



No.I22Z60248-SEM01



SAR TEST REPORT

No. I22Z60248-SEM01

For

Shenzhen Tinno Mobile Technology Corp.

Smart phone

Model Name: U616AT

with

Hardware Version: V1.0

Software Version: U616ATV01.01.10

FCC ID: XD6U616AT

Issued Date: 2022-05-16

Note:

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

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No.I22Z60248-SEM01

REPORT HISTORY

Report Number	Revision	Issue Date	Description
I22Z60248-SEM01	Rev.0	2022-05-16	Initial creation of test report

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1 Test Laboratory

1.1 Testing Location

Company Name:	CTTL
Address:	No. 51, Xueyuan Road, Haidian District, Beijing, P. R. China 100191.

1.2 Testing Environment

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

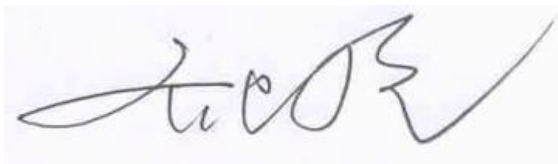
1.3 Project Data

Project Leader:	Qi Dianyuan
Test Engineer:	Lin Xiaojun
Testing Start Date:	March 25, 2022
Testing End Date:	April 10, 2022

1.4 Signature



Lin Xiaojun
(Prepared this test report)



Qi Dianyuan
(Reviewed this test report)



Lu Bingsong
Deputy Director of the laboratory
(Approved this test report)

2 Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for Shenzhen Tinnu Mobile Technology Corp. Smart phone U616AT are as follows:

Table 2.1: Highest Reported SAR

Mode		Highest Reported SAR (1g)			Product Specific 10-g SAR 0mm
		1g SAR Head	1g SAR Hotspot	1g SAR Body-worn	
GSM	GSM 850	0.25	0.44	0.44 ^[1]	/
	PCS 1900	0.17	0.95	0.79	2.10
WCDMA	UMTS FDD 2	0.37	1.22	1.22 ^[1]	1.78
	UMTS FDD 4	0.32	1.33	1.25	2.44
	UMTS FDD 5	0.22	0.31	0.31 ^[1]	/
LTE	LTE Band 12	0.28	0.44	0.44 ^[1]	/
	LTE Band 25	0.33	1.22	0.67	2.46
	LTE Band 26	0.24	0.40	0.40 ^[1]	/
	LTE Band 41 PC2	0.14	0.99	0.50	3.25
	LTE Band 41 PC3	0.10	1.11	0.46	2.82
	LTE Band 66	0.25	1.10	1.09	2.42
	LTE Band 71	0.34	0.58	0.58 ^[1]	/
WLAN 2.4 GHz		1.15	0.32	0.30	1.36
WLAN 5 GHz		0.68	1.03	0.73	2.12
BT		0.02	0.01	0.00	0.04

Note1: SAR result at 10mm is used for conservative evaluation.

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

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

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

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

Body: 1.33 W/kg(1g)

Remark:

This device supports both LTE B2/B4/B5 and LTE B25/B66/B26. Since the supported frequency span for LTE B2/B4/B5 falls completely within the supports frequency span for LTE B25/B66/B26, both LTE bands have the same target power, and both LTE bands share the same transmission path; therefore, SAR was only assessed for LTE B25/B66/B26.

Table 2.2: The sum of SAR values for Main antenna + WiFi-2.4G

	Position	Main antenna	WiFi-2.4G	Sum
Highest SAR value for Head	Left Cheek (WCDMA1900)	0.34	1.15	1.49
Highest SAR value for Body	Rear 10mm (LTE B41 PC3)	1.11	0.32	1.43

Table 2.3: The sum of SAR values for Main antenna + WiFi-5G

	Position	Main antenna	WiFi-5G	Sum
Highest SAR value for Head	Left Cheek (WCDMA1900)	0.34	0.68	1.02
Highest SAR value for Body	Rear 15mm (GSM1900)	0.79	0.73	1.52

Table 2.4: The sum of SAR values for Main antenna + WiFi-5G + BT

	Position	Main antenna	WiFi-5G	BT	Sum
Highest SAR value for Head	Left Cheek (WCDMA1900)	0.34	0.68	0.00	1.02
Highest SAR value for Body	Rear 15mm (GSM1900)	0.79	0.73	0.00	1.52

According to the above tables, the highest sum of reported SAR values is **1.52 W/kg (1g)**. The detail for simultaneous transmission consideration is described in chapter 15.

Conclusion:

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

3 Client Information

3.1 Applicant Information

Company Name:	Shenzhen Tinno Mobile Technology Corp.
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3.2 Manufacturer Information

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Fax:	0755-86095551

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

4.1 About EUT

Description:	Smart phone
Model name:	U616AT
Operating mode(s):	GSM850/1900, WCDMA850/1700/1900 LTEBand2/4/5/12/25/26/41/66/71, BT, Wi-Fi(2.4G&5G)
Tested Tx Frequency:	824 – 849 MHz (GSM 850)
	1850 – 1910 MHz (GSM 1900)
	824 – 849 MHz (WCDMA 850 Band V)
	1850 – 1910 MHz (WCDMA1900 Band IV)
	1710-1755 MHz (WCDMA1700 Band II)
	699.7 – 715.3 MHz (LTE Band 12)
	1850 – 1915 MHz (LTE Band 25)
	814 – 849 MHz (LTE Band 26)
	2498.5 – 2687.5 MHz (LTE Band41)
	1710.7 –1779.3 MHz (LTE Band 66)
	663 – 698 MHz (LTE Band 71)
	2412 – 2462 MHz (Wi-Fi 2.4G)
	2400 – 2483.5 MHz (Bluetooth)
	5150 – 5250 MHz (U-NII-1)
5250 – 5350 MHz (U-NII-2A)	
5725 – 5850 MHz (U-NII-3)	
GPRS/EGPRS Multislot Class:	12
Test device production information:	Production unit
Device type:	Portable device
Antenna type:	Integrated antenna
Hotspot mode:	Support

4.2 Internal Identification of EUT used during the test

EUT ID*	IMEI/SN	HW Version	SW Version
EUT1	860325060015831	V1.0	U616ATV01.01.10
EUT2	860325060016250	V1.0	U616ATV01.01.10
EUT3	860325060005816	V1.0	U616ATV01.01.10
EUT4	860325060006731	V1.0	U616ATV01.01.10

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

Note: It is performed to test SAR with the EUT1-2 and conducted power with the EUT3/4.

4.3 Internal Identification of AE used during the test

AE ID*	Description	Model	SN	Manufacturer
AE1	Battery	PT34H406082J	/	Ningbo Veken Battery Co., Ltd.

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

5 TEST METHODOLOGY

5.1 Applicable Limit Regulations

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

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

5.2 Applicable Measurement Standards

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

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

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

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

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

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

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

KDB865664 D01 SAR measurement 100 MHz to 6 GHz v01r04: SAR Measurement Requirements for 100 MHz to 6 GHz.

KDB865664 D02 RF Exposure Reporting v01r02: RF Exposure Compliance Reporting and Documentation Considerations

6 Specific Absorption Rate (SAR)

6.1 Introduction

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

6.2 SAR Definition

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

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

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

SAR measurement can be either related to the temperature elevation in tissue by

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

Where: C is the specific heat 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

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

The dielectric constant (ϵ_r) and conductivity (σ) of typical tissue-equivalent media recipes are expected to be within $\pm 5\%$ of the required target values; but for SAR measurement systems that have implemented the SAR error compensation algorithms documented in IEEE Std 1528-2013, to automatically compensate the measured SAR results for deviations between the measured and required tissue dielectric parameters, the tolerance for ϵ_r and σ may be relaxed to $\pm 10\%$. This is limited to frequencies ≤ 3 GHz.

Table 7.1: Targets for tissue simulating liquid

Frequency(MHz)	Liquid Type	Conductivity(σ)	$\pm 10\%$ Range	Permittivity(ϵ)	$\pm 10\%$ Range
750	Head	0.89	0.80~0.98	41.94	37.75~46.13
835	Head	0.90	0.81~0.99	41.5	37.35~45.65
1750	Head	1.40	1.26~1.54	40.0	36~44
1900	Head	1.40	1.26~1.54	40.0	36~44
2450	Head	1.80	1.62~1.98	39.2	35.28~43.12
2600	Head	1.96	1.76~2.16	39.01	35.11~42.91

Table 7.2: Targets for tissue simulating liquid

Frequency(MHz)	Liquid Type	Conductivity(σ)	$\pm 5\%$ Range	Permittivity(ϵ)	$\pm 5\%$ Range
5250	Head	4.71	4.47~4.95	35.93	34.13~37.73
5600	Head	5.07	4.82~5.32	35.53	33.8~37.3
5750	Head	5.22	4.96~5.48	35.36	33.59~37.13

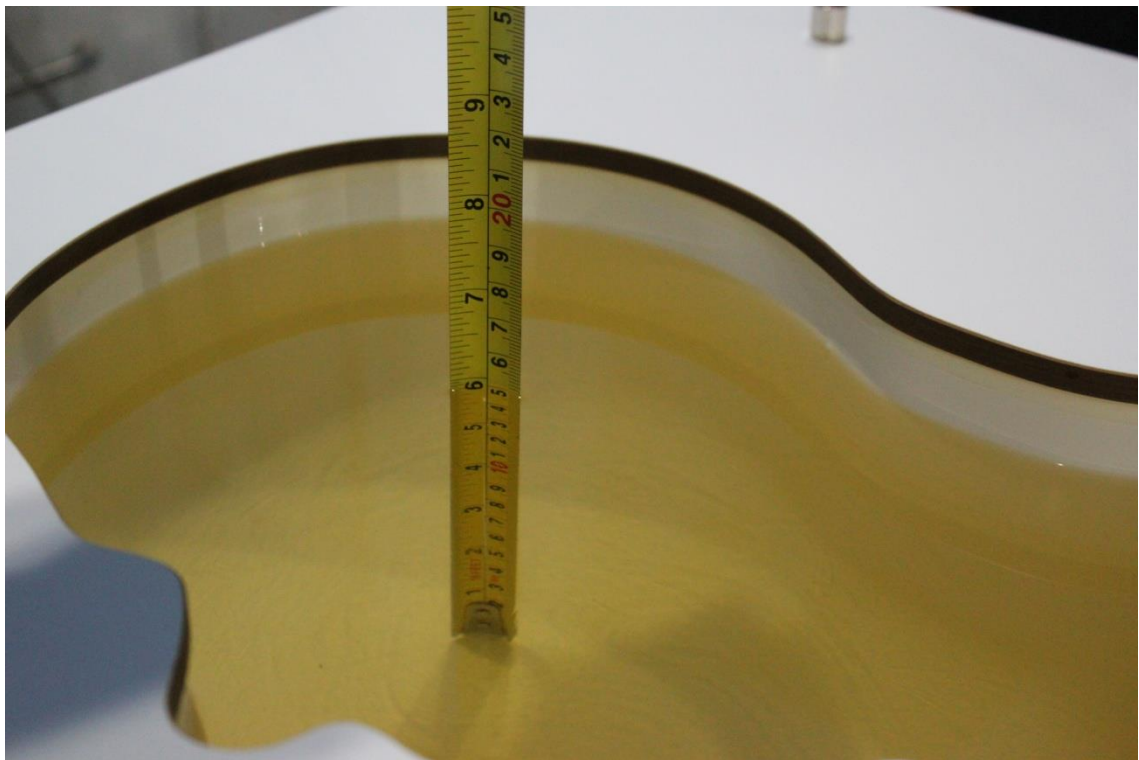
7.2 Dielectric Performance

Table 7.3: Dielectric Performance of Tissue Simulating Liquid

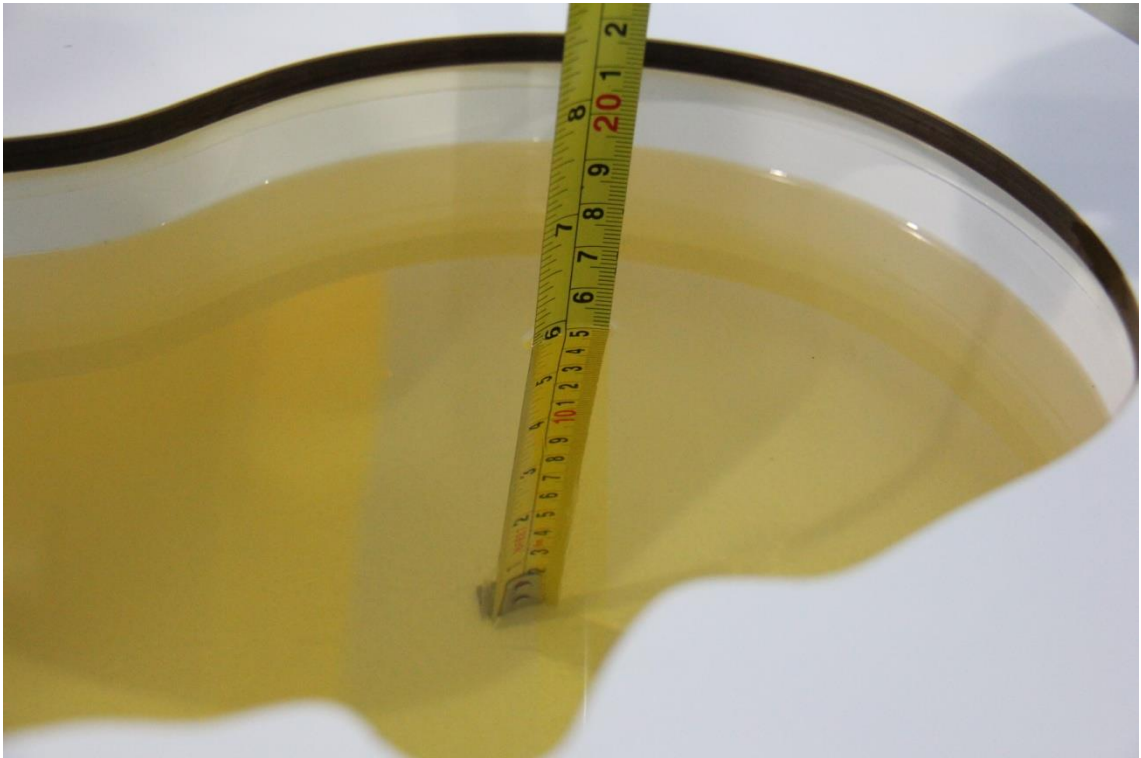
Measurement Date (yyyy-mm-dd)	Type	Frequency	Permittivity ϵ	Drift (%)	Conductivity σ (S/m)	Drift (%)
2022/3/26	Head	750 MHz	43.43	3.55%	0.8849	-0.57%
2022/3/25	Head	835 MHz	43.24	4.19%	0.926	2.89%
2022/4/5	Head	1750 MHz	43.06	7.44%	1.377	0.51%
2022/3/29	Head	1750 MHz	40.88	2.00%	1.39	1.46%
2022/4/7	Head	1900 MHz	42.9	7.25%	1.465	4.64%
2022/3/27	Head	1900 MHz	40.61	1.53%	1.494	6.71%

2022/3/31	Head	2450 MHz	39.85	1.66%	1.9	5.56%
2022/4/9	Head	2600 MHz	41.41	6.15%	2.053	4.74%
2022/4/1	Head	2600 MHz	39.46	1.15%	2.02	3.06%
2022/4/3	Head	5250 MHz	34.65	-3.56%	4.593	-2.48%
2022/4/4	Head	5600 MHz	34.09	-4.05%	4.961	-2.15%
2022/4/10	Head	5750 MHz	34.79	-1.61%	5.459	4.58%

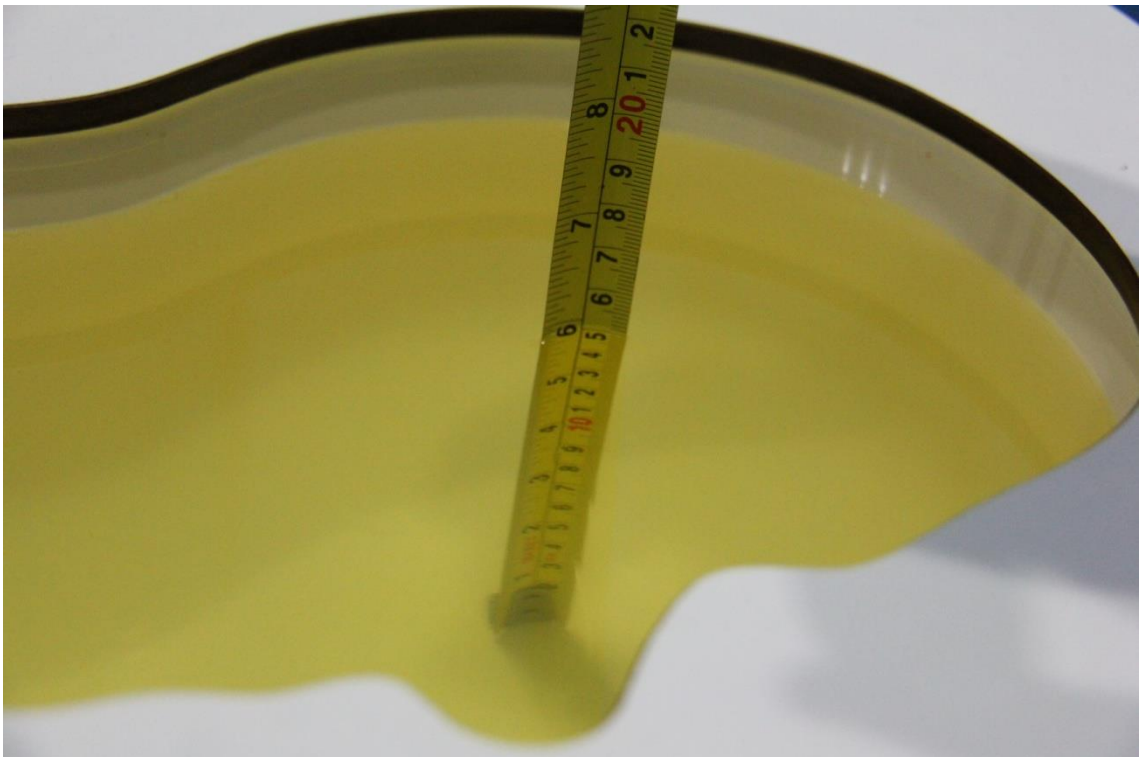
Note: The liquid temperature is 22.0°C



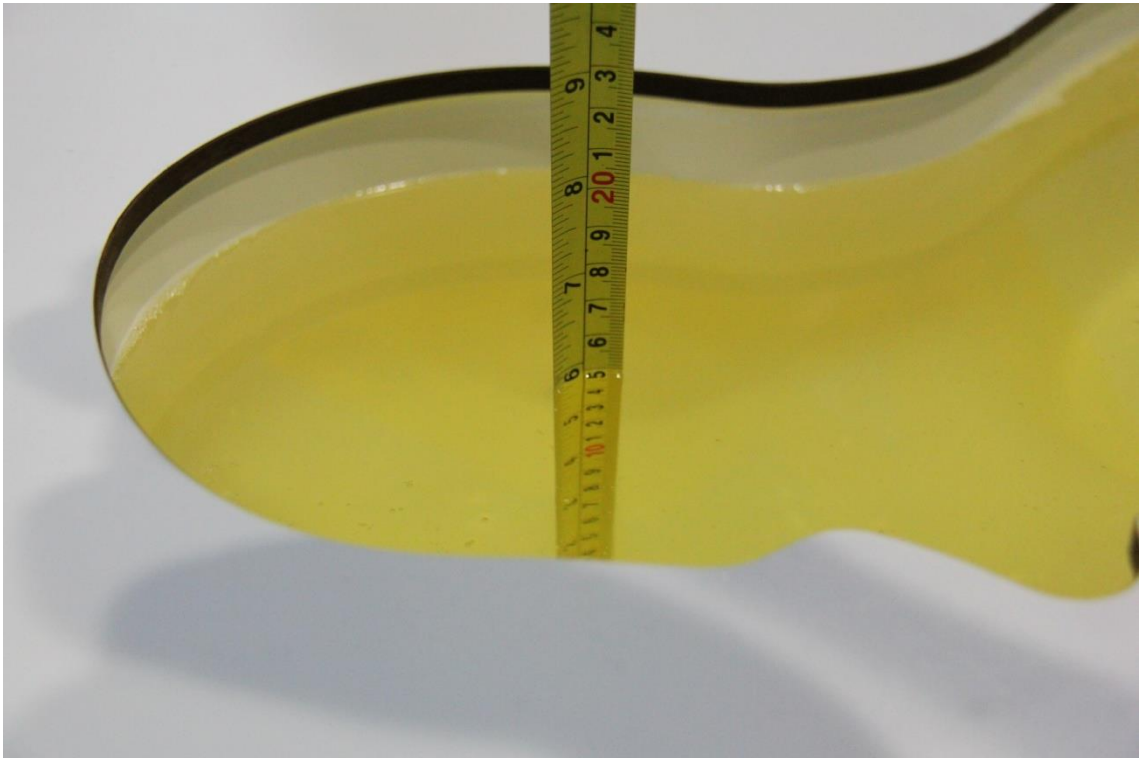
Picture 7-1 Liquid depth in the Head Phantom (750MHz)



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



Picture 7-3 Liquid depth in the Head Phantom (1900 MHz)



Picture 7-4 Liquid depth in the Head Phantom (2450MHz)



Picture 7-5 Liquid depth in the Head Phantom (2600 MHz)

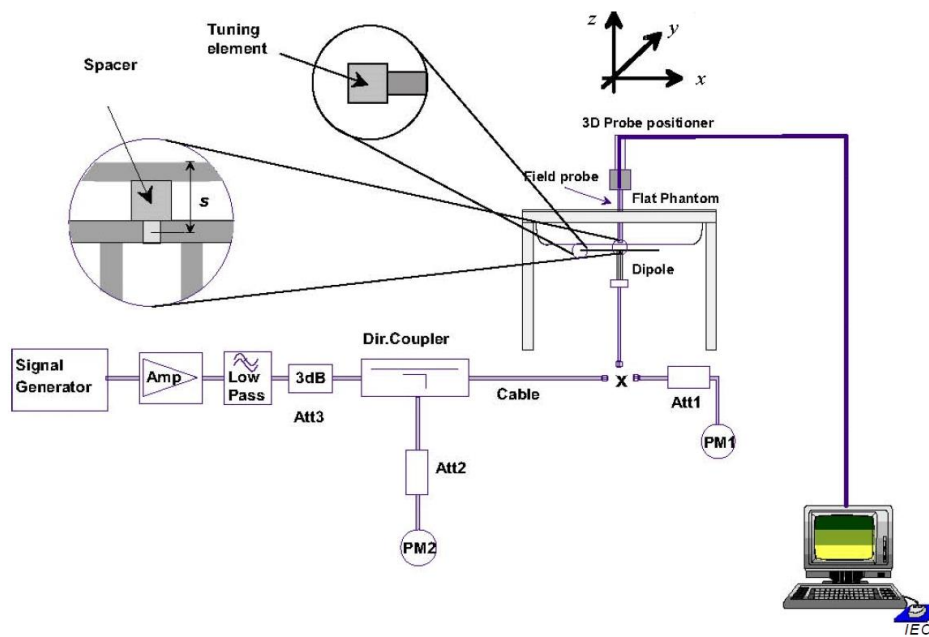


Picture 7-6 Liquid depth in the Head Phantom (5GHz)

8 System verification

8.1 System Setup

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



Picture 8.1 System Setup for System Evaluation



Picture 8.2 Photo of Dipole Setup

8.2 System Verification

SAR system verification is required to confirm measurement accuracy, according to the tissue dielectric media, probe calibration points and other system operating parameters required for measuring the SAR of a test device. The system verification must be performed for each frequency band and within the valid range of each probe calibration point required for testing the device.

Table 8.1: System Verification of Head

Measurement		Target value (W/kg)	Measured value(W/kg)	Deviation
-------------	--	---------------------	----------------------	-----------



Date (yyyy-mm-dd)	Frequency	10 g Average	1 g Average	10 g Average	1 g Average	10 g Average	1 g Average
2022/3/26	750 MHz	5.65	8.68	5.24	7.88	-7.26%	-9.22%
2022/3/25	835 MHz	6.24	9.63	6.00	9.64	-3.85%	0.10%
2022/3/29	1750 MHz	19.4	36.9	17.9	33.4	-7.63%	-9.49%
2022/4/5	1750 MHz	19.4	36.9	19.2	35.2	-1.24%	-4.50%
2022/3/27	1900 MHz	20.9	40.1	21.0	39.8	0.67%	-0.85%
2022/4/7	1900 MHz	20.9	40.1	20.4	38.5	-2.20%	-4.04%
2022/3/31	2450 MHz	24.9	53.3	24.6	50.8	-1.20%	-4.69%
2022/4/1	2600 MHz	25.5	57.1	26.8	58.4	4.94%	2.28%
2022/4/9	2600 MHz	25.5	57.1	26.7	57.2	4.63%	0.18%
2022/4/3	5250 MHz	22.7	79.5	21.7	76.2	-4.41%	-4.15%
2022/4/4	5600 MHz	23.7	83.8	22.8	80.5	-3.80%	-3.94%
2022/4/10	5750 MHz	22.7	81.0	23.7	85.0	4.41%	4.94%

9 General Measurement Procedure

9.1 Power Reference Measurement

The Power Reference Measurement and Power Drift Measurements are for monitoring the power drift of the device under test in the batch process. The minimum distance of probe sensors to surface determines the closest measurement point to phantom surface. This distance cannot be smaller than the distance of sensor calibration points to probe tip as defined in the probe properties.

9.2 Area Scan

The area scan is used as a fast scan in two dimensions to find the area of high field values, before doing a fine measurement around the hot spot. The sophisticated interpolation routines implemented in DASY software can find the maximum found in the scanned area, within a range of the global maximum. The range (in dB) is specified in the standards for compliance testing. For example, a 2 dB range is required in IEEE standard 1528 and IEC 62209 standards, whereby 3 dB is a requirement when compliance is assessed in accordance with the ARIB standard (Japan), if only one zoom scan follows the area scan, then only the absolute maximum will be taken as reference. For cases where multiple maximums are detected, the number of zoom scans has to be increased accordingly.

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

	≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	5 ± 1 mm	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5$ mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	30° ± 1°	20° ± 1°
Maximum area scan spatial resolution: Δx_{Area} , Δy_{Area}	≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
	When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	

9.3 Zoom Scan

Zoom Scans are used to assess the peak spatial SAR values within a cubic averaging volume containing 1 g and 10g of simulated tissue. The Zoom Scan measures points (refer to table below) within a cube whose base faces are centered on the maxima found in a preceding area scan job within the same procedure. When the measurement is done, the Zoom Scan evaluates the averaged SAR for 1 g and 10 g and displays these values next to the job' s label.

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

Maximum zoom scan spatial resolution: Δx_{Zoom} , Δy_{Zoom}		≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$	≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{Zoom}(1)$: between 1 st two points closest to phantom surface	≤ 4 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	$\leq 1.5 \cdot \Delta z_{Zoom}(n-1)$
Minimum zoom scan volume	x, y, z	≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm
Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details. * When zoom scan is required and the <i>reported</i> SAR from the <i>area scan based 1-g SAR estimation</i> procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.			

9.4 Power drift measurement

The Power Drift Measurement measures the field at the same location as the most recent power reference measurement within the same procedure, and with the same settings. The Power Drift Measurement gives the field difference in dB from the reading conducted within the last Power Reference Measurement. This allows a user to monitor the power drift of the device under test within a batch process. The measurement procedure is the same as 9.1.

10 Measurement Procedure for different technologies

10.1 GSM/GPRS Measurement Procedures for SAR

GSM / GPRS / EDGE modes is determined by the source-based time-averaged output power including tune-up tolerance. The mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested. Other configurations of GSM / GPRS / EDGE are considered as secondary modes. The 3G SAR test reduction procedure is applied, when the maximum output power and tune-up tolerance specified for production units in a secondary mode is $\leq \frac{1}{4}$ dB higher than the primary mode, SAR measurement is not required for the secondary mode.

10.2 WCDMA Measurement Procedures for SAR

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

For Release 5 HSDPA Data Devices:

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

For Release 6 HSPA Data Devices

Sub-test	β_c	β_d	β_d (SF)	β_c / β_d	β_{hs}	β_{ec}	β_{ed}	β_{ed} (SF)	β_{ed} (codes)	CM (dB)	MPR (dB)	AG Index	E-TFCI
1	11/15	15/15	64	11/15	22/15	209/225	1039/225	4	1	1.5	1.5	20	75
2	6/15	15/15	64	6/15	12/15	12/15	12/15	4	1	1.5	1.5	12	67

3	15/15	9/15	64	15/9	30/15	30/15	$\beta_{ed1}:47/15$ $\beta_{ed2}:47/15$	4	2	1.5	1.5	15	92
4	2/15	15/15	64	2/15	4/15	4/15	56/75	4	1	1.5	1.5	17	71
5	15/15	15/15	64	15/15	24/15	30/15	134/15	4	1	1.5	1.5	21	81

Rel.7 Release 7 HSPA+ Data Devices

Table C.11.1.4: β values for transmitter characteristics tests with HS-DPCCH and E-DCH with 16QAM

Sub-test	β_c (Note 3)	β_d	β_{HS} (Note 1)	β_{ec}	β_{ed} (2xSF2) (Note 4)	β_{ed} (2xSF4) (Note 4)	CM (dB) (Note 2)	MPR (dB) (Note 2)	AG Index (Note 4)	E-TFCI (Note 5)	E-TFCI (boost)
1	1	0	30/15	30/15	$\beta_{ed1}: 30/15$ $\beta_{ed2}: 30/15$	$\beta_{ed3}: 24/15$ $\beta_{ed4}: 24/15$	3.5	2.5	14	105	105
Note 1: $\Delta_{ACK}, \Delta_{NACK}$ and $\Delta_{CQI} = 30/15$ with $\beta_{hs} = 30/15 * \beta_c$. Note 2: CM = 3.5 and the MPR is based on the relative CM difference, MPR = MAX(CM-1,0). Note 3: DPDCH is not configured, therefore the β_c is set to 1 and $\beta_d = 0$ by default. Note 4: β_{ed} can not be set directly; it is set by Absolute Grant Value. Note 5: All the sub-tests require the UE to transmit 2SF2+2SF4 16QAM EDCH and they apply for UE using E-DPDCH category 7. E-DCH TTI is set to 2ms TTI and E-DCH table index = 2. To support these E-DCH configurations DPDCH is not allocated. The UE is signalled to use the extrapolation algorithm.											

Rel.8 DC-HSDPA (Cat 24)

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

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

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

10.3 LTE Measurement Procedures for SAR

SAR tests for LTE are performed with a base station simulator, Rohde & Schwarz CMW500 or Anritsu MT8821C Closed loop power control was used so the UE transmits with maximum output power during SAR testing.

It is performed for conducted power and SAR based on the KDB941225 D05.

SAR is evaluated separately according to the following procedures for the different test positions in each exposure condition – head, body, body-worn accessories and other use conditions. The procedures in the following subsections are applied separately to test each LTE frequency band.

1) QPSK with 1 RB allocation

Start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power among RB offsets at the upper edge, middle and lower edge of each required test channel. When the reported SAR is ≤ 0.8 W/kg, testing of the remaining RB offset configurations and required test channels is not required for 1 RB allocation; otherwise, SAR is required for the remaining required test channels and only for the RB offset configuration with the highest output power for that channel. When the reported SAR of a required test channel is > 1.45 W/kg, SAR is required for all three RB offset configurations for that required test channel.

2) QPSK with 50% RB allocation

The procedures required for 1 RB allocation in 1) are applied to measure the SAR for QPSK with 50% RB allocation.

3) QPSK with 100% RB allocation

For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation in 1) and 2) are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.

TDD test:

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

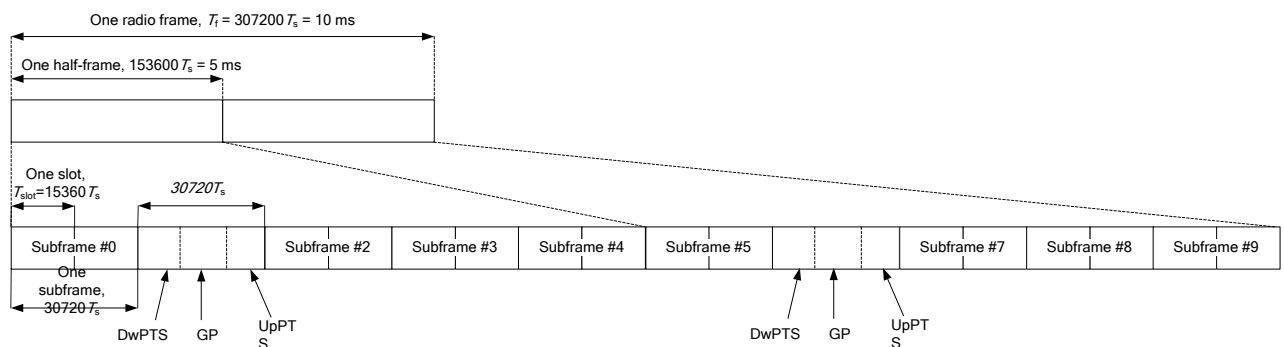


Figure 10.2: Frame structure type 2 (for 5 ms switch-point periodicity)

Table 10.1: Configuration of special subframe (lengths of DwPTS/GP/UpPTS)

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

Table 10.2: Uplink-downlink configurations

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

Duty factor is calculated by:

$$\begin{aligned}
 \text{Duty factor} &= \text{uplink frame} \cdot 6 + \text{UpPTS} \cdot 2 / \text{one frame length} \\
 &= (30720 \cdot T_s \cdot 6 + 5120 \cdot T_s \cdot 2) / 307200 \cdot T_s \\
 &= 0.633
 \end{aligned}$$

According to the KDB 447498 D01, SAR should be evaluated at more than 3 frequencies for devices supporting transmit bands wider than 100MHz. Oct.2014 FCC-TCB conference notes (Dec. 2014 rev.) specifies the 5 test channels to use for 3GPP band 38/41 SAR evaluation.

10.4 Bluetooth & Wi-Fi Measurement Procedures for SAR

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

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

11 Conducted Output Power

Table11: Summary of Receiver detection mechanism

Antenna	Receiver on (head scenario)	Receiver off + Hotspot on (Body scenario)	Receiver off + Hotspot off (Hotspot scenario)
Main Antenna	Power Level A1	Power Level B1	Power Level C1

11.1 GSM Measurement result

Table 11.1-1: The conducted power for GSM –GSM850 Power Level A1/B1/C1

GSM 850 Speech (GMSK)	Measured timeslot-averaged output power (dBm)			Tune up	calculation	Source-based time-averaged output power (dBm)		
	251	190	128			251	190	128
1 Txslot	32.88	32.96	32.99	33.50	/	/	/	/
GSM 850 GPRS (GMSK)	Measured timeslot-averaged output power (dBm)				calculation	Source-based time-averaged output power (dBm)		
	251	190	128			251	190	128
1 Txslot	32.87	32.95	32.98	33.50	-9.03	23.84	23.92	23.95
2 Txslots	31.32	31.42	31.47	31.50	-6.02	25.30	25.40	25.45
3 Txslots	29.25	29.34	29.39	29.50	-4.26	24.99	25.08	25.13
4 Txslots	27.22	27.30	27.34	27.50	-3.01	24.21	24.29	24.33
GSM 850 EGPRS (GMSK)	Measured timeslot-averaged output power (dBm)				calculation	Source-based time-averaged output power (dBm)		
	251	190	128			251	190	128
1 Txslot	32.88	32.96	32.98	33.50	-9.03	23.85	23.93	23.95
2 Txslots	31.32	31.43	31.46	31.50	-6.02	25.30	25.41	25.44
3 Txslots	29.25	29.35	29.38	29.50	-4.26	24.99	25.09	25.12
4 Txslots	27.23	27.31	27.33	27.50	-3.01	24.22	24.30	24.32
GSM 850 EGPRS (8PSK)	Measured timeslot-averaged output power (dBm)				calculation	Source-based time-averaged output power (dBm)		
	251	190	128			251	190	128
1 Txslot	27.42	27.21	27.16	27.50	-9.03	18.39	18.18	18.13
2 Txslots	25.04	25.01	25.28	25.50	-6.02	19.02	18.99	19.26
3Txslots	22.86	22.62	22.76	23.50	-4.26	18.60	18.36	18.50
4 Txslots	20.49	20.72	20.59	21.50	-3.01	17.48	17.71	17.58

Table 11.1-2: The conducted power measurement results-GSM1900 Power Level A1/C1

PCS1900 Speech (GMSK)	Measured timeslot-averaged output power (dBm)			Tune up	calculation	Source-based time-averaged output power (dBm)		
	810	661	512			810	661	512
1 Txslot	30.66	30.83	30.75	31.00	/	/	/	/
PCS1900 GPRS (GMSK)	Measured timeslot-averaged output power (dBm)				calculation	Source-based time-averaged output power (dBm)		
	810	661	512			810	661	512
1 Txslot	30.64	30.83	30.75	31.00	-9.03	21.61	21.80	21.72
2 Txslots	28.79	28.80	28.66	29.00	-6.02	22.77	22.78	22.64
3 Txslots	26.88	26.87	26.69	27.00	-4.26	22.62	22.61	22.43
4 Txslots	24.90	24.89	24.69	25.00	-3.01	21.89	21.88	21.68
PCS1900 EGPRS (GMSK)	Measured timeslot-averaged output power (dBm)				calculation	Source-based time-averaged output power (dBm)		
	810	661	512			810	661	512
1 Txslot	30.64	30.81	30.73	31.00	-9.03	21.61	21.78	21.70
2 Txslots	28.79	28.79	28.66	29.00	-6.02	22.77	22.77	22.64
3Txslots	26.87	26.86	26.69	27.00	-4.26	22.61	22.60	22.43
4 Txslots	24.90	24.88	24.69	25.00	-3.01	21.89	21.87	21.68
PCS1900 EGPRS (8PSK)	Measured timeslot-averaged output power (dBm)				calculation	Source-based time-averaged output power (dBm)		
	810	661	512			810	661	512
1 Txslot	26.43	26.47	26.38	26.50	-9.03	17.40	17.44	17.35
2 Txslots	24.35	24.34	24.25	24.50	-6.02	18.33	18.32	18.23
3Txslots	22.11	22.17	21.99	22.50	-4.26	17.85	17.91	17.73
4 Txslots	20.31	20.09	20.18	20.50	-3.01	17.30	17.08	17.17

Table 11.1-3: The conducted power measurement results-GSM1900 Power Level B1

PCS1900 Speech (GMSK)	Measured timeslot-averaged output power (dBm)			Tune up	calculation	Source-based time-averaged output power (dBm)		
	810	661	512			810	661	512
1 Txslot	29.31	29.31	29.19	29.50	/	/	/	/
PCS1900 GPRS (GMSK)	Measured timeslot-averaged output power (dBm)				calculation	Source-based time-averaged output power (dBm)		
	810	661	512			810	661	512
1 Txslot	29.33	29.31	29.19	29.50	-9.03	20.30	20.28	20.16
2 Txslots	26.37	26.32	26.17	27.50	-6.02	20.35	20.30	20.15
3 Txslots	24.63	24.58	24.39	25.50	-4.26	20.37	20.32	20.13
4 Txslots	23.45	23.39	23.17	23.50	-3.01	20.44	20.38	20.16
PCS1900 EGPRS (GMSK)	Measured timeslot-averaged output power (dBm)				calculation	Source-based time-averaged output power (dBm)		
	810	661	512			810	661	512
1 Txslot	29.32	29.31	29.19	29.50	-9.03	20.29	20.28	20.16
2 Txslots	26.36	26.32	26.18	27.50	-6.02	20.34	20.30	20.16
3Txslots	24.63	24.58	24.39	25.50	-4.26	20.37	20.32	20.13
4 Txslots	23.44	23.38	23.17	23.50	-3.01	20.43	20.37	20.16
PCS1900 EGPRS (8PSK)	Measured timeslot-averaged output power (dBm)				calculation	Source-based time-averaged output power (dBm)		
	810	661	512			810	661	512
1 Txslot	25.85	25.82	25.82	26.00	-9.03	16.82	16.79	16.79
2 Txslots	23.43	23.27	23.25	24.00	-6.02	17.41	17.25	17.23
3Txslots	21.24	21.99	21.09	22.00	-4.26	16.98	17.73	16.83
4 Txslots	19.79	19.79	19.64	20.00	-3.01	16.78	16.78	16.63

11.2 WCDMA Measurement result

Table 11.2-1: The conducted Power for WCDMA –Power Level A1/B1/C1

WCDMA850	FDDV result (dBm)			Tune up
	4233/4458	4183/4408	4132/4357	
	(846.6MHz)	(836.6MHz)	(826.4MHz)	
	23.21	23.17	23.24	24.00
HSUPA	19.45	19.49	19.56	21.00
	19.44	19.48	19.55	21.00
	20.42	20.44	20.51	22.00
	18.97	19.01	19.08	20.50
	20.39	20.44	20.51	22.00
HSPA+	20.95	21.01	21.07	22.50
DC-HSDPA	21.54	21.51	21.59	23.00
	21.32	21.31	21.41	23.00
	20.98	20.98	21.07	22.50
	20.96	20.95	21.06	22.50

Table 11.2-2: The conducted Power for WCDMA –Power Level A1

WCDMA1900	FDDII result (dBm)			Tune up
	9538/9938	9400/9800	9262/9662	
	(1907.6MHz)	(1880MHz)	(1852.4MHz)	
	24.48	24.42	24.51	25.00
HSUPA	20.34	20.40	20.44	22.00
	20.34	20.37	20.41	22.00
	21.38	21.39	21.43	23.00
	19.87	19.91	19.97	21.50
	21.34	21.36	21.39	23.00
HSPA+	22.01	21.98	22.11	23.00
DC-HSDPA	22.36	22.43	22.43	23.50
	22.23	22.24	22.28	23.50
	21.96	22.02	22.07	23.50
	21.91	21.96	21.99	23.50

Table 11.2-3: The conducted Power for WCDMA –Power Level B1/C1

WCDMA1900	FDDII result (dBm)			Tune up
	9538/9938	9400/9800	9262/9662	
	(1907.6MHz)	(1880MHz)	(1852.4MHz)	
	21.38	21.42	21.40	22.00
HSUPA	18.35	18.41	18.44	19.00
	18.35	18.35	18.44	19.00
	19.36	19.40	19.43	20.00
	17.87	17.90	17.93	18.50
	19.32	19.36	19.40	20.00
HSPA+	19.98	19.95	19.97	20.00
DC-HSDPA	20.36	20.43	20.49	20.50
	20.29	20.39	20.44	20.50
	19.83	19.94	19.95	20.50
	19.84	19.89	19.91	20.50

Table 11.2-4: The conducted Power for WCDMA –Power Level A1

WCDMA1700	FDDIV result (dBm)			Tune up
	1513/1738	1412/1637	1312/1537	
	(1752.6MHz)	(1732.4MHz)	(1712.4MHz)	
	24.35	24.37	24.44	25.00
HSUPA	20.42	20.46	20.50	22.00
	20.45	20.44	20.52	22.00
	21.45	21.46	21.47	23.00
	19.97	19.98	20.02	21.50
	21.42	21.47	21.48	23.00
HSPA+	22.04	22.05	22.10	23.00
DC-HSDPA	22.43	22.50	22.57	23.50
	22.32	22.35	22.31	23.50
	22.04	22.09	22.17	23.50
	21.92	21.98	22.03	23.50

Table 11.2-5: The conducted Power for WCDMA –Power Level B1

WCDMA1700	FDDIV result (dBm)			Tune up
	1513/1738	1412/1637	1312/1537	
	(1752.6MHz)	(1732.4MHz)	(1712.4MHz)	
	18.28	18.18	18.34	19.00
HSUPA	15.44	15.48	15.52	16.00
	15.47	15.50	15.54	16.00
	16.47	16.48	16.51	17.00
	14.99	15.00	15.04	15.50
	16.45	16.47	16.53	17.00
HSPA+	16.98	16.94	16.95	17.00
DC-HSDPA	17.40	17.46	17.42	17.50
	17.36	17.41	17.49	17.50
	16.91	16.97	17.04	17.50
	16.92	16.96	17.04	17.50

Table 11.2-6: The conducted Power for WCDMA –Power Level C1

WCDMA1700	FDDIV result (dBm)			Tune up
	1513/1738	1412/1637	1312/1537	
	(1752.6MHz)	(1732.4MHz)	(1712.4MHz)	
	21.82	21.78	21.77	22.00
HSUPA	18.43	18.43	18.51	19.00
	18.45	18.44	18.47	19.00
	19.44	19.45	19.49	20.00
	17.93	17.95	18.00	18.50
	19.42	19.42	19.47	20.00
HSPA+	19.95	19.93	19.97	20.00
DC-HSDPA	20.43	20.49	20.47	20.50
	20.38	20.43	20.45	20.50
	19.89	19.96	20.01	20.50
	19.88	19.94	19.99	20.50

11.3 LTE Measurement result

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

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

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

Table 11.3-2: The tune up for LTE

Band	Tune up		
	Power Level A1	Power Level B1	Power Level C1
LTE Band 12	25.5	25.5	25.5
LTE Band 25	25	22	23
LTE Band 26	25.5	25.5	25.5
LTE Band 41 PC2	27	23.5	24.5
LTE Band 41 PC3	24	22	22.5
LTE Band 66	25	19	22.5
LTE Band 71	25.5	25.5	25.5

LTE Band12 Power Level A1/B1/C1

1.4M Hz	1RB-H igh (5)	715.3	24.52	23.64	22.58	
		707.5	24.58	23.81	22.60	
		699.7	24.66	23.85	22.79	
	1RB-M iddle (3)	715.3	24.64	23.78	22.65	
		707.5	24.67	23.87	22.73	
		699.7	24.73	24.03	22.86	
	1RB-Low (0)	715.3	24.57	23.67	22.66	
		707.5	24.61	23.74	22.62	
		699.7	24.64	23.76	22.69	
	3RB-H igh (3)	715.3	24.63	23.55	22.60	
		707.5	24.71	23.66	22.68	
		699.7	24.76	23.77	22.81	
	3RB-M iddle (1)	715.3	24.68	23.60	22.71	
		707.5	24.72	23.65	22.79	
		699.7	24.79	23.78	22.84	
	3RB-Low (0)	715.3	24.63	23.56	22.68	
		707.5	24.69	23.65	22.73	
		699.7	24.71	23.69	22.81	
	6RB (0)	715.3	23.67	22.67	21.55	
		707.5	23.69	22.77	21.67	
		699.7	23.75	22.79	21.72	
	3M Hz	1RB-H igh (14)	714.5	24.59	23.72	22.57
			707.5	24.65	23.85	22.81
			700.5	24.74	23.84	22.89
1RB-M iddle (7)		714.5	24.75	23.96	22.85	
		707.5	24.72	23.97	22.94	
		700.5	24.92	24.06	23.00	
1RB-Low (0)		714.5	24.68	23.89	22.78	
		707.5	24.67	23.77	22.70	
		700.5	24.71	23.91	22.80	
8RB-H igh (7)		714.5	23.62	22.65	21.64	
		707.5	23.61	22.68	21.70	
		700.5	23.76	22.81	21.76	
8RB-M iddle (4)		714.5	23.71	22.71	21.68	
		707.5	23.69	22.75	21.71	
		700.5	23.79	22.86	21.83	
8RB-Low (0)		714.5	23.67	22.75	21.68	
		707.5	23.66	22.72	21.70	
		700.5	23.76	22.85	21.77	
15RB (0)		714.5	23.68	22.64	21.64	
		707.5	23.65	22.66	21.61	
		700.5	23.78	22.79	21.72	

5M Hz	1RB-H igh (24)	713.5	24.52	23.72	22.55	
		707.5	24.62	23.79	22.74	
		701.5	24.66	23.89	22.78	
	1RB-M iddle (12)	713.5	24.79	23.94	22.94	
		707.5	24.73	23.93	22.89	
		701.5	24.93	24.04	22.95	
	1RB-Low (0)	713.5	24.65	23.92	22.79	
		707.5	24.64	23.81	22.75	
		701.5	24.68	23.88	22.80	
	12RB-H igh (13)	713.5	23.73	22.67	21.71	
		707.5	23.57	22.58	21.59	
		701.5	23.84	22.84	21.86	
	12RB-M iddle (6)	713.5	23.75	22.69	21.74	
		707.5	23.71	22.70	21.71	
		701.5	23.82	22.78	21.80	
	12RB-Low (0)	713.5	23.72	22.71	21.76	
		707.5	23.63	22.63	21.63	
		701.5	23.86	22.85	21.88	
	25RB (0)	713.5	23.76	22.72	21.73	
		707.5	23.63	22.60	21.63	
		701.5	23.86	22.86	21.85	
	10M Hz	1RB-H igh (49)	711	24.54	23.70	22.62
			707.5	24.60	23.87	22.73
			704	24.62	23.75	22.74
1RB-M iddle (24)		711	24.78	23.95	22.90	
		707.5	24.73	23.96	22.81	
		704	24.76	23.98	22.82	
1RB-Low (0)		711	24.67	23.79	22.71	
		707.5	24.70	23.93	22.82	
		704	24.71	24.01	22.85	
25RB-H igh (25)		711	23.78	22.80	21.77	
		707.5	23.54	22.56	21.54	
		704	23.83	22.78	21.79	
25RB-M iddle (12)		711	23.74	22.76	21.73	
		707.5	23.72	22.71	21.70	
		704	23.79	22.76	21.75	
25RB-Low (0)		711	23.96	22.95	21.93	
		707.5	23.75	22.54	21.55	
		704	23.85	22.73	21.75	
50RB (0)		711	23.89	22.91	21.87	
		707.5	23.56	22.56	21.55	
		704	23.81	22.80	21.81	

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1.4M Hz	1RB-H igh (5)	1914.3 (26683)	24.48	23.66	22.71	
		1882.5 (26365)	24.52	23.79	22.50	
		1850.7 (26047)	24.54	23.69	22.71	
	1RB-M iddle (3)	1914.3 (26683)	24.55	23.81	22.77	
		1882.5 (26365)	24.55	23.73	22.71	
		1850.7 (26047)	24.65	23.81	22.73	
	1RB-Low (0)	1914.3 (26683)	24.49	23.69	22.72	
		1882.5 (26365)	24.47	23.74	22.63	
		1850.7 (26047)	24.53	23.78	22.68	
	3RB-H igh (3)	1914.3 (26683)	24.57	23.56	22.71	
		1882.5 (26365)	24.59	23.58	22.67	
		1850.7 (26047)	24.63	23.62	22.64	
	3RB-M iddle (1)	1914.3 (26683)	24.67	23.62	22.74	
		1882.5 (26365)	24.63	23.63	22.71	
		1850.7 (26047)	24.72	23.60	22.71	
	3RB-Low (0)	1914.3 (26683)	24.60	23.64	22.73	
		1882.5 (26365)	24.60	23.49	22.67	
		1850.7 (26047)	24.63	23.57	22.75	
	6RB (0)	1914.3 (26683)	23.65	22.76	21.66	
		1882.5 (26365)	23.63	22.73	21.65	
		1850.7 (26047)	23.63	22.75	21.62	
	3M Hz	1RB-H igh (14)	1913.5 (26675)	24.57	23.76	22.73
			1882.5 (26365)	24.57	23.84	22.68
			1851.5 (26055)	24.60	23.84	22.68
1RB-M iddle (7)		1913.5 (26675)	24.67	23.88	22.79	
		1882.5 (26365)	24.68	23.90	22.82	
		1851.5 (26055)	24.76	23.95	22.86	
1RB-Low (0)		1913.5 (26675)	24.58	23.69	22.64	
		1882.5 (26365)	24.59	23.81	22.67	
		1851.5 (26055)	24.61	23.77	22.79	
8RB-H igh (7)		1913.5 (26675)	23.57	22.69	21.63	
		1882.5 (26365)	23.60	22.68	21.63	
		1851.5 (26055)	23.59	22.72	21.67	
8RB-M iddle (4)		1913.5 (26675)	23.61	22.70	21.68	
		1882.5 (26365)	23.63	22.68	21.60	
		1851.5 (26055)	23.64	22.68	21.68	
8RB-Low (0)		1913.5 (26675)	23.61	22.68	21.67	
		1882.5 (26365)	23.58	22.64	21.64	
		1851.5 (26055)	23.60	22.69	21.63	
15RB (0)		1913.5 (26675)	23.62	22.67	21.62	
		1882.5 (26365)	23.60	22.61	21.58	
		1851.5 (26055)	23.65	22.65	21.61	

5M H z	1RB-H igh (24)	1912.5 (26665)	24.47	23.71	22.73
		1882.5 (26365)	24.49	23.75	22.50
		1852.5 (26065)	24.52	23.67	22.70
	1RB-M iddle (12)	1912.5 (26665)	24.72	23.84	22.89
		1882.5 (26365)	24.62	23.88	22.61
		1852.5 (26065)	24.68	23.91	22.81
	1RB-Low (0)	1912.5 (26665)	24.51	23.75	22.64
		1882.5 (26365)	24.52	23.70	22.51
		1852.5 (26065)	24.55	23.83	22.76
	12RB-H igh (13)	1912.5 (26665)	23.53	22.61	21.65
		1882.5 (26365)	23.60	22.60	21.59
		1852.5 (26065)	23.62	22.58	21.64
	12RB-M iddle (6)	1912.5 (26665)	23.61	22.67	21.74
		1882.5 (26365)	23.63	22.65	21.63
		1852.5 (26065)	23.67	22.66	21.68
	12RB-Low (0)	1912.5 (26665)	23.66	22.70	21.74
		1882.5 (26365)	23.59	22.59	21.60
		1852.5 (26065)	23.62	22.63	21.66
25RB (0)	1912.5 (26665)	23.63	22.67	21.68	
	1882.5 (26365)	23.63	22.61	21.59	
	1852.5 (26065)	23.63	22.64	21.66	
10M H z	1RB-H igh (49)	1910 (26640)	24.50	23.79	22.64
		1882.5 (26365)	24.49	23.75	22.65
		1855 (26090)	24.51	23.79	22.67
	1RB-M iddle (24)	1910 (26640)	24.62	23.80	22.70
		1882.5 (26365)	24.61	23.81	22.77
		1855 (26090)	24.61	23.86	22.75
	1RB-Low (0)	1910 (26640)	24.52	23.75	22.68
		1882.5 (26365)	24.54	23.82	22.71
		1855 (26090)	24.51	23.81	22.74
	25RB-H igh (25)	1910 (26640)	23.39	22.49	21.46
		1882.5 (26365)	23.58	22.60	21.56
		1855 (26090)	23.60	22.63	21.63
	25RB-M iddle (12)	1910 (26640)	23.62	22.63	21.61
		1882.5 (26365)	23.60	22.64	21.62
		1855 (26090)	23.64	22.68	21.65
	25RB-Low (0)	1910 (26640)	23.71	22.68	21.69
		1882.5 (26365)	23.60	22.61	21.61
		1855 (26090)	23.64	22.68	21.68
50RB (0)	1910 (26640)	23.58	22.59	21.57	
	1882.5 (26365)	23.62	22.62	21.58	
	1855 (26090)	23.65	22.68	21.66	

15M H z	1RB-H igh (74)	1907.5 (26615)	24.53	23.79	22.67
		1882.5 (26365)	24.52	23.74	22.70
		1857.5 (26115)	24.54	23.75	22.65
	1RB-M iddle (37)	1907.5 (26615)	24.50	23.67	22.71
		1882.5 (26365)	24.57	23.82	22.70
		1857.5 (26115)	24.59	23.75	22.71
	1RB-Low (0)	1907.5 (26615)	24.55	23.87	22.75
		1882.5 (26365)	24.58	23.87	22.74
		1857.5 (26115)	24.59	23.86	22.77
	36RB-H igh (38)	1907.5 (26615)	23.54	22.55	21.55
		1882.5 (26365)	23.63	22.59	21.60
		1857.5 (26115)	23.66	22.64	21.68
	36RB-M iddle (19)	1907.5 (26615)	23.66	22.61	21.64
		1882.5 (26365)	23.65	22.64	21.67
		1857.5 (26115)	23.67	22.64	21.63
	36RB-Low (0)	1907.5 (26615)	23.61	22.61	21.62
		1882.5 (26365)	23.64	22.62	21.68
		1857.5 (26115)	23.69	22.65	21.70
	75RB (0)	1907.5 (26615)	23.57	22.56	21.56
		1882.5 (26365)	23.62	22.63	21.61
		1857.5 (26115)	23.67	22.66	21.65
20M H z	1RB-H igh (99)	1905 (26590)	24.52	23.77	22.75
		1882.5 (26365)	24.50	23.73	22.64
		1860 (26140)	24.52	23.82	22.72
	1RB-M iddle (50)	1905 (26590)	24.57	23.88	22.80
		1882.5 (26365)	24.62	23.84	22.73
		1860 (26140)	24.63	23.80	22.88
	1RB-Low (0)	1905 (26590)	24.53	23.76	22.73
		1882.5 (26365)	24.55	23.86	22.76
		1860 (26140)	24.57	23.76	22.70
	50RB-H igh (50)	1905 (26590)	23.40	22.41	21.40
		1882.5 (26365)	23.57	22.58	21.56
		1860 (26140)	23.66	22.67	21.69
	50RB-M iddle (25)	1905 (26590)	23.64	22.64	21.65
		1882.5 (26365)	23.66	22.65	21.65
		1860 (26140)	23.72	22.72	21.71
	50RB-Low (0)	1905 (26590)	23.62	22.62	21.58
		1882.5 (26365)	23.61	22.61	21.62
		1860 (26140)	23.70	22.69	21.71
	100RB (0)	1905 (26590)	23.53	22.51	21.51
		1882.5 (26365)	23.58	22.56	21.57
		1860 (26140)	23.68	22.67	21.69

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1.4M Hz	1RB-H igh (5)	1914.3 (26683)	21.55	21.92	21.79
		1882.5 (26365)	21.58	21.91	21.70
		1850.7 (26047)	21.62	21.82	21.82
	1RB-M iddle (3)	1914.3 (26683)	21.66	21.96	21.81
		1882.5 (26365)	21.65	22.00	21.86
		1850.7 (26047)	21.69	21.91	21.81
	1RB-Low (0)	1914.3 (26683)	21.62	21.91	21.75
		1882.5 (26365)	21.59	21.84	21.69
		1850.7 (26047)	21.62	21.83	21.87
	3RB-H igh (3)	1914.3 (26683)	21.70	21.65	21.83
		1882.5 (26365)	21.70	21.63	21.69
		1850.7 (26047)	21.70	21.62	21.79
	3RB-M iddle (1)	1914.3 (26683)	21.75	21.75	21.83
		1882.5 (26365)	21.74	21.72	21.69
		1850.7 (26047)	21.76	21.65	21.79
	3RB-Low (0)	1914.3 (26683)	21.70	21.66	21.78
		1882.5 (26365)	21.67	21.64	21.70
		1850.7 (26047)	21.73	21.71	21.76
	6RB (0)	1914.3 (26683)	21.71	21.80	21.68
		1882.5 (26365)	21.68	21.70	21.64
		1850.7 (26047)	21.71	21.76	21.65
3M Hz	1RB-H igh (14)	1913.5 (26675)	21.65	21.89	21.82
		1882.5 (26365)	21.64	21.95	21.87
		1851.5 (26055)	21.66	21.96	21.83
	1RB-M iddle (7)	1913.5 (26675)	21.76	21.98	21.96
		1882.5 (26365)	21.77	21.93	21.99
		1851.5 (26055)	21.79	21.96	21.99
	1RB-Low (0)	1913.5 (26675)	21.64	21.90	21.81
		1882.5 (26365)	21.66	21.86	21.78
		1851.5 (26055)	21.67	21.94	21.84
	8RB-H igh (7)	1913.5 (26675)	21.67	21.72	21.70
		1882.5 (26365)	21.64	21.70	21.67
		1851.5 (26055)	21.67	21.71	21.71
	8RB-M iddle (4)	1913.5 (26675)	21.71	21.78	21.74
		1882.5 (26365)	21.67	21.74	21.67
		1851.5 (26055)	21.72	21.75	21.71
	8RB-Low (0)	1913.5 (26675)	21.70	21.73	21.72
		1882.5 (26365)	21.64	21.72	21.70
		1851.5 (26055)	21.69	21.75	21.72
	15RB (0)	1913.5 (26675)	21.68	21.71	21.66
		1882.5 (26365)	21.63	21.65	21.66
		1851.5 (26055)	21.66	21.69	21.67

5M Hz	1RB-H igh (24)	1912.5 (26665)	21.61	21.96	21.74	
		1882.5 (26365)	21.61	21.83	21.72	
		1852.5 (26065)	21.61	21.84	21.84	
	1RB-M iddle (12)	1912.5 (26665)	21.75	21.95	21.97	
		1882.5 (26365)	21.85	21.87	21.94	
		1852.5 (26065)	21.81	21.87	21.92	
	1RB-Low (0)	1912.5 (26665)	21.58	21.79	21.76	
		1882.5 (26365)	21.63	21.97	21.77	
		1852.5 (26065)	21.65	21.97	21.85	
	12RB-H igh (13)	1912.5 (26665)	21.61	21.71	21.71	
		1882.5 (26365)	21.66	21.64	21.62	
		1852.5 (26065)	21.69	21.69	21.67	
	12RB-M iddle (6)	1912.5 (26665)	21.73	21.76	21.81	
		1882.5 (26365)	21.71	21.69	21.69	
		1852.5 (26065)	21.74	21.75	21.73	
	12RB-Low (0)	1912.5 (26665)	21.78	21.75	21.78	
		1882.5 (26365)	21.65	21.63	21.65	
		1852.5 (26065)	21.70	21.69	21.68	
	25RB (0)	1912.5 (26665)	21.70	21.73	21.73	
		1882.5 (26365)	21.67	21.66	21.64	
		1852.5 (26065)	21.71	21.70	21.68	
	10M Hz	1RB-H igh (49)	1910 (26640)	21.58	21.88	21.79
			1882.5 (26365)	21.60	21.86	21.74
			1855 (26090)	21.61	21.97	21.77
1RB-M iddle (24)		1910 (26640)	21.73	21.91	21.79	
		1882.5 (26365)	21.72	21.88	21.84	
		1855 (26090)	21.73	21.95	21.85	
1RB-Low (0)		1910 (26640)	21.61	21.97	21.73	
		1882.5 (26365)	21.63	21.99	21.77	
		1855 (26090)	21.64	21.94	21.83	
25RB-H igh (25)		1910 (26640)	21.47	21.50	21.51	
		1882.5 (26365)	21.64	21.62	21.62	
		1855 (26090)	21.68	21.70	21.68	
25RB-M iddle (12)		1910 (26640)	21.69	21.67	21.69	
		1882.5 (26365)	21.68	21.69	21.66	
		1855 (26090)	21.73	21.71	21.72	
25RB-Low (0)		1910 (26640)	21.76	21.77	21.75	
		1882.5 (26365)	21.68	21.68	21.65	
		1855 (26090)	21.75	21.75	21.73	
50RB (0)		1910 (26640)	21.61	21.63	21.62	
		1882.5 (26365)	21.66	21.67	21.64	
		1855 (26090)	21.72	21.71	21.70	

15M Hz	1RB-H igh (74)	1907.5 (26615)	21.63	21.99	21.84
		1882.5 (26365)	21.61	21.93	21.85
		1857.5 (26115)	21.65	21.96	21.85
	1RB-M iddle (37)	1907.5 (26615)	21.65	21.88	21.80
		1882.5 (26365)	21.65	21.94	21.84
		1857.5 (26115)	21.67	21.92	21.90
	1RB-Low (0)	1907.5 (26615)	21.63	21.95	21.90
		1882.5 (26365)	21.69	21.93	21.89
		1857.5 (26115)	21.66	21.93	21.86
	36RB-H igh (38)	1907.5 (26615)	21.59	21.56	21.57
		1882.5 (26365)	21.68	21.59	21.63
		1857.5 (26115)	21.73	21.69	21.72
	36RB-M iddle (19)	1907.5 (26615)	21.71	21.71	21.69
		1882.5 (26365)	21.74	21.68	21.69
		1857.5 (26115)	21.71	21.71	21.70
	36RB-Low (0)	1907.5 (26615)	21.68	21.65	21.68
		1882.5 (26365)	21.71	21.68	21.69
		1857.5 (26115)	21.76	21.72	21.71
	75RB (0)	1907.5 (26615)	21.64	21.62	21.60
		1882.5 (26365)	21.69	21.66	21.64
		1857.5 (26115)	21.71	21.71	21.71
20M Hz	1RB-H igh (99)	1905 (26590)	21.61	21.92	21.81
		1882.5 (26365)	21.60	21.89	21.83
		1860 (26140)	21.64	21.91	21.78
	1RB-M iddle (50)	1905 (26590)	21.76	21.97	21.90
		1882.5 (26365)	21.76	22.00	21.94
		1860 (26140)	21.77	21.93	21.86
	1RB-Low (0)	1905 (26590)	21.63	21.99	21.82
		1882.5 (26365)	21.64	21.92	21.82
		1860 (26140)	21.65	21.93	21.84
	50RB-H igh (50)	1905 (26590)	21.43	21.42	21.43
		1882.5 (26365)	21.61	21.57	21.59
		1860 (26140)	21.72	21.73	21.71
	50RB-M iddle (25)	1905 (26590)	21.71	21.71	21.68
		1882.5 (26365)	21.71	21.68	21.71
		1860 (26140)	21.77	21.76	21.75
	50RB-Low (0)	1905 (26590)	21.65	21.62	21.65
		1882.5 (26365)	21.66	21.64	21.64
		1860 (26140)	21.76	21.77	21.76
	100RB (0)	1905 (26590)	21.55	21.53	21.54
		1882.5 (26365)	21.63	21.60	21.59
		1860 (26140)	21.76	21.74	21.75

LTE Band25 Power Level C1

1.4M Hz	1RB-H igh (5)	1914.3 (26683)	22.59	22.78	22.70
		1882.5 (26365)	22.61	22.89	22.73
		1850.7 (26047)	22.61	22.91	22.70
	1RB-M iddle (3)	1914.3 (26683)	22.68	22.99	22.84
		1882.5 (26365)	22.67	22.96	22.78
		1850.7 (26047)	22.72	22.84	22.83
	1RB-Low (0)	1914.3 (26683)	22.58	22.86	22.79
		1882.5 (26365)	22.56	22.74	22.78
		1850.7 (26047)	22.60	22.83	22.74
	3RB-H igh (3)	1914.3 (26683)	22.71	22.64	22.81
		1882.5 (26365)	22.72	22.68	22.74
		1850.7 (26047)	22.73	22.65	22.79
	3RB-M iddle (1)	1914.3 (26683)	22.73	22.67	22.82
		1882.5 (26365)	22.70	22.69	22.81
		1850.7 (26047)	22.77	22.73	22.78
	3RB-Low (0)	1914.3 (26683)	22.69	22.64	22.83
		1882.5 (26365)	22.74	22.68	22.72
		1850.7 (26047)	22.71	22.65	22.80
	6RB (0)	1914.3 (26683)	22.72	22.83	22.72
		1882.5 (26365)	22.71	22.77	21.66
		1850.7 (26047)	22.75	22.79	21.71
3M Hz	1RB-H igh (14)	1913.5 (26675)	22.61	22.82	22.82
		1882.5 (26365)	22.63	22.87	22.74
		1851.5 (26055)	22.63	22.97	22.79
	1RB-M iddle (7)	1913.5 (26675)	22.77	22.93	22.99
		1882.5 (26365)	22.75	22.92	22.88
		1851.5 (26055)	22.83	22.96	23.00
	1RB-Low (0)	1913.5 (26675)	22.62	22.90	22.74
		1882.5 (26365)	22.64	22.95	22.76
		1851.5 (26055)	22.64	22.93	22.80
	8RB-H igh (7)	1913.5 (26675)	22.69	22.75	21.71
		1882.5 (26365)	22.65	22.69	21.68
		1851.5 (26055)	22.70	22.74	21.69
	8RB-M iddle (4)	1913.5 (26675)	22.71	22.76	21.76
		1882.5 (26365)	22.68	22.73	21.68
		1851.5 (26055)	22.73	22.76	21.71
	8RB-Low (0)	1913.5 (26675)	22.71	22.74	21.70
		1882.5 (26365)	22.67	22.68	21.68
		1851.5 (26055)	22.71	22.74	21.71
	15RB (0)	1913.5 (26675)	22.70	22.70	21.66
		1882.5 (26365)	22.67	22.64	21.63
		1851.5 (26055)	22.71	22.69	21.69

5M H z	1RB-H igh (24)	1912.5 (26665)	22.61	22.93	22.75
		1882.5 (26365)	22.58	22.90	22.66
		1852.5 (26065)	22.58	22.90	22.76
	1RB-M iddle (12)	1912.5 (26665)	22.80	22.88	22.84
		1882.5 (26365)	22.78	23.00	22.87
		1852.5 (26065)	22.77	23.00	22.91
	1RB-Low (0)	1912.5 (26665)	22.56	22.89	22.67
		1882.5 (26365)	22.60	22.78	22.82
		1852.5 (26065)	22.63	22.92	22.77
	12RB-H igh (13)	1912.5 (26665)	22.63	22.67	21.73
		1882.5 (26365)	22.67	22.63	21.64
		1852.5 (26065)	22.72	22.66	21.66
	12RB-M iddle (6)	1912.5 (26665)	22.74	22.74	21.78
		1882.5 (26365)	22.72	22.69	21.70
		1852.5 (26065)	22.77	22.72	21.72
	12RB-Low (0)	1912.5 (26665)	22.77	22.77	21.77
		1882.5 (26365)	22.69	22.64	21.65
		1852.5 (26065)	22.73	22.67	21.70
	25RB (0)	1912.5 (26665)	22.72	22.76	21.74
		1882.5 (26365)	22.68	22.68	21.64
		1852.5 (26065)	22.71	22.71	22.70
10M H z	1RB-H igh (49)	1910 (26640)	22.61	22.86	22.78
		1882.5 (26365)	22.60	22.87	22.72
		1855 (26090)	22.63	22.94	22.74
	1RB-M iddle (24)	1910 (26640)	22.69	22.94	22.84
		1882.5 (26365)	22.70	22.98	22.89
		1855 (26090)	22.71	22.98	22.87
	1RB-Low (0)	1910 (26640)	22.60	22.92	22.73
		1882.5 (26365)	22.60	22.95	22.82
		1855 (26090)	22.67	22.94	22.74
	25RB-H igh (25)	1910 (26640)	22.50	22.53	21.53
		1882.5 (26365)	22.68	22.63	21.63
		1855 (26090)	22.71	22.74	21.70
	25RB-M iddle (12)	1910 (26640)	22.70	22.71	21.70
		1882.5 (26365)	22.71	22.70	21.68
		1855 (26090)	22.75	22.72	21.72
	25RB-Low (0)	1910 (26640)	22.79	22.77	21.75
		1882.5 (26365)	22.70	22.70	21.69
		1855 (26090)	22.76	22.75	21.72
	50RB (0)	1910 (26640)	22.68	22.67	21.63
		1882.5 (26365)	22.68	22.69	21.66
		1855 (26090)	22.74	22.73	21.74

15M H z	1RB-H igh (74)	1907.5 (26615)	22.65	22.99	22.87
		1882.5 (26365)	22.65	22.89	22.70
		1857.5 (26115)	22.66	22.92	22.79
	1RB-M iddle (37)	1907.5 (26615)	22.67	22.92	22.76
		1882.5 (26365)	22.66	22.93	22.83
		1857.5 (26115)	22.72	22.89	22.82
	1RB-Low (0)	1907.5 (26615)	22.68	23.00	22.79
		1882.5 (26365)	22.70	23.00	22.87
		1857.5 (26115)	22.70	22.96	22.78
	36RB-H igh (38)	1907.5 (26615)	22.65	22.61	21.60
		1882.5 (26365)	22.72	22.66	21.66
		1857.5 (26115)	22.79	22.71	21.74
	36RB-M iddle (19)	1907.5 (26615)	22.78	22.73	21.71
		1882.5 (26365)	22.75	22.68	21.72
		1857.5 (26115)	22.75	22.70	21.77
	36RB-Low (0)	1907.5 (26615)	22.73	22.70	21.68
		1882.5 (26365)	22.73	22.69	21.71
		1857.5 (26115)	22.81	22.71	21.75
	75RB (0)	1907.5 (26615)	22.68	22.65	21.61
		1882.5 (26365)	22.72	22.69	21.67
		1857.5 (26115)	22.77	22.73	21.73
20M H z	1RB-H igh (99)	1905 (26590)	22.73	22.95	22.76
		1882.5 (26365)	22.68	22.84	22.78
		1860 (26140)	22.70	22.92	22.81
	1RB-M iddle (50)	1905 (26590)	22.79	22.97	22.90
		1882.5 (26365)	22.78	22.98	22.89
		1860 (26140)	22.81	22.98	22.87
	1RB-Low (0)	1905 (26590)	22.74	22.90	22.79
		1882.5 (26365)	22.74	22.92	22.81
		1860 (26140)	22.73	22.94	22.79
	50RB-H igh (50)	1905 (26590)	22.56	22.50	21.46
		1882.5 (26365)	22.72	22.68	21.62
		1860 (26140)	22.80	22.78	21.78
	50RB-M iddle (25)	1905 (26590)	22.83	22.77	21.73
		1882.5 (26365)	22.82	22.77	21.74
		1860 (26140)	22.85	22.81	21.77
	50RB-Low (0)	1905 (26590)	22.73	22.72	21.66
		1882.5 (26365)	22.76	22.72	21.67
		1860 (26140)	22.84	22.81	21.79
	100RB (0)	1905 (26590)	22.65	22.63	21.59
		1882.5 (26365)	22.71	22.66	21.63
		1860 (26140)	22.82	22.78	21.78

LTE Band26 Power Level A1/B1/C1

1.4M Hz	1RB-H igh (5)	848.3 (27033)	24.71	23.80	22.72	
		831.5 (26865)	24.75	23.97	22.94	
		814.7 (26697)	24.78	23.96	22.94	
	1RB-M iddle (3)	848.3 (27033)	24.75	23.98	22.85	
		831.5 (26865)	24.83	24.11	23.00	
		814.7 (26697)	24.87	24.13	22.98	
	1RB-Low (0)	848.3 (27033)	24.70	23.83	22.71	
		831.5 (26865)	24.74	24.01	22.98	
		814.7 (26697)	24.78	24.12	22.88	
	3RB-H igh (3)	848.3 (27033)	24.79	23.74	22.85	
		831.5 (26865)	24.83	23.77	22.84	
		814.7 (26697)	24.86	23.82	22.96	
	3RB-M iddle (1)	848.3 (27033)	24.83	23.74	22.85	
		831.5 (26865)	24.90	23.89	22.92	
		814.7 (26697)	24.93	23.94	22.99	
	3RB-Low (0)	848.3 (27033)	24.79	23.70	22.82	
		831.5 (26865)	24.86	23.85	22.89	
		814.7 (26697)	24.87	23.92	22.97	
	6RB (0)	848.3 (27033)	23.85	22.85	21.78	
		831.5 (26865)	23.88	22.91	21.85	
		814.7 (26697)	23.90	22.96	21.85	
	3M Hz	1RB-H igh (14)	847.5 (27025)	24.80	23.86	22.80
			831.5 (26865)	24.82	24.03	22.99
			815.5 (26705)	24.27	23.52	22.49
1RB-M iddle (7)		847.5 (27025)	24.86	23.95	22.94	
		831.5 (26865)	24.94	24.26	23.08	
		815.5 (26705)	24.42	23.51	22.52	
1RB-Low (0)		847.5 (27025)	24.77	24.03	22.86	
		831.5 (26865)	24.85	24.18	23.01	
		815.5 (26705)	24.27	23.53	22.44	
8RB-H igh (7)		847.5 (27025)	23.78	22.79	21.77	
		831.5 (26865)	23.85	22.88	21.84	
		815.5 (26705)	23.30	22.38	21.36	
8RB-M iddle (4)		847.5 (27025)	23.80	22.80	21.78	
		831.5 (26865)	23.88	22.90	21.87	
		815.5 (26705)	23.34	22.40	21.36	
8RB-Low (0)		847.5 (27025)	23.79	22.83	21.81	
		831.5 (26865)	23.85	22.92	21.82	
		815.5 (26705)	23.32	22.38	21.38	
15RB (0)		847.5 (27025)	23.81	22.76	21.77	
		831.5 (26865)	23.83	22.83	21.79	
		815.5 (26705)	23.32	22.36	21.32	

5M Hz	1RB-H igh (24)	846.5 (27015)	24.82	23.90	22.79	
		831.5 (26865)	24.82	24.05	22.91	
		816.5 (26715)	24.88	24.18	23.02	
	1RB-M iddle (12)	846.5 (27015)	24.93	24.07	22.98	
		831.5 (26865)	24.94	24.18	23.06	
		816.5 (26715)	24.96	24.15	23.11	
	1RB-Low (0)	846.5 (27015)	24.77	24.02	22.95	
		831.5 (26865)	24.86	24.16	23.05	
		816.5 (26715)	24.90	24.10	23.03	
	12RB-H igh (13)	846.5 (27015)	23.75	22.71	21.72	
		831.5 (26865)	23.87	22.83	21.84	
		816.5 (26715)	23.90	22.88	21.88	
	12RB-M iddle (6)	846.5 (27015)	23.81	22.77	21.82	
		831.5 (26865)	23.89	22.87	21.87	
		816.5 (26715)	23.89	22.90	21.86	
	12RB-Low (0)	846.5 (27015)	23.87	22.81	21.82	
		831.5 (26865)	23.86	22.82	21.83	
		816.5 (26715)	23.89	22.86	21.85	
	25RB (0)	846.5 (27015)	23.85	22.83	21.79	
		831.5 (26865)	23.88	22.88	21.84	
		816.5 (26715)	23.92	22.93	21.91	
	10M Hz	1RB-H igh (49)	844 (26990)	24.80	23.92	22.79
			831.5 (26865)	24.85	24.14	22.96
			820 (26750)	24.85	24.01	22.98
1RB-M iddle (24)		844 (26990)	24.85	24.10	22.93	
		831.5 (26865)	24.92	24.20	23.11	
		820 (26750)	24.94	24.20	23.13	
1RB-Low (0)		844 (26990)	24.86	24.09	22.96	
		831.5 (26865)	24.91	24.10	23.06	
		820 (26750)	24.90	24.06	23.07	
25RB-H igh (25)		844 (26990)	23.82	22.78	21.78	
		831.5 (26865)	23.91	22.88	21.86	
		820 (26750)	23.95	22.94	21.91	
25RB-M iddle (12)		844 (26990)	23.93	22.85	21.85	
		831.5 (26865)	23.90	22.90	21.87	
		820 (26750)	23.95	22.95	21.93	
25RB-Low (0)		844 (26990)	24.00	22.96	21.95	
		831.5 (26865)	23.96	22.94	21.93	
		820 (26750)	23.91	22.90	21.89	
50RB (0)		844 (26990)	23.93	22.91	21.89	
		831.5 (26865)	23.96	22.92	21.91	
		820 (26750)	23.94	22.91	21.90	

15M H z	1RB-H igh (74)	841.5 (26965)	24.78	23.99	22.83
		831.5 (26865)	24.79	24.01	22.88
		822.5 (26775)	24.83	24.16	22.98
	1RB-M iddle (37)	841.5 (26965)	24.79	24.09	23.02
		831.5 (26865)	24.81	24.11	22.95
		822.5 (26775)	24.82	24.03	22.92
	1RB-Low (0)	841.5 (26965)	24.83	24.11	22.99
		831.5 (26865)	24.84	24.09	23.04
		822.5 (26775)	24.86	24.06	22.99
	36RB-H igh (38)	841.5 (26965)	23.83	22.80	21.79
		831.5 (26865)	23.91	22.86	21.86
		822.5 (26775)	23.89	22.83	21.88
	36RB-M iddle (19)	841.5 (26965)	23.92	22.90	21.91
		831.5 (26865)	23.90	22.84	21.85
		822.5 (26775)	23.96	22.92	21.93
	36RB-Low (0)	841.5 (26965)	23.93	22.93	21.92
		831.5 (26865)	23.96	22.92	21.94
		822.5 (26775)	23.97	22.91	21.91
	75RB (0)	841.5 (26965)	23.90	22.88	21.85
		831.5 (26865)	23.93	22.91	21.88
		822.5 (26775)	23.95	22.88	21.85

LTE Band41 PC3 Power Level A1

5M Hz	1RB-H igh (24)	2687.5 (41565)	23.83	22.88	21.48
		2640.3 (41093)	23.64	22.70	21.32
		2593 (40620)	23.78	22.86	21.44
		2545.8 (40148)	23.54	22.60	21.22
		2498.5 (39675)	23.62	22.67	21.31
	1RB-M iddle (12)	2687.5 (41565)	23.92	22.91	21.62
		2640.3 (41093)	23.86	22.96	21.45
		2593 (40620)	23.92	22.93	21.59
		2545.8 (40148)	23.69	22.76	21.38
		2498.5 (39675)	23.78	22.88	21.50
	1RB-Low (0)	2687.5 (41565)	23.81	22.91	21.48
		2640.3 (41093)	23.69	22.75	21.41
		2593 (40620)	23.84	22.92	21.55
		2545.8 (40148)	23.52	22.61	21.22
		2498.5 (39675)	23.67	22.74	21.35
	12RB-H igh (13)	2687.5 (41565)	22.82	21.76	20.85
		2640.3 (41093)	22.62	21.57	20.63
		2593 (40620)	22.80	21.75	20.80
		2545.8 (40148)	22.54	21.50	20.55
		2498.5 (39675)	22.65	21.56	20.63
	12RB-M iddle (6)	2687.5 (41565)	22.86	21.79	20.87
		2640.3 (41093)	22.67	21.61	20.71
		2593 (40620)	22.85	21.79	20.86
		2545.8 (40148)	22.59	21.54	20.57
		2498.5 (39675)	22.67	21.59	20.67
	12RB-Low (0)	2687.5 (41565)	22.83	21.77	20.85
		2640.3 (41093)	22.65	21.57	20.65
		2593 (40620)	22.83	21.75	20.83
2545.8 (40148)		22.50	21.45	20.51	
2498.5 (39675)		22.61	21.54	20.60	
25RB (0)	2687.5 (41565)	22.82	21.85	20.87	
	2640.3 (41093)	22.62	21.65	20.68	
	2593 (40620)	22.83	21.84	20.86	
	2545.8 (40148)	22.52	21.54	20.56	
	2498.5 (39675)	22.60	21.61	20.62	

10M Hz	1RB-H igh (49)	2685 (41540)	23.80	22.89	21.48
		2639 (41080)	23.68	22.70	21.28
		2593 (40620)	23.80	22.87	21.46
		2547 (40160)	23.55	22.65	21.25
		2501 (39700)	23.62	22.68	21.26
	1RB-M iddle (24)	2685 (41540)	23.82	22.92	21.56
		2639 (41080)	23.69	22.80	21.40
		2593 (40620)	23.88	22.97	21.55
		2547 (40160)	23.60	22.71	21.33
		2501 (39700)	23.69	22.77	21.37
	1RB-Low (0)	2685 (41540)	23.86	22.92	21.55
		2639 (41080)	23.69	22.80	21.35
		2593 (40620)	23.88	22.94	21.51
		2547 (40160)	23.53	22.65	21.24
		2501 (39700)	23.67	22.75	21.34
	25RB-H igh (25)	2685 (41540)	22.81	21.83	20.84
		2639 (41080)	22.63	21.61	20.68
		2593 (40620)	22.82	21.84	20.83
		2547 (40160)	22.58	21.56	20.61
		2501 (39700)	22.58	21.56	20.60
	25RB-M iddle (12)	2685 (41540)	22.88	21.87	20.91
		2639 (41080)	22.66	21.64	20.71
		2593 (40620)	22.84	21.83	20.85
		2547 (40160)	22.61	21.59	20.62
		2501 (39700)	22.63	21.62	20.64
25RB-Low (0)	2685 (41540)	22.88	21.89	20.93	
	2639 (41080)	22.71	21.70	20.74	
	2593 (40620)	22.85	21.88	20.92	
	2547 (40160)	22.59	21.57	20.60	
	2501 (39700)	22.66	21.61	20.64	
50RB (0)	2685 (41540)	22.83	21.89	20.83	
	2639 (41080)	22.67	21.68	20.67	
	2593 (40620)	22.82	21.85	20.81	
	2547 (40160)	22.55	21.57	20.56	
	2501 (39700)	22.62	21.63	20.60	

15M Hz	1RB-H igh (74)	2682.5 (41515)	23.76	22.88	21.42
		2637.8 (41068)	23.65	22.70	21.24
		2593 (40620)	23.71	22.78	21.37
		2548.3 (40173)	23.56	22.65	21.24
		2503.5 (39725)	23.53	22.65	21.18
	1RB-M iddle (37)	2682.5 (41515)	23.82	22.90	21.53
		2637.8 (41068)	23.64	22.77	21.32
		2593 (40620)	23.81	22.91	21.50
		2548.3 (40173)	23.56	22.63	21.24
		2503.5 (39725)	23.64	22.71	21.34
	1RB-Low (0)	2682.5 (41515)	23.81	22.88	21.52
		2637.8 (41068)	23.71	22.77	21.39
		2593 (40620)	23.89	22.91	21.55
		2548.3 (40173)	23.53	22.64	21.20
		2503.5 (39725)	23.66	22.72	21.39
	36RB-H igh (38)	2682.5 (41515)	22.80	21.77	20.76
		2637.8 (41068)	22.62	21.56	20.60
		2593 (40620)	22.79	21.73	20.72
		2548.3 (40173)	22.58	21.51	20.51
		2503.5 (39725)	22.56	21.49	20.52
36RB-M iddle (19)	2682.5 (41515)	22.86	21.78	20.76	
	2637.8 (41068)	22.69	21.63	20.59	
	2593 (40620)	22.84	21.79	20.79	
	2548.3 (40173)	22.59	21.52	20.52	
	2503.5 (39725)	22.61	21.55	20.53	
36RB-Low (0)	2682.5 (41515)	22.85	21.81	20.81	
	2637.8 (41068)	22.69	21.63	20.64	
	2593 (40620)	22.85	21.78	20.81	
	2548.3 (40173)	22.56	21.47	20.48	
	2503.5 (39725)	22.67	21.58	20.58	
75RB (0)	2682.5 (41515)	22.81	21.83	20.81	
	2637.8 (41068)	22.66	21.66	20.66	
	2593 (40620)	22.81	21.83	20.77	
	2548.3 (40173)	22.53	21.52	20.52	
	2503.5 (39725)	22.57	21.57	20.56	

20M Hz	1RB-H igh (99)	2680 (41490)	23.76	22.84	21.41
		2636.5 (41055)	23.62	22.71	21.30
		2593 (40620)	23.74	22.81	21.36
		2549.5 (40185)	23.60	22.66	21.28
		2506 (39750)	23.49	22.61	21.23
	1RB-M iddle (50)	2680 (41490)	23.92	22.91	21.56
		2636.5 (41055)	23.79	22.77	21.33
		2593 (40620)	23.89	22.99	21.56
		2549.5 (40185)	23.64	22.73	21.30
		2506 (39750)	23.63	22.71	21.33
	1RB-Low (0)	2680 (41490)	23.90	22.98	21.44
		2636.5 (41055)	23.76	22.84	21.43
		2593 (40620)	23.87	22.95	21.54
		2549.5 (40185)	23.53	22.61	21.22
		2506 (39750)	23.68	22.79	21.32
	50RB-H igh (50)	2680 (41490)	22.74	21.75	20.74
		2636.5 (41055)	22.59	21.63	20.60
		2593 (40620)	22.76	21.79	20.75
		2549.5 (40185)	22.54	21.52	20.53
		2506 (39750)	22.51	21.55	20.52
50RB-M iddle (25)	2680 (41490)	22.86	21.86	20.79	
	2636.5 (41055)	22.71	21.69	20.69	
	2593 (40620)	22.79	21.81	20.79	
	2549.5 (40185)	22.59	21.59	20.56	
	2506 (39750)	22.66	21.60	20.58	
50RB-Low (0)	2680 (41490)	22.84	21.88	20.80	
	2636.5 (41055)	22.69	21.71	20.72	
	2593 (40620)	22.74	21.90	20.87	
	2549.5 (40185)	22.53	21.55	20.52	
	2506 (39750)	22.64	21.66	20.62	
100RB (0)	2680 (41490)	22.84	21.82	20.78	
	2636.5 (41055)	22.69	21.70	20.67	
	2593 (40620)	22.82	21.85	20.81	
	2549.5 (40185)	22.52	21.54	20.52	
	2506 (39750)	22.63	21.65	20.61	

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5M Hz	1RB-H igh (24)	2687.5 (41565)	21.88	21.98	21.57
		2640.3 (41093)	21.72	21.83	21.41
		2593 (40620)	21.88	21.96	21.57
		2545.8 (40148)	21.64	21.77	21.42
		2498.5 (39675)	21.71	21.85	21.43
	1RB-M iddle (12)	2687.5 (41565)	21.99	21.93	21.72
		2640.3 (41093)	21.76	21.77	21.55
		2593 (40620)	21.93	21.92	21.75
		2545.8 (40148)	21.83	21.83	21.52
		2498.5 (39675)	21.97	21.89	21.60
	1RB-Low (0)	2687.5 (41565)	21.93	21.85	21.60
		2640.3 (41093)	21.77	21.74	21.49
		2593 (40620)	21.92	21.92	21.63
		2545.8 (40148)	21.71	21.78	21.41
		2498.5 (39675)	21.73	21.86	21.43
	12RB-H igh (13)	2687.5 (41565)	21.91	21.86	20.95
		2640.3 (41093)	21.70	21.66	20.74
		2593 (40620)	21.89	21.87	20.90
		2545.8 (40148)	21.70	21.64	20.72
		2498.5 (39675)	21.74	21.67	20.75
	12RB-M iddle (6)	2687.5 (41565)	21.94	21.90	20.97
		2640.3 (41093)	21.77	21.72	20.82
		2593 (40620)	21.94	21.90	20.99
		2545.8 (40148)	21.72	21.67	20.76
		2498.5 (39675)	21.76	21.68	20.77
	12RB-Low (0)	2687.5 (41565)	21.92	21.88	20.95
		2640.3 (41093)	21.73	21.68	20.77
		2593 (40620)	21.91	21.86	20.92
2545.8 (40148)		21.65	21.58	20.68	
2498.5 (39675)		21.71	21.65	20.71	
25RB (0)	2687.5 (41565)	21.92	21.95	20.95	
	2640.3 (41093)	21.73	21.76	20.80	
	2593 (40620)	21.92	21.93	20.96	
	2545.8 (40148)	21.66	21.66	20.72	
	2498.5 (39675)	21.73	21.73	20.75	

10M Hz	1RB-H igh (49)	2685 (41540)	21.88	21.94	21.54
		2639 (41080)	21.75	21.79	21.44
		2593 (40620)	21.89	21.95	21.54
		2547 (40160)	21.66	21.85	21.41
		2501 (39700)	21.69	21.79	21.37
	1RB-M iddle (24)	2685 (41540)	21.98	21.88	21.67
		2639 (41080)	21.83	21.73	21.50
		2593 (40620)	21.96	21.86	21.66
		2547 (40160)	21.75	21.65	21.45
		2501 (39700)	21.71	21.61	21.49
	1RB-Low (0)	2685 (41540)	21.96	21.86	21.61
		2639 (41080)	21.76	21.66	21.46
		2593 (40620)	21.91	21.81	21.61
		2547 (40160)	21.67	21.79	21.39
		2501 (39700)	21.80	21.91	21.51
	25RB-H igh (25)	2685 (41540)	21.88	21.90	20.95
		2639 (41080)	21.72	21.72	20.80
		2593 (40620)	21.90	21.90	20.94
		2547 (40160)	21.73	21.72	20.74
		2501 (39700)	21.66	21.66	20.69
	25RB-M iddle (12)	2685 (41540)	21.95	21.97	21.01
		2639 (41080)	21.76	21.75	20.82
		2593 (40620)	21.92	21.95	20.97
		2547 (40160)	21.70	21.73	20.78
		2501 (39700)	21.73	21.74	20.73
25RB-Low (0)	2685 (41540)	21.96	22.00	21.01	
	2639 (41080)	21.81	21.79	20.86	
	2593 (40620)	21.96	21.97	21.01	
	2547 (40160)	21.69	21.69	20.73	
	2501 (39700)	21.73	21.72	20.77	
50RB (0)	2685 (41540)	21.91	21.97	20.91	
	2639 (41080)	21.75	21.78	20.78	
	2593 (40620)	21.90	21.95	20.93	
	2547 (40160)	21.68	21.71	20.68	
	2501 (39700)	21.70	21.74	20.70	

15M Hz	1RB-H igh (74)	2682.5 (41515)	21.80	21.89	21.56
		2637.8 (41068)	21.69	21.80	21.44
		2593 (40620)	21.80	21.86	21.47
		2548.3 (40173)	21.71	21.81	21.44
		2503.5 (39725)	21.64	21.75	21.41
	1RB-M iddle (37)	2682.5 (41515)	21.89	21.98	21.62
		2637.8 (41068)	21.69	21.78	21.44
		2593 (40620)	21.89	21.98	21.61
		2548.3 (40173)	21.68	21.77	21.38
		2503.5 (39725)	21.72	21.77	21.39
	1RB-Low (0)	2682.5 (41515)	21.91	21.98	21.67
		2637.8 (41068)	21.78	21.86	21.47
		2593 (40620)	21.96	21.95	21.64
		2548.3 (40173)	21.66	21.76	21.41
		2503.5 (39725)	21.76	21.86	21.50
	36RB-H igh (38)	2682.5 (41515)	21.87	21.87	20.87
		2637.8 (41068)	21.68	21.67	20.69
		2593 (40620)	21.85	21.83	20.82
		2548.3 (40173)	21.69	21.65	20.64
		2503.5 (39725)	21.67	21.62	20.60
	36RB-M iddle (19)	2682.5 (41515)	21.91	21.89	20.88
		2637.8 (41068)	21.73	21.70	20.70
		2593 (40620)	21.93	21.85	20.89
		2548.3 (40173)	21.69	21.64	20.67
		2503.5 (39725)	21.68	21.63	20.63
36RB-Low (0)	2682.5 (41515)	21.93	21.91	20.90	
	2637.8 (41068)	21.75	21.73	20.72	
	2593 (40620)	21.95	21.88	20.91	
	2548.3 (40173)	21.66	21.62	20.66	
	2503.5 (39725)	21.72	21.69	20.68	
75RB (0)	2682.5 (41515)	21.89	21.91	20.90	
	2637.8 (41068)	21.72	21.75	20.75	
	2593 (40620)	21.90	21.91	20.89	
	2548.3 (40173)	21.63	21.67	20.66	
	2503.5 (39725)	21.67	21.68	20.67	

20M Hz	1RB-High (99)	2680 (41490)	21.79	21.92	21.50
		2636.5 (41055)	21.71	21.77	21.38
		2593 (40620)	21.81	21.86	21.46
		2549.5 (40185)	21.71	21.81	21.43
		2506 (39750)	21.64	21.73	21.39
	1RB-Middle (50)	2680 (41490)	21.84	21.95	21.64
		2636.5 (41055)	21.87	21.79	21.47
		2593 (40620)	21.85	21.94	21.65
		2549.5 (40185)	21.78	21.78	21.44
		2506 (39750)	21.71	21.73	21.41
	1RB-Low (0)	2680 (41490)	21.82	21.91	21.60
		2636.5 (41055)	21.82	21.83	21.52
		2593 (40620)	21.84	21.97	21.66
		2549.5 (40185)	21.65	21.84	21.41
		2506 (39750)	21.70	21.91	21.47
	50RB-High (50)	2680 (41490)	21.79	21.86	20.80
		2636.5 (41055)	21.67	21.72	20.71
		2593 (40620)	21.85	21.87	20.86
		2549.5 (40185)	21.64	21.68	20.65
		2506 (39750)	21.62	21.67	20.64
	50RB-Middle (25)	2680 (41490)	21.87	22.00	20.89
		2636.5 (41055)	21.89	21.78	20.77
		2593 (40620)	21.88	21.92	20.89
		2549.5 (40185)	21.70	21.73	20.72
		2506 (39750)	21.68	21.71	20.69
50RB-Low (0)	2680 (41490)	21.85	21.97	20.92	
	2636.5 (41055)	21.77	21.81	20.80	
	2593 (40620)	21.64	22.00	20.97	
	2549.5 (40185)	21.66	21.72	20.67	
	2506 (39750)	21.63	21.77	20.72	
100RB (0)	2680 (41490)	21.82	21.92	20.90	
	2636.5 (41055)	21.84	21.80	20.78	
	2593 (40620)	21.82	21.96	20.94	
	2549.5 (40185)	21.67	21.68	20.66	
	2506 (39750)	21.71	21.75	20.72	

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5MHz	1RB-High (24)	2687.5 (41565)	22.18	22.22	21.35
		2640.3(41093)	22.15	22.21	21.32
		2593 (40620)	22.31	22.38	21.49
		2545.8(40148)	22.09	22.14	21.33
		2498.5 (39675)	22.21	22.25	21.40
	1RB-Middle (12)	2687.5 (41565)	22.34	22.37	21.48
		2640.3(41093)	22.21	22.30	21.40
		2593 (40620)	22.46	22.42	21.63
		2545.8(40148)	22.19	22.28	21.36
		2498.5 (39675)	22.35	22.39	21.49
	1RB-Low (0)	2687.5 (41565)	22.21	22.33	21.43
		2640.3(41093)	22.18	22.24	21.35
		2593 (40620)	22.37	22.46	21.55
		2545.8(40148)	22.08	22.16	21.34
		2498.5 (39675)	22.21	22.30	21.42
	12RB-High (13)	2687.5 (41565)	22.17	21.61	20.67
		2640.3(41093)	22.10	21.56	20.60
		2593 (40620)	22.31	21.75	20.78
		2545.8(40148)	22.04	21.51	20.55
		2498.5 (39675)	22.15	21.60	20.65
	12RB-Middle (6)	2687.5 (41565)	22.21	21.64	20.72
		2640.3(41093)	22.15	21.59	20.65
		2593 (40620)	22.34	21.81	20.84
		2545.8(40148)	22.11	21.54	20.59
		2498.5 (39675)	22.16	21.61	20.66
	12RB-Low (0)	2687.5 (41565)	22.23	21.66	20.70
		2640.3(41093)	22.13	21.58	20.63
		2593 (40620)	22.36	21.77	20.81
		2545.8(40148)	22.03	21.50	20.53
		2498.5 (39675)	22.16	21.57	20.61
	25RB (0)	2687.5 (41565)	22.20	21.71	20.73
		2640.3(41093)	22.14	21.64	20.65
2593 (40620)		22.34	21.86	20.85	
2545.8(40148)		22.04	21.59	20.57	
2498.5 (39675)		22.16	21.66	20.66	

10MHz	1RB-High (49)	2685 (41540)	22.14	22.28	21.46
		2639(41080)	22.13	22.23	21.28
		2593 (40620)	22.27	22.39	21.46
		2547(40160)	22.12	22.20	21.29
		2501 (39700)	22.20	22.23	21.36
	1RB-Middle (24)	2685 (41540)	22.33	22.41	21.52
		2639(41080)	22.26	22.33	21.44
		2593 (40620)	22.36	22.43	21.62
		2547(40160)	22.18	22.27	21.40
		2501 (39700)	22.28	22.39	21.47
	1RB-Low (0)	2685 (41540)	22.35	22.35	21.50
		2639(41080)	22.25	22.31	21.42
		2593 (40620)	22.44	22.43	21.64
		2547(40160)	22.13	22.21	21.34
		2501 (39700)	22.22	22.36	21.50
	25RB-High (25)	2685 (41540)	22.25	21.74	20.78
		2639(41080)	22.17	21.68	20.70
		2593 (40620)	22.36	21.88	20.87
		2547(40160)	22.13	21.66	20.65
		2501 (39700)	22.19	21.68	20.70
	25RB-Middle (12)	2685 (41540)	22.25	21.78	20.81
		2639(41080)	22.20	21.70	20.71
		2593 (40620)	22.40	21.89	20.90
		2547(40160)	22.17	21.66	20.66
		2501 (39700)	22.19	21.71	20.73
	25RB-Low (0)	2685 (41540)	22.34	21.83	20.85
		2639(41080)	22.22	21.74	20.74
		2593 (40620)	22.43	21.95	20.95
2547(40160)		22.14	21.68	20.67	
2501 (39700)		22.19	21.70	20.72	
50RB (0)	2685 (41540)	22.28	21.81	20.78	
	2639(41080)	22.18	21.73	20.67	
	2593 (40620)	22.39	21.92	20.88	
	2547(40160)	22.11	21.66	20.61	
	2501 (39700)	22.18	21.73	20.69	

15MHz	1RB-High (74)	2682.5 (41515)	22.16	22.19	21.31
		2637.8(41068)	21.98	22.14	21.23
		2593 (40620)	22.18	22.38	21.40
		2548.3(40173)	22.09	22.19	21.28
		2503.5 (39725)	22.09	22.19	21.35
	1RB-Middle (37)	2682.5 (41515)	22.22	22.32	21.46
		2637.8(41068)	22.16	22.24	21.40
		2593 (40620)	22.34	22.46	21.53
		2548.3(40173)	22.10	22.19	21.33
		2503.5 (39725)	22.16	22.29	21.34
	1RB-Low (0)	2682.5 (41515)	22.25	22.32	21.46
		2637.8(41068)	22.26	22.31	21.49
		2593 (40620)	22.38	22.49	21.63
		2548.3(40173)	22.04	22.20	21.30
		2503.5 (39725)	22.15	22.30	21.45
	36RB-High (38)	2682.5 (41515)	22.18	21.68	20.70
		2637.8(41068)	22.13	21.60	20.59
		2593 (40620)	22.30	21.77	20.79
		2548.3(40173)	22.12	21.59	20.58
		2503.5 (39725)	22.12	21.61	20.59
	36RB-Middle (19)	2682.5 (41515)	22.28	21.73	20.73
		2637.8(41068)	22.20	21.67	20.66
		2593 (40620)	22.37	21.84	20.84
		2548.3(40173)	22.15	21.60	20.60
		2503.5 (39725)	22.18	21.61	20.60
	36RB-Low (0)	2682.5 (41515)	22.31	21.77	20.76
		2637.8(41068)	22.21	21.67	20.67
		2593 (40620)	22.44	21.87	20.88
2548.3(40173)		22.12	21.58	20.56	
2503.5 (39725)		22.21	21.65	20.65	
75RB (0)	2682.5 (41515)	22.23	21.75	20.73	
	2637.8(41068)	22.17	21.70	20.67	
	2593 (40620)	22.36	21.89	20.85	
	2548.3(40173)	22.09	21.61	20.58	
	2503.5 (39725)	22.14	21.67	20.62	

20MHz	1RB-High (99)	2680 (41490)	22.08	22.19	21.29
		2636.5(41055)	22.06	22.08	21.23
		2593 (40620)	22.19	22.28	21.41
		2549.5(40185)	22.05	22.15	21.28
		2506 (39750)	22.06	22.19	21.24
	1RB-Middle (50)	2680 (41490)	22.34	22.42	21.48
		2636.5(41055)	22.43	22.32	21.43
		2593 (40620)	22.37	22.43	21.63
		2549.5(40185)	22.18	22.30	21.36
		2506 (39750)	22.22	22.32	21.45
	1RB-Low (0)	2680 (41490)	22.22	22.36	21.43
		2636.5(41055)	22.17	22.30	21.43
		2593 (40620)	22.37	22.49	21.54
		2549.5(40185)	22.11	22.15	21.26
		2506 (39750)	22.18	22.23	21.44
	50RB-High (50)	2680 (41490)	22.20	21.70	20.67
		2636.5(41055)	22.09	21.63	20.57
		2593 (40620)	22.32	21.88	20.80
		2549.5(40185)	22.05	21.58	20.54
		2506 (39750)	22.08	21.64	20.61
	50RB-Middle (25)	2680 (41490)	22.26	21.80	20.76
		2636.5(41055)	22.38	21.72	20.66
		2593 (40620)	22.35	21.89	20.87
		2549.5(40185)	22.12	21.66	20.61
		2506 (39750)	22.19	21.71	20.67
	50RB-Low (0)	2680 (41490)	22.23	21.83	20.80
		2636.5(41055)	22.35	21.79	20.73
		2593 (40620)	22.32	21.93	20.87
2549.5(40185)		22.09	21.67	20.60	
2506 (39750)		22.17	21.72	20.68	
100RB (0)	2680 (41490)	22.28	21.79	20.75	
	2636.5(41055)	22.37	21.69	20.66	
	2593 (40620)	22.36	21.89	20.85	
	2549.5(40185)	22.07	21.62	20.58	
	2506 (39750)	22.17	21.72	20.65	

LTE Band41 PC2 Power Level A1

5M Hz	1RB-H igh (24)	2687.5 (41565)	26.89	25.92	24.69
		2640.3 (41093)	26.65	25.62	24.49
		2593 (40620)	26.80	25.78	24.65
		2545.8 (40148)	26.58	25.61	24.48
		2498.5 (39675)	26.65	25.62	24.52
	1RB-M iddle (12)	2687.5 (41565)	26.92	25.90	24.74
		2640.3 (41093)	26.73	25.72	24.57
		2593 (40620)	26.92	25.87	24.76
		2545.8 (40148)	26.63	25.65	24.51
		2498.5 (39675)	26.76	25.66	24.59
	1RB-Low (0)	2687.5 (41565)	26.84	25.83	24.70
		2640.3 (41093)	26.68	25.65	24.53
		2593 (40620)	26.85	25.85	24.70
		2545.8 (40148)	26.55	25.57	24.44
		2498.5 (39675)	26.66	25.63	24.53
	12RB-H igh (13)	2687.5 (41565)	25.91	24.76	23.85
		2640.3 (41093)	25.73	24.61	23.63
		2593 (40620)	25.88	24.75	23.80
		2545.8 (40148)	25.64	24.51	23.55
		2498.5 (39675)	25.73	24.61	23.64
	12RB-M iddle (6)	2687.5 (41565)	25.95	24.80	23.87
		2640.3 (41093)	25.77	24.63	23.67
		2593 (40620)	25.94	24.78	23.87
		2545.8 (40148)	25.65	24.54	23.58
		2498.5 (39675)	25.74	24.62	23.65
	12RB-Low (0)	2687.5 (41565)	25.94	24.78	23.87
		2640.3 (41093)	25.73	24.61	23.65
		2593 (40620)	25.92	24.78	23.83
		2545.8 (40148)	25.60	24.48	23.51
		2498.5 (39675)	25.70	24.55	23.65
25RB (0)	2687.5 (41565)	25.92	24.78	23.87	
	2640.3 (41093)	25.74	24.61	23.68	
	2593 (40620)	25.91	24.78	23.90	
	2545.8 (40148)	25.59	24.51	23.54	
	2498.5 (39675)	25.68	24.61	23.65	

10M Hz	1RB-H igh (49)	2685 (41540)	26.83	25.84	24.70
		2639 (41080)	26.67	25.65	24.49
		2593 (40620)	26.79	25.78	24.62
		2547 (40160)	26.61	25.62	24.49
		2501 (39700)	26.62	25.61	24.47
	1RB-M iddle (24)	2685 (41540)	26.92	25.92	24.76
		2639 (41080)	26.74	25.72	24.57
		2593 (40620)	26.92	25.91	24.74
		2547 (40160)	26.66	25.69	24.54
		2501 (39700)	26.70	25.69	24.57
	1RB-Low (0)	2685 (41540)	26.89	25.89	24.73
		2639 (41080)	26.73	25.68	24.53
		2593 (40620)	26.90	25.87	24.73
		2547 (40160)	26.59	25.61	24.43
		2501 (39700)	26.68	25.66	24.54
	25RB-H igh (25)	2685 (41540)	25.93	24.75	23.87
		2639 (41080)	25.73	24.59	23.67
		2593 (40620)	25.90	24.77	23.86
		2547 (40160)	25.66	24.57	23.61
		2501 (39700)	25.68	24.53	23.63
	25RB-M iddle (12)	2685 (41540)	25.99	24.79	23.92
		2639 (41080)	25.77	24.64	23.70
		2593 (40620)	25.94	24.79	23.89
		2547 (40160)	25.66	24.57	23.61
		2501 (39700)	25.71	24.63	23.67
25RB-Low (0)	2685 (41540)	25.95	24.82	23.95	
	2639 (41080)	25.79	24.67	23.73	
	2593 (40620)	25.94	24.81	23.88	
	2547 (40160)	25.66	24.54	23.57	
	2501 (39700)	25.70	24.58	23.66	
50RB (0)	2685 (41540)	25.93	24.78	23.84	
	2639 (41080)	25.77	24.68	23.65	
	2593 (40620)	25.92	24.78	23.81	
	2547 (40160)	25.64	24.55	23.51	
	2501 (39700)	25.70	24.64	23.61	

15M Hz	1RB-High (74)	2682.5 (41515)	26.75	25.76	24.61
		2637.8 (41068)	26.58	25.59	24.45
		2593 (40620)	26.70	25.70	24.57
		2548.3 (40173)	26.59	25.61	24.43
		2503.5 (39725)	26.54	25.55	24.42
	1RB-Middle (37)	2682.5 (41515)	26.89	25.87	24.68
		2637.8 (41068)	26.61	25.62	24.47
		2593 (40620)	26.81	25.80	24.66
		2548.3 (40173)	26.56	25.61	24.46
		2503.5 (39725)	26.60	25.58	24.49
	1RB-Low (0)	2682.5 (41515)	26.83	25.86	24.67
		2637.8 (41068)	26.66	25.68	24.53
		2593 (40620)	26.85	25.86	24.73
		2548.3 (40173)	26.54	25.59	24.42
		2503.5 (39725)	26.63	25.61	24.51
	36RB-High (38)	2682.5 (41515)	25.87	24.69	23.74
		2637.8 (41068)	25.69	24.54	23.54
		2593 (40620)	25.84	24.66	23.72
		2548.3 (40173)	25.62	24.46	23.48
		2503.5 (39725)	25.64	24.46	23.46
	36RB-Middle (19)	2682.5 (41515)	25.92	24.71	23.78
		2637.8 (41068)	25.76	24.57	23.61
		2593 (40620)	25.90	24.72	23.77
		2548.3 (40173)	25.64	24.47	23.49
		2503.5 (39725)	25.68	24.51	23.50
	36RB-Low (0)	2682.5 (41515)	25.91	24.74	23.81
		2637.8 (41068)	25.74	24.58	23.63
		2593 (40620)	25.89	24.73	23.79
		2548.3 (40173)	25.62	24.44	23.47
		2503.5 (39725)	25.71	24.55	23.53
75RB (0)	2682.5 (41515)	25.88	24.76	23.79	
	2637.8 (41068)	25.74	24.63	23.64	
	2593 (40620)	25.91	24.77	23.81	
	2548.3 (40173)	25.61	24.48	23.47	
	2503.5 (39725)	25.66	24.57	23.53	

20M Hz	1RB-High (9)	2680 (41490)	26.74	25.77	24.61
		2636.5 (41055)	26.57	25.60	24.44
		2593 (40620)	26.69	25.68	24.54
		2549.5 (40185)	26.59	25.64	24.44
		2506 (39750)	26.51	25.55	24.41
	1RB-Middle (50)	2680 (41490)	26.85	25.89	24.67
		2636.5 (41055)	26.67	25.68	24.54
		2593 (40620)	26.87	25.87	24.73
		2549.5 (40185)	26.63	25.68	24.51
		2506 (39750)	26.63	25.64	24.50
	1RB-Low (0)	2680 (41490)	26.86	25.89	24.69
		2636.5 (41055)	26.71	25.71	24.55
		2593 (40620)	26.88	25.90	24.72
		2549.5 (40185)	26.65	25.58	24.43
		2506 (39750)	26.67	25.57	24.49
	50RB-High (50)	2680 (41490)	25.81	24.70	23.69
		2636.5 (41055)	25.64	24.59	23.56
		2593 (40620)	25.83	24.71	23.72
		2549.5 (40185)	25.60	24.51	23.46
		2506 (39750)	25.61	24.52	23.47
50RB-Middle (25)	2680 (41490)	25.89	24.78	23.77	
	2636.5 (41055)	25.73	24.67	23.64	
	2593 (40620)	25.87	24.76	23.77	
	2549.5 (40185)	25.64	24.56	23.53	
	2506 (39750)	25.67	24.59	23.53	
50RB-Low (0)	2680 (41490)	25.90	24.80	23.80	
	2636.5 (41055)	25.74	24.66	23.66	
	2593 (40620)	25.92	24.80	23.84	
	2549.5 (40185)	25.67	24.53	23.48	
	2506 (39750)	25.71	24.63	23.58	
100RB (0)	2680 (41490)	25.88	24.75	23.79	
	2636.5 (41055)	25.74	24.64	23.63	
	2593 (40620)	25.91	24.77	23.79	
	2549.5 (40185)	25.62	24.53	23.46	
	2506 (39750)	25.68	24.57	23.54	

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5M H+A4F38z	1RB-High (24)	2687.5 (41565)	23.39	23.43	23.39
		2640.3 (41093)	23.24	23.23	23.20
		2593 (40620)	23.38	23.39	23.36
		2545.8 (40148)	23.19	23.20	23.17
		2498.5 (39675)	23.23	23.22	23.19
	1RB-Middle (12)	2687.5 (41565)	23.44	23.47	23.41
		2640.3 (41093)	23.29	23.26	23.20
		2593 (40620)	23.47	23.47	23.44
		2545.8 (40148)	23.24	23.27	23.22
		2498.5 (39675)	23.31	23.29	23.25
	1RB-Low (0)	2687.5 (41565)	23.40	23.41	23.37
		2640.3 (41093)	23.26	23.25	23.22
		2593 (40620)	23.42	23.44	23.41
		2545.8 (40148)	23.15	23.38	23.14
		2498.5 (39675)	23.25	23.44	23.21
	12RB-High (13)	2687.5 (41565)	23.40	23.40	23.44
		2640.3 (41093)	23.21	23.22	23.25
		2593 (40620)	23.37	23.39	23.44
		2545.8 (40148)	23.16	23.17	23.19
		2498.5 (39675)	23.24	23.23	23.26
	12RB-Middle (6)	2687.5 (41565)	23.42	23.45	23.49
		2640.3 (41093)	23.24	23.25	23.28
		2593 (40620)	23.41	23.45	23.47
		2545.8 (40148)	23.21	23.18	23.23
		2498.5 (39675)	23.24	23.25	23.26
	12RB-Low (0)	2687.5 (41565)	23.41	23.43	23.47
		2640.3 (41093)	23.22	23.22	23.25
		2593 (40620)	23.40	23.43	23.47
		2545.8 (40148)	23.14	23.14	23.16
		2498.5 (39675)	23.19	23.21	23.25
	25RB (0)	2687.5 (41565)	23.38	23.44	23.47
		2640.3 (41093)	23.22	23.24	23.28
2593 (40620)		23.44	23.46	23.49	
2545.8 (40148)		23.14	23.17	23.18	
2498.5 (39675)		23.20	23.24	23.27	

10M Hz	1RB-H igh (49)	2685 (41540)	23.42	23.42	23.34
		2639 (41080)	23.23	23.26	23.19
		2593 (40620)	23.37	23.41	23.33
		2547 (40160)	23.24	23.25	23.18
		2501 (39700)	23.22	23.23	23.18
	1RB-M iddle (24)	2685 (41540)	23.48	23.42	23.45
		2639 (41080)	23.35	23.20	23.27
		2593 (40620)	23.49	23.41	23.46
		2547 (40160)	23.27	23.30	23.22
		2501 (39700)	23.33	23.29	23.24
	1RB-Low (0)	2685 (41540)	23.44	23.49	23.40
		2639 (41080)	23.30	23.30	23.23
		2593 (40620)	23.47	23.48	23.43
		2547 (40160)	23.22	23.43	23.16
		2501 (39700)	23.26	23.47	23.23
	25RB-H igh (25)	2685 (41540)	23.40	23.44	23.48
		2639 (41080)	23.25	23.23	23.27
		2593 (40620)	23.41	23.45	23.49
		2547 (40160)	23.18	23.20	23.24
		2501 (39700)	23.18	23.19	23.23
	25RB-M iddle (12)	2685 (41540)	23.46	23.49	23.44
		2639 (41080)	23.26	23.27	23.23
		2593 (40620)	23.43	23.47	23.43
		2547 (40160)	23.21	23.22	23.16
		2501 (39700)	23.23	23.24	23.18
25RB-Low (0)	2685 (41540)	23.46	23.49	23.42	
	2639 (41080)	23.29	23.30	23.24	
	2593 (40620)	23.43	23.47	23.41	
	2547 (40160)	23.16	23.21	23.24	
	2501 (39700)	23.22	23.23	23.26	
50RB (0)	2685 (41540)	23.41	23.48	23.44	
	2639 (41080)	23.26	23.31	23.28	
	2593 (40620)	23.39	23.47	23.44	
	2547 (40160)	23.16	23.19	23.17	
	2501 (39700)	23.21	23.22	23.22	

15M Hz	1RB-High (74)	2682.5 (41515)	23.33	23.49	23.31
		2637.8 (41068)	23.20	23.30	23.15
		2593 (40620)	23.31	23.45	23.27
		2548.3 (40173)	23.25	23.33	23.19
		2503.5 (39725)	23.15	23.24	23.09
	1RB-Middle (37)	2682.5 (41515)	23.39	23.48	23.35
		2637.8 (41068)	23.22	23.22	23.17
		2593 (40620)	23.41	23.43	23.39
		2548.3 (40173)	23.19	23.23	23.18
		2503.5 (39725)	23.21	23.20	23.15
	1RB-Low (0)	2682.5 (41515)	23.41	23.44	23.38
		2637.8 (41068)	23.29	23.31	23.23
		2593 (40620)	23.47	23.49	23.46
		2548.3 (40173)	23.18	23.41	23.15
		2503.5 (39725)	23.23	23.43	23.20
	36RB-High (38)	2682.5 (41515)	23.37	23.32	23.32
		2637.8 (41068)	23.21	23.16	23.17
		2593 (40620)	23.34	23.31	23.34
		2548.3 (40173)	23.17	23.13	23.13
		2503.5 (39725)	23.16	23.08	23.11
	36RB-Middle (19)	2682.5 (41515)	23.39	23.36	23.37
		2637.8 (41068)	23.24	23.21	23.22
		2593 (40620)	23.40	23.38	23.39
		2548.3 (40173)	23.18	23.14	23.16
		2503.5 (39725)	23.19	23.12	23.13
	36RB-Low (0)	2682.5 (41515)	23.44	23.39	23.39
		2637.8 (41068)	23.23	23.22	23.24
		2593 (40620)	23.40	23.40	23.42
		2548.3 (40173)	23.17	23.11	23.13
		2503.5 (39725)	23.21	23.16	23.17
75RB (0)	2682.5 (41515)	23.39	23.41	23.41	
	2637.8 (41068)	23.24	23.26	23.24	
	2593 (40620)	23.39	23.42	23.43	
	2548.3 (40173)	23.15	23.17	23.16	
	2503.5 (39725)	23.16	23.18	23.16	

20M Hz	1RB-High (99)	2680 (41490)	23.32	23.46	23.31
		2636.5 (41055)	23.22	23.31	23.18
		2593 (40620)	23.31	23.43	23.25
		2549.5 (40185)	23.22	23.36	23.19
		2506 (39750)	23.13	23.25	23.10
	1RB-Middle (50)	2680 (41490)	23.41	23.45	23.39
		2636.5 (41055)	23.29	23.24	23.18
		2593 (40620)	23.46	23.41	23.43
		2549.5 (40185)	23.27	23.30	23.25
		2506 (39750)	23.25	23.26	23.21
	1RB-Low (0)	2680 (41490)	23.44	23.45	23.40
		2636.5 (41055)	23.49	23.35	23.30
		2593 (40620)	23.47	23.44	23.46
		2549.5 (40185)	23.28	23.41	23.13
		2506 (39750)	23.27	23.45	23.19
	50RB-High (50)	2680 (41490)	23.27	23.34	23.34
		2636.5 (41055)	23.18	23.22	23.20
		2593 (40620)	23.33	23.39	23.37
		2549.5 (40185)	23.10	23.16	23.13
		2506 (39750)	23.10	23.15	23.13
	50RB-Middle (25)	2680 (41490)	23.39	23.42	23.39
		2636.5 (41055)	23.24	23.30	23.27
		2593 (40620)	23.37	23.43	23.40
		2549.5 (40185)	23.19	23.22	23.20
		2506 (39750)	23.19	23.21	23.17
	50RB-Low (0)	2680 (41490)	23.41	23.45	23.41
		2636.5 (41055)	23.49	23.32	23.27
		2593 (40620)	23.43	23.49	23.47
		2549.5 (40185)	23.24	23.16	23.14
		2506 (39750)	23.21	23.24	23.21
100RB (0)	2680 (41490)	B411	23.41	23.37	
	2636.5 (41055)	23.38	23.28	23.27	
	2593 (40620)	23.36	23.45	23.43	
	2549.5 (40185)	23.12	23.16	23.13	
	2506 (39750)	23.17	23.18	23.18	

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5MHz	1RB-High (24)	2687.5 (41565)	24.23	24.43	24.18
		2640.3(41093)	24.14	24.34	24.11
		2593 (40620)	24.34	24.44	24.30
		2545.8(40148)	24.13	24.34	24.08
		2498.5 (39675)	24.19	24.40	24.18
	1RB-Middle (12)	2687.5 (41565)	24.24	24.43	24.18
		2640.3(41093)	24.18	24.33	24.08
		2593 (40620)	24.30	24.43	24.29
		2545.8(40148)	24.13	24.31	24.06
		2498.5 (39675)	24.19	24.41	24.18
	1RB-Low (0)	2687.5 (41565)	24.29	24.49	24.26
		2640.3(41093)	24.20	24.38	24.17
		2593 (40620)	24.40	24.38	24.36
		2545.8(40148)	24.12	24.31	24.09
		2498.5 (39675)	24.22	24.41	24.19
	12RB-High (13)	2687.5 (41565)	24.20	24.23	23.75
		2640.3(41093)	24.17	24.14	23.68
		2593 (40620)	24.33	24.33	24.31
		2545.8(40148)	24.08	24.09	23.65
		2498.5 (39675)	24.18	24.17	23.71
	12RB-Middle (6)	2687.5 (41565)	24.24	24.22	23.77
		2640.3(41093)	24.17	24.16	23.68
		2593 (40620)	24.37	24.36	24.34
		2545.8(40148)	24.15	24.10	23.64
		2498.5 (39675)	24.18	24.18	23.71
	12RB-Low (0)	2687.5 (41565)	24.26	24.26	23.79
		2640.3(41093)	24.17	24.16	23.68
		2593 (40620)	24.38	24.35	24.34
2545.8(40148)		24.07	24.05	23.61	
2498.5 (39675)		24.16	24.16	23.68	
25RB (0)	2687.5 (41565)	24.24	24.28	23.78	
	2640.3(41093)	24.16	24.16	23.70	
	2593 (40620)	24.35	24.36	23.90	
	2545.8(40148)	24.07	24.08	23.65	
	2498.5 (39675)	24.15	24.17	23.70	

10MHz	1RB-High (49)	2685 (41540)	24.22	24.45	24.18
		2639(41080)	24.17	24.37	24.11
		2593 (40620)	24.33	24.37	24.30
		2547(40160)	24.12	24.22	24.13
		2501 (39700)	24.20	24.25	24.15
	1RB-Middle (24)	2685 (41540)	24.36	24.42	24.31
		2639(41080)	24.27	24.30	24.19
		2593 (40620)	24.45	24.50	24.39
		2547(40160)	24.22	24.28	24.18
		2501 (39700)	24.28	24.33	24.21
	1RB-Low (0)	2685 (41540)	24.33	24.40	24.32
		2639(41080)	24.25	24.32	24.21
		2593 (40620)	24.46	24.41	24.41
		2547(40160)	24.16	24.37	24.11
		2501 (39700)	24.26	24.45	24.19
	25RB-High (25)	2685 (41540)	24.29	24.31	23.84
		2639(41080)	24.20	24.21	23.74
		2593 (40620)	24.37	24.41	23.97
		2547(40160)	24.15	24.16	23.70
		2501 (39700)	24.20	24.24	23.75
	25RB-Middle (12)	2685 (41540)	24.32	24.34	23.88
		2639(41080)	24.22	24.24	23.77
		2593 (40620)	24.41	24.46	23.96
		2547(40160)	24.19	24.17	23.74
		2501 (39700)	24.21	24.24	23.77
	25RB-Low (0)	2685 (41540)	24.35	24.40	23.91
		2639(41080)	24.24	24.25	23.78
		2593 (40620)	24.42	24.46	23.99
2547(40160)		24.14	24.15	23.73	
2501 (39700)		24.21	24.24	23.78	
50RB (0)	2685 (41540)	24.34	24.37	23.82	
	2639(41080)	24.22	24.25	23.74	
	2593 (40620)	24.41	24.45	23.91	
	2547(40160)	24.12	24.14	23.65	
	2501 (39700)	24.23	24.26	23.73	

15MHz	1RB-High (74)	2682.5 (41515)	24.15	24.38	24.12
		2637.8(41068)	24.09	24.28	24.03
		2593 (40620)	24.23	24.45	24.19
		2548.3(40173)	24.12	24.33	24.10
		2503.5 (39725)	24.10	24.30	24.06
	1RB-Middle (37)	2682.5 (41515)	24.26	24.50	24.23
		2637.8(41068)	24.18	24.37	24.14
		2593 (40620)	24.35	24.46	24.32
		2548.3(40173)	24.14	24.32	24.11
		2503.5 (39725)	24.15	24.39	24.15
	1RB-Low (0)	2682.5 (41515)	24.29	24.48	24.25
		2637.8(41068)	24.23	24.41	24.19
		2593 (40620)	24.43	24.43	24.37
		2548.3(40173)	24.08	24.22	24.10
		2503.5 (39725)	24.16	24.38	24.13
	36RB-High (38)	2682.5 (41515)	24.25	24.24	23.72
		2637.8(41068)	24.16	24.10	23.64
		2593 (40620)	24.35	24.30	23.80
		2548.3(40173)	24.10	24.07	23.60
		2503.5 (39725)	24.12	24.13	23.60
	36RB-Middle (19)	2682.5 (41515)	24.29	24.27	23.79
		2637.8(41068)	24.21	24.15	23.70
		2593 (40620)	24.37	24.37	23.87
		2548.3(40173)	24.14	24.11	23.61
		2503.5 (39725)	24.18	24.13	23.63
	36RB-Low (0)	2682.5 (41515)	24.31	24.30	23.81
		2637.8(41068)	24.25	24.19	23.73
		2593 (40620)	24.42	24.38	23.90
2548.3(40173)		24.13	24.10	23.60	
2503.5 (39725)		24.20	24.17	23.68	
75RB (0)	2682.5 (41515)	24.27	24.26	23.78	
	2637.8(41068)	24.20	24.19	23.70	
	2593 (40620)	24.37	24.41	23.88	
	2548.3(40173)	24.09	24.12	23.59	
	2503.5 (39725)	24.15	24.19	23.67	

20MHz	1RB-High (99)	2680 (41490)	24.12	24.35	24.08
		2636.5(41055)	24.06	24.18	23.99
		2593 (40620)	24.19	24.44	24.19
		2549.5(40185)	24.10	24.33	24.07
		2506 (39750)	24.06	24.31	24.03
	1RB-Middle (50)	2680 (41490)	24.30	24.49	24.24
		2636.5(41055)	24.24	24.43	24.14
		2593 (40620)	24.31	24.41	24.37
		2549.5(40185)	24.19	24.40	24.10
		2506 (39750)	24.22	24.43	24.17
	1RB-Low (0)	2680 (41490)	24.30	24.41	24.26
		2636.5(41055)	24.37	24.44	24.18
		2593 (40620)	24.32	24.40	24.34
		2549.5(40185)	24.26	24.30	24.04
		2506 (39750)	24.29	24.35	24.12
	50RB-High (50)	2680 (41490)	24.21	24.26	23.70
		2636.5(41055)	24.10	24.14	23.62
		2593 (40620)	24.32	24.37	23.85
		2549.5(40185)	24.05	24.10	23.56
		2506 (39750)	24.11	24.14	23.63
	50RB-Middle (25)	2680 (41490)	24.27	24.32	23.82
		2636.5(41055)	24.20	24.24	23.73
		2593 (40620)	24.32	24.41	23.90
		2549.5(40185)	24.14	24.18	23.65
		2506 (39750)	24.17	24.23	23.68
	50RB-Low (0)	2680 (41490)	24.30	24.35	23.84
		2636.5(41055)	24.36	24.27	23.75
		2593 (40620)	24.35	24.40	23.89
		2549.5(40185)	24.25	24.15	23.63
		2506 (39750)	24.19	24.24	23.69
100RB (0)	2680 (41490)	24.28	24.32	23.80	
	2636.5(41055)	24.38	24.21	23.68	
	2593 (40620)	24.32	24.40	23.88	
	2549.5(40185)	24.07	24.10	23.58	
	2506 (39750)	24.16	24.21	23.65	

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1.4M Hz	1RB-H igh (5)	1779.3 (132665)	24.47	23.69	22.57	
		1745 (132322)	24.44	23.61	22.64	
		1710.7 (131979)	24.45	23.67	22.64	
	1RB-M iddle (3)	1779.3 (132665)	24.61	23.72	22.65	
		1745 (132322)	24.50	23.76	22.69	
		1710.7 (131979)	24.58	23.77	22.62	
	1RB-Low (0)	1779.3 (132665)	24.49	23.63	22.60	
		1745 (132322)	24.41	23.59	22.59	
		1710.7 (131979)	24.46	23.71	22.63	
	3RB-H igh (3)	1779.3 (132665)	24.62	23.51	22.64	
		1745 (132322)	24.53	23.53	22.56	
		1710.7 (131979)	24.56	23.48	22.61	
	3RB-M iddle (1)	1779.3 (132665)	24.66	23.60	22.72	
		1745 (132322)	24.58	23.52	22.62	
		1710.7 (131979)	24.61	23.57	22.70	
	3RB-Low (0)	1779.3 (132665)	24.60	23.62	22.64	
		1745 (132322)	24.52	23.49	22.58	
		1710.7 (131979)	24.55	23.50	22.62	
	6RB (0)	1779.3 (132665)	23.61	22.73	21.62	
		1745 (132322)	23.54	22.64	21.51	
		1710.7 (131979)	23.60	22.65	21.58	
	3M Hz	1RB-H igh (14)	1778.5 (132657)	24.56	23.76	22.72
			1745 (132322)	24.47	23.65	22.66
			1711.5 (131987)	24.53	23.68	22.68
1RB-M iddle (7)		1778.5 (132657)	24.66	23.89	22.67	
		1745 (132322)	24.54	23.81	22.68	
		1711.5 (131987)	24.67	23.78	22.75	
1RB-Low (0)		1778.5 (132657)	24.58	23.80	22.74	
		1745 (132322)	24.51	23.65	22.57	
		1711.5 (131987)	24.55	23.78	22.64	
8RB-H igh (7)		1778.5 (132657)	23.57	22.64	21.58	
		1745 (132322)	23.49	22.55	21.53	
		1711.5 (131987)	23.52	22.61	21.55	
8RB-M iddle (4)		1778.5 (132657)	23.59	22.68	21.64	
		1745 (132322)	23.52	22.59	21.59	
		1711.5 (131987)	23.54	22.59	21.58	
8RB-Low (0)		1778.5 (132657)	23.59	22.67	21.63	
		1745 (132322)	23.51	22.55	21.56	
		1711.5 (131987)	23.54	22.61	21.55	
15RB (0)		1778.5 (132657)	23.59	22.61	21.57	
		1745 (132322)	23.53	22.52	21.48	
		1711.5 (131987)	23.54	22.56	21.52	

5M H z	1RB-H igh (24)	1777.5 (132647)	24.53	23.70	22.68	
		1745 (132322)	24.47	23.62	22.65	
		1712.5 (131997)	24.51	23.75	22.66	
	1RB-M iddle (12)	1777.5 (132647)	24.66	23.86	22.78	
		1745 (132322)	24.62	23.83	22.72	
		1712.5 (131997)	24.70	23.85	22.86	
	1RB-Low (0)	1777.5 (132647)	24.55	23.82	22.62	
		1745 (132322)	24.46	23.69	22.65	
		1712.5 (131997)	24.52	23.75	22.63	
	12RB-H igh (13)	1777.5 (132647)	23.61	22.58	21.62	
		1745 (132322)	23.57	22.50	21.56	
		1712.5 (131997)	23.58	22.54	21.57	
	12RB-M iddle (6)	1777.5 (132647)	23.62	22.63	21.65	
		1745 (132322)	23.56	22.54	21.57	
		1712.5 (131997)	23.59	22.60	21.60	
	12RB-Low (0)	1777.5 (132647)	23.62	22.62	21.63	
		1745 (132322)	23.54	22.54	21.54	
		1712.5 (131997)	23.56	22.53	21.55	
	25RB (0)	1777.5 (132647)	23.63	22.63	21.64	
		1745 (132322)	23.57	22.55	21.54	
		1712.5 (131997)	23.59	22.59	21.58	
	10M H z	1RB-H igh (49)	1775 (132622)	24.61	23.71	22.68
			1745 (132322)	24.51	23.78	22.58
			1715 (132022)	24.54	23.86	22.76
1RB-M iddle (24)		1775 (132622)	24.67	23.84	22.75	
		1745 (132322)	24.56	23.78	22.67	
		1715 (132022)	24.58	23.77	22.81	
1RB-Low (0)		1775 (132622)	24.58	23.75	22.66	
		1745 (132322)	24.54	23.80	22.71	
		1715 (132022)	24.55	23.77	22.72	
25RB-H igh (25)		1775 (132622)	23.67	22.68	21.63	
		1745 (132322)	23.62	22.62	21.63	
		1715 (132022)	23.66	22.62	21.60	
25RB-M iddle (12)		1775 (132622)	23.67	22.66	21.66	
		1745 (132322)	23.60	22.59	21.58	
		1715 (132022)	23.62	22.62	21.59	
25RB-Low (0)		1775 (132622)	23.72	22.71	21.68	
		1745 (132322)	23.61	22.60	21.56	
		1715 (132022)	23.61	22.59	21.58	
50RB (0)		1775 (132622)	23.70	22.69	21.67	
		1745 (132322)	23.62	22.61	21.61	
		1715 (132022)	23.63	22.61	21.60	

15M Hz	1RB-H igh (74)	1772.5 (132597)	24.65	23.84	22.74
		1745 (132322)	24.55	23.71	22.67
		1717.5 (132047)	24.57	23.82	22.65
	1RB-M iddle (37)	1772.5 (132597)	24.68	23.89	22.70
		1745 (132322)	24.59	23.82	22.70
		1717.5 (132047)	24.58	23.80	22.72
	1RB-Low (0)	1772.5 (132597)	24.65	23.75	22.71
		1745 (132322)	24.63	23.85	22.71
		1717.5 (132047)	24.62	23.86	22.71
	36RB-H igh (38)	1772.5 (132597)	23.75	22.71	21.68
		1745 (132322)	23.68	22.64	21.63
		1717.5 (132047)	23.74	22.65	21.67
	36RB-M iddle (19)	1772.5 (132597)	23.76	22.71	21.68
		1745 (132322)	23.67	22.67	21.63
		1717.5 (132047)	23.68	22.63	21.63
	36RB-Low (0)	1772.5 (132597)	23.74	22.68	21.63
		1745 (132322)	23.70	22.63	21.68
		1717.5 (132047)	23.66	22.61	21.62
	75RB (0)	1772.5 (132597)	23.76	22.70	21.65
		1745 (132322)	23.67	22.65	21.62
		1717.5 (132047)	23.69	22.65	21.62
20M Hz	1RB-H igh (99)	1770 (132572)	24.49	23.69	22.79
		1745 (132322)	24.43	23.59	22.74
		1720 (132072)	24.42	23.71	22.69
	1RB-M iddle (50)	1770 (132572)	24.59	23.80	22.83
		1745 (132322)	24.52	23.73	22.84
		1720 (132072)	24.58	23.76	22.92
	1RB-Low (0)	1770 (132572)	24.44	23.59	22.77
		1745 (132322)	24.46	23.73	22.75
		1720 (132072)	24.49	23.75	22.79
	50RB-H igh (50)	1770 (132572)	23.58	22.60	21.72
		1745 (132322)	23.58	22.60	21.71
		1720 (132072)	23.46	22.61	21.75
	50RB-M iddle (25)	1770 (132572)	23.67	22.63	21.79
		1745 (132322)	23.59	22.60	21.74
		1720 (132072)	23.57	22.57	21.71
	50RB-Low (0)	1770 (132572)	23.66	22.63	21.78
		1745 (132322)	23.56	22.58	21.77
		1720 (132072)	23.51	22.51	21.62
	100RB (0)	1770 (132572)	23.62	22.60	21.74
		1745 (132322)	23.55	22.55	21.71
		1720 (132072)	23.53	22.53	21.65

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1.4M Hz	1RB-H igh (5)	1779.3 (132665)	18.51	18.84	18.73	
		1745 (132322)	18.48	18.77	18.70	
		1710.7 (131979)	18.51	18.86	18.74	
	1RB-M iddle (3)	1779.3 (132665)	18.66	18.98	18.84	
		1745 (132322)	18.58	18.77	18.66	
		1710.7 (131979)	18.64	18.96	18.82	
	1RB-Low (0)	1779.3 (132665)	18.55	18.84	18.81	
		1745 (132322)	18.46	18.80	18.72	
		1710.7 (131979)	18.49	18.80	18.67	
	3RB-H igh (3)	1779.3 (132665)	18.65	18.67	18.73	
		1745 (132322)	18.56	18.59	18.64	
		1710.7 (131979)	18.57	18.62	18.72	
	3RB-M iddle (1)	1779.3 (132665)	18.69	18.70	18.78	
		1745 (132322)	18.63	18.60	18.71	
		1710.7 (131979)	18.63	18.73	18.75	
	3RB-Low (0)	1779.3 (132665)	18.64	18.64	18.77	
		1745 (132322)	18.57	18.55	18.65	
		1710.7 (131979)	18.60	18.68	18.73	
	6RB (0)	1779.3 (132665)	18.65	18.75	18.64	
		1745 (132322)	18.56	18.68	18.59	
		1710.7 (131979)	18.61	18.72	18.63	
	3M Hz	1RB-H igh (14)	1778.5 (132657)	18.58	18.88	18.80
			1745 (132322)	18.50	18.85	18.66
			1711.5 (131987)	18.54	18.94	18.76
1RB-M iddle (7)		1778.5 (132657)	18.64	19.06	18.77	
		1745 (132322)	18.56	18.88	18.88	
		1711.5 (131987)	18.65	18.94	18.82	
1RB-Low (0)		1778.5 (132657)	18.59	18.94	18.82	
		1745 (132322)	18.55	18.87	18.67	
		1711.5 (131987)	18.53	18.82	18.75	
8RB-H igh (7)		1778.5 (132657)	18.59	18.66	18.66	
		1745 (132322)	18.51	18.59	18.56	
		1711.5 (131987)	18.54	18.65	18.63	
8RB-M iddle (4)		1778.5 (132657)	18.61	18.72	18.67	
		1745 (132322)	18.54	18.62	18.57	
		1711.5 (131987)	18.58	18.68	18.64	
8RB-Low (0)		1778.5 (132657)	18.58	18.69	18.65	
		1745 (132322)	18.50	18.60	18.56	
		1711.5 (131987)	18.54	18.62	18.62	
15RB (0)		1778.5 (132657)	18.60	18.62	18.64	
		1745 (132322)	18.51	18.54	18.51	
		1711.5 (131987)	18.53	18.61	18.54	

5M Hz	1RB-H igh (24)	1777.5 (132647)	18.53	18.78	18.77	
		1745 (132322)	18.46	18.81	18.65	
		1712.5 (131997)	18.47	18.87	18.69	
	1RB-M iddle (12)	1777.5 (132647)	18.67	18.89	18.90	
		1745 (132322)	18.68	18.93	18.80	
		1712.5 (131997)	18.68	18.98	18.84	
	1RB-Low (0)	1777.5 (132647)	18.55	18.76	18.69	
		1745 (132322)	18.48	18.83	18.66	
		1712.5 (131997)	18.53	18.76	18.76	
	12RB-H igh (13)	1777.5 (132647)	18.61	18.59	18.65	
		1745 (132322)	18.54	18.55	18.54	
		1712.5 (131997)	18.59	18.62	18.64	
	12RB-M iddle (6)	1777.5 (132647)	18.64	18.66	18.67	
		1745 (132322)	18.56	18.55	18.58	
		1712.5 (131997)	18.58	18.62	18.64	
	12RB-Low (0)	1777.5 (132647)	18.61	18.63	18.65	
		1745 (132322)	18.53	18.55	18.56	
		1712.5 (131997)	18.55	18.58	18.59	
	25RB (0)	1777.5 (132647)	18.64	18.64	18.66	
		1745 (132322)	18.54	18.57	18.52	
		1712.5 (131997)	18.57	18.59	18.60	
	10M Hz	1RB-H igh (49)	1775 (132622)	18.59	18.84	18.78
			1745 (132322)	18.44	18.78	18.70
			1715 (132022)	18.53	18.80	18.70
1RB-M iddle (24)		1775 (132622)	18.64	18.85	18.85	
		1745 (132322)	18.60	18.80	18.83	
		1715 (132022)	18.56	18.98	18.81	
1RB-Low (0)		1775 (132622)	18.56	18.80	18.78	
		1745 (132322)	18.53	18.87	18.77	
		1715 (132022)	18.55	18.83	18.79	
25RB-H igh (25)		1775 (132622)	18.63	18.63	18.64	
		1745 (132322)	18.58	18.60	18.60	
		1715 (132022)	18.62	18.63	18.64	
25RB-M iddle (12)		1775 (132622)	18.64	18.66	18.64	
		1745 (132322)	18.55	18.61	18.57	
		1715 (132022)	18.59	18.63	18.60	
25RB-Low (0)		1775 (132622)	18.70	18.70	18.71	
		1745 (132322)	18.56	18.57	18.56	
		1715 (132022)	18.56	18.60	18.57	
50RB (0)		1775 (132622)	18.67	18.67	18.68	
		1745 (132322)	18.59	18.60	18.58	
		1715 (132022)	18.60	18.63	18.61	

15M Hz	1RB-H igh (74)	1772.5 (132597)	18.55	18.85	18.77
		1745 (132322)	18.47	18.79	18.69
		1717.5 (132047)	18.49	18.79	18.69
	1RB-M iddle (37)	1772.5 (132597)	18.57	18.77	18.81
		1745 (132322)	18.51	18.78	18.71
		1717.5 (132047)	18.52	18.90	18.70
	1RB-Low (0)	1772.5 (132597)	18.54	18.76	18.78
		1745 (132322)	18.54	18.86	18.74
		1717.5 (132047)	18.54	18.93	18.78
	36RB-H igh (38)	1772.5 (132597)	18.66	18.64	18.64
		1745 (132322)	18.60	18.55	18.56
		1717.5 (132047)	18.67	18.63	18.65
	36RB-M iddle (19)	1772.5 (132597)	18.66	18.66	18.64
		1745 (132322)	18.60	18.56	18.56
		1717.5 (132047)	18.61	18.60	18.61
	36RB-Low (0)	1772.5 (132597)	18.63	18.62	18.65
		1745 (132322)	18.60	18.60	18.59
		1717.5 (132047)	18.59	18.58	18.58
	75RB (0)	1772.5 (132597)	18.65	18.65	18.64
		1745 (132322)	18.59	18.61	18.59
		1717.5 (132047)	18.59	18.60	18.61
20M Hz	1RB-H igh (99)	1770 (132572)	18.56	18.78	18.74
		1745 (132322)	18.47	18.87	18.68
		1720 (132072)	18.57	18.74	18.69
	1RB-M iddle (50)	1770 (132572)	18.61	18.92	18.84
		1745 (132322)	18.57	18.92	18.82
		1720 (132072)	18.67	18.90	18.85
	1RB-Low (0)	1770 (132572)	18.49	18.77	18.65
		1745 (132322)	18.51	18.76	18.70
		1720 (132072)	18.63	18.91	18.78
	50RB-H igh (50)	1770 (132572)	18.61	18.61	18.59
		1745 (132322)	18.57	18.59	18.60
		1720 (132072)	18.63	18.65	18.66
	50RB-M iddle (25)	1770 (132572)	18.67	18.66	18.66
		1745 (132322)	18.60	18.58	18.57
		1720 (132072)	18.69	18.59	18.57
	50RB-Low (0)	1770 (132572)	18.65	18.69	18.66
		1745 (132322)	18.59	18.62	18.61
		1720 (132072)	18.61	18.53	18.54
	100RB (0)	1770 (132572)	18.65	18.65	18.62
		1745 (132322)	18.59	18.57	18.57
		1720 (132072)	18.67	18.58	18.56

LTE Band66 Power Level C1

1.4M Hz	1RB-H igh (5)	1779.3 (132665)	22.09	22.35	22.24	
		1745 (132322)	22.03	22.33	22.12	
		1710.7 (131979)	22.03	22.21	22.24	
	1RB-M iddle (3)	1779.3 (132665)	22.19	22.48	22.41	
		1745 (132322)	22.11	22.39	22.23	
		1710.7 (131979)	22.15	22.31	22.30	
	1RB-Low (0)	1779.3 (132665)	22.09	22.30	22.26	
		1745 (132322)	21.98	22.21	22.17	
		1710.7 (131979)	22.01	22.29	22.23	
	3RB-H igh (3)	1779.3 (132665)	22.16	22.12	22.24	
		1745 (132322)	22.07	22.09	22.11	
		1710.7 (131979)	22.13	22.15	22.18	
	3RB-M iddle (1)	1779.3 (132665)	22.23	22.24	22.25	
		1745 (132322)	22.13	22.08	22.23	
		1710.7 (131979)	22.15	22.10	22.23	
	3RB-Low (0)	1779.3 (132665)	22.19	22.16	22.32	
		1745 (132322)	22.10	22.09	22.15	
		1710.7 (131979)	22.10	22.07	22.22	
	6RB (0)	1779.3 (132665)	22.20	22.24	21.68	
		1745 (132322)	22.10	22.19	21.58	
		1710.7 (131979)	22.16	22.21	22.13	
	3M Hz	1RB-H igh (14)	1778.5 (132657)	22.15	22.44	22.27
			1745 (132322)	22.06	22.27	22.18
			1711.5 (131987)	22.10	22.30	22.26
1RB-M iddle (7)		1778.5 (132657)	22.22	22.44	22.28	
		1745 (132322)	22.17	22.45	22.35	
		1711.5 (131987)	22.21	22.49	22.36	
1RB-Low (0)		1778.5 (132657)	22.14	22.38	22.30	
		1745 (132322)	22.07	22.41	22.30	
		1711.5 (131987)	22.10	22.27	22.24	
8RB-H igh (7)		1778.5 (132657)	22.13	22.19	21.65	
		1745 (132322)	22.05	22.13	21.55	
		1711.5 (131987)	22.09	22.14	21.61	
8RB-M iddle (4)		1778.5 (132657)	22.14	22.23	21.69	
		1745 (132322)	22.07	22.15	21.60	
		1711.5 (131987)	22.12	22.17	21.62	
8RB-Low (0)		1778.5 (132657)	22.13	22.23	21.68	
		1745 (132322)	22.04	22.10	21.59	
		1711.5 (131987)	22.08	22.12	21.61	
15RB (0)		1778.5 (132657)	22.15	22.14	22.13	
		1745 (132322)	22.07	22.07	21.54	
		1711.5 (131987)	22.09	22.12	21.58	

5M H z	1RB-H igh (24)	1777.5 (132647)	22.10	22.36	22.24	
		1745 (132322)	22.03	22.34	22.18	
		1712.5 (131997)	22.04	22.36	22.19	
	1RB-M iddle (12)	1777.5 (132647)	22.22	22.42	22.40	
		1745 (132322)	22.19	22.41	22.36	
		1712.5 (131997)	22.26	22.46	22.37	
	1RB-Low (0)	1777.5 (132647)	22.10	22.41	22.26	
		1745 (132322)	22.05	22.25	22.21	
		1712.5 (131997)	22.07	22.38	22.22	
	12RB-H igh (13)	1777.5 (132647)	22.15	22.16	21.67	
		1745 (132322)	22.10	22.06	21.63	
		1712.5 (131997)	22.13	22.11	21.61	
	12RB-M iddle (6)	1777.5 (132647)	22.18	22.19	21.68	
		1745 (132322)	22.09	22.08	21.63	
		1712.5 (131997)	22.13	22.12	21.65	
	12RB-Low (0)	1777.5 (132647)	22.19	22.15	21.66	
		1745 (132322)	22.08	22.08	21.58	
		1712.5 (131997)	22.10	22.08	21.57	
	25RB (0)	1777.5 (132647)	22.19	22.19	21.68	
		1745 (132322)	22.12	22.10	21.56	
		1712.5 (131997)	22.11	22.12	21.61	
	10M H z	1RB-H igh (49)	1775 (132622)	22.12	22.38	22.27
			1745 (132322)	22.04	22.29	22.19
			1715 (132022)	22.09	22.42	22.19
1RB-M iddle (24)		1775 (132622)	22.21	22.38	22.39	
		1745 (132322)	22.15	22.48	22.28	
		1715 (132022)	22.10	22.41	22.29	
1RB-Low (0)		1775 (132622)	22.08	22.37	22.25	
		1745 (132322)	22.09	22.30	22.26	
		1715 (132022)	22.10	22.33	22.23	
25RB-H igh (25)		1775 (132622)	22.17	22.18	21.67	
		1745 (132322)	22.15	22.12	21.60	
		1715 (132022)	22.17	22.15	21.63	
25RB-M iddle (12)		1775 (132622)	22.19	22.18	21.70	
		1745 (132322)	22.12	22.13	21.61	
		1715 (132022)	22.14	22.12	21.61	
25RB-Low (0)		1775 (132622)	22.24	22.21	21.71	
		1745 (132322)	22.12	22.13	21.62	
		1715 (132022)	22.11	22.09	21.56	
50RB (0)		1775 (132622)	22.23	22.20	21.69	
		1745 (132322)	22.14	22.14	21.64	
		1715 (132022)	22.16	22.11	21.62	

15M Hz	1RB-H igh (74)	1772.5 (132597)	22.12	22.38	22.29	
		1745 (132322)	22.04	22.30	22.11	
		1717.5 (132047)	22.03	22.21	22.20	
	1RB-M iddle (37)	1772.5 (132597)	22.13	22.32	22.23	
		1745 (132322)	22.04	22.24	22.16	
		1717.5 (132047)	22.06	22.29	22.22	
	1RB-Low (0)	1772.5 (132597)	22.10	22.34	22.22	
		1745 (132322)	22.09	22.40	22.26	
		1717.5 (132047)	22.08	22.34	22.23	
	36RB-H igh (38)	1772.5 (132597)	22.19	22.14	21.64	
		1745 (132322)	22.14	22.08	21.58	
		1717.5 (132047)	22.18	22.10	21.64	
	36RB-M iddle (19)	1772.5 (132597)	22.20	22.15	21.65	
		1745 (132322)	22.14	22.08	21.62	
		1717.5 (132047)	22.15	22.05	21.61	
	36RB-Low (0)	1772.5 (132597)	22.18	22.13	21.61	
		1745 (132322)	22.15	22.13	21.63	
		1717.5 (132047)	22.12	22.05	21.57	
	75RB (0)	1772.5 (132597)	22.20	22.18	21.65	
		1745 (132322)	22.14	22.11	21.60	
		1717.5 (132047)	22.13	22.09	21.60	
	20M Hz	1RB-H igh (99)	1770 (132572)	22.08	22.36	22.19
			1745 (132322)	22.01	22.37	22.20
			1720 (132072)	22.09	22.17	22.11
1RB-M iddle (50)		1770 (132572)	22.18	22.41	22.28	
		1745 (132322)	22.15	22.40	22.27	
		1720 (132072)	22.23	22.35	22.36	
1RB-Low (0)		1770 (132572)	22.03	22.31	22.17	
		1745 (132322)	22.06	22.39	22.16	
		1720 (132072)	22.05	22.43	22.18	
50RB-H igh (50)		1770 (132572)	22.16	22.14	21.60	
		1745 (132322)	22.13	22.15	21.62	
		1720 (132072)	22.21	22.15	21.67	
50RB-M iddle (25)		1770 (132572)	22.23	22.17	21.67	
		1745 (132322)	22.16	22.14	21.62	
		1720 (132072)	22.25	22.14	21.63	
50RB-Low (0)		1770 (132572)	22.21	22.19	21.66	
		1745 (132322)	22.14	22.18	21.64	
		1720 (132072)	22.18	22.07	21.54	
100RB (0)		1770 (132572)	22.17	22.15	21.64	
		1745 (132322)	22.13	22.12	21.63	
		1720 (132072)	22.18	22.08	21.52	

LTE Band71 Power Level A1/B1/C1

5M Hz	1RB-H igh (24)	695.5 (133447)	24.68	23.80	22.78	
		680.5 (133297)	24.69	23.85	22.78	
		665.5 (133147)	24.66	23.78	22.68	
	1RB-M iddle (12)	695.5 (133447)	24.87	24.14	22.92	
		680.5 (133297)	24.77	24.02	22.96	
		665.5 (133147)	24.86	23.95	22.94	
	1RB-Low (0)	695.5 (133447)	24.73	23.97	22.76	
		680.5 (133297)	24.70	23.92	22.76	
		665.5 (133147)	24.71	23.79	22.81	
	12RB-H igh (13)	695.5 (133447)	23.79	22.78	21.77	
		680.5 (133297)	23.71	22.67	21.70	
		665.5 (133147)	23.64	22.62	21.64	
	12RB-M iddle (6)	695.5 (133447)	23.79	22.79	21.78	
		680.5 (133297)	23.78	22.73	21.74	
		665.5 (133147)	23.76	22.73	21.73	
	12RB-Low (0)	695.5 (133447)	23.73	22.71	21.70	
		680.5 (133297)	23.73	22.68	21.69	
		665.5 (133147)	23.55	22.49	21.48	
	25RB (0)	695.5 (133447)	23.76	22.76	21.75	
		680.5 (133297)	23.73	22.71	21.70	
		665.5 (133147)	23.60	22.55	21.57	
	10M Hz	1RB-H igh (49)	693 (132422)	24.66	23.90	22.81
			680.5 (133297)	24.68	23.90	22.78
			668 (133172)	24.66	23.87	22.72
1RB-M iddle (24)		693 (132422)	24.76	24.02	22.87	
		680.5 (133297)	24.76	23.87	22.85	
		668 (133172)	24.78	23.87	22.84	
1RB-Low (0)		693 (132422)	24.72	23.93	22.88	
		680.5 (133297)	24.75	23.98	22.89	
		668 (133172)	24.72	23.89	22.79	
25RB-H igh (25)		693 (132422)	23.88	22.89	21.86	
		680.5 (133297)	23.66	22.64	21.62	
		668 (133172)	23.65	22.66	21.61	
25RB-M iddle (12)		693 (132422)	23.77	22.79	21.76	
		680.5 (133297)	23.76	22.74	21.73	
		668 (133172)	23.82	22.77	21.76	
25RB-Low (0)		693 (132422)	23.74	22.76	21.75	
		680.5 (133297)	23.61	22.61	21.57	
		668 (133172)	23.75	22.67	21.66	
50RB (0)		693 (132422)	23.82	22.81	21.77	
		680.5 (133297)	23.63	22.64	21.65	
		668 (133172)	23.71	22.70	21.65	

15M Hz	1RB-H igh (74)	690.5 (133397)	24.64	23.85	22.81
		680.5 (133297)	24.68	23.81	22.78
		670.5 (133197)	24.67	23.83	22.81
	1RB-M iddle (37)	690.5 (133397)	24.71	23.95	22.79
		680.5 (133297)	24.67	23.85	22.81
		670.5 (133197)	24.72	23.81	22.77
	1RB-Low (0)	690.5 (133397)	24.77	23.96	22.86
		680.5 (133297)	24.76	24.00	22.87
		670.5 (133197)	24.73	23.92	22.83
	36RB-H igh (38)	690.5 (133397)	23.88	22.88	21.86
		680.5 (133297)	23.67	22.62	21.64
		670.5 (133197)	23.97	22.93	21.92
	36RB-M iddle (19)	690.5 (133397)	23.79	22.77	21.76
		680.5 (133297)	23.77	22.73	21.74
		670.5 (133197)	23.82	22.78	21.75
	36RB-Low (0)	690.5 (133397)	23.88	22.84	21.86
		680.5 (133297)	23.63	22.59	21.62
		670.5 (133197)	23.90	22.84	21.81
	75RB (0)	690.5 (133397)	23.87	22.85	21.81
		680.5 (133297)	23.64	22.61	21.59
		670.5 (133197)	23.93	22.89	21.86
20M Hz	1RB-H igh (99)	688 (133372)	24.63	23.87	22.76
		683 (133322)	24.66	23.78	22.80
		673 (133222)	24.66	23.75	22.71
	1RB-M iddle (50)	688 (133372)	24.75	23.96	22.85
		683 (133322)	24.75	23.93	22.89
		673 (133222)	24.79	23.89	22.82
	1RB-Low (0)	688 (133372)	24.73	23.95	22.83
		683 (133322)	24.72	23.88	22.90
		673 (133222)	24.73	23.86	22.83
	50RB-H igh (50)	688 (133372)	23.97	22.96	21.96
		683 (133322)	23.67	22.68	21.63
		673 (133222)	23.93	23.14	22.12
	50RB-M iddle (25)	688 (133372)	23.82	22.81	21.81
		683 (133322)	23.80	22.81	21.76
		673 (133222)	23.85	22.81	21.80
	50RB-Low (0)	688 (133372)	24.01	23.10	22.10
		683 (133322)	23.87	22.54	21.55
		673 (133222)	24.11	23.08	22.05
	100RB (0)	688 (133372)	24.01	22.99	21.97
		683 (133322)	23.58	22.57	21.57
		673 (133222)	24.10	23.07	22.04



LTE Carrier Aggregation Conducted Power (Uplink)

UL LTE CA Class	PC2 Power A1								conducted power (dBm)
	PCC				SCC				
	PCC Bandwi	channel	RB	RB OFFSET	SCC Bandwi	channel	RB	RB OFFSET	
CA 41C	20M	41490	1	99	20M	41292	1	0	18.8
CA 41C	20M	41490	1	99	15M	41319	1	0	18.79
CA 41C	20M	41490	1	99	10M	41346	1	0	18.81
CA 41C	20M	41490	1	99	5M	41373	1	0	18.83
CA 41C	20M	39750	1	99	5M	39867	1	0	26.57
CA 41C	20M	39750	1	99	20M	39948	1	0	26.76
CA 41C	20M	39750	1	99	15M	39921	1	0	26.78
CA 41C	20M	39750	1	99	10M	39894	1	0	26.79
CA 41C	15M	41515	1	74	15M	41365	1	0	18.84
CA 41C	15M	41515	1	74	10M	41395	1	0	18.84
CA 41C	15M	39725	1	74	10M	39845	1	0	26.81
CA 41C	20M	41490	1	0	20M	41292	1	99	26.88
CA 41C	20M	41490	1	0	15M	41319	1	74	26.9
CA 41C	20M	41490	1	0	10M	41346	1	49	26.89
CA 41C	20M	39750	1	0	5M	39867	1	24	18.32
CA 41C	20M	41490	1	0	5M	41373	1	24	26.46
CA 41C	20M	39750	1	0	20M	39948	1	99	18.3
CA 41C	20M	39750	1	0	15M	39921	1	74	18.31
CA 41C	20M	39750	1	0	10M	39894	1	49	18.34
CA 41C	15M	41515	1	0	15M	41365	1	74	26.87
CA 41C	15M	41515	1	0	10M	41395	1	49	26.88
CA 41C	15M	39725	1	0	10M	39845	1	49	18.38

UL LTE CA Class	PC2 Power B1									
	PCC				SCC				Power	
	PCC Bandwi	channel	RB	RB OFFSET	SCC Bandwi	channel	RB	RB OFFSET	tune up	conducted power (dBm)
CA 41C	20M	41490	1	99	20M	41292	1	0	23.5	15.2
CA 41C	20M	41490	1	99	15M	41319	1	0	23.5	15.4
CA 41C	20M	41490	1	99	10M	41346	1	0	23.5	15.45
CA 41C	20M	41490	1	99	5M	41373	1	0	23.5	15.46
CA 41C	20M	39750	1	99	5M	39867	1	0	23.5	23.17
CA 41C	20M	39750	1	99	20M	39948	1	0	23.5	23.21
CA 41C	20M	39750	1	99	15M	39921	1	0	23.5	23.37
CA 41C	20M	39750	1	99	10M	39894	1	0	23.5	23.36
CA 41C	15M	41515	1	74	15M	41365	1	0	23.5	15.36
CA 41C	15M	41515	1	74	10M	41395	1	0	23.5	15.17
CA 41C	15M	39725	1	74	10M	39845	1	0	23.5	23.38
CA 41C	20M	41490	1	0	20M	41292	1	99	23.5	23.23
CA 41C	20M	41490	1	0	15M	41319	1	74	23.5	23.44
CA 41C	20M	41490	1	0	10M	41346	1	49	23.5	23.27
CA 41C	20M	39750	1	0	5M	39867	1	24	23.5	14.66
CA 41C	20M	41490	1	0	5M	41373	1	24	23.5	22.76
CA 41C	20M	39750	1	0	20M	39948	1	99	23.5	14.89
CA 41C	20M	39750	1	0	15M	39921	1	74	23.5	14.84
CA 41C	20M	39750	1	0	10M	39894	1	49	23.5	14.96
CA 41C	15M	41515	1	0	15M	41365	1	74	23.5	23.41
CA 41C	15M	41515	1	0	10M	41395	1	49	23.5	23.4
CA 41C	15M	39725	1	0	10M	39845	1	49	23.5	14.96

UL LTE CA Class	PC2 Power C1									
	PCC				SCC				Power	
	PCC Bandwi	channel	RB	RB OFFSET	SCC Bandwi	channel	RB	RB OFFSET	tune up	conducted power (dBm)
CA 41C	20M	41490	1	99	20M	41292	1	0	24.5	16.15
CA 41C	20M	41490	1	99	15M	41319	1	0	24.5	16.42
CA 41C	20M	41490	1	99	10M	41346	1	0	24.5	16.31
CA 41C	20M	41490	1	99	5M	41373	1	0	24.5	16.32
CA 41C	20M	39750	1	99	5M	39867	1	0	24.5	24.09
CA 41C	20M	39750	1	99	20M	39948	1	0	24.5	24.07
CA 41C	20M	39750	1	99	15M	39921	1	0	24.5	24.35
CA 41C	20M	39750	1	99	10M	39894	1	0	24.5	24.34
CA 41C	15M	41515	1	74	15M	41365	1	0	24.5	16.27
CA 41C	15M	41515	1	74	10M	41395	1	0	24.5	16.08
CA 41C	15M	39725	1	74	10M	39845	1	0	24.5	24.24
CA 41C	20M	41490	1	0	20M	41292	1	99	24.5	24.18
CA 41C	20M	41490	1	0	15M	41319	1	74	24.5	24.36
CA 41C	20M	41490	1	0	10M	41346	1	49	24.5	24.21
CA 41C	20M	39750	1	0	5M	39867	1	24	24.5	15.53
CA 41C	20M	41490	1	0	5M	41373	1	24	24.5	23.76
CA 41C	20M	39750	1	0	20M	39948	1	99	24.5	15.77
CA 41C	20M	39750	1	0	15M	39921	1	74	24.5	15.84
CA 41C	20M	39750	1	0	10M	39894	1	49	24.5	15.91
CA 41C	15M	41515	1	0	15M	41365	1	74	24.5	24.27
CA 41C	15M	41515	1	0	10M	41395	1	49	24.5	24.3
CA 41C	15M	39725	1	0	10M	39845	1	49	24.5	15.86



PC3 Power A1									
UL LTE CA Class	PCC				SCC				conducted power (dBm)
	PCC Bandwi	channel	RB	RB OFFSET	SCC Bandwi	channel	RB	RB OFFSET	
CA 41C	20M	41490	1	99	20M	41292	1	0	15.92
CA 41C	20M	41490	1	99	15M	41319	1	0	15.89
CA 41C	20M	41490	1	99	10M	41346	1	0	15.91
CA 41C	20M	41490	1	99	5M	41373	1	0	15.93
CA 41C	20M	39750	1	99	5M	39867	1	0	23.73
CA 41C	20M	39750	1	99	20M	39948	1	0	23.72
CA 41C	20M	39750	1	99	15M	39921	1	0	23.67
CA 41C	20M	39750	1	99	10M	39894	1	0	23.71
CA 41C	15M	41515	1	74	15M	41365	1	0	15.95
CA 41C	15M	41515	1	74	10M	41395	1	0	23.91
CA 41C	15M	39725	1	74	10M	39845	1	0	23.81
CA 41C	20M	41490	1	0	20M	41292	1	99	23.87
CA 41C	20M	41490	1	0	15M	41319	1	74	23.86
CA 41C	20M	41490	1	0	10M	41346	1	49	23.81
CA 41C	20M	39750	1	0	5M	39867	1	24	15.33
CA 41C	20M	41490	1	0	5M	41373	1	24	23.82
CA 41C	20M	39750	1	0	20M	39948	1	99	15.34
CA 41C	20M	39750	1	0	15M	39921	1	74	15.29
CA 41C	20M	39750	1	0	10M	39894	1	49	15.31
CA 41C	15M	41515	1	0	15M	41365	1	74	23.86
CA 41C	15M	41515	1	0	10M	41395	1	49	23.81
CA 41C	15M	39725	1	0	10M	39845	1	49	23.74

PC3 Power B1										
UL LTE CA Class	PCC				SCC				Power	
	PCC Bandwi	channel	RB	RB OFFSET	SCC Bandwi	channel	RB	RB OFFSET	tune up	conducted power (dBm)
CA 41C	20M	41490	1	99	20M	41292	1	0	22	13.82
CA 41C	20M	41490	1	99	15M	41319	1	0	22	13.79
CA 41C	20M	41490	1	99	10M	41346	1	0	22	13.83
CA 41C	20M	41490	1	99	5M	41373	1	0	22	13.9
CA 41C	20M	39750	1	99	5M	39867	1	0	22	21.85
CA 41C	20M	39750	1	99	20M	39948	1	0	22	21.59
CA 41C	20M	39750	1	99	15M	39921	1	0	22	21.56
CA 41C	20M	39750	1	99	10M	39894	1	0	22	21.81
CA 41C	15M	41515	1	74	15M	41365	1	0	22	13.81
CA 41C	15M	41515	1	74	10M	41395	1	0	22	21.87
CA 41C	15M	39725	1	74	10M	39845	1	0	22	21.81
CA 41C	20M	41490	1	0	20M	41292	1	99	22	21.82
CA 41C	20M	41490	1	0	15M	41319	1	74	22	21.83
CA 41C	20M	41490	1	0	10M	41346	1	49	22	21.79
CA 41C	20M	39750	1	0	5M	39867	1	24	22	13.13
CA 41C	20M	41490	1	0	5M	41373	1	24	22	21.67
CA 41C	20M	39750	1	0	20M	39948	1	99	22	13.39
CA 41C	20M	39750	1	0	15M	39921	1	74	22	13.15
CA 41C	20M	39750	1	0	10M	39894	1	49	22	13.2
CA 41C	15M	41515	1	0	15M	41365	1	74	22	21.64
CA 41C	15M	41515	1	0	10M	41395	1	49	22	21.85
CA 41C	15M	39725	1	0	10M	39845	1	49	22	21.83

PC3 Power C1										
UL LTE CA Class	PCC				SCC				Power	
	PCC Bandwi	channel	RB	RB OFFSET	SCC Bandwi	channel	RB	RB OFFSET	tune up	conducted power (dBm)
CA 41C	20M	41490	1	99	20M	41292	1	0	22.5	14.27
CA 41C	20M	41490	1	99	15M	41319	1	0	22.5	14.3
CA 41C	20M	41490	1	99	10M	41346	1	0	22.5	14.31
CA 41C	20M	41490	1	99	5M	41373	1	0	22.5	14.45
CA 41C	20M	39750	1	99	5M	39867	1	0	22.5	22.37
CA 41C	20M	39750	1	99	20M	39948	1	0	22.5	22.07
CA 41C	20M	39750	1	99	15M	39921	1	0	22.5	22.1
CA 41C	20M	39750	1	99	10M	39894	1	0	22.5	22.26
CA 41C	15M	41515	1	74	15M	41365	1	0	22.5	14.34
CA 41C	15M	41515	1	74	10M	41395	1	0	22.5	22.39
CA 41C	15M	39725	1	74	10M	39845	1	0	22.5	22.33
CA 41C	20M	41490	1	0	20M	41292	1	99	22.5	22.34
CA 41C	20M	41490	1	0	15M	41319	1	74	22.5	22.36
CA 41C	20M	41490	1	0	10M	41346	1	49	22.5	22.31
CA 41C	20M	39750	1	0	5M	39867	1	24	22.5	13.6
CA 41C	20M	41490	1	0	5M	41373	1	24	22.5	22.13
CA 41C	20M	39750	1	0	20M	39948	1	99	22.5	13.85
CA 41C	20M	39750	1	0	15M	39921	1	74	22.5	13.61
CA 41C	20M	39750	1	0	10M	39894	1	49	22.5	13.65
CA 41C	15M	41515	1	0	15M	41365	1	74	22.5	22.09
CA 41C	15M	41515	1	0	10M	41395	1	49	22.5	22.37
CA 41C	15M	39725	1	0	10M	39845	1	49	22.5	22.28

LTE Carrier Aggregation Conducted Power (Downlink)

DL LTE CA Class	PCC								SCC1			Power		
	PCC Band	PCC Bandwidth (MHz)	PCC UL RB size	PCC UL RB offset	PCC DL RB size	PCC DL RB offset	PCC UL Channel	PCC DL Channel	SCC Band	SCC Bandwidth (MHz)	SCC DL Channel	Rel 8 LTE Tx Power(dBm)	Rel 10 DL LTE CA Tx Power(dBm)	Tune-up
25A-25A	25	20	1	50	1	99	26140	8140	25	20	8590	24.63	24.72	25
66A-66A	66	20	1	50	1	99	132572	67036	66	20	66536	24.59	24.58	25
12A-66A	12	10	1	24	1	49	23130	5130	66	20	66786	24.78	24.75	25.5
66A-12A	66	20	1	50	1	99	132572	67036	12	10	5095	24.59	24.56	25
25A-26A	25	20	1	50	1	99	26140	8140	26	15	8863	24.63	24.57	25
26A-25A	26	15	1	0	1	75	26765	8765	25	20	8365	24.86	24.84	25.5
66A-71A	66	20	1	50	1	99	132572	67036	71	20	68786	24.59	24.58	25
71A-66A	71	20	1	50	1	99	133222	68686	66	20	66786	24.79	24.77	25.5
66B	66	5	1	12	1	25	131997	66461	66	5	66509	24.7	24.64	25
66C	66	20	1	50	1	99	132572	67036	66	20	66838	24.59	24.59	25
41A-41A(PC2)	41	20	1	0	1	99	41490	41490	41	20	39750	26.86	26.9	27
41A-41A(PC3)	41	20	1	50	1	99	41490	41490	41	20	39750	23.92	23.96	24

11.4 Wi-Fi and BT Measurement result

When the same transmission mode configurations have the same maximum output power on the same channel for the 802.11 a/n/ac/ax modes, the channel in the lower order/sequence 802.11 mode (i.e. a, n, ac then ax) is selected. Therefore the SAR measurements performed for the 802.11n/ac modes, as the lowest order modulation, cover 802.11ax modes.

When the specified maximum output power is the same for both UNII 1 and UNII 2A, begin SAR measurements in UNII 2A with the channel with the highest measured output power. If the reported SAR for UNII 2A is ≤ 1.2 W/kg, SAR is not required for UNII 1; otherwise treat the remaining bands separately and test them independently for SAR.

According to KDB 248227 D01, simultaneous SAR provisions in KDB 447498 D01 apply to determine simultaneous transmission SAR test exclusion for Wi-Fi MIMO. If the sum of 1-g single transmission chain SAR measurements is < 1.6 W/kg and/or the MIMO output power is equal or less than a single chain, then no additional SAR measurements for simultaneously at the specified maximum output power of MIMO operation.

When antennas are spatially separated to the extent that SAR distributions do not overlap and can be treated independently, SAR compliance for simultaneous transmission is determined separately for

each individual antenna.

Mode	GFSK		
Channel	0	39	78
The conducted power (dBm)	10.25	9.63	10.41
Tune up	11	11	11

The average conducted power of Wi-Fi for normal power is as following:

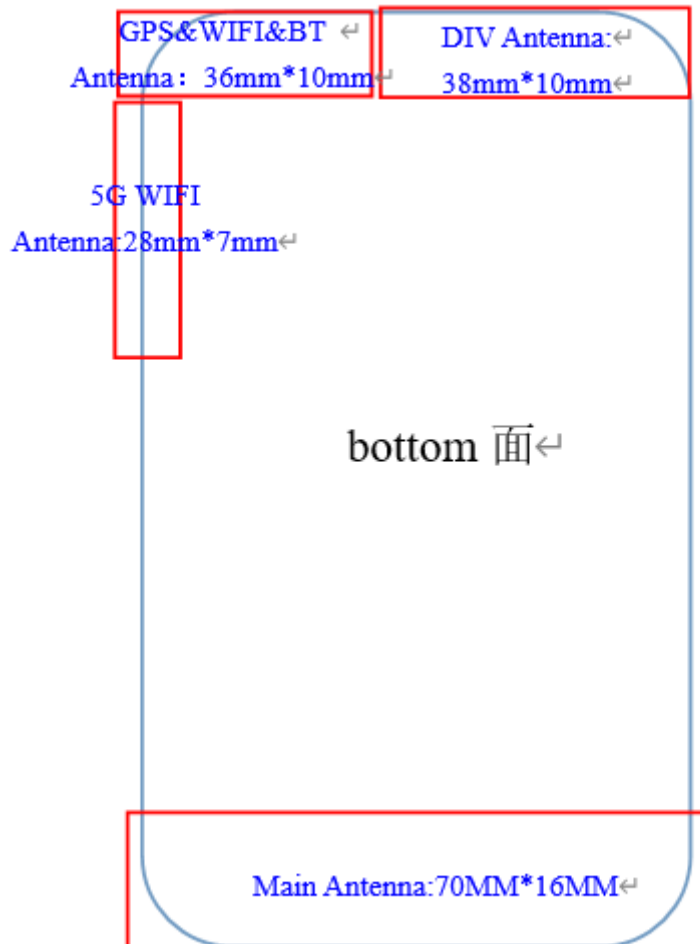
802.11b(dBm)		
Channel\data rate	1Mbps	Tune up
11(2462MHz)	20.03	21
6(2437MHz)	20.02	21
1(2412MHz)	20.30	21
802.11g(dBm)		
Channel\data rate	6Mbps	Tune up
11(2462MHz)	18.84	20
6(2437MHz)	18.96	20
1(2412MHz)	19.09	20
802.11n(dBm)-20MHz		
Channel\data rate	MCS0	Tune up
11(2462MHz)	18.01	19
6(2437MHz)	17.94	19
1(2412MHz)	18.31	19
802.11n(dBm) -40Mhz		
Channel\data rate	6Mbps	Tune up
38(5190 MHz)	17.93	19.5
46(5230 MHz)	18.00	19.5
54(5270 MHz)	18.04	19.5
62(5310 MHz)	18.36	19.5
102(5510 MHz)	17.06	17.5
110(5550 MHz)	18.05	19.5
118(5590 MHz)	17.80	19.5
126(5630 MHz)	17.83	19.5
134(5670 MHz)	18.12	19.5
142(5710 MHz)	18.69	19.5
151(5755 MHz)	18.50	19.5
159(5795 MHz)	18.41	19.5

The average conducted power of Wi-Fi for Low power is as following:

802.11b(dBm)		
Channel\data rate	1Mbps	Tune up
11(2462MHz)	18.57	19.5
6(2437MHz)	18.58	19.5
1(2412MHz)	18.81	19.5
802.11g(dBm)		
Channel\data rate	6Mbps	Tune up
11(2462MHz)	17.33	18.5
6(2437MHz)	17.35	18.5
1(2412MHz)	17.50	18.5
802.11n(dBm)-20MHz		
Channel\data rate	MCS0	Tune up
11(2462MHz)	17.25	18.5
6(2437MHz)	17.28	18.5
1(2412MHz)	17.43	18.5
802.11n(dBm) -40Mhz		
Channel\data rate	6Mbps	Tune up
38(5190 MHz)	16.08	18
46(5230 MHz)	16.16	18
54(5270 MHz)	16.65	18
62(5310 MHz)	16.85	18
102(5510 MHz)	15.16	16
110(5550 MHz)	16.83	18
118(5590 MHz)	16.33	18
126(5630 MHz)	16.77	18
134(5670 MHz)	16.60	18
142(5710 MHz)	17.49	18
151(5755 MHz)	17.38	18
159(5795 MHz)	17.33	18

12 Antenna Location

12.1 Transmit Antenna Separation Distances



12.2 SAR Measurement Positions

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

SAR measurement positions						
Mode	Front	Rear	Left edge	Right edge	Top edge	Bottom edge
Main antenna	Yes	Yes	Yes	Yes	No	Yes
BT/WiFi antenna	Yes	Yes	No	Yes	Yes	No

13 SAR Test Result

Note:

KDB 447498 D01 General RF Exposure Guidance:

For WWAN: Reported SAR(W/kg)= Measured SAR(W/kg)*Tune-up Scaling Factor

For BT/WLAN: Reported SAR(W/kg)= Measured SAR(W/kg)* Duty Cycle scaling factor * Tune-up scaling factor

Testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:

≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz

≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz

≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz

KDB 648474 D04 Handset SAR:

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

KDB 941225 D01 SAR test for 3G devices:

When the maximum output power and tune-up tolerance specified for production units in a secondary mode is $\leq \frac{1}{4}$ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.

KDB 941225 D05 SAR for LTE Devices:

SAR test reduction is applied using the following criteria:

Start with the largest channel bandwidth and measure SAR for QPSK with 1 RB, and 50% RB allocation, using the RB offset and required test channel combination with the highest maximum output power among RB offsets at the upper edge, middle and lower edge of each required test channel.

When the reported SAR is > 0.8 W/kg, testing for other Channels is performed at the highest output power level for 1RB, and 50% RB configuration for that channel.

Testing for 100% RB configuration is performed at the highest output power level for 100% RB configuration across the Low, Mid and High Channel when the highest reported SAR for 1 RB and 50% RB are > 0.8 W/kg. Testing for the remaining required channels is not needed because the reported SAR for 100% RB Allocation < 1.45 W/kg.

Testing for 16-QAM modulation is not required because the reported SAR for QPSK is < 1.45 W/Kg and its output power is not more than 0.5 dB higher than that of QPSK.

Testing for the other channel bandwidths is not required because the reported SAR for the highest channel bandwidth is < 1.45 W/Kg and its output power is not more than 0.5 dB higher than that of the highest channel bandwidth.

For LTE bands that do not support at least three non-overlapping channels in certain channel bandwidths, test the available non-overlapping channels instead. When a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the

group of overlapping channels should be selected for testing; therefore, the requirement for H, M and L channels may not fully apply.

KDB 248227 D01 SAR meas for 802.11:

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

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

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

When the reported SAR for the initial test position is:

≤ 0.4 W/kg, further SAR measurement is not required for the other test positions in that exposure configuration and wireless mode combination within the frequency band or aggregated band. DSSS and OFDM configurations are considered separately according to the required SAR procedures.

> 0.4 W/kg, SAR is repeated using the same wireless mode test configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position, on the highest maximum output power channel, until the reported SAR is ≤ 0.8 W/kg or all required test positions are tested.

- For subsequent test positions with equivalent test separation distance or when exposure is dominated by coupling conditions, the position for maximum coupling condition should be tested.
- When it is unclear, all equivalent conditions must be tested.

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

- The additional power measurements required for this step should be limited to those necessary for identifying subsequent highest output power channels to apply the test reduction.

When the specified maximum output power is the same for both UNII 1 and UNII 2A, begin SAR measurements in UNII 2A with the channel with the highest measured output power. If the reported SAR for UNII 2A is ≤ 1.2 W/kg, SAR is not required for UNII 1; otherwise treat the remaining bands separately and test them independently for SAR.

When the specified maximum output power is different between UNII 1 and UNII 2A, begin SAR with the band that has the higher specified maximum output. If the highest reported SAR for the band with the highest specified power is ≤ 1.2 W/kg, testing for the band with the lower specified output power is not required; otherwise test the remaining bands independently for SAR.

Duty Cycle

Mode	Duty Cycle
Speech for GSM	1:8.3
GPRS&EGPRS 1 Slot	1:8.3
GPRS&EGPRS 2 Slot	1:4
GPRS&EGPRS 3 Slot	1:2.67
GPRS&EGPRS 4 Slot	1:2
WCDMA<E FDD	1:1

Ambient Temperature: 21.5-23.5 °C Liquid Temperature: 21.5-23.5 °C

13.1 SAR results for 2G/3G/4G

S: SIM2

H:Headset

Head

RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Mode/RB	Test setup	Distance	Figure No.	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
Head	GSM850	251	848.8	Voice	Left Cheek	0mm	FIG A.1	32.88	33.50	0.219	0.25	0.169	0.19	-0.01
Head	GSM850	190	836.6	Voice	Left Cheek	0mm	\	32.96	33.50	0.168	0.19	0.129	0.15	0.12
Head	GSM850	128	824.2	Voice	Left Cheek	0mm	\	32.99	33.50	0.192	0.22	0.150	0.17	-0.06
Head	GSM850	190	836.6	Voice	Left Tilt	0mm	\	32.96	33.50	0.090	0.10	0.071	0.08	0.10
Head	GSM850	190	836.6	Voice	Right Cheek	0mm	\	32.96	33.50	0.152	0.17	0.119	0.13	0.15
Head	GSM850	190	836.6	Voice	Right Tilt	0mm	\	32.96	33.50	0.081	0.09	0.063	0.07	-0.10
Head	GSM1900	661	1880	Voice	Left Cheek	0mm	\	30.83	31.00	0.145	0.15	0.096	0.10	0.02
Head	GSM1900	661	1880	Voice	Left Tilt	0mm	\	30.83	31.00	0.104	0.11	0.069	0.07	-0.12
Head	GSM1900	810	1909.8	Voice	Right Cheek	0mm	\	30.66	31.00	0.114	0.12	0.076	0.08	-0.10
Head	GSM1900	661	1880	Voice	Right Cheek	0mm	\	30.83	31.00	0.151	0.16	0.101	0.11	0.18
Head	GSM1900	512	1850.2	Voice	Right Cheek	0mm	FIG A.2	30.75	31.00	0.160	0.17	0.107	0.11	0.03
Head	GSM1900	661	1880	Voice	Right Tilt	0mm	\	30.83	31.00	0.077	0.08	0.051	0.05	0.11
Head	WCDMA1900	9400	1880	RMC	Left Cheek	0mm	\	24.42	25.00	0.298	0.34	0.200	0.23	-0.10
Head	WCDMA1900	9400	1880	RMC	Left Tilt	0mm	\	24.42	25.00	0.255	0.29	0.160	0.18	-0.10
Head	WCDMA1900	9538	1907.6	RMC	Right Cheek	0mm	\	24.48	25.00	0.319	0.36	0.208	0.23	-0.07
Head	WCDMA1900	9400	1880	RMC	Right Cheek	0mm	FIG A.3	24.42	25.00	0.322	0.37	0.210	0.24	0.05
Head	WCDMA1900	9262	1852.4	RMC	Right Cheek	0mm	\	24.51	25.00	0.309	0.35	0.203	0.23	-0.18
Head	WCDMA1900	9400	1880	RMC	Right Tilt	0mm	\	24.42	25.00	0.221	0.25	0.144	0.16	0.15
Head	WCDMA1900	9400	1880	RMC	Right Cheek	0mm	S	24.42	25.00	0.256	0.29	0.158	0.18	0.09
Head	WCDMA1700	1412	1732.4	RMC	Left Cheek	0mm	\	24.37	25.00	0.175	0.20	0.121	0.14	0.08
Head	WCDMA1700	1412	1732.4	RMC	Left Tilt	0mm	\	24.37	25.00	0.140	0.16	0.094	0.11	0.01
Head	WCDMA1700	1513	1752.6	RMC	Right Cheek	0mm	\	24.35	25.00	0.253	0.29	0.166	0.19	-0.09
Head	WCDMA1700	1412	1732.4	RMC	Right Cheek	0mm	\	24.37	25.00	0.267	0.31	0.175	0.20	0.17
Head	WCDMA1700	1312	1712.4	RMC	Right Cheek	0mm	FIG A.4	24.44	25.00	0.277	0.32	0.181	0.21	0.09
Head	WCDMA1700	1412	1732.4	RMC	Right Tilt	0mm	\	24.37	25.00	0.140	0.16	0.095	0.11	0.05
Head	WCDMA 850	4233	846.6	RMC	Left Cheek	0mm	\	23.21	24.00	0.160	0.19	0.124	0.15	0.07
Head	WCDMA 850	4183	836.6	RMC	Left Cheek	0mm	FIG A.5	23.17	24.00	0.180	0.22	0.138	0.17	0.05
Head	WCDMA 850	4132	826.4	RMC	Left Cheek	0mm	\	23.24	24.00	0.160	0.19	0.124	0.15	-0.07
Head	WCDMA 850	4183	836.6	RMC	Left Tilt	0mm	\	23.17	24.00	0.087	0.11	0.069	0.08	0.11
Head	WCDMA 850	4183	836.6	RMC	Right Cheek	0mm	\	23.17	24.00	0.147	0.18	0.113	0.14	0.19
Head	WCDMA 850	4183	836.6	RMC	Right Tilt	0mm	\	23.17	24.00	0.086	0.10	0.068	0.08	0.10
Head	LTE Band12	23130	711	1RB-Mid	Left Cheek	0mm	FIG A.6	24.78	25.50	0.240	0.28	0.185	0.22	-0.07
Head	LTE Band12	23130	711	1RB-Mid	Left Tilt	0mm	\	24.78	25.50	0.161	0.19	0.128	0.15	0.00
Head	LTE Band12	23130	711	1RB-Mid	Right Cheek	0mm	\	24.78	25.50	0.213	0.25	0.165	0.19	0.15
Head	LTE Band12	23130	711	1RB-Mid	Right Tilt	0mm	\	24.78	25.50	0.131	0.15	0.102	0.12	-0.01
Head	LTE Band12	23130	711	25RB-Low	Left Cheek	0mm	\	23.96	24.50	0.177	0.20	0.136	0.15	0.15
Head	LTE Band12	23130	711	25RB-Low	Left Tilt	0mm	\	23.96	24.50	0.108	0.12	0.084	0.10	0.08
Head	LTE Band12	23130	711	25RB-Low	Right Cheek	0mm	\	23.96	24.50	0.183	0.21	0.140	0.16	0.10
Head	LTE Band12	23130	711	25RB-Low	Right Tilt	0mm	\	23.96	24.50	0.100	0.11	0.079	0.09	0.01
Head	LTE Band25	26140	1860	1RB-Mid	Left Cheek	0mm	\	24.63	25.00	0.275	0.30	0.182	0.20	0.12
Head	LTE Band25	26140	1860	1RB-Mid	Left Tilt	0mm	\	24.63	25.00	0.181	0.20	0.120	0.13	0.03
Head	LTE Band25	26140	1860	1RB-Mid	Right Cheek	0mm	FIG A.7	24.63	25.00	0.300	0.33	0.197	0.21	0.07
Head	LTE Band25	26140	1860	1RB-Mid	Right Tilt	0mm	\	24.63	25.00	0.211	0.23	0.137	0.15	0.08
Head	LTE Band25	26140	1860	50RB-Mid	Left Cheek	0mm	\	23.72	24.00	0.208	0.22	0.139	0.15	0.17
Head	LTE Band25	26140	1860	50RB-Mid	Left Tilt	0mm	\	23.72	24.00	0.145	0.15	0.096	0.10	0.07
Head	LTE Band25	26140	1860	50RB-Mid	Right Cheek	0mm	\	23.72	24.00	0.234	0.25	0.153	0.16	-0.07
Head	LTE Band25	26140	1860	50RB-Mid	Right Tilt	0mm	\	23.72	24.00	0.165	0.18	0.108	0.12	-0.08
Head	LTE Band26	2675	822.5	1RB-Low	Left Cheek	0mm	\	24.86	25.50	0.119	0.14	0.091	0.11	0.11
Head	LTE Band26	2675	822.5	1RB-Low	Left Tilt	0mm	\	24.86	25.50	0.094	0.11	0.076	0.09	-0.05
Head	LTE Band26	2675	822.5	1RB-Low	Right Cheek	0mm	FIG A.8	24.86	25.50	0.205	0.24	0.159	0.18	0.06
Head	LTE Band26	2675	822.5	1RB-Low	Right Tilt	0mm	\	24.86	25.50	0.117	0.14	0.091	0.11	-0.07
Head	LTE Band26	2675	822.5	36RB-Low	Left Cheek	0mm	\	23.97	24.50	0.113	0.13	0.088	0.10	-0.01
Head	LTE Band26	2675	822.5	36RB-Low	Left Tilt	0mm	\	23.97	24.50	0.091	0.10	0.072	0.08	-0.08
Head	LTE Band26	2675	822.5	36RB-Low	Right Cheek	0mm	\	23.97	24.50	0.196	0.22	0.152	0.17	-0.17
Head	LTE Band26	2675	822.5	36RB-Low	Right Tilt	0mm	\	23.97	24.50	0.108	0.12	0.086	0.10	-0.13
Head	LTE Band41 PC2	40620	2593	1RB-Low	Left Cheek	0mm	\	26.88	27.00	0.064	0.07	0.036	0.04	0.10
Head	LTE Band41 PC2	40620	2593	1RB-Low	Left Tilt	0mm	\	26.88	27.00	0.052	0.05	0.031	0.03	0.17
Head	LTE Band41 PC2	40620	2593	1RB-Low	Right Cheek	0mm	FIG A.9	26.88	27.00	0.133	0.14	0.070	0.07	0.02
Head	LTE Band41 PC2	40620	2593	1RB-Low	Right Tilt	0mm	\	26.88	27.00	<0.01	<0.01	<0.01	<0.01	\
Head	LTE Band41 PC2	40620	2593	50RB-Low	Left Cheek	0mm	\	25.92	26.00	0.047	0.05	0.026	0.03	-0.05
Head	LTE Band41 PC2	40620	2593	50RB-Low	Left Tilt	0mm	\	25.92	26.00	0.039	0.04	0.021	0.02	-0.03
Head	LTE Band41 PC2	40620	2593	50RB-Low	Right Cheek	0mm	\	25.92	26.00	0.112	0.11	0.056	0.06	0.07
Head	LTE Band41 PC2	40620	2593	50RB-Low	Right Tilt	0mm	\	25.92	26.00	<0.01	<0.01	<0.01	<0.01	\
Head	LTE Band41 PC2	41490	2680	1RB-High	Cheek Right	0mm	41C	26.90	27.00	0.121	0.124	0.065	0.067	0.16
Head	LTE Band41 PC3	41490	2680	1RB-Mid	Left Cheek	0mm	\	23.92	24.00	0.041	0.04	0.023	0.02	-0.01
Head	LTE Band41 PC3	41490	2680	1RB-Mid	Left Tilt	0mm	\	23.92	24.00	<0.01	<0.01	<0.01	<0.01	\
Head	LTE Band41 PC3	41490	2680	1RB-Mid	Right Cheek	0mm	FIG A.10	23.92	24.00	0.094	0.10	0.048	0.05	0.03
Head	LTE Band41 PC3	41490	2680	1RB-Mid	Right Tilt	0mm	\	23.92	24.00	<0.01	<0.01	<0.01	<0.01	\
Head	LTE Band41 PC3	41490	2680	50RB-Mid	Left Cheek	0mm	\	22.86	23.00	0.031	0.03	0.017	0.02	-0.16
Head	LTE Band41 PC3	41490	2680	50RB-Mid	Left Tilt	0mm	\	22.86	23.00	<0.01	<0.01	<0.01	<0.01	\
Head	LTE Band41 PC3	41490	2680	50RB-Mid	Right Cheek	0mm	\	22.86	23.00	0.073	0.08	0.037	0.04	0.03
Head	LTE Band41 PC3	41490	2680	50RB-Mid	Right Tilt	0mm	\	22.86	23.00	<0.01	<0.01	<0.01	<0.01	\
Head	LTE Band41 PC3	41515	2682.5	1RB-High	Cheek Right	0mm	41C	23.91	24.00	0.079	0.08	0.034	0.03	0.18
Head	LTE Band66	132572	1770	1RB-Mid	Left Cheek	0mm	\	24.59	25.00	0.157	0.17	0.102	0.11	-0.02
Head	LTE Band66	132572	1770	1RB-Mid	Left Tilt	0mm	\	24.59	25.00	0.128	0.14	0.083	0.09	-0.03
Head	LTE Band66	132572	1770	1RB-Mid	Right Cheek	0mm	FIG A.11	24.59	25.00	0.225	0.25	0.146	0.16	0.06
Head	LTE Band66	132572	1770	1RB-Mid	Right Tilt	0mm	\	24.59	25.00	0.129	0.14	0.085	0.09	-0.10
Head	LTE Band66	132572	1770	50RB-Mid	Left Cheek	0mm	\	23.67	24.00	0.116	0.13	0.076	0.08	-0.18
Head	LTE Band66	132572	1770	50RB-Mid	Left Tilt	0mm	\	23.67	24.00	0.097	0.10	0.062	0.07	-0.02
Head	LTE Band66	132572	1770	50RB-Mid	Right Cheek	0mm	\	23.67	24.00	0.173	0.19	0.112	0.12	-0.18
Head	LTE Band66	132572	1770	50RB-Mid	Right Tilt	0mm	\	23.67	24.00	0.100	0.11	0.065	0.07	0.02
Head	LTE Band71	133222	673	1RB-Mid	Left Cheek	0mm	\	24.79	25.50	0.258	0.30	0.207	0.24	0.16
Head	LTE Band71	133222	673	1RB-Mid	Left Tilt	0mm	\	24.79	25.50	0.152	0.18	0.123	0.14	0.07
Head	LTE Band71	133222	673	1RB-Mid	Right Cheek	0mm	FIG A.12	24.79	25.50	0.286	0.34	0.225	0.26	0.03
Head	LTE Band71	133222	673	1RB-Mid	Right Tilt	0mm	\	24.79	25.50	0.112	0.13	0.088	0.10	-0.16
Head	LTE Band71	133222	673	50RB-Low	Left Cheek	0mm	\	24.11	24.50	0.217	0.24	0.172	0.19	0.02
Head	LTE Band71	133222	673	50RB-Low	Left Tilt	0mm	\	24.11	24.50	0.116	0.13	0.095	0.10	-0.10
Head	LTE Band71	133222	673</											



Body

RF Exposure Conditions	Frequency Band	Channel Number	Frequency (MHz)	Mode/RB	Test setup	Distance	Figure No.	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
Hotspot	GSM850	190	836.6	GPRS(2TX)	Front	10mm	\	31.42	31.50	0.222	0.23	0.166	0.17	0.02
Hotspot	GSM850	251	848.8	GPRS(2TX)	Rear	10mm	FIG A.13	31.32	31.50	0.420	0.44	0.322	0.34	0.05
Hotspot	GSM850	190	836.6	GPRS(2TX)	Rear	10mm	\	31.42	31.50	0.370	0.38	0.284	0.29	-0.09
Hotspot	GSM850	128	824.2	GPRS(2TX)	Rear	10mm	\	31.47	31.50	0.337	0.34	0.259	0.26	-0.07
Hotspot	GSM850	190	836.6	GPRS(2TX)	Left	10mm	\	31.42	31.50	0.232	0.24	0.162	0.17	-0.12
Hotspot	GSM850	190	836.6	GPRS(2TX)	Right	10mm	\	31.42	31.50	0.212	0.22	0.149	0.15	-0.06
Hotspot	GSM850	190	836.6	GPRS(2TX)	Bottom	10mm	\	31.42	31.50	0.044	0.04	0.028	0.03	0.12
Hotspot	GSM850	251	848.8	EGPRS(2TX)	Rear	10mm	\	31.32	31.50	0.397	0.41	0.304	0.32	-0.16
Hotspot	GSM1900	512	1850.2	GPRS(4TX)	Front	10mm	\	23.39	23.50	0.289	0.30	0.170	0.17	-0.19
Hotspot	GSM1900	810	1909.8	GPRS(4TX)	Rear	10mm	\	23.45	23.50	0.686	0.69	0.354	0.36	0.15
Hotspot	GSM1900	661	1880	GPRS(4TX)	Rear	10mm	\	23.39	23.50	0.794	0.81	0.457	0.47	-0.07
Hotspot	GSM1900	512	1850.2	GPRS(4TX)	Rear	10mm	FIG A.14	23.17	23.50	0.879	0.95	0.461	0.50	0.00
Hotspot	GSM1900	512	1850.2	GPRS(4TX)	Left	10mm	\	23.39	23.50	0.077	0.08	0.047	0.05	0.03
Hotspot	GSM1900	512	1850.2	GPRS(4TX)	Right	10mm	\	23.39	23.50	0.066	0.07	0.037	0.04	0.01
Hotspot	GSM1900	810	1909.8	GPRS(4TX)	Bottom	10mm	\	23.45	23.50	0.658	0.67	0.332	0.34	-0.11
Hotspot	GSM1900	661	1880	GPRS(4TX)	Bottom	10mm	\	23.39	23.50	0.826	0.85	0.437	0.45	-0.07
Hotspot	GSM1900	512	1850.2	GPRS(4TX)	Bottom	10mm	\	23.17	23.50	0.801	0.86	0.407	0.44	0.07
Hotspot	GSM1900	512	1850.2	EGPRS(4TX)	Rear	10mm	\	23.17	23.50	0.701	0.76	0.370	0.40	0.13
Body worn	GSM1900	661	1880	GPRS(2TX)	Front	15mm	\	28.80	29.00	0.322	0.34	0.199	0.21	-0.06
Body worn	GSM1900	810	1909.8	GPRS(2TX)	Rear	15mm	\	28.79	29.00	0.498	0.52	0.279	0.29	-0.02
Body worn	GSM1900	661	1880	GPRS(2TX)	Rear	15mm	\	28.80	29.00	0.574	0.60	0.290	0.30	0.18
Body worn	GSM1900	512	1850.2	GPRS(2TX)	Rear	15mm	FIG A.15	28.66	29.00	0.729	0.79	0.419	0.45	0.13
Hotspot	WCDMA1900	9400	1880	RMC	Front	10mm	\	21.42	22.00	0.516	0.59	0.295	0.34	0.13
Hotspot	WCDMA1900	9538	1907.6	RMC	Rear	10mm	\	21.38	22.00	0.638	0.74	0.339	0.39	-0.06
Hotspot	WCDMA1900	9400	1880	RMC	Rear	10mm	\	21.42	22.00	0.777	0.89	0.408	0.47	0.06
Hotspot	WCDMA1900	9262	1852.4	RMC	Rear	10mm	\	21.40	22.00	0.930	1.07	0.490	0.56	-0.01
Hotspot	WCDMA1900	9400	1880	RMC	Left	10mm	\	21.42	22.00	0.162	0.19	0.094	0.11	-0.18
Hotspot	WCDMA1900	9400	1880	RMC	Right	10mm	\	21.42	22.00	0.092	0.11	0.056	0.06	0.10
Hotspot	WCDMA1900	9538	1907.6	RMC	Bottom	10mm	\	21.38	22.00	0.919	1.06	0.475	0.55	-0.01
Hotspot	WCDMA1900	9400	1880	RMC	Bottom	10mm	FIG A.16	21.42	22.00	1.07	1.22	0.549	0.63	-0.03
Hotspot	WCDMA1900	9262	1852.4	RMC	Bottom	10mm	\	21.40	22.00	0.919	1.06	0.475	0.55	-0.09
Hotspot	WCDMA1900	9400	1880	RMC	Bottom	10mm	H	21.42	22.00	0.981	1.12	0.521	0.63	0.16
Hotspot	WCDMA1700	1412	1732.5	RMC	Front	10mm	\	18.18	19.00	0.307	0.37	0.171	0.21	-0.03
Hotspot	WCDMA1700	1513	1752.6	RMC	Rear	10mm	\	18.28	19.00	0.779	0.92	0.393	0.46	0.12
Hotspot	WCDMA1700	1412	1732.5	RMC	Rear	10mm	\	18.18	19.00	0.930	1.12	0.469	0.57	-0.17
Hotspot	WCDMA1700	1312	1712.4	RMC	Rear	10mm	FIG A.17	18.34	19.00	1.14	1.33	0.579	0.67	0.04
Hotspot	WCDMA1700	1412	1732.5	RMC	Left	10mm	\	18.18	19.00	<0.01	<0.01	<0.01	<0.01	\
Hotspot	WCDMA1700	1412	1732.5	RMC	Right	10mm	\	18.18	19.00	0.071	0.09	0.040	0.05	0.11
Hotspot	WCDMA1700	1513	1752.6	RMC	Bottom	10mm	\	18.28	19.00	0.847	1.00	0.436	0.51	-0.18
Hotspot	WCDMA1700	1412	1732.5	RMC	Bottom	10mm	\	18.18	19.00	0.956	1.15	0.493	0.60	-0.15
Hotspot	WCDMA1700	1312	1712.4	RMC	Bottom	10mm	\	18.34	19.00	1.03	1.20	0.544	0.63	-0.07
Hotspot	WCDMA1700	1312	1712.4	RMC	Rear	10mm	H	18.34	19.00	0.992	1.15	0.563	0.67	0.17
Hotspot	WCDMA1700	1312	1712.4	RMC	Rear	10mm	S	18.34	19.00	1.05	1.22	0.542	0.63	0.18
Body worn	WCDMA1700	1412	1732.5	RMC	Front	15mm	\	21.78	22.00	0.405	0.43	0.247	0.26	0.13
Body worn	WCDMA1700	1513	1752.6	RMC	Rear	15mm	\	21.82	22.00	0.826	0.86	0.478	0.50	0.06
Body worn	WCDMA1700	1412	1732.5	RMC	Rear	15mm	\	21.78	22.00	0.994	1.05	0.573	0.60	-0.07
Body worn	WCDMA1700	1312	1712.4	RMC	Rear	15mm	FIG A.18	21.77	22.00	1.19	1.25	0.652	0.69	0.04
Body worn	WCDMA1700	1312	1712.4	RMC	Rear	15mm	H	21.77	22.00	0.973	1.03	0.618	0.69	0.02
Hotspot	WCDMA 850	4183	836.6	RMC	Front	10mm	\	23.17	24.00	0.132	0.16	0.089	0.11	-0.04
Hotspot	WCDMA 850	4233	846.6	RMC	Rear	10mm	\	23.21	24.00	0.253	0.30	0.195	0.23	-0.04
Hotspot	WCDMA 850	4183	836.6	RMC	Rear	10mm	FIG A.19	23.17	24.00	0.259	0.31	0.199	0.24	0.07
Hotspot	WCDMA 850	4132	826.4	RMC	Rear	10mm	\	23.24	24.00	0.255	0.30	0.198	0.24	-0.17
Hotspot	WCDMA 850	4183	836.6	RMC	Left	10mm	\	23.17	24.00	0.154	0.19	0.107	0.13	0.03
Hotspot	WCDMA 850	4183	836.6	RMC	Right	10mm	\	23.17	24.00	0.146	0.18	0.103	0.12	-0.17
Hotspot	WCDMA 850	4183	836.6	RMC	Bottom	10mm	\	23.17	24.00	0.038	0.05	0.021	0.03	0.03
Hotspot	LTE Band12	23130	711	1RB-Mid	Front	10mm	\	24.78	25.50	0.230	0.27	0.176	0.21	-0.15
Hotspot	LTE Band12	23130	711	1RB-Mid	Rear	10mm	FIG A.20	24.78	25.50	0.370	0.44	0.286	0.34	0.08
Hotspot	LTE Band12	23130	711	1RB-Mid	Left	10mm	\	24.78	25.50	0.280	0.33	0.199	0.23	0.00
Hotspot	LTE Band12	23130	711	1RB-Mid	Right	10mm	\	24.78	25.50	0.295	0.35	0.211	0.25	-0.10
Hotspot	LTE Band12	23130	711	1RB-Mid	Bottom	10mm	\	24.78	25.50	0.038	0.04	0.023	0.03	0.05
Hotspot	LTE Band12	23130	711	25RB-Low	Front	10mm	\	23.96	24.50	0.177	0.20	0.136	0.15	-0.18
Hotspot	LTE Band12	23130	711	25RB-Low	Rear	10mm	\	23.96	24.50	0.286	0.32	0.222	0.25	0.17
Hotspot	LTE Band12	23130	711	25RB-Low	Left	10mm	\	23.96	24.50	0.228	0.26	0.160	0.18	0.11
Hotspot	LTE Band12	23130	711	25RB-Low	Right	10mm	\	23.96	24.50	0.235	0.27	0.165	0.19	0.19
Hotspot	LTE Band12	23130	711	25RB-Low	Bottom	10mm	\	23.96	24.50	<0.01	<0.01	<0.01	<0.01	\
Hotspot	LTE Band25	26140	1860	1RB-Mid	Front	10mm	\	21.77	22.00	0.493	0.52	0.291	0.31	0.02
Hotspot	LTE Band25	26590	1905	1RB-Mid	Rear	10mm	\	21.76	22.00	0.686	0.72	0.366	0.39	0.01
Hotspot	LTE Band25	26365	1882.5	1RB-Mid	Rear	10mm	\	21.76	22.00	0.763	0.81	0.414	0.44	-0.18
Hotspot	LTE Band25	26140	1860	1RB-Mid	Rear	10mm	\	21.77	22.00	0.945	1.00	0.498	0.53	0.14
Hotspot	LTE Band25	26140	1860	1RB-Mid	Left	10mm	\	21.77	22.00	0.136	0.14	0.081	0.09	0.02
Hotspot	LTE Band25	26140	1860	1RB-Mid	Right	10mm	\	21.77	22.00	0.090	0.09	0.057	0.06	0.14
Hotspot	LTE Band25	26590	1905	1RB-Mid	Bottom	10mm	\	21.76	22.00	0.907	0.96	0.480	0.51	0.04
Hotspot	LTE Band25	26365	1882.5	1RB-Mid	Bottom	10mm	\	21.76	22.00	0.998	1.05	0.539	0.57	-0.16
Hotspot	LTE Band25	26140	1860	1RB-Mid	Bottom	10mm	FIG A.21	21.77	22.00	1.16	1.22	0.614	0.65	-0.08
Hotspot	LTE Band25	26140	1860	50RB-Mid	Front	10mm	\	21.77	22.00	0.477	0.50	0.285	0.30	0.12
Hotspot	LTE Band25	26590	1905	50RB-Mid	Rear	10mm	\	21.71	22.00	0.673	0.72	0.360	0.38	-0.19
Hotspot	LTE Band25	26365	1882.5	50RB-Mid	Rear	10mm	\	21.71	22.00	0.748	0.80	0.406	0.43	0.17
Hotspot	LTE Band25	26140	1860	50RB-Mid	Rear	10mm	\	21.77	22.00	0.857	0.90	0.457	0.48	0.15
Hotspot	LTE Band25	26140	1860	50RB-Mid	Left	10mm	\	21.77	22.00	0.129	0.14	0.077	0.08	-0.19
Hotspot	LTE Band25	26140	1860	50RB-Mid	Right	10mm	\	21.77	22.00	0.076	0.08	0.048	0.05	0.16
Hotspot	LTE Band25	26590	1905	50RB-Mid	Bottom	10mm	\	21.71	22.00	0.882	0.94	0.467	0.50	0.01
Hotspot	LTE Band25	26365	1882.5	50RB-Mid	Bottom	10mm	\	21.71	22.00	0.976	1.04	0.517	0.55	0.02
Hotspot	LTE Band25	26140	1860	50RB-Mid	Bottom	10mm	\	21.77	22.00	1.12	1.18	0.589	0.62	-0.07
Hotspot	LTE Band25	26140	1860	100RB	Rear	10mm	\	21.76	22.00	0.982	1.04	0.512	0.54	0.09
Hotspot	LTE Band25	26140	1860	100RB	Bottom	10mm	\	21.76	22.00	0.973	1.03	0.504	0.53	0.02
Hotspot	LTE Band25	26140	1860	1RB-Mid	Bottom	10mm	H	21.77	22.00	1.05	1.11	0.605	0.64	0.14
Body worn	LTE Band25	26140	1860	1RB-Mid	Front	15mm	\	22.81	23.00	0.417	0.44	0.252	0.26	0.15
Body worn	LTE Band25	26140	1860	1RB-Mid	Rear	15mm	FIG A.22	22.81	23.00	0.642	0.67	0.368	0.38	0.14
Body worn	LTE Band25	26140	1860	50RB-Mid	Front	15mm	\	22.8						



Hotspot	LTE Band26	2675	822.5	1RB-Low	Front	10mm	\	24.86	25.50	0.202	0.23	0.154	0.18	-0.05
Hotspot	LTE Band26	2675	822.5	1RB-Low	Rear	10mm	FIG A.23	24.86	25.50	0.346	0.40	0.266	0.31	0.02
Hotspot	LTE Band26	2675	822.5	1RB-Low	Left	10mm	\	24.86	25.50	0.210	0.24	0.147	0.17	-0.17
Hotspot	LTE Band26	2675	822.5	1RB-Low	Right	10mm	\	24.86	25.50	0.208	0.24	0.146	0.17	0.14
Hotspot	LTE Band26	2675	822.5	1RB-Low	Bottom	10mm	\	24.86	25.50	0.041	0.05	0.026	0.03	0.19
Hotspot	LTE Band26	2675	822.5	36RB-Low	Front	10mm	\	23.97	24.50	0.156	0.18	0.120	0.14	0.11
Hotspot	LTE Band26	2675	822.5	36RB-Low	Rear	10mm	\	23.97	24.50	0.270	0.31	0.207	0.23	-0.19
Hotspot	LTE Band26	2675	822.5	36RB-Low	Left	10mm	\	23.97	24.50	0.169	0.19	0.120	0.14	0.17
Hotspot	LTE Band26	2675	822.5	36RB-Low	Right	10mm	\	23.97	24.50	0.158	0.18	0.110	0.12	0.08
Hotspot	LTE Band26	2675	822.5	36RB-Low	Bottom	10mm	\	23.97	24.50	<0.01	<0.01	<0.01	<0.01	\
Hotspot	LTE Band41 PC2	41055	2636.5	1RB-Low	Front	10mm	\	23.49	23.50	0.418	0.42	0.188	0.19	-0.02
Hotspot	LTE Band41 PC2	41490	2680	1RB-Low	Rear	10mm	\	23.44	23.50	0.897	0.91	0.393	0.40	-0.11
Hotspot	LTE Band41 PC2	41055	2636.5	1RB-Low	Rear	10mm	FIG A.24	23.49	23.50	0.987	0.99	0.433	0.43	-0.01
Hotspot	LTE Band41 PC2	40620	2593	1RB-Low	Rear	10mm	\	23.47	23.50	0.739	0.74	0.291	0.29	-0.14
Hotspot	LTE Band41 PC2	40185	2549.5	1RB-Low	Rear	10mm	\	23.28	23.50	0.744	0.78	0.327	0.34	-0.19
Hotspot	LTE Band41 PC2	39750	2506	1RB-Low	Rear	10mm	\	23.27	23.50	0.562	0.59	0.248	0.26	0.11
Hotspot	LTE Band41 PC2	41055	2636.5	1RB-Low	Left	10mm	\	23.49	23.50	0.053	0.05	0.030	0.03	-0.17
Hotspot	LTE Band41 PC2	41055	2636.5	1RB-Low	Right	10mm	\	23.49	23.50	0.109	0.11	0.057	0.06	0.02
Hotspot	LTE Band41 PC2	41490	2680	1RB-Low	Bottom	10mm	\	23.44	23.50	0.915	0.93	0.377	0.38	0.11
Hotspot	LTE Band41 PC2	41055	2636.5	1RB-Low	Bottom	10mm	\	23.49	23.50	0.951	0.95	0.393	0.39	0.13
Hotspot	LTE Band41 PC2	40620	2593	1RB-Low	Bottom	10mm	\	23.47	23.50	0.610	0.61	0.277	0.28	0.14
Hotspot	LTE Band41 PC2	40185	2549.5	1RB-Low	Bottom	10mm	\	23.28	23.50	0.562	0.59	0.230	0.24	0.19
Hotspot	LTE Band41 PC2	39750	2506	1RB-Low	Bottom	10mm	\	23.27	23.50	0.373	0.39	0.156	0.16	-0.16
Hotspot	LTE Band41 PC2	41055	2636.5	50RB-Low	Front	10mm	\	23.49	23.50	0.429	0.43	0.194	0.19	-0.15
Hotspot	LTE Band41 PC2	41490	2680	50RB-Low	Rear	10mm	\	23.41	23.50	0.880	0.90	0.384	0.39	0.19
Hotspot	LTE Band41 PC2	41055	2636.5	50RB-Low	Rear	10mm	\	23.49	23.50	0.978	0.98	0.421	0.42	0.01
Hotspot	LTE Band41 PC2	40620	2593	50RB-Low	Rear	10mm	\	23.43	23.50	0.782	0.79	0.354	0.36	-0.16
Hotspot	LTE Band41 PC2	40185	2549.5	50RB-Low	Rear	10mm	\	23.24	23.50	0.765	0.81	0.334	0.35	0.16
Hotspot	LTE Band41 PC2	39750	2506	50RB-Low	Rear	10mm	\	23.21	23.50	0.544	0.58	0.240	0.26	0.03
Hotspot	LTE Band41 PC2	41055	2636.5	50RB-Low	Left	10mm	\	23.49	23.50	0.052	0.05	0.029	0.03	-0.13
Hotspot	LTE Band41 PC2	41055	2636.5	50RB-Low	Right	10mm	\	23.49	23.50	0.107	0.11	0.057	0.06	0.04
Hotspot	LTE Band41 PC2	41490	2680	50RB-Low	Bottom	10mm	\	23.41	23.50	0.909	0.93	0.377	0.38	0.08
Hotspot	LTE Band41 PC2	41055	2636.5	50RB-Low	Bottom	10mm	\	23.49	23.50	0.952	0.95	0.393	0.39	0.03
Hotspot	LTE Band41 PC2	40620	2593	50RB-Low	Bottom	10mm	\	23.43	23.50	0.621	0.63	0.282	0.29	-0.03
Hotspot	LTE Band41 PC2	40185	2549.5	50RB-Low	Bottom	10mm	\	23.24	23.50	0.606	0.64	0.249	0.26	-0.01
Hotspot	LTE Band41 PC2	39750	2506	50RB-Low	Bottom	10mm	\	23.21	23.50	0.374	0.40	0.157	0.17	-0.18
Hotspot	LTE Band41 PC2	41055	2636.5	100RB	Rear	10mm	\	23.38	23.50	0.947	0.97	0.411	0.42	-0.09
Hotspot	LTE Band41 PC2	41055	2636.5	100RB	Bottom	10mm	\	23.38	23.50	0.956	0.98	0.398	0.41	0.07
Hotspot	LTE Band41 PC2	41490	2680	1RB-High	Rear	10mm	41C	23.44	23.50	0.785	0.80	0.361	0.37	0.15
Body worn	LTE Band41 PC2	41055	2636.5	1RB-Low	Front	15mm	\	24.37	24.50	0.246	0.25	0.118	0.12	-0.17
Body worn	LTE Band41 PC2	41055	2636.5	1RB-Low	Rear	15mm	FIG A.25	24.37	24.50	0.485	0.50	0.233	0.24	0.08
Body worn	LTE Band41 PC2	41055	2636.5	50RB-Low	Front	15mm	\	24.36	24.50	0.236	0.24	0.116	0.12	0.13
Body worn	LTE Band41 PC2	41055	2636.5	50RB-Low	Rear	15mm	\	24.36	24.50	0.452	0.47	0.223	0.23	-0.18
Body worn	LTE Band41 PC2	41490	2680	1RB-High	Rear	15mm	41C	24.36	24.50	0.402	0.42	0.201	0.21	0.15
Hotspot	LTE Band41 PC3	41055	2636.5	1RB-Mid	Front	10mm	\	21.87	22.00	0.474	0.49	0.210	0.22	-0.19
Hotspot	LTE Band41 PC3	41490	2680	1RB-Mid	Rear	10mm	\	21.84	22.00	1.00	1.04	0.450	0.47	0.01
Hotspot	LTE Band41 PC3	41055	2636.5	1RB-Mid	Rear	10mm	FIG A.26	21.87	22.00	1.08	1.11	0.467	0.48	0.04
Hotspot	LTE Band41 PC3	40620	2593	1RB-Mid	Rear	10mm	\	21.85	22.00	0.938	0.97	0.421	0.44	0.06
Hotspot	LTE Band41 PC3	40185	2549.5	1RB-Mid	Rear	10mm	\	21.78	22.00	0.916	0.96	0.399	0.42	0.07
Hotspot	LTE Band41 PC3	39750	2506	1RB-Mid	Rear	10mm	\	21.71	22.00	0.899	0.96	0.378	0.40	0.12
Hotspot	LTE Band41 PC3	41055	2636.5	1RB-Mid	Left	10mm	\	21.87	22.00	0.061	0.06	0.033	0.03	0.13
Hotspot	LTE Band41 PC3	41055	2636.5	1RB-Mid	Right	10mm	\	21.87	22.00	0.135	0.14	0.073	0.08	-0.07
Hotspot	LTE Band41 PC3	41490	2680	1RB-Mid	Bottom	10mm	\	21.84	22.00	0.973	1.01	0.412	0.43	0.14
Hotspot	LTE Band41 PC3	41055	2636.5	1RB-Mid	Bottom	10mm	\	21.87	22.00	1.02	1.05	0.430	0.44	-0.10
Hotspot	LTE Band41 PC3	40620	2593	1RB-Mid	Bottom	10mm	\	21.85	22.00	0.951	0.98	0.403	0.42	-0.03
Hotspot	LTE Band41 PC3	40185	2549.5	1RB-Mid	Bottom	10mm	\	21.78	22.00	0.922	0.97	0.386	0.41	0.13
Hotspot	LTE Band41 PC3	39750	2506	1RB-Mid	Bottom	10mm	\	21.71	22.00	0.918	0.98	0.367	0.39	-0.13
Hotspot	LTE Band41 PC3	41055	2636.5	50RB-Mid	Front	10mm	\	21.89	22.00	0.465	0.48	0.210	0.22	-0.10
Hotspot	LTE Band41 PC3	41490	2680	50RB-Mid	Rear	10mm	\	21.87	22.00	0.978	1.01	0.444	0.46	-0.19
Hotspot	LTE Band41 PC3	41055	2636.5	50RB-Mid	Rear	10mm	\	21.89	22.00	1.00	1.03	0.453	0.46	-0.18
Hotspot	LTE Band41 PC3	40620	2593	50RB-Mid	Rear	10mm	\	21.88	22.00	0.951	0.98	0.421	0.43	0.03
Hotspot	LTE Band41 PC3	40185	2549.5	50RB-Mid	Rear	10mm	\	21.70	22.00	0.932	1.00	0.404	0.43	0.13
Hotspot	LTE Band41 PC3	39750	2506	50RB-Mid	Rear	10mm	\	21.68	22.00	0.909	0.98	0.379	0.41	-0.19
Hotspot	LTE Band41 PC3	41055	2636.5	50RB-Mid	Left	10mm	\	21.89	22.00	0.040	0.04	0.027	0.03	0.10
Hotspot	LTE Band41 PC3	41055	2636.5	50RB-Mid	Right	10mm	\	21.89	22.00	0.090	0.09	0.047	0.05	0.09
Hotspot	LTE Band41 PC3	41490	2680	50RB-Mid	Bottom	10mm	\	21.87	22.00	0.953	0.98	0.417	0.43	0.03
Hotspot	LTE Band41 PC3	41055	2636.5	50RB-Mid	Bottom	10mm	\	21.89	22.00	0.995	1.02	0.440	0.45	0.11
Hotspot	LTE Band41 PC3	40620	2593	50RB-Mid	Bottom	10mm	\	21.88	22.00	0.934	0.96	0.398	0.41	0.13
Hotspot	LTE Band41 PC3	40185	2549.5	50RB-Mid	Bottom	10mm	\	21.70	22.00	0.919	0.98	0.367	0.39	-0.16
Hotspot	LTE Band41 PC3	39750	2506	50RB-Mid	Bottom	10mm	\	21.68	22.00	0.889	0.96	0.355	0.38	-0.02
Hotspot	LTE Band41 PC3	41055	2636.5	100RB	Rear	10mm	\	21.84	22.00	0.882	0.92	0.327	0.34	-0.17
Hotspot	LTE Band41 PC3	41055	2636.5	100RB	Bottom	10mm	\	21.84	22.00	0.853	0.89	0.357	0.37	0.07
Hotspot	LTE Band41 PC3	41055	2636.5	1RB-Mid	Rear	10mm	41C	21.87	22.00	0.896	0.92	0.369	0.38	0.17
Body worn	LTE Band41 PC3	41055	2636.5	1RB-Mid	Front	15mm	\	22.43	22.50	0.198	0.20	0.100	0.10	0.03
Body worn	LTE Band41 PC3	41055	2636.5	1RB-Mid	Rear	15mm	FIG A.27	22.43	22.50	0.451	0.46	0.219	0.22	0.08
Body worn	LTE Band41 PC3	41055	2636.5	50RB-Mid	Front	15mm	\	22.38	22.50	0.195	0.20	0.098	0.10	0.05
Body worn	LTE Band41 PC3	41055	2636.5	50RB-Mid	Rear	15mm	\	22.38	22.50	0.441	0.45	0.216	0.22	-0.19
Body worn	LTE Band41 PC3	41515	2682.5	1RB-High	Rear	15mm	41C	22.39	22.50	0.409	0.42	0.196	0.20	0.14



Hotspot	LTE Band66	132572	1720	1RB-Mid	Front	10mm	\	18.67	19.00	0.373	0.40	0.207	0.22	0.18
Hotspot	LTE Band66	132572	1770	1RB-Mid	Rear	10mm	\	18.61	19.00	0.663	0.73	0.337	0.37	0.04
Hotspot	LTE Band66	132322	1745	1RB-Mid	Rear	10mm	\	18.57	19.00	0.841	0.93	0.425	0.47	0.16
Hotspot	LTE Band66	132072	1720	1RB-Mid	Rear	10mm	FIG A.28	18.67	19.00	1.02	1.10	0.520	0.56	-0.04
Hotspot	LTE Band66	132572	1720	1RB-Mid	Left	10mm	\	18.67	19.00	<0.01	<0.01	<0.01	<0.01	\
Hotspot	LTE Band66	132572	1720	1RB-Mid	Right	10mm	\	18.67	19.00	0.075	0.08	0.044	0.05	0.17
Hotspot	LTE Band66	132572	1770	1RB-Mid	Bottom	10mm	\	18.61	19.00	0.684	0.75	0.362	0.40	-0.14
Hotspot	LTE Band66	132322	1745	1RB-Mid	Bottom	10mm	\	18.57	19.00	0.815	0.90	0.431	0.48	-0.04
Hotspot	LTE Band66	132072	1720	1RB-Mid	Bottom	10mm	\	18.67	19.00	0.904	0.98	0.480	0.52	0.01
Hotspot	LTE Band66	132572	1720	50RB-Mid	Front	10mm	\	18.69	19.00	0.374	0.40	0.203	0.22	-0.05
Hotspot	LTE Band66	132572	1770	50RB-Mid	Rear	10mm	\	18.67	19.00	0.650	0.70	0.329	0.35	0.13
Hotspot	LTE Band66	132322	1745	50RB-Mid	Rear	10mm	\	18.60	19.00	0.835	0.92	0.422	0.46	0.15
Hotspot	LTE Band66	132072	1720	50RB-Mid	Rear	10mm	\	18.69	19.00	0.893	0.96	0.458	0.49	0.05
Hotspot	LTE Band66	132572	1720	50RB-Mid	Left	10mm	\	18.69	19.00	<0.01	<0.01	<0.01	<0.01	\
Hotspot	LTE Band66	132572	1720	50RB-Mid	Right	10mm	\	18.69	19.00	0.068	0.07	0.040	0.04	0.00
Hotspot	LTE Band66	132572	1770	50RB-Mid	Bottom	10mm	\	18.67	19.00	0.679	0.73	0.358	0.39	-0.04
Hotspot	LTE Band66	132322	1745	50RB-Mid	Bottom	10mm	\	18.60	19.00	0.805	0.88	0.425	0.47	-0.17
Hotspot	LTE Band66	132072	1720	50RB-Mid	Bottom	10mm	\	18.69	19.00	0.867	0.93	0.435	0.47	0.12
Hotspot	LTE Band66	132072	1720	100RB	Rear	10mm	\	18.67	19.00	0.846	0.91	0.428	0.46	0.15
Hotspot	LTE Band66	132072	1720	100RB	Bottom	10mm	\	18.67	19.00	0.833	0.90	0.402	0.43	0.18
Body worn	LTE Band66	132572	1720	1RB-Mid	Front	15mm	\	22.23	22.50	0.633	0.67	0.403	0.43	0.08
Body worn	LTE Band66	132572	1770	1RB-Mid	Rear	15mm	\	22.18	22.50	0.986	1.06	0.523	0.56	0.16
Body worn	LTE Band66	132322	1745	1RB-Mid	Rear	15mm	\	22.15	22.50	0.928	1.01	0.489	0.53	0.09
Body worn	LTE Band66	132572	1720	1RB-Mid	Rear	15mm	FIG A.29	22.23	22.50	1.02	1.09	0.572	0.61	0.14
Body worn	LTE Band66	132572	1720	50RB-Mid	Front	15mm	\	22.25	22.50	0.628	0.67	0.397	0.42	-0.17
Body worn	LTE Band66	132572	1770	50RB-Mid	Rear	15mm	\	22.23	22.50	0.889	0.95	0.487	0.52	-0.13
Body worn	LTE Band66	132322	1745	50RB-Mid	Rear	15mm	\	22.16	22.50	0.827	0.89	0.503	0.54	-0.01
Body worn	LTE Band66	132572	1720	50RB-Mid	Rear	15mm	\	22.25	22.50	0.996	1.06	0.561	0.59	0.18
Body worn	LTE Band66	132072	1720	100RB	Rear	15mm	\	22.18	22.50	0.905	0.97	0.513	0.55	0.09
Hotspot	LTE Band71	133222	673	1RB-Mid	Front	10mm	\	24.79	25.50	0.287	0.34	0.223	0.26	0.18
Hotspot	LTE Band71	133222	673	1RB-Mid	Rear	10mm	FIG A.30	24.79	25.50	0.490	0.58	0.379	0.45	0.12
Hotspot	LTE Band71	133222	673	1RB-Mid	Left	10mm	\	24.79	25.50	0.413	0.49	0.292	0.34	-0.13
Hotspot	LTE Band71	133222	673	1RB-Mid	Right	10mm	\	24.79	25.50	0.402	0.47	0.284	0.33	-0.02
Hotspot	LTE Band71	133222	673	1RB-Mid	Bottom	10mm	\	24.79	25.50	<0.01	<0.01	<0.01	<0.01	\
Hotspot	LTE Band71	133222	673	50RB-Low	Front	10mm	\	24.11	24.50	0.238	0.26	0.180	0.20	-0.09
Hotspot	LTE Band71	133222	673	50RB-Low	Rear	10mm	\	24.11	24.50	0.412	0.45	0.312	0.34	-0.16
Hotspot	LTE Band71	133222	673	50RB-Low	Left	10mm	\	24.11	24.50	0.318	0.35	0.225	0.25	-0.03
Hotspot	LTE Band71	133222	673	50RB-Low	Right	10mm	\	24.11	24.50	0.307	0.34	0.217	0.24	0.11
Hotspot	LTE Band71	133222	673	50RB-Low	Bottom	10mm	\	24.11	24.50	<0.01	<0.01	<0.01	<0.01	\

13.2 SAR results for WLAN

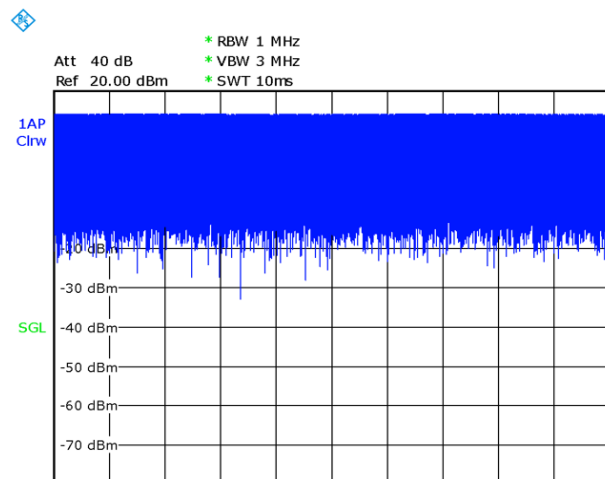
The maximum output power specified for production units are determined for all applicable 802.11 transmission modes in each standalone and aggregated frequency band. Maximum output power is measured for the highest maximum output power configuration(s) in each frequency band according to the default power measurement procedures.

When the same transmission mode configurations have the same maximum output power on the same channel for the 802.11 a/g/n/ac/ax modes, the channel in the lower order/sequence 802.11 mode (i.e. a, g, n ac then ax) is selected.

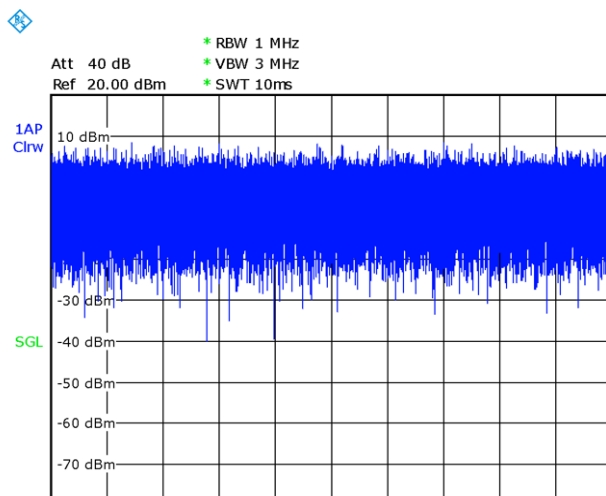
SAR Test reduction was applied from KDB 248227 guidance, when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band. Additional output power measurements were not deemed necessary.

Duty factor plot

2.4G



5G



WLAN 2.4G

RF Exposure Conditions	Frequency Band	Frequency (MHz)	Channel Number	Mode/RB	Test setup	Distance	Figure No.	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
Head	WLAN	2412	1	11b	Left Cheek	0mm	FIG A.31	18.81	19.5	0.977	1.15	0.442	0.52	0.18
Head	WLAN	2462	11	11b	Left Cheek	0mm	\	18.57	19.5	0.870	1.08	0.417	0.52	0.17
Head	WLAN	2412	1	11b	Left Tilt	0mm	\	18.81	19.5	0.852	1.00	0.353	0.41	0.06
Head	WLAN	2412	1	11b	Right Cheek	0mm	\	18.81	19.5	0.435	0.51	0.230	0.27	0.06
Head	WLAN	2412	1	11b	Right Tilt	0mm	\	18.81	19.5	0.404	0.47	0.205	0.24	0.08
Body	WLAN	2412	1	11b	Front	10mm	\	20.3	21	0.251	0.29	0.124	0.15	0.09
Body	WLAN	2412	1	11b	Rear	10mm	FIG A.32	20.3	21	0.272	0.32	0.137	0.16	0.15
Body	WLAN	2412	1	11b	Right	10mm	\	20.3	21	<0.01	<0.01	<0.01	<0.01	\
Body	WLAN	2412	1	11b	Top	10mm	\	20.3	21	0.216	0.25	0.100	0.12	0.11
Body	WLAN	2412	1	11b	Rear	15mm	\	20.3	21	0.141	0.17	0.075	0.09	-0.16

WLAN 5G

RF Exposure Conditions	Frequency Band	Frequency (MHz)	Channel Number	Mode/RB	Test setup	Distance	Figure No.	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
Head	WLAN	5310	62	11n-40M	Left Cheek	0mm	\	18.36	19.5	0.361	0.47	0.143	0.19	0.08
Head	WLAN	5310	62	11n-40M	Left Tilt	0mm	\	18.36	19.5	0.208	0.27	0.085	0.11	0.19
Head	WLAN	5310	62	11n-40M	Right Cheek	0mm	\	18.36	19.5	0.085	0.11	0.033	0.04	0.08
Head	WLAN	5310	62	11n-40M	Right Tilt	0mm	\	18.36	19.5	0.108	0.14	0.038	0.05	-0.04
Head	WLAN	5710	142	11n-40M	Left Cheek	0mm	FIG A.33	18.69	19.5	0.561	0.68	0.206	0.25	-0.09
Head	WLAN	5710	142	11n-40M	Left Tilt	0mm	\	18.69	19.5	0.360	0.43	0.132	0.16	-0.13
Head	WLAN	5710	142	11n-40M	Right Cheek	0mm	\	18.69	19.5	0.182	0.22	0.066	0.08	-0.06
Head	WLAN	5710	142	11n-40M	Right Tilt	0mm	\	18.69	19.5	0.169	0.20	0.062	0.07	-0.17
Head	WLAN	5755	151	11n-40M	Left Cheek	0mm	\	18.50	19.5	0.497	0.63	0.183	0.23	0.06
Head	WLAN	5755	151	11n-40M	Left Tilt	0mm	\	18.50	19.5	0.295	0.37	0.111	0.14	0.07
Head	WLAN	5755	151	11n-40M	Right Cheek	0mm	\	18.50	19.5	0.190	0.24	0.069	0.09	-0.10
Head	WLAN	5755	151	11n-40M	Right Tilt	0mm	\	18.50	19.5	0.178	0.22	0.068	0.09	0.04
Body	WLAN	5310	62	11n-40M	Front	10mm	\	16.85	18	0.024	0.03	0.006	0.01	0.19
Body	WLAN	5310	62	11n-40M	Rear	10mm	FIG A.34	16.85	18	0.790	1.03	0.240	0.31	0.06
Body	WLAN	5270	54	11n-40M	Rear	10mm	\	16.65	18	0.707	0.96	0.220	0.30	0.04
Body	WLAN	5310	62	11n-40M	Right	10mm	\	16.85	18	0.368	0.48	0.129	0.17	0.15
Body	WLAN	5310	62	11n-40M	Top	10mm	\	16.85	18	0.112	0.15	0.048	0.06	0.09
Body	WLAN	5710	142	11n-40M	Front	10mm	\	17.49	18	0.057	0.06	0.025	0.03	0.12
Body	WLAN	5710	142	11n-40M	Rear	10mm	\	17.49	18	0.763	0.86	0.266	0.30	0.05
Body	WLAN	5550	110	11n-40M	Rear	10mm	\	16.83	18	0.685	0.90	0.227	0.30	0.02
Body	WLAN	5710	142	11n-40M	Right	10mm	\	17.49	18	0.266	0.30	0.104	0.12	0.18
Body	WLAN	5710	142	11n-40M	Top	10mm	\	17.49	18	0.085	0.10	0.032	0.04	0.06
Body	WLAN	5755	151	11n-40M	Front	10mm	\	17.38	18	0.071	0.08	0.031	0.04	0.11
Body	WLAN	5755	151	11n-40M	Rear	10mm	\	17.38	18	0.635	0.73	0.232	0.27	0.02
Body	WLAN	5755	151	11n-40M	Right	10mm	\	17.38	18	0.209	0.24	0.089	0.10	0.09
Body	WLAN	5755	151	11n-40M	Top	10mm	\	17.38	18	0.089	0.10	0.036	0.04	0.15
Body	WLAN	5310	62	11n-40M	Rear	15mm	\	16.85	18	0.560	0.73	0.195	0.25	-0.09

13.3 SAR results for BT

RF Exposure Conditions	Frequency Band	Frequency (MHz)	Channel Number	Mode/RB	Test setup	Distance	Figure No.	EUT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
Head	BT	2480	78	GFSK	Left Cheek	0mm	\	10.41	11	<0.01	<0.01	<0.01	<0.01	\
Head	BT	2480	78	GFSK	Left Tilt	0mm	\	10.41	11	<0.01	<0.01	<0.01	<0.01	\
Head	BT	2480	78	GFSK	Right Cheek	0mm	FIG A.35	10.41	11	0.020	0.02	0.012	0.01	0.07
Head	BT	2480	78	GFSK	Right Tilt	0mm	\	10.41	11	<0.01	<0.01	<0.01	<0.01	\
Body	BT	2480	78	GFSK	Front	10mm	\	10.41	11	<0.01	<0.01	<0.01	<0.01	\
Body	BT	2480	78	GFSK	Rear	10mm	\	10.41	11	<0.01	<0.01	<0.01	<0.01	\
Body	BT	2480	78	GFSK	Right	10mm	\	10.41	11	<0.01	<0.01	<0.01	<0.01	\
Body	BT	2480	78	GFSK	Top	10mm	\	10.41	11	<0.01	<0.01	<0.01	<0.01	\

13.4 SAR results for Phablet

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

1. The normally required head and body-worn accessory SAR test procedures for handsets, including hotspot mode, must be applied.
2. The UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna located at ≤ 25 mm from that surface or edge, in direct contact with a flat phantom, for 10-g extremity SAR according to the body-equivalent tissue dielectric parameters in KDB Publication 865664 D01 to address interactive hand use exposure conditions. When hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg; however, when power reduction applies to hotspot mode the measured SAR must be scaled to the maximum output power, including tolerance, allowed for phablet modes to compare with the 1.2 W/kg SAR test reduction threshold. The normal tablet procedures in KDB Publication 616217 are required when the overall diagonal dimension of the device is > 20.0 cm. Hotspot mode SAR is not required when normal tablet procedures are applied. Extremity 10-g SAR is also not required for the front (top) surface of larger form factor full size tablets. The more conservative normal tablet SAR results can be used to support phablet mode 10-g extremity SAR.
3. The simultaneous transmission operating configurations applicable to voice and data transmissions for both phone and mini-tablet modes must be taken into consideration separately for 1-g and 10-g SAR to determine the simultaneous transmission SAR test exclusion and measurement requirements for the relevant wireless modes and exposure conditions



RF Exposure Conditions	Frequency Band	Frequency (MHz)	Channel Number	Mode/RB	Test setup	Distance	ELT Measured Power (dBm)	Tune up (dBm)	Measured SAR 1g (W/kg)	Calculated SAR 1g (W/kg)	Measured SAR 10g (W/kg)	Calculated SAR 10g (W/kg)	Power Drift
Body	GSM1900	810	1909.8	GPRS(2TX)	Rear	0mm	28.79	29.00	3.89	4.08	1.75	1.84	0.15
Body	GSM1900	661	1880	GPRS(2TX)	Rear	0mm	28.80	29.00	4.01	4.20	1.67	1.75	0.09
Body	GSM1900	512	1850.2	GPRS(2TX)	Rear	0mm	28.66	29.00	4.09	4.42	1.86	2.01	-0.08
Body	GSM1900	810	1909.8	GPRS(2TX)	Bottom	0mm	28.79	29.00	4.21	4.42	1.57	1.65	-0.15
Body	GSM1900	661	1880	GPRS(2TX)	Bottom	0mm	28.80	29.00	4.38	4.59	2.01	2.10	-0.14
Body	GSM1900	512	1850.2	GPRS(2TX)	Bottom	0mm	28.66	29.00	4.21	4.55	1.85	2.00	0.07
Body	WCDMA1900	9400	1880	RMC	Bottom	0mm	21.42	22.00	3.38	3.86	1.56	1.78	0.14
Body	WCDMA1700	1513	1752.6	RMC	Rear	0mm	21.82	22.00	4.85	5.06	2.15	2.24	0.15
Body	WCDMA1700	1413	1732.6	RMC	Rear	0mm	21.78	22.00	4.68	4.92	2.21	2.32	0.09
Body	WCDMA1700	1312	1712.4	RMC	Rear	0mm	21.77	22.00	5.12	5.40	2.27	2.39	0.02
Body	WCDMA1700	1513	1752.6	RMC	Bottom	0mm	21.82	22.00	4.69	4.89	2.13	2.22	0.16
Body	WCDMA1700	1413	1732.6	RMC	Bottom	0mm	21.78	22.00	4.52	4.75	2.21	2.32	0.17
Body	WCDMA1700	1312	1712.4	RMC	Bottom	0mm	21.77	22.00	5.25	5.54	2.31	2.44	-0.02
Body	LTE Band25	26590	1905	1RB-Mid	Rear	0mm	22.79	23.00	5.12	5.37	2.15	2.26	-0.09
Body	LTE Band25	26365	1882.5	1RB-Mid	Rear	0mm	22.78	23.00	5.09	5.35	2.09	2.20	-0.15
Body	LTE Band25	26140	1860	1RB-Mid	Rear	0mm	22.81	23.00	5.37	5.61	2.24	2.34	0.13
Body	LTE Band25	26590	1905	1RB-Mid	Bottom	0mm	22.79	23.00	5.07	5.32	2.21	2.32	0.09
Body	LTE Band25	26365	1882.5	1RB-Mid	Bottom	0mm	22.78	23.00	5.16	5.43	2.08	2.19	0.11
Body	LTE Band25	26140	1860	1RB-Mid	Bottom	0mm	22.81	23.00	5.19	5.42	2.35	2.46	-0.09
Body	LTE Band25	26590	1905	50RB-Mid	Bottom	0mm	22.83	23.00	5.05	5.25	2.15	2.24	-0.15
Body	LTE Band25	26365	1882.5	50RB-Mid	Bottom	0mm	22.82	23.00	4.85	5.06	2.01	2.10	-0.08
Body	LTE Band25	26140	1860	50RB-Mid	Bottom	0mm	22.85	23.00	4.62	4.78	1.98	2.05	-0.09
Body	LTE Band25	26140	1860	100RB-Mid	Rear	0mm	22.85	23.00	4.53	4.69	1.86	1.93	0.13
Body	LTE Band25	26140	1860	100RB-Mid	Bottom	0mm	22.85	23.00	4.39	4.54	1.97	2.04	-0.09
Body	LTE Band66	132572	1770	1RB-Mid	Rear	0mm	22.18	22.50	4.89	5.26	1.86	2.00	0.16
Body	LTE Band66	132322	1745	1RB-Mid	Rear	0mm	22.15	22.50	4.87	5.28	1.75	1.90	0.18
Body	LTE Band66	132072	1720	1RB-Mid	Rear	0mm	22.23	22.50	5.08	5.41	2.27	2.42	-0.07
Body	LTE Band66	132572	1770	1RB-Mid	Bottom	0mm	22.18	22.50	4.87	5.24	2.14	2.30	0.07
Body	LTE Band66	132322	1745	1RB-Mid	Bottom	0mm	22.15	22.50	4.96	5.38	2.05	2.22	0.16
Body	LTE Band66	132072	1720	1RB-Mid	Bottom	0mm	22.23	22.50	4.93	5.25	2.27	2.42	-0.07
Body	LTE Band66	132572	1770	50RB-Mid	Rear	0mm	22.23	22.50	5.01	5.33	2.14	2.28	0.15
Body	LTE Band66	132322	1745	50RB-Mid	Rear	0mm	22.16	22.50	4.85	5.24	1.97	2.13	0.19
Body	LTE Band66	132072	1720	50RB-Mid	Rear	0mm	22.25	22.50	4.76	5.04	2.05	2.17	0.17
Body	LTE Band66	132572	1770	50RB-Mid	Bottom	0mm	22.23	22.50	5.03	5.35	2.11	2.25	-0.06
Body	LTE Band66	132322	1745	50RB-Mid	Bottom	0mm	22.16	22.50	4.85	5.24	2.09	2.26	-0.14
Body	LTE Band66	132072	1720	50RB-Mid	Bottom	0mm	22.25	22.50	4.76	5.04	2.17	2.30	-0.17
Body	LTE Band66	132072	1720	100RB	Rear	0mm	23.18	22.50	5.02	4.29	2.06	1.76	0.16
Body	LTE Band66	132072	1720	100RB	Bottom	0mm	23.18	22.50	4.91	4.20	2.17	1.86	0.09
Body	LTE Band41 PC2	41490	2680	1RB-Low	Rear	0mm	24.3	24.50	8.04	8.42	2.61	2.74	-0.03
Body	LTE Band41 PC2	41055	2636.5	1RB-Low	Rear	0mm	24.37	24.50	8.39	8.65	2.74	2.82	0.09
Body	LTE Band41 PC2	40620	2593	1RB-Low	Rear	0mm	24.32	24.50	7.93	8.27	2.69	2.80	-0.01
Body	LTE Band41 PC2	40185	2549.5	1RB-Low	Rear	0mm	24.26	24.50	7.28	7.69	2.41	2.54	-0.08
Body	LTE Band41 PC2	39750	2506	1RB-Low	Rear	0mm	24.29	24.50	8.45	8.87	2.83	2.97	0.15
Body	LTE Band41 PC2	41490	2680	1RB-Low	Bottom	0mm	24.3	24.50	5.54	5.80	1.89	1.98	0.03
Body	LTE Band41 PC2	41055	2636.5	1RB-Low	Bottom	0mm	24.37	24.50	5.82	6.00	1.99	2.05	0.16
Body	LTE Band41 PC2	40620	2593	1RB-Low	Bottom	0mm	24.32	24.50	5.75	6.00	1.97	2.05	-0.03
Body	LTE Band41 PC2	40185	2549.5	1RB-Low	Bottom	0mm	24.26	24.50	5.28	5.58	1.82	1.92	0.06
Body	LTE Band41 PC2	39750	2506	1RB-Low	Bottom	0mm	24.29	24.50	4.33	4.55	1.50	1.58	0.06
Body	LTE Band41 PC2	41490	2680	50RB-Low	Rear	0mm	24.3	24.50	8.49	8.89	2.73	2.86	-0.07
Body	LTE Band41 PC2	41055	2636.5	50RB-Low	Rear	0mm	24.36	24.50	8.62	8.90	2.79	2.88	-0.07
Body	LTE Band41 PC2	40620	2593	50RB-Low	Rear	0mm	24.35	24.50	9.08	9.39	2.96	3.06	-0.06
Body	LTE Band41 PC2	40185	2549.5	50RB-Low	Rear	0mm	24.25	24.50	9.34	9.89	3.07	3.25	0.04
Body	LTE Band41 PC2	39750	2506	50RB-Low	Rear	0mm	24.19	24.50	8.73	9.38	2.90	3.11	-0.06
Body	LTE Band41 PC2	41490	2680	50RB-Low	Bottom	0mm	24.3	24.50	5.80	6.07	1.97	2.06	-0.16
Body	LTE Band41 PC2	41055	2636.5	50RB-Low	Bottom	0mm	24.36	24.50	5.98	6.18	2.02	2.09	-0.16
Body	LTE Band41 PC2	40620	2593	50RB-Low	Bottom	0mm	24.35	24.50	6.44	6.67	2.08	2.15	-0.01
Body	LTE Band41 PC2	40185	2549.5	50RB-Low	Bottom	0mm	24.25	24.50	5.59	5.92	1.90	2.01	0.04
Body	LTE Band41 PC2	39750	2506	50RB-Low	Bottom	0mm	24.19	24.50	4.40	4.73	1.51	1.62	-0.15
Body	LTE Band41 PC2	41055	2636.5	100RB	Rear	0mm	24.38	24.50	7.77	7.99	2.68	2.76	-0.14
Body	LTE Band41 PC3	41490	2680	1RB-Mid	Rear	0mm	22.34	22.50	5.94	6.16	2.16	2.24	0.01
Body	LTE Band41 PC3	41055	2636.5	1RB-Mid	Rear	0mm	22.43	22.50	6.23	6.33	2.27	2.31	0.05
Body	LTE Band41 PC3	40620	2593	1RB-Mid	Rear	0mm	22.37	22.50	6.61	6.81	2.42	2.49	0.10
Body	LTE Band41 PC3	40185	2549.5	1RB-Mid	Rear	0mm	22.18	22.50	7.89	8.49	2.61	2.81	0.07
Body	LTE Band41 PC3	39750	2506	1RB-Mid	Rear	0mm	22.22	22.50	7.70	8.21	2.64	2.82	0.05
Body	LTE Band41 PC3	41490	2680	1RB-Mid	Bottom	0mm	22.34	22.50	4.77	4.94	1.69	1.76	0.18
Body	LTE Band41 PC3	41055	2636.5	1RB-Mid	Bottom	0mm	22.43	22.50	5.02	5.10	1.78	1.81	0.04
Body	LTE Band41 PC3	40620	2593	1RB-Mid	Bottom	0mm	22.37	22.50	5.14	5.29	1.81	1.86	0.08
Body	LTE Band41 PC3	40185	2549.5	1RB-Mid	Bottom	0mm	22.18	22.50	4.77	5.14	1.69	1.82	0.11
Body	LTE Band41 PC3	39750	2506	1RB-Mid	Bottom	0mm	22.22	22.50	3.91	4.17	1.39	1.49	-0.14
Body	LTE Band41 PC3	41490	2680	50RB-Mid	Rear	0mm	22.26	22.50	5.98	6.32	2.16	2.28	0.15
Body	LTE Band41 PC3	41055	2636.5	50RB-Mid	Rear	0mm	22.38	22.50	6.33	6.50	2.28	2.34	0.06
Body	LTE Band41 PC3	40620	2593	50RB-Mid	Rear	0mm	22.35	22.50	6.77	7.01	2.44	2.53	0.08
Body	LTE Band41 PC3	40185	2549.5	50RB-Mid	Rear	0mm	22.12	22.50	6.82	7.45	2.49	2.71	-0.18
Body	LTE Band41 PC3	39750	2506	50RB-Mid	Rear	0mm	22.19	22.50	6.67	7.16	2.46	2.64	0.07
Body	LTE Band41 PC3	41490	2680	50RB-Mid	Bottom	0mm	22.26	22.50	4.78	5.05	1.69	1.78	0.03
Body	LTE Band41 PC3	41055	2636.5	50RB-Mid	Bottom	0mm	22.38	22.50	5.13	5.27	1.80	1.85	-0.06
Body	LTE Band41 PC3	40620	2593	50RB-Mid	Bottom	0mm	22.35	22.50	6.36	6.58	2.03	2.10	-0.01
Body	LTE Band41 PC3	40185	2549.5	50RB-Mid	Bottom	0mm	22.12	22.50	5.03	5.49	1.77	1.93	0.03
Body	LTE Band41 PC3	39750	2506	50RB-Mid	Bottom	0mm	22.19	22.50	3.93	4.22	1.39	1.50	0.18
Body	WLAN 2.4G	2412	1	11b	Rear	0mm	20.3	21	2.78	2.38	1.16	1.36	0.18
Body	WLAN 5G	5310	62	11n-40M	Rear	0mm	16.85	18	9.42	12.28	1.63	2.12	0.01
Body	BT	2480	78	GFSK	Rear	0mm	10.41	11	0.12	0.14	0.05	0.06	-0.12

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 ($\sim 10\%$ 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

Band	Frequency		Mode	Test Position	Distance (mm)	Highest Measured SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
	Ch.	MHz							
GSM1900	512	1850.2	GPRS(4TX)	Rear	10mm	0.879	0.843	1.04	/
WCDMA1900	9400	1880	RMC	Bottom	10mm	1.07	1.04	1.03	/
WCDMA1700	1312	1712.4	RMC	Rear	10mm	1.14	1.11	1.03	/
WCDMA1700	1312	1712.4	RMC	Rear	15mm	1.19	1.15	1.03	/
LTE Band25	26140	1860	1RB-Mid	Rear	10mm	0.945	0.923	1.02	/
LTE Band25	26140	1860	1RB-Mid	Bottom	10mm	1.16	1.14	1.02	/
LTE Band41-PC2	41055	2636.5	1RB-Low	Rear	10mm	0.987	0.963	1.02	/
LTE Band41-PC2	41055	2636.5	1RB-Low	Bottom	10mm	0.951	0.933	1.02	/
LTE Band41-PC3	41055	2636.5	1RB-Mid	Rear	10mm	1.08	1.06	1.02	/
LTE Band41-PC3	41055	2636.5	1RB-Mid	Bottom	10mm	1.02	0.995	1.03	/
LTE Band66	132072	1720	1RB-Mid	Rear	10mm	1.02	0.988	1.03	/
LTE Band66	132072	1720	1RB-Mid	Bottom	10mm	0.904	0.879	1.03	/
LTE Band66	132572	1720	1RB-Mid	Rear	15mm	1.02	0.981	1.04	/
WLAN 2.4G	1	2412	11b	Cheek Left	0mm	0.977	0.962	1.02	/
WLAN 2.4G	1	2412	11b	Tilt Left	0mm	0.852	0.833	1.02	/

15 Evaluation of Simultaneous

15.1 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 WLAN and Bluetooth devices which may simultaneously transmit with the licensed transmitter. KDB 447498 D01 provides two procedures for determining simultaneous transmission SAR test exclusion: Sum of SAR and SAR to Peak Location Ratio (SPLSR)

15.1.1 Sum of SAR

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

15.1.2 SAR to Peak Location Ratio (SPLSR)

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

$$SPLSR = (SAR1 + SAR2)^{1.5} / Ri$$

Where:

SAR1 is the highest reported or estimated SAR for the first of a pair of simultaneous transmitting antennas, in a specific test operating mode and exposure condition.

SAR2 is the highest reported or estimated SAR for the second of a pair of simultaneous transmitting antennas, in the same test operating mode and exposure condition as the first .

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

$$[(x1-x2)^2 + (y1-y2)^2 + (z1-z2)^2]$$

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

$$(SAR1 + SAR2)^{1.5} / Ri \leq 0.04$$

When an individual antenna transmits at on two bands simultaneously, the sum of the highest reported SAR for the frequency bands should be used to determine *SAR1* or *SAR2*. When SPLSR is necessary, the smallest distance between the peak SAR locations for the antenna pair with respect to the peaks from each antenna should be used.

When $SPLSR \leq 0.04$ (rounded to two decimal digits), for all antenna pairs in the configuration, then the device qualifies for 1-g SAR test exemption.

When 10-g SAR applies, the corresponding test exemption condition is $SPLSR \leq 0.10$.

15.2 Simultaneous Transmission Capabilities

The simultaneous transmission possibilities for this device are listed as below:

NO	If support: WWAN*1TX and WLAN*1TX	Y or N
1	WWAN + WLAN 2.4GHz	Y
2	WWAN + WLAN 2.4GHz +BT	N
3	WWAN + WLAN 5GHz	Y
4	WWAN + WLAN 5GHz +BT	Y

Note:

1. The reported SAR summation is calculated based on the same configuration and test position.
2. For the devices edges with antennas more than 2.5 cm from edge are not required to be evaluated for SAR, we determined the SAR of this edges were less than 0.01. For the convenience of simultaneous transmission calculation, all SAR values less than or equal to 0.01 are uniformly written as 0.00

15.3 SAR Simultaneous Transmission Analysis

reported SAR 1g (W/kg)																			
Head		GSM850	GSM1900	WCDMA850	WCDMA1700	WCDMA1900	LTE Band12	LTE Band25	LTE Band26	LTE Band41 (PC2)	LTE Band41 (PC3)	LTE Band66	LTE Band71	2.4G	5G	BT	+WiFi2.4G	+WiFi5G	+BT+WiFi5G
Cheek	L	0.25	0.151	0.217	0.202	0.34	0.283	0.299	0.137	0.065	0.041	0.172	0.303	1.15	0.68	0	1.49	1.02	1.02
Tilt	L	0.1	0.108	0.105	0.161	0.291	0.19	0.197	0.108	0.053	0	0.14	0.178	1	0.433	0	1.29	0.724	0.72
Cheek	R	0.17	0.169	0.177	0.315	0.368	0.251	0.326	0.237	0.136	0.095	0.247	0.336	0.51	0.239	0.02	0.88	0.607	0.63
Tilt	R	0.09	0.08	0.104	0.161	0.252	0.154	0.229	0.135	0	0	0.141	0.131	0.47	0.224	0	0.72	0.476	0.48
Hotspot		GSM850	GSM1900	WCDMA850	WCDMA1700	WCDMA1900	LTE Band12	LTE Band25	LTE Band26	LTE Band41 (PC2)	LTE Band41 (PC3)	LTE Band66	LTE Band71	2.4G	5G	BT	+WiFi2.4G	+WiFi5G	+BT+WiFi5G
Front	10mm	0.226	0.296	0.159	0.37	0.589	0.271	0.519	0.234	0.429	0.488	0.402	0.337	0.294	0.081	0	0.88	0.67	0.67
Rear	10mm	0.437	SPLSR	0.313	SPLSR	SPLSR	0.436	SPLSR	0.4	SPLSR	SPLSR	SPLSR	SPLSR	0.319	1.029	0	0.76	1.47	1.47
Left	10mm	0.236	0.078	0.186	0	0.185	0.33	0.143	0.243	0.053	0.062	0	0.486	0	0	0	0.49	0.49	0.49
Right	10mm	0.215	0.067	0.176	0.085	0.105	0.348	0.094	0.241	0.109	0.139	0.08	0.473	0	0.479	0	0.47	0.95	0.95
Bottom	10mm	0.044	0.864	0.046	1.199	1.222	0.044	1.223	0.047	0.953	1.05	0.975	0	0	0	0	1.22	1.22	1.22
Top	10mm	/	/	/	/	/	/	/	/	/	/	/	/	0.253	0.145	0	0.25	0.15	0.15
Body worn		GSM850	GSM1900	WCDMA850	WCDMA1700	WCDMA1900	LTE Band12	LTE Band25	LTE Band26	LTE Band41 (PC2)	LTE Band41 (PC3)	LTE Band66	LTE Band71	2.4G	5G	BT	+WiFi2.4G	+WiFi5G	+BT+WiFi5G
Front	15mm	/	0.337	/	0.43	/	/	0.425	/	0.25	0.2	0.673	/	0.294	0.081	0	0.97	0.75	0.75
Rear	15mm	/	0.788	/	SPLSR	/	/	0.67	/	0.5	0.46	SPLSR	/	0.165	0.729	0	0.95	1.52	1.52
reported SAR 10g (W/kg)																			
Rear	0mm	/	SPLSR	/	SPLSR	/	/	SPLSR	/	SPLSR	SPLSR	SPLSR	/	1.36	2.12	0.06	1.36	2.12	2.18
Bottom	0mm	/	2.1	/	2.44	1.78	/	2.46	/	2.15	2.1	2.42	/	0	0	0	2.46	2.46	2.46

The sum of 1-g SAR for rear 0mm is large than 1.6 W/kg. The SPLSR is calculated as follows.

Table 15.3-1: The sum of reported SAR values for main antenna and WiFi2.4G (SPLSR)

	Position	Band	Main antenna	WiFi 2.4G	Sum (1g)	Distance (mm)	Ratio
Highest reported SAR value for Body	Rear 10mm	W1700	1.33	0.32	1.65	159.2	0.013

Table 15.3-2: The sum of reported SAR values for main antenna and WiFi5G (SPLSR)

	Position	Band	Main antenna	WiFi 5G	Sum (1g)	Distance (mm)	Ratio
Highest reported SAR value for Body	Rear 10mm	GSM1900	0.95	1.03	1.98	144.63	0.019
		W1700	1.33		2.36	153.64	0.024
		W1900	1.07		2.10	145.13	0.021
		LTE B25	1.00		2.03	156.18	0.019
		LTE B41 PC2	0.99		2.02	160.79	0.018

		LTE B41 PC3	1.11		2.14	156.4	0.020
		LTE B66	1.10		2.13	143.23	0.022
		LTE B71	0.58		1.61	88.99	0.023
	Rear 15mm	W1700	1.25	0.73	1.98	142.34	0.020
		LTE B66	1.09		1.82	152.16	0.016

Table 15.3-3: The sum of reported SAR values for main antenna and WiFi2.4G (SPLSR)

	Position	Band	Main antenna	WiFi 2.4G	Sum (10g)	Distance (mm)	Ratio
Highest reported SAR value for Body	Rear 0mm	LTE B41 PC2	3.25	1.36	4.61	159.62	0.062
		LTE B41 PC3	2.82		4.18	157.49	0.054

Table 15.3-4: The sum of reported SAR values for main antenna and WiFi5G (SPLSR)

	Position	Band	Main antenna	WiFi 5G	Sum (10g)	Distance (mm)	Ratio
Highest reported SAR value for Body	Rear 0mm	GSM1900	2.01	2.12	4.13	143.68	0.058
		W1700	2.39		4.51	146.06	0.066
		LTE B25	2.34		4.46	149.94	0.063
		LTE B66	2.42		4.54	144.87	0.067
		LTE B41 PC2	3.25		5.37	146.61	0.085
		LTE B41 PC3	2.82		4.94	144.47	0.076

Table 15.3-5: The sum of reported SAR values for BT and WiFi5G (SPLSR)

	Position	BT	WiFi 5G	Sum (10g)	Distance (mm)	Ratio
Highest reported SAR value for Body	Rear 0mm	0.060	2.120	2.18	32.83	0.098

Table 15.3-6: The sum of reported SAR values for main antenna and BT (SPLSR)

	Position	Band	Main antenna	BT	Sum (10g)	Distance (mm)	Ratio
Highest reported SAR value for Body	Rear 0mm	GSM1900	2.01	0.06	2.07	113.45	0.026
		W1700	2.39		2.45	113.91	0.034
		LTE B25	2.34		2.40	118.73	0.031
		LTE B66	2.42		2.48	113.44	0.034
		LTE B41 PC2	3.25		3.31	160.10	0.038
		LTE B41 PC3	2.82		2.88	157.96	0.031

Find distance of maxima	
<input type="checkbox"/> Maxima and position w.r.t. Grid Reference Point	associated 1g averages
<input type="checkbox"/> Zoom Scan (D:\2022\I22Z60248(FCC)\WIFI2.4G Body 52a YYH 3.24.da53:0/Rear 10mm 11b-1M 21dB)	
Max. 1 at (14.60, -71.20, 1.89) mm	0.27 W/kg
<input type="checkbox"/> Zoom Scan (D:\2022\I22Z60248(FCC)\WCDMA1700 Body 52a SWL 3.23.da53:0/Rear 10mm 4.6)	
Max. 2 at (-8.60, 86.30, 1.72) mm	1.14 W/kg
<input type="checkbox"/> Distances and Separation Ratios	
Max. 1 - Max. 2	Distance [mm]: 159.20 / Separation ratio [W/kg/mm]: 0.01

Picture 15.3-1 Distance evaluation for WCDMA1700 and WiFi 2.4G

Find distance of maxima	
<input type="checkbox"/> Maxima and position w.r.t. Grid Reference Point	associated 1g averages
<input type="checkbox"/> Zoom Scan (D:\2022\I22Z60248(FCC)\WIFI5G Body 52a YYH 3.24.da53:0/Rear 10mm 11N40M MCS0 18.5DB...)	
Max. 1 at (36.40, -60.60, 1.84) mm	0.79 W/kg
<input type="checkbox"/> Zoom Scan (D:\2022\I22Z60248(FCC)\WCDMA1700 Body 52a SWL 3.23.da53:0/Rear 10mm 4.6)	
Max. 2 at (-8.60, 86.30, 1.72) mm	1.14 W/kg
<input type="checkbox"/> Distances and Separation Ratios	
Max. 1 - Max. 2	Distance [mm]: 153.64 / Separation ratio [W/kg/mm]: 0.02

Picture 15.3-2 Distance evaluation for WCDMA1700 and WiFi 5G

Find distance of maxima	
<input type="checkbox"/> Maxima and position w.r.t. Grid Reference Point	associated 1g averages
<input type="checkbox"/> Zoom Scan (D:\2022\I22Z60248(FCC)\5.3\LTE B41 PC2 Body 52a SWL 5.3.da53:0/Rear 0mm 50-L)	
Max. 1 at (-14.60, 80.20, 1.80) mm	9.34 W/kg
<input type="checkbox"/> Zoom Scan (D:\2022\I22Z60248(FCC)\WIFI2.4G Body 52a SWL 0mm 4.8.da53:0/Rear 0mm 11b-1M 21dB)	
Max. 2 at (26.60, -74.00, -0.30) mm	2.78 W/kg
<input type="checkbox"/> Distances and Separation Ratios	
Max. 1 - Max. 2	Distance [mm]: 159.62 / Separation ratio [W/kg/mm]: 0.26

Picture 15.3-3 Distance evaluation for LTE Band41 PC2 and WiFi 2.4G

Find distance of maxima	
<input type="checkbox"/> Maxima and position w.r.t. Grid Reference Point	associated 1g averages
<input type="checkbox"/> Zoom Scan (D:\2022\I22Z60248(FCC)\5.3\LTE B41 PC2 Body 52a SWL 5.3.da53:0/Rear 0mm 50-L)	
Max. 1 at (-14.60, 80.20, 1.80) mm	9.34 W/kg
<input type="checkbox"/> Zoom Scan (D:\2022\I22Z60248(FCC)\WIFI5G Body 0MM 52a YYH 4.8.da53:0/Rear 0mm 11N40M MCS0 18.5...)	
Max. 2 at (22.60, -61.60, -0.39) mm	9.42 W/kg
<input type="checkbox"/> Distances and Separation Ratios	
Max. 1 - Max. 2	Distance [mm]: 146.61 / Separation ratio [W/kg/mm]: 0.55

Picture 15.3-4 Distance evaluation for LTE Band41 PC2 and WiFi 5G

Find distance of maxima	
<input type="checkbox"/> Maxima and position w.r.t. Grid Reference Point associated 1g averages	
<input type="checkbox"/> Zoom Scan (D:\2022\I22Z60248(FCC)\BT Body 52a SWL 0mm 4.8.da53:0/Rear 0mm 2 2 2 2)	
Max. 1 at (24.50, -28.90, 1.82) mm	0.12 W/kg
<input type="checkbox"/> Zoom Scan (D:\2022\I22Z60248(FCC)\WIFI5G Body 0MM 52a YYH 4.8.da53:0/Rear 0mm 11N40M MCS0 18.5...	
Max. 2 at (22.60, -61.60, -0.39) mm	9.42 W/kg
<input type="checkbox"/> Distances and Separation Ratios	
Max. 1 - Max. 2	Distance [mm]: 32.83 / Separation ratio [W/kg/mm]: 0.90

Picture 15.3-5 Distance evaluation for BT and WiFi 5G

Find distance of maxima	
<input type="checkbox"/> Maxima and position w.r.t. Grid Reference Point associated 1g averages	
<input type="checkbox"/> Zoom Scan (D:\2022\I22Z60248(FCC)\5.3\LTE B41 PC2 Body 52a SWL 5.3.da53:0/Rear 0mm 50-L)	
Max. 1 at (-14.60, 80.20, 1.80) mm	9.34 W/kg
<input type="checkbox"/> Zoom Scan (D:\2022\I22Z60248(FCC)\BT Body 52a SWL 0mm 4.8.da53:0/Rear 0mm)	
Max. 2 at (26.20, -74.60, -0.32) mm	0.08 W/kg
<input type="checkbox"/> Distances and Separation Ratios	
Max. 1 - Max. 2	Distance [mm]: 160.10 / Separation ratio [W/kg/mm]: 0.18

Picture 15.3-6 Distance evaluation for LTE Band41 PC2 and BT

15.4 Conclusion

According to the above tables, the highest simultaneous transmission reported SAR values is **1.52W/kg (10g)**. The sum of reported SAR values is < 1.6W/kg.

16 Measurement Uncertainty

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

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

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

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

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

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

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

No.	Error Description	Type	Uncertainty value	Probably Distribution	Div.	(Ci) 1g	(Ci) 10g	Std. Unc. (1g)	Std. Unc. (10g)	Degree of freedom
Measurement system										
1	Probe calibration	B	6.0	N	1	1	1	6.0	6.0	∞
2	Isotropy	B	4.7	R	$\sqrt{3}$	0.7	0.7	1.9	1.9	∞
3	Boundary effect	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
4	Linearity	B	4.7	R	$\sqrt{3}$	1	1	2.7	2.7	∞
5	Detection limit	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
6	Readout electronics	B	0.3	R	$\sqrt{3}$	1	1	0.3	0.3	∞
7	Response time	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
8	Integration time	B	2.6	R	$\sqrt{3}$	1	1	1.5	1.5	∞
9	RF ambient conditions-noise	B	0	R	$\sqrt{3}$	1	1	0	0	∞
10	RFambient conditions-reflection	B	0	R	$\sqrt{3}$	1	1	0	0	∞
11	Probe positioned mech. Restrictions	B	0.4	R	$\sqrt{3}$	1	1	0.2	0.2	∞
12	Probe positioning with respect to phantom shell	B	2.9	R	$\sqrt{3}$	1	1	1.7	1.7	∞
13	Post-processing	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
14	Fast SAR z-Approximation	B	7.0	R	$\sqrt{3}$	1	1	4.0	4.0	∞
Test sample related										
15	Test sample positioning	A	3.3	N	1	1	1	3.3	3.3	71
16	Device holder uncertainty	A	3.4	N	1	1	1	3.4	3.4	5
17	Drift of output power	B	5.0	R	$\sqrt{3}$	1	1	2.9	2.9	∞
Phantom and set-up										
18	Phantom uncertainty	B	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞
19	Liquid conductivity (target)	B	5.0	R	$\sqrt{3}$	0.64	0.43	1.8	1.2	∞

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

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

No.	Error Description	Type	Uncertainty value	Probably Distribution	Div.	(Ci) 1g	(Ci) 10g	Std. Unc. (1g)	Std. Unc. (10g)	Degree of freedom
Measurement system										
1	Probe calibration	B	6.55	N	1	1	1	6.55	6.55	∞
2	Isotropy	B	4.7	R	$\sqrt{3}$	0.7	0.7	1.9	1.9	∞
3	Boundary effect	B	2.0	R	$\sqrt{3}$	1	1	1.2	1.2	∞
4	Linearity	B	4.7	R	$\sqrt{3}$	1	1	2.7	2.7	∞
5	Detection limit	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
6	Readout electronics	B	0.3	R	$\sqrt{3}$	1	1	0.3	0.3	∞
7	Response time	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
8	Integration time	B	2.6	R	$\sqrt{3}$	1	1	1.5	1.5	∞
9	RF ambient conditions-noise	B	0	R	$\sqrt{3}$	1	1	0	0	∞
10	RF ambient conditions-reflection	B	0	R	$\sqrt{3}$	1	1	0	0	∞
11	Probe positioned mech. Restrictions	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
12	Probe positioning with respect to phantom shell	B	6.7	R	$\sqrt{3}$	1	1	3.9	3.9	∞
13	Post-processing	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
14	Fast SAR z-Approximation	B	14.0	R	$\sqrt{3}$	1	1	8.1	8.1	∞
Test sample related										
15	Test sample positioning	A	3.3	N	1	1	1	3.3	3.3	71
16	Device holder uncertainty	A	3.4	N	1	1	1	3.4	3.4	5

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

17 MAIN TEST INSTRUMENTS

Table 17.1: List of Main Instruments

No.	Name	Type	Serial Number	Calibration Date	Valid Period
01	Network analyzer	E5071C	MY46110673	January 14, 2022	One year
02	Power meter	NRP2	106277	September 24, 2021	One year
03	Power sensor	NRP6A	104291		
04	Signal Generator	E4438C	MY49071430	January 13, 2022	One Year
05	Amplifier	60S1G4	0331848	No Calibration Requested	
06	BTS	CMW500	166370	June 25 2021	One year
07	E-field Probe	SPEAG EX3DV4	7517	January 19, 2022	One year
08	DAE	SPEAG DAE4	1525	September 1, 2021	One year
09	Dipole Validation Kit	SPEAG D750V3	1017	July 12,,2021	One year
10	Dipole Validation Kit	SPEAG D835V2	4d069	July 21,,2021	One year
11	Dipole Validation Kit	SPEAG D1750V2	1003	July 12,,2021	One year
12	Dipole Validation Kit	SPEAG D1900V2	5d101	July 15,2021	One year
13	Dipole Validation Kit	SPEAG D2450V2	853	July 26,2021	One year
14	Dipole Validation Kit	SPEAG D2600V2	1012	July 26,2021	One year
15	Dipole Validation Kit	SPEAG D5GHzV2	1060	June 22,2021	One year

END OF REPORT BODY



Appendixes

Refer to separated files for the following appendixes

ANNEX A Graph Results

ANNEX B System Verification Results

ANNEX C SAR Measurement Setup

ANNEX D Position of the wireless device in relation to the phantom

ANNEX E Equivalent Media Recipes

ANNEX F System Validation

ANNEX G Probe Calibration Certificate

ANNEX H Dipole Calibration Certificate

ANNEX I Accreditation Certificate