

FCC RADIO TEST REPORT

FCC ID : QYLWP7610BC03
Equipment : WWAN Module
Brand Name : Getac
Model Name : WP7610
Applicant : Getac Technology Corporation.
5F., Building A, No. 209, Sec.1, Nangang
Rd., Nangang Dist., Taipei City 11568,
Taiwan, R.O.C.
Standard : 47 CFR Part 2, 22(H), 24(E), 27

The product was received on Dec. 10, 2019 and testing was started from Jan. 24, 2020 and completed on Feb. 06, 2020. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI / TIA-603-E and has been in compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this partial report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



Table of Contents

History of this test report.....	3
Summary of Test Result.....	4
1 General Description	5
1.1 Product Feature of Equipment Under Test.....	5
1.2 Modification of EUT	5
1.3 Testing Location	5
1.4 Applicable Standards.....	5
2 Test Configuration of Equipment Under Test	6
2.1 Test Mode.....	6
2.2 Connection Diagram of Test System.....	7
2.3 Support Unit used in test configuration and system	7
2.4 Frequency List of Low/Middle/High Channels	8
3 Conducted Test Items.....	11
3.1 Measuring Instruments	11
3.2 Conducted Output Power and ERP/EIRP	12
4 Radiated Test Items	13
4.1 Measuring Instruments	13
4.2 Radiated Spurious Emission Measurement	14
5 List of Measuring Equipment.....	15
6 Uncertainty of Evaluation.....	16
Appendix A. Test Results of Conducted Test	
Appendix B. Test Results of ERP/EIRP and Radiated Test	
Appendix C. Test Setup Photographs	



History of this test report

Report No.	Version	Description	Issued Date
FG9D1046B	01	Initial issue of report	Feb. 12, 2020
FG9D1046B	02	Correct the FCC ID	Feb. 13, 2020



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)
3.2	§2.1046	Conducted Output Power	Reporting only
	§22.913 (a)(2)	Effective Radiated Power (Band 5)	Pass
	§27.50 (b)(10) §27.50 (c)(10)	Effective Radiated Power (Band 12) (Band 13) (Band 17)	
	§24.232 (c)	Equivalent Isotropic Radiated Power (Band 2)	
	§27.50 (d)(4)	Equivalent Isotropic Radiated Power (Band 4) (Band 66)	
4.2	§2.1053 §24.238 (a)	Radiated Spurious Emission (Band 2)	Pass

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.

Reviewed by: Wii Chang

Report Producer: Yimin Ho



1 General Description

1.1 Product Feature of Equipment Under Test

WCDMA and LTE

Product Specification subjective to this standard	
Integrated into Host	Equipment Name: Body Worn Camera
	Brand Name: Getac
	Model Name: BC-03
Antenna Type	PIFA Antenna

1.2 Modification of EUT

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

1.3 Testing Location

Test Site	SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory	
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978	
Test Site No.	Sporton Site No.	
	TH05-HY	03CH07-HY
Test Engineer	Benjamin Lin	Ken Wu
Temperature	23~25°C	20~24°C
Relative Humidity	51~55%	48~58%

Note: The test site complies with ANSI C63.4 2014 requirement.

FCC Designation No.: TW1190

1.4 Applicable Standards

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

- ♦ ANSI C63.26-2015
- ♦ ANSI / TIA-603-E
- ♦ 47 CFR Part 2, 22(H), 24(E), 27
- ♦ 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

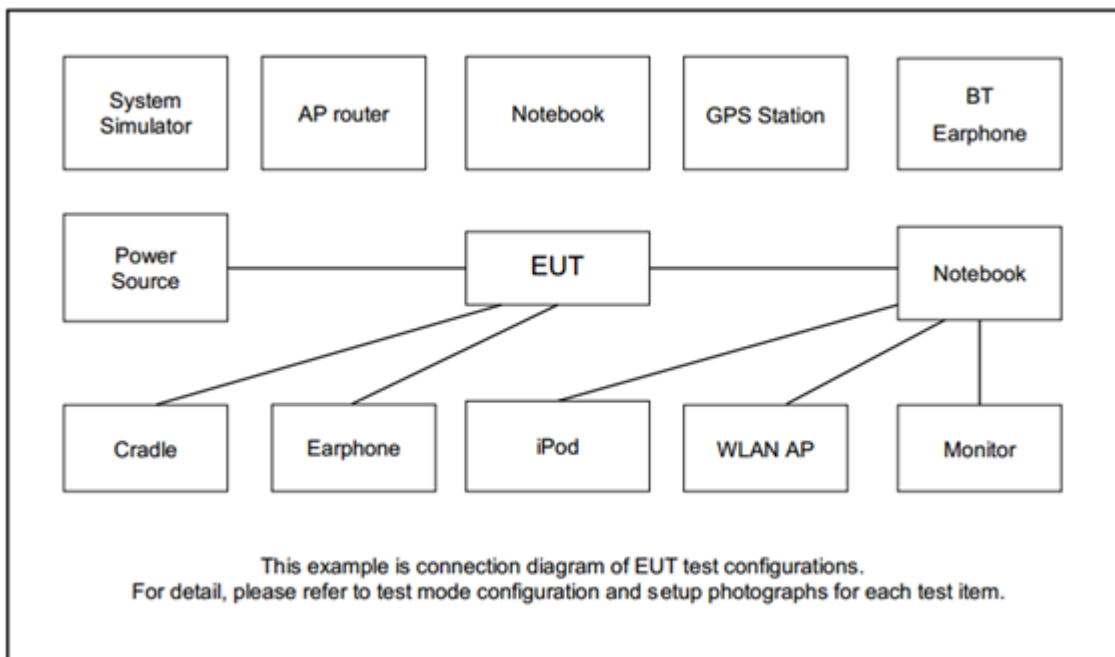
Antenna port conducted and radiated test items listed below are performed according to KDB 971168

D01 Power Meas. License Digital Systems v03r01 with maximum output power.

For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (X plane) were recorded in this report.

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	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
	17	-	-	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
	4	v	v	v	v	v	v	v	v	v			v	v	v
	5	v	v	v	v	-	-	v	v	v			v	v	v
	12	v	v	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
	66	v	v	v	v	v	v	v	v	v			v	v	v
Radiated Spurious Emission	2	Worst Case											v		
Remark	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



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	MT8821C	N/A	N/A	Unshielded, 1.8 m

2.4 Frequency List of Low/Middle/High Channels

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 17 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
10	Channel	23780	23790	23800
	Frequency	709	710	711
5	Channel	23755	23790	23825
	Frequency	706.5	710	713.5



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

3 Conducted Test Items

3.1 Measuring Instruments

See list of measuring instruments of this test report.

3.1.1 Test Setup

3.1.2 Conducted Output Power



3.1.3 Test Result of Conducted Test

Please refer to Appendix A.

3.2 Conducted Output Power and ERP/EIRP

3.2.1 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

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

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

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

3.2.2 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.

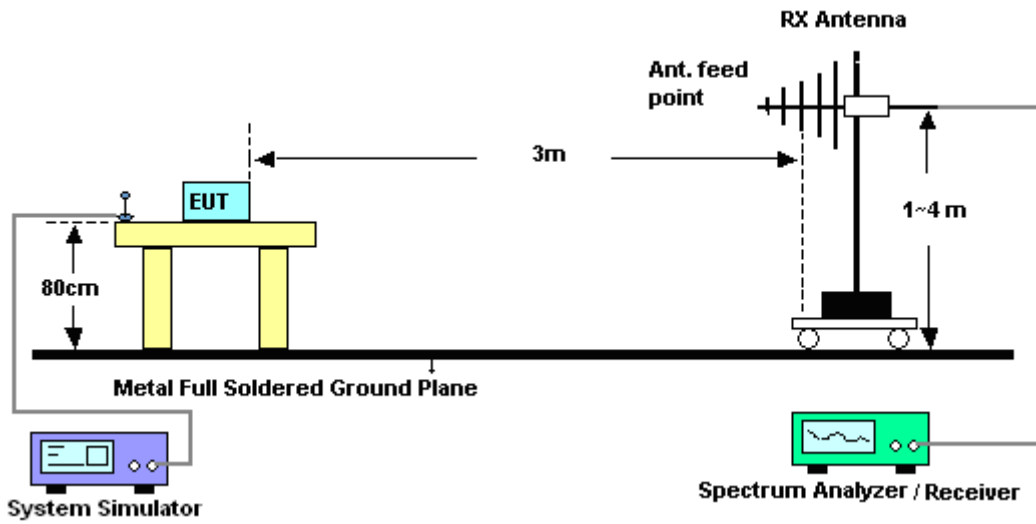
4 Radiated Test Items

4.1 Measuring Instruments

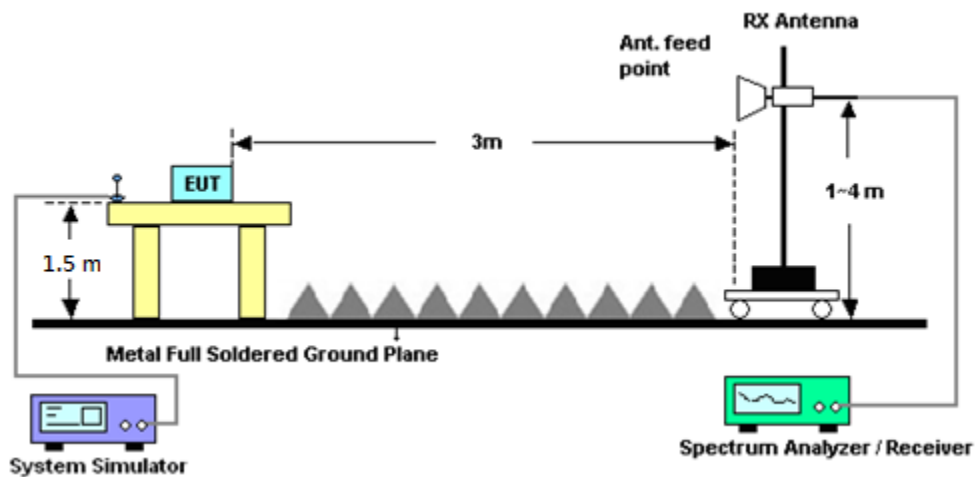
See list of measuring instruments of this test report.

4.1.1 Test Setup

For radiated test from 30MHz to 1GHz



For radiated test above 1GHz



4.1.2 Test Result of Radiated Test

Please refer to Appendix B.

4.2 Radiated Spurious Emission Measurement

4.2.1 Description of Radiated Spurious Emission Measurement

The radiated spurious emission was measured by substitution method according to ANSI / TIA-603-E. 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. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

4.2.2 Test Procedures

The testing follows FCC KDB 971168 D01 v03r01 Section 7 and ANSI / TIA-603-E Section 2.2.12.

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, 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. 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)

$EIRP \text{ (dBm)} = S.G. \text{ Power} - Tx \text{ Cable Loss} + Tx \text{ Antenna Gain}$

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



5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Bilog Antenna	TESEQ	CBL 6111D & 00800N1D01N-06	35419 & 03	30MHz~1GHz	Apr. 30, 2019	Jan. 24, 2020~Feb. 06, 2020	Apr. 29, 2020	Radiation (03CH07-HY)
Bilog Antenna	TESEQ	CBL 6111D & N-6-06	35414 & AT-N0602	30MHz~1GHz	Oct. 12, 2019	Jan. 24, 2020~Feb. 06, 2020	Oct. 11, 2020	Radiation (03CH07-HY)
Double Ridge Horn Antenna	ESCO	3117	00075962	1GHz ~ 18GHz	Dec. 06, 2019	Jan. 24, 2020~Feb. 06, 2020	Dec. 05, 2020	Radiation (03CH07-HY)
Horn Antenna	ESCO	3117	00066584	1GHz ~18GHz	Sep. 25, 2019	Jan. 24, 2020~Feb. 06, 2020	Sep. 24, 2020	Radiation (03CH07-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170576	18GHz~40GHz	May 14, 2019	Jan. 24, 2020~Feb. 06, 2020	May 13, 2020	Radiation (03CH07-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170251	18GHz~40GHz	Dec. 06, 2019	Jan. 24, 2020~Feb. 06, 2020	Dec. 06, 2020	Radiation (03CH07-HY)
Spectrum Analyzer	Agilent	N9030A	MY52350276	3Hz~44GHz	Apr. 02, 2019	Jan. 24, 2020~Feb. 06, 2020	Apr. 01, 2020	Radiation (03CH07-HY)
Spectrum Analyzer	Keysight	N9010A	MY54200486	10Hz~44GHz	Oct. 28, 2019	Jan. 24, 2020~Feb. 06, 2020	Oct. 27, 2020	Radiation (03CH07-HY)
Preamplifier	MITEQ	AMF-7D-0010 1800-30-10P	1590075	1GHz~18GHz	Apr. 24, 2019	Jan. 24, 2020~Feb. 06, 2020	Apr. 23, 2020	Radiation (03CH07-HY)
Preamplifier	COM-POWER	PA-103A	161241	10MHz~1GHz	May 20, 2019	Jan. 24, 2020~Feb. 06, 2020	May 19, 2020	Radiation (03CH07-HY)
Preamplifier	Agilent	8449B	3008A02362	1GHz~26.5GHz	Nov. 01, 2019	Jan. 24, 2020~Feb. 06, 2020	Oct. 31, 2020	Radiation (03CH07-HY)
Preamplifier	EMEC	EM18G40G	060715	18GHz~40GHz	Dec. 13, 2019	Jan. 24, 2020~Feb. 06, 2020	Dec. 12, 2020	Radiation (03CH07-HY)
Filter	Microwave	H1G013G1	SN477215	1GHz High Pass Filter	Nov. 01, 2019	Jan. 24, 2020~Feb. 06, 2020	Oct. 31, 2020	Radiation (03CH07-HY)
Filter	Microwave	H3G018G1	SN477220	3GHz High Pass Filter	Nov. 01, 2019	Jan. 24, 2020~Feb. 06, 2020	Oct. 31, 2020	Radiation (03CH07-HY)
Filter	Wainwright	WHNX7.0-26.5 G-6SS	SN7	7GHz High Pass Filter	Aug. 22, 2019	Jan. 24, 2020~Feb. 06, 2020	Aug. 21, 2020	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY28655/4, MY24971/4, MY15682/4	30MHz~1GHz	Feb. 26, 2019	Jan. 24, 2020~Feb. 06, 2020	Feb. 25, 2020	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY28655/4, MY24971/4, MY15682/4	1GHz~18GHz	Feb. 26, 2019	Jan. 24, 2020~Feb. 06, 2020	Feb. 25, 2020	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY2858/2	18GHz~40GHz	Feb. 26, 2019	Jan. 24, 2020~Feb. 06, 2020	Feb. 25, 2020	Radiation (03CH07-HY)
Antenna Mast	Max-Full	MFA520BS	N/A	1m~4m	N/A	Jan. 24, 2020~Feb. 06, 2020	N/A	Radiation (03CH07-HY)
Turn Table	ChainTek	Chaintek 3000	N/A	0~360 Degree	N/A	Jan. 24, 2020~Feb. 06, 2020	N/A	Radiation (03CH07-HY)
Signal Generator	Rohde & Schwarz	SMF100A	101107	100kHz~40GHz	Aug. 27, 2019	Jan. 24, 2020~Feb. 06, 2020	Aug. 26, 2020	Radiation (03CH07-HY)
Software	Audix	E3 6.2009-8-24	80504004656 H	N/A	N/A	Jan. 24, 2020~Feb. 06, 2020	N/A	Radiation (03CH07-HY)
Base Station (Measure)	Anritsu	MT8820C	6201107507	FDD/TDD/NB-IoT/Cat-M1/SEQ	Jun. 27, 2019	Feb. 04, 2020	Jun. 26, 2020	Conducted (TH05-HY)



6 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	3.23
---	------

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	3.63
---	------

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	4.70
---	------



Appendix A. Test Results of Conducted Test

Conducted Output Power(Average power)

LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	21.16	21.35	21.11
20	1	49		21.46	21.55	21.47
20	1	99		21.10	21.09	21.00
20	50	0		20.53	20.45	20.52
20	50	24		20.56	20.58	20.53
20	50	50		20.34	20.35	20.48
20	100	0		20.50	20.44	20.45
20	1	0	16-QAM	20.33	20.24	20.13
20	1	49		20.09	20.34	20.26
20	1	99		20.14	20.08	20.09
20	50	0		19.48	19.45	19.34
20	50	24		19.41	19.33	19.34
20	50	50		19.46	19.20	19.47
20	100	0		19.52	19.15	19.45
15	1	0	QPSK	21.08	21.28	21.12
15	1	37		21.15	21.40	21.34
15	1	74		21.14	21.15	21.05
15	36	0		20.32	20.19	20.41
15	36	20		20.34	20.20	20.30
15	36	39		20.22	20.29	20.32
15	75	0		20.40	20.31	20.43
15	1	0	16-QAM	20.17	20.21	20.03
15	1	37		20.05	20.15	20.09
15	1	74		20.03	20.05	20.02
15	36	0		19.27	19.11	19.29
15	36	20		19.24	19.27	19.23
15	36	39		19.20	19.15	19.27
15	75	0		19.33	19.23	19.43



LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	21.10	21.34	21.06
10	1	25		21.63	21.28	21.43
10	1	49		21.09	21.02	21.02
10	25	0		20.46	20.43	20.42
10	25	12		20.41	20.32	20.52
10	25	25		20.26	20.29	20.39
10	50	0		20.46	20.42	20.43
10	1	0	16-QAM	20.32	20.18	20.04
10	1	25		20.01	20.30	20.19
10	1	49		20.10	20.08	20.02
10	25	0		19.42	19.40	19.33
10	25	12		19.31	19.28	19.25
10	25	25		19.43	19.11	19.38
10	50	0		19.47	19.10	19.39
5	1	0	QPSK	21.16	21.31	21.09
5	1	12		21.58	21.24	21.46
5	1	24		21.07	21.02	21.08
5	12	0		20.46	20.42	20.50
5	12	7		20.38	20.26	20.50
5	12	13		20.28	20.31	20.45
5	25	0		20.44	20.36	20.38
5	1	0	16-QAM	20.28	20.17	20.12
5	1	12		20.07	20.29	20.19
5	1	24		20.06	20.04	20.03
5	12	0		19.46	19.40	19.34
5	12	7		19.39	19.28	19.29
5	12	13		19.36	19.16	19.42
5	25	0		19.49	19.05	19.40



LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	21.12	21.28	21.07
3	1	8		21.56	21.26	21.46
3	1	14		21.05	21.09	21.03
3	8	0		20.45	20.40	20.45
3	8	4		20.38	20.34	20.51
3	8	7		20.27	20.35	20.44
3	15	0		20.49	20.35	20.39
3	1	0	16-QAM	20.30	20.14	20.04
3	1	8		20.19	20.32	20.25
3	1	14		20.13	20.05	20.02
3	8	0		19.40	19.41	19.26
3	8	4		19.35	19.30	19.32
3	8	7		19.37	19.14	19.43
3	15	0		19.48	19.14	19.37
1.4	1	0	QPSK	21.14	21.34	21.05
1.4	1	3		21.45	21.55	21.38
1.4	1	5		21.09	21.09	21.04
1.4	3	0		21.21	21.18	21.14
1.4	3	1		21.26	21.22	21.17
1.4	3	3		21.18	21.16	21.15
1.4	6	0		20.45	20.38	20.36
1.4	1	0	16-QAM	20.31	20.14	20.11
1.4	1	3		20.06	20.24	20.17
1.4	1	5		20.06	20.07	20.00
1.4	3	0		20.15	20.08	20.03
1.4	3	1		20.10	20.04	20.03
1.4	3	3		20.16	20.01	20.10
1.4	6	0		19.48	19.09	19.43



LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	21.10	21.12	21.12
20	1	49		21.54	21.59	21.48
20	1	99		21.10	21.02	21.06
20	50	0		20.32	20.43	20.48
20	50	24		20.41	20.51	20.50
20	50	50		20.37	20.37	20.22
20	100	0		20.30	20.30	20.34
20	1	0	16-QAM	20.12	20.16	20.22
20	1	49		20.15	20.07	20.05
20	1	99		20.11	20.13	20.15
20	50	0		19.27	19.32	19.33
20	50	24		19.33	19.42	19.14
20	50	50		19.26	19.26	19.18
20	100	0		19.27	19.32	19.25
15	1	0	QPSK	21.00	21.11	21.04
15	1	37		21.51	21.57	21.43
15	1	74		21.20	21.06	21.13
15	36	0		20.25	20.33	20.46
15	36	20		20.31	20.45	20.45
15	36	39		20.46	20.28	20.31
15	75	0		20.39	20.37	20.30
15	1	0	16-QAM	20.10	20.25	20.26
15	1	37		20.07	20.10	20.10
15	1	74		20.20	20.15	20.11
15	36	0		19.17	19.35	19.24
15	36	20		19.30	19.45	19.10
15	36	39		19.21	19.27	19.12
15	75	0		19.30	19.28	19.29



LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	21.14	21.15	21.19
10	1	25		21.47	21.55	21.57
10	1	49		21.13	21.02	21.15
10	25	0		20.23	20.48	20.43
10	25	12		20.33	20.56	20.55
10	25	25		20.28	20.36	20.15
10	50	0		20.28	20.27	20.34
10	1	0	16-QAM	20.11	20.13	20.18
10	1	25		20.07	20.09	20.00
10	1	49		20.16	20.12	20.20
10	25	0		19.35	19.39	19.23
10	25	12		19.28	19.41	19.18
10	25	25		19.25	19.26	19.10
10	50	0		19.29	19.40	19.16
5	1	0	QPSK	21.15	21.03	21.19
5	1	12		21.54	21.57	21.43
5	1	24		21.05	21.02	21.13
5	12	0		20.33	20.38	20.38
5	12	7		20.43	20.46	20.49
5	12	13		20.47	20.47	20.24
5	25	0		20.26	20.32	20.25
5	1	0	16-QAM	20.22	20.20	20.22
5	1	12		20.22	20.03	20.14
5	1	24		20.21	20.11	20.05
5	12	0		19.30	19.31	19.28
5	12	7		19.30	19.45	19.23
5	12	13		19.18	19.29	19.12
5	25	0		19.23	19.36	19.31



LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	21.10	21.05	21.15
3	1	8		21.45	21.54	21.58
3	1	14		21.06	21.06	21.04
3	8	0		20.42	20.35	20.53
3	8	4		20.41	20.50	20.51
3	8	7		20.29	20.47	20.14
3	15	0		20.22	20.29	20.33
3	1	0	16-QAM	20.19	20.21	20.26
3	1	8		20.24	20.02	20.03
3	1	14		20.14	20.10	20.10
3	8	0		19.31	19.23	19.42
3	8	4		19.32	19.36	19.18
3	8	7		19.35	19.19	19.23
3	15	0		19.37	19.37	19.16
1.4	1	0	QPSK	21.17	21.08	21.20
1.4	1	3		21.51	21.58	21.47
1.4	1	5		21.10	21.12	21.15
1.4	3	0		21.25	21.10	21.21
1.4	3	1		21.57	21.55	21.56
1.4	3	3		21.16	21.18	21.05
1.4	6	0		20.37	20.38	20.40
1.4	1	0	16-QAM	20.02	20.22	20.17
1.4	1	3		20.12	20.17	20.04
1.4	1	5		20.02	20.21	20.05
1.4	3	0		20.09	20.30	20.07
1.4	3	1		20.15	20.22	20.02
1.4	3	3		20.05	20.16	20.12
1.4	6	0		19.20	19.29	19.34



LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	21.22	21.34	21.24
10	1	25		21.08	21.60	21.49
10	1	49		21.08	21.00	21.06
10	25	0		20.34	20.33	20.33
10	25	12		20.30	20.41	20.40
10	25	25		20.20	20.23	20.36
10	50	0		20.25	20.35	20.39
10	1	0	16-QAM	20.05	20.14	20.03
10	1	25		20.14	20.26	20.37
10	1	49		20.16	20.22	20.12
10	25	0		19.18	19.45	19.25
10	25	12		19.13	19.34	19.33
10	25	25		19.21	19.24	19.21
10	50	0		19.10	19.37	19.40
5	1	0	QPSK	21.13	21.25	21.20
5	1	12		21.10	21.59	21.40
5	1	24		21.00	21.06	21.00
5	12	0		20.38	20.37	20.24
5	12	7		20.39	20.31	20.44
5	12	13		20.19	20.30	20.41
5	25	0		20.24	20.25	20.43
5	1	0	16-QAM	20.06	20.04	20.07
5	1	12		20.07	20.18	20.31
5	1	24		20.15	20.23	20.22
5	12	0		19.09	19.41	19.29
5	12	7		19.20	19.26	19.32
5	12	13		19.17	19.28	19.16
5	25	0		19.11	19.37	19.41



LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	21.12	21.35	21.22
3	1	8		21.03	21.52	21.52
3	1	14		21.10	21.09	21.13
3	8	0		20.24	20.38	20.30
3	8	4		20.30	20.37	20.40
3	8	7		20.22	20.24	20.28
3	15	0		20.26	20.37	20.44
3	1	0	16-QAM	20.08	20.09	20.02
3	1	8		20.04	20.30	20.34
3	1	14		20.06	20.26	20.20
3	8	0		19.23	19.48	19.27
3	8	4		19.07	19.41	19.35
3	8	7		19.13	19.14	19.20
3	15	0		19.09	19.44	19.42
1.4	1	0	QPSK	21.31	21.38	21.26
1.4	1	3		21.05	21.51	21.41
1.4	1	5		21.03	21.04	21.00
1.4	3	0		21.22	21.39	21.19
1.4	3	1		21.13	21.49	21.47
1.4	3	3		21.09	21.12	21.05
1.4	6	0		20.29	20.29	20.38
1.4	1	0	16-QAM	20.10	20.11	20.00
1.4	1	3		20.15	20.25	20.43
1.4	1	5		20.18	20.25	20.13
1.4	3	0		20.33	20.26	20.33
1.4	3	1		20.05	20.03	20.10
1.4	3	3		20.19	20.34	20.38
1.4	6	0		19.15	19.30	19.36



LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.32	22.15	21.64
10	1	25		22.33	22.35	22.23
10	1	49		21.65	22.09	22.06
10	25	0		20.96	20.95	20.88
10	25	12		20.99	20.90	21.15
10	25	25		20.91	20.89	21.12
10	50	0		21.01	20.91	21.04
10	1	0	16-QAM	20.41	20.67	20.57
10	1	25		21.02	21.05	21.03
10	1	49		20.75	20.67	20.91
10	25	0		20.20	20.04	19.98
10	25	12		20.15	19.98	20.26
10	25	25		20.08	20.01	20.14
10	50	0		20.17	20.01	20.19
5	1	0	QPSK	22.24	22.08	21.60
5	1	12		22.33	22.29	22.19
5	1	24		21.62	22.12	22.12
5	12	0		20.95	21.05	20.95
5	12	7		21.03	20.94	21.08
5	12	13		20.84	20.94	21.17
5	25	0		20.96	20.88	21.14
5	1	0	16-QAM	20.50	20.74	20.61
5	1	12		20.92	21.00	21.11
5	1	24		20.66	20.71	20.98
5	12	0		20.28	19.95	20.06
5	12	7		20.20	20.01	20.23
5	12	13		20.01	20.01	20.06
5	25	0		20.12	20.08	20.16



LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	22.32	22.24	21.69
3	1	8		22.28	22.30	22.16
3	1	14		21.65	22.14	22.15
3	8	0		20.99	21.05	20.92
3	8	4		21.07	20.89	21.09
3	8	7		20.89	20.95	21.06
3	15	0		20.93	20.83	21.01
3	1	0	16-QAM	20.45	20.58	20.49
3	1	8		20.93	21.08	20.94
3	1	14		20.82	20.62	21.00
3	8	0		20.30	20.02	19.99
3	8	4		20.08	20.05	20.22
3	8	7		20.02	19.98	20.16
3	15	0		20.20	19.98	20.26
1.4	1	0	QPSK	22.28	22.19	21.70
1.4	1	3		22.23	22.28	22.15
1.4	1	5		21.58	22.14	22.09
1.4	3	0		22.28	22.27	21.60
1.4	3	1		22.33	22.18	22.24
1.4	3	3		21.64	22.11	22.00
1.4	6	0		21.06	20.81	21.03
1.4	1	0	16-QAM	20.47	20.66	20.62
1.4	1	3		21.09	21.05	21.05
1.4	1	5		20.77	20.57	21.00
1.4	3	0		20.54	20.76	20.63
1.4	3	1		21.13	20.99	21.08
1.4	3	3		20.82	20.62	20.94
1.4	6	0		20.20	19.96	20.24



LTE Band 13 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK		21.71	
10	1	25			22.00	
10	1	49			21.59	
10	25	0			20.78	
10	25	12			20.92	
10	25	25			20.90	
10	50	0			20.91	
10	1	0	16-QAM		20.56	
10	1	25			20.96	
10	1	49			20.60	
10	25	0			19.87	
10	25	12			19.90	
10	25	25			19.85	
10	50	0			19.91	
5	1	0	QPSK	21.54	21.54	21.77
5	1	12		21.97	21.87	21.96
5	1	24		21.56	21.59	21.47
5	12	0		20.73	20.70	20.83
5	12	7		20.83	20.90	20.76
5	12	13		20.69	20.83	20.72
5	25	0		20.82	20.78	20.74
5	1	0	16-QAM	20.47	20.55	20.57
5	1	12		20.38	21.06	20.49
5	1	24		20.54	20.49	20.52
5	12	0		19.67	19.70	19.73
5	12	7		19.85	20.00	19.74
5	12	13		19.64	19.79	19.70
5	25	0		19.79	19.85	19.72



LTE Band 17 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	21.92	22.08	21.94
10	1	25		21.70	22.31	22.08
10	1	49		22.13	22.14	22.09
10	25	0		20.95	20.83	20.89
10	25	12		20.91	20.91	20.95
10	25	25		20.97	21.04	21.20
10	50	0		20.88	20.89	20.82
10	1	0	16-QAM	21.07	20.81	20.77
10	1	25		20.93	20.88	20.94
10	1	49		21.13	21.01	20.93
10	25	0		19.88	19.97	19.97
10	25	12		20.07	20.05	19.95
10	25	25		20.10	20.16	20.21
10	50	0		20.04	20.03	19.94
5	1	0	QPSK	21.87	22.04	21.89
5	1	12		21.65	21.90	22.02
5	1	24		22.05	22.12	22.05
5	12	0		20.91	20.81	20.86
5	12	7		20.88	20.83	20.90
5	12	13		20.88	21.04	21.12
5	25	0		20.82	20.87	20.82
5	1	0	16-QAM	21.00	20.79	20.77
5	1	12		20.86	20.78	20.88
5	1	24		21.03	20.99	20.83
5	12	0		19.87	19.97	19.97
5	12	7		19.99	20.02	19.92
5	12	13		20.08	20.14	20.15
5	25	0		20.03	20.00	19.88



LTE Band 66 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	21.08	21.25	21.07
10	1	25		21.32	21.42	21.40
10	1	49		21.23	21.25	21.04
10	25	0		20.36	20.51	20.31
10	25	12		20.32	20.68	20.29
10	25	25		20.57	20.31	20.32
10	50	0		20.33	20.23	20.18
10	1	0	16-QAM	20.12	20.20	20.26
10	1	25		20.30	20.01	20.04
10	1	49		20.05	20.11	20.02
10	25	0		19.47	19.37	19.00
10	25	12		19.36	19.26	19.30
10	25	25		19.66	19.01	19.18
10	50	0		19.35	19.25	19.24
5	1	0	QPSK	21.01	21.37	21.16
5	1	12		21.25	21.43	21.36
5	1	24		21.28	21.21	21.13
5	12	0		20.47	20.48	20.24
5	12	7		20.38	20.65	20.28
5	12	13		20.59	20.24	20.37
5	25	0		20.38	20.40	20.36
5	1	0	16-QAM	20.19	20.29	20.32
5	1	12		20.19	20.06	20.11
5	1	24		20.11	20.13	20.04
5	12	0		19.48	19.39	19.03
5	12	7		19.41	19.26	19.39
5	12	13		19.66	19.00	19.29
5	25	0		19.30	19.24	19.14



LTE Band 66 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	21.02	21.27	21.07
3	1	8		21.41	21.52	21.35
3	1	14		21.11	21.11	21.16
3	8	0		20.43	20.64	20.39
3	8	4		20.31	20.66	20.43
3	8	7		20.56	20.21	20.22
3	15	0		20.36	20.33	20.27
3	1	0	16-QAM	20.10	20.29	20.45
3	1	8		20.25	20.00	20.16
3	1	14		20.06	20.12	20.00
3	8	0		19.39	19.40	19.14
3	8	4		19.29	19.28	19.23
3	8	7		19.60	19.16	19.19
3	15	0		19.44	19.13	19.30
1.4	1	0	QPSK	21.00	21.24	21.25
1.4	1	3		21.34	21.46	21.31
1.4	1	5		21.29	21.19	21.16
1.4	3	0		21.03	21.27	21.34
1.4	3	1		21.27	21.54	21.35
1.4	3	3		21.25	21.28	21.08
1.4	6	0		20.42	20.27	20.18
1.4	1	0	16-QAM	20.06	20.22	20.25
1.4	1	3		20.22	20.11	20.04
1.4	1	5		20.09	20.11	20.10
1.4	3	0		20.06	20.28	20.28
1.4	3	1		20.19	20.12	20.12
1.4	3	3		20.10	20.01	20.10
1.4	6	0		19.37	19.11	19.25



Appendix B. Test Results of ERP/EIRP and Radiated Test

ERP/EIRP

LTE Band 2 / 1.4MHz (Average) (GT - LC = 0.27 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	3	21.45	0.1396	21.72	0.1486
Middle		1	3	21.55	0.1429	21.82	0.1521
Highest		1	3	21.38	0.1374	21.65	0.1462
Lowest	16QAM	1	0	20.31	0.1074	20.58	0.1143
Middle		1	0	20.14	0.1033	20.41	0.1099
Highest		1	0	20.11	0.1026	20.38	0.1091
Limit	EIRP < 2W			Result		PASS	

LTE Band 2 / 3MHz (Average) (GT - LC = 0.27 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	8	21.56	0.1432	21.83	0.1524
Middle		1	8	21.26	0.1337	21.53	0.1422
Highest		1	8	21.46	0.1400	21.73	0.1489
Lowest	16QAM	1	8	20.19	0.1045	20.46	0.1112
Middle		1	8	20.32	0.1076	20.59	0.1146
Highest		1	8	20.25	0.1059	20.52	0.1127
Limit	EIRP < 2W			Result		PASS	

LTE Band 2 / 5MHz (Average) (GT - LC = 0.27 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	12	21.58	0.1439	21.85	0.1531
Middle		1	12	21.24	0.1330	21.51	0.1416
Highest		1	12	21.46	0.1400	21.73	0.1489
Lowest	16QAM	1	12	20.07	0.1016	20.34	0.1081
Middle		1	12	20.29	0.1069	20.56	0.1138
Highest		1	12	20.19	0.1045	20.46	0.1112
Limit	EIRP < 2W			Result		PASS	



LTE Band 2 / 10MHz (Average) (GT - LC = 0.27 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	25	21.63	0.1455	21.90	0.1549
Middle		1	25	21.28	0.1343	21.55	0.1429
Highest		1	25	21.43	0.1390	21.70	0.1479
Lowest	16QAM	1	0	20.32	0.1076	20.59	0.1146
Middle		1	0	20.18	0.1042	20.45	0.1109
Highest		1	0	20.04	0.1009	20.31	0.1074
Limit	EIRP < 2W			Result		PASS	

LTE Band 2 / 15MHz (Average) (GT - LC = 0.27 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	37	21.15	0.1303	21.42	0.1387
Middle		1	37	21.40	0.1380	21.67	0.1469
Highest		1	37	21.34	0.1361	21.61	0.1449
Lowest	16QAM	1	0	20.17	0.1040	20.44	0.1107
Middle		1	0	20.21	0.1050	20.48	0.1117
Highest		1	0	20.03	0.1007	20.30	0.1072
Limit	EIRP < 2W			Result		PASS	

LTE Band 2 / 20MHz (Average) (GT - LC = 0.27 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	49	21.46	0.1400	21.73	0.1489
Middle		1	49	21.55	0.1429	21.82	0.1521
Highest		1	49	21.47	0.1403	21.74	0.1493
Lowest	16QAM	1	49	20.09	0.1021	20.36	0.1086
Middle		1	49	20.34	0.1081	20.61	0.1151
Highest		1	49	20.26	0.1062	20.53	0.1130
Limit	EIRP < 2W			Result		PASS	



LTE Band 4 / 1.4MHz (Average) (GT - LC = 2.22 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	3	21.51	0.1416	23.73	0.2360
Middle		1	3	21.58	0.1439	23.80	0.2399
Highest		1	3	21.47	0.1403	23.69	0.2339
Lowest	16QAM	3	0	20.09	0.1021	22.31	0.1702
Middle		3	0	20.30	0.1072	22.52	0.1786
Highest		3	0	20.07	0.1016	22.29	0.1694
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 3MHz (Average) (GT - LC = 2.22 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	8	21.45	0.1396	23.67	0.2328
Middle		1	8	21.54	0.1426	23.76	0.2377
Highest		1	8	21.58	0.1439	23.80	0.2399
Lowest	16QAM	1	0	20.19	0.1045	22.41	0.1742
Middle		1	0	20.21	0.1050	22.43	0.1750
Highest		1	0	20.26	0.1062	22.48	0.1770
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 5MHz (Average) (GT - LC = 2.22 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	12	21.54	0.1426	23.76	0.2377
Middle		1	12	21.57	0.1435	23.79	0.2393
Highest		1	12	21.43	0.1390	23.65	0.2317
Lowest	16QAM	1	0	20.22	0.1052	22.44	0.1754
Middle		1	0	20.20	0.1047	22.42	0.1746
Highest		1	0	20.22	0.1052	22.44	0.1754
Limit	EIRP < 1W			Result		PASS	



LTE Band 4 / 10MHz (Average) (GT - LC = 2.22 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	25	21.47	0.1403	23.69	0.2339
Middle		1	25	21.55	0.1429	23.77	0.2382
Highest		1	25	21.57	0.1435	23.79	0.2393
Lowest	16QAM	1	49	20.16	0.1038	22.38	0.1730
Middle		1	49	20.12	0.1028	22.34	0.1714
Highest		1	49	20.20	0.1047	22.42	0.1746
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 15MHz (Average) (GT - LC = 2.22 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	37	21.51	0.1416	23.73	0.2360
Middle		1	37	21.57	0.1435	23.79	0.2393
Highest		1	37	21.43	0.1390	23.65	0.2317
Lowest	16QAM	1	0	20.10	0.1023	22.32	0.1706
Middle		1	0	20.25	0.1059	22.47	0.1766
Highest		1	0	20.26	0.1062	22.48	0.1770
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 20MHz (Average) (GT - LC = 2.22 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	49	21.54	0.1426	23.76	0.2377
Middle		1	49	21.59	0.1442	23.81	0.2404
Highest		1	49	21.48	0.1406	23.70	0.2344
Lowest	16QAM	1	0	20.12	0.1028	22.34	0.1714
Middle		1	0	20.16	0.1038	22.38	0.1730
Highest		1	0	20.22	0.1052	22.44	0.1754
Limit	EIRP < 1W			Result		PASS	



LTE Band 5 / 1.4MHz (Average) (GT - LC = -1.73 dB)							
Channel	Mode	RB		Conducted		ERP	
		Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	3	21.05	0.1274	17.17	0.0521
Middle		1	3	21.51	0.1416	17.63	0.0579
Highest		1	3	21.41	0.1384	17.53	0.0566
Lowest	16QAM	1	3	20.15	0.1035	16.27	0.0424
Middle		1	3	20.25	0.1059	16.37	0.0434
Highest		1	3	20.43	0.1104	16.55	0.0452
Limit	ERP < 7W			Result		PASS	

LTE Band 5 / 3MHz (Average) (GT - LC = -1.73 dB)							
Channel	Mode	RB		Conducted		ERP	
		Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	8	21.03	0.1268	17.15	0.0519
Middle		1	8	21.52	0.1419	17.64	0.0581
Highest		1	8	21.52	0.1419	17.64	0.0581
Lowest	16QAM	1	8	20.04	0.1009	16.16	0.0413
Middle		1	8	20.30	0.1072	16.42	0.0439
Highest		1	8	20.34	0.1081	16.46	0.0443
Limit	ERP < 7W			Result		PASS	

LTE Band 5 / 5MHz (Average) (GT - LC = -1.73 dB)							
Channel	Mode	RB		Conducted		ERP	
		Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	12	21.10	0.1288	17.22	0.0527
Middle		1	12	21.59	0.1442	17.71	0.0590
Highest		1	12	21.40	0.1380	17.52	0.0565
Lowest	16QAM	1	12	20.07	0.1016	16.19	0.0416
Middle		1	12	20.18	0.1042	16.30	0.0427
Highest		1	12	20.31	0.1074	16.43	0.0440
Limit	ERP < 7W			Result		PASS	

LTE Band 5 / 10MHz (Average) (GT - LC = -1.73 dB)							
Channel	Mode	RB		Conducted		ERP	
		Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	25	21.08	0.1282	17.20	0.0525
Middle		1	25	21.60	0.1445	17.72	0.0592
Highest		1	25	21.49	0.1409	17.61	0.0577
Lowest	16QAM	1	25	20.14	0.1033	16.26	0.0423
Middle		1	25	20.26	0.1062	16.38	0.0435
Highest		1	25	20.37	0.1089	16.49	0.0446
Limit	ERP < 7W			Result		PASS	



LTE Band 12 / 1.4MHz (Average) (GT - LC = -5.38 dB)							
Channel	Mode	RB		Conducted		ERP	
		Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	QPSK	3	1	22.33	0.1710	14.80	0.0302
Middle		3	1	22.18	0.1652	14.65	0.0292
Highest		3	1	22.24	0.1675	14.71	0.0296
Lowest	16QAM	3	1	21.13	0.1297	13.60	0.0229
Middle		3	1	20.99	0.1256	13.46	0.0222
Highest		3	1	21.08	0.1282	13.55	0.0226
Limit	ERP < 3W			Result		PASS	

LTE Band 12 / 3MHz (Average) (GT - LC = -5.38 dB)							
Channel	Mode	RB		Conducted		ERP	
		Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	0	22.32	0.1706	14.79	0.0301
Middle		1	0	22.24	0.1675	14.71	0.0296
Highest		1	0	21.69	0.1476	14.16	0.0261
Lowest	16QAM	1	8	20.93	0.1239	13.40	0.0219
Middle		1	8	21.08	0.1282	13.55	0.0226
Highest		1	8	20.94	0.1242	13.41	0.0219
Limit	ERP < 3W			Result		PASS	

LTE Band 12 / 5MHz (Average) (GT - LC = -5.38 dB)							
Channel	Mode	RB		Conducted		ERP	
		Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	12	22.33	0.1710	14.80	0.0302
Middle		1	12	22.29	0.1694	14.76	0.0299
Highest		1	12	22.19	0.1656	14.66	0.0292
Lowest	16QAM	1	12	20.92	0.1236	13.39	0.0218
Middle		1	12	21.00	0.1259	13.47	0.0222
Highest		1	12	21.11	0.1291	13.58	0.0228
Limit	ERP < 3W			Result		PASS	

LTE Band 12 / 10MHz (Average) (GT - LC = -5.38 dB)							
Channel	Mode	RB		Conducted		ERP	
		Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	25	22.33	0.1710	14.80	0.0302
Middle		1	25	22.35	0.1718	14.82	0.0303
Highest		1	25	22.23	0.1671	14.70	0.0295
Lowest	16QAM	1	25	21.02	0.1265	13.49	0.0223
Middle		1	25	21.05	0.1274	13.52	0.0225
Highest		1	25	21.03	0.1268	13.50	0.0224
Limit	ERP < 3W			Result		PASS	



LTE Band 13 / 5MHz (Average) (GT - LC = -2.33 dB)							
Channel	Mode	RB		Conducted		ERP	
		Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	12	21.97	0.1574	17.49	0.0561
Middle		1	12	21.87	0.1538	17.39	0.0548
Highest		1	12	21.96	0.1570	17.48	0.0560
Lowest	16QAM	1	12	20.38	0.1091	15.90	0.0389
Middle		1	12	21.06	0.1276	16.58	0.0455
Highest		1	12	20.49	0.1119	16.01	0.0399
Limit	ERP < 3W			Result		PASS	

LTE Band 13 / 10MHz (Average) (GT - LC = -2.33 dB)							
Channel	Mode	RB		Conducted		ERP	
		Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	QPSK	-	-	-	-	-	-
Middle		1	25	22.00	0.1585	17.52	0.0565
Highest		-	-	-	-	-	-
Lowest	16QAM	-	-	-	-	-	-
Middle		1	25	20.96	0.1247	16.48	0.0445
Highest		-	-	-	-	-	-
Limit	ERP < 3W			Result		PASS	



LTE Band 17 / 5MHz (Average) (GT - LC = -5.38 dB)							
Channel	Mode	RB		Conducted		ERP	
		Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	24	22.05	0.1603	14.52	0.0283
Middle		1	24	22.12	0.1629	14.59	0.0288
Highest		1	24	22.05	0.1603	14.52	0.0283
Lowest	16QAM	1	24	21.03	0.1268	13.50	0.0224
Middle		1	24	20.99	0.1256	13.46	0.0222
Highest		1	24	20.83	0.1211	13.30	0.0214
Limit	ERP < 3W			Result		PASS	

LTE Band 17 / 10MHz (Average) (GT - LC = -5.38 dB)							
Channel	Mode	RB		Conducted		ERP	
		Size	Offset	Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	25	21.70	0.1479	14.17	0.0261
Middle		1	25	22.31	0.1702	14.78	0.0301
Highest		1	25	22.08	0.1614	14.55	0.0285
Lowest	16QAM	1	49	21.13	0.1297	13.60	0.0229
Middle		1	49	21.01	0.1262	13.48	0.0223
Highest		1	49	20.93	0.1239	13.40	0.0219
Limit	ERP < 3W			Result		PASS	



LTE Band 66 / 1.4MHz (Average) (GT - LC = 2.22 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	3	1	21.27	0.1340	23.49	0.2234
Middle		3	1	21.54	0.1426	23.76	0.2377
Highest		3	1	21.35	0.1365	23.57	0.2275
Lowest	16QAM	3	0	20.06	0.1014	22.28	0.1690
Middle		3	0	20.28	0.1067	22.50	0.1778
Highest		3	0	20.28	0.1067	22.50	0.1778
Limit	EIRP < 1W			Result		PASS	

LTE Band 66 / 3MHz (Average) (GT - LC = 2.22 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	8	21.41	0.1384	23.63	0.2307
Middle		1	8	21.52	0.1419	23.74	0.2366
Highest		1	8	21.35	0.1365	23.57	0.2275
Lowest	16QAM	1	0	20.10	0.1023	22.32	0.1706
Middle		1	0	20.29	0.1069	22.51	0.1782
Highest		1	0	20.45	0.1109	22.67	0.1849
Limit	EIRP < 1W			Result		PASS	

LTE Band 66 / 5MHz (Average) (GT - LC = 2.22 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	12	21.25	0.1334	23.47	0.2223
Middle		1	12	21.43	0.1390	23.65	0.2317
Highest		1	12	21.36	0.1368	23.58	0.2280
Lowest	16QAM	1	0	20.19	0.1045	22.41	0.1742
Middle		1	0	20.29	0.1069	22.51	0.1782
Highest		1	0	20.32	0.1076	22.54	0.1795
Limit	EIRP < 1W			Result		PASS	



LTE Band 66 / 10MHz (Average) (GT - LC = 2.22 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	25	21.32	0.1355	23.54	0.2259
Middle		1	25	21.42	0.1387	23.64	0.2312
Highest		1	25	21.40	0.1380	23.62	0.2301
Lowest	16QAM	1	25	20.30	0.1072	22.52	0.1786
Middle		1	25	20.01	0.1002	22.23	0.1671
Highest		1	25	20.04	0.1009	22.26	0.1683
Limit	EIRP < 1W			Result		PASS	

LTE Band 66 / 15MHz (Average) (GT - LC = 2.22 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	37	21.41	0.1384	23.63	0.2307
Middle		1	37	21.41	0.1384	23.63	0.2307
Highest		1	37	21.37	0.1371	23.59	0.2286
Lowest	16QAM	1	0	20.22	0.1052	22.44	0.1754
Middle		1	0	20.25	0.1059	22.47	0.1766
Highest		1	0	20.43	0.1104	22.65	0.1841
Limit	EIRP < 1W			Result		PASS	

LTE Band 66 / 20MHz (Average) (GT - LC = 2.22 dB)							
Channel	Mode	RB		Conducted		EIRP	
		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	49	21.34	0.1361	23.56	0.2270
Middle		1	49	21.54	0.1426	23.76	0.2377
Highest		1	49	21.32	0.1355	23.54	0.2259
Lowest	16QAM	1	0	20.12	0.1028	22.34	0.1714
Middle		1	0	20.28	0.1067	22.50	0.1778
Highest		1	0	20.35	0.1084	22.57	0.1807
Limit	EIRP < 1W			Result		PASS	

**Radiated Spurious Emission****LTE Band 2**

LTE Band 2 / 10MHz / QPSK									
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)
Low	3708	-58.62	-13	-45.62	-79.31	-65.2	1.67	8.25	H
	5568	-48.04	-13	-35.04	-73.38	-55.1	2.66	9.73	H
	7422	-54.11	-13	-41.11	-82.11	-63.3	2.45	11.64	H
									H
									H
									H
									H
	3708	-58.12	-13	-45.12	-78.46	-64.7	1.67	8.25	V
	5568	-44.74	-13	-31.74	-70.09	-51.8	2.66	9.73	V
	7422	-54.31	-13	-41.31	-81.98	-63.5	2.45	11.64	V
									V
									V
									V
									V

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