

# TEST REPORT

Report No.: SHE20090001-02AE

Date: 2020-11-27

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**Applicant** : Leica Geosystems AG  
**Address of Applicant** : Heinrich-Wild-Strasse, CH-9435 Heerbrugg

**Product Name** : Rugged Windows Field Controller  
**Model No.** : CS30 LTE  
**Sample No.** : E20090001-01#02  
E20090001-01#01;  
**FCC ID** : RFD-CS30  
**ISED Number** : 3177A-CS30

**Standards** : FCC CFR47 Part 2  
(Others refer to chapter 1.4)

**Date of Receipt** : 2020-09-02  
**Date of Test** : 2020-09-02 ~ 2020-11-27  
**Date of Issue** : 2020-11-27

**Remark:**

*This report details the results of the testing carried out on one sample, the results contained in this report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.*

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## Revision Record

Version	Date	Revisions	Revised By
1.0	2019-10-31	Original	--

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## 1 General Information

### 1.1 Testing Laboratory

Company Name	ICAS Testing Technology Service (Shanghai) Co., Ltd.
Address	No.1298 Pingan Rd, Minhang District, Shanghai, China
Telephone	0086 21-51682999
Fax	0086 21-54711112
Homepage	www.icasiso.com

### 1.2 Details of Application

Company Name	Leica Geosystems AG
Address	Heinrich-Wild-Strasse, CH-9435 Heerbrugg
Contact Person	Tero Huhtala
Telephone	+41 71 727 3422
Email	tero.huhtala@leica-geosystems.com

### 1.3 Details of EUT

Product Name	Rugged Windows Field Controller
Brand Name	Leica
Model No.	CS30 LTE
FCC ID	RFD-CS30
Mode of Operation	WCDMA Band II/IV/V; LTE FDD Band 2/4/5/7/12/13/17/25/30/66; LTE TDD Band 41;
Modulation Type	QPSK for WCDMA; QPSK/16QAM for HSDPA/HSUPA/LTE;
Power Class	WCDMA/HSDPA/HSUPA Band II: 3 WCDMA/HSDPA/HSUPA Band IV: 3 WCDMA/HSDPA/HSUPA Band V: 3 LTE FDD Band 2: 3 LTE FDD Band 4: 3 LTE FDD Band 5: 3 LTE FDD Band 7: 3 LTE FDD Band 17: 3 LTE FDD Band 30: 3 LTE TDD Band 41: 3 LTE FDD Band 66: 3 LTE band 12/13/25: 1
Multislot Class	NA
Antenna Type	Internal Antenna
Antenna Gain	Peak gain1.4dBi

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<b>Extreme Temperature Range</b>	-20°C ~ +60°C
<b>Hardware version</b>	PCB V0.4
<b>Software version</b>	R.ED.00.02.03
<b>Test SW Version</b>	BL410_R

## 1.4 Test Methodology

47 CFR Part 2	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
47 CFR Part 22 Subpart H	Public Mobile Services
47 CFR Part 24 Subpart E	Personal Communications Services
47 CFR Part 27	Miscellaneous Wireless Communications Services
ANSI/TIA-603-E 2016	March Land Mobile FM or PM Communications Equipment Measurement and Performance Standards
ANSI C63.26:2015	American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services
KDB 971168 D01 v03r01	Measurement Guidance for Certification of Licensed Digital Transmitters

### Note(s):

All test items were verified and recorded according to the standards and without any addition/deviation/exclusion during the test.

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## 1.5 Test Verdict

No.	FCC Part No.	ISED Part No.	Description	Test Result	Verdict
1	2.1046	RSS-Gen 6.12 RSS-130 4.4 RSS-132 5.4 RSS-133 6.4 RSS-139 6.5 RSS-199 4.4	Conducted RF Output Power	Reporting Only Clause 5.1.1	PASS
2	2.1046 22.913 24.232 27.50	RSS-Gen 6.12 RSS-130 4.4 RSS-132 5.4 RSS-133 6.4 RSS-139 6.5 RSS-199 4.4	Effective (Isotropic) Radiated Power	Clause 5.1.1	PASS
3	2.1046 24.232(d) 27.50(d)	RSS-130 4.4 RSS-132 5.4 RSS-133 6.4 RSS-139 6.5 RSS-199 4.4	Peak to Average Ratio	Clause 5.1.2	PASS
4	2.1049 22.917 24.238 27.53	RSS-Gen 6.6	Occupied Bandwidth	Clause 5.1.3	PASS
5	2.1055 22.355 24.235 27.54	RSS-Gen 6.11 RSS-130 4.3 RSS-132 5.3 RSS-133 6.3 RSS-139 6.4 RSS-199 4.3	Frequency Stability	Clause 5.1.4	PASS
6	2.1051 22.917 24.238 27.53	RSS-Gen 6.13 RSS-130 4.6 RSS-132 5.5 RSS-133 6.5 RSS-139 6.6 RSS-199 4.5	Spurious Emission at Antenna Terminals	Clause 5.1.5	PASS
7	2.1051 22.917 24.238 27.53	RSS-130 4.6 RSS-132 5.5 RSS-133 6.5 RSS-139 6.6 RSS-199 4.5	Band Edge	Clause 5.1.6	PASS

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8	2.1051 22.917 24.238 27.53	RSS-Gen 6.13 RSS-130 4.6 RSS-132 5.5 RSS-133 6.5 RSS-139 6.6 RSS-199 4.5	Field Strength of Spurious Radiation	Clause 5.1.7	PASS
9	N/A	RSS-Gen 7.1 RSS-132 5.6 RSS-133 6.6	Receiver Spurious Emissions	Clause 5.1.8	PASS



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## 2 Test Condition

### 2.1 Environmental conditions

Temperature (°C)	18-25
Humidity (%RH)	40-65
Barometric Pressure (mbar)	960-1060

### 2.2 Test Environments

During the measurement, the environmental conditions were within the listed ranges:

Test Voltage	NV (Normal Voltage)	11.10 V
	LV (Low Voltage)	8.25 V
	HV (High Voltage)	12.60 V
Test Temperature	NT (Normal Temperature)	+25 °C
	LT (Low Temperature)	-20 °C
	HT (High Temperature)	+60 °C

### 2.3 Equipment List

Name of Equipment	Manufacturer	Model	Serial No.	Cal. Due Date
Spectrum Analyzer	Keysight	N9020A	MY59260184	2021-08-18
Spectrum Analyzer	Keysight	N9020B	MY59260184	2021-08-18
Spectrum Analyzer	Rohde & Schwarz	FSV40N	101450	2021-06-24
EMI Test Receiver	Rohde & Schwarz	ESPI3	100173	2021-06-19
EMI Test Receiver	Rohde & Schwarz	ESR 7	101911	2021-06-19
V-network	SCHWARZBECK	NSLK 8127	8127-902	2021-02-20
Wideband Radio Communication Tester	Rohde & Schwarz	CMW 500	100687	2021-08-18
DC Power Supply	ACPOWER	ADC-0800025-15	D215010003	2021-03-19
Temperature Chamber	SHKTEST	SHK-B101	20190819001	2021-03-15
Broadband Antenna	SCHWARZBECK	VULB9163	9163-1037	2021-06-06
Horn Antenna-18G	SCHWARZBECK	BBHA9120D	9120D-1775	2021-06-06
Loop Antenna	SCHWARZBECK	FMZB 1513	N/A	2021-03-19
Horn Antenna-40G	YINGLIAN	LB-180400-KF	N/A	2021-07-26
EMC chamber 9*6*6 (L*W*H)	CHANGNING	966	N/A	2023-06-26
Shielded Enclosure 8*5*4 (L*W*H)	CHANGNING	854	N/A	2021-08-28
Test Software	BL	BL410_E	N/A	N/A
Test Software	BL	BL410_R	N/A	N/A



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	66	v	v	v	v	v	v	v	v	v	v	v	v	v	v
Peak to Average Radio	2	--	--	--	--	--	v	v	v	v	--	v	v	v	v
	4	--	--	--	--	--	v	v	v	v	--	v	v	v	v
	5	--	--	--	v	n	n	v	v	v	--	v	v	v	v
	7	n	n	--	--	--	v	v	v	v	--	v	v	v	v
	12	n	n	--	v	n	n	v	v	v	--	v	v	v	v
	13	n	n	--	v	n	n	v	v	v	--	v	v	v	v
	17	n	n	--	v	n	n	v	v	v	--	v	v	v	v
	25	--	--	--	--	--	v	v	v	v	--	v	v	v	v
	30	n	n	--	v	n	n	v	v	v	--	v	v	v	v
	41	--	--	--	--	--	v	v	v	v	--	v	v	v	v
66	--	--	--	--	--	v	v	v	v	--	v	v	v	v	
Occupied Bandwidth	2	v	v	v	v	v	v	v	v	--	--	v	v	v	v
	4	v	v	v	v	v	v	v	v	--	--	v	v	v	v
	5	v	v	v	v	n	n	v	v	--	--	v	v	v	v
	7	n	n	v	v	v	v	v	v	--	--	v	v	v	v
	12	v	v	v	v	n	n	v	v	--	--	v	v	v	v
	13	n	n	v	v	n	n	v	v	--	--	v	v	v	v
	17	n	n	v	v	n	n	v	v	--	--	v	v	v	v
	25	v	v	v	v	v	v	v	v	--	--	v	v	v	v
	30	n	n	v	v	n	n	v	v	--	--	v	v	v	v
	41	v	v	v	v	v	v	v	v	--	--	v	v	v	v
66	v	v	v	v	v	v	v	v	--	--	v	v	v	v	
Frequency Stability	2	--	--	--	v	--	--	v	v	--	--	v	--	v	--
	4	--	--	--	v	--	--	v	v	--	--	v	--	v	--
	5	--	--	--	v	n	n	v	v	--	--	v	--	v	--
	7	n	n	--	v	--	--	v	v	--	--	v	--	v	--
	12	n	n	--	v	n	n	v	v	--	--	v	--	v	--
	13	n	n	--	v	n	n	v	v	--	--	v	--	v	--
	17	n	n	--	v	n	n	v	v	--	--	v	--	v	--
	25	--	--	--	v	--	--	v	v	--	--	v	--	v	--
	30	n	n	--	v	n	n	v	v	--	--	v	--	v	--
	41	--	--	--	v	--	--	v	v	--	--	v	--	v	--
66	--	--	--	v	--	--	v	v	--	--	v	--	v	--	
Spurious Emission at Antenna Terminals	2	v	v	v	v	v	v	v	v	v	--	--	v	v	v
	4	v	v	v	v	v	v	v	v	v	--	--	v	v	v
	5	v	v	v	v	n	n	v	v	v	--	--	v	v	v
	7	n	n	v	v	v	v	v	v	v	--	--	v	v	v
	12	v	v	v	v	n	n	v	v	v	--	--	v	v	v
	13	n	n	v	v	n	n	v	v	v	--	--	v	v	v

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	17	n	n	v	v	n	n	v	v	v	--	--	v	v	v
	25	v	v	v	v	v	v	v	v	v	--	--	v	v	v
	30	n	n	v	v	n	n	v	v	v	--	--	v	v	v
	41	v	v	v	v	v	v	v	v	v	--	--	v	v	v
	66	v	v	v	v	v	v	v	v	v	--	--	v	v	v
Band Edge	2	v	v	v	v	v	v	v	v	v	--	v	v	--	v
	4	v	v	v	v	v	v	v	v	v	--	v	v	--	v
	5	v	v	v	v	n	n	v	v	v	--	v	v	--	v
	7	n	n	v	v	v	v	v	v	v	--	v	v	--	v
	12	v	v	v	v	n	n	v	v	v	--	v	v	--	v
	13	n	n	v	v	n	n	v	v	v	--	v	v	--	v
	17	n	n	v	v	n	n	v	v	v	--	v	v	--	v
	25	v	v	v	v	v	v	v	v	v	--	v	v	--	v
	30	n	n	v	v	n	n	v	v	v	--	v	v	--	v
	41	v	v	v	v	v	v	v	v	v	--	v	v	--	v
66	v	v	v	v	v	v	v	v	v	--	v	v	--	v	
Field Strength of Spurious Radiation	2	v	v	v	v	v	v	v	--	v	--	--	--	v	--
	4	v	v	v	v	v	v	v	--	v	--	--	--	v	--
	5	v	v	v	v	n	n	v	--	v	--	--	--	v	--
	7	n	n	v	v	v	v	v	--	v	--	--	--	v	--
	12	v	v	v	v	n	n	v	--	v	--	--	--	v	--
	13	n	n	v	v	n	n	v	--	v	--	--	--	v	--
	17	n	n	v	v	n	n	v	--	v	--	--	--	v	--
	25	v	v	v	v	v	v	v	--	v	--	--	--	v	--
	30	n	n	v	v	n	n	v	--	v	--	--	--	v	--
	41	v	v	v	v	v	v	v	--	v	--	--	--	v	--
66	v	v	v	v	v	v	v	--	v	--	--	--	v	--	

**Note(s):**

1. The mark 'v' means that this configuration is chosen for testing.
2. The mark 'n' means that this bandwidth is not supported.

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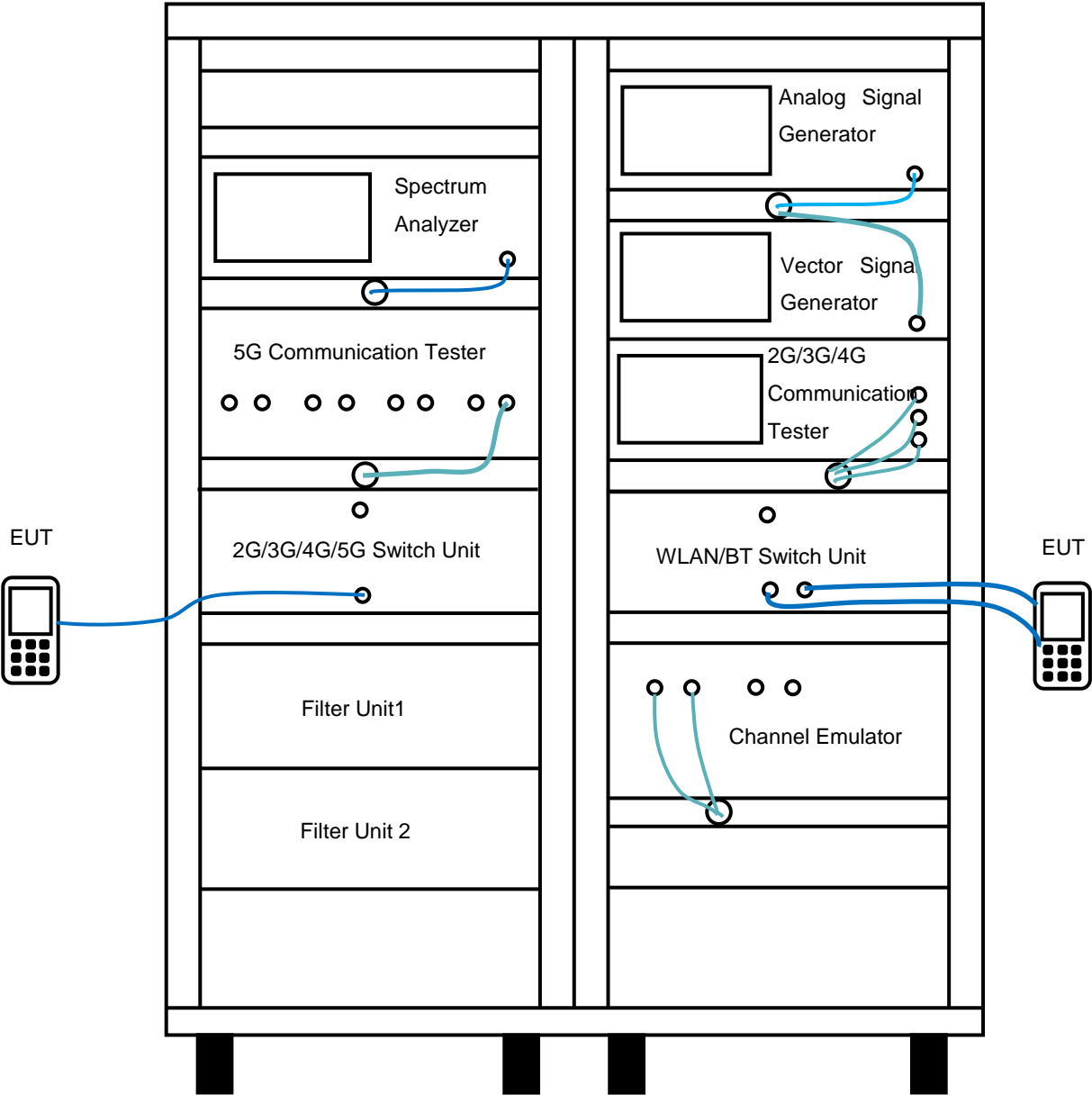
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## 3.2 Test Setup Diagram

Diagram of Measurement Equipment Configuration for Antenna Port Test



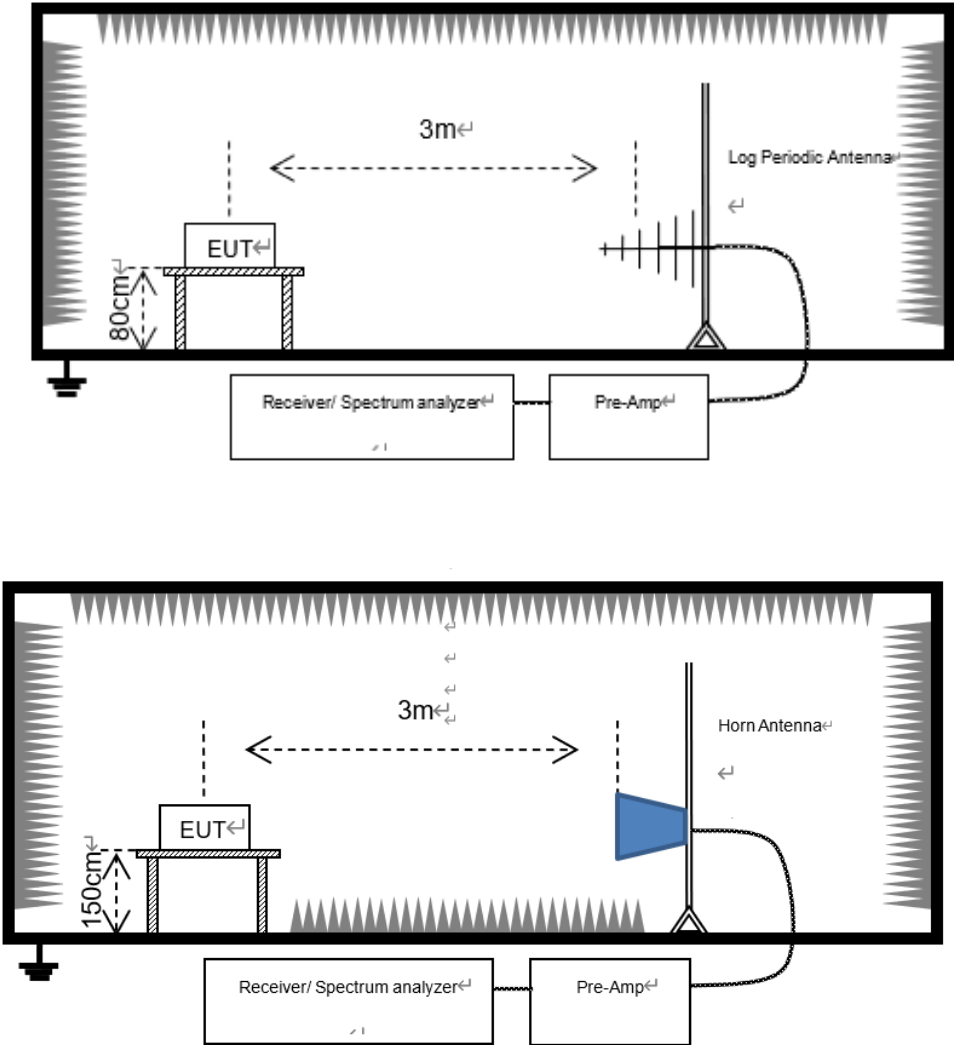
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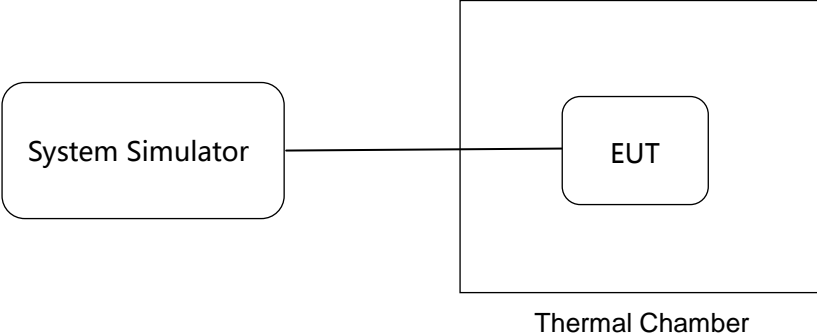
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## Diagram of Measurement Configuration for Radiation Test



Note: Measurements below 1GHz are done with a table height of 0.8m and above 1GHz are done with a table height of 1.5m. In addition, there is RF absorbing material on the floor of the test site for above 1GHz measurement.

## Diagram of Measurement Configuration for Frequency Stability



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## 4 Test Items

### 4.1 Transmitter Radiated Power (EIRP/ERP)

#### 4.1.1 Limit

##### **FCC § 2.1046(a) & 22.913(a) & 24.232(c) & 27.50(b) & 27.50(c) & 27.50(d) & 27.50(h)**

According to FCC section 22.913(a) (2), the Effective Radiated Power (ERP) of mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

According to FCC section 24.232(c), Mobile and portable stations are limited to 2 watts EIRP and the equipment must employ a means for limiting power to the minimum necessary for successful communications.

According to FCC section 27.50(b) (10), portable stations (hand-held devices) transmitting in the 746-757MHz, 776-788MHz, and 805-806MHz bands are limited to 3 watts ERP.

FCC section 27.50(c) (10), portable stations (hand-held devices) in the 698-746MHz band are limited to 3 watts ERP.

FCC section 27.50(d) (4), Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP. Fixed stations operating in the 1710-1755 MHz band are limited to a maximum antenna height of 10 meters above ground. Mobile and portable stations operating in these bands must employ a means for limiting power to the minimum necessary for successful communications.

Fixed, mobile, and portable (hand-held) stations operating in the 2000-2020 MHz band are limited to 2 watts EIRP.

And FCC section 27.50(h) (2), for mobile and other user stations, mobile stations are limited to 2 watts EIRP. All user stations are limited to 2 watts transmitter output power.

##### **RSS-132 § 5.4 & RSS-133 § 6.4 & RSS-139 § 6.5 & RSS-199 § 4.4**

According to RSS-132 § 5.4, the Effective Radiated Power (ERP) for mobile equipment shall not exceed 11.5 watts.

According to RSS-133 § 6.4 (SRSP 510), mobile stations and hand-held portables are limited to 2 watts maximum EIRP.

According to RSS-139 § 6.5, the EIRP for mobile and portable transmitters shall not exceed 1 watt.

According to RSS-199 § 4.4, for mobile subscriber equipment, the EIRP shall not exceed 2 watts.

#### 4.1.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.2
2. The transmitter output port was connected to the system simulator.
3. Set EUT at maximum power through the system simulator.
4. Select lowest, middle, and highest channels for each band and different modulation.
5. Measure and record the power level from the system simulator.



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The relevant equation for determining the ERP or EIRP from the conducted RF output power measured using the guidance provided above is:

$$\text{EIRP} = P_T + G_T - L_C$$

$$\text{ERP} = \text{EIRP} - 2.15$$

Where:

$P_T$  = transmitter output power in dBm

$G_T$  = gain of the transmitting antenna in dBi

$L_C$  = signal attenuation in the connecting cable between the transmitter and antenna in dB

The relevant equation for determining the ERP/EIRP from the radiated RF output power is:

$$\text{ERP/EIRP} = \text{SA Read Value} + \text{Correction Factor}$$

where:

ERP/EIRP = effective or equivalent radiated power in dBm

SA Read Value = measured transmitter power received by EMI receiver or spectrum analyzer in dBm

Correction Factor = total correction factor including cable loss in dB

During the test, the data of Correction Factor (dB) is added in the EMI receiver or spectrum analyzer, so SA Read Value (dBm) is the final values which contains the data of Correction Factor (dB).

## 4.1.3 Test Result

Please refer to 5.1.1.

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## 4.2 Peak-to-Average Ratio

### 4.2.1 Limit

**FCC § 2.1046 & 24.232(d) & 27.50(d)**

**RSS-132 § 5.4 & RSS-133 § 6.4 & RSS-139 § 6.5 & RSS-199 § 4.4**

In addition, when the transmitter power is measured in terms of average value, the peak-to-average power ratio (PAPR) of the transmitter shall not exceed 13 dB for more than 0.1% of the time using a signal corresponding to the highest PAPR during periods of continuous transmission.

According to FCC section 24.232(d), power measurements for transmissions by stations authorized under this section may be made either in accordance with a Commission-approved average power technique or in compliance with 24.232 (e) of this section. In both instances, equipment employed must be authorized in accordance with the provisions of § 24.51. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

For FCC section 24.232(e), peak transmit power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an RMS equivalent voltage. The measurement results shall be properly adjusted for any instrument limitations, such as detector response times, limited resolution bandwidth capability when compared to the emission bandwidth, sensitivity, etc., so as to obtain a true peak measurement for the emission in question over the full bandwidth of the channel.

According to FCC section 27.50(d), in measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13dB.

### 4.2.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.2.3.4 (CCDF).
2. The EUT was connected to spectrum and system simulator via a power divider.
3. Set the CCDF (Complementary Cumulative Distribution Function) option in spectrum analyzer.
4. The highest RF powers were measured and recorded the maximum PAPR level associated with a probability of 0.1 %.
5. Record the deviation as Peak to Average Ratio.

### 4.2.3 Test Result

Please refer to 5.1.2.

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## 4.3 Occupied Bandwidth

### 4.3.1 Limit

FCC § 2.1049

RSS-Gen § 6.6

The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission. Many of the individual rule parts specify a relative OBW in lieu of the 99% OBW. In such cases, the OBW is defined as the width of the signal between two points, one below the carrier center frequency and on above the carrier center frequency, outside of which all emissions are attenuated by at least X dB below the transmitter power, where the value of X is typically specified as 26.

### 4.3.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.4
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the spectrum analyzer shall be between two and five times the anticipated OBW.
4. The nominal resolution bandwidth (RBW) shall be in the range of 1 to 5 % of the anticipated OBW, and the VBW shall be at least 3 times the RBW.
5. Set the detection mode to peak, and the trace mode to max hold.
6. Determine the reference value: Set the EUT to transmit a modulated signal. Allow the trace to stabilize. Set the spectrum analyzer marker to the highest level of the displayed trace. (this is the reference value)
7. Determine the “-26 dB down amplitude” as equal to (Reference Value – X).
8. Place two markers, one at the lowest and the other at the highest frequency of the envelope of the spectral display such that each marker is at or slightly below the “-X dB down amplitude” determined in step 6. If a marker is below this “-X dB down amplitude” value it shall be placed as close as possible to this value. The OBW is the positive frequency difference between the two markers.
9. Use the 99 % power bandwidth function of the spectrum analyzer and report the measured bandwidth.

### 4.3.3 Test Result

Please refer to 5.1.3.

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## 4.4 Frequency Stability

### 4.4.1 Limit

**FCC § 2.1055 & 22.355 & 24.235 & 27.54**

**RSS-Gen § 6.11 & RSS-132 § 5.3 & RSS-133 § 6.3 & RSS-139 § 6.4 & RSS-199 § 4.3**

FCC § 2.1055

The frequency stability shall be measured with variation of ambient temperature as follows:

- (1) The temperature is varied from -30°C to +50°C.
- (2) Frequency measurements shall be made at the extremes of the specified temperature range and at intervals of not more than 10°C through the range. The frequency stability shall be measured with variation of primary supply voltage as follows:
  - (1) Vary primary supply voltage from 85 to 115 percent of the nominal value for other than carried battery equipment.
  - (2) For hand carried, battery powered equipment, reduce primary supply voltage to the battery operating and point which shall be specified by the manufacture.
  - (3) The supply voltage shall be measured at the input to the cable normally provided with the equipment, or at the power supply terminals if cables are not normally provided.

FCC § 22.355

Except as otherwise provided in this part, the carrier frequency of each transmitter in the Public Mobile Services must be maintained within the tolerances given in table as below.

Frequency range (MHz)	Base, fixed (ppm)	Mobile >3 watts (ppm)	Mobile ≤3 watts (ppm)
25 to 50	20.0	20.0	50.0
50 to 450	5.0	5.0	50.0
450 to 512	2.5	5.0	5.0
821 to 896	1.5	2.5	2.5
928 to 929	5.0	n/a	n/a
929 to 960	1.5	n/a	n/a
2110 to 2220	10.0	n/a	n/a

FCC § 24.235

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

FCC § 27.54

The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

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## 4.4.2 Test Procedures

### For Temperature Variation

1. The testing follows ANSI C63.26 section 5.6.4
2. The EUT was set up in the thermal chamber and connected with the system simulator.
3. With power OFF, the temperature was decreased to -30°C and the EUT was stabilized before testing. Power was applied and the maximum change in frequency was recorded within one minute.
4. With power OFF, the temperature was raised in 10°C step up to 50°C. The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.

### For Voltage Variation

1. The testing follows ANSI C63.26 section 5.6.5
2. The EUT was placed in a temperature chamber at 20±5°C and connected with the system simulator.
3. The power supply voltage to the EUT was varied from 85% to 115% of the nominal value for other than hand carried battery equipment.
4. For hand carried, battery powered equipment, reduce the primary ac or dc supply voltage to the battery operating end point, which shall be specified by the manufacturer.
5. The variation in frequency was measured for the worst case.

## 4.4.3 Test Result

Please refer to 5.1.4.

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## 4.5 Spurious Emission at Antenna Terminals

### 4.5.1 Limit

**FCC § 2.1051 & 22.917(a) & 24.238(a) & 27.53(c) & 27.53(g) & 27.53(h) & 27.53(m)**

**RSS-Gen § 6.13 & RSS-132 § 5.5 & RSS-133 § 6.5 & RSS-139 § 6.6**

In the 1 MHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

FCC § 22.917(a) & 24.238(a)

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log(P)$  dB. This is calculated to be -13 dBm.

FCC § 27.53(c)

For operations in the 746–758 MHz band and the 776–788 MHz band, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:

- (1) On any frequency outside the 746–758 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least  $43 + 10 \log(P)$  dB;
- (2) On any frequency outside the 776–788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least  $43 + 10 \log(P)$  dB;
- (4) On all frequencies between 763–775 MHz and 793–805 MHz, by a factor not less than  $65 + 10 \log(P)$  dB in a 6.25 kHz band segment, for mobile and portable stations;
- (5) Compliance with the provisions of paragraphs (c)(1) and (c)(2) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater.

However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed;

- (6) Compliance with the provisions of paragraphs (c)(3) and (c)(4) of this section is based on the use of measurement instrumentation such that the reading taken with any resolution bandwidth setting should be adjusted to indicate spectral energy in a 6.25 kHz segment.

FCC § 27.53(g)

For operations in the 600MHz band and the 698-746MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least  $43 + 10 \log(P)$  dB.

FCC § 27.53(h) (1)

Except as otherwise specified below, for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the

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power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least  $43 + 10 \log_{10}(P)$  dB.

## FCC § 27.53(m) (4)

For mobile digital stations, the attenuation factor shall be not less than  $40 + 10 \log(P)$  dB on all frequencies between the channel edge and 5 megahertz from the channel edge,  $43 + 10 \log(P)$  dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and  $55 + 10 \log(P)$  dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than  $43 + 10 \log(P)$  dB on all frequencies between 2490.5 MHz and 2496 MHz and  $55 + 10 \log(P)$  dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

## RSS-199 § 4.5

For mobile digital stations (BRS and EBS stations), the attenuation factor shall be not less than:

$40 + 10 \log P$  dB (-10 dBm, 100 nW) on all frequencies between the channel edge and 5 MHz from the channel edge.

$43 + 10 \log P$  dB (-13 dBm, 50 nW) on all frequencies between 5 MHz and X MHz from the channel edge,

$55 + 10 \log P$  dB (-25 dBm, 3 nW) on all frequencies more than X MHz from the channel edge, where X is the greater of 6 MHz or the actual emission bandwidth (26 dB).

In addition, the attenuation factor shall not be less than  $43 + 10 \log(P)$  dB on all frequencies between 2490.5 MHz and 2496 MHz and  $55 + 10 \log(P)$  dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

## 4.5.2 Test Procedures

1. The testing follows ANSI C63.26 section 5.7
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
4. CMW500 is used to establish communication with the EUT, and its parameters are set to force the EUT transmitting at maximum output power.
5. The conducted spurious emission for the whole frequency range was taken.
6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz.
7. Set spectrum analyzer with RMS detector.
8. Taking the record of maximum spurious emission.
9. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
10. The limit line is derived from  $43 + 10 \log(P)$  dB below the transmitter power P(Watts)

$$= P(W) - [43 + 10 \log(P)] \text{ (dB)}$$

$$= [30 + 10 \log(P)] \text{ (dBm)} - [43 + 10 \log(P)] \text{ (dB)}$$

$$= -13 \text{ dBm.}$$

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11. For Band 7/41

The limit line is derived from  $55 + 10\log(P)$  dB below the transmitter power P(Watts)

$$= P(W) - [55 + 10\log(P)] \text{ (dB)}$$

$$= [30 + 10\log(P)] \text{ (dBm)} - [55 + 10\log(P)] \text{ (dB)}$$

$$= -25 \text{ dBm.}$$

## 4.5.3 Test Result

Please refer to 5.1.5.



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## 4.6 Band Edge

### 4.6.1 Limit

**FCC § 2.1051 & 22.917(a) & 24.238(a) & 27.53(c) & 27.53(g) & 27.53(h) & 27.53(m)**  
**RSS-132 § 5.5 & RSS-133 § 6.5 & RSS-139 § 6.6**

In the 1 MHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

FCC § 22.917(a) & 24.238(a)

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log(P)$  dB. This is calculated to be -13 dBm.

FCC § 27.53(c)

For operations in the 746–758 MHz band and the 776–788 MHz band, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:

- (1) On any frequency outside the 746–758 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least  $43 + 10 \log(P)$  dB;
- (2) On any frequency outside the 776–788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least  $43 + 10 \log(P)$  dB;
- (4) On all frequencies between 763–775 MHz and 793–805 MHz, by a factor not less than  $65 + 10 \log(P)$  dB in a 6.25 kHz band segment, for mobile and portable stations;
- (5) Compliance with the provisions of paragraphs (c)(1) and (c)(2) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater.

However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed;

- (6) Compliance with the provisions of paragraphs (c)(3) and (c)(4) of this section is based on the use of measurement instrumentation such that the reading taken with any resolution bandwidth setting should be adjusted to indicate spectral energy in a 6.25 kHz segment.

FCC § 27.53(g)

For operations in the 600MHz band and the 698-746MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least  $43 + 10 \log(P)$  dB.

FCC § 27.53(h) (1)

Except as otherwise specified below, for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the

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power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least  $43 + 10 \log_{10}(P)$  dB.

## FCC § 27.53(m) (4)

For mobile digital stations, the attenuation factor shall be not less than  $40 + 10 \log(P)$  dB on all frequencies between the channel edge and 5 megahertz from the channel edge,  $43 + 10 \log(P)$  dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and  $55 + 10 \log(P)$  dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than  $43 + 10 \log(P)$  dB on all frequencies between 2490.5 MHz and 2496 MHz and  $55 + 10 \log(P)$  dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

## RSS-199 § 4.5

For mobile digital stations (BRS and EBS stations), the attenuation factor shall be not less than:

$40 + 10 \log P$  dB (-10 dBm, 100 nW) on all frequencies between the channel edge and 5 MHz from the channel edge.

$43 + 10 \log P$  dB (-13 dBm, 50 nW) on all frequencies between 5 MHz and X MHz from the channel edge,

$55 + 10 \log P$  dB (-25 dBm, 3 nW) on all frequencies more than X MHz from the channel edge, where X is the greater of 6 MHz or the actual emission bandwidth (26 dB).

In addition, the attenuation factor shall not be less than  $43 + 10 \log(P)$  dB on all frequencies between 2490.5 MHz and 2496 MHz and  $55 + 10 \log(P)$  dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

## 4.6.2 Test Procedures

1. The testing follows ANSI C63.26 section 5.7
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The band edges of low and high channels for the highest RF powers were measured.
4. Set RBW  $\geq$  1% EBW in the 1MHz band immediately outside and adjacent to the band edge.
5. Beyond the 1 MHz band from the band edge, RBW=1MHz was used.
6. Set spectrum analyzer with RMS detector.
7. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
8. Checked that all the results comply with the emission limit line.

Example:

The limit line is derived from  $43 + 10 \log(P)$  dB below the transmitter power P(Watts)

$$= P(W) - [43 + 10 \log(P)] \text{ (dB)}$$

$$= [30 + 10 \log(P)] \text{ (dBm)} - [43 + 10 \log(P)] \text{ (dB)} = -13 \text{ dBm.}$$

9. For LTE Band 7/41, the other 40 dB, and 55 dB have additionally applied same calculation above.

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## 4.6.3 Test Result

Please refer to 5.1.6.

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## 4.7 Field Strength of Spurious Radiation

### 4.7.1 Limit

**FCC § 2.1051 & 22.917(a) & 24.238(a) & 27.53(c) & 27.53(g) & 27.53(h) & 27.53(m)**

**RSS-Gen § 6.13 & RSS-132 § 5.5 & RSS-133 § 6.5 & RSS-139 § 6.6**

FCC § 22.917(a) & 24.238(a)

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log(P)$  dB. This is calculated to be -13 dBm.

FCC § 27.53(c)

For operations in the 746–758 MHz band and the 776–788 MHz band, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:

(1) On any frequency outside the 746–758 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least  $43 + 10 \log(P)$  dB;

(2) On any frequency outside the 776–788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least  $43 + 10 \log(P)$  dB;

(4) On all frequencies between 763–775 MHz and 793–805 MHz, by a factor not less than  $65 + 10 \log(P)$  dB in a 6.25 kHz band segment, for mobile and portable stations;

(5) Compliance with the provisions of paragraphs (c)(1) and (c)(2) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater.

However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed;

(6) Compliance with the provisions of paragraphs (c)(3) and (c)(4) of this section is based on the use of measurement instrumentation such that the reading taken with any resolution bandwidth setting should be adjusted to indicate spectral energy in a 6.25 kHz segment.

FCC § 27.53(g)

For operations in the 600MHz band and the 698-746MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least  $43 + 10 \log(P)$  dB.

FCC § 27.53(h) (1)

Except as otherwise specified below, for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least  $43 + 10 \log_{10}(P)$  dB.

FCC § 27.53(m) (4)

For mobile digital stations, the attenuation factor shall be not less than  $40 + 10 \log(P)$  dB on all frequencies between the channel edge and 5 megahertz from the channel edge,  $43 + 10 \log(P)$  dB on all frequencies between 5 megahertz

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and X megahertz from the channel edge, and  $55 + 10 \log (P)$  dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than  $43 + 10 \log (P)$  dB on all frequencies between 2490.5 MHz and 2496 MHz and  $55 + 10 \log (P)$  dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

## RSS-199 § 4.5

For mobile digital stations (BRS and EBS stations), the attenuation factor shall be not less than:

40+10logP dB (-10 dBm, 100 nW) on all frequencies between the channel edge and 5 MHz from the channel edge.

43+10logP dB (-13 dBm, 50 nW) on all frequencies between 5 MHz and X MHz from the channel edge,

55+10logP dB (-25 dBm, 3 nW) on all frequencies more than X MHz from the channel edge, where X is the greater of 6 MHz or the actual emission bandwidth (26 dB).

In addition, the attenuation factor shall not be less than  $43 + 10 \log (P)$  dB on all frequencies between 2490.5 MHz and 2496 MHz and  $55 + 10 \log (P)$  dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

## 4.7.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.5
2. The EUT was placed on a turntable with 0.8 meter height for frequency below 1GHz and 1.5 meter height for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the receiving antenna mounted on the antenna tower.
4. The table was rotated 360 degrees to determine the position of the highest spurious emission.
5. The height of the receiving antenna is varied between 1m to 4m to search the maximum spurious emission for both horizontal and vertical polarizations.
6. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power.
7. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
8. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
9. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
10.  $EIRP \text{ (dBm)} = S.G. \text{ Power} - Tx \text{ Cable Loss} + Tx \text{ Antenna Gain}$
11.  $ERP \text{ (dBm)} = EIRP - 2.15$
12. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.  
The limit line is derived from  $43 + 10\log(P)$ dB below the transmitter power P(Watts)  
 $= P(W) - [43 + 10\log(P)] \text{ (dB)}$   
 $= [30 + 10\log(P)] \text{ (dBm)} - [43 + 10\log(P)] \text{ (dB)}$   
 $= -13\text{dBm}.$
13. For Band 7/41: The limit line is derived from  $55 + 10\log(P)$ dB below the transmitter power P(Watts)  
 $= P(W) - [55 + 10\log(P)] \text{ (dB)}$

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$$\begin{aligned} &= [30 + 10\log(P)] \text{ (dBm)} - [55 + 10\log(P)] \text{ (dB)} \\ &= -25\text{dBm}. \end{aligned}$$

## 4.7.3 Test Result

Please refer to 5.1.7.

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## 5 Appendixes

### 5.1 Test Result

#### 5.1.1 Transmitter Radiated Power (EIRP/ERP)

##### Conducted Power Measurement Results for WCDMA/HSDPA/HSPUA

WCDMA Band II	Mode	Conducted Power (dBm)		
		Channel		
		Low	Mid	High
RMC	12.2 kbps	22.56	22.73	<b>22.90</b>
HSDPA	Sub - Test 1	21.55	21.71	21.86
	Sub - Test 2	21.59	21.75	21.86
	Sub - Test 3	21.10	21.24	21.4
	Sub - Test 4	21.09	21.27	21.42
HSUPA	Sub - Test 1	21.53	21.74	21.9
	Sub - Test 2	19.56	19.82	19.83
	Sub - Test 3	20.68	20.70	20.89
	Sub - Test 4	19.46	19.73	20.02
	Sub - Test 5	21.62	21.73	21.89

WCDMA Band IV	Mode	Conducted Power (dBm)		
		Channel		
		Low	Mid	High
RMC	12.2 kbps	23.90	24.02	<b>24.09</b>
HSDPA	Sub - Test 1	22.95	23.02	23.09
	Sub - Test 2	22.97	23.06	23
	Sub - Test 3	22.45	22.55	22.3
	Sub - Test 4	22.47	22.56	22.3
HSUPA	Sub - Test 1	22.82	22.97	22.93
	Sub - Test 2	21.04	21.04	20.83
	Sub - Test 3	21.95	21.9	22.12
	Sub - Test 4	20.90	21.04	21.00
	Sub - Test 5	22.88	22.99	23.12

WCDMA Band V	Mode	Conducted Power (dBm)		
		Channel		
		Low	Mid	High
RMC	12.2 kbps	22.70	22.51	<b>22.79</b>
HSDPA	Sub - Test 1	21.75	21.57	21.84

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	<b>Sub - Test 2</b>	21.78	21.58	21.89
	<b>Sub - Test 3</b>	21.25	21.11	21.41
	<b>Sub - Test 4</b>	21.25	21.12	21.43
<b>HSUPA</b>	<b>Sub - Test 1</b>	21.78	21.62	21.9
	<b>Sub - Test 2</b>	19.66	19.57	19.82
	<b>Sub - Test 3</b>	20.75	20.55	20.93
	<b>Sub - Test 4</b>	19.78	19.53	19.96
	<b>Sub - Test 5</b>	21.73	21.56	21.83

## Conducted power measurement results for LTE

FDD LTE Band 2							
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	18700	18900	19100	18700	18900	19100
20MHz	1 (RB_Pos:0)	22.52	22.67	<b>22.93</b>	22.12	22.08	22.38
	1 (RB_Pos:49)	22.52	22.64	22.85	22.12	22.09	22.19
	1 (RB_Pos:99)	22.55	22.56	22.80	22.13	21.97	22.26
	50 (RB_Pos:0)	21.58	21.71	21.88	20.75	20.82	20.94
	50 (RB_Pos:24)	21.53	21.65	<b>21.91</b>	20.64	20.78	20.94
	50 (RB_Pos:49)	21.58	21.60	21.84	20.70	20.71	20.91
	100 (RB_Pos:0)	21.53	21.68	<b>21.89</b>	20.66	20.74	20.99
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	18675	18900	19125	18675	18900	19125
15MHz	1 (RB_Pos:0)	22.55	22.65	23.05	21.53	22.11	22.44
	1 (RB_Pos:37)	22.49	22.60	22.83	21.49	22.06	22.28
	1 (RB_Pos:74)	22.46	22.54	22.82	21.45	22.04	22.28
	36 (RB_Pos:0)	21.56	21.63	21.91	20.65	20.81	20.98
	36 (RB_Pos:18)	21.50	21.61	21.85	20.62	20.76	20.91
	36 (RB_Pos:37)	21.43	21.54	21.90	20.57	20.71	20.98
	75 (RB_Pos:0)	21.46	21.61	21.86	20.63	20.73	20.95
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	18650	18900	19150	18650	18900	19150
10MHz	1 (RB_Pos:0)	22.50	22.64	22.90	21.48	22.07	22.01
	1 (RB_Pos:24)	22.41	22.59	22.86	21.42	22.03	21.91
	1 (RB_Pos:49)	22.47	22.54	22.83	21.49	21.99	21.93
	25 (RB_Pos:0)	21.46	21.66	21.85	20.54	20.75	21.03
	25 (RB_Pos:12)	21.52	21.65	21.96	20.64	20.76	21.12
	25 (RB_Pos:24)	21.50	21.59	21.91	20.6	20.71	21.08



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Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
		Channel					
	50 (RB_Pos:0)	21.54	21.62	21.82	20.59	20.74	20.95
5MHz	1 (RB_Pos:0)	22.46	22.64	22.92	21.72	22.19	22.03
	1 (RB_Pos:12)	22.47	22.65	22.89	21.71	22.26	22.07
	1 (RB_Pos:24)	22.37	22.58	22.81	21.65	22.14	22.02
	12 (RB_Pos:0)	21.43	21.62	21.94	20.59	20.85	21.04
	12 (RB_Pos:6)	21.42	21.58	21.87	20.58	20.83	21.03
	12 (RB_Pos:11)	21.43	21.55	21.85	20.57	20.83	20.96
	25 (RB_Pos:0)	21.40	21.60	21.89	20.50	20.72	20.91
3MHz	1 (RB_Pos:0)	22.45	22.57	22.82	21.41	22.00	21.94
	1 (RB_Pos:7)	22.42	22.55	22.81	21.38	22.03	21.87
	1 (RB_Pos:14)	22.39	22.53	22.76	21.37	22.00	21.89
	8 (RB_Pos:0)	21.46	21.57	21.82	20.63	20.74	20.95
	8 (RB_Pos:4)	21.45	21.59	21.85	20.63	20.77	20.96
	8 (RB_Pos:7)	21.40	21.55	21.76	20.57	20.74	20.93
	15 (RB_Pos:0)	21.41	21.57	21.85	20.53	20.67	20.86
1.4MHz	1 (RB_Pos:0)	22.34	22.45	22.70	21.55	21.91	21.79
	1 (RB_Pos: 2)	22.39	22.55	22.80	21.62	21.99	21.87
	1 (RB_Pos:5)	22.33	22.48	22.71	21.52	21.94	21.84
	3 (RB_Pos:0)	21.35	21.51	21.76	20.45	20.76	21.00
	3 (RB_Pos:1)	21.43	21.56	21.84	20.56	20.83	21.07
	3 (RB_Pos:2)	21.35	21.50	21.77	20.48	20.76	21.01
	6 (RB_Pos:0)	21.33	21.48	21.68	20.57	20.50	21.01

FDD LTE Band 4							
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
		Channel					
20MHz	1 (RB_Pos:0)	22.92	<b>23.15</b>	23.14	22.54	22.65	22.55
	1 (RB_Pos:49)	22.86	23.08	22.91	22.47	22.45	22.33
	1 (RB_Pos:99)	23.07	23.00	22.85	22.65	22.43	22.33
	50 (RB_Pos:0)	21.98	<b>22.11</b>	22.06	21.08	21.23	21.08

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	50 (RB_Pos:24)	22.06	22.08	21.96	21.14	21.16	21.02
	50 (RB_Pos:49)	22.08	22.02	21.95	21.22	21.07	20.99
	100 (RB_Pos:0)	22.05	<b>22.05</b>	21.96	21.11	21.12	21.04
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20025	20175	20325	20025	20175	20325
15MHz	1 (RB_Pos:0)	22.92	23.12	23.10	21.91	22.53	22.57
	1 (RB_Pos:37)	22.84	23.02	22.93	21.85	22.41	22.35
	1 (RB_Pos:74)	23.00	22.95	22.88	21.98	22.4	22.30
	36 (RB_Pos:0)	21.95	22.09	22.03	21.03	21.23	21.09
	36 (RB_Pos:18)	22.02	22.05	21.94	21.11	21.16	21.00
	36 (RB_Pos:37)	22.00	22.01	21.90	21.07	21.11	20.99
	75 (RB_Pos:0)	22.06	22.06	21.97	21.13	21.13	21.05
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20000	20175	20350	20000	20175	20350
10MHz	1 (RB_Pos:0)	22.86	23.13	23.00	21.86	22.54	22.07
	1 (RB_Pos:24)	22.84	23.02	22.91	21.86	22.38	21.98
	1 (RB_Pos:49)	22.89	23.00	22.88	21.83	22.38	21.94
	25 (RB_Pos:0)	21.99	22.07	21.97	21.04	21.20	21.14
	25 (RB_Pos:12)	21.92	22.03	21.96	21.02	21.15	21.10
	25 (RB_Pos:24)	21.92	22.01	21.92	21.00	21.12	21.09
	50 (RB_Pos:0)	21.92	22.07	21.97	20.96	21.13	21.06
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	19975	20175	20375	19975	20175	20375
5MHz	1 (RB_Pos:0)	22.87	23.08	22.96	22.46	22.25	22.17
	1 (RB_Pos:12)	22.87	23.06	22.93	22.45	22.21	22.16
	1 (RB_Pos:24)	22.91	23.03	22.86	22.52	22.13	22.14
	12 (RB_Pos:0)	21.83	22.02	21.91	21.06	21.16	21.07
	12 (RB_Pos:6)	21.93	22.04	21.93	21.14	21.12	21.07
	12 (RB_Pos:11)	21.93	22.00	21.90	21.12	21.09	21.06
	25 (RB_Pos:0)	21.95	22.01	21.90	21.05	21.03	20.99
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	19965	20175	20385	19965	20175	20385
3MHz	1 (RB_Pos:0)	22.82	23.05	22.89	21.79	22.46	22.02
	1 (RB_Pos:7)	22.78	23.02	22.88	21.80	22.39	21.95
	1 (RB_Pos:14)	22.76	22.98	22.89	21.76	22.37	21.95
	8 (RB_Pos:0)	21.82	22.02	21.88	21.00	21.16	21.00

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	8 (RB_Pos:4)	21.88	22.04	21.92	21.03	21.17	21.04
	8 (RB_Pos:7)	21.82	22.04	21.86	20.97	21.13	20.99
	15 (RB_Pos:0)	21.86	22.03	21.93	20.94	21.10	20.91
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	19957	20175	20393	19957	20175	20393
1.4MHz	1 (RB_Pos:0)	22.73	22.94	22.85	21.94	22.34	21.91
	1 (RB_Pos: 2)	22.75	23.01	22.91	21.98	22.41	21.98
	1 (RB_Pos:5)	22.71	22.94	22.84	21.95	22.34	21.93
	3 (RB_Pos:0)	21.74	21.91	21.87	20.88	21.17	21.08
	3 (RB_Pos:1)	21.84	21.99	21.96	20.94	21.21	21.14
	3 (RB_Pos:2)	21.76	21.91	21.88	20.91	21.11	21.06
	6 (RB_Pos:0)	21.73	21.99	21.80	20.99	20.93	21.07

FDD LTE Band 5							
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20450	20525	20600	20450	20525	20600
10MHz	1 (RB_Pos:0)	<b>22.98</b>	22.88	22.84	21.98	22.34	21.97
	1 (RB_Pos:24)	22.74	22.72	22.85	21.77	22.14	21.93
	1 (RB_Pos:49)	22.79	22.76	22.90	21.74	22.21	21.95
	25 (RB_Pos:0)	21.89	21.84	21.81	21.00	20.99	20.98
	25 (RB_Pos:12)	21.91	21.87	<b>21.92</b>	21.03	20.91	21.04
	25 (RB_Pos:24)	21.88	21.76	21.85	21.00	20.85	21.00
	50 (RB_Pos:0)	<b>21.91</b>	21.79	21.88	20.96	20.88	20.99
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20425	20525	20625	20425	20525	20625
5MHz	1 (RB_Pos:0)	22.90	22.83	22.88	22.21	22.40	22.10
	1 (RB_Pos:12)	22.89	22.82	22.98	22.20	22.39	22.15
	1 (RB_Pos:24)	22.79	22.84	22.90	22.05	22.41	22.15
	12 (RB_Pos:0)	21.88	21.83	21.89	21.04	21.04	21.00
	12 (RB_Pos:6)	21.86	21.81	21.90	21.02	20.98	21.01
	12 (RB_Pos:11)	21.84	21.79	21.96	21.01	21.00	21.10
	25 (RB_Pos:0)	21.87	21.78	21.88	20.98	20.94	20.92
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20415	20525	20635	20415	20525	20635
3MHz	1 (RB_Pos:0)	22.88	22.80	22.97	21.86	22.22	22.08

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	1 (RB_Pos:7)	22.83	22.76	22.93	21.86	22.21	22.01
	1 (RB_Pos:14)	22.78	22.79	22.90	21.81	22.25	22.00
	8 (RB_Pos:0)	21.88	21.77	21.93	21.04	20.89	21.05
	8 (RB_Pos:4)	21.86	21.81	21.95	21.06	20.94	21.07
	8 (RB_Pos:7)	21.81	21.80	21.91	21.01	20.89	21.00
	15 (RB_Pos:0)	21.90	21.78	21.97	20.97	20.88	20.97
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20407	20525	20643	20407	20525	20643
1.4MHz	1 (RB_Pos:0)	22.77	22.70	22.86	21.98	22.10	21.95
	1 (RB_Pos: 2)	22.82	22.74	22.90	22.06	22.18	22.03
	1 (RB_Pos:5)	22.77	22.68	22.84	21.99	22.13	21.93
	3 (RB_Pos:0)	21.81	21.67	21.87	20.92	20.94	21.07
	3 (RB_Pos:1)	21.88	21.71	21.90	20.98	21.04	21.15
	3 (RB_Pos:2)	21.80	21.68	21.90	20.91	20.97	21.12
	6 (RB_Pos:0)	21.75	21.73	21.85	20.99	20.70	21.12

FDD LTE Band 7							
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20850	21100	21350	20850	21100	21350
20MHz	1 (RB_Pos:0)	22.74	22.81	<b>23.16</b>	22.28	22.34	22.48
	1 (RB_Pos:49)	22.77	22.94	23.06	22.25	22.23	22.43
	1 (RB_Pos:99)	22.76	22.88	22.99	22.38	22.35	22.36
	50 (RB_Pos:0)	21.71	21.77	<b>22.02</b>	20.82	20.86	21.03
	50 (RB_Pos:24)	21.73	21.84	21.97	20.83	20.95	20.92
	50 (RB_Pos:49)	21.79	21.80	21.99	20.90	20.87	21.08
	100 (RB_Pos:0)	21.68	21.71	<b>21.93</b>	20.78	20.80	21.03
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20825	21100	21375	20825	21100	21375
15MHz	1 (RB_Pos:0)	22.78	23.01	23.10	21.68	22.33	22.48
	1 (RB_Pos:37)	22.71	22.91	23.11	21.60	22.19	22.43
	1 (RB_Pos:74)	22.70	22.84	23.03	21.63	22.14	22.31
	36 (RB_Pos:0)	21.74	21.84	21.92	20.76	20.98	20.96
	36 (RB_Pos:18)	21.68	21.81	22.04	20.80	20.99	21.12
	36 (RB_Pos:37)	21.61	21.81	21.95	20.73	20.89	20.95
	75 (RB_Pos:0)	21.65	21.81	21.91	20.78	20.92	20.94
Bandwidth	RB Set	Power (dBm)					

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(MHz)	Channel	QPSK			16QAM		
		20800	21100	21400	20800	21100	21400
10MHz	1 (RB_Pos:0)	22.68	22.95	23.17	21.67	22.36	22.27
	1 (RB_Pos:24)	22.70	22.88	23.10	21.72	22.33	22.16
	1 (RB_Pos:49)	22.71	22.82	23.07	21.73	22.29	22.07
	25 (RB_Pos:0)	21.69	21.95	22.15	20.78	21.09	21.22
	25 (RB_Pos:12)	21.74	21.92	22.14	20.87	21.04	21.21
	25 (RB_Pos:24)	21.69	21.89	22.14	20.87	21.01	21.13
	50 (RB_Pos:0)	21.75	21.91	22.10	20.85	21.00	21.15
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20775	21100	21425	20775	21100	21425
5MHz	1 (RB_Pos:0)	22.64	22.93	23.09	21.86	22.49	22.26
	1 (RB_Pos:12)	22.66	22.98	23.14	21.88	22.55	22.28
	1 (RB_Pos:24)	22.51	22.92	23.06	21.86	22.47	22.22
	12 (RB_Pos:0)	21.62	21.94	22.15	20.79	21.10	21.24
	12 (RB_Pos:6)	21.61	21.92	22.14	20.79	21.17	21.15
	12 (RB_Pos:11)	21.60	21.87	22.11	20.75	21.13	21.17
	25 (RB_Pos:0)	21.64	21.90	22.11	20.72	21.04	21.14

FDD LTE Band 12							
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	23060	23095	23130	23060	23095	23130
10MHz	1 (RB_Pos:0)	22.86	22.89	<b>22.96</b>	21.92	22.34	22.07
	1 (RB_Pos:24)	22.80	22.81	22.90	21.82	22.32	22.06
	1 (RB_Pos:49)	22.81	22.86	22.92	21.84	22.31	22.05
	25 (RB_Pos:0)	21.92	<b>22.02</b>	21.95	21.06	21.14	21.12
	25 (RB_Pos:12)	22.00	21.95	21.89	21.11	21.05	21.09
	25 (RB_Pos:24)	21.97	21.87	21.94	21.04	21.03	21.11
	50 (RB_Pos:0)	<b>22.02</b>	21.96	21.90	21.06	21.04	21.01
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	23035	23095	23155	23035	23095	23155
5MHz	1 (RB_Pos:0)	22.83	22.84	22.92	22.07	22.42	22.17
	1 (RB_Pos:12)	22.90	22.91	22.90	22.17	22.51	22.12
	1 (RB_Pos:24)	22.77	22.83	22.90	22.09	22.42	22.17
	12 (RB_Pos:0)	21.89	21.94	21.93	21.09	21.18	21.07
	12 (RB_Pos:6)	21.91	21.90	21.93	21.06	21.11	21.07

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	12 (RB_Pos:11)	21.87	21.89	21.89	21.07	21.10	21.04
	25 (RB_Pos:0)	21.92	21.91	21.93	21.04	21.09	20.97
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	23025	23095	23165	23025	23095	23165
3MHz	1 (RB_Pos:0)	22.79	22.89	22.89	21.78	22.33	22.03
	1 (RB_Pos:7)	22.71	22.83	22.92	21.73	22.28	22.02
	1 (RB_Pos:14)	22.78	22.82	22.93	21.83	22.28	22.02
	8 (RB_Pos:0)	21.78	21.87	21.83	20.97	21.05	20.99
	8 (RB_Pos:4)	21.83	21.91	21.98	21.01	21.08	21.12
	8 (RB_Pos:7)	21.87	21.89	21.93	21.09	21.01	21.06
	15 (RB_Pos:0)	21.93	21.91	21.91	21.04	21.00	20.93
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	23017	23095	23173	23017	23095	23173
1.4MHz	1 (RB_Pos:0)	22.56	22.83	22.82	21.84	22.23	21.98
	1 (RB_Pos: 2)	22.62	22.82	22.89	21.96	22.29	22.02
	1 (RB_Pos:5)	22.58	22.74	22.83	21.89	22.25	21.94
	3 (RB_Pos:0)	21.66	21.80	21.91	20.91	21.11	21.16
	3 (RB_Pos:1)	21.67	21.88	21.97	20.94	21.15	21.21
	3 (RB_Pos:2)	21.61	21.81	21.93	20.90	21.07	21.15
	6 (RB_Pos:0)	21.62	21.81	21.86	20.91	20.84	21.15

FDD LTE Band 13							
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	--	23230	--	--	23230	--
10MHz	1 (RB_Pos:0)	--	<b>22.90</b>	--	--	21.89	--
	1 (RB_Pos:24)	--	22.71	--	--	21.75	--
	1 (RB_Pos:49)	--	22.77	--	--	21.78	--
	25 (RB_Pos:0)	--	<b>21.86</b>	--	--	20.96	--
	25 (RB_Pos:12)	--	21.85	--	--	20.94	--
	25 (RB_Pos:24)	--	21.76	--	--	20.84	--
	50 (RB_Pos:0)	--	21.82	--	--	20.87	--
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	23205	23230	23255	23205	23230	23255
5MHz	1 (RB_Pos:0)	22.83	22.85	22.77	22.07	22.41	22.00
	1 (RB_Pos:12)	22.82	22.79	22.86	22.09	22.38	22.07

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	1 (RB_Pos:24)	22.72	22.71	22.77	21.99	22.34	22.00
	12 (RB_Pos:0)	21.81	21.81	21.76	20.98	21.04	20.89
	12 (RB_Pos:6)	21.77	21.77	21.77	20.97	21.00	20.90
	12 (RB_Pos:11)	21.77	21.78	21.82	20.95	21.01	20.99
	25 (RB_Pos:0)	21.81	21.76	21.74	20.92	20.93	20.80

## FDD LTE Band 17

Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	23780	23790	23800	23780	23790	23800
10MHz	1 (RB_Pos:0)	23.89	23.99	23.98	22.89	23.40	23.11
	1 (RB_Pos:24)	23.93	23.91	24.06	22.99	23.38	23.14
	1 (RB_Pos:49)	24.04	24.05	<b>24.08</b>	23.07	23.49	23.15
	25 (RB_Pos:0)	<b>23.07</b>	23.03	23.01	22.17	22.20	22.23
	25 (RB_Pos:12)	23.04	22.99	23.03	22.12	22.13	22.15
	25 (RB_Pos:24)	22.96	23.07	23.00	22.05	22.15	22.21
	50 (RB_Pos:0)	<b>23.04</b>	23.00	22.98	22.08	22.09	22.14
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	23755	23790	23825	23755	23790	23825
5MHz	1 (RB_Pos:0)	23.80	24.04	24.06	23.14	23.59	23.29
	1 (RB_Pos:12)	23.90	23.98	24.17	23.22	23.61	23.35
	1 (RB_Pos:24)	23.92	24.04	24.03	23.23	23.62	23.27
	12 (RB_Pos:0)	22.93	22.97	23.03	22.15	22.22	22.18
	12 (RB_Pos:6)	22.95	22.98	23.03	22.11	22.19	22.17
	12 (RB_Pos:11)	23.00	22.94	23.11	22.14	22.18	22.23
	25 (RB_Pos:0)	23.03	22.97	23.09	22.17	22.16	22.10

## FDD LTE Band 25

Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	26140	26365	26590	26140	26365	26590
20MHz	1 (RB_Pos:0)	22.70	22.85	<b>23.06</b>	22.29	22.29	22.57
	1 (RB_Pos:49)	22.71	22.83	22.94	22.31	22.29	22.38
	1 (RB_Pos:99)	22.69	22.74	22.84	22.30	22.22	22.34
	50 (RB_Pos:0)	21.75	21.90	22.02	20.89	20.99	21.08
	50 (RB_Pos:24)	21.75	21.87	<b>22.08</b>	20.83	20.99	21.15
	50 (RB_Pos:49)	21.80	21.80	21.98	20.94	20.91	21.06

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Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
		Channel	26115	26365	26615	26115	26365
	100 (RB_Pos:0)	21.72	21.87	21.94	20.86	20.95	21.02
15MHz	1 (RB_Pos:0)	22.72	22.83	23.16	21.60	22.21	22.49
	1 (RB_Pos:37)	22.69	22.79	22.92	21.62	22.23	22.33
	1 (RB_Pos:74)	22.65	22.74	22.91	21.64	22.18	22.35
	36 (RB_Pos:0)	21.72	21.88	22.07	20.83	21.00	21.12
	36 (RB_Pos:18)	21.68	21.82	21.96	20.82	20.97	21.04
	36 (RB_Pos:37)	21.67	21.76	21.93	20.78	20.93	21.02
	75 (RB_Pos:0)	21.67	21.80	22.00	20.83	20.93	21.08
10MHz	1 (RB_Pos:0)	22.66	22.84	23.05	21.54	22.27	22.11
	1 (RB_Pos:24)	22.59	22.77	22.88	21.53	22.23	21.97
	1 (RB_Pos:49)	22.64	22.72	22.86	21.61	22.13	21.93
	25 (RB_Pos:0)	21.64	21.81	21.99	20.73	20.95	21.18
	25 (RB_Pos:12)	21.72	21.84	21.96	20.84	20.92	21.14
	25 (RB_Pos:24)	21.66	21.78	21.94	20.76	20.90	21.07
	50 (RB_Pos:0)	21.69	21.80	21.96	20.83	20.94	21.07
5MHz	1 (RB_Pos:0)	22.62	22.82	23.00	21.74	22.08	22.52
	1 (RB_Pos:12)	22.65	22.83	22.95	21.78	22.10	22.56
	1 (RB_Pos:24)	22.61	22.71	22.91	21.69	22.04	22.47
	12 (RB_Pos:0)	21.63	21.78	21.94	20.77	20.98	21.17
	12 (RB_Pos:6)	21.63	21.74	21.94	20.72	20.94	21.18
	12 (RB_Pos:11)	21.61	21.78	21.91	20.73	20.93	21.17
	25 (RB_Pos:0)	21.60	21.81	21.89	20.64	20.90	21.11
3MHz	1 (RB_Pos:0)	22.63	22.79	22.91	21.49	22.23	22.00
	1 (RB_Pos:7)	22.57	22.71	22.88	21.51	22.19	21.98
	1 (RB_Pos:14)	22.53	22.75	22.88	21.43	22.19	21.94
	8 (RB_Pos:0)	21.62	21.76	21.92	20.77	20.91	21.00
	8 (RB_Pos:4)	21.64	21.79	21.92	20.78	20.92	21.06
	8 (RB_Pos:7)	21.60	21.75	21.86	20.77	20.90	21.00



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Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	26047	26365	26683	26047	26365	26683
	15 (RB_Pos:0)	21.61	21.74	21.92	20.67	20.88	20.96
1.4MHz	1 (RB_Pos:0)	22.46	22.92	22.78	21.60	22.33	21.92
	1 (RB_Pos: 2)	22.52	22.94	22.87	21.67	22.40	21.93
	1 (RB_Pos:5)	22.41	22.87	22.79	21.60	22.30	21.91
	3 (RB_Pos:0)	21.44	21.93	21.83	20.58	21.19	21.10
	3 (RB_Pos:1)	21.50	21.98	21.94	20.61	21.25	21.19
	3 (RB_Pos:2)	21.43	21.95	21.89	20.58	21.17	21.09
	6 (RB_Pos:0)	21.44	21.88	21.78	20.70	20.91	21.07

FDD LTE Band 30							
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	--	27710	--	--	27710	--
10MHz	1 (RB_Pos:0)	--	<b>23.30</b>	--	--	22.30	--
	1 (RB_Pos:24)	--	23.15	--	--	22.19	--
	1 (RB_Pos:49)	--	23.22	--	--	22.23	--
	25 (RB_Pos:0)	--	<b>22.28</b>	--	--	21.40	--
	25 (RB_Pos:12)	--	22.26	--	--	21.36	--
	25 (RB_Pos:24)	--	22.22	--	--	21.30	--
	50 (RB_Pos:0)	--	22.25	--	--	21.32	--
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	27685	27710	27735	27685	27710	27735
5MHz	1 (RB_Pos:0)	23.24	23.27	23.24	22.84	22.44	22.46
	1 (RB_Pos:12)	23.21	23.20	23.29	22.85	22.43	22.55
	1 (RB_Pos:24)	23.18	23.15	23.19	22.78	22.38	22.51
	12 (RB_Pos:0)	22.23	22.24	22.20	21.48	21.39	21.36
	12 (RB_Pos:6)	22.20	22.24	22.22	21.45	21.39	21.34
	12 (RB_Pos:11)	22.21	22.19	22.28	21.44	21.34	21.44
	25 (RB_Pos:0)	22.22	22.23	22.22	21.39	21.26	21.30

FDD LTE Band 41							
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	39750	40620	41490	39750	40620	41490
20MHz	1 (RB_Pos:0)	23.17	<b>23.38</b>	22.24	22.53	22.64	21.63

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	1 (RB_Pos:49)	23.04	23.13	23.16	22.37	22.38	22.54
	1 (RB_Pos:99)	23.14	23.05	22.03	22.48	22.28	21.45
	50 (RB_Pos:0)	22.13	<b>22.31</b>	22.09	21.21	21.39	21.22
	50 (RB_Pos:24)	22.22	22.23	22.23	21.24	21.29	21.35
	50 (RB_Pos:49)	22.17	22.12	22.09	21.18	21.17	21.18
	100 (RB_Pos:0)	<b>22.18</b>	22.18	22.03	21.28	21.28	21.12
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	39725	40620	41515	39725	40620	41515
15MHz	1 (RB_Pos:0)	23.15	23.38	23.30	22.46	22.84	22.67
	1 (RB_Pos:37)	23.00	23.19	23.15	22.32	22.66	22.45
	1 (RB_Pos:74)	23.06	23.06	23.05	22.42	22.54	22.37
	36 (RB_Pos:0)	22.06	22.27	22.28	21.15	21.36	21.40
	36 (RB_Pos:18)	22.08	22.23	22.16	21.17	21.26	21.31
	36 (RB_Pos:37)	22.07	22.10	22.16	21.19	21.23	21.31
	75 (RB_Pos:0)	22.14	22.21	22.21	21.23	21.24	21.32
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	39700	40620	41540	39700	40620	41540
10MHz	1 (RB_Pos:0)	23.03	23.31	23.33	22.40	22.79	22.72
	1 (RB_Pos:24)	23.00	23.23	23.13	22.33	22.67	22.49
	1 (RB_Pos:49)	22.96	23.12	23.19	22.34	22.57	22.60
	25 (RB_Pos:0)	22.08	22.29	22.22	21.16	21.35	21.32
	25 (RB_Pos:12)	22.10	22.24	22.14	21.16	21.32	21.25
	25 (RB_Pos:24)	22.04	22.18	22.18	21.10	21.24	21.25
	50 (RB_Pos:0)	22.05	22.17	22.19	21.17	21.30	21.31
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	39675	40620	41565	39675	40620	41565
5MHz	1 (RB_Pos:0)	23.02	23.26	23.17	22.35	22.57	22.57
	1 (RB_Pos:12)	23.08	23.25	23.18	22.40	22.60	22.60
	1 (RB_Pos:24)	22.95	23.15	23.08	22.31	22.48	22.49
	12 (RB_Pos:0)	22.11	22.25	22.19	21.18	21.31	21.31
	12 (RB_Pos:6)	22.07	22.20	22.14	21.23	21.29	21.32
	12 (RB_Pos:11)	22.05	22.21	22.11	21.19	21.22	21.30
	25 (RB_Pos:0)	22.03	22.21	22.10	21.14	21.3	21.17

## FDD LTE Band 66

Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		

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	Channel	132072	132322	132572	132072	132322	132572
20MHz	1 (RB_Pos:0)	24.40	24.48	24.65	23.98	23.94	24.16
	1 (RB_Pos:49)	24.26	24.40	24.55	23.91	23.74	24.04
	1 (RB_Pos:99)	24.31	23.78	<b>24.99</b>	23.85	23.41	24.49
	50 (RB_Pos:0)	23.40	23.54	23.74	22.49	22.62	22.80
	50 (RB_Pos:24)	23.37	23.51	23.66	22.45	22.52	22.75
	50 (RB_Pos:49)	23.37	23.07	<b>23.81</b>	22.40	22.15	22.86
	100 (RB_Pos:0)	23.34	23.47	<b>23.76</b>	22.44	22.54	22.81
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	132047	132322	132597	132047	132322	132597
15MHz	1 (RB_Pos:0)	24.34	24.43	24.78	23.31	23.88	24.27
	1 (RB_Pos:37)	24.24	24.30	24.78	23.27	23.70	24.26
	1 (RB_Pos:74)	24.28	23.82	25.06	23.29	23.27	24.50
	36 (RB_Pos:0)	23.34	23.47	23.70	22.43	22.61	22.76
	36 (RB_Pos:18)	23.36	23.42	23.72	22.40	22.56	22.80
	36 (RB_Pos:37)	23.30	23.16	23.89	22.44	22.29	23.00
	75 (RB_Pos:0)	23.34	23.46	23.84	22.47	22.58	22.92
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	132022	132322	132622	132022	132322	132622
10MHz	1 (RB_Pos:0)	24.19	24.37	24.74	23.23	23.76	23.88
	1 (RB_Pos:24)	24.22	24.35	24.84	23.25	23.74	23.92
	1 (RB_Pos:49)	24.29	24.05	25.03	23.26	23.43	24.11
	25 (RB_Pos:0)	23.33	23.44	23.71	22.42	22.55	22.91
	25 (RB_Pos:12)	23.35	23.46	23.93	22.43	22.51	23.13
	25 (RB_Pos:24)	23.31	23.32	24.00	22.40	22.43	23.19
	50 (RB_Pos:0)	23.32	23.43	23.88	22.39	22.50	23.01
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	131997	132322	132647	131997	132322	132647
5MHz	1 (RB_Pos:0)	23.96	24.44	24.98	23.32	23.98	24.20
	1 (RB_Pos:12)	24.19	24.44	25.08	23.52	23.96	24.27
	1 (RB_Pos:24)	24.13	24.27	25.01	23.50	23.80	24.21
	12 (RB_Pos:0)	23.18	23.43	23.99	22.45	22.60	23.10
	12 (RB_Pos:6)	23.20	23.42	23.99	22.46	22.62	23.15
	12 (RB_Pos:11)	23.18	23.36	24.06	22.43	22.58	23.19
	25 (RB_Pos:0)	23.19	23.40	24.02	22.43	22.51	23.03

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## Effective (Isotropic) Radiated Power Measurement Results for WCDMA/HSDPA/HSUPA

Test Band	Channel	Measured EIRP				Limit (W)	Verdict
		SA Read Value (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)		
WCDMA Band II	Low	0.86	17.8	18.66	0.07	2	PASS
	Middle	1.03	17.8	18.83	0.08		PASS
	High	1.16	17.8	18.96	0.08		PASS
HSDPA Band II	Low	-0.06	17.8	17.74	0.06		PASS
	Middle	0.08	17.8	17.88	0.06		PASS
	High	0.14	17.8	17.94	0.06		PASS
HSUPA Band II	Low	-0.13	17.8	17.67	0.06		PASS
	Middle	0.27	17.8	18.07	0.06		PASS
	High	0.18	17.8	17.98	0.06		PASS

Test Band	Channel	Measured EIRP				Limit (W)	Verdict
		SA Read Value (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)		
WCDMA Band IV	Low	5.39	14.4	19.79	0.10	1	PASS
	Middle	5.26	14.4	19.66	0.09		PASS
	High	5.33	14.4	19.73	0.09		PASS
HSDPA Band IV	Low	4.29	14.4	18.69	0.07		PASS
	Middle	4.21	14.4	18.61	0.07		PASS
	High	4.3	14.4	18.70	0.07		PASS
HSUPA Band IV	Low	4.31	14.4	18.71	0.07		PASS
	Middle	4.19	14.4	18.59	0.07		PASS
	High	4.28	14.4	18.68	0.07		PASS

Test Band	Channel	Measured ERP				Limit (W)	Verdict
		SA Read Value (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)		
WCDMA	Low	9.65	9.83	19.48	0.09	7	PASS

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<b>Band V</b>	<b>Middle</b>	9.41	9.83	19.24	0.08		PASS
	<b>High</b>	9.86	9.83	19.69	0.09		PASS
<b>HSDPA Band V</b>	<b>Low</b>	8.67	9.83	18.50	0.07		PASS
	<b>Middle</b>	8.23	9.83	18.06	0.06		PASS
	<b>High</b>	8.88	9.83	18.71	0.07		PASS
<b>HSUPA Band V</b>	<b>Low</b>	8.7	9.83	18.53	0.07		PASS
	<b>Middle</b>	8.51	9.83	18.34	0.07		PASS
	<b>High</b>	8.86	9.83	18.69	0.07		PASS

**Note(s):**

For the HSDPA and HSUPA mode, all the subtests were tested and just the worst data were recorded in this table.

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## Effective (Isotropic) Radiated Power Measurement Results for LTE

FDD LTE Band 2									
Test BW	CH	Modul.	RB Set (Size#Offset)	Measured EIRP				Limit (W)	Verdict
				SA Read Value (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)		
1.4 MHz	Low	QPSK	RB1#0	0.83	17.8	18.63	0.07	2	PASS
			RB6#0	-0.22	17.8	17.58	0.06	2	PASS
		16QAM	RB1#0	0.05	17.8	17.85	0.06	2	PASS
			RB6#0	-0.91	17.8	16.89	0.05	2	PASS
	Middle	QPSK	RB1#0	0.59	17.8	18.39	0.07	2	PASS
			RB6#0	-0.02	17.8	17.78	0.06	2	PASS
		16QAM	RB1#0	0.4	17.8	18.20	0.07	2	PASS
			RB6#0	-1.29	17.8	16.51	0.04	2	PASS
	High	QPSK	RB1#0	1.24	17.8	19.04	0.08	2	PASS
			RB6#0	0.2	17.8	18.00	0.06	2	PASS
		16QAM	RB1#0	0.06	17.8	17.86	0.06	2	PASS
			RB6#0	-0.65	17.8	17.15	0.05	2	PASS
3 MHz	Low	QPSK	RB1#0	0.98	17.8	18.78	0.08	2	PASS
			RB15#0	-0.4	17.8	17.40	0.05	2	PASS
		16QAM	RB1#0	-0.24	17.8	17.56	0.06	2	PASS
			RB15#0	-0.9	17.8	16.90	0.05	2	PASS
	Middle	QPSK	RB1#0	1.01	17.8	18.81	0.08	2	PASS
			RB15#0	-0.35	17.8	17.45	0.06	2	PASS
		16QAM	RB1#0	0.08	17.8	17.88	0.06	2	PASS
			RB15#0	-1.1	17.8	16.70	0.05	2	PASS
	High	QPSK	RB1#0	1.23	17.8	19.03	0.08	2	PASS
			RB15#0	0.19	17.8	17.99	0.06	2	PASS
		16QAM	RB1#0	0.07	17.8	17.87	0.06	2	PASS
			RB15#0	-0.93	17.8	16.87	0.05	2	PASS
5 MHz	Low	QPSK	RB1#0	0.55	17.8	18.35	0.07	2	PASS
			RB25#0	-0.52	17.8	17.28	0.05	2	PASS
		16QAM	RB1#0	0	17.8	17.80	0.06	2	PASS
			RB25#0	-1.1	17.8	16.70	0.05	2	PASS
	Middle	QPSK	RB1#0	1.14	17.8	18.94	0.08	2	PASS
			RB25#0	0.05	17.8	17.85	0.06	2	PASS
		16QAM	RB1#0	0.54	17.8	18.34	0.07	2	PASS
			RB25#0	-0.77	17.8	17.03	0.05	2	PASS
High	QPSK	RB1#0	1.08	17.8	18.88	0.08	2	PASS	

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			RB25#0	0.02	17.8	17.82	0.06	2	PASS
		16QAM	RB1#0	0.58	17.8	18.38	0.07	2	PASS
			RB25#0	-0.83	17.8	16.97	0.05	2	PASS
10 MHz	Low	QPSK	RB1#0	0.69	17.8	18.49	0.07	2	PASS
			RB50#0	0.02	17.8	17.82	0.06	2	PASS
		16QAM	RB1#0	0.05	17.8	17.85	0.06	2	PASS
			RB50#0	-1.12	17.8	16.68	0.05	2	PASS
	Middle	QPSK	RB1#0	1.19	17.8	18.99	0.08	2	PASS
			RB50#0	0.01	17.8	17.81	0.06	2	PASS
		16QAM	RB1#0	0.49	17.8	18.29	0.07	2	PASS
			RB50#0	-0.78	17.8	17.02	0.05	2	PASS
	High	QPSK	RB1#0	1.19	17.8	18.99	0.08	2	PASS
			RB50#0	0.39	17.8	18.19	0.07	2	PASS
		16QAM	RB1#0	0.21	17.8	18.01	0.06	2	PASS
			RB50#0	-0.74	17.8	17.06	0.05	2	PASS
15 MHz	Low	QPSK	RB1#0	1.12	17.8	18.92	0.08	2	PASS
			RB75#0	-0.05	17.8	17.75	0.06	2	PASS
		16QAM	RB1#0	-0.13	17.8	17.67	0.06	2	PASS
			RB75#0	-1.21	17.8	16.59	0.05	2	PASS
	Middle	QPSK	RB1#0	1.06	17.8	18.86	0.08	2	PASS
			RB75#0	-0.12	17.8	17.68	0.06	2	PASS
		16QAM	RB1#0	0.25	17.8	18.05	0.06	2	PASS
			RB75#0	-0.91	17.8	16.89	0.05	2	PASS
	High	QPSK	RB1#0	1.32	17.8	19.12	0.08	2	PASS
			RB75#0	0.08	17.8	17.88	0.06	2	PASS
		16QAM	RB1#0	0.61	17.8	18.41	0.07	2	PASS
			RB75#0	-0.94	17.8	16.86	0.05	2	PASS
20MHz	Low	QPSK	RB1#0	0.84	17.8	18.64	0.07	2	PASS
			RB100#0	-0.18	17.8	17.62	0.06	2	PASS
		16QAM	RB1#0	0.29	17.8	18.09	0.06	2	PASS
			RB100#0	-1.18	17.8	16.62	0.05	2	PASS
	Middle	QPSK	RB1#0	0.92	17.8	18.72	0.07	2	PASS
			RB100#0	-0.19	17.8	17.61	0.06	2	PASS
		16QAM	RB1#0	0.25	17.8	18.05	0.06	2	PASS
			RB100#0	-0.81	17.8	16.99	0.05	2	PASS
	High	QPSK	RB1#0	1.17	17.8	18.97	0.08	2	PASS
			RB100#0	0.4	17.8	18.20	0.07	2	PASS
		16QAM	RB1#0	0.76	17.8	18.56	0.07	2	PASS
			RB100#0	-0.54	17.8	17.26	0.05	2	PASS

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Test BW	CH	Modul.	RB Set (Size#Offset)	Measured EIRP				Limit (W)	Verdict
				SA Read Value (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)		
1.4 MHz	Low	QPSK	RB1#0	2.63	14.4	17.03	0.05	1	PASS
			RB6#0	2.01	14.4	16.41	0.04	1	PASS
		16QAM	RB1#0	1.77	14.4	16.17	0.04	1	PASS
			RB6#0	1.19	14.4	15.59	0.04	1	PASS
	Middle	QPSK	RB1#0	3.21	14.4	17.61	0.06	1	PASS
			RB6#0	1.81	14.4	16.21	0.04	1	PASS
		16QAM	RB1#0	2.55	14.4	16.95	0.05	1	PASS
			RB6#0	1.1	14.4	15.50	0.04	1	PASS
	High	QPSK	RB1#0	2.78	14.4	17.18	0.05	1	PASS
			RB6#0	1.86	14.4	16.26	0.04	1	PASS
		16QAM	RB1#0	2.13	14.4	16.53	0.04	1	PASS
			RB6#0	1.08	14.4	15.48	0.04	1	PASS
3 MHz	Low	QPSK	RB1#0	2.84	14.4	17.24	0.05	1	PASS
			RB15#0	1.89	14.4	16.29	0.04	1	PASS
		16QAM	RB1#0	1.95	14.4	16.35	0.04	1	PASS
			RB15#0	0.72	14.4	15.12	0.03	1	PASS
	Middle	QPSK	RB1#0	2.93	14.4	17.33	0.05	1	PASS
			RB15#0	2.19	14.4	16.59	0.05	1	PASS
		16QAM	RB1#0	2.35	14.4	16.75	0.05	1	PASS
			RB15#0	1.06	14.4	15.46	0.04	1	PASS
	High	QPSK	RB1#0	3	14.4	17.40	0.05	1	PASS
			RB15#0	2.15	14.4	16.55	0.05	1	PASS
		16QAM	RB1#0	1.98	14.4	16.38	0.04	1	PASS
			RB15#0	0.95	14.4	15.35	0.03	1	PASS
5 MHz	Low	QPSK	RB1#0	3.02	14.4	17.42	0.06	1	PASS
			RB25#0	1.8	14.4	16.20	0.04	1	PASS
		16QAM	RB1#0	2.47	14.4	16.87	0.05	1	PASS
			RB25#0	1.3	14.4	15.70	0.04	1	PASS
	Middle	QPSK	RB1#0	3.15	14.4	17.55	0.06	1	PASS
			RB25#0	1.79	14.4	16.19	0.04	1	PASS
		16QAM	RB1#0	2.09	14.4	16.49	0.04	1	PASS
			RB25#0	1.01	14.4	15.41	0.03	1	PASS



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	High	QPSK	RB1#0	3.17	14.4	17.57	0.06	1	PASS
			RB25#0	2.17	14.4	16.57	0.05	1	PASS
		16QAM	RB1#0	2	14.4	16.40	0.04	1	PASS
			RB25#0	1.09	14.4	15.49	0.04	1	PASS
10 MHz	Low	QPSK	RB1#0	2.86	14.4	17.26	0.05	1	PASS
			RB50#0	1.96	14.4	16.36	0.04	1	PASS
		16QAM	RB1#0	1.82	14.4	16.22	0.04	1	PASS
			RB50#0	0.76	14.4	15.16	0.03	1	PASS
	Middle	QPSK	RB1#0	3.13	14.4	17.53	0.06	1	PASS
			RB50#0	1.9	14.4	16.30	0.04	1	PASS
		16QAM	RB1#0	2.73	14.4	17.13	0.05	1	PASS
			RB50#0	1.09	14.4	15.49	0.04	1	PASS
	High	QPSK	RB1#0	3.27	14.4	17.67	0.06	1	PASS
			RB50#0	2.23	14.4	16.63	0.05	1	PASS
		16QAM	RB1#0	2.03	14.4	16.43	0.04	1	PASS
			RB50#0	1	14.4	15.40	0.03	1	PASS
15 MHz	Low	QPSK	RB1#0	3.17	14.4	17.57	0.06	1	PASS
			RB75#0	2.34	14.4	16.74	0.05	1	PASS
		16QAM	RB1#0	1.85	14.4	16.25	0.04	1	PASS
			RB75#0	1.05	14.4	15.45	0.04	1	PASS
	Middle	QPSK	RB1#0	3.04	14.4	17.44	0.06	1	PASS
			RB75#0	1.86	14.4	16.26	0.04	1	PASS
		16QAM	RB1#0	2.6	14.4	17.00	0.05	1	PASS
			RB75#0	0.95	14.4	15.35	0.03	1	PASS
	High	QPSK	RB1#0	2.97	14.4	17.37	0.05	1	PASS
			RB75#0	2	14.4	16.40	0.04	1	PASS
		16QAM	RB1#0	2.82	14.4	17.22	0.05	1	PASS
			RB75#0	1.13	14.4	15.53	0.04	1	PASS
20MHz	Low	QPSK	RB1#0	3.08	14.4	17.48	0.06	1	PASS
			RB100#0	2.33	14.4	16.73	0.05	1	PASS
		16QAM	RB1#0	2.69	14.4	17.09	0.05	1	PASS
			RB100#0	1.19	14.4	15.59	0.04	1	PASS
	Middle	QPSK	RB1#0	3.35	14.4	17.75	0.06	1	PASS
			RB100#0	2.19	14.4	16.59	0.05	1	PASS
		16QAM	RB1#0	2.45	14.4	16.85	0.05	1	PASS
			RB100#0	1.19	14.4	15.59	0.04	1	PASS
	High	QPSK	RB1#0	3.01	14.4	17.41	0.06	1	PASS
			RB100#0	1.98	14.4	16.38	0.04	1	PASS
		16QAM	RB1#0	2.78	14.4	17.18	0.05	1	PASS
			RB100#0	0.98	14.4	15.38	0.03	1	PASS

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FDD LTE Band 5									
Test BW	CH	Modul.	RB Set (Size#Offset)	Measured ERP				Limit (W)	Verdict
				SA Read Value (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)		
1.4 MHz	Low	QPSK	RB1#0	9.51	9.83	19.34	0.09	7	PASS
			RB6#0	8.67	9.83	18.50	0.07	7	PASS
		16QAM	RB1#0	9	9.83	18.83	0.08	7	PASS
			RB6#0	7.58	9.83	17.41	0.06	7	PASS
	Middle	QPSK	RB1#0	9.46	9.83	19.29	0.08	7	PASS
			RB6#0	8.66	9.83	18.49	0.07	7	PASS
		16QAM	RB1#0	8.83	9.83	18.66	0.07	7	PASS
			RB6#0	7.44	9.83	17.27	0.05	7	PASS
	High	QPSK	RB1#0	9.93	9.83	19.76	0.09	7	PASS
			RB6#0	8.85	9.83	18.68	0.07	7	PASS
		16QAM	RB1#0	8.67	9.83	18.50	0.07	7	PASS
			RB6#0	7.76	9.83	17.59	0.06	7	PASS
3 MHz	Low	QPSK	RB1#0	9.56	9.83	19.39	0.09	7	PASS
			RB15#0	8.56	9.83	18.39	0.07	7	PASS
		16QAM	RB1#0	8.53	9.83	18.36	0.07	7	PASS
			RB15#0	7.55	9.83	17.38	0.05	7	PASS
	Middle	QPSK	RB1#0	9.43	9.83	19.26	0.08	7	PASS
			RB15#0	8.85	9.83	18.68	0.07	7	PASS
		16QAM	RB1#0	9.06	9.83	18.89	0.08	7	PASS
			RB15#0	7.82	9.83	17.65	0.06	7	PASS
	High	QPSK	RB1#0	9.7	9.83	19.53	0.09	7	PASS
			RB15#0	8.72	9.83	18.55	0.07	7	PASS
		16QAM	RB1#0	8.79	9.83	18.62	0.07	7	PASS
			RB15#0	7.92	9.83	17.75	0.06	7	PASS
5 MHz	Low	QPSK	RB1#0	9.82	9.83	19.65	0.09	7	PASS
			RB25#0	8.87	9.83	18.70	0.07	7	PASS
		16QAM	RB1#0	9.13	9.83	18.96	0.08	7	PASS
			RB25#0	7.8	9.83	17.63	0.06	7	PASS
	Middle	QPSK	RB1#0	9.51	9.83	19.34	0.09	7	PASS
			RB25#0	8.79	9.83	18.62	0.07	7	PASS
		16QAM	RB1#0	9.45	9.83	19.28	0.08	7	PASS
			RB25#0	7.93	9.83	17.76	0.06	7	PASS
	High	QPSK	RB1#0	9.66	9.83	19.49	0.09	7	PASS
			RB25#0	8.77	9.83	18.60	0.07	7	PASS

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<b>10 MHz</b>		<b>16QAM</b>	RB1#0	8.97	9.83	18.80	0.08	7	PASS
			RB25#0	7.66	9.83	17.49	0.06	7	PASS
	<b>Low</b>	<b>QPSK</b>	RB1#0	9.82	9.83	19.65	0.09	7	PASS
			RB50#0	8.97	9.83	18.80	0.08	7	PASS
		<b>16QAM</b>	RB1#0	8.63	9.83	18.46	0.07	7	PASS
			RB50#0	7.99	9.83	17.82	0.06	7	PASS
	<b>Middle</b>	<b>QPSK</b>	RB1#0	9.5	9.83	19.33	0.09	7	PASS
			RB50#0	8.62	9.83	18.45	0.07	7	PASS
		<b>16QAM</b>	RB1#0	9.15	9.83	18.98	0.08	7	PASS
			RB50#0	7.52	9.83	17.35	0.05	7	PASS
	<b>High</b>	<b>QPSK</b>	RB1#0	9.74	9.83	19.57	0.09	7	PASS
			RB50#0	8.52	9.83	18.35	0.07	7	PASS
		<b>16QAM</b>	RB1#0	8.84	9.83	18.67	0.07	7	PASS
			RB50#0	7.91	9.83	17.74	0.06	7	PASS

## FDD LTE Band 7

Test BW	CH	Modul.	RB Set (Size#Offset)	Measured EIRP				Limit (W)	Verdict
				SA Read Value (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)		
<b>5 MHz</b>	<b>Low</b>	<b>QPSK</b>	RB1#0	0.76	19.5	20.26	0.11	2	PASS
			RB25#0	-0.42	19.5	19.08	0.08	2	PASS
		<b>16QAM</b>	RB1#0	-0.35	19.5	19.15	0.08	2	PASS
			RB25#0	-1.44	19.5	18.06	0.06	2	PASS
	<b>Middle</b>	<b>QPSK</b>	RB1#0	0.78	19.5	20.28	0.11	2	PASS
			RB25#0	-0.11	19.5	19.39	0.09	2	PASS
		<b>16QAM</b>	RB1#0	0.27	19.5	19.77	0.09	2	PASS
			RB25#0	-0.79	19.5	18.71	0.07	2	PASS
	<b>High</b>	<b>QPSK</b>	RB1#0	1.07	19.5	20.57	0.11	2	PASS
			RB25#0	-0.12	19.5	19.38	0.09	2	PASS
		<b>16QAM</b>	RB1#0	0.28	19.5	19.78	0.10	2	PASS
			RB25#0	-0.86	19.5	18.64	0.07	2	PASS
<b>10 MHz</b>	<b>Low</b>	<b>QPSK</b>	RB1#0	0.71	19.5	20.21	0.10	2	PASS
			RB50#0	-0.11	19.5	19.39	0.09	2	PASS
		<b>16QAM</b>	RB1#0	-0.48	19.5	19.02	0.08	2	PASS
			RB50#0	-0.97	19.5	18.53	0.07	2	PASS
	<b>Middle</b>	<b>QPSK</b>	RB1#0	1.16	19.5	20.66	0.12	2	PASS
			RB50#0	0.04	19.5	19.54	0.09	2	PASS
		<b>16QAM</b>	RB1#0	0.2	19.5	19.70	0.09	2	PASS
			RB50#0	-1.02	19.5	18.48	0.07	2	PASS

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	High	QPSK	RB1#0	1.15	19.5	20.65	0.12	2	PASS
			RB50#0	-0.02	19.5	19.48	0.09	2	PASS
		16QAM	RB1#0	0.28	19.5	19.78	0.10	2	PASS
			RB50#0	-0.94	19.5	18.56	0.07	2	PASS
15 MHz	Low	QPSK	RB1#0	0.93	19.5	20.43	0.11	2	PASS
			RB75#0	-0.33	19.5	19.17	0.08	2	PASS
		16QAM	RB1#0	-0.38	19.5	19.12	0.08	2	PASS
			RB75#0	-1.36	19.5	18.14	0.07	2	PASS
	Middle	QPSK	RB1#0	0.95	19.5	20.45	0.11	2	PASS
			RB75#0	-0.28	19.5	19.22	0.08	2	PASS
		16QAM	RB1#0	0.28	19.5	19.78	0.10	2	PASS
			RB75#0	-0.85	19.5	18.65	0.07	2	PASS
	High	QPSK	RB1#0	1.05	19.5	20.55	0.11	2	PASS
			RB75#0	-0.19	19.5	19.31	0.09	2	PASS
		16QAM	RB1#0	0.61	19.5	20.11	0.10	2	PASS
			RB75#0	-1.23	19.5	18.27	0.07	2	PASS
20MHz	Low	QPSK	RB1#0	0.94	19.5	20.44	0.11	2	PASS
			RB100#0	-0.54	19.5	18.96	0.08	2	PASS
		16QAM	RB1#0	0.41	19.5	19.91	0.10	2	PASS
			RB100#0	-1.3	19.5	18.20	0.07	2	PASS
	Middle	QPSK	RB1#0	0.61	19.5	20.11	0.10	2	PASS
			RB100#0	-0.34	19.5	19.16	0.08	2	PASS
		16QAM	RB1#0	0.55	19.5	20.05	0.10	2	PASS
			RB100#0	-1.36	19.5	18.14	0.07	2	PASS
	High	QPSK	RB1#0	1.11	19.5	20.61	0.12	2	PASS
			RB100#0	-0.3	19.5	19.20	0.08	2	PASS
		16QAM	RB1#0	0.25	19.5	19.75	0.09	2	PASS
			RB100#0	-0.96	19.5	18.54	0.07	2	PASS

## FDD LTE Band 12

Test BW	CH	Modul.	RB Set (Size#Offset)	Measured ERP				Limit (W)	Verdict
				SA Read Value (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)		
1.4 MHz	Low	QPSK	RB1#0	7.51	8.1	15.61	0.04	3	PASS
			RB6#0	6.85	8.1	14.95	0.03	3	PASS
		16QAM	RB1#0	6.6	8.1	14.70	0.03	3	PASS
			RB6#0	5.77	8.1	13.87	0.02	3	PASS
	Middle	QPSK	RB1#0	7.58	8.1	15.68	0.04	3	PASS
			RB6#0	6.73	8.1	14.83	0.03	3	PASS

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	16QAM	RB1#0	7.18	8.1	15.28	0.03	3	PASS	
		RB6#0	5.81	8.1	13.91	0.02	3	PASS	
	High	QPSK	RB1#0	7.6	8.1	15.70	0.04	3	PASS
			RB6#0	7.05	8.1	15.15	0.03	3	PASS
	16QAM	RB1#0	6.86	8.1	14.96	0.03	3	PASS	
		RB6#0	6.02	8.1	14.12	0.03	3	PASS	
3 MHz	Low	QPSK	RB1#0	7.86	8.1	15.96	0.04	3	PASS
			RB15#0	7.18	8.1	15.28	0.03	3	PASS
		16QAM	RB1#0	6.62	8.1	14.72	0.03	3	PASS
			RB15#0	6.25	8.1	14.35	0.03	3	PASS
	Middle	QPSK	RB1#0	7.78	8.1	15.88	0.04	3	PASS
			RB15#0	6.82	8.1	14.92	0.03	3	PASS
		16QAM	RB1#0	7.34	8.1	15.44	0.03	3	PASS
			RB15#0	5.98	8.1	14.08	0.03	3	PASS
	High	QPSK	RB1#0	8.11	8.1	16.21	0.04	3	PASS
			RB15#0	6.9	8.1	15.00	0.03	3	PASS
		16QAM	RB1#0	7.1	8.1	15.20	0.03	3	PASS
			RB15#0	5.77	8.1	13.87	0.02	3	PASS
5 MHz	Low	QPSK	RB1#0	7.58	8.1	15.68	0.04	3	PASS
			RB25#0	6.95	8.1	15.05	0.03	3	PASS
		16QAM	RB1#0	6.9	8.1	15.00	0.03	3	PASS
			RB25#0	5.93	8.1	14.03	0.03	3	PASS
	Middle	QPSK	RB1#0	7.67	8.1	15.77	0.04	3	PASS
			RB25#0	6.88	8.1	14.98	0.03	3	PASS
		16QAM	RB1#0	7.46	8.1	15.56	0.04	3	PASS
			RB25#0	6	8.1	14.10	0.03	3	PASS
	High	QPSK	RB1#0	7.7	8.1	15.80	0.04	3	PASS
			RB25#0	6.89	8.1	14.99	0.03	3	PASS
		16QAM	RB1#0	7.03	8.1	15.13	0.03	3	PASS
			RB25#0	6.15	8.1	14.25	0.03	3	PASS
10 MHz	Low	QPSK	RB1#0	7.91	8.1	16.01	0.04	3	PASS
			RB50#0	6.91	8.1	15.01	0.03	3	PASS
		16QAM	RB1#0	6.78	8.1	14.88	0.03	3	PASS
			RB50#0	6.19	8.1	14.29	0.03	3	PASS
	Middle	QPSK	RB1#0	7.65	8.1	15.75	0.04	3	PASS
			RB50#0	7.13	8.1	15.23	0.03	3	PASS
		16QAM	RB1#0	7.34	8.1	15.44	0.03	3	PASS
			RB50#0	6.28	8.1	14.38	0.03	3	PASS
	High	QPSK	RB1#0	7.74	8.1	15.84	0.04	3	PASS
			RB50#0	6.89	8.1	14.99	0.03	3	PASS

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		16QAM	RB1#0	7.2	8.1	15.30	0.03	3	PASS
			RB50#0	6.12	8.1	14.22	0.03	3	PASS

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Test BW	CH	Modul.	RB Set (Size#Offset)	Measured ERP				Limit (W)	Verdict
				SA Read Value (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)		
5 MHz	Low	QPSK	RB1#0	7.28	9.83	17.11	0.05	3	PASS
			RB25#0	6.06	9.83	15.89	0.04	3	PASS
		16QAM	RB1#0	6.52	9.83	16.35	0.04	3	PASS
			RB25#0	5.27	9.83	15.10	0.03	3	PASS
	Middle	QPSK	RB1#0	6.93	9.83	16.76	0.05	3	PASS
			RB25#0	6.1	9.83	15.93	0.04	3	PASS
		16QAM	RB1#0	6.76	9.83	16.59	0.05	3	PASS
			RB25#0	5.16	9.83	14.99	0.03	3	PASS
	High	QPSK	RB1#0	7.23	9.83	17.06	0.05	3	PASS
			RB25#0	5.92	9.83	15.75	0.04	3	PASS
		16QAM	RB1#0	6.34	9.83	16.17	0.04	3	PASS
			RB25#0	4.96	9.83	14.79	0.03	3	PASS
10 MHz	Low	QPSK	RB1#0	-	-	-	-	3	PASS
			RB50#0	-	-	-	-	3	PASS
		16QAM	RB1#0	-	-	-	-	3	PASS
			RB50#0	-	-	-	-	3	PASS
	Middle	QPSK	RB1#0	7.22	9.83	17.05	0.05	3	PASS
			RB50#0	5.92	9.83	15.75	0.04	3	PASS
		16QAM	RB1#0	6.27	9.83	16.10	0.04	3	PASS
			RB50#0	5.06	9.83	14.89	0.03	3	PASS
	High	QPSK	RB1#0	-	-	-	-	3	PASS
			RB50#0	-	-	-	-	3	PASS
		16QAM	RB1#0	-	-	-	-	3	PASS
			RB50#0	-	-	-	-	3	PASS

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FDD LTE Band 17									
Test BW	CH	Modul.	RB Set (Size#Offset)	Measured ERP				Limit (W)	Verdict
				SA Read Value (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)		
5 MHz	Low	QPSK	RB1#0	10.03	8.1	18.13	0.07	3	PASS
			RB25#0	9.16	8.1	17.26	0.05	3	PASS
		16QAM	RB1#0	9.3	8.1	17.40	0.05	3	PASS
			RB25#0	8.45	8.1	16.55	0.05	3	PASS
	Middle	QPSK	RB1#0	10.18	8.1	18.28	0.07	3	PASS
			RB25#0	8.87	8.1	16.97	0.05	3	PASS
		16QAM	RB1#0	9.71	8.1	17.81	0.06	3	PASS
			RB25#0	8.17	8.1	16.27	0.04	3	PASS
	High	QPSK	RB1#0	10.26	8.1	18.36	0.07	3	PASS
			RB25#0	9.18	8.1	17.28	0.05	3	PASS
		16QAM	RB1#0	9.35	8.1	17.45	0.06	3	PASS
			RB25#0	8.31	8.1	16.41	0.04	3	PASS
10 MHz	Low	QPSK	RB1#0	9.81	8.1	17.91	0.06	3	PASS
			RB50#0	8.88	8.1	16.98	0.05	3	PASS
		16QAM	RB1#0	8.73	8.1	16.83	0.05	3	PASS
			RB50#0	7.95	8.1	16.05	0.04	3	PASS
	Middle	QPSK	RB1#0	10.15	8.1	18.25	0.07	3	PASS
			RB50#0	8.95	8.1	17.05	0.05	3	PASS
		16QAM	RB1#0	9.5	8.1	17.60	0.06	3	PASS
			RB50#0	7.96	8.1	16.06	0.04	3	PASS
	High	QPSK	RB1#0	9.82	8.1	17.92	0.06	3	PASS
			RB50#0	9.16	8.1	17.26	0.05	3	PASS
		16QAM	RB1#0	9.19	8.1	17.29	0.05	3	PASS
			RB50#0	8.11	8.1	16.21	0.04	3	PASS

FDD LTE Band 25									
Test BW	CH	Modul.	RB Set (Size#Offset)	Measured EIRP				Limit (W)	Verdict
				SA Read Value (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)		
1.4 MHz	Low	QPSK	RB1#0	0.69	17.8	18.49	0.07	2	PASS
			RB6#0	-0.37	17.8	17.43	0.06	2	PASS
		16QAM	RB1#0	0.11	17.8	17.91	0.06	2	PASS
			RB6#0	-0.99	17.8	16.81	0.05	2	PASS
	Middle	QPSK	RB1#0	1.25	17.8	19.05	0.08	2	PASS

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		16QAM	RB6#0	0.44	17.8	18.24	0.07	2	PASS	
			RB1#0	0.71	17.8	18.51	0.07	2	PASS	
		High	QPSK	RB6#0	-0.83	17.8	16.97	0.05	2	PASS
				RB1#0	1.08	17.8	18.88	0.08	2	PASS
			16QAM	RB6#0	0.13	17.8	17.93	0.06	2	PASS
				RB1#0	0.38	17.8	18.18	0.07	2	PASS
3 MHz	Low	QPSK	RB1#0	1.14	17.8	18.94	0.08	2	PASS	
			RB15#0	-0.17	17.8	17.63	0.06	2	PASS	
		16QAM	RB1#0	-0.31	17.8	17.49	0.06	2	PASS	
			RB15#0	-0.89	17.8	16.91	0.05	2	PASS	
	Middle	QPSK	RB1#0	1.17	17.8	18.97	0.08	2	PASS	
			RB15#0	0.18	17.8	17.98	0.06	2	PASS	
		16QAM	RB1#0	0.75	17.8	18.55	0.07	2	PASS	
			RB15#0	-0.82	17.8	16.98	0.05	2	PASS	
	High	QPSK	RB1#0	1.37	17.8	19.17	0.08	2	PASS	
			RB15#0	0.5	17.8	18.30	0.07	2	PASS	
		16QAM	RB1#0	0.19	17.8	17.99	0.06	2	PASS	
			RB15#0	-0.95	17.8	16.85	0.05	2	PASS	
5 MHz	Low	QPSK	RB1#0	0.99	17.8	18.79	0.08	2	PASS	
			RB25#0	0.18	17.8	17.98	0.06	2	PASS	
		16QAM	RB1#0	0.27	17.8	18.07	0.06	2	PASS	
			RB25#0	-0.91	17.8	16.89	0.05	2	PASS	
	Middle	QPSK	RB1#0	1.05	17.8	18.85	0.08	2	PASS	
			RB25#0	-0.07	17.8	17.73	0.06	2	PASS	
		16QAM	RB1#0	0.17	17.8	17.97	0.06	2	PASS	
			RB25#0	-0.89	17.8	16.91	0.05	2	PASS	
	High	QPSK	RB1#0	1.39	17.8	19.19	0.08	2	PASS	
			RB25#0	0.1	17.8	17.90	0.06	2	PASS	
16QAM		RB1#0	0.92	17.8	18.72	0.07	2	PASS		
		RB25#0	-0.61	17.8	17.19	0.05	2	PASS		
10 MHz	Low	QPSK	RB1#0	1.13	17.8	18.93	0.08	2	PASS	
			RB50#0	-0.18	17.8	17.62	0.06	2	PASS	
		16QAM	RB1#0	0.07	17.8	17.87	0.06	2	PASS	
			RB50#0	-0.88	17.8	16.92	0.05	2	PASS	
	Middle	QPSK	RB1#0	1.21	17.8	19.01	0.08	2	PASS	
			RB50#0	-0.09	17.8	17.71	0.06	2	PASS	
		16QAM	RB1#0	0.75	17.8	18.55	0.07	2	PASS	
			RB50#0	-0.69	17.8	17.11	0.05	2	PASS	
High	QPSK	RB1#0	1.56	17.8	19.36	0.09	2	PASS		



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			RB50#0	0.33	17.8	18.13	0.07	2	PASS
		16QAM	RB1#0	0.27	17.8	18.07	0.06	2	PASS
			RB50#0	-0.67	17.8	17.13	0.05	2	PASS
15 MHz	Low	QPSK	RB1#0	1.01	17.8	18.81	0.08	2	PASS
			RB75#0	0.24	17.8	18.04	0.06	2	PASS
		16QAM	RB1#0	0.02	17.8	17.82	0.06	2	PASS
			RB75#0	-0.68	17.8	17.12	0.05	2	PASS
	Middle	QPSK	RB1#0	1.05	17.8	18.85	0.08	2	PASS
			RB75#0	0.31	17.8	18.11	0.06	2	PASS
		16QAM	RB1#0	0.75	17.8	18.55	0.07	2	PASS
			RB75#0	-0.71	17.8	17.09	0.05	2	PASS
	High	QPSK	RB1#0	1.65	17.8	19.45	0.09	2	PASS
			RB75#0	0.34	17.8	18.14	0.07	2	PASS
		16QAM	RB1#0	0.96	17.8	18.76	0.08	2	PASS
			RB75#0	-0.64	17.8	17.16	0.05	2	PASS
20MHz	Low	QPSK	RB1#0	1.18	17.8	18.98	0.08	2	PASS
			RB100#0	-0.15	17.8	17.65	0.06	2	PASS
		16QAM	RB1#0	0.67	17.8	18.47	0.07	2	PASS
			RB100#0	-0.96	17.8	16.84	0.05	2	PASS
	Middle	QPSK	RB1#0	1.05	17.8	18.85	0.08	2	PASS
			RB100#0	0.1	17.8	17.90	0.06	2	PASS
		16QAM	RB1#0	0.85	17.8	18.65	0.07	2	PASS
			RB100#0	-0.65	17.8	17.15	0.05	2	PASS
	High	QPSK	RB1#0	1.24	17.8	19.04	0.08	2	PASS
			RB100#0	0.09	17.8	17.89	0.06	2	PASS
		16QAM	RB1#0	1.09	17.8	18.89	0.08	2	PASS
			RB100#0	-0.89	17.8	16.91	0.05	2	PASS

## FDD LTE Band 30

Test BW	CH	Modul.	RB Set (Size#Offset)	Measured EIRP				Limit (W)	Verdict
				SA Read Value (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)		
5 MHz	Low	QPSK	RB1#0	-0.68	19.50	18.82	0.08	2	PASS
			RB25#0	-1.97	19.50	17.53	0.06	2	PASS
		16QAM	RB1#0	-1.1	19.50	18.40	0.07	2	PASS
			RB25#0	-2.52	19.50	16.98	0.05	2	PASS
	Middle	QPSK	RB1#0	-0.53	19.50	18.97	0.08	2	PASS
			RB25#0	-1.66	19.50	17.84	0.06	2	PASS
		16QAM	RB1#0	-1.82	19.50	17.68	0.06	2	PASS

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	High	QPSK	RB25#0	-2.62	19.50	16.88	0.05	2	PASS	
			RB1#0	-0.8	19.50	18.70	0.07	2	PASS	
		16QAM	RB25#0	-1.58	19.50	17.92	0.06	2	PASS	
			RB1#0	-1.34	19.50	18.16	0.07	2	PASS	
	10 MHz	Low	QPSK	RB25#0	-2.55	19.50	16.95	0.05	2	PASS
				RB1#0	-	-	-	-	2	PASS
			16QAM	RB50#0	-	-	-	-	2	PASS
				RB1#0	-	-	-	-	2	PASS
Middle		QPSK	RB50#0	-	-	-	-	2	PASS	
			RB1#0	-0.67	19.50	18.83	0.08	2	PASS	
		16QAM	RB50#0	-2.02	19.50	17.48	0.06	2	PASS	
			RB1#0	-1.82	19.50	17.68	0.06	2	PASS	
High	QPSK	RB50#0	-2.57	19.50	16.93	0.05	2	PASS		
		RB1#0	-	-	-	-	2	PASS		
	16QAM	RB50#0	-	-	-	-	2	PASS		
		RB1#0	-	-	-	-	2	PASS		

FDD LTE Band 41									
Test BW	CH	Modul.	RB Set (Size#Offset)	Measured EIRP				Limit (W)	Verdict
				SA Read Value (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)		
5 MHz	Low	QPSK	RB1#0	0.78	19.50	20.28	0.11	3	PASS
			RB25#0	0.17	19.50	19.67	0.09	3	PASS
		16QAM	RB1#0	0.40	19.50	19.90	0.10	3	PASS
			RB25#0	-0.68	19.50	18.82	0.08	3	PASS
	Middle	QPSK	RB1#0	1.38	19.50	20.88	0.12	3	PASS
			RB25#0	0.15	19.50	19.65	0.09	3	PASS
		16QAM	RB1#0	0.60	19.50	20.10	0.10	3	PASS
			RB25#0	-0.64	19.50	18.86	0.08	3	PASS
	High	QPSK	RB1#0	1.20	19.50	20.70	0.12	3	PASS
			RB25#0	0.19	19.50	19.69	0.09	3	PASS
		16QAM	RB1#0	0.44	19.50	19.94	0.10	3	PASS
			RB25#0	-0.60	19.50	18.90	0.08	3	PASS
10 MHz	Low	QPSK	RB1#0	1.13	19.50	20.63	0.12	3	PASS
			RB50#0	0.22	19.50	19.72	0.09	3	PASS
		16QAM	RB1#0	0.25	19.50	19.75	0.09	3	PASS
			RB50#0	-0.71	19.50	18.79	0.08	3	PASS

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	Middle	QPSK	RB1#0	1.55	19.50	21.05	0.13	3	PASS	
			RB50#0	0.31	19.50	19.81	0.10	3	PASS	
		16QAM	RB1#0	0.60	19.50	20.10	0.10	3	PASS	
			RB50#0	-0.90	19.50	18.60	0.07	3	PASS	
	High	QPSK	RB1#0	1.31	19.50	20.81	0.12	3	PASS	
			RB50#0	0.39	19.50	19.89	0.10	3	PASS	
		16QAM	RB1#0	0.61	19.50	20.11	0.10	3	PASS	
			RB50#0	-0.52	19.50	18.98	0.08	3	PASS	
15 MHz	Low	QPSK	RB1#0	1.26	19.50	20.76	0.12	3	PASS	
			RB75#0	0.24	19.50	19.74	0.09	3	PASS	
		16QAM	RB1#0	0.71	19.50	20.21	0.10	3	PASS	
			RB75#0	-0.79	19.50	18.71	0.07	3	PASS	
	Middle	QPSK	RB1#0	1.25	19.50	20.75	0.12	3	PASS	
			RB75#0	0.15	19.50	19.65	0.09	3	PASS	
		16QAM	RB1#0	1.08	19.50	20.58	0.11	3	PASS	
			RB75#0	-0.52	19.50	18.98	0.08	3	PASS	
	High	QPSK	RB1#0	1.08	19.50	20.58	0.11	3	PASS	
			RB75#0	0.42	19.50	19.92	0.10	3	PASS	
		16QAM	RB1#0	0.80	19.50	20.30	0.11	3	PASS	
			RB75#0	-0.49	19.50	19.01	0.08	3	PASS	
	20MHz	Low	QPSK	RB1#0	1.00	19.50	20.50	0.11	3	PASS
				RB100#0	0.42	19.50	19.92	0.10	3	PASS
			16QAM	RB1#0	0.29	19.50	19.79	0.10	3	PASS
				RB100#0	-0.55	19.50	18.95	0.08	3	PASS
Middle		QPSK	RB1#0	1.20	19.50	20.70	0.12	3	PASS	
			RB100#0	0.10	19.50	19.60	0.09	3	PASS	
		16QAM	RB1#0	0.84	19.50	20.34	0.11	3	PASS	
			RB100#0	-0.97	19.50	18.53	0.07	3	PASS	
High		QPSK	RB1#0	0.49	19.50	19.99	0.10	3	PASS	
			RB100#0	0.23	19.50	19.73	0.09	3	PASS	
		16QAM	RB1#0	-0.42	19.50	19.08	0.08	3	PASS	
			RB100#0	-0.94	19.50	18.56	0.07	3	PASS	

## FDD LTE Band 66

Test BW	CH	Modul.	RB Set (Size#Offset)	Measured EIRP				Limit (W)	Verdict
				SA Read Value (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)		
5 MHz	Low	QPSK	RB1#0	3.75	14.4	18.15	0.07	1	PASS
			RB25#0	3.24	14.4	17.64	0.06	1	PASS

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		16QAM	RB1#0	3.1	14.4	17.50	0.06	1	PASS	
			RB25#0	2.67	14.4	17.07	0.05	1	PASS	
		Middle	QPSK	RB1#0	4.41	14.4	18.81	0.08	1	PASS
				RB25#0	3.22	14.4	17.62	0.06	1	PASS
		16QAM	RB1#0	3.95	14.4	18.35	0.07	1	PASS	
			RB25#0	2.34	14.4	16.74	0.05	1	PASS	
	High	QPSK	RB1#0	5.01	14.4	19.41	0.09	1	PASS	
			RB25#0	4.02	14.4	18.42	0.07	1	PASS	
		16QAM	RB1#0	4.41	14.4	18.81	0.08	1	PASS	
			RB25#0	3.04	14.4	17.44	0.06	1	PASS	
	10 MHz	Low	QPSK	RB1#0	4.33	14.4	18.73	0.07	1	PASS
				RB50#0	3.53	14.4	17.93	0.06	1	PASS
16QAM			RB1#0	3.13	14.4	17.53	0.06	1	PASS	
			RB50#0	2.29	14.4	16.69	0.05	1	PASS	
Middle		QPSK	RB1#0	4.32	14.4	18.72	0.07	1	PASS	
			RB50#0	3.57	14.4	17.97	0.06	1	PASS	
		16QAM	RB1#0	3.62	14.4	18.02	0.06	1	PASS	
			RB50#0	2.34	14.4	16.74	0.05	1	PASS	
High		QPSK	RB1#0	4.67	14.4	19.07	0.08	1	PASS	
			RB50#0	3.83	14.4	18.23	0.07	1	PASS	
		16QAM	RB1#0	4.14	14.4	18.54	0.07	1	PASS	
			RB50#0	2.84	14.4	17.24	0.05	1	PASS	
15 MHz	Low	QPSK	RB1#0	4.62	14.4	19.02	0.08	1	PASS	
			RB75#0	3.61	14.4	18.01	0.06	1	PASS	
		16QAM	RB1#0	3.23	14.4	17.63	0.06	1	PASS	
			RB75#0	2.29	14.4	16.69	0.05	1	PASS	
	Middle	QPSK	RB1#0	4.35	14.4	18.75	0.07	1	PASS	
			RB75#0	3.51	14.4	17.91	0.06	1	PASS	
		16QAM	RB1#0	3.75	14.4	18.15	0.07	1	PASS	
			RB75#0	2.56	14.4	16.96	0.05	1	PASS	
	High	QPSK	RB1#0	4.59	14.4	18.99	0.08	1	PASS	
			RB75#0	3.9	14.4	18.30	0.07	1	PASS	
		16QAM	RB1#0	4.35	14.4	18.75	0.07	1	PASS	
			RB75#0	2.92	14.4	17.32	0.05	1	PASS	
20MHz	Low	QPSK	RB1#0	4.22	14.4	18.62	0.07	1	PASS	
			RB100#0	3.36	14.4	17.76	0.06	1	PASS	
		16QAM	RB1#0	4.26	14.4	18.66	0.07	1	PASS	
			RB100#0	2.37	14.4	16.77	0.05	1	PASS	
	Middle	QPSK	RB1#0	4.45	14.4	18.85	0.08	1	PASS	
			RB100#0	3.72	14.4	18.12	0.06	1	PASS	

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		<b>16QAM</b>	RB1#0	4.12	14.4	18.52	0.07	1	PASS
			RB100#0	2.62	14.4	17.02	0.05	1	PASS
	<b>High</b>	<b>QPSK</b>	RB1#0	4.93	14.4	19.33	0.09	1	PASS
			RB100#0	3.57	14.4	17.97	0.06	1	PASS
		<b>16QAM</b>	RB1#0	4.19	14.4	18.59	0.07	1	PASS
			RB100#0	2.84	14.4	17.24	0.05	1	PASS

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## 5.1.2 Peak to Average Ratio

### Note(s):

1. For GSM, GPRS and EGPRS, there are peak power to demonstrate compliance, PAR measurements are not required.
2. Test plots please refer to the document "Annex No: EXHIBIT A of SHE20090001-02AE".

### Peak to Average Ratio Measurement Results for WCDMA

Test Band	Channel	Peak to Average Ratio (dB)	Limit (W)	Refer to Plot <sup>Note 2</sup>	Verdict
WCDMA Band 2	Low	3.05	13	1.1	PASS
	Middle	3.07	13	1.2	PASS
	High	3.07	13	1.3	PASS

WCDMA Band 4	Low	3.20	13	2.1	PASS
	Middle	3.03	13	2.2	PASS
	High	2.88	13	2.3	PASS

WCDMA Band 5	Low	3.07	13	3.1	PASS
	Middle	3.05	13	3.2	PASS
	High	3.04	13	3.3	PASS

### Peak to Average Ratio Measurement Results for LTE

FDD LTE Band 2							
Test BW	Channel	Modul.	RB Set (Size#Offset)	Peak to Average Ratio (dB)	Limit (dB)	Refer to Plot <sup>Note 2</sup>	Verdict
20 MHz	Low	QPSK	RB1#0	3.43	13	4.1	PASS
			RB100#0	4.84	13	4.2	PASS
		16QAM	RB1#0	5.18	13	4.2	PASS
			RB100#0	6.01	13	4.4	PASS
	Middle	QPSK	RB1#0	3.48	13	4.5	PASS
			RB100#0	4.88	13	4.6	PASS
		16QAM	RB1#0	4.48	13	4.7	PASS
			RB100#0	6.02	13	4.8	PASS
	High	QPSK	RB1#0	3.54	13	4.9	PASS
			RB100#0	4.71	13	4.10	PASS
		16QAM	RB1#0	4.67	13	4.11	PASS
			RB100#0	5.97	13	4.12	PASS

FDD LTE Band 4
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Test BW	Channel	Modul.	RB Set (Size#Offset)	Peak to Average Ratio (dB)	Limit (dB)	Refer to Plot <sup>Note 2</sup>	Verdict
20 MHz	Low	QPSK	RB1#0	3.57	13	5.1	PASS
			RB100#0	4.69	13	5.2	PASS
		16QAM	RB1#0	5.08	13	5.3	PASS
			RB100#0	5.71	13	5.4	PASS
	Middle	QPSK	RB1#0	3.50	13	5.5	PASS
			RB100#0	4.63	13	5.6	PASS
		16QAM	RB1#0	4.96	13	5.7	PASS
			RB100#0	5.58	13	5.8	PASS
	High	QPSK	RB1#0	3.44	13	5.9	PASS
			RB100#0	4.57	13	5.10	PASS
		16QAM	RB1#0	5.27	13	5.11	PASS
			RB100#0	5.70	13	5.12	PASS

FDD LTE Band 5							
Test BW	Channel	Modul.	RB Set (Size#Offset)	Peak to Average Ratio (dB)	Limit (dB)	Refer to Plot <sup>Note 2</sup>	Verdict
10 MHz	Low	QPSK	RB1#0	3.53	13	6.1	PASS
			RB50#0	4.79	13	6.2	PASS
		16QAM	RB1#0	5.35	13	6.3	PASS
			RB50#0	6.00	13	6.4	PASS
	Middle	QPSK	RB1#0	3.51	13	6.5	PASS
			RB50#0	4.79	13	6.6	PASS
		16QAM	RB1#0	5.45	13	6.7	PASS
			RB50#0	6.04	13	6.8	PASS
	High	QPSK	RB1#0	3.49	13	6.9	PASS
			RB50#0	4.76	13	6.10	PASS
		16QAM	RB1#0	5.38	13	6.11	PASS
			RB50#0	6.04	13	6.12	PASS

FDD LTE Band 7							
Test BW	Channel	Modul.	RB Set (Size#Offset)	Peak to Average Ratio (dB)	Limit (dB)	Refer to Plot <sup>Note 2</sup>	Verdict
20 MHz	Low	QPSK	RB1#0	3.47	13	7.1	PASS
			RB100#0	4.67	13	7.2	PASS
		16QAM	RB1#0	5.18	13	7.3	PASS

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	Middle	QPSK	RB100#0	5.92	13	7.4	PASS
			RB1#0	3.48	13	7.5	PASS
		16QAM	RB100#0	4.71	13	7.6	PASS
			RB1#0	5.38	13	7.7	PASS
	High	QPSK	RB100#0	5.90	13	7.8	PASS
			RB1#0	3.45	13	7.9	PASS
		16QAM	RB100#0	4.71	13	7.10	PASS
			RB1#0	5.39	13	7.11	PASS
			RB100#0	5.90	13	7.12	PASS

## FDD LTE Band 12

Test BW	Channel	Modul.	RB Set (Size#Offset)	Peak to Average Ratio (dB)	Limit (dB)	Refer to Plot <sup>Note 2</sup>	Verdict
10 MHz	Low	QPSK	RB1#0	3.55	13	8.1	PASS
			RB50#0	4.85	13	8.2	PASS
		16QAM	RB1#0	5.33	13	8.3	PASS
			RB50#0	6.02	13	8.4	PASS
	Middle	QPSK	RB1#0	3.55	13	8.5	PASS
			RB50#0	4.90	13	8.6	PASS
		16QAM	RB1#0	5.45	13	8.7	PASS
			RB50#0	6.04	13	8.8	PASS
	High	QPSK	RB1#0	3.53	13	8.9	PASS
			RB50#0	4.80	13	8.10	PASS
		16QAM	RB1#0	5.39	13	8.11	PASS
			RB50#0	6.07	13	8.12	PASS

## FDD LTE Band 13

Test BW	Channel	Modul.	RB Set (Size#Offset)	Peak to Average Ratio (dB)	Limit (dB)	Refer to Plot <sup>Note 2</sup>	Verdict
10 MHz	Low	QPSK	RB1#0	--	--	--	--
			RB50#0	--	--	--	--
		16QAM	RB1#0	--	--	--	--
			RB50#0	--	--	--	--
	Middle	QPSK	RB1#0	3.47	13	9.1	PASS
			RB50#0	4.75	13	9.2	PASS
		16QAM	RB1#0	4.94	13	9.3	PASS
			RB50#0	5.95	13	9.4	PASS
	High	QPSK	RB1#0	--	--	--	--



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			RB50#0	--	--	--	--
		16QAM	RB1#0	--	--	--	--
			RB50#0	--	--	--	--

## FDD LTE Band 17

Test BW	Channel	Modul.	RB Set (Size#Offset)	Peak to Average Ratio (dB)	Limit (dB)	Refer to Plot <sup>Note 2</sup>	Verdict
10 MHz	Low	QPSK	RB1#0	3.52	13	10.1	PASS
			RB50#0	4.89	13	10.2	PASS
		16QAM	RB1#0	5.31	13	10.3	PASS
			RB50#0	6.07	13	10.4	PASS
	Middle	QPSK	RB1#0	3.51	13	10.5	PASS
			RB50#0	4.91	13	10.6	PASS
		16QAM	RB1#0	5.44	13	10.7	PASS
			RB50#0	6.08	13	10.8	PASS
	High	QPSK	RB1#0	3.50	13	10.9	PASS
			RB50#0	4.85	13	10.10	PASS
		16QAM	RB1#0	5.38	13	10.11	PASS
			RB50#0	6.05	13	10.12	PASS

## FDD LTE Band 25

Test BW	Channel	Modul.	RB Set (Size#Offset)	Peak to Average Ratio (dB)	Limit (dB)	Refer to Plot <sup>Note 2</sup>	Verdict
20 MHz	Low	QPSK	RB1#0	3.46	13	11.1	PASS
			RB100#0	4.78	13	11.2	PASS
		16QAM	RB1#0	4.11	13	11.3	PASS
			RB100#0	5.92	13	11.4	PASS
	Middle	QPSK	RB1#0	3.43	13	11.5	PASS
			RB100#0	4.92	13	11.6	PASS
		16QAM	RB1#0	4.90	13	11.7	PASS
			RB100#0	6.04	13	11.8	PASS
	High	QPSK	RB1#0	3.46	13	11.9	PASS
			RB100#0	4.91	13	11.10	PASS
		16QAM	RB1#0	5.41	13	11.11	PASS
			RB100#0	5.82	13	11.12	PASS

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## TDD LTE Band 41

Test BW	Channel	Modul.	RB Set (Size#Offset)	Peak to Average Ratio (dB)	Limit (dB)	Refer to Plot <sup>Note 2</sup>	Verdict
20 MHz	Low	QPSK	RB1#0	7.72	13	12.1	PASS
			RB100#0	8.02	13	12.2	PASS
		16QAM	RB1#0	8.46	13	12.3	PASS
			RB100#0	10.13	13	12.4	PASS
	Middle	QPSK	RB1#0	7.51	13	12.5	PASS
			RB100#0	8.91	13	12.6	PASS
		16QAM	RB1#0	10.19	13	12.7	PASS
			RB100#0	9.00	13	12.8	PASS
	High	QPSK	RB1#0	7.86	13	12.9	PASS
			RB100#0	8.41	13	12.10	PASS
		16QAM	RB1#0	8.56	13	12.11	PASS
			RB100#0	9.30	13	12.12	PASS

## FDD LTE Band 66

Test BW	Channel	Modul.	RB Set (Size#Offset)	Peak to Average Ratio (dB)	Limit (dB)	Refer to Plot <sup>Note 2</sup>	Verdict
20 MHz	Low	QPSK	RB1#0	3.35	13	13.1	PASS
			RB100#0	4.70	13	13.2	PASS
		16QAM	RB1#0	4.15	13	13.3	PASS
			RB100#0	5.97	13	13.4	PASS
	Middle	QPSK	RB1#0	3.41	13	13.5	PASS
			RB100#0	4.50	13	13.6	PASS
		16QAM	RB1#0	5.24	13	13.7	PASS
			RB100#0	5.58	13	13.8	PASS
	High	QPSK	RB1#0	3.52	13	13.9	PASS
			RB100#0	4.77	13	13.10	PASS
		16QAM	RB1#0	5.27	13	13.11	PASS
			RB100#0	6.00	13	13.12	PASS

## FDD LTE Band 30

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Test BW	Channel	Modul.	RB Set (Size#Offset)	Peak to Average Ratio (dB)	Limit (dB)	Refer to Plot <sup>Note 2</sup>	Verdict
10 MHz	Low	QPSK	RB1#0	--	--	--	--
			RB50#0	--	--	--	--
		16QAM	RB1#0	--	--	--	--
			RB50#0	--	--	--	--
	Middle	QPSK	RB1#0	3.55	13	14.1	PASS
			RB50#0	4.81	13	14.2	PASS
		16QAM	RB1#0	5.28	13	14.3	PASS
			RB50#0	6.04	13	14.4	PASS
	High	QPSK	RB1#0	--	--	--	--
			RB50#0	--	--	--	--
		16QAM	RB1#0	--	--	--	--
			RB50#0	--	--	--	--

### 5.1.3 Occupied Bandwidth

Note(s):

- All modes were tested, but only the typical data were reported in this report.
- Test plots please refer to the document "Annex No: EXHIBIT B Of SHE20090001-02AE".

#### Occupied Bandwidth Measurement Results for WCDMA

Test Band	Channel	Measured 99% Occupied Bandwidth (MHz)	Measured -26 dB Occupied Bandwidth (MHz)	Refer to Plot <sup>Note 2</sup>
WCDMA Band II	Low	4.114	4.706	1.1
	Middle	4.115	4.702	1.2
	High	4.130	4.715	1.3
WCDMA Band IV	Low	4.120	4.715	2.1
	Middle	4.113	4.701	2.2
	High	4.121	4.716	2.3
WCDMA Band V	Low	4.125	4.706	3.1
	Middle	4.122	4.697	3.2
	High	4.116	4.703	3.3

#### Occupied Bandwidth Measurement Results for LTE

FDD LTE Band 2						
Test BW	CH	Modul.	RB Set (Size#Offset)	99% Occupied Bandwidth (MHz)	-26 dB Bandwidth (MHz)	Refer to Plot <sup>Note 2</sup>
1.4 MHz	Low	QPSK	RB6#0	1.083	1.217	4.1
		16QAM	RB6#0	1.081	1.219	4.2

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	Middle	QPSK	RB6#0	1.082	1.218	4.3
		16QAM	RB6#0	1.081	1.202	4.4
	High	QPSK	RB6#0	1.084	1.213	4.5
		16QAM	RB6#0	1.081	1.211	4.6
3 MHz	Low	QPSK	RB15#0	2.690	2.923	4.7
		16QAM	RB15#0	2.691	2.900	4.8
	Middle	QPSK	RB15#0	2.688	2.916	4.9
		16QAM	RB15#0	2.692	2.898	4.10
	High	QPSK	RB15#0	2.696	2.921	4.11
		16QAM	RB15#0	2.693	2.919	4.12
5 MHz	Low	QPSK	RB25#0	4.485	4.821	4.13
		16QAM	RB25#0	4.484	4.801	4.14
	Middle	QPSK	RB25#0	4.484	4.797	4.15
		16QAM	RB25#0	4.485	4.799	4.16
	High	QPSK	RB25#0	4.481	4.809	4.17
		16QAM	RB25#0	4.483	4.813	4.18
10 MHz	Low	QPSK	RB50#0	8.955	9.503	4.19
		16QAM	RB50#0	8.953	9.498	4.20
	Middle	QPSK	RB50#0	8.951	9.506	4.21
		16QAM	RB50#0	8.945	9.471	4.22
	High	QPSK	RB50#0	8.963	9.512	4.23
		16QAM	RB50#0	8.956	9.499	4.24
15 MHz	Low	QPSK	RB75#0	13.435	14.260	4.25
		16QAM	RB75#0	13.429	14.230	4.26
	Middle	QPSK	RB75#0	13.440	14.250	4.27
		16QAM	RB75#0	13.424	14.210	4.28
	High	QPSK	RB75#0	13.420	14.260	4.29
		16QAM	RB75#0	13.422	14.220	4.30
20 MHz	Low	QPSK	RB100#0	17.917	19.000	4.31
		16QAM	RB100#0	17.919	18.950	4.32
	Middle	QPSK	RB100#0	17.893	18.960	4.33
		16QAM	RB100#0	17.888	18.930	4.34
	High	QPSK	RB100#0	17.868	18.980	4.35
		16QAM	RB100#0	17.862	18.950	4.36

FDD LTE Band 4						
Test BW	CH	Modul.	RB Set (Size#Offset)	99% Occupied Bandwidth (MHz)	-26 dB Bandwidth (MHz)	Refer to Plot <sup>Note 2</sup>
1.4 MHz	Low	QPSK	RB6#0	1.086	1.220	5.1
		16QAM	RB6#0	1.084	1.229	5.2

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	Middle	QPSK	RB6#0	1.082	1.214	5.3
		16QAM	RB6#0	1.082	1.217	5.4
	High	QPSK	RB6#0	1.083	1.217	5.5
		16QAM	RB6#0	1.082	1.206	5.6
3 MHz	Low	QPSK	RB15#0	2.697	2.943	5.7
		16QAM	RB15#0	2.694	2.920	5.8
	Middle	QPSK	RB15#0	2.692	2.914	5.9
		16QAM	RB15#0	2.692	2.916	5.10
	High	QPSK	RB15#0	2.691	2.921	5.11
		16QAM	RB15#0	2.694	2.932	5.12
5 MHz	Low	QPSK	RB25#0	4.481	4.822	5.13
		16QAM	RB25#0	4.486	4.824	5.14
	Middle	QPSK	RB25#0	4.484	4.831	5.15
		16QAM	RB25#0	4.484	4.781	5.16
	High	QPSK	RB25#0	4.480	4.822	5.17
		16QAM	RB25#0	4.488	4.810	5.18
10 MHz	Low	QPSK	RB50#0	8.969	9.525	5.19
		16QAM	RB50#0	8.967	9.521	5.20
	Middle	QPSK	RB50#0	8.960	9.536	5.21
		16QAM	RB50#0	8.960	9.511	5.22
	High	QPSK	RB50#0	8.956	9.514	5.23
		16QAM	RB50#0	8.953	9.500	5.24
15 MHz	Low	QPSK	RB75#0	13.451	14.370	5.25
		16QAM	RB75#0	13.449	14.250	5.26
	Middle	QPSK	RB75#0	13.438	14.290	5.27
		16QAM	RB75#0	13.428	14.250	5.28
	High	QPSK	RB75#0	13.441	14.270	5.29
		16QAM	RB75#0	13.429	14.230	5.30
20 MHz	Low	QPSK	RB100#0	17.918	19.100	5.31
		16QAM	RB100#0	17.929	19.030	5.32
	Middle	QPSK	RB100#0	17.886	19.030	5.33
		16QAM	RB100#0	17.888	18.990	5.34
	High	QPSK	RB100#0	17.890	18.990	5.35
		16QAM	RB100#0	17.888	18.930	5.36

FDD LTE Band 5						
Test BW	CH	Modul.	RB Set (Size#Offset)	99% Occupied Bandwidth (MHz)	-26 dB Bandwidth (MHz)	Refer to Plot <sup>Note 2</sup>
1.4 MHz	Low	QPSK	RB6#0	1.084	1.235	6.1
		16QAM	RB6#0	1.089	1.240	6.2

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	Middle	QPSK	RB6#0	1.089	1.234	6.3
		16QAM	RB6#0	1.085	1.217	6.4
	High	QPSK	RB6#0	1.088	1.223	6.5
		16QAM	RB6#0	1.088	1.227	6.6
3 MHz	Low	QPSK	RB15#0	2.698	2.915	6.7
		16QAM	RB15#0	2.693	2.920	6.8
	Middle	QPSK	RB15#0	2.690	2.913	6.9
		16QAM	RB15#0	2.690	2.904	6.10
	High	QPSK	RB15#0	2.688	2.907	6.11
		16QAM	RB15#0	2.691	2.913	6.12
5 MHz	Low	QPSK	RB25#0	4.485	4.794	6.13
		16QAM	RB25#0	4.484	4.788	6.14
	Middle	QPSK	RB25#0	4.481	4.824	6.15
		16QAM	RB25#0	4.485	4.782	6.16
	High	QPSK	RB25#0	4.476	4.787	6.17
		16QAM	RB25#0	4.479	4.791	6.18
10 MHz	Low	QPSK	RB50#0	8.958	9.527	6.19
		16QAM	RB50#0	8.959	9.505	6.20
	Middle	QPSK	RB50#0	8.952	9.506	6.21
		16QAM	RB50#0	8.951	9.495	6.22
	High	QPSK	RB50#0	8.951	9.495	6.23
		16QAM	RB50#0	8.948	9.494	6.24

FDD LTE Band 7						
Test BW	CH	Modul.	RB Set (Size#Offset)	99% Occupied Bandwidth (MHz)	-26 dB Bandwidth (MHz)	Refer to Plot <sup>Note 2</sup>
5 MHz	Low	QPSK	RB25#0	4.522	4.982	7.1
		16QAM	RB25#0	4.493	4.968	7.2
	Middle	QPSK	RB25#0	4.505	4.999	7.3
		16QAM	RB25#0	4.519	4.982	7.4
	High	QPSK	RB25#0	4.493	4.971	7.5
		16QAM	RB25#0	4.509	4.996	7.6
10 MHz	Low	QPSK	RB50#0	8.985	9.917	7.7
		16QAM	RB50#0	8.988	9.814	7.8
	Middle	QPSK	RB50#0	8.960	9.873	7.9
		16QAM	RB50#0	8.979	9.847	7.10
	High	QPSK	RB50#0	8.972	9.888	7.11
		16QAM	RB50#0	8.977	9.867	7.12
15 MHz	Low	QPSK	RB75#0	13.490	14.770	7.13
		16QAM	RB75#0	13.475	14.720	7.14

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	Middle	QPSK	RB75#0	13.433	14.770	7.15
		16QAM	RB75#0	13.472	14.720	7.16
	High	QPSK	RB75#0	13.455	14.770	7.17
		16QAM	RB75#0	13.468	14.740	7.18
20 MHz	Low	QPSK	RB100#0	17.922	19.420	7.19
		16QAM	RB100#0	17.939	19.540	7.20
	Middle	QPSK	RB100#0	17.930	19.470	7.21
		16QAM	RB100#0	17.944	19.680	7.22
	High	QPSK	RB100#0	17.940	19.690	7.23
		16QAM	RB100#0	17.900	19.520	7.24

## FDD LTE Band 12

Test BW	CH	Modul.	RB Set (Size#Offset)	99% Occupied Bandwidth (MHz)	-26 dB Bandwidth (MHz)	Refer to Plot <sup>Note 2</sup>
1.4 MHz	Low	QPSK	RB6#0	1.086	1.230	8.1
		16QAM	RB6#0	1.090	1.231	8.2
	Middle	QPSK	RB6#0	1.089	1.232	8.3
		16QAM	RB6#0	1.084	1.225	8.4
	High	QPSK	RB6#0	1.089	1.224	8.5
		16QAM	RB6#0	1.089	1.231	8.6
3 MHz	Low	QPSK	RB15#0	2.691	2.906	8.7
		16QAM	RB15#0	2.693	2.889	8.8
	Middle	QPSK	RB15#0	2.692	2.916	8.9
		16QAM	RB15#0	2.693	2.920	8.10
	High	QPSK	RB15#0	2.696	2.917	8.11
		16QAM	RB15#0	2.691	2.917	8.12
5 MHz	Low	QPSK	RB25#0	4.493	4.938	8.13
		16QAM	RB25#0	4.506	4.981	8.14
	Middle	QPSK	RB25#0	4.508	4.970	8.15
		16QAM	RB25#0	4.497	4.945	8.16
	High	QPSK	RB25#0	4.492	4.953	8.17
		16QAM	RB25#0	4.502	4.960	8.18
10 MHz	Low	QPSK	RB50#0	8.971	9.913	8.19
		16QAM	RB50#0	8.959	9.834	8.20
	Middle	QPSK	RB50#0	8.965	9.826	8.21
		16QAM	RB50#0	8.981	9.836	8.22
	High	QPSK	RB50#0	8.977	9.816	8.23
		16QAM	RB50#0	8.967	9.803	8.24

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FDD LTE Band 13						
Test BW	CH	Modul.	RB Set (Size#Offset)	99% Occupied Bandwidth (MHz)	-26 dB Bandwidth (MHz)	Refer to Plot <sup>Note 2</sup>
5 MHz	Low	QPSK	RB25#0	4.503	4.965	9.1
		16QAM	RB25#0	4.494	4.946	9.2
	Middle	QPSK	RB25#0	4.495	4.961	9.3
		16QAM	RB25#0	4.509	4.958	9.4
	High	QPSK	RB25#0	4.494	4.939	9.5
		16QAM	RB25#0	4.500	4.973	9.6
10 MHz	Low	QPSK	RB50#0	--	--	--
		16QAM	RB50#0	--	--	--
	Middle	QPSK	RB50#0	8.961	9.825	9.7
		16QAM	RB50#0	8.961	9.767	9.8
	High	QPSK	RB50#0	--	--	--
		16QAM	RB50#0	--	--	--

FDD LTE Band 17						
Test BW	CH	Modul.	RB Set (Size#Offset)	99% Occupied Bandwidth (MHz)	-26 dB Bandwidth (MHz)	Refer to Plot <sup>Note 2</sup>
5 MHz	Low	QPSK	RB25#0	4.509	4.982	10.1
		16QAM	RB25#0	4.495	4.913	10.2
	Middle	QPSK	RB25#0	4.501	4.965	10.3
		16QAM	RB25#0	4.508	4.985	10.4
	High	QPSK	RB25#0	4.491	4.949	10.5
		16QAM	RB25#0	4.508	4.963	10.6
10 MHz	Low	QPSK	RB50#0	8.982	9.892	10.7
		16QAM	RB50#0	8.975	9.837	10.8
	Middle	QPSK	RB50#0	8.966	9.752	10.9
		16QAM	RB50#0	8.976	9.823	10.10
	High	QPSK	RB50#0	8.978	9.831	10.11
		16QAM	RB50#0	8.972	9.834	10.12

FDD LTE Band 25						
Test BW	CH	Modul.	RB Set (Size#Offset)	99% Occupied Bandwidth (MHz)	-26 dB Bandwidth (MHz)	Refer to Plot <sup>Note 2</sup>
1.4 MHz	Low	QPSK	RB6#0	1.086	1.240	11.1
		16QAM	RB6#0	1.090	1.240	11.2
	Middle	QPSK	RB6#0	1.086	1.236	11.3
		16QAM	RB6#0	1.084	1.218	11.4
	High	QPSK	RB6#0	1.088	1.220	11.5



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		16QAM	RB6#0	1.088	1.229	11.6
3 MHz	Low	QPSK	RB15#0	2.693	2.982	11.7
		16QAM	RB15#0	2.699	2.985	11.8
	Middle	QPSK	RB15#0	2.704	2.992	11.9
		16QAM	RB15#0	2.693	2.929	11.10
	High	QPSK	RB15#0	2.706	2.998	11.11
		16QAM	RB15#0	2.698	2.994	11.12
5 MHz	Low	QPSK	RB25#0	4.508	4.962	11.13
		16QAM	RB25#0	4.498	4.916	11.14
	Middle	QPSK	RB25#0	4.500	4.970	11.15
		16QAM	RB25#0	4.511	4.956	11.16
	High	QPSK	RB25#0	4.490	4.945	11.17
		16QAM	RB25#0	4.502	4.962	11.18
10 MHz	Low	QPSK	RB50#0	8.974	9.860	11.19
		16QAM	RB50#0	8.955	9.794	11.20
	Middle	QPSK	RB50#0	8.959	9.733	11.21
		16QAM	RB50#0	8.966	9.767	11.22
	High	QPSK	RB50#0	8.985	9.810	11.23
		16QAM	RB50#0	8.981	9.855	11.24
15 MHz	Low	QPSK	RB75#0	13.465	14.690	11.25
		16QAM	RB75#0	13.455	14.690	11.26
	Middle	QPSK	RB75#0	13.435	14.680	11.27
		16QAM	RB75#0	13.450	14.680	11.28
	High	QPSK	RB75#0	13.481	14.670	11.29
		16QAM	RB75#0	13.489	14.760	11.30
20 MHz	Low	QPSK	RB100#0	17.954	19.470	11.31
		16QAM	RB100#0	17.949	19.490	11.32
	Middle	QPSK	RB100#0	17.914	19.460	11.33
		16QAM	RB100#0	17.946	19.530	11.34
	High	QPSK	RB100#0	17.961	19.680	11.35
		16QAM	RB100#0	17.958	19.450	11.36

## TDD LTE Band 41

Test BW	CH	Modul.	RB Set (Size#Offset)	99% Occupied Bandwidth (MHz)	-26 dB Bandwidth (MHz)	Refer to Plot <sup>Note 2</sup>
5 MHz	Low	QPSK	RB25#0	4.478	4.783	13.1
		16QAM	RB25#0	4.477	4.783	13.2
	Middle	QPSK	RB25#0	4.477	4.790	13.3
		16QAM	RB25#0	4.483	4.783	13.4

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	High	QPSK	RB25#0	4.481	4.810	13.5
		16QAM	RB25#0	4.483	4.782	13.6
10 MHz	Low	QPSK	RB50#0	8.973	9.853	13.7
		16QAM	RB50#0	8.970	9.780	13.8
	Middle	QPSK	RB50#0	8.961	9.895	13.9
		16QAM	RB50#0	8.946	9.751	13.10
	High	QPSK	RB50#0	8.993	9.841	13.11
		16QAM	RB50#0	8.961	9.813	13.12
15 MHz	Low	QPSK	RB75#0	13.474	14.720	13.13
		16QAM	RB75#0	13.458	14.700	13.14
	Middle	QPSK	RB75#0	13.414	14.700	13.15
		16QAM	RB75#0	13.494	14.750	13.16
	High	QPSK	RB75#0	13.401	14.760	13.17
		16QAM	RB75#0	13.478	14.700	13.18
20 MHz	Low	QPSK	RB100#0	17.919	19.340	13.19
		16QAM	RB100#0	17.878	19.450	13.20
	Middle	QPSK	RB100#0	17.884	19.400	13.21
		16QAM	RB100#0	17.886	19.450	13.22
	High	QPSK	RB100#0	17.888	19.390	13.23
		16QAM	RB100#0	17.873	19.360	13.24

FDD LTE Band 66						
Test BW	CH	Modul.	RB Set (Size#Offset)	99% Occupied Bandwidth (MHz)	-26 dB Bandwidth (MHz)	Refer to Plot <sup>Note 2</sup>
1.4 MHz	Low	QPSK	RB6#0	1.086	1.229	14.1
		16QAM	RB6#0	1.089	1.234	14.2
	Middle	QPSK	RB6#0	1.087	1.232	14.3
		16QAM	RB6#0	1.084	1.225	14.4
	High	QPSK	RB6#0	1.087	1.224	14.5
		16QAM	RB6#0	1.088	1.231	14.6
3 MHz	Low	QPSK	RB15#0	2.703	2.996	14.7
		16QAM	RB15#0	2.703	3.014	14.8
	Middle	QPSK	RB15#0	2.701	2.998	14.9
		16QAM	RB15#0	2.700	3.005	14.10
	High	QPSK	RB15#0	2.700	2.974	14.11
		16QAM	RB15#0	2.700	3.002	14.12
5 MHz	Low	QPSK	RB25#0	4.497	4.957	14.13
		16QAM	RB25#0	4.514	4.959	14.14
	Middle	QPSK	RB25#0	4.493	4.933	14.15
		16QAM	RB25#0	4.502	4.960	14.16

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	High	QPSK	RB25#0	4.504	4.934	14.17
		16QAM	RB25#0	4.497	4.912	14.18
10 MHz	Low	QPSK	RB50#0	8.988	9.896	14.19
		16QAM	RB50#0	8.983	9.799	14.20
	Middle	QPSK	RB50#0	8.956	9.807	14.21
		16QAM	RB50#0	8.961	9.804	14.22
	High	QPSK	RB50#0	8.967	9.781	14.23
		16QAM	RB50#0	8.962	9.821	14.24
15 MHz	Low	QPSK	RB75#0	13.481	14.760	14.25
		16QAM	RB75#0	13.479	14.690	14.26
	Middle	QPSK	RB75#0	13.423	14.670	14.27
		16QAM	RB75#0	13.457	14.640	14.28
	High	QPSK	RB75#0	13.429	14.750	14.29
		16QAM	RB75#0	13.467	14.720	14.30
20 MHz	Low	QPSK	RB100#0	17.949	19.290	14.31
		16QAM	RB100#0	17.968	19.460	14.32
	Middle	QPSK	RB100#0	17.898	19.380	14.33
		16QAM	RB100#0	17.904	19.620	14.34
	High	QPSK	RB100#0	17.959	19.660	14.35
		16QAM	RB100#0	17.929	19.410	14.36

FDD LTE Band 30						
Test BW	CH	Modul.	RB Set (Size#Offset)	99% Occupied Bandwidth (MHz)	-26 dB Bandwidth (MHz)	Refer to Plot <sup>Note 2</sup>
5 MHz	Low	QPSK	RB25#0	4.510	4.938	16.1
		16QAM	RB25#0	4.498	4.923	16.2
	Middle	QPSK	RB25#0	4.494	4.940	16.3
		16QAM	RB25#0	4.505	4.986	16.4
	High	QPSK	RB25#0	4.498	4.938	16.5
		16QAM	RB25#0	4.498	4.962	16.6
10 MHz	Low	QPSK	RB50#0	--	--	--
		16QAM	RB50#0	--	--	--
	Middle	QPSK	RB50#0	8.967	9.869	16.7
		16QAM	RB50#0	8.959	9.803	16.8
	High	QPSK	RB50#0	--	--	--
		16QAM	RB50#0	--	--	--

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## 5.1.4 Frequency Stability

### Frequency Stability Measurement Results for WCDMA

WCDMA Band II								
Test Conditions		Frequency Deviation						Verdict
Power (V)	Temperature (°C)	Low channel 1852.4 MHz		Middle channel 1880 MHz		High channel 1907.6 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
11.1 V	-30	--	±4631	--	±4700	--	±4769	PASS
	-20	8.56		7.31		6.40		
	-10	9.65		6.75		5.68		
	0	9.56		5.52		8.26		
	10	10.65		8.98		6.65		
	20	7.91		6.46		8.74		
	25	10.87		9.13		7.57		
	30	12.98		11.75		5.92		
	40	5.98		12.55		9.60		
	50	7.62		13.22		5.68		
8.25 V	25	11.00		9.23		5.94		
12.6 V	25	9.72		7.70		6.97		

WCDMA Band IV								
Test Conditions		Frequency Deviation						Verdict
Power (V)	Temperature (°C)	Low channel 1852.4 MHz		Middle channel 1880 MHz		High channel 1907.6 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
11.1 V	-30	--	±4631	--	±4700	--	±4769	PASS
	-20	8.56		3.31		6.40		
	-10	7.65		6.75		5.68		
	0	9.56		4.52		8.26		
	10	2.15		8.98		6.65		
	20	7.91		6.46		5.74		
	25	4.73		-5.90		-5.47		
	30	-2.98		-2.75		5.92		
	40	5.98		3.55		9.60		
	50	7.62		3.22		5.68		
8.25 V	25	4.76		-3.12		-3.55		
12.6 V	25	3.72		-5.76		-4.23		

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WCDMA Band V								
Test Conditions		Frequency Deviation						Verdict
Power (V)	Temperature (°C)	Low channel 826.4 MHz		Middle channel 836.4 MHz		High channel 846.6 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
11.1 V	-30	--	±2066	--	±2091	--	±2116.5	PASS
	-20	-1.02		0.43		2.25		
	-10	-1.65		-1.62		-1.26		
	0	-0.85		2.65		0.21		
	10	-2.48		-1.92		3.68		
	20	-0.62		-1.60		-0.63		
	25	-0.14		-0.89		-1.7		
	30	-1.78		-2.98		-2.45		
	40	2.31		-3.88		1.84		
	50	-0.70		-1.35		-2.42		
8.25 V	25	-0.04		-0.83		-1.45		
12.6 V	25	-0.75		-1.29		-1.00		

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## Frequency Stability Measurement Results for LTE

FDD LTE Band 2						
Test Conditions		Frequency Deviation				Verdict
Power (V)	Temperature (°C)	QPSK 10MHz		16QAM 10MHz		
		Middle channel 1880 MHz		Middle channel 1880 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
11.1 V	-30	--	±4700	--	±4700	PASS
	-20	2.56		0.65		
	-10	2.69		-0.56		
	0	7.35		3.52		
	10	9.58		3.83		
	20	9.26		6.25		
	25	8.13		9.40		
	30	9.59		4.63		
	40	5.08		7.58		
	50	6.59		9.05		
8.25 V	25	8.12		9.63		
12.6 V	25	8.33		8.31		

FDD LTE Band 4						
Test Conditions		Frequency Deviation				Verdict
Power (V)	Temperature (°C)	QPSK 10MHz		16QAM 10MHz		
		Middle channel 1732.5 MHz		Middle channel 1732.5 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
11.1 V	-30	--	±4331.25	--	±4331.25	PASS
	-20	4.09		6.97		
	-10	3.68		3.95		
	0	2.96		-0.96		
	10	5.68		3.58		
	20	7.85		5.86		
	25	6.68		5.58		
	30	4.09		-1.52		
	40	5.65		-2.98		
	50	7.47		8.51		
8.25 V	25	6.11		4.21		
12.6 V	25	9.54		7.04		

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FDD LTE Band 5						
Test Conditions		Frequency Deviation				Verdict
Power (V)	Temperature (°C)	QPSK 10MHz		16QAM 10MHz		
		Middle channel 836.5 MHz		Middle channel 836.5 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
11.1 V	-30	--	±2091.25	--	±2091.25	PASS
	-20	-5.59		-0.37		
	-10	-2.13		-4.38		
	0	-4.58		-2.54		
	10	-2.52		-1.34		
	20	-4.81		-3.25		
	25	-0.87		-4.62		
	30	-5.65		-6.38		
	40	-6.78		-3.25		
	50	-8.03		-2.59		
8.25 V	25	-3.62		-1.87		
12.6 V	25	-2.83		-1.76		

FDD LTE Band 7						
Test Conditions		Frequency Deviation				Verdict
Power (V)	Temperature (°C)	QPSK 10MHz		16QAM 10MHz		
		Middle channel 2535 MHz		Middle channel 2535 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
11.1 V	-30	--	±6337.5	--	±6337.5	PASS
	-20	2.09		0.33		
	-10	1.10		1.29		
	0	-4.02		2.15		
	10	1.95		5.32		
	20	2.25		0.87		
	25	1.33		-2.51		
	30	-1.31		2.09		
	40	3.67		4.74		
	50	3.35		2.59		
8.25 V	25	1.70		0.74		
12.6 V	25	2.13		0.46		

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FDD LTE Band 12						
Test Conditions		Frequency Deviation				Verdict
Power (V)	Temperature (°C)	QPSK 10MHz		16QAM 10MHz		
		Middle channel 707.5 MHz		Middle channel 707.5 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
11.1 V	-30	--	±1768.75	--	±1768.75	PASS
	-12	-3.16		-3.02		
	-10	-2.29		-1.17		
	0	-1.83		0.74		
	10	-3.25		-0.31		
	20	-4.00		-5.15		
	25	-4.28		-5.61		
	30	0.65		-1.30		
	40	-1.66		2.89		
	50	-0.32		0.61		
8.25 V	25	-2.73		-5.46		
12.6 V	25	-6.62		-4.59		

FDD LTE Band 13						
Test Conditions		Frequency Deviation				Verdict
Power (V)	Temperature (°C)	QPSK 10MHz		16QAM 10MHz		
		Middle channel 782 MHz		Middle channel 782 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
11.1 V	-30	--	±1955	--	±1955	PASS
	-20	-7.10		-8.00		
	-10	-1.87		-3.55		
	0	-3.80		-6.23		
	10	0.71		1.41		
	20	-1.53		-4.22		
	25	-6.49		-3.07		
	30	-3.61		-2.65		
	40	-2.27		-6.25		
	50	-2.35		0.72		
8.25 V	25	-5.46		-3.02		
12.6 V	25	-1.65		-1.07		



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FDD LTE Band 17						
Test Conditions		Frequency Deviation				Verdict
Power (V)	Temperature (°C)	QPSK 10MHz		16QAM 10MHz		
		Middle channel 710 MHz		Middle channel 710 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
11.1 V	-30	--	±1775	--	±1775	PASS
	-20	3.12		-0.23		
	-10	5.48		-0.12		
	0	4.93		5.98		
	10	-4.67		3.26		
	20	-5.52		-2.82		
	25	0.46		0.59		
	30	1.66		-5.85		
	40	2.62		-0.29		
	50	7.26		-1.65		
8.25 V	25	5.42		2.09		
12.6 V	25	2.63		1.32		

FDD LTE Band 25						
Test Conditions		Frequency Deviation				Verdict
Power (V)	Temperature (°C)	QPSK 10MHz		16QAM 10MHz		
		Middle channel 1882.5 MHz		Middle channel 1882.5 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
11.1 V	-30	--	±4706.25	--	±4706.25	PASS
	-20	-8.14		-4.25		
	-10	-1.65		-3.28		
	0	-7.66		-1.89		
	10	-0.78		-4.68		
	20	-2.54		-2.89		
	25	-2.86		-2.50		
	30	2.52		-5.01		
	40	4.38		3.89		
	50	3.65		-6.34		
8.25 V	25	-4.71		-3.43		
12.6 V	25	-2.52		-2.83		

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TDD LTE Band 41						
Test Conditions		Frequency Deviation				Verdict
Power (V)	Temperature (°C)	QPSK 10MHz		16QAM 10MHz		
		Middle channel 2605 MHz		Middle channel 2605 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
11.1 V	-30	--	±6512.5	--	±6512.5	PASS
	-20	0.62		4.81		
	-10	4.78		-2.27		
	0	6.88		-5.13		
	10	-7.35		-3.85		
	20	-8.66		-2.52		
	25	-1.36		-3.65		
	30	-3.55		5.76		
	40	5.61		4.57		
	50	8.25		6.65		
8.25 V	25	3.76		5.19		
12.6 V	25	-0.90		3.58		

FDD LTE Band 66						
Test Conditions		Frequency Deviation				Verdict
Power (V)	Temperature (°C)	QPSK 10MHz		16QAM 10MHz		
		Middle channel 2605 MHz		Middle channel 2605 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
11.1 V	-30	--	±6512.5	--	±6512.5	PASS
	-20	1.93		3.13		
	-10	-1.17		2.13		
	0	3.59		2.20		
	10	1.28		5.67		
	20	4.97		1.89		
	25	2.78		1.06		
	30	-0.26		2.37		

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	40	2.31		6.01		
	50	5.04		3.57		
8.25 V	25	4.31		1.20		
12.6 V	25	1.37		2.55		

FDD LTE Band 30						
Test Conditions		Frequency Deviation				Verdict
Power (V)	Temperature (°C)	QPSK 10MHz		16QAM 10MHz		
		Middle channel 2310 MHz		Middle channel 2310 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
11.1 V	-30	--	±6512.5	--	±6512.5	PASS
	-20	-3.95		1.46		
	-10	-5.38		-0.19		
	0	-4.27		-0.77		
	10	-3.82		1.64		
	20	-4.57		1.42		
	25	-4.19		-0.59		
	30	-2.79		0.06		
	40	-3.41		-0.94		
	50	1.21		2.13		
8.25 V	25	-1.93		-1.51		
12.6 V	25	4.35		-0.26		

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## 5.1.5 Spurious Emission at Antenna Terminals

### Note(s):

1. GSM and EGPRS modes have been verified, and only the worst data with different bandwidth for LTE are shown here.
2. The frequencies of verdict which are marked by "N/A" should be ignored because they are MS carrier frequency.
3. Test plots please refer to the document "Annex No: EXHIBIT C Of SHE20090001-02AE".

### Spurious Emission Measurement Results for WCDMA

Test Band	Channel	Refer to Plot <sup>Note 3</sup>	Verdict
WCDMA Band II	Low	1.1	PASS
	Middle	1.2	PASS
	High	1.3	PASS
WCDMA Band IV	Low	2.1	PASS
	Middle	2.2	PASS
	High	2.3	PASS
WCDMA Band V	Low	3.1	PASS
	Middle	3.2	PASS
	High	3.3	PASS

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## Spurious Emission Measurement Results for LTE

FDD LTE Band 2					
Test BW	CH	Modul.	RB Set (Size#Offset)	Refer to Plot <sup>Note 3</sup>	Verdict
1.4 MHz	Low	QPSK	RB1#0	4.1	PASS
		16QAM	RB1#0	4.2	PASS
	Middle	QPSK	RB1#0	4.3	PASS
		16QAM	RB1#0	4.4	PASS
	High	QPSK	RB1#0	4.5	PASS
		16QAM	RB1#0	4.6	PASS
3 MHz	Low	QPSK	RB1#0	4.7	PASS
		16QAM	RB1#0	4.8	PASS
	Middle	QPSK	RB1#0	4.9	PASS
		16QAM	RB1#0	4.10	PASS
	High	QPSK	RB1#0	4.11	PASS
		16QAM	RB1#0	4.12	PASS
5 MHz	Low	QPSK	RB1#0	4.13	PASS
		16QAM	RB1#0	4.14	PASS
	Middle	QPSK	RB1#0	4.15	PASS
		16QAM	RB1#0	4.16	PASS
	High	QPSK	RB1#0	4.17	PASS
		16QAM	RB1#0	4.18	PASS
10 MHz	Low	QPSK	RB1#0	4.19	PASS
		16QAM	RB1#0	4.20	PASS
	Middle	QPSK	RB1#0	4.21	PASS
		16QAM	RB1#0	4.22	PASS
	High	QPSK	RB1#0	4.23	PASS
		16QAM	RB1#0	4.24	PASS
15 MHz	Low	QPSK	RB1#0	4.25	PASS
		16QAM	RB1#0	4.26	PASS
	Middle	QPSK	RB1#0	4.27	PASS
		16QAM	RB1#0	4.28	PASS
	High	QPSK	RB1#0	4.29	PASS
		16QAM	RB1#0	4.30	PASS
20 MHz	Low	QPSK	RB1#0	4.31	PASS
		16QAM	RB1#0	4.32	PASS
	Middle	QPSK	RB1#0	4.33	PASS
		16QAM	RB1#0	4.34	PASS
	High	QPSK	RB1#0	4.35	PASS
		16QAM	RB1#0	4.36	PASS

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FDD LTE Band 4					
Test BW	CH	Modul.	RB Set (Size#Offset)	Refer to Plot <sup>Note 3</sup>	Verdict
1.4 MHz	Low	QPSK	RB1#0	5.1	PASS
		16QAM	RB1#0	5.2	PASS
	Middle	QPSK	RB1#0	5.3	PASS
		16QAM	RB1#0	5.4	PASS
	High	QPSK	RB1#0	5.5	PASS
		16QAM	RB1#0	5.6	PASS
3 MHz	Low	QPSK	RB1#0	5.7	PASS
		16QAM	RB1#0	5.8	PASS
	Middle	QPSK	RB1#0	5.9	PASS
		16QAM	RB1#0	5.5	PASS
	High	QPSK	RB1#0	5.11	PASS
		16QAM	RB1#0	5.12	PASS
5 MHz	Low	QPSK	RB1#0	5.13	PASS
		16QAM	RB1#0	5.14	PASS
	Middle	QPSK	RB1#0	5.15	PASS
		16QAM	RB1#0	5.16	PASS
	High	QPSK	RB1#0	5.17	PASS
		16QAM	RB1#0	5.18	PASS
10 MHz	Low	QPSK	RB1#0	5.19	PASS
		16QAM	RB1#0	5.20	PASS
	Middle	QPSK	RB1#0	5.21	PASS
		16QAM	RB1#0	5.22	PASS
	High	QPSK	RB1#0	5.23	PASS
		16QAM	RB1#0	5.24	PASS
15 MHz	Low	QPSK	RB1#0	5.25	PASS
		16QAM	RB1#0	5.26	PASS
	Middle	QPSK	RB1#0	5.27	PASS
		16QAM	RB1#0	5.28	PASS
	High	QPSK	RB1#0	5.29	PASS
		16QAM	RB1#0	5.30	PASS
20 MHz	Low	QPSK	RB1#0	5.31	PASS
		16QAM	RB1#0	5.32	PASS
	Middle	QPSK	RB1#0	5.33	PASS
		16QAM	RB1#0	5.34	PASS
	High	QPSK	RB1#0	5.35	PASS
		16QAM	RB1#0	5.36	PASS

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FDD LTE Band 5					
Test BW	CH	Modul.	RB Set (Size#Offset)	Refer to Plot <sup>Note 3</sup>	Verdict
1.4 MHz	Low	QPSK	RB1#0	6.1	PASS
		16QAM	RB1#0	6.2	PASS
	Middle	QPSK	RB1#0	6.3	PASS
		16QAM	RB1#0	6.4	PASS
	High	QPSK	RB1#0	6.5	PASS
		16QAM	RB1#0	6.6	PASS
3 MHz	Low	QPSK	RB1#0	6.7	PASS
		16QAM	RB1#0	6.8	PASS
	Middle	QPSK	RB1#0	6.9	PASS
		16QAM	RB1#0	6.10	PASS
	High	QPSK	RB1#0	6.11	PASS
		16QAM	RB1#0	6.12	PASS
5 MHz	Low	QPSK	RB1#0	6.13	PASS
		16QAM	RB1#0	6.14	PASS
	Middle	QPSK	RB1#0	6.15	PASS
		16QAM	RB1#0	6.16	PASS
	High	QPSK	RB1#0	6.17	PASS
		16QAM	RB1#0	6.18	PASS
10 MHz	Low	QPSK	RB1#0	6.19	PASS
		16QAM	RB1#0	6.20	PASS
	Middle	QPSK	RB1#0	6.21	PASS
		16QAM	RB1#0	6.22	PASS
	High	QPSK	RB1#0	6.23	PASS
		16QAM	RB1#0	6.24	PASS

FDD LTE Band 7					
Test BW	CH	Modul.	RB Set (Size#Offset)	Refer to Plot <sup>Note 3</sup>	Verdict
5 MHz	Low	QPSK	RB1#0	7.1	PASS
		16QAM	RB1#0	7.2	PASS
	Middle	QPSK	RB1#0	7.3	PASS
		16QAM	RB1#0	7.4	PASS
	High	QPSK	RB1#0	7.5	PASS
		16QAM	RB1#0	7.6	PASS
10 MHz	Low	QPSK	RB1#0	7.7	PASS
		16QAM	RB1#0	7.8	PASS

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	Middle	QPSK	RB1#0	7.9	PASS
		16QAM	RB1#0	7.10	PASS
	High	QPSK	RB1#0	7.11	PASS
		16QAM	RB1#0	7.12	PASS
15 MHz	Low	QPSK	RB1#0	7.13	PASS
		16QAM	RB1#0	7.14	PASS
	Middle	QPSK	RB1#0	7.15	PASS
		16QAM	RB1#0	7.16	PASS
	High	QPSK	RB1#0	7.17	PASS
		16QAM	RB1#0	7.18	PASS
20 MHz	Low	QPSK	RB1#0	7.19	PASS
		16QAM	RB1#0	7.20	PASS
	Middle	QPSK	RB1#0	7.21	PASS
		16QAM	RB1#0	7.22	PASS
	High	QPSK	RB1#0	7.23	PASS
		16QAM	RB1#0	7.24	PASS

## FDD LTE Band 12

Test BW	CH	Modul.	RB Set (Size#Offset)	Refer to Plot <sup>Note 3</sup>	Verdict
1.4 MHz	Low	QPSK	RB1#0	8.1	PASS
		16QAM	RB1#0	8.2	PASS
	Middle	QPSK	RB1#0	8.3	PASS
		16QAM	RB1#0	8.4	PASS
	High	QPSK	RB1#0	8.5	PASS
		16QAM	RB1#0	8.6	PASS
3 MHz	Low	QPSK	RB1#0	8.7	PASS
		16QAM	RB1#0	8.8	PASS
	Middle	QPSK	RB1#0	8.9	PASS
		16QAM	RB1#0	8.10	PASS
	High	QPSK	RB1#0	8.11	PASS
		16QAM	RB1#0	8.12	PASS
5 MHz	Low	QPSK	RB1#0	8.13	PASS
		16QAM	RB1#0	8.14	PASS
	Middle	QPSK	RB1#0	8.15	PASS
		16QAM	RB1#0	8.16	PASS
	High	QPSK	RB1#0	8.17	PASS
		16QAM	RB1#0	8.18	PASS
10 MHz	Low	QPSK	RB1#0	8.19	PASS
		16QAM	RB1#0	8.20	PASS



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	Middle	QPSK	RB1#0	8.21	PASS
		16QAM	RB1#0	8.22	PASS
	High	QPSK	RB1#0	8.23	PASS
		16QAM	RB1#0	8.24	PASS

## FDD LTE Band 13

Test BW	CH	Modul.	RB Set (Size#Offset)	Refer to Plot <sup>Note 3</sup>	Verdict
5 MHz	Low	QPSK	RB1#0	9.1	PASS
		16QAM	RB1#0	9.2	PASS
	Middle	QPSK	RB1#0	9.3	PASS
		16QAM	RB1#0	9.4	PASS
	High	QPSK	RB1#0	9.5	PASS
		16QAM	RB1#0	9.5	PASS
10 MHz	Low	QPSK	--	--	--
		16QAM	--	--	--
	Middle	QPSK	RB1#0	9.7	PASS
		16QAM	RB1#0	9.8	PASS
	High	QPSK	--	--	--
		16QAM	--	--	--

## FDD LTE Band 17

Test BW	CH	Modul.	RB Set (Size#Offset)	Refer to Plot <sup>Note 3</sup>	Verdict
5 MHz	Low	QPSK	RB1#0	10.1	PASS
		16QAM	RB1#0	10.2	PASS
	Middle	QPSK	RB1#0	10.3	PASS
		16QAM	RB1#0	10.4	PASS
	High	QPSK	RB1#0	10.5	PASS
		16QAM	RB1#0	10.6	PASS
10 MHz	Low	QPSK	RB1#0	10.7	PASS
		16QAM	RB1#0	10.8	PASS
	Middle	QPSK	RB1#0	10.9	PASS
		16QAM	RB1#0	10.10	PASS
	High	QPSK	RB1#0	10.11	PASS
		16QAM	RB1#0	10.12	PASS

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FDD LTE Band 25					
Test BW	CH	Modul.	RB Set (Size#Offset)	Refer to Plot <sup>Note 3</sup>	Verdict
1.4 MHz	Low	QPSK	RB1#0	11.1	PASS
		16QAM	RB1#0	11.2	PASS
	Middle	QPSK	RB1#0	11.3	PASS
		16QAM	RB1#0	11.4	PASS
	High	QPSK	RB1#0	11.5	PASS
		16QAM	RB1#0	11.6	PASS
3 MHz	Low	QPSK	RB1#0	11.7	PASS
		16QAM	RB1#0	11.8	PASS
	Middle	QPSK	RB1#0	11.9	PASS
		16QAM	RB1#0	11.10	PASS
	High	QPSK	RB1#0	11.11	PASS
		16QAM	RB1#0	11.12	PASS
5 MHz	Low	QPSK	RB1#0	11.13	PASS
		16QAM	RB1#0	11.14	PASS
	Middle	QPSK	RB1#0	11.15	PASS
		16QAM	RB1#0	11.16	PASS
	High	QPSK	RB1#0	11.17	PASS
		16QAM	RB1#0	11.18	PASS
10 MHz	Low	QPSK	RB1#0	11.19	PASS
		16QAM	RB1#0	11.20	PASS
	Middle	QPSK	RB1#0	11.21	PASS
		16QAM	RB1#0	11.22	PASS
	High	QPSK	RB1#0	11.23	PASS
		16QAM	RB1#0	11.24	PASS
15 MHz	Low	QPSK	RB1#0	11.25	PASS
		16QAM	RB1#0	11.26	PASS
	Middle	QPSK	RB1#0	11.27	PASS
		16QAM	RB1#0	11.28	PASS
	High	QPSK	RB1#0	11.29	PASS
		16QAM	RB1#0	11.30	PASS
20 MHz	Low	QPSK	RB1#0	11.31	PASS
		16QAM	RB1#0	11.32	PASS
	Middle	QPSK	RB1#0	11.33	PASS
		16QAM	RB1#0	11.34	PASS
	High	QPSK	RB1#0	11.35	PASS
		16QAM	RB1#0	11.36	PASS

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## TDD LTE Band 41

Test BW	CH	Modul.	RB Set (Size#Offset)	Refer to Plot <sup>Note 3</sup>	Verdict
5 MHz	Low	QPSK	RB1#0	12.1	PASS
		16QAM	RB1#0	12.2	PASS
	Middle	QPSK	RB1#0	12.3	PASS
		16QAM	RB1#0	12.4	PASS
	High	QPSK	RB1#0	12.5	PASS
		16QAM	RB1#0	12.6	PASS
10 MHz	Low	QPSK	RB1#0	12.7	PASS
		16QAM	RB1#0	12.8	PASS
	Middle	QPSK	RB1#0	12.9	PASS
		16QAM	RB1#0	12.10	PASS
	High	QPSK	RB1#0	12.11	PASS
		16QAM	RB1#0	12.12	PASS
15 MHz	Low	QPSK	RB1#0	12.13	PASS
		16QAM	RB1#0	12.14	PASS
	Middle	QPSK	RB1#0	12.15	PASS
		16QAM	RB1#0	12.16	PASS
	High	QPSK	RB1#0	12.17	PASS
		16QAM	RB1#0	12.18	PASS
20 MHz	Low	QPSK	RB1#0	12.19	PASS
		16QAM	RB1#0	12.20	PASS
	Middle	QPSK	RB1#0	12.21	PASS
		16QAM	RB1#0	12.22	PASS
	High	QPSK	RB1#0	12.23	PASS
		16QAM	RB1#0	12.24	PASS

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FDD LTE Band 66					
Test BW	CH	Modul.	RB Set (Size#Offset)	Refer to Plot <sup>Note 3</sup>	Verdict
1.4 MHz	Low	QPSK	RB1#0	13.1	PASS
		16QAM	RB1#0	13.2	PASS
	Middle	QPSK	RB1#0	13.3	PASS
		16QAM	RB1#0	13.4	PASS
	High	QPSK	RB1#0	13.5	PASS
		16QAM	RB1#0	13.6	PASS
3 MHz	Low	QPSK	RB1#0	13.7	PASS
		16QAM	RB1#0	13.8	PASS
	Middle	QPSK	RB1#0	13.9	PASS
		16QAM	RB1#0	13.10	PASS
	High	QPSK	RB1#0	13.11	PASS
		16QAM	RB1#0	13.12	PASS
5 MHz	Low	QPSK	RB1#0	13.13	PASS
		16QAM	RB1#0	13.14	PASS
	Middle	QPSK	RB1#0	13.15	PASS
		16QAM	RB1#0	13.16	PASS
	High	QPSK	RB1#0	13.17	PASS
		16QAM	RB1#0	13.18	PASS
10 MHz	Low	QPSK	RB1#0	13.19	PASS
		16QAM	RB1#0	13.20	PASS
	Middle	QPSK	RB1#0	13.21	PASS
		16QAM	RB1#0	13.22	PASS
	High	QPSK	RB1#0	13.23	PASS
		16QAM	RB1#0	13.24	PASS
15 MHz	Low	QPSK	RB1#0	13.25	PASS
		16QAM	RB1#0	13.26	PASS
	Middle	QPSK	RB1#0	13.27	PASS
		16QAM	RB1#0	13.28	PASS
	High	QPSK	RB1#0	13.29	PASS
		16QAM	RB1#0	13.30	PASS
20 MHz	Low	QPSK	RB1#0	13.31	PASS
		16QAM	RB1#0	13.32	PASS
	Middle	QPSK	RB1#0	13.33	PASS
		16QAM	RB1#0	13.34	PASS
	High	QPSK	RB1#0	13.35	PASS
		16QAM	RB1#0	13.36	PASS

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FDD LTE Band 30					
Test BW	CH	Modul.	RB Set (Size#Offset)	Refer to Plot <sup>Note 3</sup>	Verdict
5 MHz	Low	QPSK	RB1#0	14.1	PASS
		16QAM	RB1#0	14.2	PASS
	Middle	QPSK	RB1#0	14.3	PASS
		16QAM	RB1#0	14.4	PASS
	High	QPSK	RB1#0	14.5	PASS
		16QAM	RB1#0	14.6	PASS
10 MHz	Low	QPSK	--	--	--
		16QAM	--	--	--
	Middle	QPSK	RB1#0	14.7	PASS
		16QAM	RB1#0	14.8	PASS
	High	QPSK	--	--	--
		16QAM	--	--	--

## 5.1.6 Band Edge

### Note(s):

1. Test plots please refer to the document "Annex No: EXHIBIT D Of SHE20090001-02AE".

### Band Edge Measurement Results for WCDMA

Test Band	Channel	Refer to Plot <sup>Note 1</sup>	Verdict
WCDMA Band II	Low	1.1	PASS
	High	1.2	PASS
WCDMA Band IV	Low	2.1	PASS
	High	2.2	PASS
WCDMA Band V	Low	3.1	PASS
	High	3.2	PASS

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## Band Edge Measurement Results for LTE

FDD LTE Band 2					
Test BW	CH	Modul.	RB Set (Size#Offset)	Refer to Plot <sup>Note 1</sup>	Verdict
1.4 MHz	Low	QPSK	RB1#0	4.1	PASS
			RB6#0	4.2	PASS
		16QAM	RB1#0	4.3	PASS
			RB6#0	4.4	PASS
	High	QPSK	RB1#0	4.5	PASS
			RB6#0	4.6	PASS
		16QAM	RB1#0	4.7	PASS
			RB6#0	4.8	PASS
3 MHz	Low	QPSK	RB1#0	4.9	PASS
			RB15#0	4.10	PASS
		16QAM	RB1#0	4.11	PASS
			RB15#0	4.12	PASS
	High	QPSK	RB1#0	4.13	PASS
			RB15#0	4.14	PASS
		16QAM	RB1#0	4.15	PASS
			RB15#0	4.16	PASS
5 MHz	Low	QPSK	RB1#0	4.17	PASS
			RB25#0	4.18	PASS
		16QAM	RB1#0	4.19	PASS
			RB25#0	4.20	PASS
	High	QPSK	RB1#0	4.21	PASS
			RB25#0	4.22	PASS
		16QAM	RB1#0	4.23	PASS
			RB25#0	4.24	PASS
10 MHz	Low	QPSK	RB1#0	4.25	PASS
			RB50#0	4.26	PASS
		16QAM	RB1#0	4.27	PASS
			RB50#0	4.28	PASS
	High	QPSK	RB1#0	4.29	PASS
			RB50#0	4.30	PASS
		16QAM	RB1#0	4.31	PASS
			RB50#0	4.32	PASS
15 MHz	Low	QPSK	RB1#0	4.33	PASS
			RB75#0	4.34	PASS
		16QAM	RB1#0	4.35	PASS
			RB75#0	4.36	PASS

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	High	QPSK	RB1#0	4.37	PASS
			RB75#0	4.38	PASS
		16QAM	RB1#0	4.39	PASS
			RB75#0	4.40	PASS
20 MHz	Low	QPSK	RB1#0	4.41	PASS
			RB100#0	4.42	PASS
		16QAM	RB1#0	4.43	PASS
			RB100#0	4.44	PASS
	High	QPSK	RB1#0	4.45	PASS
			RB100#0	4.46	PASS
		16QAM	RB1#0	4.47	PASS
			RB100#0	4.48	PASS

FDD LTE Band 4					
Test BW	CH	Modul.	RB Set (Size#Offset)	Refer to Plot <sup>Note 1</sup>	Verdict
1.4 MHz	Low	QPSK	RB1#0	5.1	PASS
			RB6#0	5.2	PASS
		16QAM	RB1#0	5.3	PASS
			RB6#0	5.4	PASS
	High	QPSK	RB1#0	5.5	PASS
			RB6#0	5.6	PASS
		16QAM	RB1#0	5.7	PASS
			RB6#0	5.8	PASS
3 MHz	Low	QPSK	RB1#0	5.9	PASS
			RB15#0	5.10	PASS
		16QAM	RB1#0	5.11	PASS
			RB15#0	5.12	PASS
	High	QPSK	RB1#0	5.13	PASS
			RB15#0	5.14	PASS
		16QAM	RB1#0	5.15	PASS
			RB15#0	5.16	PASS
5 MHz	Low	QPSK	RB1#0	5.17	PASS
			RB25#0	5.18	PASS
		16QAM	RB1#0	5.19	PASS
			RB25#0	5.20	PASS
	High	QPSK	RB1#0	5.21	PASS
			RB25#0	5.22	PASS
		16QAM	RB1#0	5.23	PASS
			RB25#0	5.24	PASS

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10 MHz	Low	QPSK	RB1#0	5.25	PASS
			RB50#0	5.26	PASS
		16QAM	RB1#0	5.27	PASS
			RB50#0	5.28	PASS
	High	QPSK	RB1#0	5.29	PASS
			RB50#0	5.30	PASS
		16QAM	RB1#0	5.31	PASS
			RB50#0	5.32	PASS
15 MHz	Low	QPSK	RB1#0	5.33	PASS
			RB75#0	5.34	PASS
		16QAM	RB1#0	5.35	PASS
			RB75#0	5.36	PASS
	High	QPSK	RB1#0	5.37	PASS
			RB75#0	5.38	PASS
		16QAM	RB1#0	5.39	PASS
			RB75#0	5.40	PASS
20 MHz	Low	QPSK	RB1#0	5.41	PASS
			RB100#0	5.42	PASS
		16QAM	RB1#0	5.43	PASS
			RB100#0	5.44	PASS
	High	QPSK	RB1#0	5.45	PASS
			RB100#0	5.46	PASS
		16QAM	RB1#0	5.47	PASS
			RB100#0	5.48	PASS

FDD LTE Band 5					
Test BW	CH	Modul.	RB Set (Size#Offset)	Refer to Plot <sup>Note 1</sup>	Verdict
1.4 MHz	Low	QPSK	RB1#0	6.1	PASS
			RB6#0	6.2	PASS
		16QAM	RB1#0	6.3	PASS
			RB6#0	6.3	PASS
	High	QPSK	RB1#0	6.5	PASS
			RB6#0	6.6	PASS
		16QAM	RB1#0	6.7	PASS
			RB6#0	6.8	PASS
3 MHz	Low	QPSK	RB1#0	6.9	PASS
			RB15#0	6.10	PASS
		16QAM	RB1#0	6.11	PASS
			RB15#0	6.12	PASS



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	High	QPSK	RB1#0	6.13	PASS
			RB15#0	6.14	PASS
		16QAM	RB1#0	6.15	PASS
			RB15#0	6.16	PASS
5 MHz	Low	QPSK	RB1#0	6.17	PASS
			RB25#0	6.18	PASS
		16QAM	RB1#0	6.19	PASS
			RB25#0	6.20	PASS
	High	QPSK	RB1#0	6.21	PASS
			RB25#0	6.22	PASS
		16QAM	RB1#0	6.23	PASS
			RB25#0	6.24	PASS
10 MHz	Low	QPSK	RB1#0	6.25	PASS
			RB50#0	6.26	PASS
		16QAM	RB1#0	6.27	PASS
			RB50#0	6.28	PASS
	High	QPSK	RB1#0	6.29	PASS
			RB50#0	6.30	PASS
		16QAM	RB1#0	6.31	PASS
			RB50#0	6.32	PASS

FDD LTE Band 7					
Test BW	CH	Modul.	RB Set (Size#Offset)	Refer to Plot <sup>Note 1</sup>	Verdict
5 MHz	Low	QPSK	RB1#0	7.1	PASS
			RB25#0	7.2	PASS
		16QAM	RB1#0	7.3	PASS
			RB25#0	7.4	PASS
	High	QPSK	RB1#0	7.5	PASS
			RB25#0	7.6	PASS
		16QAM	RB1#0	7.7	PASS
			RB25#0	7.8	PASS
10 MHz	Low	QPSK	RB1#0	7.9	PASS
			RB50#0	7.10	PASS
		16QAM	RB1#0	7.11	PASS
			RB50#0	7.12	PASS
	High	QPSK	RB1#0	7.13	PASS
			RB50#0	7.14	PASS
		16QAM	RB1#0	7.15	PASS
			RB50#0	7.16	PASS

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15 MHz	Low	QPSK	RB1#0	7.17	PASS
			RB75#0	7.18	PASS
		16QAM	RB1#0	7.19	PASS
			RB75#0	7.20	PASS
	High	QPSK	RB1#0	7.21	PASS
			RB75#0	7.22	PASS
		16QAM	RB1#0	7.23	PASS
			RB75#0	7.24	PASS
20 MHz	Low	QPSK	RB1#0	7.25	PASS
			RB100#0	7.26	PASS
		16QAM	RB1#0	7.27	PASS
			RB100#0	7.28	PASS
	High	QPSK	RB1#0	7.29	PASS
			RB100#0	7.30	PASS
		16QAM	RB1#0	7.31	PASS
			RB100#0	7.32	PASS

## FDD LTE Band 12

Test BW	CH	Modul.	RB Set (Size#Offset)	Refer to Plot <sup>Note 1</sup>	Verdict
1.4 MHz	Low	QPSK	RB1#0	8.1	PASS
			RB6#0	8.2	PASS
		16QAM	RB1#0	8.3	PASS
			RB6#0	8.4	PASS
	High	QPSK	RB1#0	8.5	PASS
			RB6#0	8.6	PASS
		16QAM	RB1#0	8.7	PASS
			RB6#0	8.8	PASS
3 MHz	Low	QPSK	RB1#0	8.9	PASS
			RB15#0	8.10	PASS
		16QAM	RB1#0	8.11	PASS
			RB15#0	8.12	PASS
	High	QPSK	RB1#0	8.13	PASS
			RB15#0	8.14	PASS
		16QAM	RB1#0	8.15	PASS
			RB15#0	8.16	PASS
5 MHz	Low	QPSK	RB1#0	8.17	PASS
			RB25#0	8.18	PASS
		16QAM	RB1#0	8.19	PASS
			RB25#0	8.20	PASS

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	High	QPSK	RB1#0	8.21	PASS
			RB25#0	8.22	PASS
		16QAM	RB1#0	8.23	PASS
			RB25#0	8.24	PASS
10 MHz	Low	QPSK	RB1#0	8.25	PASS
			RB50#0	8.26	PASS
		16QAM	RB1#0	8.27	PASS
			RB50#0	8.28	PASS
	High	QPSK	RB1#0	8.29	PASS
			RB50#0	8.30	PASS
		16QAM	RB1#0	8.31	PASS
			RB50#0	8.32	PASS

## FDD LTE Band 13

Test BW	CH	Modul.	RB Set (Size#Offset)	Refer to Plot <sup>Note 1</sup>	Verdict
5 MHz	Low	QPSK	RB1#0	9.1	PASS
			RB25#0	9.2	PASS
		16QAM	RB1#0	9.3	PASS
			RB25#0	9.4	PASS
	High	QPSK	RB1#0	9.5	PASS
			RB25#0	9.6	PASS
		16QAM	RB1#0	9.7	PASS
			RB25#0	9.8	PASS
10 MHz	Low	QPSK	RB1#0	9.9	PASS
			RB50#0	9.10	PASS
		16QAM	RB1#0	9.11	PASS
			RB50#0	9.12	PASS
	High	QPSK	RB1#0	9.13	PASS
			RB50#0	9.14	PASS
		16QAM	RB1#0	9.15	PASS
			RB50#0	9.16	PASS

## FDD LTE Band 17

Test BW	CH	Modul.	RB Set (Size#Offset)	Refer to Plot <sup>Note 1</sup>	Verdict
5 MHz	Low	QPSK	RB1#0	10.1	PASS
			RB25#0	10.2	PASS
		16QAM	RB1#0	10.3	PASS

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10 MHz	High	QPSK	RB25#0	10.4	PASS
			RB1#0	10.5	PASS
		16QAM	RB25#0	10.6	PASS
			RB1#0	10.7	PASS
	Low	QPSK	RB25#0	10.8	PASS
			RB1#0	10.9	PASS
		16QAM	RB50#0	10.1	PASS
			RB1#0	10.11	PASS
High	QPSK	RB50#0	10.12	PASS	
		RB1#0	10.13	PASS	
	16QAM	RB50#0	10.14	PASS	
		RB1#0	10.15	PASS	
			RB50#0	10.16	PASS

FDD LTE Band 25					
Test BW	CH	Modul.	RB Set (Size#Offset)	Refer to Plot <sup>Note 1</sup>	Verdict
1.4 MHz	Low	QPSK	RB1#0	11.1	PASS
			RB6#0	11.2	PASS
		16QAM	RB1#0	11.3	PASS
			RB6#0	11.3	PASS
	High	QPSK	RB1#0	11.5	PASS
			RB6#0	11.6	PASS
		16QAM	RB1#0	11.7	PASS
			RB6#0	11.8	PASS
3 MHz	Low	QPSK	RB1#0	11.9	PASS
			RB15#0	11.10	PASS
		16QAM	RB1#0	11.11	PASS
			RB15#0	11.12	PASS
	High	QPSK	RB1#0	11.13	PASS
			RB15#0	11.14	PASS
		16QAM	RB1#0	11.15	PASS
			RB15#0	11.16	PASS
5 MHz	Low	QPSK	RB1#0	11.17	PASS
			RB25#0	11.18	PASS
		16QAM	RB1#0	11.19	PASS
			RB25#0	11.20	PASS
	High	QPSK	RB1#0	11.21	PASS
			RB25#0	11.22	PASS
		16QAM	RB1#0	11.23	PASS

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			RB25#0	11.24	PASS
10 MHz	Low	QPSK	RB1#0	11.25	PASS
			RB50#0	11.26	PASS
		16QAM	RB1#0	11.27	PASS
			RB50#0	11.28	PASS
	High	QPSK	RB1#0	11.29	PASS
			RB50#0	11.30	PASS
		16QAM	RB1#0	11.31	PASS
			RB50#0	11.32	PASS
15 MHz	Low	QPSK	RB1#0	11.33	PASS
			RB75#0	11.34	PASS
		16QAM	RB1#0	11.35	PASS
			RB75#0	11.36	PASS
	High	QPSK	RB1#0	11.37	PASS
			RB75#0	11.38	PASS
		16QAM	RB1#0	11.39	PASS
			RB75#0	11.40	PASS
20 MHz	Low	QPSK	RB1#0	11.41	PASS
			RB100#0	11.42	PASS
		16QAM	RB1#0	11.43	PASS
			RB100#0	11.44	PASS
	High	QPSK	RB1#0	11.45	PASS
			RB100#0	11.46	PASS
		16QAM	RB1#0	11.47	PASS
			RB100#0	11.48	PASS

TDD LTE Band 41					
Test BW	CH	Modul.	RB Set (Size#Offset)	Refer to Plot <sup>Note 1</sup>	Verdict
5 MHz	Low	QPSK	RB1#0	12.1	PASS
			RB25#0	12.2	PASS
		16QAM	RB1#0	12.3	PASS
			RB25#0	12.4	PASS
	High	QPSK	RB1#0	12.5	PASS
			RB25#0	12.6	PASS
		16QAM	RB1#0	12.7	PASS
			RB25#0	12.8	PASS
10 MHz	Low	QPSK	RB1#0	12.9	PASS
			RB50#0	12.10	PASS

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	High	16QAM	RB1#0	12.11	PASS	
			RB50#0	12.12	PASS	
		QPSK	RB1#0	12.13	PASS	
			RB50#0	12.14	PASS	
		16QAM	RB1#0	12.15	PASS	
			RB50#0	12.16	PASS	
15 MHz	Low	QPSK	RB1#0	12.17	PASS	
			RB75#0	12.18	PASS	
		16QAM	RB1#0	12.19	PASS	
			RB75#0	12.20	PASS	
	High	QPSK	RB1#0	12.21	PASS	
			RB75#0	12.22	PASS	
		16QAM	RB1#0	12.23	PASS	
			RB75#0	12.24	PASS	
	20 MHz	Low	QPSK	RB1#0	12.25	PASS
				RB100#0	12.26	PASS
			16QAM	RB1#0	12.27	PASS
				RB100#0	12.28	PASS
High		QPSK	RB1#0	12.29	PASS	
			RB100#0	12.30	PASS	
		16QAM	RB1#0	12.31	PASS	
			RB100#0	12.32	PASS	

FDD LTE Band 66					
Test BW	CH	Modul.	RB Set (Size#Offset)	Refer to Plot <sup>Note 1</sup>	Verdict
1.4 MHz	Low	QPSK	RB1#0	13.1	PASS
			RB6#0	13.2	PASS
		16QAM	RB1#0	13.3	PASS
			RB6#0	13.3	PASS
	High	QPSK	RB1#0	13.5	PASS
			RB6#0	13.6	PASS
		16QAM	RB1#0	13.7	PASS
			RB6#0	13.8	PASS
3 MHz	Low	QPSK	RB1#0	13.9	PASS
			RB15#0	13.10	PASS
		16QAM	RB1#0	13.11	PASS
			RB15#0	13.12	PASS
	High	QPSK	RB1#0	13.13	PASS

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			RB15#0	13.14	PASS
		16QAM	RB1#0	13.15	PASS
			RB15#0	13.16	PASS
5 MHz	Low	QPSK	RB1#0	13.17	PASS
			RB25#0	13.18	PASS
		16QAM	RB1#0	13.19	PASS
			RB25#0	13.20	PASS
	High	QPSK	RB1#0	13.21	PASS
			RB25#0	13.22	PASS
		16QAM	RB1#0	13.23	PASS
			RB25#0	13.24	PASS
10 MHz	Low	QPSK	RB1#0	13.25	PASS
			RB50#0	13.26	PASS
		16QAM	RB1#0	13.27	PASS
			RB50#0	13.28	PASS
	High	QPSK	RB1#0	13.29	PASS
			RB50#0	13.30	PASS
		16QAM	RB1#0	13.31	PASS
			RB50#0	13.32	PASS
15 MHz	Low	QPSK	RB1#0	13.33	PASS
			RB75#0	13.34	PASS
		16QAM	RB1#0	13.35	PASS
			RB75#0	13.36	PASS
	High	QPSK	RB1#0	13.37	PASS
			RB75#0	13.38	PASS
		16QAM	RB1#0	13.39	PASS
			RB75#0	13.40	PASS
20 MHz	Low	QPSK	RB1#0	13.41	PASS
			RB100#0	13.42	PASS
		16QAM	RB1#0	13.43	PASS
			RB100#0	13.44	PASS
	High	QPSK	RB1#0	13.45	PASS
			RB100#0	13.46	PASS
		16QAM	RB1#0	13.47	PASS
			RB100#0	13.48	PASS

## FDD LTE Band 30

Test BW	CH	Modul.	RB Set (Size#Offset)	Refer to Plot <sup>Note 1</sup>	Verdict
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<b>5 MHz</b>	<b>Low</b>	<b>QPSK</b>	RB1#0	14.1	PASS
			RB25#0	14.2	PASS
		<b>16QAM</b>	RB1#0	14.3	PASS
			RB25#0	14.4	PASS
	<b>High</b>	<b>QPSK</b>	RB1#0	14.5	PASS
			RB25#0	14.6	PASS
		<b>16QAM</b>	RB1#0	14.7	PASS
			RB25#0	14.8	PASS
<b>10 MHz</b>	<b>Low</b>	<b>QPSK</b>	RB1#0	14.9	PASS
			RB50#0	14.10	PASS
		<b>16QAM</b>	RB1#0	14.11	PASS
			RB50#0	14.12	PASS
	<b>High</b>	<b>QPSK</b>	RB1#0	14.13	PASS
			RB50#0	14.14	PASS
		<b>16QAM</b>	RB1#0	14.15	PASS
			RB50#0	14.16	PASS



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## 5.1.7 Field Strength of Spurious Radiation

### Note(s):

1. GSM and EGPRS modes have been verified, only the worst data with different transmit bandwidth for LTE are shown here.
2. The frequencies of verdict which are marked by "N/A" should be ignored because they are MS carrier frequency.
3. When measurement frequency is above 18GHz, there is only noise floor of test system existing. So that there is no test data above 18GHz in the report.
4. Test plots please refer to the document "Annex No: EXHIBIT E Of SHE20090001-02AE".

### Field Strength of Spurious Radiation Measurement Results for GSM/WCDMA/CDMA

Test Band	Channel	Verdict
WCDMA Band II	Low	PASS
	Middle	PASS
	High	PASS
WCDMA Band IV	Low	PASS
	Middle	PASS
	High	PASS
WCDMA Band V	Low	PASS
	Middle	PASS
	High	PASS

### Band Edge Measurement Results for LTE

FDD LTE Band 2				
Test BW	Channel	Modul.	RB Set (Size#Offset)	Verdict
1.4 MHz	Middle	QPSK	RB1#0	Pass
3 MHz	Middle	QPSK	RB1#0	Pass
5 MHz	Middle	QPSK	RB1#0	Pass
10 MHz	Middle	QPSK	RB1#0	Pass
15 MHz	Middle	QPSK	RB1#0	Pass
20 MHz	Middle	QPSK	RB1#0	Pass

FDD LTE Band 4				
Test BW	Channel	Modul.	RB Set (Size#Offset)	Verdict
1.4 MHz	Middle	QPSK	RB1#0	Pass
3 MHz	Middle	QPSK	RB1#0	Pass
5 MHz	Middle	QPSK	RB1#0	Pass

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10 MHz	Middle	QPSK	RB1#0	Pass
15 MHz	Middle	QPSK	RB1#0	Pass
20 MHz	Middle	QPSK	RB1#0	Pass

FDD LTE Band 5				
Test BW	Channel	Modul.	RB Set (Size#Offset)	Verdict
1.4 MHz	Middle	QPSK	RB1#0	Pass
3 MHz	Middle	QPSK	RB1#0	Pass
5 MHz	Middle	QPSK	RB1#0	Pass
10 MHz	Middle	QPSK	RB1#0	Pass

FDD LTE Band 7				
Test BW	Channel	Modul.	RB Set (Size#Offset)	Verdict
1.4 MHz	Middle	QPSK	RB1#0	Pass
3 MHz	Middle	QPSK	RB1#0	Pass
5 MHz	Middle	QPSK	RB1#0	Pass
10 MHz	Middle	QPSK	RB1#0	Pass
15 MHz	Middle	QPSK	RB1#0	Pass
20 MHz	Middle	QPSK	RB1#0	Pass

FDD LTE Band 12				
Test BW	Channel	Modul.	RB Set (Size#Offset)	Verdict
1.4 MHz	Middle	QPSK	RB1#0	Pass
3 MHz	Middle	QPSK	RB1#0	Pass
5 MHz	Middle	QPSK	RB1#0	Pass
10 MHz	Middle	QPSK	RB1#0	Pass

FDD LTE Band 13				
Test BW	Channel	Modul.	RB Set (Size#Offset)	Verdict
1.4 MHz	Middle	QPSK	RB1#0	Pass
3 MHz	Middle	QPSK	RB1#0	Pass
5 MHz	Middle	QPSK	RB1#0	Pass
10 MHz	Middle	QPSK	RB1#0	Pass

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FDD LTE Band 17				
Test BW	Channel	Modul.	RB Set (Size#Offset)	Verdict
1.4 MHz	Middle	QPSK	RB1#0	Pass
3 MHz	Middle	QPSK	RB1#0	Pass
5 MHz	Middle	QPSK	RB1#0	Pass
10 MHz	Middle	QPSK	RB1#0	Pass

FDD LTE Band 25				
Test BW	Channel	Modul.	RB Set (Size#Offset)	Verdict
1.4 MHz	Middle	QPSK	RB1#0	Pass
3 MHz	Middle	QPSK	RB1#0	Pass
5 MHz	Middle	QPSK	RB1#0	Pass
10 MHz	Middle	QPSK	RB1#0	Pass
15 MHz	Middle	QPSK	RB1#0	Pass
20 MHz	Middle	QPSK	RB1#0	Pass

FDD LTE Band 30				
Test BW	Channel	Modul.	RB Set (Size#Offset)	Verdict
1.4 MHz	Middle	QPSK	RB1#0	Pass
3 MHz	Middle	QPSK	RB1#0	Pass
5 MHz	Middle	QPSK	RB1#0	Pass
10 MHz	Middle	QPSK	RB1#0	Pass

FDD LTE Band 41				
Test BW	Channel	Modul.	RB Set (Size#Offset)	Verdict
1.4 MHz	Middle	QPSK	RB1#0	Pass
3 MHz	Middle	QPSK	RB1#0	Pass
5 MHz	Middle	QPSK	RB1#0	Pass
10 MHz	Middle	QPSK	RB1#0	Pass
15 MHz	Middle	QPSK	RB1#0	Pass
20 MHz	Middle	QPSK	RB1#0	Pass

FDD LTE Band 66				
Test BW	Channel	Modul.	RB Set (Size#Offset)	Verdict

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<b>1.4 MHz</b>	<b>Middle</b>	<b>QPSK</b>	<b>RB1#0</b>	<b>Pass</b>
<b>3 MHz</b>	<b>Middle</b>	<b>QPSK</b>	<b>RB1#0</b>	<b>Pass</b>
<b>5 MHz</b>	<b>Middle</b>	<b>QPSK</b>	<b>RB1#0</b>	<b>Pass</b>
<b>10 MHz</b>	<b>Middle</b>	<b>QPSK</b>	<b>RB1#0</b>	<b>Pass</b>
<b>15 MHz</b>	<b>Middle</b>	<b>QPSK</b>	<b>RB1#0</b>	<b>Pass</b>
<b>20 MHz</b>	<b>Middle</b>	<b>QPSK</b>	<b>RB1#0</b>	<b>Pass</b>

\*\*\*End of the report\*\*\*