FCC RF TEST REPORT

ISSUED BY
Shenzhen BALUN Technology Co., Ltd.

FOR

Tablet PC

ISSUED TO
AOC

14F-5, NO.258, Liancheng Rd., Zhonghe Dist., New Taipei City, Taiwan

Report No.:	BL-SZ1760430-501
EUT Name:	Tablet PC
Model Name:	A831L-D
Brand Name:	AOC
Test Standard:	47 CFR Part 2 (10-1-16 Edition) 47 CFR Part 22 (10-1-16 Edition) 47 CFR Part 24 (10-1-16 Edition) 47 CFR Part 27 (10-1-16 Edition)
FCC ID:	2AEB5-A831L-D
Test Conclusion:	Pass
Test Date:	Dec. 11, 2017 ~ Jan. 03, 2018
Date of Issue:	Jan. 23, 2018

Tested by: Heng Aiping
Heng Aiping
(Engineer)
Date Jan. 23, 2018

Approved by:
Wei Yanquan
(Chief Engineer)
Date Jan. 23, 2018

NOTE: This test report of test results only related to testing samples, which can be duplicated completely for the legal use with the approval of the applicant; it shall not be reproduced except in full, without the written approval of Shenzhen BALUN Technology Co., Ltd. BALUN Laboratory. Any objections should be raised within thirty days from the date of issue. To validate the report, please contact us.

Block B, 1st FL,Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong, P. R. China 518055
TEL: +86-755-66850100, FAX: +86-755-61824271
Email: info@baluntek.com
www.baluntek.com

Revision History

Version	Issue Date	Revisions Content
Rev. 01	Jan. 15, 2018	Initial Issue
Rev. 02	Jan. 23, 2018	Added GSM/GPRS/EGPRS peak power plots in annex A.1.2.

TABLE OF CONTENTS

1 GENERAL INFORMATION

1.1 Identification of the Testing Laboratory

Company Name	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1st FL, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China.
Phone Number	+86 755 6685 0100
Fax Number	+86 755 6182 4271

1.2 Identification of the Responsible Testing Location

Test Location 1	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1st FL, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China.
Accreditation Certificate1	The laboratory has been listed by Industry Canada to perform electromagnetic emission measurements. The recognition numbers of test site are 11524A-1. The laboratory is a testing organization accredited by FCC as an accredited testing laboratory. The designation number is CN1196. The laboratory is a testing organization accredited by American Association for Laboratory Accreditation(A2LA) according to ISO/IEC 17025. The accreditation certificate number is 4344.01. The laboratory is a testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L6791.
Description	All measurement facilities used to collect the measurement data are located at Block B, FL 1, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China 518055

1.3 Test Environment Condition

Ambient Temperature	20 to 35 °C
Ambient Relative Humidity	30 to 60 %
Ambient Pressure	98 to 102KPa

1.4 Announce

(1) The test report reference to the report template version v4.5.

(2) The test report is invalid if not marked with the signatures of the persons responsible for preparing and approving the test report.

(3) The test report is invalid if there is any evidence and/or falsification.

(4) The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein.

(5) This document may not be altered or revised in any way unless done so by BALUN and all revisions are duly noted in the revisions section.

(6) Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	AOC
Address	14F-5, NO.258, Liancheng Rd., Zhonghe Dist., New Taipei City, Taiwan

2.2 Manufacturer Information

Manufacturer	China Greatwall Technology Group Co., Ltd
Address	No.Great wall Computer Industrial Park, Bao Shi East Road, Bao'an Bistrict, Shenzhen, P. R. China

2.3 Factory Information

Factory	N/A
Address	N/A

2.4 General Description for Equipment under Test (EUT)

EUT Name	Tablet PC
Model Name	A831L-D
Series Model Name	A831L-D, A831L
Description of Model name differentiation	The equipment model A831L-D and A831L are the Tablet PC model, the electrical parameters and internal structure of circuit are same, only the OS, Memory and Flash is different.
Hardware Version	N/A
Software Version	N/A
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A
Network and Wireless connectivity	GSM/GPRS/EGPRS 850/ 1900; WCDMA/HSDPA/HSUPA Band 2/ 5; LTE FDD Band 2/ 4/ 7/ 17; Bluetooth, GPS, FM, WIFI
About the Product	The equipment is Tablet PC, intended for used with information technology equipment.

2.5 Ancillary Equipment

Ancillary Equipment 1	Battery	
	Brand Name	N/A
	Model No.	EU 31104107PV
	Serial No.	N/A
	Capacitance	5000 mAh
	Rated Voltage	3.8 V
	Limit Charge Voltage	4.2 V
Ancillary Equipment 2	Adapter	
	Brand Name	N/A
	Model No.	SC/10WA050200US
	Serial No.	N/A
	Rated Input	100-240 V~, 0.5 A, 50/60 Hz
	Rated Output	5 V⎓, 2 A
Ancillary Equipment 3	USB Cable	
	Length (Approx.)	0.8 m

2.6 Technical Information

The requirement for the following technical information of the EUT was tested in this report:

Frequency Bands	GSM/GPRS/EGPRS 850/1900 WCDMA/HSDPA/HSUPA Band 2/ 5 LTE FDD Band 2/ 4/ 7/ 17	
Modulation Type	GSM/GPRS	GMSK
	EGPRS	8PSK
	WCDMA	QPSK
	HSDPA /HSUPA	QPSK
		16QAM
	LTE	QPSK
		16QAM
TX Frequency Range	GSM/GPRS/EGPRS 850: 824 - 849 MHz GSM/GPRS/EGPRS 1900: 1850 - 1910 MHz WCDMA/HSDPA/HSUPA Band 2: 1850 -1910 MHz WCDMA/HSDPA/HSUPA Band 5: 824 - 849 MHz LTE FDD Band 2: 1850 - 1910 MHz LTE FDD Band 4: 1710 - 1755 MHz LTE FDD Band 7: 2500 - 2570 MHz LTE FDD Band 17: 704- 716 MHz	
Rx Frequency Range	GSM/GPRS/EGPRS 850: 869 - 894 MHz GSM/GPRS/EGPRS 1900: 1930 - 1990 MHz WCDMA/HSDPA/HSUPA Band 2: 1930 - 1990 MHz WCDMA/HSDPA/HSUPA Band 5: 869 - 894 MHz LTE FDD Band 2: 1930 - 1990 MHz LTE FDD Band 4: 2110 - 2155 MHz LTE FDD Band 7: 2620 - 2690 MHz LTE FDD Band 17: 734- 746 MHz	
Power Class	GSM/GPRS 850: 4 GSM/GPRS 1900: 1 EGPRS 850/1900: E2 WCDMA/HSDPA/HSUPA Band 2: 3 WCDMA/HSDPA/HSUPA Band 5: 3 LTE FDD Band 2: 3 LTE FDD Band 4: 3 LTE FDD Band 7: 3 LTE FDD Band 17: 3	
Multislot Class	GPRS/EGPRS: 12	
Antenna Type	PIFA Antenna	

Note: The EUT information are declared by manufacturer. For more detailed features description, please refer to the manufacturer's specifications or user's manual.

3 SUMMARY OF TEST RESULTS

3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 2 (10－1－16 Edition)	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
2	47 CFR Part 22 Subpart H (10－1－16 Edition)	Cellular Radiotelephone Service
3	47 CFR Part 24 Subpart E (10－1－16 Edition)	Broadband PCS
4	47 CFR Part 27 (10－1－16 Edition)	Miscellaneous Wireless Communications Services
5	ANSI/TIA-603-E-2016	Land Mobile FM or PM Communications Equipment Measurement and Performance Standards
6	KDB 971168 D01 v03	Measurement Guidance for Certification of Licensed Digital Transmitters

3.2 Test Verdict

No.	Description	FCC Part No.	Test Result	Verdict
1	Conducted RF Output Power	2.1046	Reporting only (ANNEX A.1)	Pass
2	Effective (Isotropic) Radiated Power	2.1046 22.913 24.232 27.50(b) 27.50(c) 27.50(d) 27.50(h)	ANNEX A.1	Pass
3	Peak to average radio	2.1046 24.232(d) 27.50(d)	ANNEX A.2	Pass
4	Occupied Bandwidth	2.1049 22.917 24.238 27.53	ANNEX A.3	Pass
5	Frequency Stability	2.1055 22.355 24.235 27.54	ANNEX A.4	Pass
6	Spurious Emission at Antenna Terminals	2.1051 22.917 24.238 27.53(c) 27.53(g) 27.53(h) 27.53(m)	ANNEX A.5	Pass
7	Band Edge	2.1051 22.917 24.238 27.53(c) 27.53(g) 27.53(h) 27.53(m)	ANNEX A.6	Pass
8	Field Strength of Spurious Radiation	2.1053 22.917 24.238 27.53(c) 27.53(g) 27.53(h) 27.53(m)	ANNEX A.7	Pass

4 GENERAL TEST CONFIGURATIONS

4.1 Test Environments

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

Test Voltage of the EUT	NV (Normal Voltage)	3.4 V
	LV (Low Voltage)	3.7 V
	HV (High Voltage)	4.2 V
Test Temperature of the EUT	LT (Low Temperature)	-10 °C
	HT (High Temperature)	50 °C

4.2 Test Equipment List

Description	Manufacturer	Model	Serial No.	Software /FirmwareVersion	Cal. Date	Cal. Due
Conducted Test System						
Test Software 1	R&S	CMUgo	N/A	V2.0.1	N/A	N/A
Test Software 2	R&S	CMWRun	N/A	V1.8.9	N/A	N/A
Test Software 3	BALUN	BL410R	N/A	V2.1.1.355	N/A	N/A
Universal Radio Communication Tester	R&S	CMU 200	123666	V5.21	2017.11.02	2018.11.01
Wireless Communications Test Set	R&S	CMW 500	102318	V3.2.71	2017.06.12	2018.06.11
Spectrum Analyzer	R&S	FSV-30	103118	2.30.SP1	2017.06.12	2018.06.11
Spectrum Analyzer	AGILENT	E4440A	MY45304434	A.11.21	2017.11.02	2018.11.01
DC Power Supply	R&S	IT6863A	600014010687210020	N/A	2017.06.12	2018.06.11
Temperature Chamber	AHK	SP20	1412	N/A	2017.07.20	2018.07.19
Power Sensor	R&S	NRP-Z21	103971	N/A	2017.06.12	2018.06.11
Power Splitter	KMW	DCPD-LDC	1305003215	N/A	N/A	N/A
Attenuator (20 dB)	KMW	ZA-S1-201	110617091	N/A	N/A	N/A
Attenuator (6 dB)	KMW	ZA-S1-61	1305003189	N/A	N/A	N/A
Radiated Test System (3m)						
Test Software	BALUN	BL410_E	N/A	V16.921	N/A	N/A
Test Antenna-Loop(9 kHz-30 MHz)	SCHWARZBECK	FMZB 1519	1519-037	N/A	2015.07.22	2018.07.21
Test Antenna-Bi-Log(30 MHz-3 GHz)	SCHWARZBECK	VULB 9163	9163-624	N/A	2015.07.22	2018.07.21
Test Antenna-Biconical	SCHWARZBECK	VHBB9124	9124-594	N/A	2015.08.13	2018.08.12
Test Antenna-LPDA	SCHWARZBECK	VUSLP9111B	9111B-091	N/A	2015.08.13	2018.08.12
Test Antenna-Horn(1-18 GHz)	SCHWARZBECK	BBHA 9120D	9120D-1600	N/A	2016.07.12	2018.07.11
Test Antenna-Horn(18-40 GHz)	A-INFO	LB-180400KF	J211060273	N/A	2017.01.06	2018.01.05
Anechoic Chamber	RAINFORD	9m*6m*6m	N/A	N/A	2017.02.21	2019.02.20
Shielded Enclosure	ChangNing	CN-130701	130703	N/A	N/A	N/A
EMI Receiver	KEYSIGHT	N9038A	MY53220118	A14.16	2017.09.07	2018.09.06

4.3 Test Configurations

Test Items	Test Mode	Test Channel		
		LCH	MCH	HCH
E.R.P/E.I. R.P	GSM 850	v	v	v
	GSM 1900	v	v	v
	GPRS 850	v	v	v
	GPRS 1900	v	v	v
	EGPRS 850	v	v	v
	EGPRS 1900	v	v	v
	WCDMA Band 2	v	v	v
	WCDMA Band 5	v	v	v
	HSUPA Band 2	v	v	v
	HSUPA Band 5	v	v	v
	HSDPA Band 2	v	v	v
	HSDPA Band 5	v	v	v
Peak to Average Ratio	WCDMA Band 2	v	v	v
Occupied Bandwidth	GSM 850	v	v	v
	GSM 1900	v	v	v
	EGPRS 850	v	v	v
	EGPRS 1900	v	v	v
	WCDMA Band 2	v	v	v
	WCDMA Band 5	v	v	v
Frequency Stability	GSM 850	v	v	v
	GSM 1900	v	v	v
	GPRS 850	v	v	v
	GPRS 1900	v	v	v
	EGPRS 850	v	v	v
	EGPRS 1900	v	v	v
	WCDMA Band 2	v	v	v
	WCDMA Band 5	v	v	v
Spurious Emission at Antenna Terminals	GSM 850	v	v	v
	GSM 1900	v	v	v
	EGPRS 850	v	v	v
	EGPRS 1900	v	v	v
	WCDMA Band 2	v	v	v
	WCDMA Band 5	v	v	v
Band Edge	GSM 850	v	--	v
	GSM 1900	v	--	v
	EGPRS 850	v	--	v
	EGPRS 1900	v	--	v
	WCDMA Band 2	v	--	v
	WCDMA Band 5	v	--	v
Field Strength of Spurious Radiation	GSM 850	v	v	v
	GSM 1900	v	v	v

Test Items	Test Mode	Test Channel		
		LCH	MCH	HCH
	EGPRS 850	v	v	v
	EGPRS 1900	v	v	v
	WCDMA Band 2	v	v	v
	WCDMA Band 5	v	v	v
Note 1: The mark “v” means that this configuration is chosen for testing.				

LTE Band	Bandwidth (MHz)						Modulation		RB#			Test Channel		
	1.4	3	5	10	15	20	QPSK	16-QAM	1	Half	Full	LCH	MCH	HCH
E.R.P/E.I.R.P														
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
7	n	n	v	v	v	v	v	v	v	v	v	v	v	v
17	n	n	v	v	n	n	v	v	v	v	v	v	v	v
Peak to Average Ratio														
2	--	--	--	--	--	v	v	v	v	--	v	v	v	v
4	--	--	--	--	--	v	v	v	v	--	v	v	v	v
7	n	n	--	--	--	v	v	v	v	--	v	v	v	v
17	n	n	--	v	n	n	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
7	n	n	v	v	v	v	v	v	--	--	v	v	v	v
17	n	n	v	v	n	n	v	v	--	--	v	v	v	v
Frequency Stability														
2	--	--	--	v	--	--	v	v	--	--	v	--	v	--
4	--	--	--	v	--	--	v	v	--	--	v	--	v	--
7	n	n	--	v	--	--	v	v	--	--	v	--	v	--
17	n	n	--	v	n	n	v	v	--	--	v	--	v	--
Spurious Emission at Antenna Terminals														
2	v	v	v	v	v	v	v	v	v	--	--	v	v	v
4	v	v	v	v	v	v	v	v	v	--	--	v	v	v
7	n	n	v	v	v	v	v	v	v	--	--	v	v	v
17	n	n	v	v	n	n	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
7	n	n	v	v	v	v	v	v	v	--	v	v	--	v
17	n	n	v	v	n	n	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	--
7	n	n	v	v	v	v	v	--	v	--	--	--	v	--
17	n	n	v	v	n	n	v	--	v	--	--	--	v	--

Note 1: The mark “v” means that this configuration is chosen for testing.

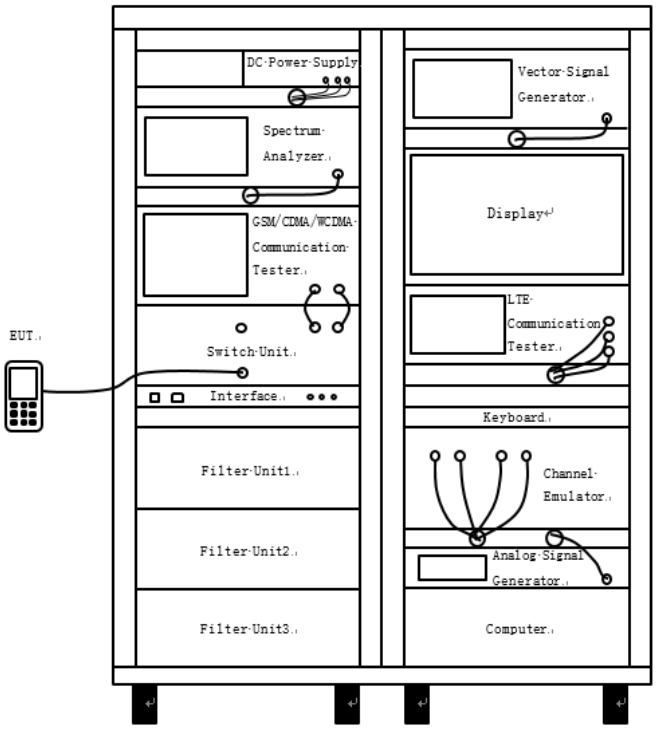
Note 2: The mark “n” means that this bandwidth is not supported.

Test Mode	UL Channel	UL Channel No.	UL Frequency (MHz)
GSM/GPRS/EGPRS 850	LCH	128	824.2
	MCH	190	836.6
	HCH	251	848.8
GSM/GPRS/EGPRS 1900	LCH	512	1850.2
	MCH	661	1880.0
	HCH	810	1909.8
WCDMA Band 2	LCH	9262	1852.4
	MCH	9400	1880.0
	HCH	9538	1907.6
WCDMA Band 5	LCH	4132	826.4
	MCH	4182	836.4
	HCH	4233	846.6

Test Mode	UL Channel	Channel Bandwidth (MHz)	UL Channel No.	UL Frequency (MHz)
LTE Band 2	Low Range	1.4	18607	1850.7
		3	18615	1851.5
		5	18625	1852.5
		10	18650	1855
		15	18675	1857.5
		20	18700	1860
	Mid Range	1.4/3/5/10/15/20	18900	1880
	High Range	1.4	19193	1909.3
		3	19185	1908.5
		5	19175	1907.5
		10	19150	1905
		15	19125	1902.5
		20	19100	1900
LTE Band 4	Low Range	1.4	19957	1710.7
		3	19965	1711.5
		5	19975	1712.5
		10	20000	1715
		15	20025	1717.5
		20	20050	1720
	Mid Range	1.4/3/5/10/15/20	20175	1732.5
	High Range	1.4	20393	1754.3
		3	20385	1753.5
		5	20375	1752.5
		10	20350	1750
		15	20325	1747.5
		20	20300	1745
LTE Band 7	Low Range	5	20775	2502.5
		10	20800	2505
		15	20825	2507.5
		20	20850	2510
	Mid Range	5/10/15/20	21100	2535
	High Range	5	21425	2567.5
		10	21400	2565
		15	21375	2562.5
		20	21350	2560
LTE Band 17	Low Range	5	23755	706.5
		10	23780	709
	Mid Range	5/10	23790	710
	High Range	5	23825	713.5
		10	23800	711

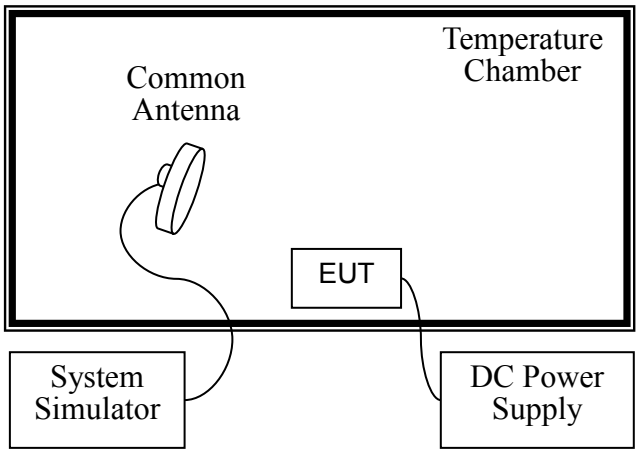
4.4 Test Setup

4.4.1 For Antenna Port Test



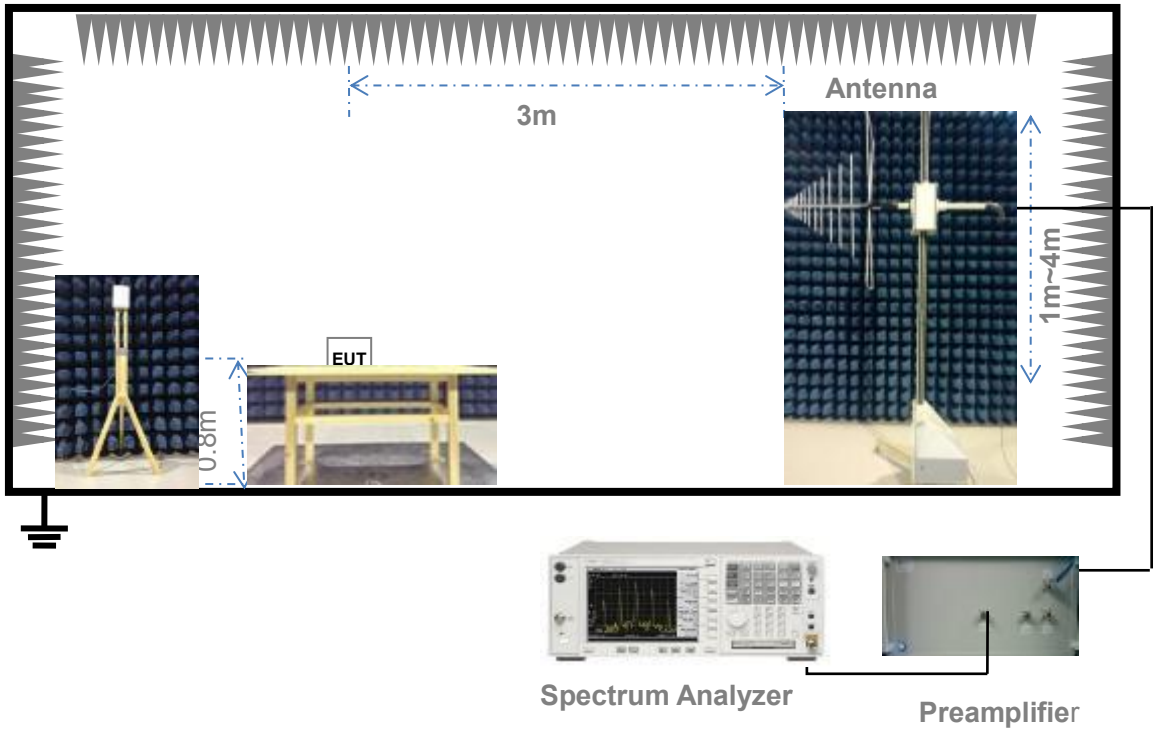
(Diagram 1)

4.4.2 For Frequency Stability Test



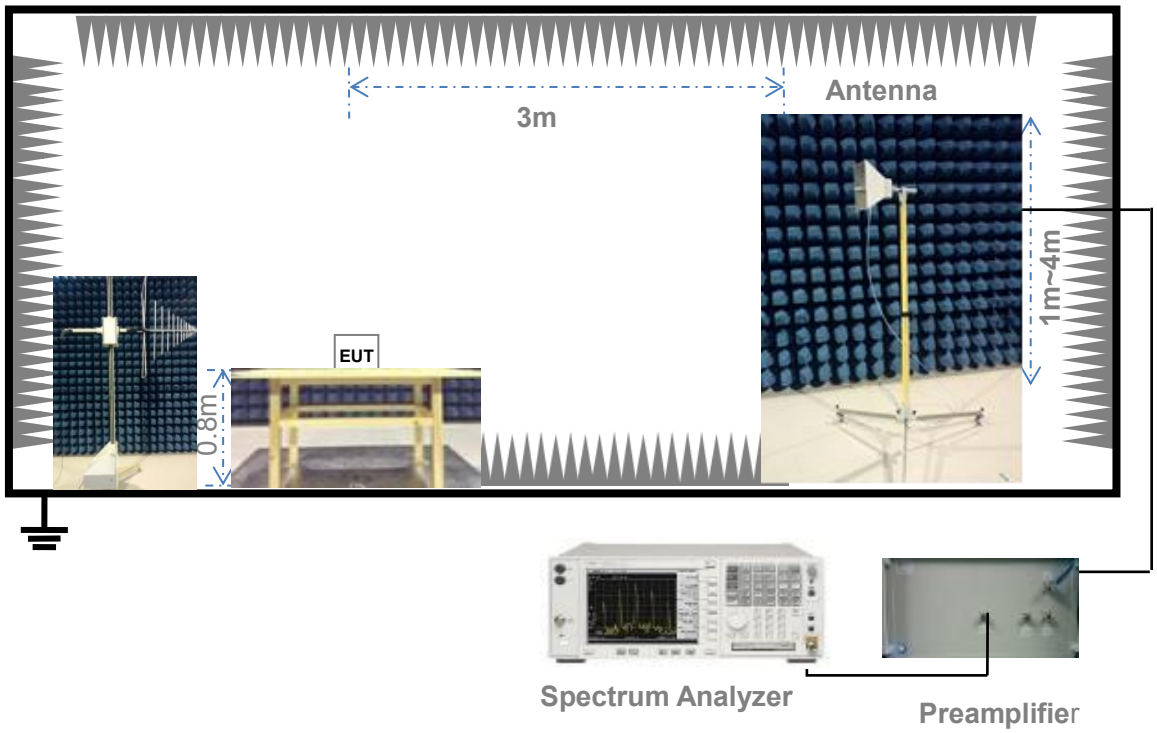
(Diagram 2)

4.4.3 For Radiated Test (30 MHz-1 GHz)



(Diagram 3)

4.4.4 For Radiated Test (Above 1 GHz)



(Diagram 4)

5 TEST ITEMS

5.1 Transmitter Radiated Power (EIRP/ERP)

5.1.1 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.

(7) 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 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.

5.1.2 Test Setup

The section 4.4.1 (Diagram 1) test setup description is used for this test. The photo of test setup please refer to ANNEX B.

5.1.3 Test Procedure

Description of the Conducted Output Power Measurement

The EUT is coupled to the SS with attenuator through power splitter; the RF load attached to EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. A system simulator is used to establish communication with the EUT, and its parameters are set to force the EUT transmitting at maximum output power. The measured power in the radio frequency on the transmitter output terminals shall be reported.

Note: Reference test setup 4.4.1 (Diagram 1)

The relevant equation for determining the conducted measured value is:
Conducted Output Power Value (dBm) = Measured Value (dBm) + Path Loss (dB)

where:
Conducted Output Power Value = final conducted measured value in the conducted power test, in dBm;
Measured Value = measured conducted power received by spectrum analyzer or power meter, in dBm;
Path Loss = signal attenuation in the connecting cable between the transmitter and spectrum analyzer or power meter, including external cable loss, in dB;

During the test, the data of Path Loss (dB) is added in the spectrum analyzer or power meter, so Measured Value (dBm) is the final values which contains the data of Path Loss (dB).

For example:
In the conducted output power test, when measured value for GSM850 is 24.7 dBm, and path loss is 8.5 dB, then final conducted output power value is:
Conducted Output Power Value (dBm) = 24.7 dBm + 8.5 dB = 33.2 dBm

Description of the Transmitter Radiated Power Measurement

In many cases, the RF output power limits for licensed digital transmission devices is specified in terms of effective radiated power (ERP) or equivalent isotropic radiated power (EIRP). Typically, ERP is specified when the operating frequency is less than or equal to 1 GHz and EIRP is specified when the operating frequency is greater than 1 GHz. Both are determined by adding the transmit antenna gain to the conducted RF output power with the primary difference between the two being that when determining the ERP, the transmit antenna gain is referenced to a dipole antenna (i.e., dBd) whereas when determining the EIRP, the transmit antenna gain is referenced to an isotropic antenna (dBi).

Final measurement calculation as below:

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

ERP/EIRP = P_{Meas} + GT − LC

where:

ERP/EIRP = effective or equivalent radiated power, respectively (expressed in the same units as P_{Meas}, typically dBW or dBm);

P_{Meas} = measured transmitter output power or PSD, in dBm or dBW;

GT = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);

dBd (ERP)=dBi (EIRP) -2.15 dB

LC = signal attenuation in the connecting cable between the transmitter and antenna, in dB.

For devices utilizing multiple antennas, KDB 662911 provides guidance for determining the effective array transmit antenna gain term to be used in the above equation.

For example:
In the ERP test, when P_{Meas} value for GSM850 is 33.2 dBm, LC is 0.6 dB, and GT is -3.4 dB, then final ERP value is:
ERP for GSM 850 = 33.2 dBm - 3.4 dBi - 0.6 dB = 29.2 dBm

Note: Reference test setup 4.4.1 (Diagram 1)

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

ERP/EIRP (dBm) = SA Read Value (dBm) + Correction Factor (dB)

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).

For example:
In the ERP test, when SA read value for GSM850 is 21dBm, and correction factor is 8dB, then final ERP value for GSM850 is:
ERP (dBm) = 21dBm + 8dB = 29dBm

Note: Reference test setup 4.4.3 and 4.4.4 (Diagram 3, 4)

5.1.4 Test Result

Please refer to ANNEX A.1.

5.2 Peak to average ratio

5.2.1 Limit

FCC § 2.1046 & 24.232(d) & 27.50(d)

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.

5.2.2 Test Setup

The section 4.4.1 (Diagram 1) test setup description is used for this test. The photo of test setup please refer to ANNEX B.

5.2.3 Test Procedure

Here the lowest, middle and highest channels are selected to perform testing to verify the peak-to-average ratio.

According to KDB 971168 D01, there is CCDF procedure for PAPR:

a) Refer to instrument's analyzer instruction manual for details on how to use the power statistics/CCDF function;

b) Set resolution/measurement bandwidth ≥ signal's occupied bandwidth;

c) Set the number of counts to a value that stabilizes the measured CCDF curve;

d) Set the measurement interval as follows:

1) for continuous transmissions, set to 1 ms,

2) for burst transmissions, employ an external trigger that is synchronized with the EUT burst timing sequence, or use the internal burst trigger with a trigger level that allows the burst to stabilize and set the measurement interval to a time that is less than or equal to the burst duration.

e) Record the maximum PAPR level associated with a probability of 0.1%.

Alternate procedure for PAPR:

Use one of the procedures presented in 4.1 to measure the total peak power and record as P_{Pk}. Use one of the applicable procedures presented 4.2 to measure the total average power and record as P_{Avg}. Both the peak and average power levels must be expressed in the same logarithmic units (e.g., dBm). Determine the PAPR from:

PAPR (dB) = P_{Pk} (dBm) - P_{Avg} (dBm).

Note: Reference test setup 4.4.1 (Diagram 1).

5.2.4 Test Result

Please refer to ANNEX A.2.

5.3 Occupied Bandwidth

5.3.1 Limit

FCC § 2.1049

The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission.

Many of the individual rule parts specify a relative OBW in lieu of the 99% OBW. In such cases, the OBW is defined as the width of the signal between two points, one below the carrier center frequency and on above the carrier center frequency, outside of which all emissions are attenuated by at least X dB below the transmitter power, where the value of X is typically specified as 26.

5.3.2 Test Setup

The section 4.4.1 (Diagram 1) test setup description is used for this test. The photo of test setup please refer to ANNEX B.

5.3.3 Test Procedure

The following procedure shall be used for measuring power bandwidth.

a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be set wide enough to capture all modulation products including the emission skirts (i.e., two to five times the anticipated OBW).

b) The nominal IF filter bandwidth (3 dB 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.

c) Set the reference level of the instrument as required to keep the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope must be at least 10log (OBW / RBW) below the reference level.

d) NOTE—Steps a) through c) may require iteration to adjust within the specified tolerances.

e) For -26 dB OBW, the dynamic range of the spectrum analyzer at the selected RBW shall be at least 10dB below the target “-X dB down” requirement, e.g. -26 dB OBW, the spectrum analyzer noise floor at the selected RBW shall be 36dB below the reference value.

f) Set the detection mode to peak, and the trace mode to max hold.

g) For 99% OBW, use the 99 % power bandwidth function of the spectrum analyzer (if available) and report the measured bandwidth.

If the instrument does not have a 99 % power bandwidth function, the trace data points are to be recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99 % power bandwidth is the difference between these two frequencies.

h) For -26 dB OBW, 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).

Determine the “-X dB down amplitude” as equal to (reference value -X). Alternatively, this calculation can be performed by the analyzer by using the marker-delta function.

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 “-X dB down amplitude” determined in step g). 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.

i) The OBW shall be reported by providing plot(s) of the measuring instrument display. The frequency and amplitude axes and scale shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

j) Change variable modulations, coding, or channel bandwidth settings, then repeat above test procedures.

Note: Reference test setup 4.4.1 (Diagram 1).

5.3.4 Test Result

Please refer to ANNEX A.3.

5.4 Frequency Stability

5.4.1 Limit

FCC § 2.1055 & 22.355 & 24.235 &27.54

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 C-1 of this section.

Table C-1—Frequency Tolerance for Transmitters in the Public Mobile Services

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.

5.4.2 Test Setup

The section 4.4.2 (Diagram 2) test setup description is used for this test. The photo of test setup please refer to ANNEX B.

5.4.3 Test Procedure

1. The EUT is placed in a temperature chamber.
2. The temperature is set to 20°C and allowed to stabilize. After sufficient soak time, the transmitting frequency error is measured.
3. The temperature is increased by not more than 10 degrees, allowed to stabilize and soak, and then repeat the frequency error measurement.
4. Repeat procedure 3 until +50°C is reached.
5. Change supply voltage, and repeat measurement until extreme voltage is reached.

Note: Reference test setup 4.4.2 (Diagram 2).

5.4.4 Test Result

Please refer to ANNEX A.4.

5.5 Spurious Emission at Antenna Terminals

5.5.1 Limit

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

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

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

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

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

In addition, the attenuation factor shall not be less that 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.

5.5.2 Test Setup

The section 4.4.1 (Diagram 1) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.5.3 Test Procedure

The level of the carrier and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic. On any frequency outside a licensee's frequency block, the power of any emission shall be attenuated below the transmitter power (P) by at least 43 + 10 log(P) dB. Compliance with these provisions is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency blocks 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.

1. The EUT is coupled to the system simulator and spectrum analyzer; the RF load attached to EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading.

2. CMW500 is used to establish communication with the EUT, and its parameters are set to force the EUT transmitting at maximum output power.

3. The RF output of the transmitter is connected to the input of the spectrum analyzer through sufficient attenuation.

4. Spurious emissions are tested with 0.001MHz RBW for frequency less than 150kHz, 0.01MHz RBW for frequency less than 30MHz, 0.1MHz RBW for frequency less than 1GHz, and 1MHz RBW for frequency above 1GHz. And sweep point number are at least 401, referring to following formula.

Sweep point number = Span/RBW

VBW=3*RBW

Detector Mode=mean or average power

5. Record the frequencies and levels of spurious emissions.

Note: Reference test setup 4.4.1 (Diagram 1).

5.5.4 Test Result

Please refer to ANNEX A.5.

5.6 Band Edge

5.6.1 Limit

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

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 & 24.238

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. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz bands immediately outside and adjacent to a licensee’s frequency block, a resolution bandwidth of at least 30 kHz may be employed.

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

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

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

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

In addition, the attenuation factor shall not be less that 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.

5.6.2 Test Setup

The section 4.4.1 (Diagram 1) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.6.3 Test Procedure

The EUT, which is powered by the Battery, is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50 Ohm; the path loss as the factor is calibrated to correct the reading.

1.The EUT is coupled to the system simulator and spectrum analyzer; the RF load attached to EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading.

2. CMW500 is used to establish communication with the EUT, and its parameters are set to force the EUT transmitting at maximum output power.

3. The RF output of the transmitter is connected to the input of the spectrum analyzer through sufficient attenuation.

4. The center of the spectrum analyzer was set to block edge frequency.

5. Band edge are tested with 1%*cBW (RBW), and sweep point number referred to following formula.

Sweep point number = 2*Span/RBW

VBW=3RBW

6. Record the frequencies and levels of spurious emissions.

Note: Reference test setup 4.4.1 (Diagram 1).

5.6.4 Test Result

Please refer to ANNEX A.6.

5.7 Field Strength of Spurious Radiation

5.7.1 Limit

FCC § 2.1053 & 22.917(a) & 24.238(a) & 27.53(c) & 27.53(g) & 27.53(h) & 27.53(m)

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

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

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

• 55+10logP dB (–25 dBm, 3 nW) on all frequencies more than X MHz from the channel edge, where X is the

greater of 6 MHz or the actual emission bandwidth (26 dB).

In addition, the attenuation factor shall not be less that 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.

5.7.2 Test Setup

The section 4.4.3 and 4.4.4 (Diagram 3, 4) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.7.3 Test Procedure

1. On a test site, the EUT shall be placed at 80cm height on a turn table, and in the position close to normal use as declared by the applicant.
2. The test antenna shall be oriented initially for vertical polarization located 3 m from EUT to correspond to the fundamental frequency of the transmitter.
3. The output of the test antenna shall be connected to the measuring receiver and the peak detector is used for the measurement.
4. During the measurement of the EUT, the resolution bandwidth was to 1 MHz and the average bandwidth was set to 1 MHz.
5. The transmitter shall be switched on; the measuring receiver shall be tuned to the frequency of the transmitter under test.
6. The test antenna shall be raised and lowered through the specified range of height until the maximum signal level is detected by the measuring receiver.
7. The transmitter shall be rotated through 360° in the horizontal plane, until the maximum signal level is detected by the measuring receiver.
8. The test antenna shall be raised and lowered again through the specified range of height until the maximum signal level is detected by the measuring receiver.
9. The maximum signal level detected by the measuring receiver shall be noted.
10. The EUT was replaced by half-wave dipole (824 ~ 849 MHz) or horn antenna (1 850 ~ 1 910 MHz) connected to a signal generator.
11. In necessary, the input attenuator setting on the measuring receiver shall be adjusted in order to increase the sensitivity of the measuring receiver.
12. The test antenna shall be raised and lowered through the specified range of height to ensure that the maximum signal is received.
13. The input signal to the substitution antenna shall be adjusted to the level that produces a level detected by the measuring received, which is equal to the level noted while the transmitter radiated power was measured, corrected for the change of input attenuator setting of the measuring receiver.
14. The input level to the substitution antenna shall be recorded as power level in dBm, corrected for any change of input attenuator setting of the measuring receiver.
15. The measurement shall be repeated with the test antenna and the substitution antenna orientated for horizontal polarization.

Final measurement calculation as below:

The relevant equation for determining the ERP/EIRP from the radiated RF output power is:
ERP/EIRP (dBm) = SA Read Value (dBm) + Correction Factor (dB)

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).

For example:
In the ERP test, when SA read value for GSM850 is 21dBm, and correction factor is 8dB, then final ERP value for GSM850 is:
ERP (dBm) = 21dBm + 8dB = 29dBm
Note: Reference test setup 4.4.3 and 4.4.4 (Diagram 3, 4)

5.7.4 Test Result

Please refer to ANNEX A.7.

ANNEX A TEST RESULTS

A.1 Transmitter Output Power

A.1.1 Transmitter Conducted Output Power

GSM Mode Test Data

Test Band	Test Channel	PCL	Conducted Output Peak Power (dBm)	Conducted Output Peak Power (W)
GSM 850	LCH	5	27.67	0.58
	MCH	5	27.66	0.58
	HCH	5	27.64	0.58
GPRS 850	LCH	5	27.69	0.59
	MCH	5	27.66	0.58
	HCH	5	27.63	0.58
EGPRS 850	LCH	8	30.98	1.25
	MCH	8	31.03	1.27
	HCH	8	31.08	1.28

Test Band	Test Channel	PCL	Conducted Output Peak Power (dBm)	Conducted Output Peak Power (W)
GSM 1900	LCH	0	31.18	1.31
	MCH	0	30.91	1.23
	HCH	0	30.56	1.14
GPRS 1900	LCH	0	31.14	1.30
	MCH	0	30.88	1.22
	HCH	0	30.53	1.13
EGPRS 1900	LCH	2	29.66	0.92
	MCH	2	29.67	0.93
	HCH	2	29.38	0.87

Note 1: For the GPRS and EGPRS mode, all the slots were tested and just the worst data were recorded in this table.

Note 2: Set PCL to 5 for GSM/GPRS850 (power class 4) and 0 for GSM/GPRS 1900 (power class 1). Set PCL to 8 for EGPRS850 (power class E2) and 2 for EGPRS1900 (power class E2).

GPRS Conducted Output Power

Band	Channel	Conducted Output Peak Power							
		Slot 1 (dBm)	Slot 1 (W)	Slot 2 (dBm)	Slot 2 (W)	Slot 3 (dBm)	Slot 3 (W)	Slot 4 (dBm)	Slot 4 (W)
GPRS 850	LCH	27.69	0.59	27.66	0.58	27.63	0.58	27.62	0.58
	MCH	27.66	0.58	27.64	0.58	27.63	0.58	27.61	0.58
	HCH	27.63	0.58	27.6	0.58	27.58	0.57	27.56	0.57
GPRS 1900	LCH	31.14	1.30	30.46	1.11	28.74	0.75	27.59	0.57
	MCH	30.88	1.22	30.22	1.05	28.53	0.71	27.41	0.55
	HCH	30.53	1.13	29.88	0.97	28.22	0.66	27.12	0.51

EGPRS Conducted Output Power

Band	Channel	Conducted Output Peak Power							
		Slot 1 (dBm)	Slot 1 (W)	Slot 2 (dBm)	Slot 2 (W)	Slot 3 (dBm)	Slot 3 (W)	Slot 4 (dBm)	Slot 4 (W)
EGPRS 850	LCH	30.98	1.25	30.07	1.02	28.34	0.68	27.4	0.55
	MCH	31.03	1.27	30.07	1.02	28.19	0.66	27.23	0.53
	HCH	31.08	1.28	30.19	1.04	28.25	0.67	27.34	0.54
EGPRS 1900	LCH	29.66	0.92	29.09	0.81	27.46	0.56	26.54	0.45
	MCH	29.67	0.93	29.02	0.80	27.56	0.57	26.53	0.45
	HCH	29.38	0.87	28.87	0.77	27.55	0.57	26.84	0.48

WCDMA Mode Test Data:

Test Band	Test Channel	Conducted Output Average Power (dBm)	Conducted Output Average Power (W)
WCDMA Band 2	LCH	21.91	0.16
	MCH	21.38	0.14
	HCH	21.07	0.13
HSDPA Band 2	LCH	21.25	0.13
	MCH	21.28	0.13
	HCH	21.42	0.14
HSUPA Band 2	LCH	21.19	0.13
	MCH	21.19	0.13
	HCH	21.46	0.14

Test Band	Test Channel	Conducted Output Average Power (dBm)	Conducted Output Average Power (W)
WCDMA Band 5	LCH	21.13	0.13
	MCH	21.15	0.13
	HCH	21.18	0.13
HSDPA Band 5	LCH	20.69	0.12
	MCH	20.81	0.12
	HCH	20.80	0.12
HSUPA Band 5	LCH	20.69	0.12
	MCH	20.78	0.12
	HCH	20.76	0.12

Note 1: For the HSDPA and HSUPA mode, all the subtests were tested and just the worst data were recorded in this table.

HSDPA Conducted Output Power

Band	Channel	Conducted Output Average Power							
		Subtest1		Subtest2		Subtest3		Subtest4	
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	(dBm)	(W)
HSDPA Band 2	LCH	21.20	0.13	21.25	0.13	20.76	0.12	20.75	0.12
	MCH	21.25	0.13	21.28	0.13	20.80	0.12	20.77	0.12
	HCH	21.42	0.14	21.41	0.14	20.99	0.13	20.86	0.12
HSDPA Band 5	LCH	20.66	0.12	20.69	0.12	20.22	0.11	20.21	0.10
	MCH	20.81	0.12	20.79	0.12	20.33	0.11	20.30	0.11
	HCH	20.78	0.12	20.80	0.12	20.33	0.11	20.31	0.11

HSUPA Conducted Output Power

Band	Channel	Conducted Output Average Power									
		Subtest1		Subtest2		Subtest3		Subtest4		Subtest5	
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	(dBm)	(W)
HSUPA Band 2	LCH	19.74	0.09	19.22	0.08	20.20	0.10	18.71	0.07	21.19	0.13
	MCH	19.74	0.09	19.21	0.08	20.23	0.11	18.75	0.07	21.19	0.13
	HCH	19.98	0.10	19.46	0.09	20.45	0.11	18.92	0.08	21.46	0.14
HSUPA Band 5	LCH	19.19	0.08	18.66	0.07	19.72	0.09	18.20	0.07	20.69	0.12
	MCH	18.85	0.08	18.80	0.08	19.80	0.10	18.31	0.07	20.78	0.12
	HCH	19.30	0.09	18.79	0.08	19.80	0.10	18.25	0.07	20.76	0.12

LTE Mode Test Data:

Test BW	Test Channel	Test Model	Test RB (Size#Offset)	Conducted Output Average Power (dBm)	Conducted Output Average Power (W)
LTE Band2					
1.4 MHz	LCH	QPSK	RB1#0	23.42	0.22
			RB1#3	23.45	0.22
			RB1#5	23.43	0.22
			RB3#0	23.44	0.22
			RB3#2	23.45	0.22
			RB3#3	23.46	0.22
			RB6#0	22.43	0.17
		16-QAM	RB1#0	22.39	0.17
			RB1#3	22.44	0.18
			RB1#5	22.4	0.17
			RB3#0	22.42	0.17
			RB3#2	22.42	0.17
			RB3#3	22.44	0.18
			RB6#0	21.5	0.14
	MCH	QPSK	RB1#0	22.94	0.20
			RB1#3	22.96	0.20
			RB1#5	22.91	0.20
			RB3#0	23.03	0.20
			RB3#2	23.02	0.20
			RB3#3	23.01	0.20
			RB6#0	21.91	0.16
		16-QAM	RB1#0	22.3	0.17
			RB1#3	22.29	0.17
			RB1#5	22.24	0.17
			RB3#0	22.22	0.17
			RB3#2	22.17	0.16
			RB3#3	22.16	0.16
			RB6#0	20.83	0.12
	HCH	QPSK	RB1#0	22.59	0.18
			RB1#3	22.71	0.19
			RB1#5	22.63	0.18
			RB3#0	22.56	0.18
			RB3#2	22.56	0.18
			RB3#3	22.57	0.18
			RB6#0	21.53	0.14
		16-QAM	RB1#0	21.39	0.14
			RB1#3	21.43	0.14
			RB1#5	21.4	0.14

Test BW	Test Channel	Test Model	Test RB (Size#Offset)	Conducted Output Average Power (dBm)	Conducted Output Average Power (W)
LTE Band2					
			RB3#0	21.64	0.15
			RB3#2	21.61	0.14
			RB3#3	21.61	0.14
			RB6#0	20.64	0.12
3 MHz	LCH	QPSK	RB1#0	23.45	0.22
			RB1#7	23.44	0.22
			RB1#14	23.37	0.22
			RB8#0	22.54	0.18
			RB8#4	22.53	0.18
			RB8#7	22.51	0.18
			RB15#0	22.46	0.18
		16-QAM	RB1#0	22.21	0.17
			RB1#7	22.23	0.17
			RB1#14	22.17	0.16
			RB8#0	21.58	0.14
			RB8#4	21.59	0.14
			RB8#7	21.58	0.14
			RB15#0	21.48	0.14
	MCH	QPSK	RB1#0	22.95	0.20
			RB1#7	22.96	0.20
			RB1#14	22.87	0.19
			RB8#0	22.04	0.16
			RB8#4	22.03	0.16
			RB8#7	22.04	0.16
			RB15#0	21.99	0.16
		16-QAM	RB1#0	22.31	0.17
			RB1#7	22.28	0.17
			RB1#14	22.2	0.17
			RB8#0	21.12	0.13
			RB8#4	21.13	0.13
			RB8#7	21.11	0.13
			RB15#0	21.04	0.13
	HCH	QPSK	RB1#0	22.57	0.18
			RB1#7	22.61	0.18
			RB1#14	22.59	0.18
			RB8#0	21.61	0.14
			RB8#4	21.63	0.15
			RB8#7	21.59	0.14
			RB15#0	21.56	0.14

Test BW	Test Channel	Test Model	Test RB (Size#Offset)	Conducted Output Average Power (dBm)	Conducted Output Average Power (W)
LTE Band2					
		16-QAM	RB1#0	21.44	0.14
			RB1#7	21.39	0.14
			RB1#14	21.33	0.14
			RB8#0	20.61	0.12
			RB8#4	20.62	0.12
			RB8#7	20.57	0.11
			RB15#0	20.48	0.11
5 MHz	LCH	QPSK	RB1#0	23.48	0.22
			RB1#13	23.46	0.22
			RB1#24	23.35	0.22
			RB12#0	22.49	0.18
			RB12#6	22.46	0.18
			RB12#13	22.42	0.17
			RB25#0	22.41	0.17
		16-QAM	RB1#0	22.57	0.18
			RB1#13	22.56	0.18
			RB1#24	22.49	0.18
			RB12#0	21.57	0.14
			RB12#6	21.54	0.14
			RB12#13	21.53	0.14
			RB25#0	21.45	0.14
	MCH	QPSK	RB1#0	23.08	0.20
			RB1#13	23	0.20
			RB1#24	22.9	0.19
			RB12#0	22.08	0.16
			RB12#6	22.02	0.16
			RB12#13	21.98	0.16
			RB25#0	21.98	0.16
		16-QAM	RB1#0	22.56	0.18
			RB1#13	22.49	0.18
			RB1#24	22.36	0.17
			RB12#0	21.25	0.13
			RB12#6	21.18	0.13
			RB12#13	21.16	0.13
			RB25#0	21.07	0.13
	HCH	QPSK	RB1#0	22.63	0.18
			RB1#13	22.58	0.18
			RB1#24	22.55	0.18
			RB12#0	21.64	0.15

Test BW	Test Channel	Test Model	Test RB (Size#Offset)	Conducted Output Average Power (dBm)	Conducted Output Average Power (W)
LTE Band2					
			RB12#6	21.6	0.14
			RB12#13	21.58	0.14
			RB25#0	21.55	0.14
		16-QAM	RB1#0	21.68	0.15
			RB1#13	21.58	0.14
			RB1#24	21.48	0.14
			RB12#0	20.7	0.12
			RB12#6	20.64	0.12
			RB12#13	20.62	0.12
			RB25#0	20.52	0.11
10 MHz	LCH	QPSK	RB1#0	23.57	0.23
			RB1#25	23.45	0.22
			RB1#49	23.29	0.21
			RB25#0	22.43	0.17
			RB25#13	22.38	0.17
			RB25#25	22.33	0.17
			RB50#0	22.4	0.17
		16-QAM	RB1#0	22.33	0.17
			RB1#25	22.25	0.17
			RB1#49	22.16	0.16
			RB25#0	21.45	0.14
			RB25#13	21.42	0.14
			RB25#25	21.4	0.14
			RB50#0	21.41	0.14
	MCH	QPSK	RB1#0	23.12	0.21
			RB1#25	23.03	0.20
			RB1#49	22.88	0.19
			RB25#0	22.08	0.16
			RB25#13	22.01	0.16
			RB25#25	21.95	0.16
			RB50#0	22.01	0.16
		16-QAM	RB1#0	22.48	0.18
			RB1#25	22.33	0.17
			RB1#49	22.19	0.17
			RB25#0	21.13	0.13
			RB25#13	21.07	0.13
			RB25#25	20.99	0.13
			RB50#0	21.05	0.13
	HCH	QPSK	RB1#0	22.81	0.19

Test BW	Test Channel	Test Model	Test RB (Size#Offset)	Conducted Output Average Power (dBm)	Conducted Output Average Power (W)
LTE Band2					
			RB1#25	22.73	0.19
			RB1#49	22.68	0.19
			RB25#0	21.71	0.15
			RB25#13	21.65	0.15
			RB25#25	21.59	0.14
			RB50#0	21.68	0.15
		16-QAM	RB1#0	21.81	0.15
			RB1#25	21.65	0.15
			RB1#49	21.41	0.14
			RB25#0	20.84	0.12
			RB25#13	20.76	0.12
			RB25#25	20.66	0.12
			RB50#0	20.72	0.12
15 MHz	LCH	QPSK	RB1#0	23.59	0.23
			RB1#38	23.38	0.22
			RB1#74	23.23	0.21
			RB36#0	22.54	0.18
			RB36#19	22.48	0.18
			RB36#39	22.38	0.17
			RB75#0	22.5	0.18
		16-QAM	RB1#0	22.35	0.17
			RB1#38	22.23	0.17
			RB1#74	22.08	0.16
			RB36#0	21.49	0.14
			RB36#19	21.45	0.14
			RB36#39	21.34	0.14
			RB75#0	21.46	0.14
	MCH	QPSK	RB1#0	23.26	0.21
			RB1#38	23.02	0.20
			RB1#74	22.88	0.19
			RB36#0	22.2	0.17
			RB36#19	22.12	0.16
			RB36#39	22.04	0.16
			RB75#0	22.14	0.16
		16-QAM	RB1#0	22.59	0.18
			RB1#38	22.34	0.17
			RB1#74	22.17	0.16
			RB36#0	21.24	0.13
			RB36#19	21.14	0.13

Test BW	Test Channel	Test Model	Test RB (Size#Offset)	Conducted Output Average Power (dBm)	Conducted Output Average Power (W)
LTE Band2					
			RB36#39	21.01	0.13
			RB75#0	21.11	0.13
	HCH	QPSK	RB1#0	22.99	0.20
			RB1#38	22.78	0.19
			RB1#74	22.72	0.19
			RB36#0	21.94	0.16
			RB36#19	21.83	0.15
			RB36#39	21.76	0.15
			RB75#0	21.85	0.15
		16-QAM	RB1#0	22.23	0.17
			RB1#38	22.12	0.16
			RB1#74	21.74	0.15
			RB36#0	20.92	0.12
			RB36#19	20.8	0.12
			RB36#39	20.69	0.12
			RB75#0	20.81	0.12
20 MHz	LCH	QPSK	RB1#0	23.62	0.23
			RB1#50	23.39	0.22
			RB1#99	23.2	0.21
			RB50#0	22.44	0.18
			RB50#25	22.34	0.17
			RB50#50	22.27	0.17
			RB100#0	22.36	0.17
		16-QAM	RB1#0	22.99	0.20
			RB1#50	22.85	0.19
			RB1#99	22.69	0.19
			RB50#0	21.49	0.14
			RB50#25	21.42	0.14
			RB50#50	21.33	0.14
			RB100#0	21.39	0.14
	MCH	QPSK	RB1#0	23.35	0.22
			RB1#50	23.08	0.20
			RB1#99	22.97	0.20
			RB50#0	22.17	0.16
			RB50#25	22.03	0.16
			RB50#50	21.97	0.16
			RB100#0	22.05	0.16
		16-QAM	RB1#0	22.69	0.19
			RB1#50	22.39	0.17

Test BW	Test Channel	Test Model	Test RB (Size#Offset)	Conducted Output Average Power (dBm)	Conducted Output Average Power (W)
LTE Band2					
			RB1#99	22.25	0.17
			RB50#0	21.22	0.13
			RB50#25	21.07	0.13
			RB50#50	20.98	0.13
			RB100#0	21.06	0.13
	HCH	QPSK	RB1#0	22.98	0.20
			RB1#50	22.86	0.19
			RB1#99	22.7	0.19
			RB50#0	21.95	0.16
			RB50#25	21.87	0.15
			RB50#50	21.72	0.15
			RB100#0	21.81	0.15
		16-QAM	RB1#0	22.31	0.17
			RB1#50	22.25	0.17
			RB1#99	21.84	0.15
			RB50#0	20.94	0.12
			RB50#25	20.85	0.12
			RB50#50	20.71	0.12
			RB100#0	20.82	0.12

Test BW	Test Channel	Test Model	Test RB (Size#Offset)	Conducted Output Average Power (dBm)	Conducted Output Average Power (W)
LTE Band4					
1.4 MHz	LCH	QPSK	RB1#0	22.96	0.20
			RB1#3	23.02	0.20
			RB1#5	22.99	0.20
			RB3#0	23.06	0.20
			RB3#2	23.06	0.20
			RB3#3	23.09	0.20
			RB6#0	21.98	0.16
		16-QAM	RB1#0	22.04	0.16
			RB1#3	22.11	0.16
			RB1#5	22.07	0.16
			RB3#0	22.09	0.16
			RB3#2	22.08	0.16
			RB3#3	22.13	0.16
			RB6#0	21.14	0.13
	MCH	QPSK	RB1#0	23.41	0.22
			RB1#3	23.49	0.22
			RB1#5	23.43	0.22
			RB3#0	23.33	0.22
			RB3#2	23.35	0.22
			RB3#3	23.34	0.22
			RB6#0	22.41	0.17
		16-QAM	RB1#0	22.56	0.18
			RB1#3	22.58	0.18
			RB1#5	22.56	0.18
			RB3#0	22.43	0.17
			RB3#2	22.41	0.17
			RB3#3	22.42	0.17
			RB6#0	21.18	0.13
	HCH	QPSK	RB1#0	23.64	0.23
			RB1#3	23.76	0.24
			RB1#5	23.72	0.24
			RB3#0	23.57	0.23
			RB3#2	23.57	0.23
			RB3#3	23.57	0.23
			RB6#0	22.57	0.18
		16-QAM	RB1#0	22.42	0.17
			RB1#3	22.48	0.18
			RB1#5	22.46	0.18
			RB3#0	22.68	0.19

Test BW	Test Channel	Test Model	Test RB (Size#Offset)	Conducted Output Average Power (dBm)	Conducted Output Average Power (W)
LTE Band4					
			RB3#2	22.66	0.18
			RB3#3	22.67	0.18
			RB6#0	21.67	0.15
3 MHz	LCH	QPSK	RB1#0	22.95	0.20
			RB1#7	23.02	0.20
			RB1#14	23.02	0.20
			RB8#0	22.07	0.16
			RB8#4	22.13	0.16
			RB8#7	22.11	0.16
			RB15#0	22.08	0.16
		16-QAM	RB1#0	21.83	0.15
			RB1#7	21.91	0.16
			RB1#14	21.87	0.15
			RB8#0	21.19	0.13
			RB8#4	21.24	0.13
			RB8#7	21.24	0.13
			RB15#0	21.12	0.13
	MCH	QPSK	RB1#0	23.36	0.22
			RB1#7	23.41	0.22
			RB1#14	23.39	0.22
			RB8#0	22.47	0.18
			RB8#4	22.48	0.18
			RB8#7	22.49	0.18
			RB15#0	22.35	0.17
		16-QAM	RB1#0	22.5	0.18
			RB1#7	22.54	0.18
			RB1#14	22.52	0.18
			RB8#0	21.41	0.14
			RB8#4	21.42	0.14
			RB8#7	21.42	0.14
			RB15#0	21.32	0.14
	HCH	QPSK	RB1#0	23.55	0.23
			RB1#7	23.66	0.23
			RB1#14	23.66	0.23
			RB8#0	22.59	0.18
			RB8#4	22.62	0.18
			RB8#7	22.6	0.18
			RB15#0	22.56	0.18
		16-QAM	RB1#0	22.38	0.17

Test BW	Test Channel	Test Model	Test RB (Size#Offset)	Conducted Output Average Power (dBm)	Conducted Output Average Power (W)
LTE Band4					
			RB1#7	22.4	0.17
			RB1#14	22.37	0.17
			RB8#0	21.6	0.14
			RB8#4	21.61	0.14
			RB8#7	21.62	0.15
			RB15#0	21.49	0.14
5 MHz	LCH	QPSK	RB1#0	23.04	0.20
			RB1#13	23.11	0.20
			RB1#24	23.12	0.21
			RB12#0	22.11	0.16
			RB12#6	22.13	0.16
			RB12#13	22.16	0.16
			RB25#0	22.1	0.16
		16-QAM	RB1#0	22.17	0.16
			RB1#13	22.26	0.17
			RB1#24	22.28	0.17
			RB12#0	21.22	0.13
			RB12#6	21.25	0.13
			RB12#13	21.27	0.13
			RB25#0	21.16	0.13
	MCH	QPSK	RB1#0	23.45	0.22
			RB1#13	23.17	0.21
			RB1#24	23.36	0.22
			RB12#0	22.37	0.17
			RB12#6	22.4	0.17
			RB12#13	22.38	0.17
			RB25#0	22.31	0.17
		16-QAM	RB1#0	22.74	0.19
			RB1#13	22.74	0.19
			RB1#24	22.72	0.19
			RB12#0	21.45	0.14
			RB12#6	21.46	0.14
			RB12#13	21.47	0.14
			RB25#0	21.33	0.14
	HCH	QPSK	RB1#0	23.53	0.23
			RB1#13	23.46	0.22
			RB1#24	23.61	0.23
			RB12#0	22.53	0.18
			RB12#6	22.54	0.18

Test BW	Test Channel	Test Model	Test RB (Size#Offset)	Conducted Output Average Power (dBm)	Conducted Output Average Power (W)
LTE Band4					
			RB12#13	22.58	0.18
			RB25#0	22.51	0.18
		16-QAM	RB1#0	22.5	0.18
			RB1#13	22.45	0.18
			RB1#24	22.52	0.18
			RB12#0	21.59	0.14
			RB12#6	21.6	0.14
			RB12#13	21.63	0.15
			RB25#0	21.45	0.14
10 MHz	LCH	QPSK	RB1#0	23	0.20
			RB1#25	23.17	0.21
			RB1#49	23.2	0.21
			RB25#0	22.1	0.16
			RB25#13	22.14	0.16
			RB25#25	22.17	0.16
			RB50#0	22.15	0.16
		16-QAM	RB1#0	21.86	0.15
			RB1#25	22.05	0.16
			RB1#49	22.03	0.16
			RB25#0	21.15	0.13
			RB25#13	21.17	0.13
			RB25#25	21.2	0.13
			RB50#0	21.14	0.13
	MCH	QPSK	RB1#0	23.41	0.22
			RB1#25	23.19	0.21
			RB1#49	22.71	0.19
			RB25#0	22.32	0.17
			RB25#13	22.36	0.17
			RB25#25	22.37	0.17
			RB50#0	22.31	0.17
		16-QAM	RB1#0	22.52	0.18
			RB1#25	22.59	0.18
			RB1#49	22.15	0.16
			RB25#0	21.3	0.13
			RB25#13	21.32	0.14
			RB25#25	21.35	0.14
			RB50#0	21.29	0.13
	HCH	QPSK	RB1#0	23.07	0.20
			RB1#25	23.29	0.21

Test BW	Test Channel	Test Model	Test RB (Size#Offset)	Conducted Output Average Power (dBm)	Conducted Output Average Power (W)
LTE Band4					
			RB1#49	23.35	0.22
			RB25#0	22.23	0.17
			RB25#13	22.34	0.17
			RB25#25	22.45	0.18
			RB50#0	22.3	0.17
		16-QAM	RB1#0	21.9	0.15
			RB1#25	22.2	0.17
			RB1#49	22.3	0.17
			RB25#0	21.31	0.14
			RB25#13	21.42	0.14
			RB25#25	21.56	0.14
			RB50#0	21.35	0.14
15 MHz	LCH	QPSK	RB1#0	23.02	0.20
			RB1#38	23.17	0.21
			RB1#74	23.28	0.21
			RB36#0	22.2	0.17
			RB36#19	22.26	0.17
			RB36#39	22.3	0.17
			RB75#0	22.26	0.17
		16-QAM	RB1#0	21.92	0.16
			RB1#38	22.05	0.16
			RB1#74	22.03	0.16
			RB36#0	21.18	0.13
			RB36#19	21.22	0.13
			RB36#39	21.24	0.13
			RB75#0	21.2	0.13
	MCH	QPSK	RB1#0	23.4	0.22
			RB1#38	23.14	0.21
			RB1#74	22.74	0.19
			RB36#0	22.54	0.18
			RB36#19	22.46	0.18
			RB36#39	22.12	0.16
			RB75#0	22.49	0.18
		16-QAM	RB1#0	22.56	0.18
			RB1#38	22.58	0.18
			RB1#74	22.14	0.16
			RB36#0	21.45	0.14
			RB36#19	21.47	0.14
			RB36#39	21.27	0.13

Test BW	Test Channel	Test Model	Test RB (Size#Offset)	Conducted Output Average Power (dBm)	Conducted Output Average Power (W)
LTE Band4					
			RB75#0	21.46	0.14
	HCH	QPSK	RB1#0	23.08	0.20
			RB1#38	22.95	0.20
			RB1#74	23.43	0.22
			RB36#0	21.88	0.15
			RB36#19	21.92	0.16
			RB36#39	22.13	0.16
			RB75#0	21.96	0.16
		16-QAM	RB1#0	22.23	0.17
			RB1#38	22.19	0.17
			RB1#74	22.67	0.18
			RB36#0	20.92	0.12
			RB36#19	20.9	0.12
			RB36#39	21.11	0.13
			RB75#0	20.96	0.12
20 MHz	LCH	QPSK	RB1#0	23.07	0.20
			RB1#50	23.25	0.21
			RB1#99	23.16	0.21
			RB50#0	22.18	0.17
			RB50#25	22.18	0.17
			RB50#50	22.21	0.17
			RB100#0	22.18	0.17
		16-QAM	RB1#0	22.58	0.18
			RB1#50	22.69	0.19
			RB1#99	22.68	0.19
			RB50#0	21.22	0.13
			RB50#25	21.21	0.13
			RB50#50	21.22	0.13
			RB100#0	21.2	0.13
	MCH	QPSK	RB1#0	23.41	0.22
			RB1#50	23.08	0.20
			RB1#99	22.58	0.18
			RB50#0	22.33	0.17
			RB50#25	22.38	0.17
			RB50#50	21.92	0.16
			RB100#0	22.41	0.17
		16-QAM	RB1#0	22.62	0.18
			RB1#50	22.52	0.18
			RB1#99	21.98	0.16

Test BW	Test Channel	Test Model	Test RB (Size#Offset)	Conducted Output Average Power (dBm)	Conducted Output Average Power (W)
LTE Band4					
			RB50#0	21.3	0.13
			RB50#25	21.37	0.14
			RB50#50	21.08	0.13
			RB100#0	21.36	0.14
	HCH	QPSK	RB1#0	23.09	0.20
			RB1#50	22.73	0.19
			RB1#99	23.25	0.21
			RB50#0	21.86	0.15
			RB50#25	21.74	0.15
			RB50#50	21.9	0.15
			RB100#0	21.87	0.15
		16-QAM	RB1#0	22.32	0.17
			RB1#50	22.05	0.16
			RB1#99	22.62	0.18
			RB50#0	20.9	0.12
			RB50#25	20.78	0.12
			RB50#50	20.9	0.12
			RB100#0	20.95	0.12

Test BW	Test Channel	Test Model	Test RB (Size#Offset)	Conducted Output Average Power (dBm)	Conducted Output Average Power (W)
LTE Band7					
5 MHz	LCH	QPSK	RB1#0	18.32	0.07
			RB1#13	18.42	0.07
			RB1#24	18.43	0.07
			RB12#0	17.38	0.05
			RB12#6	17.4	0.05
			RB12#13	17.42	0.06
			RB25#0	17.35	0.05
		16-QAM	RB1#0	17.5	0.06
			RB1#13	17.6	0.06
			RB1#24	17.6	0.06
			RB12#0	16.44	0.04
			RB12#6	16.47	0.04
			RB12#13	16.51	0.04
			RB25#0	16.37	0.04
	MCH	QPSK	RB1#0	18.76	0.08
			RB1#13	18.73	0.07
			RB1#24	18.68	0.07
			RB12#0	17.76	0.06
			RB12#6	17.72	0.06
			RB12#13	17.71	0.06
			RB25#0	17.71	0.06
		16-QAM	RB1#0	18.26	0.07
			RB1#13	18.24	0.07
			RB1#24	18.17	0.07
			RB12#0	16.89	0.05
			RB12#6	16.85	0.05
			RB12#13	16.85	0.05
			RB25#0	16.75	0.05
	HCH	QPSK	RB1#0	18.47	0.07
			RB1#13	18.45	0.07
			RB1#24	18.43	0.07
			RB12#0	17.52	0.06
			RB12#6	17.5	0.06
			RB12#13	17.47	0.06
			RB25#0	17.46	0.06
		16-QAM	RB1#0	17.62	0.06
			RB1#13	17.63	0.06
			RB1#24	17.59	0.06
			RB12#0	16.58	0.05

Test BW	Test Channel	Test Model	Test RB (Size#Offset)	Conducted Output Average Power (dBm)	Conducted Output Average Power (W)
LTE Band7					
			RB12#6	16.55	0.05
			RB12#13	16.51	0.04
			RB25#0	16.42	0.04
10 MHz	LCH	QPSK	RB1#0	18.32	0.07
			RB1#25	18.43	0.07
			RB1#49	18.52	0.07
			RB25#0	17.37	0.05
			RB25#13	17.44	0.06
			RB25#25	17.5	0.06
			RB50#0	17.44	0.06
		16-QAM	RB1#0	17.29	0.05
			RB1#25	17.42	0.06
			RB1#49	17.48	0.06
			RB25#0	16.4	0.04
			RB25#13	16.45	0.04
			RB25#25	16.51	0.04
			RB50#0	16.41	0.04
	MCH	QPSK	RB1#0	18.77	0.08
			RB1#25	18.75	0.07
			RB1#49	18.66	0.07
			RB25#0	17.72	0.06
			RB25#13	17.69	0.06
			RB25#25	17.69	0.06
			RB50#0	17.7	0.06
		16-QAM	RB1#0	18.14	0.07
			RB1#25	18.12	0.06
			RB1#49	18.05	0.06
			RB25#0	16.75	0.05
			RB25#13	16.71	0.05
			RB25#25	16.72	0.05
			RB50#0	16.7	0.05
	HCH	QPSK	RB1#0	18.54	0.07
			RB1#25	18.5	0.07
			RB1#49	18.48	0.07
			RB25#0	17.49	0.06
			RB25#13	17.48	0.06
			RB25#25	17.48	0.06
			RB50#0	17.52	0.06
		16-QAM	RB1#0	17.61	0.06

Test BW	Test Channel	Test Model	Test RB (Size#Offset)	Conducted Output Average Power (dBm)	Conducted Output Average Power (W)
LTE Band7					
			RB1#25	17.57	0.06
			RB1#49	17.53	0.06
			RB25#0	16.59	0.05
			RB25#13	16.61	0.05
			RB25#25	16.57	0.05
			RB50#0	16.54	0.05
15 MHz	LCH	QPSK	RB1#0	18.35	0.07
			RB1#38	18.48	0.07
			RB1#74	18.63	0.07
			RB36#0	17.47	0.06
			RB36#19	17.58	0.06
			RB36#39	17.6	0.06
			RB75#0	17.56	0.06
		16-QAM	RB1#0	17.36	0.05
			RB1#38	17.49	0.06
			RB1#74	17.59	0.06
			RB36#0	16.46	0.04
			RB36#19	16.55	0.05
			RB36#39	16.6	0.05
			RB75#0	16.55	0.05
	MCH	QPSK	RB1#0	18.83	0.08
			RB1#38	18.74	0.07
			RB1#74	18.67	0.07
			RB36#0	17.78	0.06
			RB36#19	17.73	0.06
			RB36#39	17.72	0.06
			RB75#0	17.76	0.06
		16-QAM	RB1#0	18.21	0.07
			RB1#38	18.11	0.06
			RB1#74	18.05	0.06
			RB36#0	16.83	0.05
			RB36#19	16.78	0.05
			RB36#39	16.77	0.05
			RB75#0	16.77	0.05
	HCH	QPSK	RB1#0	18.6	0.07
			RB1#38	18.55	0.07
			RB1#74	18.48	0.07
			RB36#0	17.62	0.06
			RB36#19	17.56	0.06

Test BW	Test Channel	Test Model	Test RB (Size#Offset)	Conducted Output Average Power (dBm)	Conducted Output Average Power (W)
LTE Band7					
			RB36#39	17.54	0.06
			RB75#0	17.58	0.06
		16-QAM	RB1#0	18.09	0.06
			RB1#38	18.01	0.06
			RB1#74	17.95	0.06
			RB36#0	16.57	0.05
			RB36#19	16.54	0.05
			RB36#39	16.5	0.04
			RB75#0	16.55	0.05
20 MHz	LCH	QPSK	RB1#0	18.43	0.07
			RB1#50	18.62	0.07
			RB1#99	18.68	0.07
			RB50#0	17.47	0.06
			RB50#25	17.56	0.06
			RB50#50	17.61	0.06
			RB100#0	17.53	0.06
		16-QAM	RB1#0	17.93	0.06
			RB1#50	18.1	0.06
			RB1#99	18.17	0.07
			RB50#0	16.48	0.04
			RB50#25	16.55	0.05
			RB50#50	16.63	0.05
			RB100#0	16.54	0.05
	MCH	QPSK	RB1#0	18.94	0.08
			RB1#50	18.84	0.08
			RB1#99	18.77	0.08
			RB50#0	17.83	0.06
			RB50#25	17.78	0.06
			RB50#50	17.76	0.06
			RB100#0	17.78	0.06
		16-QAM	RB1#0	18.43	0.07
			RB1#50	18.32	0.07
			RB1#99	18.28	0.07
			RB50#0	16.85	0.05
			RB50#25	16.78	0.05
			RB50#50	16.78	0.05
			RB100#0	16.77	0.05
	HCH	QPSK	RB1#0	18.7	0.07
			RB1#50	18.63	0.07

Test BW	Test Channel	Test Model	Test RB (Size#Offset)	Conducted Output Average Power (dBm)	Conducted Output Average Power (W)
LTE Band7					
			RB1#99	18.58	0.07
			RB50#0	17.68	0.06
			RB50#25	17.63	0.06
			RB50#50	17.61	0.06
			RB100#0	17.64	0.06
		16-QAM	RB1#0	18.15	0.07
			RB1#50	18.04	0.06
			RB1#99	18.05	0.06
			RB50#0	16.66	0.05
			RB50#25	16.61	0.05
			RB50#50	16.59	0.05
			RB100#0	16.62	0.05

Test BW	Test Channel	Test Model	Test RB (Size#Offset)	Conducted Output Average Power (dBm)	Conducted Output Average Power (W)
LTE Band17					
5 MHz	LCH	QPSK	RB1#0	22.5	0.18
			RB1#13	22.54	0.18
			RB1#24	22.49	0.18
			RB12#0	21.57	0.14
			RB12#6	21.55	0.14
			RB12#13	21.56	0.14
			RB25#0	21.52	0.14
		16-QAM	RB1#0	21.73	0.15
			RB1#13	21.74	0.15
			RB1#24	21.71	0.15
			RB12#0	20.71	0.12
			RB12#6	20.72	0.12
			RB12#13	20.71	0.12
			RB25#0	20.61	0.12
	MCH	QPSK	RB1#0	22.57	0.18
			RB1#13	22.52	0.18
			RB1#24	22.47	0.18
			RB12#0	21.58	0.14
			RB12#6	21.57	0.14
			RB12#13	21.54	0.14
			RB25#0	21.52	0.14
		16-QAM	RB1#0	22.12	0.16
			RB1#13	22.11	0.16
			RB1#24	22	0.16
			RB12#0	20.78	0.12
			RB12#6	20.76	0.12
			RB12#13	20.76	0.12
			RB25#0	20.64	0.12
	HCH	QPSK	RB1#0	22.51	0.18
			RB1#13	22.49	0.18
			RB1#24	22.38	0.17
			RB12#0	21.54	0.14
			RB12#6	21.51	0.14
			RB12#13	21.5	0.14
			RB25#0	21.46	0.14
		16-QAM	RB1#0	21.69	0.15
			RB1#13	21.65	0.15
			RB1#24	21.55	0.14
			RB12#0	20.65	0.12

Test BW	Test Channel	Test Model	Test RB (Size#Offset)	Conducted Output Average Power (dBm)	Conducted Output Average Power (W)
LTE Band17					
			RB12#6	20.63	0.12
			RB12#13	20.58	0.11
			RB25#0	20.47	0.11
10 MHz	LCH	QPSK	RB1#0	22.49	0.18
			RB1#25	22.48	0.18
			RB1#49	22.39	0.17
			RB25#0	21.53	0.14
			RB25#13	21.53	0.14
			RB25#25	21.51	0.14
			RB50#0	21.52	0.14
		16-QAM	RB1#0	21.48	0.14
			RB1#25	21.5	0.14
			RB1#49	21.4	0.14
			RB25#0	20.59	0.11
			RB25#13	20.61	0.12
			RB25#25	20.58	0.11
			RB50#0	20.57	0.11
	MCH	QPSK	RB1#0	22.52	0.18
			RB1#25	22.54	0.18
			RB1#49	22.44	0.18
			RB25#0	21.55	0.14
			RB25#13	21.53	0.14
			RB25#25	21.5	0.14
			RB50#0	21.53	0.14
		16-QAM	RB1#0	21.93	0.16
			RB1#25	21.97	0.16
			RB1#49	21.85	0.15
			RB25#0	20.62	0.12
			RB25#13	20.63	0.12
			RB25#25	20.58	0.11
			RB50#0	20.6	0.11
	HCH	QPSK	RB1#0	22.55	0.18
			RB1#25	22.52	0.18
			RB1#49	22.41	0.17
			RB25#0	21.53	0.14
			RB25#13	21.52	0.14
			RB25#25	21.51	0.14
			RB50#0	21.52	0.14
		16-QAM	RB1#0	21.6	0.14

Test BW	Test Channel	Test Model	Test RB (Size#Offset)	Conducted Output Average Power (dBm)	Conducted Output Average Power (W)
LTE Band17					
			RB1#25	21.59	0.14
			RB1#49	21.45	0.14
			RB25#0	20.68	0.12
			RB25#13	20.67	0.12
			RB25#25	20.63	0.12
			RB50#0	20.61	0.12

A.1.2 Transmitter Radiated Output Power(EIRP/ERP)

GSM Mode Test Data

Test Band	Channel	PCL	Measured ERP		Limit (W)	Verdict
			ERP (dBm)	ERP (W)		
GSM 850	LCH	5	12.09	0.02	7	Pass
	MCH	5	11.73	0.01		Pass
	HCH	5	11.16	0.01		Pass
GPRS 850	LCH	5	11.89	0.02		Pass
	MCH	5	11.31	0.01		Pass
	HCH	5	10.89	0.01		Pass
EGPRS 850	LCH	8	11.20	0.01		Pass
	MCH	8	10.82	0.01		Pass
	HCH	8	9.91	0.01		Pass

Test Band	Channel	PCL	Measured EIRP		Limit (W)	Verdict
			EIRP (dBm)	EIRP (W)		
GSM 1900	LCH	0	18.46	0.07	2	Pass
	MCH	0	18.03	0.06		Pass
	HCH	0	18.24	0.07		Pass
GPRS 1900	LCH	0	15.78	0.04		Pass
	MCH	0	15.14	0.03		Pass
	HCH	0	15.38	0.03		Pass
EGPRS 1900	LCH	2	15.49	0.04		Pass
	MCH	2	15.05	0.03		Pass
	HCH	2	14.39	0.03		Pass

Note 1: For the GPRS and EGPRS mode, all the slots were tested and just the worst data were recorded in this table.

Note 2: ERP/EIRP = SA Read Value + Correction Factor

where:

ERP/EIRP = effective or equivalent radiated power, in dBm;

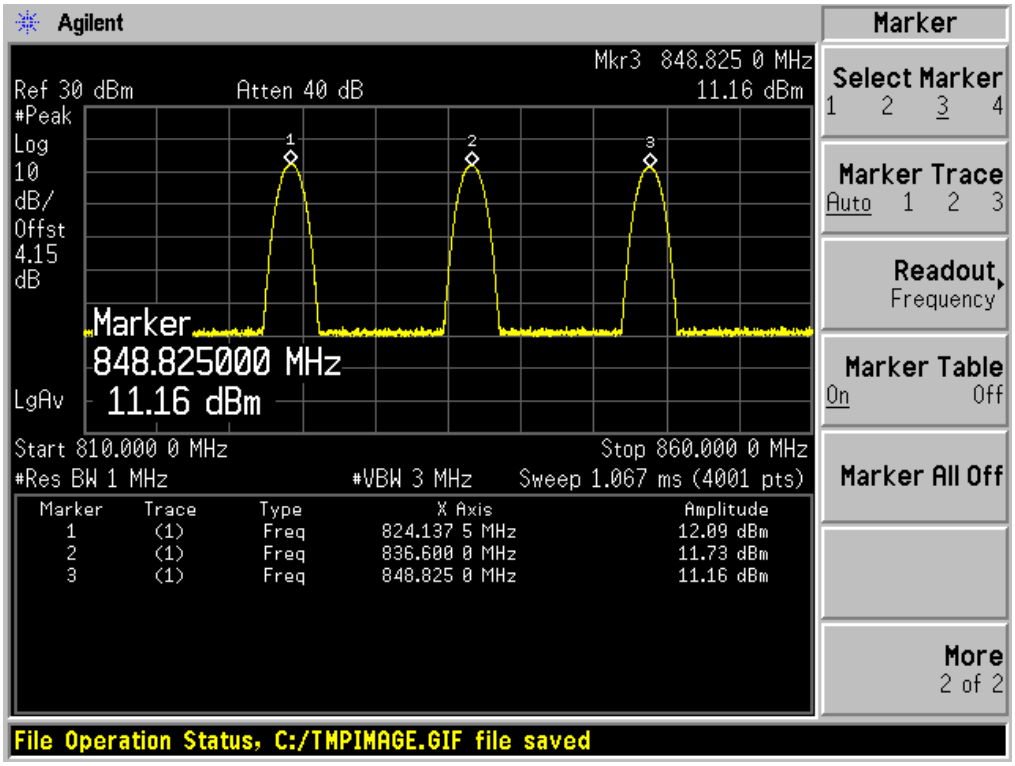
SA Read Value = measured transmitter power received by EMI receiver or spectrum analyzer, in dBm;

Correction Factor = total correction factor including cable loss, in dB;

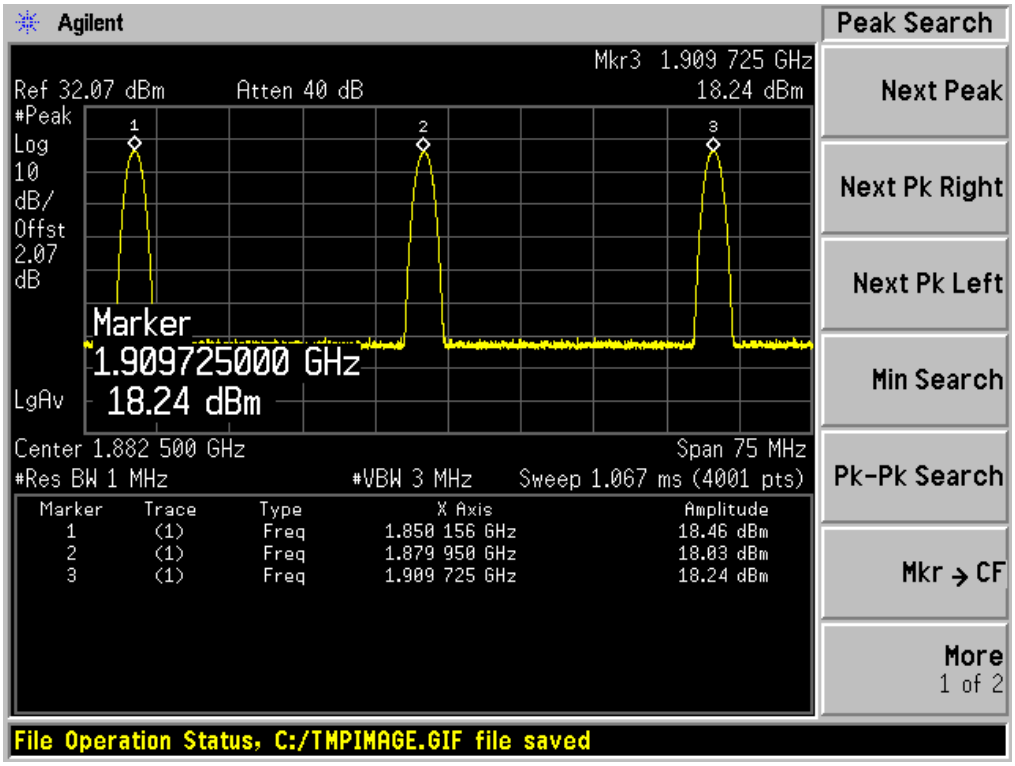
Note 3: Set PCL to 5 for GSM/GPRS 850 (power class 4) and 0 for GSM/GPRS 1900 (power class 1). Set PCL to 8 for EGPRS850 (power class E2) and 2 for EGPRS1900 (power class E2).

GSM/GPRS/EGPRS peak power test plots

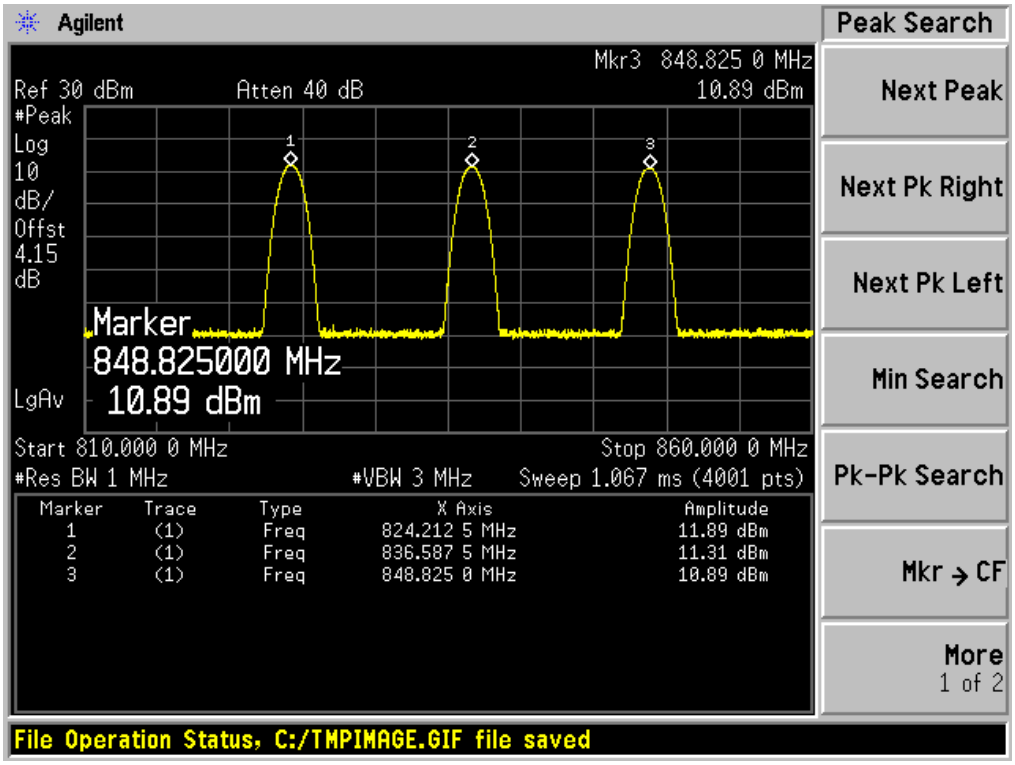
GSM850



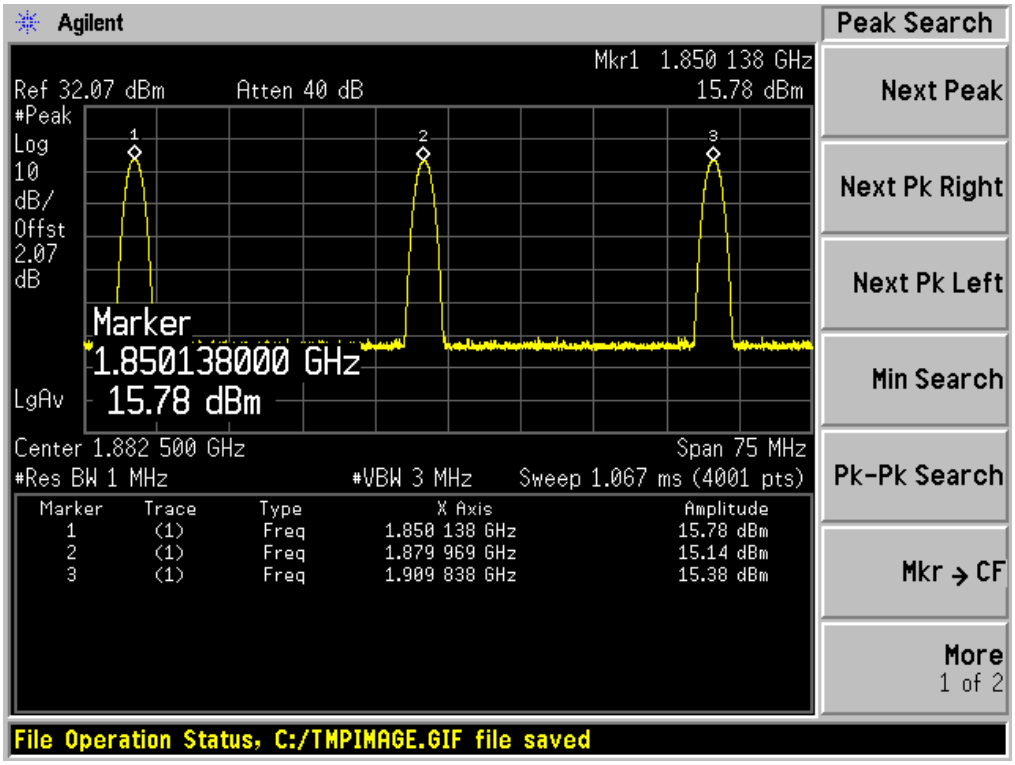
GSM1900



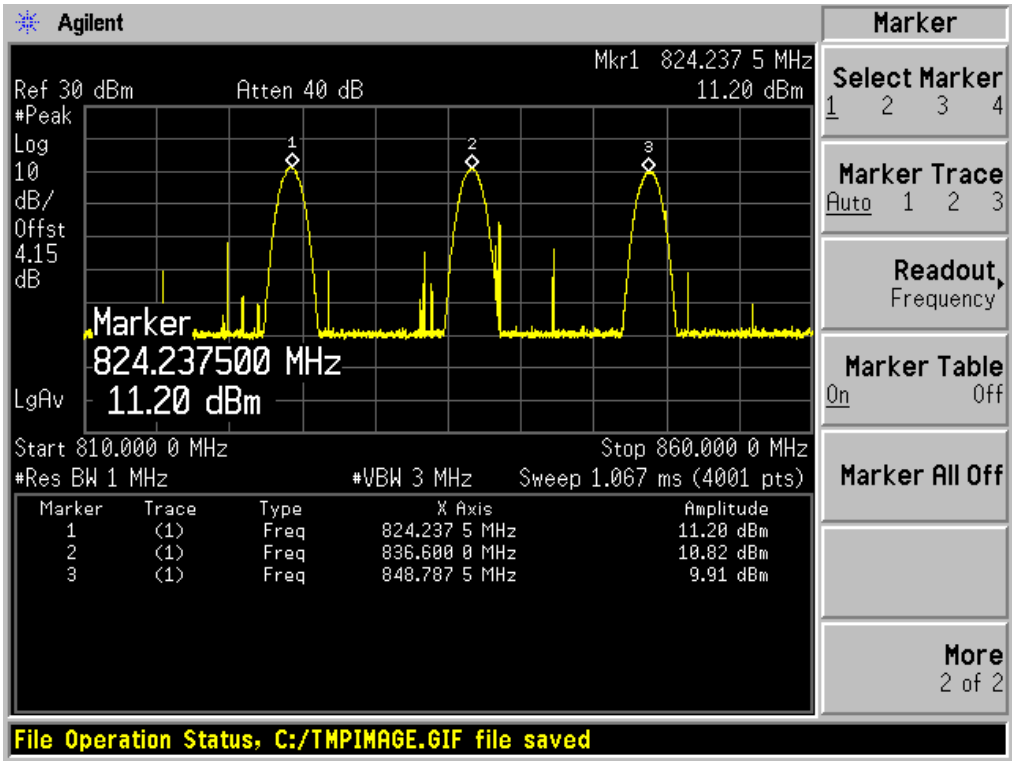
GPRS850



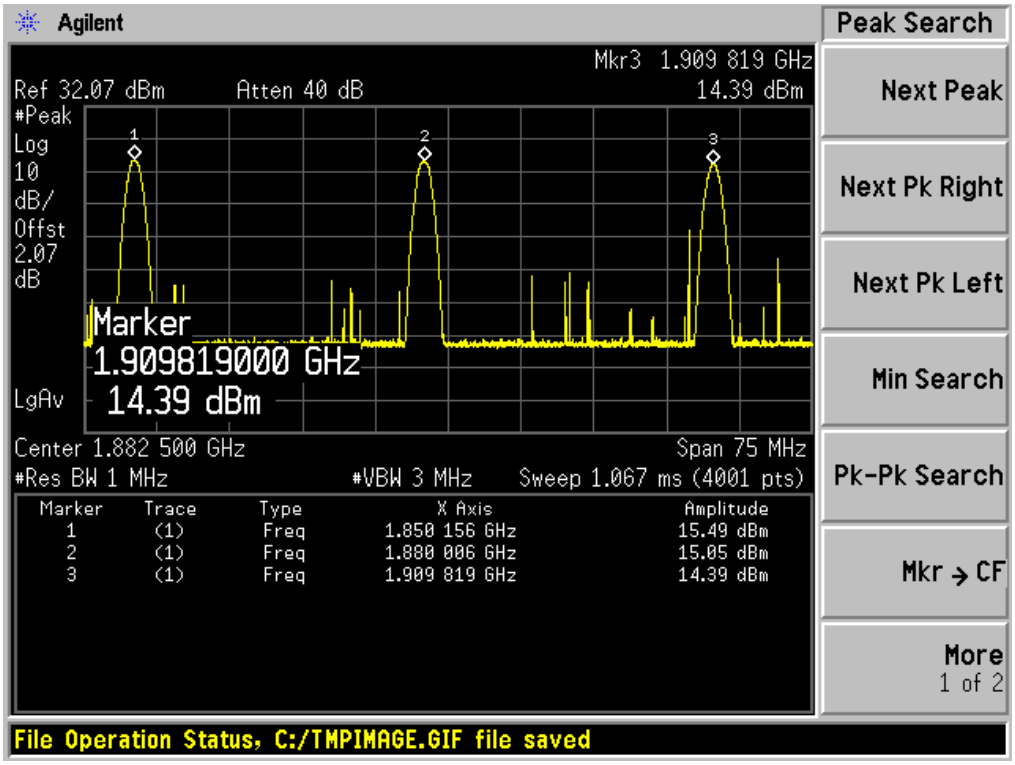
GPRS1900



EGPRS850



EGPRS1900



WCDMA Mode Test Data:

Test Band	Channel	Measured EIRP		Limit (W)	Verdict
		EIRP (dBm)	EIRP (W)		
WCDMA B2	LCH	21.09	0.13	2	Pass
	MCH	21.40	0.14		Pass
	HCH	19.93	0.10		Pass
HSDPA B2	LCH	20.24	0.11		Pass
	MCH	19.23	0.08		Pass
	HCH	19.41	0.09		Pass
HSUPA B2	LCH	20.10	0.10		Pass
	MCH	20.14	0.10		Pass
	HCH	20.07	0.10		Pass

Test Band	Channel	Measured EIRP		Limit (W)	Verdict
		ERP (dBm)	ERP (W)		
WCDMA B5	LCH	13.57	0.02	7	Pass
	MCH	12.87	0.02		Pass
	HCH	13.08	0.02		Pass
HSDPA B5	LCH	12.88	0.02		Pass
	MCH	12.12	0.02		Pass
	HCH	11.97	0.02		Pass
HSUPA B5	LCH	12.32	0.02		Pass
	MCH	13.29	0.02		Pass
	HCH	12.51	0.02		Pass

Note 1: For the HSDPA and HSUPA mode, all the subtests were tested and just the worst data were recorded in this table.

Note 2: ERP/EIRP = SA Read Value + 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;

LTE Mode Test Data:

Test BW	Test Channel	Test Model	Test RB (Size#Offset)	EIRP (dBm)	EIRP (W)	Limit (W)	Verdict
LTE BAND2							
1.4 MHz	LCH	QPSK	RB1#0	12.88	0.02	2.00	Pass
			RB6#0	12.39	0.02	2.00	Pass
		16-QAM	RB1#0	12.33	0.02	2.00	Pass
			RB6#0	12.89	0.02	2.00	Pass
	MCH	QPSK	RB1#0	12.75	0.02	2.00	Pass
			RB6#0	12.12	0.02	2.00	Pass
		16-QAM	RB1#0	11.87	0.02	2.00	Pass
			RB6#0	12.05	0.02	2.00	Pass
	HCH	QPSK	RB1#0	13.61	0.02	2.00	Pass
			RB6#0	12.23	0.02	2.00	Pass
		16-QAM	RB1#0	12.95	0.02	2.00	Pass
			RB6#0	12.36	0.02	2.00	Pass
3 MHz	LCH	QPSK	RB1#0	12.59	0.02	2.00	Pass
			RB15#0	12.25	0.02	2.00	Pass
		16-QAM	RB1#0	12.45	0.02	2.00	Pass
			RB15#0	12.86	0.02	2.00	Pass
	MCH	QPSK	RB1#0	12.35	0.02	2.00	Pass
			RB15#0	12.28	0.02	2.00	Pass
		16-QAM	RB1#0	12.45	0.02	2.00	Pass
			RB15#0	11.98	0.02	2.00	Pass
	HCH	QPSK	RB1#0	12.12	0.02	2.00	Pass
			RB15#0	12.45	0.02	2.00	Pass
		16-QAM	RB1#0	11.56	0.01	2.00	Pass
			RB15#0	11.58	0.01	2.00	Pass
5 MHz	LCH	QPSK	RB1#0	12.66	0.02	2.00	Pass
			RB25#0	12.25	0.02	2.00	Pass
		16-QAM	RB1#0	11.42	0.01	2.00	Pass
			RB25#0	12.41	0.02	2.00	Pass
	MCH	QPSK	RB1#0	11.91	0.02	2.00	Pass
			RB25#0	11.88	0.02	2.00	Pass
		16-QAM	RB1#0	12.32	0.02	2.00	Pass
			RB25#0	12.25	0.02	2.00	Pass
	HCH	QPSK	RB1#0	12.21	0.02	2.00	Pass
			RB25#0	12.24	0.02	2.00	Pass
		16-QAM	RB1#0	11.55	0.01	2.00	Pass
			RB25#0	12.46	0.02	2.00	Pass
10 MHz	LCH	QPSK	RB1#0	12.30	0.02	2.00	Pass
			RB50#0	12.25	0.02	2.00	Pass
		16-QAM	RB1#0	11.89	0.02	2.00	Pass
			RB50#0	12.42	0.02	2.00	Pass

Test BW	Test Channel	Test Model	Test RB (Size#Offset)	EIRP (dBm)	EIRP (W)	Limit (W)	Verdict
LTE BAND2							
	MCH	QPSK	RB1#0	12.25	0.02	2.00	Pass
			RB50#0	12.36	0.02	2.00	Pass
		16-QAM	RB1#0	11.89	0.02	2.00	Pass
			RB50#0	12.45	0.02	2.00	Pass
	HCH	QPSK	RB1#0	12.26	0.02	2.00	Pass
			RB50#0	11.75	0.01	2.00	Pass
		16-QAM	RB1#0	12.25	0.02	2.00	Pass
			RB50#0	12.92	0.02	2.00	Pass
15 MHz	LCH	QPSK	RB1#0	12.44	0.02	2.00	Pass
			RB75#0	12.26	0.02	2.00	Pass
		16-QAM	RB1#0	11.59	0.01	2.00	Pass
			RB75#0	12.28	0.02	2.00	Pass
	MCH	QPSK	RB1#0	11.64	0.01	2.00	Pass
			RB75#0	11.88	0.02	2.00	Pass
		16-QAM	RB1#0	11.87	0.02	2.00	Pass
			RB75#0	12.24	0.02	2.00	Pass
	HCH	QPSK	RB1#0	12.69	0.02	2.00	Pass
			RB75#0	12.44	0.02	2.00	Pass
		16-QAM	RB1#0	11.96	0.02	2.00	Pass
			RB75#0	12.15	0.02	2.00	Pass
20 MHz	LCH	QPSK	RB1#0	12.32	0.02	2.00	Pass
			RB100#0	11.58	0.01	2.00	Pass
		16-QAM	RB1#0	12.23	0.02	2.00	Pass
			RB100#0	12.27	0.02	2.00	Pass
	MCH	QPSK	RB1#0	11.69	0.01	2.00	Pass
			RB100#0	12.42	0.02	2.00	Pass
		16-QAM	RB1#0	11.68	0.01	2.00	Pass
			RB100#0	12.23	0.02	2.00	Pass
	HCH	QPSK	RB1#0	11.92	0.02	2.00	Pass
			RB100#0	12.36	0.02	2.00	Pass
		16-QAM	RB1#0	12.25	0.02	2.00	Pass
			RB100#0	12.46	0.02	2.00	Pass

Test BW	Test Channel	Test Model	Test RB (Size#Offset)	EIRP (dBm)	EIRP (W)	Limit (W)	Verdict
LTE BAND4							
1.4 MHz	LCH	QPSK	RB1#0	13.64	0.02	1.00	Pass
			RB6#0	13.69	0.02	1.00	Pass
		16-QAM	RB1#0	13.93	0.02	1.00	Pass
			RB6#0	13.12	0.02	1.00	Pass
	MCH	QPSK	RB1#0	13.14	0.02	1.00	Pass
			RB6#0	13.68	0.02	1.00	Pass
		16-QAM	RB1#0	13.45	0.02	1.00	Pass
			RB6#0	12.66	0.02	1.00	Pass
	HCH	QPSK	RB1#0	13.04	0.02	1.00	Pass
			RB6#0	12.69	0.02	1.00	Pass
		16-QAM	RB1#0	13.31	0.02	1.00	Pass
			RB6#0	13.14	0.02	1.00	Pass
3 MHz	LCH	QPSK	RB1#0	12.56	0.02	1.00	Pass
			RB15#0	13.86	0.02	1.00	Pass
		16-QAM	RB1#0	12.45	0.02	1.00	Pass
			RB15#0	13.35	0.02	1.00	Pass
	MCH	QPSK	RB1#0	12.56	0.02	1.00	Pass
			RB15#0	12.69	0.02	1.00	Pass
		16-QAM	RB1#0	12.93	0.02	1.00	Pass
			RB15#0	13.42	0.02	1.00	Pass
	HCH	QPSK	RB1#0	13.69	0.02	1.00	Pass
			RB15#0	13.63	0.02	1.00	Pass
		16-QAM	RB1#0	14.23	0.03	1.00	Pass
			RB15#0	13.46	0.02	1.00	Pass
5 MHz	LCH	QPSK	RB1#0	13.67	0.02	1.00	Pass
			RB25#0	13.83	0.02	1.00	Pass
		16-QAM	RB1#0	12.96	0.02	1.00	Pass
			RB25#0	12.95	0.02	1.00	Pass
	MCH	QPSK	RB1#0	13.17	0.02	1.00	Pass
			RB25#0	13.86	0.02	1.00	Pass
		16-QAM	RB1#0	13.36	0.02	1.00	Pass
			RB25#0	13.49	0.02	1.00	Pass
	HCH	QPSK	RB1#0	13.85	0.02	1.00	Pass
			RB25#0	14.18	0.03	1.00	Pass
		16-QAM	RB1#0	14.05	0.03	1.00	Pass
			RB25#0	13.41	0.02	1.00	Pass
10 MHz	LCH	QPSK	RB1#0	13.54	0.02	1.00	Pass
			RB50#0	13.25	0.02	1.00	Pass
		16-QAM	RB1#0	13.42	0.02	1.00	Pass
			RB50#0	13.69	0.02	1.00	Pass
	MCH	QPSK	RB1#0	13.36	0.02	1.00	Pass

Test BW	Test Channel	Test Model	Test RB (Size#Offset)	EIRP (dBm)	EIRP (W)	Limit (W)	Verdict
LTE BAND4							
			RB50#0	13.66	0.02	1.00	Pass
		16-QAM	RB1#0	12.85	0.02	1.00	Pass
			RB50#0	13.69	0.02	1.00	Pass
	HCH	QPSK	RB1#0	14.29	0.03	1.00	Pass
			RB50#0	14.16	0.03	1.00	Pass
		16-QAM	RB1#0	14.06	0.03	1.00	Pass
			RB50#0	13.63	0.02	1.00	Pass
15 MHz	LCH	QPSK	RB1#0	13.66	0.02	1.00	Pass
			RB75#0	13.89	0.02	1.00	Pass
		16-QAM	RB1#0	13.46	0.02	1.00	Pass
			RB75#0	13.33	0.02	1.00	Pass
	MCH	QPSK	RB1#0	13.36	0.02	1.00	Pass
			RB75#0	14.06	0.03	1.00	Pass
		16-QAM	RB1#0	12.66	0.02	1.00	Pass
			RB75#0	13.58	0.02	1.00	Pass
	HCH	QPSK	RB1#0	13.42	0.02	1.00	Pass
			RB75#0	13.25	0.02	1.00	Pass
		16-QAM	RB1#0	13.47	0.02	1.00	Pass
			RB75#0	13.58	0.02	1.00	Pass
20 MHz	LCH	QPSK	RB1#0	13.32	0.02	1.00	Pass
			RB100#0	13.61	0.02	1.00	Pass
		16-QAM	RB1#0	12.86	0.02	1.00	Pass
			RB100#0	13.17	0.02	1.00	Pass
	MCH	QPSK	RB1#0	13.56	0.02	1.00	Pass
			RB100#0	13.47	0.02	1.00	Pass
		16-QAM	RB1#0	14.02	0.03	1.00	Pass
			RB100#0	13.49	0.02	1.00	Pass
	HCH	QPSK	RB1#0	12.87	0.02	1.00	Pass
			RB100#0	13.39	0.02	1.00	Pass
		16-QAM	RB1#0	13.72	0.02	1.00	Pass
			RB100#0	13.47	0.02	1.00	Pass

Test BW	Test Channel	Test Model	Test RB (Size#Offset)	EIRP (dBm)	EIRP (W)	Limit (W)	Verdict
LTE BAND7							
5 MHz	LCH	QPSK	RB1#0	10.45	0.01	2.00	Pass
			RB25#0	10.05	0.01	2.00	Pass
		16-QAM	RB1#0	9.75	0.01	2.00	Pass
			RB25#0	10.36	0.01	2.00	Pass
	MCH	QPSK	RB1#0	9.79	0.01	2.00	Pass
			RB25#0	10.32	0.01	2.00	Pass
		16-QAM	RB1#0	10.48	0.01	2.00	Pass
			RB25#0	10.43	0.01	2.00	Pass
	HCH	QPSK	RB1#0	10.51	0.01	2.00	Pass
			RB25#0	10.15	0.01	2.00	Pass
		16-QAM	RB1#0	9.87	0.01	2.00	Pass
			RB25#0	10.46	0.01	2.00	Pass
10 MHz	LCH	QPSK	RB1#0	10.42	0.01	2.00	Pass
			RB50#0	10.35	0.01	2.00	Pass
		16-QAM	RB1#0	9.69	0.01	2.00	Pass
			RB50#0	10.22	0.01	2.00	Pass
	MCH	QPSK	RB1#0	9.88	0.01	2.00	Pass
			RB50#0	10.36	0.01	2.00	Pass
		16-QAM	RB1#0	9.86	0.01	2.00	Pass
			RB50#0	9.91	0.01	2.00	Pass
	HCH	QPSK	RB1#0	10.54	0.01	2.00	Pass
			RB50#0	9.85	0.01	2.00	Pass
		16-QAM	RB1#0	10.33	0.01	2.00	Pass
			RB50#0	10.58	0.01	2.00	Pass
15 MHz	LCH	QPSK	RB1#0	10.19	0.01	2.00	Pass
			RB75#0	9.75	0.01	2.00	Pass
		16-QAM	RB1#0	10.11	0.01	2.00	Pass
			RB75#0	10.74	0.01	2.00	Pass
	MCH	QPSK	RB1#0	10.25	0.01	2.00	Pass
			RB75#0	10.32	0.01	2.00	Pass
		16-QAM	RB1#0	10.19	0.01	2.00	Pass
			RB75#0	10.44	0.01	2.00	Pass
	HCH	QPSK	RB1#0	9.88	0.01	2.00	Pass
			RB75#0	9.73	0.01	2.00	Pass
		16-QAM	RB1#0	10.11	0.01	2.00	Pass
			RB75#0	10.23	0.01	2.00	Pass
20 MHz	LCH	QPSK	RB1#0	10.46	0.01	2.00	Pass
			RB100#0	10.38	0.01	2.00	Pass
		16-QAM	RB1#0	10.16	0.01	2.00	Pass
			RB100#0	9.83	0.01	2.00	Pass
	MCH	QPSK	RB1#0	10.44	0.01	2.00	Pass

Test BW	Test Channel	Test Model	Test RB (Size#Offset)	EIRP (dBm)	EIRP (W)	Limit (W)	Verdict
LTE BAND7							
			RB100#0	10.38	0.01	2.00	Pass
		16-QAM	RB1#0	9.89	0.01	2.00	Pass
			RB100#0	10.25	0.01	2.00	Pass
	HCH	QPSK	RB1#0	9.78	0.01	2.00	Pass
			RB100#0	10.36	0.01	2.00	Pass
		16-QAM	RB1#0	10.78	0.01	2.00	Pass
			RB100#0	10.49	0.01	2.00	Pass

Test BW	Test Channel	Test Model	Test RB (Size#Offset)	ERP (dBm)	ERP (W)	Limit (W)	Verdict
LTE BAND17							
5 MHz	LCH	QPSK	RB1#0	16.53	0.04	3.00	Pass
			RB25#0	16.05	0.04	3.00	Pass
		16-QAM	RB1#0	15.75	0.04	3.00	Pass
			RB25#0	16.36	0.04	3.00	Pass
	MCH	QPSK	RB1#0	16.31	0.04	3.00	Pass
			RB25#0	16.32	0.04	3.00	Pass
		16-QAM	RB1#0	16.48	0.04	3.00	Pass
			RB25#0	16.43	0.04	3.00	Pass
	HCH	QPSK	RB1#0	14.14	0.03	3.00	Pass
			RB25#0	15.15	0.03	3.00	Pass
		16-QAM	RB1#0	14.87	0.03	3.00	Pass
			RB25#0	15.46	0.04	3.00	Pass
10 MHz	LCH	QPSK	RB1#0	15.42	0.03	3.00	Pass
			RB50#0	16.35	0.04	3.00	Pass
		16-QAM	RB1#0	15.69	0.04	3.00	Pass
			RB50#0	16.22	0.04	3.00	Pass
	MCH	QPSK	RB1#0	15.88	0.04	3.00	Pass
			RB50#0	16.36	0.04	3.00	Pass
		16-QAM	RB1#0	15.86	0.04	3.00	Pass
			RB50#0	14.91	0.03	3.00	Pass
	HCH	QPSK	RB1#0	15.54	0.04	3.00	Pass
			RB50#0	14.85	0.03	3.00	Pass
		16-QAM	RB1#0	15.33	0.03	3.00	Pass
			RB50#0	15.58	0.04	3.00	Pass

A.2 Peak to Average Ratio

Note 1: For average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB. For GSM, GPRS and EGPRS, there are peak power to demonstrate compliance, PAR measurements are not required.

Note 2: Test plots please refer to the document "Annex No.:BL-SZ1760430-501 Data Part 1.pdf".

WCDMA Mode Test Data

Test Band	Test Channel	Peak to Average ratio (dB)	Limit (dB)	Refer to Plot[Note2]	Verdict
Band 2	LCH	2.93	13	1.1	Pass
	MCH	3.01	13	1.2	Pass
	HCH	2.81	13	1.3	Pass

LTE Mode Test Data

Test Band	Test Bandwidth	Test Channel	Test Model	Test RB (Size#Offset)	Peak to Average ratio (dB)	Limit (dB)	Refer to Plot[Note2]	Verdict
LTE Band 2	20 MHz	LCH	QPSK	RB1#0	4.29	13	1.4	Pass
				RB100#0	5.42	13	1.5	Pass
			16-QAM	RB1#0	5.07	13	1.6	Pass
				RB100#0	6.29	13	1.7	Pass
		MCH	QPSK	RB1#0	5.01	13	1.8	Pass
				RB100#0	5.28	13	1.9	Pass
			16-QAM	RB1#0	5.88	13	1.10	Pass
				RB100#0	6.20	13	1.11	Pass
		HCH	QPSK	RB1#0	4.52	13	1.12	Pass
				RB100#0	5.42	13	1.13	Pass
			16-QAM	RB1#0	5.51	13	1.14	Pass
				RB100#0	6.29	13	1.15	Pass
LTE Band 4	20 MHz	LCH	QPSK	RB1#0	4.75	13	1.16	Pass
				RB100#0	5.19	13	1.17	Pass
			16-QAM	RB1#0	5.42	13	1.18	Pass
				RB100#0	6.14	13	1.19	Pass
		MCH	QPSK	RB1#0	4.32	13	1.20	Pass
				RB100#0	4.81	13	1.21	Pass
			16-QAM	RB1#0	5.19	13	1.22	Pass
				RB100#0	5.74	13	1.23	Pass
		HCH	QPSK	RB1#0	3.83	13	1.24	Pass
				RB100#0	5.33	13	1.25	Pass
			16-QAM	RB1#0	4.72	13	1.26	Pass
				RB100#0	6.2	13	1.27	Pass
LTE	20 MHz	LCH	QPSK	RB1#0	1.94	13	1.28	Pass

Test Band	Test Bandwidth	Test Channel	Test Model	Test RB (Size#Offset)	Peak to Average ratio (dB)	Limit (dB)	Refer to Plot[Note2]	Verdict
Band 7				RB100#0	3.54	13	1.29	Pass
			16-QAM	RB1#0	2.64	13	1.30	Pass
				RB100#0	3.36	13	1.31	Pass
		MCH	QPSK	RB1#0	2.61	13	1.32	Pass
				RB100#0	3.77	13	1.33	Pass
			16-QAM	RB1#0	3.42	13	1.34	Pass
				RB100#0	3.57	13	1.35	Pass
		HCH	QPSK	RB1#0	2.81	13	1.36	Pass
				RB100#0	4.26	13	1.37	Pass
			16-QAM	RB1#0	3.74	13	1.38	Pass
				RB100#0	4.06	13	1.39	Pass
LTE Band 17	10 MHz	LCH	QPSK	RB1#0	4.96	13	1.40	Pass
				RB50#0	5.59	13	1.41	Pass
			16-QAM	RB1#0	5.94	13	1.42	Pass
				RB50#0	6.49	13	1.43	Pass
		MCH	QPSK	RB1#0	4.87	13	1.44	Pass
				RB50#0	5.57	13	1.45	Pass
			16-QAM	RB1#0	5.97	13	1.46	Pass
				RB50#0	6.55	13	1.47	Pass
		HCH	QPSK	RB1#0	4.99	13	1.48	Pass
				RB50#0	5.59	13	1.49	Pass
			16-QAM	RB1#0	5.86	13	1.50	Pass
				RB50#0	6.55	13	1.51	Pass

A.3 Occupied Bandwidth

Note 1: All modes were tested, but only the typical data were reported in this report.

Note 2: Test plots please refer to the document “Annex No.:BL-SZ1760430-501 Data Part 2.pdf”.

GSM and WCDMA Mode Test Data

Test Band	Test Channel	Measured 99% Occupied Bandwidth (MHz)	Measured -26 dB Occupied Bandwidth (MHz)	Refer to Plot[Note2]
GSM 850	LCH	0.25	0.31	1.1
	MCH	0.25	0.31	1.2
	HCH	0.25	0.31	1.3
GSM 1900	LCH	0.25	0.31	1.4
	MCH	0.25	0.31	1.5
	HCH	0.25	0.31	1.6
EGPRS 850	LCH	0.25	0.32	1.7
	MCH	0.25	0.32	1.8
	HCH	0.25	0.32	1.9
EGPRS 1900	LCH	0.24	0.31	1.10
	MCH	0.25	0.31	1.11
	HCH	0.24	0.31	1.12
WCDMA Band 2	LCH	4.20	4.84	1.13
	MCH	4.20	4.82	1.14
	HCH	4.18	4.84	1.15
WCDMA Band 5	LCH	4.19	4.83	1.16
	MCH	4.20	4.85	1.17
	HCH	4.20	4.83	1.18

LTE Mode Test Data

Test Band	Test Bandwidth	Test Channel	Test Mode	Test RB (Size#Offset)	Measured 99% Occupied Bandwidth (MHz)	Measured -26 dB Occupied Bandwidth (MHz)	Refer to Plot[Note2]
Band 2	1.4 MHz	LCH	QPSK	RB6#0	1.07	1.22	1.19
			16-QAM	RB6#0	1.08	1.23	1.20
		MCH	QPSK	RB6#0	1.08	1.22	1.21
			16-QAM	RB6#0	1.08	1.20	1.22
		HCH	QPSK	RB6#0	1.08	1.23	1.23
			16-QAM	RB6#0	1.07	1.21	1.24
	3 MHz	LCH	QPSK	RB15#0	2.68	2.91	1.25
			16-QAM	RB15#0	2.67	2.95	1.26
		MCH	QPSK	RB15#0	2.68	2.90	1.27
			16-QAM	RB15#0	2.68	2.89	1.28
		HCH	QPSK	RB15#0	2.68	2.90	1.29
			16-QAM	RB15#0	2.67	2.89	1.30
	5 MHz	LCH	QPSK	RB25#0	4.47	4.96	1.31
			16-QAM	RB25#0	4.47	4.88	1.32
		MCH	QPSK	RB25#0	4.46	4.91	1.33
			16-QAM	RB25#0	4.47	4.90	1.34
		HCH	QPSK	RB25#0	4.46	4.93	1.35
			16-QAM	RB25#0	4.47	4.96	1.36
	10 MHz	LCH	QPSK	RB50#0	8.94	9.79	1.37
			16-QAM	RB50#0	8.92	9.64	1.38
		MCH	QPSK	RB50#0	8.92	9.63	1.39
			16-QAM	RB50#0	8.92	9.68	1.40
		HCH	QPSK	RB50#0	8.92	9.74	1.41
			16-QAM	RB50#0	8.92	9.68	1.42
	15 MHz	LCH	QPSK	RB75#0	13.41	14.51	1.43
			16-QAM	RB75#0	13.39	14.56	1.44
		MCH	QPSK	RB75#0	13.37	14.38	1.45
			16-QAM	RB75#0	13.40	14.49	1.46
		HCH	QPSK	RB75#0	13.38	14.47	1.47
			16-QAM	RB75#0	13.39	14.42	1.48
	20 MHz	LCH	QPSK	RB100#0	17.87	19.05	1.49
			16-QAM	RB100#0	17.86	19.13	1.50
		MCH	QPSK	RB100#0	17.81	19.13	1.51
			16-QAM	RB100#0	17.84	19.25	1.52
		HCH	QPSK	RB100#0	17.87	19.17	1.53
			16-QAM	RB100#0	17.83	19.31	1.54
Band 4	1.4 MHz	LCH	QPSK	RB6#0	1.08	1.22	1.55
			16-QAM	RB6#0	1.07	1.24	1.56
		MCH	QPSK	RB6#0	1.08	1.22	1.57

Test Band	Test Bandwidth	Test Channel	Test Mode	Test RB (Size#Offset)	Measured 99% Occupied Bandwidth (MHz)	Measured -26 dB Occupied Bandwidth (MHz)	Refer to Plot[Note2]
			16-QAM	RB6#0	1.08	1.19	1.58
		HCH	QPSK	RB6#0	1.07	1.21	1.59
			16-QAM	RB6#0	1.08	1.21	1.60
	3 MHz	LCH	QPSK	RB15#0	2.68	2.91	1.61
			16-QAM	RB15#0	2.67	2.91	1.62
		MCH	QPSK	RB15#0	2.68	2.88	1.63
			16-QAM	RB15#0	2.67	2.90	1.64
		HCH	QPSK	RB15#0	2.68	2.91	1.65
			16-QAM	RB15#0	2.67	2.88	1.66
	5 MHz	LCH	QPSK	RB25#0	4.47	4.96	1.67
			16-QAM	RB25#0	4.47	4.87	1.68
		MCH	QPSK	RB25#0	4.47	4.94	1.69
			16-QAM	RB25#0	4.47	4.92	1.70
		HCH	QPSK	RB25#0	4.47	4.89	1.71
			16-QAM	RB25#0	4.48	4.99	1.72
	10 MHz	LCH	QPSK	RB50#0	8.94	9.69	1.73
			16-QAM	RB50#0	8.93	9.70	1.74
		MCH	QPSK	RB50#0	8.92	9.62	1.75
			16-QAM	RB50#0	8.91	9.69	1.76
		HCH	QPSK	RB50#0	8.94	9.73	1.77
			16-QAM	RB50#0	8.94	9.73	1.78
	15 MHz	LCH	QPSK	RB75#0	13.40	14.57	1.79
			16-QAM	RB75#0	13.39	14.46	1.80
		MCH	QPSK	RB75#0	13.37	14.38	1.81
			16-QAM	RB75#0	13.37	14.45	1.82
		HCH	QPSK	RB75#0	13.40	14.64	1.83
			16-QAM	RB75#0	13.41	14.46	1.84
	20 MHz	LCH	QPSK	RB100#0	17.87	19.04	1.85
			16-QAM	RB100#0	17.86	19.20	1.86
		MCH	QPSK	RB100#0	17.81	19.01	1.87
			16-QAM	RB100#0	17.83	19.23	1.88
		HCH	QPSK	RB100#0	17.87	19.19	1.89
			16-QAM	RB100#0	17.84	19.16	1.90
Band 7	5 MHz	LCH	QPSK	RB25#0	4.48	4.96	1.91
			16-QAM	RB25#0	4.47	4.95	1.92
		MCH	QPSK	RB25#0	4.47	4.96	1.93
			16-QAM	RB25#0	4.47	5.00	1.94
		HCH	QPSK	RB25#0	4.47	4.95	1.95
			16-QAM	RB25#0	4.48	5.01	1.96
	10 MHz	LCH	QPSK	RB50#0	8.94	9.83	1.97

Test Band	Test Bandwidth	Test Channel	Test Mode	Test RB (Size#Offset)	Measured 99% Occupied Bandwidth (MHz)	Measured -26 dB Occupied Bandwidth (MHz)	Refer to Plot[Note2]
			16-QAM	RB50#0	8.94	9.79	1.98
		MCH	QPSK	RB50#0	8.92	9.65	1.99
			16-QAM	RB50#0	8.93	9.68	1.100
		HCH	QPSK	RB50#0	8.93	9.66	1.101
			16-QAM	RB50#0	8.94	9.70	1.102
	15 MHz	LCH	QPSK	RB75#0	13.41	14.61	1.103
			16-QAM	RB75#0	13.42	15.26	1.104
		MCH	QPSK	RB75#0	13.35	14.42	1.105
			16-QAM	RB75#0	13.38	14.56	1.106
		HCH	QPSK	RB75#0	13.41	14.55	1.107
			16-QAM	RB75#0	13.43	14.58	1.108
	20 MHz	LCH	QPSK	RB100#0	17.86	19.13	1.109
			16-QAM	RB100#0	17.88	19.19	1.110
		MCH	QPSK	RB100#0	17.79	19.05	1.111
			16-QAM	RB100#0	17.84	19.24	1.112
		HCH	QPSK	RB100#0	17.89	19.43	1.113
			16-QAM	RB100#0	17.90	19.25	1.114
Band 17	5 MHz	LCH	QPSK	RB25#0	4.48	4.96	1.115
			16-QAM	RB25#0	4.47	4.95	1.116
		MCH	QPSK	RB25#0	4.47	4.96	1.117
			16-QAM	RB25#0	4.47	5.00	1.118
		HCH	QPSK	RB25#0	4.47	4.95	1.119
			16-QAM	RB25#0	4.48	5.01	1.120
	10 MHz	LCH	QPSK	RB50#0	8.94	9.83	1.121
			16-QAM	RB50#0	8.94	9.79	1.122
		MCH	QPSK	RB50#0	8.92	9.65	1.123
			16-QAM	RB50#0	8.93	9.68	1.124
		HCH	QPSK	RB50#0	8.93	9.66	1.125
			16-QAM	RB50#0	8.94	9.70	1.126

A.4 Frequency Stability

GSM 850

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	LCH 824.2 MHz		MCH 836.6 MHz		HCH 848.8 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
3.7	-10	-8.52	±2060.5	0.68	±2091.5	8.49	±2122	Pass
	0	-1.42		7.55		5.00		
	10	2.62		6.23		4.81		
	20	7.10		0.10		1.13		
	25	13.95		-4.23		0.71		
	30	4.55		-0.55		-3.42		
	40	4.97		-5.94		-5.17		
	50	2.20		1.42		6.07		
4.2	25	9.14		1.58		-0.42		
3.4	25	6.07		7.65		-3.33		

GSM 1900

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	LCH 1850.2 MHz		MCH 1880 MHz		HCH 1909.8 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
3.7	-10	-2.84	±4625.5	-1.39	±4700.0	3.94	±4774.5	Pass
	0	-1.97		3.23		5.68		
	10	5.17		9.91		-0.87		
	20	-1.07		12.33		10.72		
	25	14.01		10.27		6.91		
	30	7.52		-4.29		3.52		
	40	25.09		15.01		5.71		
	50	3.65		-1.16		9.85		
4.2	25	-8.85		-7.01		-3.00		
3.4	25	6.46		1.58		4.84		

GPRS 850

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	LCH 824.2 MHz		MCH 836.6 MHz		HCH 848.8 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
3.7	-10	-2.71	±2060.5	-2.03	±2091.5	-1.26	±2122	Pass
	0	-3.94		7.39		-10.01		
	10	-3.71		1.36		0.77		
	20	1.87		3.45		-10.20		
	25	5.78		-0.19		5.07		
	30	-0.87		6.33		-0.10		
	40	6.72		-6.36		2.91		
	50	-0.90		-1.00		2.52		
4.2	25	-2.65		-5.23		1.78		
3.4	25	-1.87		1.87		2.00		

GPRS 1900

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	LCH 1850.2 MHz		MCH 1880 MHz		HCH 1909.8 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
3.7	-10	2.10	±4625.5	-13.08	±4700.0	0.00	±4774.5	Pass
	0	-6.20		9.59		-3.00		
	10	2.84		-12.01		-4.94		
	20	4.04		3.91		-4.26		
	25	-0.55		4.04		3.94		
	30	9.49		19.40		2.00		
	40	4.81		1.87		-7.10		
	50	0.48		6.10		0.87		
4.2	25	-13.66		-6.13		12.04		
3.4	25	15.43		-3.16		10.20		

EGPRS 850

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	LCH 824.2 MHz		MCH 836.6 MHz		HCH 848.8 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
3.7	-10	-4.39	±2060.5	0.65	±2091.5	-8.23	±2122	Pass
	0	-5.84		-3.45		-7.07		
	10	8.36		-2.49		-12.69		
	20	2.68		5.39		-7.43		
	25	-7.17		-5.49		-5.81		
	30	-7.39		-7.01		-13.24		
	40	-3.39		4.20		-7.55		
	50	0.00		-8.46		-2.62		
4.2	25	-17.79		-8.17		-4.68		
3.4	25	-5.62		-6.75		0.26		

EGPRS 1900

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	LCH 1850.2 MHz		MCH 1880 MHz		HCH 1909.8 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
3.7	-10	4.00	±4625.5	-3.36	±4700.0	-9.94	±4774.5	Pass
	0	-4.62		6.46		1.94		
	10	5.33		-6.17		-1.39		
	20	1.36		12.46		16.05		
	25	-5.75		1.61		-5.17		
	30	-5.10		5.94		-1.94		
	40	9.81		-2.13		-7.23		
	50	-7.49		0.84		5.91		
4.2	25	-0.06		-8.17		4.68		
3.4	25	0.74		0.13		-0.81		

WCDMA Band 2

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	LCH 1852.4 MHz		MCH 1880 MHz		HCH 1907.6 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
3.7	-10	-8.41	±4631	-11.70	±4700	-10.04	±4769	Pass
	0	-6.31		-11.57		-8.80		
	10	-8.15		-10.46		-8.53		
	20	-6.91		-10.24		-7.96		
	25	-5.24		-10.72		-8.65		
	30	-6.54		-10.37		-7.95		
	40	-6.52		-10.06		-7.96		
	50	-5.29		-10.55		-7.40		
4.2	25	-6.35		-10.17		-7.98		
3.4	25	-6.57		-9.32		-7.45		

WCDMA Band B5

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	LCH 826.4 MHz		MCH 836.4 MHz		HCH 846.6 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
3.7	-10	-10.72	±2066	-26.81	±2091	-8.60	±2116.5	Pass
	0	-7.30		-11.10		-7.66		
	10	-8.69		-11.44		-7.43		
	20	-8.86		-11.27		-6.93		
	25	-8.00		-10.54		-6.78		
	30	-8.45		-11.41		-6.81		
	40	-9.18		-10.96		-5.65		
	50	-5.69		-10.14		-5.91		
4.2	25	-6.95		-11.59		-7.02		
3.4	25	-8.06		-11.46		-6.86		

LTE Band 2 QPSK 10 MHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 1880 MHz		
		Value (Hz)	Limits (Hz)	
3.7	-10	-6.01	±4700	Pass
	0	-2.63		
	10	-2.92		
	20	-3.30		
	25	-4.63		
	30	0.97		
	40	-1.60		
	50	-0.41		
4.2	25	-2.17		
3.4	25	-2.63		

LTE Band 2 16-QAM 10 MHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 1880 MHz		
		Value (Hz)	Limits (Hz)	
3.7	-10	-0.20	±4700	Pass
	0	2.35		
	10	-1.47		
	20	-0.93		
	25	-2.03		
	30	-1.03		
	40	-1.27		
	50	-0.34		
4.2	25	-0.24		
3.4	25	-5.11		

LTE Band 4 QPSK 10 MHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 1732.5 MHz		
		Value (Hz)	Limits (Hz)	
3.7	-10	-4.61	±4331.25	Pass
	0	-1.97		
	10	-2.63		
	20	-0.96		
	25	-0.20		
	30	0.79		
	40	-0.41		
	50	-0.60		
4.2	25	0.82		
3.4	25	-0.13		

LTE Band 4 16QAM 10 MHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 1732.5 MHz		
		Value (Hz)	Limits (Hz)	
3.7	-10	1.04	±4331.25	Pass
	0	1.40		
	10	-1.24		
	20	-0.72		
	25	-0.21		
	30	0.13		
	40	-1.70		
	50	-1.39		
4.2	25	0.66		
3.4	25	-1.20		

LTE Band 7 QPSK 10 MHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 2535 MHz		
		Value (Hz)	Limits (Hz)	
3.7	-10	-4.23	±6337.5	Pass
	0	0.72		
	10	0.67		
	20	1.54		
	25	-2.26		
	30	3.35		
	40	3.49		
	50	0.41		
4.2	25	3.26		
3.4	25	2.50		

LTE Band 7 16-QAM 10 MHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 2535 MHz		
		Value (Hz)	Limits (Hz)	
3.7	-10	1.57	±6337.5	Pass
	0	-2.88		
	10	-2.92		
	20	0.84		
	25	1.60		
	30	0.09		
	40	2.10		
	50	1.03		
4.2	25	0.97		
3.4	25	1.85		

LTE Band 17 QPSK 10 MHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 710 MHz		
		Value (Hz)	Limits (Hz)	
3.7	-10	-3.00	±1775	Pass
	0	-1.60		
	10	-1.17		
	20	-2.03		
	25	-1.47		
	30	-1.89		
	40	-0.72		
	50	-1.50		
4.2	25	0.49		
3.4	25	-1.50		

LTE Band 17 16QAM10 MHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 710 MHz		
		Value (Hz)	Limits (Hz)	
3.7	-10	-1.22	±1775	Pass
	0	-1.33		
	10	-1.33		
	20	-0.94		
	25	-1.75		
	30	-1.63		
	40	-1.26		
	50	-0.60		
4.2	25	-1.80		
3.4	25	-0.73		

A.5 Spurious Emission at Antenna Terminals

Note 1: GSM and EGPRS modes have been verified, and only the worst data with different bandwidth for LTE are shown here.

Note 2: The frequencies of verdict which are marked by "N/A" should be ignored because they are MS carrier frequency.

Note 3: Test plots please refer to the document “Annex No.:BL-SZ1760430-501 Data Part 3.pdf”.

GSM and WCDMA Mode Test Verdict

Test Band	Test Channel	Refer to Plot[Note3]	Verdict
GSM 850	LCH	1.1	Pass
	MCH	1.2	Pass
	HCH	1.3	Pass
GSM 1900	LCH	1.4	Pass
	MCH	1.5	Pass
	HCH	1.6	Pass
EGPRS 850	LCH	1.7	Pass
	MCH	1.8	Pass
	HCH	1.9	Pass
EGPRS 1900	LCH	1.10	Pass
	MCH	1.11	Pass
	HCH	1.12	Pass
WCDMA Band 2	LCH	1.13	Pass
	MCH	1.14	Pass
	HCH	1.15	Pass
WCDMA Band 5	LCH	1.16	Pass
	MCH	1.17	Pass
	HCH	1.18	Pass

LTE Mode Test Verdict

Test Band	Test Bandwidth	Test Channel	Test Mode	Test RB(Size#Offset)	Refer to Plot[Note3]	Verdict
Band 2	1.4 MHz	LCH	QPSK	RB1#0	1.19	Pass
			16-QAM	RB1#0	1.20	Pass
		MCH	QPSK	RB1#0	1.21	Pass
			16-QAM	RB1#0	1.22	Pass
		HCH	QPSK	RB1#0	1.23	Pass
			16-QAM	RB1#0	1.24	Pass
	3 MHz	LCH	QPSK	RB1#0	1.25	Pass
			16-QAM	RB1#0	1.26	Pass
		MCH	QPSK	RB1#0	1.27	Pass
			16-QAM	RB1#0	1.28	Pass
		HCH	QPSK	RB1#0	1.29	Pass
			16-QAM	RB1#0	1.30	Pass
	5 MHz	LCH	QPSK	RB1#0	1.31	Pass
			16-QAM	RB1#0	1.32	Pass
		MCH	QPSK	RB1#0	1.33	Pass
			16-QAM	RB1#0	1.34	Pass
		HCH	QPSK	RB1#0	1.35	Pass
			16-QAM	RB1#0	1.36	Pass
	10 MHz	LCH	QPSK	RB1#0	1.37	Pass
			16-QAM	RB1#0	1.38	Pass
		MCH	QPSK	RB1#0	1.39	Pass
			16-QAM	RB1#0	1.40	Pass
		HCH	QPSK	RB1#0	1.41	Pass
			16-QAM	RB1#0	1.42	Pass
	15 MHz	LCH	QPSK	RB1#0	1.43	Pass
			16-QAM	RB1#0	1.44	Pass
		MCH	QPSK	RB1#0	1.45	Pass
			16-QAM	RB1#0	1.46	Pass
		HCH	QPSK	RB1#0	1.47	Pass
			16-QAM	RB1#0	1.48	Pass
	20 MHz	LCH	QPSK	RB1#0	1.49	Pass
			16-QAM	RB1#0	1.50	Pass
		MCH	QPSK	RB1#0	1.51	Pass
			16-QAM	RB1#0	1.52	Pass
		HCH	QPSK	RB1#0	1.53	Pass
			16-QAM	RB1#0	1.54	Pass

Test Band	Test Bandwidth	Test Channel	Test Mode	Test RB(Size#Offset)	Refer to Plot[Note2]	Verdict
Band 4	1.4 MHz	LCH	QPSK	RB1#0	1.55	Pass
			16-QAM	RB1#0	1.56	Pass
		MCH	QPSK	RB1#0	1.57	Pass
			16-QAM	RB1#0	1.58	Pass
		HCH	QPSK	RB1#0	1.59	Pass
			16-QAM	RB1#0	1.60	Pass
	3 MHz	LCH	QPSK	RB1#0	1.61	Pass
			16-QAM	RB1#0	1.62	Pass
		MCH	QPSK	RB1#0	1.63	Pass
			16-QAM	RB1#0	1.64	Pass
		HCH	QPSK	RB1#0	1.65	Pass
			16-QAM	RB1#0	1.66	Pass
	5 MHz	LCH	QPSK	RB1#0	1.67	Pass
			16-QAM	RB1#0	1.68	Pass
		MCH	QPSK	RB1#0	1.69	Pass
			16-QAM	RB1#0	1.70	Pass
		HCH	QPSK	RB1#0	1.71	Pass
			16-QAM	RB1#0	1.72	Pass
	10 MHz	LCH	QPSK	RB1#0	1.73	Pass
			16-QAM	RB1#0	1.74	Pass
		MCH	QPSK	RB1#0	1.75	Pass
			16-QAM	RB1#0	1.76	Pass
		HCH	QPSK	RB1#0	1.77	Pass
			16-QAM	RB1#0	1.78	Pass
	15 MHz	LCH	QPSK	RB1#0	1.79	Pass
			16-QAM	RB1#0	1.80	Pass
		MCH	QPSK	RB1#0	1.81	Pass
			16-QAM	RB1#0	1.82	Pass
		HCH	QPSK	RB1#0	1.83	Pass
			16-QAM	RB1#0	1.84	Pass
	20 MHz	LCH	QPSK	RB1#0	1.85	Pass
			16-QAM	RB1#0	1.86	Pass
		MCH	QPSK	RB1#0	1.87	Pass
			16-QAM	RB1#0	1.88	Pass
		HCH	QPSK	RB1#0	1.89	Pass
			16-QAM	RB1#0	1.90	Pass

Test Band	Test Bandwidth	Test Channel	Test Mode	Test RB(Size#Offset)	Refer to Plot[Note2]	Verdict
Band 7	5 MHz	LCH	QPSK	RB1#0	1.91	Pass
			16-QAM	RB1#0	1.92	Pass
		MCH	QPSK	RB1#0	1.93	Pass
			16-QAM	RB1#0	1.94	Pass
		HCH	QPSK	RB1#0	1.95	Pass
			16-QAM	RB1#0	1.96	Pass
	10 MHz	LCH	QPSK	RB1#0	1.97	Pass
			16-QAM	RB1#0	1.98	Pass
		MCH	QPSK	RB1#0	1.99	Pass
			16-QAM	RB1#0	1.100	Pass
		HCH	QPSK	RB1#0	1.101	Pass
			16-QAM	RB1#0	1.102	Pass
	15 MHz	LCH	QPSK	RB1#0	1.103	Pass
			16-QAM	RB1#0	1.104	Pass
		MCH	QPSK	RB1#0	1.105	Pass
			16-QAM	RB1#0	1.106	Pass
		HCH	QPSK	RB1#0	1.107	Pass
			16-QAM	RB1#0	1.108	Pass
	20 MHz	LCH	QPSK	RB1#0	1.109	Pass
			16-QAM	RB1#0	1.110	Pass
		MCH	QPSK	RB1#0	1.111	Pass
			16-QAM	RB1#0	1.112	Pass
		HCH	QPSK	RB1#0	1.113	Pass
			16-QAM	RB1#0	1.114	Pass

Test Band	Test Bandwidth	Test Channel	Test Mode	Test RB(Size#Offset)	Refer to Plot[Note2]	Verdict
Band 17	5 MHz	LCH	QPSK	RB1#0	1.115	Pass
			16-QAM	RB1#0	1.116	Pass
		MCH	QPSK	RB1#0	1.117	Pass
			16-QAM	RB1#0	1.118	Pass
		HCH	QPSK	RB1#0	1.119	Pass
			16-QAM	RB1#0	1.120	Pass
	10 MHz	LCH	QPSK	RB1#0	1.121	Pass
			16-QAM	RB1#0	1.122	Pass
		MCH	QPSK	RB1#0	1.123	Pass
			16-QAM	RB1#0	1.124	Pass
		HCH	QPSK	RB1#0	1.125	Pass
			16-QAM	RB1#0	1.126	Pass

A.6 Band Edge

Note 1: Test plots please refer to the document “Annex No.:BL-SZ1760430-501 Data Part 4.pdf”.

GSM and WCDMA Mode Test Verdict

Test Band	Test Channel	Refer to Plot[Note1]	Verdict
GSM 850	LCH	1.1	Pass
	HCH	1.2	Pass
GSM 1900	LCH	1.3	Pass
	HCH	1.4	Pass
EGPRS 850	LCH	1.5	Pass
	HCH	1.6	Pass
EGPRS 1900	LCH	1.7	Pass
	HCH	1.8	Pass
WCDMA Band 2	LCH	1.9	Pass
	HCH	1.10	Pass
WCDMA Band 5	LCH	1.11	Pass
	HCH	1.12	Pass

LTE Mode Test Verdict

Test Band	Test Bandwidth	Test Channel	Test Mode	Test RB(Size#Offset)	Refer to Plot[Note1]	Verdict
Band 2	1.4 MHz	LCH	QPSK	RB1#0	1.13	Pass
				RB6#0	1.14	Pass
			16-QAM	RB1#0	1.15	Pass
				RB6#0	1.16	Pass
		HCH	QPSK	RB1#5	1.17	Pass
				RB6#0	1.18	Pass
			16-QAM	RB1#5	1.19	Pass
				RB6#0	1.20	Pass
	3 MHz	LCH	QPSK	RB1#0	1.21	Pass
				RB15#0	1.22	Pass
			16-QAM	RB1#0	1.23	Pass
				RB15#0	1.24	Pass
		HCH	QPSK	RB1#14	1.25	Pass
				RB15#0	1.26	Pass
			16-QAM	RB1#14	1.27	Pass
				RB15#0	1.28	Pass
	5 MHz	LCH	QPSK	RB1#0	1.29	Pass
				RB25#0	1.30	Pass
			16-QAM	RB1#0	1.31	Pass
				RB25#0	1.32	Pass
		HCH	QPSK	RB1#24	1.33	Pass
				RB25#0	1.34	Pass
			16-QAM	RB1#24	1.35	Pass
				RB25#0	1.36	Pass
	10 MHz	LCH	QPSK	RB1#0	1.37	Pass
				RB50#0	1.38	Pass
			16-QAM	RB1#0	1.39	Pass
				RB50#0	1.40	Pass
		HCH	QPSK	RB1#49	1.41	Pass
				RB50#0	1.42	Pass
			16-QAM	RB1#49	1.43	Pass
				RB50#0	1.44	Pass
	15 MHz	LCH	QPSK	RB1#0	1.45	Pass
				RB75#0	1.46	Pass
			16-QAM	RB1#0	1.47	Pass
				RB75#0	1.48	Pass
		HCH	QPSK	RB1#74	1.49	Pass
				RB75#0	1.50	Pass
			16-QAM	RB1#74	1.51	Pass
				RB75#0	1.52	Pass
	20 MHz	LCH	QPSK	RB1#0	1.53	Pass

Test Band	Test Bandwidth	Test Channel	Test Mode	Test RB(Size#Offset)	Refer to Plot[Note1]	Verdict
				RB100#0	1.54	Pass
			16-QAM	RB1#0	1.55	Pass
				RB100#0	1.56	Pass
		HCH	QPSK	RB1#99	1.57	Pass
				RB100#0	1.58	Pass
			16-QAM	RB1#99	1.59	Pass
				RB100#0	1.60	Pass

Test Band	Test Bandwidth	Test Channel	Test Mode	Test RB(Size#Offset)	Refer to Plot[Note1]	Verdict
Band 4	1.4 MHz	LCH	QPSK	RB1#0	1.61	Pass
				RB6#0	1.62	Pass
			16-QAM	RB1#0	1.63	Pass
				RB6#0	1.64	Pass
		HCH	QPSK	RB1#5	1.65	Pass
				RB6#0	1.66	Pass
			16-QAM	RB1#5	1.67	Pass
				RB6#0	1.68	Pass
	3 MHz	LCH	QPSK	RB1#0	1.69	Pass
				RB15#0	1.70	Pass
			16-QAM	RB1#0	1.71	Pass
				RB15#0	1.72	Pass
		HCH	QPSK	RB1#14	1.73	Pass
				RB15#0	1.74	Pass
			16-QAM	RB1#14	1.75	Pass
				RB15#0	1.76	Pass
	5 MHz	LCH	QPSK	RB1#0	1.77	Pass
				RB25#0	1.78	Pass
			16-QAM	RB1#0	1.79	Pass
				RB25#0	1.80	Pass
		HCH	QPSK	RB1#24	1.81	Pass
				RB25#0	1.82	Pass
			16-QAM	RB1#24	1.83	Pass
				RB25#0	1.84	Pass
	10 MHz	LCH	QPSK	RB1#0	1.85	Pass
				RB50#0	1.86	Pass
			16-QAM	RB1#0	1.87	Pass
				RB50#0	1.88	Pass
		HCH	QPSK	RB1#49	1.89	Pass
				RB50#0	1.90	Pass
			16-QAM	RB1#49	1.91	Pass
				RB50#0	1.92	Pass
	15 MHz	LCH	QPSK	RB1#0	1.93	Pass
				RB75#0	1.94	Pass
			16-QAM	RB1#0	1.95	Pass
				RB75#0	1.96	Pass
		HCH	QPSK	RB1#74	1.97	Pass
				RB75#0	1.98	Pass
			16-QAM	RB1#74	1.99	Pass
				RB75#0	1.100	Pass
	20 MHz	LCH	QPSK	RB1#0	1.101	Pass
				RB100#0	1.102	Pass

Test Band	Test Bandwidth	Test Channel	Test Mode	Test RB(Size#Offset)	Refer to Plot[Note1]	Verdict
			16-QAM	RB1#0	1.103	Pass
				RB100#0	1.104	Pass
		HCH	QPSK	RB1#99	1.105	Pass
				RB100#0	1.106	Pass
			16-QAM	RB1#99	1.107	Pass
				RB100#0	1.108	Pass

Test Band	Test Bandwidth	Test Channel	Test Mode	Test RB(Size#Offset)	Refer to Plot[Note1]	Verdict
Band 7	5 MHz	LCH	QPSK	RB1#0	1.109	Pass
				RB25#0	1.110	Pass
			16-QAM	RB1#0	1.111	Pass
				RB25#0	1.112	Pass
		HCH	QPSK	RB1#24	1.113	Pass
				RB25#0	1.114	Pass
			16-QAM	RB1#24	1.115	Pass
				RB25#0	1.116	Pass
	10 MHz	LCH	QPSK	RB1#0	1.117	Pass
				RB50#0	1.118	Pass
			16-QAM	RB1#0	1.119	Pass
				RB50#0	1.120	Pass
		HCH	QPSK	RB1#49	1.121	Pass
				RB50#0	1.122	Pass
			16-QAM	RB1#49	1.123	Pass
				RB50#0	1.124	Pass
	15 MHz	LCH	QPSK	RB1#0	1.125	Pass
				RB75#0	1.126	Pass
			16-QAM	RB1#0	1.127	Pass
				RB75#0	1.128	Pass
		HCH	QPSK	RB1#74	1.129	Pass
				RB75#0	1.130	Pass
			16-QAM	RB1#74	1.131	Pass
				RB75#0	1.132	Pass
	20 MHz	LCH	QPSK	RB1#0	1.133	Pass
				RB100#0	1.134	Pass
			16-QAM	RB1#0	1.135	Pass
				RB100#0	1.136	Pass
		HCH	QPSK	RB1#99	1.137	Pass
				RB100#0	1.138	Pass
			16-QAM	RB1#99	1.139	Pass
				RB100#0	1.140	Pass

Test Band	Test Bandwidth	Test Channel	Test Mode	Test RB(Size#Offset)	Refer to Plot[Note1]	Verdict
Band 17	5 MHz	LCH	QPSK	RB1#0	1.141	Pass
				RB25#0	1.142	Pass
			16-QAM	RB1#0	1.143	Pass
				RB25#0	1.144	Pass
		HCH	QPSK	RB1#24	1.145	Pass
				RB25#0	1.146	Pass
			16-QAM	RB1#24	1.147	Pass
				RB25#0	1.148	Pass
	10 MHz	LCH	QPSK	RB1#0	1.149	Pass
				RB50#0	1.150	Pass
			16-QAM	RB1#0	1.151	Pass
				RB50#0	1.152	Pass
		HCH	QPSK	RB1#49	1.153	Pass
				RB50#0	1.154	Pass
			16-QAM	RB1#49	1.155	Pass
				RB50#0	1.156	Pass

A.7 Field Strength of Spurious Radiation

Note 1: GSM and EGPRS modes have been verified, only the worst data with different transmit bandwidth for LTE are shown here.

Note 2: The frequencies of verdict which are marked by "N/A" should be ignored because they are MS carrier frequency.

Note 3: Test plots please refer to the document “Annex No.:BL-SZ1760430-501 Data Part 5.pdf”.

GSM and WCDMA Mode Test Verdict

Test Band	Test Channel	Refer to Plot[Note3]	Verdict
GSM 850	LCH	1.1	Pass
	MCH	1.2	Pass
	HCH	1.3	Pass
GSM 1900	LCH	1.4	Pass
	MCH	1.5	Pass
	HCH	1.6	Pass
EGPRS 850	LCH	1.7	Pass
	MCH	1.8	Pass
	HCH	1.9	Pass
EGPRS 1900	LCH	1.10	Pass
	MCH	1.11	Pass
	HCH	1.12	Pass
WCDMA Band 2	LCH	1.13	Pass
	MCH	1.14	Pass
	HCH	1.15	Pass
WCDMA Band 5	LCH	1.16	Pass
	MCH	1.17	Pass
	HCH	1.18	Pass

LTE Mode Test Verdict

Test Band	Test Bandwidth	Test Channel	Test Mode	Test RB(Size#Offset)	Refer to Plot[Note3]	Verdict
Band 2	1.4 MHz	MCH	QPSK	RB1#0	1.19	Pass
	3 MHz	MCH	QPSK	RB1#0	1.20	Pass
	5 MHz	MCH	QPSK	RB1#0	1.21	Pass
	10 MHz	MCH	QPSK	RB1#0	1.22	Pass
	15 MHz	MCH	QPSK	RB1#0	1.23	Pass
	20 MHz	MCH	QPSK	RB1#0	1.24	Pass
Band 4	1.4 MHz	MCH	QPSK	RB1#0	1.25	Pass
	3 MHz	MCH	QPSK	RB1#0	1.26	Pass
	5 MHz	MCH	QPSK	RB1#0	1.27	Pass
	10 MHz	MCH	QPSK	RB1#0	1.28	Pass
	15 MHz	MCH	QPSK	RB1#0	1.29	Pass
	20 MHz	MCH	QPSK	RB1#0	1.30	Pass
Band 7	5 MHz	MCH	QPSK	RB1#0	1.31	Pass
	10 MHz	MCH	QPSK	RB1#0	1.32	Pass
	15 MHz	MCH	QPSK	RB1#0	1.33	Pass
	20 MHz	MCH	QPSK	RB1#0	1.34	Pass
Band 17	5 MHz	MCH	QPSK	RB1#0	1.35	Pass
	10 MHz	MCH	QPSK	RB1#0	1.36	Pass

ANNEX B TEST SETUP PHOTOS

Please refer to the document “BL-SZ1760430-AR.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer to the document “BL-SZ1760430-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer to the document “BL-SZ1760430-AI.PDF”.

-END OF REPORT--