FCC RADIO TEST REPORT

FCC ID	:	**XV2SC415C61**
Equipment	:	**SC415 Universal Tank Monitor**
Brand Name	:	**Anova**
Model Name	:	**SC415C6-E2**
Applicant	:	**Silicon Controls Pty Ltd** **Suite 1, 33 Waterloo Road; Macquarie Park NSW 2113 AUSTRALIA**
Manufacturer	:	**Silicon Controls Pty Ltd** **Suite 1, 33 Waterloo Road; Macquarie Park NSW 2113 AUSTRALIA**
Standard	:	**FCC 47 CFR Part 2, 22(H), 24(E), 27**

The product was received on Jan. 21, 2021 and testing was started from Feb. 01, 2021 and completed on Feb. 18, 2021. 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 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 333, Taiwan (R.O.C.)

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History of this test report

Report No.	Version	Description	Issued Date
FG111807C	01	Initial issue of report	Jun. 04, 2021

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.2	§2.1046	Conducted Output Power	Reporting only	-
	§22.913 (a)(5)	Effective Radiated Power (Band 5) (Band 26)	Pass	
	§27.50 (b)(10) §27.50 (c)(10)	Effective Radiated Power (Band 12) (Band 13) (Band 71) (Band 85)		
	§24.232 (c)	Equivalent Isotropic Radiated Power (Band 2) (Band 25)		
	§27.50 (d)(4)	Equivalent Isotropic Radiated Power (Band 4) (Band 66)		
-	§24.232 (d) §27.50 (d)(5)	Peak-to-Average Ratio	-	See Note
-	§2.1049	Occupied Bandwidth	-	See Note
-	§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 25) (Band 26) (Band 66) (Band 71) (Band 85)	-	See Note
-	§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 25) (Band 26) (Band 66) (Band 71) (Band 85)	-	See Note
-	§2.1055 §22.355 §24.235 §27.54	Frequency Stability Temperature & Voltage	-	See Note
4.2	§2.1053 §22.917 (a) §24.238 (a) §27.53 (c)(2) §27.53 (f) §27.53 (g)	Radiated Spurious Emission (Band 2) (Band 5) (Band 12) (Band 13) (Band 25) (Band 26) (Band 66) (Band 71) (Band 85)	Pass	Under limit 15.93 dB at 1568.000 MHz
Remark: The module (Model: ME910G1-WW) makes no difference after verifying output power, this report reuses test data from the module report.				

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: Keven Cheng

Report Producer: Dara Chiu

1 General Description

1.1 Product Feature of Equipment Under Test

GSM/LTE

Product Specification subjective to this standard	
Antenna Type	WWAN: PCB Antenna
Antenna Gain	Band 2: 1.40dBi Band 4: 1.60dBi Band 5: 0.50dBi Band 12: -1.30dBi Band 13: -0.30dBi Band 25: 1.40dBi Band 26: 0.50dBi Band 66: 1.60dBi Band 71: -0.90dBi Band 85: -1.20dBi

Remark: The above EUT's information was declared by manufacturer. Please refer to Comments and Explanations in report summary.

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 333, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978	
Test Site No.	**Sporton Site No.**	
	TH02-HY	03CH07-HY
Test Engineer	Benjamin Lin	Jesse Wang, Stan Hsieh, and Ken Wu
Temperature	20~21℃	19~25℃
Relative Humidity	50~52%	46~60%

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
- FCC 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
- FCC KDB 414788 D01 Radiated Test Site 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.
3. The TAF code is not including all the FCC KDB listed without accreditation.

2 Test Configuration of Equipment Under Test

2.1 Test Mode

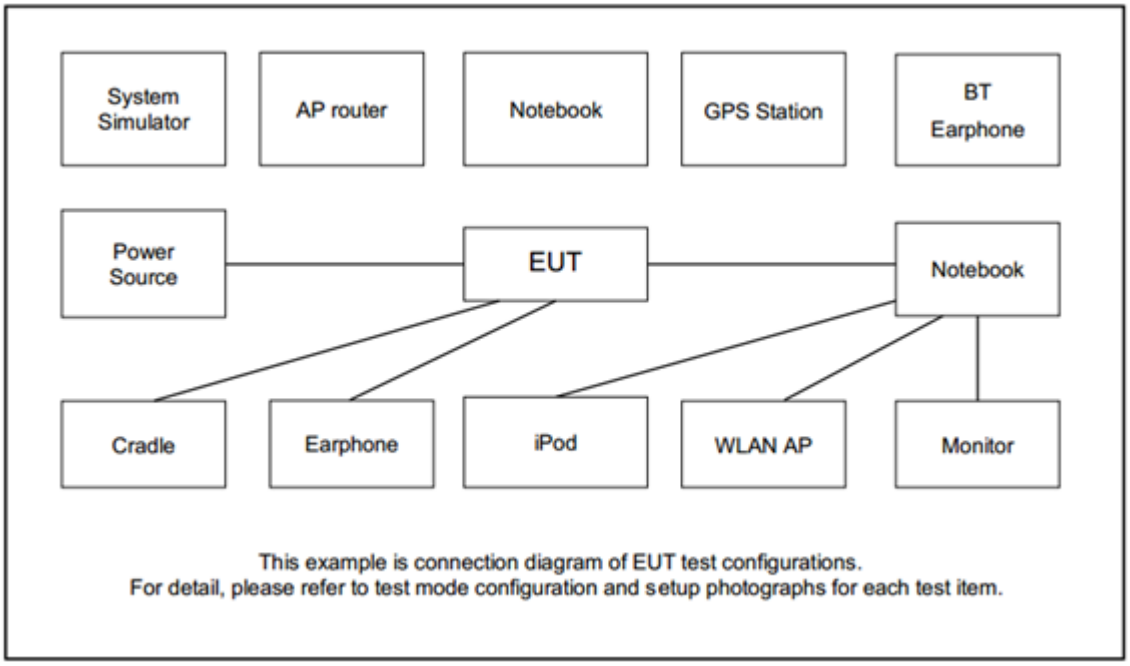
Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas. License Digital Systems v03r01 with maximum output power.

For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (X Plane for Band 2, 4, 5, 12, 25, 26, 66, 71, 85; Z Plane for Band 13) were recorded in this report.

Test Items	LTE -NB1 Band	Subcarrier (kHz)		Modulation		Tone@		Test Channel		
		3.75	15	BPSK	QPSK	1	Full	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
	25	v	v	v	v	v	v	v	v	v
	26	v	v	v	v	v	v	v	v	v
	66	v	v	v	v	v	v	v	v	v
	71	v	v	v	v	v	v	v	v	v
	85	v	v	v	v	v	v	v	v	v
E.R.P. / E.I.R.P.	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
	25	v	v	v	v	v	v	v	v	v
	26	v	v	v	v	v	v	v	v	v
	66	v	v	v	v	v	v	v	v	v
	71	v	v	v	v	v	v	v	v	v
	85	v	v	v	v	v	v	v	v	v

Test Items	LTE -NB1 Band	Subcarrier (kHz)		Modulation		Tone@		Test Channel		
		3.75	15	BPSK	QPSK	1	Full	L	M	H
Radiated Spurious Emission	2	Worst Case						v	v	v
	4	Worst Case						v	v	v
	5	Worst Case						v	v	v
	12	Worst Case						v	v	v
	13	Worst Case						v	v	v
	25	Worst Case						v	v	v
	26	Worst Case						v	v	v
	66	Worst Case						v	v	v
	71	Worst Case						v	v	v
	85	Worst Case						v	v	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	Brand 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-NB1 Band 2 Channel and Frequency List			
Channel/Frequency(MHz)	**Lowest**	**Middle**	**Highest**
Channel	18601	18900	19199
Frequency	1850.1	1880.0	1909.9

LTE-NB1 Band 4 Channel and Frequency List			
Channel/Frequency(MHz)	**Lowest**	**Middle**	**Highest**
Channel	19951	20175	20399
Frequency	1710.1	1732.5	1754.9

LTE-NB1 Band 5 Channel and Frequency List			
Channel/Frequency(MHz)	**Lowest**	**Middle**	**Highest**
Channel	20401	20525	20649
Frequency	824.1	836.5	848.9

LTE-NB1 Band 12 Channel and Frequency List			
Channel/Frequency(MHz)	**Lowest**	**Middle**	**Highest**
Channel	23011	23095	23178
Frequency	699.1	707.5	715.8

LTE-NB1 Band 13 Channel and Frequency List			
Channel/Frequency(MHz)	**Lowest**	**Middle**	**Highest**
Channel	23181	23230	23279
Frequency	777.1	782.0	786.9

LTE-NB1 Band 25 Channel and Frequency List			
Channel/Frequency(MHz)	**Lowest**	**Middle**	**Highest**
Channel	26041	26365	26689
Frequency	1850.1	1882.5	1914.9

LTE-NB1 Band 26 Channel and Frequency List			
Channel/Frequency(MHz)	**Lowest**	**Middle**	**Highest**
Channel	26792	26915	27038
Frequency	824.2	836.5	848.8

LTE-NB1 Band 66 Channel and Frequency List			
Channel/Frequency(MHz)	**Lowest**	**Middle**	**Highest**
Channel	131973	132322	132671
Frequency	1710.1	1745.0	1779.9

LTE-NB1 Band 71 Channel and Frequency List			
Channel/Frequency(MHz)	**Lowest**	**Middle**	**Highest**
Channel	133123	133297	133471
Frequency	663.1	680.5	697.9

LTE-NB1 Band 85 Channel and Frequency List			
Channel/Frequency(MHz)	**Lowest**	**Middle**	**Highest**
Channel	134003	134092	134181
Frequency	698.1	707.0	715.9

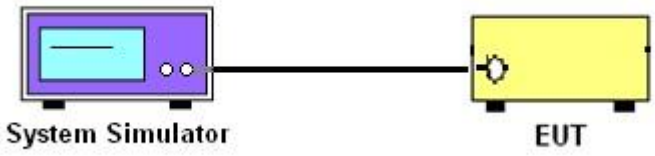
3 Conducted Test Items

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 and Band 26.

The ERP of mobile transmitters must not exceed 3 Watts for LTE Band 12 and Band 13 and Band 71 and Band 85.

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

3.2.2 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.

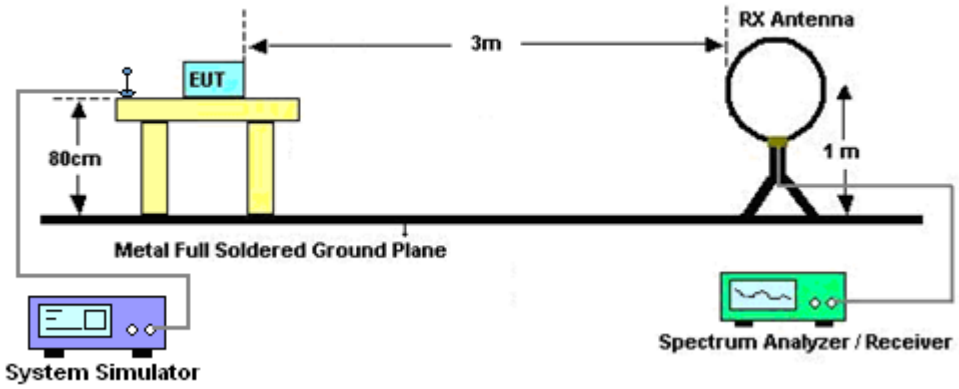
4 Radiated Test Items

4.1 Measuring Instruments

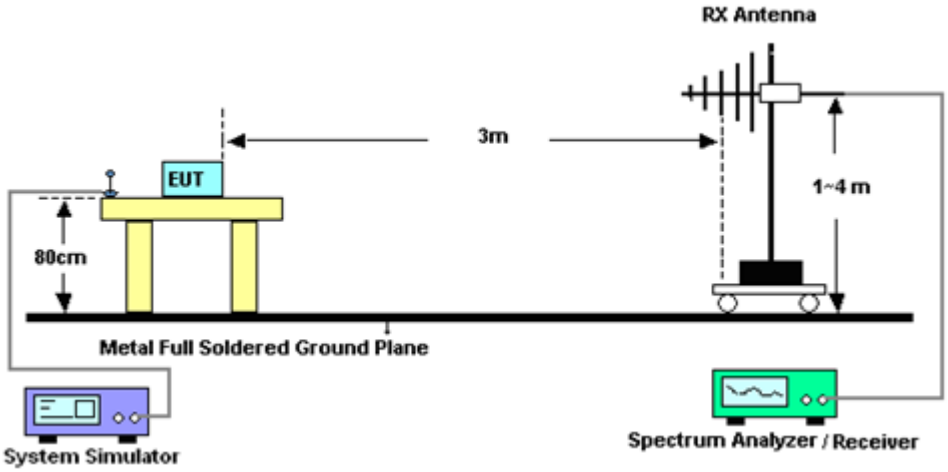
See list of measuring instruments of this test report.

4.1.1 Test Setup

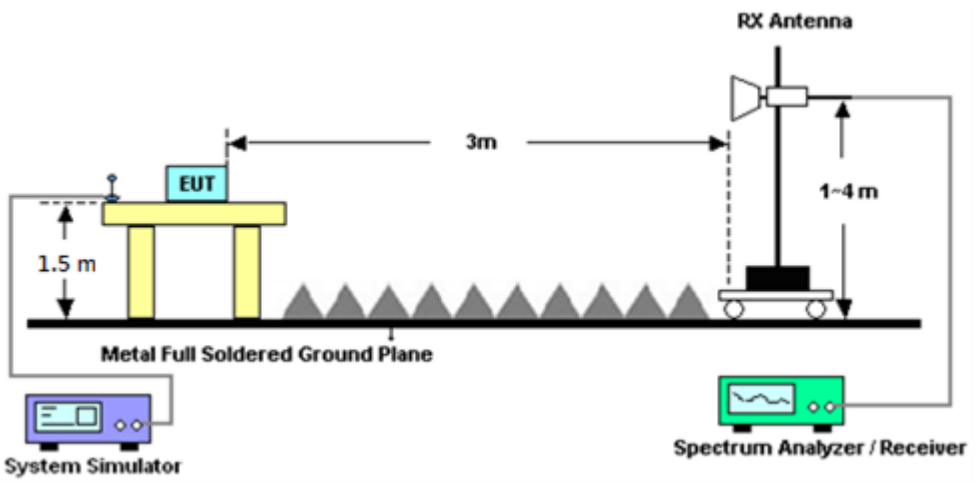
For radiated test below 30MHz



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.

Note:

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.

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.

4.2 Radiated Spurious Emission

4.2.1 Description of Radiated Spurious Emission

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.

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.

4.2.2 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 + 10log(P)dB below the transmitter power P(Watts)

5 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Bilog Antenna	TESEQ	CBL 6111D & 00800N1D01N -06	35419 & 03	30MHz~1GHz	Apr. 29, 2020	Feb. 05, 2021 ~ Feb. 18, 2021	Apr. 28, 2021	Radiation (03CH07-HY)
Double Ridge Horn Antenna	ESCO	3117	00075962	1GHz ~ 18GHz	Dec. 01, 2020	Feb. 05, 2021 ~ Feb. 18, 2021	Nov. 30, 2021	Radiation (03CH07-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Jan. 04, 2021	Feb. 05, 2021 ~ Feb. 18, 2021	Jan. 03, 2022	Radiation (03CH07-HY)
Preamplifier	Agilent	8449B	3008A02362	1GHz~26.5GHz	Oct. 31, 2020	Feb. 05, 2021 ~ Feb. 18, 2021	Oct. 30, 2021	Radiation (03CH07-HY)
Spectrum Analyzer	Agilent	N9030A	MY52350276	3Hz~44GHz	Jun. 09, 2020	Feb. 05, 2021 ~ Feb. 18, 2021	Jun. 08, 2021	Radiation (03CH07-HY)
Filter	Microwave	H1G013G1	SN477215	1GHz High Pass Filter	Oct. 31, 2020	Feb. 05, 2021 ~ Feb. 18, 2021	Oct. 30, 2021	Radiation (03CH07-HY)
Filter	Microwave	H3G018G1	SN477219	3GHz High Pass Filter	Oct. 31, 2020	Feb. 05, 2021 ~ Feb. 18, 2021	Oct. 30, 2021	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY2858/2,80 1606/2	18GHz~40GHz	Feb. 25, 2020	Feb. 05, 2021 ~ Feb. 18, 2021	Feb. 24, 2021	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY24971/4, MY28655/4	9kHz~30MHz	Feb. 25, 2020	Feb. 05, 2021 ~ Feb. 18, 2021	Feb. 24, 2021	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY28655/4, MY24971/4, MY15682/4	30MHz~1GHz	Feb. 25, 2020	Feb. 05, 2021 ~ Feb. 18, 2021	Feb. 24, 2021	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY28655/4, MY24971/4, MY15682/4	1GHz~18GHz	Feb. 25, 2020	Feb. 05, 2021 ~ Feb. 18, 2021	Feb. 24, 2021	Radiation (03CH07-HY)
Controller	ChainTek	Chaintek 3000	N/A	Control Turn table	N/A	Feb. 05, 2021 ~ Feb. 18, 2021	N/A	Radiation (03CH07-HY)
Controller	Max-Full	MF7802	MF780208368	Control Ant Mast	N/A	Feb. 05, 2021 ~ Feb. 18, 2021	N/A	Radiation (03CH07-HY)
Antenna Mast	Max-Full	MFA520BS	N/A	1m~4m	N/A	Feb. 05, 2021 ~ Feb. 18, 2021	N/A	Radiation (03CH07-HY)
Turn Table	ChainTek	Chaintek 3000	N/A	0~360 Degree	N/A	Feb. 05, 2021 ~ Feb. 18, 2021	N/A	Radiation (03CH07-HY)
USB Data Logger	TECPEL	TR-32	HE17XB2495	N/A	N/A	Feb. 05, 2021 ~ Feb. 18, 2021	N/A	Radiation (03CH07-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170251	18GHz~40GHz	Dec. 02, 2020	Feb. 05, 2021 ~ Feb. 18, 2021	Dec. 01, 2021	Radiation (03CH07-HY)
Double Ridge Horn Antenna	EMCO	3117	00227880	1 -18 GHz	N/A	Feb. 05, 2021 ~ Feb. 18, 2021	N/A	Radiation (03CH07-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA9170	BBHA9170980	18GHz-40GHz	N/A	Feb. 05, 2021 ~ Feb. 18, 2021	N/A	Radiation (03CH07-HY)
Signal Generator	Rohde & Schwarz	SMF100A	101107	100kHz~40GHz	Dec. 04, 2020	Feb. 05, 2021 ~ Feb. 18, 2021	Dec. 03, 2021	Radiation (03CH07-HY)
Base Station (Measure)	Anritsu	MT8821C	6201664755	2/3/4G/LTE FDD/TDD with44)/LTE-3CC DLCA/2CC ULCA, CatM1/NB1/NB2	Jul. 12, 2020	Feb. 01, 2021~ Feb. 08, 2021	Jul. 11, 2021	Conducted (TH02-HY)
Coupler	Warison	20dB 25W SMA Directional Coupler	#A	1-18GHz	Jan. 12, 2021	Feb. 01, 2021 ~Feb. 08, 2021	Jan. 11, 2022	Conducted (TH02-HY)

6 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.35**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.81**

Appendix A. Test Results of Conducted Test

Conducted Output Power(Average power)

LTE-NB1 Band 2 Maximum Average Power [dBm]					
Sub-carrier Spacing [kHz]	Mod	Number of Tones	Lowest	Middle	Highest
3.75	BPSK	1T0	6.23	23.33	6.46
3.75		1T47	6.17	23.28	6.38
3.75	QPSK	1T0	6.24	23.27	6.46
3.75		1T47	6.17	23.15	6.37
15	BPSK	1T0	6.44	23.36	6.12
15		1T11	6.38	23.30	6.00
15		12T0	4.51	21.46	4.37
15	QPSK	1T0	6.47	23.38	6.09
15		1T11	6.42	23.31	6.03
15		12T0	4.48	21.53	4.38

LTE-NB1 Band 25 Maximum Average Power [dBm]					
Sub-carrier Spacing [kHz]	Mod	Number of Tones	Lowest	Middle	Highest
3.75	BPSK	1T0	6.36	23.12	6.24
3.75		1T47	6.32	23.02	6.21
3.75	QPSK	1T0	6.39	23.13	6.28
3.75		1T47	6.33	23.04	6.22
15	BPSK	1T0	6.09	23.25	6.37
15		1T11	6.03	23.19	6.32
15		12T0	3.96	21.35	4.40
15	QPSK	1T0	6.09	23.28	6.36
15		1T11	6.03	23.21	6.31
15		12T0	3.95	21.36	4.38

LTE-NB1 Band 4 Maximum Average Power [dBm]					
Sub-carrier Spacing [kHz]	Mod	Number of Tones	Lowest	Middle	Highest
3.75	BPSK	1T0	6.40	23.54	6.27
3.75		1T47	6.20	23.48	6.23
3.75	QPSK	1T0	6.42	23.59	6.31
3.75		1T47	6.31	23.53	6.21
15	BPSK	1T0	6.71	23.22	6.14
15		1T11	6.66	23.16	6.07
15		12T0	4.47	21.41	3.97
15	QPSK	1T0	6.71	23.24	6.16
15		1T11	6.65	23.17	6.10
15		12T0	4.46	21.43	3.97

LTE-NB1 Band 5 Maximum Average Power [dBm]					
Sub-carrier Spacing [kHz]	Mod	Number of Tones	Lowest	Middle	Highest
3.75	BPSK	1T0	6.31	22.88	6.26
3.75		1T47	6.26	22.84	6.19
3.75	QPSK	1T0	6.33	22.93	6.26
3.75		1T47	6.24	22.86	6.17
15	BPSK	1T0	6.36	23.18	6.24
15		1T11	6.30	23.13	6.19
15		12T0	4.35	20.99	4.26
15	QPSK	1T0	6.38	23.22	6.29
15		1T11	6.31	23.21	6.23
15		12T0	4.37	21.15	4.29

LTE-NB1 Band 12 Maximum Average Power [dBm]					
Sub-carrier Spacing [kHz]	Mod	Number of Tones	Lowest	Middle	Highest
3.75	BPSK	1T0	6.94	22.88	6.98
3.75		1T47	6.88	22.85	6.91
3.75	QPSK	1T0	6.96	22.87	6.97
3.75		1T47	6.88	22.81	6.90
15	BPSK	1T0	6.84	23.53	7.07
15		1T11	6.77	23.48	7.01
15		12T0	4.68	22.03	4.75
15	QPSK	1T0	6.84	23.55	7.07
15		1T11	6.79	23.54	7.02
15		12T0	4.69	22.07	4.74

LTE-NB1 Band 13 Maximum Average Power [dBm]					
Sub-carrier Spacing [kHz]	Mod	Number of Tones	Lowest	Middle	Highest
3.75	BPSK	1T0	6.20	22.83	5.81
3.75		1T47	6.16	22.76	5.73
3.75	QPSK	1T0	6.22	22.84	5.81
3.75		1T47	6.15	22.73	5.74
15	BPSK	1T0	6.20	23.23	6.31
15		1T11	6.13	23.15	6.23
15		12T0	3.96	21.26	3.95
15	QPSK	1T0	6.19	23.22	6.33
15		1T11	6.12	23.16	6.25
15		12T0	3.96	21.24	3.96

LTE-NB1 Band 71 Maximum Average Power [dBm]					
Sub-carrier Spacing [kHz]	Mod	Number of Tones	Lowest	Middle	Highest
3.75	BPSK	1T0	6.79	21.53	6.70
3.75		1T47	6.74	21.55	6.65
3.75	QPSK	1T0	6.79	21.68	6.71
3.75		1T47	6.73	21.70	6.63
15	BPSK	1T0	6.66	21.87	6.29
15		1T11	6.61	21.83	6.21
15		12T0	4.57	19.83	4.13
15	QPSK	1T0	6.67	21.86	6.33
15		1T11	6.63	21.80	6.23
15		12T0	4.60	19.87	4.15

LTE-NB1 Band 26 Maximum Average Power [dBm]					
Sub-carrier Spacing [kHz]	Mod	Number of Tones	Lowest	Middle	Highest
3.75	BPSK	1T0	6.89	23.43	6.88
3.75		1T47	6.83	23.37	6.83
3.75	QPSK	1T0	6..91	23.43	6.90
3.75		1T47	6.81	23.33	6.82
15	BPSK	1T0	7.01	23.62	6.76
15		1T11	6.92	23.55	6.68
15		12T0	5.07	21.62	4.61
15	QPSK	1T0	7.03	23.67	6.75
15		1T11	6.95	23.61	6.68
15		12T0	5.12	21.67	4.60

LTE-NB1 Band 66 Maximum Average Power [dBm]					
Sub-carrier Spacing [kHz]	Mod	Number of Tones	Lowest	Middle	Highest
3.75	BPSK	1T0	6.78	23.26	6.99
3.75		1T47	6.73	23.19	6.89
3.75	QPSK	1T0	6.78	23.25	6.97
3.75		1T47	6.71	23.17	6.91
15	BPSK	1T0	7.20	23.53	6.57
15		1T11	7.14	23.47	6.49
15		12T0	5.16	21.53	4.40
15	QPSK	1T0	6.75	23.52	6.49
15		1T11	6.70	23.48	6.45
15		12T0	4.76	21.58	4.44

LTE-NB1 Band 85 Maximum Average Power [dBm]					
Sub-carrier Spacing [kHz]	Mod	Number of Tones	Lowest	Middle	Highest
3.75	BPSK	1T0	7.25	23.50	7.38
3.75		1T47	7.21	23.48	7.31
3.75	QPSK	1T0	7.28	23.34	7.42
3.75		1T47	7.22	23.55	7.32
15	BPSK	1T0	7.07	23.61	7.36
15		1T11	7.01	23.59	7.30
15		12T0	5.02	21.94	5.12
15	QPSK	1T0	7.07	23.57	7.38
15		1T11	7.02	23.60	7.32
15		12T0	5.01	21.95	5.17

ERP/EIRP

LTE NB1 Band 2 / 3.75KHz (Average) (GT - LC = 1.4 dB)						
Channel	Mode	Tones	Conducted		EIRP	
			Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	BPSK	1T/0	6.23	0.0042	7.63	0.0058
Middle			23.33	0.2153	24.73	0.2972
Highest			6.46	0.0044	7.86	0.0061
Lowest	QPSK	1T/0	6.24	0.0042	7.64	0.0058
Middle			23.27	0.2123	24.67	0.2931
Highest			6.46	0.0044	7.86	0.0061
Limit	EIRP < 2W		Result		PASS	

LTE NB1 Band 2 / 15KHz (Average) (GT - LC = 1.4 dB)						
Channel	Mode	Tones	Conducted		EIRP	
			Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	BPSK	1T/0	6.44	0.0044	7.84	0.0061
Middle			23.36	0.2168	24.76	0.2992
Highest			6.12	0.0041	7.52	0.0056
Lowest	QPSK	1T/0	6.47	0.0044	7.87	0.0061
Middle			23.38	0.2178	24.78	0.3006
Highest			6.09	0.0041	7.49	0.0056
Limit	EIRP < 2W		Result		PASS	

LTE NB1 Band 25 / 3.75KHz (Average) (GT - LC = 1.4 dB)						
Channel	Mode	Tones	Conducted		EIRP	
			Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	BPSK	1T/0	6.36	0.0043	7.76	0.0060
Middle			23.12	0.2051	24.52	0.2831
Highest			6.24	0.0042	7.64	0.0058
Lowest	QPSK	1T/0	6.39	0.0044	7.79	0.0060
Middle			23.13	0.2056	24.53	0.2838
Highest			6.28	0.0042	7.68	0.0059
Limit	EIRP < 2W		Result		PASS	

LTE NB1 Band 25 / 15KHz (Average) (GT - LC = 1.4 dB)						
Channel	Mode	Tones	Conducted		EIRP	
			Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	BPSK	1T/0	6.09	0.0041	7.49	0.0056
Middle			23.25	0.2113	24.65	0.2917
Highest			6.37	0.0043	7.77	0.0060
Lowest	QPSK	1T/0	6.09	0.0041	7.49	0.0056
Middle			23.28	0.2128	24.68	0.2938
Highest			6.36	0.0043	7.76	0.0060
Limit	EIRP < 2W		Result		PASS	

LTE NB1 Band 4 / 3.75KHz (Average) (GT - LC = 1.6 dB)						
Channel	Mode	Tones	Conducted		EIRP	
			Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	BPSK	1T/0	6.40	0.0044	8.00	0.0063
Middle			23.54	0.2259	25.14	0.3266
Highest			6.27	0.0042	7.87	0.0061
Lowest	QPSK	1T/0	6.42	0.0044	8.02	0.0063
Middle			23.59	0.2286	25.19	0.3304
Highest			6.31	0.0043	7.91	0.0062
Limit	EIRP < 1W		Result		PASS	

LTE NB1 Band 4 / 15KHz (Average) (GT - LC = 1.6 dB)						
Channel	Mode	Tones	Conducted		EIRP	
			Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	BPSK	1T/0	6.71	0.0047	8.31	0.0068
Middle			23.22	0.2099	24.82	0.3034
Highest			6.14	0.0041	7.74	0.0059
Lowest	QPSK	1T/0	6.71	0.0047	8.31	0.0068
Middle			23.24	0.2109	24.84	0.3048
Highest			6.16	0.0041	7.76	0.0060
Limit	EIRP < 1W		Result		PASS	

LTE NB1 Band 5 / 3.75KHz (Average) (GT - LC = 0.5 dB)						
Channel	Mode	Tones	Conducted		ERP	
			Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	BPSK	1T/0	6.31	0.0043	4.66	0.0029
Middle			22.88	0.1941	21.23	0.1327
Highest			6.26	0.0042	4.61	0.0029
Lowest	QPSK	1T/0	6.33	0.0043	4.68	0.0029
Middle			22.93	0.1963	21.28	0.1343
Highest			6.26	0.0042	4.61	0.0029
Limit	ERP < 7W		Result		PASS	

LTE NB1 Band 5 / 15KHz (Average) (GT - LC = 0.5 dB)						
Channel	Mode	Tones	Conducted		ERP	
			Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	BPSK	1T/0	6.36	0.0043	4.71	0.0030
Middle			23.18	0.2080	21.53	0.1422
Highest			6.24	0.0042	4.59	0.0029
Lowest	QPSK	1T/0	6.38	0.0043	4.73	0.0030
Middle			23.22	0.2099	21.57	0.1435
Highest			6.29	0.0043	4.64	0.0029
Limit	ERP < 7W		Result		PASS	

LTE NB1 Band 12 / 3.75KHz (Average) (Average) (GT - LC = -1.3 dB)						
Channel	Mode	Tones	Conducted		ERP	
			Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	BPSK	1T/0	6.94	0.0049	3.49	0.0022
Middle			22.88	0.1941	19.43	0.0877
Highest			6.98	0.0050	3.53	0.0023
Lowest	QPSK	1T/0	6.96	0.0050	3.51	0.0022
Middle			22.87	0.1936	19.42	0.0875
Highest			6.97	0.0050	3.52	0.0022
Limit	ERP < 3W		Result		PASS	

LTE NB1 Band 12 / 15KHz (Average) (Average) (GT - LC = -1.3 dB)						
Channel	Mode	Tones	Conducted		ERP	
			Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	BPSK	1T/0	6.84	0.0048	3.39	0.0022
Middle			23.53	0.2254	20.08	0.1019
Highest			7.07	0.0051	3.62	0.0023
Lowest	QPSK	1T/0	6.84	0.0048	3.39	0.0022
Middle			23.55	0.2265	20.10	0.1023
Highest			7.07	0.0051	3.62	0.0023
Limit	ERP < 3W		Result		PASS	

LTE NB1 Band 13 / 3.75KHz (Average) (Average) (GT - LC = -0.3 dB)						
Channel	Mode	Tones	Conducted		ERP	
			Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	BPSK	1T/0	6.20	0.0042	3.75	0.0024
Middle			22.83	0.1919	20.38	0.1091
Highest			5.81	0.0038	3.36	0.0022
Lowest	QPSK	1T/0	6.22	0.0042	3.77	0.0024
Middle			22.84	0.1923	20.39	0.1094
Highest			5.81	0.0038	3.36	0.0022
Limit	ERP < 3W		Result		PASS	

LTE NB1 Band 13 / 15KHz (Average) (Average) (GT - LC = -0.3 dB)						
Channel	Mode	Tones	Conducted		ERP	
			Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	BPSK	1T/11	6.20	0.0042	3.75	0.0024
Middle			23.23	0.2104	20.78	0.1197
Highest			6.31	0.0043	3.86	0.0024
Lowest	QPSK	1T/0	6.19	0.0042	3.74	0.0024
Middle			23.22	0.2099	20.77	0.1194
Highest			6.33	0.0043	3.88	0.0024
Limit	ERP < 3W		Result		PASS	

LTE NB1 Band 71 / 3.75KHz (Average) (Average) (GT - LC = -0.9 dB)						
Channel	Mode	Tones	Conducted		ERP	
			Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	BPSK	1T/47	6.74	0.0047	3.69	0.0023
Middle			21.55	0.1429	18.50	0.0708
Highest			6.65	0.0046	3.60	0.0023
Lowest	QPSK	1T/47	6.73	0.0047	3.68	0.0023
Middle			21.70	0.1479	18.65	0.0733
Highest			6.63	0.0046	3.58	0.0023
Limit	ERP < 3W		Result		PASS	

LTE NB1 Band 71 / 15KHz (Average) (Average) (GT - LC = -0.9 dB)						
Channel	Mode	Tones	Conducted		ERP	
			Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	BPSK	1T/0	6.66	0.0046	3.61	0.0023
Middle			21.87	0.1538	18.82	0.0762
Highest			6.29	0.0043	3.24	0.0021
Lowest	QPSK	1T/0	6.67	0.0046	3.62	0.0023
Middle			21.86	0.1535	18.81	0.0760
Highest			6.33	0.0043	3.28	0.0021
Limit	ERP < 3W		Result		PASS	

LTE NB1 Band 26 / 3.75KHz (Average) (Average) (GT - LC = 0.5 dB)						
Channel	Mode	Tones	Conducted		ERP	
			Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	BPSK	1T/0	6.89	0.0049	5.24	0.0033
Middle			23.43	0.2203	21.78	0.1507
Highest			6.88	0.0049	5.23	0.0033
Lowest	QPSK	1T/0	6.91	0.0049	5.26	0.0034
Middle			23.43	0.2203	21.78	0.1507
Highest			6.90	0.0049	5.25	0.0033
Limit	ERP < 7W		Result		PASS	

LTE NB1 Band 26 / 15KHz (Average) (Average) (GT - LC = 0.5 dB)						
Channel	Mode	Tones	Conducted		ERP	
			Power (dBm)	Power (Watts)	ERP(dBm)	ERP(W)
Lowest	BPSK	1T/0	7.01	0.0050	5.36	0.0034
Middle			23.62	0.2301	21.97	0.1574
Highest			6.76	0.0047	5.11	0.0032
Lowest	QPSK	1T/0	7.03	0.0050	5.38	0.0035
Middle			23.67	0.2328	22.02	0.1592
Highest			6.75	0.0047	5.10	0.0032
Limit	ERP < 7W		Result		PASS	

LTE NB1 Band 66 / 3.75KHz (Average) (Average) (GT - LC = 1.6 dB)						
Channel	Mode	Tones	Conducted		EIRP	
			Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	BPSK	1T/0	6.78	0.0048	8.38	0.0069
Middle			23.26	0.2118	24.86	0.3062
Highest			6.99	0.0050	8.59	0.0072
Lowest	QPSK	1T/0	6.78	0.0048	8.38	0.0069
Middle			23.25	0.2113	24.85	0.3055
Highest			6.97	0.0050	8.57	0.0072
Limit	EIRP < 1W		Result		PASS	

LTE NB1 Band 66 / 15KHz (Average) (Average) (GT - LC = 1.6 dB)						
Channel	Mode	Tones	Conducted		EIRP	
			Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)
Lowest	BPSK	1T/0	7.20	0.0052	8.80	0.0076
Middle			23.53	0.2254	25.13	0.3258
Highest			6.57	0.0045	8.17	0.0066
Lowest	QPSK	1T/0	6.75	0.0047	8.35	0.0068
Middle			23.52	0.2249	25.12	0.3251
Highest			6.49	0.0045	8.09	0.0064
Limit	EIRP < 1W		Result		PASS	

LTE NB1 Band 85 / 3.75KHz (Average) (Average) (GT - LC = -1.2 dB)						
Channel	Mode	Tones	Conducted		ERP	
			Power (dBm)	Power (Watts)	ERP(dBm)	EIRP(W)
Lowest	BPSK	1T/0	7.25	0.0053	3.90	0.0025
Middle			23.50	0.2239	20.15	0.1035
Highest			7.38	0.0055	4.03	0.0025
Lowest	QPSK	1T/47	7.22	0.0053	3.87	0.0024
Middle			23.55	0.2265	20.20	0.1047
Highest			7.32	0.0054	3.97	0.0025
Limit	ERP < 3W		Result		PASS	

LTE NB1 Band 85 / 15KHz (Average) (Average) (GT - LC = -1.2 dB)						
Channel	Mode	Tones	Conducted		ERP	
			Power (dBm)	Power (Watts)	ERP(dBm)	EIRP(W)
Lowest	BPSK	1T/0	7.07	0.0051	3.72	0.0024
Middle			23.61	0.2296	20.26	0.1062
Highest			7.36	0.0054	4.01	0.0025
Lowest	QPSK	1T/11	7.02	0.0050	3.67	0.0023
Middle			23.60	0.2291	20.25	0.1059
Highest			7.32	0.0054	6.12	0.0041
Limit	ERP < 3W		Result		PASS	

Appendix B. Test Results of Radiated Test

LTE Band 2

LTE Band 2 / 15KHz / 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)
Lowest	3702	-56.58	-13	-43.58	-77.84	-63.15	1.67	8.24	H
	5550	-54.42	-13	-41.42	-80.4	-61.49	2.65	9.72	H
	7398	-53.12	-13	-40.12	-80.68	-62.25	2.46	11.60	H
									H
									H
									H
	3702	-56.66	-13	-43.66	-77.84	-63.23	1.67	8.24	V
	5550	-54.38	-13	-41.38	-80.37	-61.45	2.65	9.72	V
	7398	-52.74	-13	-39.74	-80.44	-61.87	2.46	11.60	V
									V
									V
									V
Middle	3762	-46.21	-13	-33.21	-67.42	-52.84	1.69	8.31	H
	5640	-53.31	-13	-40.31	-79.47	-60.36	2.71	9.76	H
	7520	-52.25	-13	-39.25	-80.1	-61.64	2.42	11.81	H
									H
									H
									H
	3762	-48.79	-13	-35.79	-70.02	-55.42	1.69	8.31	V
	5640	-52.40	-13	-39.40	-78.54	-59.45	2.71	9.76	V
	7520	-51.95	-13	-38.95	-79.96	-61.34	2.42	11.81	V
									V
									V
									V

LTE Band 2 / 15KHz / 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)
Highest	3822	-57.14	-13	-44.14	-78.2	-63.82	1.71	8.39	H
	5730	-53.56	-13	-40.56	-80	-60.59	2.76	9.79	H
	7638	-52.46	-13	-39.46	-80.45	-61.96	2.38	11.88	H
									H
									H
									H
	3822	-56.94	-13	-43.94	-78.2	-63.62	1.71	8.39	V
	5730	-53.29	-13	-40.29	-79.79	-60.32	2.76	9.79	V
	7638	-51.23	-13	-38.23	-79.53	-60.73	2.38	11.88	V
									V
									V
									V

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

LTE Band 4

LTE Band 4 / 15KHz / 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)
Lowest	3420	-55.89	-13	-42.89	-76.88	-61.96	1.58	7.65	H
	5130	-55.04	-13	-42.04	-79.82	-62.33	2.41	9.70	H
	6840	-53.45	-13	-40.45	-80.79	-61.42	2.64	10.61	H
									H
									H
									H
	3420	-55.72	-13	-42.72	-76.74	-61.79	1.58	7.65	V
	5130	-54.86	-13	-41.86	-79.56	-62.15	2.41	9.70	V
	6840	-53.57	-13	-40.57	-80.8	-61.54	2.64	10.61	V
									V
									V
									V
									V
Middle	3462	-54.39	-13	-41.39	-75.57	-60.63	1.59	7.83	H
	5196	-54.73	-13	-41.73	-79.72	-61.98	2.45	9.70	H
	6930	-53.35	-13	-40.35	-80.9	-61.45	2.61	10.72	H
									H
									H
									H
	3462	-54.39	-13	-41.39	-75.46	-60.63	1.59	7.83	V
	5196	-54.87	-13	-41.87	-79.86	-62.12	2.45	9.70	V
	6930	-53.14	-13	-40.14	-80.76	-61.24	2.61	10.72	V
									V
									V
									V

LTE Band 4 / 15KHz / 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)
Highest	3510	-55.62	-13	-42.62	-76.95	-62.02	1.61	8.01	H
	5268	-54.77	-13	-41.77	-80.03	-61.98	2.49	9.70	H
	7020	-53.02	-13	-40.02	-80.79	-61.28	2.58	10.84	H
									H
									H
									H
	3510	-55.46	-13	-42.46	-76.64	-61.86	1.61	8.01	V
	5268	-54.91	-13	-41.91	-80.05	-62.12	2.49	9.70	V
	7020	-53.12	-13	-40.12	-80.93	-61.38	2.58	10.84	V
									V
									V
									V

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

LTE Band 5

LTE Band 5 /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	1648	-62.62	-13	-49.62	-74.5	-64.38	0.98	4.89	H
	2472	-58.34	-13	-45.34	-75.55	-60.22	1.28	5.32	H
	3296	-56.86	-13	-43.86	-76.2	-60.27	1.54	7.10	H
									H
									H
									H
									H
	1648	-61.99	-13	-48.99	-74.34	-63.75	0.98	4.89	V
	2472	-56.82	-13	-43.82	-74.47	-58.7	1.28	5.32	V
	3296	-56.66	-13	-43.66	-76.33	-60.07	1.54	7.10	V
									V
									V
									V
									V
Middle	1664	-62.60	-13	-49.60	-74.78	-64.31	0.98	4.84	H
	2496	-58.21	-13	-45.21	-75.46	-60.16	1.29	5.39	H
	3326	-57.01	-13	-44.01	-76.63	-60.54	1.55	7.23	H
									H
									H
									H
									H
	1664	-61.98	-13	-48.98	-74.62	-63.69	0.98	4.84	V
	2496	-57.28	-13	-44.28	-74.99	-59.23	1.29	5.39	V
	3326	-56.09	-13	-43.09	-75.92	-59.62	1.55	7.23	V
									V
									V
									V
									V

LTE Band 5 /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)
Highest	1696	-62.79	-13	-49.79	-75.13	-64.39	1.00	4.75	H
	2546	-58.59	-13	-45.59	-75.81	-60.57	1.31	5.44	H
	3395	-56.64	-13	-43.64	-76.53	-60.46	1.57	7.54	H
									H
									H
									H
									H
	1696	-62.22	-13	-49.22	-75	-63.82	1.00	4.75	V
	2546	-57.21	-13	-44.21	-74.93	-59.19	1.31	5.44	V
	3395	-56.44	-13	-43.44	-76.42	-60.26	1.57	7.54	V
									V
									V
									V
									V

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

LTE Band 12

LTE Band 12 / 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	1398	-62.85	-13	-49.85	-73.01	-64.50	0.87	4.67	H
	2097	-60.62	-13	-47.62	-75.97	-61.50	1.16	4.19	H
	2796	-58.60	-13	-45.60	-76.21	-60.70	1.38	5.64	H
									H
									H
									H
									H
	1398	-62.85	-13	-49.85	-73.46	-64.50	0.87	4.67	V
	2097	-60.02	-13	-47.02	-75.92	-60.90	1.16	4.19	V
	2796	-58.00	-13	-45.00	-76.06	-60.10	1.38	5.64	V
									V
									V
									V
									V
Middle	1416	-44.55	-13	-31.55	-54.50	-46.30	0.87	4.78	H
	2123	-60.15	-13	-47.15	-75.44	-61.10	1.17	4.27	H
	2830	-58.58	-13	-45.58	-76.14	-60.70	1.39	5.66	H
									H
									H
									H
									H
	1416	-50.45	-13	-37.45	-61.00	-52.20	0.87	4.78	V
	2123	-58.65	-13	-45.65	-74.52	-59.60	1.17	4.27	V
	2830	-57.08	-13	-44.08	-75.44	-59.20	1.39	5.66	V
									V
									V
									V
									V

LTE Band 12 / 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)
Highest	1432	-63.75	-13	-50.75	-74.12	-65.60	0.88	4.88	H
	2148	-60.59	-13	-47.59	-76.18	-61.60	1.18	4.34	H
	2864	-59.16	-13	-46.16	-76.62	-61.30	1.40	5.69	H
									H
									H
									H
									H
	1432	-63.85	-13	-50.85	-74.42	-65.70	0.88	4.88	V
	2148	-60.39	-13	-47.39	-75.93	-61.40	1.18	4.34	V
	2864	-58.06	-13	-45.06	-76.35	-60.20	1.40	5.69	V
									V
									V
									V
									V

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

LTE Band 13

LTE Band 13 /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	1554	-63.84	-13	-50.84	-74.49	-65.90	0.94	5.15	H
	2331	-58.99	-13	-45.99	-75.78	-60.50	1.24	4.89	H
	3109	-57.75	-13	-44.75	-76.22	-60.40	1.48	6.28	H
									H
									H
									H
									H
	1554	-62.64	-13	-49.64	-74.05	-64.70	0.94	5.15	V
	2331	-55.79	-13	-42.79	-72.45	-57.30	1.24	4.89	V
	3109	-57.45	-13	-44.45	-76.34	-60.10	1.48	6.28	V
									V
									V
									V
									V
Middle	1568	-58.08	-42.15	-15.93	-69.11	-60.10	0.94	5.11	H
	2344	-58.36	-13	-45.36	-74.68	-59.90	1.24	4.93	H
	3128	-57.47	-13	-44.47	-75.98	-60.20	1.49	6.36	H
									H
									H
									H
									H
	1568	-59.18	-42.15	-17.03	-70.69	-61.20	0.94	5.11	V
	2344	-48.16	-13	-35.16	-65.23	-49.70	1.24	4.93	V
	3120	-57.31	-13	-44.31	-76.10	-60.00	1.49	6.33	V
									V
									V
									V
									V

LTE Band 13 /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)
Highest	1574	-63.60	-42.15	-21.45	-74.60	-65.60	0.94	5.09	H
	2360	-59.52	-13	-46.52	-75.45	-61.10	1.25	4.98	H
	3148	-57.49	-13	-44.49	-75.95	-60.30	1.49	6.45	H
									H
									H
									H
									H
	1568	-62.48	-42.15	-20.33	-74.48	-64.50	0.94	5.11	V
	2344	-57.56	-13	-44.56	-74.32	-59.10	1.24	4.93	V
	3148	-57.09	-13	-44.09	-76.16	-59.90	1.49	6.45	V
									V
									V
									V
									V

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

LTE Band 25

LTE Band 25 / 15KHz / 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)
Lowest	3702	-56.54	-13	-43.54	-77.79	-63.11	1.67	8.24	H
	5550	-54.25	-13	-41.25	-80.19	-61.32	2.65	9.72	H
	7398	-52.74	-13	-39.74	-80.26	-61.87	2.46	11.60	H
									H
									H
									H
	3702	-56.76	-13	-43.76	-77.99	-63.33	1.67	8.24	V
	5550	-53.92	-13	-40.92	-79.84	-60.99	2.65	9.72	V
	7398	-52.92	-13	-39.92	-80.71	-62.05	2.46	11.60	V
									V
									V
									V
Middle	3762	-45.62	-13	-32.62	-66.9	-52.25	1.69	8.31	H
	5646	-54.26	-13	-41.26	-80.36	-61.31	2.71	9.76	H
	7530	-52.57	-13	-39.57	-80.33	-61.97	2.42	11.82	H
									H
									H
									H
	3762	-48.39	-13	-35.39	-69.91	-55.02	1.69	8.31	V
	5646	-53.51	-13	-40.51	-79.7	-60.56	2.71	9.76	V
	7530	-52.22	-13	-39.22	-80.23	-61.62	2.42	11.82	V
									V
									V
									V

LTE Band 25 / 15KHz / 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)
Highest	3828	-57.61	-13	-44.61	-78.26	-64.3	1.71	8.39	H
	5742	-54.07	-13	-41.07	-80.07	-61.1	2.76	9.80	H
	7656	-52.79	-13	-39.79	-80.34	-62.3	2.38	11.89	H
									H
									H
									H
	3828	-57.81	-13	-44.81	-78.52	-64.5	1.71	8.39	V
	5742	-53.87	-13	-40.87	-80.08	-60.9	2.76	9.80	V
	7656	-52.39	-13	-39.39	-80.46	-61.9	2.38	11.89	V
									V
									V
									V

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

LTE Band 26

LTE 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	1648	-62.84	-13	-49.84	-74.38	-64.6	0.98	4.89	H
	2472	-58.72	-13	-45.72	-75.48	-60.6	1.28	5.32	H
	3296	-57.09	-13	-44.09	-75.97	-60.5	1.54	7.10	H
									H
									H
									H
									H
	1648	-62.14	-13	-49.14	-74.02	-63.9	0.98	4.89	V
	2472	-56.92	-13	-43.92	-74.28	-58.8	1.28	5.32	V
	3296	-57.29	-13	-44.29	-76.36	-60.7	1.54	7.10	V
									V
									V
									V
									V
Middle	1673	-62.62	-13	-49.62	-74.25	-64.3	0.99	4.82	H
	2510	-58.94	-13	-45.94	-76	-60.9	1.29	5.41	H
	3346	-57.18	-13	-44.18	-76.52	-60.8	1.56	7.32	H
									H
									H
									H
									H
	1673	-62.62	-13	-49.62	-74.78	-64.3	0.99	4.82	V
	2510	-57.64	-13	-44.64	-75	-59.6	1.29	5.41	V
	3346	-56.58	-13	-43.58	-75.97	-60.2	1.56	7.32	V
									V
									V
									V
									V

LTE 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)
Highest	1698	-62.90	-13	-49.90	-75.24	-64.5	1.00	4.75	H
	2547	-58.82	-13	-45.82	-75.62	-60.8	1.31	5.44	H
	3395	-57.08	-13	-44.08	-76.6	-60.9	1.57	7.54	H
									H
									H
									H
									H
	1698	-62.50	-13	-49.50	-75	-64.1	1.00	4.75	V
	2547	-58.12	-13	-45.12	-75.31	-60.1	1.31	5.44	V
	3395	-56.88	-13	-43.88	-76.37	-60.7	1.57	7.54	V
									V
									V
									V
									V

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

LTE Band 66

LTE Band 66 / 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	3420	-55.67	-13	-42.67	-76.6	-61.74	1.58	7.65	H
	5130	-54.74	-13	-41.74	79.5	-62.03	2.41	9.70	H
	6840	-52.90	-13	-39.90	-80.21	-60.87	2.64	10.61	H
									H
									H
									H
									H
	3420	-55.66	-13	-42.66	-76.64	-61.73	1.58	7.65	V
	5130	-54.85	-13	-41.85	-79.45	-62.14	2.41	9.70	V
	6840	-53.24	-13	-40.24	-80.5	-61.21	2.64	10.61	V
									V
									V
									V
									V
Middle	3492	-51.56	-13	-38.56	-72.9	-57.92	1.60	7.96	H
	5235	-54.38	-13	-41.38	-79.57	-61.61	2.47	9.70	H
	6980	-52.72	-13	-39.72	-80.42	-60.9	2.60	10.78	H
									H
									H
									H
									H
	3492	-52.18	-13	-39.18	-73.37	-58.54	1.60	7.96	V
	5235	-54.28	-13	-41.28	-79.34	-61.51	2.47	9.70	V
	6980	-52.45	-13	-39.45	-80.19	-60.63	2.60	10.78	V
									V
									V
									V
									V

LTE Band 66 / 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)
Highest	3560	-55.06	-13	-42.06	-76.35	-61.51	1.62	8.07	H
	5340	-53.89	-13	-40.89	-79.44	-61.06	2.53	9.70	H
	7120	-52.55	-13	-39.55	-80.13	-61.04	2.55	11.04	H
									H
									H
									H
									H
	3560	-55.32	-13	-42.32	-76.51	-61.77	1.62	8.07	V
	5340	-54.07	-13	-41.07	-79.54	-61.24	2.53	9.70	V
	7120	-52.67	-13	-39.67	-80.35	-61.16	2.55	11.04	V
									V
									V
									V
									V

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

LTE Band 71

LTE Band 71 / 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	1328	-55.93	-13	-42.93	-65.83	-57.18	0.84	4.23	H
	1989	-59.82	-13	-46.82	-74.69	-60.47	1.13	3.93	H
	2648	-58.72	-13	-45.72	-76.01	-60.75	1.34	5.52	H
									H
									H
									H
									H
	1328	-59.98	-13	-46.98	-70.29	-61.23	0.84	4.23	V
	1989	-58.01	-13	-45.01	-73.2	-58.66	1.13	3.93	V
	2648	-58.49	-13	-45.49	-76.39	-60.52	1.34	5.52	V
									V
									V
									V
									V
Middle	1360	-55.46	-13	-42.46	-65.46	-56.89	0.85	4.43	H
	2040	-39.69	-13	-26.69	-54.85	-40.41	1.15	4.02	H
	2720	-57.91	-13	-44.91	-75.33	-59.98	1.36	5.58	H
									H
									H
									H
									H
	1360	-59.31	-13	-46.31	-69.75	-60.74	0.85	4.43	V
	2040	-41.12	-13	-28.12	-56.6	-41.84	1.15	4.02	V
	2720	-57.70	-13	-44.70	-75.81	-59.77	1.36	5.58	V
									V
									V
									V
									V

LTE Band 71 / 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)
Highest	1400	-63.12	-13	-50.12	-73.33	-64.78	0.87	4.68	H
	2096	-60.26	-13	-47.26	-75.65	-61.13	1.16	4.19	H
	2792	-58.09	-13	-45.09	-75.62	-60.19	1.38	5.63	H
									H
									H
									H
									H
	1400	-63.05	-13	-50.05	-73.73	-64.71	0.87	4.68	V
	2096	-59.78	-13	-46.78	-75.5	-60.65	1.16	4.19	V
	2792	-57.07	-13	-44.07	-75.36	-59.17	1.38	5.63	V
									V
									V
									V
									V

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

LTE Band 85

LTE Band 85 / 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	1400	-62.23	-13	-49.23	-72.49	-63.89	0.87	4.68	H
	2096	-60.16	-13	-47.16	-75.55	-61.03	1.16	4.19	H
	2792	-58.35	-13	-45.35	-75.86	-60.45	1.38	5.63	H
									H
									H
									H
	1400	-62.93	-13	-49.93	-73.58	-64.59	0.87	4.68	V
	2096	-59.21	-13	-46.21	-74.93	-60.08	1.16	4.19	V
	2792	-57.18	-13	-44.18	-75.46	-59.28	1.38	5.63	V
									V
									V
									V
Middle	1416	-44.51	-13	-31.51	-54.71	-46.26	0.87	4.78	H
	2120	-59.88	-13	-46.88	-75.43	-60.82	1.17	4.26	H
	2824	-57.89	-13	-44.89	-75.44	-60.01	1.39	5.66	H
									H
									H
									H
	1416	-49.69	-13	-36.69	-60.30	-51.44	0.87	4.78	V
	2120	-59.44	-13	-46.44	-75.28	-60.38	1.17	4.26	V
	2824	-56.91	-13	-43.91	-75.25	-59.03	1.39	5.66	V
									V
									V
									V

LTE Band 85 / 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)
Highest	1432	-63.77	-13	-50.77	-74.12	-65.62	0.88	4.88	H
	2152	-59.69	-13	-46.69	-75.42	-60.71	1.18	4.36	H
	2864	-58.24	-13	-45.24	-75.86	-60.38	1.40	5.69	H
									H
									H
									H
	1432	-63.14	-13	-50.14	-73.87	-64.99	0.88	4.88	V
	2152	-59.55	-13	-46.55	-75.63	-60.57	1.18	4.36	V
	2864	-57.13	-13	-44.13	-75.53	-59.27	1.40	5.69	V
									V
									V
									V

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