



FCC ID: P4Q-N653  
Report No.: T200407W01-SF

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Rev.: 03

# FCC TEST REPORT

For

**PRO 8475**

**Trade Name:  
MiTAC, Webfleet Solutions**

**Model: N653**

Issued to:

**Mitac Digital Technology Corporation  
No.200, Wen Hwa 2nd Rd.,Kuei Shan Dist. Taoyuan, 33383  
Taiwan**

Issued by

**Compliance Certification Services Inc.  
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**Issued Date: 2020/6/22**

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*the tested sample*

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### Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	2020/5/21	Initial Issue	ALL	Edison Hu
01	2020/6/3	Change model name and product name and Battery information	Page 1 / 5 / 6	Edison Hu
02	2020/6/9	Modify the format	Page 1	Edison Hu
03	2020/6/22	Update WCDMA Power	Page 39 / 40	Edison Hu

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## 1 Certificate of Compliance (SAR Evaluation)

<b>Applicant</b>	Mitac Digital Technology Corporation No.200, Wen Hwa 2nd Rd.,Kuei Shan Dist. Taoyuan, 33383 Taiwan
<b>Manufacturer</b>	MITAC COMPUTER (KUNSHAN) CO., LTD. No. 269, 2nd Avenue, District A, Comprehensive Free Trade Zone, Kunshan, Jiangsu, P.R. China
<b>Equipment Under Test:</b>	PRO 8475
<b>Trade Name:</b>	MiTAC, Webfleet Solutions
<b>Model Number:</b>	N653
<b>Date of Test:</b>	Apr 19~ Apr 24, 2020
<b>Receive EUT Date:</b>	April 10, 2020
<b>Device Category:</b>	PORTABLE DEVICES
<b>Exposure Category:</b>	GENERAL POPULATION/UNCONTROLLED EXPOSURE

Applicable Standards	
FCC	<ul style="list-style-type: none"> <li>● IEEE 1528 2013</li> <li>● KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04</li> <li>● KDB 865664 D02 RF Exposure Reporting v01r02</li> <li>● KDB 447498 D01 General RF Exposure Guidance v06</li> <li>● KDB 616217 D04 SAR for laptop and tablets v01r02</li> <li>● KDB 248227 D01 SAR Meas for 802.11 v02r02</li> </ul>
Limit	
1.6 W/kg	
Test Result	
Pass	

The test results in this report apply only to the tested sample of the stated device/equipment. Other similar device/equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

Approved by:

Tested by:




Kevin Tsai  
Section Manager  
Compliance Certification Services Inc.

Stella Chang  
SAR Engineer  
Compliance Certification Services Inc.

## 2 Description of Equipment Under Test

Product	PRO 8475		
Trade Name	MiTAC, Webfleet Solutions		
Model Name	N653		
Wireless Technology	Operating Mode	TX Freq Range (MHz)	Peak Antenna Gain(dBi)
	WCDMA Band II	1850~1910	2.92
	WCDMA Band IV	1710~1755	3.19
	WCDMA Band V	824~849	1.84
	LTE Band 2	1850~1910	2.92
	LTE Band 4	1710~1755	3.19
	LTE Band 5	824~849	1.84
	LTE Band 7	2500~2570	1.75
	LTE Band 12	699~716	-1.58
	LTE Band 13	777~787	-0.34
	LTE Band 14	788~798	0.03
	LTE Band 17	704~716	-1.58
	LTE Band 25	1850~1915	2.92
	LTE Band 26	814~849	1.84
	LTE Band 66	1710~1780	3.19
	LTE Band 71	663~698	-2.35
LTE Band 41	2496~2690	1.99	
WWAN Antenna Specification	Brand name	Auden	
	Type	PIFA	
	Parts Number	B31639-01	
Modulation Technique	Bluetooth:GFSK for 1Mbps; $\pi$ /4-DQPSK for 2Mbps;8DPSK for 3Mbps;LE		
	802.11a: Orthogonal Frequency Division Multiplexing (OFDM)		
	802.11b: Direct Sequence Spread Spectrum(DSSS)		
	802.11g: Orthogonal Frequency Division Multiplexing (OFDM)		
	802.11n: Orthogonal Frequency Division Multiplexing (OFDM)		
	802.11ac: Orthogonal Frequency Division Multiplexing (OFDM)		
	Operating Mode	TX Freq Range (MHz)	Peak Antenna Gain (dBi)
	WLAN2.4GHz	2412~2462	1.31
	WLAN5GHz	5180~5850	1.25
	Bluetooth	2402~2480	1.31
WLAN Antenna Specification	Brand name	INPAQ	
	Type	Chip	
	Parts Number	ACM3-5036-A1-CC-S	
Simultaneous Transmission Configurations	WWAN+WLAN.WWAN+Bluetooth.WLAN+Bluetooth.WWAN+WLAN+Bluetooth.		
Rechargeable Li-polymer Battery—alternate	Company:Tian Yu Communication Technology (KunShan) Co., Ltd Model:N496 Rating:3.7V/4000mAh		

### Remark:

- 1.The sample selected for test was prototype that representative to production product and was provided by manufacturer

## 2.1 Summary of Highest SAR Values

Results for highest reported SAR values for each frequency band and mode are as below:

Technology / Band	Highest Measurement 1g-SAR Body-worn Mode(W/kg)	Simultaneous Transmission 1g SAR (W/kg)
WCDMA Band II	0.776	1.510
WCDMA Band IV	1.180	
WCDMA Band V	1.191	
LTE Band 2	1.007	
LTE Band 4	1.055	
LTE Band 5	1.139	
LTE Band 7	1.152	
LTE Band 12	0.586	
LTE Band 13	0.877	
LTE Band 14	0.663	
LTE Band 17	0.655	
LTE Band 25	0.899	
LTE Band 26	1.189	
LTE Band 41	0.422	
LTE Band 66	1.077	
LTE Band 71	0.551	
Wi-Fi 2.4GHz	0.671	1.510
Wi-Fi 5GHz	0.423	1.345
Bluetooth	0.194	1.510



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### **3 Requirements for Compliance Testing Defined**

#### **3.1 Requirements for Compliance Testing Defined by the FCC**

The US Federal Communications Commission has released the report and order "Guidelines for Evaluating the Environmental Effects of RF Radiation", ET Docket No. 93-62 in August 1996 [1]. The order requires routine SAR evaluation prior to equipment authorization of portable transmitter devices, including portable telephones. For consumer products, the applicable limit is 1.6 W/kg for an uncontrolled environment and 8.0 mW/g for an occupational/controlled environment as recommended by the FCC 47 CFR §2.1093 and IEEE Std 1528-2013.

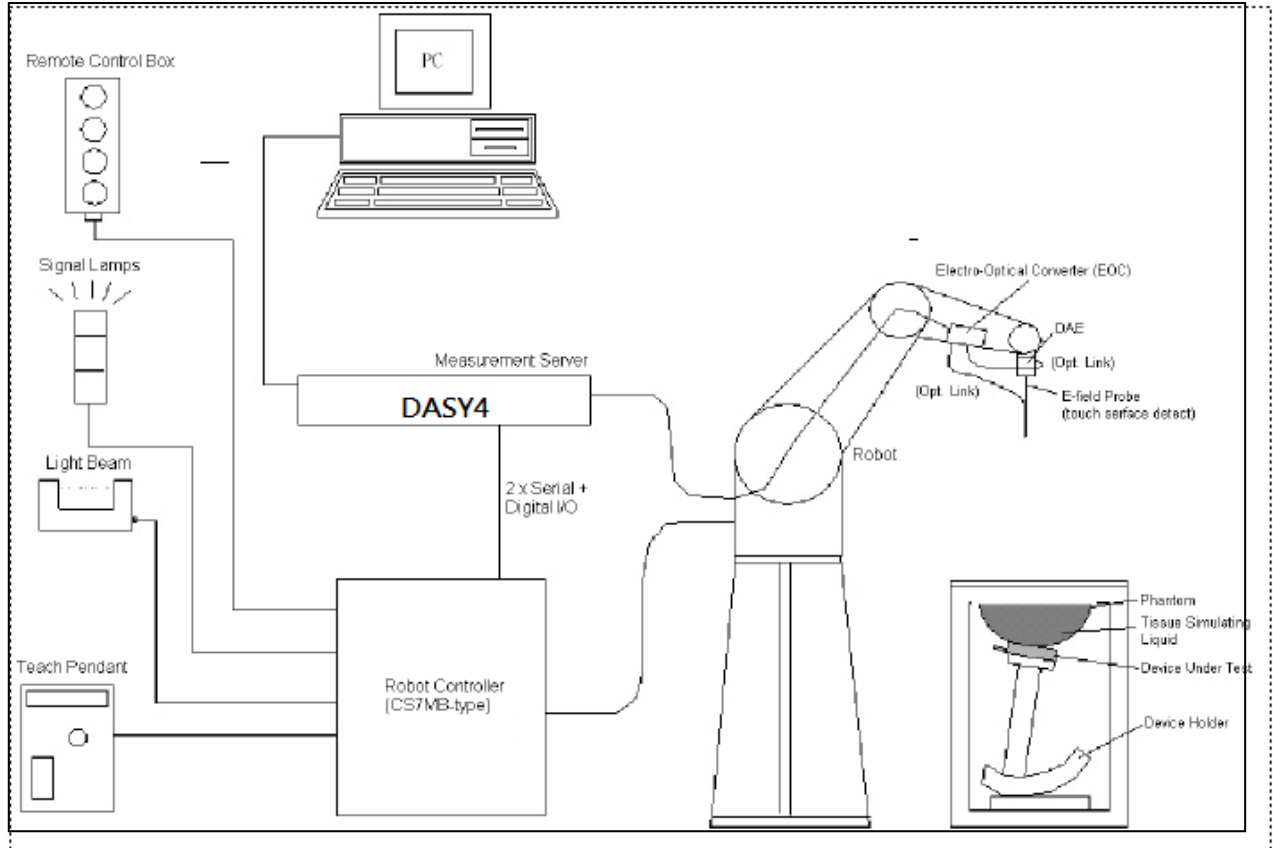


## 4 Dosimetric Assessment System

These measurements were performed with the automated near-field scanning system DASY4/DASY5 from Schmid & Partner Engineering AG (SPEAG). The system is based on a high precision robot (working range greater than 0.9 m) which positions the probes with a positional repeatability of better than  $\pm 0.02$  mm. Special E- and H-field probes have been developed for measurements close to material discontinuity, the sensors of which are directly loaded with a Schottky diode and connected via highly resistive lines to the data acquisition unit. The SAR measurements were conducted with the dosimetric probe EX3DV4-SN: 7509 (manufactured by SPEAG), designed in the classical triangular configuration and optimized for dosimetric evaluation. The probe has been calibrated according to the procedure with accuracy of better than  $\pm 10\%$ . The spherical isotropy was evaluated with the procedure and found to be better than  $\pm 0.25$  dB. The phantom used was the SAM Twin Phantom as described in FCC supplement C, IEEE 1528 2013.

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## 4.1 Measurement System Diagram





The DASY4/5 system for performing compliance tests consists of the following items:

- A standard high precision 6-axis robot (Stäubli RX family) with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- A dosimetric probe, i.e., an isotropic E-field probe optimized and calibrated for usage in tissue simulating liquid. The probe is equipped with an optical surface detector system.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion between optical and electrical of the signals for the digital communication to the DAE and for the analog signal from the optical surface detection. The EOC is connected to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- A probe alignment unit which improves the (absolute) accuracy of the probe positioning.
- A computer operating Windows 7 or Windows XP.
- DASY4 software version: 4.7, Build 80.
- Remote control with teach pendant and additional circuitry for robot safety such as warning lamps, etc.
- The SAM twin phantom enabling testing left-hand and right-hand usage.
- The device holder for handheld mobile phones.
- Tissue simulating liquid mixed according to the given recipes.
- Validation dipole kits allowing validating the proper functioning of the system.


## 4.2 System Components

<b>DASY4/DASY5 Measurement Server</b>	
	<p>The DASY4/DASY5 measurement server is based on a PC/104 CPU board with a 166MHz low-power Pentium, 32MB chip disk and 64MB RAM. The necessary circuits for communication with either the DAE3 electronic box as well as the 16-bit AD-converter system for optical detection and digital I/O interface are contained on the DASY4/DASY5 I/O-board, which is directly connected to the PC/104 bus of the CPU board.</p> <p>The measurement server performs all real-time data evaluation for field measurements and surface detection, controls robot movements and handles safety operation.</p>
	<p>The PC-operating system cannot interfere with these time critical processes. All connections are supervised by a watchdog, and disconnection of any of the cables to the measurement server will automatically disarm the robot and disable all program-controlled robot movements. Furthermore, the measurement server is equipped with two expansion slots which are reserved for future applications. Please note that the expansion slots do not have a standardized pinout and therefore only the expansion cards provided by SPEAG can be inserted. Expansion cards from any other supplier could seriously damage the measurement server. Calibration: No calibration required.</p>
<b>Data Acquisition Electronics (DAE)</b>	
	<p>The data acquisition electronics (DAE4) consists of a highly sensitive electrometer grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD converter and a command decoder and control logic unit. Transmission to the measurement server is accomplished through an optical downlink for data and status information as well as an optical uplink for commands and the clock. The mechanical probe mounting device includes two different sensor systems for frontal and sideways probe contacts. They are used for mechanical surface detection and probe collision detection. The input impedance of the DAE4 box is 200M<math>\Omega</math>; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.</p>


**EX3DV4 Isotropic E-Field Probe for Dosimetric Measurements**


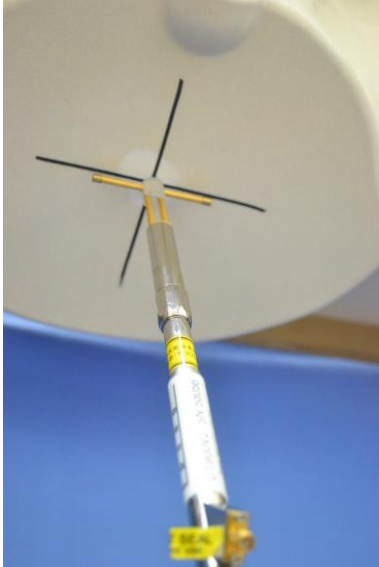
	<p><b>Construction:</b> Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)</p> <p><b>Calibration:</b> Basic Broad Band Calibration in air: 10-3000 MHz. Conversion Factors (CF) for HSL 900 and HSL 1800 CF-Calibration for other liquids and frequencies upon request.</p> <p><b>Frequency:</b> 10 MHz to &gt; 6 GHz; Linearity: <math>\pm 0.2</math> dB (30 MHz to 3 GHz)</p> <p><b>Directivity:</b> <math>\pm 0.3</math> dB in HSL (rotation around probe axis) <math>\pm 0.5</math> dB in HSL (rotation normal to probe axis)</p> <p><b>Dynamic Range:</b> 10 <math>\mu</math>W/g to &gt; 100 mW/g; Linearity: <math>\pm 0.2</math> dB (noise: typically &lt; 1 <math>\mu</math>W/g)</p>
	<p><b>Dimensions:</b> Overall length: 330 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Distance from probe tip to dipole centers: 1 mm</p> <p><b>Application:</b> High precision dosimetric measurements in any exposure scenario (e.g., very strong gradient fields). Only probe which enables compliance testing for frequencies up to 6 GHz with precision of better 30%.</p>


**SAM Phantom (V4.0)**

	<p><b>Construction:</b> The shell corresponds to the specifications of the Specific Anthropomorphic Mannequin (SAM) phantom defined in IEEE 1528 2013, CENELEC 50361 and IEC 62209. It enables the dosimetric evaluation of left and right hand phone usage as well as body mounted usage at the flat phantom region. A cover prevents evaporation of the liquid. Reference markings on the phantom allow the complete setup of all predefined phantom positions and measurement grids by manually teaching three points with the robot.</p> <p><b>Shell Thickness:</b> 2 <math>\pm 0.2</math> mm</p> <p><b>Filling Volume:</b> Approx. 25 liters</p> <p><b>Dimensions:</b> Height: 810mm; Length: 1000mm; Width: 500mm</p>
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**SAM Phantom (ELI4)**

	<p><b>Construction:</b> Phantom for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30 MHz to 6 GHz. ELI4 is fully compatible with the latest draft of the standard IEC 62209 Part II and all known tissue simulating liquids. ELI4 has been optimized regarding its performance and can be integrated into our standard phantom tables. A cover prevents evaporation of the liquid. Reference markings on the phantom allow installation of the complete setup, including all predefined phantom positions and measurement grids, by teaching three points. The phantom is supported by software version DASY4/DASY5 and higher and is compatible with all SPEAG dosimetric probes and dipoles</p> <p><b>Shell Thickness:</b> 2.0 <math>\pm 0.2</math> mm (sagging: &lt;1%)</p> <p><b>Filling Volume:</b> Approx. 25 liters</p> <p><b>Dimensions:</b> Major ellipse axis: 600 mm Minor axis: 400 mm 500mm</p>
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<b>Device Holder for SAM Twin Phantom</b>	
	<p><b>Construction:</b> In combination with the Twin SAM Phantom V4.0 or Twin SAM, the Mounting Device (made from POM) enables the rotation of the mounted transmitter in spherical coordinates, whereby the rotation point is the ear opening. The devices can be easily and accurately positioned according to IEC, IEEE, CENELEC, FCC or other specifications. The device holder can be locked at different phantom locations (left head, right head, and flat phantom).</p>
<b>System Validation Kits for SAM Phantom (V4.0)</b>	
	<p><b>Construction:</b> Symmetrical dipole with 1/4 balun Enables measurement of feedpoint impedance with NWA Matched for use near flat phantoms filled with brain simulating solutions Includes distance holder and tripod adaptor.</p> <p><b>Frequency:</b> 2450, 5300, 5600, 5800 MHz</p> <p><b>Return loss:</b> &gt; 20 dB at specified validation position</p> <p><b>Power capability:</b> &gt; 100 W (f &lt; 1GHz); &gt; 40 W (f &gt; 1GHz)</p> <p><b>Dimensions:</b> D2450V2: dipole length: 51.5 mm; overall height: 290 mm D5GHzV2: dipole length: 20.6 mm; overall height: 300 mm</p>
<b>System Validation Kits for ELI4 phantom</b>	

	<p><b>Construction:</b> Symmetrical dipole with 1/4 balun Enables measurement of feedpoint impedance with NWA Matched for use near flat phantoms filled with brain simulating solutions Includes distance holder and tripod adaptor.</p> <p><b>Frequency:</b> 2450, 5300, 5600, 5800 MHz</p> <p><b>Return loss:</b> &gt; 20 dB at specified validation position</p> <p><b>Power capability:</b> &gt; 100 W (f &lt; 1GHz); &gt; 40 W (f &gt; 1GHz)</p> <p><b>Dimensions:</b> D2450V2: dipole length: 51.5 mm; overall height: 290 mm D5GHzV2: dipole length: 20.6 mm; overall height: 300 mm</p>
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## 5 Evaluation Procedures

### Data Evaluation

The DASY4/DASY5 post processing software (SEMCAD) automatically executes the following procedures to calculate the field units from the microvolt readings at the probe connector. The parameters used in the evaluation are stored in the configuration modules of the software:

Probe parameters:	- Sensitivity	$Norm_i, a_{i0}, a_{i1}, a_{i2}$
	- Conversion factor	$ConvF_i$
	- Diode compression point	$dcp_i$
Device parameters:	- Frequency	$f$
	- Crest factor	$cf$
Media parameters:	- Conductivity	$\sigma$
	- Density	$\rho$

These parameters must be set correctly in the software. They can be found in the component documents or be imported into the software from the configuration files issued for the DASY components. In the direct measuring mode of the multi-meter option, the parameters of the actual system setup are used. In the scan visualization and export modes, the parameters stored in the corresponding document files are used.

The first step of the evaluation is a linearization of the filtered input signal to account for the compression characteristics of the detector diode. The compensation depends on the input signal, the diode type and the DC-transmission factor from the diode to the evaluation electronics. If the exciting field is pulsed, the crest factor of the signal must be known to correctly compensate for peak power. The formula for each channel can be given as:

$$V_i = U_i + U_i^2 \cdot \frac{cf}{dcp_i}$$

with	$V_i$	= Compensated signal of channel i	(i = x, y, z)
	$U_i$	= Input signal of channel i	(i = x, y, z)
	$cf$	= Crest factor of exciting field	(DASY parameter)
	$dcp_i$	= Diode compression point	(DASY parameter)

From the compensated input signals the primary field data for each channel can be evaluated:

E-field probes: 
$$E_i = \sqrt{\frac{V_i}{Norm_i \cdot ConvF}}$$

H-field probes: 
$$H_i = \sqrt{V_i} \cdot \frac{a_{i10} + a_{i11}f + a_{i12}f^2}{f}$$

with	$V_i$	= Compensated signal of channel i	(i = x, y, z)
	$Norm_i$	= Sensor sensitivity of channel i	(i = x, y, z)

$\mu V/(V/m)^2$  for E0field Probes

$ConvF$	= Sensitivity enhancement in solution
$a_{ij}$	= Sensor sensitivity factors for H-field probes
$f$	= Carrier frequency (GHz)
$E_i$	= Electric field strength of channel i in V/m
$H_i$	= Magnetic field strength of channel i in A/m

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The RSS value of the field components gives the total field strength (Hermitian magnitude):

$$E_{tot} = \sqrt{E_x^2 + E_y^2 + E_z^2}$$

The primary field data are used to calculate the derived field units.

$$SAR = E_{tot}^2 \cdot \frac{\sigma}{\rho \cdot 1000}$$

with

- $SAR$  = local specific absorption rate in W/kg
- $E_{tot}$  = total field strength in V/m
- $\sigma$  = conductivity in [mho/m] or [Siemens/m]
- $\rho$  = equivalent tissue density in g/cm<sup>3</sup>

Note that the density is normally set to 1 (or 1.06), to account for actual brain density rather than the density of the simulation liquid.

The power flow density is calculated assuming the excitation field as a free space field.

$$P_{pwe} = \frac{E_{tot}^2}{377} \quad \text{or} \quad P_{pwe} = H_{tot}^2 \cdot 37.7$$

with

- $P_{pwe}$  = Equivalent power density of a plane wave in mW/cm<sup>2</sup>
- $E_{tot}$  = total electric field strength in V/m
- $H_{tot}$  = total magnetic field strength in A/m



## 6 SAR Measurement Procedures

### 6.1 Normal SAR Test Procedure

- **Power Reference Measurement**

The reference and drift jobs are useful jobs for monitoring the power drift of the device under test in the batch process. Both jobs measure the field at a specified reference position, at a selectable distance from the phantom surface. The reference position can be either the selected section's grid reference point or a user point in this section. The reference job projects the selected point onto the phantom surface, orients the probe perpendicularly to the surface, and approaches the surface using the selected detection method.

- **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 finer measurement around the hot spot. The sophisticated interpolation routines implemented in DASY4/DASY5 software can find the maximum locations even in relatively coarse grids. The scan area is defined by an editable grid. This grid is anchored at the grid reference point of the selected section in the phantom. When the area scan's property sheet is brought-up, the grid resolution has to less than 15 mm by 15 mm at frequency  $\leq 2\text{GHz}$ ; the grid resolution has to less than 12mm by 12 mm at frequency between 2GHz to 4GHz; grid resolution has to less than 10 mm by 10 mm at frequency between 4GHz to 6GHz.

According to KDB 865664 D01 SAR measurement 100 MHz to 6 GHz v01r04

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

• **Zoom Scan**

Zoom scans are used to assess the peak spatial SAR values within a cubic averaging volume containing 1 g and 10 g of simulated tissue. The default zoom scan measures points in accordance with the frequency can be divided into three parts. (1)The zoom scan volume was set to 5x5x7 points at frequency  $\leq 2$ GHz. (2) The zoom scan volume was set to 7x7x7 points at frequency between 2GHz to 4GHz (3) The zoom scan volume was set to 7x7x12 points at frequency between 4GHz to 6GHz. The measures points within a cube whose base faces are centered around the maximum found in a preceding area scan job within the same procedure. If the preceding Area Scan job indicates more then one maximum, the number of Zoom Scans has to be enlarged accordingly.

According to KDB 865664 D01 SAR measurement 100 MHz to 6 GHz v01r04

			$\leq 3$ GHz	$> 3$ GHz
Maximum zoom scan spatial resolution: $\Delta X_{Zoom}, \Delta Y_{Zoom}$			$\leq 2$ GHz: $\leq 8$ mm 2 – 3 GHz: $\leq 5$ mm	3 – 4 GHz: $\leq 5$ mm 4 – 6 GHz: $\leq 4$ mm
Maximum zoom scan spatial resolution, normal to phantom surface	Uniform grid: $\Delta z_{Zoom}(n)$		$\leq 5$ mm	3 – 4 GHz: $\leq 4$ mm 4 – 5 GHz: $\leq 3$ mm 5 – 6 GHz: $\leq 2$ mm
	graded grid	$\Delta z_{Zoom}(1)$ :between 1 <sup>st</sup> two points losest to phantom surface	$\leq 4$ mm	3 – 4 GHz: $\leq 3$ mm 4 – 5 GHz: $\leq 2.5$ mm 5 – 6 GHz: $\leq 2$ mm
		$\Delta z_{Zoom}(n>1)$ : between subsequent points	$\leq 1.5 \cdot \Delta z_{Zoom}(n-1)$	
Maximum zoom scan volume	x, y, z	$\geq 30$ mm	3 – 4 GHz: $\geq 28$ mm 4 – 5 GHz: $\geq 25$ mm 5 – 6 GHz: $\geq 22$ mm	

• **Power Drift Measurement**

The drift job measures the field at the same location as the most recent reference job within the same procedure, and with the same settings. The drift measurement gives the field difference in dB from the reading conducted within the last reference measurement. Several drift measurements are possible for one reference measurement. This allows a user to monitor the power drift of the device under test within a batch process. In the properties of the Drift job, the user can specify a limit for the drift and have DASY4/DASY5 software stop the measurements if this limit is exceeded.

• **Z-Scan**

The Z Scan job measures points along a vertical straight line. The line runs along the Z-axis of a one-dimensional grid. A user can anchor the grid to the current probe location. As with any other grids, the local Z-axis of the anchor location establishes the Z-axis of the grid.



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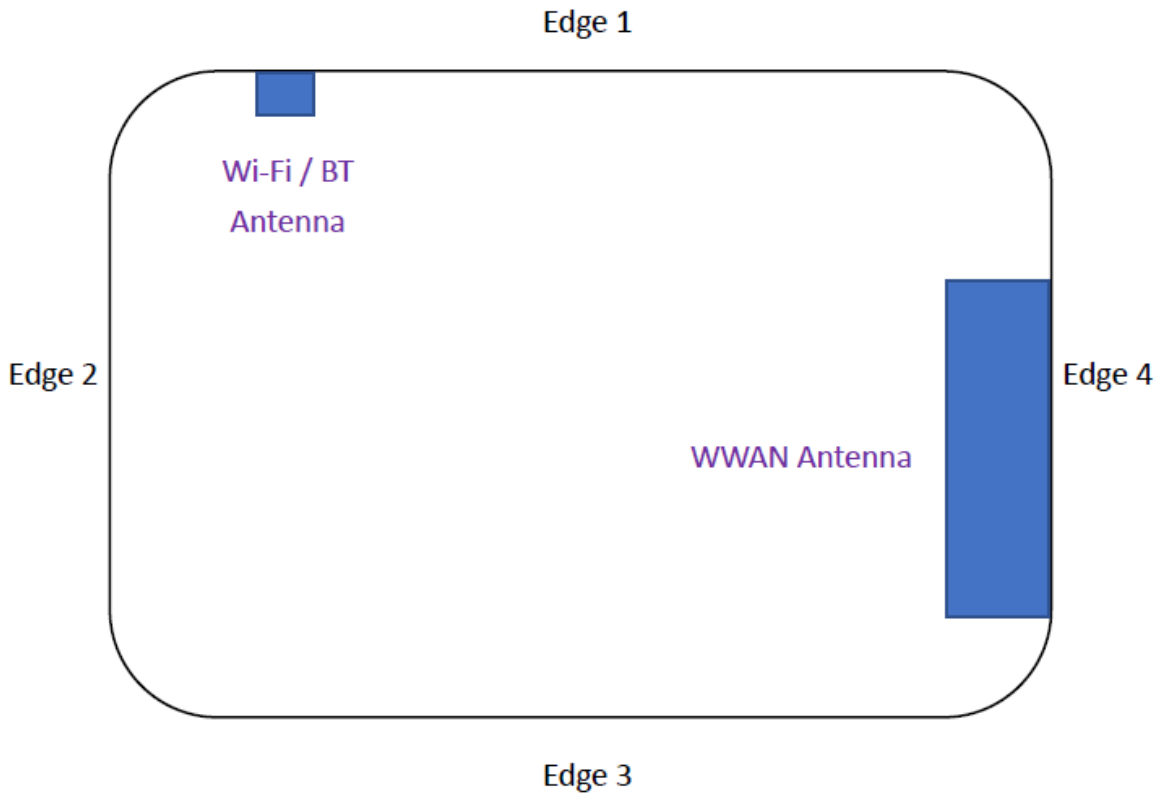
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## 7 Measurement Uncertainty

According to KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz section 2.8.2, SAR measurement uncertainty analysis is required in SAR reports only when the highest measured SAR in a frequency band is  $\geq 1.5$  W/kg for 1-g SAR, the extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2013 is not required in SAR reports submitted for equipment approval.

## 8 Antenna Location

Back View



WWAN Antenna to surface				
Back	Edge 1	Edge 2	Edge 3	Edge 4
6.72	45.07	198	17.66	5
Wi-Fi Antenna to surface				
Back	Edge 1	Edge 2	Edge 3	Edge 4
9.61	5.83	31.91	121	170.5

Unit: mm

## 9 Proximity Sensor Status Table of Triggering distance

As per the KDB 616217 D04 SAR for laptop and tablets v01r02, section 6.2, the following procedure is used to determine the triggering distances.

Proximity Sensor Status Table when DUT is moving towards the phantom

Distance to the DUT (mm)	Proximity Sensor Status - Back	Proximity Sensor Status - Edge 3	Proximity Sensor Status - Edge 4
30	OFF	OFF	OFF
27	OFF	OFF	OFF
25	OFF	OFF	OFF
24	OFF	OFF	OFF
23	OFF	OFF	OFF
22	OFF	OFF	OFF
21	OFF	OFF	OFF
20	OFF	OFF	OFF
19	OFF	OFF	OFF
18	OFF	OFF	OFF
17	OFF	OFF	OFF
16	OFF	OFF	OFF
15	OFF	OFF	OFF
14	OFF	OFF	OFF
13	OFF	OFF	OFF
12	ON	OFF	OFF
11	ON	OFF	OFF
10	ON	OFF	OFF
9	ON	OFF	OFF
8	ON	OFF	OFF
7	ON	ON	ON
6	ON	ON	ON
5	ON	ON	ON
4	ON	ON	ON
3	ON	ON	ON
2	ON	ON	ON
1	ON	ON	ON
0	ON	ON	ON

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Proximity Sensor Status Table when DUT is moving away from the phantom

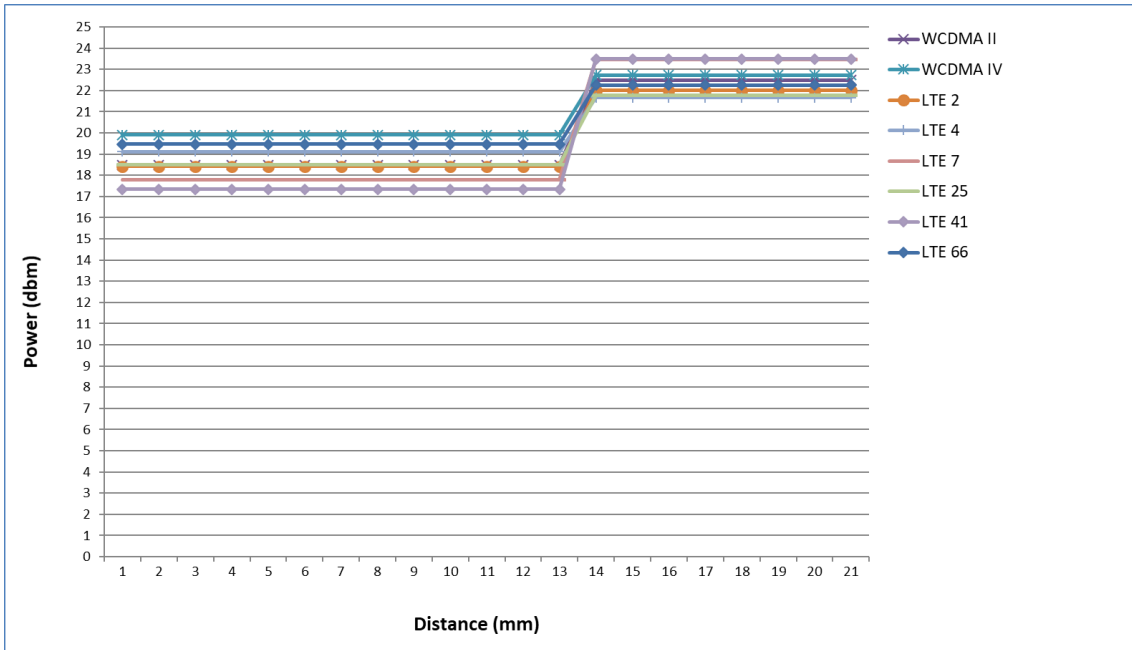
Distance to the DUT (mm)	Proximity Sensor Status - Back	Proximity Sensor Status - Edge 3	Proximity Sensor Status - Edge 4
0	ON	ON	ON
1	ON	ON	ON
2	ON	ON	ON
3	ON	ON	ON
4	ON	ON	ON
5	ON	ON	ON
6	ON	ON	ON
7	ON	ON	ON
8	ON	ON	ON
9	ON	ON	ON
10	ON	ON	ON
11	ON	OFF	OFF
12	ON	OFF	OFF
13	ON	OFF	OFF
14	ON	OFF	OFF
15	ON	OFF	OFF
16	OFF	OFF	OFF
17	OFF	OFF	OFF
18	OFF	OFF	OFF
19	OFF	OFF	OFF
20	OFF	OFF	OFF
21	OFF	OFF	OFF
22	OFF	OFF	OFF
23	OFF	OFF	OFF
24	OFF	OFF	OFF
25	OFF	OFF	OFF
27	OFF	OFF	OFF
30	OFF	OFF	OFF

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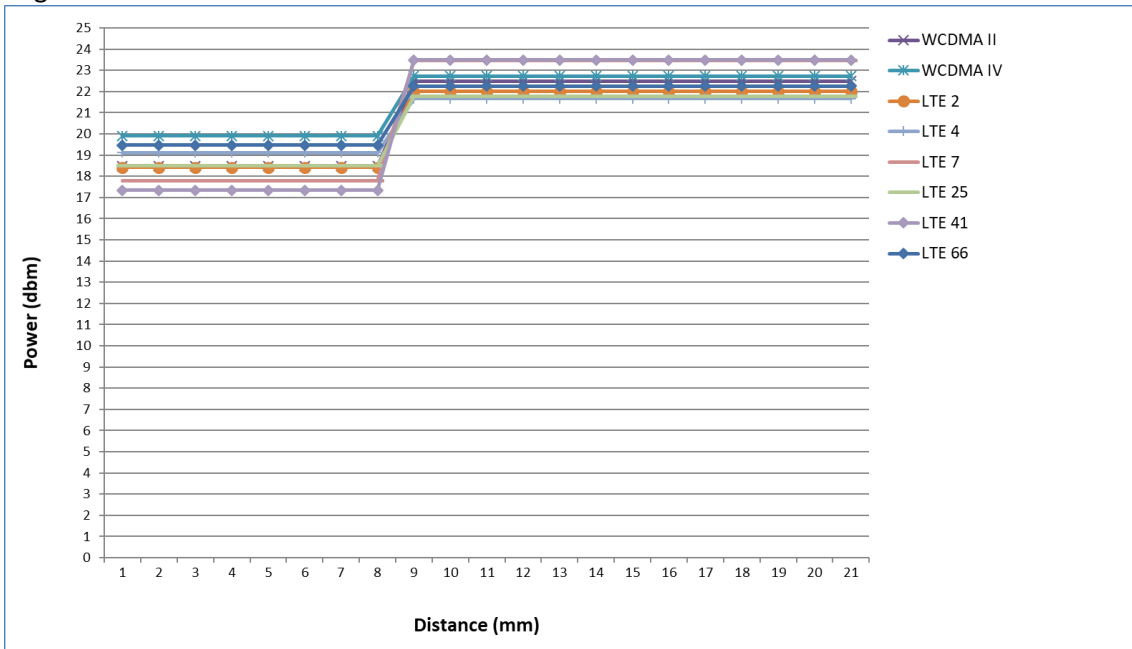
### Power Reduction per Air-interface

The following graphs show the power level and the distance from the DUT to the flat phantom for Edge and Back Surface.

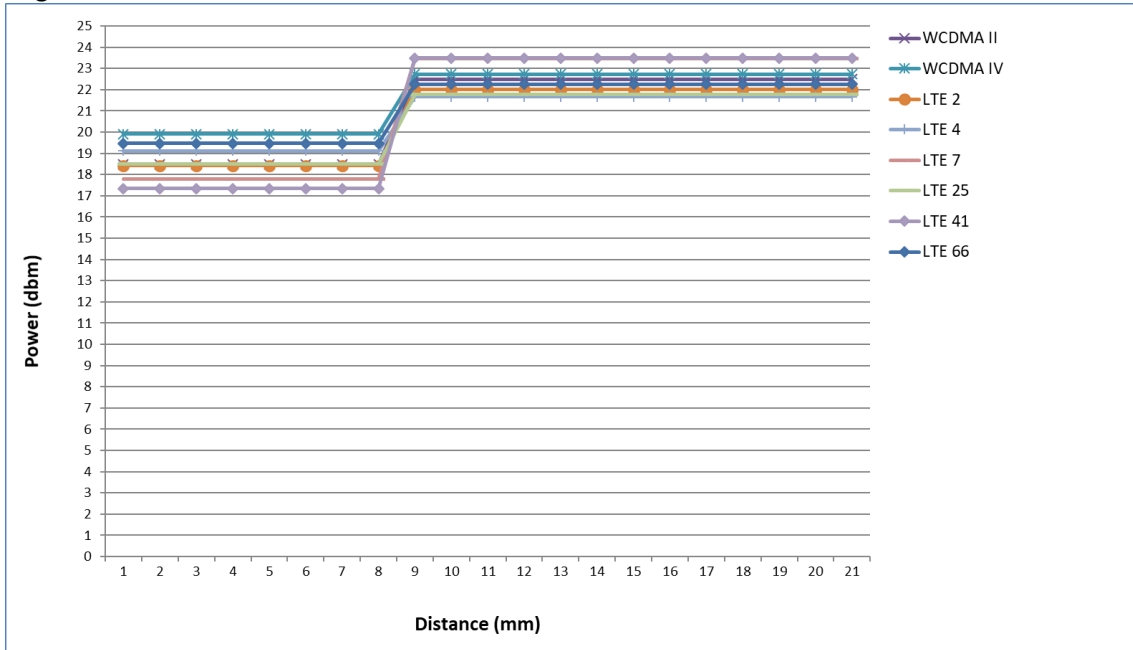
#### Back Surface



#### Edge 3 Surface



### Edge 4 Surface



For verification of compliance of power reduction scheme , the SAR testing at full power at a conservative trigger distance was performed :

1. Back : 10mm
2. Edge 3 : 5mm
3. Edge 4 : 5mm





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## **10 Summary of SAR Test Exclusion Configurations**

### **10.1 Standalone SAR Test Exclusion Calculations**

Since the device is a notebook whose antenna is already determined to not meet the minimum antenna to user separation distance for modular SAR, therefore testing is required by default.

**10.1.1 SAR Exclusion Calculations for Wi-Fi Antenna < 50mm from the User**

According to KDB 447498 v06 in section 4.3.1, if the calculated threshold value is > 3 then SAR testing is required.

Antenna	Band	Frequency (MHz)	Output Power		Separation Distances(mm)					Calculated Threshold Value				
			dBm	mW	Back	Edge 1	Edge 2	Edge 3	Edge 4	Back	Edge 1	Edge 2	Edge 3	Edge 4
WWAN	WCDMA 5	846	24.0	251	6.72	45.07	>50 mm	17.66	5.00	34.35	5.12	>50 mm	13.07	46.17
WWAN	WCDMA 4	1750	23.0	200	6.72	45.07	>50 mm	17.66	5.00	39.37	5.87	>50 mm	14.98	52.92
WWAN	WCDMA 2	1907	23.0	200	6.72	45.07	>50 mm	17.66	5.00	41.10	6.13	>50 mm	15.64	55.24
WWAN	LTE Band 71	695	23.0	200	6.72	45.07	>50 mm	17.66	5.00	24.81	3.70	>50 mm	9.44	33.35
WWAN	LTE Band 12	715	23.0	200	6.72	45.07	>50 mm	17.66	5.00	25.17	3.75	>50 mm	9.58	33.82
WWAN	LTE Band 17	713	23.0	200	6.72	45.07	>50 mm	17.66	5.00	25.13	3.75	>50 mm	9.56	33.78
WWAN	LTE Band 13	784	23.0	200	6.72	45.07	>50 mm	17.66	5.00	26.35	3.93	>50 mm	10.03	35.42
WWAN	LTE Band 14	798	23.0	200	6.72	45.07	>50 mm	17.66	5.00	26.59	3.96	>50 mm	10.12	35.73
WWAN	LTE Band 5	848	24.0	251	6.72	45.07	>50 mm	17.66	5.00	34.40	5.13	>50 mm	13.09	46.23
WWAN	LTE Band 26	848	24.0	251	6.72	45.07	>50 mm	17.66	5.00	34.40	5.13	>50 mm	13.09	46.23
WWAN	LTE Band 4	1754	23.0	200	6.72	45.07	>50 mm	17.66	5.00	39.42	5.88	>50 mm	15.00	52.98
WWAN	LTE Band 66	1779	23.0	200	6.72	45.07	>50 mm	17.66	5.00	39.70	5.92	>50 mm	15.11	53.35
WWAN	LTE Band 2	1909	23.0	200	6.72	45.07	>50 mm	17.66	5.00	41.12	6.13	>50 mm	15.65	55.27
WWAN	LTE Band 25	1914	23.0	200	6.72	45.07	>50 mm	17.66	5.00	41.17	6.14	>50 mm	15.67	55.34
WWAN	LTE Band 7	2567	23.5	224	6.72	45.07	>50 mm	17.66	5.00	53.41	7.96	>50 mm	20.32	71.78
WWAN	LTE Band 41	2687	23.5	224	6.72	45.07	>50 mm	17.66	5.00	54.64	8.15	>50 mm	20.79	73.44
Wi-Fi	2.4GHz	2462	16.5	45	9.61	5.83	31.91	>50 mm	>50 mm	7.35	12.11	2.21	>50 mm	>50 mm
Wi-Fi	5.2GHz U-NII-1	5240	12.0	16	9.61	5.83	31.91	>50 mm	>50 mm	3.81	6.28	1.15	>50 mm	>50 mm
Wi-Fi	5.3GHz U-NII-2A	5320	12.0	16	9.61	5.83	31.91	>50 mm	>50 mm	3.84	6.33	1.16	>50 mm	>50 mm
Wi-Fi	5.5GHz U-NII-2C	5720	11.0	13	9.61	5.83	31.91	>50 mm	>50 mm	3.24	5.33	0.97	>50 mm	>50 mm
Wi-Fi	5.8GHz U-NII-3	5825	11.5	14	9.61	5.83	31.91	>50 mm	>50 mm	3.52	5.80	1.06	>50 mm	>50 mm
Wi-Fi	Bluetooth	2480	10.0	10	9.61	5.83	31.91	>50 mm	>50 mm	1.64	2.70	0.49	>50 mm	>50 mm

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### 10.1.2 SAR Exclusion Calculations for Wi-Fi Antenna > 50mm from the User

According to KDB 447498 v06, if the calculated Power threshold is less than the output power then SAR testing is required.

Antenna	Band	Frequency (MHz)	Output Power		Separation Distances(mm)					Calculated Threshold Value				
			dBm	mW	Back	Edge 1	Edge 2	Edge 3	Edge 4	Back	Edge 1	Edge 2	Edge 3	Edge 4
WWAN	WCDMA 5	846	24.0	251	<50 mm	<50 mm	198.00	<50 mm	<50 mm	<50 mm	<50 mm	1643.08	<50 mm	<50 mm
WWAN	WCDMA 4	1750	23.0	200	<50 mm	<50 mm	198.00	<50 mm	<50 mm	<50 mm	<50 mm	1593.39	<50 mm	<50 mm
WWAN	WCDMA 2	1907	23.0	200	<50 mm	<50 mm	198.00	<50 mm	<50 mm	<50 mm	<50 mm	1588.62	<50 mm	<50 mm
WWAN	LTE Band 71	695	23.0	200	<50 mm	<50 mm	198.00	<50 mm	<50 mm	<50 mm	<50 mm	1659.93	<50 mm	<50 mm
WWAN	LTE Band 12	715	23.0	200	<50 mm	<50 mm	198.00	<50 mm	<50 mm	<50 mm	<50 mm	1657.39	<50 mm	<50 mm
WWAN	LTE Band 17	713	23.0	200	<50 mm	<50 mm	198.00	<50 mm	<50 mm	<50 mm	<50 mm	1657.64	<50 mm	<50 mm
WWAN	LTE Band 13	784	23.0	200	<50 mm	<50 mm	198.00	<50 mm	<50 mm	<50 mm	<50 mm	1649.41	<50 mm	<50 mm
WWAN	LTE Band 14	798	23.0	200	<50 mm	<50 mm	198.00	<50 mm	<50 mm	<50 mm	<50 mm	1647.92	<50 mm	<50 mm
WWAN	LTE Band 5	848	24.0	251	<50 mm	<50 mm	198.00	<50 mm	<50 mm	<50 mm	<50 mm	1642.89	<50 mm	<50 mm
WWAN	LTE Band 26	848	24.0	251	<50 mm	<50 mm	198.00	<50 mm	<50 mm	<50 mm	<50 mm	1642.89	<50 mm	<50 mm
WWAN	LTE Band 4	1754	23.0	200	<50 mm	<50 mm	198.00	<50 mm	<50 mm	<50 mm	<50 mm	1593.26	<50 mm	<50 mm
WWAN	LTE Band 66	1779	23.0	200	<50 mm	<50 mm	198.00	<50 mm	<50 mm	<50 mm	<50 mm	1592.46	<50 mm	<50 mm
WWAN	LTE Band 2	1909	23.0	200	<50 mm	<50 mm	198.00	<50 mm	<50 mm	<50 mm	<50 mm	1588.56	<50 mm	<50 mm
WWAN	LTE Band 25	1914	23.0	200	<50 mm	<50 mm	198.00	<50 mm	<50 mm	<50 mm	<50 mm	1588.42	<50 mm	<50 mm
WWAN	LTE Band 7	2567	23.5	224	<50 mm	<50 mm	198.00	<50 mm	<50 mm	<50 mm	<50 mm	1573.62	<50 mm	<50 mm
WWAN	LTE Band 41	2687	23.5	224	<50 mm	<50 mm	198.00	<50 mm	<50 mm	<50 mm	<50 mm	1571.51	<50 mm	<50 mm
Wi-Fi	2.4GHz	2462	16.5	45	<50 mm	<50 mm	<50 mm	121.00	170.50	<50 mm	<50 mm	<50 mm	805.60	1300.60
Wi-Fi	5.2GHz U-NII-1	5240	12.0	16	<50 mm	<50 mm	<50 mm	121.00	170.50	<50 mm	<50 mm	<50 mm	775.53	1270.53
Wi-Fi	5.3GHz U-NII-2A	5320	12.0	16	<50 mm	<50 mm	<50 mm	121.00	170.50	<50 mm	<50 mm	<50 mm	775.03	1270.03
Wi-Fi	5.5GHz U-NII-2C	5720	11.0	13	<50 mm	<50 mm	<50 mm	121.00	170.50	<50 mm	<50 mm	<50 mm	772.72	1267.72
Wi-Fi	5.8GHz U-NII-3	5825	11.5	14	<50 mm	<50 mm	<50 mm	121.00	170.50	<50 mm	<50 mm	<50 mm	772.15	1267.15
Wi-Fi	Bluetooth	2480	10.0	10	<50 mm	<50 mm	<50 mm	121.00	170.50	<50 mm	<50 mm	<50 mm	805.25	1300.25

**10.1.3 SAR Required Test Configuration  
For WWAN and Wi-Fi and Bluetooth**

Band	Back	Edge 1	Edge 2	Edge 3	Edge 4
WCDMA 5	Yes	Yes	No	Yes	Yes
WCDMA 4	Yes	Yes	No	Yes	Yes
WCDMA 2	Yes	Yes	No	Yes	Yes
LTE Band 71	Yes	Yes	No	Yes	Yes
LTE Band 12	Yes	Yes	No	Yes	Yes
LTE Band 17	Yes	Yes	No	Yes	Yes
LTE Band 13	Yes	Yes	No	Yes	Yes
LTE Band 14	Yes	Yes	No	Yes	Yes
LTE Band 5	Yes	Yes	No	Yes	Yes
LTE Band 26	Yes	Yes	No	Yes	Yes
LTE Band 4	Yes	Yes	No	Yes	Yes
LTE Band 66	Yes	Yes	No	Yes	Yes
LTE Band 2	Yes	Yes	No	Yes	Yes
LTE Band 25	Yes	Yes	No	Yes	Yes
LTE Band 30	Yes	Yes	No	Yes	Yes
LTE Band 7	Yes	Yes	No	Yes	Yes
LTE Band 38	Yes	Yes	No	Yes	Yes
LTE Band 41	Yes	Yes	No	Yes	Yes
2.4GHz	Yes	Yes	No	No	No
5.2GHz U-NII-1	Yes	Yes	No	No	No
5.3GHz U-NII-2A	Yes	Yes	No	No	No
5.5GHz U-NII-2C	Yes	Yes	No	No	No
5.8GHz U-NII-3	Yes	Yes	No	No	No
Bluetooth	No	No	No	No	No

**Note(s):**

1. Yes = SAR is required.
2. No = SAR is not required.

## 11 Exposure Limit

(A). Limits for Occupational/Controlled Exposure (W/kg)

<u>Whole-Body</u>	<u>Partial-Body</u>	<u>Hands, Wrists, Feet and Ankles</u>
0.4	8.0	2.0

(B). Limits for General Population/Uncontrolled Exposure (W/kg)

<u>Whole-Body</u>	<u>Partial-Body</u>	<u>Hands, Wrists, Feet and Ankles</u>
0.08	1.6	4.0

NOTE: **Whole-Body SAR** is averaged over the entire body, **partial-body SAR** is averaged over any 1 gram of tissue defined as a tissue volume in the shape of a cube. **SAR for hands, wrists, feet and ankles** is averaged over any 10 grams of tissue defined as a tissue volume in the shape of a cube.

**Population/Uncontrolled Environments:**

are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure.

**Occupational/Controlled Environments:**

are defined as locations where there is exposure that may be incurred by people who are aware of the potential for exposure, (i.e. as a result of employment or occupation).

<p><b>NOTE</b></p> <p><b>GENERAL POPULATION/UNCONTROLLED EXPOSURE</b></p> <p><b>PARTIAL BODY LIMIT</b></p> <p><b>1.6 W/kg</b></p>
---

## 12 Tissue Dielectric Properties

### 12.1 Test Liquid Confirmation

#### Simulating Liquids Parameter Check

The simulating liquids should be checked at the beginning of a series of SAR measurements to determine if the dielectric parameters are within the tolerances of the specified target values

The relative permittivity and conductivity of the tissue material should be within  $\pm 5\%$  of the values given in the table below. 5% may not be easily achieved at certain frequencies.

The head tissue dielectric parameters recommended by the IEEE SCC-34/SC-2 in IEEE 1528 2013 have been incorporated in the following table. These head parameters are derived from planar layer models simulating the highest expected SAR for the dielectric properties and tissue thickness variations in a human head. Other head and body tissue parameters that have not been specified in IEEE 1528 2013 are derived from the tissue dielectric parameters computed from the 4-Cole-Cole equations and extrapolated according to the head parameters specified in IEEE 1528 2013

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

## 12.2 Typical Composition of Ingredients for Liquid Tissue Phantoms

The following tissue formulations are provided for reference only as some of the parameters have not been thoroughly verified. The composition of ingredients may be modified accordingly to achieve the desired target tissue parameters required for routine SAR evaluation.

Ingredients (% by weight)	Frequency (MHz)									
	450		835		915		1900		2450	
Tissue Type	Head	Body	Head	Body	Head	Body	Head	Body	Head	Body
Water	38.56	51.16	41.45	52.4	41.05	56.0	54.9	40.4	62.7	73.2
Salt (NaCl)	3.95	1.49	1.45	1.4	1.35	0.76	0.18	0.5	0.5	0.04
Sugar	56.32	46.78	56.0	45.0	56.5	41.76	0.0	58.0	0.0	0.0
HEC	0.98	0.52	1.0	1.0	1.0	1.21	0.0	1.0	0.0	0.0
Bactericide	0.19	0.05	0.1	0.1	0.1	0.27	0.0	0.1	0.0	0.0
Triton X-100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.8	0.0
DGBE	0.0	0.0	0.0	0.0	0.0	0.0	44.92	0.0	0.0	26.7
Dielectric Constant	43.42	58.0	42.54	56.1	42.0	56.8	39.9	54.0	39.8	52.5
Conductivity (S/m)	0.85	0.83	0.91	0.95	1.0	1.07	1.42	1.45	1.88	1.78

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alt: 99+% Pure Sodium Chloride

Sugar: 98+% Pure Sucrose

Water: De-ionized, 16 MΩ<sup>+</sup> resistivity

HEC: Hydroxy thyl Cellulose

DGBE: 99+% Di(ethylene glycol) butyl ether, [2-(2-butoxyethoxy)ethanol]

Triton X-100 (ultra-pure): Polyethylene glycol mono [4-(1, 1, 3, 3-tetramethylbutyl)phenyl]ether

**Simulating Liquids for 5 GHz, Manufactured by SPEAG**

Ingredients	(% by weight)
Water	78
Mineral oil	11
Emulsifiers	9
Additives and Salt	2



### 12.3 Simulating Liquids Parameter Check Results

Tissue Type	Measurement Date	Measured Frequency (MHz)	Target Dielectric Constant, $\epsilon_r$	Target Conductivity, $\sigma$ (S/m)	Measured Dielectric Constant, $\epsilon_r$	Measured Conductivity, $\sigma$ (S/m)	% dev $\epsilon_r$	% dev $\sigma$
Head	2020/4/19	683	42.290	0.888	41.732	0.856	-1.32%	-3.62%
		688	42.263	0.889	41.682	0.860	-1.37%	-3.21%
		707.5	42.162	0.890	41.475	0.876	-1.63%	-1.57%
		710	42.149	0.890	41.417	0.883	-1.74%	-0.79%
		750	41.942	0.893	40.832	0.909	-2.65%	1.79%
		782	41.775	0.896	40.409	0.928	-3.27%	3.57%
		793	41.718	0.897	40.273	0.932	-3.46%	3.90%
	2020/4/20	826.4	41.545	0.899	41.849	0.895	0.73%	-0.44%
		831	41.521	0.900	41.709	0.903	0.45%	0.33%
		831.5	41.518	0.900	41.707	0.904	0.46%	0.44%
		835	41.5	0.900	41.658	0.907	0.38%	0.78%
		836.5	41.5	0.902	41.302	0.910	-0.48%	0.89%
		836.6	41.5	0.902	41.518	0.912	0.04%	1.11%
		841.5	41.5	0.907	41.215	0.913	-0.69%	0.66%
	2020/4/21	846.6	41.5	0.912	41.073	0.918	-1.03%	0.66%
		1712.4	40.138	1.349	39.611	1.285	-1.31%	-4.74%
		1720	40.126	1.354	39.528	1.290	-1.49%	-4.73%
		1732.5	40.107	1.361	39.545	1.298	-1.40%	-4.62%
		1732.6	40.106	1.361	39.547	1.299	-1.39%	-4.56%
		1745	40.087	1.368	39.478	1.301	-1.52%	-4.90%
		1750	40.079	1.371	39.469	1.303	-1.52%	-4.96%
	2020/4/22	1752.6	40.075	1.373	39.423	1.307	-1.63%	-4.81%
		1770	40.047	1.383	39.362	1.322	-1.71%	-4.41%
		1852.4	40.000	1.400	39.134	1.390	-2.17%	-0.71%
		1860	40.000	1.400	39.035	1.393	-2.41%	-0.50%
		1880	40.000	1.400	39.025	1.413	-2.44%	0.93%
		1900	40.000	1.400	38.963	1.432	-2.59%	2.29%
	2020/4/23	1905	40.000	1.400	38.909	1.436	-2.73%	2.57%
		1907.6	40.000	1.400	38.886	1.438	-2.78%	2.71%
		2510	39.124	1.865	38.180	1.876	-2.41%	0.59%
		2535	39.092	1.893	38.104	1.902	-2.53%	0.48%
		2560	39.06	1.920	38.026	1.924	-2.65%	0.21%
		2600	39.01	1.964	37.788	1.981	-3.13%	0.88%
		2636.5	38.96	2.003	37.648	2.019	-3.37%	0.78%
		2640	38.958	2.008	37.550	2.038	-3.61%	1.49%
		2402	39.285	1.757	38.456	1.766	-2.11%	0.49%
		2412	39.268	1.766	38.367	1.773	-2.29%	0.40%
		2437	39.223	1.788	38.274	1.807	-2.42%	1.06%
		2440	39.218	1.791	38.205	1.810	-2.58%	1.05%
		2450	39.000	1.800	38.139	1.824	-2.21%	1.33%
	2020/4/24	2462	39.185	1.813	38.041	1.839	-2.92%	1.43%
		2480	39.162	1.833	37.966	1.857	-3.05%	1.32%
		5270	35.906	4.727	36.183	4.763	0.77%	0.76%
		5300	35.871	4.758	36.118	4.770	0.69%	0.25%
		5310	35.860	4.768	36.037	4.811	0.49%	0.90%
		5500	35.643	4.963	35.481	5.061	-0.45%	1.97%
		5510	35.631	4.973	35.365	5.071	-0.75%	1.97%
		5550	35.586	5.014	35.249	5.130	-0.95%	2.31%
		5600	35.529	5.065	35.092	5.167	-1.23%	2.01%
		5630	35.494	5.096	34.970	5.208	-1.48%	2.20%
5670		35.449	5.137	34.890	5.290	-1.58%	2.98%	
5710		35.403	5.178	34.767	5.324	-1.80%	2.82%	
5755		35.351	5.224	34.504	5.417	-2.40%	3.69%	
5795	35.306	5.265	34.448	5.438	-2.43%	3.29%		
5800	35.300	5.270	34.413	5.443	-2.51%	3.28%		

According to April 2019 TCB workshop, Effective February 19, 2019, FCC has permitted the use of single head-tissue simulating liquid specified in IEC 62209-1 for all SAR tests.

## 13 System Performance Check

The system performance check is performed prior to any usage of the system in order to guarantee reproducible results. The system performance check verifies that the system operates within its specifications. The system performance check results are tabulated below. And also the corresponding SAR plot is attached as well in the SAR plots files.

### System Performance Check Measurement Conditions

- The measurements were performed in the flat section of the SAM twin phantom filled with Head simulating liquid of the following parameters.
- The DASY4/DASY5 system with an E-field probe EX3DV4 SN: 7509 was used for the measurements.
- The dipole was mounted on the small tripod so that the dipole feed point was positioned below the center marking of the flat phantom section and the dipole was oriented parallel to the body axis (the long side of the phantom). The standard measuring distance was 15 mm (below 1 GHz) and 10 mm (above 1 GHz) from dipole center to the simulating liquid surface.
- The coarse grid with a grid spacing of 10mm was aligned with the dipole.
- Special 7x7x7 fine cube was chosen for cube integration ( $dx=dy=5\text{ mm}$ ,  $dz=5\text{ mm}$ ).
- Distance between probe sensors and phantom surface was set to 3.0 mm.
- The dipole input power (forward power) was  $250\text{ mW}\pm 3\%$  and  $100\text{ mW}\pm 3\%$ (above 2GHz).
- The results are normalized to 1 W input power.

### Reference SAR Values for System Performance Check

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

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System Dipole	Serial No.	Cal. Date	Freq. (MHz)	Target SAR Values (W/kg)		
				1g/10g	Head	Body
D750V3	1015	2019/08/23	750	1g	2.16	N/A
				10g	1.42	N/A
D835V2	4d063	2019/08/23	835	1g	2.42	N/A
				10g	1.57	N/A
D1750V2	1008	2019/08/23	1750	1g	9.13	N/A
				10g	4.83	N/A
D1900V2	5d173	2019/04/23	1900	1g	9.92	N/A
				10g	5.22	N/A
D2450V2	727	2019/04/24	2450	1g	13.6	N/A
				10g	6.28	N/A
D2600V2	1005	2020/01/29	2600	1g	14.60	N/A
				10g	6.45	N/A
D5GHzV2	1023	2020/01/28	5300	1g	8.32	N/A
				10g	2.35	N/A
D5GHzV2	1023	2020/01/28	5600	1g	8.36	N/A
				10g	2.37	N/A
D5GHzV2	1023	2020/01/28	5800	1g	8.19	N/A
				10g	2.29	N/A

### 13.1 System Performance Check Results

Date	System Dipole			Parameters	Target	Measured	Deviation[%]	Limited[%]
	Type	Serial No.	Liquid					
2020/4/19	D750V3	1015	Head	1g SAR:	2.16	2.14	-0.93	± 10
				10g SAR:	1.42	1.42	0.00	± 10
2020/4/20	D835V2	4d063	Head	1g SAR:	2.42	2.37	-2.07	± 10
				10g SAR:	1.57	1.55	-1.27	± 10
2020/4/21	D1750V2	1008	Head	1g SAR:	9.13	9.24	1.20	± 10
				10g SAR:	4.83	4.62	-4.35	± 10
2020/4/22	D1900V2	5d173	Head	1g SAR:	9.92	9.87	-0.50	± 10
				10g SAR:	5.22	5.05	-3.26	± 10
2020/4/23	D2450V2	727	Head	1g SAR:	13.60	13.90	2.21	± 10
				10g SAR:	6.28	6.32	0.64	± 10
2020/4/23	D2600V2	1005	Head	1g SAR:	14.60	14.30	-2.05	± 10
				10g SAR:	6.45	6.12	-5.12	± 10
2020/4/24	D5GH <sub>2</sub> V2	1023	Head	1g SAR:	8.32	8.18	-1.68	± 10
				10g SAR:	2.35	2.29	-2.55	± 10
2020/4/24	D5GH <sub>2</sub> V2	1023	Head	1g SAR:	8.36	8.44	0.96	± 10
				10g SAR:	2.37	2.40	1.27	± 10
2020/4/24	D5GH <sub>2</sub> V2	1023	Head	1g SAR:	8.19	7.80	-4.76	± 10
				10g SAR:	2.29	2.18	-4.80	± 10

## 14 RF Output Power Measurement

### 14.1 WCDMA Output Power

#### Release 99

The following tests were completed according to the test requirements outlined in section 5.2 of the 3GPP TS34.121-1 V8.5.0 specification. A summary of these settings are illustrated below:

Mode	Subtest	Rel99
WCDMA General Settings	Loopback Mode	Test Mode 1
	Rel99 RMC	12.2kbps RMC
	Power Control Algorithm	Algorithm2
	$\beta_c/\beta_d$	8/15

#### HSDPA

The following 4 Sub-tests were completed according to Release 6 procedures in section 5.2 of 3GPP TS34.121. A summary of these settings are illustrated below:

	Mode	HSDPA	HSDPA	HSDPA	HSDPA
	Subtest	1	2	3	4
W-CDMA General Settings	Loopback Mode	Test Mode 1			
	Rel99 RMC	12.2kbps RMC			
	HSDPA FRC	H-Set1			
	Power Control Algorithm	Algorithm 2			
	$\beta_c$	2/15	12/15	15/15	15/15
	$\beta_d$	15/15	15/15	8/15	4/15
	Bd (SF)	64			
	$\beta_c/\beta_d$	2/15	12/15	8/15	4/15
	$\beta_{hs}$	4/15	24/15	30/15	30/15
	CM (dB)	0	1	1.5	1.5
HSDPA Specific Settings	$D_{ACK}$	8			
	$D_{NAK}$	8			
	DCQI	8			
	Ack-Nack repetition factor	3			
	CQI Feedback (Table 5.2B.4)	4ms			
	CQI Repetition Factor (Table 5.2B.4)	2			
	$A_{hs} = \beta_{hs}/\beta_c$	30/15			

**HSPA (HSDPA & HSUPA)**

The following 5 Sub-tests were completed according to Release 6 procedures in section 5.2 of 3GPP TS34.121. A summary of these settings are illustrated below:

Mode	HSPA	HSPA	HSPA	HSPA	HSPA	
Subtest	1	2	3	4	5	
W-CDMA General Settings	Loopback Mode					Test Mode 1
	Rel99 RMC					12.2kbps RMC
	HSDPA FRC					H-Set1
	HSUPA Test					HSUPA Loopback
	Power Control Algorithm					Algorithm2
	$\beta_c$	11/15	6/15	15/15	2/15	15/15
	$\beta_d$	15/15	15/15	9/15	15/15	15/15
	$\beta_{ec}$	209/225	12/15	30/15	2/15	24/15
	$\beta_c/\beta_d$	11/15	6/15	9/15	2/15	15/15
	$\beta_{hs}$	22/15	12/15	30/15	4/15	30/15
	$\beta_{ed}$	1309/225	94/75	47/15	56/75	134/15
	CM (dB)	1	3	2	3	1
MPR (dB)	0	2	1	2	0	
HSDPA Specific Settings	DACK					8
	DNAK					8
	DCQI					8
	Ack-Nack repetition factor					3
	CQI Feedback (Table 5.2B.4)					4ms
	CQI Repetition Factor (Table 5.2B.4)					2
	A <sub>hs</sub> = $\beta_{hs}/\beta_c$					30/15
HSUPA Specific Settings	D E-DPCCH	6	8	8	5	7
	DHARQ	0	0	0	0	0
	AG Index	20	12	15	17	21
	ETFCI (from 34.121 Table C.11.1.3)	75	67	92	71	81
	Associated Max UL Data Rate kbps	242.1	174.9	482.8	205.8	308.9
	Reference E_TFCIs	E-TFCI 11		E-TFCI 11		E-TFCI 11
		E-TFCI PO 4		E-TFCI PO 4		E-TFCI PO 4
		E-TFCI 67		E-TFCI 92		E-TFCI 67
		E-TFCI PO 18		E-TFCI PO 18		E-TFCI PO 18
		E-TFCI 71				E-TFCI 71
		E-TFCI PO 23				E-TFCI PO 23
		E-TFCI 75				E-TFCI 75
E-TFCI PO 26				E-TFCI PO 26		
E-TFCI 81				E-TFCI 81		
E-TFCI PO 27				E-TFCI PO 27		

**Full Output Power table**

WCDMA II				
UL Channel		9262	9400	9538
DL Channel		9662	9800	9938
Frequency (MHz)		1852.4	1880	1907.6
3GPP Rel 99	RMC 12.2Kbps	22.35	22.45	22.50
HSDPA	HSDPA Subtest-1	21.19	21.28	21.15
	HSDPA Subtest-2	21.11	21.16	21.30
	HSDPA Subtest-3	20.70	20.91	20.90
	HSDPA Subtest-4	20.67	20.78	20.77
HSUPA	HSUPA Subtest-1	21.01	21.20	20.94
	HSUPA Subtest-2	19.61	19.85	19.68
	HSUPA Subtest-3	20.01	19.94	19.92
	HSUPA Subtest-4	20.84	21.12	20.81
	HSUPA Subtest-5	21.89	21.54	21.70

WCDMA IV				
UL Channel		1312	1413	1513
DL Channel		1537	1638	1738
Frequency (MHz)		1712.4	1732.6	1752.6
3GPP Rel 99	RMC 12.2Kbps	22.66	22.73	22.67
HSDPA	HSDPA Subtest-1	21.52	21.69	21.66
	HSDPA Subtest-2	21.43	21.84	21.81
	HSDPA Subtest-3	21.26	21.33	21.34
	HSDPA Subtest-4	21.30	21.34	21.62
HSUPA	HSUPA Subtest-1	21.48	21.84	21.60
	HSUPA Subtest-2	20.24	20.29	20.45
	HSUPA Subtest-3	20.17	20.24	20.16
	HSUPA Subtest-4	20.48	20.61	20.55
	HSUPA Subtest-5	21.50	21.69	21.50

WCDMA V				
UL Channel		4132	4183	4233
DL Channel		4357	4408	4458
Frequency (MHz)		826.4	836.6	846.6
3GPP Rel 99	RMC 12.2Kbps	22.97	23.22	23.17
HSDPA	HSDPA Subtest-1	22.00	22.41	21.57
	HSDPA Subtest-2	21.93	21.83	21.72
	HSDPA Subtest-3	21.90	21.65	21.40
	HSDPA Subtest-4	21.41	21.54	21.60
HSUPA	HSUPA Subtest-1	21.91	21.75	21.48
	HSUPA Subtest-2	21.21	21.44	20.91
	HSUPA Subtest-3	21.22	20.83	20.95
	HSUPA Subtest-4	21.78	21.87	21.64
	HSUPA Subtest-5	21.80	21.93	21.65

Reduced Output Power table

WCDMA II				
UL Channel		9262	9400	9538
DL Channel		9662	9800	9938
Frequency (MHz)		1852.4	1880	1907.6
3GPP Rel 99	RMC 12.2Kbps	18.22	18.31	18.47
HSDPA	HSDPA Subtest-1	18.11	17.27	17.74
	HSDPA Subtest-2	17.98	17.26	17.96
	HSDPA Subtest-3	17.99	17.41	17.79
	HSDPA Subtest-4	17.55	17.39	17.56
HSUPA	HSUPA Subtest-1	18.06	17.55	17.96
	HSUPA Subtest-2	17.65	16.98	17.53
	HSUPA Subtest-3	17.76	17.45	17.87
	HSUPA Subtest-4	18.18	17.08	17.73
	HSUPA Subtest-5	17.93	17.62	18.12



WCDMA IV				
UL Channel		1312	1413	1513
DL Channel		1537	1638	1738
Frequency (MHz)		1712.4	1732.6	1752.6
3GPP Rel 99	RMC 12.2Kbps	19.87	19.91	19.85
HSDPA	HSDPA Subtest-1	19.34	19.28	19.67
	HSDPA Subtest-2	19.33	19.40	19.48
	HSDPA Subtest-3	19.16	19.13	19.32
	HSDPA Subtest-4	18.93	18.72	19.10
HSUPA	HSUPA Subtest-1	18.99	18.98	19.03
	HSUPA Subtest-2	18.81	19.01	19.20
	HSUPA Subtest-3	18.83	18.75	18.87
	HSUPA Subtest-4	19.21	19.13	19.13
	HSUPA Subtest-5	19.07	19.20	19.03

## 14.2 LTE Output Power

According to KDB 941225 D05v02r05 Section 5.2 ,

### QPSK with 1 RB allocation

Start with the largest channel bandwidth then 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  $\leq 0.8$  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*.

### QPSK with 50% RB allocation

The procedures required for 1 RB allocation in 5.2.1 are applied to measure the SAR for QPSK with 50% RB allocation.

### 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 5.2.1 and 5.2.2 are  $\leq 0.8$  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.

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**Full Output Power table**

LTE 2				Conducted Power (dBm)			Tune-up (dBm)
Bandwidth	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	
				18700	18900	19100	
(MHz)				1860	1880	1900	
20	QPSK	1	0	21.8	21.73	22	23
	QPSK	1	49	21.47	21.37	21.69	23
	QPSK	1	99	21.63	21.54	21.55	23
	QPSK	50	0	20.56	20.47	20.75	22
	QPSK	50	24	20.57	20.49	20.82	22
	QPSK	50	50	20.43	20.54	20.81	22
	QPSK	100	0	20.47	20.59	21.02	22
	16QAM	1	0	20.82	20.7	21.13	22
	16QAM	1	49	20.75	20.9	21.04	22
	16QAM	1	99	21.2	20.85	20.83	22
	16QAM	50	0	19.54	19.53	19.82	21
	16QAM	50	24	19.45	19.55	19.9	21
	16QAM	50	50	19.52	19.59	19.88	21
	16QAM	100	0	19.6	19.55	19.82	21
	64QAM	1	0	20.5	20.61	20.32	21
	64QAM	1	49	20.47	20.42	20.64	21
	64QAM	1	99	20.63	20.42	20.14	21
	64QAM	50	0	19.62	19.4	19.17	20
64QAM	50	24	19.63	19.52	19.03	20	
64QAM	50	50	19.45	19.49	19.12	20	
64QAM	100	0	19.48	19.53	19.2	20	
LTE 2				Conducted Power (dBm)			Tune-up (dBm)
Bandwidth	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	
				18675	18900	19125	
(MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	21.89	21.54	21.98	23
	QPSK	1	37	21.65	21.32	21.82	23
	QPSK	1	74	21.71	21.48	21.58	23
	QPSK	36	0	20.39	20.46	20.68	22
	QPSK	36	20	20.77	20.47	20.76	22
	QPSK	36	39	20.6	20.44	20.75	22
	QPSK	75	0	20.53	20.68	21.04	22
	16QAM	1	0	20.63	20.78	20.99	22
	16QAM	1	37	20.76	20.78	21.24	22
	16QAM	1	74	21.04	20.84	20.65	22
	16QAM	36	0	19.71	19.62	19.9	21
	16QAM	36	20	19.33	19.51	20.08	21
	16QAM	36	39	19.43	19.62	20.02	21
	16QAM	75	0	19.57	19.63	19.65	21
	64QAM	1	0	20.32	20.45	20.18	21
	64QAM	1	37	20.49	20.22	20.62	21
	64QAM	1	74	20.62	20.22	20.32	21
	64QAM	36	0	19.8	19.35	19.01	20
64QAM	36	20	19.74	19.62	19.02	20	
64QAM	36	39	19.29	19.3	19.17	20	
64QAM	75	0	19.44	19.43	19.24	20	

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LTE 2				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				18650	18900	19150	
10	QPSK	1	0	1855	1880	1905	23
	QPSK	1	25	21.8	21.52	21.9	23
	QPSK	1	49	21.61	21.24	21.71	23
	QPSK	1	49	21.63	21.42	21.43	23
	QPSK	25	0	20.29	20.39	20.61	22
	QPSK	25	12	20.74	20.42	20.73	22
	QPSK	25	25	20.55	20.34	20.57	22
	QPSK	50	0	20.48	20.56	20.9	22
	16QAM	1	0	20.45	20.69	20.95	22
	16QAM	1	25	20.7	20.6	21.12	22
	16QAM	1	49	20.84	20.82	20.49	22
	16QAM	25	0	19.66	19.46	19.82	21
	16QAM	25	12	19.16	19.34	19.98	21
	16QAM	25	25	19.43	19.54	19.95	21
	16QAM	50	0	19.54	19.53	19.47	21
	64QAM	1	0	20.12	20.37	20.07	21
	64QAM	1	25	20.38	20.03	20.47	21
	64QAM	1	49	20.51	20.22	20.17	21
64QAM	25	0	19.69	19.21	19.01	20	
64QAM	25	12	19.55	19.59	18.91	20	
64QAM	25	25	19.25	19.26	19.02	20	
64QAM	50	0	19.41	19.39	19.23	20	

LTE 2				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				18625	18900	19175	
5	QPSK	1	0	1852.5	1880	1907.5	23
	QPSK	1	12	21.78	21.39	21.71	23
	QPSK	1	12	21.49	21.13	21.52	23
	QPSK	1	24	21.55	21.34	21.24	23
	QPSK	12	0	20.27	20.29	20.55	22
	QPSK	12	7	20.62	20.38	20.57	22
	QPSK	12	13	20.35	20.19	20.56	22
	QPSK	25	0	20.36	20.48	20.89	22
	16QAM	1	0	20.26	20.63	20.87	22
	16QAM	1	12	20.7	20.59	20.99	22
	16QAM	1	24	20.83	20.62	20.33	22
	16QAM	12	0	19.52	19.29	19.73	21
	16QAM	12	7	19.1	19.31	19.94	21
	16QAM	12	13	19.37	19.51	19.92	21
	16QAM	25	0	19.43	19.4	19.3	21
	64QAM	1	0	19.93	20.27	19.99	21
	64QAM	1	12	20.38	20.03	20.44	21
	64QAM	1	24	20.32	20.2	20.17	21
64QAM	12	0	19.55	19.01	18.95	20	
64QAM	12	7	19.51	19.59	18.78	20	
64QAM	12	13	19.14	19.08	18.85	20	
64QAM	25	0	19.37	19.28	19.09	20	

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LTE 2				Conducted Power (dBm)			
Bandwidth	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				18615	18900	19185	
(MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	21.58	21.25	21.62	23
	QPSK	1	8	21.39	21.09	21.35	23
	QPSK	1	14	21.47	21.25	21.08	23
	QPSK	8	0	20.17	20.14	20.44	22
	QPSK	8	4	20.46	20.23	20.43	22
	QPSK	8	7	20.18	20.1	20.39	22
	QPSK	15	0	20.22	20.39	20.82	22
	16QAM	1	0	20.08	20.52	20.73	22
	16QAM	1	8	20.51	20.44	20.97	22
	16QAM	1	14	20.79	20.45	20.19	22
	16QAM	8	0	19.42	19.11	19.59	21
	16QAM	8	4	19.08	19.15	19.79	21
	16QAM	8	7	19.18	19.36	19.75	21
	16QAM	15	0	19.29	19.29	19.28	21
	64QAM	1	0	19.81	20.11	19.98	21
	64QAM	1	8	20.2	20.01	20.33	21
	64QAM	1	14	20.13	20.12	20.12	21
	64QAM	8	0	19.54	18.92	18.87	20
64QAM	8	4	19.38	19.49	18.69	20	
64QAM	8	7	18.99	19.02	18.79	20	
64QAM	15	0	19.31	19.26	19.01	20	
LTE 2				Conducted Power (dBm)			
Bandwidth	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				18607	18900	19193	
(MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	21.54	21.11	21.56	23
	QPSK	1	3	21.36	21	21.17	23
	QPSK	1	5	21.33	21.2	21.22	23
	QPSK	3	0	20.22	20.09	20.3	22
	QPSK	3	1	20.29	20.07	20.28	22
	QPSK	3	3	20.08	20.17	20.37	22
	QPSK	6	0	20.17	20.33	20.69	22
	16QAM	1	0	20.07	20.33	20.65	22
	16QAM	1	3	20.36	20.31	20.83	22
	16QAM	1	5	20.77	20.43	20.08	22
	16QAM	3	0	19.42	19.03	19.56	21
	16QAM	3	1	19.06	18.98	19.65	21
	16QAM	3	3	19.02	19.35	19.67	21
	16QAM	6	0	19.27	19.19	19.17	21
	64QAM	1	0	19.81	19.91	19.9	21
	64QAM	1	3	20.01	19.95	20.19	21
	64QAM	1	5	20.02	20.03	19.93	21
	64QAM	3	0	19.38	18.78	18.83	20
64QAM	3	1	19.29	19.38	18.62	20	
64QAM	3	3	18.93	19.02	18.6	20	
64QAM	6	0	19.25	19.08	19.01	20	

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LTE 4				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				20050 1720	20175 1732.5	20300 1745	
20	QPSK	1	0	21.3	21.32	21.57	23
	QPSK	1	49	21.49	21.67	21.65	23
	QPSK	1	99	21.19	21.4	21.33	23
	QPSK	50	0	20.37	20.61	20.51	22
	QPSK	50	24	20.35	20.45	20.53	22
	QPSK	50	50	20.33	20.37	20.37	22
	QPSK	100	0	20.3	20.33	20.31	22
	16QAM	1	0	20.44	20.43	20.89	22
	16QAM	1	49	21.32	20.65	20.81	22
	16QAM	1	99	20.36	20.15	20.24	22
	16QAM	50	0	19.27	19.55	19.45	21
	16QAM	50	24	19.37	19.48	19.45	21
	16QAM	50	50	19.34	19.39	19.44	21
	16QAM	100	0	19.45	19.4	19.42	21
	64QAM	1	0	20.42	20.4	20.32	21
	64QAM	1	49	20.6	20.4	20.6	21
	64QAM	1	99	20.39	19.49	19.84	21
	64QAM	50	0	19.29	19.5	19.43	20
64QAM	50	24	19.38	19.47	19.49	20	
64QAM	50	50	19.33	19.4	19.3	20	
64QAM	100	0	19.51	19.35	19.44	20	
LTE 4				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				20025 1717.5	20175 1732.5	20325 1747.5	
15	QPSK	1	0	21.22	21.24	21.5	23
	QPSK	1	37	21.49	21.6	21.63	23
	QPSK	1	74	21.1	21.33	21.28	23
	QPSK	36	0	20.33	20.52	20.46	22
	QPSK	36	20	20.32	20.36	20.44	22
	QPSK	36	39	20.25	20.31	20.29	22
	QPSK	75	0	20.23	20.23	20.41	22
	16QAM	1	0	20.41	20.37	20.85	22
	16QAM	1	37	21.22	20.58	20.8	22
	16QAM	1	74	20.31	20.14	20.24	22
	16QAM	36	0	19.24	19.45	19.42	21
	16QAM	36	20	19.31	19.44	19.45	21
	16QAM	36	39	19.31	19.39	19.42	21
	16QAM	75	0	19.36	19.35	19.4	21
	64QAM	1	0	20.36	20.37	20.23	21
	64QAM	1	37	20.58	20.31	20.53	21
	64QAM	1	74	20.32	19.44	19.8	21
	64QAM	36	0	19.22	19.4	19.38	20
64QAM	36	20	19.37	19.45	19.49	20	
64QAM	36	39	19.24	19.39	19.23	20	
64QAM	75	0	19.47	19.28	19.34	20	

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LTE 4				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				20000	20175	20350	
				1715	1732.5	1750	
10	QPSK	1	0	21.19	21.14	21.45	23
	QPSK	1	25	21.47	21.57	21.63	23
	QPSK	1	49	21.03	21.31	21.21	23
	QPSK	25	0	20.32	20.47	20.38	22
	QPSK	25	12	20.24	20.36	20.41	22
	QPSK	25	25	20.16	20.27	20.26	22
	QPSK	50	0	20.23	20.22	20.41	22
	16QAM	1	0	20.36	20.37	20.76	22
	16QAM	1	25	21.17	20.55	20.79	22
	16QAM	1	49	20.28	20.14	20.15	22
	16QAM	25	0	19.16	19.39	19.39	21
	16QAM	25	12	19.25	19.36	19.39	21
	16QAM	25	25	19.22	19.38	19.4	21
	16QAM	50	0	19.27	19.26	19.38	21
	64QAM	1	0	20.31	20.37	20.18	21
	64QAM	1	25	20.55	20.27	20.52	21
	64QAM	1	49	20.32	19.41	19.79	21
	64QAM	25	0	19.21	19.34	19.34	20
64QAM	25	12	19.28	19.39	19.39	20	
64QAM	25	25	19.24	19.36	19.22	20	
64QAM	50	0	19.47	19.25	19.33	20	
LTE 4				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				19975	20175	20375	
				1712.5	1732.5	1752.5	
5	QPSK	1	0	21.12	21.13	21.36	23
	QPSK	1	12	21.44	21.57	21.53	23
	QPSK	1	24	21	21.25	21.2	23
	QPSK	12	0	20.24	20.47	20.3	22
	QPSK	12	7	20.16	20.36	20.4	22
	QPSK	12	13	20.06	20.2	20.22	22
	QPSK	25	0	20.17	20.14	20.31	22
	16QAM	1	0	20.27	20.37	20.7	22
	16QAM	1	12	21.08	20.49	20.79	22
	16QAM	1	24	20.27	20.09	20.11	22
	16QAM	12	0	19.09	19.31	19.39	21
	16QAM	12	7	19.15	19.34	19.3	21
	16QAM	12	13	19.16	19.31	19.37	21
	16QAM	25	0	19.22	19.19	19.37	21
	64QAM	1	0	20.22	20.29	20.12	21
	64QAM	1	12	20.49	20.23	20.49	21
	64QAM	1	24	20.23	19.41	19.72	21
	64QAM	12	0	19.2	19.27	19.25	20
64QAM	12	7	19.27	19.31	19.3	20	
64QAM	12	13	19.22	19.29	19.18	20	
64QAM	25	0	19.39	19.16	19.28	20	

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LTE 4				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				19965	20175	20385	
				1711.5	1732.5	1753.5	
3	QPSK	1	0	21.11	21.11	21.28	23
	QPSK	1	8	21.36	21.55	21.44	23
	QPSK	1	14	21.22	21.16	21.19	23
	QPSK	8	0	20.23	20.37	20.23	22
	QPSK	8	4	20.11	20.33	20.37	22
	QPSK	8	7	20.24	20.16	20.18	22
	QPSK	15	0	20.08	20.1	20.23	22
	16QAM	1	0	20.22	20.35	20.64	22
	16QAM	1	8	21.08	20.4	20.78	22
	16QAM	1	14	20.22	20.01	20.02	22
	16QAM	8	0	19.06	19.22	19.38	21
	16QAM	8	4	19.07	19.24	19.2	21
	16QAM	8	7	19.15	19.25	19.28	21
	16QAM	15	0	19.2	19.13	19.32	21
	64QAM	1	0	20.18	20.24	20.02	21
	64QAM	1	8	20.48	20.16	20.49	21
	64QAM	1	14	20.13	19.41	19.63	21
	64QAM	8	0	19.18	19.25	19.22	20
64QAM	8	4	19.19	19.26	19.29	20	
64QAM	8	7	19.14	19.24	19.16	20	
64QAM	15	0	19.29	19.08	19.27	20	
LTE 4				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				19957	20175	20393	
				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	21.08	21.12	21.24	23
	QPSK	1	3	21.36	21.45	21.34	23
	QPSK	1	5	21.21	21.12	21.19	23
	QPSK	3	0	20.17	20.33	20.13	22
	QPSK	3	1	20.05	20.32	20.37	22
	QPSK	3	3	20.24	20.16	20.18	22
	QPSK	6	0	20.08	20.02	20.14	22
	16QAM	1	0	20.15	20.26	20.56	22
	16QAM	1	3	21.01	20.33	20.72	22
	16QAM	1	5	20.18	20.17	20.04	22
	16QAM	3	0	19.04	19.16	19.31	21
	16QAM	3	1	19.07	19.24	19.12	21
	16QAM	3	3	19.06	19.17	19.22	21
	16QAM	6	0	19.11	19.11	19.24	21
	64QAM	1	0	20.17	20.23	19.94	21
	64QAM	1	3	20.38	20.1	20.48	21
	64QAM	1	5	20.04	19.4	19.53	21
	64QAM	3	0	19.14	19.15	19.22	20
64QAM	3	1	19.16	19.24	19.29	20	
64QAM	3	3	19.08	19.18	19.12	20	
64QAM	6	0	19.29	19.06	19.25	20	



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LTE 5				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				20450	20525	20600	
				829	836.5	844	
10	QPSK	1	0	22.97	23	23.01	24
	QPSK	1	25	22.92	22.97	23	24
	QPSK	1	49	22.99	23.11	23.09	24
	QPSK	25	0	21.22	21.47	21.53	23
	QPSK	25	12	21	21.47	21.68	23
	QPSK	25	25	21.03	21.55	21.69	23
	QPSK	50	0	21.17	21.63	21.42	23
	16QAM	1	0	21.05	21.61	22.26	23
	16QAM	1	25	21.4	21.54	22.13	23
	16QAM	1	49	21.73	21.05	21.62	23
	16QAM	25	0	20.14	20.36	20.62	22
	16QAM	25	12	20	20.46	20.54	22
	16QAM	25	25	20.14	20.56	20.53	22
	16QAM	50	0	20.09	20.5	20.69	22
	64QAM	1	0	21.54	22	21.97	22
	64QAM	1	25	21.96	21.37	21.82	22
	64QAM	1	49	21.77	21.36	21.21	22
	64QAM	25	0	20.19	20.41	20.66	21
64QAM	25	12	20.09	20.49	20.71	21	
64QAM	25	25	20.06	20.51	20.65	21	
64QAM	50	0	20.08	20.53	20.57	21	
LTE 5				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				20425	20525	20625	
				826.5	836.5	846.5	
5	QPSK	1	0	22.71	22.62	22.72	24
	QPSK	1	12	22.72	22.79	22.91	24
	QPSK	1	24	22.79	22.93	23.06	24
	QPSK	12	0	21.13	21.43	21.33	23
	QPSK	12	7	21.17	21.43	21.54	23
	QPSK	12	13	21.33	21.37	21.64	23
	QPSK	25	0	21.16	21.25	21.62	23
	16QAM	1	0	21.09	21.49	22.18	23
	16QAM	1	12	21.39	21.45	21.93	23
	16QAM	1	24	21.66	21.24	21.58	23
	16QAM	12	0	20.17	20.3	20.56	22
	16QAM	12	7	20.23	20.26	20.54	22
	16QAM	12	13	20.11	20.4	20.47	22
	16QAM	25	0	20.15	20.42	20.66	22
	64QAM	1	0	21.54	21.86	21.82	22
	64QAM	1	12	21.77	21.28	21.76	22
	64QAM	1	24	21.7	21.33	21.12	22
	64QAM	12	0	20.17	20.33	20.64	21
64QAM	12	7	20.08	20.35	20.63	21	
64QAM	12	13	19.96	20.43	20.46	21	
64QAM	25	0	19.92	20.36	20.41	21	

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LTE 5				Conducted Power (dBm)			
Bandwidth	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				20415	20525	20635	
(MHz)				825.5	836.5	847.5	
3	QPSK	1	0	22.7	22.77	22.88	24
	QPSK	1	8	22.85	22.89	22.99	24
	QPSK	1	14	22.9	22.94	23.02	24
	QPSK	8	0	21.17	21.37	21.52	23
	QPSK	8	4	21.07	21.37	21.6	23
	QPSK	8	7	21.12	21.45	21.62	23
	QPSK	15	0	21.1	21.34	21.56	23
	16QAM	1	0	21.09	21.61	22.16	23
	16QAM	1	8	21.31	21.54	22.09	23
	16QAM	1	14	21.72	21.42	21.53	23
	16QAM	8	0	20.07	20.35	20.53	22
	16QAM	8	4	20.4	20.37	20.44	22
	16QAM	8	7	20.05	20.5	20.52	22
	16QAM	15	0	20.04	20.46	20.67	22
	64QAM	1	0	21.46	21.94	21.9	22
	64QAM	1	8	21.94	21.28	21.75	22
	64QAM	1	14	21.69	21.28	21.17	22
	64QAM	8	0	20.13	20.41	20.57	21
64QAM	8	4	19.99	20.44	20.64	21	
64QAM	8	7	19.98	20.42	20.65	21	
64QAM	15	0	20	20.46	20.55	21	
LTE 5				Conducted Power (dBm)			
Bandwidth	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				20407	20525	20643	
(MHz)				824.7	836.5	848.3	
1.4	QPSK	1	0	22.7	22.72	22.87	24
	QPSK	1	3	22.84	22.94	22.97	24
	QPSK	1	5	22.89	23.01	23.01	24
	QPSK	3	0	21.21	21.41	21.45	23
	QPSK	3	1	21.12	21.38	21.61	23
	QPSK	3	3	21.03	21.47	21.67	23
	QPSK	6	0	21.12	21.39	21.62	23
	16QAM	1	0	21.07	21.52	22.17	23
	16QAM	1	3	21.34	21.51	22.12	23
	16QAM	1	5	21.71	21	21.62	23
	16QAM	3	0	20.13	20.3	20.53	22
	16QAM	3	1	20.07	20.41	20.53	22
	16QAM	3	3	20.09	20.5	20.5	22
	16QAM	6	0	20.01	20.43	20.69	22
	64QAM	1	0	21.46	21.96	21.95	22
	64QAM	1	3	21.92	21.34	21.77	22
	64QAM	1	5	21.69	21.35	21.21	22
	64QAM	3	0	20.1	20.38	20.61	21
64QAM	3	1	20.05	20.42	20.68	21	
64QAM	3	3	20.05	20.49	20.64	21	
64QAM	6	0	19.98	20.43	20.54	21	

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LTE 7				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				20850	21100	21350	
				2510	2535	2560	
20	QPSK	1	0	23.37	23.24	23.14	23.5
	QPSK	1	49	23.48	23.48	23.37	23.5
	QPSK	1	99	23.37	23.22	23.13	23.5
	QPSK	50	0	22.44	22.41	22.34	22.5
	QPSK	50	24	22.41	22.37	22.32	22.5
	QPSK	50	50	22.27	22.33	22.3	22.5
	16QAM	1	0	22.31	22.47	22.31	22.5
	16QAM	1	49	22.04	22.03	22.01	22.5
	16QAM	1	99	22.28	22.45	22.25	22.5
	16QAM	50	0	21.4	21.32	21.36	21.5
	16QAM	50	24	21.39	21.46	21.27	21.5
	16QAM	50	50	21.29	21.3	21.22	21.5
	16QAM	100	0	21.5	21.36	21.31	21.5
	64QAM	1	0	21.47	21.11	20.95	21.5
	64QAM	1	49	20.81	21.23	21.18	21.5
	64QAM	1	99	21.18	21.06	21	21.5
	64QAM	50	0	20.2	20.03	19.97	20.5
	64QAM	50	24	20.22	20.03	19.95	20.5
64QAM	50	50	19.98	20.01	19.96	20.5	
64QAM	100	0	20.17	20.08	19.97	20.5	
LTE 7				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				20825	21100	21375	
				2507.5	2535	2562.5	
15	QPSK	1	0	23.14	23.23	22.76	23.5
	QPSK	1	37	23.29	23.14	23.18	23.5
	QPSK	1	74	23.33	23.1	23	23.5
	QPSK	36	0	22.41	22.1	21.99	22.5
	QPSK	36	20	22.26	22.09	22	22.5
	QPSK	36	39	22.23	22.01	22.03	22.5
	QPSK	75	0	21.98	22	22.02	22.5
	16QAM	1	0	22.17	22.28	22.22	22.5
	16QAM	1	37	22	22.03	21.89	22.5
	16QAM	1	74	22.06	22.1	22	22.5
	16QAM	36	0	21.37	21.12	20.97	21.5
	16QAM	36	20	21.24	21.17	20.91	21.5
	16QAM	36	39	21	21.21	21.01	21.5
	16QAM	75	0	21.22	21.06	20.95	21.5
	64QAM	1	0	21.19	21.01	20.77	21.5
	64QAM	1	37	20.8	21.02	20.81	21.5
	64QAM	1	74	21.1	20.76	20.7	21.5
	64QAM	36	0	20.17	19.63	19.87	20.5
64QAM	36	20	20.22	19.97	19.95	20.5	
64QAM	36	39	19.96	19.96	19.59	20.5	
64QAM	75	0	20.09	19.73	19.86	20.5	

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LTE 7				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				20800	21100	21400	
				2505	2535	2565	
10	QPSK	1	0	23.25	22.9	23.08	23.5
	QPSK	1	25	23.32	23.32	23.34	23.5
	QPSK	1	49	23.17	22.89	22.92	23.5
	QPSK	25	0	22.15	22.03	22.28	22.5
	QPSK	25	12	22.39	22.2	22.29	22.5
	QPSK	25	25	22	22.1	22.11	22.5
	QPSK	50	0	22.15	22.35	22.18	22.5
	16QAM	1	0	21.91	22.11	22.05	22.5
	16QAM	1	25	21.94	21.66	21.65	22.5
	16QAM	1	49	21.96	22.08	22.25	22.5
	16QAM	25	0	21.31	21.1	21.34	21.5
	16QAM	25	12	21.25	21.42	20.94	21.5
	16QAM	25	25	21.24	21.2	20.96	21.5
	16QAM	50	0	21.46	21.17	21.17	21.5
	64QAM	1	0	21.08	21.01	20.78	21.5
	64QAM	1	25	20.76	21.08	21.11	21.5
	64QAM	1	49	20.93	21	20.75	21.5
	64QAM	25	0	19.96	19.72	19.77	20.5
64QAM	25	12	19.88	19.95	19.55	20.5	
64QAM	25	25	19.78	19.89	19.62	20.5	
64QAM	50	0	19.78	19.86	19.84	20.5	
LTE 7				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				20775	21100	21425	
				2502.5	2535	2567.5	
5	QPSK	1	0	23.33	23.17	23.06	23.5
	QPSK	1	12	23.31	23.37	23.21	23.5
	QPSK	1	24	23.21	23.14	22.74	23.5
	QPSK	12	0	22.07	22.2	22.04	22.5
	QPSK	12	7	22.34	22.03	22.27	22.5
	QPSK	12	13	22.2	22.23	22	22.5
	QPSK	25	0	21.97	22.24	21.98	22.5
	16QAM	1	0	22.11	22.17	22.08	22.5
	16QAM	1	12	21.78	21.96	21.98	22.5
	16QAM	1	24	22.22	22.42	22.01	22.5
	16QAM	12	0	21.34	20.99	20.97	21.5
	16QAM	12	7	21.34	21.19	21.26	21.5
	16QAM	12	13	21.07	21.06	20.92	21.5
	16QAM	25	0	21.13	20.96	21.27	21.5
	64QAM	1	0	21.21	21.11	20.56	21.5
	64QAM	1	12	20.41	21.09	20.85	21.5
	64QAM	1	24	21.1	20.97	20.99	21.5
	64QAM	12	0	19.87	19.85	19.86	20.5
64QAM	12	7	20.14	19.73	19.62	20.5	
64QAM	12	13	19.79	19.96	19.6	20.5	
64QAM	25	0	19.97	20.07	19.66	20.5	

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LTE 12				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				23060 704	23095 707.5	23130 711	
10	QPSK	1	0	21.81	21.97	21.93	23
	QPSK	1	25	21.75	21.79	21.84	23
	QPSK	1	49	22.13	22.15	22.11	23
	QPSK	25	0	21.07	20.9	21.01	22
	QPSK	25	12	21.06	20.89	20.98	22
	QPSK	25	25	21.01	21.18	20.94	22
	QPSK	50	0	21.03	20.84	20.99	22
	16QAM	1	0	21.67	20.93	21.79	22
	16QAM	1	25	21.07	20.85	21.5	22
	16QAM	1	49	21.28	21.3	21.85	22
	16QAM	25	0	20.08	19.91	20.12	21
	16QAM	25	12	20.07	19.79	19.97	21
	16QAM	25	25	20.06	19.85	19.96	21
	16QAM	50	0	20.02	19.89	20.02	21
	64QAM	1	0	20.83	20.79	20.95	21
	64QAM	1	25	20.6	20.63	20.98	21
	64QAM	1	49	20.77	20.75	20.64	21
	64QAM	25	0	19.82	20	19.63	20
64QAM	25	12	19.7	19.93	19.61	20	
64QAM	25	25	19.75	19.9	19.62	20	
64QAM	50	0	19.97	19.91	19.65	20	
LTE 12				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				23035 701.5	23095 707.5	23155 713.5	
5	QPSK	1	0	21.66	21.79	21.67	23
	QPSK	1	12	21.46	21.61	21.58	23
	QPSK	1	24	22.05	21.86	21.97	23
	QPSK	12	0	20.79	21.06	21.04	22
	QPSK	12	7	20.9	20.91	20.86	22
	QPSK	12	13	20.92	20.76	20.8	22
	QPSK	25	0	20.86	20.87	20.86	22
	16QAM	1	0	21.65	21.64	21.52	22
	16QAM	1	12	21.05	20.81	20.78	22
	16QAM	1	24	21.1	21.27	21.23	22
	16QAM	12	0	20.06	19.93	19.97	21
	16QAM	12	7	19.86	20.06	19.78	21
	16QAM	12	13	19.78	19.95	19.95	21
	16QAM	25	0	19.99	19.75	20	21
	64QAM	1	0	20.55	20.56	20.7	21
	64QAM	1	12	20.55	20.32	20.57	21
	64QAM	1	24	20.48	20.61	20.51	21
	64QAM	12	0	19.77	19.78	19.65	20
64QAM	12	7	19.68	19.62	19.46	20	
64QAM	12	13	19.57	19.73	19.73	20	
64QAM	25	0	19.7	19.87	19.71	20	

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LTE 12				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				23025	23095	23165	
				700.5	707.5	714.5	
3	QPSK	1	0	21.53	21.69	21.61	23
	QPSK	1	8	21.61	21.59	21.52	23
	QPSK	1	14	22.02	22.1	21.85	23
	QPSK	8	0	20.98	21.02	20.83	22
	QPSK	8	4	20.8	20.77	20.79	22
	QPSK	8	7	20.73	20.83	20.74	22
	QPSK	15	0	21.01	20.92	20.93	22
	16QAM	1	0	21.67	21.4	21.6	22
	16QAM	1	8	21.02	20.79	20.94	22
	16QAM	1	14	21.21	21.16	20.99	22
	16QAM	8	0	20	19.83	20.06	21
	16QAM	8	4	19.94	19.82	19.97	21
	16QAM	8	7	19.92	19.76	19.8	21
	16QAM	15	0	19.87	19.8	20.02	21
	64QAM	1	0	20.77	20.81	20.58	21
	64QAM	1	8	20.57	20.41	20.3	21
	64QAM	1	14	20.73	20.73	20.6	21
	64QAM	8	0	19.79	19.64	19.56	20
64QAM	8	4	19.5	19.4	19.55	20	
64QAM	8	7	19.72	19.6	19.54	20	
64QAM	15	0	19.71	19.75	19.67	20	
LTE 12				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				23017	23095	23173	
				699.7	707.5	715.3	
1.4	QPSK	1	0	21.6	21.53	21.8	23
	QPSK	1	3	21.7	21.49	21.47	23
	QPSK	1	5	21.94	21.92	22.1	23
	QPSK	3	0	20.96	20.93	20.81	22
	QPSK	3	1	20.9	20.8	21.06	22
	QPSK	3	3	20.86	20.81	21	22
	QPSK	6	0	20.83	20.95	20.79	22
	16QAM	1	0	21.56	21.45	21.5	22
	16QAM	1	3	20.89	20.94	20.84	22
	16QAM	1	5	21.11	21.05	21.28	22
	16QAM	3	0	20	19.89	19.99	21
	16QAM	3	1	20.07	20.03	20.07	21
	16QAM	3	3	19.91	19.77	20.01	21
	16QAM	6	0	19.98	19.98	19.81	21
	64QAM	1	0	20.82	20.56	20.78	21
	64QAM	1	3	20.33	20.59	20.52	21
	64QAM	1	5	20.59	20.77	20.47	21
	64QAM	3	0	19.79	19.54	19.55	20
64QAM	3	1	19.52	19.5	19.54	20	
64QAM	3	3	19.52	19.52	19.58	20	
64QAM	6	0	19.87	19.78	19.94	20	

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LTE 13				Conducted Power (dBm)		
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency		Tune-up (dBm)
				23230		
				782		
10	QPSK	1	0	22.48		23
	QPSK	1	25	22.42		23
	QPSK	1	49	22.55		23
	QPSK	25	0	21.6		22
	QPSK	25	12	21.63		22
	QPSK	25	25	21.72		22
	QPSK	50	0	21.62		22
	16QAM	1	0	21.89		22
	16QAM	1	25	21.7		22
	16QAM	1	49	21.85		22
	16QAM	25	0	20.45		21
	16QAM	25	12	20.52		21
	16QAM	25	25	20.55		21
	16QAM	50	0	20.74		21
	64QAM	1	0	20.93		21
	64QAM	1	25	20.49		21
	64QAM	1	49	20.85		21
	64QAM	25	0	19.56		20
64QAM	25	12	19.53		20	
64QAM	25	25	19.55		20	
64QAM	50	0	19.72		20	

LTE 13				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				23205	23230	23255	
				779.5	782	784.5	
5	QPSK	1	0	22.35	22.43	22.19	23
	QPSK	1	12	22.12	22.41	22.42	23
	QPSK	1	24	22.36	22.4	22.35	23
	QPSK	12	0	21.37	21.48	21.54	22
	QPSK	12	7	21.38	21.52	21.33	22
	QPSK	12	13	21.7	21.51	21.46	22
	QPSK	25	0	21.36	21.47	21.38	22
	16QAM	1	0	21.75	21.74	21.85	22
	16QAM	1	12	21.41	21.62	21.63	22
	16QAM	1	24	21.85	21.76	21.84	22
	16QAM	12	0	20.35	20.31	20.27	21
	16QAM	12	7	20.29	20.24	20.26	21
	16QAM	12	13	20.54	20.44	20.27	21
	16QAM	25	0	20.6	20.56	20.58	21
	64QAM	1	0	20.79	20.83	20.86	21
	64QAM	1	12	20.37	20.44	20.43	21
	64QAM	1	24	20.75	20.73	20.69	21
	64QAM	12	0	19.34	19.52	19.47	20
64QAM	12	7	19.43	19.23	19.37	20	
64QAM	12	13	19.32	19.46	19.4	20	
64QAM	25	0	19.43	19.6	19.64	20	

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LTE 14				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency			Tune-up (dBm)
				23330			
				793			
10	QPSK	1	0	22.24			23
	QPSK	1	25	22.99			23
	QPSK	1	49	22.74			23
	QPSK	25	0	21.66			22
	QPSK	25	12	21.65			22
	QPSK	25	25	21.65			22
	QPSK	50	0	21.58			22
	16QAM	1	0	21.99			22
	16QAM	1	25	21.48			22
	16QAM	1	49	21.1			22
	16QAM	25	0	20.77			21
	16QAM	25	12	20.72			21
	16QAM	25	25	20.8			21
	16QAM	50	0	20.77			21
	64QAM	1	0	20.33			21
	64QAM	1	25	20.21			21
	64QAM	1	49	20.07			21
	64QAM	25	0	19.84			20
64QAM	25	12	19.75			20	
64QAM	25	25	19.78			20	
64QAM	50	0	19.72			20	

LTE 14				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				23305	23330	23355	
				790.5	793	795.5	
5	QPSK	1	0	22.19	22.03	22.05	23
	QPSK	1	12	22.93	22.96	22.82	23
	QPSK	1	24	22.52	22.62	22.55	23
	QPSK	12	0	21.51	21.45	21.45	22
	QPSK	12	7	21.45	21.63	21.54	22
	QPSK	12	13	21.44	21.37	21.65	22
	QPSK	25	0	21.44	21.31	21.52	22
	16QAM	1	0	21.79	21.82	21.69	22
	16QAM	1	12	21.19	21.45	21.4	22
	16QAM	1	24	20.91	20.89	20.86	22
	16QAM	12	0	20.63	20.76	20.56	21
	16QAM	12	7	20.7	20.46	20.52	21
	16QAM	12	13	20.5	20.76	20.8	21
	16QAM	25	0	20.69	20.59	20.69	21
	64QAM	1	0	20.2	20.33	20.28	21
	64QAM	1	12	20.21	20.15	20.06	21
	64QAM	1	24	19.93	19.77	19.79	21
	64QAM	12	0	19.73	19.75	19.81	20
64QAM	12	7	19.65	19.6	19.46	20	
64QAM	12	13	19.75	19.77	19.7	20	
64QAM	25	0	19.53	19.57	19.52	20	



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LTE 17				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				23780	23790	23800	
				709	710	711	
10	QPSK	1	0	21.87	21.5	21.51	23
	QPSK	1	25	22.03	22.12	21.93	23
	QPSK	1	49	21.81	21.93	21.73	23
	QPSK	25	0	20.82	20.91	20.9	22
	QPSK	25	12	20.82	20.83	20.76	22
	QPSK	25	25	20.74	20.77	20.88	22
	QPSK	50	0	20.72	20.76	20.86	22
	16QAM	1	0	20.97	21.17	21.73	22
	16QAM	1	25	21.15	21.34	21.47	22
	16QAM	1	49	21.41	21.45	21.1	22
	16QAM	25	0	19.78	19.78	19.85	21
	16QAM	25	12	19.7	19.81	19.73	21
	16QAM	25	25	19.74	19.88	19.69	21
	16QAM	50	0	19.78	19.82	19.77	21
	64QAM	1	0	20.75	20.69	20.69	21
	64QAM	1	25	20.79	21	20.58	21
	64QAM	1	49	20.69	20.57	20.89	21
64QAM	25	0	19.8	19.83	19.83	20	
64QAM	25	12	19.83	19.83	19.85	20	
64QAM	25	25	19.78	19.9	19.82	20	
64QAM	50	0	19.87	19.74	19.89	20	
LTE 17				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				23755	23790	23825	
				706.5	710	713.5	
5	QPSK	1	0	21.79	21.72	21.72	23
	QPSK	1	12	21.73	21.8	21.79	23
	QPSK	1	24	21.74	21.75	21.72	23
	QPSK	12	0	20.67	20.6	20.53	22
	QPSK	12	7	20.67	20.75	20.59	22
	QPSK	12	13	20.72	20.54	20.5	22
	QPSK	25	0	20.68	20.62	20.65	22
	16QAM	1	0	20.97	20.89	20.87	22
	16QAM	1	12	20.94	20.91	21	22
	16QAM	1	24	21.29	21.38	21.36	22
	16QAM	12	0	19.55	19.57	19.6	21
	16QAM	12	7	19.48	19.42	19.5	21
	16QAM	12	13	19.74	19.47	19.58	21
	16QAM	25	0	19.56	19.59	19.77	21
	64QAM	1	0	20.47	20.57	20.59	21
	64QAM	1	12	20.79	20.62	20.51	21
	64QAM	1	24	20.5	20.5	20.49	21
64QAM	12	0	19.64	19.77	19.74	20	
64QAM	12	7	19.79	19.64	19.67	20	
64QAM	12	13	19.61	19.68	19.73	20	
64QAM	25	0	19.77	19.66	19.7	20	

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LTE 25				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				26140 1860	26340 1880	26590 1905	
20	QPSK	1	0	21.66	21.77	21.78	23
	QPSK	1	49	21.31	21.76	21.54	23
	QPSK	1	99	21.23	21.37	21.74	23
	QPSK	50	0	20.66	20.64	21.17	22
	QPSK	50	24	20.58	20.64	21.06	22
	QPSK	50	50	20.47	20.63	21.01	22
	QPSK	100	0	20.48	20.6	21.23	22
	16QAM	1	0	21.27	20.95	21.13	22
	16QAM	1	49	21	21.24	21.6	22
	16QAM	1	99	20.67	20.53	20.81	22
	16QAM	50	0	19.66	19.58	20.1	21
	16QAM	50	24	19.52	19.66	20.11	21
	16QAM	50	50	19.52	19.55	20.06	21
	16QAM	100	0	19.59	19.55	20.1	21
	64QAM	1	0	20.61	21	20.96	21
	64QAM	1	49	20.96	20.88	20.98	21
	64QAM	1	99	20.2	20.96	20.09	21
	64QAM	50	0	19.47	19.62	19.88	20
64QAM	50	24	19.48	19.61	19.76	20	
64QAM	50	50	19.39	19.57	19.87	20	
64QAM	100	0	19.59	19.55	19.86	20	
LTE 25				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				26115 1857.5	26340 1880	26615 1907.5	
15	QPSK	1	0	21.57	21.66	21.77	23
	QPSK	1	37	21.18	21.7	21.28	23
	QPSK	1	74	21.12	21.11	21.55	23
	QPSK	36	0	20.41	20.63	20.88	22
	QPSK	36	20	20.31	20.34	21	22
	QPSK	36	39	20.36	20.48	20.95	22
	QPSK	75	0	20.31	20.6	20.98	22
	16QAM	1	0	21.25	20.65	20.96	22
	16QAM	1	37	20.76	21.11	21.55	22
	16QAM	1	74	20.55	20.51	20.55	22
	16QAM	36	0	19.61	19.3	19.87	21
	16QAM	36	20	19.25	19.47	19.88	21
	16QAM	36	39	19.26	19.31	20.05	21
	16QAM	75	0	19.53	19.55	19.9	21
	64QAM	1	0	20.42	20.85	20.75	21
	64QAM	1	37	20.91	20.86	20.88	21
	64QAM	1	74	19.91	20.76	19.99	21
	64QAM	36	0	19.19	19.39	19.83	20
64QAM	36	20	19.33	19.4	19.49	20	
64QAM	36	39	19.11	19.54	19.68	20	
64QAM	75	0	19.37	19.5	19.59	20	

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LTE 25				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				26090	26340	26640	
				1855	1880	1910	
10	QPSK	1	0	21.52	21.76	21.53	23
	QPSK	1	25	21.21	21.46	21.36	23
	QPSK	1	49	21.02	21.25	21.45	23
	QPSK	25	0	20.55	20.44	21.09	22
	QPSK	25	12	20.46	20.53	21.06	22
	QPSK	25	25	20.35	20.57	20.92	22
	QPSK	50	0	20.48	20.33	21.09	22
	16QAM	1	0	21.21	20.76	21	22
	16QAM	1	25	20.91	21.22	21.51	22
	16QAM	1	49	20.4	20.38	20.61	22
	16QAM	25	0	19.51	19.3	19.8	21
	16QAM	25	12	19.31	19.48	20.03	21
	16QAM	25	25	19.48	19.5	19.95	21
	16QAM	50	0	19.54	19.27	20.03	21
	64QAM	1	0	20.57	20.93	20.89	21
	64QAM	1	25	20.71	20.85	20.79	21
	64QAM	1	49	19.92	20.66	19.94	21
	64QAM	25	0	19.43	19.32	19.79	20
64QAM	25	12	19.22	19.37	19.57	20	
64QAM	25	25	19.22	19.41	19.64	20	
64QAM	50	0	19.42	19.33	19.86	20	
LTE 25				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				26065	26340	26665	
				1852.5	1880	1912.5	
5	QPSK	1	0	21.58	21.72	21.52	23
	QPSK	1	12	21.31	21.74	21.29	23
	QPSK	1	24	20.95	21.26	21.6	23
	QPSK	12	0	20.6	20.38	20.9	22
	QPSK	12	7	20.44	20.61	21.03	22
	QPSK	12	13	20.35	20.42	20.97	22
	QPSK	25	0	20.42	20.48	21.09	22
	16QAM	1	0	21.01	20.73	21.11	22
	16QAM	1	12	21	21.02	21.34	22
	16QAM	1	24	20.37	20.5	20.81	22
	16QAM	12	0	19.54	19.31	19.97	21
	16QAM	12	7	19.27	19.48	19.98	21
	16QAM	12	13	19.3	19.46	19.94	21
	16QAM	25	0	19.47	19.29	19.86	21
	64QAM	1	0	20.61	20.9	20.74	21
	64QAM	1	12	20.68	20.8	20.7	21
	64QAM	1	24	19.98	20.72	20.07	21
	64QAM	12	0	19.4	19.48	19.6	20
64QAM	12	7	19.32	19.41	19.52	20	
64QAM	12	13	19.35	19.55	19.83	20	
64QAM	25	0	19.42	19.31	19.82	20	

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LTE 25				Conducted Power (dBm)			
Bandwidth	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				26055	26340	26675	
(MHz)				1851.5	1880	1913.5	
3	QPSK	1	0	21.61	21.51	21.56	23
	QPSK	1	8	21.1	21.6	21.26	23
	QPSK	1	14	21.12	21.27	21.58	23
	QPSK	8	0	20.42	20.64	21.09	22
	QPSK	8	4	20.48	20.6	20.96	22
	QPSK	8	7	20.34	20.4	20.95	22
	QPSK	15	0	20.41	20.47	21.01	22
	16QAM	1	0	21.09	20.83	20.93	22
	16QAM	1	8	20.82	21.03	21.44	22
	16QAM	1	14	20.53	20.53	20.59	22
	16QAM	8	0	19.48	19.31	20.05	21
	16QAM	8	4	19.5	19.65	20.09	21
	16QAM	8	7	19.48	19.29	19.76	21
	16QAM	15	0	19.39	19.36	20.09	21
	64QAM	1	0	20.61	20.81	20.88	21
	64QAM	1	8	20.76	20.7	20.75	21
	64QAM	1	14	19.94	20.81	20.05	21
	64QAM	8	0	19.26	19.53	19.86	20
64QAM	8	4	19.27	19.47	19.47	20	
64QAM	8	7	19.34	19.42	19.75	20	
64QAM	15	0	19.5	19.25	19.8	20	
LTE 25				Conducted Power (dBm)			
Bandwidth	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				26047	26340	26683	
(MHz)				1850.7	1880	1914.3	
1.4	QPSK	1	0	21.47	21.63	21.74	23
	QPSK	1	3	21.06	21.47	21.47	23
	QPSK	1	5	21.07	21.21	21.66	23
	QPSK	3	0	20.6	20.5	20.88	22
	QPSK	3	1	20.45	20.43	20.91	22
	QPSK	3	3	20.45	20.43	20.75	22
	QPSK	6	0	20.26	20.54	21.01	22
	16QAM	1	0	21.06	20.88	20.93	22
	16QAM	1	3	20.93	21.11	21.54	22
	16QAM	1	5	20.6	20.31	20.76	22
	16QAM	3	0	19.5	19.51	19.89	21
	16QAM	3	1	19.38	19.62	19.87	21
	16QAM	3	3	19.47	19.34	20	21
	16QAM	6	0	19.49	19.35	19.99	21
	64QAM	1	0	20.37	20.91	20.95	21
	64QAM	1	3	20.74	20.58	20.7	21
	64QAM	1	5	19.93	20.83	20.03	21
	64QAM	3	0	19.42	19.51	19.67	20
64QAM	3	1	19.38	19.39	19.7	20	
64QAM	3	3	19.24	19.44	19.8	20	
64QAM	6	0	19.45	19.48	19.82	20	

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LTE 26				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				26765	26865	26965	
				821.5	831.5	841.5	
15	QPSK	1	0	23.29	23.42	23.4	24
	QPSK	1	37	23.01	23.13	23.12	24
	QPSK	1	74	23.05	23.19	23.17	24
	QPSK	36	0	22.55	22.9	22.84	23
	QPSK	36	20	22.16	22.38	22.67	23
	QPSK	36	39	21.91	22.35	22.49	23
	QPSK	75	0	22.2	22.75	22.74	23
	16QAM	1	0	21.46	22.01	22.35	23
	16QAM	1	37	21.18	21.89	21.85	23
	16QAM	1	74	22.04	21.99	22.17	23
	16QAM	36	0	20.53	20.78	21.02	22
	16QAM	36	20	20.23	20.46	20.76	22
	16QAM	36	39	20.08	20.32	20.59	22
	16QAM	75	0	20.26	20.53	20.87	22
	64QAM	1	0	21.45	21.41	22	22
	64QAM	1	37	21.58	21.64	21.81	22
	64QAM	1	74	21.9	21.76	21.77	22
	64QAM	36	0	20.52	20.64	20.96	21
64QAM	36	20	20.12	20.51	20.7	21	
64QAM	36	39	19.92	20.3	20.49	21	
64QAM	75	0	20.28	20.53	20.71	21	

LTE 26				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				26740	26865	26990	
				819	831.5	844	
10	QPSK	1	0	23.02	23.15	23.33	24
	QPSK	1	25	22.86	22.94	22.79	24
	QPSK	1	49	22.97	23.02	22.99	24
	QPSK	25	0	22.15	22.88	22.57	23
	QPSK	25	12	21.78	22.22	22.31	23
	QPSK	25	25	21.78	22.3	22.34	23
	QPSK	50	0	22.11	22.26	22.63	23
	16QAM	1	0	21.13	21.78	22.02	23
	16QAM	1	25	21.11	21.62	21.51	23
	16QAM	1	49	21.89	21.92	21.78	23
	16QAM	25	0	20.14	20.48	20.75	22
	16QAM	25	12	20.23	20.42	20.46	22
	16QAM	25	25	20.2	20.03	20.59	22
	16QAM	50	0	20.25	20.24	20.7	22
	64QAM	1	0	21.37	21.36	21.99	22
	64QAM	1	25	21.31	21.49	21.42	22
	64QAM	1	49	21.66	21.66	21.5	22
	64QAM	25	0	20.39	20.26	20.85	21
64QAM	25	12	20.04	20.34	20.3	21	
64QAM	25	25	19.92	20.23	20.48	21	
64QAM	50	0	20.26	20.41	20.61	21	

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LTE 26				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				26715	26865	27015	
				816.5	831.5	846.5	
5	QPSK	1	0	23.23	23.31	23.07	24
	QPSK	1	12	22.98	22.74	22.72	24
	QPSK	1	24	22.98	23.1	22.83	24
	QPSK	12	0	22.21	22.72	22.81	23
	QPSK	12	7	21.87	22.21	22.47	23
	QPSK	12	13	21.88	22.13	22.09	23
	QPSK	25	0	21.92	22.41	22.69	23
	16QAM	1	0	21.46	21.62	22.29	23
	16QAM	1	12	21.44	21.53	21.53	23
	16QAM	1	24	21.73	21.83	21.92	23
	16QAM	12	0	20.18	20.62	20.72	22
	16QAM	12	7	20.2	20.16	20.55	22
	16QAM	12	13	20.12	20.03	20.32	22
	16QAM	25	0	20	20.37	20.7	22
	64QAM	1	0	20.03	21.26	21.71	22
	64QAM	1	12	21.53	21.54	21.67	22
	64QAM	1	24	21.72	21.57	21.65	22
	64QAM	12	0	20.25	20.44	20.75	21
64QAM	12	7	19.9	20.35	20.65	21	
64QAM	12	13	19.81	20.07	20.39	21	
64QAM	25	0	19.88	20.37	20.44	21	

LTE 26				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				26705	26865	27025	
				815.5	831.5	847.5	
3	QPSK	1	0	23.06	23.4	23.17	24
	QPSK	1	8	22.73	23.13	22.94	24
	QPSK	1	14	22.97	22.87	22.77	24
	QPSK	8	0	22.22	22.81	22.6	23
	QPSK	8	4	21.86	22.37	22.47	23
	QPSK	8	7	21.6	22.1	22.28	23
	QPSK	15	0	22.11	22.17	22.63	23
	16QAM	1	0	21.46	21.82	22.35	23
	16QAM	1	8	21.22	21.67	21.59	23
	16QAM	1	14	21.79	21.77	21.97	23
	16QAM	8	0	20.17	20.66	20.77	22
	16QAM	8	4	20.02	20.08	20.47	22
	16QAM	8	7	20.17	20.1	20.57	22
	16QAM	15	0	20.16	20.31	20.47	22
	64QAM	1	0	21.37	21.07	21.74	22
	64QAM	1	8	21.22	21.26	21.69	22
	64QAM	1	14	21.59	21.6	21.74	22
	64QAM	8	0	20.46	20.6	20.93	21
64QAM	8	4	20.02	20.32	20.4	21	
64QAM	8	7	19.68	20.28	20.29	21	
64QAM	15	0	20.24	20.53	20.42	21	

LTE 26				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				26697	26865	27033	
				814.7	831.5	848.3	
1.4	QPSK	1	0	23.23	23.15	23.16	24
	QPSK	1	3	22.79	23.1	23.1	24
	QPSK	1	5	23.03	23.08	23.14	24
	QPSK	3	0	22.21	22.82	22.56	23
	QPSK	3	1	21.9	22.35	22.52	23
	QPSK	3	3	21.67	22.24	22.15	23
	QPSK	6	0	21.94	22.03	22.51	23
	16QAM	1	0	21.28	21.97	21.98	23
	16QAM	1	3	21.12	21.71	21.82	23
	16QAM	1	5	21.85	21.99	21.8	23
	16QAM	3	0	20.16	20.54	20.89	22
	16QAM	3	1	20.14	20.44	20.66	22
	16QAM	3	3	20.11	20.11	20.4	22
	16QAM	6	0	20.11	20.22	20.86	22
	64QAM	1	0	21.1	21.22	21.74	22
	64QAM	1	3	21.34	21.5	21.5	22
	64QAM	1	5	21.69	21.5	21.75	22
	64QAM	3	0	20.14	20.37	20.71	21
	64QAM	3	1	19.81	20.2	20.56	21
64QAM	3	3	19.84	20.26	20.22	21	
64QAM	6	0	19.95	20.42	20.42	21	

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LTE 66				Conducted Power (dBm)			Tune-up (dBm)
Bandwidth	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	
(MHz)				132072	132322	132572	
20	QPSK	1	0	1720	1745	1770	23
	QPSK	1	49	22.19	22.25	22.24	23
	QPSK	1	99	21.95	22.09	21.91	23
	QPSK	1	99	21.82	22	22.1	23
	QPSK	50	0	21.03	21.24	21.07	22
	QPSK	50	24	20.93	21.22	20.94	22
	QPSK	50	50	20.87	21.22	20.92	22
	QPSK	100	0	20.74	20.7	20.86	22
	16QAM	1	0	20.97	20.9	21.01	22
	16QAM	1	49	20.95	20.89	20.85	22
	16QAM	1	99	20.76	20.95	20.77	22
	16QAM	50	0	19.68	19.87	19.79	21
	16QAM	50	24	19.55	20.16	19.62	21
	16QAM	50	50	19.78	20.13	19.68	21
	16QAM	100	0	19.58	19.37	19.62	21
	64QAM	1	0	19.62	19.72	19.99	21
	64QAM	1	49	19.55	19.89	19.79	21
	64QAM	1	99	19.36	19.67	19.45	21
64QAM	50	0	18.44	18.55	18.4	20	
64QAM	50	24	18.39	18.8	18.31	20	
64QAM	50	50	18.78	18.96	18.34	20	
64QAM	100	0	18.41	18.24	18.32	20	

LTE 66				Conducted Power (dBm)			Tune-up (dBm)
Bandwidth	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	
(MHz)				132047	132322	132597	
15	QPSK	1	0	1717.5	1745	1772.5	23
	QPSK	1	37	22.03	21.97	22.21	23
	QPSK	1	37	21.8	22.08	21.87	23
	QPSK	1	74	21.79	21.86	22.02	23
	QPSK	36	0	20.75	21.02	20.94	22
	QPSK	36	20	20.89	21	20.7	22
	QPSK	36	39	20.81	21.2	20.63	22
	QPSK	75	0	20.61	20.51	20.83	22
	16QAM	1	0	20.67	20.52	20.71	22
	16QAM	1	37	20.93	20.58	20.77	22
	16QAM	1	74	20.58	20.87	20.41	22
	16QAM	36	0	19.34	19.62	19.48	21
	16QAM	36	20	19.32	19.94	19.57	21
	16QAM	36	39	19.69	19.77	19.68	21
	16QAM	75	0	19.53	19.18	19.42	21
	64QAM	1	0	19.47	19.44	19.68	21
	64QAM	1	37	19.34	19.8	19.67	21
	64QAM	1	74	19.13	19.62	19.25	21
64QAM	36	0	18.37	18.37	18.17	20	
64QAM	36	20	18.05	18.73	18.08	20	
64QAM	36	39	18.78	18.86	18.41	20	
64QAM	75	0	18.13	18.08	18.04	20	



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LTE 66				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				132022 1715	132322 1745	132622 1775	
10	QPSK	1	0	21.96	22.2	22.17	23
	QPSK	1	25	21.76	21.95	21.88	23
	QPSK	1	49	21.51	21.7	21.94	23
	QPSK	25	0	20.95	21.14	21.06	22
	QPSK	25	12	20.77	20.9	20.69	22
	QPSK	25	25	20.49	20.82	20.69	22
	QPSK	50	0	20.62	20.37	20.74	22
	16QAM	1	0	20.8	20.67	20.69	22
	16QAM	1	25	20.87	20.51	20.8	22
	16QAM	1	49	20.66	20.71	20.48	22
	16QAM	25	0	19.54	19.79	19.4	21
	16QAM	25	12	19.29	20.16	19.45	21
	16QAM	25	25	19.73	20.06	19.62	21
	16QAM	50	0	19.35	19.32	19.31	21
	64QAM	1	0	19.41	19.53	19.87	21
	64QAM	1	25	19.25	19.49	19.42	21
	64QAM	1	49	19.25	19.34	19.34	21
	64QAM	25	0	18.39	18.48	18.05	20
64QAM	25	12	18.25	18.57	18.04	20	
64QAM	25	25	18.66	18.79	18	20	
64QAM	50	0	18.01	18.13	18.05	20	
LTE 66				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				131997 1712.5	132322 1745	132647 1777.5	
5	QPSK	1	0	22.03	22.01	22.06	23
	QPSK	1	12	21.79	21.71	21.69	23
	QPSK	1	24	21.82	21.83	21.75	23
	QPSK	12	0	20.96	21.18	20.68	22
	QPSK	12	7	20.67	20.92	20.74	22
	QPSK	12	13	20.78	20.94	20.55	22
	QPSK	25	0	20.37	20.43	20.64	22
	16QAM	1	0	20.7	20.53	20.65	22
	16QAM	1	12	20.69	20.65	20.62	22
	16QAM	1	24	20.75	20.95	20.48	22
	16QAM	12	0	19.44	19.48	19.63	21
	16QAM	12	7	19.51	19.96	19.39	21
	16QAM	12	13	19.38	19.74	19.65	21
	16QAM	25	0	19.29	19.11	19.22	21
	64QAM	1	0	19.6	19.35	19.62	21
	64QAM	1	12	19.35	19.77	19.65	21
	64QAM	1	24	19.18	19.61	19.43	21
	64QAM	12	0	18.25	18.48	18.39	20
64QAM	12	7	18.36	18.51	18.14	20	
64QAM	12	13	18.64	18.56	18.23	20	
64QAM	25	0	18.02	18.21	18.11	20	

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LTE 66				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				131987	132322	132657	
3	QPSK	1	0	1711.5	1745	1778.5	23
	QPSK	1	8	21.96	22.13	22.07	23
	QPSK	1	14	21.63	22.09	21.76	23
	QPSK	8	0	21.63	21.72	21.92	23
	QPSK	8	4	20.7	21.06	20.75	22
	QPSK	8	4	20.6	20.94	20.61	22
	QPSK	8	7	20.77	21.19	20.78	22
	QPSK	15	0	20.74	20.66	20.77	22
	16QAM	1	0	20.95	20.84	20.9	22
	16QAM	1	8	20.66	20.54	20.85	22
	16QAM	1	14	20.68	20.67	20.77	22
	16QAM	8	0	19.53	19.78	19.57	21
	16QAM	8	4	19.46	19.79	19.34	21
	16QAM	8	7	19.42	20.13	19.48	21
	16QAM	15	0	19.55	19.26	19.49	21
	64QAM	1	0	19.59	19.38	19.6	21
	64QAM	1	8	19.3	19.67	19.5	21
	64QAM	1	14	19.3	19.37	19.16	21
64QAM	8	0	18.09	18.46	18.08	20	
64QAM	8	4	18.37	18.61	18.01	20	
64QAM	8	7	18.54	18.83	18.21	20	
64QAM	15	0	18.01	18.07	18	20	

LTE 66				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				131979	132322	132665	
1.4	QPSK	1	0	1710.7	1745	1779.3	23
	QPSK	1	3	21.85	22.11	21.95	23
	QPSK	1	5	21.9	21.73	21.54	23
	QPSK	3	0	21.74	21.93	21.99	23
	QPSK	3	1	20.95	20.94	20.82	22
	QPSK	3	1	20.92	20.91	20.84	22
	QPSK	3	3	20.54	20.96	20.54	22
	QPSK	6	0	20.69	20.35	20.47	22
	16QAM	1	0	20.87	20.72	20.63	22
	16QAM	1	3	20.68	20.75	20.74	22
	16QAM	1	5	20.4	20.63	20.48	22
	16QAM	3	0	19.43	19.54	19.78	21
	16QAM	3	1	19.28	20.15	19.24	21
	16QAM	3	3	19.66	19.98	19.64	21
	16QAM	6	0	19.47	19.03	19.36	21
	64QAM	1	0	19.27	19.62	19.75	21
	64QAM	1	3	19.48	19.67	19.57	21
	64QAM	1	5	19.11	19.36	19.43	21
64QAM	3	0	18.05	18.19	18.12	20	
64QAM	3	1	18.29	18.54	18.16	20	
64QAM	3	3	18.6	18.56	18.11	20	
64QAM	6	0	18.16	18.02	18.07	20	

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LTE 71				Conducted Power (dBm)			
Bandwidth	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				133222	133322	133372	
(MHz)				673	683	688	
20	QPSK	1	0	22.87	22.95	22.81	23
	QPSK	1	49	22.69	22.75	22.61	23
	QPSK	1	99	22.71	22.59	22.68	23
	QPSK	50	0	21.6	21.91	21.81	22
	QPSK	50	24	21.32	21.46	21.35	22
	QPSK	50	50	21.34	21.38	21.64	22
	QPSK	100	0	21.36	21.09	21.11	22
	16QAM	1	0	21.66	21.95	21.7	22
	16QAM	1	49	21.56	21.7	21.27	22
	16QAM	1	99	21.37	21.19	21.59	22
	16QAM	50	0	20.39	20.38	20.51	21
	16QAM	50	24	20.25	20.09	20.34	21
	16QAM	50	50	20.03	20.16	20.28	21
	16QAM	100	0	20.15	19.91	20	21
	64QAM	1	0	20.45	20.91	20.67	21
	64QAM	1	49	20.29	20.63	20.26	21
	64QAM	1	99	20.31	20.17	20.43	21
	64QAM	50	0	19.3	19.2	19.47	20
64QAM	50	24	18.95	18.85	19.2	20	
64QAM	50	50	18.73	18.92	18.88	20	
64QAM	100	0	18.97	18.89	18.67	20	
LTE 71				Conducted Power (dBm)			
Bandwidth	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				133197	133297	133397	
(MHz)				670.5	680.5	690.5	
15	QPSK	1	0	22.8	22.58	22.56	23
	QPSK	1	37	22.44	22.35	22.45	23
	QPSK	1	74	22.65	22.28	22.66	23
	QPSK	36	0	21.33	21.69	21.57	22
	QPSK	36	20	21.22	21.43	21.29	22
	QPSK	36	39	20.98	21.09	21.6	22
	QPSK	75	0	21.11	20.69	21.03	22
	16QAM	1	0	21.65	21.77	21.42	22
	16QAM	1	37	21.27	21.51	21.04	22
	16QAM	1	74	21.03	21.13	21.51	22
	16QAM	36	0	20.14	20.19	20.39	21
	16QAM	36	20	20.16	19.96	19.97	21
	16QAM	36	39	19.74	19.99	19.97	21
	16QAM	75	0	20.04	19.86	19.78	21
	64QAM	1	0	20.29	20.61	20.34	21
	64QAM	1	37	20.09	20.62	20.02	21
	64QAM	1	74	20.02	20.11	20.03	21
	64QAM	36	0	19.07	18.91	19.42	20
64QAM	36	20	18.88	18.83	18.93	20	
64QAM	36	39	18.67	18.8	18.56	20	
64QAM	75	0	18.76	18.59	18.36	20	

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LTE 71				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				133172	133272	133422	
				668	678	693	
10	QPSK	1	0	22.5	22.76	22.51	23
	QPSK	1	25	22.38	22.67	22.25	23
	QPSK	1	49	22.7	22.49	22.54	23
	QPSK	25	0	21.26	21.68	21.61	22
	QPSK	25	12	21.17	21.16	21.16	22
	QPSK	25	25	21.14	21.31	21.3	22
	QPSK	50	0	21.17	21.04	21.05	22
	16QAM	1	0	21.37	21.66	21.55	22
	16QAM	1	25	21.56	21.49	21	22
	16QAM	1	49	21.16	20.96	21.48	22
	16QAM	25	0	20.24	20.24	20.29	21
	16QAM	25	12	19.91	19.81	20.15	21
	16QAM	25	25	19.64	20.12	19.91	21
	16QAM	50	0	19.9	19.71	19.61	21
	64QAM	1	0	20.37	20.83	20.37	21
	64QAM	1	25	20.1	20.42	20.14	21
	64QAM	1	49	20.3	19.79	20.13	21
	64QAM	25	0	19.26	19.08	19.19	20
64QAM	25	12	18.68	18.56	19.07	20	
64QAM	25	25	18.35	18.68	18.86	20	
64QAM	50	0	18.95	18.52	18.45	20	
LTE 71				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				133147	133247	133447	
				665.5	675.5	695.5	
5	QPSK	1	0	22.6	22.92	22.54	23
	QPSK	1	12	22.59	22.45	22.61	23
	QPSK	1	24	22.41	22.32	22.28	23
	QPSK	12	0	21.51	21.82	21.44	22
	QPSK	12	7	21.12	21.19	21.32	22
	QPSK	12	13	21.09	21	21.29	22
	QPSK	25	0	21.21	21.01	20.76	22
	16QAM	1	0	21.45	21.81	21.59	22
	16QAM	1	12	21.45	21.42	20.96	22
	16QAM	1	24	21.23	21.09	21.47	22
	16QAM	12	0	20.35	20	20.16	21
	16QAM	12	7	20.22	19.85	20.25	21
	16QAM	12	13	19.96	19.84	20.09	21
	16QAM	25	0	19.87	19.81	20	21
	64QAM	1	0	20.39	20.52	20.62	21
	64QAM	1	12	20.23	20.23	20.23	21
	64QAM	1	24	20.11	20.08	20.22	21
	64QAM	12	0	19.3	18.88	19.31	20
64QAM	12	7	18.8	18.55	18.85	20	
64QAM	12	13	18.6	18.83	18.67	20	
64QAM	25	0	18.91	18.82	18.39	20	

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LTE 41				Conducted Power (dBm)						Tune-up (dBm)
Bandwidth	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Channel & Frequency	Channel & Frequency	Channel & Frequency	
(MHz)				39790	39750	40185	40620	41055	41490	
				2510	2506	2549.5	2593	2636.5	2680	
20	QPSK	1	0	23.49	23.32	23.3	23.21	23.17	23.23	23.5
	QPSK	1	49	22.93	23.06	22.91	22.71	22.44	22.7	23.5
	QPSK	1	99	22.43	22.65	22.91	23.07	23.04	23.22	23.5
	QPSK	50	0	22.41	21.77	22.07	22.11	22.4	22.4	22.5
	QPSK	50	24	22.33	22.18	22.06	21.92	22.12	22.4	22.5
	QPSK	50	50	22.43	22.2	21.96	21.69	21.39	21.15	22.5
	QPSK	100	0	21.92	21.92	21.64	21.49	21.25	21.07	22.5
	16QAM	1	0	22	21.75	21.89	21.99	21.73	21.53	22.5
	16QAM	1	49	22.2	22.31	22.22	22.07	22.06	22.01	22.5
	16QAM	1	99	21.37	21.5	21.22	21.42	21.47	21.26	22.5
	16QAM	50	0	21.04	20.91	20.78	20.99	20.77	20.72	21.5
	16QAM	50	24	21.1	20.87	21.03	21.19	21.09	21.15	21.5
	16QAM	50	50	20.8	20.66	20.75	21.01	20.9	21.05	21.5
	16QAM	100	0	20.99	20.99	20.99	21.2	21.4	21.22	21.5
	64QAM	1	0	21.17	21.43	21.14	21.25	21.34	21.45	21.5
	64QAM	1	49	21.23	21.24	21.01	21.08	21.15	21.33	21.5
64QAM	1	99	21.12	20.89	21.1	20.95	20.84	21.13	21.5	
64QAM	50	0	20.12	20.24	20.28	20.2	19.93	20.01	20.5	
64QAM	50	24	20.23	20.35	20.12	19.99	19.89	19.77	20.5	
64QAM	50	50	20.11	20.15	20	20.22	20.12	19.92	20.5	
64QAM	100	0	20.18	20.46	20.14	20.47	20.16	20.08	20.5	
LTE 41				Conducted Power (dBm)						Tune-up (dBm)
Bandwidth	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Channel & Frequency	Channel & Frequency	Channel & Frequency	
(MHz)				39765	39725	40173	40620	41068	41515	
				2507.5	2503.5	2548.3	2593	2637.8	2682.5	
15	QPSK	1	0	23.16	23.16	23.05	22.81	22.81	22.84	23.5
	QPSK	1	37	22.83	22.89	22.81	22.54	22.24	22.43	23.5
	QPSK	1	74	22.15	22.41	22.63	22.67	22.97	23.05	23.5
	QPSK	36	0	21.99	21.5	21.79	21.98	22.33	22.26	22.5
	QPSK	36	20	22.02	22.11	21.77	21.62	21.99	22.16	22.5
	QPSK	36	39	22.29	22.03	21.84	21.63	20.99	20.75	22.5
	QPSK	75	0	21.6	21.53	21.28	21.19	20.94	20.84	22.5
	16QAM	1	0	21.94	21.37	21.7	21.99	21.68	21.3	22.5
	16QAM	1	37	22.16	22.03	22.05	21.79	21.84	21.66	22.5
	16QAM	1	74	21.27	21.39	21.2	21.17	21.28	20.89	22.5
	16QAM	36	0	20.86	20.61	20.75	20.89	20.45	20.54	21.5
	16QAM	36	20	21.04	20.63	20.98	21.15	20.9	20.93	21.5
	16QAM	36	39	20.59	20.55	20.56	20.96	20.54	20.95	21.5
	16QAM	75	0	20.69	20.71	20.97	20.88	21.17	20.98	21.5
	64QAM	1	0	21.07	21.29	20.91	20.95	21.07	21.05	21.5
	64QAM	1	37	21.01	21	20.75	20.88	21	20.98	21.5
64QAM	1	74	20.9	20.66	20.89	20.78	20.78	20.8	21.5	
64QAM	36	0	19.77	20.23	20.22	20.19	19.78	19.92	20.5	
64QAM	36	20	20.04	19.96	19.86	19.83	19.8	19.7	20.5	
64QAM	36	39	19.92	19.84	19.99	20.12	19.72	19.89	20.5	
64QAM	75	0	19.93	20.17	20.13	20.2	19.92	19.75	20.5	

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LTE 41				Conducted Power (dBm)						Tune-up (dBm)
Bandwidth	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Channel & Frequency	Channel & Frequency	Channel & Frequency	
				39740	39700	40160	40620	41080	41540	
(MHz)				2505	2501	2547	2593	2639	2685	
10	QPSK	1	0	22.96	23.17	23.04	23.07	22.93	22.86	23.5
	QPSK	1	25	22.78	23.06	22.83	22.52	22.19	22.42	23.5
	QPSK	1	49	22.2	22.48	22.79	22.82	23.03	22.96	23.5
	QPSK	25	0	21.96	21.51	21.75	22.1	22.37	22.26	22.5
	QPSK	25	12	21.9	22.15	22.05	21.66	21.95	22.21	22.5
	QPSK	25	25	22.3	21.81	21.69	21.43	21.37	20.95	22.5
	QPSK	50	0	21.57	21.78	21.61	21.11	21.05	20.81	22.5
	16QAM	1	0	21.66	21.73	21.79	21.86	21.67	21.21	22.5
	16QAM	1	25	22.02	22.1	21.96	22	21.7	21.93	22.5
	16QAM	1	49	21.31	21.22	21.08	21.07	21.1	21.11	22.5
	16QAM	25	0	20.79	20.86	20.47	20.83	20.37	20.35	21.5
	16QAM	25	12	21.06	20.48	20.71	20.9	20.92	21.02	21.5
	16QAM	25	25	20.53	20.42	20.41	20.77	20.8	21	21.5
	16QAM	50	0	20.82	20.83	20.61	21.03	21.3	21.2	21.5
	64QAM	1	0	20.83	21.31	20.82	20.86	21.32	21.15	21.5
	64QAM	1	25	21.09	21.08	20.94	21.06	20.79	21.32	21.5
64QAM	1	49	20.86	20.76	20.71	20.59	20.74	20.73	21.5	
64QAM	25	0	19.92	19.98	20.09	20.19	19.75	19.96	20.5	
64QAM	25	12	19.91	20.31	19.98	19.61	19.7	19.56	20.5	
64QAM	25	25	19.94	19.84	19.71	20.02	20.12	19.55	20.5	
64QAM	50	0	19.78	20.15	19.98	20.36	20.16	19.78	20.5	
LTE 41				Conducted Power (dBm)						Tune-up (dBm)
Bandwidth	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Channel & Frequency	Channel & Frequency	Channel & Frequency	
				39715	39675	40148	40620	41093	41565	
(MHz)				2502.5	2498.5	2545.8	2593	2640.3	2687.5	
5	QPSK	1	0	22.95	23.17	23.19	23.02	22.82	23.14	23.5
	QPSK	1	12	22.85	22.96	22.84	22.49	22.23	22.58	23.5
	QPSK	1	24	22.08	22.6	22.64	22.68	22.85	23.08	23.5
	QPSK	12	0	21.79	21.76	21.95	22.11	22.07	22.41	22.5
	QPSK	12	7	21.98	21.86	21.76	21.92	21.91	22.08	22.5
	QPSK	12	13	22.32	21.97	21.69	21.62	21.29	20.9	22.5
	QPSK	25	0	21.86	21.72	21.5	21.26	21.12	20.8	22.5
	16QAM	1	0	21.83	21.37	21.6	21.84	21.73	21.37	22.5
	16QAM	1	12	21.99	21.96	22.19	22.07	21.75	21.84	22.5
	16QAM	1	24	20.97	21.2	21.05	21.31	21.19	21.23	22.5
	16QAM	12	0	20.79	20.61	20.58	20.68	20.69	20.51	21.5
	16QAM	12	7	20.75	20.7	20.92	20.94	21.09	21.11	21.5
	16QAM	12	13	20.78	20.32	20.6	20.97	20.78	20.89	21.5
	16QAM	25	0	20.6	20.68	20.79	20.92	21.4	20.93	21.5
	64QAM	1	0	21.07	21.11	21.01	20.9	21.11	21.15	21.5
	64QAM	1	12	20.98	20.84	20.64	20.72	21.1	20.98	21.5
64QAM	1	24	20.84	20.85	20.96	20.79	20.6	20.82	21.5	
64QAM	12	0	19.97	20.18	20.22	19.96	19.66	19.9	20.5	
64QAM	12	7	19.98	20.06	19.95	19.87	19.76	19.76	20.5	
64QAM	12	13	20.06	20.11	19.79	19.89	19.76	19.86	20.5	
64QAM	25	0	20.09	20.35	19.85	20.11	19.85	20	20.5	

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**Reduced Output Power table**

LTE 2				Conducted Power (dBm)			
Bandwidth	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				18700	18900	19100	
(MHz)				1860	1880	1900	
20	QPSK	1	0	18.49	18.23	18.43	18.5
	QPSK	1	49	18.23	17.91	18.13	18.5
	QPSK	1	99	18.43	18.18	18.42	18.5
	QPSK	50	0	17.42	17.38	17.35	17.5
	QPSK	50	24	17.13	17.22	17.12	17.5
	QPSK	50	50	17.34	17.1	17.04	17.5
	QPSK	100	0	17.41	17.27	17.4	17.5
	16QAM	1	0	17.32	17.3	17.34	17.5
	16QAM	1	49	16.84	17.07	16.75	17.5
	16QAM	1	99	17.19	16.81	16.89	17.5
	16QAM	50	0	16.35	16.07	16.21	16.5
	16QAM	50	24	15.86	16.2	15.91	16.5
	16QAM	50	50	15.99	16.1	15.87	16.5
	16QAM	100	0	16.36	15.91	16.01	16.5
	64QAM	1	0	15.24	16.33	15.91	16.5
	64QAM	1	49	15.6	16.21	15.57	16.5
64QAM	1	99	15.59	15.97	15.61	16.5	
64QAM	50	0	15.18	15.35	14.93	15.5	
64QAM	50	24	14.43	14.76	14.62	15.5	
64QAM	50	50	14.88	15.33	14.84	15.5	
64QAM	100	0	15.45	15.59	15.26	15.5	
LTE 2				Conducted Power (dBm)			
Bandwidth	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				18675	18900	19125	
(MHz)				1857.5	1880	1902.5	
15	QPSK	1	0	18.32	18.09	18.38	18.5
	QPSK	1	37	18.17	17.71	17.88	18.5
	QPSK	1	74	18.27	17.99	18.29	18.5
	QPSK	36	0	17.15	17.35	17.14	17.5
	QPSK	36	20	16.99	17.15	17.06	17.5
	QPSK	36	39	17.13	16.94	16.87	17.5
	QPSK	75	0	17.4	17.01	17.11	17.5
	16QAM	1	0	17.17	17.17	17.17	17.5
	16QAM	1	37	16.7	17.03	16.74	17.5
	16QAM	1	74	16.91	16.51	16.87	17.5
	16QAM	36	0	16.12	16.07	16.2	16.5
	16QAM	36	20	15.71	16.09	15.73	16.5
	16QAM	36	39	15.83	16.09	15.7	16.5
	16QAM	75	0	16.3	15.91	15.76	16.5
	64QAM	1	0	15	16.09	15.9	16.5
	64QAM	1	37	15.46	16.17	15.33	16.5
64QAM	1	74	15.55	15.73	15.61	16.5	
64QAM	36	0	14.98	15.07	14.91	15.5	
64QAM	36	20	14.37	14.74	14.56	15.5	
64QAM	36	39	14.82	15.16	14.84	15.5	
64QAM	75	0	15.24	15.43	15.01	15.5	

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LTE 2				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				18650 1855	18900 1880	19150 1905	
10	QPSK	1	0	18.21	17.99	18.38	18.5
	QPSK	1	25	18.04	17.85	17.98	18.5
	QPSK	1	49	18.15	17.98	18.37	18.5
	QPSK	25	0	17.27	17.08	17.21	17.5
	QPSK	25	12	17.07	16.97	16.9	17.5
	QPSK	25	25	17.18	16.85	16.78	17.5
	QPSK	50	0	17.11	17.03	17.22	17.5
	16QAM	1	0	17.02	17.18	17.15	17.5
	16QAM	1	25	16.64	16.9	16.53	17.5
	16QAM	1	49	17.01	16.56	16.74	17.5
	16QAM	25	0	16.34	15.89	16.07	16.5
	16QAM	25	12	15.82	15.97	15.64	16.5
	16QAM	25	25	15.95	16.02	15.57	16.5
	16QAM	50	0	16.09	15.89	15.78	16.5
	64QAM	1	0	15.01	16.29	15.68	16.5
	64QAM	1	25	15.33	15.91	15.39	16.5
	64QAM	1	49	15.3	15.69	15.39	16.5
	64QAM	25	0	14.95	15.3	14.72	15.5
64QAM	25	12	14.27	14.59	14.43	15.5	
64QAM	25	25	14.85	15.17	14.78	15.5	
64QAM	50	0	15.21	15.43	15.08	15.5	
LTE 2				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				18625 1852.5	18900 1880	19175 1907.5	
5	QPSK	1	0	18.31	18.16	18.14	18.5
	QPSK	1	12	17.96	17.73	17.88	18.5
	QPSK	1	24	18.38	18.17	18.26	18.5
	QPSK	12	0	17.38	17.12	17.16	17.5
	QPSK	12	7	16.91	17.1	17.04	17.5
	QPSK	12	13	17.3	16.86	16.85	17.5
	QPSK	25	0	17.19	17.13	17.27	17.5
	16QAM	1	0	17.12	17.21	17.19	17.5
	16QAM	1	12	16.55	16.95	16.62	17.5
	16QAM	1	24	16.96	16.54	16.59	17.5
	16QAM	12	0	16.19	16.07	15.95	16.5
	16QAM	12	7	15.71	16.07	15.78	16.5
	16QAM	12	13	15.94	16.06	15.58	16.5
	16QAM	25	0	16.21	15.81	16.01	16.5
	64QAM	1	0	15.1	16.2	15.78	16.5
	64QAM	1	12	15.39	15.98	15.42	16.5
	64QAM	1	24	15.44	15.95	15.47	16.5
	64QAM	12	0	15.02	15.26	14.92	15.5
64QAM	12	7	14.33	14.47	14.52	15.5	
64QAM	12	13	14.67	15.03	14.54	15.5	
64QAM	25	0	15.17	15.48	15	15.5	



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LTE 2				Conducted Power (dBm)			
Bandwidth	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				18615	18900	19185	
(MHz)				1851.5	1880	1908.5	
3	QPSK	1	0	18.42	18.04	18.26	18.5
	QPSK	1	8	18.11	17.57	17.72	18.5
	QPSK	1	14	18.22	17.78	18.24	18.5
	QPSK	8	0	17.13	17.06	17.11	17.5
	QPSK	8	4	16.81	16.86	16.89	17.5
	QPSK	8	7	17.01	16.86	16.6	17.5
	QPSK	15	0	17.26	16.86	17.08	17.5
	16QAM	1	0	16.94	17.1	17.09	17.5
	16QAM	1	8	16.58	16.73	16.65	17.5
	16QAM	1	14	16.79	16.22	16.58	17.5
	16QAM	8	0	15.9	15.81	16.06	16.5
	16QAM	8	4	15.47	15.83	15.66	16.5
	16QAM	8	7	15.83	16	15.61	16.5
	16QAM	15	0	16.02	15.62	15.49	16.5
	64QAM	1	0	14.77	15.87	15.88	16.5
	64QAM	1	8	15.36	16.11	15.28	16.5
	64QAM	1	14	15.26	15.51	15.35	16.5
	64QAM	8	0	14.75	14.99	14.79	15.5
64QAM	8	4	14.1	14.72	14.51	15.5	
64QAM	8	7	14.65	14.89	14.71	15.5	
64QAM	15	0	15.19	15.14	14.9	15.5	
LTE 2				Conducted Power (dBm)			
Bandwidth	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				18607	18900	19193	
(MHz)				1850.7	1880	1909.3	
1.4	QPSK	1	0	18.15	17.72	17.98	18.5
	QPSK	1	3	17.83	17.73	17.91	18.5
	QPSK	1	5	18.16	17.8	18.2	18.5
	QPSK	3	0	17.14	16.99	17.19	17.5
	QPSK	3	1	16.99	16.8	16.77	17.5
	QPSK	3	3	17.16	16.57	16.58	17.5
	QPSK	6	0	17.07	16.94	16.97	17.5
	16QAM	1	0	16.78	17.01	17.01	17.5
	16QAM	1	3	16.5	16.82	16.5	17.5
	16QAM	1	5	16.93	16.32	16.53	17.5
	16QAM	3	0	16.23	15.71	15.85	16.5
	16QAM	3	1	15.54	15.75	15.57	16.5
	16QAM	3	3	15.87	15.87	15.49	16.5
	16QAM	6	0	15.98	15.63	15.75	16.5
	64QAM	1	0	14.81	16.1	15.56	16.5
	64QAM	1	3	15.25	15.75	15.12	16.5
	64QAM	1	5	15.19	15.52	15.16	16.5
	64QAM	3	0	14.85	15.05	14.6	15.5
64QAM	3	1	13.99	14.35	14.21	15.5	
64QAM	3	3	14.77	15.15	14.67	15.5	
64QAM	6	0	14.96	15.34	14.91	15.5	

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LTE 4				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				20050	20175	20300	
				1720	1732.5	1745	
20	QPSK	1	0	18.67	19.12	19.07	20
	QPSK	1	49	18.55	18.65	18.56	20
	QPSK	1	99	18.61	18.43	18.36	20
	QPSK	50	0	17.72	17.79	17.72	19
	QPSK	50	24	17.61	17.65	17.58	19
	QPSK	50	50	17.58	17.63	17.55	19
	QPSK	100	0	17.72	17.73	17.7	19
	16QAM	1	0	17.53	17.92	17.94	19
	16QAM	1	49	17.27	17.44	17.34	19
	16QAM	1	99	17.48	17.27	17.33	19
	16QAM	50	0	16.44	16.56	16.69	18
	16QAM	50	24	16.37	16.6	16.43	18
	16QAM	50	50	16.52	16.38	16.31	18
	16QAM	100	0	16.67	16.73	16.4	18
	64QAM	1	0	16.49	16.83	16.64	18
	64QAM	1	49	16.33	16.54	16.18	18
	64QAM	1	99	16.3	16.52	16.06	18
	64QAM	50	0	16.38	16.4	16.17	17
64QAM	50	24	16.14	16.37	16.13	17	
64QAM	50	50	16.23	16.28	16.18	17	
64QAM	100	0	16.34	16.53	16.25	17	
LTE 4				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				20025	20175	20325	
				1717.5	1732.5	1747.5	
15	QPSK	1	0	18.44	18.96	19	20
	QPSK	1	37	18.51	18.41	18.26	20
	QPSK	1	74	18.34	18.21	18.34	20
	QPSK	36	0	17.69	17.49	17.57	19
	QPSK	36	20	17.41	17.43	17.46	19
	QPSK	36	39	17.43	17.58	17.43	19
	QPSK	75	0	17.51	17.5	17.55	19
	16QAM	1	0	17.36	17.87	17.85	19
	16QAM	1	37	17.2	17.26	17.26	19
	16QAM	1	74	17.47	17.2	17.13	19
	16QAM	36	0	16.25	16.48	16.53	18
	16QAM	36	20	16.3	16.6	16.42	18
	16QAM	36	39	16.39	16.38	16.2	18
	16QAM	75	0	16.44	16.51	16.12	18
	64QAM	1	0	16.43	16.71	16.59	18
	64QAM	1	37	16.18	16.47	16	18
	64QAM	1	74	16.14	16.48	16.2	18
	64QAM	36	0	16.18	16.36	16.17	17
64QAM	36	20	16	16.16	15.98	17	
64QAM	36	39	16.15	16.08	16.12	17	
64QAM	75	0	16.32	16.49	15.95	17	

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LTE 4				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				20000	20175	20350	
				1715	1732.5	1750	
10	QPSK	1	0	18.59	18.96	18.96	20
	QPSK	1	25	18.33	18.62	18.43	20
	QPSK	1	49	18.37	18.22	18.19	20
	QPSK	25	0	17.63	17.49	17.42	19
	QPSK	25	12	17.48	17.64	17.56	19
	QPSK	25	25	17.47	17.55	17.43	19
	QPSK	50	0	17.45	17.53	17.58	19
	16QAM	1	0	17.35	17.92	17.73	19
	16QAM	1	25	17.15	17.19	17.19	19
	16QAM	1	49	17.46	17.22	17.15	19
	16QAM	25	0	16.21	16.44	16.46	18
	16QAM	25	12	16.33	16.3	16.39	18
	16QAM	25	25	16.47	16.28	16.17	18
	16QAM	50	0	16.52	16.45	16.23	18
	64QAM	1	0	16.34	16.8	16.57	18
	64QAM	1	25	16.24	16.26	16.01	18
	64QAM	1	49	16.13	16.39	16.03	18
	64QAM	25	0	16.24	16.18	15.97	17
64QAM	25	12	15.98	16.36	16.06	17	
64QAM	25	25	16.22	16.28	16	17	
64QAM	50	0	16.27	16.39	16	17	

LTE 4				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				19975	20175	20375	
				1712.5	1732.5	1752.5	
5	QPSK	1	0	18.39	18.91	18.93	20
	QPSK	1	12	18.5	18.51	18.42	20
	QPSK	1	24	18.59	18.15	18.18	20
	QPSK	12	0	17.55	17.71	17.66	19
	QPSK	12	7	17.47	17.45	17.29	19
	QPSK	12	13	17.42	17.56	17.28	19
	QPSK	25	0	17.49	17.59	17.5	19
	16QAM	1	0	17.43	17.82	17.91	19
	16QAM	1	12	17.26	17.17	17.2	19
	16QAM	1	24	17.43	17.24	17.08	19
	16QAM	12	0	16.37	16.37	16.47	18
	16QAM	12	7	16.29	16.36	16.14	18
	16QAM	12	13	16.3	16.27	16.13	18
	16QAM	25	0	16.6	16.5	16.1	18
	64QAM	1	0	16.46	16.82	16.59	18
	64QAM	1	12	16.04	16.54	16	18
	64QAM	1	24	16.16	16.44	16.01	18
	64QAM	12	0	16.24	16.23	15.88	17
64QAM	12	7	16.05	16.34	15.84	17	
64QAM	12	13	15.97	16.28	16.16	17	
64QAM	25	0	16.2	16.53	16.09	17	

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LTE 4				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				19965	20175	20385	
				1711.5	1732.5	1753.5	
3	QPSK	1	0	18.42	19.12	18.85	20
	QPSK	1	8	18.38	18.49	18.43	20
	QPSK	1	14	18.48	18.21	18.29	20
	QPSK	8	0	17.6	17.71	17.44	19
	QPSK	8	4	17.52	17.4	17.51	19
	QPSK	8	7	17.48	17.33	17.41	19
	QPSK	15	0	17.57	17.61	17.5	19
	16QAM	1	0	17.26	17.7	17.85	19
	16QAM	1	8	17.26	17.17	17.06	19
	16QAM	1	14	17.45	17.13	17.27	19
	16QAM	8	0	16.17	16.26	16.64	18
	16QAM	8	4	16.23	16.59	16.23	18
	16QAM	8	7	16.49	16.31	16.12	18
	16QAM	15	0	16.61	16.47	16.37	18
	64QAM	1	0	16.47	16.79	16.63	18
	64QAM	1	8	16.26	16.45	16.1	18
	64QAM	1	14	16.07	16.24	16.02	18
	64QAM	8	0	16.36	16.25	16.15	17
64QAM	8	4	16.13	16.27	16.02	17	
64QAM	8	7	16.2	16.22	16.04	17	
64QAM	15	0	16.23	16.37	16.03	17	
LTE 4				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				19957	20175	20393	
				1710.7	1732.5	1754.3	
1.4	QPSK	1	0	18.58	18.88	19.03	20
	QPSK	1	3	18.43	18.39	18.32	20
	QPSK	1	5	18.6	18.15	18.27	20
	QPSK	3	0	17.52	17.79	17.6	19
	QPSK	3	1	17.45	17.6	17.51	19
	QPSK	3	3	17.35	17.37	17.41	19
	QPSK	6	0	17.69	17.65	17.41	19
	16QAM	1	0	17.39	17.68	17.75	19
	16QAM	1	3	17.06	17.31	17.19	19
	16QAM	1	5	17.28	17.02	17.18	19
	16QAM	3	0	16.23	16.28	16.4	18
	16QAM	3	1	16.3	16.35	16.41	18
	16QAM	3	3	16.42	16.21	16.04	18
	16QAM	6	0	16.45	16.55	16.26	18
	64QAM	1	0	16.32	16.56	16.45	18
	64QAM	1	3	16.14	16.33	16.12	18
	64QAM	1	5	16.27	16.41	16.05	18
	64QAM	3	0	16.32	16.21	15.92	17
64QAM	3	1	15.89	16.35	15.9	17	
64QAM	3	3	16.06	16.14	16.06	17	
64QAM	6	0	16.15	16.25	16.06	17	

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LTE 7				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				20850	21100	21350	
				2510	2535	2560	
20	QPSK	1	0	17.79	17.33	17.24	18.5
	QPSK	1	49	17.68	17.31	17.19	18.5
	QPSK	1	99	17.59	17.3	17.21	18.5
	QPSK	50	0	16.52	16.5	16.18	17.5
	QPSK	50	24	16.44	16.43	16	17.5
	QPSK	50	50	16.51	16.4	16.11	17.5
	QPSK	100	0	16.42	16.33	16.23	17.5
	16QAM	1	0	16.67	16.25	16.08	17.5
	16QAM	1	49	16.52	16.24	16.12	17.5
	16QAM	1	99	16.42	16.15	16.06	17.5
	16QAM	50	0	15.22	15.21	15.06	16.5
	16QAM	50	24	15.31	15.36	14.72	16.5
	16QAM	50	50	15.45	15.21	15.02	16.5
	16QAM	100	0	15.38	15.25	14.93	16.5
	64QAM	1	0	15.46	15.24	14.81	16.5
	64QAM	1	49	15.38	15.02	14.89	16.5
	64QAM	1	99	15.24	14.88	14.98	16.5
	64QAM	50	0	14.18	14.12	13.96	15.5
64QAM	50	24	14.21	14.32	13.66	15.5	
64QAM	50	50	14.45	14.15	13.76	15.5	
64QAM	100	0	14.15	14	13.91	15.5	
LTE 7				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				20825	21100	21375	
				2507.5	2535	2562.5	
15	QPSK	1	0	17.55	17.14	17.11	18.5
	QPSK	1	37	17.59	17.2	17.01	18.5
	QPSK	1	74	17.53	17.27	17.2	18.5
	QPSK	36	0	16.3	16.39	16.15	17.5
	QPSK	36	20	16.41	16.16	15.96	17.5
	QPSK	36	39	16.33	16.18	15.84	17.5
	QPSK	75	0	16.17	16.21	16.19	17.5
	16QAM	1	0	16.41	16.04	15.79	17.5
	16QAM	1	37	16.43	16.11	15.88	17.5
	16QAM	1	74	16.16	16.06	15.77	17.5
	16QAM	36	0	15.16	15.07	15.05	16.5
	16QAM	36	20	15.15	15.24	14.69	16.5
	16QAM	36	39	15.19	15.21	15.02	16.5
	16QAM	75	0	15.23	15.23	14.67	16.5
	64QAM	1	0	15.23	15.23	14.79	16.5
	64QAM	1	37	15.27	14.98	14.85	16.5
	64QAM	1	74	15.1	14.71	14.88	16.5
	64QAM	36	0	14.15	14.06	13.67	15.5
64QAM	36	20	14.16	14.14	13.54	15.5	
64QAM	36	39	14.4	13.91	13.59	15.5	
64QAM	75	0	13.93	13.96	13.83	15.5	

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LTE 7				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				20800	21100	21400	
				2505	2535	2565	
10	QPSK	1	0	17.49	17.23	17.24	18.5
	QPSK	1	25	17.45	17.04	17.04	18.5
	QPSK	1	49	17.41	17.23	17.14	18.5
	QPSK	25	0	16.31	16.33	16.16	17.5
	QPSK	25	12	16.33	16.34	15.8	17.5
	QPSK	25	25	16.49	16.38	16.03	17.5
	QPSK	50	0	16.24	16.21	15.98	17.5
	16QAM	1	0	16.42	16.04	15.88	17.5
	16QAM	1	25	16.47	16.18	16.1	17.5
	16QAM	1	49	16.34	16.1	16.03	17.5
	16QAM	25	0	15.21	15.19	14.89	16.5
	16QAM	25	12	15.12	15.06	14.62	16.5
	16QAM	25	25	15.35	15.12	14.9	16.5
	16QAM	50	0	15.36	14.95	14.78	16.5
	64QAM	1	0	15.31	15.13	14.71	16.5
	64QAM	1	25	15.38	14.9	14.62	16.5
	64QAM	1	49	15.08	14.73	14.88	16.5
64QAM	25	0	14.06	13.99	13.86	15.5	
64QAM	25	12	14.16	14.31	13.51	15.5	
64QAM	25	25	14.2	13.95	13.54	15.5	
64QAM	50	0	14.03	13.73	13.87	15.5	
LTE 7				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				20775	21100	21425	
				2502.5	2535	2567.5	
5	QPSK	1	0	17.65	17.06	17.11	18.5
	QPSK	1	12	17.52	17.16	17.15	18.5
	QPSK	1	24	17.41	17.29	17.11	18.5
	QPSK	12	0	16.24	16.27	16.12	17.5
	QPSK	12	7	16.4	16.14	16	17.5
	QPSK	12	13	16.42	16.2	15.99	17.5
	QPSK	25	0	16.29	16.17	15.99	17.5
	16QAM	1	0	16.62	16.01	15.78	17.5
	16QAM	1	12	16.52	16.02	15.91	17.5
	16QAM	1	24	16.36	15.95	15.87	17.5
	16QAM	12	0	15.12	15.07	14.85	16.5
	16QAM	12	7	15.11	15.28	14.7	16.5
	16QAM	12	13	15.3	15.17	15.02	16.5
	16QAM	25	0	15.25	15.1	14.83	16.5
	64QAM	1	0	15.34	14.97	14.52	16.5
	64QAM	1	12	15.08	14.9	14.86	16.5
	64QAM	1	24	15.06	14.59	14.81	16.5
64QAM	12	0	14.02	13.99	13.81	15.5	
64QAM	12	7	14.09	14.14	13.55	15.5	
64QAM	12	13	14.36	14.13	13.56	15.5	
64QAM	25	0	13.88	13.86	13.8	15.5	

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LTE 25				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				26140 1860	26340 1880	26590 1905	
20	QPSK	1	0	18.36	18.16	18.5	18.5
	QPSK	1	49	18.28	18.09	18.42	18.5
	QPSK	1	99	18.06	18.04	18.34	18.5
	QPSK	50	0	17.17	17.07	17.37	17.5
	QPSK	50	24	16.98	16.84	17.33	17.5
	QPSK	50	50	17	16.91	17.39	17.5
	QPSK	100	0	17.1	16.86	17.41	17.5
	16QAM	1	0	17.2	16.91	17.35	17.5
	16QAM	1	49	17.23	17	17.06	17.5
	16QAM	1	99	16.88	17.03	17.19	17.5
	16QAM	50	0	16.13	15.75	16.33	16.5
	16QAM	50	24	15.69	15.47	16.12	16.5
	16QAM	50	50	15.75	15.61	16.17	16.5
	16QAM	100	0	15.74	15.91	16.27	16.5
	64QAM	1	0	15.9	15.92	16.11	16.5
	64QAM	1	49	16.15	15.87	15.88	16.5
	64QAM	1	99	15.74	15.79	16.19	16.5
	64QAM	50	0	14.88	14.74	15.08	15.5
64QAM	50	24	14.51	14.11	14.87	15.5	
64QAM	50	50	14.42	14.25	14.91	15.5	
64QAM	100	0	14.35	14.71	14.89	15.5	
LTE 25				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				26115 1857.5	26340 1880	26615 1907.5	
15	QPSK	1	0	18.13	17.87	18.45	18.5
	QPSK	1	37	18.11	17.99	18.37	18.5
	QPSK	1	74	17.77	17.78	18.14	18.5
	QPSK	36	0	16.92	16.9	17.37	17.5
	QPSK	36	20	16.85	16.54	17.24	17.5
	QPSK	36	39	16.91	16.64	17.38	17.5
	QPSK	75	0	16.8	16.73	17.14	17.5
	16QAM	1	0	16.99	16.9	17.24	17.5
	16QAM	1	37	16.95	16.88	17.06	17.5
	16QAM	1	74	16.69	16.83	16.98	17.5
	16QAM	36	0	16.01	15.57	16.14	16.5
	16QAM	36	20	15.45	15.42	16.07	16.5
	16QAM	36	39	15.73	15.35	16.1	16.5
	16QAM	75	0	15.58	15.61	16.11	16.5
	64QAM	1	0	15.71	15.79	15.99	16.5
	64QAM	1	37	15.9	15.65	15.72	16.5
	64QAM	1	74	15.64	15.72	16.04	16.5
	64QAM	36	0	14.61	14.58	14.84	15.5
64QAM	36	20	14.34	14.02	14.76	15.5	
64QAM	36	39	14.21	13.99	14.76	15.5	
64QAM	75	0	14.31	14.64	14.83	15.5	

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LTE 25				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				26090 1855	26340 1880	26640 1910	
10	QPSK	1	0	18.32	17.98	18.26	18.5
	QPSK	1	25	18.06	17.87	18.17	18.5
	QPSK	1	49	18.02	17.85	18.1	18.5
	QPSK	25	0	17.09	16.98	17.07	17.5
	QPSK	25	12	16.97	16.65	17.31	17.5
	QPSK	25	25	16.95	16.9	17.23	17.5
	QPSK	50	0	16.81	16.82	17.38	17.5
	16QAM	1	0	17.14	16.81	17.06	17.5
	16QAM	1	25	17.11	16.88	16.76	17.5
	16QAM	1	49	16.75	16.77	17.1	17.5
	16QAM	25	0	15.84	15.62	16.05	16.5
	16QAM	25	12	15.61	15.42	16.04	16.5
	16QAM	25	25	15.66	15.52	15.99	16.5
	16QAM	50	0	15.64	15.83	16.16	16.5
	64QAM	1	0	15.78	15.8	15.85	16.5
	64QAM	1	25	16.12	15.83	15.64	16.5
	64QAM	1	49	15.71	15.52	16.18	16.5
	64QAM	25	0	14.83	14.53	14.96	15.5
64QAM	25	12	14.24	13.85	14.76	15.5	
64QAM	25	25	14.29	14.14	14.88	15.5	
64QAM	50	0	14.28	14.52	14.79	15.5	

LTE 25				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				26065 1852.5	26340 1880	26665 1912.5	
5	QPSK	1	0	18.22	18.13	18.23	18.5
	QPSK	1	12	18.05	17.89	18.34	18.5
	QPSK	1	24	18.01	17.83	18.28	18.5
	QPSK	12	0	17.09	16.81	17.15	17.5
	QPSK	12	7	16.75	16.72	17.26	17.5
	QPSK	12	13	16.84	16.63	17.36	17.5
	QPSK	25	0	16.89	16.86	17.37	17.5
	16QAM	1	0	17.09	16.88	17.08	17.5
	16QAM	1	12	16.97	16.8	16.95	17.5
	16QAM	1	24	16.59	16.73	17.05	17.5
	16QAM	12	0	16.11	15.48	16.11	16.5
	16QAM	12	7	15.57	15.33	15.91	16.5
	16QAM	12	13	15.62	15.52	15.97	16.5
	16QAM	25	0	15.68	15.72	16.06	16.5
	64QAM	1	0	15.63	15.81	15.95	16.5
	64QAM	1	12	15.86	15.6	15.77	16.5
	64QAM	1	24	15.56	15.67	16.04	16.5
	64QAM	12	0	14.81	14.67	14.79	15.5
64QAM	12	7	14.3	13.87	14.8	15.5	
64QAM	12	13	14.42	14.2	14.88	15.5	
64QAM	25	0	14.24	14.43	14.66	15.5	



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LTE 25				Conducted Power (dBm)			
Bandwidth	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				26055	26340	26675	
(MHz)				1851.5	1880	1913.5	
3	QPSK	1	0	18.34	18.05	18.41	18.5
	QPSK	1	8	17.98	17.94	18.16	18.5
	QPSK	1	14	17.84	17.84	18.2	18.5
	QPSK	8	0	17.09	17	17.19	17.5
	QPSK	8	4	16.82	16.72	17.25	17.5
	QPSK	8	7	16.91	16.83	17.27	17.5
	QPSK	15	0	16.82	16.81	17.29	17.5
	16QAM	1	0	16.93	16.7	17.35	17.5
	16QAM	1	8	17.01	16.88	17.04	17.5
	16QAM	1	14	16.58	16.83	17.12	17.5
	16QAM	8	0	16.11	15.57	16.25	16.5
	16QAM	8	4	15.69	15.35	16.03	16.5
	16QAM	8	7	15.55	15.52	16.15	16.5
	16QAM	15	0	15.49	15.67	16.02	16.5
	64QAM	1	0	15.79	15.82	16.02	16.5
	64QAM	1	8	16.06	15.78	15.72	16.5
	64QAM	1	14	15.54	15.65	16.19	16.5
	64QAM	8	0	14.59	14.48	14.87	15.5
64QAM	8	4	14.48	14.11	14.76	15.5	
64QAM	8	7	14.16	14.16	14.86	15.5	
64QAM	15	0	14.15	14.66	14.77	15.5	
LTE 25				Conducted Power (dBm)			
Bandwidth	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				26047	26340	26683	
(MHz)				1850.7	1880	1914.3	
1.4	QPSK	1	0	18.27	17.98	18.38	18.5
	QPSK	1	3	18.06	17.8	18.39	18.5
	QPSK	1	5	17.95	17.85	18.12	18.5
	QPSK	3	0	17.09	17.02	17.23	17.5
	QPSK	3	1	16.72	16.63	17.21	17.5
	QPSK	3	3	16.9	16.62	17.25	17.5
	QPSK	6	0	16.89	16.66	17.14	17.5
	16QAM	1	0	17	16.89	17.32	17.5
	16QAM	1	3	16.98	16.82	16.96	17.5
	16QAM	1	5	16.83	16.8	17.13	17.5
	16QAM	3	0	15.96	15.5	16.2	16.5
	16QAM	3	1	15.43	15.2	15.96	16.5
	16QAM	3	3	15.49	15.55	16.03	16.5
	16QAM	6	0	15.52	15.82	16.2	16.5
	64QAM	1	0	15.7	15.8	15.84	16.5
	64QAM	1	3	16.12	15.7	15.69	16.5
	64QAM	1	5	15.49	15.49	16.19	16.5
	64QAM	3	0	14.77	14.48	14.84	15.5
64QAM	3	1	14.37	13.92	14.78	15.5	
64QAM	3	3	14.39	14.2	14.69	15.5	
64QAM	6	0	14.3	14.59	14.84	15.5	

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LTE 66				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				132072 1720	132322 1745	132572 1770	
20	QPSK	1	0	19.47	19.43	19.45	20
	QPSK	1	49	19.12	19.03	19.08	20
	QPSK	1	99	19.21	18.97	19.04	20
	QPSK	50	0	18.22	18.19	18.24	19
	QPSK	50	24	18.19	18.04	18	19
	QPSK	50	50	18.09	18.11	17.89	19
	QPSK	100	0	18.26	18.09	18.08	19
	16QAM	1	0	17.83	17.89	18.06	19
	16QAM	1	49	18.13	17.92	17.89	19
	16QAM	1	99	17.84	17.72	17.73	19
	16QAM	50	0	17.09	16.96	17.05	18
	16QAM	50	24	16.91	17.01	16.65	18
	16QAM	50	50	16.86	16.8	16.85	18
	16QAM	100	0	17.06	17.05	16.55	18
	64QAM	1	0	17.19	16.91	16.85	18
	64QAM	1	49	16.81	16.89	16.88	18
	64QAM	1	99	16.81	16.77	16.77	18
	64QAM	50	0	16.11	15.83	16.08	17
64QAM	50	24	15.97	15.99	15.63	17	
64QAM	50	50	16.01	15.91	15.73	17	
64QAM	100	0	16.02	15.76	15.76	17	
LTE 66				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				132047 1717.5	132322 1745	132597 1772.5	
15	QPSK	1	0	19.08	19.31	19.09	20
	QPSK	1	37	18.98	18.98	19	20
	QPSK	1	74	19.2	18.83	18.98	20
	QPSK	36	0	18.21	17.9	18.11	19
	QPSK	36	20	17.94	18.02	17.8	19
	QPSK	36	39	17.89	17.99	17.82	19
	QPSK	75	0	18.09	17.77	17.96	19
	16QAM	1	0	17.75	17.6	17.67	19
	16QAM	1	37	17.93	17.74	17.67	19
	16QAM	1	74	17.45	17.34	17.58	19
	16QAM	36	0	17	16.78	16.92	18
	16QAM	36	20	16.88	17	16.58	18
	16QAM	36	39	16.48	16.66	16.66	18
	16QAM	75	0	16.94	16.84	16.36	18
	64QAM	1	0	16.83	16.76	16.57	18
	64QAM	1	37	16.46	16.53	16.76	18
	64QAM	1	74	16.62	16.44	16.58	18
	64QAM	36	0	15.76	15.8	15.87	17
64QAM	36	20	15.57	15.59	15.48	17	
64QAM	36	39	15.94	15.9	15.42	17	
64QAM	75	0	15.79	15.64	15.76	17	

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LTE 66				Conducted Power (dBm)			
Bandwidth	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				132022	132322	132622	
(MHz)				1715	1745	1775	
10	QPSK	1	0	19.2	19.31	19.06	20
	QPSK	1	25	18.92	18.66	18.86	20
	QPSK	1	49	19.13	18.94	19	20
	QPSK	25	0	18.13	17.95	17.84	19
	QPSK	25	12	18.06	18.01	17.77	19
	QPSK	25	25	17.95	17.9	17.63	19
	QPSK	50	0	18.16	17.91	17.92	19
	16QAM	1	0	17.7	17.85	17.91	19
	16QAM	1	25	17.86	17.67	17.6	19
	16QAM	1	49	17.48	17.48	17.57	19
	16QAM	25	0	16.72	16.61	17.02	18
	16QAM	25	12	16.78	16.93	16.38	18
	16QAM	25	25	16.83	16.72	16.72	18
	16QAM	50	0	16.72	16.69	16.43	18
	64QAM	1	0	16.82	16.72	16.62	18
	64QAM	1	25	16.6	16.65	16.88	18
	64QAM	1	49	16.78	16.55	16.61	18
	64QAM	25	0	15.96	15.46	15.76	17
64QAM	25	12	15.69	15.76	15.6	17	
64QAM	25	25	15.75	15.73	15.54	17	
64QAM	50	0	15.82	15.65	15.73	17	
LTE 66				Conducted Power (dBm)			
Bandwidth	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				131997	132322	132647	
(MHz)				1712.5	1745	1777.5	
5	QPSK	1	0	19.33	19.38	19.24	20
	QPSK	1	12	18.87	18.98	19.08	20
	QPSK	1	24	19.2	18.87	18.95	20
	QPSK	12	0	18.16	18.11	18.06	19
	QPSK	12	7	18.16	17.86	17.85	19
	QPSK	12	13	17.85	18.08	17.73	19
	QPSK	25	0	17.96	17.84	17.94	19
	16QAM	1	0	17.81	17.82	17.99	19
	16QAM	1	12	18.06	17.57	17.57	19
	16QAM	1	24	17.63	17.33	17.35	19
	16QAM	12	0	16.74	16.6	16.79	18
	16QAM	12	7	16.87	16.93	16.35	18
	16QAM	12	13	16.82	16.75	16.69	18
	16QAM	25	0	16.82	16.8	16.19	18
	64QAM	1	0	16.85	16.56	16.74	18
	64QAM	1	12	16.57	16.65	16.81	18
	64QAM	1	24	16.7	16.71	16.38	18
	64QAM	12	0	15.85	15.69	15.9	17
64QAM	12	7	15.86	15.82	15.47	17	
64QAM	12	13	15.93	15.64	15.35	17	
64QAM	25	0	15.91	15.59	15.67	17	

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LTE 66				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				131987 1711.5	132322 1745	132657 1778.5	
3	QPSK	1	0	19.08	19.31	19.05	20
	QPSK	1	8	19.08	18.78	18.83	20
	QPSK	1	14	19.02	18.88	19.01	20
	QPSK	8	0	17.95	17.97	18	19
	QPSK	8	4	18.05	17.84	17.6	19
	QPSK	8	7	17.97	18.11	17.52	19
	QPSK	15	0	18.01	17.91	17.86	19
	16QAM	1	0	17.51	17.79	17.71	19
	16QAM	1	8	17.97	17.64	17.88	19
	16QAM	1	14	17.79	17.37	17.73	19
	16QAM	8	0	16.9	16.79	16.66	18
	16QAM	8	4	16.86	16.62	16.45	18
	16QAM	8	7	16.53	16.8	16.71	18
	16QAM	15	0	16.9	16.82	16.23	18
	64QAM	1	0	17.18	16.58	16.75	18
	64QAM	1	8	16.78	16.88	16.87	18
	64QAM	1	14	16.72	16.51	16.49	18
	64QAM	8	0	15.81	15.44	15.85	17
64QAM	8	4	15.93	15.68	15.57	17	
64QAM	8	7	15.86	15.82	15.55	17	
64QAM	15	0	15.77	15.63	15.66	17	
LTE 66				Conducted Power (dBm)			
Bandwidth (MHz)	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Tune-up (dBm)
				131979 1710.7	132322 1745	132665 1779.3	
1.4	QPSK	1	0	19.37	19.34	19.07	20
	QPSK	1	3	19.06	18.76	18.71	20
	QPSK	1	5	19.18	18.85	19.02	20
	QPSK	3	0	18.1	17.89	18.23	19
	QPSK	3	1	18.16	17.8	17.7	19
	QPSK	3	3	17.78	18.03	17.78	19
	QPSK	6	0	18.08	18.06	17.94	19
	16QAM	1	0	17.45	17.69	17.95	19
	16QAM	1	3	17.92	17.53	17.61	19
	16QAM	1	5	17.77	17.65	17.53	19
	16QAM	3	0	16.81	16.56	16.77	18
	16QAM	3	1	16.76	16.9	16.49	18
	16QAM	3	3	16.6	16.48	16.85	18
	16QAM	6	0	16.67	16.89	16.51	18
	64QAM	1	0	16.8	16.87	16.59	18
	64QAM	1	3	16.48	16.59	16.69	18
	64QAM	1	5	16.49	16.41	16.46	18
	64QAM	3	0	15.99	15.57	15.87	17
64QAM	3	1	15.6	15.74	15.38	17	
64QAM	3	3	15.96	15.52	15.52	17	
64QAM	6	0	15.83	15.38	15.6	17	

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LTE 41				Conducted Power (dBm)						Tune-up (dBm)
Bandwidth	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Channel & Frequency	Channel & Frequency	Channel & Frequency	
				39740	39700	40160	40620	41080	41540	
(MHz)				2505	2501	2547	2593	2639	2685	
10	QPSK	1	0	17.02	17.11	16.91	16.9	16.91	16.94	18.5
	QPSK	1	25	16.99	16.89	16.62	16.55	16.86	16.96	18.5
	QPSK	1	49	17.33	16.59	16.66	16.85	16.96	16.77	18.5
	QPSK	25	0	15.94	15.52	16	15.96	16.35	16.01	17.5
	QPSK	25	12	15.94	15.8	16.14	15.91	15.78	16.05	17.5
	QPSK	25	25	16.28	15.72	15.99	15.53	16.06	15.89	17.5
	QPSK	50	0	15.77	15.79	15.8	15.52	16.01	16.07	17.5
	16QAM	1	0	15.62	15.68	15.78	15.76	15.59	15.67	17.5
	16QAM	1	25	16.08	15.77	15.94	15.8	15.79	16.34	17.5
	16QAM	1	49	16.14	15.8	16.08	15.8	15.63	15.76	17.5
	16QAM	25	0	14.87	14.6	14.66	14.74	14.51	14.91	16.5
	16QAM	25	12	14.6	14.53	14.9	14.88	14.96	15.36	16.5
	16QAM	25	25	14.53	14.77	14.7	14.86	14.77	15.23	16.5
	16QAM	50	0	14.65	15.07	14.8	14.92	15.05	15.09	16.5
	64QAM	1	0	15.01	15.18	14.67	14.81	15.07	15.16	16.5
	64QAM	1	25	15.13	14.77	14.88	15.15	14.87	15.63	16.5
64QAM	1	49	14.75	14.58	15.08	14.84	14.82	15.25	16.5	
64QAM	25	0	15.26	15.44	15.5	15.31	14.83	14.97	15.5	
64QAM	25	12	15.18	15.23	15.06	15.46	14.88	14.9	15.5	
64QAM	25	25	15.33	15.43	14.86	15.44	15.31	14.79	15.5	
64QAM	50	0	15.26	15.36	15.2	15.38	15.28	15.18	15.5	
LTE 41				Conducted Power (dBm)						Tune-up (dBm)
Bandwidth	Modulation	RB Size	RB Offset	Channel & Frequency	Channel & Frequency	Channel & Frequency	Channel & Frequency	Channel & Frequency	Channel & Frequency	
				39715	39675	40148	40620	41093	41565	
(MHz)				2502.5	2498.5	2545.8	2593	2640.3	2687.5	
5	QPSK	1	0	17.31	17.16	16.99	16.9	16.78	16.72	18.5
	QPSK	1	12	16.8	17	16.52	16.98	16.75	17.08	18.5
	QPSK	1	24	17.22	16.73	16.83	16.71	16.88	16.87	18.5
	QPSK	12	0	15.94	15.53	15.98	15.75	16.28	16.1	17.5
	QPSK	12	7	15.95	15.98	16.12	15.76	15.82	16.07	17.5
	QPSK	12	13	16.13	15.69	15.96	15.78	16.01	16.13	17.5
	QPSK	25	0	15.93	15.76	15.68	15.71	15.98	15.84	17.5
	16QAM	1	0	15.77	15.61	15.71	15.69	15.63	15.59	17.5
	16QAM	1	12	16.14	16.15	16.13	15.8	15.94	16.1	17.5
	16QAM	1	24	15.79	15.85	16.07	15.69	15.84	15.53	17.5
	16QAM	12	0	14.67	14.77	14.62	14.59	14.6	14.78	16.5
	16QAM	12	7	14.65	14.73	15.01	15.08	14.63	15.23	16.5
	16QAM	12	13	14.64	15	14.91	14.85	14.79	14.88	16.5
	16QAM	25	0	14.92	15.05	14.68	14.88	15.33	14.86	16.5
	64QAM	1	0	14.71	15.17	14.92	14.9	15.05	15.08	16.5
	64QAM	1	12	14.96	14.76	14.77	14.95	15.08	15.9	16.5
64QAM	1	24	14.65	14.51	14.69	14.86	14.87	15.18	16.5	
64QAM	12	0	14.59	15.11	14.88	14.94	14.54	14.86	15.5	
64QAM	12	7	14.62	14.62	14.61	14.63	14.73	15.09	15.5	
64QAM	12	13	14.54	14.79	14.49	14.98	14.65	15.06	15.5	
64QAM	25	0	14.7	15.04	14.71	15.17	14.94	15.01	15.5	

### 14.3 Wi-Fi Output Power

According to KDB248227 D01 802.11 Wi-Fi SAR v02r02 section 4, the default power measurement procedures are:

- 1) Power must be measured at each transmit antenna port according to the DSSS and OFDM transmission configurations in each standalone and aggregated frequency band.
  
- 2) Power measurement is required for the transmission mode configuration with the highest maximum output power specified for production units.
  - a) When the same highest maximum output power specification applies to multiple transmission modes, the largest channel bandwidth configuration with the lowest order modulation and lowest data rate is measured.
  - b) When the same highest maximum output power is specified for multiple largest channel bandwidth configurations with the same lowest order modulation or lowest order modulation and lowest data rate, power measurement is required for all equivalent 802.11 configurations with the same maximum output power.
  
- 3) For each transmission mode configuration, power must be measured for the highest and lowest channels; and at the mid-band channel(s) when there are at least 3 channels. For configurations with multiple mid-band channels, due to an even number of channels, both channels should be measured.

#### 14.4 Wi-Fi (2.4GHz Band)

Band	Channel No.	Frequency (MHz)	Average power(dBm)	Tune up power(dBm)
802.11b	1	2412	16.42	16.5
	6	2437	16.23	16.5
	11	2462	16.38	16.5
802.11g	1	2412	14.60	15.0
	6	2437	14.77	15.0
	11	2462	14.62	15.0
802.11n HT20	1	2412	14.55	15.0
	6	2437	14.82	15.0
	11	2462	14.62	15.0
802.11n HT40	3	2422	14.61	15.0
	6	2437	14.89	15.0
	9	2452	14.62	15.0

Note(s):

- Output Power and SAR is not required for 802.11 g/n HT20n HT40 channels when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is  $\leq 1.2$  W/kg.

### 14.5 Wi-Fi (5GHz Band)

Band	Channel No.	Frequency (MHz)	Average power(dBm)	Tune up power(dBm)
802.11a	36	5180	11.78	12
	40	5200	11.67	12
	44	5220	11.64	12
	48	5240	11.91	12
	52	5260	11.63	12
	56	5280	11.54	12
	60	5300	11.87	12
	64	5320	11.68	12
	100	5500	10.95	11
	116	5580	10.65	11
	124	5620	10.73	11
	132	5660	10.88	11
	140	5700	10.58	11
	144	5720	10.62	11
	149	5745	11.29	11.5
157	5785	11.42	11.5	
165	5825	11.49	11.5	
802.11n HT20	36	5180	11.73	12
	40	5200	11.65	12
	44	5220	11.62	12
	48	5240	11.86	12
	52	5260	11.74	12
	56	5280	11.91	12
	60	5300	11.83	12
	64	5320	11.57	12
	100	5500	10.94	11
	116	5580	10.57	11
	124	5620	10.88	11
	132	5660	10.72	11
	140	5700	10.98	11
	144	5720	10.52	11
	149	5745	11.32	11.5
157	5785	11.28	11.5	
165	5825	11.34	11.5	
802.11n HT40	38	5190	11.8	12
	46	5230	11.74	12
	54	5270	11.9	12
	62	5310	11.61	12
	102	5510	10.62	11
	110	5550	10.75	11
	126	5630	10.86	11
	134	5670	10.92	11
	142	5710	10.96	11
	151	5755	11.15	11.5
	159	5795	11.28	11.5



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Band	Channel No.	Frequency (MHz)	Average power(dBm)	Tune up power(dBm)
802.11ac VHT20	36	5180	11.84	12
	40	5200	11.54	12
	44	5220	11.62	12
	48	5240	11.86	12
	52	5260	11.71	12
	56	5280	11.57	12
	60	5300	11.87	12
	64	5320	11.72	12
	100	5500	10.59	11
	116	5580	10.67	11
	124	5620	10.83	11
	132	5660	10.77	11
	140	5700	10.58	11
	144	5720	10.65	11
	149	5745	11.27	11.5
	157	5785	11.32	11.5
165	5825	11.47	11.5	
802.11ac VHT40	38	5190	11.85	12
	46	5230	11.65	12
	54	5270	11.94	12
	62	5310	11.77	12
	102	5510	10.9	11
	110	5550	10.95	11
	126	5630	10.82	11
	134	5670	10.95	11
	142	5710	10.97	11
	151	5755	11.49	11.5
159	5795	11.32	11.5	
802.11ac VHT80	42	5210	10.91	11
	58	5290	10.66	11
	106	5530	10.82	10
	122	5610	10.6	10
	138	5690	10.81	10
	155	5775	10.72	10.5

Note(s):

- When the specified maximum output power is the same for both UNII band I and UNII band 2A, begin SAR measurement in UNII band 2A; and if the highest reported SAR for UNII band 2A is  $1.1 \leq 1.2$  W/kg, SAR is not required for UNII band I.  $1.2 > 1.2$  W/kg, both bands should be tested independently for SAR.
- In UNII band I and UNII band 2A, Output Power and SAR measurement is not required for 802.11a/802.11n HT20/n HT40 channels when the specified maximum tune-up powers are less or same with 802.11ac 40 .
- In UNII band 2C, Output Power and SAR measurement is not required for 802.11a/802.11n HT20/n HT40 channels when the specified maximum tune-up powers are less or same with 802.11ac 40 .
- In UNII band 3, Output Power and SAR measurement is not required for 802.11a/802.11n HT20/n HT40 channels when the specified maximum tune-up powers are less or same with 802.11ac 40 .

#### 14.6 Bluetooth

Band	Channel No.	Frequency (MHz)	Average power(dBm)	Tune up power(dBm)
DH5	Low	2402	8.09	10
	Middle	2440	8.97	10
	High	2480	8.83	10
3DH5	Low	2402	5.8	8
	Middle	2440	6.68	8
	High	2480	6.41	8
BLE	Low	2402	-1.43	1
	Middle	2440	-1.41	1
	High	2480	-1.49	1

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## 15 SAR Measurements Results

### 15.1 WWAN

Test Mode	Band	Mode	Dist. (mm)	Test Position	Ch#	Freq. (MHz)	Power (dBm)		Zoom Scan 1g SAR (W/kg)	Reported 1g SAR (W/kg)	Sensor	Plot No.
							Tune up limit	Meas.				
FCC & IC	WCDMA Band II	RMC 12.2kbps	0	Back	9538	1907.6	18.50	18.47	0.661	0.666	On	
FCC & IC	WCDMA Band II	RMC 12.2kbps	0	Edge 3	9538	1907.6	18.50	18.47	0.517	0.521	On	
FCC & IC	WCDMA Band II	RMC 12.2kbps	10	Back	9538	1907.6	23.00	22.50	0.692	0.776	Off	1
FCC & IC	WCDMA Band II	RMC 12.2kbps	10	Back	9262	1852.4	23.00	22.50	0.376	0.422	Off	
FCC & IC	WCDMA Band II	RMC 12.2kbps	10	Back	9400	1880	23.00	22.50	0.411	0.461	Off	
FCC & IC	WCDMA Band II	RMC 12.2kbps	0	Edge 1	9538	1907.6	23.00	22.50	0.088	0.099	Off	
FCC & IC	WCDMA Band II	RMC 12.2kbps	5	Edge 3	9538	1907.6	23.00	22.50	0.550	0.617	Off	
FCC & IC	WCDMA Band II	RMC 12.2kbps	0	Edge 4	9538	1907.6	23.00	22.50	0.391	0.439	Off	
FCC & IC	WCDMA Band IV	RMC 12.2kbps	0	Back	1413	1732.6	20.00	19.91	0.722	0.737	On	
FCC & IC	WCDMA Band IV	RMC 12.2kbps	0	Back	1312	1712.4	20.00	19.87	1.000	1.030	On	
FCC & IC	WCDMA Band IV	RMC 12.2kbps	0	Back	1513	1752.6	20.00	19.85	1.140	1.180	On	2
FCC & IC	WCDMA Band IV	RMC 12.2kbps	10	Back	1413	1732.6	23.00	22.73	0.568	0.604	Off	
FCC & IC	WCDMA Band IV	RMC 12.2kbps	0	Edge 1	1413	1732.6	23.00	22.73	0.081	0.087	Off	
FCC & IC	WCDMA Band IV	RMC 12.2kbps	0	Edge 3	1413	1732.6	23.00	22.73	0.610	0.649	Off	
FCC & IC	WCDMA Band IV	RMC 12.2kbps	0	Edge 4	1413	1732.6	23.00	22.73	0.425	0.452	Off	
FCC & IC	WCDMA Band V	RMC 12.2kbps	0	Back	4183	836.6	24.00	23.22	0.895	1.071	Off	
FCC & IC	WCDMA Band V	RMC 12.2kbps	0	Back	4132	826.4	24.00	22.97	0.803	0.961	Off	
FCC & IC	WCDMA Band V	RMC 12.2kbps	0	Back	4233	846.6	24.00	23.17	0.896	1.072	Off	
FCC & IC	WCDMA Band V	RMC 12.2kbps	0	Edge 1	4183	836.6	24.00	23.22	0.131	0.157	Off	
FCC & IC	WCDMA Band V	RMC 12.2kbps	0	Edge 2	4183	836.6	24.00	23.22	0.024	0.029	Off	
FCC & IC	WCDMA Band V	RMC 12.2kbps	0	Edge 3	4183	836.6	24.00	23.22	0.190	0.227	Off	
FCC & IC	WCDMA Band V	RMC 12.2kbps	0	Edge 4	4183	836.6	24.00	23.22	0.956	1.144	Off	
FCC & IC	WCDMA Band V	RMC 12.2kbps	0	Edge 4	4132	826.4	24.00	22.97	0.848	1.075	Off	
FCC & IC	WCDMA Band V	RMC 12.2kbps	0	Edge 4	4233	846.6	24.00	23.17	0.984	1.191	Off	3

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Band	Mode	Dist. (mm)	Test Position	RB Size	RB offset	Ch#	Freq. (MHz)	Power (dBm)		Zoom Scan 1g SAR (W/kg)	Reported 1g SAR (W/kg)	Sensor	Plot No.
								Tune up limit	Meas.				
LTE Band 2	QPSK 20M	0	Back	1	0	18700	1860	18.50	18.49	0.820	0.822	On	
LTE Band 2	QPSK 20M	0	Back	1	0	18900	1880	18.50	18.23	0.946	1.007	On	4
LTE Band 2	QPSK 20M	0	Back	1	0	19100	1900	18.50	18.43	0.884	0.898	On	
LTE Band 2	QPSK 20M	0	Back	50	0	18700	1860	17.50	17.42	0.609	0.620	On	
LTE Band 2	QPSK 20M	0	Back	100	0	18700	1860	17.50	17.41	0.811	0.828	On	
LTE Band 2	QPSK 20M	0	Edge 3	1	0	18700	1860	18.50	18.49	0.510	0.511	On	
LTE Band 2	QPSK 20M	0	Edge 3	50	0	18700	1860	17.50	17.42	0.373	0.380	On	
LTE Band 2	QPSK 20M	10	Back	1	0	19100	1860	23.00	22.00	0.422	0.531	Off	
LTE Band 2	QPSK 20M	10	Back	50	24	19100	1860	22.00	20.82	0.338	0.444	Off	
LTE Band 2	QPSK 20M	0	Edge 1	1	0	19100	1860	23.00	22.00	0.059	0.074	Off	
LTE Band 2	QPSK 20M	0	Edge 1	50	24	19100	1860	22.00	20.82	0.053	0.069	Off	
LTE Band 2	QPSK 20M	5	Edge 3	1	0	19100	1860	23.00	22.00	0.533	0.671	Off	
LTE Band 2	QPSK 20M	5	Edge 3	50	24	19100	1860	22.00	20.82	0.421	0.552	Off	
LTE Band 2	QPSK 20M	0	Edge 4	1	0	19100	1860	23.00	22.00	0.443	0.558	Off	
LTE Band 2	QPSK 20M	0	Edge 4	50	24	19100	1860	22.00	20.82	0.355	0.466	Off	
LTE Band 4	QPSK 20M	0	Back	1	0	20175	1720	20.00	19.12	0.853	1.045	On	
LTE Band 4	QPSK 20M	0	Back	50	0	20175	1720	19.00	17.79	0.676	0.893	On	
LTE Band 4	QPSK 20M	0	Back	100	0	20175	1720	19.00	17.73	0.768	1.029	On	
LTE Band 4	QPSK 20M	10	Back	1	49	20175	1720	23.00	21.67	0.729	0.990	Off	
LTE Band 4	QPSK 20M	10	Back	50	0	20175	1720	22.00	20.61	0.715	0.985	Off	
LTE Band 4	QPSK 20M	10	Back	100	0	20175	1720	19.00	17.73	0.650	0.871	Off	
LTE Band 4	QPSK 20M	0	Edge 1	1	49	20175	1720	23.00	21.67	0.101	0.137	Off	
LTE Band 4	QPSK 20M	0	Edge 1	50	0	20175	1720	22.00	20.61	0.093	0.128	Off	
LTE Band 4	QPSK 20M	0	Edge 3	1	49	20175	1720	23.00	21.67	0.776	1.054	Off	
LTE Band 4	QPSK 20M	0	Edge 3	50	0	20175	1720	22.00	20.61	0.766	1.055	Off	5
LTE Band 4	QPSK 20M	0	Edge 3	100	0	20175	1720	22.00	20.33	0.644	0.946	Off	
LTE Band 4	QPSK 20M	0	Edge 4	1	49	20175	1720	23.00	21.67	0.533	0.724	Off	
LTE Band 4	QPSK 20M	0	Edge 4	50	0	20175	1720	22.00	20.61	0.558	0.768	Off	
LTE Band 5	QPSK 10M	0	Back	1	49	20525	836.5	24.00	23.11	0.928	1.139	Off	6
LTE Band 5	QPSK 10M	0	Back	25	25	20525	836.5	23.00	21.69	0.696	0.941	Off	
LTE Band 5	QPSK 10M	0	Back	50	0	20525	836.5	23.00	21.63	0.689	0.945	Off	
LTE Band 5	QPSK 10M	0	Edge 1	1	49	20525	836.5	24.00	23.11	0.192	0.236	Off	
LTE Band 5	QPSK 10M	0	Edge 1	25	25	20525	836.5	23.00	21.69	0.142	0.192	Off	
LTE Band 5	QPSK 10M	0	Edge 2	1	49	20525	836.5	24.00	23.11	0.031	0.038	Off	
LTE Band 5	QPSK 10M	0	Edge 2	25	25	20525	836.5	23.00	21.69	0.016	0.021	Off	
LTE Band 5	QPSK 10M	0	Edge 3	1	49	20525	836.5	24.00	23.11	0.196	0.241	Off	
LTE Band 5	QPSK 10M	0	Edge 3	25	25	20525	836.5	23.00	21.69	0.152	0.206	Off	
LTE Band 5	QPSK 10M	0	Edge 4	1	49	20525	836.5	24.00	23.11	0.925	1.135	Off	
LTE Band 5	QPSK 10M	0	Edge 4	25	25	20525	836.5	23.00	21.69	0.751	1.015	Off	
LTE Band 5	QPSK 10M	0	Edge 4	50	0	20525	836.5	23.00	21.63	0.734	1.006	Off	
LTE Band 7	QPSK 20M	0	Back	1	0	20850	2510	18.50	17.79	0.504	0.594	On	
LTE Band 7	QPSK 20M	0	Back	50	0	20850	2510	17.50	16.52	0.407	0.510	On	
LTE Band 7	QPSK 20M	0	Edge 4	1	0	20850	2510	18.50	17.79	0.541	0.637	On	
LTE Band 7	QPSK 20M	0	Edge 4	50	0	20850	2510	17.50	16.52	0.401	0.503	On	
LTE Band 7	QPSK 20M	10	Back	1	49	20850	2510	23.50	23.48	0.512	0.514	Off	
LTE Band 7	QPSK 20M	10	Back	50	0	20850	2510	22.50	22.44	0.385	0.390	Off	
LTE Band 7	QPSK 20M	0	Edge 1	1	49	20850	2510	23.50	23.48	0.105	0.105	Off	
LTE Band 7	QPSK 20M	0	Edge 1	50	0	20850	2510	22.50	22.44	0.109	0.111	Off	
LTE Band 7	QPSK 20M	0	Edge 3	1	49	20850	2510	23.50	23.48	0.631	0.634	Off	
LTE Band 7	QPSK 20M	0	Edge 3	50	0	20850	2510	22.50	22.44	0.652	0.661	Off	
LTE Band 7	QPSK 20M	5	Edge 4	1	49	20850	2510	23.50	23.48	0.653	0.656	Off	
LTE Band 7	QPSK 20M	5	Edge 4	50	0	20850	2510	22.50	22.44	0.627	0.636	Off	
LTE Band 7	QPSK 20M	5	Edge 4	50	0	21100	2535	22.50	22.41	0.802	0.819	Off	
LTE Band 7	QPSK 20M	5	Edge 4	50	0	21350	2560	22.50	22.34	1.110	1.152	Off	7
LTE Band 7	QPSK 20M	5	Edge 4	100	0	21100	2535	22.50	22.36	0.699	0.722	Off	
LTE Band 12	QPSK 10M	0	Back	1	0	23095	707.5	23.00	22.15	0.384	0.467	Off	
LTE Band 12	QPSK 10M	0	Back	25	25	23095	707.5	22.00	21.18	0.298	0.360	Off	
LTE Band 12	QPSK 10M	0	Edge 1	1	0	23095	707.5	23.00	22.15	0.045	0.055	Off	
LTE Band 12	QPSK 10M	0	Edge 1	25	25	23095	707.5	22.00	21.18	0.037	0.045	Off	
LTE Band 12	QPSK 10M	0	Edge 2	1	0	23095	707.5	23.00	22.15	0.008	0.009	Off	
LTE Band 12	QPSK 10M	0	Edge 2	25	25	23095	707.5	22.00	21.18	0.007	0.009	Off	
LTE Band 12	QPSK 10M	0	Edge 3	1	0	23095	707.5	23.00	22.15	0.084	0.102	Off	
LTE Band 12	QPSK 10M	0	Edge 3	25	25	23095	707.5	22.00	21.18	0.074	0.089	Off	
LTE Band 12	QPSK 10M	0	Edge 4	1	0	23095	707.5	23.00	22.15	0.482	0.586	Off	8
LTE Band 12	QPSK 10M	0	Edge 4	25	25	23095	707.5	22.00	21.18	0.364	0.440	Off	
LTE Band 13	QPSK 10M	0	Back	1	49	23230	782	23.00	22.55	0.791	0.877	Off	9
LTE Band 13	QPSK 10M	0	Back	25	25	23230	782	22.00	21.72	0.625	0.667	Off	
LTE Band 13	QPSK 10M	0	Back	50	0	23230	782	22.00	21.62	0.521	0.569	Off	
LTE Band 13	QPSK 10M	0	Edge 1	1	49	23230	782	23.00	22.55	0.093	0.104	Off	
LTE Band 13	QPSK 10M	0	Edge 1	25	25	23230	782	22.00	21.72	0.053	0.057	Off	
LTE Band 13	QPSK 10M	0	Edge 2	1	49	23230	782	23.00	22.55	0.056	0.062	Off	
LTE Band 13	QPSK 10M	0	Edge 2	25	25	23230	782	22.00	21.72	0.044	0.047	Off	
LTE Band 13	QPSK 10M	0	Edge 3	1	49	23230	782	23.00	22.55	0.119	0.132	Off	
LTE Band 13	QPSK 10M	0	Edge 3	25	25	23230	782	22.00	21.72	0.111	0.118	Off	
LTE Band 13	QPSK 10M	0	Edge 4	1	49	23230	782	23.00	22.55	0.676	0.750	Off	
LTE Band 13	QPSK 10M	0	Edge 4	25	25	23230	782	22.00	21.72	0.505	0.539	Off	

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Band	Mode	Dist. (mm)	Test Position	RB Size	RB offset	Ch#	Freq. (MHz)	Power (dBm)		Zoom Scan 1g SAR (W/kg)	Reported 1g SAR (W/kg)	Sensor	Plot No.
								Tune up limit	Meas.				
LTE Band 14	QPSK 10M	0	Back	1	25	23330	793	23.00	22.99	0.661	0.663	Off	10
LTE Band 14	QPSK 10M	0	Back	25	0	23330	793	22.00	21.66	0.556	0.601	Off	
LTE Band 14	QPSK 10M	0	Edge 1	1	25	23330	793	23.00	22.99	0.093	0.093	Off	
LTE Band 14	QPSK 10M	0	Edge 1	25	0	23330	793	22.00	21.66	0.093	0.101	Off	
LTE Band 14	QPSK 10M	0	Edge 3	1	25	23330	793	23.00	22.99	0.238	0.239	Off	
LTE Band 14	QPSK 10M	0	Edge 3	25	0	23330	793	22.00	21.66	0.202	0.218	Off	
LTE Band 14	QPSK 10M	0	Edge 4	1	25	23330	793	23.00	22.99	0.570	0.571	Off	
LTE Band 14	QPSK 10M	0	Edge 4	25	0	23330	793	22.00	21.66	0.490	0.530	Off	
LTE Band 17	QPSK 10M	0	Back	1	25	23790	710	23.00	22.12	0.412	0.505	Off	
LTE Band 17	QPSK 10M	0	Back	25	0	23790	710	22.00	20.91	0.350	0.450	Off	
LTE Band 17	QPSK 10M	0	Edge 1	1	25	23790	710	23.00	22.12	0.114	0.140	Off	
LTE Band 17	QPSK 10M	0	Edge 1	25	0	23790	710	22.00	20.91	0.093	0.120	Off	
LTE Band 17	QPSK 10M	0	Edge 3	1	25	23790	710	23.00	22.12	0.065	0.079	Off	
LTE Band 17	QPSK 10M	0	Edge 3	25	0	23790	710	22.00	20.91	0.054	0.069	Off	
LTE Band 17	QPSK 10M	0	Edge 4	1	25	23790	710	23.00	22.12	0.535	0.655	Off	11
LTE Band 17	QPSK 10M	0	Edge 4	25	0	23790	710	22.00	20.91	0.442	0.568	Off	
LTE Band 25	QPSK 20M	0	Back	1	0	26590	1905	18.50	18.50	0.570	0.570	On	
LTE Band 25	QPSK 20M	0	Back	50	50	26590	1905	17.50	17.39	0.553	0.567	On	
LTE Band 25	QPSK 20M	0	Edge 3	1	0	26590	1905	18.50	18.50	0.467	0.467	On	
LTE Band 25	QPSK 20M	0	Edge 3	50	50	26590	1905	17.50	17.39	0.350	0.359	On	
LTE Band 25	QPSK 20M	10	Back	1	0	26590	1905	23.00	21.78	0.679	0.899	Off	12
LTE Band 25	QPSK 20M	10	Back	1	0	26340	1880	23.00	21.77	0.534	0.709	Off	
LTE Band 25	QPSK 20M	10	Back	1	0	26140	1860	23.00	21.66	0.457	0.622	Off	
LTE Band 25	QPSK 20M	10	Back	50	0	26590	1905	22.00	21.17	0.525	0.636	Off	
LTE Band 25	QPSK 20M	10	Back	100	0	26340	1880	22.00	20.60	0.598	0.825	Off	
LTE Band 25	QPSK 20M	0	Edge 1	1	0	26590	1905	23.00	21.78	0.081	0.107	Off	
LTE Band 25	QPSK 20M	0	Edge 1	50	0	26590	1905	22.00	21.17	0.068	0.082	Off	
LTE Band 25	QPSK 20M	5	Edge 3	1	0	26590	1905	23.00	21.78	0.571	0.756	Off	
LTE Band 25	QPSK 20M	5	Edge 3	50	0	26590	1905	22.00	21.17	0.459	0.556	Off	
LTE Band 25	QPSK 20M	0	Edge 4	1	0	26590	1905	23.00	21.78	0.440	0.583	Off	
LTE Band 25	QPSK 20M	0	Edge 4	50	0	26590	1905	22.00	21.17	0.342	0.414	Off	
LTE Band 26	QPSK 15M	0	Back	1	0	26865	831.5	24.00	23.42	1.000	1.143	Off	
LTE Band 26	QPSK 15M	0	Back	36	0	26865	831.5	23.00	22.90	0.804	0.823	Off	
LTE Band 26	QPSK 15M	0	Back	75	0	26865	831.5	23.00	22.75	0.979	1.037	Off	
LTE Band 26	QPSK 15M	0	Edge 1	1	0	26865	831.5	24.00	23.42	0.271	0.310	Off	
LTE Band 26	QPSK 15M	0	Edge 1	36	0	26865	831.5	23.00	22.90	0.306	0.313	Off	
LTE Band 26	QPSK 15M	0	Edge 3	1	0	26865	831.5	24.00	23.42	0.257	0.294	Off	
LTE Band 26	QPSK 15M	0	Edge 3	36	0	26865	831.5	23.00	22.90	0.209	0.214	Off	
LTE Band 26	QPSK 15M	0	Edge 4	1	0	26865	831.5	24.00	23.42	1.040	1.189	Off	13
LTE Band 26	QPSK 15M	0	Edge 4	36	0	26865	831.5	23.00	22.90	0.826	0.845	Off	
LTE Band 26	QPSK 15M	0	Edge 4	75	0	26865	831.5	23.00	22.75	0.890	0.943	Off	
LTE Band 41	QPSK 20M	0	Back	1	0	39790	2510	18.50	17.34	0.160	0.209	On	
LTE Band 41	QPSK 20M	0	Back	50	0	39790	2510	17.50	16.47	0.132	0.167	On	
LTE Band 41	QPSK 20M	0	Edge 4	1	0	39790	2510	18.50	17.34	0.207	0.270	On	
LTE Band 41	QPSK 20M	0	Edge 4	50	0	39790	2510	17.50	16.47	0.159	0.202	On	
LTE Band 41	QPSK 20M	10	Back	1	0	39790	2510	23.50	23.49	0.235	0.236	Off	
LTE Band 41	QPSK 20M	10	Back	50	50	39790	2510	22.50	22.43	0.200	0.203	Off	
LTE Band 41	QPSK 20M	0	Edge 1	1	0	39790	2510	23.50	23.49	0.072	0.072	Off	
LTE Band 41	QPSK 20M	0	Edge 1	50	0	39790	2510	22.50	22.43	0.055	0.056	Off	
LTE Band 41	QPSK 20M	0	Edge 3	1	0	39790	2510	23.50	23.49	0.295	0.296	Off	
LTE Band 41	QPSK 20M	0	Edge 3	1	0	39750	2510	23.50	23.32	0.304	0.317	Off	
LTE Band 41	QPSK 20M	0	Edge 3	1	0	40185	2510	23.50	23.30	0.339	0.355	Off	
LTE Band 41	QPSK 20M	0	Edge 3	1	0	40620	2510	23.50	23.21	0.388	0.415	Off	
LTE Band 41	QPSK 20M	0	Edge 3	1	0	41055	2510	23.50	23.17	0.391	0.422	Off	14
LTE Band 41	QPSK 20M	0	Edge 3	1	0	41490	2510	23.50	23.23	0.229	0.244	Off	
LTE Band 41	QPSK 20M	0	Edge 3	50	0	39790	2510	22.50	22.43	0.242	0.246	Off	
LTE Band 41	QPSK 20M	5	Edge 4	1	0	39790	2510	23.50	23.49	0.244	0.245	Off	
LTE Band 41	QPSK 20M	5	Edge 4	50	0	39790	2510	22.50	22.43	0.241	0.245	Off	
LTE Band 66	QPSK 20M	0	Back	1	0	132072	1720	20.00	19.47	0.938	1.060	On	
LTE Band 66	QPSK 20M	0	Back	1	0	132322	1745	20.00	19.43	0.911	1.039	On	
LTE Band 66	QPSK 20M	0	Back	1	0	132572	1770	20.00	19.45	0.949	1.077	On	15
LTE Band 66	QPSK 20M	0	Back	50	0	132572	1770	19.00	18.24	0.731	0.871	On	
LTE Band 66	QPSK 20M	0	Back	100	0	132072	1770	19.00	18.26	0.844	1.001	On	
LTE Band 66	QPSK 20M	10	Back	1	0	132322	1745	23.00	22.25	0.525	0.624	Off	
LTE Band 66	QPSK 20M	10	Back	50	0	132322	1745	22.00	21.24	0.430	0.512	Off	
LTE Band 66	QPSK 20M	0	Edge 1	1	0	132322	1745	23.00	22.25	0.075	0.089	Off	
LTE Band 66	QPSK 20M	0	Edge 1	50	0	132322	1745	22.00	21.24	0.066	0.079	Off	
LTE Band 66	QPSK 20M	0	Edge 3	1	0	132322	1745	23.00	22.25	0.646	0.768	Off	
LTE Band 66	QPSK 20M	0	Edge 3	50	0	132322	1745	22.00	21.24	0.512	0.610	Off	
LTE Band 66	QPSK 20M	0	Edge 4	1	0	132322	1745	23.00	22.25	0.454	0.540	Off	
LTE Band 66	QPSK 20M	0	Edge 4	50	0	132322	1745	22.00	21.24	0.357	0.425	Off	
LTE Band 71	QPSK 20M	0	Back	1	0	133322	683	23.00	22.95	0.323	0.327	Off	
LTE Band 71	QPSK 20M	0	Back	50	0	133322	683	22.00	21.91	0.254	0.259	Off	
LTE Band 71	QPSK 20M	0	Edge 1	1	0	133322	683	23.00	22.95	0.051	0.052	Off	
LTE Band 71	QPSK 20M	0	Edge 1	50	0	133322	683	22.00	21.91	0.044	0.045	Off	
LTE Band 71	QPSK 20M	0	Edge 3	1	0	133322	683	23.00	22.95	0.071	0.072	Off	
LTE Band 71	QPSK 20M	0	Edge 3	50	0	133322	683	22.00	21.91	0.056	0.057	Off	
LTE Band 71	QPSK 20M	0	Edge 4	1	0	133322	683	23.00	22.95	0.545	0.551	Off	16
LTE Band 71	QPSK 20M	0	Edge 4	50	0	133322	683	22.00	21.91	0.410	0.419	Off	

**Note(s):**

1. According to KDB 941225 D05v02r05, 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

**15.2 WLAN**

Band	Mode	Dist. (mm)	Test Position	Ch#	Freq. (MHz)	Power (dBm)		Zoom Scan 1g SAR (W/kg)	Reported 1g SAR (W/kg)	Plot No.
						Tune up limit	Meas.			
WLAN2.4GHz	IEEE 802.11b 1Mbps	0	Back	1	2412	16.50	16.42	0.260	0.265	
WLAN2.4GHz	IEEE 802.11b 1Mbps	0	Edge 1	1	2412	16.50	16.42	0.659	0.671	1
WLAN2.4GHz	IEEE 802.11b 1Mbps	0	Edge 1	6	2437	16.50	16.23	0.591	0.629	
WLAN2.4GHz	IEEE 802.11b 1Mbps	0	Edge 1	11	2462	16.50	16.38	0.544	0.559	
WLAN5GHz	IEEE 802.11ac VHT40 MCS0	0	Back	54	5270	12.00	11.94	0.099	0.100	
WLAN5GHz	IEEE 802.11ac VHT40 MCS0	0	Edge 1	54	5270	12.00	11.94	0.321	0.325	2
WLAN5GHz	IEEE 802.11ac VHT40 MCS0	0	Edge 1	62	5310	12.00	11.77	0.251	0.265	
WLAN5GHz	IEEE 802.11ac VHT40 MCS0	0	Back	142	5710	11.00	10.97	0.000	0.000	
WLAN5GHz	IEEE 802.11ac VHT40 MCS0	0	Edge 1	110	5510	11.00	10.95	0.250	0.253	
WLAN5GHz	IEEE 802.11ac VHT40 MCS0	0	Edge 1	102	5550	11.00	10.90	0.242	0.248	
WLAN5GHz	IEEE 802.11ac VHT40 MCS0	0	Edge 1	126	5630	11.00	10.82	0.334	0.348	3
WLAN5GHz	IEEE 802.11ac VHT40 MCS0	0	Edge 1	134	5670	11.00	10.95	0.318	0.322	
WLAN5GHz	IEEE 802.11ac VHT40 MCS0	0	Edge 1	142	5710	11.00	10.97	0.339	0.341	
WLAN5GHz	IEEE 802.11ac VHT40 MCS0	0	Back	159	5755	11.50	11.32	0.000	0.000	
WLAN5GHz	IEEE 802.11ac VHT40 MCS0	0	Edge 1	151	5755	11.50	11.49	0.402	0.403	
WLAN5GHz	IEEE 802.11ac VHT40 MCS0	0	Edge 1	159	5795	11.50	11.32	0.406	0.423	4
Bluetooth		0	Back	19	2440	10.00	8.97	0.051	0.065	
Bluetooth		0	Edge 1	0	2402	10.00	8.09	0.125	0.194	5
Bluetooth		0	Edge 1	19	2440	10.00	8.97	0.146	0.185	
Bluetooth		0	Edge 1	39	2480	10.00	8.83	0.145	0.190	

**Note(s):**

1. Highest reported SAR is > 0.8 W/kg. Added second highest power channel for this test position

### 15.3 Repeated SAR

#### WWAN

Band	Mode	Dist. (mm)	Test Position	RB Size	RB offset	Ch#	Freq. (MHz)	Power (dBm)		Zoom Scan 1g SAR (W/kg)	Reported 1g SAR (W/kg)	Sensor	Plot No.	Ratio
								Tune up limit	Meas.					
WCDMA Band IV	RMC 12.2kbps	0	Back			1513	1752.6	20.00	19.85	1.140	1.180	On	Original	0.01
WCDMA Band IV	RMC 12.2kbps	0	Back			1513	1752.6	20.00	19.85	1.130	1.170	On	Repeat	
LTE Band 2	QPSK 20M	0	Back	1	0	18900	1880	18.50	18.23	0.946	1.007	On	Original	0.02
LTE Band 2	QPSK 20M	0	Back	1	0	18900	1880	18.50	18.23	0.931	0.991	On	Repeat	
LTE Band 7	QPSK 20M	5	Edge 4	50	0	21350	2560	22.50	22.34	1.110	1.152	Off	Original	0.05
LTE Band 7	QPSK 20M	5	Edge 4	50	0	21350	2560	22.50	22.34	1.060	1.100	Off	Repeat	
LTE Band 26	QPSK 15M	0	Edge 4	1	0	26865	831.5	24.00	23.42	1.040	1.189	Off	Original	0.01
LTE Band 26	QPSK 15M	0	Edge 4	1	0	26865	831.5	24.00	23.42	1.030	1.177	Off	Repeat	

#### Note(s):

1. Repeated measurements are required only when the measured SAR is  $\geq 0.80$  W/kg. If the measured SAR values are  $< 1.45$  W/kg with  $\leq 20\%$  variation, only one repeated measurement is required to reaffirm that the results are not expected to have substantial variations, which may introduce significant compliance concerns. (Per KDB 865664 D01 SAR measurement 100 MHz to 6 GHz v01r04)
  - 1.1 Repeat SAR  $< 1.45$  W/kg only one repeated measurement is required
  - 1.2 SAR variation  $< 20\%$

## 16 Simultaneous Transmission SAR Analysis

KDB 447498 D01 General RF Exposure Guidance v06, introduces a new formula for calculating the SAR to Peak Location Ratio (SPLSR) between pairs of simultaneously transmitting antennas:

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

Where:

**SAR<sub>1</sub>** is the highest Reported or estimated SAR for the first of a pair of simultaneous transmitting antennas, in a specific test operating mode and exposure condition

**SAR<sub>2</sub>** 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

**R<sub>i</sub>** is the separation distance between the pair of simultaneous transmitting antennas. When the SAR is measured, for both antennas in the pair, it is determined by the actual x, y and z coordinates in the 1-g SAR for each SAR peak location, based on the extrapolated and interpolated result in the zoom scan measurement, using the formula of  $[(x_1-x_2)^2 + (y_1-y_2)^2 + (z_1-z_2)^2]$

A new threshold of 0.04 is also introduced in the KDB. Thus, in order for a pair of simultaneous transmitting antennas with the sum of 1-g SAR > 1.6 W/kg to qualify for exemption from Simultaneous Transmission SAR measurements, it has to satisfy the condition of:

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



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## 16.1 Simultaneous Transmission Analysis

### 16.1.1 Sum of the SAR for Wi-Fi + BT

Per KDB 447498 D01 section 4.3.2, the simultaneous transmitting antennas in each operating mode and exposure condition combination must be considered one pair at a time to determine the SAR to peak location separation ratio to qualify for test exclusion.

Band	Test Position	Simultaneous Transmission Scenario				1+2 Summed 1g SAR(W/kg)	1+3 Summed 1g SAR(W/kg)	1+4 Summed 1g SAR(W/kg)	2+4 Summed 1g SAR(W/kg)	3+4 Summed 1g SAR(W/kg)	1+2+4 Summed 1g SAR(W/kg)	1+3+4 Summed 1g SAR(W/kg)
		1.WWAN 1g SAR (W/kg)	2.Wi-Fi 2.4 GHz 1g SAR (W/kg)	3.Wi-Fi 5 GHz 1g SAR (W/kg)	4. Bluetooth 1g SAR (W/kg)							
WCDMA Band II	Back 10mm	0.776	0.265	0.100	0.065	1.041	0.877	0.841	0.329	0.165	1.106	0.941
	Edge 3 5mm	0.617	0.000	0.000	0.000	0.617	0.617	0.617	0.000	0.000	0.617	0.617
	Back 0mm	0.666	0.265	0.100	0.065	0.930	0.766	0.730	0.329	0.165	0.995	0.831
	Edge 1 0mm	0.099	0.671	0.423	0.194	0.770	0.522	0.293	0.865	0.617	0.964	0.716
	Edge 2 0mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Edge 3 0mm	0.521	0.000	0.000	0.000	0.521	0.521	0.521	0.000	0.000	0.521	0.521
	Edge 4 0mm	0.439	0.000	0.000	0.000	0.439	0.439	0.439	0.000	0.000	0.439	0.439
WCDMA Band IV	Back 10mm	0.604	0.265	0.100	0.065	0.869	0.705	0.669	0.329	0.165	0.934	0.769
	Back 0mm	1.180	0.265	0.100	0.065	1.445	1.280	1.245	0.329	0.165	1.510	1.345
	Edge 1 0mm	0.087	0.671	0.423	0.194	0.758	0.510	0.281	0.865	0.617	0.952	0.704
	Edge 2 0mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Edge 3 0mm	0.649	0.000	0.000	0.000	0.649	0.649	0.649	0.000	0.000	0.649	0.649
	Edge 4 0mm	0.452	0.000	0.000	0.000	0.452	0.452	0.452	0.000	0.000	0.452	0.452
WCDMA Band V	Back 0mm	1.072	0.265	0.100	0.065	1.337	1.173	1.137	0.329	0.165	1.402	1.237
	Edge 1 0mm	0.157	0.671	0.423	0.194	0.828	0.580	0.351	0.865	0.617	1.022	0.774
	Edge 2 0mm	0.029	0.000	0.000	0.000	0.029	0.029	0.029	0.000	0.000	0.029	0.029
	Edge 3 0mm	0.227	0.000	0.000	0.000	0.227	0.227	0.227	0.000	0.000	0.227	0.227
	Edge 4 0mm	1.191	0.000	0.000	0.000	1.191	1.191	1.191	0.000	0.000	1.191	1.191
LTE Band 2	Back 10mm	0.531	0.265	0.100	0.065	0.796	0.632	0.596	0.329	0.165	0.861	0.696
	Edge 3 5mm	0.671	0.000	0.000	0.000	0.671	0.671	0.671	0.000	0.000	0.671	0.671
	Back 0mm	1.007	0.265	0.100	0.065	1.272	1.107	1.071	0.329	0.165	1.336	1.172
	Edge 1 0mm	0.074	0.671	0.423	0.194	0.745	0.497	0.268	0.865	0.617	0.939	0.691
	Edge 2 0mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Edge 3 0mm	0.511	0.000	0.000	0.000	0.511	0.511	0.511	0.000	0.000	0.511	0.511
	Edge 4 0mm	0.558	0.000	0.000	0.000	0.558	0.558	0.558	0.000	0.000	0.558	0.558
LTE Band 4	Back 10mm	0.990	0.265	0.100	0.065	1.255	1.090	1.055	0.329	0.165	1.320	1.155
	Back 0mm	1.045	0.265	0.100	0.065	1.309	1.145	1.109	0.329	0.165	1.374	1.210
	Edge 1 0mm	0.137	0.671	0.423	0.194	0.808	0.560	0.331	0.865	0.617	1.002	0.754
	Edge 2 0mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Edge 3 0mm	1.055	0.000	0.000	0.000	1.055	1.055	1.055	0.000	0.000	1.055	1.055
	Edge 4 0mm	0.768	0.000	0.000	0.000	0.768	0.768	0.768	0.000	0.000	0.768	0.768

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Band	Test Position	Simultaneous Transmission Scenario				1+2 Summed 1g SAR(W/kg)	1+3 Summed 1g SAR(W/kg)	1+4 Summed 1g SAR(W/kg)	2+4 Summed 1g SAR(W/kg)	3+4 Summed 1g SAR(W/kg)	1+2+4 Summed 1g SAR(W/kg)	1+3+4 Summed 1g SAR(W/kg)
		1.WWAN 1g SAR (W/kg)	2.Wi-Fi 2.4 GHz 1g SAR (W/kg)	3.Wi-Fi 5 GHz 1g SAR (W/kg)	4. Bluetooth 1g SAR (W/kg)							
LTE Band 5	Back 0mm	1.139	0.265	0.100	0.065	1.404	1.239	1.204	0.329	0.165	1.469	1.304
	Edge 1 0mm	0.236	0.671	0.423	0.194	0.907	0.659	0.430	0.865	0.617	1.101	0.853
	Edge 2 0mm	0.038	0.000	0.000	0.000	0.038	0.038	0.038	0.000	0.000	0.038	0.038
	Edge 3 0mm	0.241	0.000	0.000	0.000	0.241	0.241	0.241	0.000	0.000	0.241	0.241
	Edge 4 0mm	1.135	0.000	0.000	0.000	1.135	1.135	1.135	0.000	0.000	1.135	1.135
LTE Band 7	Back 10mm	0.514	0.265	0.100	0.065	0.779	0.615	0.579	0.329	0.165	0.844	0.679
	Edge 4 5mm	1.152	0.000	0.000	0.000	1.152	1.152	1.152	0.000	0.000	1.152	1.152
	Back 0mm	0.594	0.265	0.100	0.065	0.858	0.694	0.658	0.329	0.165	0.923	0.758
	Edge 1 0mm	0.111	0.671	0.423	0.194	0.782	0.534	0.305	0.865	0.617	0.976	0.728
	Edge 2 0mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Edge 3 0mm	0.661	0.000	0.000	0.000	0.661	0.661	0.661	0.000	0.000	0.661	0.661
	Edge 4 0mm	0.637	0.000	0.000	0.000	0.637	0.637	0.637	0.000	0.000	0.637	0.637
LTE Band 12	Back 0mm	0.467	0.265	0.100	0.065	0.732	0.567	0.532	0.329	0.165	0.796	0.632
	Edge 1 0mm	0.055	0.671	0.423	0.194	0.726	0.478	0.249	0.865	0.617	0.920	0.672
	Edge 2 0mm	0.009	0.000	0.000	0.000	0.009	0.009	0.009	0.000	0.000	0.009	0.009
	Edge 3 0mm	0.102	0.000	0.000	0.000	0.102	0.102	0.102	0.000	0.000	0.102	0.102
	Edge 4 0mm	0.586	0.000	0.000	0.000	0.586	0.586	0.586	0.000	0.000	0.586	0.586
LTE Band 13	Back 0mm	0.877	0.265	0.100	0.065	1.142	0.978	0.942	0.329	0.165	1.207	1.042
	Edge 1 0mm	0.104	0.671	0.423	0.194	0.775	0.527	0.298	0.865	0.617	0.969	0.721
	Edge 2 0mm	0.062	0.000	0.000	0.000	0.062	0.062	0.062	0.000	0.000	0.062	0.062
	Edge 3 0mm	0.132	0.000	0.000	0.000	0.132	0.132	0.132	0.000	0.000	0.132	0.132
	Edge 4 0mm	0.750	0.000	0.000	0.000	0.750	0.750	0.750	0.000	0.000	0.750	0.750
LTE Band 14	Back 0mm	0.663	0.265	0.100	0.065	0.927	0.763	0.727	0.329	0.165	0.992	0.827
	Edge 1 0mm	0.101	0.671	0.423	0.194	0.772	0.524	0.295	0.865	0.617	0.966	0.718
	Edge 2 0mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Edge 3 0mm	0.239	0.000	0.000	0.000	0.239	0.239	0.239	0.000	0.000	0.239	0.239
	Edge 4 0mm	0.571	0.000	0.000	0.000	0.571	0.571	0.571	0.000	0.000	0.571	0.571
LTE Band 17	Back 0mm	0.505	0.265	0.100	0.065	0.769	0.605	0.569	0.329	0.165	0.834	0.669
	Edge 1 0mm	0.140	0.671	0.423	0.194	0.811	0.563	0.334	0.865	0.617	1.005	0.757
	Edge 2 0mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Edge 3 0mm	0.079	0.000	0.000	0.000	0.079	0.079	0.079	0.000	0.000	0.079	0.079
	Edge 4 0mm	0.655	0.000	0.000	0.000	0.655	0.655	0.655	0.000	0.000	0.655	0.655

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Band	Test Position	Simultaneous Transmission Scenario				1+2 Summed 1g SAR(W/kg)	1+3 Summed 1g SAR(W/kg)	1+4 Summed 1g SAR(W/kg)	2+4 Summed 1g SAR(W/kg)	3+4 Summed 1g SAR(W/kg)	1+2+4 Summed 1g SAR(W/kg)	1+3+4 Summed 1g SAR(W/kg)
		1.WWAN 1g SAR (W/kg)	2.Wi-Fi 2.4 GHz 1g SAR (W/kg)	3.Wi-Fi 5 GHz 1g SAR (W/kg)	4. Bluetooth 1g SAR (W/kg)							
LTE Band 25	Back 10mm	0.899	0.265	0.100	0.065	1.164	1.000	0.964	0.329	0.165	1.229	1.064
	Edge 3 5mm	0.756	0.000	0.000	0.000	0.756	0.756	0.756	0.000	0.000	0.756	0.756
	Back 0mm	0.570	0.265	0.100	0.065	0.835	0.670	0.635	0.329	0.165	0.899	0.735
	Edge 1 0mm	0.107	0.671	0.423	0.194	0.779	0.530	0.301	0.865	0.617	0.973	0.725
	Edge 2 0mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Edge 3 0mm	0.467	0.000	0.000	0.000	0.467	0.467	0.467	0.000	0.000	0.467	0.467
	Edge 4 0mm	0.583	0.000	0.000	0.000	0.583	0.583	0.583	0.000	0.000	0.583	0.583
LTE Band 26	Back 0mm	1.143	0.265	0.100	0.065	1.408	1.243	1.208	0.329	0.165	1.472	1.308
	Edge 1 0mm	0.313	0.671	0.423	0.194	0.984	0.736	0.507	0.865	0.617	1.178	0.930
	Edge 2 0mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Edge 3 0mm	0.294	0.000	0.000	0.000	0.294	0.294	0.294	0.000	0.000	0.294	0.294
	Edge 4 0mm	1.189	0.000	0.000	0.000	1.189	1.189	1.189	0.000	0.000	1.189	1.189
LTE Band 41	Back 10mm	0.236	0.265	0.100	0.065	0.500	0.336	0.300	0.329	0.165	0.565	0.400
	Edge 4 5mm	0.245	0.000	0.000	0.000	0.245	0.245	0.245	0.000	0.000	0.245	0.245
	Back 0mm	0.209	0.265	0.100	0.065	0.474	0.309	0.274	0.329	0.165	0.538	0.374
	Edge 1 0mm	0.072	0.671	0.423	0.194	0.743	0.495	0.266	0.865	0.617	0.937	0.689
	Edge 2 0mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Edge 3 0mm	0.422	0.000	0.000	0.000	0.422	0.422	0.422	0.000	0.000	0.422	0.422
	Edge 4 0mm	0.270	0.000	0.000	0.000	0.270	0.270	0.270	0.000	0.000	0.270	0.270
LTE Band 66	Back 10mm	0.624	0.265	0.100	0.065	0.889	0.724	0.689	0.329	0.165	0.953	0.789
	Back 0mm	1.077	0.265	0.100	0.065	1.342	1.177	1.142	0.329	0.165	1.407	1.242
	Edge 1 0mm	0.089	0.671	0.423	0.194	0.760	0.512	0.283	0.865	0.617	0.954	0.706
	Edge 2 0mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Edge 3 0mm	0.768	0.000	0.000	0.000	0.768	0.768	0.768	0.000	0.000	0.768	0.768
	Edge 4 0mm	0.540	0.000	0.000	0.000	0.540	0.540	0.540	0.000	0.000	0.540	0.540
LTE Band 71	Back 0mm	0.327	0.265	0.100	0.065	0.592	0.427	0.391	0.329	0.165	0.656	0.492
	Edge 1 0mm	0.052	0.671	0.423	0.194	0.723	0.475	0.246	0.865	0.617	0.917	0.669
	Edge 2 0mm	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Edge 3 0mm	0.072	0.000	0.000	0.000	0.072	0.072	0.072	0.000	0.000	0.072	0.072
	Edge 4 0mm	0.551	0.000	0.000	0.000	0.551	0.551	0.551	0.000	0.000	0.551	0.551

**Note(s):**

As the Sum of the SAR is less than 1.6W/Kg, so SPLSR is not required.

## 17 Equipment List & Calibration Status

Name of Equipment	Manufacturer	Type/Model	Serial Number	Calibration Cycle(year)	Calibration Due
WIDEBAND RADIO COMMUNICATION TESTER	R&S	CMU200	101245	1	2020/10/10
WIDEBAND RADIO COMMUNICATION TESTER	R&S	CMW500	116875	1	2020/7/28
Radio Communication Analyzer	Anritsu	MT8820C	6201240043	1	2020/7/16
Signal Grenerator	Agilent	N5181A	MY50144142	1	2020/12/11
Dielectric parameter probes	SPEAG	DAKS-3.5	1053	1	2021/1/27
Power Meter	Agilent	E4417A	MY51410006	1	2021/3/8
Power Sensor	Agilent	E9301H	MY51470001	1	2021/3/8
Power Meter	Anritsu	ML2496A	1337004	1	2020/9/3
Power Sensor	Anritsu	MA2411B	1306052	1	2020/9/3
Data Acquisition Electronics (DAE)	SPEAG	DAE4	877	1	2021/3/16
Dosimetric E-Field Probe	SPEAG	EX3DV4	7509	1	2021/3/24
750MHz System Validation Dipole	SPEAG	D750V3	1015	1	2020/8/22
835MHz System Validation Dipole	SPEAG	D835V2	4d063	1	2020/8/22
1750MHz System Validation Dipole	SPEAG	D1750V2	1008	1	2020/8/22
1900MHz System Validation Dipole	SPEAG	D1900V2	5d173	1	2020/4/22
2450MHz System Validation Dipole	SPEAG	D2450V2	727	1	2020/4/23
2600MHz System Validation Dipole	SPEAG	D2600V2	1005	1	2021/1/28
5GHz System Validation Dipole	SPEAG	D5GH2V2	1023	1	2021/1/28
Robot	Staubli	RX90L	02/5T69A1/A/0	N/A	N/A
Amplifier	Mini-Circuit	ZVE-8G	665500309	N/A	N/A
Amplifier	Mini-Circuit	ZHL-1724HLN	D072602#2	N/A	N/A
Thermometer	Changzhou Xinwang	PT1	EC14011603	1	2020/7/30

## 18 Facilities

All measurement facilities used to collect the measurement data are located at

- No. 81-1, Lane 210, Bade Rd. 2, Luchu Hsiang, Taoyuan Hsien, Taiwan, R.O.C.
- No.11, Wugong 6th Rd., Wugu Dist., New Taipei City 24891, Taiwan. (R.O.C.)
- No. 199, Chunghsen Road, Hsintien City, Taipei Hsien, Taiwan, R.O.C.

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## 20 Attachments

Exhibit	Content
1	System Performance Check Plots
2	SAR Test Data Plots
3	SAR Equipment calibration report
4	T200407W01-SF PHOTOS

**END OF REPORT**