FCC SAR Test Report

FCC ID: FKGW01R8

Report No.	:	BTL-FCC SAR-2-2208T035
Equipment	:	LTE Module
Model Name	:	EM7511
Applicant	:	Twinhead International Corporation
Address	:	11F, No. 550, Rueiguang Rd, Neihu,Taipei, Taiwan 11492
Radio Function	:	WCDMA Band II, IV, V and LTE Band 2, 4, 5, 7, 12, 13, 14, 26, 30, 41, 66
Standard(s)	:	**KDB447498 D01** General RF Exposure Guidance v06 **KDB865664 D01** SAR measurement 100 MHz to 6 GHz v01r04 **KDB865664 D02** SAR Reporting v01r02 **KDB616217 D04** SAR for laptop and Tablets **KDB248227 D01** 802.11 Wi-Fi SAR v02r02 **KDB941225 D01** 3G SAR Procedures v03r01 **KDB941225 D05** SAR for LTE Devices v02r05 **FCC§2.1093** Radiofrequency radiation exposure evaluation: portable devices **IEEE C95.1:1992** Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz – 300 GHz. **IEC/IEEE 62209-1528:2020** Measurement procedure for the assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices - Part 1528: Human models, instrumentation, and procedures (Frequency range of 4 MHz to 10 GHz)
Date of Receipt	:	2022/8/8
Date of Test	:	2022/9/7 ~ 2022/9/16
Issued Date	:	2022/9/21

The above equipment has been tested and found in compliance with the requirement of the above standards by BTL Inc.

Prepared by :

Jerry Chuang, Supervisor

Approved by :

Peter Chen, Assistant Manager

BTL Inc.

No.18, Ln. 171, Sec. 2, Jiuzong Rd., Neihu Dist., Taipei City 114, Taiwan

Tel: +886-2-2657-3299 Fax: +886-2-2657-3331 Web: www.newbtl.com

Declaration

BTL represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

BTL's reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. **BTL** shall have no liability for any declarations, inferences or generalizations drawn by the client or others from **BTL** issued reports.

This report is the confidential property of the client. As a mutual protection to the clients, the public and ourselves, the test report shall not be reproduced, except in full, without our written approval.

BTL's laboratory quality assurance procedures are in compliance with the **ISO/IEC 17025** requirements, and accredited by the conformity assessment authorities listed in this test report.

BTL is not responsible for the sampling stage, so the results only apply to the sample as received.

The information, data and test plan are provided by manufacturer which may affect the validity of results, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements of applied standards and in all the possible configurations as representative of its intended use.

Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.

Table of Contents Page

1. GENERAL INFORMATION 6
1.1. GENERAL DESCRIPTION OF EUT 6
2. SUMMARY OF SAR MEASUREMENT 7
2.1. TEST FACILITY 7
2.2. MEASUREMENT UNCERTAINTY 7
2.3. WWAN ANTENNA INFORMATION: 9
2.4. THE MAXIMUM SAR 1G VALUES 10
2.5. LABORATORY ENVIRONMENT 10
2.6. MAIN TEST INSTRUMENTS 11
3. SAR MEASUREMENTS SYSTEM CONFIGURATION 12
3.1. SAR MEASUREMENT SETUP 12
3.1.1. TEST SETUP LAYOUT 12
3.2. DASY5 E-FIELD PROBE SYSTEM 13
3.2.1. EX3DV4 PROBE SPECIFICATION 13
3.2.2. E-FIELD PROBE CALIBRATION 14
3.2.3. OTHER TEST EQUIPMENT 15
3.2.4. SCANNING PROCEDURE 16
3.2.5. DATA STORAGE AND EVALUATION 17
3.2.6. DATA EVALUATION BY SEMCAD 18
4. TISSUE-EQUIVALENT LIQUID 20
4.1. TISSUE-EQUIVALENT LIQUID INGREDIENTS 20
4.2. TISSUE-EQUIVALENT LIQUID PROPERTIES 20
5. SYSTEM CHECK 21
5.1. DESCRIPTION OF SYSTEM CHECK 21
5.2. DESCRIPTION OF SYSTEM CHECK 22
6. OPERATIONAL CONDITIONS DURING TEST 23
6.1. GENERAL DESCRIPTION OF TEST PROCEDURES 23
6.2. TEST POSITION OF PORTABLE DEVICES 23
6.3. TEST CONFIGURATION 24
6.4 SAR EXCLUSION CALCULATIONS FOR WWAN ANTENNA 25
7. SAR MEASUREMENT VARIABILITY AND UNCERTAINTY 29
7.1. SAR MEASUREMENT VARIABILITY 29
7.2. WCDMA TEST CONFIGURATION 30
7.3. LTE TEST CONFIGURATION 35
8. POWER REDUCTION BY PROXIMITY SENSING 36
8.1. PROCEDURES FOR DETRMINING PROXIMITY SENSOR TRIGGERING DISTANCES 36
8.2. PROCEDURES FOR DETRMINING ANTENNA AND PROXIMITY SENSOR COVERAGE 36
8.3. PROXIMITY SENSOR STATUS TABLE OF TRIGGER DISTANCE 38
8.4. POWER REDUCTION PER AIR-INTERFACE 39
8.5. CONDUCTED POWER RESULTS 75

Table of Contents Page

8.5.1. UMTS BAND 75
8.5.2. LTE BAND 78
9. SAR TEST RESULTS 103
10. MULTIPLE TRANSMITTER EVALUATION 108
10.1 STAND-ALONE SAR TEST EXCLUSION 108
10.2 SIMULTANEOUS TRANSMISSION CONDITIONS 108
10.3 ABOUT BT/WIFI AND WWAN 109
11. TEST LAYOUT 111

REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Original Issue.	2022/9/21

1. GENERAL INFORMATION

1.1. GENERAL DESCRIPTION OF EUT

Equipment	LTE Module		
Model Name	EM7511		
Host device information			
Equipment	Tablet		
Model Name	R8XXXXXX (X=0-9, A-Z,a-z, Blank)		
Brand Name	DURABOOK		
Model Difference	Different model distribute to different area.		
Power Rating	Barnd: FSP TECHNOLOGY INC. M/N :FSP065-RBBN3 I/P : 100-240Vac, 1.5A 50-60Hz O/P : 19Vdc 3.42A		
Battery Information	Model Name : R8-2S1P Rating :7.6VDC 3400mAh 25.84Wh		
WWAN Module	EM7511		
Operation Frequency	Function	Band	Frequency (MHz)
	WCDMA	UMTS Band II	TX : 1850 - 1910
		UMTS Band IV	TX : 1710 - 1755
		UMTS Band V	TX : 824 - 849
	LTE	LTE Band 2	TX : 1850 - 1910
		LTE Band 4	TX : 1710 - 1755
		LTE Band 5	TX : 824 - 849
		LTE Band 7	TX : 2500 - 2570
		LTE Band 12	TX : 699 - 716
		LTE Band 13	TX : 777 - 787
		LTE Band 14	TX : 788 - 798
		LTE Band 26	TX : 814 - 824
		LTE Band 30	TX : 2305 - 2315
		LTE Band 41	TX : 2496 - 2690
		LTE Band 66	TX : 1710 - 1780
Test Model	R8		
Sample Status	Engineering Sample		
EUT Modification(s)	N/A		

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.
The test data, data evaluation, and equipment configuration contained in our test report (Ref No. BTL-FCC-SAR-2-2208T035) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of TAF according to the ISO-17025 quality assessment standard and technical standard(s).

2. SUMMARY OF SAR MEASUREMENT

2.1. TEST FACILITY

The test facilities used to collect the test data in this report is **SAR Test room** at the location of No. 68-1, Ln. 169, Sec.2, Datong Rd., Xizhi Dist., New Taipei City 221, Taiwan.

2.2. MEASUREMENT UNCERTAINTY

Uncertainty Budget for Frequency range of 300 MHz to 3 GHz

Error Description	Uncertainty Value (± %)		Probability Distribution	Divisor	Ci (1g)	Ci (10g)	Standard Uncertainty (1g)	Standard Uncertainty (10g)	Vi V_{eff}
Measurement System									
Probe Calibration	6.05		Normal	1	1	1	± 6.05 %	± 6.05 %	∞
Axial Isotropy	4.7		Rectangular	$\sqrt{3}$	0.7	0.7	± 1.9 %	± 1.9 %	∞
Hemispherical Isotropy	9.6		Rectangular	$\sqrt{3}$	0.7	0.7	± 3.9 %	± 3.9 %	∞
Boundary Effects	1		Rectangular	$\sqrt{3}$	1	1	± 0.6 %	± 0.6 %	∞
Linearity	4.7		Rectangular	$\sqrt{3}$	1	1	± 2.7 %	± 2.7 %	∞
Detection Limits	1		Rectangular	$\sqrt{3}$	1	1	± 0.6 %	± 0.6 %	∞
Modulation response	2.4		Rectangular	$\sqrt{3}$	1	1	±1.4 %	±1.4 %	∞
Readout Electronics	0.3		Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Response Time	0.8		Rectangular	$\sqrt{3}$	1	1	± 0.5%	± 0.5 %	∞
Integration Time	2.6		Rectangular	$\sqrt{3}$	1	1	± 1.5 %	± 1.5 %	∞
RF Ambient – Noise	3		Rectangular	$\sqrt{3}$	1	1	± 1.7 %	± 1.7 %	∞
RF Ambient– Reflections	3		Rectangula	$\sqrt{3}$	1	1	± 1.7 %	± 1.7 %	∞
Probe Positioner	0.4		Rectangular	$\sqrt{3}$	1	1	± 0.2 %	± 0.2 %	∞
Probe Positioning	2.9		Rectangular	$\sqrt{3}$	1	1	± 1.7 %	±1.7 %	∞
Post-processing	4		Rectangular	$\sqrt{3}$	1	1	± 2.3 %	± 2.3 %	∞
Max.SAR Evaluation	2		Rectangular	$\sqrt{3}$	1	1	± 1.15 %	± 1.15 %	∞
Test Sample Related									
Device Positioning	1.6	1.8	Normal	1	1	1	± 1.6 %	± 1.8 %	145
Device Holder	1.5	1.7	Normal	1	1	1	± 1.5 %	± 1.7 %	5
Power Drift	5.0		Rectangular	$\sqrt{3}$	1	1	± 2.9 %	± 2.9 %	∞
Phantom and Setup									
Phantom Production Tolerances	6.1		Rectangular	$\sqrt{3}$	1	1	3.52	3.52	∞
SAR correction	1.9		Rectangular	$\sqrt{3}$	1	0.84	1.10	1.10	
Liquid Conductivity (mea.)	2.4		Rectangular	$\sqrt{3}$	0.78	0.71	1.08	1.08	∞
Liquid Permittivity (mea.)	2.4		Rectangular	$\sqrt{3}$	0.26	0.26	0.36	0.36	∞
Temp. unc. - Conductivity	3.4		Rectangular	$\sqrt{3}$	0.78	0.71	1.53	1.53	∞
Temp. unc. - Permittivity	0.4		Rectangular	$\sqrt{3}$	0.23	0.26	0.05	0.05	∞
Combined Standard Uncertainty (K = 1)							± 10.42 %	± 10.48 %	361
Expanded Uncertainty (K = 2)							**± 20.84 %**	**± 20.97 %**	

Uncertainty Budget for Frequency range of 3 GHz to 6 GHz

Error Description	Uncertainty Value (± %)		Probability Distribution	Divisor	Ci (1g)	Ci (10g)	Standard Uncertainty (1g)	Standard Uncertainty (10g)	Vi V_{eff}
Measurement System									
Probe Calibration	6.65		Normal	1	1	1	± 6.65 %	± 6.65 %	∞
Axial Isotropy	4.7		Rectangular	$\sqrt{3}$	0.7	0.7	± 1.9 %	± 1.9 %	∞
Hemispherical Isotropy	9.6		Rectangular	$\sqrt{3}$	0.7	0.7	± 3.9 %	± 3.9 %	∞
Boundary Effects	2		Rectangular	$\sqrt{3}$	1	1	± 1.2 %	± 1.2 %	∞
Linearity	4.7		Rectangular	$\sqrt{3}$	1	1	± 2.7 %	± 2.7 %	∞
Detection Limits	1		Rectangular	$\sqrt{3}$	1	1	± 0.6 %	± 0.6 %	∞
Modulation response	2.4		Rectangular	$\sqrt{3}$	1	1	±1.4 %	±1.4 %	∞
Readout Electronics	0.3		Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Response Time	0.8		Rectangular	$\sqrt{3}$	1	1	± 0.5%	± 0.5 %	∞
Integration Time	2.6		Rectangular	$\sqrt{3}$	1	1	± 1.5 %	± 1.5 %	∞
RF Ambient – Noise	3		Rectangular	$\sqrt{3}$	1	1	± 1.7 %	± 1.7 %	∞
RF Ambient– Reflections	3		Rectangular	$\sqrt{3}$	1	1	± 1.7 %	± 1.7 %	∞
Probe Positioner	0.4		Rectangular	$\sqrt{3}$	1	1	± 0.2 %	± 0.2 %	∞
Probe Positioning	6.7		Rectangular	$\sqrt{3}$	1	1	± 3.9 %	±3.9 %	∞
Post-processing	4		Rectangular	$\sqrt{3}$	1	1	± 2.3 %	± 2.3 %	∞
Max.SAR Evaluation	4		Rectangular	$\sqrt{3}$	1	1	± 2.3 %	± 2.3 %	∞
Test Sample Related									
Device Positioning	1.6	1.8	Normal	1	1	1	±1.6 %	± 1.8 %	145
Device Holder	1.5	1.7	Normal	1	1	1	± 1.5 %	± 1.7 %	5
Power Drift	5.0		Rectangular	$\sqrt{3}$	1	1	± 2.9 %	± 2.9 %	∞
Phantom and Setup									
Phantom Production Tolerances	6.6		Rectangular	$\sqrt{3}$	1	1	3.81	3.81	∞
SAR correction	1.9		Rectangular	$\sqrt{3}$	1	0.84	1.10	0.92	
Liquid Conductivity (mea.)	2.4		Rectangular	$\sqrt{3}$	0.78	0.71	1.08	0.98	∞
Liquid Permittivity (mea.)	2.4		Rectangular	$\sqrt{3}$	0.26	0.26	0.36	0.36	∞
Temp. unc. - Conductivity	3.4		Rectangular	$\sqrt{3}$	0.78	0.71	1.53	1.39	∞
Temp. unc. - Permittivity	0.4		Rectangular	$\sqrt{3}$	0.23	0.26	0.05	0.06	∞
Combined Standard Uncertainty (K = 1)							± 11.65 %	± 11.66 %	361
Expanded Uncertainty (K = 2)							**± 23.29 %**	**± 23.33 %**	

2.3. WWAN Antenna Information:

Antenna	Manufacture	P/N	Type	Connector	Gain (dBi)	Note
Main	WGT	TWR88LTPB03+B	PIFA	I-PEX	2.53	UMTS-Band II
					2.17	UMTS-Band IV
					1.21	UMTS-Band V
					2.53	LTE Band 2
					2.17	LTE Band 4
					1.21	LTE Band 5
					-0.17	LTE Band 7
					-0.56	LTE Band 12
					1.13	LTE Band 13
					2.32	LTE Band 14
					1.21	LTE Band 26
					0.62	LTE Band 30
					0.32	LTE Band 41
					2.17	LTE Band 66
Aux	WGT	TWR88LTPB02+C	PIFA	I-PEX	-	RX only

2.4. The Maximum SAR 1g Values

Ant	Mode	Distance(mm)	Highest Body Reported SAR-1g(W/kg)
PCE	UMTS Band II	0	1.032
	UMTS Band IV	0	1.094
	UMTS Band V	0	0.324
	LTE Band 2	0	0.932
	LTE Band 4	0	1.123
	LTE Band 5	0	0.319
	LTE Band 7	0	1.047
	LTE Band 12	0	0.102
	LTE Band 13	0	0.417
	LTE Band 14	0	0.425
	LTE Band 26	0	0.382
	LTE Band 30	0	0.784
	LTE Band 41	0	0.222
	LTE Band 66	0	1.010

Note:

1.The device is in compliance with Specific Absorption Rate(SAR)for general population uncontrolled exposure limits according to the FCC rule §2.1093, the ANSI C95.1:2019/IEEE C95.1:2019, the NCRP Report Number 86 for uncontrolled environment and had been tested in accordance with the measurement methods and procedures specified in IEC/IEEE 62209-1528:2020 .

2.5. Laboratory Environment

Temperature	Min. = 18ºC, Max. = 25ºC
Relative humidity	Min. = 30%, Max. = 70%
Ground system resistance	< 0.5Ω
Ambient noise is checked and found very low and in compliance with requirement of standards. Reflection of surrounding objects is minimized and in compliance with requirement of standards.	

2.6. Main Test Instruments

Item	Equipment	Manufacturer	Model	Serial No.	Cal. Date	Cal. Interval
1	Data Acquisition Electronics	Speag	DAE4	1486	May. 31, 2022	1 Year
2	E-field Probe	Speag	EX3DV4	7369	May. 28, 2022	1 Year
3	System Validation Dipole	Speag	D750V3	1145	May. 27, 2022	3 Year
4	System Validation Dipole	Speag	D835V2	4d084	April. 13, 2021	3 Year
5	System Validation Dipole	Speag	D1800V2	2d210	May. 30, 2022	3 Year
6	System Validation Dipole	Speag	D1900V2	5d208	May. 23, 2022	3 Year
7	System Validation Dipole	Speag	D2300V2	1054	May. 25, 2022	3 Year
8	System Validation Dipole	Speag	D2600V2	1111	May. 25, 2022	3 Year
9	ELI4 Phantom	Speag	ELI4 Phantom V5.0	1240	N/A	N/A
10	ENA Network Analyzer	Agilent	E5071C	MY46524658	Mar. 21, 2022	1 Year
11	Signal Generator	R&S	SMR40	100502	Jan. 10, 2022	1 Year
12	Spectrum Analyzer	Keysight	N9020A	MY57120120	Mar. 7, 2022	1 Year
13	Power Meter	Anritsu	ML2495A	1128008	Jun. 1, 2022	1 Year
14	Power Sensor	Anritsu	MA2411B	1126001	Jun. 1, 2022	1 Year
15	Dielectric Probe Kit	Agilent	85070E	2593	N/A	N/A
16	Low pass filter	Mini-Circuits	SLP-2950+	M108294	N/A	N/A
17	Power Amplifier	Mini-Circuits	ZVE-2W-272+	N650001538	N/A	N/A
18	Power Amplifier	Mini-Circuits	ZVE-8G+	N628801631	N/A	N/A
19	Power Amplifier	EMCI	EMC053035	980869	N/A	N/A
20	Thermometer	PA	O-230PK	N/A	Mar. 10, 2022	1 Year

Remark: “N/A” denotes no model name, serial No. or calibration specified.

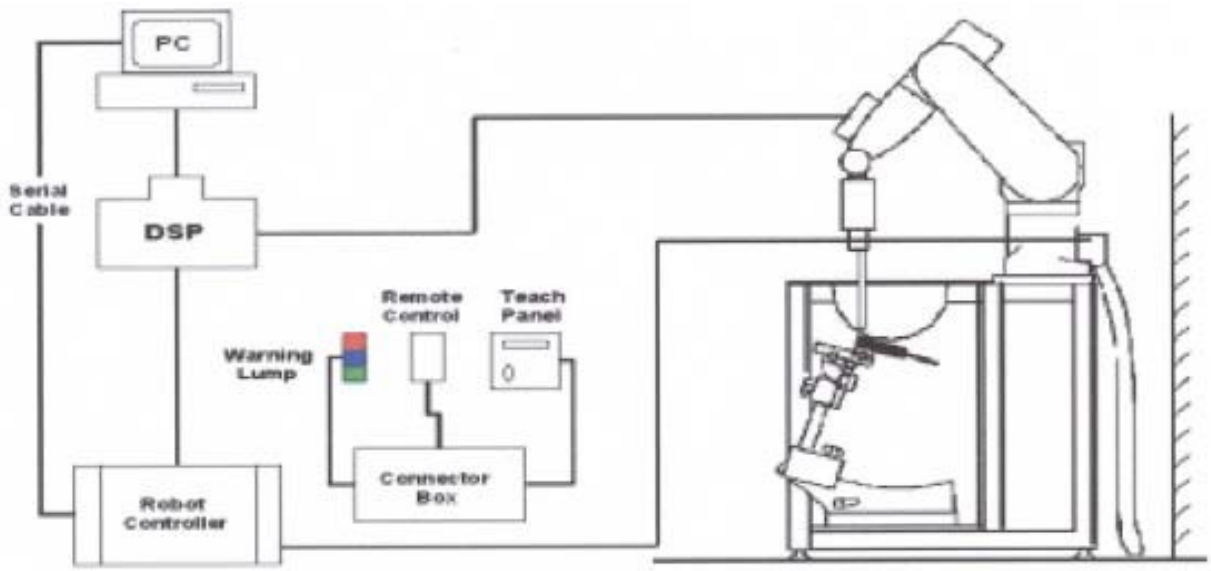
3. SAR MEASUREMENTS SYSTEM CONFIGURATION

3.1. SAR Measurement Setup

The DASY5 system for performing compliance tests consists of the following items:

1. A standard high precision 6-axis robot (Stäubli RX family) with controller and software. An arm extension for accommodating the data acquisition electronics (DAE).
2. 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.
3. A data acquisition electronic (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.
4. A unit to operate the optical surface detector which is connected to the EOC.
5. The Electro-Optical Coupler (EOC) performs the conversion from the optical into a digital electric signal of the DAE. The EOC is connected to the DASY5 measurement server.
6. The DASY5 measurement server, which performs all real-time data evaluation for field measurements and surface detection, controls robot movements and handles safety operation. A computer operating Windows.
7. DASY5 software and SEMCAD data evaluation software.
8. Remote control with teach panel and additional circuitry for robot safety such as warning lamps, etc.
9. The generic twin phantom enabling the testing of left-hand and right-hand usage.
10. The device holder for handheld mobile phones.
11. Tissue simulating liquid mixed according to the given recipes.
12. System validation dipoles allowing to validate the proper functioning of the system.

3.1.1. TEST SETUP LAYOUT

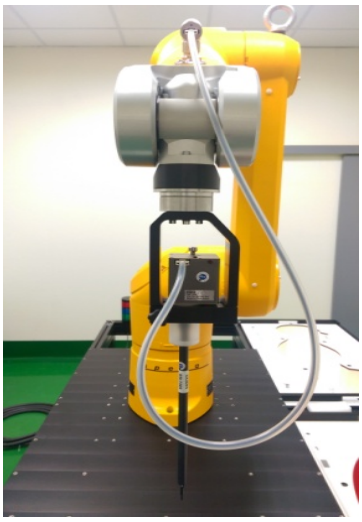


3.2. DASY5 E-field Probe System

The SAR measurements were conducted with the dosimetric probe EX3DV4 (manufactured by SPEAG), designed in the classical triangular configuration and optimized for dosimetric evaluation.

3.2.1. EX3DV4 PROBE SPECIFICATION

Construction	Symmetrical design with triangular core Interleaved sensors Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
Calibration	ISO/IEC 17025 calibration service available
Frequency	10 MHz to 6 GHz Linearity: ± 0.2 dB (30 MHz to 6 GHz)
Directivity	± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)
Dynamic Range	10 µW/g to > 100 mW/g Linearity: ± 0.2dB
Dimensions	Overall length: 330 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Distance from probe tip to dipole centers: 1.0 mm



EX3DV4 E-field Probe

3.2.2. E-FIELD PROBE CALIBRATION

Each probe is calibrated according to a dosimetric assessment procedure with accuracy better than ±10%. The spherical isotropy was evaluated and found to be better than ± 0.25dB. The sensitivity parameters (NormX, NormY, NormZ), the diode compression parameter (DCP) and the conversion factor (ConvF) of the probe are tested.

The free space E-field from amplified probe outputs is determined in a test chamber. This is performed in a TEM cell for frequencies bellow 1 GHz, and in a wave guide above 1 GHz for free space. For the free space calibration, the probe is placed in the volumetric center of the cavity and at the proper orientation with the field. The probe is then rotated 360 degrees.

E-field temperature correlation calibration is performed in a flat phantom filled with the appropriate simulated brain tissue. The measured free space E-field in the medium correlates to temperature rise in a dielectric medium. For temperature correlation calibration a RF transparent thermistor-based temperature probe is used in conjunction with the E-field probe.

$$\mathbf{SAR} = \mathbf{C}\frac{\Delta T}{\Delta t}$$

Where: Δt = Exposure time (30 seconds),

C = Heat capacity of tissue (brain or muscle),

ΔT = Temperature increase due to RF exposure.

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

Where: σ = Simulated tissue conductivity,

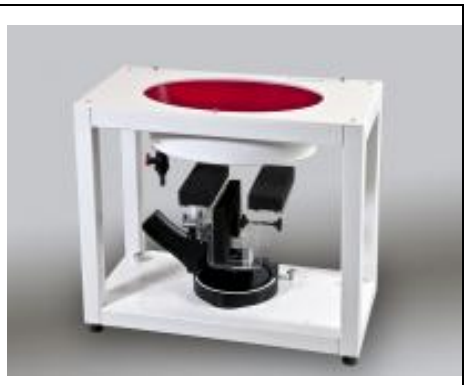
ρ = Tissue density (kg/m3).

3.2.3. OTHER TEST EQUIPMENT

3.2.3.1. DEVICE HOLDER FOR TRANSMITTERS

Construction: Simple but effective and easy-to-use extension for Mounting Device that facilitates the testing of larger devices according to IEC 62209-2 (e.g., laptops, cameras, etc.) It is lightweight and fits easily on the upper part of the Mounting Device in place of the phone positioner. The extension is fully compatible with the Twin SAM, ELI4 and SAM v6.0 Phantoms.
Material: POM, Acrylic glass, Foam

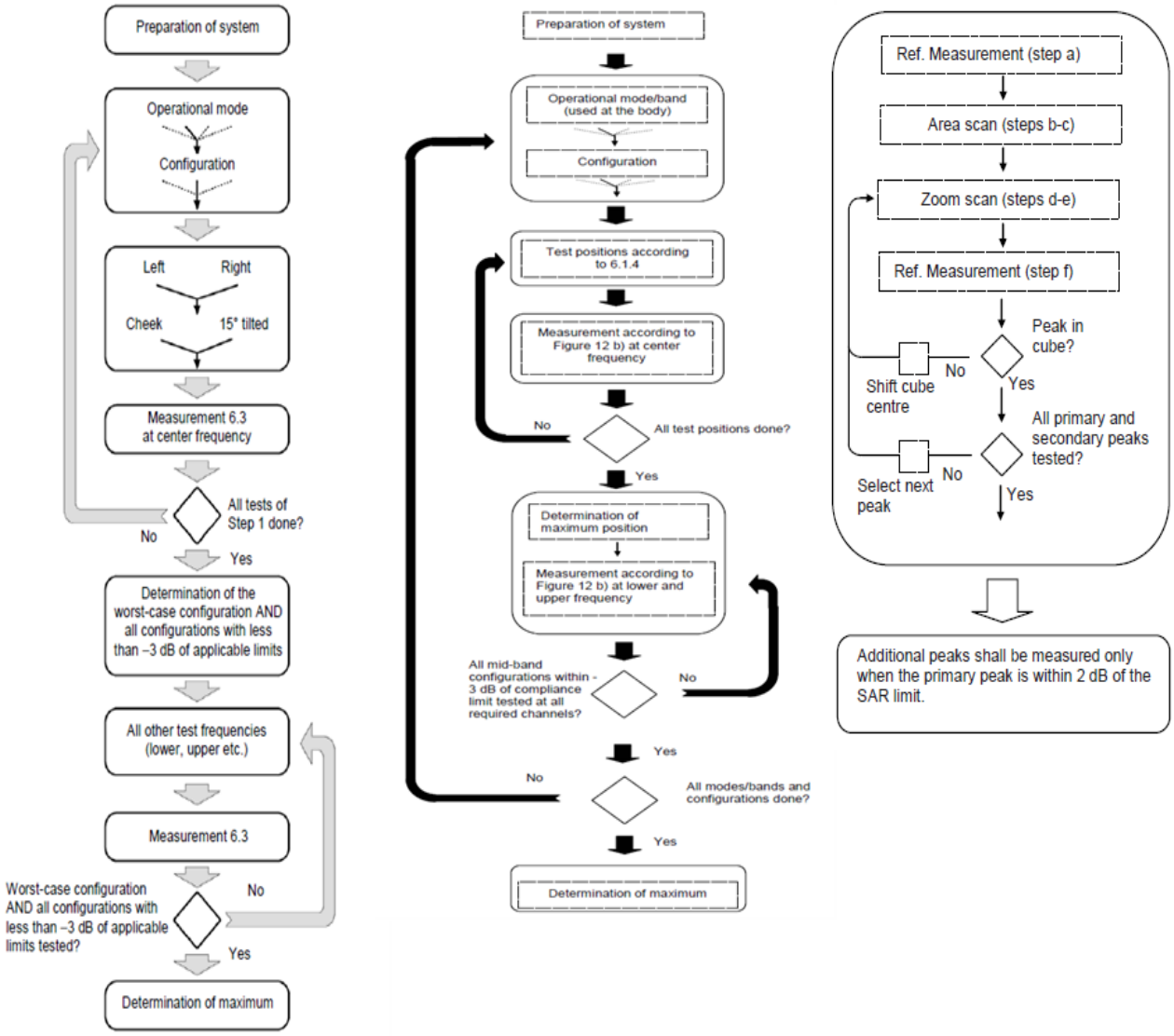
3.2.3.2. PHANTOM

Model	ELI4 Phantom	
Construction	Phantom for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30 MHz to 6 GHz. ELI is fully compatible with the IEC 62209-2 standard and all known tissue simulating liquids. ELI 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 compatible with all SPEAG dosimetric probes and dipoles.	
Shell Thickness	2±0.1 mm	
Filling Volume	Approx. 30 liters	
Dimensions	Length: 600 mm ; Width: 190mm Height: adjustable feet	
Aailable	Special	

Model	Twin SAM	
Construction	The shell corresponds to the specifications of the Specific Anthropomorphic Mannequin (SAM) phantom defined in IEEE 1528 and IEC 62209-1. 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 teaching three points with the robot.	
Shell Thickness	2 ± 0.2 mm	
Filling Volume	Approx. 25 liters	
Dimensions	Length:1000mm; Width: 500mm Height: adjustable feet	
Aailable	Special	

3.2.4. SCANNING PROCEDURE

The SAR test against the head and body-worn phantom was carried out as follow:



After an area scan has been done at a fixed distance of 1.4mm from the surface of the phantom on the source side, a 3D scan is set up around the location of the maximum spot SAR. First, a point within the scan area is visited by the probe and a SAR reading taken at the start of testing. At the end of testing, the probe is returned to the same point and a second reading is taken. Comparison between these start and end readings enables the power drift during measurement to be assessed.

Above is the scanning procedure flow chart and table from the IEEE1528 standard.

This is the procedure for which all compliant testing should be carried out to ensure that all variations of the device position and transmission behavior are tested.

3.2.5. DATA STORAGE AND EVALUATION

3.2.5.1. DATA STORAGE

The DASY5 software stores the acquired data from the data acquisition electronics as raw data (in microvolt readings from the probe sensors), together with all necessary software parameters for the data evaluation (probe calibration data, liquid parameters and device frequency and modulation data) in measurement files with the extension “DAE4”. The software evaluates the desired unit and format for output each time the data is visualized or exported. This allows verification of the complete software setup even after the measurement and allows correction of incorrect parameter settings. For example, if a measurement has been performed with a wrong crest factor parameter in the device setup, the parameter can be corrected afterwards and the data can be re-evaluated.

The measured data can be visualized or exported in different units or formats, depending on the selected probe type ([V/m], [A/m], [°C], [mW/g], [mW/cm²], [dBrel], etc.). Some of these units are not available in certain situations or show meaningless results, e.g., a SAR output in a lossless media will always be zero. Raw data can also be exported to perform the evaluation with other software packages.

3.2.6. DATA EVALUATION BY SEMCAD

The SEMCAD software 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	Normi, 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	
	Density	

These parameters must be set correctly in the software. They can be found in the component documents or they can be imported into the software from the configuration files issued for the DASY5 components. In the direct measuring mode of the multimeter 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:

$$V_i = U_i + U_i^2 \cdot cf / dcpi$$

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: $E_i = (V_i / Norm_i \cdot ConvF)^{1/2}$

H-field probes: $H_i = (V_i)^{1/2} \cdot (a_{i0} + a_{i1} f + a_{i2} f^2) / f$

With V_i = compensated signal of channel i (i = x, y, z)

$Norm_i$ = sensor sensitivity of channel i (i = x, y, z)
[mV/(V/m)^2] for E-field Probes

ConvF = sensitivity enhancement in solution

aij = 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):

$$E_{tot} = (E_X^2 + E_Y^2 + E_Z^2)^{1/2}$$

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

$$SAR = (E_{tot})^2 \cdot \sigma / (\rho \cdot 1000)$$

With SAR = local specific absorption rate in mW/g

E_{tot} = total field strength in V/m
= conductivity in [mho/m] or [Siemens/m]
= 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 to be a free space field.

$$P_{pwe} = E_{tot}^2 / 3770 \text{ or } Ppwe = H_{tot}^2 \cdot 37.7$$

With P_{pwe} = equivalent power density of a plane wave in mW/cm^2

E_{tot} = total field strength in V/m
H_{tot} = total magnetic field strength in A/m

4. TISSUE-EQUIVALENT LIQUID

4.1. Tissue-equivalent Liquid Ingredients

The liquid is consisted of water, salt and Glycol, Sugar, Preventol and Cellulose. The liquid has previously been proven to be suited for worst-case. The measured conductivity and relative permittivity should be within ±5% of the target values. The below table shows the detail solution. It's satisfying the latest tissue dielectric parameters requirements proposed by the IEC 62209.

Composition of the Tissue Equivalent Matter

Tissue Type	Bactericide	DGBE	HEC	NaCl	Sucrose	Triton X-100	Water	Diethylene Glycol Mono-hexylether
Head 750	0.2	-	0.2	1.5	56.0	-	42.1	-
Head 835	0.2	-	0.2	1.5	57.0	-	41.1	-
Head 1800	-	44.5	-	0.3	-	-	55.2	-
Head 1900	-	44.5	-	0.2	-	-	55.3	-
Head 2300		44.9	-	0.1	-	-	55.0	-
Head 2600	-	45.1	-	0.1	-	-	54.8	-

4.2. Tissue-equivalent Liquid Properties

Dielectric Performance of Tissue Simulating Liquid

Tissue Verification									
Date	Tissue Type	Frequency (MHz)	Conductivity (σ)	Permittivity (εr)	Targeted Conductivity (σ)	Targeted Permittivity (εr)	Deviation Conductivity (σ) (%)	Deviation Permittivity (εr) (%)	Limit (%) ±5
2022/9/12	Head	750	0.90	42.34	0.89	41.94	0.97	0.94	±5
2022/9/12	Head	835	0.91	42.74	0.90	41.50	0.64	2.99	±5
2022/9/8	Head	1800	1.38	41.52	1.40	40.00	-1.57	3.80	±5
2022/9/7	Head	1900	1.41	41.11	1.40	40.00	0.93	2.78	±5
2022/9/16	Head	2300	1.68	40.78	1.67	39.47	0.80	3.33	±5
2022/9/8	Head	2600	2.02	37.07	1.96	39.01	2.62	-4.98	±5

Note:
1)The dielectric parameters of the tissue-equivalent liquid should be measured under similar ambient conditions and within 2 °C of the conditions expected during the SAR evaluation to satisfy protocol requirements.
2)KDB 865664 was ensured to be applied for probe calibration frequencies greater than or equal to 50MHz of the EUT frequencies.
3)The above measured tissue parameters were used in the DASY software to perform interpolation via the DASY software to determine actual dielectric parameters at the test frequencies. The SAR test plots may slightly differ from the table above since the DASY rounds to three significant digits.
4) According to FCC TCB workshop April, 2019 RF Exposure Procedures Update(Effective February 19,2019, FCC has permitted the use of single head-tissue simulating liquid specified in IEEE 62209-1- for all SAR tests.

5. SYSTEM CHECK

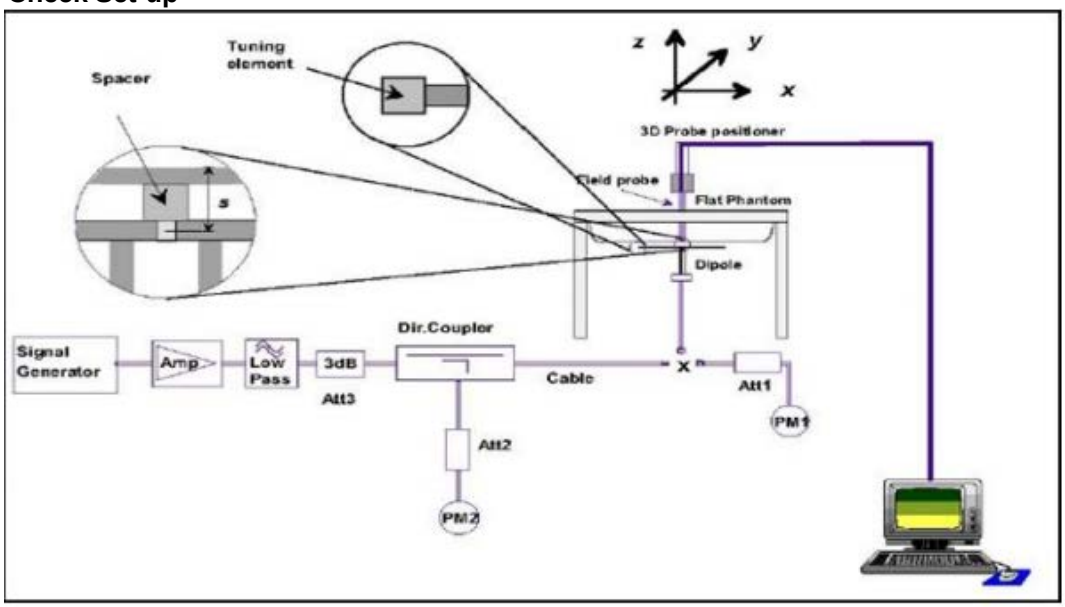
5.1. DESCRIPTION OF SYSTEM CHECK

The manufacturer calibrates the probes annually. Dielectric parameters of the tissue simulants were measured every day using the dielectric probe kit and the network analyzer. A system check measurement was made following the determination of the dielectric parameters of the simulant, using the dipole validation kit. A power level of 250 mW(below 3GHz) or 100mW(3-6GHz), which was placed under the flat section of the twin SAM phantom. The system check results (dielectric parameters and SAR values) are given in the 6.2.

System check results have to be equal or near the values determined during dipole calibration with the relevant liquids and test system (±10 %).

System check is performed regularly on all frequency bands where tests are performed with the DASY5 system.

System Check Set-up



5.2. DESCRIPTION OF SYSTEM CHECK

System Check in Tissue Simulating Liquid

The system check is performed for verifying the accuracy of the complete measurement system and performance of the software. The system check is performed with tissue equivalent material according to IEEE P1528 (described above). The following table shows system check results for all frequency bands and tissue liquids used during the tests.

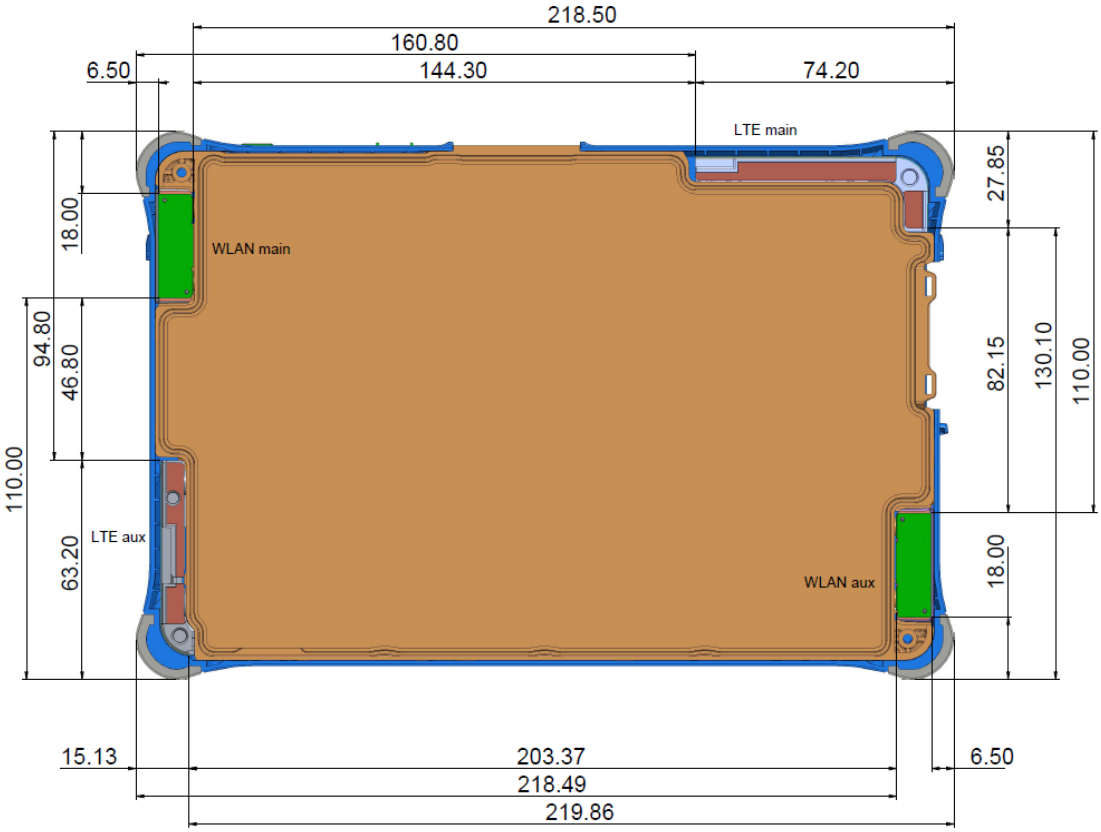
Date	System Dipole			Parameters	Target [W/kg]	Measured [W/kg]	Deviation [%]	Limited [%]
	Type	Serial No.	Liquid					
2022/9/12	D750V3	1145	Head	1g SAR	8.7	8.1	-6.59	± 10
2022/9/12	D900V2	1d185	Head	1g SAR	11.1	11.6	4.86	± 10
2022/9/8	D1800V2	2d210	Head	1g SAR	38.2	38.8	1.68	± 10
2022/9/7	D1900V2	5d208	Head	1g SAR	40.2	41.2	2.49	± 10
2022/9/16	D2300V2	1054	Head	1g SAR	49.0	52.4	6.94	± 10
2022/9/8	D2600V2	1111	Head	1g SAR	57.9	56.0	-3.28	± 10

6. OPERATIONAL CONDITIONS DURING TEST

6.1. General Description of Test Procedures

Connection to the EUT is established via air interface with base station An, and the EUT is Set to maximum output power by base station. The EUT battery must be fully charged and checked periodically during the test to ascertain uniform power output. The antenna connected to the output of the base station simulator shall be placed at least 50cm away from the EUT. The signal transmitted by the simulator to the antenna feeding point shall be lower than the output power level of the EUT by at least 30dB.

6.2. Test Position of Portable Devices



Test Position of Portable Devices

Minimum Separation Distance					
P-Sensor	**Mode**	**Antenna**	**Position**	**Distance (mm)**	**Evaluation Test**
on	WWAN	Main	Rear	8.00	Yes
			Edge1	7.00	Yes
			Edge2	10.00	Yes
			Edge3	130.1	No
			Edge4	160.8	No
off	WWAN	Main	Rear	23.00	Yes
			Edge1	22.00	Yes
			Edge2	25.00	Yes

6.3. TEST CONFIGURATION

The SAR Exclusion Threshold in KDB 447498 D01 can be applied to determine SAR test exclusion for adjacent edge configurations. The closest distance from the antenna to an EUT edge is used to determine if SAR testing is required for the adjacent edges, with the adjacent edge positioned adjacent the phantom and the edge containing the antenna positioned perpendicular to the phantom.

SAR test reduction and exclusion guidance

(1)The SAR exclusion threshold for is defined by the following equation:

$$P_{\text{th}}\ (\text{mW}) = \begin{cases} ERP_{20\ \text{cm}}(d/20\ \text{cm})^x & d \le 20\ \text{cm} \\ ERP_{20\ \text{cm}} & 20\ \text{cm} < d \le 40\ \text{cm} \end{cases} \qquad (\text{B.2})$$

where

$$x = -\log_{10}\left(\frac{60}{ERP_{20\ \text{cm}}\sqrt{f}}\right)$$

and f is in GHz, d is the separation distance (cm), and $ERP_{20\text{cm}}$ is per Formula (B.1).

Example values shown in Table B.2 are for illustration only.

Table B.2—Example Power Thresholds (mW)

Frequency (MHz)	Distance (mm)									
	5	10	15	20	25	30	35	40	45	50
300	39	65	88	110	129	148	166	184	201	217
450	22	44	67	89	112	135	158	180	203	226
835	9	25	44	66	90	116	145	175	207	240
1900	3	12	26	44	66	92	122	157	195	236
2450	3	10	22	38	59	83	111	143	179	219
3600	2	8	18	32	49	71	96	125	158	195
5800	1	6	14	25	40	58	80	106	136	169

6.4 SAR Exclusion Calculations for WWAN Antenna

P-Sensor off

Mode	Ant	Position	Distance (mm)	f (MHz)	Max Power(dBm)	Max Power(mW)	SAR Exclusion threshold(mW)	Test required
UMTS Band II	Main	Rear	23.00	1880	24.00	251.19	44	Yes
UMTS Band IV	Main	Rear	23.00	1732.6	24.00	251.19	44	Yes
UMTS Band V	Main	Rear	23.00	836.4	24.00	251.19	66	Yes
Mode	Ant	Position	Distance (mm)	f (MHz)	Max Power(dBm)	Max Power(mW)	SAR Exclusion threshold(mW)	Test required
UMTS Band II	Main	Edge 1	22.00	1880	24.00	251.19	44	Yes
UMTS Band IV	Main	Edge 1	22.00	1732.6	24.00	251.19	44	Yes
UMTS Band V	Main	Edge 1	22.00	836.4	24.00	251.19	66	Yes
Mode	Ant	Position	Distance (mm)	f (MHz)	Max Power(dBm)	Max Power(mW)	SAR Exclusion threshold(mW)	Test required
UMTS Band II	Main	Edge 2	25.00	1880	24.00	251.19	44	Yes
UMTS Band IV	Main	Edge 2	25.00	1732.6	24.00	251.19	44	Yes
UMTS Band V	Main	Edge 2	25.00	836.4	24.00	251.19	66	Yes

Mode	Ant	Position	Distance (mm)	f (MHz)	Max Power(dBm)	Max Power(mW)	SAR Exclusion threshold(mW)	Test required
LTE Band 2	Main	Rear	23.00	1880	24.00	251.19	44	Yes
LTE Band 4	Main	Rear	23.00	1732.5	24.00	251.19	44	Yes
LTE Band 5	Main	Rear	23.00	836.5	24.00	251.19	66	Yes
LTE Band 7	Main	Rear	23.00	2535	23.80	239.88	38	Yes
LTE Band 12	Main	Rear	23.00	707.5	24.00	251.19	66	Yes
LTE Band 13	Main	Rear	23.00	782	24.00	251.19	66	Yes
LTE Band 14	Main	Rear	23.00	793	24.00	251.19	66	Yes
LTE Band 26	Main	Rear	23.00	831	24.00	251.19	66	Yes
LTE Band 30	Main	Rear	23.00	2310	23.00	199.53	38	Yes
LTE Band 41	Main	Rear	23.00	2593	23.80	239.88	38	Yes
LTE Band 66	Main	Rear	23.00	1745	24.00	251.19	44	Yes

Mode	Ant	Position	Distance (mm)	f (MHz)	Max Power(dBm)	Max Power(mW)	SAR Exclusion threshold(mW)	Test required
LTE Band 2	Main	Edge 1	22.00	1880	24.00	251.19	44	Yes
LTE Band 4	Main	Edge 1	22.00	1732.5	24.00	251.19	44	Yes
LTE Band 5	Main	Edge 1	22.00	836.5	24.00	251.19	66	Yes
LTE Band 7	Main	Edge 1	22.00	2535	23.80	239.88	38	Yes
LTE Band 12	Main	Edge 1	22.00	707.5	24.00	251.19	66	Yes
LTE Band 13	Main	Edge 1	22.00	782	24.00	251.19	66	Yes
LTE Band 14	Main	Edge 1	22.00	793	24.00	251.19	66	Yes
LTE Band 26	Main	Edge 1	22.00	831	24.00	251.19	66	Yes
LTE Band 30	Main	Edge 1	22.00	2310	23.00	199.53	38	Yes
LTE Band 41	Main	Edge 1	22.00	2593	23.80	239.88	38	Yes
LTE Band 66	Main	Edge 1	22.00	1745	24.00	251.19	44	Yes
Mode	Ant	Position	Distance (mm)	f (MHz)	Max Power(dBm)	Max Power(mW)	SAR Exclusion threshold(mW)	Test required
LTE Band 2	Main	Edge 2	25.00	1880	24.00	251.19	66	Yes
LTE Band 4	Main	Edge 2	25.00	1732.5	24.00	251.19	66	Yes
LTE Band 5	Main	Edge 2	25.00	836.5	24.00	251.19	90	Yes
LTE Band 7	Main	Edge 2	25.00	2535	23.80	239.88	59	Yes
LTE Band 12	Main	Edge 2	25.00	707.5	24.00	251.19	90	Yes
LTE Band 13	Main	Edge 2	25.00	782	24.00	251.19	90	Yes
LTE Band 14	Main	Edge 2	25.00	793	24.00	251.19	90	Yes
LTE Band 26	Main	Edge 2	25.00	831	24.00	251.19	90	Yes
LTE Band 30	Main	Edge 2	25.00	2310	23.00	199.53	59	Yes
LTE Band 41	Main	Edge 2	25.00	2593	23.80	239.88	59	Yes
LTE Band 66	Main	Edge 2	25.00	1745	24.00	251.19	66	Yes

P-Sensor on

Mode	Ant	Position	Distance (mm)	f (MHz)	Max Power(dBm)	Max Power(mW)	SAR Exclusion threshold(mW)	Test required
UMTS Band II	Main	Rear	8.00	1880	18.00	63.10	3	Yes
UMTS Band IV	Main	Rear	8.00	1732.6	21.00	125.89	3	Yes
UMTS Band V	Main	Rear	8.00	836.4	22.00	158.49	9	Yes
Mode	Ant	Position	Distance (mm)	f (MHz)	Max Power(dBm)	Max Power(mW)	SAR Exclusion threshold(mW)	Test required
UMTS Band II	Main	Edge 1	7.00	1880	18.00	63.10	3	Yes
UMTS Band IV	Main	Edge 1	7.00	1732.6	21.00	125.89	3	Yes
UMTS Band V	Main	Edge 1	7.00	836.4	22.00	158.49	9	Yes
Mode	Ant	Position	Distance (mm)	f (MHz)	Max Power(dBm)	Max Power(mW)	SAR Exclusion threshold(mW)	Test required
UMTS Band II	Main	Edge 2	10.00	1880	18.00	63.10	12	Yes
UMTS Band IV	Main	Edge 2	10.00	1732.6	21.00	125.89	12	Yes
UMTS Band V	Main	Edge 2	10.00	836.4	22.00	158.49	25	Yes

Mode	Ant	Position	Distance (mm)	f (MHz)	Max Power(dBm)	Max Power(mW)	SAR Exclusion threshold(mW)	Test required
LTE Band 2	Main	Rear	8.00	1880	18.00	63.10	3	Yes
LTE Band 4	Main	Rear	8.00	1732.5	20.00	100.00	3	Yes
LTE Band 5	Main	Rear	8.00	836.5	22.00	158.49	9	Yes
LTE Band 7	Main	Rear	8.00	2535	22.00	158.49	3	Yes
LTE Band 12	Main	Rear	8.00	707.5	22.00	158.49	9	Yes
LTE Band 13	Main	Rear	8.00	782	22.00	158.49	9	Yes
LTE Band 14	Main	Rear	8.00	793	22.00	158.49	9	Yes
LTE Band 26	Main	Rear	8.00	831	22.00	158.49	9	Yes
LTE Band 30	Main	Rear	8.00	2310	22.00	158.49	3	Yes
LTE Band 41	Main	Rear	8.00	2593	22.00	158.49	3	Yes
LTE Band 66	Main	Rear	8.00	1745	20.00	100.00	3	Yes

Mode	Ant	Position	Distance (mm)	f (MHz)	Max Power(dBm)	Max Power(mW)	SAR Exclusion threshold(mW)	Test required
LTE Band 2	Main	Edge 1	7.00	1880	18.00	63.10	3	Yes
LTE Band 4	Main	Edge 1	7.00	1732.5	20.00	100.00	3	Yes
LTE Band 5	Main	Edge 1	7.00	836.5	22.00	158.49	9	Yes
LTE Band 7	Main	Edge 1	7.00	2535	22.00	158.49	3	Yes
LTE Band 12	Main	Edge 1	7.00	707.5	22.00	158.49	9	Yes
LTE Band 13	Main	Edge 1	7.00	782	22.00	158.49	9	Yes
LTE Band 14	Main	Edge 1	7.00	793	22.00	158.49	9	Yes
LTE Band 26	Main	Edge 1	7.00	831	22.00	158.49	9	Yes
LTE Band 30	Main	Edge 1	7.00	2310	22.00	158.49	3	Yes
LTE Band 41	Main	Edge 1	7.00	2593	22.00	158.49	3	Yes
LTE Band 66	Main	Edge 1	7.00	1745	20.00	100.00	3	Yes
Mode	Ant	Position	Distance (mm)	f (MHz)	Max Power(dBm)	Max Power(mW)	SAR Exclusion threshold(mW)	Test required
LTE Band 2	Main	Edge 2	10.00	1880	18.00	63.10	12	Yes
LTE Band 4	Main	Edge 2	10.00	1732.5	20.00	100.00	12	Yes
LTE Band 5	Main	Edge 2	10.00	836.5	22.00	158.49	25	Yes
LTE Band 7	Main	Edge 2	10.00	2535	22.00	158.49	10	Yes
LTE Band 12	Main	Edge 2	10.00	707.5	22.00	158.49	25	Yes
LTE Band 13	Main	Edge 2	10.00	782	22.00	158.49	25	Yes
LTE Band 14	Main	Edge 2	10.00	793	22.00	158.49	25	Yes
LTE Band 26	Main	Edge 2	10.00	831	22.00	158.49	25	Yes
LTE Band 30	Main	Edge 2	10.00	2310	22.00	158.49	10	Yes
LTE Band 41	Main	Edge 2	10.00	2593	22.00	158.49	10	Yes
LTE Band 66	Main	Edge 2	10.00	1745	20.00	100.00	12	Yes

7. SAR MEASUREMENT VARIABILITY AND UNCERTAINTY

7.1. SAR measurement variability

Per KDB865664 D01 SAR measurement 100 MHz to 6 GHz, SAR measurement variability must be assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. The additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

1) Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg; steps 2) through 4) do not apply.
2) When the original highest measured SAR is ≥ 0.80 W/kg, repeat that measurement once.
3) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).
4) Perform a third repeated measurement only if the original, first or second repeated measurement is ≥1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.

The same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.

The detailed repeated measurement results are shown in Section 8.2.

7.2. WCDMA Test Configuration

1. Output Power Verification

Maximum output power is verified on the High, Middle and Low channels according to the procedures description in section 5.2 of 3GPP TS 34.121,using the appropriate RMC or AMR with TPC(transmit power control) set to all “1s” for WCDMA/HSDPA or applying the required inner loop power control procedure to maintain maximum output power while HSUPA is active. Result for all applicable physical channel configurations(DPCCH,DPDCHn and spreading codes, HSDPA, HSPA)
Should be tabulated in the SAR report .All configuration that are not supported by the DUT or cannot be measured due to technical or equipment limitation should be clearly identified.

2. WCDMA

(1).Head SAR Measurements
SAR for Head exposure configurations in voice mode is measured using a 12.2 kbps RMC with TPC bits configured to all “1s”. SAR in AMR configurations is not required when the maximum average output of each RF channel for 12.2 kbps AMR is less than ¼ dB higher than that measured in 12.2 kbps RMC. Otherwise SAR is measured on the maximum output channel in 12.2 kbps AMR with 3.4kbps SRB(signalling radio bearer) using the exposure configuration that results in the highest SAR in12.2kbps RMC for that RF channel.

(2).Body SAR Measurements
SAR for body exposure configurations is measured using the 12.2 kbps RMC with the TPC bits configured to all “1s”. SAR for other spreading codes and multiple DPDCHn, when supported by the EUT, are not required when the maximum average outputs of each RF channel, for each spreading code and DPDCHn configuration, are less than ¼ dB higher than those measured in 12.2 kbps RMC.

3. HSDPA

SAR for body exposure configurations is measured according to the “Body SAR Measurements”” procedures of 3G device. In addition, body SAR is also measured for HSDPA when the maximum average outputs of each RF channel with HSDPA active is at ¼ dB higher than that measured without HSDPA using 12.2kbps RMC or the maximum SAR 12.2kbps RMC is above 75% of the SAR limit. Body SAR for HSDPA is measured using an FRC with H-Set 1 in Sub-test 1 and a 12.2kbps RMC configured in Test Loop Mode 1, using the highest body SAR configuration in 12.2 kbps RMC without HSDPA.
HSDPA should be configured according to UE category of a test device. The number of HS-DSCH/HS-PDSCHs, HAPRQ processes, minimum inter-TTI interval, transport block sizes and RV coding sequence are defined by the H-set. To maintain a consistent test configuration and stable transmission condition, QPSK is used in the H-set for SAR testing. HS-DPCCH should be configured with a CQI feedback cycle of 4ms with a CQI repetition factor of 2 to maintain a constant rate of active CQI slots. The β_c and β_d gain factors for DPCCH and DPDCH were set according to the values in the below table, β_{hs} for HS-DPCCH is set automatically to the correct value when △ACK, △NACK, △CQI = 8. The variation of the β_c /β_d ratio causes a power reduction at sub-tests 2 - 4.

Sub-test	β_c	β_d	β_d (SF)	β_c /β_d	β_{hs} (1)	CM(dB)(2)	MPR (dB)
1	2/15	15/15	64	2/15	4/15	0.0	0
2	12/15(3)	15/15(3)	64	12/15(3)	24/15	1.0	0
3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5

Note 1: △ACK, △NACK and △CQI = 8 $A_{hs} = \beta_{hs}/\beta_c = 30/15$ $\beta_{hs} = 30/15 * \beta_c$
Note 2 : CM=1 for β_c/β_d= 12/15, β_{hs}/β_c = 24/15. For all other combinations of DPDCH,DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.
Note 3 : For subtest 2 the β_c/β_d ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1,TF1) to β_c = 11/15 and β_d = 15/15

The measurements were performed with a Fixed Reference Channel (FRC) and H-Set 1 QPSK.

Settings of required H-Set 1 QPSK acc. to 3GPP 34.121

Parameter	Value
Nominal average inf. bit rate	534 kbit/s
Inter-TTI Distance	3 TTI"s
Number of HARQ Processes	2 Processes
Information Bit Payload	3202 Bits
MAC-d PDU size	336 Bits
Number Code Blocks	1 Block
Binary Channel Bits Per TTI	4800 Bits
Total Available SMLs in UE	19200 SMLs
Number of SMLs per HARQ Process	9600 SMLs
Coding Rate	0.67
Number of Physical Channel Codes	5

HSDPA UE category

HS-DSCH Category	Maximum HS-DSCH Codes Received	Minimum Inter-TTI Interval	Maximum HS-DSCH Transport Block Bits/HS-DSCH TTI	Total Soft Channel Bits
1	5	3	7298	19200
2	5	3	7298	28800
3	5	2	7298	28800
4	5	2	7298	38400
5	5	1	7298	57600
6	5	1	7298	67200
7	10	1	14411	115200
8	10	1	14411	134400
9	15	1	25251	172800
10	15	1	27952	172800
11	5	2	3630	14400
12	5	1	3630	28800
13	15	1	34800	259200
14	15	1	42196	259200
15	15	1	23370	345600
16	15	1	27952	345600

4. HSUPA

SAR for Body exposure configurations is measured according to the “Body SAR Measurements” procedures of 3G device. When the maximum output power is ≤¼ dB higher than the primary mode or when the SAR of the primary mode is scaled by the ratio of specified maximum output power and SAR is ≤ 75% SAR Limit, SAR measurement is not required for the secondary mode.

The 3G SAR test reduction procedures is applied to HSPA(HSUPA/HSDPA with RMC) body configurations with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured for HSPA using the HSPA body SAR procedures for the highest reported body exposure SAR configuration in 12.2 kbps RMC.

Due to inner loop power control requirements in HSUPA, a commercial communication test set should be used for the output power and SAR tests. The 12.2 kbps RMC, FRC H-set 1 and E-DCH configurations for HSDPA should be configured according to the values indicated below as well as other applicable procedures described in the “WCDMA Handset" and „Release 5 HSDPA Data Device” sections of 3G device.

Subtests for WCDMA Release 6 HSUPA

WCDMA General Settings	Mode	HSPA	HSPA	HSPA	HSPA	HSPA
	Subtest	1	2	3	4	5
	Loopback Mode	Test Mode 1				
	Rel99 RMC	12.2kbps RMC				
	HSDPA FRC	H-Set1				
	HSUPA Test	HSUPA Loopback				
	Power Control Algorithm	Algorithm2				
	βc	11/15	6/15	15/15	2/15	15/15
	βd	15/15	15/15	9/15	15/15	15/15
	βec	209/225	12/15	30/15	2/15	24/15
	βc/βd	11/15	6/15	9/15	2/15	15/15
	βhs	22/15	12/15	30/15	4/15	30/15
	βed	1309/225	94/75	47/15	56/75	134/15
	CM (dB)	1	3	2	3	1
	MPR (dB)	0	2	1	2	0

HSUPA UE category

UE E-DCH Category	Maximum E-DCH Codes Transmitted	Number of HARQ Processes	E-DCH TTI(ms)	Minimum Speading Factor	Maximum E-DCH Transport Block Bits	Max Rate (Mbps)
1	1	4	10	4	7110	0.7296
2	2	8	2	4	2798	1.4592
	2	4	10	4	14484	
3	2	4	10	4	14484	1.4592
4	2	8	2	2	5772	2.9185
	2	4	10	2	20000	2.00
5	2	4	10	2	20000	2.00
6 (No DPDCH)	4	8	10	2SF2&2SF4	11484	5.76
	4	4	2		20000	2.00
7 (No DPDCH)	4	8	2	2SF2&2SF4	22996	?
	4	4	10		20000	?

NOTE: When 4 codes are transmitted in parallel, two codes shall be transmitted with SF2 and two with SF4.UE categories 1 to 6 support QPSK only. UE category 7 supports QPSK and 16QAM.(TS25.306-7.3.0).

5. DC-HSDPA

In DC-HSDPA implementation of this device, the uplink parameters are the same as HSDPA. No additiona channels and modulations (16 QAM, and 64 QAM) are supported in uplink. The difference is only in the downlink parameters, where two carriers are supported. HSDPA settings were used on uplink.

For Rel. 8 DC-HSDPA apply the four subtests from HSDPA Release 5 except use fixed reference channe H-Set 12 for DC-HSDPA. And we can apply the same SAR test exclusion criteria used for Rel. 6 HSPA fc Rel. 7 HSPA+ and Rel. 8 DC-HSDPA. That is, if the HSPA, HSPA+, or the DC-HSDPA maximum output i not more than 0.25 dB higher than WCDMA, SAR measurement for those modes is not required.
The following tests were completed according to procedures in section 7.3.13 of 3GPP TS 34.108 v9.5.0. summary of these settings are illustrated below:

Downlink Physical Channels are set as per 3GPP TS34.121-1 v9.0.0 E.5.0
Levels for HSDPA connection setup

Parameter During Connection setup	Unit	Value
P-CPICH_Ec/Ior	dB	-10
P-CCPCH and SCH_Ec/Ior	dB	-12
PICH _Ec/Ior	dB	-15
HS-PDSCH	dB	off
HS-SCCH_1	dB	off
DPCH_Ec/Ior	dB	-5
OCNS_Ec/Ior	dB	-3.1

Call is set up as per 3GPP TS34.108 v9.5.0 sub clause 7.3.13
The configurations of the fixed reference channels for HSDPA RF tests are described in 3GPP TS 34.121 annex C for FDD and 3GPP TS 34.122.
The measurements were performed with a Fixed Reference Channel (FRC) H-Set 12 with QPSK

Parameter	Value
Nominal average inf. bit rate	60 kbit/s
Inter-TTI Distance	1 TTI"s
Number of HARQ Processes	6 Processes
Information Bit Payload	120 Bits
Number Code Blocks	1 Block
Binary Channel Bits Per TTI	960 Bits
Total Available SMLs in UE	19200 SMLs
Number of SMLs per HARQ Process	3200 SMLs
Coding Rate	0.15
Number of Physical Channel Codes	1

Note:
1. The RMC is intended to be used for DC-HSDPA mode and both cells shall transmit with identical parameters as listed in the table above.
2. Maximum number of transmission is limited to 1,i.e.,retransmission is not allowed. The redundancy and constellation version 0 shall be used.

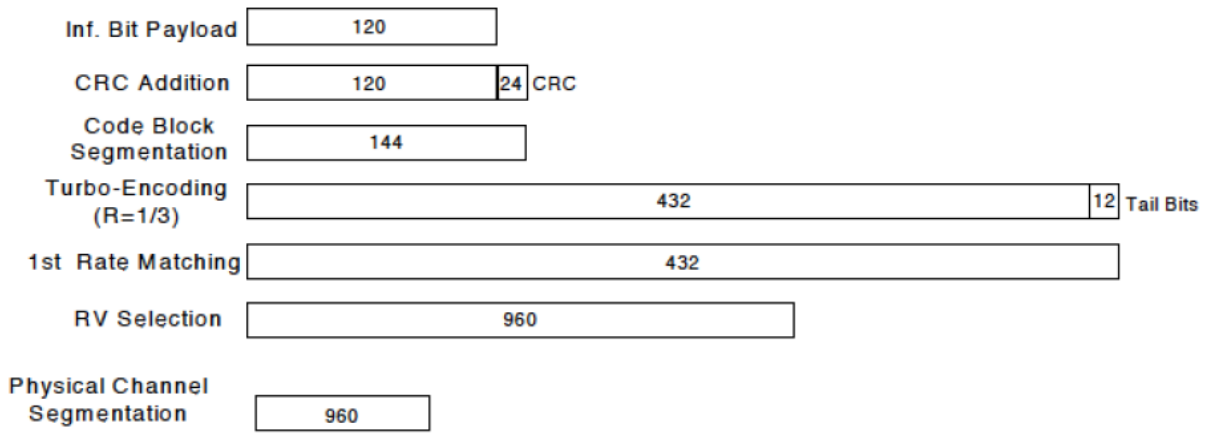


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

The following 4 Sub-tests for HSDPA were completed according to Release 5 procedures. A summary of subtest settings are illustrated below:

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{hs} (1)	CM(dB)(2)	MPR (dB)
1	2/15	15/15	64	2/15	4/15	0.0	0
2	12/15(3)	15/15(3)	64	12/15(3)	24/15	1.0	0
3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5

Note 1: Δ ACK, Δ NACK and Δ CQI = 8 $A_{hs} = \beta_{hs}/\beta_c = 30/15$ $\beta_{hs} = 30/15 * \beta_c$

Note 2: CM=1 for β_c/β_d= 12/15, β_{hs}/β_c = 24/15. For all other combinations of DPDCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.

Note 3: For subtest 2 the β_c/β_d ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1,TF1) to β_c = 11/15 and β_d = 15/15

Up commands are set continuously to set the UE to Max power.

Note:
1.The Dual Carriers transmission only applies to HSDPA physical channels
2.The Dual Carriers belong to the same Node and are on adjacent carriers.
3.The Dual Carriers do not support MIMO to serve UEs configured for dual cell operation
4.The Dual Carriers operate in the same frequency band .
5.The device doesn't support the modulation of 16QAM in uplink but 64QAM in downlink for DC-HSDPA mode.
6.The device doesn’t support carrier aggregation for it just can operate in Release 8.

7.3. LTE Test Configuration

Establishing connections with base station simulators ensure a consistent means for testing SAR and are recommended for evaluating SAR. The RS CMW500 was used for LTE output power measurements and SAR testing. Max power control was used so the UE transmits with maximum output power during SAR testing. SAR must be measured with the maximum TTI(transmit time interval) supported by the device in each LTE configuration.

1)Spectrum Plots for RB configurations
A properly configured base station simulator was used for LTE output power measurements and SAR testing. Therefore, spectrum plots for RB configurations were not required to be included in this report.

2) MPR
MPR is permanently implemented for this device by the manufacturer. The specific manufacturer target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to 3GPP TS36.101 Section 6.2.3-6.2.5 under Table 6.2.3-1.

3)A-MPR
A-MPR(Additional MPR) has been disabled for all SAR tests by using Network Signaling Value of “NS=01”on the base station simulator.

4)SAR test requirements
The LTE SAR test is choice the max power mode and start with the max power channel.
A) Largest channel bandwidth standalone SAR test requirements
i) QPSK with 1 RB allocation
When the SAR is ≤ 1 W/kg, testing of the remaining RB offset configurations and required test channels is not required for 1 RB allocation; otherwise, SAR is required for the remaining required test channels and only for the RB offset configuration with the highest output power for that channel. When the 10-g SAR of a required test channel is > 1.8 W/kg, SAR is required for all three RB offset configurations for that required test channel.

8. 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 v01r02)

8.1. procedures for detrmining 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.

8.2. procedures for detrmining 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.

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.

8.3. proximity sensor status table of trigger distance

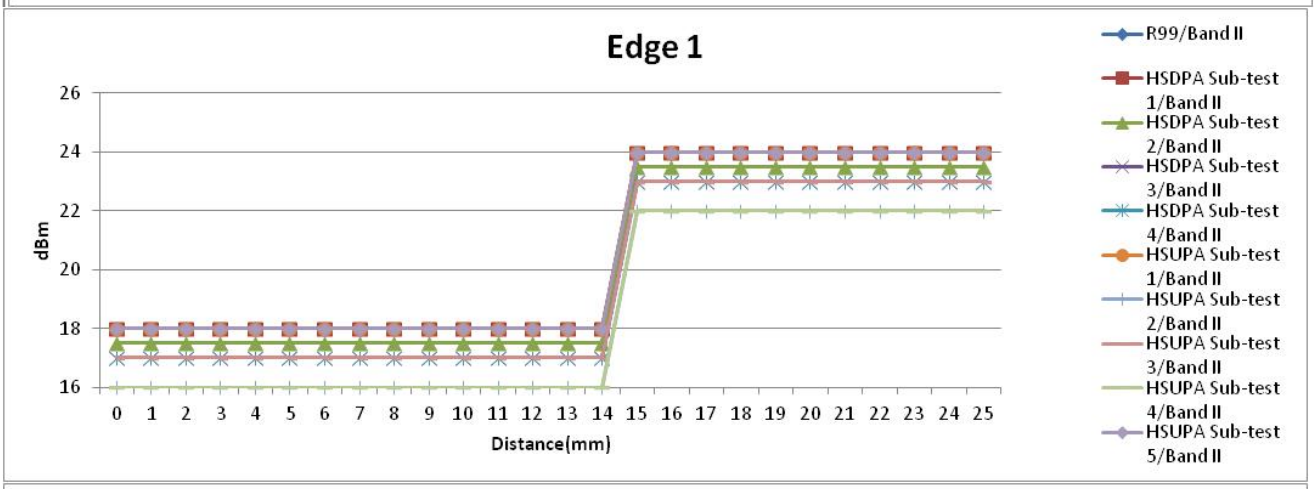
As per the KDB 616217 D04 SAR for laptop and tablets v01r02, section 6.2, the following procedure is used to determine the triggering distances.

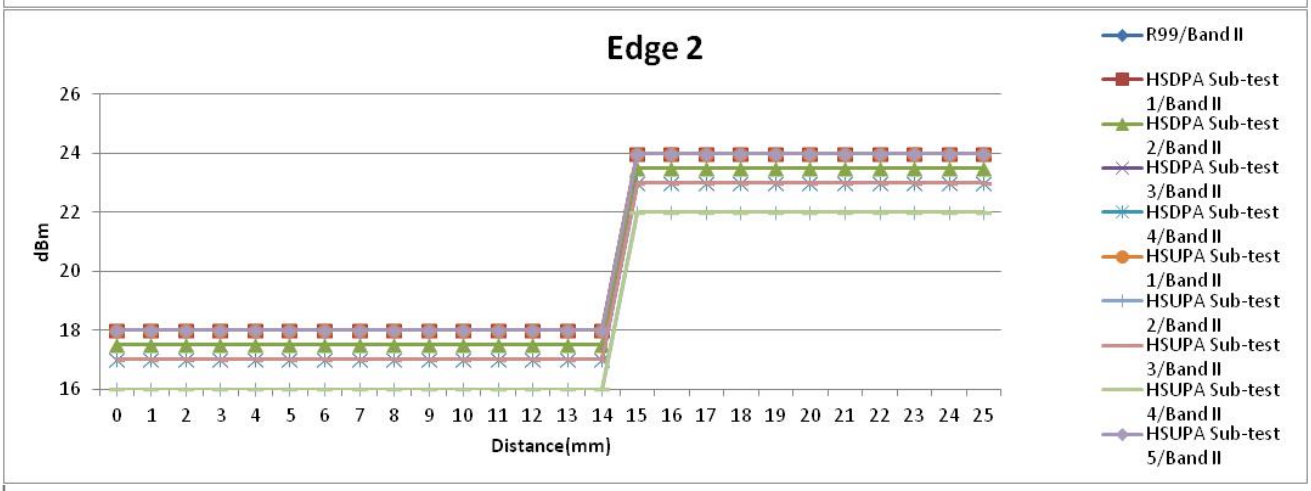
Proximity Sensor Status Table when DUT is moving towards the phantom

Distance to the DUT (mm)	Proximity Sensor Status – Rear	Distance to the DUT (mm)	Proximity Sensor Status – Edge1	Distance to the DUT (mm)	Proximity Sensor Status – Edge2
25	OFF	25	OFF	25	OFF
24	OFF	24	OFF	24	OFF
23	OFF	23	OFF	23	OFF
22	OFF	22	OFF	22	OFF
21	OFF	21	OFF	21	OFF
20	OFF	20	OFF	20	OFF
19	OFF	19	OFF	19	OFF
18	OFF	18	OFF	18	OFF
17	OFF	17	OFF	17	OFF
16	OFF	16	OFF	16	OFF
15	OFF	15	OFF	15	OFF
14	ON	14	ON	14	ON
13	ON	13	ON	13	ON
12	ON	12	ON	12	ON
11	ON	11	ON	11	ON
10	ON	10	ON	10	ON
9	ON	9	ON	9	ON
8	ON	8	ON	8	ON
7	ON	7	ON	7	ON
6	ON	6	ON	6	ON
5	ON	5	ON	5	ON
4	ON	4	ON	4	ON
3	ON	3	ON	3	ON
2	ON	2	ON	2	ON
1	ON	1	ON	1	ON
0	ON	0	ON	0	ON

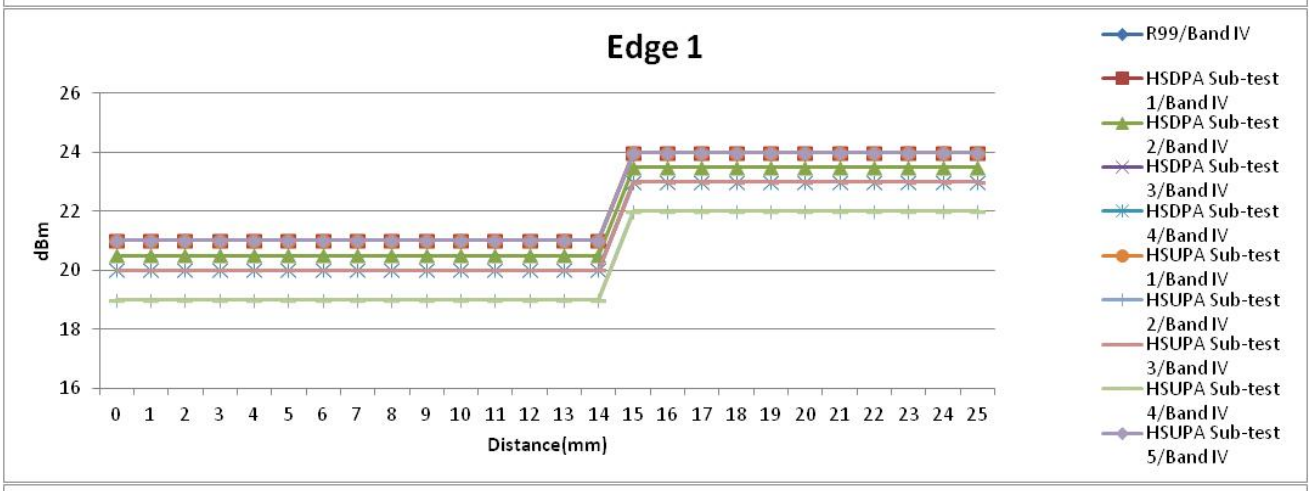
8.4. power reduction per air-interface

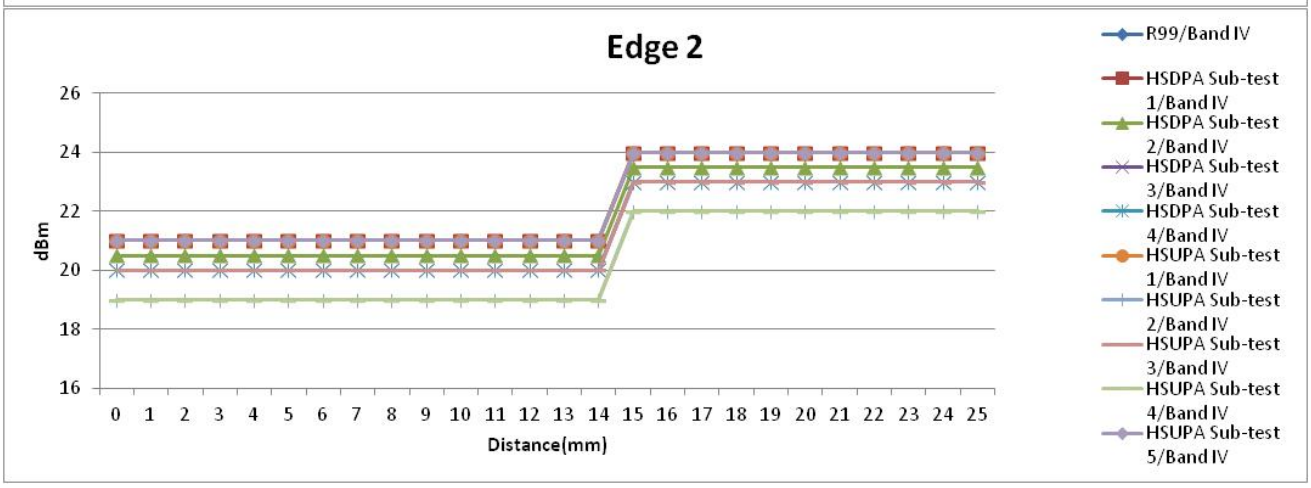
The following graphs show the power level and the distance from the DUT to the flat phantom for the Rear,Edge1 and Edge 2 Mode Surface.



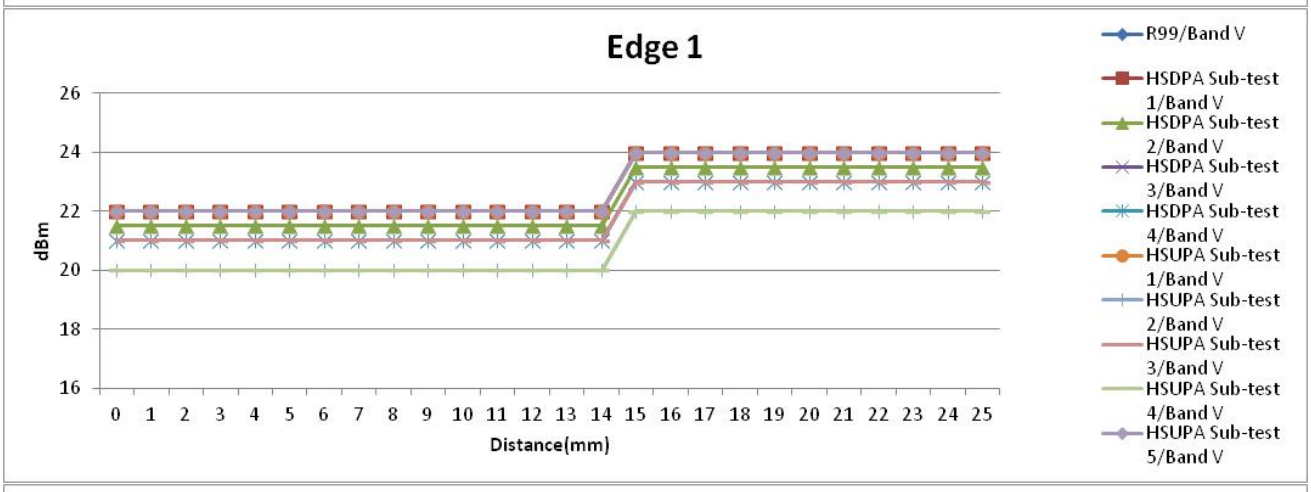


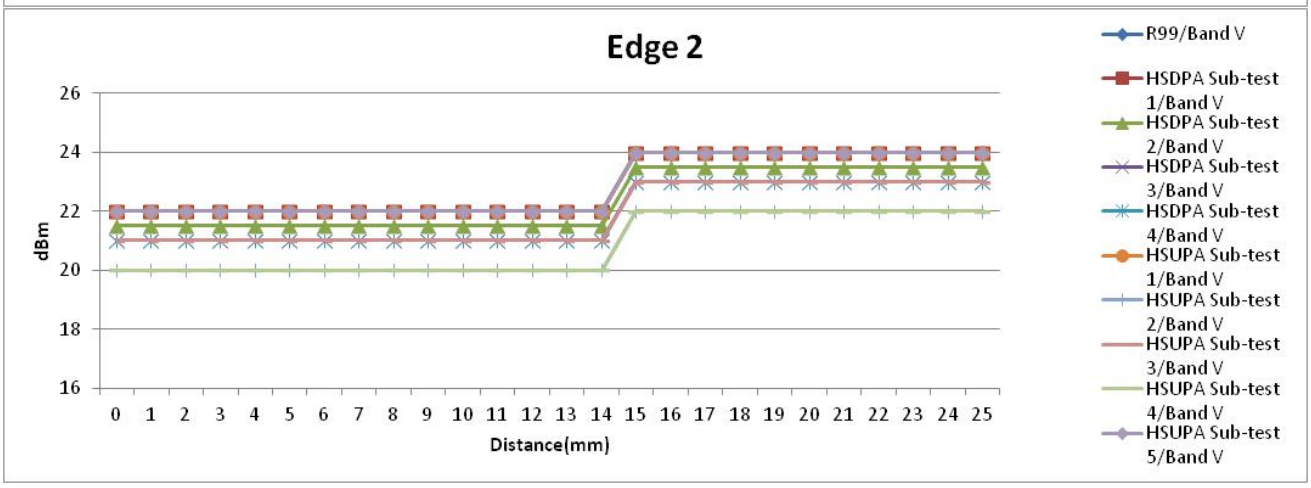
Rear
dBm
26
24
22
20
18
16
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25
Distance(mm)
R99/Band IV
HSDPA Sub-test 1/Band IV
HSDPA Sub-test 2/Band IV
HSDPA Sub-test 3/Band IV
HSDPA Sub-test 4/Band IV
HSUPA Sub-test 1/Band IV
HSUPA Sub-test 2/Band IV
HSUPA Sub-test 3/Band IV
HSUPA Sub-test 4/Band IV
HSUPA Sub-test 5/Band IV

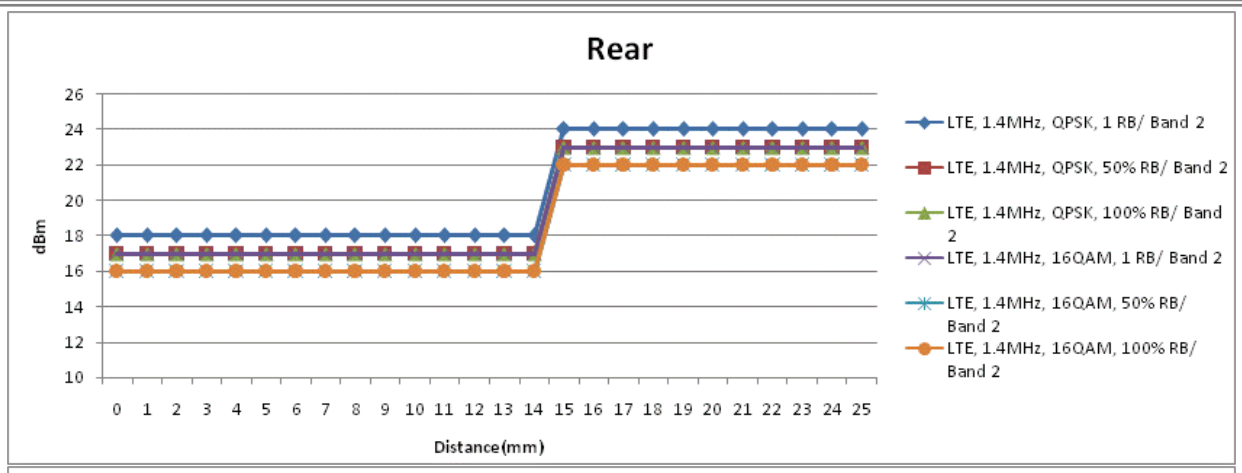

Edge 1
dBm
26
24
22
20
18
16
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25
Distance(mm)
R99/Band IV
HSDPA Sub-test 1/Band IV
HSDPA Sub-test 2/Band IV
HSDPA Sub-test 3/Band IV
HSDPA Sub-test 4/Band IV
HSUPA Sub-test 1/Band IV
HSUPA Sub-test 2/Band IV
HSUPA Sub-test 3/Band IV
HSUPA Sub-test 4/Band IV
HSUPA Sub-test 5/Band IV

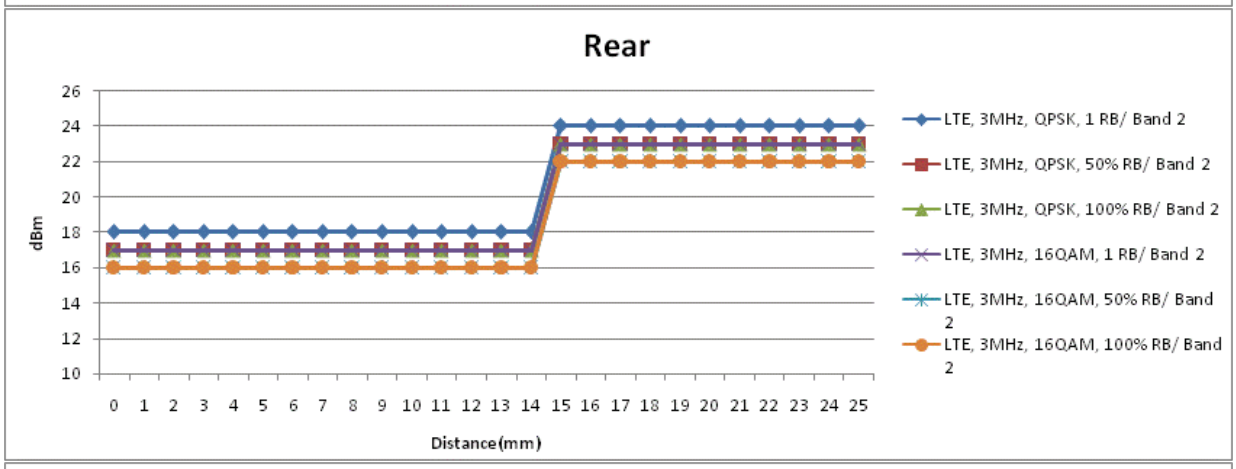

Edge 2
dBm
26
24
22
20
18
16
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25
Distance(mm)
R99/Band IV
HSDPA Sub-test 1/Band IV
HSDPA Sub-test 2/Band IV
HSDPA Sub-test 3/Band IV
HSDPA Sub-test 4/Band IV
HSUPA Sub-test 1/Band IV
HSUPA Sub-test 2/Band IV
HSUPA Sub-test 3/Band IV
HSUPA Sub-test 4/Band IV
HSUPA Sub-test 5/Band IV

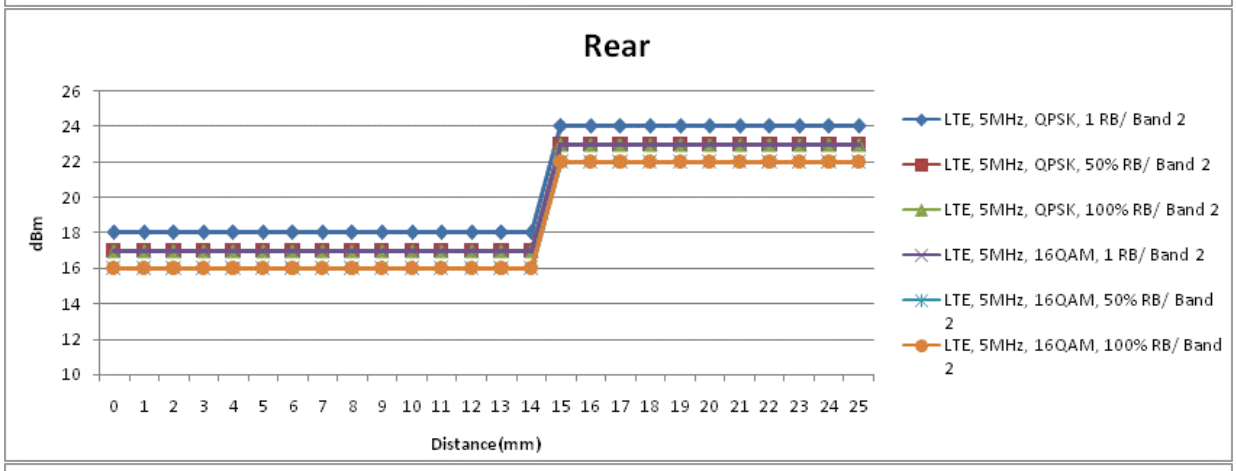
Rear
dBm
26
24
22
20
18
16
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25
Distance(mm)
R99/Band V
HSDPA Sub-test 1/Band V
HSDPA Sub-test 2/Band V
HSDPA Sub-test 3/Band V
HSDPA Sub-test 4/Band V
HSUPA Sub-test 1/Band V
HSUPA Sub-test 2/Band V
HSUPA Sub-test 3/Band V
HSUPA Sub-test 4/Band V
HSUPA Sub-test 5/Band V

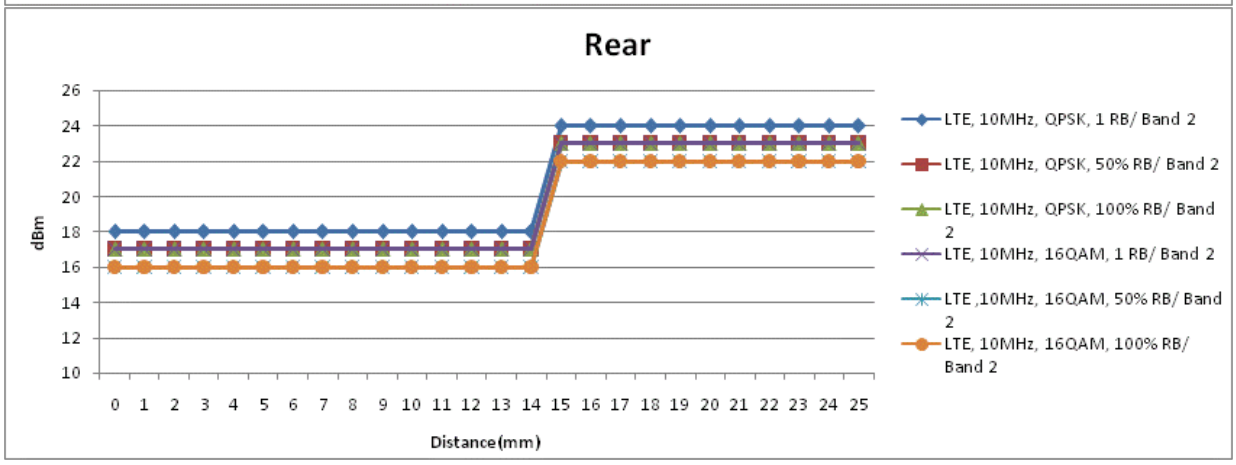

Edge 1
dBm
26
24
22
20
18
16
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25
Distance(mm)
R99/Band V
HSDPA Sub-test 1/Band V
HSDPA Sub-test 2/Band V
HSDPA Sub-test 3/Band V
HSDPA Sub-test 4/Band V
HSUPA Sub-test 1/Band V
HSUPA Sub-test 2/Band V
HSUPA Sub-test 3/Band V
HSUPA Sub-test 4/Band V
HSUPA Sub-test 5/Band V

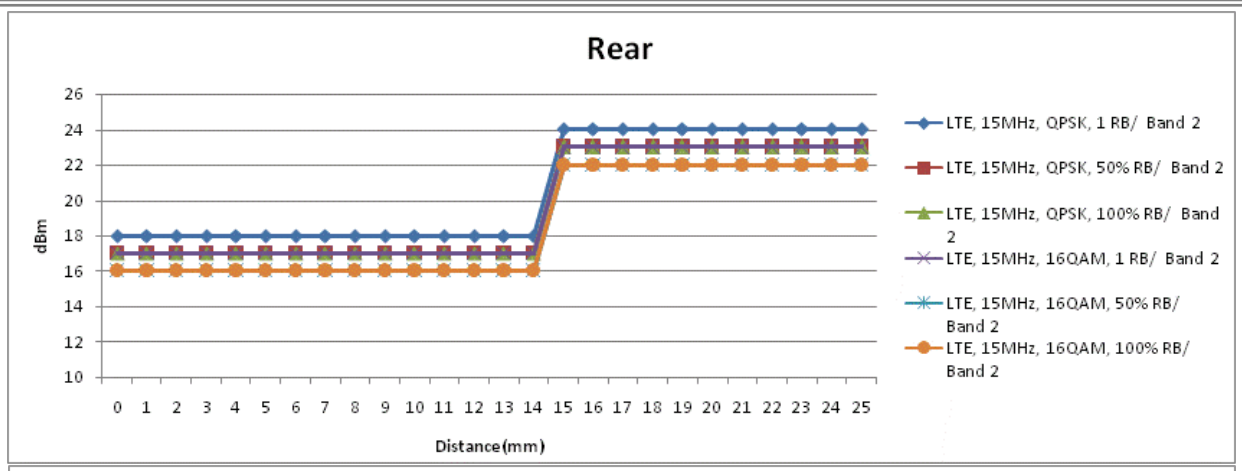

Edge 2
dBm
26
24
22
20
18
16
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25
Distance(mm)
R99/Band V
HSDPA Sub-test 1/Band V
HSDPA Sub-test 2/Band V
HSDPA Sub-test 3/Band V
HSDPA Sub-test 4/Band V
HSUPA Sub-test 1/Band V
HSUPA Sub-test 2/Band V
HSUPA Sub-test 3/Band V
HSUPA Sub-test 4/Band V
HSUPA Sub-test 5/Band V

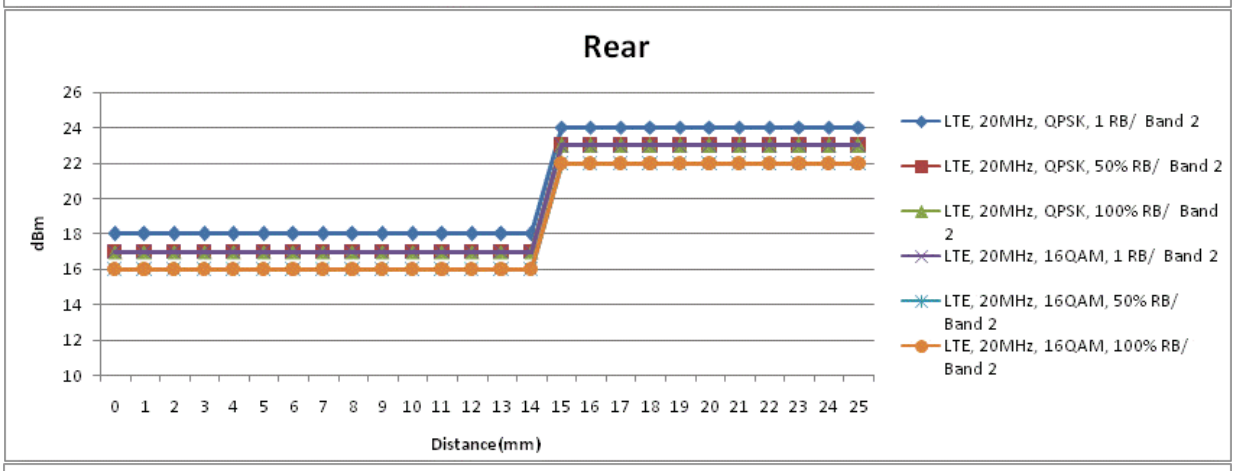

Rear
dBm
Distance(mm)
LTE, 1.4MHz, QPSK, 1 RB/ Band 2
LTE, 1.4MHz, QPSK, 50% RB/ Band 2
LTE, 1.4MHz, QPSK, 100% RB/ Band 2
LTE, 1.4MHz, 16QAM, 1 RB/ Band 2
LTE, 1.4MHz, 16QAM, 50% RB/ Band 2
LTE, 1.4MHz, 16QAM, 100% RB/ Band 2

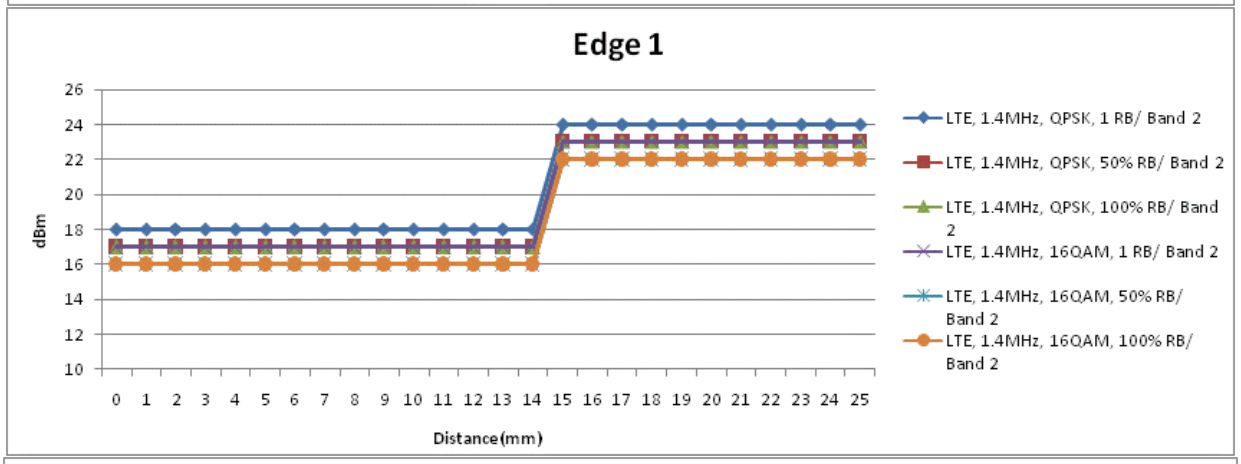

Rear
dBm
Distance(mm)
LTE, 3MHz, QPSK, 1 RB/ Band 2
LTE, 3MHz, QPSK, 50% RB/ Band 2
LTE, 3MHz, QPSK, 100% RB/ Band 2
LTE, 3MHz, 16QAM, 1 RB/ Band 2
LTE, 3MHz, 16QAM, 50% RB/ Band 2
LTE, 3MHz, 16QAM, 100% RB/ Band 2

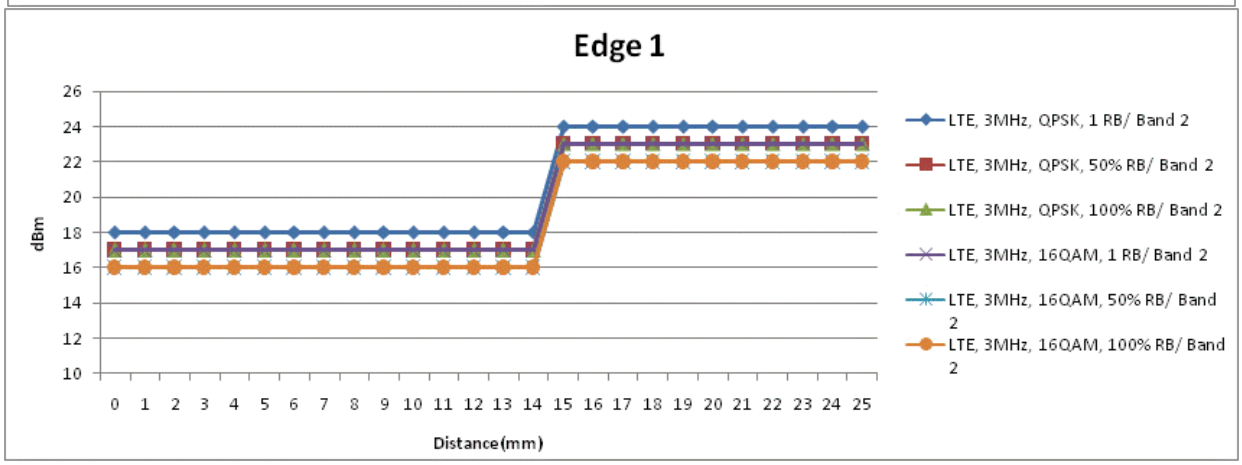

Rear
dBm
Distance(mm)
LTE, 5MHz, QPSK, 1 RB/ Band 2
LTE, 5MHz, QPSK, 50% RB/ Band 2
LTE, 5MHz, QPSK, 100% RB/ Band 2
LTE, 5MHz, 16QAM, 1 RB/ Band 2
LTE, 5MHz, 16QAM, 50% RB/ Band 2
LTE, 5MHz, 16QAM, 100% RB/ Band 2

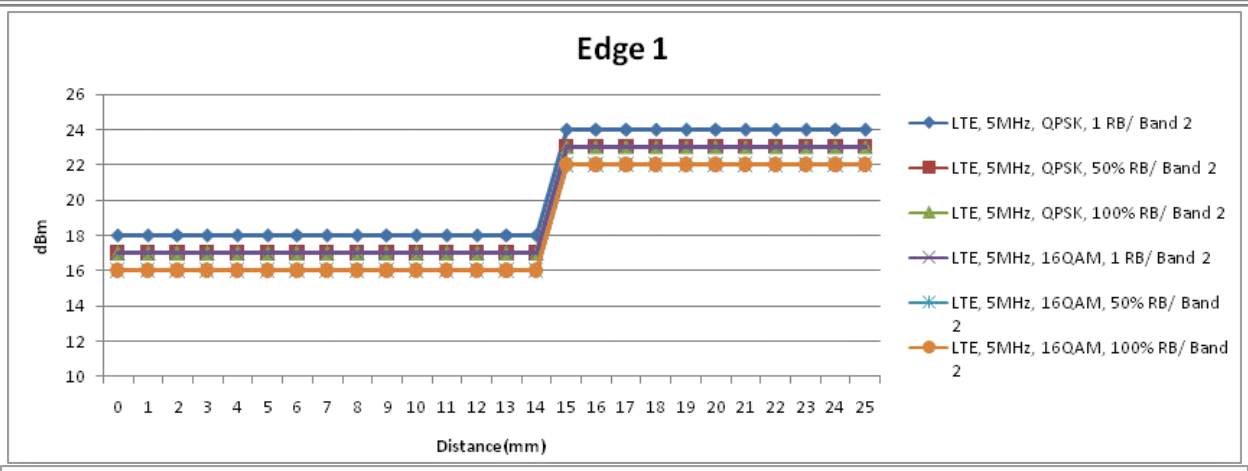

Rear
dBm
Distance(mm)
LTE, 10MHz, QPSK, 1 RB/ Band 2
LTE, 10MHz, QPSK, 50% RB/ Band 2
LTE, 10MHz, QPSK, 100% RB/ Band 2
LTE, 10MHz, 16QAM, 1 RB/ Band 2
LTE ,10MHz, 16QAM, 50% RB/ Band 2
LTE, 10MHz, 16QAM, 100% RB/ Band 2

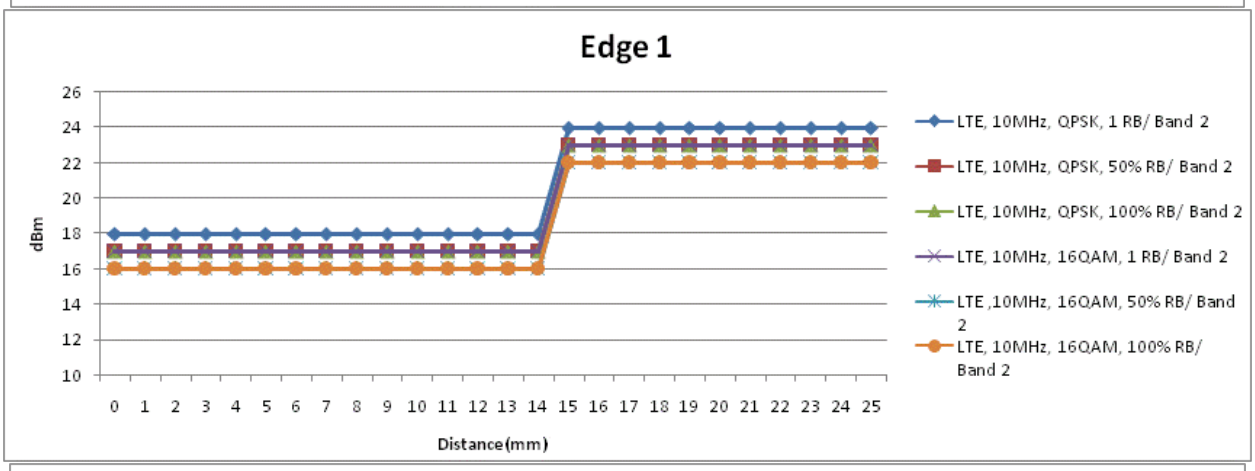

Rear
dBm
Distance(mm)
LTE, 15MHz, QPSK, 1 RB/ Band 2
LTE, 15MHz, QPSK, 50% RB/ Band 2
LTE, 15MHz, QPSK, 100% RB/ Band 2
LTE, 15MHz, 16QAM, 1 RB/ Band 2
LTE, 15MHz, 16QAM, 50% RB/ Band 2
LTE, 15MHz, 16QAM, 100% RB/ Band 2

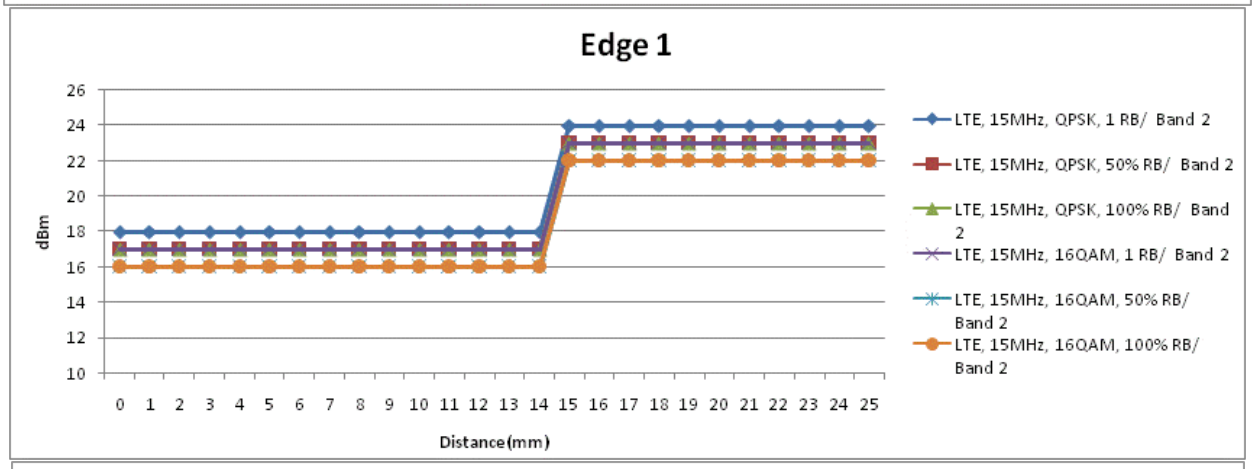

Rear
dBm
Distance(mm)
LTE, 20MHz, QPSK, 1 RB/ Band 2
LTE, 20MHz, QPSK, 50% RB/ Band 2
LTE, 20MHz, QPSK, 100% RB/ Band 2
LTE, 20MHz, 16QAM, 1 RB/ Band 2
LTE, 20MHz, 16QAM, 50% RB/ Band 2
LTE, 20MHz, 16QAM, 100% RB/ Band 2

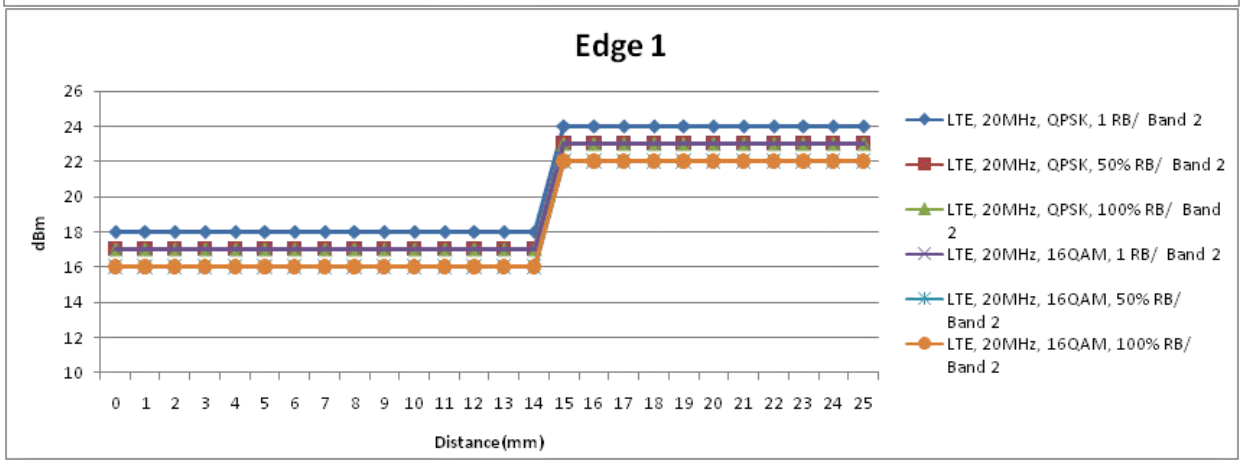

Edge 1
dBm
Distance(mm)
LTE, 1.4MHz, QPSK, 1 RB/ Band 2
LTE, 1.4MHz, QPSK, 50% RB/ Band 2
LTE, 1.4MHz, QPSK, 100% RB/ Band 2
LTE, 1.4MHz, 16QAM, 1 RB/ Band 2
LTE, 1.4MHz, 16QAM, 50% RB/ Band 2
LTE, 1.4MHz, 16QAM, 100% RB/ Band 2

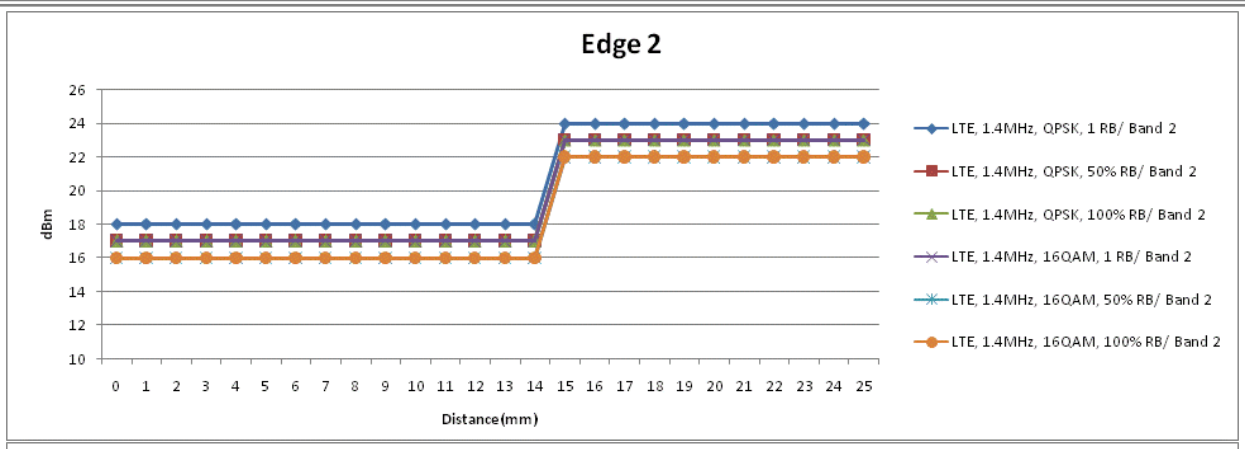

Edge 1
dBm
Distance(mm)
LTE, 3MHz, QPSK, 1 RB/ Band 2
LTE, 3MHz, QPSK, 50% RB/ Band 2
LTE, 3MHz, QPSK, 100% RB/ Band 2
LTE, 3MHz, 16QAM, 1 RB/ Band 2
LTE, 3MHz, 16QAM, 50% RB/ Band 2
LTE, 3MHz, 16QAM, 100% RB/ Band 2

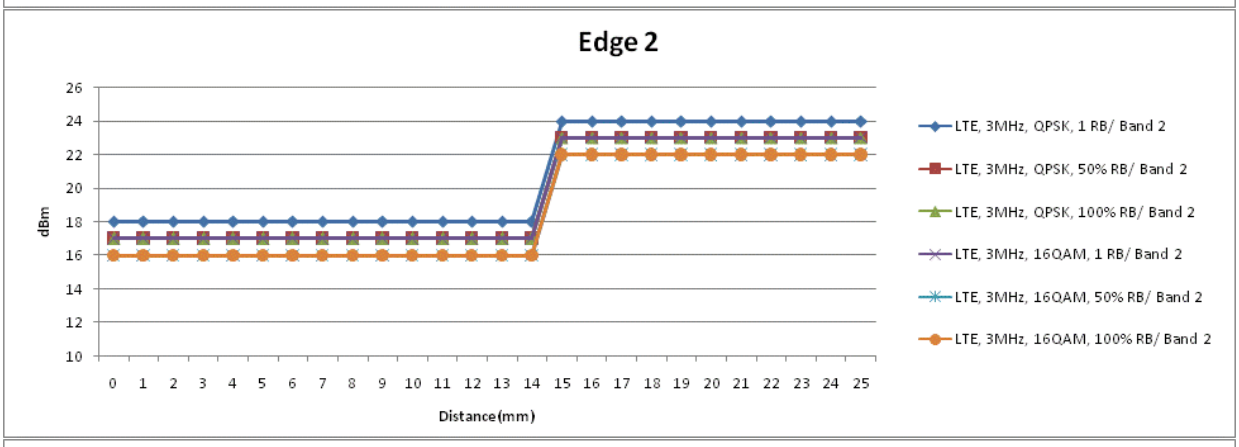

Edge 1
dBm
Distance(mm)
LTE, 5MHz, QPSK, 1 RB/ Band 2
LTE, 5MHz, QPSK, 50% RB/ Band 2
LTE, 5MHz, QPSK, 100% RB/ Band 2
LTE, 5MHz, 16QAM, 1 RB/ Band 2
LTE, 5MHz, 16QAM, 50% RB/ Band 2
LTE, 5MHz, 16QAM, 100% RB/ Band 2

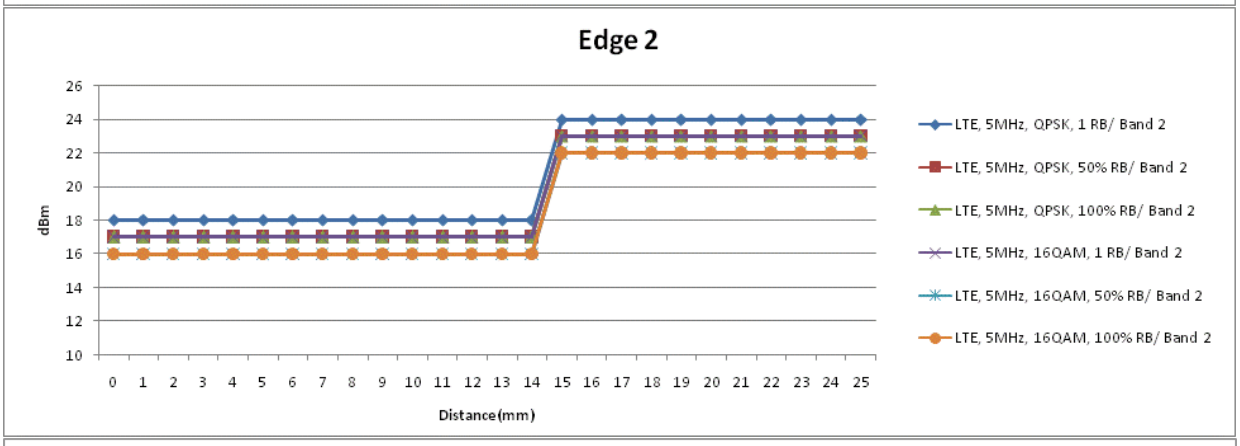

Edge 1
dBm
Distance(mm)
LTE, 10MHz, QPSK, 1 RB/ Band 2
LTE, 10MHz, QPSK, 50% RB/ Band 2
LTE, 10MHz, QPSK, 100% RB/ Band 2
LTE, 10MHz, 16QAM, 1 RB/ Band 2
LTE ,10MHz, 16QAM, 50% RB/ Band 2
LTE, 10MHz, 16QAM, 100% RB/ Band 2

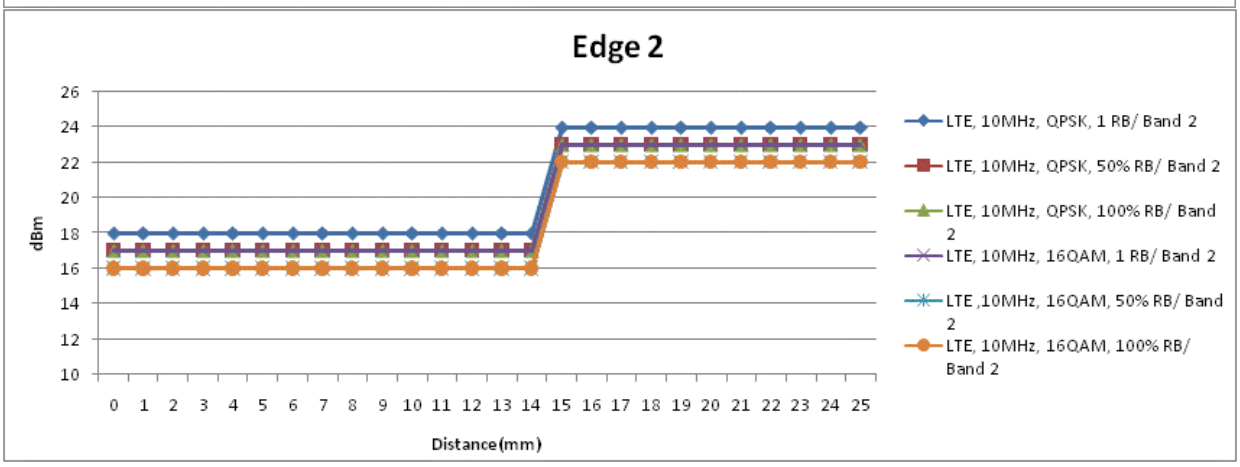

Edge 1
dBm
Distance(mm)
LTE, 15MHz, QPSK, 1 RB/ Band 2
LTE, 15MHz, QPSK, 50% RB/ Band 2
LTE, 15MHz, QPSK, 100% RB/ Band 2
LTE, 15MHz, 16QAM, 1 RB/ Band 2
LTE, 15MHz, 16QAM, 50% RB/ Band 2
LTE, 15MHz, 16QAM, 100% RB/ Band 2

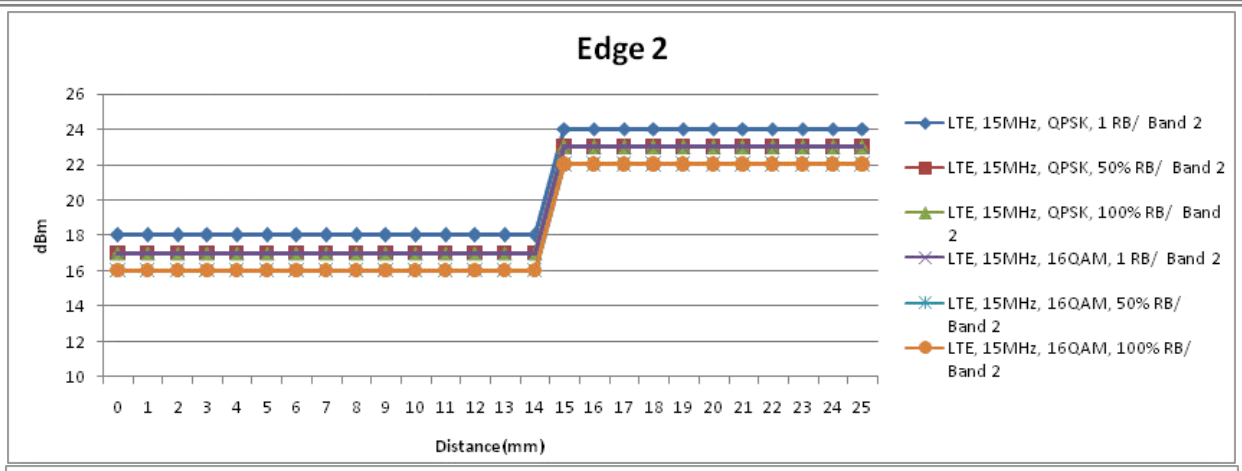

Edge 1
dBm
Distance(mm)
LTE, 20MHz, QPSK, 1 RB/ Band 2
LTE, 20MHz, QPSK, 50% RB/ Band 2
LTE, 20MHz, QPSK, 100% RB/ Band 2
LTE, 20MHz, 16QAM, 1 RB/ Band 2
LTE, 20MHz, 16QAM, 50% RB/ Band 2
LTE, 20MHz, 16QAM, 100% RB/ Band 2

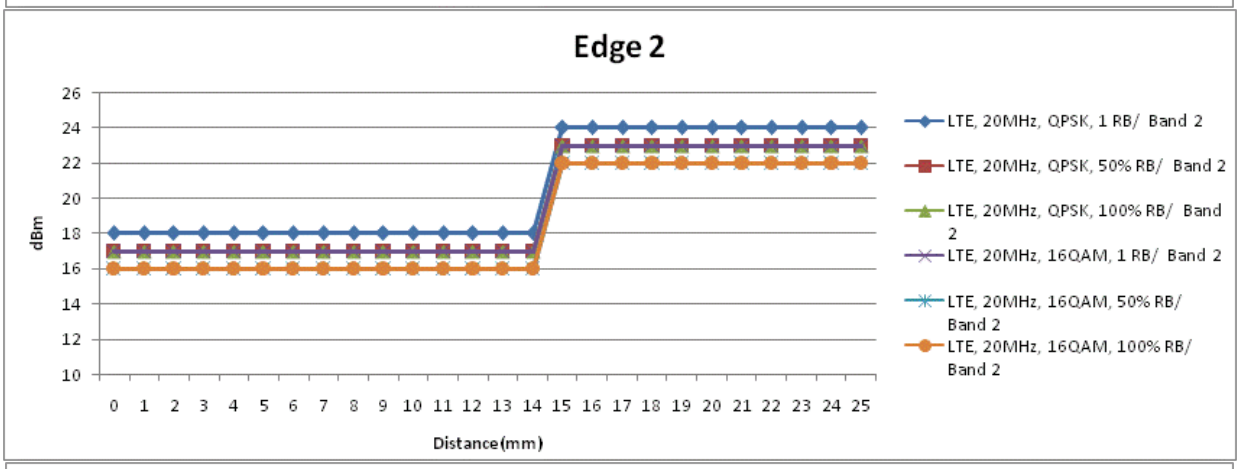

Edge 2
dBm
Distance(mm)
LTE, 1.4MHz, QPSK, 1 RB/ Band 2
LTE, 1.4MHz, QPSK, 50% RB/ Band 2
LTE, 1.4MHz, QPSK, 100% RB/ Band 2
LTE, 1.4MHz, 16QAM, 1 RB/ Band 2
LTE, 1.4MHz, 16QAM, 50% RB/ Band 2
LTE, 1.4MHz, 16QAM, 100% RB/ Band 2

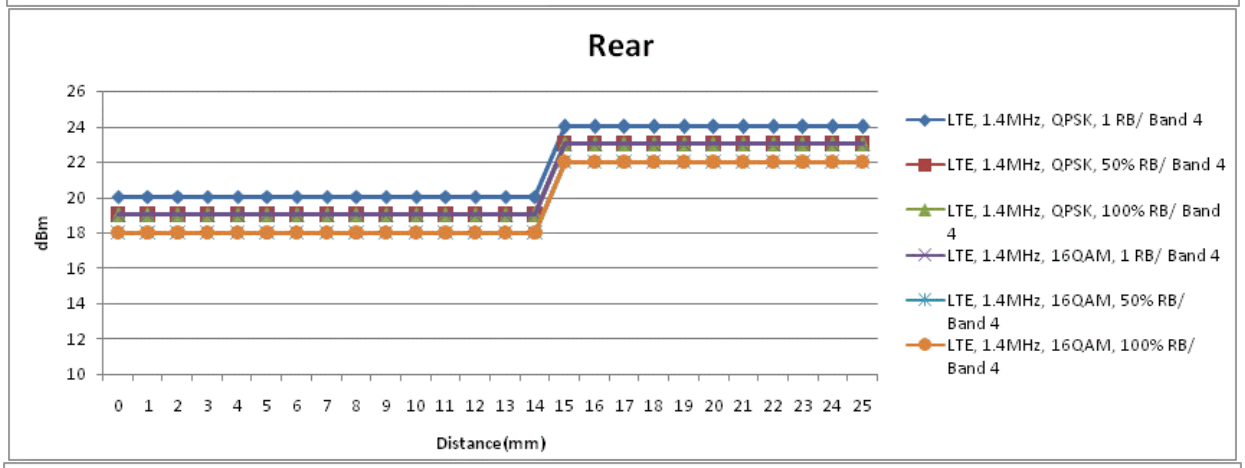

Edge 2
dBm
Distance(mm)
LTE, 3MHz, QPSK, 1 RB/ Band 2
LTE, 3MHz, QPSK, 50% RB/ Band 2
LTE, 3MHz, QPSK, 100% RB/ Band 2
LTE, 3MHz, 16QAM, 1 RB/ Band 2
LTE, 3MHz, 16QAM, 50% RB/ Band 2
LTE, 3MHz, 16QAM, 100% RB/ Band 2

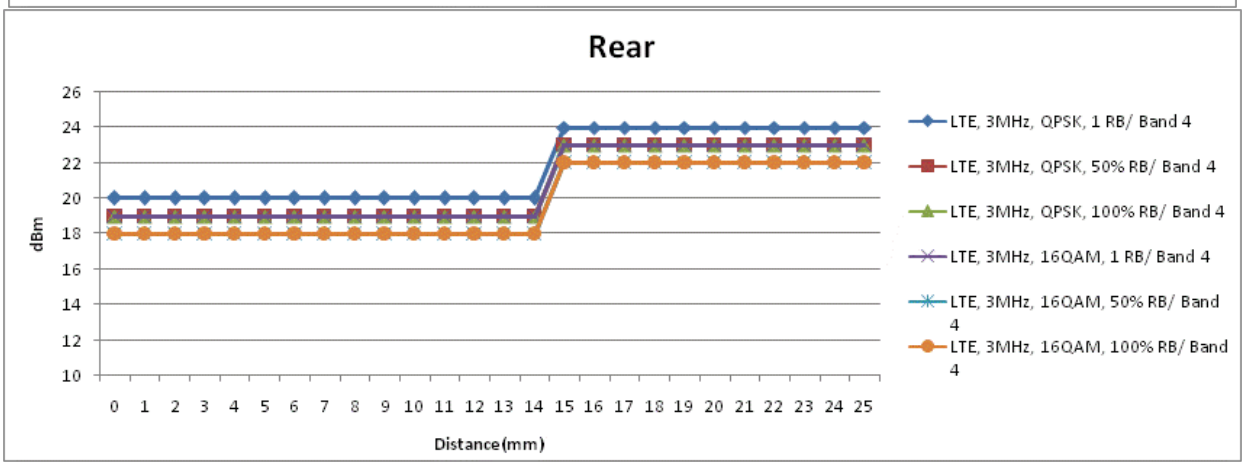

Edge 2
dBm
Distance(mm)
LTE, 5MHz, QPSK, 1 RB/ Band 2
LTE, 5MHz, QPSK, 50% RB/ Band 2
LTE, 5MHz, QPSK, 100% RB/ Band 2
LTE, 5MHz, 16QAM, 1 RB/ Band 2
LTE, 5MHz, 16QAM, 50% RB/ Band 2
LTE, 5MHz, 16QAM, 100% RB/ Band 2

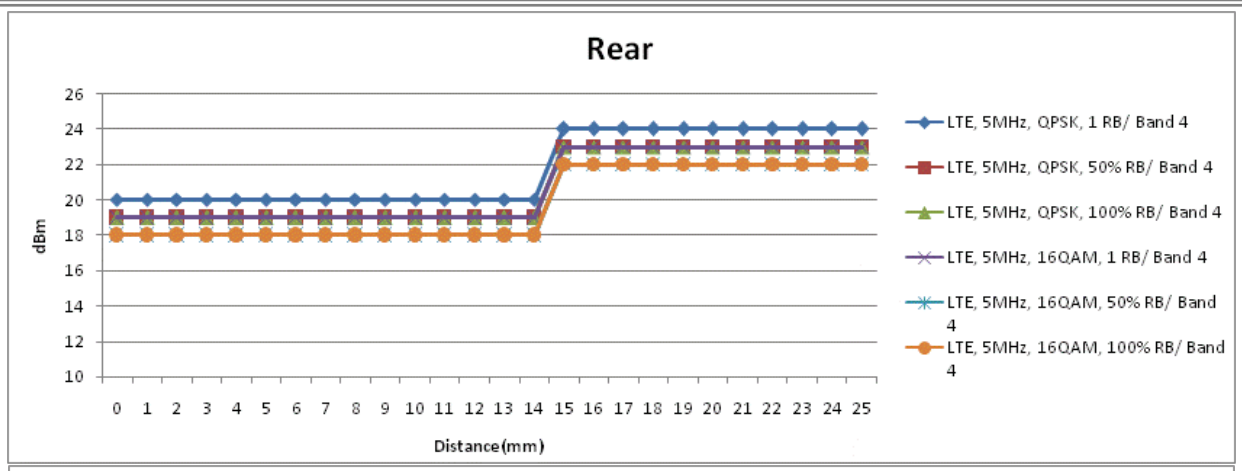

Edge 2
dBm
Distance(mm)
LTE, 10MHz, QPSK, 1 RB/ Band 2
LTE, 10MHz, QPSK, 50% RB/ Band 2
LTE, 10MHz, QPSK, 100% RB/ Band 2
LTE, 10MHz, 16QAM, 1 RB/ Band 2
LTE ,10MHz, 16QAM, 50% RB/ Band 2
LTE, 10MHz, 16QAM, 100% RB/ Band 2

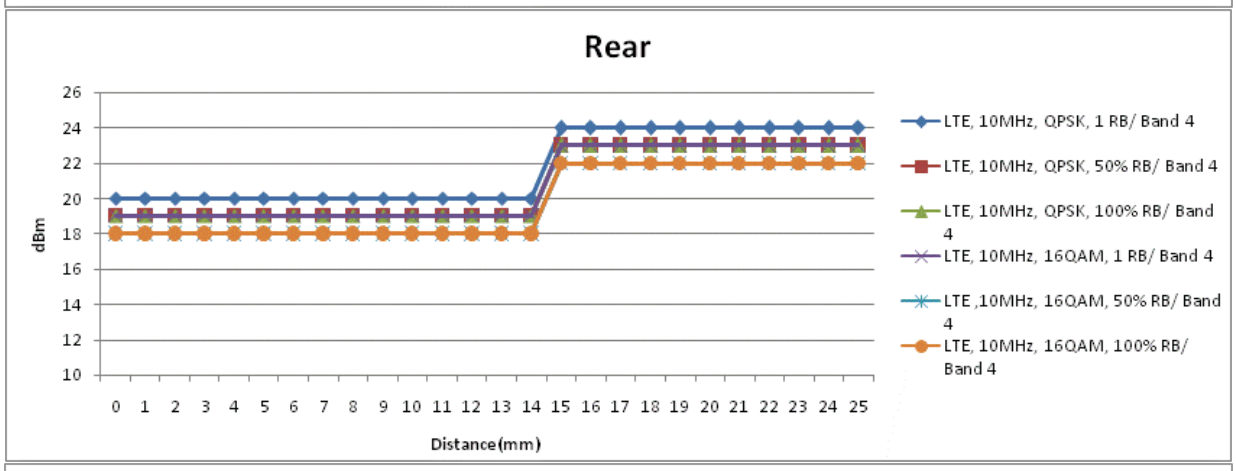

Edge 2
dBm
Distance(mm)
LTE, 15MHz, QPSK, 1 RB/ Band 2
LTE, 15MHz, QPSK, 50% RB/ Band 2
LTE, 15MHz, QPSK, 100% RB/ Band 2
LTE, 15MHz, 16QAM, 1 RB/ Band 2
LTE, 15MHz, 16QAM, 50% RB/ Band 2
LTE, 15MHz, 16QAM, 100% RB/ Band 2

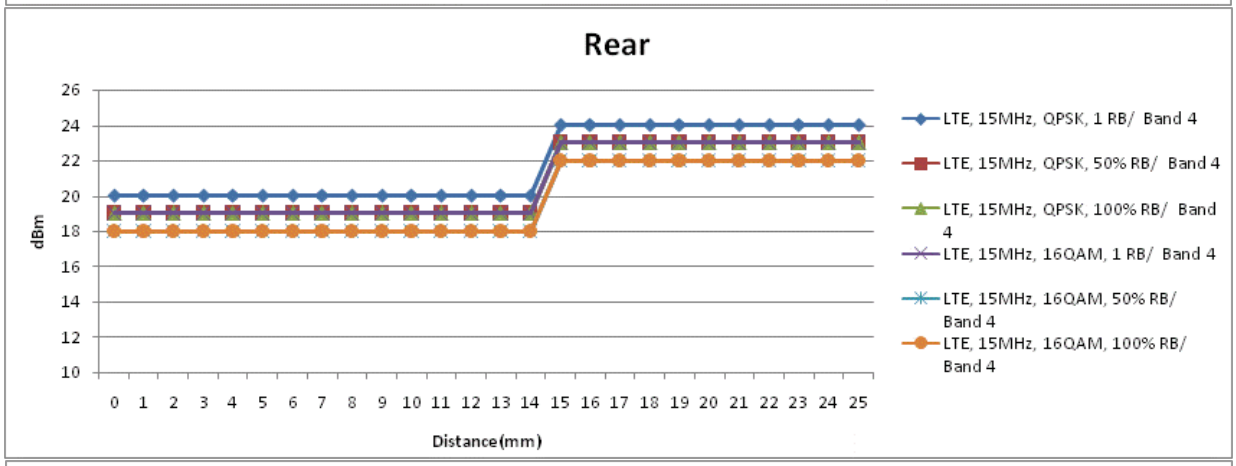

Edge 2
dBm
Distance(mm)
LTE, 20MHz, QPSK, 1 RB/ Band 2
LTE, 20MHz, QPSK, 50% RB/ Band 2
LTE, 20MHz, QPSK, 100% RB/ Band 2
LTE, 20MHz, 16QAM, 1 RB/ Band 2
LTE, 20MHz, 16QAM, 50% RB/ Band 2
LTE, 20MHz, 16QAM, 100% RB/ Band 2

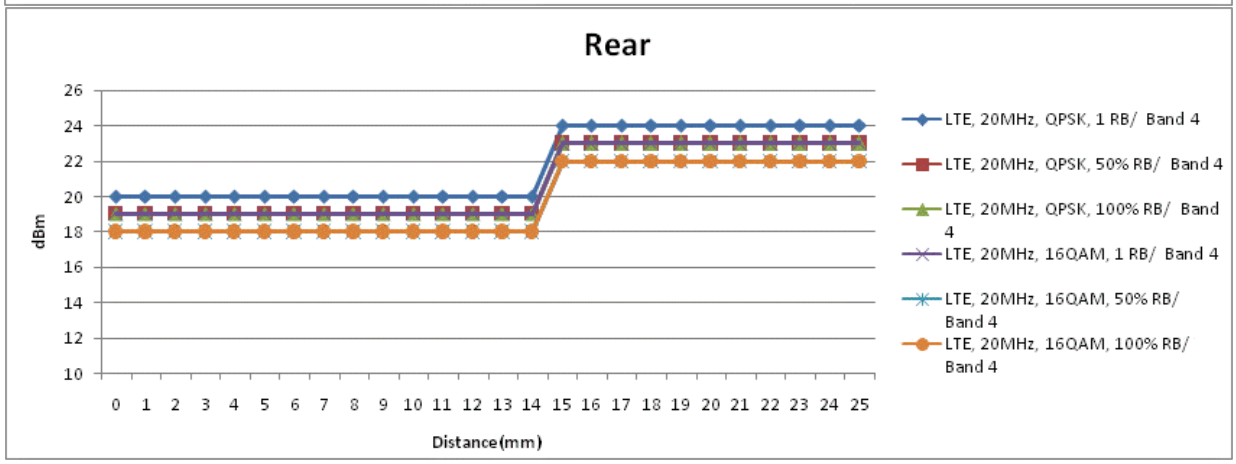

Rear
dBm
Distance(mm)
LTE, 1.4MHz, QPSK, 1 RB/ Band 4
LTE, 1.4MHz, QPSK, 50% RB/ Band 4
LTE, 1.4MHz, QPSK, 100% RB/ Band 4
LTE, 1.4MHz, 16QAM, 1 RB/ Band 4
LTE, 1.4MHz, 16QAM, 50% RB/ Band 4
LTE, 1.4MHz, 16QAM, 100% RB/ Band 4

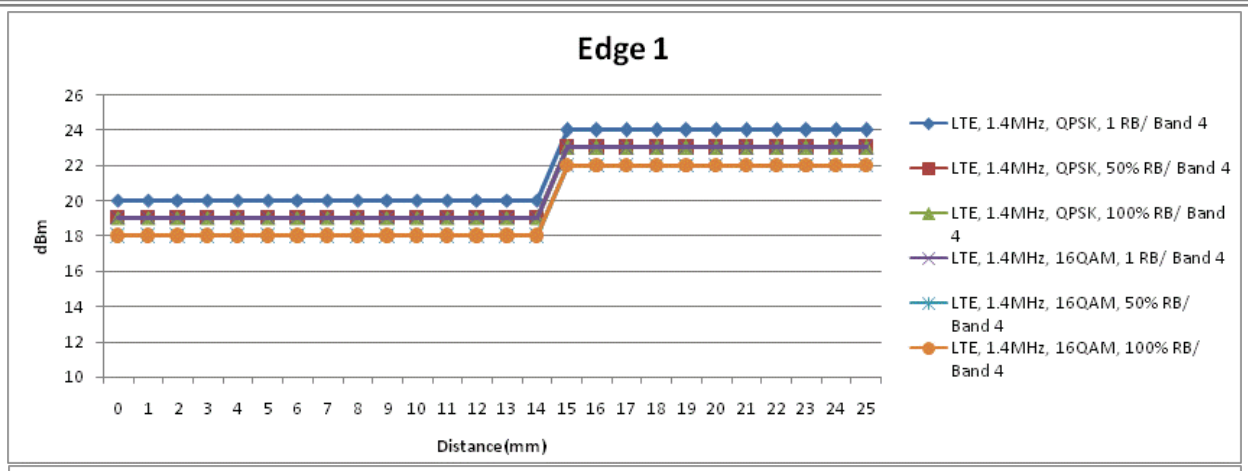

Rear
dBm
Distance(mm)
LTE, 3MHz, QPSK, 1 RB/ Band 4
LTE, 3MHz, QPSK, 50% RB/ Band 4
LTE, 3MHz, QPSK, 100% RB/ Band 4
LTE, 3MHz, 16QAM, 1 RB/ Band 4
LTE, 3MHz, 16QAM, 50% RB/ Band 4
LTE, 3MHz, 16QAM, 100% RB/ Band 4

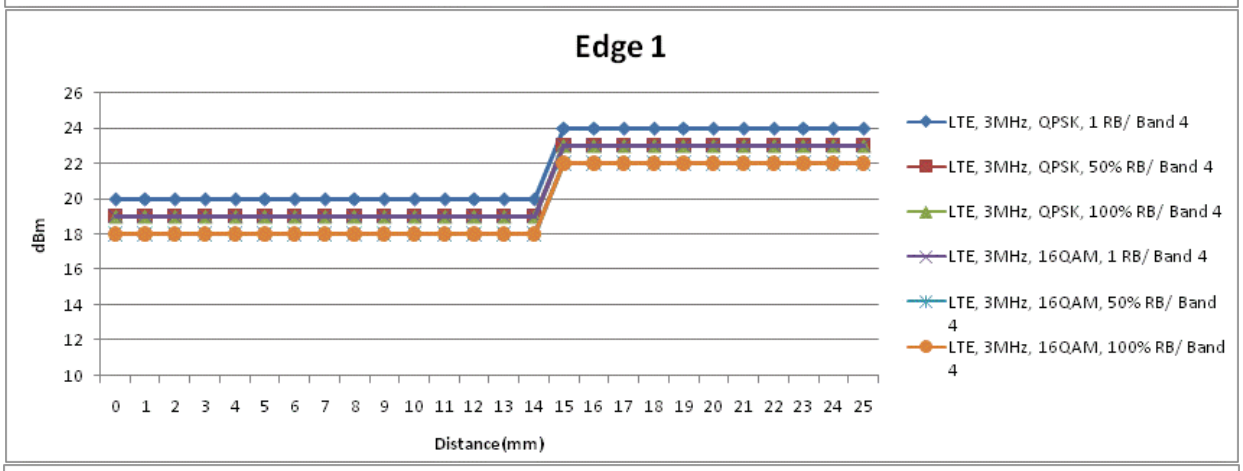

Rear
dBm
Distance(mm)
LTE, 5MHz, QPSK, 1 RB/ Band 4
LTE, 5MHz, QPSK, 50% RB/ Band 4
LTE, 5MHz, QPSK, 100% RB/ Band 4
LTE, 5MHz, 16QAM, 1 RB/ Band 4
LTE, 5MHz, 16QAM, 50% RB/ Band 4
LTE, 5MHz, 16QAM, 100% RB/ Band 4

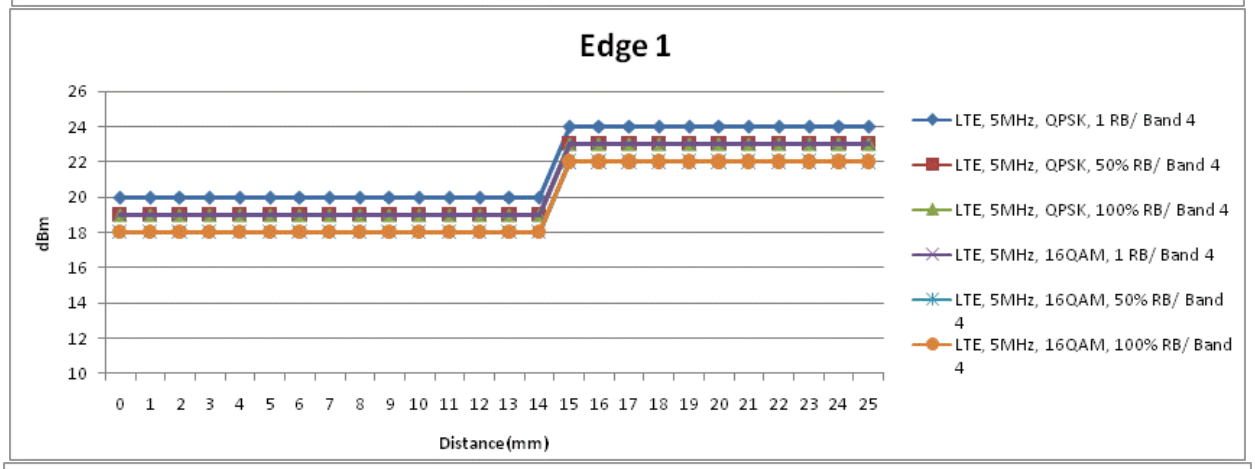

Rear
dBm
Distance(mm)
LTE, 10MHz, QPSK, 1 RB/ Band 4
LTE, 10MHz, QPSK, 50% RB/ Band 4
LTE, 10MHz, QPSK, 100% RB/ Band 4
LTE, 10MHz, 16QAM, 1 RB/ Band 4
LTE ,10MHz, 16QAM, 50% RB/ Band 4
LTE, 10MHz, 16QAM, 100% RB/ Band 4

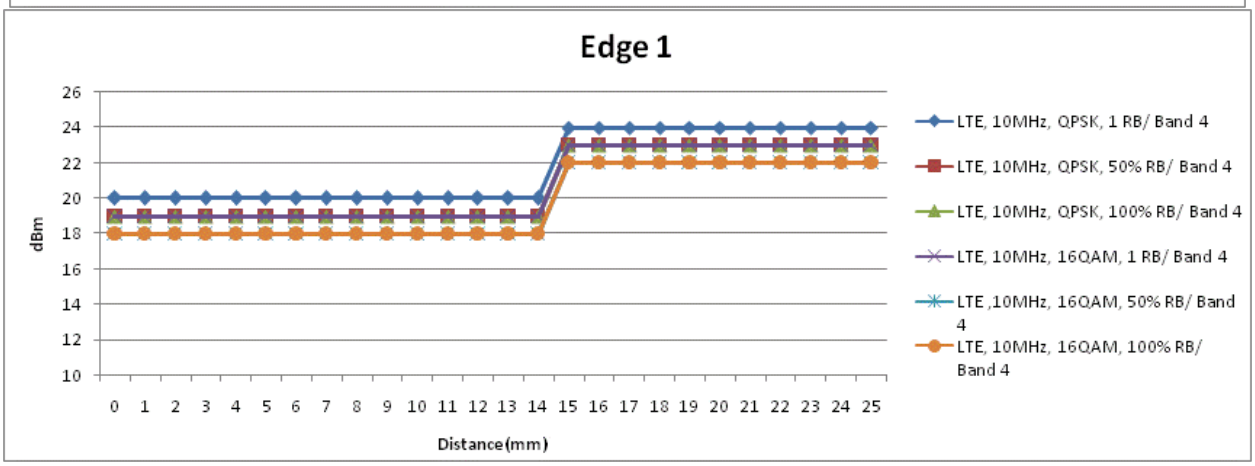

Rear
dBm
Distance(mm)
LTE, 15MHz, QPSK, 1 RB/ Band 4
LTE, 15MHz, QPSK, 50% RB/ Band 4
LTE, 15MHz, QPSK, 100% RB/ Band 4
LTE, 15MHz, 16QAM, 1 RB/ Band 4
LTE, 15MHz, 16QAM, 50% RB/ Band 4
LTE, 15MHz, 16QAM, 100% RB/ Band 4

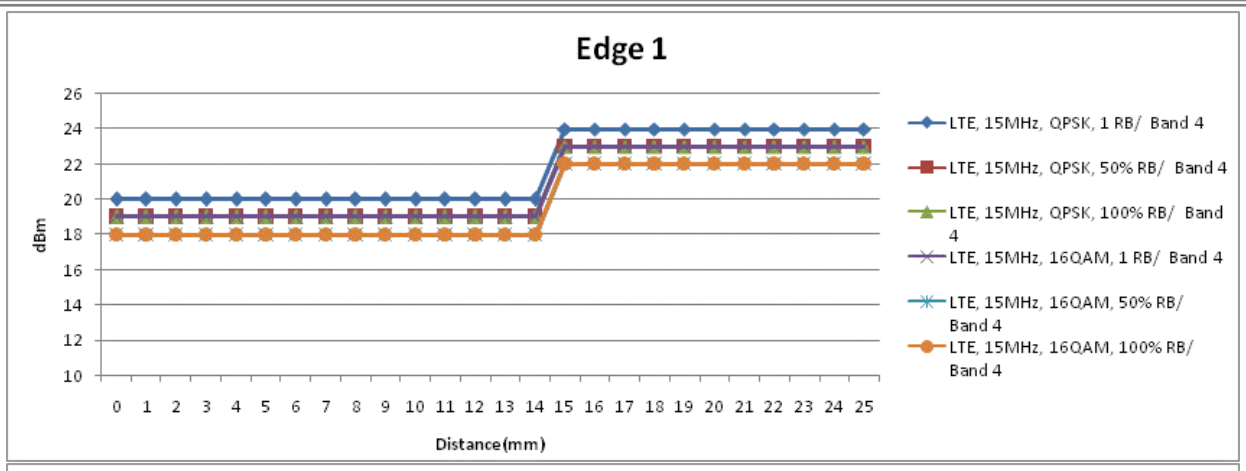

Rear
dBm
Distance(mm)
LTE, 20MHz, QPSK, 1 RB/ Band 4
LTE, 20MHz, QPSK, 50% RB/ Band 4
LTE, 20MHz, QPSK, 100% RB/ Band 4
LTE, 20MHz, 16QAM, 1 RB/ Band 4
LTE, 20MHz, 16QAM, 50% RB/ Band 4
LTE, 20MHz, 16QAM, 100% RB/ Band 4

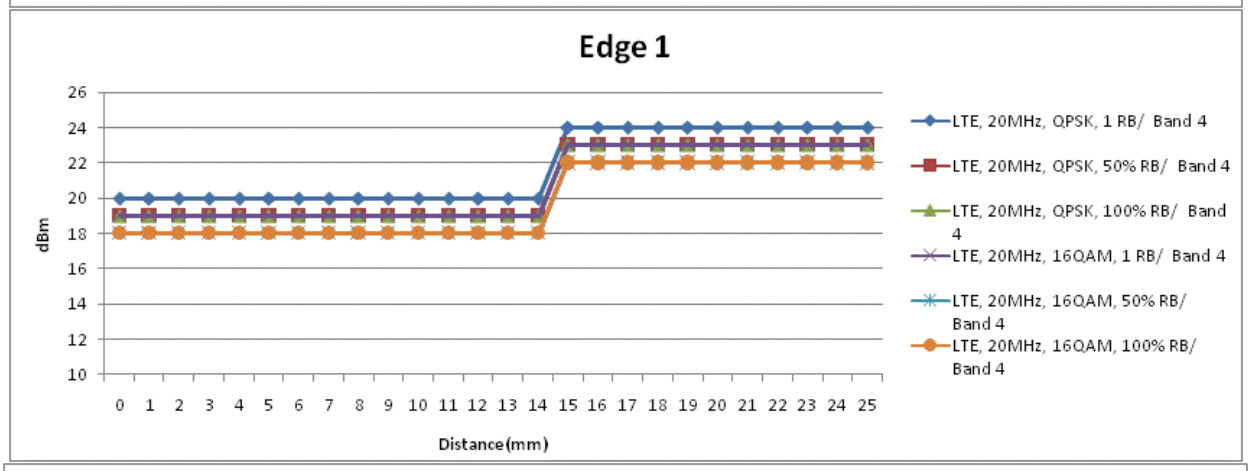

Edge 1
dBm
Distance(mm)
LTE, 1.4MHz, QPSK, 1 RB/ Band 4
LTE, 1.4MHz, QPSK, 50% RB/ Band 4
LTE, 1.4MHz, QPSK, 100% RB/ Band 4
LTE, 1.4MHz, 16QAM, 1 RB/ Band 4
LTE, 1.4MHz, 16QAM, 50% RB/ Band 4
LTE, 1.4MHz, 16QAM, 100% RB/ Band 4

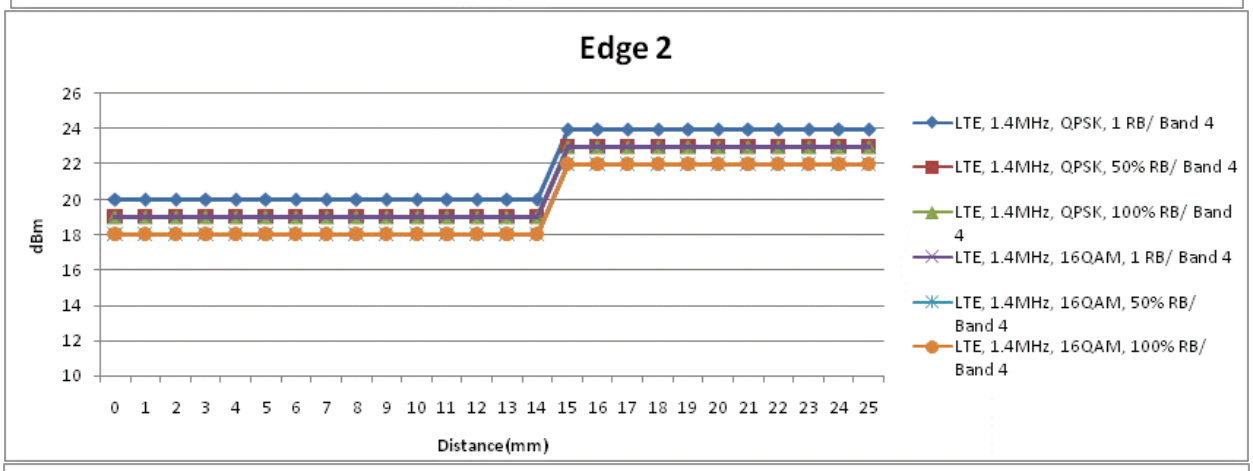

Edge 1
dBm
Distance(mm)
LTE, 3MHz, QPSK, 1 RB/ Band 4
LTE, 3MHz, QPSK, 50% RB/ Band 4
LTE, 3MHz, QPSK, 100% RB/ Band 4
LTE, 3MHz, 16QAM, 1 RB/ Band 4
LTE, 3MHz, 16QAM, 50% RB/ Band 4
LTE, 3MHz, 16QAM, 100% RB/ Band 4

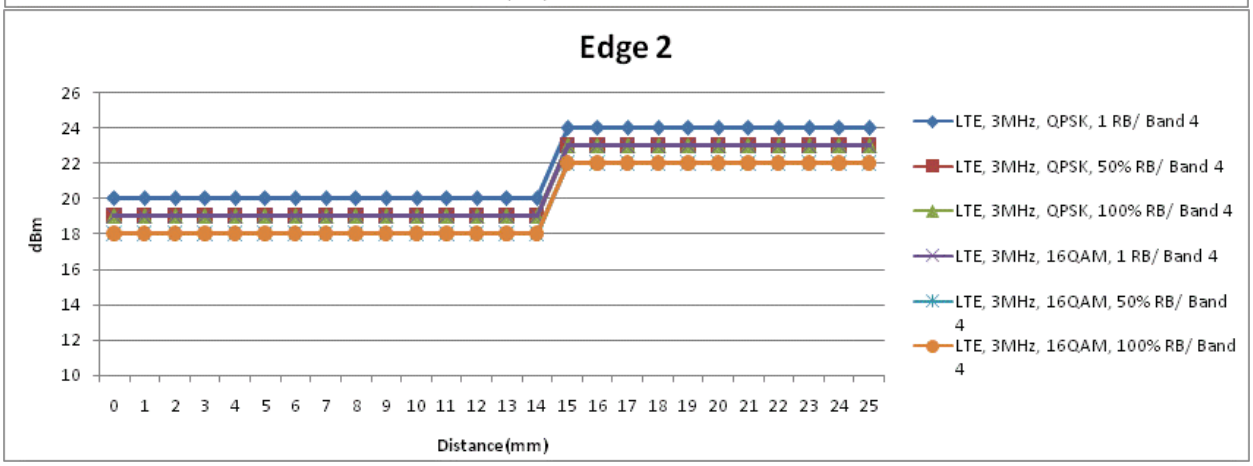

Edge 1
dBm
Distance(mm)
LTE, 5MHz, QPSK, 1 RB/ Band 4
LTE, 5MHz, QPSK, 50% RB/ Band 4
LTE, 5MHz, QPSK, 100% RB/ Band 4
LTE, 5MHz, 16QAM, 1 RB/ Band 4
LTE, 5MHz, 16QAM, 50% RB/ Band 4
LTE, 5MHz, 16QAM, 100% RB/ Band 4

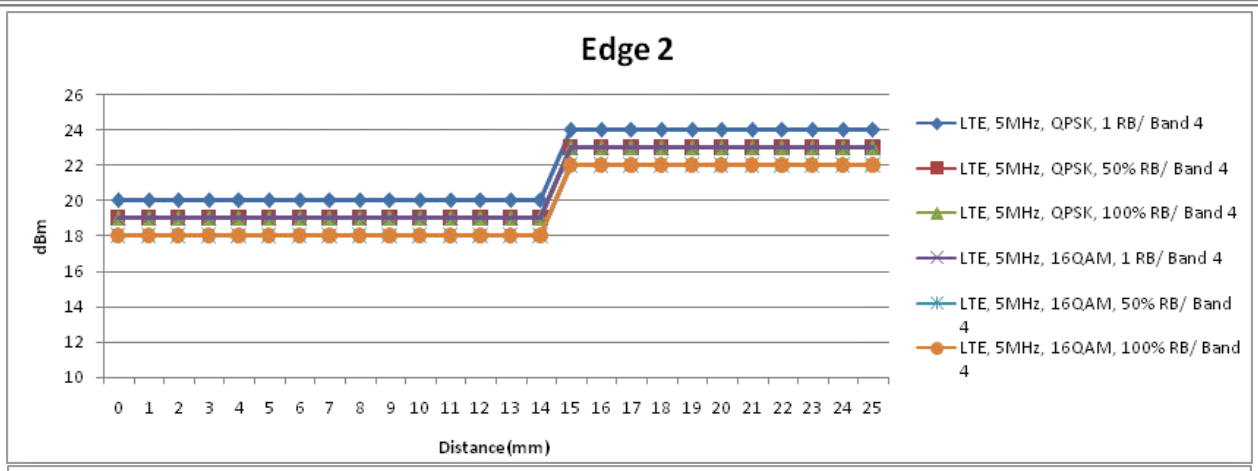

Edge 1
dBm
Distance(mm)
LTE, 10MHz, QPSK, 1 RB/ Band 4
LTE, 10MHz, QPSK, 50% RB/ Band 4
LTE, 10MHz, QPSK, 100% RB/ Band 4
LTE, 10MHz, 16QAM, 1 RB/ Band 4
LTE ,10MHz, 16QAM, 50% RB/ Band 4
LTE, 10MHz, 16QAM, 100% RB/ Band 4

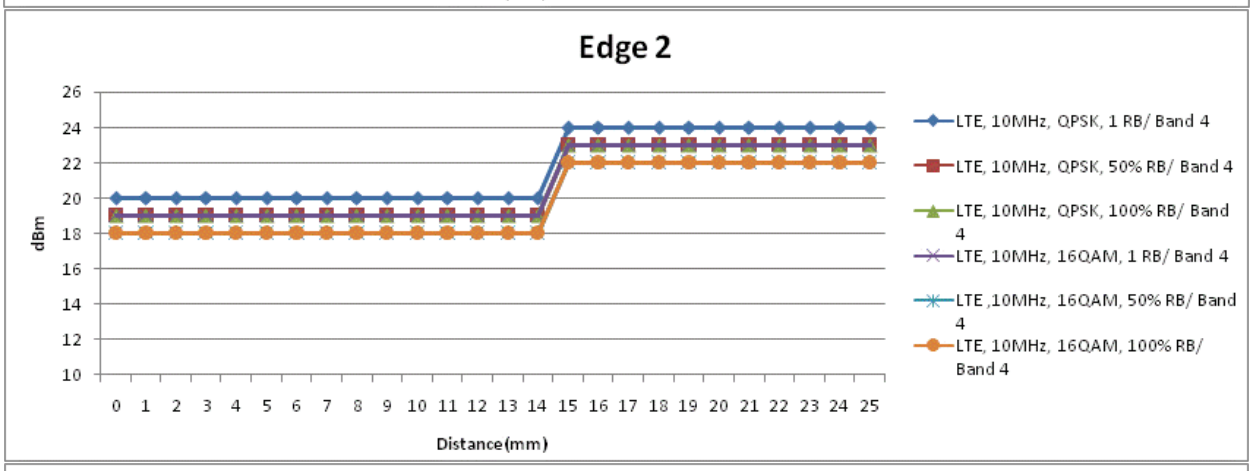

Edge 1
dBm
Distance(mm)
LTE, 15MHz, QPSK, 1 RB/ Band 4
LTE, 15MHz, QPSK, 50% RB/ Band 4
LTE, 15MHz, QPSK, 100% RB/ Band 4
LTE, 15MHz, 16QAM, 1 RB/ Band 4
LTE, 15MHz, 16QAM, 50% RB/ Band 4
LTE, 15MHz, 16QAM, 100% RB/ Band 4

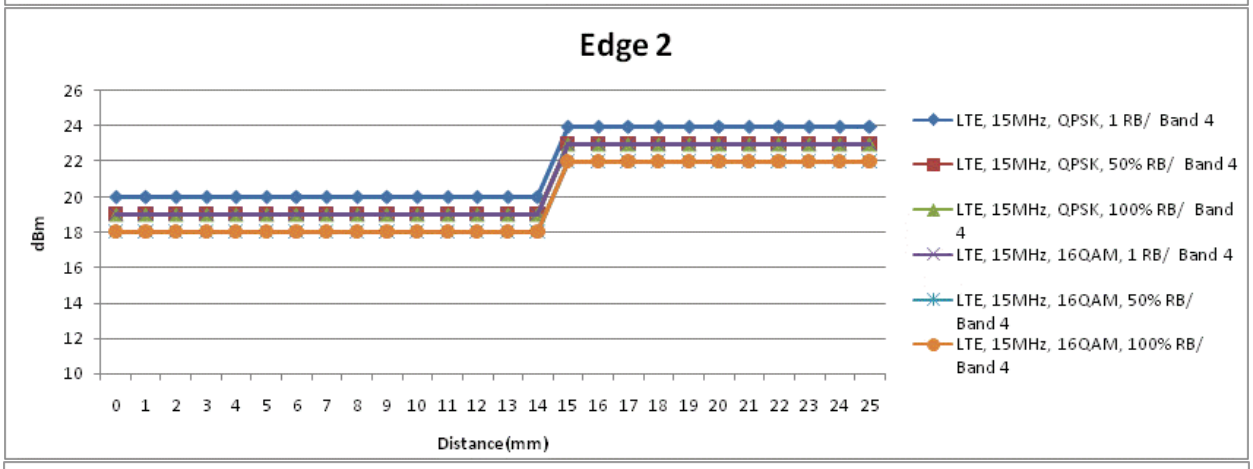

Edge 1
dBm
Distance(mm)
LTE, 20MHz, QPSK, 1 RB/ Band 4
LTE, 20MHz, QPSK, 50% RB/ Band 4
LTE, 20MHz, QPSK, 100% RB/ Band 4
LTE, 20MHz, 16QAM, 1 RB/ Band 4
LTE, 20MHz, 16QAM, 50% RB/ Band 4
LTE, 20MHz, 16QAM, 100% RB/ Band 4

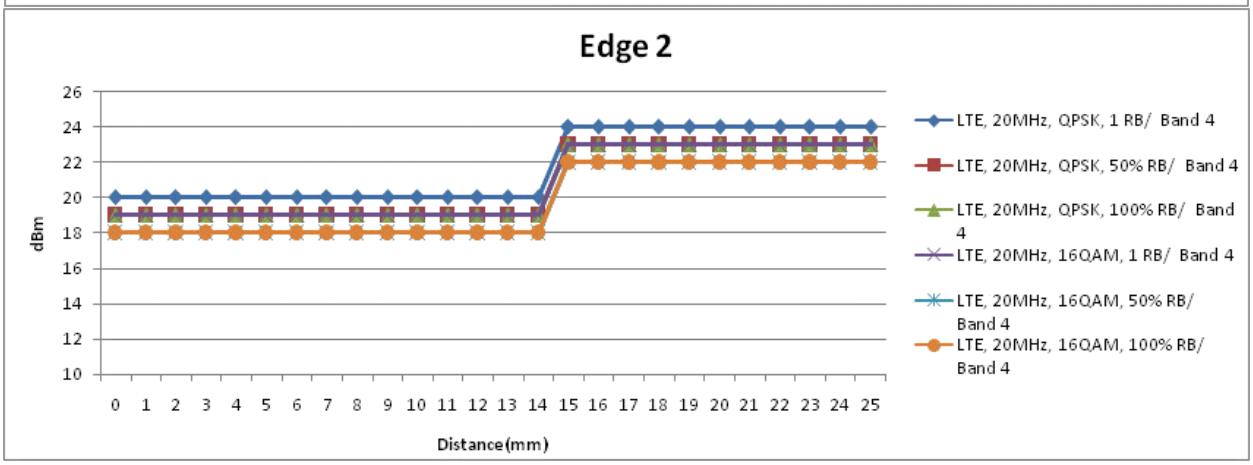

Edge 2
dBm
Distance(mm)
LTE, 1.4MHz, QPSK, 1 RB/ Band 4
LTE, 1.4MHz, QPSK, 50% RB/ Band 4
LTE, 1.4MHz, QPSK, 100% RB/ Band 4
LTE, 1.4MHz, 16QAM, 1 RB/ Band 4
LTE, 1.4MHz, 16QAM, 50% RB/ Band 4
LTE, 1.4MHz, 16QAM, 100% RB/ Band 4

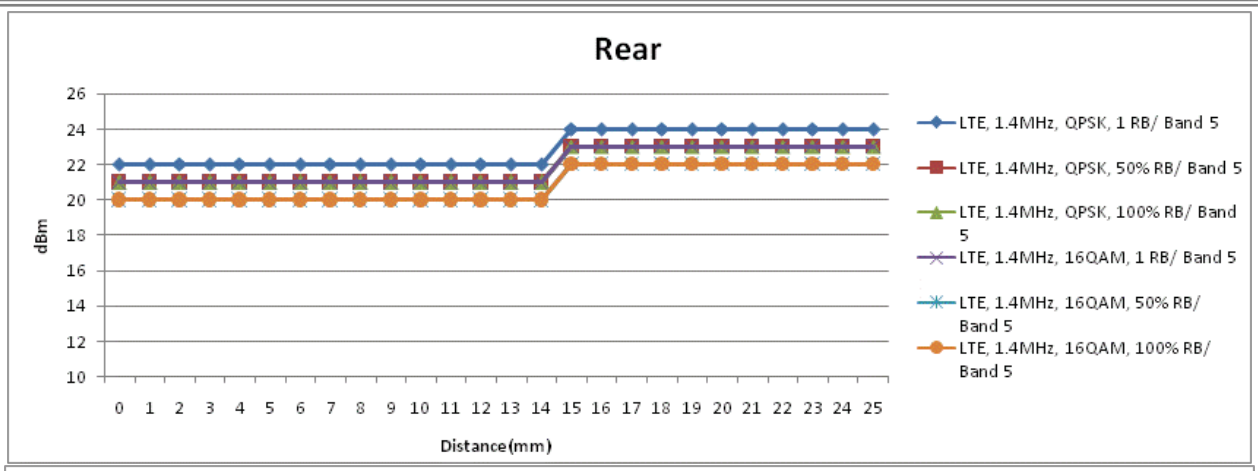

Edge 2
dBm
Distance(mm)
LTE, 3MHz, QPSK, 1 RB/ Band 4
LTE, 3MHz, QPSK, 50% RB/ Band 4
LTE, 3MHz, QPSK, 100% RB/ Band 4
LTE, 3MHz, 16QAM, 1 RB/ Band 4
LTE, 3MHz, 16QAM, 50% RB/ Band 4
LTE, 3MHz, 16QAM, 100% RB/ Band 4

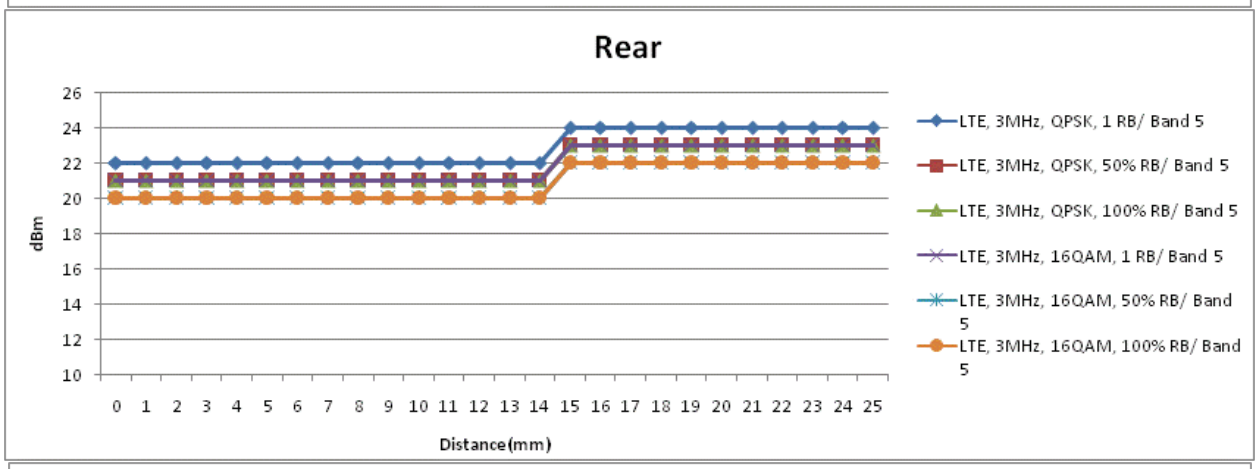

Edge 2
dBm
Distance(mm)
LTE, 5MHz, QPSK, 1 RB/ Band 4
LTE, 5MHz, QPSK, 50% RB/ Band 4
LTE, 5MHz, QPSK, 100% RB/ Band 4
LTE, 5MHz, 16QAM, 1 RB/ Band 4
LTE, 5MHz, 16QAM, 50% RB/ Band 4
LTE, 5MHz, 16QAM, 100% RB/ Band 4

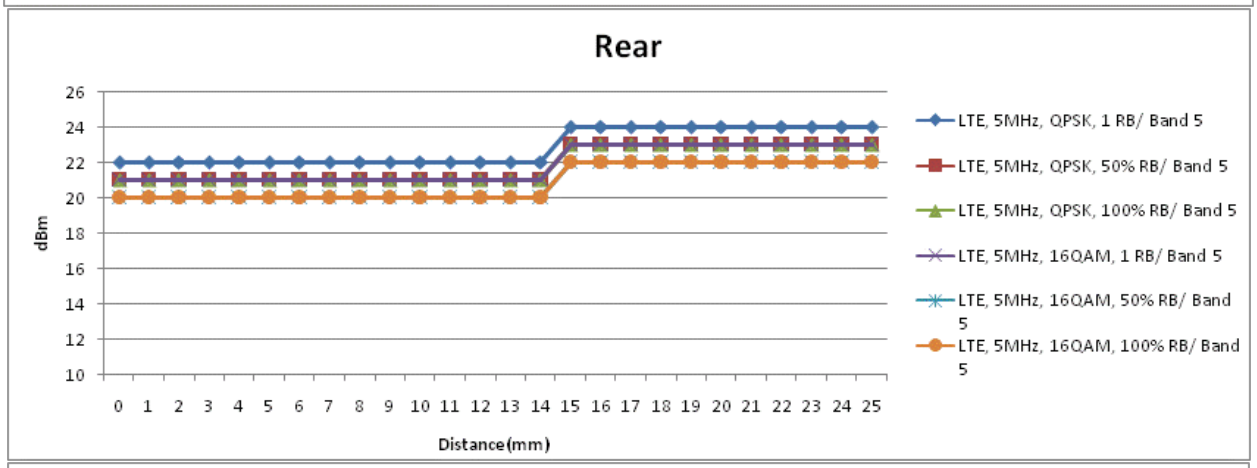

Edge 2
dBm
Distance(mm)
LTE, 10MHz, QPSK, 1 RB/ Band 4
LTE, 10MHz, QPSK, 50% RB/ Band 4
LTE, 10MHz, QPSK, 100% RB/ Band 4
LTE, 10MHz, 16QAM, 1 RB/ Band 4
LTE ,10MHz, 16QAM, 50% RB/ Band 4
LTE, 10MHz, 16QAM, 100% RB/ Band 4

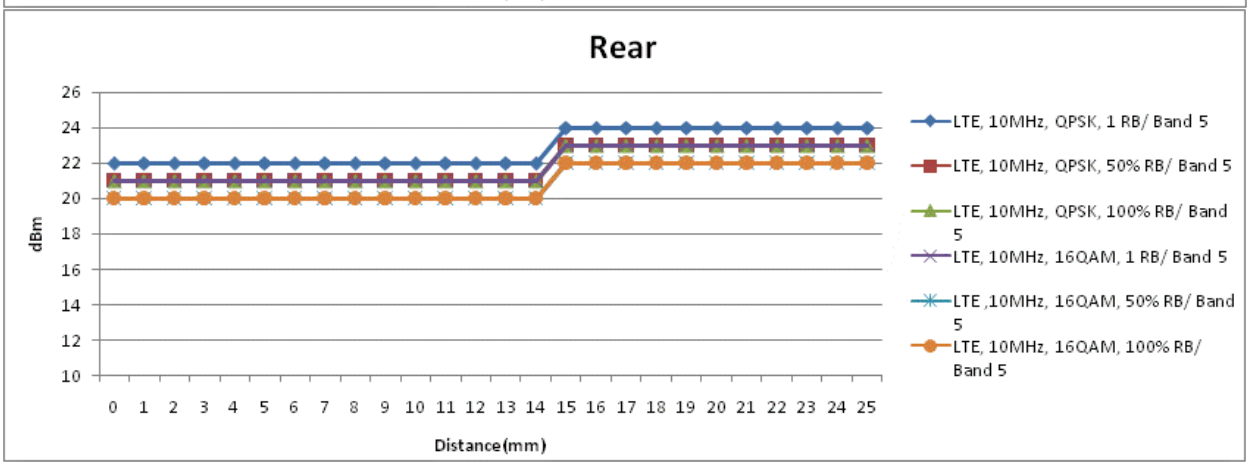

Edge 2
dBm
Distance(mm)
LTE, 15MHz, QPSK, 1 RB/ Band 4
LTE, 15MHz, QPSK, 50% RB/ Band 4
LTE, 15MHz, QPSK, 100% RB/ Band 4
LTE, 15MHz, 16QAM, 1 RB/ Band 4
LTE, 15MHz, 16QAM, 50% RB/ Band 4
LTE, 15MHz, 16QAM, 100% RB/ Band 4

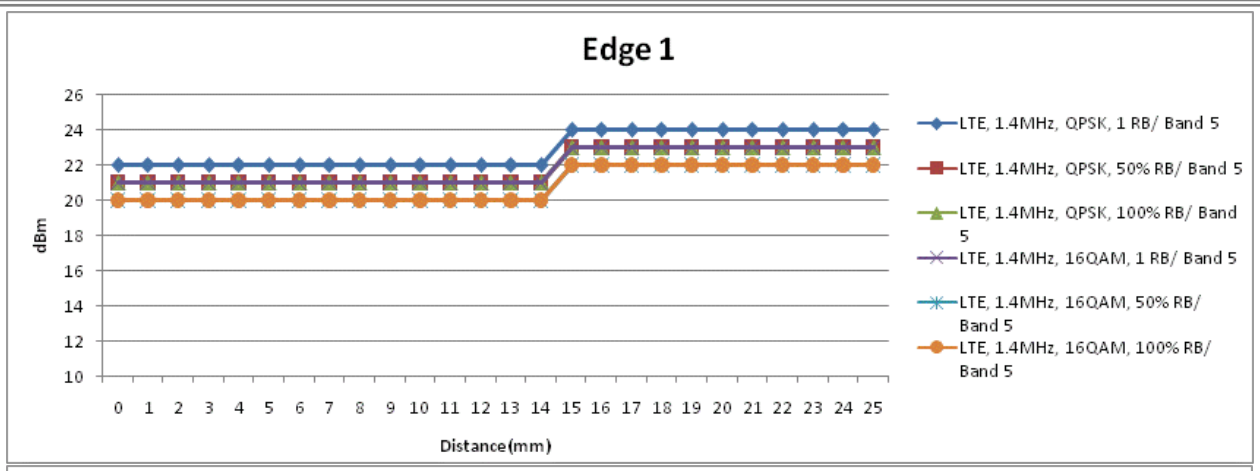

Edge 2
dBm
Distance(mm)
LTE, 20MHz, QPSK, 1 RB/ Band 4
LTE, 20MHz, QPSK, 50% RB/ Band 4
LTE, 20MHz, QPSK, 100% RB/ Band 4
LTE, 20MHz, 16QAM, 1 RB/ Band 4
LTE, 20MHz, 16QAM, 50% RB/ Band 4
LTE, 20MHz, 16QAM, 100% RB/ Band 4

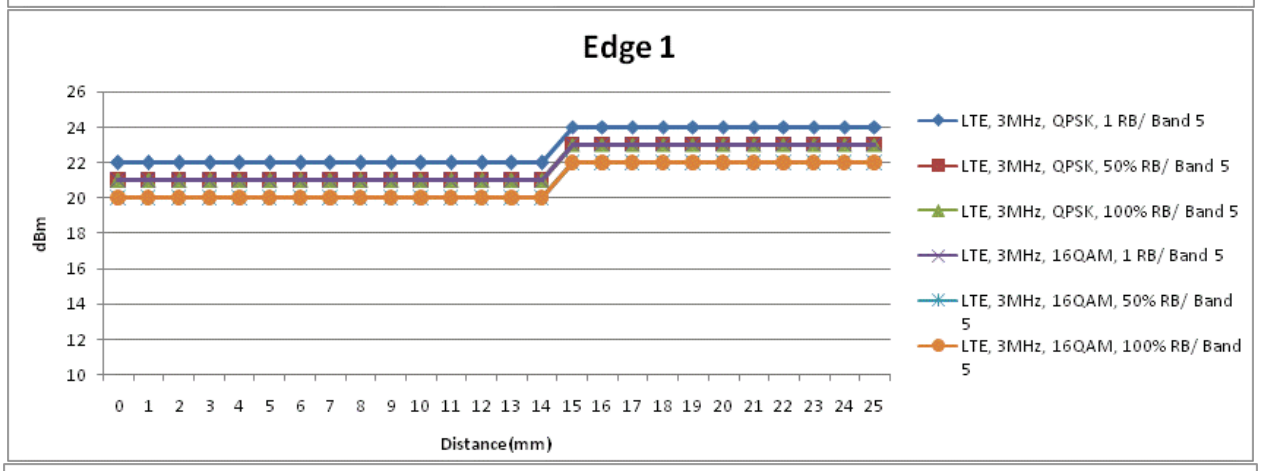

Rear
dBm
Distance(mm)
LTE, 1.4MHz, QPSK, 1 RB/ Band 5
LTE, 1.4MHz, QPSK, 50% RB/ Band 5
LTE, 1.4MHz, QPSK, 100% RB/ Band 5
LTE, 1.4MHz, 16QAM, 1 RB/ Band 5
LTE, 1.4MHz, 16QAM, 50% RB/ Band 5
LTE, 1.4MHz, 16QAM, 100% RB/ Band 5

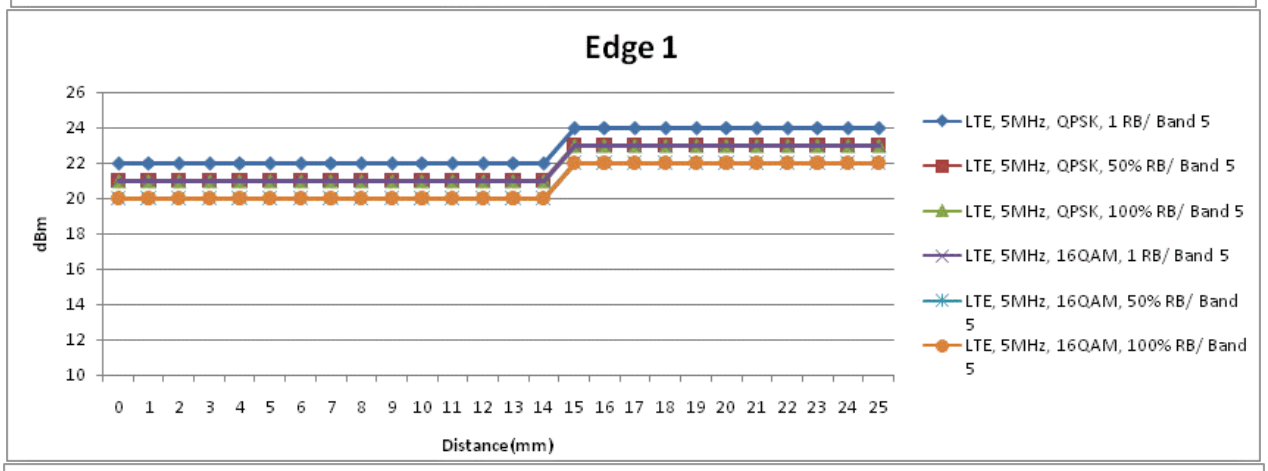

Rear
dBm
Distance(mm)
LTE, 3MHz, QPSK, 1 RB/ Band 5
LTE, 3MHz, QPSK, 50% RB/ Band 5
LTE, 3MHz, QPSK, 100% RB/ Band 5
LTE, 3MHz, 16QAM, 1 RB/ Band 5
LTE, 3MHz, 16QAM, 50% RB/ Band 5
LTE, 3MHz, 16QAM, 100% RB/ Band 5

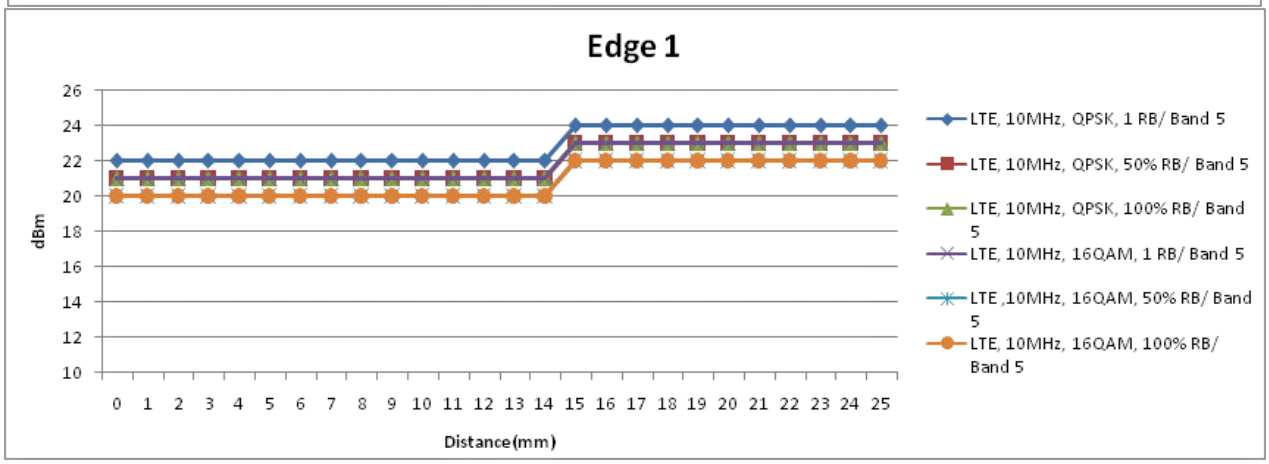

Rear
dBm
Distance(mm)
LTE, 5MHz, QPSK, 1 RB/ Band 5
LTE, 5MHz, QPSK, 50% RB/ Band 5
LTE, 5MHz, QPSK, 100% RB/ Band 5
LTE, 5MHz, 16QAM, 1 RB/ Band 5
LTE, 5MHz, 16QAM, 50% RB/ Band 5
LTE, 5MHz, 16QAM, 100% RB/ Band 5

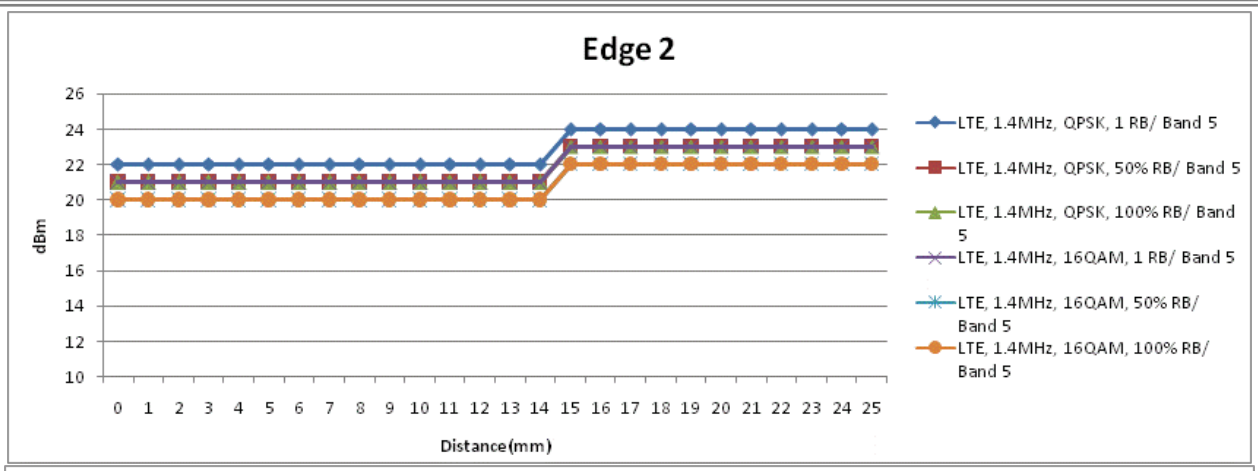

Rear
dBm
Distance(mm)
LTE, 10MHz, QPSK, 1 RB/ Band 5
LTE, 10MHz, QPSK, 50% RB/ Band 5
LTE, 10MHz, QPSK, 100% RB/ Band 5
LTE, 10MHz, 16QAM, 1 RB/ Band 5
LTE ,10MHz, 16QAM, 50% RB/ Band 5
LTE, 10MHz, 16QAM, 100% RB/ Band 5

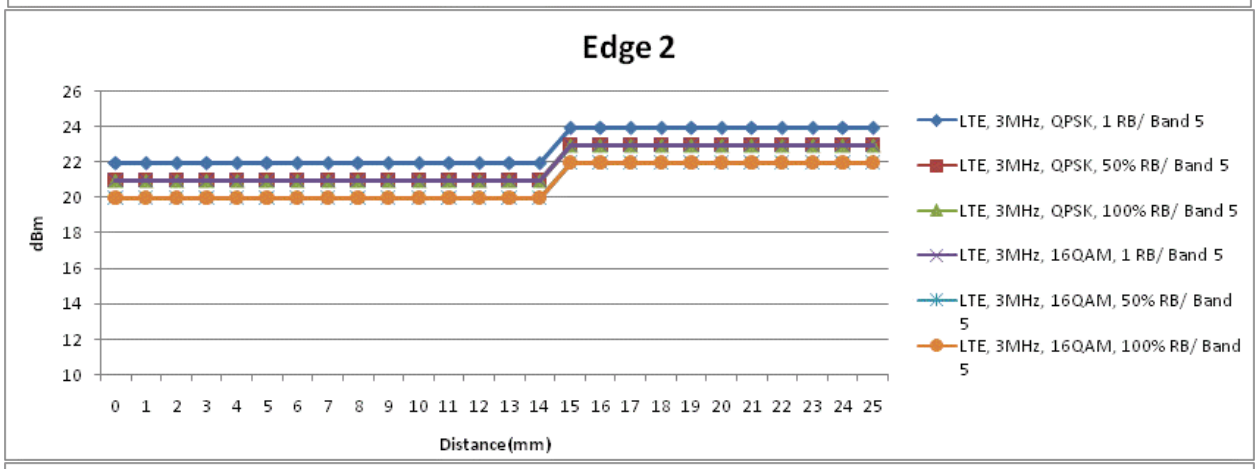

Edge 1
dBm
Distance(mm)
LTE, 1.4MHz, QPSK, 1 RB/ Band 5
LTE, 1.4MHz, QPSK, 50% RB/ Band 5
LTE, 1.4MHz, QPSK, 100% RB/ Band 5
LTE, 1.4MHz, 16QAM, 1 RB/ Band 5
LTE, 1.4MHz, 16QAM, 50% RB/ Band 5
LTE, 1.4MHz, 16QAM, 100% RB/ Band 5

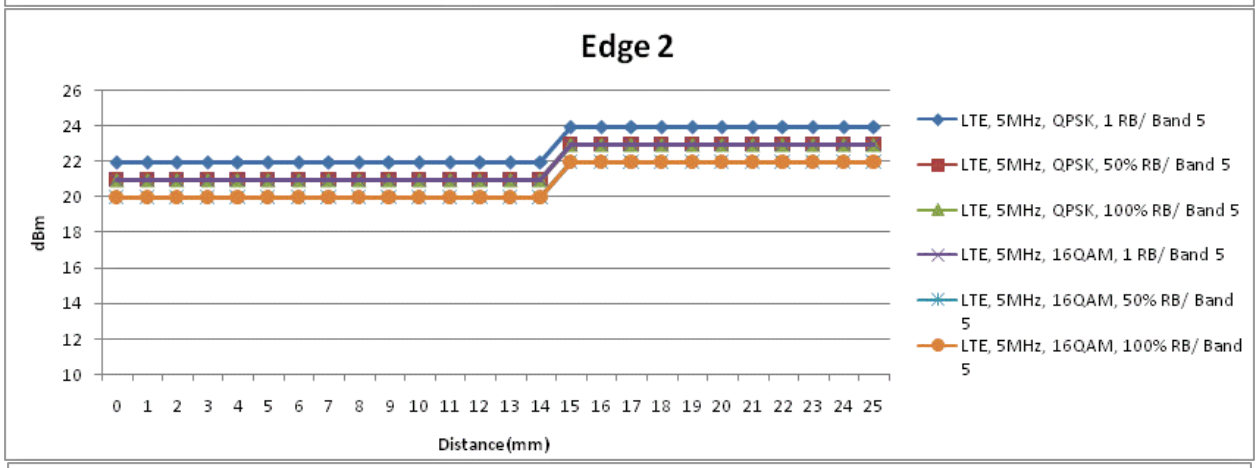

Edge 1
dBm
Distance(mm)
LTE, 3MHz, QPSK, 1 RB/ Band 5
LTE, 3MHz, QPSK, 50% RB/ Band 5
LTE, 3MHz, QPSK, 100% RB/ Band 5
LTE, 3MHz, 16QAM, 1 RB/ Band 5
LTE, 3MHz, 16QAM, 50% RB/ Band 5
LTE, 3MHz, 16QAM, 100% RB/ Band 5

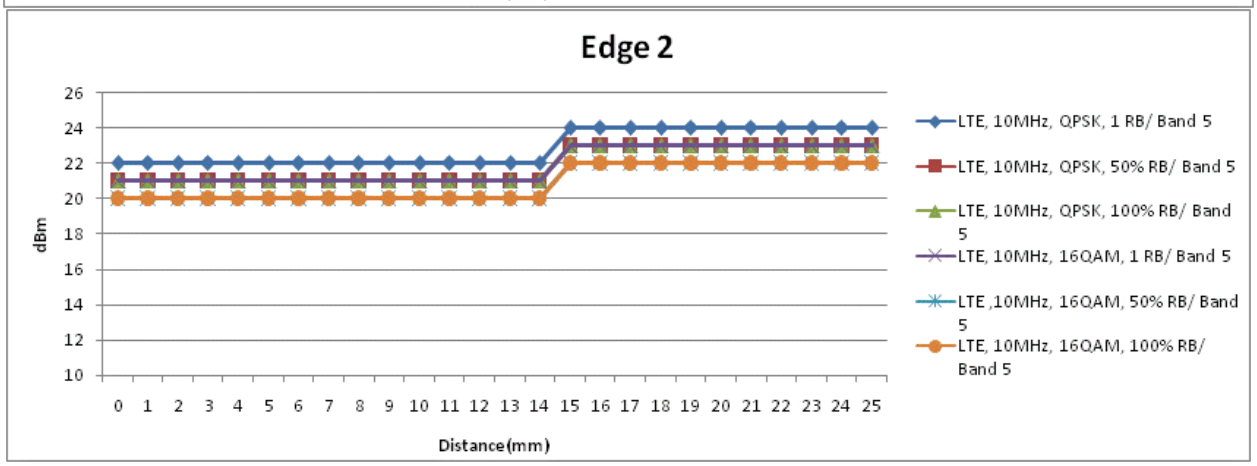

Edge 1
dBm
Distance(mm)
LTE, 5MHz, QPSK, 1 RB/ Band 5
LTE, 5MHz, QPSK, 50% RB/ Band 5
LTE, 5MHz, QPSK, 100% RB/ Band 5
LTE, 5MHz, 16QAM, 1 RB/ Band 5
LTE, 5MHz, 16QAM, 50% RB/ Band 5
LTE, 5MHz, 16QAM, 100% RB/ Band 5

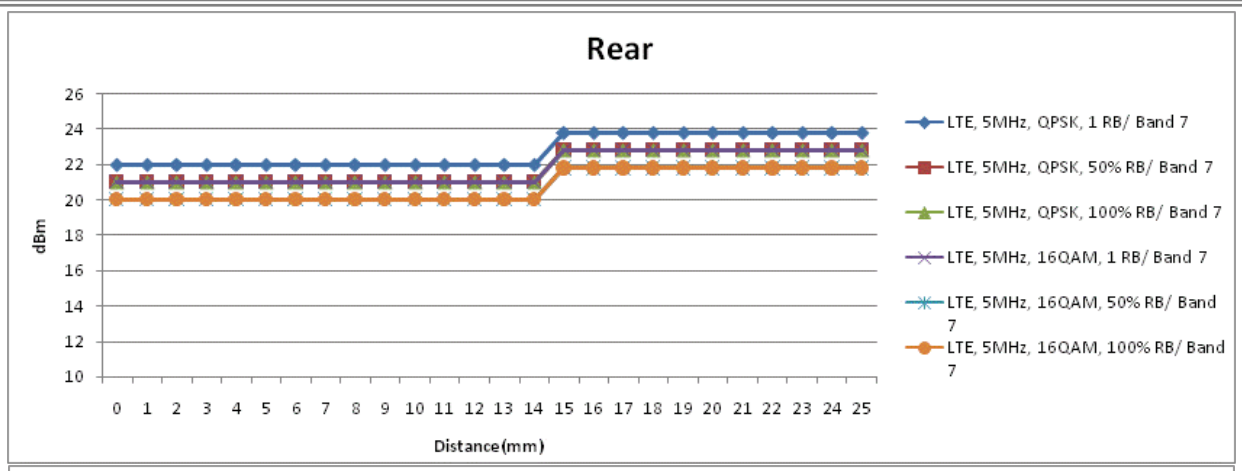

Edge 1
dBm
Distance(mm)
LTE, 10MHz, QPSK, 1 RB/ Band 5
LTE, 10MHz, QPSK, 50% RB/ Band 5
LTE, 10MHz, QPSK, 100% RB/ Band 5
LTE, 10MHz, 16QAM, 1 RB/ Band 5
LTE ,10MHz, 16QAM, 50% RB/ Band 5
LTE, 10MHz, 16QAM, 100% RB/ Band 5

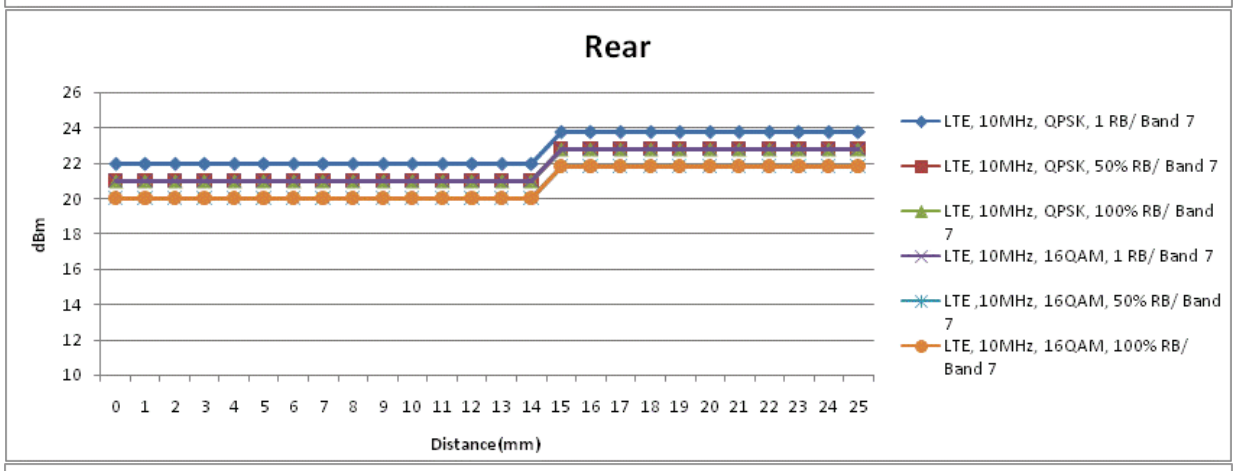

Edge 2
dBm
Distance(mm)
LTE, 1.4MHz, QPSK, 1 RB/ Band 5
LTE, 1.4MHz, QPSK, 50% RB/ Band 5
LTE, 1.4MHz, QPSK, 100% RB/ Band 5
LTE, 1.4MHz, 16QAM, 1 RB/ Band 5
LTE, 1.4MHz, 16QAM, 50% RB/ Band 5
LTE, 1.4MHz, 16QAM, 100% RB/ Band 5

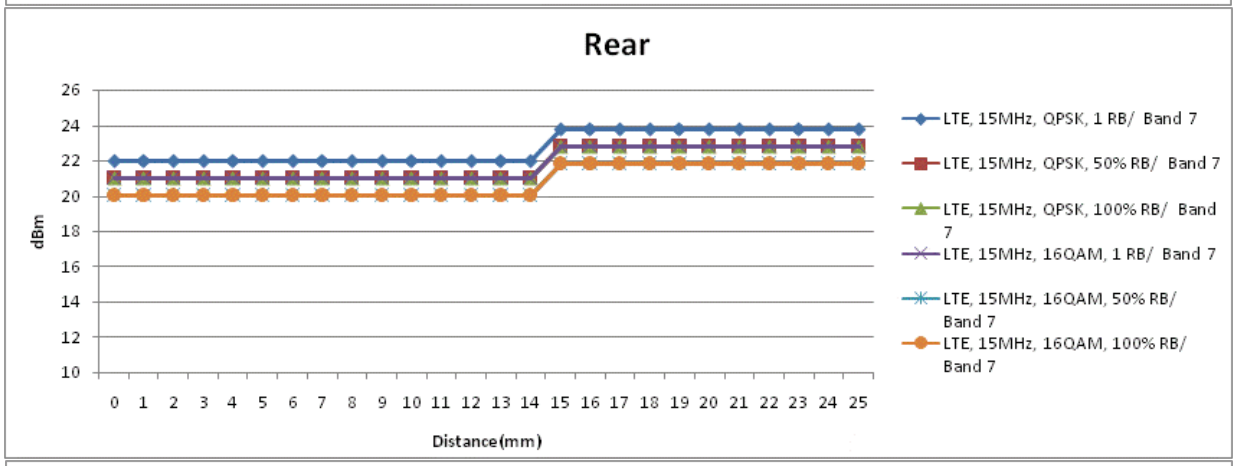

Edge 2
dBm
Distance(mm)
LTE, 3MHz, QPSK, 1 RB/ Band 5
LTE, 3MHz, QPSK, 50% RB/ Band 5
LTE, 3MHz, QPSK, 100% RB/ Band 5
LTE, 3MHz, 16QAM, 1 RB/ Band 5
LTE, 3MHz, 16QAM, 50% RB/ Band 5
LTE, 3MHz, 16QAM, 100% RB/ Band 5

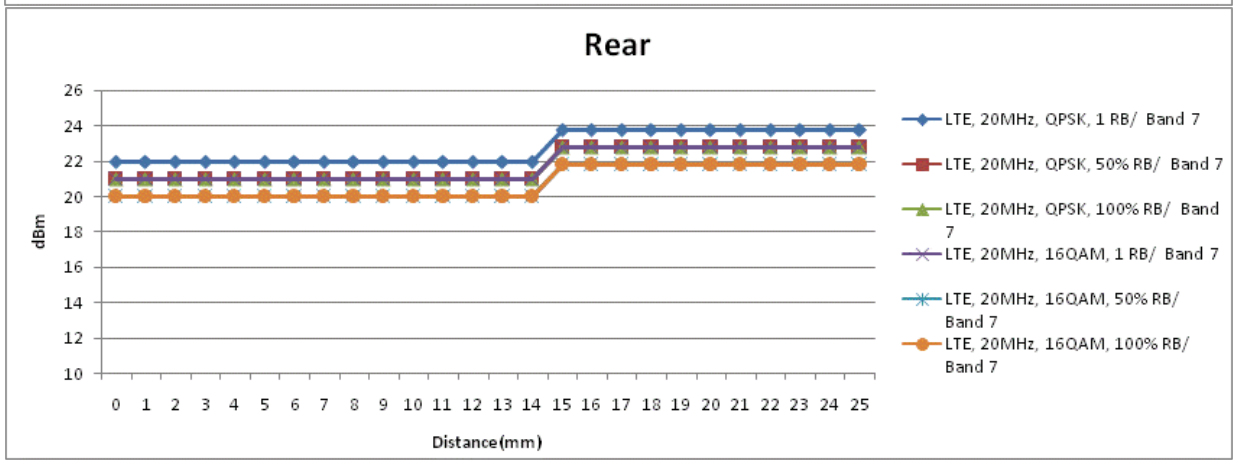

Edge 2
dBm
Distance(mm)
LTE, 5MHz, QPSK, 1 RB/ Band 5
LTE, 5MHz, QPSK, 50% RB/ Band 5
LTE, 5MHz, QPSK, 100% RB/ Band 5
LTE, 5MHz, 16QAM, 1 RB/ Band 5
LTE, 5MHz, 16QAM, 50% RB/ Band 5
LTE, 5MHz, 16QAM, 100% RB/ Band 5

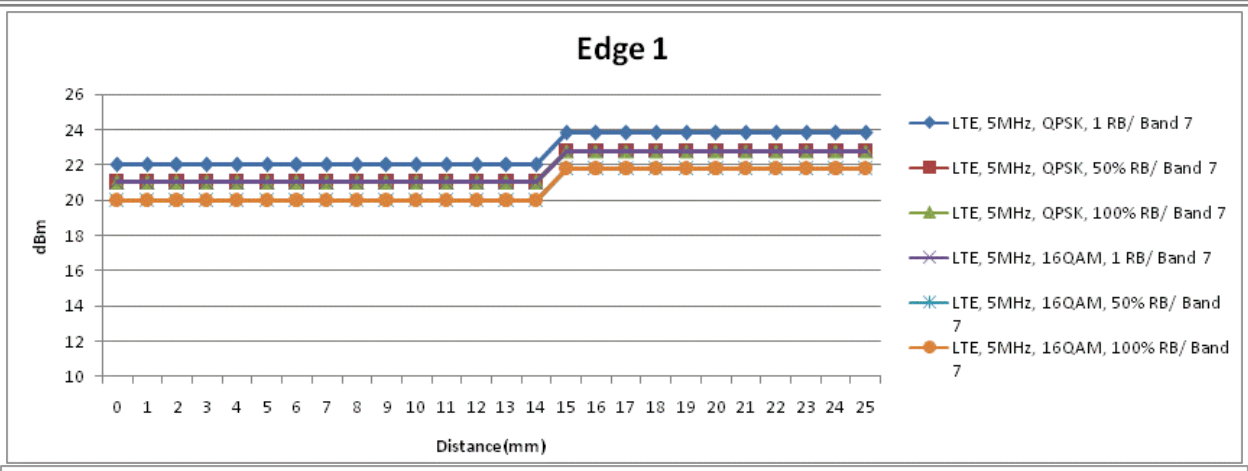

Edge 2
dBm
Distance(mm)
LTE, 10MHz, QPSK, 1 RB/ Band 5
LTE, 10MHz, QPSK, 50% RB/ Band 5
LTE, 10MHz, QPSK, 100% RB/ Band 5
LTE, 10MHz, 16QAM, 1 RB/ Band 5
LTE ,10MHz, 16QAM, 50% RB/ Band 5
LTE, 10MHz, 16QAM, 100% RB/ Band 5

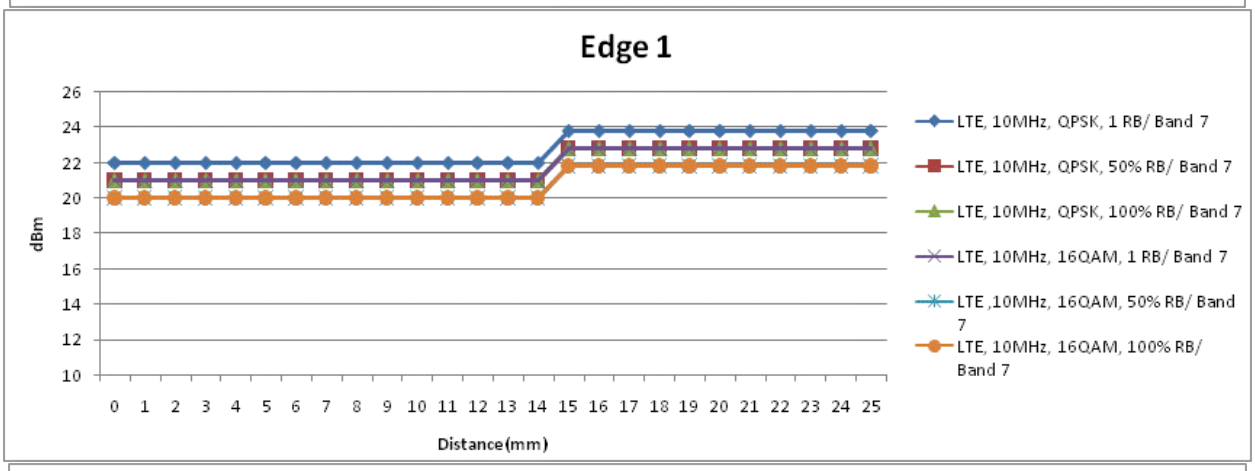

Rear
dBm
Distance(mm)
LTE, 5MHz, QPSK, 1 RB/ Band 7
LTE, 5MHz, QPSK, 50% RB/ Band 7
LTE, 5MHz, QPSK, 100% RB/ Band 7
LTE, 5MHz, 16QAM, 1 RB/ Band 7
LTE, 5MHz, 16QAM, 50% RB/ Band 7
LTE, 5MHz, 16QAM, 100% RB/ Band 7

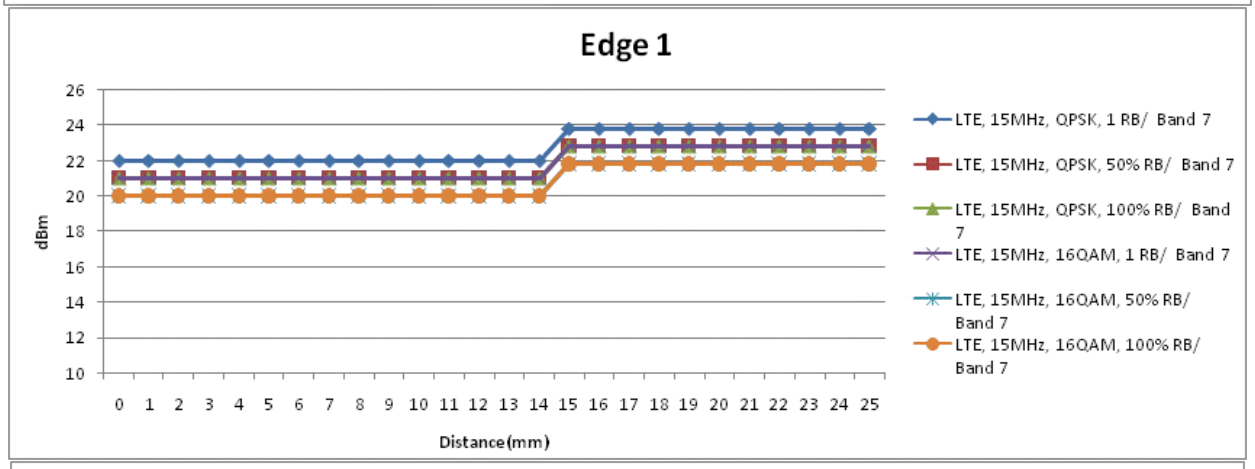

Rear
dBm
Distance(mm)
LTE, 10MHz, QPSK, 1 RB/ Band 7
LTE, 10MHz, QPSK, 50% RB/ Band 7
LTE, 10MHz, QPSK, 100% RB/ Band 7
LTE, 10MHz, 16QAM, 1 RB/ Band 7
LTE ,10MHz, 16QAM, 50% RB/ Band 7
LTE, 10MHz, 16QAM, 100% RB/ Band 7

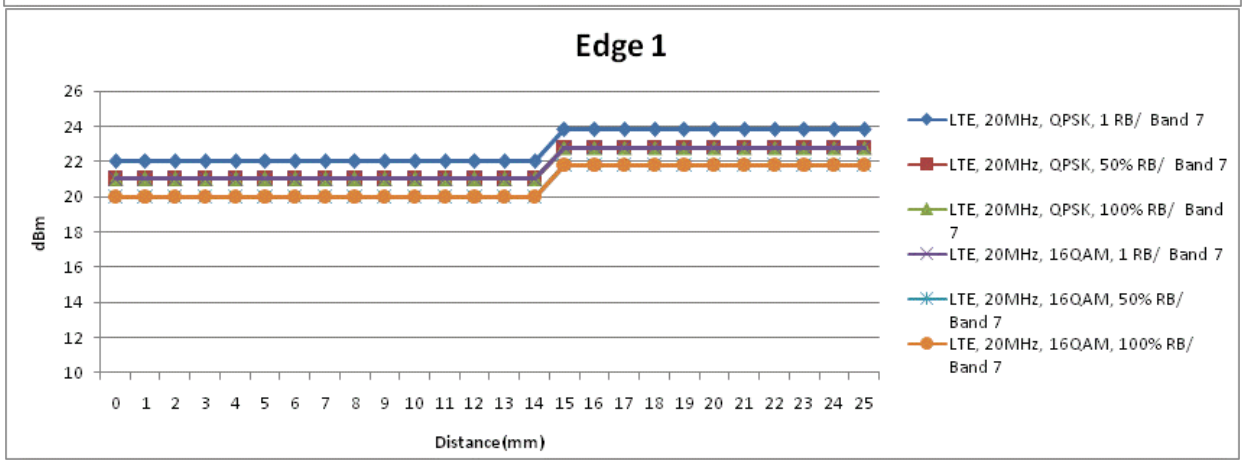

Rear
dBm
Distance(mm)
LTE, 15MHz, QPSK, 1 RB/ Band 7
LTE, 15MHz, QPSK, 50% RB/ Band 7
LTE, 15MHz, QPSK, 100% RB/ Band 7
LTE, 15MHz, 16QAM, 1 RB/ Band 7
LTE, 15MHz, 16QAM, 50% RB/ Band 7
LTE, 15MHz, 16QAM, 100% RB/ Band 7

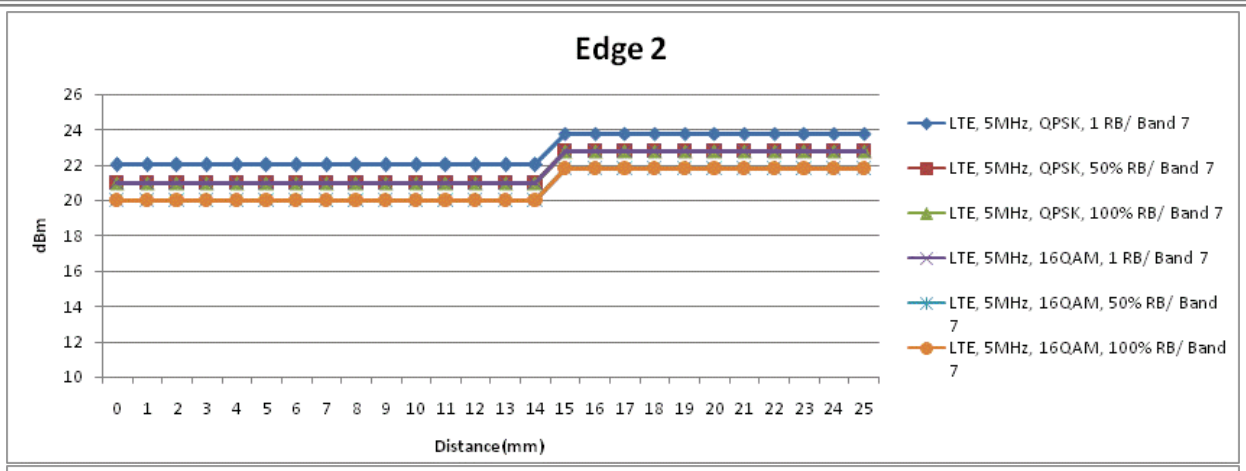

Rear
dBm
Distance(mm)
LTE, 20MHz, QPSK, 1 RB/ Band 7
LTE, 20MHz, QPSK, 50% RB/ Band 7
LTE, 20MHz, QPSK, 100% RB/ Band 7
LTE, 20MHz, 16QAM, 1 RB/ Band 7
LTE, 20MHz, 16QAM, 50% RB/ Band 7
LTE, 20MHz, 16QAM, 100% RB/ Band 7

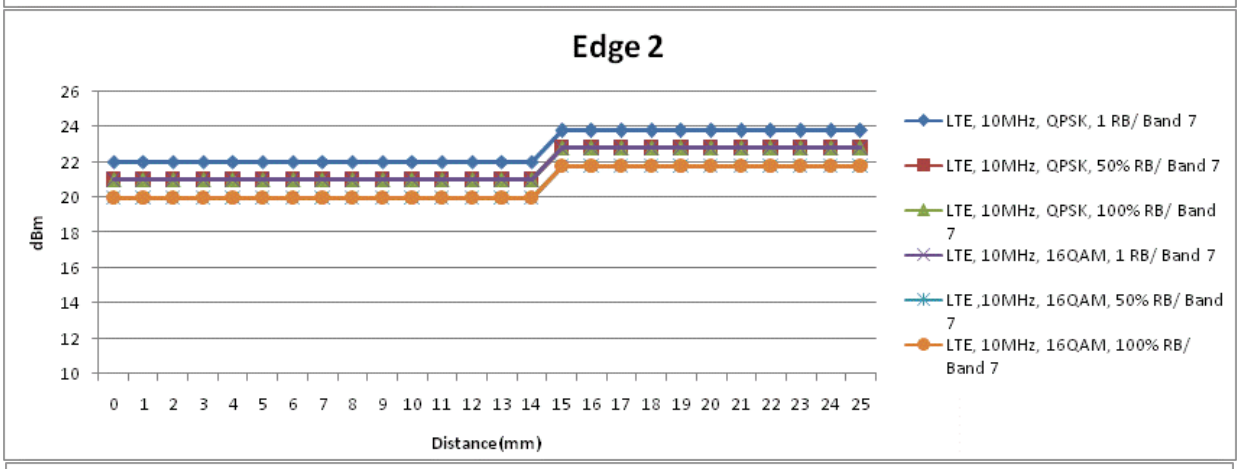

Edge 1
dBm
Distance(mm)
LTE, 5MHz, QPSK, 1 RB/ Band 7
LTE, 5MHz, QPSK, 50% RB/ Band 7
LTE, 5MHz, QPSK, 100% RB/ Band 7
LTE, 5MHz, 16QAM, 1 RB/ Band 7
LTE, 5MHz, 16QAM, 50% RB/ Band 7
LTE, 5MHz, 16QAM, 100% RB/ Band 7

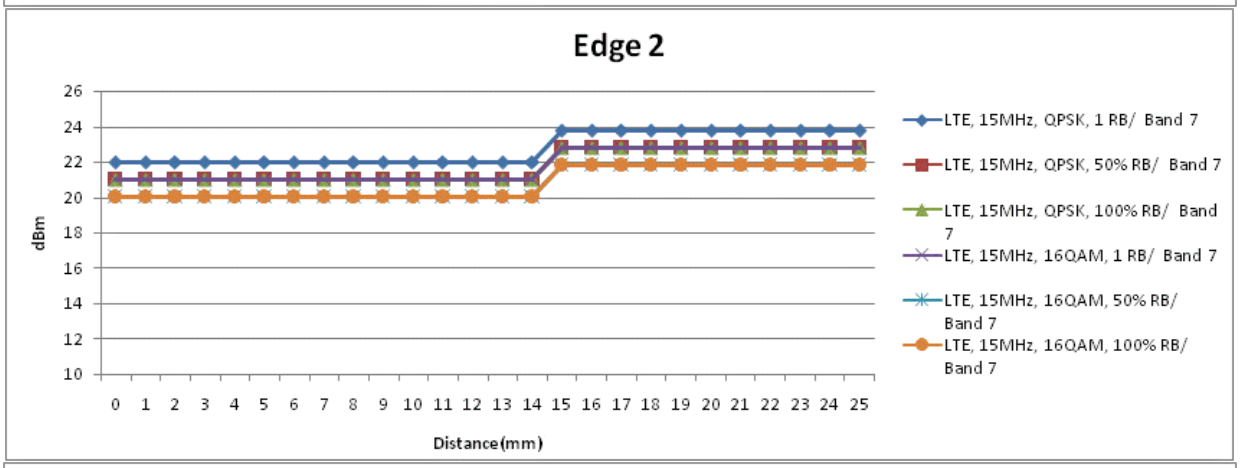

Edge 1
dBm
Distance(mm)
LTE, 10MHz, QPSK, 1 RB/ Band 7
LTE, 10MHz, QPSK, 50% RB/ Band 7
LTE, 10MHz, QPSK, 100% RB/ Band 7
LTE, 10MHz, 16QAM, 1 RB/ Band 7
LTE ,10MHz, 16QAM, 50% RB/ Band 7
LTE, 10MHz, 16QAM, 100% RB/ Band 7

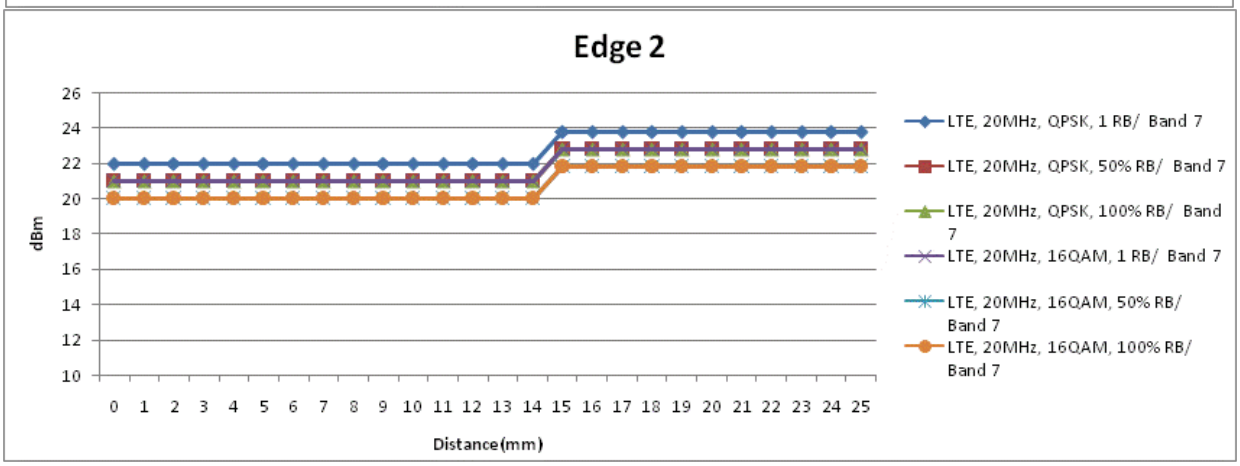

Edge 1
dBm
Distance(mm)
LTE, 15MHz, QPSK, 1 RB/ Band 7
LTE, 15MHz, QPSK, 50% RB/ Band 7
LTE, 15MHz, QPSK, 100% RB/ Band 7
LTE, 15MHz, 16QAM, 1 RB/ Band 7
LTE, 15MHz, 16QAM, 50% RB/ Band 7
LTE, 15MHz, 16QAM, 100% RB/ Band 7

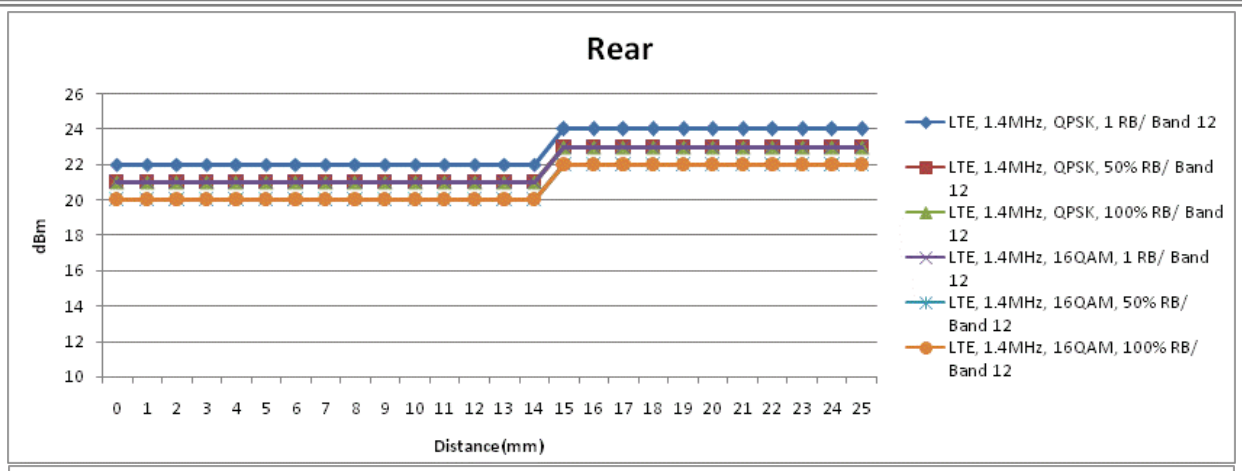

Edge 1
dBm
Distance(mm)
LTE, 20MHz, QPSK, 1 RB/ Band 7
LTE, 20MHz, QPSK, 50% RB/ Band 7
LTE, 20MHz, QPSK, 100% RB/ Band 7
LTE, 20MHz, 16QAM, 1 RB/ Band 7
LTE, 20MHz, 16QAM, 50% RB/ Band 7
LTE, 20MHz, 16QAM, 100% RB/ Band 7

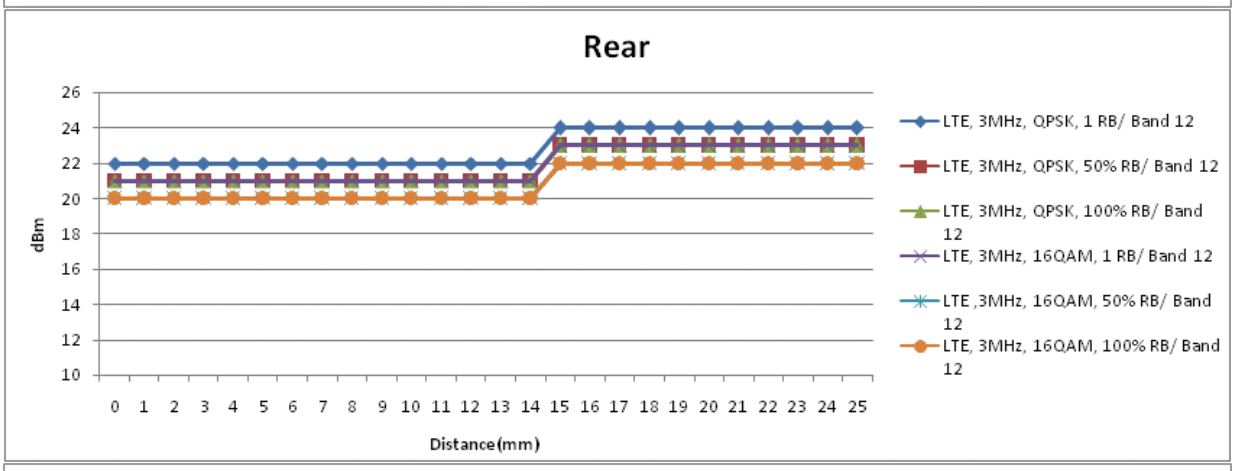

Edge 2
dBm
Distance(mm)
LTE, 5MHz, QPSK, 1 RB/ Band 7
LTE, 5MHz, QPSK, 50% RB/ Band 7
LTE, 5MHz, QPSK, 100% RB/ Band 7
LTE, 5MHz, 16QAM, 1 RB/ Band 7
LTE, 5MHz, 16QAM, 50% RB/ Band 7
LTE, 5MHz, 16QAM, 100% RB/ Band 7

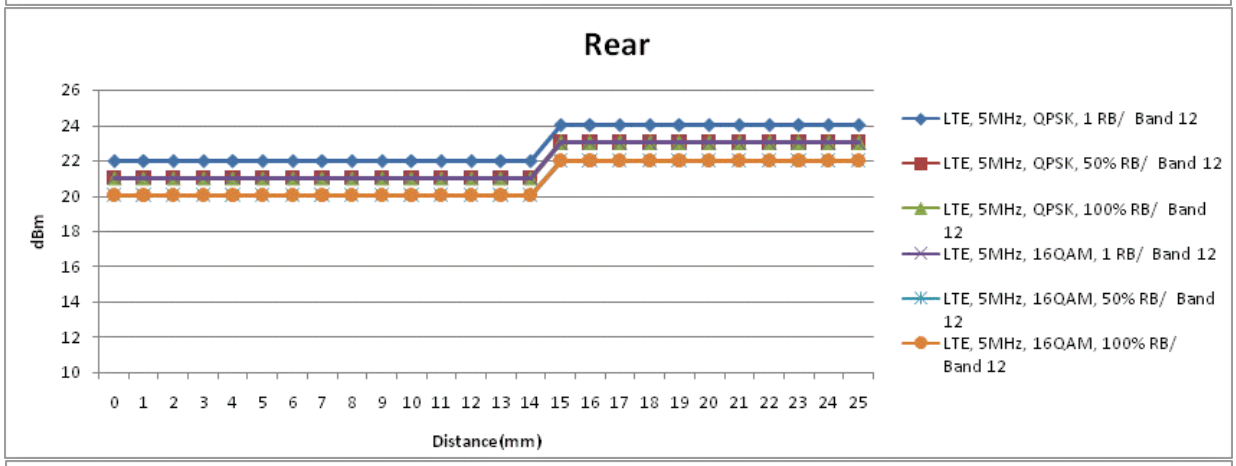

Edge 2
dBm
Distance(mm)
LTE, 10MHz, QPSK, 1 RB/ Band 7
LTE, 10MHz, QPSK, 50% RB/ Band 7
LTE, 10MHz, QPSK, 100% RB/ Band 7
LTE, 10MHz, 16QAM, 1 RB/ Band 7
LTE ,10MHz, 16QAM, 50% RB/ Band 7
LTE, 10MHz, 16QAM, 100% RB/ Band 7

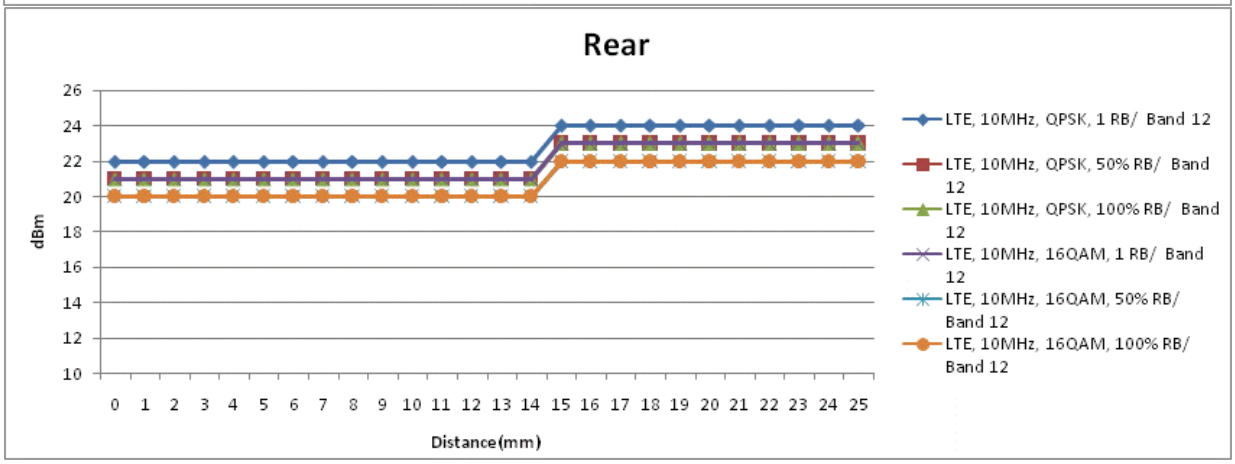

Edge 2
dBm
Distance(mm)
LTE, 15MHz, QPSK, 1 RB/ Band 7
LTE, 15MHz, QPSK, 50% RB/ Band 7
LTE, 15MHz, QPSK, 100% RB/ Band 7
LTE, 15MHz, 16QAM, 1 RB/ Band 7
LTE, 15MHz, 16QAM, 50% RB/ Band 7
LTE, 15MHz, 16QAM, 100% RB/ Band 7

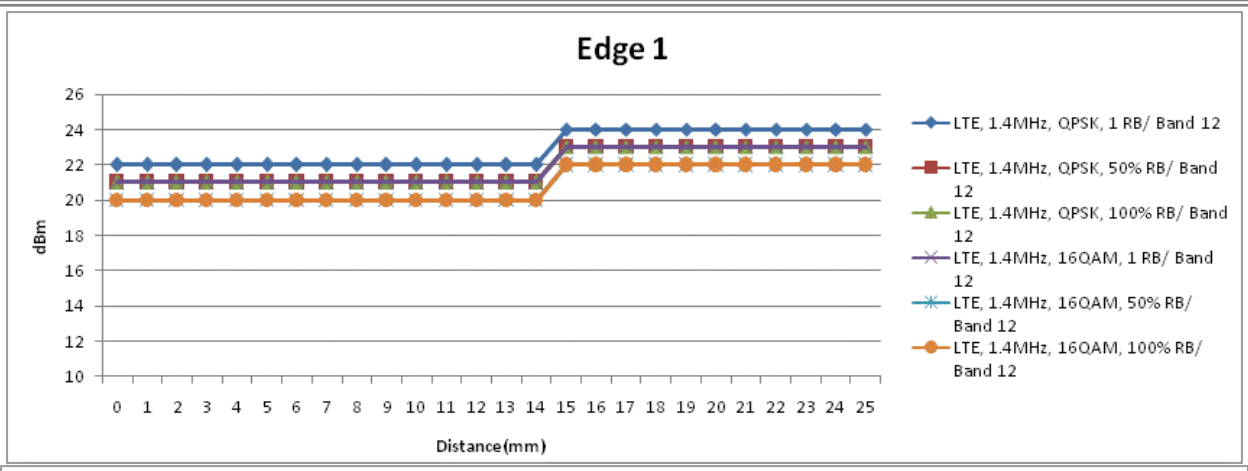

Edge 2
dBm
Distance(mm)
LTE, 20MHz, QPSK, 1 RB/ Band 7
LTE, 20MHz, QPSK, 50% RB/ Band 7
LTE, 20MHz, QPSK, 100% RB/ Band 7
LTE, 20MHz, 16QAM, 1 RB/ Band 7
LTE, 20MHz, 16QAM, 50% RB/ Band 7
LTE, 20MHz, 16QAM, 100% RB/ Band 7

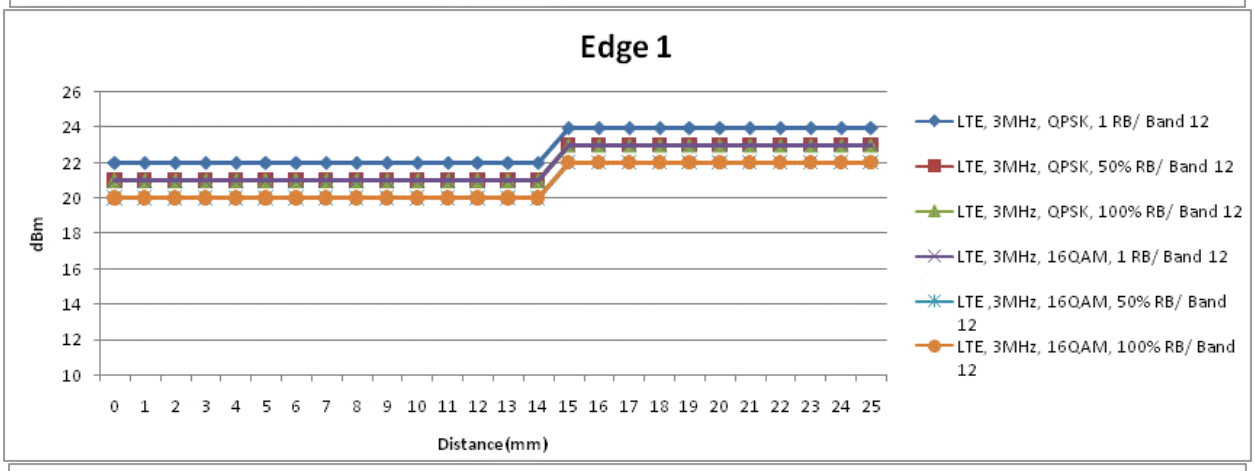

Rear
dBm
Distance(mm)
LTE, 1.4MHz, QPSK, 1 RB/ Band 12
LTE, 1.4MHz, QPSK, 50% RB/ Band 12
LTE, 1.4MHz, QPSK, 100% RB/ Band 12
LTE, 1.4MHz, 16QAM, 1 RB/ Band 12
LTE, 1.4MHz, 16QAM, 50% RB/ Band 12
LTE, 1.4MHz, 16QAM, 100% RB/ Band 12

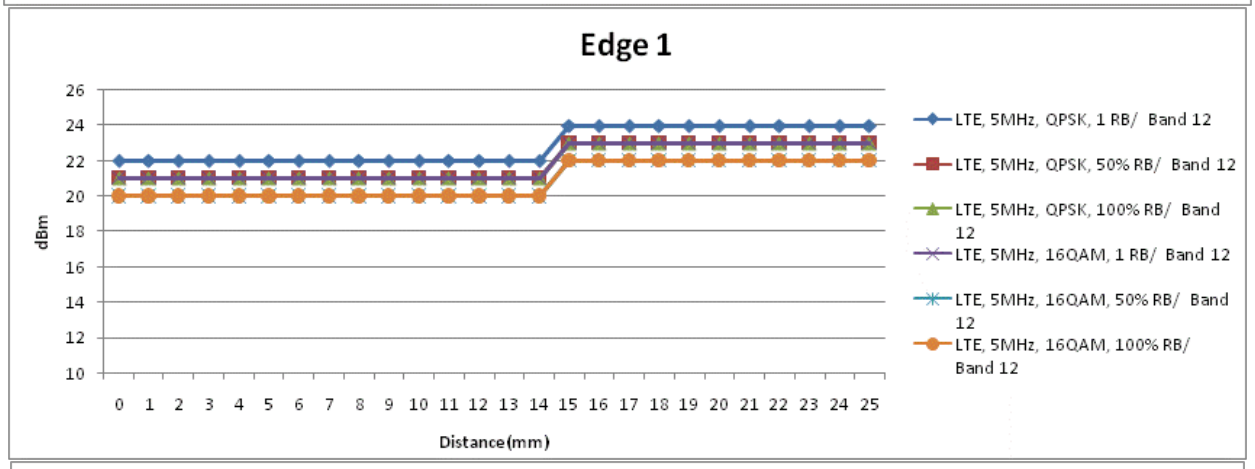

Rear
dBm
Distance(mm)
LTE, 3MHz, QPSK, 1 RB/ Band 12
LTE, 3MHz, QPSK, 50% RB/ Band 12
LTE, 3MHz, QPSK, 100% RB/ Band 12
LTE, 3MHz, 16QAM, 1 RB/ Band 12
LTE ,3MHz, 16QAM, 50% RB/ Band 12
LTE, 3MHz, 16QAM, 100% RB/ Band 12

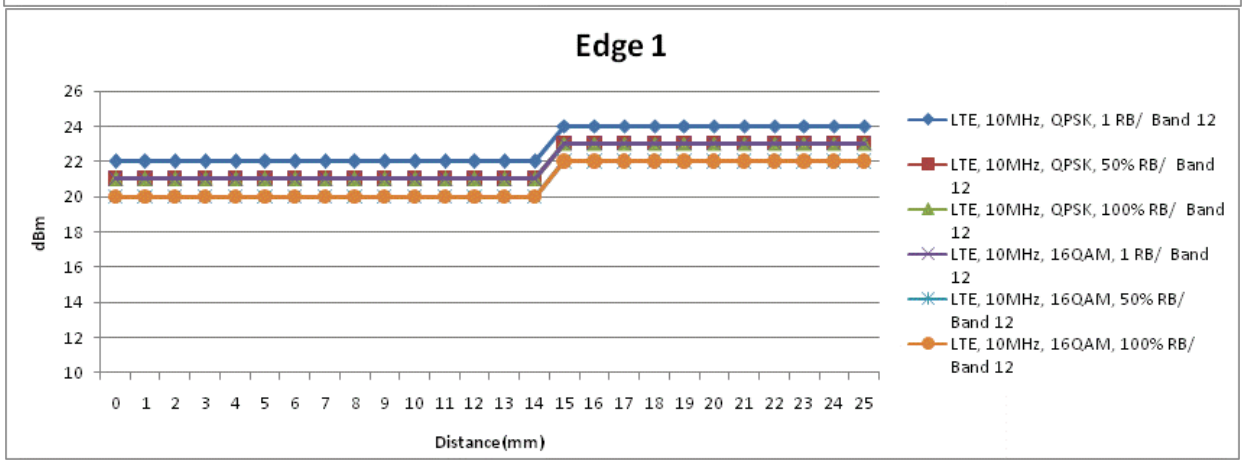

Rear
dBm
Distance(mm)
LTE, 5MHz, QPSK, 1 RB/ Band 12
LTE, 5MHz, QPSK, 50% RB/ Band 12
LTE, 5MHz, QPSK, 100% RB/ Band 12
LTE, 5MHz, 16QAM, 1 RB/ Band 12
LTE, 5MHz, 16QAM, 50% RB/ Band 12
LTE, 5MHz, 16QAM, 100% RB/ Band 12

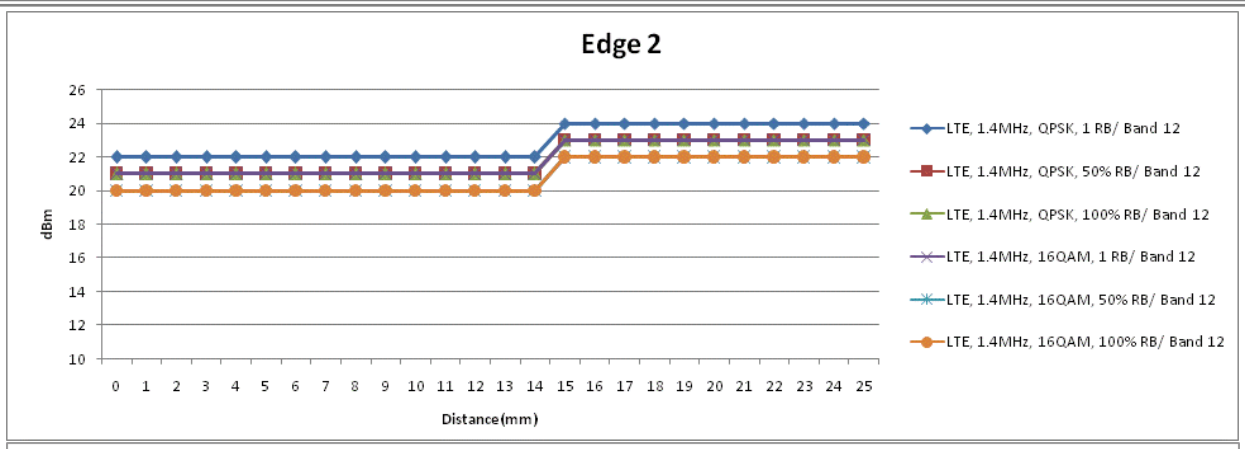

Rear
dBm
Distance(mm)
LTE, 10MHz, QPSK, 1 RB/ Band 12
LTE, 10MHz, QPSK, 50% RB/ Band 12
LTE, 10MHz, QPSK, 100% RB/ Band 12
LTE, 10MHz, 16QAM, 1 RB/ Band 12
LTE, 10MHz, 16QAM, 50% RB/ Band 12
LTE, 10MHz, 16QAM, 100% RB/ Band 12

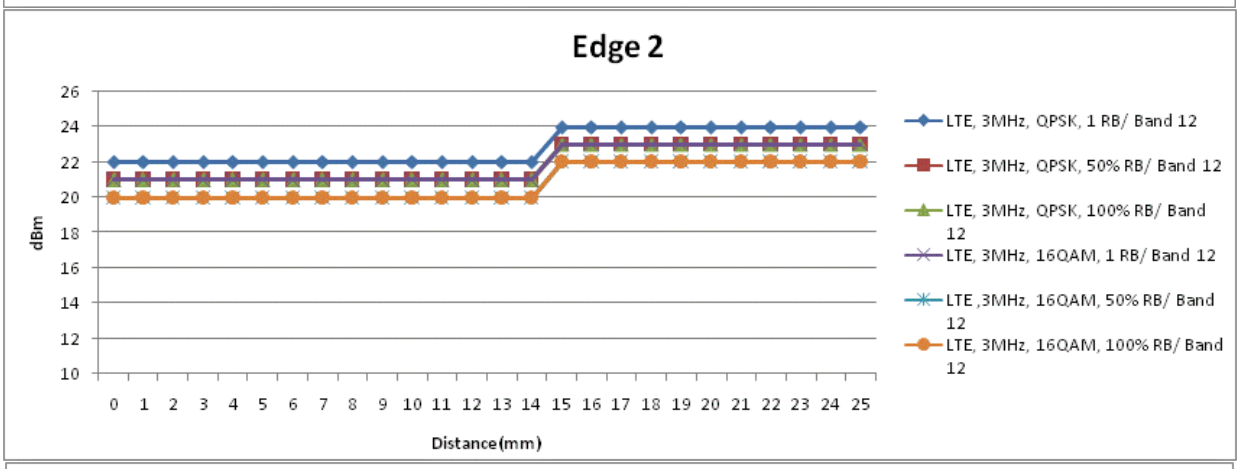

Edge 1
dBm
Distance(mm)
LTE, 1.4MHz, QPSK, 1 RB/ Band 12
LTE, 1.4MHz, QPSK, 50% RB/ Band 12
LTE, 1.4MHz, QPSK, 100% RB/ Band 12
LTE, 1.4MHz, 16QAM, 1 RB/ Band 12
LTE, 1.4MHz, 16QAM, 50% RB/ Band 12
LTE, 1.4MHz, 16QAM, 100% RB/ Band 12

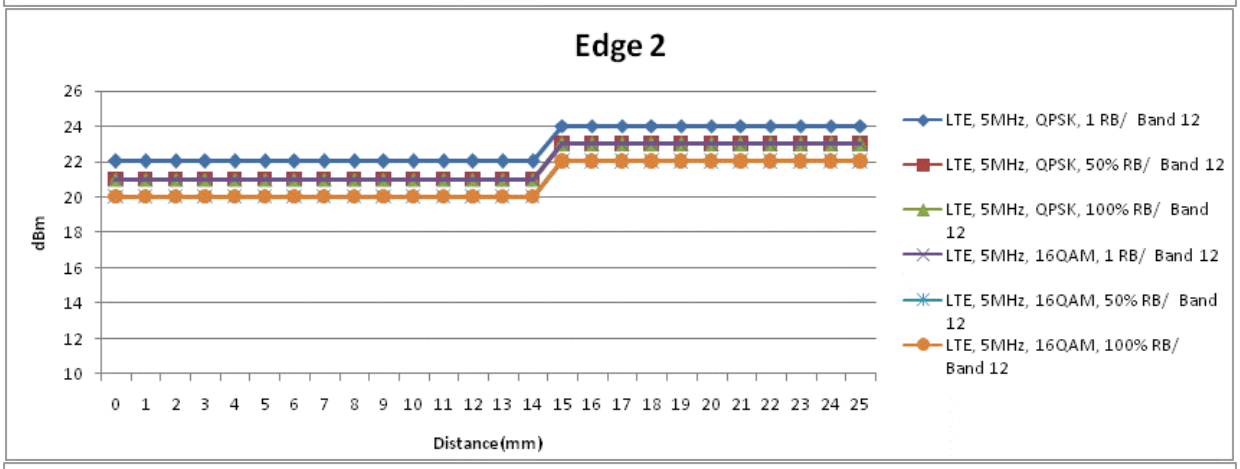

Edge 1
dBm
Distance(mm)
LTE, 3MHz, QPSK, 1 RB/ Band 12
LTE, 3MHz, QPSK, 50% RB/ Band 12
LTE, 3MHz, QPSK, 100% RB/ Band 12
LTE, 3MHz, 16QAM, 1 RB/ Band 12
LTE ,3MHz, 16QAM, 50% RB/ Band 12
LTE, 3MHz, 16QAM, 100% RB/ Band 12

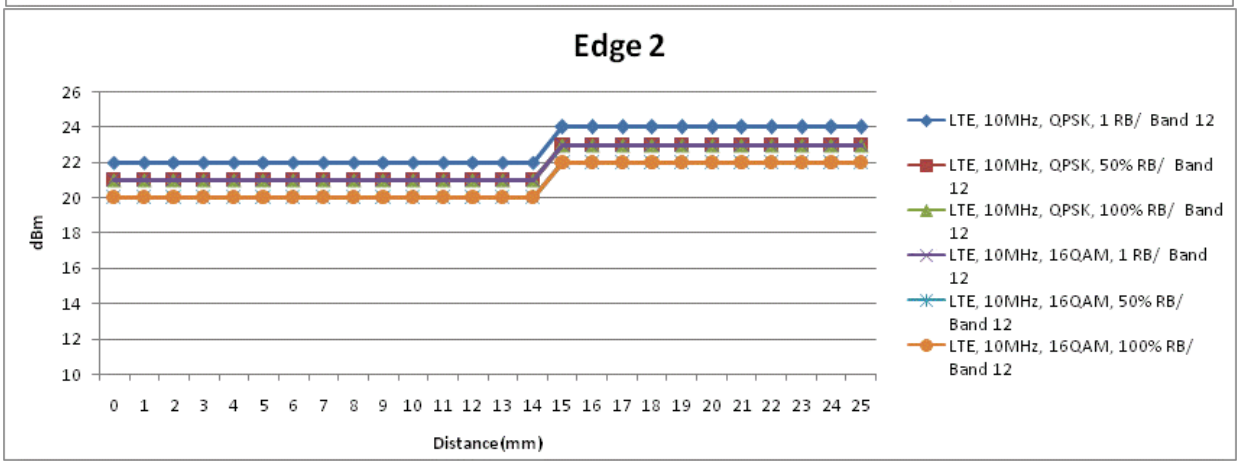

Edge 1
dBm
Distance(mm)
LTE, 5MHz, QPSK, 1 RB/ Band 12
LTE, 5MHz, QPSK, 50% RB/ Band 12
LTE, 5MHz, QPSK, 100% RB/ Band 12
LTE, 5MHz, 16QAM, 1 RB/ Band 12
LTE, 5MHz, 16QAM, 50% RB/ Band 12
LTE, 5MHz, 16QAM, 100% RB/ Band 12

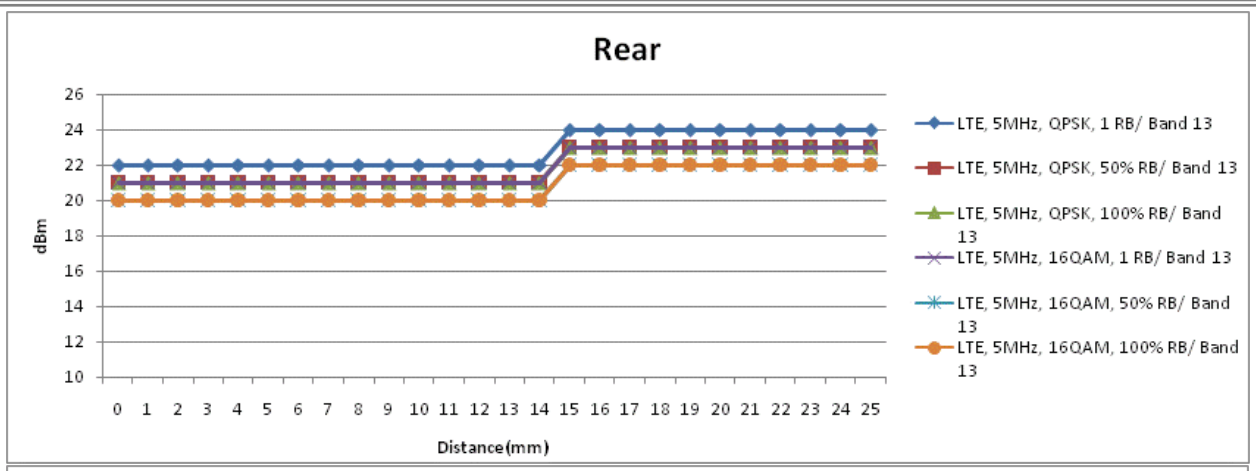

Edge 1
dBm
Distance(mm)
LTE, 10MHz, QPSK, 1 RB/ Band 12
LTE, 10MHz, QPSK, 50% RB/ Band 12
LTE, 10MHz, QPSK, 100% RB/ Band 12
LTE, 10MHz, 16QAM, 1 RB/ Band 12
LTE, 10MHz, 16QAM, 50% RB/ Band 12
LTE, 10MHz, 16QAM, 100% RB/ Band 12

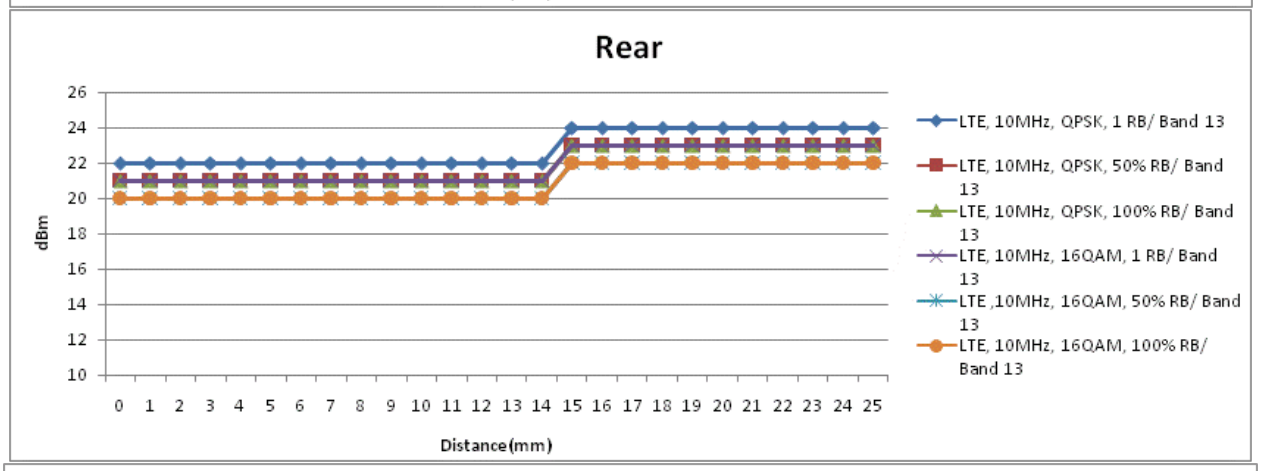

Edge 2
dBm
Distance(mm)
LTE, 1.4MHz, QPSK, 1 RB/ Band 12
LTE, 1.4MHz, QPSK, 50% RB/ Band 12
LTE, 1.4MHz, QPSK, 100% RB/ Band 12
LTE, 1.4MHz, 16QAM, 1 RB/ Band 12
LTE, 1.4MHz, 16QAM, 50% RB/ Band 12
LTE, 1.4MHz, 16QAM, 100% RB/ Band 12

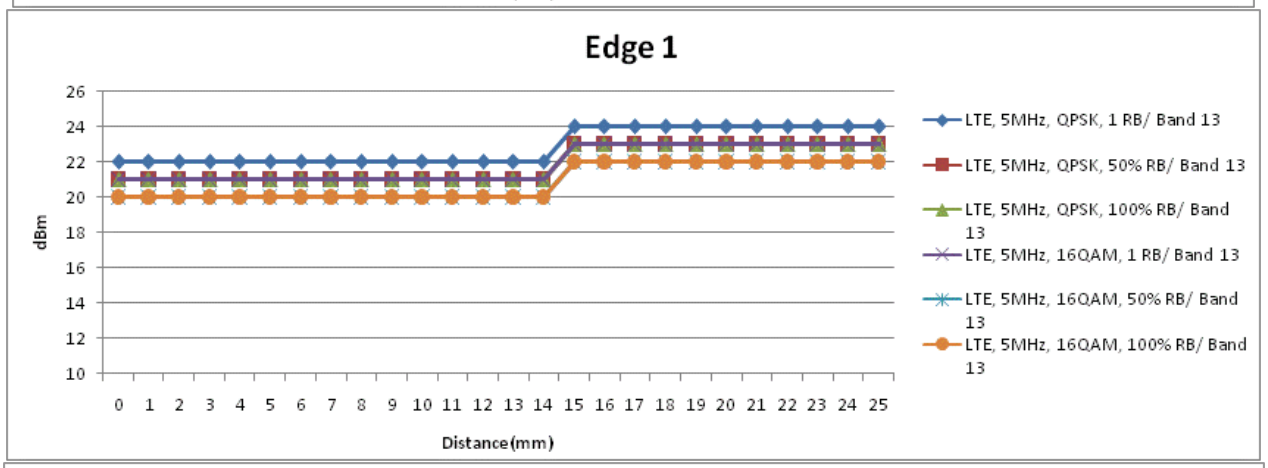

Edge 2
dBm
Distance(mm)
LTE, 3MHz, QPSK, 1 RB/ Band 12
LTE, 3MHz, QPSK, 50% RB/ Band 12
LTE, 3MHz, QPSK, 100% RB/ Band 12
LTE, 3MHz, 16QAM, 1 RB/ Band 12
LTE ,3MHz, 16QAM, 50% RB/ Band 12
LTE, 3MHz, 16QAM, 100% RB/ Band 12

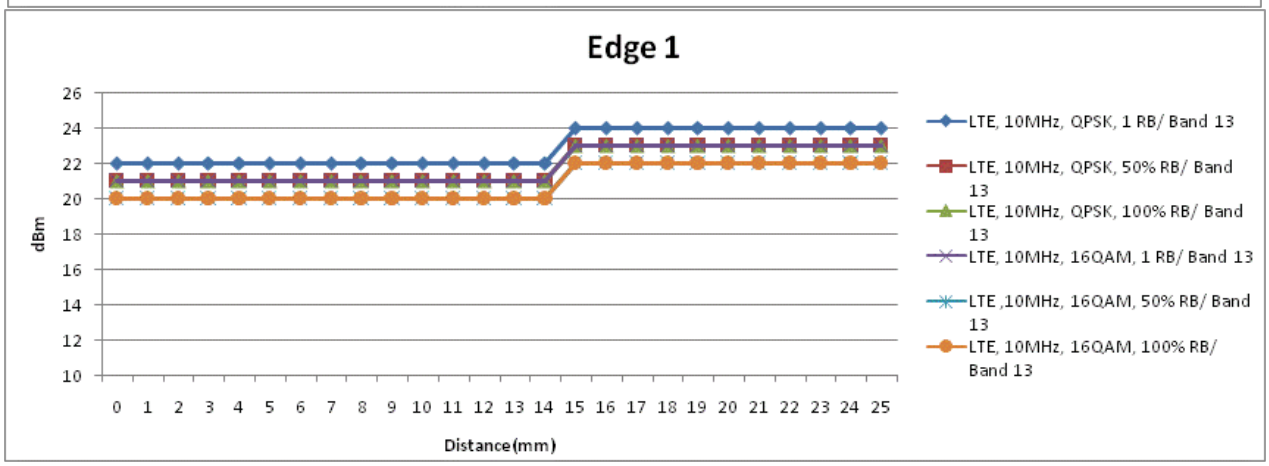

Edge 2
dBm
Distance(mm)
LTE, 5MHz, QPSK, 1 RB/ Band 12
LTE, 5MHz, QPSK, 50% RB/ Band 12
LTE, 5MHz, QPSK, 100% RB/ Band 12
LTE, 5MHz, 16QAM, 1 RB/ Band 12
LTE, 5MHz, 16QAM, 50% RB/ Band 12
LTE, 5MHz, 16QAM, 100% RB/ Band 12

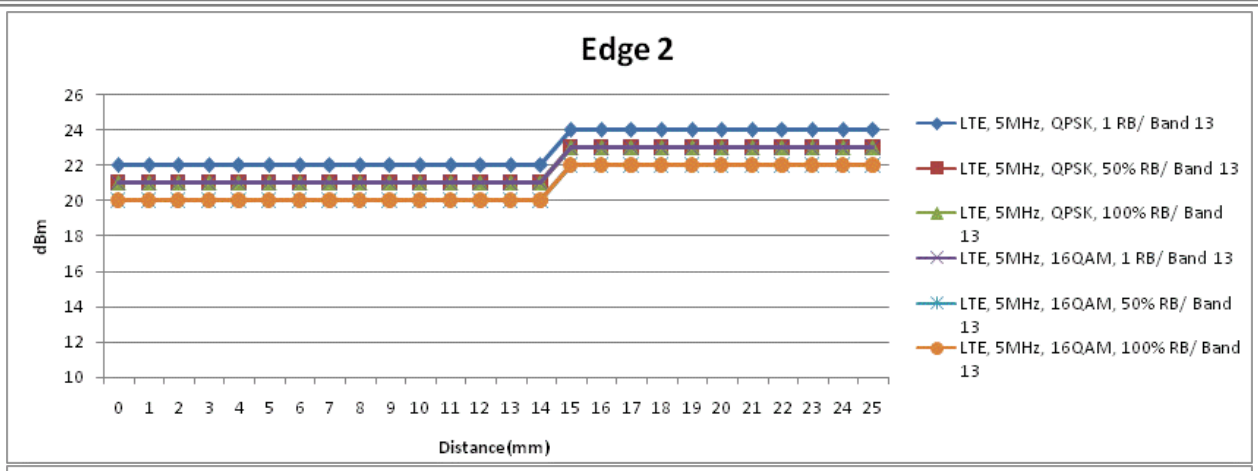

Edge 2
dBm
Distance(mm)
LTE, 10MHz, QPSK, 1 RB/ Band 12
LTE, 10MHz, QPSK, 50% RB/ Band 12
LTE, 10MHz, QPSK, 100% RB/ Band 12
LTE, 10MHz, 16QAM, 1 RB/ Band 12
LTE, 10MHz, 16QAM, 50% RB/ Band 12
LTE, 10MHz, 16QAM, 100% RB/ Band 12

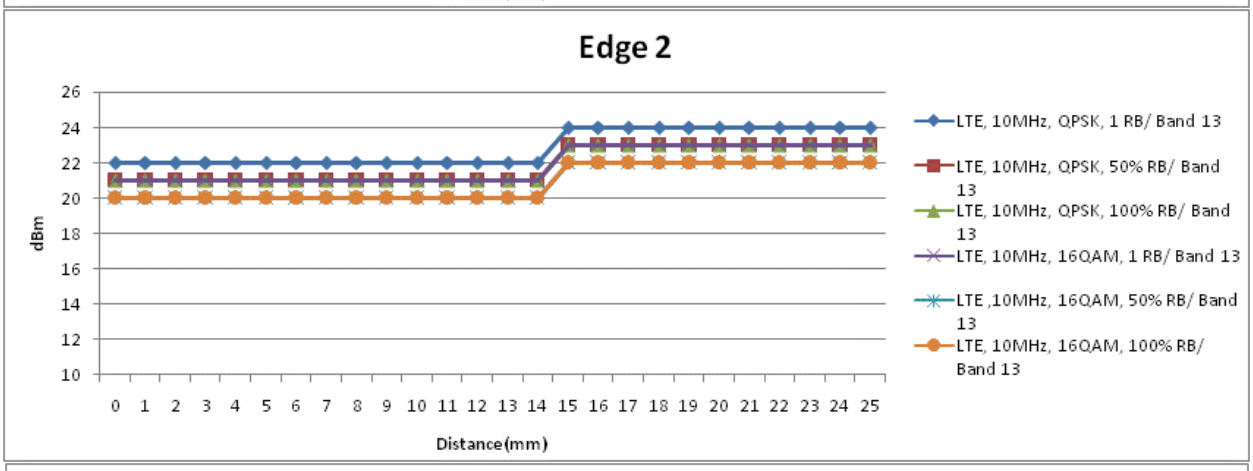

Rear
dBm
Distance(mm)
LTE, 5MHz, QPSK, 1 RB/ Band 13
LTE, 5MHz, QPSK, 50% RB/ Band 13
LTE, 5MHz, QPSK, 100% RB/ Band 13
LTE, 5MHz, 16QAM, 1 RB/ Band 13
LTE, 5MHz, 16QAM, 50% RB/ Band 13
LTE, 5MHz, 16QAM, 100% RB/ Band 13

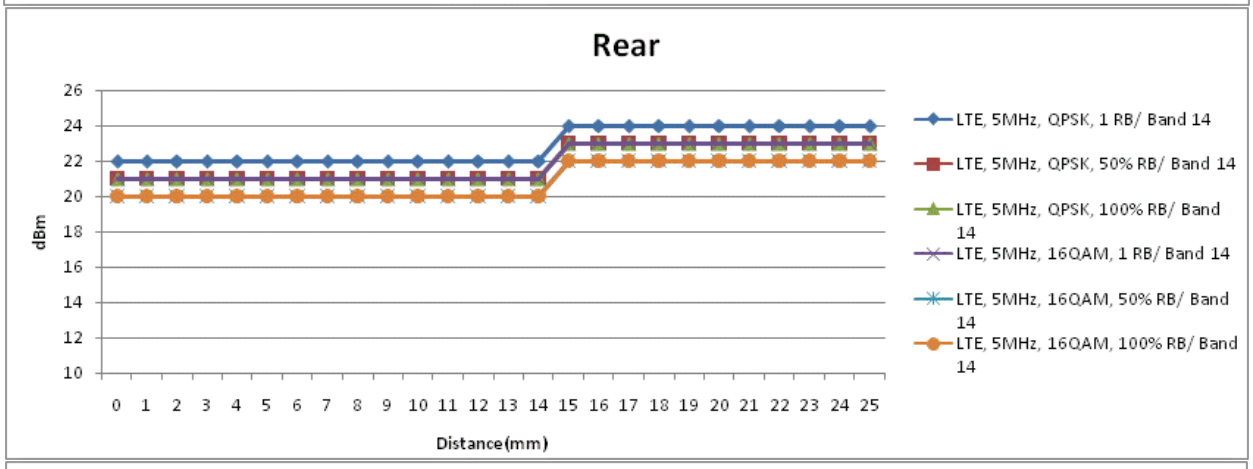

Rear
dBm
Distance(mm)
LTE, 10MHz, QPSK, 1 RB/ Band 13
LTE, 10MHz, QPSK, 50% RB/ Band 13
LTE, 10MHz, QPSK, 100% RB/ Band 13
LTE, 10MHz, 16QAM, 1 RB/ Band 13
LTE ,10MHz, 16QAM, 50% RB/ Band 13
LTE, 10MHz, 16QAM, 100% RB/ Band 13

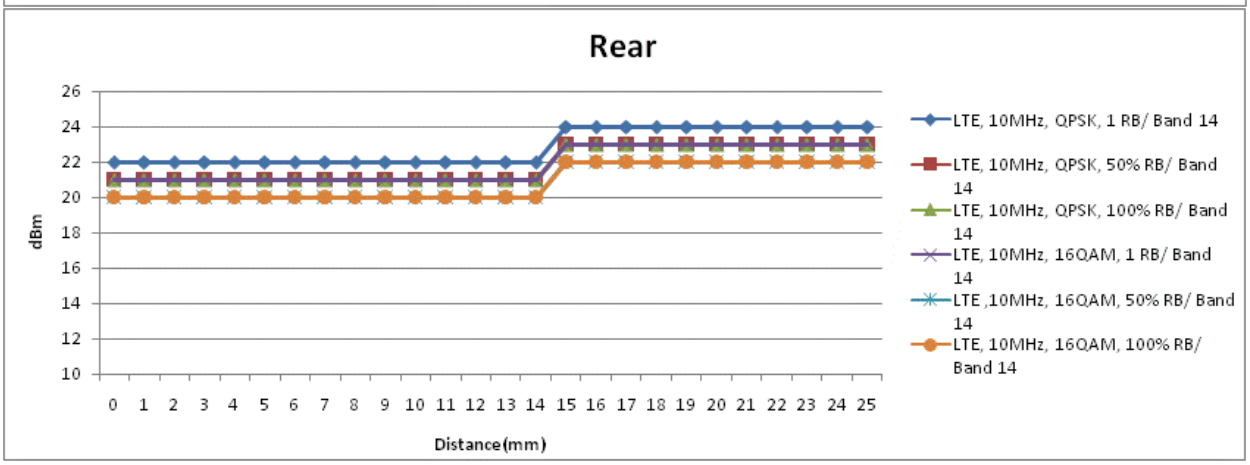

Edge 1
dBm
Distance(mm)
LTE, 5MHz, QPSK, 1 RB/ Band 13
LTE, 5MHz, QPSK, 50% RB/ Band 13
LTE, 5MHz, QPSK, 100% RB/ Band 13
LTE, 5MHz, 16QAM, 1 RB/ Band 13
LTE, 5MHz, 16QAM, 50% RB/ Band 13
LTE, 5MHz, 16QAM, 100% RB/ Band 13

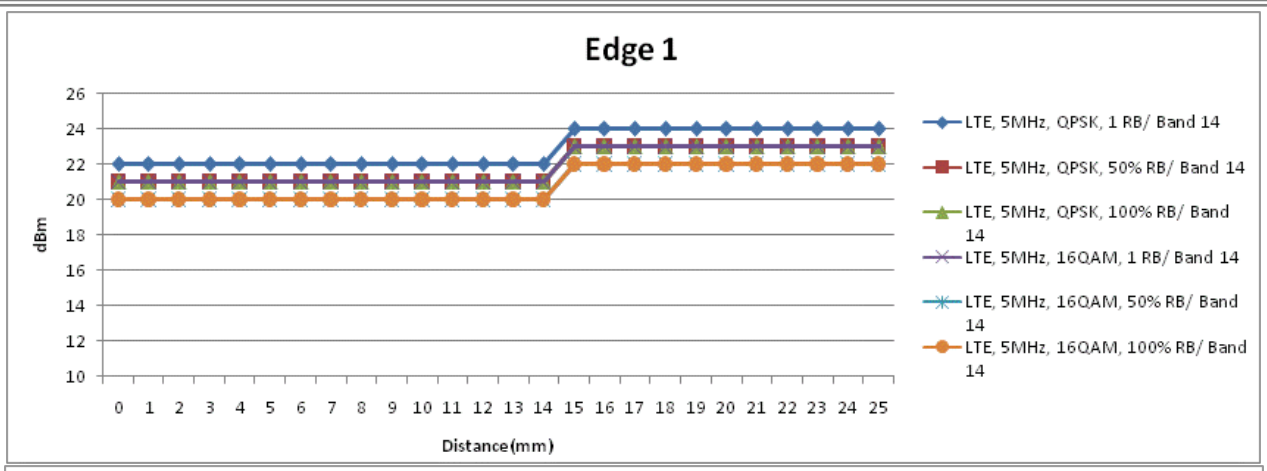

Edge 1
dBm
Distance(mm)
LTE, 10MHz, QPSK, 1 RB/ Band 13
LTE, 10MHz, QPSK, 50% RB/ Band 13
LTE, 10MHz, QPSK, 100% RB/ Band 13
LTE, 10MHz, 16QAM, 1 RB/ Band 13
LTE ,10MHz, 16QAM, 50% RB/ Band 13
LTE, 10MHz, 16QAM, 100% RB/ Band 13

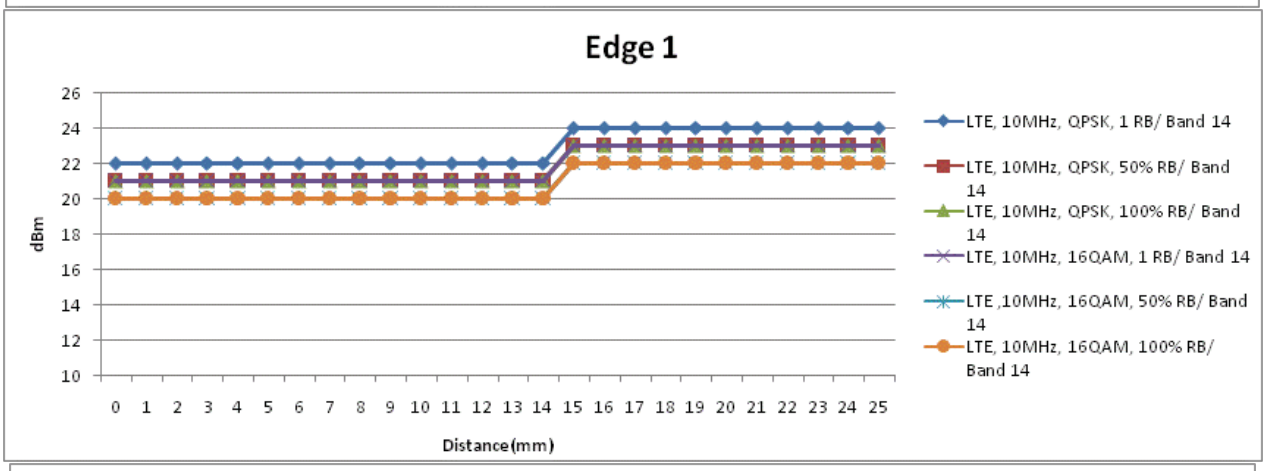

Edge 2
dBm
Distance(mm)
LTE, 5MHz, QPSK, 1 RB/ Band 13
LTE, 5MHz, QPSK, 50% RB/ Band 13
LTE, 5MHz, QPSK, 100% RB/ Band 13
LTE, 5MHz, 16QAM, 1 RB/ Band 13
LTE, 5MHz, 16QAM, 50% RB/ Band 13
LTE, 5MHz, 16QAM, 100% RB/ Band 13

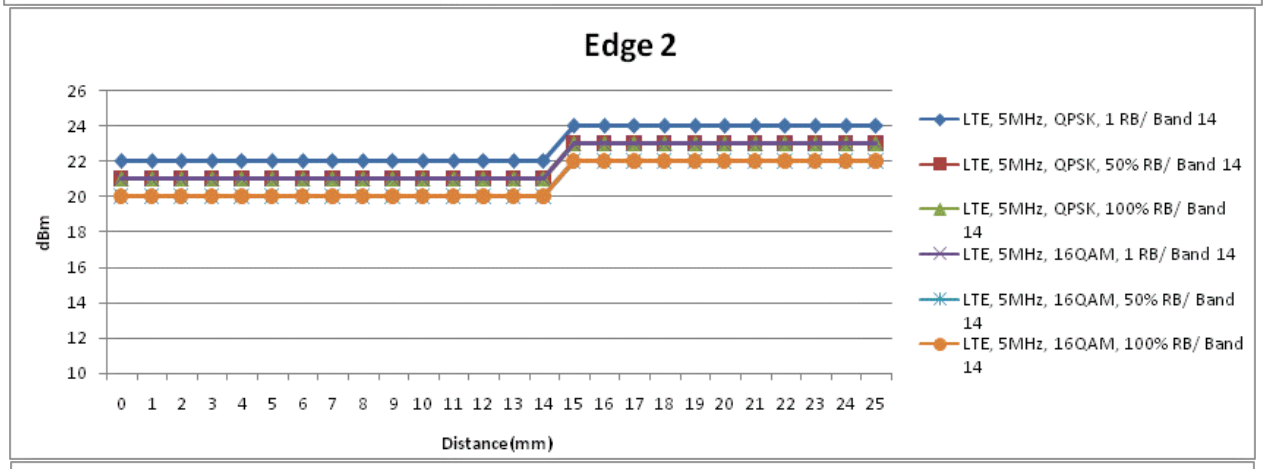

Edge 2
dBm
Distance(mm)
LTE, 10MHz, QPSK, 1 RB/ Band 13
LTE, 10MHz, QPSK, 50% RB/ Band 13
LTE, 10MHz, QPSK, 100% RB/ Band 13
LTE, 10MHz, 16QAM, 1 RB/ Band 13
LTE ,10MHz, 16QAM, 50% RB/ Band 13
LTE, 10MHz, 16QAM, 100% RB/ Band 13

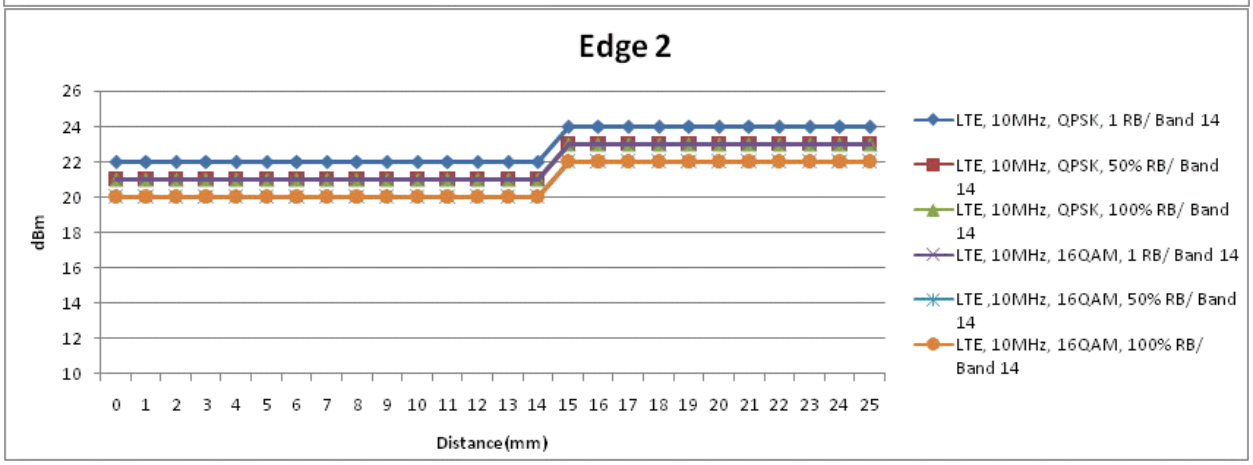

Rear
dBm
Distance(mm)
LTE, 5MHz, QPSK, 1 RB/ Band 14
LTE, 5MHz, QPSK, 50% RB/ Band 14
LTE, 5MHz, QPSK, 100% RB/ Band 14
LTE, 5MHz, 16QAM, 1 RB/ Band 14
LTE, 5MHz, 16QAM, 50% RB/ Band 14
LTE, 5MHz, 16QAM, 100% RB/ Band 14

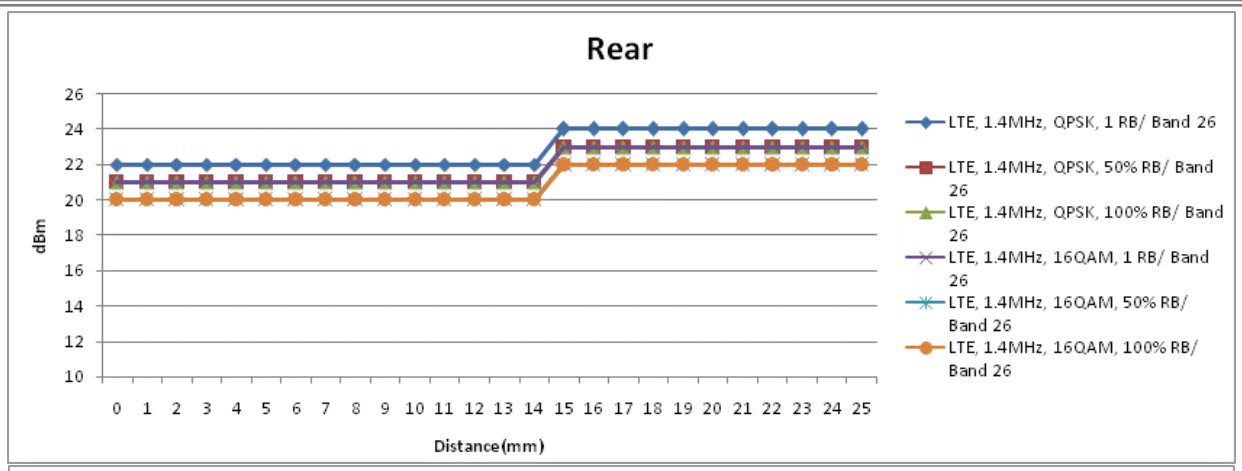

Rear
dBm
Distance(mm)
LTE, 10MHz, QPSK, 1 RB/ Band 14
LTE, 10MHz, QPSK, 50% RB/ Band 14
LTE, 10MHz, QPSK, 100% RB/ Band 14
LTE, 10MHz, 16QAM, 1 RB/ Band 14
LTE ,10MHz, 16QAM, 50% RB/ Band 14
LTE, 10MHz, 16QAM, 100% RB/ Band 14

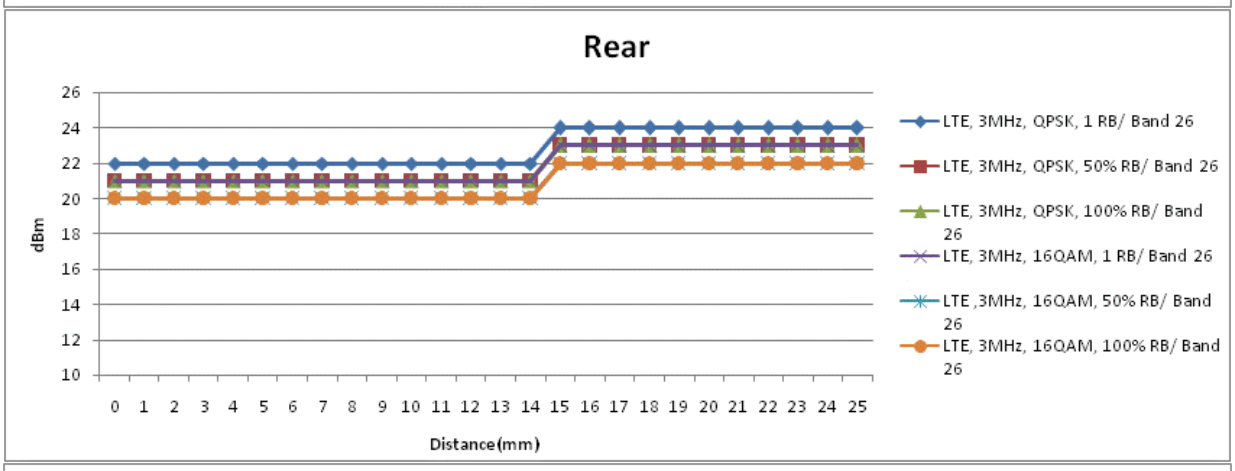

Edge 1
dBm
Distance(mm)
LTE, 5MHz, QPSK, 1 RB/ Band 14
LTE, 5MHz, QPSK, 50% RB/ Band 14
LTE, 5MHz, QPSK, 100% RB/ Band 14
LTE, 5MHz, 16QAM, 1 RB/ Band 14
LTE, 5MHz, 16QAM, 50% RB/ Band 14
LTE, 5MHz, 16QAM, 100% RB/ Band 14

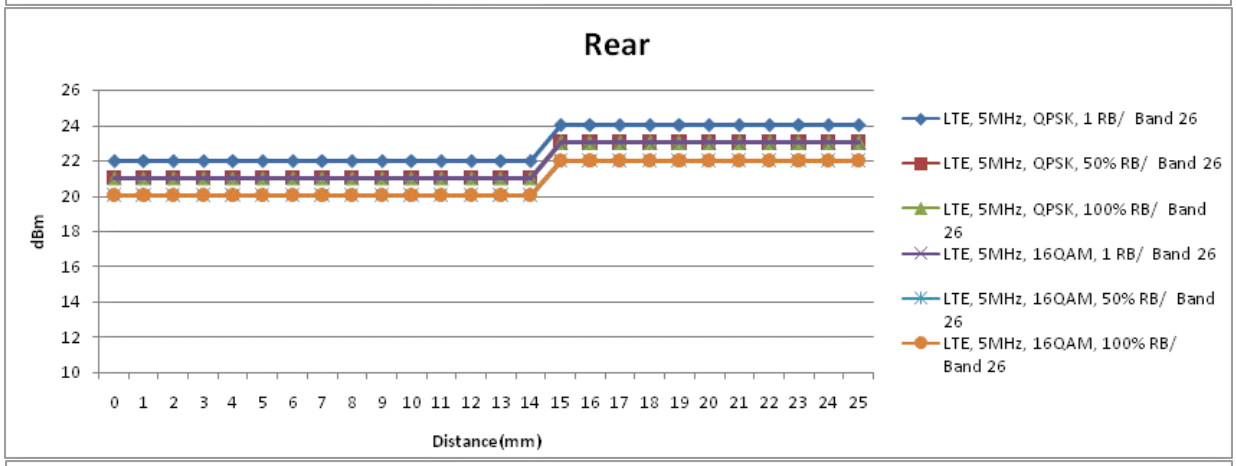

Edge 1
dBm
Distance(mm)
LTE, 10MHz, QPSK, 1 RB/ Band 14
LTE, 10MHz, QPSK, 50% RB/ Band 14
LTE, 10MHz, QPSK, 100% RB/ Band 14
LTE, 10MHz, 16QAM, 1 RB/ Band 14
LTE ,10MHz, 16QAM, 50% RB/ Band 14
LTE, 10MHz, 16QAM, 100% RB/ Band 14

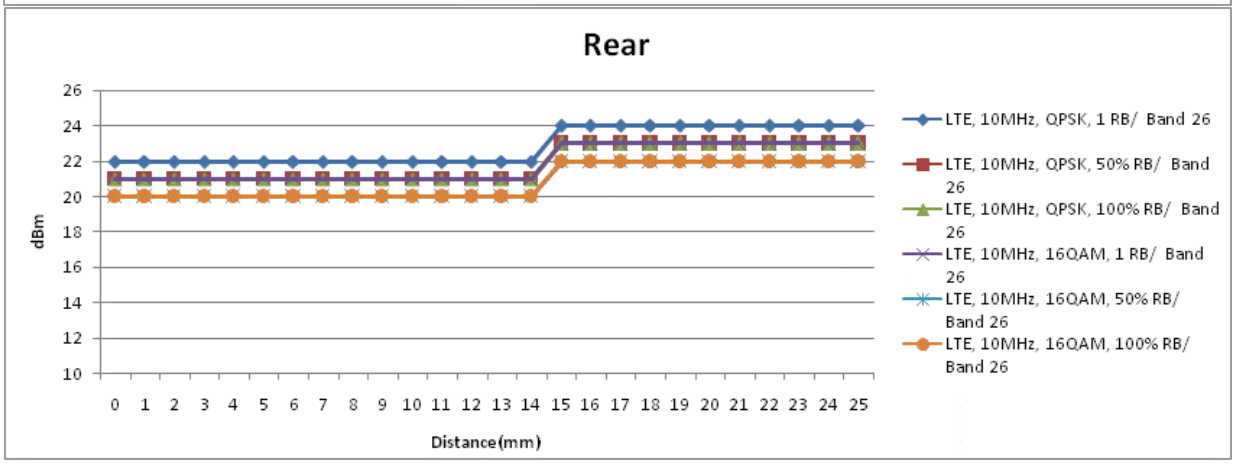

Edge 2
dBm
Distance(mm)
LTE, 5MHz, QPSK, 1 RB/ Band 14
LTE, 5MHz, QPSK, 50% RB/ Band 14
LTE, 5MHz, QPSK, 100% RB/ Band 14
LTE, 5MHz, 16QAM, 1 RB/ Band 14
LTE, 5MHz, 16QAM, 50% RB/ Band 14
LTE, 5MHz, 16QAM, 100% RB/ Band 14

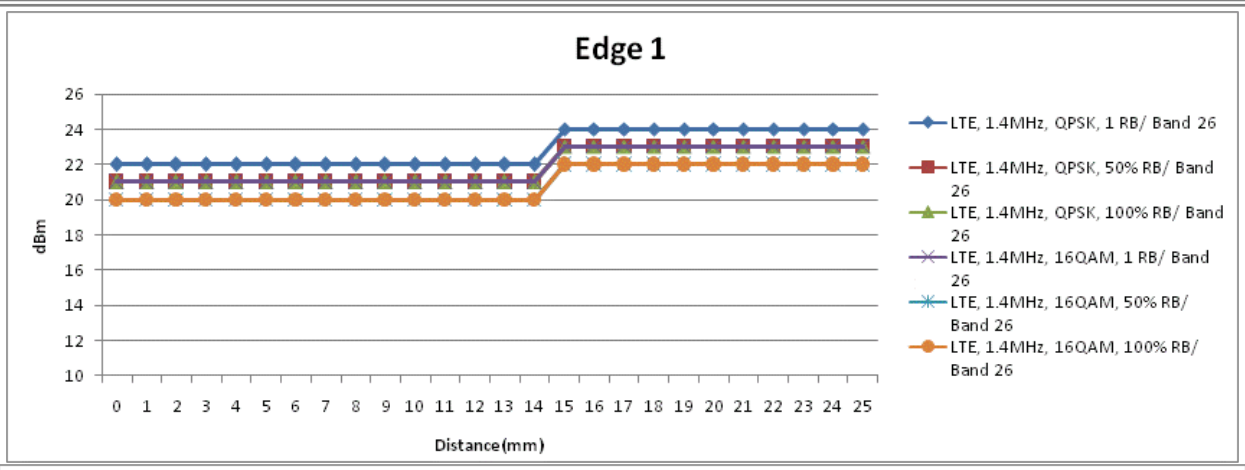

Edge 2
dBm
Distance(mm)
LTE, 10MHz, QPSK, 1 RB/ Band 14
LTE, 10MHz, QPSK, 50% RB/ Band 14
LTE, 10MHz, QPSK, 100% RB/ Band 14
LTE, 10MHz, 16QAM, 1 RB/ Band 14
LTE ,10MHz, 16QAM, 50% RB/ Band 14
LTE, 10MHz, 16QAM, 100% RB/ Band 14

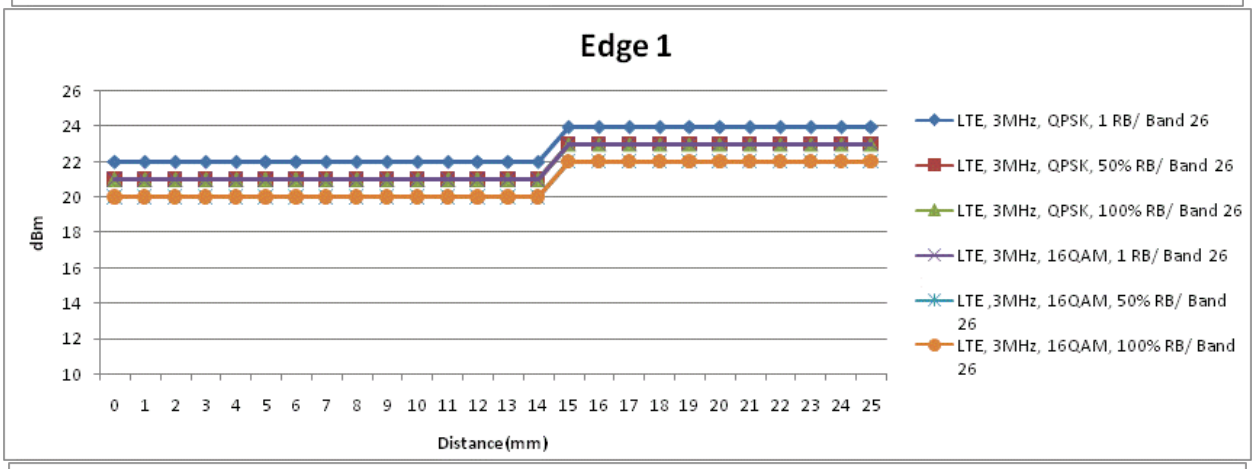

Rear
dBm
Distance(mm)
LTE, 1.4MHz, QPSK, 1 RB/ Band 26
LTE, 1.4MHz, QPSK, 50% RB/ Band 26
LTE, 1.4MHz, QPSK, 100% RB/ Band 26
LTE, 1.4MHz, 16QAM, 1 RB/ Band 26
LTE, 1.4MHz, 16QAM, 50% RB/ Band 26
LTE, 1.4MHz, 16QAM, 100% RB/ Band 26

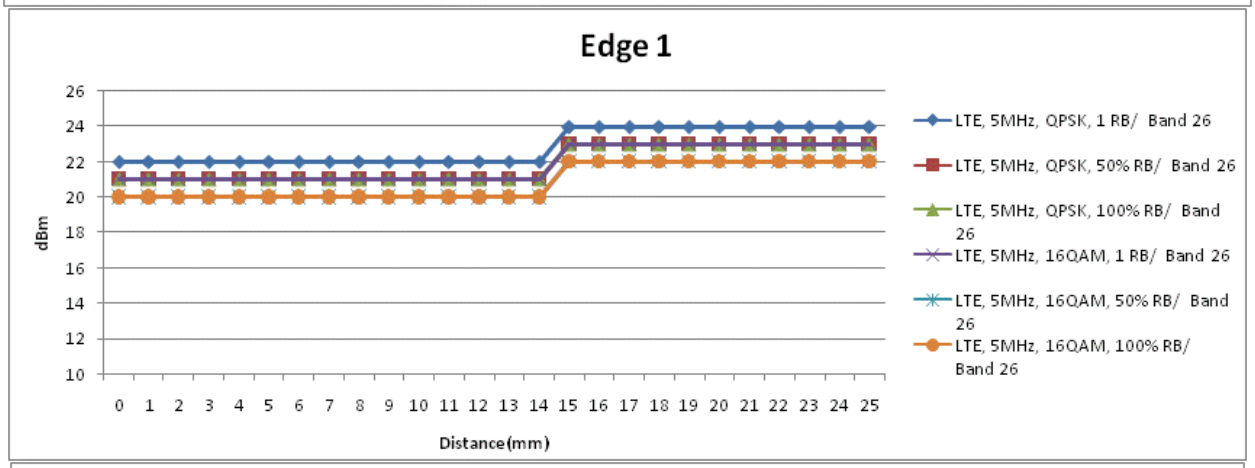

Rear
dBm
Distance(mm)
LTE, 3MHz, QPSK, 1 RB/ Band 26
LTE, 3MHz, QPSK, 50% RB/ Band 26
LTE, 3MHz, QPSK, 100% RB/ Band 26
LTE, 3MHz, 16QAM, 1 RB/ Band 26
LTE ,3MHz, 16QAM, 50% RB/ Band 26
LTE, 3MHz, 16QAM, 100% RB/ Band 26

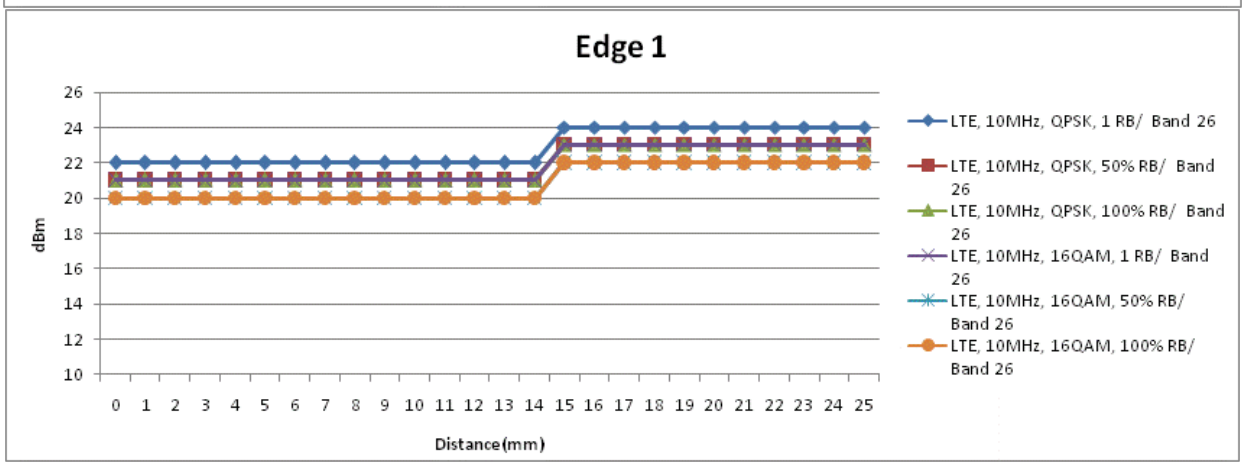

Rear
dBm
Distance(mm)
LTE, 5MHz, QPSK, 1 RB/ Band 26
LTE, 5MHz, QPSK, 50% RB/ Band 26
LTE, 5MHz, QPSK, 100% RB/ Band 26
LTE, 5MHz, 16QAM, 1 RB/ Band 26
LTE, 5MHz, 16QAM, 50% RB/ Band 26
LTE, 5MHz, 16QAM, 100% RB/ Band 26

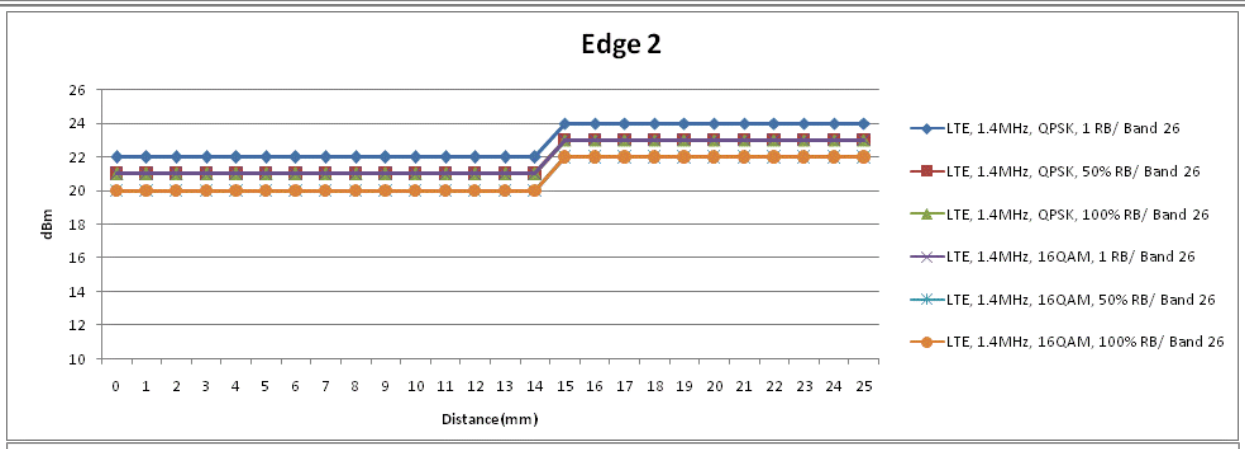

Rear
dBm
Distance(mm)
LTE, 10MHz, QPSK, 1 RB/ Band 26
LTE, 10MHz, QPSK, 50% RB/ Band 26
LTE, 10MHz, QPSK, 100% RB/ Band 26
LTE, 10MHz, 16QAM, 1 RB/ Band 26
LTE, 10MHz, 16QAM, 50% RB/ Band 26
LTE, 10MHz, 16QAM, 100% RB/ Band 26

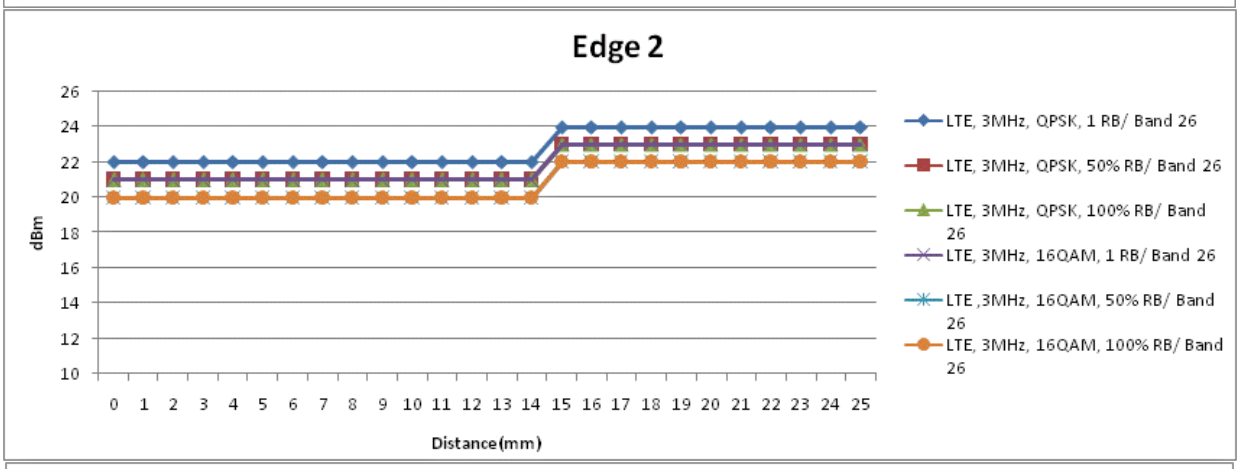

Edge 1
dBm
Distance(mm)
LTE, 1.4MHz, QPSK, 1 RB/ Band 26
LTE, 1.4MHz, QPSK, 50% RB/ Band 26
LTE, 1.4MHz, QPSK, 100% RB/ Band 26
LTE, 1.4MHz, 16QAM, 1 RB/ Band 26
LTE, 1.4MHz, 16QAM, 50% RB/ Band 26
LTE, 1.4MHz, 16QAM, 100% RB/ Band 26

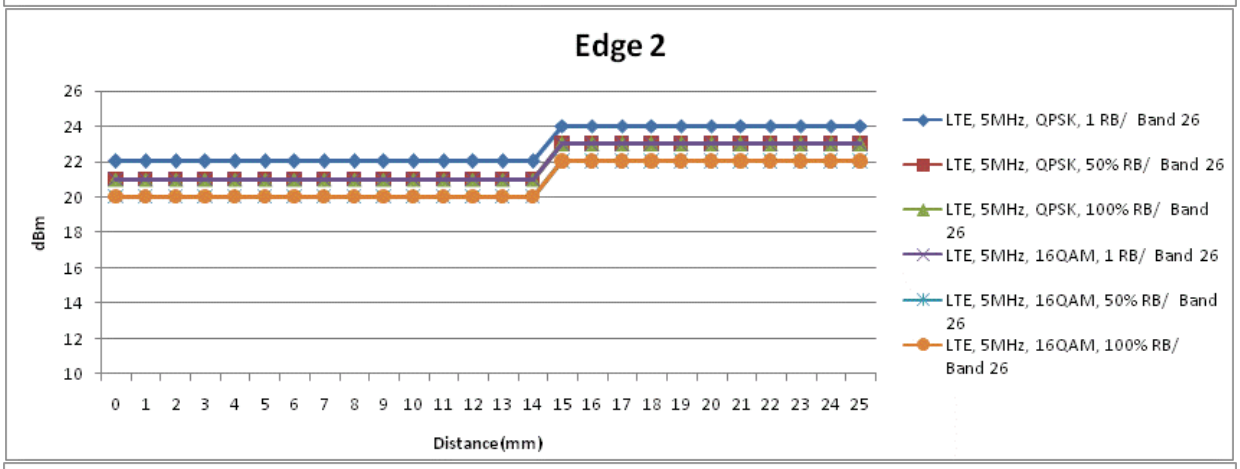

Edge 1
dBm
Distance(mm)
LTE, 3MHz, QPSK, 1 RB/ Band 26
LTE, 3MHz, QPSK, 50% RB/ Band 26
LTE, 3MHz, QPSK, 100% RB/ Band 26
LTE, 3MHz, 16QAM, 1 RB/ Band 26
LTE ,3MHz, 16QAM, 50% RB/ Band 26
LTE, 3MHz, 16QAM, 100% RB/ Band 26

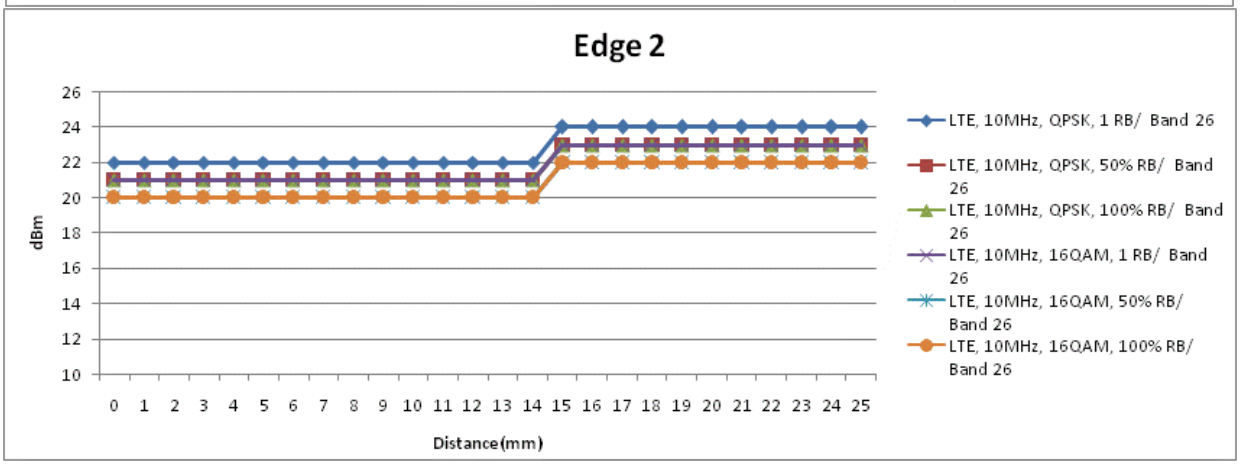

Edge 1
dBm
Distance(mm)
LTE, 5MHz, QPSK, 1 RB/ Band 26
LTE, 5MHz, QPSK, 50% RB/ Band 26
LTE, 5MHz, QPSK, 100% RB/ Band 26
LTE, 5MHz, 16QAM, 1 RB/ Band 26
LTE, 5MHz, 16QAM, 50% RB/ Band 26
LTE, 5MHz, 16QAM, 100% RB/ Band 26

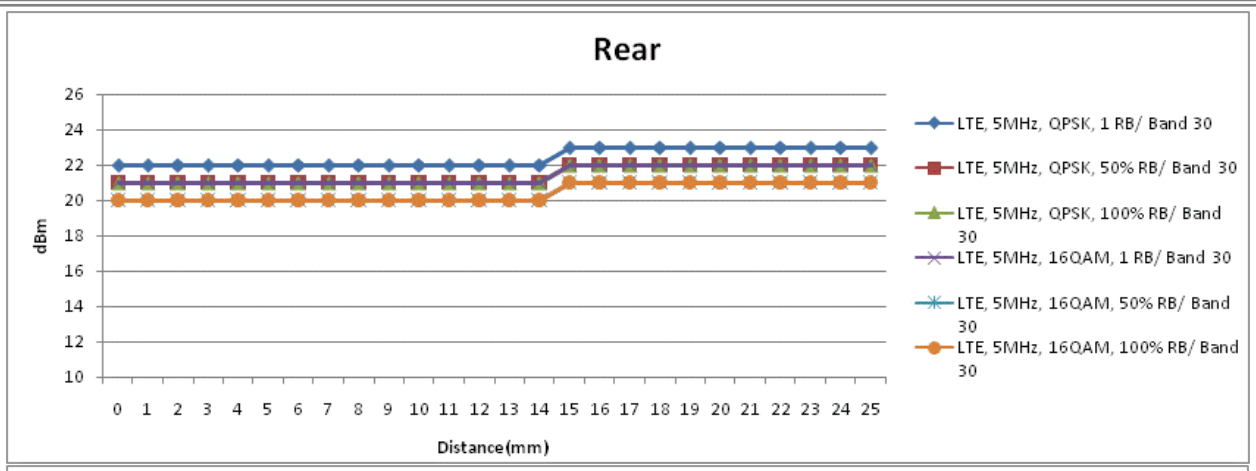

Edge 1
dBm
Distance(mm)
LTE, 10MHz, QPSK, 1 RB/ Band 26
LTE, 10MHz, QPSK, 50% RB/ Band 26
LTE, 10MHz, QPSK, 100% RB/ Band 26
LTE, 10MHz, 16QAM, 1 RB/ Band 26
LTE, 10MHz, 16QAM, 50% RB/ Band 26
LTE, 10MHz, 16QAM, 100% RB/ Band 26

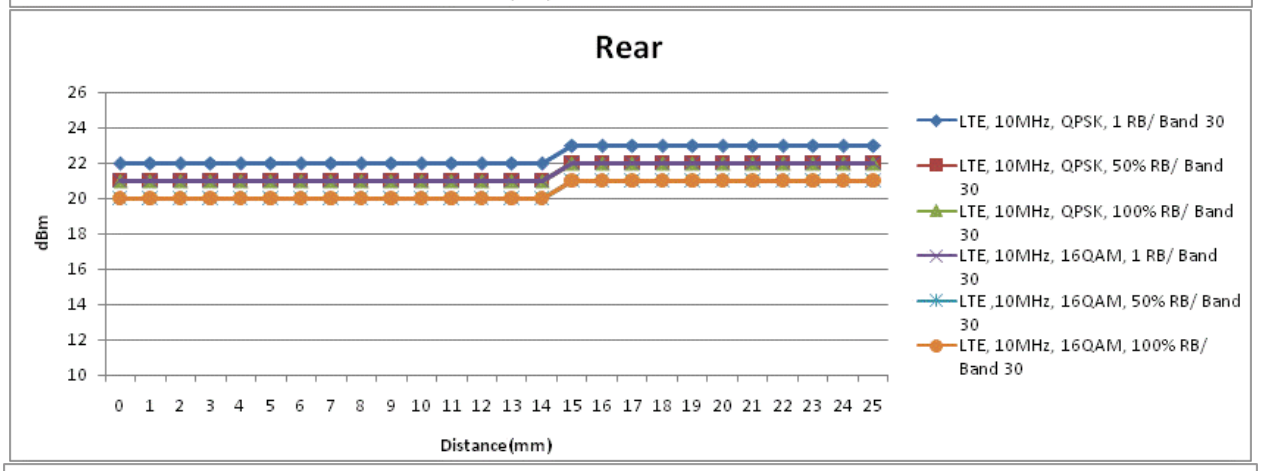

Edge 2
dBm
Distance(mm)
LTE, 1.4MHz, QPSK, 1 RB/ Band 26
LTE, 1.4MHz, QPSK, 50% RB/ Band 26
LTE, 1.4MHz, QPSK, 100% RB/ Band 26
LTE, 1.4MHz, 16QAM, 1 RB/ Band 26
LTE, 1.4MHz, 16QAM, 50% RB/ Band 26
LTE, 1.4MHz, 16QAM, 100% RB/ Band 26

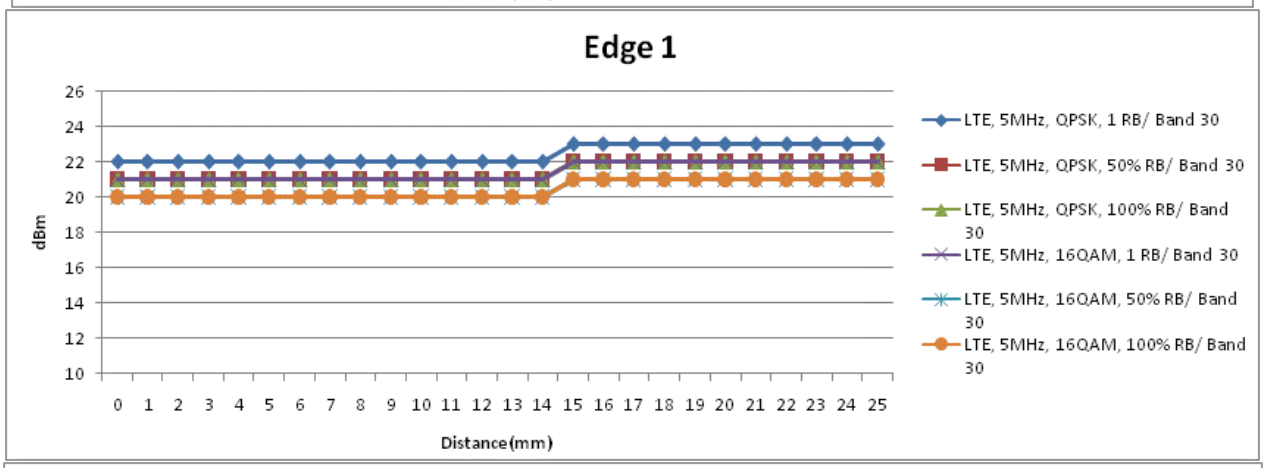

Edge 2
dBm
Distance(mm)
LTE, 3MHz, QPSK, 1 RB/ Band 26
LTE, 3MHz, QPSK, 50% RB/ Band 26
LTE, 3MHz, QPSK, 100% RB/ Band 26
LTE, 3MHz, 16QAM, 1 RB/ Band 26
LTE ,3MHz, 16QAM, 50% RB/ Band 26
LTE, 3MHz, 16QAM, 100% RB/ Band 26

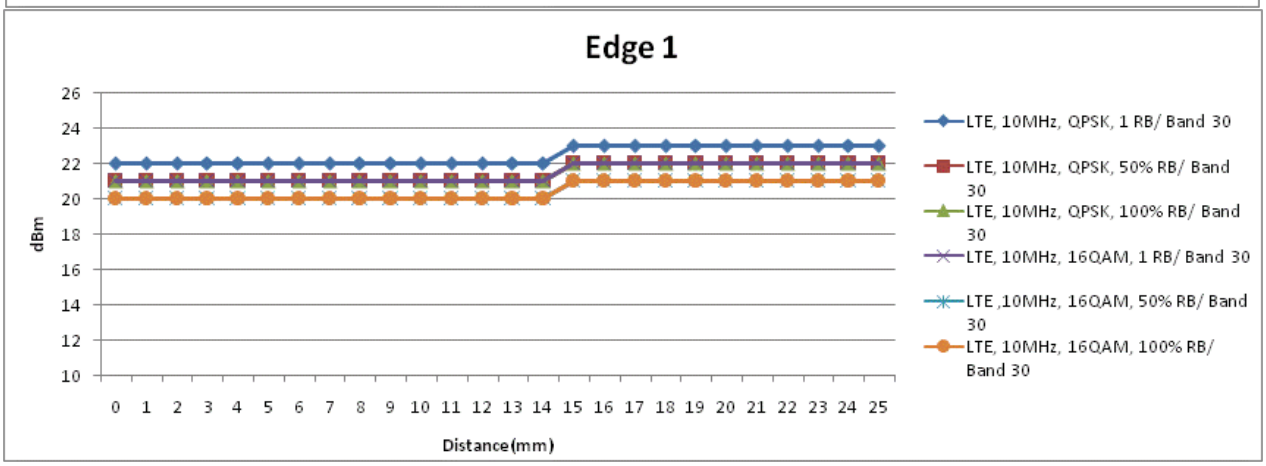

Edge 2
dBm
Distance(mm)
LTE, 5MHz, QPSK, 1 RB/ Band 26
LTE, 5MHz, QPSK, 50% RB/ Band 26
LTE, 5MHz, QPSK, 100% RB/ Band 26
LTE, 5MHz, 16QAM, 1 RB/ Band 26
LTE, 5MHz, 16QAM, 50% RB/ Band 26
LTE, 5MHz, 16QAM, 100% RB/ Band 26

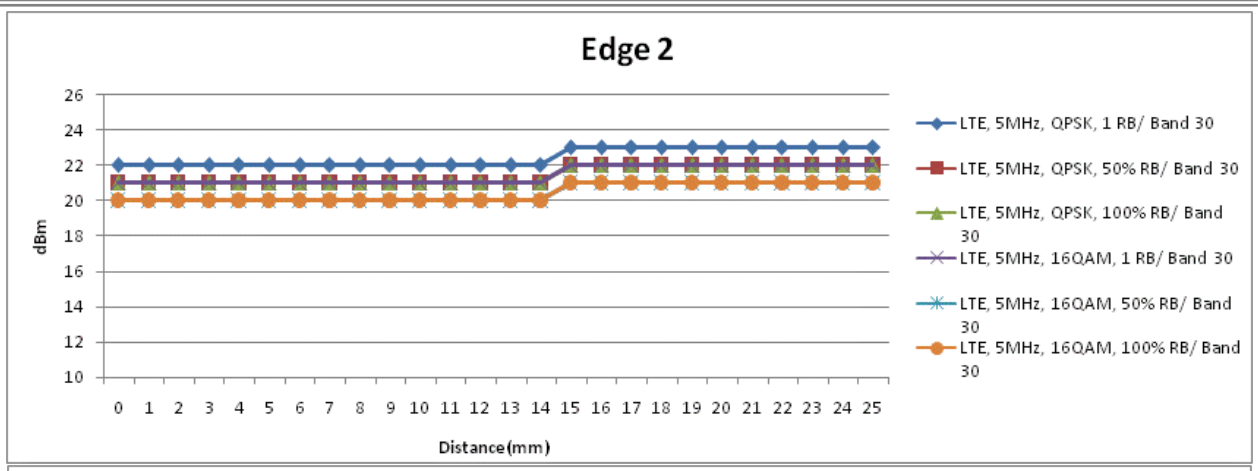

Edge 2
dBm
Distance(mm)
LTE, 10MHz, QPSK, 1 RB/ Band 26
LTE, 10MHz, QPSK, 50% RB/ Band 26
LTE, 10MHz, QPSK, 100% RB/ Band 26
LTE, 10MHz, 16QAM, 1 RB/ Band 26
LTE, 10MHz, 16QAM, 50% RB/ Band 26
LTE, 10MHz, 16QAM, 100% RB/ Band 26

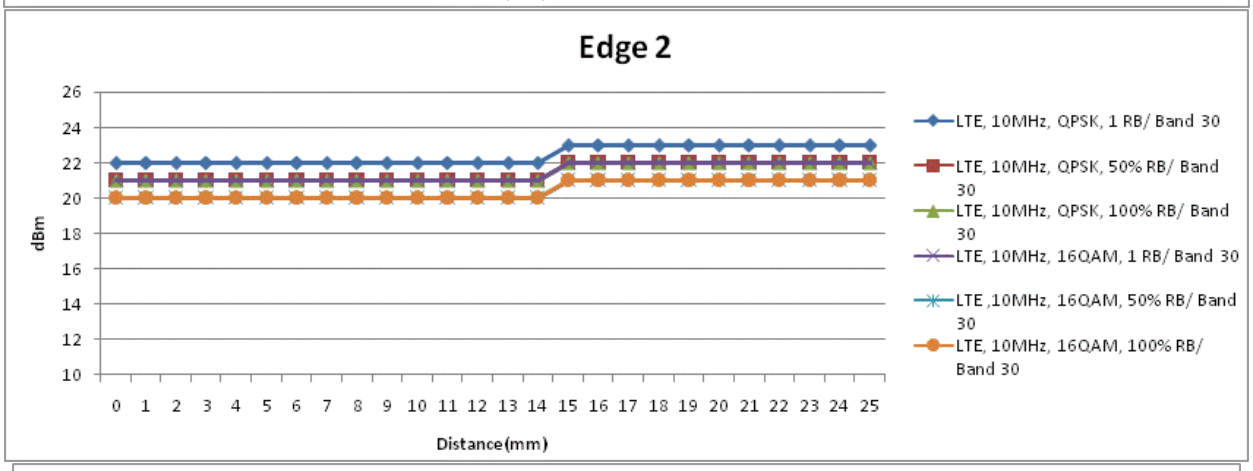

Rear
dBm
Distance(mm)
LTE, 5MHz, QPSK, 1 RB/ Band 30
LTE, 5MHz, QPSK, 50% RB/ Band 30
LTE, 5MHz, QPSK, 100% RB/ Band 30
LTE, 5MHz, 16QAM, 1 RB/ Band 30
LTE, 5MHz, 16QAM, 50% RB/ Band 30
LTE, 5MHz, 16QAM, 100% RB/ Band 30

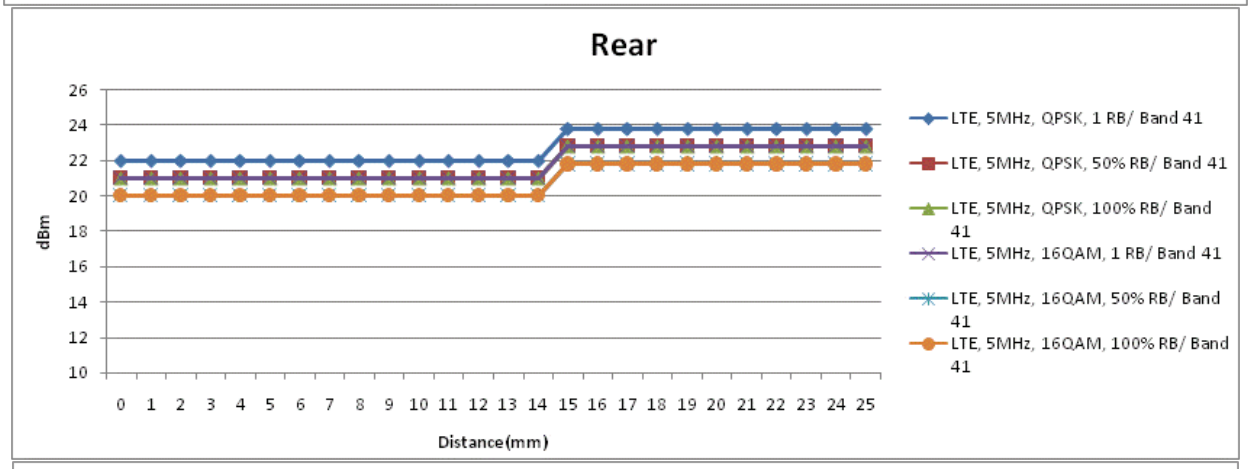

Rear
dBm
Distance(mm)
LTE, 10MHz, QPSK, 1 RB/ Band 30
LTE, 10MHz, QPSK, 50% RB/ Band 30
LTE, 10MHz, QPSK, 100% RB/ Band 30
LTE, 10MHz, 16QAM, 1 RB/ Band 30
LTE ,10MHz, 16QAM, 50% RB/ Band 30
LTE, 10MHz, 16QAM, 100% RB/ Band 30

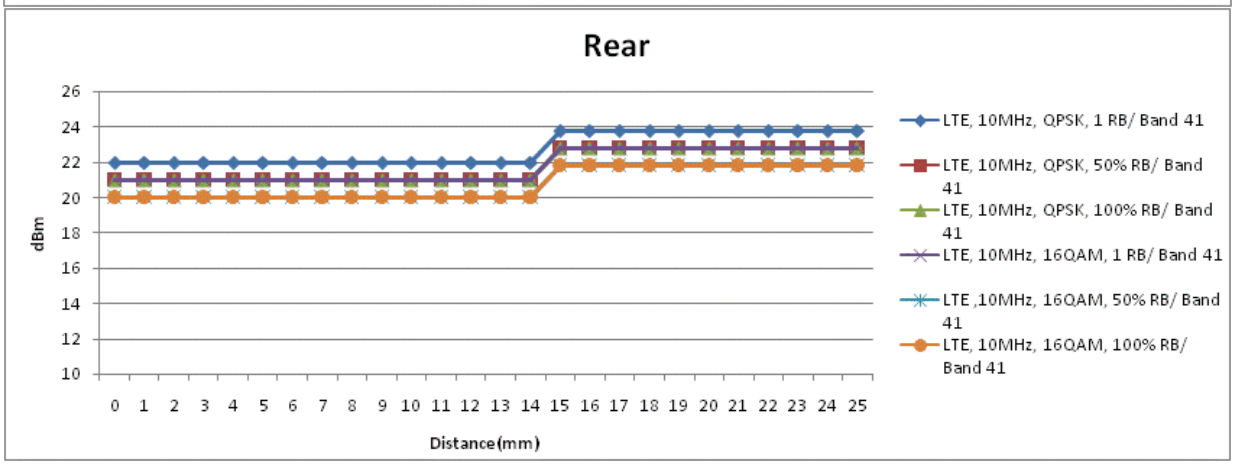

Edge 1
dBm
Distance(mm)
LTE, 5MHz, QPSK, 1 RB/ Band 30
LTE, 5MHz, QPSK, 50% RB/ Band 30
LTE, 5MHz, QPSK, 100% RB/ Band 30
LTE, 5MHz, 16QAM, 1 RB/ Band 30
LTE, 5MHz, 16QAM, 50% RB/ Band 30
LTE, 5MHz, 16QAM, 100% RB/ Band 30

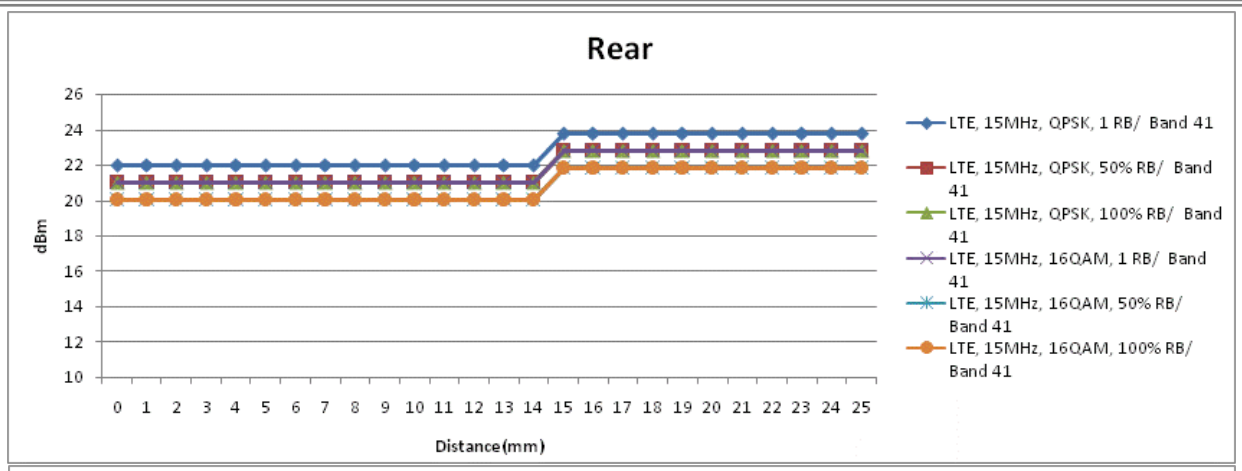

Edge 1
dBm
Distance(mm)
LTE, 10MHz, QPSK, 1 RB/ Band 30
LTE, 10MHz, QPSK, 50% RB/ Band 30
LTE, 10MHz, QPSK, 100% RB/ Band 30
LTE, 10MHz, 16QAM, 1 RB/ Band 30
LTE ,10MHz, 16QAM, 50% RB/ Band 30
LTE, 10MHz, 16QAM, 100% RB/ Band 30

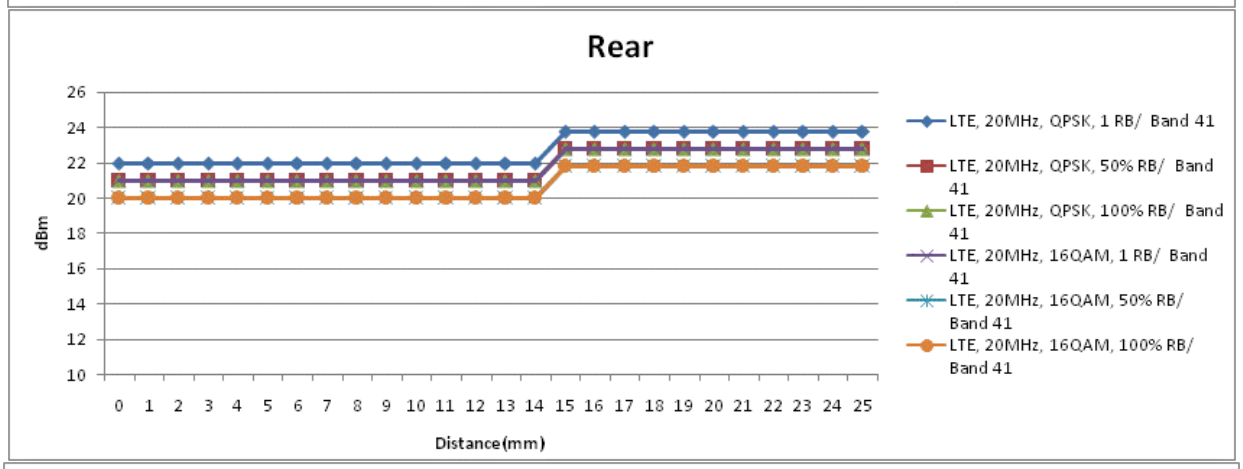

Edge 2
dBm
Distance(mm)
LTE, 5MHz, QPSK, 1 RB/ Band 30
LTE, 5MHz, QPSK, 50% RB/ Band 30
LTE, 5MHz, QPSK, 100% RB/ Band 30
LTE, 5MHz, 16QAM, 1 RB/ Band 30
LTE, 5MHz, 16QAM, 50% RB/ Band 30
LTE, 5MHz, 16QAM, 100% RB/ Band 30

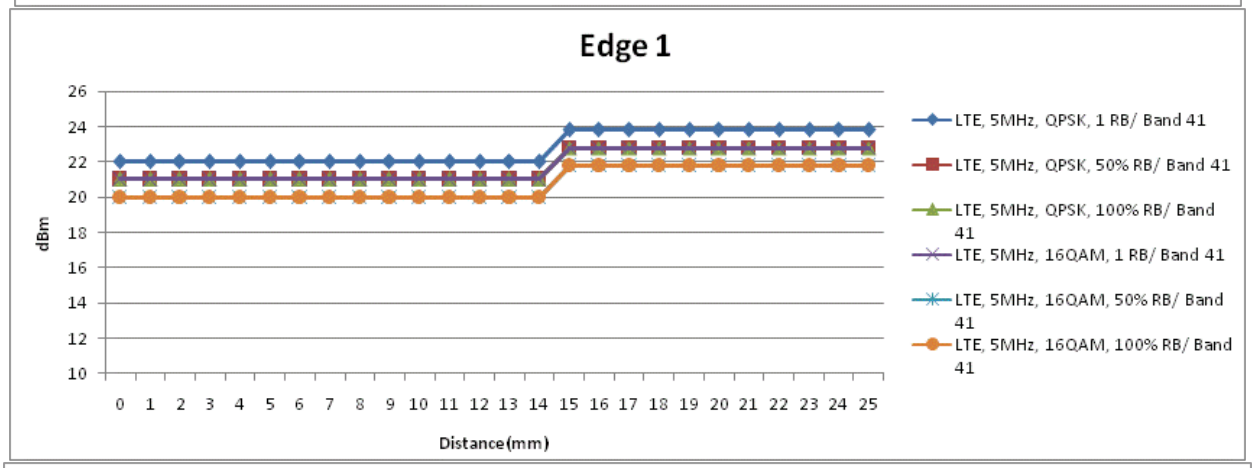

Edge 2
dBm
Distance(mm)
LTE, 10MHz, QPSK, 1 RB/ Band 30
LTE, 10MHz, QPSK, 50% RB/ Band 30
LTE, 10MHz, QPSK, 100% RB/ Band 30
LTE, 10MHz, 16QAM, 1 RB/ Band 30
LTE ,10MHz, 16QAM, 50% RB/ Band 30
LTE, 10MHz, 16QAM, 100% RB/ Band 30

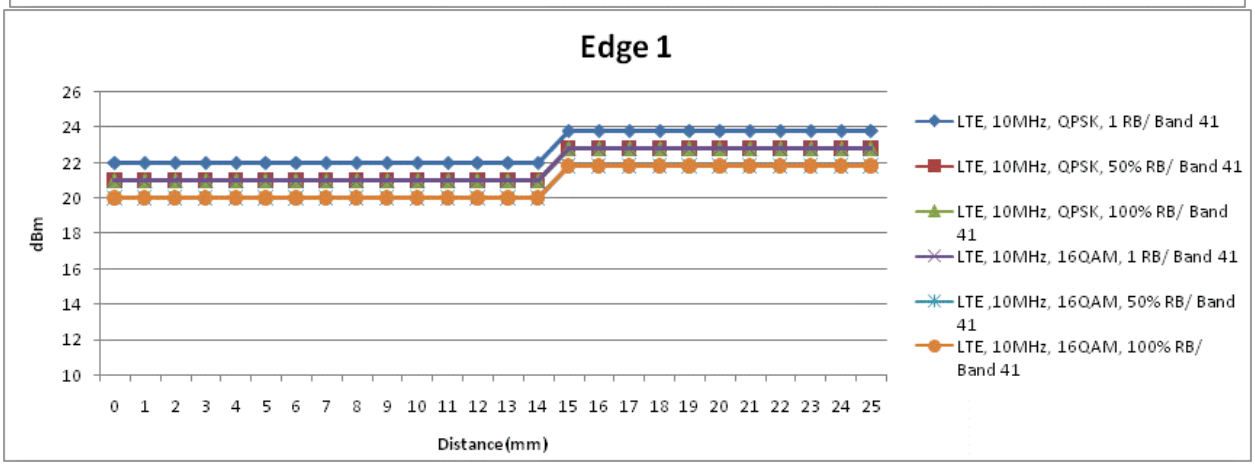

Rear
dBm
Distance(mm)
LTE, 5MHz, QPSK, 1 RB/ Band 41
LTE, 5MHz, QPSK, 50% RB/ Band 41
LTE, 5MHz, QPSK, 100% RB/ Band 41
LTE, 5MHz, 16QAM, 1 RB/ Band 41
LTE, 5MHz, 16QAM, 50% RB/ Band 41
LTE, 5MHz, 16QAM, 100% RB/ Band 41

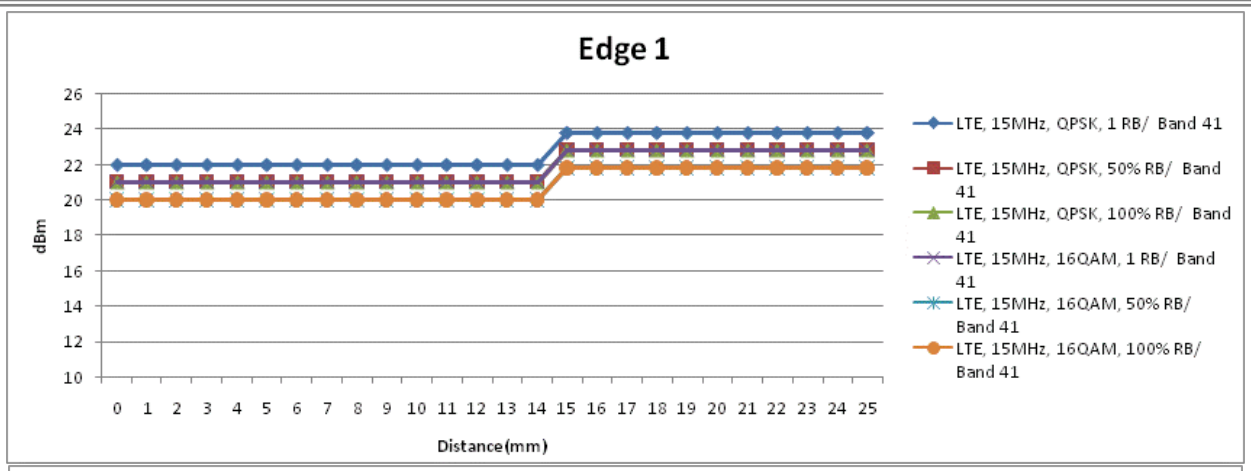

Rear
dBm
Distance(mm)
LTE, 10MHz, QPSK, 1 RB/ Band 41
LTE, 10MHz, QPSK, 50% RB/ Band 41
LTE, 10MHz, QPSK, 100% RB/ Band 41
LTE, 10MHz, 16QAM, 1 RB/ Band 41
LTE ,10MHz, 16QAM, 50% RB/ Band 41
LTE, 10MHz, 16QAM, 100% RB/ Band 41

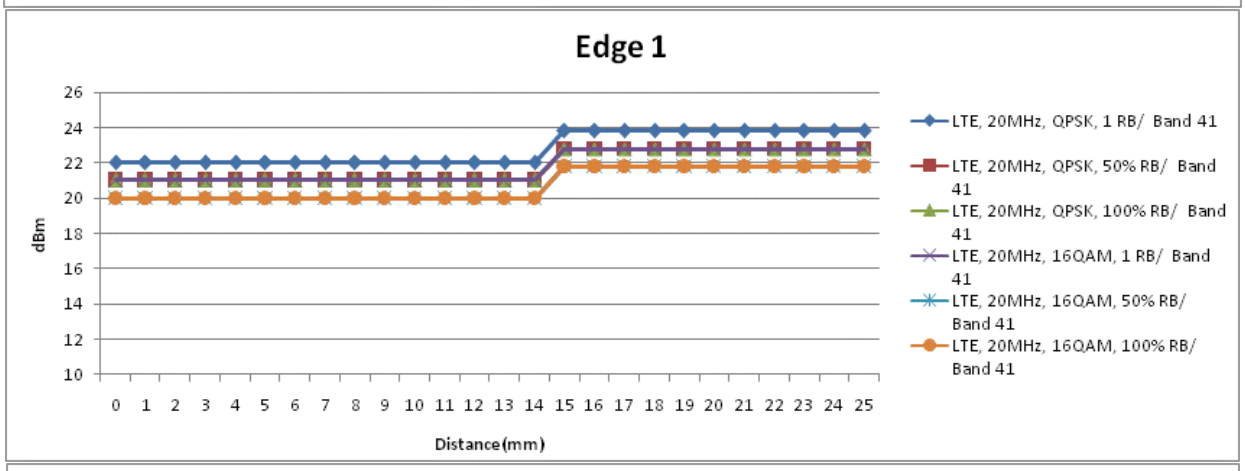

Rear
dBm
Distance(mm)
LTE, 15MHz, QPSK, 1 RB/ Band 41
LTE, 15MHz, QPSK, 50% RB/ Band 41
LTE, 15MHz, QPSK, 100% RB/ Band 41
LTE, 15MHz, 16QAM, 1 RB/ Band 41
LTE, 15MHz, 16QAM, 50% RB/ Band 41
LTE, 15MHz, 16QAM, 100% RB/ Band 41

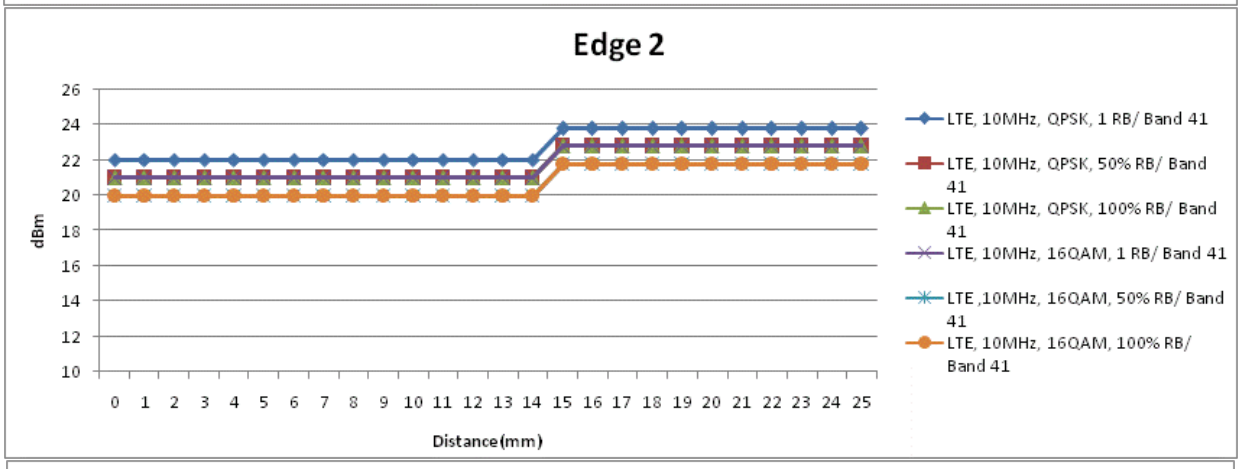

Rear
dBm
Distance(mm)
LTE, 20MHz, QPSK, 1 RB/ Band 41
LTE, 20MHz, QPSK, 50% RB/ Band 41
LTE, 20MHz, QPSK, 100% RB/ Band 41
LTE, 20MHz, 16QAM, 1 RB/ Band 41
LTE, 20MHz, 16QAM, 50% RB/ Band 41
LTE, 20MHz, 16QAM, 100% RB/ Band 41

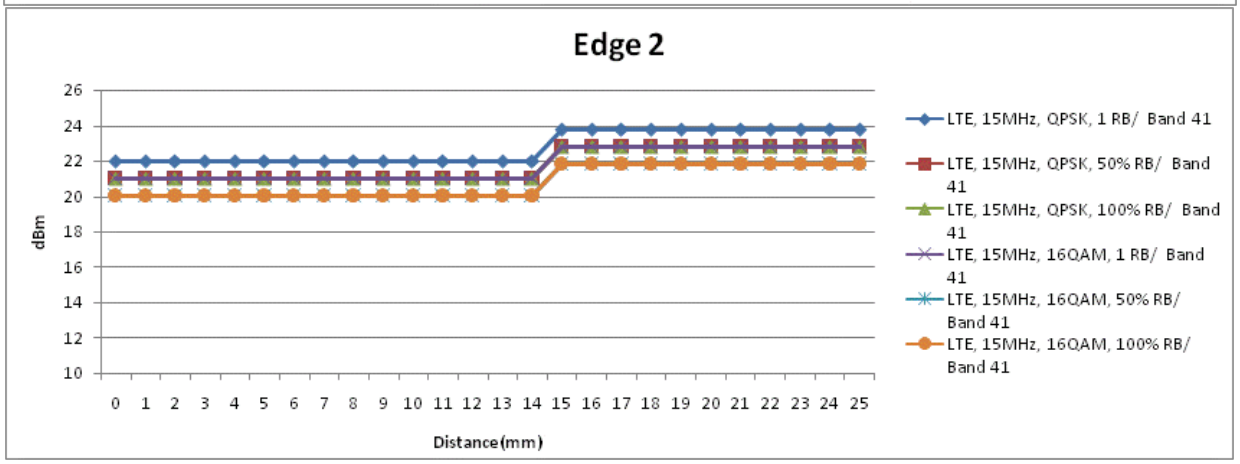

Edge 1
dBm
Distance(mm)
LTE, 5MHz, QPSK, 1 RB/ Band 41
LTE, 5MHz, QPSK, 50% RB/ Band 41
LTE, 5MHz, QPSK, 100% RB/ Band 41
LTE, 5MHz, 16QAM, 1 RB/ Band 41
LTE, 5MHz, 16QAM, 50% RB/ Band 41
LTE, 5MHz, 16QAM, 100% RB/ Band 41

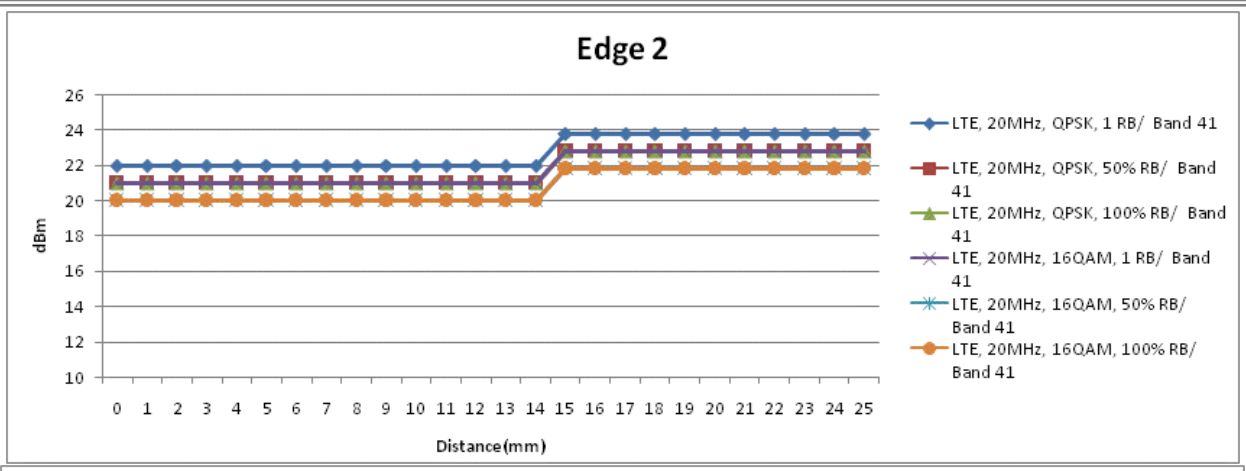

Edge 1
dBm
Distance(mm)
LTE, 10MHz, QPSK, 1 RB/ Band 41
LTE, 10MHz, QPSK, 50% RB/ Band 41
LTE, 10MHz, QPSK, 100% RB/ Band 41
LTE, 10MHz, 16QAM, 1 RB/ Band 41
LTE ,10MHz, 16QAM, 50% RB/ Band 41
LTE, 10MHz, 16QAM, 100% RB/ Band 41

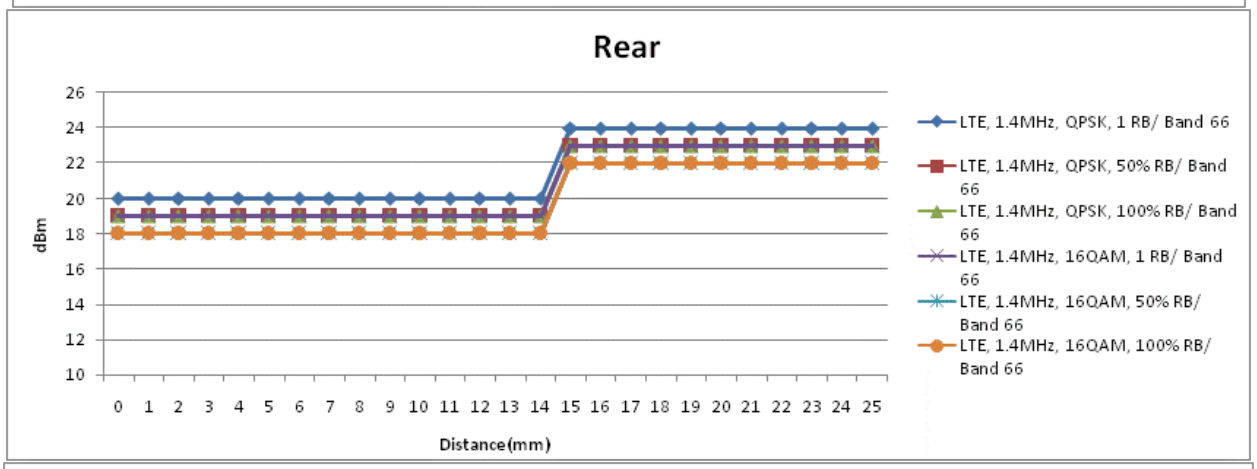

Edge 1
dBm
Distance(mm)
LTE, 15MHz, QPSK, 1 RB/ Band 41
LTE, 15MHz, QPSK, 50% RB/ Band 41
LTE, 15MHz, QPSK, 100% RB/ Band 41
LTE, 15MHz, 16QAM, 1 RB/ Band 41
LTE, 15MHz, 16QAM, 50% RB/ Band 41
LTE, 15MHz, 16QAM, 100% RB/ Band 41

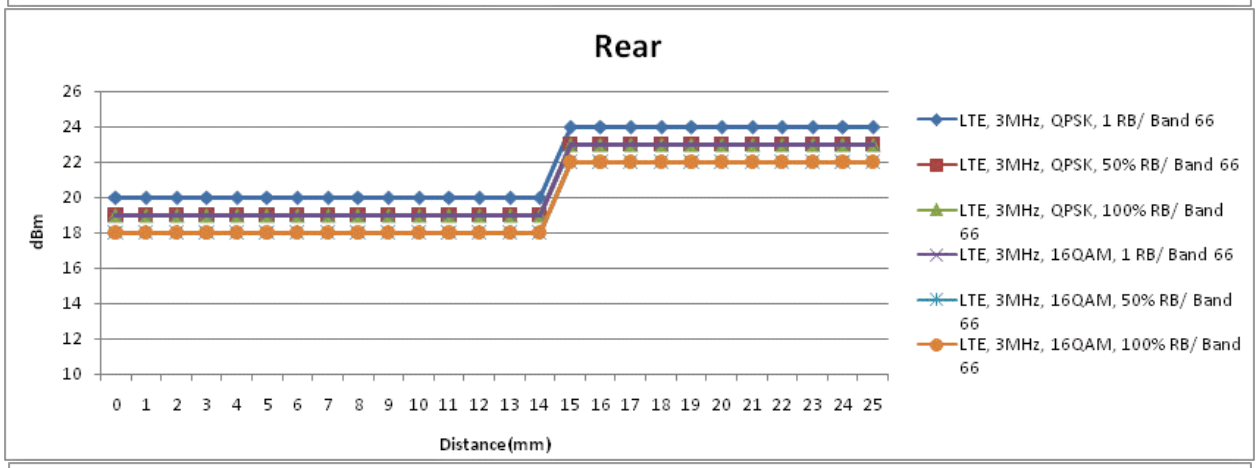

Edge 1
dBm
Distance(mm)
LTE, 20MHz, QPSK, 1 RB/ Band 41
LTE, 20MHz, QPSK, 50% RB/ Band 41
LTE, 20MHz, QPSK, 100% RB/ Band 41
LTE, 20MHz, 16QAM, 1 RB/ Band 41
LTE, 20MHz, 16QAM, 50% RB/ Band 41
LTE, 20MHz, 16QAM, 100% RB/ Band 41

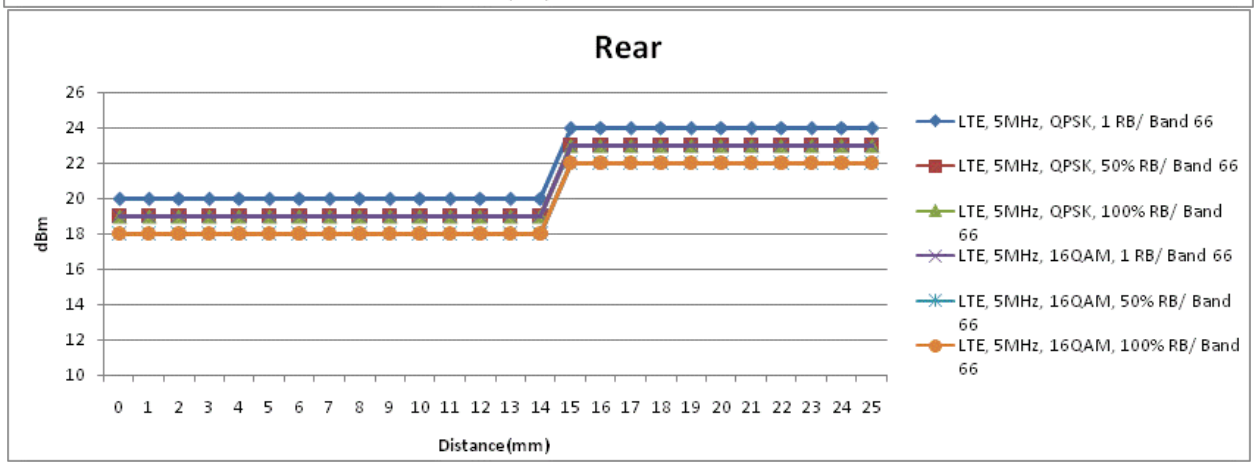

Edge 2
dBm
Distance(mm)
LTE, 10MHz, QPSK, 1 RB/ Band 41
LTE, 10MHz, QPSK, 50% RB/ Band 41
LTE, 10MHz, QPSK, 100% RB/ Band 41
LTE, 10MHz, 16QAM, 1 RB/ Band 41
LTE ,10MHz, 16QAM, 50% RB/ Band 41
LTE, 10MHz, 16QAM, 100% RB/ Band 41

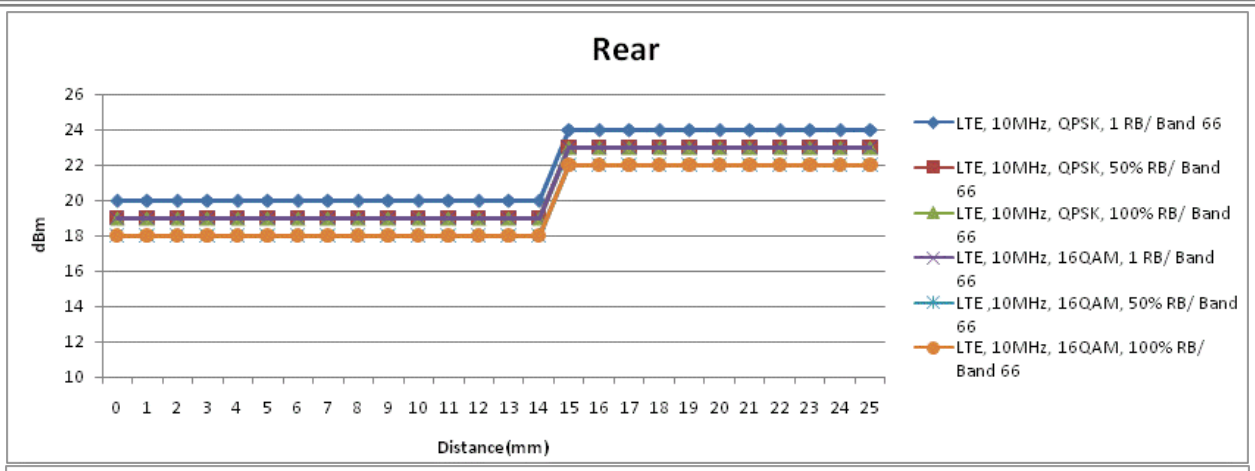

Edge 2
dBm
Distance(mm)
LTE, 15MHz, QPSK, 1 RB/ Band 41
LTE, 15MHz, QPSK, 50% RB/ Band 41
LTE, 15MHz, QPSK, 100% RB/ Band 41
LTE, 15MHz, 16QAM, 1 RB/ Band 41
LTE, 15MHz, 16QAM, 50% RB/ Band 41
LTE, 15MHz, 16QAM, 100% RB/ Band 41

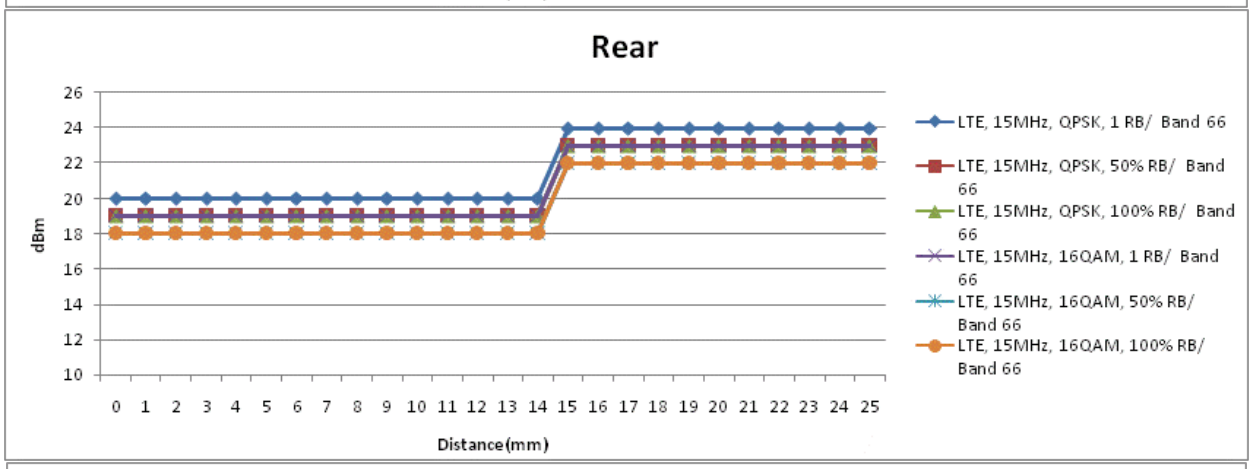

Edge 2
dBm
Distance(mm)
LTE, 20MHz, QPSK, 1 RB/ Band 41
LTE, 20MHz, QPSK, 50% RB/ Band 41
LTE, 20MHz, QPSK, 100% RB/ Band 41
LTE, 20MHz, 16QAM, 1 RB/ Band 41
LTE, 20MHz, 16QAM, 50% RB/ Band 41
LTE, 20MHz, 16QAM, 100% RB/ Band 41

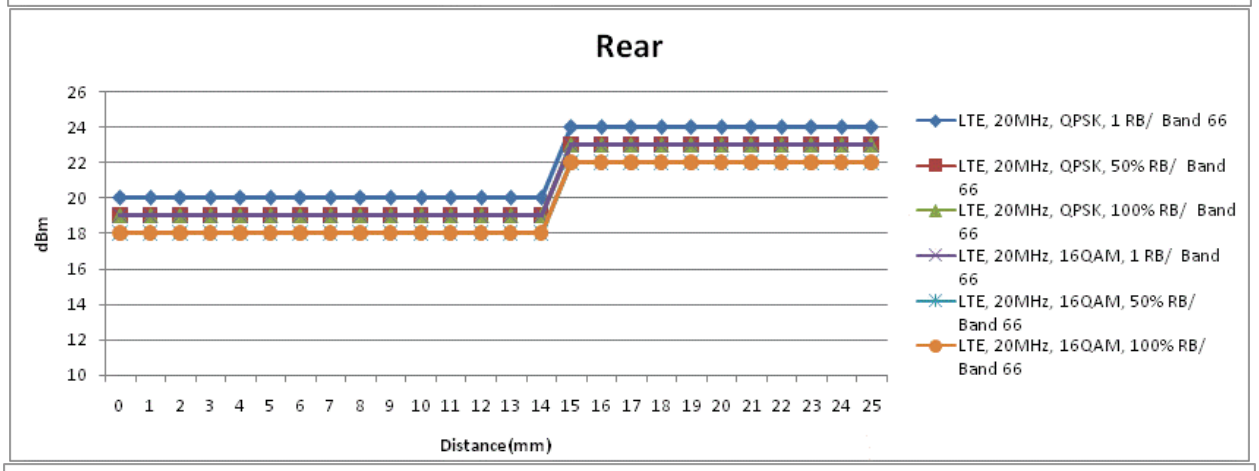

Rear
dBm
Distance(mm)
LTE, 1.4MHz, QPSK, 1 RB/ Band 66
LTE, 1.4MHz, QPSK, 50% RB/ Band 66
LTE, 1.4MHz, QPSK, 100% RB/ Band 66
LTE, 1.4MHz, 16QAM, 1 RB/ Band 66
LTE, 1.4MHz, 16QAM, 50% RB/ Band 66
LTE, 1.4MHz, 16QAM, 100% RB/ Band 66

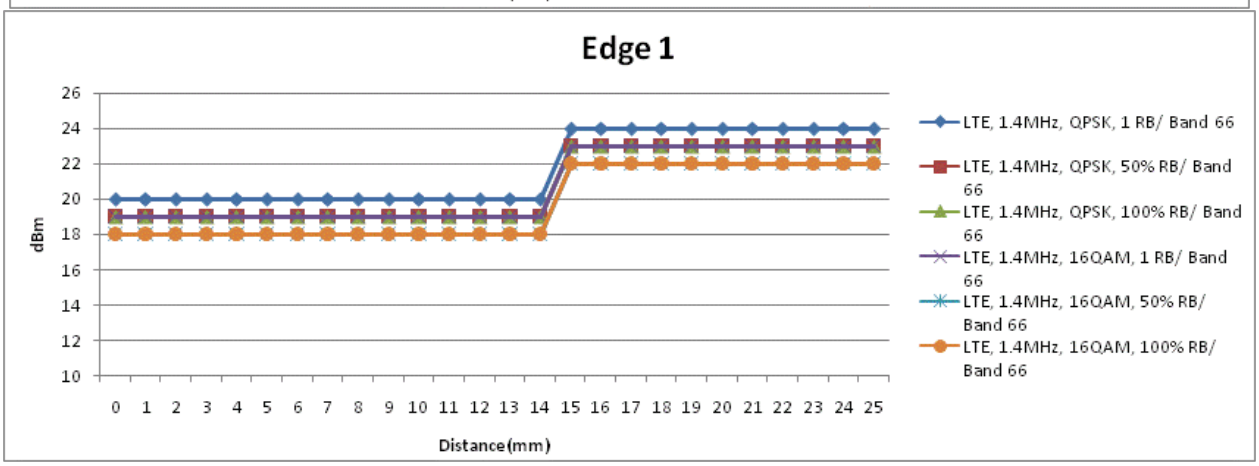

Rear
dBm
Distance(mm)
LTE, 3MHz, QPSK, 1 RB/ Band 66
LTE, 3MHz, QPSK, 50% RB/ Band 66
LTE, 3MHz, QPSK, 100% RB/ Band 66
LTE, 3MHz, 16QAM, 1 RB/ Band 66
LTE, 3MHz, 16QAM, 50% RB/ Band 66
LTE, 3MHz, 16QAM, 100% RB/ Band 66

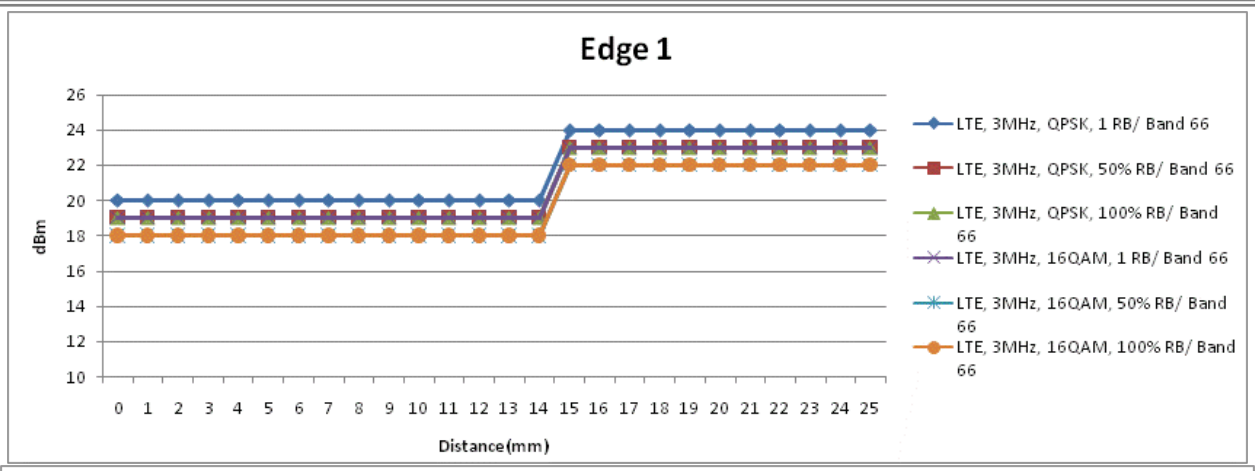

Rear
dBm
Distance(mm)
LTE, 5MHz, QPSK, 1 RB/ Band 66
LTE, 5MHz, QPSK, 50% RB/ Band 66
LTE, 5MHz, QPSK, 100% RB/ Band 66
LTE, 5MHz, 16QAM, 1 RB/ Band 66
LTE, 5MHz, 16QAM, 50% RB/ Band 66
LTE, 5MHz, 16QAM, 100% RB/ Band 66

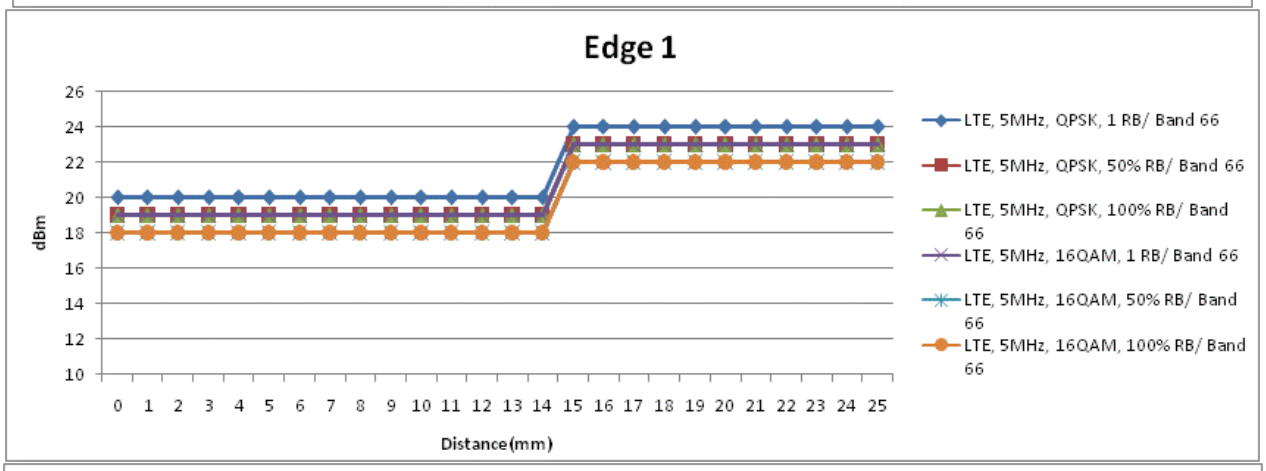

Rear
dBm
Distance(mm)
LTE, 10MHz, QPSK, 1 RB/ Band 66
LTE, 10MHz, QPSK, 50% RB/ Band 66
LTE, 10MHz, QPSK, 100% RB/ Band 66
LTE, 10MHz, 16QAM, 1 RB/ Band 66
LTE ,10MHz, 16QAM, 50% RB/ Band 66
LTE, 10MHz, 16QAM, 100% RB/ Band 66

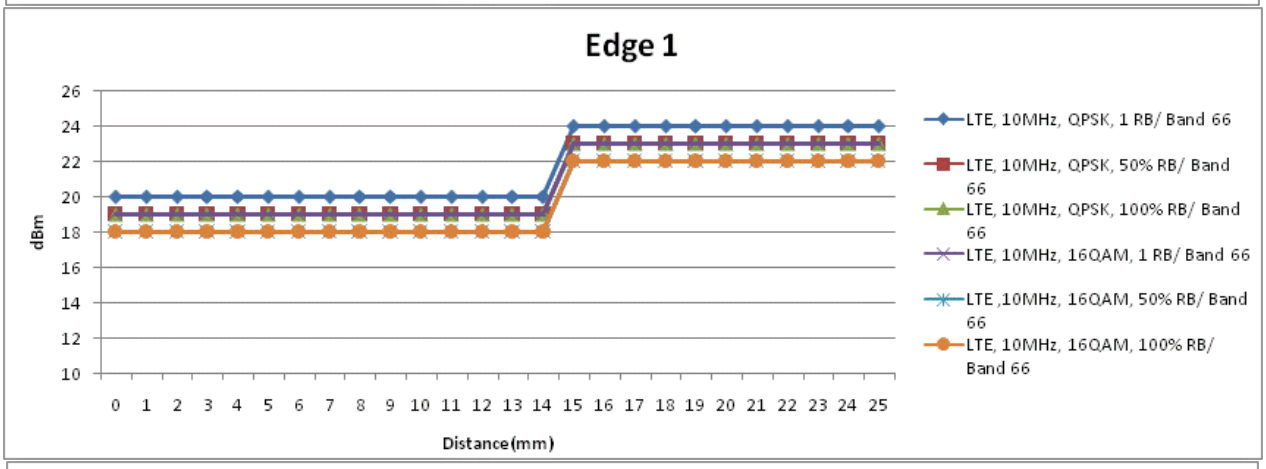

Rear
dBm
Distance(mm)
LTE, 15MHz, QPSK, 1 RB/ Band 66
LTE, 15MHz, QPSK, 50% RB/ Band 66
LTE, 15MHz, QPSK, 100% RB/ Band 66
LTE, 15MHz, 16QAM, 1 RB/ Band 66
LTE, 15MHz, 16QAM, 50% RB/ Band 66
LTE, 15MHz, 16QAM, 100% RB/ Band 66

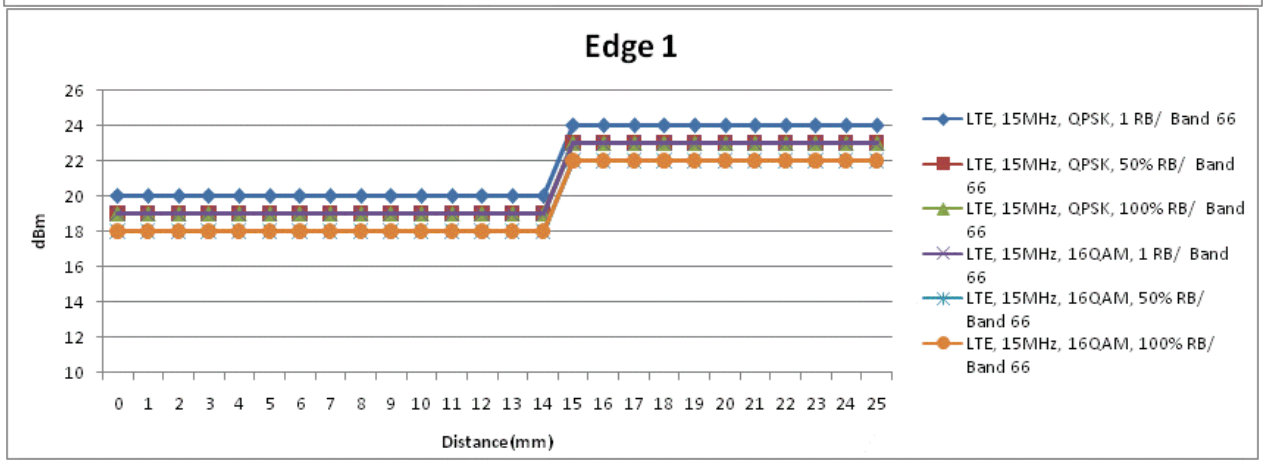

Rear
dBm
Distance(mm)
LTE, 20MHz, QPSK, 1 RB/ Band 66
LTE, 20MHz, QPSK, 50% RB/ Band 66
LTE, 20MHz, QPSK, 100% RB/ Band 66
LTE, 20MHz, 16QAM, 1 RB/ Band 66
LTE, 20MHz, 16QAM, 50% RB/ Band 66
LTE, 20MHz, 16QAM, 100% RB/ Band 66

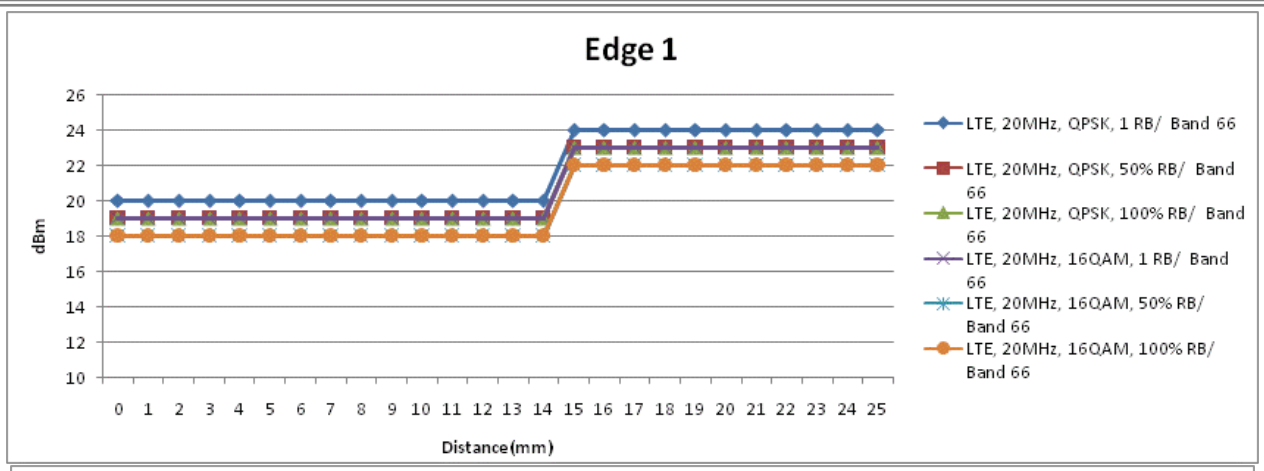

Edge 1
dBm
Distance(mm)
LTE, 1.4MHz, QPSK, 1 RB/ Band 66
LTE, 1.4MHz, QPSK, 50% RB/ Band 66
LTE, 1.4MHz, QPSK, 100% RB/ Band 66
LTE, 1.4MHz, 16QAM, 1 RB/ Band 66
LTE, 1.4MHz, 16QAM, 50% RB/ Band 66
LTE, 1.4MHz, 16QAM, 100% RB/ Band 66

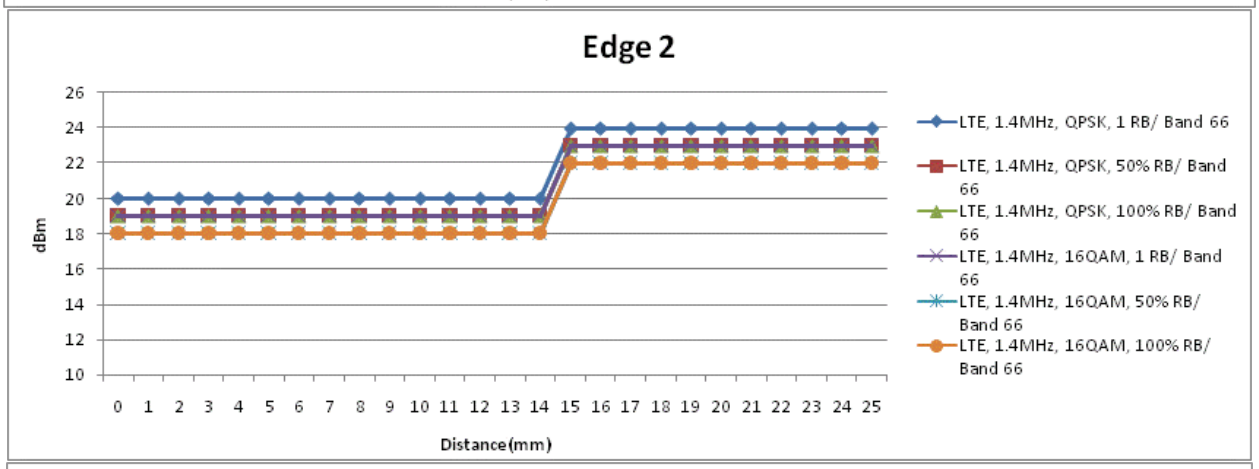

Edge 1
dBm
Distance(mm)
LTE, 3MHz, QPSK, 1 RB/ Band 66
LTE, 3MHz, QPSK, 50% RB/ Band 66
LTE, 3MHz, QPSK, 100% RB/ Band 66
LTE, 3MHz, 16QAM, 1 RB/ Band 66
LTE, 3MHz, 16QAM, 50% RB/ Band 66
LTE, 3MHz, 16QAM, 100% RB/ Band 66

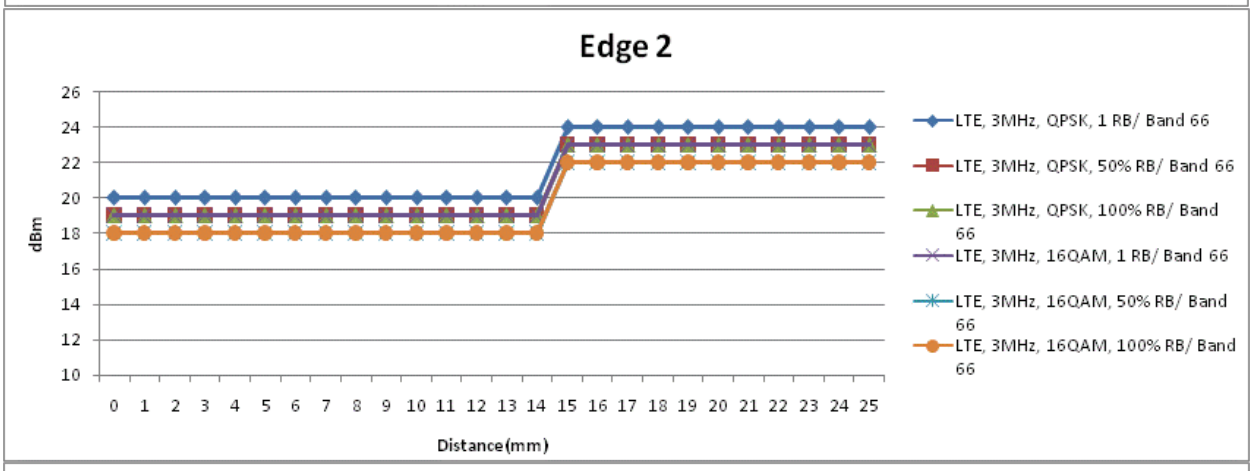

Edge 1
dBm
Distance(mm)
LTE, 5MHz, QPSK, 1 RB/ Band 66
LTE, 5MHz, QPSK, 50% RB/ Band 66
LTE, 5MHz, QPSK, 100% RB/ Band 66
LTE, 5MHz, 16QAM, 1 RB/ Band 66
LTE, 5MHz, 16QAM, 50% RB/ Band 66
LTE, 5MHz, 16QAM, 100% RB/ Band 66

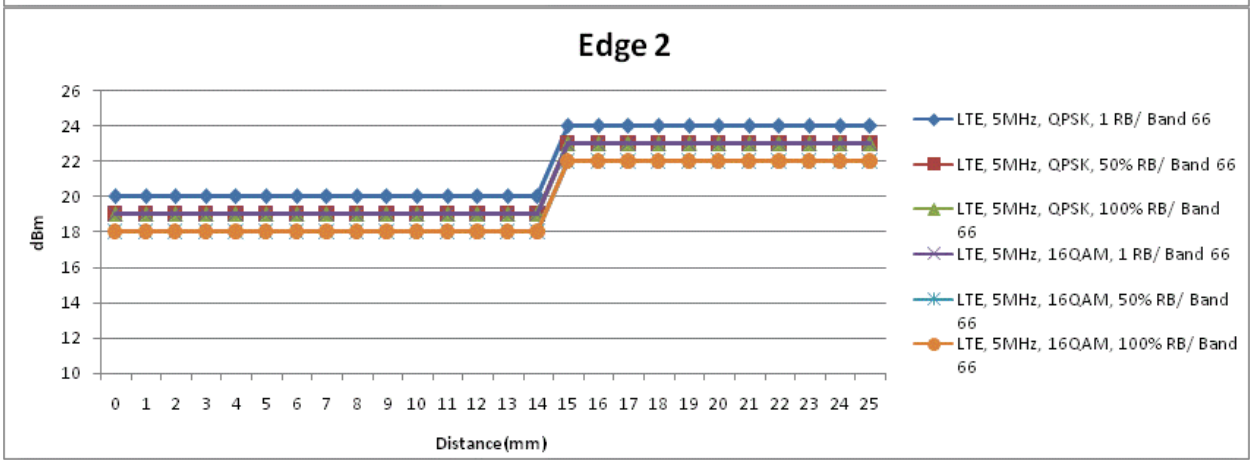

Edge 1
dBm
Distance(mm)
LTE, 10MHz, QPSK, 1 RB/ Band 66
LTE, 10MHz, QPSK, 50% RB/ Band 66
LTE, 10MHz, QPSK, 100% RB/ Band 66
LTE, 10MHz, 16QAM, 1 RB/ Band 66
LTE ,10MHz, 16QAM, 50% RB/ Band 66
LTE, 10MHz, 16QAM, 100% RB/ Band 66

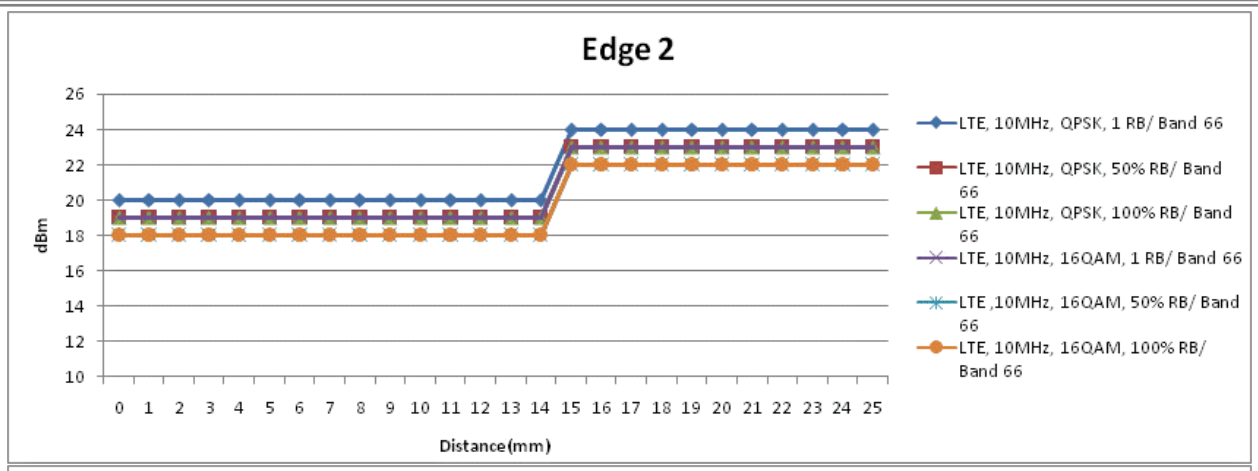

Edge 1
dBm
Distance(mm)
LTE, 15MHz, QPSK, 1 RB/ Band 66
LTE, 15MHz, QPSK, 50% RB/ Band 66
LTE, 15MHz, QPSK, 100% RB/ Band 66
LTE, 15MHz, 16QAM, 1 RB/ Band 66
LTE, 15MHz, 16QAM, 50% RB/ Band 66
LTE, 15MHz, 16QAM, 100% RB/ Band 66

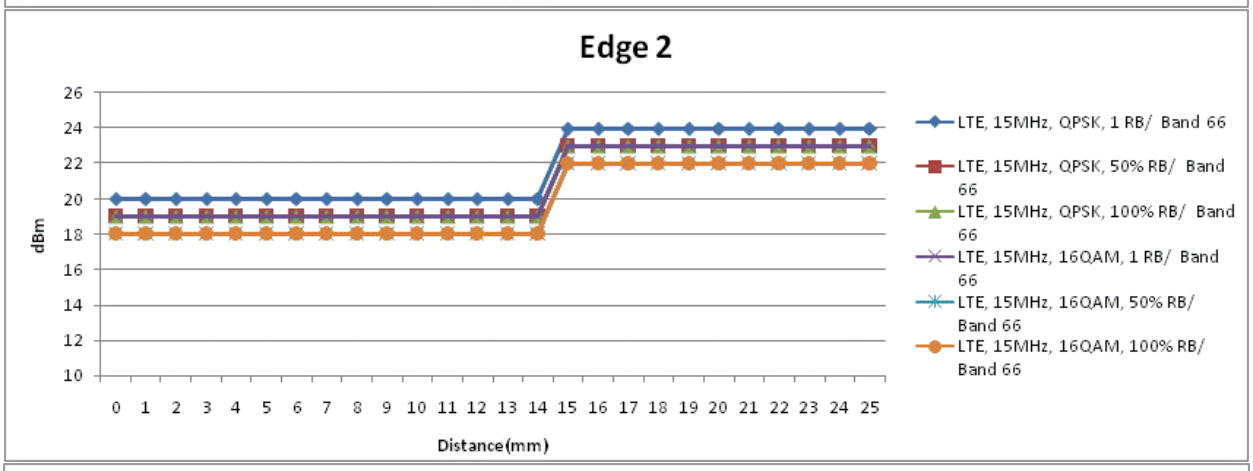

Edge 1
dBm
Distance(mm)
LTE, 20MHz, QPSK, 1 RB/ Band 66
LTE, 20MHz, QPSK, 50% RB/ Band 66
LTE, 20MHz, QPSK, 100% RB/ Band 66
LTE, 20MHz, 16QAM, 1 RB/ Band 66
LTE, 20MHz, 16QAM, 50% RB/ Band 66
LTE, 20MHz, 16QAM, 100% RB/ Band 66

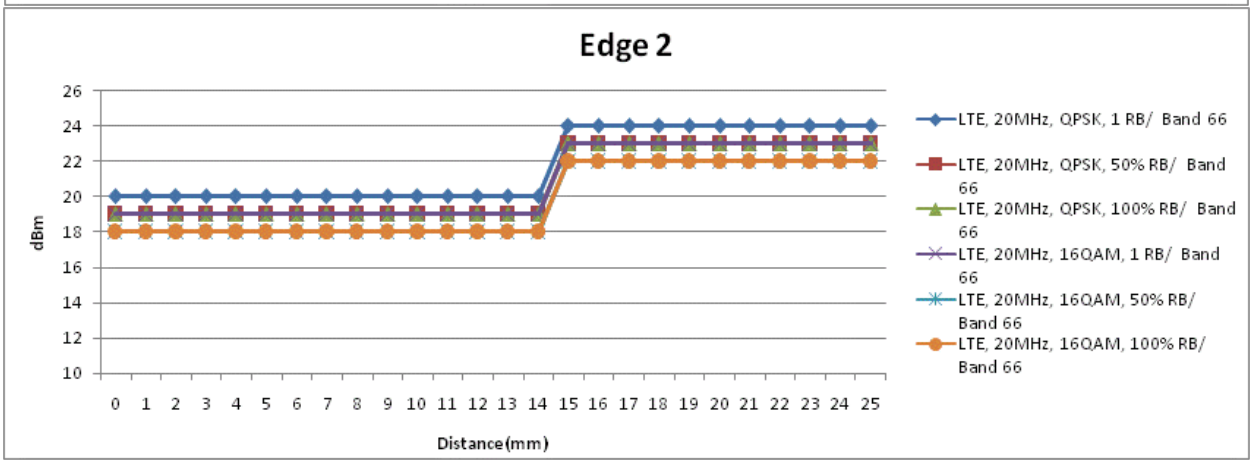

Edge 2
dBm
Distance(mm)
LTE, 1.4MHz, QPSK, 1 RB/ Band 66
LTE, 1.4MHz, QPSK, 50% RB/ Band 66
LTE, 1.4MHz, QPSK, 100% RB/ Band 66
LTE, 1.4MHz, 16QAM, 1 RB/ Band 66
LTE, 1.4MHz, 16QAM, 50% RB/ Band 66
LTE, 1.4MHz, 16QAM, 100% RB/ Band 66


Edge 2
dBm
Distance(mm)
LTE, 3MHz, QPSK, 1 RB/ Band 66
LTE, 3MHz, QPSK, 50% RB/ Band 66
LTE, 3MHz, QPSK, 100% RB/ Band 66
LTE, 3MHz, 16QAM, 1 RB/ Band 66
LTE, 3MHz, 16QAM, 50% RB/ Band 66
LTE, 3MHz, 16QAM, 100% RB/ Band 66


Edge 2
dBm
Distance(mm)
LTE, 5MHz, QPSK, 1 RB/ Band 66
LTE, 5MHz, QPSK, 50% RB/ Band 66
LTE, 5MHz, QPSK, 100% RB/ Band 66
LTE, 5MHz, 16QAM, 1 RB/ Band 66
LTE, 5MHz, 16QAM, 50% RB/ Band 66
LTE, 5MHz, 16QAM, 100% RB/ Band 66


Edge 2
dBm
Distance(mm)
LTE, 10MHz, QPSK, 1 RB/ Band 66
LTE, 10MHz, QPSK, 50% RB/ Band 66
LTE, 10MHz, QPSK, 100% RB/ Band 66
LTE, 10MHz, 16QAM, 1 RB/ Band 66
LTE ,10MHz, 16QAM, 50% RB/ Band 66
LTE, 10MHz, 16QAM, 100% RB/ Band 66


Edge 2
dBm
Distance(mm)
LTE, 15MHz, QPSK, 1 RB/ Band 66
LTE, 15MHz, QPSK, 50% RB/ Band 66
LTE, 15MHz, QPSK, 100% RB/ Band 66
LTE, 15MHz, 16QAM, 1 RB/ Band 66
LTE, 15MHz, 16QAM, 50% RB/ Band 66
LTE, 15MHz, 16QAM, 100% RB/ Band 66


Edge 2
dBm
Distance(mm)
LTE, 20MHz, QPSK, 1 RB/ Band 66
LTE, 20MHz, QPSK, 50% RB/ Band 66
LTE, 20MHz, QPSK, 100% RB/ Band 66
LTE, 20MHz, 16QAM, 1 RB/ Band 66
LTE, 20MHz, 16QAM, 50% RB/ Band 66
LTE, 20MHz, 16QAM, 100% RB/ Band 66

8.5. Conducted Power Results

8.5.1. UMTS BAND

P-sensor off

Band	UMTS Band II Average Conducted Power(dBm)			
Tx Channel	Max. Tune-up power (dBm)	9262	9400	9538
Rx Channel		9662	9800	9938
Frequency		1852.4MHz	1880MHz	1907.6MHz
RMC 12.2K	24.00	23.65	23.76	23.48
HSDPA Subtest-1	24.00	23.63	23.71	23.41
HSDPA Subtest-2	23.50	23.42	23.48	23.41
HSDPA Subtest-3	23.00	22.87	22.98	22.76
HSDPA Subtest-4	23.00	22.76	22.86	22.71
HSUPA Subtest-1	24.00	23.63	23.75	23.42
HSUPA Subtest-2	22.00	21.78	21.89	21.66
HSUPA Subtest-3	23.00	22.78	22.89	22.64
HSUPA Subtest-4	22.00	21.78	21.85	21.69
HSUPA Subtest-5	24.00	23.58	23.72	23.64

P-sensor on

Band	UMTS Band II Average Conducted Power(dBm)			
Tx Channel	Max. Tune-up power (dBm)	9262	9400	9538
Rx Channel		9662	9800	9938
Frequency		1852.4MHz	1880MHz	1907.6MHz
RMC 12.2K	18.00	17.79	17.81	17.61
HSDPA Subtest-1	18.00	17.74	17.77	17.58
HSDPA Subtest-2	17.50	17.32	17.44	17.31
HSDPA Subtest-3	17.00	16.79	16.84	16.81
HSDPA Subtest-4	17.00	16.81	16.82	16.77
HSUPA Subtest-1	18.00	17.75	17.81	17.59
HSUPA Subtest-2	16.00	15.84	15.94	15.89
HSUPA Subtest-3	17.00	16.84	16.94	16.74
HSUPA Subtest-4	16.00	15.84	15.91	15.73
HSUPA Subtest-5	18.00	17.74	17.77	17.64

P-sensor off

Band	UMTS Band IV Average Conducted Power(dBm)			
Tx Channel	Max. Tune-up power (dBm)	1312	1413	1513
Rx Channel		1537	1652	1738
Frequency		1712.4MHz	1732.6MHz	1752.6MHz
RMC 12.2K	24.00	23.84	23.94	23.78
HSDPA Subtest-1	24.00	23.81	23.91	23.75
HSDPA Subtest-2	23.50	23.36	23.48	23.31
HSDPA Subtest-3	23.00	22.84	22.89	22.76
HSDPA Subtest-4	23.00	22.83	22.87	22.74
HSUPA Subtest-1	24.00	23.84	23.91	23.75
HSUPA Subtest-2	22.00	21.74	21.84	21.70
HSUPA Subtest-3	23.00	22.74	22.89	22.68
HSUPA Subtest-4	22.00	21.68	21.78	21.62
HSUPA Subtest-5	24.00	23.75	23.84	23.77

P-sensor on

Band	UMTS Band IV Average Conducted Power(dBm)			
Tx Channel	Max. Tune-up power (dBm)	1312	1413	1513
Rx Channel		1537	1652	1738
Frequency		1712.4MHz	1732.6MHz	1752.6MHz
RMC 12.2K	21.00	20.65	20.74	20.66
HSDPA Subtest-1	21.00	20.25	20.25	20.24
HSDPA Subtest-2	20.50	20.31	20.41	20.34
HSDPA Subtest-3	20.00	19.27	19.20	19.22
HSDPA Subtest-4	20.00	19.23	19.36	19.21
HSUPA Subtest-1	21.00	20.54	20.64	20.51
HSUPA Subtest-2	19.00	18.45	18.51	18.34
HSUPA Subtest-3	20.00	19.84	19.94	19.81
HSUPA Subtest-4	19.00	18.65	18.71	18.59
HSUPA Subtest-5	21.00	20.58	20.71	20.52

P-sensor off

Band	UMTS Band V Average Conducted Power(dBm)			
Tx Channel	Max. Tune-up power (dBm)	4132	4182	4233
Rx Channel		4357	4407	4458
Frequency		826.4MHz	836.6MHz	846.6MHz
RMC 12.2K	24.00	23.71	23.84	23.68
HSDPA Subtest-1	24.00	23.68	23.79	23.65
HSDPA Subtest-2	23.50	23.34	23.41	23.30
HSDPA Subtest-3	23.00	22.74	22.84	22.71
HSDPA Subtest-4	23.00	22.71	22.81	22.65
HSUPA Subtest-1	24.00	23.69	23.79	23.65
HSUPA Subtest-2	22.00	21.74	21.81	21.71
HSUPA Subtest-3	23.00	22.70	22.84	22.65
HSUPA Subtest-4	22.00	21.76	21.84	21.71
HSUPA Subtest-5	24.00	23.68	23.85	23.64

P-sensor on

Band	UMTS Band V Average Conducted Power(dBm)			
Tx Channel	Max. Tune-up power (dBm)	4132	4182	4233
Rx Channel		4357	4407	4458
Frequency		826.4MHz	826.4MHz	1977.4MHz
RMC 12.2K	22.00	21.91	21.94	21.91
HSDPA Subtest-1	22.00	21.87	21.82	21.75
HSDPA Subtest-2	21.50	21.30	21.46	21.38
HSDPA Subtest-3	21.00	20.85	20.84	20.77
HSDPA Subtest-4	21.00	20.81	20.98	20.90
HSUPA Subtest-1	22.00	21.78	21.76	21.74
HSUPA Subtest-2	20.00	19.80	19.90	19.78
HSUPA Subtest-3	21.00	20.77	20.90	20.73
HSUPA Subtest-4	20.00	19.72	19.85	19.65
HSUPA Subtest-5	22.00	21.63	21.72	21.59

8.5.2. LTE BAND

LTE Band 2

P-sensor off

LTE B2/BW=1.4M		Average Conducted Power(dBm)				LTE B2/BW=3M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			18607/ 1850.7	18900/ 1880.0	19192/ 1909.2				18615/ 1851.5	18900/ 1880.0	19184/ 1908.4
QPSK	1/0	24.00	23.30	23.36	23.27	QPSK	1/0	24.00	23.35	23.41	23.32
	1/3	24.00	23.26	23.34	23.24		1/8	24.00	23.31	23.39	23.29
	1/5	24.00	23.24	23.30	23.20		1/14	24.00	23.29	23.35	23.25
	3/0	23.00	23.30	23.36	23.27		8/0	23.00	22.46	22.52	22.43
	3/1	23.00	23.26	23.34	23.24		8/4	23.00	22.47	18.61	22.45
	3/3	23.00	23.24	23.30	23.20		8/7	23.00	22.43	22.49	22.39
	6/0	23.00	22.41	22.47	22.38		15/0	23.00	22.46	22.52	22.43
16QAM	1/0	23.00	22.39	22.45	22.36	16QAM	1/0	23.00	22.44	22.50	22.41
	1/3	23.00	22.36	22.44	22.34		1/8	23.00	22.41	22.49	22.39
	1/5	23.00	22.35	22.41	22.31		1/14	23.00	22.40	22.46	22.36
	3/0	22.00	22.39	22.45	22.36		8/0	22.00	21.34	21.40	21.30
	3/1	22.00	22.36	22.44	22.34		8/4	22.00	21.42	21.50	21.40
	3/3	22.00	22.35	22.41	22.31		8/7	22.00	21.37	21.45	21.35
	6/0	22.00	21.29	21.35	21.25		15/0	22.00	21.34	21.42	21.32

LTE B2/BW=5M		Average Conducted Power(dBm)				LTE B2/BW=10M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			18625/ 1852.5	18900/ 1880	19175/ 1907.5				18650/ 1855	18900/ 1880	19150/ 1905
QPSK	1/0	24.00	23.40	23.46	23.37	QPSK	1/0	24.00	23.45	23.51	23.42
	1/12	24.00	23.36	23.44	23.34		1/24	24.00	23.41	23.49	23.39
	1/24	24.00	23.34	23.40	23.30		1/49	24.00	23.39	23.45	23.35
	12/0	23.00	22.51	22.57	22.48		25/0	23.00	22.56	22.62	22.53
	12/6	23.00	22.52	18.66	22.50		25/12	23.00	22.57	18.71	22.55
	12/11	23.00	22.48	22.54	22.44		25/24	23.00	22.53	22.59	22.49
	25/0	23.00	22.51	22.57	22.48		50/0	23.00	22.56	22.62	22.53
16QAM	1/0	23.00	22.49	22.55	22.46	16QAM	1/0	23.00	22.54	22.60	22.51
	1/12	23.00	22.46	22.54	22.44		1/24	23.00	22.51	22.59	22.49
	1/24	23.00	22.45	22.51	22.41		1/49	23.00	22.50	22.56	22.46
	12/0	22.00	21.39	21.45	21.35		25/0	22.00	21.44	21.50	21.40
	12/6	22.00	21.47	21.55	21.45		25/12	22.00	21.52	21.60	21.50
	12/11	22.00	21.42	21.50	21.40		25/24	22.00	21.47	21.55	21.45
	25/0	22.00	21.39	21.47	21.37		50/0	22.00	21.44	21.52	21.42

LTE B2/BW=15M		Average Conducted Power(dBm)				LTE B2/BW=20M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			18675/ 1857.5	18900/ 1880	19125/ 1902.5				18700/ 1860	18900/ 1880	19100/ 1900
QPSK	1/0	24.00	23.50	23.56	23.47	QPSK	1/0	24.00	23.55	23.61	23.52
	1/37	24.00	23.46	23.54	23.44		1/49	24.00	23.51	23.59	23.49
	1/74	24.00	23.44	23.50	23.40		1/99	24.00	23.49	23.55	23.45
	36/0	23.00	22.61	22.67	22.58		50/0	23.00	22.66	22.72	22.63
	36/18	23.00	22.62	18.76	22.60		50/24	23.00	22.67	18.81	22.65
	36/35	23.00	22.58	22.64	22.54		50/49	23.00	22.63	22.69	22.59
	75/0	23.00	22.61	22.67	22.58		100/0	23.00	22.66	22.72	22.63
16QAM	1/0	23.00	22.59	22.65	22.56	16QAM	1/0	23.00	22.64	22.70	22.61
	1/37	23.00	22.56	22.64	22.54		1/49	23.00	22.61	22.69	22.59
	1/74	23.00	22.55	22.61	22.51		1/99	23.00	22.60	22.66	22.56
	36/0	22.00	21.49	21.55	21.45		50/0	22.00	21.54	21.60	21.50
	36/18	22.00	21.57	21.65	21.55		50/24	22.00	21.62	21.70	21.60
	36/35	22.00	21.52	21.60	21.50		50/49	22.00	21.57	21.65	21.55
	75/0	22.00	21.49	21.57	21.47		100/0	22.00	21.54	21.62	21.52

P-sensor on

LTE B2/BW=1.4M		Average Conducted Power(dBm)				LTE B2/BW=3M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			18607/ 1850.7	18900/ 1880.0	19192/ 1909.2				18615/ 1851.5	18900/ 1880.0	19184/ 1908.4
QPSK	1/0	18.00	17.40	17.41	17.34	QPSK	1/0	18.00	17.45	17.46	17.39
	1/3	18.00	17.14	17.33	17.08		1/8	18.00	17.19	17.38	17.13
	1/5	18.00	17.03	17.14	17.04		1/14	18.00	17.08	17.19	17.09
	3/0	17.00	17.41	17.42	17.35		8/0	17.00	16.56	16.57	16.50
	3/1	17.00	17.20	17.39	17.14		8/4	17.00	16.35	16.54	16.29
	3/3	17.00	17.07	17.18	17.08		8/7	17.00	16.22	16.33	16.23
	6/0	17.00	16.51	16.44	16.45		15/0	17.00	16.56	16.49	16.50
16QAM	1/0	17.00	16.49	16.50	16.43	16QAM	1/0	17.00	16.54	16.55	16.48
	1/3	17.00	16.24	16.43	16.18		1/8	17.00	16.29	16.48	16.23
	1/5	17.00	16.14	16.25	16.15		1/14	17.00	16.19	16.30	16.20
	3/0	16.00	16.35	16.57	15.99		8/0	16.00	15.50	15.72	15.14
	3/1	16.00	16.10	16.50	16.09		8/4	16.00	15.30	15.65	15.24
	3/3	16.00	15.99	16.24	16.04		8/7	16.00	15.14	15.39	15.19
	6/0	16.00	15.17	15.47	15.11		15/0	16.00	15.22	15.52	15.16

LTE B2/BW=5M		Average Conducted Power(dBm)				LTE B2/BW=10M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			18625/ 1852.5	18900/ 1880	19175/ 1907.5				18650/ 1855	18900/ 1880	19150/ 1905
QPSK	1/0	18.00	17.50	17.51	17.44	QPSK	1/0	18.00	17.55	17.56	17.49
	1/12	18.00	17.24	17.43	17.18		1/12	18.00	17.29	17.48	17.23
	1/24	18.00	17.13	17.24	17.14		1/49	18.00	17.18	17.29	17.19
	12/0	17.00	16.61	16.62	16.55		25/0	17.00	16.66	16.67	16.60
	12/6	17.00	16.40	16.59	16.34		25/12	17.00	16.45	16.64	16.39
	12/11	17.00	16.27	16.38	16.28		25/24	17.00	16.32	16.43	16.33
	25/0	17.00	16.61	16.54	16.55		50/0	17.00	16.66	16.59	16.60
16QAM	1/0	17.00	16.59	16.60	16.53	16QAM	1/0	17.00	16.64	16.65	16.58
	1/12	17.00	16.34	16.53	16.28		1/24	17.00	16.39	16.58	16.33
	1/24	17.00	16.24	16.35	16.25		1/49	17.00	16.29	16.40	16.30
	12/0	16.00	15.55	15.77	15.19		25/0	16.00	15.60	15.82	15.24
	12/6	16.00	15.35	15.70	15.29		25/12	16.00	15.40	15.75	15.34
	12/11	16.00	15.19	15.44	15.24		25/24	16.00	15.24	15.49	15.29
	25/0	16.00	15.27	15.57	15.21		50/0	16.00	15.32	15.62	15.26

LTE B2/BW=15M		Average Conducted Power(dBm)				LTE B2/BW=20M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			18675/ 1857.5	18900/ 1880	19125/ 1902.5				18700/ 1860	18900/ 1880	19100/ 1900
QPSK	1/0	18.00	17.60	17.61	17.54	QPSK	1/0	18.00	17.65	17.66	17.59
	1/37	18.00	17.34	17.53	17.28		1/49	18.00	17.39	17.58	17.33
	1/74	18.00	17.23	17.34	17.24		1/99	18.00	17.28	17.39	17.29
	36/0	17.00	16.71	16.72	16.65		50/0	17.00	16.76	16.77	16.70
	36/18	17.00	16.50	16.69	16.44		50/24	17.00	16.55	16.74	16.49
	36/35	17.00	16.37	16.48	16.38		50/49	17.00	16.42	16.53	16.43
	75/0	17.00	16.71	16.64	16.65		100/0	17.00	16.76	16.69	16.70
16QAM	1/0	17.00	16.69	16.70	16.63	16QAM	1/0	17.00	16.74	16.75	16.68
	1/37	17.00	16.44	16.63	16.38		1/49	17.00	16.49	16.68	16.43
	1/74	17.00	16.34	16.45	16.35		1/99	17.00	16.39	16.50	16.40
	36/0	16.00	15.65	15.87	15.29		50/0	16.00	15.70	15.92	15.34
	36/18	16.00	15.45	15.80	15.39		50/24	16.00	15.50	15.85	15.44
	36/35	16.00	15.29	15.54	15.34		50/49	16.00	15.34	15.59	15.39
	75/0	16.00	15.37	15.67	15.31		100/0	16.00	15.42	15.72	15.36

LTE Band 4

P-sensor off

LTE B4/BW=1.4M		Average Conducted Power(dBm)				LTE B4/BW=3M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			19957/ 1710.7	20175/ 1732.5	20392/ 1754.2				19965/ 1711.5	20175/ 1732.5	20384/ 1753.4
QPSK	1/0	24.00	23.23	23.39	23.34	QPSK	1/0	24.00	23.28	23.44	23.39
	1/3	24.00	23.19	23.36	23.22		1/8	24.00	23.24	23.41	23.27
	1/5	24.00	23.16	23.35	23.03		1/14	24.00	23.21	23.40	23.08
	3/0	23.00	23.23	23.39	23.34		8/0	23.00	22.39	22.55	22.50
	3/1	23.00	23.19	23.36	23.22		8/4	23.00	22.40	22.57	22.43
	3/3	23.00	23.16	23.35	23.03		8/7	23.00	22.35	22.54	22.22
	6/0	23.00	22.34	22.50	22.45		15/0	23.00	22.39	22.55	22.50
16QAM	1/0	23.00	22.32	22.48	22.43	16QAM	1/0	23.00	22.37	22.53	22.48
	1/3	23.00	22.29	22.46	22.32		1/8	23.00	22.34	22.51	22.37
	1/5	23.00	22.27	22.46	22.14		1/14	23.00	22.32	22.51	22.19
	3/0	22.00	22.32	22.48	22.43		8/0	22.00	21.26	21.45	21.13
	3/1	22.00	22.29	22.46	22.32		8/4	22.00	21.35	21.52	21.38
	3/3	22.00	22.27	22.46	22.14		8/7	22.00	21.30	21.47	21.33
	6/0	22.00	21.22	21.40	21.08		15/0	22.00	21.27	21.44	21.30

LTE B4/BW=5M		Average Conducted Power(dBm)				LTE B4/BW=10M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			19975/ 1712.5	20175/ 1732.5	20375/ 1752.5				20000/ 1715	20175/ 1732.5	20350/ 1750
QPSK	1/0	24.00	23.33	23.49	23.44	QPSK	1/0	24.00	23.38	23.54	23.49
	1/12	24.00	23.29	23.46	23.32		1/24	24.00	23.34	23.51	23.37
	1/24	24.00	23.26	23.45	23.13		1/49	24.00	23.31	23.50	23.18
	12/0	23.00	22.44	22.60	22.55		25/0	23.00	22.49	22.65	22.60
	12/6	23.00	22.45	22.62	22.48		25/12	23.00	22.50	22.67	22.53
	12/11	23.00	22.40	22.59	22.27		25/24	23.00	22.45	22.64	22.32
	25/0	23.00	22.44	22.60	22.55		50/0	23.00	22.49	22.65	22.60
16QAM	1/0	23.00	22.42	22.58	22.53	16QAM	1/0	23.00	22.47	22.63	22.58
	1/12	23.00	22.39	22.56	22.42		1/24	23.00	22.44	22.61	22.47
	1/24	23.00	22.37	22.56	22.24		1/49	23.00	22.42	22.61	22.29
	12/0	22.00	21.31	21.50	21.18		25/0	22.00	21.36	21.55	21.23
	12/6	22.00	21.40	21.57	21.43		25/12	22.00	21.45	21.62	21.48
	12/11	22.00	21.35	21.52	21.38		25/24	22.00	21.40	21.57	21.43
	25/0	22.00	21.32	21.49	21.35		50/0	22.00	21.37	21.54	21.40

LTE B4/BW=15M		Average Conducted Power(dBm)				LTE B4/BW=20M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			20025/ 1717.5	20175/ 1732.5	20325/ 1747.5				20050/ 1720	20175/ 1732.5	20300/ 1745
QPSK	1/0	24.00	23.43	23.59	23.54	QPSK	1/0	24.00	23.48	23.64	23.59
	1/37	24.00	23.39	23.56	23.42		1/49	24.00	23.44	23.61	23.47
	1/74	24.00	23.36	23.55	23.23		1/99	24.00	23.41	23.60	23.28
	36/0	23.00	22.54	22.70	22.65		50/0	23.00	22.59	22.75	22.70
	36/18	23.00	22.55	22.72	22.58		50/24	23.00	22.60	22.77	22.63
	36/35	23.00	22.50	22.69	22.37		50/49	23.00	22.55	22.74	22.42
	75/0	23.00	22.54	22.70	22.65		100/0	23.00	22.59	22.75	22.70
16QAM	1/0	23.00	22.52	22.68	22.63	16QAM	1/0	23.00	22.57	22.73	22.68
	1/37	23.00	22.49	22.66	22.52		1/49	23.00	22.54	22.71	22.57
	1/74	23.00	22.47	22.66	22.34		1/99	23.00	22.52	22.71	22.39
	36/0	22.00	21.41	21.60	21.28		50/0	22.00	21.46	21.65	21.33
	36/18	22.00	21.50	21.67	21.53		50/24	22.00	21.55	21.72	21.58
	36/35	22.00	21.45	21.62	21.48		50/49	22.00	21.50	21.67	21.53
	75/0	22.00	21.42	21.59	21.45		100/0	22.00	21.47	21.64	21.50

P-sensor on

LTE B4/BW=1.4M		Average Conducted Power(dBm)				LTE B4/BW=3M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			19957/ 1710.7	20175/ 1732.5	20392/ 1754.2				19965/ 1711.5	20175/ 1732.5	20384/ 1753.4
QPSK	1/0	20.00	19.13	19.51	19.26	QPSK	1/0	20.00	19.18	19.56	19.31
	1/3	20.00	18.94	19.30	19.03		1/8	20.00	18.99	19.35	19.08
	1/5	20.00	18.83	19.14	18.86		1/14	20.00	18.88	19.19	18.91
	3/0	19.00	19.13	19.51	19.26		8/0	19.00	18.29	18.67	18.42
	3/1	19.00	18.94	19.30	19.03		8/4	19.00	18.15	18.51	18.24
	3/3	19.00	18.83	19.14	18.86		8/7	19.00	18.02	18.33	18.05
	6/0	19.00	18.24	18.62	18.37		15/0	19.00	18.29	18.67	18.42
16QAM	1/0	19.00	18.22	18.60	18.35	16QAM	1/0	19.00	18.27	18.65	18.40
	1/3	19.00	18.04	18.40	18.13		1/8	19.00	18.09	18.45	18.18
	1/5	19.00	17.94	18.25	17.97		1/14	19.00	17.99	18.30	18.02
	3/0	18.00	18.22	18.60	18.35		8/0	18.00	16.93	17.24	16.96
	3/1	18.00	18.04	18.40	18.13		8/4	18.00	17.10	17.46	17.19
	3/3	18.00	17.94	18.25	17.97		8/7	18.00	17.05	17.41	17.14
	6/0	18.00	16.97	17.19	16.91		15/0	18.00	17.02	17.38	17.11

LTE B4/BW=5M		Average Conducted Power(dBm)				LTE B4/BW=10M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			19975/ 1712.5	20175/ 1732.5	20375/ 1752.5				20000/ 1715	20175/ 1732.5	20350/ 1750
QPSK	1/0	20.00	19.23	19.61	19.36	QPSK	1/0	20.00	19.28	19.66	19.41
	1/12	20.00	19.04	19.40	19.13		1/12	20.00	19.09	19.45	19.18
	1/24	20.00	18.93	19.24	18.96		1/49	20.00	18.98	19.29	19.01
	12/0	19.00	18.34	18.72	18.47		25/0	19.00	18.39	18.77	18.52
	12/6	19.00	18.20	18.56	18.29		25/12	19.00	18.25	18.61	18.34
	12/11	19.00	18.07	18.38	18.10		25/24	19.00	18.12	18.43	18.15
	25/0	19.00	18.34	18.72	18.47		50/0	19.00	18.39	18.77	18.52
16QAM	1/0	19.00	18.32	18.70	18.45	16QAM	1/0	19.00	18.37	18.75	18.50
	1/12	19.00	18.14	18.50	18.23		1/24	19.00	18.19	18.55	18.28
	1/24	19.00	18.04	18.35	18.07		1/49	19.00	18.09	18.40	18.12
	12/0	18.00	16.98	17.29	17.01		25/0	18.00	17.03	17.34	17.06
	12/6	18.00	17.15	17.51	17.24		25/12	18.00	17.20	17.56	17.29
	12/11	18.00	17.10	17.46	17.19		25/24	18.00	17.15	17.51	17.24
	25/0	18.00	17.07	17.43	17.16		50/0	18.00	17.12	17.48	17.21

LTE B4/BW=15M		Average Conducted Power(dBm)				LTE B4/BW=20M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			20025/ 1717.5	20175/ 1732.5	20325/ 1747.5				20050/ 1720	20175/ 1732.5	20300/ 1745
QPSK	1/0	20.00	19.33	19.71	19.46	QPSK	1/0	20.00	19.38	19.76	19.51
	1/37	20.00	19.14	19.50	19.23		1/49	20.00	19.19	19.55	19.28
	1/74	20.00	19.03	19.34	19.06		1/99	20.00	19.08	19.39	19.11
	36/0	19.00	18.44	18.82	18.57		50/0	19.00	18.49	18.87	18.62
	36/18	19.00	18.30	18.66	18.39		50/24	19.00	18.35	18.71	18.44
	36/35	19.00	18.17	18.48	18.20		50/49	19.00	18.22	18.53	18.25
	75/0	19.00	18.44	18.82	18.57		100/0	19.00	18.49	18.87	18.62
16QAM	1/0	19.00	18.42	18.80	18.55	16QAM	1/0	19.00	18.47	18.85	18.60
	1/37	19.00	18.24	18.60	18.33		1/49	19.00	18.29	18.65	18.38
	1/74	19.00	18.14	18.45	18.17		1/99	19.00	18.19	18.50	18.22
	36/0	18.00	17.08	17.39	17.11		50/0	18.00	17.13	17.44	17.16
	36/18	18.00	17.25	17.61	17.34		50/24	18.00	17.30	17.66	17.39
	36/35	18.00	17.20	17.56	17.29		50/49	18.00	17.25	17.61	17.34
	75/0	18.00	17.17	17.53	17.26		100/0	18.00	17.22	17.58	17.31

LTE Band 5

P-sensor off

LTE B5/BW=1.4M		Average Conducted Power(dBm)				LTE B5/BW=3M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			20407/ 824.7	20525/ 836.5	20642/ 848.2				20415/ 825.5	20525/ 836.5	20634/ 847.4
QPSK	1/0	24.00	23.59	23.67	23.49	QPSK	1/0	24.00	23.64	23.72	23.54
	1/3	24.00	23.56	23.54	23.45		1/8	24.00	23.61	23.59	23.50
	1/5	24.00	23.48	23.43	23.40		1/14	24.00	23.53	23.48	23.45
	3/0	23.00	22.70	22.78	22.60		8/0	23.00	22.75	22.83	22.65
	3/1	23.00	22.72	22.70	22.61		8/4	23.00	22.77	22.75	22.66
	3/3	23.00	22.62	22.57	22.54		8/7	23.00	22.67	22.62	22.59
	6/0	23.00	22.70	22.78	22.60		15/0	23.00	22.75	22.83	22.65
16QAM	1/0	23.00	22.68	22.76	22.58	16QAM	1/0	23.00	22.73	22.81	22.63
	1/3	23.00	22.66	22.64	22.55		1/8	23.00	22.71	22.69	22.60
	1/5	23.00	22.59	22.54	22.51		1/14	23.00	22.64	22.59	22.56
	3/0	22.00	21.53	21.48	21.45		8/0	22.00	21.58	21.53	21.50
	3/1	22.00	21.67	21.65	21.56		8/4	22.00	21.72	21.70	21.61
	3/3	22.00	21.62	21.60	21.51		8/7	22.00	21.67	21.65	21.56
	6/0	22.00	21.59	21.57	21.48		15/0	22.00	21.64	21.62	21.53

LTE B5/BW=5M		Average Conducted Power(dBm)				LTE B5/BW=10M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			20415/ 825.5	20525/ 836.5	20634/ 847.4				20450/ 829	20525/ 836.5	20600/ 844
QPSK	1/0	24.00	23.69	23.77	23.59	QPSK	1/0	24.00	23.74	23.82	23.64
	1/12	24.00	23.66	23.64	23.55		1/24	24.00	23.71	23.69	23.60
	1/24	24.00	23.58	23.53	23.50		1/49	24.00	23.63	23.58	23.55
	12/0	23.00	22.80	22.88	22.70		25/0	23.00	22.85	22.93	22.75
	12/6	23.00	22.82	22.80	22.71		25/12	23.00	22.87	22.85	22.76
	12/11	23.00	22.72	22.67	22.64		25/24	23.00	22.77	22.72	22.69
	25/0	23.00	22.80	22.88	22.70		50/0	23.00	22.85	22.93	22.75
16QAM	1/0	23.00	22.78	22.86	22.68	16QAM	1/0	23.00	22.83	22.91	22.73
	1/12	23.00	22.76	22.74	22.65		1/24	23.00	22.81	22.79	22.70
	1/24	23.00	22.69	22.64	22.61		1/49	23.00	22.74	22.69	22.66
	12/0	22.00	21.63	21.58	21.55		25/0	22.00	21.68	21.63	21.60
	12/6	22.00	21.77	21.75	21.66		25/12	22.00	21.82	21.80	21.71
	12/11	22.00	21.72	21.70	21.61		25/24	22.00	21.77	21.75	21.66
	25/0	22.00	21.69	21.67	21.58		50/0	22.00	21.74	21.72	21.63

P-sensor on

LTE B5/BW=1.4M		Average Conducted Power(dBm)				LTE B5/BW=3M		Average Conducted Power(dBm)			
Modula-tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula-tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			20407/ 824.7	20525/ 836.5	20642/ 848.2				20415/ 825.5	20525/ 836.5	20634/ 847.4
QPSK	1/0	22.00	21.29	21.42	21.14	QPSK	1/0	22.00	21.34	21.47	21.19
	1/3	22.00	21.18	21.24	21.03		1/8	22.00	21.23	21.29	21.08
	1/5	22.00	20.94	21.07	20.92		1/14	22.00	20.99	21.12	20.97
	3/0	21.00	20.40	20.53	20.25		8/0	21.00	20.45	20.58	20.30
	3/1	21.00	20.34	20.40	20.19		8/4	21.00	20.39	20.45	20.24
	3/3	21.00	20.08	20.21	20.06		8/7	21.00	20.13	20.26	20.11
	6/0	21.00	20.40	20.53	20.25		15/0	21.00	20.45	20.58	20.30
16QAM	1/0	21.00	20.38	20.51	20.23	16QAM	1/0	21.00	20.43	20.56	20.28
	1/3	21.00	20.28	20.34	20.13		1/8	21.00	20.33	20.39	20.18
	1/5	21.00	20.05	20.18	20.03		1/14	21.00	20.10	20.23	20.08
	3/0	20.00	18.99	19.12	18.97		8/0	20.00	19.04	19.17	19.02
	3/1	20.00	19.29	19.35	19.14		8/4	20.00	19.34	19.40	19.19
	3/3	20.00	19.24	19.30	19.09		8/7	20.00	19.29	19.35	19.14
	6/0	20.00	19.21	19.27	19.06		15/0	20.00	19.26	19.32	19.11

LTE B5/BW=5M		Average Conducted Power(dBm)				LTE B5/BW=10M					
Modula-tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula-tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			20415/ 825.5	20525/ 836.5	20634/ 847.4				20450/ 829	20525/ 836.5	20600/ 844
QPSK	1/0	22.00	21.39	21.52	21.24	QPSK	1/0	22.00	21.44	21.57	21.29
	1/12	22.00	21.28	21.34	21.13		1/24	22.00	21.33	21.39	21.18
	1/24	22.00	21.04	21.17	21.02		1/49	22.00	21.09	21.22	21.07
	12/0	21.00	20.50	20.63	20.35		25/0	21.00	20.55	20.68	20.40
	12/6	21.00	20.44	20.50	20.29		25/12	21.00	20.49	20.55	20.34
	12/11	21.00	20.18	20.31	20.16		25/24	21.00	20.23	20.36	20.21
	25/0	21.00	20.50	20.63	20.35		50/0	21.00	20.55	20.68	20.40
16QAM	1/0	21.00	20.48	20.61	20.33	16QAM	1/0	21.00	20.53	20.66	20.38
	1/12	21.00	20.38	20.44	20.23		1/24	21.00	20.43	20.49	20.28
	1/24	21.00	20.15	20.28	20.13		1/49	21.00	20.20	20.33	20.18
	12/0	20.00	19.09	19.22	19.07		25/0	20.00	19.14	19.27	19.12
	12/6	20.00	19.39	19.45	19.24		25/12	20.00	19.44	19.50	19.29
	12/11	20.00	19.34	19.40	19.19		25/24	20.00	19.39	19.45	19.24
	25/0	20.00	19.31	19.37	19.16		50/0	20.00	19.36	19.42	19.21

LTE Band 7

P-sensor off

LTE B7/BW=5M		Average Conducted Power(dBm)				LTE B7/BW=10M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			20775/ 2502.5	21100/ 2535	21425/ 2567.5				20800/ 2505	21100/ 2535	21400/ 2565
QPSK	1/0	23.80	23.13	23.22	23.16	QPSK	1/0	23.80	23.18	23.27	23.21
	1/12	23.80	23.07	23.17	23.12		1/24	23.80	23.12	23.22	23.17
	1/24	23.80	23.04	23.15	23.04		1/49	23.80	23.09	23.20	23.09
	12/0	22.80	22.24	22.33	22.27		25/0	22.80	22.29	22.38	22.32
	12/6	22.80	22.23	22.33	22.28		25/12	22.80	22.28	22.38	22.33
	12/11	22.80	22.18	22.29	22.18		25/24	22.80	22.23	22.34	22.23
	25/0	22.80	22.24	22.33	22.27		50/0	22.80	22.29	22.38	22.32
16QAM	1/0	22.80	22.22	22.31	22.25	16QAM	1/0	22.80	22.27	22.36	22.30
	1/12	22.80	22.17	22.27	22.22		1/24	22.80	22.22	22.32	22.27
	1/24	22.80	22.15	22.26	22.15		1/49	22.80	22.20	22.31	22.20
	12/0	21.80	21.09	21.20	21.09		25/0	21.80	21.14	21.25	21.14
	12/6	21.80	21.18	21.28	21.23		25/12	21.80	21.23	21.33	21.28
	12/11	21.80	21.13	21.23	21.18		25/24	21.80	21.18	21.28	21.23
	25/0	21.80	21.10	21.20	21.15		50/0	21.80	21.15	21.25	21.20

LTE B7/BW=15M		Average Conducted Power(dBm)				LTE B7/BW=20M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			20825/ 2507.5	21100/ 2535	21375/ 2562.5				20850/ 2510	21100/ 2535	21350/ 2560
QPSK	1/0	23.80	23.23	23.32	23.26	QPSK	1/0	23.80	23.28	23.37	23.31
	1/37	23.80	23.17	23.27	23.22		1/49	23.80	23.22	23.32	23.27
	1/74	23.80	23.14	23.25	23.14		1/99	23.80	23.19	23.30	23.19
	36/0	22.80	22.34	22.43	22.37		50/0	22.80	22.39	22.48	22.42
	36/18	22.80	22.33	22.43	22.38		50/24	22.80	22.38	22.48	22.43
	36/35	22.80	22.28	22.39	22.28		50/49	22.80	22.33	22.44	22.33
	75/0	22.80	22.34	22.43	22.37		100/0	22.80	22.39	22.48	22.42
16QAM	1/0	22.80	22.32	22.41	22.35	16QAM	1/0	22.80	22.37	22.46	22.40
	1/37	22.80	22.27	22.37	22.32		1/59	22.80	22.32	22.42	22.37
	1/74	22.80	22.25	22.36	22.25		1/99	22.80	22.30	22.41	22.30
	36/0	21.80	21.19	21.30	21.19		50/0	21.80	21.24	21.35	21.24
	36/18	21.80	21.28	21.38	21.33		50/24	21.80	21.33	21.43	21.38
	36/35	21.80	21.23	21.33	21.28		50/49	21.80	21.28	21.38	21.33
	75/0	21.80	21.20	21.30	21.25		100/0	21.80	21.25	21.35	21.30

P-sensor on

LTE B7/BW=5M		Average Conducted Power(dBm)				LTE B7/BW=10M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			20775/ 2502.5	21100/ 2535	21425/ 2567.5				20800/ 2505	21100/ 2535	21400/ 2565
QPSK	1/0	22.00	21.04	21.07	20.98	QPSK	1/0	22.00	21.09	21.12	21.03
	1/12	22.00	20.90	20.93	20.89		1/24	22.00	20.95	20.98	20.94
	1/24	22.00	20.84	20.91	20.85		1/49	22.00	20.89	20.96	20.90
	12/0	21.00	20.15	20.18	20.09		25/0	21.00	20.20	20.23	20.14
	12/6	21.00	20.06	20.09	20.05		25/12	21.00	20.11	20.14	20.10
	12/11	21.00	19.98	20.05	19.99		25/24	21.00	20.03	20.10	20.04
	25/0	21.00	20.15	20.18	20.09		50/0	21.00	20.20	20.23	20.14
16QAM	1/0	21.00	20.13	20.16	20.07	16QAM	1/0	21.00	20.18	20.21	20.12
	1/12	21.00	20.00	20.03	19.99		1/24	21.00	20.05	20.08	20.04
	1/24	21.00	19.95	20.02	19.96		1/49	21.00	20.00	20.07	20.01
	12/0	20.00	18.89	18.96	18.90		25/0	20.00	18.94	19.01	18.95
	12/6	20.00	19.01	19.04	19.00		25/12	20.00	19.06	19.09	19.05
	12/11	20.00	18.96	18.99	18.95		25/24	20.00	19.01	19.04	19.00
	25/0	20.00	18.93	18.96	18.92		50/0	20.00	18.98	19.01	18.97

LTE B7/BW=15M		Average Conducted Power(dBm)				LTE B7/BW=20M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			20825/ 2507.5	21100/ 2535	21375/ 2562.5				20850/ 2510	21100/ 2535	21350/ 2560
QPSK	1/0	22.00	21.14	21.17	21.08	QPSK	1/0	22.00	21.19	21.22	21.13
	1/37	22.00	21.00	21.03	20.99		1/49	22.00	21.05	21.08	21.04
	1/74	22.00	20.94	21.01	20.95		1/99	22.00	20.99	21.06	21.00
	36/0	21.00	20.25	20.28	20.19		50/0	21.00	20.30	20.63	20.24
	36/18	21.00	20.16	20.19	20.15		50/24	21.00	20.21	20.24	20.20
	36/35	21.00	20.08	20.15	20.09		50/49	21.00	20.13	20.20	20.14
	75/0	21.00	20.25	20.28	20.19		100/0	21.00	20.30	20.33	20.24
16QAM	1/0	21.00	20.23	20.26	20.17	16QAM	1/0	21.00	20.28	20.31	20.22
	1/37	21.00	20.10	20.13	20.09		1/49	21.00	20.15	20.18	20.14
	1/74	21.00	20.05	20.12	20.06		1/99	21.00	20.10	20.17	20.11
	36/0	20.00	18.99	19.06	19.00		50/0	20.00	19.04	19.11	19.05
	36/18	20.00	19.11	19.14	19.10		50/24	20.00	19.16	19.19	19.15
	36/35	20.00	19.06	19.09	19.05		50/49	20.00	19.11	19.14	19.10
	75/0	20.00	19.03	19.06	19.02		100/0	20.00	19.08	19.11	19.07

LTE Band 12

P-sensor off

LTE B12/BW=1.4M		Average Conducted Power(dBm)				LTE B12/BW=3M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			23017/ 699.7	23095/ 707.5	23173/ 715.3				23025/ 700.5	23095/ 707.5	23165/ 714.5
QPSK	1/0	24.00	23.40	23.51	23.34	QPSK	1/0	24.00	23.45	23.56	23.39
	1/3	24.00	23.36	23.44	23.27		1/8	24.00	23.41	23.49	23.32
	1/5	24.00	23.33	23.32	23.25		1/14	24.00	23.38	23.37	23.30
	3/0	23.00	22.51	22.62	22.45		8/0	23.00	22.56	22.67	22.50
	3/1	23.00	22.52	22.60	22.43		8/4	23.00	22.57	22.65	22.48
	3/3	23.00	22.47	22.46	22.39		8/7	23.00	22.52	22.51	22.44
	6/0	23.00	22.51	22.62	22.45		15/0	23.00	22.56	22.67	22.50
16QAM	1/0	23.00	22.49	22.60	22.43	16QAM	1/0	23.00	22.54	22.65	22.48
	1/3	23.00	22.46	22.54	22.37		1/8	23.00	22.51	22.59	22.42
	1/5	23.00	22.44	22.43	22.36		1/14	23.00	22.49	22.48	22.41
	3/0	22.00	21.38	21.37	21.30		8/0	22.00	21.43	21.42	21.35
	3/1	22.00	21.47	21.55	21.38		8/4	22.00	21.52	21.60	21.43
	3/3	22.00	21.42	21.50	21.33		8/7	22.00	21.47	21.55	21.38
	6/0	22.00	21.39	21.47	21.30		15/0	22.00	21.44	21.52	21.35

LTE B12/BW=5M		Average Conducted Power(dBm)				LTE B12/BW=10M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			23035/ 701.5	23095/ 707.5	23155/ 713.5				23060/ 704	23095/ 707.5	23130/ 711
QPSK	1/0	24.00	23.50	23.61	23.44	QPSK	1/0	24.00	23.55	23.66	23.49
	1/12	24.00	23.46	23.54	23.37		1/24	24.00	23.51	23.59	23.42
	1/24	24.00	23.43	23.42	23.35		1/49	24.00	23.48	23.47	23.40
	12/0	23.00	22.61	22.72	22.55		25/0	23.00	22.66	22.77	22.60
	12/6	23.00	22.62	22.70	22.53		25/12	23.00	22.67	22.75	22.58
	12/11	23.00	22.57	22.56	22.49		25/24	23.00	22.62	22.61	22.54
	25/0	23.00	22.61	22.72	22.55		50/0	23.00	22.66	22.77	22.60
16QAM	1/0	23.00	22.59	22.70	22.53	16QAM	1/0	23.00	22.64	22.75	22.58
	1/12	23.00	22.56	22.64	22.47		1/24	23.00	22.61	22.69	22.52
	1/24	23.00	22.54	22.53	22.46		1/49	23.00	22.59	22.58	22.51
	12/0	22.00	21.48	21.47	21.40		25/0	22.00	21.53	21.52	21.45
	12/6	22.00	21.57	21.65	21.48		25/12	22.00	21.62	21.70	21.53
	12/11	22.00	21.52	21.60	21.43		25/24	22.00	21.57	21.65	21.48
	25/0	22.00	21.49	21.57	21.40		50/0	22.00	21.54	21.62	21.45

P-sensor on

LTE B12/BW=1.4M		Average Conducted Power(dBm)				LTE B12/BW=3M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			23017/ 699.7	23095/ 707.5	23173/ 715.3				23025/ 700.5	23095/ 707.5	23165/ 714.5
QPSK	1/0	22.00	21.22	21.48	21.44	QPSK	1/0	22.00	21.27	21.53	21.49
	1/3	22.00	21.07	21.43	21.28		1/8	22.00	21.12	21.48	21.33
	1/5	22.00	20.94	21.28	21.17		1/14	22.00	20.99	21.33	21.22
	3/0	21.00	20.33	20.59	20.55		8/0	21.00	20.38	20.64	20.60
	3/1	21.00	20.23	20.59	20.44		8/4	21.00	20.28	20.64	20.49
	3/3	21.00	20.08	20.42	20.31		8/7	21.00	20.13	20.47	20.36
	6/0	21.00	20.33	20.59	20.55		15/0	21.00	20.38	20.64	20.60
16QAM	1/0	21.00	20.31	20.57	20.53	16QAM	1/0	21.00	20.36	20.62	20.58
	1/3	21.00	20.17	20.53	20.38		1/8	21.00	20.22	20.58	20.43
	1/5	21.00	20.05	20.39	20.28		1/14	21.00	20.10	20.44	20.33
	3/0	20.00	18.99	19.33	19.22		8/0	20.00	19.04	19.38	19.27
	3/1	20.00	19.18	19.54	19.39		8/4	20.00	19.23	19.59	19.44
	3/3	20.00	19.13	19.49	19.34		8/7	20.00	19.18	19.54	19.39
	6/0	20.00	19.10	19.46	19.31		15/0	20.00	19.15	19.51	19.36

LTE B12/BW=5M		Average Conducted Power(dBm)				LTE B12/BW=10M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			23035/ 701.5	23095/ 707.5	23155/ 713.5				23060/ 704	23095/ 707.5	23130/ 711
QPSK	1/0	22.00	21.32	21.58	21.54	QPSK	1/0	22.00	21.37	21.63	21.59
	1/12	22.00	21.17	21.53	21.38		1/24	22.00	21.22	21.58	21.43
	1/24	22.00	21.04	21.38	21.27		1/49	22.00	21.09	21.43	21.32
	12/0	21.00	20.43	20.69	20.65		25/0	21.00	20.48	20.74	20.70
	12/6	21.00	20.33	20.69	20.54		25/12	21.00	20.38	20.74	20.59
	12/11	21.00	20.18	20.52	20.41		25/24	21.00	20.23	20.57	20.46
	25/0	21.00	20.43	20.69	20.65		50/0	21.00	20.48	20.74	20.70
16QAM	1/0	21.00	20.41	20.67	20.63	16QAM	1/0	21.00	20.46	20.72	20.68
	1/12	21.00	20.27	20.63	20.48		1/24	21.00	20.32	20.68	20.53
	1/24	21.00	20.15	20.49	20.38		1/49	21.00	20.20	20.54	20.43
	12/0	20.00	19.09	19.43	19.32		25/0	20.00	19.14	19.48	19.37
	12/6	20.00	19.28	19.64	19.49		25/12	20.00	19.33	19.69	19.54
	12/11	20.00	19.23	19.59	19.44		25/24	20.00	19.28	19.64	19.49
	25/0	20.00	19.20	19.56	19.41		50/0	20.00	19.25	19.61	19.46

LTE Band 13

P-sensor off

LTE B13/BW=5M		Average Conducted Power(dBm)				LTE B13/BW=10M		Average Conducted Power(dBm)	
Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)
			23205/ 779.5	23230/ 782	23155/ 784.5				23230/ 782
QPSK	1/0	24.00	23.49	23.52	23.51	QPSK	1/0	24.00	23.56
	1/12	24.00	23.49	23.52	23.50		1/12	24.00	23.55
	1/24	24.00	23.42	23.46	23.44		1/49	24.00	23.49
	12/0	23.00	22.60	22.64	22.62		25/0	23.00	22.67
	12/6	23.00	22.65	22.68	22.66		25/12	23.00	22.71
	12/11	23.00	22.57	22.60	22.58		25/24	23.00	22.63
	25/0	23.00	22.63	22.64	22.62		50/0	23.00	22.67
16QAM	1/0	23.00	22.59	22.62	22.60	16QAM	1/0	23.00	22.65
	1/12	23.00	22.59	22.62	22.60		1/24	23.00	22.65
	1/24	23.00	22.53	22.57	22.55		1/49	23.00	22.60
	12/0	22.00	21.46	21.51	21.49		25/0	22.00	21.54
	12/6	22.00	21.59	21.63	21.61		25/12	22.00	21.66
	12/11	22.00	21.55	21.58	21.56		25/24	22.00	21.61
	25/0	22.00	21.52	21.55	21.53		50/0	22.00	21.58

P-sensor on

LTE B13/BW=5M		Average Conducted Power(dBm)				LTE B13/BW=10M		Average Conducted Power(dBm)	
Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)
			23205/ 779.5	23230/ 782	23155/ 784.5				23230/ 782
QPSK	1/0	22.00	21.48	21.51	21.50	QPSK	1/0	22.00	21.55
	1/12	22.00	21.32	21.35	21.33		1/12	22.00	21.38
	1/24	22.00	21.14	21.18	21.16		1/49	22.00	21.21
	12/0	21.00	20.59	20.63	20.61		25/0	21.00	20.66
	12/6	21.00	20.48	20.51	20.49		25/12	21.00	20.54
	12/11	21.00	20.29	20.32	20.30		25/24	21.00	20.35
	25/0	21.00	20.62	20.63	20.61		50/0	21.00	20.66
16QAM	1/0	21.00	20.58	20.61	20.59	16QAM	1/0	21.00	20.64
	1/12	21.00	20.42	20.45	20.43		1/24	21.00	20.48
	1/24	21.00	20.25	20.29	20.27		1/49	21.00	20.32
	12/0	20.00	19.18	19.23	19.21		25/0	20.00	19.26
	12/6	20.00	19.42	19.46	19.44		25/12	20.00	19.49
	12/11	20.00	19.38	19.41	19.39		25/24	20.00	19.44
	25/0	20.00	19.35	19.38	19.36		50/0	20.00	19.41

LTE Band 14

P-sensor off

LTE B14/BW=5M		Average Conducted Power(dBm)				LTE B14/BW=10M		Average Conducted Power(dBm)	
Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)
			23305/ 790.5	23330/ 793.0	23355/ 795.5				23330/ 793.0
QPSK	1/0	24.00	23.64	23.67	23.66	QPSK	1/0	24.00	23.71
	1/12	24.00	23.52	23.55	23.53		1/12	24.00	23.58
	1/24	24.00	23.42	23.46	23.44		1/49	24.00	23.49
	12/0	23.00	22.75	22.79	22.77		25/0	23.00	22.82
	12/6	23.00	22.68	22.71	22.69		25/12	23.00	22.74
	12/11	23.00	22.57	22.60	22.58		25/24	23.00	22.63
	25/0	23.00	22.78	22.79	22.77		50/0	23.00	22.82
16QAM	1/0	23.00	22.74	22.77	22.75	16QAM	1/0	23.00	22.80
	1/12	23.00	22.62	22.65	22.63		1/24	23.00	22.68
	1/24	23.00	22.53	22.57	22.55		1/49	23.00	22.60
	12/0	22.00	21.46	21.51	21.49		25/0	22.00	21.54
	12/6	22.00	21.62	21.66	21.64		25/12	22.00	21.69
	12/11	22.00	21.58	21.61	21.59		25/24	22.00	21.64
	25/0	22.00	21.55	21.58	21.56		50/0	22.00	21.61

P-sensor on

LTE B14/BW=5M		Average Conducted Power(dBm)				LTE B14/BW=10M		Average Conducted Power(dBm)	
Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)
			23305/ 790.5	23330/ 793.0	23355/ 795.5				23330/ 793.0
QPSK	1/0	22.00	21.61	21.64	21.63	QPSK	1/0	22.00	21.68
	1/12	22.00	21.31	21.34	21.32		1/12	22.00	21.37
	1/24	22.00	21.12	21.16	21.14		1/49	22.00	21.19
	12/0	21.00	20.72	20.76	20.74		25/0	21.00	20.79
	12/6	21.00	20.47	20.50	20.48		25/12	21.00	20.53
	12/11	21.00	20.27	20.30	20.28		25/24	21.00	20.33
	25/0	21.00	20.75	20.76	20.74		50/0	21.00	20.79
16QAM	1/0	21.00	20.71	20.74	20.72	16QAM	1/0	21.00	20.77
	1/12	21.00	20.41	20.44	20.42		1/24	21.00	20.47
	1/24	21.00	20.23	20.27	20.25		1/49	21.00	20.30
	12/0	20.00	19.16	19.21	19.19		25/0	20.00	19.24
	12/6	20.00	19.41	19.45	19.43		25/12	20.00	19.48
	12/11	20.00	19.37	19.40	19.38		25/24	20.00	19.43
	25/0	20.00	19.34	19.37	19.35		50/0	20.00	19.40

LTE Band 26

P-sensor off

LTE B26/BW=1.4M		Average Conducted Power(dBm)				LTE B26/BW=3M		Average Conducted Power(dBm)			
Modula-tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula-tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			26797/ 824.7	26915/ 836.5	27033/ 848.3				26805/ 825.5	26915/ 836.5	27025/ 847.5
QPSK	1/0	24.00	23.43	23.39	23.29	QPSK	1/0	24.00	23.48	23.44	23.34
	1/3	24.00	23.21	23.31	23.20		1/8	24.00	23.26	23.36	23.25
	1/5	24.00	23.08	23.27	23.11		1/14	24.00	23.13	23.32	23.16
	3/0	23.00	22.54	22.50	22.40		8/0	23.00	22.59	22.55	22.45
	3/1	23.00	22.37	22.47	22.36		8/4	23.00	22.42	22.52	22.41
	3/3	23.00	22.22	22.41	22.25		8/7	23.00	22.27	22.46	22.30
	6/0	23.00	22.54	22.50	22.40		15/0	23.00	22.59	22.55	22.45
16QAM	1/0	23.00	22.52	22.48	22.38	16QAM	1/0	23.00	22.57	22.53	22.43
	1/3	23.00	22.31	22.41	22.30		1/8	23.00	22.36	22.46	22.35
	1/5	23.00	22.19	22.38	22.22		1/14	23.00	22.24	22.43	22.27
	3/0	22.00	21.13	21.32	21.16		8/0	22.00	21.18	21.37	21.21
	3/1	22.00	21.32	21.42	21.31		8/4	22.00	21.37	21.47	21.36
	3/3	22.00	21.27	21.37	21.26		8/7	22.00	21.32	21.42	21.31
	6/0	22.00	21.24	21.34	21.23		15/0	22.00	21.29	21.39	21.28

LTE B26/BW=5M		Average Conducted Power(dBm)				LTE B26/BW=10M		Average Conducted Power(dBm)			
Modula-tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula-tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			26715/ 816.5	26865/ 831.0	26990/ 846.5				26740/ 819.0	26865/ 831.0	26990/ 844.0
QPSK	1/0	24.00	23.53	23.49	23.39	QPSK	1/0	24.00	23.58	23.54	23.44
	1/12	24.00	23.31	23.41	23.30		1/24	24.00	23.36	23.46	23.35
	1/24	24.00	23.18	23.37	23.21		1/49	24.00	23.23	23.42	23.26
	12/0	23.00	22.64	22.60	22.50		25/0	23.00	22.69	22.65	22.55
	12/6	23.00	22.47	22.57	22.46		25/12	23.00	22.52	22.62	22.51
	12/11	23.00	22.32	22.51	22.35		25/24	23.00	22.37	22.56	22.40
	25/0	23.00	22.64	22.60	22.50		50/0	23.00	22.69	22.65	22.55
16QAM	1/0	23.00	22.62	22.58	22.48	16QAM	1/0	23.00	22.67	22.63	22.53
	1/12	23.00	22.41	22.51	22.40		1/24	23.00	22.46	22.56	22.45
	1/24	23.00	22.29	22.48	22.32		1/49	23.00	22.34	22.53	22.37
	12/0	22.00	21.23	21.42	21.26		25/0	22.00	21.28	21.47	21.31
	12/6	22.00	21.42	21.52	21.41		25/12	22.00	21.47	21.57	21.46
	12/11	22.00	21.37	21.47	21.36		25/24	22.00	21.42	21.52	21.41
	25/0	22.00	21.34	21.44	21.33		50/0	22.00	21.39	21.49	21.38

LTE B26/BW=15M		Average Conducted Power(dBm)		
RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
		26865/ 831.5	26915/ 836.5	26965/ 841.5
1/0	24.00	23.63	23.59	23.49
1/37	24.00	23.41	23.51	23.40
1/74	24.00	23.28	23.47	23.31
36/0	23.00	22.74	22.70	22.60
36/18	23.00	22.57	22.67	22.56
36/35	23.00	22.42	22.61	22.45
75/0	23.00	22.74	22.70	22.60
1/0	23.00	22.72	22.68	22.58
1/37	23.00	22.51	22.61	22.50
1/74	23.00	22.39	22.58	22.42
36/0	22.00	21.33	21.52	21.36
36/18	22.00	21.52	21.62	21.51
36/35	22.00	21.47	21.57	21.46
75/0	22.00	21.44	21.54	21.43

P-sensor on

LTE B26/BW=1.4M		Average Conducted Power(dBm)				LTE B26/BW=3M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			26797/ 824.7	26915/ 836.5	27033/ 848.3				26805/ 825.5	26915/ 836.5	27025/ 847.5
QPSK	1/0	22.00	21.27	21.13	21.20	QPSK	1/0	22.00	21.32	21.18	21.25
	1/3	22.00	21.15	20.97	21.09		1/8	22.00	21.20	21.02	21.14
	1/5	22.00	21.02	20.88	20.99		1/14	22.00	21.07	20.93	21.04
	3/0	21.00	20.38	20.24	20.31		8/0	21.00	20.43	20.29	20.36
	3/1	21.00	20.31	20.13	20.25		8/4	21.00	20.36	20.18	20.30
	3/3	21.00	20.16	20.02	20.13		8/7	21.00	20.21	20.07	20.18
	6/0	21.00	20.38	20.24	20.31		15/0	21.00	20.43	20.29	20.36
16QAM	1/0	21.00	20.36	20.22	20.29	16QAM	1/0	21.00	20.41	20.27	20.34
	1/3	21.00	20.25	20.07	20.19		1/8	21.00	20.30	20.12	20.24
	1/5	21.00	20.13	19.99	20.10		1/14	21.00	20.18	20.04	20.15
	3/0	20.00	19.07	18.93	19.04		8/0	20.00	19.12	18.98	19.09
	3/1	20.00	19.26	19.08	19.20		8/4	20.00	19.31	19.13	19.25
	3/3	20.00	19.21	19.03	19.15		8/7	20.00	19.26	19.08	19.20
	6/0	20.00	19.18	19.00	19.12		15/0	20.00	19.23	19.05	19.17

LTE B26/BW=5M		Average Conducted Power(dBm)				LTE B26/BW=10M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			26715/ 816.5	26865/ 831.0	26990/ 846.5				26740/ 819.0	26865/ 831.0	26990/ 844.0
QPSK	1/0	22.00	21.37	21.23	21.30	QPSK	1/0	22.00	21.42	21.28	21.35
	1/12	22.00	21.25	21.07	21.19		1/24	22.00	21.30	21.12	21.24
	1/24	22.00	21.12	20.98	21.09		1/49	22.00	21.17	21.03	21.14
	12/0	21.00	20.48	20.34	20.41		25/0	21.00	20.53	20.39	20.46
	12/6	21.00	20.41	20.23	20.35		25/12	21.00	20.46	20.28	20.40
	12/11	21.00	20.26	20.12	20.23		25/24	21.00	20.31	20.17	20.28
	25/0	21.00	20.48	20.34	20.41		50/0	21.00	20.53	20.39	20.46
16QAM	1/0	21.00	20.46	20.32	20.39	16QAM	1/0	21.00	20.51	20.37	20.44
	1/12	21.00	20.35	20.17	20.29		1/24	21.00	20.40	20.22	20.34
	1/24	21.00	20.23	20.09	20.20		1/49	21.00	20.28	20.14	20.25
	12/0	20.00	19.17	19.03	19.14		25/0	20.00	19.22	19.08	19.19
	12/6	20.00	19.36	19.18	19.30		25/12	20.00	19.41	19.23	19.35
	12/11	20.00	19.31	19.13	19.25		25/24	20.00	19.36	19.18	19.30
	25/0	20.00	19.28	19.10	19.22		50/0	20.00	19.33	19.15	19.27

LTE B26/BW=15M		Average Conducted Power(dBm)		
RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
		26865/ 831.5	26915/ 836.5	26965/ 841.5
1/0	22.00	21.47	21.33	21.40
1/37	22.00	21.35	21.17	21.29
1/74	22.00	21.22	21.08	21.19
36/0	21.00	20.58	20.44	20.51
36/18	21.00	20.51	20.33	20.45
36/35	21.00	20.36	20.22	20.33
75/0	21.00	20.58	20.44	20.51
1/0	21.00	20.56	20.42	20.49
1/37	21.00	20.45	20.27	20.39
1/74	21.00	20.33	20.19	20.30
36/0	20.00	19.27	19.13	19.24
36/18	20.00	19.46	19.28	19.40
36/35	20.00	19.41	19.23	19.35
75/0	20.00	19.38	19.20	19.32

LTE Band 30

P-sensor off

LTE B30/BW=5M		Average Conducted Power(dBm)				LTE B30/BW=10M		Average Conducted Power(dBm)	
Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)
			27685/ 2307.5	27710/ 2310	27734/ 2312.4				27710/ 2310
QPSK	1/0	23.00	22.54	22.57	22.43	QPSK	1/0	23.00	22.59
	1/12	23.00	22.41	22.44	22.30		1/12	23.00	22.46
	1/24	23.00	22.28	22.31	22.17		1/49	23.00	22.33
	12/0	22.00	21.65	21.68	21.54		25/0	22.00	21.70
	12/6	22.00	21.57	21.60	21.46		25/12	22.00	21.62
	12/11	22.00	21.42	21.45	21.31		25/24	22.00	21.47
	25/0	22.00	21.65	21.68	21.54		50/0	22.00	21.70
16QAM	1/0	22.00	21.63	21.66	21.52	16QAM	1/0	22.00	21.68
	1/12	22.00	21.51	21.54	21.40		1/24	22.00	21.56
	1/24	22.00	21.39	21.42	21.28		1/49	22.00	21.44
	12/0	21.00	20.33	20.36	20.22		25/0	21.00	20.38
	12/6	21.00	20.52	20.55	20.41		25/12	21.00	20.57
	12/11	21.00	20.47	20.50	20.36		25/24	21.00	20.52
	25/0	21.00	20.44	20.47	20.33		50/0	21.00	20.49

P-sensor on

LTE B30/BW=5M		Average Conducted Power(dBm)				LTE B30/BW=10M		Average Conducted Power(dBm)	
Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)
			27685/ 2307.5	27710/ 2310	27734/ 2312.4				27710/ 2310
QPSK	1/0	22.00	21.50	21.53	21.39	QPSK	1/0	22.00	21.55
	1/12	22.00	21.33	21.36	21.22		1/12	22.00	21.38
	1/24	22.00	21.15	21.18	21.04		1/49	22.00	21.20
	12/0	21.00	20.61	20.64	20.50		25/0	21.00	20.66
	12/6	21.00	20.49	20.52	20.38		25/12	21.00	20.54
	12/11	21.00	20.29	20.32	20.18		25/24	21.00	20.34
	25/0	21.00	20.61	20.64	20.50		50/0	21.00	20.66
16QAM	1/0	21.00	20.59	20.62	20.48	16QAM	1/0	21.00	20.64
	1/12	21.00	20.43	20.46	20.32		1/24	21.00	20.48
	1/24	21.00	20.26	20.29	20.15		1/49	21.00	20.31
	12/0	20.00	19.20	19.23	19.09		25/0	20.00	19.25
	12/6	20.00	19.44	19.47	19.33		25/12	20.00	19.49
	12/11	20.00	19.39	19.42	19.28		25/24	20.00	19.44
	25/0	20.00	19.36	19.39	19.25		50/0	20.00	19.41

LTE Band 41

P-sensor off

LTE B41/BW=5M		Average Conducted Power(dBm)				LTE B41/BW=10M		Average Conducted Power(dBm)			
Modula-tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula-tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			39675/ 2498.5	40620/ 2593	41565/ 2687.5				39700/ 2501	40620/ 2593	41515/ 2682.5
QPSK	1/0	23.80	23.10	23.24	23.05	QPSK	1/0	23.80	23.15	23.29	23.10
	1/12	23.80	22.96	23.16	23.01		1/24	23.80	23.01	23.21	23.06
	1/24	23.80	22.93	23.14	22.95		1/49	23.80	22.98	23.19	23.00
	12/0	22.80	22.21	22.35	22.16		25/0	22.80	22.26	22.40	22.21
	12/6	22.80	22.12	22.32	22.17		25/12	22.80	22.17	22.37	22.22
	12/11	22.80	22.07	22.28	22.09		25/24	22.80	22.12	22.33	22.14
	25/0	22.80	22.21	22.35	22.16		50/0	22.80	22.26	22.40	22.21
16QAM	1/0	22.80	22.19	22.33	22.14	16QAM	1/0	22.80	22.24	22.38	22.19
	1/12	22.80	22.06	22.26	22.11		1/24	22.80	22.11	22.31	22.16
	1/24	22.80	22.04	22.25	22.06		1/49	22.80	22.09	22.30	22.11
	12/0	21.80	20.98	21.19	21.00		25/0	21.80	21.03	21.24	21.05
	12/6	21.80	21.07	21.27	21.12		25/12	21.80	21.12	21.32	21.17
	12/11	21.80	21.02	21.22	21.07		25/24	21.80	21.07	21.27	21.12
	25/0	21.80	20.99	21.19	21.04		50/0	21.80	21.04	21.24	21.09

LTE B41/BW=15M		Average Conducted Power(dBm)				LTE B41/BW=20M		Average Conducted Power(dBm)			
Modula-tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula-tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			39750/ 2506	40620/ 2593	41490/ 2680				39750/ 2506	40620/ 2593	41490/ 2680
QPSK	1/0	23.80	23.20	23.34	23.15	QPSK	1/0	23.80	23.25	23.39	23.20
	1/37	23.80	23.06	23.26	23.11		1/49	23.80	23.11	23.31	23.16
	1/74	23.80	23.03	23.24	23.05		1/99	23.80	23.08	23.29	23.10
	36/0	22.80	22.31	22.45	22.26		50/0	22.80	22.36	22.50	22.31
	36/18	22.80	22.22	22.42	22.27		50/24	22.80	22.27	22.47	22.32
	36/35	22.80	22.17	22.38	22.19		50/49	22.80	22.22	22.43	22.24
	75/0	22.80	22.31	22.45	22.26		100/0	22.80	22.36	22.50	22.31
16QAM	1/0	22.80	22.29	22.43	22.24	16QAM	1/0	22.80	22.34	22.48	22.29
	1/37	22.80	22.16	22.36	22.21		1/49	22.80	22.21	22.41	22.26
	1/74	22.80	22.14	22.35	22.16		1/99	22.80	22.19	22.40	22.21
	36/0	21.80	21.08	21.29	21.10		50/0	21.80	21.13	21.34	21.15
	36/18	21.80	21.17	21.37	21.22		50/24	21.80	21.22	21.42	21.27
	36/35	21.80	21.12	21.32	21.17		50/49	21.80	21.17	21.37	21.22
	75/0	21.80	21.09	21.29	21.14		100/0	21.80	21.14	21.34	21.19

P-sensor on

LTE B41/BW=5M		Average Conducted Power(dBm)				LTE B41/BW=10M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			39675/ 2498.5	40620/ 2593	41565/ 2687.5				39700/ 2501	40620/ 2593	41515/ 2682.5
QPSK	1/0	22.00	21.40	21.53	21.24	QPSK	1/0	22.00	21.45	21.58	21.29
	1/12	22.00	21.10	21.22	21.07		1/24	22.00	21.15	21.27	21.12
	1/24	22.00	21.07	21.10	21.04		1/49	22.00	21.12	21.15	21.09
	12/0	21.00	20.51	20.64	20.35		25/0	21.00	20.56	20.69	20.40
	12/6	21.00	20.26	20.38	20.23		25/12	21.00	20.31	20.43	20.28
	12/11	21.00	20.21	20.24	20.18		25/24	21.00	20.26	20.29	20.23
	25/0	21.00	20.51	20.64	20.35		50/0	21.00	20.56	20.69	20.40
16QAM	1/0	21.00	20.49	20.62	20.33	16QAM	1/0	21.00	20.54	20.67	20.38
	1/12	21.00	20.20	20.32	20.17		1/24	21.00	20.25	20.37	20.22
	1/24	21.00	20.18	20.21	20.15		1/49	21.00	20.23	20.26	20.20
	12/0	20.00	19.12	19.15	19.09		25/0	20.00	19.17	19.20	19.14
	12/6	20.00	19.21	19.33	19.18		25/12	20.00	19.26	19.38	19.23
	12/11	20.00	19.16	19.28	19.13		25/24	20.00	19.21	19.33	19.18
	25/0	20.00	19.13	19.25	19.10		50/0	20.00	19.18	19.30	19.15

LTE B41/BW=15M		Average Conducted Power(dBm)				LTE B41/BW=20M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			39750/ 2506	40620/ 2593	41490/ 2680				39750/ 2506	40620/ 2593	41490/ 2680
QPSK	1/0	22.00	21.50	21.63	21.34	QPSK	1/0	22.00	21.55	21.68	21.39
	1/37	22.00	21.20	21.32	21.17		1/49	22.00	21.25	21.37	21.22
	1/74	22.00	21.17	21.20	21.14		1/99	22.00	21.22	21.25	21.19
	36/0	21.00	20.61	20.74	20.45		50/0	21.00	20.66	20.79	20.50
	36/18	21.00	20.36	20.48	20.33		50/24	21.00	20.41	20.53	20.38
	36/35	21.00	20.31	20.34	20.28		50/49	21.00	20.36	20.39	20.33
	75/0	21.00	20.61	20.74	20.45		100/0	21.00	20.66	20.79	20.50
16QAM	1/0	21.00	20.59	20.72	20.43	16QAM	1/0	21.00	20.64	20.77	20.48
	1/37	21.00	20.30	20.42	20.27		1/49	21.00	20.35	20.47	20.32
	1/74	21.00	20.28	20.31	20.25		1/99	21.00	20.33	20.36	20.30
	36/0	20.00	19.22	19.25	19.19		50/0	20.00	19.27	19.30	19.24
	36/18	20.00	19.31	19.43	19.28		50/24	20.00	19.36	19.48	19.33
	36/35	20.00	19.26	19.38	19.23		50/49	20.00	19.31	19.43	19.28
	75/0	20.00	19.23	19.35	19.20		100/0	20.00	19.28	19.40	19.25

LTE Band 66

P-sensor off

LTE B66/BW=1.4M		Average Conducted Power(dBm)				LTE B66/BW=3M		Average Conducted Power(dBm)			
Modula-tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula-tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			131979/ 1710.7	132322/ 1745.0	132664/ 1779.2				131987/ 1711.5	132322/ 1745.0	132656/ 1778.4
QPSK	1/0	24.00	23.30	23.36	23.27	QPSK	1/0	24.00	23.35	23.41	23.32
	1/3	24.00	23.26	23.34	23.24		1/8	24.00	23.31	23.39	23.29
	1/5	24.00	23.24	23.30	23.20		1/14	24.00	23.29	23.35	23.25
	3/0	23.00	22.41	22.47	22.38		8/0	23.00	22.46	22.52	22.43
	3/1	23.00	22.42	18.56	22.40		8/4	23.00	22.47	18.61	22.45
	3/3	23.00	22.38	22.44	22.34		8/7	23.00	22.43	22.49	22.39
	6/0	23.00	22.41	22.47	22.38		15/0	23.00	22.46	22.52	22.43
16QAM	1/0	23.00	22.39	22.45	22.36	16QAM	1/0	23.00	22.44	22.50	22.41
	1/3	23.00	22.36	22.44	22.34		1/8	23.00	22.41	22.49	22.39
	1/5	23.00	22.35	22.41	22.31		1/14	23.00	22.40	22.46	22.36
	3/0	22.00	21.29	21.35	21.25		8/0	22.00	21.34	21.40	21.30
	3/1	22.00	21.37	21.45	21.35		8/4	22.00	21.42	21.50	21.40
	3/3	22.00	21.32	21.40	21.30		8/7	22.00	21.37	21.45	21.35
	6/0	22.00	21.29	21.37	21.27		15/0	22.00	21.34	21.42	21.32

LTE B66/BW=5M		Average Conducted Power(dBm)				LTE B66/BW=10M		Average Conducted Power(dBm)			
Modula-tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula-tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			131997/ 1712.5	132322/ 1745	132647/ 1777.5				132022/ 1715	132322/ 1745	132621/ 1775
QPSK	1/0	24.00	23.40	23.46	23.37	QPSK	1/0	24.00	23.45	23.51	23.42
	1/12	24.00	23.36	23.44	23.34		1/24	24.00	23.41	23.49	23.39
	1/24	24.00	23.34	23.40	23.30		1/49	24.00	23.39	23.45	23.35
	12/0	23.00	22.51	22.57	22.48		25/0	23.00	22.56	22.62	22.53
	12/6	23.00	22.52	18.66	22.50		25/12	23.00	22.57	18.71	22.55
	12/11	23.00	22.48	22.54	22.44		25/24	23.00	22.53	22.59	22.49
	25/0	23.00	22.51	22.57	22.48		50/0	23.00	22.56	22.62	22.53
16QAM	1/0	23.00	22.49	22.55	22.46	16QAM	1/0	23.00	22.54	22.60	22.51
	1/12	23.00	22.46	22.54	22.44		1/24	23.00	22.51	22.59	22.49
	1/24	23.00	22.45	22.51	22.41		1/49	23.00	22.50	22.56	22.46
	12/0	22.00	21.39	21.45	21.35		25/0	22.00	21.44	21.50	21.40
	12/6	22.00	21.47	21.55	21.45		25/12	22.00	21.52	21.60	21.50
	12/11	22.00	21.42	21.50	21.40		25/24	22.00	21.47	21.55	21.45
	25/0	22.00	21.39	21.47	21.37		50/0	22.00	21.44	21.52	21.42

LTE B66/BW=15M		Average Conducted Power(dBm)				LTE B66/BW=20M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			132047/ 1717.5	132322/ 1745	132597/ 1772.5				132072/ 1720	132322/ 1745	132572/ 1770
QPSK	1/0	24.00	23.50	23.56	23.47	QPSK	1/0	24.00	23.55	23.61	23.52
	1/37	24.00	23.46	23.54	23.44		1/49	24.00	23.51	23.59	23.49
	1/74	24.00	23.44	23.50	23.40		1/99	24.00	23.49	23.55	23.45
	36/0	23.00	22.61	22.67	22.58		50/0	23.00	22.66	22.72	22.63
	36/18	23.00	22.62	22.68	22.60		50/24	23.00	22.67	22.73	22.65
	36/35	23.00	22.58	22.64	22.54		50/49	23.00	22.63	22.69	22.59
	75/0	23.00	22.61	22.67	22.58		100/0	23.00	22.66	22.72	22.63
16QAM	1/0	23.00	22.59	22.65	22.56	16QAM	1/0	23.00	22.64	22.70	22.61
	1/37	23.00	22.56	22.64	22.54		1/49	23.00	22.61	22.69	22.59
	1/74	23.00	22.55	22.61	22.51		1/99	23.00	22.60	22.66	22.56
	36/0	22.00	21.49	21.55	21.45		50/0	22.00	21.54	21.60	21.50
	36/18	22.00	21.57	21.65	21.55		50/24	22.00	21.62	21.70	21.60
	36/35	22.00	21.52	21.60	21.50		50/49	22.00	21.57	21.65	21.55
	75/0	22.00	21.49	21.57	21.47		100/0	22.00	21.54	21.62	21.52

P-sensor on

LTE B66/BW=1.4M		Average Conducted Power(dBm)				LTE B66/BW=3M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			131979/ 1710.7	132322/ 1745.0	132664/ 1779.2				131987/ 1711.5	132322/ 1745.0	132656/ 1778.4
QPSK	1/0	20.00	19.40	19.47	19.33	QPSK	1/0	20.00	19.45	19.52	19.38
	1/3	20.00	19.38	19.43	19.28		1/8	20.00	19.43	19.48	19.33
	1/5	20.00	19.36	19.30	19.25		1/14	20.00	19.41	19.35	19.30
	3/0	19.00	18.51	18.58	18.44		8/0	19.00	18.56	18.63	18.49
	3/1	19.00	18.54	18.56	18.44		8/4	19.00	18.59	18.61	18.49
	3/3	19.00	18.50	18.44	18.39		8/7	19.00	18.55	18.49	18.44
	6/0	19.00	18.51	18.58	18.44		15/0	19.00	18.56	18.63	18.49
16QAM	1/0	19.00	18.49	18.56	18.42	16QAM	1/0	19.00	18.54	18.61	18.47
	1/3	19.00	18.48	18.53	18.38		1/8	19.00	18.53	18.58	18.43
	1/5	19.00	18.47	18.41	18.36		1/14	19.00	18.52	18.46	18.41
	3/0	18.00	17.41	17.35	17.30		8/0	18.00	17.46	17.40	17.35
	3/1	18.00	17.49	17.54	17.39		8/4	18.00	17.54	17.59	17.44
	3/3	18.00	17.44	17.49	17.34		8/7	18.00	17.49	17.54	17.39
	6/0	18.00	17.41	17.46	17.31		15/0	18.00	17.46	17.51	17.36

LTE B66/BW=5M		Average Conducted Power(dBm)				LTE B66/BW=10M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			131997/ 1712.5	132322/ 1745	132647/ 1777.5				132022/ 1715	132322/ 1745	132621/ 1775
QPSK	1/0	20.00	19.50	19.57	19.43	QPSK	1/0	20.00	19.55	19.62	19.48
	1/12	20.00	19.48	19.53	19.38		1/24	20.00	19.53	19.58	19.43
	1/24	20.00	19.46	19.40	19.35		1/49	20.00	19.51	19.45	19.40
	12/0	19.00	18.61	18.68	18.54		25/0	19.00	18.66	18.73	18.59
	12/6	19.00	18.64	18.66	18.54		25/12	19.00	18.69	18.71	18.59
	12/11	19.00	18.60	18.54	18.49		25/24	19.00	18.65	18.59	18.54
	25/0	19.00	18.61	18.68	18.54		50/0	19.00	18.66	18.73	18.59
16QAM	1/0	19.00	18.59	18.66	18.52	16QAM	1/0	19.00	18.64	18.71	18.57
	1/12	19.00	18.58	18.63	18.48		1/24	19.00	18.63	18.68	18.53
	1/24	19.00	18.57	18.51	18.46		1/49	19.00	18.62	18.56	18.51
	12/0	18.00	17.51	17.45	17.40		25/0	18.00	17.56	17.50	17.45
	12/6	18.00	17.59	17.64	17.49		25/12	18.00	17.64	17.69	17.54
	12/11	18.00	17.54	17.59	17.44		25/24	18.00	17.59	17.64	17.49
	25/0	18.00	17.51	17.56	17.41		50/0	18.00	17.56	17.61	17.46

LTE B66/BW=15M		Average Conducted Power(dBm)				LTE B66/BW=20M		Average Conducted Power(dBm)			
Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)			Modula -tion	RB Size/ Offset	Max. Tune-up (dBm)	Channel/Frequency(MHz)		
			132047/ 1717.5	132322/ 1745	132597/ 1772.5				132072/ 1720	132322/ 1745	132572/ 1770
QPSK	1/0	20.00	19.60	19.67	19.53	QPSK	1/0	20.00	19.65	19.72	19.58
	1/37	20.00	19.58	19.63	19.48		1/49	20.00	19.63	19.68	19.53
	1/74	20.00	19.56	19.50	19.45		1/99	20.00	19.61	19.55	19.50
	36/0	19.00	18.71	18.78	18.64		50/0	19.00	18.76	18.83	18.69
	36/18	19.00	18.74	18.76	18.64		50/24	19.00	18.79	18.81	18.69
	36/35	19.00	18.70	18.64	18.59		50/49	19.00	18.75	18.69	18.64
	75/0	19.00	18.71	18.78	18.64		100/0	19.00	18.76	18.83	18.69
16QAM	1/0	19.00	18.69	18.76	18.62	16QAM	1/0	19.00	18.74	18.81	18.67
	1/37	19.00	18.68	18.73	18.58		1/49	19.00	18.73	18.78	18.63
	1/74	19.00	18.67	18.61	18.56		1/99	19.00	18.72	18.66	18.61
	36/0	18.00	17.61	17.55	17.50		50/0	18.00	17.66	17.60	17.55
	36/18	18.00	17.69	17.74	17.59		50/24	18.00	17.74	17.79	17.64
	36/35	18.00	17.64	17.69	17.54		50/49	18.00	17.69	17.74	17.59
	75/0	18.00	17.61	17.66	17.51		100/0	18.00	17.66	17.71	17.56

9. SAR TEST RESULTS

WCDMA

P-Sensor	Band	Mode	channel	distance (mm)	Test Position	Max Tune-up (dBm)	AVG Power (dBm)	Area Scan	SAR 1g	Reported SAR 1g	Note
on	UMTS Band II	RMC12.2K	9400	0	Edge1	18.00	17.81	0.912	0.938	0.980	
		RMC12.2K	9262	0	Edge1	18.00	17.79	0.944	0.983	**1.032**	1
		RMC12.2K	9538	0	Edge1	18.00	17.61	0.721	0.786	0.860	1
		RMC12.2K	9400	0	Edge2	18.00	17.81	0.013	0.012	0.013	
		RMC12.2K	9400	0	Rear	18.00	17.81	0.115	0.105	0.110	
off		RMC12.2K	9400	14	Edge1	24.00	23.76	0.270	0.258	0.273	
		RMC12.2K	9400	14	Edge2	24.00	23.76	0.018	0.018	0.019	
		RMC12.2K	9400	14	Rear	24.00	23.76	0.060	0.057	0.060	
on	UMTS Band IV	RMC12.2K	1413	0	Edge1	21.00	20.74	1.030	1.030	**1.094**	
		RMC12.2K	1312	0	Edge1	21.00	20.65	0.499	0.485	0.526	1
		RMC12.2K	1513	0	Edge1	21.00	20.66	0.811	0.898	0.971	1
		RMC12.2K	1413	0	Edge2	21.00	20.74	0.012	0.014	0.015	
		RMC12.2K	1413	0	Rear	21.00	20.74	0.136	0.120	0.127	
off		RMC12.2K	1413	14	Edge1	24.00	23.94	0.162	0.165	0.167	
		RMC12.2K	1413	14	Edge2	24.00	23.94	0.007	0.008	0.008	
		RMC12.2K	1413	14	Rear	24.00	23.94	0.031	0.030	0.031	
on	UMTS Band V	RMC12.2K	4183	0	Edge1	22.00	21.94	0.366	0.320	**0.324**	
		RMC12.2K	4183	0	Edge2	22.00	21.94	0.069	0.067	0.067	
		RMC12.2K	4183	0	Rear	22.00	21.94	0.156	0.137	0.139	
off		RMC12.2K	4183	14	Edge1	24.00	23.84	0.038	0.036	0.037	
		RMC12.2K	4183	14	Edge2	24.00	23.84	0.046	0.046	0.048	
		RMC12.2K	4183	14	Rear	24.00	23.84	0.033	0.033	0.034	
on	UMTS Band IV	RMC12.2K	1413	0	Edge1	21.00	20.74	1.110	1.030	1.094	2

Note:
1. Highest reported SAR is > 0.8 W/kg. Added second highest power channel for this test position
2. 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 ≤20% variation, only one repeated measurement is required to reaffirm that the results are not expected to have substantial variations, which may introduce significant compliance concerns. (Per KDB 865664 D01 SAR measurement 100 MHz to 6 GHz v01r04)
Original SAR = 1.030 W/kg, therefore second times repeat SAR is required.
Repeat SAR = 1.030W/kg < 1.45W/kg
SAR variation= 0.0% < 20%

LTE

P-sensor	Band	Mode	channel	RB	Offset	distance (mm)	Test Position	Max Tune-up (dBm)	AVG Power (dBm)	Area Scan	SAR 1g	Reported SAR 1g	Note
on	LTE Band 2	QPSK20M	18900	1	0	0	Rear	18.00	17.66	0.369	0.365	0.395	
		QPSK20M	18900	1	0	0	Edge1	18.00	17.66	0.796	0.825	0.892	
		QPSK20M	18700	1	0	0	Edge1	18.00	17.65	0.919	0.860	**0.932**	1
		QPSK20M	19100	1	0	0	Edge1	18.00	17.59	0.804	0.775	0.852	1
		QPSK20M	18900	1	49	0	Edge1	18.00	17.58	0.656	0.710	0.782	1
		QPSK20M	18900	1	99	0	Edge1	18.00	17.39	0.582	0.660	0.760	1
		QPSK20M	18900	100	0	0	Edge1	17.00	16.69	0.642	0.731	0.785	1
		QPSK20M	18900	1	0	0	Edge 2	18.00	17.66	0.017	0.015	0.016	
off		QPSK20M	18900	1	0	14	Rear	24.00	23.55	0.098	0.098	0.109	
		QPSK20M	18900	1	0	14	Edge1	24.00	23.55	0.185	0.187	0.207	
		QPSK20M	18900	1	0	14	Edge2	24.00	23.55	0.012	0.011	0.013	
on	LTE Band 2	QPSK20M	18900	50	0	0	Rear	17.00	16.77	0.089	0.094	0.099	
		QPSK20M	18900	50	0	0	Edge1	17.00	16.77	0.863	0.804	0.848	
		QPSK20M	18900	50	24	0	Edge1	17.00	16.74	0.697	0.788	0.837	1
		QPSK20M	18900	50	49	0	Edge1	17.00	16.53	0.661	0.752	0.838	1
		QPSK20M	18900	50	0	0	Edge 2	17.00	16.77	0.014	0.015	0.015	
off		QPSK20M	18900	50	0	14	Rear	23.00	22.66	0.027	0.027	0.029	
		QPSK20M	18900	50	0	14	Edge1	23.00	22.66	0.139	0.140	0.151	
		QPSK20M	18900	50	0	14	Edge2	23.00	22.66	0.009	0.009	0.010	

P-sensor	Band	Mode	channel	RB	Offset	distance (mm)	Test Position	Max Tune-up (dBm)	AVG Power (dBm)	Area Scan	SAR 1g	Reported SAR 1g	Note
on	LTE Band 4	QPSK20M	20175	1	0	0	Rear	20.00	19.76	0.078	0.079	0.083	
		QPSK20M	20175	1	0	0	Edge 1	20.00	19.76	0.907	0.914	0.966	
		QPSK20M	20050	1	0	0	Edge 1	20.00	19.38	0.537	0.556	0.641	1
		QPSK20M	20300	1	0	0	Edge 1	20.00	19.51	0.819	0.880	0.985	1
		QPSK20M	20175	1	49	0	Edge 1	20.00	19.55	0.890	0.947	1.050	1
		QPSK20M	20175	1	99	0	Edge 1	20.00	19.39	0.893	0.976	**1.123**	1
		QPSK20M	20175	100	0	0	Edge 1	19.00	18.87	0.723	0.775	0.799	1
		QPSK20M	20175	1	0	0	Edge 2	20.00	19.76	0.007	0.007	0.007	
off		QPSK20M	20175	1	0	14	Rear	24.00	23.64	0.023	0.019	0.020	
		QPSK20M	20175	1	0	14	Edge 1	24.00	23.64	0.096	0.095	0.103	
		QPSK20M	20175	1	0	14	Edge 2	24.00	23.64	0.007	0.005	0.005	
on	LTE Band 4	QPSK20M	20175	50	0	0	Rear	19.00	18.87	0.086	0.088	0.091	
		QPSK20M	20175	50	0	0	Edge 1	19.00	18.87	0.637	0.670	0.690	
		QPSK20M	20175	50	0	0	Edge 2	19.00	18.87	0.008	0.009	0.009	
off		QPSK20M	20175	50	0	14	Rear	23.00	22.75	0.023	0.024	0.025	
		QPSK20M	20175	50	0	14	Edge 1	23.00	22.75	0.086	0.085	0.090	
		QPSK20M	20175	50	0	14	Edge 2	23.00	22.75	0.005	0.005	0.005	
on	LTE Band 4	QPSK20M	20175	1	99	0	Edge 1	20.00	19.39	0.791	0.884	**1.017**	2

P-sensor	Band	Mode	channel	RB	Offset	distance (mm)	Test Position	Max Tune-up (dBm)	AVG Power (dBm)	Area Scan	SAR 1g	Reported SAR 1g	Note
on	LTE Band 5	QPSK10M	20525	1	0	0	Rear	22.00	21.57	0.186	0.196	0.216	
		QPSK10M	20525	1	0	0	Edge 1	22.00	21.57	0.334	0.289	**0.319**	
		QPSK10M	20525	1	0	0	Edge 2	22.00	21.57	0.084	0.075	0.083	
off		QPSK10M	20525	1	0	14	Rear	24.00	23.82	0.021	0.022	0.023	
		QPSK10M	20525	1	0	14	Edge 1	24.00	23.82	0.019	0.020	0.021	
		QPSK10M	20525	1	0	14	Edge 2	24.00	23.82	0.067	0.093	0.097	
on	LTE Band 5	QPSK10M	20525	25	0	0	Rear	21.00	20.68	0.146	0.139	0.150	
		QPSK10M	20525	25	0	0	Edge 1	21.00	20.68	0.315	0.277	0.298	
		QPSK10M	20525	25	0	0	Edge 2	21.00	20.68	0.081	0.073	0.079	
off		QPSK10M	20525	25	0	14	Rear	23.00	22.93	0.016	0.015	0.016	
		QPSK10M	20525	25	0	14	Edge 1	23.00	22.93	0.015	0.015	0.016	
		QPSK10M	20525	25	0	14	Edge 2	23.00	22.93	0.037	0.035	0.036	

P-sensor	Band	Mode	channel	RB	Offset	distance (mm)	Test Position	Max Tune-up (dBm)	AVG Power (dBm)	Area Scan	SAR 1g	Reported SAR 1g	Note
on	LTE Band 7	QPSK20M	21100	1	0	0	Rear	22.00	21.22	0.767	0.790	0.945	
		QPSK20M	20850	1	0	0	Rear	22.00	21.19	0.728	0.772	0.930	1
		QPSK20M	21350	1	0	0	Rear	22.00	21.13	0.649	0.680	0.831	1
		QPSK20M	21100	1	49	0	Rear	22.00	21.08	0.684	0.738	0.912	1
		QPSK20M	21100	1	99	0	Rear	22.00	21.06	0.633	0.713	0.885	1
		QPSK20M	21100	100	0	0	Rear	21.00	20.33	0.563	0.629	0.734	
		QPSK20M	21100	1	0	0	Edge 1	22.00	21.22	0.874	0.828	0.991	
		QPSK20M	20850	1	0	0	Edge 1	22.00	21.19	0.842	0.869	**1.047**	1
		QPSK20M	21350	1	0	0	Edge 1	22.00	21.13	0.657	0.696	0.850	1
		QPSK20M	21100	1	49	0	Edge 1	22.00	21.08	0.720	0.754	0.932	1
		QPSK20M	21100	1	99	0	Edge 1	22.00	21.06	0.683	0.733	0.910	1
		QPSK20M	21100	100	0	0	Edge 1	21.00	20.33	0.614	0.669	0.781	1
		QPSK20M	21100	1	0	0	Edge 2	22.00	21.22	0.193	0.186	0.223	
off		QPSK20M	21100	1	0	20	Rear	23.80	23.32	0.088	0.085	0.095	
		QPSK20M	21100	1	0	20	Edge1	23.80	23.32	0.134	0.130	0.145	
		QPSK20M	21100	1	0	20	Edge2	23.80	23.32	0.040	0.027	0.030	
on	LTE Band 7	QPSK20M	21100	50	0	0	Rear	21.00	20.63	0.619	0.674	0.734	
		QPSK20M	21100	50	0	0	Edge 1	21.00	20.63	0.662	0.721	0.785	
		QPSK20M	21100	50	0	0	Edge 2	21.00	20.63	0.151	0.146	0.159	
off		QPSK20M	21100	50	0	20	Rear	22.80	22.43	0.077	0.075	0.082	
		QPSK20M	21100	50	0	20	Edge1	22.80	22.43	0.121	0.118	0.128	
		QPSK20M	21100	50	0	20	Edge2	22.80	22.43	0.025	0.026	0.028	

P-sensor	Band	Mode	channel	RB	Offset	distance (mm)	Test Position	Max Tune-up (dBm)	AVG Power (dBm)	Area Scan	SAR 1g	Reported SAR 1g	Note
on	LTE Band 12	QPSK10M	23095	1	0	0	Rear	22.00	21.63	0.041	0.037	0.040	
		QPSK10M	23095	1	0	0	Edge1	22.00	21.63	0.106	0.094	**0.102**	
		QPSK10M	23095	1	0	0	Edge2	22.00	21.63	0.012	0.012	0.013	
off		QPSK10M	23095	1	0	17	Rear	24.00	23.66	0.010	0.009	0.010	
		QPSK10M	23095	1	0	0	Edge 1	24.00	23.66	0.020	0.020	0.021	
		QPSK10M	23095	1	0	24	Edge 2	24.00	23.66	0.005	0.005	0.006	
on	LTE Band 12	QPSK10M	23095	25	0	0	Rear	21.00	20.74	0.040	0.037	0.039	
		QPSK10M	23095	25	0	0	Edge 1	21.00	20.74	0.098	0.087	0.092	
		QPSK10M	23095	25	0	0	Edge 2	21.00	20.74	0.013	0.011	0.012	
off		QPSK10M	23095	25	0	17	Rear	23.00	22.77	0.007	0.007	0.008	
		QPSK10M	23095	25	0	0	Edge 1	23.00	22.77	0.011	0.010	0.011	
		QPSK10M	23095	25	0	24	Edge 2	23.00	22.77	0.003	0.004	0.004	

P-sensor	Band	Mode	channel	RB	Offset	distance (mm)	Test Position	Max Tune-up (dBm)	AVG Power (dBm)	Area Scan	SAR 1g	Reported SAR 1g	Note
on	LTE Band 13	QPSK10M	23230	1	0	0	Rear	22.00	21.55	0.271	0.263	0.292	
		QPSK10M	23230	1	0	0	Edge1	22.00	21.55	0.413	0.376	**0.417**	
		QPSK10M	23230	1	0	0	Edge2	22.00	21.55	0.122	0.127	0.141	
off		QPSK10M	23230	1	0	14	Rear	24.00	23.56	0.059	0.058	0.065	
		QPSK10M	23230	1	0	14	Edge1	24.00	23.56	0.081	0.081	0.089	
		QPSK10M	23230	1	0	14	Edge2	24.00	23.56	0.057	0.058	0.064	
on	LTE Band 13	QPSK10M	23230	25	0	0	Rear	21.00	20.66	0.254	0.250	0.270	
		QPSK10M	23230	25	0	0	Edge1	21.00	20.66	0.413	0.326	0.353	
		QPSK10M	23230	25	0	0	Edge2	21.00	20.66	0.120	0.110	0.003	
off		QPSK10M	23230	25	0	14	Rear	23.00	22.67	0.048	0.046	0.050	
		QPSK10M	23230	25	0	14	Edge1	23.00	22.67	0.063	0.062	0.066	
		QPSK10M	23230	25	0	14	Edge2	23.00	22.67	0.045	0.045	0.048	

P-sensor	Band	Mode	channel	RB	Offset	distance (mm)	Test Position	Max Tune-up (dBm)	AVG Power (dBm)	Area Scan	SAR 1g	Reported SAR 1g	Note
on	LTE Band 14	QPSK10M	23330	1	0	0	Rear	22.00	21.68	0.207	0.188	0.202	
		QPSK10M	23330	1	0	0	Edge 1	22.00	21.68	0.404	0.395	**0.425**	
		QPSK10M	23330	1	0	0	Edge 2	22.00	21.68	0.080	0.074	0.079	
off		QPSK10M	23330	1	0	14	Rear	24.00	23.71	0.004	0.004	0.004	
		QPSK10M	23330	1	0	14	Edge 1	24.00	23.71	0.005	0.004	0.004	
		QPSK10M	23330	1	0	14	Edge 2	24.00	23.71	0.004	0.004	0.005	
on	LTE Band 14	QPSK10M	23330	25	0	0	Rear	21.00	20.79	0.195	0.183	0.192	
		QPSK10M	23330	25	0	0	Edge 1	21.00	20.79	0.419	0.387	0.406	
		QPSK10M	23330	25	0	0	Edge 2	21.00	20.79	0.077	0.070	0.074	
off		QPSK10M	23330	25	0	14	Rear	23.00	22.82	0.003	0.003	0.003	
		QPSK10M	23330	25	0	14	Edge 1	23.00	22.82	0.004	0.001	0.001	
		QPSK10M	23330	25	0	14	Edge 2	23.00	22.82	0.004	0.004	0.004	

P-sensor	Band	Mode	channel	RB	Offset	distance (mm)	Test Position	Max Tune-up (dBm)	AVG Power (dBm)	Area Scan	SAR 1g	Reported SAR 1g	Note
on	LTE Band 26	QPSK15M	26865	1	0	0	Rear	22.00	21.47	0.181	0.159	0.180	
		QPSK15M	26865	1	0	0	Edge 1	22.00	21.47	0.352	0.338	**0.382**	
		QPSK15M	26865	1	0	0	Edge 2	22.00	21.47	0.079	0.071	0.080	
off		QPSK15M	26865	1	0	14	Rear	24.00	23.63	0.019	0.020	0.021	
		QPSK15M	26865	1	0	14	Edge 1	24.00	23.63	0.059	0.058	0.063	
		QPSK15M	26865	1	0	14	Edge 2	24.00	23.63	0.053	0.052	0.057	
on	LTE Band 26	QPSK15M	26865	36	0	0	Rear	21.00	20.58	0.165	0.158	0.174	
		QPSK15M	26865	36	0	0	Edge 1	21.00	20.58	0.287	0.301	0.332	
		QPSK15M	26865	36	0	0	Edge 2	21.00	20.58	0.082	0.074	0.081	
off		QPSK15M	26865	36	0	14	Rear	23.00	22.74	0.019	0.020	0.021	
		QPSK15M	26865	36	0	14	Edge 1	23.00	22.74	0.043	0.043	0.046	
		QPSK15M	26865	36	0	14	Edge 2	23.00	22.74	0.044	0.044	0.047	

P-sensor	Band	Mode	channel	RB	Offset	distance (mm)	Test Position	Max Tune-up (dBm)	AVG Power (dBm)	Area Scan	SAR 1g	Reported SAR 1g	Note
on	LTE Band 30	QPSK10M	27710	1	0	0	Rear	22.00	21.55	0.410	0.468	0.519	
		QPSK10M	27710	1	0	0	Edge 1	22.00	21.55	0.733	0.707	**0.784**	
		QPSK10M	27710	1	0	0	Edge 2	22.00	21.55	0.173	0.202	0.224	
off		QPSK10M	27710	1	0	14	Rear	23.00	22.59	0.107	0.132	0.145	
		QPSK10M	27710	1	0	14	Edge 1	23.00	22.59	0.084	0.098	0.108	
		QPSK10M	27710	1	0	14	Edge 2	23.00	22.59	0.119	0.145	0.159	
on	LTE Band 30	QPSK10M	27710	25	0	0	Rear	21.00	20.66	0.400	0.453	0.490	
		QPSK10M	27710	25	0	0	Edge 1	21.00	20.66	0.735	0.690	0.746	
		QPSK10M	27710	25	0	0	Edge 2	21.00	20.66	0.172	0.198	0.214	
off		QPSK10M	27710	25	0	14	Rear	22.00	21.70	0.085	0.102	0.109	
		QPSK10M	27710	25	0	14	Edge 1	22.00	21.70	0.064	0.073	0.078	
		QPSK10M	27710	25	0	14	Edge 2	22.00	21.70	0.083	0.144	0.154	

P-sensor	Band	Mode	channel	RB	Offset	distance (mm)	Test Position	Max Tune-up (dBm)	AVG Power (dBm)	Area Scan	SAR 1g	Reported SAR 1g	Note
on	LTE Band 41	QPSK20M	40620	1	0	0	Rear	22.00	21.68	0.209	0.206	0.222	
		QPSK20M	40620	1	0	0	Edge 1	22.00	21.68	0.209	0.206	**0.222**	
		QPSK20M	40620	1	0	0	Edge 2	22.00	21.68	0.037	0.036	0.039	
off		QPSK20M	40620	1	0	15	Rear	23.80	23.39	0.010	0.008	0.009	
		QPSK20M	40620	1	0	15	Edge 1	23.80	23.39	0.016	0.017	0.018	
		QPSK20M	40620	1	0	15	Edge 2	23.80	23.39	0.006	0.004	0.004	
on	LTE Band 41	QPSK20M	40620	50	0	0	Rear	21.00	20.79	0.150	0.151	0.158	
		QPSK20M	40620	50	0	0	Edge 1	21.00	20.79	0.153	0.151	0.158	
		QPSK20M	40620	50	0	0	Edge 2	21.00	20.79	0.027	0.025	0.027	
off		QPSK20M	40620	50	0	15	Rear	22.80	22.50	0.008	0.006	0.007	
		QPSK20M	40620	50	0	15	Edge 1	22.80	22.50	0.016	0.011	0.011	
		QPSK20M	40620	50	0	15	Edge 2	22.80	22.50	0.004	0.003	0.003	

P-sensor	Band	Mode	channel	RB	Offset	distance (mm)	Test Position	Max Tune-up (dBm)	AVG Power (dBm)	Area Scan	SAR 1g	Reported SAR 1g	Note
on	LTE Band 66	QPSK20M	132322	1	0	0	Rear	20.00	19.72	0.112	0.115	0.123	
		QPSK20M	132322	1	0	0	Edge1	20.00	19.72	0.792	0.813	0.867	
		QPSK20M	132322	1	0	0	Edge2	20.00	19.72	0.010	0.010	0.011	
		QPSK20M	132072	1	0	0	Edge1	20.00	19.65	0.309	0.313	0.339	1
		QPSK20M	132572	1	0	0	Edge1	20.00	19.58	0.818	0.917	**1.010**	1
		QPSK20M	132322	1	49	0	Edge1	20.00	19.68	0.942	0.873	0.940	1
		QPSK20M	132072	1	99	0	Edge1	20.00	19.66	0.859	0.825	0.892	1
		QPSK20M	132072	100	0	0	Edge1	19.00	18.83	0.658	0.698	0.726	1
off		QPSK20M	132322	1	0	20	Rear	24.00	23.61	0.013	0.005	0.005	
		QPSK20M	132322	1	0	20	Edge1	24.00	23.61	0.021	0.019	0.021	
		QPSK20M	132322	1	0	20	Edge2	24.00	23.61	0.003	0.003	0.003	
on	LTE Band 66	QPSK20M	132322	50	0	0	Rear	19.00	18.83	0.124	0.122	0.127	
		QPSK20M	132322	50	0	0	Edge1	19.00	18.83	0.615	0.639	0.665	
		QPSK20M	132322	50	0	0	Edge2	19.00	18.83	0.011	0.011	0.011	
off		QPSK20M	132322	50	0	20	Rear	23.00	22.73	0.007	0.005	0.005	
		QPSK20M	132322	50	0	20	Edge1	23.00	22.73	0.013	0.016	0.017	
		QPSK20M	132322	50	0	20	Edge2	23.00	22.73	0.003	0.002	0.002	

Note:
1. Highest reported SAR is > 0.8 W/kg. Added second highest power channel for this test position
2. 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 ≤20% variation, only one repeated measurement is required to reaffirm that the results are not expected to have substantial variations, which may introduce significant compliance concerns. (Per KDB 865664 D01 SAR measurement 100 MHz to 6 GHz v01r04)
Original SAR = 0.976 W/kg, therefore second times repeat SAR is required.
Repeat SAR = 0.884 W/kg < 1.45W/kg
SAR variation= -9.43% < 20%

10. MULTIPLE TRANSMITTER EVALUATION

10.1 Stand-alone SAR test exclusion

No.	Configuration	Body
1	WWAN+WLAN2.4G	Yes
2	WWAN+BT	Yes
3	WWAN+WLAN5G	Yes
4	WWAN+WLAN6G	Yes
5	WWAN+WLAN5G+BT	Yes

Note:
1.UMTS & LTE share the same antenna and can't transmit simultaneously.
2.For the WLAN test result that we reference WLAN report BTL-FCC SAR-1-2208T035 R00 (WLAN FCC ID: FKGR0801).

10.2 Simultaneous transmission conditions

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

A new threshold of 0.04 is also introduced in the KDB. Thus, in order for a pair of simultaneous transmitting antennas with the sum of 1-g SAR > 1.6 W/kg to qualify for exemption from Simultaneous Transmission SAR measurements, it has to satisfy the condition of:
$(SAR_1 + SAR_2)^{1.5} / R_i \leq 0.04$

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

SAR_1 is the highest Reported or estimated SAR for the first of a pair of simultaneous transmitting antennas, in a specific test operating mode and exposure condition

SAR_2 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 $[(x_1-x_2)^2 + (y_1-y_2)^2 + (z_1-z_2)^2]$

10.3 About BT/WiFi and WWAN

Test Position / SAR1g(W/kg)	Rear	Edge1	Edge2	Edge3	Edge4
UMTS Band II	0.110	1.032	0.019		
UMTS Band IV	0.127	1.094	0.015		
UMTS Band V	0.139	0.324	0.067		
LTE B2	0.395	0.932	0.016		
LTE B4	0.091	1.123	0.009		
LTE B5	0.216	0.319	0.097		
LTE B7	0.945	1.047	0.223		
LTE B12	0.040	0.102	0.013		
LTE B13	0.292	0.417	0.141		
LTE B14	0.202	0.425	0.079		
LTE B26	0.180	0.382	0.081		
LTE B30	0.519	0.784	0.224		
LTE B41	0.222	0.222	0.039		
LTE B66	0.127	1.010	0.011		

WLAN 2.4G WiFi_Main	0.072	0.079			0.529
WLAN 2.4G WiFi_Aux	0.209		1.070	0.069	
UNII_1 & 2a WiFi_Main	0.091	0.023			0.170
UNII_1 & 2a WiFi_Aux	0.277		0.452	0.122	
UNII_2c WiFi_Main	0.129	0.044			0.134
UNII_2c WiFi_Aux	0.261		0.287	0.031	
UNII_3 WiFi_Main	0.103	0.008			0.117
UNII_3 WiFi_Aux	0.180		0.181	0.050	
UNII_5 WiFi_Main	0.033	0.006			0.049
UNII_5 WiFi_Aux	0.051		0.149	0.007	
UNII_6 WiFi_Main	0.053	0.004			0.065
UNII_6 WiFi_Aux	0.146		0.189	0.026	
UNII_7 WiFi_Main	0.042	0.003			0.047
UNII_7 WiFi_Aux	0.130		0.164	0.014	
UNII_8 WiFi_Main	0.063	0.034			0.108
UNII_8 WiFi_Aux	0.086		0.132	0.028	
Bluetooth_DH5	0.009	0.021	0.081	0.131	
WWAN+WLAN MAX$\sum SAR_{1g}$	1.222	1.202	1.294	0.122	0.529
WWAN+BT MAX$\sum SAR_{1g}$	0.954	1.144	0.305	0.131	

Note:
1. MAX. $\sum SAR_{1g}$= 1.294 W/Kg<1.6 W/Kg, so Peak location SAR are not required.
2. For the WLAN test result that we reference WLAN report BTL-FCC SAR-1-2208T035 R00 (WLAN FCC ID: FKGR0801).

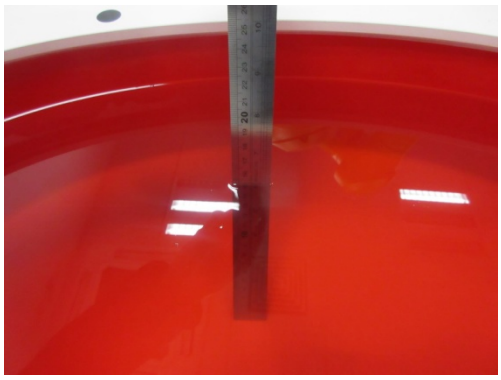
11. Test Layout

Specific Absorption Rate Test Layout

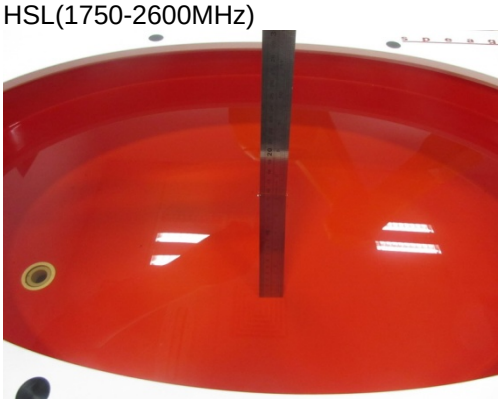
Liquid depth in the flat Phantom (≥15cm depth)

HSL(750MHz)

HSL(900Hz)



HSL(1750-2600MHz)



Appendix A. SAR Plots of System Verification

(Pls See BTL-FCC SAR-2-2208T035_Appendix A.)

Appendix B. SAR Plots of SAR Measurement

(Pls See BTL-FCC SAR-2-2208T035_Appendix B.)

Appendix C. Calibration Certificate

(Pls See BTL-FCC SAR-2-2208T035_Appendix C.)

Appendix D. Photographs of the Test Set-Up

(Pls See BTL-FCC SAR-2-2208T035_Appendix D.)

End of Test Report