FCC RF Test Report

APPLICANT	: Smart Meter Corporation
EQUIPMENT	: Blood Glucose Monitoring System
BRAND NAME	: iGlucose
MODEL NAME	: GM291-W
FCC ID	: 2AHYZGM291SMIK-1
STANDARD	: 47 CFR Part 2, 22(H), 24(E), 27(L), 27(H), 27(F)
CLASSIFICATION	: PCS Licensed Transmitter (PCB)
TEST DATE(S)	: Sep. 15, 2023 ~ Oct. 12, 2023

The product was installed a module during the test: LTE Module (Brand Name : Quectel, Model Name: BG770A-GL, FCC ID: XMR2021BG770AGL) during test.

We, Sporton International Inc. (Kunshan), would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.26-2015 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. (Kunshan), the test report shall not be reproduced except in full.

Jason Jia

Approved by: Jason Jia

Sporton International Inc. (Kunshan)
No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300
People's Republic of China

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG381601A	Rev. 01	Initial issue of report	Oct. 27, 2023

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	-	Report Only	-
	§22.913(a)(5)	Effective Radiated Power (Band 5) (Band 26)	ERP < 7 Watt	PASS	-
	§27.50(b)(10)	Effective Radiated Power (Band 12) (Band 13) (Band 17)	ERP < 3 Watt		-
	§24.232(c) §27.50(h)(2)	Equivalent Isotropic Radiated Power (Band 2) (Band 25)	EIRP < 2Watt		-
	§27.50(d)(4)	Equivalent Isotropic Radiated Power (Band 4) (Band 66)	EIRP < 1Watt		-
-	§24.232(d)	Peak-to-Average Ratio	<13 dB	PASS	1
-	§2.1049	Occupied Bandwidth	-	Report Only	1
-	§2.1051 §22.917(a) §24.238(a) §27.53(c)(2)(4) §27.53(g) §27.53(h)	Conducted Band Edge Measurement (Band 2) (Band 4) (Band 5) (Band 12) (Band 13) (Band 17) (Band 25) (Band 26) (Band 66)	< 43+10log10(P[Watts])	PASS	1
-	§2.1051 §22.917(a) §24.238(a) §27.53(c)(2) §27.53(g) §27.53(h)	Conducted Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12) (Band 13) (Band 17) (Band 25) (Band 26) (Band 66)	< 43+10log10(P[Watts])	PASS	1
-	§2.1055 §22.355	Frequency Stability Temperature & Voltage	< 2.5 ppm for Part 22	PASS	1
	§2.1055 §24.235 §27.54		Within Authorized Band		
4.4	§2.1053 §22.917(a) §24.238(a) §27.53(c)(2) §27.53(f) §27.53(g) §27.53(h)	Radiated Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12) (Band 13) (Band 17) (Band 25) (Band 26) (Band 66)	< $43+10\log_{10}$(P[Watts])	PASS	Under limit 15.68 dB at 1560.000 MHz

Remark 1:
All test results were leveraged from module RF report which can refer to Report No. R2104A0331-R1, R2104A0331-R2, R2104A0331-R3, R2104A0331-R5, R2104A0331-R6, R2104A0331-R7 and R2104A0331-R8.

Conformity Assessment Condition:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacturer who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the section “Measurement Uncertainty”

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

1 General Description

1.1 Applicant

Smart Meter Corporation
5501 W. Waters Ave. Suite 401 Tampa, FL 33634, United States

1.2 Manufacturer

Bionime Corporation
No. 100, Sec 2, Daqing St., South Dist., Taichung City40242, Taiwan.

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Blood Glucose Monitoring System
Brand Name	iGlucose
Model Name	GM291-W
FCC ID	2AHYZGM291SMIK-1
IMEI Code	Conducted: 867951068655915 Radiation: 863593058642174
HW Version	2.6
SW Version	2.5.6
EUT Stage	Identical Prototype

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	LTE Band 2 : 1850 MHz ~ 1910 MHz LTE Band 4 : 1710 MHz ~ 1755 MHz LTE Band 5 : 824 MHz ~ 849 MHz LTE Band 12 : 699 MHz ~ 716 MHz LTE Band 13 : 777 MHz ~ 787 MHz LTE Band 25 : 1850 MHz ~ 1915 MHz LTE Band 26 : 824 MHz ~ 849 MHz LTE Band 66 : 1710 MHz ~ 1780 MHz NB-IOT Band 2 : 1850 MHz ~ 1910 MHz NB-IOT Band 4 : 1710 MHz ~ 1755 MHz NB-IOT Band 5 : 824 MHz ~ 849 MHz NB-IOT Band 12 : 699 MHz ~ 716 MHz NB-IOT Band 13 : 777 MHz ~ 787 MHz NB-IOT Band 17 : 704 MHz ~ 716 MHz NB-IOT Band 25 : 1850 MHz ~ 1915 MHz NB-IOT Band 66 : 1710 MHz ~ 1780 MHz
Rx Frequency	LTE Band 2 : 1930 MHz ~ 1990 MHz LTE Band 4 : 2110 MHz ~ 2155 MHz LTE Band 5 : 869 MHz ~ 894 MHz LTE Band 12 : 729 MHz ~ 746 MHz LTE Band 13 : 746 MHz ~ 756 MHz LTE Band 25 : 1930 MHz ~ 1995 MHz LTE Band 26 : 869 MHz ~ 894 MHz LTE Band 66 : 2110 MHz~ 2180 MHz NB-IOT Band 2 : 1930 MHz ~ 1990 MHz NB-IOT Band 4 : 2110 MHz ~ 2155 MHz NB-IOT Band 5 : 869 MHz ~ 894 MHz NB-IOT Band 12 : 729 MHz ~ 746 MHz NB-IOT Band 13 : 746 MHz ~ 756 MHz NB-IOT Band 17 : 734 MHz ~ 746 MHz NB-IOT Band 25 : 1930 MHz ~ 1995 MHz NB-IOT Band 66 : 2110 MHz~ 2180 MHz
LTE Category	M1 & NB1
Bandwidth	LTE Category M1: LTE Band 2 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 4 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 5 : 1.4MHz / 3MHz / 5MHz / 10MHz LTE Band 12 : 1.4MHz / 3MHz / 5MHz / 10MHz LTE Band 13 : 5MHz / 10MHz LTE Band 25 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 26 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz LTE Band 66 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz NB-IOT Category NB1 : 200KHz
Sub-carrier Speacing	NB-IOT Category NB1 : LTE Band 2 : 3.75KHz / 15KHz LTE Band 4 : 3.75KHz / 15KHz LTE Band 5 : 3.75KHz / 15KHz LTE Band 12 : 3.75KHz / 15KHz LTE Band 13 : 3.75KHz / 15KHz LTE Band 17 : 3.75KHz / 15KHz

	LTE Band 25 : 3.75KHz / 15KHz LTE Band 66 : 3.75KHz / 15KHz
Maximum Output Power to Antenna	**LTE Category M1:** LTE Band 2 : 23.78 dBm LTE Band 4 : 23.80 dBm LTE Band 5 : 23.78 dBm LTE Band 12 : 23.72 dBm LTE Band 13 : 23.69 dBm LTE Band 25 : 23.80 dBm LTE Band 26 : 23.80 dBm LTE Band 66 : 23.79 dBm **NB-IOT Category NB1:** LTE Band 2 : 23.75 dBm LTE Band 4 : 23.68 dBm LTE Band 5 : 23.79 dBm LTE Band 12 : 23.95 dBm LTE Band 13 : 23.89 dBm LTE Band 17 : 23.62 dBm LTE Band 25 : 23.85 dBm LTE Band 66 : 23.68 dBm
Antenna Gain	LTE Band 2 : 1.93 dBi LTE Band 4 : 2.54 dBi LTE Band 5 : 2.36 dBi LTE Band 12 : -2.08 dBi LTE Band 13 : -2.12 dBi LTE Band 17 : -2.08 dBi LTE Band 25 : 1.93 dBi LTE Band 26 : 2.36 dBi LTE Band 66 : 2.77 dBi
Antenna Type	PIFA Antenna
Type of Modulation	LTE Category M1: QPSK / 16QAM NB-IOT Category NB1 : BPSK / QPSK

1.5 Modification of EUT

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

1.6 Maximum ERP/EIRP Power

LTE Category M1:

LTE Band 2		QPSK	16QAM
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Maximum EIRP(W)
1.4	1850.7 ~ 1909.3	0.3639	0.3126
3	1851.5 ~ 1908.5	0.3614	0.2951
5	1852.5 ~ 1907.5	0.3597	0.3656
10	1855.0 ~ 1905.0	0.3606	0.3664
15	1857.5 ~ 1902.5	0.3724	0.3648
20	1860.0 ~ 1900.0	0.3681	0.3656
LTE Band 25		QPSK	16QAM
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Maximum EIRP(W)
1.4	1850.7 ~ 1914.3	0.3556	0.2831
3	1851.5 ~ 1913.5	0.3639	0.2972
5	1852.5 ~ 1912.5	0.3673	0.3707
10	1855.0 ~ 1910.0	0.3690	0.3741
15	1857.5 ~ 1907.5	0.3698	0.3715
20	1860.0 ~ 1905.0	0.3698	0.3724
LTE Band 4		QPSK	16QAM
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Maximum EIRP(W)
1.4	1710.7 ~ 1754.3	0.4130	0.3192
3	1711.5 ~ 1753.5	0.4305	0.3365
5	1712.5 ~ 1752.5	0.4256	0.4246
10	1715.0 ~ 1750.0	0.4305	0.4305
15	1717.5 ~ 1747.5	0.4295	0.4198
20	1720.0 ~ 1745.0	0.4276	0.4305
LTE Band 66		QPSK	16QAM
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Maximum EIRP(W)
1.4	1710.7 ~ 1779.3	0.4457	0.3388
3	1711.5 ~ 1778.5	0.4529	0.3589
5	1712.5 ~ 1777.5	0.4508	0.4416
10	1715.0 ~ 1775.0	0.4457	0.4426
15	1717.5 ~ 1772.5	0.4519	0.4457
20	1720.0 ~ 1770.0	0.4529	0.4477

LTE Band 5		QPSK	16QAM
BW (MHz)	Frequency Range (MHz)	Maximum ERP(W)	Maximum ERP(W)
1.4	824.7 ~ 848.3	0.2506	0.1968
3	825.5 ~ 847.5	0.2377	0.2028
5	826.5 ~ 846.5	0.2438	0.2339
10	829.0 ~ 844.0	0.2455	0.2360
LTE Band 26		QPSK	16QAM
BW (MHz)	Frequency Range (MHz)	Maximum ERP(W)	Maximum ERP(W)
1.4	824.7 ~ 848.3	0.2477	0.1795
3	825.5 ~ 847.5	0.2466	0.1923
5	826.5 ~ 846.5	0.2500	0.2421
10	829.0 ~ 844.0	0.2500	0.2443
15	831.5 ~ 841.5	0.2518	0.2512
LTE Band 12		QPSK	16QAM
BW (MHz)	Frequency Range (MHz)	Maximum ERP(W)	Maximum ERP(W)
1.4	699.7 ~ 715.3	0.0851	0.0733
3	700.5 ~ 714.5	0.0873	0.0785
5	701.5 ~ 713.5	0.0855	0.0813
10	704.0 ~ 711.0	0.0889	0.0820
LTE Band 13		QPSK	16QAM
BW (MHz)	Frequency Range (MHz)	Maximum ERP(W)	Maximum ERP(W)
5	779.5 ~ 784.5	0.0875	0.0822
10	782.0	0.0847	0.0789

NB-IOT Category NB1:

LTE Band 2		BPSK	QPSK
Sub-carrier Spacing (KHz)	Frequency Range (MHz)	Maximum EIRP(W)	Maximum EIRP(W)
3.75	1850.2 ~ 1909.8	0.3664	0.3664
15	1850.2 ~ 1909.8	0.3698	0.3698
LTE Band 25		BPSK	QPSK
Sub-carrier Spacing (KHz)	Frequency Range (MHz)	Maximum EIRP(W)	Maximum EIRP(W)
3.75	1850.2 ~ 1914.8	0.3664	0.3673
15	1850.2 ~ 1914.8	0.3741	0.3784
LTE Band 4		BPSK	QPSK
Sub-carrier Spacing (KHz)	Frequency Range (MHz)	Maximum EIRP(W)	Maximum EIRP(W)
3.75	1710.2 ~ 1754.8	0.4188	0.4159
15	1710.2 ~ 1754.8	0.4102	0.4027
LTE Band 66		BPSK	QPSK
Sub-carrier Spacing (KHz)	Frequency Range (MHz)	Maximum EIRP(W)	Maximum EIRP(W)
3.75	1710.2 ~ 1779.8	0.4416	0.4375
15	1710.2 ~ 1779.8	0.4335	0.4295
LTE Band 5		BPSK	QPSK
Sub-carrier Spacing (KHz)	Frequency Range (MHz)	Maximum ERP(W)	Maximum ERP(W)
3.75	824.2 ~ 848.8	0.2333	0.2307
15	824.2 ~ 848.8	0.2512	0.2477
LTE Band 12		BPSK	QPSK
Sub-carrier Spacing (KHz)	Frequency Range (MHz)	Maximum ERP(W)	Maximum ERP(W)
3.75	699.2 ~ 715.8	0.0780	0.0783
15	699.2 ~ 715.8	0.0938	0.0895
LTE Band 13		BPSK	QPSK
Sub-carrier Spacing (KHz)	Frequency Range (MHz)	Maximum ERP(W)	Maximum ERP(W)
3.75	777.2 ~ 786.8	0.0877	0.0859
15	777.2 ~ 786.8	0.0893	0.0916

LTE Band 17		BPSK	QPSK
Sub-carrier Spacing (KHz)	Frequency Range (MHz)	Maximum ERP(W)	Maximum ERP(W)
3.75	704.2 ~ 715.8	0.0762	0.0760
15	704.2 ~ 715.8	0.0869	0.0863

Note:

1. LTE Band 26 overlaps the entire frequency range of LTE Band 5. Therefore, the test results provided in this report covers Band 5 and the portion of Band 26 subject to Part 22.
2. LTE Band 66 overlaps the entire frequency range of LTE Band 4. Therefore, the test results provided in this report covers Band 66 as well as Band 4.
3. LTE Band 25 overlaps the entire frequency range of LTE Band 2. Therefore, the test results provided in this report covers Band 25 as well as Band 2.
4. LTE Band 12 overlaps the entire frequency range of LTE Band 17. Therefore, the test results provided in this report covers Band 12 as well as Band 17.
5. Verify the conducted power is less than the module report, so all conducted power is referenced to the module report.

1.7 Testing Location

Sporton International Inc. (Kunshan) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

Test Firm	Sporton International Inc. (Kunshan)		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	03CH04-KS TH01-KS	CN1257	314309

1.8 Test Software

Item	Site	Manufacture	Name	Version
1.	TH01-KS	SPORTON	FCC LTE_Ver2.0 Auto_china_210503	2.0
2.	03CH04-KS	AUDIX	E3	210616

1.9 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(L), 27(H), 27(F)
- ANSI C63.26-2015
- FCC KDB 971168 D01 Power Meas License Digital Systems v03r01
- FCC KDB 412172 D01 Determining ERP and EIRP v01r01

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.

2 Test Configuration of Equipment Under Test

2.1 Test Mode

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

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

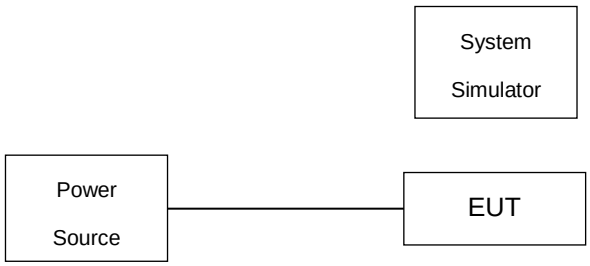
LTE Category M1:

Test Items	Band	Bandwidth (MHz)						Modulation			RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	Half	Full	L	M	H
Max. Output Power	2	v	v	v	v	v	v	v	v	-	v	v	v	v	v	v
	4	v	v	v	v	v	v	v	v	-	v	v	v	v	v	v
	5	v	v	v	v	-	-	v	v	-	v	v	v	v	v	v
	12	v	v	v	v	-	-	v	v	-	v	v	v	v	v	v
	13	-	-	v	v	-	-	v	v	-	v	v	v	v	v	v
	25	v	v	v	v	v	v	v	v	-	v	v	v	v	v	v
	26	v	v	v	v	v	-	v	v	-	v	v	v	v	v	v
	66	v	v	v	v	v	v	v	v	-	v	v	v	v	v	v
E.R.P / E.I.R.P	2	v	v	v	v	v	v	v	v	-	v	v	v	v	v	v
	4	v	v	v	v	v	v	v	v	-	v	v	v	v	v	v
	5	v	v	v	v	-	-	v	v	-	v	v	v	v	v	v
	12	v	v	v	v	-	-	v	v	-	v	v	v	v	v	v
	13	-	-	v	v	-	-	v	v	-	v	v	v	v	v	v
	25	v	v	v	v	v	v	v	v	-	v	v	v	v	v	v
	26	v	v	v	v	v	-	v	v	-	v	v	v	v	v	v
	66	v	v	v	v	v	v	v	v	-	v	v	v	v	v	v
Radiated Spurious Emission	2	Worst Case													v	
	12	Worst Case													v	
	13	Worst Case													v	
	25	Worst Case													v	
	26	Worst Case													v	
	66	Worst Case													v	
Note	1. The mark "**v** " 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.															

NB-IOT Category NB1:

Test Items	Band	Sub-carrier Spacing (kHz)		Modulation				Tones #			Test Channel		
		3.75	15	BPSK	QPSK	16QAM	64QAM	1	-	12	L	M	H
Max. Output 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
	17	v	v	v	v	-	-	v	-	v	v	v	v
	25	v	v	v	v	-	-	v	-	v	v	v	v
	66	v	v	v	v	-	-	v	-	v	v	v	v
E.R.P / E.I.R.P	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
	17	v	v	v	v	-	-	v	-		v	v	v
	25	v	v	v	v	-	-	v	-		v	v	v
	66	v	v	v	v	-	-	v	-		v	v	v
Radiated Spurious Emission	2	Worst case										v	
	5	Worst case										v	
	12	Worst case										v	
	13	Worst case										v	
	25	Worst case										v	
	66	Worst case										v	
Note	1. The mark "**v** " 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.												

2.2 Connection Diagram of Test System



This example is connection diagram of EUT test configurations.

. For detail, please refer to test mode configuration and setup photographs for each test item.

2.3 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	Power Supply	GWINSTEK	PSS-2002	N/A	N/A	Unshielded, 1.8 m
2.	LTE Base Station	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
3.	USB Cable	NA	NA	NA	NA	N/A
4.	Adapter	NA	NA	NA	NA	N/A

2.4 Frequency List of Low/Middle/High Channels

LTE Category M1:

LTE Band 2 Channel and Frequency List				
BW [MHz]	**Channel/Frequency(MHz)**	**Lowest**	**Middle**	**Highest**
20	Channel	18700	18900	19100
	Frequency	1860	1880	1900
15	Channel	18675	18900	19125
	Frequency	1857.5	1880	1902.5
10	Channel	18650	18900	19150
	Frequency	1855	1880	1905
5	Channel	18625	18900	19175
	Frequency	1852.5	1880	1907.5
3	Channel	18615	18900	19185
	Frequency	1851.5	1880	1908.5
1.4	Channel	18607	18900	19193
	Frequency	1850.7	1880	1909.3

LTE Band 4 Channel and Frequency List				
BW [MHz]	**Channel/Frequency(MHz)**	**Lowest**	**Middle**	**Highest**
20	Channel	20050	20175	20300
	Frequency	1720	1732.5	1745
15	Channel	20025	20175	20325
	Frequency	1717.5	1732.5	1747.5
10	Channel	20000	20175	20350
	Frequency	1715	1732.5	1750
5	Channel	19975	20175	20375
	Frequency	1712.5	1732.5	1752.5
3	Channel	19965	20175	20385
	Frequency	1711.5	1732.5	1753.5
1.4	Channel	19957	20175	20393
	Frequency	1710.7	1732.5	1754.3

LTE Band 5 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
10	Channel	20450	20525	20600
	Frequency	829	836.5	844
5	Channel	20425	20525	20625
	Frequency	826.5	836.5	846.5
3	Channel	20415	20525	20635
	Frequency	825.5	836.5	847.5
1.4	Channel	20407	20525	20643
	Frequency	824.7	836.5	848.3

LTE Band 12 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
10	Channel	23060	23095	23130
	Frequency	704	707.5	711
5	Channel	23035	23095	23155
	Frequency	701.5	707.5	713.5
3	Channel	23025	23095	23165
	Frequency	700.5	707.5	714.5
1.4	Channel	23017	23095	23173
	Frequency	699.7	707.5	715.3

LTE Band 13 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
10	Channel	-	23230	-
	Frequency	-	782	-
5	Channel	23205	23230	23255
	Frequency	779.5	782	784.5

LTE Band 25 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	26140	26340	26590
	Frequency	1860	1880	1905
15	Channel	26115	26340	26615
	Frequency	1857.5	1880	1907.5
10	Channel	26090	26340	26640
	Frequency	1855	1880	1910
5	Channel	26065	26340	26665
	Frequency	1852.5	1880	1912.5
3	Channel	26055	26340	26675
	Frequency	1851.5	1880	1913.5
1.4	Channel	26047	26340	26683
	Frequency	1850.7	1880	1914.3

LTE Band 26 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
15	Channel	26865	26915	26965
	Frequency	831.5	836.5	841.5
10	Channel	26840	26915	26990
	Frequency	829	836.5	844
5	Channel	26815	26915	27015
	Frequency	826.5	836.5	846.5
3	Channel	26805	26915	27025
	Frequency	825.5	836.5	847.5
1.4	Channel	26797	26915	27033
	Frequency	824.7	836.5	848.3

LTE Band 66 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	132072	132322	132572
	Frequency	1720	1745	1770
15	Channel	132047	132322	132597
	Frequency	1717.5	1745	1772.5
10	Channel	132022	132322	132622
	Frequency	1715	1745	1775
5	Channel	131997	132322	132647
	Frequency	1712.5	1745	1777.5
3	Channel	131987	132322	132657
	Frequency	1711.5	1745	1778.5
1.4	Channel	131979	132322	132665
	Frequency	1710.7	1745	1779.3

NB-IOT Category NB1:

LTE Band 2 Channel and Frequency List				
Sub-carrier Speacing (kHz)	Channel / Frequency (MHz)	Lowest	Middle	Highest
3.75	Channel	18602	18900	19198
	Frequency	1850.2	1880	1909.8
15	Channel	18602	18900	19198
	Frequency	1850.2	1880	1909.8

LTE Band 4 Channel and Frequency List				
Sub-carrier Speacing (kHz)	Channel / Frequency (MHz)	Lowest	Middle	Highest
3.75	Channel	19952	20175	20398
	Frequency	1710.2	1732.5	1754.8
15	Channel	19952	20175	20398
	Frequency	1710.2	1732.5	1754.8

LTE Band 5 Channel and Frequency List				
Sub-carrier Speacing (kHz)	Channel / Frequency (MHz)	Lowest	Middle	Highest
3.75	Channel	20402	20525	20648
	Frequency	824.2	836.5	848.8
15	Channel	20402	20525	20648
	Frequency	824.2	836.5	848.8

LTE Band 12 Channel and Frequency List				
Sub-carrier Speacing (kHz)	Channel / Frequency (MHz)	Lowest	Middle	Highest
3.75	Channel	23012	23095	23178
	Frequency	699.2	707.5	715.8
15	Channel	23012	23095	23178
	Frequency	699.2	707.5	715.8

LTE Band 13 Channel and Frequency List				
Sub-carrier Speacing (kHz)	Channel / Frequency (MHz)	Lowest	Middle	Highest
3.75	Channel	23182	23230	23278
	Frequency	777.2	782	786.8
15	Channel	23182	23230	23278
	Frequency	777.2	782	786.8

LTE Band 17 Channel and Frequency List				
Sub-carrier Speacing (kHz)	Channel / Frequency (MHz)	Lowest	Middle	Highest
3.75	Channel	23732	23790	23848
	Frequency	704.2	710	715.8
15	Channel	23732	23790	23848
	Frequency	704.2	710	715.8

LTE Band 25 Channel and Frequency List				
Sub-carrier Speacing (kHz)	**Channel / Frequency (MHz)**	**Lowest**	**Middle**	**Highest**
3.75	Channel	26042	26365	26688
	Frequency	1850.2	1882.5	1914.8
15	Channel	26042	26365	26688
	Frequency	1850.2	1882.5	1914.8

LTE Band 66 Channel and Frequency List				
Sub-carrier Speacing (kHz)	**Channel / Frequency (MHz)**	**Lowest**	**Middle**	**Highest**
3.75	Channel	131974	132322	132670
	Frequency	1710.2	1745	1779.8
15	Channel	131974	132322	132670
	Frequency	1710.2	1745	1779.8

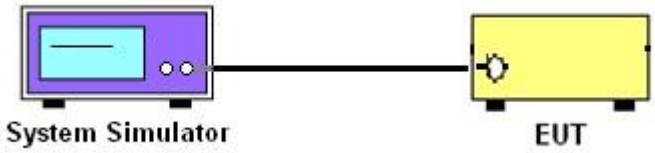
3 Conducted Test Items

3.1 Measuring Instruments

See list of measuring instruments of this test report.

3.2 Test Setup

3.2.1 Conducted Output Power



3.3 Test Result of Conducted Test

Please refer to Appendix A.

3.4 Conducted Output Power and ERP/EIRP

3.4.1 Description of the Conducted Output Power Measurement and ERP/EIRP Measurement

A system simulator was used to establish communication with the EUT. Its parameters were 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 ERP of mobile transmitters must not exceed 7 Watts for LTE Band 5 and Band 26.

The ERP of mobile transmitters must not exceed 3 Watts for LTE Band 12, Band 13 and Band 17.

The EIRP of mobile transmitters must not exceed 2 Watts for LTE Band 2 and Band 25.

The EIRP of mobile transmitters must not exceed 1 Watts for LTE Band 4 and Band 66.

According to KDB 412172 D01 Power Approach,

EIRP = $P_T + G_T – L_C$, ERP = EIRP -2.15, where

P_T = transmitter output power in dBm

G_T = gain of the transmitting antenna in dBi

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

3.4.2 Test Procedures

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

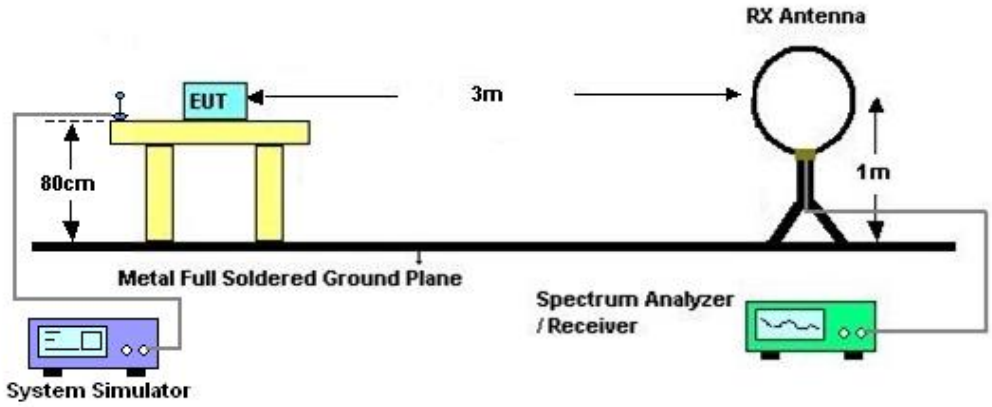
4 Radiated Test Items

4.1 Measuring Instruments

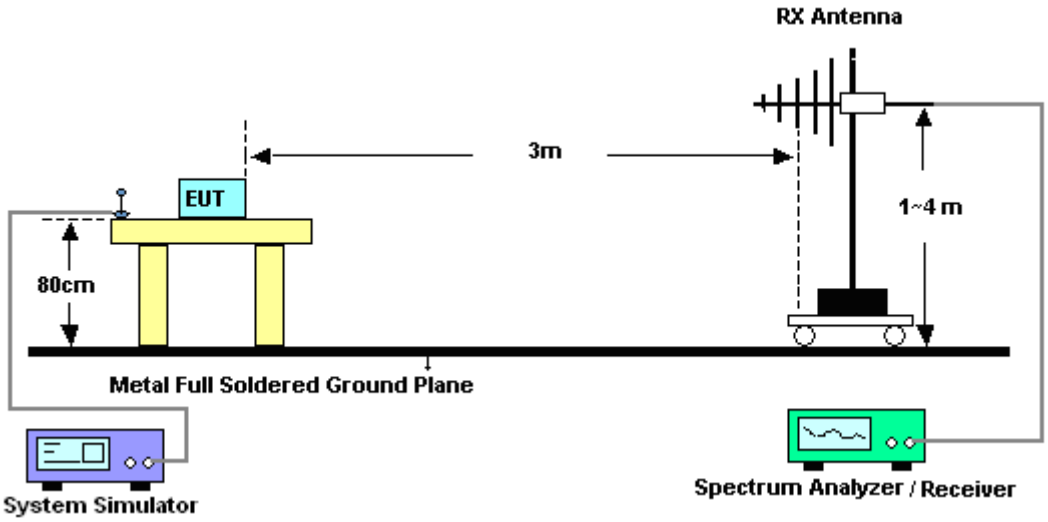
See list of measuring instruments of this test report.

4.2 Test Setup

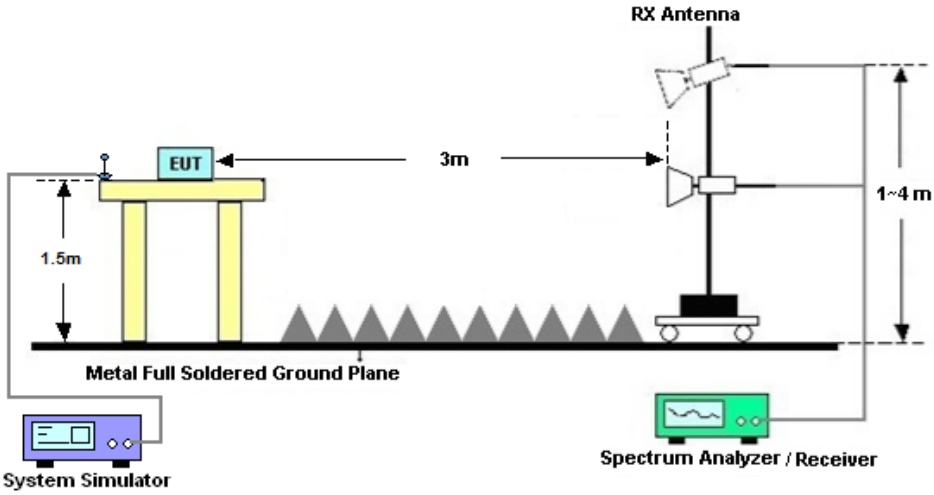
4.2.1 For radiated test below 30MHz



4.2.2 For radiated test from 30MHz to 1GHz



4.2.3 For radiated test above 1GHz



4.3 Test Result of Radiated Test

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

Please refer to Appendix B.

4.4 Radiated Spurious Emission

4.4.1 Description of Radiated Spurious Emission

The radiated spurious emission was measured by substitution method according to ANSI C63.26. 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 746-758 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.

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

4.4.2 Test Procedures

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

5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101040	10Hz~40GHz	Oct. 12, 2022	Sep. 22, 2023	Oct. 11, 2023	Conducted (TH01-KS)
EXA Spectrum Analyzer	Keysight	N9010B	MY57471079	10Hz-44G,MAX 30dB	Oct. 12, 2022	Sep. 15, 2023~ Oct. 12, 2023	Oct. 11, 2023	Radiation (03CH04-KS)
EXA Spectrum Analyzer	Keysight	N9010B	MY57471079	10Hz-44G,MAX 30dB	Oct. 10, 2023		Oct. 09, 2024	Radiation (03CH04-KS)
Loop Antenna	R&S	HFH2-Z2E	101125	9kHz~30MHz	Sep. 11 2023	Sep. 15, 2023~ Oct. 12, 2023	Sep. 10, 2024	Radiation (03CH04-KS)
Bilog Antenna	TeseQ	CBL6111D	49922	30MHz-1GHz	Apr. 09, 2023	Sep. 15, 2023~ Oct. 12, 2023	Apr. 08, 2024	Radiation (03CH04-KS)
Horn Antenna	Schwarzbeck	BBHA9120D	1284	1GHz~18GHz	Oct. 16, 2022	Sep. 15, 2023~ Oct. 12, 2023	Oct. 15, 2023	Radiation (03CH04-KS)
Horn Antenna	Schwarzbeck	BBHA9120D	1284	1GHz~18GHz	Oct. 10, 2023		Oct. 09, 2024	Radiation (03CH04-KS)
SHF-EHF Horn	Com-power	AH-840	101070	18GHz~40GHz	Jan. 08, 2023	Sep. 15, 2023~ Oct. 12, 2023	Jan. 07, 2024	Radiation (03CH04-KS)
Amplifier	SONOMA	310N	380827	9KHz-1GHz	Jul. 06, 2023	Sep. 15, 2023~ Oct. 12, 2023	Jul. 05, 2024	Radiation (03CH04-KS)
Amplifier	MITEQ	EM18G40GGA	060728	18~40GHz	Jan. 05, 2023	Sep. 15, 2023~ Oct. 12, 2023	Jan. 04, 2024	Radiation (03CH04-KS)
high gain Amplifier	EM	EM01G18GA	060840	1Ghz-18Ghz	Oct. 12, 2022	Sep. 15, 2023~ Oct. 12, 2023	Oct. 11, 2023	Radiation (03CH04-KS)
high gain Amplifier	EM	EM01G18GA	060840	1Ghz-18Ghz	Oct. 10, 2023		Oct. 09, 2024	Radiation (03CH04-KS)
Amplifier	Agilent	8449B	3008A02370	1Ghz-18Ghz	Oct. 12, 2022	Sep. 15, 2023~ Oct. 12, 2023	Oct. 11, 2023	Radiation (03CH04-KS)
Amplifier	Agilent	8449B	3008A02370	1Ghz-18Ghz	Oct. 10, 2023		Oct. 09, 2024	Radiation (03CH04-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Sep. 15, 2023~ Oct. 12, 2023	NCR	Radiation (03CH04-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Sep. 15, 2023~ Oct. 12, 2023	NCR	Radiation (03CH04-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Sep. 15, 2023~ Oct. 12, 2023	NCR	Radiation (03CH04-KS)

NCR: No Calibration Required

6 Measurement Uncertainty

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI 63.26-2015. All the measurement uncertainty value were shown with a coverage K=2 to indicate 95% level of confidence. The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

Uncertainty of Conducted Measurement

Test Item	Uncertainty
Conducted Power	±0.46 dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.82 dB

Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.56 dB

Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.54 dB

Appendix A. Test Results of Conducted Test

Test Engineer :	Simle Wang	Temperature :	22~23℃
		Relative Humidity :	40~42%

Conducted Output Power(Average power) and ERP/EIRP

LTE Category M1:

LTE eMTC Band 2	Channel/ Frequency(MHz)	index	RB# RBstart		Conducted Power (dBm)		EIRP (dBm)		EIRP (W)	
			QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
1.4M	18067/1850.7	0	1#0	1#0	23.68	22.27	25.61	24.2	0.3639	0.2630
		0	6#0	6#0	22.24	21.68	24.17	23.61	0.2612	0.2296
	18900/1880	0	1#0	1#0	22.91	23.02	24.84	24.95	0.3048	0.3126
		0	6#0	6#0	21.81	21.74	23.74	23.67	0.2366	0.2328
	19193/1909.3	0	1#5	1#5	23.52	22.41	25.45	24.34	0.3508	0.2716
		0	6#0	6#0	21.93	21.44	23.86	23.37	0.2432	0.2173
3M	18615/1851.5	0	1#0	1#0	23.65	22.77	25.58	24.7	0.3614	0.2951
		0	6#0	6#0	21.88	21.61	23.81	23.54	0.2404	0.2259
	18900/1880	0	1#0	1#0	23.65	22.73	25.58	24.66	0.3614	0.2924
		0	6#0	6#0	21.81	21.6	23.74	23.53	0.2366	0.2254
	19185/1908.5	1	1#5	1#5	23.58	22.58	25.51	24.51	0.3556	0.2825
		0	6#0	6#0	21.75	21.47	23.68	23.4	0.2333	0.2188
5M	18625/1852.5	3	1#0	1#0	23.63	23.69	25.56	25.62	0.3597	0.3648
		0	6#0	6#0	22.94	21.66	24.87	23.59	0.3069	0.2286
	18900/1880	0	1#0	1#0	23.63	23.7	25.56	25.63	0.3597	0.3656
		0	6#0	6#0	22.89	21.63	24.82	23.56	0.3034	0.2270
	19175/1907.5	0	1#5	1#5	23.61	23.54	25.54	25.47	0.3581	0.3524
		0	6#0	6#0	22.95	21.44	24.88	23.37	0.3076	0.2173
10M	18650/1855	3	1#0	1#0	23.62	23.68	25.55	25.61	0.3589	0.3639
		0	4#0	4#0	23.44	22.64	25.37	24.57	0.3443	0.2864
	18900/1880	0	1#0	1#0	23.64	23.71	25.57	25.64	0.3606	0.3664
		0	4#0	4#0	23.21	22.71	25.14	24.64	0.3266	0.2911
	19150/1905	4	1#5	1#5	23.64	23.59	25.57	25.52	0.3606	0.3565
		7	4#2	4#2	23.3	21.66	25.23	23.59	0.3334	0.2286
15M	18675/1857.5	3	1#0	1#0	23.66	23.69	25.59	25.62	0.3622	0.3648
		0	6#0	6#0	23.45	23.59	25.38	25.52	0.3451	0.3565
	18900/1880	0	1#0	1#0	23.64	23.68	25.57	25.61	0.3606	0.3639
		0	6#0	6#0	23.43	23.61	25.36	25.54	0.3436	0.3581
	19125/1902.5	8	1#5	1#5	23.68	23.63	25.61	25.56	0.3639	0.3597
		11	6#0	6#0	23.78	23.47	25.71	25.4	0.3724	0.3467
20M	18700/1860	3	1#0	1#0	23.68	23.7	25.61	25.63	0.3639	0.3656
		0	6#0	6#0	23.5	23.59	25.43	25.52	0.3491	0.3565
	18900/1880	0	1#0	1#0	23.2	23.03	25.13	24.96	0.3258	0.3133
		0	6#0	6#0	23.73	23.12	25.66	25.05	0.3681	0.3199
	19100/1900	12	1#5	1#5	23.62	23.58	25.55	25.51	0.3589	0.3556
		15	6#0	6#0	23.37	23.54	25.3	25.47	0.3388	0.3524

LTE eMTC Band 4	Channel/ Frequency(MHz)	index	RB# RBstart		Conducted Power (dBm)		EIRP (dBm)		EIRP (W)	
			QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
1.4M	19957/1710.7	0	1#0	1#0	23.53	22.5	26.07	25.04	0.4046	0.3192
		0	6#0	6#0	22.13	21.58	24.67	24.12	0.2931	0.2582
	20175/1732.5	0	1#0	1#0	23.41	22.32	25.95	24.86	0.3936	0.3062
		0	6#0	6#0	22.12	21.48	24.66	24.02	0.2924	0.2523
	20393/1754.3	0	1#5	1#5	23.62	22.42	26.16	24.96	0.4130	0.3133
		0	6#0	6#0	22.17	21.59	24.71	24.13	0.2958	0.2588
3M	19965/1711.5	0	1#0	1#0	23.63	22.61	26.17	25.15	0.4140	0.3273
		0	6#0	6#0	21.88	21.57	24.42	24.11	0.2767	0.2576
	20175/1732.5	0	1#0	1#0	23.62	22.68	26.16	25.22	0.4130	0.3327
		0	6#0	6#0	21.79	21.54	24.33	24.08	0.2710	0.2559
	20385/1753.5	1	1#5	1#5	23.8	22.73	26.34	25.27	0.4305	0.3365
		0	6#0	6#0	21.89	21.63	24.43	24.17	0.2773	0.2612
5M	19975/1712.5	3	1#0	1#0	23.75	23.74	26.29	26.28	0.4256	0.4246
		0	6#0	6#0	23.03	21.62	25.57	24.16	0.3606	0.2606
	20175/1732.5	0	1#0	1#0	23.67	23.7	26.21	26.24	0.4178	0.4207
		0	6#0	6#0	22.95	21.73	25.49	24.27	0.3540	0.2673
	20375/1752.5	0	1#5	1#5	23.55	23.73	26.09	26.27	0.4064	0.4236
		0	6#0	6#0	23.06	21.71	25.6	24.25	0.3631	0.2661
10M	20000/1715	3	1#0	1#0	23.77	23.8	26.31	26.34	0.4276	0.4305
		0	4#0	4#0	23.41	22.7	25.95	25.24	0.3936	0.3342
	20175/1732.5	0	1#0	1#0	23.7	23.72	26.24	26.26	0.4207	0.4227
		0	4#0	4#0	23.46	22.64	26	25.18	0.3981	0.3296
	20350/1750	4	1#5	1#5	23.8	23.74	26.34	26.28	0.4305	0.4246
		7	4#2	4#2	23.39	21.75	25.93	24.29	0.3917	0.2685
15M	20025/1717.5	3	1#0	1#0	23.79	23.15	26.33	25.69	0.4295	0.3707
		0	6#0	6#0	23.63	23.66	26.17	26.2	0.4140	0.4169
	20175/1732.5	0	1#0	1#0	23.67	23.64	26.21	26.18	0.4178	0.4150
		0	6#0	6#0	23.59	23.53	26.13	26.07	0.4102	0.4046
	20325/1747.5	8	1#5	1#5	23.77	23.69	26.31	26.23	0.4276	0.4198
		11	6#0	6#0	23.64	23.47	26.18	26.01	0.4150	0.3990
20M	20050/1720	3	1#0	1#0	23.77	23.8	26.31	26.34	0.4276	0.4305
		0	6#0	6#0	23.62	23.62	26.16	26.16	0.4130	0.4130
	20175/1732.5	0	1#0	1#0	23.7	23.71	26.24	26.25	0.4207	0.4217
		0	6#0	6#0	23.61	23.58	26.15	26.12	0.4121	0.4093
	20300/1745	12	1#5	1#5	23.72	23.66	26.26	26.2	0.4227	0.4169
		15	6#0	6#0	23.6	23.49	26.14	26.03	0.4111	0.4009

LTE eMTC Band 5	Channel/ Frequency(MHz)	index	RB# RBstart		Conducted Power (dBm)		ERP (dBm)		ERP (W)	
			QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
1.4M	20407/824.7	0	1#0	1#0	23.75	22.73	23.96	22.94	0.2489	0.1968
		0	6#0	6#0	22.12	21.73	22.33	21.94	0.1710	0.1563
	20525/836.5	0	1#0	1#0	23.68	22.63	23.89	22.84	0.2449	0.1923
		0	6#0	6#0	22.22	21.75	22.43	21.96	0.1750	0.1570
	20643/848.3	0	1#5	1#5	23.78	22.62	23.99	22.83	0.2506	0.1919
		0	6#0	6#0	22.17	21.64	22.38	21.85	0.1730	0.1531
3M	20415/825.5	0	1#0	1#0	23.55	22.86	23.76	23.07	0.2377	0.2028
		0	6#0	6#0	21.99	21.8	22.2	22.01	0.1660	0.1589
	20525/836.5	0	1#0	1#0	23.55	22.86	23.76	23.07	0.2377	0.2028
		0	6#0	6#0	22	21.8	22.21	22.01	0.1663	0.1589
	20635/847.5	1	1#5	1#5	23.38	22.74	23.59	22.95	0.2286	0.1972
		1	6#0	6#0	21.9	21.63	22.11	21.84	0.1626	0.1528
5M	20425/826.5	3	1#0	1#0	23.55	23.42	23.76	23.63	0.2377	0.2307
		0	6#0	6#0	23.2	21.85	23.41	22.06	0.2193	0.1607
	20525/836.5	0	1#0	1#0	23.57	23.44	23.78	23.65	0.2388	0.2317
		0	6#0	6#0	23.09	21.87	23.3	22.08	0.2138	0.1614
	20625/846.5	0	1#5	1#5	23.66	23.48	23.87	23.69	0.2438	0.2339
		3	6#0	6#0	22.96	21.82	23.17	22.03	0.2075	0.1596
10M	20450/829	3	1#0	1#0	23.52	23.41	23.73	23.62	0.2360	0.2301
		0	4#0	4#0	23.69	22.86	23.9	23.07	0.2455	0.2028
	20525/836.5	0	1#0	1#0	23.52	23.35	23.73	23.56	0.2360	0.2270
		0	4#0	4#0	23.64	22.9	23.85	23.11	0.2427	0.2046
	20600/844	4	1#5	1#5	23.59	23.52	23.8	23.73	0.2399	0.2360
		7	4#2	4#2	23.6	21.87	23.81	22.08	0.2404	0.1614

LTE eMTC Band 12	Channel/ Frequency(MHz)	index	RB# RBstart		Conducted Power (dBm)		ERP (dBm)		ERP (W)	
			QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
1.4M	23017/699.7	0	1#0	1#0	23.53	22.88	19.3	18.65	0.0851	0.0733
		0	6#0	6#0	22.49	21.92	18.26	17.69	0.0670	0.0587
	23095/707.5	0	1#0	1#0	23.37	22.8	19.14	18.57	0.0820	0.0719
		0	6#0	6#0	22.33	21.87	18.1	17.64	0.0646	0.0581
	23173/715.3	0	1#5	1#5	23.19	22.78	18.96	18.55	0.0787	0.0716
		0	6#0	6#0	22.89	21.74	18.66	17.51	0.0735	0.0564
3M	23025/700.5	0	1#0	1#0	23.64	23.18	19.41	18.95	0.0873	0.0785
		0	6#0	6#0	22.25	22	18.02	17.77	0.0634	0.0598
	23095/707.5	0	1#0	1#0	23.53	23.06	19.3	18.83	0.0851	0.0764
		0	6#0	6#0	22.15	21.93	17.92	17.7	0.0619	0.0589
	23165/714.5	1	1#5	1#5	23.24	23	19.01	18.77	0.0796	0.0753
		0	6#0	6#0	22.06	21.74	17.83	17.51	0.0607	0.0564
5M	23035/701.5	3	1#0	1#0	23.52	23.33	19.29	19.1	0.0849	0.0813
		0	6#0	6#0	23.24	22.11	19.01	17.88	0.0796	0.0614
	23095/707.5	0	1#0	1#0	23.47	23.33	19.24	19.1	0.0839	0.0813
		0	6#0	6#0	23.3	22.13	19.07	17.9	0.0807	0.0617
	23155/713.5	0	1#5	1#5	23.55	23.33	19.32	19.1	0.0855	0.0813
		0	6#0	6#0	23.08	21.93	18.85	17.7	0.0767	0.0589
10M	23060/704	3	1#0	1#0	23.48	23.3	19.25	19.07	0.0841	0.0807
		0	4#0	4#0	23.67	23.07	19.44	18.84	0.0879	0.0766
	23095/707.5	0	1#0	1#0	23.51	23.37	19.28	19.14	0.0847	0.0820
		0	4#0	4#0	23.67	23.14	19.44	18.91	0.0879	0.0778
	23130/711	4	1#5	1#5	23.51	23.34	19.28	19.11	0.0847	0.0815
		7	4#2	4#2	23.72	22.04	19.49	17.81	0.0889	0.0604

LTE eMTC Band 13	Channel/ Frequency(MHz)	index	RB# RBstart		Conducted Power (dBm)		ERP (dBm)		ERP (W)	
			QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
5M	23205/779.5	3	1#0	1#0	23.43	23.19	19.16	18.92	0.0824	0.0780
		0	6#0	6#0	23.14	21.86	18.87	17.59	0.0771	0.0574
	23230/782	0	1#0	1#0	23.69	23.28	19.42	19.01	0.0875	0.0796
		0	6#0	6#0	23.11	21.87	18.84	17.6	0.0766	0.0575
	23255/784.5	0	1#5	1#5	23.6	23.42	19.33	19.15	0.0857	0.0822
		0	6#0	6#0	23.04	21.75	18.77	17.48	0.0753	0.0560
10M	23230/782	0	1#0	1#0	23.4	23.24	19.13	18.97	0.0818	0.0789
		0	4#0	4#0	23.55	22.89	19.28	18.62	0.0847	0.0728

LTE eMTC Band 25	Channel/ Frequency(MHz)	index	RB# RBstart		Conducted Power (dBm)		EIRP (dBm)		EIRP (W)	
			QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
1.4M	26047/1850.7	0	1#0	1#0	23.5	22.51	25.43	24.44	0.3491	0.2780
		0	6#0	6#0	22.15	21.63	24.08	23.56	0.2559	0.2270
	26365/1882.5	0	1#0	1#0	23.55	22.59	25.48	24.52	0.3532	0.2831
		0	6#0	6#0	22.18	21.63	24.11	23.56	0.2576	0.2270
	26683/1914.3	0	1#5	1#5	23.58	22.4	25.51	24.33	0.3556	0.2710
		0	6#0	6#0	21.99	21.48	23.92	23.41	0.2466	0.2193
3M	26055/1851.5	0	1#0	1#0	23.67	22.8	25.6	24.73	0.3631	0.2972
		0	6#0	6#0	21.88	21.6	23.81	23.53	0.2404	0.2254
	26365/1882.5	0	1#0	1#0	23.68	22.8	25.61	24.73	0.3639	0.2972
		0	6#0	6#0	21.92	21.64	23.85	23.57	0.2427	0.2275
	26675/1913.5	1	1#5	1#5	23.68	22.67	25.61	24.6	0.3639	0.2884
		0	6#0	6#0	21.83	21.57	23.76	23.5	0.2377	0.2239
5M	26065/1852.5	3	1#0	1#0	23.69	23.73	25.62	25.66	0.3648	0.3681
		0	6#0	6#0	22.79	21.73	24.72	23.66	0.2965	0.2323
	26365/1882.5	0	1#0	1#0	23.72	23.76	25.65	25.69	0.3673	0.3707
		0	6#0	6#0	22.87	22.05	24.8	23.98	0.3020	0.2500
	26665/1912.5	0	1#5	1#5	23.7	23.62	25.63	25.55	0.3656	0.3589
		0	6#0	6#0	22.63	21.53	24.56	23.46	0.2858	0.2218
10M	26090/1855	3	1#0	1#0	23.68	23.73	25.61	25.66	0.3639	0.3681
		0	4#0	4#0	23.34	22.72	25.27	24.65	0.3365	0.2917
	26365/1882.5	0	1#0	1#0	23.74	23.8	25.67	25.73	0.3690	0.3741
		0	4#0	4#0	23.3	22.93	25.23	24.86	0.3334	0.3062
	26640/1910	4	1#5	1#5	23.69	23.64	25.62	25.57	0.3648	0.3606
		7	4#2	4#2	23.33	21.65	25.26	23.58	0.3357	0.2280
15M	26115/1857.5	3	1#0	1#0	23.74	23.77	25.67	25.7	0.3690	0.3715
		0	6#0	6#0	23.48	23.68	25.41	25.61	0.3475	0.3639
	26365/1882.5	0	1#0	1#0	23.75	23.02	25.68	24.95	0.3698	0.3126
		0	6#0	6#0	23.44	23.76	25.37	25.69	0.3443	0.3707
	26615/1907.5	8	1#5	1#5	23.71	23.68	25.64	25.61	0.3664	0.3639
		11	6#0	6#0	23.32	23.51	25.25	25.44	0.3350	0.3499
20M	26140/1860	3	1#0	1#0	23.7	23.75	25.63	25.68	0.3656	0.3698
		0	6#0	6#0	23.52	23.7	25.45	25.63	0.3508	0.3656
	26365/1882.5	0	1#0	1#0	23.73	23.78	25.66	25.71	0.3681	0.3724
		0	6#0	6#0	23.45	23.77	25.38	25.7	0.3451	0.3715
	26590/1905	12	1#5	1#5	23.65	23.62	25.58	25.55	0.3614	0.3589
		15	6#0	6#0	23.75	23.48	25.68	25.41	0.3698	0.3475

LTE eMTC Band 26	Channel/ Frequency(MHz)	index	RB# RBstart		Conducted Power (dBm)		ERP (dBm)		ERP (W)	
			QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
1.4M	26797/824.7	0	1#0	1#0	23.65	22.25	23.86	22.46	0.2432	0.1762
		0	6#0	6#0	22.15	21.59	22.36	21.8	0.1722	0.1514
	26915/836.5	0	1#0	1#0	23.73	22.33	23.94	22.54	0.2477	0.1795
		0	6#0	6#0	22.12	21.67	22.33	21.88	0.1710	0.1542
	27033/848.3	0	1#5	1#5	23.65	22.25	23.86	22.46	0.2432	0.1762
		0	6#0	6#0	22.08	21.56	22.29	21.77	0.1694	0.1503
3M	26805/825.5	0	1#0	1#0	23.53	22.63	23.74	22.84	0.2366	0.1923
		0	6#0	6#0	21.87	21.67	22.08	21.88	0.1614	0.1542
	26915/836.5	0	1#0	1#0	23.54	22.58	23.75	22.79	0.2371	0.1901
		0	6#0	6#0	21.93	21.77	22.14	21.98	0.1637	0.1578
	27025/847.5	1	1#5	1#5	23.71	22.51	23.92	22.72	0.2466	0.1871
		1	6#0	6#0	21.82	21.61	22.03	21.82	0.1596	0.1521
5M	26815/826.5	3	1#0	1#0	23.5	23.62	23.71	23.83	0.2350	0.2415
		0	6#0	6#0	22.99	21.71	23.2	21.92	0.2089	0.1556
	26915/836.5	0	1#0	1#0	23.77	23.63	23.98	23.84	0.2500	0.2421
		0	6#0	6#0	23.15	21.77	23.36	21.98	0.2168	0.1578
	27015/846.5	0	1#5	1#5	23.7	23.55	23.91	23.76	0.2460	0.2377
		3	6#0	6#0	22.88	21.73	23.09	21.94	0.2037	0.1563
10M	26840/829	3	1#0	1#0	23.46	23.67	23.67	23.88	0.2328	0.2443
		0	4#0	4#0	23.69	22.79	23.9	23	0.2455	0.1995
	26915/836.5	0	1#0	1#0	23.77	23.61	23.98	23.82	0.2500	0.2410
		0	4#0	4#0	23.73	22.82	23.94	23.03	0.2477	0.2009
	26990/844	4	1#5	1#5	23.6	23.49	23.81	23.7	0.2404	0.2344
		7	4#2	4#2	23.37	21.97	23.58	22.18	0.2280	0.1652
15M	26865/831.5	3	1#0	1#0	23.8	23.71	24.01	23.92	0.2518	0.2466
		0	6#0	6#0	23.67	23.76	23.88	23.97	0.2443	0.2495
	26915/836.5	0	1#0	1#0	23.8	23.69	24.01	23.9	0.2518	0.2455
		0	6#0	6#0	23.63	23.79	23.84	24	0.2421	0.2512
	26965/841.5	8	1#5	1#5	23.62	23.54	23.83	23.75	0.2415	0.2371
		11	6#0	6#0	23.61	23.73	23.82	23.94	0.2410	0.2477

LTE eMTC Band 66	Channel/ Frequency(MHz)	index	RB# RBstart		Conducted Power (dBm)		EIRP (dBm)		EIRP (W)	
			QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
1.4M	131979/1710.7	0	1#0	1#0	23.52	22.52	26.29	25.29	0.4256	0.3381
		0	6#0	6#0	22.15	21.59	24.92	24.36	0.3105	0.2729
	132322/1745	0	1#0	1#0	23.43	21.82	26.2	24.59	0.4169	0.2877
		0	6#0	6#0	22.03	21.52	24.8	24.29	0.3020	0.2685
	132665/1779.3	0	1#5	1#5	23.72	22.53	26.49	25.3	0.4457	0.3388
		0	6#0	6#0	22.1	21.6	24.87	24.37	0.3069	0.2735
3M	131987/1711.5	0	1#0	1#0	23.62	22.6	26.39	25.37	0.4355	0.3443
		0	6#0	6#0	21.84	21.58	24.61	24.35	0.2891	0.2723
	132322/1745	0	1#0	1#0	23.6	22.62	26.37	25.39	0.4335	0.3459
		0	6#0	6#0	21.78	21.54	24.55	24.31	0.2851	0.2698
	132657/1778.5	1	1#5	1#5	23.79	22.78	26.56	25.55	0.4529	0.3589
		0	6#0	6#0	21.92	21.66	24.69	24.43	0.2944	0.2773
5M	131997/1712.5	3	1#0	1#0	23.71	23.67	26.48	26.44	0.4446	0.4406
		0	6#0	6#0	22.86	21.59	25.63	24.36	0.3656	0.2729
	132322/1745	0	1#0	1#0	23.6	23.68	26.37	26.45	0.4335	0.4416
		0	6#0	6#0	22.88	21.74	25.65	24.51	0.3673	0.2825
	132647/1777.5	0	1#5	1#5	23.77	23.64	26.54	26.41	0.4508	0.4375
		0	6#0	6#0	22.87	21.57	25.64	24.34	0.3664	0.2716
10M	132022/1715	3	1#0	1#0	23.68	23.66	26.45	26.43	0.4416	0.4395
		0	4#0	4#0	23.64	22.61	26.41	25.38	0.4375	0.3451
	132322/1745	0	1#0	1#0	23.63	23.6	26.4	26.37	0.4365	0.4335
		0	4#0	4#0	23.57	22.68	26.34	25.45	0.4305	0.3508
	132622/1775	4	1#5	1#5	23.72	23.69	26.49	26.46	0.4457	0.4426
		7	4#2	4#2	22.98	21.69	25.75	24.46	0.3758	0.2793
15M	132047/1717.5	3	1#0	1#0	23.71	23.72	26.48	26.49	0.4446	0.4457
		0	6#0	6#0	23.64	23.55	26.41	26.32	0.4375	0.4285
	132322/1745	0	1#0	1#0	23.62	23.61	26.39	26.38	0.4355	0.4345
		0	6#0	6#0	23.78	23.54	26.55	26.31	0.4519	0.4276
	132597/1772.5	8	1#5	1#5	23.75	23.68	26.52	26.45	0.4487	0.4416
		11	6#0	6#0	23.67	23.51	26.44	26.28	0.4406	0.4246
20M	132072/1720	3	1#0	1#0	23.73	23.74	26.5	26.51	0.4467	0.4477
		0	6#0	6#0	23.62	23.58	26.39	26.35	0.4355	0.4315
	132322/1745	0	1#0	1#0	23.63	23.62	26.4	26.39	0.4365	0.4355
		0	6#0	6#0	23.79	23.52	26.56	26.29	0.4529	0.4256
	132572/1770	12	1#5	1#5	23.73	23.67	26.5	26.44	0.4467	0.4406
		15	6#0	6#0	23.63	23.49	26.4	26.26	0.4365	0.4227

NB-IOT Category NB1:

NB-IoT Band 2	Sub-carrier spacing(KHz)	Ntones	Maximum Output Power(dBm)			EIRP power(dBm)			EIRP (W)		
			18602/ 1850.2 MHz	18900/ 1880.0 MHz	19198/ 1909.8 MHz	18602/ 1850.2 MHz	18900/ 1880.0 MHz	19198/ 1909.8 MHz	18602/ 1850.2 MHz	18900/ 1880.0 MHz	19198/ 1909.8 MHz
BPSK	3.75	1@0	23.71	23.66	23.52	25.64	25.59	25.45	0.3664	0.3622	0.3508
		1@47	23.68	23.67	23.48	25.61	25.6	25.41	0.3639	0.3631	0.3475
	15	1@0	23.59	23.71	23.61	25.52	25.64	25.54	0.3565	0.3664	0.3581
		1@11	23.61	23.67	23.75	25.54	25.6	25.68	0.3581	0.3631	0.3698
QPSK	3.75	1@0	23.71	23.65	23.51	25.64	25.58	25.44	0.3664	0.3614	0.3499
		1@47	23.68	23.63	23.5	25.61	25.56	25.43	0.3639	0.3597	0.3491
	15	1@0	23.49	23.52	23.69	25.42	25.45	25.62	0.3483	0.3508	0.3648
		1@11	23.66	23.75	23.73	25.59	25.68	25.66	0.3622	0.3698	0.3681
	15	12@0	21.85	21.93	22	23.78	23.86	23.93	0.2388	0.2432	0.2472

NB-IoT Band 4	Sub-carrier spacing(KHz)	Ntones	Maximum Output Power(dBm)			EIRP power(dBm)			EIRP (W)		
			19952/ 1710.2 MHz	20175/ 1732.5 MHz	20398/ 1754.8 MHz	19952/ 1710.2 MHz	20175/ 1732.5 MHz	20398/ 1754.8 MHz	19952/ 1710.2 MHz	20175/ 1732.5 MHz	20398/ 1754.8 MHz
BPSK	3.75	1@0	23.29	23.37	23.66	25.83	25.91	26.2	0.3828	0.3899	0.4169
		1@47	23.3	23.39	23.68	25.84	25.93	26.22	0.3837	0.3917	0.4188
	15	1@0	23.51	23.32	23.59	26.05	25.86	26.13	0.4027	0.3855	0.4102
		1@11	23.44	23.38	23.47	25.98	25.92	26.01	0.3963	0.3908	0.3990
QPSK	3.75	1@0	23.31	23.33	23.65	25.85	25.87	26.19	0.3846	0.3864	0.4159
		1@47	23.28	23.37	23.64	25.82	25.91	26.18	0.3819	0.3899	0.4150
	15	1@0	23.35	23.32	23.41	25.89	25.86	25.95	0.3882	0.3855	0.3936
		1@11	23.51	23.45	23.51	26.05	25.99	26.05	0.4027	0.3972	0.4027
	15	12@0	21.9	21.62	21.78	24.44	24.16	24.32	0.2780	0.2606	0.2704

NB-IoT Band 5	Sub-carrier spacing(KHz)	Ntones	Maximum Output Power(dBm)			ERP power(dBm)			ERP (W)		
			20402/ 824.2 MHz	20525/ 836.5 MHz	20648/ 848.8 MHz	20402/ 824.2 MHz	20525/ 836.5 MHz	20648/ 848.8 MHz	20402/ 824.2 MHz	20525/ 836.5 MHz	20648/ 848.8 MHz
BPSK	3.75	1@0	23.14	23.27	23.44	23.35	23.48	23.65	0.2163	0.2228	0.2317
		1@47	23.15	23.29	23.47	23.36	23.5	23.68	0.2168	0.2239	0.2333
	15	1@0	23.74	23.79	23.75	23.95	24	23.96	0.2483	0.2512	0.2489
		1@11	23.63	23.71	23.68	23.84	23.92	23.89	0.2421	0.2466	0.2449
QPSK	3.75	1@0	23.17	23.27	23.42	23.38	23.48	23.63	0.2178	0.2228	0.2307
		1@47	23.13	23.24	23.39	23.34	23.45	23.6	0.2158	0.2213	0.2291
	15	1@0	23.57	23.63	23.55	23.78	23.84	23.76	0.2388	0.2421	0.2377
		1@11	23.66	23.73	23.67	23.87	23.94	23.88	0.2438	0.2477	0.2443
	15	12@0	22.11	22.13	22.12	22.32	22.34	22.33	0.1706	0.1714	0.1710

NB-IoT Band 12	Sub-carrier spacing(KHz)	Ntones	Maximum Output Power(dBm)			ERP power(dBm)			ERP (W)		
			23012/ 699.2 MHz	23095/ 707.5 MHz	23178/ 715.8 MHz	23012/ 699.2 MHz	23095/ 707.5 MHz	23178/ 715.8 MHz	23012/ 699.2 MHz	23095/ 707.5 MHz	23178/ 715.8 MHz
BPSK	3.75	1@0	22.83	22.95	23.12	18.6	18.72	18.89	0.0724	0.0745	0.0774
		1@47	22.78	22.97	23.15	18.55	18.74	18.92	0.0716	0.0748	0.0780
	15	1@0	23.78	23.84	23.65	19.55	19.61	19.42	0.0902	0.0914	0.0875
		1@11	23.95	23.75	23.63	19.72	19.52	19.4	0.0938	0.0895	0.0871
QPSK	3.75	1@0	22.73	22.92	23.17	18.5	18.69	18.94	0.0708	0.0740	0.0783
		1@47	22.77	22.94	23.12	18.54	18.71	18.89	0.0714	0.0743	0.0774
	15	1@0	23.75	23.7	23.55	19.52	19.47	19.32	0.0895	0.0885	0.0855
		1@11	23.75	23.64	23.74	19.52	19.41	19.51	0.0895	0.0873	0.0893
	15	12@0	22.08	22.11	21.95	17.85	17.88	17.72	0.0610	0.0614	0.0592

NB-IoT Band 13	Sub-carrier spacing(KHz)	Ntones	Maximum Output Power(dBm)			ERP power(dBm)			ERP (W)		
			23182/ 777.2 MHz	23230/ 782 MHz	23278/ 786.8 MHz	23182/ 777.2 MHz	23230/ 782 MHz	23278/ 786.8 MHz	23182/ 777.2 MHz	23230/ 782 MHz	23278/ 786.8 MHz
BPSK	3.75	1@0	23.7	23.55	23.48	19.43	19.28	19.21	0.0877	0.0847	0.0834
		1@47	23.63	23.54	23.4	19.36	19.27	19.13	0.0863	0.0845	0.0818
	15	1@0	23.73	23.78	23.78	19.46	19.51	19.51	0.0883	0.0893	0.0893
		1@11	23.68	23.74	23.75	19.41	19.47	19.48	0.0873	0.0885	0.0887
QPSK	3.75	1@0	23.61	23.5	23.42	19.34	19.23	19.15	0.0859	0.0838	0.0822
		1@47	23.58	23.52	23.44	19.31	19.25	19.17	0.0853	0.0841	0.0826
	15	1@0	23.66	23.7	23.67	19.39	19.43	19.4	0.0869	0.0877	0.0871
		1@11	23.79	23.89	23.82	19.52	19.62	19.55	0.0895	0.0916	0.0902
	15	12@0	22.16	22.21	22.18	17.89	17.94	17.91	0.0615	0.0622	0.0618

NB-IoT Band 17	Sub-carrier spacing(KHz)	Ntones	Maximum Output Power(dBm)			ERP power(dBm)			ERP (W)		
			23732/ 704.2 MHz	23790/ 710 MHz	23848/ 715.8 MHz	23732/ 704.2 MHz	23790/ 710 MHz	23848/ 715.8 MHz	23732/ 704.2 MHz	23790/ 710 MHz	23848/ 715.8 MHz
BPSK	3.75	1@0	22.84	22.88	23.02	18.61	18.65	18.79	0.0726	0.0733	0.0757
		1@47	22.82	22.92	23.05	18.59	18.69	18.82	0.0723	0.0740	0.0762
	15	1@0	23.56	23.42	23.54	19.33	19.19	19.31	0.0857	0.0830	0.0853
		1@11	23.62	23.59	23.52	19.39	19.36	19.29	0.0869	0.0863	0.0849
QPSK	3.75	1@0	22.76	22.88	23.03	18.53	18.65	18.8	0.0713	0.0733	0.0759
		1@47	22.78	22.87	23.04	18.55	18.64	18.81	0.0716	0.0731	0.0760
	15	1@0	23.52	23.44	23.36	19.29	19.21	19.13	0.0849	0.0834	0.0818
		1@11	23.59	23.55	23.54	19.36	19.32	19.31	0.0863	0.0855	0.0853
	15	12@0	21.99	21.89	21.84	17.76	17.66	17.61	0.0597	0.0583	0.0577

NB-IoT Band 25	Sub-carrier spacing(KHz)	Ntones	Maximum Output Power(dBm)			EIRP power(dBm)			EIRP (W)		
			26042/ 1850.2 MHz	26365/ 1882.5 MHz	26688/ 1914.8 MHz	26042/ 1850.2 MHz	26365/ 1882.5 MHz	26688/ 1914.8 MHz	26042/ 1850.2 MHz	26365/ 1882.5 MHz	26688/ 1914.8 MHz
BPSK	3.75	1@0	23.71	23.67	23.42	25.64	25.6	25.35	0.3664	0.3631	0.3428
		1@47	23.69	23.66	23.43	25.62	25.59	25.36	0.3648	0.3622	0.3436
	15	1@0	23.68	23.73	23.79	25.61	25.66	25.72	0.3639	0.3681	0.3733
		1@11	23.58	23.66	23.8	25.51	25.59	25.73	0.3556	0.3622	0.3741
QPSK	3.75	1@0	23.72	23.63	23.42	25.65	25.56	25.35	0.3673	0.3597	0.3428
		1@47	23.68	23.63	23.4	25.61	25.56	25.33	0.3639	0.3597	0.3412
	15	1@0	23.48	23.58	23.63	25.41	25.51	25.56	0.3475	0.3556	0.3597
		1@11	23.65	23.61	23.85	25.58	25.54	25.78	0.3614	0.3581	0.3784
	15	12@0	21.86	21.92	22.04	23.79	23.85	23.97	0.2393	0.2427	0.2495

NB-IoT Band 66	Sub-carrier spacing(KHz)	Ntones	Maximum Output Power(dBm)			EIRP power(dBm)			EIRP (W)		
			131974/ 1710.2 MHz	132322/ 1745 MHz	132670/ 1779.8 MHz	131974/ 1710.2 MHz	132322/ 1745 MHz	132670/ 1779.8 MHz	131974/ 1710.2 MHz	132322/ 1745 MHz	132670/ 1779.8 MHz
BPSK	3.75	1@0	23.28	23.5	23.67	26.05	26.27	26.44	0.4027	0.4236	0.4406
		1@47	23.32	23.52	23.68	26.09	26.29	26.45	0.4064	0.4256	0.4416
	15	1@0	23.44	23.49	23.5	26.21	26.26	26.27	0.4178	0.4227	0.4236
		1@11	23.47	23.6	23.58	26.24	26.37	26.35	0.4207	0.4335	0.4315
QPSK	3.75	1@0	23.31	23.51	23.63	26.08	26.28	26.4	0.4055	0.4246	0.4365
		1@47	23.26	23.44	23.64	26.03	26.21	26.41	0.4009	0.4178	0.4375
	15	1@0	23.39	23.34	23.45	26.16	26.11	26.22	0.4130	0.4083	0.4188
		1@11	23.48	23.48	23.56	26.25	26.25	26.33	0.4217	0.4217	0.4295
	15	12@0	21.96	21.68	21.73	24.73	24.45	24.5	0.2972	0.2786	0.2818

Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

Test Engineer :	Chris Chen	Temperature :	23~25℃
		Relative Humidity :	41~42%

LTE Category M1:

LTE Band 2 / 20MHz / QPSK								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3735	-57.08	-13	-44.08	-69.34	2.64	14.90	H
	5610	-53.87	-13	-40.87	-65.73	2.94	14.80	H
	7485	-52.80	-13	-39.80	-62.57	3.39	13.16	H
	3735	-57.51	-13	-44.51	-69.77	2.64	14.90	V
	5610	-52.57	-13	-39.57	-64.43	2.94	14.80	V
	7485	-52.66	-13	-39.66	-62.43	3.39	13.16	V

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

LTE Band 12 / 10MHz / QPSK								
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1408	-64.02	-13	-51.02	-70.99	1.58	10.70	H
	2112	-46.90	-13	-33.90	-55.15	2.102	12.50	H
	2808	-58.18	-13	-45.18	-67.07	2.856	13.90	H
	3512	-57.84	-13	-44.84	-65.60	3.093	13.00	H
	1408	-61.67	-13	-48.67	-68.64	1.58	10.70	V
	2112	-46.61	-13	-33.61	-54.86	2.10	12.50	V
	2808	-57.53	-13	-44.53	-66.42	2.86	13.90	V
	3512	-55.26	-13	-42.26	-63.02	3.09	13.00	V

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

LTE Band 13 / 5MHz / QPSK								
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1560	-57.83	-42.15	-15.68	-60.46	1.09	5.87	H
	2336	-52.54	-13	-39.54	-54.94	1.37	5.92	H
	3120	-58.31	-13	-45.31	-62.20	1.64	7.68	H
	1560	-58.61	-42.15	-16.46	-61.24	1.09	5.87	V
	2336	-51.38	-13	-38.38	-53.78	1.37	5.92	V
	3120	-58.01	-13	-45.01	-61.90	1.64	7.68	V

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

LTE Band 13 / 10MHz / QPSK								
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1552	-59.11	-13	-46.11	-61.74	1.09	5.87	H
	2336	-52.58	-13	-39.58	-54.98	1.37	5.92	H
	3112	-58.33	-13	-45.33	-62.22	1.64	7.68	H
	1552	-59.51	-13	-46.51	-62.14	1.09	5.87	V
	2336	-51.74	-13	-38.74	-54.14	1.37	5.92	V
	3112	-57.96	-13	-44.96	-61.85	1.64	7.68	V

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

LTE Band 25 / 20MHz / QPSK								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3750	-57.05	-13	-44.05	-69.31	2.64	14.90	H
	5620	-56.00	-13	-43.00	-67.86	2.94	14.80	H
	7494	-52.98	-13	-39.98	-62.75	3.39	13.16	H
	3747	-56.67	-13	-43.67	-68.93	2.64	14.90	V
	5620	-56.37	-13	-43.37	-68.23	2.94	14.80	V
	7500	-52.96	-13	-39.96	-62.73	3.39	13.16	V

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

LTE Band 26 / 15MHz / QPSK								
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1656	-56.37	-13	-43.37	-63.34	1.58	10.70	H
	2488	-39.75	-13	-26.75	-48.00	2.102	12.50	H
	3320	-58.83	-13	-45.83	-67.72	2.856	13.90	H
	1656	-51.36	-13	-38.36	-58.33	1.58	10.70	V
	2488	-40.74	-13	-27.74	-48.99	2.10	12.50	V
	3320	-58.73	-13	-45.73	-67.62	2.86	13.90	V

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

LTE Band 66 / 20MHz / QPSK								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3480	-46.14	-13	-33.14	-56.88	2.604	13.34	H
	5205	-52.50	-13	-39.50	-63.01	3.011	13.52	H
	6945	-54.54	-13	-41.54	-64.74	3.271	13.47	H
	3480	-49.70	-13	-36.70	-60.44	2.604	13.34	V
	5205	-54.60	-13	-41.60	-65.11	3.011	13.52	V
	6945	-54.11	-13	-41.11	-64.31	3.271	13.47	V

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

NB-IOT Category NB1:

LTE Band 2 / QPSK								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3765	-55.24	-13	-42.24	-67.50	2.64	14.90	H
	5640	-55.09	-13	-42.09	-66.95	2.94	14.80	H
	7515	-50.25	-13	-37.25	-60.02	3.39	13.16	H
	3765	-55.00	-13	-42.00	-67.26	2.64	14.90	V
	5640	-56.69	-13	-43.69	-68.55	2.94	14.80	V
	7515	-53.74	-13	-40.74	-63.51	3.39	13.16	V

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

LTE Band 5 / QPSK								
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1672	-59.40	-13	-46.40	-66.37	1.58	10.70	H
	2504	-58.98	-13	-45.98	-67.23	2.102	12.50	H
	3336	-59.50	-13	-46.50	-68.39	2.856	13.90	H
	1672	-58.02	-13	-45.02	-64.99	1.58	10.70	V
	2504	-58.40	-13	-45.40	-66.65	2.10	12.50	V
	3336	-59.42	-13	-46.42	-68.31	2.86	13.90	V

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

LTE Band 12 / QPSK								
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1416	-67.65	-13	-54.65	-74.62	1.58	10.70	H
	2120	-66.54	-13	-53.54	-74.79	2.102	12.50	H
	2824	-69.32	-13	-56.32	-78.21	2.856	13.90	H
	1416	-65.35	-13	-52.35	-72.32	1.58	10.70	V
	2120	-68.00	-13	-55.00	-76.25	2.10	12.50	V
	2824	-69.17	-13	-56.17	-78.06	2.86	13.90	V

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

LTE Band 13 / QPSK								
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1560	-71.61	-42.15	-29.46	-74.24	1.09	5.87	H
	2336	-70.18	-13	-57.18	-72.58	1.37	5.92	H
	3120	-68.64	-13	-55.64	-72.53	1.64	7.68	H
	1560	-67.74	-42.15	-25.59	-70.37	1.09	5.87	V
	2336	-69.92	-13	-56.92	-72.32	1.37	5.92	V
	3120	-68.75	-13	-55.75	-72.64	1.64	7.68	V

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

LTE Band 25 / QPSK								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3765	-53.67	-13	-40.67	-65.93	2.64	14.90	H
	5640	-52.55	-13	-39.55	-64.41	2.94	14.80	H
	7530	-50.80	-13	-37.80	-60.57	3.39	13.16	H
	3765	-52.16	-13	-39.16	-64.42	2.64	14.90	V
	5640	-52.61	-13	-39.61	-64.47	2.94	14.80	V
	7530	-52.96	-13	-39.96	-62.73	3.39	13.16	V

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

LTE Band 66 / QPSK								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3495	-51.55	-13	-38.55	-62.29	2.604	13.34	H
	5235	-58.94	-13	-45.94	-69.45	3.011	13.52	H
	6975	-56.44	-13	-43.44	-66.64	3.271	13.47	H
	3495	-53.13	-13	-40.13	-63.87	2.604	13.34	V
	5235	-60.79	-13	-47.79	-71.30	3.011	13.52	V
	6975	-57.00	-13	-44.00	-67.20	3.271	13.47	V

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