



FCC RF Test Report

APPLICANT : Locus Solutions,LLC
EQUIPMENT : GO Tracker 1.5
BRAND NAME : Emerson
MODEL NAME : GO Tracker 1.5
FCC ID : AMH101011
STANDARD : 47 CFR Part 2, and 90(S)
CLASSIFICATION : PCS Licensed Transmitter (PCB)

The product was installed a module during the test: Quectel BG96 Module (Model name: BG96, FCC ID: XMR201707BG96).

The product was received on Nov. 12, 2019 and completely tested on Dec. 10, 2019. We, Sporton International (ShenZhen) Inc., 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 (ShenZhen) Inc., the test report shall not be reproduced except in full.

Reviewed by: Derreck Chen / Supervisor

Approved by: Eric Shih / Manager



Sporton International (ShenZhen) Inc.

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FW9N1204	Rev. 01	Initial issue of report	Jan. 08, 2020



SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	§2.1046	Conducted Output Power	Reporting only	PASS	-
-	§2.1049 §90.209	Occupied Bandwidth and 26dB Bandwidth	Reporting only	PASS	1
-	§2.1051 §90.691	Emission masks – In-band emissions	$< 50+10\log_{10}(P[\text{Watts}])$	PASS	1
-	§2.1051 §90.691	Emission masks – Out of band emissions	$< 43+10\log_{10}(P[\text{Watts}])$	PASS	1
3.2	§2.1053 §90.691	Field Strength of Spurious Radiation	$< 43+10\log_{10}(P[\text{Watts}])$	PASS	Under limit 44.12 dB at 2450.250 MHz
-	§2.1055 §90.213	Frequency Stability for Temperature & Voltage	$< 2.5 \text{ ppm}$	PASS	1

Remark 1: For LTE Category M1, the conducted test items were leverage from module RF report which can refer to Report No. "RXA1706-0199RF04R1", For NB-IOT Category NB1, the conducted test items were leverage from module RF report which can refer to Report No. "RXA1706-0199RF08"

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.



1 General Description

1.1 Applicant

Locus Solutions,LLC

7121 Fairway Dr. Suite #400 | Palm Beach Gardens, FL 33418 USA

1.2 Manufacturer

Queclink Wireless Solutions Co., Ltd.

3 Floor, Building 2, No.717 Yishan Road, Xuhui District, shanghai, China 200233

1.3 Feature of Equipment Under Test

Product Feature	
Equipment	GO Tracker 1.5
Brand Name	Emerson
Model Name	GO Tracker 1.5
FCC ID	AMH101011
EUT supports Radios application	GSM/LTE Category M1/NB-IOT Category NB1
IMEI Code	862061041481382 for Sample 1 862061041480590 for Sample 2
HW Version	V1.03
SW Version	R00A01V19
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. There are two types of EUT: sample 1 with a battery of 1800mAh capacity and sample 2 with a battery of 4000mAh capacity.

1.4 Product Specification of Equipment Under Test

Product Specification subjective to this standard	
Tx Frequency	LTE Category M1: 814.7 ~ 823.3 MHz NB-IOT Category NB1 : 814.1 MHz ~ 823.9 MHz
Rx Frequency	LTE Category M1: 859.7 ~ 868.3 MHz NB-IOT Category NB1 : 859.1 MHz ~ 868.9 MHz
Bandwidth	LTE Category M1: 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz NB-IOT Category NB1: 200KHz
Sub-carrier Spacing	NB-IOT Category NB1 : 3.75KHz / 15KHz
Maximum Output Power to Antenna	LTE Category M1: 22.72 dBm NB-IOT Category NB1 : 23.04 dBm
Antenna Gain	-5.51 dBi
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 Conducted Power

LTE Category M1

FCC Rule	System	Type of Modulation	BW	Frequency Tolerance (ppm)	Emission Designator	Maximum Conducted power(W)
Part 90S	LTE Band 26	QPSK	1.4 MHz	-	-	0.1816
Part 90S	LTE Band 26	16QAM	1.4 MHz	-	-	0.1854
Part 90S	LTE Band 26	QPSK	3 MHz	-	-	0.1811
Part 90S	LTE Band 26	16QAM	3 MHz	-	-	0.1778
Part 90S	LTE Band 26	QPSK	5 MHz	-	-	0.1828
Part 90S	LTE Band 26	16QAM	5 MHz	-	-	0.1795
Part 90S	LTE Band 26	QPSK	10 MHz	-	-	0.1734
Part 90S	LTE Band 26	16QAM	10 MHz	-	-	0.1824
Part 90S	LTE Band 26	QPSK	15 MHz	-	-	0.1871
Part 90S	LTE Band 26	16QAM	15 MHz	-	-	0.1858

NB-IOT Category NB1

FCC Rule	System	Type of Modulation	Sub-carrier Spacing	Frequency Tolerance (ppm)	Emission Designator	Maximum Conducted power(W)
Part 90S	LTE Band 26	BPSK	3.75 KHz	-	-	0.1786
Part 90S	LTE Band 26	QPSK	3.75 KHz	-	-	0.1795
Part 90S	LTE Band 26	BPSK	15 KHz	-	-	0.1995
Part 90S	LTE Band 26	QPSK	15 KHz	-	-	0.2014

1.7 Testing Site

Sporton International (Shenzhen) Inc. is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.01.

Test Firm	Sporton International (Shenzhen) Inc.		
Test Site Location	No. 3 Bldg the third floor of south, Shahe River west, Fengzeyuan Warehouse, Nanshan Shenzhen, 518055 People's Republic of China TEL: +86-755-33202398		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	03CH04-SZ	CN1256	421272

1.8 Test Software

Item	Site	Manufacture	Name	Version
1.	03CH04-SZ	AUDIX	E3	6.2009-8-24



1.9 Applied Standards

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

- ♦ 47 CFR Part 2, 90(S)
- ♦ ANSI C63.26-2015
- ♦ FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01
- ♦ FCC KDB 971168 D02 Misc Rev Approv License Devices v02r01

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

During all testing, EUT is in link mode with base station emulator at maximum power level. The spurious emission measurements were carried out in semi-anechoic chamber with 3-meter test range, and EUT is rotated on three test planes to find out the worst emission.

Frequency range investigated for radiated emission is 30 MHz to 10th harmonic

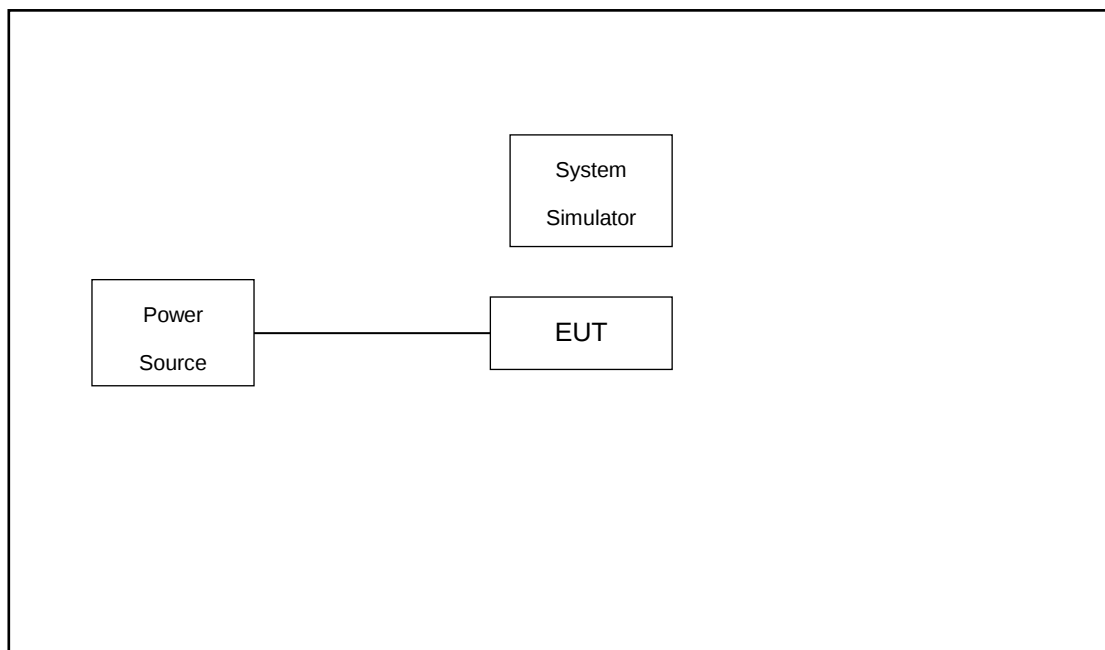
LTE Category M1:

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	26	v	v	v	v	v	-	v	v	v	v	v	v	v	v
Radiated Spurious Emission	26	v	v	v	v	v	-	v		v			v	v	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. LTE Band26 transmit frequency for part22 rule is 824MHz-849MHz, for part90 rule is 814MHz-824MHz. ERP over 15MHz bandwidth complies the ERP limit line of part22 rule, therefore ERP of the partial frequency spectrum which falls within part 22 also complies.														

NB-IOT Category NB:

Test Items	Band	Sub-carrier Spacing (KHz)		Modulation		Tones #			Test Channel		
		3.75	15	BPSK	QPSK	1	-	12	L	M	H
Max. Output Power	26	v	v	v	v	v	-	v	v	v	v
Radiated Spurious Emission	26	v	v	v	v	-	-	v	v	v	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. LTE Band26 transmit frequency for part22 rule is 824MHz-849MHz, for part90 rule is 814MHz-824MHz. ERP over 15MHz bandwidth complies the ERP limit line of part22 rule, therefore ERP of the partial frequency spectrum which falls within part 22 also complies.										

2.2 Connection Diagram of Test System



2.3 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	System Simulator	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m

2.4 Frequency List of Low/Middle/High Channels

LTE Category M1

LTE Band 26 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
15	Channel	26765	-	-
	Frequency	821.5	-	-
10	Channel	-	26740	-
	Frequency	-	819	-
5	Channel	26715	26740	26765
	Frequency	816.5	819	821.5
3	Channel	26705	26740	26775
	Frequency	815.5	819	822.5
1.4	Channel	26697	26740	26783
	Frequency	814.7	819	823.3

NB-IOT Category NB1

LTE Band 26 Channel and Frequency List				
Sub-carrier Spacing (KHz)	Channel/Frequency (MHz)	Lowest	Middle	Highest
3.75	Channel	26691	26740	26789
	Frequency	814.1	819	823.9
15	Channel	26691	26740	26789
	Frequency	814.1	819	823.9

3 Test Result

3.1 Conducted Output Power Measurement

3.1.1 Description of the Conducted Output Power Measurement

A system simulator was used to establish communication with the EUT. Its parameters were set to enforce EUT transmitting at the maximum power. The measured power in the radio frequency on the transmitter output terminals shall be reported.

3.1.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.1.3 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.

3.1.4 Test Setup



3.1.5 Test Result of Conducted Output Power

Please refer to Appendix A.

3.2 Field Strength of Spurious Radiation Measurement

3.2.1 Description of Field Strength of Spurious Radiated Measurement

The radiated spurious emission was measured by substitution method according to ANSI/TIA-603-E. The power of any emission FCC Part 90.691 on any frequency removed from the assigned frequency by more than 250 percent of the authorized bandwidth at least $43 + 10 \log (P)$ dB. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

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 $43 + 10 \log_{10}(P[\text{Watts}])$ dB. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

3.2.2 Measuring Instruments

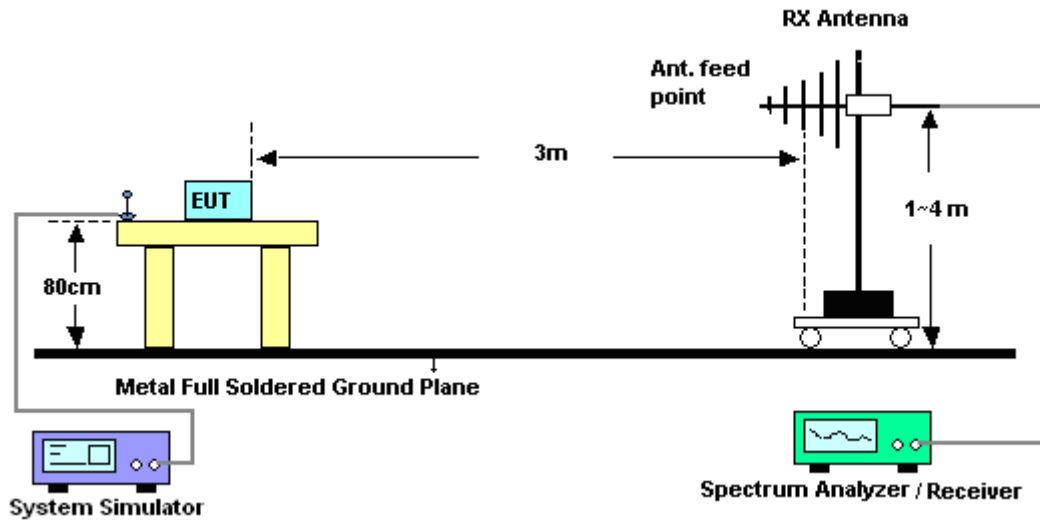
The measuring equipment is listed in the section 4 of this test report.

3.2.3 Test Procedures

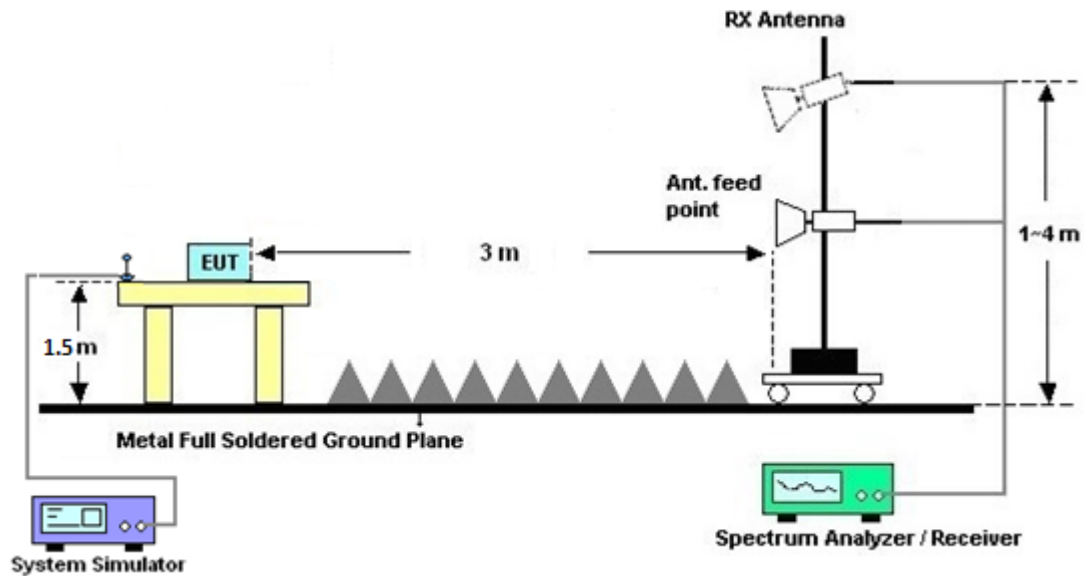
1. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
2. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
4. The height of the receiving antenna is varied between one meter and four meters to search the maximum spurious emission for both horizontal and vertical polarizations.
5. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, Sweep = 500ms, Taking the record of maximum spurious emission.
6. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
7. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
8. Taking the record of output power at antenna port.
9. Repeat step 7 to step 8 for another polarization.
10. $\text{EIRP (dBm)} = \text{S.G. Power} - \text{Tx Cable Loss} + \text{Tx Antenna Gain}$
11. $\text{ERP (dBm)} = \text{EIRP} - 2.15$
12. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
13. The limit line is derived from $43 + 10 \log(P)$ dB below the transmitter power P(Watts)

3.2.4 Test Setup

For radiated test from 30MHz to 1GHz



For radiated test above 1GHz



3.2.5 Test Result of Field Strength of Spurious Radiated

Please refer to Appendix B.



4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY55150213	10Hz~44GHz	Apr. 18, 2019	Dec. 10, 2019	Apr. 17, 2020	Radiation (03CH04-SZ)
Bilog Antenna	TeseQ	CBL6111D	41909	30MHz~1GHz	Aug. 27, 2019	Dec. 10, 2019	Aug. 26, 2020	Radiation (03CH04-SZ)
Double Ridge Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-1474	1GHz~18GHz	Apr. 01, 2019	Dec. 10, 2019	Mar. 31, 2020	Radiation (03CH04-SZ)
Horn Antenna	SCHWARZBECK	BBHA9170	9170#679	15GHz~40GHz	Apr. 19, 2019	Dec. 10, 2019	Apr. 18, 2020	Radiation (03CH04-SZ)
Amplifier	Burgeon	BPA-530	102211	0.01Hz~3000MHz	Oct. 18, 2019	Dec. 10, 2019	Oct. 17, 2020	Radiation (03CH04-SZ)
HF Amplifier	MITEQ	AMF-7D-00101800-30-10P-R	1943528	1GHz~18GHz	Oct. 18, 2019	Dec. 10, 2019	Oct. 17, 2020	Radiation (03CH04-SZ)
HF Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz	Jul. 22, 2019	Dec. 10, 2019	Jul. 21, 2020	Radiation (03CH04-SZ)
Amplifier	Agilent Technologies	83017A	MY53270156	500MHz~26.5GHz	Aug. 26, 2019	Dec. 10, 2019	Aug. 25, 2020	Radiation (03CH04-SZ)
AC Power Source	Chroma	61601	N/A	N/A	NCR	Dec. 10, 2019	NCR	Radiation (03CH04-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Dec. 10, 2019	NCR	Radiation (03CH04-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Dec. 10, 2019	NCR	Radiation (03CH04-SZ)

NCR: No Calibration Required

5 Uncertainty of Evaluation

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 Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	2.8dB
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Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.1dB
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Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.9dB
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Appendix A. Test Results of Conducted Test

Conducted Output Power (Average power)

LTE Category M1

LTE Band 26 Maximum Average Power [dBm]									
BW [MHz]	Mod	RB Size	RB Offset	Index			Lowest	Middle	Highest
				L	M	H			
15	QPSK	1	0	0	0	11	22.45	-	-
15		1	5	0	0	11	22.39		
15		6	0	0	0	11	22.72		
15	16-QAM	1	0	0	0	11	22.50		
15		1	5	0	0	11	22.39		
15		6	0	0	0	11	22.69		
10	QPSK	1	0	0	0	7		22.28	
10		1	5	0	0	7		22.19	
10		6	0	0	0	7		22.39	
10	16-QAM	1	0	0	0	7		22.45	
10		1	5	0	0	7		22.25	
10		6	0	0	0	7		22.61	
5	QPSK	1	0	0	0	3	22.54	22.26	22.62
5		1	5	0	0	3	22.24	22.19	22.57
5		6	0	0	0	3	22.48	22.29	22.43
5	16-QAM	1	0	0	0	3	22.54	21.08	21.66
5		1	5	0	0	3	22.33	21.32	21.55
5		6	0	0	0	3	22.51	21.94	22.20



LTE Band 26 Maximum Average Power [dBm]									
BW [MHz]	Mod	RB Size	RB Offset	Index			Lowest	Middle	Highest
				L	M	H			
3	QPSK	1	0	0	0	1	22.24	22.48	22.55
3		1	5	0	0	1	22.23	22.23	22.46
3		6	0	0	0	1	22.52	22.58	22.40
3	16-QAM	1	0	0	0	1	22.28	21.42	21.34
3		1	5	0	0	1	22.37	21.18	21.39
3		6	0	0	0	1	22.50	21.94	22.44
1.4	QPSK	1	0	0	0	0	22.23	22.38	22.59
1.4		1	5	0	0	0	22.47	22.47	22.56
1.4		6	0	0	0	0	22.53	22.52	22.45
1.4	16-QAM	1	0	0	0	0	22.30	21.35	21.36
1.4		1	5	0	0	0	22.32	21.28	21.45
1.4		6	0	0	0	0	22.68	22.16	22.46

NB-IOT Category NB1:

LTE Band 26 Maximum Average Power [dBm]						
Sub-carrier Spacing (KHz)	Mod	Tones	Start	Lowest	Middle	Highest
3.75	BPSK	1	0	22.49	22.49	22.32
3.75		1	47	22.46	22.52	22.35
3.75	QPSK	1	0	22.41	22.50	22.37
3.75		1	47	22.47	22.54	22.43
15	BPSK	1	0	22.82	23.00	22.69
15		1	11	22.84	22.96	22.71
15	QPSK	1	0	22.99	23.01	22.86
15		1	11	22.87	22.98	22.74
15		12	0	23.02	23.04	22.89



Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

Sample 1:

LTE Category M1

LTE Band 26 / 1.4MHz / QPSK									
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	1628.14	-63.56	-13	-50.56	-72.90	-66.81	4.00	9.40	H
	2442.21	-60.64	-13	-47.64	-74.08	-64.21	4.88	10.60	H
	3256.28	-60.39	-13	-47.39	-76.01	-65.32	5.52	12.60	H
	1628.14	-64.58	-13	-51.58	-73.40	-67.83	4.00	9.40	V
	2442.21	-59.32	-13	-46.32	-72.53	-62.89	4.88	10.60	V
	3256.28	-61.84	-13	-48.84	-77.11	-66.77	5.52	12.60	V
Middle	1636.74	-63.53	-13	-50.53	-72.87	-66.78	4.00	9.40	H
	2455.11	-58.55	-13	-45.55	-71.97	-62.12	4.88	10.60	H
	3273.48	-60.91	-13	-47.91	-76.50	-65.84	5.52	12.60	H
	1636.74	-63.69	-13	-50.69	-72.51	-66.94	4.00	9.40	V
	2455.11	-58.73	-13	-45.73	-71.94	-62.30	4.88	10.60	V
	3273.48	-60.90	-13	-47.90	-76.12	-65.83	5.52	12.60	V
Highest	1645.34	-63.64	-13	-50.64	-73.16	-66.89	4.00	9.40	H
	2468.01	-61.04	-13	-48.04	-74.47	-64.61	4.88	10.60	H
	3290.68	-60.72	-13	-47.72	-76.27	-65.65	5.52	12.60	H
	1645.34	-64.17	-13	-51.17	-73.17	-67.42	4.00	9.40	V
	2468.01	-60.05	-13	-47.05	-73.27	-63.62	4.88	10.60	V
	3290.68	-61.55	-13	-48.55	-76.71	-66.48	5.52	12.60	V

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



LTE Band 26 / 3MHz / QPSK									
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	1628.3	-63.87	-13	-50.87	-73.21	-67.12	4.00	9.40	H
	2442.45	-60.74	-13	-47.74	-74.18	-64.31	4.88	10.60	H
	3256.6	-61.13	-13	-48.13	-76.75	-66.06	5.52	12.60	H
	1628.3	-64.70	-13	-51.70	-73.52	-67.95	4.00	9.40	V
	2442.45	-59.35	-13	-46.35	-72.56	-62.92	4.88	10.60	V
	3256.6	-61.72	-13	-48.72	-76.99	-66.65	5.52	12.60	V
Middle	1635.3	-63.90	-13	-50.90	-73.24	-67.15	4.00	9.40	H
	2452.95	-60.16	-13	-47.16	-73.60	-63.73	4.88	10.60	H
	3270.6	-61.04	-13	-48.04	-76.63	-65.97	5.52	12.60	H
	1635.3	-64.36	-13	-51.36	-73.18	-67.61	4.00	9.40	V
	2452.95	-59.39	-13	-46.39	-72.60	-62.96	4.88	10.60	V
	3270.6	-61.45	-13	-48.45	-76.67	-66.38	5.52	12.60	V
Highest	1642.3	-63.90	-13	-50.90	-73.42	-67.15	4.00	9.40	H
	2463.45	-60.29	-13	-47.29	-73.71	-63.86	4.88	10.60	H
	3284.6	-59.77	-13	-46.77	-75.37	-64.70	5.52	12.60	H
	1642.3	-64.36	-13	-51.36	-73.36	-67.61	4.00	9.40	V
	2463.45	-60.16	-13	-47.16	-73.37	-63.73	4.88	10.60	V
	3284.6	-61.45	-13	-48.45	-76.68	-66.38	5.52	12.60	V

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



LTE Band 26 / 5MHz / QPSK									
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	1628.5	-64.02	-13	-51.02	-73.36	-67.27	4.00	9.40	H
	2442.75	-59.70	-13	-46.70	-73.14	-63.27	4.88	10.60	H
	3257	-61.52	-13	-48.52	-77.15	-66.45	5.52	12.60	H
	1628.5	-64.77	-13	-51.77	-73.59	-68.02	4.00	9.40	V
	2442.75	-60.08	-13	-47.08	-73.29	-63.65	4.88	10.60	V
	3257	-61.66	-13	-48.66	-76.94	-66.59	5.52	12.60	V
Middle	1633.5	-64.14	-13	-51.14	-73.48	-67.39	4.00	9.40	H
	2450.25	-60.03	-13	-47.03	-73.47	-63.60	4.88	10.60	H
	3267	-61.25	-13	-48.25	-76.88	-66.18	5.52	12.60	H
	1633.5	-64.67	-13	-51.67	-73.49	-67.92	4.00	9.40	V
	2450.25	-57.12	-13	-44.12	-70.33	-60.69	4.88	10.60	V
	3267	-61.78	-13	-48.78	-77.06	-66.71	5.52	12.60	V
Highest	1638.5	-64.12	-13	-51.12	-73.64	-67.37	4.00	9.40	H
	2457.75	-61.14	-13	-48.14	-74.56	-64.71	4.88	10.60	H
	3277	-61.13	-13	-48.13	-76.72	-66.06	5.52	12.60	H
	1638.5	-64.37	-13	-51.37	-73.37	-67.62	4.00	9.40	V
	2457.75	-60.58	-13	-47.58	-73.79	-64.15	4.88	10.60	V
	3277	-61.80	-13	-48.80	-77.02	-66.73	5.52	12.60	V

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

LTE Band 26 / 10MHz / QPSK									
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)
Middle	1629	-64.22	-13	-51.22	-73.56	-67.47	4.00	9.40	H
	2443.5	-60.95	-13	-47.95	-74.39	-64.52	4.88	10.60	H
	3258	-61.23	-13	-48.23	-76.86	-66.16	5.52	12.60	H
	1629	-64.73	-13	-51.73	-73.55	-67.98	4.00	9.40	V
	2443.5	-59.39	-13	-46.39	-72.60	-62.96	4.88	10.60	V
	3258	-61.72	-13	-48.72	-77.00	-66.65	5.52	12.60	V

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



Sample 2:

NB-IOT Category NB1

Band 26 / 15KHz / QPSK

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	1670.36	-64.75	-13	-51.75	-74.47	-68.00	4.00	9.40	H
	2505.54	-59.86	-13	-46.86	-73.26	-63.43	4.88	10.60	H
	3340.76	-62.54	-13	-49.54	-77.98	-67.47	5.52	12.60	H
	1670.36	-65.21	-13	-52.21	-74.42	-68.46	4.00	9.40	V
	2505.54	-58.39	-13	-45.39	-71.62	-61.96	4.88	10.60	V
	3340.76	-62.68	-13	-49.68	-77.68	-67.61	5.52	12.60	V
Middle	1675.16	-63.44	-13	-50.44	-73.34	-66.69	4.00	9.40	H
	2512.74	-61.87	-13	-48.87	-75.27	-65.44	4.88	10.60	H
	3350.32	-61.96	-13	-48.96	-77.40	-66.89	5.52	12.60	H
	1675.16	-64.59	-13	-51.59	-73.98	-67.84	4.00	9.40	V
	2512.74	-60.85	-13	-47.85	-74.08	-64.42	4.88	10.60	V
	3350.32	-62.53	-13	-49.53	-77.53	-67.46	5.52	12.60	V
Highest	1699.96	-63.98	-13	-50.98	-74.06	-67.23	4.00	9.40	H
	2549.94	-59.03	-13	-46.03	-72.45	-62.60	4.88	10.60	H
	3399.92	-63.39	-13	-50.39	-78.00	-68.32	5.52	12.60	H
	1699.96	-64.52	-13	-51.52	-74.10	-67.77	4.00	9.40	V
	2549.94	-57.09	-13	-44.09	-70.25	-60.66	4.88	10.60	V
	3399.92	-64.04	-13	-51.04	-78.14	-68.97	5.52	12.60	V

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