TEST REPORT

Applicant:	Cavli Inc.
Address:	99 South Almaden Blvd., Suite 600, San Jose, CA 95113 United States
Equipment Type:	LTE MODEM
Model Name:	C42GM (refer to section 2.3)
Brand Name:	CAVLI WIRELESS
FCC ID:	2BB64C42GM
ISED Number:	31113-C42GM
Test Standard:	47 CFR Part 2 (Others refer to chapter 3.1)
Sample Arrival Date:	May 31, 2023
Test Date:	Jul. 10, 2023 - Dec. 08, 2023
Date of Issue:	Jan. 18, 2024

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

Tested by: Jiamin Lu **Checked by:** Wu Huihui **Approved by:** Tolan Tu (Testing Director)

Revision History

Version	Issue Date	Revisions Content
Rev. 01	Dec. 26, 2023	Initial Issue
Rev. 02	Jan. 18, 2024	Add notes in Appendix A and A.2 to clarify the test data

TABLE OF CONTENTS

1 GENERAL INFORMATION

1.1 Test Laboratory

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

1.2 Test Location

Name	Shenzhen BALUN Technology Co., Ltd.
Location	☑ Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
	☐ 1/F, Building B, Ganghongji High-tech Intelligent Industrial Park, No. 1008, Songbai Road, Yangguang Community, Xili Sub-district, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Accreditation Certificate	The laboratory has been listed by Industry Canada to perform electromagnetic emission measurements. The recognition numbers of test site are 11524A. The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1196.

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	Cavli Inc.
Address	99 South Almaden Blvd., Suite 600, San Jose, CA 95113 United States

2.2 Manufacturer Information

Manufacturer	Cavli Inc.
Address	99 South Almaden Blvd., Suite 600, San Jose, CA 95113 United States

2.3 General Description for Equipment under Test (EUT)

EUT Name	LTE MODEM
Model Name Under Test	C42GM
Series Model Name	C42GM-N16S0N, C42GM-N16S0H, C42GM-N16GNN, C42GM-N16GNH, C42GM-M16S0N, C42GM-M16S0H, C42GM-M16GNN, C42GM-M16GNH, C42GM-N32S0N, C42GM-N32S0H, C42GM-N32GNN, C42GM-N32GNH, C42GM-M32S0N, C42GM-M32S0H, C42GM-M32GNN, C42GM-M32GNH
Description of Model name differentiation	The difference between the series models is whether they support GNSS or not, with different memory (16MB or 32MB) and internal sim variant will have additional eSim. The circuit schematic and PCB layout are exactly the same. (this information provided by the customer)
Hardware Version	C42GM_V3.4(2410)
Software Version	V1.2.1
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.4 Technical Information

All Network and Wireless connectivity for EUT	4G Network FDD LTE-M1 Band 2/4/5/12/13/14/17/18/19/25/26/66/71/85 FDD NB-IoT Band 2/4/5/12/13/14/17/18/19/25/26/66/71/85 BDS, GPS, SBAS, GLONASS, Galileo, QZSS
About the Product	The equipment is LTE MODEM, intended for used with information technology equipment.

The following is the technical information of the EUT tested frequency bands in this report.

Operating Bands	FDD LTE-M1 Band 2/4/5/12/13/14/17/18/19/25/26/66/71/85 FDD NB-IoT Band 2/4/5/12/13/14/17/18/19/25/26/66/71/85	
Modulation Type	LTE-M1	QPSK
		16QAM
	NB-IoT	QPSK
		BPSK
Antenna Type	External antenna	
UE Category	M1/NB1/NB2	
Antenna Gain	FDD LTE-M1 Band 2: 2.0 dBi FDD LTE-M1 Band 4: 2.0 dBi FDD LTE-M1 Band 5: 2.0 dBi FDD LTE-M1 Band 12: 2.0 dBi FDD LTE-M1 Band 13: 2.0 dBi FDD LTE-M1 Band 14: 2.0 dBi FDD LTE-M1 Band 17: 2.0 dBi FDD LTE-M1 Band 18(824-830 MHz): 2.0 dBi FDD LTE-M1 Band 18(815-824 MHz): 2.0 dBi FDD LTE-M1 Band 19: 2.0 dBi FDD LTE-M1 Band 25: 2.0 dBi FDD LTE-M1 Band 26(814–824 MHz): 2.0 dBi FDD LTE-M1 Band 26(824–849 MHz): 2.0 dBi FDD LTE-M1 Band 66: 2.0 dBi FDD LTE-M1 Band 71: 2.0 dBi FDD LTE-M1 Band 85: 2.0 dBi FDD NB-IoT Band 2: 2.0 dBi FDD NB-IoT Band 4: 2.0 dBi FDD NB-IoT Band 5: 2.0 dBi FDD NB-IoT Band 12: 2.0 dBi FDD NB-IoT Band 13: 2.0 dBi FDD NB-IoT Band 14: 2.0 dBi FDD NB-IoT Band 17: 2.0 dBi FDD NB-IoT Band 18(824-830 MHz): 2.0 dBi FDD NB-IoT Band 18(815-824 MHz): 2.0 dBi	

	FDD NB-IoT Band 19: 2.0 dBi FDD NB-IoT Band 25: 2.0 dBi FDD NB-IoT Band 26(814–824 MHz): 2.0 dBi FDD NB-IoT Band 26(824–849 MHz): 2.0 dBi FDD NB-IoT Band 66: 2.0 dBi FDD NB-IoT Band 71: 2.0 dBi FDD NB-IoT Band 85: 2.0 dBi
The Max RF Output Power (EIRP/ERP)	FDD LTE-M1 Band 2: 24.55 dBm FDD LTE-M1 Band 4: 23.96 dBm FDD LTE-M1 Band 5: 22.48 dBm FDD LTE-M1 Band 12: 24.41 dBm FDD LTE-M1 Band 13: 22.82 dBm FDD LTE-M1 Band 14: 22.65 dBm FDD LTE-M1 Band 17: 24.07 dBm FDD LTE-M1 Band 18(815-824 MHz): 22.22 dBm FDD LTE-M1 Band 18(824-830 MHz): 22.33 dBm FDD LTE-M1 Band 19: 22.44 dBm FDD LTE-M1 Band 25: 24.57 dBm FDD LTE-M1 Band 26(814-824 MHz): 22.44 dBm FDD LTE-M1 Band 26(824-849 MHz): 22.79 dBm FDD LTE-M1 Band 66: 24.13 dBm FDD LTE-M1 Band 71: 24.56 dBm FDD LTE-M1 Band 85: 24.18 dBm FDD NB-IoT Band 2: 23.40 dBm FDD NB-IoT Band 4: 22.72 dBm FDD NB-IoT Band 5: 22.49 dBm FDD NB-IoT Band 12: 23.30 dBm FDD NB-IoT Band 13: 22.54 dBm FDD NB-IoT Band 14: 22.74 dBm FDD NB-IoT Band 17: 23.53 dBm FDD NB-IoT Band 18(815-824 MHz): 23.32 dBm FDD NB-IoT Band 18(824-830 MHz): 23.22 dBm FDD NB-IoT Band 19: 22.98 dBm FDD NB-IoT Band 25: 23.42 dBm FDD NB-IoT Band 26(814-824 MHz): 23.49 dBm FDD NB-IoT Band 26(824-849 MHz): 23.37 dBm FDD NB-IoT Band 66: 22.55 dBm FDD NB-IoT Band 71: 24.02 dBm FDD NB-IoT Band 85: 23.68 dBm

Band	Power Class	Tx Frequency Range	Rx Frequency Range
LTE B2	3	1850 MHz ~ 1910 MHz	1930 MHz ~ 1990 MHz
LTE B4	3	1710 MHz ~ 1755 MHz	2110 MHz ~ 2155 MHz

LTE B5	3	824 MHz ~ 849 MHz	869 MHz ~ 894 MHz
LTE B12	3	699 MHz ~ 716 MHz	729 MHz ~ 746 MHz
LTE B13	3	777 MHz ~ 787MHz	746 MHz ~ 756 MHz
LTE B14	3	788 MHz ~ 798 MHz	758 MHz ~ 768 MHz
LTE B17	3	704 MHz ~ 716 MHz	734 MHz ~ 746 MHz
LTE B18	3	815 MHz ~ 824 MHz Note2	860 MHz ~ 869 MHz Note2
		824 MHz ~ 830 MHz	869 MHz ~ 875 MHz
LTE B19	3	830 MHz ~ 845 MHz	875 MHz ~ 890 MHz
LTE B25	3	1850 MHz ~ 1915 MHz	1930 MHz ~ 1995 MHz
LTE B26	3	814 MHz ~ 824 MHz Note2	859 MHz ~ 869 MHz Note2
		824 MHz ~ 849 MHz	869 MHz ~ 894 MHz
LTE B66	3	1710 MHz ~ 1780 MHz	2110 MHz ~ 2180 MHz
LTE B71	3	663 MHz ~ 698 MHz	617 MHz ~ 652 MHz
LTE B85	3	698 MHz ~ 716 MHz	728 MHz ~ 746 MHz

Note1: The EUT information provided by the applicant, except for The Max RF Conducted Power. For more detailed band specifications and features description, please refer to the manufacturer's specifications or user's manual.

Note2: These frequency ranges are only applicable in the United States.

3 SUMMARY OF TEST RESULTS

3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 2	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
2	47 CFR Part 22 Subpart H	Cellular Radiotelephone Service
3	47 CFR Part 24 Subpart E	Broadband PCS
4	47 CFR Part 27	Miscellaneous Wireless Communications Services
5	47 CFR Part 90 Subpart S	Regulations Governing Licensing and Use of Frequencies in the 806-824, 851-869, 896-901, and 935-940 MHz Bands
6	47 CFR Part 90 Subpart R	Regulations Governing Licensing and Use of Frequencies in the 758-775 and 788-805 MHz Bands
7	RSS-Gen Issue5	General Requirements and Information for the Certification of Radio Apparatus
8	RSS-130 Issue2	Equipment Operating in the Frequency Bands 617-652 MHz, 663-698 MHz, 698-756 MHz and 777-787 MHz
9	RSS-132 Issue4	Cellular Telephone Systems Operating in the Bands 824-849 MHz and 869-894 MHz
10	RSS-133 Issue6	2 GHz Personal Communications Services
11	RSS-139 Issue4	Advanced Wireless Services (AWS) Equipment Operating in the Bands 1710-1780 MHz and 2110-2200 MHz
12	RSS-140 Issue1	Equipment Operating in the Public Safety Broadband Frequency Bands 758‑768 MHz and 788‑798 MHz
13	ANSI C63.26-2015	American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services
14	KDB 971168 D01 v03	Measurement Guidance for Certification of Licensed Digital Transmitters

3.2 Test Verdict

No.	Test Description	FCC Part No.	ISED Part No.	Test Result	Test Verdict
1	Conducted RF Output Power	2.1046	RSS-Gen 6.12 RSS-130 4.6 RSS-132 5.4 RSS-133 6.4 RSS-139 6.5 RSS-140 4.3	Reporting only (ANNEX A.1)	Pass
2	Effective (Isotropic) Radiated Power	2.1046 22.913 24.232 27.50 90.635(b) 90.542(a)	RSS-Gen 6.12 RSS-130 4.6 RSS-132 5.4 RSS-133 6.4 RSS-139 6.5 RSS-140 4.3	ANNEX A.1	Pass
3	Peak to Average Radio	2.1046 24.232(d) 27.50(d)	RSS-130 4.6 RSS-132 5.4 RSS-133 6.4 RSS-139 6.5 RSS-140 4.3	ANNEX A.2	Pass
4	Occupied Bandwidth	2.1049 22.917 24.238 27.53 90.209	RSS-Gen 6.7	ANNEX A.3	Pass
5	Frequency Stability	2.1055 22.355 24.235 27.54 90.213	RSS-Gen 6.11 RSS-130 4.5 RSS-132 5.3 RSS-133 6.3 RSS-139 6.4 RSS-140 4.2	ANNEX A.4	Pass
6	Spurious Emission at Antenna Terminals	2.1051 22.917 24.238 27.53 90.691 90.543	RSS-Gen 6.13 RSS-130 4.7 RSS-132 5.5 RSS-133 6.5 RSS-139 6.6 RSS-140 4.4	ANNEX A.5	Pass
7	Band Edge	2.1051 22.917 24.238 27.53 90.691 90.543	RSS-130 4.7 RSS-132 5.5 RSS-133 6.5 RSS-139 6.6 RSS-140 4.4	ANNEX A.6	Pass

No.	Test Description	FCC Part No.	ISED Part No.	Test Result	Test Verdict
8	Field Strength of Spurious Radiation	2.1053 22.917 24.238 27.53 90.691 90.543	RSS-Gen 6.13 RSS-130 4.7 RSS-132 5.5 RSS-133 6.5 RSS-139 6.6 RSS-140 4.4	ANNEX A.7	Pass
9	Receiver Spurious Emissions	N/A	RSS-Gen 7 RSS-133 6.6	ANNEX A.8	Pass
10	AC Power-line Conducted Emissions	N/A	RSS-Gen 8.8	ANNEX A.9	Pass

4 GENERAL TEST CONFIGURATIONS

4.1 Test Environments

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

Relative Humidity		20% to 75%
Atmospheric Pressure		98 kPa to 102 kPa
Test Voltage of the EUT	NV (Normal Voltage)	3.6 V
	LV (Low Voltage)	3.1 V
	HV (High Voltage)	4.2 V
Test Temperature of the EUT	NT (Normal Temperature)	15 °C to 35 °C
	LT (Low Temperature)	-30℃
	HT (High Temperature)	+85℃

4.2 Test Equipment List

Description	Manufacturer	Model	Serial No.	Version	Cal. Date	Cal. Due
2/3/4/5G RF Test System						
BL410 Test Software	BALUN	BL410R	N/A	3.0.536	N/A	N/A
Temperature Chamber	AHK	SP20	1412	N/A	2022.09.20	2023.09.19
					2023.09.11	2024.09.10
Wideband Radio Communication Tester	R&S	CMW 500	167190	V4.0.60	2023.05.11	2024.05.10
Spectrum Analyzer	keysight	N9020A	MY50531628	A.16.09	2023.05.12	2024.05.11
Spectrum Analyzer	R&S	FSV40	101544	2.30.SP4	2023.01.03	2024.01.02
DC Power Supply	ITECH	IT6863A	800014020757810006	N/A	2022.09.25	2023.09.24
					2023.08.16	2024.08.15
Radiated Test System						
Radiated Test System Test Software	BALUN	BL410-E	N/A	V22.930	N/A	N/A
Wideband Radio Communication Tester	R&S	CMW 500	167190	V4.0.60	2023.05.11	2024.05.10
Spectrum Analyzer	R&S	FSV40	101544	2.30.SP4	2023.01.03	2024.01.02

Test Antenna-Bi-Log(30 MHz-3 GHz)	Schwarzbeck	VULB 9163	9163-624	N/A	2021.08.20	2024.08.19
Test Antenna-Horn(1-18 GHz)	Schwarzbeck	BBHA 9120D	01917	N/A	2022.06.09	2025.06.08
Test Antenna-Horn(18-40 GHz)	A-INFO	LB-180400KF	J211060273	N/A	2021.07.02	2024.07.01
Anechoic Chamber	YIHENG	9m*6m*6m	144	N/A	2022.02.09	2024.09.03
EMI Receiver	Keysight	N9038A	MY53220118	A.14.16	2022.09.08	2023.09.07
					2023.09.05	2024.09.04

4.3 Test Configurations

LTE-M1 Band	Bandwidth (MHz)						Modulation Type		RB#			Test Channel		
	1.4	3	5	10	15	20	QPSK	16-QAM	1	Half	Full	LCH	MCH	HCH
Effective (Isotropic) Radiated Power														
2	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
5	v	v	v	v	n	n	v	v	v	--	v	v	v	v
12	v	v	v	v	n	n	v	v	v	--	v	v	v	v
13	n	n	v	v	n	n	v	v	v	--	v	v	v	v
14	n	n	v	v	n	n	v	v	v	--	v	v	v	v
17	n	n	v	v	n	n	v	v	v	--	v	v	v	v
18 (824~830 MHz)	n	n	v	--	--	n	v	v	v	--	v	v	v	v
18 (815-824 MHz)	n	n	v	--	--	n	v	v	v	--	v	v	v	v
19	n	n	v	v	v	n	v	v	v	--	v	v	v	v
25	v	v	v	v	v	v	v	v	v	--	v	v	v	v
26(824~849 MHz)	v	v	v	v	v	n	v	v	v	--	v	v	v	v
26(814~824 MHz)	v	v	v	v	--	n	v	v	v	--	v	v	v	v
66	v	v	v	v	v	v	v	v	v	--	v	v	v	v
71	n	n	v	v	v	v	v	v	v	--	v	v	v	v
85	n	n	v	v	n	n	v	v	v	--	v	v	v	v
Peak to Average Ratio														
2	--	--	--	--	--	v	v	v	--	--	v	v	v	v
4	--	--	--	--	--	v	v	v	--	--	v	v	v	v
12	--	--	--	v	n	n	v	v	--	--	v	v	v	v
13	n	n	--	v	n	n	v	v	--	--	v	--	v	--
14	n	n	--	v	n	n	v	v	--	--	v	--	v	--
17	n	n	--	v	n	n	v	v	--	--	v	v	v	v
25	--	--	--	--	--	v	v	v	--	--	v	v	v	v
26(824~849 MHz)	--	--	--	--	v	n	v	v	--	--	v	v	v	v
26(814~824 MHz)	--	--	--	v	--	n	v	v	--	--	v	--	v	--
66	--	--	--	--	--	v	v	v	--	--	v	v	v	v
71	n	n	--	--	--	v	v	v	v	--	v	v	v	v
85	n	n	--	v	n	n	v	v	--	--	v	v	v	v
Occupied Bandwidth														

LTE-M1 Band	Bandwidth (MHz)						Modulation Type		RB#			Test Channel		
	1.4	3	5	10	15	20	QPSK	16-QAM	1	Half	Full	LCH	MCH	HCH
2	v	v	v	v	v	v	v	v	--	--	v	--	v	--
4	v	v	v	v	v	v	v	v	--	--	v	--	v	--
5	v	v	v	v	n	n	v	v	--	--	v	--	v	--
12	v	v	v	v	n	n	v	v	--	--	v	--	v	--
13	n	n	v	v	n	n	v	v	--	--	v	--	v	--
14	n	n	v	v	n	n	v	v	--	--	v	--	v	--
17	n	n	v	v	n	n	v	v	--	--	v	--	v	--
18 (824~830 MHz)	n	n	v	--	--	n	v	v	--	--	v	--	v	--
18 (815-824 MHz)	n	n	v	--	--	n	v	v	--	--	v	--	v	--
19	n	n	v	v	v	n	n	v	--	--	v	--	v	--
25	v	v	v	v	v	v	v	v	--	--	v	--	v	--
26(824~849 MHz)	v	v	v	v	v	n	v	v	--	--	v	--	v	--
26(814~824 MHz)	v	v	v	v	--	n	v	v	--	--	v	--	v	--
66	v	v	v	v	v	v	v	v	--	--	v	--	v	--
71	n	n	v	v	v	v	v	v	--	--	v	--	v	--
85	n	n	v	v	n	n	v	v	--	--	v	--	v	--
Frequency Stability														
2	--	--	--	--	--	v	v	v	--	--	v	v	v	v
4	--	--	--	--	--	v	v	v	--	--	v	v	v	v
12	--	--	--	v	n	n	v	v	--	--	v	v	v	v
13	n	n	--	v	n	n	v	v	--	--	v	--	v	--
14	n	n	--	v	n	n	v	v	--	--	v	--	v	--
17	n	n	--	v	n	n	v	v	--	--	v	--	v	--
25	--	--	--	--	--	v	v	v	--	--	v	v	v	v
26(824~849 MHz)	--	--	--	--	v	n	v	v	--	--	v	v	v	v
26(814~824 MHz)	--	--	--	v	--	n	v	v	--	--	v	v	v	v
66	--	--	--	--	--	v	v	v	--	--	v	v	v	v
71	n	n	--	--	--	v	v	v	--	--	v	--	v	--
85	n	n	--	v	n	n	v	v	--	--	v	v	v	v
Spurious Emission at Antenna Terminals														
2	v	v	v	v	v	v	v	--	v	--	--	v	v	v
4	v	v	v	v	v	v	v	--	v	--	--	v	v	v
12	v	v	v	v	n	n	v	--	v	--	--	v	v	v

LTE-M1 Band	Bandwidth (MHz)						Modulation Type		RB#			Test Channel		
	1.4	3	5	10	15	20	QPSK	16-QAM	1	Half	Full	LCH	MCH	HCH
13	n	n	v	v	n	n	v	--	v	--	--	v	v	v
14	n	n	v	v	n	n	v	--	v	--	--	v	v	v
17	n	n	v	v	n	n	v	--	v	--	--	v	v	v
25	v	v	v	v	v	v	v	--	v	--	--	v	v	v
26(824~849 MHz)	v	v	v	v	v	n	v	--	v	--	--	v	v	v
26(814~824 MHz)	v	v	v	v	--	n	v	--	v	--	--	v	v	v
66	v	v	v	v	v	v	v	--	v	--	--	v	v	v
71	n	n	v	v	v	v	v	--	v	--	--	v	v	v
85	n	n	v	v	n	n	v	--	v	--	--	v	v	v
Band Edge														
2	v	v	v	v	v	v	v	--	v	--	v	v	--	v
4	v	v	v	v	v	v	v	--	v	--	v	v	--	v
12	v	v	v	v	n	n	v	--	v	--	v	v	--	v
13	n	n	v	v	n	n	v	--	v	--	v	v	--	v
14	n	n	v	v	n	n	v	--	v	--	v	v	--	v
17	n	n	v	v	n	n	v	--	v	--	v	v	--	v
25	v	v	v	v	v	v	v	--	v	--	v	v	--	v
26(824~849 MHz)	v	v	v	v	v	n	v	--	v	--	v	v	--	v
26(814~824 MHz)	v	v	v	v	--	n	v	--	v	--	v	v	--	v
66	v	v	v	v	v	v	v	--	v	--	v	v	--	v
71	n	n	v	v	v	v	v	--	v	--	v	v	--	v
85	n	n	v	v	n	n	v	--	v	--	v	v	--	v
Field Strength of Spurious Radiation														
2	worst case													
4	worst case													
12	worst case													
13	worst case													
14	worst case													
17	worst case													
25	worst case													
26(824~849 MHz)	worst case													
26(814~824 MHz)	worst case													
66	worst case													
71	worst case													
85	worst case													

LTE-M1 Band	Bandwidth (MHz)						Modulation Type		RB#			Test Channel		
	1.4	3	5	10	15	20	QPSK	16-QAM	1	Half	Full	LCH	MCH	HCH
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.														

NB-IoT Band	Bandwidth (KHz)		Modulation Type		RB#		Test Channel		
	3.75	15	QPSK	BPSK	1	Full	LCH	MCH	HCH
Effective (Isotropic) Radiated Power									
2	v	v	v	v	v	v	v	v	v
4	v	v	v	v	v	v	v	v	v
5	v	v	v	v	v	v	v	v	v
12	v	v	v	v	v	v	v	v	v
13	v	v	v	v	v	v	v	v	v
14	v	v	v	v	v	v	v	v	v
17	v	v	v	v	v	v	v	v	v
18 (824~830 MHz)	v	v	v	v	v	v	v	v	v
18 (815-824 MHz)	v	v	v	v	v	v	v	v	v
19	v	v	v	v	v	v	v	v	v
25	v	v	v	v	v	v	v	v	v
26(824~849 MHz)	v	v	v	v	v	v	v	v	v
26(814~824 MHz)	v	v	v	v	v	v	v	v	v
66	v	v	v	v	v	v	v	v	v
71	v	v	v	v	v	v	v	v	v
85	v	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
12	v	v	v	v	v	--	v	v	v
13	v	v	v	v	v	--	v	v	v
14	v	v	v	v	v	--	v	v	v
17	v	v	v	v	v	--	v	v	v
25	v	v	v	v	v	--	v	v	v
26(824~849 MHz)	v	v	v	v	v	--	v	v	v
26(814~824 MHz)	v	v	v	v	v	--	v	v	v
66	v	v	v	v	v	--	v	v	v
71	v	v	v	v	v	--	v	v	v
85	v	v	v	v	v	--	v	v	v
Occupied Bandwidth									
2	v	v	v	v	v	v	v	v	v
4	v	v	v	v	v	v	v	v	v
5	v	v	v	v	v	v	v	v	v

NB-IoT Band	Bandwidth (KHz)		Modulation Type		RB#		Test Channel		
	3.75	15	QPSK	BPSK	1	Full	LCH	MCH	HCH
12	v	v	v	v	v	v	v	v	v
13	v	v	v	v	v	v	v	v	v
14	v	v	v	v	v	v	v	v	v
17	v	v	v	v	v	v	v	v	v
18 (824~830 MHz)	v	v	v	v	v	v	v	v	v
18 (815-824 MHz)	v	v	v	v	v	v	v	v	v
19	v	v	n	v	v	v	v	v	v
25	v	v	v	v	v	v	v	v	v
26(824~849 MHz)	v	v	v	v	v	v	v	v	v
26(814~824 MHz)	v	v	v	v	v	v	v	v	v
66	v	v	v	v	v	v	v	v	v
71	v	v	v	v	v	v	v	v	v
85	v	v	v	v	v	v	v	v	v
Frequency Stability									
2	v	v	v	v	v	--	--	v	--
4	v	v	v	v	v	--	--	v	--
12	v	v	v	v	v	--	--	v	--
13	v	v	v	v	v	--	--	v	--
14	v	v	v	v	v	--	--	v	--
17	v	v	v	v	v	--	--	v	--
25	v	v	v	v	v	--	--	v	--
26(824~849 MHz)	v	v	v	v	v	--	--	v	--
26(814~824 MHz)	v	v	v	v	v	--	--	v	--
66	v	v	v	v	v	--	--	v	--
71	v	v	v	v	v	--	--	v	--
85	v	v	v	v	v	--	--	v	--
Spurious Emission at Antenna Terminals									
2	v	v	v	--	v	--	v	v	v
4	v	v	v	--	v	--	v	v	v
12	v	v	v	--	v	--	v	v	v
13	v	v	v	--	v	--	v	v	v
14	v	v	v	--	v	--	v	v	v
17	v	v	v	--	v	--	v	v	v
25	v	v	v	--	v	--	v	v	v
26(824~849 MHz)	v	v	v	--	v	--	v	v	v
26(814~824 MHz)	v	v	v	--	v	--	v	v	v
66	v	v	v	--	v	--	v	v	v
71	v	v	v	--	v	--	v	v	v
85	v	v	v	--	v	--	v	v	v

NB-IoT Band	Bandwidth (KHz)		Modulation Type		RB#		Test Channel		
	3.75	15	QPSK	BPSK	1	Full	LCH	MCH	HCH
Band Edge									
2	v	v	v	v	v	v	v	--	v
4	v	v	v	v	v	v	v	--	v
12	v	v	v	v	v	v	v	--	v
13	v	v	v	v	v	v	v	--	v
14	v	v	v	v	v	v	v	--	v
17	v	v	v	v	v	v	v	--	v
25	v	v	v	v	v	v	v	--	v
26(824~849 MHz)	v	v	v	v	v	v	v	--	v
26(814~824 MHz)	v	v	v	v	v	v	v	--	v
66	v	v	v	v	v	v	v	--	v
71	v	v	v	v	v	v	v	--	v
85	v	v	v	v	v	v	v	--	v
Field Strength of Spurious Radiation									
2	worst case								
4	worst case								
12	worst case								
13	worst case								
14	worst case								
17	worst case								
25	worst case								
26(824~849 MHz)	worst case								
26(814~824 MHz)	worst case								
66	worst case								
71	worst case								
85	worst case								
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 Items	Test Mode	Test Channel		
		LCH	MCH	HCH
Receiver Spurious Emissions	LTE-M1 Band2	--	--	v
	NB-IoT Band2	--	--	v
AC Power-line Conducted Emissions	LTE-M1 Band2	--	--	v
	NB-IoT Band2	--	--	v
Note 1: The mark “v” means that this configuration is the worst test mode for Receiver Spurious Emissions and AC Power-line Conducted Emissions measurement.				

Test Mode	UL Channel	Channel Bandwidth (MHz)	UL Channel No.	UL Frequency (MHz)
LTE-M1 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
	Middle 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-M1 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
	Middle 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-M1 Band 5	Low Range	1.4	20407	824.7
		3	20415	825.5
		5	20425	826.5
		10	20450	829
	Middle Range	1.4/3/5/10	20525	836.5
	High Range	1.4	20643	848.3
		3	20635	847.5
		5	20625	846.5
		10	20600	844
LTE-M1 Band 12	Low Range	1.4	23017	699.7
		3	23025	700.5
		5	23035	701.5
		10	23060	704
	Middle Range	1.4/3/5/10	23095	707.5

Test Mode	UL Channel	Channel Bandwidth (MHz)	UL Channel No.	UL Frequency (MHz)
	High Range	1.4	23173	715.3
		3	23165	714.5
		5	23155	713.5
		10	23130	711
LTE-M1 Band 13	Low Range	5	23205	779.5
		10	23230	782
	Middle Range	5/10	23230	782
	High Range	5	23255	784.5
		10	23230	782
LTE-M1 Band 14	Low Range	5	23305	790.5
		10	23330	793
	Middle Range	5/10	23330	793
	High Range	5	23355	795.5
		10	23330	793
LTE-M1 Band 17	Low Range	5	23755	706.5
		10	23780	709
	Middle Range	5/10	23790	710
	High Range	5	23825	713.5
		10	23800	711
LTE-M1 Band 18 (824-830 MHz)	Low Range	5	23965	826.5
	Middle Range	5	23970	827
	High Range	5	23975	827.5
LTE-M1 Band 18 (815-824 MHz)	Low Range	5	23875	817.5
	Middle Range	5	23895	819.5
	High Range	5	23915	821.5
LTE-M1 Band 19	Low Range	5	24025	832.5
		10	24050	835
		15	24075	837.5
	Middle Range	5/10/15	24075	837.5
	High Range	5	24125	842.5
		10	24100	840
		15	24075	837.5
LTE-M1 Band 25	Low Range	1.4	26047	1850.7
		3	26055	1851.5
		5	26065	1852.5
		10	26090	1855
		15	26115	1857.5
		20	26140	1860
	Middle Range	1.4/3/5/10/15/20	26365	1882.5
	High Range	1.4	26683	1914.3
		3	26675	1913.5

Test Mode	UL Channel	Channel Bandwidth (MHz)	UL Channel No.	UL Frequency (MHz)
		5	26665	1912.5
		10	26640	1910
		15	26615	1907.5
		20	26590	1905
LTE-M1 Band 26 (824-849 MHz)	Low Range	1.4	26797	824.7
		3	26805	825.5
		5	26815	826.5
		10	26840	829
		15	26865	831.5
	Middle Range	1.4/3/5/10/15	26915	836.5
	High Range	1.4	27033	848.3
		3	27025	847.5
		5	27015	846.5
		10	26990	844
		15	26965	841.5
LTE-M1 Band 26 (814-824 MHz)	Low Range	1.4	26697	814.7
		3	26705	815.5
		5	26715	816.5
		10	26740	819
	Middle Range	1.4/3/5/10	26740	819
	High Range	1.4	26783	823.3
		3	26775	822.5
		5	26765	821.5
		10	26740	819
LTE-M1 Band 66	Low Range	1.4	131979	1710.7
		3	131987	1711.5
		5	131997	1712.5
		10	132022	1715
		15	132047	1717.5
		20	132072	1720
	Middle Range	1.4/3/5/10/15/20	132322	1745
	High Range	1.4	132665	1779.3
		3	132657	1778.5
		5	132647	1777.5
		10	132622	1775
		15	132597	1772.5
		20	132572	1770
LTE-M1 Band 71	Low Range	5	133147	665.5
		10	133172	668
		15	133197	670.5
		20	133222	673

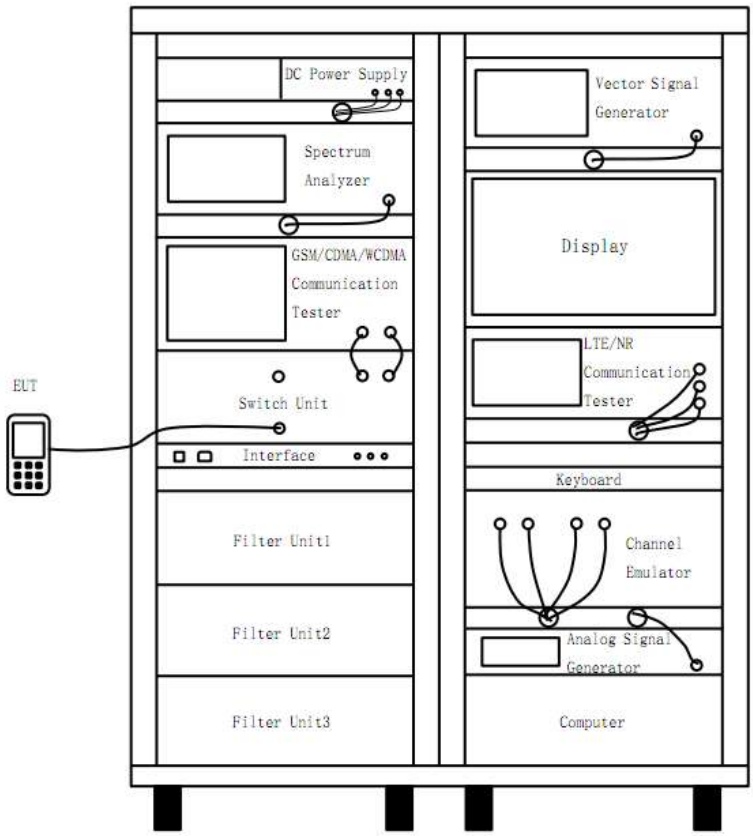
Test Mode	UL Channel	Channel Bandwidth (MHz)	UL Channel No.	UL Frequency (MHz)
	Middle Range	5/10/15/20	133297	680.5
	High Range	5	133447	695.5
		10	133422	693
		15	133397	690.5
		20	133372	688
LTE-M1 Band 85	Low Range	5	134027	700.5
		10	134052	703
	Middle Range	5/10	134092	707
	High Range	5	134157	713.5
		10	134132	711

Test Mode	UL Channel	UL Channel No.	UL Frequency (MHz)
NB-IoT Band2	Low Range	18602	1850.2
	Middle Range	18900	1880.0
	High Range	19198	1909.8
NB-IoT Band4	Low Range	19952	1710.2
	Middle Range	20175	1732.5
	High Range	20398	1754.8
NB-IoT Band5	Low Range	20402	824.2
	Middle Range	20525	836.5
	High Range	20648	848.8
NB-IoT Band12	Low Range	23011	699.1
	Middle Range	23095	707.5
	High Range	23178	715.8
NB-IoT Band13	Low Range	23181	777.1
	Middle Range	23230	782.0
	High Range	23278	786.8
NB-IoT Band14	Low Range	23281	788.1
	Middle Range	23330	793.0
	High Range	23379	797.9
NB-IoT Band17	Low Range	23732	704.2
	Middle Range	23790	710.0
	High Range	23848	715.8
NB-IoT Band18 (815-824 MHz)	Low Range	23851	815.1
	Middle Range	23895	819.5
	High Range	23939	823.9
NB-IoT Band18 (824-830 MHz)	Low Range	23941	824.1
	Middle Range	23970	827
	High Range	23999	829.9
NB-IoT Band19	Low Range	24001	830.1
	Middle Range	24075	837.5
	High Range	24149	844.9
NB-IoT Band25	Low Range	26042	1850.2
	Middle Range	26365	1882.5
	High Range	26688	1914.8
NB-IoT Band26 (814-824 MHz)	Low Range	26692	814.2
	Middle Range	26740	819
	High Range	26788	823.8
NB-IoT Band26 (824-849 MHz)	Low Range	26792	824.2
	Middle Range	26915	836.5
	High Range	27038	848.8
NB-IoT Band66	Low Range	131974	1710.2
	Middle Range	132322	1745.0
	High Range	132670	1779.8

NB-IoT Band71	Low Range	133124	663.2
	Middle Range	133297	680.5
	High Range	133470	697.8
NB-IoT Band85	Low Range	134004	698.2
	Middle Range	134082	706
	High Range	134180	715.8

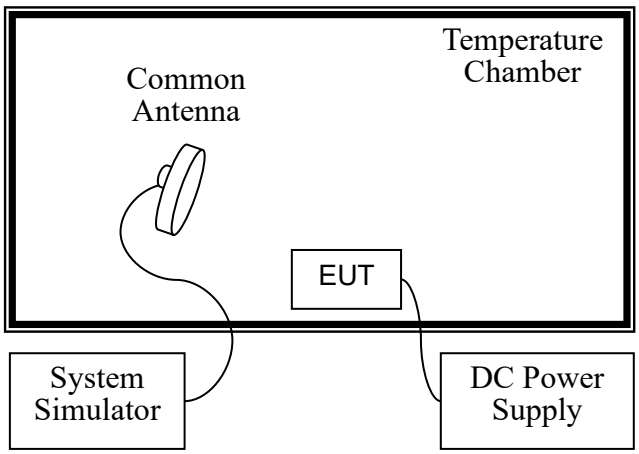
4.4 Test Setup

4.4.1 For Antenna Port Test



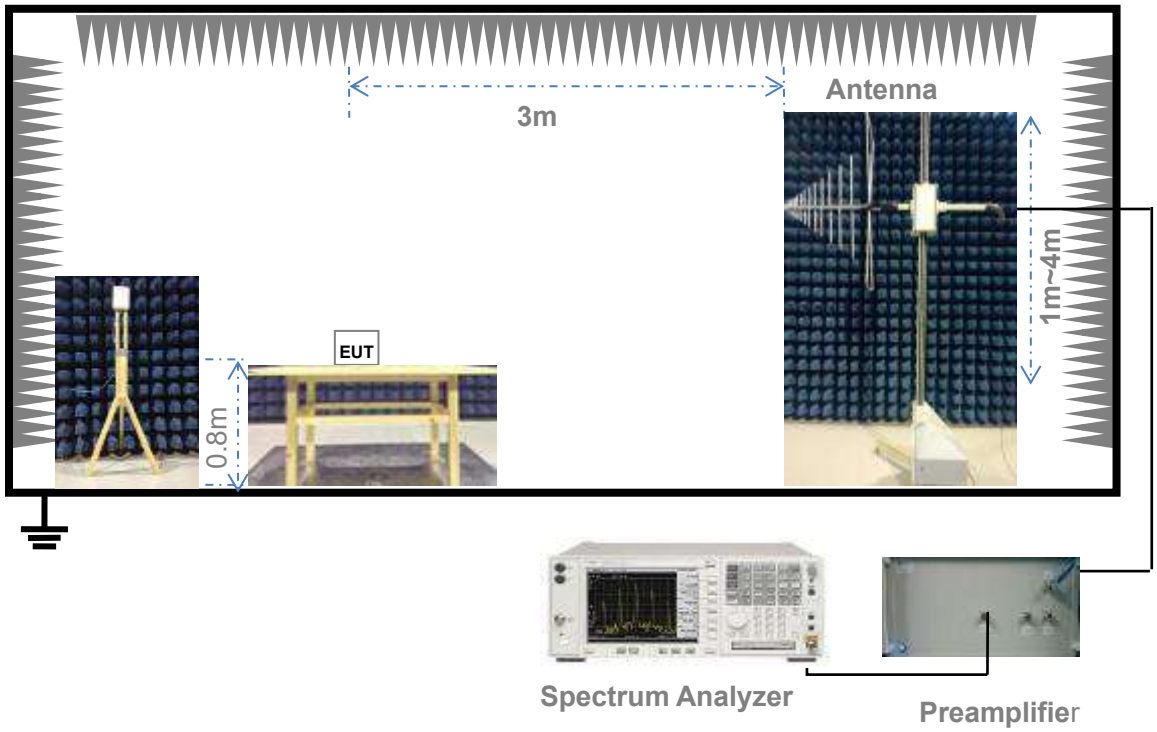
(Diagram 1)

4.4.2 For Frequency Stability Test



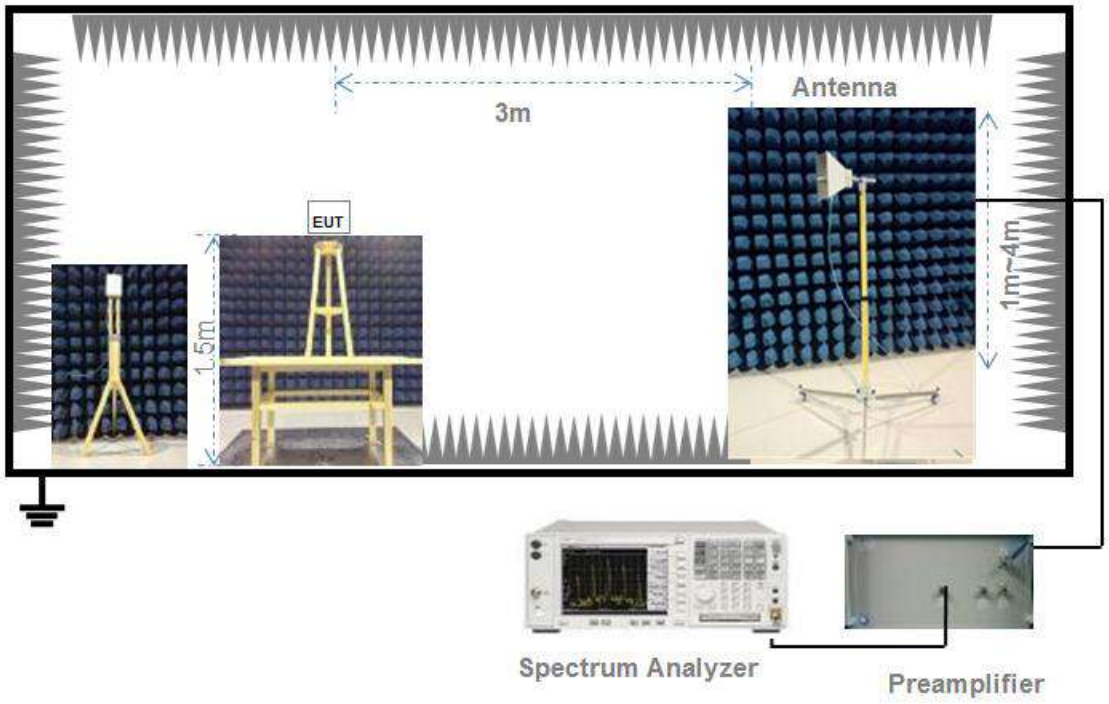
(Diagram 2)

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 & 22.913(a) & 24.232(c) & 27.50(a) & 27.50(b) & 27.50(c) & 27.50(d) & 27.50(h) & 27.50(j) & 27.50(k) & 90.635(b) & 90.542(a) & 96.41(b)

According to FCC section 22.913(a) (5), 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(a) (3), for mobile and portable stations transmitting in the 2305-2315MHz band or the 2350-2360MHz band, the average EIRP must not exceed 50 milliwatts within any 1 megahertz of authorized bandwidth, except that for mobile and portable stations compliant with 3GPP LTE standards.

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 600MHz uplink band and the 698-746MHz band, and fixed and mobile stations in the 600MHz uplink 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.

FCC section 27.50(j) (3), for mobile, and portable (hand-held) stations operating in the 3700-3980 MHz band are limited to 1 watt EIRP.

FCC section 27.50(k) (3), Mobile devices are limited to 1Watt (30 dBm) EIRP in the 3450-3550 MHz band.

According to FCC section 90.635(b), the maximum output power of the transmitter for mobile stations is 100 watts (20dBW).

According to FCC section 90.542(a) (7), portable stations (hand-held devices) transmitting in the 758-768 MHz band and the 788-798 MHz band are limited to 3 watts ERP.

FCC section 96.41(b), the maximum effective isotropic radiated power (EIRP) and maximum Power Spectral Density (PSD) of any CBSD and End User Device must comply with the limits shown in the table

in this paragraph below:

Device	Maximum EIRP (dBm/10 megahertz)	Maximum PSD (dBm/MHz)
End User Device	23	N/A
Category A CBSD	30	20
Category B CBSD[note1]	47	37
Note1: Category B CBSDs will only be authorized for use after an ESC is approved and commercially deployed consistent with §§ 96.15 and 96.67.		

RSS-Gen § 6.12 & RSS-130 § 4.6 & RSS-132 § 5.4 & RSS-133 § 6.4 & RSS-139 § 6.5 & RSS-195 § 5.5 & RSS-199 § 5.5 & RSS-140 § 4.3 & RSS-192 § 5.5 & RSS-197 § 5.6

According to RSS-130 § 4.6.3, The e.r.p. shall not exceed 30 watts for mobile equipment and outdoor fixed subscriber equipment. The e.r.p. shall not exceed 3 watts for portable equipment and indoor fixed subscriber equipment.

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

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

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

According to RSS-195 § 5.5, the EIRP of mobile or portable equipment transmitting in the band 2305-2315MHz or the band 2350-2360MHz, employing 3GPP LTE standards, shall not exceed 250mW within 5MHz bandwidth. For other technologies, the EIRP shall not exceed 50mW within any 1MHz bandwidth.

According to RSS-199 § 5.5, Subscriber equipment other than fixed subscriber equipment shall not exceed an e.i.r.p of 2W per channel bandwidth.

According to RSS-140 § 4.3, the equivalent radiated power (e.r.p.) for control and mobile equipment shall not exceed 30 W. The e.r.p. for portable equipment including handheld devices shall not exceed 3 W.

According to RSS-192 § 5.5, for Subscriber equipment other than fixed subscriber equipment(Non-SAS), the EIRP shall not exceed 30dBm/channel bandwidth.

According to RSS-197 § 5.6, The maximum e.i.r.p. density of mobile equipment shall not exceed 40 mW in any 1 MHz bandwidth.

5.1.2 Test Setup

The section 4.4.1 (Diagram 1) test setup description is used for conducted test, and the section 4.4.3 and 4.4.4 (Diagram 3, 4) test setup description is used for radiated 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.

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 EIRP test, when P_{Meas} value for GSM1900 is 30.2 dBm, LC is 0.6 dB, and GT is -3.4 dB, then final EIRP value is:
EIRP for GSM1900 = 30.2 dBm - 3.4 dBi - 0.6 dB = 26.2 dBm

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

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) & 27.50(j) & 27.50(k)

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.

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) (5) & 27.50(j) & 27.50(k), in measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13dB.

RSS-130 § 4.6 & RSS-132 § 5.4 & RSS-133 § 6.4 & RSS-139 § 6.5 & RSS-195 § 5.5

& RSS-199 § 5.5 & RSS-140 § 4.3 & RSS-192 §5.5 & RSS-197 § 5.6

According to RSS-130 § 4.6.1, the peak-to-average power ratio (PAPR) of the transmitter shall not exceed 13 dB for more than 0.1% of the time and shall use a signal corresponding to the highest PAPR during periods of continuous transmission.

According to RSS-132 § 5.4, 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 RSS-133 § 6.4, the transmitter’s peak-to-average power ratio (PAPR) 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 RSS-139 § 5.5, the peak to average power ratio (PAPR) of the equipment shall not exceed 13 dB for more than 0.1% of the time, using a signal that corresponds to the highest PAPR during periods of continuous transmission.

According to RSS-140 § 4.3, the peak to average power ratio (PAPR) of theequipment shall not exceed 13 dB for more than 0.1% of the time, using asignal that corresponds to the highest PAPR during periods of continuous transmission.

According to RSS-192 § 5.5, the peak to average power ratio (PAPR) of the equipment shall not exceed 13 dB for more than 0.1% of the time, using a signal that corresponds to the highest PAPR during periods of continuous transmission.

According to RSS-195 § 5.5.1, the PAPR of the transmitter output power of base and fixed station equipment shall not exceed 13 dB for more than 0.1% of the time, using a signal that corresponds to the highest PAPR during periods of continuous transmission.

According to RSS-199 § 5.5, the peak-to-average power ratio (PAPR) of the transmitter shall not exceed 13 dB for more than 0.1% of the time and shall use a signal corresponding to the highest PAPR during periods of continuous transmission.

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).

5.2.4 Test Result

Please refer to ANNEX A.2.

5.3 Occupied Bandwidth

5.3.1 Limit

FCC § 2.1049

RSS-Gen § 6.7

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.

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 & 90.213

RSS-Gen § 6.11 & RSS-130 § 4.5 & RSS-132 § 5.3 & RSS-133 § 6.3 & RSS-139 § 6.4 & RSS-195 § 5.4 & RSS-199 § 5.4 & RSS-140 § 4.2 & RSS-192 § 5.4 & RSS-197 § 5.3

RSS-Gen § 6.11

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.

FCC § 90.213

The frequency stability shall not depart from the reference frequency in excess of ±2.5ppm for mobile stations.

RSS-130 § 4.5

The frequency stability shall be sufficient to ensure that the occupied bandwidth remains within each frequency block range when tested at the temperature and supply voltage variations specified in RSS-Gen.

RSS-132 § 5.3

The carrier frequency shall not depart from the reference frequency in excess of ±2.5 ppm for mobile stations and ±1.5 ppm for base stations.

RSS-133 § 6.3

The carrier frequency shall not depart from the reference frequency in excess of ±2.5 ppm for mobile stations and ±1.0 ppm for base stations.

RSS-139 § 6.4

The frequency stability shall be sufficient to ensure that the occupied bandwidth stays within the operating frequency block when tested to the temperature and supply voltage variations specified in RSS-Gen.

RSS-195 § 5.4

The applicant shall ensure frequency stability by showing that the occupied bandwidth is maintained within the range of the operating frequency blocks when testing under the temperature and supply voltage variations specified for the frequency stability measurement in RSS-Gen.

RSS-199 § 5.4

The frequency stability shall be sufficient to ensure that the occupied bandwidth stays within the operating frequency block when tested to the temperature and supply voltage variations specified in RSS-Gen.

RSS-140 § 4.2

The frequency stability shall be sufficient to ensure that the occupied bandwidth stays within the operating frequency block when tested at the temperature and supply voltage variations specified in RSS-Gen.

RSS-192 § 5.4

The frequency stability shall be sufficient to ensure that the occupied bandwidth stays within the operating frequency block when tested at the temperature and supply voltage variations specified in RSS-Gen.

RSS-197 § 5.3

The transmitter frequency stability limit shall be determined as follows:

a.The frequency offset shall be measured according to the procedure described in RSS-Gen and recorded;

b.Using a resolution bandwidth of 1% of the occupied bandwidth, a reference point at the unwanted emission level specified in Section 5.7 on the emission mask of the lowest and highest channel shall be selected, and the frequency at these points shall be recorded as fL and fH respectively.

The applicant shall ensure frequency stability by showing that fL minus the frequency offset and fH plus the frequency offset shall be within the 3650-3700 MHz band..

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 25°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 and -30°C is reached.

5. Change supply voltage, and repeat measurement until extreme voltage is reached.

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(a) & 27.53(c) & 27.53(f) & 27.53(g) & 27.53(h) & 27.53(l) & 27.53(m) & 27.53(n) & 90.691 & 90.543 & 96.41(e)

RSS-Gen § 6.13 & RSS-130 § 4.7 & RSS-132 § 5.5 & RSS-133 § 6.5 & RSS-139 § 6.6 & RSS-195 § 5.6

& RSS-199 § 5.6 & RSS-140 § 4.4 & RSS-192 § 5.6 & RSS-197 § 5.7

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) & RSS-132 § 5.5 & RSS-133 § 6.5

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(a) (4)

For mobile and portable stations operating in the 2305-2315MHz and 2350-2360MHz bands:

(1)By a factor of not less than: 43 + 10 log (P) dB on all frequencies between 2305 and 2320MHz and on all frequencies between 2345 and 2360MHz that are outside the licensed band(s) of operation, not less than 55 + 10 log (P) dB on all frequencies between 2320 and 2324MHz and on all frequencies between 2341 and 2345MHz, not less than 61 + 10 log (P) dB on all frequencies between 2324 and 2328MHz and on all frequencies between 2337 and 2341MHz, and not less than 67 + 10 log (P) dB on all frequencies between 2328 and 2337MHz.

(2)By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2300 and 2305MHz, 55 + 10 log (P) dB on all frequencies between 2296 and 2300MHz, 61 + 10 log (P) dB on all frequencies between 2292 and 2296MHz, 67 + 10 log (P) dB on all frequencies between 2288 and 2292MHz, and 70 + 10 log (P) dB below 2288MHz.

(3)By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2360 and 2365MHz, and not less than 70 + 10 log (P) dB above 2365MHz.

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;

(3) On all frequencies between 763–775 MHz and 793–805 MHz, by a factor not less than 76 + 10 log (P) dB in a 6.25 kHz band segment, for base and fixed stations;

(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(f)

For operations in the 746–758 MHz, 775–788 MHz, and 805–806 MHz bands, emissions in the band 1559–1610 MHz shall be limited to - 70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

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) & RSS-139 § 6.6

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(l) (2)

For mobile operations in the 3700-3980 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed −13 dBm/MHz.

FCC § 27.53(m) (4) & RSS-199 § 4.5

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

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

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

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

In addition, the attenuation factor shall not be less 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.

FCC § 27.53(n) (2)

For mobile operations in the 3450-3550 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed −13 dBm/MHz.

FCC § 90.691

(a) Out-of-band emission requirement shall apply only to the “outer” channels included in an EA license and to spectrum adjacent to interior channels used by incumbent licensees. The emission limits are as follows:

(1) For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 116 $Log_{10}(f/6.1)$ decibels or 50 + 10 $Log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.

(2) For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 43 + $10Log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz.

(b) When an emission outside of the authorized bandwidth causes harmful interference, the Commission may, at its discretion, require greater attenuation than specified in this section.

FCC § 90.543

(e) For operations in the 758–768 MHz and the 788–798 MHz bands, 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 all frequencies between 769–775 MHz and 799–805 MHz, by a factor not less than 76 + 10 log (P) dB in a 6.25 kHz band segment, for base and fixed stations.

(2) On all frequencies between 769–775 MHz and 799–805 MHz, by a factor not less than 65 + 10 log (P) dB in a 6.25 kHz band segment, for mobile and portable stations.

(3) On any frequency between 775–788 MHz, above 805 MHz, and below 758 MHz, by at least 43 + 10 log (P) dB.

(4) Compliance with the provisions of paragraphs (e)(1) and (2) 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.

(f) For operations in the 758–775 MHz and 788–805 MHz bands, all emissions including harmonics in the band 1559– 1610 MHz shall be limited to -70 dBW/ MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

FCC § 96.41(e)

The conducted power of any emission outside the fundamental emission (whether in or outside of the authorized band) shall not exceed -13 dBm/MHz within 0-10 megahertz above the upper SAS-assigned channel edge and within 0-10 megahertz below the lower SAS-assigned channel edge. At all frequencies greater than 10 megahertz above the upper SAS assigned channel edge and less than 10 MHz below the lower SAS assigned channel edge, the conducted power of any emission shall not exceed-25 dBm/MHz.The conducted power of any emissions below 3530 MHz or above 3720 MHz shall not exceed-40 dBm/MHz.

Compliance with the applicable limits is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater for frequencies less than 1 GHz and 1 MHz or greater for frequencies greater than1GHz.However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolutionbandwidth 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 emission are attenuated at least26 dB below the transmitter power.

RSS-132 § 5.5 & RSS-133 § 6.5

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.

RSS-139 § 6.6

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.

RSS-199 § 5.6

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.

RSS-130 § 4.7

The unwanted emissions in any 100 kHz bandwidth on any frequency outside the low frequency edge and the high frequency edge of each frequency block range(s), shall be attenuated below the transmitter power, P (dBW), by at least 43 + 10Log_{10}(P) (watts), dB. However, in the 100 kHz band immediately outside of the equipment's frequency block range, a resolution bandwidth of 30 kHz may be employed.

In addition to the limit outlined above, equipment operating in the frequency bands 746-756 MHz and 777-787 MHz shall also comply with the following restrictions:

(a) The power of any unwanted emissions in any 6.25 kHz bandwidth for all frequencies between 763-775 MHz and 793-806 MHz shall be attenuated below the transmitter power, P (dBW), by at least:

(i) 76 + 10 log10 p (watts), dB, for base and fixed equipment and

(ii) 65 + 10 log10 p (watts), dB, for mobile and portable equipment

(b) The e.i.r.p. in the band 1559-1610 MHz shall not exceed −70 dBW/MHz for wideband signal and −80 dBW for discrete emission with bandwidth less than 700 Hz.

RSS-195 § 5.6

The power of any emission outside the frequency range(s) in which the equipment operates shall be attenuated below the transmitter power, P (dBW), by the amount indicated in table below and graphically represented in figure below, where p is the transmitter output power measured in watts.

Frequency (MHz)	Attenuation (dB)	Frequency (MHz)	Attenuation (dB)
＜2200	43+10 log_{10} (p)	2324-2328	61+10 log_{10} (p)
2200-2288	70+10 log_{10} (p)	2328-2337	67+10 log_{10} (p)
2288-2292	67+10 log_{10} (p)	2337-2341	61+10 log_{10} (p)

2292-2296	61+10 $\log_{10}$ (p)	2341-2345	55+10 $\log_{10}$ (p)
2296-2300	55+10 $\log_{10}$ (p)	2345-2360	43+10 $\log_{10}$ (p) Note
2300-2305	43+10 $\log_{10}$ (p)	2360-2365	43+10 $\log_{10}$ (p)
2305-2320	43+10 $\log_{10}$ (p)Note	2365-2395	70+10 $\log_{10}$ (p)
2320-2324	55+10 $\log_{10}$ (p)	＞2395	43+10 $\log_{10}$ (p)
Note: Measured at the edges of the highest and lowest frequency range(s) in which the equipment is designed to operate. See section 5.2 for the permitted frequency ranges for various equipment types.			

RSS-140 § 4.4

The power of any unwanted emission outside the bands 758-768 MHz and 788-798 MHz shall be attenuated below the transmitter output power P in dBW as follows, where p is the transmitter output power in watts:

For any frequency between 769-775 MHz and 799-806 MHz:

76 + 10 log (p), dB in a 6.25 kHz band for fixed and base station equipment

65 + 10 log (p), dB in a 6.25 kHz band for mobile and portable/hand-held equipment

For any frequency between 775-788 MHz, above 806 MHz, and below 758 MHz: 43 + 10 log (p), dB in a bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency bands 758-768 MHz and 788-798 MHz, a resolution bandwidth of 30 kHz may be employed.

In addition, the equivalent isotropically radiated power (e.i.r.p.) of all emissions, including harmonics in the band 1559-1610 MHz, shall not exceed −70 dBW/MHz for wideband emissions, and −80 dBW/kHz for discrete emissions of less than 700 Hz bandwidth.

RSS-192 § 5.6.3

For the unwanted emissions shall not exceed:

wSubscriber equipment shall have the TRP or conducted power (per antenna), where applicable, of unwanted emission not exceeding the following:

a. the limits in table below

b. a limit of -30 dBm/MHz in the frequency range greater than (B+5) MHz from the edge of the frequency band

Frequency block group (B)	Offset frequency from the edge of the frequency block group (MHz)			
	0-1	1-5	5-B	>B
10 MHz, 20MHz, 30 MHz and 40 MHz	-13 dBm/1% of B	-10 dBm/MHz	-13 dBm/MHz	-25 dBm/MHz

> 40 MHz	-13 dBm/400 kHz	-10 dBm/MHz	-13 dBm/MHz	-25 dBm/MHz

RSS-197 § 5.7

The unwanted emissions shall be measured at the frequencies of the highest and lowest channel of all bandwidths and types of modulation that the equipment can operate with a resolution bandwidth of 1 MHz or less, but at least 1% of the occupied bandwidth of the transmitter, provided that the measured power is integrated over a 1 MHz bandwidth.

The power of any emissions outside the frequency band 3650-3700 MHz shall be attenuated below the channel transmitter power P (dBW) by 43 + 10 Log (p), where p is measured in watts.

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.

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(a) & 27.53(c) & 27.53(f) & 27.53(g) & 27.53(h) & 27.53(l) & 27.53(m) & 27.53(n) & 90.691 & 90.543 & 96.41(e)

RSS-Gen § 6.13 & RSS-130 § 4.7 & RSS-132 § 5.5 & RSS-133 § 6.5 & RSS-139 § 6.6 & RSS-195 § 5.6

& RSS-199 § 5.6 & RSS-140 § 4.4 & RSS-192 § 5.6 & RSS-197 § 5.7

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) & RSS-132 § 5.5 & RSS-133 § 6.5

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(a) (4)

For mobile and portable stations operating in the 2305-2315MHz and 2350-2360MHz bands:

(1)By a factor of not less than: 43 + 10 log (P) dB on all frequencies between 2305 and 2320MHz and on all frequencies between 2345 and 2360MHz that are outside the licensed band(s) of operation, not less than 55 + 10 log (P) dB on all frequencies between 2320 and 2324MHz and on all frequencies between 2341 and 2345MHz, not less than 61 + 10 log (P) dB on all frequencies between 2324 and 2328MHz and on all frequencies between 2337 and 2341MHz, and not less than 67 + 10 log (P) dB on all frequencies between 2328 and 2337MHz.

(2)By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2300 and 2305MHz, 55 + 10 log (P) dB on all frequencies between 2296 and 2300MHz, 61 + 10 log (P) dB on all frequencies between 2292 and 2296MHz, 67 + 10 log (P) dB on all frequencies between 2288 and 2292MHz, and 70 + 10 log (P) dB below 2288MHz.

(3)By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2360 and 2365MHz, and not less than 70 + 10 log (P) dB above 2365MHz.

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;

(3) On all frequencies between 763–775 MHz and 793–805 MHz, by a factor not less than 76 + 10 log (P) dB in a 6.25 kHz band segment, for base and fixed stations;

(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(f)

For operations in the 746–758 MHz, 775–788 MHz, and 805–806 MHz bands, emissions in the band 1559–1610 MHz shall be limited to - 70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

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) & RSS-139 § 6.6

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(l) (2)

For mobile operations in the 3700-3980 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed −13 dBm/MHz.

FCC § 27.53(m) (4) & RSS-199 § 4.5

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

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

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

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

In addition, the attenuation factor shall not be less 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.

FCC § 27.53(n) (2)

For mobile operations in the 3450-3550 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed −13 dBm/MHz.

FCC § 90.691

(a) Out-of-band emission requirement shall apply only to the “outer” channels included in an EA license and to spectrum adjacent to interior channels used by incumbent licensees. The emission limits are as follows:

(1) For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 116 $Log_{10}(f/6.1)$ decibels or 50 + 10 $Log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.

(2) For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 43 + $10Log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz.

(b) When an emission outside of the authorized bandwidth causes harmful interference, the Commission may, at its discretion, require greater attenuation than specified in this section.

FCC § 90.543

(e) For operations in the 758–768 MHz and the 788–798 MHz bands, 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 all frequencies between 769–775 MHz and 799–805 MHz, by a factor not less than 76 + 10 log (P) dB in a 6.25 kHz band segment, for base and fixed stations.

(2) On all frequencies between 769–775 MHz and 799–805 MHz, by a factor not less than 65 + 10 log (P) dB in a 6.25 kHz band segment, for mobile and portable stations.

(3) On any frequency between 775–788 MHz, above 805 MHz, and below 758 MHz, by at least 43 + 10 log (P) dB.

(4) Compliance with the provisions of paragraphs (e)(1) and (2) 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.

(f) For operations in the 758–775 MHz and 788–805 MHz bands, all emissions including harmonics in the band 1559– 1610 MHz shall be limited to -70 dBW/ MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

FCC § 96.41(e)

The conducted power of any emission outside the fundamental emission (whether in or outside of the authorized band) shall not exceed -13 dBm/MHz within 0-10 megahertz above the upper SAS-assigned channel edge and within 0-10 megahertz below the lower SAS-assigned channel edge. At all frequencies greater than 10 megahertz above the upper SAS assigned channel edge and less than 10 MHz below the lower SAS assigned channel edge, the conducted power of any emission shall not exceed-25 dBm/MHz.The conducted power of any emissions below 3530 MHz or above 3720 MHz shall not exceed-40 dBm/MHz.

Compliance with the applicable limits is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater for frequencies less than 1 GHz and 1 MHz or greater for frequencies greater than1GHz.However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolutionbandwidth 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 emission are attenuated at least26 dB below the transmitter power.

RSS-132 § 5.5 & RSS-133 § 6.5

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.

RSS-139 § 6.6

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.

RSS-199 § 5.6

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.

RSS-130 § 4.7

The unwanted emissions in any 100 kHz bandwidth on any frequency outside the low frequency edge and the high frequency edge of each frequency block range(s), shall be attenuated below the transmitter power, P (dBW), by at least 43 + 10Log_{10}(P) (watts), dB. However, in the 100 kHz band immediately outside of the equipment's frequency block range, a resolution bandwidth of 30 kHz may be employed.

In addition to the limit outlined above, equipment operating in the frequency bands 746-756 MHz and 777-787 MHz shall also comply with the following restrictions:

(a) The power of any unwanted emissions in any 6.25 kHz bandwidth for all frequencies between 763-775 MHz and 793-806 MHz shall be attenuated below the transmitter power, P (dBW), by at least:

(i) 76 + 10 log10 p (watts), dB, for base and fixed equipment and

(ii) 65 + 10 log10 p (watts), dB, for mobile and portable equipment

(b) The e.i.r.p. in the band 1559-1610 MHz shall not exceed −70 dBW/MHz for wideband signal and −80 dBW for discrete emission with bandwidth less than 700 Hz.

RSS-195 § 5.6

The power of any emission outside the frequency range(s) in which the equipment operates shall be attenuated below the transmitter power, P (dBW), by the amount indicated in table below and graphically represented in figure below, where p is the transmitter output power measured in watts.

Frequency (MHz)	Attenuation (dB)	Frequency (MHz)	Attenuation (dB)
＜2200	43+10 log_{10} (p)	2324-2328	61+10 log_{10} (p)
2200-2288	70+10 log_{10} (p)	2328-2337	67+10 log_{10} (p)
2288-2292	67+10 log_{10} (p)	2337-2341	61+10 log_{10} (p)

2292-2296	61+10 $\log_{10}$ (p)	2341-2345	55+10 $\log_{10}$ (p)
2296-2300	55+10 $\log_{10}$ (p)	2345-2360	43+10 $\log_{10}$ (p) Note
2300-2305	43+10 $\log_{10}$ (p)	2360-2365	43+10 $\log_{10}$ (p)
2305-2320	43+10 $\log_{10}$ (p)Note	2365-2395	70+10 $\log_{10}$ (p)
2320-2324	55+10 $\log_{10}$ (p)	＞2395	43+10 $\log_{10}$ (p)
Note: Measured at the edges of the highest and lowest frequency range(s) in which the equipment is designed to operate. See section 5.2 for the permitted frequency ranges for various equipment types.			

RSS-140 § 4.4

The power of any unwanted emission outside the bands 758-768 MHz and 788-798 MHz shall be attenuated below the transmitter output power P in dBW as follows, where p is the transmitter output power in watts:

For any frequency between 769-775 MHz and 799-806 MHz:

76 + 10 log (p), dB in a 6.25 kHz band for fixed and base station equipment

65 + 10 log (p), dB in a 6.25 kHz band for mobile and portable/hand-held equipment

For any frequency between 775-788 MHz, above 806 MHz, and below 758 MHz: 43 + 10 log (p), dB in a bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency bands 758-768 MHz and 788-798 MHz, a resolution bandwidth of 30 kHz may be employed.

In addition, the equivalent isotropically radiated power (e.i.r.p.) of all emissions, including harmonics in the band 1559-1610 MHz, shall not exceed −70 dBW/MHz for wideband emissions, and −80 dBW/kHz for discrete emissions of less than 700 Hz bandwidth.

RSS-192 § 5.6.3

For the unwanted emissions shall not exceed:

wSubscriber equipment shall have the TRP or conducted power (per antenna), where applicable, of unwanted emission not exceeding the following:

c. the limits in table below

d. a limit of -30 dBm/MHz in the frequency range greater than (B+5) MHz from the edge of the frequency band

Frequency block group (B)	Offset frequency from the edge of the frequency block group (MHz)			
	0-1	1-5	5-B	>B
10 MHz, 20MHz, 30 MHz and 40 MHz	-13 dBm/1% of B	-10 dBm/MHz	-13 dBm/MHz	-25 dBm/MHz

> 40 MHz	-13 dBm/400 kHz	-10 dBm/MHz	-13 dBm/MHz	-25 dBm/MHz

RSS-197 § 5.7

The unwanted emissions shall be measured at the frequencies of the highest and lowest channel of all bandwidths and types of modulation that the equipment can operate with a resolution bandwidth of 1 MHz or less, but at least 1% of the occupied bandwidth of the transmitter, provided that the measured power is integrated over a 1 MHz bandwidth.

The power of any emissions outside the frequency band 3650-3700 MHz shall be attenuated below the channel transmitter power P (dBW) by 43 + 10 Log (p), where p is measured in watts.

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.

For mobile and portable stations, 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. Since it was not possible to set the resolution bandwidth to 6.25 kHz with the available equipment, a bandwidth of 10 kHz was used instead to show compliance. By using a 10 kHz bandwidth on the spectrum analyzer.

10*log(10 kHz / 6.25 kHz) = 2.04 dB
Limit Line = -35 dBm + 2.04 dB = -32.96dBm

5.6.4 Test Result

Please refer to ANNEX A.6.

5.7 Field Strength of Spurious Radiation

5.7.1 Limit

FCC § 2.1051 & 22.917(a) & 24.238(a) & 27.53(a) & 27.53(c) & 27.53(f) & 27.53(g) & 27.53(h) & 27.53(l) & 27.53(m) & 27.53(n) & 90.691 & 90.543 & 96.41(e)

RSS-Gen § 6.13 & RSS-130 § 4.7 & RSS-132 § 5.5 & RSS-133 § 6.5 & RSS-139 § 6.6 & RSS-195 § 5.6

& RSS-199 § 5.6 & RSS-140 § 4.4 & RSS-192 § 5.6 & RSS-197 § 5.7

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) & RSS-132 § 5.5 & RSS-133 § 6.5

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(a) (4)

For mobile and portable stations operating in the 2305-2315MHz and 2350-2360MHz bands:

(1)By a factor of not less than: 43 + 10 log (P) dB on all frequencies between 2305 and 2320MHz and on all frequencies between 2345 and 2360MHz that are outside the licensed band(s) of operation, not less than 55 + 10 log (P) dB on all frequencies between 2320 and 2324MHz and on all frequencies between 2341 and 2345MHz, not less than 61 + 10 log (P) dB on all frequencies between 2324 and 2328MHz and on all frequencies between 2337 and 2341MHz, and not less than 67 + 10 log (P) dB on all frequencies between 2328 and 2337MHz.

(2)By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2300 and 2305MHz, 55 + 10 log (P) dB on all frequencies between 2296 and 2300MHz, 61 + 10 log (P) dB on all frequencies between 2292 and 2296MHz, 67 + 10 log (P) dB on all frequencies between 2288 and 2292MHz, and 70 + 10 log (P) dB below 2288MHz.

(3)By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2360 and 2365MHz, and not less than 70 + 10 log (P) dB above 2365MHz.

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;

(3) On all frequencies between 763–775 MHz and 793–805 MHz, by a factor not less than 76 + 10 log (P) dB in a 6.25 kHz band segment, for base and fixed stations;

(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(f)

For operations in the 746–758 MHz, 775–788 MHz, and 805–806 MHz bands, emissions in the band 1559–1610 MHz shall be limited to - 70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

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) & RSS-139 § 6.6

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(l) (2)

For mobile operations in the 3700-3980 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed −13 dBm/MHz.

FCC § 27.53(m) (4) & RSS-199 § 4.5

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

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

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

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

In addition, the attenuation factor shall not be less 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.

FCC § 27.53(n) (2)

For mobile operations in the 3450-3550 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed −13 dBm/MHz.

FCC § 90.691

(a) Out-of-band emission requirement shall apply only to the “outer” channels included in an EA license and to spectrum adjacent to interior channels used by incumbent licensees. The emission limits are as follows:

(1) For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 116 $Log_{10}(f/6.1)$ decibels or 50 + 10 $Log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.

(2) For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 43 + $10Log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz.

(b) When an emission outside of the authorized bandwidth causes harmful interference, the Commission may, at its discretion, require greater attenuation than specified in this section.

FCC § 90.543

(e) For operations in the 758–768 MHz and the 788–798 MHz bands, 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 all frequencies between 769–775 MHz and 799–805 MHz, by a factor not less than 76 + 10 log (P) dB in a 6.25 kHz band segment, for base and fixed stations.

(2) On all frequencies between 769–775 MHz and 799–805 MHz, by a factor not less than 65 + 10 log (P) dB in a 6.25 kHz band segment, for mobile and portable stations.

(3) On any frequency between 775–788 MHz, above 805 MHz, and below 758 MHz, by at least 43 + 10 log (P) dB.

(4) Compliance with the provisions of paragraphs (e)(1) and (2) 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.

(f) For operations in the 758–775 MHz and 788–805 MHz bands, all emissions including harmonics in the band 1559– 1610 MHz shall be limited to -70 dBW/ MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

FCC § 96.41(e)

The conducted power of any emission outside the fundamental emission (whether in or outside of the authorized band) shall not exceed -13 dBm/MHz within 0-10 megahertz above the upper SAS-assigned channel edge and within 0-10 megahertz below the lower SAS-assigned channel edge. At all frequencies greater than 10 megahertz above the upper SAS assigned channel edge and less than 10 MHz below the lower SAS assigned channel edge, the conducted power of any emission shall not exceed-25 dBm/MHz.The conducted power of any emissions below 3530 MHz or above 3720 MHz shall not exceed-40 dBm/MHz.

Compliance with the applicable limits is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater for frequencies less than 1 GHz and 1 MHz or greater for frequencies greater than1GHz.However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolutionbandwidth 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 emission are attenuated at least26 dB below the transmitter power.

RSS-132 § 5.5 & RSS-133 § 6.5

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.

RSS-139 § 6.6

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.

RSS-199 § 5.6

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.

RSS-130 § 4.7

The unwanted emissions in any 100 kHz bandwidth on any frequency outside the low frequency edge and the high frequency edge of each frequency block range(s), shall be attenuated below the transmitter power, P (dBW), by at least 43 + 10Log_{10}(P) (watts), dB. However, in the 100 kHz band immediately outside of the equipment's frequency block range, a resolution bandwidth of 30 kHz may be employed.

In addition to the limit outlined above, equipment operating in the frequency bands 746-756 MHz and 777-787 MHz shall also comply with the following restrictions:

(a) The power of any unwanted emissions in any 6.25 kHz bandwidth for all frequencies between 763-775 MHz and 793-806 MHz shall be attenuated below the transmitter power, P (dBW), by at least:

(i) 76 + 10 log10 p (watts), dB, for base and fixed equipment and

(ii) 65 + 10 log10 p (watts), dB, for mobile and portable equipment

(b) The e.i.r.p. in the band 1559-1610 MHz shall not exceed −70 dBW/MHz for wideband signal and −80 dBW for discrete emission with bandwidth less than 700 Hz.

RSS-195 § 5.6

The power of any emission outside the frequency range(s) in which the equipment operates shall be attenuated below the transmitter power, P (dBW), by the amount indicated in table below and graphically represented in figure below, where p is the transmitter output power measured in watts.

Frequency (MHz)	Attenuation (dB)	Frequency (MHz)	Attenuation (dB)
＜2200	43+10 log_{10} (p)	2324-2328	61+10 log_{10} (p)
2200-2288	70+10 log_{10} (p)	2328-2337	67+10 log_{10} (p)
2288-2292	67+10 log_{10} (p)	2337-2341	61+10 log_{10} (p)

2292-2296	61+10 $\log_{10}$ (p)	2341-2345	55+10 $\log_{10}$ (p)
2296-2300	55+10 $\log_{10}$ (p)	2345-2360	43+10 $\log_{10}$ (p) Note
2300-2305	43+10 $\log_{10}$ (p)	2360-2365	43+10 $\log_{10}$ (p)
2305-2320	43+10 $\log_{10}$ (p)Note	2365-2395	70+10 $\log_{10}$ (p)
2320-2324	55+10 $\log_{10}$ (p)	＞2395	43+10 $\log_{10}$ (p)
Note: Measured at the edges of the highest and lowest frequency range(s) in which the equipment is designed to operate. See section 5.2 for the permitted frequency ranges for various equipment types.			

RSS-140 § 4.4

The power of any unwanted emission outside the bands 758-768 MHz and 788-798 MHz shall be attenuated below the transmitter output power P in dBW as follows, where p is the transmitter output power in watts:

For any frequency between 769-775 MHz and 799-806 MHz:

76 + 10 log (p), dB in a 6.25 kHz band for fixed and base station equipment

65 + 10 log (p), dB in a 6.25 kHz band for mobile and portable/hand-held equipment

For any frequency between 775-788 MHz, above 806 MHz, and below 758 MHz: 43 + 10 log (p), dB in a bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency bands 758-768 MHz and 788-798 MHz, a resolution bandwidth of 30 kHz may be employed.

In addition, the equivalent isotropically radiated power (e.i.r.p.) of all emissions, including harmonics in the band 1559-1610 MHz, shall not exceed −70 dBW/MHz for wideband emissions, and −80 dBW/kHz for discrete emissions of less than 700 Hz bandwidth.

RSS-192 § 5.6.3

For the unwanted emissions shall not exceed:

wSubscriber equipment shall have the TRP or conducted power (per antenna), where applicable, of unwanted emission not exceeding the following:

e. the limits in table below

f. a limit of -30 dBm/MHz in the frequency range greater than (B+5) MHz from the edge of the frequency band

Frequency block group (B)	Offset frequency from the edge of the frequency block group (MHz)			
	0-1	1-5	5-B	>B
10 MHz, 20MHz, 30 MHz and 40 MHz	-13 dBm/1% of B	-10 dBm/MHz	-13 dBm/MHz	-25 dBm/MHz

> 40 MHz	-13 dBm/400 kHz	-10 dBm/MHz	-13 dBm/MHz	-25 dBm/MHz

RSS-197 § 5.7

The unwanted emissions shall be measured at the frequencies of the highest and lowest channel of all bandwidths and types of modulation that the equipment can operate with a resolution bandwidth of 1 MHz or less, but at least 1% of the occupied bandwidth of the transmitter, provided that the measured power is integrated over a 1 MHz bandwidth.

The power of any emissions outside the frequency band 3650-3700 MHz shall be attenuated below the channel transmitter power P (dBW) by 43 + 10 Log (p), where p is measured in watts.

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

5.7.4 Test Result

Please refer to ANNEX A.7.

5.8 End user device additional requirements

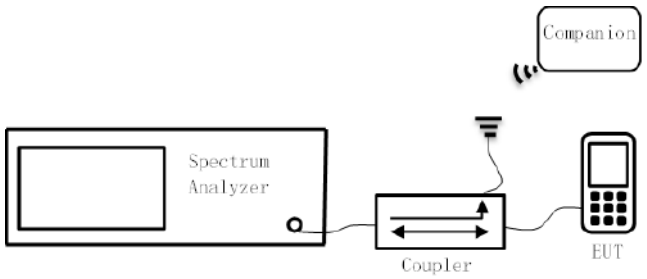
5.8.1 Limit

FCC § 96.47

(a)End User Devices may operate only if they can positively receive and decode an authorization signal transmitted by a CBSD, including the frequencies and power limits for their operation.

(1)An End User Device must discontinue operations, change frequencies, or change its operational power level within 10 seconds of receiving instructions from its associated CBSD.

5.8.2 Test Setup



5.8.3 Test Procedure

Following procedure can be done by applying WINNF-TS-0122-V1.0.2 CBRS CBSD Test Specification, use the certified Ruckus CBSD (FCC ID: S9GQ710USO2) as companion device to show compliance with Part 96.47requirement for End User Device(EUD):

1. Setup with frequency 3600-3620MHz and power level 17dBm/MHz

2. Enable AP service from Ruckus Cloud management

3. Check EUD Tx Frequency and power

4. Disable AP service from Ruckus Cloud management

    a. Check EUD stops transmission within 10seconds.

5. Setup with 3670-3690MHz & power level 7dBm/MHz

6. Enable AP service from Ruckus Cloud management

7. Check EUD Tx Frequency and power

8. Disable AP service from Ruckus Cloud management

    a. Check EUD stops transmission within 10seconds.

5.8.4 Test Result

Please refer to ANNEX A.8.

5.9 Receiver Spurious Emissions

5.9.1 Limit

RSS-Gen § 7.3/4 & RSS-133 § 6.6 & RSS-197 § 5.8

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

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

Receiver Radiated Limits

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

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

Table 2 –Receiver radiated emissions limits

Frequency (MHz)	Field Strength (μV/m at 3 metres)
30 - 88	100
88 - 216	150
216 - 960	200
Above 960	500

Receiver Conducted Limits

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

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

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

5.9.2 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.

5.9.3 Test Procedure

The test employing the methods of measurement described in the publication referenced in Section 3(b) (ANSI C63.4);

All Spurious Emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

An initial pre-scan was performed in the chamber using the EMI Receiver in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by Bi-Log antenna with 2 orthogonal polarities.

5.9.4 Test Result

Please refer to ANNEX A.9.

5.10 AC Power-line Conducted Emissions

5.10.1 Limit

RSS-Gen § 8.8

For AC power-line conducted emissions, both quasi-peak and average detectors having the characteristics specified in CAN/CSA-CISPR 16-1-1:15 for the 150 kHz to 30 MHz frequency range shall be employed.

Unless stated otherwise in the applicable RSS, for radio apparatus that are designed to be connected to the public utility AC power network, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the range 150 kHz to 30 MHz shall not exceed the limits in table 3, as measured using a 50 μH / 50 Ω line impedance stabilization network. This requirement applies for the radio frequency voltage measured between each power line and the ground terminal of each AC power-line mains cable of the EUT.

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

Table 3 –AC power-line conducted emissions limits

Frequency (MHz)	Conducted limit (dBμV)	
	Quasi-peak	Average
0.15 - 0.5	66 to 56[Note1]	56 to 46 [Note1]
0.5 - 5	56	46
5 - 30	60	50

Note 1: The level decreases linearly with the logarithm of the frequency.

5.10.2 Test Setup

The section 4.4.5 (Diagram 5) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.10.3 Test Procedure

The test employing the methods of measurement described in the publication referenced in Section 3(b) (ANSI C63.4);

The EUT is connected to the power mains through a LISN which provides 50 Ω/50 μH of coupling impedance for the measuring instrument. The test frequency range is from 150 kHz to 30 MHz. The maximum conducted interference is searched using Peak (PK), Quasi-peak (QP) and Average (AV) detectors; the emission levels that are more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed.

Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 50/60 Hz and 240 VAC, 50/60 Hz) for which the device is capable of operation. A device rated for 50/60 Hz operation need not be tested at both frequencies provided the radiated and line conducted emissions are the same at both frequencies.

5.10.4 Test Result

Please refer to ANNEX A.10.

ANNEX A TEST RESULTS

Note: By verifying the maximum output power of all frequency bands, only the frequency band with the highest power was tested in different frequency bands within the same frequency range. And other frequency bands were only tested for maximum output power and occupied bandwidth.
In this report, the frequency bands related to 814MHz-824MHz include Band 18/26, and the frequency bands related to 824MHz-849MHz include Band 5/18/19/26.

A.1 Transmitter Radiated Power (EIRP/ERP)

LTE-M1 Mode Test Data

Test BW	Test Channel	Test Mode	Test RB (Size#Offset#)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (W)	Limit (W)	Verdict
LTE-M1 BAND2									
1.4 MHz	LCH	QPSK	RB1#0	22.2	2	24.20	0.263	2.00	Pass
			RB6#0	22.15	2	24.15	0.260	2.00	Pass
		16-QAM	RB1#0	21.94	2	23.94	0.248	2.00	Pass
			RB5#0	21.81	2	23.81	0.240	2.00	Pass
	MCH	QPSK	RB1#0	22.53	2	24.53	0.284	2.00	Pass
			RB6#0	22.5	2	24.50	0.282	2.00	Pass
		16-QAM	RB1#0	22.07	2	24.07	0.255	2.00	Pass
			RB5#0	22.06	2	24.06	0.255	2.00	Pass
	HCH	QPSK	RB1#0	22.36	2	24.36	0.273	2.00	Pass
			RB6#0	22.36	2	24.36	0.273	2.00	Pass
		16-QAM	RB1#0	22.12	2	24.12	0.258	2.00	Pass
			RB5#0	22.04	2	24.04	0.254	2.00	Pass
3 MHz	LCH	QPSK	RB1#0	22.18	2	24.18	0.262	2.00	Pass
			RB6#0	22.08	2	24.08	0.256	2.00	Pass
		16-QAM	RB1#0	22.34	2	24.34	0.272	2.00	Pass
			RB5#0	21.94	2	23.94	0.248	2.00	Pass
	MCH	QPSK	RB1#0	22.48	2	24.48	0.281	2.00	Pass
			RB6#0	22.44	2	24.44	0.278	2.00	Pass
		16-QAM	RB1#0	22.21	2	24.21	0.264	2.00	Pass
			RB5#0	22.12	2	24.12	0.258	2.00	Pass
	HCH	QPSK	RB1#0	22.37	2	24.37	0.274	2.00	Pass
			RB6#0	22.31	2	24.31	0.270	2.00	Pass
		16-QAM	RB1#0	22.12	2	24.12	0.258	2.00	Pass
			RB5#0	22.21	2	24.21	0.264	2.00	Pass
5 MHz	LCH	QPSK	RB1#0	22.04	2	24.04	0.254	2.00	Pass
			RB6#0	22.13	2	24.13	0.259	2.00	Pass
		16-QAM	RB1#0	22.09	2	24.09	0.256	2.00	Pass

Test BW	Test Channel	Test Mode	Test RB (Size#Offset#)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (W)	Limit (W)	Verdict
LTE-M1 BAND2									
			RB5#0	22.08	2	24.08	0.256	2.00	Pass
	MCH	QPSK	RB1#0	22.32	2	24.32	0.270	2.00	Pass
			RB6#0	22.4	2	24.40	0.275	2.00	Pass
		16-QAM	RB1#0	22.18	2	24.18	0.262	2.00	Pass
			RB5#0	22.3	2	24.30	0.269	2.00	Pass
	HCH	QPSK	RB1#0	22.28	2	24.28	0.268	2.00	Pass
			RB6#0	22.07	2	24.07	0.255	2.00	Pass
		16-QAM	RB1#0	22.29	2	24.29	0.269	2.00	Pass
			RB5#0	22.18	2	24.18	0.262	2.00	Pass
10 MHz	LCH	QPSK	RB1#0	22.16	2	24.16	0.261	2.00	Pass
			RB6#0	22.17	2	24.17	0.261	2.00	Pass
		16-QAM	RB1#0	22.16	2	24.16	0.261	2.00	Pass
			RB5#0	22.15	2	24.15	0.260	2.00	Pass
	MCH	QPSK	RB1#0	22.33	2	24.33	0.271	2.00	Pass
			RB6#0	22.41	2	24.41	0.276	2.00	Pass
		16-QAM	RB1#0	22.4	2	24.40	0.275	2.00	Pass
			RB5#0	22.37	2	24.37	0.274	2.00	Pass
	HCH	QPSK	RB1#0	22.13	2	24.13	0.259	2.00	Pass
			RB6#0	22.29	2	24.29	0.269	2.00	Pass
		16-QAM	RB1#0	22.14	2	24.14	0.259	2.00	Pass
			RB5#0	22.31	2	24.31	0.270	2.00	Pass
15 MHz	LCH	QPSK	RB1#0	22.23	2	24.23	0.265	2.00	Pass
			RB6#0	22.22	2	24.22	0.264	2.00	Pass
		16-QAM	RB1#0	22.12	2	24.12	0.258	2.00	Pass
			RB5#0	22.03	2	24.03	0.253	2.00	Pass
	MCH	QPSK	RB1#0	22.49	2	24.49	0.281	2.00	Pass
			RB6#0	22.45	2	24.45	0.279	2.00	Pass
		16-QAM	RB1#0	22.34	2	24.34	0.272	2.00	Pass
			RB5#0	22.38	2	24.38	0.274	2.00	Pass
	HCH	QPSK	RB1#0	22.37	2	24.37	0.274	2.00	Pass
			RB6#0	22.45	2	24.45	0.279	2.00	Pass
		16-QAM	RB1#0	22.43	2	24.43	0.277	2.00	Pass
			RB5#0	22.53	2	24.53	0.284	2.00	Pass
20 MHz	LCH	QPSK	RB1#0	22.2	2	24.20	0.263	2.00	Pass
			RB6#0	22.19	2	24.19	0.262	2.00	Pass
		16-QAM	RB1#0	22.26	2	24.26	0.267	2.00	Pass
			RB5#0	22.1	2	24.10	0.257	2.00	Pass
	MCH	QPSK	RB1#0	22.49	2	24.49	0.281	2.00	Pass

Test BW	Test Channel	Test Mode	Test RB (Size#Offset#)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (W)	Limit (W)	Verdict
LTE-M1 BAND2									
			RB6#0	22.49	2	24.49	0.281	2.00	Pass
		16-QAM	RB1#0	22.46	2	24.46	0.279	2.00	Pass
			RB5#0	22.32	2	24.32	0.270	2.00	Pass
	HCH	QPSK	RB1#0	22.36	2	24.36	0.273	2.00	Pass
			RB6#0	22.55	2	24.55	0.285	2.00	Pass
		16-QAM	RB1#0	22.17	2	24.17	0.261	2.00	Pass
			RB5#0	22.33	2	24.33	0.271	2.00	Pass

Test BW	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (W)	Limit (W)	Verdict
LTE-M1 BAND4									
1.4 MHz	LCH	QPSK	RB1#0	21.7	2	23.70	0.234	1.00	Pass
			RB6#0	21.5	2	23.50	0.224	1.00	Pass
		16-QAM	RB1#0	21.47	2	23.47	0.222	1.00	Pass
			RB5#0	21.43	2	23.43	0.220	1.00	Pass
	MCH	QPSK	RB1#0	21.52	2	23.52	0.225	1.00	Pass
			RB6#0	21.55	2	23.55	0.226	1.00	Pass
		16-QAM	RB1#0	21.39	2	23.39	0.218	1.00	Pass
			RB5#0	21.49	2	23.49	0.223	1.00	Pass
	HCH	QPSK	RB1#0	21.40	2	23.40	0.219	1.00	Pass
			RB6#0	21.48	2	23.48	0.223	1.00	Pass
		16-QAM	RB1#0	21.83	2	23.83	0.242	1.00	Pass
			RB5#0	21.69	2	23.69	0.234	1.00	Pass
3 MHz	LCH	QPSK	RB1#0	21.73	2	23.73	0.236	1.00	Pass
			RB6#0	21.78	2	23.78	0.239	1.00	Pass
		16-QAM	RB1#0	21.64	2	23.64	0.231	1.00	Pass
			RB5#0	21.56	2	23.56	0.227	1.00	Pass
	MCH	QPSK	RB1#0	21.55	2	23.55	0.226	1.00	Pass
			RB6#0	21.64	2	23.64	0.231	1.00	Pass
		16-QAM	RB1#0	21.35	2	23.35	0.216	1.00	Pass
			RB5#0	21.14	2	23.14	0.206	1.00	Pass
	HCH	QPSK	RB1#0	21.45	2	23.45	0.221	1.00	Pass
			RB6#0	21.6	2	23.60	0.229	1.00	Pass
		16-QAM	RB1#0	21.38	2	23.38	0.218	1.00	Pass
			RB5#0	21.49	2	23.49	0.223	1.00	Pass
5 MHz	LCH	QPSK	RB1#0	21.48	2	23.48	0.223	1.00	Pass
			RB6#0	21.73	2	23.73	0.236	1.00	Pass
		16-QAM	RB1#0	21.96	2	23.96	0.249	1.00	Pass
			RB5#0	21.45	2	23.45	0.221	1.00	Pass
	MCH	QPSK	RB1#0	21.55	2	23.55	0.226	1.00	Pass
			RB6#0	21.55	2	23.55	0.226	1.00	Pass
		16-QAM	RB1#0	21.74	2	23.74	0.237	1.00	Pass
			RB5#0	21.44	2	23.44	0.221	1.00	Pass
	HCH	QPSK	RB1#0	21.69	2	23.69	0.234	1.00	Pass
			RB6#0	21.47	2	23.47	0.222	1.00	Pass
		16-QAM	RB1#0	21.69	2	23.69	0.234	1.00	Pass
			RB5#0	21.38	2	23.38	0.218	1.00	Pass
10 MHz	LCH	QPSK	RB1#0	21.52	2	23.52	0.225	1.00	Pass

Test BW	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (W)	Limit (W)	Verdict
LTE-M1 BAND4									
			RB6#0	21.44	2	23.44	0.221	1.00	Pass
		16-QAM	RB1#0	21.67	2	23.67	0.233	1.00	Pass
			RB5#0	21.36	2	23.36	0.217	1.00	Pass
	MCH	QPSK	RB1#0	21.47	2	23.47	0.222	1.00	Pass
			RB6#0	21.40	2	23.40	0.219	1.00	Pass
		16-QAM	RB1#0	21.63	2	23.63	0.231	1.00	Pass
			RB5#0	21.33	2	23.33	0.215	1.00	Pass
	HCH	QPSK	RB1#0	21.49	2	23.49	0.223	1.00	Pass
			RB6#0	21.44	2	23.44	0.221	1.00	Pass
		16-QAM	RB1#0	21.68	2	23.68	0.233	1.00	Pass
			RB5#0	21.37	2	23.37	0.217	1.00	Pass
15 MHz	LCH	QPSK	RB1#0	21.48	2	23.48	0.223	1.00	Pass
			RB6#0	21.42	2	23.42	0.220	1.00	Pass
		16-QAM	RB1#0	21.66	2	23.66	0.232	1.00	Pass
			RB5#0	21.44	2	23.44	0.221	1.00	Pass
	MCH	QPSK	RB1#0	21.42	2	23.42	0.220	1.00	Pass
			RB6#0	21.38	2	23.38	0.218	1.00	Pass
		16-QAM	RB1#0	21.72	2	23.72	0.236	1.00	Pass
			RB5#0	21.40	2	23.40	0.219	1.00	Pass
	HCH	QPSK	RB1#0	21.38	2	23.38	0.218	1.00	Pass
			RB6#0	21.35	2	23.35	0.216	1.00	Pass
		16-QAM	RB1#0	21.57	2	23.57	0.228	1.00	Pass
			RB5#0	21.27	2	23.27	0.212	1.00	Pass
20 MHz	LCH	QPSK	RB1#0	21.65	2	23.65	0.232	1.00	Pass
			RB6#0	21.84	2	23.84	0.242	1.00	Pass
		16-QAM	RB1#0	21.76	2	23.76	0.238	1.00	Pass
			RB5#0	21.62	2	23.62	0.230	1.00	Pass
	MCH	QPSK	RB1#0	21.50	2	23.50	0.224	1.00	Pass
			RB6#0	21.45	2	23.45	0.221	1.00	Pass
		16-QAM	RB1#0	21.67	2	23.67	0.233	1.00	Pass
			RB5#0	21.37	2	23.37	0.217	1.00	Pass
	HCH	QPSK	RB1#0	21.34	2	23.34	0.216	1.00	Pass
			RB6#0	21.36	2	23.36	0.217	1.00	Pass
		16-QAM	RB1#0	21.54	2	23.54	0.226	1.00	Pass
			RB5#0	21.34	2	23.34	0.216	1.00	Pass

Test BW	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	Antenna Gain (dBd)	ERP (dBm)	ERP (W)	Limit (W)	Verdict
LTE-M1 BAND5										
1.4 MHz	LCH	QPSK	RB1#0	22.38	2	-0.15	22.23	0.167	7.00	Pass
			RB6#0	22.46	2	-0.15	22.31	0.170	7.00	Pass
		16-QAM	RB1#0	22.55	2	-0.15	22.40	0.174	7.00	Pass
			RB5#0	22.46	2	-0.15	22.31	0.170	7.00	Pass
	MCH	QPSK	RB1#0	22.45	2	-0.15	22.30	0.170	7.00	Pass
			RB6#0	22.49	2	-0.15	22.34	0.171	7.00	Pass
		16-QAM	RB1#0	22.59	2	-0.15	22.44	0.175	7.00	Pass
			RB5#0	22.38	2	-0.15	22.23	0.167	7.00	Pass
	HCH	QPSK	RB1#0	22.34	2	-0.15	22.19	0.166	7.00	Pass
			RB6#0	22.46	2	-0.15	22.31	0.170	7.00	Pass
		16-QAM	RB1#0	22.44	2	-0.15	22.29	0.169	7.00	Pass
			RB5#0	22.33	2	-0.15	22.18	0.165	7.00	Pass
3 MHz	LCH	QPSK	RB1#0	22.38	2	-0.15	22.23	0.167	7.00	Pass
			RB6#0	22.37	2	-0.15	22.22	0.167	7.00	Pass
		16-QAM	RB1#0	22.41	2	-0.15	22.26	0.168	7.00	Pass
			RB5#0	22.39	2	-0.15	22.24	0.167	7.00	Pass
	MCH	QPSK	RB1#0	22.59	2	-0.15	22.44	0.175	7.00	Pass
			RB6#0	22.54	2	-0.15	22.39	0.173	7.00	Pass
		16-QAM	RB1#0	22.58	2	-0.15	22.43	0.175	7.00	Pass
			RB5#0	22.53	2	-0.15	22.38	0.173	7.00	Pass
	HCH	QPSK	RB1#0	22.43	2	-0.15	22.28	0.169	7.00	Pass
			RB6#0	22.41	2	-0.15	22.26	0.168	7.00	Pass
		16-QAM	RB1#0	22.42	2	-0.15	22.27	0.169	7.00	Pass
			RB5#0	22.43	2	-0.15	22.28	0.169	7.00	Pass
5 MHz	LCH	QPSK	RB1#0	22.44	2	-0.15	22.29	0.169	7.00	Pass
			RB6#0	22.45	2	-0.15	22.30	0.170	7.00	Pass
		16-QAM	RB1#0	22.47	2	-0.15	22.32	0.171	7.00	Pass
			RB5#0	22.48	2	-0.15	22.33	0.171	7.00	Pass
	MCH	QPSK	RB1#0	22.57	2	-0.15	22.42	0.175	7.00	Pass
			RB6#0	22.51	2	-0.15	22.36	0.172	7.00	Pass
		16-QAM	RB1#0	22.52	2	-0.15	22.37	0.173	7.00	Pass
			RB5#0	22.58	2	-0.15	22.43	0.175	7.00	Pass
	HCH	QPSK	RB1#0	22.42	2	-0.15	22.27	0.169	7.00	Pass
			RB6#0	22.43	2	-0.15	22.28	0.169	7.00	Pass
		16-QAM	RB1#0	22.44	2	-0.15	22.29	0.169	7.00	Pass
			RB5#0	22.43	2	-0.15	22.28	0.169	7.00	Pass
10 MHz	LCH	QPSK	RB1#0	22.47	2	-0.15	22.32	0.171	7.00	Pass

Test BW	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	Antenna Gain (dBd)	ERP (dBm)	ERP (W)	Limit (W)	Verdict
LTE-M1 BAND5										
			RB6#0	22.46	2	-0.15	22.31	0.170	7.00	Pass
		16-QAM	RB1#0	22.44	2	-0.15	22.29	0.169	7.00	Pass
			RB5#0	22.45	2	-0.15	22.30	0.170	7.00	Pass
	MCH	QPSK	RB1#0	22.47	2	-0.15	22.32	0.171	7.00	Pass
			RB6#0	22.63	2	-0.15	22.48	0.177	7.00	Pass
		16-QAM	RB1#0	22.46	2	-0.15	22.31	0.170	7.00	Pass
			RB5#0	22.62	2	-0.15	22.47	0.177	7.00	Pass
	HCH	QPSK	RB1#0	22.55	2	-0.15	22.40	0.174	7.00	Pass
			RB6#0	22.45	2	-0.15	22.30	0.170	7.00	Pass
		16-QAM	RB1#0	22.44	2	-0.15	22.29	0.169	7.00	Pass
			RB5#0	22.55	2	-0.15	22.40	0.174	7.00	Pass

Test BW	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	Antenna Gain (dBd)	ERP (dBm)	ERP (W)	Limit (W)	Verdict
LTE-M1 BAND12										
1.4 MHz	LCH	QPSK	RB1#0	24.52	2	-0.15	24.37	0.274	3.00	Pass
			RB6#0	24.46	2	-0.15	24.31	0.270	3.00	Pass
		16-QAM	RB1#0	24.56	2	-0.15	24.41	0.276	3.00	Pass
			RB5#0	24.29	2	-0.15	24.14	0.259	3.00	Pass
	MCH	QPSK	RB1#0	24.24	2	-0.15	24.09	0.256	3.00	Pass
			RB6#0	24.15	2	-0.15	24.00	0.251	3.00	Pass
		16-QAM	RB1#0	24.32	2	-0.15	24.17	0.261	3.00	Pass
			RB5#0	24.08	2	-0.15	23.93	0.247	3.00	Pass
	HCH	QPSK	RB1#0	23.91	2	-0.15	23.76	0.238	3.00	Pass
			RB6#0	23.87	2	-0.15	23.72	0.236	3.00	Pass
		16-QAM	RB1#0	24.02	2	-0.15	23.87	0.244	3.00	Pass
			RB5#0	23.71	2	-0.15	23.56	0.227	3.00	Pass
3 MHz	LCH	QPSK	RB1#0	24.43	2	-0.15	24.28	0.268	3.00	Pass
			RB6#0	24.38	2	-0.15	24.23	0.265	3.00	Pass
		16-QAM	RB1#0	24.52	2	-0.15	24.37	0.274	3.00	Pass
			RB5#0	24.26	2	-0.15	24.11	0.258	3.00	Pass
	MCH	QPSK	RB1#0	24.19	2	-0.15	24.04	0.254	3.00	Pass
			RB6#0	24.11	2	-0.15	23.96	0.249	3.00	Pass
		16-QAM	RB1#0	24.27	2	-0.15	24.12	0.258	3.00	Pass
			RB5#0	24.02	2	-0.15	23.87	0.244	3.00	Pass
	HCH	QPSK	RB1#0	24.08	2	-0.15	23.93	0.247	3.00	Pass
			RB6#0	24.01	2	-0.15	23.86	0.243	3.00	Pass
		16-QAM	RB1#0	24.17	2	-0.15	24.02	0.252	3.00	Pass
			RB5#0	23.84	2	-0.15	23.69	0.234	3.00	Pass
5 MHz	LCH	QPSK	RB1#0	24.44	2	-0.15	24.29	0.269	3.00	Pass
			RB6#0	24.25	2	-0.15	24.10	0.257	3.00	Pass
		16-QAM	RB1#0	24.43	2	-0.15	24.28	0.268	3.00	Pass
			RB5#0	24.23	2	-0.15	24.08	0.256	3.00	Pass
	MCH	QPSK	RB1#0	24.08	2	-0.15	23.93	0.247	3.00	Pass
			RB6#0	24.15	2	-0.15	24.00	0.251	3.00	Pass
		16-QAM	RB1#0	24.09	2	-0.15	23.94	0.248	3.00	Pass
			RB5#0	24.16	2	-0.15	24.01	0.252	3.00	Pass
	HCH	QPSK	RB1#0	23.85	2	-0.15	23.70	0.234	3.00	Pass
			RB6#0	24.01	2	-0.15	23.86	0.243	3.00	Pass
		16-QAM	RB1#0	23.84	2	-0.15	23.69	0.234	3.00	Pass
			RB5#0	24.01	2	-0.15	23.86	0.243	3.00	Pass
10 MHz	LCH	QPSK	RB1#0	24.32	2	-0.15	24.17	0.261	3.00	Pass

Test BW	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	Antenna Gain (dBd)	ERP (dBm)	ERP (W)	Limit (W)	Verdict
LTE-M1 BAND12										
			RB6#0	24.31	2	-0.15	24.16	0.261	3.00	Pass
		16-QAM	RB1#0	24.12	2	-0.15	23.97	0.249	3.00	Pass
			RB5#0	24.29	2	-0.15	24.14	0.259	3.00	Pass
	MCH	QPSK	RB1#0	24.06	2	-0.15	23.91	0.246	3.00	Pass
			RB6#0	24.21	2	-0.15	24.06	0.255	3.00	Pass
		16-QAM	RB1#0	24.22	2	-0.15	24.07	0.255	3.00	Pass
			RB5#0	24.12	2	-0.15	23.97	0.249	3.00	Pass
	HCH	QPSK	RB1#0	23.99	2	-0.15	23.84	0.242	3.00	Pass
			RB6#0	24.19	2	-0.15	24.04	0.254	3.00	Pass
		16-QAM	RB1#0	24.18	2	-0.15	24.03	0.253	3.00	Pass
			RB5#0	24.19	2	-0.15	24.04	0.254	3.00	Pass

Test BW	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	Antenna Gain (dBd)	ERP (dBm)	ERP (W)	Limit (W)	Verdict
LTE-M1 BAND13										
5 MHz	LCH	QPSK	RB1#0	22.97	2	-0.15	22.82	0.191	3.00	Pass
			RB6#0	22.88	2	-0.15	22.73	0.187	3.00	Pass
		16-QAM	RB1#0	22.87	2	-0.15	22.72	0.187	3.00	Pass
			RB5#0	22.97	2	-0.15	22.82	0.191	3.00	Pass
	MCH	QPSK	RB1#0	22.75	2	-0.15	22.60	0.182	3.00	Pass
			RB6#0	22.64	2	-0.15	22.49	0.177	3.00	Pass
		16-QAM	RB1#0	22.84	2	-0.15	22.69	0.186	3.00	Pass
			RB5#0	22.74	2	-0.15	22.59	0.182	3.00	Pass
	HCH	QPSK	RB1#0	22.82	2	-0.15	22.67	0.185	3.00	Pass
			RB6#0	22.81	2	-0.15	22.66	0.185	3.00	Pass
		16-QAM	RB1#0	22.83	2	-0.15	22.68	0.185	3.00	Pass
			RB5#0	22.91	2	-0.15	22.76	0.189	3.00	Pass
10 MHz	MCH	QPSK	RB1#0	22.71	2	-0.15	22.56	0.180	3.00	Pass
			RB6#0	22.84	2	-0.15	22.69	0.186	3.00	Pass
		16-QAM	RB1#0	22.75	2	-0.15	22.60	0.182	3.00	Pass
			RB5#0	22.61	2	-0.15	22.46	0.176	3.00	Pass

Test BW	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	Antenna Gain (dBd)	ERP (dBm)	ERP (W)	Limit (W)	Verdict
LTE-M1 BAND14										
5 MHz	LCH	QPSK	RB1#0	22.68	2	-0.15	22.53	0.179	3.00	Pass
			RB6#0	22.61	2	-0.15	22.46	0.176	3.00	Pass
		16-QAM	RB1#0	22.67	2	-0.15	22.52	0.179	3.00	Pass
			RB5#0	22.66	2	-0.15	22.51	0.178	3.00	Pass
	MCH	QPSK	RB1#0	22.61	2	-0.15	22.46	0.176	3.00	Pass
			RB6#0	22.59	2	-0.15	22.44	0.175	3.00	Pass
		16-QAM	RB1#0	22.8	2	-0.15	22.65	0.184	3.00	Pass
			RB5#0	22.59	2	-0.15	22.44	0.175	3.00	Pass
	HCH	QPSK	RB1#0	22.61	2	-0.15	22.46	0.176	3.00	Pass
			RB6#0	22.65	2	-0.15	22.50	0.178	3.00	Pass
		16-QAM	RB1#0	22.65	2	-0.15	22.50	0.178	3.00	Pass
			RB5#0	22.67	2	-0.15	22.52	0.179	3.00	Pass
10 MHz	MCH	QPSK	RB1#0	22.59	2	-0.15	22.44	0.175	3.00	Pass
			RB6#0	22.58	2	-0.15	22.43	0.175	3.00	Pass
		16-QAM	RB1#0	22.64	2	-0.15	22.49	0.177	3.00	Pass
			RB5#0	22.61	2	-0.15	22.46	0.176	3.00	Pass

Test BW	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	Antenna Gain (dBd)	ERP (dBm)	ERP (W)	Limit (W)	Verdict
LTE-M1 BAND17										
5MHz	LCH	QPSK	RB1#0	24.07	2	-0.15	23.92	0.247	3.00	Pass
			RB6#0	24.22	2	-0.15	24.07	0.255	3.00	Pass
		16-QAM	RB1#0	24.21	2	-0.15	24.06	0.255	3.00	Pass
			RB5#0	24.03	2	-0.15	23.88	0.244	3.00	Pass
	MCH	QPSK	RB1#0	24.09	2	-0.15	23.94	0.248	3.00	Pass
			RB6#0	24.08	2	-0.15	23.93	0.247	3.00	Pass
		16-QAM	RB1#0	23.92	2	-0.15	23.77	0.238	3.00	Pass
			RB5#0	23.93	2	-0.15	23.78	0.239	3.00	Pass
	HCH	QPSK	RB1#0	23.79	2	-0.15	23.64	0.231	3.00	Pass
			RB6#0	23.97	2	-0.15	23.82	0.241	3.00	Pass
		16-QAM	RB1#0	23.96	2	-0.15	23.81	0.240	3.00	Pass
			RB5#0	23.95	2	-0.15	23.80	0.240	3.00	Pass
10 MHz	LCH	QPSK	RB1#0	24.02	2	-0.15	23.87	0.244	3.00	Pass
			RB6#0	24.21	2	-0.15	24.06	0.255	3.00	Pass
		16-QAM	RB1#0	24.05	2	-0.15	23.90	0.245	3.00	Pass
			RB5#0	24.11	2	-0.15	23.96	0.249	3.00	Pass
	MCH	QPSK	RB1#0	23.85	2	-0.15	23.70	0.234	3.00	Pass
			RB6#0	24.16	2	-0.15	24.01	0.252	3.00	Pass
		16-QAM	RB1#0	23.84	2	-0.15	23.69	0.234	3.00	Pass
			RB5#0	24.15	2	-0.15	24.00	0.251	3.00	Pass
	HCH	QPSK	RB1#0	24.05	2	-0.15	23.90	0.245	3.00	Pass
			RB6#0	23.86	2	-0.15	23.71	0.235	3.00	Pass
		16-QAM	RB1#0	24.06	2	-0.15	23.91	0.246	3.00	Pass
			RB5#0	23.87	2	-0.15	23.72	0.236	3.00	Pass

Test BW	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	Antenna Gain (dBd)	ERP (dBm)	ERP (W)	Limit (W)	Verdict
LTE-M1 BAND18(815-824 MHz)										
5 MHz	LCH	QPSK	RB1#0	22.28	2	-0.15	22.13	0.163	100	Pass
			RB6#0	22.37	2	-0.15	22.22	0.167	100	Pass
		16-QAM	RB1#0	22.32	2	-0.15	22.17	0.165	100	Pass
			RB5#0	22.34	2	-0.15	22.19	0.166	100	Pass
	MCH	QPSK	RB1#0	22.33	2	-0.15	22.18	0.165	100	Pass
			RB6#0	22.31	2	-0.15	22.16	0.164	100	Pass
		16-QAM	RB1#0	22.27	2	-0.15	22.12	0.163	100	Pass
			RB5#0	22.24	2	-0.15	22.09	0.162	100	Pass
	HCH	QPSK	RB1#0	22.36	2	-0.15	22.21	0.166	100	Pass
			RB6#0	22.37	2	-0.15	22.22	0.167	100	Pass
		16-QAM	RB1#0	22.35	2	-0.15	22.20	0.166	100	Pass
			RB5#0	22.36	2	-0.15	22.21	0.166	100	Pass

Test BW	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	Antenna Gain (dBd)	ERP (dBm)	ERP (W)	Limit (W)	Verdict
LTE-M1 BAND18(824-830 MHz)										
5 MHz	LCH	QPSK	RB1#0	22.43	2	-0.15	22.28	0.169	7.00	Pass
			RB6#0	22.45	2	-0.15	22.30	0.170	7.00	Pass
		16-QAM	RB1#0	22.46	2	-0.15	22.31	0.170	7.00	Pass
			RB5#0	22.43	2	-0.15	22.28	0.169	7.00	Pass
	MCH	QPSK	RB1#0	22.48	2	-0.15	22.33	0.171	7.00	Pass
			RB6#0	22.35	2	-0.15	22.20	0.166	7.00	Pass
		16-QAM	RB1#0	22.44	2	-0.15	22.29	0.169	7.00	Pass
			RB5#0	22.46	2	-0.15	22.31	0.170	7.00	Pass
	HCH	QPSK	RB1#0	22.42	2	-0.15	22.27	0.169	7.00	Pass
			RB6#0	22.37	2	-0.15	22.22	0.167	7.00	Pass
		16-QAM	RB1#0	22.36	2	-0.15	22.21	0.166	7.00	Pass
			RB5#0	22.42	2	-0.15	22.27	0.169	7.00	Pass

Test BW	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	Antenna Gain (dBd)	ERP (dBm)	ERP (W)	Limit (W)	Verdict
LTE-M1 BAND19										
5MHz	LCH	QPSK	RB1#0	22.37	2	-0.15	22.22	0.167	7.00	Pass
			RB6#0	22.28	2	-0.15	22.13	0.163	7.00	Pass
		16-QAM	RB1#0	22.27	2	-0.15	22.12	0.163	7.00	Pass
			RB5#0	22.36	2	-0.15	22.21	0.166	7.00	Pass
	MCH	QPSK	RB1#0	22.41	2	-0.15	22.26	0.168	7.00	Pass
			RB6#0	22.4	2	-0.15	22.25	0.168	7.00	Pass
		16-QAM	RB1#0	22.36	2	-0.15	22.21	0.166	7.00	Pass
			RB5#0	22.42	2	-0.15	22.27	0.169	7.00	Pass
	HCH	QPSK	RB1#0	22.39	2	-0.15	22.24	0.167	7.00	Pass
			RB6#0	22.34	2	-0.15	22.19	0.166	7.00	Pass
		16-QAM	RB1#0	22.33	2	-0.15	22.18	0.165	7.00	Pass
			RB5#0	22.39	2	-0.15	22.24	0.167	7.00	Pass
10 MHz	LCH	QPSK	RB1#0	22.44	2	-0.15	22.29	0.169	7.00	Pass
			RB6#0	22.43	2	-0.15	22.28	0.169	7.00	Pass
		16-QAM	RB1#0	22.4	2	-0.15	22.25	0.168	7.00	Pass
			RB5#0	22.37	2	-0.15	22.22	0.167	7.00	Pass
	MCH	QPSK	RB1#0	22.31	2	-0.15	22.16	0.164	7.00	Pass
			RB6#0	22.47	2	-0.15	22.32	0.171	7.00	Pass
		16-QAM	RB1#0	22.3	2	-0.15	22.15	0.164	7.00	Pass
			RB5#0	22.46	2	-0.15	22.31	0.170	7.00	Pass
	HCH	QPSK	RB1#0	22.37	2	-0.15	22.22	0.167	7.00	Pass
			RB6#0	22.21	2	-0.15	22.06	0.161	7.00	Pass
		16-QAM	RB1#0	22.22	2	-0.15	22.07	0.161	7.00	Pass
			RB5#0	22.39	2	-0.15	22.24	0.167	7.00	Pass
15 MHz	MCH	QPSK	RB1#0	22.59	2	-0.15	22.44	0.175	7.00	Pass
			RB6#0	22.4	2	-0.15	22.25	0.168	7.00	Pass
		16-QAM	RB1#0	22.56	2	-0.15	22.41	0.174	7.00	Pass
			RB5#0	22.38	2	-0.15	22.23	0.167	7.00	Pass

Test BW	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (W)	Limit (W)	Verdict
LTE-M1 BAND25									
1.4 MHz	LCH	QPSK	RB1#0	21.75	2	23.75	0.237	2.00	Pass
			RB6#0	22.13	2	24.13	0.259	2.00	Pass
		16-QAM	RB1#0	21.91	2	23.91	0.246	2.00	Pass
			RB5#0	22.08	2	24.08	0.256	2.00	Pass
	MCH	QPSK	RB1#0	22.23	2	24.23	0.265	2.00	Pass
			RB6#0	22.38	2	24.38	0.274	2.00	Pass
		16-QAM	RB1#0	22.33	2	24.33	0.271	2.00	Pass
			RB5#0	22.35	2	24.35	0.272	2.00	Pass
	HCH	QPSK	RB1#0	21.97	2	23.97	0.249	2.00	Pass
			RB6#0	22.15	2	24.15	0.260	2.00	Pass
		16-QAM	RB1#0	22.06	2	24.06	0.255	2.00	Pass
			RB5#0	22.08	2	24.08	0.256	2.00	Pass
3 MHz	LCH	QPSK	RB1#0	21.71	2	23.71	0.235	2.00	Pass
			RB6#0	22.04	2	24.04	0.254	2.00	Pass
		16-QAM	RB1#0	21.88	2	23.88	0.244	2.00	Pass
			RB5#0	21.97	2	23.97	0.249	2.00	Pass
	MCH	QPSK	RB1#0	22.13	2	24.13	0.259	2.00	Pass
			RB6#0	22.31	2	24.31	0.270	2.00	Pass
		16-QAM	RB1#0	22.21	2	24.21	0.264	2.00	Pass
			RB5#0	22.18	2	24.18	0.262	2.00	Pass
	HCH	QPSK	RB1#0	21.99	2	23.99	0.251	2.00	Pass
			RB6#0	22.18	2	24.18	0.262	2.00	Pass
		16-QAM	RB1#0	22.08	2	24.08	0.256	2.00	Pass
			RB5#0	22.09	2	24.09	0.256	2.00	Pass
5 MHz	LCH	QPSK	RB1#0	22.03	2	24.03	0.253	2.00	Pass
			RB6#0	22.14	2	24.14	0.259	2.00	Pass
		16-QAM	RB1#0	22.05	2	24.05	0.254	2.00	Pass
			RB5#0	22.04	2	24.04	0.254	2.00	Pass
	MCH	QPSK	RB1#0	22.41	2	24.41	0.276	2.00	Pass
			RB6#0	22.19	2	24.19	0.262	2.00	Pass
		16-QAM	RB1#0	22.39	2	24.39	0.275	2.00	Pass
			RB5#0	22.14	2	24.14	0.259	2.00	Pass
	HCH	QPSK	RB1#0	22.12	2	24.12	0.258	2.00	Pass
			RB6#0	22.11	2	24.11	0.258	2.00	Pass
		16-QAM	RB1#0	21.91	2	23.91	0.246	2.00	Pass
			RB5#0	22.13	2	24.13	0.259	2.00	Pass
10 MHz	LCH	QPSK	RB1#0	21.89	2	23.89	0.245	2.00	Pass

Test BW	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (W)	Limit (W)	Verdict
LTE-M1 BAND25									
			RB6#0	22.21	2	24.21	0.264	2.00	Pass
		16-QAM	RB1#0	21.89	2	23.89	0.245	2.00	Pass
			RB5#0	22.19	2	24.19	0.262	2.00	Pass
	MCH	QPSK	RB1#0	22.34	2	24.34	0.272	2.00	Pass
			RB6#0	22.17	2	24.17	0.261	2.00	Pass
		16-QAM	RB1#0	22.18	2	24.18	0.262	2.00	Pass
			RB5#0	22.35	2	24.35	0.272	2.00	Pass
	HCH	QPSK	RB1#0	21.94	2	23.94	0.248	2.00	Pass
			RB6#0	22.11	2	24.11	0.258	2.00	Pass
		16-QAM	RB1#0	21.94	2	23.94	0.248	2.00	Pass
			RB5#0	22.11	2	24.11	0.258	2.00	Pass
15 MHz	LCH	QPSK	RB1#0	22.16	2	24.16	0.261	2.00	Pass
			RB6#0	22.05	2	24.05	0.254	2.00	Pass
		16-QAM	RB1#0	22.17	2	24.17	0.261	2.00	Pass
			RB5#0	22.05	2	24.05	0.254	2.00	Pass
	MCH	QPSK	RB1#0	22.54	2	24.54	0.284	2.00	Pass
			RB6#0	22.45	2	24.45	0.279	2.00	Pass
		16-QAM	RB1#0	22.45	2	24.45	0.279	2.00	Pass
			RB5#0	22.54	2	24.54	0.284	2.00	Pass
	HCH	QPSK	RB1#0	22.26	2	24.26	0.267	2.00	Pass
			RB6#0	22.34	2	24.34	0.272	2.00	Pass
		16-QAM	RB1#0	22.27	2	24.27	0.267	2.00	Pass
			RB5#0	22.35	2	24.35	0.272	2.00	Pass
20 MHz	LCH	QPSK	RB1#0	22.19	2	24.19	0.262	2.00	Pass
			RB6#0	22.23	2	24.23	0.265	2.00	Pass
		16-QAM	RB1#0	22.19	2	24.19	0.262	2.00	Pass
			RB5#0	22.22	2	24.22	0.264	2.00	Pass
	MCH	QPSK	RB1#0	22.55	2	24.55	0.285	2.00	Pass
			RB6#0	22.54	2	24.54	0.284	2.00	Pass
		16-QAM	RB1#0	22.55	2	24.55	0.285	2.00	Pass
			RB5#0	22.57	2	24.57	0.286	2.00	Pass
	HCH	QPSK	RB1#0	22.38	2	24.38	0.274	2.00	Pass
			RB6#0	22.39	2	24.39	0.275	2.00	Pass
		16-QAM	RB1#0	22.38	2	24.38	0.274	2.00	Pass
			RB5#0	22.39	2	24.39	0.275	2.00	Pass

Test BW	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	Antenna Gain (dBd)	ERP (dBm)	ERP (W)	Limit (W)	Verdict
LTE-M1 BAND26(824-849 MHz)										
1.4 MHz	LCH	QPSK	RB1#0	22.48	2	-0.15	22.33	0.171	7.00	Pass
			RB6#0	22.49	2	-0.15	22.34	0.171	7.00	Pass
		16-QAM	RB1#0	22.64	2	-0.15	22.49	0.177	7.00	Pass
			RB5#0	22.47	2	-0.15	22.32	0.171	7.00	Pass
	MCH	QPSK	RB1#0	22.72	2	-0.15	22.57	0.181	7.00	Pass
			RB6#0	22.75	2	-0.15	22.60	0.182	7.00	Pass
		16-QAM	RB1#0	22.87	2	-0.15	22.72	0.187	7.00	Pass
			RB5#0	22.74	2	-0.15	22.59	0.182	7.00	Pass
	HCH	QPSK	RB1#0	22.53	2	-0.15	22.38	0.173	7.00	Pass
			RB6#0	22.69	2	-0.15	22.54	0.179	7.00	Pass
		16-QAM	RB1#0	22.68	2	-0.15	22.53	0.179	7.00	Pass
			RB5#0	22.67	2	-0.15	22.52	0.179	7.00	Pass
3 MHz	LCH	QPSK	RB1#0	22.56	2	-0.15	22.41	0.174	7.00	Pass
			RB6#0	22.59	2	-0.15	22.44	0.175	7.00	Pass
		16-QAM	RB1#0	22.61	2	-0.15	22.46	0.176	7.00	Pass
			RB5#0	22.42	2	-0.15	22.27	0.169	7.00	Pass
	MCH	QPSK	RB1#0	22.68	2	-0.15	22.53	0.179	7.00	Pass
			RB6#0	22.73	2	-0.15	22.58	0.181	7.00	Pass
		16-QAM	RB1#0	22.83	2	-0.15	22.68	0.185	7.00	Pass
			RB5#0	22.69	2	-0.15	22.54	0.179	7.00	Pass
	HCH	QPSK	RB1#0	22.51	2	-0.15	22.36	0.172	7.00	Pass
			RB6#0	22.55	2	-0.15	22.40	0.174	7.00	Pass
		16-QAM	RB1#0	22.66	2	-0.15	22.51	0.178	7.00	Pass
			RB5#0	22.53	2	-0.15	22.38	0.173	7.00	Pass
5 MHz	LCH	QPSK	RB1#0	22.59	2	-0.15	22.44	0.175	7.00	Pass
			RB6#0	22.56	2	-0.15	22.41	0.174	7.00	Pass
		16-QAM	RB1#0	22.58	2	-0.15	22.43	0.175	7.00	Pass
			RB5#0	22.55	2	-0.15	22.40	0.174	7.00	Pass
	MCH	QPSK	RB1#0	22.68	2	-0.15	22.53	0.179	7.00	Pass
			RB6#0	22.61	2	-0.15	22.46	0.176	7.00	Pass
		16-QAM	RB1#0	22.62	2	-0.15	22.47	0.177	7.00	Pass
			RB5#0	22.69	2	-0.15	22.54	0.179	7.00	Pass
	HCH	QPSK	RB1#0	22.52	2	-0.15	22.37	0.173	7.00	Pass
			RB6#0	22.48	2	-0.15	22.33	0.171	7.00	Pass
		16-QAM	RB1#0	22.47	2	-0.15	22.32	0.171	7.00	Pass
			RB5#0	22.52	2	-0.15	22.37	0.173	7.00	Pass
10 MHz	LCH	QPSK	RB1#0	22.55	2	-0.15	22.40	0.174	7.00	Pass

Test BW	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	Antenna Gain (dBd)	ERP (dBm)	ERP (W)	Limit (W)	Verdict
LTE-M1 BAND26(824-849 MHz)										
			RB6#0	22.54	2	-0.15	22.39	0.173	7.00	Pass
		16-QAM	RB1#0	22.52	2	-0.15	22.37	0.173	7.00	Pass
			RB5#0	22.53	2	-0.15	22.38	0.173	7.00	Pass
	MCH	QPSK	RB1#0	22.71	2	-0.15	22.56	0.180	7.00	Pass
			RB6#0	22.64	2	-0.15	22.49	0.177	7.00	Pass
		16-QAM	RB1#0	22.53	2	-0.15	22.38	0.173	7.00	Pass
			RB5#0	22.69	2	-0.15	22.54	0.179	7.00	Pass
	HCH	QPSK	RB1#0	22.59	2	-0.15	22.44	0.175	7.00	Pass
			RB6#0	22.45	2	-0.15	22.30	0.170	7.00	Pass
		16-QAM	RB1#0	22.45	2	-0.15	22.30	0.170	7.00	Pass
			RB5#0	22.61	2	-0.15	22.46	0.176	7.00	Pass
15 MHz	LCH	QPSK	RB1#0	22.77	2	-0.15	22.62	0.183	7.00	Pass
			RB6#0	22.94	2	-0.15	22.79	0.190	7.00	Pass
		16-QAM	RB1#0	22.76	2	-0.15	22.61	0.182	7.00	Pass
			RB5#0	22.93	2	-0.15	22.78	0.190	7.00	Pass
	MCH	QPSK	RB1#0	22.74	2	-0.15	22.59	0.182	7.00	Pass
			RB6#0	22.57	2	-0.15	22.42	0.175	7.00	Pass
		16-QAM	RB1#0	22.58	2	-0.15	22.43	0.175	7.00	Pass
			RB5#0	22.75	2	-0.15	22.60	0.182	7.00	Pass
	HCH	QPSK	RB1#0	22.63	2	-0.15	22.48	0.177	7.00	Pass
			RB6#0	22.64	2	-0.15	22.49	0.177	7.00	Pass
		16-QAM	RB1#0	22.79	2	-0.15	22.64	0.184	7.00	Pass
			RB5#0	22.64	2	-0.15	22.49	0.177	7.00	Pass

Test BW	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	Antenna Gain (dBd)	ERP (dBm)	ERP (W)	Limit (W)	Verdict
LTE-M1 BAND26(814-824 MHz)										
1.4 MHz	LCH	QPSK	RB1#0	22.25	2	-0.15	22.10	0.162	100	Pass
			RB6#0	22.54	2	-0.15	22.39	0.173	100	Pass
		16-QAM	RB1#0	22.42	2	-0.15	22.27	0.169	100	Pass
			RB5#0	22.55	2	-0.15	22.40	0.174	100	Pass
	MCH	QPSK	RB1#0	22.26	2	-0.15	22.11	0.163	100	Pass
			RB6#0	22.27	2	-0.15	22.12	0.163	100	Pass
		16-QAM	RB1#0	22.54	2	-0.15	22.39	0.173	100	Pass
			RB5#0	22.38	2	-0.15	22.23	0.167	100	Pass
	HCH	QPSK	RB1#0	22.43	2	-0.15	22.28	0.169	100	Pass
			RB6#0	22.47	2	-0.15	22.32	0.171	100	Pass
		16-QAM	RB1#0	22.59	2	-0.15	22.44	0.175	100	Pass
			RB5#0	22.31	2	-0.15	22.16	0.164	100	Pass
3 MHz	LCH	QPSK	RB1#0	22.18	2	-0.15	22.03	0.160	100	Pass
			RB6#0	22.46	2	-0.15	22.31	0.170	100	Pass
		16-QAM	RB1#0	22.45	2	-0.15	22.30	0.170	100	Pass
			RB5#0	22.57	2	-0.15	22.42	0.175	100	Pass
	MCH	QPSK	RB1#0	22.33	2	-0.15	22.18	0.165	100	Pass
			RB6#0	22.34	2	-0.15	22.19	0.166	100	Pass
		16-QAM	RB1#0	22.49	2	-0.15	22.34	0.171	100	Pass
			RB5#0	22.33	2	-0.15	22.18	0.165	100	Pass
	HCH	QPSK	RB1#0	22.39	2	-0.15	22.24	0.167	100	Pass
			RB6#0	22.44	2	-0.15	22.29	0.169	100	Pass
		16-QAM	RB1#0	22.55	2	-0.15	22.40	0.174	100	Pass
			RB5#0	22.35	2	-0.15	22.20	0.166	100	Pass
5 MHz	LCH	QPSK	RB1#0	22.29	2	-0.15	22.14	0.164	100	Pass
			RB6#0	22.37	2	-0.15	22.22	0.167	100	Pass
		16-QAM	RB1#0	22.33	2	-0.15	22.18	0.165	100	Pass
			RB5#0	22.35	2	-0.15	22.20	0.166	100	Pass
	MCH	QPSK	RB1#0	22.33	2	-0.15	22.18	0.165	100	Pass
			RB6#0	22.32	2	-0.15	22.17	0.165	100	Pass
		16-QAM	RB1#0	22.33	2	-0.15	22.18	0.165	100	Pass
			RB5#0	22.29	2	-0.15	22.14	0.164	100	Pass
	HCH	QPSK	RB1#0	22.37	2	-0.15	22.22	0.167	100	Pass
			RB6#0	22.38	2	-0.15	22.23	0.167	100	Pass
		16-QAM	RB1#0	22.36	2	-0.15	22.21	0.166	100	Pass
			RB5#0	22.38	2	-0.15	22.23	0.167	100	Pass
10 MHz	MCH	QPSK	RB1#0	22.21	2	-0.15	22.06	0.161	100	Pass

Test BW	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	Antenna Gain (dBd)	ERP (dBm)	ERP (W)	Limit (W)	Verdict
LTE-M1 BAND26(814-824 MHz)										
			RB6#0	22.32	2	-0.15	22.17	0.165	100	Pass
		16-QAM	RB1#0	22.32	2	-0.15	22.17	0.165	100	Pass
			RB5#0	22.33	2	-0.15	22.18	0.165	100	Pass

Test BW	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (W)	Limit (W)	Verdict
LTE-M1 BAND66									
1.4 MHz	LCH	QPSK	RB1#0	21.73	2	23.73	0.236	1.00	Pass
			RB6#0	21.94	2	23.94	0.248	1.00	Pass
		16-QAM	RB1#0	21.91	2	23.91	0.246	1.00	Pass
			RB5#0	21.89	2	23.89	0.245	1.00	Pass
	MCH	QPSK	RB1#0	21.68	2	23.68	0.233	1.00	Pass
			RB6#0	21.89	2	23.89	0.245	1.00	Pass
		16-QAM	RB1#0	21.83	2	23.83	0.242	1.00	Pass
			RB5#0	21.84	2	23.84	0.242	1.00	Pass
	HCH	QPSK	RB1#0	21.74	2	23.74	0.237	1.00	Pass
			RB6#0	21.97	2	23.97	0.249	1.00	Pass
		16-QAM	RB1#0	21.87	2	23.87	0.244	1.00	Pass
			RB5#0	21.73	2	23.73	0.236	1.00	Pass
3 MHz	LCH	QPSK	RB1#0	21.72	2	23.72	0.236	1.00	Pass
			RB6#0	21.92	2	23.92	0.247	1.00	Pass
		16-QAM	RB1#0	21.85	2	23.85	0.243	1.00	Pass
			RB5#0	21.89	2	23.89	0.245	1.00	Pass
	MCH	QPSK	RB1#0	21.59	2	23.59	0.229	1.00	Pass
			RB6#0	21.81	2	23.81	0.240	1.00	Pass
		16-QAM	RB1#0	21.73	2	23.73	0.236	1.00	Pass
			RB5#0	21.77	2	23.77	0.238	1.00	Pass
	HCH	QPSK	RB1#0	21.75	2	23.75	0.237	1.00	Pass
			RB6#0	21.99	2	23.99	0.251	1.00	Pass
		16-QAM	RB1#0	21.88	2	23.88	0.244	1.00	Pass
			RB5#0	21.74	2	23.74	0.237	1.00	Pass
5 MHz	LCH	QPSK	RB1#0	21.61	2	23.61	0.230	1.00	Pass
			RB6#0	21.88	2	23.88	0.244	1.00	Pass
		16-QAM	RB1#0	21.91	2	23.91	0.246	1.00	Pass
			RB5#0	21.63	2	23.63	0.231	1.00	Pass
	MCH	QPSK	RB1#0	21.78	2	23.78	0.239	1.00	Pass
			RB6#0	21.88	2	23.88	0.244	1.00	Pass
		16-QAM	RB1#0	21.86	2	23.86	0.243	1.00	Pass
			RB5#0	21.57	2	23.57	0.228	1.00	Pass
	HCH	QPSK	RB1#0	21.67	2	23.67	0.233	1.00	Pass
			RB6#0	21.98	2	23.98	0.250	1.00	Pass
		16-QAM	RB1#0	21.99	2	23.99	0.251	1.00	Pass
			RB5#0	21.69	2	23.69	0.234	1.00	Pass
10 MHz	LCH	QPSK	RB1#0	21.63	2	23.63	0.231	1.00	Pass

Test BW	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (W)	Limit (W)	Verdict
LTE-M1 BAND66									
			RB6#0	21.91	2	23.91	0.246	1.00	Pass
		16-QAM	RB1#0	21.91	2	23.91	0.246	1.00	Pass
			RB5#0	21.62	2	23.62	0.230	1.00	Pass
	MCH	QPSK	RB1#0	21.55	2	23.55	0.226	1.00	Pass
			RB6#0	21.89	2	23.89	0.245	1.00	Pass
		16-QAM	RB1#0	21.56	2	23.56	0.227	1.00	Pass
			RB5#0	21.89	2	23.89	0.245	1.00	Pass
	HCH	QPSK	RB1#0	22.01	2	24.01	0.252	1.00	Pass
			RB6#0	21.65	2	23.65	0.232	1.00	Pass
		16-QAM	RB1#0	21.64	2	23.64	0.231	1.00	Pass
			RB5#0	21.65	2	23.65	0.232	1.00	Pass
15 MHz	LCH	QPSK	RB1#0	22.13	2	24.13	0.259	1.00	Pass
			RB6#0	21.86	2	23.86	0.243	1.00	Pass
		16-QAM	RB1#0	21.81	2	23.81	0.240	1.00	Pass
			RB5#0	22.05	2	24.05	0.254	1.00	Pass
	MCH	QPSK	RB1#0	22.01	2	24.01	0.252	1.00	Pass
			RB6#0	22.02	2	24.02	0.252	1.00	Pass
		16-QAM	RB1#0	21.69	2	23.69	0.234	1.00	Pass
			RB5#0	22.01	2	24.01	0.252	1.00	Pass
	HCH	QPSK	RB1#0	21.65	2	23.65	0.232	1.00	Pass
			RB6#0	22.01	2	24.01	0.252	1.00	Pass
		16-QAM	RB1#0	21.64	2	23.64	0.231	1.00	Pass
			RB5#0	22.02	2	24.02	0.252	1.00	Pass
20 MHz	LCH	QPSK	RB1#0	21.83	2	23.83	0.242	1.00	Pass
			RB6#0	22.06	2	24.06	0.255	1.00	Pass
		16-QAM	RB1#0	21.82	2	23.82	0.241	1.00	Pass
			RB5#0	22.05	2	24.05	0.254	1.00	Pass
	MCH	QPSK	RB1#0	22.01	2	24.01	0.252	1.00	Pass
			RB6#0	21.69	2	23.69	0.234	1.00	Pass
		16-QAM	RB1#0	22.01	2	24.01	0.252	1.00	Pass
			RB5#0	22.02	2	24.02	0.252	1.00	Pass
	HCH	QPSK	RB1#0	21.68	2	23.68	0.233	1.00	Pass
			RB6#0	22.05	2	24.05	0.254	1.00	Pass
		16-QAM	RB1#0	22.04	2	24.04	0.254	1.00	Pass
			RB5#0	22.05	2	24.05	0.254	1.00	Pass

Test BW	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	Antenna Gain (dBd)	ERP (dBm)	ERP (W)	Limit (W)	Verdict
LTE-M1 BAND71										
5MHz	LCH	QPSK	RB1#0	24.18	2	-0.15	24.03	0.253	3.00	Pass
			RB6#0	23.96	2	-0.15	23.81	0.240	3.00	Pass
		16-QAM	RB1#0	23.94	2	-0.15	23.79	0.239	3.00	Pass
			RB5#0	24.04	2	-0.15	23.89	0.245	3.00	Pass
	MCH	QPSK	RB1#0	24.08	2	-0.15	23.93	0.247	3.00	Pass
			RB6#0	24.07	2	-0.15	23.92	0.247	3.00	Pass
		16-QAM	RB1#0	24.15	2	-0.15	24.00	0.251	3.00	Pass
			RB5#0	24.02	2	-0.15	23.87	0.244	3.00	Pass
	HCH	QPSK	RB1#0	24.11	2	-0.15	23.96	0.249	3.00	Pass
			RB6#0	24.12	2	-0.15	23.97	0.249	3.00	Pass
		16-QAM	RB1#0	24.09	2	-0.15	23.94	0.248	3.00	Pass
			RB5#0	24.08	2	-0.15	23.93	0.247	3.00	Pass
10 MHz	LCH	QPSK	RB1#0	23.87	2	-0.15	23.72	0.236	3.00	Pass
			RB6#0	23.88	2	-0.15	23.73	0.236	3.00	Pass
		16-QAM	RB1#0	23.86	2	-0.15	23.71	0.235	3.00	Pass
			RB5#0	23.85	2	-0.15	23.70	0.234	3.00	Pass
	MCH	QPSK	RB1#0	23.92	2	-0.15	23.77	0.238	3.00	Pass
			RB6#0	23.91	2	-0.15	23.76	0.238	3.00	Pass
		16-QAM	RB1#0	24.31	2	-0.15	24.16	0.261	3.00	Pass
			RB5#0	23.93	2	-0.15	23.78	0.239	3.00	Pass
	HCH	QPSK	RB1#0	24.12	2	-0.15	23.97	0.249	3.00	Pass
			RB6#0	24.14	2	-0.15	23.99	0.251	3.00	Pass
		16-QAM	RB1#0	24.11	2	-0.15	23.96	0.249	3.00	Pass
			RB5#0	24.36	2	-0.15	24.21	0.264	3.00	Pass
15 MHz	LCH	QPSK	RB1#0	23.77	2	-0.15	23.62	0.230	3.00	Pass
			RB6#0	23.86	2	-0.15	23.71	0.235	3.00	Pass
		16-QAM	RB1#0	23.87	2	-0.15	23.72	0.236	3.00	Pass
			RB5#0	23.78	2	-0.15	23.63	0.231	3.00	Pass
	MCH	QPSK	RB1#0	23.74	2	-0.15	23.59	0.229	3.00	Pass
			RB6#0	23.75	2	-0.15	23.60	0.229	3.00	Pass
		16-QAM	RB1#0	24.53	2	-0.15	24.38	0.274	3.00	Pass
			RB5#0	23.74	2	-0.15	23.59	0.229	3.00	Pass
	HCH	QPSK	RB1#0	23.86	2	-0.15	23.71	0.235	3.00	Pass
			RB6#0	24.52	2	-0.15	24.37	0.274	3.00	Pass
		16-QAM	RB1#0	24.55	2	-0.15	24.40	0.275	3.00	Pass
			RB5#0	23.88	2	-0.15	23.73	0.236	3.00	Pass
20 MHz	LCH	QPSK	RB1#0	24.71	2	-0.15	24.56	0.286	3.00	Pass

Test BW	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	Antenna Gain (dBd)	ERP (dBm)	ERP (W)	Limit (W)	Verdict
LTE-M1 BAND71										
			RB6#0	23.68	2	-0.15	23.53	0.225	3.00	Pass
		16-QAM	RB1#0	23.66	2	-0.15	23.51	0.224	3.00	Pass
			RB5#0	24.69	2	-0.15	24.54	0.284	3.00	Pass
	MCH	QPSK	RB1#0	23.52	2	-0.15	23.37	0.217	3.00	Pass
			RB6#0	24.46	2	-0.15	24.31	0.270	3.00	Pass
		16-QAM	RB1#0	24.47	2	-0.15	24.32	0.270	3.00	Pass
			RB5#0	23.54	2	-0.15	23.39	0.218	3.00	Pass
	HCH	QPSK	RB1#0	23.68	2	-0.15	23.53	0.225	3.00	Pass
			RB6#0	24.57	2	-0.15	24.42	0.277	3.00	Pass
		16-QAM	RB1#0	23.67	2	-0.15	23.52	0.225	3.00	Pass
			RB5#0	24.52	2	-0.15	24.37	0.274	3.00	Pass

Test BW	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	Antenna Gain (dBd)	ERP (dBm)	ERP (W)	Limit (W)	Verdict
LTE-M1 BAND85										
5MHz	LCH	QPSK	RB1#0	24.3	2	-0.15	24.15	0.260	3.00	Pass
			RB6#0	23.93	2	-0.15	23.78	0.239	3.00	Pass
		16-QAM	RB1#0	24.33	2	-0.15	24.18	0.262	3.00	Pass
			RB5#0	23.79	2	-0.15	23.64	0.231	3.00	Pass
	MCH	QPSK	RB1#0	24.15	2	-0.15	24.00	0.251	3.00	Pass
			RB6#0	23.91	2	-0.15	23.76	0.238	3.00	Pass
		16-QAM	RB1#0	24.29	2	-0.15	24.14	0.259	3.00	Pass
			RB5#0	23.78	2	-0.15	23.63	0.231	3.00	Pass
	HCH	QPSK	RB1#0	24.16	2	-0.15	24.01	0.252	3.00	Pass
			RB6#0	23.75	2	-0.15	23.60	0.229	3.00	Pass
		16-QAM	RB1#0	24.19	2	-0.15	24.04	0.254	3.00	Pass
			RB5#0	23.72	2	-0.15	23.57	0.228	3.00	Pass
10 MHz	LCH	QPSK	RB1#0	24.08	2	-0.15	23.93	0.247	3.00	Pass
			RB6#0	23.85	2	-0.15	23.70	0.234	3.00	Pass
		16-QAM	RB1#0	24.09	2	-0.15	23.94	0.248	3.00	Pass
			RB5#0	23.74	2	-0.15	23.59	0.229	3.00	Pass
	MCH	QPSK	RB1#0	24.11	2	-0.15	23.96	0.249	3.00	Pass
			RB6#0	23.85	2	-0.15	23.70	0.234	3.00	Pass
		16-QAM	RB1#0	24.03	2	-0.15	23.88	0.244	3.00	Pass
			RB5#0	23.71	2	-0.15	23.56	0.227	3.00	Pass
	HCH	QPSK	RB1#0	24.12	2	-0.15	23.97	0.249	3.00	Pass
			RB6#0	23.76	2	-0.15	23.61	0.230	3.00	Pass
		16-QAM	RB1#0	24.07	2	-0.15	23.92	0.247	3.00	Pass
			RB5#0	23.8	2	-0.15	23.65	0.232	3.00	Pass

NB-IoT Mode Test Data

Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (W)	Limit (W)	Verdict
NB-IoT BAND2									
3.75kHz	LCH	QPSK	RB1#0	19.96	2	21.96	0.157	2.00	Pass
			RB1#47	20.13	2	22.13	0.163	2.00	Pass
		BPSK	RB1#0	19.95	2	21.95	0.157	2.00	Pass
			RB1#47	20.07	2	22.07	0.161	2.00	Pass
	MCH	QPSK	RB1#0	20.27	2	22.27	0.169	2.00	Pass
			RB1#47	19.96	2	21.96	0.157	2.00	Pass
		BPSK	RB1#0	20.47	2	22.47	0.177	2.00	Pass
			RB1#47	19.91	2	21.91	0.155	2.00	Pass
	HCH	QPSK	RB1#0	21	2	23.00	0.200	2.00	Pass
			RB1#47	19.63	2	21.63	0.146	2.00	Pass
		BPSK	RB1#0	21.01	2	23.01	0.200	2.00	Pass
			RB1#47	19.61	2	21.61	0.145	2.00	Pass
15kHz	LCH	QPSK	RB1#0	20.14	2	22.14	0.164	2.00	Pass
			RB1#11	20.35	2	22.35	0.172	2.00	Pass
			RB12#0	20.52	2	22.52	0.179	2.00	Pass
		BPSK	RB1#0	20.25	2	22.25	0.168	2.00	Pass
			RB1#11	20.36	2	22.36	0.172	2.00	Pass
	MCH	QPSK	RB1#0	20.53	2	22.53	0.179	2.00	Pass
			RB1#11	20.12	2	22.12	0.163	2.00	Pass
			RB12#0	20.97	2	22.97	0.198	2.00	Pass
		BPSK	RB1#0	20.47	2	22.47	0.177	2.00	Pass
			RB1#11	20.18	2	22.18	0.165	2.00	Pass
	HCH	QPSK	RB1#0	21.16	2	23.16	0.207	2.00	Pass
			RB1#11	19.89	2	21.89	0.155	2.00	Pass
			RB12#0	21.4	2	23.40	0.219	2.00	Pass
		BPSK	RB1#0	21.18	2	23.18	0.208	2.00	Pass
			RB1#11	19.8	2	21.80	0.151	2.00	Pass

Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (W)	Limit (W)	Verdict
NB-IoT BAND4									
3.75kHz	LCH	QPSK	RB1#0	20.11	2	22.11	0.163	1.00	Pass
			RB1#47	20.32	2	22.32	0.171	1.00	Pass
		BPSK	RB1#0	20.01	2	22.01	0.159	1.00	Pass
			RB1#47	20.23	2	22.23	0.167	1.00	Pass
	MCH	QPSK	RB1#0	19.94	2	21.94	0.156	1.00	Pass
			RB1#47	20.41	2	22.41	0.174	1.00	Pass
		BPSK	RB1#0	19.98	2	21.98	0.158	1.00	Pass
			RB1#47	20.35	2	22.35	0.172	1.00	Pass
	HCH	QPSK	RB1#0	20.13	2	22.13	0.163	1.00	Pass
			RB1#47	20.48	2	22.48	0.177	1.00	Pass
		BPSK	RB1#0	20.09	2	22.09	0.162	1.00	Pass
			RB1#47	20.43	2	22.43	0.175	1.00	Pass
15kHz	LCH	QPSK	RB1#0	20.31	2	22.31	0.170	1.00	Pass
			RB1#11	20.54	2	22.54	0.179	1.00	Pass
			RB12#0	20.53	2	22.53	0.179	1.00	Pass
		BPSK	RB1#0	20.22	2	22.22	0.167	1.00	Pass
			RB1#11	20.47	2	22.47	0.177	1.00	Pass
	MCH	QPSK	RB1#0	20.3	2	22.30	0.170	1.00	Pass
			RB1#11	20.67	2	22.67	0.185	1.00	Pass
			RB12#0	20.4	2	22.40	0.174	1.00	Pass
		BPSK	RB1#0	20.14	2	22.14	0.164	1.00	Pass
			RB1#11	20.49	2	22.49	0.177	1.00	Pass
	HCH	QPSK	RB1#0	20.36	2	22.36	0.172	1.00	Pass
			RB1#11	20.72	2	22.72	0.187	1.00	Pass
			RB12#0	20.54	2	22.54	0.179	1.00	Pass
		BPSK	RB1#0	20.29	2	22.29	0.169	1.00	Pass
			RB1#11	20.64	2	22.64	0.184	1.00	Pass

Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	Antenna Gain (dBd)	ERP (dBm)	ERP (W)	Limit (W)	Verdict
NB-IoT BAND5										
3.75kHz	LCH	QPSK	RB1#0	21.53	2	-0.15	21.38	0.137	7.00	Pass
			RB1#47	22.47	2	-0.15	22.32	0.171	7.00	Pass
		BPSK	RB1#0	21.43	2	-0.15	21.28	0.134	7.00	Pass
			RB1#47	22.43	2	-0.15	22.28	0.169	7.00	Pass
	MCH	QPSK	RB1#0	21.37	2	-0.15	21.22	0.132	7.00	Pass
			RB1#47	22.06	2	-0.15	21.91	0.155	7.00	Pass
		BPSK	RB1#0	21.49	2	-0.15	21.34	0.136	7.00	Pass
			RB1#47	21.95	2	-0.15	21.80	0.151	7.00	Pass
	HCH	QPSK	RB1#0	21.4	2	-0.15	21.25	0.133	7.00	Pass
			RB1#47	21.68	2	-0.15	21.53	0.142	7.00	Pass
		BPSK	RB1#0	21.33	2	-0.15	21.18	0.131	7.00	Pass
			RB1#47	21.62	2	-0.15	21.47	0.140	7.00	Pass
15kHz	LCH	QPSK	RB1#0	21.69	2	-0.15	21.54	0.143	7.00	Pass
			RB1#11	22.64	2	-0.15	22.49	0.177	7.00	Pass
			RB12#0	21.89	2	-0.15	21.74	0.149	7.00	Pass
		BPSK	RB1#0	21.62	2	-0.15	21.47	0.140	7.00	Pass
			RB1#11	22.57	2	-0.15	22.42	0.175	7.00	Pass
	MCH	QPSK	RB1#0	21.68	2	-0.15	21.53	0.142	7.00	Pass
			RB1#11	22.25	2	-0.15	22.10	0.162	7.00	Pass
			RB12#0	21.82	2	-0.15	21.67	0.147	7.00	Pass
		BPSK	RB1#0	21.57	2	-0.15	21.42	0.139	7.00	Pass
			RB1#11	22.19	2	-0.15	22.04	0.160	7.00	Pass
	HCH	QPSK	RB1#0	21.52	2	-0.15	21.37	0.137	7.00	Pass
			RB1#11	21.8	2	-0.15	21.65	0.146	7.00	Pass
			RB12#0	21.64	2	-0.15	21.49	0.141	7.00	Pass
		BPSK	RB1#0	21.48	2	-0.15	21.33	0.136	7.00	Pass
			RB1#11	21.65	2	-0.15	21.50	0.141	7.00	Pass

Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	Antenna Gain (dBd)	ERP (dBm)	ERP (W)	Limit (W)	Verdict
NB-IoT BAND12										
3.75kHz	LCH	QPSK	RB1#0	23.18	2	-0.15	23.03	0.201	3.00	Pass
			RB1#47	21.16	2	-0.15	21.01	0.126	3.00	Pass
		BPSK	RB1#0	23.11	2	-0.15	22.96	0.198	3.00	Pass
			RB1#47	21.09	2	-0.15	20.94	0.124	3.00	Pass
	MCH	QPSK	RB1#0	23.24	2	-0.15	23.09	0.204	3.00	Pass
			RB1#47	21.59	2	-0.15	21.44	0.139	3.00	Pass
		BPSK	RB1#0	23.17	2	-0.15	23.02	0.200	3.00	Pass
			RB1#47	21.52	2	-0.15	21.37	0.137	3.00	Pass
	HCH	QPSK	RB1#0	23.25	2	-0.15	23.10	0.204	3.00	Pass
			RB1#47	21.97	2	-0.15	21.82	0.152	3.00	Pass
		BPSK	RB1#0	23.13	2	-0.15	22.98	0.199	3.00	Pass
			RB1#47	21.94	2	-0.15	21.79	0.151	3.00	Pass
15kHz	LCH	QPSK	RB1#0	23.39	2	-0.15	23.24	0.211	3.00	Pass
			RB1#11	21.26	2	-0.15	21.11	0.129	3.00	Pass
			RB12#0	23.39	2	-0.15	23.24	0.211	3.00	Pass
		BPSK	RB1#0	23.35	2	-0.15	23.20	0.209	3.00	Pass
			RB1#11	21.21	2	-0.15	21.06	0.128	3.00	Pass
	MCH	QPSK	RB1#0	23.45	2	-0.15	23.30	0.214	3.00	Pass
			RB1#11	21.74	2	-0.15	21.59	0.144	3.00	Pass
			RB12#0	23.39	2	-0.15	23.24	0.211	3.00	Pass
		BPSK	RB1#0	23.36	2	-0.15	23.21	0.209	3.00	Pass
			RB1#11	21.65	2	-0.15	21.50	0.141	3.00	Pass
	HCH	QPSK	RB1#0	23.4	2	-0.15	23.25	0.211	3.00	Pass
			RB1#11	22.08	2	-0.15	21.93	0.156	3.00	Pass
			RB12#0	23.39	2	-0.15	23.24	0.211	3.00	Pass
		BPSK	RB1#0	23.36	2	-0.15	23.21	0.209	3.00	Pass
			RB1#11	22.02	2	-0.15	21.87	0.154	3.00	Pass

Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	Antenna Gain (dBd)	ERP (dBm)	ERP (W)	Limit (W)	Verdict
NB-IoT BAND13										
3.75kHz	LCH	QPSK	RB1#0	22.07	2	-0.15	21.92	0.156	3.00	Pass
			RB1#47	22.55	2	-0.15	22.40	0.174	3.00	Pass
		BPSK	RB1#0	22.06	2	-0.15	21.91	0.155	3.00	Pass
			RB1#47	22.47	2	-0.15	22.32	0.171	3.00	Pass
	MCH	QPSK	RB1#0	22.01	2	-0.15	21.86	0.153	3.00	Pass
			RB1#47	22.51	2	-0.15	22.36	0.172	3.00	Pass
		BPSK	RB1#0	21.96	2	-0.15	21.81	0.152	3.00	Pass
			RB1#47	22.46	2	-0.15	22.31	0.170	3.00	Pass
	HCH	QPSK	RB1#0	21.82	2	-0.15	21.67	0.147	3.00	Pass
			RB1#47	22.52	2	-0.15	22.37	0.173	3.00	Pass
		BPSK	RB1#0	21.88	2	-0.15	21.73	0.149	3.00	Pass
			RB1#47	22.44	2	-0.15	22.29	0.169	3.00	Pass
15kHz	LCH	QPSK	RB1#0	22.25	2	-0.15	22.10	0.162	3.00	Pass
			RB1#11	22.63	2	-0.15	22.48	0.177	3.00	Pass
			RB12#0	22.35	2	-0.15	22.20	0.166	3.00	Pass
		BPSK	RB1#0	22.12	2	-0.15	21.97	0.157	3.00	Pass
			RB1#11	22.59	2	-0.15	22.44	0.175	3.00	Pass
	MCH	QPSK	RB1#0	22.2	2	-0.15	22.05	0.160	3.00	Pass
			RB1#11	22.6	2	-0.15	22.45	0.176	3.00	Pass
			RB12#0	22.19	2	-0.15	22.04	0.160	3.00	Pass
		BPSK	RB1#0	22.04	2	-0.15	21.89	0.155	3.00	Pass
			RB1#11	22.62	2	-0.15	22.47	0.177	3.00	Pass
	HCH	QPSK	RB1#0	22.03	2	-0.15	21.88	0.154	3.00	Pass
			RB1#11	22.69	2	-0.15	22.54	0.179	3.00	Pass
			RB12#0	22.13	2	-0.15	21.98	0.158	3.00	Pass
		BPSK	RB1#0	21.93	2	-0.15	21.78	0.151	3.00	Pass
			RB1#11	22.68	2	-0.15	22.53	0.179	3.00	Pass

Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	Antenna Gain (dBd)	ERP (dBm)	ERP (W)	Limit (W)	Verdict
NB-IoT BAND14										
3.75kHz	LCH	QPSK	RB1#0	21.74	2	-0.15	21.59	0.144	3.00	Pass
			RB1#47	22.71	2	-0.15	22.56	0.180	3.00	Pass
		BPSK	RB1#0	21.64	2	-0.15	21.49	0.141	3.00	Pass
			RB1#47	22.56	2	-0.15	22.41	0.174	3.00	Pass
	MCH	QPSK	RB1#0	21.56	2	-0.15	21.41	0.138	3.00	Pass
			RB1#47	22.56	2	-0.15	22.41	0.174	3.00	Pass
		BPSK	RB1#0	21.5	2	-0.15	21.35	0.136	3.00	Pass
			RB1#47	22.54	2	-0.15	22.39	0.173	3.00	Pass
	HCH	QPSK	RB1#0	21.52	2	-0.15	21.37	0.137	3.00	Pass
			RB1#47	22.55	2	-0.15	22.40	0.174	3.00	Pass
		BPSK	RB1#0	21.51	2	-0.15	21.36	0.137	3.00	Pass
			RB1#47	22.42	2	-0.15	22.27	0.169	3.00	Pass
15kHz	LCH	QPSK	RB1#0	21.9	2	-0.15	21.75	0.150	3.00	Pass
			RB1#11	22.89	2	-0.15	22.74	0.188	3.00	Pass
			RB12#0	21.93	2	-0.15	21.78	0.151	3.00	Pass
		BPSK	RB1#0	21.81	2	-0.15	21.66	0.147	3.00	Pass
			RB1#11	22.82	2	-0.15	22.67	0.185	3.00	Pass
	MCH	QPSK	RB1#0	21.85	2	-0.15	21.70	0.148	3.00	Pass
			RB1#11	22.81	2	-0.15	22.66	0.185	3.00	Pass
			RB12#0	21.87	2	-0.15	21.72	0.149	3.00	Pass
		BPSK	RB1#0	21.76	2	-0.15	21.61	0.145	3.00	Pass
			RB1#11	22.69	2	-0.15	22.54	0.179	3.00	Pass
	HCH	QPSK	RB1#0	21.75	2	-0.15	21.60	0.145	3.00	Pass
			RB1#11	22.87	2	-0.15	22.72	0.187	3.00	Pass
			RB12#0	21.82	2	-0.15	21.67	0.147	3.00	Pass
		BPSK	RB1#0	21.7	2	-0.15	21.55	0.143	3.00	Pass
			RB1#11	22.65	2	-0.15	22.50	0.178	3.00	Pass

Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	Antenna Gain (dBd)	ERP (dBm)	ERP (W)	Limit (W)	Verdict
NB-IoT BAND17										
3.75kHz	LCH	QPSK	RB1#0	23.31	2	-0.15	23.16	0.207	3.00	Pass
			RB1#47	21.51	2	-0.15	21.36	0.137	3.00	Pass
		BPSK	RB1#0	23.47	2	-0.15	23.32	0.215	3.00	Pass
			RB1#47	21.42	2	-0.15	21.27	0.134	3.00	Pass
	MCH	QPSK	RB1#0	23.26	2	-0.15	23.11	0.205	3.00	Pass
			RB1#47	21.72	2	-0.15	21.57	0.144	3.00	Pass
		BPSK	RB1#0	23.47	2	-0.15	23.32	0.215	3.00	Pass
			RB1#47	21.9	2	-0.15	21.75	0.150	3.00	Pass
	HCH	QPSK	RB1#0	23.38	2	-0.15	23.23	0.210	3.00	Pass
			RB1#47	22.16	2	-0.15	22.01	0.159	3.00	Pass
		BPSK	RB1#0	23.46	2	-0.15	23.31	0.214	3.00	Pass
			RB1#47	22.13	2	-0.15	21.98	0.158	3.00	Pass
15kHz	LCH	QPSK	RB1#0	23.53	2	-0.15	23.38	0.218	3.00	Pass
			RB1#11	21.65	2	-0.15	21.50	0.141	3.00	Pass
			RB12#0	23.57	2	-0.15	23.42	0.220	3.00	Pass
		BPSK	RB1#0	23.38	2	-0.15	23.23	0.210	3.00	Pass
			RB1#11	21.64	2	-0.15	21.49	0.141	3.00	Pass
	MCH	QPSK	RB1#0	23.39	2	-0.15	23.24	0.211	3.00	Pass
			RB1#11	21.81	2	-0.15	21.66	0.147	3.00	Pass
			RB12#0	23.34	2	-0.15	23.19	0.208	3.00	Pass
		BPSK	RB1#0	23.26	2	-0.15	23.11	0.205	3.00	Pass
			RB1#11	21.79	2	-0.15	21.64	0.146	3.00	Pass
	HCH	QPSK	RB1#0	23.54	2	-0.15	23.39	0.218	3.00	Pass
			RB1#11	22.18	2	-0.15	22.03	0.160	3.00	Pass
			RB12#0	23.68	2	-0.15	23.53	0.225	3.00	Pass
		BPSK	RB1#0	23.55	2	-0.15	23.40	0.219	3.00	Pass
			RB1#11	22.25	2	-0.15	22.10	0.162	3.00	Pass

Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	Antenna Gain (dBd)	ERP (dBm)	ERP (W)	Limit (W)	Verdict
NB-IoT BAND18 (815-824 MHz)										
3.75kHz	LCH	QPSK	RB1#0	22.16	2	-0.15	22.01	0.159	100	Pass
			RB1#47	23.3	2	-0.15	23.15	0.207	100	Pass
		BPSK	RB1#0	22.21	2	-0.15	22.06	0.161	100	Pass
			RB1#47	23.37	2	-0.15	23.22	0.210	100	Pass
	MCH	QPSK	RB1#0	21.97	2	-0.15	21.82	0.152	100	Pass
			RB1#47	23.2	2	-0.15	23.05	0.202	100	Pass
		BPSK	RB1#0	22.18	2	-0.15	22.03	0.160	100	Pass
			RB1#47	23.25	2	-0.15	23.10	0.204	100	Pass
	HCH	QPSK	RB1#0	22.46	2	-0.15	22.31	0.170	100	Pass
			RB1#47	23.24	2	-0.15	23.09	0.204	100	Pass
		BPSK	RB1#0	22.43	2	-0.15	22.28	0.169	100	Pass
			RB1#47	23.25	2	-0.15	23.10	0.204	100	Pass
15kHz	LCH	QPSK	RB1#0	22.33	2	-0.15	22.18	0.165	100	Pass
			RB1#11	23.47	2	-0.15	23.32	0.215	100	Pass
			RB12#0	22.48	2	-0.15	22.33	0.171	100	Pass
		BPSK	RB1#0	22.26	2	-0.15	22.11	0.163	100	Pass
			RB1#11	23.44	2	-0.15	23.29	0.213	100	Pass
	MCH	QPSK	RB1#0	22.05	2	-0.15	21.90	0.155	100	Pass
			RB1#11	23.36	2	-0.15	23.21	0.209	100	Pass
			RB12#0	22.16	2	-0.15	22.01	0.159	100	Pass
		BPSK	RB1#0	22.19	2	-0.15	22.04	0.160	100	Pass
			RB1#11	23.36	2	-0.15	23.21	0.209	100	Pass
	HCH	QPSK	RB1#0	22.5	2	-0.15	22.35	0.172	100	Pass
			RB1#11	23.3	2	-0.15	23.15	0.207	100	Pass
			RB12#0	22.38	2	-0.15	22.23	0.167	100	Pass
		BPSK	RB1#0	22.51	2	-0.15	22.36	0.172	100	Pass
			RB1#11	23.27	2	-0.15	23.12	0.205	100	Pass

Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	Antenna Gain (dBd)	ERP (dBm)	ERP (W)	Limit (W)	Verdict
NB-IoT BAND18 (824-830 MHz)										
3.75kHz	LCH	QPSK	RB1#0	22.17	2	-0.15	22.02	0.159	7.00	Pass
			RB1#47	23.04	2	-0.15	22.89	0.195	7.00	Pass
		BPSK	RB1#0	22.31	2	-0.15	22.16	0.164	7.00	Pass
			RB1#47	23.12	2	-0.15	22.97	0.198	7.00	Pass
	MCH	QPSK	RB1#0	22.28	2	-0.15	22.13	0.163	7.00	Pass
			RB1#47	23.15	2	-0.15	23.00	0.200	7.00	Pass
		BPSK	RB1#0	22.35	2	-0.15	22.20	0.166	7.00	Pass
			RB1#47	23.18	2	-0.15	23.03	0.201	7.00	Pass
	HCH	QPSK	RB1#0	21.83	2	-0.15	21.68	0.147	7.00	Pass
			RB1#47	22.7	2	-0.15	22.55	0.180	7.00	Pass
		BPSK	RB1#0	22.19	2	-0.15	22.04	0.160	7.00	Pass
			RB1#47	22.87	2	-0.15	22.72	0.187	7.00	Pass
15kHz	LCH	QPSK	RB1#0	22.15	2	-0.15	22.00	0.158	7.00	Pass
			RB1#11	23.22	2	-0.15	23.07	0.203	7.00	Pass
			RB12#0	22.21	2	-0.15	22.06	0.161	7.00	Pass
		BPSK	RB1#0	22.27	2	-0.15	22.12	0.163	7.00	Pass
			RB1#11	23.28	2	-0.15	23.13	0.206	7.00	Pass
	MCH	QPSK	RB1#0	22.45	2	-0.15	22.30	0.170	7.00	Pass
			RB1#11	23.36	2	-0.15	23.21	0.209	7.00	Pass
			RB12#0	22.38	2	-0.15	22.23	0.167	7.00	Pass
		BPSK	RB1#0	22.44	2	-0.15	22.29	0.169	7.00	Pass
			RB1#11	23.37	2	-0.15	23.22	0.210	7.00	Pass
	HCH	QPSK	RB1#0	22.17	2	-0.15	22.02	0.159	7.00	Pass
			RB1#11	23.19	2	-0.15	23.04	0.201	7.00	Pass
			RB12#0	22.27	2	-0.15	22.12	0.163	7.00	Pass
		BPSK	RB1#0	22.31	2	-0.15	22.16	0.164	7.00	Pass
			RB1#11	23.12	2	-0.15	22.97	0.198	7.00	Pass

Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	Antenna Gain (dBd)	ERP (dBm)	ERP (W)	Limit (W)	Verdict
NB-IoT BAND19										
3.75kHz	LCH	QPSK	RB1#0	22.1	2	-0.15	21.95	0.157	7.00	Pass
			RB1#47	22.96	2	-0.15	22.81	0.191	7.00	Pass
		BPSK	RB1#0	22.24	2	-0.15	22.09	0.162	7.00	Pass
			RB1#47	22.88	2	-0.15	22.73	0.187	7.00	Pass
	MCH	QPSK	RB1#0	22.13	2	-0.15	21.98	0.158	7.00	Pass
			RB1#47	22.7	2	-0.15	22.55	0.180	7.00	Pass
		BPSK	RB1#0	22.16	2	-0.15	22.01	0.159	7.00	Pass
			RB1#47	22.63	2	-0.15	22.48	0.177	7.00	Pass
	HCH	QPSK	RB1#0	22.33	2	-0.15	22.18	0.165	7.00	Pass
			RB1#47	22.63	2	-0.15	22.48	0.177	7.00	Pass
		BPSK	RB1#0	22.37	2	-0.15	22.22	0.167	7.00	Pass
			RB1#47	22.75	2	-0.15	22.60	0.182	7.00	Pass
15kHz	LCH	QPSK	RB1#0	22.01	2	-0.15	21.86	0.153	7.00	Pass
			RB1#11	22.82	2	-0.15	22.67	0.185	7.00	Pass
			RB12#0	22.29	2	-0.15	22.14	0.164	7.00	Pass
		BPSK	RB1#0	22.21	2	-0.15	22.06	0.161	7.00	Pass
			RB1#11	23.13	2	-0.15	22.98	0.199	7.00	Pass
	MCH	QPSK	RB1#0	22.41	2	-0.15	22.26	0.168	7.00	Pass
			RB1#11	22.87	2	-0.15	22.72	0.187	7.00	Pass
			RB12#0	22.53	2	-0.15	22.38	0.173	7.00	Pass
		BPSK	RB1#0	22.32	2	-0.15	22.17	0.165	7.00	Pass
			RB1#11	22.86	2	-0.15	22.71	0.187	7.00	Pass
	HCH	QPSK	RB1#0	22.27	2	-0.15	22.12	0.163	7.00	Pass
			RB1#11	22.56	2	-0.15	22.41	0.174	7.00	Pass
			RB12#0	22.51	2	-0.15	22.36	0.172	7.00	Pass
		BPSK	RB1#0	22.38	2	-0.15	22.23	0.167	7.00	Pass
			RB1#11	22.7	2	-0.15	22.55	0.180	7.00	Pass

Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (W)	Limit (W)	Verdict
NB-IoT BAND25									
3.75kHz	LCH	QPSK	RB1#0	20.37	2	22.37	0.173	2.00	Pass
			RB1#47	20.49	2	22.49	0.177	2.00	Pass
		BPSK	RB1#0	20.41	2	22.41	0.174	2.00	Pass
			RB1#47	20.49	2	22.49	0.177	2.00	Pass
	MCH	QPSK	RB1#0	20.84	2	22.84	0.192	2.00	Pass
			RB1#47	20.14	2	22.14	0.164	2.00	Pass
		BPSK	RB1#0	21.04	2	23.04	0.201	2.00	Pass
			RB1#47	20.11	2	22.11	0.163	2.00	Pass
	HCH	QPSK	RB1#0	21.3	2	23.30	0.214	2.00	Pass
			RB1#47	19.33	2	21.33	0.136	2.00	Pass
		BPSK	RB1#0	21.25	2	23.25	0.211	2.00	Pass
			RB1#47	19.31	2	21.31	0.135	2.00	Pass
15kHz	LCH	QPSK	RB1#0	20.51	2	22.51	0.178	2.00	Pass
			RB1#11	20.69	2	22.69	0.186	2.00	Pass
			RB12#0	20.77	2	22.77	0.189	2.00	Pass
		BPSK	RB1#0	20.56	2	22.56	0.180	2.00	Pass
			RB1#11	20.65	2	22.65	0.184	2.00	Pass
	MCH	QPSK	RB1#0	21	2	23.00	0.200	2.00	Pass
			RB1#11	19.92	2	21.92	0.156	2.00	Pass
			RB12#0	21.16	2	23.16	0.207	2.00	Pass
		BPSK	RB1#0	21.01	2	23.01	0.200	2.00	Pass
			RB1#11	20.09	2	22.09	0.162	2.00	Pass
	HCH	QPSK	RB1#0	21.33	2	23.33	0.215	2.00	Pass
			RB1#11	19.46	2	21.46	0.140	2.00	Pass
			RB12#0	21.37	2	23.37	0.217	2.00	Pass
		BPSK	RB1#0	21.42	2	23.42	0.220	2.00	Pass
			RB1#11	19.45	2	21.45	0.140	2.00	Pass

Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	Antenna Gain (dBd)	ERP (dBm)	ERP (W)	Limit (W)	Verdict
NB-IoT BAND26(824-849MHz)										
3.75kHz	LCH	QPSK	RB1#0	22.46	2	-0.15	22.31	0.170	7.00	Pass
			RB1#47	23.27	2	-0.15	23.12	0.205	7.00	Pass
		BPSK	RB1#0	22.22	2	-0.15	22.07	0.161	7.00	Pass
			RB1#47	23.15	2	-0.15	23.00	0.200	7.00	Pass
	MCH	QPSK	RB1#0	22.36	2	-0.15	22.21	0.166	7.00	Pass
			RB1#47	22.92	2	-0.15	22.77	0.189	7.00	Pass
		BPSK	RB1#0	22.4	2	-0.15	22.25	0.168	7.00	Pass
			RB1#47	22.9	2	-0.15	22.75	0.188	7.00	Pass
	HCH	QPSK	RB1#0	22.27	2	-0.15	22.12	0.163	7.00	Pass
			RB1#47	22.59	2	-0.15	22.44	0.175	7.00	Pass
		BPSK	RB1#0	22.18	2	-0.15	22.03	0.160	7.00	Pass
			RB1#47	22.53	2	-0.15	22.38	0.173	7.00	Pass
15kHz	LCH	QPSK	RB1#0	22.62	2	-0.15	22.47	0.177	7.00	Pass
			RB1#11	23.51	2	-0.15	23.36	0.217	7.00	Pass
			RB12#0	22.81	2	-0.15	22.66	0.185	7.00	Pass
		BPSK	RB1#0	22.54	2	-0.15	22.39	0.173	7.00	Pass
			RB1#11	23.52	2	-0.15	23.37	0.217	7.00	Pass
	MCH	QPSK	RB1#0	22.39	2	-0.15	22.24	0.167	7.00	Pass
			RB1#11	23.04	2	-0.15	22.89	0.195	7.00	Pass
			RB12#0	22.4	2	-0.15	22.25	0.168	7.00	Pass
		BPSK	RB1#0	22.36	2	-0.15	22.21	0.166	7.00	Pass
			RB1#11	22.99	2	-0.15	22.84	0.192	7.00	Pass
	HCH	QPSK	RB1#0	22.39	2	-0.15	22.24	0.167	7.00	Pass
			RB1#11	22.75	2	-0.15	22.60	0.182	7.00	Pass
			RB12#0	22.5	2	-0.15	22.35	0.172	7.00	Pass
		BPSK	RB1#0	22.36	2	-0.15	22.21	0.166	7.00	Pass
			RB1#11	22.65	2	-0.15	22.50	0.178	7.00	Pass

Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	Antenna Gain (dBd)	ERP (dBm)	ERP (W)	Limit (W)	Verdict
NB-IoT BAND26(814-824MHz)										
3.75kHz	LCH	QPSK	RB1#0	22.15	2	-0.15	22.00	0.158	100.000	Pass
			RB1#47	23.34	2	-0.15	23.19	0.208	100.000	Pass
		BPSK	RB1#0	22.11	2	-0.15	21.96	0.157	100.000	Pass
			RB1#47	23.29	2	-0.15	23.14	0.206	100.000	Pass
	MCH	QPSK	RB1#0	22.34	2	-0.15	22.19	0.166	100.000	Pass
			RB1#47	23.49	2	-0.15	23.34	0.216	100.000	Pass
		BPSK	RB1#0	22.32	2	-0.15	22.17	0.165	100.000	Pass
			RB1#47	23.45	2	-0.15	23.30	0.214	100.000	Pass
	HCH	QPSK	RB1#0	22.31	2	-0.15	22.16	0.164	100.000	Pass
			RB1#47	23.24	2	-0.15	23.09	0.204	100.000	Pass
		BPSK	RB1#0	22.4	2	-0.15	22.25	0.168	100.000	Pass
			RB1#47	23.3	2	-0.15	23.15	0.207	100.000	Pass
15kHz	LCH	QPSK	RB1#0	22.42	2	-0.15	22.27	0.169	100.000	Pass
			RB1#11	23.5	2	-0.15	23.35	0.216	100.000	Pass
			RB12#0	22.64	2	-0.15	22.49	0.177	100.000	Pass
		BPSK	RB1#0	22.38	2	-0.15	22.23	0.167	100.000	Pass
			RB1#11	23.53	2	-0.15	23.38	0.218	100.000	Pass
	MCH	QPSK	RB1#0	22.24	2	-0.15	22.09	0.162	100.000	Pass
			RB1#11	23.58	2	-0.15	23.43	0.220	100.000	Pass
			RB12#0	22.5	2	-0.15	22.35	0.172	100.000	Pass
		BPSK	RB1#0	22.45	2	-0.15	22.30	0.170	100.000	Pass
			RB1#11	23.64	2	-0.15	23.49	0.223	100.000	Pass
	HCH	QPSK	RB1#0	22.25	2	-0.15	22.10	0.162	100.000	Pass
			RB1#11	23.29	2	-0.15	23.14	0.206	100.000	Pass
			RB12#0	22.64	2	-0.15	22.49	0.177	100.000	Pass
		BPSK	RB1#0	22.36	2	-0.15	22.21	0.166	100.000	Pass
			RB1#11	23.28	2	-0.15	23.13	0.206	100.000	Pass

Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (W)	Limit (W)	Verdict
NB-IoT BAND66									
3.75kHz	LCH	QPSK	RB1#0	20	2	22.00	0.158	1.00	Pass
			RB1#47	20.2	2	22.20	0.166	1.00	Pass
		BPSK	RB1#0	20.22	2	22.22	0.167	1.00	Pass
			RB1#47	20.3	2	22.30	0.170	1.00	Pass
	MCH	QPSK	RB1#0	20.14	2	22.14	0.164	1.00	Pass
			RB1#47	20.24	2	22.24	0.167	1.00	Pass
		BPSK	RB1#0	19.95	2	21.95	0.157	1.00	Pass
			RB1#47	20.24	2	22.24	0.167	1.00	Pass
	HCH	QPSK	RB1#0	19.86	2	21.86	0.153	1.00	Pass
			RB1#47	20.3	2	22.30	0.170	1.00	Pass
		BPSK	RB1#0	19.82	2	21.82	0.152	1.00	Pass
			RB1#47	20.29	2	22.29	0.169	1.00	Pass
15kHz	LCH	QPSK	RB1#0	20.11	2	22.11	0.163	1.00	Pass
			RB1#11	20.46	2	22.46	0.176	1.00	Pass
			RB12#0	20.43	2	22.43	0.175	1.00	Pass
		BPSK	RB1#0	20.1	2	22.10	0.162	1.00	Pass
			RB1#11	20.47	2	22.47	0.177	1.00	Pass
	MCH	QPSK	RB1#0	20.05	2	22.05	0.160	1.00	Pass
			RB1#11	20.51	2	22.51	0.178	1.00	Pass
			RB12#0	20.55	2	22.55	0.180	1.00	Pass
		BPSK	RB1#0	20.11	2	22.11	0.163	1.00	Pass
			RB1#11	20.47	2	22.47	0.177	1.00	Pass
	HCH	QPSK	RB1#0	20.1	2	22.10	0.162	1.00	Pass
			RB1#11	20.46	2	22.46	0.176	1.00	Pass
			RB12#0	20.12	2	22.12	0.163	1.00	Pass
		BPSK	RB1#0	20.04	2	22.04	0.160	1.00	Pass
			RB1#11	20.49	2	22.49	0.177	1.00	Pass

Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	Antenna Gain (dBd)	ERP (dBm)	ERP (W)	Limit (W)	Verdict
NB-IoT BAND71										
3.75kHz	LCH	QPSK	RB1#0	23.96	2	-0.15	23.81	0.240	3.00	Pass
			RB1#47	19.58	2	-0.15	19.43	0.088	3.00	Pass
		BPSK	RB1#0	23.89	2	-0.15	23.74	0.237	3.00	Pass
			RB1#47	19.55	2	-0.15	19.40	0.087	3.00	Pass
	MCH	QPSK	RB1#0	23.86	2	-0.15	23.71	0.235	3.00	Pass
			RB1#47	20.66	2	-0.15	20.51	0.112	3.00	Pass
		BPSK	RB1#0	23.88	2	-0.15	23.73	0.236	3.00	Pass
			RB1#47	20.65	2	-0.15	20.50	0.112	3.00	Pass
	HCH	QPSK	RB1#0	23.67	2	-0.15	23.52	0.225	3.00	Pass
			RB1#47	21.5	2	-0.15	21.35	0.136	3.00	Pass
		BPSK	RB1#0	23.67	2	-0.15	23.52	0.225	3.00	Pass
			RB1#47	21.41	2	-0.15	21.26	0.134	3.00	Pass
15kHz	LCH	QPSK	RB1#0	24.17	2	-0.15	24.02	0.252	3.00	Pass
			RB1#11	19.81	2	-0.15	19.66	0.092	3.00	Pass
			RB12#0	24.03	2	-0.15	23.88	0.244	3.00	Pass
		BPSK	RB1#0	24.11	2	-0.15	23.96	0.249	3.00	Pass
			RB1#11	19.78	2	-0.15	19.63	0.092	3.00	Pass
	MCH	QPSK	RB1#0	24.11	2	-0.15	23.96	0.249	3.00	Pass
			RB1#11	20.87	2	-0.15	20.72	0.118	3.00	Pass
			RB12#0	23.98	2	-0.15	23.83	0.242	3.00	Pass
		BPSK	RB1#0	24.03	2	-0.15	23.88	0.244	3.00	Pass
			RB1#11	20.84	2	-0.15	20.69	0.117	3.00	Pass
	HCH	QPSK	RB1#0	23.82	2	-0.15	23.67	0.233	3.00	Pass
			RB1#11	21.62	2	-0.15	21.47	0.140	3.00	Pass
			RB12#0	23.81	2	-0.15	23.66	0.232	3.00	Pass
		BPSK	RB1#0	23.76	2	-0.15	23.61	0.230	3.00	Pass
			RB1#11	21.66	2	-0.15	21.51	0.142	3.00	Pass

Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Conducted Output AV Power (dBm)	Antenna Gain (dBi)	Antenna Gain (dBd)	ERP (dBm)	ERP (W)	Limit (W)	Verdict
NB-IoT BAND85										
3.75kHz	LCH	QPSK	RB1#0	23.63	2	-0.15	23.48	0.223	3.00	Pass
			RB1#47	21.46	2	-0.15	21.31	0.135	3.00	Pass
		BPSK	RB1#0	23.62	2	-0.15	23.47	0.222	3.00	Pass
			RB1#47	21.46	2	-0.15	21.31	0.135	3.00	Pass
	MCH	QPSK	RB1#0	23.56	2	-0.15	23.41	0.219	3.00	Pass
			RB1#47	21.77	2	-0.15	21.62	0.145	3.00	Pass
		BPSK	RB1#0	23.52	2	-0.15	23.37	0.217	3.00	Pass
			RB1#47	21.81	2	-0.15	21.66	0.147	3.00	Pass
	HCH	QPSK	RB1#0	23.3	2	-0.15	23.15	0.207	3.00	Pass
			RB1#47	22.02	2	-0.15	21.87	0.154	3.00	Pass
		BPSK	RB1#0	23.35	2	-0.15	23.20	0.209	3.00	Pass
			RB1#47	21.97	2	-0.15	21.82	0.152	3.00	Pass
15kHz	LCH	QPSK	RB1#0	23.83	2	-0.15	23.68	0.233	3.00	Pass
			RB1#11	21.62	2	-0.15	21.47	0.140	3.00	Pass
			RB12#0	23.8	2	-0.15	23.65	0.232	3.00	Pass
		BPSK	RB1#0	23.79	2	-0.15	23.64	0.231	3.00	Pass
			RB1#11	21.68	2	-0.15	21.53	0.142	3.00	Pass
	MCH	QPSK	RB1#0	23.75	2	-0.15	23.60	0.229	3.00	Pass
			RB1#11	21.94	2	-0.15	21.79	0.151	3.00	Pass
			RB12#0	23.76	2	-0.15	23.61	0.230	3.00	Pass
		BPSK	RB1#0	23.74	2	-0.15	23.59	0.229	3.00	Pass
			RB1#11	21.87	2	-0.15	21.72	0.149	3.00	Pass
	HCH	QPSK	RB1#0	23.49	2	-0.15	23.34	0.216	3.00	Pass
			RB1#11	22.17	2	-0.15	22.02	0.159	3.00	Pass
			RB12#0	23.49	2	-0.15	23.34	0.216	3.00	Pass
		BPSK	RB1#0	23.47	2	-0.15	23.32	0.215	3.00	Pass
			RB1#11	22.18	2	-0.15	22.03	0.160	3.00	Pass

A.2 Peak to Average Ratio

Note1: All test modes have been evaluated, only the worst-case is presented in the report.
Note2: Test plots please refer to the document “Annex No.:BL-SZ2370129-501 Data Part 1.pdf”.
LTE-M1 Mode Test Data

Test Band	Test Bandwidth	Test Channel	Test Mode	Test RB (Size#Offset)	Peak to Average Ratio (dB)	Limit (dB)	Refer to Plot[Note2]	Verdict
LTE-M1 Band 2	20 MHz	LCH	QPSK	RB6#0	9.28	13	1.1	Pass
			16-QAM	RB5#0	9.61	13	1.2	Pass
		MCH	QPSK	RB6#0	9.19	13	1.3	Pass
			16-QAM	RB5#0	9.37	13	1.4	Pass
		HCH	QPSK	RB6#0	9.09	13	1.5	Pass
			16-QAM	RB5#0	9.47	13	1.6	Pass
LTE-M1 Band 4	20 MHz	LCH	QPSK	RB6#0	9.52	13	2.1	Pass
			16-QAM	RB5#0	9.98	13	2.2	Pass
		MCH	QPSK	RB6#0	9.37	13	2.3	Pass
			16-QAM	RB5#0	9.7	13	2.4	Pass
		HCH	QPSK	RB6#0	9.37	13	2.5	Pass
			16-QAM	RB5#0	9.7	13	2.6	Pass
LTE-M1 Band 12	10 MHz	LCH	QPSK	RB6#0	9.66	13	3.1	Pass
			16-QAM	RB5#0	10.08	13	3.2	Pass
		MCH	QPSK	RB6#0	9.56	13	3.3	Pass
			16-QAM	RB5#0	10.17	13	3.4	Pass
		HCH	QPSK	RB6#0	9.66	13	3.5	Pass
			16-QAM	RB5#0	10.31	13	3.6	Pass
LTE-M1 Band 13	10 MHz	MCH	QPSK	RB6#0	9.98	13	4.1	Pass
			16-QAM	RB5#0	10.64	13	4.2	Pass
LTE-M1 Band 14	10 MHz	MCH	QPSK	RB6#0	9.98	13	5.1	Pass
			16-QAM	RB5#0	10.36	13	5.2	Pass
LTE-M1 Band 17	10 MHz	LCH	QPSK	RB6#0	9.7	13	6.1	Pass
			16QAM	RB5#0	10.12	13	6.2	Pass
		MCH	QPSK	RB6#0	9.75	13	6.3	Pass
			16QAM	RB5#0	10.41	13	6.4	Pass
		HCH	QPSK	RB6#0	9.7	13	6.5	Pass
			16QAM	RB5#0	10.36	13	6.6	Pass
LTE-M1 Band 25	20 MHz	LCH	QPSK	RB6#0	9.56	13	7.1	Pass
			16-QAM	RB5#0	9.19	13	7.2	Pass
		MCH	QPSK	RB6#0	9.52	13	7.3	Pass
			16-QAM	RB5#0	9.14	13	7.4	Pass
		HCH	QPSK	RB6#0	9.37	13	7.5	Pass
			16-QAM	RB5#0	8.95	13	7.6	Pass
LTE-M1	15 MHz	LCH	QPSK	RB6#0	9.84	13	8.1	Pass

Test Band	Test Bandwidth	Test Channel	Test Mode	Test RB (Size#Offset)	Peak to Average Ratio (dB)	Limit (dB)	Refer to Plot[Note2]	Verdict
Band 26 (824-849MHz)			16-QAM	RB5#0	10.73	13	8.2	Pass
		MCH	QPSK	RB6#0	9.89	13	8.3	Pass
			16-QAM	RB5#0	10.36	13	8.4	Pass
		HCH	QPSK	RB6#0	9.89	13	8.5	Pass
			16-QAM	RB5#0	10.64	13	8.6	Pass
LTE-M1 Band 26 (814-824MHz)	10 MHz	MCH	QPSK	RB6#0	10.08	13	9.1	Pass
			16-QAM	RB5#0	10.78	13	9.2	Pass
LTE-M1 Band 66	20 MHz	LCH	QPSK	RB6#0	9.47	13	10.1	Pass
			16-QAM	RB5#0	9.8	13	10.2	Pass
		MCH	QPSK	RB6#0	9.37	13	10.3	Pass
			16-QAM	RB5#0	9.7	13	10.4	Pass
		HCH	QPSK	RB6#0	9.37	13	10.5	Pass
			16-QAM	RB5#0	9.84	13	10.6	Pass
LTE-M1 Band 71	10 MHz	LCH	QPSK	RB6#0	9.8	13	11.1	Pass
			16-QAM	RB5#0	10.41	13	11.2	Pass
		MCH	QPSK	RB6#0	9.7	13	11.3	Pass
			16-QAM	RB5#0	10.36	13	11.4	Pass
		HCH	QPSK	RB6#0	9.75	13	11.5	Pass
			16-QAM	RB5#0	10.36	13	11.6	Pass
LTE-M1 Band 85	10 MHz	LCH	QPSK	RB6#0	9.84	13	12.1	Pass
			16-QAM	RB5#0	9.52	13	12.2	Pass
		MCH	QPSK	RB6#0	9.09	13	12.3	Pass
			16-QAM	RB5#0	9.52	13	12.4	Pass
		HCH	QPSK	RB6#0	9	13	12.5	Pass
			16-QAM	RB5#0	9.37	13	12.6	Pass

NB-IoT Mode Test Data

Test Band	Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Peak to Average Ratio (dB)	Limit (dB)	Refer to Plot[Note2]	Verdict
NB-IoT Band 2	3.75kHz	LCH	QPSK	RB1#0	3.14	13	13.1	Pass
			BPSK	RB1#0	2.62	13	13.2	Pass
		MCH	QPSK	RB1#0	3.14	13	13.3	Pass
			BPSK	RB1#0	2.53	13	13.4	Pass
		HCH	QPSK	RB1#0	3.14	13	13.5	Pass
			BPSK	RB1#0	2.77	13	13.6	Pass
	15kHz	LCH	QPSK	RB1#0	6.37	13	13.7	Pass
			BPSK	RB1#0	4.45	13	13.8	Pass
		MCH	QPSK	RB1#0	6.14	13	13.9	Pass
			BPSK	RB1#0	4.73	13	13.10	Pass
		HCH	QPSK	RB1#0	6.28	13	13.11	Pass
			BPSK	RB1#0	4.64	13	13.12	Pass
NB-IoT Band 4	3.75kHz	LCH	QPSK	RB1#0	3.23	13	14.1	Pass
			BPSK	RB1#0	3	13	14.2	Pass
		MCH	QPSK	RB1#0	1.45	13	14.3	Pass
			BPSK	RB1#0	2.16	13	14.4	Pass
		HCH	QPSK	RB1#0	3.14	13	14.5	Pass
			BPSK	RB1#0	3	13	14.6	Pass
	15kHz	LCH	QPSK	RB1#0	6.09	13	14.7	Pass
			BPSK	RB1#0	4.64	13	14.8	Pass
		MCH	QPSK	RB1#0	5.25	13	14.9	Pass
			BPSK	RB1#0	2.58	13	14.10	Pass
		HCH	QPSK	RB1#0	6.37	13	14.11	Pass
			BPSK	RB1#0	4.5	13	14.12	Pass
NB-IoT Band 12	3.75kHz	LCH	QPSK	RB1#0	3.05	13	15.1	Pass
			BPSK	RB1#0	2.77	13	15.2	Pass
		MCH	QPSK	RB1#0	3.28	13	15.3	Pass
			BPSK	RB1#0	2.72	13	15.4	Pass
		HCH	QPSK	RB1#0	2.95	13	15.5	Pass
			BPSK	RB1#0	2.67	13	15.6	Pass
	15kHz	LCH	QPSK	RB1#0	6.23	13	15.7	Pass
			BPSK	RB1#0	4.64	13	15.8	Pass
		MCH	QPSK	RB1#0	6.7	13	15.9	Pass
			BPSK	RB1#0	4.31	13	15.10	Pass
		HCH	QPSK	RB1#0	6.14	13	15.11	Pass
			BPSK	RB1#0	4.12	13	15.12	Pass
NB-IoT Band 13	3.75kHz	LCH	QPSK	RB1#0	2.86	13	16.1	Pass
			BPSK	RB1#0	2.48	13	16.2	Pass

Test Band	Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Peak to Average Ratio (dB)	Limit (dB)	Refer to Plot[Note2]	Verdict
		MCH	QPSK	RB1#0	3.23	13	16.3	Pass
			BPSK	RB1#0	2.39	13	16.4	Pass
		HCH	QPSK	RB1#0	2.95	13	16.5	Pass
			BPSK	RB1#0	2.53	13	16.6	Pass
	15kHz	LCH	QPSK	RB1#0	4.69	13	16.7	Pass
			BPSK	RB1#0	4.41	13	16.8	Pass
		MCH	QPSK	RB1#0	6.37	13	16.9	Pass
			BPSK	RB1#0	4.31	13	16.10	Pass
		HCH	QPSK	RB1#0	6.37	13	16.11	Pass
			BPSK	RB1#0	4.5	13	16.12	Pass
NB-IoT Band 14	3.75kHz	LCH	QPSK	RB1#0	3.14	13	17.1	Pass
			BPSK	RB1#0	2.62	13	17.2	Pass
		MCH	QPSK	RB1#0	3.37	13	17.3	Pass
			BPSK	RB1#0	2.48	13	17.4	Pass
		HCH	QPSK	RB1#0	3.09	13	17.5	Pass
			BPSK	RB1#0	2.81	13	17.6	Pass
	15kHz	LCH	QPSK	RB1#0	6.05	13	17.7	Pass
			BPSK	RB1#0	4.69	13	17.8	Pass
		MCH	QPSK	RB1#0	6.33	13	17.9	Pass
			BPSK	RB1#0	4.69	13	17.10	Pass
		HCH	QPSK	RB1#0	6.33	13	17.11	Pass
			BPSK	RB1#0	4.69	13	17.12	Pass
NB-IoT Band 17	3.75kHz	LCH	QPSK	RB1#0	3.05	13	18.1	Pass
			BPSK	RB1#0	2.34	13	18.2	Pass
		MCH	QPSK	RB1#0	5.91	13	18.3	Pass
			BPSK	RB1#0	6.37	13	18.4	Pass
		HCH	QPSK	RB1#0	3.19	13	18.5	Pass
			BPSK	RB1#0	2.39	13	18.6	Pass
	15kHz	LCH	QPSK	RB1#0	5.86	13	18.7	Pass
			BPSK	RB1#0	4.22	13	18.8	Pass
		MCH	QPSK	RB1#0	5.25	13	18.9	Pass
			BPSK	RB1#0	3.19	13	18.10	Pass
		HCH	QPSK	RB1#0	6.8	13	18.11	Pass
			BPSK	RB1#0	4.41	13	18.12	Pass
NB-IoT Band 25	3.75kHz	LCH	QPSK	RB1#0	3.42	13	19.7	Pass
			BPSK	RB1#0	3	13	19.8	Pass
		MCH	QPSK	RB1#0	6.37	13	19.9	Pass
			BPSK	RB1#0	4.55	13	19.10	Pass
		HCH	QPSK	RB1#0	3.09	13	19.11	Pass

Test Band	Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Peak to Average Ratio (dB)	Limit (dB)	Refer to Plot[Note2]	Verdict
			BPSK	RB1#0	2.86	13	19.12	Pass
	15kHz	LCH	QPSK	RB1#0	6.61	13	19.7	Pass
			BPSK	RB1#0	4.73	13	19.8	Pass
		MCH	QPSK	RB1#0	3.14	13	19.9	Pass
			BPSK	RB1#0	2.67	13	19.10	Pass
		HCH	QPSK	RB1#0	6.23	13	19.11	Pass
			BPSK	RB1#0	4.59	13	19.12	Pass
NB-IoT Band 26(824-849MHz)	3.75kHz	LCH	QPSK	RB1#0	3.09	13	20.1	Pass
			BPSK	RB1#0	2.48	13	20.2	Pass
		MCH	QPSK	RB1#0	3.33	13	20.3	Pass
			BPSK	RB1#0	2.62	13	20.4	Pass
		HCH	QPSK	RB1#0	3.33	13	20.5	Pass
			BPSK	RB1#0	2.72	13	20.6	Pass
	15kHz	LCH	QPSK	RB1#0	6.56	13	20.7	Pass
			BPSK	RB1#0	4.59	13	20.8	Pass
		MCH	QPSK	RB1#0	6.23	13	20.9	Pass
			BPSK	RB1#0	4.73	13	20.10	Pass
		HCH	QPSK	RB1#0	6.19	13	20.11	Pass
			BPSK	RB1#0	4.45	13	20.12	Pass
NB-IoT Band 26(814-824MHz)	3.75kHz	LCH	QPSK	RB1#0	3.42	13	21.1	Pass
			BPSK	RB1#0	2.95	13	21.2	Pass
		MCH	QPSK	RB1#0	3.37	13	21.3	Pass
			BPSK	RB1#0	2.48	13	21.4	Pass
		HCH	QPSK	RB1#0	3.28	13	21.5	Pass
			BPSK	RB1#0	2.53	13	21.6	Pass
	15kHz	LCH	QPSK	RB1#0	5.91	13	21.7	Pass
			BPSK	RB1#0	4.59	13	21.8	Pass
		MCH	QPSK	RB1#0	6.05	13	21.9	Pass
			BPSK	RB1#0	4.55	13	21.10	Pass
		HCH	QPSK	RB1#0	6.37	13	21.11	Pass
			BPSK	RB1#0	4.5	13	21.12	Pass
NB-IoT Band 66	3.75kHz	LCH	QPSK	RB1#0	3.14	13	22.1	Pass
			BPSK	RB1#0	3	13	22.2	Pass
		MCH	QPSK	RB1#0	3.14	13	22.3	Pass
			BPSK	RB1#0	3	13	22.4	Pass
		HCH	QPSK	RB1#0	3.14	13	22.5	Pass
			BPSK	RB1#0	2.58	13	22.6	Pass
	15kHz	LCH	QPSK	RB1#0	6.37	13	22.7	Pass
			BPSK	RB1#0	4.78	13	22.8	Pass

Test Band	Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Peak to Average Ratio (dB)	Limit (dB)	Refer to Plot[Note2]	Verdict
NB-IoT Band 71	3.75kHz	MCH	QPSK	RB1#0	6.42	13	22.9	Pass
			BPSK	RB1#0	4.78	13	22.10	Pass
		HCH	QPSK	RB1#0	6.37	13	22.11	Pass
			BPSK	RB1#0	4.78	13	22.12	Pass
		LCH	QPSK	RB1#0	2.95	13	23.1	Pass
			BPSK	RB1#0	2.53	13	23.2	Pass
		MCH	QPSK	RB1#0	3.28	13	23.3	Pass
			BPSK	RB1#0	2.34	13	23.4	Pass
		HCH	QPSK	RB1#0	3.23	13	23.5	Pass
			BPSK	RB1#0	2.39	13	23.6	Pass
	15kHz	LCH	QPSK	RB1#0	6.19	13	23.7	Pass
			BPSK	RB1#0	4.22	13	23.8	Pass
		MCH	QPSK	RB1#0	6.33	13	23.9	Pass
			BPSK	RB1#0	4.45	13	23.10	Pass
		HCH	QPSK	RB1#0	5.77	13	23.11	Pass
			BPSK	RB1#0	4.17	13	23.12	Pass
NB-IoT Band 85	3.75kHz	LCH	QPSK	RB1#0	3.05	13	24.1	Pass
			BPSK	RB1#0	2.3	13	24.2	Pass
		MCH	QPSK	RB1#0	6.23	13	24.3	Pass
			BPSK	RB1#0	4.64	13	24.4	Pass
		HCH	QPSK	RB1#0	3.05	13	24.5	Pass
			BPSK	RB1#0	2.34	13	24.6	Pass
	15kHz	LCH	QPSK	RB1#0	6.61	13	24.7	Pass
			BPSK	RB1#0	4.59	13	24.8	Pass
		MCH	QPSK	RB1#0	3.14	13	24.9	Pass
			BPSK	RB1#0	2.34	13	24.10	Pass
		HCH	QPSK	RB1#0	6.28	13	24.11	Pass
			BPSK	RB1#0	4.41	13	24.12	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-SZ2370129-501 Data Part 2.pdf”.

LTE-M1 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]
LTE-M1 Band 2	1.4 MHz	MCH	QPSK	RB6#0	1.123861	1.3406	1.1
			16-QAM	RB5#0	0.97615	1.416988	1.2
	3 MHz	MCH	QPSK	RB6#0	1.141219	1.349068	1.3
			16-QAM	RB5#0	0.997436	1.295897	1.4
	5 MHz	MCH	QPSK	RB6#0	1.130416	1.408043	1.5
			16-QAM	RB5#0	1.017771	1.394027	1.6
	10 MHz	MCH	QPSK	RB6#0	1.145603	1.577868	1.7
			16-QAM	RB5#0	1.016011	1.417182	1.8
	15 MHz	MCH	QPSK	RB6#0	1.150289	1.362414	1.9
			16-QAM	RB5#0	1.018486	1.376045	1.10
	20 MHz	MCH	QPSK	RB6#0	1.135627	1.464545	1.11
			16-QAM	RB5#0	0.993023	1.415469	1.12
LTE-M1 Band 4	1.4 MHz	MCH	QPSK	RB6#0	1.124919	1.401781	2.1
			16-QAM	RB5#0	0.970304	1.426722	2.2
	3 MHz	MCH	QPSK	RB6#0	1.129849	1.403078	2.3
			16-QAM	RB5#0	0.98324	1.286246	2.4
	5 MHz	MCH	QPSK	RB6#0	1.119862	1.361592	2.5
			16-QAM	RB5#0	0.986361	1.379234	2.6
	10 MHz	MCH	QPSK	RB6#0	1.132782	1.442171	2.7
			16-QAM	RB5#0	0.987894	1.382186	2.8
	15 MHz	MCH	QPSK	RB6#0	1.138852	1.382896	2.9
			16-QAM	RB5#0	1.011732	1.378649	2.10
	20 MHz	MCH	QPSK	RB6#0	1.140963	1.361068	2.11
			16-QAM	RB5#0	1.044094	1.413622	2.12
LTE-M1 Band 5	1.4 MHz	MCH	QPSK	RB6#0	1.127416	1.332708	3.1
			16-QAM	RB5#0	0.974353	1.463771	3.2
	3 MHz	MCH	QPSK	RB6#0	1.132902	1.382385	3.3
			16-QAM	RB5#0	0.985068	1.43912	3.4
	5 MHz	MCH	QPSK	RB6#0	1.137261	1.566268	3.5
			16-QAM	RB5#0	0.979348	1.372904	3.6
	10 MHz	MCH	QPSK	RB6#0	1.143974	1.387448	3.7
			16-QAM	RB5#0	0.98525	1.347652	3.8
LTE-M1	1.4 MHz	MCH	QPSK	RB6#0	1.120697	1.39581	4.1

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 12			16-QAM	RB5#0	0.995579	1.299547	4.2
	3 MHz	MCH	QPSK	RB6#0	1.136662	1.382852	4.3
			16-QAM	RB5#0	1.019697	1.340016	4.4
	5 MHz	MCH	QPSK	RB6#0	1.120449	1.419177	4.5
			16-QAM	RB5#0	0.986244	1.399546	4.6
	10 MHz	MCH	QPSK	RB6#0	1.135637	1.38412	4.7
			16-QAM	RB5#0	1.044828	1.394151	4.8
LTE-M1 Band 13	5 MHz	MCH	QPSK	RB6#0	1.133498	1.334653	5.1
			16-QAM	RB5#0	1.021062	1.350496	5.2
	10 MHz	MCH	QPSK	RB6#0	1.131849	1.395596	5.3
			16-QAM	RB5#0	1.037445	1.393937	5.4
LTE-M1 Band 14	5 MHz	MCH	QPSK	RB6#0	1.134836	1.420301	6.1
			16-QAM	RB5#0	1.034022	1.312244	6.2
	10 MHz	MCH	QPSK	RB6#0	1.140271	1.380121	6.3
			16-QAM	RB5#0	1.046127	1.41361	6.4
LTE-M1 Band 17	5 MHz	MCH	QPSK	RB6#0	1.135007	1.348757	7.1
			16-QAM	RB5#0	1.024077	1.356976	7.2
	10 MHz	MCH	QPSK	RB6#0	1.132068	1.432385	7.3
			16-QAM	RB5#0	1.033808	1.356281	7.4
LTE-M1 Band 18 (824-830)	5 MHz	MCH	QPSK	RB6#0	1.135741	1.407903	8.1
			16-QAM	RB5#0	1.020435	1.327196	8.2
LTE-M1 Band 18 (815-824)	5 MHz	MCH	QPSK	RB6#0	1.151625	1.321032	9.1
			16-QAM	RB5#0	1.004319	1.283132	9.2
LTE-M1 Band 19	5 MHz	MCH	QPSK	RB6#0	1.152948	1.327561	10.1
			16-QAM	RB5#0	0.983252	1.397146	10.2
	10 MHz	MCH	QPSK	RB6#0	1.127569	1.363054	10.3
			16-QAM	RB5#0	1.050146	1.395714	10.4
	15 MHz	MCH	QPSK	RB6#0	1.137613	1.389638	10.5
			16-QAM	RB5#0	1.010414	1.3701	10.6
LTE-M1 Band 25	1.4 MHz	MCH	QPSK	RB6#0	1.123359	1.375962	11.1
			16-QAM	RB5#0	0.975785	1.311085	11.2
	3 MHz	MCH	QPSK	RB6#0	1.131182	1.389536	11.3
			16-QAM	RB5#0	1.008265	1.369748	11.4
	5 MHz	MCH	QPSK	RB6#0	1.133548	1.565992	11.5
			16-QAM	RB5#0	1.032833	1.405487	11.6
	10 MHz	MCH	QPSK	RB6#0	1.131373	1.405609	11.7
			16-QAM	RB5#0	1.006199	1.381076	11.8

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]
	15 MHz	MCH	QPSK	RB6#0	1.146617	1.402153	11.9
			16-QAM	RB5#0	1.029033	1.406567	11.10
	20 MHz	MCH	QPSK	RB6#0	1.142667	1.387968	11.11
			16-QAM	RB5#0	1.050319	1.366454	11.12
LTE-M1 Band 26 (824-849MHz)	1.4 MHz	MCH	QPSK	RB6#0	1.127561	1.344507	12.1
			16-QAM	RB5#0	0.97449	1.448424	12.2
	3 MHz	MCH	QPSK	RB6#0	1.131568	1.356833	12.3
			16-QAM	RB5#0	0.987547	1.466465	12.4
	5 MHz	MCH	QPSK	RB6#0	1.120739	1.38337	12.5
			16-QAM	RB5#0	0.982269	1.374657	12.6
	10 MHz	MCH	QPSK	RB6#0	1.158518	1.531907	12.7
			16-QAM	RB5#0	0.995709	1.395772	12.8
	15 MHz	MCH	QPSK	RB6#0	1.155816	1.396512	12.9
			16-QAM	RB5#0	1.013176	1.344923	12.10
LTE-M1 Band 26 (814-824MHz)	1.4 MHz	MCH	QPSK	RB6#0	1.130968	1.408149	13.1
			16-QAM	RB5#0	1.013306	1.336886	13.2
	3 MHz	MCH	QPSK	RB6#0	1.150598	1.411007	13.3
			16-QAM	RB5#0	0.993238	1.297065	13.4
	5 MHz	MCH	QPSK	RB6#0	1.138209	1.360569	13.5
			16-QAM	RB5#0	1.030464	1.368846	13.6
	10 MHz	MCH	QPSK	RB6#0	1.128969	1.414139	13.7
			16-QAM	RB5#0	1.046829	1.398618	13.8
LTE-M1 Band 66	1.4 MHz	MCH	QPSK	RB6#0	1.120582	1.39906	14.1
			16-QAM	RB5#0	0.99412	1.344761	14.2
	3 MHz	MCH	QPSK	RB6#0	1.127316	1.378407	14.3
			16-QAM	RB5#0	0.987161	1.51551	14.4
	5 MHz	MCH	QPSK	RB6#0	1.135981	1.400586	14.5
			16-QAM	RB5#0	1.006074	1.33521	14.6
	10 MHz	MCH	QPSK	RB6#0	1.131158	1.446899	14.7
			16-QAM	RB5#0	0.985447	1.346294	14.8
	15 MHz	MCH	QPSK	RB6#0	1.139985	1.383067	14.9
			16-QAM	RB5#0	1.010304	1.307774	14.10
	20 MHz	MCH	QPSK	RB6#0	1.140436	1.370335	14.11
			16-QAM	RB5#0	1.031618	1.351908	14.12
LTE-M1 Band 71	5 MHz	MCH	QPSK	RB6#0	1.128548	1.363716	15.1
			16-QAM	RB5#0	1.02448	1.346413	15.2
	10 MHz	MCH	QPSK	RB6#0	1.14363	1.453874	15.3
			16-QAM	RB5#0	0.997748	1.364485	15.4
	15 MHz	MCH	QPSK	RB6#0	1.155754	1.529119	15.5

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]
LTE-M1 Band 85	20 MHz	MCH	16-QAM	RB5#0	1.035138	1.355354	15.6
			QPSK	RB6#0	1.137874	1.504799	15.7
			16-QAM	RB5#0	0.994739	1.404759	15.8
	5 MHz	MCH	QPSK	RB6#0	1.13977	1.370716	16.1
			16-QAM	RB5#0	1.022456	1.339493	16.2
	10 MHz	MCH	QPSK	RB6#0	1.147347	1.38164	16.3
			16-QAM	RB5#0	0.996223	1.284768	16.4

NB-IoT Mode Test Data

Test Band	Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Measured 99% Occupied Bandwidth (MHz)	Measured -26 dB Occupied Bandwidth (MHz)	Refer to Plot[Note 2]
NB-IoT Band 2	3.75kHz	LCH	QPSK	RB1#0	0.097627	0.042235	17.1
			BPSK	RB1#0	0.094189	0.04099	17.2
		MCH	QPSK	RB1#0	0.100203	0.044809	17.3
			BPSK	RB1#0	0.101003	0.042273	17.4
		HCH	QPSK	RB1#0	0.097128	0.044938	17.5
			BPSK	RB1#0	0.093815	0.041832	17.6
	15kHz	LCH	QPSK	RB1#0	0.150245	0.147392	17.7
				RB12#0	0.191126	0.270563	17.8
			BPSK	RB1#0	0.141639	0.130448	17.9
		MCH	QPSK	RB1#0	0.147257	0.155158	17.10
				RB12#0	0.190397	0.265257	17.11
			BPSK	RB1#0	0.151223	0.140401	17.12
		HCH	QPSK	RB1#0	0.141041	0.151809	17.13
				RB12#0	0.187743	0.279132	17.14
			BPSK	RB1#0	0.148537	0.126043	17.15
NB-IoT Band 4	3.75kHz	LCH	QPSK	RB1#0	0.109724	0.05585	18.1
			BPSK	RB1#0	0.104755	0.04154	18.2
		MCH	QPSK	RB1#0	0.110272	0.045564	18.3
			BPSK	RB1#0	0.110402	0.042145	18.4
		HCH	QPSK	RB1#0	0.105117	0.04325	18.5
			BPSK	RB1#0	0.106922	0.090573	18.6
	15kHz	LCH	QPSK	RB1#0	0.142002	0.137411	18.7
				RB12#0	0.191166	0.25416	18.8
			BPSK	RB1#0	0.145197	0.13632	18.9
		MCH	QPSK	RB1#0	0.152249	0.15699	18.10
				RB12#0	0.191006	0.256188	18.11
			BPSK	RB1#0	0.155613	0.139257	18.12
		HCH	QPSK	RB1#0	0.155442	0.154379	18.13
				RB12#0	0.186762	0.246588	18.14
			BPSK	RB1#0	0.153661	0.146447	18.15
NB-IoT Band 5	3.75kHz	LCH	QPSK	RB1#0	0.082736	0.0426	19.1
			BPSK	RB1#0	0.075685	0.038909	19.2
		MCH	QPSK	RB1#0	0.092209	0.042657	19.3
			BPSK	RB1#0	0.090319	0.042954	19.4
		HCH	QPSK	RB1#0	0.08632	0.045898	19.5
			BPSK	RB1#0	0.076574	0.039813	19.6
	15kHz	LCH	QPSK	RB1#0	0.139306	0.161152	19.7
				RB12#0	0.190374	0.250207	19.8

Test Band	Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Measured 99% Occupied Bandwidth (MHz)	Measured -26 dB Occupied Bandwidth (MHz)	Refer to Plot[Note 2]
			BPSK	RB1#0	0.148065	0.153021	19.9
		MCH	QPSK	RB1#0	0.159838	0.140644	19.10
				RB12#0	0.193331	0.252765	19.11
			BPSK	RB1#0	0.148836	0.138016	19.12
		HCH	QPSK	RB1#0	0.152513	0.152726	19.13
				RB12#0	0.186339	0.259432	19.14
			BPSK	RB1#0	0.147953	0.134091	19.15
NB-IoT Band 12	3.75kHz	LCH	QPSK	RB1#0	0.088674	0.041041	20.1
			BPSK	RB1#0	0.082922	0.04087	20.2
		MCH	QPSK	RB1#0	0.090767	0.043901	20.3
			BPSK	RB1#0	0.082251	0.041342	20.4
		HCH	QPSK	RB1#0	0.078555	0.041215	20.5
			BPSK	RB1#0	0.071212	0.039476	20.6
	15kHz	LCH	QPSK	RB1#0	0.147075	0.131274	20.7
				RB12#0	0.190859	0.253539	20.8
			BPSK	RB1#0	0.144708	0.122602	20.9
		MCH	QPSK	RB1#0	0.141979	0.154425	20.10
				RB12#0	0.189885	0.261917	20.11
			BPSK	RB1#0	0.147563	0.122185	20.12
		HCH	QPSK	RB1#0	0.144616	0.126139	20.13
				RB12#0	0.184827	0.251323	20.14
			BPSK	RB1#0	0.138546	0.121257	20.15
NB-IoT Band 13	3.75kHz	LCH	QPSK	RB1#0	0.093484	0.04395	21.1
			BPSK	RB1#0	0.08597	0.041414	21.2
		MCH	QPSK	RB1#0	0.091718	0.039706	21.3
			BPSK	RB1#0	0.088341	0.041315	21.4
		HCH	QPSK	RB1#0	0.080245	0.041593	21.5
			BPSK	RB1#0	0.069842	0.039615	21.6
	15kHz	LCH	QPSK	RB1#0	0.14712	0.142945	21.7
				RB12#0	0.18444	0.26159	21.8
			BPSK	RB1#0	0.152039	0.141752	21.9
		MCH	QPSK	RB1#0	0.140224	0.127653	21.10
				RB12#0	0.188849	0.262377	21.11
			BPSK	RB1#0	0.148708	0.128645	21.12
		HCH	QPSK	RB1#0	0.144646	0.150673	21.13
				RB12#0	0.185397	0.252856	21.14
			BPSK	RB1#0	0.141554	0.131469	21.15
NB-IoT Band 14	3.75kHz	LCH	QPSK	RB1#0	0.093865	0.044878	22.1
			BPSK	RB1#0	0.087057	0.041437	22.2

Test Band	Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Measured 99% Occupied Bandwidth (MHz)	Measured -26 dB Occupied Bandwidth (MHz)	Refer to Plot[Note 2]
		MCH	QPSK	RB1#0	0.093395	0.041124	22.3
			BPSK	RB1#0	0.086993	0.040314	22.4
		HCH	QPSK	RB1#0	0.092768	0.042022	22.5
			BPSK	RB1#0	0.085431	0.041685	22.6
	15kHz	LCH	QPSK	RB1#0	0.147289	0.142165	22.7
				RB12#0	0.192458	0.258504	22.8
			BPSK	RB1#0	0.149199	0.132909	22.9
		MCH	QPSK	RB1#0	0.141503	0.144821	22.10
				RB12#0	0.190455	0.253609	22.11
			BPSK	RB1#0	0.148451	0.130496	22.12
		HCH	QPSK	RB1#0	0.148206	0.14478	22.13
				RB12#0	0.187379	0.258986	22.14
			BPSK	RB1#0	0.141737	0.131577	22.15
NB-IoT Band 17	3.75kHz	LCH	QPSK	RB1#0	0.091064	0.044724	23.1
			BPSK	RB1#0	0.08488	0.04134	23.2
		MCH	QPSK	RB1#0	0.088773	0.044016	23.3
			BPSK	RB1#0	0.085122	0.042182	23.4
		HCH	QPSK	RB1#0	0.093319	0.041331	23.5
			BPSK	RB1#0	0.084722	0.040947	23.6
	15kHz	LCH	QPSK	RB1#0	0.143622	0.153179	23.7
				RB12#0	0.088228	0.040799	23.8
			BPSK	RB1#0	0.086718	0.042265	23.9
		MCH	QPSK	RB1#0	0.139778	0.132392	23.10
				RB12#0	0.190816	0.263799	23.11
			BPSK	RB1#0	0.152507	0.151392	23.12
		HCH	QPSK	RB1#0	0.145939	0.152261	23.13
				RB12#0	0.191909	0.26062	23.14
			BPSK	RB1#0	0.141797	0.122059	23.15
NB-IoT Band18 (815-824)	3.75kHz	LCH	QPSK	RB1#0	0.093404	0.044507	24.1
			BPSK	RB1#0	0.088799	0.041388	24.2
		MCH	QPSK	RB1#0	0.095374	0.044384	24.3
			BPSK	RB1#0	0.090003	0.040916	24.4
		HCH	QPSK	RB1#0	0.094335	0.043292	24.5
			BPSK	RB1#0	0.089342	0.041816	24.6
	15kHz	LCH	QPSK	RB1#0	0.14637	0.144721	24.7
				RB12#0	0.183726	0.252057	24.8
			BPSK	RB1#0	0.149568	0.135063	24.9
		MCH	QPSK	RB1#0	0.149909	0.130856	24.10
				RB12#0	0.192424	0.254857	24.11

Test Band	Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Measured 99% Occupied Bandwidth (MHz)	Measured -26 dB Occupied Bandwidth (MHz)	Refer to Plot[Note 2]
			BPSK	RB1#0	0.151116	0.13274	24.12
		HCH	QPSK	RB1#0	0.15789	0.151064	24.13
				RB12#0	0.190793	0.251977	24.14
			BPSK	RB1#0	0.152264	0.140822	24.15
NB-IoT Band18 (824-830)	3.75kHz	LCH	QPSK	RB1#0	0.095725	0.044308	25.1
			BPSK	RB1#0	0.09009	0.040925	25.2
		MCH	QPSK	RB1#0	0.094026	0.043349	25.3
			BPSK	RB1#0	0.089101	0.040955	25.4
		HCH	QPSK	RB1#0	0.094768	0.044673	25.5
			BPSK	RB1#0	0.091676	0.040205	25.6
	15kHz	LCH	QPSK	RB1#0	0.144978	0.132583	25.7
				RB12#0	0.192884	0.253543	25.8
			BPSK	RB1#0	0.143642	0.120245	25.9
		MCH	QPSK	RB1#0	0.147051	0.11905	25.10
				RB12#0	0.188165	0.259319	25.11
			BPSK	RB1#0	0.142707	0.122552	25.12
		HCH	QPSK	RB1#0	0.148367	0.132586	25.13
				RB12#0	0.193198	0.262844	25.14
			BPSK	RB1#0	0.147339	0.122908	25.15
NB-IoT Band 19	3.75kHz	LCH	QPSK	RB1#0	0.095461	0.041329	26.1
			BPSK	RB1#0	0.089844	0.041189	26.2
		MCH	QPSK	RB1#0	0.096223	0.044024	26.3
			BPSK	RB1#0	0.091012	0.039725	26.4
		HCH	QPSK	RB1#0	0.097464	0.044108	26.5
			BPSK	RB1#0	0.089959	0.04178	26.6
	15kHz	LCH	QPSK	RB1#0	0.145558	0.141114	26.7
				RB12#0	0.190822	0.259083	26.8
			BPSK	RB1#0	0.147446	0.122035	26.9
		MCH	QPSK	RB1#0	0.145696	0.142864	26.10
				RB12#0	0.186742	0.253764	26.11
			BPSK	RB1#0	0.150756	0.138953	26.12
		HCH	QPSK	RB1#0	0.145858	0.121842	26.13
				RB12#0	0.187075	0.259346	26.14
			BPSK	RB1#0	0.148535	0.121872	26.15
NB-IoT Band 25	3.75kHz	LCH	QPSK	RB1#0	0.10212	0.042622	27.1
			BPSK	RB1#0	0.100065	0.042789	27.2
		MCH	QPSK	RB1#0	0.104399	0.044926	27.3
			BPSK	RB1#0	0.101618	0.042898	27.4
		HCH	QPSK	RB1#0	0.104801	0.045529	27.5

Test Band	Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Measured 99% Occupied Bandwidth (MHz)	Measured -26 dB Occupied Bandwidth (MHz)	Refer to Plot[Note 2]
			BPSK	RB1#0	0.103764	0.042493	27.6
	15kHz	LCH	QPSK	RB1#0	0.148666	0.144005	27.7
				RB12#0	0.192622	0.268735	27.8
			BPSK	RB1#0	0.151141	0.145069	27.9
		MCH	QPSK	RB1#0	0.151188	0.142815	27.10
				RB12#0	0.191989	0.269236	27.11
			BPSK	RB1#0	0.148571	0.12745	27.12
		HCH	QPSK	RB1#0	0.145135	0.15536	27.13
				RB12#0	0.194594	0.277357	27.14
			BPSK	RB1#0	0.148484	0.133849	27.15
NB-IoT Band 26 (824-849MHz)	3.75kHz	LCH	QPSK	RB1#0	0.096959	0.04474	28.1
			BPSK	RB1#0	0.091433	0.041544	28.2
		MCH	QPSK	RB1#0	0.097127	0.044687	28.3
			BPSK	RB1#0	0.090182	0.041774	28.4
		HCH	QPSK	RB1#0	0.09737	0.043468	28.5
			BPSK	RB1#0	0.093319	0.042415	28.6
	15kHz	LCH	QPSK	RB1#0	0.144112	0.141551	28.7
				RB12#0	0.190982	0.253007	28.8
			BPSK	RB1#0	0.150363	0.137835	28.9
		MCH	QPSK	RB1#0	0.146544	0.144389	28.10
				RB12#0	0.189662	0.25921	28.11
			BPSK	RB1#0	0.149189	0.134532	28.12
		HCH	QPSK	RB1#0	0.146383	0.15485	28.13
				RB12#0	0.186043	0.260817	28.14
			BPSK	RB1#0	0.141138	0.128808	28.15
NB-IoT Band 26 (814-824MHz)	3.75kHz	LCH	QPSK	RB1#0	0.085578	0.043425	29.1
			BPSK	RB1#0	0.07688	0.042438	29.2
		MCH	QPSK	RB1#0	0.089396	0.042345	29.3
			BPSK	RB1#0	0.084355	0.03932	29.4
		HCH	QPSK	RB1#0	0.087333	0.044648	29.5
			BPSK	RB1#0	0.078405	0.04166	29.6
	15kHz	LCH	QPSK	RB1#0	0.148181	0.155493	29.7
				RB12#0	0.187159	0.262974	29.8
			BPSK	RB1#0	0.14983	0.151043	29.9
		MCH	QPSK	RB1#0	0.14116	0.150803	29.10
				RB12#0	0.186598	0.255626	29.11
			BPSK	RB1#0	0.149916	0.138073	29.12
		HCH	QPSK	RB1#0	0.152107	0.155461	29.13
				RB12#0	0.183375	0.259511	29.14

Test Band	Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Measured 99% Occupied Bandwidth (MHz)	Measured -26 dB Occupied Bandwidth (MHz)	Refer to Plot[Note 2]
			BPSK	RB1#0	0.14323	0.132251	29.15
NB-IoT Band 66	3.75kHz	LCH	QPSK	RB1#0	0.112436	0.045672	30.1
			BPSK	RB1#0	0.11196	0.042359	30.2
		MCH	QPSK	RB1#0	0.110846	0.044771	30.3
			BPSK	RB1#0	0.112837	0.042221	30.4
		HCH	QPSK	RB1#0	0.112427	0.044987	30.5
			BPSK	RB1#0	0.11462	0.04306	30.6
	15kHz	LCH	QPSK	RB1#0	0.150859	0.152079	30.7
				RB12#0	0.190757	0.269362	30.8
			BPSK	RB1#0	0.153876	0.154788	30.9
		MCH	QPSK	RB1#0	0.145851	0.145092	30.10
				RB12#0	0.185735	0.263235	30.11
			BPSK	RB1#0	0.149968	0.131847	30.12
		HCH	QPSK	RB1#0	0.152746	0.144386	30.13
				RB12#0	0.193102	0.284505	30.14
			BPSK	RB1#0	0.151513	0.135329	30.15
NB-IoT Band 71	3.75kHz	LCH	QPSK	RB1#0	0.083347	0.039056	31.1
			BPSK	RB1#0	0.078939	0.040208	31.2
		MCH	QPSK	RB1#0	0.082232	0.04253	31.3
			BPSK	RB1#0	0.079453	0.040458	31.4
		HCH	QPSK	RB1#0	0.088925	0.043154	31.5
			BPSK	RB1#0	0.084313	0.042728	31.6
	15kHz	LCH	QPSK	RB1#0	0.059011	0.080178	31.7
				RB12#0	0.189999	0.255819	31.8
			BPSK	RB1#0	0.058253	0.074904	31.9
		MCH	QPSK	RB1#0	0.150568	0.155876	31.10
				RB12#0	0.189165	0.254795	31.11
			BPSK	RB1#0	0.149042	0.132491	31.12
		HCH	QPSK	RB1#0	0.14906	0.141452	31.13
				RB12#0	0.186586	0.240389	31.14
			BPSK	RB1#0	0.141192	0.124529	31.15
NB-IoT Band 85	3.75kHz	LCH	QPSK	RB1#0	0.087614	0.042971	32.1
			BPSK	RB1#0	0.081464	0.040365	32.2
		MCH	QPSK	RB1#0	0.093734	0.044956	32.3
			BPSK	RB1#0	0.084351	0.040983	32.4
		HCH	QPSK	RB1#0	0.078227	0.043357	32.5
			BPSK	RB1#0	0.080093	0.037263	32.6
	15kHz	LCH	QPSK	RB1#0	0.139502	0.151293	32.7
				RB12#0	0.190298	0.257879	32.8

Test Band	Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Measured 99% Occupied Bandwidth (MHz)	Measured -26 dB Occupied Bandwidth (MHz)	Refer to Plot[Note 2]
			BPSK	RB1#0	0.150412	0.137458	32.9
		MCH	QPSK	RB1#0	0.151389	0.144567	32.10
				RB12#0	0.191111	0.260033	32.11
			BPSK	RB1#0	0.15071	0.140952	32.12
		HCH	QPSK	RB1#0	0.145372	0.154887	32.13
				RB12#0	0.193476	0.257493	32.14
			BPSK	RB1#0	0.148936	0.137021	32.15

A.4 Frequency Stability

LTE-M1 Band 2 QPSK 20 MHz

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	LCH 1860 MHz		MCH 1880 MHz		HCH 1900 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
3.6	-30	-7.19	±4650	-2.79	±4700	-3.65	±4750	Pass
	-20	-3.88		-5.12		-2.96		
	-10	-6.88		-4.22		-5.26		
	0	-6.74		-4.11		-3.1		
	10	-5.17		-7.33		-3.41		
	20	-6.13		-4.67		-1.12		
	25	-4.42		-4.21		-5.18		
	30	-3.95		-4.42		-5.81		
	40	-6.13		-2.41		-3.26		
	50	-6.71		-5.26		-1.87		
	60	-3.86		-3.15		-4.57		
	70	-5.33		-5.74		-4.57		
	80	-3.71		-3.69		-3.74		
	90	-4.92		-3.93		-5.38		
4.2	25	-4.02		-6.62		-4.43		
3.1	25	-4.87		-4.15		-1.57		

LTE-M1 Band 2 16QAM 20 MHz

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	LCH 1860 MHz		MCH 1880 MHz		HCH 1900 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
3.6	-30	3.49	±4650	9.73	±4700	5.84	±4750	Pass
	-20	2.09		10.25		9.17		
	-10	3.39		6.56		7.92		
	0	6.11		6.83		8.86		
	10	5.43		8.96		8.63		
	20	4.65		5.22		9.22		
	25	4.03		9.29		7.86		
	30	4.52		9.17		6.59		
	40	4.31		8.94		9.13		
	50	4.75		5.21		6.83		
	60	4.62		3.74		9.56		
	70	4.28		6.73		8.72		
	80	4.75		5.83		9.46		
	85	3.33		4.28		7.17		
4.2	25	5.21		5.22		10.42		
3.1	25	3.78		3.27		7.69		

LTE-M1 Band 4 QPSK 20 MHz

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	LCH 1720 MHz		MCH 1732.5 MHz		HCH 1745 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
3.6	-30	-4.82	±4300	-5.45	±4331.25	-4.03	±4362.5	Pass
	-20	-5.54		-4.65		-5.39		
	-10	-4.95		-3.79		-7.55		
	0	-4.73		-3.03		-6.28		
	10	-4.84		-2.59		-6.15		
	20	-7.67		-4.25		-5.46		
	25	-4.59		-3.49		-5.79		
	30	-2.76		-3.52		-4.11		
	40	-5.26		-4.61		-4.36		
	50	-5.01		-1.85		-1.77		
	60	-4.61		-6.34		-7.11		
	70	-4.72		-4.26		-4.52		
	80	-5.58		-4.85		-6.78		
	85	-3.69		-5.28		-5.44		
4.2	25	-2.49		-5.39		-6.55		
3.1	25	-3.25		-5.87		-4.69		

LTE-M1 Band 4 16QAM 20 MHz

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	LCH 1720 MHz		MCH 1732.5 MHz		HCH 1745 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
3.6	-30	7.9	±4300	3.18	±4331.25	2.99	±4362.5	Pass
	-20	8.3		4.08		4.61		
	-10	8.84		5.74		4.53		
	0	5.64		5.04		4.62		
	10	7.55		7.04		3.95		
	20	9.17		3.93		3.82		
	25	2.76		1.92		5.09		
	30	5.71		6.18		2.85		
	40	3.39		4.95		4.84		
	50	2.4		8.24		3.72		
	60	3.96		9.57		1.95		
	70	6.18		7.89		3.79		
	80	7.55		7.52		4.22		
	85	4.73		6.91		5.38		
4.2	25	3.95		6.41		3.83		
3.1	25	4.33		7.74		4.26		

LTE-M1 Band 12 QPSK 10 MHz

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	LCH 704 MHz		MCH 707.5 MHz		HCH 711 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
3.6	-30	-3.1	±1760	-2.4	±1768.75	-2.6	±1777.5	Pass
	-20	-4.13		-2.53		-2.79		
	-10	-4.46		-2.1		-1.14		
	0	-4.38		-2.26		-1.66		
	10	-4.45		-2.6		-2.55		
	20	-3.68		-2.09		-2.46		
	25	-4.05		-2.73		-2.36		
	30	-4.95		-3.36		-3.36		
	40	-2.85		-2.29		-3.03		
	50	-3.02		-2.23		-2.16		
	60	-4.11		-2.12		-3.18		
	70	-4.72		-5.42		-3.26		
	80	-4.65		-3.84		-2.78		
	85	-3.64		-2.38		-3.52		
4.2	25	-3.81		-2.59		-2.42		
3.1	25	-2.99		-2.98		-2.47		

LTE-M1 Band 12 16QAM 10 MHz

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	LCH 704 MHz		MCH 707.5 MHz		HCH 711 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
3.6	-30	7.97	±1760	6.09	±1768.75	-8.44	±1777.5	Pass
	-20	7.65		4.39		-8.11		
	-10	7.9		5.32		-7.05		
	0	6.94		4.41		-6.75		
	10	7.02		5.01		-8.87		
	20	7.67		5.56		-7.88		
	25	7.87		3.56		-6.85		
	30	6.97		4.21		-7.25		
	40	7.44		4.89		-7.17		
	50	6.88		5.56		-7.51		
	60	8.34		5.08		-7.10		
	70	6.72		6.84		-7.13		
	80	7.39		5.37		-6.72		
	85	8.42		5.62		-6.24		
4.2	25	7.28		4.98		-7.65		
3.1	25	7.9		5.51		-6.78		

LTE Band 13 QPSK 10 MHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 782 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	-3.26	±1955	Pass
	-20	-2.43		
	-10	-3.12		
	0	-2.7		
	10	-3.91		
	20	-3.7		
	25	-2.26		
	30	-2.45		
	40	-3.08		
	50	-3.42		
	60	-3.35		
	70	-2.47		
	80	-3.11		
	85	-3.93		
4.2	25	-2.29		
3.1	25	-3.65		

LTE Band 13 16QAM10 MHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 782 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	7.27	±1955	Pass
	-20	6.91		
	-10	7.42		
	0	6.24		
	10	7.18		
	20	7.75		
	25	7.02		
	30	7.25		
	40	6.57		
	50	7.93		
	60	6.38		
	70	6.39		
	80	6.74		
	85	7.32		
4.2	25	7.20		
3.1	25	6.69		

LTE Band 14 QPSK 10 MHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 793 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	-2.12	±1982.5	Pass
	-20	-2.06		
	-10	-2.36		
	0	-2.52		
	10	-2.4		
	20	-2.62		
	25	-2.20		
	30	-2.68		
	40	-3.55		
	50	-3.62		
	60	-2.62		
	70	-2.63		
	80	-3.25		
	85	-2.94		
4.2	25	-2.37		
3.1	25	-2.40		

LTE Band 14 16QAM10 MHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 793 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	7.07	±1982.5	Pass
	-20	5.98		
	-10	6.45		
	0	6.92		
	10	5.71		
	20	7.89		
	25	7.58		
	30	7.21		
	40	7.17		
	50	7.02		
	60	6.95		
	70	6.77		
	80	6.31		
	85	6.52		
4.2	25	7.45		
3.1	25	8.08		

LTE-M1 Band 17 QPSK 10 MHz

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	LCH 709 MHz		MCH 710 MHz		HCH 711 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
3.6	-30	-2.42	±1772.5	-1.93	±1775	-2.39	±1777.5	Pass
	-20	-3		-2.25		-1.79		
	-10	-2.35		-2.06		-2.4		
	0	-1.89		-1.65		-2.45		
	10	-2.45		-2.17		-2.85		
	20	-1.97		-5.17		-2.1		
	25	-3.00		-2.36		-2.79		
	30	-2.72		-3.4		-2.8		
	40	-1.65		-3.15		-2.45		
	50	-3.63		-1.66		-2.75		
	60	-1.75		-2.49		-2.20		
	70	-2.36		-4.28		-3.63		
	80	-2.71		-3.16		-2.08		
	85	-2.58		-2.47		-2.41		
4.2	25	-2.17		-2.79		-2.33		
3.1	25	-2.42		-2.10		-2.60		

LTE-M1 Band 17 16QAM 10 MHz

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	LCH 709 MHz		MCH 710 MHz		HCH 711 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
3.6	-30	9.74	±1772.5	7.61	±1775	10.99	±1777.5	Pass
	-20	8.28		7.97		10.37		
	-10	8.15		8.58		10.51		
	0	6.49		9.38		11.9		
	10	9.74		9.26		10.74		
	20	7.54		7.93		10.64		
	25	7.81		8.07		10.84		
	30	8.67		7.22		10.50		
	40	8.03		7.91		10.06		
	50	8.05		7.45		11.07		
	60	8.27		8.53		10.89		
	70	7.55		7.83		10.16		
	80	8.31		8.48		10.36		
	85	8.07		9.02		10.28		
4.2	25	8.83		8.23		11.44		
3.1	25	8.55		8.51		10.9		

LTE-M1 Band 25 QPSK 20 MHz

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	LCH 1860 MHz		MCH 1882.5 MHz		HCH 1905 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
3.6	-30	-8.48	±4650	-6.82	±4706.25	-7.32	±4762.5	Pass
	-20	-5.84		-6.68		6.4		
	-10	-9.78		-6.89		-6.7		
	0	-7.41		-6.52		-7.58		
	10	-6.47		-6.37		-9.63		
	20	-7.27		-7.91		-7.52		
	25	-9.53		-7.45		-8.14		
	30	-7.52		-5.31		-7.05		
	40	-4.59		-6.17		-7.97		
	50	-5.45		-4.59		7.77		
	60	-7.17		-6.77		-7.84		
	70	-4.49		-6.69		-7.48		
	80	-5.37		-6.31		-8.07		
	85	-7.94		-7.37		-7.88		
4.2	25	-8.53		-6.09		-8.74		
3.1	25	-6.85		-6.39		-7.08		

LTE-M1 Band 25 16QAM 20 MHz

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	LCH 1860 MHz		MCH 1882.5 MHz		HCH 1905 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
3.6	-30	2.46	±4650	7.01	±4706.25	1.93	±4762.5	Pass
	-20	2.99		4.42		3.6		
	-10	5.31		6.31		3.99		
	0	3.88		5.74		3.55		
	10	4.68		7.6		4.23		
	20	4.26		6.49		3.43		
	25	5.02		6.07		3.69		
	30	4.83		6.14		3.72		
	40	6.29		8.9		2		
	50	4.72		6.32		5.26		
	60	3.45		4.41		3.71		
	70	2.91		7.41		3.95		
	80	5.88		5.09		3.62		
	85	4.03		6.19		5.75		
4.2	25	2.86		5.42		2.39		
3.1	25	4.81		4.02		2.03		

LTE-M1 Band 26(824-849MHz) QPSK 15 MHz

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	LCH 831.5 MHz		MCH 836.5 MHz		HCH 841.5 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
3.6	-30	-4.26	±2078.75	7.94	±2091.25	-3.12	±2103.75	Pass
	-20	-3.59		8.88		-2.95		
	-10	-3.36		7.61		-3.73		
	0	-3.66		8.65		-3.52		
	10	-4.01		10.54		-3.38		
	20	-4.31		9.04		-2.83		
	25	-3.85		8.55		-2.53		
	30	-4.02		8.38		-1.89		
	40	-3.15		8.84		-4.15		
	50	-3.89		10.01		-3.75		
	60	-3.48		8.6		-2.36		
	70	-4.32		7.81		-3.93		
	80	-4.75		8.54		-2.72		
	85	-3.59		8.81		-3.83		
4.2	25	-4.26		8.64		-3.96		
3.1	25	-2.8		8.08		-3.02		

LTE-M1 Band 26(824-849MHz) 16QAM 15 MHz

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	LCH 831.5 MHz		MCH 836.5 MHz		HCH 841.5 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
3.6	-30	8.18	±2078.75	8.33	±2091.25	9.76	±2103.75	Pass
	-20	8.93		9.71		7.8		
	-10	8.7		8.47		9.76		
	0	8.03		8.83		8.93		
	10	8.88		8.14		9.06		
	20	5.26		7.98		8.93		
	25	4.94		8.38		9.61		
	30	5.28		8.5		10.07		
	40	6.08		8.61		8.61		
	50	5.95		8.55		8.34		
	60	4.79		8.93		8.88		
	70	6.16		8.77		9.86		
	80	7.35		9.41		9.96		
	85	5.25		8.97		8.67		
4.2	25	5.21		9.81		8.58		
3.1	25	4.01		9.24		8.94		

LTE-M1 Band 26(814-824MHz) QPSK 10 MHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 819 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	-2.89	±2047.5	Pass
	-20	-2.85		
	-10	-2.09		
	0	-1.02		
	10	-3.42		
	20	-3.19		
	25	-1.39		
	30	-2.52		
	40	-2.53		
	50	-2.4		
	60	-2.12		
	70	-2.89		
	80	-2.02		
	85	-3.19		
4.2	25	-2.82		
3.1	25	-3.15		

LTE-M1 Band 26(814-824MHz) 16QAM10 MHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 819 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	3.89	±2047.5	Pass
	-20	3.78		
	-10	5.16		
	0	4.96		
	10	4.68		
	20	3.75		
	25	7.65		
	30	8.09		
	40	6.65		
	50	7.74		
	60	7.02		
	70	3.76		
	80	5.98		
	85	3.69		
4.2	25	7.04		
3.1	25	5.78		

LTE-M1 Band 66 QPSK 20 MHz

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	LCH 1720 MHz		MCH 1745 MHz		HCH 1770 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
3.6	-30	-7.69	±4300	-5.69	±4362..5	-3.88	±4425	Pass
	-20	-5.4		-5.43		-3.48		
	-10	-7.67		-2.96		-3.08		
	0	-6.21		-3.37		-2.89		
	10	-6.43		-4.28		-4.52		
	20	-6.52		-4.02		-5.3		
	25	-4.09		-4.73		-4.35		
	30	-5.42		-6.51		-3.1		
	40	-5.9		-4.7		-4.53		
	50	-3.7		-5.64		-2.99		
	60	-6.71		-3.3		-4.54		
	70	-7.47		-5.46		-3.48		
	80	-6.42		-3.38		-3.82		
	85	-4.49		-4.03		-4.35		
4.2	25	-6.02		-6.93		-4.41		
3.1	25	-4.96		-5.54		-3.86		

LTE-M1 Band 66 16QAM 20 MHz

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	LCH 1720 MHz		MCH 1745 MHz		HCH 1770 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
3.6	-30	7.17	±4300	5.63	±4362.5	10.99	±4425	Pass
	-20	3.55		5.96		10.32		
	-10	6.4		4.32		6.65		
	0	6.98		5.86		6.03		
	10	5.37		3.9		6.61		
	20	5.1		8.51		11.37		
	25	7.97		3.5		8.25		
	30	4.64		6.28		7.83		
	40	7.1		4.4		8.84		
	50	5.56		6.97		10.59		
	60	5.63		7.04		8.39		
	70	3.48		5.92		10.63		
	80	6.97		4.89		7.67		
	85	5.71		3.55		8.84		
4.2	25	5.26		6.05		6.7		
3.1	25	5.99		6.47		8.58		

LTE-M1 Band 71 QPSK 20 MHz

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	LCH 673 MHz		MCH 680.5 MHz		HCH 688 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
3.6	-30	-2.27	±1682.5	-3.27	±1701.25	-0.92	±1720	Pass
	-20	0.6		-2.25		-2.13		
	-10	-0.28		-2.71		-2.15		
	0	0.19		-3.5		-2.65		
	10	-1.75		-3.41		-1.68		
	20	-0.22		-2.56		-1.72		
	25	-1.30		-3.07		-2.48		
	30	-1.8		-3.5		-2.21		
	40	-1.11		-1.88		-1.62		
	50	0.1		-3.83		-1.74		
	60	-0.97		-2.78		-2.83		
	70	-2.68		-3.21		-2.18		
	80	-0.15		-2.51		-2.62		
	85	-1.2		-2.88		-1.41		
4.2	25	-2.14		-2.28		-1.15		
3.1	25	-4.30		-3.05		-2.28		

LTE-M1 Band 71 16QAM 20 MHz

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	LCH 673 MHz		MCH 680.5 MHz		HCH 688 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
3.6	-30	-5.45	±1682.5	11.04	±1701.25	11.33	±1720	Pass
	-20	-4.45		10.5		11.7		
	-10	-5.64		10.83		10.93		
	0	-5.63		10.27		12.22		
	10	-3.92		10.68		11.02		
	20	-5.42		11.42		11.64		
	25	-4.37		10.97		10.83		
	30	-4.95		11.15		12.61		
	40	-5.45		9.59		12.06		
	50	-5.09		10.32		11.18		
	60	-4.98		10.08		10.9		
	70	-4.63		10.53		11.73		
	80	-4.95		9.38		10.22		
	85	-5.93		11.44		11.81		
4.2	25	-5.94		11.16		10.95		
3.1	25	-6.96		10.68		11.46		

LTE-M1 Band 85 QPSK 10 MHz

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	LCH 703 MHz		MCH 707 MHz		HCH 711 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
3.6	-30	-1.98	±1757.5	-1.44	±1767.5	-1.43	±1777.5	Pass
	-20	-1.13		-2.2		-0.76		
	-10	-1.57		-2.04		-2.42		
	0	-1.5		-2.3		-1.72		
	10	-1.65		-0.75		-1.35		
	20	-1.8		-0.98		-2.2		
	25	-1.49		-1.16		-1.32		
	30	-0.97		-1.31		-1.7		
	40	-1.51		-1.15		-0.76		
	50	-1.74		-1.54		-1.4		
	60	-0.13		-1.67		-2.55		
	70	-1.68		-2.43		-2.18		
	80	-2.11		-0.89		-1.72		
	90	-1.74		-1.32		-2.25		
4.2	25	-1.14		-1.76		-1.44		
3.1	25	-0.75		-2.02		-1.73		

LTE-M1 Band 85 16QAM 10 MHz

Test Conditions		Frequency Deviation						Verdict
Power (VDC)	Temperature (°C)	LCH 703 MHz		MCH 707 MHz		HCH 711 MHz		
		Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	Value (Hz)	Limits (Hz)	
3.6	-30	6.35	±1757.5	6.58	±1767.5	6.74	±1777.5	Pass
	-20	6.29		6.7		6.59		
	-10	7.7		6.44		7.38		
	0	7.07		7.16		7.81		
	10	7.43		6.04		7.01		
	20	6.81		6.44		7.06		
	25	6.54		6.72		6.39		
	30	6.92		6.81		7.77		
	40	6.33		6.94		7.88		
	50	6.91		7.21		6.87		
	60	7.13		6.03		7.24		
	70	6.8		5.88		6.87		
	80	8.45		7.04		6.32		
	90	6.91		6.93		7.56		
4.2	25	5.7		5.78		6.98		
3.1	25	7.13		6.55		7.56		

NB-IoT Band2 QPSK 3.75kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 1880 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	2.5	±4700	Pass
	-20	8.77		
	-10	6.87		
	0	9.95		
	10	12.16		
	20	11.6		
	25	8.03		
	30	4.7		
	40	5.98		
	50	-13.01		
	60	-3.33		
	70	2.77		
	80	2.85		
	85	8.78		
4.2	25	-17.19		
3.1	25	-19.06		

NB-IoT Band2 QPSK 15kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 1880 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	-14.35	±4700	Pass
	-20	-15.84		
	-10	-17.73		
	0	-22.59		
	10	-30.22		
	20	-26.98		
	25	-23.54		
	30	-52.39		
	40	-25.94		
	50	-16.66		
	60	-18.99		
	70	-16.83		
	80	-26.69		
	85	-18.62		
4.2	25	-45.88		
3.1	25	-43.62		

NB-IoT Band2 BPSK 3.75kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 1880 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	3.27	±4700	Pass
	-20	5.8		
	-10	17.27		
	0	11.47		
	10	1.53		
	20	21.13		
	25	9.58		
	30	21.17		
	40	27.08		
	50	33.4		
	60	0.44		
	70	5.27		
	80	4.13		
	85	9.47		
4.2	25	13.52		
3.1	25	-1.82		

NB-IoT Band2 BPSK 15kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 1880 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	-17.31	±4700	Pass
	-20	-12.94		
	-10	-38.55		
	0	-40.09		
	10	-75.02		
	20	-31.77		
	25	-28.4		
	30	-25.51		
	40	-30.12		
	50	-9.46		
	60	-28.66		
	70	-15.95		
	80	-23.52		
	85	-18.71		
4.2	25	-30.76		
3.1	25	-9.56		

NB-IoT Band4 QPSK 3.75kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 1732.5 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	-2.13	±4,331.25	Pass
	-20	11.47		
	-10	10.63		
	0	23.12		
	10	14.36		
	20	12.16		
	25	7.47		
	30	17.78		
	40	3.81		
	50	-5.79		
	60	11.13		
	70	6.43		
	80	16.17		
	85	5.31		
4.2	25	20.28		
3.1	25	24.23		

NB-IoT Band4 QPSK 15kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 1732.5 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	-11.76	±4,331.25	Pass
	-20	-4.65		
	-10	-25.47		
	0	-4.9		
	10	-20.8		
	20	-2.58		
	25	-3.41		
	30	-29.55		
	40	-31.14		
	50	-37.54		
	60	-27.75		
	70	-22.37		
	80	-17.85		
	85	-15.45		
4.2	25	-28.57		
3.1	25	-25.14		

NB-IoT Band4 BPSK 3.75kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 1732.5 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	6.21	±4,331.25	Pass
	-20	1.98		
	-10	14.79		
	0	-3.65		
	10	10.52		
	20	22.74		
	25	-2.09		
	30	0.35		
	40	13.75		
	50	26.1		
	60	23.19		
	70	13.49		
	80	17.34		
	85	8.62		
4.2	25	20.6		
3.1	25	7.65		

NB-IoT Band4 BPSK 15kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 1732.5 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	17.23	±4,331.25	Pass
	-20	16.59		
	-10	5.59		
	0	18.99		
	10	5.48		
	20	24.9		
	25	14.81		
	30	-3.37		
	40	-5.14		
	50	19.04		
	60	-8.45		
	70	7.57		
	80	-6.31		
	85	-9.48		
4.2	25	-7.84		
3.1	25	-2.11		

NB-IoT Band12 QPSK 3.75kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 707.5 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	12.26	±1768.75	Pass
	-20	3.53		
	-10	1.31		
	0	5.89		
	10	3.84		
	20	-2.6		
	25	4.53		
	30	3.67		
	40	0.2		
	50	4.56		
	60	0.36		
	70	7.52		
	80	3.19		
	85	5.58		
4.2	25	3.84		
3.1	25	4.52		

NB-IoT Band12 QPSK 15kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 707.5 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	-20.05	±1768.75	Pass
	-20	-11.72		
	-10	-19.62		
	0	-23.68		
	10	-14.72		
	20	-15.53		
	25	-23.32		
	30	-12.37		
	40	-14.03		
	50	-10.47		
	60	-16.43		
	70	-14.33		
	80	-18.75		
	85	-12.62		
4.2	25	-19.88		
3.1	25	-10.61		

NB-IoT Band12 BPSK 3.75kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 707.5 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	13.31	±1768.75	Pass
	-20	13.39		
	-10	23.24		
	0	16.99		
	10	18.96		
	20	21.33		
	25	10.54		
	30	15.5		
	40	13.32		
	50	5.75		
	60	11.08		
	70	14.34		
	80	19.73		
	85	16.79		
4.2	25	11.23		
3.1	25	5.96		

NB-IoT Band12 BPSK 15kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 707.5 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	-8.87	±1768.75	Pass
	-20	-17.33		
	-10	-8.49		
	0	-8.19		
	10	-12.02		
	20	-12.27		
	25	-14.31		
	30	-3.32		
	40	-0.19		
	50	-6.72		
	60	-6.43		
	70	-5.39		
	80	-7.01		
	85	-2.28		
4.2	25	3.72		
3.1	25	3.54		

NB-IoT Band13 QPSK 3.75kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 782 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	4.84	±1955	Pass
	-20	2.6		
	-10	2.74		
	0	7.62		
	10	-1.04		
	20	2.87		
	25	-1.4		
	30	-3.48		
	40	2.6		
	50	-3.08		
	60	3.05		
	70	3.74		
	80	5.21		
	85	-1.62		
4.2	25	2.35		
3.1	25	4.55		

NB-IoT Band13 QPSK 15kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 782 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	-0.71	±1955	Pass
	-20	-11.95		
	-10	-11.2		
	0	-2.52		
	10	-12.5		
	20	-20.25		
	25	-8.93		
	30	-20.53		
	40	-21.95		
	50	-11.37		
	60	-23.01		
	70	-6.47		
	80	-13.28		
	85	-21.32		
4.2	25	-25.62		
3.1	25	-14.26		

NB-IoT Band13 BPSK 3.75kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 782 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	-4.27	±1955	Pass
	-20	-2.34		
	-10	7.14		
	0	9.65		
	10	3.77		
	20	12.02		
	25	17.54		
	30	18.24		
	40	17.98		
	50	18.28		
	60	26.45		
	70	8.41		
	80	14.56		
	85	17.35		
4.2	25	15.6		
3.1	25	16.33		

NB-IoT Band13 BPSK 15kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 782 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	-24.78	±1955	Pass
	-20	-14.95		
	-10	-12.17		
	0	-18.98		
	10	-12.07		
	20	-8.73		
	25	-9.03		
	30	-8.41		
	40	-9.48		
	50	-18.74		
	60	-7.95		
	70	-9.12		
	80	-10.46		
	85	-11.53		
4.2	25	-17.34		
3.1	25	-4.75		

NB-IoT Band14 QPSK 3.75kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 793 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	7.21	±1982.5	Pass
	-20	3.72		
	-10	8.64		
	0	6.17		
	10	7		
	20	2.83		
	25	9.12		
	30	1.65		
	40	1.11		
	50	6.12		
	60	9.18		
	70	4.92		
	80	7.36		
	85	3.88		
4.2	25	-0.2		
3.1	25	5.08		

NB-IoT Band14 QPSK 15kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 793 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	-20.06	±1982.5	Pass
	-20	-18.02		
	-10	-4.91		
	0	-2.17		
	10	0.26		
	20	0.91		
	25	1.47		
	30	-7.67		
	40	3.93		
	50	-6.27		
	60	6.12		
	70	-7.82		
	80	-6.37		
	85	-10.54		
4.2	25	-2.69		
3.1	25	-3.15		

NB-IoT Band14 BPSK 3.75kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 793 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	-3.84	±1982.5	Pass
	-20	-1.72		
	-10	1.46		
	0	-1.23		
	10	9.86		
	20	-0.61		
	25	14.67		
	30	9.93		
	40	21.02		
	50	18.62		
	60	19.48		
	70	8.41		
	80	17.84		
	85	15.23		
4.2	25	20.13		
3.1	25	11.91		

NB-IoT Band14 BPSK 15kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 793 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	-2.78	±1982.5	Pass
	-20	-11.9		
	-10	0.94		
	0	11.2		
	10	0.9		
	20	5		
	25	10.42		
	30	7.47		
	40	2.52		
	50	1.78		
	60	7.86		
	70	9.03		
	80	7.47		
	85	3.22		
4.2	25	-1.4		
3.1	25	0.23		

NB-IoT Band17 QPSK 3.75kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 710 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	-15.76	±1775	Pass
	-20	-13.65		
	-10	-4.6		
	0	-2.35		
	10	-7.32		
	20	-5.47		
	25	4.48		
	30	6.78		
	40	7.56		
	50	3.5		
	60	2.67		
	70	5.79		
	80	6.28		
	85	2.71		
4.2	25	10.23		
3.1	25	6.65		

NB-IoT Band17 QPSK 15kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 710 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	7.21	±1775	Pass
	-20	-0.88		
	-10	-0.38		
	0	4.66		
	10	-3.52		
	20	-2		
	25	-2.76		
	30	-5.81		
	40	-12.44		
	50	-8.69		
	60	-4.7		
	70	-3.88		
	80	-2.78		
	85	-7.92		
4.2	25	-5.42		
3.1	25	-6.38		

NB-IoT Band17 BPSK 3.75kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 710 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	12.05	±1775	Pass
	-20	10.61		
	-10	2.12		
	0	12.62		
	10	3.88		
	20	10.92		
	25	2.79		
	30	6.55		
	40	16.5		
	50	18.43		
	60	17.38		
	70	11.46		
	80	14.29		
	85	13.02		
4.2	25	11		
3.1	25	17.55		

NB-IoT Band17 BPSK 15kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 710 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	24.41	±1775	Pass
	-20	17.21		
	-10	13.54		
	0	13.02		
	10	19.14		
	20	20.34		
	25	5.51		
	30	15.09		
	40	9.57		
	50	14.04		
	60	-1.47		
	70	8.86		
	80	9.31		
	85	14.56		
4.2	25	9.17		
3.1	25	0.37		

NB-IoT Band25 QPSK 3.75kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 1882.5 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	-34.54	±4706.25	Pass
	-20	-12.83		
	-10	-16.19		
	0	-11.8		
	10	-0.85		
	20	1.92		
	25	-21.08		
	30	-12.83		
	40	-11.76		
	50	-19.02		
	60	-0.38		
	70	-25.44		
	80	-27.41		
	85	-16.28		
4.2	25	-0.36		
3.1	25	5.98		

NB-IoT Band25 QPSK 15kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 1882.5 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	-33.61	±4706.25	Pass
	-20	-39.72		
	-10	-14.16		
	0	-20.14		
	10	-52.24		
	20	-19.16		
	25	-24.13		
	30	-29.23		
	40	-33.18		
	50	-48.48		
	60	-23.38		
	70	-25.74		
	80	-28.69		
	85	-31.82		
4.2	25	-22.79		
3.1	25	-18.93		

NB-IoT Band25 BPSK 3.75kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 1882.5 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	-0.51	±4706.25	Pass
	-20	2.94		
	-10	14.23		
	0	7.82		
	10	19.75		
	20	18.3		
	25	-4.12		
	30	27.63		
	40	20.75		
	50	-0.27		
	60	30.56		
	70	6.38		
	80	19.41		
	85	5.72		
4.2	25	8.54		
3.1	25	27.18		

NB-IoT Band25 BPSK 15kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 1882.5 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	32.61	±4706.25	Pass
	-20	-15.63		
	-10	-12.81		
	0	4.71		
	10	-22.24		
	20	-27.02		
	25	-8.04		
	30	-3.99		
	40	-25.79		
	50	-11.25		
	60	-11.2		
	70	-17.71		
	80	13.84		
	85	-16.26		
4.2	25	-9.44		
3.1	25	-31.9		

NB-IoT Band26(824-849MHz) QPSK 3.75kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 836.5 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	-6.49	±2091.25	Pass
	-20	-12.94		
	-10	6.03		
	0	5.46		
	10	17		
	20	11.58		
	25	19.55		
	30	13.98		
	40	26.88		
	50	19.05		
	60	10.91		
	70	16.72		
	80	12.96		
	85	11.34		
4.2	25	19.72		
3.1	25	14.99		

NB-IoT Band26(824-849MHz) QPSK 15kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 836.5 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	13.14	±2091.25	Pass
	-20	-0.6		
	-10	-12.68		
	0	-14.19		
	10	-11.38		
	20	-18.8		
	25	-16.22		
	30	-20.86		
	40	-28.41		
	50	-15.49		
	60	-17.37		
	70	-16.87		
	80	-13.46		
	85	-19.63		
4.2	25	-28.17		
3.1	25	-18.02		

NB-IoT Band26(824-849MHz) BPSK 3.75kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 836.5 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	10.96	±2091.25	Pass
	-20	3.06		
	-10	4.37		
	0	6.63		
	10	7.58		
	20	19.45		
	25	7.4		
	30	13.95		
	40	7.81		
	50	18.67		
	60	17.57		
	70	8.73		
	80	15.52		
	85	18.43		
4.2	25	15.33		
3.1	25	11.85		

NB-IoT Band26(824-849MHz) BPSK 15kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 836.5 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	-16.66	±2091.25	Pass
	-20	-18.43		
	-10	-26.37		
	0	-16.68		
	10	-19.17		
	20	-8.09		
	25	-18.27		
	30	-6.73		
	40	-8.2		
	50	-4.69		
	60	-3.85		
	70	-5.87		
	80	-3.77		
	85	-3.49		
4.2	25	-14.1		
3.1	25	-2.38		

NB-IoT Band26(814-824MHz) QPSK 3.75kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 819 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	-26.32	±2047.5	Pass
	-20	-19.63		
	-10	-22.15		
	0	-19.7		
	10	-8.62		
	20	-16.3		
	25	-11.6		
	30	-6.59		
	40	-0.99		
	50	-9.56		
	60	-7.95		
	70	-11.83		
	80	5.44		
	85	7.96		
4.2	25	1.93		
3.1	25	4.5		

NB-IoT Band26(814-824MHz) QPSK 15kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 819 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	2.84	±2047.5	Pass
	-20	1.97		
	-10	-5.75		
	0	-10.48		
	10	-11.87		
	20	-15.05		
	25	-18.85		
	30	-6.75		
	40	-7.79		
	50	-10.37		
	60	-12.97		
	70	-9.84		
	80	-12.73		
	85	-16.82		
4.2	25	-15.56		
3.1	25	-11.36		

NB-IoT Band26(814-824MHz) BPSK 3.75kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 819 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	4.59	±2047.5	Pass
	-20	-2		
	-10	2.22		
	0	-3.1		
	10	5.38		
	20	11.09		
	25	14.94		
	30	17.05		
	40	16.37		
	50	6.86		
	60	6.75		
	70	17.17		
	80	14.52		
	85	13.98		
4.2	25	16.45		
3.1	25	10.49		

NB-IoT Band26(814-824MHz) BPSK 15kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 819 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	-7.81	±2047.5	Pass
	-20	-5.02		
	-10	-13.69		
	0	-14.08		
	10	-4.1		
	20	-11.59		
	25	-12.53		
	30	-4.38		
	40	-14.55		
	50	-2.17		
	60	-13.73		
	70	-8.36		
	80	-9.17		
	85	-2.14		
4.2	25	-5.17		
3.1	25	-1.84		

NB-IoT Band66 QPSK 3.75kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 1745 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	-18.81	±4362.5	Pass
	-20	3.54		
	-10	7.29		
	0	16.18		
	10	15.68		
	20	-7.64		
	25	20.76		
	30	14.52		
	40	27.54		
	50	20.1		
	60	-2.1		
	70	3.62		
	80	4.58		
	85	13.22		
4.2	25	-1.45		
3.1	25	13.33		

NB-IoT Band66 QPSK 15kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 1745 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	-21.58	±4362.5	Pass
	-20	-40.76		
	-10	-47.45		
	0	-54.99		
	10	-50.33		
	20	-59.33		
	25	-25.92		
	30	-17.32		
	40	-40.84		
	50	-15.29		
	60	-37.31		
	70	-37.22		
	80	-24.81		
	85	-27.63		
4.2	25	-48.08		
3.1	25	-16.44		

NB-IoT Band66 BPSK 3.75kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 1745 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	9.92	±4362.5	Pass
	-20	-4.02		
	-10	18.06		
	0	0.52		
	10	1.08		
	20	22.07		
	25	13.95		
	30	13.79		
	40	26.16		
	50	1.82		
	60	5.68		
	70	8.24		
	80	6.73		
	85	-1.04		
4.2	25	14.34		
3.1	25	-5.35		

NB-IoT Band66 BPSK 15kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 1745 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	19.02	±4362.5	Pass
	-20	-27.44		
	-10	-28.91		
	0	-11.29		
	10	-8.95		
	20	-35.07		
	25	-15.61		
	30	-12.76		
	40	-16.33		
	50	-36.75		
	60	-21.51		
	70	-18.42		
	80	-24.81		
	85	-14.62		
4.2	25	-16.6		
3.1	25	-17.65		

NB-IoT Band71 QPSK 3.75kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 680.5 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	-6.07	±1701.25	Pass
	-20	-5.24		
	-10	-4.63		
	0	-5.21		
	10	-5.54		
	20	-5.01		
	25	-5.35		
	30	-5.36		
	40	-4.13		
	50	-4.08		
	60	-5.15		
	70	-8.67		
	80	-3.74		
	85	-2.48		
4.2	25	-4.82		
3.1	25	-3.79		

NB-IoT Band71 QPSK 15kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 680.5 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	-16.25	±1701.25	Pass
	-20	-14.92		
	-10	-9.76		
	0	-22.42		
	10	-23.06		
	20	-21.58		
	25	-23.55		
	30	-25.71		
	40	-24.28		
	50	24.98		
	60	-23.74		
	70	-17.83		
	80	-13.47		
	85	-18.44		
4.2	25	-15.69		
3.1	25	-26.01		

NB-IoT Band71 BPSK 3.75kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 680.5 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	-3.82	±1701.25	Pass
	-20	-5.04		
	-10	-6.95		
	0	-5.65		
	10	-4.82		
	20	-3.52		
	25	-4.95		
	30	-3.89		
	40	-5.21		
	50	-6.91		
	60	-4.38		
	70	-6.83		
	80	-2.68		
	85	-5.24		
4.2	25	-4.62		
3.1	25	-6.51		

NB-IoT Band71 BPSK 15kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 680.5 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	0.12	±1701.25	Pass
	-20	0.36		
	-10	-5.82		
	0	-7.22		
	10	-0.02		
	20	-0.45		
	25	-1.13		
	30	-0.28		
	40	1.46		
	50	-7.19		
	60	0.63		
	70	2.54		
	80	7.32		
	85	6.19		
4.2	25	-8.11		
3.1	25	1.25		

NB-IoT Band85 QPSK 3.75kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 707 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	-6.07	±1767.5	Pass
	-20	-5.24		
	-10	-4.63		
	0	-5.21		
	10	-5.54		
	20	-5.01		
	25	-5.35		
	30	-5.36		
	40	-4.13		
	50	-4.08		
	60	-5.15		
	70	-5.88		
	80	-3.67		
	85	-4.83		
4.2	25	-4.82		
3.1	25	-3.79		

NB-IoT Band85 QPSK 15kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 707 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	-16.25	±1767.5	Pass
	-20	-14.92		
	-10	-9.76		
	0	-22.42		
	10	-23.06		
	20	-21.58		
	25	-23.55		
	30	-25.71		
	40	-24.28		
	50	24.98		
	60	-23.74		
	70	-34.15		
	80	-41.71		
	85	-21.74		
4.2	25	-15.69		
3.1	25	-26.01		

NB-IoT Band85 BPSK 3.75kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 707 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	-3.82	±1767.5	Pass
	-20	-5.04		
	-10	-6.95		
	0	-5.65		
	10	-4.82		
	20	-3.52		
	25	-4.95		
	30	-3.89		
	40	-5.21		
	50	-6.91		
	60	-4.38		
	70	-7.82		
	80	-3.49		
	85	-4.15		
4.2	25	-4.62		
3.1	25	-6.51		

NB-IoT Band85 BPSK 15kHz

Test Conditions		Frequency Deviation		Verdict
Power (VDC)	Temperature (°C)	MCH 707 MHz		
		Value (Hz)	Limits (Hz)	
3.6	-30	0.12	±1767.5	Pass
	-20	0.36		
	-10	-5.82		
	0	-7.22		
	10	-0.02		
	20	-0.45		
	25	-1.13		
	30	-0.28		
	40	1.46		
	50	-7.19		
	60	0.63		
	70	-7.43		
	80	-4.73		
	85	-5.81		
4.2	25	-8.11		
3.1	25	1.25		

A.5 Spurious Emission at Antenna Terminals

Note 1: The frequencies of verdict which are marked by "N/A" should be ignored because they are UE carrier frequency.

Note 2: Test plots please refer to the document “Annex No.:BL-SZ2370129-501 Data Part 3.pdf”.

Note 3: The disturbance above 26.5GHz was very low, and the above harmonics were the highest point could befound when testing, so only the worst case data displayed in this report.

LTE-M1 Mode Test Data

Test Band	Test Bandwidth	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note3]	Verdict
LTE-M1 Band 2	1.4 MHz	LCH	QPSK	RB1#0	1.1	Pass
		MCH	QPSK	RB1#0	1.2	Pass
		HCH	QPSK	RB1#0	1.3	Pass
	3 MHz	LCH	QPSK	RB1#0	1.4	Pass
		MCH	QPSK	RB1#0	1.5	Pass
		HCH	QPSK	RB1#0	1.6	Pass
	5 MHz	LCH	QPSK	RB1#0	1.7	Pass
		MCH	QPSK	RB1#0	1.8	Pass
		HCH	QPSK	RB1#0	1.9	Pass
	10 MHz	LCH	QPSK	RB1#0	1.10	Pass
		MCH	QPSK	RB1#0	1.11	Pass
		HCH	QPSK	RB1#0	1.12	Pass
	15 MHz	LCH	QPSK	RB1#0	1.13	Pass
		MCH	QPSK	RB1#0	1.14	Pass
		HCH	QPSK	RB1#0	1.15	Pass
	20 MHz	LCH	QPSK	RB1#0	1.16	Pass
		MCH	QPSK	RB1#0	1.17	Pass
		HCH	QPSK	RB1#0	1.18	Pass

Test Band	Test Bandwidth	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note3]	Verdict
LTE-M1 Band 4	1.4 MHz	LCH	QPSK	RB1#0	2.1	Pass
		MCH	QPSK	RB1#0	2.2	Pass
		HCH	QPSK	RB1#0	2.3	Pass
	3 MHz	LCH	QPSK	RB1#0	2.4	Pass
		MCH	QPSK	RB1#0	2.5	Pass
		HCH	QPSK	RB1#0	2.6	Pass
	5 MHz	LCH	QPSK	RB1#0	2.7	Pass
		MCH	QPSK	RB1#0	2.8	Pass
		HCH	QPSK	RB1#0	2.9	Pass
	10 MHz	LCH	QPSK	RB1#0	2.10	Pass
		MCH	QPSK	RB1#0	2.11	Pass
		HCH	QPSK	RB1#0	2.12	Pass
	15 MHz	LCH	QPSK	RB1#0	2.13	Pass
		MCH	QPSK	RB1#0	2.14	Pass
		HCH	QPSK	RB1#0	2.15	Pass
	20 MHz	LCH	QPSK	RB1#0	2.16	Pass
		MCH	QPSK	RB1#0	2.17	Pass
		HCH	QPSK	RB1#0	2.18	Pass

Test Band	Test Bandwidth	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note3]	Verdict
LTE-M1 Band 12	1.4 MHz	LCH	QPSK	RB1#0	3.1	Pass
		MCH	QPSK	RB1#0	3.2	Pass
		HCH	QPSK	RB1#0	3.3	Pass
	3 MHz	LCH	QPSK	RB1#0	3.4	Pass
		MCH	QPSK	RB1#0	3.5	Pass
		HCH	QPSK	RB1#0	3.6	Pass
	5 MHz	LCH	QPSK	RB1#0	3.7	Pass
		MCH	QPSK	RB1#0	3.8	Pass
		HCH	QPSK	RB1#0	3.9	Pass
	10 MHz	LCH	QPSK	RB1#0	3.10	Pass
		MCH	QPSK	RB1#0	3.11	Pass
		HCH	QPSK	RB1#0	3.12	Pass

Test Band	Test Bandwidth	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note3]	Verdict
LTE-M1 Band 13	5 MHz	LCH	QPSK	RB1#0	4.1	Pass
		MCH	QPSK	RB1#0	4.2	Pass
		HCH	QPSK	RB1#0	4.3	Pass
	10 MHz	MCH	QPSK	RB1#0	4.4	Pass

Test Band	Test Bandwidth	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note3]	Verdict
LTE-M1 Band 13	5 MHz	LCH	QPSK	RB1#0	5.1	Pass
		MCH	QPSK	RB1#0	5.2	Pass
		HCH	QPSK	RB1#0	5.3	Pass
	10 MHz	MCH	QPSK	RB1#0	5.4	Pass

Test Band	Test Bandwidth	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note3]	Verdict
LTE-M1 Band 17	5 MHz	LCH	QPSK	RB1#0	6.1	Pass
		MCH	QPSK	RB1#0	6.2	Pass
		HCH	QPSK	RB1#0	6.3	Pass
	10 MHz	LCH	QPSK	RB1#0	6.4	Pass
		MCH	QPSK	RB1#0	6.5	Pass
		HCH	QPSK	RB1#0	6.6	Pass

Test Band	Test Bandwidth	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note3]	Verdict
LTE-M1 Band 25	1.4 MHz	LCH	QPSK	RB1#0	7.1	Pass
		MCH	QPSK	RB1#0	7.2	Pass
		HCH	QPSK	RB1#0	7.3	Pass
	3 MHz	LCH	QPSK	RB1#0	7.4	Pass
		MCH	QPSK	RB1#0	7.5	Pass
		HCH	QPSK	RB1#0	7.6	Pass
	5 MHz	LCH	QPSK	RB1#0	7.7	Pass
		MCH	QPSK	RB1#0	7.8	Pass
		HCH	QPSK	RB1#0	7.9	Pass
	10 MHz	LCH	QPSK	RB1#0	7.10	Pass
		MCH	QPSK	RB1#0	7.11	Pass
		HCH	QPSK	RB1#0	7.12	Pass
	15 MHz	LCH	QPSK	RB1#0	7.13	Pass
		MCH	QPSK	RB1#0	7.14	Pass
		HCH	QPSK	RB1#0	7.15	Pass
	20 MHz	LCH	QPSK	RB1#0	7.16	Pass
		MCH	QPSK	RB1#0	7.17	Pass
		HCH	QPSK	RB1#0	7.18	Pass

Test Band	Test Bandwidth	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note3]	Verdict
LTE-M1 Band 26 (824-849MHz)	1.4 MHz	LCH	QPSK	RB1#0	8.1	Pass
		MCH	QPSK	RB1#0	8.2	Pass
		HCH	QPSK	RB1#0	8.3	Pass
	3 MHz	LCH	QPSK	RB1#0	8.4	Pass
		MCH	QPSK	RB1#0	8.5	Pass
		HCH	QPSK	RB1#0	8.6	Pass
	5 MHz	LCH	QPSK	RB1#0	8.7	Pass
		MCH	QPSK	RB1#0	8.8	Pass
		HCH	QPSK	RB1#0	8.9	Pass
	10 MHz	LCH	QPSK	RB1#0	8.10	Pass
		MCH	QPSK	RB1#0	8.11	Pass
		HCH	QPSK	RB1#0	8.12	Pass
	15 MHz	LCH	QPSK	RB1#0	8.13	Pass
		MCH	QPSK	RB1#0	8.14	Pass
		HCH	QPSK	RB1#0	8.15	Pass

Test Band	Test Bandwidth	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note3]	Verdict
LTE-M1 Band 26 (814-824MHz)	1.4 MHz	LCH	QPSK	RB1#0	9.1	Pass
		MCH	QPSK	RB1#0	9.2	Pass
		HCH	QPSK	RB1#0	9.3	Pass
	3 MHz	LCH	QPSK	RB1#0	9.4	Pass
		MCH	QPSK	RB1#0	9.5	Pass
		HCH	QPSK	RB1#0	9.6	Pass
	5 MHz	LCH	QPSK	RB1#0	9.7	Pass
		MCH	QPSK	RB1#0	9.8	Pass
		HCH	QPSK	RB1#0	9.9	Pass
	10 MHz	MCH	QPSK	RB1#0	9.10	Pass

Test Band	Test Bandwidth	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note3]	Verdict
LTE-M1 Band 66	1.4 MHz	LCH	QPSK	RB1#0	10.1	Pass
		MCH	QPSK	RB1#0	10.2	Pass
		HCH	QPSK	RB1#0	10.3	Pass
	3 MHz	LCH	QPSK	RB1#0	10.4	Pass
		MCH	QPSK	RB1#0	10.5	Pass
		HCH	QPSK	RB1#0	10.6	Pass
	5 MHz	LCH	QPSK	RB1#0	10.7	Pass
		MCH	QPSK	RB1#0	10.8	Pass
		HCH	QPSK	RB1#0	10.9	Pass
	10 MHz	LCH	QPSK	RB1#0	10.10	Pass
		MCH	QPSK	RB1#0	10.11	Pass
		HCH	QPSK	RB1#0	10.12	Pass
	15 MHz	LCH	QPSK	RB1#0	10.13	Pass
		MCH	QPSK	RB1#0	10.14	Pass
		HCH	QPSK	RB1#0	10.15	Pass
	20 MHz	LCH	QPSK	RB1#0	10.16	Pass
		MCH	QPSK	RB1#0	10.17	Pass
		HCH	QPSK	RB1#0	10.18	Pass

Test Band	Test Bandwidth	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note3]	Verdict
LTE-M1 Band 71	5 MHz	LCH	QPSK	RB1#0	11.1	Pass
		MCH	QPSK	RB1#0	11.2	Pass
		HCH	QPSK	RB1#0	11.3	Pass
	10 MHz	LCH	QPSK	RB1#0	11.4	Pass
		MCH	QPSK	RB1#0	11.5	Pass
		HCH	QPSK	RB1#0	11.6	Pass
	15 MHz	LCH	QPSK	RB1#0	11.7	Pass
		MCH	QPSK	RB1#0	11.8	Pass
		HCH	QPSK	RB1#0	11.9	Pass
	20 MHz	LCH	QPSK	RB1#0	11.10	Pass
		MCH	QPSK	RB1#0	11.11	Pass
		HCH	QPSK	RB1#0	11.12	Pass

Test Band	Test Bandwidth	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note3]	Verdict
LTE-M1 Band 85	5 MHz	LCH	QPSK	RB1#0	12.1	Pass
		MCH	QPSK	RB1#0	12.2	Pass
		HCH	QPSK	RB1#0	12.3	Pass
	10 MHz	LCH	QPSK	RB1#0	12.4	Pass
		MCH	QPSK	RB1#0	12.5	Pass
		HCH	QPSK	RB1#0	12.6	Pass

NB-IoT Mode Test Data

Test Band	Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note3]	Verdict
NB-IoT Band 2	3.75kHz	LCH	QPSK	RB1#0	13.1	Pass
			BPSK	RB1#0	13.2	Pass
		MCH	QPSK	RB1#0	13.3	Pass
			BPSK	RB1#0	13.4	Pass
		HCH	QPSK	RB1#0	13.5	Pass
			BPSK	RB1#0	13.6	Pass
	15kHz	LCH	QPSK	RB1#0	13.7	Pass
			BPSK	RB1#0	13.8	Pass
		MCH	QPSK	RB1#0	13.9	Pass
			BPSK	RB1#0	13.10	Pass
		HCH	QPSK	RB1#0	13.11	Pass
			BPSK	RB1#0	13.12	Pass

Test Band	Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note3]	Verdict
NB-IoT Band 4	3.75kHz	LCH	QPSK	RB1#0	14.1	Pass
			BPSK	RB1#0	14.2	Pass
		MCH	QPSK	RB1#0	14.3	Pass
			BPSK	RB1#0	14.4	Pass
		HCH	QPSK	RB1#0	14.5	Pass
			BPSK	RB1#0	14.6	Pass
	15kHz	LCH	QPSK	RB1#0	14.7	Pass
			BPSK	RB1#0	14.8	Pass
		MCH	QPSK	RB1#0	14.9	Pass
			BPSK	RB1#0	14.10	Pass
		HCH	QPSK	RB1#0	14.11	Pass
			BPSK	RB1#0	14.12	Pass

Test Band	Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note3]	Verdict
NB-IoT Band 12	3.75kHz	LCH	QPSK	RB1#0	15.1	Pass
			BPSK	RB1#0	15.2	Pass
		MCH	QPSK	RB1#0	15.3	Pass
			BPSK	RB1#0	15.4	Pass
		HCH	QPSK	RB1#0	15.5	Pass
			BPSK	RB1#0	15.6	Pass
	15kHz	LCH	QPSK	RB1#0	15.7	Pass
			BPSK	RB1#0	15.8	Pass
		MCH	QPSK	RB1#0	15.9	Pass
			BPSK	RB1#0	15.10	Pass
		HCH	QPSK	RB1#0	15.11	Pass
			BPSK	RB1#0	15.12	Pass

Test Band	Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note3]	Verdict
NB-IoT Band 13	3.75kHz	LCH	QPSK	RB1#0	16.1	Pass
			BPSK	RB1#0	16.2	Pass
		MCH	QPSK	RB1#0	16.3	Pass
			BPSK	RB1#0	16.4	Pass
		HCH	QPSK	RB1#0	16.5	Pass
			BPSK	RB1#0	16.6	Pass
	15kHz	LCH	QPSK	RB1#0	16.7	Pass
			BPSK	RB1#0	16.8	Pass
		MCH	QPSK	RB1#0	16.9	Pass
			BPSK	RB1#0	16.10	Pass
		HCH	QPSK	RB1#0	16.11	Pass
			BPSK	RB1#0	16.12	Pass

Test Band	Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note3]	Verdict
NB-IoT Band 14	3.75kHz	LCH	QPSK	RB1#0	17.1	Pass
			BPSK	RB1#0	17.2	Pass
		MCH	QPSK	RB1#0	17.3	Pass
			BPSK	RB1#0	17.4	Pass
		HCH	QPSK	RB1#0	17.5	Pass
			BPSK	RB1#0	17.6	Pass
	15kHz	LCH	QPSK	RB1#0	17.7	Pass
			BPSK	RB1#0	17.8	Pass
		MCH	QPSK	RB1#0	17.9	Pass
			BPSK	RB1#0	17.10	Pass
		HCH	QPSK	RB1#0	17.11	Pass
			BPSK	RB1#0	17.12	Pass

Test Band	Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note3]	Verdict
NB-IoT Band 17	3.75kHz	LCH	QPSK	RB1#0	18.1	Pass
			BPSK	RB1#0	18.2	Pass
		MCH	QPSK	RB1#0	18.3	Pass
			BPSK	RB1#0	18.4	Pass
		HCH	QPSK	RB1#0	18.5	Pass
			BPSK	RB1#0	18.6	Pass
	15kHz	LCH	QPSK	RB1#0	18.7	Pass
			BPSK	RB1#0	18.8	Pass
		MCH	QPSK	RB1#0	18.9	Pass
			BPSK	RB1#0	18.10	Pass
		HCH	QPSK	RB1#0	18.11	Pass
			BPSK	RB1#0	18.12	Pass

Test Band	Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note3]	Verdict
NB-IoT Band 25	3.75kHz	LCH	QPSK	RB1#0	19.1	Pass
			BPSK	RB1#0	19.2	Pass
		MCH	QPSK	RB1#0	19.3	Pass
			BPSK	RB1#0	19.4	Pass
		HCH	QPSK	RB1#0	19.5	Pass
			BPSK	RB1#0	19.6	Pass
	15kHz	LCH	QPSK	RB1#0	19.7	Pass
			BPSK	RB1#0	19.8	Pass
		MCH	QPSK	RB1#0	19.9	Pass
			BPSK	RB1#0	19.10	Pass
		HCH	QPSK	RB1#0	19.11	Pass
			BPSK	RB1#0	19.12	Pass

Test Band	Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note3]	Verdict
NB-IoT Band 26 (824-849MHz)	3.75kHz	LCH	QPSK	RB1#0	20.1	Pass
			BPSK	RB1#0	20.2	Pass
		MCH	QPSK	RB1#0	20.3	Pass
			BPSK	RB1#0	20.4	Pass
		HCH	QPSK	RB1#0	20.5	Pass
			BPSK	RB1#0	20.6	Pass
	15kHz	LCH	QPSK	RB1#0	20.7	Pass
			BPSK	RB1#0	20.8	Pass
		MCH	QPSK	RB1#0	20.9	Pass
			BPSK	RB1#0	20.10	Pass
		HCH	QPSK	RB1#0	20.11	Pass
			BPSK	RB1#0	20.12	Pass

Test Band	Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note3]	Verdict
NB-IoT Band 26 (814-824MHz)	3.75kHz	LCH	QPSK	RB1#0	21.1	Pass
			BPSK	RB1#0	21.2	Pass
		MCH	QPSK	RB1#0	21.3	Pass
			BPSK	RB1#0	21.4	Pass
		HCH	QPSK	RB1#0	21.5	Pass
			BPSK	RB1#0	21.6	Pass
	15kHz	LCH	QPSK	RB1#0	21.7	Pass
			BPSK	RB1#0	21.8	Pass
		MCH	QPSK	RB1#0	21.9	Pass
			BPSK	RB1#0	21.10	Pass
		HCH	QPSK	RB1#0	21.11	Pass
			BPSK	RB1#0	21.12	Pass

Test Band	Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note3]	Verdict
NB-IoT Band 66	3.75kHz	LCH	QPSK	RB1#0	22.1	Pass
			BPSK	RB1#0	22.2	Pass
		MCH	QPSK	RB1#0	22.3	Pass
			BPSK	RB1#0	22.4	Pass
		HCH	QPSK	RB1#0	22.5	Pass
			BPSK	RB1#0	22.6	Pass
	15kHz	LCH	QPSK	RB1#0	22.7	Pass
			BPSK	RB1#0	22.8	Pass
		MCH	QPSK	RB1#0	22.9	Pass
			BPSK	RB1#0	22.10	Pass
		HCH	QPSK	RB1#0	22.11	Pass
			BPSK	RB1#0	22.12	Pass

Test Band	Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note3]	Verdict
NB-IoT Band 71	3.75kHz	LCH	QPSK	RB1#0	23.1	Pass
			BPSK	RB1#0	23.2	Pass
		MCH	QPSK	RB1#0	23.3	Pass
			BPSK	RB1#0	23.4	Pass
		HCH	QPSK	RB1#0	23.5	Pass
			BPSK	RB1#0	23.6	Pass
	15kHz	LCH	QPSK	RB1#0	23.7	Pass
			BPSK	RB1#0	23.8	Pass
		MCH	QPSK	RB1#0	23.9	Pass
			BPSK	RB1#0	23.10	Pass
		HCH	QPSK	RB1#0	23.11	Pass
			BPSK	RB1#0	23.12	Pass

Test Band	Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note3]	Verdict
NB-IoT Band 85	3.75kHz	LCH	QPSK	RB1#0	24.1	Pass
			BPSK	RB1#0	24.2	Pass
		MCH	QPSK	RB1#0	24.3	Pass
			BPSK	RB1#0	24.4	Pass
		HCH	QPSK	RB1#0	24.5	Pass
			BPSK	RB1#0	24.6	Pass
	15kHz	LCH	QPSK	RB1#0	24.7	Pass
			BPSK	RB1#0	24.8	Pass
		MCH	QPSK	RB1#0	24.9	Pass
			BPSK	RB1#0	24.10	Pass
		HCH	QPSK	RB1#0	24.11	Pass
			BPSK	RB1#0	24.12	Pass

A.6 Band Edge

Note 1: Test plots please refer to the document “Annex No.:BL-SZ2370129-501 Data Part 4.pdf”.

Test Band	Test BW	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note1]	Verdict
LTE-M1 BAND2	1.4 MHz	LCH	QPSK	RB1#0	1.1	Pass
				RB6#0	1.2	Pass
		HCH	QPSK	RB1#5	1.13	Pass
				RB6#0	1.14	Pass
	3 MHz	LCH	QPSK	RB1#0	1.3	Pass
				RB6#0	1.4	Pass
		HCH	QPSK	RB1#5	1.15	Pass
				RB6#0	1.16	Pass
	5 MHz	LCH	QPSK	RB1#0	1.5	Pass
				RB6#0	1.6	Pass
		HCH	QPSK	RB1#5	1.17	Pass
				RB6#0	1.18	Pass
	10 MHz	LCH	QPSK	RB1#0	1.7	Pass
				RB6#0	1.8	Pass
		HCH	QPSK	RB1#5	1.19	Pass
				RB6#0	1.20	Pass
	15 MHz	LCH	QPSK	RB1#0	1.9	Pass
				RB6#0	1.10	Pass
		HCH	QPSK	RB1#5	1.21	Pass
				RB6#0	1.22	Pass
	20 MHz	LCH	QPSK	RB1#0	1.11	Pass
				RB6#0	1.12	Pass
		HCH	QPSK	RB1#5	1.23	Pass
				RB6#0	1.24	Pass

Test Band	Test BW	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note1]	Verdict
LTE-M1 BAND4	1.4 MHz	LCH	QPSK	RB1#0	2.1	Pass
				RB6#0	2.2	Pass
		HCH	QPSK	RB1#5	2.13	Pass
				RB6#0	2.14	Pass
	3 MHz	LCH	QPSK	RB1#0	2.3	Pass
				RB6#0	2.4	Pass
		HCH	QPSK	RB1#5	2.15	Pass
				RB6#0	2.16	Pass
	5 MHz	LCH	QPSK	RB1#0	2.5	Pass
				RB6#0	2.6	Pass
		HCH	QPSK	RB1#5	2.17	Pass
				RB6#0	2.18	Pass
	10 MHz	LCH	QPSK	RB1#0	2.7	Pass
				RB6#0	2.8	Pass
		HCH	QPSK	RB1#5	2.19	Pass
				RB6#0	2.20	Pass
	15 MHz	LCH	QPSK	RB1#0	2.9	Pass
				RB6#0	2.10	Pass
		HCH	QPSK	RB1#5	2.21	Pass
				RB6#0	2.22	Pass
	20 MHz	LCH	QPSK	RB1#0	2.11	Pass
				RB6#0	2.12	Pass
		HCH	QPSK	RB1#5	2.23	Pass
				RB6#0	2.24	Pass

Test Band	Test BW	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note1]	Verdict
LTE-M1 BAND12	1.4 MHz	LCH	QPSK	RB1#0	3.1	Pass
				RB6#0	3.2	Pass
		HCH	QPSK	RB1#5	3.9	Pass
				RB6#0	3.10	Pass
	3 MHz	LCH	QPSK	RB1#0	3.3	Pass
				RB6#0	3.4	Pass
		HCH	QPSK	RB1#5	3.11	Pass
				RB6#0	3.12	Pass
	5 MHz	LCH	QPSK	RB1#0	3.5	Pass
				RB6#0	3.6	Pass
		HCH	QPSK	RB1#5	3.13	Pass
				RB6#0	3.14	Pass
	10 MHz	LCH	QPSK	RB1#0	3.7	Pass
				RB6#0	3.8	Pass
		HCH	QPSK	RB1#5	3.15	Pass
				RB6#0	3.16	Pass

Test Band	Test BW	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note1]	Verdict
LTE-M1 BAND13	5 MHz	LCH	QPSK	RB1#0	4.1	Pass
				RB6#0	4.2	Pass
		HCH	QPSK	RB1#5	4.5	Pass
				RB6#0	4.6	Pass
	10 MHz	LCH	QPSK	RB1#0	4.3	Pass
				RB6#0	4.4	Pass
		HCH	QPSK	RB1#5	4.7	Pass
				RB6#0	4.8	Pass

Test Band	Test BW	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note1]	Verdict
LTE-M1 BAND14	5 MHz	LCH	QPSK	RB1#0	5.1	Pass
				RB6#0	5.2	Pass
		HCH	QPSK	RB1#5	5.5	Pass
				RB6#0	5.6	Pass
	10 MHz	LCH	QPSK	RB1#0	5.3	Pass
				RB6#0	5.4	Pass
		HCH	QPSK	RB1#5	5.7	Pass
				RB6#0	5.8	Pass

Emission Mask						
Test Band	Test Bandwidth	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note1]	Verdict
LTE-M1 BAND13	5 MHz	LCH	QPSK	RB1#0	6.1	Pass
				RB6#0	6.2	Pass
		HCH	QPSK	RB1#5	6.9	Pass
				RB6#0	6.10	Pass
	10 MHz	LCH	QPSK	RB1#0	6.3	Pass
				RB6#0	6.4	Pass
		HCH	QPSK	RB1#5	6.11	Pass
				RB6#0	6.12	Pass
LTE-M1 BAND14	5 MHz	LCH	QPSK	RB1#0	6.5	Pass
				RB6#0	6.6	Pass
		HCH	QPSK	RB1#5	6.13	Pass
				RB6#0	6.14	Pass
	10 MHz	LCH	QPSK	RB1#0	6.7	Pass
				RB6#0	6.8	Pass
		HCH	QPSK	RB1#5	6.15	Pass
				RB6#0	6.16	Pass

Test Band	Test BW	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note1]	Verdict
LTE-M1 BAND17	5 MHz	LCH	QPSK	RB1#0	7.1	Pass
				RB6#0	7.2	Pass
		HCH	QPSK	RB1#5	7.5	Pass
				RB6#0	7.6	Pass
	10 MHz	LCH	QPSK	RB1#0	7.3	Pass
				RB6#0	7.4	Pass
		HCH	QPSK	RB1#5	7.7	Pass
				RB6#0	7.8	Pass

Test Band	Test BW	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note1]	Verdict
LTE-M1 BAND25	1.4 MHz	LCH	QPSK	RB1#0	8.1	Pass
				RB6#0	8.2	Pass
		HCH	QPSK	RB1#5	8.13	Pass
				RB6#0	8.14	Pass
	3 MHz	LCH	QPSK	RB1#0	8.3	Pass
				RB6#0	8.4	Pass
		HCH	QPSK	RB1#5	8.15	Pass
				RB6#0	8.16	Pass
	5 MHz	LCH	QPSK	RB1#0	8.5	Pass
				RB6#0	8.6	Pass
		HCH	QPSK	RB1#5	8.17	Pass
				RB6#0	8.18	Pass
	10 MHz	LCH	QPSK	RB1#0	8.7	Pass
				RB6#0	8.8	Pass
		HCH	QPSK	RB1#5	8.19	Pass
				RB6#0	8.20	Pass
	15 MHz	LCH	QPSK	RB1#0	8.9	Pass
				RB6#0	8.10	Pass
		HCH	QPSK	RB1#5	8.21	Pass
				RB6#0	8.22	Pass
	20 MHz	LCH	QPSK	RB1#0	8.11	Pass
				RB6#0	8.12	Pass
		HCH	QPSK	RB1#5	8.23	Pass
				RB6#0	8.24	Pass

Test Band	Test BW	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note1]	Verdict
LTE-M1 BAND26 (824-849MHz)	1.4 MHz	LCH	QPSK	RB1#0	9.1	Pass
				RB6#0	9.2	Pass
		HCH	QPSK	RB1#5	9.11	Pass
				RB6#0	9.12	Pass
	3 MHz	LCH	QPSK	RB1#0	9.3	Pass
				RB6#0	9.4	Pass
		HCH	QPSK	RB1#5	9.13	Pass
				RB6#0	9.14	Pass
	5 MHz	LCH	QPSK	RB1#0	9.5	Pass
				RB6#0	9.6	Pass
		HCH	QPSK	RB1#5	9.15	Pass
				RB6#0	9.16	Pass
	10 MHz	LCH	QPSK	RB1#0	9.7	Pass
				RB6#0	9.8	Pass
		HCH	QPSK	RB1#5	9.17	Pass
				RB6#0	9.18	Pass
	15 MHz	LCH	QPSK	RB1#0	9.9	Pass
				RB6#0	9.10	Pass
		HCH	QPSK	RB1#5	9.19	Pass
				RB6#0	9.20	Pass

Test Band	Test BW	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note1]	Verdict
LTE-M1 BAND26 (814-824MHz)	1.4 MHz	LCH	QPSK	RB1#0	10.1	Pass
				RB6#0	10.2	Pass
		HCH	QPSK	RB1#5	10.9	Pass
				RB6#0	10.10	Pass
	3 MHz	LCH	QPSK	RB1#0	10.3	Pass
				RB6#0	10.4	Pass
		HCH	QPSK	RB1#5	10.11	Pass
				RB6#0	10.12	Pass
	5 MHz	LCH	QPSK	RB1#0	10.5	Pass
				RB6#0	10.6	Pass
		HCH	QPSK	RB1#5	10.13	Pass
				RB6#0	10.14	Pass
	10 MHz	LCH	QPSK	RB1#0	10.7	Pass
				RB6#0	10.8	Pass
		HCH	QPSK	RB1#5	10.15	Pass
				RB6#0	10.16	Pass

Test Band	Test BW	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note1]	Verdict
LTE-M1 BAND66	1.4 MHz	LCH	QPSK	RB1#0	11.1	Pass
				RB6#0	11.2	Pass
		HCH	QPSK	RB1#5	11.13	Pass
				RB6#0	11.14	Pass
	3 MHz	LCH	QPSK	RB1#0	11.3	Pass
				RB6#0	11.4	Pass
		HCH	QPSK	RB1#5	11.15	Pass
				RB6#0	11.16	Pass
	5 MHz	LCH	QPSK	RB1#0	11.5	Pass
				RB6#0	11.6	Pass
		HCH	QPSK	RB1#5	11.17	Pass
				RB6#0	11.18	Pass
	10 MHz	LCH	QPSK	RB1#0	11.7	Pass
				RB6#0	11.8	Pass
		HCH	QPSK	RB1#5	11.19	Pass
				RB6#0	11.20	Pass
	15 MHz	LCH	QPSK	RB1#0	11.9	Pass
				RB6#0	11.10	Pass
		HCH	QPSK	RB1#5	11.21	Pass
				RB6#0	11.22	Pass
	20 MHz	LCH	QPSK	RB1#0	11.11	Pass
				RB6#0	11.12	Pass
		HCH	QPSK	RB1#5	11.23	Pass
				RB6#0	11.24	Pass

Test Band	Test BW	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note1]	Verdict
LTE-M1 BAND71	5 MHz	LCH	QPSK	RB1#0	12.1	Pass
				RB6#0	12.2	Pass
		HCH	QPSK	RB1#5	12.9	Pass
				RB6#0	12.10	Pass
	10 MHz	LCH	QPSK	RB1#0	12.3	Pass
				RB6#0	12.4	Pass
		HCH	QPSK	RB1#5	12.11	Pass
				RB6#0	12.12	Pass
	15 MHz	LCH	QPSK	RB1#0	12.5	Pass
				RB6#0	12.6	Pass
		HCH	QPSK	RB1#5	12.13	Pass
				RB6#0	12.14	Pass
	20 MHz	LCH	QPSK	RB1#0	12.7	Pass
				RB6#0	12.8	Pass
		HCH	QPSK	RB1#5	12.15	Pass
				RB6#0	12.16	Pass

Test Band	Test BW	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note1]	Verdict
LTE-M1 BAND85	5 MHz	LCH	QPSK	RB1#0	13.1	Pass
				RB6#0	13.2	Pass
		HCH	QPSK	RB1#5	13.5	Pass
				RB6#0	13.6	Pass
	10 MHz	LCH	QPSK	RB1#0	13.3	Pass
				RB6#0	13.4	Pass
		HCH	QPSK	RB1#5	13.7	Pass
				RB6#0	13.8	Pass

NB-IoT Mode Test Data

Test Band	Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note1]	Verdict
NB-IoT Band 2	3.75kHz	LCH	QPSK	RB1#0	14.1	Pass
			BPSK	RB1#0	14.2	Pass
		HCH	QPSK	RB1#47	14.6	Pass
			BPSK	RB1#47	14.7	Pass
	15kHz	LCH	QPSK	RB1#0	14.3	Pass
				RB12#0	14.4	Pass
			BPSK	RB1#0	14.5	Pass
		HCH	QPSK	RB1#11	14.8	Pass
				RB12#0	14.9	Pass
			BPSK	RB1#11	14.10	Pass

Test Band	Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note1]	Verdict
NB-IoT Band 4	3.75kHz	LCH	QPSK	RB1#0	15.1	Pass
			BPSK	RB1#0	15.2	Pass
		HCH	QPSK	RB1#47	15.6	Pass
			BPSK	RB1#47	15.7	Pass
	15kHz	LCH	QPSK	RB1#0	15.3	Pass
				RB12#0	15.4	Pass
			BPSK	RB1#0	15.5	Pass
		HCH	QPSK	RB1#11	15.8	Pass
				RB12#0	15.9	Pass
			BPSK	RB1#11	15.10	Pass

Test Band	Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note1]	Verdict
NB-IoT Band 12	3.75kHz	LCH	QPSK	RB1#0	16.1	Pass
			BPSK	RB1#0	16.2	Pass
		HCH	QPSK	RB1#47	16.6	Pass
			BPSK	RB1#47	16.7	Pass
	15kHz	LCH	QPSK	RB1#0	16.3	Pass
				RB12#0	16.4	Pass
			BPSK	RB1#0	16.5	Pass
		HCH	QPSK	RB1#11	16.8	Pass
				RB12#0	16.9	Pass
			BPSK	RB1#11	16.10	Pass

Test Band	Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note1]	Verdict
NB-IoT Band 13	3.75kHz	LCH	QPSK	RB1#0	17.1	Pass
			BPSK	RB1#0	17.2	Pass
		HCH	QPSK	RB1#47	17.6	Pass
			BPSK	RB1#47	17.7	Pass
	15kHz	LCH	QPSK	RB1#0	17.3	Pass
				RB12#0	17.4	Pass
			BPSK	RB1#0	17.5	Pass
		HCH	QPSK	RB1#11	17.8	Pass
				RB12#0	17.9	Pass
			BPSK	RB1#11	17.10	Pass

Test Band	Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note1]	Verdict
NB-IoT Band 14	3.75kHz	LCH	QPSK	RB1#0	18.1	Pass
			BPSK	RB1#0	18.2	Pass
		HCH	QPSK	RB1#47	18.6	Pass
			BPSK	RB1#47	18.7	Pass
	15kHz	LCH	QPSK	RB1#0	18.3	Pass
				RB12#0	18.4	Pass
			BPSK	RB1#0	18.5	Pass
		HCH	QPSK	RB1#11	18.8	Pass
				RB12#0	18.9	Pass
			BPSK	RB1#11	18.10	Pass

Emission Mask						
Test Band	Test Bandwidth	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note1]	Verdict
NB-IoT Band 13	3.75kHz	LCH	QPSK	RB1#0	19.1	Pass
			BPSK	RB1#0	19.2	Pass
		HCH	QPSK	RB1#47	19.11	Pass
			BPSK	RB1#47	19.12	Pass
	15kHz	LCH	QPSK	RB1#0	19.3	Pass
				RB12#0	19.4	Pass
			BPSK	RB1#0	19.5	Pass
		HCH	QPSK	RB1#0	19.13	Pass
				RB12#0	19.14	Pass
			BPSK	RB1#0	19.15	Pass
NB-IoT Band 14	3.75kHz	LCH	QPSK	RB1#0	19.6	Pass
			BPSK	RB1#0	19.7	Pass
		HCH	QPSK	RB1#47	19.16	Pass
			BPSK	RB1#47	19.17	Pass
	15kHz	LCH	QPSK	RB1#0	19.8	Pass
				RB12#0	19.9	Pass
			BPSK	RB1#0	19.10	Pass
		HCH	QPSK	RB1#0	19.18	Pass
				RB12#0	19.19	Pass
			BPSK	RB1#0	19.20	Pass

Test Band	Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note1]	Verdict
NB-IoT Band 17	3.75kHz	LCH	QPSK	RB1#0	20.1	Pass
			BPSK	RB1#0	20.2	Pass
		HCH	QPSK	RB1#47	20.6	Pass
			BPSK	RB1#47	20.7	Pass
	15kHz	LCH	QPSK	RB1#0	20.3	Pass
				RB12#0	20.4	Pass
			BPSK	RB1#0	20.5	Pass
		HCH	QPSK	RB1#11	20.8	Pass
				RB12#0	20.9	Pass
			BPSK	RB1#11	20.10	Pass

Test Band	Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note1]	Verdict
NB-IoT Band 25	3.75kHz	LCH	QPSK	RB1#0	21.1	Pass
			BPSK	RB1#0	21.2	Pass
		HCH	QPSK	RB1#47	21.6	Pass
			BPSK	RB1#47	21.7	Pass
	15kHz	LCH	QPSK	RB1#0	21.3	Pass
				RB12#0	21.4	Pass
			BPSK	RB1#0	21.5	Pass
		HCH	QPSK	RB1#11	21.8	Pass
				RB12#0	21.9	Pass
			BPSK	RB1#11	21.10	Pass

Test Band	Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note1]	Verdict
NB-IoT Band 26 (824-849MHz)	3.75kHz	LCH	QPSK	RB1#0	22.1	Pass
			BPSK	RB1#0	22.2	Pass
		HCH	QPSK	RB1#47	22.6	Pass
			BPSK	RB1#47	22.7	Pass
	15kHz	LCH	QPSK	RB1#0	22.3	Pass
				RB12#0	22.4	Pass
			BPSK	RB1#0	22.5	Pass
		HCH	QPSK	RB1#11	22.8	Pass
				RB12#0	22.9	Pass
			BPSK	RB1#11	22.10	Pass

Test Band	Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note1]	Verdict
NB-IoT Band 26 (814-824MHz)	3.75kHz	LCH	QPSK	RB1#0	23.1	Pass
			BPSK	RB1#0	23.2	Pass
		HCH	QPSK	RB1#47	23.6	Pass
			BPSK	RB1#47	23.7	Pass
	15kHz	LCH	QPSK	RB1#0	23.3	Pass
				RB12#0	23.4	Pass
			BPSK	RB1#0	23.5	Pass
		HCH	QPSK	RB1#11	23.8	Pass
				RB12#0	23.9	Pass
			BPSK	RB1#11	23.10	Pass

Test Band	Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note1]	Verdict
NB-IoT Band 66	3.75kHz	LCH	QPSK	RB1#0	24.1	Pass
			BPSK	RB1#0	24.2	Pass
		HCH	QPSK	RB1#47	24.6	Pass
			BPSK	RB1#47	24.7	Pass
	15kHz	LCH	QPSK	RB1#0	24.3	Pass
				RB12#0	24.4	Pass
			BPSK	RB1#0	24.5	Pass
		HCH	QPSK	RB1#11	24.8	Pass
				RB12#0	24.9	Pass
			BPSK	RB1#11	24.10	Pass

Test Band	Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note1]	Verdict
NB-IoT Band 71	3.75kHz	LCH	QPSK	RB1#0	25.1	Pass
			BPSK	RB1#0	25.2	Pass
		HCH	QPSK	RB1#47	25.6	Pass
			BPSK	RB1#47	25.7	Pass
	15kHz	LCH	QPSK	RB1#0	25.3	Pass
				RB12#0	25.4	Pass
			BPSK	RB1#0	25.5	Pass
		HCH	QPSK	RB1#11	25.8	Pass
				RB12#0	25.9	Pass
			BPSK	RB1#11	25.10	Pass

Test Band	Test Sub-carrier spacing	Test Channel	Test Mode	Test RB (Size#Offset)	Refer to Plot[Note1]	Verdict
NB-IoT Band 85	3.75kHz	LCH	QPSK	RB1#0	26.1	Pass
			BPSK	RB1#0	26.2	Pass
		HCH	QPSK	RB1#47	26.6	Pass
			BPSK	RB1#47	26.7	Pass
	15kHz	LCH	QPSK	RB1#0	26.3	Pass
				RB12#0	26.4	Pass
			BPSK	RB1#0	26.5	Pass
		HCH	QPSK	RB1#11	26.8	Pass
				RB12#0	26.9	Pass
			BPSK	RB1#11	26.10	Pass

A.7 Field Strength of Spurious Radiation

Note 1: All modes have been tested, and only the worst case data are shown here.

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

Note 3: Test plots please refer to the document “Annex No.:BL-SZ2370129-501 Data Part 5.pdf”.

Note 4: The disturbance above 26.5GHz was very low, and the above harmonics were the highest point could befound when testing, so only the worst case data displayed in this report.

LTE-M1 Mode Test Data

Test Band	Test Bandwidth	Test Channel	Refer to Plot[Note3]	Verdict
LTE-M1 Band 2	20 MHz	HCH	1.1	Pass
LTE-M1 Band 4	5 MHz	LCH	1.2	Pass
LTE-M1 Band 12	1.4 MHz	LCH	1.3	Pass
LTE-M1 Band 13	5 MHz	LCH	1.4	Pass
LTE-M1 Band 14	5 MHz	MCH	1.5	Pass
LTE-M1 Band 17	5 MHz	LCH	1.6	Pass
LTE-M1 Band 25	20 MHz	MCH	1.7	Pass
LTE-M1 Band 26 (814-824MHz)	1.4 MHz	HCH	1.8	Pass
LTE-M1 Band 26 (824-849MHz)	15 MHz	LCH	1.9	Pass
LTE-M1 Band 66	15 MHz	LCH	1.10	Pass
LTE-M1 Band 71	20 MHz	LCH	1.11	Pass
LTE-M1 Band 85	5 MHz	LCH	1.12	Pass

NB-IoT Mode Test Data

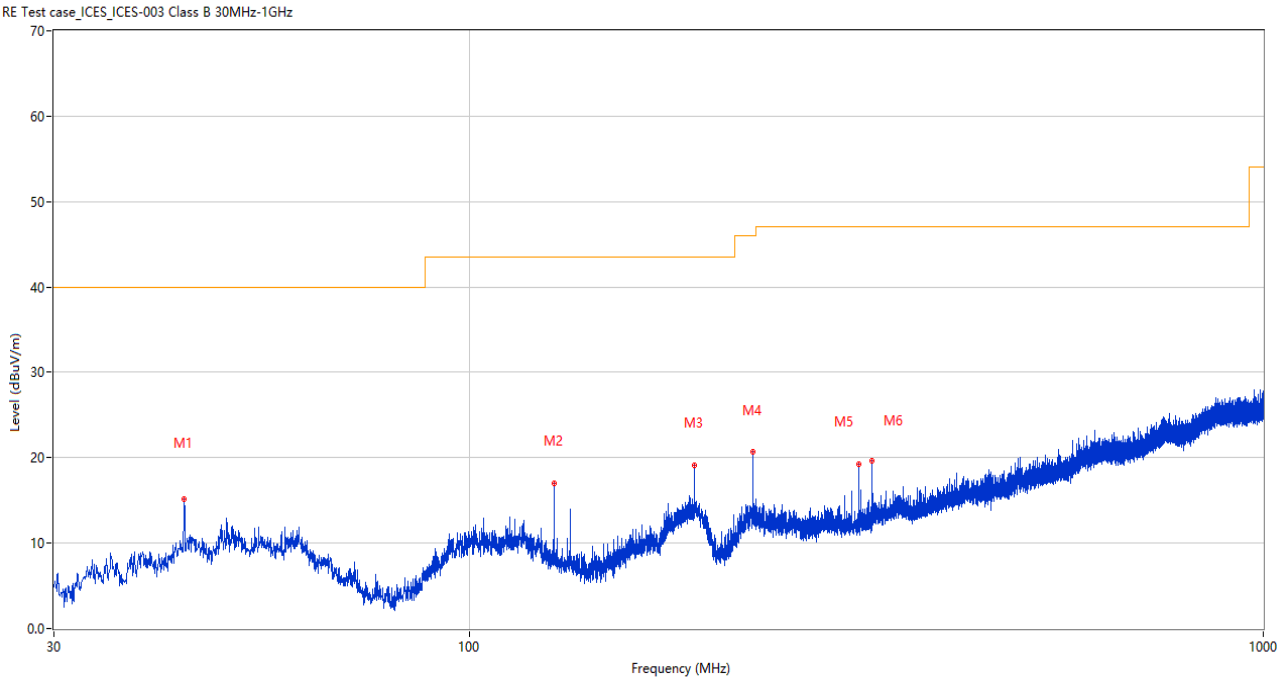
Test Band	Test Bandwidth	Test Channel	Refer to Plot[Note3]	Verdict
NB-IoT Band 2	15 KHz	HCH	2.1	Pass
NB-IoT Band 4	15 KHz	HCH	2.2	Pass
NB-IoT Band 12	15 KHz	MCH	2.3	Pass
NB-IoT Band 13	15 KHz	HCH	2.4	Pass
NB-IoT Band 14	15 KHz	LCH	2.5	Pass
NB-IoT Band 17	15 KHz	HCH	2.6	Pass
NB-IoT Band 25	15 KHz	HCH	2.7	Pass
NB-IoT Band 26 (814-824MHz)	15 KHz	MCH	2.8	Pass
NB-IoT Band 26 (824-849MHz)	15 KHz	LCH	2.9	Pass
NB-IoT Band 66	15 KHz	MCH	2.10	Pass
NB-IoT Band 71	15 KHz	LCH	2.11	Pass
NB-IoT Band 85	15 KHz	LCH	2.12	Pass

A.8 Receiver Spurious Emissions

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

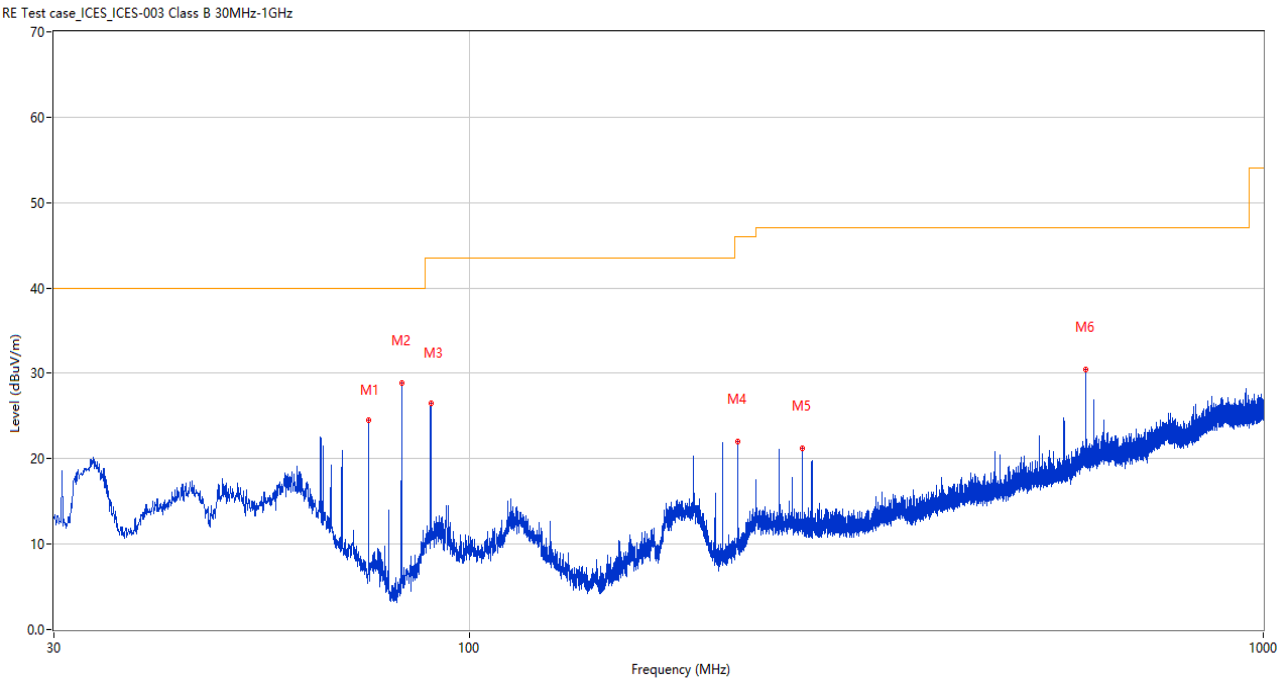
LTE-M1 Mode Test Data

30MHz to 1GHz, ANT H



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	43.774	15.13	-26.21	40.0	24.87	Peak	233.00	200	Horizontal	Pass
2	127.873	17.06	-29.78	43.5	26.44	Peak	216.00	200	Horizontal	Pass
3	192.038	19.07	-26.44	43.5	24.43	Peak	239.00	100	Horizontal	Pass
4	227.734	20.73	-25.48	46.0	25.27	Peak	112.00	200	Horizontal	Pass
5	309.554	19.22	-23.46	47.0	27.78	Peak	349.00	200	Horizontal	Pass
6	321.097	19.66	-23.07	47.0	27.34	Peak	161.00	200	Horizontal	Pass

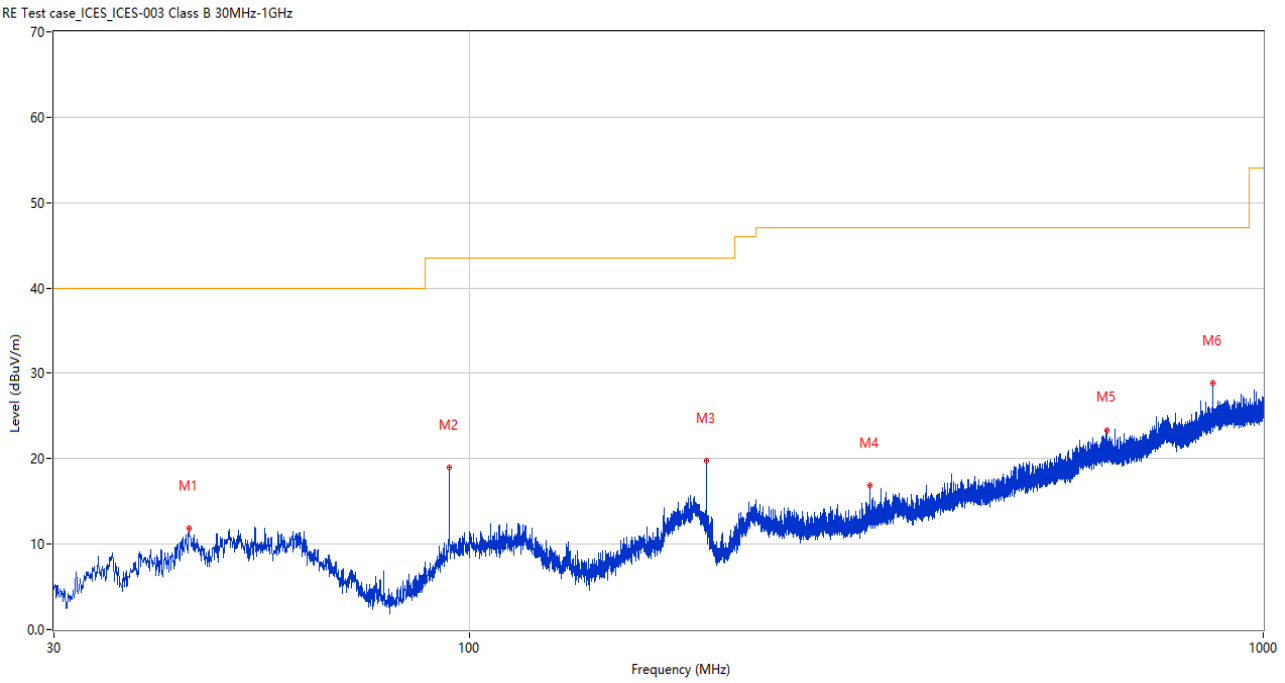
30MHz to 1GHz, ANT V



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	74.717	24.52	-30.78	40.0	15.48	Peak	354.00	100	Vertical	Pass
2	82.234	28.92	-31.54	40.0	11.08	Peak	204.00	100	Vertical	Pass
3	89.461	26.52	-29.13	43.5	16.98	Peak	90.00	100	Vertical	Pass
4	217.889	22.02	-26.12	46.0	23.98	Peak	305.00	100	Vertical	Pass
5	262.849	21.21	-24.57	47.0	25.79	Peak	354.00	100	Vertical	Pass
6	597.935	30.44	-15.59	47.0	16.56	Peak	305.00	100	Vertical	Pass

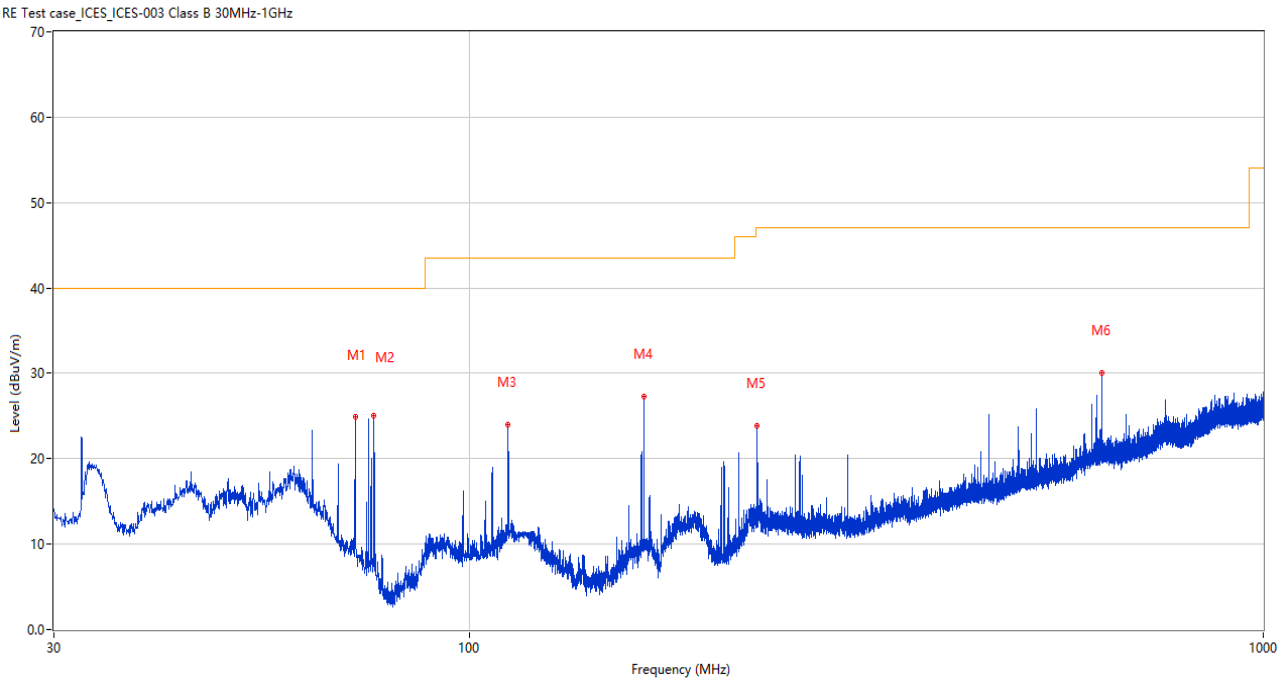
NB-IoT Mode Test Data

1GHz to 18GHz, ANT H



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	44.356	11.92	-26.09	40.0	28.08	Peak	90.00	100	Horizontal	Pass
2	94.408	19.02	-27.61	43.5	24.48	Peak	137.00	200	Horizontal	Pass
3	198.877	19.76	-26.35	43.5	23.74	Peak	252.00	200	Horizontal	Pass
4	319.206	16.90	-23.25	47.0	30.10	Peak	197.00	200	Horizontal	Pass
5	635.280	23.34	-14.63	47.0	23.66	Peak	31.00	100	Horizontal	Pass
6	864.006	28.87	-9.74	47.0	18.13	Peak	127.00	200	Horizontal	Pass

1GHz to 18GHz, ANT V



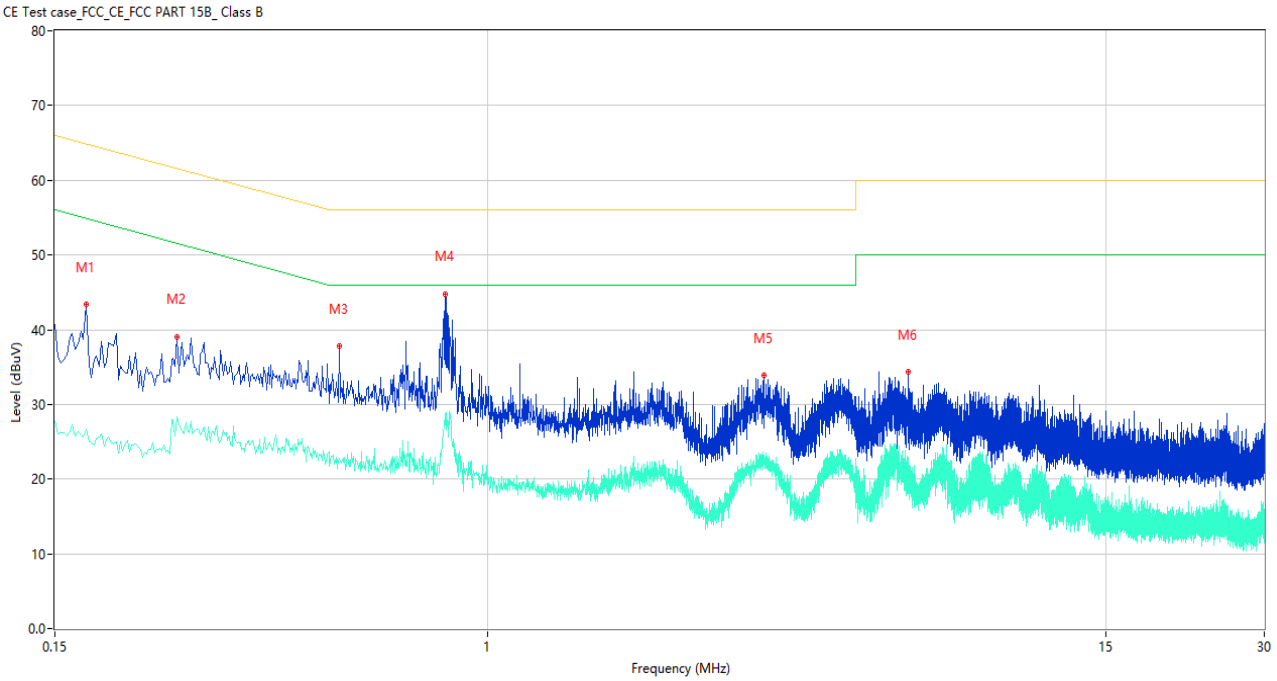
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	71.904	24.88	-29.95	40.0	15.12	Peak	75.00	100	Vertical	Pass
2	75.881	25.08	-31.23	40.0	14.92	Peak	138.00	100	Vertical	Pass
3	112.013	24.03	-27.80	43.5	19.47	Peak	40.00	200	Vertical	Pass
4	166.091	27.28	-29.22	43.5	16.22	Peak	246.00	100	Vertical	Pass
5	230.644	23.88	-25.42	47.0	23.12	Peak	204.00	100	Vertical	Pass
6	625.532	30.06	-14.81	47.0	16.94	Peak	320.00	100	Vertical	Pass

A.9 AC Power-line Conducted Emissions

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

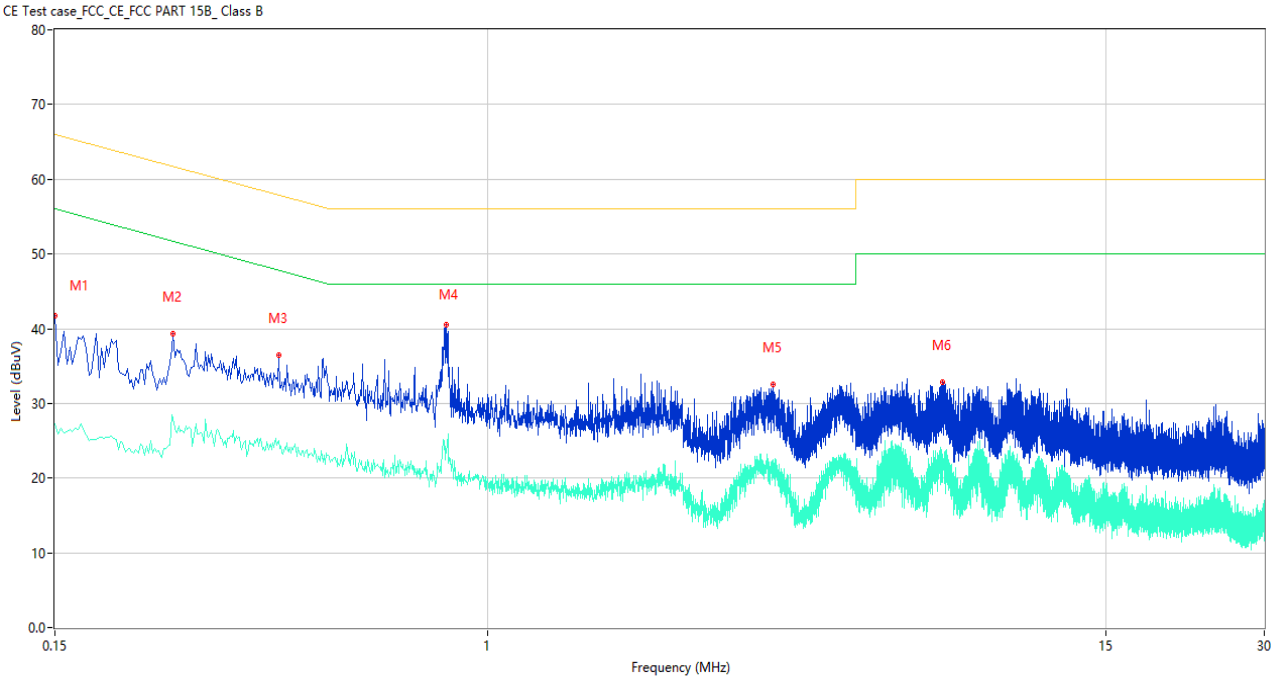
LTE-M1 Mode Test Data

L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.172	43.40	9.44	64.86	21.46	Peak	L	Pass
1**	0.172	26.68	9.44	54.86	28.18	AV	L	Pass
2	0.256	39.08	9.43	61.56	22.48	Peak	L	Pass
2**	0.256	28.33	9.43	51.56	23.23	AV	L	Pass
3	0.522	37.78	9.74	56.00	18.22	Peak	L	Pass
3**	0.522	22.69	9.74	46.00	23.31	AV	L	Pass
4	0.830	44.81	9.63	56.00	11.19	Peak	L	Pass
4**	0.830	27.31	9.63	46.00	18.69	AV	L	Pass
5	3.356	33.85	9.45	56.00	22.15	Peak	L	Pass
5**	3.356	23.19	9.45	46.00	22.81	AV	L	Pass
6	6.302	34.28	9.57	60.00	25.72	Peak	L	Pass
6**	6.302	20.77	9.57	50.00	29.23	AV	L	Pass

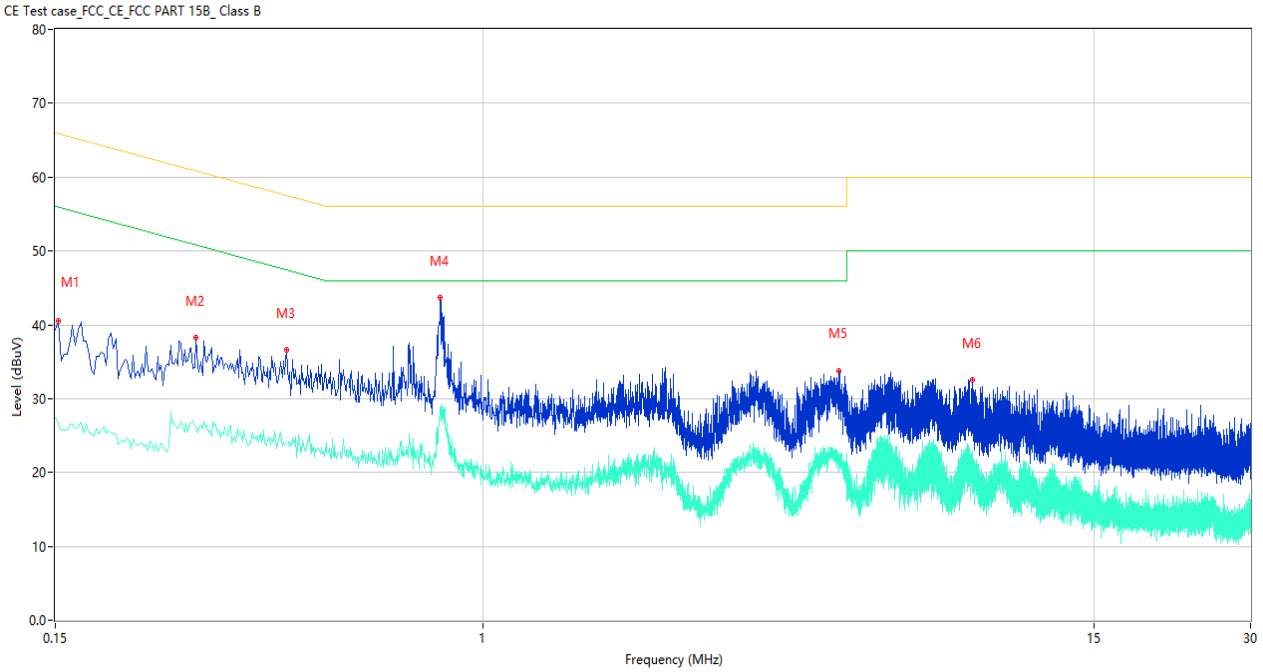
N Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.150	41.76	9.47	66.00	24.24	Peak	N	Pass
1**	0.150	27.20	9.47	56.00	28.80	AV	N	Pass
2	0.252	39.34	9.43	61.69	22.35	Peak	N	Pass
2**	0.252	28.01	9.43	51.69	23.68	AV	N	Pass
3	0.400	36.48	10.01	57.85	21.37	Peak	N	Pass
3**	0.400	25.05	10.01	47.85	22.80	AV	N	Pass
4	0.832	40.56	9.66	56.00	15.44	Peak	N	Pass
4**	0.832	23.91	9.66	46.00	22.09	AV	N	Pass
5	3.494	32.55	9.85	56.00	23.45	Peak	N	Pass
5**	3.494	20.36	9.85	46.00	25.64	AV	N	Pass
6	7.332	32.77	9.22	60.00	27.23	Peak	N	Pass
6**	7.332	21.24	9.22	50.00	28.76	AV	N	Pass

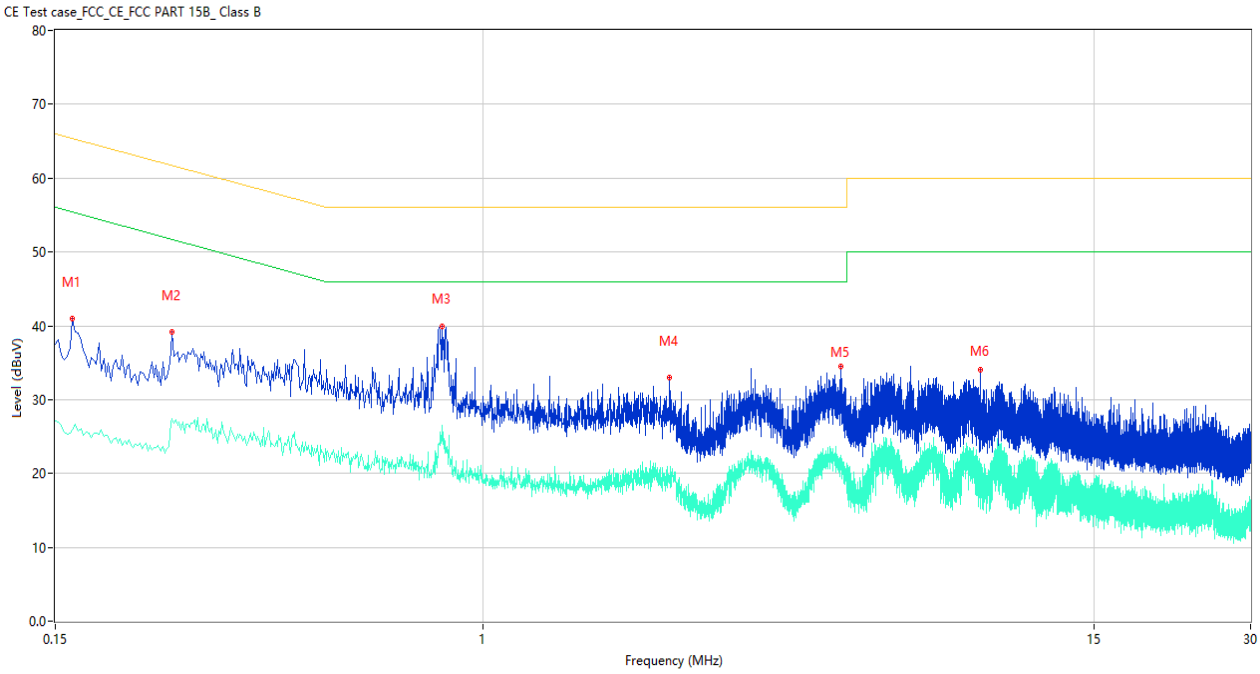
NB-IoT Mode Test Data

L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.152	40.57	9.47	65.89	25.32	Peak	L	Pass
1**	0.152	26.60	9.47	55.89	29.29	AV	L	Pass
2	0.280	38.25	9.43	60.82	22.57	Peak	L	Pass
2**	0.280	26.21	9.43	50.82	24.61	AV	L	Pass
3	0.418	36.55	9.98	57.49	20.94	Peak	L	Pass
3**	0.418	24.03	9.98	47.49	23.46	AV	L	Pass
4	0.826	43.63	9.56	56.00	12.37	Peak	L	Pass
4**	0.826	27.74	9.56	46.00	18.26	AV	L	Pass
5	4.830	33.80	9.46	56.00	22.20	Peak	L	Pass
5**	4.830	21.39	9.46	46.00	24.61	AV	L	Pass
6	8.762	32.59	8.92	60.00	27.41	Peak	L	Pass
6**	8.762	20.40	8.92	50.00	29.60	AV	L	Pass

N Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.162	40.96	9.46	65.36	24.40	Peak	N	Pass
1**	0.162	25.97	9.46	55.36	29.39	AV	N	Pass
2	0.252	39.18	9.43	61.69	22.51	Peak	N	Pass
2**	0.252	27.40	9.43	51.69	24.29	AV	N	Pass
3	0.832	39.91	9.66	56.00	16.09	Peak	N	Pass
3**	0.832	24.63	9.66	46.00	21.37	AV	N	Pass
4	2.286	32.96	9.74	56.00	23.04	Peak	N	Pass
4**	2.286	18.75	9.74	46.00	27.25	AV	N	Pass
5	4.880	34.44	9.61	56.00	21.56	Peak	N	Pass
5**	4.880	21.22	9.61	46.00	24.78	AV	N	Pass
6	9.078	34.01	8.99	60.00	25.99	Peak	N	Pass
6**	9.078	21.41	8.99	50.00	28.59	AV	N	Pass

ANNEX B TEST SETUP PHOTOS

Please refer to the document “BL-SZ2370129-AR.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer to the document “BL-SZ2370129-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer to the document “BL-SZ2370129-AI.PDF”.

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