



ANSI/IEEE Std. C95.1-1992

in accordance with the requirements of
FCC Report and Order: ET Docket 93-62



FCC TEST REPORT

For

Tablet PC

Trade Name: DURABOOK

Model:

R11XXXXXX(X=0-9, A-Z, Blank)

Issued to

TWINHEAD INTERNATIONAL CORP.

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Revision History

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1 Certificate of Compliance (SAR Evaluation)

Applicant TWINHEAD INTERNATIONAL CORP.
10F, No. 550, Rueiguang Rd., Neihsu, Taipei, Taiwan 114, R.O.C.

Equipment Under Test: Tablet PC

Trade Name: DURABOOK

Model Number: R11XXXXXX(X=0-9, A-Z, Blank)

Date of Test: July 28 ~ August 22, 2014

Device Category: PORTABLE DEVICES

Exposure Category: GENERAL POPULATION/UNCONTROLLED EXPOSURE

Applicable Standards	
FCC	● IEEE 1528 2013 ● KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r03 ● KDB 447498 D01 General RF Exposure Guidance v05r02 ● KDB 616217 D04 SAR for laptop and tablets v01r01 ● KDB 941225 D05 SAR for LTE Devices v02r03 ● KDB 941225 D02 HSPA and 1x Advanced v02r02 ● KDB 248227 SAR Measurements Procedures 802.11a/b/g Transmitters
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:

Alex Wu
Section Manager
Compliance Certification Services Inc.

Tested by:

Tony Liao
SAR Engineer
Compliance Certification Services Inc.



2 Description of Equipment Under Test

Product	Tablet PC		
Trade Name	DURABOOK		
Model Number	R11XXXXXX(X=0-9, A-Z, Blank)		
Transmitters	Wi-Fi & Bluetooth & GSM & UMTS & LTE		
Modulation Technique	GPRS: GMSK		
	WCDMA: BPSK		
	CDMA: QPSK		
	LTE: QPSK/16QAM		
	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)		
Antenna Specification	WWAN Main	Brand name	Well Green Technology Co., Ltd
		Parts Number	TWR11LTPB02+A
		Type	Monopole
Rechargeable Li-polymer Battery–alternate	Brand: UNITED Model: Li-Ion Battery Rating: 4100mAh		

Remark: The sample selected for test was prototype that approximated to production product and was provided by manufacturer



3 Requirements for Compliance Testing Defined

3.1 Requirements for Compliance Testing Defined by the FCC

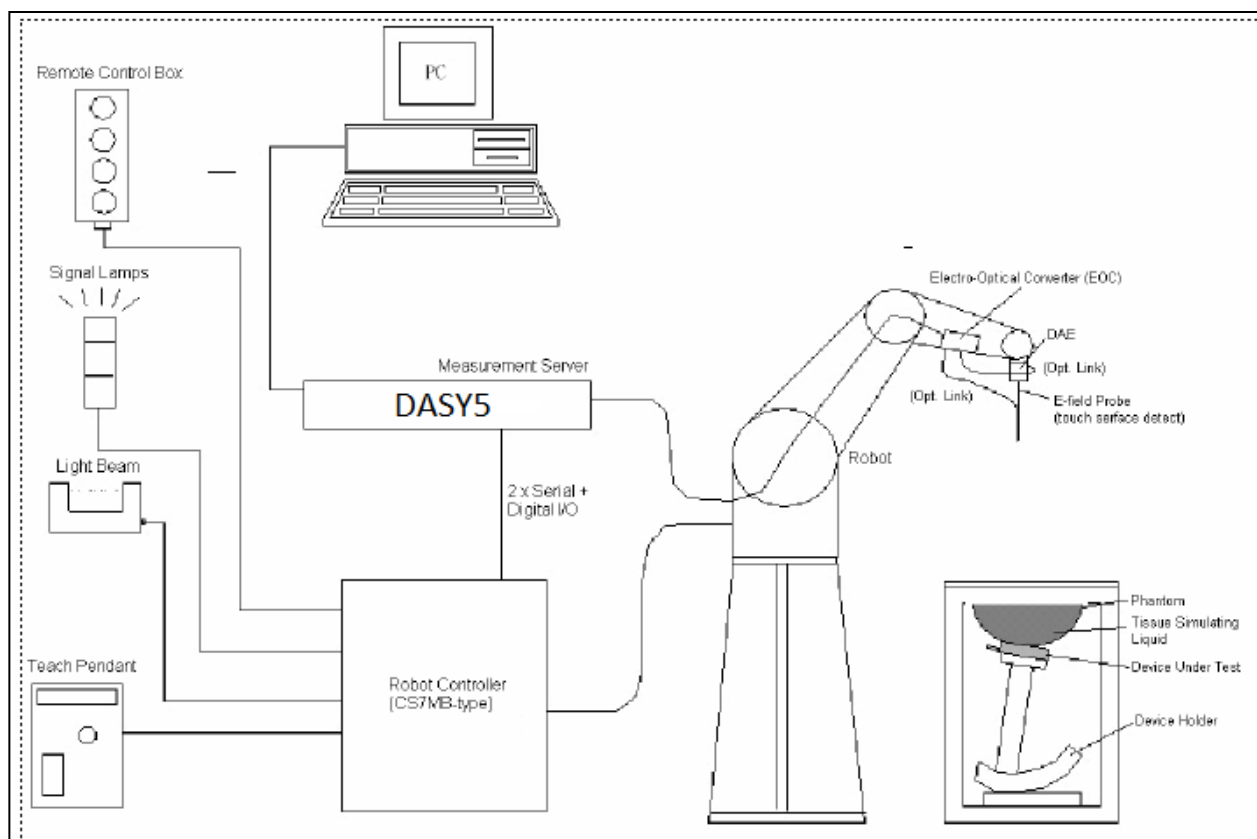
The US Federal Communications Commission has released the report and order "Guidelines for Evaluating the Environmental Effects of RF Radiation", ET Docket No. 93-62 in August 1996 [1]. The order requires routine SAR evaluation prior to equipment authorization of portable transmitter devices, including 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 ANSI/IEEE standard C95.1-1992 [6].



4 Dosimetric Assessment System

These measurements were performed with the automated near-field scanning system DASY4/DAST5 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 ± 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: 3665 (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 ± 0.25 dB. The phantom used was the SAM Twin Phantom as described in FCC supplement C, IEEE 1528 2013.

4.1 Measurement System Diagram



The DASY4/DASY5 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 2000 or Windows XP.
- DASY4/DASY5 software.
- 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

DASY4/DASY5 Measurement Server



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.

The measurement server performs all real-time data evaluation for field measurements and surface detection, controls robot movements and handles safety operation.



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.

Data Acquisition Electronics (DAE)

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 Ω ; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.



EX3DV4 Isotropic E-Field Probe for Dosimetric Measurements

- Construction:** Symmetrical design with triangular core
Built-in shielding against static charges
PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
- Calibration:** 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.
- Frequency:** 10 MHz to > 6 GHz; Linearity: ± 0.2 dB (30 MHz to 3 GHz)
- Directivity:** ± 0.3 dB in HSL (rotation around probe axis)
 ± 0.5 dB in HSL (rotation normal to probe axis)
- Dynamic Range:** 10 μ W/g to > 100 mW/g; Linearity: ± 0.2 dB
(noise: typically < 1 μ W/g)



REV. 00



- Dimensions:** Overall length: 330 mm (Tip: 20 mm)
Tip diameter: 2.5 mm (Body: 12 mm)
Distance from probe tip to dipole centers: 1 mm
- Application:** 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%.



Interior of probe

SAM Phantom (V4.0)

- Construction:** The shell corresponds to the specifications of the Specific Anthropomorphic Mannequin (SAM) phantom defined in IEEE 1528-2003, 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.



- Shell Thickness:** 2 ± 0.2 mm
- Filling Volume:** Approx. 25 liters
- Dimensions:** Height: 810mm; Length: 1000mm; Width: 500mm

SAM Phantom (ELI4)

- Construction:** 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



- Shell Thickness:** 2.0 ± 0.2 mm (sagging: <1%)
- Filling Volume:** Approx. 25 liters
- Dimensions:** Major ellipse axis: 600 mm
Minor axis: 400 mm 500mm



Device Holder for SAM Twin Phantom

Construction: 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).



System Validation Kits for SAM Phantom (V4.0)

Construction: Symmetrical dipole with I/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.

Frequency: 750, 835, 1800, 1900 MHz

Return loss: > 20 dB at specified validation position

Power capability: > 100 W ($f < 1\text{GHz}$); > 40 W ($f > 1\text{GHz}$)

Dimensions: D750V3: dipole length: 178 mm; overall height: 330 mm
D835V2: dipole length: 161 mm; overall height: 340 mm
D1800V2: dipole length: 72.5 mm; overall height: 300 mm
D1900V2: dipole length: 67.7 mm; overall height: 300 mm



System Validation Kits for ELI4 phantom

Construction: Symmetrical dipole with I/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.

Frequency: 750, 835, 1800, 1900 MHz

Return loss: > 20 dB at specified validation position

Power capability: > 100 W ($f < 1\text{GHz}$); > 40 W ($f > 1\text{GHz}$)

Dimensions: D750V3: dipole length: 178 mm; overall height: 330 mm
D835V2: dipole length: 161 mm; overall height: 340 mm
D1800V2: dipole length: 72.5 mm; overall height: 300 mm
D1900V2: dipole length: 67.7 mm; overall height: 300 mm





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	σ
	- Density	ρ

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



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
σ	= conductivity in [mho/m] or [Siemens/m]
ρ	= equivalent tissue density in g/cm ³

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 ²
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 v01

	$\leq 3\text{ GHz}$	$> 3\text{ GHz}$
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 ≤ 2 GHz. (2) The zoom scan volume was set to 7x7x7 points at frequency between 2 GHz to 4 GHz (3) The zoom scan volume was set to 7x7x12 points at frequency between 4 GHz to 6 GHz. 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 than one maximum, the number of Zoom Scans has to be enlarged accordingly.

According to KDB 865664 D01 SAR measurement 100 MHz to 6 GHz v01

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



7 Device Under Test

7.1 Band Interface

Tx Frequency Bands	• GPRS850: 824 - 849 MHz • GPRS1900: 1850 - 1910 MHz • WCDMA Band II: 1850 - 1910 MHz • WCDMA Band IV: 1710 - 1755 MHz • WCDMA Band V: 824 - 849 MHz • LTE Band 2: 1850 – 1910 MHz • LTE Band 4: 1710 – 1755 MHz • LTE Band 5: 824 – 849 MHz • LTE Band 7: 2500 – 2570 MHz • LTE Band 13: 777 – 787 MHz • LTE Band 17: 704 – 716 MHz • 802.11 a/b/g/n/ac: 2412 - 2462 MHz 5180 - 5825 MHz
Mode	• GPRS/EGPRS • WCDMA Rel 99 • HSDPA (Rel 5, CAT 24) • HSUPA (Rel 6, CAT 7) • HSPA+ (Rel 7, CAT 7) • LTE (Rel 8, CAT 3) • 802.11 a/b/g/n HT20/HT40/ac

**7.2 Simultaneous Transmission**

No.	Conditions	Body SAR	Hotspot
1	GPRS850 + Wi-Fi 2.4GHz	☒	☐
2	GPRS1900 + Wi-Fi 2.4GHz	☒	☐
3	WCDMA Band II + Wi-Fi 2.4GHz	☒	☐
4	WCDMA Band IV + Wi-Fi 2.4GHz	☒	☐
5	WCDMA Band V + Wi-Fi 2.4GHz	☒	☐
6	CDMA + Wi-Fi 2.4GHz	☒	☐
7	LTE Band 2 + Wi-Fi 2.4GHz	☒	☐
8	LTE Band 4 + Wi-Fi 2.4GHz	☒	☐
9	LTE Band 5 + Wi-Fi 2.4GHz	☒	☐
10	LTE Band 13 + Wi-Fi 2.4GHz	☒	☐
11	LTE Band 17 + Wi-Fi 2.4GHz	☒	☐
12	LTE Band 25 + Wi-Fi 2.4GHz	☒	☐
13	GPRS850 + Wi-Fi 5GHz	☒	☐
14	GPRS1900 + Wi-Fi 5GHz	☒	☐
15	WCDMA Band II + Wi-Fi 5GHz	☒	☐
16	WCDMA Band IV + Wi-Fi 5GHz	☒	☐
17	WCDMA Band V + Wi-Fi 5GHz	☒	☐
18	CDMA + Wi-Fi 5GHz	☒	☐
19	LTE Band 2 + Wi-Fi 5GHz	☒	☐
20	LTE Band 4 + Wi-Fi 5GHz	☒	☐
21	LTE Band 5 + Wi-Fi 5GHz	☒	☐
22	LTE Band 13 + Wi-Fi 5GHz	☒	☐
23	LTE Band 17 + Wi-Fi 5GHz	☒	☐
24	LTE Band 25 + Wi-Fi 5GHz	☒	☐
25	Bluetooth + Wi-Fi 2.4GHz	☒	☐
26	Bluetooth + Wi-Fi 5GHz	☒	☐

☒: The Product can simultaneously transmit

☐: The Product can't simultaneously transmit



8 Summary of SAR Test Exclusion Configurations

8.1 Standalone SAR Test Exclusion Calculations

Since the Dedicated Host Approach is applied, the standalone SAR test exclusion procedure in KDB 447498 section 4.3.1 is applied in conjunction with KDB 616217 section 4.3 to determine the minimum test separation distance:

1. According to KDB 447498 Section 4.1.5) if the antenna is at close proximity to user then the outer surface of the DUT should be treated as the radiating surface. The test separation distance is then determined by the smallest distance between the outer surface of the device and the user. For the purposes of this report close proximity has been defined as closer than 50 mm. For antennas <50 mm from the rear or edge the separation distance used for the estimated SAR calculations is 0 mm.
2. When the minimum test separation distance is < 5mm, a distance of 5mm is applied to determine SAR test exclusion.
3. When the separation distance from the antenna to an adjacent edge is > 5 mm, the actual antenna-to-edge separation distance is applied to determine SAR test exclusion.
4. If the antenna to DUT adjacent edge or bottom separation distance >50mm the actual antenna to user separation distance is used to determine SAR exclusion and estimated SAR value.

Refer to Appendix for the specific details on the antenna-to-antenna and antenna-to-edge distances used for test exclusion calculations.

**8.1.1 SAR Exclusion Calculations for WWAN Antenna < 50mm from the User**

Edges and Rear(Without Power Back off)

Antenna	Band	Frequency (MHz)	Output Power		Separation Distances(mm)						Calculated Threshold Value					
			dBm	mW	Rear	Edge1	Edge2	Edge3	Edge4	Front	Rear	Edge1	Edge2	Edge3	Edge4	Front
WWAN Main	GPRS850	824.2	33	1995	4.05	1.5	54.3	189.7	157.95		447.2	1207.4	>50mm	>50mm	>50mm	N/A
WWAN Main	GPRS1900	1850.2	30	1000	4.05	1.5	54.3	189.7	157.95		335.86	906.81	>50mm	>50mm	>50mm	N/A
WWAN Main	WCDMA Band II	1852.4	24	251	4.05	1.5	54.3	189.7	157.95		84.35	227.75	>50mm	>50mm	>50mm	N/A
WWAN Main	WCDMA Band IV	1712.4	24	251	4.05	1.5	54.3	189.7	157.95		81.1	218.97	>50mm	>50mm	>50mm	N/A
WWAN Main	WCDMA Band V	826.4	24	251	4.05	1.5	54.3	189.7	157.95		56.34	152.12	>50mm	>50mm	>50mm	N/A
WWAN Main	CDMA BC0	824.7	23.5	224	4.05	1.5	54.3	189.7	157.95		50.227	135.61	>50mm	>50mm	>50mm	N/A
WWAN Main	CDMA BC1	1851.25	23.5	224	4.05	1.5	54.3	189.7	157.95		75.253	203.18	>50mm	>50mm	>50mm	N/A
WWAN Main	CDMA BC10	817.9	23.5	224	4.05	1.5	54.3	189.7	157.95		50.02	135.05	>50mm	>50mm	>50mm	N/A
WWAN Main	LTE Band 2	1860.0	23.5	224	4.05	1.5	54.3	189.7	157.95		75.431	203.66	>50mm	>50mm	>50mm	N/A
WWAN Main	LTE Band 4	1720.0	23.5	224	4.05	1.5	54.3	189.7	157.95		72.537	195.85	>50mm	>50mm	>50mm	N/A
WWAN Main	LTE Band 5	836.5	23.5	224	4.05	1.5	54.3	189.7	157.95		50.585	136.58	>50mm	>50mm	>50mm	N/A
WWAN Main	LTE Band 13	782.0	23.5	224	4.05	1.5	54.3	189.7	157.95		48.91	132.06	>50mm	>50mm	>50mm	N/A
WWAN Main	LTE Band 17	710.0	23.5	224	4.05	1.5	54.3	189.7	157.95		46.604	125.83	>50mm	>50mm	>50mm	N/A
WWAN Main	LTE Band 25	1860.0	23.5	224	4.05	1.5	54.3	189.7	157.95		75.431	203.66	>50mm	>50mm	>50mm	N/A

Note(s):

1. According to KDB 447498 v05 r02 in section 4.3.1, if the calculated threshold value is > 3 then SAR testing required.



Edges and Rear(With Power Back off)

Antenna	Band	Frequency (MHz)	Output Power		Separation Distances(mm)						Calculated Threshold Value					
			dBm	mW	Rear	Edge1	Edge2	Edge3	Edge4	Front	Rear	Edge1	Edge2	Edge3	Edge4	Front
WWAN Main	GPRS850	824.2	28	631	4.05	1.5	54.3	189.7	157.95		141.45	381.9	>50mm	>50mm	>50mm	N/A
WWAN Main	GPRS1900	1850.2	25	316	4.05	1.5	54.3	189.7	157.95		106.13	286.55	>50mm	>50mm	>50mm	N/A
WWAN Main	WCDMA Band II	1852.4	18	63	4.05	1.5	54.3	189.7	157.95		21.172	57.163	>50mm	>50mm	>50mm	N/A
WWAN Main	WCDMA Band IV	1712.4	17	50	4.05	1.5	54.3	189.7	157.95		16.155	43.62	>50mm	>50mm	>50mm	N/A
WWAN Main	WCDMA Band V	826.4	19	79	4.05	1.5	54.3	189.7	157.95		17.732	47.877	>50mm	>50mm	>50mm	N/A
WWAN Main	CDMA BC0	824.7	18.5	71	4.05	1.5	54.3	189.7	157.95		15.92	42.985	>50mm	>50mm	>50mm	N/A
WWAN Main	CDMA BC1	1851.3	15.5	35	4.05	1.5	54.3	189.7	157.95		11.758	31.747	>50mm	>50mm	>50mm	N/A
WWAN Main	CDMA BC10	817.9	18.5	71	4.05	1.5	54.3	189.7	157.95		15.855	42.807	>50mm	>50mm	>50mm	N/A
WWAN Main	LTE Band 2	1860.0	16	40	4.05	1.5	54.3	189.7	157.95		13.47	36.368	>50mm	>50mm	>50mm	N/A
WWAN Main	LTE Band 4	1720.0	16	40	4.05	1.5	54.3	189.7	157.95		12.953	34.973	>50mm	>50mm	>50mm	N/A
WWAN Main	LTE Band 5	836.5	19	79	4.05	1.5	54.3	189.7	157.95		17.84	48.169	>50mm	>50mm	>50mm	N/A
WWAN Main	LTE Band 13	782.0	20	100	4.05	1.5	54.3	189.7	157.95		21.835	58.954	>50mm	>50mm	>50mm	N/A
WWAN Main	LTE Band 17	710.0	20	100	4.05	1.5	54.3	189.7	157.95		20.805	56.174	>50mm	>50mm	>50mm	N/A
WWAN Main	LTE Band 25	1860.0	16	40	4.05	1.5	54.3	189.7	157.95		13.47	36.368	>50mm	>50mm	>50mm	N/A

Note(s):

1. According to KDB 447498 v05 r02 in section 4.3.1, if the calculated threshold value is > 3 then SAR testing required.

**8.1.2 SAR Exclusion Calculations for WWAN Antenna > 50mm from the User**

Edges and Rear (Without Power Back off)

Antenna	Band	Frequency (MHz)	Output Power		Separation Distances(mm)						Calculated Threshold Value					
			dBm	mW	Rear	Edge1	Edge2	Edge3	Edge4	Front	Rear	Edge1	Edge2	Edge3	Edge4	Front
WWAN Main	GPRS850	824.2	33	1995	4.05	1.5	54.3	189.7	157.95		<50mm	<50mm	208.22	1562.22	1244.72	N/A
WWAN Main	GPRS1900	1850.2	30	1000	4.05	1.5	54.3	189.7	157.95		<50mm	<50mm	153.28	1507.28	1189.78	N/A
WWAN Main	WCDMA Band II	1852.4	24	251	4.05	1.5	54.3	189.7	157.95		<50mm	<50mm	153.21	1507.21	1189.71	N/A
WWAN Main	WCDMA Band IV	1712.4	24	251	4.05	1.5	54.3	189.7	157.95		<50mm	<50mm	157.63	1511.63	1194.13	N/A
WWAN Main	WCDMA Band V	826.4	24	251	4.05	1.5	54.3	189.7	157.95		<50mm	<50mm	208.00	1562.00	1244.50	N/A
WWAN Main	CDMA BC0	824.7	23.5	224	4.05	1.5	54.3	189.7	157.95		<50mm	<50mm	208.17	1562.17	1244.67	N/A
WWAN Main	CDMA BC1	1851.25	23.5	224	4.05	1.5	54.3	189.7	157.95		<50mm	<50mm	153.24	1507.24	1189.74	N/A
WWAN Main	CDMA BC10	817.9	23.5	224	4.05	1.5	54.3	189.7	157.95		<50mm	<50mm	208.86	1562.86	1245.36	N/A
WWAN Main	LTE Band 2	1860	23.5	224	4.05	1.5	54.3	189.7	157.95		<50mm	<50mm	152.99	1506.99	1189.49	N/A
WWAN Main	LTE Band 4	1720	23.5	224	4.05	1.5	54.3	189.7	157.95		<50mm	<50mm	157.37	1511.37	1193.87	N/A
WWAN Main	LTE Band 5	836.5	23.5	224	4.05	1.5	54.3	189.7	157.95		<50mm	<50mm	207.01	1561.01	1243.51	N/A
WWAN Main	LTE Band 13	782	23.5	224	4.05	1.5	54.3	189.7	157.95		<50mm	<50mm	212.62	1566.62	1249.12	N/A
WWAN Main	LTE Band 17	710	23.5	224	4.05	1.5	54.3	189.7	157.95		<50mm	<50mm	221.02	1575.02	1257.52	N/A
WWAN Main	LTE Band 25	1860	23.5	224	4.05	1.5	54.3	189.7	157.95		<50mm	<50mm	152.99	1506.99	1189.49	N/A

Note(s):

According to KDB 447498 v05 r02, if the calculated Power threshold is less than the output power then SAR testing is required.



Edges and Rear(With Power Back off)

Antenna	Band	Frequency (MHz)	Output Power		Separation Distances(mm)						Calculated Threshold Value					
			dBm	mW	Rear	Edge1	Edge2	Edge3	Edge4	Front	Rear	Edge1	Edge2	Edge3	Edge4	Front
WWAN Main	GPRS850	824.2	28	631	4.05	1.5	54.3	189.7	157.95		<50mm	<50mm	208.22	1562.22	1244.72	N/A
WWAN Main	GPRS1900	1850.2	25	316	4.05	1.5	54.3	189.7	157.95		<50mm	<50mm	153.28	1507.28	1189.78	N/A
WWAN Main	WCDMA Band II	1852.4	18	63	4.05	1.5	54.3	189.7	157.95		<50mm	<50mm	153.21	1507.21	1189.71	N/A
WWAN Main	WCDMA Band IV	1712.4	17	50	4.05	1.5	54.3	189.7	157.95		<50mm	<50mm	157.63	1511.63	1194.13	N/A
WWAN Main	WCDMA Band V	826.4	19	79	4.05	1.5	54.3	189.7	157.95		<50mm	<50mm	208.00	1562.00	1244.50	N/A
WWAN Main	CDMA BC0	824.7	18.5	71	4.05	1.5	54.3	189.7	157.95		<50mm	<50mm	208.17	1562.17	1244.67	N/A
WWAN Main	CDMA BC1	1851.25	15.5	35	4.05	1.5	54.3	189.7	157.95		<50mm	<50mm	153.24	1507.24	1189.74	N/A
WWAN Main	CDMA BC10	817.9	18.5	71	4.05	1.5	54.3	189.7	157.95		<50mm	<50mm	208.86	1562.86	1245.36	N/A
WWAN Main	LTE Band 2	1860	16	40	4.05	1.5	54.3	189.7	157.95		<50mm	<50mm	152.99	1506.99	1189.49	N/A
WWAN Main	LTE Band 4	1720	16	40	4.05	1.5	54.3	189.7	157.95		<50mm	<50mm	157.37	1511.37	1193.87	N/A
WWAN Main	LTE Band 5	836.5	19	79	4.05	1.5	54.3	189.7	157.95		<50mm	<50mm	207.01	1561.01	1243.51	N/A
WWAN Main	LTE Band 13	782	20	100	4.05	1.5	54.3	189.7	157.95		<50mm	<50mm	212.62	1566.62	1249.12	N/A
WWAN Main	LTE Band 17	710	20	100	4.05	1.5	54.3	189.7	157.95		<50mm	<50mm	221.02	1575.02	1257.52	N/A
WWAN Main	LTE Band 25	1860	16	40	4.05	1.5	54.3	189.7	157.95		<50mm	<50mm	152.99	1506.99	1189.49	N/A

Note(s):

1. According to KDB 447498 v05 r02, if the calculated Power threshold is less than the output power then SAR testing is required.

**8.2 For WWAN**

Without Power Back off

Test Configurations	Rear	Edge1	Edge2	Edge3	Edge4
GPRS850	Yes	Yes	Yes	No	No
GPRS1900	Yes	Yes	Yes	No	No
WCDMA Band II	Yes	Yes	Yes	No	No
WCDMA Band IV	Yes	Yes	Yes	No	No
WCDMA Band V	Yes	Yes	Yes	No	No
CDMA BC0	Yes	Yes	Yes	No	No
CDMA BC1	Yes	Yes	Yes	No	No
CDMA BC10	Yes	Yes	Yes	No	No
LTE Band 2	Yes	Yes	Yes	No	No
LTE Band 4	Yes	Yes	Yes	No	No
LTE Band 5	Yes	Yes	Yes	No	No
LTE Band 13	Yes	Yes	Yes	No	No
LTE Band 17	Yes	Yes	Yes	No	No
LTE Band 25	Yes	Yes	Yes	No	No

Note(s):

1. Yes = Testing is Required.
2. No = Testing is not Required.



With Power Back off

Test Configurations	Rear	Edge1	Edge2	Edge3	Edge4
GPRS850	Yes	Yes	Yes	No	No
GPRS1900	Yes	Yes	Yes	No	No
WCDMA Band II	Yes	Yes	No	No	No
WCDMA Band IV	Yes	Yes	No	No	No
WCDMA Band V	Yes	Yes	No	No	No
CDMA BC0	Yes	Yes	No	No	No
CDMA BC1	Yes	Yes	No	No	No
CDMA BC10	Yes	Yes	No	No	No
LTE Band 2	Yes	Yes	No	No	No
LTE Band 4	Yes	Yes	No	No	No
LTE Band 5	Yes	Yes	No	No	No
LTE Band 13	Yes	Yes	No	No	No
LTE Band 17	Yes	Yes	No	No	No
LTE Band 25	Yes	Yes	No	No	No

Note(s):

1. Yes = Testing is Required.
2. No = Testing is not Required.



9 General LTE SAR Test and Reporting Considerations

Item	Description	Information						
1	Identify the operating frequency range of each LTE transmission band used by the device	Band 2						
		TX:1850 – 1910 MHz						
		Band 4						
		TX:1710 – 1755 MHz						
		Band 5						
		TX:824 – 849 MHz						
		Band 13						
		TX:777 – 787 MHz						
		Band 17						
		TX:704 – 716 MHz						
2	Identify the channel bandwidths used in each LTE band; 1.4, 3, 5, 10, 15, 20 MHz etc.	Band 25						
		TX:1850 – 1915 MHz						
		Band	1.4MHz	3 MHz	5 MHz	10 MHz	15MHz	20 MHz
		Band2	✓	✓	✓	✓	✓	✓
		Band4	✓	✓	✓	✓	✓	✓
		Band5	✓	✓	✓	✓	✗	✗
		Band13	✗	✗	✓	✓	✗	✗
		Band17	✗	✗	✓	✓	✗	✗
		Band25	✓	✓	✓	✓	✓	✓
		3	Identify the high, middle and low (H, M, L) channel numbers and channel frequencies for each LTE bandwidth and frequency band	Band 2	Channel Bandwidth			
1.4MHz	3MHz				5MHz	10MHz	15MHz	20MHz
Low	18607/ 1850.7			18615/ 1851.5	18625/ 1852.5	18650/ 1855	18675/ 1857.5	18700/ 1860
Mid	18900/1 1880			18900/1 880	18900/ 1880	18900/ 1880	18900/ 1880	18900/ 1880
High	19192/ 1909.2			19184/ 1908.4	19175/ 1907.5	19150/ 1905	19125/ 1902.5	19100/ 1900
Band 4	Channel Bandwidth							
	1.4MHz			3MHz	5MHz	10MHz	15MHz	20MHz
Low	19957/ 1710.7			19965/ 1711.5	19975/ 1712.5	20000/ 1715	20025/ 1717.5	20050/ 1720
Mid	20175/ 1732.5			20175/ 1732.5	20175/ 1732.5	20175/ 1732.5	20175/ 1732.5	20175/ 1732.5
High	20392/ 1754.2			20384/ 1753.4	20375/ 1752.5	20350/ 1750	20325/ 1747.5	20300/ 1745
Band 5	Channel Bandwidth							
	1.4MHz			3MHz	5MHz	10MHz	15MHz	20MHz
Low	20407/ 824.7			20415/ 825.5	20425/ 826.5	20450/ 829		
Mid	20525/ 836.5			20525/ 836.5	20525/ 836.5	20525/ 836.5		
High	20642/ 848.2			20643/ 847.4	20625/ 846.5	20600/ 844		



KDB 941225 D05 SAR for LTE Devices V02 (Continued)

Item	Description	Information						
3	Identify the high, middle and low (H, M, L) channel numbers and channel frequencies for each LTE bandwidth and frequency band	Band 13	Channel Bandwidth					
			1.4MHz	3MHz	5MHz	10MHz	15MHz	20MHz
		Low			23205/ 779.5			
		Mid			23230/ 782	23230/ 782		
		High			23255/ 784.5			
		Band 17	Channel Bandwidth					
			1.4MHz	3MHz	5MHz	10MHz	15MHz	20MHz
		Low			23755/ 706.5	23780/ 709		
		Mid			23790/ 710	23790/ 710		
		High			23825/ 713.5	23800/ 711		
		Band 25	Channel Bandwidth					
			1.4MHz	3MHz	5MHz	10MHz	15MHz	20MHz
		Low			23755/ 706.5	23780/ 709		
		Mid			23790/ 710	23790/ 710		
		High			23825/ 713.5	23800/ 711		
4	Specify the UE category and uplink modulations used	UE Category: 3 Uplink Modulations: QPSK, 16QAM						
5	Descriptions of the LTE transmitter and antenna implementation; and also identify whether it is a standalone transmitter operating independently of other wireless transmitters in the device or sharing hardware components and/or antenna(s) with other transmitters etc	The Main antenna is used for LTE and other wireless modes (GPRS/EGPRS/WCDMA/CDMA) for both Transmit and Receive.						
6	Identify the LTE voice/data requirements in each operating mode and exposure condition with respect to head and body test configurations, antenna locations, handset flip-cover or slide positions, antenna diversity conditions etc.	Data only device. Exposure Conditions: Body – Rear side, Edge 1, Edge 2, Edge 3, Edge 4 of DUT at separation distance of 0 cm from the flat phantom						



KDB 941225 D05 SAR for LTE Devices V02 (Continued)

Item	Description	Information																																						
7	Identify if Maximum Power Reduction(MPR) is implemented as an optional or permanent feature, i.e., built-in by design: 1. MPR may be considered during SAR testing only when the maximum output power is permanently limited by the MPR implemented within the device, according to the RB (resource block) configurations specified in 3GPP/LTE standards. 2. Regardless of network requirements, only those RB configurations allowed (see 3GPP standards) for the channel bandwidth and modulation combinations may be tested with MPR active. Configurations with RB allocations less than the RB thresholds required by 3GPP must be tested without MPR. 3. A-MPR (additional MPR) must be disabled during SAR testing.	As per 3GPP 36.101 v9.11.0 (2012-03), Release 9 Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 3 <table><tr><th rowspan="2">Modulation</th><th colspan="6">Channel bandwidth / Transmission bandwidth (N_{RB})</th><th rowspan="2">MPR (dB)</th></tr><tr><th>1.4 MHz</th><th>3.0 MHz</th><th>5 MHz</th><th>10 MHz</th><th>15 MHz</th><th>20 MHz</th></tr><tr><td>QPSK</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 1</td></tr><tr><td>16 QAM</td><td>≤ 5</td><td>≤ 4</td><td>≤ 8</td><td>≤ 12</td><td>≤ 16</td><td>≤ 18</td><td>≤ 1</td></tr><tr><td>64 QAM</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 2</td></tr></table> MPR is permanently built-in by design A-MPR was disabled	Modulation	Channel bandwidth / Transmission bandwidth (N_{RB})						MPR (dB)	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1	16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1	64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2
Modulation	Channel bandwidth / Transmission bandwidth (N_{RB})						MPR (dB)																																	
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz																																		
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1																																	
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1																																	
64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2																																	
8	When power reduction is required for one or more LTE modes to satisfy SAR compliance for simultaneous transmission or other equipment certification and operating requirements, maximum average conducted output power measurement results for each power reduction mode applicable to the simultaneous voice/data transmission configurations for such wireless configurations and frequency bands are required.	No.																																						



KDB 941225 D05 SAR for LTE Devices V02 (Continued)

Item	Description	Information
9	Based on the design specifications and other information available to the manufacturer, through measurement and analysis during product development, when the maximum output power for different RB allocations and RB offset conditions within a channel bandwidth, modulation, or across the channels in a frequency band varies by more than 1 dB.	Refer to Section 14.
10	The maximum average conducted output power should be measured for the required test channels, for each channel bandwidth and uplink modulation, in each frequency band, using the following configurations to support the SAR test reduction and exclusion applied in the evaluation: 1. 100% RB allocation 2. 1 RB and also 50% RB allocation, offset to the upper and lower edges of each required test channel and also to the middle of the channel bandwidth	Refer to Section 14.
11	Spectrum plots should be included in SAR reports to demonstrate the tested RB allocations have been established correctly at the maximum output power conditions.	Refer to Section 14.



10 Power Reduction by Proximity Sensing

A proximity sensor for power reduction is implemented in this device to address RF exposure compliance when the cellular antenna is positioned close to the user's body. The sensor's mechanical structure is designed to fit within the enclosure design used in this device and also extended around the edge and top of the antenna element in order to optimize sensitivity in these orientations. This design combines the antenna printed directly on a plastic part and proximity sensor FPC (Flexible Printed Circuit) bonded together into one piece. According to KDB 616217 D04 SAR for laptop and tablets v01r01 6)

10.1 Procedures for determining proximity sensor triggering distances

The following procedures should be applied to determine proximity sensor triggering distances for the back surface and individual edges of a tablet. Conducted power is monitored qualitatively to identify the general triggering characteristics and recorded quantitatively, versus spacing, as required by the procedures. Unless there is built-in test software that reports the triggering conditions and enables the power levels to be confirmed separately, monitoring of conducted power during the triggering tests typically requires internal access to the antenna ports inside the tablet, which may interfere with the triggering tests.

- (1) The relevant transmitter should be set to operate at its normal maximum output power.
- (2) The entire back surface or edge of the tablet is positioned below a flat phantom filled with the required tissue-equivalent medium, and positioned at least 20 mm further than the distance that triggers power reduction.
- (3) It should be ensured that the cables required for power measurements are not interfering with the proximity sensor. Cable losses should be properly compensated to report the measured power results.
- (4) The back surface or edge is moved toward the phantom in 3 mm steps until the sensor triggers.
- (5) The back surface or edge is then moved back (further away) from the phantom by at least 5 mm or until maximum output power is returned to the normal maximum level.
- (6) The back surface or edge is again moved toward the phantom, but in 1 mm steps, until it is at least 5 mm past the triggering point or touching the phantom. If 1 mm resolution is not suitable for the sensor triggering sensitivity, a KDB inquiry should be submitted to determine alternative test configurations.
- (7) If the tablet is not touching the phantom, it is moved in 3 mm steps until it touches the phantom to confirm that the sensor remains triggered and the maximum power stays reduced.
- (8) The process is then reversed by moving the tablet away from the phantom according to steps 4) to 7), to determine triggering release, until it is at least 10 mm beyond the point that triggers the return of normal maximum power.
- (9) The measured output power within ± 5 mm of the triggering points, or until the tablet is touching the phantom, for movements to and from the phantom should be tabulated in the SAR report.
- (10) If the sensor design and implementation allow additional variations for triggering distance tolerances, multiple samples should be tested to determine the most conservative distance required for SAR evaluation.
- (11) To ensure all production units are compliant, it is generally necessary to reduce the triggering distance determined from the triggering tests by 1 mm, or more if it is necessary, and use the smallest distance for movements to and from the phantom, minus 1 mm, as the sensor triggering distance for determining the SAR measurement distance.



10.2 Procedures for determining antenna and proximity sensor coverage

The sensing regions are usually limited to areas near the sensor element. If a sensor is spatially offset from the antenna(s), it is necessary to verify sensor triggering for conditions where the antenna is next to the user but the sensor is laterally further away to ensure sensor coverage is sufficient for reducing the power to maintain compliance. The following are used to determine if additional SAR measurements may be necessary due to sensor and antenna offset. 25 These procedures do not apply and are not required for configurations where the antenna and sensor are collocated and the peak SAR location is overlapping with the sensor.

- (1) The back surface or edge of the tablet is positioned at a test separation distance less than or equal to the distance required for back surface or edge triggering, with both the antenna and sensor pad located at least 20 mm laterally outside the edge (boundary) of the phantom, along the direction of maximum antenna and sensor offset. For the back surface, if the direction of maximum offset is not aligned with the tablet coordinates (physical edges) the tablet test position would not be aligned with the phantom coordinates (orientations). Each applicable tablet edge should be positioned perpendicularly to the phantom to determine sensor coverage. For antennas and/or sensors located near the corner of a tablet, both adjacent edges must be considered.
- (2) The similar sequence of steps applied to determine sensor triggering distance in section 6.2 are used to verify back surface and edge sensor coverage by moving the tablet (sensor and antenna) horizontally toward the phantom while maintaining the same vertical separation between the back surface or edge and the phantom.
- (3) After the exact location where triggering of power reduction is determined, with respect to the sensor and antenna, the tablet movement should be continued, in 3 mm increments, until both the sensor and antenna(s) are fully under the phantom and at least 20 mm inside the phantom edge.
- (4) The process is then repeated from the opposite direction, starting at the other end of the maximum antenna and sensor offset, by rotating the tablet 180° along the vertical axis.
- (5) The triggering points should be documented graphically, with the antenna and sensor clearly identified, along with all relevant dimensions.
- (6) If the subsequently measured peak SAR location for the antenna is not between the triggering points, established by the sensor coverage tests from opposite ends of the antenna and sensor, additional SAR tests may be required for conditions where only part of the back surface or edge of a tablet corresponding to the antenna is in proximity to the user and the sensor may not be triggering as desired. A KDB inquiry must be submitted by the test lab to determine if additional tests are required and the proper test configurations to use for testing. This may include situations where the sensor coverage region is too small for the antenna, the sensor is located too far away from the antenna, the sensor location is insufficient to cover multiple antennas or the antenna is at the corner of a tablet etc.



10.3 Proximity Sensor Status Table of trigger distance

As per the KDB 616217 D04 SAR for laptop and tablets v01r0, 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 – Rear Surface	Proximity Sensor Status – Top-Edge
30	OFF	OFF
27	OFF	OFF
25	OFF	OFF
24	OFF	OFF
23	OFF	OFF
22	OFF	OFF
21	OFF	OFF
20	OFF	ON
19	OFF	ON
18	OFF	ON
17	OFF	ON
16	OFF	ON
15	ON	ON
14	ON	ON
13	ON	ON
12	ON	ON
11	ON	ON
10	ON	ON
9	ON	ON
8	ON	ON
7	ON	ON
6	ON	ON
5	ON	ON
4	ON	ON
3	ON	ON
2	ON	ON
1	ON	ON
0	ON	ON

Rear Power Back-off

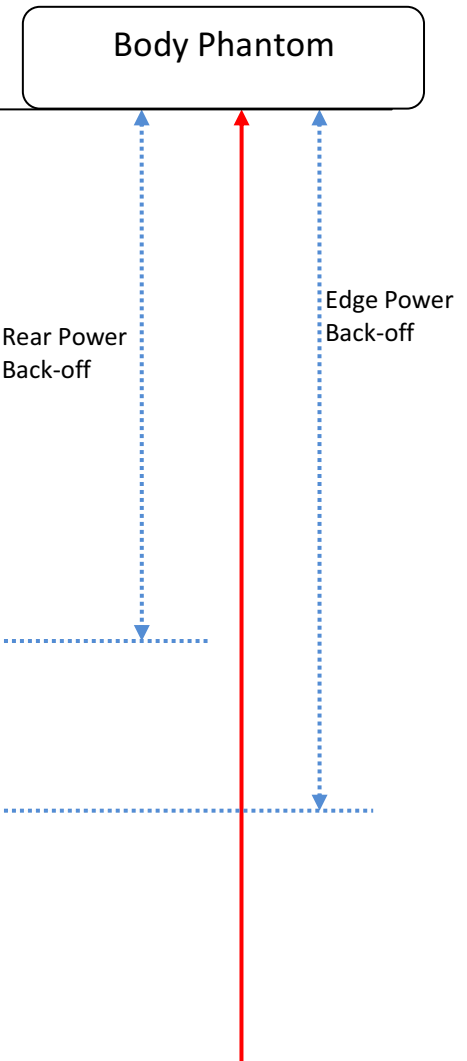
Edge Power Back-off

Body Phantom



Proximity Sensor Status Table when DUT is moving away the phantom

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

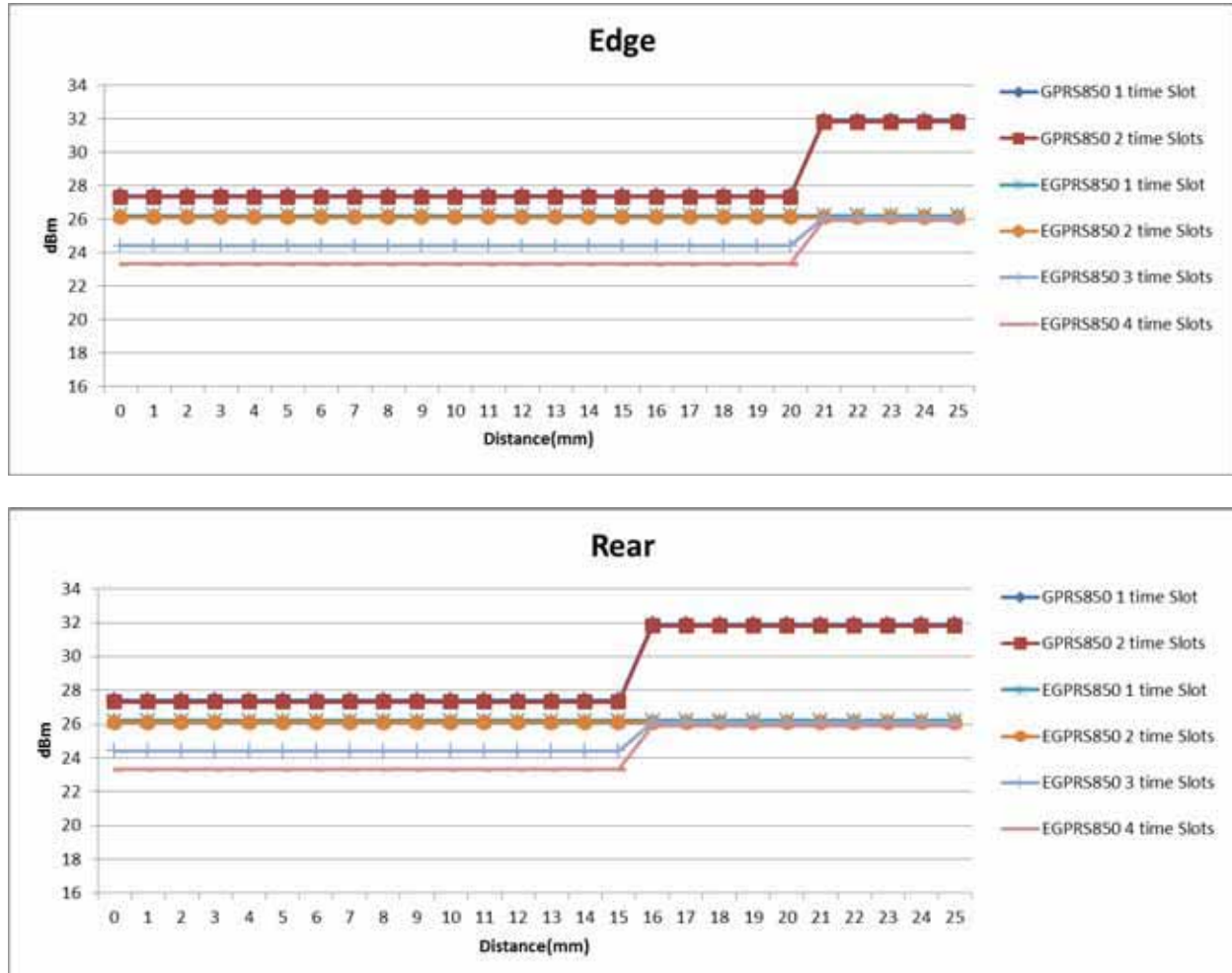




10.4 Power Reduction per Air-interface

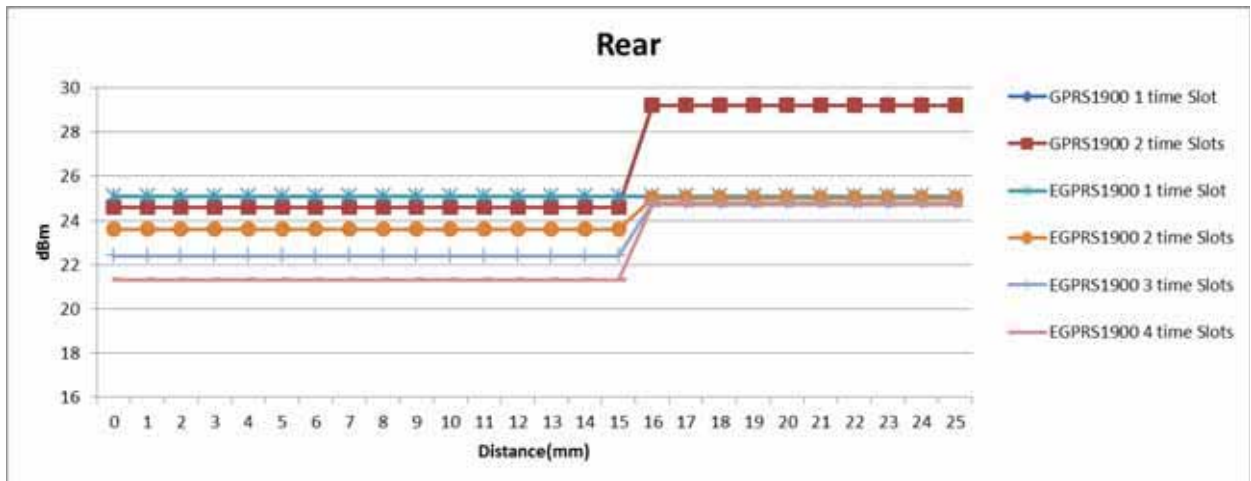
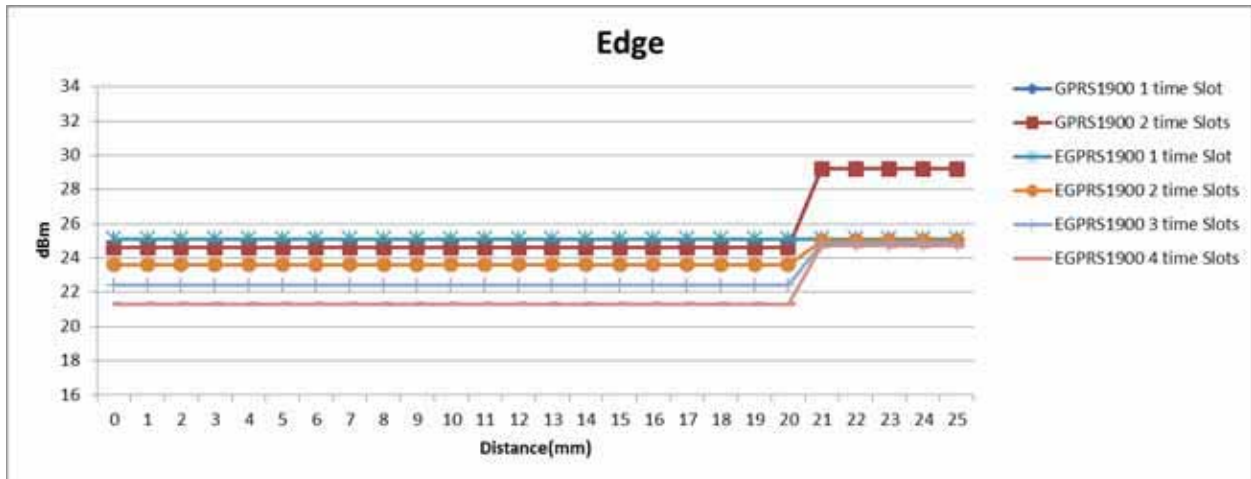
The following graphs show the power level and the distance from the DUT to the flat phantom for the Top-Edge and Rear Surface.

GSM850 Band



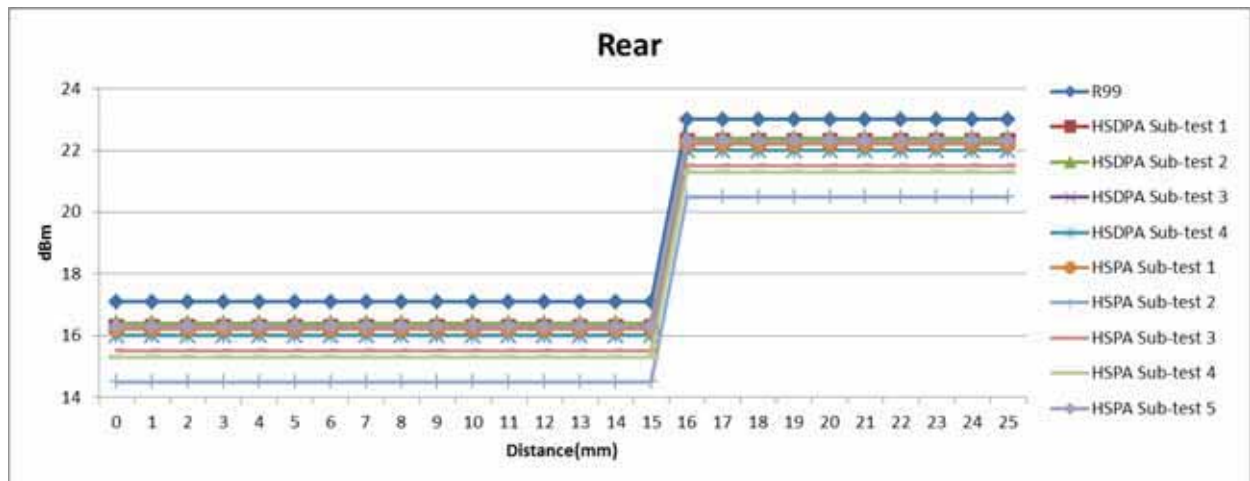
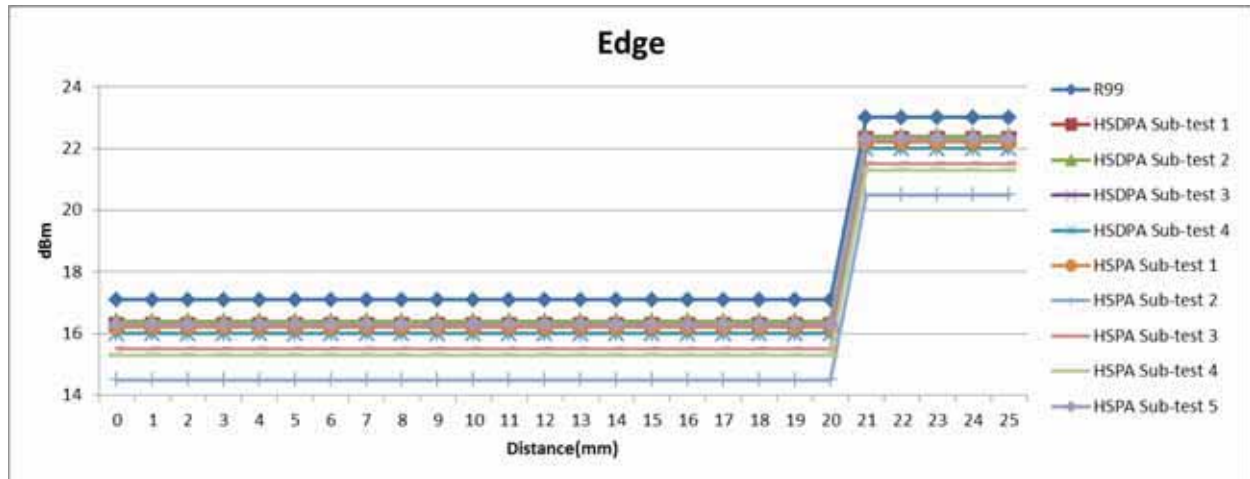


GSM1900 Band



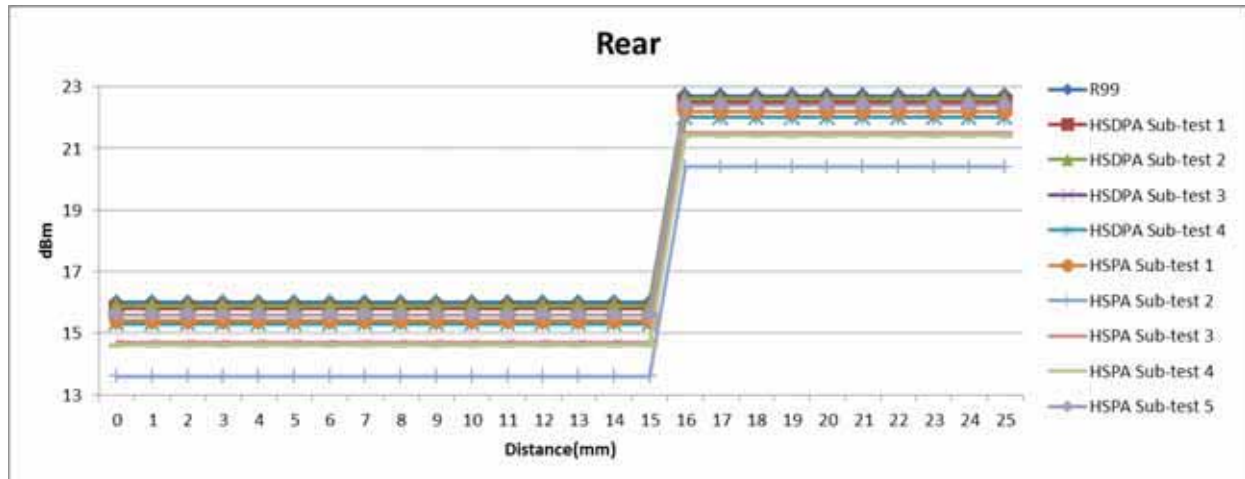
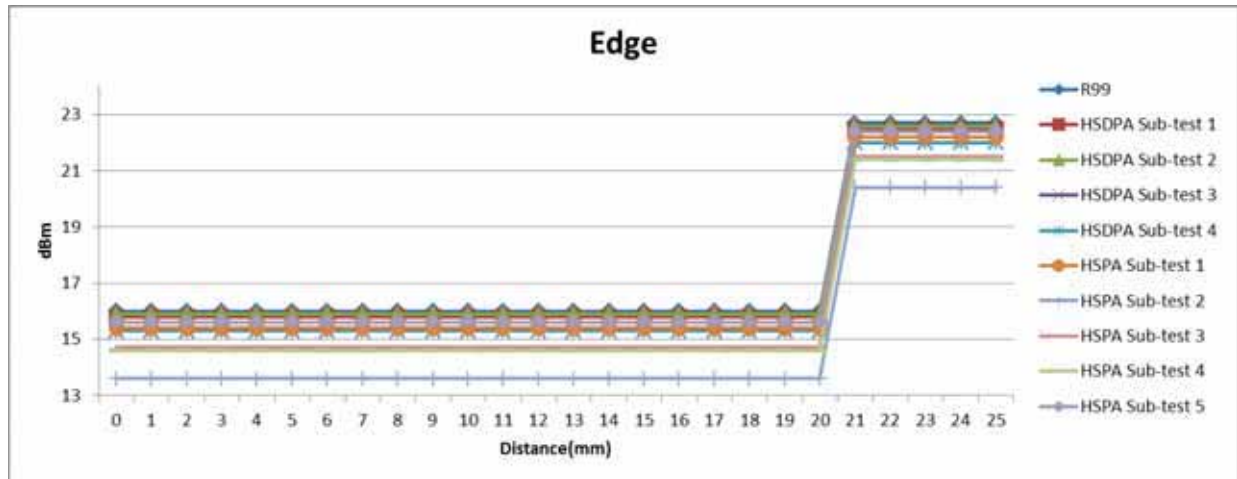


WCDMA Band II



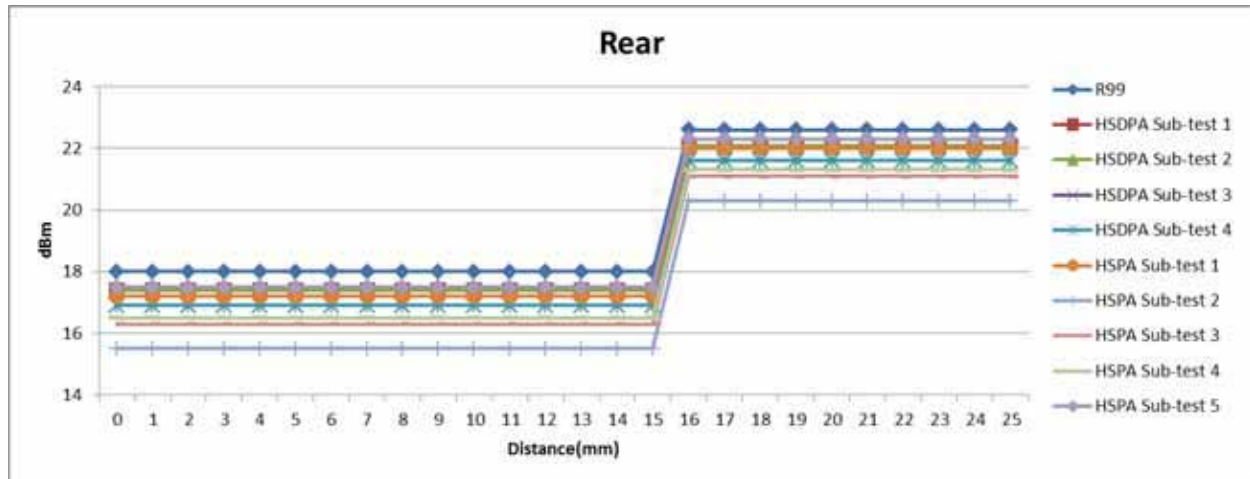
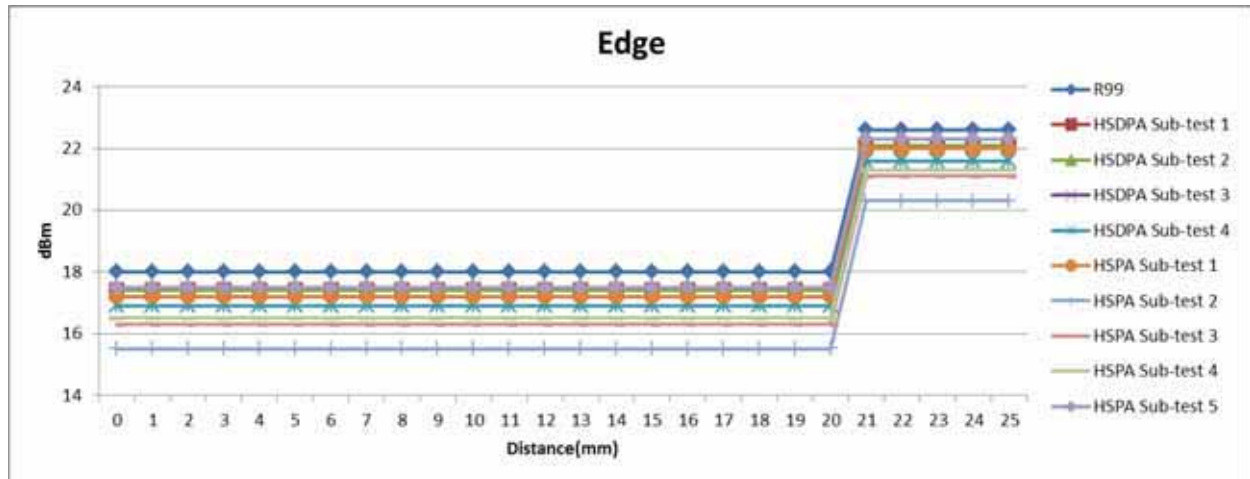


WCDMA Band IV



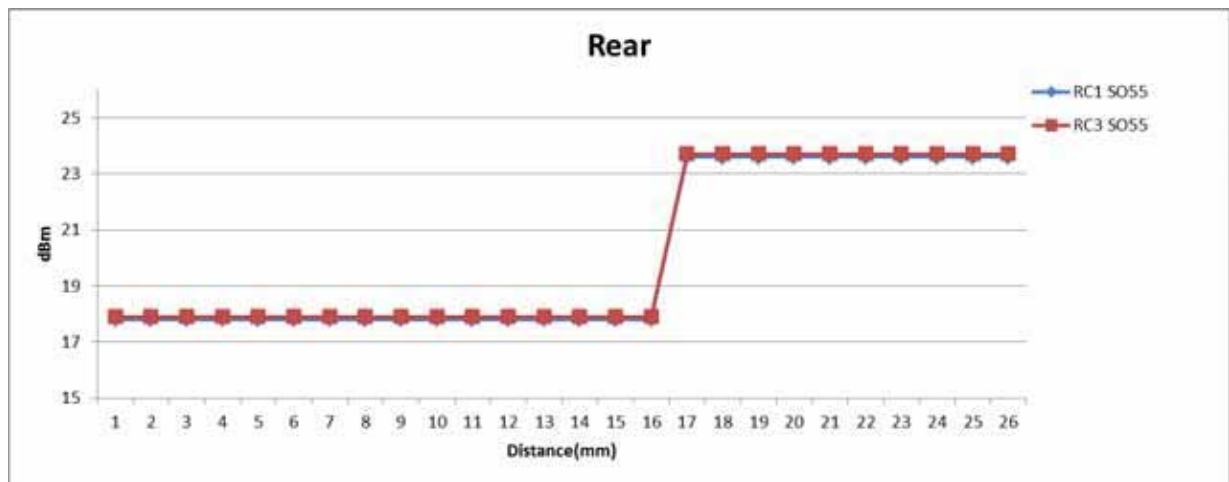
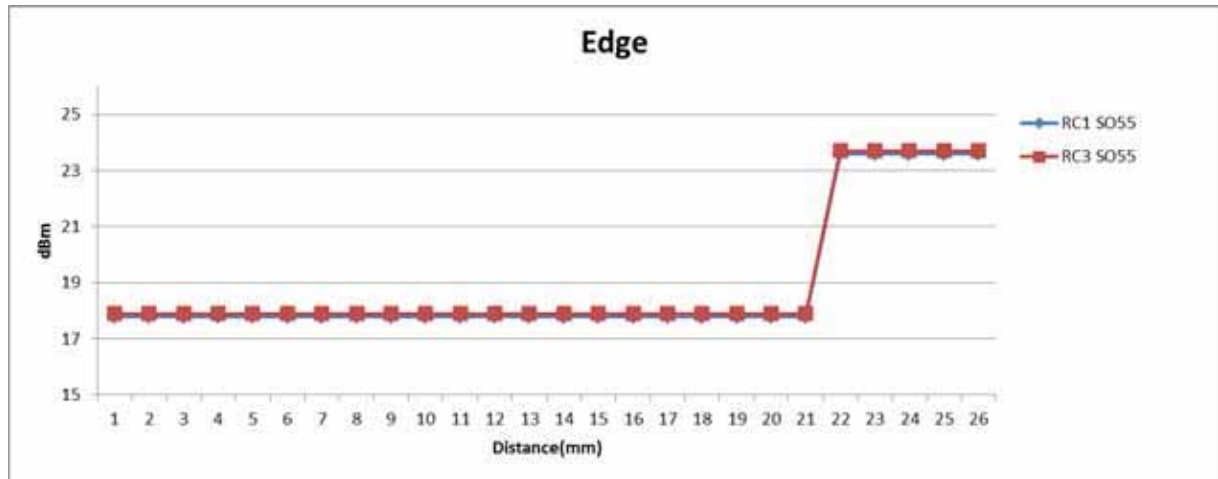


WCDMA Band V



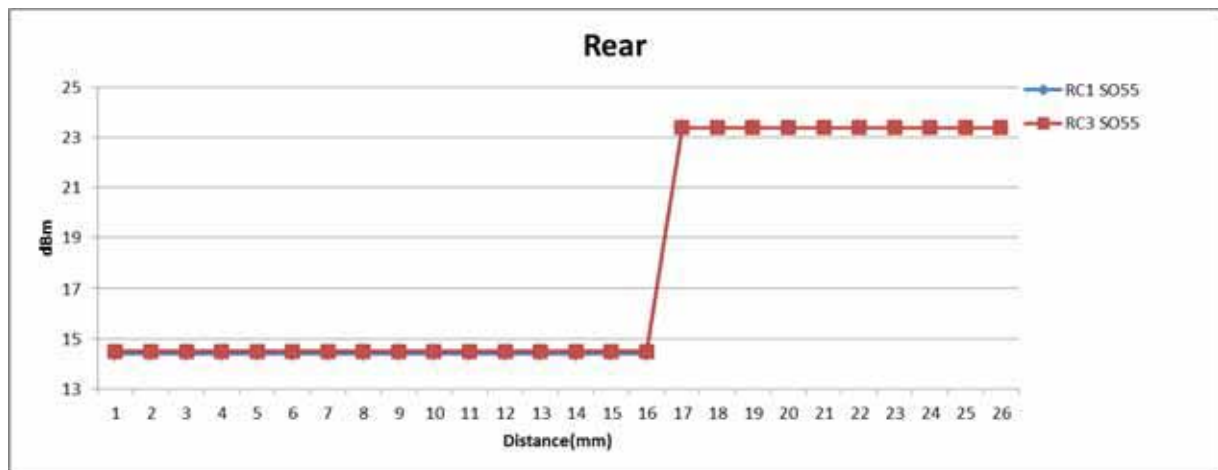
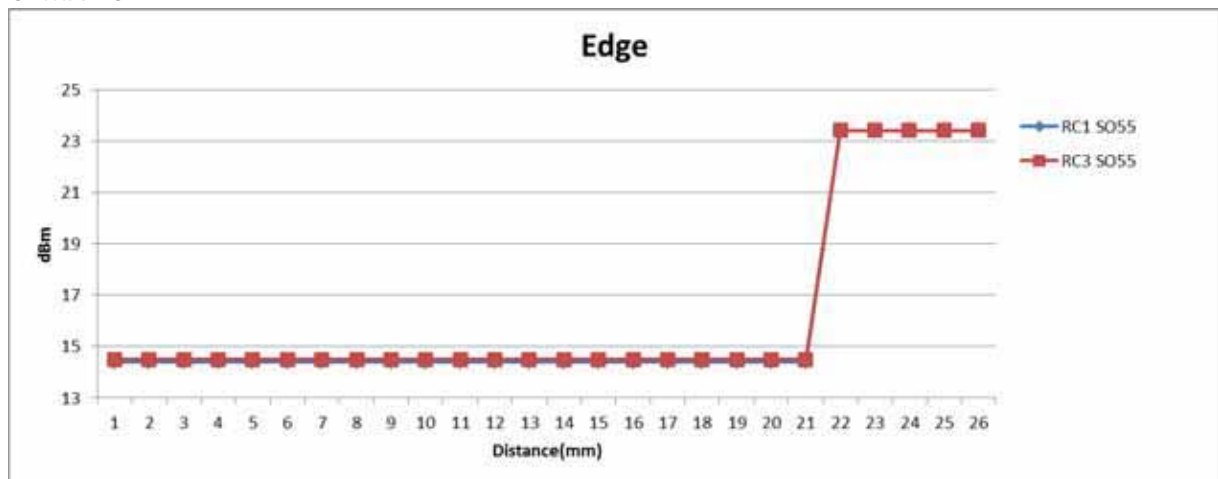


CDMA BC0



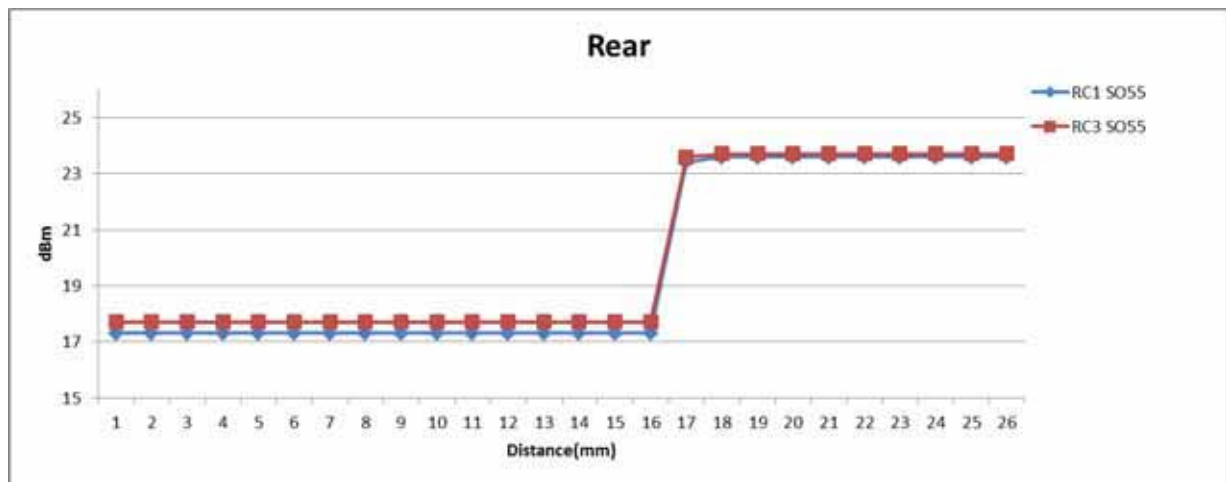
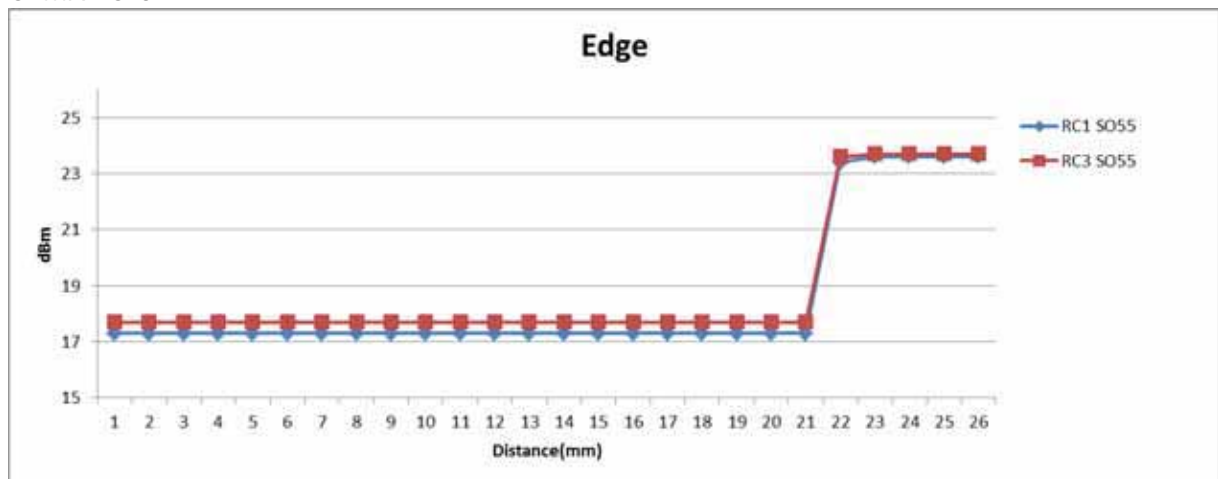


CDMA BC1



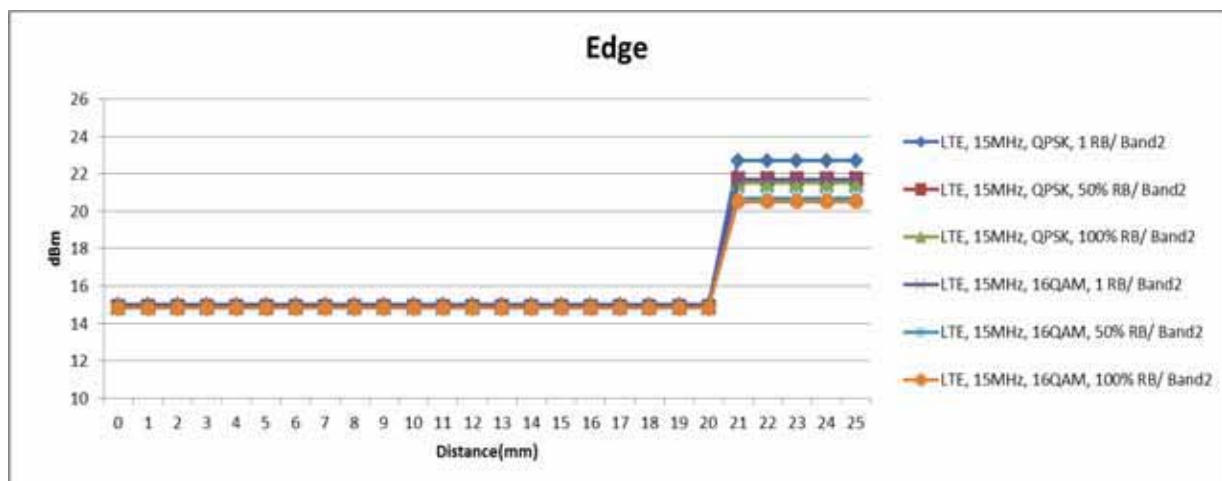
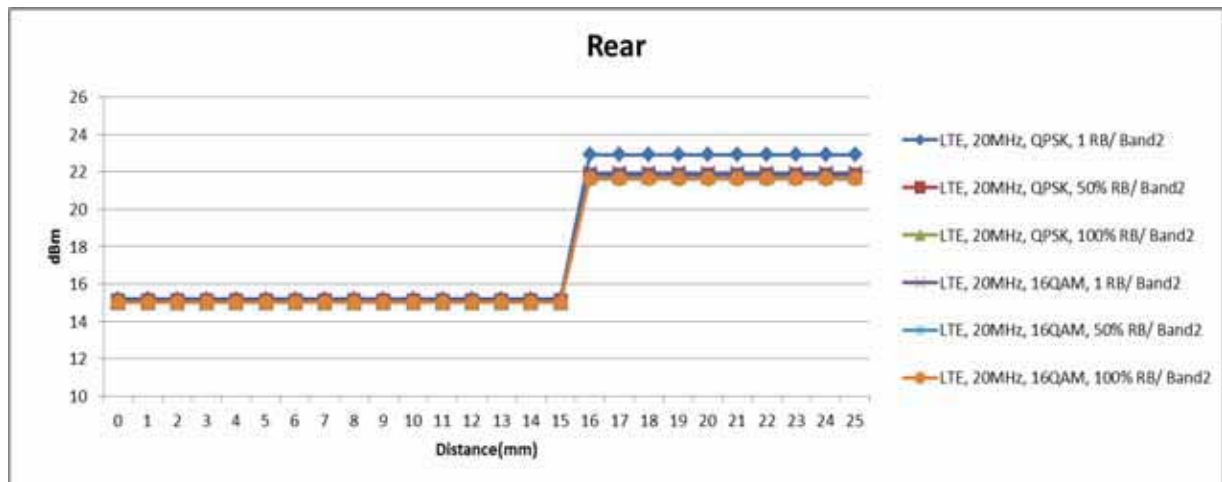
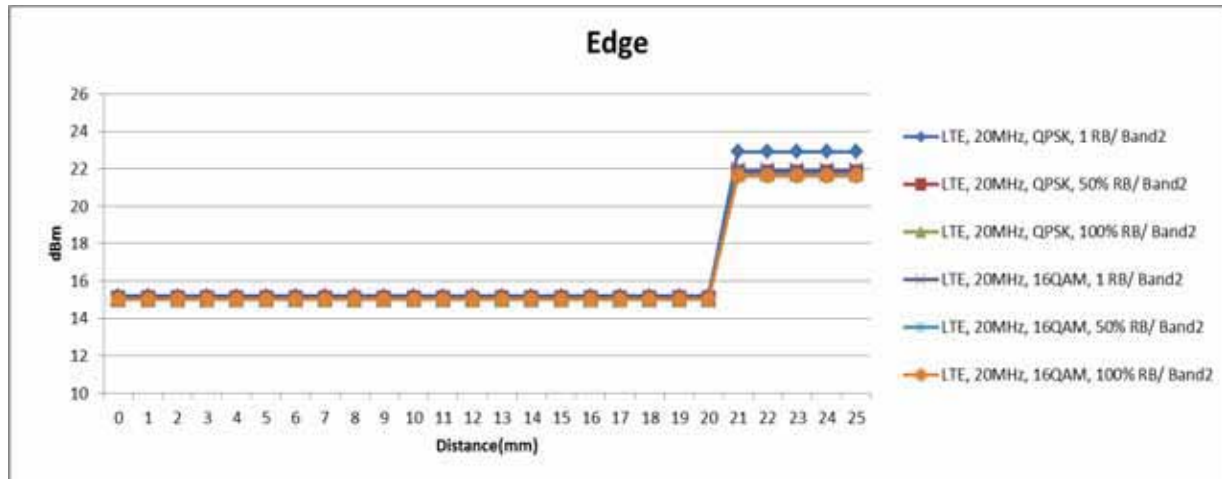


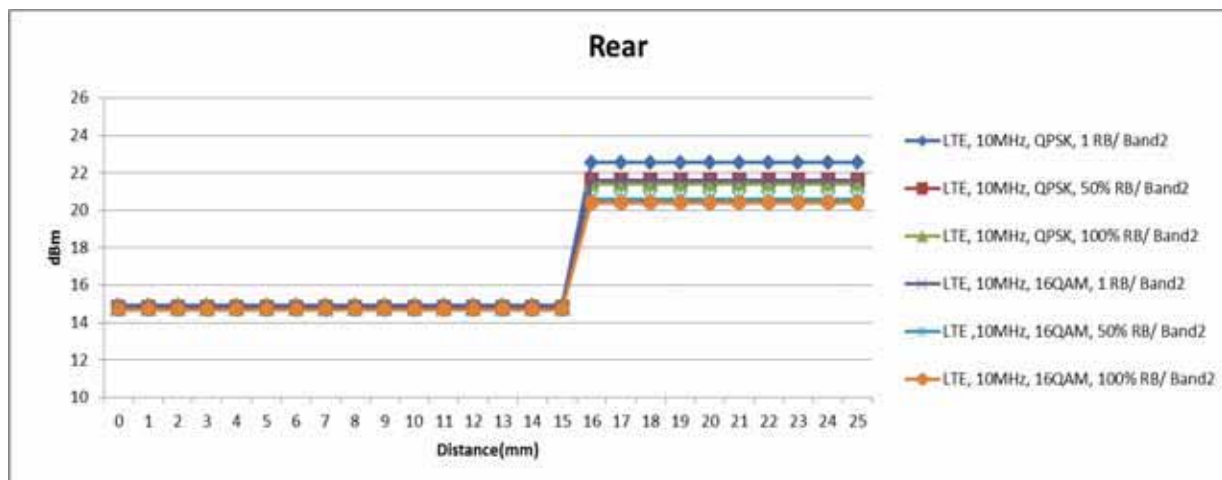
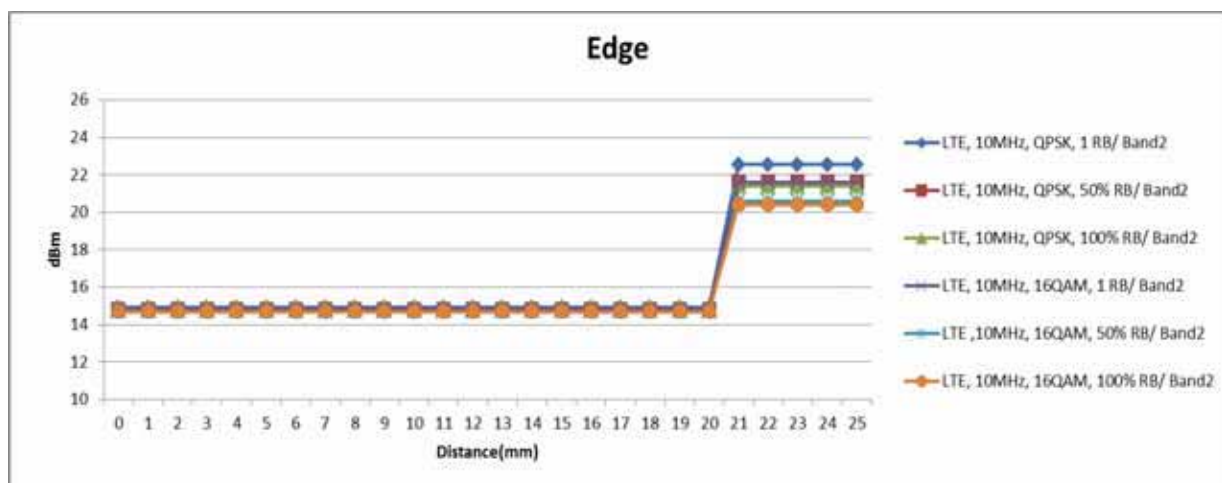
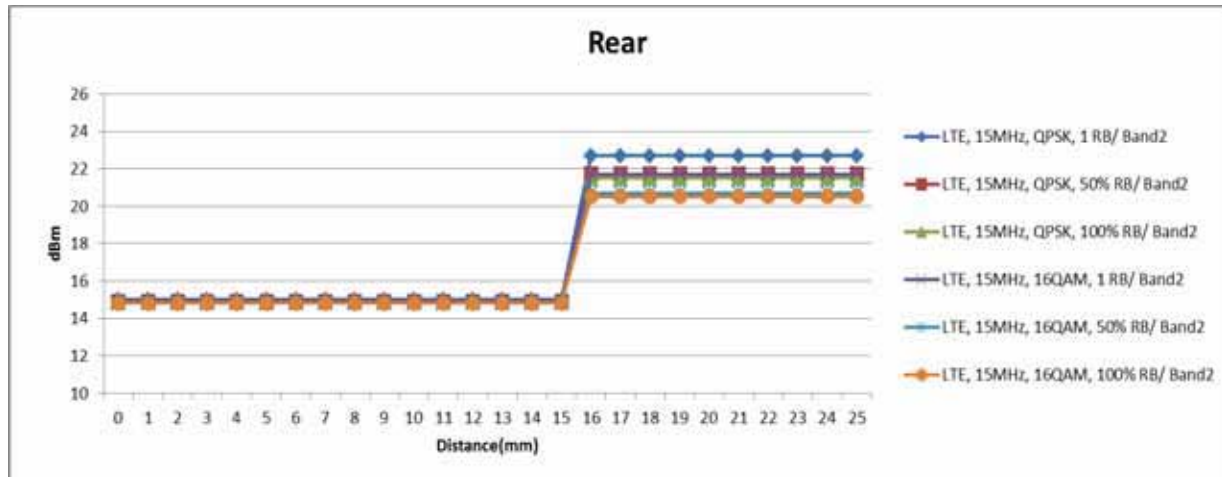
CDMA BC10

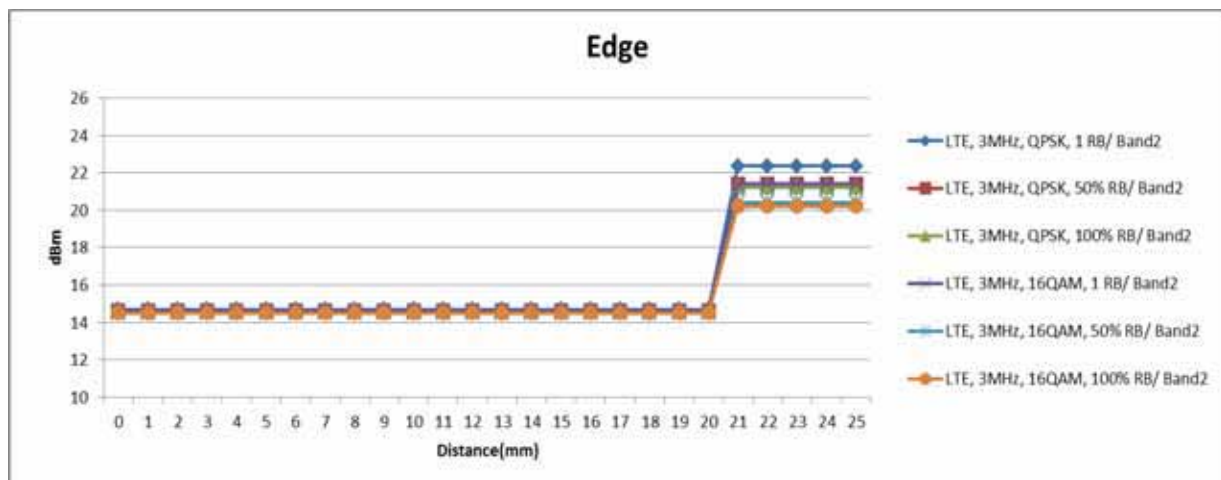
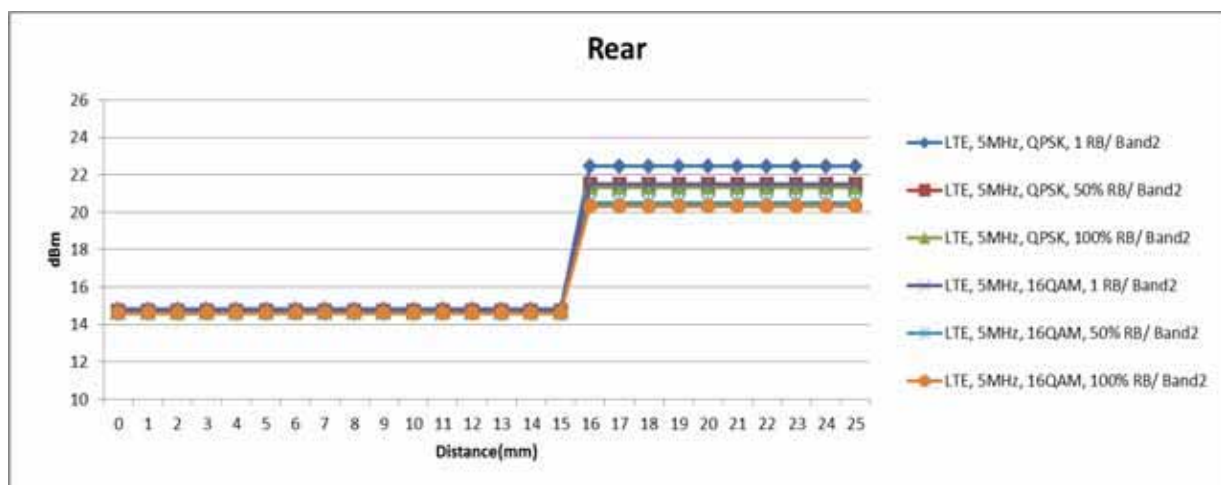
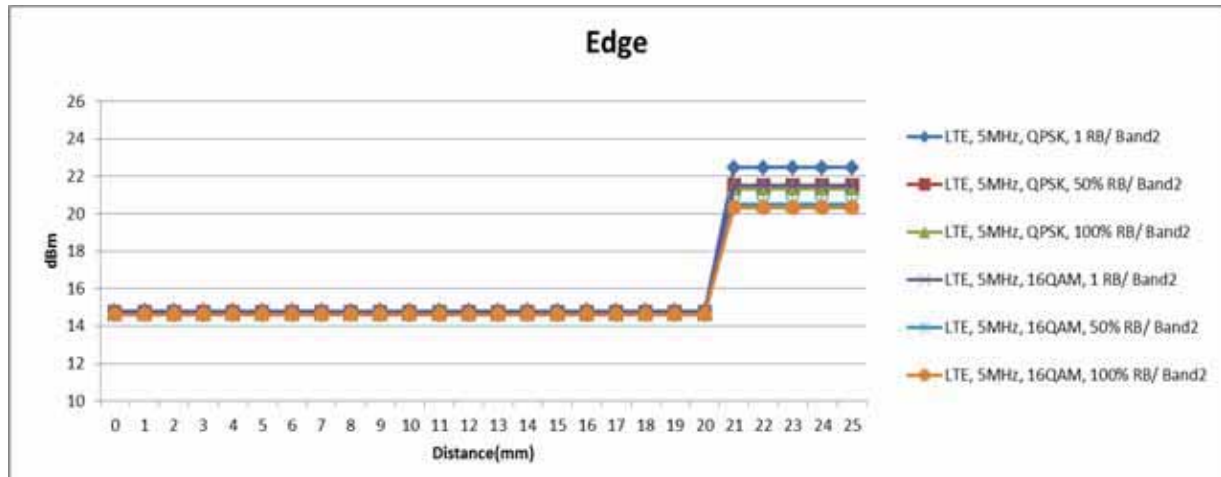


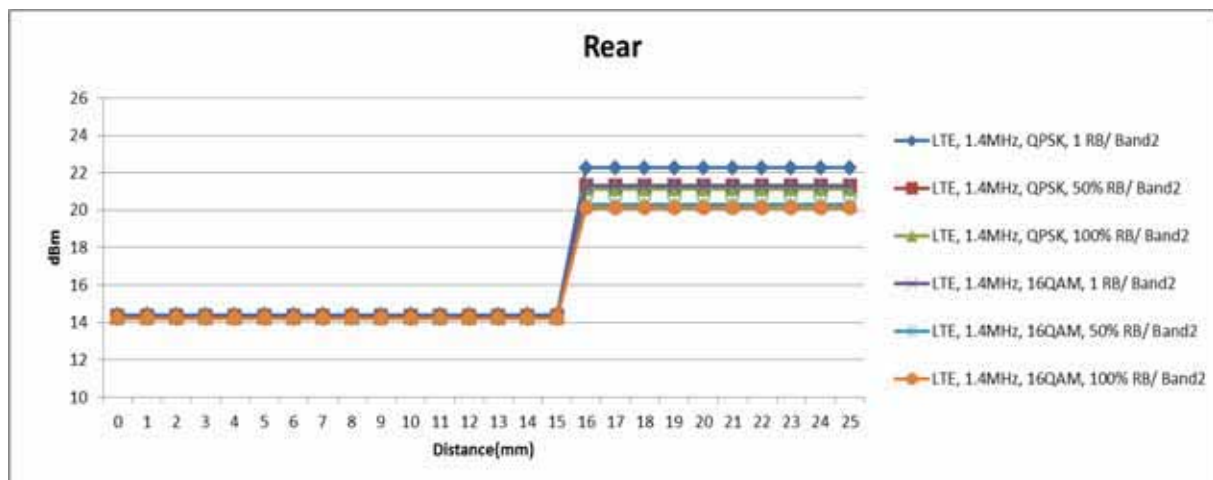
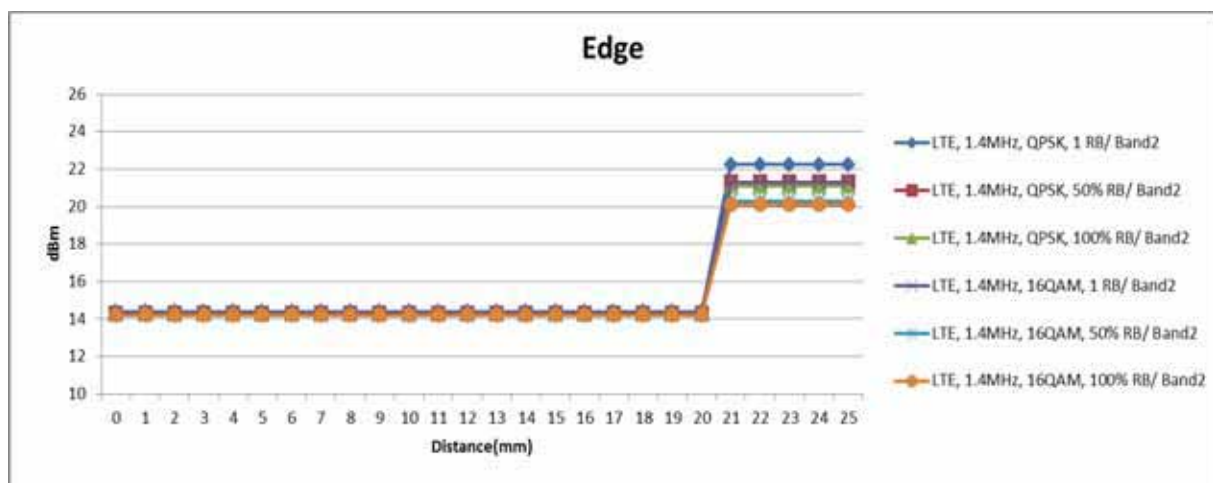
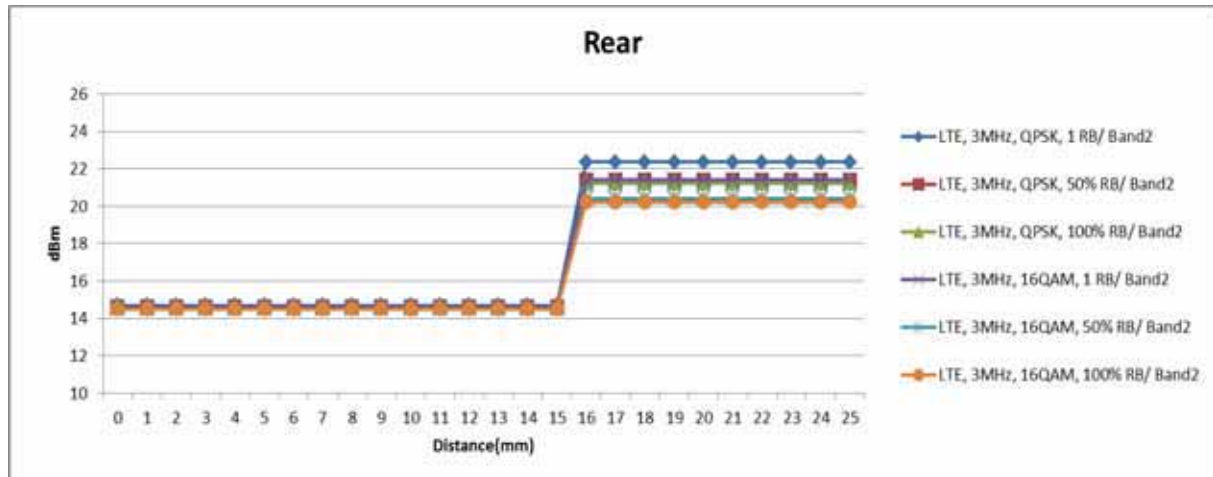


LTE Band 2



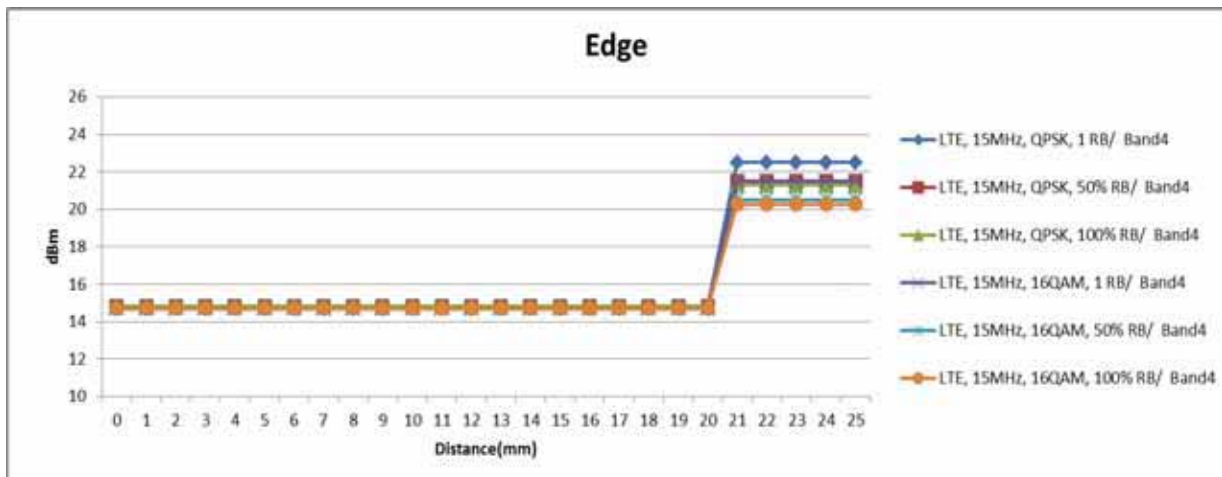
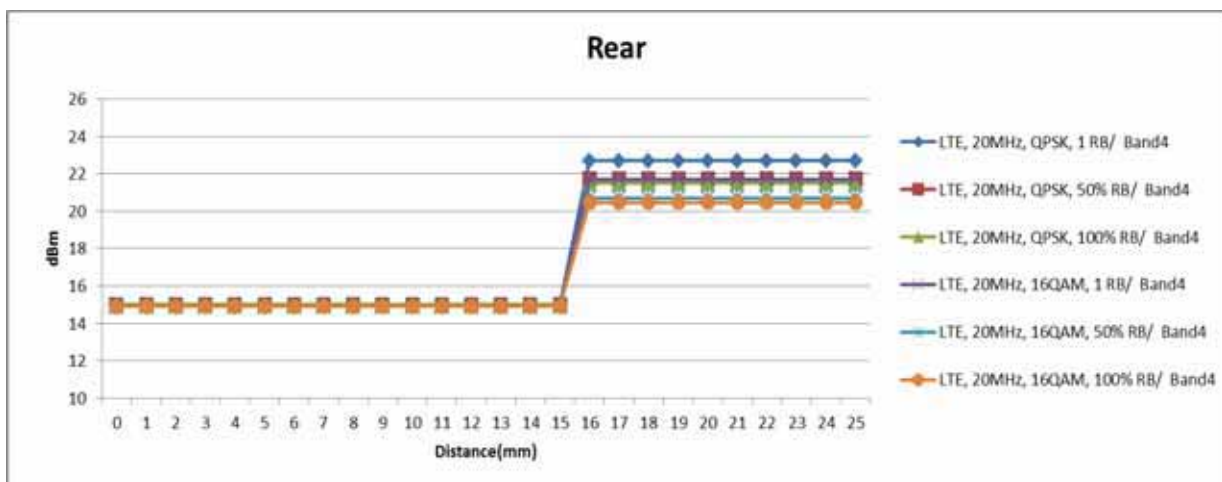
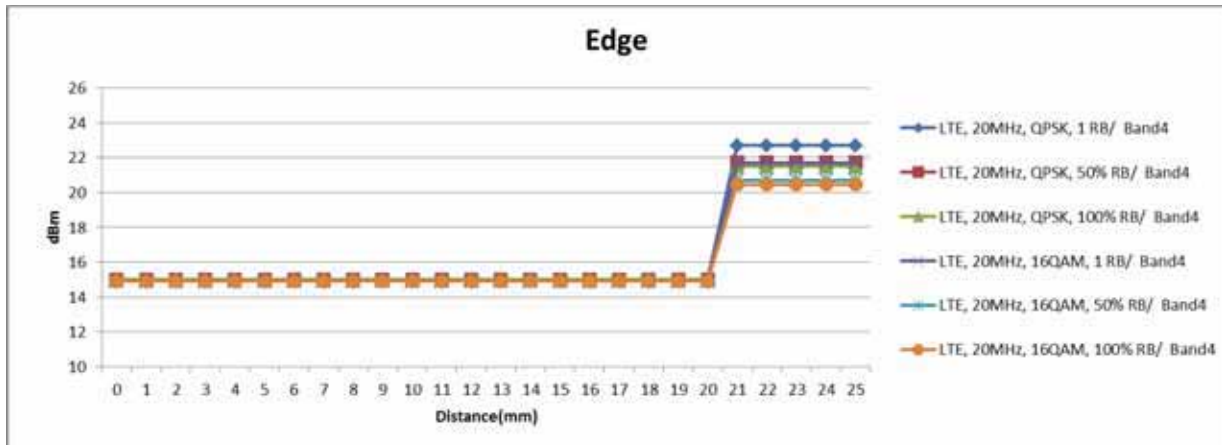


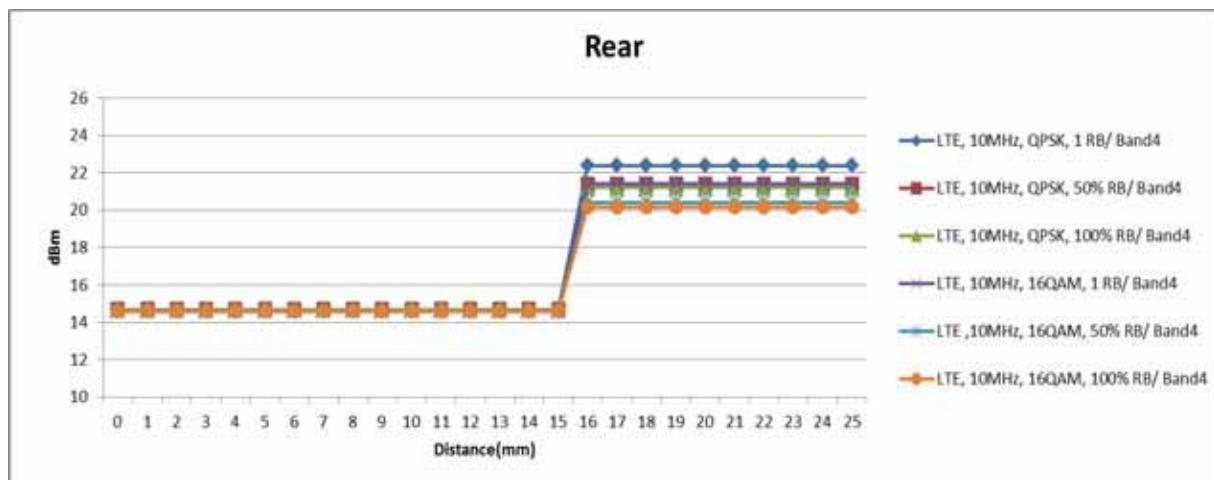
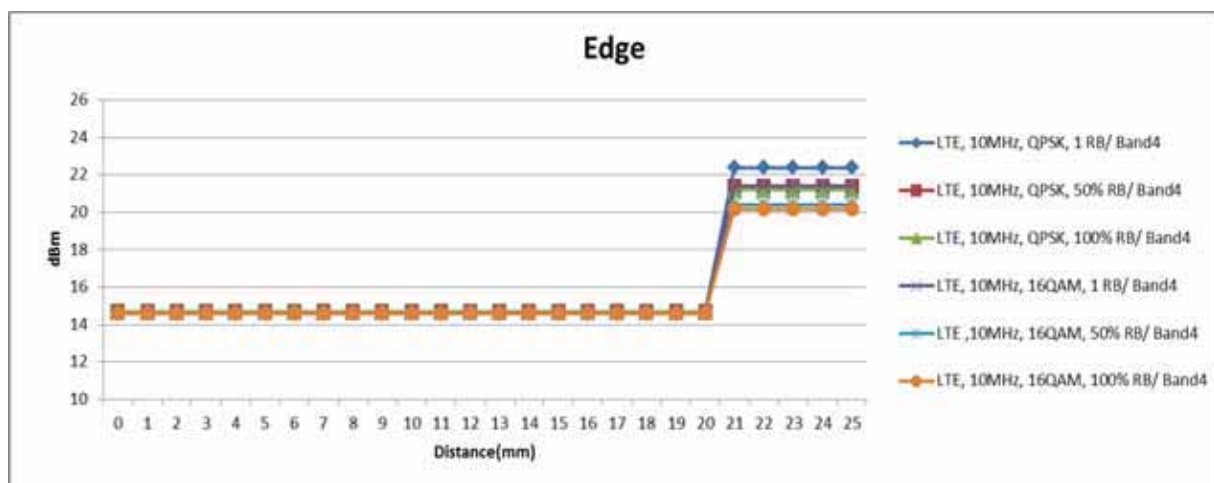
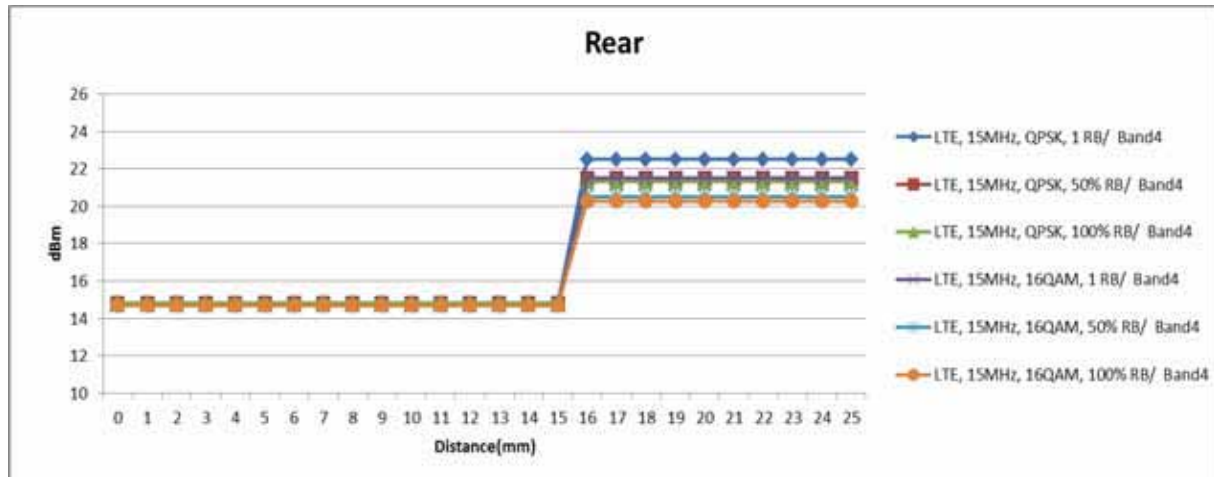


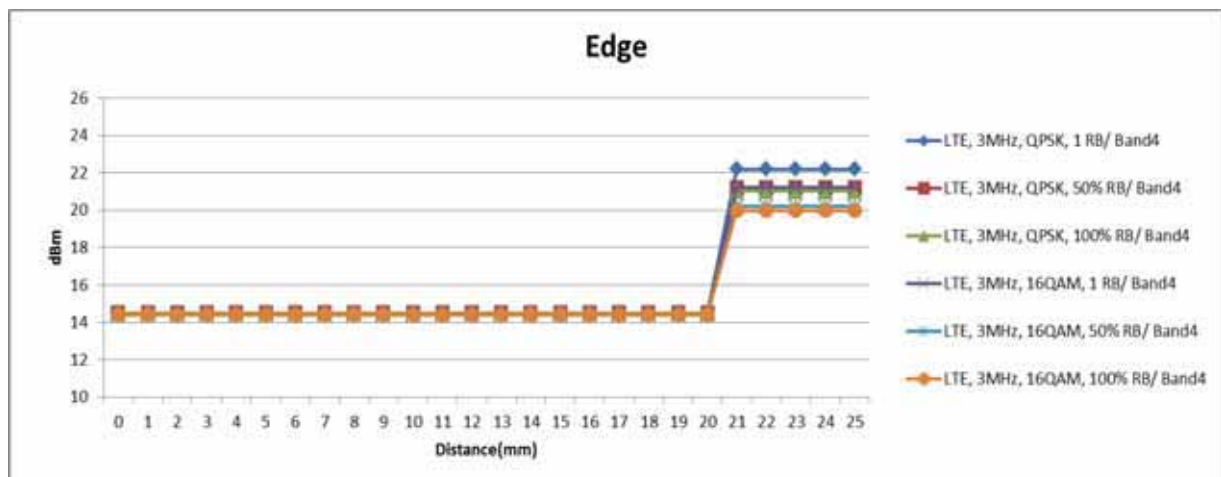
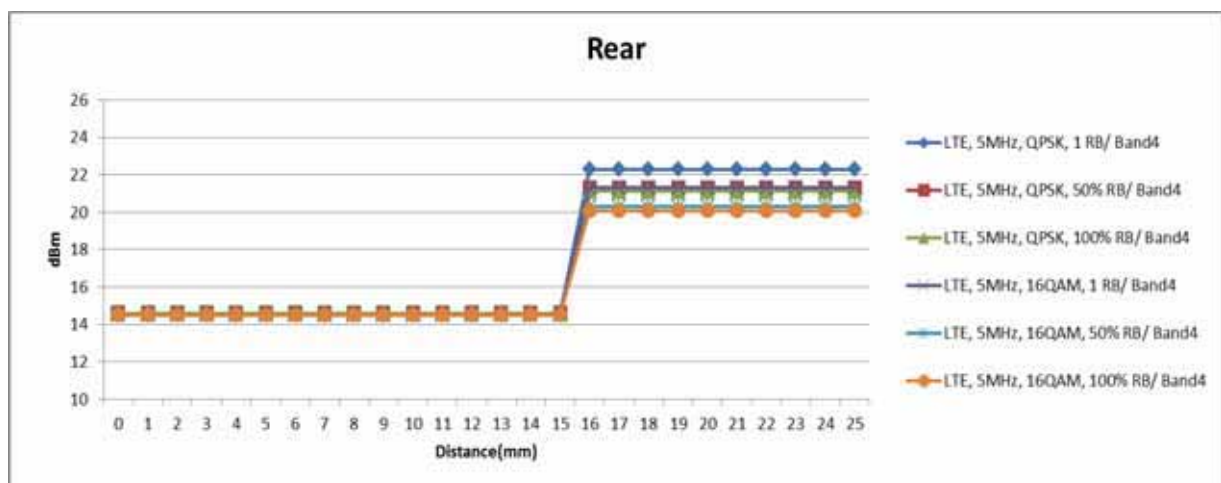
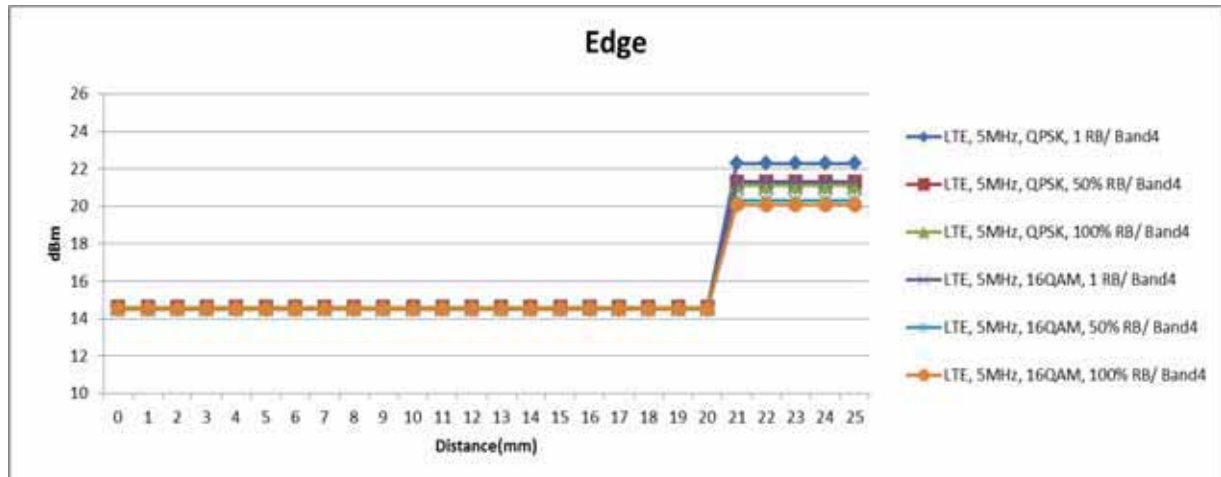


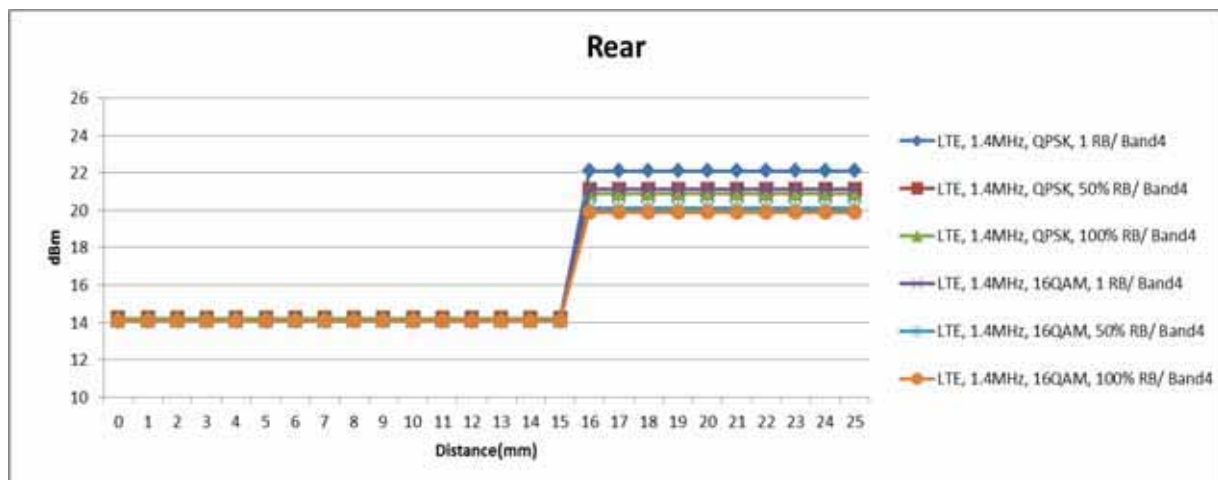
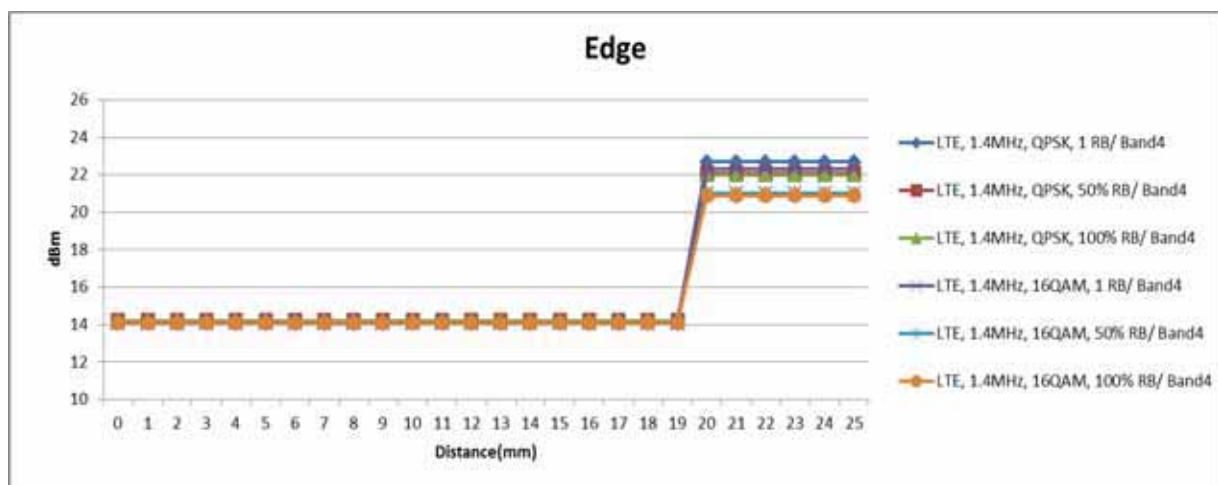
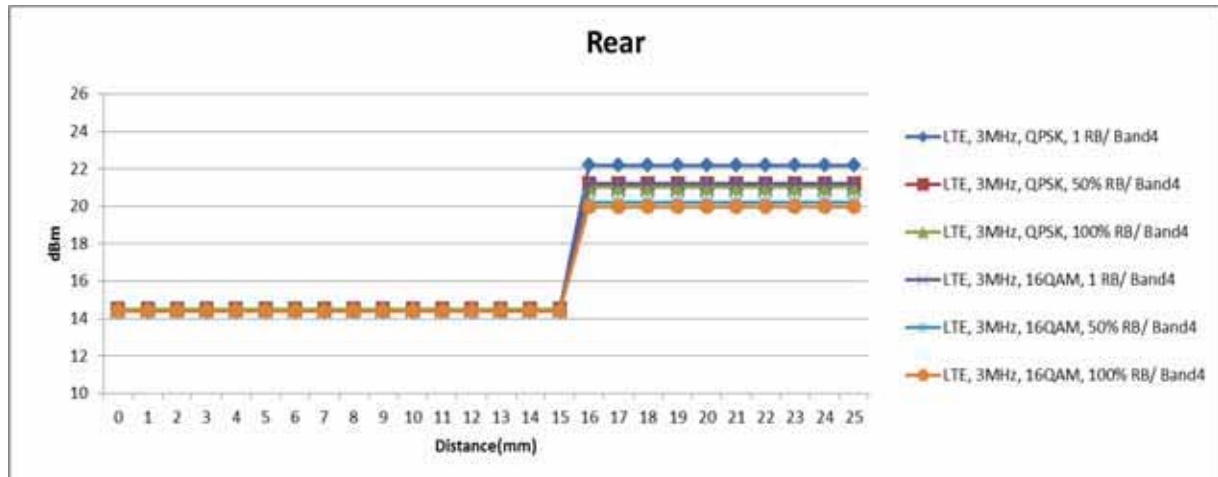


LTE Band 4



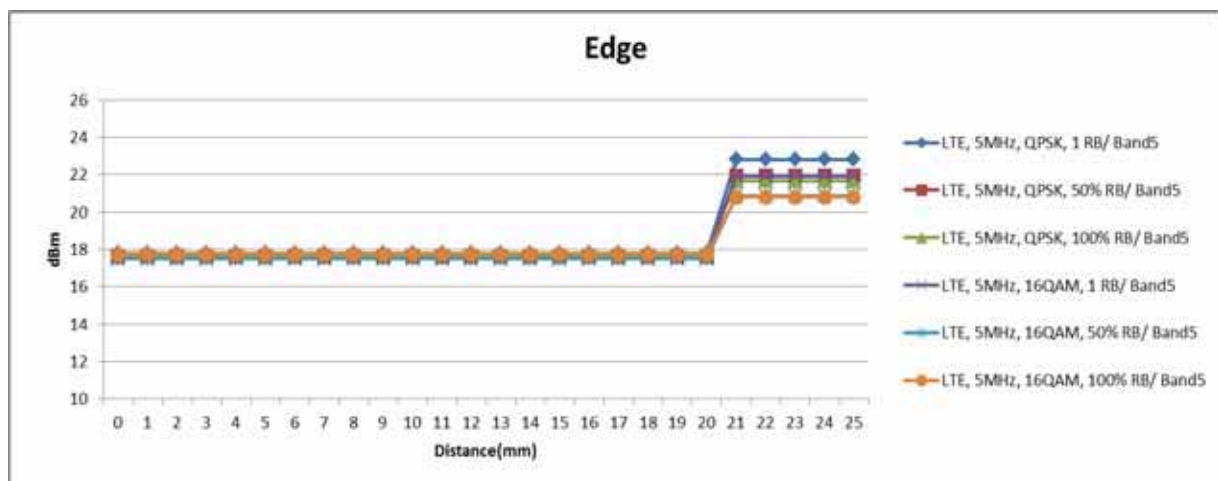
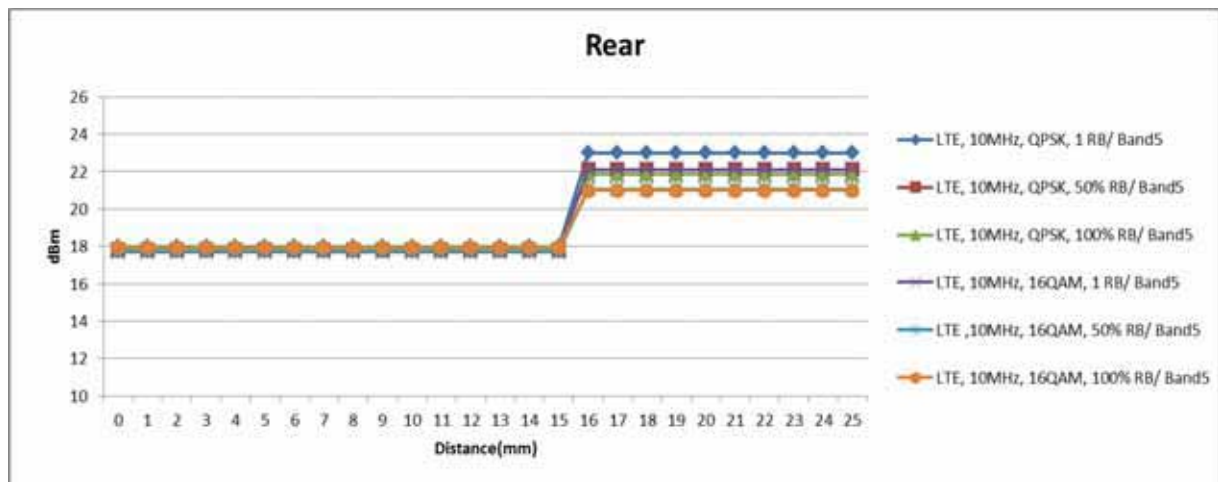
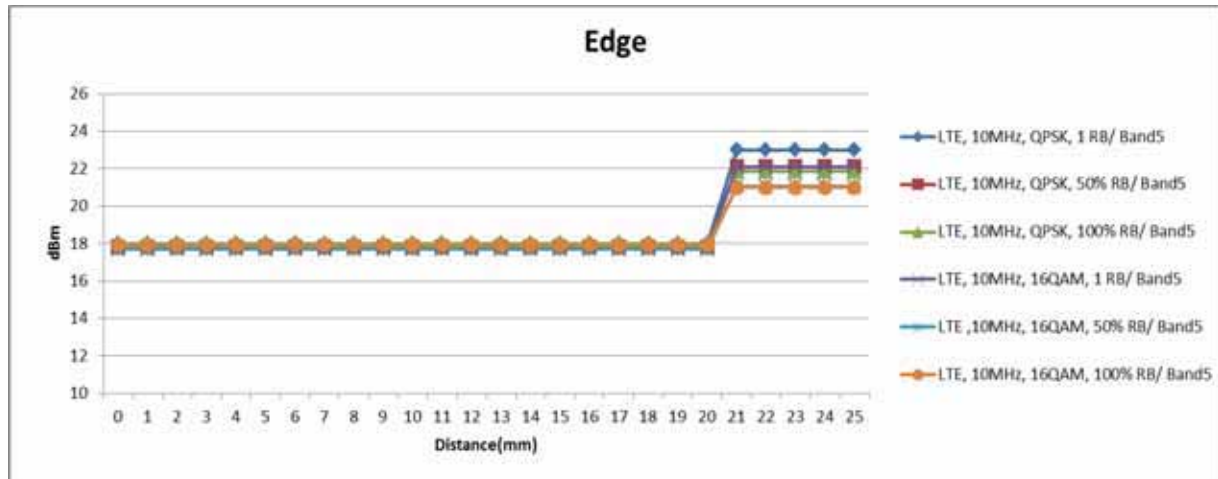


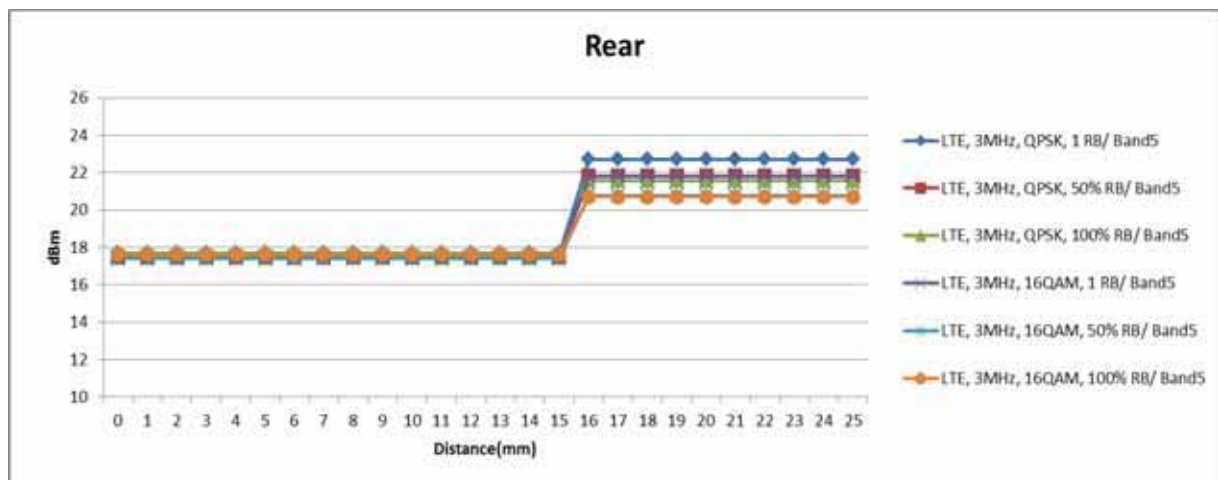
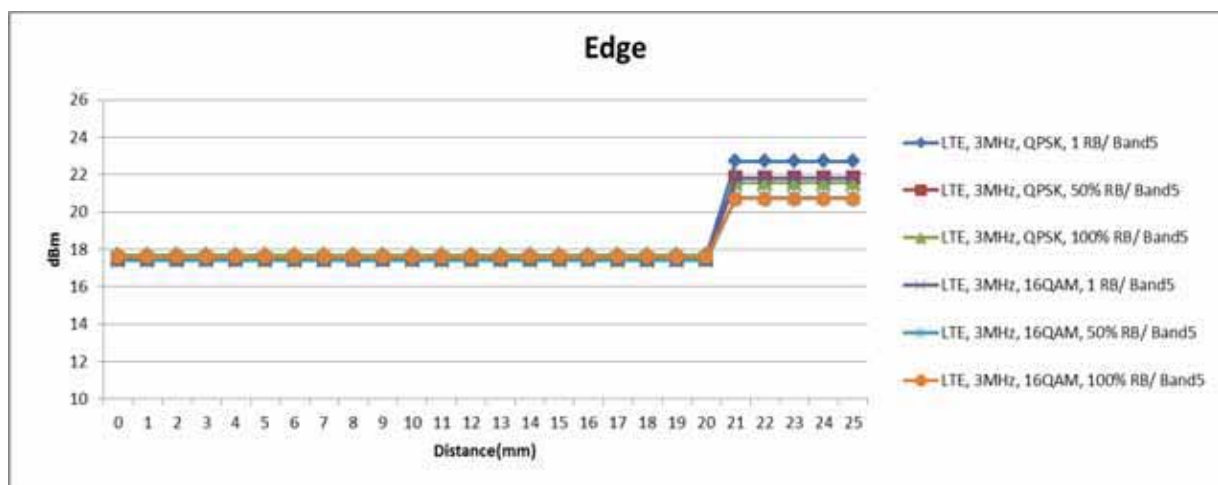
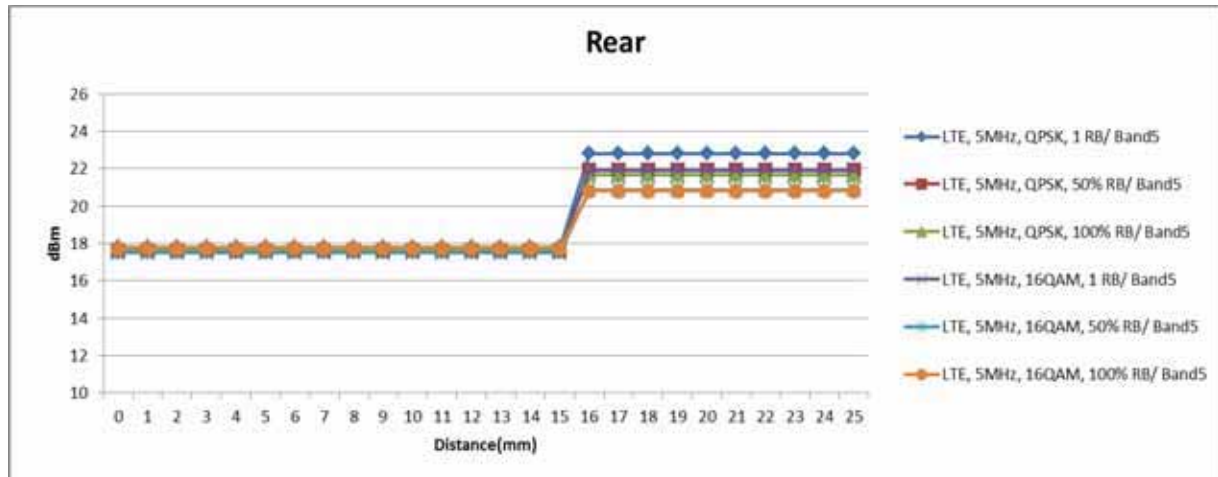


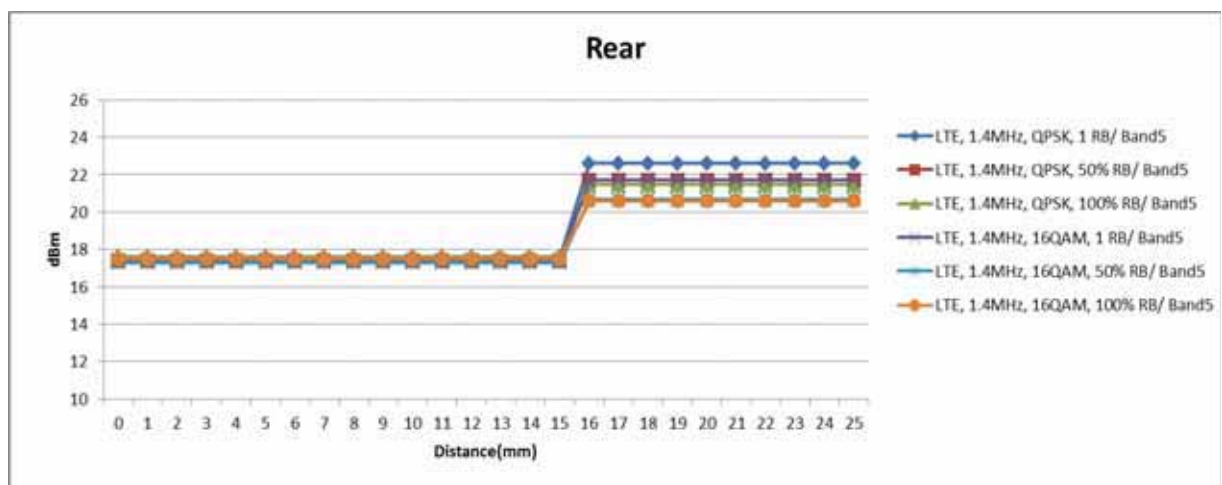
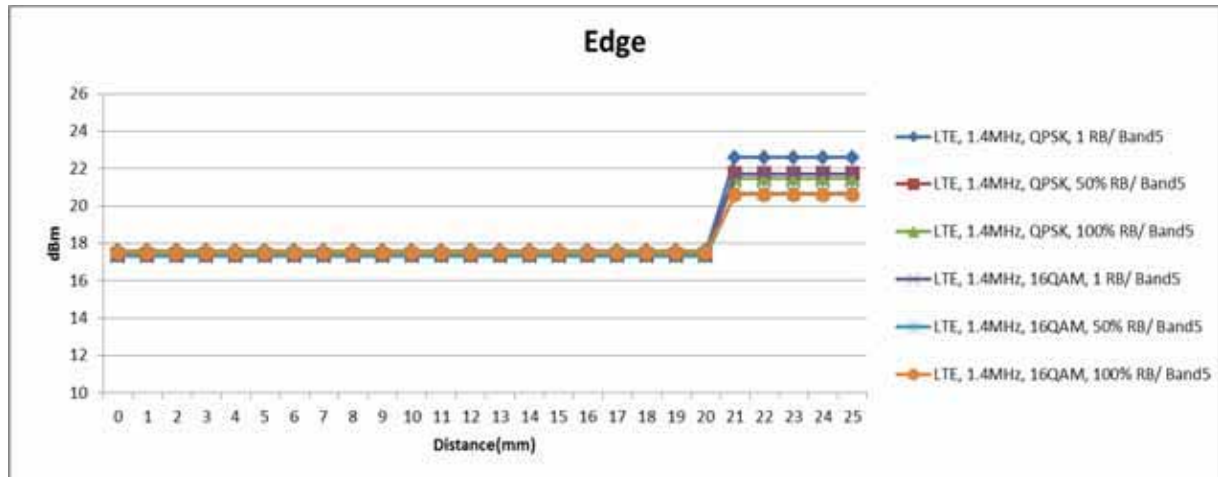




LTE Band 5

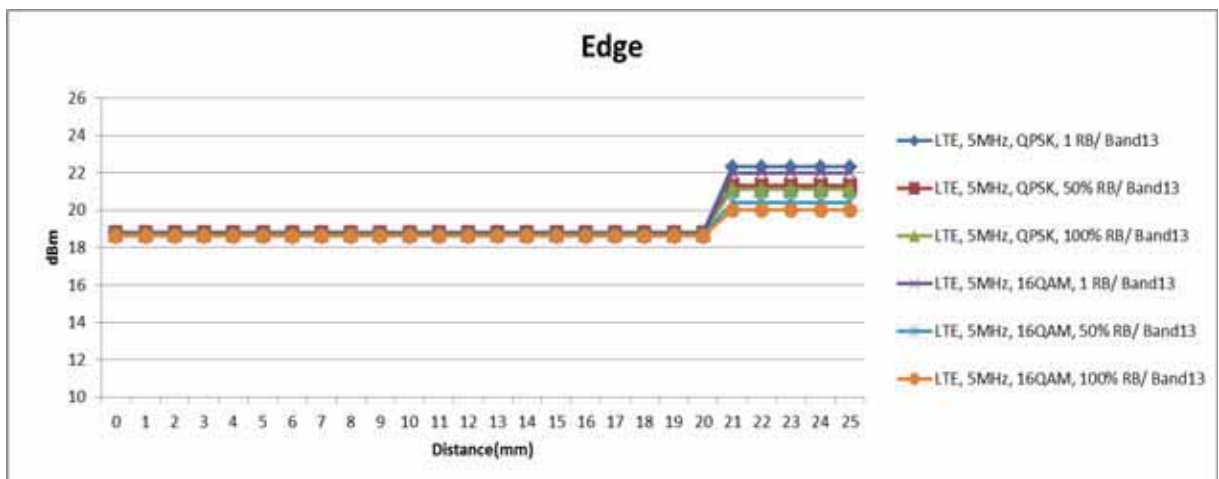
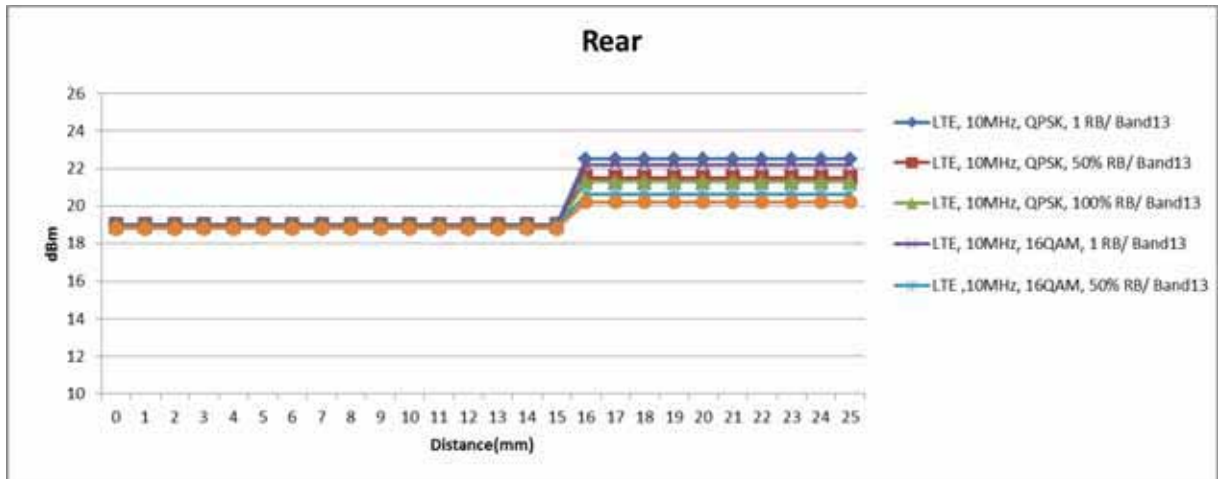
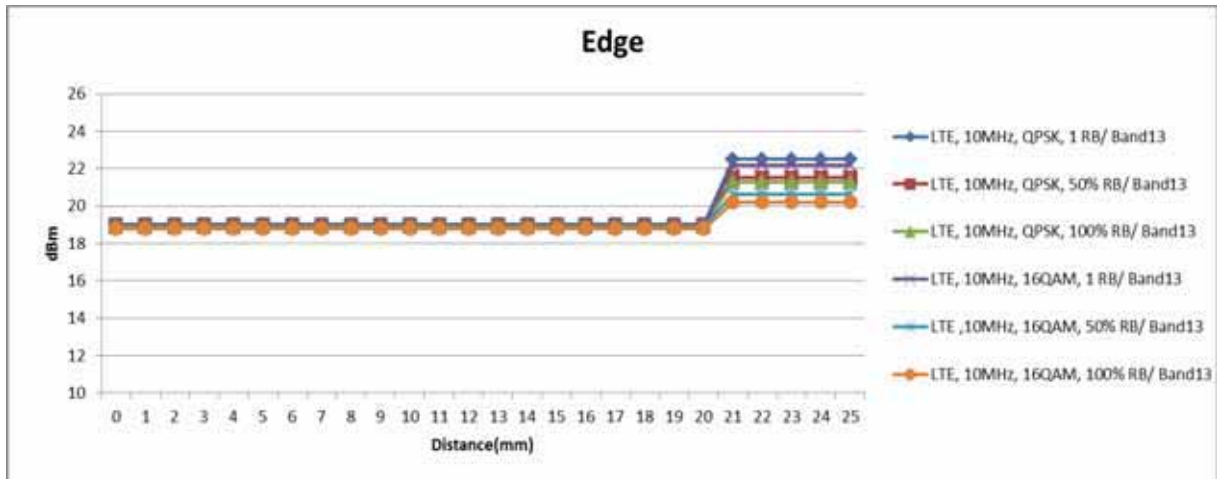


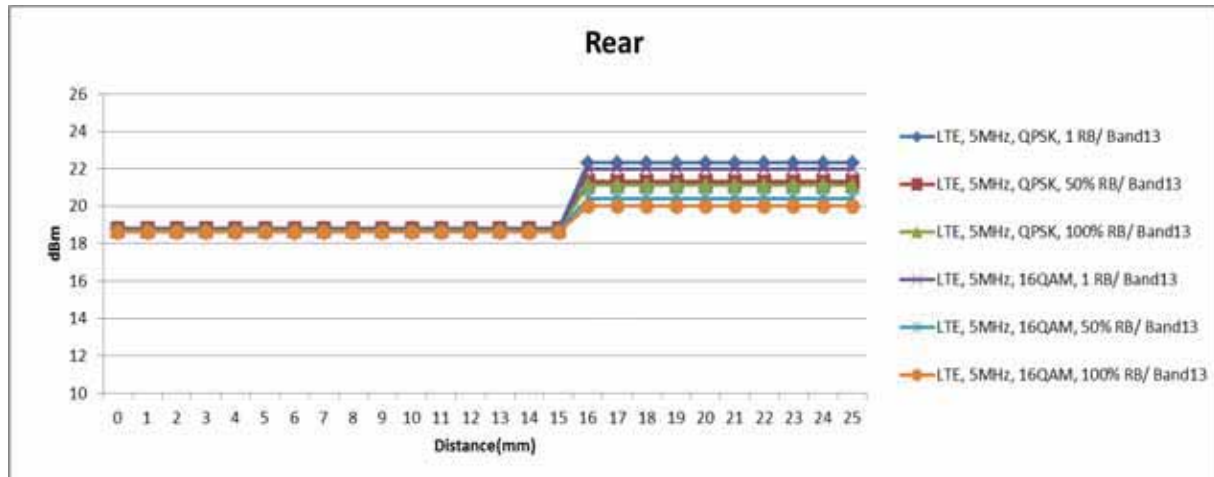






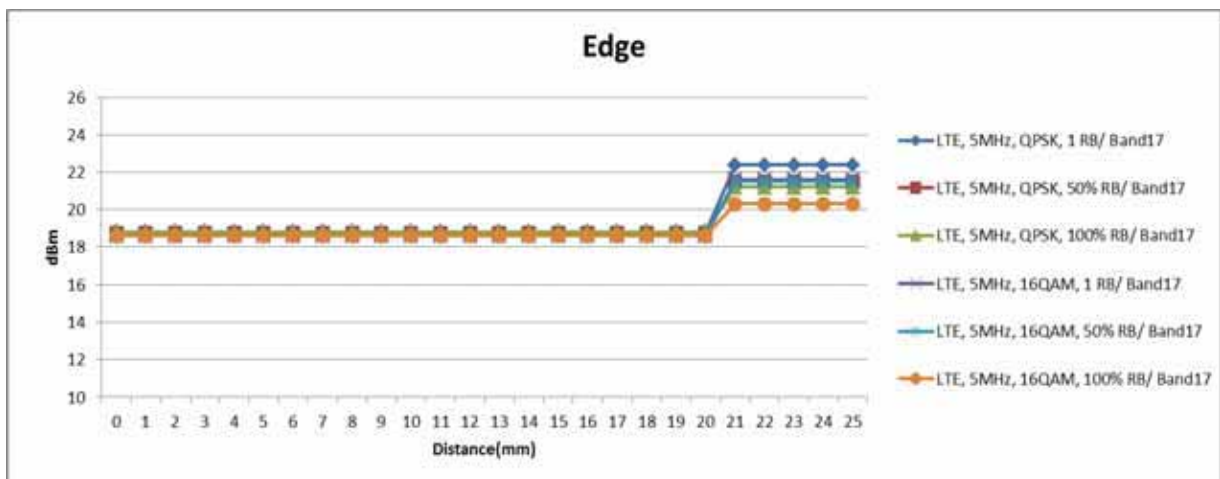
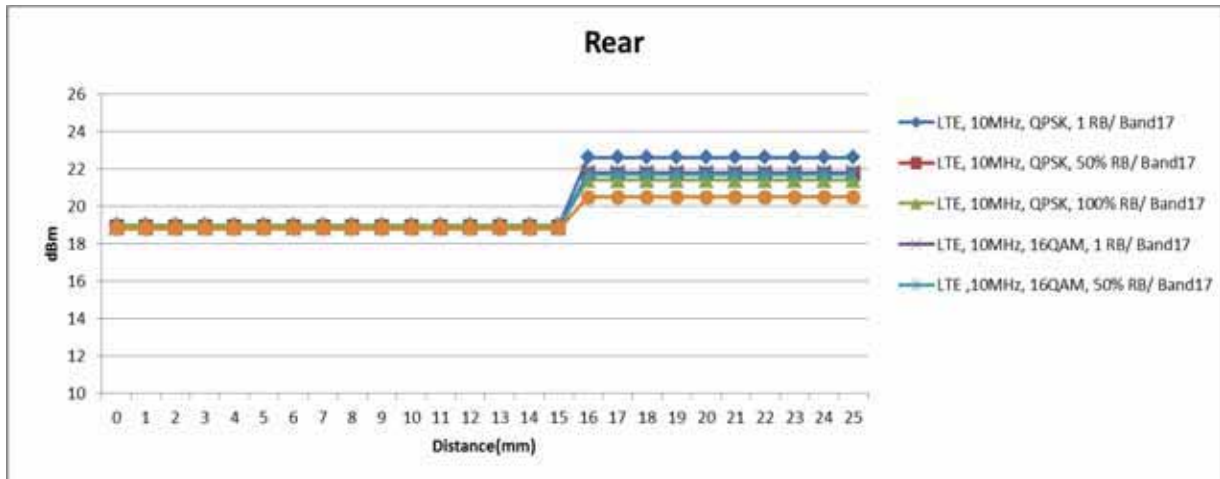
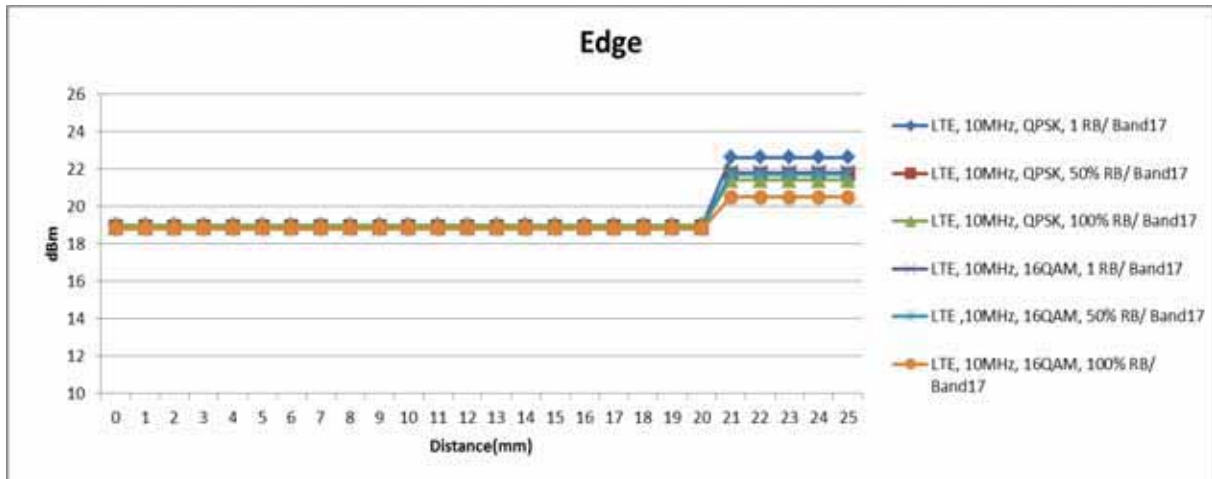
LTE Band 13

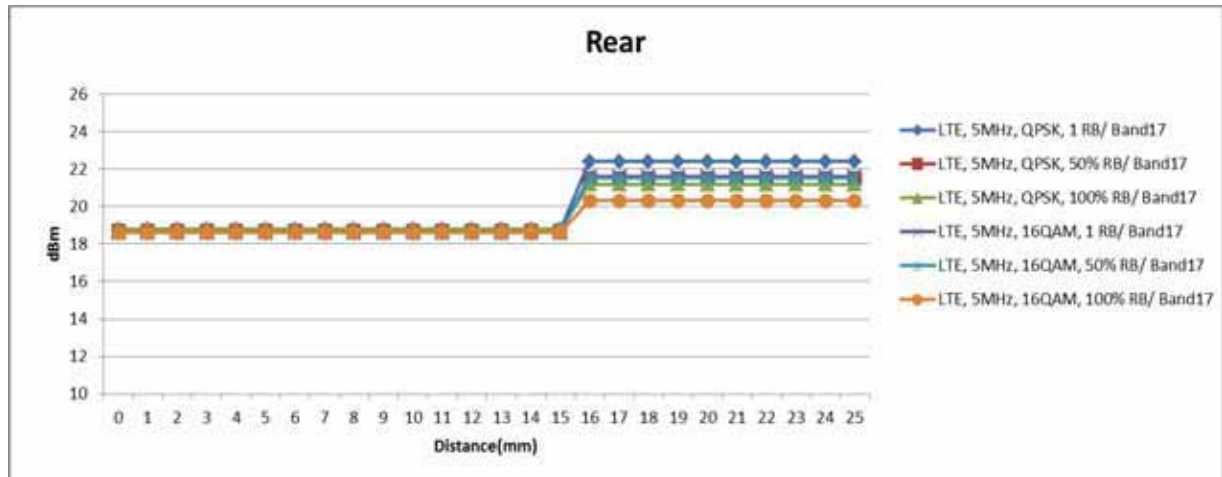






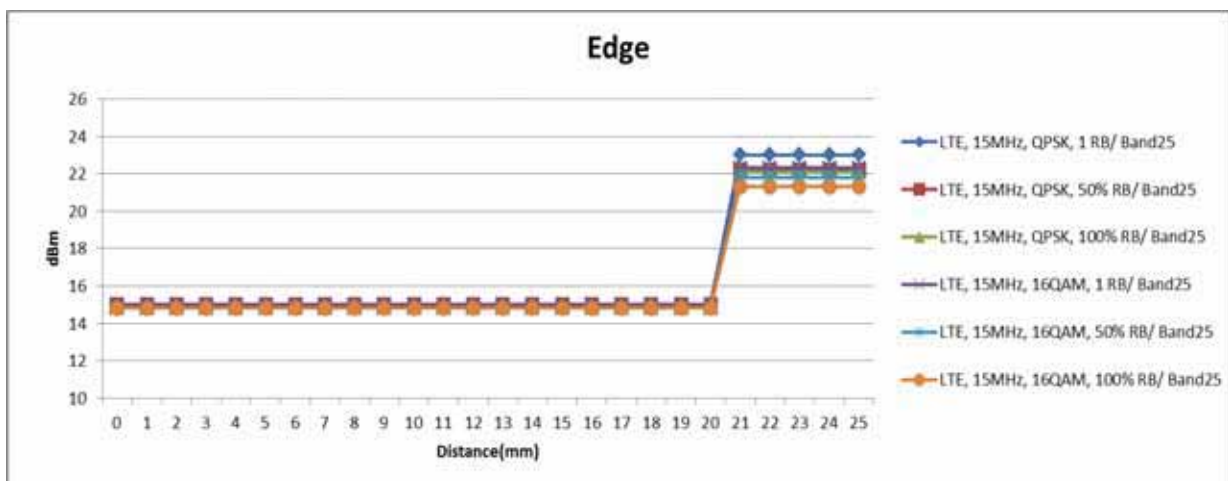
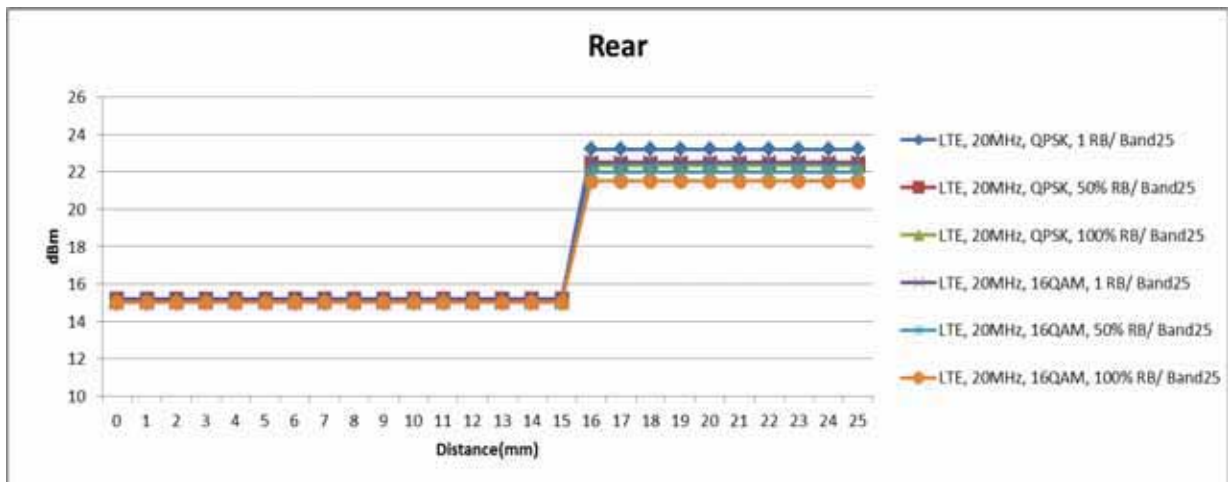
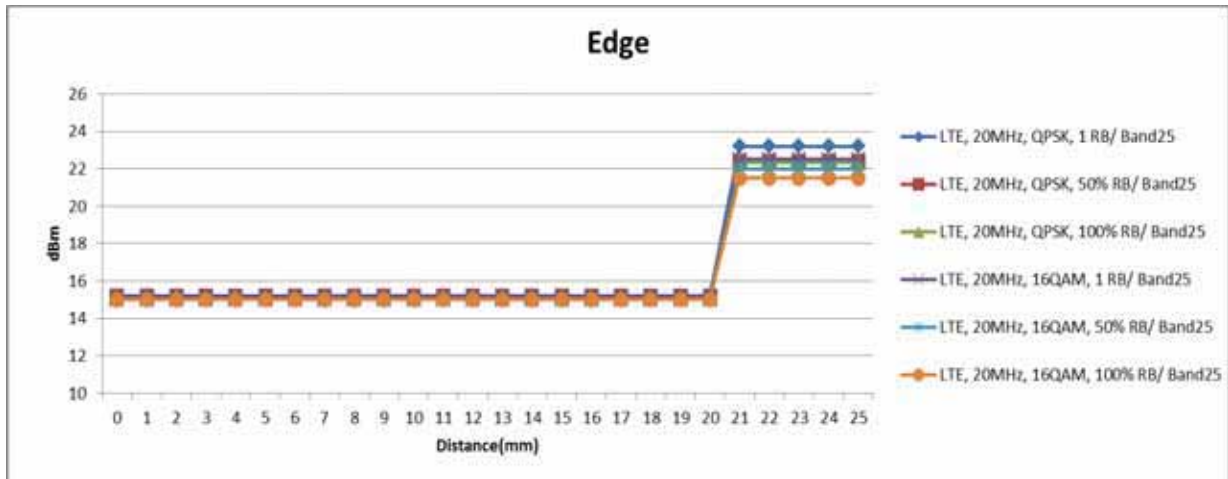
LTE Band 17

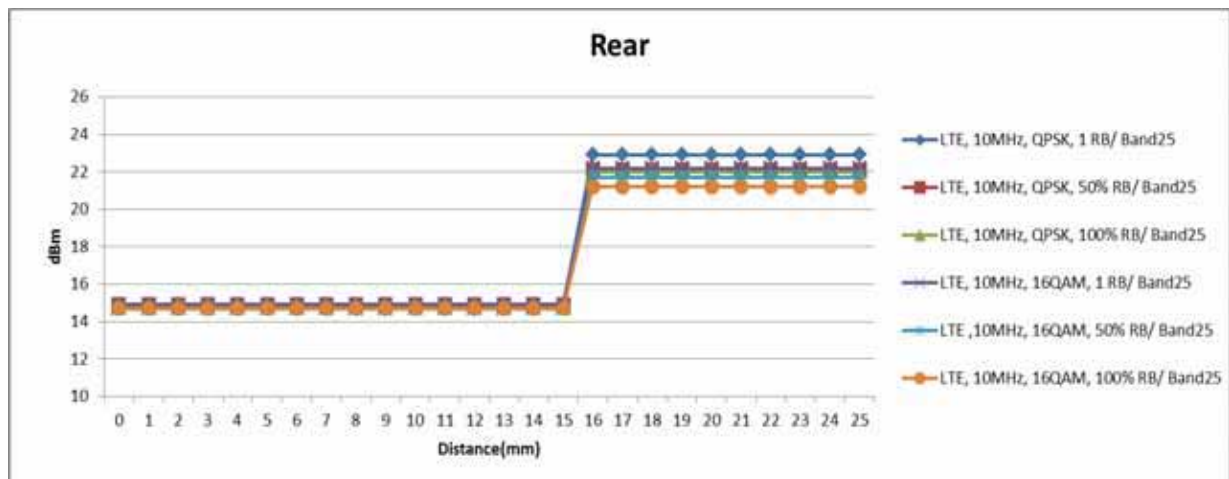
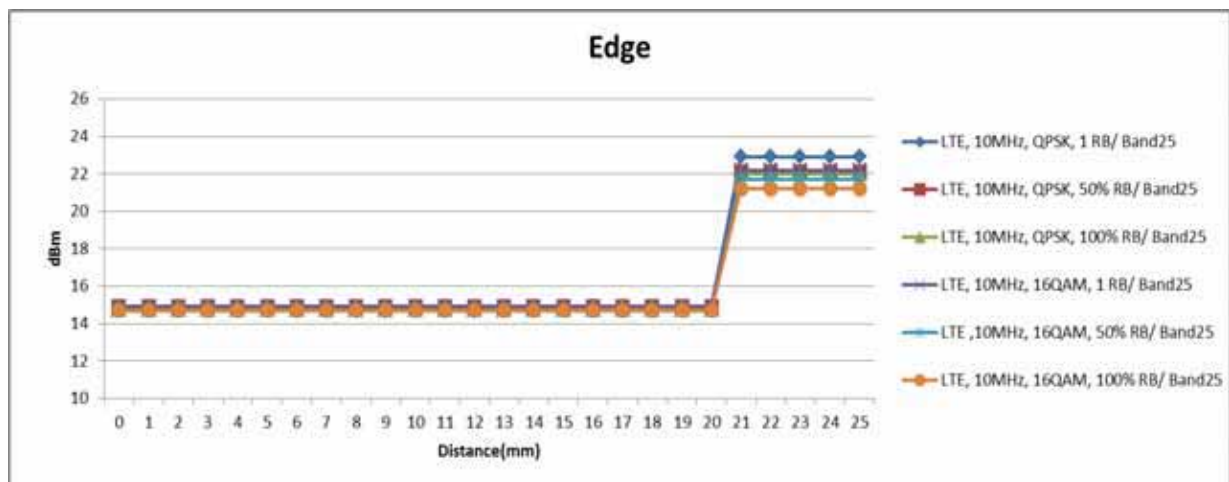
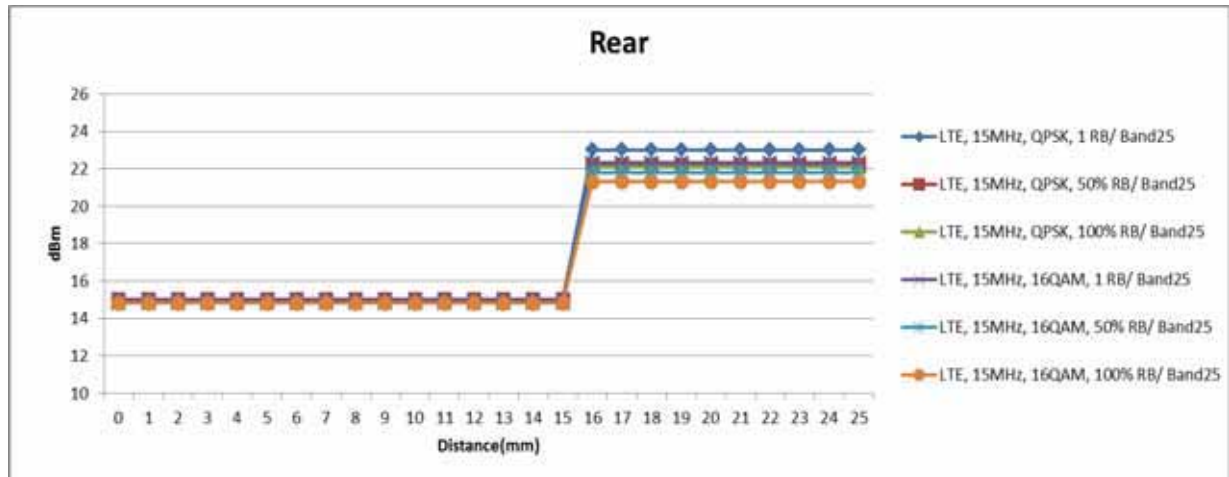


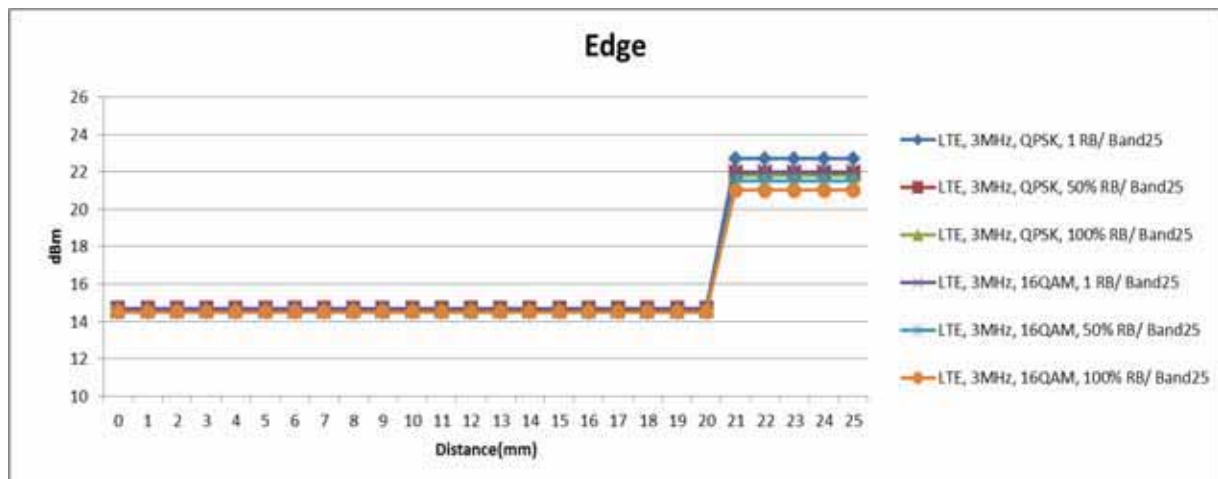
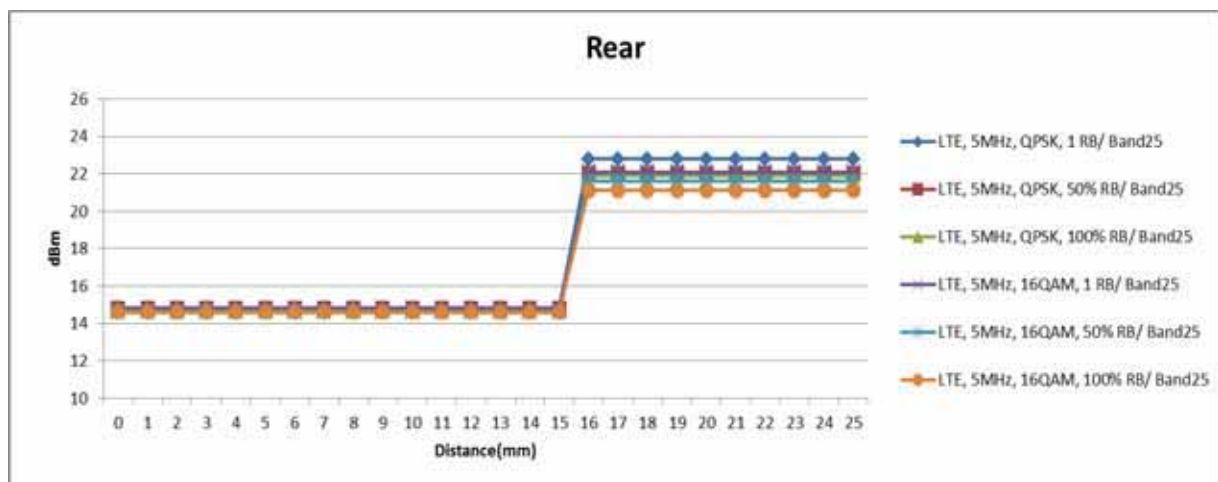
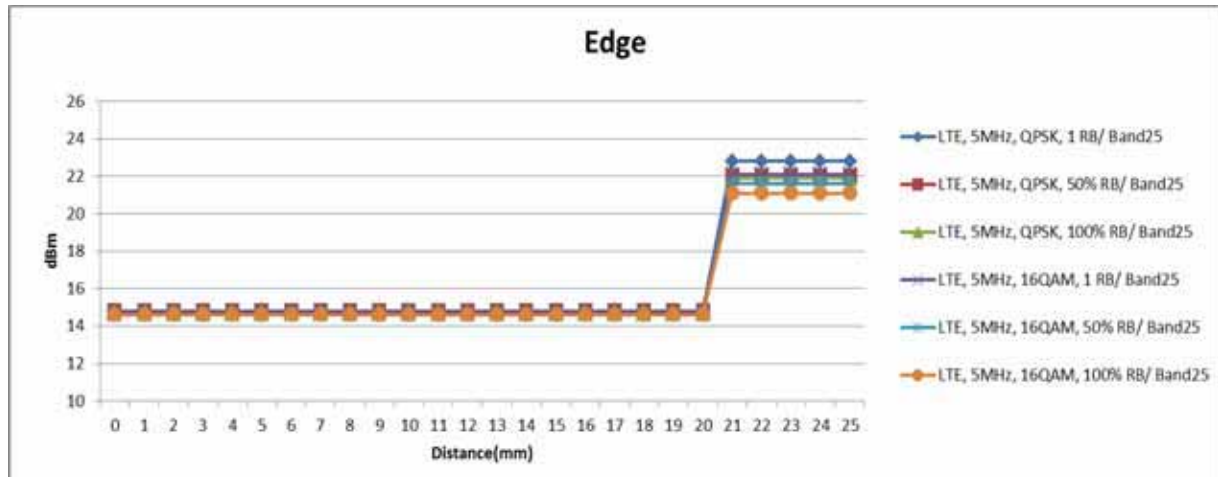


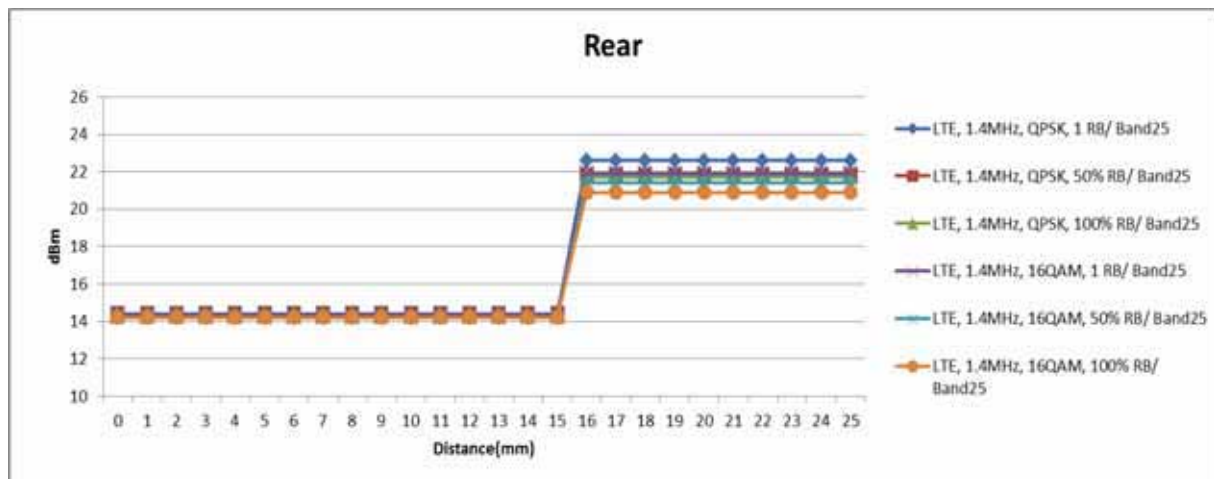
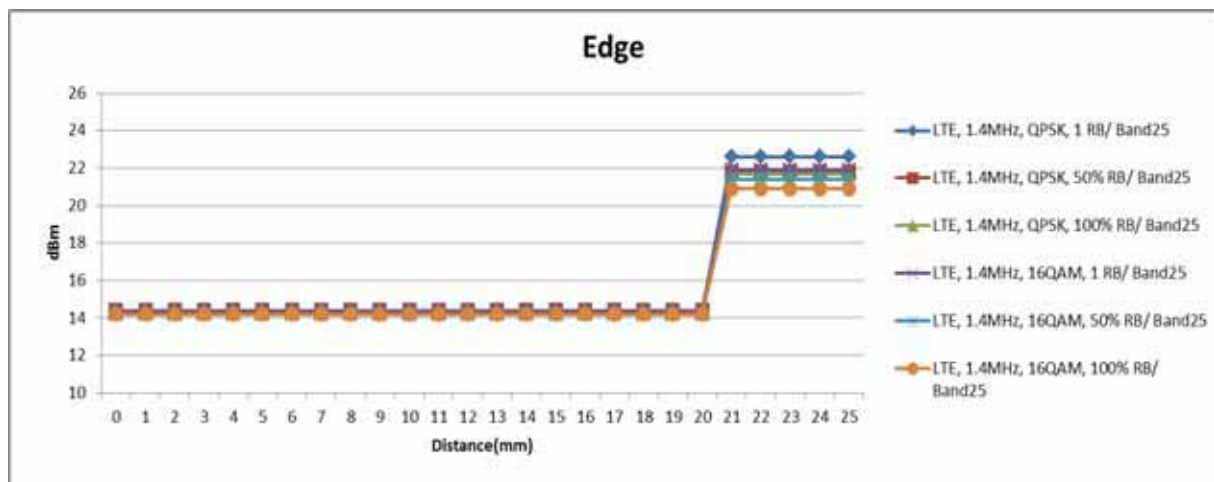
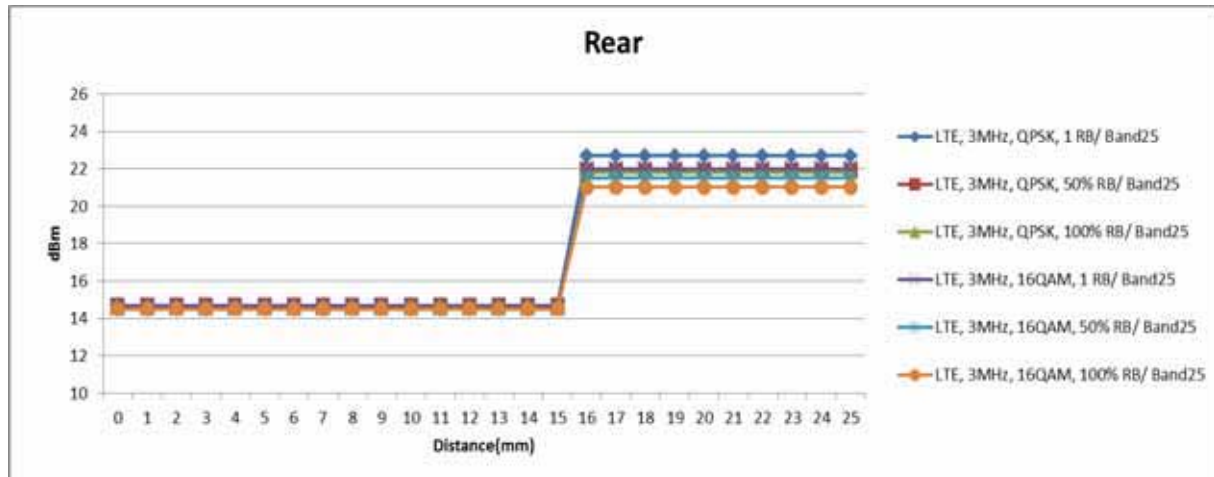


LTE Band 25



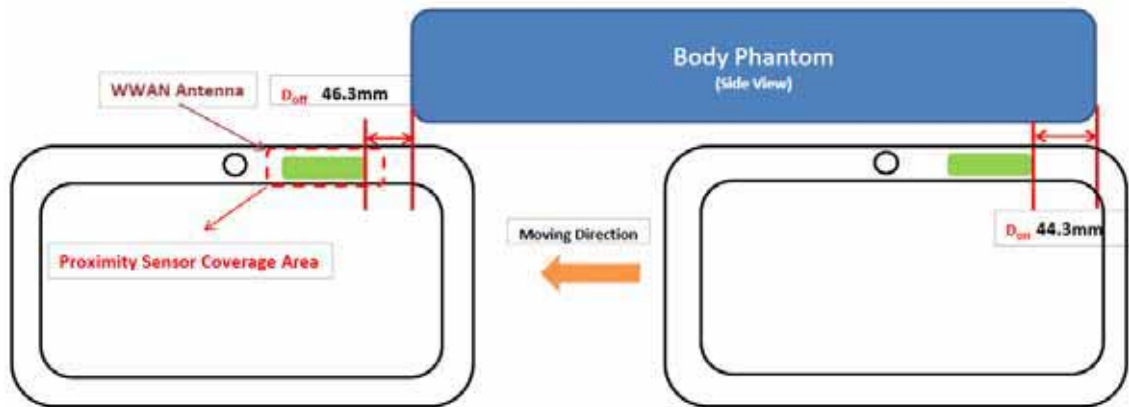






10.5 Proximity Sensor Coverage Area

- Edge Coverage

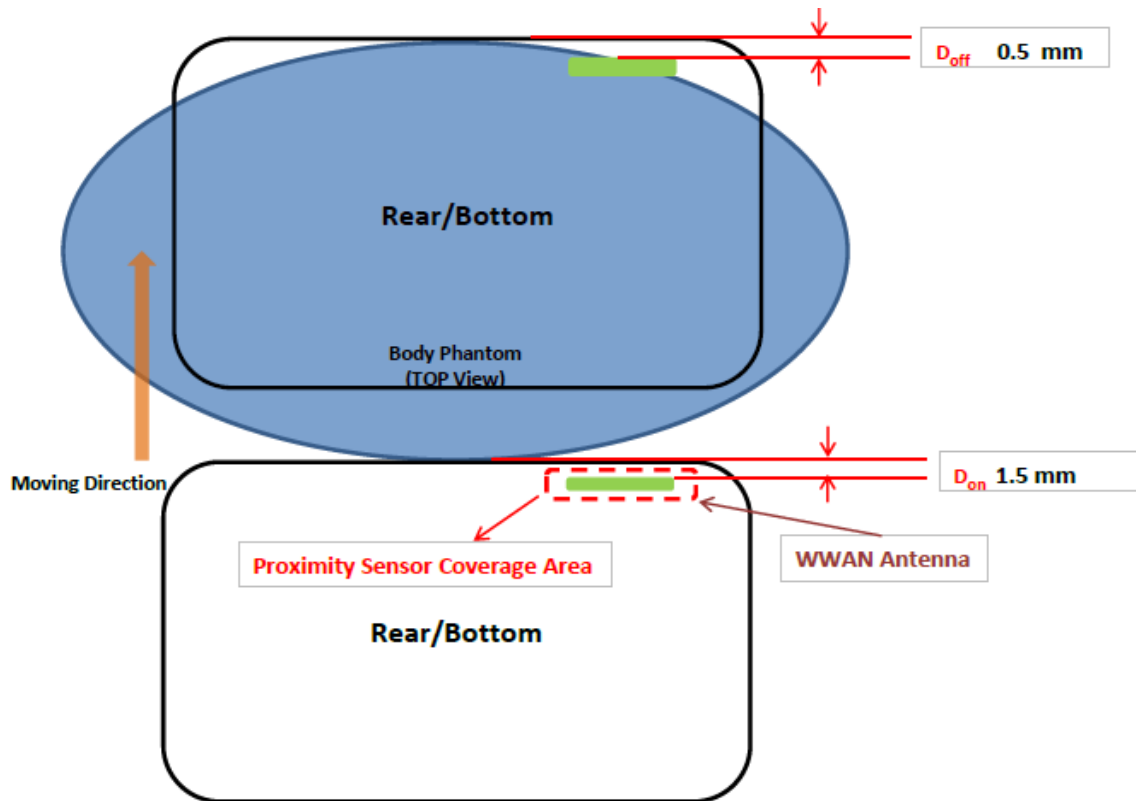


The DUT is positioned perpendicular to the phantom with the test separation distance, 14 mm, away from the phantom. The DUT is moved laterally to find the distance of triggering sensor on and off

- The minimum distance from the WWAN Antenna to the edge of body phantom to trigger proximity sensor on, D_{on} , is 30 mm.
- The minimum distance from the WWAN Antenna to the edge of body phantom to trigger proximity sensor off, D_{off} , is 15 mm.



- **Rear Coverage**



The DUT is positioned under the phantom with the test separation distance, 10 mm, away from the phantom. The DUT is moved laterally to find the distance of triggering sensor on and off

- The minimum distance from the WWAN Antenna to the edge of body phantom to trigger proximity sensor on, D_{on} , is 14 mm.
- The minimum distance from the WWAN Antenna to the edge of body phantom to trigger proximity sensor off, D_{off} , is 14 mm



11 Measurement Uncertainty

Measurement uncertainty for 300 MHz to 3 GHz averaged over 1 gram

Uncertainty Component	Uncertainty	Prob.	Div.	c_i (10g)	Std. Unc.(1-g)	v_i or v_{eff}
Measurement System						
Probe Calibration ($k=1$)	6.00	Normal	1	1	6.00	∞
Probe Isotropy	7.60	Rectangular	$\sqrt{3}$	0.7	3.07	∞
Boundary Effect	0.65	Rectangular	$\sqrt{3}$	1	0.38	∞
Linearity	4.70	Rectangular	$\sqrt{3}$	1	2.71	∞
Modulation Response	2.40	Rectangular	$\sqrt{3}$	1	1.40	∞
System Detection Limit	1.00	Rectangular	$\sqrt{3}$	1	0.58	∞
Readout Electronics	0.30	Normal	1	1	0.30	∞
Response Time	0.80	Rectangular	$\sqrt{3}$	1	0.46	∞
Integration Time	2.60	Rectangular	$\sqrt{3}$	1	1.50	∞
RF Ambient Conditions	3.00	Rectangular	$\sqrt{3}$	1	1.73	∞
RF Ambient Reflections	3.00	Rectangular	$\sqrt{3}$	1	1.73	∞
Probe Positioner Mechanical Tolerance	0.40	Rectangular	$\sqrt{3}$	1	0.23	∞
Probe Positioning with respect to Phantom Shell	2.90	Rectangular	$\sqrt{3}$	1	1.67	∞
Extrapolation, interpolation and integration Algorithms for Max. SAR Evaluation	2.00	Rectangular	$\sqrt{3}$	1	1.15	∞
Test sample Related						
Test sample Positioning	3.70	Normal	1	1	3.7	89
Device Holder Uncertainty	3.40	Normal	1	1	3.4	5
Output Power Variation - SAR drift measurement	5.00	Rectangular	$\sqrt{3}$	1	2.89	∞
Phantom and Tissue Parameters						
Phantom Uncertainty (shape and thickness tolerances)	7.50	Rectangular	$\sqrt{3}$	1	4.33	∞
Liquid Conductivity - deviation from target values	4.14	Rectangular	$\sqrt{3}$	0.64	1.53	∞
Liquid Conductivity - measurement uncertainty	-4.63	Normal	1	0.64	-2.96	39
Liquid Permittivity - deviation from target values	3.92	Rectangular	$\sqrt{3}$	0.6	1.36	∞
Liquid Permittivity - measurement uncertainty	4.92	Normal	1	0.6	2.95	39
Temp. Unc. - Conductivity	1.70	Rectangular	$\sqrt{3}$	0.78	0.77	∞
Temp. Unc. - Permittivity	0.30	Rectangular	$\sqrt{3}$	0.23	0.04	∞
		RSS			11.94	611
Expanded Uncertainty U, Coverage Factor = 2, > 95 % Confidence =		$k=2$				23.88%
Expanded Uncertainty U, Coverage Factor = 2, > 95 % Confidence =		$k=2$				1.86dB



12 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).

NOTE
GENERAL POPULATION/UNCONTROLLED EXPOSURE
PARTIAL BODY LIMIT
1.6 W/kg



13 Tissue Dielectric Properties

13.1 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 2003 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 2003 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 2003

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



13.2 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

alt: 99⁺% Pure Sodium Chloride

Sugar: 98⁺% Pure Sucrose

Water: De-ionized, 16 MΩ⁺ 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



13.3 Simulating Liquids Parameter Check Results

Date	Band	Freq(MHz)	Measured			Standard		Δ		Limit
			e' (ϵ_r)	e''	σ	e' (ϵ_r)	σ	e' (ϵ_r)	σ	± 5
2014/7/28	Body 900	824.2	57.21	20.45	0.94	55.24	0.97	3.55%	-3.38%	± 5
		836.6	57.11	20.45	0.95	55.20	0.97	3.47%	-2.13%	± 5
		848.8	57.00	20.44	0.96	55.16	0.99	3.34%	-2.24%	± 5
2014/7/28	Body 900	826.4	57.21	20.45	0.94	55.24	0.97	3.57%	-3.14%	± 5
		836.6	57.11	20.45	0.95	55.20	0.97	3.47%	-2.13%	± 5
		846.6	57.03	20.44	0.96	55.17	0.98	3.37%	-2.23%	± 5
2014/7/28	Body 900	824.7	57.21	20.45	0.94	55.24	0.97	3.55%	-3.32%	± 5
		836.52	57.11	20.45	0.95	55.20	0.97	3.47%	-2.14%	± 5
		848.31	57.00	20.44	0.96	55.16	0.99	3.34%	-2.30%	± 5
2014/7/29	Body 1900	1850.2	53.29	14.75	1.52	53.30	1.52	-0.01%	-0.27%	± 5
		1880	53.18	14.85	1.55	53.30	1.52	-0.23%	2.06%	± 5
		1909.8	53.14	14.93	1.58	53.30	1.52	-0.30%	4.20%	± 5
2014/7/29	Body 1900	1852.4	53.28	14.76	1.52	53.30	1.52	-0.04%	-0.09%	± 5
		1880	53.18	14.85	1.55	53.30	1.52	-0.23%	2.06%	± 5
		1907.6	53.14	14.92	1.58	53.30	1.52	-0.29%	4.06%	± 5
2014/7/29	Body 1900	1851.25	53.28	14.76	1.52	53.30	1.52	-0.04%	-0.16%	± 5
		1880	53.18	14.85	1.55	53.30	1.52	-0.23%	2.06%	± 5
		1908.75	53.14	14.92	1.58	53.30	1.52	-0.29%	4.12%	± 5
2014/7/29	Body 1800	1712.4	52.34	15.38	1.46	53.53	1.46	-2.23%	-0.11%	± 5
		1732.4	52.51	15.41	1.48	53.48	1.48	-1.81%	0.39%	± 5
		1752.6	52.36	15.22	1.48	53.43	1.49	-1.99%	-0.53%	± 5
2014/7/30	Body 750	782	56.52	22.68	0.99	55.41	0.97	2.00%	2.02%	± 5
2014/7/30	Body 750	709	57.12	23.25	0.92	55.69	0.96	2.57%	-4.63%	± 5
		710	57.12	23.25	0.92	55.69	0.96	2.57%	-4.51%	± 5
		711	57.12	23.25	0.92	55.68	0.96	2.58%	-4.38%	± 5
2014/7/31	Body 900	826.4	57.32	20.92	0.96	55.24	0.97	3.77%	-0.92%	± 5
		836.6	57.23	20.90	0.97	55.20	0.97	3.68%	0.04%	± 5
		846.6	57.15	20.88	0.98	55.17	0.98	3.59%	-0.16%	± 5
2014/8/4	Body 1900	1850.2	51.62	14.19	1.46	53.30	1.52	-3.15%	-4.01%	± 5
		1880	51.58	14.24	1.49	53.30	1.52	-3.22%	-2.12%	± 5
		1909.8	51.39	14.23	1.51	53.30	1.52	-3.58%	-0.66%	± 5
2014/8/13	Body 900	824.2	57.95	20.76	0.95	55.24	0.97	4.91%	-1.91%	± 5
		836.6	57.87	20.73	0.96	55.20	0.97	4.84%	-0.81%	± 5
		848.8	57.75	20.67	0.97	55.16	0.99	4.70%	-1.15%	± 5
2014/8/13	Body 900	826.4	57.95	20.76	0.95	55.24	0.97	4.92%	-1.67%	± 5
		836.6	57.87	20.73	0.96	55.20	0.97	4.84%	-0.81%	± 5
		846.6	57.78	20.68	0.97	55.17	0.98	4.74%	-1.09%	± 5
2014/8/13	Body 900	824.7	57.95	20.76	0.95	55.24	0.97	4.91%	-1.85%	± 5
		836.52	57.87	20.73	0.96	55.20	0.97	4.84%	-0.82%	± 5
		848.31	57.75	20.67	0.97	55.16	0.99	4.70%	-1.20%	± 5



Date	Band	Freq(MHz)	Measured			Standard		Δ		Limit
			e' (ϵ_r)	e''	σ	e' (ϵ_r)	σ	e' (ϵ_r)	σ	± 5
2014/8/15	Body 1900	1850.2	54.12	14.48	1.49	53.30	1.52	1.55%	-2.11%	± 5
		1880	54.05	14.59	1.52	53.30	1.52	1.41%	0.25%	± 5
		1909.8	53.99	14.66	1.56	53.30	1.52	1.30%	2.34%	± 5
2014/8/18	Body 1900	1850.2	52.14	14.27	1.47	53.30	1.52	-2.17%	-3.51%	± 5
		1880	52.05	14.33	1.50	53.30	1.52	-2.34%	-1.53%	± 5
		1909.8	51.98	14.40	1.53	53.30	1.52	-2.48%	0.54%	± 5
2014/8/20	Body 1900	1850.2	52.88	14.46	1.49	53.30	1.52	-0.78%	-2.23%	± 5
		1880	52.85	14.51	1.51	53.30	1.52	-0.85%	-0.33%	± 5
		1909.8	52.68	14.54	1.54	53.30	1.52	-1.17%	1.50%	± 5
2014/8/21	Body 1800	1715	52.95	15.31	1.46	53.52	1.47	-1.07%	-0.51%	± 5
		1732.5	52.98	15.36	1.48	53.48	1.48	-0.93%	0.09%	± 5
		1750	53.00	15.37	1.49	53.43	1.49	-0.81%	0.42%	± 5
2014/8/21	Body 900	835	54.62	20.73	0.96	55.20	0.97	-1.05%	-0.86%	± 5
2014/8/22	Body 750	782	57.68	22.80	0.99	55.41	0.97	4.11%	2.55%	± 5
2014/8/22	Body 750	709	58.31	23.39	0.92	55.69	0.96	4.71%	-4.05%	± 5
		710	58.31	23.39	0.92	55.69	0.96	4.71%	-3.92%	± 5
		711	58.31	23.39	0.92	55.68	0.96	4.72%	-3.79%	± 5



14 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 Body simulating liquid of the following parameters.
- The DASY4/DASY5 system with an E-field probe EX3DV4 SN:3665 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 mm, dz= 5 mm).
- Distance between probe sensors and phantom surface was set to 3.0 mm.
- The dipole input power (forward power) was 100 mW $\pm$ 3%.
- 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

System Dipole	Serial No.	Cal. Date	Freq. (MHz)	Target SAR Values (W/kg)		
				1g/10g	Head	Body
D835V2	4d015	2014/3/24	835	1g	9.16	9.42
				10g	5.94	6.13
D1900V2	5d056	2014/2/27	1900	1g	40.70	40.40
				10g	21.30	21.40
D1800V2	2d062	2014/3/4	1800	1g	39.1	37.9
				10g	20.4	20.1
D750V3	1020	2014/1/28	750	1g	8.37	8.61
				10g	5.46	5.66

**14.1 System Performance Check Results**

Date	System Dipole			Parameters	Target	Measured	Deviation[%]	Limited[%]
	Type	Serial No.	Liquid					
2014/07/28	D835V2	4d015	Body	1g SAR:	9.42	8.98	-4.67	± 5
				10g SAR:	6.13	5.88	-4.08	± 5
2014/07/29	D1900V2	5d026	Body	1g SAR:	40.40	42.00	3.96	± 5
				10g SAR:	21.40	21.90	2.34	± 5
2014/07/29	D1800V2	2d062	Body	1g SAR:	37.90	38.50	1.58	± 5
				10g SAR:	20.10	20.10	0.00	± 5
2014/07/30	D750V3	1020	Body	1g SAR:	8.61	9.00	4.53	± 5
				10g SAR:	5.66	5.94	4.95	± 5
2014/07/30	D1800V2	2d062	Body	1g SAR:	37.90	37.70	-0.53	± 5
				10g SAR:	20.10	19.60	-2.49	± 5
2014/07/31	D835V2	4d015	Body	1g SAR:	9.42	9.58	1.70	± 5
				10g SAR:	6.13	6.39	4.24	± 5
2014/08/04	D1900V2	5d026	Body	1g SAR:	40.40	40.00	-0.99	± 5
				10g SAR:	21.40	20.90	-2.34	± 5
2014/08/13	D835V2	4d015	Body	1g SAR:	9.42	9.05	-3.93	± 5
				10g SAR:	6.13	5.99	-2.28	± 5
2014/08/15	D1900V2	5d026	Body	1g SAR:	40.40	41.20	1.98	± 5
				10g SAR:	21.40	21.60	0.93	± 5
2014/08/18	D1900V2	5d026	Body	1g SAR:	40.40	40.40	0.00	± 5
				10g SAR:	21.40	21.20	-0.93	± 5
2014/08/20	D1900V2	5d026	Body	1g SAR:	40.40	40.90	1.24	± 5
				10g SAR:	21.40	21.40	0.00	± 5
2014/08/21	D1800V2	2d062	Body	1g SAR:	37.90	37.50	-1.06	± 5
				10g SAR:	20.10	19.50	-2.99	± 5
2014/08/21	D835V2	4d015	Body	1g SAR:	9.42	9.04	-4.03	± 5
				10g SAR:	6.13	5.99	-2.28	± 5
2014/08/22	D750V3	1020	Body	1g SAR:	8.61	8.55	-0.70	± 5
				10g SAR:	5.66	5.69	0.53	± 5



15 RF Output Power Measurement

15.1 GPRS 850

GMSK (GPRS) Mode Coding scheme : CS-1

Target Power: 32 dBm

Tolerance: +/- 1 dBm

Band	Slot	Channel No.	Frequency (MHz)	W/o Power back-off		W/ Power back-off	
				Average power(dBm)	Frame Avg Pwr(dBm)	Average power(dBm)	Frame Avg Pwr(dBm)
GPRS 850	1	128	824.2	31.9	22.9	27.3	18.3
		190	836.6	31.8	22.8	27.3	18.3
		251	848.8	31.7	22.7	27.4	18.4
GPRS 850	2	128	824.2	31.8	25.8	27.2	21.2
		190	836.6	31.7	25.7	27.2	21.2
		251	848.8	31.7	25.7	27.3	21.3

EGPRS 850

8PSK (EGPRS) Mode Coding scheme : MCS-5

Target Power: 27 dBm

Tolerance: +/- 1 dBm

Band	Slot	Channel No.	Frequency (MHz)	W/o Power back-off		W/ Power back-off	
				Average power(dBm)	Frame Avg Pwr(dBm)	Average power(dBm)	Frame Avg Pwr(dBm)
EGPRS 850	1	128	824.2	26.2	17.1	26.2	17.2
		190	836.6	26.2	17.1	26.2	17.2
		251	848.8	26.2	17.1	26.2	17.2
EGPRS 850	2	128	824.2	26.1	20.1	26.1	20.1
		190	836.6	26.1	20.1	26.1	20.1
		251	848.8	26.1	20.1	26.1	20.1
EGPRS 850	3	128	824.2	25.9	21.6	24.4	20.1
		190	836.6	26.1	21.9	24.4	20.1
		251	848.8	26.1	21.8	24.4	20.1
EGPRS 850	4	128	824.2	25.7	22.7	23.3	20.3
		190	836.6	25.8	22.8	23.2	20.2
		251	848.8	25.9	22.8	23.2	20.2

**15.2 GPRS 1900****GMSK (GPRS) Mode Coding scheme : CS-1**

Target Power: 29 dBm

Tolerance: +/- 1 dBm

Band	Slot	Channel No.	Frequency (MHz)	W/o Power back-off		W/ Power back-off	
				Average power(dBm)	Frame Avg Pwr(dBm)	Average power(dBm)	Frame Avg Pwr(dBm)
GPRS 1900	1	512	1850.2	29.1	20.1	24.5	15.5
		661	1880.0	29.2	20.2	24.6	15.6
		810	1909.8	29.0	20.0	24.6	15.6
GPRS 1900	2	512	1850.2	29.0	23.0	24.5	18.5
		661	1880.0	29.2	23.2	24.6	18.6
		810	1909.8	28.9	22.9	24.5	18.5

EGPRS 1900**8PSK (EGPRS) Mode Coding scheme : MCS-5**

Target Power: 26 dBm

Tolerance: +/- 1 dBm

Band	Slot	Channel No.	Frequency (MHz)	W/o Power back-off		W/ Power back-off	
				Average power(dBm)	Frame Avg Pwr(dBm)	Average power(dBm)	Frame Avg Pwr(dBm)
EGPRS 1900	1	512	1850.2	25.1	16.1	25.1	16.1
		661	1880.0	25.1	16.1	25.1	16.1
		810	1909.8	24.9	15.9	25.0	16.0
EGPRS 1900	2	512	1850.2	24.9	18.9	23.6	17.6
		661	1880.0	25.0	19.0	23.6	17.6
		810	1909.8	24.9	18.9	23.5	17.5
EGPRS 1900	3	512	1850.2	24.8	20.5	22.4	18.1
		661	1880.0	24.7	20.5	22.4	18.1
		810	1909.8	24.6	20.4	22.3	18.0
EGPRS 1900	4	512	1850.2	24.6	21.6	21.3	18.3
		661	1880.0	24.7	21.7	21.2	18.2
		810	1909.8	24.5	21.5	21.1	18.1



15.3 WCDMA Band II

Target Power: 23 dBm

Tolerance: +/- 1 dBm

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. The EUT supports power Class 3, which has a nominal maximum output power of 24 dBm (+1.7/-3.7) 12.2kps RMC is used for this testing. Power control set to All bits up. 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
	β_c/β_d	8/15

Output power table

Band	Data Rate or Sub-test	UL/DL Channel No.	Frequency(MHz)	W/o Power back-off	W/ Power back-off
				Average power(dBm)	Average power(dBm)
WCDMA Band II	---	9262/9662	1852.4	22.9	17.0
		9400/9800	1880.0	22.9	17.1
		9538/9983	1907.6	23.0	17.0

**HSDPA**

Target Power: 23 dBm

Tolerance: +/- 1 dBm

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
WCDMA General Settings	Loopback Mode	Test Mode 1			
	Rel99 RMC	12.2kbps RMC			
	HSDPA FRC	H-Set1			
	Power Control Algorithm	Algorithm 2			
	β_c	2/15	12/15	15/15	15/15
	β_d	15/15	15/15	8/15	4/15
	Bd (SF)	64			
	β_c/β_d	2/15	12/15	8/15	4/15
	β_{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			

Output power table

Band	Data Rate or Sub-test	UL/DL Channel No.	Frequency(MHz)	W/o Power back-off	W/ Power back-off
				Average power(dBm)	Average power(dBm)
HSDPA II	1	9262/9662	1852.4	22.2	16.2
		9400/9800	1880.0	22.2	16.2
		9538/9983	1907.6	22.3	16.3
	2	9262/9662	1852.4	22.3	16.3
		9400/9800	1880.0	22.4	16.4
		9538/9983	1907.6	22.4	16.4
	3	9262/9662	1852.4	21.9	15.9
		9400/9800	1880.0	21.8	15.8
		9538/9983	1907.6	22.0	16.0
	4	9262/9662	1852.4	21.9	15.9
		9400/9800	1880.0	22.0	16.0
		9538/9983	1907.6	22.0	16.0

**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
WCDMA General Settings	Loopback Mode	Test Mode 1				
	Rel99 RMC	12.2kbps RMC				
	HSDPA FRC	H-Set1				
	HSUPA Test	HSUPA Loopback				
	Power Control Algorithm	Algorithm2				
	β_c	11/15	6/15	15/15	2/15	15/15
	β_d	15/15	15/15	9/15	15/15	15/15
	β_{ec}	209/225	12/15	30/15	2/15	24/15
	β_c/β_d	11/15	6/15	9/15	2/15	15/15
	β_{hs}	22/15	12/15	30/15	4/15	30/15
	β_{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				
	Ahs = β_{hs}/β_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	

**Output power table**

Band	Data Rate or Sub-test	UL/DL Channel No.	Frequency(MHz)	W/o Power back-off	W/ Power back-off
				Average power(dBm)	Average power(dBm)
HSUPA II	1	9262/9662	1852.4	21.9	15.9
		9400/9800	1880.0	22.1	16.1
		9538/9983	1907.6	22.2	16.2
	2	9262/9662	1852.4	20.4	14.4
		9400/9800	1880.0	20.2	14.2
		9538/9983	1907.6	20.5	14.5
	3	9262/9662	1852.4	21.2	15.2
		9400/9800	1880.0	21.5	15.5
		9538/9983	1907.6	21.2	15.2
	4	9262/9662	1852.4	21.1	15.1
		9400/9800	1880.0	21.3	15.3
		9538/9983	1907.6	21.2	15.2
	5	9262/9662	1852.4	22.3	16.3
		9400/9800	1880.0	22.3	16.3
		9538/9983	1907.6	22.3	16.3



15.4 WCDMA Band IV

Target Power: 23dBm.

Tolerance: +/- 1 dBm

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. The EUT supports power Class 3, which has a nominal maximum output power of 24 dBm (+1.7/-3.7) 12.2kps RMC is used for this testing. Power control set to All bits up. 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
	β_c/β_d	8/15

Output power table

Band	Data Rate or Sub-test	UL/DL Channel No.	Frequency(MHz)	W/o Power back-off	W/ Power back-off
				Average power(dBm)	Average power(dBm)
WCDMA Band IV	---	1312/1537	1712.4	22.6	15.9
		1413/1638	1732.6	22.7	15.9
		1513/1738	1752.6	22.6	16.0

**HSDPA**

Target Power: 23dBm

Tolerance: +/- 1 dBm

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
WCDMA General Settings	Loopback Mode	Test Mode 1			
	Rel99 RMC	12.2kbps RMC			
	HSDPA FRC	H-Set1			
	Power Control Algorithm	Algorithm 2			
	β_c	2/15	12/15	15/15	15/15
	β_d	15/15	15/15	8/15	4/15
	Bd (SF)	64			
	β_c/β_d	2/15	12/15	8/15	4/15
	β_{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			

Output power table

Band	Data Rate or Sub-test	UL/DL Channel No.	Frequency(MHz)	W/o Power back-off	W/ Power back-off
				Average power(dBm)	Average power(dBm)
HSDPA IV	1	1312/1537	1712.4	22.5	15.8
		1413/1638	1732.6	22.0	15.3
		1513/1738	1752.6	22.5	15.8
	2	1312/1537	1712.4	22.6	15.9
		1413/1638	1732.6	22.5	15.8
		1513/1738	1752.6	22.5	15.8
	3	1312/1537	1712.4	22.0	15.3
		1413/1638	1732.6	21.9	15.2
		1513/1738	1752.6	21.9	15.2
	4	1312/1537	1712.4	21.7	15.0
		1413/1638	1732.6	21.8	15.1
		1513/1738	1752.6	22.0	15.3



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
WCDMA General Settings	Loopback Mode	Test Mode 1				
	Rel99 RMC	12.2kbps RMC				
	HSDPA FRC	H-Set1				
	HSUPA Test	HSUPA Loopback				
	Power Control Algorithm	Algorithm2				
	β_c	11/15	6/15	15/15	2/15	15/15
	β_d	15/15	15/15	9/15	15/15	15/15
	β_{ec}	209/225	12/15	30/15	2/15	24/15
	β_c/β_d	11/15	6/15	9/15	2/15	15/15
	β_{hs}	22/15	12/15	30/15	4/15	30/15
	β_{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				
	Ahs = β_{hs}/β_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 71	
		E-TFCI PO 23		E-TFCI PO 23	E-TFCI PO 23	
		E-TFCI 75		E-TFCI 75	E-TFCI 75	
		E-TFCI PO 26		E-TFCI PO 26	E-TFCI PO 26	
		E-TFCI 81		E-TFCI 81	E-TFCI 81	
		E-TFCI PO 27		E-TFCI PO 27	E-TFCI PO 27	

**Output power table**

Band	Data Rate or Sub-test	UL/DL Channel No.	Frequency(MHz)	W/o Power back-off	W/ Power back-off
				Average power(dBm)	Average power(dBm)
HSUPA IV	1	1312/1537	1712.4	21.9	15.1
		1413/1638	1732.6	22.2	15.4
		1513/1738	1752.6	22.1	15.3
	2	1312/1537	1712.4	20.3	13.5
		1413/1638	1732.6	20.4	13.6
		1513/1738	1752.6	20.1	13.3
	3	1312/1537	1712.4	21.5	14.7
		1413/1638	1732.6	21.1	14.3
		1513/1738	1752.6	21.4	14.6
	4	1312/1537	1712.4	21.4	14.6
		1413/1638	1732.6	21.1	14.3
		1513/1738	1752.6	21.3	14.5
	5	1312/1537	1712.4	22.1	15.3
		1413/1638	1732.6	22.2	15.4
		1513/1738	1752.6	22.4	15.6

**15.5 WCDMA Band V**

Target Power: 23dBm

Tolerance: +/- 1 dBm

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. The EUT supports power Class 3, which has a nominal maximum output power of 24 dBm (+1.7/-3.7) 12.2kps RMC is used for this testing. Power control set to All bits up. 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
	β_c/β_d	8/15

Output power table

Band	Data Rate or Sub-test	UL/DL Channel No.	Frequency(MHz)	W/o Power back-off	W/ Power back-off
				Average power(dBm)	Average power(dBm)
WCDMA Band V	---	4132/4157	826.4	22.5	17.8
		4182/4407	836.4	22.6	18.0
		4233/4458	846.6	22.4	17.9

**HSDPA**

Target Power: 23dBm

Tolerance: +/- 1 dBm

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
WCDMA General Settings	Loopback Mode	Test Mode 1			
	Rel99 RMC	12.2kbps RMC			
	HSDPA FRC	H-Set1			
	Power Control Algorithm	Algorithm 2			
	β_c	2/15	12/15	15/15	15/15
	β_d	15/15	15/15	8/15	4/15
	Bd (SF)	64			
	β_c/β_d	2/15	12/15	8/15	4/15
	β_{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			

Output power table

Band	Data Rate or Sub-test	UL/DL Channel No.	Frequency(MHz)	W/o Power back-off	W/ Power back-off
				Average power(dBm)	Average power(dBm)
HSDPA V	1	4132/4157	826.4	22.1	17.4
		4182/4407	836.4	21.9	17.2
		4233/4458	846.6	22.0	17.3
	2	4132/4157	826.4	22.1	17.4
		4182/4407	836.4	22.0	17.3
		4233/4458	846.6	21.9	17.2
	3	4132/4157	826.4	21.5	16.8
		4182/4407	836.4	21.5	16.8
		4233/4458	846.6	21.6	16.9
	4	4132/4157	826.4	21.6	16.9
		4182/4407	836.4	21.4	16.7
		4233/4458	846.6	21.5	16.8

**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
WCDMA General Settings	Loopback Mode	Test Mode 1				
	Rel99 RMC	12.2kbps RMC				
	HSDPA FRC	H-Set1				
	HSUPA Test	HSUPA Loopback				
	Power Control Algorithm	Algorithm2				
	β_c	11/15	6/15	15/15	2/15	15/15
	β_d	15/15	15/15	9/15	15/15	15/15
	β_{ec}	209/225	12/15	30/15	2/15	24/15
	β_c/β_d	11/15	6/15	9/15	2/15	15/15
	β_{hs}	22/15	12/15	30/15	4/15	30/15
	β_{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				
	Ahs = β_{hs}/β_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	

**Output power table**

Band	Data Rate or Sub-test	UL/DL Channel No.	Frequency(MHz)	W/o Power back-off	W/ Power back-off
				Average power(dBm)	Average power(dBm)
HSUPA V	1	4132/4157	826.4	21.9	17.1
		4182/4407	836.4	22.0	17.2
		4233/4458	846.6	21.9	17.1
	2	4132/4157	826.4	20.3	15.5
		4182/4407	836.4	19.8	15.0
		4233/4458	846.6	19.9	15.1
	3	4132/4157	826.4	21.1	16.3
		4182/4407	836.4	20.8	16.0
		4233/4458	846.6	20.9	16.1
	4	4132/4157	826.4	21.3	16.5
		4182/4407	836.4	20.9	16.1
		4233/4458	846.6	21.0	16.2
	5	4132/4157	826.4	22.3	17.5
		4182/4407	836.4	22.0	17.2
		4233/4458	846.6	22.0	17.2



15.6 CDMA BC0

1xRTT

Target Power: 24dBm

Tolerance: +/- 0.5 dBm

This procedure assumes the Agilent 8960 Test Set has the following applications installed and with valid license.

Application	Rev, License
CDMA2000 Mobile Test	B.13.08, L

- Call Setup > Shift & Preset
- Cell Info > Cell Parameters > System ID (SID) > 387 for BC0
> Network ID (NID) > 65535
- Protocol Rev > 6 (IS-2000-0)
- Radio Config (RC) > Please see following table or details
- FCH Service Option (SO) Setup > Please see following table or details
- Traffic Data Rate > Full
- TDSO SCH Info > F-SCH Parameters > F-SCH Data Rate > 153.6 kbps
> R-SCH Parameters > R-SCH Data Rate > 153.6 kbps
- Rvs Power Ctrl > Active bits
- Rvs Power Ctrl > All Up bits (Maximum TxPout)

Output power table

Band	Mode	UL/DL Channel No.	Frequency(MHz)	W/o Power back-off	W/ Power back-off
				Average power(dBm)	Average power(dBm)
BC0	RC1 SO55 (Loopback)	1013	824.7	23.5	17.8
		384	836.5	23.6	17.7
		777	848.3	23.4	17.5
	RC3 SO55 (Loopback)	1013	824.7	23.5	17.9
		384	836.5	23.7	17.7
		777	848.3	23.5	17.6



15.7 CDMA BC 1

1xRTT

Target Power: 24dBm

Tolerance: +/- 0.5 dBm

This procedure assumes the Agilent 8960 Test Set has the following applications installed and with valid license.

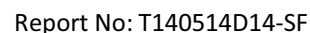
Application	Rev, License
-------------	--------------

CDMA2000 Mobile Test	B.13.08, L
----------------------	------------

- Call Setup > Shift & Preset
- Cell Info > Cell Parameters > System ID (SID) > 387 for BC1
> Network ID (NID) > 65535
- Protocol Rev > 6 (IS-2000-0)
- Radio Config (RC) > Please see following table or details
- FCH Service Option (SO) Setup > Please see following table or details
- Traffic Data Rate > Full
- TDSO SCH Info > F-SCH Parameters > F-SCH Data Rate > 153.6 kbps
> R-SCH Parameters > R-SCH Data Rate > 153.6 kbps
- Rvs Power Ctrl > Active bits
- Rvs Power Ctrl > All Up bits (Maximum TxPout)

Output power table

Band	Mode	UL/DL Channel No.	Frequency(MHz)	W/o Power back-off	W/ Power back-off
				Average power(dBm)	Average power(dBm)
BC1	RC1 SO55 (Loopback)	25	1851.3	23.3	14.4
		600	1880.0	23.4	14.4
		1175	1908.8	23.3	14.3
	RC3 SO55 (Loopback)	25	1851.3	23.3	14.5
		600	1880.0	23.4	14.3
		1175	1908.8	23.4	14.4





15.9 LTE Transmit Power

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

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

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

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

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

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

Network Signalling value	Requirements (sub-clause)	E-UTRA Band	Channel bandwidth (MHz)	Resources Blocks (N_{RB})	A-MPR (dB)
NS_01	6.6.2.1.1	Table 5.5-1	1.4, 3, 5, 10, 15, 20	Table 5.6-1	NA
NS_03	6.6.2.2.1	2, 4, 10, 23, 25, 35, 36	3	>5	≤ 1
			5	>6	≤ 1
			10	>6	≤ 1
			15	>8	≤ 1
			20	>10	≤ 1
NS_04	6.6.2.2.2	41	5	>6	≤ 1
			10, 15, 20	See Table 6.2.4-4	
NS_05	6.6.3.3.1	1	10, 15, 20	≥ 50	≤ 1
NS_06	6.6.2.2.3	12, 13, 14, 17	1.4, 3, 5, 10	Table 5.6-1	n/a
NS_07	6.6.2.2.3	13	10	Table 6.2.4-2	Table 6.2.4-2
	6.6.3.3.2				
NS_08	6.6.3.3.3	19	10, 15	> 44	≤ 3
NS_09	6.6.3.3.4	21	10, 15	> 40	≤ 1
				> 55	≤ 2
NS_10		20	15, 20	Table 6.2.4-3	Table 6.2.4-3
NS_11	6.6.2.2.1	23 ¹	1.4, 3, 5, 10	Table 6.2.4-5	Table 6.2.4-5
--					
NS_32	-	-	-	-	-

Note 1: Applies to the lower block of Band 23, i.e. a carrier placed in the 2000-2010 MHz region.

**15.10LTE Band 2****Output power table**

Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	W/o Power back-off	W/ Power back-off
								Average power(dBm)	Average power(dBm)
2	20	18700	1860.0	QPSK	1	0	0	23.1	15.2
					1	49	0	23.1	15.1
					1	99	0	23.0	14.9
					50	0	1	22.3	15.2
					50	24	1	22.3	15.1
					50	49	1	22.2	15.1
					100	0	1	22.1	15.1
				16QAM	1	0	1	22.5	15.0
					1	49	1	22.5	15.2
					1	99	1	22.5	14.9
					50	0	2	21.6	15.0
					50	24	2	21.6	15.0
					50	49	2	21.5	15.0
					100	0	2	21.5	15.0
		18900	1880.0	QPSK	1	0	0	23.2	15.1
					1	49	0	23.1	15.0
					1	99	0	23.0	14.8
					50	0	1	22.4	15.1
					50	24	1	22.2	15.0
					50	49	1	22.3	15.0
					100	0	1	22.3	15.0
				16QAM	1	0	1	22.4	14.9
					1	49	1	22.4	15.2
					1	99	1	22.3	14.9
					50	0	2	21.3	15.0
					50	24	2	21.3	15.0
					50	49	2	21.1	14.9
					100	0	2	21.3	15.0
		19100	1900.0	QPSK	1	0	0	22.9	15.1
					1	49	0	23.0	15.0
					1	99	0	23.1	15.0
					50	0	1	22.2	14.9
					50	24	1	22.2	14.9
					50	49	1	22.3	14.8
					100	0	1	22.0	15.0
				16QAM	1	0	1	22.2	14.9
					1	49	1	22.2	15.0
					1	99	1	22.1	15.0
					50	0	2	21.9	14.8
					50	24	2	22.0	15.0
					50	49	2	21.3	14.8
					100	0	2	21.2	14.7



Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	W/o Power back-off	W/ Power back-off
								Average power(dBm)	Average power(dBm)
2	15	18675	1857.5	QPSK	1	0	0	22.5	14.8
					1	37	0	22.5	14.7
					1	74	0	22.4	14.7
					36	0	1	21.6	14.7
					36	18	1	21.5	14.7
					36	35	1	21.5	14.6
					75	0	1	21.5	14.7
				16QAM	1	0	1	21.5	14.7
					1	37	1	21.6	14.7
					1	74	1	21.5	14.7
					36	0	2	20.6	14.6
					36	18	2	20.5	14.7
					36	35	2	20.5	14.6
					75	0	2	20.5	14.7
		18900	1880.0	QPSK	1	0	0	22.5	14.9
					1	37	0	22.7	15.0
					1	74	0	22.5	14.8
					36	0	1	21.5	14.9
					36	18	1	21.7	14.9
					36	35	1	21.5	14.9
					75	0	1	21.5	14.9
				16QAM	1	0	1	21.6	14.8
					1	37	1	21.7	14.9
					1	74	1	21.5	14.7
					36	0	2	20.5	14.8
					36	18	2	20.7	14.8
					36	35	2	20.4	14.7
					75	0	2	20.5	14.8
		19125	1902.5	QPSK	1	0	0	22.3	14.8
					1	37	0	22.4	14.7
					1	74	0	22.4	14.6
					36	0	1	21.3	14.6
					36	18	1	21.4	14.6
					36	35	1	21.4	14.5
					75	0	1	21.5	14.6
				16QAM	1	0	1	21.3	14.6
					1	37	1	21.6	14.7
					1	74	1	21.6	14.6
					36	0	2	20.3	14.5
					36	18	2	20.4	14.6
					36	35	2	20.4	14.5
					75	0	2	20.5	14.6



Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	W/o Power back-off	W/ Power back-off
								Average power(dBm)	Average power(dBm)
2	10	18650	1855.0	QPSK	1	0	0	22.4	14.6
					1	24	0	22.4	14.7
					1	49	0	22.3	14.7
					25	0	1	21.5	14.6
					25	12	1	21.4	14.6
					25	24	1	21.4	14.5
					50	0	1	21.4	14.6
				16QAM	1	0	1	21.4	14.6
					1	24	1	21.5	14.6
					1	49	1	21.4	14.6
					25	0	2	20.5	14.5
					25	12	2	20.4	14.6
					25	24	2	20.4	14.5
					50	0	2	20.4	14.6
		18900	1880.0	QPSK	1	0	0	22.4	14.8
					1	24	0	22.6	14.9
					1	49	0	22.4	14.7
					25	0	1	21.4	14.8
					25	12	1	21.6	14.8
					25	24	1	21.4	14.8
					50	0	1	21.4	14.8
				16QAM	1	0	1	21.5	14.7
					1	24	1	21.6	14.8
					1	49	1	21.4	14.6
					25	0	2	20.4	14.7
					25	12	2	20.6	14.7
					25	24	2	20.3	14.6
					50	0	2	20.4	14.7
		19150	1905.0	QPSK	1	0	0	22.2	14.5
					1	24	0	22.3	14.6
					1	49	0	22.3	14.5
					25	0	1	21.2	14.5
					25	12	1	21.3	14.5
					25	24	1	21.3	14.4
					50	0	1	21.4	14.5
				16QAM	1	0	1	21.2	14.5
					1	24	1	21.5	14.6
					1	49	1	21.5	14.5
					25	0	2	20.2	14.4
					25	12	2	20.3	14.5
					25	24	2	20.3	14.4
					50	0	2	20.4	14.5



Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	W/o Power back-off	W/ Power back-off
								Average power(dBm)	Average power(dBm)
2	5	18625	1852.5	QPSK	1	0	0	22.3	14.5
					1	12	0	22.3	14.6
					1	24	0	22.2	14.6
					12	0	1	21.4	14.5
					12	6	1	21.3	14.5
					12	11	1	21.3	14.4
					25	0	1	21.3	14.5
				16QAM	1	0	1	21.3	14.5
					1	12	1	21.4	14.5
					1	24	1	21.3	14.5
					12	0	2	20.4	14.4
					12	6	2	20.3	14.5
					12	11	2	20.3	14.4
					25	0	2	20.3	14.5
		18900	1880.0	QPSK	1	0	0	22.3	14.7
					1	12	0	22.5	14.8
					1	24	0	22.3	14.6
					12	0	1	21.3	14.7
					12	6	1	21.5	14.7
					12	11	1	21.3	14.7
					25	0	1	21.3	14.7
				16QAM	1	0	1	21.4	14.6
					1	12	1	21.5	14.7
					1	24	1	21.3	14.5
					12	0	2	20.3	14.6
					12	6	2	20.5	14.6
					12	11	2	20.2	14.5
					25	0	2	20.3	14.6
		19175	1907.5	QPSK	1	0	0	22.1	14.4
					1	12	0	22.2	14.5
					1	24	0	22.2	14.4
					12	0	1	21.1	14.4
					12	6	1	21.2	14.4
					12	11	1	21.2	14.3
					25	0	1	21.3	14.4
				16QAM	1	0	1	21.1	14.4
					1	12	1	21.4	14.5
					1	24	1	21.4	14.4
					12	0	2	20.1	14.3
					12	6	2	20.2	14.4
					12	11	2	20.2	14.3
					25	0	2	20.3	14.4



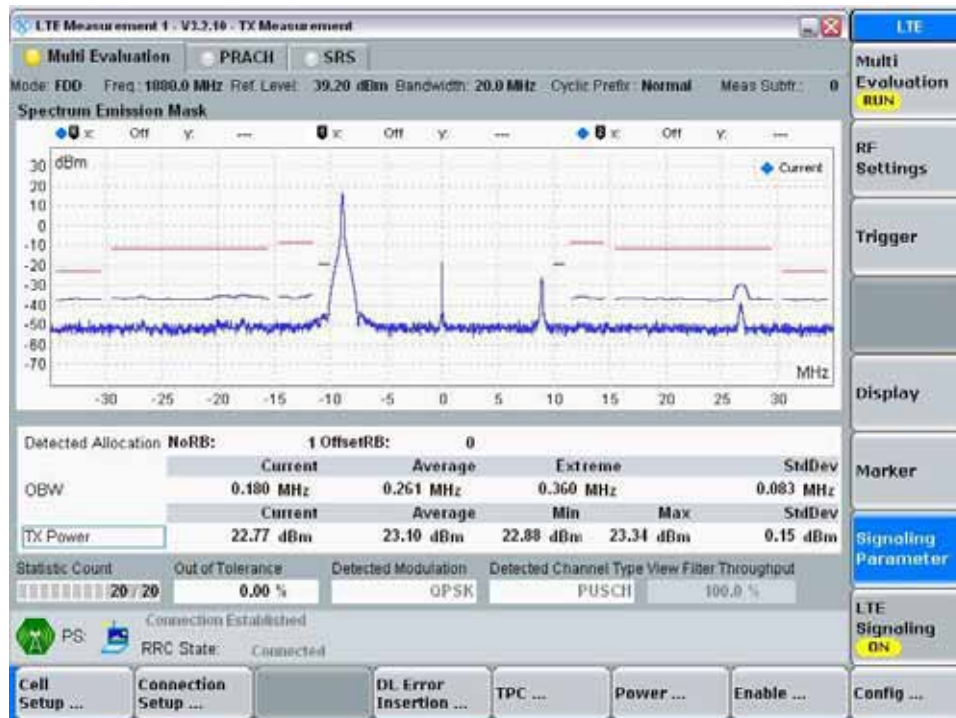
Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	W/o Power back-off	W/ Power back-off
								Average power(dBm)	Average power(dBm)
2	3	18615	1851.5	QPSK	1	0	0	22.2	14.4
					1	7	0	22.2	14.5
					1	14	0	22.1	14.5
					8	0	1	21.3	14.4
					8	4	1	21.2	14.4
					8	7	1	21.2	14.3
					15	0	1	21.2	14.4
				16QAM	1	0	1	21.2	14.4
					1	7	1	21.3	14.4
					1	14	1	21.2	14.4
					8	0	2	20.3	14.3
					8	4	2	20.2	14.4
					8	7	2	20.2	14.3
					15	0	2	20.2	14.4
		18900	1880.0	QPSK	1	0	0	22.2	14.6
					1	7	0	22.4	14.7
					1	14	0	22.2	14.5
					8	0	1	21.2	14.6
					8	4	1	21.4	14.6
					8	7	1	21.2	14.6
					15	0	1	21.2	14.6
				16QAM	1	0	1	21.3	14.5
					1	7	1	21.4	14.6
					1	14	1	21.2	14.4
					8	0	2	20.2	14.5
					8	4	2	20.4	14.5
					8	7	2	20.1	14.4
					15	0	2	20.2	14.5
		19184	1908.4	QPSK	1	0	0	22.0	14.3
					1	7	0	22.1	14.4
					1	14	0	22.1	14.3
					8	0	1	21.0	14.3
					8	4	1	21.1	14.3
					8	7	1	21.1	14.2
					15	0	1	21.2	14.3
				16QAM	1	0	1	21.0	14.3
					1	7	1	21.3	14.4
					1	14	1	21.3	14.3
					8	0	2	20.0	14.2
					8	4	2	20.1	14.3
					8	7	2	20.1	14.2
					15	0	2	20.2	14.3



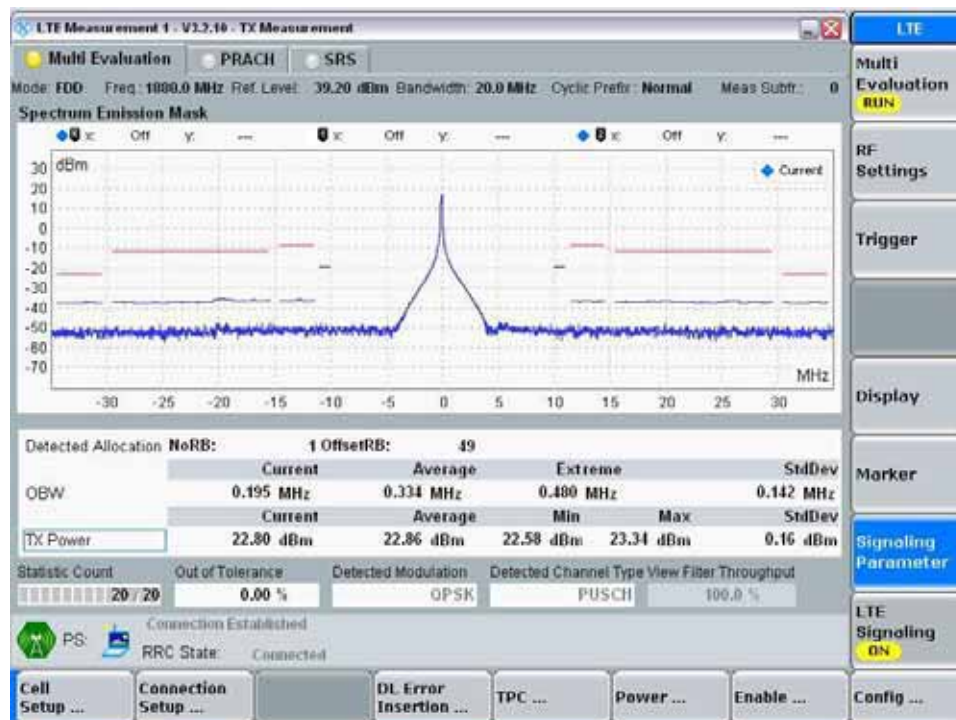
Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	W/o Power back-off	W/ Power back-off
								Average power(dBm)	Average power(dBm)
2	1.4	18607	1850.7	QPSK	1	0	0	22.1	14.1
					1	2	0	22.1	14.2
					1	5	0	22.0	14.2
					3	0	1	21.2	14.1
					3	1	1	21.1	14.1
					3	2	1	21.1	14.0
				16QAM	6	0	1	21.1	14.1
					1	0	1	21.1	14.1
					1	2	1	21.2	14.1
					1	5	1	21.1	14.1
					3	0	2	20.2	14.0
					3	1	2	20.1	14.1
					3	2	2	20.1	14.0
					6	0	2	20.1	14.1
		18900	1880.0	QPSK	1	0	0	22.1	14.3
					1	2	0	22.3	14.4
					1	5	0	22.1	14.2
					3	0	1	21.1	14.3
					3	1	1	21.3	14.3
					3	2	1	21.1	14.3
				16QAM	6	0	1	21.1	14.3
					1	0	1	21.2	14.2
					1	2	1	21.3	14.3
					1	5	1	21.1	14.1
					3	0	2	20.1	14.2
					3	1	2	20.3	14.2
					3	2	2	20.0	14.1
					6	0	2	20.1	14.2
		19192	1909.2	QPSK	1	0	0	21.9	14.0
					1	2	0	22.0	14.1
					1	5	0	22.0	14.0
					3	0	1	20.9	14.0
					3	1	1	21.0	14.0
					3	2	1	21.0	13.9
				16QAM	6	0	1	21.1	14.0
					1	0	1	20.9	14.0
					1	2	1	21.2	14.1
					1	5	1	21.2	14.0
					3	0	2	19.9	13.9
					3	1	2	20.0	14.0
					3	2	2	20.0	13.9
					6	0	2	20.1	14.0



15.10.1 Spectrum Plots for the Test RB allocations



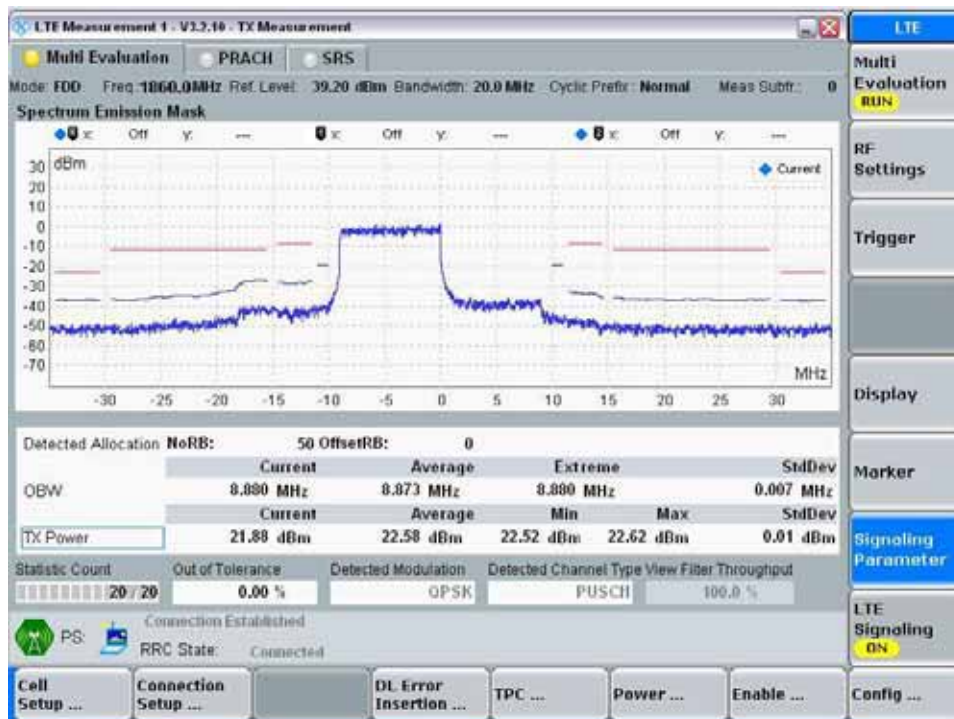
20MHz Band Width: Ch 18900, RB Size=1; RB Offset = 0



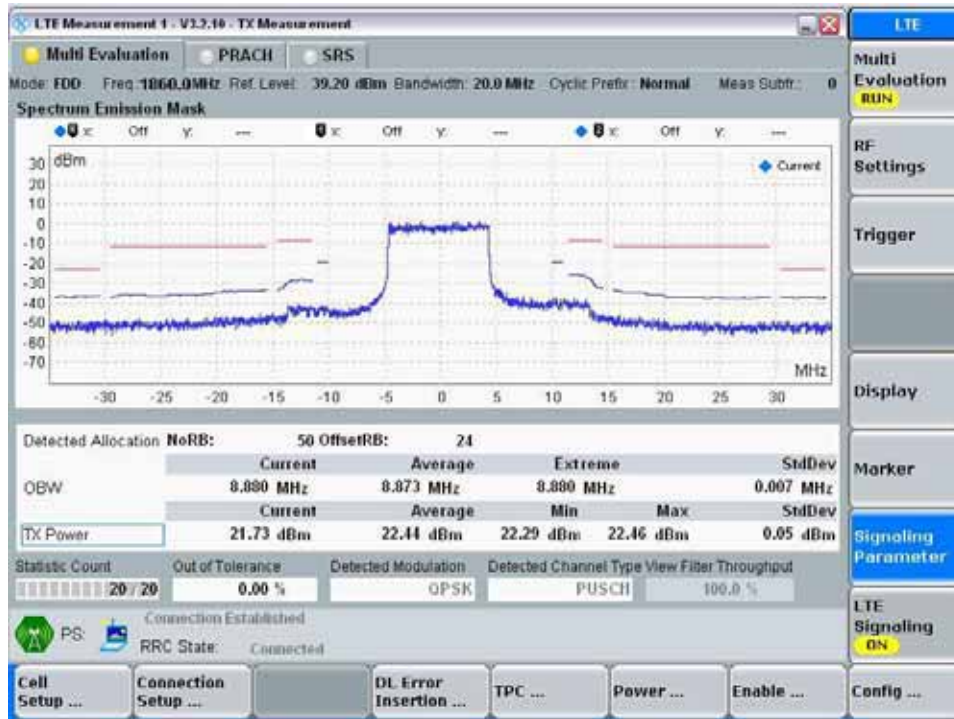
20MHz Band Width: Ch 18900, RB Size=1; RB Offset = 49



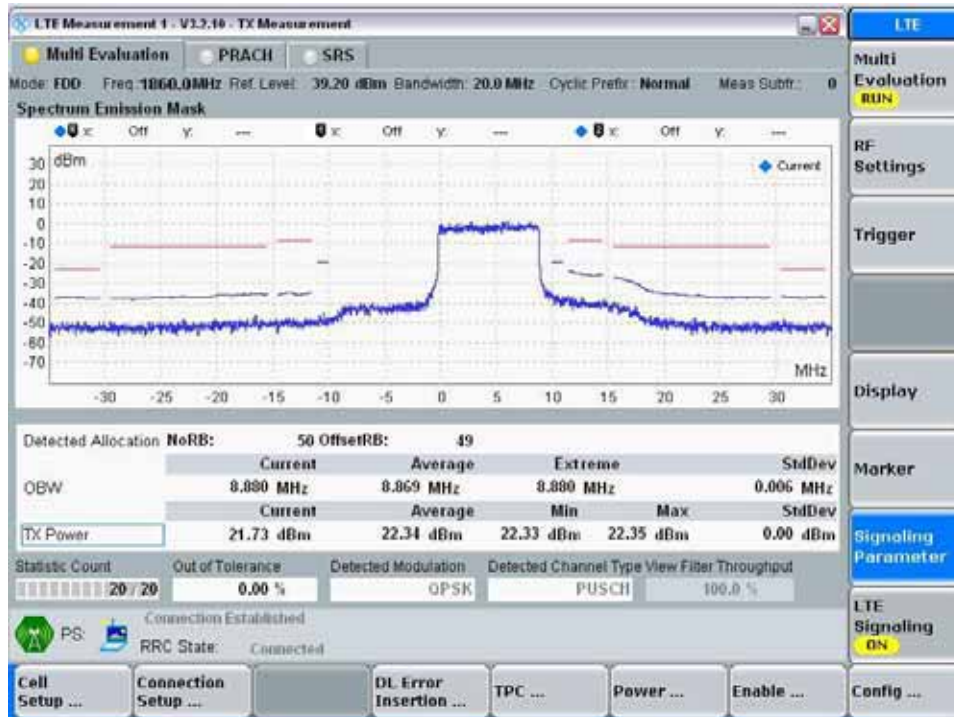
20MHz Band Width: Ch 18900, RB Size=1; RB Offset = 99



20MHz Band Width: Ch 18700, RB Size=50; RB Offset = 0



20MHz Band Width: Ch 18700, RB Size=50; RB Offset = 24



20MHz Band Width: Ch 18700, RB Size=50; RB Offset = 49



20MHz Band Width: Ch 18900, RB Size=100; RB Offset = 0

**15.11 LTE Band 4****Output power table**

Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	W/o Power back-off	W/ Power back-off
								Average power(dBm)	Average power(dBm)
4	20	20050	1720.0	QPSK	1	0	0	22.4	14.9
					1	49	0	22.6	14.8
					1	99	0	22.5	14.7
					50	0	1	21.4	15.0
					50	24	1	21.6	15.0
					50	49	1	21.4	14.8
					100	0	1	21.4	15.0
				16QAM	1	0	1	21.4	14.9
					1	49	1	21.6	14.9
					1	99	1	21.5	14.8
					50	0	2	20.5	14.9
					50	24	2	20.6	14.9
					50	49	2	20.7	14.9
					100	0	2	20.4	14.9
		20175	1732.5	QPSK	1	0	0	22.4	14.9
					1	49	0	22.5	14.7
					1	99	0	22.4	14.4
					50	0	1	21.5	14.6
					50	24	1	21.5	14.6
					50	49	1	21.5	14.7
					100	0	1	21.5	14.7
				16QAM	1	0	1	21.4	14.7
					1	49	1	21.6	14.8
					1	99	1	21.4	14.5
					50	0	2	20.4	14.7
					50	24	2	20.5	14.8
					50	49	2	20.4	14.6
					100	0	2	20.4	14.7
		20300	1745.0	QPSK	1	0	0	22.4	14.9
					1	49	0	22.7	15.0
					1	99	0	22.4	14.7
					50	0	1	21.4	14.6
					50	24	1	21.7	14.6
					50	49	1	21.5	14.7
					100	0	1	21.4	14.6
				16QAM	1	0	1	21.5	14.6
					1	49	1	21.7	14.7
					1	99	1	21.4	14.6
					50	0	2	20.5	14.7
					50	24	2	20.4	14.6
					50	49	2	20.5	14.8
					100	0	2	20.5	14.6



Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	W/o Power back-off	W/ Power back-off
								Average power(dBm)	Average power(dBm)
4	15	20025	1717.5	QPSK	1	0	0	22.2	14.6
					1	37	0	22.4	14.6
					1	74	0	22.3	14.5
					36	0	1	21.2	14.8
					36	18	1	21.4	14.8
					36	35	1	21.2	14.6
					75	0	1	21.2	14.8
				16QAM	1	0	1	21.2	14.7
					1	37	1	21.4	14.7
					1	74	1	21.3	14.6
					36	0	2	20.3	14.7
					36	18	2	20.4	14.7
					36	35	2	20.5	14.7
					75	0	2	20.2	14.7
		20175	1732.5	QPSK	1	0	0	22.2	14.4
					1	37	0	22.3	14.5
					1	74	0	22.2	14.2
					36	0	1	21.3	14.4
					36	18	1	21.3	14.4
					36	35	1	21.3	14.5
					75	0	1	21.3	14.5
				16QAM	1	0	1	21.2	14.5
					1	37	1	21.4	14.6
					1	74	1	21.2	14.3
					36	0	2	20.2	14.5
					36	18	2	20.3	14.6
					36	35	2	20.2	14.4
					75	0	2	20.2	14.5
		20325	1747.5	QPSK	1	0	0	22.2	14.7
					1	37	0	22.5	14.8
					1	74	0	22.2	14.5
					36	0	1	21.2	14.4
					36	18	1	21.5	14.4
					36	35	1	21.3	14.5
					75	0	1	21.2	14.4
				16QAM	1	0	1	21.3	14.4
					1	37	1	21.5	14.5
					1	74	1	21.2	14.4
					36	0	2	20.3	14.5
					36	18	2	20.2	14.4
					36	35	2	20.3	14.6
					75	0	2	20.3	14.4



Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	W/o Power back-off	W/ Power back-off
								Average power(dBm)	Average power(dBm)
4	10	20000	1715.0	QPSK	1	0	0	22.1	14.5
					1	24	0	22.3	14.5
					1	49	0	22.2	14.4
					25	0	1	21.1	14.7
					25	12	1	21.3	14.7
					25	24	1	21.1	14.5
					50	0	1	21.1	14.7
				16QAM	1	0	1	21.1	14.6
					1	24	1	21.3	14.6
					1	49	1	21.2	14.5
					25	0	2	20.2	14.6
					25	12	2	20.3	14.6
					25	24	2	20.4	14.6
					50	0	2	20.1	14.6
		20175	1732.5	QPSK	1	0	0	22.1	14.3
					1	24	0	22.2	14.4
					1	49	0	22.1	14.1
					25	0	1	21.2	14.3
					25	12	1	21.2	14.3
					25	24	1	21.2	14.4
					50	0	1	21.2	14.4
				16QAM	1	0	1	21.1	14.4
					1	24	1	21.3	14.5
					1	49	1	21.1	14.2
					25	0	2	20.1	14.4
					25	12	2	20.2	14.5
					25	24	2	20.1	14.3
					50	0	2	20.1	14.4
		20350	1750.0	QPSK	1	0	0	22.1	14.6
					1	24	0	22.4	14.7
					1	49	0	22.1	14.4
					25	0	1	21.1	14.3
					25	12	1	21.4	14.3
					25	24	1	21.2	14.4
					50	0	1	21.1	14.3
				16QAM	1	0	1	21.2	14.3
					1	24	1	21.4	14.4
					1	49	1	21.1	14.3
					25	0	2	20.2	14.4
					25	12	2	20.1	14.3
					25	24	2	20.2	14.5
					50	0	2	20.2	14.3



Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	W/o Power back-off	W/ Power back-off
								Average power(dBm)	Average power(dBm)
4	5	19975	1712.5	QPSK	1	0	0	22.0	14.4
					1	12	0	22.2	14.4
					1	24	0	22.1	14.3
					12	0	1	21.0	14.6
					12	6	1	21.2	14.6
					12	11	1	21.0	14.4
					25	0	1	21.0	14.6
				16QAM	1	0	1	21.0	14.5
					1	12	1	21.2	14.5
					1	24	1	21.1	14.4
					12	0	2	20.1	14.5
					12	6	2	20.2	14.5
					12	11	2	20.3	14.5
					25	0	2	20.0	14.5
		20175	1732.5	QPSK	1	0	0	22.0	14.2
					1	12	0	22.1	14.3
					1	24	0	22.0	14.0
					12	0	1	21.1	14.2
					12	6	1	21.1	14.2
					12	11	1	21.1	14.3
					25	0	1	21.1	14.3
				16QAM	1	0	1	21.0	14.3
					1	12	1	21.2	14.4
					1	24	1	21.0	14.1
					12	0	2	20.0	14.3
					12	6	2	20.1	14.4
					12	11	2	20.0	14.2
					25	0	2	20.0	14.3
		20375	1752.5	QPSK	1	0	0	22.0	14.5
					1	12	0	22.3	14.6
					1	24	0	22.0	14.3
					12	0	1	21.0	14.2
					12	6	1	21.3	14.2
					12	11	1	21.1	14.3
					25	0	1	21.0	14.2
				16QAM	1	0	1	21.1	14.2
					1	12	1	21.3	14.3
					1	24	1	21.0	14.2
					12	0	2	20.1	14.3
					12	6	2	20.0	14.2
					12	11	2	20.1	14.4
					25	0	2	20.1	14.2



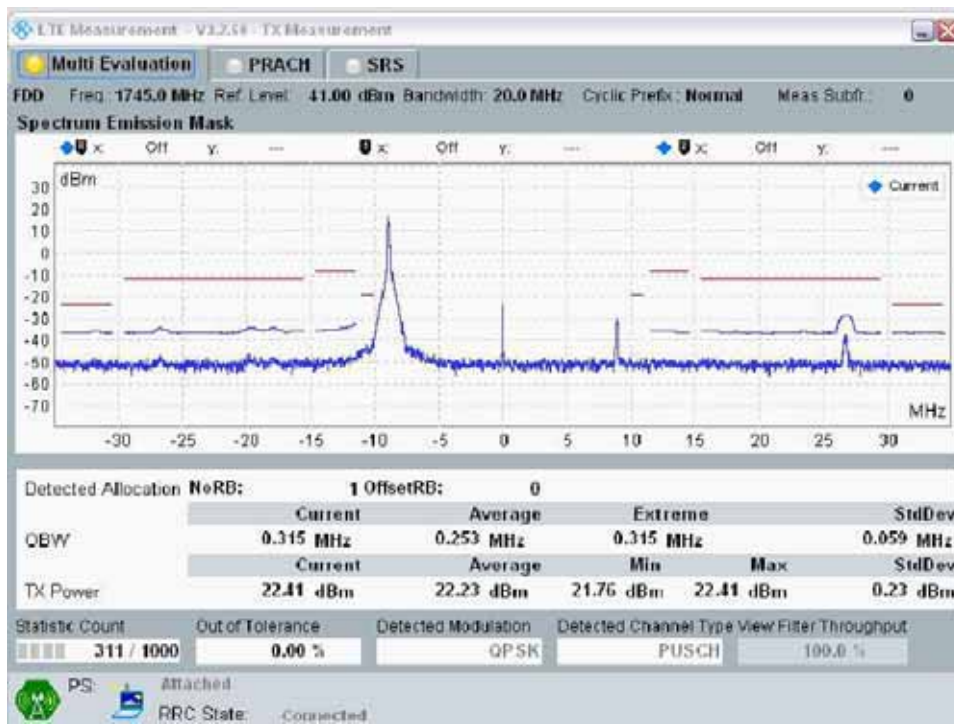
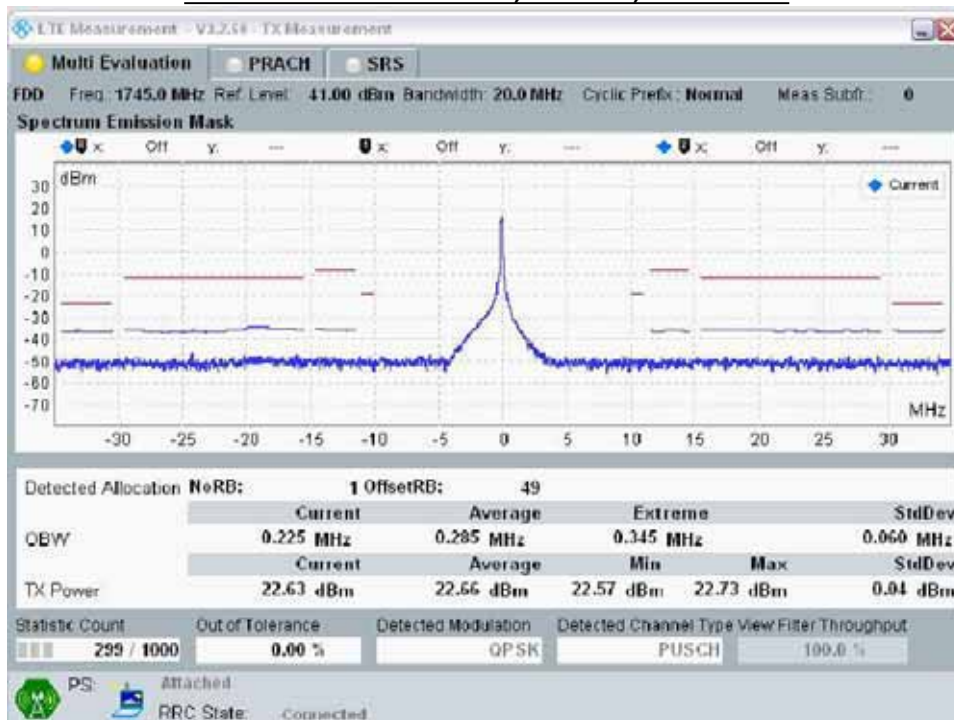
Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	W/o Power back-off	W/ Power back-off
								Average power(dBm)	Average power(dBm)
4	3	19965	1711.5	QPSK	1	0	0	21.9	14.3
					1	7	0	22.1	14.3
					1	14	0	22.0	14.2
					8	0	1	20.9	14.5
					8	4	1	21.1	14.5
					8	7	1	20.9	14.3
					15	0	1	20.9	14.5
				16QAM	1	0	1	20.9	14.4
					1	7	1	21.1	14.4
					1	14	1	21.0	14.3
					8	0	2	20.0	14.4
					8	4	2	20.1	14.4
					8	7	2	20.2	14.4
					15	0	2	19.9	14.4
		20175	1732.5	QPSK	1	0	0	21.9	14.1
					1	7	0	22.0	14.2
					1	14	0	21.9	13.9
					8	0	1	21.0	14.1
					8	4	1	21.0	14.1
					8	7	1	21.0	14.2
					15	0	1	21.0	14.2
				16QAM	1	0	1	20.9	14.2
					1	7	1	21.1	14.3
					1	14	1	20.9	14.0
					8	0	2	19.9	14.2
					8	4	2	20.0	14.3
					8	7	2	19.9	14.1
					15	0	2	19.9	14.2
		20384	1753.4	QPSK	1	0	0	21.9	14.4
					1	7	0	22.2	14.5
					1	14	0	21.9	14.2
					8	0	1	20.9	14.1
					8	4	1	21.2	14.1
					8	7	1	21.0	14.2
					15	0	1	20.9	14.1
				16QAM	1	0	1	21.0	14.1
					1	7	1	21.2	14.2
					1	14	1	20.9	14.1
					8	0	2	20.0	14.2
					8	4	2	19.9	14.1
					8	7	2	20.0	14.3
					15	0	2	20.0	14.1

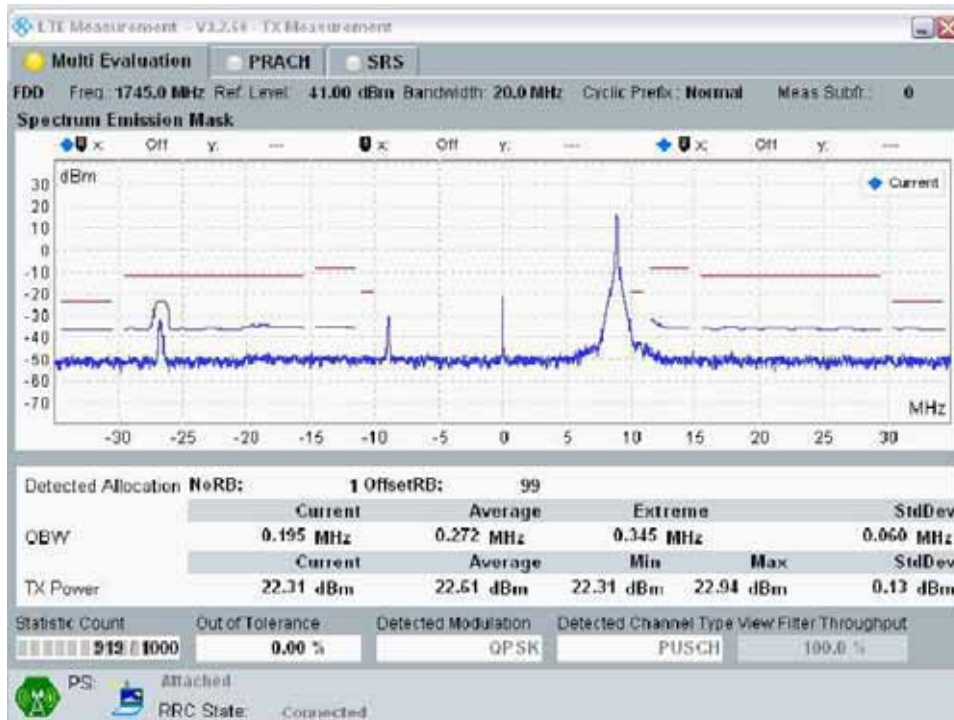


Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	W/o Power back-off	W/ Power back-off
								Average power(dBm)	Average power(dBm)
4	1.4	19957	1710.7	QPSK	1	0	0	21.8	14.0
					1	2	0	22.0	14.0
					1	5	0	21.9	13.9
					3	0	1	20.8	14.2
					3	1	1	21.0	14.2
					3	2	1	20.8	14.0
					6	0	1	20.8	14.2
				16QAM	1	0	1	20.8	14.1
					1	2	1	21.0	14.1
					1	5	1	20.9	14.0
					3	0	2	19.9	14.1
					3	1	2	20.0	14.1
					3	2	2	20.1	14.1
					6	0	2	19.8	14.1
		20175	1732.5	QPSK	1	0	0	21.8	13.8
					1	2	0	21.9	13.9
					1	5	0	21.8	13.6
					3	0	1	20.9	13.8
					3	1	1	20.9	13.8
					3	2	1	20.9	13.9
					6	0	1	20.9	13.9
				16QAM	1	0	1	20.8	13.9
					1	2	1	21.0	14.0
					1	5	1	20.8	13.7
					3	0	2	19.8	13.9
					3	1	2	19.9	14.0
					3	2	2	19.8	13.8
		20392	1754.2	QPSK	6	0	2	19.8	13.9
					1	0	0	21.8	14.1
					1	2	0	22.1	14.2
					1	5	0	21.8	13.9
					3	0	1	20.8	13.8
					3	1	1	21.1	13.8
					3	2	1	20.9	13.9
					6	0	1	20.8	13.8
				16QAM	1	0	1	20.9	13.8
					1	2	1	21.1	13.9
					1	5	1	20.8	13.8
					3	0	2	19.9	13.9
					3	1	2	19.8	13.8
					3	2	2	19.9	14.0
					6	0	2	19.9	13.8

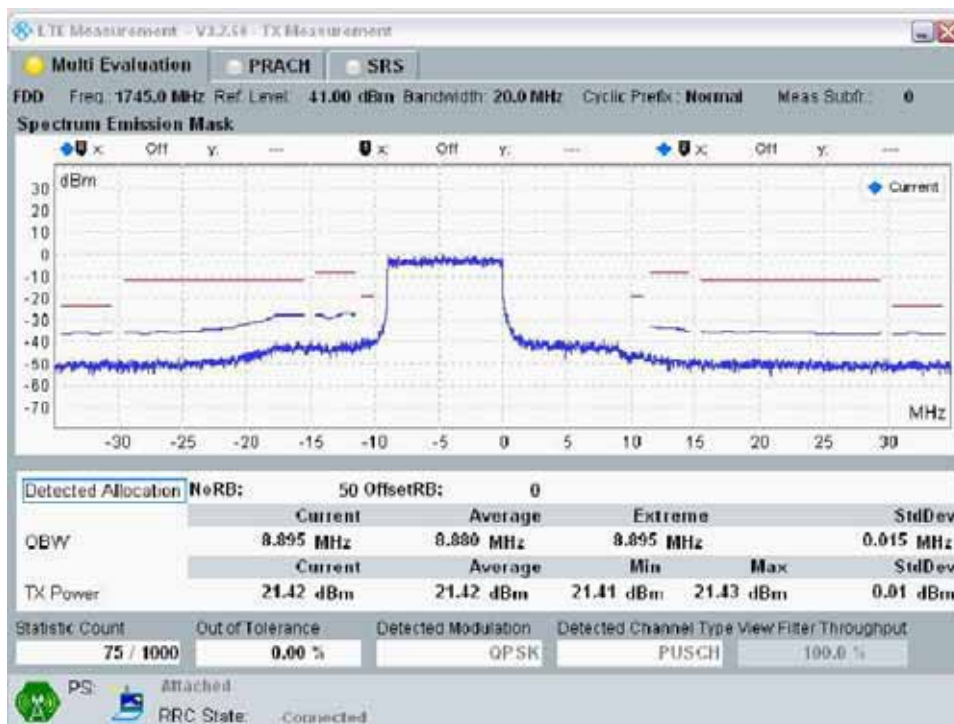


15.11.1 Spectrum Plots for the Test RB allocations

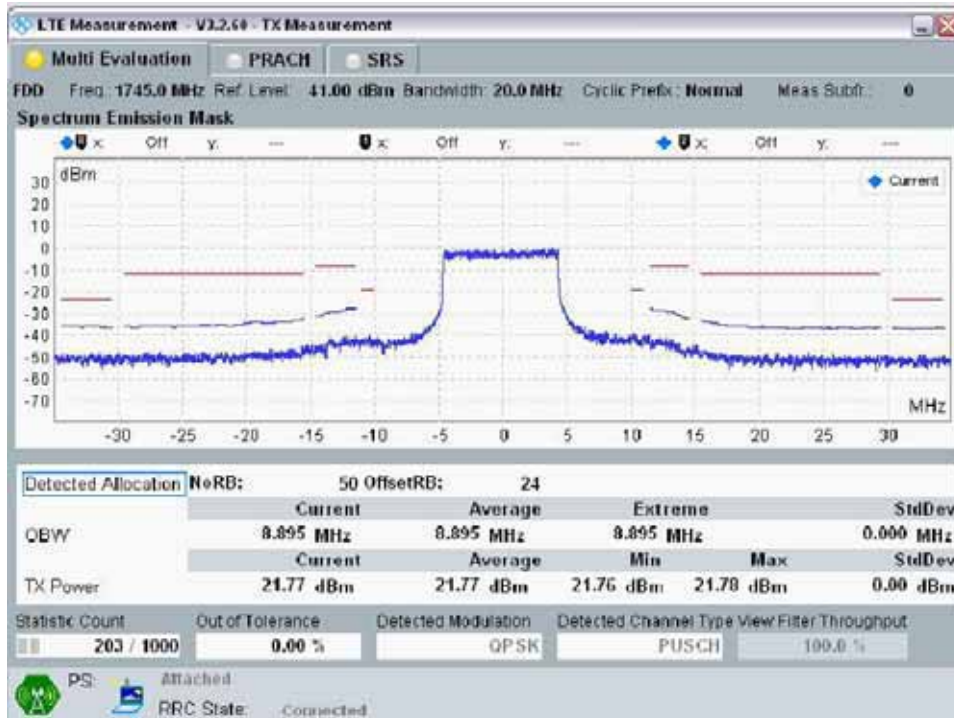
20MHz Band Width: Ch 20300, RB Size=1; RB Offset = 020MHz Band Width: Ch 20300, RB Size=1; RB Offset = 49



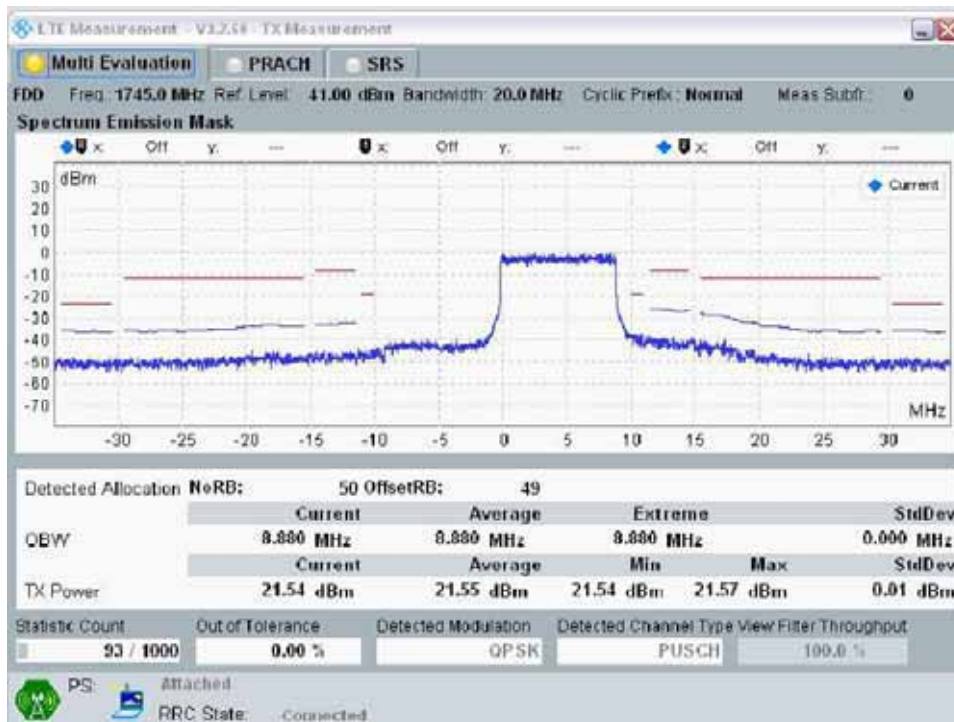
20MHz Band Width: Ch 20300, RB Size=1; RB Offset = 99



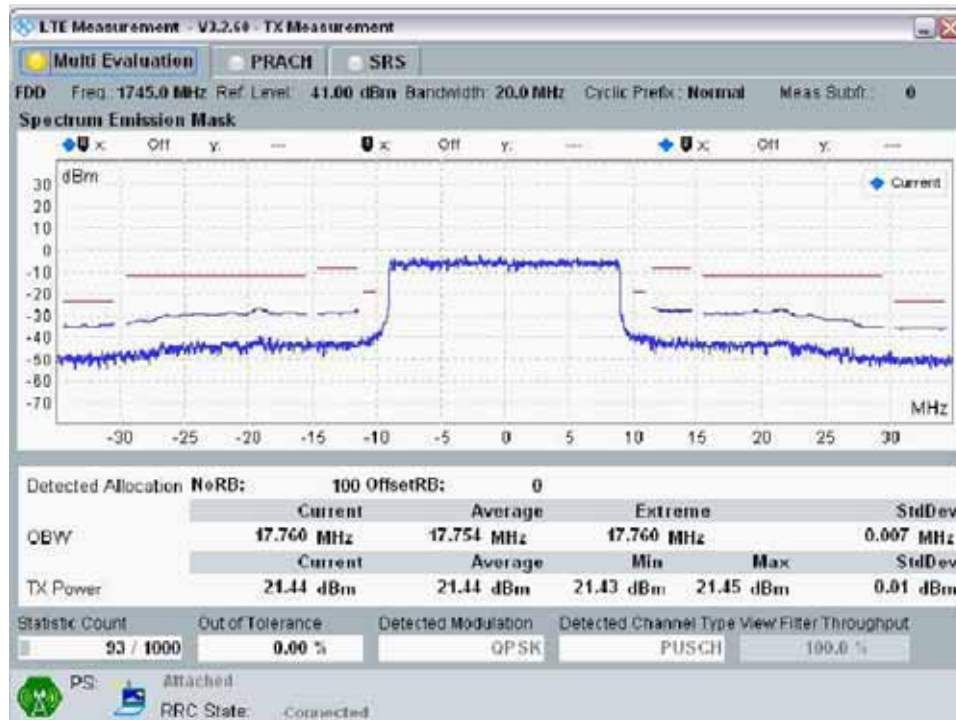
20MHz Band Width: Ch 20300, RB Size=50; RB Offset = 0



20MHz Band Width: Ch 20300, RB Size=50; RB Offset = 24



20MHz Band Width: Ch 20300, RB Size=50; RB Offset = 49



20MHz Band Width: Ch 20175, RB Size=100; RB Offset = 0

**15.12LTE Band 5****Output power table**

Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	W/o Power back-off	W/ Power back-off
								Average power(dBm)	Average power(dBm)
5	10	20450	829.0	QPSK	1	0	0	22.8	17.9
					1	24	0	23.0	17.8
					1	49	0	22.9	17.7
					25	0	1	22.0	17.6
					25	12	1	22.0	17.6
					25	24	1	21.9	17.6
					50	0	1	21.8	17.9
				16QAM	1	0	1	21.9	17.7
					1	24	1	22.1	17.8
					1	49	1	21.9	17.7
					25	0	2	21.0	17.6
					25	12	2	21.0	17.7
					25	24	2	21.0	17.6
					50	0	2	20.9	17.9
		20525	836.5	QPSK	1	0	0	22.9	17.9
					1	24	0	23.0	18.0
					1	49	0	22.9	17.9
					25	0	1	22.1	17.7
					25	12	1	22.1	17.8
					25	24	1	22.0	17.7
					50	0	1	21.9	18.0
				16QAM	1	0	1	21.9	17.8
					1	24	1	22.1	17.8
					1	49	1	21.9	17.7
					25	0	2	21.0	17.6
					25	12	2	21.1	17.6
					25	24	2	21.1	17.6
					50	0	2	21.0	17.9
		20600	844.0	QPSK	1	0	0	22.9	17.9
					1	24	0	22.9	17.8
					1	49	0	22.8	17.7
					25	0	1	22.0	17.6
					25	12	1	21.9	17.6
					25	24	1	22.0	17.6
					50	0	1	21.9	17.9
				16QAM	1	0	1	22.0	17.7
					1	24	1	22.0	17.8
					1	49	1	21.8	17.7
					25	0	2	21.0	17.6
					25	12	2	21.0	17.7
					25	24	2	21.0	17.6
					50	0	2	20.9	17.9



Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	W/o Power back-off	W/ Power back-off
								Average power(dBm)	Average power(dBm)
5	5	20425	826.5	QPSK	1	0	0	22.6	17.6
					1	12	0	22.8	17.6
					1	24	0	22.7	17.5
					12	0	1	21.8	17.4
					12	6	1	21.8	17.4
					12	11	1	21.7	17.4
					25	0	1	21.6	17.7
				16QAM	1	0	1	21.7	17.5
					1	12	1	21.9	17.6
					1	24	1	21.7	17.5
					12	0	2	20.8	17.4
					12	6	2	20.8	17.5
					12	11	2	20.8	17.4
					25	0	2	20.7	17.7
		20525	836.5	QPSK	1	0	0	22.7	17.7
					1	12	0	22.8	17.8
					1	24	0	22.7	17.7
					12	0	1	21.9	17.5
					12	6	1	21.9	17.6
					12	11	1	21.8	17.5
					25	0	1	21.7	17.8
				16QAM	1	0	1	21.7	17.6
					1	12	1	21.9	17.6
					1	24	1	21.7	17.5
					12	0	2	20.8	17.4
					12	6	2	20.9	17.4
					12	11	2	20.9	17.4
					25	0	2	20.8	17.7
		20625	846.5	QPSK	1	0	0	22.7	17.6
					1	12	0	22.7	17.6
					1	24	0	22.6	17.5
					12	0	1	21.8	17.4
					12	6	1	21.7	17.4
					12	11	1	21.8	17.4
					25	0	1	21.7	17.7
				16QAM	1	0	1	21.8	17.5
					1	12	1	21.8	17.6
					1	24	1	21.6	17.5
					12	0	2	20.8	17.4
					12	6	2	20.8	17.5
					12	11	2	20.8	17.4
					25	0	2	20.7	17.7



Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	W/o Power back-off	W/ Power back-off
								Average power(dBm)	Average power(dBm)
5	3	20415	825.5	QPSK	1	0	0	22.5	17.5
					1	7	0	22.7	17.5
					1	14	0	22.6	17.4
					8	0	1	21.7	17.3
					8	4	1	21.7	17.3
					8	7	1	21.6	17.3
					15	0	1	21.5	17.6
				16QAM	1	0	1	21.6	17.4
					1	7	1	21.8	17.5
					1	14	1	21.6	17.4
					8	0	2	20.7	17.3
					8	4	2	20.7	17.4
					8	7	2	20.7	17.3
					15	0	2	20.6	17.6
		20525	836.5	QPSK	1	0	0	22.6	17.6
					1	7	0	22.7	17.7
					1	14	0	22.6	17.6
					8	0	1	21.8	17.4
					8	4	1	21.8	17.5
					8	7	1	21.7	17.4
					15	0	1	21.6	17.7
				16QAM	1	0	1	21.6	17.5
					1	7	1	21.8	17.5
					1	14	1	21.6	17.4
					8	0	2	20.7	17.3
					8	4	2	20.8	17.3
					8	7	2	20.8	17.3
					15	0	2	20.7	17.6
		20634	847.4	QPSK	1	0	0	22.6	17.5
					1	7	0	22.6	17.5
					1	14	0	22.5	17.4
					8	0	1	21.7	17.3
					8	4	1	21.6	17.3
					8	7	1	21.7	17.3
					15	0	1	21.6	17.6
				16QAM	1	0	1	21.7	17.4
					1	7	1	21.7	17.5
					1	14	1	21.5	17.4
					8	0	2	20.7	17.3
					8	4	2	20.7	17.4
					8	7	2	20.7	17.3
					15	0	2	20.6	17.6



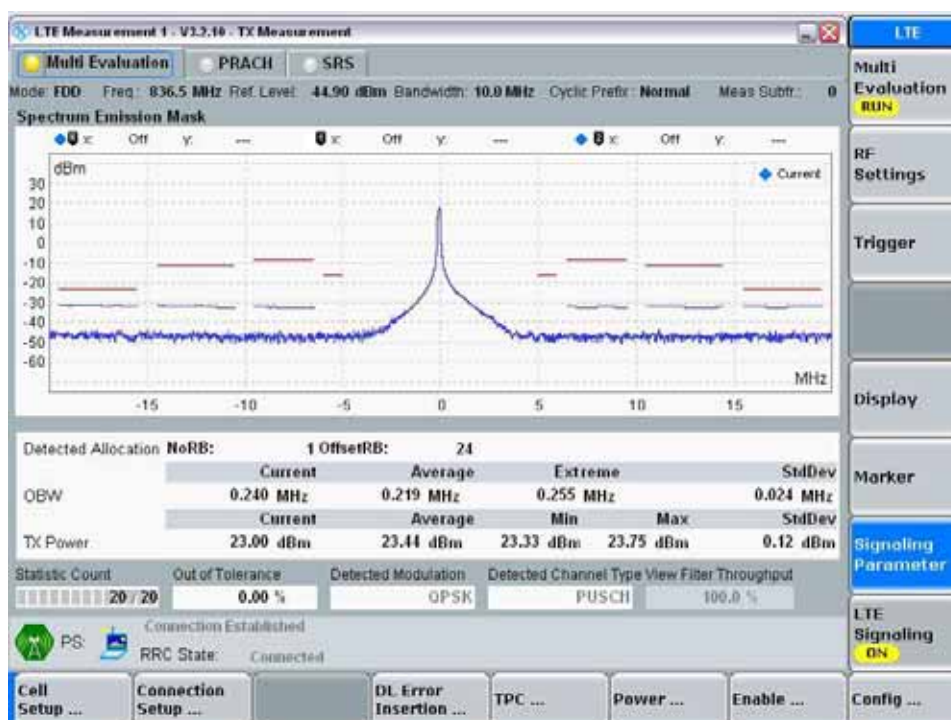
Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	W/o Power back-off	W/ Power back-off
								Average power(dBm)	Average power(dBm)
5	1.4	20407	824.7	QPSK	1	0	0	22.4	17.4
					1	2	0	22.6	17.4
					1	5	0	22.5	17.3
					3	0	1	21.6	17.2
					3	1	1	21.6	17.2
					3	2	1	21.5	17.2
					6	0	1	21.4	17.5
				16QAM	1	0	1	21.5	17.3
					1	2	1	21.7	17.4
					1	5	1	21.5	17.3
					3	0	2	20.6	17.2
					3	1	2	20.6	17.3
					3	2	2	20.6	17.2
					6	0	2	20.5	17.5
		20525	836.5	QPSK	1	0	0	22.5	17.5
					1	2	0	22.6	17.6
					1	5	0	22.5	17.5
					3	0	1	21.7	17.3
					3	1	1	21.7	17.4
					3	2	1	21.6	17.3
					6	0	1	21.5	17.6
				16QAM	1	0	1	21.5	17.4
					1	2	1	21.7	17.4
					1	5	1	21.5	17.3
					3	0	2	20.6	17.2
					3	1	2	20.7	17.2
					3	2	2	20.7	17.2
					6	0	2	20.6	17.5
		20642	848.2	QPSK	1	0	0	22.5	17.4
					1	2	0	22.5	17.4
					1	5	0	22.4	17.3
					3	0	1	21.6	17.2
					3	1	1	21.5	17.2
					3	2	1	21.6	17.2
					6	0	1	21.5	17.5
				16QAM	1	0	1	21.6	17.3
					1	2	1	21.6	17.4
					1	5	1	21.4	17.3
					3	0	2	20.6	17.2
					3	1	2	20.6	17.3
					3	2	2	20.6	17.2
					6	0	2	20.5	17.5



15.12.1 Spectrum Plots for the Test RB allocations



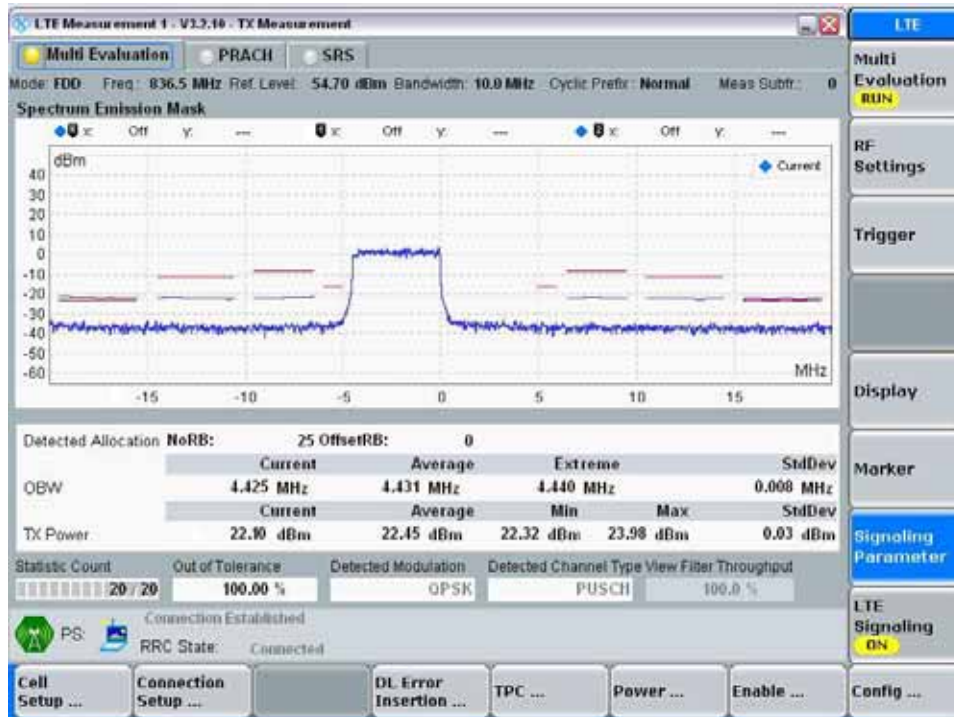
10MHz Band Width: Ch 20525, RB Size=1; RB Offset = 0



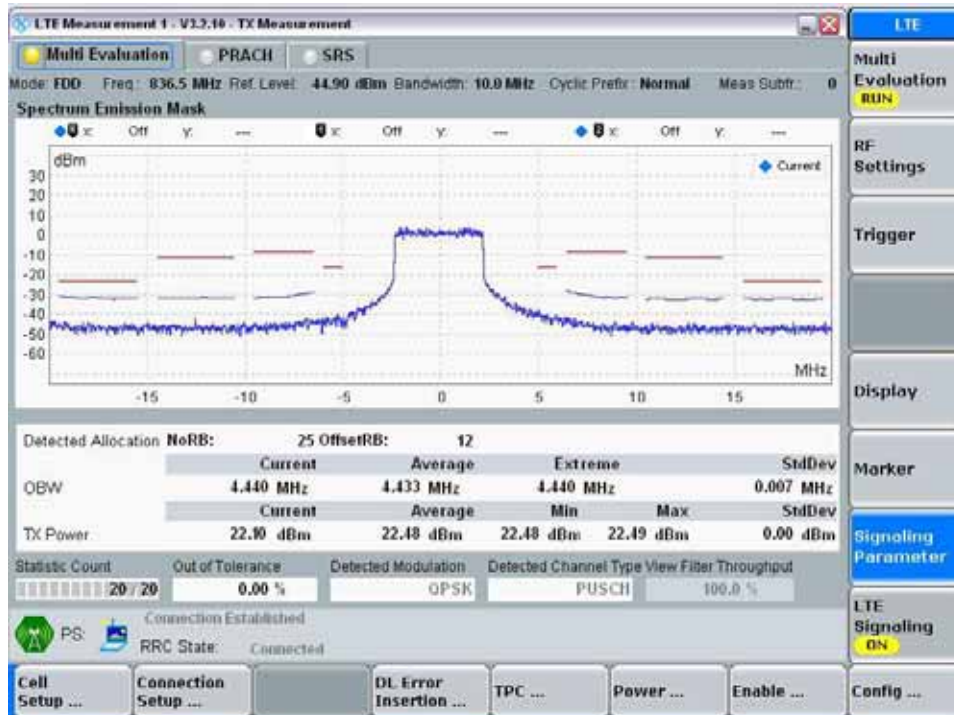
10MHz Band Width: Ch 20525, RB Size=1; RB Offset = 24



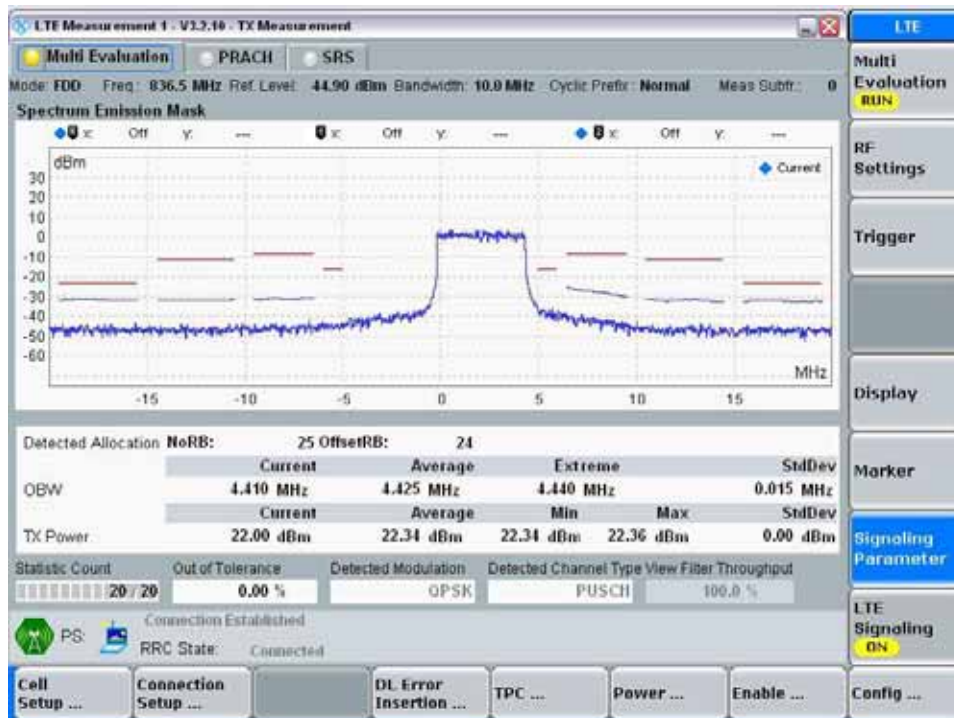
10MHz Band Width: Ch 20525, RB Size=1; RB Offset = 49



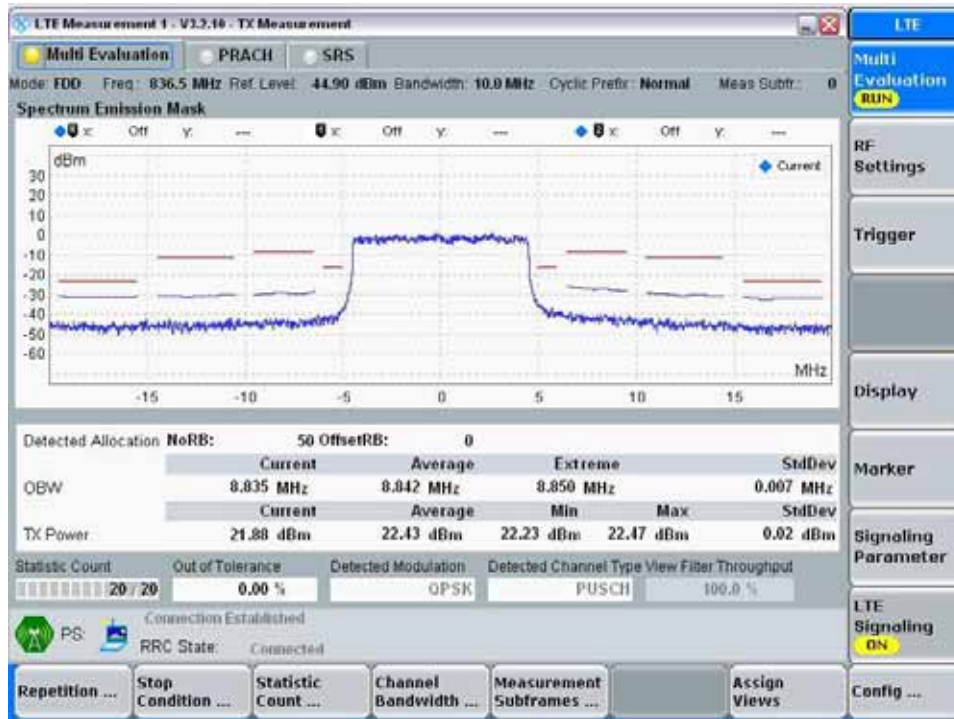
10MHz Band Width: Ch 20525, RB Size=25; RB Offset = 0



10MHz Band Width: Ch 20525, RB Size=25; RB Offset = 12



10MHz Band Width: Ch 20525, RB Size=25; RB Offset = 24



10MHz Band Width: Ch 20525, RB Size=50; RB Offset = 0

**15.13 LTE Band 13****Output power table**

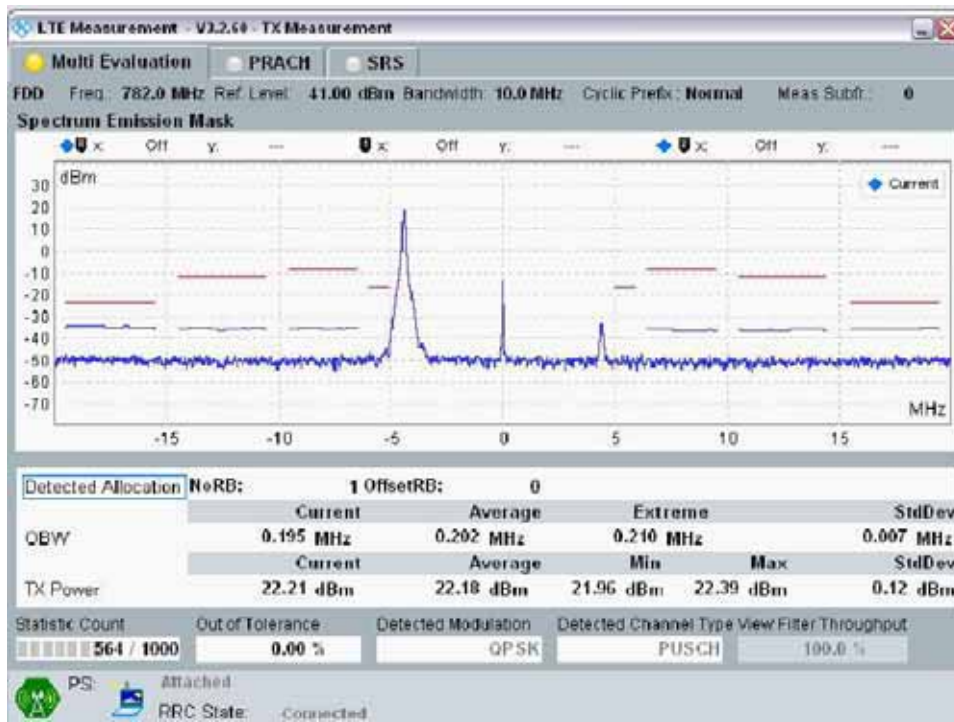
Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	W/o Power back-off	W/ Power back-off
								Average power(dBm)	Average power(dBm)
13	10	23230	782.0	QPSK	1	0	0	22.2	18.8
					1	24	0	22.5	19.0
					1	49	0	22.2	18.8
					25	0	1	21.2	19.0
					25	12	1	21.5	18.8
					25	24	1	21.2	18.7
					50	0	1	21.3	18.9
				16QAM	1	0	1	22.2	18.7
					1	24	1	21.4	18.9
					1	49	1	21.1	18.7
					25	0	2	20.3	18.9
					25	12	2	20.6	18.7
					25	24	2	20.3	18.6
					50	0	2	20.2	18.8



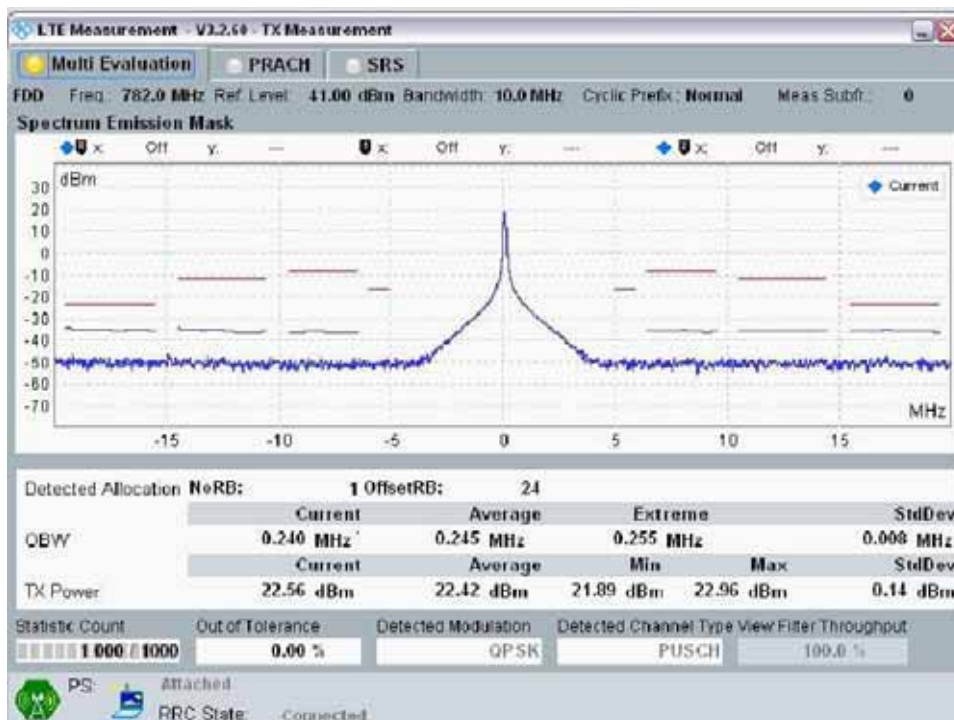
Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	W/o Power back-off	W/ Power back-off
								Average power(dBm)	Average power(dBm)
13	5	23205	779.5	QPSK	1	0	0	22.0	18.6
					1	12	0	22.3	18.8
					1	24	0	22.0	18.6
					12	0	1	21.0	18.8
					12	6	1	21.3	18.6
					12	11	1	21.0	18.5
					25	0	1	21.1	18.7
				16QAM	1	0	1	22.0	18.5
					1	12	1	21.2	18.7
					1	24	1	20.9	18.5
					12	0	2	20.1	18.7
					12	6	2	20.4	18.5
					12	11	2	20.1	18.4
					25	0	2	20.0	18.6
		23230	752.0	QPSK	1	0	0	21.9	18.5
					1	12	0	22.2	18.7
					1	24	0	21.9	18.5
					12	0	1	20.9	18.7
					12	6	1	21.2	18.5
					12	11	1	20.9	18.4
					25	0	1	21.0	18.6
				16QAM	1	0	1	21.9	18.4
					1	12	1	21.1	18.6
					1	24	1	20.8	18.4
					12	0	2	20.0	18.6
					12	6	2	20.3	18.4
					12	11	2	20.0	18.3
					25	0	2	19.9	18.5
		23255	784.5	QPSK	1	0	0	21.8	18.4
					1	12	0	22.1	18.6
					1	24	0	21.8	18.4
					12	0	1	20.8	18.6
					12	6	1	21.1	18.4
					12	11	1	20.8	18.3
					25	0	1	20.9	18.5
				16QAM	1	0	1	21.8	18.3
					1	12	1	21.0	18.5
					1	24	1	20.7	18.3
					12	0	2	19.9	18.5
					12	6	2	20.2	18.3
					12	11	2	19.9	18.2
					25	0	2	19.8	18.4



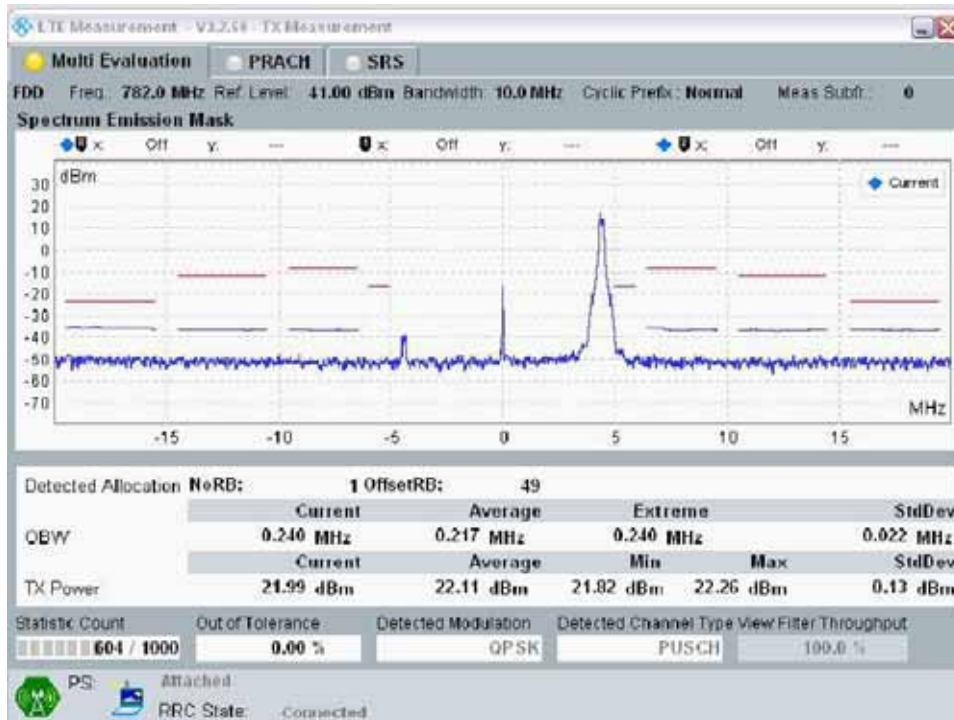
15.13.1 Spectrum Plots for the Test RB allocations



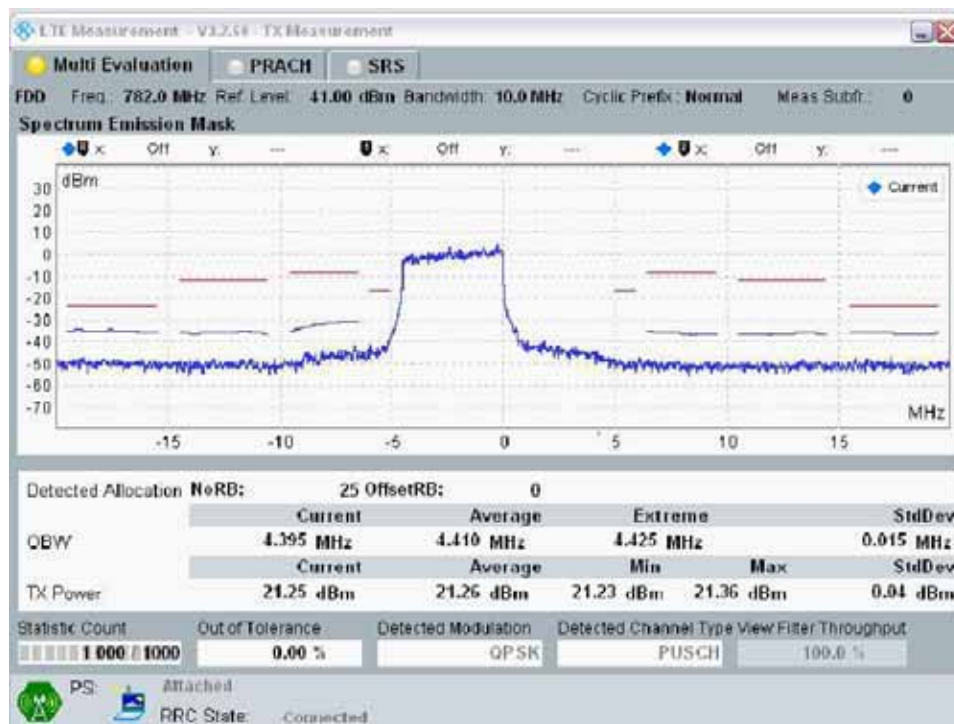
10MHz Band Width: Ch 23230, RB Size=1; RB Offset = 0



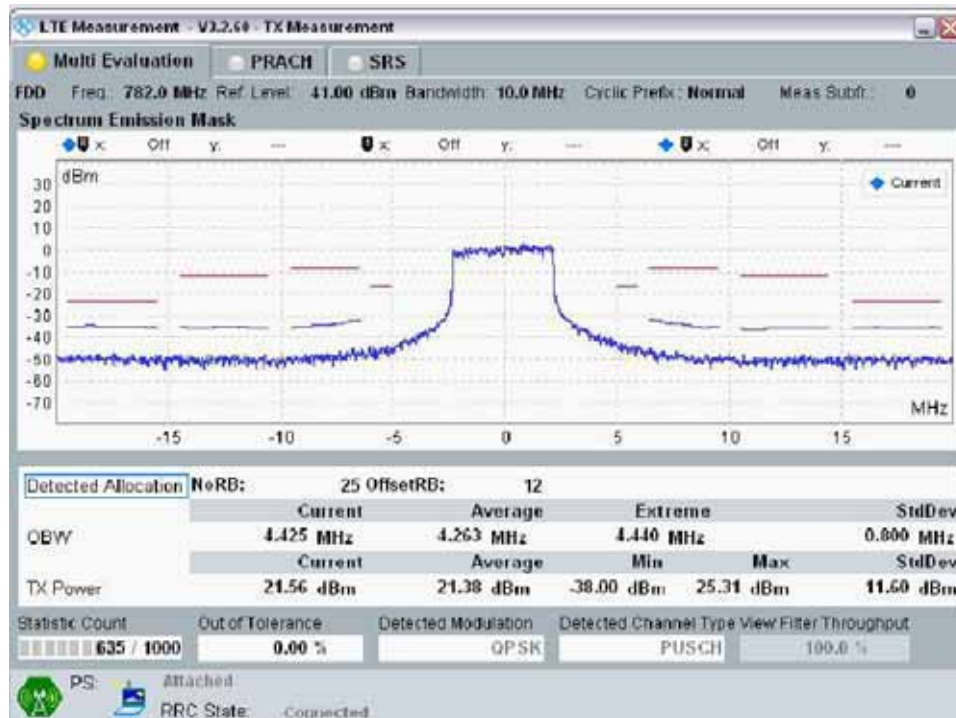
10MHz Band Width: Ch 23230, RB Size=1; RB Offset = 24



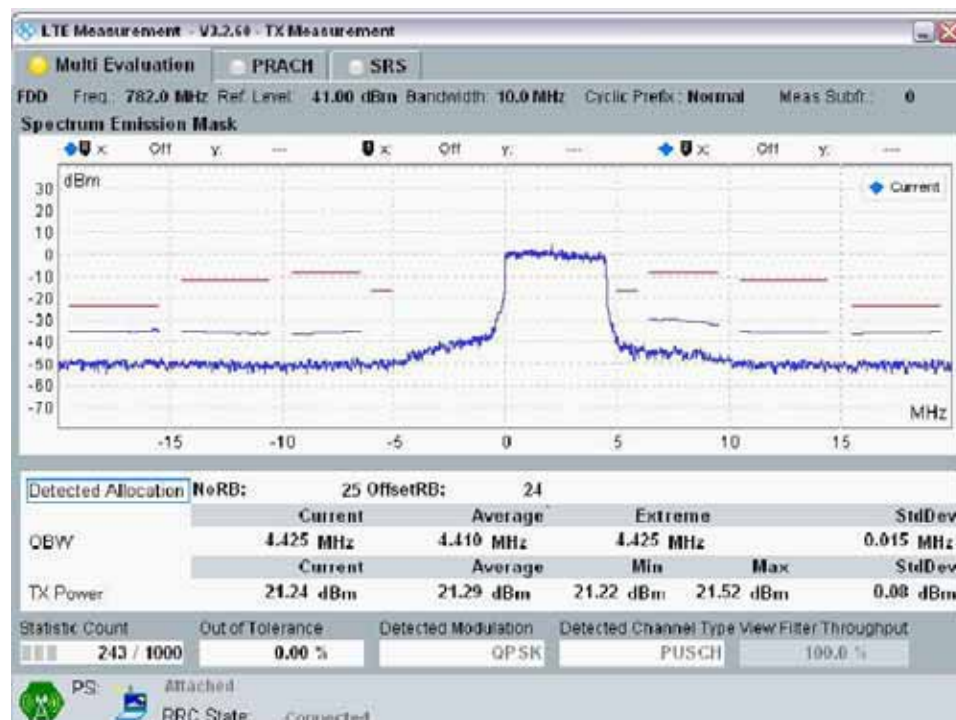
10MHz Band Width: Ch 23230, RB Size=1; RB Offset = 49



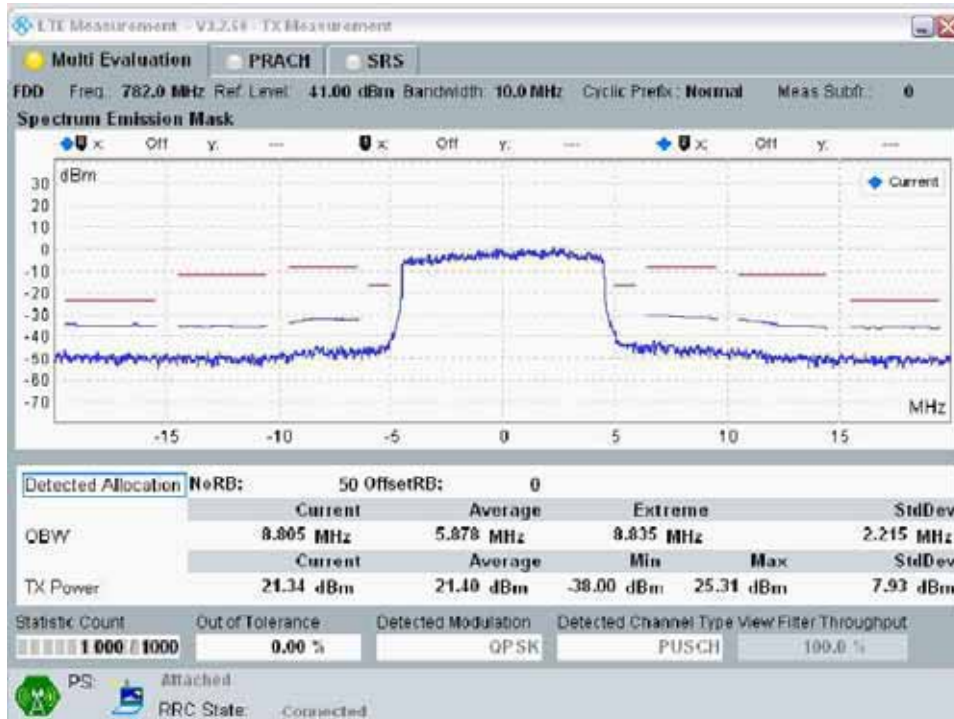
10MHz Band Width: Ch 23230, RB Size=25; RB Offset = 0



10MHz Band Width: Ch 23230, RB Size=25; RB Offset = 12



10MHz Band Width: Ch 23230, RB Size=25; RB Offset = 24



10MHz Band Width: Ch 23230, RB Size=50; RB Offset = 0

**15.14 LTE Band 17****Output power table**

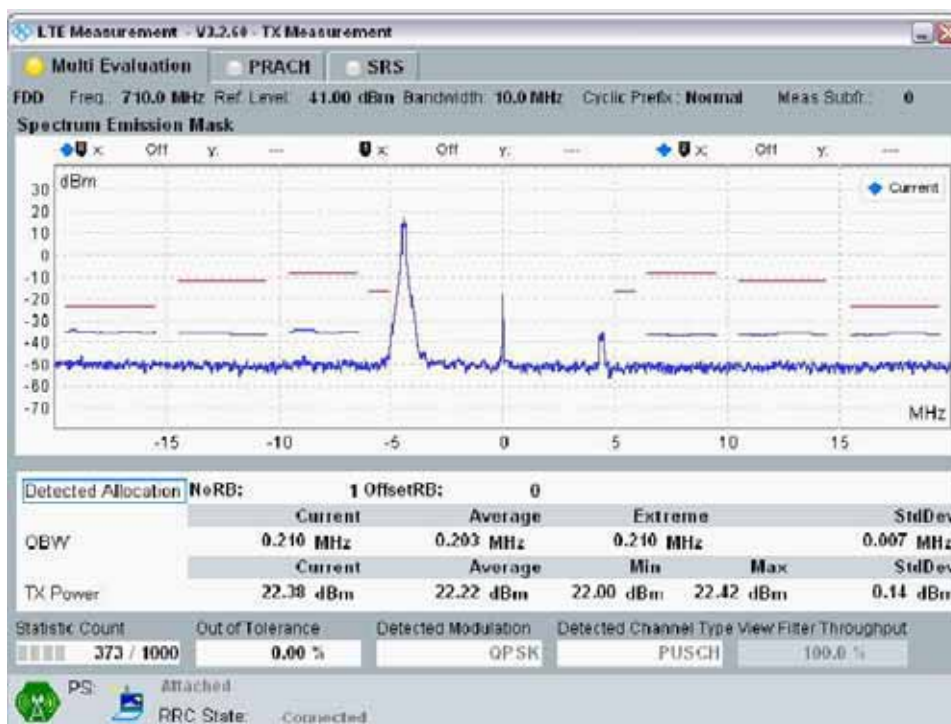
Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	W/o Power back-off	W/ Power back-off
								Average power(dBm)	Average power(dBm)
17	10	23790	710.0	QPSK	1	0	0	22.3	18.8
					1	24	0	22.6	19.0
					1	49	0	22.3	18.9
					25	0	1	21.7	18.9
					25	12	1	21.6	18.8
					25	24	1	21.3	18.7
					50	0	1	21.4	19.0
				16QAM	1	0	1	21.4	18.6
					1	24	1	21.8	18.8
					1	49	1	21.5	18.8
					25	0	2	21.7	18.7
					25	12	2	20.8	18.8
					25	24	2	20.9	18.6
					50	0	2	20.5	18.8



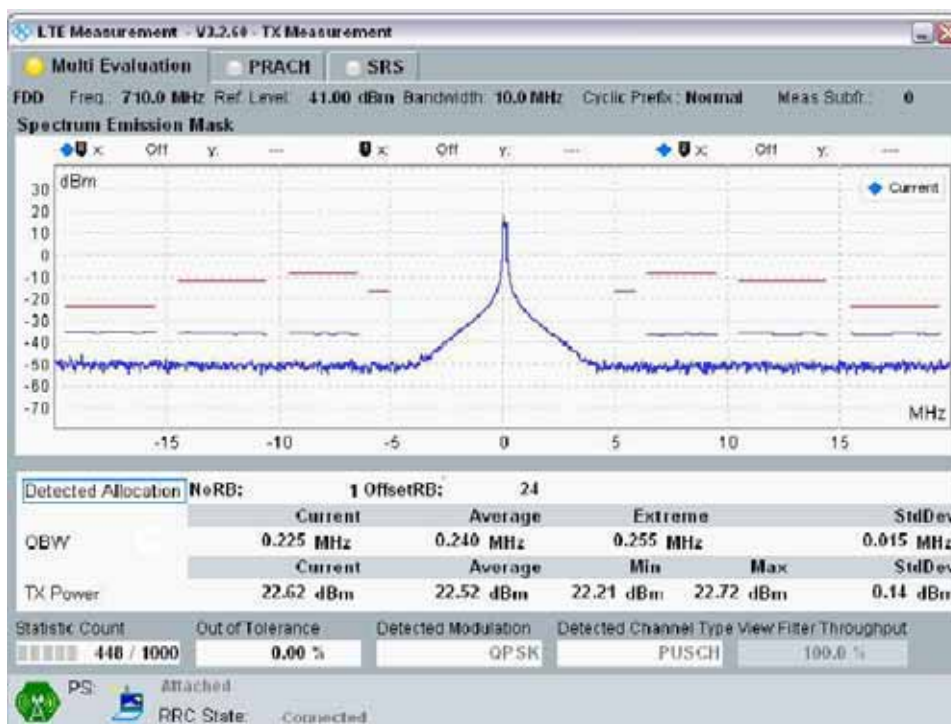
Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	W/o Power back-off	W/ Power back-off
								Average power(dBm)	Average power(dBm)
17	5	23755	706.5	QPSK	1	0	0	22.1	18.6
					1	12	0	22.4	18.8
					1	24	0	22.1	18.7
					12	0	1	21.5	18.7
					12	6	1	21.4	18.6
					12	11	1	21.1	18.5
					25	0	1	21.2	18.8
				16QAM	1	0	1	21.2	18.4
					1	12	1	21.6	18.6
					1	24	1	21.3	18.6
					12	0	2	21.5	18.5
					12	6	2	20.6	18.6
					12	11	2	20.7	18.4
					25	0	2	20.3	18.6
		23790	710.0	QPSK	1	0	0	22.0	18.5
					1	12	0	22.3	18.7
					1	24	0	22.0	18.6
					12	0	1	21.4	18.6
					12	6	1	21.3	18.5
					12	11	1	21.0	18.4
					25	0	1	21.1	18.7
				16QAM	1	0	1	21.1	18.3
					1	12	1	21.5	18.5
					1	24	1	21.2	18.5
					12	0	2	21.4	18.4
					12	6	2	20.5	18.5
					12	11	2	20.6	18.3
					25	0	2	20.2	18.5
		23825	713.5	QPSK	1	0	0	21.9	18.4
					1	12	0	22.2	18.6
					1	24	0	21.9	18.5
					12	0	1	21.3	18.5
					12	6	1	21.2	18.4
					12	11	1	20.9	18.3
					25	0	1	21.0	18.6
				16QAM	1	0	1	21.0	18.2
					1	12	1	21.4	18.4
					1	24	1	21.1	18.4
					12	0	2	21.3	18.3
					12	6	2	20.4	18.4
					12	11	2	20.5	18.2
					25	0	2	20.1	18.4



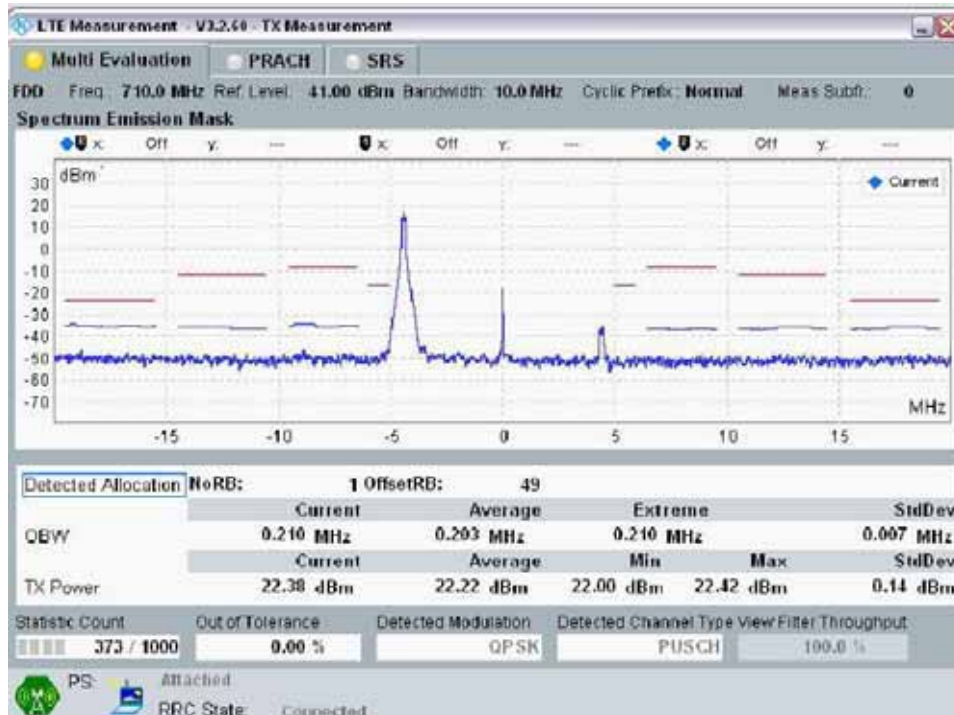
15.14.1 Spectrum Plots for the Test RB allocations



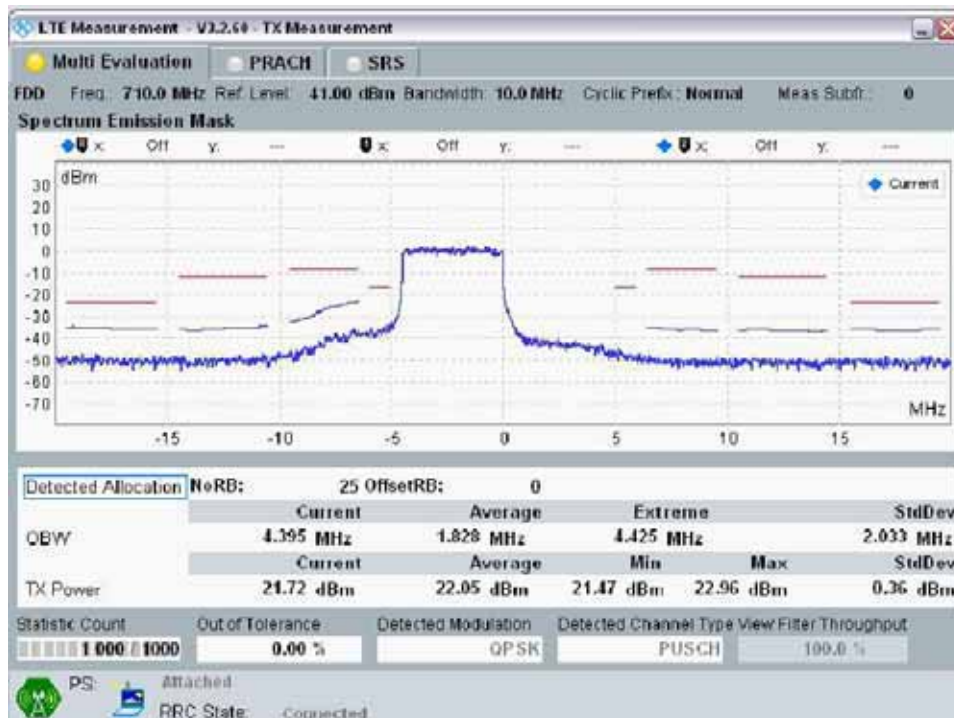
10MHz Band Width: Ch 23790, RB Size=1; RB Offset = 0



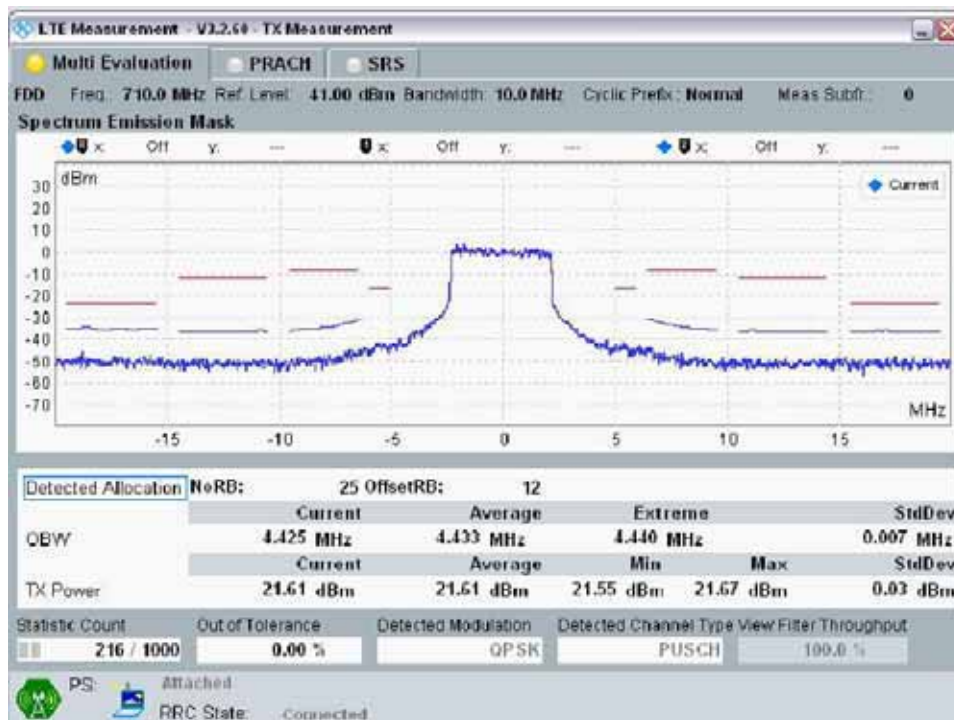
10MHz Band Width: Ch 23790, RB Size=1; RB Offset = 24



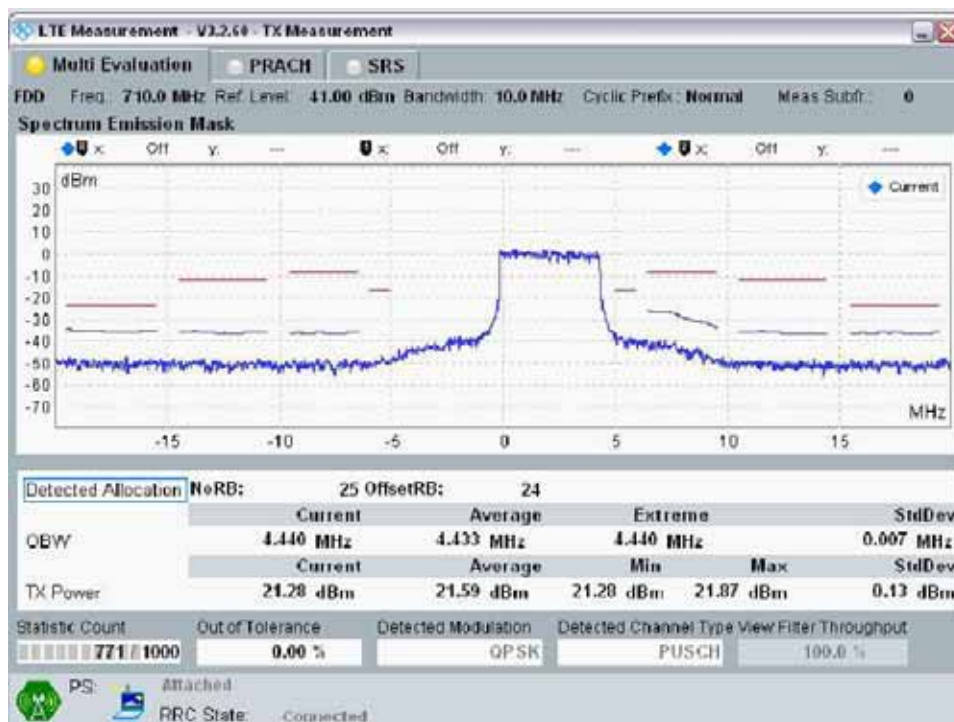
10MHz Band Width: Ch 23790, RB Size=1; RB Offset = 49



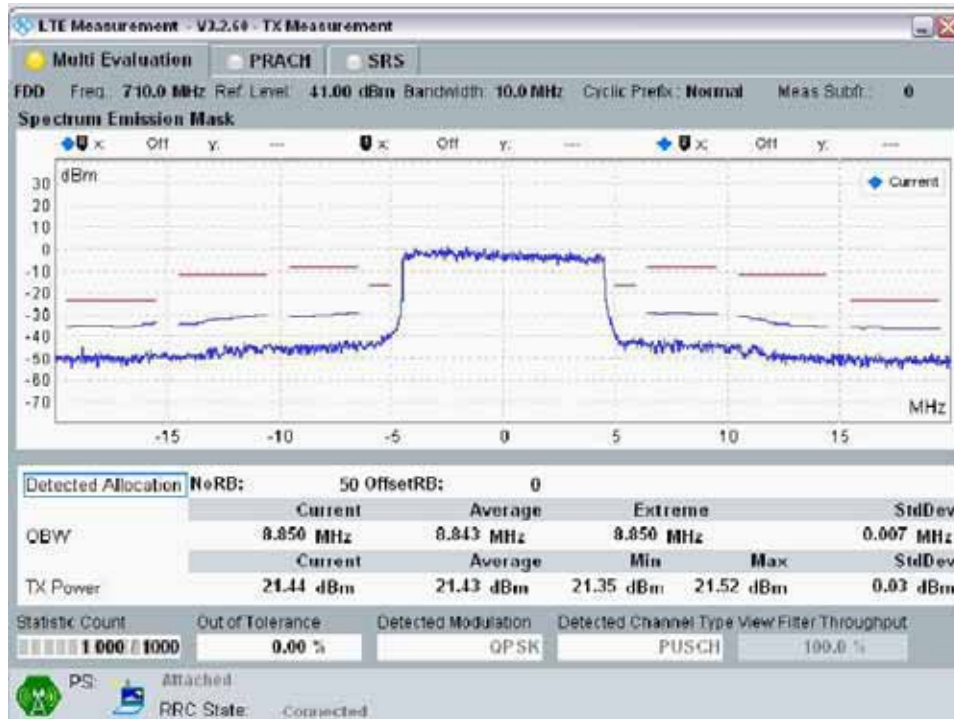
10MHz Band Width: Ch 23790, RB Size=25; RB Offset = 0



10MHz Band Width: Ch 23790, RB Size=25; RB Offset = 12



10MHz Band Width: Ch 23790, RB Size=25; RB Offset = 24



10MHz Band Width: Ch 23790, RB Size=50; RB Offset = 0

**15.15LTE Band 25****Output power table**

Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	W/o Power back-off	W/ Power back-off
								Average power(dBm)	Average power(dBm)
25	20	26140	1850.7	QPSK	1	0	0	23.1	15.2
					1	49	0	23.1	15.1
					1	99	0	23.0	14.9
					50	0	1	22.3	15.2
					50	24	1	22.3	15.1
					50	49	1	22.2	15.1
					100	0	1	22.1	15.1
				16QAM	1	0	1	22.5	15.0
					1	49	1	22.5	15.2
					1	99	1	22.5	14.9
					50	0	2	21.6	15.0
					50	24	2	21.6	15.0
					50	49	2	21.5	15.0
					100	0	2	21.5	15.0
		26365	1882.5	QPSK	1	0	0	23.2	15.1
					1	49	0	23.1	15.0
					1	99	0	23.0	14.8
					50	0	1	22.4	15.1
					50	24	1	22.2	15.0
					50	49	1	22.3	15.0
					100	0	1	22.3	15.0
				16QAM	1	0	1	22.4	14.9
					1	49	1	22.4	15.2
					1	99	1	22.3	14.9
					50	0	2	21.3	15.0
					50	24	2	21.3	15.0
					50	49	2	21.1	14.9
					100	0	2	21.3	15.0
		26590	1905.0	QPSK	1	0	0	22.9	15.1
					1	49	0	23.0	15.0
					1	99	0	23.1	15.0
					50	0	1	22.2	14.9
					50	24	1	22.2	14.9
					50	49	1	22.3	14.8
					100	0	1	22.0	15.0
				16QAM	1	0	1	22.2	14.9
					1	49	1	22.2	15.0
					1	99	1	22.1	15.0
					50	0	2	21.9	14.8
					50	24	2	22.0	15.0
					50	49	2	21.3	14.8
					100	0	2	21.2	14.7



Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	W/o Power back-off	W/ Power back-off
								Average power(dBm)	Average power(dBm)
25	15	26115	1857.5	QPSK	1	0	0	22.9	15.0
					1	37	0	22.9	14.9
					1	74	0	22.8	14.7
					36	0	1	22.1	15.0
					36	18	1	22.1	14.9
					36	35	1	22.0	14.9
					75	0	1	21.9	14.9
				16QAM	1	0	1	22.3	14.8
					1	37	1	22.3	15.0
					1	74	1	22.3	14.7
					36	0	2	21.4	14.8
					36	18	2	21.4	14.8
					36	35	2	21.3	14.8
					75	0	2	21.3	14.8
		26365	1882.5	QPSK	1	0	0	23.0	14.7
					1	37	0	22.9	14.8
					1	74	0	22.8	14.6
					36	0	1	22.2	14.9
					36	18	1	22.0	14.8
					36	35	1	22.1	14.8
					75	0	1	22.1	14.8
				16QAM	1	0	1	22.2	14.7
					1	37	1	22.2	15.0
					1	74	1	22.1	14.7
					36	0	2	21.1	14.8
					36	18	2	21.1	14.8
					36	35	2	20.9	14.7
					75	0	2	21.1	14.8
		26615	1907.5	QPSK	1	0	0	22.7	14.7
					1	37	0	22.8	14.8
					1	74	0	22.9	14.9
					36	0	1	22.0	14.8
					36	18	1	22.0	14.8
					36	35	1	22.1	14.9
					75	0	1	21.8	14.9
				16QAM	1	0	1	22.0	14.7
					1	37	1	22.0	14.9
					1	74	1	21.9	14.9
					36	0	2	21.7	14.7
					36	18	2	21.8	14.8
					36	35	2	21.1	14.9
					75	0	2	21.0	14.9



Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	W/o Power back-off	W/ Power back-off
								Average power(dBm)	Average power(dBm)
25	10	26090	1855.0	QPSK	1	0	0	22.8	14.9
					1	24	0	22.8	14.8
					1	49	0	22.7	14.6
					25	0	1	22.0	14.9
					25	12	1	22.0	14.8
					25	24	1	21.9	14.8
					50	0	1	21.8	14.8
				16QAM	1	0	1	22.2	14.7
					1	24	1	22.2	14.9
					1	49	1	22.2	14.6
					25	0	2	21.3	14.7
					25	12	2	21.3	14.7
					25	24	2	21.2	14.7
					50	0	2	21.2	14.7
		26365	1882.5	QPSK	1	0	0	22.9	14.6
					1	24	0	22.8	14.7
					1	49	0	22.7	14.5
					25	0	1	22.1	14.8
					25	12	1	21.9	14.7
					25	24	1	22.0	14.7
					50	0	1	22.0	14.7
				16QAM	1	0	1	22.1	14.6
					1	24	1	22.1	14.9
					1	49	1	22.0	14.6
					25	0	2	21.0	14.7
					25	12	2	21.0	14.7
					25	24	2	20.8	14.6
					50	0	2	21.0	14.7
		26640	1910.0	QPSK	1	0	0	22.6	14.6
					1	24	0	22.7	14.7
					1	49	0	22.8	14.8
					25	0	1	21.9	14.7
					25	12	1	21.9	14.7
					25	24	1	22.0	14.8
					50	0	1	21.7	14.8
				16QAM	1	0	1	21.9	14.6
					1	24	1	21.9	14.8
					1	49	1	21.8	14.8
					25	0	2	21.6	14.6
					25	12	2	21.7	14.7
					25	24	2	21.0	14.8
					50	0	2	20.9	14.8



Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	W/o Power back-off	W/ Power back-off
								Average power(dBm)	Average power(dBm)
25	5	26065	1852.5	QPSK	1	0	0	22.7	14.8
					1	12	0	22.7	14.7
					1	24	0	22.6	14.5
					12	0	1	21.9	14.8
					12	6	1	21.9	14.7
					12	11	1	21.8	14.7
					25	0	1	21.7	14.7
				16QAM	1	0	1	22.1	14.6
					1	12	1	22.1	14.8
					1	24	1	22.1	14.5
					12	0	2	21.2	14.6
					12	6	2	21.2	14.6
					12	11	2	21.1	14.6
					25	0	2	21.1	14.6
		26365	1882.5	QPSK	1	0	0	22.8	14.5
					1	12	0	22.7	14.6
					1	24	0	22.6	14.4
					12	0	1	22.0	14.7
					12	6	1	21.8	14.6
					12	11	1	21.9	14.6
					25	0	1	21.9	14.6
				16QAM	1	0	1	22.0	14.5
					1	12	1	22.0	14.8
					1	24	1	21.9	14.5
					12	0	2	20.9	14.6
					12	6	2	20.9	14.6
					12	11	2	20.7	14.5
					25	0	2	20.9	14.6
		26665	1912.5	QPSK	1	0	0	22.5	14.5
					1	12	0	22.6	14.6
					1	24	0	22.7	14.7
					12	0	1	21.8	14.6
					12	6	1	21.8	14.6
					12	11	1	21.9	14.7
					25	0	1	21.6	14.7
				16QAM	1	0	1	21.8	14.5
					1	12	1	21.8	14.7
					1	24	1	21.7	14.7
					12	0	2	21.5	14.5
					12	6	2	21.6	14.6
					12	11	2	20.9	14.7
					25	0	2	20.8	14.7



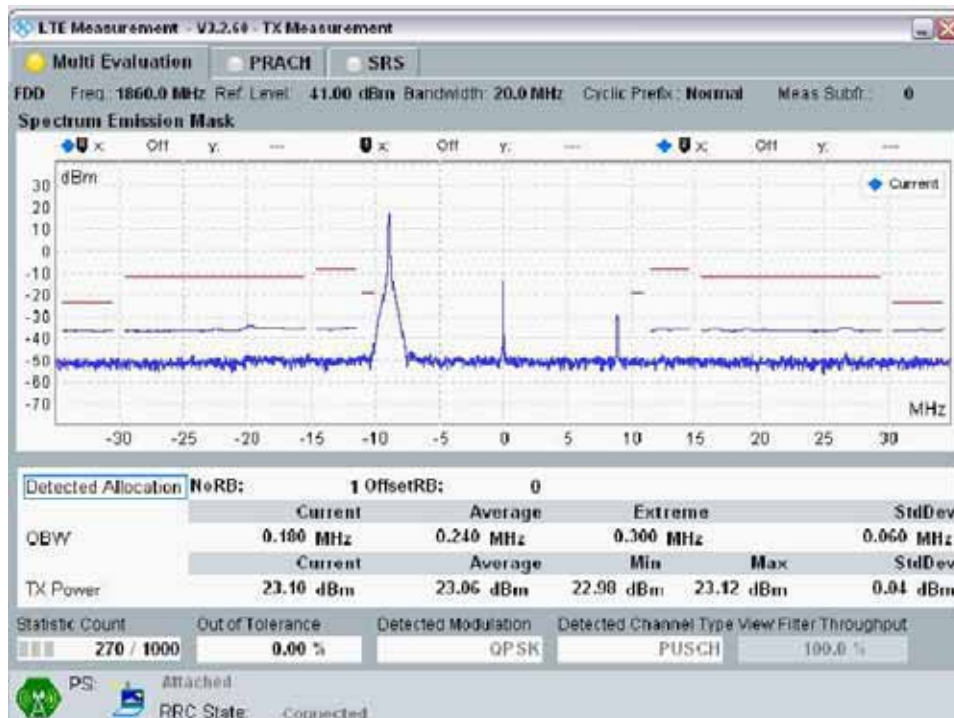
Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	W/o Power back-off	W/ Power back-off
								Average power(dBm)	Average power(dBm)
25	3	1851.5	1851.5	QPSK	1	0	0	22.6	14.7
					1	7	0	22.6	14.6
					1	14	0	22.5	14.4
					8	0	1	21.8	14.7
					8	4	1	21.8	14.6
					8	7	1	21.7	14.6
					15	0	1	21.6	14.6
				16QAM	1	0	1	22.0	14.5
					1	7	1	22.0	14.7
					1	14	1	22.0	14.4
					8	0	2	21.1	14.5
					8	4	2	21.1	14.5
					8	7	2	21.0	14.5
					15	0	2	21.0	14.5
		26365	1882.5	QPSK	1	0	0	22.7	14.4
					1	7	0	22.6	14.5
					1	14	0	22.5	14.3
					8	0	1	21.9	14.6
					8	4	1	21.7	14.5
					8	7	1	21.8	14.5
					15	0	1	21.8	14.5
				16QAM	1	0	1	21.9	14.4
					1	7	1	21.9	14.7
					1	14	1	21.8	14.4
					8	0	2	20.8	14.5
					8	4	2	20.8	14.5
					8	7	2	20.6	14.4
					15	0	2	20.8	14.5
		26675	1913.5	QPSK	1	0	0	22.4	14.4
					1	7	0	22.5	14.5
					1	14	0	22.6	14.6
					8	0	1	21.7	14.5
					8	4	1	21.7	14.5
					8	7	1	21.8	14.6
					15	0	1	21.5	14.6
				16QAM	1	0	1	21.7	14.4
					1	7	1	21.7	14.6
					1	14	1	21.6	14.6
					8	0	2	21.4	14.4
					8	4	2	21.5	14.5
					8	7	2	20.8	14.6
					15	0	2	20.7	14.6



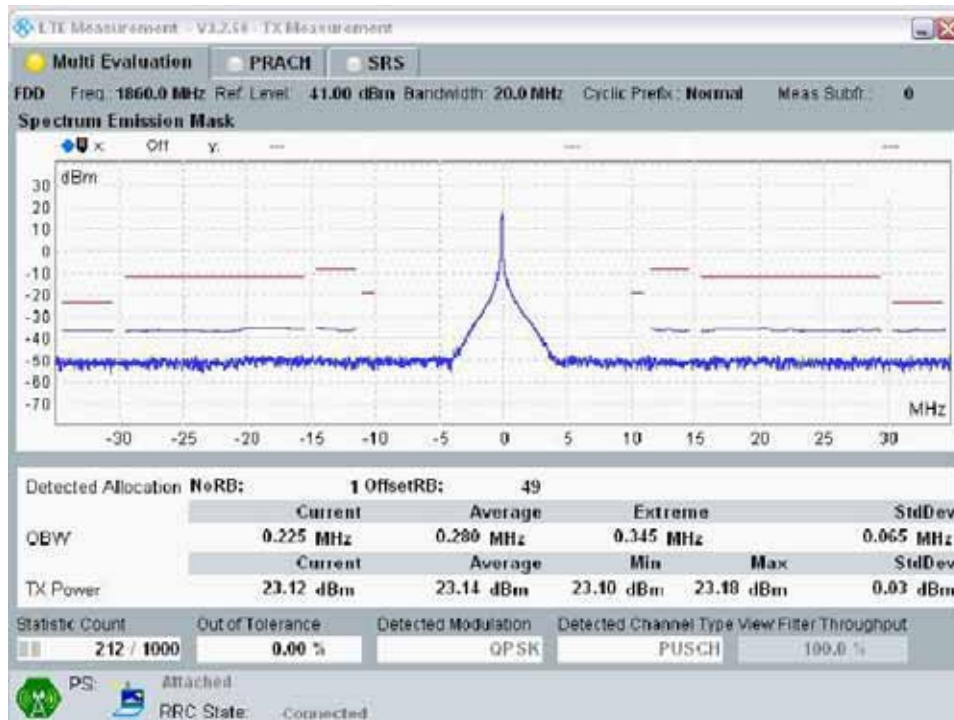
Band	BW (MHz)	Channel	Frequency (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	W/o Power back-off	W/ Power back-off
								Average power(dBm)	Average power(dBm)
25	1.4	26047	1850.7	QPSK	1	0	0	22.5	14.4
					1	2	0	22.5	14.3
					1	5	0	22.4	14.1
					3	0	1	21.7	14.4
					3	1	1	21.7	14.3
					3	2	1	21.6	14.3
					6	0	1	21.5	14.3
				16QAM	1	0	1	21.9	14.2
					1	2	1	21.9	14.4
					1	5	1	21.9	14.1
					3	0	2	21.0	14.2
					3	1	2	21.0	14.2
					3	2	2	20.9	14.2
					6	0	2	20.9	14.2
		26365	1882.5	QPSK	1	0	0	22.6	14.1
					1	2	0	22.5	14.2
					1	5	0	22.4	14.0
					3	0	1	21.8	14.3
					3	1	1	21.6	14.2
					3	2	1	21.7	14.2
					6	0	1	21.7	14.2
				16QAM	1	0	1	21.8	14.1
					1	2	1	21.8	14.4
					1	5	1	21.7	14.1
					3	0	2	20.7	14.2
					3	1	2	20.7	14.2
					3	2	2	20.5	14.1
					6	0	2	20.7	14.2
		26683	1914.3	QPSK	1	0	0	22.3	14.1
					1	2	0	22.4	14.2
					1	5	0	22.5	14.3
					3	0	1	21.6	14.2
					3	1	1	21.6	14.2
					3	2	1	21.7	14.3
					6	0	1	21.4	14.3
				16QAM	1	0	1	21.6	14.1
					1	2	1	21.6	14.3
					1	5	1	21.5	14.3
					3	0	2	21.3	14.1
					3	1	2	21.4	14.2
					3	2	2	20.7	14.3
					6	0	2	20.6	14.3



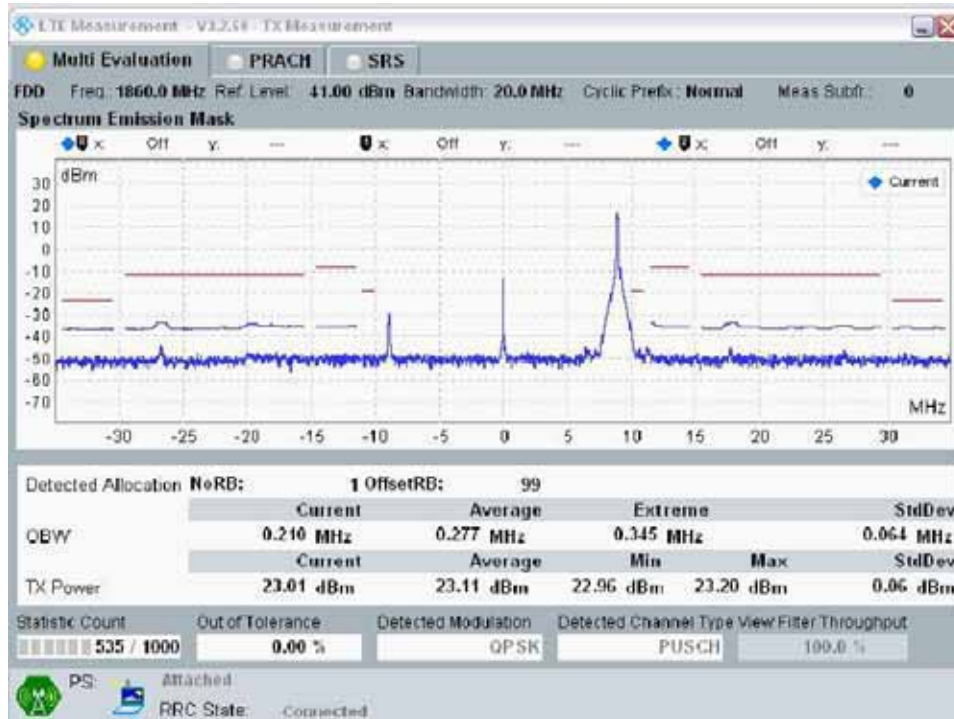
15.15.1 Spectrum Plots for the Test RB allocations



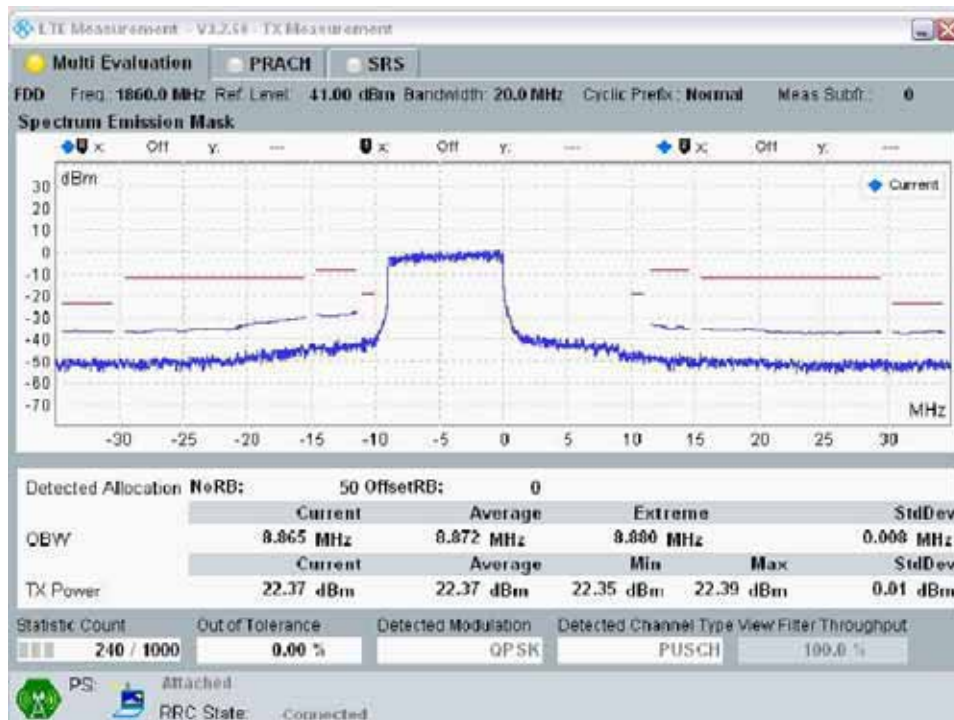
20MHz Band Width: Ch 26140, RB Size=1; RB Offset = 0



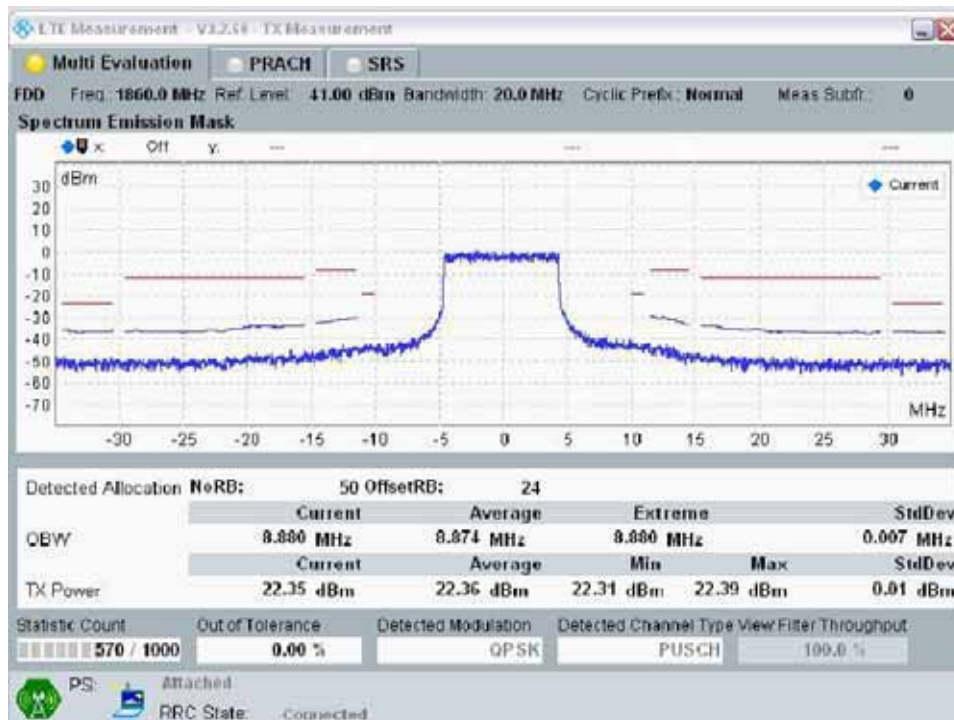
20MHz Band Width: Ch 26140, RB Size=1; RB Offset = 49



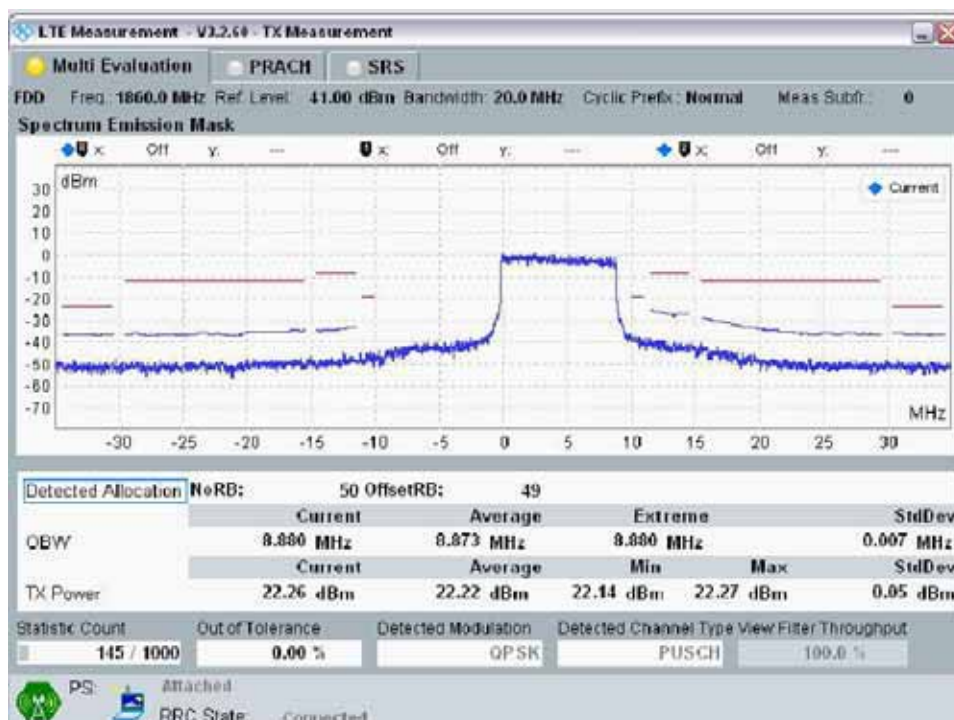
20MHz Band Width: Ch 26140, RB Size=1; RB Offset = 99



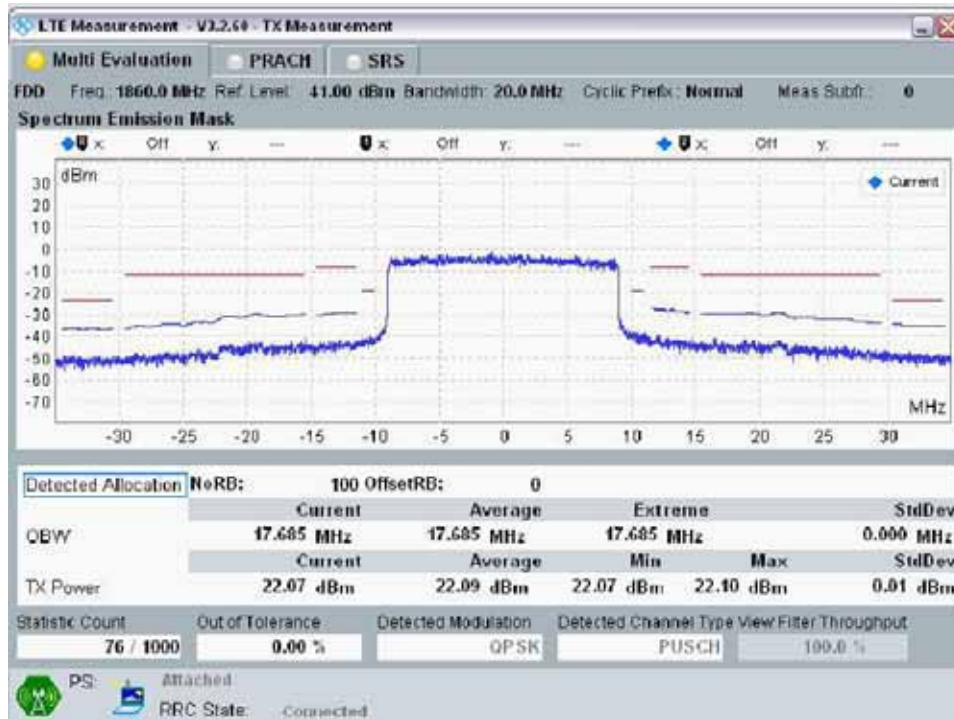
20MHz Band Width: Ch 26140, RB Size=50; RB Offset = 0



20MHz Band Width: Ch 26140, RB Size=50; RB Offset = 24



20MHz Band Width: Ch 26140, RB Size=50; RB Offset = 49



20MHz Band Width: Ch 26140, RB Size=100; RB Offset = 0



16 SAR Measurements Results

GPRS850:

Power back off (On/Off)	Mode	Slot	Test Position	Channel	Freq. (MHz)	Dist. (mm)	Power (dBm)		Measured 1g SAR (W/kg)	Reported SAR(W/kg)	Note
							Tune up limit	Measured			
On	GPRS 850	2	Edge1	251	848.8	0	28.0	27.3	0.889	1.044	
			Edge1	128	824.2	0	28.0	27.2	0.850	1.022	1
			Edge1	190	836.6	0	28.0	27.2	0.888	1.068	1
			Rear	251	848.8	0	28.0	27.3	0.500	0.587	
			Edge1	251	848.8	0	28.0	27.3	0.818	0.961	3
Off	GPRS 850	2	Edge1	128	824.2	20	33.0	31.8	0.824	1.086	
			Edge1	190	836.6	20	33.0	31.7	0.877	1.183	1
			Edge1	251	848.8	20	33.0	31.7	0.885	1.194	1
			Rear	128	824.2	15	33.0	31.8	0.428	0.564	
			Edge2	128	824.2	0	33.0	31.8	0.124	0.163	
			Edge1	251	848.8	20	33.0	31.7	0.978	1.319	2

Note(s):

- Testing of other required channels within the operating mode of a frequency band is required when the reported 1-g SAR for the mid-band or highest output power channel. ≥ 0.8 W/kg and transmission band ≤ 100 MHz (Per KDB 447498 D01 v05r02 section 4.3.3)
- Repeated measurements are required only when the measured SAR is ≥ 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 v01r03)
 - Original SAR = 0.885 W/kg, therefore two times repeat SAR is required.
 - Repeat SAR = 0.978 W/kg < 1.45 W/kg
 - SAR variation= 9.5 % $< 20\%$
- Repeated measurements are required only when the measured SAR is ≥ 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 v01r03)
 - Original SAR = 0.889 W/kg, therefore two times repeat SAR is required.
 - Repeat SAR = 0.818 W/kg < 1.45 W/kg
 - SAR variation= 8.6 % $< 20\%$

**GPRS1900:**

Power back off (On/Off)	Mode	Slot	Test Position	Channel	Freq. (MHz)	Dist. (mm)	Power (dBm)		Measured 1g SAR (W/kg)	Reported SAR(W/kg)	Note
							Tune up limit	Measured			
On	GPRS 1900	2	Edge1	661	1880.00	0	25.0	24.6	0.981	1.076	
			Edge1	512	1850.20	0	25.0	24.5	0.918	1.030	1
			Edge1	810	1909.80	0	25.0	24.5	0.994	1.115	1
			Rear	661	1880.00	0	25.0	24.6	0.169	0.185	
			Edge1	810	1909.80	0	25.0	24.5	0.984	1.104	2
Off	GPRS 1900	2	Edge1	661	1880.00	20	30.0	29.2	0.362	0.435	
			Rear	661	1880.00	15	30.0	29.2	0.197	0.237	
			Edge2	661	1880.00	0	30.0	29.2	0.150	0.180	

Note(s):

- Testing of other required channels within the operating mode of a frequency band is required when the reported 1-g SAR for the mid-band or highest output power channel. ≥ 0.8 W/kg and transmission band ≤ 100 MHz (Per KDB 447498 D01 v05r02 section 4.3.3)
- Repeated measurements are required only when the measured SAR is ≥ 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 v01r03)
 - Original SAR = 0.994 W/kg, therefore two times repeat SAR is required.
 - Repeat SAR = 0.984 W/kg < 1.45 W/kg
 - SAR variation= 1.0 % $< 20\%$

WCDMA Band II:

Power back off (On/Off)	Mode	Test Position	Channel	Freq. (MHz)	Dist. (mm)	Power (dBm)		Measured 1g SAR (W/kg)	Reported SAR(W/kg)	Note
						Tune up limit	Measured			
On	Rel 99 RMC 12.2Kbps	Edge 1	9400	1880.0	0	18.0	17.1	0.800	0.984	
		Edge 1	9262	1852.4	0	18.0	17.0	0.831	1.046	1
		Edge 1	9538	1907.6	0	18.0	17.0	0.859	1.081	1
		Rear	9400	1880.0	0	18.0	17.1	0.183	0.225	
		Edge 1	9538	1907.6	0	18.0	17.0	0.867	1.091	2
Off	Rel 99 RMC 12.2Kbps	Edge 1	9538	1907.6	20	24.0	23.0	0.426	0.543	
		Rear	9538	1907.6	15	24.0	23.0	0.262	0.334	
		Edge 2	9538	1907.6	0	24.0	23.0	0.190	0.242	

Note(s):

- Testing of other required channels within the operating mode of a frequency band is required when the reported 1-g SAR for the mid-band or highest output power channel. ≥ 0.8 W/kg and transmission band ≤ 100 MHz (Per KDB 447498 D01 v05r02 section 4.3.3)
- Repeated measurements are required only when the measured SAR is ≥ 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 v01r03)
 - Original SAR = 0.859 W/kg, therefore two times repeat SAR is required.
 - Repeat SAR = 0.867 W/kg < 1.45 W/kg
 - SAR variation= 0.9 % $< 20\%$



WCDMA Band IV:

Power back off (On/Off)	Mode	Test Position	Channel	Freq. (MHz)	Dist. (mm)	Power (dBm)		Measured 1g SAR (W/kg)	Reported SAR(W/kg)	Note
						Tune up limit	Measured			
On	Rel 99 RMC 12.2Kbps	Edge 1	1513	1752.6	0	17.0	16.0	1.000	1.259	
		Edge 1	1312	1712.4	0	17.0	15.9	0.910	1.172	1
		Edge 1	1412	1732.6	0	17.0	15.9	0.962	1.239	1
		Rear	1513	1752.6	0	17.0	16.0	0.251	0.316	
		Edge 1	1513	1752.6	0	17.0	16.0	1.000	1.259	2
Off	Rel 99 RMC 12.2Kbps	Edge 1	1413	1732.6	20	24.0	22.7	0.511	0.694	
		Rear	1413	1732.6	15	24.0	22.7	0.259	0.352	
		Edge 2	1413	1732.6	0	24.0	22.7	0.211	0.287	

Note(s):

- Testing of other required channels within the operating mode of a frequency band is required when the reported 1-g SAR for the mid-band or highest output power channel. ≥ 0.8 W/kg and transmission band ≤ 100 MHz (Per KDB 447498 D01 v05r02 section 4.3.3)
- Repeated measurements are required only when the measured SAR is ≥ 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 v01r03)
 - Original SAR = 1.0 W/kg, therefore two times repeat SAR is required.
 - Repeat SAR = 1.0 W/kg < 1.45 W/kg
 - SAR variation= 0 % $< 20\%$

WCDMA Band V:

Power back off (On/Off)	Mode	Test Position	Channel	Freq. (MHz)	Dist. (mm)	Power (dBm)		Measured 1g SAR (W/kg)	Reported SAR(W/kg)	Note
						Tune up limit	Measured			
On	Rel 99 RMC 12.2Kbps	Edge 1	4182	836.4	0	19.0	18.0	0.848	1.068	
		Edge 1	4132	826.4	0	19.0	17.8	0.796	1.049	1
		Edge 1	4233	846.6	0	19.0	17.9	0.824	1.062	1
		Rear	4182	826.4	0	19.0	18.0	0.469	0.590	
		Edge 1	4182	826.4	0	19.0	18.0	0.814	1.025	2
Off	Rel 99 RMC 12.2Kbps	Edge 1	4182	836.4	20	24.0	22.6	0.598	0.825	
		Edge 1	4132	826.4	20	24.0	22.5	0.453	0.640	1
		Edge 1	4233	846.4	20	24.0	22.4	0.507	0.733	1
		Rear	4182	836.4	16	24.0	22.6	0.340	0.469	
		Edge 2	4182	836.4	0	24.0	22.6	0.078	0.108	

Note(s):

- Testing of other required channels within the operating mode of a frequency band is required when the reported 1-g SAR for the mid-band or highest output power channel. ≥ 0.8 W/kg and transmission band ≤ 100 MHz (Per KDB 447498 D01 v05r02 section 4.3.3)
- Repeated measurements are required only when the measured SAR is ≥ 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 v01r03)
 - Original SAR = 0.848 W/kg, therefore two times repeat SAR is required.
 - Repeat SAR = 0.814 W/kg < 1.45 W/kg
 - SAR variation= 4.1 % $< 20\%$

**CDMA BC0:**

Power back off (On/Off)	Mode	Test Position	Channel	Freq. (MHz)	Dist. (mm)	Power (dBm)		Measured 1g SAR (W/kg)	Reported SAR(W/kg)	Note
						Tune up limit	Measured			
On	CDMA BC0	Edge 1	1013	824.70	0	18.5	17.9	0.968	1.111	
		Edge 1	384	836.50	0	18.5	17.7	0.740	0.890	1
		Edge 1	777	848.30	0	18.5	17.6	0.782	0.962	1
		Rear	1013	824.70	0	18.5	17.9	0.569	0.653	
		Edge 1	1013	824.70	0	18.5	17.9	0.830	0.953	2
Off	CDMA BC0	Edge 1	384	836.52	20	24.5	23.7	0.377	0.453	
		Rear	384	836.52	15	24.5	23.7	0.364	0.438	
		Edge 2	384	836.52	0	24.5	23.7	0.104	0.125	

Note(s):

- Testing of other required channels within the operating mode of a frequency band is required when the reported 1-g SAR for the mid-band or highest output power channel. ≥ 0.8 W/kg and transmission band ≤ 100 MHz (Per KDB 447498 D01 v05r02 section 4.3.3)
- Repeated measurements are required only when the measured SAR is ≥ 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 v01r03)
 - Original SAR = 0.968 W/kg, therefore two times repeat SAR is required.
 - Repeat SAR = 0.830 W/kg < 1.45 W/kg
 - SAR variation= 16.6 % $< 20\%$

CDMA BC1:

Power back off (On/Off)	Mode	Test Position	Channel	Freq. (MHz)	Dist. (mm)	Power (dBm)		Measured 1g SAR (W/kg)	Reported SAR(W/kg)	Note
						Tune up limit	Measured			
On	CDMA BC1	Edge 1	25	1851.30	0	15.5	14.5	0.727	0.915	
		Edge 1	600	1880.00	0	15.5	14.3	0.632	0.833	1
		Edge 1	1175	1908.80	0	15.5	14.4	0.876	1.129	1
		Rear	25	1851.30	0	15.5	14.3	0.195	0.257	
		edge1	1175	1908.80	0	15.5	14.3	0.810	1.068	2
Off	CDMA BC1	Edge 1	1175	1908.75	20	24.5	23.4	0.532	0.687	
		Rear	1175	1908.75	15	24.5	23.4	0.354	0.457	
		Edge 2	1175	1908.75	0	24.5	23.4	0.230	0.297	

Note(s):

- Testing of other required channels within the operating mode of a frequency band is required when the reported 1-g SAR for the mid-band or highest output power channel. ≥ 0.8 W/kg and transmission band ≤ 100 MHz (Per KDB 447498 D01 v05r02 section 4.3.3)
- Repeated measurements are required only when the measured SAR is ≥ 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 v01r03)
 - Original SAR = 0.876 W/kg, therefore two times repeat SAR is required.
 - Repeat SAR = 0.810 W/kg < 1.45 W/kg
 - SAR variation= 8.1 % $< 20\%$



CDMA BC10:

Power back off (On/Off)	Mode	Test Position	Channel	Freq. (MHz)	Dist. (mm)	Power (dBm)		Measured 1g SAR (W/kg)	Reported SAR(W/kg)	Note
						Tune up limit	Measured			
On	CDMA BC10	Edge 1	580	820.50	0	18.5	17.7	0.751	0.903	
		Edge 1	476	817.90	0	18.5	17.5	0.810	1.020	1
		Edge 1	684	823.10	0	18.5	17.3	0.742	0.978	1
		Rear	580	820.50	0	18.5	17.7	0.453	0.545	
		Edge 1	476	817.90	0	18.5	17.7	0.719	0.864	2
Off	CDMA BC10	Edge 1	580	820.50	20	24.5	23.6	0.501	0.616	
		Rear	580	820.50	15	24.5	23.6	0.424	0.522	
		Edge 2	580	820.50	0	24.5	23.6	0.079	0.097	

Note(s):

- Testing of other required channels within the operating mode of a frequency band is required when the reported 1-g SAR for the mid-band or highest output power channel. ≥ 0.8 W/kg and transmission band ≤ 100 MHz (Per KDB 447498 D01 v05r02 section 4.3.3)
- Repeated measurements are required only when the measured SAR is ≥ 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 v01r03)
 - Original SAR = 0.810 W/kg, therefore two times repeat SAR is required.
 - Repeat SAR = 0.719 W/kg < 1.45 W/kg
 - SAR variation= 12.6 % $< 20\%$



LTE Band 2 (20MHz Bandwidth):

Power back off (On/Off)	Mode	Test Position	Channel	Freq. (MHz)	Dist. (mm)	UL RB Allocation	UL RB Start	Power (dBm)		Measured 1g SAR (W/kg)	Reported SAR(W/kg)	Note
								Tune up limit	Measured			
On	QPSK	Edge1	18900	1880.0	0	1	49	16.0	15.2	0.911	1.095	
			18900	1880.0	0	50	0	16.0	15.1	0.888	1.092	
			18900	1880.0	0	1	0	16.0	15.1	0.902	1.110	
			18900	1880.0	0	1	99	16.0	15.0	0.898	1.131	
			18900	1880.0	0	50	24	16.0	15.1	0.891	1.096	
			18900	1880.0	0	50	49	16.0	15.1	0.916	1.127	
			18900	1880.0	0	100	0	16.0	15.1	0.878	1.080	
			18700	1860.0	0	1	0	16.0	15.0	0.893	1.124	
			19100	1900.0	0	1	0	16.0	15.0	0.907	1.142	
		Rear	18900	1880.0	0	1	49	16.0	15.2	0.274	0.329	
			18900	1880.0	0	50	0	16.0	15.1	0.246	0.303	
		Edge1	18900	1880.0	0	50	49	16.0	15.1	0.934	1.149	3
Off	QPSK	Edge1	18900	1880.0	20	1	49	24.0	22.9	0.606	0.781	
			18700	1860.0	20	50	0	24.0	21.8	0.424	0.704	
		Rear	18900	1880.0	20	1	49	24.0	22.9	0.275	0.354	
			18700	1860.0	20	50	0	24.0	21.8	0.206	0.342	
		Edge2	18900	1880.0	20	1	49	24.0	22.9	0.156	0.201	
			18700	1860.0	20	50	0	24.0	21.8	0.117	0.194	

Note(s):

- When the reported SAR is ≤ 0.8 W/kg, testing of the remaining RB offset configurations and required test channels is not required for 1 RB allocation; otherwise, SAR is required for the remaining required test channels and only for the RB offset configuration with the highest output power for that channel. (Per KDB 941225 D05 v02r02 section 5.2.1)
- The highest reported SAR for 1 RB and 50% RB allocation are ≥ 0.8 W/kg, SAR is required of 100% RB. (Per KDB 941225 D05 v02r02 section 5.2.3)
- Repeated measurements are required only when the measured SAR is ≥ 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 v01r03)
 - Original SAR = 0.916 W/kg, therefore two times repeat SAR is required.
 - Repeat SAR = 0.934 W/kg < 1.45 W/kg
 - SAR variation= 1.9 % $< 20\%$



LTE Band 4 (20MHz Bandwidth):

Power back off (On/Off)	Mode	Test Position	Channel	Freq. (MHz)	Dist. (mm)	UL RB Allocation	UL RB Start	Power (dBm)		Measured 1g SAR (W/kg)	Reported SAR(W/kg)	Note
								Tune up limit	Measured			
On	QPSK	Edge1	20300	1745.0	0	1	49	16.0	15.0	0.827	1.041	
			20050	1720.0	0	50	0	16.0	15.0	0.779	0.981	
			20300	1745.0	0	1	0	16.0	15.0	0.824	1.037	
			20300	1745.0	0	1	99	16.0	14.7	0.836	1.128	
			20050	1720.0	0	50	24	16.0	15.0	0.789	0.993	
			20050	1720.0	0	50	49	16.0	14.8	0.783	1.032	
			20300	1745.0	0	100	0	16.0	15.0	0.782	0.984	
			20050	1720.0	0	1	0	16.0	14.9	0.772	0.995	
			20175	1732.5	0	1	0	16.0	14.9	0.823	1.060	
		Rear	20300	1745.0	0	1	49	16.0	15.0	0.199	0.251	
			20050	1720.0	0	50	0	16.0	15.0	0.161	0.203	
		Edge1	20300	1745.0	0	1	99	16.0	14.7	0.835	1.126	3
Off	QPSK	Edge1	20300	1745.0	20	1	49	24.0	22.7	0.560	0.755	
			20300	1745.0	20	50	24	24.0	21.7	0.393	0.667	
		Rear	20300	1745.0	15	1	49	24.0	22.7	0.243	0.328	
			20300	1745.0	15	50	24	24.0	21.7	0.175	0.297	
		Edge2	20300	1745.0	0	1	49	24.0	22.7	0.215	0.290	
			20300	1745.0	0	50	24	24.0	21.7	0.174	0.295	

Note(s):

- When the reported SAR is ≤ 0.8 W/kg, testing of the remaining RB offset configurations and required test channels is not required for 1 RB allocation; otherwise, SAR is required for the remaining required test channels and only for the RB offset configuration with the highest output power for that channel. (Per KDB 941225 D05 v02r02 section 5.2.1)
- The highest reported SAR for 1 RB and 50% RB allocation are ≥ 0.8 W/kg, SAR is required of 100% RB. (Per KDB 941225 D05 v02r02 section 5.2.3)
- Repeated measurements are required only when the measured SAR is ≥ 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 v01r03)
 - Original SAR = 0.836 W/kg, therefore two times repeat SAR is required.
 - Repeat SAR = 0.835 W/kg < 1.45 W/kg
 - SAR variation= 0.1 % $< 20\%$



LTE Band 5 (10MHz Bandwidth):

Power back off (On/Off)	Mode	Test Position	Channel	Freq. (MHz)	Dist. (mm)	UL RB Allocation	UL RB Start	Power (dBm)		Measured 1g SAR (W/kg)	Reported SAR(W/kg)	Note
								Tune up limit	Measured			
On	QPSK	Edge1	20525	836.5	0	1	24	19.0	18.0	0.847	1.066	
			20525	836.5	0	50	0	19.0	18.0	0.843	1.061	
			20525	836.5	0	1	0	19.0	17.9	0.840	1.082	
			20525	836.5	0	1	49	19.0	17.9	0.841	1.083	
			20525	836.5	0	25	0	19.0	17.7	0.859	1.159	
			20525	836.5	0	25	12	19.0	17.8	0.855	1.127	
			20525	836.5	0	25	24	19.0	17.7	0.858	1.157	
			20450	829.0	0	1	0	19.0	17.9	0.831	1.071	
			20600	844.0	0	1	0	19.0	17.9	0.850	1.095	
		Rear	20525	836.5	0	1	24	19.0	18.0	0.431	0.543	
			20525	836.5	0	25	12	19.0	18.0	0.430	0.541	
		Edge1	20525	836.5	0	25	0	19.0	17.9	0.857	1.104	3
Off	QPSK	Edge1	20525	836.5	20	1	24	24.0	23.0	0.380	0.478	
			20525	836.5	20	25	12	24.0	22.1	0.453	0.702	
		Rear	20525	836.5	15	1	24	24.0	23.0	0.265	0.334	
			20525	836.5	15	25	12	24.0	22.1	0.250	0.387	
		Edge2	20525	836.5	0	1	24	24.0	23.0	0.079	0.099	
			20525	836.5	0	25	12	24.0	22.1	0.065	0.101	

Note(s):

- When the reported SAR is ≤ 0.8 W/kg, testing of the remaining RB offset configurations and required test channels is not required for 1 RB allocation; otherwise, SAR is required for the remaining required test channels and only for the RB offset configuration with the highest output power for that channel. (Per KDB 941225 D05 v02r02 section 5.2.1)
- The highest reported SAR for 1 RB and 50% RB allocation are ≥ 0.8 W/kg, SAR is required of 100% RB. (Per KDB 941225 D05 v02r02 section 5.2.3)
- Repeated measurements are required only when the measured SAR is ≥ 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 v01r03)
 - Original SAR = 0.859 W/kg, therefore two times repeat SAR is required.
 - Repeat SAR = 0.857 W/kg < 1.45 W/kg
 - SAR variation= 0.2 % $< 20\%$

**LTE Band 13 (10MHz Bandwidth):**

Power back off (On/Off)	Mode	Test Position	Channel	Freq. (MHz)	Dist. (mm)	UL RB Allocation	UL RB Start	Power (dBm)		Measured 1g SAR (W/kg)	Reported SAR(W/kg)	Note
								Tune up limit	Measured			
On	QPSK	Edge1	23230	782.0	0	1	24	20.0	19.0	0.818	1.030	
			23230	782.0	0	50	0	20.0	18.9	0.793	1.022	
			23230	782.0	0	1	0	20.0	18.8	0.771	1.016	
			23230	782.0	0	1	49	20.0	18.8	0.766	1.010	
			23230	782.0	0	25	0	20.0	19.0	0.795	1.001	
			23230	782.0	0	25	12	20.0	18.8	0.825	1.088	
			23230	782.0	0	25	24	20.0	18.7	0.799	1.078	
		Rear	23230	782.0	0	1	24	20.0	19.0	0.346	0.436	
		Rear	23230	782.0	0	25	0	20.0	19.0	0.334	0.420	
Off	QPSK	Edge1	23230	782.0	0	25	12	20.0	18.8	0.825	1.088	3
		Edge1	23230	782.0	20	1	24	24.0	22.5	0.458	0.647	
			23230	782.0	20	25	12	24.0	21.5	0.347	0.617	
		Rear	23230	782.0	15	1	24	24.0	22.5	0.294	0.415	
			23230	782.0	15	25	12	24.0	21.5	0.246	0.437	
		Edge2	23230	782.0	0	1	24	24.0	22.5	0.099	0.140	
			23230	782.0	0	25	12	24.0	21.5	0.074	0.132	

Note(s):

- When the reported SAR is ≤ 0.8 W/kg, testing of the remaining RB offset configurations and required test channels is not required for 1 RB allocation; otherwise, SAR is required for the remaining required test channels and only for the RB offset configuration with the highest output power for that channel. (Per KDB 941225 D05 v02r02 section 5.2.1)
- The highest reported SAR for 1 RB and 50% RB allocation are ≥ 0.8 W/kg, SAR is required of 100% RB. (Per KDB 941225 D05 v02r02 section 5.2.3)
- Repeated measurements are required only when the measured SAR is ≥ 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 v01r03)
 - Original SAR = 0.825 W/kg, therefore two times repeat SAR is required.
 - Repeat SAR = 0.825 W/kg < 1.45 W/kg
 - SAR variation= 0 % $< 20\%$

**LTE Band 17 (10MHz Bandwidth):**

Power back off (On/Off)	Mode	Test Position	Channel	Freq. (MHz)	Dist. (mm)	UL RB Allocation	UL RB Start	Power (dBm)		Measured 1g SAR (W/kg)	Reported SAR(W/kg)	Note
								Tune up limit	Measured			
On	QPSK	Edge1	23790	710.0	0	1	24	20.0	19.0	0.896	1.128	
			23790	710.0	0	50	0	20.0	19.0	0.856	1.078	
			23790	710.0	0	1	0	20.0	18.8	0.842	1.110	
			23790	710.0	0	1	49	20.0	18.9	0.820	1.056	
			23790	710.0	0	25	0	20.0	18.9	0.876	1.129	
			23790	710.0	0	25	12	20.0	18.8	0.875	1.153	
			23790	710.0	0	25	24	20.0	18.7	0.869	1.172	
		Rear	23790	710.0	0	1	24	20.0	19.0	0.462	0.582	
			23790	710.0	0	25	0	20.0	19.0	0.476	0.599	
Off	QPSK	Edge1	23790	710.0	0	1	24	20.0	19.0	0.918	1.156	3
			23790	710.0	0	25	0	20.0	19.0	0.918	1.156	
		Rear	23790	710.0	15	1	24	24.0	22.6	0.325	0.449	
			23790	710.0	15	25	0	24.0	21.7	0.244	0.414	
		Edge2	23790	710.0	0	1	24	24.0	22.6	0.287	0.396	
			23790	710.0	0	25	0	24.0	21.7	0.214	0.363	

Note(s):

- When the reported SAR is ≤ 0.8 W/kg, testing of the remaining RB offset configurations and required test channels is not required for 1 RB allocation; otherwise, SAR is required for the remaining required test channels and only for the RB offset configuration with the highest output power for that channel. (Per KDB 941225 D05 v02r02 section 5.2.1)
- The highest reported SAR for 1 RB and 50% RB allocation are ≥ 0.8 W/kg, SAR is required of 100% RB. (Per KDB 941225 D05 v02r02 section 5.2.3)
- Repeated measurements are required only when the measured SAR is ≥ 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 v01r03)
 - Original SAR = 0.896 W/kg, therefore two times repeat SAR is required.
 - Repeat SAR = 0.918 W/kg < 1.45 W/kg
 - SAR variation= 2.3 % $< 20\%$



LTE Band 25 (20MHz Bandwidth):

Power back off (On/Off)	Mode	Test Position	Channel	Freq. (MHz)	Dist. (mm)	UL RB Allocation	UL RB Start	Power (dBm)		Measured 1g SAR (W/kg)	Reported SAR(W/kg)	Note
								Tune up limit	Measured			
On	QPSK	Edge1	26140	1860.0	0	1	0	16.0	15.2	0.909	1.093	
			26140	1860.0	0	50	0	16.0	15.2	0.899	1.081	
			26140	1860.0	0	1	49	16.0	15.1	0.891	1.096	
			26140	1860.0	0	1	99	16.0	14.9	0.885	1.140	
			26140	1860.0	0	50	24	16.0	15.1	0.886	1.090	
			26140	1860.0	0	50	49	16.0	15.1	0.878	1.080	
			26140	1860.0	0	100	0	16.0	15.1	0.884	1.088	
			26365	1882.5	0	1	0	16.0	15.1	0.958	1.179	
			26590	1905.0	0	1	0	16.0	15.1	0.910	1.120	
		Rear	26140	1860.0	0	1	0	16.0	15.2	0.233	0.280	
			26140	1860.0	0	50	0	16.0	15.2	0.226	0.272	
		Edge1	26140	1860.0	0	100	0	16.0	15.1	0.923	1.136	3
Off	QPSK	Edge1	26365	1882.5	20	1	0	24.0	23.1	0.422	0.519	
			26365	1882.5	20	50	0	24.0	22.3	0.344	0.509	
		Rear	26365	1882.5	15	1	0	24.0	23.1	0.235	0.289	
			26365	1882.5	15	50	0	24.0	22.3	0.183	0.271	
		Edge2	26365	1882.5	0	1	0	24.0	23.1	0.159	0.196	
			26365	1882.5	0	50	0	24.0	22.3	0.138	0.204	

Note(s):

- When the reported SAR is ≤ 0.8 W/kg, testing of the remaining RB offset configurations and required test channels is not required for 1 RB allocation; otherwise, SAR is required for the remaining required test channels and only for the RB offset configuration with the highest output power for that channel. (Per KDB 941225 D05 v02r02 section 5.2.1)
- The highest reported SAR for 1 RB and 50% RB allocation are ≥ 0.8 W/kg, SAR is required of 100% RB. (Per KDB 941225 D05 v02r02 section 5.2.3)
- Repeated measurements are required only when the measured SAR is ≥ 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 v01r03)
 - Original SAR = 0.958 W/kg, therefore two times repeat SAR is required.
 - Repeat SAR = 0.923 W/kg < 1.45 W/kg
 - SAR variation= 3.7 % $< 20\%$

**Summary of Highest SAR Values**

Results for highest reported SAR values for each frequency band and mode

Technology/Band	Test configuration	Mode	Highest Reported 1g-SAR (W/kg)
GPRS850	Edge1	GPRS 2slot	1.319
GPRS1900	Edge1	GPRS 2slot	1.115
WCDMA Band II	Edge1	12.2 Kbps	1.091
WCDMA band IV	Edge1	12.2 Kbps	1.259
WCDMA band V	Edge1	12.2 Kbps	1.068
CDMA BC0	Edge1	BC0	1.111
CDMA BC1	Edge1	BC1	1.129
CDMA BC10	Edge1	BC10	1.020
LTE band 2	Edge1	QPSK BW20	1.149
LTE band 4	Edge1	QPSK BW20	1.128
LTE band 5	Edge1	QPSK BW10	1.159
LTE band 13	Edge1	QPSK BW10	1.088
LTE band 17	Edge1	QPSK BW10	1.172
LTE band 25	Edge1	QPSK BW20	1.179



17 Simultaneous Transmission SAR Analysis

KDB 447498 D01 General RF Exposure Guidance v05, 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:

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

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

R_i 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 447498 D01) 4.3.2)3). 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:

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

**17.1 Sum of the SAR for Simultaneous Transmission Analysis**

All Wi-Fi 1-g SAR values were taken from results recorded in SAR report T140514D14-SF, submitted under FCC ID FKG7260NG.

17.1.1 Sum of the 1g SAR for Body Exposure Condition**GPRS850 + 2.4GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario				Bluetooth	Σ 1-g SAR (W/kg)	SPLSR (Yes/No)
			GPRS850	Wi-Fi Main	Wi-Fi Aux	Wi-Fi Main+Aux			
Rear	802.11b	6	0.587	0.430			0.292	1.309	NO
	802.11g	6	0.587	0.610			0.292	1.489	NO
	802.11n HT20	6	0.587	0.465			0.292	1.344	NO
	802.11n HT40	6	0.587	0.557			0.292	1.436	NO
	802.11b	6	0.587		0.356			0.943	NO
	802.11g	6	0.587		0.483			1.070	NO
	802.11n HT20	6	0.587		0.465			1.052	NO
	802.11n HT40	6	0.587		0.557			1.144	NO
Edge 1	802.11b	6	1.319	1.010			0.025	2.354	Yes
	802.11g	6	1.319	1.120			0.025	2.464	Yes
	802.11n HT40	6	1.319	0.934			0.025	2.278	Yes
Edge 2	802.11b	6	0.163		1.010			1.173	No
	802.11g	6	0.163		1.150			1.313	No
	802.11n HT20	6	0.163		1.190			1.353	No

**GPRS850 + 5GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario				Bluetooth	Σ 1-g SAR (W/kg)	SPLSR (Yes/No)
			GPRS850	Wi-Fi Main	Wi-Fi Aux	Wi-Fi Main+Aux			
Rear	802.11a	40	0.587	1.146			0.292	2.025	Yes
	802.11n HT20	40	0.587	1.146			0.292	2.025	Yes
	802.11ac	138	0.587	0.478			0.292	1.357	NO
	802.11a	112	0.587		0.354			0.941	NO
	802.11n HT20	116	0.587		0.267			0.854	NO
	802.11ac	155	0.587		0.158			0.745	NO
	802.11ac	138	0.587			0.367		0.954	NO
Edge 1	802.11a	40	1.319	1.167			0.025	2.511	Yes
	802.11n HT20	40	1.319	1.207			0.025	2.551	Yes
	802.11ac	138	1.319	0.628			0.025	1.972	Yes
	802.11a	157	1.319		0.147			1.466	NO
	802.11n HT20	153	1.319		0.079			1.398	NO
	802.11ac	138	1.319			0.356		1.675	Yes
Edge 2	802.11a	157	0.163		0.785			0.948	NO
	802.11n HT20	40	0.163		0.533			0.696	NO
	802.11ac	138	0.163		0.388			0.551	NO
	802.11ac	138	0.163			0.257		0.420	NO

**GPRS1900 + 2.4GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario				Bluetooth	Σ 1-g SAR (W/kg)	SPLSR (Yes/No)
			GPRS1900	Wi-Fi Main	Wi-Fi Aux	Wi-Fi Main+Aux			
Rear	802.11b	6	0.237	0.430			0.292	0.959	NO
	802.11g	6	0.237	0.610			0.292	1.139	NO
	802.11n HT20	6	0.237	0.465			0.292	0.994	NO
	802.11n HT40	6	0.237	0.557			0.292	1.086	NO
	802.11b	6	0.237		0.356			0.593	NO
	802.11g	6	0.237		0.483			0.720	NO
	802.11n HT20	6	0.237		0.465			0.702	NO
	802.11n HT40	6	0.237		0.557			0.794	NO
Edge 1	802.11b	6	1.115	1.010			0.025	2.150	Yes
	802.11g	6	1.115	1.120			0.025	2.260	Yes
	802.11n HT40	6	1.115	0.934			0.025	2.074	Yes
Edge 2	802.11b	6	0.180		1.010			1.190	No
	802.11g	6	0.180		1.150			1.330	No
	802.11n HT20	6	0.180		1.190			1.370	No

**GPRS1900 + 5GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario				Bluetooth	Σ 1-g SAR (W/kg)	SPLSR (Yes/No)
			GPRS1900	Wi-Fi Main	Wi-Fi Aux	Wi-Fi Main+Aux			
Rear	802.11a	40	0.237	1.146			0.292	1.675	Yes
	802.11n HT20	40	0.237	1.146			0.292	1.675	Yes
	802.11ac	138	0.237	0.478			0.292	1.007	NO
	802.11a	112	0.237		0.354			0.591	NO
	802.11n HT20	116	0.237		0.267			0.504	NO
	802.11ac	155	0.237		0.158			0.395	NO
	802.11ac	138	0.237			0.367		0.604	NO
Edge 1	802.11a	40	1.115	1.167			0.025	2.307	Yes
	802.11n HT20	40	1.115	1.207			0.025	2.347	Yes
	802.11ac	138	1.115	0.628			0.025	1.768	Yes
	802.11a	157	1.115		0.147			1.262	NO
	802.11n HT20	153	1.115		0.079			1.194	NO
	802.11ac	138	1.115			0.356		1.471	NO
Edge 2	802.11a	157	0.180		0.785			0.965	NO
	802.11n HT20	40	0.180		0.533			0.713	NO
	802.11ac	138	0.180		0.388			0.568	NO
	802.11ac	138	0.180			0.257		0.437	NO

**CDMA BC0 + 2.4GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario				Bluetooth	Σ 1-g SAR (W/kg)	SPLSR (Yes/No)
			CDMA BC0	Wi-Fi Main	Wi-Fi Aux	Wi-Fi Main+Aux			
Rear	802.11b	6	0.653	0.430			0.292	1.375	NO
	802.11g	6	0.653	0.610			0.292	1.555	NO
	802.11n HT20	6	0.653	0.465			0.292	1.410	NO
	802.11n HT40	6	0.653	0.557			0.292	1.502	NO
	802.11b	6	0.653		0.356			1.009	NO
	802.11g	6	0.653		0.483			1.136	NO
	802.11n HT20	6	0.653		0.465			1.118	NO
	802.11n HT40	6	0.653		0.557			1.210	NO
Edge 1	802.11b	6	1.111	1.010			0.025	2.146	Yes
	802.11g	6	1.111	1.120			0.025	2.256	Yes
	802.11n HT40	6	1.111	0.934			0.025	2.070	Yes
Edge 2	802.11b	6	0.125		1.01			1.135	No
	802.11g	6	0.125		1.15			1.275	No
	802.11n HT20	6	0.125		1.19			1.315	No



CDMA BC0 + 5GHz Band

Test Position	Mode	Channel	Simultaneous Transmission Scenario				Bluetooth	Σ 1-g SAR (W/kg)	SPLSR (Yes/No)
			CDMA BC0	Wi-Fi Main	Wi-Fi Aux	Wi-Fi Main+Aux			
Rear	802.11a	40	0.653	1.146			0.292	2.091	Yes
	802.11n HT20	40	0.653	1.146			0.292	2.091	Yes
	802.11ac	138	0.653	0.478			0.292	1.423	NO
	802.11a	112	0.653		0.354			1.007	NO
	802.11n HT20	116	0.653		0.267			0.920	NO
	802.11ac	155	0.653		0.158			0.811	NO
	802.11ac	138	0.653			0.367		1.020	NO
Edge 1	802.11a	40	1.111	1.167			0.025	2.303	Yes
	802.11n HT20	40	1.111	1.207			0.025	2.343	Yes
	802.11ac	138	1.111	0.628			0.025	1.764	Yes
	802.11a	157	1.111		0.147			1.258	NO
	802.11n HT20	153	1.111		0.079			1.190	NO
	802.11ac	138	1.111			0.356		1.467	NO
Edge 2	802.11a	157	0.125		0.785			0.910	NO
	802.11n HT20	40	0.125		0.533			0.658	NO
	802.11ac	138	0.125		0.388			0.513	NO
	802.11ac	138	0.125			0.257		0.382	NO

**CDMA BC1 + 2.4GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario				Bluetooth	Σ 1-g SAR (W/kg)	SPLSR (Yes/No)
			CDMA BC1	Wi-Fi Main	Wi-Fi Aux	Wi-Fi Main+Aux			
Rear	802.11b	6	0.457	0.430			0.292	1.179	NO
	802.11g	6	0.457	0.610			0.292	1.359	NO
	802.11n HT20	6	0.457	0.465			0.292	1.214	NO
	802.11n HT40	6	0.457	0.557			0.292	1.306	NO
	802.11b	6	0.457		0.356			0.813	NO
	802.11g	6	0.457		0.483			0.940	NO
	802.11n HT20	6	0.457		0.465			0.922	NO
	802.11n HT40	6	0.457		0.557			1.014	NO
Edge 1	802.11b	6	1.129	1.010			0.025	2.164	Yes
	802.11g	6	1.129	1.120			0.025	2.274	Yes
	802.11n HT40	6	1.129	0.934			0.025	2.088	Yes
Edge 2	802.11b	6	0.297		1.010			1.307	No
	802.11g	6	0.297		1.150			1.447	No
	802.11n HT20	6	0.297		1.190			1.487	No

**CDMA BC1 + 5GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario				Bluetooth	Σ 1-g SAR (W/kg)	SPLSR (Yes/No)
			CDMA BC1	Wi-Fi Main	Wi-Fi Aux	Wi-Fi Main+Aux			
Rear	802.11a	40	0.457	1.146			0.292	1.895	Yes
	802.11n HT20	40	0.457	1.146			0.292	1.895	Yes
	802.11ac	138	0.457	0.478			0.292	1.227	NO
	802.11a	112	0.457		0.354			0.811	NO
	802.11n HT20	116	0.457		0.267			0.724	NO
	802.11ac	155	0.457		0.158			0.615	NO
	802.11ac	138	0.457			0.367		0.824	NO
Edge 1	802.11a	40	1.129	1.167			0.025	2.321	Yes
	802.11n HT20	40	1.129	1.207			0.025	2.361	Yes
	802.11ac	138	1.129	0.628			0.025	1.782	Yes
	802.11a	157	1.129		0.147			1.276	NO
	802.11n HT20	153	1.129		0.079			1.208	NO
	802.11ac	138	1.129			0.356		1.485	NO
Edge 2	802.11a	157	0.297		0.785			1.082	NO
	802.11n HT20	40	0.297		0.533			0.830	NO
	802.11ac	138	0.297		0.388			0.685	NO
	802.11ac	138	0.297			0.257		0.554	NO

**CDMA BC10 + 2.4GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario				Bluetooth	Σ 1-g SAR (W/kg)	SPLSR (Yes/No)
			CDMA BC10	Wi-Fi Main	Wi-Fi Aux	Wi-Fi Main+Aux			
Rear	802.11b	6	0.545	0.430			0.292	1.267	NO
	802.11g	6	0.545	0.610			0.292	1.447	NO
	802.11n HT20	6	0.545	0.465			0.292	1.302	NO
	802.11n HT40	6	0.545	0.557			0.292	1.394	NO
	802.11b	6	0.545		0.356			0.901	NO
	802.11g	6	0.545		0.483			1.028	NO
	802.11n HT20	6	0.545		0.465			1.010	NO
	802.11n HT40	6	0.545		0.557			1.102	NO
Edge 1	802.11b	6	1.020	1.010			0.025	2.055	Yes
	802.11g	6	1.020	1.120			0.025	2.165	Yes
	802.11n HT40	6	1.020	0.934			0.025	1.979	Yes
Edge 2	802.11b	6	0.097		1.010			1.107	No
	802.11g	6	0.097		1.150			1.247	No
	802.11n HT20	6	0.097		1.190			1.287	No



CDMA BC10 + 5GHz Band

Test Position	Mode	Channel	Simultaneous Transmission Scenario				Bluetooth	Σ 1-g SAR (W/kg)	SPLSR (Yes/No)
			CDMA BC10	Wi-Fi Main	Wi-Fi Aux	Wi-Fi Main+Aux			
Rear	802.11a	40	0.545	1.146			0.292	1.983	Yes
	802.11n HT20	40	0.545	1.146			0.292	1.983	Yes
	802.11ac	138	0.545	0.478			0.292	1.315	NO
	802.11a	112	0.545		0.354			0.899	NO
	802.11n HT20	116	0.545		0.267			0.812	NO
	802.11ac	155	0.545		0.158			0.703	NO
	802.11ac	138	0.545			0.367		0.912	NO
Edge 1	802.11a	40	1.020	1.167			0.025	2.212	Yes
	802.11n HT20	40	1.020	1.207			0.025	2.252	Yes
	802.11ac	138	1.020	0.628			0.025	1.673	Yes
	802.11a	157	1.020		0.147			1.167	NO
	802.11n HT20	153	1.020		0.079			1.099	NO
	802.11ac	138	1.020			0.356		1.376	NO
Edge 2	802.11a	157	0.097		0.785			0.882	NO
	802.11n HT20	40	0.097		0.533			0.630	NO
	802.11ac	138	0.097		0.388			0.485	NO
	802.11ac	138	0.097			0.257		0.354	NO

**WCDMA Band II + 2.4GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario				Bluetooth	Σ 1-g SAR (W/kg)	SPLSR (Yes/No)
			WCDMA Band II	Wi-Fi Main	Wi-Fi Aux	Wi-Fi Main+Aux			
Rear	802.11b	6	0.334	0.430			0.292	1.056	NO
	802.11g	6	0.334	0.610			0.292	1.236	NO
	802.11n HT20	6	0.334	0.465			0.292	1.091	NO
	802.11n HT40	6	0.334	0.557			0.292	1.183	NO
	802.11b	6	0.334		0.356			0.690	NO
	802.11g	6	0.334		0.483			0.817	NO
	802.11n HT20	6	0.334		0.465			0.799	NO
	802.11n HT40	6	0.334		0.557			0.891	NO
Edge 1	802.11b	6	1.091	1.010			0.025	2.126	Yes
	802.11g	6	1.091	1.120			0.025	2.236	Yes
	802.11n HT40	6	1.091	0.934			0.025	2.050	Yes
Edge 2	802.11b	6	0.242		1.010			1.252	No
	802.11g	6	0.242		1.150			1.392	No
	802.11n HT20	6	0.242		1.190			1.432	No

**WCDMA Band II + 5GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario				Bluetooth	Σ 1-g SAR (W/kg)	SPLSR (Yes/No)
			WCDMA Band II	Wi-Fi Main	Wi-Fi Aux	Wi-Fi Main+Aux			
Rear	802.11a	40	0.334	1.146			0.292	1.772	Yes
	802.11n HT20	40	0.334	1.146			0.292	1.772	Yes
	802.11ac	138	0.334	0.478			0.292	1.104	NO
	802.11a	112	0.334		0.354			0.688	NO
	802.11n HT20	116	0.334		0.267			0.601	NO
	802.11ac	155	0.334		0.158			0.492	NO
	802.11ac	138	0.334			0.367		0.701	NO
Edge 1	802.11a	40	1.091	1.167			0.025	2.283	Yes
	802.11n HT20	40	1.091	1.207			0.025	2.323	Yes
	802.11ac	138	1.091	0.628			0.025	1.744	Yes
	802.11a	157	1.091		0.147			1.238	NO
	802.11n HT20	153	1.091		0.079			1.170	NO
	802.11ac	138	1.091			0.356		1.447	NO
Edge 2	802.11a	157	0.242		0.785			1.027	NO
	802.11n HT20	40	0.242		0.533			0.775	NO
	802.11ac	138	0.242		0.388			0.630	NO
	802.11ac	138	0.242			0.257		0.499	NO

**WCDMA Band IV + 2.4GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario				Bluetooth	Σ 1-g SAR (W/kg)	SPLSR (Yes/No)
			WCDMA Band IV	Wi-Fi Main	Wi-Fi Aux	Wi-Fi Main+Aux			
Rear	802.11b	6	0.352	0.430			0.292	1.074	NO
	802.11g	6	0.352	0.610			0.292	1.254	NO
	802.11n HT20	6	0.352	0.465			0.292	1.109	NO
	802.11n HT40	6	0.352	0.557			0.292	1.201	NO
	802.11b	6	0.352		0.356			0.708	NO
	802.11g	6	0.352		0.483			0.835	NO
	802.11n HT20	6	0.352		0.465			0.817	NO
	802.11n HT40	6	0.352		0.557			0.909	NO
Edge 1	802.11b	6	1.259	1.010			0.025	2.294	Yes
	802.11g	6	1.259	1.120			0.025	2.404	Yes
	802.11n HT40	6	1.259	0.934			0.025	2.218	Yes
Edge 2	802.11b	6	0.287		1.010			1.297	No
	802.11g	6	0.287		1.150			1.437	No
	802.11n HT20	6	0.287		1.190			1.477	No

**WCDMA Band IV + 5GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario				Bluetooth	Σ 1-g SAR (W/kg)	SPLSR (Yes/No)
			WCDMA Band IV	Wi-Fi Main	Wi-Fi Aux	Wi-Fi Main+Aux			
Rear	802.11a	40	0.352	1.146			0.292	1.790	Yes
	802.11n HT20	40	0.352	1.146			0.292	1.790	Yes
	802.11ac	138	0.352	0.478			0.292	1.122	NO
	802.11a	112	0.352		0.354			0.706	NO
	802.11n HT20	116	0.352		0.267			0.619	NO
	802.11ac	155	0.352		0.158			0.510	NO
	802.11ac	138	0.352			0.367		0.719	NO
Edge 1	802.11a	40	1.259	1.167			0.025	2.451	Yes
	802.11n HT20	40	1.259	1.207			0.025	2.491	Yes
	802.11ac	138	1.259	0.628			0.025	1.912	Yes
	802.11a	157	1.259		0.147			1.406	NO
	802.11n HT20	153	1.259		0.079			1.338	NO
	802.11ac	138	1.259			0.356		1.615	NO
Edge 2	802.11a	157	0.287		0.785			1.072	NO
	802.11n HT20	40	0.287		0.533			0.820	NO
	802.11ac	138	0.287		0.388			0.675	NO
	802.11ac	138	0.287			0.257		0.544	NO

**WCDMA Band V + 2.4GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario				Bluetooth	Σ 1-g SAR (W/kg)	SPLSR (Yes/No)
			WCDMA Band V	Wi-Fi Main	Wi-Fi Aux	Wi-Fi Main+Aux			
Rear	802.11b	6	0.590	0.430			0.292	1.312	NO
	802.11g	6	0.590	0.610			0.292	1.492	NO
	802.11n HT20	6	0.590	0.465			0.292	1.347	NO
	802.11n HT40	6	0.590	0.557			0.292	1.439	NO
	802.11b	6	0.590		0.356			0.946	NO
	802.11g	6	0.590		0.483			1.073	NO
	802.11n HT20	6	0.590		0.465			1.055	NO
	802.11n HT40	6	0.590		0.557			1.147	NO
Edge 1	802.11b	6	1.068	1.010			0.025	2.103	Yes
	802.11g	6	1.068	1.120			0.025	2.213	Yes
	802.11n HT40	6	1.068	0.934			0.025	2.027	Yes
Edge 2	802.11b	6	0.108		1.010			1.118	No
	802.11g	6	0.108		1.150			1.258	No
	802.11n HT20	6	0.108		1.190			1.298	No

**WCDMA Band V + 5GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario				Bluetooth	Σ 1-g SAR (W/kg)	SPLSR (Yes/No)
			WCDMA Band V	Wi-Fi Main	Wi-Fi Aux	Wi-Fi Main+Aux			
Rear	802.11a	40	0.590	1.146			0.292	2.028	Yes
	802.11n HT20	40	0.590	1.146			0.292	2.028	Yes
	802.11ac	138	0.590	0.478			0.292	1.360	NO
	802.11a	112	0.590		0.354			0.944	NO
	802.11n HT20	116	0.590		0.267			0.857	NO
	802.11ac	155	0.590		0.158			0.748	NO
	802.11ac	138	0.590			0.367		0.957	NO
Edge 1	802.11a	40	1.068	1.167			0.025	2.260	Yes
	802.11n HT20	40	1.068	1.207			0.025	2.300	Yes
	802.11ac	138	1.068	0.628			0.025	1.721	Yes
	802.11a	157	1.068		0.147			1.215	NO
	802.11n HT20	153	1.068		0.079			1.147	NO
	802.11ac	138	1.068			0.356		1.424	NO
Edge 2	802.11a	157	0.108		0.785			0.893	NO
	802.11n HT20	40	0.108		0.533			0.641	NO
	802.11ac	138	0.108		0.388			0.496	NO
	802.11ac	138	0.108			0.257		0.365	NO

**LTE Band 2 + 2.4GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario				Bluetooth	Σ 1-g SAR (W/kg)	SPLSR (Yes/No)
			LTE Band 2	Wi-Fi Main	Wi-Fi Aux	Wi-Fi Main+Aux			
Rear	802.11b	6	0.354	0.430			0.292	1.076	NO
	802.11g	6	0.354	0.610			0.292	1.256	NO
	802.11n HT20	6	0.354	0.465			0.292	1.111	NO
	802.11n HT40	6	0.354	0.557			0.292	1.203	NO
	802.11b	6	0.354		0.356			0.710	NO
	802.11g	6	0.354		0.483			0.837	NO
	802.11n HT20	6	0.354		0.465			0.819	NO
	802.11n HT40	6	0.354		0.557			0.911	NO
Edge 1	802.11b	6	1.149	1.010			0.025	2.184	Yes
	802.11g	6	1.149	1.120			0.025	2.294	Yes
	802.11n HT40	6	1.149	0.934			0.025	2.108	Yes
Edge 2	802.11b	6	0.201		1.010			1.211	No
	802.11g	6	0.201		1.150			1.351	No
	802.11n HT20	6	0.201		1.190			1.391	No



LTE Band 2 + 5GHz Band

Test Position	Mode	Channel	Simultaneous Transmission Scenario				Bluetooth	Σ 1-g SAR (W/kg)	SPLSR (Yes/No)
			LTE Band 2	Wi-Fi Main	Wi-Fi Aux	Wi-Fi Main+Aux			
Rear	802.11a	40	0.354	1.146			0.292	1.792	Yes
	802.11n HT20	40	0.354	1.146			0.292	1.792	Yes
	802.11ac	138	0.354	0.478			0.292	1.124	NO
	802.11a	112	0.354		0.354			0.708	NO
	802.11n HT20	116	0.354		0.267			0.621	NO
	802.11ac	155	0.354		0.158			0.512	NO
	802.11ac	138	0.354			0.367		0.721	NO
Edge 1	802.11a	40	1.149	1.167			0.025	2.341	Yes
	802.11n HT20	40	1.149	1.207			0.025	2.381	Yes
	802.11ac	138	1.149	0.628			0.025	1.802	Yes
	802.11a	157	1.149		0.147			1.296	NO
	802.11n HT20	153	1.149		0.079			1.228	NO
	802.11ac	138	1.149			0.356		1.505	NO
Edge 2	802.11a	157	0.201		0.785			0.986	NO
	802.11n HT20	40	0.201		0.533			0.734	NO
	802.11ac	138	0.201		0.388			0.589	NO
	802.11ac	138	0.201			0.257		0.458	NO

**LTE Band 4 + 2.4GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario				Bluetooth	Σ 1-g SAR (W/kg)	SPLSR (Yes/No)
			LTE Band 4	Wi-Fi Main	Wi-Fi Aux	Wi-Fi Main+Aux			
Rear	802.11b	6	0.328	0.430			0.292	1.050	NO
	802.11g	6	0.328	0.610			0.292	1.230	NO
	802.11n HT20	6	0.328	0.465			0.292	1.085	NO
	802.11n HT40	6	0.328	0.557			0.292	1.177	NO
	802.11b	6	0.328		0.356			0.684	NO
	802.11g	6	0.328		0.483			0.811	NO
	802.11n HT20	6	0.328		0.465			0.793	NO
	802.11n HT40	6	0.328		0.557			0.885	NO
Edge 1	802.11b	6	1.128	1.010			0.025	2.163	Yes
	802.11g	6	1.128	1.120			0.025	2.273	Yes
	802.11n HT40	6	1.128	0.934			0.025	2.087	Yes
Edge 2	802.11b	6	0.295		1.010			1.305	No
	802.11g	6	0.295		1.150			1.445	No
	802.11n HT20	6	0.295		1.190			1.485	No

**LTE Band 4 + 5GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario				Bluetooth	Σ 1-g SAR (W/kg)	SPLSR (Yes/No)
			LTE Band 4	Wi-Fi Main	Wi-Fi Aux	Wi-Fi Main+Aux			
Rear	802.11a	40	0.328	1.146			0.292	1.766	Yes
	802.11n HT20	40	0.328	1.146			0.292	1.766	Yes
	802.11ac	138	0.328	0.478			0.292	1.098	NO
	802.11a	112	0.328		0.354			0.682	NO
	802.11n HT20	116	0.328		0.267			0.595	NO
	802.11ac	155	0.328		0.158			0.486	NO
	802.11ac	138	0.328			0.367		0.695	NO
Edge 1	802.11a	40	1.128	1.167			0.025	2.320	Yes
	802.11n HT20	40	1.128	1.207			0.025	2.360	Yes
	802.11ac	138	1.128	0.628			0.025	1.781	Yes
	802.11a	157	1.128		0.147			1.275	NO
	802.11n HT20	153	1.128		0.079			1.207	NO
	802.11ac	138	1.128			0.356		1.484	NO
Edge 2	802.11a	157	0.295		0.785			1.080	NO
	802.11n HT20	40	0.295		0.533			0.828	NO
	802.11ac	138	0.295		0.388			0.683	NO
	802.11ac	138	0.295			0.257		0.552	NO

**LTE Band 5 + 2.4GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario				Bluetooth	Σ 1-g SAR (W/kg)	SPLSR (Yes/No)
			LTE Band 5	Wi-Fi Main	Wi-Fi Aux	Wi-Fi Main+Aux			
Rear	802.11b	6	0.543	0.430			0.292	1.265	NO
	802.11g	6	0.543	0.610			0.292	1.445	NO
	802.11n HT20	6	0.543	0.465			0.292	1.300	NO
	802.11n HT40	6	0.543	0.557			0.292	1.392	NO
	802.11b	6	0.543		0.356			0.899	NO
	802.11g	6	0.543		0.483			1.026	NO
	802.11n HT20	6	0.543		0.465			1.008	NO
	802.11n HT40	6	0.543		0.557			1.100	NO
Edge 1	802.11b	6	1.159	1.010			0.025	2.194	Yes
	802.11g	6	1.159	1.120			0.025	2.304	Yes
	802.11n HT40	6	1.159	0.934			0.025	2.118	Yes
Edge 2	802.11b	6	0.101		1.010			1.111	No
	802.11g	6	0.101		1.150			1.251	No
	802.11n HT20	6	0.101		1.190			1.291	No

**LTE Band 5 + 5GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario				Bluetooth	Σ 1-g SAR (W/kg)	SPLSR (Yes/No)
			LTE Band 5	Wi-Fi Main	Wi-Fi Aux	Wi-Fi Main+Aux			
Rear	802.11a	40	0.543	1.146			0.292	1.981	Yes
	802.11n HT20	40	0.543	1.146			0.292	1.981	Yes
	802.11ac	138	0.543	0.478			0.292	1.313	NO
	802.11a	112	0.543		0.354			0.897	NO
	802.11n HT20	116	0.543		0.267			0.810	NO
	802.11ac	155	0.543		0.158			0.701	NO
	802.11ac	138	0.543			0.367		0.910	NO
Edge 1	802.11a	40	1.159	1.167			0.025	2.351	Yes
	802.11n HT20	40	1.159	1.207			0.025	2.391	Yes
	802.11ac	138	1.159	0.628			0.025	1.812	Yes
	802.11a	157	1.159		0.147			1.306	NO
	802.11n HT20	153	1.159		0.079			1.238	NO
	802.11ac	138	1.159			0.356		1.515	NO
Edge 2	802.11a	157	0.101		0.785			0.886	NO
	802.11n HT20	40	0.101		0.533			0.634	NO
	802.11ac	138	0.101		0.388			0.489	NO
	802.11ac	138	0.101			0.257		0.358	NO

**LTE Band 13 + 2.4GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario				Bluetooth	Σ 1-g SAR (W/kg)	SPLSR (Yes/No)
			LTE Band 13	Wi-Fi Main	Wi-Fi Aux	Wi-Fi Main+Aux			
Rear	802.11b	6	0.437	0.430			0.292	1.159	NO
	802.11g	6	0.437	0.610			0.292	1.339	NO
	802.11n HT20	6	0.437	0.465			0.292	1.194	NO
	802.11n HT40	6	0.437	0.557			0.292	1.286	NO
	802.11b	6	0.437		0.356			0.793	NO
	802.11g	6	0.437		0.483			0.920	NO
	802.11n HT20	6	0.437		0.465			0.902	NO
	802.11n HT40	6	0.437		0.557			0.994	NO
Edge 1	802.11b	6	1.088	1.010			0.025	2.123	Yes
	802.11g	6	1.088	1.120			0.025	2.233	Yes
	802.11n HT40	6	1.088	0.934			0.025	2.047	Yes
Edge 2	802.11b	6	0.140		1.010			1.150	No
	802.11g	6	0.140		1.150			1.290	No
	802.11n HT20	6	0.140		1.190			1.330	No



LTE Band 13 + 5GHz Band

Test Position	Mode	Channel	Simultaneous Transmission Scenario				Bluetooth	Σ 1-g SAR (W/kg)	SPLSR (Yes/No)
			LTE Band 13	Wi-Fi Main	Wi-Fi Aux	Wi-Fi Main+Aux			
Rear	802.11a	40	0.437	1.146			0.292	1.875	Yes
	802.11n HT20	40	0.437	1.146			0.292	1.875	Yes
	802.11ac	138	0.437	0.478			0.292	1.207	NO
	802.11a	112	0.437		0.354			0.791	NO
	802.11n HT20	116	0.437		0.267			0.704	NO
	802.11ac	155	0.437		0.158			0.595	NO
	802.11ac	138	0.437			0.367		0.804	NO
Edge 1	802.11a	40	1.088	1.167			0.025	2.280	Yes
	802.11n HT20	40	1.088	1.207			0.025	2.320	Yes
	802.11ac	138	1.088	0.628			0.025	1.741	Yes
	802.11a	157	1.088		0.147			1.235	NO
	802.11n HT20	153	1.088		0.079			1.167	NO
	802.11ac	138	1.088			0.356		1.444	NO
Edge 2	802.11a	157	0.140		0.785			0.925	NO
	802.11n HT20	40	0.140		0.533			0.673	NO
	802.11ac	138	0.140		0.388			0.528	NO
	802.11ac	138	0.140			0.257		0.397	NO

**LTE Band 17 + 2.4GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario				Bluetooth	Σ 1-g SAR (W/kg)	SPLSR (Yes/No)
			LTE Band 17	Wi-Fi Main	Wi-Fi Aux	Wi-Fi Main+Aux			
Rear	802.11b	6	0.599	0.430			0.292	1.321	NO
	802.11g	6	0.599	0.610			0.292	1.501	NO
	802.11n HT20	6	0.599	0.465			0.292	1.356	NO
	802.11n HT40	6	0.599	0.557			0.292	1.448	NO
	802.11b	6	0.599		0.356			0.955	NO
	802.11g	6	0.599		0.483			1.082	NO
	802.11n HT20	6	0.599		0.465			1.064	NO
	802.11n HT40	6	0.599		0.557			1.156	NO
Edge 1	802.11b	6	1.172	1.010			0.025	2.207	Yes
	802.11g	6	1.172	1.120			0.025	2.317	Yes
	802.11n HT40	6	1.172	0.934			0.025	2.131	Yes
Edge 2	802.11b	6	0.177		1.010			1.187	No
	802.11g	6	0.177		1.150			1.327	No
	802.11n HT20	6	0.177		1.190			1.367	No

**LTE Band 17 + 5GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario				Bluetooth	Σ 1-g SAR (W/kg)	SPLSR (Yes/No)
			LTE Band 17	Wi-Fi Main	Wi-Fi Aux	Wi-Fi Main+Aux			
Rear	802.11a	40	0.599	1.146			0.292	2.037	Yes
	802.11n HT20	40	0.599	1.146			0.292	2.037	Yes
	802.11ac	138	0.599	0.478			0.292	1.369	NO
	802.11a	112	0.599		0.354			0.953	NO
	802.11n HT20	116	0.599		0.267			0.866	NO
	802.11ac	155	0.599		0.158			0.757	NO
	802.11ac	138	0.599			0.367		0.966	NO
Edge 1	802.11a	40	1.172	1.167			0.025	2.364	Yes
	802.11n HT20	40	1.172	1.207			0.025	2.404	Yes
	802.11ac	138	1.172	0.628			0.025	1.825	Yes
	802.11a	157	1.172		0.147			1.319	NO
	802.11n HT20	153	1.172		0.079			1.251	NO
	802.11ac	138	1.172			0.356		1.528	NO
Edge 2	802.11a	157	0.177		0.785			0.962	NO
	802.11n HT20	40	0.177		0.533			0.710	NO
	802.11ac	138	0.177		0.388			0.565	NO
	802.11ac	138	0.177			0.257		0.434	NO

**LTE Band 25 + 2.4GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario				Bluetooth	Σ 1-g SAR (W/kg)	SPLSR (Yes/No)
			LTE Band 25	Wi-Fi Main	Wi-Fi Aux	Wi-Fi Main+Aux			
Rear	802.11b	6	0.289	0.430			0.292	1.011	NO
	802.11g	6	0.289	0.610			0.292	1.191	NO
	802.11n HT20	6	0.289	0.465			0.292	1.046	NO
	802.11n HT40	6	0.289	0.557			0.292	1.138	NO
	802.11b	6	0.289		0.356			0.645	NO
	802.11g	6	0.289		0.483			0.772	NO
	802.11n HT20	6	0.289		0.465			0.754	NO
	802.11n HT40	6	0.289		0.557			0.846	NO
Edge 1	802.11b	6	1.179	1.010			0.025	2.214	Yes
	802.11g	6	1.179	1.120			0.025	2.324	Yes
	802.11n HT40	6	1.179	0.934			0.025	2.138	Yes
Edge 2	802.11b	6	0.204		1.010			1.214	No
	802.11g	6	0.204		1.150			1.354	No
	802.11n HT20	6	0.204		1.190			1.394	No



LTE Band 25 + 5GHz Band

Test Position	Mode	Channel	Simultaneous Transmission Scenario				Bluetooth	Σ 1-g SAR (W/kg)	SPLSR (Yes/No)
			LTE Band 25	Wi-Fi Main	Wi-Fi Aux	Wi-Fi Main+Aux			
Rear	802.11a	40	0.289	1.146			0.292	1.727	Yes
	802.11n HT20	40	0.289	1.146			0.292	1.727	Yes
	802.11ac	138	0.289	0.478			0.292	1.059	NO
	802.11a	112	0.289		0.354			0.643	NO
	802.11n HT20	116	0.289		0.267			0.556	NO
	802.11ac	155	0.289		0.158			0.447	NO
	802.11ac	138	0.289			0.367		0.656	NO
Edge 1	802.11a	40	1.179	1.167			0.025	2.371	Yes
	802.11n HT20	40	1.179	1.207			0.025	2.411	Yes
	802.11ac	138	1.179	0.628			0.025	1.832	Yes
	802.11a	157	1.179		0.147			1.326	NO
	802.11n HT20	153	1.179		0.079			1.258	NO
	802.11ac	138	1.179			0.356		1.535	NO
Edge 2	802.11a	157	0.204		0.785			0.989	NO
	802.11n HT20	40	0.204		0.533			0.737	NO
	802.11ac	138	0.204		0.388			0.592	NO
	802.11ac	138	0.204			0.257		0.461	NO

**17.1.2 Sum of the 1g SAR for Body Exposure Condition****GPRS850 + 2.4GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario		Σ 1-g SAR (W/kg)	Calculated distance (cm)	SPLSR	Figure
			GPRS 850	Wi-Fi 2.4 GHz Band				
Edge 1	802.11b	6	1.319	1.010	2.329	19.98	0.02	1
	802.11g	6	1.319	1.120	2.439	19.98	0.02	2
	802.11n HT40	6	1.319	0.934	2.253	20.16	0.02	3

Note(s):The SPLSR is rounded to two decimal digits and ≤ 0.04 **GPRS850 + 5GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario		Σ 1-g SAR (W/kg)	Calculated distance (cm)	SPLSR	Figure
			GPRS 850	Wi-Fi 5 GHz Band				
Rear	802.11a	40	0.587	1.146	1.733	19.50	0.01	4
	802.11n HT20	40	0.587	1.146	1.733	19.40	0.01	5
Edge 1	802.11a	40	1.319	1.167	2.486	20.66	0.02	6
	802.11n HT20	40	1.319	1.207	2.526	20.77	0.02	7
	802.11ac	138	1.319	0.628	1.947	18.25	0.01	8
	802.11ac	138	1.319	0.356	1.675	18.35	0.01	9

Note(s):The SPLSR is rounded to two decimal digits and ≤ 0.04 **GPRS1900 + 2.4GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario		Σ 1-g SAR (W/kg)	Calculated distance (cm)	SPLSR	Figure
			GPRS 1900	Wi-Fi 2.4 GHz Band				
Edge 1	802.11b	6	1.115	1.010	2.125	18.36	0.02	10
	802.11g	6	1.115	1.120	2.235	18.36	0.02	11
	802.11n HT40	6	1.115	0.934	2.049	18.55	0.02	12

Note(s):The SPLSR is rounded to two decimal digits and ≤ 0.04 **GPRS1900 + 5GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario		Σ 1-g SAR (W/kg)	Calculated distance (cm)	SPLSR	Figure
			GPRS 1900	Wi-Fi 5 GHz Band				
Rear	802.11a	40	0.237	1.146	1.383	13.57	0.01	13
	802.11n HT20	40	0.237	1.146	1.383	13.47	0.01	14
Edge 1	802.11a	40	1.115	1.167	2.282	19.05	0.02	15
	802.11n HT20	40	1.115	1.207	2.322	19.15	0.02	16
	802.11ac	138	1.115	0.628	1.743	16.65	0.01	17

Note(s):The SPLSR is rounded to two decimal digits and ≤ 0.04

**CDMA BC0 + 2.4GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario		Σ 1-g SAR (W/kg)	Calculated distance (cm)	SPLSR	Figure
			CDMA BC0	Wi-Fi 2.4 GHz Band				
Edge 1	802.11b	6	1.111	1.010	2.121	19.45	0.02	18
	802.11g	6	1.111	1.120	2.231	19.45	0.02	19
	802.11n HT40	6	1.111	0.934	2.045	19.63	0.01	20

Note(s):

The SPLSR is rounded to two decimal digits and ≤ 0.04

CDMA BC0 + 5GHz Band

Test Position	Mode	Channel	Simultaneous Transmission Scenario		Σ 1-g SAR (W/kg)	Calculated distance (cm)	SPLSR	Figure
			CDMA BC0	Wi-Fi 5 GHz Band				
Rear	802.11a	40	0.653	1.146	1.799	19.10	0.01	21
	802.11n HT20	40	0.653	1.146	1.799	19.00	0.01	22
Edge 1	802.11a	40	1.111	1.167	2.278	20.12	0.02	23
	802.11n HT20	40	1.111	1.207	2.318	20.24	0.02	24
	802.11ac	138	1.111	0.628	1.739	17.71	0.01	25

Note(s):

The SPLSR is rounded to two decimal digits and ≤ 0.04

CDMA BC1 + 2.4GHz Band

Test Position	Mode	Channel	Simultaneous Transmission Scenario		Σ 1-g SAR (W/kg)	Calculated distance (cm)	SPLSR	Figure
			CDMA BC1	Wi-Fi 2.4 GHz Band				
Edge 1	802.11b	6	1.129	1.010	2.139	18.12	0.02	26
	802.11g	6	1.129	1.120	2.249	18.12	0.02	27
	802.11n HT40	6	1.129	0.934	2.063	18.29	0.02	28

Note(s):

The SPLSR is rounded to two decimal digits and ≤ 0.04

CDMA BC1 + 5GHz Band

Test Position	Mode	Channel	Simultaneous Transmission Scenario		Σ 1-g SAR (W/kg)	Calculated distance (cm)	SPLSR	Figure
			CDMA BC1	Wi-Fi 5 GHz Band				
Rear	802.11a	40	0.457	1.146	1.603	13.95	0.01	29
	802.11n HT20	40	0.457	1.146	1.603	13.85	0.01	30
Edge 1	802.11a	40	1.129	1.167	2.296	18.75	0.02	31
	802.11n HT20	40	1.129	1.207	2.336	18.91	0.02	32
	802.11ac	138	1.129	0.628	1.757	16.37	0.01	33

Note(s):

The SPLSR is rounded to two decimal digits and ≤ 0.04

**CDMA BC10 + 2.4GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario		Σ 1-g SAR (W/kg)	Calculated distance (cm)	SPLSR	Figure
			CDMA BC10	Wi-Fi 2.4 GHz Band				
Edge 1	802.11b	6	1.020	1.010	2.030	19.36	0.01	34
	802.11g	6	1.020	1.120	2.140	19.36	0.02	35
	802.11n HT40	6	1.020	0.934	1.954	19.55	0.01	36

Note(s):The SPLSR is rounded to two decimal digits and ≤ 0.04 **CDMA BC10 + 5GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario		Σ 1-g SAR (W/kg)	Calculated distance (cm)	SPLSR	Figure
			CDMA BC10	Wi-Fi 5 GHz Band				
Rear	802.11a	40	0.545	1.146	1.691	17.56	0.01	37
	802.11n HT20	40	0.545	1.146	1.691	17.46	0.01	38
Edge 1	802.11a	40	1.020	1.167	2.187	20.05	0.02	39
	802.11n HT20	40	1.020	1.207	2.227	20.16	0.02	40
	802.11ac	138	1.020	0.628	1.648	17.66	0.01	41

Note(s):The SPLSR is rounded to two decimal digits and ≤ 0.04 **WCDMA Band II + 2.4GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario		Σ 1-g SAR (W/kg)	Calculated distance (cm)	SPLSR	Figure
			WCDMA Band II	Wi-Fi 2.4 GHz Band				
Edge 1	802.11b	6	1.091	1.010	2.101	17.88	0.02	42
	802.11g	6	1.091	1.120	2.211	17.88	0.02	43
	802.11n HT40	6	1.091	0.934	2.025	18.06	0.02	44

Note(s):The SPLSR is rounded to two decimal digits and ≤ 0.04 **WCDMA Band II + 5GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario		Σ 1-g SAR (W/kg)	Calculated distance (cm)	SPLSR	Figure
			WCDMA Band V	Wi-Fi 5 GHz Band				
Rear	802.11a	40	0.334	1.146	1.480	14.60	0.01	45
	802.11n HT20	40	0.334	1.146	1.480	14.50	0.01	46
Edge 1	802.11a	40	1.091	1.167	2.258	18.56	0.02	47
	802.11n HT20	40	1.091	1.207	2.298	18.67	0.02	48
	802.11ac	138	1.091	0.628	1.719	16.15	0.01	49

Note(s):The SPLSR is rounded to two decimal digits and ≤ 0.04

**WCDMA Band IV + 2.4GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario		Σ 1-g SAR (W/kg)	Calculated distance (cm)	SPLSR	Figure
			WCDMA Band IV	Wi-Fi 2.4 GHz Band				
Edge 1	802.11b	6	1.259	1.010	2.269	17.57	0.02	50
	802.11g	6	1.259	1.120	2.379	17.57	0.02	51
	802.11n HT40	6	1.259	0.934	2.193	17.76	0.02	52

Note(s):

The SPLSR is rounded to two decimal digits and ≤ 0.04

WCDMA Band IV + 5GHz Band

Test Position	Mode	Channel	Simultaneous Transmission Scenario		Σ 1-g SAR (W/kg)	Calculated distance (cm)	SPLSR	Figure
			WCDMA Band IV	Wi-Fi 5 GHz Band				
Rear	802.11a	40	0.352	1.146	1.498	15.40	0.01	53
	802.11n HT20	40	0.352	1.146	1.498	15.30	0.01	54
Edge 1	802.11a	40	1.259	1.167	2.426	18.25	0.02	55
	802.11n HT20	40	1.259	1.207	2.466	18.36	0.02	56
	802.11ac	138	1.259	0.628	1.887	15.85	0.02	57
	802.11ac	138	1.259	0.356	1.615	15.95	0.01	58

Note(s):

The SPLSR is rounded to two decimal digits and ≤ 0.04

WCDMA Band V + 2.4GHz Band

Test Position	Mode	Channel	Simultaneous Transmission Scenario		Σ 1-g SAR (W/kg)	Calculated distance (cm)	SPLSR	Figure
			WCDMA Band IV	Wi-Fi 2.4 GHz Band				
Edge 1	802.11b	6	1.068	1.010	2.078	19.96	0.02	59
	802.11g	6	1.068	1.120	2.188	19.96	0.02	60
	802.11n HT40	6	1.068	0.934	2.002	20.15	0.01	61

Note(s):

The SPLSR is rounded to two decimal digits and ≤ 0.04

WCDMA Band V + 5GHz Band

Test Position	Mode	Channel	Simultaneous Transmission Scenario		Σ 1-g SAR (W/kg)	Calculated distance (cm)	SPLSR	Figure
			WCDMA Band IV	Wi-Fi 5 GHz Band				
Rear	802.11a	40	0.590	1.146	1.736	19.60	0.01	62
	802.11n HT20	40	0.590	1.146	1.736	19.50	0.01	63
Edge 1	802.11a	40	1.068	1.167	2.235	20.65	0.02	64
	802.11n HT20	40	1.068	1.207	2.275	20.76	0.02	65
	802.11ac	138	1.068	0.628	1.696	18.25	0.01	66

Note(s):

The SPLSR is rounded to two decimal digits and ≤ 0.04

**LTE Band 2 + 2.4GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario		Σ 1-g SAR (W/kg)	Calculated distance (cm)	SPLSR	Figure
			LTE Band 2	Wi-Fi 2.4 GHz Band				
Edge 1	802.11b	6	1.149	1.010	2.159	17.57	0.02	67
	802.11g	6	1.149	1.120	2.269	17.57	0.02	68
	802.11n HT40	6	1.149	0.934	2.083	17.76	0.02	69

Note(s):The SPLSR is rounded to two decimal digits and ≤ 0.04 **LTE Band 2 + 5GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario		Σ 1-g SAR (W/kg)	Calculated distance (cm)	SPLSR	Figure
			LTE Band 2	Wi-Fi 5 GHz Band				
Rear	802.11a	40	0.354	1.146	1.500	14.45	0.01	70
	802.11n HT20	40	0.354	1.146	1.500	14.35	0.01	71
Edge 1	802.11a	40	1.149	1.167	2.316	18.25	0.02	72
	802.11n HT20	40	1.149	1.207	2.356	18.36	0.02	73
	802.11ac	138	1.149	0.628	1.777	15.85	0.01	74

Note(s):The SPLSR is rounded to two decimal digits and ≤ 0.04 **LTE Band 4 + 2.4GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario		Σ 1-g SAR (W/kg)	Calculated distance (cm)	SPLSR	Figure
			LTE Band 4	Wi-Fi 2.4 GHz Band				
Edge 1	802.11b	6	1.128	1.010	2.138	17.57	0.02	75
	802.11g	6	1.128	1.120	2.248	17.57	0.02	76
	802.11n HT40	6	1.128	0.934	2.062	17.76	0.02	77

Note(s):The SPLSR is rounded to two decimal digits and ≤ 0.04 **LTE Band 4 + 5GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario		Σ 1-g SAR (W/kg)	Calculated distance (cm)	SPLSR	Figure
			LTE Band 2	Wi-Fi 5 GHz Band				
Rear	802.11a	40	0.328	1.146	1.474	14.70	0.01	78
	802.11n HT20	40	0.328	1.146	1.474	14.60	0.01	79
Edge 1	802.11a	40	1.128	1.167	2.295	18.25	0.02	80
	802.11n HT20	40	1.128	1.207	2.335	18.36	0.02	81
	802.11ac	138	1.128	0.628	1.756	15.85	0.01	82

Note(s):The SPLSR is rounded to two decimal digits and ≤ 0.04

**LTE Band 5 + 2.4GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario		Σ 1-g SAR (W/kg)	Calculated distance (cm)	SPLSR	Figure
			LTE Band 5	Wi-Fi 2.4 GHz Band				
Edge 1	802.11b	6	1.159	1.010	2.169	19.86	0.02	83
	802.11g	6	1.159	1.120	2.279	19.86	0.02	84
	802.11n HT40	6	1.159	0.934	2.093	20.05	0.02	85

Note(s):

The SPLSR is rounded to two decimal digits and ≤ 0.04

LTE Band 5 + 5GHz Band

Test Position	Mode	Channel	Simultaneous Transmission Scenario		Σ 1-g SAR (W/kg)	Calculated distance (cm)	SPLSR	Figure
			LTE Band 5	Wi-Fi 5 GHz Band				
Rear	802.11a	40	0.543	1.146	1.689	19.45	0.01	86
	802.11n HT20	40	0.543	1.146	1.689	19.35	0.01	87
Edge 1	802.11a	40	1.159	1.167	2.326	20.55	0.02	88
	802.11n HT20	40	1.159	1.207	2.366	20.66	0.02	89
	802.11ac	138	1.159	0.628	1.787	18.15	0.01	90

Note(s):

The SPLSR is rounded to two decimal digits and ≤ 0.04

LTE Band 13 + 2.4GHz Band

Test Position	Mode	Channel	Simultaneous Transmission Scenario		Σ 1-g SAR (W/kg)	Calculated distance (cm)	SPLSR	Figure
			LTE Band 13	Wi-Fi 2.4 GHz Band				
Edge 1	802.11b	6	1.088	1.010	2.098	19.61	0.02	91
	802.11g	6	1.088	1.120	2.208	19.61	0.02	92
	802.11n HT40	6	1.088	0.934	2.022	19.80	0.01	93

Note(s):

The SPLSR is rounded to two decimal digits and ≤ 0.04

LTE Band 13 + 5GHz Band

Test Position	Mode	Channel	Simultaneous Transmission Scenario		Σ 1-g SAR (W/kg)	Calculated distance (cm)	SPLSR	Figure
			LTE Band 13	Wi-Fi 5 GHz Band				
Rear	802.11a	40	0.437	1.146	1.583	19.70	0.01	94
	802.11n HT20	40	0.437	1.146	1.583	19.60	0.01	95
Edge 1	802.11a	40	1.088	1.167	2.255	20.30	0.02	96
	802.11n HT20	40	1.088	1.207	2.295	20.40	0.02	97
	802.11ac	138	1.088	0.628	1.716	17.91	0.01	98

Note(s):

The SPLSR is rounded to two decimal digits and ≤ 0.04

**LTE Band 17 + 2.4GHz Band**

Test Position	Mode	Channel	Simultaneous Transmission Scenario		Σ 1-g SAR (W/kg)	Calculated distance (cm)	SPLSR	Figure
			LTE Band 17	Wi-Fi 2.4 GHz Band				
Edge 1	802.11b	6	1.172	1.010	2.182	19.70	0.02	99
	802.11g	6	1.172	1.120	2.292	19.70	0.02	100
	802.11n HT40	6	1.172	0.934	2.106	19.90	0.02	101

Note(s):

The SPLSR is rounded to two decimal digits and ≤ 0.04

LTE Band 17 + 5GHz Band

Test Position	Mode	Channel	Simultaneous Transmission Scenario		Σ 1-g SAR (W/kg)	Calculated distance (cm)	SPLSR	Figure
			LTE Band 17	Wi-Fi 5 GHz Band				
Rear	802.11a	40	0.599	1.146	1.745	19.55	0.01	102
	802.11n HT20	40	0.599	1.146	1.745	19.45	0.01	103
Edge 1	802.11a	40	1.172	1.167	2.339	20.41	0.02	104
	802.11n HT20	40	1.172	1.207	2.379	20.50	0.02	105
	802.11ac	138	1.172	0.628	1.800	18.02	0.01	106

Note(s):

The SPLSR is rounded to two decimal digits and ≤ 0.04

LTE Band 25 + 2.4GHz Band

Test Position	Mode	Channel	Simultaneous Transmission Scenario		Σ 1-g SAR (W/kg)	Calculated distance (cm)	SPLSR	Figure
			LTE Band 25	Wi-Fi 2.4 GHz Band				
Edge 1	802.11b	6	1.179	1.010	2.189	17.57	0.02	107
	802.11g	6	1.179	1.120	2.299	17.57	0.02	108
	802.11n HT40	6	1.179	0.934	2.113	17.36	0.02	109

Note(s):

The SPLSR is rounded to two decimal digits and ≤ 0.04

LTE Band 25 + 5GHz Band

Test Position	Mode	Channel	Simultaneous Transmission Scenario		Σ 1-g SAR (W/kg)	Calculated distance (cm)	SPLSR	Figure
			LTE Band 2	Wi-Fi 5 GHz Band				
Rear	802.11a	40	0.289	1.146	1.435	13.90	0.01	110
	802.11n HT20	40	0.289	1.146	1.435	13.80	0.01	111
Edge 1	802.11a	40	1.179	1.167	2.346	18.25	0.02	112
	802.11n HT20	40	1.179	1.207	2.386	18.36	0.02	113
	802.11ac	138	1.179	0.628	1.807	15.85	0.02	114

Note(s):

The SPLSR is rounded to two decimal digits and ≤ 0.04



18 Equipment List & Calibration Status

Name of Equipment	Manufacturer	Type/Model	Serial Number	Calibration Cycle(year)	Calibration Due
S-Parameter Network Analyzer	Agilent	E5071C	MY46213916	1	2015/6/25
Electronic Probe kit	Hewlett Packard	85070D	N/A	N/A	N/A
Power Meter	Agilent	4416	GB41291611	1	2014/9/10
Power Sensor	Agilent	8481H	MY41091956	1	2014/9/11
Wireless Communication Test Set	Agilent	E5515C 8960	MY48363204	1	2014/9/6
Radio Communication Analyzer	Anritsu	MT8820C	6200938900	1	2015/6/25
Wideband Radio Communication Tester	RNS	CMW500	116875	1	2015/5/26
Data Acquisition Electronics (DAE)	SPEAG	DAE4	877	1	2015/3/25
Dosimetric E-Field Probe	SPEAG	EX3DV4	3665	1	2015/5/21
750 MHz System Validation Dipole	SPEAG	D750V3	1015	1	2015/1/27
835 MHz System Validation Dipole	SPEAG	D835V2	4d015	1	2015/3/23
1800 MHz System Validation Dipole	SPEAG	D1800V2	2d062	1	2015/3/3
1900 MHz System Validation Dipole	SPEAG	D1900V2	5d056	1	2015/2/26
Robot	Staubli	RX60L	F02/5T69A1/A/01	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



19 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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21 Attachments

Exhibit	Content
1	System Performance Check Plots
2	SAR test plots for GPRS 850
3	SAR test plots for GPRS 1900
4	SAR test plots for WCDMA Band II
5	SAR test plots for WCDMA Band IV
6	SAR test plots for WCDMA Band V
7	SAR test plots for CDMA BC0
8	SAR test plots for CDMA BC1
9	SAR test plots for CDMA BC10
10	SAR test plots for LTE Band 2
11	SAR test plots for LTE Band 4
12	SAR test plots for LTE Band 5
13	SAR test plots for LTE Band 13
14	SAR test plots for LTE Band 17
15	SAR test plots for LTE Band 25
16	SPLSR Plots
17	SAR_Probe_EX3DV4_sn3665
18	SAR_DAE4_sn877
19	SAR_Dipole_D750v3_sn1015
20	SAR_Dipole_D835v2_sn4d015
21	SAR_Dipole_D1800v2_sn2d062
22	SAR_Dipole_D1900v2_sn5d056
23	T140514D14-SF PHOTOS

END OF REPORT