TEST REPORT

No.B22N00049-SAR

For

HMD Global Oy

Smart phone

Model Name: N151DL

With

Hardware Version: V1.0

Software Version: 02US_0_160

FCC ID: 2AJOTTA-1510

Issued Date: 2022-02-23

Designation Number: CN1210

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 SAICT.

Test Laboratory:

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
B22N00049-SAR	Rev.0	1st edition	2022-02-23

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1. Summary of Test Report

1.1. Test Items

Description:	Smart phone
Model Name:	N151DL
Applicant's Name:	HMD Global Oy
Manufacturer's Name:	HMD Global Oy

1.2. Test Standards

ANSI C95.1:1992, IEEE 1528:2013

1.3. Test Result

Pass. Please refer to "13. Summary of Test Results"

1.4. Testing Location

Address: Building G, Shenzhen International Innovation Center, No.1006 Shennan Road, Futian District, Shenzhen, Guangdong, P. R. China

1.5. Project Data

Testing Start Date: 2022-01-11 Testing End Date: 2022-02-17

1.6. Signature

Li Yongfu
(Prepared this test report)

Zhang Yunzhuan
(Reviewed this test report)

Cao Junfei
(Approved this test report)

2. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for HMD Global Oy Smart phone N151DL are as follows:

Table 2.1: Highest Reported SAR for Head (1g)

Exposure Configuration	Technology Band	Highest Reported SAR 1g(W/Kg)	Equipment Class
Head (Separation Distance 0mm)	GSM850	0.47	PCE
	PCS1900	0.02	
	WCDMA Band 2	0.54	
	WCDMA Band 4	0.56	
	WCDMA Band 5	0.47	
	LTE Band 2	0.54	
	LTE Band 5	0.55	
	LTE Band 12	0.48	
	LTE Band 13	0.61	
	LTE Band 41(PC3)	0.08	
	LTE Band 41(PC2)	0.10	
	LTE Band 66	0.58	
	LTE Band 71	0.35	
	Bluetooth	0.08	DSS
	WLAN 2.4GHz	**1.11**	DTS
	WLAN 5GHz	0.92	NII

Table 2.2: Highest Reported SAR for Hotspot (1g)

Exposure Configuration	Technology Band	Highest Reported SAR 1g(W/Kg)	Equipment Class
Hotspot (Separation Distance 10mm)	GSM850	0.61	PCE
	PCS1900	0.79	
	WCDMA Band 2	1.19	
	WCDMA Band 4	1.02	
	WCDMA Band 5	0.63	
	LTE Band 2	1.20	
	LTE Band 5	0.59	
	LTE Band 12	0.78	
	LTE Band 13	0.85	
	LTE Band 41(PC3)	**1.33**	
	LTE Band 41(PC2)	0.62	
	LTE Band 66	1.24	

	LTE Band 71	0.68	
	Bluetooth	0.02	DSS
	WLAN 2.4GHz	0.46	DTS
	WLAN 5GHz	1.05	NII

Table 2.3: Highest Reported SAR for Body-worn (1g)

Exposure Configuration	Technology Band	Highest Reported SAR 1g(W/Kg)	Equipment Class
Body-worn (Separation Distance 10/15mm)	GSM850	0.56	PCE
	PCS1900	0.27	
	WCDMA Band 2	0.38	
	WCDMA Band 4	0.44	
	WCDMA Band 5	0.50	
	LTE Band 2	0.60	
	LTE Band 5	0.55	
	LTE Band 12	0.42	
	LTE Band 13	0.52	
	LTE Band 41(PC3)	0.42	
	LTE Band 41(PC2)	0.44	
	LTE Band 66	0.48	
	LTE Band 71	0.39	
	Bluetooth	0.02	DSS
	WLAN 2.4GHz	0.46	DTS
	WLAN 5GHz	**0.79**	NII

Table 2.4: Highest Reported Extremity SAR (10g)

Exposure Configuration	Technology Band	Highest Reported SAR 10g(W/Kg)	Equipment Class
Extremity (Separation Distance 0mm)	WCDMA Band 2	2.39	PCE
	WCDMA Band 4	2.91	
	LTE Band 2	3.12	
	LTE Band 41-PC3	**3.41**	
	LTE Band 41-PC2	3.24	
	LTE Band 66	2.96	
	WLAN 5GHz	2.42	NII

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.

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 & 2.2 & 2.3 & 2.4)**, Head value is **1.11 kg (1g)**, Hotspot value is **1.33 kg (1g)**, Body-worn value is **0.79 kg (1g)** and Extremity SAR value is **3.41g (10g)**.

Table2.5: The sum of reported SAR values for WWAN antenna and WLAN/BT antenna

/	Position	WWAN (W/kg)	WLAN (W/kg)	Sum (W/kg)
Highest reported SAR value for Head	Left Cheek	0.47	1.11	**1.58**
Highest reported SAR value for Hotspot	Rear Side	0.51	1.05	**1.56**
Highest reported SAR value for Body-worn	Rear Side	0.60	0.79	**1.39**
Highest reported SAR value for Extremity	Rear Side	2.18	1.81	**3.99**

Note: the test positions of above tables are for the worse case that has been evaluated.

According to the above tables, the highest sum of reported SAR values is **1.58 W/kg (1g)** and **3.99 W/kg (10g)**.

The detail for simultaneous transmission consideration is described in chapter 12.

3. Client Information

3.1. Applicant Information

Company Name:	HMD Global Oy
Address:	Bertel Jungin aukio 9, 02600,
City:	Espoo
Country:	Finland
Telephone:	+491735287964

3.2. Manufacturer Information

Company Name:	HMD Global Oy
Address:	Bertel Jungin aukio 9, 02600,
City:	Espoo
Country:	Finland
Telephone:	+491735287964

4. Equipment under Test (EUT) and Ancillary Equipment (AE)

4.1. About EUT

Description:	Smart phone
Model Name:	N151DL
Frequency Bands:	GSM850, PCS1900 WCDMA Band 2/4/5 LTE Band 2/4/5/12/13/41/66/71, Bluetooth, WLAN 2.4GHz, WLAN 5GHz
Condition of EUT as received:	No obvious damage in appearance
Tested Tx Frequency:	824 – 849MHz (GSM850)
	1850 – 1910MHz (PCS1900)
	1850 – 1910MHz (WCDMA Band 2)
	1710 – 1755MHz (WCDMA Band 4)
	824 – 849MHz (WCDMA Band 5)
	1850 – 1910MHz (LTE Band 2)
	1700 – 1755MHz (LTE Band 4)
	824 – 849MHz (LTE Band 5)
	699 – 716MHz (LTE Band 12)
	777 – 787MHz (LTE Band 13)
	2496 – 2690MHz (LTE Band 41)
	1710 – 1780MHz (LTE Band 66)
	663 – 689MHz (LTE Band 71)
	2402 – 2480MHz (Bluetooth)
	2412 – 2462MHz (WLAN 2.4GHz)
	5180 – 5825MHz (WLAN 5GHz)
Test device Production information:	Production unit
Device type:	Portable device
Antenna type:	Integrated antenna
Hotspot mode:	Support
Product Dimensions:	Long 156.45mm; Wide 73.14mm; Overall Diagonal 164.2mm

Remark:

1. This device does not support DTM operation.
2. This device WLAN5GHz U-NII-2A and U-NII-2C don't support hotspot operation.
3. There are totally 2 power reduction levels of WWAN antenna and 3 power reduction levels of WLAN antenna, detail descriptions of the power reduction mechanism are included in the operational description.
4. For WWAN transmitter.

a) Hotspot exposure conditions:

Reduced power level 1 – WCDMA Band 2/4, LTE Band 2/5/66/41

While the device WWAN antenna is transmitting, and hotspot mode is enabled, power reduction

enabled for those bands.

b) Body-Worn/ Extremity exposure conditions:
Reduced power level 2 – WCDMA Band 2/4, LTE Band 2/66/41
While the device is transmitting at the WWAN antenna and receiver is not working, power reduction enabled for those bands.
5. For WLAN transmitter (3 sets of power reduction levels).
a) Head exposure conditions:
Reduced power level 3 – WLAN 2.4GHz
While the device WLAN antenna is transmitting and the audio is actively routed through the receiver, power reduction enabled for this band.

b) Hotspot exposure conditions:
Reduced power level 4 – WLAN5GHz U-NII-1
While the device WWAN antenna is transmitting, and hotspot mode is enabled, power reduction enabled for this band.

c) Body-Worn/ Extremity exposure conditions:
Reduced power level 5 – WLAN5G U-NII-1, U-NII-2A
While the device is transmitting at the WLAN antenna and receiver is not working, power reduction enabled for those bands.

4.2. Internal Identification of EUT used during the test

EUT ID*	IMEI	HW Version	SW Version	Receipt Date
UT01aa	350819780022686	V1.0	02US_0_160	2022-01-07
UT02aa	350819780022546	V1.0	02US_0_160	2022-01-07
UT03aa	350819780023288	V1.0	02US_0_160	2022-01-07
UT04aa	350819780023395	V1.0	02US_0_160	2022-01-07
UT05aa	350819780014196	V1.0	02US_0_160	2022-01-07
UT06aa	350819780014212	V1.0	02US_0_160	2022-01-07

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

Note: It is performed to test SAR with the UT01aa & UT02aa & UT03aa & UT04aa, and conducted power with the UT05aa & UT06aa.

4.3. Internal Identification of AE used during the test

AE ID*	Description	Type	Manufacturer
AE1	Battery	TN-BP4000N1	Guangdong Fenghua New Energy Co., Ltd.
AE2	Battery	TN-BP4000N1	Ningbo Veken Battery Company Limited

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

Note: The device has two types of batteries. We'll perform the main SAR measurement with AE1 battery and Spot check test with AE2 battery.

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: Experimental Techniques.

KDB 447498 D01 General RF Exposure Guidance v06 RF Exposure Procedures and Equipment Authorization Policies for Mobile and Portable Devices

KDB 648474 D04 Handset SAR v01r03 SAR Evaluation Considerations for Wireless Handsets.

KDB 941225 D01 SAR test for 3G devices v03r01 SAR Measurement Procedures for 3G Devices

KDB 941225 D05 SAR for LTE Devices v02r05 SAR Evaluation Considerations for LTE Devices

KDB 941225 D06 Hot Spot SAR v02r01 SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities

KDB 248227 D01 802.11 Wi-Fi SAR v02r02 SAR Guidance for IEEE 802.11 (Wi-Fi) Transmitters.

KDB 865664 D01SAR measurement 100 MHz to 6 GHz v01r04 SAR Measurement Requirements for 100 MHz to 6 GHz

KDB 865664 D02 RF Exposure Reporting v01r02 RF Exposure Compliance Reporting and Documentation Considerations

KDB 941225 D07 UMPC Mini Tablet v01r02 SAR Evaluation Procedures for UMPC Mini-Tablet Devices

TCB workshop April 2019; RF Exposure Procedures (Tissue Simulating Liquids)

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

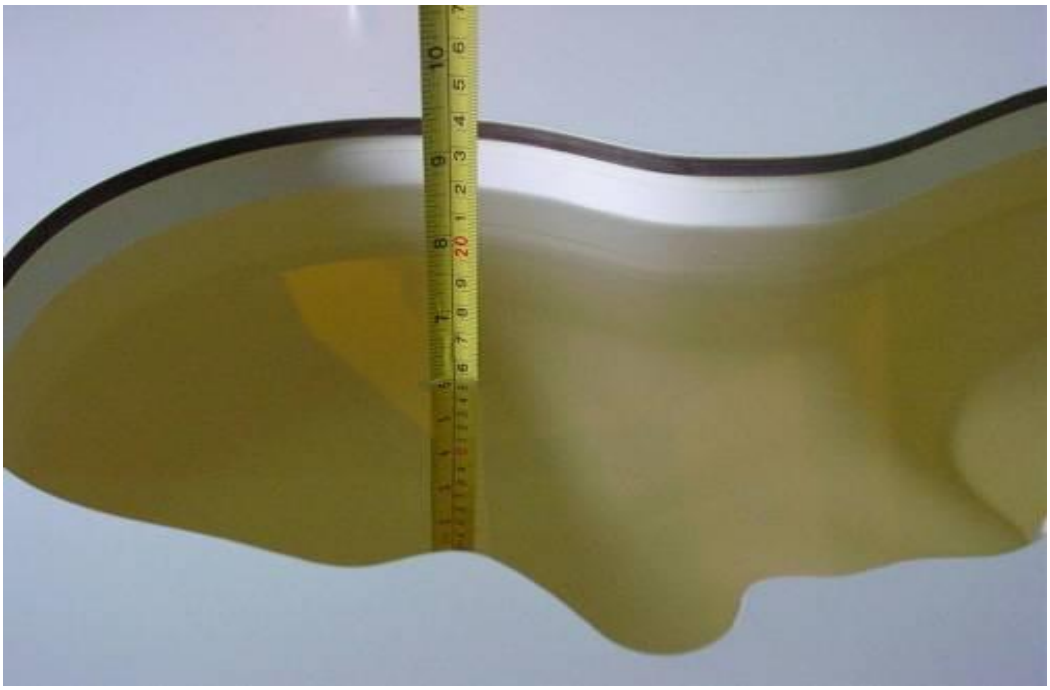
Frequency (MHz)	Liquid Type	Conductivity (σ)	± 5% Range	Permittivity (ε)	± 5% Range
750	Head	0.89	0.85～0.93	41.9	39.8～44.0
835	Head	0.90	0.86～0.95	41.5	39.4～43.6
1750	Head	1.37	1.30～1.44	40.1	38.1～42.1
1900	Head	1.40	1.33～1.47	40.0	38.0～42.0
2450	Head	1.80	1.71～1.89	39.2	37.2～41.2
2550	Head	1.91	1.81～2.01	39.1	37.1～41.0
5250	Head	4.71	4.47～4.95	35.9	34.1～37.7
5600	Head	5.07	4.82～5.32	35.5	33.8～37.3
5750	Head	5.22	4.96～5.48	35.4	33.6～37.1

7.2. Dielectric Performance

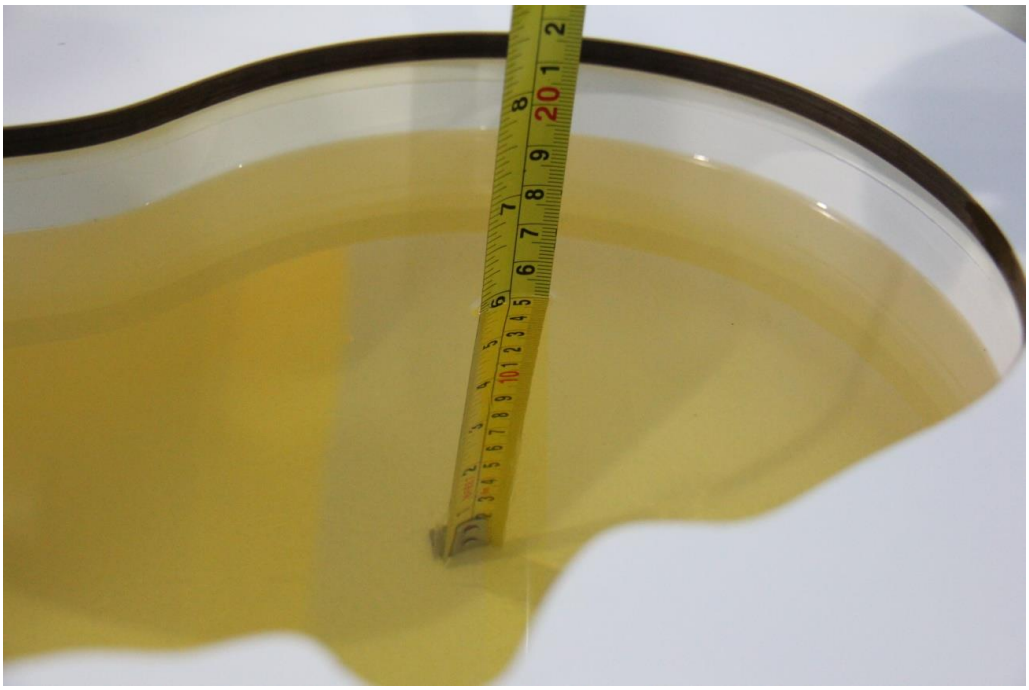
Table 7.2: Dielectric Performance of Tissue Simulating Liquid

Measurement Date (yyyy-mm-dd)	Type	Frequency (MHz)	Conductivity σ (S/m)	Drift (%)	Permittivity ε	Drift (%)
2022-01-26	Head	750	0.905	1.69	41.19	-1.69
2022-01-11	Head	835	0.914	1.56	40.62	-2.12
2022-02-12	Head	1750	1.356	-1.02	39.70	-1.00
2022-01-23	Head	1900	1.417	1.21	39.41	-1.48
2022-01-25	Head	2450	1.831	1.72	38.39	-2.07
2022-02-05	Head	2550	1.939	1.52	38.35	-1.92
2022-02-17	Head	5250	4.654	-1.19	36.48	1.62
2022-02-17	Head	5600	5.163	1.83	34.51	-2.79
2022-02-17	Head	5750	5.117	-1.97	36.26	2.43

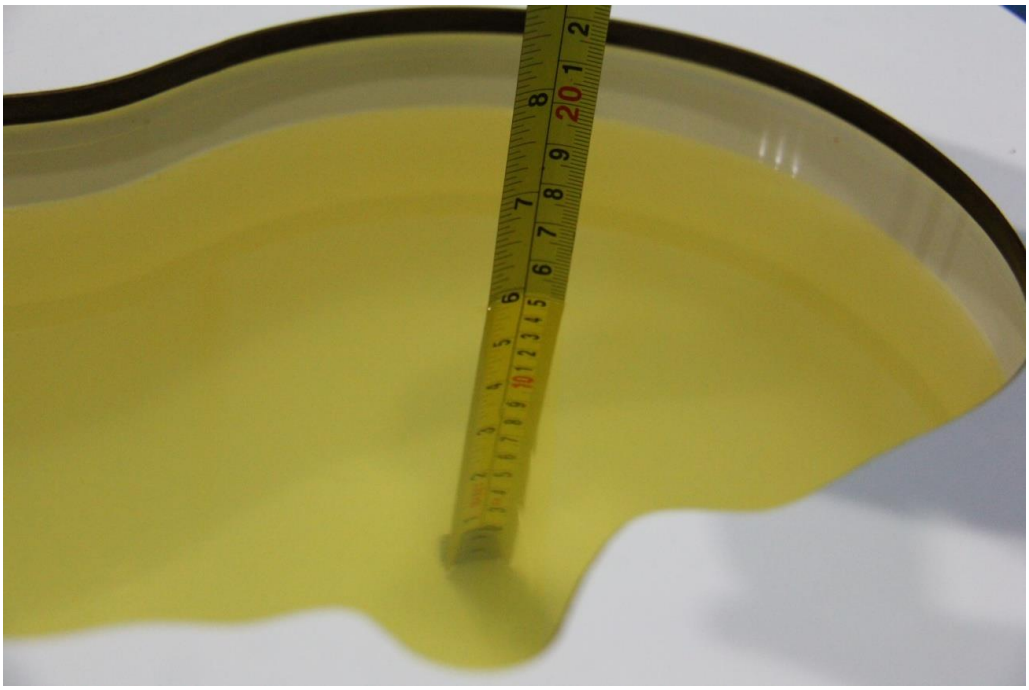
Note: The liquid temperature is 22.0°C.



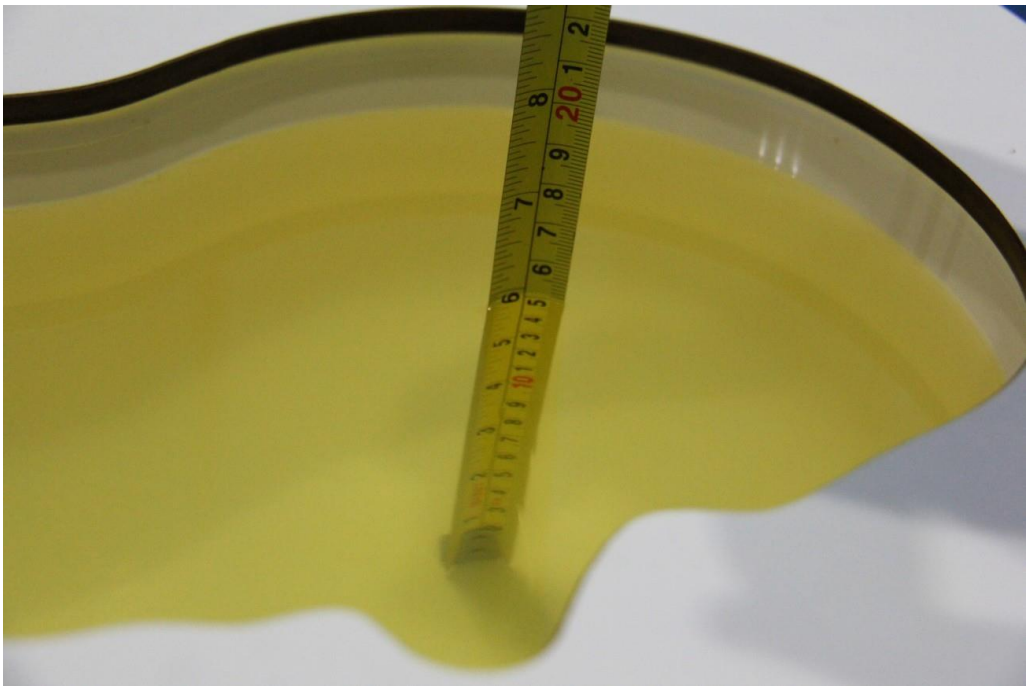
Picture 7-1: Liquid depth in the Head Phantom (750MHz)



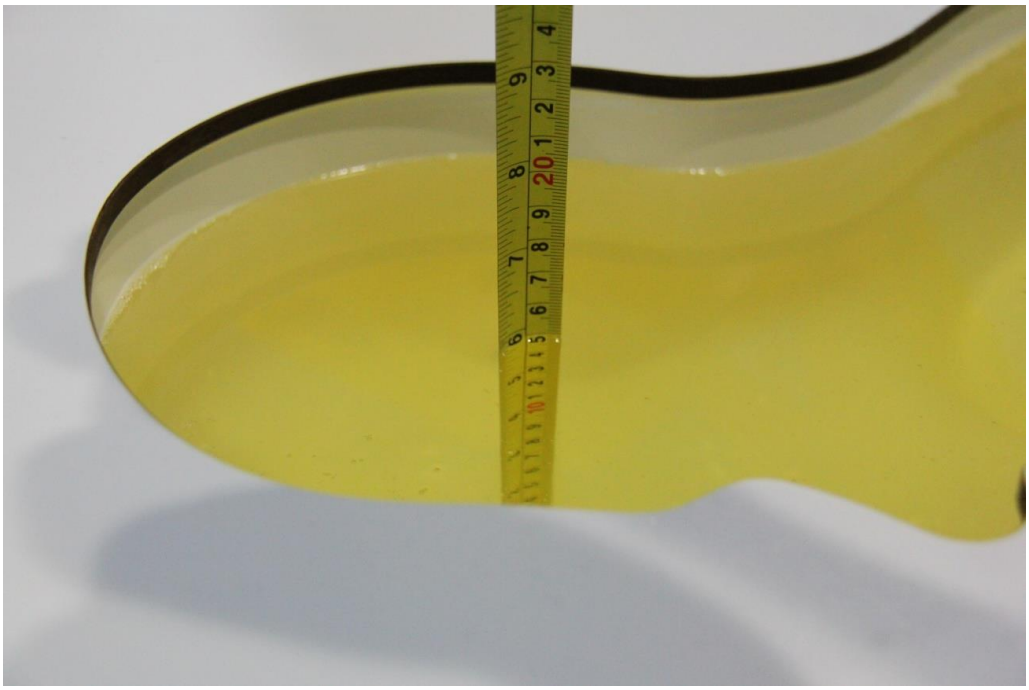
Picture 7-2: Liquid depth in the Head Phantom (835MHz)



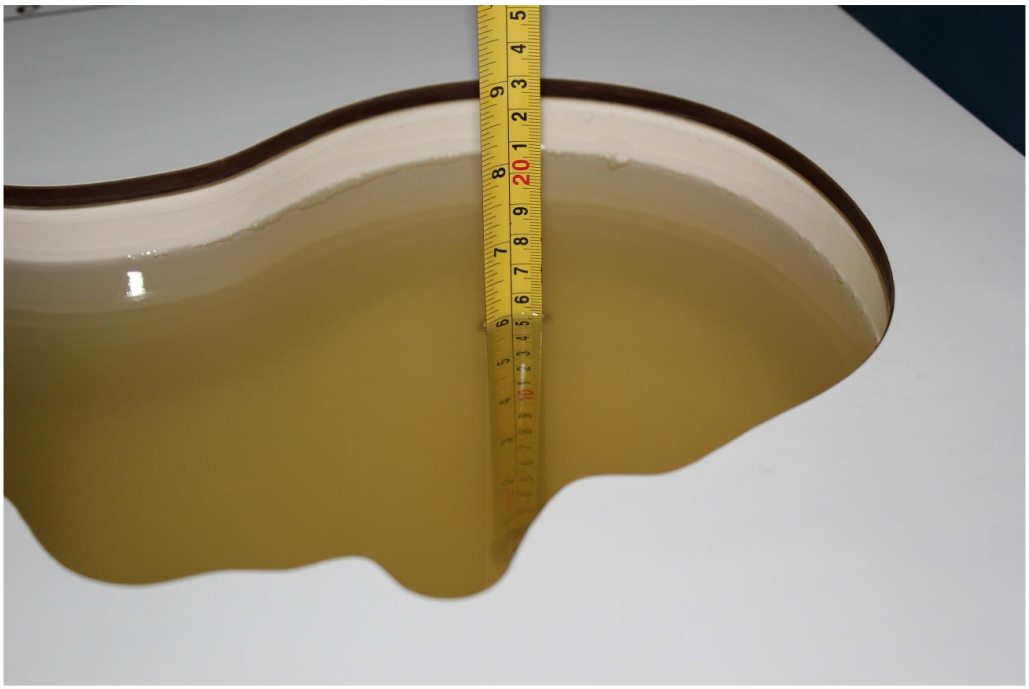
Picture 7-3: Liquid depth in the Head Phantom (1750MHz)



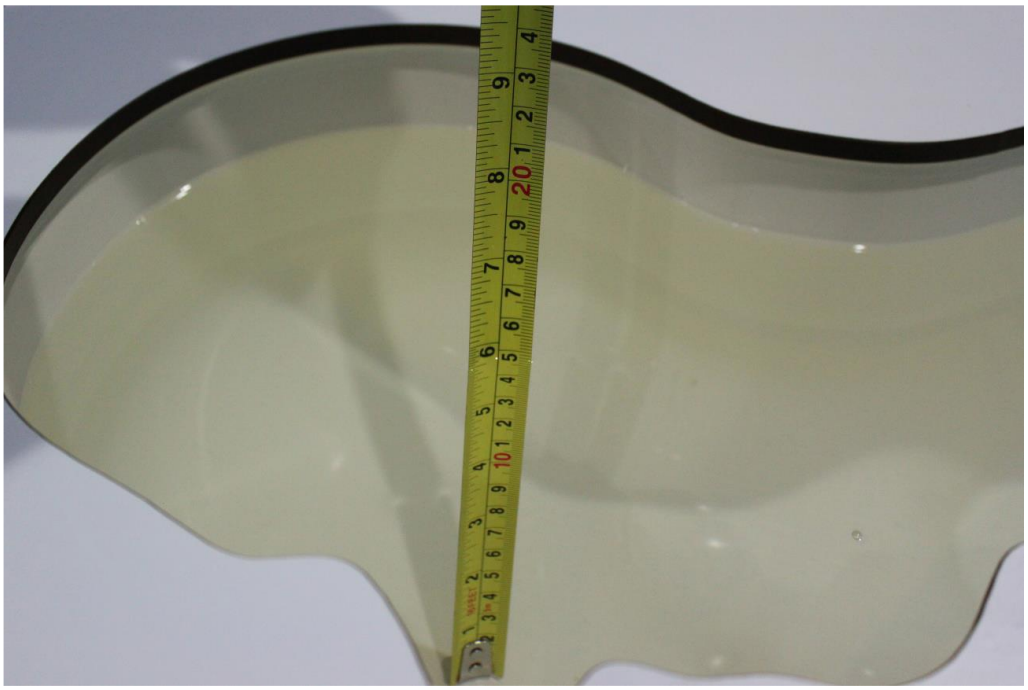
Picture 7-4: Liquid depth in the Head Phantom (1900MHz)



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



Picture 7-6: Liquid depth in the Head Phantom(2550MHz)

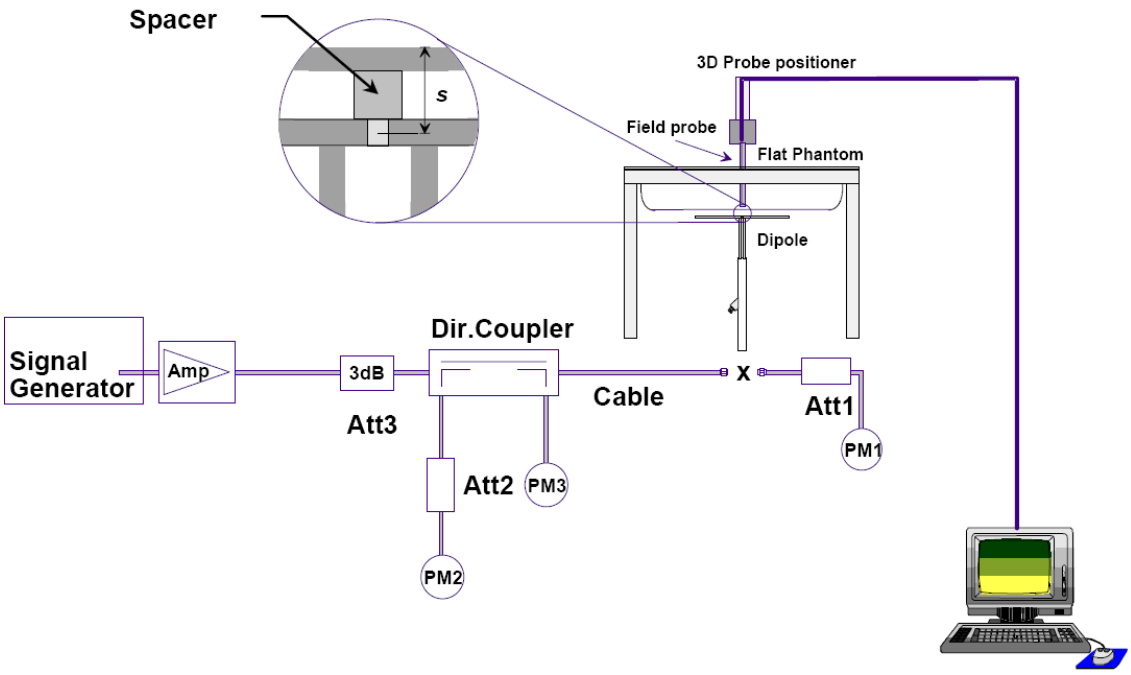


Picture 7-7: Liquid depth in the Head Phantom(5GHz)

8. System verification

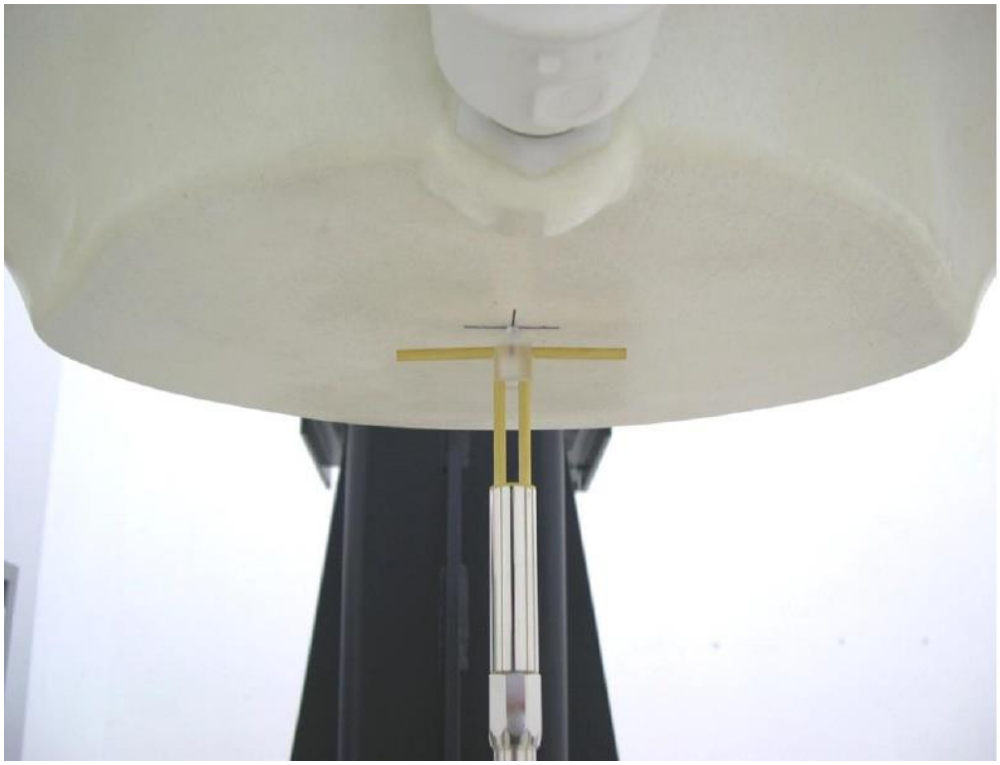
8.1. System Setup

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

For the dipole below 3GHz, the output power on dipole port must be calibrated to 24 dBm (250mW) before dipole is connected.



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.

Table 8.1: System Verification of Head

Measurement Date	Frequency (MHz)	Target value (W/kg)		Measured value (W/kg)				Deviation (%)	
				/		Normalize to 1W			
		10 g	1 g	10 g	1 g	10 g	1 g	10 g	1 g
2022-01-26	750	5.70	8.53	1.44	2.17	5.76	8.68	1.05	1.76
2022-01-11	835	6.29	9.64	1.59	2.46	6.36	9.84	1.11	2.07
2022-02-12	1750	19.30	36.40	4.78	8.96	19.12	35.84	-0.93	-1.54
2022-01-23	1900	20.50	40.20	5.22	10.4	20.88	41.60	1.85	3.48
2022-01-25	2450	24.20	53.20	6.17	13.7	24.68	54.80	1.98	3.01
2022-02-05	2550	25.20	55.90	6.40	14.4	25.60	57.60	1.59	3.04
2022-02-17	5250	22.30	78.00	2.19	7.55	21.90	75.50	-1.79	-3.21
2022-02-17	5600	22.70	79.50	2.32	8.24	23.20	82.40	2.20	3.65
2022-02-17	5750	22.20	78.40	2.16	7.48	21.60	74.80	-2.70	-4.59

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.

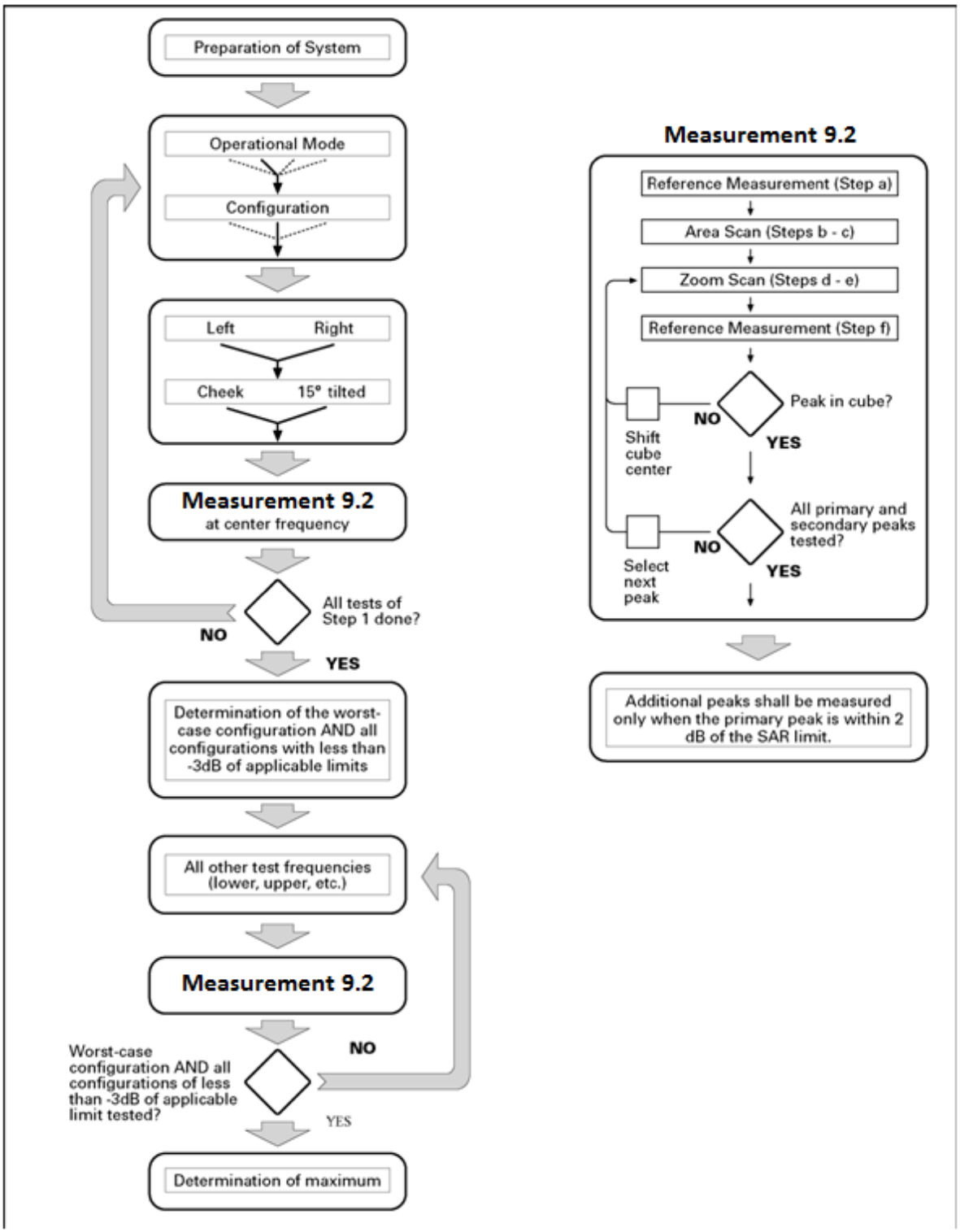
Step 1: The tests described in 9.2 shall be performed at the channel that is closest to the center of the transmit frequency band (f_c) for:

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 within 3 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 9.1 Block 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	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	12/15	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	β_{ed1}:47/15 β_{ed2}:47/15	4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	4/15	56/75	4	1	3.0	2.0	17	71
5	15/15	15/15	64	15/15	24/15	30/15	134/15	4	1	1.0	0.0	21	81

9.4. SAR Measurement for LTE

SAR tests for LTE are performed with a base station simulator, Anristu MT8820C. Closed loop power control was used so the UE transmits with maximum output power during SAR testing. All powers were measured with the Anristu MT8820C.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.

9.5 LTE (TDD) Considerations

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

SAR was tested with the highest transmission duty factor (63.33%) using Uplink-downlink configuration 0 and Special subframe configuration 7.

LTE TDD Band 41 support 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table 4.2-2 for uplink-downlink configurations and Table 4.2-1 for Special subframe configurations.

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	$13168 \cdot T_s$			-	-	-

Configuration of special subframe (lengths of DwPTS/GP/UpPTS)

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

Calculated Duty Cycle

Calculated Duty Cycle = Extended cyclic prefix in uplink x (Ts) x # of S + # of U
Example for Calculated Duty Cycle for Uplink-Downlink Configuration 0:
Calculated Duty Cycle = 5120 x [1/(15000 x 2048)] x 2 + 6 ms = 63.33%
Where
Ts = 1/(15000 x 2048) seconds

Note:

1. From May 2017 TCB Workshop, HPUE does not support uplink-downlink configurations 0 and 6.
2. This device supports uplink-downlink configurations 0-6. The configuration with highest duty cycle was used for SAR Testing: configuration 0 at 63.3% (Power Class 3) and configuration 1 at 43.3% (Power Class 2) duty cycle.

9.6. Bluetooth & WLAN 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.

9.7. 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 Section 14 labeled as: (Power Drift [dB]). This ensures that the power drift during one measurement is within 5%.

10. Conducted Output Power

10.1. GSM Measurement result

During the process of testing, the EUT was controlled via Agilent Digital Radio Communication tester (E5515C) to ensure the maximum power transmission and proper modulation. This result contains conducted output power for the EUT. In all cases, the measured peak output power should be greater and within 5% than EMI measurement.

Table 10.1: The conducted power measurement results for GSM / GPRS/ EGPRS

GSM 850 Speech	Tune up	Measured Power (dBm)			calculation	Averaged Power (dBm)		
		Ch.251	Ch.190	Ch.128		Ch.251	Ch.190	Ch.128
1Tx slot	33.5	31.85	**31.90**	31.84	/	/	/	/
GPRS850/ EGPRS850	/	Measured Power (dBm)			calculation	Averaged Power (dBm)		
		Ch.251	Ch.190	Ch.128	/	Ch.251	Ch.190	Ch.128
1Tx-slots	33.5	31.91	31.92	31.83	-9.03dB	22.88	22.89	22.80
2Tx-slots	31.5	**30.31**	30.29	30.22	-6.02dB	**24.29**	24.27	24.20
3Tx-slots	29.5	28.22	28.22	28.10	-4.26dB	23.96	23.96	23.84
4Tx-slots	27.5	26.19	26.17	26.03	-3.01dB	23.18	23.16	23.02
EGPRS 850 (8PSK)	/	Measured Power (dBm)			calculation	Averaged Power (dBm)		
		Ch.251	Ch.190	Ch.128		Ch.251	Ch.190	Ch.128
1Tx-slots	27.5	26.45	26.36	26.50	-9.03dB	17.42	17.33	17.47
2Tx-slots	25.5	24.24	24.62	24.29	-6.02dB	18.22	18.60	18.27
3Tx-slots	23.5	22.39	21.92	21.80	-4.26dB	18.13	17.66	17.54
4Tx-slots	21.5	19.63	19.58	19.59	-3.01dB	16.62	16.57	16.58

GSM 1900 Speech	Tune up	Measured Power (dBm)			calculation	Averaged Power (dBm)		
		Ch.810	Ch.661	Ch.512		Ch.810	Ch.661	Ch.512
1Tx slot	30.5	28.59	**28.80**	28.68	/	/	/	/
GPRS1900/ EGPRS1900	/	Measured Power (dBm)			calculation	Averaged Power (dBm)		
		Ch.810	Ch.661	Ch.512	/	Ch.810	Ch.661	Ch.512
1Tx-slots	30.5	28.59	28.79	28.66	-9.03dB	19.56	19.76	19.63
2Tx-slots	28.5	27.08	**27.25**	27.11	-6.02dB	21.06	**21.23**	21.09
3Tx-slots	26.5	25.07	25.19	25.04	-4.26dB	20.81	20.93	20.78
4Tx-slots	24.5	23.04	23.12	22.93	-3.01dB	20.03	20.11	19.92
EGPRS1900 (8PSK)	/	Measured Power (dBm)			calculation	Averaged Power (dBm)		
		Ch.810	Ch.661	Ch.512		Ch.810	Ch.661	Ch.512
1Tx-slots	26.5	24.98	24.86	24.89	-9.03dB	15.95	15.83	15.86
2Tx-slots	24.5	22.95	22.93	22.90	-6.02dB	16.93	16.91	16.88
3Tx-slots	22.5	20.89	21.41	20.84	-4.26dB	16.63	17.15	16.58
4Tx-slots	20.5	18.67	18.84	18.66	-3.01dB	15.66	15.83	15.65

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 2Tx slots for GSM850 and GSM1900.

10.2. WCDMA Measurement result

Table 10.2: The conducted power measurement results WCDMA

Normal Power					
Item	band	WCDMA Band 2			
	ARFCN	Tune up	Ch.9538 (1907.6MHz)	Ch.9400 (1880MHz)	Ch.9262 (1852.4MHz)
WCDMA	\	25.0	**23.31**	23.15	23.05
HSUPA	1	22.0	21.10	20.90	20.90
	2	22.0	20.60	20.40	20.30
	3	23.0	21.50	21.40	21.30
	4	21.5	20.10	19.90	19.80
	5	23.0	21.50	21.30	21.30
HSDPA	1	23.5	22.50	22.40	22.30
	2	23.5	22.50	22.30	22.30
	3	23.5	22.10	21.80	21.90
	4	23.5	22.0	21.80	21.80
DC-HSDPA	1	23.5	22.40	22.30	22.20
	2	23.5	22.40	22.20	22.20
	3	23.5	22.0	21.70	21.80
	4	23.5	21.90	21.70	21.70
Reduced power level 1					
Item	band	WCDMA Band 2			
	ARFCN	Tune up	Ch.9538 (1907.6MHz)	Ch.9400 (1880MHz)	Ch.9262 (1852.4MHz)
WCDMA	\	21.5	**19.80**	19.70	19.70
HSUPA	1	18.5	17.40	17.10	17.20
	2	18.5	16.90	16.50	16.70
	3	19.5	17.90	17.60	17.80
	4	18.0	16.40	16.10	16.20
	5	19.5	17.90	17.70	17.60
HSDPA	1	20.0	18.80	18.70	18.70
	2	20.0	18.80	18.70	18.70
	3	20.0	18.40	18.10	18.20
	4	20.0	18.40	18.10	18.20
DC-HSDPA	1	20.0	18.70	18.60	18.60
	2	20.0	18.70	18.60	18.60
	3	20.0	18.30	18.00	18.10
	4	20.0	18.30	18.00	18.10

Reduced power level 2					
Item	band	WCDMA Band 2			
	ARFCN	Tune up	Ch.9538 (1907.6MHz)	Ch.9400 (1880MHz)	Ch.9262 (1852.4MHz)
WCDMA	\	22.5	**20.80**	20.60	20.70
HSUPA	1	19.5	18.40	18.10	18.30
	2	19.5	17.90	17.70	17.70
	3	20.5	18.90	18.60	18.60
	4	19.0	17.40	17.20	17.30
	5	20.5	18.90	18.60	18.70
HSDPA	1	21.0	19.80	19.70	19.60
	2	21.0	19.80	19.60	19.60
	3	21.0	19.30	19.10	19.20
	4	21.0	19.30	19.10	19.20
DC-HSDPA	1	21.0	19.70	19.60	19.50
	2	21.0	19.70	19.50	19.50
	3	21.0	19.20	19.00	19.10
	4	21.0	19.20	19.00	19.10

Normal Power					
Item	band	WCDMA Band 4			
	ARFCN	Tune up	Ch.1513 (1752.6MHz)	Ch.1413 (1732.6MHz)	Ch.1312 (1712.4MHz)
WCDMA	\	25.0	23.23	23.38	**23.44**
HSUPA	1	22.0	20.90	21.10	21.40
	2	22.0	20.40	20.60	20.90
	3	23.0	21.50	21.50	21.80
	4	21.5	19.90	20.10	20.40
	5	23.0	21.40	21.60	21.90
HSDPA	1	23.5	22.40	22.60	22.90
	2	23.5	22.40	22.50	22.90
	3	23.5	22.00	22.10	22.40
	4	23.5	21.90	22.10	22.40
DC-HSDPA	1	23.5	22.30	22.50	22.80
	2	23.5	22.30	22.40	22.80
	3	23.5	21.90	22.00	22.30
	4	23.5	21.80	22.00	22.30
Reduced power level 1					
Item	band	WCDMA Band 4			
	ARFCN	Tune up	Ch.1513 (1752.6MHz)	Ch.1413 (1732.6MHz)	Ch.1312 (1712.4MHz)
WCDMA	\	20.0	18.60	18.70	**19.00**
HSUPA	1	18.0	16.60	17.20	16.40
	2	17.0	15.60	15.60	15.90
	3	18.0	16.50	16.70	17.00
	4	16.5	15.20	15.20	15.50
	5	18.0	16.50	16.70	17.00
HSDPA	1	18.5	17.60	17.70	18.00
	2	18.5	17.60	17.70	18.00
	3	18.5	17.10	17.30	17.50
	4	18.5	17.10	17.20	17.50
DC-HSDPA	1	18.5	17.50	17.60	17.90
	2	18.5	17.50	17.60	17.90
	3	18.5	17.00	17.20	17.40
	4	18.5	17.00	17.10	17.40

Reduced power level 2					
Item	band	WCDMA Band 4			
	ARFCN	Tune up	Ch.1513 (1752.6MHz)	Ch.1413 (1732.6MHz)	Ch.1312 (1712.4MHz)
WCDMA	\	21.5	19.60	19.70	**20.00**
HSUPA	1	18.5	17.10	16.70	17.50
	2	18.5	16.60	16.80	17.10
	3	19.5	17.70	17.70	18.00
	4	18.0	16.20	16.30	16.60
	5	19.5	17.60	17.80	18.10
HSDPA	1	20.0	18.60	18.80	19.10
	2	20.0	18.60	18.70	19.10
	3	20.0	18.10	18.30	18.60
	4	20.0	18.10	18.20	18.50
DC-HSDPA	1	20.0	18.50	18.70	19.00
	2	20.0	18.50	18.60	19.00
	3	20.0	18.00	18.20	18.50
	4	20.0	18.00	18.10	18.40

Item	band	WCDMA Band 5			
	ARFCN	Tune up	Ch.4233 (846.6MHz)	Ch.4182 (836.4MHz)	Ch.4132 (826.4MHz)
WCDMA	\	24.0	22.65	22.71	**22.78**
HSUPA	1	21.0	20.40	20.30	20.20
	2	21.0	20.00	19.90	19.80
	3	22.0	20.90	20.90	20.70
	4	20.5	19.40	19.30	19.20
	5	22.0	21.10	20.90	20.70
HSDPA	1	23.0	22.00	21.80	21.70
	2	23.0	21.90	21.80	21.70
	3	22.5	21.50	21.40	21.30
	4	22.5	21.50	21.40	21.30
DC-HSDPA	1	23.0	21.90	21.70	21.60
	2	23.0	21.80	21.70	21.60
	3	22.5	21.40	21.30	21.20
	4	22.5	21.40	21.30	21.20

10.2. LTE Measurement result

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

a) The maximum out power, including tolerance, for the smaller band must be ≤ the larger band to qualify for SAR test exclusion.

b) The channel bandwidth and other operating parameters for the smaller band must be fully supported by the larger band.

LTE Band 4 (1710-1755MHz) is covered by LTE Band 66 (1710-1780MHz)

Table 10.3: The conducted Power for LTE

Normal Power								
LTE Band 2			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
1.4 MHz	1RB_5	1909.3	23.57	22.79	21.79	24.5	23.5	22.5
		1880.0	23.61	22.81	21.86			
		1850.7	23.60	22.86	21.82			
	1RB_3	1909.3	23.65	22.81	21.85			
		1880.0	23.69	22.96	21.95			
		1850.7	23.73	22.94	21.90			
	1RB_0	1909.3	23.55	22.76	21.82			
		1880.0	23.63	22.85	21.87			
		1850.7	23.61	22.87	21.83			
	3RB_3	1909.3	23.67	22.66	21.77			
		1880.0	23.67	22.69	21.77			
		1850.7	23.73	22.70	21.79			
	3RB_1	1909.3	23.75	22.76	21.81			
		1880.0	23.75	22.75	21.88			
		1850.7	23.75	22.76	21.89			
	3RB_0	1909.3	23.69	22.68	21.78			
		1880.0	23.68	22.68	21.81			
		1850.7	23.69	22.69	21.83			
	6RB_0	1909.3	22.70	21.76	20.67	23.5	22.5	21.5
		1880.0	22.70	21.73	20.68			
		1850.7	22.73	21.77	20.69			

Normal Power								
LTE Band 2			Actual output Power (dBm)			**Tune up**		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
3 MHz	1RB_14	1908.5	23.61	22.88	21.80	**24.5**	**23.5**	**22.5**
		1880.0	23.62	22.94	21.83			
		1851.5	23.63	22.91	21.89			
	1RB_7	1908.5	23.71	23.07	21.97			
		1880.0	23.69	23.01	21.87			
		1851.5	23.74	23.03	21.90			
	1RB_0	1908.5	23.61	22.92	21.78			
		1880.0	23.63	22.97	21.80			
		1851.5	23.65	22.91	21.86			
	8RB_7	1908.5	22.61	21.66	20.66	**23.5**	**22.5**	**21.5**
		1880.0	22.61	21.64	20.64			
		1851.5	22.62	21.69	20.66			
	8RB_4	1908.5	22.66	21.70	20.65			
		1880.0	22.66	21.69	20.65			
		1851.5	22.69	21.71	20.69			
	8RB_0	1908.5	22.62	21.67	20.68			
		1880.0	22.58	21.65	20.63			
		1851.5	22.64	21.69	20.65			
	15RB_0	1908.5	22.62	21.62	20.62			
		1880.0	22.62	21.66	20.61			
		1851.5	22.63	21.64	20.62			

Normal Power								
LTE Band 2			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
5 MHz	1RB_24	1907.5	23.56	22.82	21.79	24.5	23.5	22.5
		1880.0	23.57	22.83	21.79			
		1852.5	23.58	22.88	21.72			
	1RB_12	1907.5	23.70	22.97	21.94			
		1880.0	23.67	22.99	21.92			
		1852.5	23.74	23.04	21.91			
	1RB_0	1907.5	23.54	22.84	21.76			
		1880.0	23.58	22.85	21.80			
		1852.5	23.60	22.90	21.81			
	12RB_13	1907.5	22.64	21.58	20.61	23.5	22.5	21.5
		1880.0	22.64	21.60	20.62			
		1852.5	22.70	21.64	20.66			
	12RB_6	1907.5	22.70	21.64	20.67			
		1880.0	22.67	21.67	20.66			
		1852.5	22.70	21.69	20.67			
	12RB_0	1907.5	22.61	21.58	20.63			
		1880.0	22.64	21.60	20.65			
		1852.5	22.65	21.63	20.64			
	25RB_0	1907.5	22.65	21.63	20.62			
		1880.0	22.67	21.64	20.62			
		1852.5	22.66	21.63	20.63			

Normal Power								
LTE Band 2			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
10 MHz	1RB_49	1905.0	23.57	22.80	21.73	24.5	23.5	22.5
		1880.0	23.56	22.87	21.73			
		1855.0	23.52	22.87	21.75			
	1RB_24	1905.0	23.67	22.88	21.86			
		1880.0	23.65	22.95	21.89			
		1855.0	23.69	22.97	21.93			
	1RB_0	1905.0	23.52	22.79	21.74			
		1880.0	23.58	22.90	21.78			
		1855.0	23.63	22.94	21.89			
	25RB_25	1905.0	22.64	21.58	20.60	23.5	22.5	21.5
		1880.0	22.65	21.64	20.61			
		1855.0	22.69	21.66	20.68			
	25RB_12	1905.0	22.67	21.60	20.63			
		1880.0	22.67	21.65	20.66			
		1855.0	22.65	21.65	20.62			
	25RB_0	1905.0	22.68	21.62	20.62			
		1880.0	22.69	21.66	20.66			
		1855.0	22.63	21.64	20.65			
	50RB_0	1905.0	22.65	21.61	20.60			
		1880.0	22.67	21.66	20.63			
		1855.0	22.66	21.65	20.64			

Normal Power								
LTE Band 2			Actual output Power (dBm)			**Tune up**		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
15 MHz	1RB_74	1902.5	23.55	22.83	21.76	**24.5**	**23.5**	**22.5**
		1880.0	23.56	22.86	21.82			
		1857.5	23.51	22.86	21.84			
	1RB_37	1902.5	23.56	22.81	21.76			
		1880.0	23.61	22.91	21.88			
		1857.5	23.59	22.93	21.88			
	1RB_0	1902.5	23.54	22.86	21.80			
		1880.0	23.60	22.91	21.88			
		1857.5	23.64	22.95	21.92			
	36RB_38	1902.5	22.64	21.62	20.63	**23.5**	**22.5**	**21.5**
		1880.0	22.67	21.61	20.66			
		1857.5	22.67	21.63	20.64			
	36RB_19	1902.5	22.66	21.63	20.65			
		1880.0	22.66	21.66	20.66			
		1857.5	22.67	21.65	20.63			
	36RB_0	1902.5	22.63	21.63	20.65			
		1880.0	22.69	21.64	20.68			
		1857.5	22.65	21.64	20.64			
	75RB_0	1902.5	22.65	21.64	20.63			
		1880.0	22.70	21.63	20.65			
		1857.5	22.63	21.66	20.64			

Normal Power								
LTE Band 2			Actual output Power (dBm)			**Tune up**		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
20 MHz	1RB_99	1900.0	23.64	22.84	21.85	**24.5**	**23.5**	**22.5**
		1880.0	23.49	22.82	21.76			
		1860.0	23.53	22.77	21.78			
	1RB_50	1900.0	23.64	22.93	21.85			
		1880.0	23.61	22.98	21.79			
		1860.0	23.66	22.82	21.87			
	1RB_0	1900.0	23.55	22.83	21.77			
		1880.0	23.55	22.91	21.78			
		1860.0	**23.67**	22.95	21.89			
	50RB_50	1900.0	22.59	21.61	20.63	**23.5**	**22.5**	**21.5**
		1880.0	22.61	21.63	20.63			
		1860.0	22.65	21.63	20.64			
	50RB_25	1900.0	22.64	21.66	20.64			
		1880.0	22.62	21.63	20.62			
		1860.0	**22.66**	21.65	20.67			
	50RB_0	1900.0	22.65	21.67	20.67			
		1880.0	22.62	21.61	20.60			
		1860.0	22.60	21.60	20.60			
	100RB_0	1900.0	22.66	21.66	20.65			
		1880.0	22.65	21.63	20.63			
		1860.0	22.60	21.61	20.63			

Reduced power level 1								
LTE Band 2			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
1.4 MHz	1RB_5	1909.3	21.55	20.77	19.71	22.5	21.5	20.5
		1880.0	21.53	20.84	19.70			
		1850.7	21.56	20.86	19.79			
	1RB_3	1909.3	21.65	20.90	19.81			
		1880.0	21.65	20.94	19.84			
		1850.7	21.65	20.91	19.88			
	1RB_0	1909.3	21.51	20.80	19.74			
		1880.0	21.53	20.85	19.75			
		1850.7	21.54	20.85	19.80			
	3RB_3	1909.3	21.63	20.57	19.73			
		1880.0	21.64	20.65	19.77			
		1850.7	21.62	20.67	19.77			
	3RB_1	1909.3	21.60	20.68	19.82			
		1880.0	21.68	20.68	19.81			
		1850.7	21.72	20.70	19.83			
	3RB_0	1909.3	21.63	20.62	19.76			
		1880.0	21.67	20.64	19.75			
		1850.7	21.63	20.65	19.78			
	6RB_0	1909.3	20.58	19.73	18.65	21.5	20.5	19.5
		1880.0	20.61	19.76	18.61			
		1850.7	20.62	19.76	18.66			

Reduced power level 1								
LTE Band 2			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
3 MHz	1RB_14	1908.5	21.57	20.91	19.81	22.5	21.5	20.5
		1880.0	21.58	20.92	19.83			
		1851.5	21.57	20.92	19.82			
	1RB_7	1908.5	21.68	20.98	19.95			
		1880.0	21.68	21.05	19.91			
		1851.5	21.75	21.01	19.93			
	1RB_0	1908.5	21.56	20.90	19.79			
		1880.0	21.59	20.95	19.88			
		1851.5	21.61	20.99	19.83			
	8RB_7	1908.5	20.56	19.68	18.65	21.5	20.5	19.5
		1880.0	20.57	19.67	18.67			
		1851.5	20.55	19.68	18.61			
	8RB_4	1908.5	20.59	19.72	18.64			
		1880.0	20.60	19.69	18.68			
		1851.5	20.54	19.67	18.67			
	8RB_0	1908.5	20.55	19.67	18.63			
		1880.0	20.57	19.67	18.65			
		1851.5	20.59	19.73	18.67			
	15RB_0	1908.5	20.56	19.61	18.61			
		1880.0	20.55	19.63	18.58			
		1851.5	20.55	19.61	18.58			

Reduced power level 1								
LTE Band 2			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
5 MHz	1RB_24	1907.5	21.53	20.87	19.79	22.5	21.5	20.5
		1880.0	21.55	20.88	19.80			
		1852.5	21.52	20.86	19.82			
	1RB_12	1907.5	21.69	21.03	20.02			
		1880.0	21.67	21.04	20.00			
		1852.5	21.70	21.11	20.06			
	1RB_0	1907.5	21.54	20.83	19.76			
		1880.0	21.57	20.88	19.87			
		1852.5	21.61	20.93	19.88			
	12RB_13	1907.5	20.58	19.60	18.61	21.5	20.5	19.5
		1880.0	20.57	19.60	18.67			
		1852.5	20.62	19.63	18.66			
	12RB_6	1907.5	20.66	19.67	18.64			
		1880.0	20.61	19.66	18.66			
		1852.5	20.61	19.63	18.66			
	12RB_0	1907.5	20.58	19.58	18.60			
		1880.0	20.61	19.62	18.67			
		1852.5	20.61	19.59	18.61			
	25RB_0	1907.5	20.61	19.65	18.64			
		1880.0	20.61	19.66	18.66			
		1852.5	20.60	19.65	18.63			

Reduced power level 1								
LTE Band 2			Actual output Power (dBm)			**Tune up**		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
10 MHz	1RB_49	1905.0	21.58	20.89	19.79	**22.5**	**21.5**	**20.5**
		1880.0	21.59	20.94	19.82			
		1855.0	21.56	20.87	19.80			
	1RB_24	1905.0	21.64	21.04	19.85			
		1880.0	21.70	21.07	19.91			
		1855.0	21.64	21.03	19.91			
	1RB_0	1905.0	21.57	20.93	19.80			
		1880.0	21.65	20.98	19.89			
		1855.0	21.65	20.99	19.92			
	25RB_25	1905.0	20.66	19.68	18.67	**21.5**	**20.5**	**19.5**
		1880.0	20.67	19.70	18.69			
		1855.0	20.72	19.71	18.70			
	25RB_12	1905.0	20.63	19.64	18.66			
		1880.0	20.65	19.67	18.69			
		1855.0	20.64	19.67	18.66			
	25RB_0	1905.0	20.68	19.69	18.70			
		1880.0	20.69	19.73	18.72			
		1855.0	20.62	19.67	18.66			
	50RB_0	1905.0	20.64	19.68	18.66			
		1880.0	20.65	19.70	18.72			
		1855.0	20.64	19.71	18.69			

Reduced power level 1								
LTE Band 2			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
15 MHz	1RB_74	1902.5	21.57	20.89	19.78	22.5	21.5	20.5
		1880.0	21.51	20.86	19.75			
		1857.5	21.52	20.83	19.68			
	1RB_37	1902.5	21.56	20.84	19.73			
		1880.0	21.57	20.91	19.80			
		1857.5	21.57	20.91	19.74			
	1RB_0	1902.5	21.61	20.86	19.77			
		1880.0	21.62	20.95	19.81			
		1857.5	21.63	20.97	19.86			
	36RB_38	1902.5	20.61	19.65	18.66	21.5	20.5	19.5
		1880.0	20.65	19.66	18.69			
		1857.5	20.62	19.63	18.65			
	36RB_19	1902.5	20.59	19.65	18.62			
		1880.0	20.64	19.66	18.68			
		1857.5	20.62	19.63	18.66			
	36RB_0	1902.5	20.62	19.66	18.65			
		1880.0	20.66	19.67	18.72			
		1857.5	20.59	19.61	18.61			
	75RB_0	1902.5	20.61	19.68	18.62			
		1880.0	20.65	19.68	18.65			
		1857.5	20.62	19.66	18.62			

Reduced power level 1								
LTE Band 2			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
20 MHz	1RB_99	1900.0	21.55	20.86	19.88	22.5	21.5	20.5
		1880.0	21.55	20.83	19.87			
		1860.0	21.54	20.84	19.83			
	1RB_50	1900.0	21.56	20.97	19.96			
		1880.0	21.62	21.02	20.00			
		1860.0	21.66	20.99	19.91			
	1RB_0	1900.0	21.65	20.87	19.70			
		1880.0	21.68	20.93	19.93			
		1860.0	**21.68**	20.99	19.93			
	50RB_50	1900.0	20.53	19.59	18.58	21.5	20.5	19.5
		1880.0	20.63	19.65	18.66			
		1860.0	20.58	19.64	18.65			
	50RB_25	1900.0	20.60	19.64	18.62			
		1880.0	20.64	19.68	18.65			
		1860.0	**20.65**	19.65	18.65			
	50RB_0	1900.0	20.59	19.69	18.64			
		1880.0	20.63	19.69	18.68			
		1860.0	20.55	19.59	18.59			
	100RB_0	1900.0	20.59	19.66	18.62			
		1880.0	20.65	19.70	18.69			
		1860.0	20.58	19.63	18.62			

Reduced power level 2								
LTE Band 2			Actual output Power (dBm)			**Tune up**		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
1.4 MHz	1RB_5	1909.3	22.96	22.21	21.14	**24.0**	**23.0**	**22.0**
		1880.0	22.98	22.26	21.11			
		1850.7	23.01	22.35	21.21			
	1RB_3	1909.3	23.10	22.32	21.21			
		1880.0	23.04	22.38	21.22			
		1850.7	23.09	22.41	21.25			
	1RB_0	1909.3	22.97	22.27	21.15			
		1880.0	22.97	22.29	21.15			
		1850.7	23.03	22.35	21.22			
	3RB_3	1909.3	23.09	22.02	21.12			
		1880.0	23.06	22.06	21.18			
		1850.7	23.10	22.12	21.21			
	3RB_1	1909.3	23.13	22.09	21.22			
		1880.0	23.13	22.08	21.24			
		1850.7	23.15	22.16	21.21			
	3RB_0	1909.3	23.06	22.04	21.18			
		1880.0	23.08	22.07	21.19			
		1850.7	23.11	22.06	21.19			
	6RB_0	1909.3	22.08	21.15	20.08	**23.0**	**22.0**	**21.0**
		1880.0	22.08	21.17	20.04			
		1850.7	22.13	21.19	20.12			

Reduced power level 2								
LTE Band 2			Actual output Power (dBm)			**Tune up**		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
3 MHz	1RB_14	1908.5	23.03	22.27	21.25	**24.0**	**23.0**	**22.0**
		1880.0	23.03	22.35	21.23			
		1851.5	23.04	22.35	21.19			
	1RB_7	1908.5	23.15	22.38	21.39			
		1880.0	23.12	22.43	21.29			
		1851.5	23.18	22.44	21.32			
	1RB_0	1908.5	23.00	22.28	21.23			
		1880.0	23.07	22.33	21.14			
		1851.5	23.09	22.44	21.25			
	8RB_7	1908.5	22.02	21.07	20.11	**23.0**	**22.0**	**21.0**
		1880.0	22.02	21.08	20.10			
		1851.5	22.04	21.09	20.15			
	8RB_4	1908.5	22.03	21.08	20.11			
		1880.0	22.06	21.11	20.11			
		1851.5	22.07	21.12	20.15			
	8RB_0	1908.5	22.03	21.10	20.10			
		1880.0	22.05	21.09	20.08			
		1851.5	22.09	21.13	20.16			
	15RB_0	1908.5	22.03	21.03	20.03			
		1880.0	22.02	21.02	20.03			
		1851.5	22.02	21.02	20.09			

Reduced power level 2								
LTE Band 2			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
5 MHz	1RB_24	1907.5	22.98	22.25	21.20	24.0	23.0	22.0
		1880.0	22.97	22.30	21.17			
		1852.5	23.02	22.30	21.20			
	1RB_12	1907.5	23.17	22.51	21.31			
		1880.0	23.10	22.42	21.27			
		1852.5	23.24	22.52	21.43			
	1RB_0	1907.5	22.99	22.28	21.13			
		1880.0	23.00	22.32	21.18			
		1852.5	23.08	22.38	21.27			
	12RB_13	1907.5	22.02	21.01	20.09	23.0	22.0	21.0
		1880.0	22.04	21.02	20.06			
		1852.5	22.10	21.09	20.13			
	12RB_6	1907.5	22.10	21.08	20.13			
		1880.0	22.07	21.05	20.14			
		1852.5	22.11	21.10	20.13			
	12RB_0	1907.5	22.01	21.04	20.03			
		1880.0	22.08	21.03	20.10			
		1852.5	22.06	21.04	20.09			
	25RB_0	1907.5	22.04	21.03	20.07			
		1880.0	22.08	21.03	20.08			
		1852.5	22.07	21.11	20.10			

Reduced power level 2								
LTE Band 2			Actual output Power (dBm)			**Tune up**		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
10 MHz	1RB_49	1905.0	23.00	22.27	21.21	**24.0**	**23.0**	**22.0**
		1880.0	23.01	22.33	21.20			
		1855.0	23.05	22.34	21.19			
	1RB_24	1905.0	23.08	22.32	21.23			
		1880.0	23.10	22.42	21.38			
		1855.0	23.12	22.48	21.32			
	1RB_0	1905.0	23.00	22.30	21.13			
		1880.0	23.08	22.40	21.24			
		1855.0	23.10	22.44	21.34			
	25RB_25	1905.0	22.12	21.08	20.14	**23.0**	**22.0**	**21.0**
		1880.0	22.15	21.09	20.17			
		1855.0	22.17	21.14	20.17			
	25RB_12	1905.0	22.08	21.08	20.08			
		1880.0	22.08	21.09	20.15			
		1855.0	22.12	21.11	20.17			
	25RB_0	1905.0	22.12	21.08	20.14			
		1880.0	22.11	21.11	20.13			
		1855.0	22.10	21.10	20.14			
	50RB_0	1905.0	22.08	21.11	20.12			
		1880.0	22.12	21.12	20.14			
		1855.0	22.14	21.10	20.17			

Reduced power level 2								
LTE Band 2			Actual output Power (dBm)			**Tune up**		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
15 MHz	1RB_74	1902.5	23.00	22.29	21.21	**24.0**	**23.0**	**22.0**
		1880.0	22.97	22.33	21.17			
		1857.5	22.99	22.31	21.15			
	1RB_37	1902.5	22.94	22.26	21.20			
		1880.0	23.06	22.34	21.20			
		1857.5	23.01	22.35	21.22			
	1RB_0	1902.5	22.99	22.33	21.26			
		1880.0	23.06	22.31	21.22			
		1857.5	23.14	22.40	21.30			
	36RB_38	1902.5	22.06	21.06	20.05	**23.0**	**22.0**	**21.0**
		1880.0	22.08	21.06	20.10			
		1857.5	22.10	21.07	20.11			
	36RB_19	1902.5	22.07	21.06	20.04			
		1880.0	22.08	21.03	20.11			
		1857.5	22.13	21.08	20.14			
	36RB_0	1902.5	22.03	21.02	20.07			
		1880.0	22.10	21.08	20.13			
		1857.5	22.07	21.02	20.12			
	75RB_0	1902.5	22.03	21.02	20.06			
		1880.0	22.08	21.04	20.09			
		1857.5	22.08	21.06	20.09			

Reduced power level 2								
LTE Band 2			Actual output Power (dBm)			**Tune up**		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
20 MHz	1RB_99	1900.0	22.99	22.32	21.21	**24.0**	**23.0**	**22.0**
		1880.0	22.96	22.27	21.23			
		1860.0	22.96	22.30	21.27			
	1RB_50	1900.0	23.02	22.37	21.33			
		1880.0	23.08	22.39	21.38			
		1860.0	23.09	22.41	21.39			
	1RB_0	1900.0	23.04	22.33	21.24			
		1880.0	23.06	22.38	21.34			
		1860.0	**23.10**	22.41	21.39			
	50RB_50	1900.0	22.00	20.97	20.01	**23.0**	**22.0**	**21.0**
		1880.0	22.09	21.06	20.09			
		1860.0	22.07	21.08	20.09			
	50RB_25	1900.0	22.03	21.03	20.04			
		1880.0	22.09	21.08	20.12			
		1860.0	**22.10**	21.10	20.11			
	50RB_0	1900.0	22.04	21.08	20.07			
		1880.0	22.09	21.08	20.11			
		1860.0	22.02	21.01	20.05			
	100RB_0	1900.0	22.08	21.04	20.04			
		1880.0	22.11	21.07	20.13			
		1860.0	22.06	21.04	20.09			

Normal Power								
LTE Band 5			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
1.4 MHz	1RB_5	848.3	24.09	23.32	22.23	25.0	24.0	23.0
		836.5	24.08	23.30	22.27			
		824.7	24.10	23.36	22.33			
	1RB_3	848.3	24.16	23.42	22.32			
		836.5	24.16	23.37	22.33			
		824.7	24.18	23.44	22.36			
	1RB_0	848.3	24.05	23.32	22.23			
		836.5	24.08	23.32	22.29			
		824.7	24.11	23.38	22.33			
	3RB_3	848.3	24.18	23.18	22.28			
		836.5	24.14	23.18	22.27			
		824.7	24.21	23.19	22.28			
	3RB_1	848.3	24.24	23.26	22.33			
		836.5	24.18	23.21	22.33			
		824.7	24.19	23.18	22.30			
	3RB_0	848.3	24.19	23.20	22.28			
		836.5	24.17	23.17	22.27			
		824.7	24.18	23.19	22.31			
	6RB_0	848.3	23.25	22.30	21.15	24.0	23.0	22.0
		836.5	23.19	22.29	21.17			
		824.7	23.22	22.26	21.18			

Normal Power								
LTE Band 5			Actual output Power (dBm)			**Tune up**		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
3 MHz	1RB_14	847.5	24.15	23.45	22.25	**25.0**	**24.0**	**23.0**
		836.5	24.13	23.39	22.34			
		825.5	24.16	23.37	22.31			
	1RB_7	847.5	24.21	23.42	22.31			
		836.5	24.23	23.51	22.38			
		825.5	24.22	23.48	22.45			
	1RB_0	847.5	24.11	23.36	22.27			
		836.5	24.13	23.38	22.29			
		825.5	24.12	23.36	22.33			
	8RB_7	847.5	23.15	22.21	21.15	**24.0**	**23.0**	**22.0**
		836.5	23.17	22.21	21.18			
		825.5	23.16	22.23	21.20			
	8RB_4	847.5	23.18	22.23	21.19			
		836.5	23.18	22.24	21.16			
		825.5	23.21	22.23	21.19			
	8RB_0	847.5	23.15	22.20	21.15			
		836.5	23.15	22.23	21.19			
		825.5	23.15	22.21	21.20			
	15RB_0	847.5	23.17	22.21	21.15			
		836.5	23.18	22.18	21.11			
		825.5	23.16	22.16	21.10			

Normal Power								
LTE Band 5			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
5 MHz	1RB_24	846.5	24.14	23.42	22.32	25.0	24.0	23.0
		836.5	24.11	23.40	22.34			
		826.5	24.14	23.43	22.33			
	1RB_12	846.5	24.20	23.52	22.45			
		836.5	24.25	23.47	22.49			
		826.5	24.28	23.62	22.38			
	1RB_0	846.5	24.09	23.34	22.27			
		836.5	24.13	23.40	22.31			
		826.5	24.11	23.42	22.31			
	12RB_13	846.5	23.18	22.17	21.14	24.0	23.0	22.0
		836.5	23.19	22.17	21.17			
		826.5	23.19	22.15	21.17			
	12RB_6	846.5	23.22	22.20	21.16			
		836.5	23.23	22.19	21.19			
		826.5	23.24	22.19	21.20			
	12RB_0	846.5	23.18	22.15	21.16			
		836.5	23.21	22.18	21.21			
		826.5	23.19	22.15	21.17			
	25RB_0	846.5	23.17	22.15	21.12			
		836.5	23.22	22.19	21.17			
		826.5	23.16	22.18	21.14			

Normal Power								
LTE Band 5			Actual output Power (dBm)			**Tune up**		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
10 MHz	1RB_49	844.0	24.10	23.30	22.29	**25.0**	**24.0**	**23.0**
		836.5	24.14	23.40	22.37			
		829.0	24.14	23.41	22.41			
	1RB_24	844.0	24.22	23.54	22.38			
		836.5	24.26	23.59	22.54			
		829.0	**24.29**	23.54	22.52			
	1RB_0	844.0	24.17	23.43	22.25			
		836.5	24.22	23.55	22.44			
		829.0	24.28	23.59	22.48			
	25RB_25	844.0	23.20	22.16	21.14	**24.0**	**23.0**	**22.0**
		836.5	23.29	22.27	21.27			
		829.0	23.25	22.23	21.25			
	25RB_12	844.0	23.29	22.23	21.20			
		836.5	23.29	22.27	21.28			
		829.0	23.28	22.28	21.26			
	25RB_0	844.0	23.29	22.27	21.25			
		836.5	23.28	22.28	21.26			
		829.0	**23.30**	22.26	21.29			
	50RB_0	844.0	23.22	22.23	21.19			
		836.5	23.29	22.29	21.26			
		829.0	23.27	22.29	21.27			

Reduced power level 1								
LTE Band 5			Actual output Power (dBm)			**Tune up**		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
1.4 MHz	1RB_5	848.3	23.07	22.34	21.21	**24.0**	**23.0**	**22.0**
		836.5	23.10	22.32	21.25			
		824.7	23.09	22.36	21.31			
	1RB_3	848.3	23.14	22.40	21.33			
		836.5	23.17	22.36	21.32			
		824.7	23.18	22.44	21.34			
	1RB_0	848.3	23.05	22.32	21.22			
		836.5	23.10	22.33	21.27			
		824.7	23.09	22.39	21.32			
	3RB_3	848.3	23.16	22.17	21.29			
		836.5	23.13	22.20	21.26			
		824.7	23.22	22.21	21.30			
	3RB_1	848.3	23.22	22.25	21.34			
		836.5	23.18	22.20	21.33			
		824.7	23.19	22.17	21.29			
	3RB_0	848.3	23.21	22.20	21.26			
		836.5	23.17	22.16	21.27			
		824.7	23.18	22.18	21.31			
	6RB_0	848.3	22.27	21.30	20.17	**23.0**	**22.0**	**21.0**
		836.5	22.17	21.27	20.15			
		824.7	22.24	21.26	20.19			

Reduced power level 1								
LTE Band 5			Actual output Power (dBm)			**Tune up**		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
3 MHz	1RB_14	847.5	23.16	22.45	21.23	**24.0**	**23.0**	**22.0**
		836.5	23.13	22.39	21.33			
		825.5	23.14	22.37	21.29			
	1RB_7	847.5	23.21	22.43	21.32			
		836.5	23.21	22.51	21.38			
		825.5	23.21	22.48	21.46			
	1RB_0	847.5	23.09	22.34	21.25			
		836.5	23.11	22.36	21.31			
		825.5	23.12	22.34	21.32			
	8RB_7	847.5	22.14	21.22	20.15	**23.0**	**22.0**	**21.0**
		836.5	22.15	21.21	20.20			
		825.5	22.16	21.25	20.18			
	8RB_4	847.5	22.16	21.25	20.17			
		836.5	22.20	21.23	20.14			
		825.5	22.19	21.22	20.17			
	8RB_0	847.5	22.13	21.18	20.15			
		836.5	22.16	21.21	20.20			
		825.5	22.16	21.19	20.22			
	15RB_0	847.5	22.17	21.23	20.15			
		836.5	22.19	21.18	20.13			
		825.5	22.18	21.18	20.08			

Reduced power level 1								
LTE Band 5			Actual output Power (dBm)			**Tune up**		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
5 MHz	1RB_24	846.5	23.12	22.40	21.32	**24.0**	**23.0**	**22.0**
		836.5	23.13	22.39	21.36			
		826.5	23.14	22.43	21.33			
	1RB_12	846.5	23.22	22.51	21.45			
		836.5	23.23	22.46	21.47			
		826.5	23.28	22.64	21.39			
	1RB_0	846.5	23.09	22.33	21.29			
		836.5	23.14	22.40	21.32			
		826.5	23.10	22.43	21.33			
	12RB_13	846.5	22.16	21.17	20.14	**23.0**	**22.0**	**21.0**
		836.5	22.21	21.16	20.15			
		826.5	22.17	21.16	20.18			
	12RB_6	846.5	22.24	21.18	20.18			
		836.5	22.21	21.21	20.17			
		826.5	22.22	21.19	20.22			
	12RB_0	846.5	22.17	21.17	20.17			
		836.5	22.19	21.16	20.22			
		826.5	22.19	21.13	20.15			
	25RB_0	846.5	22.18	21.15	20.12			
		836.5	22.24	21.20	20.19			
		826.5	22.14	21.19	20.12			

Reduced power level 1								
LTE Band 5			Actual output Power (dBm)			**Tune up**		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
10 MHz	1RB_49	844.0	23.12	22.32	21.30	**24.0**	**23.0**	**22.0**
		836.5	23.13	22.39	21.37			
		829.0	23.14	22.43	21.43			
	1RB_24	844.0	23.24	22.55	21.37			
		836.5	23.25	22.58	21.52			
		829.0	**23.31**	22.54	21.54			
	1RB_0	844.0	23.17	22.41	21.23			
		836.5	23.22	22.54	21.46			
		829.0	23.30	22.59	21.50			
	25RB_25	844.0	22.19	21.18	20.16	**23.0**	**22.0**	**21.0**
		836.5	22.28	21.26	20.27			
		829.0	22.25	21.21	20.24			
	25RB_12	844.0	22.31	21.24	20.22			
		836.5	22.31	21.28	20.26			
		829.0	22.27	21.28	20.25			
	25RB_0	844.0	22.30	21.27	20.24			
		836.5	22.29	21.26	20.27			
		829.0	**22.32**	21.26	20.30			
	50RB_0	844.0	22.23	21.23	20.18			
		836.5	22.28	21.29	20.24			
		829.0	22.25	21.30	20.29			

LTE Band 12			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
1.4 MHz	1RB_5	715.3	24.18	23.36	22.32	25.0	24.0	23.0
		707.5	24.17	23.47	22.37			
		699.7	24.24	23.48	22.43			
	1RB_3	715.3	24.28	23.47	22.35			
		707.5	24.25	23.52	22.44			
		699.7	24.27	23.55	22.49			
	1RB_0	715.3	24.15	23.36	22.33			
		707.5	24.17	23.43	22.39			
		699.7	24.18	23.46	22.41			
	3RB_3	715.3	24.23	23.19	22.37			
		707.5	24.26	23.25	22.34			
		699.7	24.31	23.26	22.34			
	3RB_1	715.3	24.29	23.26	22.37			
		707.5	24.27	23.29	22.36			
		699.7	24.29	23.29	22.41			
	3RB_0	715.3	24.27	23.25	22.33			
		707.5	24.25	23.25	22.32			
		699.7	24.27	23.26	22.39			
	6RB_0	715.3	23.24	22.33	21.32	24.0	23.0	22.0
		707.5	23.27	22.36	21.32			
		699.7	23.31	22.35	21.34			

LTE Band 12			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
3 MHz	1RB_14	714.5	24.27	23.51	22.34	25.0	24.0	23.0
		707.5	24.29	23.55	22.46			
		700.5	24.27	23.59	22.50			
	1RB_7	714.5	24.38	23.60	22.50			
		707.5	24.35	23.66	22.48			
		700.5	24.32	23.68	22.52			
	1RB_0	714.5	24.25	23.48	22.43			
		707.5	24.26	23.62	22.42			
		700.5	24.27	23.54	22.47			
	8RB_7	714.5	23.26	22.30	21.36	24.0	23.0	22.0
		707.5	23.25	22.33	21.34			
		700.5	23.28	22.37	21.35			
	8RB_4	714.5	23.29	22.29	21.38			
		707.5	23.27	22.31	21.38			
		700.5	23.30	22.32	21.38			
	8RB_0	714.5	23.28	22.32	21.36			
		707.5	23.24	22.29	21.35			
		700.5	23.27	22.34	21.35			
	15RB_0	714.5	23.28	22.27	21.28			
		707.5	23.26	22.25	21.30			
		700.5	23.30	22.28	21.31			

LTE Band 12			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
5 MHz	1RB_24	713.5	24.25	23.47	22.39	25.0	24.0	23.0
		707.5	24.25	23.56	22.44			
		701.5	24.32	23.66	22.49			
	1RB_12	713.5	24.33	23.63	22.50			
		707.5	24.37	23.62	22.55			
		701.5	24.35	23.67	22.59			
	1RB_0	713.5	24.19	23.52	22.38			
		707.5	24.27	23.54	22.40			
		701.5	24.26	23.48	22.44			
	12RB_13	713.5	23.31	22.26	21.34	24.0	23.0	22.0
		707.5	23.34	22.33	21.46			
		701.5	23.29	22.29	21.38			
	12RB_6	713.5	23.32	22.32	21.38			
		707.5	23.32	22.33	21.40			
		701.5	23.32	22.34	21.40			
	12RB_0	713.5	23.33	22.29	21.38			
		707.5	23.30	22.31	21.36			
		701.5	23.31	22.27	21.38			
	25RB_0	713.5	23.30	22.30	21.36			
		707.5	23.30	22.34	21.35			
		701.5	23.30	22.31	21.35			

LTE Band 12			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
10 MHz	1RB_49	711.0	24.27	23.39	22.36	25.0	24.0	23.0
		707.5	24.28	23.57	22.40			
		704.0	24.27	23.49	22.45			
	1RB_24	711.0	24.35	23.69	22.50			
		707.5	24.36	23.57	22.51			
		704.0	**24.41**	23.67	22.50			
	1RB_0	711.0	24.37	23.67	22.44			
		707.5	24.32	23.48	22.51			
		704.0	24.31	23.61	22.50			
	25RB_25	711.0	23.35	22.35	21.40	24.0	23.0	22.0
		707.5	23.35	22.35	21.37			
		704.0	23.39	22.36	21.41			
	25RB_12	711.0	23.37	22.37	21.37			
		707.5	23.38	22.34	21.40			
		704.0	23.37	22.36	21.41			
	25RB_0	711.0	**23.42**	22.38	21.41			
		707.5	23.38	22.36	21.41			
		704.0	23.39	22.41	21.43			
	50RB_0	711.0	23.36	22.35	21.37			
		707.5	23.37	22.33	21.40			
		704.0	23.39	22.39	21.41			

LTE Band 13			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
5 MHz	1RB_24	784.5	23.97	23.34	22.08	25.0	24.0	23.0
		782.0	23.97	23.33	22.18			
		779.5	23.89	23.14	22.12			
	1RB_12	784.5	24.05	23.37	22.19			
		782.0	24.15	23.37	22.37			
		779.5	24.07	23.44	22.29			
	1RB_0	784.5	24.00	23.24	22.22			
		782.0	23.97	23.28	22.15			
		779.5	23.91	23.21	22.10			
	12RB_13	784.5	22.99	22.00	20.97	24.0	23.0	22.0
		782.0	23.02	22.02	21.03			
		779.5	22.99	21.98	21.00			
	12RB_6	784.5	23.10	22.02	21.07			
		782.0	23.04	22.05	21.06			
		779.5	23.04	22.02	21.05			
	12RB_0	784.5	23.05	22.02	21.00			
		782.0	22.98	21.96	20.95			
		779.5	22.89	21.90	20.88			
	25RB_0	784.5	23.02	22.04	20.99			
		782.0	23.03	22.01	21.02			
		779.5	22.94	21.96	20.94			

LTE Band 13			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
10 MHz	1RB_49	782.0	23.93	23.26	22.08	25.0	24.0	23.0
	1RB_24	782.0	**24.05**	23.33	22.27			
	1RB_0	782.0	23.99	23.28	22.22			
	25RB_25	782.0	23.00	22.03	20.98	24.0	23.0	22.0
	25RB_12	782.0	**23.04**	22.05	21.03			
	25RB_0	782.0	22.97	21.94	20.95			
	50RB_0	782.0	23.00	22.01	21.01			

Normal Power								
LTE Band 41 (PC3)			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
5 MHz	1RB_24	2687.5	23.00	22.13	20.83	24.0	23.0	22.0
		2640.3	22.94	22.06	20.77			
		2593.0	22.88	22.02	20.70			
		2545.8	22.90	22.04	20.71			
		2498.5	22.90	22.01	20.68			
	1RB_12	2687.5	23.16	22.31	21.03			
		2640.3	23.09	22.24	20.93			
		2593.0	23.07	22.23	20.90			
		2545.8	23.16	22.24	20.94			
		2498.5	23.14	22.23	20.94			
	1RB_0	2687.5	22.96	22.09	20.83			
		2640.3	22.90	22.03	20.72			
		2593.0	22.89	22.02	20.66			
		2545.8	22.94	22.02	20.71			
		2498.5	22.94	22.00	20.74			
	12RB_13	2687.5	22.10	21.00	20.06	24.0	23.0	22.0
		2640.3	21.97	20.91	19.95			
		2593.0	21.95	20.90	19.90			
		2545.8	21.98	20.87	19.93			
		2498.5	21.97	20.91	19.97			
	12RB_6	2687.5	22.15	21.08	20.08			
		2640.3	22.02	20.95	19.92			
		2593.0	22.02	20.97	19.93			
		2545.8	22.01	20.91	19.91			
		2498.5	22.01	20.96	19.98			
	12RB_0	2687.5	22.07	21.04	20.05			
		2640.3	21.95	20.93	19.96			
		2593.0	22.02	20.92	19.90			
		2545.8	21.98	20.91	19.85			
		2498.5	21.97	20.90	19.96			
	25RB_0	2687.5	22.11	21.13	20.13			
		2640.3	21.98	21.03	20.00			
		2593.0	21.95	20.95	19.93			
		2545.8	22.05	21.03	20.03			
		2498.5	22.01	20.97	20.01			

Normal Power								
LTE Band 41 (PC3)			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
10 MHz	1RB_49	2685.0	23.01	22.14	20.81	24.0	23.0	22.0
		2639.0	22.96	22.10	20.78			
		2593.0	22.89	22.06	20.72			
		2547.0	22.94	22.07	20.73			
		2501.0	22.92	22.04	20.73			
	1RB_24	2685.0	23.10	22.24	20.92			
		2639.0	23.04	22.16	20.83			
		2593.0	23.02	22.16	20.83			
		2547.0	23.06	22.21	20.84			
		2501.0	23.09	22.17	20.80			
	1RB_0	2685.0	22.98	22.13	20.84			
		2639.0	22.97	22.09	20.75			
		2593.0	22.93	22.09	20.77			
		2547.0	22.98	22.09	20.76			
		2501.0	22.93	22.07	20.78			
	25RB_25	2685.0	22.03	21.09	20.09	24.0	23.0	22.0
		2639.0	21.97	20.97	19.94			
		2593.0	21.97	20.89	19.96			
		2547.0	22.05	20.96	19.97			
		2501.0	22.05	21.03	20.02			
	25RB_12	2685.0	22.13	21.15	20.18			
		2639.0	22.00	21.04	20.04			
		2593.0	21.94	21.01	20.06			
		2547.0	22.09	21.10	20.08			
		2501.0	22.01	21.04	20.08			
	25RB_0	2685.0	22.15	21.06	20.14			
		2639.0	22.03	21.08	20.06			
		2593.0	22.05	21.00	20.05			
		2547.0	22.05	21.07	20.01			
		2501.0	22.00	20.97	19.97			
	50RB_0	2685.0	22.04	21.07	19.98			
		2639.0	21.99	21.02	19.95			
		2593.0	21.93	21.00	19.96			
		2547.0	21.89	20.94	19.86			
		2501.0	21.94	20.97	19.90			

Normal Power								
LTE Band 41 (PC3)			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
15 MHz	1RB_74	2682.5	22.92	22.08	20.72	24.0	23.0	22.0
		2637.8	22.89	22.04	20.77			
		2593.0	22.87	22.00	20.69			
		2548.3	22.91	22.03	20.75			
		2503.5	22.88	22.00	20.75			
	1RB_37	2682.5	22.94	22.08	20.78			
		2637.8	22.87	22.01	20.71			
		2593.0	22.82	22.03	20.69			
		2548.3	22.92	22.01	20.74			
		2503.5	22.93	22.06	20.75			
	1RB_0	2682.5	22.95	22.07	20.73			
		2637.8	22.89	22.04	20.73			
		2593.0	22.91	22.05	20.69			
		2548.3	22.92	22.06	20.76			
		2503.5	22.97	22.01	20.72			
	36RB_38	2682.5	22.08	20.98	20.01	24.0	23.0	22.0
		2637.8	21.94	20.90	19.89			
		2593.0	21.95	20.90	19.87			
		2548.3	21.99	20.91	19.90			
		2503.5	22.00	20.93	19.99			
	36RB_19	2682.5	22.04	20.99	19.98			
		2637.8	22.00	20.90	19.91			
		2593.0	21.98	20.96	19.95			
		2548.3	21.94	20.95	19.95			
		2503.5	21.97	20.94	19.95			
	36RB_0	2682.5	22.05	21.03	19.98			
		2637.8	22.00	20.91	19.94			
		2593.0	22.00	20.97	19.94			
		2548.3	22.03	20.96	19.95			
		2503.5	21.96	20.92	19.89			
	75RB_0	2682.5	21.95	20.98	19.91			
		2637.8	21.96	20.91	19.85			
		2593.0	21.86	20.88	19.85			
		2548.3	21.91	20.87	19.87			
		2503.5	21.89	20.99	19.91			

Normal Power								
LTE Band 41 (PC3)			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
20 MHz	1RB_99	2680.0	23.01	22.14	20.70	24.0	23.0	22.0
		2636.5	22.88	22.06	20.52			
		2593.0	22.91	22.09	20.60			
		2549.5	22.78	21.96	20.47			
		2506.0	23.01	22.12	20.69			
	1RB_50	2680.0	23.07	22.13	20.68			
		2636.5	23.11	22.23	20.75			
		2593.0	22.98	22.12	20.64			
		2549.5	22.94	22.07	20.62			
		2506.0	23.04	22.21	20.73			
	1RB_0	2680.0	22.93	22.03	20.62			
		2636.5	**23.13**	22.27	20.78			
		2593.0	22.93	22.10	20.64			
		2549.5	22.95	22.15	20.63			
		2506.0	22.84	21.98	20.50			
	50RB_50	2680.0	21.96	20.99	19.88	24.0	23.0	22.0
		2636.5	21.88	20.90	19.89			
		2593.0	21.86	20.87	19.85			
		2549.5	21.76	20.78	19.72			
		2506.0	21.96	20.96	20.00			
	50RB_25	2680.0	21.98	21.02	19.92			
		2636.5	21.97	20.99	19.98			
		2593.0	21.92	20.90	19.89			
		2549.5	21.87	20.93	19.83			
		2506.0	21.94	20.93	19.94			
	50RB_0	2680.0	21.99	20.99	19.95			
		2636.5	**22.13**	21.11	20.08			
		2593.0	21.92	20.97	19.95			
		2549.5	21.91	20.95	19.88			
		2506.0	21.85	20.83	19.88			
	100RB_0	2680.0	22.00	21.03	19.97			
		2636.5	22.09	21.11	20.03			
		2593.0	21.93	20.97	19.95			
		2549.5	21.84	20.90	19.81			
		2506.0	22.03	20.91	19.96			

Reduced power level 1								
LTE Band 41 (PC3)			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
5 MHz	1RB_24	2687.5	18.99	18.13	16.88	20.0	19.0	18.0
		2640.3	18.87	17.99	16.66			
		2593.0	18.81	17.90	16.66			
		2545.8	18.84	18.03	16.70			
		2498.5	18.86	17.95	16.67			
	1RB_12	2687.5	19.15	18.29	17.03			
		2640.3	19.05	18.13	16.88			
		2593.0	19.03	18.14	16.87			
		2545.8	19.07	18.18	16.90			
		2498.5	19.01	18.14	16.88			
	1RB_0	2687.5	18.98	18.14	16.85			
		2640.3	18.85	17.99	16.75			
		2593.0	18.82	17.96	16.70			
		2545.8	18.81	17.99	16.68			
		2498.5	18.85	17.99	16.66			
	12RB_13	2687.5	18.06	17.05	16.09	19.0	18.0	17.0
		2640.3	17.88	16.89	15.90			
		2593.0	17.91	16.87	15.87			
		2545.8	17.89	16.86	15.98			
		2498.5	17.88	16.86	15.93			
	12RB_6	2687.5	18.13	17.11	16.12			
		2640.3	17.95	16.88	15.93			
		2593.0	17.93	16.88	15.91			
		2545.8	17.95	16.95	16.02			
		2498.5	17.89	16.86	15.93			
	12RB_0	2687.5	18.07	17.06	16.10			
		2640.3	17.89	16.88	15.92			
		2593.0	17.93	16.91	15.91			
		2545.8	17.87	16.86	15.97			
		2498.5	17.82	16.81	15.87			
	25RB_0	2687.5	18.06	17.10	16.11			
		2640.3	17.96	16.98	15.98			
		2593.0	17.89	16.97	15.92			
		2545.8	17.88	16.94	15.96			
		2498.5	17.88	16.91	15.93			

Reduced power level 1								
LTE Band 41 (PC3)			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
10 MHz	1RB_49	2685.0	19.02	18.15	16.90	20.0	19.0	18.0
		2639.0	18.89	18.00	16.72			
		2593.0	18.85	17.97	16.68			
		2547.0	18.90	18.00	16.72			
		2501.0	18.85	17.99	16.70			
	1RB_24	2685.0	19.08	18.21	16.98			
		2639.0	18.98	18.11	16.76			
		2593.0	18.91	18.02	16.74			
		2547.0	18.97	18.12	16.79			
		2501.0	18.91	18.03	16.76			
	1RB_0	2685.0	18.96	18.11	16.79			
		2639.0	18.89	18.01	16.74			
		2593.0	18.84	18.01	16.72			
		2547.0	18.86	17.98	16.71			
		2501.0	18.92	17.99	16.68			
	25RB_25	2685.0	18.08	17.07	16.11	19.0	18.0	17.0
		2639.0	17.94	16.96	15.94			
		2593.0	17.88	16.91	15.95			
		2547.0	17.91	16.96	15.98			
		2501.0	17.88	16.91	15.97			
	25RB_12	2685.0	18.08	17.11	16.16			
		2639.0	17.93	16.97	15.97			
		2593.0	17.92	16.94	15.96			
		2547.0	17.95	17.00	16.01			
		2501.0	17.86	16.92	15.98			
	25RB_0	2685.0	18.10	17.12	16.14			
		2639.0	17.96	17.04	16.01			
		2593.0	17.94	16.97	15.98			
		2547.0	17.94	16.96	16.04			
		2501.0	17.85	16.91	15.90			
	50RB_0	2685.0	18.03	17.10	16.11			
		2639.0	17.94	17.06	15.97			
		2593.0	17.90	17.00	15.92			
		2547.0	17.85	16.97	16.03			
		2501.0	17.92	16.95	16.00			

Reduced power level 1								
LTE Band 41 (PC3)			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
15 MHz	1RB_74	2682.5	18.98	18.14	16.89	20.0	19.0	18.0
		2637.8	18.87	17.96	16.71			
		2593.0	18.81	17.99	16.63			
		2548.3	18.84	18.02	16.79			
		2503.5	18.86	18.00	16.77			
	1RB_37	2682.5	18.92	18.09	16.81			
		2637.8	18.85	17.96	16.68			
		2593.0	18.85	17.97	16.64			
		2548.3	18.93	18.02	16.71			
		2503.5	18.90	18.03	16.76			
	1RB_0	2682.5	18.91	18.02	16.76			
		2637.8	18.90	17.97	16.72			
		2593.0	18.85	17.98	16.70			
		2548.3	18.88	17.98	16.72			
		2503.5	18.92	18.02	16.75			
	36RB_38	2682.5	18.03	16.99	16.01	19.0	18.0	17.0
		2637.8	17.87	16.84	15.88			
		2593.0	17.84	16.81	15.83			
		2548.3	17.92	16.84	15.90			
		2503.5	17.94	16.89	15.91			
	36RB_19	2682.5	18.01	16.96	16.00			
		2637.8	17.91	16.85	15.90			
		2593.0	17.86	16.86	15.85			
		2548.3	17.91	16.90	15.94			
		2503.5	17.92	16.87	15.88			
	36RB_0	2682.5	18.01	16.98	16.03			
		2637.8	17.92	16.92	15.91			
		2593.0	17.92	16.87	15.88			
		2548.3	17.93	16.84	15.91			
		2503.5	17.90	16.85	15.85			
	75RB_0	2682.5	17.99	17.06	16.08			
		2637.8	17.95	17.01	15.99			
		2593.0	17.92	16.98	15.88			
		2548.3	17.87	16.90	15.96			
		2503.5	17.90	16.98	15.94			

Reduced power level 1								
LTE Band 41 (PC3)			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
20 MHz	1RB_99	2680.0	18.94	18.13	16.83	20.0	19.0	18.0
		2636.5	18.81	17.97	16.72			
		2593.0	18.84	17.96	16.67			
		2549.5	18.88	18.04	16.72			
		2506.0	18.88	17.98	16.67			
	1RB_50	2680.0	**19.00**	18.13	16.89			
		2636.5	18.94	18.09	16.80			
		2593.0	18.93	18.04	16.75			
		2549.5	18.86	18.10	16.86			
		2506.0	18.97	18.13	16.82			
	1RB_0	2680.0	18.92	18.04	16.76			
		2636.5	18.89	17.99	16.75			
		2593.0	18.85	18.01	16.72			
		2549.5	18.97	18.07	16.76			
		2506.0	18.87	18.08	16.76			
	50RB_50	2680.0	17.95	17.03	15.96	19.0	18.0	17.0
		2636.5	**18.01**	16.96	15.87			
		2593.0	17.84	16.93	15.88			
		2549.5	17.82	16.91	16.00			
		2506.0	17.88	17.05	15.95			
	50RB_25	2680.0	18.00	17.07	16.01			
		2636.5	17.90	16.99	15.94			
		2593.0	17.87	16.94	15.95			
		2549.5	17.84	16.96	16.02			
		2506.0	17.83	17.00	15.86			
	50RB_0	2680.0	17.96	17.11	16.06			
		2636.5	17.96	17.08	15.98			
		2593.0	17.94	17.03	16.00			
		2549.5	17.91	16.99	16.07			
		2506.0	17.82	16.98	15.86			
	100RB_0	2680.0	17.98	17.04	16.02			
		2636.5	18.03	16.99	15.99			
		2593.0	17.92	16.99	15.96			
		2549.5	17.88	16.91	15.99			
		2506.0	17.87	16.98	15.92			

Reduced power level 2								
LTE Band 41 (PC3)			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
5 MHz	1RB_24	2687.5	20.54	19.67	18.38	21.5	20.5	19.5
		2640.3	20.40	19.52	18.29			
		2593.0	20.31	19.42	18.16			
		2545.8	20.26	19.37	18.15			
		2498.5	20.30	19.37	18.15			
	1RB_12	2687.5	20.68	19.81	18.61			
		2640.3	20.57	19.70	18.46			
		2593.0	20.51	19.63	18.40			
		2545.8	20.51	19.65	18.36			
		2498.5	20.48	19.62	18.34			
	1RB_0	2687.5	20.54	19.63	18.41			
		2640.3	20.37	19.49	18.27			
		2593.0	20.32	19.42	18.20			
		2545.8	20.23	19.35	18.11			
		2498.5	20.25	19.41	18.19			
	12RB_13	2687.5	19.60	18.61	17.62	20.5	19.5	18.5
		2640.3	19.45	18.45	17.45			
		2593.0	19.29	18.38	17.37			
		2545.8	19.29	18.28	17.33			
		2498.5	19.32	18.34	17.36			
	12RB_6	2687.5	19.60	18.65	17.66			
		2640.3	19.45	18.47	17.48			
		2593.0	19.43	18.41	17.43			
		2545.8	19.35	18.36	17.39			
		2498.5	19.34	18.31	17.37			
	12RB_0	2687.5	19.62	18.60	17.63			
		2640.3	19.43	18.43	17.47			
		2593.0	19.37	18.37	17.40			
		2545.8	19.27	18.30	17.32			
		2498.5	19.27	18.30	17.34			
	25RB_0	2687.5	19.58	18.71	17.69			
		2640.3	19.47	18.57	17.58			
		2593.0	19.37	18.52	17.44			
		2545.8	19.31	18.35	17.36			
		2498.5	19.34	18.39	17.39			

Reduced power level 2								
LTE Band 41 (PC3)			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
10 MHz	1RB_49	2685.0	20.56	19.65	18.44	21.5	20.5	19.5
		2639.0	20.40	19.52	18.26			
		2593.0	20.37	19.45	18.20			
		2547.0	20.24	19.42	18.11			
		2501.0	20.28	19.45	18.12			
	1RB_24	2685.0	20.58	19.77	18.48			
		2639.0	20.44	19.59	18.33			
		2593.0	20.38	19.52	18.29			
		2547.0	20.30	19.50	18.21			
		2501.0	20.33	19.51	18.21			
	1RB_0	2685.0	20.52	19.63	18.36			
		2639.0	20.39	19.51	18.27			
		2593.0	20.31	19.45	18.19			
		2547.0	20.21	19.36	18.13			
		2501.0	20.26	19.43	18.21			
	25RB_25	2685.0	19.60	18.60	17.68	20.5	19.5	18.5
		2639.0	19.38	18.51	17.53			
		2593.0	19.33	18.44	17.46			
		2547.0	19.32	18.34	17.39			
		2501.0	19.33	18.42	17.41			
	25RB_12	2685.0	19.58	18.67	17.71			
		2639.0	19.48	18.55	17.53			
		2593.0	19.38	18.45	17.44			
		2547.0	19.33	18.41	17.41			
		2501.0	19.29	18.39	17.42			
	25RB_0	2685.0	19.60	18.63	17.66			
		2639.0	19.48	18.54	17.51			
		2593.0	19.41	18.50	17.46			
		2547.0	19.33	18.37	17.38			
		2501.0	19.26	18.36	17.38			
	50RB_0	2685.0	19.52	18.66	17.60			
		2639.0	19.41	18.53	17.53			
		2593.0	19.27	18.47	17.42			
		2547.0	19.24	18.31	17.34			
		2501.0	19.30	18.44	17.35			

Reduced power level 2								
LTE Band 41 (PC3)			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
15 MHz	1RB_74	2682.5	20.51	19.62	18.41	21.5	20.5	19.5
		2637.8	20.37	19.55	18.28			
		2593.0	20.29	19.42	18.15			
		2548.3	20.27	19.37	18.13			
		2503.5	20.26	19.45	18.22			
	1RB_37	2682.5	20.46	19.57	18.37			
		2637.8	20.35	19.46	18.24			
		2593.0	20.32	19.43	18.18			
		2548.3	20.22	19.36	18.14			
		2503.5	20.30	19.38	18.14			
	1RB_0	2682.5	20.43	19.54	18.33			
		2637.8	20.39	19.49	18.28			
		2593.0	20.31	19.42	18.15			
		2548.3	20.26	19.39	18.14			
		2503.5	20.25	19.41	18.17			
	36RB_38	2682.5	19.47	18.52	17.55	20.5	19.5	18.5
		2637.8	19.40	18.39	17.44			
		2593.0	19.31	18.29	17.33			
		2548.3	19.28	18.23	17.26			
		2503.5	19.34	18.35	17.33			
	36RB_19	2682.5	19.47	18.51	17.54			
		2637.8	19.45	18.44	17.42			
		2593.0	19.33	18.33	17.34			
		2548.3	19.38	18.30	17.33			
		2503.5	19.34	18.32	17.30			
	36RB_0	2682.5	19.52	18.54	17.58			
		2637.8	19.42	18.45	17.44			
		2593.0	19.37	18.37	17.35			
		2548.3	19.28	18.30	17.30			
		2503.5	19.32	18.27	17.27			
	75RB_0	2682.5	19.47	18.57	17.61			
		2637.8	19.48	18.53	17.47			
		2593.0	19.33	18.46	17.39			
		2548.3	19.23	18.31	17.30			
		2503.5	19.24	18.35	17.33			

Reduced power level 2								
LTE Band 41 (PC3)			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
20 MHz	1RB_99	2680.0	20.46	19.56	18.60	21.5	20.5	19.5
		2636.5	20.33	19.46	18.23			
		2593.0	20.26	19.45	18.18			
		2549.5	20.22	19.38	18.14			
		2506.0	20.19	19.42	18.12			
	1RB_50	2680.0	**20.49**	19.66	18.41			
		2636.5	20.32	19.59	18.34			
		2593.0	20.33	19.49	18.26			
		2549.5	20.32	19.47	18.24			
		2506.0	20.24	19.48	18.25			
	1RB_0	2680.0	20.38	19.53	18.28			
		2636.5	20.36	19.49	18.22			
		2593.0	20.27	19.45	18.17			
		2549.5	20.22	19.34	18.16			
		2506.0	20.26	19.39	18.16			
	50RB_50	2680.0	19.39	18.52	17.46	20.5	19.5	18.5
		2636.5	19.34	18.46	17.39			
		2593.0	19.25	18.37	17.37			
		2549.5	19.18	18.30	17.31			
		2506.0	19.25	18.38	17.33			
	50RB_25	2680.0	19.44	18.53	17.45			
		2636.5	19.34	18.48	17.46			
		2593.0	19.27	18.41	17.40			
		2549.5	19.21	18.29	17.37			
		2506.0	19.20	18.37	17.29			
	50RB_0	2680.0	**19.48**	18.64	17.54			
		2636.5	19.44	18.63	17.54			
		2593.0	19.31	18.50	17.45			
		2549.5	19.26	18.37	17.37			
		2506.0	19.26	18.28	17.29			
	100RB_0	2680.0	19.46	18.56	17.58			
		2636.5	19.41	18.53	17.49			
		2593.0	19.32	18.46	17.42			
		2549.5	19.22	18.33	17.33			
		2506.0	19.19	18.32	17.29			

Normal Power								
LTE Band 41 (PC2)			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
5 MHz	1RB_24	2687.5	25.96	25.19	24.13	27.0	26.0	25.0
		2640.3	25.84	25.13	24.03			
		2593.0	25.77	25.10	23.97			
		2545.8	25.85	25.12	23.99			
		2498.5	25.84	25.08	24.02			
	1RB_12	2687.5	25.97	25.21	24.12			
		2640.3	25.87	25.12	24.02			
		2593.0	25.87	25.11	24.02			
		2545.8	25.90	25.14	24.05			
		2498.5	25.91	25.14	24.01			
	1RB_0	2687.5	25.92	25.16	24.10			
		2640.3	25.82	25.12	24.03			
		2593.0	25.86	25.11	24.01			
		2545.8	25.88	25.13	24.05			
		2498.5	25.81	25.12	24.02			
	12RB_13	2687.5	25.02	24.04	23.05	26.0	25.0	24.0
		2640.3	24.97	24.00	22.97			
		2593.0	24.94	23.96	22.92			
		2545.8	24.96	23.95	22.98			
		2498.5	24.98	23.99	23.03			
	12RB_6	2687.5	25.09	24.09	23.10			
		2640.3	25.02	24.00	23.01			
		2593.0	25.02	23.99	22.99			
		2545.8	25.05	24.02	23.04			
		2498.5	24.99	24.02	23.03			
	12RB_0	2687.5	25.07	24.08	23.08			
		2640.3	24.99	24.01	23.00			
		2593.0	24.95	23.93	22.95			
		2545.8	25.00	24.00	23.03			
		2498.5	24.94	23.96	22.96			
	25RB_0	2687.5	25.05	24.10	23.10			
		2640.3	25.03	24.05	23.05			
		2593.0	24.96	23.97	22.99			
		2545.8	25.00	24.04	23.05			
		2498.5	24.93	24.02	23.02			

Normal Power								
LTE Band 41 (PC2)			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
10 MHz	1RB_49	2685.0	25.94	25.22	24.13	27.0	26.0	25.0
		2639.0	25.92	25.18	24.05			
		2593.0	25.86	25.16	24.00			
		2547.0	25.90	25.17	23.98			
		2501.0	25.86	25.18	24.01			
	1RB_24	2685.0	26.04	25.32	24.21			
		2639.0	25.97	25.25	24.12			
		2593.0	25.96	25.23	24.12			
		2547.0	26.00	25.27	24.18			
		2501.0	25.96	25.26	24.14			
	1RB_0	2685.0	25.96	25.24	24.06			
		2639.0	25.90	25.17	24.08			
		2593.0	25.90	25.14	24.01			
		2547.0	25.91	25.19	24.10			
		2501.0	25.92	25.20	24.06			
	25RB_25	2685.0	25.06	24.11	23.13	26.0	25.0	24.0
		2639.0	25.04	24.09	23.08			
		2593.0	24.99	24.02	23.04			
		2547.0	25.02	24.07	23.07			
		2501.0	25.01	24.05	23.08			
	25RB_12	2685.0	25.09	24.16	23.16			
		2639.0	25.05	24.09	23.07			
		2593.0	25.03	24.04	23.06			
		2547.0	25.04	24.08	23.13			
		2501.0	25.04	24.05	23.10			
	25RB_0	2685.0	25.09	24.17	23.12			
		2639.0	25.04	24.07	23.11			
		2593.0	25.05	24.06	23.08			
		2547.0	25.08	24.10	23.14			
		2501.0	25.00	23.99	23.05			
	50RB_0	2685.0	25.10	24.11	23.10			
		2639.0	25.08	24.11	23.07			
		2593.0	25.03	24.06	23.02			
		2547.0	25.07	24.09	23.03			
		2501.0	25.03	24.00	23.04			

Normal Power								
LTE Band 41 (PC2)			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
15 MHz	1RB_74	2682.5	25.91	25.19	24.08	27.0	26.0	25.0
		2637.8	25.86	25.16	24.02			
		2593.0	25.84	25.11	24.00			
		2548.3	25.90	25.17	24.07			
		2503.5	25.85	25.15	24.04			
	1RB_37	2682.5	25.92	25.20	24.08			
		2637.8	25.81	25.11	24.02			
		2593.0	25.85	25.12	24.01			
		2548.3	25.89	25.16	24.05			
		2503.5	25.92	25.15	24.03			
	1RB_0	2682.5	25.91	25.16	24.08			
		2637.8	25.88	25.17	24.04			
		2593.0	25.86	25.15	24.05			
		2548.3	25.92	25.18	24.07			
		2503.5	25.89	25.30	24.05			
	36RB_38	2682.5	25.03	23.98	22.99	26.0	25.0	24.0
		2637.8	24.99	23.92	22.93			
		2593.0	24.96	23.90	22.91			
		2548.3	24.99	23.92	22.95			
		2503.5	25.02	23.97	23.00			
	36RB_19	2682.5	25.04	23.96	23.00			
		2637.8	24.97	23.93	22.93			
		2593.0	24.98	23.91	22.96			
		2548.3	25.02	23.97	22.99			
		2503.5	25.01	23.95	22.97			
	36RB_0	2682.5	25.06	24.03	23.01			
		2637.8	24.99	23.96	22.99			
		2593.0	25.00	23.92	22.96			
		2548.3	25.05	23.95	22.99			
		2503.5	24.99	23.93	22.96			
	75RB_0	2682.5	25.04	24.04	22.98			
		2637.8	24.99	23.98	22.95			
		2593.0	24.95	23.94	22.93			
		2548.3	25.01	24.00	22.99			
		2503.5	24.98	23.96	22.99			

Normal Power								
LTE Band 41 (PC2)			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
20 MHz	1RB_99	2680.0	25.97	25.14	24.03	27.0	26.0	25.0
		2636.5	25.84	25.12	23.92			
		2593.0	25.88	25.16	23.94			
		2549.5	25.77	25.06	23.83			
		2506.0	25.95	25.27	24.03			
	1RB_50	2680.0	25.92	25.22	24.04			
		2636.5	26.03	25.32	24.10			
		2593.0	25.95	25.24	24.00			
		2549.5	25.93	25.20	23.98			
		2506.0	25.96	25.20	24.06			
	1RB_0	2680.0	25.92	25.17	23.91			
		2636.5	**26.11**	25.35	24.14			
		2593.0	25.91	25.20	23.98			
		2549.5	25.94	25.23	24.02			
		2506.0	25.82	25.10	23.88			
	50RB_50	2680.0	24.98	24.04	23.02	26.0	25.0	24.0
		2636.5	24.96	24.01	22.97			
		2593.0	24.93	23.98	22.91			
		2549.5	24.85	23.87	22.84			
		2506.0	25.07	24.11	23.07			
	50RB_25	2680.0	24.96	24.04	23.05			
		2636.5	25.07	24.11	23.09			
		2593.0	24.98	24.01	22.97			
		2549.5	24.97	23.98	22.92			
		2506.0	25.01	24.04	22.99			
	50RB_0	2680.0	24.98	24.07	23.04			
		2636.5	**25.17**	24.20	23.18			
		2593.0	25.03	24.05	23.02			
		2549.5	25.00	24.02	23.00			
		2506.0	24.95	24.01	22.96			
	100RB_0	2680.0	24.98	24.04	23.03			
		2636.5	25.09	24.12	23.12			
		2593.0	25.02	24.05	23.02			
		2549.5	24.92	23.94	22.92			
		2506.0	24.99	24.00	23.00			

Reduced power level 1								
LTE Band 41 (PC2)			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
5 MHz	1RB_24	2687.5	20.57	19.84	18.71	21.5	20.5	19.5
		2640.3	20.44	19.73	18.61			
		2593.0	20.37	19.65	18.49			
		2545.8	20.29	19.60	18.45			
		2498.5	20.33	19.59	18.52			
	1RB_12	2687.5	20.60	19.88	18.72			
		2640.3	20.42	19.70	18.59			
		2593.0	20.40	19.66	18.54			
		2545.8	20.34	19.65	18.52			
		2498.5	20.35	19.65	18.52			
	1RB_0	2687.5	20.55	19.81	18.70			
		2640.3	20.44	19.71	18.59			
		2593.0	20.35	19.67	18.51			
		2545.8	20.29	19.57	18.46			
		2498.5	20.32	19.62	18.51			
	12RB_13	2687.5	19.58	18.65	17.65	20.5	19.5	18.5
		2640.3	19.43	18.53	17.55			
		2593.0	19.33	18.49	17.46			
		2545.8	19.28	18.46	17.42			
		2498.5	19.33	18.47	17.50			
	12RB_6	2687.5	19.66	18.68	17.70			
		2640.3	19.42	18.57	17.52			
		2593.0	19.36	18.49	17.50			
		2545.8	19.34	18.46	17.48			
		2498.5	19.32	18.45	17.49			
	12RB_0	2687.5	19.56	18.72	17.68			
		2640.3	19.44	18.53	17.56			
		2593.0	19.33	18.46	17.49			
		2545.8	19.24	18.40	17.42			
		2498.5	19.27	18.44	17.43			
	25RB_0	2687.5	19.56	18.67	17.68			
		2640.3	19.45	18.58	17.60			
		2593.0	19.36	18.48	17.47			
		2545.8	19.29	18.41	17.45			
		2498.5	19.31	18.52	17.55			

Reduced power level 1								
LTE Band 41 (PC2)			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
10 MHz	1RB_49	2685.0	20.62	19.86	18.76	21.5	20.5	19.5
		2639.0	20.47	19.78	18.63			
		2593.0	20.38	19.70	18.52			
		2547.0	20.33	19.65	18.50			
		2501.0	20.32	19.64	18.49			
	1RB_24	2685.0	20.68	19.97	18.81			
		2639.0	20.55	19.84	18.69			
		2593.0	20.51	19.79	18.64			
		2547.0	20.43	19.72	18.59			
		2501.0	20.44	19.73	18.60			
	1RB_0	2685.0	20.56	19.84	18.68			
		2639.0	20.49	19.73	18.58			
		2593.0	20.40	19.72	18.54			
		2547.0	20.31	19.65	18.48			
		2501.0	20.36	19.65	18.49			
	25RB_25	2685.0	19.60	18.73	17.72	20.5	19.5	18.5
		2639.0	19.48	18.61	17.63			
		2593.0	19.35	18.48	17.55			
		2547.0	19.29	18.46	17.49			
		2501.0	19.37	18.54	17.59			
	25RB_12	2685.0	19.62	18.72	17.75			
		2639.0	19.47	18.62	17.62			
		2593.0	19.41	18.53	17.56			
		2547.0	19.34	18.50	17.55			
		2501.0	19.36	18.51	17.59			
	25RB_0	2685.0	19.65	18.77	17.78			
		2639.0	19.53	18.65	17.69			
		2593.0	19.39	18.59	17.61			
		2547.0	19.32	18.50	17.53			
		2501.0	19.32	18.49	17.52			
	50RB_0	2685.0	19.59	18.71	17.67			
		2639.0	19.47	18.62	17.57			
		2593.0	19.39	18.51	17.48			
		2547.0	19.31	18.42	17.41			
		2501.0	19.31	18.47	17.46			

Reduced power level 1								
LTE Band 41 (PC2)			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
15 MHz	1RB_74	2682.5	20.57	19.88	18.76	21.5	20.5	19.5
		2637.8	20.46	19.76	18.60			
		2593.0	20.39	19.65	18.55			
		2548.3	20.35	19.64	18.49			
		2503.5	20.36	19.60	18.50			
	1RB_37	2682.5	20.55	19.82	18.66			
		2637.8	20.44	19.70	18.59			
		2593.0	20.39	19.65	18.53			
		2548.3	20.36	19.55	18.53			
		2503.5	20.38	19.69	18.54			
	1RB_0	2682.5	20.55	19.77	18.60			
		2637.8	20.47	19.75	18.63			
		2593.0	20.40	19.70	18.53			
		2548.3	20.35	19.61	18.52			
		2503.5	20.43	19.67	18.51			
	36RB_38	2682.5	19.54	18.55	17.60	20.5	19.5	18.5
		2637.8	19.43	18.44	17.48			
		2593.0	19.32	18.40	17.40			
		2548.3	19.31	18.35	17.36			
		2503.5	19.39	18.40	17.41			
	36RB_19	2682.5	19.58	18.60	17.58			
		2637.8	19.43	18.46	17.48			
		2593.0	19.32	18.40	17.42			
		2548.3	19.33	18.37	17.38			
		2503.5	19.32	18.36	17.40			
	36RB_0	2682.5	19.58	18.58	17.60			
		2637.8	19.49	18.49	17.53			
		2593.0	19.36	18.43	17.43			
		2548.3	19.33	18.38	17.38			
		2503.5	19.29	18.38	17.36			
	75RB_0	2682.5	19.53	18.64	17.63			
		2637.8	19.48	18.57	17.54			
		2593.0	19.34	18.49	17.45			
		2548.3	19.27	18.41	17.41			
		2503.5	19.31	18.44	17.41			

Reduced power level 1								
LTE Band 41 (PC2)			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
20 MHz	1RB_99	2680.0	20.59	19.90	18.72	21.5	20.5	19.5
		2636.5	20.46	19.74	18.56			
		2593.0	20.38	19.70	18.56			
		2549.5	20.37	19.71	18.50			
		2506.0	20.36	19.64	18.51			
	1RB_50	2680.0	**20.61**	19.89	18.72			
		2636.5	20.51	19.78	18.63			
		2593.0	20.42	19.74	18.61			
		2549.5	20.39	19.77	18.58			
		2506.0	20.45	19.73	18.58			
	1RB_0	2680.0	20.52	19.81	18.63			
		2636.5	20.50	19.76	18.61			
		2593.0	20.41	19.70	18.57			
		2549.5	20.35	19.64	18.56			
		2506.0	20.37	19.65	18.53			
	50RB_50	2680.0	19.49	18.58	17.57	20.5	19.5	18.5
		2636.5	19.38	18.50	17.46			
		2593.0	19.34	18.41	17.42			
		2549.5	19.27	18.41	17.36			
		2506.0	19.33	18.46	17.44			
	50RB_25	2680.0	**19.55**	18.64	17.61			
		2636.5	19.47	18.55	17.53			
		2593.0	19.39	18.49	17.45			
		2549.5	19.35	18.44	17.42			
		2506.0	19.37	18.44	17.39			
	50RB_0	2680.0	19.53	18.64	17.60			
		2636.5	19.44	18.61	17.58			
		2593.0	19.35	18.53	17.48			
		2549.5	19.33	18.45	17.43			
		2506.0	19.25	18.43	17.37			
	100RB_0	2680.0	19.50	18.59	17.57			
		2636.5	19.44	18.55	17.53			
		2593.0	19.42	18.50	17.46			
		2549.5	19.31	18.38	17.37			
		2506.0	19.31	18.41	17.40			

Reduced power level 2								
LTE Band 41 (PC2)			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
5 MHz	1RB_24	2687.5	22.57	21.84	20.66	23.5	22.5	21.5
		2640.3	22.44	21.72	20.56			
		2593.0	22.36	21.66	20.49			
		2545.8	22.30	21.57	20.48			
		2498.5	22.31	21.60	20.43			
	1RB_12	2687.5	22.62	21.88	20.73			
		2640.3	22.44	21.74	20.55			
		2593.0	22.37	21.63	20.53			
		2545.8	22.35	21.62	20.49			
		2498.5	22.35	21.62	20.48			
	1RB_0	2687.5	22.56	21.80	20.65			
		2640.3	22.42	21.71	20.54			
		2593.0	22.35	21.63	20.52			
		2545.8	22.27	21.59	20.47			
		2498.5	22.31	21.57	20.46			
	12RB_13	2687.5	21.61	20.57	19.62	22.5	21.5	20.5
		2640.3	21.41	20.42	19.42			
		2593.0	21.33	20.38	19.35			
		2545.8	21.31	20.33	19.33			
		2498.5	21.35	20.38	19.40			
	12RB_6	2687.5	21.61	20.64	19.62			
		2640.3	21.47	20.50	19.47			
		2593.0	21.39	20.39	19.41			
		2545.8	21.32	20.37	19.36			
		2498.5	21.35	20.43	19.40			
	12RB_0	2687.5	21.58	20.71	19.60			
		2640.3	21.43	20.46	19.44			
		2593.0	21.34	20.38	19.38			
		2545.8	21.31	20.32	19.33			
		2498.5	21.28	20.35	19.35			
	25RB_0	2687.5	21.51	20.59	19.61			
		2640.3	21.45	20.47	19.49			
		2593.0	21.31	20.41	19.44			
		2545.8	21.27	20.37	19.35			
		2498.5	21.34	20.41	19.40			

Reduced power level 2								
LTE Band 41 (PC2)			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
10 MHz	1RB_49	2685.0	22.61	21.87	20.69	23.5	22.5	21.5
		2639.0	22.46	21.74	20.56			
		2593.0	22.38	21.67	20.51			
		2547.0	22.29	21.63	20.44			
		2501.0	22.34	21.63	20.40			
	1RB_24	2685.0	22.65	21.92	20.79			
		2639.0	22.52	21.83	20.67			
		2593.0	22.46	21.76	20.61			
		2547.0	22.42	21.70	20.56			
		2501.0	22.42	21.72	20.56			
	1RB_0	2685.0	22.57	21.81	20.65			
		2639.0	22.44	21.72	20.57			
		2593.0	22.39	21.66	20.53			
		2547.0	22.30	21.62	20.46			
		2501.0	22.33	21.61	20.51			
	25RB_25	2685.0	21.56	20.64	19.68	22.5	21.5	20.5
		2639.0	21.46	20.51	19.51			
		2593.0	21.33	20.44	19.48			
		2547.0	21.32	20.38	19.40			
		2501.0	21.39	20.43	19.45			
	25RB_12	2685.0	21.57	20.67	19.67			
		2639.0	21.48	20.50	19.54			
		2593.0	21.41	20.47	19.46			
		2547.0	21.37	20.41	19.44			
		2501.0	21.41	20.43	19.44			
	25RB_0	2685.0	21.59	20.60	19.68			
		2639.0	21.49	20.54	19.58			
		2593.0	21.40	20.47	19.51			
		2547.0	21.34	20.40	19.44			
		2501.0	21.37	20.41	19.43			
	50RB_0	2685.0	21.60	20.65	19.63			
		2639.0	21.50	20.55	19.52			
		2593.0	21.37	20.47	19.44			
		2547.0	21.33	20.39	19.34			
		2501.0	21.31	20.40	19.39			

Reduced power level 2								
LTE Band 41 (PC2)			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
15 MHz	1RB_74	2682.5	22.56	21.83	20.70	23.5	22.5	21.5
		2637.8	22.40	21.70	20.55			
		2593.0	22.37	21.62	20.50			
		2548.3	22.27	21.61	20.42			
		2503.5	22.32	21.61	20.46			
	1RB_37	2682.5	22.50	21.77	20.58			
		2637.8	22.38	21.68	20.54			
		2593.0	22.35	21.66	20.52			
		2548.3	22.30	21.63	20.50			
		2503.5	22.34	21.61	20.49			
	1RB_0	2682.5	22.47	21.74	20.53			
		2637.8	22.42	21.70	20.56			
		2593.0	22.34	21.65	20.50			
		2548.3	22.30	21.60	20.49			
		2503.5	22.33	21.65	20.47			
	36RB_38	2682.5	21.52	20.50	19.51	22.5	21.5	20.5
		2637.8	21.41	20.36	19.37			
		2593.0	21.32	20.31	19.31			
		2548.3	21.27	20.28	19.32			
		2503.5	21.35	20.30	19.34			
	36RB_19	2682.5	21.52	20.52	19.51			
		2637.8	21.42	20.38	19.42			
		2593.0	21.35	20.30	19.38			
		2548.3	21.32	20.29	19.34			
		2503.5	21.31	20.27	19.29			
	36RB_0	2682.5	21.51	20.48	19.53			
		2637.8	21.46	20.44	19.45			
		2593.0	21.36	20.32	19.35			
		2548.3	21.32	20.30	19.31			
		2503.5	21.31	20.27	19.29			
	75RB_0	2682.5	21.54	20.53	19.55			
		2637.8	21.42	20.47	19.45			
		2593.0	21.35	20.35	19.36			
		2548.3	21.24	20.31	19.31			
		2503.5	21.29	20.32	19.33			

Reduced power level 2								
LTE Band 41 (PC2)			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
20 MHz	1RB_99	2680.0	22.51	21.78	20.67	23.5	22.5	21.5
		2636.5	22.37	21.68	20.49			
		2593.0	22.34	21.68	20.50			
		2549.5	22.30	21.63	20.48			
		2506.0	22.29	21.66	20.42			
	1RB_50	2680.0	**22.53**	21.80	20.61			
		2636.5	22.43	21.73	20.56			
		2593.0	22.39	21.70	20.50			
		2549.5	22.36	21.67	20.49			
		2506.0	22.39	21.69	20.53			
	1RB_0	2680.0	22.43	21.71	20.55			
		2636.5	22.38	21.73	20.58			
		2593.0	22.35	21.65	20.48			
		2549.5	22.30	21.60	20.44			
		2506.0	22.32	21.63	20.45			
	50RB_50	2680.0	21.42	20.48	19.48	22.5	21.5	20.5
		2636.5	21.33	20.42	19.37			
		2593.0	21.29	20.38	19.34			
		2549.5	21.24	20.28	19.25			
		2506.0	21.31	20.40	19.37			
	50RB_25	2680.0	21.47	20.54	19.51			
		2636.5	21.35	20.43	19.44			
		2593.0	21.33	20.38	19.37			
		2549.5	21.31	20.38	19.36			
		2506.0	21.29	20.38	19.31			
	50RB_0	2680.0	**21.49**	20.53	19.50			
		2636.5	21.43	20.49	19.45			
		2593.0	21.35	20.41	19.37			
		2549.5	21.33	20.36	19.33			
		2506.0	21.34	20.31	19.24			
	100RB_0	2680.0	21.47	20.52	19.51			
		2636.5	21.45	20.46	19.47			
		2593.0	21.36	20.40	19.41			
		2549.5	21.33	20.30	19.36			
		2506.0	21.35	20.37	19.34			

Normal Power								
LTE Band 66			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
1.4 MHz	1RB_5	1779.3	23.86	23.02	22.01	24.5	23.5	22.5
		1745.0	24.01	23.21	22.17			
		1710.7	23.80	23.06	21.90			
	1RB_3	1779.3	23.91	23.14	22.14			
		1745.0	24.06	23.32	22.24			
		1710.7	23.88	23.11	21.93			
	1RB_0	1779.3	23.88	23.07	22.05			
		1745.0	24.02	23.20	22.12			
		1710.7	23.83	23.05	21.91			
	3RB_3	1779.3	23.95	22.89	22.02			
		1745.0	24.07	23.01	22.17			
		1710.7	23.89	22.83	21.98			
	3RB_1	1779.3	23.99	22.98	22.07			
		1745.0	24.16	23.10	22.19			
		1710.7	23.98	22.87	22.05			
	3RB_0	1779.3	23.97	22.91	22.05			
		1745.0	24.10	23.06	22.19			
		1710.7	23.91	22.82	22.01			
	6RB_0	1779.3	22.98	22.05	20.94	23.5	22.5	21.5
		1745.0	23.08	22.15	21.11			
		1710.7	22.91	21.97	20.93			

Normal Power								
LTE Band 66			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
3 MHz	1RB_14	1778.5	23.92	23.12	22.04	24.5	23.5	22.5
		1745.0	24.07	23.27	22.23			
		1711.5	23.96	23.08	22.07			
	1RB_7	1778.5	24.11	23.31	22.10			
		1745.0	24.22	23.37	22.37			
		1711.5	24.09	23.18	22.15			
	1RB_0	1778.5	23.98	23.13	22.06			
		1745.0	24.09	23.31	22.22			
		1711.5	23.92	23.11	22.05			
	8RB_7	1778.5	22.95	22.00	20.96	23.5	22.5	21.5
		1745.0	23.08	22.08	21.07			
		1711.5	22.94	21.93	20.98			
	8RB_4	1778.5	22.96	22.00	20.98			
		1745.0	23.10	22.13	21.14			
		1711.5	22.93	21.98	20.97			
	8RB_0	1778.5	22.95	22.02	21.00			
		1745.0	23.08	22.13	21.11			
		1711.5	22.90	21.96	20.93			
	15RB_0	1778.5	22.97	21.97	20.97			
		1745.0	23.12	22.11	21.06			
		1711.5	22.94	21.93	20.92			

Normal Power								
LTE Band 66			Actual output Power (dBm)			**Tune up**		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
5 MHz	1RB_24	1777.5	23.88	23.05	22.01	**24.5**	**23.5**	**22.5**
		1745.0	24.02	23.23	22.17			
		1712.5	23.92	23.05	21.95			
	1RB_12	1777.5	24.10	23.31	22.18			
		1745.0	24.19	23.36	22.30			
		1712.5	23.99	23.15	22.09			
	1RB_0	1777.5	23.91	23.17	22.12			
		1745.0	24.06	23.28	22.23			
		1712.5	23.88	23.07	22.00			
	12RB_13	1777.5	22.97	21.95	20.98	**23.5**	**22.5**	**21.5**
		1745.0	23.11	22.09	21.11			
		1712.5	22.98	21.94	20.98			
	12RB_6	1777.5	23.01	22.02	21.04			
		1745.0	23.13	22.11	21.12			
		1712.5	22.95	21.91	20.95			
	12RB_0	1777.5	23.01	22.00	21.00			
		1745.0	23.09	22.10	21.08			
		1712.5	22.89	21.83	20.91			
	25RB_0	1777.5	22.99	22.00	20.99			
		1745.0	23.13	22.09	21.09			
		1712.5	22.94	21.87	20.91			

Normal Power								
LTE Band 66			Actual output Power (dBm)			**Tune up**		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
10 MHz	1RB_49	1775.0	23.89	23.11	21.97	**24.5**	**23.5**	**22.5**
		1745.0	24.01	23.21	22.12			
		1715.0	23.93	23.13	22.01			
	1RB_24	1775.0	24.02	23.34	22.22			
		1745.0	24.13	23.38	22.33			
		1715.0	24.03	23.21	22.13			
	1RB_0	1775.0	24.03	23.33	22.21			
		1745.0	24.12	23.40	22.26			
		1715.0	23.91	23.14	22.03			
	25RB_25	1775.0	23.05	22.01	21.01	**23.5**	**22.5**	**21.5**
		1745.0	23.13	22.13	21.13			
		1715.0	22.99	21.99	20.99			
	25RB_12	1775.0	23.01	21.99	21.01			
		1745.0	23.15	22.13	21.11			
		1715.0	23.00	21.98	21.02			
	25RB_0	1775.0	23.02	22.05	21.04			
		1745.0	23.08	22.11	21.09			
		1715.0	22.90	21.88	20.89			
	50RB_0	1775.0	23.05	22.05	21.01			
		1745.0	23.13	22.11	21.10			
		1715.0	22.98	21.94	20.98			

Normal Power								
LTE Band 66			Actual output Power (dBm)			**Tune up**		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
15 MHz	1RB_74	1772.5	23.85	23.02	21.98	**24.5**	**23.5**	**22.5**
		1745.0	23.96	23.13	22.04			
		1717.5	23.96	23.19	22.13			
	1RB_37	1772.5	23.97	23.25	22.11			
		1745.0	24.06	23.23	22.17			
		1717.5	23.90	23.04	22.00			
	1RB_0	1772.5	24.02	23.35	22.24			
		1745.0	24.14	23.33	22.27			
		1717.5	23.92	23.09	22.00			
	36RB_38	1772.5	23.06	22.02	21.03	**23.5**	**22.5**	**21.5**
		1745.0	23.13	22.07	21.09			
		1717.5	23.02	21.97	21.02			
	36RB_19	1772.5	23.07	22.06	21.05			
		1745.0	23.15	22.09	21.14			
		1717.5	22.99	21.95	20.98			
	36RB_0	1772.5	23.14	22.13	21.15			
		1745.0	23.14	22.11	21.12			
		1717.5	22.93	21.87	20.93			
	75RB_0	1772.5	23.08	22.09	21.10			
		1745.0	23.11	22.10	21.08			
		1717.5	22.95	21.94	20.96			

Normal Power								
LTE Band 66			Actual output Power (dBm)			**Tune up**		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
20 MHz	1RB_99	1770.0	23.79	22.98	21.98	**24.5**	**23.5**	**22.5**
		1745.0	23.75	23.06	21.92			
		1720.0	23.89	23.23	22.09			
	1RB_50	1770.0	**24.02**	23.33	22.17			
		1745.0	23.89	23.15	22.12			
		1720.0	24.01	23.28	22.12			
	1RB_0	1770.0	23.84	23.18	22.00			
		1745.0	23.93	23.25	22.15			
		1720.0	24.01	23.13	22.06			
	50RB_50	1770.0	23.03	22.01	20.97	**23.5**	**22.5**	**21.5**
		1745.0	22.91	21.91	20.87			
		1720.0	22.97	21.97	20.93			
	50RB_25	1770.0	23.01	22.01	20.99			
		1745.0	22.98	21.94	20.93			
		1720.0	23.09	22.03	21.03			
	50RB_0	1770.0	**23.11**	22.08	21.07			
		1745.0	22.99	21.94	20.93			
		1720.0	23.05	22.01	21.00			
	100RB_0	1770.0	23.06	22.01	21.00			
		1745.0	22.96	21.89	20.91			
		1720.0	22.97	21.96	20.95			

Reduced power level 1								
LTE Band 66			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
1.4 MHz	1RB_5	1779.3	20.85	20.19	19.11	21.5	20.5	19.5
		1745.0	20.99	20.35	19.24			
		1710.7	20.94	20.29	19.07			
	1RB_3	1779.3	20.88	20.31	19.21			
		1745.0	21.06	20.42	19.33			
		1710.7	20.98	20.37	19.15			
	1RB_0	1779.3	20.84	20.20	19.15			
		1745.0	20.98	20.34	19.19			
		1710.7	20.90	20.27	19.09			
	3RB_3	1779.3	20.95	19.95	19.07			
		1745.0	21.06	20.09	19.19			
		1710.7	21.02	19.94	19.07			
	3RB_1	1779.3	20.97	20.03	19.15			
		1745.0	21.09	20.12	19.27			
		1710.7	21.05	20.10	19.13			
	3RB_0	1779.3	20.94	20.01	19.09			
		1745.0	21.05	20.08	19.20			
		1710.7	21.03	20.03	19.09			
	6RB_0	1779.3	19.96	19.05	17.94	20.5	19.5	18.5
		1745.0	20.08	19.13	18.09			
		1710.7	20.01	19.07	18.00			

Reduced power level 1								
LTE Band 66			Actual output Power (dBm)			**Tune up**		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
3 MHz	1RB_14	1778.5	20.91	20.27	19.14	**21.5**	**20.5**	**19.5**
		1745.0	21.02	20.44	19.24			
		1711.5	21.02	20.33	19.25			
	1RB_7	1778.5	21.05	20.43	19.24			
		1745.0	21.14	20.45	19.43			
		1711.5	21.10	20.40	19.27			
	1RB_0	1778.5	20.93	20.35	19.19			
		1745.0	21.08	20.45	19.27			
		1711.5	20.99	20.37	19.21			
	8RB_7	1778.5	19.90	18.99	17.95	**20.5**	**19.5**	**18.5**
		1745.0	20.05	19.11	18.08			
		1711.5	19.98	19.02	18.03			
	8RB_4	1778.5	19.94	19.03	18.01			
		1745.0	20.07	19.11	18.11			
		1711.5	20.00	19.04	18.03			
	8RB_0	1778.5	19.94	19.01	17.96			
		1745.0	20.08	19.14	18.12			
		1711.5	19.94	19.00	18.04			
	15RB_0	1778.5	19.91	18.90	17.89			
		1745.0	20.05	19.08	18.07			
		1711.5	19.98	18.96	17.99			

Reduced power level 1								
LTE Band 66			Actual output Power (dBm)			**Tune up**		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
5 MHz	1RB_24	1777.5	20.86	20.22	19.06	**21.5**	**20.5**	**19.5**
		1745.0	20.97	20.40	19.23			
		1712.5	20.99	20.25	19.17			
	1RB_12	1777.5	21.04	20.38	19.30			
		1745.0	21.06	20.31	19.44			
		1712.5	21.19	20.37	19.29			
	1RB_0	1777.5	20.91	20.31	19.14			
		1745.0	21.04	20.43	19.26			
		1712.5	20.96	20.25	19.17			
	12RB_13	1777.5	19.94	18.96	17.94	**20.5**	**19.5**	**18.5**
		1745.0	20.10	19.08	18.10			
		1712.5	20.02	19.06	18.08			
	12RB_6	1777.5	19.99	18.96	18.01			
		1745.0	20.13	19.11	18.10			
		1712.5	20.00	19.02	18.04			
	12RB_0	1777.5	19.96	18.97	18.00			
		1745.0	20.08	19.09	18.07			
		1712.5	19.92	18.92	17.97			
	25RB_0	1777.5	19.97	18.96	17.95			
		1745.0	20.10	19.11	18.08			
		1712.5	19.99	19.00	17.99			

Reduced power level 1								
LTE Band 66			Actual output Power (dBm)			**Tune up**		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
10 MHz	1RB_49	1775.0	20.86	20.24	19.14	**21.5**	**20.5**	**19.5**
		1745.0	20.96	20.34	19.19			
		1715.0	20.97	20.31	19.15			
	1RB_24	1775.0	21.05	20.44	19.26			
		1745.0	21.14	20.33	19.36			
		1715.0	21.06	20.41	19.30			
	1RB_0	1775.0	21.03	20.44	19.29			
		1745.0	21.11	20.42	19.36			
		1715.0	20.99	20.32	19.19			
	25RB_25	1775.0	20.01	19.00	18.01	**20.5**	**19.5**	**18.5**
		1745.0	20.13	19.12	18.13			
		1715.0	20.07	19.10	18.06			
	25RB_12	1775.0	20.03	19.05	18.05			
		1745.0	20.16	19.15	18.12			
		1715.0	20.07	19.06	18.05			
	25RB_0	1775.0	20.10	19.10	18.12			
		1745.0	20.16	19.15	18.13			
		1715.0	19.99	19.02	17.98			
	50RB_0	1775.0	20.04	19.07	18.05			
		1745.0	20.15	19.18	18.13			
		1715.0	20.07	19.06	18.05			

Reduced power level 1								
LTE Band 66			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
15 MHz	1RB_74	1772.5	20.84	20.23	19.15	21.5	20.5	19.5
		1745.0	20.95	20.30	19.26			
		1717.5	20.95	20.32	19.21			
	1RB_37	1772.5	21.01	20.39	19.31			
		1745.0	21.06	20.40	19.36			
		1717.5	21.03	20.30	19.17			
	1RB_0	1772.5	21.07	20.46	19.37			
		1745.0	21.16	20.50	19.42			
		1717.5	21.01	20.28	19.17			
	36RB_38	1772.5	20.04	19.00	18.10	20.5	19.5	18.5
		1745.0	20.12	19.09	18.06			
		1717.5	20.04	19.04	18.05			
	36RB_19	1772.5	20.15	19.11	18.13			
		1745.0	20.18	19.17	18.17			
		1717.5	20.11	19.06	18.12			
	36RB_0	1772.5	20.19	19.17	18.19			
		1745.0	20.20	19.16	18.16			
		1717.5	19.99	18.99	18.01			
	75RB_0	1772.5	20.11	19.12	18.11			
		1745.0	20.14	19.11	18.09			
		1717.5	20.02	19.05	18.04			

Reduced power level 1								
LTE Band 66			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
20 MHz	1RB_99	1770.0	20.84	20.22	19.14	21.5	20.5	19.5
		1745.0	20.94	20.31	19.29			
		1720.0	20.97	20.30	19.23			
	1RB_50	1770.0	**21.15**	20.34	19.32			
		1745.0	21.13	20.45	19.44			
		1720.0	21.05	20.40	19.33			
	1RB_0	1770.0	21.10	20.44	19.40			
		1745.0	21.12	20.41	19.44			
		1720.0	21.04	20.30	19.22			
	50RB_50	1770.0	20.10	19.08	18.10	20.5	19.5	18.5
		1745.0	20.06	19.07	18.04			
		1720.0	19.98	18.98	17.95			
	50RB_25	1770.0	20.17	19.17	18.15			
		1745.0	20.16	19.18	18.15			
		1720.0	20.07	19.08	18.06			
	50RB_0	1770.0	**20.25**	19.26	18.25			
		1745.0	20.19	19.16	18.14			
		1720.0	20.09	19.03	18.00			
	100RB_0	1770.0	20.18	19.16	18.18			
		1745.0	20.12	19.11	18.12			
		1720.0	19.96	18.96	17.95			

Reduced power level 2								
LTE Band 66			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
1.4 MHz	1RB_5	1779.3	21.55	20.83	19.82	22.5	21.5	20.5
		1745.0	21.67	20.99	19.98			
		1710.7	21.70	21.05	19.94			
	1RB_3	1779.3	21.62	20.93	19.89			
		1745.0	21.80	21.11	20.01			
		1710.7	21.80	21.14	19.98			
	1RB_0	1779.3	21.55	20.87	19.94			
		1745.0	21.71	21.03	19.96			
		1710.7	21.71	21.06	19.97			
	3RB_3	1779.3	21.66	20.63	19.76			
		1745.0	21.80	20.80	19.94			
		1710.7	21.83	20.81	19.99			
	3RB_1	1779.3	21.68	20.69	19.81			
		1745.0	21.86	20.86	19.97			
		1710.7	21.84	20.87	20.03			
	3RB_0	1779.3	21.63	20.67	19.78			
		1745.0	21.82	20.79	19.96			
		1710.7	21.81	20.85	19.97			
	6RB_0	1779.3	20.67	19.76	18.68	21.5	20.5	19.5
		1745.0	20.78	19.91	18.81			
		1710.7	20.85	19.95	18.84			

Reduced power level 2								
LTE Band 66			Actual output Power (dBm)			**Tune up**		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
3 MHz	1RB_14	1778.5	21.62	20.91	19.94	**22.5**	**21.5**	**20.5**
		1745.0	21.76	21.04	20.02			
		1711.5	21.79	21.15	20.01			
	1RB_7	1778.5	21.67	21.01	20.03			
		1745.0	21.88	21.23	20.05			
		1711.5	21.98	21.24	20.10			
	1RB_0	1778.5	21.62	20.96	19.93			
		1745.0	21.82	21.14	20.02			
		1711.5	21.79	21.12	20.01			
	8RB_7	1778.5	20.61	19.66	18.70	**21.5**	**20.5**	**19.5**
		1745.0	20.75	19.85	18.85			
		1711.5	20.81	19.88	18.88			
	8RB_4	1778.5	20.65	19.74	18.71			
		1745.0	20.79	19.88	18.82			
		1711.5	20.82	19.89	18.89			
	8RB_0	1778.5	20.63	19.74	18.72			
		1745.0	20.72	19.86	18.84			
		1711.5	20.82	19.86	18.87			
	15RB_0	1778.5	20.58	19.67	18.64			
		1745.0	20.73	19.79	18.81			
		1711.5	20.84	19.86	18.84			

Reduced power level 2								
LTE Band 66			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
5 MHz	1RB_24	1777.5	21.57	20.94	19.86	22.5	21.5	20.5
		1745.0	21.69	21.07	19.96			
		1712.5	21.77	21.11	19.96			
	1RB_12	1777.5	21.80	21.13	19.96			
		1745.0	21.89	21.21	20.11			
		1712.5	21.91	21.24	20.16			
	1RB_0	1777.5	21.64	21.04	19.93			
		1745.0	21.77	21.12	19.98			
		1712.5	21.79	21.13	20.02			
	12RB_13	1777.5	20.65	19.66	18.66	21.5	20.5	19.5
		1745.0	20.77	19.80	18.82			
		1712.5	20.91	19.86	18.93			
	12RB_6	1777.5	20.73	19.70	18.74			
		1745.0	20.81	19.83	18.85			
		1712.5	20.83	19.84	18.89			
	12RB_0	1777.5	20.65	19.70	18.69			
		1745.0	20.80	19.82	18.84			
		1712.5	20.82	19.76	18.82			
	25RB_0	1777.5	20.68	19.68	18.69			
		1745.0	20.80	19.84	18.84			
		1712.5	20.86	19.83	18.82			

Reduced power level 2								
LTE Band 66			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
10 MHz	1RB_49	1775.0	21.57	20.88	19.89	22.5	21.5	20.5
		1745.0	21.72	20.98	19.90			
		1715.0	21.74	21.07	19.96			
	1RB_24	1775.0	21.75	21.06	20.02			
		1745.0	21.84	21.15	20.08			
		1715.0	21.88	21.18	20.09			
	1RB_0	1775.0	21.76	21.08	20.04			
		1745.0	21.84	21.14	20.08			
		1715.0	21.80	21.15	20.02			
	25RB_25	1775.0	20.68	19.75	18.75	21.5	20.5	19.5
		1745.0	20.79	19.85	18.86			
		1715.0	20.91	19.92	18.94			
	25RB_12	1775.0	20.73	19.76	18.75			
		1745.0	20.82	19.84	18.85			
		1715.0	20.91	19.92	18.90			
	25RB_0	1775.0	20.77	19.84	18.81			
		1745.0	20.86	19.90	18.90			
		1715.0	20.81	19.81	18.85			
	50RB_0	1775.0	20.72	19.78	18.78			
		1745.0	20.86	19.89	18.91			
		1715.0	20.89	19.91	18.90			

Reduced power level 2								
LTE Band 66			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
15 MHz	1RB_74	1772.5	21.59	20.87	19.89	22.5	21.5	20.5
		1745.0	21.66	21.02	19.97			
		1717.5	21.77	21.04	20.06			
	1RB_37	1772.5	21.73	21.03	20.07			
		1745.0	21.83	21.15	20.10			
		1717.5	21.80	21.12	20.05			
	1RB_0	1772.5	21.80	21.14	20.12			
		1745.0	21.92	21.25	20.22			
		1717.5	21.82	21.13	20.09			
	36RB_38	1772.5	20.73	19.76	18.79	21.5	20.5	19.5
		1745.0	20.80	19.83	18.85			
		1717.5	20.88	19.86	18.88			
	36RB_19	1772.5	20.81	19.82	18.84			
		1745.0	20.90	19.89	18.91			
		1717.5	20.90	19.90	18.91			
	36RB_0	1772.5	20.86	19.88	18.87			
		1745.0	20.90	19.93	18.95			
		1717.5	20.86	19.83	18.84			
	75RB_0	1772.5	20.80	19.85	18.83			
		1745.0	20.83	19.85	18.84			
		1717.5	20.88	19.86	18.85			

Reduced power level 2								
LTE Band 66			Actual output Power (dBm)			**Tune up**		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
20 MHz	1RB_99	1770.0	21.57	20.90	19.80	**22.5**	**21.5**	**20.5**
		1745.0	21.68	21.00	19.93			
		1720.0	21.76	21.11	20.06			
	1RB_50	1770.0	**21.93**	21.19	20.17			
		1745.0	21.89	21.24	20.12			
		1720.0	21.91	21.24	20.18			
	1RB_0	1770.0	21.81	21.15	19.99			
		1745.0	21.87	21.28	20.19			
		1720.0	21.83	21.20	20.10			
	50RB_50	1770.0	20.78	19.83	18.82	**21.5**	**20.5**	**19.5**
		1745.0	20.77	19.82	18.85			
		1720.0	20.74	19.80	18.80			
	50RB_25	1770.0	20.85	19.85	18.86			
		1745.0	20.86	19.88	18.94			
		1720.0	20.89	19.90	18.89			
	50RB_0	1770.0	**20.95**	20.01	19.00			
		1745.0	20.88	19.89	18.91			
		1720.0	20.91	19.85	18.83			
	100RB_0	1770.0	20.86	19.93	18.88			
		1745.0	20.84	19.88	18.90			
		1720.0	20.81	19.77	18.76			

LTE Band 71			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
5 MHz	1RB_24	695.5	24.24	23.46	22.43	25.0	24.0	23.0
		680.5	24.20	23.42	22.35			
		665.5	24.17	23.39	22.36			
	1RB_12	695.5	24.37	23.61	22.52			
		680.5	24.38	23.65	22.54			
		665.5	24.20	23.55	22.44			
	1RB_0	695.5	24.17	23.46	22.36			
		680.5	24.18	23.44	22.36			
		665.5	24.11	23.29	22.31			
	12RB_13	695.5	23.30	22.31	21.39	24.0	23.0	22.0
		680.5	23.23	22.24	21.33			
		665.5	23.26	22.27	21.26			
	12RB_6	695.5	23.25	22.30	21.35			
		680.5	23.30	22.31	21.36			
		665.5	23.29	22.29	21.30			
	12RB_0	695.5	23.24	22.23	21.27			
		680.5	23.26	22.24	21.31			
		665.5	23.15	22.18	21.16			
	25RB_0	695.5	23.31	22.27	21.33			
		680.5	23.27	22.26	21.31			
		665.5	23.20	22.24	21.23			

LTE Band 71			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
10 MHz	1RB_49	693.0	24.30	23.51	22.44	25.0	24.0	23.0
		680.5	24.27	23.52	22.46			
		668.0	24.18	23.45	22.39			
	1RB_24	693.0	24.31	23.53	22.42			
		680.5	24.35	23.55	22.50			
		668.0	24.21	23.51	22.49			
	1RB_0	693.0	24.26	23.52	22.38			
		680.5	24.25	23.45	22.33			
		668.0	24.14	23.31	22.36			
	25RB_25	693.0	23.32	22.35	21.36	24.0	23.0	22.0
		680.5	23.29	22.30	21.32			
		668.0	23.31	22.30	21.38			
	25RB_12	693.0	23.28	22.28	21.32			
		680.5	23.29	22.26	21.29			
		668.0	23.22	22.30	21.29			
	25RB_0	693.0	23.32	22.35	21.36			
		680.5	23.27	22.28	21.33			
		668.0	23.22	22.27	21.26			
	50RB_0	693.0	23.34	22.35	21.40			
		680.5	23.31	22.32	21.35			
		668.0	23.28	22.32	21.32			

LTE Band 71			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
15 MHz	1RB_74	690.5	24.29	23.55	22.47	25.0	24.0	23.0
		680.5	24.31	23.61	22.49			
		670.5	24.33	23.57	22.48			
	1RB_37	690.5	24.21	23.52	22.36			
		680.5	24.23	23.56	22.42			
		670.5	24.16	23.45	22.32			
	1RB_0	690.5	24.24	23.55	22.40			
		680.5	24.24	23.50	22.38			
		670.5	24.18	23.37	22.31			
	36RB_38	690.5	23.33	22.31	21.38	24.0	23.0	22.0
		680.5	23.30	22.27	21.31			
		670.5	23.35	22.33	21.41			
	36RB_19	690.5	23.28	22.26	21.32			
		680.5	23.32	22.28	21.31			
		670.5	23.23	22.24	21.30			
	36RB_0	690.5	23.33	22.27	21.38			
		680.5	23.26	22.24	21.30			
		670.5	23.21	22.25	21.25			
	75RB_0	690.5	23.31	22.32	21.34			
		680.5	23.28	22.28	21.30			
		670.5	23.26	22.24	21.29			

LTE Band 71			Actual output Power (dBm)			Tune up		
Band -width	RB No. / RB offset	Frequency (MHz)	Modulation			Modulation		
			QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
20 MHz	1RB_99	688.0	24.25	23.49	22.44	25.0	24.0	23.0
		683.0	24.23	23.41	22.36			
		673.0	24.12	23.36	22.26			
	1RB_50	688.0	**24.37**	23.56	22.56			
		683.0	24.36	23.68	22.50			
		673.0	24.16	23.43	22.33			
	1RB_0	688.0	24.22	23.40	22.41			
		683.0	24.18	23.35	22.37			
		673.0	24.10	23.26	22.28			
	50RB_50	688.0	23.31	22.32	21.37	24.0	23.0	22.0
		683.0	23.27	22.27	21.31			
		673.0	23.21	22.21	21.26			
	50RB_25	688.0	**23.34**	22.37	21.39			
		683.0	23.31	22.31	21.36			
		673.0	23.19	22.17	21.23			
	50RB_0	688.0	23.32	22.37	21.38			
		683.0	23.28	22.27	21.28			
		673.0	23.17	22.14	21.18			
	100RB_0	688.0	23.32	22.31	21.35			
		683.0	23.25	22.23	21.30			
		673.0	23.19	22.16	21.22			

10.3. Bluetooth and WLAN Measurement result

Table 10.5: The conducted Power measurement results for Bluetooth

Averaged Power (dBm)				
Mode	**Tune up**	Ch.0 (2402MHz)	Ch.39 (2441MHz)	Ch.78 (2480MHz)
GFSK	**11.0**	9.69	9.13	**9.80**
EDR2M-4_DQPSK	**10.0**	8.94	8.36	9.10
EDR3M-8DPSK	**10.0**	8.90	8.31	9.06
/	**/**	Ch.0 (2402MHz)	Ch.19 (2440MHz)	Ch.39 (2480MHz)
BLE(1M)	**-2.0**	-2.89	-2.99	-3.23
BLE(2M)	**-2.0**	-2.97	-3.05	-3.30

Table 10.6: The conducted Power measurement results for WLAN 2.4GHz

Normal Power				
Averaged Power (dBm) Duty Cycle: **100%**				
Mode	**Tune up**	Ch.1 (2412MHz)	Ch.6 (2437MHz)	Ch.11 (2462MHz)
802.11b	**20.5**	18.92	18.97	**19.09**
802.11g	**19.0**	15.11	17.70	16.62
802.11n(20MHz)	**19.0**	13.48	17.67	15.52
Reduced power level 3				
Averaged Power (dBm) Duty Cycle: **100%**				
Mode	**Tune up**	Ch.1 (2412MHz)	Ch.6 (2437MHz)	Ch.11 (2462MHz)
802.11b	**17.7**	16.18	16.22	**16.31**
802.11g	**16.0**	12.19	14.77	13.64
802.11n(20MHz)	**16.0**	10.67	14.86	12.77

Table 10.7: The conducted Power measurement results for WLAN 5GHz

Normal Power								
Averaged Power (dBm) Duty Cycle: **100%**								
Mode	802.11a	802.11n -20MHz	802.11ac -20MHz	Mode	802.11n -40MHz	802.11ac -40MHz	Mode	802.11ac -80MHz
Channel	6Mbps	MCS0	MCS0	Channel	MCS0	MCS0	Channel	MCS0
<U-NII-1>								
Tune up	**18.5**	**18.5**	**18.5**	/	**18.0**	**18.0**	/	**15.5**
36(5180MHz)	17.72	17.47	17.67	38(5190MHz)	15.68	15.58	42(5210MHz)	14.45
40(5200MHz)	17.89	17.67	17.55	46(5230MHz)	17.48	17.47	/	/
44(5220MHz)	17.78	17.72	17.47	/	/	/	/	/
48(5240MHz)	17.87	17.51	17.65	/	/	/	/	/
<U-NII-2A>								
Tune up	**18.5**	**18.5**	**18.5**	/	**18.0**	**18.0**	/	**15.5**
52(5260MHz)	17.77	17.62	17.46	54(5270MHz)	17.11	17.58	58(5290MHz)	14.65
56(5280MHz)	17.75	17.65	17.37	62(5310MHz)	15.05	15.12	/	/
60(5300MHz)	**17.98**	17.58	17.21	/	/	/	/	/
64(5320MHz)	17.95	17.61	17.16	/	/	/	/	/
<U-NII-2C>								
Tune up	**17.5**	**17.5**	**17.5**	/	**17.3**	**17.3**	/	**17.3**
100(5500MHz)	16.39	15.35	15.17	102(5510MHz)	12.11	12.13	106(5530MHz)	12.61
116(5580MHz)	17.29	17.25	17.28	110(5550MHz)	17.18	16.92	122(5610MHz)	16.94
124(5620MHz)	**17.36**	17.07	17.18	126(5630MHz)	16.97	16.94	138(5690MHz)	16.61
132(5660MHz)	17.12	17.03	17.07	134(5670MHz)	16.91	16.80	/	/
140(5700MHz)	14.27	13.11	13.09	142(5710MHz)	16.86	16.83	/	/
144(5720MHz)	17.18	17.05	17.13	/	/	/	/	/
<U-NII-3>								
Tune up	**18.5**	**18.5**	**18.5**	/	**18.0**	**18.0**	/	**18.0**
149(5745MHz)	17.19	17.08	17.02	151(5755MHz)	16.81	16.88	155(5775MHz)	16.56
157(5785MHz)	17.15	17.05	16.98	159(5795MHz)	17.08	16.85	/	/
165(5825MHz)	**17.25**	16.86	17.02	/	/	/	/	/

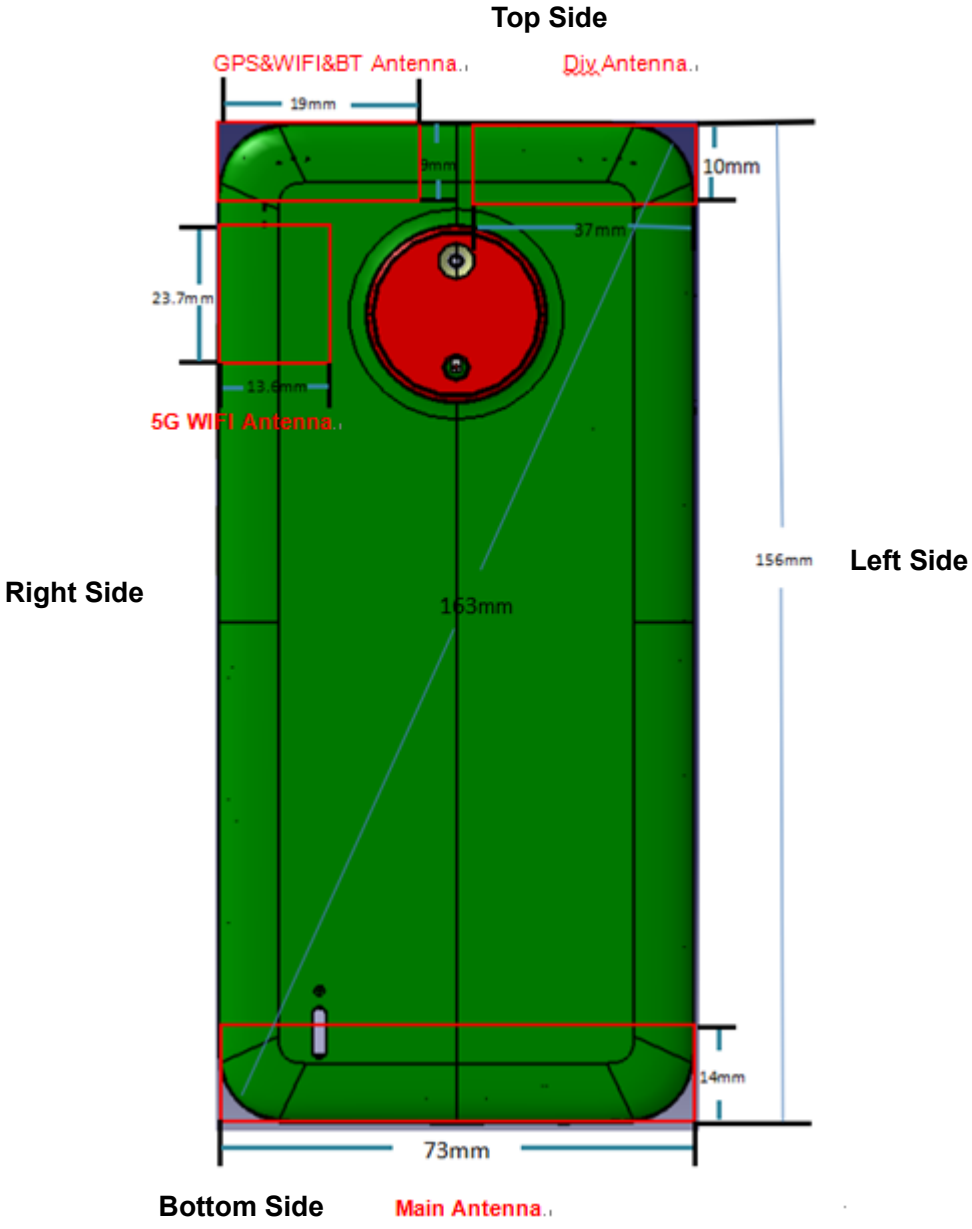
Reduced power level 4								
Averaged Power (dBm) Duty Cycle: **100%**								
Mode	802.11a	802.11n -20MHz	802.11ac -20MHz	Mode	802.11n -40MHz	802.11ac -40MHz	Mode	802.11ac -80MHz
Channel	6Mbps	MCS0	MCS0	Channel	MCS0	MCS0	Channel	MCS0
<U-NII-1>								
Tune up	**16.0**	**16.0**	**16.0**	/	**15.8**	**15.8**	/	**13.5**
36(5180MHz)	15.76	15.56	15.49	38(5190MHz)	13.37	13.52	42(5210MHz)	12.38
40(5200MHz)	**15.85**	15.75	15.54	46(5230MHz)	15.38	15.61	/	/
44(5220MHz)	15.52	15.57	15.52	/	/	/	/	/
48(5240MHz)	15.84	15.49	15.47	/	/	/	/	/
Reduced power level 5								
Averaged Power (dBm) Duty Cycle: **100%**								
Mode	802.11a	802.11n -20MHz	802.11ac -20MHz	Mode	802.11n -40MHz	802.11ac -40MHz	Mode	802.11ac -80MHz
Channel	6Mbps	MCS0	MCS0	Channel	MCS0	MCS0	Channel	MCS0
<U-NII-1>								
Tune up	**17.5**	**17.5**	**17.5**	/	**17.3**	**17.3**	/	**15.0**
36(5180MHz)	17.12	16.91	16.96	38(5190MHz)	15.13	15.01	42(5210MHz)	13.88
40(5200MHz)	17.40	17.19	16.88	46(5230MHz)	16.95	17.05	/	/
44(5220MHz)	17.21	17.26	16.92	/	/	/	/	/
48(5240MHz)	17.29	16.99	16.49	/	/	/	/	/
<U-NII-2A>								
Tune up	**17.5**	**17.5**	**17.5**	/	**17.3**	**17.3**	/	**15.0**
52(5260MHz)	17.26	17.13	17.10	54(5270MHz)	16.65	17.13	58(5290MHz)	14.16
56(5280MHz)	17.23	17.16	17.03	62(5310MHz)	14.40	14.91	/	/
60(5300MHz)	**17.40**	17.14	17.02	/	/	/	/	/
64(5320MHz)	17.39	17.06	16.88	/	/	/	/	/

11. Simultaneous TX SAR Considerations

11.1. Introduction

The following procedures adopted from “FCC SAR Considerations for Cell Phones with Multiple Transmitters” are applicable to handsets with built-in unlicensed transmitters such as 802.11 a/b/g and Bluetooth devices which may simultaneously transmit with the licensed transmitter.
For this device, the Bluetooth and WLAN can transmit simultaneous with other transmitters.

11.2. Transmit Antenna Separation Distances



Picture 11.1 Antenna Locations (Back View)

11.3. SAR Measurement Positions

According to the KDB941225 D06 Hot Spot SAR, the edges with less than 25mm distance to the antennas need to be tested for SAR.

SAR measurement positions						
Mode	Front	Rear	Left edge	Right edge	Top edge	Bottom edge
Main antenna	Yes	Yes	Yes	Yes	No	Yes
WLAN antenna	Yes	Yes	Yes	Yes	Yes	No

12. Evaluation of Simultaneous

According to the KDB 447498 D01, when the sum of SAR is larger than the limit, SAR test exclusion is determined by the SAR to peak location separation ratio. The ratio is determined by (SAR1 + SAR2)$^{1.5}$/Ri, rounded to two decimal digits, and must be ≤ 0.04 for all antenna pairs in the configuration to qualify for 1-g SAR test exclusion. When 10-g SAR applies, the ratio must be ≤ 0.10.

The sum of SAR values for WWAN Antenna and WLAN2.4GHz(1g)					
Position	**Main Antenna (W/kg)**		**WLAN 2.4GHz (W/kg)**	**Sum (W/kg)**	**SPLSR**
Left Cheek	WCDMA Band 2	0.54	1.11	1.65	Yes
The sum of SAR values for WWAN Antenna and WLAN5GHz(1g)					
Position	**Main Antenna (W/kg)**		**WLAN 5GHz (W/kg)**	**Sum (W/kg)**	**SPLSR**
Rear	GSM850	0.61	1.05	1.66	Yes
	WCDMA Band 2	0.70	1.05	1.75	Yes
	WCDMA Band 4	0.69	1.05	1.74	Yes
	WCDMA Band 5	0.59	1.05	1.64	Yes
	LTE Band 2	0.83	1.05	1.88	Yes
	LTE Band 5	0.59	1.05	1.64	Yes
	LTE Band 12	0.78	1.05	1.83	Yes
	LTE Band 13	0.85	1.05	1.9	Yes
	LTE Band 41(PC3)	0.57	1.05	1.62	Yes
	LTE Band 41(PC2)	0.61	1.05	1.66	Yes
	LTE Band 66	0.78	1.05	1.83	Yes
	LTE Band 71	0.60	1.05	1.65	Yes
The sum of SAR values for WWAN Antenna and WLAN5GHz(10g)					
Rear	LTE Band 41(PC3)	3.41	1.81	5.22	Yes
	LTE Band 41(PC2)	3.24	1.81	5.05	Yes

Band	**Position**	**1g SAR (W/kg)**	**Gap (cm)**	**SAR peak location (m)**			**3D distance (mm)**	**Pair SAR sum (W/kg)**	**SPLSR**	**Simultaneous SAR**
				X	**Y**	**Z**				
WCDMA Band 2	Left Cheek	0.54	0	0.0566	0.256	-0.173	76.4	1.65	0.028	**Not required**
WLAN 2.4G		1.11	0	0.034	0.329	-0.175				

Band	Position	1g SAR (W/kg)	Gap (cm)	SAR peak location (m)			3D distance (mm)	Pair SAR sum (W/kg)	SPLSR	Simultaneous SAR
				X	Y	Z				
GSM850	Rear	0.61	1	-0.0275	-0.0015	-0.205	57.1	1.66	0.037	Not required
WLAN5GHz		1.05	1	0.0102	-0.0444	-0.207				

Band	Position	1g SAR (W/kg)	Gap (cm)	SAR peak location (m)			3D distance (mm)	Pair SAR sum (W/kg)	SPLSR	Simultaneous SAR
				X	Y	Z				
WCDMA Band 2	Rear	0.70	1	-0.033	0.0815	-0.206	133.1	1.75	0.017	Not required
WLAN5GHz		1.05	1	0.0102	-0.0444	-0.207				

Band	Position	1g SAR (W/kg)	Gap (cm)	SAR peak location (m)			3D distance (mm)	Pair SAR sum (W/kg)	SPLSR	Simultaneous SAR
				X	Y	Z				
WCDMA Band 4	Rear	0.69	1	-0.009	0.0765	-0.206	122.4	1.74	0.019	Not required
WLAN5GHz		1.05	1	0.0102	-0.0444	-0.207				

Band	Position	1g SAR (W/kg)	Gap (cm)	SAR peak location (m)			3D distance (mm)	Pair SAR sum (W/kg)	SPLSR	Simultaneous SAR
				X	Y	Z				
WCDMA Band 5	Rear	0.59	1	-0.0185	0.0015	-0.205	54.2	1.64	0.039	Not required
WLAN5GHz		1.05	1	0.0102	-0.0444	-0.207				

Band	Position	1g SAR (W/kg)	Gap (cm)	SAR peak location (m)			3D distance (mm)	Pair SAR sum (W/kg)	SPLSR	Simultaneous SAR
				X	Y	Z				
LTE Band 2	Rear	0.83	1	-0.0305	0.084	-0.206	134.7	1.88	0.019	Not required
WLAN5GHz		1.05	1	0.0102	-0.0444	-0.207				

Band	Position	1g SAR (W/kg)	Gap (cm)	SAR peak location (m)			3D distance (mm)	Pair SAR sum (W/kg)	SPLSR	Simultaneous SAR
				X	Y	Z				
LTE Band 5	Rear	0.59	1	-0.0215	0.0015	-0.205	55.8	1.64	0.038	Not required
WLAN5GHz		1.05	1	0.0102	-0.0444	-0.207				

Band	Position	1g SAR (W/kg)	Gap (cm)	SAR peak location (m)			3D distance (mm)	Pair SAR sum (W/kg)	SPLSR	Simultaneous SAR
				X	Y	Z				
LTE Band 12	Rear	0.78	1	-0.0305	0.015	-0.205	72.0	1.83	0.034	Not required
WLAN5GHz		1.05	1	0.0102	-0.0444	-0.207				

Band	Position	1g SAR (W/kg)	Gap (cm)	SAR peak location (m)			3D distance (mm)	Pair SAR sum (W/kg)	SPLSR	Simultaneous SAR
				X	Y	Z				
LTE Band 13	Rear	0.85	1	-0.029	0.0195	-0.205	75.0	1.90	0.035	Not required
WLAN5GHz		1.05	1	0.0102	-0.0444	-0.207				

Band	Position	1g SAR (W/kg)	Gap (cm)	SAR peak location (m)			3D distance (mm)	Pair SAR sum (W/kg)	SPLSR	Simultaneous SAR
				X	Y	Z				
LTE Band 41(PC3)	Rear	0.57	1	-0.032	0.075	-0.207	126.6	1.62	0.016	Not required
WLAN5GHz		1.05	1	0.0102	-0.0444	-0.207				

Band	Position	1g SAR (W/kg)	Gap (cm)	SAR peak location (m)			3D distance (mm)	Pair SAR sum (W/kg)	SPLSR	Simultaneous SAR
				X	Y	Z				
LTE Band 41(PC2)	Rear	0.61	1	-0.0335	0.072	-0.204	124.4	1.66	0.017	Not required
WLAN5GHz		1.05	1	0.0102	-0.0444	-0.207				

Band	Position	1g SAR (W/kg)	Gap (cm)	SAR peak location (m)			3D distance (mm)	Pair SAR sum (W/kg)	SPLSR	Simultaneous SAR
				X	Y	Z				
LTE Band 66	Rear	0.78	1	-0.029	0.0735	-0.206	124.2	1.83	0.020	Not required
WLAN5GHz		1.05	1	0.0102	-0.0444	-0.207				

Band	Position	1g SAR (W/kg)	Gap (cm)	SAR peak location (m)			3D distance (mm)	Pair SAR sum (W/kg)	SPLSR	Simultaneous SAR
				X	Y	Z				
LTE Band 71	Rear	0.60	1	-0.026	0.069	-0.204	119.1	1.65	0.018	Not required
WLAN5GHz		1.05	1	0.0102	-0.0444	-0.207				

Band	Position	10g SAR (W/kg)	Gap (cm)	SAR peak location (m)			3D distance (mm)	Pair SAR sum (W/kg)	SPLSR	Simultaneous SAR
				X	Y	Z				
LTE Band 41(PC3)	Rear	3.41	0	-0.0335	0.0675	-0.204	126.5	5.22	0.094	Not required
WLAN5GHz		1.81	0	0.0078	-0.052	-0.206				

Band	Position	10g SAR (W/kg)	Gap (cm)	SAR peak location (m)			3D distance (mm)	Pair SAR sum (W/kg)	SPLSR	Simultaneous SAR
				X	Y	Z				
LTE Band 41(PC2)	Rear	3.24	0	-0.041	0.066	-0.207	127.7	5.05	0.089	**Not required**
WLAN5GHz		1.81	0	0.0078	-0.052	-0.206				

Table 12.1: The sum of reported SAR values for WWAN antenna and WLAN/BT antenna

/	Position	WWAN (W/kg)	WLAN (W/kg)	Sum (W/kg)
Highest reported SAR value for Head	Left Cheek	0.47	1.11	**1.58**
Highest reported SAR value for Hotspot	Rear Side	0.51	1.05	**1.56**
Highest reported SAR value for Body-worn	Rear Side	0.60	0.79	**1.39**
Highest reported SAR value for Extremity	Rear Side	2.18	1.81	**3.99**

Note: the test positions of above tables are for the worse case that has been evaluated.

Conclusion:

According to the above tables, the sum of reported SAR values is less than limit. So the simultaneous transmission SAR with volume scans is not required.

13. Summary of Test Results

According to the client's decision rule in the test registration form, which is "based on the measurement results as the basis of the conformity statement", the test conclusion of this report meets the limit requirements.

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 10.

General Note:

1. Per KDB648474 D04v01r03, for smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension> 16.0 cm, when hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg, however, when power reduction applies to hotspot mode the measured SAR must be scaled to the maximum output power, including tolerance, allowed for phablet modes to compare with the 1.2 W/kg SAR test reduction threshold.

a. WLAN5GHz U-NII-2A and U-NII-2C tested the product specific 10g SAR since it has no hotspot mode.

b. When 10-g product specific 10g SAR is considered, SAR thresholds is specified in the procedures for SAR test reduction and exclusion should be multiplied by 2.5.

2. B2: Battery (Ningbo Veken Battery Company Limited)

Duty Cycle

Mode	Duty Cycle
Speech for GSM	1:8.3
GPRS	1:4
WCDMA	1:1
FDD_LTE	1:1
TDD_LTE	1:1.58/1:2.31
Bluetooth	1:1

13.1. Testing Environment

Temperature:	18°C~25°C
Relative humidity:	30%~70%
Ground system resistance:	<4Ω
Ambient noise & Reflection:	< 0.012 W/kg

13.2. SAR results

Table 13.1: SAR Values (GSM850 - Head)

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Ch.	MHz								
190	836.6	Speech	Left Cheek	**1**	31.90	33.5	**0.325**	**0.47**	0.06
190	836.6	Speech	Left Tilt	/	31.90	33.5	0.145	**0.21**	0.07
190	836.6	Speech	Right Cheek	/	31.90	33.5	0.317	**0.46**	0.07
190	836.6	Speech	Right Tilt	/	31.90	33.5	0.105	**0.15**	0.03
190	836.6	Speech	Left Cheek	B2	31.90	33.5	0.301	**0.44**	0.07

Table 13.2: SAR Values (GSM850 - Body)

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Ch.	MHz								
Hotspot Test Data (10mm)									
251	848.8	GPRS-2	Front	/	30.31	31.5	0.415	**0.55**	0.09
251	848.8	GPRS-2	Rear	**2**	30.31	31.5	**0.460**	**0.61**	0.02
251	848.8	GPRS-2	Left	/	30.31	31.5	0.313	**0.41**	0.12
251	848.8	GPRS-2	Right	/	30.31	31.5	0.338	**0.44**	0.06
251	848.8	GPRS-2	Bottom	/	30.31	31.5	0.093	**0.12**	0.16
251	848.8	GPRS-2	Rear	B2	30.31	31.5	0.423	**0.56**	0.07
Body-Worn Test Data (15mm)									
251	848.8	GPRS-2	Front	/	30.31	31.5	0.251	**0.33**	0.04
251	848.8	GPRS-2	Rear	/	30.31	31.5	**0.424**	**0.56**	0.01

Table 13.3: SAR Values (GSM1900 - Head)

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Ch.	MHz								
661	1880.0	Speech	Left Cheek	/	28.80	30.5	0.011	**0.02**	0.09
661	1880.0	Speech	Left Tilt	/	28.80	30.5	0.009	**0.01**	0.14
661	1880.0	Speech	Right Cheek	**3**	28.80	30.5	**0.012**	**0.02**	0.09
661	1880.0	Speech	Right Tilt	/	28.80	30.5	0.007	**0.01**	0.06
661	1880.0	Speech	Right Cheek	B2	28.80	30.5	0.010	**0.02**	0.09

Table 13.4: SAR Values (GSM1900 - Body)

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Ch.	MHz								
Hotspot Test Data (10mm)									
661	1880.0	GPRS-2	Front	/	27.25	28.5	0.290	**0.39**	-0.01
661	1880.0	GPRS-2	Rear	/	27.25	28.5	0.380	**0.51**	0.02
661	1880.0	GPRS-2	Left	/	27.25	28.5	0.117	**0.16**	0.08
661	1880.0	GPRS-2	Right	/	27.25	28.5	0.085	**0.11**	0.07
661	1880.0	GPRS-2	Bottom	**4**	27.25	28.5	**0.593**	**0.79**	0.02
661	1880.0	GPRS-2	Bottom	B2	27.25	28.5	0.543	**0.72**	0.02
Body-Worn Test Data (15mm)									
661	1880.0	GPRS-2	Front	/	27.25	28.5	0.157	**0.21**	0.02
661	1880.0	GPRS-2	Rear	/	27.25	28.5	**0.206**	**0.27**	0.18

Table 13.5: SAR Values (WCDMA Band 2 - Head)

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Ch.	MHz								
9538	1907.6	RMC	Left Cheek	**5**	23.31	25.0	**0.364**	**0.54**	0.08
9538	1907.6	RMC	Left Tilt	/	23.31	25.0	0.260	**0.38**	0.15
9538	1907.6	RMC	Right Cheek	/	23.31	25.0	0.307	**0.45**	0.04
9538	1907.6	RMC	Right Tilt	/	23.31	25.0	0.191	**0.28**	0.10
9538	1907.6	RMC	Left Cheek	B2	23.31	25.0	0.344	**0.51**	0.08

Table 13.6: SAR Values (WCDMA Band 2 - Body)

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Ch.	MHz								
Hotspot Test Data (10mm) - Reduced power level 1									
9538	1907.6	RMC	Front	/	19.80	21.5	0.319	**0.47**	0.01
9538	1907.6	RMC	Rear	/	19.80	21.5	0.470	**0.70**	-0.16
9538	1907.6	RMC	Left	/	19.80	21.5	0.165	**0.24**	0.12
9538	1907.6	RMC	Right	/	19.80	21.5	0.096	**0.14**	-0.14
9538	1907.6	RMC	Bottom	/	19.80	21.5	0.563	**0.83**	0.07
9400	1880.0	RMC	Bottom	/	19.70	21.5	0.716	**1.08**	0.04
9262	1852.4	RMC	Bottom	**6**	19.70	21.5	**0.783**	**1.19**	0.05
9262	1852.4	RMC	Bottom	B2	19.70	21.5	0.725	**1.10**	0.03
Body-Worn Test Data (15mm) - Reduced power level 2									
9538	1907.6	RMC	Front	/	20.80	22.5	0.197	**0.29**	-0.06
9538	1907.6	RMC	Rear	/	20.80	22.5	**0.258**	**0.38**	0.14

Table 13.7: SAR Values (WCDMA Band 4 - Head)

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Ch.	MHz								
1312	1712.4	RMC	Left Cheek	/	23.44	25.0	0.298	**0.43**	0.04
1312	1712.4	RMC	Left Tilt	/	23.44	25.0	0.272	**0.39**	0.11
1312	1712.4	RMC	Right Cheek	**7**	23.44	25.0	**0.394**	**0.56**	0.04
1312	1712.4	RMC	Right Tilt	/	23.44	25.0	0.248	**0.36**	0.06
1312	1712.4	RMC	Right Cheek	B2	23.44	25.0	0.384	**0.55**	0.04

Table 13.8: SAR Values (WCDMA Band 4 - Body)

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Ch.	MHz								
Hotspot Test Data (10mm) - Reduced power level 1									
1312	1712.4	RMC	Front	/	19.00	20.0	0.296	**0.37**	0.07
1312	1712.4	RMC	Rear	/	19.00	20.0	0.549	**0.69**	0.06
1312	1712.4	RMC	Left	/	19.00	20.0	0.081	**0.10**	0.06
1312	1712.4	RMC	Right	/	19.00	20.0	0.073	**0.09**	0.03
1312	1712.4	RMC	Bottom	**8**	19.00	20.0	**0.782**	**0.98**	0.06
1513	1752.6	RMC	Bottom	/	18.60	20.0	0.729	**1.01**	0.14
1413	1732.6	RMC	Bottom	/	18.70	20.0	0.755	**1.02**	0.13
1413	1732.6	RMC	Bottom	B2	18.70	20.0	0.701	**0.95**	-0.03
Body-Worn Test Data (15mm) - Reduced power level 2									
1312	1712.4	RMC	Front	/	20.00	21.5	0.182	**0.26**	-0.08
1312	1712.4	RMC	Rear	/	20.00	21.5	**0.310**	**0.44**	0.09

Table 13.9: SAR Values (WCDMA Band 5 - Head)

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Ch.	MHz								
4132	826.4	RMC	Left Cheek	**9**	22.78	24.0	**0.357**	**0.47**	0.06
4132	826.4	RMC	Left Tilt	/	22.78	24.0	0.182	**0.24**	0.02
4132	826.4	RMC	Right Cheek	/	22.78	24.0	0.303	**0.40**	0.06
4132	826.4	RMC	Right Tilt	/	22.78	24.0	0.163	**0.22**	0.10
4132	826.4	RMC	Left Cheek	B2	22.78	24.0	0.321	**0.43**	0.06

Table 13.10: SAR Values (WCDMA Band 5 - Body)

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Ch.	MHz								
Hotspot Test Data (10mm)									
4132	826.4	RMC	Front	/	22.78	24.0	0.215	**0.28**	0.01
4132	826.4	RMC	Rear	/	22.78	24.0	0.449	**0.59**	0.02
4132	826.4	RMC	Left	/	22.78	24.0	0.436	**0.58**	0.12
4132	826.4	RMC	Right	**10**	22.78	24.0	**0.476**	**0.63**	0.09
4132	826.4	RMC	Bottom	/	22.78	24.0	0.064	**0.08**	0.17
4132	826.4	RMC	Right	B2	22.78	24.0	0.423	**0.56**	0.09
Body-Worn Test Data (15mm)									
4132	826.4	RMC	Front	/	22.78	24.0	0.203	**0.27**	0.07
4132	826.4	RMC	Rear	/	22.78	24.0	**0.380**	**0.50**	0.04

Table 13.11: SAR Values (LTE Band 2 - Head)

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Ch.	MHz								
18700	1860.0	1RB0	Left Cheek	/	23.67	24.5	0.365	**0.44**	0.05
18700	1860.0	50RB25	Left Cheek	/	22.66	23.5	0.274	**0.33**	0.05
18700	1860.0	1RB0	Left Tilt	/	23.67	24.5	0.316	**0.38**	-0.15
18700	1860.0	50RB25	Left Tilt	/	22.66	23.5	0.238	**0.29**	0.17
18700	1860.0	1RB0	Right Cheek	**11**	23.67	24.5	**0.444**	**0.54**	-0.07
18700	1860.0	50RB25	Right Cheek	/	22.66	23.5	0.339	**0.41**	0.09
18700	1860.0	1RB0	Right Tilt	/	23.67	24.5	0.275	**0.33**	0.02
18700	1860.0	50RB25	Right Tilt	/	22.66	23.5	0.201	**0.24**	0.16
18700	1860.0	1RB0	Right Cheek	B2	23.67	24.5	0.403	**0.49**	0.07

Table 13.12: SAR Values (LTE Band 2 - Body)

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Ch.	MHz								
Hotspot Test Data (10mm) - Reduced power level 1									
18700	1860.0	1RB0	Front	/	21.68	22.5	0.501	**0.61**	0.13
18700	1860.0	50RB25	Front	/	20.65	21.5	0.400	**0.49**	-0.03
18700	1860.0	1RB0	Rear	/	21.68	22.5	0.686	**0.83**	0.17
18700	1860.0	50RB25	Rear	/	20.65	21.5	0.518	**0.63**	0.02
18700	1860.0	1RB0	Left	/	21.68	22.5	0.198	**0.24**	0.14
18700	1860.0	50RB25	Left	/	20.65	21.5	0.161	**0.20**	0.06
18700	1860.0	1RB0	Right	/	21.68	22.5	0.154	**0.19**	-0.11
18700	1860.0	50RB25	Right	/	20.65	21.5	0.126	**0.15**	-0.11
18700	1860.0	1RB0	Bottom	**12**	21.68	22.5	**0.991**	**1.20**	0.02
18700	1860.0	50RB25	Bottom	/	20.65	21.5	0.747	**0.91**	0.07
19100	1900.0	1RB0	Rear	/	21.65	22.5	0.576	**0.70**	0.03
18900	1880.0	1RB0	Rear	/	21.68	22.5	0.626	**0.76**	0.09
19100	1900.0	100RB	Rear	/	20.65	21.5	0.496	**0.60**	0.09
19100	1900.0	1RB0	Bottom	/	21.65	22.5	0.839	**1.02**	-0.17
18900	1880.0	1RB0	Bottom	/	21.68	22.5	0.912	**1.10**	0.20
19100	1900.0	50RB25	Bottom	/	20.60	21.5	0.659	**0.81**	0.04
18900	1880.0	50RB25	Bottom	/	20.64	21.5	0.708	**0.86**	0.05
19100	1900.0	100RB	Bottom	/	20.65	21.5	0.716	**0.87**	-0.05
18700	1860.0	1RB0	Bottom	B2	21.68	22.5	0.952	**1.15**	0.02
Body-Worn Test Data (15mm) - Reduced power level 2									
18700	1860.0	1RB0	Front	/	23.10	24.0	0.375	**0.46**	0.06
18700	1860.0	50RB25	Front	/	22.10	23.0	0.286	**0.35**	0.01
18700	1860.0	1RB0	Rear	/	23.10	24.0	**0.485**	**0.60**	0.12
18700	1860.0	50RB25	Rear	/	22.10	23.0	0.419	**0.52**	-0.05

Table 13.13: SAR Values (LTE Band 5 - Head)

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Ch.	MHz								
20450	829.0	1RB24	Left Cheek	/	24.29	25.0	0.389	**0.46**	0.02
20450	829.0	25RB0	Left Cheek	/	23.30	24.0	0.294	**0.35**	0.10
20450	829.0	1RB24	Left Tilt	/	24.29	25.0	0.222	**0.26**	0.10
20450	829.0	25RB0	Left Tilt	/	23.30	24.0	0.167	**0.20**	0.12
20450	829.0	1RB24	Right Cheek	**13**	24.29	25.0	**0.469**	**0.55**	0.04
20450	829.0	25RB0	Right Cheek	/	23.30	24.0	0.340	**0.40**	0.03
20450	829.0	1RB24	Right Tilt	/	24.29	25.0	0.206	**0.24**	0.01
20450	829.0	25RB0	Right Tilt	/	23.30	24.0	0.154	**0.18**	0.14
20450	829.0	1RB24	Right Cheek	B2	24.29	25.0	0.432	**0.51**	0.04

Table 13.14: SAR Values (LTE Band 5 - Body)

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Ch.	MHz								
Hotspot Test Data (10mm) - Reduced power level 1									
20450	829.0	1RB24	Front	/	23.31	24.0	0.227	**0.27**	-0.19
20450	829.0	25RB0	Front	/	22.32	23.0	0.291	**0.34**	0.10
20450	829.0	1RB24	Rear	**14**	23.31	24.0	**0.506**	**0.59**	0.00
20450	829.0	25RB0	Rear	/	22.32	23.0	0.398	**0.47**	-0.01
20450	829.0	1RB24	Left	/	23.31	24.0	0.410	**0.48**	0.11
20450	829.0	25RB0	Left	/	22.32	23.0	0.322	**0.38**	-0.06
20450	829.0	1RB24	Right	/	23.31	24.0	0.353	**0.41**	0.02
20450	829.0	25RB0	Right	/	22.32	23.0	0.281	**0.33**	-0.08
20450	829.0	1RB24	Bottom	/	23.31	24.0	0.073	**0.09**	0.10
20450	829.0	25RB0	Bottom	/	22.32	23.0	0.057	**0.07**	-0.04
20450	829.0	1RB24	Rear	B2	23.31	24.0	0.476	**0.56**	0.00
Body-Worn Test Data (15mm)									
20450	829.0	1RB24	Front	/	24.29	25.0	0.335	**0.39**	0.10
20450	829.0	25RB0	Front	/	23.30	24.0	0.231	**0.27**	0.08
20450	829.0	1RB24	Rear	/	24.29	25.0	**0.468**	**0.55**	0.06
20450	829.0	25RB0	Rear	/	23.30	24.0	0.349	**0.41**	0.07

Table 13.15: SAR Values (LTE Band 12 - Head)

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Ch.	MHz								
23060	704.0	1RB24	Left Cheek	/	24.41	25.0	0.341	**0.39**	0.05
23130	711.0	25RB0	Left Cheek	/	23.42	24.0	0.274	**0.31**	0.05
23060	704.0	1RB24	Left Tilt	/	24.41	25.0	0.156	**0.18**	0.11
23130	711.0	25RB0	Left Tilt	/	23.42	24.0	0.123	**0.14**	0.08
23060	704.0	1RB24	Right Cheek	**15**	24.41	25.0	**0.423**	**0.48**	0.06
23130	711.0	25RB0	Right Cheek	/	23.42	24.0	0.327	**0.37**	0.02
23060	704.0	1RB24	Right Tilt	/	24.41	25.0	0.262	**0.30**	0.06
23130	711.0	25RB0	Right Tilt	/	23.42	24.0	0.197	**0.23**	0.17
23060	704.0	1RB24	Right Cheek	B2	24.41	25.0	0.398	**0.46**	0.06

Table 13.16: SAR Values (LTE Band 12 - Body)

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Ch.	MHz								
Hotspot Test Data (10mm)									
23060	704.0	1RB24	Front	/	24.41	25.0	0.483	**0.55**	0.05
23130	711.0	25RB0	Front	/	23.42	24.0	0.397	**0.45**	-0.11
23060	704.0	1RB24	Rear	**16**	24.41	25.0	**0.681**	**0.78**	0.07
23130	711.0	25RB0	Rear	/	23.42	24.0	0.542	**0.62**	0.08
23060	704.0	1RB24	Left	/	24.41	25.0	0.579	**0.66**	0.19
23130	711.0	25RB0	Left	/	23.42	24.0	0.479	**0.55**	0.09
23060	704.0	1RB24	Right	/	24.41	25.0	0.459	**0.53**	0.00
23130	711.0	25RB0	Right	/	23.42	24.0	0.386	**0.44**	-0.11
23060	704.0	1RB24	Bottom	/	24.41	25.0	0.063	**0.07**	0.01
23130	711.0	25RB0	Bottom	/	23.42	24.0	0.053	**0.06**	0.08
23060	704.0	1RB24	Rear	B2	24.41	25.0	0.654	**0.75**	0.07
Body-Worn Test Data (15mm)									
23060	704.0	1RB24	Front	/	24.41	25.0	0.206	**0.24**	0.07
23130	711.0	25RB0	Front	/	23.42	24.0	0.156	**0.18**	0.08
23060	704.0	1RB24	Rear	/	24.41	25.0	**0.368**	**0.42**	0.05
23130	711.0	25RB0	Rear	/	23.42	24.0	0.274	**0.31**	0.07

Table 13.17: SAR Values (LTE Band 13 - Head)

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Ch.	MHz								
23230	782.0	1RB24	Left Cheek	/	24.05	25.0	0.341	**0.42**	0.11
23230	782.0	25RB12	Left Cheek	/	23.04	24.0	0.269	**0.34**	0.10
23230	782.0	1RB24	Left Tilt	/	24.05	25.0	0.194	**0.24**	0.09
23230	782.0	25RB12	Left Tilt	/	23.04	24.0	0.149	**0.19**	0.18
23230	782.0	1RB24	Right Cheek	**17**	24.05	25.0	**0.490**	**0.61**	0.17
23230	782.0	25RB12	Right Cheek	/	23.04	24.0	0.367	**0.46**	0.09
23230	782.0	1RB24	Right Tilt	/	24.05	25.0	0.173	**0.22**	0.01
23230	782.0	25RB12	Right Tilt	/	23.04	24.0	0.134	**0.17**	0.08
23230	782.0	1RB24	Right Cheek	B2	24.05	25.0	0.455	**0.57**	0.17

Table 13.18: SAR Values (LTE Band 13 - Body)

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Ch.	MHz								
Hotspot Test Data (10mm)									
23230	782.0	1RB24	Front	/	24.05	25.0	0.501	**0.62**	0.04
23230	782.0	25RB12	Front	/	23.04	24.0	0.398	**0.50**	0.05
23230	782.0	1RB24	Rear	**18**	24.05	25.0	**0.684**	**0.85**	0.04
23230	782.0	25RB12	Rear	/	23.04	24.0	0.543	**0.68**	0.04
23230	782.0	1RB24	Left	/	24.05	25.0	0.491	**0.61**	0.02
23230	782.0	25RB12	Left	/	23.04	24.0	0.375	**0.47**	0.19
23230	782.0	1RB24	Right	/	24.05	25.0	0.588	**0.73**	0.18
23230	782.0	25RB12	Right	/	23.04	24.0	0.475	**0.59**	0.18
23230	782.0	1RB24	Bottom	/	24.05	25.0	0.091	**0.11**	0.02
23230	782.0	25RB12	Bottom	/	23.04	24.0	0.066	**0.08**	0.03
23230	782.0	50RB	Rear	/	23.00	24.0	0.541	**0.68**	0.05
23230	782.0	1RB24	Rear	B2	24.05	25.0	0.653	**0.81**	0.04
Body-Worn Test Data (15mm)									
23230	782.0	1RB24	Front	/	24.05	25.0	0.316	**0.39**	0.08
23230	782.0	25RB12	Front	/	23.04	24.0	0.243	**0.30**	0.09
23230	782.0	1RB24	Rear	/	24.05	25.0	**0.419**	**0.52**	0.05
23230	782.0	25RB12	Rear	/	23.04	24.0	0.313	**0.39**	0.06
23230	782.0	1RB24	Front	/	24.05	25.0	0.316	**0.39**	0.08

Table 13.19: SAR Values (LTE Band 41 - Head) – PC3

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Ch.	MHz								
41055	2636.5	1RB0	Left Cheek	/	23.13	24.0	0.034	**0.04**	0.07
41055	2636.5	50RB0	Left Cheek	/	22.13	23.0	0.026	**0.03**	0.02
41055	2636.5	1RB0	Left Tilt	/	23.13	24.0	0.015	**0.02**	0.10
41055	2636.5	50RB0	Left Tilt	/	22.13	23.0	0.012	**0.01**	0.01
41055	2636.5	1RB0	Right Cheek	**19**	23.13	24.0	**0.063**	**0.08**	0.08
41055	2636.5	50RB0	Right Cheek	/	22.13	23.0	0.044	**0.05**	0.10
41055	2636.5	1RB0	Right Tilt	/	23.13	24.0	0.024	**0.03**	0.07
41055	2636.5	50RB0	Right Tilt	/	22.13	23.0	0.016	**0.02**	0.10
41055	2636.5	1RB0	Right Cheek	B2	23.13	24.0	0.059	**0.07**	0.03

Table 13.20: SAR Values (LTE Band 41 - Body) – PC3

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Ch.	MHz								
Hotspot Test Data (10mm) - Reduced power level 1									
41490	2680.0	1RB50	Front	/	19.00	20.0	0.302	**0.38**	-0.09
41055	2636.5	50RB0	Front	/	18.01	19.0	0.245	**0.31**	0.00
41490	2680.0	1RB50	Rear	/	19.00	20.0	0.450	**0.57**	0.03
41055	2636.5	50RB0	Rear	/	18.01	19.0	0.401	**0.50**	0.07
41490	2680.0	1RB50	Left	/	19.00	20.0	0.059	**0.07**	0.12
41055	2636.5	50RB0	Left	/	18.01	19.0	0.044	**0.06**	0.09
41490	2680.0	1RB50	Right	/	19.00	20.0	0.045	**0.06**	0.14
41055	2636.5	50RB0	Right	/	18.01	19.0	0.034	**0.04**	0.03
41490	2680.0	1RB50	Bottom	/	19.00	20.0	0.684	**0.86**	0.08
41055	2636.5	50RB0	Bottom	/	18.01	19.0	0.511	**0.64**	0.0.9
41055	2636.5	1RB0	Bottom	/	18.89	20.0	0.667	**0.86**	0.01
40620	2593.0	1RB50	Bottom	/	18.93	20.0	0.743	**0.95**	0.13
40185	2549.5	1RB0	Bottom	/	18.97	20.0	0.912	**1.16**	0.15
39750	2506.0	1RB50	Bottom	**20**	18.97	20.0	**1.050**	**1.33**	0.08
41055	2636.5	100RB0	Bottom	/	18.03	19.0	0.534	**0.67**	0.06
39750	2506.0	1RB50	Bottom	B2	18.97	20.0	0.976	**1.24**	0.08
Body-Worn Test Data (15mm) - Reduced power level 2									
41490	2680.0	1RB0	Front	/	20.49	21.5	0.156	**0.20**	0.08
41490	2680.0	50RB0	Front	/	19.48	20.5	0.133	**0.17**	-0.01
41490	2680.0	1RB0	Rear	/	20.49	21.5	**0.333**	**0.42**	0.10
41490	2680.0	50RB0	Rear	/	19.48	20.5	0.254	**0.32**	-0.13

Table 13.21: SAR Values (LTE Band 41 - Head) – PC2

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Ch.	MHz								
41055	2636.5	1RB0	Left Cheek	/	26.11	27.0	0.042	**0.05**	0.08
41055	2636.5	50RB0	Left Cheek	/	25.17	26.0	0.032	**0.04**	0.11
41055	2636.5	1RB0	Left Tilt	/	26.11	27.0	0.018	**0.02**	-0.06
41055	2636.5	50RB0	Left Tilt	/	25.17	26.0	0.015	**0.02**	-0.17
41055	2636.5	1RB0	Right Cheek	**21**	26.11	27.0	**0.078**	**0.10**	0.03
41055	2636.5	50RB0	Right Cheek	/	25.17	26.0	0.054	**0.07**	-0.16
41055	2636.5	1RB0	Right Tilt	/	26.11	27.0	0.029	**0.04**	0.06
41055	2636.5	50RB0	Right Tilt	/	25.17	26.0	0.019	**0.02**	0.18
41055	2636.5	1RB0	Right Cheek	B2	26.11	27.0	0.068	**0.08**	0.01

Table 13.22: SAR Values (LTE Band 41 - Body) – PC2

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Ch.	MHz								
Hotspot Test Data (10mm) - Reduced power level 1									
41490	2680.0	1RB50	Front	/	20.61	21.5	0.195	**0.24**	0.09
41490	2680.0	50RB0	Front	/	19.55	20.5	0.152	**0.19**	0.07
41490	2680.0	1RB50	Rear	/	20.61	21.5	0.491	**0.61**	-0.03
41490	2680.0	50RB0	Rear	/	19.55	20.5	0.327	**0.41**	0.08
41490	2680.0	1RB50	Left	/	20.61	21.5	0.038	**0.05**	0.09
41490	2680.0	50RB0	Left	/	19.55	20.5	0.028	**0.03**	0.07
41490	2680.0	1RB50	Right	/	20.61	21.5	0.032	**0.04**	0.14
41490	2680.0	50RB0	Right	/	19.55	20.5	0.025	**0.03**	0.01
41490	2680.0	1RB50	Bottom	**22**	20.61	21.5	**0.501**	**0.62**	0.02
41490	2680.0	50RB0	Bottom	/	19.55	20.5	0.431	**0.54**	0.04
41490	2680.0	1RB50	Bottom	B2	20.61	21.5	0.473	**0.59**	0.02
Body-Worn Test Data (15mm) - Reduced power level 2									
41490	2680.0	1RB50	Front	/	22.53	23.5	0.154	**0.19**	0.08
41490	2680.0	50RB0	Front	/	21.49	22.5	0.122	**0.15**	0.07
41490	2680.0	1RB50	Rear	/	22.53	23.5	**0.353**	**0.44**	0.02
41490	2680.0	50RB0	Rear	/	21.49	22.5	0.254	**0.32**	0.02

Table 13.23: SAR Values (LTE Band 66 - Head)

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Ch.	MHz								
132572	1770.0	1RB50	Left Cheek	/	24.02	24.5	0.365	**0.41**	0.04
132572	1770.0	50RB0	Left Cheek	/	23.11	23.5	0.274	**0.30**	0.03
132572	1770.0	1RB50	Left Tilt	/	24.02	24.5	0.316	**0.35**	0.07
132572	1770.0	50RB0	Left Tilt	/	23.11	23.5	0.238	**0.26**	0.12
132572	1770.0	1RB50	Right Cheek	**23**	24.02	24.5	**0.518**	**0.58**	0.09
132572	1770.0	50RB0	Right Cheek	/	23.11	23.5	0.398	**0.44**	0.06
132572	1770.0	1RB50	Right Tilt	/	24.02	24.5	0.284	**0.32**	-0.02
132572	1770.0	50RB0	Right Tilt	/	23.11	23.5	0.226	**0.25**	-0.03
132572	1770.0	1RB50	Right Cheek	B2	24.02	24.5	0.477	**0.53**	0.09

Table 13.24: SAR Values (LTE Band 66 - Body)

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Ch.	MHz								
Hotspot Test Data (10mm) - Reduced power level 1									
132572	1770.0	1RB50	Front	/	21.15	21.5	0.470	**0.51**	0.11
132572	1770.0	50RB0	Front	/	20.25	20.5	0.378	**0.40**	0.13
132572	1770.0	1RB50	Rear	/	21.15	21.5	0.724	**0.78**	0.07
132572	1770.0	50RB0	Rear	/	20.25	20.5	0.562	**0.60**	-0.09
132572	1770.0	1RB50	Left	/	21.15	21.5	0.188	**0.20**	0.09
132572	1770.0	50RB0	Left	/	20.25	20.5	0.146	**0.15**	0.07
132572	1770.0	1RB50	Right	/	21.15	21.5	0.131	**0.14**	0.09
132572	1770.0	50RB0	Right	/	20.25	20.5	0.103	**0.11**	0.06
132572	1770.0	1RB50	Bottom	/	21.15	21.5	1.060	**1.15**	0.11
132572	1770.0	50RB0	Bottom	/	20.25	20.5	0.843	**0.89**	0.03
132322	1745.0	1RB50	Bottom	/	21.13	21.5	1.090	**1.19**	0.04
132072	1720.0	1RB50	Bottom	**24**	21.05	21.5	**1.120**	**1.24**	0.14
132322	1745.0	50RB0	Bottom	/	20.19	20.5	0.857	**0.92**	0.02
132072	1720.0	50RB0	Bottom	/	20.09	20.5	0.870	**0.96**	0.09
132572	1770.0	100RB0	Bottom	/	20.18	20.5	0.823	**0.89**	0.01
132072	1720.0	1RB50	Bottom	B2	21.05	21.5	1.030	**1.14**	0.14
Body-Worn Test Data (15mm) - Reduced power level 2									
132572	1770.0	1RB50	Front	/	21.93	22.5	0.240	**0.27**	-0.19
132572	1770.0	50RB0	Front	/	20.95	21.5	0.188	**0.21**	-0.09
132572	1770.0	1RB50	Rear	/	21.93	22.5	**0.420**	**0.48**	-0.10
132572	1770.0	50RB0	Rear	/	20.95	21.5	0.322	**0.37**	0.17

Note: SAR for LTE Band 4 is covered by LTE Band 66 due to similar frequency range, same maximum tune-up limit and same channel bandwidth.

Table 13.25: SAR Values (LTE Band 71 - Head)

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Ch.	MHz								
133372	688.0	1RB50	Left Cheek	/	24.37	25.0	0.290	**0.34**	0.11
133372	688.0	50RB25	Left Cheek	/	23.34	24.0	0.226	**0.26**	0.07
133372	688.0	1RB50	Left Tilt	/	24.37	25.0	0.128	**0.15**	0.14
133372	688.0	50RB25	Left Tilt	/	23.34	24.0	0.099	**0.12**	0.09
133372	688.0	1RB50	Right Cheek	**25**	24.37	25.0	**0.301**	**0.35**	-0.02
133372	688.0	50RB25	Right Cheek	/	23.34	24.0	0.231	**0.27**	0.10
133372	688.0	1RB50	Right Tilt	/	24.37	25.0	0.105	**0.12**	0.13
133372	688.0	50RB25	Right Tilt	/	23.34	24.0	0.082	**0.09**	0.18
133372	688.0	1RB50	Right Cheek	B2	24.37	25.0	0.278	**0.32**	-0.02

Table 13.26: SAR Values (LTE Band 71 - Body)

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Ch.	MHz								
Hotspot Test Data (10mm)									
133372	688.0	1RB50	Front	/	24.37	25.0	0.406	**0.47**	0.03
133372	688.0	50RB25	Front	/	23.34	24.0	0.322	**0.37**	-0.03
133372	688.0	1RB50	Rear	/	24.37	25.0	0.520	**0.60**	0.04
133372	688.0	50RB25	Rear	/	23.34	24.0	0.414	**0.48**	0.07
133372	688.0	1RB50	Left	/	24.37	25.0	0.514	**0.59**	0.16
133372	688.0	50RB25	Left	/	23.34	24.0	0.406	**0.47**	0.14
133372	688.0	1RB50	Right	**26**	24.37	25.0	**0.584**	**0.68**	0.14
133372	688.0	50RB25	Right	/	23.34	24.0	0.458	**0.53**	0.12
133372	688.0	1RB50	Bottom	/	24.37	25.0	0.058	**0.07**	0.03
133372	688.0	50RB25	Bottom	/	23.34	24.0	0.045	**0.05**	0.03
133372	688.0	1RB50	Right	B2	24.37	25.0	0.544	**0.63**	0.14
Body-Worn Test Data (15mm)									
133372	688.0	1RB50	Front	/	24.37	25.0	0.180	**0.21**	0.06
133372	688.0	50RB25	Front	/	23.34	24.0	0.141	**0.16**	0.08
133372	688.0	1RB50	Rear	/	24.37	25.0	**0.341**	**0.39**	0.09
133372	688.0	50RB25	Rear	/	23.34	24.0	0.261	**0.30**	0.08

Table 13.27: SAR Values (Bluetooth - Head)

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Ch.	MHz								
78	2480.0	GFSK	Left Cheek	**27**	9.80	11.0	**0.058**	**0.08**	0.04
78	2480.0	GFSK	Left Tilt	/	9.80	11.0	0.038	**0.05**	0.03
78	2480.0	GFSK	Right Cheek	/	9.80	11.0	0.027	**0.04**	0.14
78	2480.0	GFSK	Right Tilt	/	9.80	11.0	0.025	**0.03**	0.06
78	2480.0	GFSK	Left Cheek	B2	9.80	11.0	0.053	**0.07**	0.04

Table 13.28: SAR Values (Bluetooth - Body)

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Ch.	MHz								
Test Data (10mm)									
78	2480.0	GFSK	Front	/	9.80	11.0	0.010	**0.01**	0.06
78	2480.0	GFSK	Rear	**28**	9.80	11.0	**0.018**	**0.02**	0.01
78	2480.0	GFSK	Left	/	9.80	11.0	0.004	**0.01**	0.03
78	2480.0	GFSK	Right	/	9.80	11.0	0.008	**0.01**	0.01
78	2480.0	GFSK	Top	/	9.80	11.0	0.011	**0.01**	-0.03
78	2480.0	GFSK	Rear	B2	9.80	11.0	0.017	**0.02**	0.01

13.3. 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.

Table 13.29: SAR Values (WLAN 2.4GHz - Head)

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Ch.	MHz								
Reduced power level 3									
11	2462.0	802.11b	Left Cheek	/	16.31	17.7	0.656	**0.90**	0.04
11	2462.0	802.11b	Left Tilt	/	16.31	17.7	0.546	**0.75**	-0.01
11	2462.0	802.11b	Right Cheek	/	16.31	17.7	0.259	**0.36**	-0.20
11	2462.0	802.11b	Right Tilt	/	16.31	17.7	0.215	**0.30**	0.14
6	2462.0	802.11b	Left Cheek	**29**	16.22	17.7	**0.786**	**1.11**	0.00
1	2462.0	802.11b	Left Cheek	/	16.18	17.7	0.769	**1.09**	-0.03
6	2462.0	802.11b	Left Cheek	B2	16.22	17.7	0.742	**1.04**	0.00

Note1: 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.

Table 13.30: SAR Values (WLAN - Head) – 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)
Ch.	MHz					
6	2437	Left Cheek	100%	100%	1.11	**1.11**

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

Table 13.31: SAR Values (WLAN 2.4GHz - Body)

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Ch.	MHz								
Hotspot Test Data (10mm)									
11	2462.0	802.11b	Front	/	19.09	20.5	0.221	**0.31**	0.06
11	2462.0	802.11b	Rear	**30**	19.09	20.5	**0.336**	**0.46**	0.08
11	2462.0	802.11b	Left	/	19.09	20.5	0.039	**0.05**	0.04
11	2462.0	802.11b	Right	/	19.09	20.5	0.149	**0.21**	0.01
11	2462.0	802.11b	Top	/	19.09	20.5	0.199	**0.28**	0.02
11	2462.0	802.11b	Rear	B2	19.09	20.5	0.302	**0.42**	0.08
Body-Worn Test Data (10mm)									
11	2462.0	802.11b	Front	/	19.09	20.5	0.221	**0.31**	0.06
11	2462.0	802.11b	Rear	/	19.09	20.5	**0.336**	**0.46**	0.08

Note1: 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.

Table 13.32: 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)
Ch.	MHz					
11	2462.0	Rear	100%	100%	0.46	**0.46**

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

13.4. WLAN Evaluation for 5G

Table 13.33: SAR Values (WLAN 5GHz - Head)

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Ch.	MHz								
U-NII-2A									
60	5300.0	802.11a	Left Cheek	**31**	17.98	18.5	**0.689**	**0.78**	0.15
60	5300.0	802.11a	Left Tilt	/	17.98	18.5	0.382	**0.43**	0.18
60	5300.0	802.11a	Right Cheek	/	17.98	18.5	0.301	**0.34**	-0.10
60	5300.0	802.11a	Right Tilt	/	17.98	18.5	0.358	**0.40**	-0.14
60	5300.0	802.11a	Left Cheek	B2	17.98	18.5	0.622	**0.70**	0.15
U-NII-2C									
124	5620.0	802.11a	Left Cheek	/	17.36	17.5	0.354	**0.37**	0.07
124	5620.0	802.11a	Left Tilt	/	17.36	17.5	0.379	**0.39**	0.03
124	5620.0	802.11a	Right Cheek	/	17.36	17.5	0.421	**0.43**	0.02
124	5620.0	802.11a	Right Tilt	/	17.36	17.5	**0.483**	**0.50**	0.04
124	5620.0	802.11a	Right Tilt	B2	17.36	17.5	0.443	**0.46**	0.04
U-NII-3									
165	5825.0	802.11a	Left Cheek	/	17.25	18.5	0.598	**0.80**	0.02
165	5825.0	802.11a	Left Tilt	/	17.25	18.5	**0.688**	**0.92**	0.09
165	5825.0	802.11a	Right Cheek	/	17.25	18.5	0.468	**0.62**	0.05
165	5825.0	802.11a	Right Tilt	/	17.25	18.5	0.564	**0.75**	0.01
149	5745.0	802.11a	Left Cheek	/	17.19	18.5	0.528	**0.71**	0.01
149	5745.0	802.11a	Left Tilt	/	17.19	18.5	0.637	**0.86**	0.02
165	5825.0	802.11a	Left Tilt	B2	17.25	18.5	0.648	**0.86**	0.09

Note:

1. U-NII-1 and U-NII-2A bands have the same specified maximum output and tolerance; SAR is measured for U-NII-2A band first. Adjusted SAR of U-NII-2A band is ≤ 1.2W/kg, SAR is not required for U-NII-1 band.
2. 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.

Table 13.34: SAR Values (WLAN - Head) – 802.11a (Scaled Reported SAR)

Frequency		Test Position	Actual duty factor	maximum duty factor	Reported SAR (1g)(W/kg)	Scaled reported SAR (1g)(W/kg)
Ch.	MHz					
165	5825.0	Left Tilt	100%	100%	0.92	**0.92**

Table 13.35: SAR Values (WLAN 5GHz - Body)

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Ch.	MHz								
< U-NII-1> - Hotspot Test Data (10mm) - Reduced power level 4									
40	5200.0	802.11a	Front	/	15.85	16.0	0.099	**0.10**	-0.14
40	5200.0	802.11a	Rear	/	15.85	16.0	0.990	**1.02**	0.03
40	5200.0	802.11a	Left	/	15.85	16.0	0.011	**0.01**	0.19
40	5200.0	802.11a	Right	/	15.85	16.0	0.593	**0.61**	0.07
40	5200.0	802.11a	Top	/	15.85	16.0	0.246	**0.25**	0.13
48	5240.0	802.11a	Rear	**32**	15.84	16.0	**1.010**	**1.05**	0.10
48	5240.0	802.11a	Rear	B2	15.84	16.0	0.975	**1.01**	0.10
<U-NII-3> - Hotspot Test Data (10mm)									
165	5825.0	802.11a	Front	/	17.25	18.5	0.102	**0.14**	0.00
165	5825.0	802.11a	Rear	/	17.25	18.5	0.561	**0.75**	0.02
165	5825.0	802.11a	Left	/	17.25	18.5	0.021	**0.03**	0.04
165	5825.0	802.11a	Right	/	17.25	18.5	0.502	**0.67**	0.05
165	5825.0	802.11a	Top	/	17.25	18.5	0.389	**0.52**	0.02
165	5825.0	802.11a	Rear	B2	17.25	18.5	0.544	**0.73**	0.02
< U-NII-2A> - Body-Worn Test Data (15mm) - Reduced power level 5									
60	5300.0	802.11a	Front	/	17.40	17.5	0.070	**0.07**	0.03
60	5300.0	802.11a	Rear	/	17.40	17.5	0.618	**0.63**	0.04
< U-NII-2C> - Body-Worn Test Data (15mm)									
124	5620.0	802.11a	Front	/	17.36	17.5	0.077	**0.08**	0.01
124	5620.0	802.11a	Rear	/	17.36	17.5	**0.762**	**0.79**	0.05
< U-NII-3> - Body-Worn Test Data (15mm)									
165	5825.0	802.11a	Front	/	17.25	18.5	0.063	**0.08**	0.04
165	5825.0	802.11a	Rear	/	17.25	18.5	0.392	**0.52**	0.09

Note:

1. U-NII-1 and U-NII-2A bands have the same specified maximum output and tolerance; SAR is measured for U-NII-2A band first. Adjusted SAR of U-NII-2A band is ≤ 1.2W/kg, SAR is not required for U-NII-1 band.
2. 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.

Table 13.36: SAR Values (WLAN - Body) – 802.11a (Scaled Reported SAR)

Frequency		Test Position	Actual duty factor	maximum duty factor	Reported SAR (1g)(W/kg)	Scaled reported SAR (1g)(W/kg)
Ch.	MHz					
48	5240.0	Rear	100%	100%	1.05	**1.05**

13.5. Product specific 10g SAR

Table 13.37: SAR Values (WCDMA Band 2 - Extremity)

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift(dB)
Ch.	MHz								
Test Data (0mm) - Reduced power level 2									
9538	1907.6	RMC	Bottom	/	20.80	22.5	1.480	**2.19**	0.02
9400	1880.0	RMC	Bottom	/	20.60	22.5	1.510	**2.34**	0.05
9262	1852.4	RMC	Bottom	**33**	20.70	22.5	**1.580**	**2.39**	-0.08

Table 13.38: SAR Values (WCDMA Band 4 - Extremity)

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift(dB)
Ch.	MHz								
Test Data (0mm) - Reduced power level 2									
1312	1712.4	RMC	Bottom	**34**	20.00	21.5	**2.030**	**2.87**	0.09
1513	1752.6	RMC	Bottom	/	19.60	21.5	1.870	**2.90**	-0.03
1413	1732.6	RMC	Bottom	/	19.70	21.5	1.920	**2.91**	0.17

Table 13.39: SAR Values (LTE Band 2 - Extremity)

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift(dB)
Ch.	MHz								
Test Data (0mm) - Reduced power level 2									
18700	1860.0	1RB0	Bottom	**35**	23.10	24.0	**2.540**	**3.12**	0.02
18700	1860.0	50RB25	Bottom	/	22.10	23.0	1.810	**2.23**	0.12
19100	1900.0	1RB0	Bottom	/	23.04	24.0	2.190	**2.73**	0.12
18900	1880.0	1RB0	Bottom	/	23.06	24.0	2.350	**2.92**	0.07
19100	1900.0	50RB0	Bottom	/	22.04	23.0	1.560	**1.95**	-0.05
18900	1880.0	50RB25	Bottom	/	22.09	23.0	1.680	**2.07**	-0.17
19100	1900.0	100RB0	Bottom	/	22.08	23.0	1.590	**1.97**	0.01

Table 13.40: SAR Values (LTE Band 41 - Extremity) – PC3

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift(dB)
Ch.	MHz								
Test Data (0mm) - Reduced power level 2									
39750	2506.0	1RB0	Rear	**36**	20.26	21.5	**2.560**	**3.41**	0.07
39750	2506.0	1RB0	Bottom	/	20.26	21.5	2.330	**3.10**	-0.08
41490	2680.0	1RB50	Rear	/	20.49	21.5	2.270	**2.86**	0.11
41055	2636.5	1RB0	Rear	/	20.36	21.5	2.190	**2.85**	0.14
40620	2593.0	1RB50	Rear	/	20.33	21.5	2.220	**2.91**	-0.14
40185	2549.5	1RB50	Rear	/	20.32	21.5	2.340	**3.07**	0.10
41490	2680.0	1RB50	Bottom	/	20.49	21.5	2.070	**2.61**	0.11
41055	2636.5	1RB0	Bottom	/	20.36	21.5	1.990	**2.59**	0.14
40620	2593.0	1RB50	Bottom	/	20.33	21.5	2.020	**2.64**	-0.14
40185	2549.5	1RB50	Bottom	/	20.32	21.5	2.130	**2.79**	0.10

Table 13.41: SAR Values (LTE Band 41 - Extremity) – PC2

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift(dB)
Ch.	MHz								
Test Data (0mm) - Reduced power level 2									
41490	2680.0	1RB50	Rear	/	22.53	23.5	2.120	**2.65**	0.01
41490	2680.0	50RB0	Rear	/	21.49	22.5	1.690	**2.13**	-0.17
41055	2636.5	1RB50	Rear	/	22.43	23.5	2.150	**2.75**	0.12
40620	2593.0	1RB50	Rear	/	22.39	23.5	2.210	**2.85**	-0.10
40185	2549.5	1RB50	Rear	/	22.36	23.5	2.350	**3.06**	0.04
39750	2506.0	1RB50	Rear	**37**	22.39	23.5	**2.510**	**3.24**	0.09
41055	2636.5	50RB0	Rear	/	21.43	22.5	1.710	**2.19**	0.01
40620	2593.0	50RB0	Rear	/	21.35	22.5	1.760	**2.29**	0.02
40185	2549.5	50RB0	Rear	/	21.33	22.5	1.870	**2.45**	-0.13
39750	2506.0	50RB0	Rear	/	21.34	22.5	2.000	**2.61**	0.04
41490	2680.0	100RB0	Rear	/	21.47	22.5	1.720	**2.18**	-0.16

Table 13.42: SAR Values (LTE Band 66 - Extremity)

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift(dB)
Ch.	MHz								
Test Data (0mm) - Reduced power level 2									
132572	1770.0	1RB50	Bottom	/	21.93	22.5	2.430	**2.77**	-0.03
132322	1745.0	1RB50	Bottom	/	21.89	22.5	2.480	**2.85**	-0.13
132072	1720.0	1RB50	Bottom	**38**	21.91	22.5	**2.580**	**2.96**	0.08

Table 13.43: SAR Values (WLAN5G - Extremity)

Frequency		Test Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift(dB)
Ch.	MHz								
< U-NII-2A>-Test Data (0mm) - Reduced power level 5									
60	5300.0	802.11a	Front	/	17.40	17.5	0.372	**0.38**	0.08
60	5300.0	802.11a	Rear	/	17.40	17.5	1.680	**1.72**	0.08
60	5300.0	802.11a	Left	/	17.40	17.5	0.019	**0.02**	0.05
60	5300.0	802.11a	Right	/	17.40	17.5	2.040	**2.09**	0.07
60	5300.0	802.11a	Top	/	17.40	17.5	0.301	**0.31**	0.02
64	5320.0	802.11a	Right	/	17.39	17.5	2.220	**2.28**	0.08
56	5280.0	802.11a	Right	**39**	17.23	17.5	**2.270**	**2.42**	0.09
52	5260.0	802.11a	Right	/	17.26	17.5	2.130	**2.25**	0.07
56	5280.0	802.11a	Right	B2	17.23	17.5	2.020	**2.15**	0.09
< U-NII-2C>-Test Data (0mm) - Reduced power level 5									
124	5620.0	802.11a	Front	/	17.36	17.5	0.417	**0.43**	0.06
124	5620.0	802.11a	Rear	/	17.36	17.5	**1.750**	**1.81**	0.01
124	5620.0	802.11a	Left	/	17.36	17.5	0.028	**0.03**	0.06
124	5620.0	802.11a	Right	/	17.36	17.5	1.720	**1.78**	0.04
124	5620.0	802.11a	Top	/	17.36	17.5	0.575	**0.59**	0.07
124	5620.0	802.11a	Rear	B2	17.36	17.5	1.670	**1.72**	0.04

14. 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; steps 2) 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 ≥ 1.45 W/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 14.1: SAR Measurement Variability for Body – LTE Band 2

Frequency		Test Position	Original	1st Repeated	Ratio	2nd Repeated
Ch.	MHz		SAR (W/kg)	SAR (W/kg)		SAR (W/kg)
18700	1860.0	Bottom	0.991	0.981	1.01	/

Table 14.2: SAR Measurement Variability for Body – LTE Band 41(PC3)

Frequency		Test Position	Original	1st Repeated	Ratio	2nd Repeated
Ch.	MHz		SAR (W/kg)	SAR (W/kg)		SAR (W/kg)
39750	2506.0	Bottom	1.05	1.03	1.02	/

Table 14.3: SAR Measurement Variability for Body – LTE Band 66

Frequency		Test Position	Original	1st Repeated	Ratio	2nd Repeated
Ch.	MHz		SAR (W/kg)	SAR (W/kg)		SAR (W/kg)
132072	1720.0	Bottom	1.12	1.10	1.02	/

Table 14.4: SAR Measurement Variability for Body – WLAN5GHz < U-NII-1>

Frequency		Test Position	Original	1st Repeated	Ratio	2nd Repeated
Ch.	MHz		SAR (W/kg)	SAR (W/kg)		SAR (W/kg)
48	5240.0	Rear	1.01	1.00	1.01	/

Table 14.5: SAR Measurement Variability for Extremity – WCDMA Band 4

Frequency		Test Position	Original	1st Repeated	Ratio	2nd Repeated
Ch.	MHz		SAR (W/kg)	SAR (W/kg)		SAR (W/kg)
1312	1712.4	Bottom	2.03	1.10	1.01	/

Table 14.6: SAR Measurement Variability for Extremity – LTE Band 2

Frequency		Test Position	Original	1st Repeated	Ratio	2nd Repeated
Ch.	MHz		SAR (W/kg)	SAR (W/kg)		SAR (W/kg)
18700	1860.0	Bottom	2.54	2.51	1.01	/

Table 14.7: SAR Measurement Variability for Extremity – LTE Band 41(PC3)

Frequency		Test Position	Original	1st Repeated	Ratio	2nd Repeated
Ch.	MHz		SAR (W/kg)	SAR (W/kg)		SAR (W/kg)
39750	2506.0	Rear	2.56	2.51	1.02	/
39750	2506.0	Bottom	2.33	2.29	1.02	/

Table 14.8: SAR Measurement Variability for Extremity – LTE Band 41(PC2)

Frequency		Test Position	Original	1st Repeated	Ratio	2nd Repeated
Ch.	MHz		SAR (W/kg)	SAR (W/kg)		SAR (W/kg)
39750	2506.0	Rear	2.51	2.49	1.01	/

Table 14.9: SAR Measurement Variability for Extremity – LTE Band 66

Frequency		Test Position	Original	1st Repeated	Ratio	2nd Repeated
Ch.	MHz		SAR (W/kg)	SAR (W/kg)		SAR (W/kg)
132072	1720.0	Bottom	2.58	2.53	1.02	/

Table 14.10: SAR Measurement Variability for Extremity – WLAN5GHz < U-NII-2A>

Frequency		Test Position	Original	1st Repeated	Ratio	2nd Repeated
Ch.	MHz		SAR (W/kg)	SAR (W/kg)		SAR (W/kg)
56	5280.0	Right	2.27	2.24	1.01	/

15. Measurement Uncertainty

15.1. 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	12	N	2	1	1	6.0	6.0	∞
2	Axial isotropy	B	4.7	R	$\sqrt{3}$	√0.5	√0.5	4.3	4.3	∞
3	Hemispherical isotropy	B	9.6	R	$\sqrt{3}$	1	1	4.8	4.8	∞
4	Boundary effect	B	1.1	R	$\sqrt{3}$	1	1	0.6	0.6	∞
5	Linearity	B	4.7	R	$\sqrt{3}$	1	1	2.7	2.7	∞
6	Detection limit	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
7	Modulation response	B	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞
8	Readout electronics	B	1.0	N	1	1	1	1.0	1.0	∞
9	Response time	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
10	Integration time	B	1.7	R	$\sqrt{3}$	1	1	1.0	1.0	∞
11	RF ambient conditions-noise	B	3.0	R	$\sqrt{3}$	1	1	1.7	1.7	∞
12	RF ambient conditions-reflection	B	3.0	R	$\sqrt{3}$	1	1	1.7	1.7	∞
13	Probe positioned mech. restrictions	B	0.35	R	$\sqrt{3}$	1	1	0.2	0.2	∞
14	Probe positioning with respect to phantom shell	B	2.9	R	$\sqrt{3}$	1	1	1.7	1.7	∞
15	Post-processing	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
Test sample related										
16	Test sample positioning	A	3.3	N	1	1	1	3.3	3.3	5
17	Device holder uncertainty	A	3.4	N	1	1	1	3.4	3.4	5
18	Drift of output power	B	5.0	R	$\sqrt{3}$	1	1	2.9	2.9	∞
Phantom and set-up										
19	Phantom uncertainty	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
20	Liquid conductivity (target)	B	5.0	R	$\sqrt{3}$	0.64	0.43	1.8	1.2	∞
21	Liquid conductivity (meas.)	A	1.3	N	1	0.64	0.43	0.83	0.56	9
22	Liquid permittivity (target)	B	5.0	R	$\sqrt{3}$	0.6	0.49	1.7	1.4	∞
23	Liquid permittivity (meas.)	A	1.6	N	1	0.6	0.49	0.96	0.78	9
Combined standard uncertainty			$u_c' = \sqrt{\sum_{i=1}^{23} c_i^2 u_i^2}$					11.3	11.2	95.5
Expanded uncertainty (Confidence interval of 95 %)			$u_e = 2u_c$					22.6	22.4	

15.2. Measurement Uncertainty for Normal SAR Tests (3GHz~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	13.1	N	2	1	1	6.65	6.65	∞
2	Axial isotropy	B	4.7	R	$\sqrt{3}$	√0.5	√0.5	4.3	4.3	∞
3	Hemispherical isotropy	B	9.6	R	$\sqrt{3}$	1	1	4.8	4.8	∞
4	Boundary effect	B	1.1	R	$\sqrt{3}$	1	1	0.6	0.6	∞
5	Linearity	B	4.7	R	$\sqrt{3}$	1	1	2.7	2.7	∞
6	Detection limit	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
7	modulation response	B	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞
8	Readout electronics	B	1.0	N	1	1	1	1.0	1.0	∞
9	Response time	B	0.0	R	$\sqrt{3}$	1	1	0.0	0.0	∞
10	Integration time	B	1.7	R	$\sqrt{3}$	1	1	1.0	1.0	∞
11	RF ambient conditions-noise	B	3.0	R	$\sqrt{3}$	1	1	1.7	1.7	∞
12	RF ambient conditions-reflection	B	3.0	R	$\sqrt{3}$	1	1	1.7	1.7	∞
13	Probe positioned mech. Restrictions	B	0.35	R	$\sqrt{3}$	1	1	0.2	0.2	∞
14	Probe positioning with respect to phantom shell	B	2.9	R	$\sqrt{3}$	1	1	1.7	1.7	∞
15	Post-processing	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
Test sample related										
16	Test sample positioning	A	3.3	N	1	1	1	3.3	3.3	5
17	Device holder uncertainty	A	3.4	N	1	1	1	3.4	3.4	5
18	Drift of output power	B	5.0	R	$\sqrt{3}$	1	1	2.9	2.9	∞
Phantom and set-up										
19	Phantom uncertainty	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
20	Liquid conductivity (target)	B	5.0	R	$\sqrt{3}$	0.64	0.43	1.8	1.2	∞
21	Liquid conductivity (meas.)	A	1.3	N	1	0.64	0.43	0.83	0.56	43
22	Liquid permittivity (target)	B	5.0	R	$\sqrt{3}$	0.6	0.49	1.7	1.4	∞
23	Liquid permittivity (meas.)	A	1.6	N	1	0.6	0.49	0.96	0.78	521
Combined standard uncertainty		$u_c^{'} = \sqrt{\sum_{i=1}^{22} c_i^2 u_i^2}$						11.6	11.5	257
Expanded uncertainty (Confidence interval of 95 %)		$u_e = 2u_c$						23.2	23.0	

16. Main Test Instruments

Table 16.1: List of Main Instruments

No.	Name	Type	Serial Number	Calibration Date	Valid Period
01	Network analyzer	E5071C	MY46103759	2021-11-15	One year
02	Dielectric probe	85070E	MY44300317	/	/
03	Power meter	E4418B	MY50000366	2021-12-13	One year
04	Power sensor	E9304A	MY50000188		
05	Power meter	NRP	101460	2022-01-15	One year
06	Power sensor	NRP-Z91	100553		
07	Signal Generator	E8257D	MY47461211	2022-01-15	One year
08	Amplifier	VTL5400	0404	/	/
09	E-field Probe	ES3DV3	3151	2021-04-26	One year
10	E-field Probe	EX3DV4	7683	2021-12-29	One year
11	DAE	DAE4	786	2021-04-09	One year
12	Dipole Validation Kit	D750V3	1163	2019-09-03	Three years
13	Dipole Validation Kit	D835V2	4d057	2021-10-18	Three years
14	Dipole Validation Kit	D1750V2	1152	2019-08-30	Three years
15	Dipole Validation Kit	D1900V2	5d088	2021-10-18	Three years
16	Dipole Validation Kit	D2450V2	873	2021-10-21	Three years
17	Dipole Validation Kit	D2550V2	1010	2021-05-21	Three years
18	Dipole Validation Kit	D5GHzV2	1238	2019-08-29	Three year
19	BTS	MT8820C	6201341853	2022-01-15	One year
20	BTS	E5515C	GB46110722	2022-01-15	One year
21	BTS	CMW500	152499	2021-07-16	One year
22	Software	DASY5	/	/	/

ANNEX A: Graph Results

GSM850 Head

Date: 2022-1-11

Electronics: DAE4 Sn786

Medium: Head 835MHz

Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.915 S/m; ε_r = 40.603; ρ = 1000 kg/m^3

Communication System: UID 0, GSM (0) Frequency: 836.6 MHz Duty Cycle: 1:8.3

Probe: ES3DV3 – SN3151 ConvF (6.40, 6.40, 6.40);

Left Cheek Middle/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.361 W/kg

Left Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.910 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.414 W/kg

SAR(1 g) = 0.325 W/kg; SAR(10 g) = 0.251 W/kg

Maximum value of SAR (measured) = 0.363 W/kg

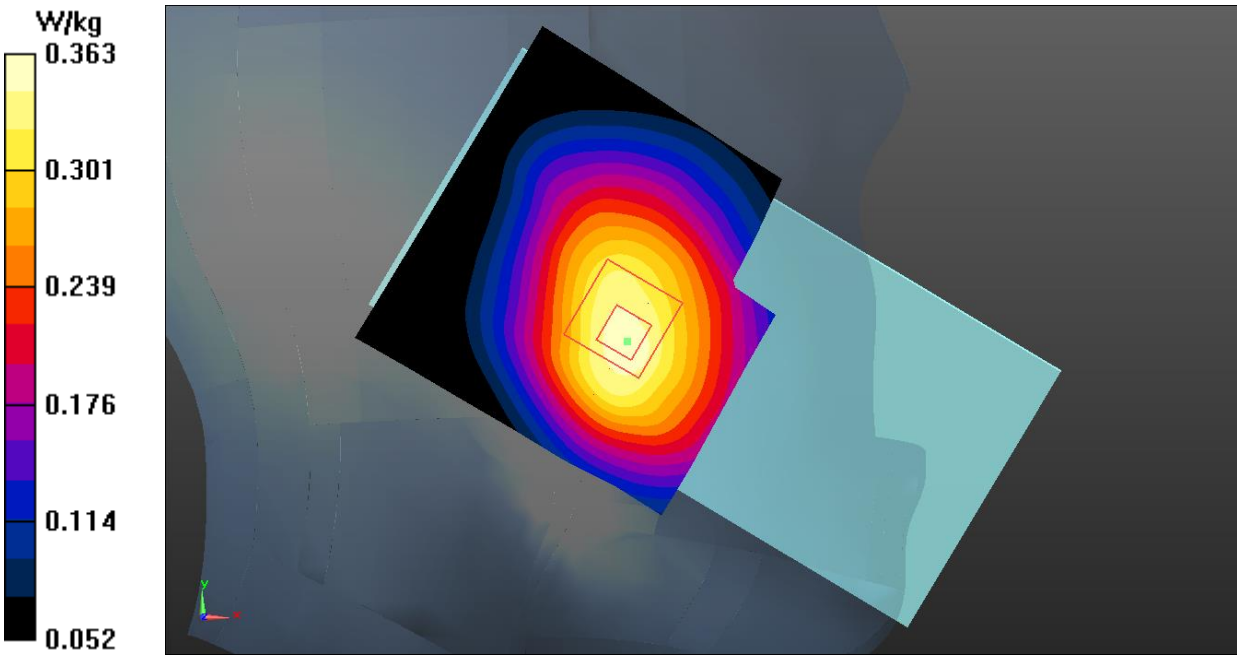


Fig.1 GSM850 Head

GSM850 Body
Date: 2022-1-11
Electronics: DAE4 Sn786
Medium: Head 835MHz
Medium parameters used (interpolated): f = 848.8 MHz; σ = 0.927 S/m; ε_r = 40.456; ρ = 1000 kg/m^3
Communication System: UID 0, 2 slot GPRS (0) Frequency: 848.8 MHz Duty Cycle: 1:4
Probe: ES3DV3 – SN3151 ConvF (6.40, 6.40, 6.40);

Rear Side Middle/Area Scan (61x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.503 W/kg

Rear Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 22.08 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.582 W/kg
SAR(1 g) = 0.460 W/kg; SAR(10 g) = 0.353 W/kg
Maximum value of SAR (measured) = 0.505 W/kg

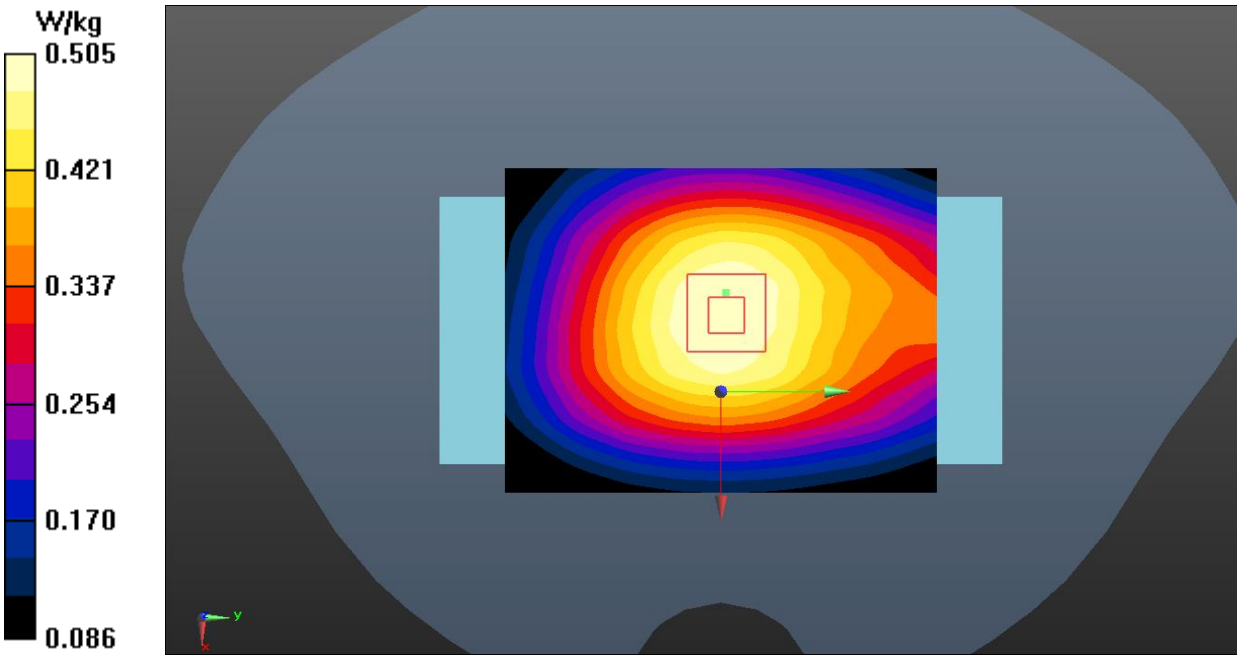


Fig.2 GSM850 Body

GSM1900 Head
Date: 2022-1-23
Electronics: DAE4 Sn786
Medium: Head 1900MHz
Medium parameters used: f = 1880 MHz; σ = 1.399 S/m; ε_r = 39.486; ρ = 1000 kg/m^3
Communication System: UID 0, GSM (0) Frequency: 1880 MHz Duty Cycle: 1:1.83
Probe: ES3DV3 – SN3151 ConvF (5.09, 5.09, 5.09);

Right Cheek Middle/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.0160 W/kg

Right Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 1.055 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.0180 W/kg
SAR(1 g) = 0.012 W/kg; SAR(10 g) = 0.008W/kg
Maximum value of SAR (measured) = 0.0141 W/kg

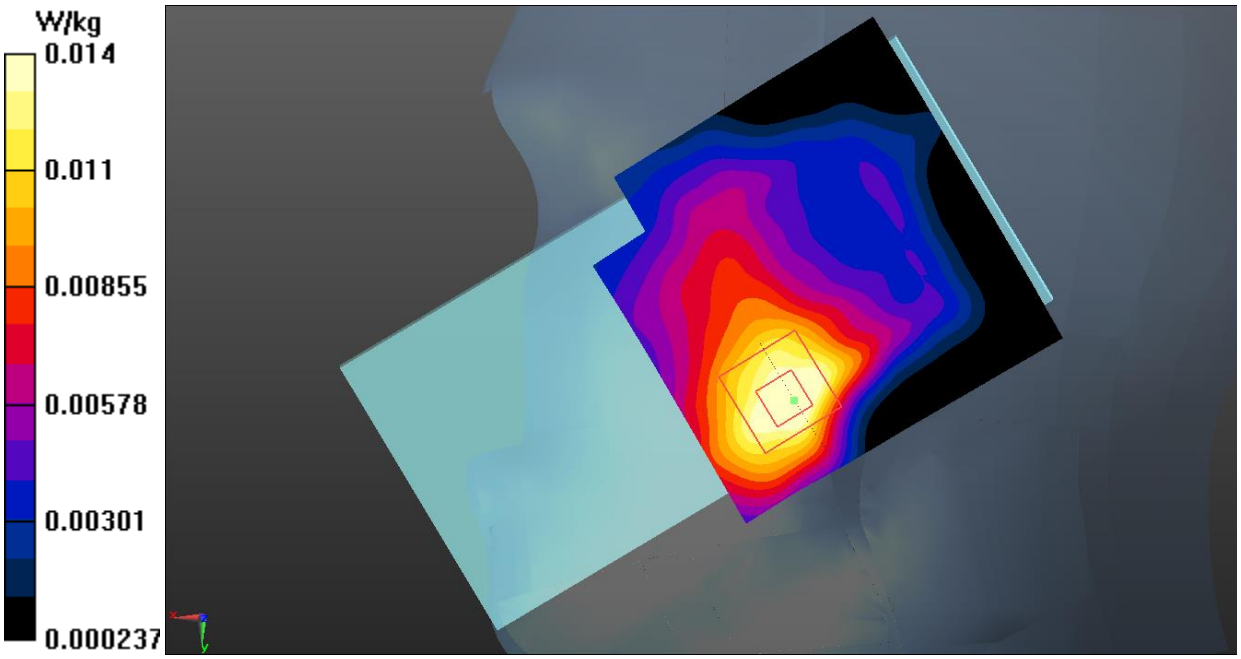


Fig.3 GSM1900 Head