.96	24	0.107	0.14	0.057	0.07	-0.06
Head	LTE Band66	132322	1745	1RB-Middle	Right Cheek	0mm	Fig.A29	24.40	24.5	0.088	0.09	0.056	0.06	-0.18
Body	LTE Band66	132072	1720	50RB-Middle	Bottom Edge	10mm	Fig.A30	18.10	19.5	0.755	1.04	0.404	0.56	0.09
Body	LTE Band66	132322	1745	1RB-Middle	Rear	15mm	Fig.A31	19.21	20	0.388	0.47	0.220	0.26	0.12
Head	LTE Band71	133222	673	50RB-High	Left Tilt	0mm	Fig.A32	22.47	23	0.312	0.35	0.181	0.20	0.11
Body	LTE Band71	133222	673	1RB-Middle	Rear	10mm	Fig.A33	24.41	24.5	0.490	0.50	0.375	0.38	-0.11

14.3 WLAN Evaluation for 2.4G

According to the KDB248227 D01, SAR is measured for 2.4GHz 802.11b DSSS using the initial test position procedure.

Head Evaluation WLAN 2.4 GHz（Standalone)

Table 14.3-1: SAR Values (WLAN - Head)– 802.11b (Fast SAR)

Frequency		Side	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g)(W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g)(W/kg)	Power Drift (dB)
MHz	Ch.										
2437	6	Left	Cheek	/	21.37	21.50	0.336	0.35	0.202	0.21	0.01
2437	6	Left	Tilt	/	21.37	21.50	0.396	0.41	0.206	0.21	0.16
2437	6	Right	Cheek	/	21.37	21.50	0.491	0.51	0.264	0.27	0.10
2437	6	Right	Tilt	/	21.37	21.50	0.481	0.50	0.240	0.25	0.12

As shown above table, the initial test position for head is “Right Tilt”. So the head SAR of WLAN is presented as below:

Table 14.3-2: SAR Values (WLAN - Head)– 802.11b (Full SAR)

Frequency		Side	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g)(W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g)(W/kg)	Power Drift (dB)
MHz	Ch.										

2437	6	Right	Tilt	Fig.34	21.37	21.50	0.502	0.52	0.258	0.27	-0.17
Note1: When the reported SAR of the initial test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position using subsequent highest estimated 1-g SAR conditions determined by area scans, on the highest maximum output power channel, until the reported SAR is ≤ 0.8 W/kg. Note2: For all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.											

According to the KDB248227 D01, The reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit. The scaled reported SAR is presented as below.

Table 14.3-3: SAR Values (WLAN - Head) – 802.11b (Scaled Reported SAR)

Frequency		Side	Test Position	Actual duty factor	maximum duty factor	Reported SAR (1g)(W/kg)	Scaled reported SAR (1g)(W/kg)
MHz	Ch.						
2437	6	Right	Tilt	100%	100%	**0.52**	**0.52**

SAR is not required for OFDM because the 802.11b adjusted SAR ≤ 1.2 W/kg.

Body Evaluation WLAN 2.4 GHz（Standalone)

Table 14.3-4: SAR Values (WLAN - Body)– 802.11b (Fast SAR)

Frequency		Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g)(W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g)(W/kg)	Power Drift (dB)
MHz	Ch.									
2437	6	Front	/	21.37	21.50	0.164	0.17	0.085	0.09	-0.04
2437	6	Rear	/	21.37	21.50	0.336	0.35	0.159	0.16	0.18
2437	6	Left	/	21.37	21.50	0.219	0.23	0.098	0.10	-0.01
2437	6	Top Edge	/	21.37	21.50	0.248	0.26	0.116	0.12	0.16

Note1: The distance between the EUT and the phantom bottom is 10mm.

As shown above table, the initial test position for body is "Rear ". So the body SAR of WLAN is presented as below:

Table 14.3-5: SAR Values (WLAN - Body)– 802.11b (Full SAR)

Frequency		Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g)(W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
MHz	Ch.									
2437	6	Rear	Fig.35	21.37	21.50	0.347	0.36	0.162	0.17	-0.07
Note1: When the reported SAR of the initial test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position using subsequent highest estimated 1-g SAR conditions determined by area scans, on the highest maximum output power channel, until the reported SAR is ≤ 0.8 W/kg. Note2: For all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel until the reported SAR is ≤ 1.2 W/kg or all required channels are										

tested.

According to the KDB248227 D01, The reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit. The scaled reported SAR is presented as below.

Table 14.3-6: SAR Values (WLAN - Body) – 802.11b (Scaled Reported SAR)

Frequency		Test Position	Actual duty factor	maximum duty factor	Reported SAR (1g)(W/kg)	Scaled reported SAR (1g)(W/kg)
MHz	Ch.					
2437	6	Rear	100%	100%	0.36	0.36

SAR is not required for OFDM because the 802.11b adjusted SAR ≤ 1.2 W/kg.

Head Evaluation WLAN 2.4 GHz（Simultaneous transmit）

Table 14.3-7: SAR Values (WLAN - Head)– 802.11b (Fast SAR)-

Frequency		Side	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g)(W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g)(W/kg)	Power Drift (dB)
MHz	Ch.										
2437	6	Left	Cheek	/	15.62	16.50	0.062	0.08	0.047	0.06	0.09
2437	6	Left	Tilt	/	15.62	16.50	0.073	0.09	0.048	0.06	-0.16
2437	6	Right	Cheek	/	15.62	16.50	0.091	0.11	0.061	0.08	0.00
2437	6	Right	Tilt	/	15.62	16.50	0.092	0.11	0.059	0.07	0.11

As shown above table, the initial test position for head is “Right Tilt”. So the head SAR of WLAN is presented as below:

Table 14.3-8: SAR Values (WLAN - Head)– 802.11b (Full SAR)

Frequency		Side	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g)(W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g)(W/kg)	Power Drift (dB)
MHz	Ch.										
2437	6	Right	Tilt	Fig.36	15.62	16.50	0.093	0.11	0.060	0.07	0.15

Note1: When the reported SAR of the initial test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position using subsequent highest estimated 1-g SAR conditions determined by area scans, on the highest maximum output power channel, until the reported SAR is ≤ 0.8 W/kg.
Note2: For all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.

According to the KDB248227 D01, The reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit. The scaled reported SAR is presented as below.

Table 14.3-9: SAR Values (WLAN - Head) – 802.11b (Scaled Reported SAR)

Frequency	Side	Test	Actual duty	maximum	Reported SAR	Scaled reported SAR

MHz	Ch.		Position	factor	duty factor	(1g)(W/kg)	(1g)(W/kg)
2437	6	Right	Tilt	100%	100%	**0.11**	**0.11**

SAR is not required for OFDM because the 802.11b adjusted SAR ≤ 1.2 W/kg.

Body Evaluation WLAN 2.4 GHz（Simultaneous transmit）

Table 14.3-10: SAR Values (WLAN - Body)– 802.11b (Fast SAR)

Frequency		Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g)(W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g)(W/kg)	Power Drift (dB)
MHz	Ch.									
2437	6	Front	/	15.62	16.50	0.032	0.04	0.018	0.02	0.12
2437	6	Rear	/	15.62	16.50	0.067	0.08	0.032	0.04	-0.09
2437	6	Left Edge	/	15.62	16.50	0.043	0.05	0.021	0.03	-0.05
2437	6	Top Edge	/	15.62	16.50	0.049	0.06	0.024	0.03	-0.11
2437	6	Front	15mm	15.62	16.50	0.016	0.02	0.011	0.01	-0.17
2437	6	Rear	15mm	15.62	16.50	0.029	0.04	0.016	0.02	0.09
2437	6	Front	0mm	15.62	16.50	0.301	0.37	0.101	0.12	0.09
2437	6	Rear	0mm	15.62	16.50	0.407	0.50	0.175	0.21	0.10

Note1: The distance between the EUT and the phantom bottom is 10mm.

As shown above table, the initial test position for body is "Rear ". So the body SAR of WLAN is presented as below:

Table 14.3-11: SAR Values (WLAN - Body)– 802.11b (Full SAR)

Frequency		Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g)(W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
MHz	Ch.									
2437	6	Rear	Fig.37	15.62	16.50	0.068	0.08	0.034	0.04	0.10

Note1: When the reported SAR of the initial test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position using subsequent highest estimated 1-g SAR conditions determined by area scans, on the highest maximum output power channel, until the reported SAR is ≤ 0.8 W/kg.

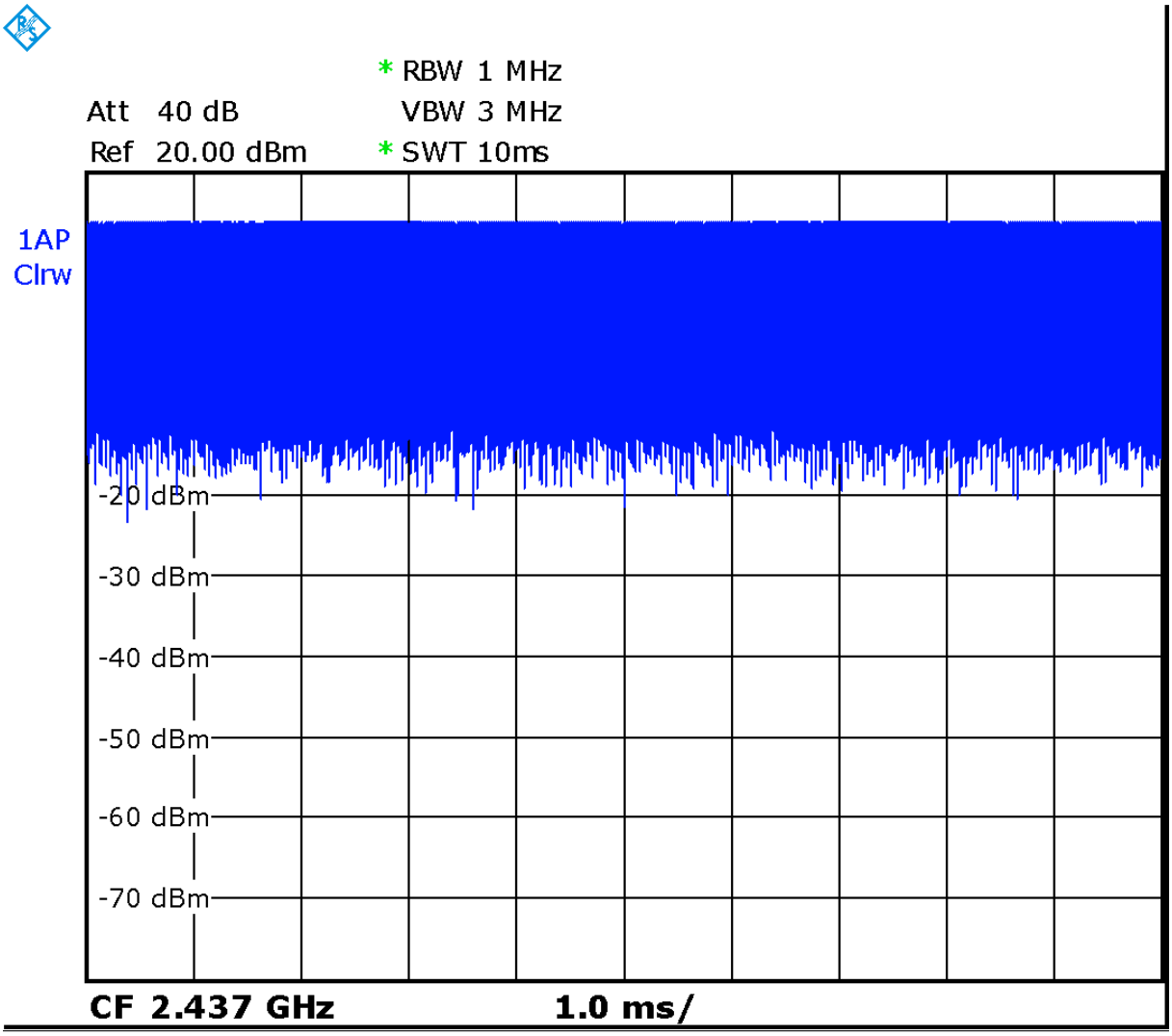
Note2: For all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.

According to the KDB248227 D01, The reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit. The scaled reported SAR is presented as below.

Table 14.3-12: SAR Values (WLAN - Body) – 802.11b (Scaled Reported SAR)

Frequency		Test Position	Actual duty factor	maximum duty factor	Reported SAR (1g)(W/kg)	Scaled reported SAR (1g)(W/kg)
MHz	Ch.					
2437	6	Rear	100%	100%	**0.08**	**0.08**

SAR is not required for OFDM because the 802.11b adjusted SAR ≤ 1.2 W/kg.



Picture 14.1 Duty factor plot for head

14.4 WLAN Evaluation For 5G

Table 14.4-1: OFDM mode specified maximum output power of WLAN antenna

802.11 mode	a	g	n		ac			
Ch. BW(MHz)	20	20	20	40	20	40	80	160
U-NII-1	X		X	X	X	X	X	
U-NII-2A	X		X	X	X	X	X	
U-NII-2C	X		X	X	X	X	X	
U-NII-3	X		X	X	X	X	X	
§ 15.247 (5.8 GHz)								
X: maximum(conducted) output power(mW), including tolerance, specified for production units								

Table 14.4-2: Maximum output power specified of WLAN antenna - Standalone

802.11 mode	a	g	n		ac			
Ch. BW(MHz)	20	20	20	40	20	40	80	160
U-NII-1	79		79	79	79	79	79	
U-NII-2A	79		79	79	79	79	79	
U-NII-2C	79		79	79	79	79	79	
U-NII-3	79		79	79	79	79	79	
§ 15.247 (5.8 GHz)								

- The maximum output power specified for production units is the same for all channels, modulations and data rates in each channel bandwidth configuration of the 802.11a/g/n/ac modes.
- The blue highlighted cells represent highest output configurations in each standalone or aggregated frequency band, with tune-up tolerance included.

Table 14.4-3: Maximum output power specified of WLAN antenna - Simultaneous transmit

802.11 mode	a	g	n		ac			
Ch. BW(MHz)	20	20	20	40	20	40	80	160
U-NII-1	35		35	35	35	35	35	
U-NII-2A	35		35	35	35	35	35	
U-NII-2C	35		35	35	35	35	35	
U-NII-3	35		35	35	35	35	35	
§ 15.247 (5.8 GHz)								

- The maximum output power specified for production units is the same for all channels, modulations and data rates in each channel bandwidth configuration of the 802.11a/g/n/ac modes.
- The blue highlighted cells represent highest output configurations in each standalone or aggregated frequency band, with tune-up tolerance included.

Table 14.4-4: Maximum output power measured of WLAN antenna, for the applicable OFDM configurations according to the default power measurement procedures for selection initial test configurations - Standalone

802.11 mode	a	n		ac		
BW(MHz)	20	20	40	20	40	80
U-NII-1	36/40/44/48 Lower power	36/40/44/48 Lower power	38/46 Lower power	36/40/44/48 Lower power	38/46 Lower power	42 **55**
U-NII-2A	52/56/60/64 Lower power	52/56/60/64 Lower power	54/62 Lower power	52/56/60/64 Lower power	54/62 Lower power	58 **51**

U-NII-2C	100/104/108/112 116/120/124/128 132/136/140/144 Lower power	100/104/108/112 116/132/136/140 Lower power	102/110/134 Lower power	100/104/108/112 116/132/136/140 Lower power	102/110/134 Lower power	106/122/138 **79**/59/52
U-NII-3	149/153/157/161/165 Lower power	149/153/157/161/165 Lower power	151/159 Lower power	149/153/157/161/165 Lower power	151/159 Lower power	155 **77**

- The **bold numbers** is the maximum output measured power (mW).
- Channels with measured maximum power within 0.25dB are considered to have the same measured output.
  Channels selected for initial test configuration are highlighted in yellow.

Table 14.4-5: Maximum output power measured of WLAN antenna, for the applicable OFDM configurations according to the default power measurement procedures for selection initial test configurations Simultaneous transmit

802.11 mode	**a**	**n**		**ac**		
BW(MHz)	**20**	**20**	**40**	**20**	**40**	**80**
U-NII-1	36/40/44/48 Lower power	36/40/44/48 Lower power	38/46 Lower power	36/40/44/48 Lower power	38/46 Lower power	42 **11**
U-NII-2A	52/56/60/64 Lower power	52/56/60/64 Lower power	54/62 Lower power	52/56/60/64 Lower power	54/62 Lower power	58 **13**
U-NII-2C	100/104/108/112 116/120/124/128 132/136/140/144 Lower power	100/104/108/112 116/132/136/140 Lower power	102/110/134 Lower power	100/104/108/112 116/132/136/140 Lower power	102/110/134 Lower power	106/122/138 15/14/**22**
U-NII-3	149/153/157/161/165 Lower power	149/153/157/161/165 Lower power	151/159 Lower power	149/153/157/161/165 Lower power	151/159 Lower power	155 **32**

- The **bold numbers** is the maximum output measured power (mW).
- Channels with measured maximum power within 0.25dB are considered to have the same measured output.
  Channels selected for initial test configuration are highlighted in yellow.

Table 14.4-6: Reported SAR of initial test configuration for Head - Standalone

802.11 mode	a	n		ac		
BW(MHz)	**20**	**20**	**40**	**20**	**40**	**80**
U-NII-1	36/40/44/48	36/40/44/48	38/46	36/40/44/48	38/46	42 UNII-2A exclusion applied
U-NII-2A	52/56/60/64	52/56/60/64	54/62	52/56/60/64	54/62	58 0.29
U-NII-2C	100/104/108/112/116/120/124/128/132/136/140/144	100/104/108/112 116/132/136/140	102/110/118/126/134	100/104/108/112 116/132/136/140	102/110/134	106/122/138 0.10
U-NII-3	149/153/157/161/165	149/153/157/161/165	151/159	149/153/157/161/165	151/159	155 0.18
Highest measured output power channel tested initially are in yellow highlight. The tune up of UNII-1 is less than UNII-2A. SAR is measured for UNII-2A band first. Adjusted SAR of UNII-2A band is ≤ 1.2 W/kg. SAR is not required for UNII-1 band.						

Table 14.4-7: Reported SAR of initial test configuration for Body - Standalone

802.11 mode	a	n		ac		
BW(MHz)	**20**	**20**	**40**	**20**	**40**	**80**
U-NII-1	36/40/44/48	36/40/44/48	38/46	36/40/44/48	38/46	42 UNII-2A exclusion applied
U-NII-2A	52/56/60/64	52/56/60/64	54/62	52/56/60/64	54/62	58 0.64
U-NII-2C	100/104/108/112/116/120/124/128/132/136/140/144	100/104/108/112 116/132/136/140	102/110/118/126/134	100/104/108/112 116/132/136/140	102/110/134	106/122/138 0.23
U-NII-3	149/153/157/161/165	149/153/157/161/165	151/159	149/153/157/161/165	151/159	155 0.45
Highest measured output power channel tested initially are in yellow highlight. The tune up of UNII-1 is less than UNII-2A. SAR is measured for UNII-2A band first. Adjusted SAR of UNII-2A band is ≤ 1.2 W/kg. SAR is not required for UNII-1 band.						

Table 14.4-8: Reported SAR of initial test configuration for Head - Simultaneous transmit

802.11 mode	a	n		ac		
BW(MHz)	**20**	**20**	**40**	**20**	**40**	**80**
U-NII-1	36/40/44/48	36/40/44/48	38/46	36/40/44/48	38/46	42 UNII-2A exclusion applied

U-NII-2A	52/56/60/64	52/56/60/64	54/62	52/56/60/64	54/62	58 0.02
U-NII-2C	100/104/108/112/ 116/120/124/128/ 132/136/140/144	100/104/108/112 116/132/136/140	102/110/118/ 126/134	100/104/108/112 116/132/136/140	102/110 /134	106/122/138 0.01
U-NII-3	149/153/157/161 /165	149/153/157/161 /165	151/159	149/153/157/161 /165	151/159	155 0.02
Highest measured output power channel tested initially are in yellow highlight. The tune up of UNII-1 is less than UNII-2A. SAR is measured for UNII-2A band first. Adjusted SAR of UNII-2A band is ≤ 1.2 W/kg. SAR is not required for UNII-1 band.						

Table 14.4-9: Reported SAR of initial test configuration for Body - Simultaneous transmit

802.11 mode	**a**	**n**		**ac**		
BW(MHz)	**20**	**20**	**40**	**20**	**40**	**80**
U-NII-1	36/40/44/48	36/40/44/48	38/46	36/40/44/48	38/46	42 UNII-2A exclusion applied
U-NII-2A	52/56/60/64	52/56/60/64	54/62	52/56/60/64	54/62	58 0.19
U-NII-2C	100/104/108/112/ 116/120/124/128/ 132/136/140/144	100/104/108/112 116/132/136/140	102/110/118/ 126/134	100/104/108/112 116/132/136/140	102/110 /134	106/122/138 0.12
U-NII-3	149/153/157/161 /165	149/153/157/161 /165	151/159	149/153/157/161 /165	151/159	155 0.16
Highest measured output power channel tested initially are in yellow highlight. The tune up of UNII-1 is less than UNII-2A. SAR is measured for UNII-2A band first. Adjusted SAR of UNII-2A band is ≤ 1.2 W/kg. SAR is not required for UNII-1 band.						

Table 14.4-10: SAR Values (WLAN – Head Simultaneous transmit)

Frequency		Side	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g)(W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
MHz	Ch.										
5290	58	Left	Touch	/	11.15	12.00	0.009	0.01	0.005	0.01	0.10
5290	58	Left	Tilt	/	11.15	12.00	0.009	0.01	0.006	0.01	0.08
5290	58	Right	Touch	/	11.15	12.00	0.017	0.02	0.013	0.02	0.03
5290	58	Right	Tilt	Fig.38	11.15	12.00	0.020	0.02	0.011	0.01	-0.15
5690	138	Left	Touch	/	13.43	15.20	0.005	0.01	0.003	0.01	0.07
5690	138	Left	Tilt	/	13.43	15.20	0.005	0.01	0.003	0.00	-0.07
5690	138	Right	Touch	/	13.43	15.20	0.009	0.01	0.006	0.01	0.10
5690	138	Right	Tilt	/	13.43	15.20	0.009	0.01	0.005	0.01	0.20
5775	155	Left	Touch	/	15.07	15.20	0.006	0.01	0.003	0.00	-0.13

5775	155	Left	Tilt	/	15.07	15.20	0.007	0.01	0.004	0.00	0.15
5775	155	Right	Touch	/	15.07	15.20	0.012	0.01	0.009	0.01	0.06
5775	155	Right	Tilt	/	15.07	15.20	0.017	0.02	0.008	0.01	-0.09

Table 14.4-11: SAR Values (WLAN – Body Simultaneous transmit)

Frequency		Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g)(W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
MHz	Ch.									
5290	58	Front	/	11.15	12.00	0.029	0.04	0.012	0.01	0.14
5290	58	Rear	Fig.40	11.15	12.00	0.155	0.19	0.062	0.08	0.11
5290	58	Right	/	11.15	12.00	0.090	0.11	0.036	0.04	-0.07
5290	58	Top	/	11.15	12.00	0.033	0.04	0.014	0.02	0.04
5290	58	Bottom	/	11.15	12.00	0.024	0.03	0.007	0.01	0.02
5690	138	Front	/	13.43	15.20	0.018	0.03	0.005	0.01	0.04
5690	138	Rear		13.43	15.20	0.082	0.12	0.032	0.05	-0.12
5690	138	Right	/	13.43	15.20	0.043	0.06	0.018	0.03	0.04
5690	138	Top	/	13.43	15.20	0.032	0.05	0.008	0.01	-0.10
5690	138	Bottom	/	13.43	15.20	0.041	0.06	0.010	0.01	-0.05
5775	155	Front	/	15.07	15.20	0.040	0.04	0.017	0.02	0.09
5775	155	Rear	/	15.07	15.20	0.154	0.16	0.064	0.07	-0.18
5775	155	Right	/	15.07	15.20	0.120	0.12	0.050	0.05	-0.07
5775	155	Top	/	15.07	15.20	0.049	0.05	0.018	0.02	-0.13
5775	155	Bottom	/	15.07	15.20	0.020	0.02	0.006	0.01	0.10
5290	58	Bottom	/	11.15	12.00	0.016	0.02	0.009	0.01	0.01
5290	58	Rear	0mm	11.15	12.00	1.500	1.82	0.366	0.45	0.13
5290	58	Front	15mm	11.15	12.00	0.012	0.01	0.009	0.01	0.01
5290	58	Rear	15mm	11.15	12.00	0.012	0.01	0.010	0.01	-0.02

Note1: The distance between the EUT and the phantom bottom is 10mm.

Table 14.4-12: SAR Values (WLAN – Head standalone)

Frequency		Side	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g)(W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
MHz	Ch.										
5290	52	Right	Touch	/	17.39	19	0.088	0.13	0.036	0.05	-0.08
5290	52	Right	Tilt	/	17.39	19	0.093	0.14	0.040	0.06	0.14
5290	52	Left	Touch	/	17.39	19	0.189	0.27	0.083	0.12	-0.09
5290	52	Left	Tilt	Fig.40	17.39	19	0.199	0.29	0.071	0.10	-0.18
5530	106	Right	Touch	/	18.96	19	0.049	0.05	0.023	0.02	-0.19
5530	106	Right	Tilt	/	18.96	19	0.048	0.05	0.017	0.02	0.17
5530	106	Left	Touch	/	18.96	19	0.090	0.09	0.042	0.04	-0.13
5530	106	Left	Tilt	/	18.96	19	0.096	0.10	0.030	0.03	0.03
5775	155	Right	Touch	/	18.86	19	0.063	0.07	0.023	0.02	0.03

5775	155	Right	Tilt	/	18.86	19	0.076	0.08	0.026	0.03	0.18
5775	155	Left	Touch	/	18.86	19	0.123	0.13	0.057	0.06	0.07
5775	155	Left	Tilt	/	18.86	19	0.174	0.18	0.055	0.06	-0.15

Table 14.4-13: SAR Values (WLAN – Body standalone)

Frequency		Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(11g) (W/kg)	Reported SAR(1g)(W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
MHz	Ch.									
5290	52	Front	/	17.39	19	0.082	0.12	0.035	0.05	-0.19
5290	52	Rear	Fig.41	17.39	19	0.439	0.64	0.177	0.26	0.19
5290	52	Right	/	17.39	19	0.256	0.37	0.102	0.15	-0.14
5290	52	Top	/	17.39	19	0.093	0.13	0.040	0.06	0.10
5290	52	Bottom	/	17.39	19	0.023	0.03	0.015	0.02	0.09
5530	106	Front	/	18.96	19	0.052	0.05	0.015	0.02	-0.07
5530	106	Rear	/	18.96	19	0.233	0.23	0.092	0.09	0.14
5530	106	Right	/	18.96	19	0.121	0.12	0.052	0.05	-0.05
5530	106	Top	/	18.96	19	0.092	0.09	0.023	0.02	0.12
5530	106	Bottom	/	18.96	19	0.117	0.12	0.027	0.03	-0.01
5775	155	Front		18.86	19	0.113	0.12	0.049	0.05	0.06
5775	155	Rear	/	18.86	19	0.436	0.45	0.182	0.19	0.09
5775	155	Right	/	18.86	19	0.340	0.35	0.143	0.15	0.14
5775	155	Top	/	18.86	19	0.138	0.14	0.051	0.05	0.12
5775	155	Bottom	/	18.86	19	0.057	0.06	0.016	0.02	0.19

Note1: The distance between the EUT and the phantom bottom is 10mm.

According to the KDB248227 D01, The reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit. The scaled reported SAR is presented as below.

Table 14.4-14: SAR Values (WLAN - Head Simultaneous transmit) - Scaled Reported SAR

Frequency		Side	Test Position	Actual duty factor	maximum duty factor	Reported SAR (1g) (W/kg)	Scaled reported SAR (1g) (W/kg)
MHz	Ch.						
5290	58	Left	Tilt	100%	100%	**0.02**	**0.02**

Table 14.4-15: SAR Values (WLAN – Body Simultaneous transmit) – Scaled Reported SAR

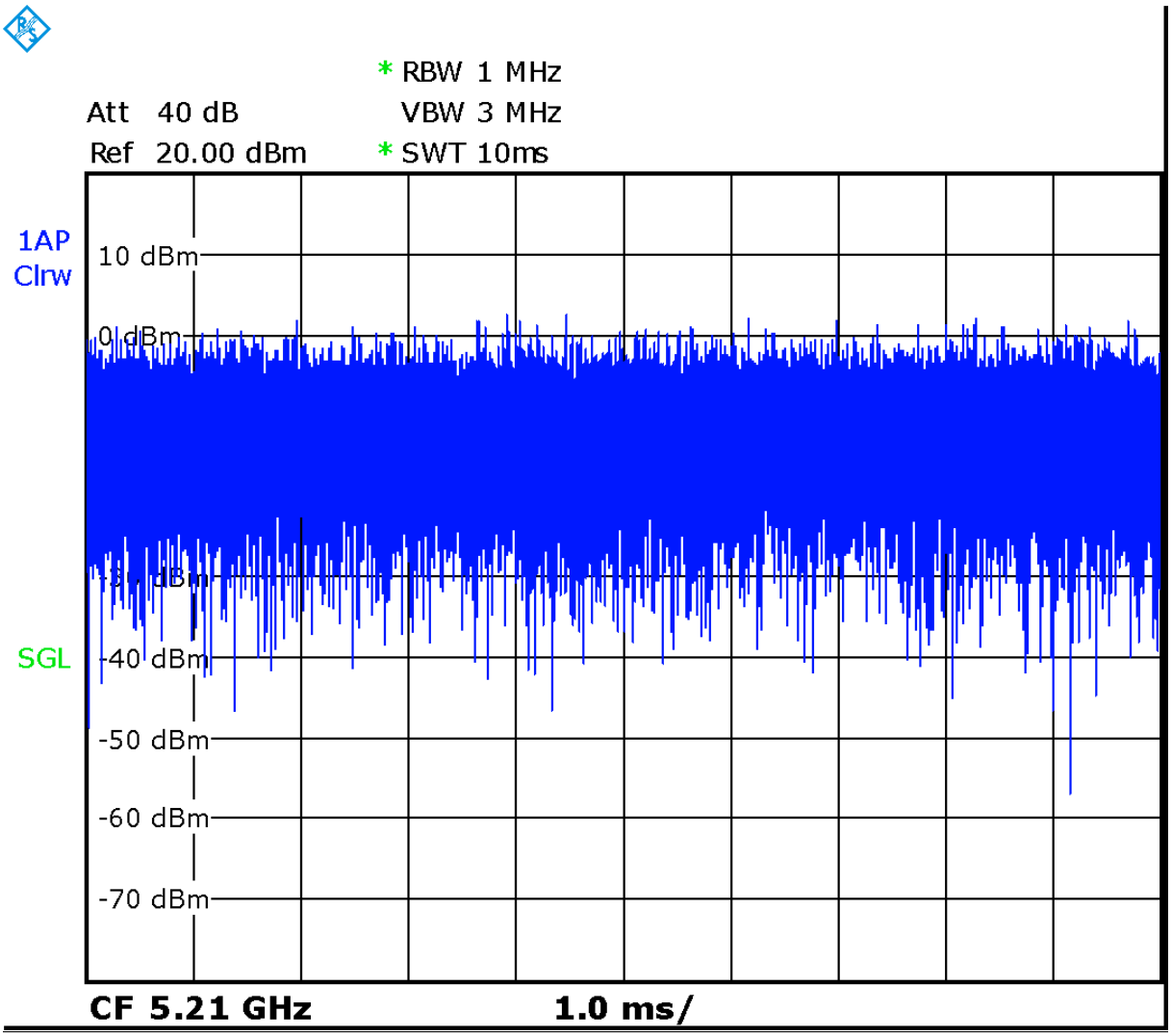
Frequency		Test Position	D (mm)	Actual duty factor	maximum duty factor	Reported SAR (1g) (W/kg)	Scaled reported SAR (1g) (W/kg)
MHz	Ch.						
5290	58	Rear	10	100%	100%	**0.19**	**0.19**

Table 14.4-16: SAR Values (WLAN - Head standalone) - Scaled Reported SAR

Frequency		Side	Test Position	Actual duty factor	maximum duty factor	Reported SAR (1g) (W/kg)	Scaled reported SAR (1g) (W/kg)
MHz	Ch.						
5290	58	Left	Tilt	100%	100%	**0.29**	**0.29**

Table 14.4-17: SAR Values (WLAN – Body standalone) – Scaled Reported SAR

Frequency		Test Position	D (mm)	Actual duty factor	maximum duty factor	Reported SAR (1g) (W/kg)	Scaled reported SAR (1g) (W/kg)
MHz	Ch.						
5290	58	Rear	10	100%	100%	**0.64**	**0.64**



Picture 14.3 The plot of duty factor

14.5 SAR Evaluation for Phablet

According to the KDB648474 D04, for smart phones, with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm, that can provide similar mobile web access and multimedia support found in mini-tablets or UMPC mini-tablets and support voice calls next to the ear, unless it is confirmed otherwise through KDB inquiries, the following phablet procedures should be applied to evaluate SAR compliance for each applicable wireless modes and frequency band. Devices marketed as phablets, regardless of form factors and operating characteristics must be tested as a phablet to determine SAR compliance.

1. The normally required head and body-worn accessory SAR test procedures for handsets, including hotspot mode, must be applied.
2. The UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna located at ≤ 25 mm from that surface or edge, in direct contact with a flat phantom, for 10-g extremity SAR according to the body-equivalent tissue dielectric parameters in KDB Publication 865664 D01 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. The normal tablet procedures in KDB Publication 616217 are required when the overall diagonal dimension of the device is > 20.0 cm. Hotspot mode SAR is not required when normal tablet procedures are applied. Extremity 10-g SAR is also not required for the front (top) surface of larger form factor full size tablets. The more conservative normal tablet SAR results can be used to support phablet mode 10-g extremity SAR.
3. The simultaneous transmission operating configurations applicable to voice and data transmissions for both phone and mini-tablet modes must be taken into consideration separately for 1-g and 10-g SAR to determine the simultaneous transmission SAR test exclusion and measurement requirements for the relevant wireless modes and exposure conditions

For the device of this project, the overall diagonal dimension is 179.84 cm (> 16.0 cm), so this device is a phone as “phablet”.

Table 14.4-1: 10g extremity SAR determination

Frequency			Position	Conducted Power (dBm)	Hotspot off tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Adjusted SAR(1g)(W/kg)
Band	Ch.	MHz					
WCDMA1700	1312	1712.4	Rear	17.11	19.00	0.809	1.25
WCDMA1700	1513	1752.6	Bottom Edge	17.22	19.00	0.809	1.22
WCDMA1700	1412	1732.5	Bottom Edge	17.17	19.00	0.871	1.33
WCDMA1700	1312	1712.4	Bottom Edge	17.11	19.00	0.917	1.42

According to the above table, the 10g extremity SAR is required for the WCDMA1700.

Table 14.4-2: SAR Values for 10g extremity SAR

Frequency			Mode/ Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)	Limited (W/kg)
Band	Ch.	MHz							
WCDMA1700	1513	1752.6	Bottom Edge	18.18	19.00	1.400	1.69	0.00	4.0
WCDMA1700	1412	1732.5	Bottom Edge	18.15	19.00	1.460	1.78	-0.10	4.0
WCDMA1700	1312	1712.4	Bottom Edge	18.07	19.00	1.580	1.96	0.20	4.0
WCDMA1700	1312	1712.4	Rear	18.07	19.00	1.320	1.64	-0.04	4.0

Note1: The distance between the EUT and the phantom bottom is 0mm.

15 SAR Measurement Variability

SAR measurement variability must be assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media are required for SAR measurements in a frequency band, the variability measurement procedures should be applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium.

The following procedures are applied to determine if repeated measurements are required.

1) Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg; steps2) through 4) do not apply.

2) When the original highest measured SAR is ≥ 0.80 W/kg, 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 ≥ 1.45W/kg (~ 10% from the 1-g SAR limit).

4) Perform a third repeated measurement only if the original, first or second repeated measurement is ≥1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.

Table 15.1: SAR Measurement Variability for Head W1700 (1g)

Frequency		Test Position	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
Ch.	MHz					
1412	1732.5	Rear	0.809	0.801	1.01	/
1513	1752.6	Bottom Edge	0.809	0.804	1.01	/
1412	1732.5	Bottom Edge	0.871	0.865	1.01	/
1312	1712.4	Bottom Edge	0.917	0.911	1.01	/

16 Measurement Uncertainty

16.1 Measurement Uncertainty for Normal SAR Tests (300MHz~3GHz)

No.	Error Description	Type	Uncertainty value	Probably Distribution	Div.	(Ci) 1g	(Ci) 10g	Std. Unc. (1g)	Std. Unc. (10g)	Degree of freedom
Measurement system										
1	Probe calibration	B	6.0	N	1	1	1	6.0	6.0	∞
2	Isotropy	B	4.7	R	$\sqrt{3}$	0.7	0.7	1.9	1.9	∞
3	Boundary effect	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
4	Linearity	B	4.7	R	$\sqrt{3}$	1	1	2.7	2.7	∞
5	Detection limit	B	1.0	N	1	1	1	0.6	0.6	∞
6	Readout electronics	B	0.3	R	$\sqrt{3}$	1	1	0.3	0.3	∞
7	Response time	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
8	Integration time	B	2.6	R	$\sqrt{3}$	1	1	1.5	1.5	∞
9	RF ambient conditions-noise	B	0	R	$\sqrt{3}$	1	1	0	0	∞
10	RFambient conditions-reflection	B	0	R	$\sqrt{3}$	1	1	0	0	∞
11	Probe positioned mech. restrictions	B	0.4	R	$\sqrt{3}$	1	1	0.2	0.2	∞
12	Probe positioning with respect to phantom shell	B	2.9	R	$\sqrt{3}$	1	1	1.7	1.7	∞
13	Post-processing	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
Test sample related										
14	Test sample positioning	A	3.3	N	1	1	1	3.3	3.3	71
15	Device holder uncertainty	A	3.4	N	1	1	1	3.4	3.4	5
16	Drift of output power	B	5.0	R	$\sqrt{3}$	1	1	2.9	2.9	∞
Phantom and set-up										
17	Phantom uncertainty	B	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞
18	Liquid conductivity (target)	B	5.0	R	$\sqrt{3}$	0.64	0.43	1.8	1.2	∞
19	Liquid conductivity (meas.)	A	2.06	N	1	0.64	0.43	1.32	0.89	43
20	Liquid permittivity (target)	B	5.0	R	$\sqrt{3}$	0.6	0.49	1.7	1.4	∞
21	Liquid permittivity (meas.)	A	1.6	N	1	0.6	0.49	1.0	0.8	521

Combined standard uncertainty	$u_c' = \sqrt{\sum_{i=1}^{21} c_i^2 u_i^2}$					9.55	9.43	257
Expanded uncertainty (confidence interval of 95 %)	$u_e = 2u_c$					19.1	18.9	

16.2 Measurement Uncertainty for Normal SAR Tests (3~6GHz)

No.	Error Description	Type	Uncertainty value	Probably Distribution	Div.	(Ci) 1g	(Ci) 10g	Std. Unc. (1g)	Std. Unc. (10g)	Degree of freedom
Measurement system										
1	Probe calibration	B	6.55	N	1	1	1	6.55	6.55	∞
2	Isotropy	B	4.7	R	$\sqrt{3}$	0.7	0.7	1.9	1.9	∞
3	Boundary effect	B	2.0	R	$\sqrt{3}$	1	1	1.2	1.2	∞
4	Linearity	B	4.7	R	$\sqrt{3}$	1	1	2.7	2.7	∞
5	Detection limit	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
6	Readout electronics	B	0.3	R	$\sqrt{3}$	1	1	0.3	0.3	∞
7	Response time	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
8	Integration time	B	2.6	R	$\sqrt{3}$	1	1	1.5	1.5	∞
9	RF ambient conditions-noise	B	0	R	$\sqrt{3}$	1	1	0	0	∞
10	RFambient conditions-reflection	B	0	R	$\sqrt{3}$	1	1	0	0	∞
11	Probe positioned mech. restrictions	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
12	Probe positioning with respect to phantom shell	B	6.7	R	$\sqrt{3}$	1	1	3.9	3.9	∞
13	Post-processing	B	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞
Test sample related										
14	Test sample positioning	A	3.3	N	1	1	1	3.3	3.3	71
15	Device holder uncertainty	A	3.4	N	1	1	1	3.4	3.4	5
16	Drift of output power	B	5.0	R	$\sqrt{3}$	1	1	2.9	2.9	∞
Phantom and set-up										
17	Phantom uncertainty	B	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞
18	Liquid conductivity (target)	B	5.0	R	$\sqrt{3}$	0.64	0.43	1.8	1.2	∞
19	Liquid conductivity (meas.)	A	2.06	N	1	0.64	0.43	1.32	0.89	43
20	Liquid permittivity	B	5.0	R	$\sqrt{3}$	0.6	0.49	1.7	1.4	∞

	(target)									
21	Liquid permittivity (meas.)	A	1.6	N	1	0.6	0.49	1.0	0.8	521
Combined standard uncertainty		$u_c' = \sqrt{\sum_{i=1}^{21} c_i^2 u_i^2}$						10.7	10.6	257
Expanded uncertainty (confidence interval of 95 %)		$u_e = 2u_c$						21.4	21.1	

16.3 Measurement Uncertainty for Fast SAR Tests (300MHz~3GHz)

No.	Error Description	Type	Uncertainty value	Probably Distribution	Div.	(Ci) 1g	(Ci) 10g	Std. Unc. (1g)	Std. Unc. (10g)	Degree of freedom
Measurement system										
1	Probe calibration	B	6.0	N	1	1	1	6.0	6.0	∞
2	Isotropy	B	4.7	R	$\sqrt{3}$	0.7	0.7	1.9	1.9	∞
3	Boundary effect	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
4	Linearity	B	4.7	R	$\sqrt{3}$	1	1	2.7	2.7	∞
5	Detection limit	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
6	Readout electronics	B	0.3	R	$\sqrt{3}$	1	1	0.3	0.3	∞
7	Response time	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
8	Integration time	B	2.6	R	$\sqrt{3}$	1	1	1.5	1.5	∞
9	RF ambient conditions-noise	B	0	R	$\sqrt{3}$	1	1	0	0	∞
10	RFambient conditions-reflection	B	0	R	$\sqrt{3}$	1	1	0	0	∞
11	Probe positioned mech. Restrictions	B	0.4	R	$\sqrt{3}$	1	1	0.2	0.2	∞
12	Probe positioning with respect to phantom shell	B	2.9	R	$\sqrt{3}$	1	1	1.7	1.7	∞
13	Post-processing	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
14	Fast SAR z-Approximation	B	7.0	R	$\sqrt{3}$	1	1	4.0	4.0	∞
Test sample related										
15	Test sample positioning	A	3.3	N	1	1	1	3.3	3.3	71
16	Device holder uncertainty	A	3.4	N	1	1	1	3.4	3.4	5
17	Drift of output power	B	5.0	R	$\sqrt{3}$	1	1	2.9	2.9	∞
Phantom and set-up										
18	Phantom uncertainty	B	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞

19	Liquid conductivity (target)	B	5.0	R	$\sqrt{3}$	0.64	0.43	1.8	1.2	∞
20	Liquid conductivity (meas.)	A	2.06	N	1	0.64	0.43	1.32	0.89	43
21	Liquid permittivity (target)	B	5.0	R	$\sqrt{3}$	0.6	0.49	1.7	1.4	∞
22	Liquid permittivity (meas.)	A	1.6	N	1	0.6	0.49	1.0	0.8	521
Combined standard uncertainty		$u_c' = \sqrt{\sum_{i=1}^{22} c_i^2 u_i^2}$						10.4	10.3	257
Expanded uncertainty (confidence interval of 95 %)		$u_e = 2u_c$						20.8	20.6	

16.4 Measurement Uncertainty for Fast SAR Tests (3~6GHz)

No.	Error Description	Type	Uncertainty value	Probably Distribution	Div.	(Ci) 1g	(Ci) 10g	Std. Unc. (1g)	Std. Unc. (10g)	Degree of freedom
Measurement system										
1	Probe calibration	B	6.55	N	1	1	1	6.55	6.55	∞
2	Isotropy	B	4.7	R	$\sqrt{3}$	0.7	0.7	1.9	1.9	∞
3	Boundary effect	B	2.0	R	$\sqrt{3}$	1	1	1.2	1.2	∞
4	Linearity	B	4.7	R	$\sqrt{3}$	1	1	2.7	2.7	∞
5	Detection limit	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
6	Readout electronics	B	0.3	R	$\sqrt{3}$	1	1	0.3	0.3	∞
7	Response time	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
8	Integration time	B	2.6	R	$\sqrt{3}$	1	1	1.5	1.5	∞
9	RF ambient conditions-noise	B	0	R	$\sqrt{3}$	1	1	0	0	∞
10	RFambient conditions-reflection	B	0	R	$\sqrt{3}$	1	1	0	0	∞
11	Probe positioned mech. Restrictions	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
12	Probe positioning with respect to phantom shell	B	6.7	R	$\sqrt{3}$	1	1	3.9	3.9	∞
13	Post-processing	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
14	Fast SAR z-Approximation	B	14.0	R	$\sqrt{3}$	1	1	8.1	8.1	∞
Test sample related										
15	Test sample positioning	A	3.3	N	1	1	1	3.3	3.3	71

16	Device holder uncertainty	A	3.4	N	1	1	1	3.4	3.4	5
17	Drift of output power	B	5.0	R	$\sqrt{3}$	1	1	2.9	2.9	∞
Phantom and set-up										
18	Phantom uncertainty	B	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞
19	Liquid conductivity (target)	B	5.0	R	$\sqrt{3}$	0.64	0.43	1.8	1.2	∞
20	Liquid conductivity (meas.)	A	2.06	N	1	0.64	0.43	1.32	0.89	43
21	Liquid permittivity (target)	B	5.0	R	$\sqrt{3}$	0.6	0.49	1.7	1.4	∞
22	Liquid permittivity (meas.)	A	1.6	N	1	0.6	0.49	1.0	0.8	521
Combined standard uncertainty		$u_c' = \sqrt{\sum_{i=1}^{22} c_i^2 u_i^2}$						13.5	13.4	257
Expanded uncertainty (confidence interval of 95 %)		$u_e = 2u_c$						27.0	26.8	

17 MAIN TEST INSTRUMENTS

Table 17.1: List of Main Instruments

No.	Name	Type	Serial Number	Calibration Date	Valid Period
01	Network analyzer	E5071C	MY46110673	January 14, 2021	One year
02	Power meter	NRP2	106277	September 23，2021	One year
03	Power sensor	NRP8S	104291		
04	Signal Generator	E4438C	MY49071430	February 1, 2021	One Year
05	Amplifier	60S1G4	0331848	No Calibration Requested	
06	BTS	CMW500	159890	January 25 2021	One year
07	BTS	CMW500	159889	January 13 2021	One year
08	E-field Probe	SPEAG EX3DV4	7517	February 03，2021	One year
09	DAE	SPEAG DAE4	1525	September 1, 2021	One year
10	Dipole Validation Kit	SPEAG D750V3	1017	July 12,2021	One year
11	Dipole Validation Kit	SPEAG D835V2	4d069	July 12,,2021	One year
12	Dipole Validation Kit	SPEAG D1750V2	1003	July 12,,2021	One year
13	Dipole Validation Kit	SPEAG D1900V2	5d101	July 15,2021	One year
14	Dipole Validation Kit	SPEAG D2450V2	853	July 26,2021	One year
15	Dipole Validation Kit	SPEAG D2600V2	1012	July 26,2021	One year
16	Dipole Validation Kit	SPEAG D5GHzV2	1060	June 22,2021	One year

END OF REPORT BODY

ANNEX A Graph Results

GSM850_CH251 Left Cheek
Date: 12/16/2021
Electronics: DAE4 Sn1525
Medium: head 835 MHz
Medium parameters used: f = 848.8 MHz; σ = 0.922 mho/m; εr = 42.15; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: GSM850 848.8 MHz Duty Cycle: 1:8.3
Probe: EX3DV4 – SN7517 ConvF(9.40,9.40,9.40)

Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.131 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.104 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 0.147 W/kg
SAR(1 g) = 0.111 W/kg; SAR(10 g) = 0.081 W/kg
Maximum value of SAR (measured) = 0.135 W/kg

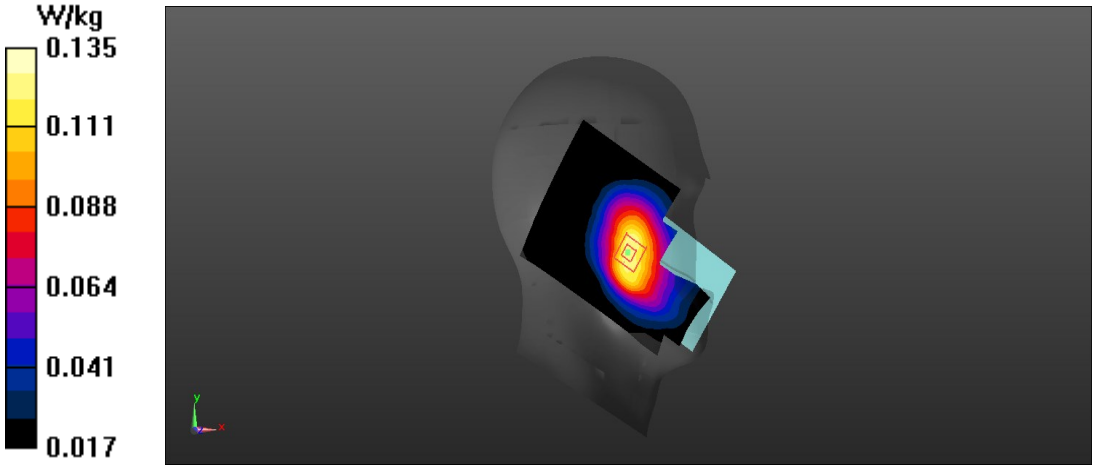


Fig A.1

GSM850_CH251 Rear GPRS 4TX 10mm
Date: 12/16/2021
Electronics: DAE4 Sn1525
Medium: head 835 MHz
Medium parameters used: f = 848.8 MHz; σ = 0.911 mho/m; εr = 41.12; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: GSM850 848.8 MHz Duty Cycle: 1:2
Probe: EX3DV4 – SN7517 ConvF(9.40,9.40,9.40)

Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.169 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.99 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 0.187 W/kg
SAR(1 g) = 0.139 W/kg; SAR(10 g) = 0.104 W/kg
Maximum value of SAR (measured) = 0.170 W/kg

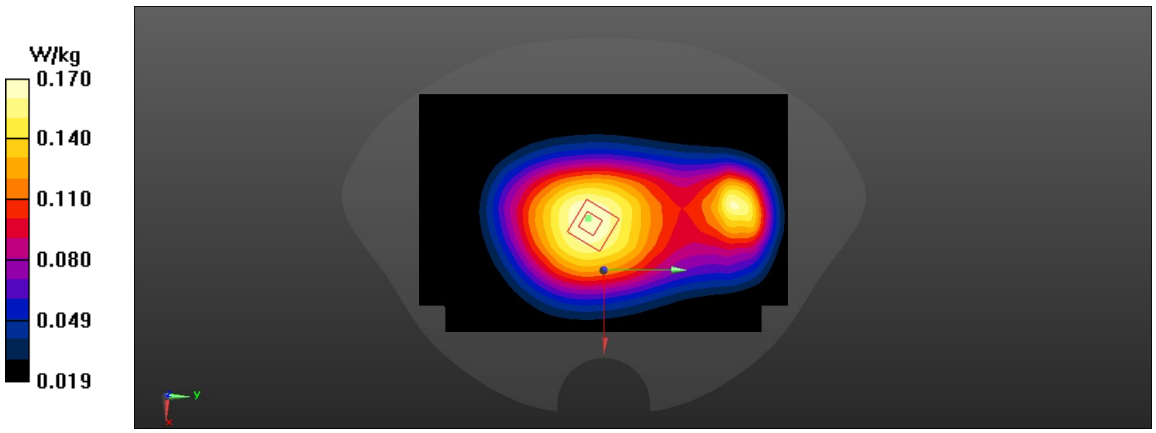


Fig A.2

PCS1900_CH512 Right Cheek
Date: 12/20/2021
Electronics: DAE4 Sn1525
Medium: head 1900 MHz
Medium parameters used: f = 1850.2 MHz; σ = 1.348 mho/m; εr = 40.48; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: PCS1900 1850.2 MHz Duty Cycle: 1:8.3
Probe: EX3DV4 – SN7517 ConvF(7.81,7.81,7.81)

Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.0867 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 1.372 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 0.096 W/kg
SAR(1 g) = 0.062 W/kg; SAR(10 g) = 0.039 W/kg
Maximum value of SAR (measured) = 0.0656W/kg

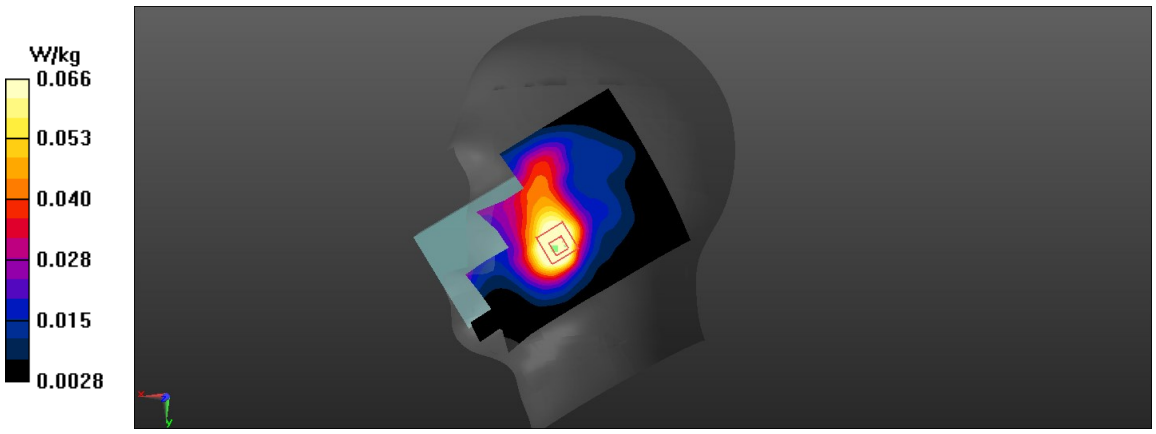


Fig A.3

PCS1900_CH512 Bottom Edge GPRS 4TX 10mm
Date: 12/20/2021
Electronics: DAE4 Sn1525
Medium: head 1900 MHz
Medium parameters used: f = 1850.2 MHz; σ = 1.356 mho/m; εr = 40.19; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: PCS1900 1850.2 MHz Duty Cycle: 1:2
Probe: EX3DV4 – SN7517 ConvF(7.81,7.81,7.81)

Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.26 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 23.58 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 1.49 W/kg
SAR(1 g) = 0.792 W/kg; SAR(10 g) = 0.419 W/kg
Maximum value of SAR (measured) = 1.23 W/kg

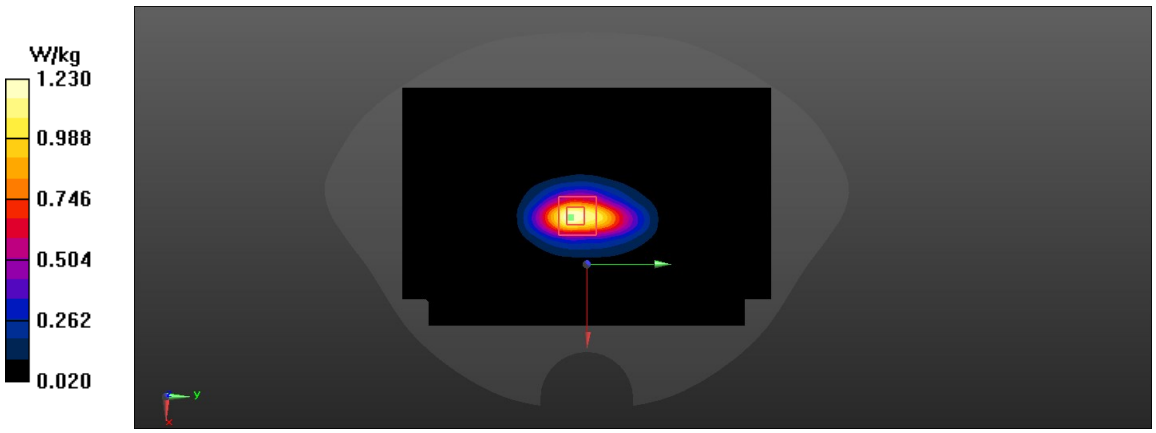


Fig A.4

PCS1900_CH661 Rear GPRS 4TX 15mm
Date: 12/20/2021
Electronics: DAE4 Sn1525
Medium: head 1900 MHz
Medium parameters used: f = 1880 MHz; σ = 1.385 mho/m; εr = 40.15; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: PCS1900 1880 MHz Duty Cycle: 1:2
Probe: EX3DV4 – SN7517 ConvF(7.81,7.81,7.81)

Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.395 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.858 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.462 W/kg
SAR(1 g) = 0.27 W/kg; SAR(10 g) = 0.156 W/kg
Maximum value of SAR (measured) = 0.389 W/kg

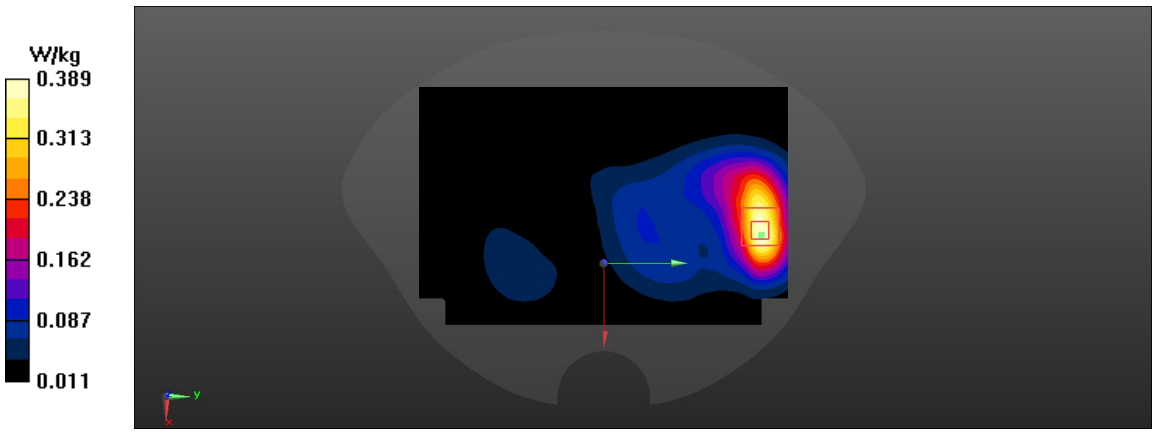


Fig A.5

WCDMA1900-BII_CH9538 Right Cheek
Date: 12/22/2021
Electronics: DAE4 Sn1525
Medium: head 1900 MHz
Medium parameters used: f = 1907.6 MHz; σ = 1.403 mho/m; εr = 40.41; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: WCDMA1900-BII 1907.6 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7517 ConvF(7.81,7.81,7.81)

Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.243 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.445 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.264 W/kg
SAR(1 g) = 0.171 W/kg; SAR(10 g) = 0.105 W/kg
Maximum value of SAR (measured) = 0.177 W/kg

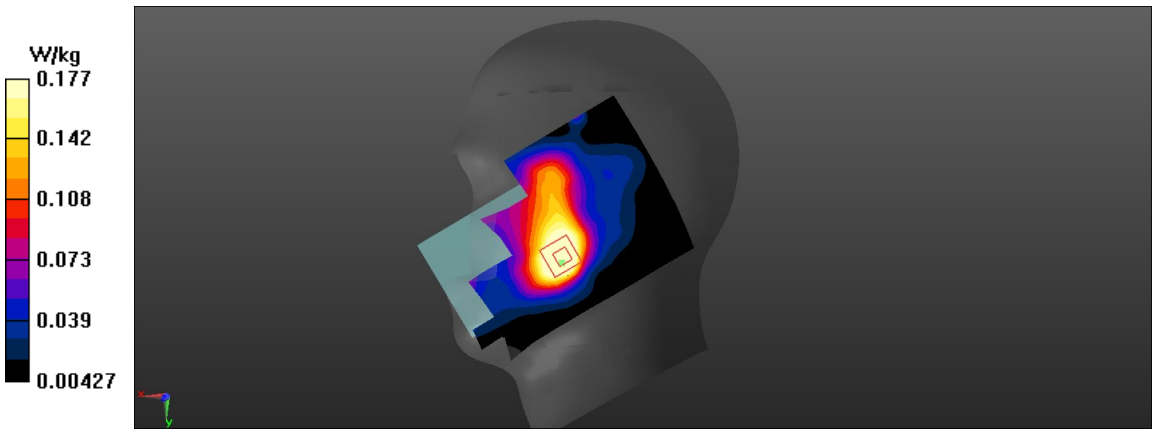


Fig A.6

WCDMA1900-BII_CH9262 Bottom Edge 10mm
Date: 12/22/2021
Electronics: DAE4 Sn1525
Medium: head 1900 MHz
Medium parameters used: f = 1852.4 MHz; σ = 1.358 mho/m; εr = 40.19; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: WCDMA1900-BII 1852.4 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7517 ConvF(7.81,7.81,7.81)

Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.16 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 23.49 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 1.34 W/kg
SAR(1 g) = 0.735 W/kg; SAR(10 g) = 0.389 W/kg
Maximum value of SAR (measured) = 1.12W/kg

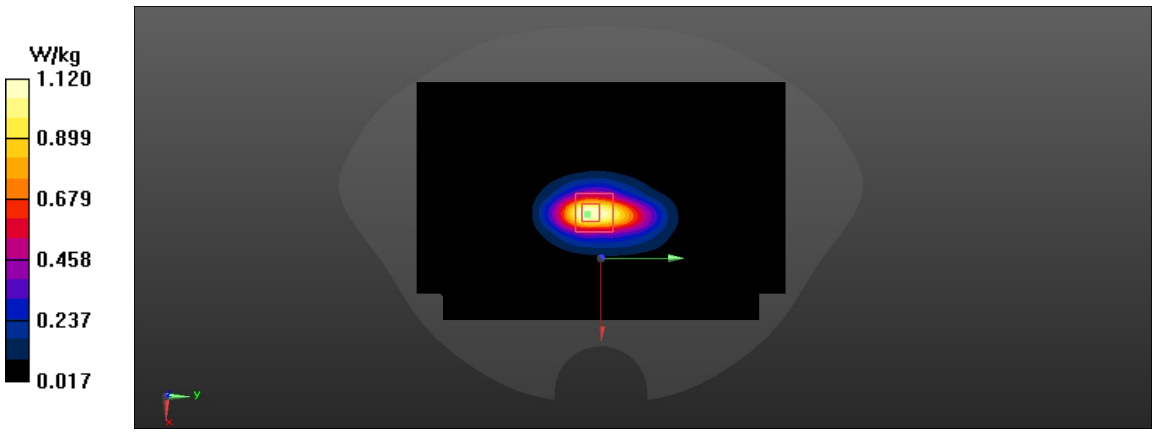


Fig A.7

WCDMA1900-BII_CH9262 Rear 15mm
Date: 12/22/2021
Electronics: DAE4 Sn1525
Medium: head 1900 MHz
Medium parameters used: f = 1852.4 MHz; σ = 1.358 mho/m; εr = 40.19; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: WCDMA1900-BII 1852.4 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7517 ConvF(7.81,7.81,7.81)

Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.52 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.87 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.622 W/kg
SAR(1 g) = 0.363 W/kg; SAR(10 g) = 0.206 W/kg
Maximum value of SAR (measured) = 0.519 W/kg

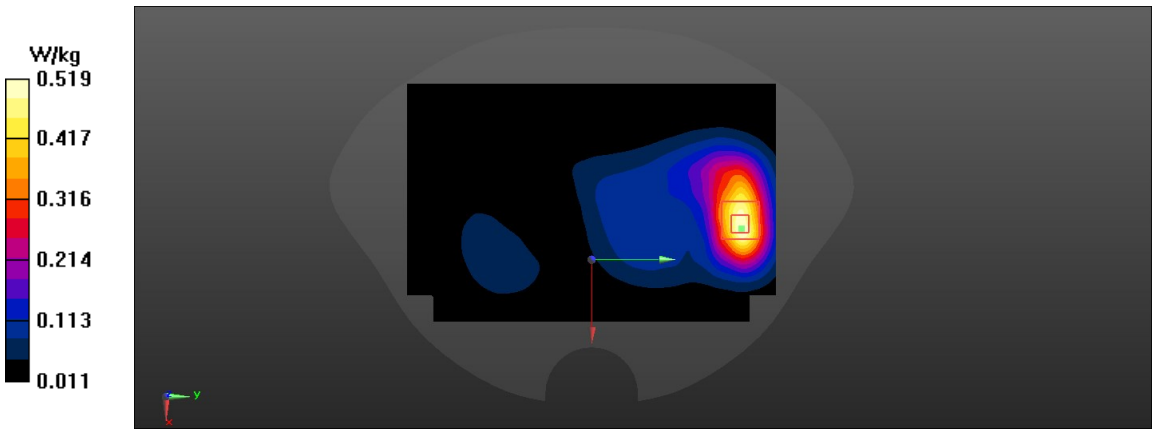


Fig A.8

WCDMA1700-BIV_CH1513 Right Cheek
Date: 12/18/2021
Electronics: DAE4 Sn1525
Medium: head 1750 MHz
Medium parameters used: f = 1752.6 MHz; σ = 1.379 mho/m; εr = 40.23; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: WCDMA1700-BIV 1752.6 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7517 ConvF(8.22,8.22,8.22)

Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.139 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.754 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.148 W/kg
SAR(1 g) = 0.101 W/kg; SAR(10 g) = 0.066 W/kg
Maximum value of SAR (measured) = 0.107 W/kg

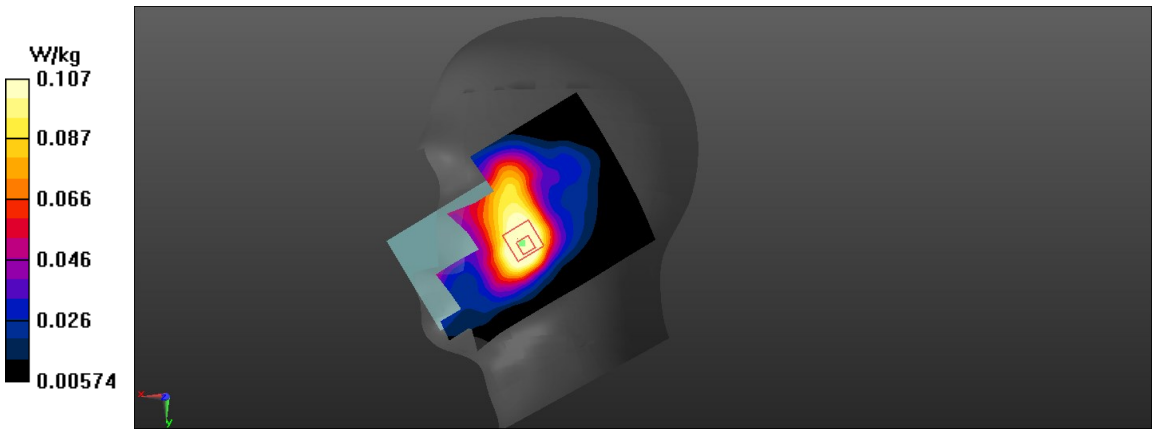


Fig A.9

WCDMA1700-BIV_CH1412 Rear 15mm
Date: 12/18/2021
Electronics: DAE4 Sn1525
Medium: head 1750 MHz
Medium parameters used: f = 1732.5 MHz; σ = 1.354 mho/m; εr = 39.83; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: WCDMA1700-BIV 1732.5 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7517 ConvF(8.22,8.22,8.22)

Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.588 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.982 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.67 W/kg
SAR(1 g) = 0.399 W/kg; SAR(10 g) = 0.228 W/kg
Maximum value of SAR (measured) = 0.575 W/kg

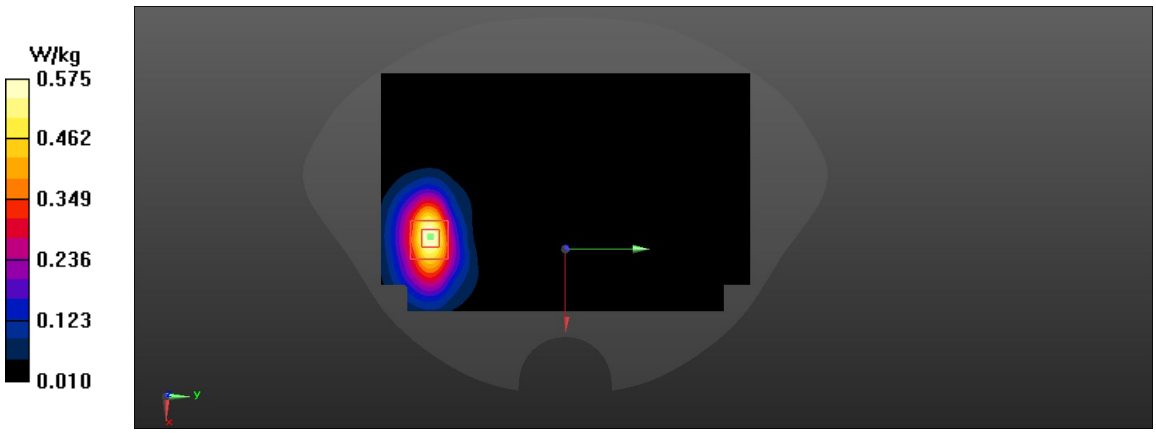


Fig A.10

WCDMA1700-BIV_CH1312 Bottom Edge 10mm
Date: 12/18/2021
Electronics: DAE4 Sn1525
Medium: head 1750 MHz
Medium parameters used: f = 1712.4 MHz; σ = 1.335 mho/m; εr = 39.86; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: WCDMA1700-BIV 1712.4 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7517 ConvF(8.22,8.22,8.22)

Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.49 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 25.99 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 1.68 W/kg
SAR(1 g) = 0.917 W/kg; SAR(10 g) = 0.486 W/kg
Maximum value of SAR (measured) = 1.37 W/kg

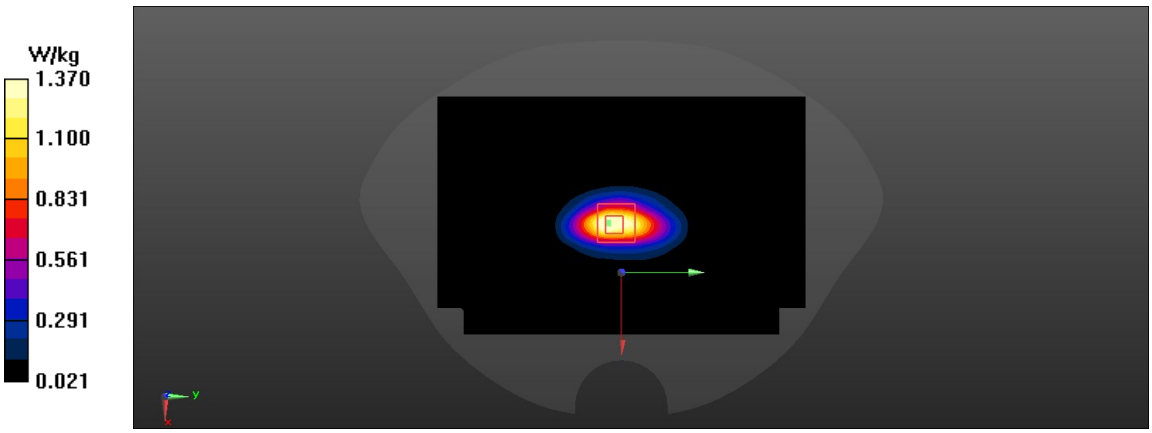


Fig A.11

WCDMA850-BV_CH4183 Right Tilt
Date: 12/17/2021
Electronics: DAE4 Sn1525
Medium: head 835 MHz
Medium parameters used: f = 836.6 MHz; σ = 0.911 mho/m; εr = 42.17; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: WCDMA850-BV 836.6 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7517 ConvF(9.40,9.40,9.40)

Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.535 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.03 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 0.603 W/kg
SAR(1 g) = 0.319 W/kg; SAR(10 g) = 0.181 W/kg
Maximum value of SAR (measured) = 0.333W/kg

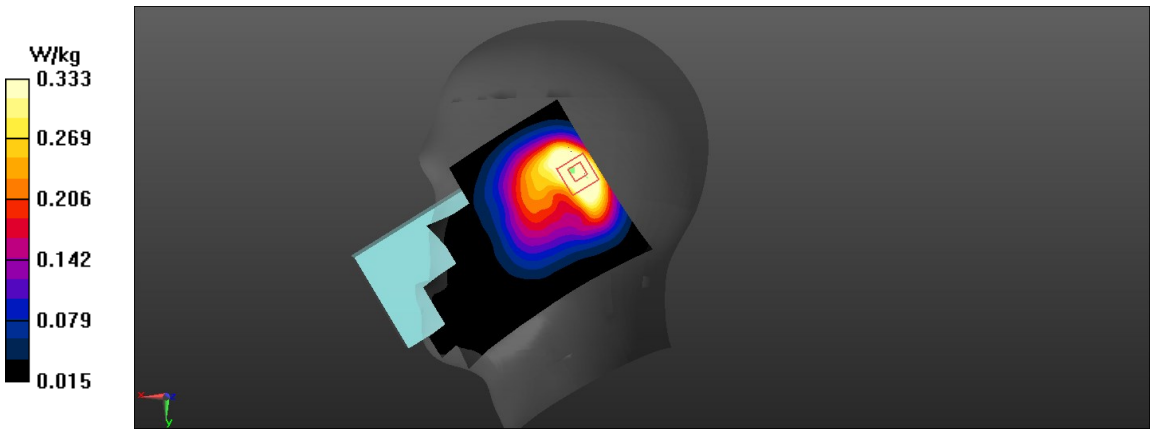


Fig A.12

WCDMA850-BV_CH4183 Rear 10mm
Date: 12/17/2021
Electronics: DAE4 Sn1525
Medium: head 835 MHz
Medium parameters used: f = 836.6 MHz; σ = 0.9 mho/m; εr = 41.14; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: WCDMA850-BV 836.6 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7517 ConvF(9.40,9.40,9.40)

Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.525 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.27 V/m; Power Drift = -0.1 dB
Peak SAR (extrapolated) = 0.637 W/kg
SAR(1 g) = 0.36 W/kg; SAR(10 g) = 0.218 W/kg
Maximum value of SAR (measured) = 0.527 W/kg

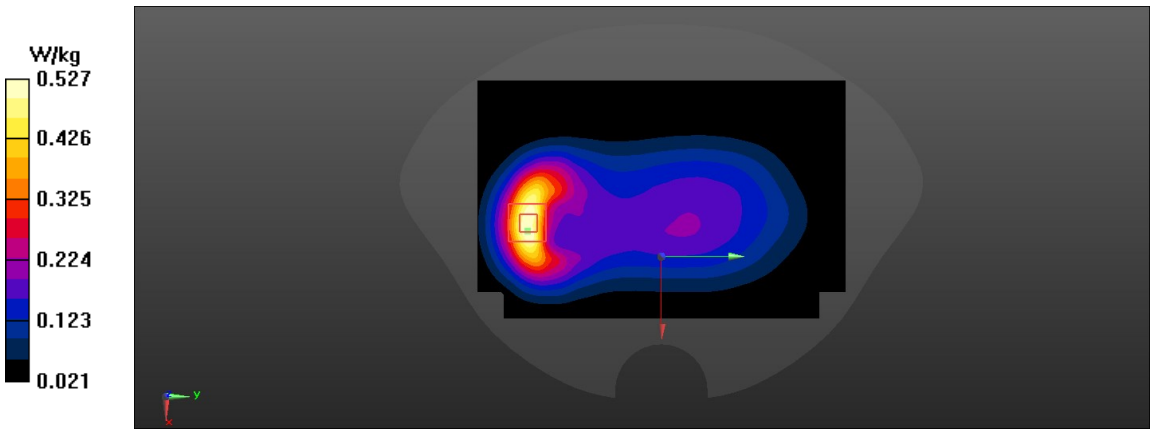


Fig A.13

LTE700-FDD12_CH23095 Left Cheek 1RB-Middle
Date: 12/14/2021
Electronics: DAE4 Sn1525
Medium: head 750 MHz
Medium parameters used: f = 707.5 MHz; σ = 0.84 mho/m; εr = 42.11; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: LTE700-FDD12 707.5 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7517 ConvF(9.81,9.81,9.81)

Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.633 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.14 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 0.713 W/kg
SAR(1 g) = 0.375 W/kg; SAR(10 g) = 0.236 W/kg
Maximum value of SAR (measured) = 0.529 W/kg

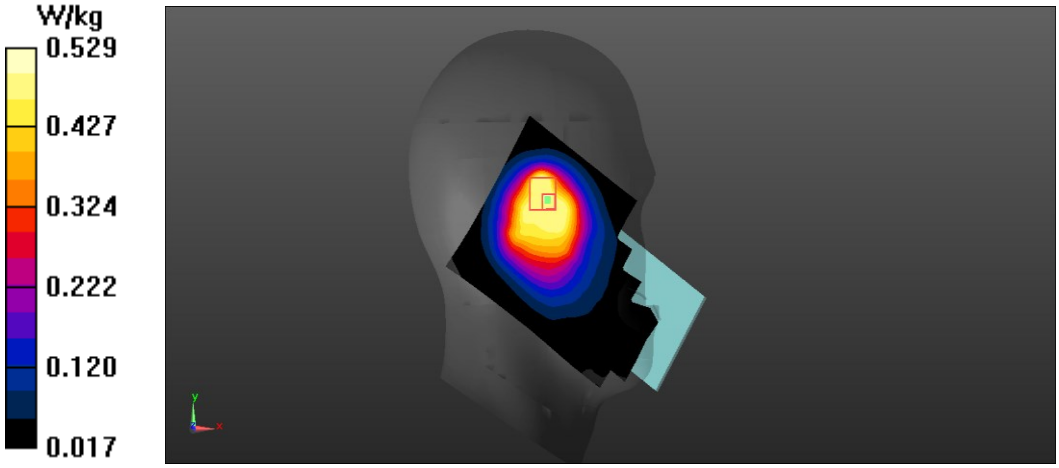


Fig A.14

LTE700-FDD12_CH23095 1RB-Middle Rear 10mm
Date: 12/14/2021
Electronics: DAE4 Sn1525
Medium: head 750 MHz
Medium parameters used: f = 707.5 MHz; σ = 0.845 mho/m; εr = 41.73; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: LTE700-FDD12 707.5 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7517 ConvF(9.81,9.81,9.81)

Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.537 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.03 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 0.592 W/kg
SAR(1 g) = 0.462 W/kg; SAR(10 g) = 0.35 W/kg
Maximum value of SAR (measured) = 0.551 W/kg

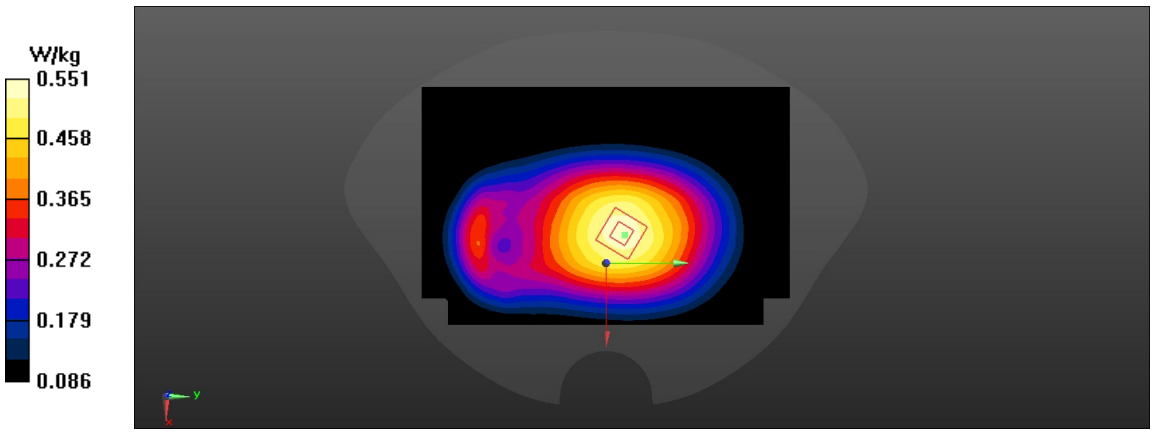


Fig A.15

LTE750-FDD13_CH23230 Right Cheek 25RB-Middle
Date: 12/14/2021
Electronics: DAE4 Sn1525
Medium: head 750 MHz
Medium parameters used: f = 782 MHz; σ = 0.91 mho/m; εr = 42.02; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: LTE750-FDD13 782 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7517 ConvF(9.81,9.81,9.81)

Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.707 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.3 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.75 W/kg
SAR(1 g) = 0.427 W/kg; SAR(10 g) = 0.264 W/kg
Maximum value of SAR (measured) = 0.463W/kg

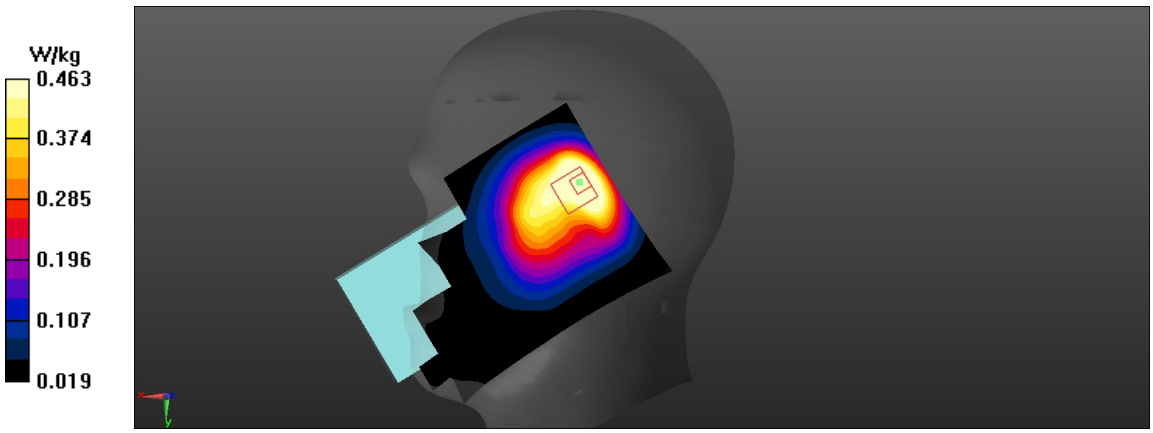


Fig A.16

LTE750-FDD13_CH23230 1RB-Middle Right Edge 10mm
Date: 12/14/2021
Electronics: DAE4 Sn1525
Medium: head 750 MHz
Medium parameters used: f = 782 MHz; σ = 0.915 mho/m; εr = 41.64; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: LTE750-FDD13 782 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7517 ConvF(9.81,9.81,9.81)

Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.531 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.76 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.591 W/kg
SAR(1 g) = 0.413 W/kg; SAR(10 g) = 0.285 W/kg
Maximum value of SAR (measured) = 0.533 W/kg

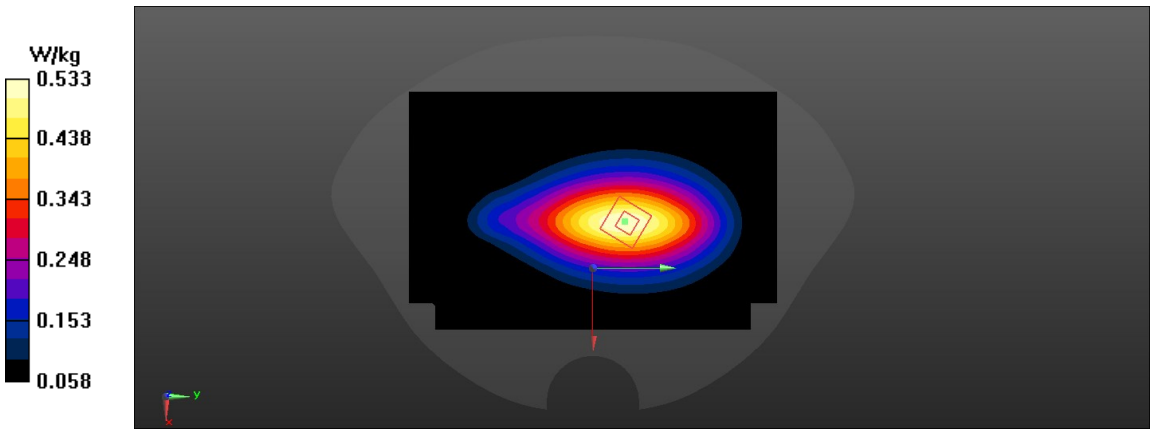


Fig A.17

LTE1900-FDD25_CH26590 Right Cheek 1RB-Middle
Date: 12/21/2021
Electronics: DAE4 Sn1525
Medium: head 1900 MHz
Medium parameters used: f = 1905 MHz; σ = 1.4 mho/m; εr = 40.41; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: LTE1900-FDD25 1905 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7517 ConvF(7.81,7.81,7.81)

Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.234 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.992 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.199 W/kg
SAR(1 g) = 0.131 W/kg; SAR(10 g) = 0.083 W/kg
Maximum value of SAR (measured) = 0.137 W/kg

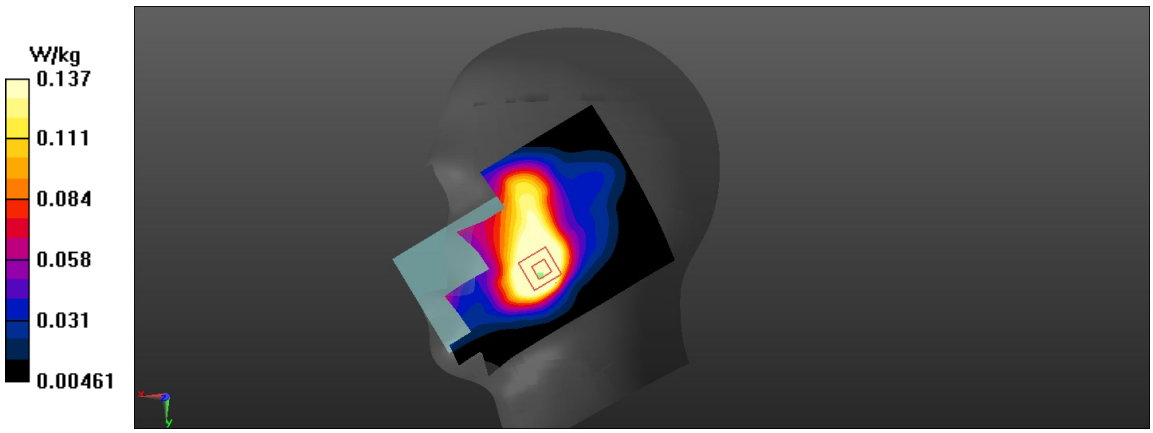


Fig A.18

LTE1900-FDD25_CH26365 1RB-Middle Bottom Edge 10mm
Date: 12/21/2021
Electronics: DAE4 Sn1525
Medium: head 1900 MHz
Medium parameters used: f = 1882.5 MHz; σ = 1.387 mho/m; εr = 40.15; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: LTE1900-FDD25 1882.5 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7517 ConvF(7.81,7.81,7.81)

Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.986 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 21.11 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 1.15 W/kg
SAR(1 g) = 0.627 W/kg; SAR(10 g) = 0.332 W/kg
Maximum value of SAR (measured) = 0.953 W/kg

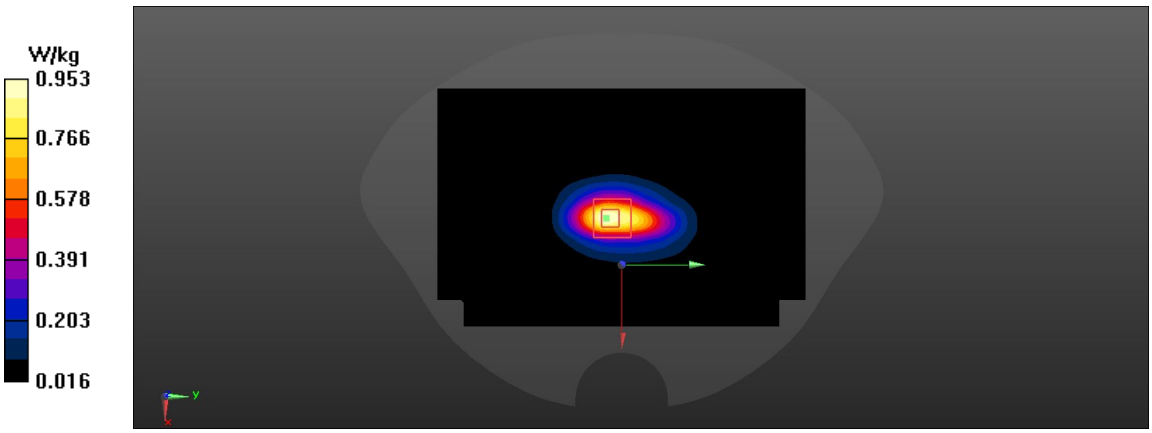


Fig A.19

LTE1900-FDD25_CH26365 1RB-Middle Rear 15mm
Date: 12/21/2021
Electronics: DAE4 Sn1525
Medium: head 1900 MHz
Medium parameters used: f = 1882.5 MHz; σ = 1.387 mho/m; εr = 40.15; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: LTE1900-FDD25 1882.5 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7517 ConvF(7.81,7.81,7.81)

Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.335 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.372 V/m; Power Drift = -0.18 dB
Peak SAR (extrapolated) = 0.374 W/kg
SAR(1 g) = 0.223 W/kg; SAR(10 g) = 0.132 W/kg
Maximum value of SAR (measured) = 0.318 W/kg

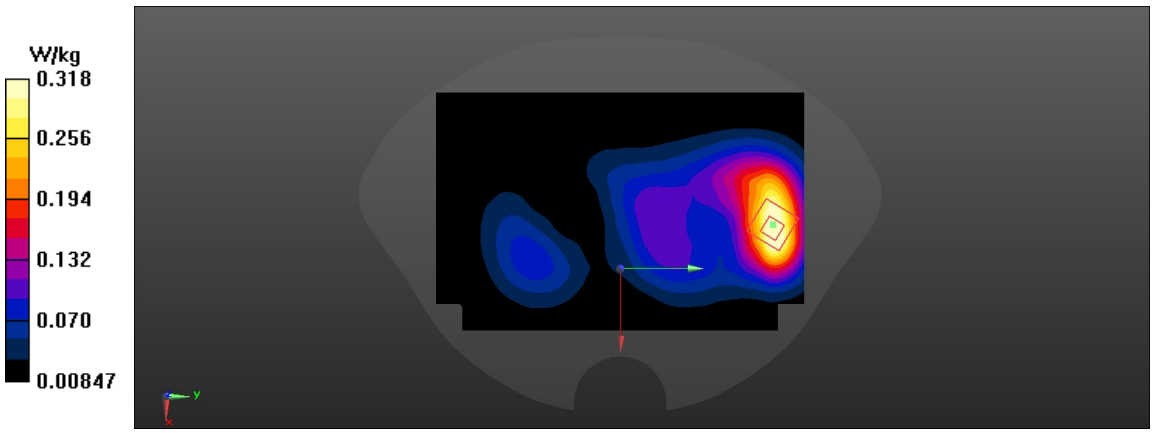


Fig A.20

LTE850-FDD26_CH26865 Left Cheek 1RB-Middle
Date: 12/16/2021
Electronics: DAE4 Sn1525
Medium: head 835 MHz
Medium parameters used: f = 831.5 MHz; σ = 0.906 mho/m; εr = 42.17; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: LTE850-FDD26 831.5 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7517 ConvF(9.40,9.40,9.40)

Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.547 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.06 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.689 W/kg
SAR(1 g) = 0.396 W/kg; SAR(10 g) = 0.256 W/kg
Maximum value of SAR (measured) = 0.549 W/kg

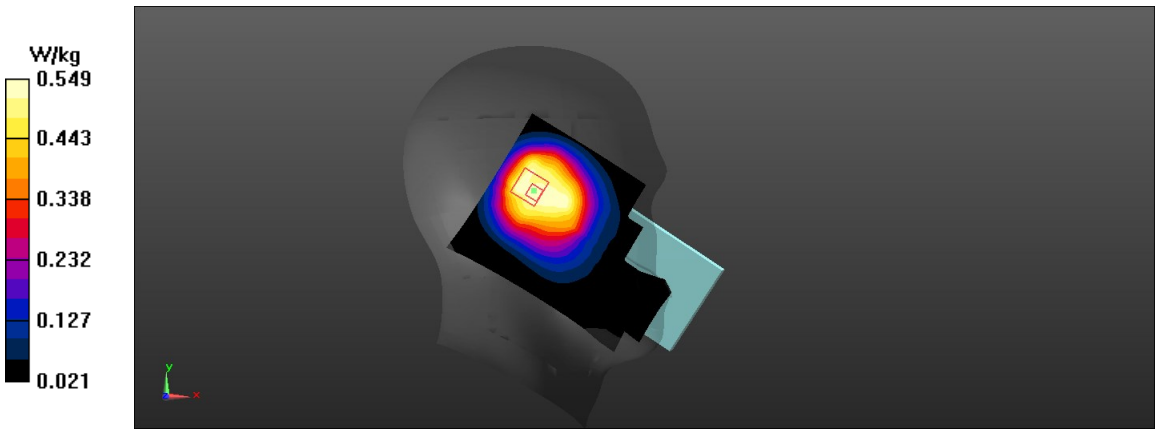


Fig A.21

LTE850-FDD26_CH26965 1RB-Middle Rear 10mm
Date: 12/16/2021
Electronics: DAE4 Sn1525
Medium: head 835 MHz
Medium parameters used: f = 841.5 MHz; σ = 0.905 mho/m; εr = 41.13; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: LTE850-FDD26 841.5 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7517 ConvF(9.40,9.40,9.40)

Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.554 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 16.95 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 0.647 W/kg
SAR(1 g) = 0.383 W/kg; SAR(10 g) = 0.23 W/kg
Maximum value of SAR (measured) = 0.549 W/kg

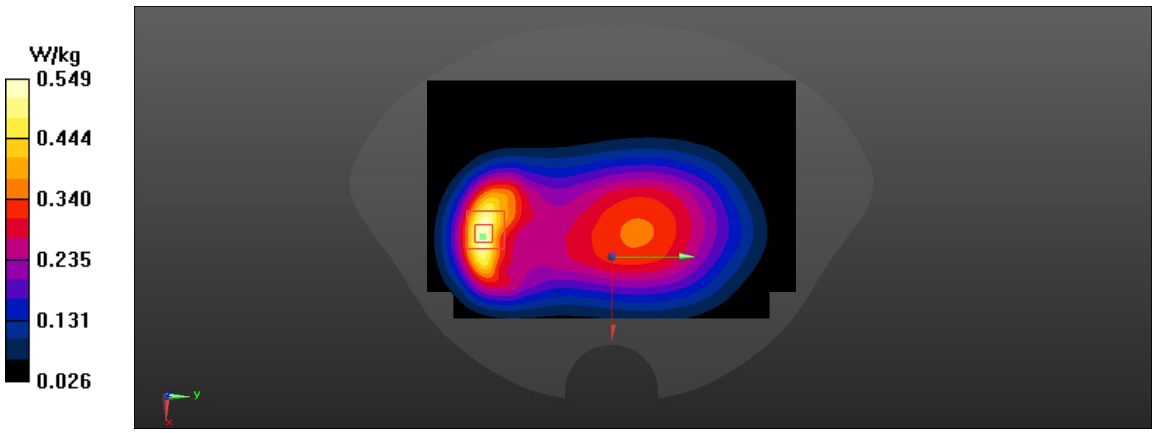


Fig A.22

LTE2600-TDD41_CH41490 Left Cheek PC3 1RB-Middle
Date: 12/25/2021
Electronics: DAE4 Sn1525
Medium: head 2600 MHz
Medium parameters used: f = 2680 MHz; σ = 0.286 mho/m; εr = 40.57; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: LTE2600-TDD41 2680 MHz Duty Cycle: 1:1.58
Probe: EX3DV4 – SN7517 ConvF(7.10,7.10,7.10)

Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.151 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 1.934 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.18 W/kg
SAR(1 g) = 0.0951 W/kg; SAR(10 g) = 0.0512 W/kg
Maximum value of SAR (measured) = 0.146 W/kg

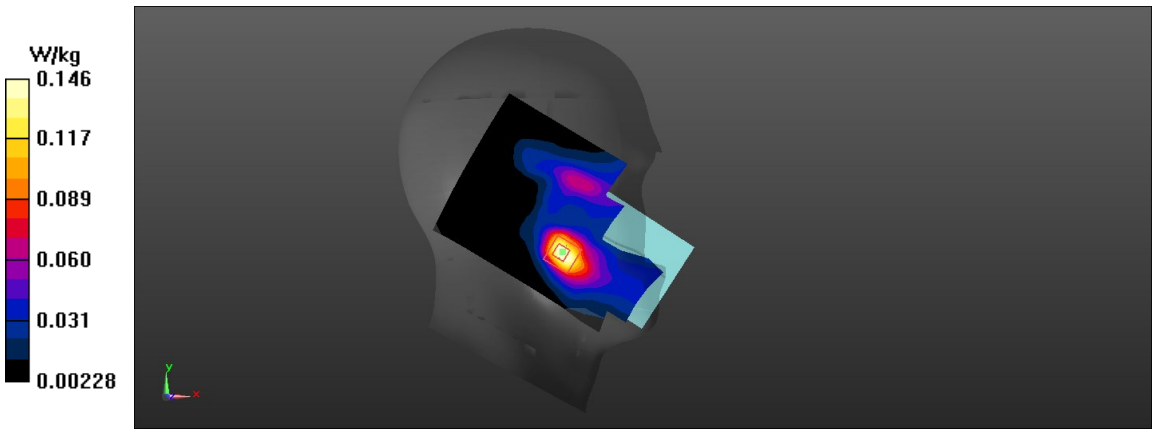


Fig A.23

LTE2600-TDD41_CH41490 PC3 1RB-Middle Rear 10mm
Date: 12/25/2021
Electronics: DAE4 Sn1525
Medium: head 2600 MHz
Medium parameters used: f = 2680 MHz; σ = 0.286 mho/m; εr = 40.57; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: LTE2600-TDD41 2680 MHz Duty Cycle: 1:1.58
Probe: EX3DV4 – SN7517 ConvF(7.10,7.10,7.10)

Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.263 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 1.47 V/m; Power Drift = -0.17 dB
Peak SAR (extrapolated) = 0.327 W/kg
SAR(1 g) = 0.161 W/kg; SAR(10 g) = 0.076 W/kg
Maximum value of SAR (measured) = 0.262 W/kg

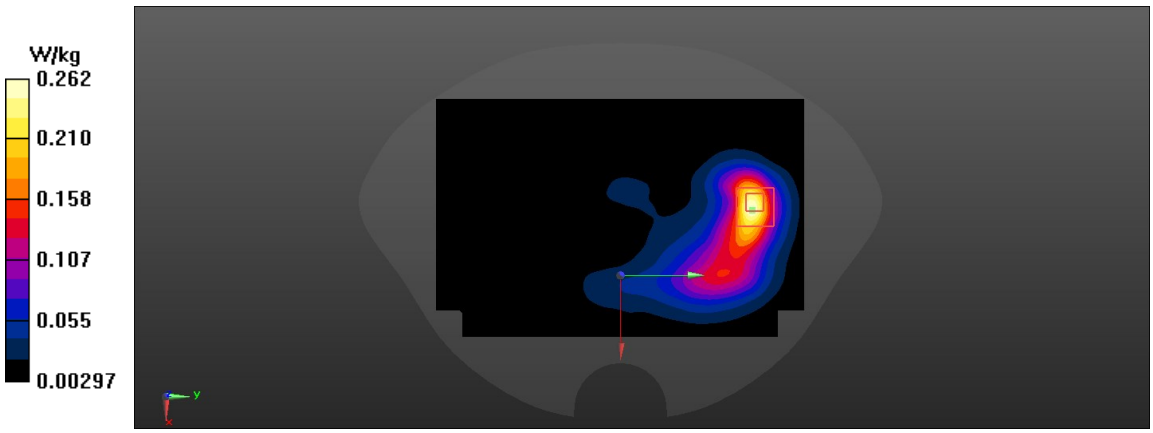


Fig A.24

LTE2600-TDD41_CH41490 PC3 1RB-Middle Rear 15mm
Date: 12/25/2021
Electronics: DAE4 Sn1525
Medium: head 2600 MHz
Medium parameters used: f = 2680 MHz; σ = 0.286 mho/m; εr = 40.57; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: LTE2600-TDD41 2680 MHz Duty Cycle: 1:1.58
Probe: EX3DV4 – SN7517 ConvF(7.10,7.10,7.10)

Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.102 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 1.288 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 0.133 W/kg
SAR(1 g) = 0.069 W/kg; SAR(10 g) = 0.036 W/kg
Maximum value of SAR (measured) = 0.109 W/kg

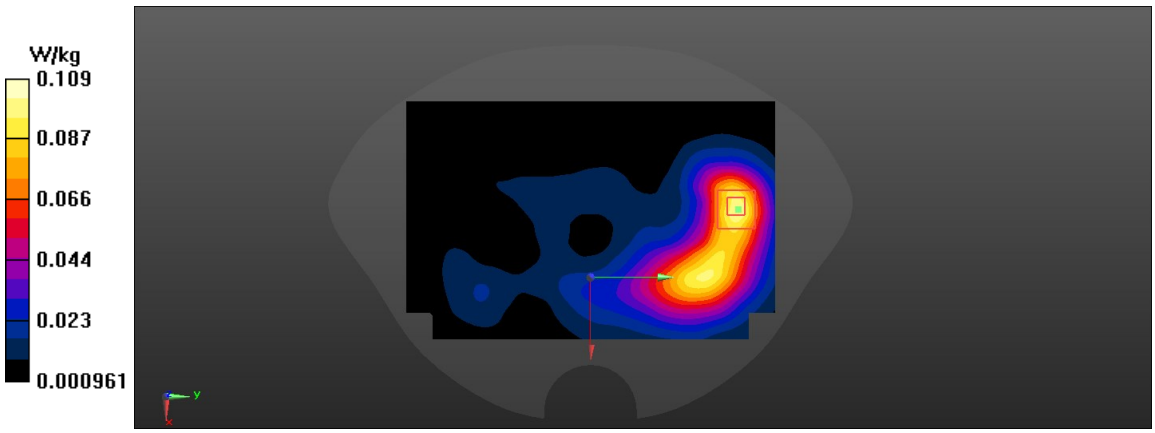


Fig A.25

LTE2600-TDD41_CH41490 PC2 Left Cheek 1RB-Middle
Date: 12/26/2021
Electronics: DAE4 Sn1525
Medium: head 2600 MHz
Medium parameters used: f = 2680 MHz; σ = 0.286 mho/m; εr = 40.57; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: LTE2600-TDD41 2680 MHz Duty Cycle: 1:2.309
Probe: EX3DV4 – SN7517 ConvF(7.10,7.10,7.10)

Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.174 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.413 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.199 W/kg
SAR(1 g) = 0.129 W/kg; SAR(10 g) = 0.0687 W/kg
Maximum value of SAR (measured) = 0.163 W/kg

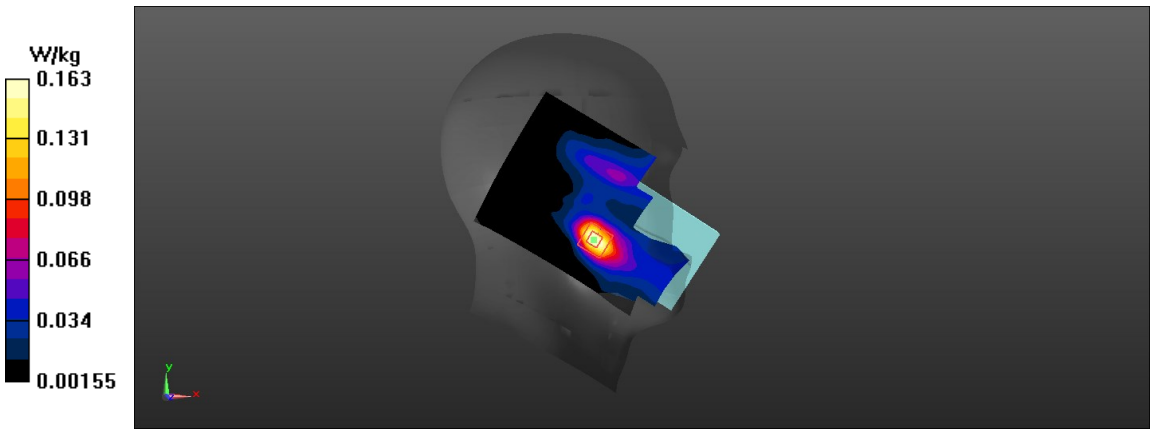


Fig A.26

LTE2600-TDD41_CH41490 PC2 1RB-Middle Rear 10mm
Date: 12/26/2021
Electronics: DAE4 Sn1525
Medium: head 2600 MHz
Medium parameters used: f = 2680 MHz; σ = 0.286 mho/m; εr = 40.57; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: LTE2600-TDD41 2680 MHz Duty Cycle: 1:2.309
Probe: EX3DV4 – SN7517 ConvF(7.10,7.10,7.10)

Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.276 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.089 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.333 W/kg
SAR(1 g) = 0.167 W/kg; SAR(10 g) = 0.0781 W/kg
Maximum value of SAR (measured) = 0.267 W/kg

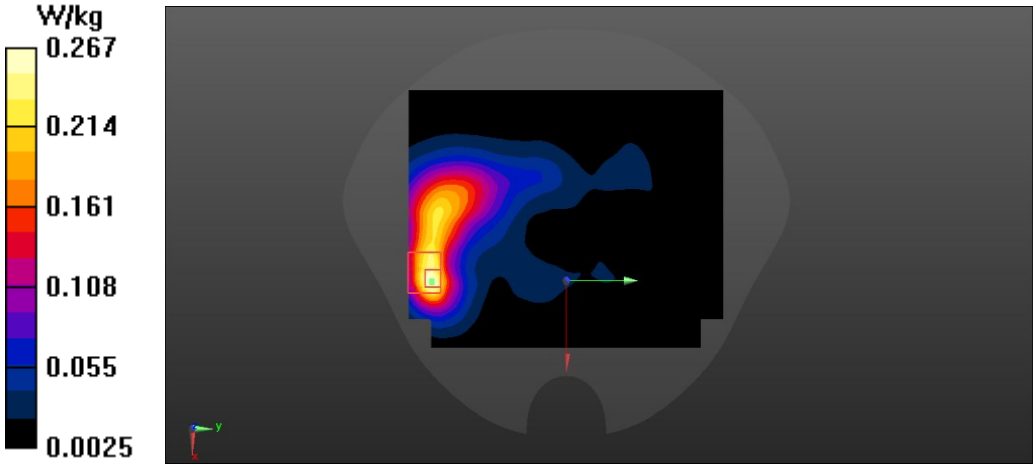


Fig A.27

LTE2600-TDD41_CH41490 PC2 1RB-Middle Rear 15mm
Date: 12/26/2021
Electronics: DAE4 Sn1525
Medium: head 2600 MHz
Medium parameters used: f = 2680 MHz; σ = 0.286 mho/m; εr = 40.57; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: LTE2600-TDD41 2680 MHz Duty Cycle: 1:2.309
Probe: EX3DV4 – SN7517 ConvF(7.10,7.10,7.10)

Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.156 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 1.433 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 0.206 W/kg
SAR(1 g) = 0.107 W/kg; SAR(10 g) = 0.0574 W/kg
Maximum value of SAR (measured) = 0.169 W/kg

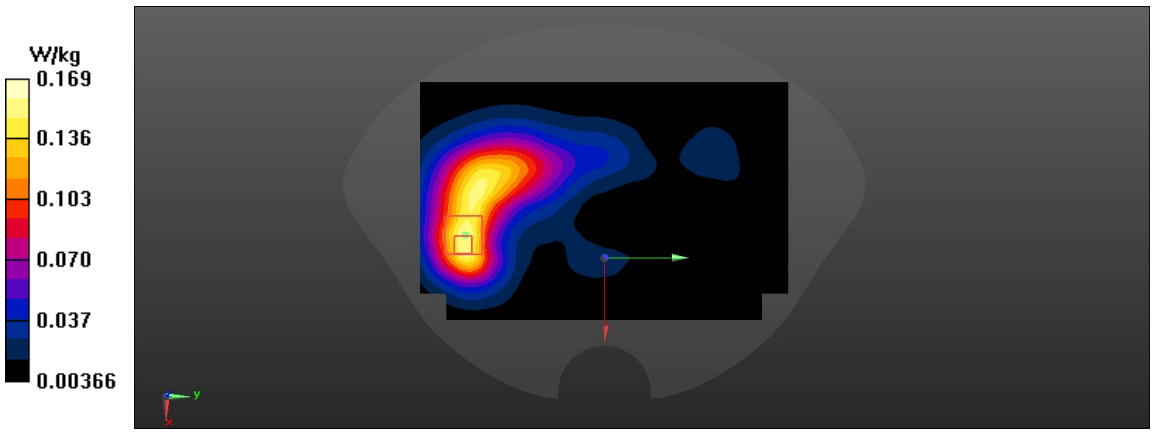


Fig A.28

LTE1700-FDD66_CH132322 Right Cheek 1RB-Middle
Date: 12/19/2021
Electronics: DAE4 Sn1525
Medium: head 1750 MHz
Medium parameters used: f = 1745 MHz; σ = 0.513 mho/m; εr = 41.32; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: LTE1700-FDD66 1745 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7517 ConvF(8.22,8.22,8.22)

Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.123 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.033 V/m; Power Drift = -0.18 dB
Peak SAR (extrapolated) = 0.133 W/kg
SAR(1 g) = 0.088 W/kg; SAR(10 g) = 0.056 W/kg
Maximum value of SAR (measured) = 0.0946 W/kg

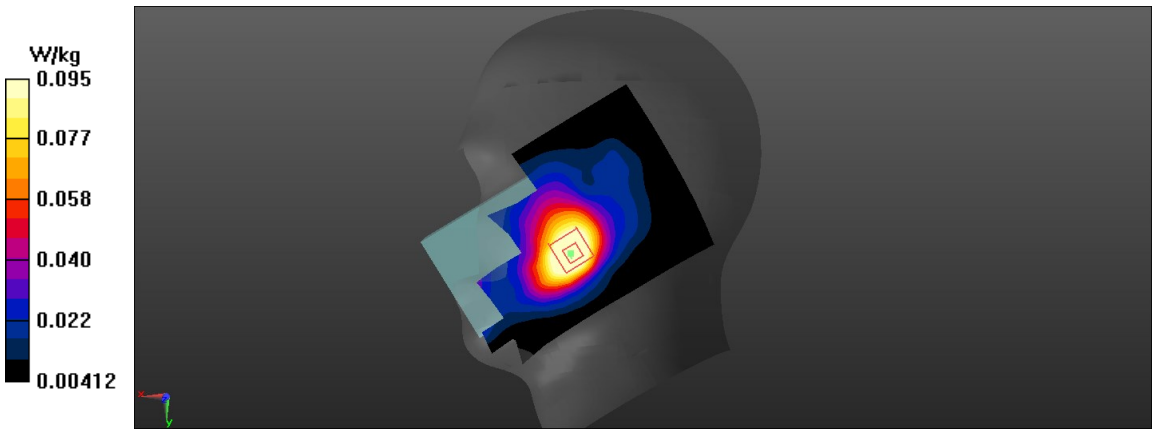


Fig A.29

LTE1700-FDD66_CH132072 50RB-Middle Bottom Edge 10mm
Date: 12/19/2021
Electronics: DAE4 Sn1525
Medium: head 1750 MHz
Medium parameters used: f = 1720 MHz; σ = 0.508 mho/m; εr = 40.9; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: LTE1700-FDD66 1720 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7517 ConvF(8.22,8.22,8.22)

Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.14 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.244 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 1.34 W/kg
SAR(1 g) = 0.755 W/kg; SAR(10 g) = 0.404 W/kg
Maximum value of SAR (measured) = 1.14 W/kg

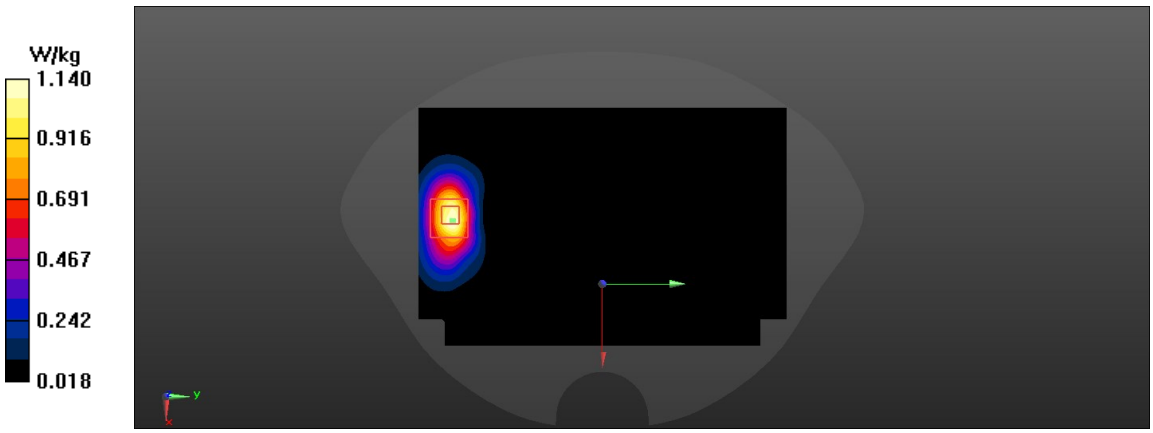


Fig A.30

LTE1700-FDD66_CH132322 1RB-Middle Rear 15mm
Date: 12/19/2021
Electronics: DAE4 Sn1525
Medium: head 1750 MHz
Medium parameters used: f = 1745 MHz; σ = 0.508 mho/m; εr = 40.9; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: LTE1700-FDD66 1745 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7517 ConvF(8.22,8.22,8.22)

Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.583 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.644 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.651 W/kg
SAR(1 g) = 0.388 W/kg; SAR(10 g) = 0.22 W/kg
Maximum value of SAR (measured) = 0.556 W/kg

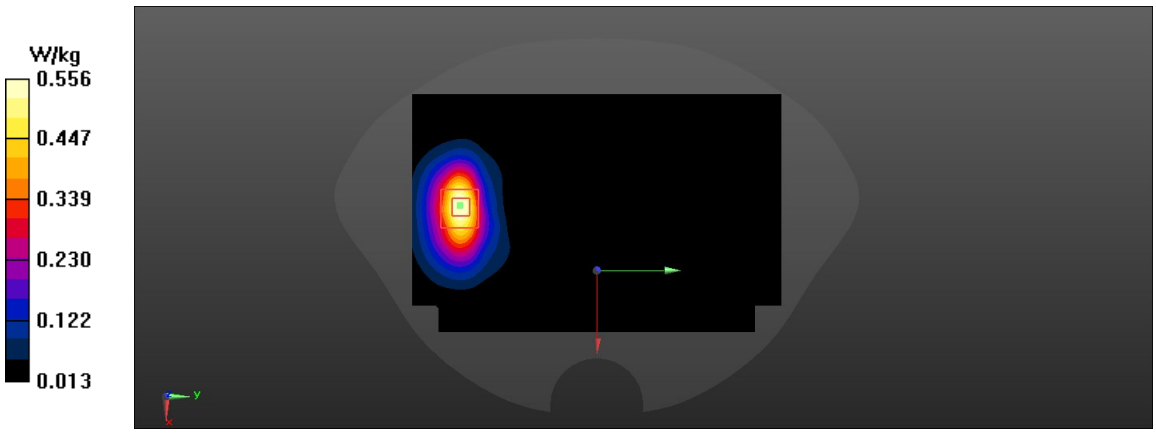


Fig A.31

LTE700-FDD71_CH133322 Left Tilt 50RB-High
Date: 12/15/2021
Electronics: DAE4 Sn1525
Medium: head 750 MHz
Medium parameters used: f = 683 MHz; σ = 0.967 mho/m; εr = 41.95; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: LTE700-FDD71 683 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7517 ConvF(9.81,9.81,9.81)

Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.5 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 16.9 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.675 W/kg
SAR(1 g) = 0.312 W/kg; SAR(10 g) = 0.181 W/kg
Maximum value of SAR (measured) = 0.504 W/kg

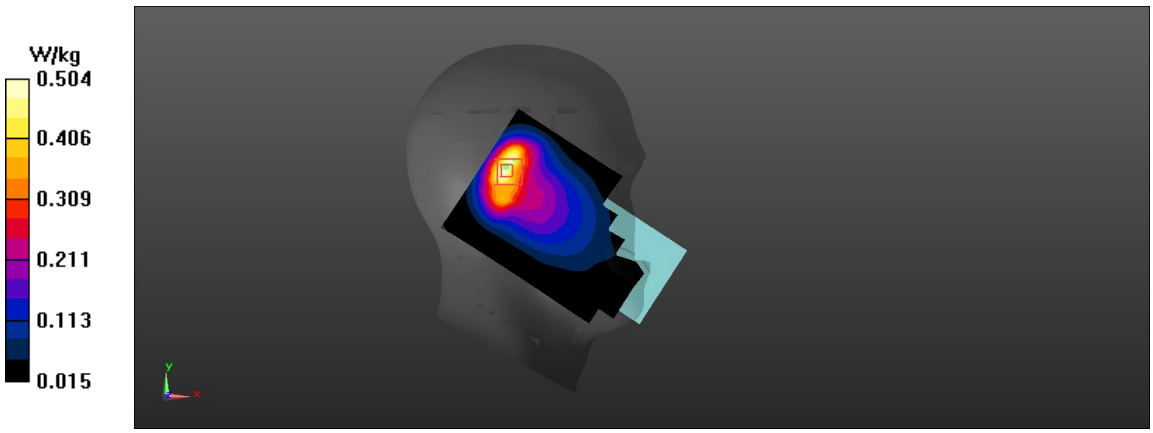


Fig A.32

LTE700-FDD71_CH133222 1RB-Middle Rear 10mm
Date: 12/15/2021
Electronics: DAE4 Sn1525
Medium: head 750 MHz
Medium parameters used: f = 673 MHz; σ = 0.972 mho/m; εr = 41.57; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: LTE700-FDD71 673 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7517 ConvF(9.81,9.81,9.81)

Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.563 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 23.06 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 0.622 W/kg
SAR(1 g) = 0.49 W/kg; SAR(10 g) = 0.375 W/kg
Maximum value of SAR (measured) = 0.581 W/kg

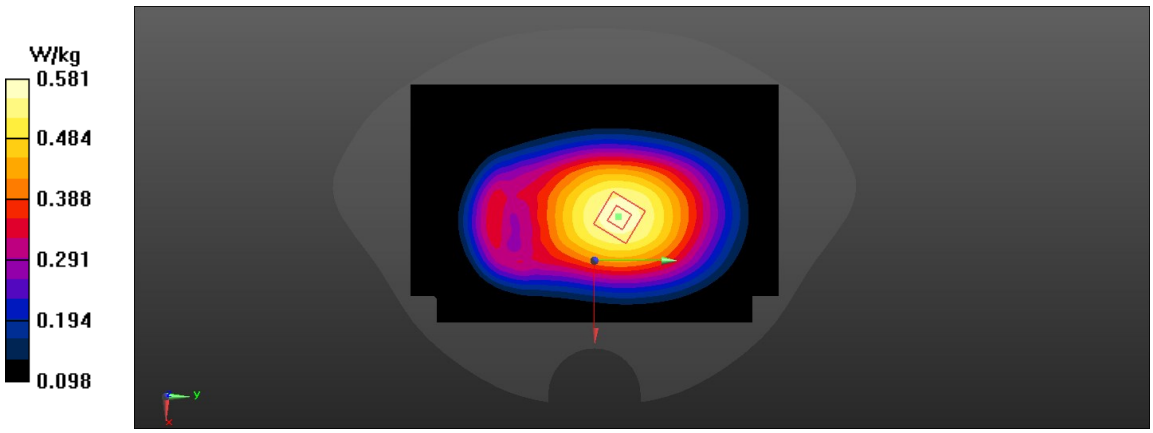


Fig A.33

WLAN2450_CH6 Right Tilt 802.11b 1M 14db
Date: 12/23/2021
Electronics: DAE4 Sn1525
Medium: head 2450 MHz
Medium parameters used: f = 2437 MHz; σ = 1.772 mho/m; εr = 39.97; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: WLAN2450 2437 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7517 ConvF(7.34,7.34,7.34)

Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.199 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.564 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 0.198 W/kg
SAR(1 g) = 0.0930 W/kg; SAR(10 g) = 0.060 W/kg
Maximum value of SAR (measured) = 0.0991 W/kg

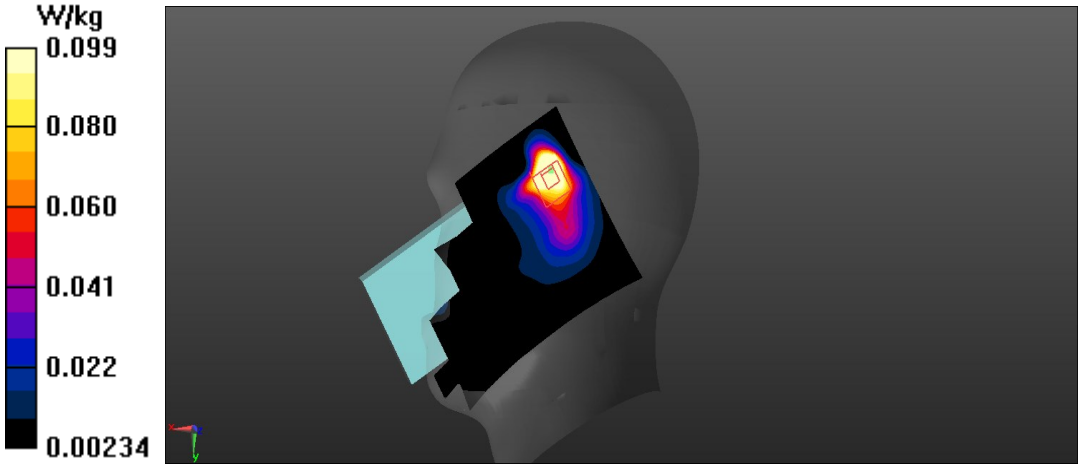


Fig A.34

WLAN2450_CH6 Rear 10mm 802.11b 1M 14db
Date: 12/23/2021
Electronics: DAE4 Sn1525
Medium: head 2450 MHz
Medium parameters used: f = 2437 MHz; σ = 1.758 mho/m; εr = 38.88; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: WLAN2450 2437 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7517 ConvF(7.34,7.34,7.34)

Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.115 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = SAR V/m; Power Drift = 0.1 dB
Peak SAR (extrapolated) =0.145 W/kg
SAR(1 g) = 0.068 W/kg; SAR(10 g) = 0.034 W/kg
Maximum value of SAR (measured) = 0.111 W/kg

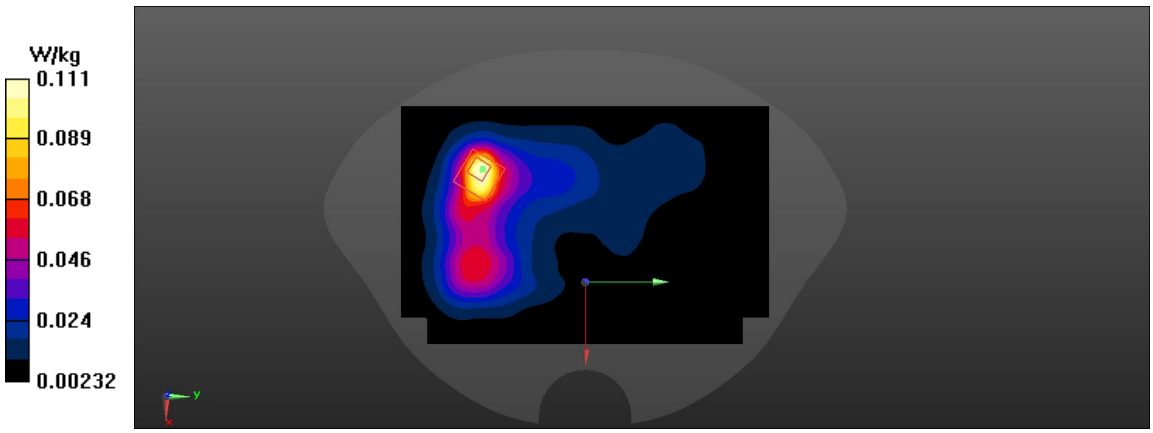


Fig A.35

WLAN2450_CH6 Right Tilt 802.11b 1M 20db
Date: 12/24/2021
Electronics: DAE4 Sn1525
Medium: head 2450 MHz
Medium parameters used: f = 2437 MHz; σ = 1.772 mho/m; εr = 39.97; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: WLAN2450 2437 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7517 ConvF(7.34,7.34,7.34)

Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.199 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.564 V/m; Power Drift = -0.17 dB
Peak SAR (extrapolated) = 0.198 W/kg
SAR(1 g) = 0.502 W/kg; SAR(10 g) = 0.258 W/kg
Maximum value of SAR (measured) = 0.562 W/kg

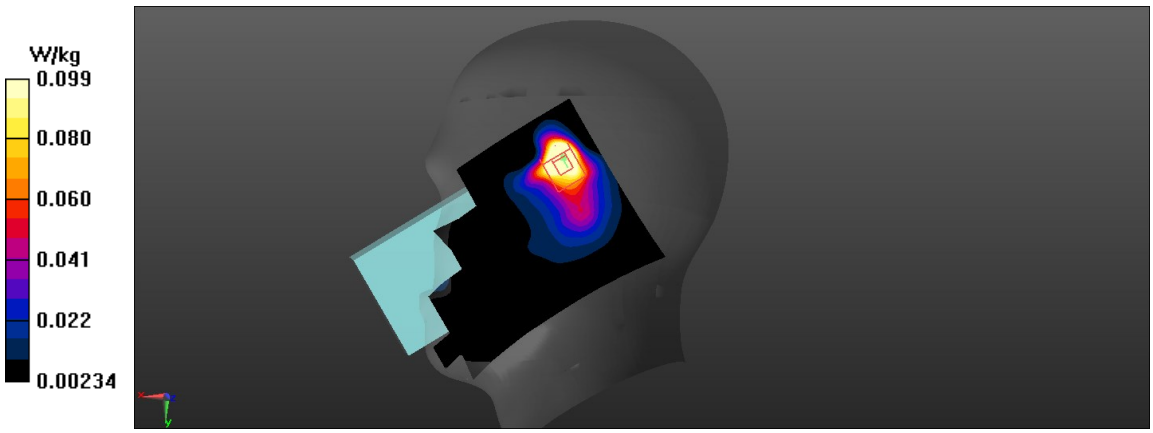


Fig A.36

WLAN2450_CH6 Rear 10mm 802.11b 1M 20db
Date: 12/24/2021
Electronics: DAE4 Sn1525
Medium: head 2450 MHz
Medium parameters used: f = 2437 MHz; σ = 1.758 mho/m; εr = 38.88; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: WLAN2450 2437 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7517 ConvF(7.34,7.34,7.34)

Area Scan (91x141x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.115 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = SAR V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.769 W/kg
SAR(1 g) = 0.347 W/kg; SAR(10 g) = 0.162 W/kg
Maximum value of SAR (measured) = 0.594 W/kg

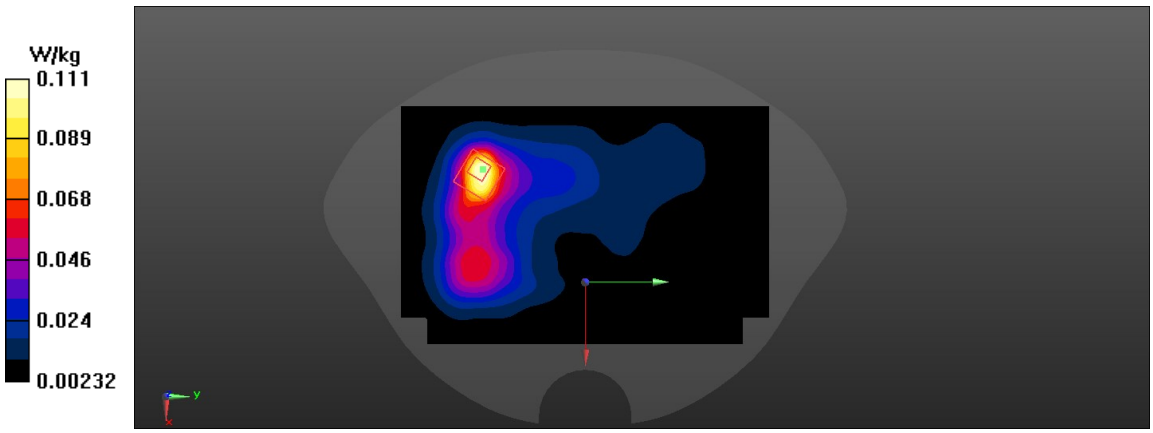


Fig A.37

WLAN_CH52 Left Tilt 802.11ac(dBm)-80MHz 14db
Date: 12/27/2021
Electronics: DAE4 Sn1525
Medium: head 5250 MHz
Medium parameters used: f = 5290 MHz; σ = 4.427 mho/m; εr = 33.835; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: WLAN 5290 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7517 ConvF(5.42,5.42,5.42)

Area Scan (91x141x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.0717 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 0.831 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 0.093 W/kg
SAR(1 g) = 0.020 W/kg; SAR(10 g) = 0.0107 W/kg
Maximum value of SAR (measured) = 0.0615 W/kg

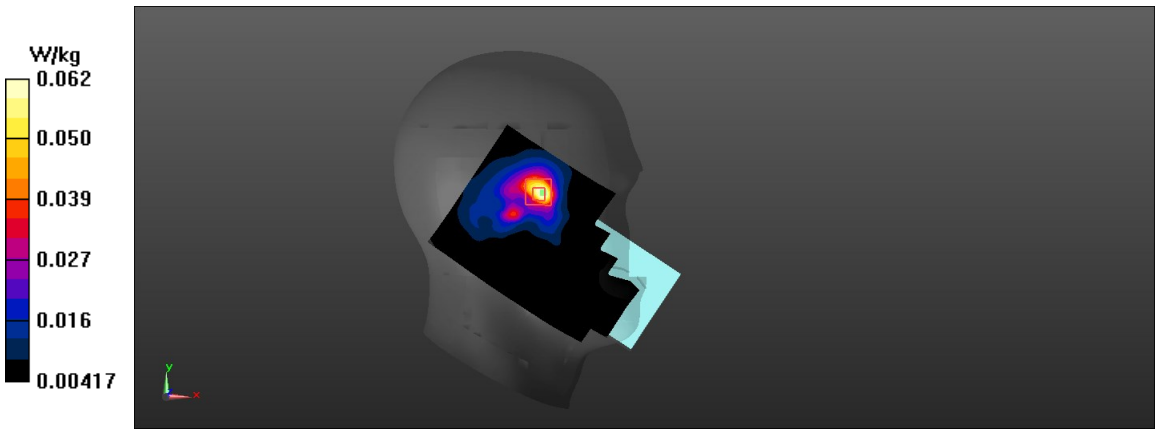


Fig A.38

WLAN_CH52 Rear 10mm 802.11ac(dBm)-80MHz 14db
Date: 12/27/2021
Electronics: DAE4 Sn1525
Medium: head 5250 MHz
Medium parameters used: f = 5290 MHz; σ = 4.427 mho/m; εr = 33.835; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: WLAN 5290 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7517 ConvF(5.42,5.42,5.42)

Area Scan (91x141x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.268 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 1.488 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.494 W/kg
SAR(1 g) = 0.155 W/kg; SAR(10 g) = 0.062 W/kg
Maximum value of SAR (measured) = 0.326 W/kg

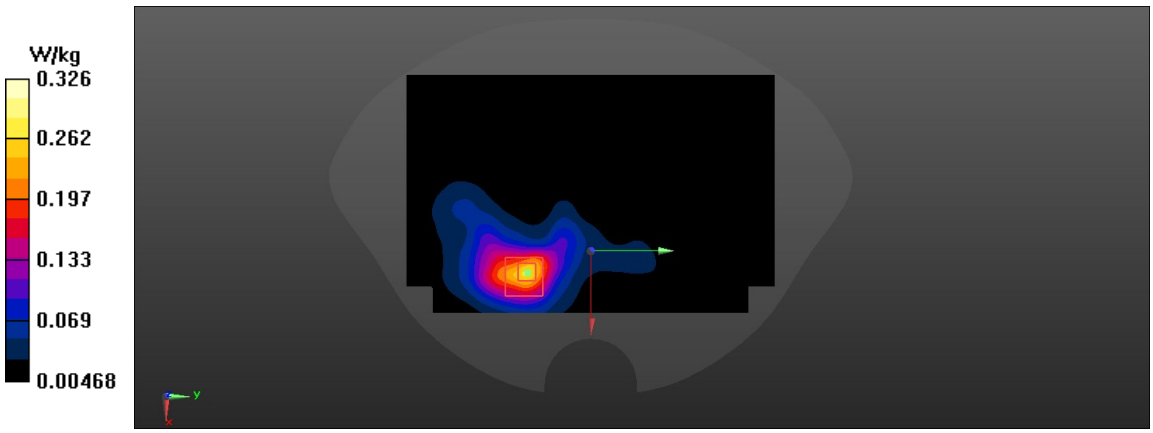


Fig A.39

WLAN_CH52 Left Tilt 802.11ac(dBm)-80MHz 18db
Date: 12/28/2021
Electronics: DAE4 Sn1525
Medium: head 5250 MHz
Medium parameters used: f = 5290 MHz; σ = 4.427 mho/m; εr = 33.835; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: WLAN 5290 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7517 ConvF(5.42,5.42,5.42)

Area Scan (91x141x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.0717 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 0.831 V/m; Power Drift = -0.18 dB
Peak SAR (extrapolated) = 0.093 W/kg
SAR(1 g) = 0.199 W/kg; SAR(10 g) = 0.071 W/kg
Maximum value of SAR (measured) = 0.445 W/kg

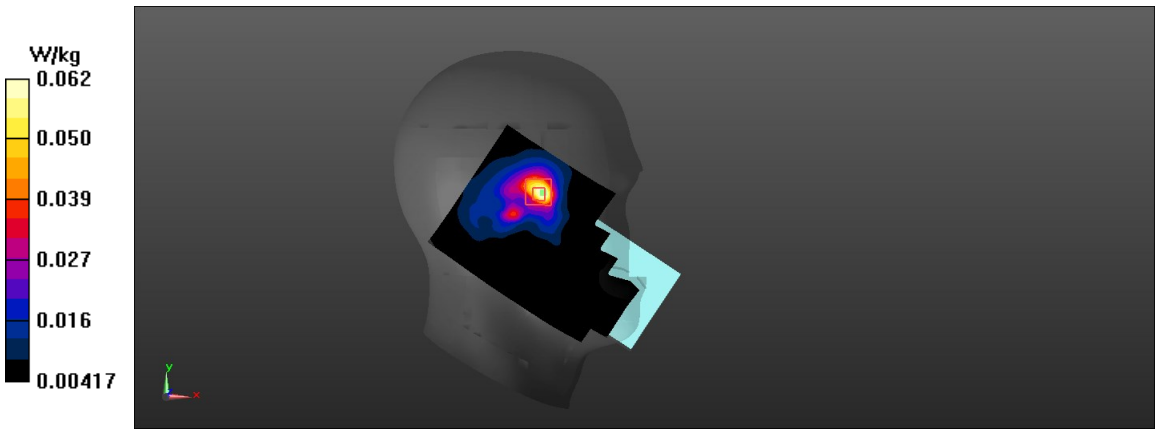


Fig A.40

WLAN_CH52 Rear 10mm 802.11ac(dBm)-80MHz 18db
Date: 12/28/2021
Electronics: DAE4 Sn1525
Medium: head 5250 MHz
Medium parameters used: f = 5290 MHz; σ = 4.427 mho/m; εr = 33.835 ; ρ = 1000 kg/m^3
Ambient Temperature: 23.5ºC, Liquid Temperature: 23ºC
Communication System: WLAN 5290 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7517 ConvF(5.42,5.42,5.42)

Area Scan (91x141x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.268 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 1.488 V/m; Power Drift = 0.19 dB
Peak SAR (extrapolated) = 0.494 W/kg
SAR(1 g) = 0.439 W/kg; SAR(10 g) = 0.177 W/kg
Maximum value of SAR (measured) = 0.901 W/kg

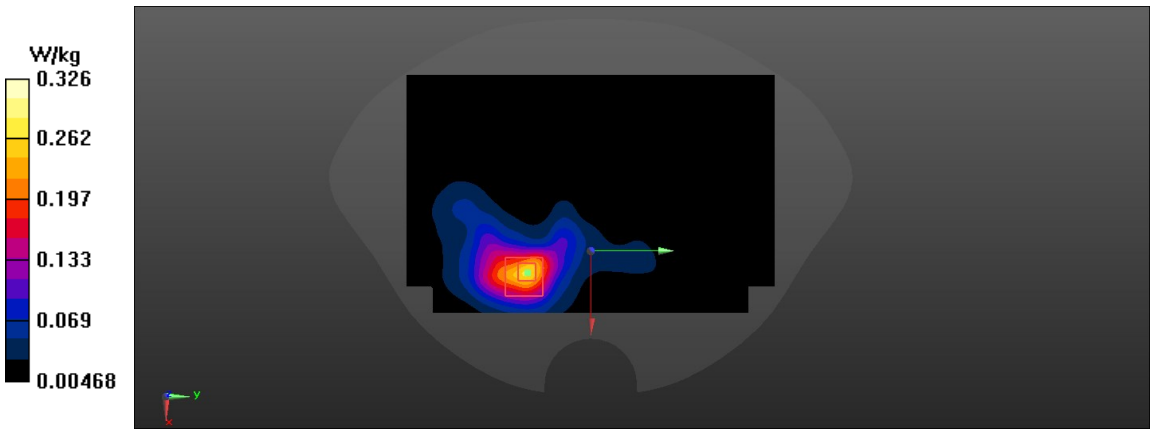


Fig A.41

Fig. 1-1 Z-Scan at power reference point (850 MHz)

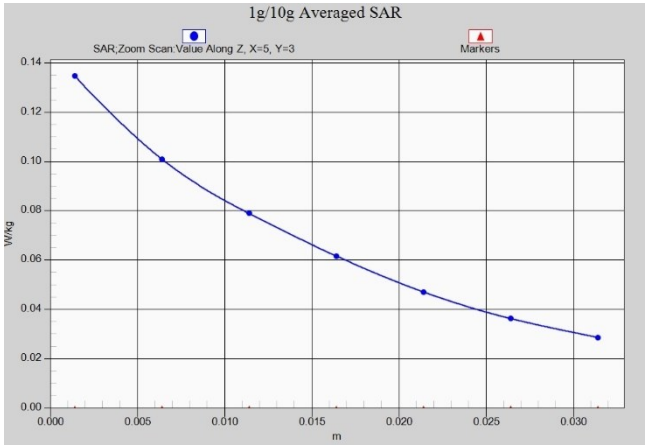


Fig. 1-2 Z-Scan at power reference point (850 MHz)

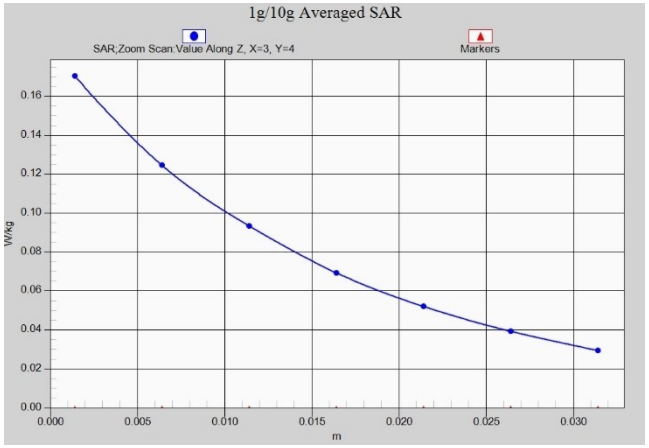


Fig. 1-3 Z-Scan at power reference point (1900 MHz)

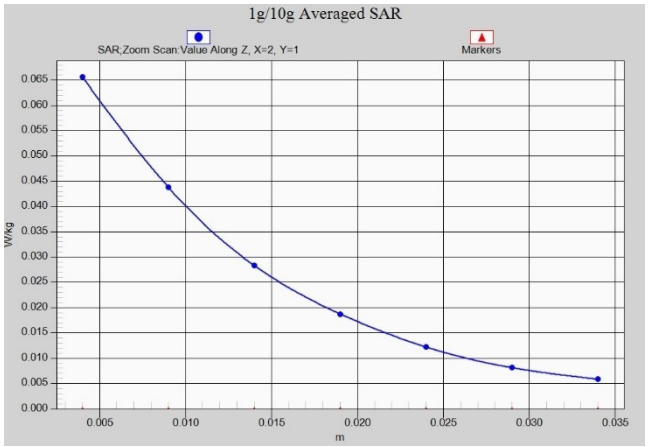


Fig. 1-4 Z-Scan at power reference point (1900 MHz)

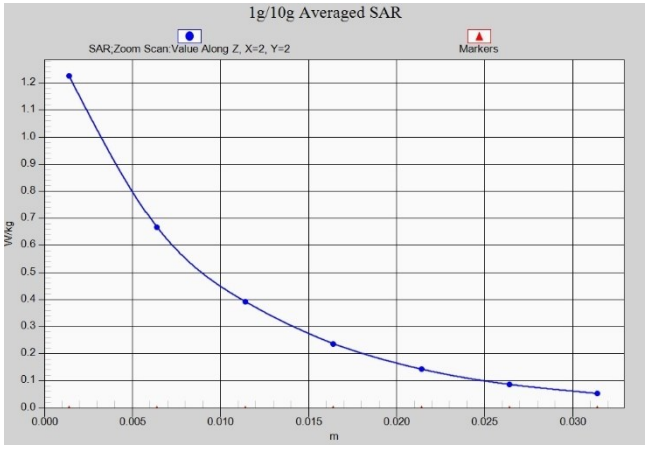


Fig. 1-5 Z-Scan at power reference point (1900 MHz)

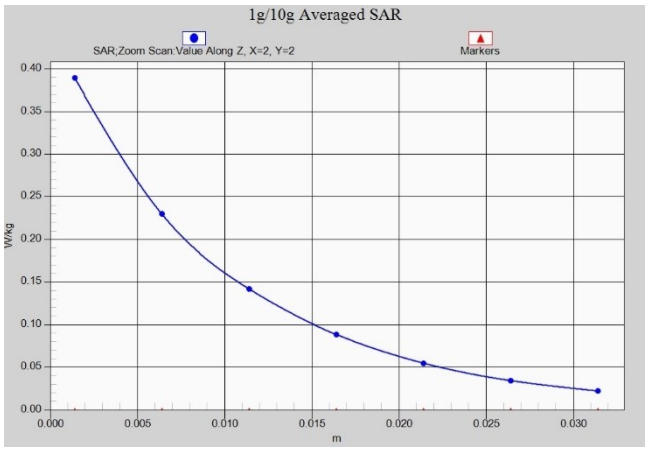


Fig. 1-6 Z-Scan at power reference point (WCDMA850)

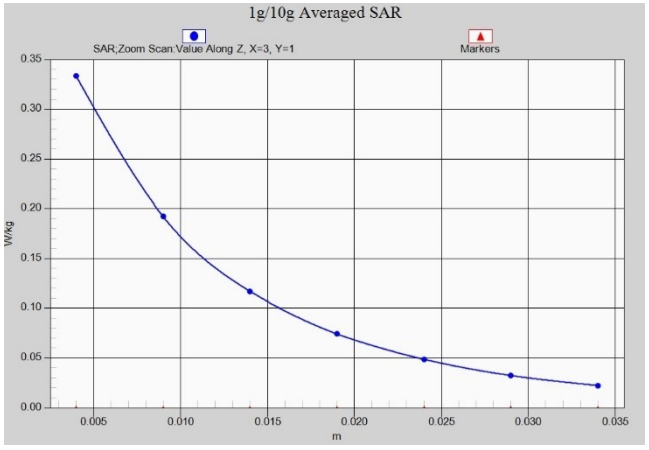


Fig. 1-7 Z-Scan at power reference point (WCDMA850)

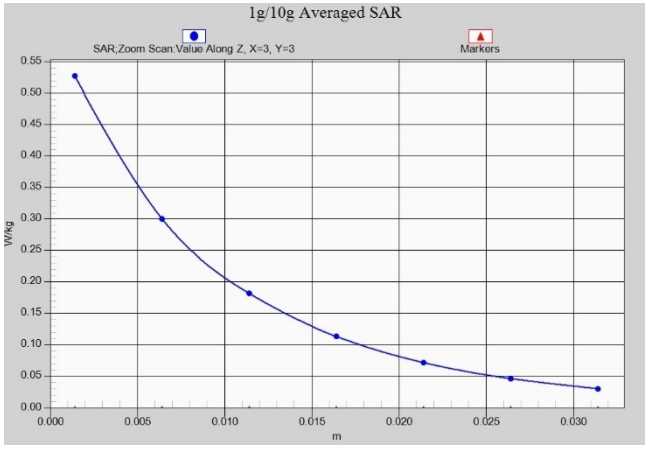


Fig. 1-8 Z-Scan at power reference point (WCDMA1700)

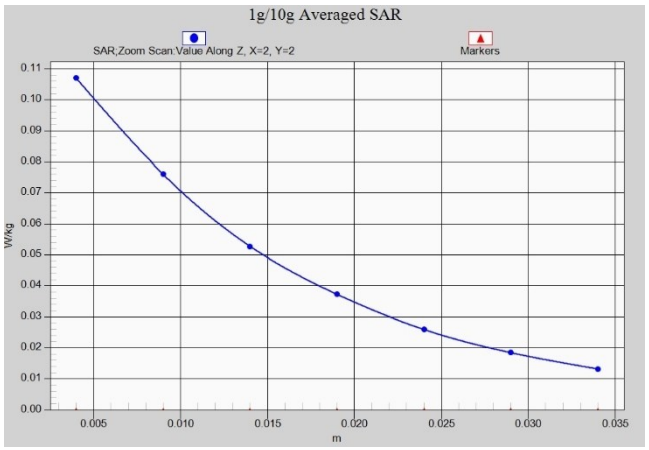


Fig. 1-9 Z-Scan at power reference point (WCDMA1700)

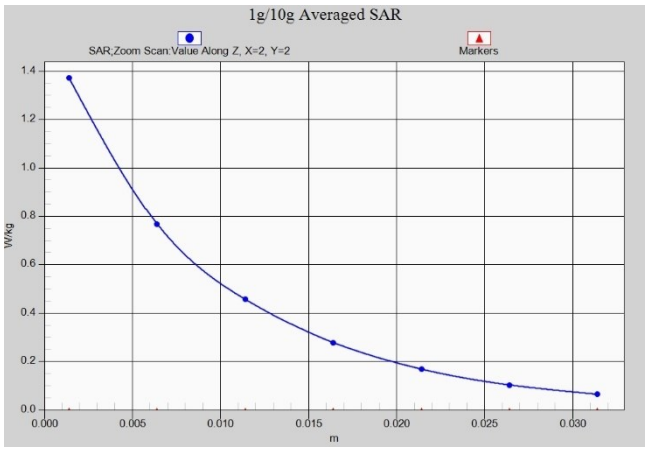


Fig. 1-10 Z-Scan at power reference point (WCDMA1700)

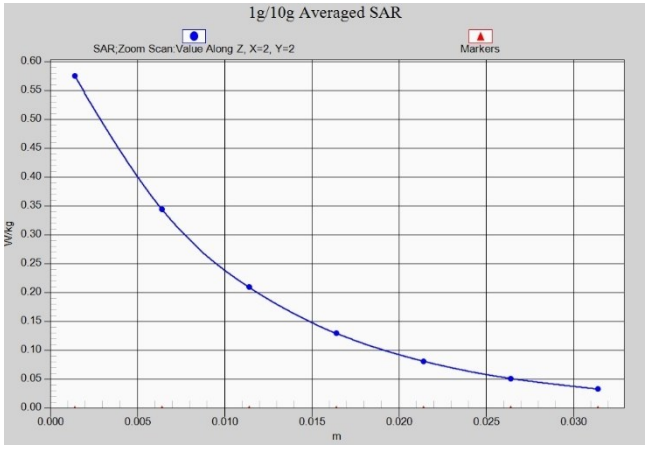


Fig. 1-11 Z-Scan at power reference point (WCDMA1900)

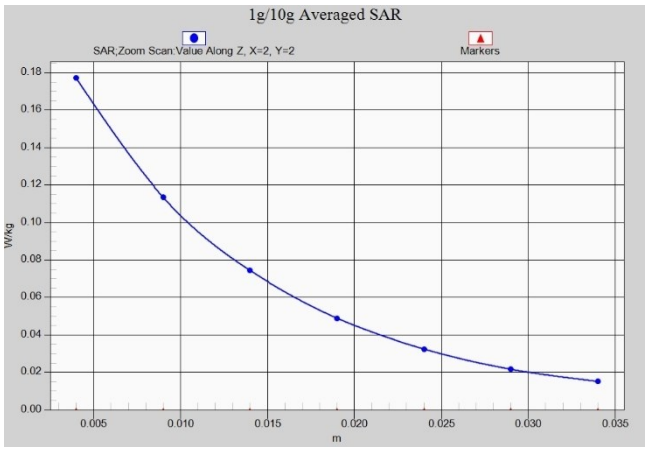


Fig. 1-12 Z-Scan at power reference point (WCDMA1900)

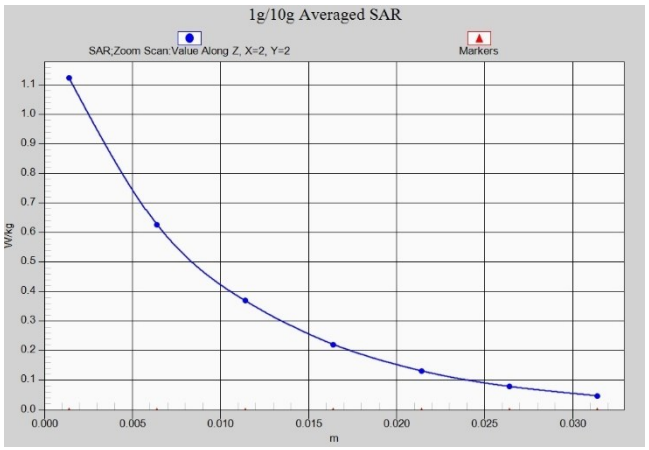


Fig. 1-13 Z-Scan at power reference point (WCDMA1900)

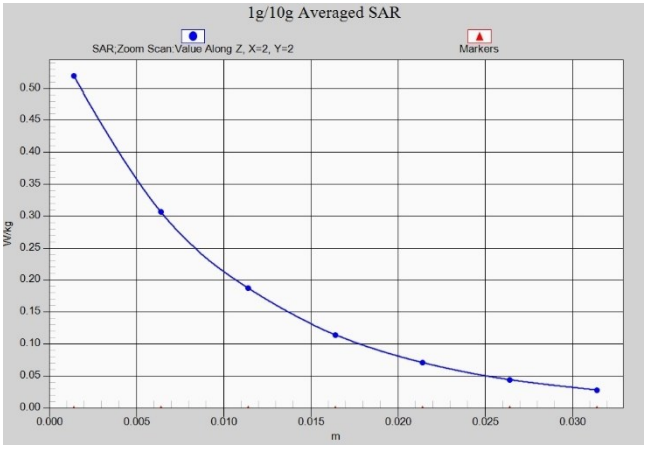


Fig. 1-14 Z-Scan at power reference point (LTE Band12)

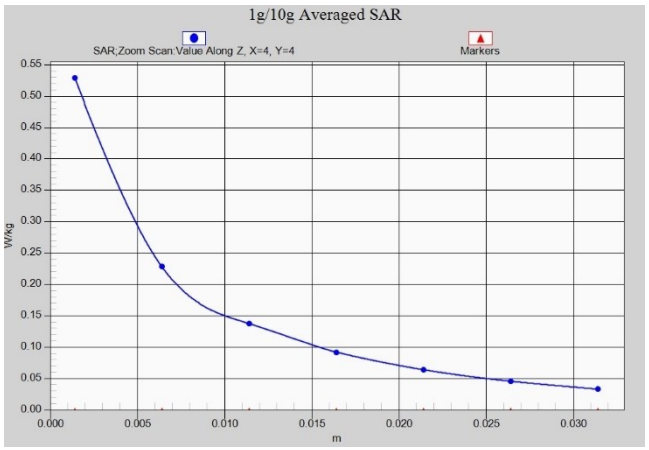


Fig. 1-15 Z-Scan at power reference point (LTE Band12)

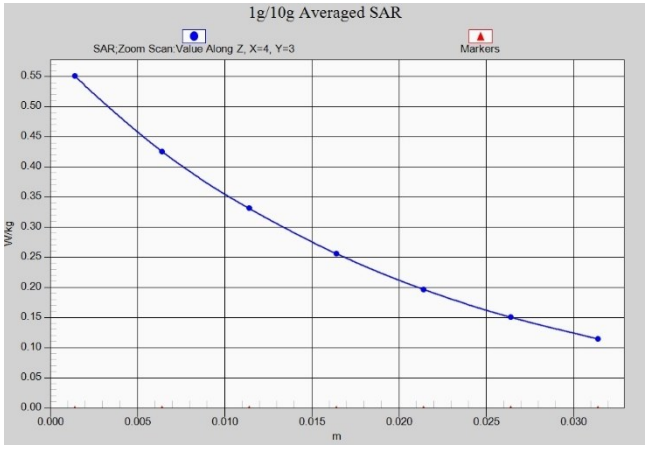


Fig. 1-16 Z-Scan at power reference point (LTE Band13)

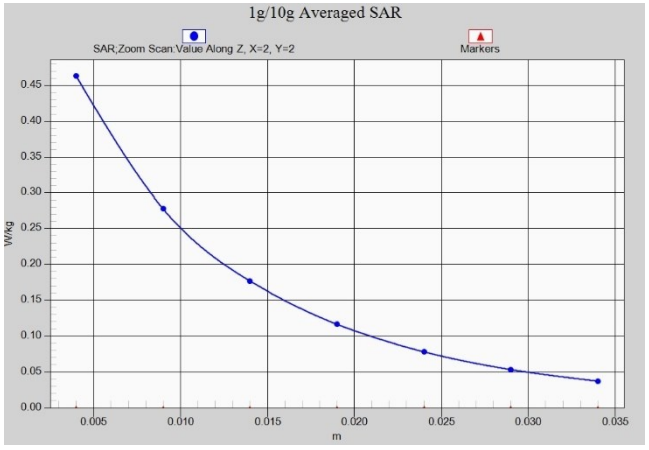


Fig. 1-17 Z-Scan at power reference point (LTE Band13)

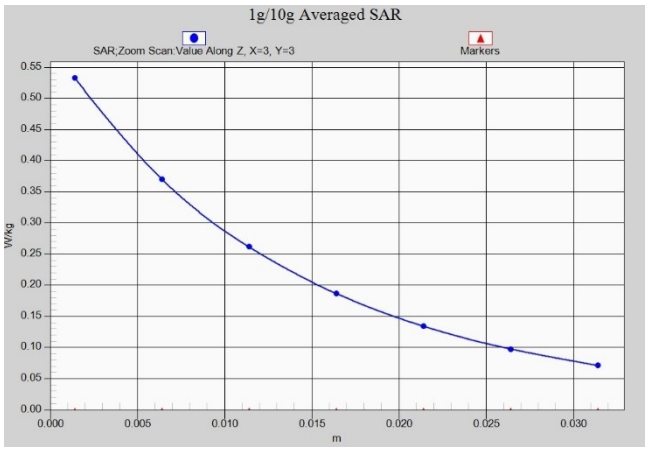


Fig. 1-18 Z-Scan at power reference point (LTE Band25)

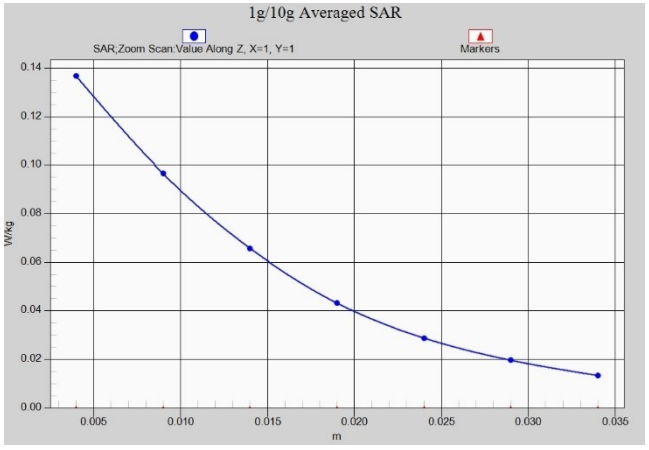


Fig. 1-19 Z-Scan at power reference point (LTE Band25)

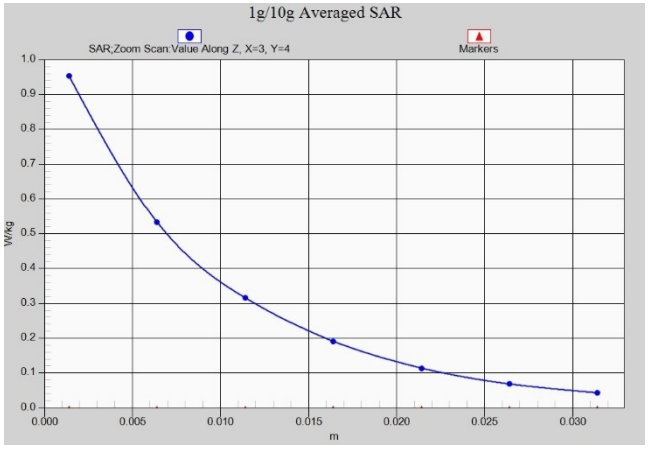


Fig. 1-20 Z-Scan at power reference point (LTE Band25)

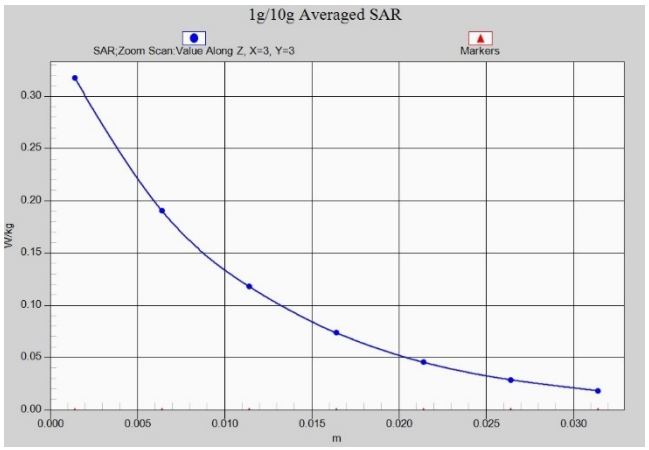


Fig. 1-21 Z-Scan at power reference point (LTE Band26)

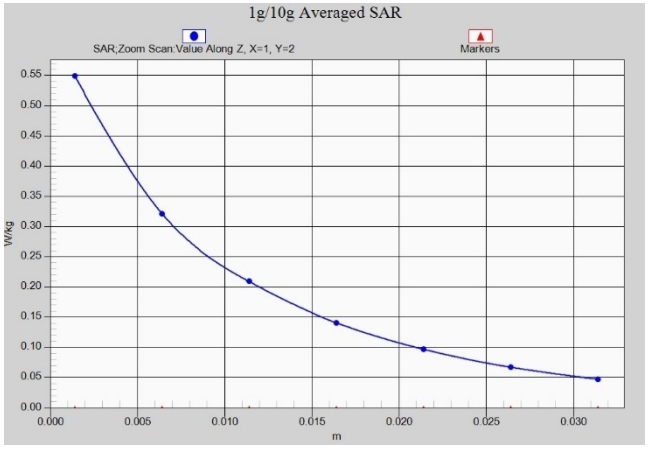


Fig. 1-22 Z-Scan at power reference point (LTE Band26)

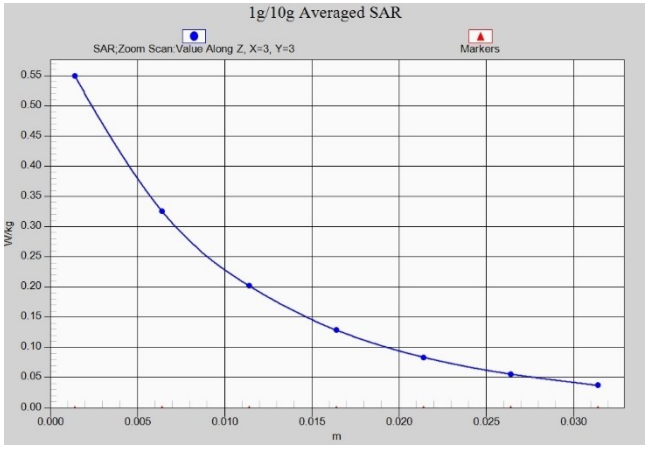


Fig. 1-23 Z-Scan at power reference point (LTE Band41PC3)

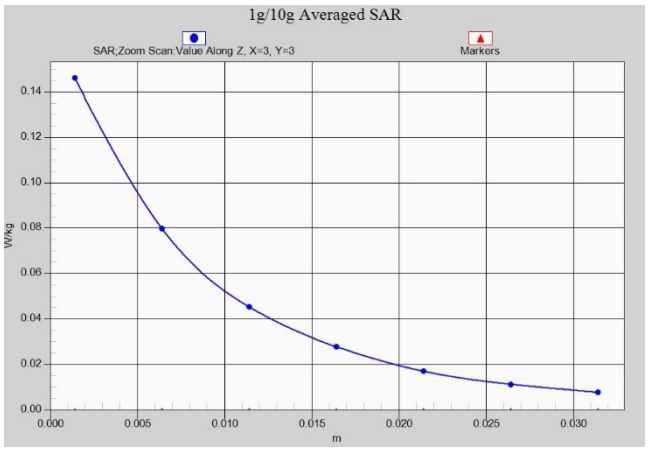


Fig. 1-24 Z-Scan at power reference point (LTE Band41PC3)

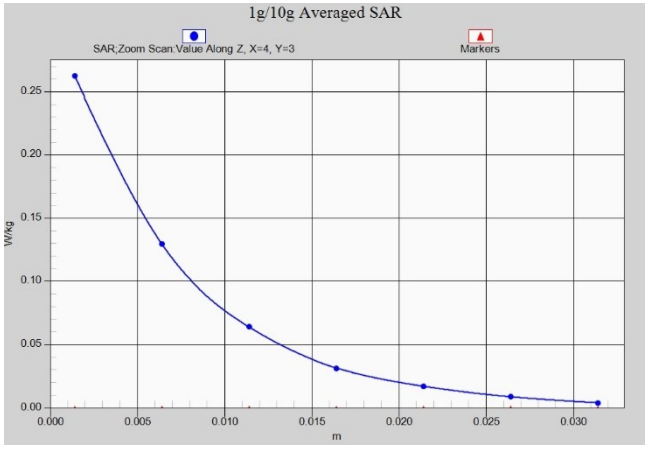


Fig. 1-25 Z-Scan at power reference point (LTE Band41PC3)