

FCC RF Test Report

Applicant: Inseego Corp.

Address of Applicant: 9605 Scranton Road, Suite 300, San Diego, CA 92121 United States

Manufacturer: Inseego Corp.

Address of Manufacturer: 9605 Scranton Road, Suite 300, San Diego, CA 92121 United States

Equipment Under Test (EUT)

Product Name: Inseego Business Phone Connect

Model No.: BPC100

Trade Mark: inseego

FCC ID: PKRISGBPC100

Applicable standards: FCC 47 CFR Part 2, 22(H), 24(E), 27

Date of sample receipt: August 20, 2019

Date of Test: August 20-September 10, 2019

Date of report issued: September 10, 2019

Test Result : PASS *

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:

Robinson Lo
Laboratory Manager

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Report Revise Record

Version No.	Date	Description
00	September 10, 2019	Original

Prepared By:

Date:

September 10, 2019

Project Engineer

Check By:

Date:

September 10, 2019

Reviewer

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Summary Of Test Result

Report Section	FCC Rule	Description	Limit	Result	Remark
4.2	§2.1046	Conducted Output Power	Reporting Only	PASS	-
	§22.913(a)(2)	Effective Radiated Power (Band 5)	ERP < 7 Watt	PASS	
	§27.50(b)(10) §27.50(c)(10) §90.541(d)	Effective Radiated Power (Band 12) (Band 13) (Band 71) (Band 14)	ERP < 3 Watt	PASS	
	§24.232(c)	Equivalent Isotropic Radiated Power (Band 2)	EIRP < 2Watt	PASS	
	§27.50(d)(4)	Equivalent Isotropic Radiated Power (Band 4) (Band 66)	EIRP < 1Watt	PASS	
4.3	§24.232(d) §27.50	Peak-to-Average Ratio	< 13 dB	PASS	-
4.4	§2.1049	Occupied Bandwidth	Reporting Only	PASS	-
4.5	§2.1051 §22.359(a) §22.917(a) §24.238(a) §27.53(g) §27.53(h) §90.543(e)	Conducted Band Edge Measurement (Band 2) (Band 4) (Band 5) (Band 12) (Band 13)(Band 14) (Band 66)(Band 71)	< 43+10log10(P[Watts])	PASS	-
4.6	§2.1051 §22.917(a) §24.238(a) §27.53(g) §27.53(h) §90.543(e)	Conducted Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12) (Band 13)(Band 14) (Band 66)(Band 71)	< 43+10log10(P[Watts])	PASS	-
4.7	§2.1055 §22.355	Frequency Stability for Temperature & Voltage	< 2.5 ppm	PASS	-
	§2.1055 §24.235 §27.54 §90.539		Within Authorized Band		

Report Section	FCC Rule	Description	Limit	Result	Remark
5.2	§2.1053 §22.917(a) §24.238(a) §27.53(g) §27.53(h) §90.543(e)	Radiated Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12) (Band 13) (Band 14)(Band 66) (Band 71)	$< 43 + 10 \log_{10}(P[\text{Watts}])$	PASS	Under limit 18.52dB at 1581 MHz

1 Test Laboratory

1.1 Test facility

- **FCC —Registration No.: 381383**

Global United Technology Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in files. Registration 381383.

- **IC —Registration No.: 9079A-2**

The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 9079A-2.

- **NVLAP (LAB CODE:600179-0)**

Global United Technology Services Co., Ltd., is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP). LAB CODE:600179-0

2 General Description

2.1 Product Feature of Equipment Under Test

Product Feature		
Equipment	Inseego Business Phone Connect	
Brand Name	inseego	
Model Name	BPC100	
Nominal Voltage	5 Vdc (From Adapter or PC)	
Extreme Voltage	DC 4.75V and DC 5.25V	
Modulation Type	WCDMA	BPSK
	LTE	QPSK,16QAM
Operating frequency	WCDMA	826.4 MHz ~ 846.6 MHz (FOR WCDMA 850) 1712.4 MHz ~ 1752.6 MHz (FOR WCDMA 1700) 1852.4 MHz ~ 1907.6 MHz (FOR WCDMA 1900)
	LTE	LTE Band 2:1850.7 MHz ~ 1909.3MHz LTE Band 4: 1710.7 MHz ~ 1754.3 MHz LTE Band 5: 824.7 MHz ~ 848.3 MHz LTE Band 12: 699.7 MHz ~ 715.3 MHz LTE Band 13: 779.5 MHz ~ 784.5 MHz LTE Band 14: 790.5 MHz ~ 795.5 MHz LTE Band 66: 1710.7 MHz ~ 1779.3 MHz LTE Band 71: 665.5 MHz ~ 695.5 MHz
Serial No.:	N/A	
HW Version	725-0701-001-3	
SW Version	2.115.10	
EUT Stage	Production Unit	

Remark:

1. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.
2. Tests were performed on the conducted test at Main antenna as worst case since it has higher output powers.

2.2 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	LTE Band 2: 1850.7 MHz ~ 1909.3 MHz LTE Band 4: 1710.7 MHz ~ 1754.3 MHz LTE Band 5: 824.7 MHz ~ 848.3 MHz LTE Band 12: 699.7 MHz ~ 715.3 MHz LTE Band 13: 779.5 MHz ~ 784.5 MHz LTE Band 14: 790.5 MHz ~ 795.5 MHz LTE Band 66: 1710.7 MHz ~ 1779.3 MHz LTE Band 71: 665.5 MHz ~ 695.5 MHz
Rx Frequency	LTE Band 2: 1930.7 MHz ~ 1989.3 MHz LTE Band 4: 2110.7 MHz ~ 2154.3 MHz LTE Band 5: 869.7 MHz ~ 893.3 MHz LTE Band 12: 729.7 MHz ~ 745.3 MHz LTE Band 13: 748.5 MHz ~ 753.5 MHz LTE Band 14: 760.5 MHz ~ 765.5 MHz LTE Band 66: 2110.7 MHz ~ 2179.3 MHz LTE Band 71: 619.5 MHz ~ 649.5 MHz
Bandwidth	LTE Band 2: 1.4 MHz / 3 MHz / 5 MHz / 10 MHz / 15 MHz / 20 MHz LTE Band 4: 1.4 MHz / 3 MHz / 5 MHz / 10 MHz / 15 MHz / 20 MHz LTE Band 5: 1.4 MHz / 3 MHz / 5 MHz / 10 MHz LTE Band 12: 1.4 MHz / 3 MHz / 5 MHz / 10 MHz LTE Band 13: 5 MHz / 10 MHz LTE Band 14: 5 MHz / 10 MHz LTE Band 66: 1.4 MHz / 3 MHz / 5 MHz / 10 MHz / 15 MHz / 20 MHz LTE Band 71: 5 MHz / 10 MHz / 15 MHz / 20 MHz
Maximum EIRP Power	LTE Band 2: 25.18 dBm LTE Band 4: 25.79 dBm LTE Band 5: 24.55 dBm LTE Band 12: 24.17 dBm LTE Band 13: 24.53 dBm LTE Band 14: 24.4 dBm LTE Band 66: 25.81 dBm LTE Band 71: 24.18 dBm
Antenna Type	Reference EUT photos
Antenna Gain (Main)	LTE Band 2: 2.6 dBi LTE Band 4: 2.6 dBi LTE Band 5: 0.5 dBi LTE Band 12: 0.5 dBi LTE Band 13: 0.5 dBi LTE Band 14: 0.5 dBi LTE Band 66: 2.6 dBi LTE Band 71: 0.5 dBi
Antenna Gain (AUX -Only RX)	LTE Band 2: 4.3 dBi

	LTE Band 4: 4.3dBi LTE Band 5: 2.2dBi LTE Band 12: 2.2dBi LTE Band 13: 2.2dBi LTE Band 14: 2.2dBi LTE Band 66: 4.3dBi LTE Band 71: 2.2dBi
Type of Modulation	QPSK/ 16QAM

2.3 Modification of EUT

No modifications are made to the EUT during all test items.

2.4 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- 47 CFR Part 2, 22(H), 24(E), 27
 - ANSI / TIA / EIA-603-E-2016
 - ANSI C63.26-2015
- FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

3 Test Configuration of Equipment Under Test

3.1 Test Mode

Antenna port conducted and radiated test items were performed according to KDB 971168 D01 Power Meas. License Digital Systems v03r01 with maximum output power.

Radiated measurements were performed with rotating EUT in different three orthogonal test planes to find the maximum emission.

Radiated emissions were investigated from 30 MHz to 10th harmonic.

Test modes are chosen to be reported as the worst case configuration below:

Test Items	Band	Bandwidth(MHz)						Modulation			RB#			Test Channel		
		1.4	3	5	10	15	20	QPSK		16QAM	1	Half	Full	L	M	H
Max. Output Power and E.R.P./ E.I.R.P.	2	•	•	•	•	•	•	•		•	•	•	•	•	•	•
	4	•	•	•	•	•	•	•		•	•	•	•	•	•	•
	5	•	•	•	•	-	-	•		•	•	•	•	•	•	•
	12	•	•	•	•	-	-	•		•	•	•	•	•	•	•
	13	-	-	•	•	-	-	•		•	•	•	•	•	•	•
	14	-	-	•	•	-	-	•		•	•	•	•	•	•	•
	66	•	•	•	•	•	•	•		•	•	•	•	•	•	•
	71	-	-	•	•	•	•	•		•	•	•	•	•	•	•
Peak-to-Average Ratio	2	•	•	•	•	•	•	•		•	•	-	•	•	•	•
	4	•	•	•	•	•	•	•		•	•	-	•	•	•	•
	5	•	•	•	•	-	-	•		•	•	-	•	•	•	•
	12	•	•	•	•	-	-	•		•	•	-	•	•	•	•
	13	-	-	•	•	-	-	•		•	•	-	•	•	•	•
	14	-	-	•	•	-	-	•		•	•	-	•	•	•	•
	66	•	•	•	•	•	•	•		•	•	-	•	•	•	•
	71	-	-	•	•	•	•	•		•	•	-	•	•	•	•
Test Items	Band	Bandwidth(MHz)						Modulation			RB#			Test Channel		
		1.4	3	5	10	15	20	QPSK		16QAM	1	Half	Full	L	M	H
26dB and	2	•	•	•	•	•	•	•		•	-	-	•	•	•	•
	4	•	•	•	•	•	•	•		•	-	-	•	•	•	•
	5	•	•	•	•	-	-	•		•	-	-	•	•	•	•
	12	•	•	•	•	-	-	•		•	-	-	•	•	•	•
	13	-	-	•	•	-	-	•		•	-	-	•	•	•	•

99% Bandwidth	14	-	-	•	•	-	-	•		•	-	-	•	•	•	•
	66	•	•	•	•	•	•	•		•	-	-	•	•	•	•
	71	-	-	•	•	•	•	•		•	-	-	•	•	•	•
Conducted Band Edge	2	•	•	•	•	•	•	•		•	•	-	•	•	•	•
	4	•	•	•	•	•	•	•		•	•	-	•	•	•	•
	5	•	•	•	•	-	-	•		•	•	-	•	•	•	•
	12	•	•	•	•	-	-	•		•	•	-	•	•	•	•
	13	-	-	•	•	-	-	•		•	•	-	•	•	•	•
	14	-	-	•	•	-	-	•		•	•	-	•	•	•	•
	66	•	•	•	•	•	•	•		•	•	-	•	•	•	•
	71	-	-	•	•	•	•	•		•	•	-	•	•	•	•
Conducted Spurious Emission	2	•	•	•	•	•	•	•		•	•	-	-	•	•	•
	4	•	•	•	•	•	•	•		•	•	-	-	•	•	•
	5	•	•	•	•	-	-	•		•	•	-	-	•	•	•
	12	•	•	•	•	-	-	•		•	•	-	-	•	•	•
	13	-	-	•	•	-	-	•		•	•	-	-	•	•	•
	14	-	-	•	•	-	-	•		•	•	-	-	•	•	•
	66	•	•	•	•	•	•	•		•	•	-	-	•	•	•
	71	-	-	•	•	•	•	•		•	•	-	-	•	•	•
Test Items	Band	Bandwidth(MHz)						Modulation			RB#			Test Channel		
		1.4	3	5	10	15	20	QPSK		16QAM	1	Half	Full	L	M	H
Frequency Stability	2	•	•	•	•	•	•	•		•	•	-	-	•	•	•
	4	•	•	•	•	•	•	•		•	•	-	-	•	•	•
	5	•	•	•	•	-	-	•		•	•	-	-	•	•	•
	12	•	•	•	•	-	-	•		•	•	-	-	•	•	•
	13	-	-	•	•	-	-	•		•	•	-	-	•	•	•
	14	-	-	•	•	-	-	•		•	•	-	-	•	•	•
	66	•	•	•	•	•	•	•		•	•	-	-	•	•	•
	71	-	-	•	•	•	•	•		•	•	-	-	•	•	•
Radiated Spurious Emission	2	•	•	•	•	•	•	•		•	•	•	•	•	•	•
	4	•	•	•	•	•	•	•		•	•	•	•	•	•	•
	5	•	•	•	•	-	-	•		•	•	•	•	•	•	•
	12	•	•	•	•	-	-	•		•	•	•	•	•	•	•
	13	-	-	•	•	-	-	•		•	•	•	•	•	•	•
	14	-	-	•	•	-	-	•		•	•	•	•	•	•	•
	66	•	•	•	•	•	•	•		•	•	•	•	•	•	•
	71	-	-	•	•	•	•	•		•	•	•	•	•	•	•

Note

1. The mark "●" means that this configuration is chosen for testing.
2. The mark "-" means that this bandwidth is not supported.
3. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported.

3.1 Frequency List of Low/Middle/High Channels

LTE Band 2Channel	Bandwidth [MHz]	N _{UL}	Frequency of Uplink [MHz]	N _{DL}	Frequency of Downlink [MHz]
Low Range	1.4	18607	1850.7	607	1930.7
	3	18615	1851.5	615	1931.5
	5	18625	1852.5	625	1932.5
	10	18650	1855	650	1935
	15	18675	1857.5	675	1937.5
	20	18700	1860	700	1940
Middle Range	1.4/3/5/10/15/20	18900	1880	900	1960
High Range	1.4	19193	1909.3	1193	1989.3
	3	19185	1908.5	1185	1988.5
	5	19175	1907.5	1175	1987.5
	10	19150	1905	1150	1985
	15	19125	1902.5	1125	1982.5
	20	19100	1900	1100	1980

LTE Band 4Channel	Bandwidth [MHz]	N _{UL}	Frequency of Uplink [MHz]	N _{DL}	Frequency of Downlink [MHz]
Low Range	1.4	19957	1710.7	1957	2110.7
	3	19965	1711.5	1965	2111.5
	5	19975	1712.5	1975	2112.5
	10	20000	1715	2000	2115
	15	20025	1717.5	2025	2117.5
	20	20050	1720	2050	2120
Middle Range	1.4/3/5/10/15/20	20175	1732.5	2175	2132.5
High Range	1.4	20393	1754.3	2393	2154.3
	3	20385	1753.5	2385	2153.5
	5	20375	1752.5	2375	2152.5
	10	20350	1750	2350	2150
	15	20325	1747.5	2325	2147.5
	20	20300	1745	2300	2145

LTE Band 5 Channel	Bandwidth[MHz]	N _{UL}	Frequency ofUplink [MHz]	N _{DL}	Frequency of Downlink [MHz]
Low Range	1.4	20407	824.7	2407	869.7
	3	20415	825.5	2415	870.5
	5	20425	826.5	2425	871.5
	10	20450	829	2450	874
Middle Range	1.4/3/5/10	20525	836.5	2525	881.5
High Range	1.4	20643	848.3	2643	893.3
	3	20635	847.5	2635	892.5
	5	20625	846.5	2625	891.5
	10	20600	844	2600	889

LTE Band 12 Channel	Bandwidth[MHz]	N _{UL}	Frequency ofUplink [MHz]	N _{DL}	Frequency of Downlink [MHz]
Low Range	1.4	23017	699.7	5017	729.7
	3	23025	700.5	5025	730.5
	5	23035	701.5	5035	731.5
	10	23060	704	5060	734
Middle Range	1.4/3/5/10	23095	707.5	5095	737.5
High Range	1.4	23173	715.3	5173	745.3
	3	23165	714.5	5165	744.5
	5	23155	713.5	5155	743.5
	10	23130	711	5130	741

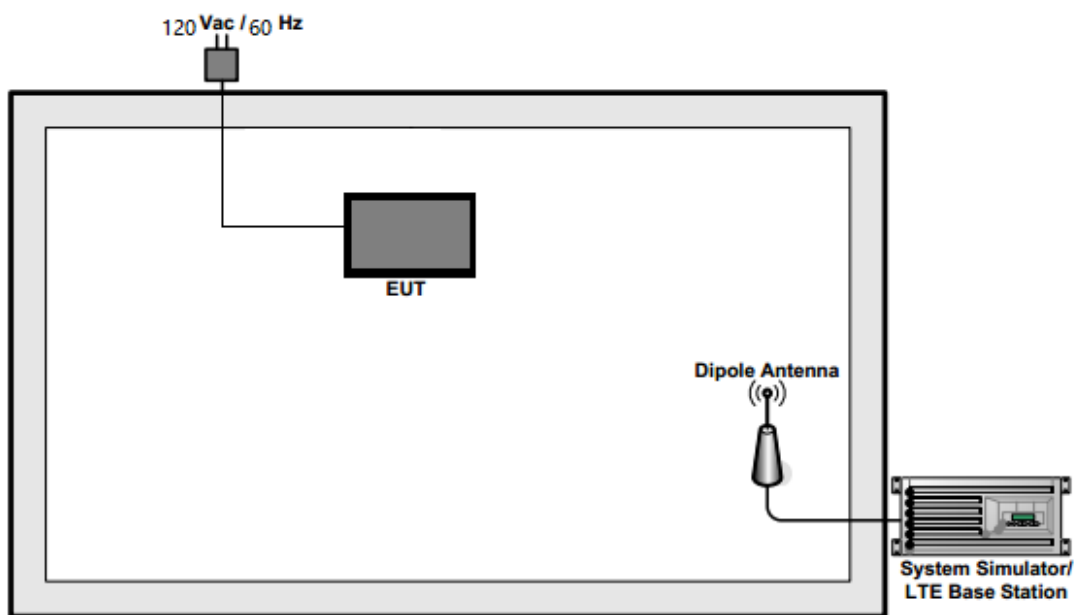
LTE Band 13Channel	Bandwidth[MHz]	N _{UL}	Frequency ofUplink [MHz]	N _{DL}	Frequency of Downlink [MHz]
Low Range	5	23205	779.5	5205	748.5
	10	23230	782	5230	751
Mid Range	5 /10	23230	782	5230	751
High Range	5	23255	784.5	5255	753.5
	10	23230	782	5230	751

LTE Band 14Channel	Bandwidth[MHz]	N _{UL}	Frequency of Uplink [MHz]	N _{DL}	Frequency of Downlink [MHz]
Low Range	5	23305	790.5	5305	760.5
	10	23330	793	5330	763
Mid Range	5 /10	23330	793	5330	763
High Range	5	23355	795.5	5355	765.5
	10	23330	793	5330	763

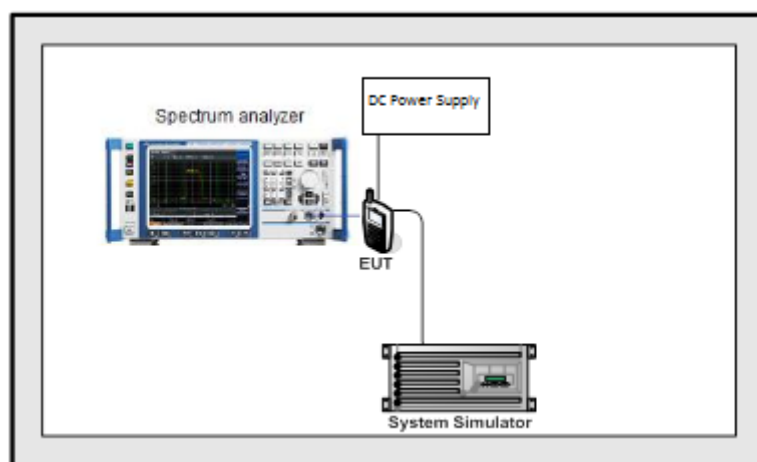
LTE Band 66Channel	Bandwidth [MHz]	N _{UL}	Frequency of Uplink [MHz]	N _{DL}	Frequency of Downlink [MHz]
Low Range	1.4	131979	1710.7	66443	2110.7
	3	131987	1711.5	66451	2111.5
	5	131997	1712.5	66461	2112.5
	10	132022	1715	66486	2115
	15	132047	1717.5	66511	2117.5
	20	132072	1720	66536	2120
Middle Range	1.4/3/5/10/15/20	132422	1755	66886	2155
High Range	1.4	132665	1779.3	67129	2179.3
	3	132657	1778.5	67121	2178.5
	5	132647	1777.5	67111	2177.5
	10	132622	1775	67086	2175
	15	132597	1772.5	67061	2172.5
	20	132572	1770	67036	2170

LTE Band 71Channel	Bandwidth [MHz]	N _{UL}	Frequency of Uplink [MHz]	N _{DL}	Frequency of Downlink [MHz]
Low Range	5	133147	665.5	68611	619.5
	10	133172	668	68636	622
	15	133197	670.5	68661	624.5
	20	133222	673	68686	627
Mid Range	5/10/15	133297	680.5	68761	634.5
	20	133322	683	68786	637
High Range	5	133447	695.5	68911	649.5
	10	133422	693	68886	647
	15	133397	690.5	68861	644.5
	20	133372	688	68836	642

3.2 Connection Diagram of Test System



Radiated Setup



Conducted Setup

3.3 Support Unit used in test configuration

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	Station	R&S	CMW500	N/A	N/A	Unshielded, 1.8 m
2.	DC Power Supply	Keysight	E3642A	N/A	N/A	Unshielded, 1.8 m

3.4 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between RF conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level will be exactly the RF output level.

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + attenuator factor.

The following shows an offset computation example with RF cable loss 4.5 dB and a 10dB attenuator.

Example :

$$\begin{aligned}\text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)} \\ &= 4.5 + 10 = 14.5 \text{ (dB)}\end{aligned}$$

4 Conducted Test Result

4.1 Measuring Instruments

See list of measuring instruments of this test report.

4.2 Conducted Output Power and E.R.P./E.I.R.P.

4.2.1 Description of the Conducted Output Power

All LTE bands conducted average power is obtained from the CMW500 telecommunication test set.

The following tests were conducted according to the test requirements outlined in section 6.2 of the 3GPP TS36.101 specification.

UE Power Class: 3 (23 +/- 2dBm). The allowed Maximum Power Reduction (MPR) for the maximum output power due to higher order modulation and transmit bandwidth configuration (resource blocks) is specified in Table 6.2.3-1 of the 3GPP TS36.101.

Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3

Modulation	Channel bandwidth / Transmission bandwidth (N_{RB})						MPR (dB)
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1
16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2
64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2
64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3
256 QAM	≥ 1						≤ 5

4.2.2 E.R.P. /E.I.R.P. Limit

FCC: §2.1046, §22.913, §24.232, §27.50

22.913(a) - The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts

24.232(c) - Mobile/portable stations are limited to 2 watts e.i.r.p. peak power and the equipment must employ means to limit the power to the minimum necessary for successful communications

27.50 (c) (10) the following power and antenna height requirements apply to stations transmitting in the 698–746 MHz band, the portable stations (hand-held devices) are limited to 3 watts ERP.

27.50 (b)(10) Portable stations (hand-held devices) transmitting in the 746–757 MHz, 758–763 MHz, 776–793 MHz, and 805–806 MHz bands are limited to 3 watts ERP.

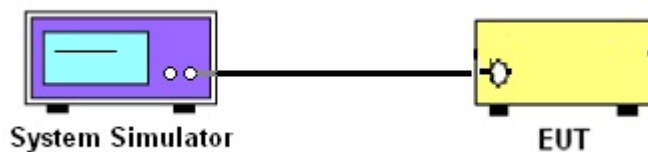
27.50 (d)(4) The following power and antenna height requirements apply to stations transmitting in the 1710–1755 MHz and 2110–2155 MHz bands: Fixed, mobile, and portable (hand-held) stations operating in the 1710–1755 MHz band are limited to 1 watt EIRP.

90.541 (d) The transmitting power of a portable (hand-held) unit must not exceed 3 watts ERP.

4.2.3 Test Procedures

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

4.2.4 Test Setup



4.2.5 Test Results

Refer to Appendix A of this test report.

4.3 Peak-to-Average Ratio

4.3.1 Description of the PAR Measurement

Power Complementary Cumulative Distribution Function (CCDF) curves provide a means for characterizing the power peaks of a digitally modulated signal on a statistical basis. A CCDF curve depicts the probability of the peak signal amplitude exceeding the average power level. Most contemporary measurement instrumentation include the capability to produce CCDF curves for an input signal provided that the instrument's resolution bandwidth can be set wide enough to accommodate the entire input signal bandwidth.

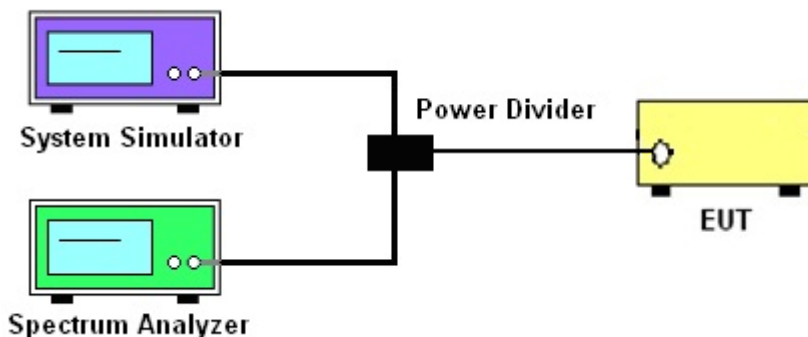
4.3.2 Limit

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.

4.3.3 Test Procedures

1. The testing follows ANSI C63.26 Section 5.2.3.4 (CCDF)
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. Set EUT to transmit at maximum output power.
4. The signal analyzer's CCDF measurement profile is enabled
5. Frequency = carrier center frequency
6. Measurement BW > Emission bandwidth of signal
7. When the duty cycle is less than 98%, then signal gating will be implemented on the spectrum analyzer by triggering from the system simulator.
8. Set the CCDF (Complementary Cumulative Distribution Function) option of the spectrum analyzer. Record the maximum PAPR level associated with a probability of 0.1%.

4.3.4 Test Setup



4.3.5 Test Results

Refer to Appendix A of this test report.

4.4 99% Occupied Bandwidth and 26dB Bandwidth Measurement

4.4.1 Description of 99% Occupied Bandwidth and 26dB Bandwidth Measurement

The occupied bandwidth is the width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5% of the total mean transmitted power.

The 26 dB emission bandwidth is defined as the frequency range between two points, one above and one below the carrier frequency, at which the spectral density of the emission is attenuated 26 dB below the maximum in-band spectral density of the modulated signal. Spectral density (power per unit bandwidth) is to be measured with a detector of resolution bandwidth equal to approximately 1.0% of the emission bandwidth.

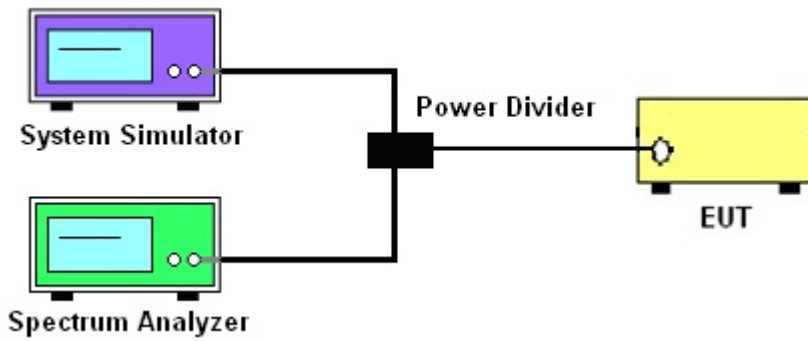
4.4.2 Limit

For reporting purposes only

4.4.3 Test Procedures

1. The testing follows Subclause 5.4.3 of ANSI C63.26-2015
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The signal analyzer's automatic bandwidth measurement capability was used to perform the 99% occupied bandwidth and the 26dB bandwidth the bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
4. $RBW = 1\sim 5\%$ of the expected OBW, $VBW \geq 3 \times RBW$
5. Set the detection mode to peak, and the trace mode to max hold.
6. Determine the reference value: Set the EUT to transmit a modulated signal. Allow the trace to stabilize. Set the spectrum analyzer marker to the highest level of the displayed trace.(this is the reference value)
7. Determine the "-26 dB down amplitude" as equal to (Reference Value – X).
8. Place two markers, one at the lowest and the other at the highest frequency of the envelope of the spectral display such that each marker is at or slightly below the "-X dB down amplitude" determined in step 6. If a marker is below this "-X dB down amplitude" value it shall be placed as close as possible to this value. The OBW is the positive frequency difference between the two markers.
9. Use the 99 % power bandwidth function of the spectrum analyzer and report the measured bandwidth.

4.4.4 Test Setup



4.4.5 Test Results

Refer to Appendix A of this test report.

4.5 Conducted Band Edge and Emission Mask

4.5.1 Description of Conducted Band Edge and Emission Measurement

The transmitter output was connected to a calibrated coaxial cable, attenuator and Spectrum analyser, the other end of which was connected to a Base Station Simulator. The Base Station Simulator was set to force the EUT to its maximum power setting. The tests were performed at three frequencies (low channel and high channel).in the 1MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of 100kHz or 1% of the emission bandwidth of the fundamental emission of the transmitter may be employed. The EUT emission bandwidth is measured as the width of the signal between two points, outside of which all emission are attenuated at least 26dB below the transmitter power. The video bandwidth of the spectrum analyzer was set at thrice the resolution bandwidth. Detector Mode was set to peak or peak hold power.

4.5.2 Limit

FCC: §22.359, §22.917, §24.238, §27.53

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.

FCC: §27.53

(c) For operations in 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: (2) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log (P)$ dB;(4) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than $65 + 10 \log (P)$ dB in a 6.25 kHz band segment, for mobile and portable stations;(5) Compliance with the provisions of paragraphs (c)(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)(4) of this section is based on the use of measurement instrumentation such that the reading taken with any resolution bandwidth settings should be adjusted to indicate spectral energy in a 6.25 kHz segment.

FCC: §27.53

(m)(6) Measurement procedure. Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, 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;

for mobile digital stations, in the 1 megahertz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least two percent may be employed, except when the 1 megahertz band is 2495-2496 MHz, in which case a resolution bandwidth of at least one percent may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 megahertz or 1 percent of emission bandwidth, as specified; or 1 megahertz or 2 percent for mobile digital stations, except in the band 2495-2496 MHz). 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. With respect to television operations, measurements must be made of these separate visual and aural operating powers at sufficiently frequent intervals to ensure compliance with the rules.

(m)(4) For mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log (P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log (P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log (P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than $43 + 10 \log (P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log (P)$ dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees. Show citation box.

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:

(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.

4.5.3 Test Procedures

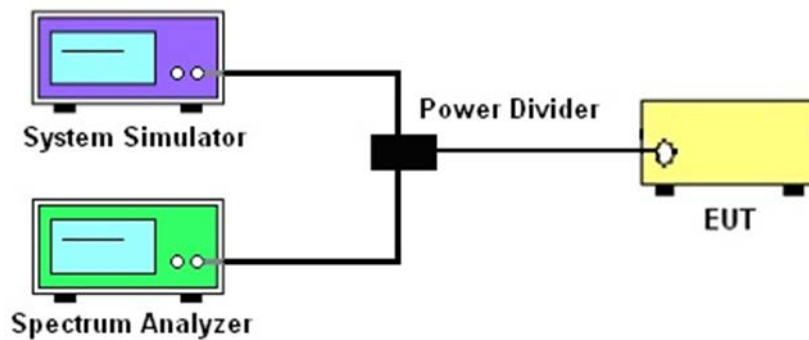
1. The testing follows ANSI C63.26 Section 5.7.
2. The EUT was connected to the spectrum analyzer and system simulator via a power divider.
3. Start and stop frequency were set such that the band edge would be placed in the center of the plot
4. Span was set large enough so as to capture all out of band emissions near the band edge
5. RBW $\geq 1\%$ of the emission bandwidth
6. VBW $\geq 3 \times$ RBW

7. Detector = RMS
8. Number of sweep points $\geq 2 \times \text{Span/RBW}$
9. Trace mode = trace average for continuous emissions, max hold for pulse emissions
10. Sweep time = auto couple
11. The trace was allowed to stabilize
12. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
13. Checked that all the results comply with the emission limit line.

Example:

The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)
= $P(W) - [43 + 10\log(P)]$ (dB)
= $[30 + 10\log(P)]$ (dBm) - $[43 + 10\log(P)]$ (dB)
= -13dBm.

4.5.4 Test Setup



4.5.5 Test Results

Refer to Appendix A of this test report.

4.6 Conducted Spurious Emission

4.6.1 Description of Conducted Spurious Emission Measurement

The transmitter output was connected to a calibrated coaxial cable, attenuator and Spectrum analyzer, the other end of which was connected to a Base Station Simulator. The Base Station Simulator was set to force the EUT to its maximum power setting. The tests were performed at three frequencies (low channel and high channel). 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 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 emission are attenuated at least 26 dB below the transmitter power.

4.6.2 Limit

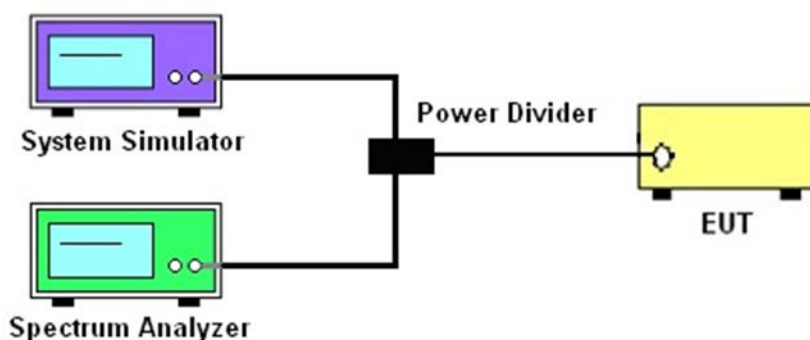
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

4.6.3 Test Procedures

1. The testing follows ANSI C63.26 section 5.7.
2. The EUT was connected to the spectrum analyzer and system simulator via a power divider.
3. The RF output of EUT was connected to the spectrum analyzer by an RF cable and attenuator. The path loss was compensated to the results for each measurement.
4. The middle channel for the highest RF power within the transmitting frequency was measured.
5. The conducted spurious emission for the whole frequency range was taken.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
7. The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)
 $= P(W) - [43 + 10\log(P)]$ (dB)

Band	P(Watts)	$P(W) - [43 + 10\log(P)]$ (dB)
2	2	-13
4/66	1	-13
5	7	-13
12/13/14/71	3	-13

4.6.4 Test Setup



4.6.5 Test Results

Refer to Appendix A of this test report.

4.7 Frequency Stability

4.7.1 Description of Frequency Stability Measurement

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block.

FCC §22.355

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

FCC §24.235 & §27.54

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

FCC §90.539

Mobile, portable and control transmitters must normally use automatic frequency control (AFC) to lock on to the base station signal.

4.7.2 Test Condition

Temp. = -30° to $+50^{\circ}\text{C}$

Voltage = (85% - 115%)

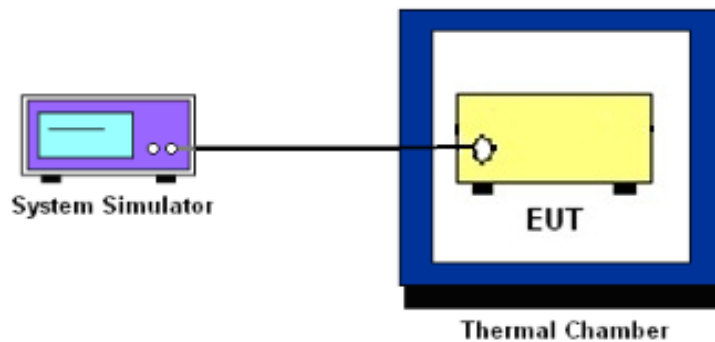
4.7.3 Test Procedures for Temperature Variation

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

4.7.4 Test Procedures for Voltage Variation

1. The testing follows ANSI C63.26 section 5.6.5.
2. The EUT was placed in a temperature chamber at $25 \pm 5^{\circ}\text{C}$ and connected with the system simulator.
3. The power supply voltage to the EUT was varied from 85% to 115% of the nominal value measured at the input to the EUT.
4. The variation in frequency was measured for the worst case.

4.7.5 Test Setup



4.7.6 Test Results

Refer to Appendix A of this test report.

5 Radiated Test Items

5.1 Measuring Instruments

See list of measuring instruments of this test report.

5.2 Radiated Spurious Emission

5.2.1 Description of the Radiated Spurious Emission

The radiated spurious emission was measured by substitution method according to ANSI / TIA / EIA-603-E-2016. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least $43 + 10 \log (P)$ dB.

For LTE Band 13

For operations in the 746-756 MHz, 777-787 MHz, 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 LTE Band 14

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.

The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

5.2.2 Test Procedures

The testing follows FCC KDB 971168 D01 v03r01 Section 5.8 and ANSI / TIA-603-E-2016 Section 2.2.12.

Below 1GHz test procedure as below:

1. The EUT was powered ON and placed on a 80cm high table in the chamber. The antenna of the transmitter was extended to its maximum length.
2. Make the measurement with the spectrum analyzer's RBW = 100KHz, VBW = 100KHz, taking record of maximum spurious emission.
3. The disturbance of the transmitter was maximized on the test receiver display by raising and lowering from 1m to 4m (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) thereceive antenna and by rotating through 360° the turntable. After the fundamental emission was maximized, a field strength measurement was made.
4. Steps 1) and 2) were performed with the EUT and the receive antenna in both vertical and horizontal polarization.
5. The transmitter was then removed and replaced with another antenna. The center of the antenna was approximately at the same location as the center of the transmitter.

6. A signal at the disturbance was fed to the substitution antenna by means of a non-radiating cable. With both the substitution and the receive antennas horizontally polarized, the receive antenna was raised and lowered to obtain a maximum reading at the test receiver. The level of the signal generator was adjusted until the measured field strength level in step 2) is obtained for this set of conditions.
7. The output power into the substitution antenna was then measured.
8. Steps 5) and 6) were repeated with both antennas polarized.
9. Calculate power in dBm by the following formula:

$$\text{ERP(dBm)} = \text{Pg(dBm)} - \text{cable loss (dB)} + \text{antenna gain (dBd)} - 2.15$$

Where:

P_d is the dipole equivalent power, P_g is the generator output into the substitution antenna, and the antenna gain is the gain of the substitute antenna used relative to either a half-wave dipole (dBd) or an isotropic source (dBi). The substitute level is equal to P_g [dBm] – cable loss [dB]. The calculated P_d levels are then compared to the absolute spurious emission limit of -13dBm which is equivalent to the required minimum attenuation of $43 + 10\log_{10}(\text{Power [Watts]})$.

Above 1GHz test procedure as below:

1. The EUT was powered ON and placed on a 150cm high table in the chamber. The antenna of the transmitter was extended to its maximum length.
2. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking record of maximum spurious emission.
3. The disturbance of the transmitter was maximized on the test receiver display by raising and lowering from 1m to 4m (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) the receive antenna and by rotating through 360° the turntable. After the fundamental emission was maximized, a field strength measurement was made.
4. Steps 1) and 2) were performed with the EUT and the receive antenna in both vertical and horizontal polarization.
5. The transmitter was then removed and replaced with another antenna. The center of the antenna was approximately at the same location as the center of the transmitter.
6. A signal at the disturbance was fed to the substitution antenna by means of a non-radiating cable. With both the substitution and the receive antennas horizontally polarized, the receive antenna was raised and lowered to obtain a maximum reading at the test receiver. The level of the signal generator was adjusted until the measured field strength level in step 2) is obtained for this set of conditions.
7. The output power into the substitution antenna was then measured.
8. Steps 5) and 6) were repeated with both antennas polarized.
9. Calculate power in dBm by the following formula:

$$\text{EIRP(dBm)} = \text{Pg(dBm)} - \text{cable loss (dB)} + \text{antenna gain (dBd)}$$

Where:

P_d is the dipole equivalent power, P_g is the generator output into the substitution antenna, and the antenna gain is the gain of the substitute antenna used relative to either a half-wave dipole (dBd) or an isotropic source (dBi). The substitute level is equal to P_g [dBm] – cable loss [dB]. The calculated P_d levels are then compared to the absolute spurious emission limit of -13dBm which is equivalent to the required minimum attenuation of $43 + 10\log_{10}(\text{Power [Watts]})$. $\text{EIRP (dBm)} = \text{S.G. Power} - \text{Tx Cable Loss} + \text{Tx Antenna Gain}$

10. $\text{ERP (dBm)} = \text{EIRP} - 2.15$

11. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

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

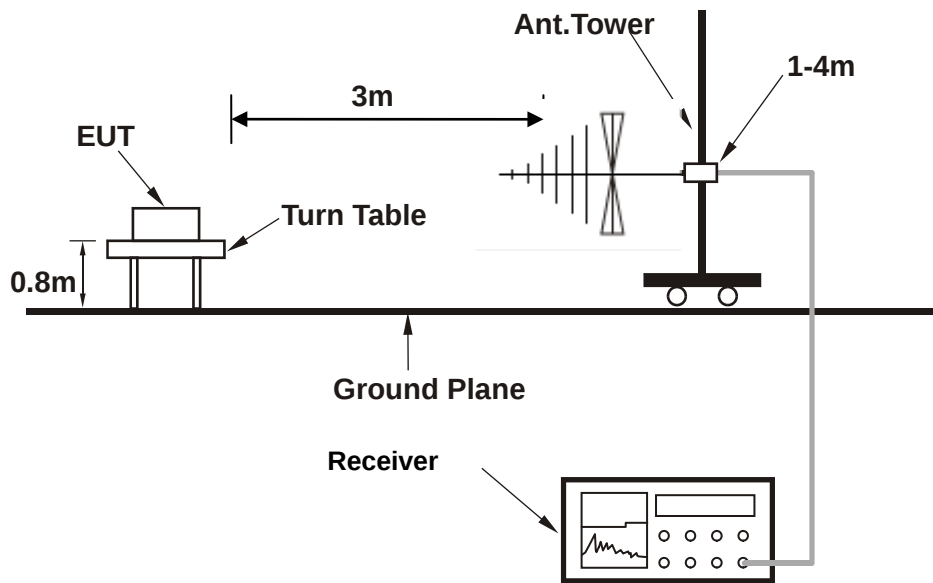
$$= P(\text{W}) - [43 + 10\log(P)] (\text{dB})$$

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

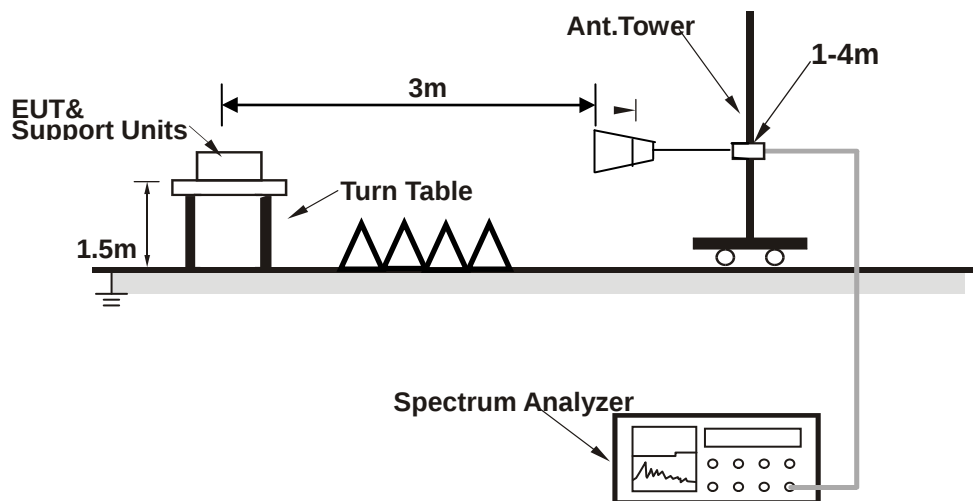
$$= -13\text{dBm}.$$

5.2.3 Test Setup

For radiated test from 30MHz to 1GHz



For radiated test above 1GHz



5.2.4 Test Results

Refer to Appendix B of this test report.

6 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Due Date	Remark
Spectrum Analyzer	Keysight	N9010A	MY56070788	2019-01-23	2020-01-22	Conducted
Base Station	R&S	CMW500	164998	2019-01-23	2020-01-22	Conducted
Thermal Chamber	Sanmtest	SMC-408-CD	2435	2019/05/09	2020/05/08	Conducted
Signal Generator (Interferer)	Keysight	N5182B	MY56200384	2019-05-19	2020-05-18	Conducted
Signal Generator (Blocker)	Keysight	N5171B	MY56200661	2019-01-23	2020-01-22	Conducted

Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV 40	101433	2019-02-18	2020-02-17	Radiation
Amplifier	Sonoma	310	363917	2019-01-22	2020-01-21	Radiation
Amplifier	Schwarzbeck	BBV 9718	327	2019-01-22	2020-01-21	Radiation
Amplifier	Narda	TTA1840-35-HG	2034380	2019/05/15	2020/05/14	Radiation
Loop Antenna	Schwarzbeck	FMZB 1519 B	1519B-051	2017/3/3	2020/3/2	Radiation
Broadband Antenna	Schwarzbeck	VULB 9168	9168-757	2017/3/3	2020/3/2	Radiation
Broadband Horn Antenna	Schwarzbeck	BBHA 9170	579	2017/3/3	2020/3/2	Radiation
Horn Antenna	Schwarzbeck	BBHA 9120 D	1677	2017/3/3	2020/3/2	Radiation
Horn Antenna	COM-POWER	AH-1840	101117	2018-06-20	2021-06-19	Radiation
Signal Generator (Blocker)	R&S	SMB100A	180717	2019-01-23	2020-01-22	Radiation
Test Software	Audix	E3	6.111221a	N/A	N/A	Radiation

N/A: No Calibration Required

7 Uncertainty of Evaluation

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	2.5 dB
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Uncertainty of Radiated Emission Measurement (1GHz ~ 18GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.51dB
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Uncertainty of Radiated Emission Measurement (18GHz ~ 40GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.96dB
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Appendix A. Test Results

Please refer to datasheet.

Appendix B. Test Results of Radiated Test

LTE Band 2 1.4MHz Bandwidth									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3700	-51.21	-13	-38.21	-56.87	-58.96	4.85	12.60	H
	5550	-50.87	-13	-37.87	-61.15	-58.39	5.58	13.10	H
	7400	-47.41	-13	-34.41	-68.99	-52.15	6.56	11.30	H
	3700	-50.80	-13	-37.80	-55.89	-58.55	4.85	12.6	V
	5550	-48.52	-13	-35.52	-63.39	-56.04	5.58	13.1	V
	7400	-47.19	-13	-34.19	-68.89	-51.93	6.56	11.3	V
Middle	3758.6	-50.76	-13	-37.76	-57.42	-58.51	4.85	12.60	H
	5637.9	-49.75	-13	-36.75	-60.03	-57.27	5.58	13.10	H
	7517.2	-47.83	-13	-34.83	-68.41	-52.57	6.56	11.30	H
	3758.6	-49.74	-13	-36.74	-56.83	-57.49	4.85	12.6	V
	5637.9	-50.19	-13	-37.19	-61.06	-57.71	5.58	13.1	V
	7517.2	-47.36	-13	-34.36	-69.06	-52.10	6.56	11.3	V
Highest	3817.2	-49.05	-13	-36.05	-56.71	-56.80	4.85	12.60	H
	5726.8	-48.30	-13	-35.30	-60.58	-55.82	5.58	13.10	H
	7634.4	-47.43	-13	-34.43	-68.01	-52.17	6.56	11.30	H
	3817.2	-49.62	-13	-36.62	-57.71	-57.37	4.85	12.6	V
	5726.8	-47.83	-13	-34.83	-59.7	-55.35	5.58	13.1	V
	7634.4	-48.13	-13	-35.13	-69.83	-52.87	6.56	11.3	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 2 3MHz Bandwidth									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3700	-49.73	-13	-36.73	-60.39	-57.48	4.85	12.60	H
	5550	-48.14	-13	-35.14	-59.42	-55.66	5.58	13.10	H
	7400	-47.72	-13	-34.72	-68.30	-52.46	6.56	11.30	H
	3700	-49.59	-13	-36.59	-59.68	-57.34	4.85	12.6	V
	5550	-49.78	-13	-36.78	-60.65	-57.30	5.58	13.1	V
	7400	-46.99	-13	-33.99	-67.69	-51.73	6.56	11.3	V
Middle	3757	-51.24	-13	-38.24	-56.90	-58.99	4.85	12.60	H
	5635.5	-48.92	-13	-35.92	-61.20	-56.44	5.58	13.10	H
	7514	-46.35	-13	-33.35	-67.93	-51.09	6.56	11.30	H
	3757	-50.18	-13	-37.18	-56.27	-57.93	4.85	12.6	V
	5635.5	-49.99	-13	-36.99	-60.86	-57.51	5.58	13.1	V
	7514	-47.59	-13	-34.59	-69.49	-52.33	6.56	11.3	V
Highest	3814	-49.83	-13	-36.83	-55.49	-57.58	4.85	12.60	H
	5721	-47.47	-13	-34.47	-60.75	-54.99	5.58	13.10	H
	7628	-48.61	-13	-35.61	-69.19	-53.35	6.56	11.30	H
	3814	-48.00	-13	-35.00	-56.09	-55.75	4.85	12.6	V
	5721	-48.05	-13	-35.05	-61.92	-55.57	5.58	13.1	V
	7628	-47.81	-13	-34.81	-69.51	-52.55	6.56	11.3	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 2 5MHz Bandwidth									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3700	-56.55	-13	-43.55	-59.21	-64.30	4.85	12.60	H
	5550	-49.47	-13	-36.47	-61.75	-56.99	5.58	13.10	H
	7400	-47.80	-13	-34.80	-68.38	-52.54	6.56	11.30	H
	3700	-55.76	-13	-42.76	-59.85	-63.51	4.85	12.6	V
	5550	-49.80	-13	-36.80	-62.67	-57.32	5.58	13.1	V
	7400	-48.30	-13	-35.30	-69	-53.04	6.56	11.3	V
Middle	3755	-49.21	-13	-36.21	-55.87	-56.96	4.85	12.60	H
	5632.5	-50.22	-13	-37.22	-61.50	-57.74	5.58	13.10	H
	7510	-46.60	-13	-33.60	-67.18	-51.34	6.56	11.30	H
	3755	-49.05	-13	-36.05	-56.14	-56.80	4.85	12.6	V
	5632.5	-49.59	-13	-36.59	-62.46	-57.11	5.58	13.1	V
	7510	-47.39	-13	-34.39	-69.19	-52.13	6.56	11.3	V
Highest	3810	-50.70	-13	-37.70	-56.38	-58.45	4.85	12.60	H
	5715	-49.97	-13	-36.97	-61.43	-57.49	5.58	13.10	H
	7620	-48.42	-13	-35.42	-68.00	-53.16	6.56	11.30	H
	3810	-49.49	-13	-36.49	-55.58	-57.24	4.85	12.6	V
	5715	-48.21	-13	-35.21	-60.08	-55.73	5.58	13.1	V
	7620	-47.75	-13	-34.75	-68.45	-52.49	6.56	11.3	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 2 10MHz Bandwidth									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3700	-53.46	-13	-40.46	-56.12	-61.21	4.85	12.60	H
	5550	-50.86	-13	-37.86	-60.14	-58.38	5.58	13.10	H
	7400	-47.12	-13	-34.12	-68.70	-51.86	6.56	11.30	H
	3700	-51.13	-13	-38.13	-55.22	-58.88	4.85	12.6	V
	5550	-50.19	-13	-37.19	-62.06	-57.71	5.58	13.1	V
	7400	-48.23	-13	-35.23	-67.76	-52.97	6.56	11.3	V
Middle	3750	-51.23	-13	-38.23	-56.89	-58.98	4.85	12.60	H
	5625	-49.37	-13	-36.37	-61.65	-56.89	5.58	13.10	H
	7500	-47.66	-13	-34.66	-69.24	-52.40	6.56	11.30	H
	3750	-50.68	-13	-37.68	-57.77	-58.43	4.85	12.6	V
	5625	-49.86	-13	-36.86	-60.73	-57.38	5.58	13.1	V
	7500	-47.69	-13	-34.69	-69.39	-52.43	6.56	11.3	V
Highest	3800	-47.49	-13	-34.49	-62.15	-55.24	4.85	12.60	H
	5700	-51.30	-13	-38.30	-69.58	-58.82	5.58	13.10	H
	7600	-47.32	-13	-34.32	-68.90	-52.06	6.56	11.30	H
	3800	-52.03	-13	-39.03	-67.12	-59.78	4.85	12.6	V
	5700	-50.04	-13	-37.04	-68.91	-57.56	5.58	13.1	V
	7600	-48.09	-13	-35.09	-69.79	-52.83	6.56	11.3	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 2 15MHz Bandwidth									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3700	-52.77	-13	-39.77	-55.36	-60.52	4.85	12.60	H
	5550	-50.05	-13	-37.05	-61.33	-57.57	5.58	13.10	H
	7400	-46.60	-13	-33.60	-67.18	-51.34	6.56	11.30	H
	3700	-51.84	-13	-38.84	-61.93	-59.59	4.85	12.6	V
	5550	-49.61	-13	-36.61	-60.88	-57.13	5.58	13.1	V
	7400	-47.57	-13	-34.57	-68.17	-52.31	6.56	11.3	V
Middle	3475	-53.02	-13	-40.02	-56.94	-60.77	4.85	12.60	H
	5617.5	-50.09	-13	-37.09	-61.37	-57.61	5.58	13.10	H
	7490	-46.54	-13	-33.54	-67.72	-51.28	6.56	11.30	H
	3475	-52.38	-13	-39.38	-55.32	-60.13	4.85	12.6	V
	5617.5	-50.25	-13	-37.25	-60.97	-57.77	5.58	13.1	V
	7490	-47.36	-13	-34.36	-68.03	-52.10	6.56	11.3	V
Highest	3790	-51.71	-13	-38.71	-55.37	-59.46	4.85	12.60	H
	5685	-50.50	-13	-37.50	-61.78	-58.02	5.58	13.10	H
	7580	-48.08	-13	-35.08	-66.66	-52.82	6.56	11.30	H
	3790	-50.27	-13	-37.27	-56.36	-58.02	4.85	12.6	V
	5685	-50.05	-13	-37.05	-62.92	-57.57	5.58	13.1	V
	7580	-47.83	-13	-34.83	-65.53	-52.57	6.56	11.3	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 2 20MHz Bandwidth									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3700	-56.11	-13	-43.11	-56.11	-63.86	4.85	12.60	H
	5550	-53.35	-13	-40.35	-53.35	-60.87	5.58	13.10	H
	7400	-47.93	-13	-34.93	-47.93	-52.67	6.56	11.30	H
	3700	-56.03	-13	-43.03	-64.68	-63.78	4.85	12.6	V
	5550	-53.76	-13	-40.76	-67.09	-61.28	5.58	13.1	V
	7400	-47.91	-13	-34.91	-68.63	-52.65	6.56	11.3	V
Middle	3740	-55.43	-13	-42.43	-63.09	-63.18	4.85	12.60	H
	5610	-52.35	-13	-39.35	-64.63	-59.87	5.58	13.10	H
	7480	-45.70	-13	-32.70	-67.28	-50.44	6.56	11.30	H
	3740	-54.34	-13	-41.34	-64.43	-62.09	4.85	12.6	V
	5610	-53.58	-13	-40.58	-64.45	-61.10	5.58	13.1	V
	7480	-45.71	-13	-32.71	-67.41	-50.45	6.56	11.3	V
Highest	3780	-54.02	-13	-41.02	-57.96	-61.77	4.85	12.60	H
	5670	-51.98	-13	-38.98	-62.26	-59.50	5.58	13.10	H
	7560	-45.56	-13	-32.56	-66.14	-50.30	6.56	11.30	H
	3780	-54.73	-13	-41.73	-56.82	-62.48	4.85	12.6	V
	5670	-51.92	-13	-38.92	-60.79	-59.44	5.58	13.1	V
	7560	-44.65	-13	-31.65	-64.35	-49.39	6.56	11.3	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 4 1.4MHz Bandwidth									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3420	-52.71	-13	-39.71	-61.50	-60.94	4.37	12.60	H
	5130	-51.51	-13	-38.51	-64.29	-59.27	4.94	12.70	H
	6840	-47.92	-13	-34.92	-67.30	-53.30	6.32	11.70	H
	3420	-56.87	-13	-43.87	-64.58	-65.10	4.37	12.6	V
	5130	-50.82	-13	-37.82	-62.93	-58.58	4.94	12.7	V
	6840	-47.89	-13	-34.89	-66.33	-53.27	6.32	11.7	V
Middle	3463.6	-52.60	-13	-39.60	-56.39	-60.83	4.37	12.60	H
	5195.4	-52.00	-13	-39.00	-64.78	-59.76	4.94	12.70	H
	6927.2	-47.26	-13	-34.26	-64.64	-52.64	6.32	11.70	H
	3463.6	-53.06	-13	-40.06	-62.77	-61.29	4.37	12.6	V
	5195.4	-51.16	-13	-38.16	-63.27	-58.92	4.94	12.7	V
	6927.2	-47.60	-13	-34.60	-64.04	-52.98	6.32	11.7	V
Highest	3507.2	-54.64	-13	-41.64	-63.43	-62.87	4.37	12.60	H
	5260.8	-51.49	-13	-38.49	-63.27	-59.25	4.94	12.70	H
	7014.4	-47.47	-13	-34.47	-65.85	-52.85	6.32	11.70	H
	3507.2	-53.51	-13	-40.51	-62.22	-61.74	4.37	12.6	V
	5260.8	-49.16	-13	-36.16	-63.27	-56.92	4.94	12.7	V
	7014.4	-48.06	-13	-35.06	-66.5	-53.44	6.32	11.7	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 4 3MHz Bandwidth									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3420	-52.53	-13	-39.53	-61.32	-60.76	4.37	12.60	H
	5130	-51.82	-13	-38.82	-64.60	-59.58	4.94	12.70	H
	6840	-47.71	-13	-34.71	-65.09	-53.09	6.32	11.70	H
	3420	-56.25	-13	-43.25	-65.96	-64.48	4.37	12.6	V
	5130	-49.55	-13	-36.55	-67.66	-57.31	4.94	12.7	V
	6840	-47.80	-13	-34.80	-67.24	-53.18	6.32	11.7	V
Middle	3462	-51.30	-13	-38.30	-61.09	-59.53	4.37	12.60	H
	5193	-52.78	-13	-39.78	-65.56	-60.54	4.94	12.70	H
	6924	-47.24	-13	-34.24	-66.62	-52.62	6.32	11.70	H
	3462	-52.51	-13	-39.51	-60.22	-60.74	4.37	12.6	V
	5193	-49.71	-13	-36.71	-65.82	-57.47	4.94	12.7	V
	6924	-47.16	-13	-34.16	-67.6	-52.54	6.32	11.7	V
Highest	3504	-55.28	-13	-42.28	-63.07	-63.51	4.37	12.60	H
	5256	-51.52	-13	-38.52	-65.30	-59.28	4.94	12.70	H
	7008	-48.76	-13	-35.76	-67.14	-54.14	6.32	11.70	H
	3504	-53.52	-13	-40.52	-63.23	-61.75	4.37	12.6	V
	5256	-52.67	-13	-39.67	-65.78	-60.43	4.94	12.7	V
	7008	-47.43	-13	-34.43	-64.87	-52.81	6.32	11.7	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 4 5MHz Bandwidth									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3420	-56.02	-13	-43.02	-63.81	-64.25	4.37	12.60	H
	5130	-49.22	-13	-36.22	-63.00	-56.98	4.94	12.70	H
	6840	-48.49	-13	-35.49	-69.87	-53.87	6.32	11.70	H
	3420	-53.27	-13	-40.27	-60.98	-61.50	4.37	12.6	V
	5130	-51.03	-13	-38.03	-64.14	-58.79	4.94	12.7	V
	6840	-48.22	-13	-35.22	-65.66	-53.60	6.32	11.7	V
Middle	3460	-53.97	-13	-40.97	-61.76	-62.20	4.37	12.60	H
	5190	-49.50	-13	-36.50	-62.28	-57.26	4.94	12.70	H
	6920	-47.71	-13	-34.71	-65.09	-53.09	6.32	11.70	H
	3460	-56.53	-13	-43.53	-65.24	-64.76	4.37	12.6	V
	5190	-51.83	-13	-38.83	-63.94	-59.59	4.94	12.7	V
	6920	-48.07	-13	-35.07	-66.51	-53.45	6.32	11.7	V
Highest	3500	-54.24	-13	-41.24	-63.03	-62.47	4.37	12.60	H
	5250	-49.06	-13	-36.06	-62.84	-56.82	4.94	12.70	H
	7000	-47.23	-13	-34.23	-65.61	-52.61	6.32	11.70	H
	3500	-53.64	-13	-40.64	-65.35	-61.87	4.37	12.6	V
	5250	-49.04	-13	-36.04	-63.15	-56.80	4.94	12.7	V
	7000	-47.45	-13	-34.45	-65.89	-52.83	6.32	11.7	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 4 10MHz Bandwidth									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3420	-55.73	-13	-42.73	-64.52	-63.96	4.37	12.60	H
	5130	-51.38	-13	-38.38	-63.16	-59.14	4.94	12.70	H
	6840	-48.10	-13	-35.10	-66.48	-53.48	6.32	11.70	H
	3420	-54.61	-13	-41.61	-62.32	-62.84	4.37	12.6	V
	5130	-49.46	-13	-36.46	-61.57	-57.22	4.94	12.7	V
	6840	-48.09	-13	-35.09	-65.53	-53.47	6.32	11.7	V
Middle	3455	-52.28	-13	-39.28	-60.07	-60.51	4.37	12.60	H
	5182.5	-49.74	-13	-36.74	-62.52	-57.50	4.94	12.70	H
	6910	-48.08	-13	-35.08	-65.46	-53.46	6.32	11.70	H
	3455	-51.58	-13	-38.58	-61.29	-59.81	4.37	12.6	V
	5182.5	-48.50	-13	-35.50	-60.61	-56.26	4.94	12.7	V
	6910	-48.43	-13	-35.43	-64.87	-53.81	6.32	11.7	V
Highest	3490	-54.81	-13	-41.81	-62.60	-63.04	4.37	12.60	H
	5235	-51.96	-13	-38.96	-64.74	-59.72	4.94	12.70	H
	6980	-48.06	-13	-35.06	-65.44	-53.44	6.32	11.70	H
	3490	-53.56	-13	-40.56	-62.27	-61.79	4.37	12.6	V
	5235	-49.83	-13	-36.83	-62.94	-57.59	4.94	12.7	V
	6980	-47.32	-13	-34.32	-64.76	-52.70	6.32	11.7	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 4 15MHz Bandwidth									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3420	-54.55	-13	-41.55	-62.34	-62.78	4.37	12.60	H
	5130	-52.66	-13	-39.66	-65.44	-60.42	4.94	12.70	H
	6840	-48.20	-13	-35.20	-66.58	-53.58	6.32	11.70	H
	3420	-53.02	-13	-40.02	-61.73	-61.25	4.37	12.6	V
	5130	-51.62	-13	-38.62	-64.73	-59.38	4.94	12.7	V
	6840	-47.84	-13	-34.84	-66.28	-53.22	6.32	11.7	V
Middle	3450	-54.71	-13	-41.71	-63.50	-62.94	4.37	12.60	H
	5175	-50.34	-13	-37.34	-63.12	-58.10	4.94	12.70	H
	6900	-48.55	-13	-35.55	-65.93	-53.93	6.32	11.70	H
	3450	-50.66	-13	-37.66	-60.37	-58.89	4.37	12.6	V
	5175	-49.08	-13	-36.08	-64.19	-56.84	4.94	12.7	V
	6900	-47.40	-13	-34.40	-64.84	-52.78	6.32	11.7	V
Highest	3480	-52.91	-13	-39.91	-61.70	-61.14	4.37	12.60	H
	5220	-49.66	-13	-36.66	-62.44	-57.42	4.94	12.70	H
	6960	-47.97	-13	-34.97	-65.35	-53.35	6.32	11.70	H
	3480	-51.67	-13	-38.67	-60.38	-59.90	4.37	12.6	V
	5220	-49.39	-13	-36.39	-61.5	-57.15	4.94	12.7	V
	6960	-47.44	-13	-34.44	-64.88	-52.82	6.32	11.7	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 4 20MHz Bandwidth									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3420	-53.70	-13	-40.70	-61.49	-61.93	4.37	12.60	H
	5130	-51.05	-13	-38.05	-64.83	-58.81	4.94	12.70	H
	6840	-48.75	-13	-35.75	-67.13	-54.13	6.32	11.70	H
	3420	-54.92	-13	-41.92	-63.63	-63.15	4.37	12.6	V
	5130	-52.45	-13	-39.45	-64.56	-60.21	4.94	12.7	V
	6840	-48.39	-13	-35.39	-66.83	-53.77	6.32	11.7	V
Middle	3445	-55.82	-13	-42.82	-64.44	-64.05	4.37	12.60	H
	5167.5	-52.89	-13	-39.89	-65.40	-60.65	4.94	12.70	H
	6890	-49.25	-13	-36.25	-67.29	-54.63	6.32	11.70	H
	3445	-53.92	-13	-40.92	-62.34	-62.15	4.37	12.6	V
	5167.5	-52.68	-13	-39.68	-65.45	-60.44	4.94	12.7	V
	6890	-48.50	-13	-35.50	-66.88	-53.88	6.32	11.7	V
Highest	3470	-53.54	-13	-40.54	-62.33	-61.77	4.37	12.60	H
	5205	-49.91	-13	-36.91	-61.69	-57.67	4.94	12.70	H
	6940	-47.44	-13	-34.44	-65.82	-52.82	6.32	11.70	H
	3470	-51.60	-13	-38.60	-60.31	-59.83	4.37	12.6	V
	5205	-49.49	-13	-36.49	-62.6	-57.25	4.94	12.7	V
	6940	-48.18	-13	-35.18	-68.62	-53.56	6.32	11.7	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 5 1.4MHz Bandwidth									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1648	-55.74	-13	-42.74	-61.65	-60.15	2.84	9.40	H
	2472	-56.13	-13	-43.13	-64.91	-60.88	3.7	10.60	H
	3296	-58.16	-13	-45.16	-65.05	-64.24	4.37	12.60	H
	1648	-54.68	-13	-41.68	-62.30	-59.09	2.84	9.40	V
	2472	-57.43	-13	-44.43	-64.32	-62.18	3.70	10.60	V
	3296	-57.94	-13	-44.94	-66.16	-64.02	4.37	12.60	V
Middle	1671.6	-55.38	-13	-42.38	-62.55	-59.79	2.84	9.40	H
	2507.4	-57.89	-13	-44.89	-65.24	-62.64	3.7	10.60	H
	3343.2	-57.90	-13	-44.90	-64.82	-63.98	4.37	12.60	H
	1671.6	-57.50	-13	-44.50	-63.60	-61.91	2.84	9.40	V
	2507.4	-59.17	-13	-46.17	-67.69	-63.92	3.70	10.60	V
	3343.2	-59.78	-13	-46.78	-66.00	-65.86	4.37	12.60	V
Highest	1695.2	-55.90	-13	-42.90	-61.84	-60.31	2.84	9.40	H
	2542.8	-54.31	-13	-41.31	-62.16	-59.06	3.7	10.60	H
	3390.4	-52.35	-13	-39.35	-59.24	-58.43	4.37	12.60	H
	1695.2	-56.35	-13	-43.35	-60.80	-60.76	2.84	9.40	V
	2542.8	-50.38	-13	-37.38	-58.46	-55.13	3.70	10.60	V
	3390.4	-56.82	-13	-43.82	-64.04	-62.90	4.37	12.60	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 5 3MHz Bandwidth									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1648	-54.33	-13	-41.33	-60.15	-58.74	2.84	9.40	H
	2472	-53.14	-13	-40.14	-61.48	-57.89	3.7	10.60	H
	3296	-57.42	-13	-44.42	-64.48	-63.50	4.37	12.60	H
	1648	-55.28	-13	-42.28	-61.69	-59.69	2.84	9.40	V
	2472	-53.00	-13	-40.00	-61.89	-57.75	3.70	10.60	V
	3296	-55.33	-13	-42.33	-63.55	-61.41	4.37	12.60	V
Middle	1670	-55.58	-13	-42.58	-62.73	-59.99	2.84	9.40	H
	2505	-54.01	-13	-41.01	-61.23	-58.76	3.7	10.60	H
	3340	-56.06	-13	-43.06	-63.99	-62.14	4.37	12.60	H
	1670	-54.29	-13	-41.29	-61.40	-58.70	2.84	9.40	V
	2505	-55.69	-13	-42.69	-62.01	-60.44	3.70	10.60	V
	3340	-55.78	-13	-42.78	-63.00	-61.86	4.37	12.60	V
Highest	1692	-57.48	-13	-44.48	-63.39	-61.89	2.84	9.40	H
	2538	-56.11	-13	-43.11	-64.71	-60.86	3.7	10.60	H
	3384	-57.46	-13	-44.46	-64.35	-63.54	4.37	12.60	H
	1692	-56.18	-13	-43.18	-59.63	-60.59	2.84	9.40	V
	2538	-54.11	-13	-41.11	-61.00	-58.86	3.70	10.60	V
	3384	-57.27	-13	-44.27	-65.49	-63.35	4.37	12.60	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 5 5MHz Bandwidth									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1648	-53.89	-13	-40.89	-59.61	-58.30	2.84	9.40	H
	2472	-52.20	-13	-39.20	-60.54	-56.95	3.7	10.60	H
	3296	-57.71	-13	-44.71	-64.69	-63.79	4.37	12.60	H
	1648	-52.01	-13	-39.01	-58.01	-56.42	2.84	9.40	V
	2472	-53.81	-13	-40.81	-61.70	-58.56	3.70	10.60	V
	3296	-56.00	-13	-43.00	-63.22	-62.08	4.37	12.60	V
Middle	1668	-57.53	-13	-44.53	-63.20	-61.94	2.84	9.40	H
	2502	-56.01	-13	-43.01	-64.95	-60.76	3.7	10.60	H
	3336	-59.90	-13	-46.90	-66.79	-65.98	4.37	12.60	H
	1668	-56.18	-13	-43.18	-62.57	-60.59	2.84	9.40	V
	2502	-56.87	-13	-43.87	-64.29	-61.62	3.70	10.60	V
	3336	-57.35	-13	-44.35	-64.57	-63.43	4.37	12.60	V
Highest	1688	-55.31	-13	-42.31	-61.49	-59.72	2.84	9.40	H
	2532	-54.24	-13	-41.24	-62.83	-58.99	3.7	10.60	H
	3376	-59.37	-13	-46.37	-66.26	-65.45	4.37	12.60	H
	1688	-54.85	-13	-41.85	-60.76	-59.26	2.84	9.40	V
	2532	-56.79	-13	-43.79	-63.68	-61.54	3.70	10.60	V
	3376	-57.19	-13	-44.19	-65.41	-63.27	4.37	12.60	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 5 10MHz Bandwidth									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1648	-57.47	-13	-44.47	-63.03	-61.88	2.84	9.40	H
	2472	-56.80	-13	-43.80	-64.26	-61.55	3.7	10.60	H
	3296	-58.28	-13	-45.28	-65.17	-64.36	4.37	12.60	H
	1648	-56.64	-13	-43.64	-63.78	-61.05	2.84	9.40	V
	2472	-57.17	-13	-44.17	-65.06	-61.92	3.70	10.60	V
	3296	-56.22	-13	-43.22	-63.44	-62.30	4.37	12.60	V
Middle	1663	-58.08	-13	-45.08	-64.26	-62.49	2.84	9.40	H
	2494.5	-57.09	-13	-44.09	-65.68	-61.84	3.7	10.60	H
	3326	-58.32	-13	-45.32	-65.64	-64.40	4.37	12.60	H
	1663	-58.35	-13	-45.35	-64.85	-62.76	2.84	9.40	V
	2494.5	-56.81	-13	-43.81	-65.20	-61.56	3.70	10.60	V
	3326	-57.27	-13	-44.27	-64.66	-63.35	4.37	12.60	V
Highest	1678	-56.66	-13	-43.66	-62.57	-61.07	2.84	9.40	H
	2517	-55.54	-13	-42.54	-63.81	-60.29	3.7	10.60	H
	3356	-57.26	-13	-44.26	-64.73	-63.34	4.37	12.60	H
	1678	-54.41	-13	-41.41	-61.31	-58.82	2.84	9.40	V
	2517	-56.21	-13	-43.21	-64.71	-60.96	3.70	10.60	V
	3356	-57.38	-13	-44.38	-63.60	-63.46	4.37	12.60	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 12 1.4MHz Bandwidth									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1398	-61.24	-13	-48.24	-68.91	-65.65	2.84	9.40	H
	2097	-60.59	-13	-47.59	-67.00	-65.34	3.7	10.60	H
	2796	-57.05	-13	-44.05	-65.94	-63.13	4.37	12.60	H
	1398	-60.25	-13	-47.25	-67.70	-64.66	2.84	9.40	V
	2097	-60.41	-13	-47.41	-67.30	-65.16	3.70	10.60	V
	2796	-58.44	-13	-45.44	-66.66	-64.52	4.37	12.60	V
Middle	1413.6	-60.83	-13	-47.83	-65.50	-65.24	2.84	9.40	H
	2120.4	-59.30	-13	-46.30	-67.71	-64.05	3.7	10.60	H
	2827.2	-57.02	-13	-44.02	-66.91	-63.10	4.37	12.60	H
	1413.6	-62.10	-13	-49.10	-66.55	-66.51	2.84	9.40	V
	2120.4	-60.61	-13	-47.61	-67.50	-65.36	3.70	10.60	V
	2827.2	-57.91	-13	-44.91	-67.13	-63.99	4.37	12.60	V
Highest	1429.2	-61.32	-13	-48.32	-67.99	-65.73	2.84	9.40	H
	2143.8	-59.34	-13	-46.34	-66.75	-64.09	3.7	10.60	H
	2858.4	-56.40	-13	-43.40	-64.29	-62.48	4.37	12.60	H
	1429.2	-61.89	-13	-48.89	-65.34	-66.30	2.84	9.40	V
	2143.8	-60.52	-13	-47.52	-67.41	-65.27	3.70	10.60	V
	2858.4	-57.44	-13	-44.44	-65.66	-63.52	4.37	12.60	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 12 3MHz Bandwidth									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1398	-60.78	-13	-47.78	-66.45	-65.19	2.84	9.40	H
	2097	-60.16	-13	-47.16	-67.57	-64.91	3.7	10.60	H
	2796	-57.66	-13	-44.66	-65.55	-63.74	4.37	12.60	H
	1398	-61.07	-13	-48.07	-67.52	-65.48	2.84	9.40	V
	2097	-60.87	-13	-47.87	-67.76	-65.62	3.70	10.60	V
	2796	-58.17	-13	-45.17	-66.39	-64.25	4.37	12.60	V
Middle	1412	-60.34	-13	-47.34	-65.01	-64.75	2.84	9.40	H
	2118	-59.79	-13	-46.79	-67.20	-64.54	3.7	10.60	H
	2824	-56.63	-13	-43.63	-67.52	-62.71	4.37	12.60	H
	1412	-61.34	-13	-48.34	-64.79	-65.75	2.84	9.40	V
	2118	-60.99	-13	-47.99	-67.88	-65.74	3.70	10.60	V
	2824	-58.21	-13	-45.21	-68.43	-64.29	4.37	12.60	V
Highest	1426	-61.32	-13	-48.32	-68.99	-65.73	2.84	9.40	H
	2139	-59.36	-13	-46.36	-66.77	-64.11	3.7	10.60	H
	2852	-57.15	-13	-44.15	-65.04	-63.23	4.37	12.60	H
	1426	-62.19	-13	-49.19	-69.64	-66.60	2.84	9.40	V
	2139	-61.35	-13	-48.35	-68.24	-66.10	3.70	10.60	V
	2852	-58.37	-13	-45.37	-68.59	-64.45	4.37	12.60	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 12 5MHz Bandwidth									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1398	-60.38	-13	-47.38	-66.05	-64.79	2.84	9.40	H
	2097	-60.44	-13	-47.44	-67.85	-65.19	3.7	10.60	H
	2796	-56.56	-13	-43.56	-64.45	-62.64	4.37	12.60	H
	1398	-61.61	-13	-48.61	-67.06	-66.02	2.84	9.40	V
	2097	-60.86	-13	-47.86	-67.75	-65.61	3.70	10.60	V
	2796	-58.22	-13	-45.22	-66.44	-64.30	4.37	12.60	V
Middle	1410	-60.91	-13	-47.91	-66.58	-65.32	2.84	9.40	H
	2115	-59.24	-13	-46.24	-64.65	-63.99	3.7	10.60	H
	2820	-57.23	-13	-44.23	-65.12	-63.31	4.37	12.60	H
	1410	-61.75	-13	-48.75	-65.20	-66.16	2.84	9.40	V
	2115	-60.38	-13	-47.38	-66.27	-65.13	3.70	10.60	V
	2820	-57.22	-13	-44.22	-65.44	-63.30	4.37	12.60	V
Highest	1422	-60.70	-13	-47.70	-65.37	-65.11	2.84	9.40	H
	2133	-60.74	-13	-47.74	-67.15	-65.49	3.7	10.60	H
	2844	-56.46	-13	-43.46	-64.35	-62.54	4.37	12.60	H
	1422	-60.96	-13	-47.96	-64.41	-65.37	2.84	9.40	V
	2133	-60.87	-13	-47.87	-67.76	-65.62	3.70	10.60	V
	2844	-57.48	-13	-44.48	-65.70	-63.56	4.37	12.60	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 12 10MHz Bandwidth									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1398	-61.03	-13	-48.03	-65.70	-65.44	2.84	9.40	H
	2097	-60.59	-13	-47.59	-67.68	-65.34	3.7	10.60	H
	2796	-57.38	-13	-44.38	-68.27	-63.46	4.37	12.60	H
	1398	-61.83	-13	-48.83	-65.28	-66.24	2.84	9.40	V
	2097	-60.50	-13	-47.50	-67.39	-65.25	3.70	10.60	V
	2796	-57.76	-13	-44.76	-67.98	-63.84	4.37	12.60	V
Middle	1405	-59.38	-13	-46.38	-66.05	-63.79	2.84	9.40	H
	2107.5	-57.43	-13	-44.43	-65.18	-62.18	3.7	10.60	H
	2810	-55.32	-13	-42.32	-63.15	-61.40	4.37	12.60	H
	1405	-60.36	-13	-47.36	-67.81	-64.77	2.84	9.40	V
	2107.5	-58.47	-13	-45.47	-65.78	-63.22	3.70	10.60	V
	2810	-55.59	-13	-42.59	-63.78	-61.67	4.37	12.60	V
Highest	1412	-61.11	-13	-48.11	-68.78	-65.52	2.84	9.40	H
	2118	-60.10	-13	-47.10	-67.51	-64.85	3.7	10.60	H
	2824	-57.14	-13	-44.14	-66.03	-63.22	4.37	12.60	H
	1412	-62.33	-13	-49.33	-69.78	-66.74	2.84	9.40	V
	2118	-60.71	-13	-47.71	-67.60	-65.46	3.70	10.60	V
	2824	-57.71	-13	-44.71	-67.93	-63.79	4.37	12.60	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 13 5MHz Bandwidth									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1554	-60.38	-13	-47.38	-66.05	-64.79	2.84	9.40	H
	2331	-45.44	-13	-32.44	-54.85	-50.19	3.7	10.60	H
	3108	-56.56	-13	-43.56	-64.45	-62.64	4.37	12.60	H
	1554	-61.61	-13	-48.61	-67.06	-66.02	2.84	9.40	V
	2331	-40.86	-13	-27.86	-47.75	-45.61	3.70	10.60	V
	3108	-58.22	-13	-45.22	-66.44	-64.30	4.37	12.60	V
Middle	1559	-59.91	-40	-19.91	-65.58	-64.32	2.84	9.40	H
	2338.5	-44.24	-13	-31.24	-53.65	-48.99	3.7	10.60	H
	3118	-57.23	-13	-44.23	-65.12	-63.31	4.37	12.60	H
	1559	-61.75	-40	-21.75	-65.20	-66.16	2.84	9.40	V
	2338.5	-39.38	-13	-26.38	-46.27	-44.13	3.70	10.60	V
	3118	-57.22	-13	-44.22	-65.44	-63.30	4.37	12.60	V
Highest	1564	-60.70	-40	-20.70	-65.37	-65.11	2.84	9.40	H
	2346	-46.74	-13	-33.74	-53.15	-51.49	3.7	10.60	H
	3128	-56.46	-13	-43.46	-64.35	-62.54	4.37	12.60	H
	1564	-60.96	-40	-20.96	-64.41	-65.37	2.84	9.40	V
	2346	-40.87	-13	-27.87	-48.76	-45.62	3.70	10.60	V
	3128	-57.48	-13	-44.48	-65.70	-63.56	4.37	12.60	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 13 10MHz Bandwidth									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest/ Middle/ Highest	1554	-58.83	-13	-45.83	-64.31	-62.34	2.74	8.40	H
	2331	-43.39	-13	-30.39	-51.62	-47.24	3.6	9.60	H
	3108	-56.87	-13	-43.87	-63.86	-62.05	4.27	11.60	H
	1554	-58.79	-13	-45.79	-64.69	-62.30	2.74	8.40	V
	2331	-39.26	-13	-26.26	-47.24	-43.11	3.60	9.60	V
	3108	-57.18	-13	-44.18	-64.26	-62.36	4.27	11.60	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 14 5MHz Bandwidth									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1576	-60.28	-40	-20.28	-65.05	-64.69	2.84	9.40	H
	2364	-60.44	-13	-47.44	-66.85	-65.19	3.7	10.60	H
	3152	-54.56	-13	-41.56	-64.35	-60.64	4.37	12.60	H
	1576	-61.51	-40	-21.51	-67.06	-65.92	2.84	9.40	V
	2364	-59.86	-13	-46.86	-67.75	-64.61	3.70	10.60	V
	3152	-58.22	-13	-45.22	-66.43	-64.30	4.37	12.60	V
Middle	1581	-58.52	-40	-18.52	-64.17	-62.93	2.84	9.40	H
	2371.5	-58.03	-13	-45.03	-66.35	-62.78	3.7	10.60	H
	3162	-57.57	-13	-44.57	-64.62	-63.65	4.37	12.60	H
	1581	-58.92	-40	-18.92	-64.31	-63.33	2.84	9.40	V
	2371.5	-57.90	-13	-44.90	-66.00	-62.65	3.70	10.60	V
	3162	-57.06	-13	-44.06	-64.19	-63.14	4.37	12.60	V
Highest	1586	-59.70	-40	-19.70	-65.37	-64.11	2.84	9.40	H
	2379	-58.74	-13	-45.74	-66.15	-63.49	3.7	10.60	H
	3172	-56.46	-13	-43.46	-64.35	-62.54	4.37	12.60	H
	1586	-60.96	-40	-20.96	-66.41	-65.37	2.84	9.40	V
	2379	-59.87	-13	-46.87	-67.76	-64.62	3.70	10.60	V
	3172	-57.48	-13	-44.48	-65.70	-63.56	4.37	12.60	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 14 10MHz Bandwidth									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest/ Middle/ Highest	1576	-61.11	-40	-21.11	-66.78	-65.52	2.84	9.40	H
	2364	-60.10	-13	-47.10	-67.51	-64.85	3.7	10.60	H
	3152	-57.34	-13	-44.34	-64.03	-63.42	4.37	12.60	H
	1576	-62.33	-40	-22.33	-68.78	-66.74	2.84	9.40	V
	2364	-60.71	-13	-47.71	-67.60	-65.46	3.70	10.60	V
	3152	-57.71	-13	-44.71	-63.93	-63.79	4.37	12.60	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 66 1.4MHz Bandwidth									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3420	-52.61	-13	-39.61	-61.40	-60.84	4.37	12.60	H
	5130	-51.41	-13	-38.41	-64.39	-59.17	4.94	12.70	H
	6840	-47.86	-13	-34.86	-67.30	-53.24	6.32	11.70	H
	3420	-56.77	-13	-43.77	-64.38	-65.00	4.37	12.6	V
	5130	-50.82	-13	-37.82	-62.63	-58.58	4.94	12.7	V
	6840	-47.69	-13	-34.69	-66.53	-53.07	6.32	11.7	V
Middle	3488.6	-52.50	-13	-39.50	-56.29	-60.73	4.37	12.60	H
	5232.9	-51.70	-13	-38.70	-64.58	-59.46	4.94	12.70	H
	6977.2	-47.16	-13	-34.16	-64.24	-52.54	6.32	11.70	H
	3488.6	-53.04	-13	-40.04	-62.47	-61.27	4.37	12.6	V
	5232.9	-51.06	-13	-38.06	-63.17	-58.82	4.94	12.7	V
	6977.2	-47.55	-13	-34.55	-64.01	-52.93	6.32	11.7	V
Highest	3557.2	-54.54	-13	-41.54	-63.73	-62.77	4.37	12.60	H
	5335.8	-51.59	-13	-38.59	-63.47	-59.35	4.94	12.70	H
	7114.4	-47.56	-13	-34.56	-65.75	-52.94	6.32	11.70	H
	3557.2	-53.49	-13	-40.49	-62.21	-61.72	4.37	12.6	V
	5335.8	-49.19	-13	-36.19	-63.37	-56.95	4.94	12.7	V
	7114.4	-48.16	-13	-35.16	-66.4	-53.54	6.32	11.7	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 66 3MHz Bandwidth									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3420	-52.13	-13	-39.13	-61.30	-60.36	4.37	12.60	H
	5130	-51.62	-13	-38.62	-64.10	-59.38	4.94	12.70	H
	6840	-47.42	-13	-34.42	-65.08	-52.80	6.32	11.70	H
	3420	-56.15	-13	-43.15	-65.76	-64.38	4.37	12.6	V
	5130	-49.50	-13	-36.50	-67.36	-57.26	4.94	12.7	V
	6840	-47.13	-13	-34.13	-67.21	-52.51	6.32	11.7	V
Middle	3487	-51.24	-13	-38.24	-61.07	-59.47	4.37	12.60	H
	5230.5	-52.77	-13	-39.77	-65.16	-60.53	4.94	12.70	H
	6974	-47.35	-13	-34.35	-66.57	-52.73	6.32	11.70	H
	3487	-52.48	-13	-39.48	-60.18	-60.71	4.37	12.6	V
	5230.5	-49.67	-13	-36.67	-65.65	-57.43	4.94	12.7	V
	6974	-47.05	-13	-34.05	-67.4	-52.43	6.32	11.7	V
Highest	3554	-55.18	-13	-42.18	-63.06	-63.41	4.37	12.60	H
	5331	-51.42	-13	-38.42	-65.10	-59.18	4.94	12.70	H
	7108	-48.26	-13	-35.26	-67.12	-53.64	6.32	11.70	H
	3554	-53.42	-13	-40.42	-63.28	-61.65	4.37	12.6	V
	5331	-52.47	-13	-39.47	-65.18	-60.23	4.94	12.7	V
	7108	-47.53	-13	-34.53	-64.27	-52.91	6.32	11.7	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 66 5MHz Bandwidth									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3420	-56.02	-13	-43.02	-63.81	-64.25	4.37	12.60	H
	5130	-49.22	-13	-36.22	-63.00	-56.98	4.94	12.70	H
	6840	-48.49	-13	-35.49	-69.87	-53.87	6.32	11.70	H
	3420	-53.27	-13	-40.27	-60.98	-61.50	4.37	12.6	V
	5130	-51.03	-13	-38.03	-64.14	-58.79	4.94	12.7	V
	6840	-48.22	-13	-35.22	-65.66	-53.60	6.32	11.7	V
Middle	3485	-53.97	-13	-40.97	-61.76	-62.20	4.37	12.60	H
	5227.5	-49.50	-13	-36.50	-62.28	-57.26	4.94	12.70	H
	6970	-47.71	-13	-34.71	-65.09	-53.09	6.32	11.70	H
	3485	-56.53	-13	-43.53	-65.24	-64.76	4.37	12.6	V
	5227.5	-51.83	-13	-38.83	-63.94	-59.59	4.94	12.7	V
	6970	-48.07	-13	-35.07	-66.51	-53.45	6.32	11.7	V
Highest	3550	-54.24	-13	-41.24	-63.03	-62.47	4.37	12.60	H
	5325	-49.06	-13	-36.06	-62.84	-56.82	4.94	12.70	H
	7100	-47.23	-13	-34.23	-65.61	-52.61	6.32	11.70	H
	3550	-53.64	-13	-40.64	-65.35	-61.87	4.37	12.6	V
	5325	-49.04	-13	-36.04	-63.15	-56.80	4.94	12.7	V
	7100	-47.45	-13	-34.45	-65.89	-52.83	6.32	11.7	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 66 10MHz Bandwidth									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3420	-55.73	-13	-42.73	-64.52	-63.96	4.37	12.60	H
	5130	-51.38	-13	-38.38	-63.16	-59.14	4.94	12.70	H
	6840	-48.10	-13	-35.10	-66.48	-53.48	6.32	11.70	H
	3420	-54.61	-13	-41.61	-62.32	-62.84	4.37	12.6	V
	5130	-49.46	-13	-36.46	-61.57	-57.22	4.94	12.7	V
	6840	-48.09	-13	-35.09	-65.53	-53.47	6.32	11.7	V
Middle	3480	-52.28	-13	-39.28	-60.07	-60.51	4.37	12.60	H
	5220	-49.74	-13	-36.74	-62.52	-57.50	4.94	12.70	H
	6960	-48.08	-13	-35.08	-65.46	-53.46	6.32	11.70	H
	3480	-51.58	-13	-38.58	-61.29	-59.81	4.37	12.6	V
	5220	-48.50	-13	-35.50	-60.61	-56.26	4.94	12.7	V
	6960	-48.43	-13	-35.43	-64.87	-53.81	6.32	11.7	V
Highest	3540	-54.81	-13	-41.81	-62.60	-63.04	4.37	12.60	H
	5310	-51.96	-13	-38.96	-64.74	-59.72	4.94	12.70	H
	7080	-48.06	-13	-35.06	-65.44	-53.44	6.32	11.70	H
	3540	-53.56	-13	-40.56	-62.27	-61.79	4.37	12.6	V
	5310	-49.83	-13	-36.83	-62.94	-57.59	4.94	12.7	V
	7080	-47.32	-13	-34.32	-64.76	-52.70	6.32	11.7	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 66 15MHz Bandwidth									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3420	-54.55	-13	-41.55	-62.34	-62.78	4.37	12.60	H
	5130	-52.66	-13	-39.66	-65.44	-60.42	4.94	12.70	H
	6840	-48.20	-13	-35.20	-66.58	-53.58	6.32	11.70	H
	3420	-53.02	-13	-40.02	-61.73	-61.25	4.37	12.6	V
	5130	-51.62	-13	-38.62	-64.73	-59.38	4.94	12.7	V
	6840	-47.84	-13	-34.84	-66.28	-53.22	6.32	11.7	V
Middle	3475	-54.71	-13	-41.71	-63.50	-62.94	4.37	12.60	H
	5212.5	-50.34	-13	-37.34	-63.12	-58.10	4.94	12.70	H
	6950	-48.55	-13	-35.55	-65.93	-53.93	6.32	11.70	H
	3475	-50.66	-13	-37.66	-60.37	-58.89	4.37	12.6	V
	5212.5	-49.08	-13	-36.08	-64.19	-56.84	4.94	12.7	V
	6950	-47.40	-13	-34.40	-64.84	-52.78	6.32	11.7	V
Highest	3530	-52.91	-13	-39.91	-61.70	-61.14	4.37	12.60	H
	5295	-49.66	-13	-36.66	-62.44	-57.42	4.94	12.70	H
	7060	-47.97	-13	-34.97	-65.35	-53.35	6.32	11.70	H
	3530	-51.67	-13	-38.67	-60.38	-59.90	4.37	12.6	V
	5295	-49.39	-13	-36.39	-61.5	-57.15	4.94	12.7	V
	7060	-47.44	-13	-34.44	-64.88	-52.82	6.32	11.7	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 66 20MHz Bandwidth									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3420	-53.70	-13	-40.70	-61.49	-61.93	4.37	12.60	H
	5130	-51.05	-13	-38.05	-64.83	-58.81	4.94	12.70	H
	6840	-48.75	-13	-35.75	-67.13	-54.13	6.32	11.70	H
	3420	-54.92	-13	-41.92	-63.63	-63.15	4.37	12.6	V
	5130	-52.45	-13	-39.45	-64.56	-60.21	4.94	12.7	V
	6840	-48.39	-13	-35.39	-66.83	-53.77	6.32	11.7	V
Middle	3470	-55.82	-13	-42.82	-64.44	-64.05	4.37	12.60	H
	5205	-53.89	-13	-40.89	-66.40	-61.65	4.94	12.70	H
	6904	-49.25	-13	-36.25	-67.29	-54.63	6.32	11.70	H
	3470	-53.92	-13	-40.92	-62.34	-62.15	4.37	12.6	V
	5205	-52.68	-13	-39.68	-65.45	-60.44	4.94	12.7	V
	6904	-48.50	-13	-35.50	-66.88	-53.88	6.32	11.7	V
Highest	3520	-53.54	-13	-40.54	-62.33	-61.77	4.37	12.60	H
	5280	-49.91	-13	-36.91	-61.69	-57.67	4.94	12.70	H
	7040	-47.44	-13	-34.44	-65.82	-52.82	6.32	11.70	H
	3520	-51.60	-13	-38.60	-60.31	-59.83	4.37	12.6	V
	5280	-49.49	-13	-36.49	-62.6	-57.25	4.94	12.7	V
	7040	-48.18	-13	-35.18	-68.62	-53.56	6.32	11.7	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 71 5MHz Bandwidth									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1326	-41.24	-13	-28.24	-46.91	-45.65	2.84	9.40	H
	1989	-50.59	-13	-37.59	-57.00	-55.34	3.7	10.60	H
	2652	-57.05	-13	-44.05	-65.94	-63.13	4.37	12.60	H
	1326	-45.25	-13	-32.25	-47.70	-49.66	2.84	9.40	V
	1989	-60.41	-13	-47.41	-67.30	-65.16	3.70	10.60	V
	2652	-58.44	-13	-45.44	-66.66	-64.52	4.37	12.60	V
Middle	1356	-41.83	-13	-28.83	-45.50	-46.24	2.84	9.40	H
	2034	-49.30	-13	-36.30	-57.71	-54.05	3.7	10.60	H
	2712	-57.02	-13	-44.02	-65.91	-63.10	4.37	12.60	H
	1356	-44.10	-13	-31.10	-47.55	-48.51	2.84	9.40	V
	2034	-60.61	-13	-47.61	-67.50	-65.36	3.70	10.60	V
	2712	-54.91	-13	-41.91	-62.13	-60.99	4.37	12.60	V
Highest	1386	-44.42	-13	-31.42	-48.47	-48.83	2.84	9.40	H
	2079	-50.32	-13	-37.32	-55.89	-55.07	3.7	10.60	H
	2772	-56.73	-13	-43.73	-64.29	-62.81	4.37	12.60	H
	1386	-44.43	-13	-31.43	-48.47	-48.84	2.84	9.40	V
	2079	-56.54	-13	-43.54	-63.41	-61.29	3.70	10.60	V
	2772	-57.44	-13	-44.44	-65.66	-63.52	4.37	12.60	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 71 10MHz Bandwidth									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1326	-40.78	-13	-27.78	-46.45	-45.19	2.84	9.40	H
	1989	-50.16	-13	-37.16	-56.57	-54.91	3.7	10.60	H
	2652	-57.66	-13	-44.66	-65.55	-63.74	4.37	12.60	H
	1326	-45.07	-13	-32.07	-49.52	-49.48	2.84	9.40	V
	1989	-56.87	-13	-43.87	-64.76	-61.62	3.70	10.60	V
	2652	-55.17	-13	-42.17	-63.39	-61.25	4.37	12.60	V
Middle	1351	-42.34	-13	-29.34	-45.01	-46.75	2.84	9.40	H
	2026.5	-51.79	-13	-38.79	-57.20	-56.54	3.7	10.60	H
	2702	-56.63	-13	-43.63	-64.52	-62.71	4.37	12.60	H
	1351	-45.34	-13	-32.34	-49.79	-49.75	2.84	9.40	V
	2026.5	-58.99	-13	-45.99	-65.88	-63.74	3.70	10.60	V
	2702	-54.21	-13	-41.21	-62.43	-60.29	4.37	12.60	V
Highest	1376	-42.32	-13	-29.32	-48.99	-46.73	2.84	9.40	H
	2064	-49.36	-13	-36.36	-56.77	-54.11	3.7	10.60	H
	2752	-57.15	-13	-44.15	-65.04	-63.23	4.37	12.60	H
	1376	-46.19	-13	-33.19	-49.64	-50.60	2.84	9.40	V
	2064	-59.35	-13	-46.35	-66.24	-64.10	3.70	10.60	V
	2752	-57.37	-13	-44.37	-65.59	-63.45	4.37	12.60	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 71 15MHz Bandwidth									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1326	-40.38	-13	-27.38	-46.05	-44.79	2.84	9.40	H
	1989	-50.44	-13	-37.44	-57.85	-55.19	3.7	10.60	H
	2652	-56.56	-13	-43.56	-64.45	-62.64	4.37	12.60	H
	1326	-43.61	-13	-30.61	-47.06	-48.02	2.84	9.40	V
	1989	-55.86	-13	-42.86	-62.75	-60.61	3.70	10.60	V
	2652	-55.22	-13	-42.22	-63.44	-61.30	4.37	12.60	V
Middle	1346	-39.91	-13	-26.91	-44.58	-44.32	2.84	9.40	H
	2019	-49.24	-13	-36.24	-57.65	-53.99	3.7	10.60	H
	2692	-57.23	-13	-44.23	-65.12	-63.31	4.37	12.60	H
	1346	-45.75	-13	-32.75	-49.20	-50.16	2.84	9.40	V
	2019	-57.38	-13	-44.38	-64.27	-62.13	3.70	10.60	V
	2692	-57.22	-13	-44.22	-65.44	-63.30	4.37	12.60	V
Highest	1366	-40.70	-13	-27.70	-45.37	-45.11	2.84	9.40	H
	2049	-50.74	-13	-37.74	-57.15	-55.49	3.7	10.60	H
	2732	-56.46	-13	-43.46	-64.35	-62.54	4.37	12.60	H
	1366	-45.96	-13	-32.96	-50.41	-50.37	2.84	9.40	V
	2049	-57.87	-13	-44.87	-64.76	-62.62	3.70	10.60	V
	2732	-57.48	-13	-44.48	-65.70	-63.56	4.37	12.60	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 71 20MHz Bandwidth									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1326	-40.03	-13	-27.03	-45.70	-44.44	2.84	9.40	H
	1989	-50.59	-13	-37.59	-57.68	-55.34	3.7	10.60	H
	2652	-57.38	-13	-44.38	-65.27	-63.46	4.37	12.60	H
	1326	-46.83	-13	-33.83	-50.28	-51.24	2.84	9.40	V
	1989	-54.50	-13	-41.50	-61.39	-59.25	3.70	10.60	V
	2652	-57.76	-13	-44.76	-65.98	-63.84	4.37	12.60	V
Middle	1346	-39.38	-13	-26.38	-45.05	-43.79	2.84	9.40	H
	2019	-48.43	-13	-35.43	-55.18	-53.18	3.7	10.60	H
	2692	-55.32	-13	-42.32	-65.15	-61.40	4.37	12.60	H
	1346	-44.36	-13	-31.36	-50.81	-48.77	2.84	9.40	V
	2019	-58.47	-13	-45.47	-65.78	-63.22	3.70	10.60	V
	2692	-55.59	-13	-42.59	-63.78	-61.67	4.37	12.60	V
Highest	1356	-41.11	-13	-28.11	-45.78	-45.52	2.84	9.40	H
	2034	-50.10	-13	-37.10	-57.51	-54.85	3.7	10.60	H
	2712	-57.14	-13	-44.14	-65.03	-63.22	4.37	12.60	H
	1356	-46.33	-13	-33.33	-49.78	-50.74	2.84	9.40	V
	2034	-60.71	-13	-47.71	-67.60	-65.46	3.70	10.60	V
	2712	-57.71	-13	-44.71	-65.93	-63.79	4.37	12.60	V

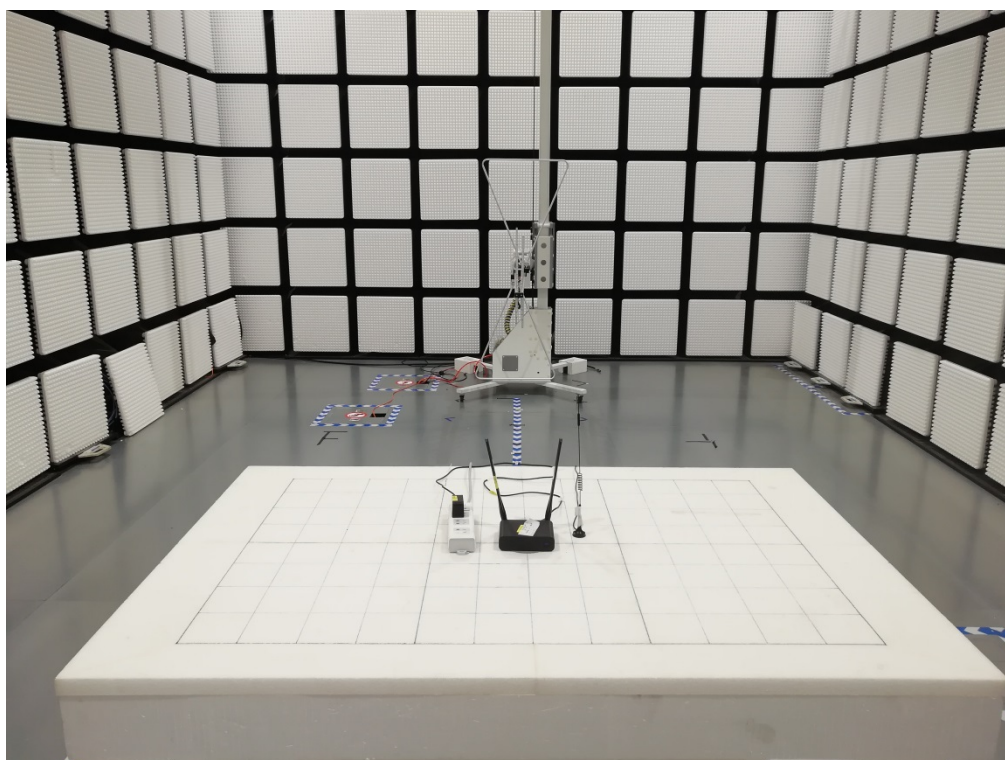
Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

Appendix C. Test Setup Photographs

<Radiated Emission >

Y Plane

LF



HF



-----End of the report-----