

TEST REPORT

Report No.: SHE20100017-02AE

Date: 2021-04-01

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Applicant : Trimble Europe BV.
Address of Applicant : Industrieweg 187a, 5683 CC Best, Netherlands

Product Name : Rugged Smart Phone
Model No. : TDC600_2, MobileMapper60_2
: E20100017-01#01
Sample No. : E20100017-01#13
: E20100017-01#15
FCC ID : NZI-11705920
ISED Number : 9288A-11705920

Standards : FCC CFR47 Part 2
RSS-Gen
(Others refer to chapter 1.4)

Date of Receipt : 2021-01-26
Date of Test : 2021-01-26 ~ 2021-03-30
Date of Issue : 2021-04-01

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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Reviewed by: Oliver Xiang
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(Authorized signatory: Guoyou Chi)

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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	Trimble Europe BV.
Address	Industrieweg 187a, 5683 CC Best, Netherlands
Contact Person	Joel Hamberg Magnusson
Telephone	+46764953125
Email	joel_hambergmagnusson@trimble.com
Manufacturer Company Name	Trimble Europe BV.
Address	Industrieweg 187a, 5683 CC Best, Netherlands
Factory Company Name	Shenzhen UniStrong Science & Technology Co., Ltd.
Address	B,4-4Factory, Zhengcheng Road, FuyongBaoan District, Shenzhen, China

1.3 Details of EUT

Product Name	Rugged Smart Phone
Brand Name	Trimble, Spectra Geospatial
Test Model No.	TDC600_2
Series Model No.	TDC600_2; MobileMapper60_2
Description of Model name differentiation	All model are same with electrical paramters and Internal circuit structure, but only different on model name, brand name and colors and software version.
FCC ID	NZI-11705920
ISED Number	9288A-11705920
Mode of Operation	GSM/GPRS/EDGE 850/1900; WCDMA/HSDPA/HSUPA Band II/V; LTE FDD Band 2/4/5/7/12/13/17/25; LTE TDD Band 41;
Modulation Type	GMSK for GSM/GPRS and 8PSK for EGPRS; QPSK for WCDMA; QPSK/16QAM for HSDPA/HSUPA/LTE;
Power Class	GSM/GPRS 850: 4 GSM/GPRS 1900: 1 EDGE 850/1900: E2 WCDMA/HSDPA/HSUPA Band II: 3

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	<p>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</p> <p>LTE TDD Band 41: 3 LTE FDD Band 66: 3 LTE band 12/13/25: 1</p>
Multislot Class	GPRS/EDGE: 12
Antenna Type	Internal Antenna
Antenna Gain	Peak gain2.13dBi
Extreme Temperature Range	-20°C~ +55°C
Hardware version	V1.0
Software version	TDC600_2.53.10.14 (model:TDC600_2) MM60_2.53.10.05 (model: MobileMapper60_2)
Test SW Version	BL410_R;BL410_E

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
RSS-Gen	General Requirements and Information for the Certification of Radio Apparatus
RSS-130	Equipment Operating in the Frequency Bands 617-652 MHz, 663-698 MHz, 698-756 MHz and 777-787 MHz
RSS-132	Cellular Telephone Systems Operating in the Bands 824-849 MHz and 869-894 MHz
RSS-133	2 GHz Personal Communications Services
RSS-139	Advanced Wireless Services (AWS) Equipment Operating in the Bands 1710-1780 MHz and 2110-2180 MHz
RSS-199	Broadband Radio Service (BRS) Equipment Operating in the Band 2500–2690 MHz

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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.

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	RSS-Gen 6.13 RSS-130 4.6 RSS-132 5.5	Spurious Emission at Antenna Terminals	Clause 5.1.5	PASS

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	27.53	RSS-133 6.5 RSS-139 6.6 RSS-199 4.5			
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
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 8.8	AC Power-Line Conducted Emissions	Clause 5.1.8	PASS
10	N/A	RSS-Gen 7 RSS-132 5.6 RSS-133 6.6	Receiver Spurious Emissions	Clause 5.1.9	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)	3.80 V
	LV (Low Voltage)	3.70 V
	HV (High Voltage)	4.35 V
Test Temperature	NT (Normal Temperature)	+25 °C
	LT (Low Temperature)	-20 °C
	HT (High Temperature)	+55 °C

2.3 Equipment List

Name of Equipment	Manufacturer	Model	Serial No.	Cal. Due Date
Spectrum Analyzer	Keysight	N9020A	MY59260184	2021-08-23
Spectrum Analyzer	Keysight	N9020B	MY59260184	2021-08-18
Spectrum Analyzer	Rohde & Schwarz	FSV40N	101450	2021-06-08
EMI Test Receiver	Rohde & Schwarz	ESPI3	100173	2021-06-08
EMI Test Receiver	Rohde & Schwarz	ESR 7	101911	2021-06-08
V-network	SCHWARZBECK	NSLK 8127	8127-902	2021-07-28
Wideband Radio Communication Tester	Rohde & Schwarz	CMW 500	100687	2021-08-18
Wideband Radio Communication Tester	Rohde & Schwarz	CMW 500	150835	2021-08-18
DC Power Supply	ACPOWER	ADC-0800025-15	D215010003	2022-03-19
Temperature Chamber	SHKTEST	SHK-B101	20190819001	2021-12-22
Broadband Antenna	SCHWARZBECK	VULB9163	9163-1037	2021-06-08
Horn Antenna-18G	SCHWARZBECK	BBHA9120D	9120D-1775	2021-07-28
Loop Antenna	SCHWARZBECK	FMZB 1513	N/A	2021-11-22
Horn Antenna-40G	YINGLIAN	LB-180400-KF	N/A	2021-07-26
EMC chamber 9*6*6 (L*W*H)	CHANGNING	966	N/A	2023-06-08
Shielded Enclosure 8*5*4 (L*W*H)	CHANGNING	854	N/A	2021-06-08
Test Software	BL	BL410_E	N/A	N/A
Test Software	BL	BL410_R	N/A	N/A

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2.4 Measurement Uncertainty

FCC Part Section	Test Description	Uncertainty
2.1046	Conducted RF Output Power	$\pm 0.68\text{dB}$
2.1046 24.232(d) 27.50(d)	Peak to Average Ratio	$\pm 0.015\%$
2.1049 22.917 24.238 27.53	Occupied Bandwidth	$\pm 30\text{kHz}$
2.1055 22.355 24.235 27.54 90.213	Frequency Stability	$\pm 12\text{Hz}$
2.1051 22.917 24.238 27.53 90.691	Spurious Emission at Antenna Terminals	$\pm 2.56\text{dB}$
2.1051 22.917 24.238 27.53 90.691	Band Edge	$\pm 2.56\text{dB}$

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3 Test Set-up and Operation Modes

3.1 Details of Test Mode

Test Item	Test Mode	Test Channel		
		LCH	MCH	HCH
Effective (Isotropic) Radiated Power	GSM 850	v	v	v
	GSM 1900	v	v	v
	GPRS 850	v	v	v
	GPRS 1900	v	v	v
	EDGE 850	v	v	v
	EDGE 1900	v	v	v
	WCDMA Band II	v	v	v
	WCDMA Band IV	v	v	v
	WCDMA Band V	v	v	v
	HSDPA Band II	v	v	v
	HSDPA Band IV	v	v	v
	HSDPA Band V	v	v	v
	HSUPA Band II	v	v	v
	HSUPA Band IV	v	v	v
HSUPA Band V	v	v	v	
Peak to Average Ratio	WCDMA Band II	v	v	v
	WCDMA Band IV	v	v	v
	WCDMA Band V	v	v	v
Occupied Occupied	GPRS 850	v	v	v
	GPRS 1900	v	v	v
	EDGE 850	v	v	v
	EDGE 1900	v	v	v
	WCDMA Band II	v	v	v
	WCDMA Band V	v	v	v
Frequency Stability	GPRS 850	v	v	v
	GPRS 1900	v	v	v
	EDGE 850	v	v	v
	EDGE 1900	v	v	v
	WCDMA Band II	v	v	v
	WCDMA Band V	v	v	v
Spurious Emission at Antenna	GPRS 850	v	v	v

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Terminals	GPRS 1900	v	v	v
	EDGE 850	v	v	v
	EDGE 1900	v	v	v
	WCDMA Band II	v	v	v
	WCDMA Band V	v	v	v
Band Edge	GPRS 850	v	v	v
	GPRS 1900	v	v	v
	EDGE 850	v	v	v
	EDGE 1900	v	v	v
	WCDMA Band II	v	v	v
	WCDMA Band V	v	v	v
Field Strength of Spurious Radiation	GPRS 850	v	v	v
	GPRS 1900	v	v	v
	EDGE 850	v	v	v
	EDGE 1900	v	v	v
	WCDMA Band II	v	v	v
	WCDMA Band V	v	v	v
AC Power-Line Conducted Emissions	GPRS 850	v	v	v
	GPRS 1900	v	v	v
	EDGE 850	v	v	v
	EDGE 1900	v	v	v
	WCDMA Band II	v	v	v
	WCDMA Band V	v	v	v
Receiver Spurious Emissions	GPRS 850	v	v	v
	GPRS 1900	v	v	v
	EDGE 850	v	v	v
	EDGE 1900	v	v	v
	WCDMA Band II	v	v	v
	WCDMA Band IV	v	v	v
	WCDMA Band V	v	v	v

Note(s):

The mark 'v' means that this configuration is chosen for testing.

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Test Item	LTE Band	Bandwidth (MHz)						Modulation Type		RB#			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	1	Half	Full	LCH	MCH	HCH
Effective (Isotropic) Radiated Power	2	v	v	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	v	v
	5	v	v	v	v	n	n	v	v	v	v	v	v	v	v
	7	n	n	v	v	v	v	v	v	v	v	v	v	v	v
	12	v	v	v	v	n	n	v	v	v	v	v	v	v	v
	13	n	n	v	v	n	n	v	v	v	v	v	v	v	v
	17	n	n	v	v	n	n	v	v	v	v	v	v	v	v
	25	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	41	n	n	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	--	--	--	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
	41	n	n	--	--	--	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
	41	n	n	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	--
	41	n	n	--	v	--	--	v	v	--	--	v	--	v	--
Spurious Emission	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

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at Antenna Terminals	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
	41	n	n	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
	41	n	n	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	--
	41	n	n	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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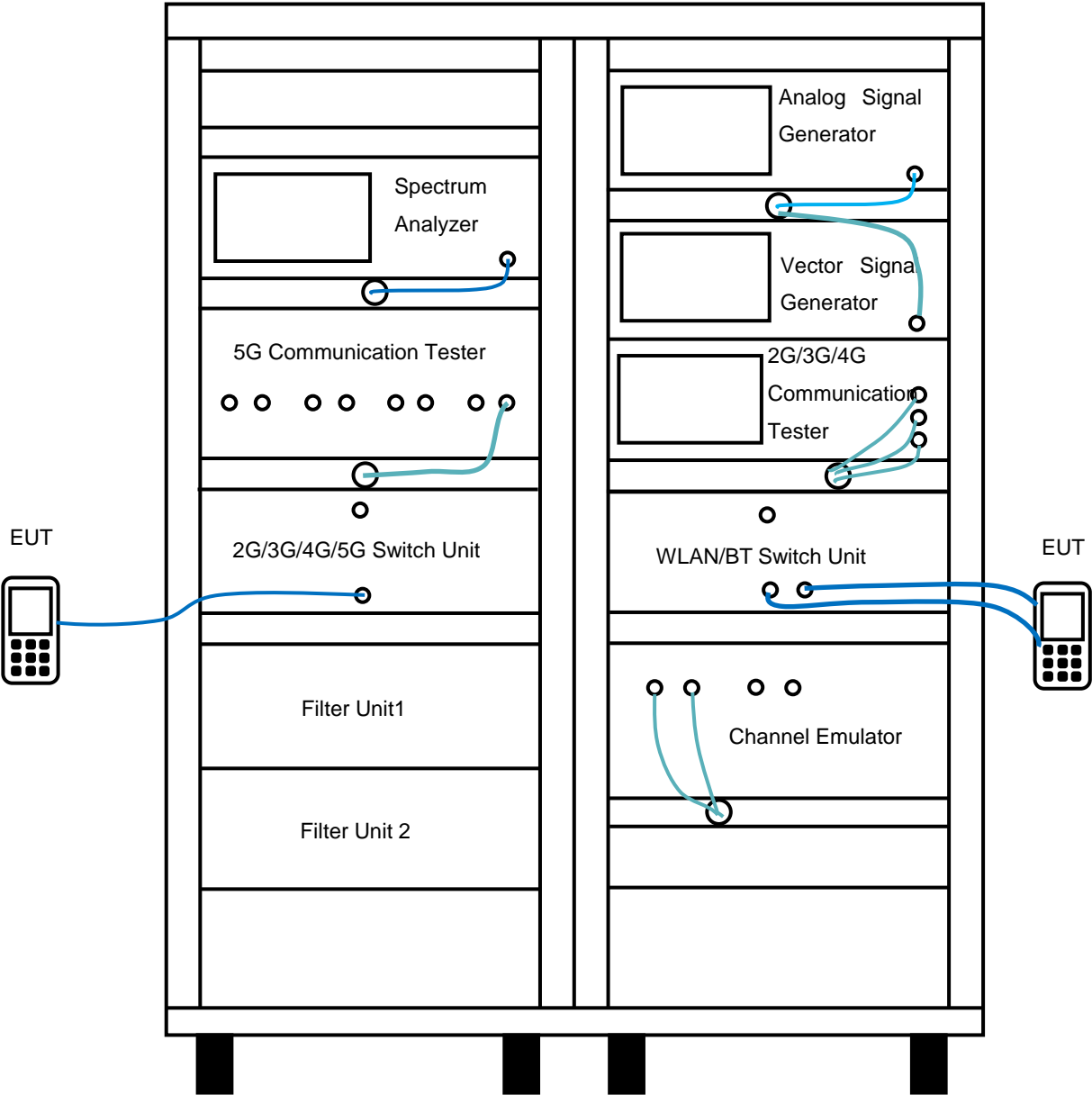
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3.2 Test Setup Diagram

Diagram of Measurement Equipment Configuration for Antenna Port Test



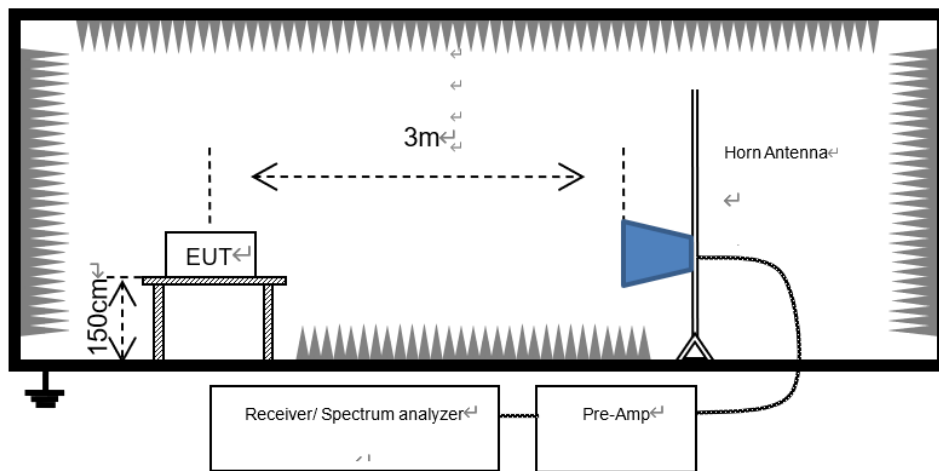
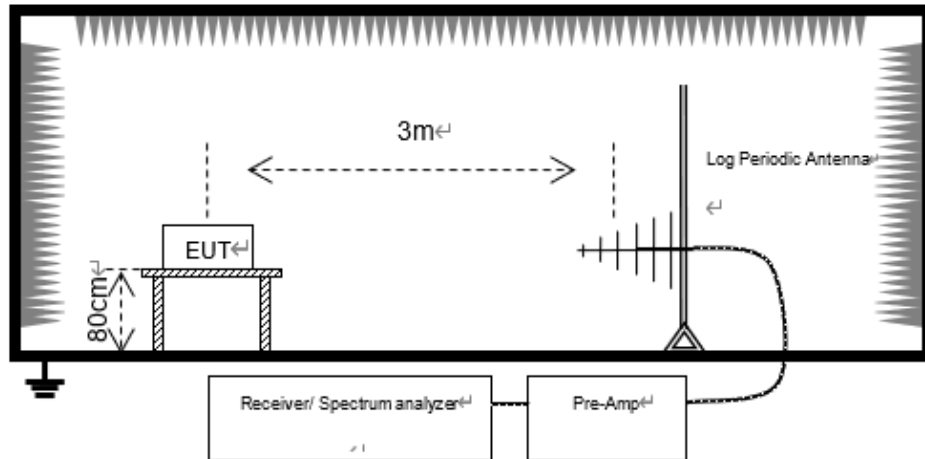
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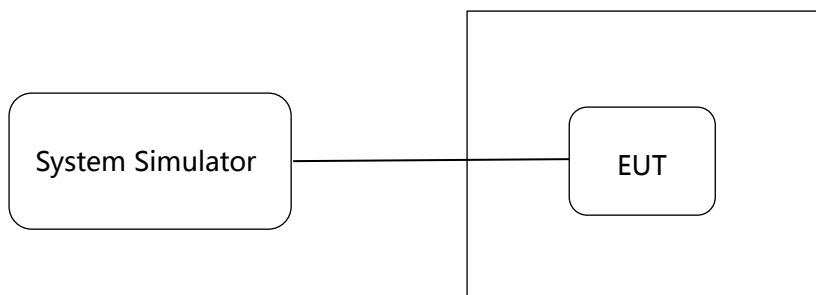
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Diagram of Measurement Configuration for Radiation Test



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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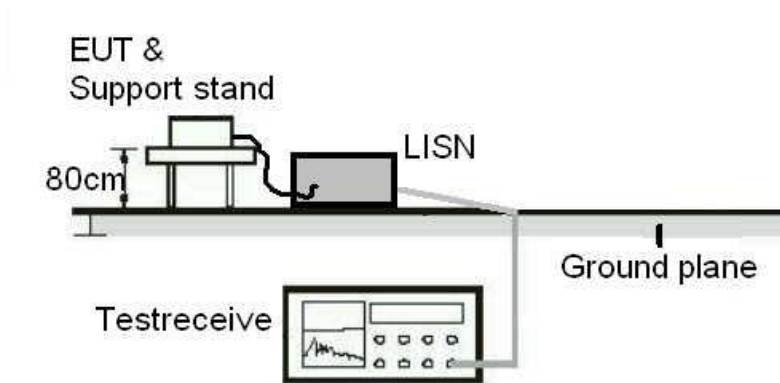
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Thermal Chamber

Diagram of Measurement Equipment Configuration for Conduction Measurement



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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 one 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 $43 + 10 \cdot \log(P)$ 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 $43 + 10 \cdot \log(P)$ 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:

$40 + 10 \log P$ 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.

4.7.2 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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4.8 AC Power-line Conducted Emissions

4.8.1 Limit

Limit

RSS-Gen § 8.8

For AC power-line conducted emissions, both quasi-peak and average detectors having the characteristics specified in CAN/CSA-CISPR 16-1-1:15 for the 150 kHz to 30 MHz frequency range shall be employed. Unless stated otherwise in the applicable RSS, for radio apparatus that are designed to be connected to the public utility AC power network, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the range 150 kHz to 30 MHz shall not exceed the limits in table 3, as measured using a 50 μ H / 50 Ω line impedance stabilization network. This requirement applies for the radio frequency voltage measured between each power line and the ground terminal of each AC power-line mains cable of the EUT.

For an EUT that connects to the AC power lines indirectly, through another device, the requirement for compliance with the limits in table 3 shall apply at the terminals of the AC power-line mains cable of a representative support device, while it provides power to the EUT. The lower limit applies at the boundary between the frequency ranges. The device used to power the EUT shall be representative of typical applications.

4.8.2 Test Procedures

1. The test employing the methods of measurement described in the publication referenced in Section 3(b) (ANSI C63.4).
2. The EUT is connected to the power mains through a LISN which provides 50 Ω /50 μ H of coupling impedance for the measuring instrument.
3. The test frequency range is from 150 kHz to 30 MHz.
4. The maximum conducted interference is searched using Peak (PK), Quasi-peak (QP) and Average (AV) detectors; the emission levels that are more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors.
5. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed.
6. Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 50/60 Hz and 240 VAC, 50/60 Hz) for which the device is capable of operation.
7. A device rated for 50/60 Hz operation need not be tested at both frequencies provided the radiated and line conducted emissions are the same at both frequencies.

4.8.3 Test Result

Please refer to 5.1.8

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4.9 Receiver Spurious Emissions

4.9.1 Limit

Limit

RSS-Gen § 7.3/4 & RSS-132 § 5.6 & RSS-133 § 6.6

For emissions at frequencies below 1 GHz, measurements shall be performed using a CISPR quasi-peak detector and the related measurement bandwidth. At frequencies above 1 GHz, measurements shall be performed using a linear average detector with a minimum resolution bandwidth of 1 MHz.

As an alternative to CISPR quasi-peak or average measurements, compliance with the emission limit can be demonstrated using measuring equipment employing a peak detector function properly adjusted for factors such as pulse desensitization, as required, with a measurement bandwidth equal to, or greater than, the applicable CISPR quasi-peak bandwidth or 1 MHz bandwidth, respectively.

Receiver Radiated Limits

Radiated emission measurements shall be performed with the receiver antenna connected to the receiver antenna ports. The search for spurious emissions shall be from the lowest frequency internally generated or used in the receiver (e.g. local oscillator, intermediate or carrier frequency), or 30 MHz, whichever is higher, to at least five times the highest tunable or local oscillator frequency, whichever is higher, without exceeding 40 GHz.

Spurious emissions from receivers shall not exceed the radiated emissions limits shown in Table 2 below.

Table 2 –Receiver radiated emissions limits

Frequency (MHz)	Field Strength ($\mu\text{V/m}$ at 3 metres)
30 - 88	100
88 - 216	150
216 - 960	200
Above 960	500

Receiver Conducted Limits

If the receiver has a detachable antenna of known impedance, an antenna-conducted spurious emissions measurement is permitted as an alternative to radiated measurement. However, the radiated method is preferred.

The antenna-conducted test shall be performed with the antenna disconnected and with the receiver antenna port connected to a measuring instrument having equal input impedance to that specified for the antenna. The RF cable connecting the receiver under test to the measuring instrument shall also have the same impedance

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to that specified for the receiver's antenna.

The spurious emissions from the receiver at any discrete frequency, measured at the antenna port by the antenna-conducted method, shall not exceed 2 nW in the frequency range 30-1000 MHz and 5 nW above 1 GHz.

4.9.2 Test Procedures

1. The test employing the methods of measurement described in the publication referenced in Section 3(b) (ANSI C63.4).
2. All Spurious Emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.
3. An initial pre-scan was performed in the chamber using the EMI Receiver in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph.
4. The EUT was measured by Bi-Log antenna with 2 orthogonal polarities.

4.9.3 Test Result

Please refer to 5.1.9

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5 Test Results

5.1.1 Transmitter Radiated Power (EIRP/ERP)

Conducted Power Measurement Results for GPRS/EDGE

Conducted Power (dBm)							
Band		GSM 850			GSM 1900		
Channel		128	190	251	512	661	810
GSM		33.74	33.92	34.06	30.85	30.79	30.57
GPRS	1 TX slot	29.16	29.12	29.25	26.44	26.71	26.33
	2 TX slot	29.11	29.07	29.20	26.38	26.67	26.28
	3 TX slot	29.07	29.02	29.17	26.35	26.63	26.24
	4 TX slot	29.04	29.00	29.13	26.33	26.60	26.22
EDGE	1 TX slot	23.79	22.24	22.12	21.51	22.04	20.72
	2 TX slot	22.40	22.31	22.15	21.53	21.32	20.79
	3 TX slot	22.31	22.17	22.02	21.29	21.14	20.75
	4 TX slot	22.20	22.28	22.14	21.26	21.18	20.82

Conducted Power Measurement Results for WCDMA/HSDPA/HSPUA

WCDMA Band II	Mode	Conducted Power (dBm)		
		Channel		
		Low	Mid	High
RMC	12.2 kbps	21.82	21.78	22.05
HSDPA	Sub - Test 1	20.86	20.80	20.95
	Sub - Test 2	20.93	20.91	21.08
	Sub - Test 3	20.45	20.44	20.60
	Sub - Test 4	20.45	20.45	20.61
HSUPA	Sub - Test 1	20.81	20.74	21.00
	Sub - Test 2	18.88	18.85	19.00
	Sub - Test 3	19.83	19.80	20.05
	Sub - Test 4	18.87	18.93	19.10
	Sub - Test 5	20.95	20.66	21.09

WCDMA Band V	Mode	Conducted Power (dBm)		
		Channel		
		Low	Mid	High
RMC	12.2 kbps	22.52	22.71	22.65
HSDPA	Sub - Test 1	21.56	21.66	21.63

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	Sub - Test 2	21.68	21.82	21.67
	Sub - Test 3	21.18	21.23	21.19
	Sub - Test 4	21.19	21.35	21.21
HSUPA	Sub - Test 1	21.59	21.67	21.58
	Sub - Test 2	19.68	19.78	19.62
	Sub - Test 3	20.63	20.72	20.63
	Sub - Test 4	19.66	19.76	19.70
	Sub - Test 5	21.43	21.61	21.43

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)	22.77	22.71	22.71	22.25	21.78	21.60
	1 (RB_Pos:49)	23.27	23.45	22.78	22.34	21.78	21.85
	1 (RB_Pos:99)	23.00	23.36	23.19	21.59	22.26	21.71
	50 (RB_Pos:0)	21.88	22.14	22.05	21.01	20.83	20.95
	50 (RB_Pos:24)	22.00	22.01	22.02	20.93	21.01	20.93
	50 (RB_Pos:49)	22.08	21.97	22.06	21.09	20.98	20.98
	100 (RB_Pos:0)	22.03	21.91	22.02	20.99	20.81	21.02
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	18675	18900	19125	18675	18900	19125
15MHz	1 (RB_Pos:0)	22.88	22.72	22.84	21.92	22.00	22.68
	1 (RB_Pos:37)	22.97	22.92	22.94	22.61	21.79	22.64
	1 (RB_Pos:74)	23.00	23.10	22.98	21.94	21.60	22.97
	36 (RB_Pos:0)	21.93	21.96	22.15	20.83	20.98	20.95
	36 (RB_Pos:18)	21.89	22.03	22.14	20.89	21.16	21.07
	36 (RB_Pos:37)	21.99	21.95	22.13	20.89	20.97	21.15
	75 (RB_Pos:0)	21.91	21.99	22.11	20.83	20.87	21.17
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	18650	18900	19150	18650	18900	19150
10MHz	1 (RB_Pos:0)	22.95	23.07	23.04	21.79	21.76	21.90
	1 (RB_Pos:24)	22.88	23.11	23.50	22.34	21.60	22.11
	1 (RB_Pos:49)	23.05	23.13	23.43	21.86	21.71	22.00
	25 (RB_Pos:0)	22.02	21.99	22.10	21.05	20.97	21.06
	25 (RB_Pos:12)	21.88	22.01	22.18	20.9	21.01	21.23

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Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
		Channel	18625	18900	19175	18625	18900
	25 (RB_Pos:24)	21.93	21.93	22.12	20.9	21.20	21.20
	50 (RB_Pos:0)	21.94	22.74	22.59	20.86	21.70	21.57
5MHz	1 (RB_Pos:0)	22.89	22.98	23.11	21.61	21.98	21.95
	1 (RB_Pos:12)	22.83	23.13	23.09	21.65	21.92	21.81
	1 (RB_Pos:24)	22.72	22.77	22.98	21.51	21.35	21.82
	12 (RB_Pos:0)	22.04	21.89	22.06	20.94	20.75	20.83
	12 (RB_Pos:6)	22.05	21.96	22.06	21.15	20.74	20.85
	12 (RB_Pos:11)	21.97	21.95	22.06	20.95	20.74	20.84
	25 (RB_Pos:0)	22.08	21.94	22.03	20.90	20.83	21.13
3MHz	1 (RB_Pos:0)	23.00	23.09	23.05	21.84	21.85	21.95
	1 (RB_Pos:7)	22.87	23.02	23.14	22.31	21.61	22.10
	1 (RB_Pos:14)	23.00	22.99	23.11	22.35	21.69	22.18
	8 (RB_Pos:0)	22.09	22.01	22.12	21.54	20.86	21.01
	8 (RB_Pos:4)	22.10	22.02	22.09	21.54	21.03	21.27
	8 (RB_Pos:7)	22.15	21.99	22.07	21.49	21.08	21.35
	15 (RB_Pos:0)	21.99	21.93	22.16	20.84	20.89	20.95
1.4MHz	1 (RB_Pos:0)	23.08	23.00	23.03	21.95	21.75	22.08
	1 (RB_Pos: 2)	23.33	22.85	23.12	21.85	21.60	22.15
	1 (RB_Pos:5)	23.27	22.86	23.00	21.87	21.53	22.09
	3 (RB_Pos:0)	23.03	22.87	23.14	21.60	21.69	22.33
	3 (RB_Pos:1)	23.16	23.08	23.29	21.73	21.68	22.29
	3 (RB_Pos:2)	23.14	22.97	23.23	21.54	21.76	22.22
	6 (RB_Pos:0)	22.07	22.01	22.14	21.04	20.63	21.26

FDD LTE Band 4							
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
		Channel	20050	20175	20300	20050	20175
20MHz	1 (RB_Pos:0)	22.83	23.12	22.78	22.25	21.78	21.65
	1 (RB_Pos:49)	23.16	23.23	22.70	22.24	21.59	21.41
	1 (RB_Pos:99)	22.89	22.95	22.59	21.54	21.31	21.46

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	50 (RB_Pos:0)	21.97	21.96	21.76	21.12	20.96	20.63
	50 (RB_Pos:24)	22.00	21.92	21.61	21.15	20.89	20.52
	50 (RB_Pos:49)	22.07	21.78	21.58	21.17	20.74	20.61
	100 (RB_Pos:0)	22.05	21.83	21.70	21.13	20.89	20.72
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20025	20175	20325	20025	20175	20325
15MHz	1 (RB_Pos:0)	23.28	22.98	22.65	22.02	21.92	22.37
	1 (RB_Pos:37)	22.95	22.96	22.38	22.54	21.46	22.05
	1 (RB_Pos:74)	23.01	22.72	22.48	21.81	21.52	22.26
	36 (RB_Pos:0)	22.01	21.97	21.61	21.13	21.01	20.61
	36 (RB_Pos:18)	21.99	21.93	21.57	20.81	20.94	20.50
	36 (RB_Pos:37)	21.92	21.86	21.69	20.96	20.76	20.58
	75 (RB_Pos:0)	22.00	21.90	21.58	20.92	21.00	20.48
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20000	20175	20350	20000	20175	20350
10MHz	1 (RB_Pos:0)	23.19	23.04	22.54	21.85	21.73	21.39
	1 (RB_Pos:24)	23.04	23.12	22.57	22.50	21.52	21.42
	1 (RB_Pos:49)	22.91	22.87	22.62	21.83	21.45	21.55
	25 (RB_Pos:0)	22.05	21.88	21.58	21.10	20.99	20.70
	25 (RB_Pos:12)	22.05	21.84	21.64	21.20	20.89	20.79
	25 (RB_Pos:24)	22.00	21.86	21.68	21.13	20.94	20.62
	50 (RB_Pos:0)	22.03	21.89	21.57	20.94	21.01	20.55
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	19975	20175	20375	19975	20175	20375
5MHz	1 (RB_Pos:0)	22.95	22.80	22.33	21.64	21.81	21.33
	1 (RB_Pos:12)	23.15	22.88	22.75	21.65	21.32	21.49
	1 (RB_Pos:24)	22.86	22.80	22.74	21.54	21.27	20.72
	12 (RB_Pos:0)	22.01	21.90	21.58	20.93	20.81	20.70
	12 (RB_Pos:6)	22.04	21.94	21.68	21.16	20.99	20.90
	12 (RB_Pos:11)	21.96	21.86	21.70	21.07	20.75	20.72
	25 (RB_Pos:0)	22.05	21.89	21.58	21.11	20.79	20.72
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	19965	20175	20385	19965	20175	20385
3MHz	1 (RB_Pos:0)	23.03	22.97	22.36	22.09	21.78	21.56
	1 (RB_Pos:7)	23.04	22.87	22.43	22.42	21.48	21.61
	1 (RB_Pos:14)	23.08	22.83	22.37	22.36	21.54	21.50

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	8 (RB_Pos:0)	22.14	21.89	21.56	21.25	20.79	20.66
	8 (RB_Pos:4)	22.16	21.86	21.57	21.25	20.77	20.50
	8 (RB_Pos:7)	22.18	21.98	21.59	21.19	20.78	20.63
	15 (RB_Pos:0)	22.05	21.89	21.64	21.22	20.82	20.36
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	19957	20175	20393	19957	20175	20393
1.4MHz	1 (RB_Pos:0)	23.21	22.85	22.54	21.92	21.71	21.51
	1 (RB_Pos: 2)	23.06	22.96	22.50	21.94	21.45	21.70
	1 (RB_Pos:5)	23.08	22.73	22.44	21.96	21.36	21.59
	3 (RB_Pos:0)	23.10	22.82	22.57	21.79	21.65	21.81
	3 (RB_Pos:1)	23.13	22.93	22.66	21.86	21.63	21.72
	3 (RB_Pos:2)	23.23	23.00	22.58	21.84	21.60	21.63
	6 (RB_Pos:0)	22.11	21.83	21.59	20.91	20.64	20.68

FDD LTE Band 5							
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20450	20525	20600	20450	20525	20600
10MHz	1 (RB_Pos:0)	23.58	23.62	23.66	22.44	22.50	22.64
	1 (RB_Pos:24)	23.66	23.83	23.67	22.64	22.63	22.75
	1 (RB_Pos:49)	23.44	23.67	23.68	22.42	22.46	22.69
	25 (RB_Pos:0)	22.67	22.65	22.66	21.67	21.68	21.93
	25 (RB_Pos:12)	22.71	22.62	22.69	21.72	21.65	21.86
	25 (RB_Pos:24)	22.68	22.76	22.65	21.67	21.70	21.86
	50 (RB_Pos:0)	22.77	22.57	22.69	21.76	21.57	21.61
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20425	20525	20625	20425	20525	20625
5MHz	1 (RB_Pos:0)	23.48	23.29	23.36	22.24	22.37	22.27
	1 (RB_Pos:12)	23.51	23.78	23.62	22.25	22.72	22.45
	1 (RB_Pos:24)	23.52	23.45	23.64	22.14	22.38	21.94
	12 (RB_Pos:0)	22.57	22.55	22.62	21.46	21.40	21.47
	12 (RB_Pos:6)	22.61	22.71	22.63	21.49	21.57	21.42
	12 (RB_Pos:11)	22.67	22.64	22.72	21.54	21.58	21.50
	25 (RB_Pos:0)	22.57	22.60	22.61	21.80	21.47	21.52
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20415	20525	20635	20415	20525	20635
3MHz	1 (RB_Pos:0)	23.61	23.67	23.50	22.39	22.44	22.71

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	1 (RB_Pos:7)	23.47	23.73	23.56	22.34	22.55	22.73
	1 (RB_Pos:14)	23.64	23.72	23.57	22.34	22.62	22.75
	8 (RB_Pos:0)	22.57	22.70	22.65	21.38	21.49	21.90
	8 (RB_Pos:4)	22.64	22.74	22.91	21.45	21.53	21.91
	8 (RB_Pos:7)	22.55	22.75	22.7	21.25	21.62	21.93
	15 (RB_Pos:0)	22.65	22.67	22.79	21.68	21.53	21.84
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20407	20525	20643	20407	20525	20643
1.4MHz	1 (RB_Pos:0)	23.52	23.43	23.61	22.67	22.87	22.68
	1 (RB_Pos: 2)	23.47	23.63	23.73	22.53	22.98	22.82
	1 (RB_Pos:5)	23.57	23.46	23.73	22.47	22.82	22.75
	3 (RB_Pos:0)	23.66	23.57	23.83	22.54	22.61	22.99
	3 (RB_Pos:1)	23.69	23.61	23.65	22.47	22.63	22.97
	3 (RB_Pos:2)	23.55	23.64	23.65	22.55	22.56	22.86
	6 (RB_Pos:0)	22.58	22.70	22.81	21.72	21.39	21.70

FDD LTE Band 7							
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20850	21100	21350	20850	21100	21350
20MHz	1 (RB_Pos:0)	20.88	20.95	21.50	20.13	20.13	20.77
	1 (RB_Pos:49)	21.41	22.06	22.38	20.53	20.86	20.98
	1 (RB_Pos:99)	21.27	22.06	22.41	19.84	20.42	20.74
	50 (RB_Pos:0)	20.11	20.78	21.06	19.34	19.63	20.06
	50 (RB_Pos:24)	20.17	20.90	21.12	19.30	20.04	20.20
	50 (RB_Pos:49)	20.28	20.91	21.14	19.25	20.11	20.21
	100 (RB_Pos:0)	20.22	20.89	21.19	19.28	19.78	20.20
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	20825	21100	21375	20825	21100	21375
15MHz	1 (RB_Pos:0)	21.06	21.50	21.96	19.94	20.56	21.60
	1 (RB_Pos:37)	21.31	21.80	22.14	20.65	20.71	21.61
	1 (RB_Pos:74)	21.32	21.94	22.29	20.17	20.37	21.39
	36 (RB_Pos:0)	20.08	20.76	21.09	19.23	19.84	20.16
	36 (RB_Pos:18)	20.13	20.91	21.06	19.12	19.86	20.22
	36 (RB_Pos:37)	20.13	20.94	21.20	19.24	19.97	20.27
	75 (RB_Pos:0)	20.09	20.89	21.00	19.12	19.70	20.20
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		

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Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
Channel	20775	21100	21425	20775	21100	21425	
10MHz	1 (RB_Pos:0)	21.01	21.82	22.14	20.01	20.48	21.05
	1 (RB_Pos:24)	21.28	22.36	22.49	20.60	20.61	21.17
	1 (RB_Pos:49)	21.04	21.94	22.37	19.96	20.77	21.19
	25 (RB_Pos:0)	20.09	20.74	21.05	19.29	19.88	20.23
	25 (RB_Pos:12)	20.15	20.82	21.15	19.16	20.05	20.43
	25 (RB_Pos:24)	20.16	20.95	21.23	19.26	20.06	20.39
	50 (RB_Pos:0)	20.12	20.89	21.10	19.09	19.80	20.30
5MHz	1 (RB_Pos:0)	20.99	21.70	22.17	19.58	20.72	21.33
	1 (RB_Pos:12)	20.98	21.85	22.34	19.72	20.83	20.90
	1 (RB_Pos:24)	20.86	21.73	22.05	19.48	20.86	20.37
	12 (RB_Pos:0)	19.93	20.72	21.06	18.94	19.59	20.21
	12 (RB_Pos:6)	19.99	20.77	21.18	19.12	19.70	20.32
	12 (RB_Pos:11)	19.99	20.78	21.12	19.12	19.71	20.27
	25 (RB_Pos:0)	20.06	20.76	21.14	19.15	20.02	20.21

FDD LTE Band 12							
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
Channel	23060	23095	23130	23060	23095	23130	
10MHz	1 (RB_Pos:0)	23.58	23.35	23.53	22.22	22.27	22.52
	1 (RB_Pos:24)	23.73	23.97	23.69	22.84	22.27	22.29
	1 (RB_Pos:49)	23.29	23.46	23.42	22.17	22.20	22.36
	25 (RB_Pos:0)	22.41	22.58	22.53	21.39	21.50	21.40
	25 (RB_Pos:12)	22.50	22.49	22.41	21.42	21.50	21.65
	25 (RB_Pos:24)	22.57	22.31	22.45	21.51	21.41	21.59
	50 (RB_Pos:0)	22.53	22.49	22.37	21.47	21.46	21.37
5MHz	1 (RB_Pos:0)	23.25	23.43	23.38	22.15	22.57	22.16
	1 (RB_Pos:12)	23.27	23.57	23.41	22.09	22.64	22.21
	1 (RB_Pos:24)	23.47	23.19	23.49	21.95	21.63	21.66
	12 (RB_Pos:0)	22.51	22.64	22.41	21.36	21.38	21.23
	12 (RB_Pos:6)	22.52	22.59	22.36	21.26	21.40	21.22
	12 (RB_Pos:11)	22.49	22.39	22.35	21.23	21.23	21.20
	25 (RB_Pos:0)	22.46	22.46	22.31	21.45	21.42	21.25

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Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	23025	23095	23165	23025	23095	23165
3MHz	1 (RB_Pos:0)	23.39	23.52	23.36	22.34	22.34	22.26
	1 (RB_Pos:7)	23.40	23.79	23.28	22.91	22.28	22.18
	1 (RB_Pos:14)	23.39	23.41	23.39	22.54	22.11	22.32
	8 (RB_Pos:0)	22.65	22.75	22.41	21.48	21.43	21.17
	8 (RB_Pos:4)	22.47	22.70	22.63	21.50	21.39	21.17
	8 (RB_Pos:7)	22.42	22.71	22.56	21.58	21.39	21.22
	15 (RB_Pos:0)	22.57	22.63	22.48	21.45	21.45	21.12
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	23017	23095	23173	23017	23095	23173
1.4MHz	1 (RB_Pos:0)	23.57	23.47	23.39	22.90	22.49	22.53
	1 (RB_Pos: 2)	23.54	23.56	23.50	23.06	22.31	22.73
	1 (RB_Pos:5)	23.62	23.26	23.48	22.87	22.13	22.66
	3 (RB_Pos:0)	23.58	23.52	23.46	22.86	22.42	22.67
	3 (RB_Pos:1)	23.61	23.71	23.55	22.62	22.59	22.77
	3 (RB_Pos:2)	23.54	23.60	23.51	22.66	22.36	22.73
	6 (RB_Pos:0)	22.56	22.63	22.54	21.67	21.22	21.65

FDD LTE Band 13							
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	--	23230	--	--	23230	--
10MHz	1 (RB_Pos:0)	--	23.83	--	--	22.68	--
	1 (RB_Pos:24)	--	23.91	--	--	23.39	--
	1 (RB_Pos:49)	--	23.93	--	--	22.73	--
	25 (RB_Pos:0)	--	22.92	--	--	21.71	--
	25 (RB_Pos:12)	--	22.87	--	--	21.76	--
	25 (RB_Pos:24)	--	22.94	--	--	21.86	--
	50 (RB_Pos:0)	--	22.91	--	--	21.87	--
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	23205	23230	23255	23205	23230	23255
5MHz	1 (RB_Pos:0)	23.86	23.79	23.64	22.47	22.85	22.51
	1 (RB_Pos:12)	23.75	23.94	23.90	22.58	22.96	22.70
	1 (RB_Pos:24)	23.59	23.72	23.96	22.21	22.50	22.09
	12 (RB_Pos:0)	22.87	22.93	22.88	21.73	21.66	21.71
	12 (RB_Pos:6)	22.99	22.93	22.95	21.74	21.71	21.73

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	12 (RB_Pos:11)	22.89	22.89	22.90	21.66	21.68	21.75
	25 (RB_Pos:0)	22.94	22.88	22.84	21.92	21.82	21.71

FDD LTE Band 17							
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	23780	23790	23800	23780	23790	23800
10MHz	1 (RB_Pos:0)	23.13	22.81	22.77	22.08	22.22	21.85
	1 (RB_Pos:24)	23.84	24.13	23.84	22.83	22.46	22.54
	1 (RB_Pos:49)	23.68	23.12	22.98	22.65	22.39	22.03
	25 (RB_Pos:0)	22.61	22.57	22.61	21.61	21.60	21.54
	25 (RB_Pos:12)	22.71	22.63	22.57	21.81	21.62	21.73
	25 (RB_Pos:24)	22.67	22.63	22.66	21.76	21.52	21.54
	50 (RB_Pos:0)	22.71	22.60	22.56	21.59	21.49	21.55
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	23755	23790	23825	23755	23790	23825
5MHz	1 (RB_Pos:0)	24.50	24.57	24.58	23.66	23.99	23.52
	1 (RB_Pos:12)	24.60	24.62	24.62	23.75	23.97	23.57
	1 (RB_Pos:24)	24.54	24.52	24.47	23.63	23.87	23.59
	12 (RB_Pos:0)	23.52	23.57	23.63	22.58	22.66	22.61
	12 (RB_Pos:6)	23.60	23.58	23.58	22.65	22.64	22.58
	12 (RB_Pos:11)	23.59	23.47	23.46	22.62	22.50	22.49
	25 (RB_Pos:0)	23.56	23.51	23.55	22.57	22.52	22.48

FDD LTE Band 25							
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	26140	26365	26590	26140	26365	26590
20MHz	1 (RB_Pos:0)	22.15	22.74	22.43	21.60	21.34	21.31
	1 (RB_Pos:49)	22.83	22.64	22.78	22.01	21.89	21.51
	1 (RB_Pos:99)	22.40	22.60	22.65	21.29	21.08	21.62
	50 (RB_Pos:0)	21.50	21.56	21.57	20.66	20.43	20.46
	50 (RB_Pos:24)	21.64	21.50	21.70	20.73	20.43	20.67
	50 (RB_Pos:49)	21.72	21.51	21.69	20.72	20.61	20.58
	100 (RB_Pos:0)	21.56	21.46	21.70	20.57	20.46	20.56
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	26115	26365	26615	26115	26365	26615
15MHz	1 (RB_Pos:0)	22.34	22.53	22.46	21.36	21.60	22.17

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	1 (RB_Pos:37)	22.41	22.53	22.60	22.06	21.30	22.87
	1 (RB_Pos:74)	22.62	22.50	22.80	21.44	21.18	22.14
	36 (RB_Pos:0)	21.49	21.46	21.77	20.47	20.47	20.60
	36 (RB_Pos:18)	21.51	21.40	21.75	20.58	20.48	20.68
	36 (RB_Pos:37)	21.76	21.51	21.72	20.55	20.64	20.60
	75 (RB_Pos:0)	21.53	21.43	21.66	20.43	20.47	20.66
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	26090	26365	26640	26090	26365	26640
10MHz	1 (RB_Pos:0)	22.45	22.42	22.64	21.28	21.35	21.56
	1 (RB_Pos:24)	22.52	22.95	22.87	21.90	21.15	21.65
	1 (RB_Pos:49)	22.50	22.65	22.82	21.95	21.23	21.53
	25 (RB_Pos:0)	21.43	21.43	21.76	20.35	20.46	20.90
	25 (RB_Pos:12)	21.52	21.48	21.73	20.66	20.51	20.89
	25 (RB_Pos:24)	21.54	21.45	21.90	20.53	20.49	20.98
	50 (RB_Pos:0)	21.61	21.50	21.77	20.48	20.51	20.70
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	26065	26365	26665	26065	26365	26665
5MHz	1 (RB_Pos:0)	22.46	22.24	22.60	21.01	21.39	21.49
	1 (RB_Pos:12)	22.33	22.47	22.78	21.08	21.43	21.15
	1 (RB_Pos:24)	22.26	22.48	23.01	21.04	21.37	21.18
	12 (RB_Pos:0)	21.34	21.44	21.83	20.21	20.50	20.89
	12 (RB_Pos:6)	21.56	21.49	21.87	20.33	20.53	20.80
	12 (RB_Pos:11)	21.49	21.44	21.92	20.29	20.39	20.82
	25 (RB_Pos:0)	21.39	21.42	21.94	20.39	20.48	20.85
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	26055	26365	26675	26055	26365	26675
3MHz	1 (RB_Pos:0)	22.34	22.49	22.58	21.65	21.15	21.68
	1 (RB_Pos:7)	22.40	22.42	22.65	21.51	21.10	21.59
	1 (RB_Pos:14)	22.39	22.54	22.89	21.51	21.11	21.50
	8 (RB_Pos:0)	21.37	21.51	21.93	20.82	20.31	21.16
	8 (RB_Pos:4)	21.51	21.40	21.88	20.86	20.31	20.67
	8 (RB_Pos:7)	21.55	21.42	22.02	20.82	20.29	20.73
	15 (RB_Pos:0)	21.42	21.42	21.99	20.70	20.51	20.70
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	26047	26365	26683	26047	26365	26683
1.4MHz	1 (RB_Pos:0)	21.51	21.26	21.60	21.69	21.19	21.85

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	1 (RB_Pos: 2)	21.51	21.29	21.69	21.79	21.44	21.99
	1 (RB_Pos:5)	21.53	21.34	21.80	21.73	21.17	21.89
	3 (RB_Pos:0)	21.37	21.37	21.89	21.66	21.17	22.07
	3 (RB_Pos:1)	21.39	21.44	22.01	21.70	21.11	22.13
	3 (RB_Pos:2)	20.39	21.45	21.88	21.71	21.21	22.08
	6 (RB_Pos:0)	20.34	20.52	20.98	20.66	20.14	21.04

FDD LTE Band 41							
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	39750	40620	41490	39750	40620	41490
20MHz	1 (RB_Pos:0)	21.35	22.93	22.87	20.20	21.32	22.16
	1 (RB_Pos:49)	21.63	23.51	24.44	20.62	21.52	23.79
	1 (RB_Pos:99)	21.54	23.25	23.42	20.35	21.64	22.80
	50 (RB_Pos:0)	20.76	22.45	22.99	19.85	21.44	22.18
	50 (RB_Pos:24)	20.83	22.51	22.99	19.96	21.49	22.21
	50 (RB_Pos:49)	20.84	22.59	23.03	19.88	21.59	22.15
	100 (RB_Pos:0)	20.87	22.55	22.99	19.88	21.42	22.16
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	39725	40620	41515	39725	40620	41515
15MHz	1 (RB_Pos:0)	21.59	23.47	23.14	21.10	21.71	22.43
	1 (RB_Pos:37)	21.85	23.50	24.22	21.13	21.92	23.32
	1 (RB_Pos:74)	21.83	23.71	23.19	21.18	21.83	22.53
	36 (RB_Pos:0)	20.82	22.46	22.93	19.76	21.52	22.05
	36 (RB_Pos:18)	20.89	22.50	22.91	19.68	21.48	22.03
	36 (RB_Pos:37)	20.93	22.56	23.02	19.88	21.53	22.03
	75 (RB_Pos:0)	20.80	22.47	22.97	19.77	21.61	22.20
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		
	Channel	39700	40620	41540	39700	40620	41540
10MHz	1 (RB_Pos:0)	21.79	23.46	23.41	21.14	21.85	22.76
	1 (RB_Pos:24)	21.90	23.55	24.29	21.36	21.86	23.69
	1 (RB_Pos:49)	21.87	23.62	23.46	21.16	21.92	22.89
	25 (RB_Pos:0)	20.95	22.46	22.97	19.94	21.51	22.06
	25 (RB_Pos:12)	20.93	22.51	23.04	19.90	21.38	22.13
	25 (RB_Pos:24)	21.01	22.52	23.03	20.17	21.48	22.14
	50 (RB_Pos:0)	20.93	22.47	22.99	19.89	21.56	22.11
Bandwidth (MHz)	RB Set	Power (dBm)					
		QPSK			16QAM		

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	Channel	39675	40620	41565	39675	40620	41565
5MHz	1 (RB_Pos:0)	21.73	22.99	23.56	20.19	21.79	22.60
	1 (RB_Pos:12)	21.69	23.13	24.35	20.16	22.01	22.62
	1 (RB_Pos:24)	21.61	23.18	23.58	20.25	21.90	22.59
	12 (RB_Pos:0)	20.77	22.49	22.93	20.05	21.35	22.09
	12 (RB_Pos:6)	20.84	22.47	22.97	19.72	21.38	22.15
	12 (RB_Pos:11)	20.78	22.46	22.94	19.67	21.37	22.13
	25 (RB_Pos:0)	20.82	22.50	22.94	20.03	21.50	22.21

Effective (Isotropic) Radiated Power Measurement Results for GSM/GPRS/EDGE

Test Band	Channel	Measured ERP				Limit (W)	Verdict
		SA Read Value (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)		
GSM 850	Low	19.27	9.83	29.10	0.81	7	PASS
	Middle	19.55	9.83	29.38	0.87		PASS
	High	19.46	9.83	29.29	0.85		PASS
GPRS 850	Low	14.57	9.83	24.40	0.28		PASS
	Middle	14.55	9.83	24.38	0.27		PASS
	High	14.93	9.83	24.76	0.30		PASS
EDGE 850	Low	9.08	9.83	18.91	0.08		PASS
	Middle	7.62	9.83	17.45	0.06		PASS
	High	7.66	9.83	17.49	0.06		PASS

Note(s): For GPRS and EGPRS mode, all the slots were tested and just the worst data were recorded in this table

Test Band	Channel	Measured EIRP				Limit (W)	Verdict
		SA Read Value (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)		
GSM 1900	Low	10.85	17.8	28.65	0.73	2	PASS
	Middle	10.62	17.8	28.42	0.70		PASS
	High	10.44	17.8	28.24	0.67		PASS
GPRS 1900	Low	6.11	17.8	23.91	0.25		PASS
	Middle	6.53	17.8	24.33	0.27		PASS
	High	6.18	17.8	23.98	0.25		PASS
EDGE 1900	Low	1.31	17.8	19.11	0.08		PASS
	Middle	1.68	17.8	19.48	0.09		PASS
	High	0.82	17.8	18.62	0.07		PASS

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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	-2.51	17.8	15.29	0.03	2	PASS
	Middle	-2.37	17.8	15.43	0.03		PASS
	High	-2.03	17.8	15.77	0.04		PASS
HSDPA Band II	Low	-3.31	17.8	14.49	0.03		PASS
	Middle	-3.16	17.8	14.64	0.03		PASS
	High	-2.91	17.8	14.89	0.03		PASS
HSUPA Band II	Low	-3.18	17.8	14.62	0.03		PASS
	Middle	-3.73	17.8	14.07	0.03		PASS
	High	-3.09	17.8	14.71	0.03		PASS

Test Band	Channel	Measured ERP				Limit (W)	Verdict
		SA Read Value (dBm)	Correction Factor (dB)	ERP (dBm)	ERP (W)		
WCDMA Band V	Low	10.75	9.83	20.58	0.11	7	PASS
	Middle	11.42	9.83	21.25	0.13		PASS
	High	11.05	9.83	20.88	0.12		PASS
HSDPA Band V	Low	10.05	9.83	19.88	0.10		PASS
	Middle	10.21	9.83	20.04	0.10		PASS
	High	10.35	9.83	20.18	0.10		PASS
HSUPA Band V	Low	10.05	9.83	19.88	0.10		PASS
	Middle	10.11	9.83	19.94	0.10		PASS
	High	9.85	9.83	19.68	0.09		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	-1.29	17.8	16.51	0.04	2	PASS
			RB6#0	-2.21	17.8	15.59	0.04	2	PASS
		16QAM	RB1#0	-2.51	17.8	15.29	0.03	2	PASS
			RB6#0	-3.15	17.8	14.65	0.03	2	PASS
	Middle	QPSK	RB1#0	-1.19	17.8	16.61	0.05	2	PASS
			RB6#0	-2.07	17.8	15.73	0.04	2	PASS
		16QAM	RB1#0	-2.48	17.8	15.32	0.03	2	PASS
			RB6#0	-3.67	17.8	14.13	0.03	2	PASS
	High	QPSK	RB1#0	-1.04	17.8	16.76	0.05	2	PASS
			RB6#0	-2.01	17.8	15.79	0.04	2	PASS
		16QAM	RB1#0	-2.05	17.8	15.75	0.04	2	PASS
			RB6#0	-2.86	17.8	14.94	0.03	2	PASS
3 MHz	Low	QPSK	RB1#0	-1.25	17.8	16.55	0.05	2	PASS
			RB15#0	-2.09	17.8	15.71	0.04	2	PASS
		16QAM	RB1#0	-2.39	17.8	15.41	0.03	2	PASS
			RB15#0	-3.38	17.8	14.42	0.03	2	PASS
	Middle	QPSK	RB1#0	-1.43	17.8	16.37	0.04	2	PASS
			RB15#0	-2.16	17.8	15.64	0.04	2	PASS
		16QAM	RB1#0	-2.45	17.8	15.35	0.03	2	PASS
			RB15#0	-3.44	17.8	14.36	0.03	2	PASS
	High	QPSK	RB1#0	-1.4	17.8	16.40	0.04	2	PASS
			RB15#0	-2.38	17.8	15.42	0.03	2	PASS
		16QAM	RB1#0	-2.54	17.8	15.26	0.03	2	PASS
			RB15#0	-3.16	17.8	14.64	0.03	2	PASS
5 MHz	Low	QPSK	RB1#0	-1.26	17.8	16.54	0.05	2	PASS
			RB25#0	-2.08	17.8	15.72	0.04	2	PASS
		16QAM	RB1#0	-2.54	17.8	15.26	0.03	2	PASS
			RB25#0	-3.59	17.8	14.21	0.03	2	PASS
	Middle	QPSK	RB1#0	-1.58	17.8	16.22	0.04	2	PASS
			RB25#0	-2.6	17.8	15.20	0.03	2	PASS
		16QAM	RB1#0	-2.5	17.8	15.30	0.03	2	PASS
			RB25#0	-3.67	17.8	14.13	0.03	2	PASS
	High	QPSK	RB1#0	-1.37	17.8	16.43	0.04	2	PASS
			RB25#0	-2.29	17.8	15.51	0.04	2	PASS

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		16QAM	RB1#0	-2.36	17.8	15.44	0.03	2	PASS
			RB25#0	-2.99	17.8	14.81	0.03	2	PASS
10 MHz	Low	QPSK	RB1#0	-1.3	17.8	16.50	0.04	2	PASS
			RB50#0	-2.48	17.8	15.32	0.03	2	PASS
		16QAM	RB1#0	-2.44	17.8	15.36	0.03	2	PASS
			RB50#0	-3.34	17.8	14.46	0.03	2	PASS
	Middle	QPSK	RB1#0	-1.15	17.8	16.65	0.05	2	PASS
			RB50#0	-1.46	17.8	16.34	0.04	2	PASS
		16QAM	RB1#0	-2.36	17.8	15.44	0.03	2	PASS
			RB50#0	-2.37	17.8	15.43	0.03	2	PASS
	High	QPSK	RB1#0	-1.5	17.8	16.30	0.04	2	PASS
			RB50#0	-1.71	17.8	16.09	0.04	2	PASS
		16QAM	RB1#0	-2.62	17.8	15.18	0.03	2	PASS
			RB50#0	-2.51	17.8	15.29	0.03	2	PASS
15 MHz	Low	QPSK	RB1#0	-1.29	17.8	16.51	0.04	2	PASS
			RB75#0	-2.57	17.8	15.23	0.03	2	PASS
		16QAM	RB1#0	-2.57	17.8	15.23	0.03	2	PASS
			RB75#0	-3.23	17.8	14.57	0.03	2	PASS
	Middle	QPSK	RB1#0	-1.5	17.8	16.30	0.04	2	PASS
			RB75#0	-2.42	17.8	15.38	0.03	2	PASS
		16QAM	RB1#0	-2.5	17.8	15.30	0.03	2	PASS
			RB75#0	-3.29	17.8	14.51	0.03	2	PASS
	High	QPSK	RB1#0	-1.44	17.8	16.36	0.04	2	PASS
			RB75#0	-2.08	17.8	15.72	0.04	2	PASS
		16QAM	RB1#0	-1.39	17.8	16.41	0.04	2	PASS
			RB75#0	-3.35	17.8	14.45	0.03	2	PASS
20MHz	Low	QPSK	RB1#0	-1.33	17.8	16.47	0.04	2	PASS
			RB100#0	-2.39	17.8	15.41	0.03	2	PASS
		16QAM	RB1#0	-1.94	17.8	15.86	0.04	2	PASS
			RB100#0	-3.45	17.8	14.35	0.03	2	PASS
	Middle	QPSK	RB1#0	-1.69	17.8	16.11	0.04	2	PASS
			RB100#0	-2.59	17.8	15.21	0.03	2	PASS
		16QAM	RB1#0	-2.42	17.8	15.38	0.03	2	PASS
			RB100#0	-3.58	17.8	14.22	0.03	2	PASS
	High	QPSK	RB1#0	-1.38	17.8	16.42	0.04	2	PASS
			RB100#0	-2.08	17.8	15.72	0.04	2	PASS
		16QAM	RB1#0	-2.8	17.8	15.00	0.03	2	PASS
			RB100#0	-3.28	17.8	14.52	0.03	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	5.02	14.4	19.42	0.09	1	PASS
			RB6#0	3.63	14.4	18.03	0.06	1	PASS
		16QAM	RB1#0	3.66	14.4	18.06	0.06	1	PASS
			RB6#0	2.44	14.4	16.84	0.05	1	PASS
	Middle	QPSK	RB1#0	4.46	14.4	18.86	0.08	1	PASS
			RB6#0	3.32	14.4	17.72	0.06	1	PASS
		16QAM	RB1#0	3.55	14.4	17.95	0.06	1	PASS
			RB6#0	2.49	14.4	16.89	0.05	1	PASS
	High	QPSK	RB1#0	4.04	14.4	18.44	0.07	1	PASS
			RB6#0	3.29	14.4	17.69	0.06	1	PASS
		16QAM	RB1#0	2.98	14.4	17.38	0.05	1	PASS
			RB6#0	2.42	14.4	16.82	0.05	1	PASS
3 MHz	Low	QPSK	RB1#0	4.5	14.4	18.90	0.08	1	PASS
			RB15#0	3.59	14.4	17.99	0.06	1	PASS
		16QAM	RB1#0	4	14.4	18.40	0.07	1	PASS
			RB15#0	2.73	14.4	17.13	0.05	1	PASS
	Middle	QPSK	RB1#0	4.49	14.4	18.89	0.08	1	PASS
			RB15#0	3.73	14.4	18.13	0.07	1	PASS
		16QAM	RB1#0	3.62	14.4	18.02	0.06	1	PASS
			RB15#0	2.5	14.4	16.90	0.05	1	PASS
	High	QPSK	RB1#0	4.08	14.4	18.48	0.07	1	PASS
			RB15#0	3.32	14.4	17.72	0.06	1	PASS
		16QAM	RB1#0	3.41	14.4	17.81	0.06	1	PASS
			RB15#0	2.12	14.4	16.52	0.04	1	PASS
5 MHz	Low	QPSK	RB1#0	4.75	14.4	19.15	0.08	1	PASS
			RB25#0	3.49	14.4	17.89	0.06	1	PASS
		16QAM	RB1#0	3.4	14.4	17.80	0.06	1	PASS
			RB25#0	2.54	14.4	16.94	0.05	1	PASS
	Middle	QPSK	RB1#0	4.45	14.4	18.85	0.08	1	PASS
			RB25#0	3.34	14.4	17.74	0.06	1	PASS
		16QAM	RB1#0	3.38	14.4	17.78	0.06	1	PASS
			RB25#0	2.56	14.4	16.96	0.05	1	PASS
	High	QPSK	RB1#0	3.88	14.4	18.28	0.07	1	PASS
			RB25#0	3.09	14.4	17.49	0.06	1	PASS
16QAM	RB1#0	2.94	14.4	17.34	0.05	1	PASS		

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			RB25#0	2.35	14.4	16.75	0.05	1	PASS
10 MHz	Low	QPSK	RB1#0	4.92	14.4	19.32	0.09	1	PASS
			RB50#0	3.79	14.4	18.19	0.07	1	PASS
		16QAM	RB1#0	3.3	14.4	17.70	0.06	1	PASS
			RB50#0	2.73	14.4	17.13	0.05	1	PASS
	Middle	QPSK	RB1#0	4.68	14.4	19.08	0.08	1	PASS
			RB50#0	3.6	14.4	18.00	0.06	1	PASS
		16QAM	RB1#0	3.53	14.4	17.93	0.06	1	PASS
			RB50#0	2.82	14.4	17.22	0.05	1	PASS
	High	QPSK	RB1#0	4.19	14.4	18.59	0.07	1	PASS
			RB50#0	3.24	14.4	17.64	0.06	1	PASS
		16QAM	RB1#0	3.12	14.4	17.52	0.06	1	PASS
			RB50#0	2.07	14.4	16.47	0.04	1	PASS
15 MHz	Low	QPSK	RB1#0	5.19	14.4	19.59	0.09	1	PASS
			RB75#0	3.7	14.4	18.10	0.06	1	PASS
		16QAM	RB1#0	3.59	14.4	17.99	0.06	1	PASS
			RB75#0	2.8	14.4	17.20	0.05	1	PASS
	Middle	QPSK	RB1#0	4.56	14.4	18.96	0.08	1	PASS
			RB75#0	3.4	14.4	17.80	0.06	1	PASS
		16QAM	RB1#0	3.38	14.4	17.78	0.06	1	PASS
			RB75#0	2.67	14.4	17.07	0.05	1	PASS
	High	QPSK	RB1#0	4.18	14.4	18.58	0.07	1	PASS
			RB75#0	3.4	14.4	17.80	0.06	1	PASS
		16QAM	RB1#0	3.99	14.4	18.39	0.07	1	PASS
			RB75#0	2.11	14.4	16.51	0.04	1	PASS
20MHz	Low	QPSK	RB1#0	4.67	14.4	19.07	0.08	1	PASS
			RB100#0	3.67	14.4	18.07	0.06	1	PASS
		16QAM	RB1#0	3.8	14.4	18.20	0.07	1	PASS
			RB100#0	2.61	14.4	17.01	0.05	1	PASS
	Middle	QPSK	RB1#0	5	14.4	19.40	0.09	1	PASS
			RB100#0	3.57	14.4	17.97	0.06	1	PASS
		16QAM	RB1#0	3.48	14.4	17.88	0.06	1	PASS
			RB100#0	2.52	14.4	16.92	0.05	1	PASS
	High	QPSK	RB1#0	4.6	14.4	19.00	0.08	1	PASS
			RB100#0	3.48	14.4	17.88	0.06	1	PASS
		16QAM	RB1#0	3.2	14.4	17.60	0.06	1	PASS
			RB100#0	2.45	14.4	16.85	0.05	1	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)		
1.4 MHz	Low	QPSK	RB1#0	10.97	9.83	20.80	0.12	7	PASS
			RB6#0	10.23	9.83	20.06	0.10	7	PASS
		16QAM	RB1#0	9.93	9.83	19.76	0.09	7	PASS
			RB6#0	9.43	9.83	19.26	0.08	7	PASS
	Middle	QPSK	RB1#0	11.08	9.83	20.91	0.12	7	PASS
			RB6#0	10.21	9.83	20.04	0.10	7	PASS
		16QAM	RB1#0	10.5	9.83	20.33	0.11	7	PASS
			RB6#0	8.99	9.83	18.82	0.08	7	PASS
	High	QPSK	RB1#0	11.13	9.83	20.96	0.12	7	PASS
			RB6#0	10.27	9.83	20.10	0.10	7	PASS
		16QAM	RB1#0	9.94	9.83	19.77	0.09	7	PASS
			RB6#0	9.16	9.83	18.99	0.08	7	PASS
3 MHz	Low	QPSK	RB1#0	11.28	9.83	21.11	0.13	7	PASS
			RB15#0	10.01	9.83	19.84	0.10	7	PASS
		16QAM	RB1#0	9.98	9.83	19.81	0.10	7	PASS
			RB15#0	9.14	9.83	18.97	0.08	7	PASS
	Middle	QPSK	RB1#0	10.91	9.83	20.74	0.12	7	PASS
			RB15#0	10.28	9.83	20.11	0.10	7	PASS
		16QAM	RB1#0	9.78	9.83	19.61	0.09	7	PASS
			RB15#0	8.75	9.83	18.58	0.07	7	PASS
	High	QPSK	RB1#0	11.02	9.83	20.85	0.12	7	PASS
			RB15#0	10.21	9.83	20.04	0.10	7	PASS
		16QAM	RB1#0	9.94	9.83	19.77	0.09	7	PASS
			RB15#0	9.2	9.83	19.03	0.08	7	PASS
5 MHz	Low	QPSK	RB1#0	10.98	9.83	20.81	0.12	7	PASS
			RB25#0	10.12	9.83	19.95	0.10	7	PASS
		16QAM	RB1#0	9.52	9.83	19.35	0.09	7	PASS
			RB25#0	9.27	9.83	19.10	0.08	7	PASS
	Middle	QPSK	RB1#0	10.62	9.83	20.45	0.11	7	PASS
			RB25#0	10.05	9.83	19.88	0.10	7	PASS
		16QAM	RB1#0	9.86	9.83	19.69	0.09	7	PASS
			RB25#0	8.79	9.83	18.62	0.07	7	PASS
	High	QPSK	RB1#0	10.66	9.83	20.49	0.11	7	PASS
			RB25#0	9.91	9.83	19.74	0.09	7	PASS
16QAM	RB1#0	9.63	9.83	19.46	0.09	7	PASS		

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Test BW	CH	Modul.	RB Set (Size#Offset)	SA Read Value (dBm)	Correction Factor (dB)	EIRP (dBm)	EIRP (W)	Limit (W)	Verdict	
10 MHz	Low	QPSK	RB25#0	8.98	9.83	18.81	0.08	7	PASS	
			RB1#0	11.09	9.83	20.92	0.12	7	PASS	
		16QAM	RB50#0	10.32	9.83	20.15	0.10	7	PASS	
			RB1#0	9.83	9.83	19.66	0.09	7	PASS	
	Middle	QPSK	RB50#0	9.43	9.83	19.26	0.08	7	PASS	
			RB1#0	11.3	9.83	21.13	0.13	7	PASS	
		16QAM	RB50#0	10.2	9.83	20.03	0.10	7	PASS	
			RB1#0	10.11	9.83	19.94	0.10	7	PASS	
	High	QPSK	RB50#0	8.99	9.83	18.82	0.08	7	PASS	
			RB1#0	11.08	9.83	20.91	0.12	7	PASS	
		16QAM	RB50#0	10.29	9.83	20.12	0.10	7	PASS	
			RB1#0	9.91	9.83	19.74	0.09	7	PASS	
				RB50#0	9.31	9.83	19.14	0.08	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)		
5 MHz	Low	QPSK	RB1#0	-1.54	19.5	17.96	0.06	2	PASS
			RB25#0	-2.65	19.5	16.85	0.05	2	PASS
		16QAM	RB1#0	-3.07	19.5	16.43	0.04	2	PASS
			RB25#0	-3.73	19.5	15.77	0.04	2	PASS
	Middle	QPSK	RB1#0	-1.2	19.5	18.30	0.07	2	PASS
			RB25#0	-2.15	19.5	17.35	0.05	2	PASS
		16QAM	RB1#0	-1.89	19.5	17.61	0.06	2	PASS
			RB25#0	-2.5	19.5	17.00	0.05	2	PASS
	High	QPSK	RB1#0	-0.26	19.5	19.24	0.08	2	PASS
			RB25#0	-1.31	19.5	18.19	0.07	2	PASS
		16QAM	RB1#0	-1.51	19.5	17.99	0.06	2	PASS
			RB25#0	-2.6	19.5	16.90	0.05	2	PASS
10 MHz	Low	QPSK	RB1#0	-1.46	19.5	18.04	0.06	2	PASS
			RB50#0	-2.68	19.5	16.82	0.05	2	PASS
		16QAM	RB1#0	-2.53	19.5	16.97	0.05	2	PASS
			RB50#0	-3.66	19.5	15.84	0.04	2	PASS
	Middle	QPSK	RB1#0	-0.8	19.5	18.70	0.07	2	PASS
			RB50#0	-2.02	19.5	17.48	0.06	2	PASS
		16QAM	RB1#0	-1.95	19.5	17.55	0.06	2	PASS
			RB50#0	-2.99	19.5	16.51	0.04	2	PASS
	High	QPSK	RB1#0	-0.45	19.5	19.05	0.08	2	PASS

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			RB50#0	-1.4	19.5	18.10	0.06	2	PASS
		16QAM	RB1#0	-1.64	19.5	17.86	0.06	2	PASS
			RB50#0	-2.29	19.5	17.21	0.05	2	PASS
15 MHz	Low	QPSK	RB1#0	-1.69	19.5	17.81	0.06	2	PASS
			RB75#0	-2.71	19.5	16.79	0.05	2	PASS
		16QAM	RB1#0	-2.79	19.5	16.71	0.05	2	PASS
			RB75#0	-3.71	19.5	15.79	0.04	2	PASS
	Middle	QPSK	RB1#0	-1.4	19.5	18.10	0.06	2	PASS
			RB75#0	-1.82	19.5	17.68	0.06	2	PASS
		16QAM	RB1#0	-1.87	19.5	17.63	0.06	2	PASS
			RB75#0	-3.07	19.5	16.43	0.04	2	PASS
	High	QPSK	RB1#0	-0.9	19.5	18.60	0.07	2	PASS
			RB75#0	-1.63	19.5	17.87	0.06	2	PASS
		16QAM	RB1#0	-1.1	19.5	18.40	0.07	2	PASS
			RB75#0	-2.47	19.5	17.03	0.05	2	PASS
20MHz	Low	QPSK	RB1#0	-1.78	19.5	17.72	0.06	2	PASS
			RB100#0	-2.67	19.5	16.83	0.05	2	PASS
		16QAM	RB1#0	-2.61	19.5	16.89	0.05	2	PASS
			RB100#0	-3.18	19.5	16.32	0.04	2	PASS
	Middle	QPSK	RB1#0	-1.52	19.5	17.98	0.06	2	PASS
			RB100#0	-1.74	19.5	17.76	0.06	2	PASS
		16QAM	RB1#0	-2.59	19.5	16.91	0.05	2	PASS
			RB100#0	-2.78	19.5	16.72	0.05	2	PASS
	High	QPSK	RB1#0	-1.12	19.5	18.38	0.07	2	PASS
			RB100#0	-1.54	19.5	17.96	0.06	2	PASS
		16QAM	RB1#0	-1.68	19.5	17.82	0.06	2	PASS
			RB100#0	-2.25	19.5	17.25	0.05	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	8.86	8.1	16.96	0.05	3	PASS
			RB6#0	7.86	8.1	15.96	0.04	3	PASS
		16QAM	RB1#0	8.27	8.1	16.37	0.04	3	PASS
			RB6#0	6.67	8.1	14.77	0.03	3	PASS
	Middle	QPSK	RB1#0	8.56	8.1	16.66	0.05	3	PASS
			RB6#0	7.95	8.1	16.05	0.04	3	PASS
		16QAM	RB1#0	7.73	8.1	15.83	0.04	3	PASS

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	High	QPSK	RB6#0	6.66	8.1	14.76	0.03	3	PASS
			RB1#0	8.4	8.1	16.50	0.04	3	PASS
		16QAM	RB6#0	7.92	8.1	16.02	0.04	3	PASS
			RB1#0	7.71	8.1	15.81	0.04	3	PASS
3 MHz	Low	QPSK	RB1#0	8.53	8.1	16.63	0.05	3	PASS
			RB15#0	7.77	8.1	15.87	0.04	3	PASS
		16QAM	RB1#0	7.62	8.1	15.72	0.04	3	PASS
			RB15#0	6.83	8.1	14.93	0.03	3	PASS
	Middle	QPSK	RB1#0	8.53	8.1	16.63	0.05	3	PASS
			RB15#0	7.97	8.1	16.07	0.04	3	PASS
		16QAM	RB1#0	7.34	8.1	15.44	0.03	3	PASS
			RB15#0	6.72	8.1	14.82	0.03	3	PASS
	High	QPSK	RB1#0	8.44	8.1	16.54	0.05	3	PASS
			RB15#0	7.66	8.1	15.76	0.04	3	PASS
		16QAM	RB1#0	7.29	8.1	15.39	0.03	3	PASS
			RB15#0	6.57	8.1	14.67	0.03	3	PASS
5 MHz	Low	QPSK	RB1#0	8.44	8.1	16.54	0.05	3	PASS
			RB25#0	7.6	8.1	15.70	0.04	3	PASS
		16QAM	RB1#0	7.16	8.1	15.26	0.03	3	PASS
			RB25#0	6.82	8.1	14.92	0.03	3	PASS
	Middle	QPSK	RB1#0	8.47	8.1	16.57	0.05	3	PASS
			RB25#0	7.8	8.1	15.90	0.04	3	PASS
		16QAM	RB1#0	7.98	8.1	16.08	0.04	3	PASS
			RB25#0	6.54	8.1	14.64	0.03	3	PASS
	High	QPSK	RB1#0	8.63	8.1	16.73	0.05	3	PASS
			RB25#0	7.29	8.1	15.39	0.03	3	PASS
		16QAM	RB1#0	7.5	8.1	15.60	0.04	3	PASS
			RB25#0	6.73	8.1	14.83	0.03	3	PASS
10 MHz	Low	QPSK	RB1#0	8.9	8.1	17.00	0.05	3	PASS
			RB50#0	7.63	8.1	15.73	0.04	3	PASS
		16QAM	RB1#0	7.54	8.1	15.64	0.04	3	PASS
			RB50#0	6.92	8.1	15.02	0.03	3	PASS
	Middle	QPSK	RB1#0	8.75	8.1	16.85	0.05	3	PASS
			RB50#0	7.94	8.1	16.04	0.04	3	PASS
		16QAM	RB1#0	7.47	8.1	15.57	0.04	3	PASS
			RB50#0	6.85	8.1	14.95	0.03	3	PASS
	High	QPSK	RB1#0	8.55	8.1	16.65	0.05	3	PASS
			RB50#0	7.55	8.1	15.65	0.04	3	PASS
		16QAM	RB1#0	7.64	8.1	15.74	0.04	3	PASS

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			RB50#0	6.47	8.1	14.57	0.03	3	PASS
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FDD LTE Band 13									
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	7.5	9.83	17.33	0.05	3	PASS
			RB25#0	6.81	9.83	16.64	0.05	3	PASS
		16QAM	RB1#0	6.04	9.83	15.87	0.04	3	PASS
			RB25#0	5.61	9.83	15.44	0.03	3	PASS
	Middle	QPSK	RB1#0	7.68	9.83	17.51	0.06	3	PASS
			RB25#0	6.81	9.83	16.64	0.05	3	PASS
		16QAM	RB1#0	6.74	9.83	16.57	0.05	3	PASS
			RB25#0	5.67	9.83	15.50	0.04	3	PASS
	High	QPSK	RB1#0	7.47	9.83	17.30	0.05	3	PASS
			RB25#0	6.46	9.83	16.29	0.04	3	PASS
		16QAM	RB1#0	6.24	9.83	16.07	0.04	3	PASS
			RB25#0	5.61	9.83	15.44	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	7.52	9.83	17.35	0.05	3	PASS
			RB50#0	6.59	9.83	16.42	0.04	3	PASS
		16QAM	RB1#0	6.47	9.83	16.30	0.04	3	PASS
			RB50#0	5.79	9.83	15.62	0.04	3	PASS
	High	QPSK	RB1#0	-	-	-	-	3	PASS
			RB50#0	-	-	-	-	3	PASS
		16QAM	RB1#0	-	-	-	-	3	PASS
			RB50#0	-	-	-	-	3	PASS

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	11.17	8.1	19.27	0.08	3	PASS
			RB25#0	10.29	8.1	18.39	0.07	3	PASS
		16QAM	RB1#0	10.63	8.1	18.73	0.07	3	PASS

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	Middle	QPSK	RB25#0	9.41	8.1	17.51	0.06	3	PASS	
			RB1#0	11.18	8.1	19.28	0.08	3	PASS	
		16QAM	RB25#0	10.11	8.1	18.21	0.07	3	PASS	
			RB1#0	10.66	8.1	18.76	0.08	3	PASS	
		High	QPSK	RB25#0	9.42	8.1	17.52	0.06	3	PASS
				RB1#0	11.28	8.1	19.38	0.09	3	PASS
	16QAM	RB25#0	10.11	8.1	18.21	0.07	3	PASS		
		RB1#0	10.47	8.1	18.57	0.07	3	PASS		
	10 MHz	Low	QPSK	RB25#0	9.32	8.1	17.42	0.06	3	PASS
				RB1#0	10.08	8.1	18.18	0.07	3	PASS
			16QAM	RB1#0	8.75	8.1	16.85	0.05	3	PASS
				RB50#0	8.07	8.1	16.17	0.04	3	PASS
Middle		QPSK	RB1#0	9.67	8.1	17.77	0.06	3	PASS	
			RB50#0	9.16	8.1	17.26	0.05	3	PASS	
		16QAM	RB1#0	9.17	8.1	17.27	0.05	3	PASS	
			RB50#0	8.23	8.1	16.33	0.04	3	PASS	
High		QPSK	RB1#0	8.37	8.1	16.47	0.04	3	PASS	
			RB50#0	8.23	8.1	16.33	0.04	3	PASS	
		16QAM	RB1#0	9.34	8.1	17.44	0.06	3	PASS	
			RB50#0	9.43	8.1	17.53	0.06	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	-2.78	17.8	15.02	0.03	2	PASS
			RB6#0	-3.73	17.8	14.07	0.03	2	PASS
		16QAM	RB1#0	-2.42	17.8	15.38	0.03	2	PASS
			RB6#0	-3.57	17.8	14.23	0.03	2	PASS
	Middle	QPSK	RB1#0	-3.12	17.8	14.68	0.03	2	PASS
			RB6#0	-3.84	17.8	13.96	0.02	2	PASS
		16QAM	RB1#0	-2.9	17.8	14.90	0.03	2	PASS
			RB6#0	-4.17	17.8	13.63	0.02	2	PASS
	High	QPSK	RB1#0	-2.4	17.8	15.40	0.03	2	PASS
			RB6#0	-3.39	17.8	14.41	0.03	2	PASS
		16QAM	RB1#0	-2.16	17.8	15.64	0.04	2	PASS
			RB6#0	-3.14	17.8	14.66	0.03	2	PASS
3 MHz	Low	QPSK	RB1#0	-2.08	17.8	15.72	0.04	2	PASS

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	Middle	16QAM	RB15#0	-2.91	17.8	14.89	0.03	2	PASS
			RB1#0	-2.82	17.8	14.98	0.03	2	PASS
		QPSK	RB15#0	-3.33	17.8	14.47	0.03	2	PASS
			RB1#0	-1.53	17.8	16.27	0.04	2	PASS
		16QAM	RB15#0	-2.98	17.8	14.82	0.03	2	PASS
			RB1#0	-3.05	17.8	14.75	0.03	2	PASS
	High	QPSK	RB15#0	-3.9	17.8	13.90	0.02	2	PASS
			RB1#0	-1.54	17.8	16.26	0.04	2	PASS
		16QAM	RB15#0	-2.42	17.8	15.38	0.03	2	PASS
			RB1#0	-2.37	17.8	15.43	0.03	2	PASS
		QPSK	RB15#0	-3.76	17.8	14.04	0.03	2	PASS
			RB1#0	-1.72	17.8	16.08	0.04	2	PASS
5 MHz	Low	QPSK	RB25#0	-3.1	17.8	14.70	0.03	2	PASS
			RB1#0	-3.13	17.8	14.67	0.03	2	PASS
		16QAM	RB25#0	-3.97	17.8	13.83	0.02	2	PASS
			RB1#0	-1.82	17.8	15.98	0.04	2	PASS
	Middle	QPSK	RB25#0	-2.98	17.8	14.82	0.03	2	PASS
			RB1#0	-3	17.8	14.80	0.03	2	PASS
		16QAM	RB25#0	-3.67	17.8	14.13	0.03	2	PASS
			RB1#0	-1.49	17.8	16.31	0.04	2	PASS
	High	QPSK	RB25#0	-2.1	17.8	15.70	0.04	2	PASS
			RB1#0	-2.76	17.8	15.04	0.03	2	PASS
		16QAM	RB25#0	-3.55	17.8	14.25	0.03	2	PASS
			RB1#0	-1.77	17.8	16.03	0.04	2	PASS
10 MHz	Low	QPSK	RB50#0	-2.62	17.8	15.18	0.03	2	PASS
			RB1#0	-2.84	17.8	14.96	0.03	2	PASS
		16QAM	RB50#0	-3.61	17.8	14.19	0.03	2	PASS
			RB1#0	-1.87	17.8	15.93	0.04	2	PASS
	Middle	QPSK	RB50#0	-2.59	17.8	15.21	0.03	2	PASS
			RB1#0	-3.13	17.8	14.67	0.03	2	PASS
		16QAM	RB50#0	-3.94	17.8	13.86	0.02	2	PASS
			RB1#0	-1.8	17.8	16.00	0.04	2	PASS
	High	QPSK	RB50#0	-2.46	17.8	15.34	0.03	2	PASS
			RB1#0	-2.72	17.8	15.08	0.03	2	PASS
		16QAM	RB50#0	-3.3	17.8	14.50	0.03	2	PASS
			RB1#0	-2.01	17.8	15.79	0.04	2	PASS
15 MHz	Low	QPSK	RB75#0	-2.6	17.8	15.20	0.03	2	PASS
			RB1#0	-3.06	17.8	14.74	0.03	2	PASS
		16QAM	RB75#0	-3.77	17.8	14.03	0.03	2	PASS
			RB1#0	-1.62	17.8	16.18	0.04	2	PASS
	Middle	QPSK	RB1#0	-1.62	17.8	16.18	0.04	2	PASS

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		16QAM	RB75#0	-3	17.8	14.80	0.03	2	PASS		
			RB1#0	-2.81	17.8	14.99	0.03	2	PASS		
		High	QPSK	RB75#0	-3.71	17.8	14.09	0.03	2	PASS	
				RB1#0	-1.83	17.8	15.97	0.04	2	PASS	
			16QAM	RB75#0	-2.46	17.8	15.34	0.03	2	PASS	
				RB1#0	-2.31	17.8	15.49	0.04	2	PASS	
	20MHz	Low	QPSK	RB75#0	-3.77	17.8	14.03	0.03	2	PASS	
				RB1#0	-1.98	17.8	15.82	0.04	2	PASS	
			16QAM	RB1#0	-2.61	17.8	15.19	0.03	2	PASS	
				RB100#0	-2.46	17.8	15.34	0.03	2	PASS	
			Middle	QPSK	RB1#0	-1.36	17.8	16.44	0.04	2	PASS
					RB100#0	-2.98	17.8	14.82	0.03	2	PASS
16QAM		RB1#0		-2.9	17.8	14.90	0.03	2	PASS		
		RB100#0		-3.56	17.8	14.24	0.03	2	PASS		
High		QPSK	RB1#0	-1.61	17.8	16.19	0.04	2	PASS		
			RB100#0	-2.78	17.8	15.02	0.03	2	PASS		
		16QAM	RB1#0	-2.89	17.8	14.91	0.03	2	PASS		
			RB100#0	-3.91	17.8	13.89	0.02	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	-1.10	19.50	18.40	0.07	3	PASS
			RB25#0	-1.81	19.50	17.69	0.06	3	PASS
		16QAM	RB1#0	-2.25	19.50	17.25	0.05	3	PASS
			RB25#0	-2.84	19.50	16.66	0.05	3	PASS
	Middle	QPSK	RB1#0	0.42	19.50	19.92	0.10	3	PASS
			RB25#0	0.03	19.50	19.53	0.09	3	PASS
		16QAM	RB1#0	-1.03	19.50	18.47	0.07	3	PASS
			RB25#0	-1.01	19.50	18.49	0.07	3	PASS
	High	QPSK	RB1#0	0.87	19.50	20.37	0.11	3	PASS
			RB25#0	0.50	19.50	20.00	0.10	3	PASS
		16QAM	RB1#0	-0.20	19.50	19.30	0.09	3	PASS
			RB25#0	-0.21	19.50	19.29	0.08	3	PASS
10 MHz	Low	QPSK	RB1#0	-0.85	19.50	18.65	0.07	3	PASS
			RB50#0	-1.82	19.50	17.68	0.06	3	PASS
		16QAM	RB1#0	-1.65	19.50	17.85	0.06	3	PASS

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	Middle	QPSK	RB50#0	-2.71	19.50	16.79	0.05	3	PASS	
			RB1#0	0.82	19.50	20.32	0.11	3	PASS	
		16QAM	RB50#0	0.03	19.50	19.53	0.09	3	PASS	
			RB1#0	-0.65	19.50	18.85	0.08	3	PASS	
		High	QPSK	RB50#0	-0.87	19.50	18.63	0.07	3	PASS
				RB1#0	0.61	19.50	20.11	0.10	3	PASS
	16QAM	RB50#0	0.27	19.50	19.77	0.09	3	PASS		
		RB1#0	0.06	19.50	19.56	0.09	3	PASS		
	15 MHz	Low	QPSK	RB50#0	-0.34	19.50	19.16	0.08	3	PASS
				RB1#0	-0.92	19.50	18.58	0.07	3	PASS
			16QAM	RB1#0	-1.79	19.50	17.71	0.06	3	PASS
				RB75#0	-1.75	19.50	17.75	0.06	3	PASS
Middle		QPSK	RB75#0	-2.99	19.50	16.51	0.04	3	PASS	
			RB1#0	0.88	19.50	20.38	0.11	3	PASS	
		16QAM	RB75#0	-0.29	19.50	19.21	0.08	3	PASS	
			RB1#0	-1.08	19.50	18.42	0.07	3	PASS	
High		QPSK	RB75#0	-1.27	19.50	18.23	0.07	3	PASS	
			RB1#0	0.72	19.50	20.22	0.11	3	PASS	
		16QAM	RB75#0	0.55	19.50	20.05	0.10	3	PASS	
			RB1#0	-0.41	19.50	19.09	0.08	3	PASS	
20MHz	Low	QPSK	RB75#0	-0.45	19.50	19.05	0.08	3	PASS	
			RB1#0	-1.09	19.50	18.41	0.07	3	PASS	
		16QAM	RB1#0	-1.84	19.50	17.66	0.06	3	PASS	
			RB100#0	-2.55	19.50	16.95	0.05	3	PASS	
	Middle	QPSK	RB100#0	-2.96	19.50	16.54	0.05	3	PASS	
			RB1#0	0.21	19.50	19.71	0.09	3	PASS	
		16QAM	RB100#0	-0.02	19.50	19.48	0.09	3	PASS	
			RB1#0	-1.39	19.50	18.11	0.06	3	PASS	
	High	QPSK	RB100#0	-1.16	19.50	18.34	0.07	3	PASS	
			RB1#0	0.22	19.50	19.72	0.09	3	PASS	
		16QAM	RB100#0	0.42	19.50	19.92	0.10	3	PASS	
			RB1#0	-0.71	19.50	18.79	0.08	3	PASS	
			RB100#0	-0.73	19.50	18.77	0.08	3	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: SHE20100017-02AE Data EXHIBIT A".

Peak to Average Ratio Measurement Results for WCDMA

Test Band	Channel	Peak to Average Ratio (dB)	Limit (W)	Refer to Plot ^{Note 2}	Verdict
WCDMA Band 2	Low	3.24	13	1.1	PASS
	Middle	3.30	13	1.2	PASS
	High	3.19	13	1.3	PASS
WCDMA Band 5	Low	3.24	13	2.1	PASS
	Middle	3.19	13	2.2	PASS
	High	3.17	13	2.3	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 ^{Note 2}	Verdict
20 MHz	Low	QPSK	RB1#0	4.67	13	3.1	PASS
			RB100#0	5.20	13	3.2	PASS
		16QAM	RB1#0	5.61	13	3.3	PASS
			RB100#0	6.15	13	3.4	PASS
	Middle	QPSK	RB1#0	4.90	13	3.5	PASS
			RB100#0	5.35	13	3.6	PASS
		16QAM	RB1#0	5.71	13	3.7	PASS
			RB100#0	6.28	13	3.8	PASS
	High	QPSK	RB1#0	4.57	13	3.9	PASS
			RB100#0	5.56	13	3.10	PASS
		16QAM	RB1#0	5.57	13	3.11	PASS
			RB100#0	6.40	13	3.12	PASS

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FDD LTE Band 4							
Test BW	Channel	Modul.	RB Set (Size#Offset)	Peak to Average Ratio (dB)	Limit (dB)	Refer to Plot ^{Note 2}	Verdict
20 MHz	Low	QPSK	RB1#0	4.85	13	4.1	PASS
			RB100#0	5.39	13	4.2	PASS
		16QAM	RB1#0	5.62	13	4.2	PASS
			RB100#0	6.30	13	4.4	PASS
	Middle	QPSK	RB1#0	4.90	13	4.5	PASS
			RB100#0	5.49	13	4.6	PASS
		16QAM	RB1#0	5.89	13	4.7	PASS
			RB100#0	6.33	13	4.8	PASS
	High	QPSK	RB1#0	4.87	13	4.9	PASS
			RB100#0	5.18	13	4.10	PASS
		16QAM	RB1#0	5.83	13	4.11	PASS
			RB100#0	6.11	13	4.12	PASS

FDD LTE Band 5							
Test BW	Channel	Modul.	RB Set (Size#Offset)	Peak to Average Ratio (dB)	Limit (dB)	Refer to Plot ^{Note 2}	Verdict
10 MHz	Low	QPSK	RB1#0	3.64	13	5.1	PASS
			RB50#0	5.00	13	5.2	PASS
		16QAM	RB1#0	4.41	13	5.3	PASS
			RB50#0	5.80	13	5.4	PASS
	Middle	QPSK	RB1#0	3.52	13	5.5	PASS
			RB50#0	4.99	13	5.6	PASS
		16QAM	RB1#0	4.41	13	5.7	PASS
			RB50#0	5.75	13	5.8	PASS
	High	QPSK	RB1#0	3.52	13	5.9	PASS
			RB50#0	4.94	13	5.10	PASS
		16QAM	RB1#0	4.38	13	5.11	PASS
			RB50#0	5.71	13	5.12	PASS

FDD LTE Band 7							
Test BW	Channel	Modul.	RB Set (Size#Offset)	Peak to Average Ratio (dB)	Limit (dB)	Refer to Plot ^{Note 2}	Verdict
20 MHz	Low	QPSK	RB1#0	4.24	13	6.1	PASS
			RB100#0	5.06	13	6.2	PASS

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		16QAM	RB1#0	4.97	13	6.3	PASS
			RB100#0	5.84	13	6.4	PASS
	Middle	QPSK	RB1#0	4.69	13	6.5	PASS
			RB100#0	5.01	13	6.6	PASS
		16QAM	RB1#0	5.59	13	6.7	PASS
			RB100#0	5.80	13	6.8	PASS
	High	QPSK	RB1#0	4.65	13	6.9	PASS
			RB100#0	5.25	13	6.10	PASS
		16QAM	RB1#0	5.57	13	6.11	PASS
			RB100#0	6.02	13	6.12	PASS

FDD LTE Band 12

Test BW	Channel	Modul.	RB Set (Size#Offset)	Peak to Average Ratio (dB)	Limit (dB)	Refer to Plot ^{Note 2}	Verdict
10 MHz	Low	QPSK	RB1#0	4.14	13	7.1	PASS
			RB50#0	5.21	13	7.2	PASS
		16QAM	RB1#0	5.09	13	7.3	PASS
			RB50#0	6.02	13	7.4	PASS
	Middle	QPSK	RB1#0	4.03	13	7.5	PASS
			RB50#0	5.30	13	7.6	PASS
		16QAM	RB1#0	4.67	13	7.7	PASS
			RB50#0	6.14	13	7.8	PASS
	High	QPSK	RB1#0	4.32	13	7.9	PASS
			RB50#0	4.95	13	7.10	PASS
		16QAM	RB1#0	5.15	13	7.11	PASS
			RB50#0	5.90	13	7.12	PASS

FDD LTE Band 13

Test BW	Channel	Modul.	RB Set (Size#Offset)	Peak to Average Ratio (dB)	Limit (dB)	Refer to Plot ^{Note 2}	Verdict
10 MHz	Low	QPSK	RB1#0	--	--	--	--
			RB50#0	--	--	--	--
		16QAM	RB1#0	--	--	--	--
			RB50#0	--	--	--	--
	Middle	QPSK	RB1#0	4.27	13	8.1	PASS
			RB50#0	5.15	13	8.2	PASS
		16QAM	RB1#0	5.14	13	8.3	PASS
			RB50#0	5.90	13	8.4	PASS

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	High	QPSK	RB1#0	--	--	--	--
			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 ^{Note 2}	Verdict
10 MHz	Low	QPSK	RB1#0	4.10	13	9.1	PASS
			RB50#0	4.99	13	9.2	PASS
		16QAM	RB1#0	4.89	13	9.3	PASS
			RB50#0	5.85	13	9.4	PASS
	Middle	QPSK	RB1#0	4.27	13	9.5	PASS
			RB50#0	4.90	13	9.6	PASS
		16QAM	RB1#0	5.18	13	9.7	PASS
			RB50#0	5.81	13	9.8	PASS
	High	QPSK	RB1#0	4.38	13	9.9	PASS
			RB50#0	4.80	13	9.10	PASS
		16QAM	RB1#0	5.21	13	9.11	PASS
			RB50#0	5.73	13	9.12	PASS

FDD LTE Band 25

Test BW	Channel	Modul.	RB Set (Size#Offset)	Peak to Average Ratio (dB)	Limit (dB)	Refer to Plot ^{Note 2}	Verdict
20 MHz	Low	QPSK	RB1#0	4.65	13	10.1	PASS
			RB100#0	5.03	13	10.2	PASS
		16QAM	RB1#0	5.42	13	10.3	PASS
			RB100#0	5.91	13	10.4	PASS
	Middle	QPSK	RB1#0	4.78	13	10.5	PASS
			RB100#0	5.16	13	10.6	PASS
		16QAM	RB1#0	5.70	13	10.7	PASS
			RB100#0	5.98	13	10.8	PASS
	High	QPSK	RB1#0	4.62	13	10.9	PASS
			RB100#0	5.30	13	10.10	PASS
		16QAM	RB1#0	5.51	13	10.11	PASS
			RB100#0	6.12	13	10.12	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 ^{Note 2}	Verdict
20 MHz	Low	QPSK	RB1#0	8.39	13	11.1	PASS
			RB100#0	9.45	13	11.2	PASS
		16QAM	RB1#0	9.61	13	11.3	PASS
			RB100#0	9.68	13	11.4	PASS
	Middle	QPSK	RB1#0	8.22	13	11.5	PASS
			RB100#0	9.04	13	11.6	PASS
		16QAM	RB1#0	10.47	13	11.7	PASS
			RB100#0	11.93	13	11.8	PASS
	High	QPSK	RB1#0	8.47	13	11.9	PASS
			RB100#0	9.32	13	11.10	PASS
		16QAM	RB1#0	9.09	13	11.11	PASS
			RB100#0	9.91	13	11.12	PASS

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5.1.3 Occupied Bandwidth

Note(s):

1. All modes were tested, but only the typical data were reported in this report.
2. Test plots please refer to the document "Annex No: SHE20100017-02AE Data EXHIBIT B".

Occupied Bandwidth Measurement Results for GSM/WCDMA

Test Band	Channel	Measured 99% Occupied Bandwidth (MHz)	Measured -26 dB Occupied Bandwidth (MHz)	Refer to Plot ^{Note 2}
GSM 850	Low	0.245	0.315	1.1
	Middle	0.243	0.316	1.2
	High	0.242	0.311	1.3
GSM 1900	Low	0.247	0.307	2.1
	Middle	0.245	0.313	2.2
	High	0.244	0.311	2.3
GRPS 850	Low	0.242	0.314	3.1
	Middle	0.243	0.308	3.2
	High	0.244	0.313	3.3
GRPS 1900	Low	0.245	0.316	4.1
	Middle	0.247	0.316	4.2
	High	0.246	0.316	4.3
EDGE 850	Low	0.243	0.308	5.1
	Middle	0.244	0.312	5.2
	High	0.246	0.306	5.3
EDGE 1900	Low	0.243	0.310	6.1
	Middle	0.242	0.305	6.2
	High	0.244	0.311	6.3
WCDMA Band II	Low	4.104	4.688	7.1
	Middle	4.107	4.684	7.2
	High	4.101	4.686	7.3
WCDMA Band V	Low	4.108	4.683	8.1
	Middle	4.107	4.692	8.2
	High	4.107	4.695	8.3

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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 ^{Note 2}
1.4 MHz	Low	QPSK	RB6#0	1.095	1.268	9.1
		16QAM	RB6#0	1.093	1.279	9.2
	Middle	QPSK	RB6#0	1.089	1.285	9.3
		16QAM	RB6#0	1.096	1.296	9.4
	High	QPSK	RB6#0	1.092	1.286	9.5
		16QAM	RB6#0	1.089	1.282	9.6
3 MHz	Low	QPSK	RB15#0	2.707	2.992	9.7
		16QAM	RB15#0	2.699	2.991	9.8
	Middle	QPSK	RB15#0	2.707	2.968	9.9
		16QAM	RB15#0	2.702	2.990	9.10
	High	QPSK	RB15#0	2.702	2.976	9.11
		16QAM	RB15#0	2.699	2.988	9.12
5 MHz	Low	QPSK	RB25#0	4.495	4.980	9.13
		16QAM	RB25#0	4.510	5.028	9.14
	Middle	QPSK	RB25#0	4.516	5.017	9.15
		16QAM	RB25#0	4.503	4.970	9.16
	High	QPSK	RB25#0	4.495	4.931	9.17
		16QAM	RB25#0	4.500	4.977	9.18
10 MHz	Low	QPSK	RB50#0	8.958	9.822	9.19
		16QAM	RB50#0	8.954	9.884	9.20
	Middle	QPSK	RB50#0	8.979	9.876	9.21
		16QAM	RB50#0	8.964	9.873	9.22
	High	QPSK	RB50#0	8.955	9.910	9.23
		16QAM	RB50#0	8.958	9.785	9.24
15 MHz	Low	QPSK	RB75#0	13.372	14.547	9.25
		16QAM	RB75#0	13.391	14.631	9.26
	Middle	QPSK	RB75#0	13.451	14.754	9.27
		16QAM	RB75#0	13.447	14.657	9.28
	High	QPSK	RB75#0	13.456	14.632	9.29
		16QAM	RB75#0	13.480	14.766	9.30
20 MHz	Low	QPSK	RB100#0	17.851	19.450	9.31
		16QAM	RB100#0	17.813	19.319	9.32
	Middle	QPSK	RB100#0	17.913	19.430	9.33
		16QAM	RB100#0	17.942	19.461	9.34
	High	QPSK	RB100#0	18.018	19.458	9.35
		16QAM	RB100#0	18.011	19.665	9.36

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FDD LTE Band 4						
Test BW	CH	Modul.	RB Set (Size#Offset)	99% Occupied Bandwidth (MHz)	-26 dB Bandwidth (MHz)	Refer to Plot ^{Note 2}
1.4 MHz	Low	QPSK	RB6#0	1.089	1.275	10.1
		16QAM	RB6#0	1.098	1.304	10.2
	Middle	QPSK	RB6#0	1.093	1.290	10.3
		16QAM	RB6#0	1.089	1.271	10.4
	High	QPSK	RB6#0	1.093	1.279	10.5
		16QAM	RB6#0	1.094	1.292	10.6
3 MHz	Low	QPSK	RB15#0	2.701	2.965	10.7
		16QAM	RB15#0	2.702	2.982	10.8
	Middle	QPSK	RB15#0	2.704	2.964	10.9
		16QAM	RB15#0	2.699	2.992	10.10
	High	QPSK	RB15#0	2.707	2.991	10.11
		16QAM	RB15#0	2.701	2.979	10.12
5 MHz	Low	QPSK	RB25#0	4.506	4.998	10.13
		16QAM	RB25#0	4.494	4.950	10.14
	Middle	QPSK	RB25#0	4.505	4.972	10.15
		16QAM	RB25#0	4.506	5.011	10.16
	High	QPSK	RB25#0	4.500	4.973	10.17
		16QAM	RB25#0	4.505	5.028	10.18
10 MHz	Low	QPSK	RB50#0	8.959	9.850	10.19
		16QAM	RB50#0	8.954	9.818	10.20
	Middle	QPSK	RB50#0	8.966	9.930	10.21
		16QAM	RB50#0	8.968	9.796	10.22
	High	QPSK	RB50#0	8.957	9.866	10.23
		16QAM	RB50#0	8.957	9.842	10.24
15 MHz	Low	QPSK	RB75#0	13.394	14.603	10.25
		16QAM	RB75#0	13.398	14.668	10.26
	Middle	QPSK	RB75#0	13.416	14.657	10.27
		16QAM	RB75#0	13.448	14.649	10.28
	High	QPSK	RB75#0	13.365	14.682	10.29
		16QAM	RB75#0	13.393	14.659	10.30
20 MHz	Low	QPSK	RB100#0	17.877	19.397	10.31
		16QAM	RB100#0	17.887	19.340	10.32
	Middle	QPSK	RB100#0	17.906	19.424	10.33
		16QAM	RB100#0	17.938	19.449	10.34
	High	QPSK	RB100#0	17.822	19.435	10.35
		16QAM	RB100#0	17.808	19.186	10.36

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FDD LTE Band 5						
Test BW	CH	Modul.	RB Set (Size#Offset)	99% Occupied Bandwidth (MHz)	-26 dB Bandwidth (MHz)	Refer to Plot ^{Note 2}
1.4 MHz	Low	QPSK	RB6#0	1.090	1.274	11.1
		16QAM	RB6#0	1.092	1.294	11.2
	Middle	QPSK	RB6#0	1.090	1.288	11.3
		16QAM	RB6#0	1.087	1.278	11.4
	High	QPSK	RB6#0	1.091	1.277	11.5
		16QAM	RB6#0	1.091	1.272	11.6
3 MHz	Low	QPSK	RB15#0	2.701	2.973	11.7
		16QAM	RB15#0	2.700	2.991	11.8
	Middle	QPSK	RB15#0	2.705	2.972	11.9
		16QAM	RB15#0	2.696	2.984	11.10
	High	QPSK	RB15#0	2.702	2.979	11.11
		16QAM	RB15#0	2.695	2.991	11.12
5 MHz	Low	QPSK	RB25#0	4.506	4.985	11.13
		16QAM	RB25#0	4.492	4.946	11.14
	Middle	QPSK	RB25#0	4.492	4.985	11.15
		16QAM	RB25#0	4.500	5.011	11.16
	High	QPSK	RB25#0	4.487	4.977	11.17
		16QAM	RB25#0	4.500	4.982	11.18
10 MHz	Low	QPSK	RB50#0	8.966	9.997	11.19
		16QAM	RB50#0	8.959	9.822	11.20
	Middle	QPSK	RB50#0	8.938	9.826	11.21
		16QAM	RB50#0	8.951	9.843	11.22
	High	QPSK	RB50#0	8.956	9.827	11.23
		16QAM	RB50#0	8.943	9.823	11.24

FDD LTE Band 7						
Test BW	CH	Modul.	RB Set (Size#Offset)	99% Occupied Bandwidth (MHz)	-26 dB Bandwidth (MHz)	Refer to Plot ^{Note 2}
5 MHz	Low	QPSK	RB25#0	4.509	5.010	12.1
		16QAM	RB25#0	4.488	5.002	12.2
	Middle	QPSK	RB25#0	4.494	5.011	12.3
		16QAM	RB25#0	4.513	5.030	12.4
	High	QPSK	RB25#0	4.489	4.980	12.5
		16QAM	RB25#0	4.511	5.006	12.6
10 MHz	Low	QPSK	RB50#0	8.966	10.007	12.7
		16QAM	RB50#0	8.956	9.847	12.8

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	Middle	QPSK	RB50#0	8.945	9.895	12.9
		16QAM	RB50#0	8.952	9.914	12.10
	High	QPSK	RB50#0	8.964	9.893	12.11
		16QAM	RB50#0	8.962	9.918	12.12
15 MHz	Low	QPSK	RB75#0	13.428	14.817	12.13
		16QAM	RB75#0	13.426	14.663	12.14
	Middle	QPSK	RB75#0	13.373	14.698	12.15
		16QAM	RB75#0	13.417	14.670	12.16
	High	QPSK	RB75#0	13.434	14.816	12.17
		16QAM	RB75#0	13.449	14.799	12.18
20 MHz	Low	QPSK	RB100#0	17.889	19.417	12.19
		16QAM	RB100#0	17.921	19.453	12.20
	Middle	QPSK	RB100#0	17.869	19.404	12.21
		16QAM	RB100#0	17.856	19.610	12.22
	High	QPSK	RB100#0	17.969	19.726	12.23
		16QAM	RB100#0	17.928	19.532	12.24

FDD LTE Band 12

Test BW	CH	Modul.	RB Set (Size#Offset)	99% Occupied Bandwidth (MHz)	-26 dB Bandwidth (MHz)	Refer to Plot ^{Note 2}
1.4 MHz	Low	QPSK	RB6#0	1.087	1.274	13.1
		16QAM	RB6#0	1.094	1.295	13.2
	Middle	QPSK	RB6#0	1.090	1.284	13.3
		16QAM	RB6#0	1.088	1.278	13.4
	High	QPSK	RB6#0	1.092	1.260	13.5
		16QAM	RB6#0	1.091	1.286	13.6
3 MHz	Low	QPSK	RB15#0	2.693	2.963	13.7
		16QAM	RB15#0	2.698	2.972	13.8
	Middle	QPSK	RB15#0	2.705	2.964	13.9
		16QAM	RB15#0	2.702	2.997	13.10
	High	QPSK	RB15#0	2.706	2.996	13.11
		16QAM	RB15#0	2.700	2.994	13.12
5 MHz	Low	QPSK	RB25#0	4.492	4.977	13.13
		16QAM	RB25#0	4.480	4.973	13.14
	Middle	QPSK	RB25#0	4.500	4.994	13.15
		16QAM	RB25#0	4.507	5.013	13.16
	High	QPSK	RB25#0	4.487	4.946	13.17
		16QAM	RB25#0	4.494	4.982	13.18
10 MHz	Low	QPSK	RB50#0	8.967	9.963	13.19
		16QAM	RB50#0	8.951	9.843	13.20

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	Middle	QPSK	RB50#0	8.980	9.930	13.21
		16QAM	RB50#0	8.989	9.867	13.22
	High	QPSK	RB50#0	8.934	9.791	13.23
		16QAM	RB50#0	8.948	9.836	13.24

FDD LTE Band 13

Test BW	CH	Modul.	RB Set (Size#Offset)	99% Occupied Bandwidth (MHz)	-26 dB Bandwidth (MHz)	Refer to Plot ^{Note 2}
5 MHz	Low	QPSK	RB25#0	4.501	4.967	14.1
		16QAM	RB25#0	4.487	4.950	14.2
	Middle	QPSK	RB25#0	4.497	4.978	14.3
		16QAM	RB25#0	4.503	4.977	14.4
	High	QPSK	RB25#0	4.493	4.975	14.5
		16QAM	RB25#0	4.503	4.984	14.6
10 MHz	Low	QPSK	RB50#0	--	--	--
		16QAM	RB50#0	--	--	--
	Middle	QPSK	RB50#0	8.980	9.911	14.7
		16QAM	RB50#0	8.961	9.847	14.8
	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 ^{Note 2}
5 MHz	Low	QPSK	RB25#0	4.513	4.992	15.1
		16QAM	RB25#0	4.497	4.997	15.2
	Middle	QPSK	RB25#0	4.493	4.957	15.3
		16QAM	RB25#0	4.500	5.000	15.4
	High	QPSK	RB25#0	4.488	4.981	15.5
		16QAM	RB25#0	4.506	5.005	15.6
10 MHz	Low	QPSK	RB50#0	8.977	9.944	15.7
		16QAM	RB50#0	8.960	9.815	15.8
	Middle	QPSK	RB50#0	8.939	9.826	15.9
		16QAM	RB50#0	8.934	9.820	15.10
	High	QPSK	RB50#0	8.930	9.809	15.11
		16QAM	RB50#0	8.926	9.809	15.12

FDD LTE Band 25

Test BW	CH	Modul.	RB Set (Size#Offset)	99% Occupied Bandwidth (MHz)	-26 dB Bandwidth (MHz)	Refer to Plot ^{Note 2}
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1.4 MHz	Low	QPSK	RB6#0	1.089	1.288	16.1
		16QAM	RB6#0	1.091	1.296	16.2
	Middle	QPSK	RB6#0	1.089	1.302	16.3
		16QAM	RB6#0	1.087	1.269	16.4
	High	QPSK	RB6#0	1.092	1.269	16.5
		16QAM	RB6#0	1.093	1.279	16.6
3 MHz	Low	QPSK	RB15#0	2.698	2.973	16.7
		16QAM	RB15#0	2.700	2.993	16.8
	Middle	QPSK	RB15#0	2.701	2.982	16.9
		16QAM	RB15#0	2.699	2.987	16.10
	High	QPSK	RB15#0	2.704	2.984	16.11
		16QAM	RB15#0	2.699	2.990	16.12
5 MHz	Low	QPSK	RB25#0	4.504	4.987	16.13
		16QAM	RB25#0	4.493	4.938	16.14
	Middle	QPSK	RB25#0	4.498	4.968	16.15
		16QAM	RB25#0	4.500	5.007	16.16
	High	QPSK	RB25#0	4.489	4.977	16.17
		16QAM	RB25#0	4.500	4.978	16.18
10 MHz	Low	QPSK	RB50#0	8.958	9.916	16.19
		16QAM	RB50#0	8.943	9.808	16.20
	Middle	QPSK	RB50#0	8.944	9.835	16.21
		16QAM	RB50#0	8.945	9.832	16.22
	High	QPSK	RB50#0	8.909	9.788	16.23
		16QAM	RB50#0	8.908	9.816	16.24
15 MHz	Low	QPSK	RB75#0	13.388	14.731	16.25
		16QAM	RB75#0	13.400	14.596	16.26
	Middle	QPSK	RB75#0	13.371	14.609	16.27
		16QAM	RB75#0	13.401	14.581	16.28
	High	QPSK	RB75#0	13.317	14.550	16.29
		16QAM	RB75#0	13.339	14.477	16.30
20 MHz	Low	QPSK	RB100#0	17.831	19.227	16.31
		16QAM	RB100#0	17.851	19.385	16.32
	Middle	QPSK	RB100#0	17.836	19.342	16.33
		16QAM	RB100#0	17.841	19.366	16.34
	High	QPSK	RB100#0	17.839	19.454	16.35
		16QAM	RB100#0	17.821	19.363	16.36

TDD LTE Band 41

Test BW	CH	Modul.	RB Set (Size#Offset)	99% Occupied Bandwidth (MHz)	-26 dB Bandwidth (MHz)	Refer to Plot ^{Note 2}
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5 MHz	Low	QPSK	RB25#0	4.495	5.024	17.1
		16QAM	RB25#0	4.504	5.034	17.2
	Middle	QPSK	RB25#0	4.501	4.954	17.3
		16QAM	RB25#0	4.491	4.987	17.4
	High	QPSK	RB25#0	4.484	4.958	17.5
		16QAM	RB25#0	4.496	5.006	17.6
10 MHz	Low	QPSK	RB50#0	8.985	10.228	17.7
		16QAM	RB50#0	8.983	9.819	17.8
	Middle	QPSK	RB50#0	8.996	10.214	17.9
		16QAM	RB50#0	8.933	9.824	17.10
	High	QPSK	RB50#0	8.986	9.922	17.11
		16QAM	RB50#0	8.953	9.850	17.12
15 MHz	Low	QPSK	RB75#0	13.469	15.735	17.13
		16QAM	RB75#0	13.450	15.495	17.14
	Middle	QPSK	RB75#0	13.423	14.668	17.15
		16QAM	RB75#0	13.480	15.104	17.16
	High	QPSK	RB75#0	13.401	15.841	17.17
		16QAM	RB75#0	13.469	14.847	17.18
20 MHz	Low	QPSK	RB100#0	17.985	19.551	17.19
		16QAM	RB100#0	17.923	19.895	17.20
	Middle	QPSK	RB100#0	17.898	20.206	17.21
		16QAM	RB100#0	17.930	21.482	17.22
	High	QPSK	RB100#0	17.912	20.205	17.23
		16QAM	RB100#0	17.880	19.581	17.24

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5.1.4 Frequency Stability

Frequency Stability Measurement Results for GSM/GPRS/EDGE

GSM 850								
Test Conditions		Frequency Deviation						Verdict
Power (V)	Temperature (°C)	Low channel 824.2 MHz		Middle channel 836.6 MHz		High channel 848.8 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
3.8 V	-30	--	±2060.5	--	±2091.5	--	±2122	PASS
	-20	7.20		8.33		6.59		
	-10	6.30		7.65		13.66		
	0	7.25		7.34		12.26		
	10	6.98		7.87		13.25		
	20	7.59		6.54		12.07		
	23	8.67		8.63		11.65		
	30	9.58		11.25		12.58		
	40	10.46		9.04		12.82		
	50	9.88		12.17		13.62		
3.7 V	23	11.98		14.56		13.95		
4.35V	23	11.02		14.26		13.86		

GSM 1900								
Test Conditions		Frequency Deviation						Verdict
Power (V)	Temperature (°C)	Low channel 1850.2 MHz		Middle channel 1880 MHz		High channel 1909.8 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
3.8 V	-30	--	±4625.5	--	±4700.0	--	±4774.5	PASS
	-20	13.82		11.78		18.21		
	-10	10.33		8.49		9.01		
	0	10.89		9.27		9.54		
	10	11.95		7.69		8.97		
	20	13.45		12.78		14.56		
	23	13.69		14.24		18.08		
	30	12.51		13.26		17.59		
	40	15.21		12.37		13.08		
	50	13.43		12.27		-12.04		
3.7 V	23	7.52		11.56		6.91		

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4.35V	23	12.30		10.23		9.75	
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GPRS 850								
Test Conditions		Frequency Deviation						Verdict
Power (V)	Temperature (°C)	Low channel 824.2 MHz		Middle channel 836.6 MHz		High channel 848.8 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
3.8 V	-30	--	±2060.5	--	±2091.5	--	±2122	PASS
	-20	20.70		20.63		19.69		
	-10	19.65		19.65		20.26		
	0	18.29		18.26		17.58		
	10	16.24		15.68		16.25		
	20	13.58		17.35		18.37		
	23	14.59		17.60		18.34		
	30	17.58		19.25		19.99		
	40	18.11		20.73		22.12		
	50	13.98		20.02		21.76		
3.7 V	23	21.34		20.60		21.57		
4.35V	23	20.89		20.23		20.45		

GPRS 1900								
Test Conditions		Frequency Deviation						Verdict
Power (V)	Temperature (°C)	Low channel 1850.2 MHz		Middle channel 1880 MHz		High channel 1909.8 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
3.8 V	-30	--	±4625.5	--	±4700.0	--	±4774.5	PASS
	-20	11.25		14.35		15.36		
	-10	12.38		15.07		18.05		
	0	13.57		16.25		19.38		
	10	14.98		17.65		15.47		
	20	15.34		18.81		16.39		
	23	16.37		16.92		17.05		
	30	17.35		17.09		18.26		
	40	18.27		17.56		19.27		
	50	11.78		11.49		19.40		
3.7 V	23	17.82		18.98		19.24		
4.35V	23	16.79		18.26		19.08		

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EDGE 850

Test Conditions		Frequency Deviation						Verdict
Power (V)	Temperature (°C)	Low channel 824.2 MHz		Middle channel 836.6 MHz		High channel 848.8 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
3.8 V	-30	--	±2060.5	--	±2091.5	--	±2122	PASS
	-20	25.96		29.19		21.89		
	-10	24.15		26.80		27.77		
	0	23.58		25.63		25.89		
	10	21.06		23.54		23.06		
	20	19.78		23.09		24.28		
	23	20.60		21.47		22.50		
	30	23.58		23.62		23.74		
	40	25.09		25.25		25.25		
50	16.98	25.41	26.73					
3.7 V	23	15.67		23.24		25.64		
4.35V	23	19.06		21.36		27.25		

EDGE 1900

Test Conditions		Frequency Deviation						Verdict
Power (V)	Temperature (°C)	Low channel 1850.2 MHz		Middle channel 1880 MHz		High channel 1909.8 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
3.8 V	-30	--	±4625.5	--	±4700.0	--	±4774.5	PASS
	-20	28.61		25.80		25.89		
	-10	24.61		24.32		26.35		
	0	18.29		23.46		18.99		
	10	19.28		22.07		20.14		
	20	21.34		19.59		19.38		
	23	22.34		22.24		18.73		
	30	25.91		25.07		27.61		
	40	26.66		26.89		29.51		
50	26.22	29.06	21.32					
3.7 V	23	19.50		12.53		19.57		
4.35V	23	21.25		13.98		19.25		

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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)	
3.8 V	-30	--	±4631	--	±4700	--	±4769	PASS
	-20	0.49		-1.04		-2.34		
	-10	0.56		-1.35		-1.68		
	0	0.81		-1.28		-1.37		
	10	-0.97		0.39		0.68		
	20	-1.04		0.36		0.98		
	23	-1.26		-0.02		-2.05		
	30	0.87		-1.35		-0.98		
	40	-0.30		-2.33		-2.55		
	50	0.54		-0.29		-2.95		
3.7 V	23	0.59		-1.31		-3.17		
4.35V	23	0.37		-0.67		-2.68		

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)	
3.8 V	-30	--	±2066	--	±2091	--	±2116.5	PASS
	-20	-0.35		0.36		-0.49		
	-10	-0.37		0.25		-0.43		
	0	0.58		0.34		-0.37		
	10	0.37		-0.38		-0.52		
	20	0.17		-0.52		-0.58		
	23	-0.64		-0.35		-0.17		
	30	-0.36		-0.34		-0.09		
	40	-0.15		-0.46		-0.19		
	50	0.11		-0.31		-0.72		
3.7 V	23	0.21		-0.48		-0.65		
4.35V	23	0.29		-0.66		-0.10		

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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)	
3.8 V	-30	--	±4700	--	±4700	PASS
	-20	-3.59		-3.32		
	-10	-3.23		-3.09		
	0	-3.17		-2.57		
	10	-3.08		-3.21		
	20	-3.91		-3.28		
	23	-3.49		-3.50		
	30	-4.07		-3.25		
	40	-4.23		-3.02		
	50	-2.98		-3.65		
3.7 V	23	-3.95		-3.46		
4.35V	23	-3.09		-2.98		

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)	
3.8 V	-30	--	±4331.25	--	±4331.25	PASS
	-20	-0.20		0.09		
	-10	0.25		0.12		
	0	0.31		0.09		
	10	0.54		0.42		
	20	0.42		0.34		
	23	-0.33		-0.29		
	30	-0.21		0.43		
	40	-0.06		0.57		
	50	-0.34		0.23		
3.7 V	23	0.09		-0.34		
4.35V	23	0.13		-0.27		

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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)	
3.8 V	-30	--	±2091.25	--	±2091.25	PASS
	-20	-1.27		-0.89		
	-10	-1.06		-0.76		
	0	-0.98		0.25		
	10	0.25		0.18		
	20	0.34		0.31		
	23	-0.57		-0.03		
	30	-0.65		-0.54		
	40	0.16		-1.33		
	50	-0.43		0.07		
3.7 V	23	-1.25		-0.58		
4.35V	23	-1.79		-1.06		

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)	
3.8 V	-30	--	±6337.5	--	±6337.5	PASS
	-20	-3.09		-4.15		
	-10	-1.36		-5.06		
	0	-2.54		-3.42		
	10	2.91		-3.21		
	20	3.68		-3.12		
	23	5.34		-2.47		
	30	4.21		-3.25		
	40	-4.22		-3.86		
	50	-3.02		-3.82		
3.7 V	23	-3.96		-3.16		
4.35V	23	-4.02		-3.28		

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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)	
3.8 V	-30	--	±1768.75	--	±1768.75	PASS
	-20	-1.24		-0.03		
	-10	-1.14		-1.12		
	0	-1.12		-1.40		
	10	-1.69		-2.10		
	20	-1.85		-1.39		
	23	-1.06		-0.63		
	30	1.09		1.29		
	40	-0.57		-1.13		
	50	-1.06		-0.94		
3.7 V	23	1.38		0.96		
4.35V	23	1.06		1.38		

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)	
3.8 V	-30	--	±1955	--	±1955	PASS
	-20	-0.25		-1.05		
	-10	0.18		-0.21		
	0	0.39		0.67		
	10	0.45		0.85		
	20	0.89		0.99		
	23	0.37		0.82		
	30	-0.72		2.07		
	40	-0.66		3.03		
	50	0.98		-2.29		
3.7 V	23	0.63		-2.07		
4.35V	23	-0.96		-3.03		

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FDD LTE Band 17						
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)	
3.8 V	-30	--	±1955	--	±1955	PASS
	-20	-0.47		-1.19		
	-10	0.17		-0.13		
	0	0.26		-0.37		
	10	0.31		-0.58		
	20	0.35		0.96		
	23	-0.36		-0.49		
	30	0.25		-0.52		
	40	-0.20		-0.29		
	50	-0.21		0.19		
3.7 V	23	0.32		0.35		
4.35V	23	0.16		0.25		

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)	
3.8 V	-30	--	±4706.25	--	±4706.25	PASS
	-20	1.10		1.99		
	-10	0.11		0.36		
	0	0.25		0.45		
	10	0.38		0.78		
	20	0.72		1.36		
	23	0.50		1.77		
	30	0.74		1.65		
	40	-0.23		1.52		
	50	0.29		0.04		
3.7 V	23	0.35		0.38		
4.35V	23	0.69		0.42		

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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)	
3.8 V	-30	--	±6512.5	--	±6512.5	PASS
	-20	5.06		6.97		
	-10	2.68		7.26		
	0	3.56		3.98		
	10	7.68		4.65		
	20	6.25		4.38		
	23	7.87		5.12		
	30	11.25		4.98		
	40	6.62		5.26		
	50	4.58		2.26		
3.7 V	23	5.69		4.37		
4.35V	23	3.98		4.76		

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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: SHE20100017-02AE Data EXHIBIT C".

Spurious Emission Measurement Results for GSM/WCDMA/CDMA

Test Band	Channel	Refer to Plot ^{Note 3}	Verdict
GSM 850	Low	1.1	PASS
	Middle	1.2	PASS
	High	1.3	PASS
GSM 1900	Low	2.1	PASS
	Middle	2.2	PASS
	High	2.3	PASS
GRPS 850	Low	3.1	PASS
	Middle	3.2	PASS
	High	3.3	PASS
GRPS 1900	Low	4.1	PASS
	Middle	4.2	PASS
	High	4.3	PASS
EDGE 850	Low	5.1	PASS
	Middle	5.2	PASS
	High	5.3	PASS
EDGE 1900	Low	6.1	PASS
	Middle	6.2	PASS
	High	6.3	PASS
WCDMA Band II	Low	7.1	PASS
	Middle	7.2	PASS
	High	7.3	PASS
WCDMA Band V	Low	8.1	PASS
	Middle	8.2	PASS
	High	8.3	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 ^{Note 3}	Verdict
1.4 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	9.6	PASS
3 MHz	Low	QPSK	RB1#0	9.7	PASS
		16QAM	RB1#0	9.8	PASS
	Middle	QPSK	RB1#0	9.9	PASS
		16QAM	RB1#0	9.10	PASS
	High	QPSK	RB1#0	9.11	PASS
		16QAM	RB1#0	9.12	PASS
5 MHz	Low	QPSK	RB1#0	9.13	PASS
		16QAM	RB1#0	9.14	PASS
	Middle	QPSK	RB1#0	9.15	PASS
		16QAM	RB1#0	9.16	PASS
	High	QPSK	RB1#0	9.17	PASS
		16QAM	RB1#0	9.18	PASS
10 MHz	Low	QPSK	RB1#0	9.19	PASS
		16QAM	RB1#0	9.20	PASS
	Middle	QPSK	RB1#0	9.21	PASS
		16QAM	RB1#0	9.22	PASS
	High	QPSK	RB1#0	9.23	PASS
		16QAM	RB1#0	9.24	PASS
15 MHz	Low	QPSK	RB1#0	9.25	PASS
		16QAM	RB1#0	9.26	PASS
	Middle	QPSK	RB1#0	9.27	PASS
		16QAM	RB1#0	9.28	PASS
	High	QPSK	RB1#0	9.29	PASS
		16QAM	RB1#0	9.30	PASS
20 MHz	Low	QPSK	RB1#0	9.31	PASS
		16QAM	RB1#0	9.32	PASS
	Middle	QPSK	RB1#0	9.33	PASS
		16QAM	RB1#0	9.34	PASS
	High	QPSK	RB1#0	9.35	PASS
		16QAM	RB1#0	9.36	PASS

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FDD LTE Band 4					
Test BW	CH	Modul.	RB Set (Size#Offset)	Refer to Plot ^{Note 3}	Verdict
1.4 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
3 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
5 MHz	Low	QPSK	RB1#0	10.13	PASS
		16QAM	RB1#0	10.14	PASS
	Middle	QPSK	RB1#0	10.15	PASS
		16QAM	RB1#0	10.16	PASS
	High	QPSK	RB1#0	10.17	PASS
		16QAM	RB1#0	10.18	PASS
10 MHz	Low	QPSK	RB1#0	10.19	PASS
		16QAM	RB1#0	10.20	PASS
	Middle	QPSK	RB1#0	10.21	PASS
		16QAM	RB1#0	10.22	PASS
	High	QPSK	RB1#0	10.23	PASS
		16QAM	RB1#0	10.24	PASS
15 MHz	Low	QPSK	RB1#0	10.25	PASS
		16QAM	RB1#0	10.26	PASS
	Middle	QPSK	RB1#0	10.27	PASS
		16QAM	RB1#0	10.28	PASS
	High	QPSK	RB1#0	10.29	PASS
		16QAM	RB1#0	10.30	PASS
20 MHz	Low	QPSK	RB1#0	10.31	PASS
		16QAM	RB1#0	10.32	PASS
	Middle	QPSK	RB1#0	10.33	PASS
		16QAM	RB1#0	10.34	PASS
	High	QPSK	RB1#0	10.35	PASS
		16QAM	RB1#0	10.36	PASS

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FDD LTE Band 5					
Test BW	CH	Modul.	RB Set (Size#Offset)	Refer to Plot ^{Note 3}	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

FDD LTE Band 7					
Test BW	CH	Modul.	RB Set (Size#Offset)	Refer to Plot ^{Note 3}	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

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	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

FDD LTE Band 12

Test BW	CH	Modul.	RB Set (Size#Offset)	Refer to Plot ^{Note 3}	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

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	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

FDD LTE Band 13

Test BW	CH	Modul.	RB Set (Size#Offset)	Refer to Plot ^{Note 3}	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	--	--	--

FDD LTE Band 17

Test BW	CH	Modul.	RB Set (Size#Offset)	Refer to Plot ^{Note 3}	Verdict
5 MHz	Low	QPSK	RB1#0	15.1	PASS
		16QAM	RB1#0	15.2	PASS
	Middle	QPSK	RB1#0	15.3	PASS
		16QAM	RB1#0	15.4	PASS
	High	QPSK	RB1#0	15.5	PASS
		16QAM	RB1#0	15.6	PASS
10 MHz	Low	QPSK	RB1#0	15.7	PASS
		16QAM	RB1#0	15.8	PASS
	Middle	QPSK	RB1#0	15.9	PASS
		16QAM	RB1#0	15.1	PASS
	High	QPSK	RB1#0	15.11	PASS
		16QAM	RB1#0	15.12	PASS

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FDD LTE Band 25

Test BW	CH	Modul.	RB Set (Size#Offset)	Refer to Plot ^{Note 3}	Verdict
1.4 MHz	Low	QPSK	RB1#0	16.1	PASS
		16QAM	RB1#0	16.2	PASS
	Middle	QPSK	RB1#0	16.3	PASS
		16QAM	RB1#0	16.4	PASS
	High	QPSK	RB1#0	16.5	PASS
		16QAM	RB1#0	16.6	PASS
3 MHz	Low	QPSK	RB1#0	16.7	PASS
		16QAM	RB1#0	16.8	PASS
	Middle	QPSK	RB1#0	16.9	PASS
		16QAM	RB1#0	16.10	PASS
	High	QPSK	RB1#0	16.11	PASS
		16QAM	RB1#0	16.12	PASS
5 MHz	Low	QPSK	RB1#0	16.13	PASS
		16QAM	RB1#0	16.14	PASS
	Middle	QPSK	RB1#0	16.15	PASS
		16QAM	RB1#0	16.16	PASS
	High	QPSK	RB1#0	16.17	PASS
		16QAM	RB1#0	16.18	PASS
10 MHz	Low	QPSK	RB1#0	16.19	PASS
		16QAM	RB1#0	16.20	PASS
	Middle	QPSK	RB1#0	16.21	PASS
		16QAM	RB1#0	16.22	PASS
	High	QPSK	RB1#0	16.23	PASS
		16QAM	RB1#0	16.24	PASS
15 MHz	Low	QPSK	RB1#0	16.25	PASS
		16QAM	RB1#0	16.26	PASS
	Middle	QPSK	RB1#0	16.27	PASS
		16QAM	RB1#0	16.28	PASS
	High	QPSK	RB1#0	16.29	PASS
		16QAM	RB1#0	16.30	PASS
20 MHz	Low	QPSK	RB1#0	16.31	PASS
		16QAM	RB1#0	16.32	PASS
	Middle	QPSK	RB1#0	16.33	PASS
		16QAM	RB1#0	16.34	PASS
	High	QPSK	RB1#0	16.35	PASS
		16QAM	RB1#0	16.36	PASS

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TDD LTE Band 41

Test BW	CH	Modul.	RB Set (Size#Offset)	Refer to Plot ^{Note 3}	Verdict
5 MHz	Low	QPSK	RB1#0	17.1	PASS
		16QAM	RB1#0	17.2	PASS
	Middle	QPSK	RB1#0	17.3	PASS
		16QAM	RB1#0	17.4	PASS
	High	QPSK	RB1#0	17.5	PASS
		16QAM	RB1#0	17.6	PASS
10 MHz	Low	QPSK	RB1#0	17.7	PASS
		16QAM	RB1#0	17.8	PASS
	Middle	QPSK	RB1#0	17.9	PASS
		16QAM	RB1#0	17.10	PASS
	High	QPSK	RB1#0	17.11	PASS
		16QAM	RB1#0	17.12	PASS
15 MHz	Low	QPSK	RB1#0	17.13	PASS
		16QAM	RB1#0	17.14	PASS
	Middle	QPSK	RB1#0	17.15	PASS
		16QAM	RB1#0	17.16	PASS
	High	QPSK	RB1#0	17.17	PASS
		16QAM	RB1#0	17.18	PASS
20 MHz	Low	QPSK	RB1#0	17.19	PASS
		16QAM	RB1#0	17.20	PASS
	Middle	QPSK	RB1#0	17.21	PASS
		16QAM	RB1#0	17.22	PASS
	High	QPSK	RB1#0	17.23	PASS
		16QAM	RB1#0	17.24	PASS

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5.1.6 Band Edge

Note(s):

1. Test plots please refer to the document "Annex No: SHE2010017-02AE Data EXHIBIT D".

Band Edge Measurement Results for WCDMA

Test Band	Channel	Refer to Plot ^{Note 1}	Verdict
GSM 850	Low	1.1	PASS
	High	1.2	PASS
GSM 1900	Low	2.1	PASS
	High	2.2	PASS
GRPS 850	Low	3.1	PASS
	High	3.2	PASS
GRPS 1900	Low	4.1	PASS
	High	4.2	PASS
EDGE 850	Low	5.1	PASS
	High	5.2	PASS
EDGE 1900	Low	6.1	PASS
	High	6.2	PASS
WCDMA Band II	Low	7.1	PASS
	High	7.2	PASS
WCDMA Band V	Low	8.1	PASS
	High	8.2	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 ^{Note 1}	Verdict
1.4 MHz	Low	QPSK	RB1#0	9.1	PASS
			RB6#0	9.2	PASS
		16QAM	RB1#0	9.3	PASS
			RB6#0	9.4	PASS
	High	QPSK	RB1#0	9.5	PASS
			RB6#0	9.6	PASS
		16QAM	RB1#0	9.7	PASS
			RB6#0	9.8	PASS
3 MHz	Low	QPSK	RB1#0	9.9	PASS
			RB15#0	9.10	PASS
		16QAM	RB1#0	9.11	PASS
			RB15#0	9.12	PASS
	High	QPSK	RB1#0	9.13	PASS
			RB15#0	9.14	PASS
		16QAM	RB1#0	9.15	PASS
			RB15#0	9.16	PASS
5 MHz	Low	QPSK	RB1#0	9.17	PASS
			RB25#0	9.18	PASS
		16QAM	RB1#0	9.19	PASS
			RB25#0	9.20	PASS
	High	QPSK	RB1#0	9.21	PASS
			RB25#0	9.22	PASS
		16QAM	RB1#0	9.23	PASS
			RB25#0	9.24	PASS
10 MHz	Low	QPSK	RB1#0	9.25	PASS
			RB50#0	9.26	PASS
		16QAM	RB1#0	9.27	PASS
			RB50#0	9.28	PASS
	High	QPSK	RB1#0	9.29	PASS
			RB50#0	9.30	PASS
		16QAM	RB1#0	9.31	PASS
			RB50#0	9.32	PASS
15 MHz	Low	QPSK	RB1#0	9.33	PASS
			RB75#0	9.34	PASS
		16QAM	RB1#0	9.35	PASS
			RB75#0	9.36	PASS

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	High	QPSK	RB1#0	9.37	PASS
			RB75#0	9.38	PASS
		16QAM	RB1#0	9.39	PASS
			RB75#0	9.40	PASS
20 MHz	Low	QPSK	RB1#0	9.41	PASS
			RB100#0	9.42	PASS
		16QAM	RB1#0	9.43	PASS
			RB100#0	9.44	PASS
	High	QPSK	RB1#0	9.45	PASS
			RB100#0	9.45	PASS
		16QAM	RB1#0	9.47	PASS
			RB100#0	9.48	PASS

FDD LTE Band 4					
Test BW	CH	Modul.	RB Set (Size#Offset)	Refer to Plot ^{Note 1}	Verdict
1.4 MHz	Low	QPSK	RB1#0	10.1	PASS
			RB6#0	10.2	PASS
		16QAM	RB1#0	10.3	PASS
			RB6#0	10.4	PASS
	High	QPSK	RB1#0	10.5	PASS
			RB6#0	10.6	PASS
		16QAM	RB1#0	10.7	PASS
			RB6#0	10.8	PASS
3 MHz	Low	QPSK	RB1#0	10.9	PASS
			RB15#0	10.10	PASS
		16QAM	RB1#0	10.11	PASS
			RB15#0	10.12	PASS
	High	QPSK	RB1#0	10.13	PASS
			RB15#0	10.14	PASS
		16QAM	RB1#0	10.15	PASS
			RB15#0	10.16	PASS
5 MHz	Low	QPSK	RB1#0	10.17	PASS
			RB25#0	10.18	PASS
		16QAM	RB1#0	10.19	PASS
			RB25#0	10.20	PASS
	High	QPSK	RB1#0	10.21	PASS
			RB25#0	10.22	PASS
		16QAM	RB1#0	10.23	PASS
			RB25#0	10.24	PASS

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10 MHz	Low	QPSK	RB1#0	10.25	PASS
			RB50#0	10.26	PASS
		16QAM	RB1#0	10.27	PASS
			RB50#0	10.28	PASS
	High	QPSK	RB1#0	10.29	PASS
			RB50#0	10.30	PASS
		16QAM	RB1#0	10.31	PASS
			RB50#0	10.32	PASS
15 MHz	Low	QPSK	RB1#0	10.33	PASS
			RB75#0	10.34	PASS
		16QAM	RB1#0	10.35	PASS
			RB75#0	10.36	PASS
	High	QPSK	RB1#0	10.37	PASS
			RB75#0	10.38	PASS
		16QAM	RB1#0	10.39	PASS
			RB75#0	10.40	PASS
20 MHz	Low	QPSK	RB1#0	10.41	PASS
			RB100#0	10.42	PASS
		16QAM	RB1#0	10.43	PASS
			RB100#0	10.44	PASS
	High	QPSK	RB1#0	10.45	PASS
			RB100#0	10.46	PASS
		16QAM	RB1#0	10.47	PASS
			RB100#0	10.48	PASS

FDD LTE Band 5					
Test BW	CH	Modul.	RB Set (Size#Offset)	Refer to Plot ^{Note 1}	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

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	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
			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

FDD LTE Band 7					
Test BW	CH	Modul.	RB Set (Size#Offset)	Refer to Plot ^{Note 1}	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
		16QAM	RB1#0	12.11	PASS
			RB50#0	12.12	PASS
	High	QPSK	RB1#0	12.13	PASS
			RB50#0	12.14	PASS
		16QAM	RB1#0	12.15	PASS
			RB50#0	12.16	PASS

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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 12					
Test BW	CH	Modul.	RB Set (Size#Offset)	Refer to Plot ^{Note 1}	Verdict
1.4 MHz	Low	QPSK	RB1#0	13.1	PASS
			RB6#0	13.2	PASS
		16QAM	RB1#0	13.3	PASS
			RB6#0	13.4	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
			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

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	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	

FDD LTE Band 13

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

FDD LTE Band 17

Test BW	CH	Modul.	RB Set (Size#Offset)	Refer to Plot ^{Note 1}	Verdict
5 MHz	Low	QPSK	RB1#0	15.1	15.1
			RB25#0	15.2	15.2
		16QAM	RB1#0	15.3	15.3
			RB25#0	15.4	15.4

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	High	QPSK	RB1#0	15.5	15.5
			RB25#0	15.6	15.6
		16QAM	RB1#0	15.7	15.7
			RB25#0	15.8	15.8
10 MHz	Low	QPSK	RB1#0	15.9	15.9
			RB50#0	15.1	15.1
		16QAM	RB1#0	15.11	15.11
			RB50#0	15.12	15.12
	High	QPSK	RB1#0	15.13	15.1
			RB50#0	15.14	15.2
		16QAM	RB1#0	15.15	15.3
			RB50#0	15.16	15.4

FDD LTE Band 25					
Test BW	CH	Modul.	RB Set (Size#Offset)	Refer to Plot ^{Note 1}	Verdict
1.4 MHz	Low	QPSK	RB1#0	16.1	PASS
			RB6#0	16.2	PASS
		16QAM	RB1#0	16.3	PASS
			RB6#0	16.4	PASS
	High	QPSK	RB1#0	16.5	PASS
			RB6#0	16.6	PASS
		16QAM	RB1#0	16.7	PASS
			RB6#0	16.8	PASS
3 MHz	Low	QPSK	RB1#0	16.9	PASS
			RB15#0	16.10	PASS
		16QAM	RB1#0	16.11	PASS
			RB15#0	16.12	PASS
	High	QPSK	RB1#0	16.13	PASS
			RB15#0	16.14	PASS
		16QAM	RB1#0	16.15	PASS
			RB15#0	16.16	PASS
5 MHz	Low	QPSK	RB1#0	16.17	PASS
			RB25#0	16.18	PASS
		16QAM	RB1#0	16.19	PASS
			RB25#0	16.20	PASS
	High	QPSK	RB1#0	16.21	PASS
			RB25#0	16.22	PASS
		16QAM	RB1#0	16.23	PASS
			RB25#0	16.24	PASS

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10 MHz	Low	QPSK	RB1#0	16.25	PASS
			RB50#0	16.26	PASS
		16QAM	RB1#0	16.27	PASS
			RB50#0	16.28	PASS
	High	QPSK	RB1#0	16.29	PASS
			RB50#0	16.30	PASS
		16QAM	RB1#0	16.31	PASS
			RB50#0	16.32	PASS
15 MHz	Low	QPSK	RB1#0	16.33	PASS
			RB75#0	16.34	PASS
		16QAM	RB1#0	16.35	PASS
			RB75#0	16.36	PASS
	High	QPSK	RB1#0	16.37	PASS
			RB75#0	16.38	PASS
		16QAM	RB1#0	16.39	PASS
			RB75#0	16.40	PASS
20 MHz	Low	QPSK	RB1#0	16.41	PASS
			RB100#0	16.42	PASS
		16QAM	RB1#0	16.43	PASS
			RB100#0	16.44	PASS
	High	QPSK	RB1#0	16.45	PASS
			RB100#0	16.46	PASS
		16QAM	RB1#0	16.47	PASS
			RB100#0	16.48	PASS

TDD LTE Band 41

Test BW	CH	Modul.	RB Set (Size#Offset)	Refer to Plot ^{Note 1}	Verdict
5 MHz	Low	QPSK	RB1#0	17.1	PASS
			RB25#0	17.2	PASS
		16QAM	RB1#0	17.3	PASS
			RB25#0	17.4	PASS
	High	QPSK	RB1#0	17.5	PASS
			RB25#0	17.6	PASS
		16QAM	RB1#0	17.7	PASS
			RB25#0	17.8	PASS
10 MHz	Low	QPSK	RB1#0	17.9	PASS
			RB50#0	17.10	PASS
		16QAM	RB1#0	17.11	PASS
			RB50#0	17.12	PASS

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	High	QPSK	RB1#0	17.13	PASS
			RB50#0	17.14	PASS
		16QAM	RB1#0	17.15	PASS
			RB50#0	17.16	PASS
15 MHz	Low	QPSK	RB1#0	17.17	PASS
			RB75#0	17.18	PASS
		16QAM	RB1#0	17.19	PASS
			RB75#0	17.20	PASS
	High	QPSK	RB1#0	17.21	PASS
			RB75#0	17.22	PASS
		16QAM	RB1#0	17.23	PASS
			RB75#0	17.24	PASS
20 MHz	Low	QPSK	RB1#0	17.25	PASS
			RB100#0	17.26	PASS
		16QAM	RB1#0	17.27	PASS
			RB100#0	17.28	PASS
	High	QPSK	RB1#0	17.29	PASS
			RB100#0	17.30	PASS
		16QAM	RB1#0	17.31	PASS
			RB100#0	17.32	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 "SHE20100017-02AE Data FCC PCE GSM-TX EXHIBIT E" and SHE20100017-02AE Data FCC PCE WCDMA -TX EXHIBIT E" and "SHE20100017-02AE Data FCC PCE LTE-TX EXHIBIT E".

Field Strength of Spurious Radiation Measurement Results for GSM/WCDMA

Test Band	Channel	Refer to Plot ^{Note 4}	Verdict
GSM 850	Middle	--	PASS
GSM 1900	Middle	--	PASS
GPRS 850	Middle	--	PASS
GPRS 1900	Middle	--	PASS
EDGE 850	Middle	--	PASS
EDGE 1900	Middle	--	PASS
WCDMA Band II	Middle	--	PASS
WCDMA Band V	Middle	--	PASS

Band Edge Measurement Results for LTE

FDD LTE Band 2					
Test BW	Channel	Modul.	RB Set (Size#Offset)	Refer to Plot ^{Note 4}	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)	Refer to Plot ^{Note 4}	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)	Refer to Plot ^{Note 4}	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)	Refer to Plot ^{Note 4}	Verdict
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)	Refer to Plot ^{Note 4}	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)	Refer to Plot ^{Note 4}	Verdict
5 MHz	Middle	QPSK	RB1#0	--	Pass
10 MHz	Middle	QPSK	RB1#0	--	Pass

FDD LTE Band 17					
Test BW	Channel	Modul.	RB Set (Size#Offset)	Refer to Plot ^{Note 4}	Verdict
5 MHz	Middle	QPSK	RB1#0	--	Pass
10 MHz	Middle	QPSK	RB1#0	--	Pass

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FDD LTE Band 25

Test BW	Channel	Modul.	RB Set (Size#Offset)	Refer to Plot ^{Note 4}	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 41

Test BW	Channel	Modul.	RB Set (Size#Offset)	Refer to Plot ^{Note 4}	Verdict
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

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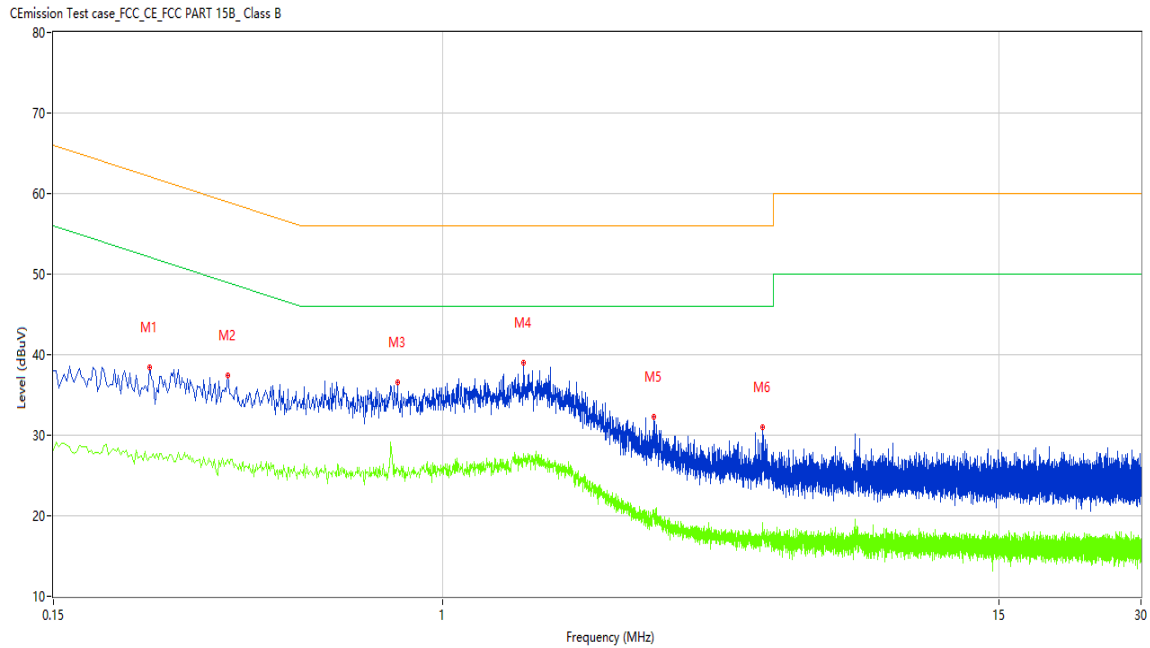
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5.1.8 AC Power-line Conducted Emissions

Note: Only the worst test results were recorded in this report.



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.240	51.08	9.68	62.10	-11.02	Peak	L	Pass
1*	0.240	30.20	9.68	62.10	-31.90	QP	L	Pass
1**	0.240	27.29	9.68	52.10	-24.81	AV	L	Pass
2	0.350	38.49	9.72	58.96	-20.47	Peak	L	Pass
2*	0.350	24.82	9.72	58.96	-34.14	QP	L	Pass
2**	0.350	27.01	9.72	48.96	-21.95	AV	L	Pass
3	0.802	28.63	9.75	56.00	-27.37	Peak	L	Pass
3*	0.802	20.93	9.75	56.00	-35.07	QP	L	Pass
3**	0.802	25.82	9.75	46.00	-20.18	AV	L	Pass
4	1.484	33.16	9.67	56.00	-22.84	Peak	L	Pass
4*	1.484	22.66	9.67	56.00	-33.34	QP	L	Pass
4**	1.484	27.38	9.67	46.00	-18.62	AV	L	Pass
5	2.792	29.95	9.69	56.00	-26.05	Peak	L	Pass
5*	2.792	19.49	9.69	56.00	-36.51	QP	L	Pass
5**	2.792	20.54	9.69	46.00	-25.46	AV	L	Pass
6	4.744	25.30	9.70	56.00	-30.70	Peak	L	Pass
6*	4.744	14.21	9.70	56.00	-41.79	QP	L	Pass
6**	4.744	17.48	9.70	46.00	-28.52	AV	L	Pass

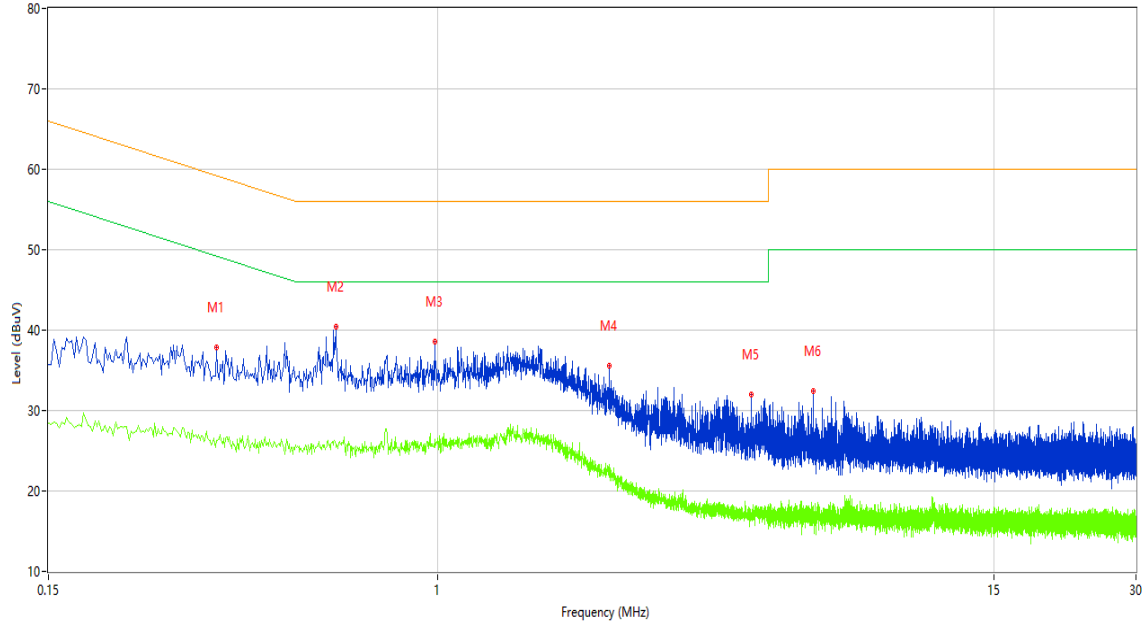
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Emission Test case_FCC_CE_FCC PART 15B_Class B



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.340	34.66	9.72	59.20	-24.54	Peak	N	Pass
1*	0.340	24.74	9.72	59.20	-34.46	QP	N	Pass
1**	0.340	26.22	9.72	49.20	-22.98	AV	N	Pass
2	0.608	43.61	9.76	56.00	-12.39	Peak	N	Pass
2*	0.608	34.73	9.76	56.00	-21.27	QP	N	Pass
2**	0.608	25.87	9.76	46.00	-20.13	AV	N	Pass
3	0.984	32.57	9.69	56.00	-23.43	Peak	N	Pass
3*	0.984	24.33	9.69	56.00	-31.67	QP	N	Pass
3**	0.984	26.47	9.69	46.00	-19.53	AV	N	Pass
4	2.306	33.98	9.68	56.00	-22.02	Peak	N	Pass
4*	2.306	25.09	9.68	56.00	-30.91	QP	N	Pass
4**	2.306	22.90	9.68	46.00	-23.10	AV	N	Pass
5	4.598	28.82	9.69	56.00	-27.18	Peak	N	Pass
5*	4.598	18.53	9.69	56.00	-37.47	QP	N	Pass
5**	4.598	17.32	9.69	46.00	-28.68	AV	N	Pass
6	6.232	33.01	9.69	60.00	-26.99	Peak	N	Pass
6*	6.232	22.62	9.69	60.00	-37.38	QP	N	Pass
6**	6.232	18.19	9.69	50.00	-31.81	AV	N	Pass

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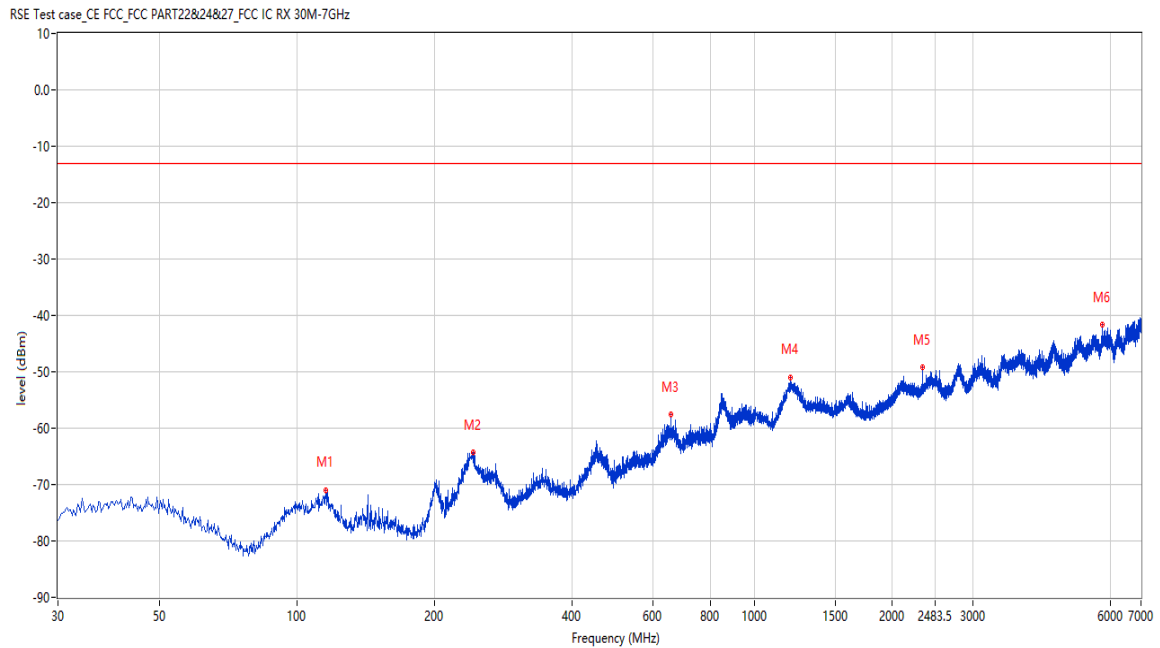
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5.1.9 Receiver Spurious Emissions

Note: Only the worst test results were recorded in this report.



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
115.581	-70.98	-10.44	-13.0	-57.98	172.90	Horizontal	Vertical	Pass
242.377	-64.32	-3.19	-13.0	-51.32	26.30	Horizontal	Vertical	Pass
657.191	-57.62	0.69	-13.0	-44.62	316.90	Horizontal	Vertical	Pass
1197.451	-51.01	1.64	-13.0	-38.01	256.30	Horizontal	Vertical	Pass
2335.166	-49.23	0.86	-13.0	-36.23	146.10	Horizontal	Vertical	Pass
5763.309	-41.58	11.91	-13.0	-28.58	360.30	Horizontal	Vertical	Pass

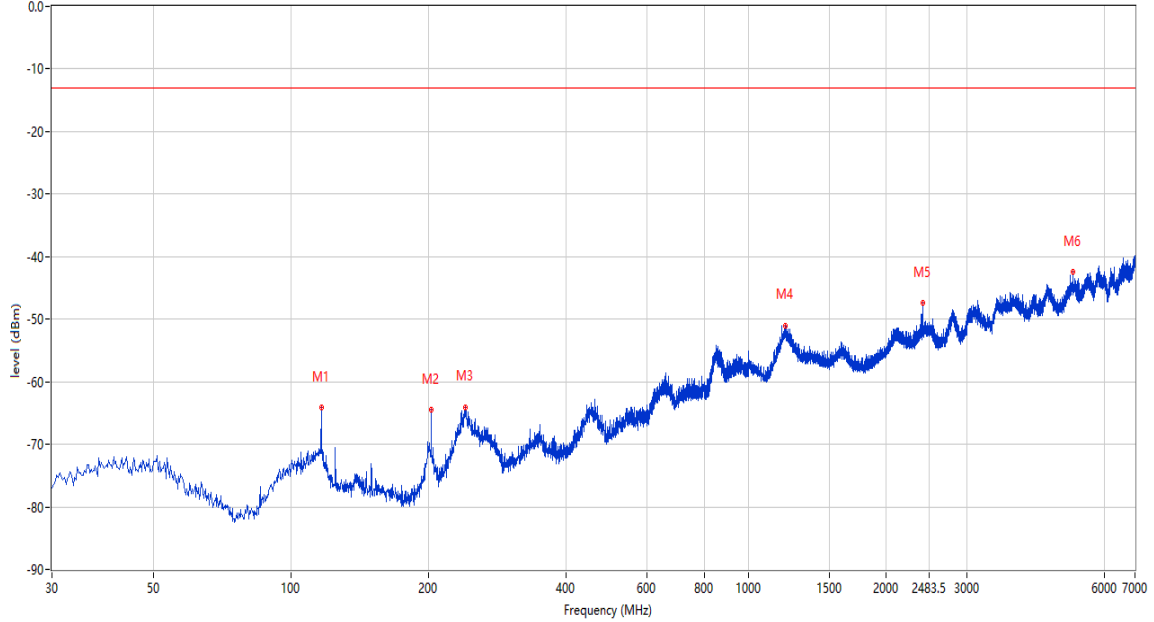
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RSE Test case_CE FCC FCC PART22&24&27 FCC IC RX 30M-7GHz



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
116.551	-64.10	-10.78	-13.0	-51.10	201.80	Vertical	Vertical	Pass
202.374	-64.43	-9.35	-13.0	-51.43	246.80	Vertical	Vertical	Pass
240.195	-64.14	-2.59	-13.0	-51.14	258.10	Vertical	Vertical	Pass
1201.950	-51.01	1.75	-13.0	-38.01	214.60	Vertical	Vertical	Pass
2401.150	-47.37	2.43	-13.0	-34.37	282.30	Vertical	Vertical	Pass
5123.469	-42.44	11.45	-13.0	-29.44	287.50	Vertical	Vertical	Pass

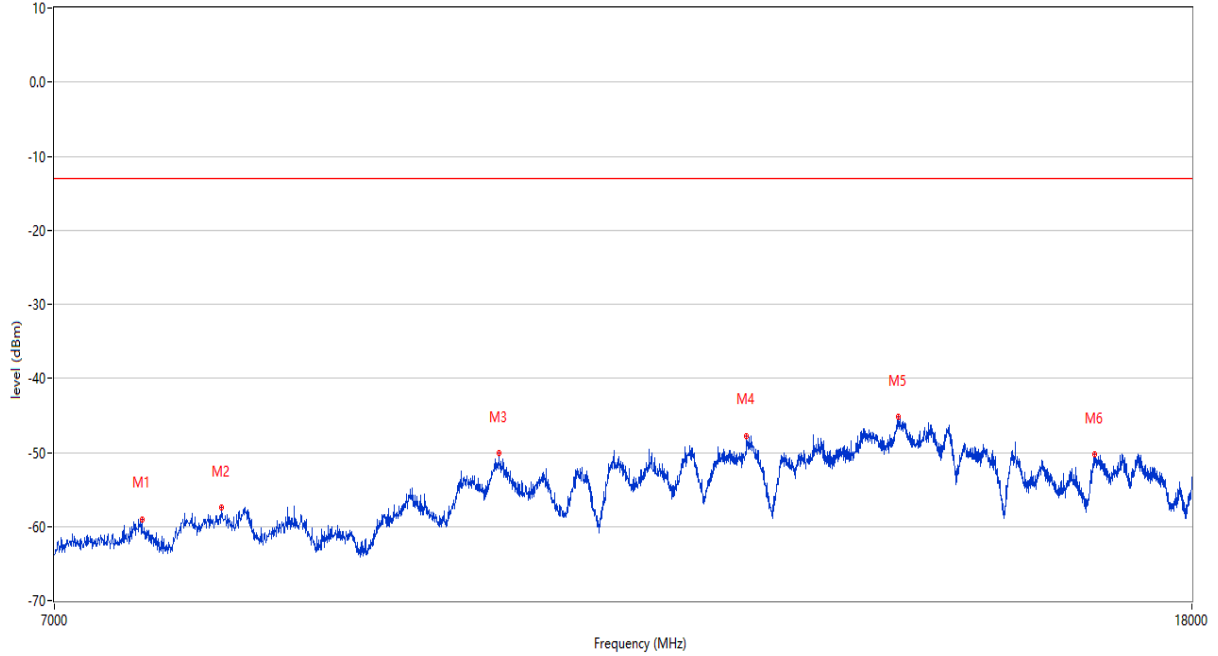
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RSE Test case_CE FCC_PART228&24&27_FCC IC RX 7-18G



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
7527.868	-59.03	16.80	-13.0	-46.03	35.40	Horizontal	Vertical	Pass
8039.240	-57.45	18.23	-13.0	-44.45	326.00	Horizontal	Vertical	Pass
10125.969	-50.15	24.03	-13.0	-37.15	164.90	Horizontal	Vertical	Pass
12438.140	-47.74	24.81	-13.0	-34.74	71.80	Horizontal	Vertical	Pass
14106.973	-45.23	29.13	-13.0	-32.23	32.00	Horizontal	Vertical	Pass
16600.600	-50.31	23.13	-13.0	-37.31	80.40	Horizontal	Vertical	Pass

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RSE Test case_CE FCC_FCC PART22&24&27_FCC IC RX 7-18G



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
8195.951	-56.80	19.10	-13.0	-43.80	18.00	Vertical	Vertical	Pass
9779.555	-52.54	21.37	-13.0	-39.54	12.40	Vertical	Vertical	Pass
10134.216	-50.80	23.88	-13.0	-37.80	360.00	Vertical	Vertical	Pass
12498.625	-47.38	25.36	-13.0	-34.38	342.50	Vertical	Vertical	Pass
14120.720	-44.32	29.05	-13.0	-31.32	102.90	Vertical	Vertical	Pass
17191.702	-49.87	22.81	-13.0	-36.87	190.30	Vertical	Vertical	Pass

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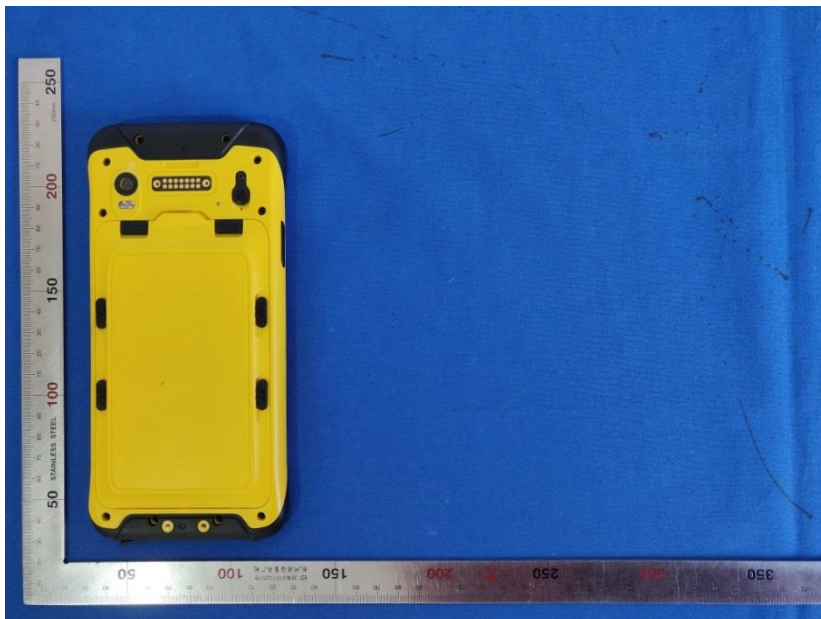
6 Photos

6.1 Photographs of the Sample

TDC600_2 Model



Front of the sample



Rear of the sampl

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MobileMapper60_2 Model



Front of the sample



Rear of the sampl

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6.2 Set-up for Conducted Emissions



6.3 Set-up for Conducted RF test at Antenna Port



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6.4 Set-up for Spurious Emissions below 1GHz



Below 1 GHz

6.5 Set-up for Spurious Emissions above 1GHz



Above 1GHz

End of the report