

**Shenzhen Global Test Service Co.,Ltd.**

No.7-101 and 8A-104, Building 7 and 8, DCC Cultural and Creative Garden, No.98, Pingxin North Road, Shangmugu Community, Pinghu Street, Longgang District, Shenzhen, Guangdong

FCC TEST REPORT**FCC Part 24/Part 27****Report Reference No.....: GTS20211014013-1-3****FCC ID.....: 2ATKG-RAD78235**

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Date of issue.....: Nov.04, 2021

Representative Laboratory Name ..: Shenzhen Global Test Service Co.,Ltd.

Address: No.7-101 and 8A-104, Building 7 and 8, DCC Cultural and Creative Garden, No.98, Pingxin North Road, Shangmugu Community, Pinghu Street, Longgang District, Shenzhen, Guangdong

Applicant's name: Sutro Connect Inc.

Address: 181 2nd St.#21, San Francisco, California, 94105 United States

Test specification

Standard: **FCC CFR Title 47 Part 2, Part 24E,Part 27**
TIA-603-E March 2016
FCC KDB971168 D01 Power Meas License Digital Systems v03r01

TRF Originator: Shenzhen Global Test Service Co.,Ltd..

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Test item description: Sutro Hub+Charger

Trade Mark: SUTRO

Manufacturer: Sutro Connect Inc.

Model/Type reference.....: SHC-1

Listed Models: N/A

Modulation Type: QPSK, 16QAM

Hardware Version: V1.5

Software Version: V2.1.1

Rating: DC 5.0V by Adapter

Result.....: **PASS**

TEST REPORT

Test Report No. :	GTS20211014013-1-3	Nov.04, 2021
		Date of issue

Equipment under Test : Sutro Hub+Charger

Model /Type : SHC-1

Listed model : N/A

Applicant : **Sutro Connect Inc.**

Address : 181 2nd St.#21, San Francisco, California, 94105 United States

Manufacturer : **Sutro Connect Inc.**

Address : 181 2nd St.#21, San Francisco, California, 94105 United States

Test result	Pass *
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* In the configuration tested, the EUT complied with the standards specified page 4.

The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

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1 SUMMARY

1.1 TEST STANDARDS

The tests were performed according to following standards:

[FCC Part 24](#) : PERSONAL COMMUNICATIONS SERVICES

[FCC Part 27](#) : MISCELLANEOUS WIRELESS COMMUNICATIONS SERVICES

[TIA-603-E March 2016](#): Land Mobile FM or PM Communications Equipment Measurement and Performance Standards.

[FCC Part 2](#): FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS

[FCC KDB971168 D01](#) Power Meas License Digital Systems v03r01

[ANSI C63.26:2015](#):American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services

2 GENERAL INFORMATION

2.1 General Remarks

Date of receipt of test sample	:	Oct.15, 2021
Testing commenced on	:	Oct.15, 2021
Testing concluded on	:	Nov.04, 2021

2.2 Product Description

Product Name	Sutro Hub+Charger
Trade Mark	SUTRO
Model/Type reference	SHC-1
List Models	N/A
Model Declaration	N/A
Power supply:	DC 5.0V by Adapter
Sample ID	GTS20211014013-1-1# & GTS20211014013-1-2#
WIFI(2.4G Band)	
Frequency Range	2412MHz ~ 2462MHz
Channel Spacing	5MHz
Channel Number	11 Channel for 20MHz bandwidth(2412~2462MHz)
Modulation Type	802.11b: DSSS; 802.11g/n: OFDM
Antenna Description	FPC Antenna, 2.10dBi(Max.)
SRD	
Frequency Range	915MHz
Channel Number	1Channel
Modulation Type	2FSK
Antenna Description	FPC Antenna, 2.38dBi(Max.)
LTE	
LTE Operation Frequency Band	E-UTRA Band 2(1850 MHz -1910MHz) E-UTRA Band 4(1710 MHz -1755MHz) E-UTRA Band 12(699 MHz -716MHz)
LTE Release Version	R9
Type Of Modulation	QPSK/16QAM
Antenna Description	FPC Antenna; 3.68dBi (max.) For LTE Band 2; 3.68dBi (max.) For LTE Band 4; 3.68dBi (max.) For LTE Band 12;

2.3 Equipment Under Test

Power supply system utilised

Power supply voltage	:	☐	230V / 50 Hz	☐	120V / 60Hz
		☐	12 V DC	☐	24 V DC
		☒	Other (specified in blank below)		

DC 5.0V

2.4 Short description of the Equipment under Test (EUT)

This is a Sutro Hub+Charger. For more details, refer to the user's manual of the EUT.

2.5 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Normal Temperature:	25°C
Relative Humidity:	55 %
Air Pressure:	101 kPa

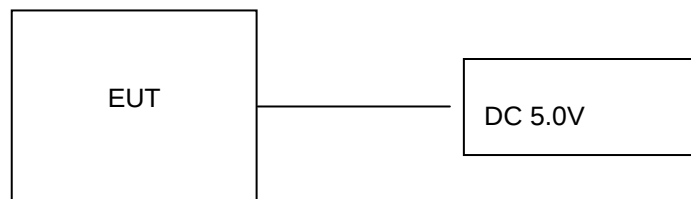
2.6 Description of Test Modes

The EUT has been tested under typical operating condition. The CMW500 used to control the EUT staying in continuous transmitting and receiving mode for testing. Regards to the frequency band operation: the lowest, middle and highest frequency of channel were selected to perform the test, then shown on this report.

Note:

1. For the ERP/EIRP and radiated emission test, every axis (X, Y, Z) was verified, and show the worst result on this report.
2. Test method and refer to 3GPP TS136521.

2.7 Block Diagram of Test Setup



2.8 Special Accessories

Manufacturer	Description	Model	Serial Number	Certificate
SHENZHEN FUSHIGANG TECHNOLOGY CO.,LTD.	Adapter	AS1201A-0502000USU	--	SDOC

2.9 Related Submittal(s) / Grant (s)

This submittal(s) (test report) is filing to comply with of the FCC Part 22, Part 24, Part 27 Rules.

2.10 Modifications

No modifications were implemented to meet testing criteria.

3 TEST ENVIRONMENT

3.1 Address of the test laboratory

Shenzhen Global Test Service Co.,Ltd.

No.7-101 and 8A-104, Building 7 and 8, DCC Cultural and Creative Garden, No.98, Pingxin North Road, Shangmugu Community, Pinghu Street, Longgang District, Shenzhen, Guangdong, China.

The sites are constructed in conformance with the requirements of ANSI C63.4 (2014) and CISPR Publication 22.

3.2 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

CNAS (No. CNAS L8169)

Shenzhen Global Test Service Co., Ltd. has been assessed and proved to be in compliance with CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC 17025: 2019 General Requirements) for the Competence of Testing and Calibration Laboratories.

A2LA (Certificate No. 4758.01)

Shenzhen Global Test Service Co., Ltd. has been assessed by the American Association for Laboratory Accreditation (A2LA). Certificate No. 4758.01.

Industry Canada Registration Number. is 24189.

FCC Designation Number is CN1234.

FCC Registered Test Site Number is 165725.

3.3 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	15-35 ° C
Humidity:	30-60 %
Atmospheric pressure:	950-1050mbar

3.4 Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16 - 4 „Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements“ and is documented in the Shenzhen Global Test Service Co.,Ltd quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for Shenzhen GTS laboratory is reported:

Test	Range	Measurement Uncertainty	Notes
Radiated Emission	30~1000MHz	4.10 dB	(1)
Radiated Emission	1~18GHz	4.32 dB	(1)
Radiated Emission	18-40GHz	5.54 dB	(1)
Conducted Disturbance	0.15~30MHz	3.12 dB	(1)

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

3.5 Test Description

Test Item	Section in CFR 47	Test Sample	Result
RF Output Power	Part 2.1046 Part 24.232(c) Part 27.50	GTS20211014013-1-1#	Pass
Spurious Emissions at Antenna Terminal	Part 2.1051 Part 24.238 Part 27.53	GTS20211014013-1-2#	Pass
Field Strength of Spurious Radiation	Part 2.1053 Part 24.238 Part 27.53	GTS20211014013-1-2#	Pass

Remark:

1. The measurement uncertainty is not included in the test result.
2. NA = Not Applicable; NP = Not Performed
3. Note 1 – Test results inside test report;
4. Note 2 – Test results in other test report (MPE Report).
5. We tested all test mode and recorded worst case in report

3.6 Equipments Used during the Test

Test Equipment	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Due Date
LISN	CYBERTEK	EM5040A	E1850400105	2021/07/23	2022/07/22
LISN	R&S	ESH2-Z5	893606/008	2021/07/23	2022/07/22
EMI Test Receiver	R&S	ESPI3	101841-cd	2021/07/23	2022/07/22
EMI Test Receiver	R&S	ESC17	101102	2021/09/19	2022/09/18
Spectrum Analyzer	Agilent	N9020A	MY48010425	2021/09/19	2022/09/18
Spectrum Analyzer	R&S	FSV40	100019	2021/07/23	2022/07/22
Vector Signal generator	Agilent	N5181A	MY49060502	2021/07/23	2022/07/22
Signal generator	Agilent	N5182A	3610AO1069	2021/09/19	2022/09/18
Climate Chamber	ESPEC	EL-10KA	A20120523	2021/09/19	2022/09/18
Controller	EM Electronics	Controller EM 1000	N/A	N/A	N/A
Horn Antenna	Schwarzbeck	BBHA 9120D	01622	2020/11/08	2021/11/07
Active Loop Antenna	Beijing Da Ze Technology Co.,Ltd.	ZN30900C	15006	2021/09/19	2022/09/18
Bilog Antenna	Schwarzbeck	VULB9163	000976	2021/07/23	2022/07/22
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	791	2020/11/08	2021/11/07
Amplifier	Schwarzbeck	BBV 9743	#202	2021/07/23	2022/07/22
Amplifier	Schwarzbeck	BBV9179	9719-025	2021/07/23	2022/07/22
Amplifier	EMCI	EMC051845 B	980355	2021/07/23	2022/07/22
Temperature/Humidity Meter	Gangxing	CTH-608	02	2021/07/23	2022/07/22
High-Pass Filter	K&L	9SH10-2700/X12750-O/O	KL142031	2021/07/23	2022/07/22
High-Pass Filter	K&L	41H10-1375/U12750-O/O	KL142032	2021/07/23	2022/07/22
RF Cable(below 1GHz)	HUBER+SUHNER	RG214	RE01	2021/07/23	2022/07/22
RF Cable(above 1GHz)	HUBER+SUHNER	RG214	RE02	2021/07/23	2022/07/22
Data acquisition card	Agilent	U2531A	TW53323507	2021/07/23	2022/07/22
Power Sensor	Agilent	U2021XA	MY5365004	2021/07/23	2022/07/22
Test Control Unit	Tonscend	JS0806-1	178060067	2021/07/23	2022/07/22
Automated filter bank	Tonscend	JS0806-F	19F8060177	2021/07/23	2022/07/22
Radio Communication Tester	Rohde&Schwarz	CMW500	115406	2021/07/23	2022/07/22
EMI Test Software	Tonscend	JS1120-1	Ver 2.6.8.0518	/	/
EMI Test Software	Tonscend	JS1120-3	Ver 2.5.77.0418	/	/
EMI Test Software	Tonscend	JS32-CE	Ver 2.5	/	/
EMI Test Software	Tonscend	JS32-RE	Ver 2.5.1.8	/	/

Note: The Cal.Interval was one year.

4 TEST CONDITIONS AND RESULTS

4.1 Output Power

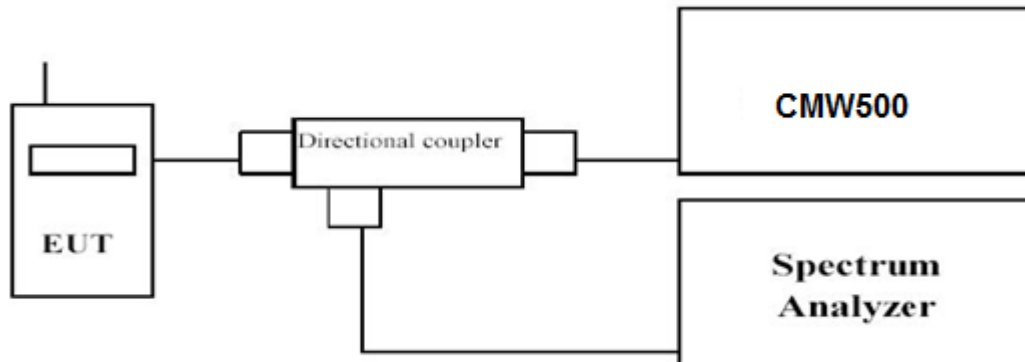
LIMIT

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

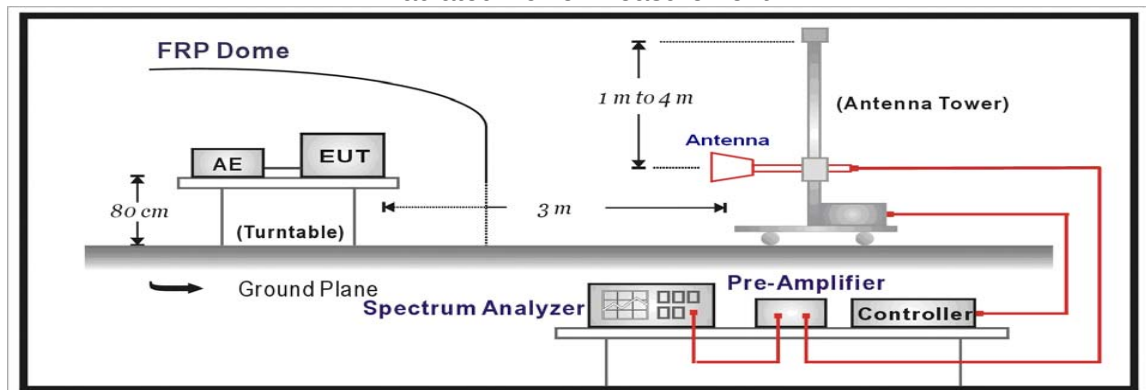
The EIRP of mobile transmitters must not exceed 1 Watts for LTE Band 4 and LTE Band 12 .

TEST CONFIGURATION

Conducted Power Measurement



Radiated Power Measurement:



TEST PROCEDURE

The EUT was setup according to EIA/TIA 603D

Conducted Power Measurement:

- Place the EUT on a bench and set it in transmitting mode.
- Connect a low loss RF cable from the antenna port to a spectrum analyzer and CMW500 by a Directional Couple.
- EUT Communicate with CMW500, then select a channel for testing.
- Add a correction factor to the display of spectrum, and then test.

Radiated Power Measurement:

- The EUT shall be placed at the specified height on a support, and in the position closest to normal use as declared by provider.
- The test antenna shall be oriented initially for vertical polarization and shall be chosen to correspond to the frequency of the transmitter
- The output of the test antenna shall be connected to the measuring receiver.
- The transmitter shall be switched on and the measuring receiver shall be tuned to the frequency of the transmitter under test.
- The test antenna shall be raised and lowered through the specified range of height until a maximum signal level is detected by the measuring receiver.

- f. The transmitter shall then be rotated through 360° in the horizontal plane, until the maximum signal level is detected by the measuring receiver.
- g. The test antenna shall be raised and lowered again through the specified range of height until a maximum signal level is detected by the measuring receiver.
- h. The maximum signal level detected by the measuring receiver shall be noted.
- i. The transmitter shall be replaced by a substitution antenna.
- j. The substitution antenna shall be orientated for vertical polarization and the length of the substitution antenna shall be adjusted to correspond to the frequency of the transmitter.
- k. The substitution antenna shall be connected to a calibrated signal generator.
- l. If necessary, the input attenuator setting of the measuring receiver shall be adjusted in order to increase the sensitivity of the measuring receiver.
- m. The test antenna shall be raised and lowered through the specified range of height to ensure that the maximum signal is received.
- n. The input signal to the substitution antenna shall be adjusted to the level that produces a level detected by the measuring receiver, that is equal to the level noted while the transmitter radiated power was measured, corrected for the change of input attenuator setting of the measuring receiver.
- o. The measurement shall be repeated with the test antenna and the substitution antenna orientated for horizontal polarization.
- p. The measure of the effective radiated power is the larger of the two levels recorded at the input to the substitution antenna, corrected for gain of the substitution antenna if necessary.
- q. Test site anechoic chamber refer to ANSI C63.26.

TEST RESULTS

Temperature	24.5°C	Humidity	53.7%
Test Engineer	Oliver Ou	Configurations	LTE

Conducted Measurement:

LTE FDD Band 2				
TX Channel Bandwidth	Channel	Frequency (MHz)	Average Power [dBm]	
			QPSK	16QAM
1.4 MHz	18607	1850.70	22.24	21.34
	18900	1880.00	22.34	21.56
	19193	1909.30	22.15	21.06

LTE FDD Band 4				
TX Channel Bandwidth	Channel	Frequency (MHz)	Average Power [dBm]	
			QPSK	16QAM
1.4 MHz	19957	1710.70	21.89	21.41
	20175	1732.50	21.75	21.12
	20393	1754.30	21.92	21.21

LTE FDD Band 12				
TX Channel Bandwidth	Channel	Frequency (MHz)	Average Power [dBm]	
			QPSK	16QAM
1.4 MHz	23017	699.7	22.65	22.39
	23095	707.5	22.36	22.21
	23173	715.3	22.43	22.19

Radiated Measurement:

Remark:

1. We were tested all RB Configuration refer 3GPP TS136 521 for each Channel Bandwidth of LTE FDD Band 2, LTE FDD Band 4, LTE FDD Band 12; recorded worst case for each Channel Bandwidth of LTE FDD Band 2, LTE FDD Band 4, LTE FDD Band 12.
2. $ERP = EIRP - 2.15\text{dBi}$ as EIRP by subtracting the gain of the dipole.
3. The unit of Antenna Gain is dBd for frequency below 1GHz, and the unit of Antenna Gain is dBi for frequency above 1GHz.
4. Absolute Level = Substituted Level - Cable loss + Antenna Gain
5. Margin = Limit-Absolute Level

Temperature	24.5°C	Humidity	53.7%
Test Engineer	Oliver Ou	Configurations	LTE

LTE Band 2

Frequency (MHz)	BW (MHz)	Modulation	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level EIRP (dBm)	Limit (dBm)	Margin (dB)
					Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
1850.70	1.4	QPSK	H	86.22	12.72	11.63	1.86	22.48	33.00	10.52
1850.70			V	85.11	12.56	11.63	1.86	22.32	33.00	10.68
1850.70	1.4	16QAM	H	85.81	13.01	11.63	1.86	22.78	33.00	10.22
1850.70			V	84.91	11.72	11.63	1.86	21.49	33.00	11.51

Frequency (MHz)	BW (MHz)	Modulation	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level EIRP (dBm)	Limit (dBm)	Margin (dB)
					Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
1880.000	1.4	QPSK	H	85.03	13.11	11.74	2.30	22.54	33.00	10.46
1880.000			V	85.25	12.88	11.74	2.30	22.32	33.00	10.68
1880.000	1.4	16QAM	H	86.75	13.39	11.74	2.30	22.82	33.00	10.18
1880.000			V	85.01	11.89	11.74	2.30	21.33	33.00	11.67

Frequency (MHz)	BW (MHz)	Modulation	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level EIRP (dBm)	Limit (dBm)	Margin (dB)
					Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
1909.30	1.4	QPSK	H	86.27	13.03	11.78	2.57	22.24	33.00	10.76
1909.30			V	85.19	12.20	11.78	2.57	21.41	33.00	11.59
1909.30	1.4	16QAM	H	86.59	12.35	11.78	2.57	21.56	33.00	11.44
1909.30			V	85.37	12.01	11.78	2.57	21.22	33.00	11.78

LTE Band 4

Frequency (MHz)	BW (MHz)	Modulation	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level EIRP (dBm)	Limit (dBm)	Margin (dB)
					Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
1710.70	1.4	QPSK	H	85.25	14.08	11.11	1.78	23.40	30.00	6.60
1710.70			V	84.95	11.27	11.11	1.78	20.60	30.00	9.40
1710.70	1.4	16QAM	H	85.58	12.96	11.11	1.78	22.28	30.00	7.72
1710.70			V	85.71	12.69	11.11	1.78	22.02	30.00	7.98

Frequency (MHz)	BW (MHz)	Modulation	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level EIRP (dBm)	Limit (dBm)	Margin (dB)
					Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
1732.500	1.4	QPSK	H	86.29	13.46	11.21	2.08	22.59	30.00	7.41
1732.500			V	84.61	11.37	11.21	2.08	20.50	30.00	9.50
1732.500	1.4	16QAM	H	85.93	13.70	11.21	2.08	22.83	30.00	7.17
1732.500			V	86.06	12.02	11.21	2.08	21.14	30.00	8.86

Frequency (MHz)	BW (MHz)	Modulation	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level EIRP (dBm)	Limit (dBm)	Margin (dB)
					Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
1754.30	1.4	QPSK	H	84.86	12.29	11.66	2.37	21.57	30.00	8.43
1754.30			V	85.14	12.10	11.66	2.37	21.38	30.00	8.62
1754.30	1.4	16QAM	H	86.10	13.62	11.66	2.37	22.91	30.00	7.09
1754.30			V	85.85	11.81	11.66	2.37	21.10	30.00	8.90

LTE Band 12

Frequency (MHz)	BW (MHz)	Modulation	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level ERP (dBm)	Limit (dBm)	Margin (dB)
					Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
699.70	1.4	QPSK	H	84.79	20.94	1.29	0.44	21.80	34.77	12.97
699.70			V	85.03	20.45	1.29	0.44	21.30	34.77	13.47
699.70	1.4	16QAM	H	85.08	19.67	1.29	0.44	20.52	34.77	14.25
699.70			V	85.95	20.99	1.29	0.44	21.84	34.77	12.93

Frequency (MHz)	BW (MHz)	Modulation	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level ERP (dBm)	Limit (dBm)	Margin (dB)
					Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
707.50	1.4	QPSK	H	86.34	19.71	1.58	0.45	20.83	34.77	13.94
707.50			V	85.20	20.52	1.58	0.45	21.64	34.77	13.13
707.50	1.4	16QAM	H	85.86	20.85	1.58	0.45	21.98	34.77	12.79
707.50			V	84.28	19.69	1.58	0.45	20.82	34.77	13.95

Frequency (MHz)	BW (MHz)	Modulation	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level ERP (dBm)	Limit (dBm)	Margin (dB)
					Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
715.30	1.4	QPSK	H	86.65	20.40	1.90	0.59	21.71	34.77	13.06
715.30			V	85.41	20.54	1.90	0.59	21.85	34.77	12.92
715.30	1.4	16QAM	H	86.21	20.31	1.90	0.59	21.62	34.77	13.15
715.30			V	85.85	20.98	1.90	0.59	22.29	34.77	12.48

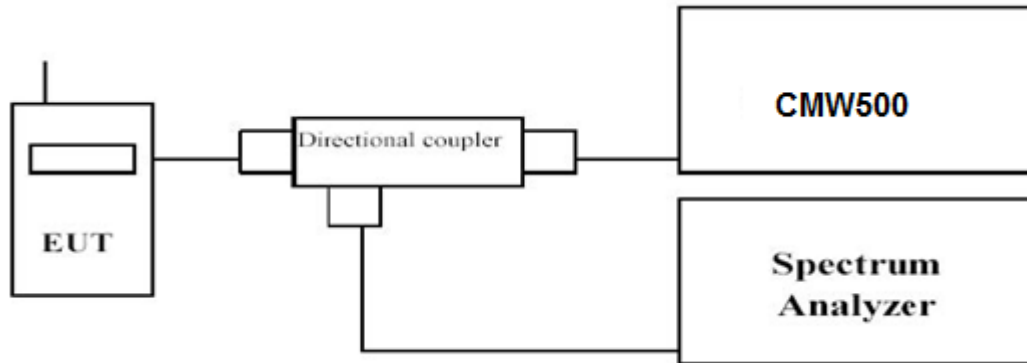
4.2 Spurious Emission

LIMIT

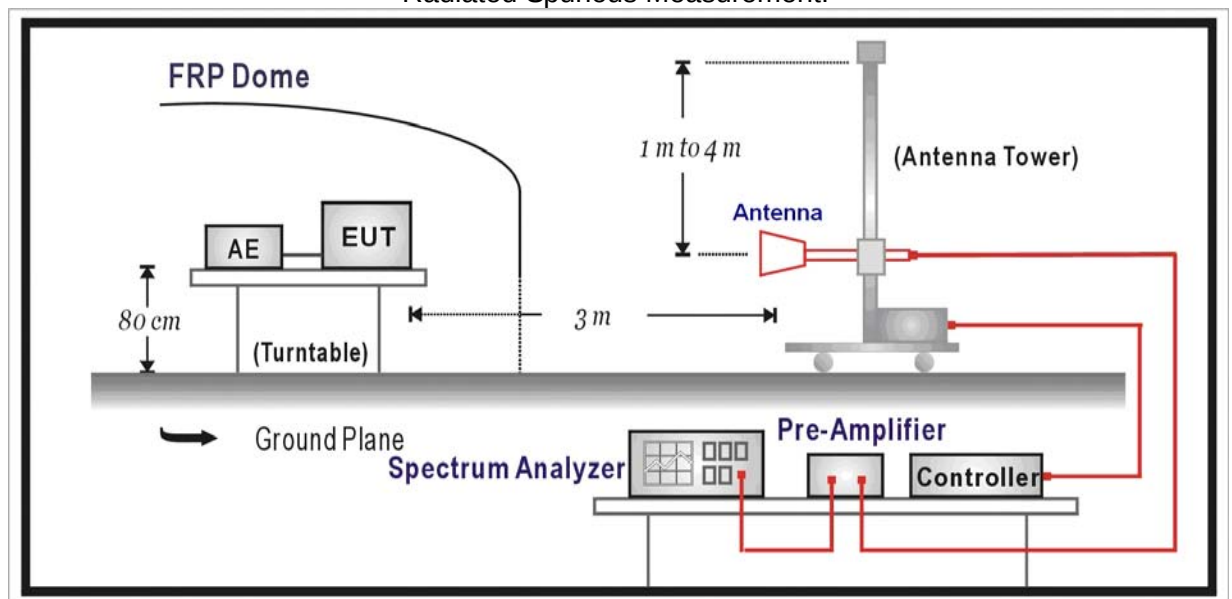
FCC § 2.1053, §22.917, § 24.238, § 27.53 and §90.691.

TEST CONFIGURATION

Conducted Spurious Measurement:



Radiated Spurious Measurement:



TEST PROCEDURE

The EUT was setup according to EIA/TIA 603-E

Conducted Spurious Measurement:

- Place the EUT on a bench and set it in transmitting mode.
- Connect a low loss RF cable from the antenna port to a spectrum analyzer and CMW500 by a Directional Coupler.
- EUT Communicate with CMW500, then select a channel for testing.
- Add a correction factor to the display of spectrum, and then test.
- The resolution bandwidth of the spectrum analyzer was set sufficient scans were taken to show the out of band Emission if any up to 10th harmonic.
- Please refer to following tables for test antenna conducted emissions.

Radiated Spurious Measurement:

- a. The EUT shall be placed at the specified height on a support, and in the position closest to normal use as declared by provider.
- b. The test antenna shall be oriented initially for vertical polarization and shall be chosen to correspond to the frequency of the transmitter
- c. The output of the test antenna shall be connected to the measuring receiver.
- d. The transmitter shall be switched on and the measuring receiver shall be tuned to the frequency of the transmitter under test.
- e. The test antenna shall be raised and lowered through the specified range of height until a maximum signal level is detected by the measuring receiver.
- f. The transmitter shall then be rotated through 360° in the horizontal plane, until the maximum signal level is detected by the measuring receiver.
- g. The test antenna shall be raised and lowered again through the specified range of height until a maximum signal level is detected by the measuring receiver.
- h. The maximum signal level detected by the measuring receiver shall be noted.
- i. The transmitter shall be replaced by a substitution antenna.
- j. The substitution antenna shall be orientated for vertical polarization and the length of the substitution antenna shall be adjusted to correspond to the frequency of the transmitter.
- k. The substitution antenna shall be connected to a calibrated signal generator.
- l. If necessary, the input attenuator setting of the measuring receiver shall be adjusted in order to increase the sensitivity of the measuring receiver.
- m. The test antenna shall be raised and lowered through the specified range of height to ensure that the maximum signal is received.
- n. The input signal to the substitution antenna shall be adjusted to the level that produces a level detected by the measuring receiver, that is equal to the level noted while the transmitter radiated power was measured, corrected for the change of input attenuator setting of the measuring receiver.
- o. The measurement shall be repeated with the test antenna and the substitution antenna orientated for horizontal polarization.
- p. The measure of the effective radiated power is the larger of the two levels recorded at the input to the substitution antenna, corrected for gain of the substitution antenna if necessary.
- q. The resolution bandwidth of the spectrum analyzer was set at 100 kHz for Part 22 and 1MHz for Part 24. The frequency range was checked up to 10th harmonic.
- r. Test site anechoic chamber refer to ANSI C63.4:2014.

TEST RESULTS

Temperature	24.5°C	Humidity	53.7%
Test Engineer	Oliver Ou	Configurations	LTE

Working Frequency	Sub range (GHz)	RBW	VBW	Sweep time (s)
LTE FDD Band 2	0.000009~0.000015	1KHz	3KHz	Auto
	0.000015~0.03	10KHz	30KHz	Auto
	0.03~26	1 MHz	3 MHz	Auto
LTE FDD Band 4	0.000009~0.000015	1KHz	3KHz	Auto
	0.000015~0.03	10KHz	30KHz	Auto
	0.03~26	1 MHz	3 MHz	Auto
LTE FDD Band 12	0.000009~0.000015	1KHz	3KHz	Auto
	0.000015~0.03	10KHz	30KHz	Auto
	0.03~26	1 MHz	3 MHz	Auto

Remark:

1. Test results including cable loss;
2. Please refer to following plots;
3. We measured all modes and only recorded the worst case.

Radiated Measurement:

Remark:

We were tested all RB Configuration refer 3GPP TS136 521 for each Channel Bandwidth of LTE FDD Band 2, LTE FDD Band 4, LTE FDD Band 12; recorded worst case for each Channel Bandwidth of LTE FDD Band 2, LTE FDD Band 4, LTE FDD Band 12.

Temperature	24.5℃	Humidity	53.7%
Test Engineer	Oliver Ou	Configurations	LTE

For Less than 1 GHZ:*LTE FDD Band 2_Channel Bandwidth 1.4MHz_QPSK_Low Channel*

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
150.86	-45.76	4.05	3.00	8.41	-41.40	-13.00	-28.40	H
236.57	-45.96	4.31	3.00	6.96	-43.31	-13.00	-30.31	H
561.06	-42.00	3.76	3.00	8.42	-37.35	-13.00	-24.35	V
906.46	-43.64	4.38	3.00	6.95	-41.07	-13.00	-28.07	V

LTE FDD Band 2_Channel Bandwidth 1.4MHz_QPSK_Middle Channel

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
149.43	-45.97	3.99	3.00	8.39	-41.57	-13.00	-28.57	H
236.07	-46.46	4.38	3.00	6.93	-43.91	-13.00	-30.91	H
553.90	-42.60	3.79	3.00	8.73	-37.66	-13.00	-24.66	V
903.42	-44.53	4.39	3.00	6.97	-41.96	-13.00	-28.96	V

LTE FDD Band 2_Channel Bandwidth 1.4MHz_QPSK_High Channel

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
152.07	-47.53	4.02	3.00	8.64	-42.91	-13.00	-29.91	H
241.97	-45.86	4.36	3.00	7.18	-43.05	-13.00	-30.05	H
559.44	-44.35	3.80	3.00	8.53	-39.62	-13.00	-26.62	V
900.40	-45.11	4.20	3.00	7.03	-42.28	-13.00	-29.28	V

LTE FDD Band 2_Channel Bandwidth 1.4MHz_16QAM_Low Channel

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
156.52	-45.75	3.84	3.00	8.47	-41.12	-13.00	-28.12	H
241.47	-45.81	4.46	3.00	7.08	-43.19	-13.00	-30.19	H
561.20	-41.75	3.85	3.00	8.43	-37.17	-13.00	-24.17	V
905.15	-43.67	4.42	3.00	7.05	-41.04	-13.00	-28.04	V

LTE FDD Band 2_Channel Bandwidth 1.4MHz_16QAM_Middle Channel

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
148.96	-45.99	3.66	3.00	8.75	-40.90	-13.00	-27.90	H
239.84	-46.57	4.14	3.00	6.88	-43.84	-13.00	-30.84	H
553.00	-42.70	3.89	3.00	8.39	-38.20	-13.00	-25.20	V
898.68	-44.46	4.43	3.00	6.82	-42.07	-13.00	-29.07	V

LTE FDD Band 2_Channel Bandwidth 1.4MHz_16QAM_High Channel

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
152.20	-47.72	3.70	3.00	8.48	-42.93	-13.00	-29.93	H
235.46	-45.70	4.43	3.00	7.16	-42.97	-13.00	-29.97	H
560.08	-44.41	3.68	3.00	8.60	-39.50	-13.00	-26.50	V
897.92	-44.96	4.47	3.00	7.03	-42.40	-13.00	-29.40	V

LTE FDD Band 4_Channel Bandwidth 1.4MHz_QPSK_Low Channel

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
154.88	-45.73	3.87	3.00	8.59	-41.02	-13.00	-28.02	H
242.99	-45.84	4.20	3.00	6.92	-43.12	-13.00	-30.12	H
557.14	-42.04	3.88	3.00	8.56	-37.36	-13.00	-24.36	V
906.04	-43.49	4.31	3.00	7.13	-40.67	-13.00	-27.67	V

LTE FDD Band 4_Channel Bandwidth 1.4MHz_QPSK_Middle Channel

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
152.80	-45.89	4.06	3.00	8.48	-41.47	-13.00	-28.47	H
237.46	-46.52	4.38	3.00	7.06	-43.83	-13.00	-30.83	H
559.28	-42.73	3.85	3.00	8.66	-37.92	-13.00	-24.92	V
904.44	-44.40	4.37	3.00	6.87	-41.89	-13.00	-28.89	V

LTE FDD Band 4_Channel Bandwidth 1.4MHz_QPSK_High Channel

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
154.94	-47.62	3.75	3.00	8.39	-42.98	-13.00	-29.98	H
239.10	-45.90	4.15	3.00	6.87	-43.19	-13.00	-30.19	H
559.80	-44.57	3.78	3.00	8.46	-39.90	-13.00	-26.90	V
900.84	-44.98	4.31	3.00	7.16	-42.13	-13.00	-29.13	V

LTE FDD Band 4_Channel Bandwidth 1.4MHz_16QAM_Low Channel

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
152.94	-45.97	3.69	3.00	8.36	-41.31	-13.00	-28.31	H
240.57	-45.85	4.14	3.00	7.13	-42.87	-13.00	-29.87	H
555.63	-41.83	3.89	3.00	8.54	-37.18	-13.00	-24.18	V
897.54	-43.43	4.48	3.00	6.84	-41.07	-13.00	-28.07	V

LTE FDD Band 4_Channel Bandwidth 1.4MHz_16QAM_Middle Channel

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
157.68	-45.88	3.68	3.00	8.50	-41.06	-13.00	-28.06	H
236.38	-46.68	4.37	3.00	6.94	-44.11	-13.00	-31.11	H
561.70	-42.68	3.84	3.00	8.60	-37.92	-13.00	-24.92	V
901.22	-44.70	4.42	3.00	7.04	-42.08	-13.00	-29.08	V

LTE FDD Band 4_Channel Bandwidth 1.4MHz_16QAM_High Channel

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
148.73	-47.52	3.98	3.00	8.64	-42.87	-13.00	-29.87	H
242.48	-45.85	4.40	3.00	7.04	-43.22	-13.00	-30.22	H
554.15	-44.54	4.01	3.00	8.47	-40.09	-13.00	-27.09	V
903.45	-45.23	4.38	3.00	7.04	-42.57	-13.00	-29.57	V

LTE FDD Band 12_Channel Bandwidth 1.4MHz_QPSK_Low Channel

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
156.69	-45.71	4.03	3.00	8.37	-41.37	-13.00	-28.37	H
238.33	-45.83	4.34	3.00	7.01	-43.16	-13.00	-30.16	H
557.05	-41.73	3.70	3.00	8.49	-36.95	-13.00	-23.95	V
905.94	-43.34	4.19	3.00	7.10	-40.43	-13.00	-27.43	V

LTE FDD Band 12_Channel Bandwidth 1.4MHz_QPSK_Middle Channel

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
158.17	-45.95	3.96	3.00	8.69	-41.22	-13.00	-28.22	H
237.23	-46.48	4.26	3.00	6.88	-43.86	-13.00	-30.86	H
557.08	-42.86	4.05	3.00	8.57	-38.34	-13.00	-25.34	V
900.66	-44.75	4.24	3.00	7.06	-41.93	-13.00	-28.93	V

LTE FDD Band 12_Channel Bandwidth 1.4MHz_QPSK_High Channel

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
157.17	-47.50	4.04	3.00	8.38	-43.16	-13.00	-30.16	H
241.08	-45.68	4.43	3.00	7.14	-42.96	-13.00	-29.96	H
560.06	-44.61	3.70	3.00	8.60	-39.71	-13.00	-26.71	V
905.90	-45.27	4.27	3.00	6.95	-42.58	-13.00	-29.58	V

LTE FDD Band 12_Channel Bandwidth 1.4MHz_16QAM_Low Channel

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
152.58	-45.71	3.97	3.00	8.47	-41.21	-13.00	-28.21	H
241.36	-45.87	4.28	3.00	6.87	-43.27	-13.00	-30.27	H
559.90	-41.92	3.86	3.00	8.62	-37.16	-13.00	-24.16	V
898.96	-43.35	4.25	3.00	7.02	-40.57	-13.00	-27.57	V

LTE FDD Band 12_Channel Bandwidth 1.4MHz_16QAM_Middle Channel

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
152.00	-45.90	3.72	3.00	8.57	-41.04	-13.00	-28.04	H
240.12	-46.69	4.42	3.00	7.06	-44.05	-13.00	-31.05	H
555.08	-42.73	3.94	3.00	8.57	-38.10	-13.00	-25.10	V
898.27	-44.44	4.18	3.00	7.01	-41.62	-13.00	-28.62	V

LTE FDD Band 12_Channel Bandwidth 1.4MHz_16QAM_High Channel

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
152.76	-47.70	3.69	3.00	8.38	-43.01	-13.00	-30.01	H
241.56	-45.98	4.10	3.00	7.08	-43.01	-13.00	-30.01	H
559.76	-44.45	3.98	3.00	8.63	-39.80	-13.00	-26.80	V
898.24	-45.12	4.21	3.00	7.01	-42.32	-13.00	-29.32	V

For More than 1 GHZ:*LTE FDD Band 2_Channel Bandwidth 1.4MHz_QPSK_Low Channel*

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3715.0	-42.95	5.26	3.00	9.88	-38.33	-13.00	-25.33	H
5572.5	-49.23	6.11	3.00	11.36	-43.98	-13.00	-30.98	H
3715.0	-46.80	5.26	3.00	9.88	-42.18	-13.00	-29.18	V
5572.5	-51.54	6.11	3.00	11.36	-46.29	-13.00	-33.29	V

LTE FDD Band 2_Channel Bandwidth 1.4MHz_QPSK_Middle Channel

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3720.0	-43.50	5.32	3.00	10.03	-38.79	-13.00	-25.79	H
5580.0	-47.78	6.19	3.00	11.41	-42.56	-13.00	-29.56	H
3720.0	-47.29	5.32	3.00	10.03	-42.58	-13.00	-29.58	V
5580.0	-51.17	6.19	3.00	11.41	-45.95	-13.00	-32.95	V

LTE FDD Band 2_Channel Bandwidth 1.4MHz_QPSK_High Channel

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3800.0	-42.91	5.36	3.00	9.62	-38.65	-13.00	-25.65	H
5700.0	-46.04	6.24	3.00	11.46	-40.82	-13.00	-27.82	H
3800.0	-46.72	5.36	3.00	9.62	-42.46	-13.00	-29.46	V
5700.0	-51.30	6.24	3.00	11.46	-46.08	-13.00	-33.08	V

LTE FDD Band 2_Channel Bandwidth 1.4MHz_16QAM_Low Channel

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3715.0	-42.65	5.26	3.00	9.88	-38.03	-13.00	-25.03	H
5572.5	-49.06	6.11	3.00	11.36	-43.81	-13.00	-30.81	H
3715.0	-46.52	5.26	3.00	9.88	-41.90	-13.00	-28.90	V
5572.5	-51.81	6.11	3.00	11.36	-46.56	-13.00	-33.56	V

LTE FDD Band 2_Channel Bandwidth 1.4MHz_16QAM_Middle Channel

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3720.0	-43.64	5.32	3.00	10.03	-38.93	-13.00	-25.93	H
5580.0	-48.01	6.19	3.00	11.41	-42.79	-13.00	-29.79	H
3720.0	-47.00	5.32	3.00	10.03	-42.29	-13.00	-29.29	V
5580.0	-51.03	6.19	3.00	11.41	-45.81	-13.00	-32.81	V

LTE FDD Band 2_Channel Bandwidth 1.4MHz_16QAM_High Channel

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3800.0	-42.77	5.36	3.00	9.62	-38.51	-13.00	-25.51	H
5700.0	-46.13	6.24	3.00	11.46	-40.91	-13.00	-27.91	H
3800.0	-46.84	5.36	3.00	9.62	-42.58	-13.00	-29.58	V
5700.0	-51.43	6.24	3.00	11.46	-46.21	-13.00	-33.21	V

LTE FDD Band 4_Channel Bandwidth 1.4MHz_QPSK_Low Channel

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3440.0	-48.43	4.62	3.00	9.81	-43.24	-13.00	-30.24	H
5160.0	-52.06	5.94	3.00	10.86	-47.14	-13.00	-34.14	H
3440.0	-52.51	4.62	3.00	9.81	-47.32	-13.00	-34.32	V
5160.0	-54.92	5.94	3.00	10.86	-50.00	-13.00	-37.00	V

LTE FDD Band 4_Channel Bandwidth 1.4MHz_QPSK_Middle Channel

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3465.0	-49.01	4.63	3.00	9.84	-43.80	-13.00	-30.80	H
5197.5	-52.40	5.94	3.00	10.86	-47.48	-13.00	-34.48	H
3465.0	-52.65	4.63	3.00	9.84	-47.44	-13.00	-34.44	V
5197.5	-55.27	5.94	3.00	10.86	-50.35	-13.00	-37.35	V

LTE FDD Band 4_Channel Bandwidth 1.4MHz_QPSK_High Channel

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3490.0	-52.08	4.65	3.00	9.9	-46.83	-13.00	-33.83	H
5235.0	-53.23	5.95	3.00	10.91	-48.27	-13.00	-35.27	H
3490.0	-55.13	4.65	3.00	9.9	-49.88	-13.00	-36.88	V
5235.0	-56.08	5.95	3.00	10.91	-51.12	-13.00	-38.12	V

LTE FDD Band 4_Channel Bandwidth 1.4MHz_16QAM_Low Channel

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3440.0	-48.44	4.62	3.00	9.81	-43.25	-13.00	-30.25	H
5160.0	-52.14	5.94	3.00	10.86	-47.22	-13.00	-34.22	H
3440.0	-52.67	4.62	3.00	9.81	-47.48	-13.00	-34.48	V
5160.0	-54.73	5.94	3.00	10.86	-49.81	-13.00	-36.81	V

LTE FDD Band 4_Channel Bandwidth 1.4MHz_16QAM_Middle Channel

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3465.0	-49.06	4.63	3.00	9.84	-43.85	-13.00	-30.85	H
5197.5	-52.27	5.94	3.00	10.86	-47.35	-13.00	-34.35	H
3465.0	-52.85	4.63	3.00	9.84	-47.64	-13.00	-34.64	V
5197.5	-55.20	5.94	3.00	10.86	-50.28	-13.00	-37.28	V

LTE FDD Band 4_Channel Bandwidth 1.4MHz_16QAM_High Channel

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3490.0	-52.17	4.65	3.00	9.9	-46.92	-13.00	-33.92	H
5235.0	-53.27	5.95	3.00	10.91	-48.31	-13.00	-35.31	H
3490.0	-55.09	4.65	3.00	9.9	-49.84	-13.00	-36.84	V
5235.0	-56.12	5.95	3.00	10.91	-51.16	-13.00	-38.16	V

LTE FDD Band 12_Channel Bandwidth 1.4MHz_QPSK_Low Channel

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1658.00	-40.84	4.73	3.00	10.42	-35.15	-13.00	-22.15	H
2487.00	-47.59	5.64	3.00	12.30	-40.93	-13.00	-27.93	H
1658.00	-43.98	4.73	3.00	10.42	-38.29	-13.00	-25.29	V
2487.00	-50.38	5.64	3.00	12.30	-43.72	-13.00	-30.72	V

LTE FDD Band 12_Channel Bandwidth 1.4MHz_QPSK_Middle Channel

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1673.00	-40.01	4.75	3.00	10.44	-34.32	-13.00	-21.32	H
2509.50	-44.21	5.66	3.00	12.33	-37.54	-13.00	-24.54	H
1673.00	-43.88	4.75	3.00	10.44	-38.19	-13.00	-25.19	V
2509.50	-47.75	5.66	3.00	12.33	-41.08	-13.00	-28.08	V

LTE FDD Band 12_Channel Bandwidth 1.4MHz_QPSK_High Channel

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1688.00	-39.56	4.77	3.00	10.45	-33.88	-13.00	-20.88	H
2532.00	-44.48	5.69	3.00	12.36	-37.81	-13.00	-24.81	H
1688.00	-44.65	4.77	3.00	10.45	-38.97	-13.00	-25.97	V
2532.00	-50.16	5.69	3.00	12.36	-43.49	-13.00	-30.49	V

LTE FDD Band 12_Channel Bandwidth 1.4MHz_16QAM_Low Channel

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1658.00	-41.19	4.73	3.00	10.42	-35.50	-13.00	-22.50	H
2487.00	-47.78	5.64	3.00	12.30	-41.12	-13.00	-28.12	H
1658.00	-43.99	4.73	3.00	10.42	-38.30	-13.00	-25.30	V
2487.00	-50.41	5.64	3.00	12.30	-43.75	-13.00	-30.75	V

LTE FDD Band 12_Channel Bandwidth 1.4MHz_16QAM_Middle Channel

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1673.00	-40.13	4.75	3.00	10.44	-34.44	-13.00	-21.44	H
2509.50	-44.29	5.66	3.00	12.33	-37.62	-13.00	-24.62	H
1673.00	-44.00	4.75	3.00	10.44	-38.31	-13.00	-25.31	V
2509.50	-47.75	5.66	3.00	12.33	-41.08	-13.00	-28.08	V

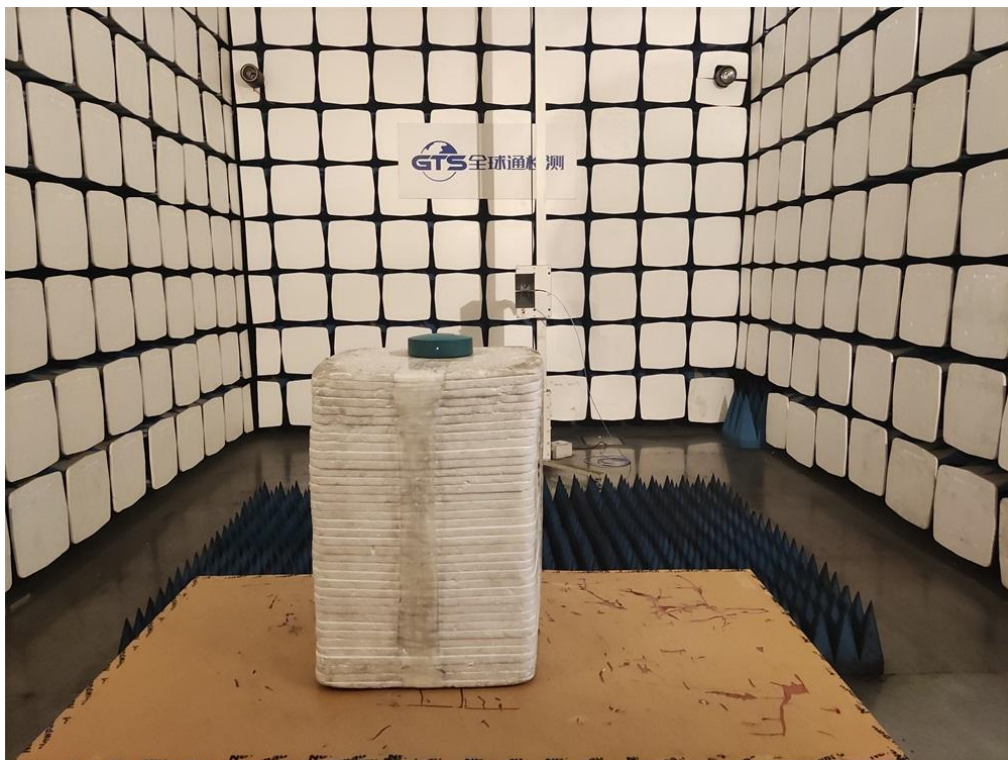
LTE FDD Band 12_Channel Bandwidth 1.4MHz_16QAM_High Channel

Frequency (MHz)	P _{Mea} (dBm)	P _{cl} (dB)	Diatance	G _a Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
1688.00	-39.49	4.77	3.00	10.45	-33.81	-13.00	-20.81	H
2532.00	-44.50	5.69	3.00	12.36	-37.83	-13.00	-24.83	H
1688.00	-44.57	4.77	3.00	10.45	-38.89	-13.00	-25.89	V
2532.00	-50.30	5.69	3.00	12.36	-43.63	-13.00	-30.63	V

Notes:

1. All channel bandwidth were tested, the report recorded the worst data.
2. $EIRP = P_{Mea}(dBm) - P_{cl}(dB) + P_{Ag}(dB) + G_a(dBi)$
3. $ERP = EIRP - 2.15dB$ as EIRP by subtracting the gain of the dipole.
4. $Margin = EIRP - Limit$
5. We measured all modes and only recorded the worst case.

5 TEST SETUP PHOTOS OF THE EUT



6 EXTERNAL AND INTERNAL PHOTOS OF THE EUT

Reference to the Test Report: GTS20211014013-1-1.

.....End of Report.....