

FCC TEST REPORT

Product Name: Mobile Phone
Trade Mark: iotapk, HONOR CHOICE
Model No.: GAS-L13
Report Number: 26073026340RFM-2
Test Standards: FCC 47 CFR Part 22
FCC 47 CFR Part 24
FCC 47 CFR Part 27
FCC 47 CFR Part 90
FCC ID: 2BAII-GAS-L13
Test Result: PASS
Date of Issue: October 19, 2026

Prepared for:

Shenzhen Water World Information Co.,Ltd.
Building 3, Dexinchang Wisdom Park, No.23, Heping Road, Qinghua
Community, Longhua Subdistrict Longhua District, Shenzhen,
Guangdong. China

Prepared by:

Shenzhen UnionTrust Quality and Technology Co., Ltd.
16/F., Block A, Building 6, Baoneng Science and Technology Park,
Longhua Street, Longhua District, Shenzhen, Guangdong, China
TEL: +86-755-2823 0888
FAX: +86-755-2823 0886

Prepared by:

David Chen

David Chen
Senior Project Engineer

Billy Li

Approved by:

Billy Li
Technical Director

Reviewed by:

Kevin Liang

Kevin Liang
Assistant Manager

Date:

October 19, 2026

Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F., Block A, Building 6, Baoneng Science and Technology Park, Longhua Street, Longhua District, Shenzhen, Guangdong, China

Tel: +86-755-28230888

Fax: +86-755-28230886

E-mail: info@uttlab.com

<http://www.uttlab.com>

UTTR-RF-FCC4G-V1.1

Version

Version No.	Date	Description
V1.0	October 19, 2026	Original



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Address: 16/F., Block A, Building 6, Baoneng Science and Technology Park, Longhua Street, Longhua District, Shenzhen, Guangdong, China

Tel: +86-755-28230888

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CONTENTS

1. GENERAL INFORMATION	4
1.1 CLIENT INFORMATION	4
1.2 EUT INFORMATION	4
1.2.1 GENERAL DESCRIPTION OF EUT	4
1.2.2 DESCRIPTION OF ACCESSORIES	4
1.3 PRODUCT SPECIFICATION SUBJECTIVE TO THIS STANDARD	5
1.4 DESCRIPTION OF SUPPORT UNITS	7
1.5 TEST LOCATION	7
1.6 TEST FACILITY	7
1.7 DEVIATION FROM STANDARDS	7
1.8 ABNORMALITIES FROM STANDARD CONDITIONS	7
1.9 OTHER INFORMATION REQUESTED BY THE CUSTOMER	7
1.10 MEASUREMENT UNCERTAINTY	7
2. TEST SUMMARY	9
3. EQUIPMENT LIST	12
4. TEST CONFIGURATION	13
4.1 ENVIRONMENTAL CONDITIONS FOR TESTING	13
4.2 TEST SETUP	14
4.2.1 FOR RADIATED EMISSIONS TEST SETUP	14
4.2.2 FOR CONDUCTED RF TEST SETUP	15
4.3 SYSTEM TEST CONFIGURATION	16
4.4 PRE-SCAN	16
RADIO TECHNICAL REQUIREMENTS SPECIFICATION	20
5.1 REFERENCE DOCUMENTS FOR TESTING	20
5.2 CONDUCTED OUTPUT POWER	20
5.3 ERP OR EIRP	37
5.4 PEAK-TO-AVERAGE RATIO	45
5.5 99%&26DB BANDWIDTH	46
5.6 BAND EDGE AT ANTENNA TERMINALS & EMISSION MASK	47
5.7 SPURIOUS EMISSIONS AT ANTENNA TERMINALS	49
5.8 FIELD STRENGTH OF SPURIOUS RADIATION	50
5.8.1 LTE BAND 2	51
5.8.2 LTE BAND 4	52
5.8.3 LTE BAND 5	53
5.8.4 LTE BAND 7	54
5.8.5 LTE BAND 13	55
5.8.6 LTE BAND 26 _PART 90S	56
5.8.7 LTE BAND 26 _PART 22	57
5.8.8 LTE BAND 38	58
5.8.9 LTE BAND 41	59
5.8.10 LTE BAND 66	60
5.9 FREQUENCY STABILITY	61
APPENDIX 1 PHOTOS OF TEST SETUP	62
APPENDIX 2 PHOTOS OF EUT CONSTRUCTIONAL DETAILS	62

1. GENERAL INFORMATION

1.1 CLIENT INFORMATION

Applicant:	Shenzhen Water World Information Co.,Ltd.
Address of Applicant:	Building 3, Dexinchang Wisdom Park, No.23, Heping Road, Qinghua Community, Longhua Subdistrict Longhua District, Shenzhen, Guangdong. China
Manufacturer:	Shenzhen Water World Information Co.,Ltd.
Address of Manufacturer:	Building 3, Dexinchang Wisdom Park, No.23, Heping Road, Qinghua Community, Longhua Subdistrict Longhua District, Shenzhen, Guangdong. China

1.2 EUT INFORMATION

1.2.1 General Description of EUT

Product Name:	Mobile Phone		
Model No.:	GAS-L13		
Trade Mark:	iotapk, HONOR CHOICE		
DUT Stage:	Identical Prototype		
EUT Supports Function: (Provided by the customer)	GSM Bands:	GSM 850/ PCS 1900	
	UTRA Bands:	Band II/ Band IV/ Band V	
	E-UTRA Bands:	FDD Band 2/ 4/ 5/ 7/ 13/ 26/ 66	
		TDD Band 38/ 41	
	2.4 GHz ISM Band:	IEEE 802.11b/g/n	
		Bluetooth V5.0	
	U-NII 5 GHz Bands:	5 150 - 5 250 MHz	IEEE 802.11a/n/ac
		5 250 - 5 350 MHz	IEEE 802.11a/n/ac
		5 470 - 5 725 MHz	IEEE 802.11a/n/ac
5 725 - 5 850 MHz		IEEE 802.11a/n/ac	
RNSS Bands:	1559 - 1610 MHz	GPS/ Galileo/ BDS	
NFC:	13.553 MHz to 13.567 MHz		
Software Version:	FS376L5P_CF1_WX09_CD1666_HONOR_20260826_A16_VOLTE_W1258_L1_3_5_7_8_20_28F_38_40_41F_HONOR_GLOBAL_ALS_DualMic_FP_debug_190223 (Provided by the customer)		
Hardware Version:	FS376-MB-0.1 (Provided by the customer)		
Sample Received Date:	July 6, 2026		
Sample Tested Date:	July 6, 2026 to October 19, 2026		
Note: There are two different versions of this model. The main difference is that the secondary supply screen. For more detail, please refer to manufacturer's difference declaration letter. In electrical characteristics, the above configuration have the same circuit diagram and PCB layout. The original screen configuration was chosen to perform the RF tests as representative.			

Remark:

The above EUT's information was provided by customer. Please refer to the specifications or user's manual for more detailed description.

1.2.2 Description of Accessories

Refer to Report 26073026340EMC-1 for accessories.

1.3 PRODUCT SPECIFICATION SUBJECTIVE TO THIS STANDARD

Support Networks:	LTE	FDD Band 2/ 4/ 5/ 7/ 13/ 26/ 66 TDD Band 38/ 41
Type of Modulation:	LTE	QPSK, 16QAM, 64QAM
Antenna Type: (Provided by the customer)	FPC Antenna	
Antenna Gain (dBi): (Provided by the customer)	Band	
	LTE Band 2:	1.26
	LTE Band 4:	0.8
	LTE Band 5:	-3.26
	LTE Band 7:	0.23
	LTE Band 13:	-2.64
	LTE Band 26:	-3.26
	LTE Band 38:	0.06
	LTE Band 41:	0.23
	LTE Band 66:	0.8
Sample No.:	Radiated: S202609189686-ZJA05/5	
	Conducted: S202609189686-ZJA02/7	
Normal Test Voltage:	3.91 Vdc	
Extreme Test Voltage:	3.4 to 4.5 Vdc	
Extreme Test Temperature:	-30 °C to +50 °C	

Summary of Results:							
Bands	BW (MHz)	Modulation	Frequency Range (MHz)	ERP/EIRP		99% BW (MHz)	Emission Designator
				(dBm)	(W)		
2	1.4	QPSK	1850.7-1909.3	18.01	0.0632	1.092	1M09G7D
		16QAM/64QAM		17.27	0.0533	1.1	1M10W7D
	3	QPSK	1851.5-1908.5	18.01	0.0632	2.713	2M71G7D
		16QAM/64QAM		17.14	0.0518	2.703	2M70W7D
	5	QPSK	1852.5-1907.5	18.02	0.0634	4.502	4M50G7D
		16QAM/64QAM		17.19	0.0524	4.496	4M50W7D
	10	QPSK	1855.0-1905.0	18.00	0.0631	9.006	9M01G7D
		16QAM/64QAM		17.14	0.0518	8.997	9M00W7D
	15	QPSK	1857.5-1902.5	17.97	0.0627	13.443	13M4G7D
		16QAM/64QAM		17.21	0.0526	13.485	13M5W7D
	20	QPSK	1860.0-1900.0	17.98	0.0628	17.973	18M0G7D
		16QAM/64QAM		17.15	0.0519	17.976	18M0W7D
4	1.4	QPSK	1710.7-1754.3	18.54	0.0714	1.095	1M10G7D
		16QAM/64QAM		17.80	0.0603	1.11	1M11W7D
	3	QPSK	1711.5-1753.5	18.59	0.0723	2.703	2M70G7D
		16QAM/64QAM		17.82	0.0605	2.706	2M71W7D
	5	QPSK	1712.5-1752.5	18.60	0.0724	4.495	4M50G7D
		16QAM/64QAM		17.79	0.0601	4.503	4M50W7D
	10	QPSK	1715-1750	18.60	0.0724	9.019	9M02G7D
		16QAM/64QAM		17.87	0.0612	9.014	9M01W7D
	15	QPSK	1717.5-1747.5	18.62	0.0728	13.472	13M5G7D
		16QAM/64QAM		17.73	0.0593	13.505	13M5W7D
	20	QPSK	1720-1745	18.63	0.0729	18.004	18M0G7D
		16QAM/64QAM		17.85	0.0610	18.069	18M1W7D
5	1.4	QPSK	824.7-848.3	17.48	0.0560	1.09	1M09G7D
		16QAM/64QAM		16.60	0.0457	1.107	1M11W7D
	3	QPSK	825.5-847.5	17.47	0.0558	2.703	2M70G7D
		16QAM/64QAM		16.78	0.0476	2.706	2M71W7D
	5	QPSK	826.5-846.5	17.43	0.0553	4.487	4M49G7D
		16QAM/64QAM		16.67	0.0465	4.502	4M50W7D
	10	QPSK	829-844	17.46	0.0557	8.995	9M00G7D
		16QAM/64QAM		16.67	0.0465	9.012	9M01W7D
7	5	QPSK	2502.5-2567.5	14.69	0.0294	4.496	4M50G7D
		16QAM/64QAM		13.83	0.0242	4.509	4M51W7D
	10	QPSK	2505-2565	14.78	0.0301	8.986	8M99G7D
		16QAM/64QAM					

Shenzhen UnionTrust Quality and Technology Co., Ltd.

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Fax: +86-755-28230886

E-mail: info@uttlab.com

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Summary of Results:							
Bands	BW	Modulation	Frequency Range	ERP/EIRP		99% BW	Emission Designator
	(MHz)			(dBm)	(W)		
	15	16QAM/64QAM	2507.5-2562.5	13.90	0.0245	9.027	9M03W7D
		QPSK		14.77	0.0300	13.482	13M5G7D
		16QAM/64QAM		14.06	0.0255	13.501	13M5W7D
	20	QPSK	2510-2560	14.77	0.0300	17.964	18M0G7D
		16QAM/64QAM		13.96	0.0249	17.947	17M9W7D
		QPSK		18.10	0.0646	4.491	4M49G7D
13	5	16QAM/64QAM	779.5-784.5	17.20	0.0525	4.495	4M50W7D
		QPSK		18.38	0.0689	8.964	8M96G7D
		16QAM/64QAM		17.24	0.0530	9.006	9M01W7D
	10	QPSK	782-782	17.45	0.0556	1.081	1M08G7D
		16QAM/64QAM		16.62	0.0459	1.096	1M10W7D
		QPSK		17.54	0.0568	2.696	2M70G7D
26	1.4	16QAM/64QAM	824.7-848.3	16.73	0.0471	2.694	2M70W7D
		QPSK		17.47	0.0558	4.466	4M47G7D
		16QAM/64QAM		16.65	0.0462	4.479	4M48W7D
	3	QPSK	825.5-847.5	17.51	0.0564	8.967	8M97G7D
		16QAM/64QAM		16.83	0.0482	8.976	8M98W7D
		QPSK		17.53	0.0566	13.484	13M5G7D
	5	16QAM/64QAM	826.5-846.5	16.61	0.0458	13.504	13M5W7D
		QPSK		17.48	0.0560	9.019	9M02G7D
		16QAM/64QAM		16.61	0.0458	8.997	9M00W7D
	10	QPSK	829-844	16.57	0.0454	4.5	4M50G7D
		16QAM/64QAM		15.84	0.0384	4.509	4M51W7D
		QPSK		16.64	0.0461	9.001	9M00G7D
26 (Part 90S)	1.4	16QAM/64QAM	814.7-823.3	15.83	0.0383	9.005	9M01W7D
		QPSK		16.62	0.0459	13.485	13M5G7D
		16QAM/64QAM		15.73	0.0374	13.535	13M5W7D
	3	QPSK	815.5-822.5	16.62	0.0459	17.968	18M0G7D
		16QAM/64QAM		15.78	0.0378	18.007	18M0W7D
		QPSK		16.69	0.0467	4.493	4M49G7D
	5	16QAM/64QAM	816.5-821.5	15.76	0.0377	4.506	4M51W7D
		QPSK		16.71	0.0469	8.989	9M00G7D
		16QAM/64QAM		16.00	0.0398	8.997	9M00W7D
	10	QPSK	819	16.73	0.0471	13.492	13M5G7D
		16QAM/64QAM		15.85	0.0385	13.481	13M5W7D
		QPSK		16.75	0.0473	17.989	18M0G7D
38	1.4	16QAM/64QAM	1710.7-1779.3	15.75	0.0376	17.981	18M0W7D
		QPSK		19.50	0.0891	1.096	1M10G7D
		16QAM/64QAM		18.51	0.0710	1.105	1M11W7D
	3	QPSK	1711.5-1778.5	19.49	0.0889	2.71	2M71G7D
		16QAM/64QAM		18.65	0.0733	2.709	2M71W7D
		QPSK		19.46	0.0883	4.518	4M52G7D
	5	16QAM/64QAM	1712.5-1777.5	18.76	0.0752	4.491	4M49W7D
		QPSK		19.42	0.0875	8.978	8M98G7D
		16QAM/64QAM		18.72	0.0745	9.005	9M01W7D
	10	QPSK	1715-1775	19.41	0.0873	13.481	13M5G7D
		16QAM/64QAM		18.71	0.0743	13.478	13M5W7D
		QPSK		19.44	0.0879	17.983	18M0G7D
41	1.4	16QAM/64QAM	1720-1770	18.59	0.0723	18.023	18M0W7D
		QPSK					
		16QAM/64QAM					
	3	QPSK					
		16QAM/64QAM					
		QPSK					
	5	16QAM/64QAM					
		QPSK					
		16QAM/64QAM					
	10	QPSK					
		16QAM/64QAM					
		QPSK					
66	1.4	16QAM/64QAM	1710.7-1779.3	18.51	0.0710	1.105	1M11W7D
		QPSK		19.49	0.0889	2.71	2M71G7D
		16QAM/64QAM		18.65	0.0733	2.709	2M71W7D
	3	QPSK	1711.5-1778.5	19.46	0.0883	4.518	4M52G7D
		16QAM/64QAM		18.76	0.0752	4.491	4M49W7D
		QPSK		19.42	0.0875	8.978	8M98G7D
	5	16QAM/64QAM	1712.5-1777.5	18.72	0.0745	9.005	9M01W7D
		QPSK		19.41	0.0873	13.481	13M5G7D
		16QAM/64QAM		18.71	0.0743	13.478	13M5W7D
	10	QPSK	1715-1775	19.44	0.0879	17.983	18M0G7D
		16QAM/64QAM		18.59	0.0723	18.023	18M0W7D
		QPSK					

1.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested with associated equipment below.

1) Support Cable

Cable No.	Description	Connector	Length	Supplied by
1	Antenna Cable	SMA	0.3 Meter	Applicant

1.5 TEST LOCATION

Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F., Block A, Building 6, Baoneng Science and Technology Park, Longhua Street, Longhua District, Shenzhen, Guangdong, China
Telephone: +86 (0) 755 2823 0888
Fax: +86 (0) 755 2823 0886

1.6 TEST FACILITY

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

CNAS-Lab Code: L9069

The measuring equipment utilized to perform the tests documented in this report has been calibrated once a year or in accordance with the manufacturer's recommendations, and is traceable under the ISO/IEC 17025 to international or national standards. Equipment has been calibrated by accredited calibration laboratories.

A2LA-Lab Certificate No.: 4312.01

Shenzhen UnionTrust Quality and Technology Co., Ltd. has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

ISED Wireless Device Testing Laboratories

CAB identifier: CN0032

FCC Accredited Lab.

Designation Number: CN1194

Test Firm Registration Number: 259480

1.7 DEVIATION FROM STANDARDS

None.

1.8 ABNORMALITIES FROM STANDARD CONDITIONS

None.

1.9 OTHER INFORMATION REQUESTED BY THE CUSTOMER

None.

1.10 MEASUREMENT UNCERTAINTY

Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F., Block A, Building 6, Baoneng Science and Technology Park, Longhua Street, Longhua District, Shenzhen, Guangdong, China
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Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the Product as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

No.	Item	Measurement Uncertainty
1	Conducted Output Power	±0.7 dB
2	99%&26dB Bandwidth	±1.86 %
3	Emission Mask	±2.7 dBm
4	Spurious emissions at antenna terminals	±2.7 dBm
5	Field strength of spurious radiation	30 MHz-1 GHz: ±4.9 dB 1 GHz-18 GHz: ±4.8 dB 18 GHz-40 GHz: ±5.1 dB
6	Frequency stability	±6.5 x 10 ⁻⁸
7	Humidity	±3.9 %
8	Temperature	±0.62 °C
9	DC Voltages	±0.68 %

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E-mail: info@uttlab.com

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2. TEST SUMMARY

FCC 47 CFR Part 22 Test Cases (LTE Band 5/26)			
Test Item	Test Requirement	Test Method	Result
Effective Radiated Power (ERP)	FCC 47 CFR Part 2.1046(a) & FCC 47 CFR Part 22.913(a)	ANSI C63.26-2015 & KDB 971168 D01v03r01	PASS
Conducted Output Power	FCC 47 CFR Part 2.1046(a) & FCC 47 CFR Part 22.913(a)	ANSI C63.26-2015 & KDB 971168 D01v03r01	PASS
Peak-to-average ratio	FCC 47 CFR Part 22.913(a)	KDB 971168 D01v03r01	PASS
99%&26dB Bandwidth	FCC 47 CFR Part 2.1049(h)	ANSI C63.26-2015 & KDB 971168 D01v03r01	PASS
Band Edge at antenna terminals	FCC 47 CFR Part 2.1051 & FCC 47 CFR Part 22.917(a)	ANSI C63.26-2015 & KDB 971168 D01v03r01	PASS
Spurious emissions at antenna terminals	FCC 47 CFR Part 2.1051 & FCC 47 CFR Part 22.917(a)(b)	ANSI C63.26-2015 & KDB 971168 D01v03r01	PASS
Field strength of spurious radiation	FCC 47 CFR Part 2.1053 & FCC 47 CFR Part 22.917(a)(b)	ANSI C63.26-2015 & KDB 971168 D01v03r01	PASS
Frequency stability	FCC 47 CFR Part 2.1055 & FCC 47 CFR Part 22.355	ANSI C63.26-2015 & KDB 971168 D01v03r01	PASS

FCC 47 CFR Part 24 Test Cases (LTE Band 2)			
Test Item	Test Requirement	Test Method	Result
Equivalent Isotropic Radiated Power (EIRP)	FCC 47 CFR Part 2.1046(a) & FCC 47 CFR Part 24.232(c)	ANSI C63.26-2015 & KDB 971168 D01v03r01	PASS
Conducted Output Power	FCC 47 CFR Part 2.1046(a) & FCC 47 CFR Part 24.232(c)	ANSI C63.26-2015 & KDB 971168 D01v03r01	PASS
Peak-to-average ratio	FCC 47 CFR Part 24.232(d)	KDB 971168 D01v03r01	PASS
99%&26dB Bandwidth	FCC 47 CFR Part 2.1049(h) & FCC 47 CFR Part 24.238(b)	ANSI C63.26-2015 & KDB 971168 D01v03r01	PASS
Band Edge at antenna terminals	FCC 47 CFR Part 2.1051 & FCC 47 CFR Part 24.238(a)	ANSI C63.26-2015 & KDB 971168 D01v03r01	PASS
Spurious emissions at antenna terminals	FCC 47 CFR Part 2.1051 & FCC 47 CFR Part 24.238(a)(b)	ANSI C63.26-2015 & KDB 971168 D01v03r01	PASS
Field strength of spurious radiation	FCC 47 CFR Part 2.1053 & FCC 47 CFR Part 24.238(a)(b)	ANSI C63.26-2015 & KDB 971168 D01v03r01	PASS
Frequency stability	FCC 47 CFR Part 2.1055 & FCC 47 CFR Part 24.235	ANSI C63.26-2015 & KDB 971168 D01v03r01	PASS

FCC 47 CFR Part 27 Test Cases (LTE Band 4/66)			
Test Item	Test Requirement	Test Method	Result
Equivalent Isotropic Radiated Power (EIRP)	FCC 47 CFR Part 2.1046(a) & FCC 47 CFR Part 27.50(d)(4)	ANSI C63.26-2015 & KDB 971168 D01v03r01	PASS
Conducted Output Power	FCC 47 CFR Part 2.1046(a) & FCC 47 CFR Part 27.50(d)(4)	ANSI C63.26-2015 & KDB 971168 D01v03r01	PASS
Peak-to-average ratio	FCC 47 CFR Part 27.50(d)(5)	KDB 971168 D01v03r01	PASS
99%&26dB Bandwidth	FCC 47 CFR Part 2.1049(h) & FCC 47 CFR Part 27.53(h)	ANSI C63.26-2015 & KDB 971168 D01v03r01	PASS
Band Edge at antenna terminals	FCC 47 CFR Part 27.53(h)(1)	ANSI C63.26-2015 & KDB 971168 D01v03r01	PASS
Spurious emissions at antenna terminals	FCC 47 CFR Part 2.1051 & FCC 47 CFR Part 27.53(h)	ANSI C63.26-2015 & KDB 971168 D01v03r01	PASS
Field strength of spurious radiation	FCC 47 CFR Part 2.1053 & FCC 47 CFR Part 27.53(h)	ANSI C63.26-2015 & KDB 971168 D01v03r01	PASS
Frequency stability	FCC 47 CFR Part 2.1055 & FCC 47 CFR Part 27.54	ANSI C63.26-2015 & KDB 971168 D01v03r01	PASS

Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F., Block A, Building 6, Baoneng Science and Technology Park, Longhua Street, Longhua District, Shenzhen, Guangdong, China

Tel: +86-755-28230888

Fax: +86-755-28230886

E-mail: info@uttlab.com

<http://www.uttlab.com>

UTTR-RF-FCC4G-V1.1

FCC 47 CFR Part 27 Test Cases (LTE Band 7/38/41)			
Test Item	Test Requirement	Test Method	Result
Equivalent Isotropic Radiated Power (EIRP)	FCC 47 CFR Part 2.1046(a) & FCC 47 CFR Part 27.50(h)(2)	ANSI C63.26-2015 & KDB 971168 D01v03r01	PASS
Conducted Output Power	FCC 47 CFR Part 2.1046(a) & FCC 47 CFR Part 27.50(h)(2)	ANSI C63.26-2015 & KDB 971168 D01v03r01	PASS
Peak-to-average ratio	FCC 47 CFR Part 27.50(d)(5)	KDB 971168 D01v03r01	PASS
99%&26dB Bandwidth	FCC 47 CFR Part 2.1049(h)	ANSI C63.26-2015 & KDB 971168 D01v03r01	PASS
Band Edge at antenna terminals	FCC 47 CFR Part 27.53(m)(4)	ANSI C63.26-2015 & KDB 971168 D01v03r01	PASS
Spurious emissions at antenna terminals	FCC 47 CFR Part 2.1051 & FCC 47 CFR Part 27.53(m)(4)	ANSI C63.26-2015 & KDB 971168 D01v03r01	PASS
Field strength of spurious radiation	FCC 47 CFR Part 2.1053 & FCC 47 CFR Part 27.53(m)(4)	ANSI C63.26-2015 & KDB 971168 D01v03r01	PASS
Frequency stability	FCC 47 CFR Part 2.1055 & FCC 47 CFR Part 27.54	ANSI C63.26-2015 & KDB 971168 D01v03r01	PASS

FCC 47 CFR Part 27 Test Cases (LTE Band 13)			
Test Item	Test Requirement	Test Method	Result
Effective Radiated Power (ERP)	FCC 47 CFR Part 2.1046(a) & FCC 47 CFR Part 27.50(b)(10)	ANSI C63.26-2015 & KDB 971168 D01v03r01	PASS
Conducted Output Power	FCC 47 CFR Part 2.1046(a) & FCC 47 CFR Part 27.50(b)(10)	ANSI C63.26-2015 & KDB 971168 D01v03r01	PASS
Peak-to-average ratio	FCC 47 CFR Part 27.50(d)(5)	KDB 971168 D01v03r01	PASS
99%&26dB Bandwidth	FCC 47 CFR Part 2.1049(h)	ANSI C63.26-2015 & KDB 971168 D01v03r01	PASS
Band Edge at antenna terminals	FCC 47 CFR Part 27.53	ANSI C63.26-2015 & KDB 971168 D01v03r01	PASS
Spurious emissions at antenna terminals	FCC 47 CFR Part 2.1051 & FCC 47 CFR Part 27.53	ANSI C63.26-2015 & KDB 971168 D01v03r01	PASS
Field strength of spurious radiation	FCC 47 CFR Part 2.1053 & FCC 47 CFR Part 27.53	ANSI C63.26-2015 & KDB 971168 D01v03r01	PASS
Frequency stability	FCC 47 CFR Part 2.1055 & FCC 47 CFR Part 27.54	ANSI C63.26-2015 & KDB 971168 D01v03r01	PASS

FCC 47 CFR Part 90S Test Cases (LTE Band 26)			
Test Item	Test Requirement	Test Method	Result
Effective Radiated Power (ERP)	FCC 47 CFR Part 2.1046 & FCC 47 CFR Part 90.635	ANSI/TIA-603-E-2016 & KDB 971168 D01v03r01	PASS
Conducted Output Power	FCC 47 CFR Part 2.1046(a) & FCC 47 CFR Part 90.635	ANSI/TIA-603-E-2016 & KDB 971168 D01v03r01	PASS
Peak-to-average ratio	N/A	ANSI/TIA-603-E-2016 & KDB 971168 D01v03r01	PASS
99%&26dB Bandwidth	FCC 47 CFR Part 2.1049(h)	ANSI/TIA-603-E-2016 & KDB 971168 D01v03r01	PASS
Emission Mask	FCC 47 CFR Part 2.1051 & FCC 47 CFR Part 90.691	ANSI/TIA-603-E-2016 & KDB 971168 D01v03r01	PASS
Spurious emissions at antenna terminals	FCC 47 CFR Part 2.1051 & FCC 47 CFR Part 90.691	ANSI/TIA-603-E-2016 & KDB 971168 D01v03r01	PASS
Field strength of spurious radiation	FCC 47 CFR Part 2.1053 & FCC 47 CFR Part 90.691	ANSI/TIA-603-E-2016 & KDB 971168 D01v03r01	PASS
Frequency stability	FCC 47 CFR Part 2.1055 & FCC 47 CFR Part 90.213	ANSI/TIA-603-E-2016 & KDB 971168 D01v03r01	PASS

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<http://www.uttlab.com>

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Disclaimer and Explanations:

The declared of product specification and data (e.g. antenna gain, RF specification, etc) for EUT presented in the report are provided by the customer, and the customer takes all the responsibilities for the accuracy of product specification.



3. EQUIPMENT LIST

Radiated Emission Test Equipment List						
Used	Equipment	Manufacturer	Model No.	Serial Number	Cal. date	Cal. Due date
☒	3 m SAC	ETS-Lindgren	3 m	Euroshiedpn-CT001270-1317	11-Nov-2023	10-Nov-2026
☒	Loop Antenna	ETS-Lindgren	6502	00202525	26-Jan-2026	25-Jan-2027
☒	Broadband Antenna	ETS-Lindgren	3142E	00201566	26-Oct-2025	25-Oct-2026
☒	6dB Attenuator	Talent	RA6A5-N-18	18103001	26-Oct-2025	25-Oct-2026
☒	Double-Ridged Waveguide Horn Antenna(Pre-amplifier)	ETS-Lindgren	3117-PA	00201541	21-Mar-2026	20-Mar-2027
☒	Pre-amplifier	ETS-Lindgren	00118385	00201874	21-Mar-2026	20-Mar-2027
☒	Double-Ridged Waveguide Horn Antenna(Pre-amplifier)	ETS-Lindgren	3116C-PA	00202652	30-Oct-2025	29-Oct-2026
☒	Pre-amplifier	ETS-Lindgren	00118384	00202652	24-Oct-2025	23-Oct-2026
☒	Receiver	ROHDE & SCHWARZ	ESIB26	100114	24-Oct-2025	23-Oct-2026
☒	Spectrum analyzer	ROHDE & SCHWARZ	FSV40-N	101653	20-Mar-2026	19-Mar-2027
☒	Pre-amplifier	HP	8447F	2805A02960	24-Oct-2025	23-Oct-2026
☒	Multi device Controller	ETS-Lindgren	7006-001	160105.00	N/A	N/A
☒	Test Software	Audix	e3	Software Version: 9.160323		

RF Conducted Test Equipment List						
Used	Equipment	Manufacturer	Model No.	Serial Number	Cal. date	Cal. Due date
☒	Wideband Radio Communication Tester	ROHDE & SCHWARZ	CMW500	120932	20-Mar-2026	19-Mar-2027
☒	Wideband Radio Communication Tester	R&S	CMW500	119583	20-Mar-2026	19-Mar-2027
☒	EXA Spectrum Analyzer	KEYSIGHT	N9020A	MY51286807	24-Oct-2025	23-Oct-2026
☒	EXA Signal Analyzer	KEYSIGHT	N9010B	MY62060155	20-Mar-2026	19-Mar-2027
☒	UXM 5G Wireless Test Platform	KEYSIGHT	E7515B	MY59020226	20-Mar-2026	19-Mar-2027
☒	Shielding Room	SAEMC	4(L)*3(W)*3(H)	N/A	25-Oct-2024	24-Oct-2027
☒	Temp Humidity chamber	Votisch	VT4002	58566133290020	20-Mar-2026	19-Mar-2027
☒	Automatic control switch	Tonscend	JS0806-1	24E80610780	N/A	N/A
☒	Notch filter control unit	Tonscend	JS0806-F	24G806F0807	N/A	N/A
☒	DC Source	Agilent	66319B	MY43000795	24-Oct-2025	23-Oct-2026
☒	Test Software	Tonscend	TS1120-5	Software Version: 2.4.1 (5g)		
☒	Test Software	Tonscend	JS1120-1	Software Version: 3.1.46(234G)		

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4. TEST CONFIGURATION

4.1 ENVIRONMENTAL CONDITIONS FOR TESTING

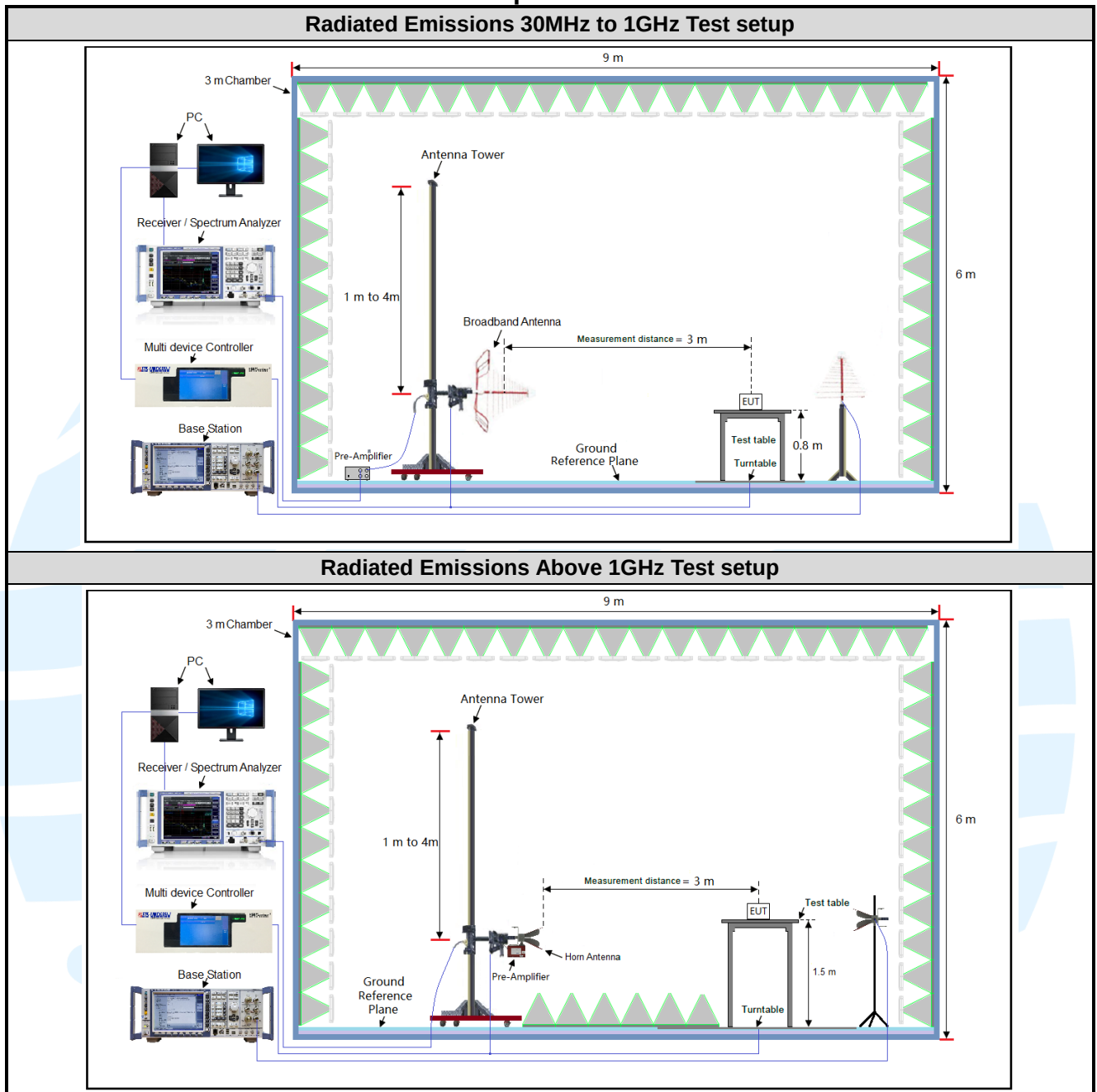
Test Environment	Selected Values During Tests		
Test Condition	Ambient		
	Temperature (°C)	Voltage (V)	Relative Humidity (%)
TN/VN	+15 to +35	3.91	20 to 75
TL/VL	-30	3.4	20 to 75
TH/VL	+50	3.4	20 to 75
TL/VH	-30	4.5	20 to 75
TH/VH	+50	4.5	20 to 75

Remark:

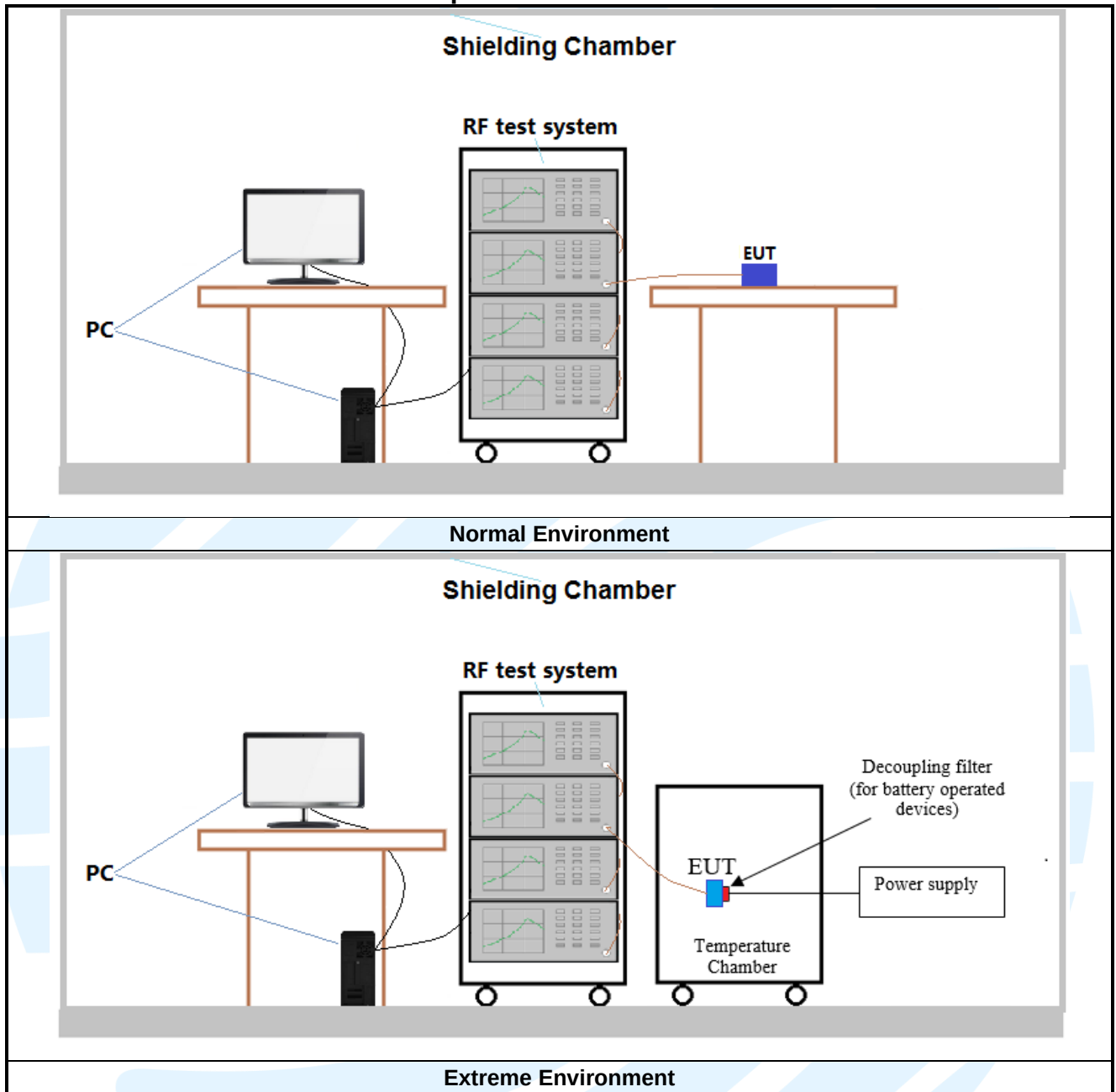
- 1) The EUT just work in such extreme temperature of -30 °C to +50 °C and the extreme voltage of 3.4 V to 4.5 V, so here the EUT is tested in the temperature of -30 °C to +50 °C and the voltage of 3.4 V to 4.5 V.
- 2) VN: Normal Voltage; TN: Normal Temperature;
TL: Low Extreme Test Temperature; TH: High Extreme Test Temperature;
VL: Low Extreme Test Voltage; VH: High Extreme Test Voltage.

4.2 TEST SETUP

4.2.1 For Radiated Emissions test setup



4.2.2 For Conducted RF test setup



4.3 SYSTEM TEST CONFIGURATION

For emissions testing, the equipment under test (EUT) setup to transmit continuously to simplify the measurement methodology. Care was taken to ensure proper power supply voltages during testing. During testing, radiated emission were performed with the EUT set to transmit at the channel with highest output power as worst-case scenario. It was powered by a 3.91V battery. Only the worst case data were recorded in this test report.

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, X/Y/Z axis, and antenna ports.

All readings are extrapolated back to the equivalent three meter reading using inverse scaling with distance. Analyzer resolution is 100 kHz or greater for frequencies below 1000MHz. The resolution is 1 MHz or greater for frequencies above 1000MHz. The spurious emissions more than 20 dB below the permissible value are not reported.

Radiated emission measurement were performed from the lowest radio frequency signal generated in the device which is greater than 9 kHz to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.

4.4 PRE-SCAN

Pre-scan all bandwidth and RB, find worse case mode are chosen to the report, the LTE worse case mode applicability and tested channel detail as below:

Item	Band	Bandwidth(MHz)						Modulation			RB			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	Half	Full	L	M	H
ERP/EIRP	2	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒
	4	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒
	5	☒	☒	☒	☒	--	--	☒	☒	☒	☒	☐	☐	☒	☒	☒
	7	-	-	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒
	13	-	-	☒	☒	-	-	☒	☒	☒	☒	☐	☐	☒	☒	☒
	26	☒	☒	☒	☒	☒	--	☒	☒	☒	☒	☐	☐	☒	☒	☒
	38	-	-	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒
	41	-	-	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒
Conducted output power	66	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒
	2	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒
	4	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒
	5	☒	☒	☒	☒	--	--	☒	☒	☒	☒	☒	☒	☒	☒	☒
	7	-	-	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒
	13	-	-	☒	☒	-	-	☒	☒	☒	☒	☒	☒	☒	☒	☒
	26	☒	☒	☒	☒	☒	--	☒	☒	☒	☒	☒	☒	☒	☒	☒
	38	-	-	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

	41	-	-	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒
	66	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒

Item	Band	Bandwidth(MHz)						Modulation			RB			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	Half	Full	L	M	H
99%&26dB Bandwidth	2	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒	☒
	4	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒	☒
	5	☒	☒	☒	☒	--	--	☒	☒	☒	☐	☐	☒	☒	☒	☒
	7	-	-	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒	☒
	13	-	-	☒	☒	-	-	☒	☒	☒	☐	☐	☒	☒	☒	☒
	26	☒	☒	☒	☒	☒	--	☒	☒	☒	☐	☐	☒	☒	☒	☒
	38	-	-	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒	☒
	41	-	-	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒	☒
	66	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒	☒
peak-to-av erage ratio	2	☐	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☒	☒	☐	☒
	4	☐	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☒	☒	☐	☒
	5	☐	☐	☐	☒	--	--	☒	☒	☒	☒	☐	☒	☒	☐	☒
	7	-	-	☐	☐	☐	☒	☒	☒	☒	☒	☐	☒	☒	☐	☒
	13	-	-	☐	☒	-	-	☒	☒	☒	☒	☐	☒	☒	☐	☒
	26	☐	☐	☐	☐	☒	--	☒	☒	☒	☒	☐	☒	☒	☐	☒
	38	-	-	☐	☐	☐	☒	☒	☒	☒	☒	☐	☒	☒	☐	☒
	41	-	-	☐	☐	☐	☒	☒	☒	☒	☒	☐	☒	☒	☐	☒
	66	☐	☐	☐	☐	☐	☒	☒	☒	☒	☒	☐	☒	☒	☐	☒

Item	Band	Bandwidth(MHz)						Modulation			RB			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	Half	Full	L	M	H
Band Edge at antenna terminals	2	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☒	☒	☐	☒
	4	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☒	☒	☐	☒
	5	☒	☒	☒	☒	--	--	☒	☒	☒	☒	☐	☒	☒	☐	☒
	7	-	-	☒	☒	☒	☒	☒	☒	☒	☒	☐	☒	☒	☐	☒
	13	-	-	☒	☒	-	-	☒	☒	☒	☒	☐	☒	☒	☐	☒
	26	☒	☒	☒	☒	☒	--	☒	☒	☒	☒	☐	☒	☒	☐	☒
	38	-	-	☒	☒	☒	☒	☒	☒	☒	☒	☐	☒	☒	☐	☒
	41	-	-	☒	☒	☒	☒	☒	☒	☒	☒	☐	☒	☒	☐	☒
	66	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☒	☒	☐	☒
Spurious emissions at antenna terminals	2	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒
	4	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒
	5	☒	☒	☒	☒	--	--	☒	☒	☒	☒	☐	☐	☒	☒	☒
	7	-	-	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒
	13	-	-	☒	☒	-	-	☒	☒	☒	☒	☐	☐	☒	☒	☒
	26	☒	☒	☒	☒	☒	--	☒	☒	☒	☒	☐	☐	☒	☒	☒
	38	-	-	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒
	41	-	-	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒
	66	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒
Item	Band	Bandwidth(MHz)						Modulation			RB			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	Half	Full	L	M	H
Field strength of spurious radiation	2	☐	☐	☐	☐	☐	☒	☒	☐	☐	☒	☐	☐	☒	☒	☒
	4	☐	☐	☐	☐	☐	☒	☒	☐	☐	☒	☐	☐	☒	☒	☒
	5	☐	☐	☐	☒	--	--	☒	☐	☐	☒	☐	☐	☒	☒	☒
	7	-	-	☐	☐	☐	☒	☒	☐	☐	☒	☐	☐	☒	☒	☒
	13	-	-	☐	☒	-	-	☒	☐	☐	☒	☐	☐	☒	☒	☒
	26	☐	☐	☐	☐	☒	--	☒	☐	☐	☒	☐	☐	☒	☒	☒
	38	-	-	☐	☐	☐	☒	☒	☐	☐	☒	☐	☐	☒	☒	☒
	41	-	-	☐	☐	☐	☒	☒	☐	☐	☒	☐	☐	☒	☒	☒
	66	☐	☐	☐	☐	☐	☒	☒	☐	☐	☒	☐	☐	☒	☒	☒

Frequency stability	2	☐	☐	☐	☐	☐	☒	☒	☐	☐	☐	☐	☒	☐	☒	☐
	4	☐	☐	☐	☐	☐	☒	☒	☐	☐	☐	☐	☒	☐	☒	☐
	5	☐	☐	☐	☒	--	--	☒	☐	☐	☐	☐	☒	☐	☒	☐
	7	-	-	☐	☐	☐	☒	☒	☐	☐	☐	☐	☒	☐	☒	☐
	13	-	-	☐	☒	-	-	☒	☐	☐	☐	☐	☒	☐	☒	☐
	26	☐	☐	☐	☐	☒	--	☒	☐	☐	☐	☐	☒	☐	☒	☐
	38	-	-	☐	☐	☐	☒	☒	☐	☐	☐	☐	☒	☐	☒	☐
	41	-	-	☐	☐	☐	☒	☒	☐	☐	☐	☐	☒	☐	☒	☐
	66	☐	☐	☐	☐	☐	☒	☒	☐	☐	☐	☐	☒	☐	☒	☐
Remark: The mark "☒" means is chosen for testing; The mark "☐" means is not chosen for testing; The mark "-" means is not supported bandwidth																

RADIO TECHNICAL REQUIREMENTS SPECIFICATION

5.1 REFERENCE DOCUMENTS FOR TESTING

No.	Identity	Document Title
1	FCC 47 CFR Part 2	Frequency allocations and radio treaty matters; general rules and regulations
2	FCC 47 CFR Part 22	Public Mobile Services
3	FCC 47 CFR Part 27	Miscellaneous Wireless Communications Services
4	FCC 47 CFR Part 24	Personal Communications Services
5	FCC 47 CFR Part 90	Private Land Mobile Radio Services
6	ANSI C63.26-2015	American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services
7	KDB 971168 D01	KDB 971168 D01 Power Meas License Digital Systems v03r01
8	KDB 412172 D01 Determining ERP and EIRP v01r01	Guidelines for determining the effective radiated power (ERP) and isotropically radiated power (EIRP) of an RF transmitting system

5.2 CONDUCTED OUTPUT POWER

Test Requirement: FCC 47 CFR Part 2.1046(a)
LTE Band 2: FCC 47 CFR Part 24.232(c)
LTE Band 4/66: FCC 47 CFR Part 27.50(d)(4)
LTE Band 5/26: FCC 47 CFR Part 22.913(a)
LTE Band 7/38/41: FCC 47 CFR Part 27.50(h)(2)
LTE Band 13: FCC 47 CFR Part 27.50(b)(10)
LTE Band 26: FCC 47 CFR Part 90.635
Test Method: KDB 971168 D01v03r01 & ANSI C63.26-2015

Limit:

FCC 47 CFR Part 22.913(a):

The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

FCC 47 CFR Part 24.232(c):

Mobile and portable stations are limited to 2 watts EIRP.

FCC 47 CFR Part 27.50(d)(4):

Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP.

FCC 47 CFR Part 27.50(h)(2):

Mobile and other user stations. Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.

FCC 47 CFR Part 27.50(b)(10):

Portable stations (hand-held devices) transmitting in the 746-757 MHz, 776-788 MHz, and 805-806 MHz bands are limited to 3 watts ERP.

FCC 47 CFR Part 90.635:

(a) The effective radiated power and antenna height for base stations may not exceed 1 kilowatt (30 dBw) and 304 m. (1,000 ft.) above average terrain (AAT), respectively, or the equivalent thereof as determined from the Table. These are maximum values, and applicants will be required to justify power levels and antenna heights requested.

(b) The maximum output power of the transmitter for mobile stations is 100 watts (20 dBw).

Table—Equivalent Power and Antenna Heights for Base Stations in the 851–869 MHz and 935–940 MHz Bands Which Have a Requirement for a 32 km (20 mi) Service Area Radius

Antenna height (ATT) meters (feet)	Effective radiated power (watts) ^{1 2 4}
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Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F., Block A, Building 6, Baoneng Science and Technology Park, Longhua Street, Longhua District, Shenzhen, Guangdong, China

Tel: +86-755-28230888

Fax: +86-755-28230886

E-mail: info@uttlab.com

<http://www.uttlab.com>

UTTR-RF-FCC4G-V1.1

Above 1,372 (4,500)	65
Above 1,220 (4,000) to 1,372 (4,500)	70
Above 1,067 (3,500) to 1,220 (4,000)	75
Above 915 (3,000) to 1,067 (3,500)	100
Above 763 (2,500) to 915 (3,000)	140
Above 610 (2,000) to 763 (2,500)	200
Above 458 (1,500) to 610 (2,000)	350
Above 305 (1,000) to 458 (1,500)	600
Up to 305 (1,000)	31,000

1. Power is given in terms of effective radiated power (ERP).
2. Applicants in the Los Angeles, CA, area who demonstrate a need to serve both the downtown and fringe areas will be permitted to utilize an ERP of 1 kw at the following mountaintop sites: Santiago Park, Sierra Peak, Mount Lukens, and Mount Wilson.
3. Stations with antennas below 305 m (1,000 ft) (AAT) will be restricted to a maximum power of 1 kw (ERP).
4. Licensees in San Diego, CA, will be permitted to utilize an ERP of 500 watts at the following mountaintop sites: Palomar, Otay, Woodson and Miguel.

Test Procedure:

The EUT was set up for the maximum power with CMW500, and LTE link data modulation and link up with simulator. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

Test Setup: Refer to section 4.2.2 for details.

Instruments Used: Refer to section 3 for details

Test Mode: Link mode

Test Results: Pass

➤ LTE Band 2

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH 18607	Mid CH 18900	High CH 19193		Low CH 18607	Mid CH 18900	High CH 19193		Low CH 18607	Mid CH 18900	High CH 19193	
			1850.7 MHz	1880.0 MHz	1909.3 MHz		1850.7 MHz	1880.0 MHz	1909.3 MHz		1850.7 MHz	1880.0 MHz	1909.3 MHz	
2 / 1.4M	1	0	16.74	16.64	16.62	0	15.94	15.73	15.75	1	15.44	15.64	15.46	2
	1	3	16.75	16.69	16.64	0	15.97	15.71	15.77	1	15.37	15.65	15.51	2
	1	5	16.73	16.67	16.64	0	16.01	15.75	15.74	1	15.38	15.67	15.53	2
	3	0	15.93	15.69	15.72	0	15.22	14.80	14.79	1	14.56	14.81	14.39	2
	3	1	15.93	15.71	15.74	0	15.18	14.82	14.83	1	14.47	14.83	14.63	2
	3	3	15.92	15.70	15.75	0	15.18	14.80	14.85	1	14.64	14.57	14.52	2
	6	0	15.93	15.75	15.76	1	15.19	14.81	14.84	2	13.41	13.84	13.33	3

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH 18615	Mid CH 18900	High CH 19185		Low CH 18615	Mid CH 18900	High CH 19185		Low CH 18615	Mid CH 18900	High CH 19185	
			1851.5 MHz	1880.0 MHz	1908.5 MHz		1851.5 MHz	1880.0 MHz	1908.5 MHz		1851.5 MHz	1880.0 MHz	1908.5 MHz	
2 / 3M	1	0	16.75	16.71	16.63	0	15.88	15.75	15.72	1	15.35	15.54	15.57	2
	1	8	16.75	16.72	16.68	0	15.84	15.71	15.71	1	15.38	15.48	15.52	2
	1	14	16.73	16.68	16.64	0	15.84	15.67	15.66	1	15.35	15.60	15.46	2
	8	0	15.88	15.77	15.75	1	14.91	14.69	14.78	2	13.57	13.80	13.37	3
	8	4	15.86	15.72	15.71	1	14.91	14.72	14.84	2	13.42	13.77	13.56	3
	8	7	15.86	15.76	15.76	1	14.87	14.70	14.85	2	13.49	13.61	13.55	3
	15	0	15.84	15.72	15.74	1	14.88	14.71	14.86	2	13.56	13.80	13.38	3

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH 18625	Mid CH 18900	High CH 19175		Low CH 18625	Mid CH 18900	High CH 19175		Low CH 18625	Mid CH 18900	High CH 19175	
			1852.5 MHz	1880.0 MHz	1907.5 MHz		1852.5 MHz	1880.0 MHz	1907.5 MHz		1852.5 MHz	1880.0 MHz	1907.5 MHz	
2 / 5M	1	0	16.69	16.75	16.63	0	15.86	15.93	15.89	1	15.43	15.66	15.45	2
	1	13	16.73	16.76	16.67	0	15.89	15.91	15.93	1	15.33	15.59	15.48	2
	1	24	16.72	16.72	16.67	0	15.92	15.88	15.92	1	15.44	15.57	15.48	2
	12	0	15.96	15.92	15.86	1	15.02	15.01	15.14	2	13.44	13.81	13.47	3
	12	6	15.92	15.91	15.88	1	15.07	14.97	15.18	2	13.48	13.78	13.70	3
	12	13	15.88	15.92	15.83	1	15.11	14.95	15.20	2	13.59	13.70	13.44	3
	25	0	15.90	15.95	15.86	1	15.07	14.90	15.19	2	13.54	13.81	13.38	3

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH 18650	Mid CH 18900	High CH 19150		Low CH 18650	Mid CH 18900	High CH 19150		Low CH 18650	Mid CH 18900	High CH 19150	
			1855.0 MHz	1880.0 MHz	1905.0 MHz		1855.0 MHz	1880.0 MHz	1905.0 MHz		1855.0 MHz	1880.0 MHz	1905.0 MHz	
2 / 10M	1	0	16.70	16.69	16.65	0	15.85	15.83	15.80	1	15.36	15.62	15.44	2
	1	25	16.74	16.74	16.67	0	15.88	15.79	15.76	1	15.40	15.61	15.53	2
	1	49	16.71	16.70	16.63	0	15.85	15.82	15.76	1	15.36	15.63	15.37	2
	25	0	15.79	15.88	15.87	1	14.91	15.05	14.96	2	13.52	13.83	13.49	3
	25	12	15.84	15.84	15.83	1	14.92	15.05	15.00	2	13.43	13.88	13.58	3
	25	25	15.89	15.89	15.81	1	14.90	15.05	14.96	2	13.45	13.64	13.48	3
	50	0	15.86	15.85	15.82	1	14.86	15.09	14.95	2	13.43	13.85	13.41	3

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH 18675	Mid CH 18900	High CH 19125		Low CH 18675	Mid CH 18900	High CH 19125		Low CH 18675	Mid CH 18900	High CH 19125	
			1857.5 MHz	1880.0 MHz	1902.5 MHz		1857.5 MHz	1880.0 MHz	1902.5 MHz		1857.5 MHz	1880.0 MHz	1902.5 MHz	
2 / 15M	1	0	16.68	16.64	16.62	0	15.84	15.82	15.95	1	15.45	15.67	15.59	2
	1	37	16.71	16.69	16.64	0	15.86	15.81	15.92	1	15.43	15.65	15.55	2
	1	74	16.67	16.67	16.63	0	15.84	15.79	15.87	1	15.37	15.64	15.52	2
	36	0	15.80	15.80	15.87	1	14.97	15.01	15.00	2	13.44	13.84	13.54	3
	36	20	15.81	15.81	15.92	1	15.00	15.02	14.95	2	13.47	13.79	13.61	3
	36	39	15.82	15.85	15.97	1	15.03	15.01	14.96	2	13.55	13.69	13.52	3
	75	0	15.85	15.82	15.97	1	15.05	14.99	14.95	2	13.52	13.83	13.47	3

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH 18700	Mid CH 18900	High CH 19100		Low CH 18700	Mid CH 18900	High CH 19100		Low CH 18700	Mid CH 18900	High CH 19100	
			1860.0 MHz	1880.0 MHz	1900.0 MHz		1860.0 MHz	1880.0 MHz	1900.0 MHz		1860.0 MHz	1880.0 MHz	1900.0 MHz	
2 / 20M	1	0	16.66	16.71	16.64	0	15.66	15.89	15.65	1	15.53	15.67	15.64	2
	1	50	16.68	16.72	16.64	0	15.64	15.88	15.66	1	15.52	15.68	15.59	2
	1	99	16.66	16.70	16.60	0	15.59	15.85	15.64	1	15.52	15.70	15.56	2
	50	0	15.72	15.89	15.67	1	14.70	14.90	14.64	2	13.58	13.85	13.56	3
	50	25	15.69	15.88	15.70	1	14.65	14.83	14.61	2	13.51	13.88	13.71	3
	50	50	15.65	15.90	15.66	1	14.63	14.83	14.64	2	13.65	13.73	13.57	3
	100	0	15.66	15.92	15.62	1	14.60	14.88	14.64	2	13.56	13.92	13.51	3

➤ LTE Band 4

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH 19957	Mid CH 20175	High CH 20393		Low CH 19957	Mid CH 20175	High CH 20393		Low CH 19957	Mid CH 20175	High CH 20393	
			1710.7 MHz	1732.5 MHz	1754.3 MHz		1710.7 MHz	1732.5 MHz	1754.3 MHz		1710.7 MHz	1732.5 MHz	1754.3 MHz	
4 / 1.4M	1	0	17.64	17.74	17.69	0	16.90	16.92	17.00	1	16.54	16.60	16.60	2
	1	3	17.67	17.74	17.72	0	16.86	16.92	16.96	1	16.50	16.64	16.75	2
	1	5	17.65	17.73	17.70	0	16.86	16.88	16.98	1	16.50	16.76	16.74	2
	3	0	16.84	16.96	16.93	0	16.00	15.90	16.07	1	15.83	14.96	14.65	2
	3	1	16.83	16.96	16.95	0	15.98	15.87	16.08	1	15.93	14.95	14.61	2
	3	3	16.85	16.93	16.99	0	15.98	15.84	16.08	1	15.95	14.72	14.81	2
	6	0	16.86	16.89	16.96	1	16.01	15.87	16.09	2	14.72	14.96	14.56	3

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH 19965	Mid CH 20175	High CH 20385		Low CH 19965	Mid CH 20175	High CH 20385		Low CH 19965	Mid CH 20175	High CH 20385	
			1711.5 MHz	1732.5 MHz	1753.5 MHz		1711.5 MHz	1732.5 MHz	1753.5 MHz		1711.5 MHz	1732.5 MHz	1753.5 MHz	
4 / 3M	1	0	17.72	17.74	17.75	0	16.77	16.96	16.93	1	16.45	16.50	16.71	2
	1	8	17.73	17.79	17.77	0	16.73	16.95	16.97	1	16.51	16.47	16.76	2
	1	14	17.69	17.76	17.73	0	16.74	16.93	17.02	1	16.47	16.69	16.67	2
	8	0	16.74	16.93	16.98	1	15.85	15.96	16.28	2	14.84	14.95	14.63	3
	8	4	16.71	16.88	16.99	1	15.89	16.01	16.33	2	14.88	14.89	14.54	3
	8	7	16.74	16.93	16.94	1	15.84	15.98	16.30	2	14.80	14.76	14.84	3
	15	0	16.78	16.92	16.90	1	15.80	15.95	16.26	2	14.87	14.92	14.61	3

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH 19975	Mid CH 20175	High CH 20375		Low CH 19975	Mid CH 20175	High CH 20375		Low CH 19975	Mid CH 20175	High CH 20375	
			1712.5 MHz	1732.5 MHz	1752.5 MHz		1712.5 MHz	1732.5 MHz	1752.5 MHz		1712.5 MHz	1732.5 MHz	1752.5 MHz	
4 / 5M	1	0	17.73	17.73	17.77	0	16.76	16.98	16.81	1	16.53	16.62	16.59	2
	1	13	17.75	17.76	17.80	0	16.72	16.99	16.79	1	16.46	16.58	16.72	2
	1	24	17.70	17.75	17.75	0	16.77	16.99	16.76	1	16.56	16.66	16.69	2
	12	0	16.74	16.96	16.83	1	15.97	16.18	15.94	2	14.71	14.96	14.73	3
	12	6	16.75	16.98	16.81	1	15.94	16.22	15.95	2	14.94	14.90	14.68	3
	12	13	16.72	16.96	16.85	1	15.92	16.17	15.94	2	14.90	14.85	14.73	3
	25	0	16.75	16.95	16.82	1	15.88	16.13	15.89	2	14.85	14.93	14.61	3

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH 20000	Mid CH 20175	High CH 20350		Low CH 20000	Mid CH 20175	High CH 20350		Low CH 20000	Mid CH 20175	High CH 20350	
			1715.0 MHz	1732.5 MHz	1750.0 MHz		1715.0 MHz	1732.5 MHz	1750.0 MHz		1715.0 MHz	1732.5 MHz	1750.0 MHz	
4 / 10M	1	0	17.71	17.79	17.77	0	16.80	17.00	16.80	1	16.46	16.58	16.58	2
	1	25	17.76	17.80	17.80	0	16.84	17.03	16.80	1	16.53	16.60	16.77	2
	1	49	17.73	17.78	17.78	0	16.81	17.07	16.81	1	16.48	16.72	16.58	2
	25	0	16.80	16.95	16.90	1	15.91	16.23	16.07	2	14.79	14.98	14.75	3
	25	12	16.79	16.92	16.87	1	15.85	16.24	16.07	2	14.89	15.00	14.56	3
	25	25	16.82	16.94	16.85	1	15.84	16.26	16.11	2	14.76	14.79	14.77	3
	50	0	16.81	16.95	16.82	1	15.87	16.29	16.16	2	14.74	14.97	14.64	3

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH 20025	Mid CH 20175	High CH 20325		Low CH 20025	Mid CH 20175	High CH 20325		Low CH 20025	Mid CH 20175	High CH 20325	
			1717.5 MHz	1732.5 MHz	1747.5 MHz		1717.5 MHz	1732.5 MHz	1747.5 MHz		1717.5 MHz	1732.5 MHz	1747.5 MHz	
4 / 15M	1	0	17.76	17.74	17.79	0	16.93	16.77	16.81	1	16.55	16.63	16.73	2
	1	37	17.78	17.79	17.82	0	16.91	16.75	16.83	1	16.56	16.64	16.79	2
	1	74	17.75	17.74	17.79	0	16.88	16.74	16.85	1	16.49	16.73	16.73	2
	36	0	16.95	16.78	16.85	1	15.96	15.84	15.92	2	14.71	14.99	14.80	3
	36	20	16.92	16.76	16.86	1	16.01	15.81	15.90	2	14.93	14.91	14.59	3
	36	39	16.91	16.79	16.86	1	15.98	15.84	15.94	2	14.86	14.84	14.81	3
	75	0	16.90	16.78	16.82	1	16.93	16.77	16.81	2	14.83	14.95	14.70	3

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH 20050	Mid CH 20175	High CH 20300		Low CH 20050	Mid CH 20175	High CH 20300		Low CH 20050	Mid CH 20175	High CH 20300	
			1720.0 MHz	1732.5 MHz	1745.0 MHz		1720.0 MHz	1732.5 MHz	1745.0 MHz		1720.0 MHz	1732.5 MHz	1745.0 MHz	
4 / 20M	1	0	17.77	17.79	17.78	0	16.92	17.05	16.85	1	16.63	16.63	16.78	2
	1	50	17.81	17.83	17.83	0	16.92	17.02	16.85	1	16.65	16.67	16.83	2
	1	99	17.78	17.79	17.81	0	16.93	16.98	16.85	1	16.64	16.79	16.77	2
	50	0	16.99	17.04	16.82	1	16.03	16.21	16.04	2	14.85	15.00	14.82	3
	50	25	16.96	17.00	16.87	1	16.05	16.19	16.05	2	14.97	15.00	14.69	3
	50	50	16.96	17.05	16.87	1	16.02	16.21	16.06	2	14.96	14.88	14.86	3
	100	0	16.97	17.04	16.85	1	16.03	16.18	16.01	2	14.87	15.04	14.74	3

➤ LTE Band 5

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH 20407	Mid CH 20525	High CH 20643		Low CH 20407	Mid CH 20525	High CH 20643		Low CH 20407	Mid CH 20525	High CH 20643	
			824.7 MHz	836.5 MHz	848.3 MHz		824.7 MHz	836.5 MHz	848.3 MHz		824.7 MHz	836.5 MHz	848.3 MHz	
5 / 1.4M	1	0	22.72	22.76	22.87	0	21.77	21.87	22.01	1	21.61	21.61	21.69	2
	1	3	22.73	22.80	22.89	0	21.81	21.87	21.98	1	21.60	21.82	21.68	2
	1	5	22.69	22.78	22.87	0	21.86	21.85	21.96	1	21.55	21.69	21.67	2
	3	0	21.77	21.95	22.00	0	21.08	20.88	20.98	1	20.83	20.90	20.80	2
	3	1	21.81	21.91	21.95	0	21.11	20.89	20.95	1	21.04	20.84	20.83	2
	3	3	21.84	21.95	22.00	0	21.14	20.86	20.96	1	20.82	20.64	20.95	2
	6	0	21.80	21.90	22.02	1	21.11	20.82	20.99	2	19.90	19.84	19.70	3

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH 20415	Mid CH 20525	High CH 20635		Low CH 20415	Mid CH 20525	High CH 20635		Low CH 20415	Mid CH 20525	High CH 20635	
			825.5 MHz	836.5 MHz	847.5 MHz		825.5 MHz	836.5 MHz	847.5 MHz		825.5 MHz	836.5 MHz	847.5 MHz	
5 / 3M	1	0	22.74	22.79	22.83	0	21.97	21.88	22.14	1	21.63	21.58	21.73	2
	1	8	22.77	22.79	22.88	0	21.95	21.91	22.15	1	21.62	21.78	21.74	2
	1	14	22.74	22.78	22.87	0	21.96	21.87	22.19	1	21.63	21.78	21.66	2
	8	0	21.98	21.80	22.07	1	20.98	20.99	21.35	2	19.83	19.71	19.95	3
	8	4	21.94	21.84	22.12	1	20.95	20.93	21.34	2	20.11	19.82	19.74	3
	8	7	21.93	21.85	22.15	1	20.99	20.94	21.36	2	19.76	19.58	19.95	3
	15	0	21.95	21.85	22.18	1	21.02	20.97	21.36	2	19.88	19.81	19.88	3

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH 20425	Mid CH 20525	High CH 20625		Low CH 20425	Mid CH 20525	High CH 20625		Low CH 20425	Mid CH 20525	High CH 20625	
			826.5 MHz	836.5 MHz	846.5 MHz		826.5 MHz	836.5 MHz	846.5 MHz		826.5 MHz	836.5 MHz	846.5 MHz	
5 / 5M	1	0	22.74	22.79	22.82	0	21.82	21.91	22.08	1	21.56	21.69	21.68	2
	1	13	22.79	22.84	22.84	0	21.80	21.93	22.04	1	21.53	21.80	21.76	2
	1	24	22.76	22.83	22.79	0	21.79	21.95	21.99	1	21.64	21.71	21.54	2
	12	0	21.76	21.90	22.04	1	21.02	21.03	21.03	2	19.91	19.81	19.94	3
	12	6	21.79	21.94	22.08	1	21.04	21.02	21.00	2	20.06	19.82	19.64	3
	12	13	21.83	21.95	22.05	1	21.03	20.97	20.97	2	19.84	19.71	19.84	3
	25	0	21.82	21.92	22.08	1	21.04	21.01	20.96	2	19.93	19.89	19.73	3

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH 20450	Mid CH 20525	High CH 20600		Low CH 20450	Mid CH 20525	High CH 20600		Low CH 20450	Mid CH 20525	High CH 20600	
			829.0 MHz	836.5 MHz	844.0 MHz		829.0 MHz	836.5 MHz	844.0 MHz		829.0 MHz	836.5 MHz	844.0 MHz	
5 / 10M	1	0	22.81	22.84	22.81	0	22.04	21.99	22.06	1	21.70	21.70	21.81	2
	1	25	22.83	22.87	22.82	0	22.04	22.00	22.06	1	21.67	21.87	21.82	2
	1	49	22.83	22.87	22.78	0	22.08	22.04	22.06	1	21.69	21.87	21.74	2
	25	0	22.08	21.95	21.96	1	21.28	21.21	21.14	2	19.94	19.91	19.96	3
	25	12	22.12	21.98	21.98	1	21.26	21.20	21.18	2	20.12	19.94	19.83	3
	25	25	22.08	21.93	22.00	1	21.27	21.20	21.19	2	19.90	19.76	20.00	3
	50	0	22.05	21.96	22.02	1	21.22	21.20	21.17	2	19.95	19.96	19.90	3

➤ LTE Band 7

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			20775	21100	21425		20775	21100	21425		20775	21100	21425	
			2502.5 MHz	2535.0 MHz	2567.5 MHz		2502.5 MHz	2535.0 MHz	2567.5 MHz		2502.5 MHz	2535.0 MHz	2567.5 MHz	
7 / 5M	1	0	14.43	14.42	14.43	0	13.50	13.57	13.57	1	13.24	13.27	13.28	2
	1	13	14.46	14.44	14.46	0	13.50	13.56	13.60	1	13.23	13.47	13.23	2
	1	24	14.43	14.40	14.45	0	13.49	13.57	13.58	1	13.31	13.31	13.19	2
	12	0	13.49	13.65	13.52	1	12.68	12.73	12.82	2	11.39	11.46	11.35	3
	12	6	13.50	13.65	13.56	1	12.71	12.74	12.78	2	11.35	11.60	11.31	3
	12	13	13.46	13.62	13.54	1	12.74	12.70	12.75	2	11.23	11.49	11.43	3
	25	0	13.46	13.59	13.57	1	12.71	12.68	12.72	2	11.39	11.58	11.41	3

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			20800	21100	21400		20800	21100	21400		20800	21100	21400	
			2505.0 MHz	2535.0 MHz	2565.0 MHz		2505.0 MHz	2535.0 MHz	2565.0 MHz		2505.0 MHz	2535.0 MHz	2565.0 MHz	
7 / 10M	1	0	14.53	14.49	14.43	0	13.67	13.64	13.55	1	13.20	13.27	13.17	2
	1	25	14.55	14.51	14.48	0	13.67	13.59	13.59	1	13.33	13.45	13.16	2
	1	49	14.50	14.47	14.47	0	13.66	13.61	13.63	1	13.29	13.45	13.25	2
	25	0	13.71	13.66	13.56	1	12.90	12.76	12.81	2	11.38	11.54	11.46	3
	25	12	13.72	13.71	13.51	1	12.89	12.71	12.86	2	11.41	11.63	11.33	3
	25	25	13.71	13.66	13.52	1	12.91	12.72	12.85	2	11.26	11.40	11.38	3
	50	0	13.68	13.61	13.50	1	12.95	12.77	12.85	2	11.37	11.61	11.34	3

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			20825	21100	21375		20825	21100	21375		20825	21100	21375	
			2507.5 MHz	2535.0 MHz	2562.5 MHz		2507.5 MHz	2535.0 MHz	2562.5 MHz		2507.5 MHz	2535.0 MHz	2562.5 MHz	
7 / 15M	1	0	14.51	14.49	14.39	0	13.50	13.83	13.41	1	13.34	13.30	13.26	2
	1	37	14.54	14.51	14.43	0	13.47	13.82	13.42	1	13.22	13.50	13.14	2
	1	74	14.50	14.50	14.38	0	13.47	13.83	13.46	1	13.33	13.35	13.19	2
	36	0	13.60	13.74	13.46	1	12.59	13.04	12.47	2	11.36	11.39	11.53	3
	36	20	13.58	13.77	13.43	1	12.65	13.08	12.46	2	11.36	11.68	11.33	3
	36	39	13.53	13.76	13.43	1	12.70	13.07	12.49	2	11.25	11.34	11.37	3
	75	0	13.50	13.78	13.44	1	12.68	13.12	12.46	2	11.45	11.56	11.27	3

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			20850	21100	21350		20850	21100	21350		20850	21100	21350	
			2510.0 MHz	2535.0 MHz	2560.0 MHz		2510.0 MHz	2535.0 MHz	2560.0 MHz		2510.0 MHz	2535.0 MHz	2560.0 MHz	
7 / 20M	1	0	14.51	14.53	14.46	0	13.57	13.69	13.59	1	13.40	13.39	13.30	2
	1	50	14.52	14.54	14.46	0	13.60	13.70	13.58	1	13.36	13.54	13.32	2
	1	99	14.50	14.51	14.43	0	13.61	13.73	13.59	1	13.36	13.51	13.39	2
	50	0	13.56	13.74	13.54	1	12.78	12.90	12.69	2	11.42	11.56	11.54	3
	50	25	13.52	13.70	13.54	1	12.79	12.94	12.74	2	11.52	11.70	11.36	3
	50	50	13.55	13.69	13.52	1	12.81	12.99	12.72	2	11.37	11.51	11.52	3
	100	0	13.57	13.65	13.56	1	12.78	12.97	12.68	2	11.47	11.65	11.45	3

➤ **LTE Band 13**

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH 23205	Mid CH 23230	High CH 23255		Low CH 23205	Mid CH 23230	High CH 23255		Low CH 23205	Mid CH 23230	High CH 23255	
			779.5 MHz	782.0 MHz	784.5 MHz		779.5 MHz	782.0 MHz	784.5 MHz		779.5 MHz	782.0 MHz	784.5 MHz	
13 / 5M	1	0	22.85	22.84	22.82	0	21.78	21.99	21.89	1	21.85	21.70	21.66	2
	1	13	22.89	22.88	22.84	0	21.74	21.95	21.93	1	21.73	21.88	21.84	2
	1	24	22.85	22.87	22.82	0	21.70	21.91	21.88	1	21.71	21.87	21.78	2
	12	0	21.85	21.94	21.86	1	20.93	20.92	21.12	2	19.85	19.76	19.86	3
	12	6	21.82	21.94	21.91	1	20.96	20.94	21.15	2	19.64	19.94	19.91	3
	12	13	21.79	21.94	21.87	1	20.98	20.96	21.18	2	19.61	19.76	19.87	3
	25	0	21.74	21.95	21.85	1	20.98	21.01	21.16	2	19.64	19.95	19.74	3

LTE Band / BW	RB Size	RB Offset	QPSK	3GPP MPR (dB)	16QAM	3GPP MPR (dB)	64QAM	3GPP MPR (dB)
			Mid CH 23230		Mid CH 23230		Mid CH 23230	
			782.0 MHz		782.0 MHz		782.0 MHz	
13 / 10M	1	0	22.88	0	21.91	1	21.72	2
	1	25	23.17	0	21.93	1	22.03	2
	1	49	22.88	0	21.92	1	21.84	2
	25	0	22.04	1	21.12	2	20.04	3
	25	12	22.01	1	21.12	2	19.83	3
	25	25	21.98	1	21.10	2	19.98	3
	50	0	21.96	1	21.10	2	19.85	3

➤ LTE Band 26

Part 90S

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH 26697	Mid CH 26740	High CH 26783		Low CH 26697	Mid CH 26740	High CH 26783		Low CH 26697	Mid CH 26740	High CH 26783	
			814.7 MHz	819 MHz	823.3 MHz		814.7 MHz	819 MHz	823.3 MHz		814.7 MHz	819 MHz	823.3 MHz	
26 / 1.4M	1	0	22.82	22.76	22.70	0	22.01	21.88	21.89	1	21.68	21.58	21.63	2
	1	13	22.86	22.82	22.75	0	22.01	21.83	21.95	1	21.55	21.52	21.51	2
	1	24	22.83	22.81	22.70	0	22.00	21.82	21.90	1	21.64	21.58	21.60	2
	12	0	21.99	21.95	21.83	0	21.02	20.86	20.97	1	20.85	20.84	20.83	2
	12	6	21.98	21.91	21.93	0	21.07	20.98	20.92	1	20.67	20.58	20.57	2
	12	13	21.94	21.87	21.82	0	21.05	20.93	20.91	1	20.64	20.60	20.59	2
	25	0	21.98	21.94	21.86	1	21.06	20.94	20.99	2	19.68	19.59	19.64	3

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH 26705	Mid CH 26740	High CH 26775		Low CH 26705	Mid CH 26740	High CH 26775		Low CH 26705	Mid CH 26740	High CH 26775	
			815.5 MHz	819 MHz	822.5 MHz		815.5 MHz	819 MHz	822.5 MHz		815.5 MHz	819 MHz	822.5 MHz	
26 / 3M	1	0	22.89	22.77	22.86	0	22.09	21.93	22.08	1	21.62	21.52	21.51	2
	1	13	22.90	22.89	22.81	0	22.08	21.96	21.92	1	21.64	21.63	21.63	2
	1	24	22.88	22.74	22.79	0	22.08	22.07	22.02	1	21.66	21.60	21.53	2
	12	0	22.07	21.99	22.05	1	21.15	21.15	21.01	2	19.85	19.81	19.81	3
	12	6	22.11	22.05	21.99	1	21.13	21.04	21.01	2	19.72	19.66	19.64	3
	12	13	22.15	21.98	22.15	1	21.09	20.90	21.06	2	19.67	19.51	19.48	3
	25	0	22.12	21.94	21.94	1	21.12	20.92	21.10	2	19.78	19.63	19.70	3

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH 26715	Mid CH 26740	High CH 26765		Low CH 26715	Mid CH 26740	High CH 26765		Low CH 26715	Mid CH 26740	High CH 26765	
			816.5 MHz	819 MHz	821.5 MHz		816.5 MHz	819 MHz	821.5 MHz		816.5 MHz	819 MHz	821.5 MHz	
26 / 5M	1	0	22.85	22.72	22.66	0	21.90	21.70	21.88	1	21.64	21.44	21.46	2
	1	13	22.86	22.85	22.67	0	21.91	21.81	21.87	1	21.55	21.53	21.41	2
	1	24	22.82	22.66	22.62	0	21.91	21.84	21.76	1	21.67	21.62	21.56	2
	12	0	21.95	21.94	21.95	1	20.95	20.76	20.90	2	19.79	19.66	19.65	3
	12	6	21.91	21.87	21.82	1	20.91	20.74	20.77	2	19.75	19.61	19.59	3
	12	13	21.95	21.93	21.88	1	20.91	20.74	20.86	2	19.55	19.42	19.40	3
	25	0	21.92	21.86	21.74	1	20.86	20.78	20.70	2	19.75	19.67	19.62	3

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			--	Mid CH 26740	--		--	Mid CH 26740	--		--	Mid CH 26740	--	
			--	819.0 MHz	--		--	819.0 MHz	--		--	819.0 MHz	--	
26 / 10M	1	0	--	22.84	--	0	--	22.02	--	1	--	21.59	--	2
	1	25	--	22.89	--	0	--	21.99	--	1	--	21.60	--	2
	1	49	--	22.84	--	0	--	21.95	--	1	--	21.54	--	2
	25	0	--	22.00	--	1	--	21.15	--	2	--	19.79	--	3
	25	12	--	22.03	--	1	--	21.20	--	2	--	19.75	--	3
	25	25	--	21.98	--	1	--	21.20	--	2	--	19.59	--	3
	50	0	--	22.00	--	1	--	21.21	--	2	--	19.68	--	3

Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F., Block A, Building 6, Baoneng Science and Technology Park, Longhua Street, Longhua District, Shenzhen, Guangdong, China

Tel: +86-755-28230888

Fax: +86-755-28230886

E-mail: info@uttlab.com

<http://www.uttlab.com>

UTTR-RF-FCC4G-V1.1

Part 22

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			26797	26865	27033		26797	26865	27033		26797	26865	27033	
			824.7 MHz	831.5 MHz	848.3 MHz		814.7 MHz	831.5 MHz	848.3 MHz		814.7 MHz	831.5 MHz	848.3 MHz	
26 / 1.4M	1	0	22.79	22.83	22.82	0	21.87	21.99	22.01	1	21.44	21.73	21.54	2
	1	13	22.67	22.86	22.83	0	21.86	22.03	21.96	1	21.52	21.79	21.62	2
	1	24	22.66	22.85	22.82	0	21.72	22.03	21.92	1	21.54	21.89	21.74	2
	12	0	21.90	22.06	22.04	0	21.01	21.09	21.03	1	20.71	20.63	20.75	2
	12	6	21.93	22.04	21.99	0	20.96	21.03	21.00	1	20.59	20.99	20.64	2
	12	13	21.86	22.01	22.02	0	20.88	21.05	21.01	1	20.78	20.76	20.81	2
	25	0	21.96	22.04	22.03	1	21.00	21.02	21.01	2	19.54	19.91	19.72	3

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			26805	26865	27025		27025	26865	27025		27025	26865	27025	
			825.5 MHz	831.5 MHz	847.5 MHz		825.5 MHz	831.5 MHz	847.5 MHz		825.5 MHz	831.5 MHz	847.5 MHz	
26 / 3M	1	0	22.72	22.91	22.87	0	21.97	22.05	22.13	1	21.46	21.61	21.65	2
	1	13	22.79	22.95	22.88	0	21.83	22.03	22.09	1	21.61	21.92	21.68	2
	1	24	22.82	22.92	22.87	0	21.87	22.00	22.14	1	21.68	21.79	21.68	2
	12	0	22.04	22.06	22.09	1	21.04	21.14	21.27	2	19.80	19.65	19.89	3
	12	6	22.09	22.06	22.13	1	21.08	21.18	21.33	2	19.44	19.87	19.51	3
	12	13	22.08	22.07	22.16	1	21.06	21.22	21.29	2	19.71	19.83	19.79	3
	25	0	22.04	22.05	22.16	1	21.06	21.19	21.28	2	19.71	19.88	19.77	3

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			26815	26865	27015		26815	26865	27015		26715	26865	27015	
			826.5 MHz	831.5 MHz	846.5 MHz		826.5 MHz	831.5 MHz	846.5 MHz		816.5 MHz	831.5 MHz	846.5 MHz	
26 / 5M	1	0	22.77	22.81	22.84	0	21.66	21.81	22.06	1	21.35	21.68	21.49	2
	1	13	22.74	22.86	22.88	0	21.70	21.85	22.06	1	21.72	21.91	21.77	2
	1	24	22.65	22.82	22.83	0	21.74	21.84	22.04	1	21.61	21.81	21.70	2
	12	0	21.86	21.88	22.03	1	20.88	21.02	21.26	2	19.70	19.79	19.84	3
	12	6	21.66	21.83	22.07	1	20.93	21.00	21.24	2	19.44	19.99	19.50	3
	12	13	21.68	21.80	22.07	1	20.91	20.98	21.28	2	19.66	19.72	19.80	3
	25	0	21.76	21.81	22.08	1	20.96	20.98	21.31	2	19.64	19.85	19.70	3

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			26840	26865	26990		26840	26865	26990		26840	26865	26990	
			829.0 MHz	831.5 MHz	844.0 MHz		829.0 MHz	831.5 MHz	844.0 MHz		829.0 MHz	831.5 MHz	844.0 MHz	
26 / 10M	1	0	22.67	22.92	22.85	0	21.85	22.20	21.90	1	21.45	21.69	21.46	2
	1	25	22.79	22.92	22.89	0	21.76	22.24	21.85	1	21.64	21.86	21.67	2
	1	49	22.78	22.87	22.85	0	21.64	22.20	21.81	1	21.73	21.80	21.84	2
	25	0	21.82	22.09	21.95	1	20.90	21.25	20.97	2	19.71	19.81	19.77	3
	25	12	21.75	22.12	21.92	1	20.89	21.26	20.94	2	19.45	19.87	19.50	3
	25	25	21.90	22.15	21.94	1	20.90	21.25	20.97	2	19.69	19.83	19.81	3
	50	0	21.85	22.16	21.93	1	20.94	21.21	20.96	2	19.73	19.80	19.74	3

Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F., Block A, Building 6, Baoneng Science and Technology Park, Longhua Street, Longhua District, Shenzhen, Guangdong, China

Tel: +86-755-28230888

Fax: +86-755-28230886

E-mail: info@uttlab.com

<http://www.uttlab.com>

UTTR-RF-FCC4G-V1.1

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH 26765	Mid CH 26865	High CH 26965		Low CH 26765	Mid CH 26865	High CH 26965		Low CH 26765	Mid CH 26865	High CH 26965	
			821.5 MHz	831.5 MHz	841.5 MHz		821.5 MHz	831.5 MHz	841.5 MHz		821.5 MHz	831.5 MHz	841.5 MHz	
26 / 15M	1	0	22.83	22.92	22.90	0	21.89	22.02	21.92	1	21.77	21.78	21.65	2
	1	37	22.87	22.94	22.93	0	21.86	21.98	21.92	1	21.71	21.94	21.79	2
	1	74	22.83	22.92	22.89	0	21.84	22.01	21.93	1	21.69	21.92	21.85	2
	36	0	21.94	22.01	21.90	1	20.88	21.02	21.03	2	19.94	19.83	19.90	3
	36	20	21.96	22.03	21.90	1	20.93	20.97	21.01	2	19.78	20.03	19.66	3
	36	39	21.93	21.99	21.91	1	20.92	20.93	20.99	2	19.75	19.88	19.91	3
	75	0	21.94	21.98	21.94	1	20.88	20.89	21.01	2	19.84	19.98	19.83	3

Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F., Block A, Building 6, Baoneng Science and Technology Park, Longhua Street, Longhua District, Shenzhen, Guangdong, China

Tel: +86-755-28230888

Fax: +86-755-28230886

E-mail: info@uttlab.com

<http://www.uttlab.com>

UTTR-RF-FCC4G-V1.1

➤ LTE Band 38

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			37775	38000	38225		37775	38000	38225		37775	38000	38225	
			2572.5 MHz	2595.0 MHz	2617.5 MHz		2572.5 MHz	2595.0 MHz	2617.5 MHz		2572.5 MHz	2595.0 MHz	2617.5 MHz	
38 / 5M	1	0	16.43	16.51	16.44	0	15.65	15.65	15.73	1	15.37	15.49	15.33	2
	1	13	16.46	16.51	16.47	0	15.61	15.70	15.78	1	15.26	15.44	15.37	2
	1	24	16.46	16.51	16.47	0	15.62	15.73	15.73	1	15.35	15.48	15.34	2
	12	0	15.57	15.70	15.67	1	14.86	14.96	14.81	2	13.50	13.40	13.50	3
	12	6	15.62	15.66	15.71	1	14.91	15.01	14.80	2	13.73	13.58	13.31	3
	12	13	15.63	15.63	15.75	1	14.94	14.98	14.83	2	13.15	13.74	13.44	3
	25	0	15.66	15.65	15.75	1	14.93	14.94	14.84	2	13.27	13.62	13.33	3

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			37800	38000	38200		37800	38000	38200		37800	38000	38200	
			2575.0 MHz	2595.0 MHz	2615.0 MHz		2575.0 MHz	2595.0 MHz	2615.0 MHz		2575.0 MHz	2595.0 MHz	2615.0 MHz	
38 / 10M	1	0	16.47	16.57	16.51	0	15.65	15.75	15.50	1	15.37	15.45	15.43	2
	1	25	16.52	16.58	16.51	0	15.62	15.72	15.53	1	15.32	15.37	15.49	2
	1	49	16.48	16.55	16.50	0	15.59	15.77	15.52	1	15.40	15.46	15.42	2
	25	0	15.72	15.71	15.53	1	14.65	15.01	14.77	2	13.35	13.39	13.43	3
	25	12	15.71	15.71	15.49	1	14.67	15.04	14.76	2	13.66	13.70	13.31	3
	25	25	15.70	15.75	15.50	1	14.69	15.01	14.77	2	13.23	13.72	13.57	3
	50	0	15.70	15.70	15.50	1	14.66	15.01	14.76	2	13.37	13.59	13.26	3

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			37825	38000	38175		37825	38000	38175		37825	38000	38175	
			2577.5 MHz	2595.0 MHz	2612.5 MHz		2577.5 MHz	2595.0 MHz	2612.5 MHz		2577.5 MHz	2595.0 MHz	2612.5 MHz	
38 / 15M	1	0	16.50	16.51	16.47	0	15.54	15.65	15.59	1	15.43	15.37	15.51	2
	1	37	16.51	16.56	16.48	0	15.51	15.67	15.56	1	15.32	15.36	15.51	2
	1	74	16.47	16.52	16.45	0	15.50	15.67	15.51	1	15.43	15.35	15.31	2
	36	0	15.52	15.63	15.65	1	14.75	14.78	14.55	2	13.35	13.44	13.39	3
	36	20	15.49	15.66	15.62	1	14.74	14.77	14.53	2	13.71	13.68	13.34	3
	36	39	15.48	15.63	15.62	1	14.73	14.75	14.56	2	13.16	13.73	13.52	3
	75	0	15.51	15.63	15.63	1	14.75	14.78	14.61	2	13.37	13.71	13.35	3

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			37850	38000	38150		37850	38000	38150		37850	38000	38150	
			2580.0 MHz	2595.0 MHz	2610.0 MHz		2580.0 MHz	2595.0 MHz	2610.0 MHz		2580.0 MHz	2595.0 MHz	2610.0 MHz	
38 / 20M	1	0	16.48	16.54	16.52	0	15.47	15.72	15.49	1	15.44	15.50	15.52	2
	1	50	16.53	16.56	16.52	0	15.47	15.67	15.51	1	15.37	15.56	15.52	2
	1	99	16.48	16.51	16.52	0	15.42	15.70	15.51	1	15.44	15.51	15.48	2
	50	0	15.53	15.75	15.56	1	14.51	14.87	14.77	2	13.53	13.57	13.56	3
	50	25	15.53	15.77	15.60	1	14.49	14.88	14.83	2	13.76	13.77	13.50	3
	50	50	15.51	15.74	15.57	1	14.53	14.85	14.84	2	13.33	13.74	13.57	3
	100	0	15.51	15.71	15.53	1	14.54	14.80	14.88	2	13.41	13.71	13.42	3

➤ LTE Band 41

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			39675	40620	41565		39675	40620	41565		39675	40620	41565	
			2498.5 MHz	2593.0 MHz	2687.5 MHz		2498.5 MHz	2593.0 MHz	2687.5 MHz		2498.5 MHz	2593.0 MHz	2687.5 MHz	
41 / 5M	1	0	16.41	16.42	16.41	0	15.44	15.52	15.48	1	15.30	15.43	15.35	2
	1	13	16.46	16.43	16.45	0	15.40	15.49	15.51	1	15.34	15.39	15.34	2
	1	24	16.45	16.41	16.45	0	15.41	15.53	15.53	1	15.40	15.32	15.23	2
	12	0	15.46	15.60	15.54	1	14.43	14.67	14.65	2	13.41	13.11	13.46	3
	12	6	15.45	15.61	15.52	1	14.40	14.73	14.67	2	13.51	13.26	13.45	3
	12	13	15.43	15.60	15.54	1	14.37	14.73	14.71	2	13.36	13.30	13.36	3
	25	0	15.46	15.56	15.51	1	14.35	14.70	14.70	2	13.34	13.19	13.26	3

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			39700	40620	41540		39700	40620	41540		39700	40620	41540	
			2501.0 MHz	2593.0 MHz	2685.0 MHz		2501.0 MHz	2593.0 MHz	2685.0 MHz		2501.0 MHz	2593.0 MHz	2685.0 MHz	
41 / 10M	1	0	16.43	16.44	16.47	0	15.41	15.44	15.69	1	15.25	15.27	15.29	2
	1	25	16.46	16.45	16.48	0	15.40	15.45	15.73	1	15.31	15.33	15.37	2
	1	49	16.45	16.45	16.46	0	15.36	15.50	15.77	1	15.21	15.42	15.27	2
	25	0	15.55	15.46	15.61	1	14.58	14.70	14.92	2	13.43	13.28	13.40	3
	25	12	15.51	15.48	15.63	1	14.63	14.74	14.91	2	13.36	13.25	13.46	3
	25	25	15.46	15.46	15.63	1	14.63	14.74	14.91	2	13.24	13.16	13.39	3
	50	0	15.43	15.48	15.68	1	14.66	14.71	14.95	2	13.33	13.22	13.36	3

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			39725	40620	41515		39725	40620	41515		39725	40620	41515	
			2503.5 MHz	2593.0 MHz	2682.5 MHz		2503.5 MHz	2593.0 MHz	2682.5 MHz		2503.5 MHz	2593.0 MHz	2682.5 MHz	
41 / 15M	1	0	16.47	16.49	16.42	0	15.55	15.62	15.44	1	15.25	15.45	15.40	2
	1	37	16.49	16.50	16.47	0	15.56	15.59	15.40	1	15.37	15.35	15.35	2
	1	74	16.47	16.46	16.43	0	15.60	15.59	15.39	1	15.30	15.27	15.42	2
	36	0	15.52	15.53	15.51	1	14.84	14.68	14.65	2	13.40	13.18	13.55	3
	36	20	15.53	15.52	15.48	1	14.86	14.71	14.66	2	13.43	13.32	13.39	3
	36	39	15.54	15.56	15.46	1	14.83	14.76	14.65	2	13.26	13.23	13.51	3
	75	0	15.50	15.61	15.45	1	14.82	14.76	14.64	2	13.34	13.19	13.21	3

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH	Mid CH	High CH		Low CH	Mid CH	High CH		Low CH	Mid CH	High CH	
			39750	40620	41490		39750	40620	41490		39750	40620	41490	
			2506.0 MHz	2593.0 MHz	2680.0 MHz		2506.0 MHz	2593.0 MHz	2680.0 MHz		2506.0 MHz	2593.0 MHz	2680.0 MHz	
41 / 20M	1	0	16.49	16.51	16.48	0	15.51	15.40	15.48	1	15.42	15.47	15.44	2
	1	50	16.49	16.52	16.49	0	15.48	15.38	15.48	1	15.38	15.52	15.51	2
	1	99	16.45	16.49	16.46	0	15.45	15.33	15.44	1	15.41	15.45	15.42	2
	50	0	15.52	15.49	15.59	1	14.67	14.44	14.46	2	13.52	13.31	13.59	3
	50	25	15.56	15.44	15.57	1	14.68	14.47	14.47	2	13.56	13.44	13.47	3
	50	50	15.57	15.42	15.52	1	14.68	14.43	14.50	2	13.39	13.31	13.52	3
	100	0	15.54	15.41	15.50	1	14.71	14.46	14.49	2	13.44	13.31	13.39	3

➤ LTE Band 66

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH 131979	Mid CH 132322	High CH 132665		Low CH 131979	Mid CH 132322	High CH 132665		Low CH 131979	Mid CH 132322	High CH 132665	
			1710.7 MHz	1745 MHz	1779.3 MHz		1710.7 MHz	1745 MHz	1779.3 MHz		1710.7 MHz	1745 MHz	1779.3 MHz	
66 / 1.4M	1	0	18.42	18.58	18.69	0	17.47	17.59	17.71	1	17.46	17.53	17.36	2
	1	3	18.42	18.60	18.70	0	17.51	17.60	17.66	1	17.35	17.61	17.51	2
	1	5	18.41	18.56	18.68	0	17.47	17.62	17.65	1	17.42	17.55	17.48	2
	3	0	17.41	17.62	17.72	0	16.68	16.69	16.88	1	16.68	16.47	16.47	2
	3	1	17.43	17.60	17.73	0	16.66	16.62	16.90	1	16.74	16.42	16.47	2
	3	3	17.45	17.58	17.74	0	16.65	16.65	16.90	1	16.61	16.36	16.56	2
	6	0	17.43	17.57	17.76	1	16.69	16.69	16.86	2	15.52	15.41	15.29	3

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH 131987	Mid CH 132322	High CH 132657		Low CH 131987	Mid CH 132322	High CH 132657		Low CH 131987	Mid CH 132322	High CH 132657	
			1711.5 MHz	1745 MHz	1778.5 MHz		1711.5 MHz	1745 MHz	1778.5 MHz		1711.5 MHz	1745 MHz	1778.5 MHz	
66 / 3M	1	0	18.48	18.59	18.68	0	17.49	17.76	17.83	1	17.37	17.43	17.47	2
	1	8	18.49	18.60	18.69	0	17.53	17.78	17.85	1	17.36	17.44	17.52	2
	1	14	18.44	18.60	18.65	0	17.48	17.82	17.82	1	17.39	17.48	17.41	2
	8	0	17.50	17.74	17.84	1	16.61	16.83	16.88	2	15.69	15.46	15.45	3
	8	4	17.53	17.73	17.82	1	16.67	16.89	16.81	2	15.69	15.36	15.40	3
	8	7	17.52	17.75	17.87	1	16.70	16.89	16.84	2	15.46	15.40	15.59	3
	15	0	17.51	17.80	17.87	1	16.74	16.86	16.85	2	15.67	15.37	15.34	3

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH 131997	Mid CH 132322	High CH 132647		Low CH 131997	Mid CH 132322	High CH 132647		Low CH 131997	Mid CH 132322	High CH 132647	
			1712.5 MHz	1745 MHz	1777.5 MHz		1712.5 MHz	1745 MHz	1777.5 MHz		1712.5 MHz	1745 MHz	1777.5 MHz	
66 / 5M	1	0	18.51	18.59	18.63	0	17.71	17.56	17.94	1	17.45	17.55	17.35	2
	1	13	18.52	18.63	18.66	0	17.73	17.52	17.94	1	17.31	17.55	17.48	2
	1	24	18.47	18.59	18.63	0	17.68	17.56	17.96	1	17.48	17.45	17.43	2
	12	0	17.70	17.65	17.87	1	16.93	16.80	17.02	2	15.56	15.47	15.55	3
	12	6	17.74	17.66	17.89	1	16.96	16.83	16.97	2	15.75	15.37	15.54	3
	12	13	17.72	17.61	17.94	1	16.94	16.84	16.96	2	15.56	15.49	15.48	3
	25	0	17.68	17.59	17.94	1	16.91	16.85	17.01	2	15.65	15.38	15.34	3

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH 132022	Mid CH 132322	High CH 132622		Low CH 132022	Mid CH 132322	High CH 132622		Low CH 132022	Mid CH 132322	High CH 132622	
			1715.0 MHz	1745 MHz	1775 MHz		1715.0 MHz	1745 MHz	1775 MHz		1715.0 MHz	1745 MHz	1775 MHz	
66 / 10M	1	0	18.51	18.59	18.60	0	17.67	17.77	17.92	1	17.38	17.51	17.34	2
	1	25	18.55	18.62	18.62	0	17.70	17.73	17.90	1	17.38	17.57	17.53	2
	1	49	18.52	18.57	18.58	0	17.73	17.73	17.91	1	17.40	17.51	17.32	2
	25	0	17.68	17.75	17.81	1	16.95	16.86	17.04	2	15.64	15.49	15.57	3
	25	12	17.67	17.75	17.82	1	16.89	16.90	16.99	2	15.70	15.47	15.42	3
	25	25	17.66	17.80	17.85	1	16.90	16.86	16.96	2	15.42	15.43	15.52	3
	50	0	17.63	17.76	17.89	1	16.93	16.82	16.99	2	15.54	15.42	15.37	3

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH 132047	Mid CH 132322	High CH 132597		Low CH 132047	Mid CH 132322	High CH 132597		Low CH 132047	Mid CH 132322	High CH 132597	
			1717.5 MHz	1745 MHz	1772.5 MHz		1717.5 MHz	1745 MHz	1772.5 MHz		1717.5 MHz	1745 MHz	1772.5 MHz	
66 / 15M	1	0	18.58	18.56	18.53	0	17.84	17.72	17.74	1	17.47	17.56	17.49	2
	1	37	18.58	18.61	18.57	0	17.86	17.74	17.72	1	17.41	17.61	17.55	2
	1	74	18.58	18.60	18.56	0	17.91	17.71	17.69	1	17.41	17.52	17.47	2
	36	0	17.78	17.77	17.79	1	16.93	16.74	16.86	2	15.56	15.50	15.62	3
	36	20	17.75	17.72	17.77	1	16.92	16.73	16.92	2	15.74	15.38	15.45	3
	36	39	17.79	17.76	17.82	1	16.87	16.75	16.89	2	15.52	15.48	15.56	3
	75	0	17.83	17.75	17.78	1	16.89	16.75	16.92	2	15.63	15.40	15.43	3

LTE Band / BW	RB Size	RB Offset	QPSK			3GPP MPR (dB)	16QAM			3GPP MPR (dB)	64QAM			3GPP MPR (dB)
			Low CH 132072	Mid CH 132322	High CH 132572		Low CH 132072	Mid CH 132322	High CH 132572		Low CH 132072	Mid CH 132322	High CH 132572	
			1720.0 MHz	1745 MHz	1770 MHz		1720.0 MHz	1745 MHz	1770 MHz		1720.0 MHz	1745 MHz	1770 MHz	
66 / 20M	1	0	18.59	18.60	18.54	0	17.74	17.56	17.56	1	17.55	17.56	17.54	2
	1	50	18.61	18.64	18.57	0	17.79	17.59	17.52	1	17.50	17.64	17.59	2
	1	99	18.60	18.62	18.55	0	17.75	17.63	17.50	1	17.56	17.58	17.51	2
	50	0	17.80	17.69	17.64	1	16.86	16.72	16.50	2	15.70	15.51	15.64	3
	50	25	17.78	17.65	17.65	1	16.87	16.66	16.55	2	15.78	15.47	15.55	3
	50	50	17.80	17.62	17.61	1	16.92	16.69	16.55	2	15.62	15.52	15.61	3
	100	0	17.77	17.59	17.58	1	16.89	16.73	16.51	2	15.67	15.49	15.47	3

5.3 ERP OR EIRP

Test Requirement: FCC 47 CFR Part 2.1046(a)
LTE Band 2: FCC 47 CFR Part 24.232(c)
LTE Band 4/66: FCC 47 CFR Part 27.50(d)(4)
LTE Band 5/26: FCC 47 CFR Part 22.913(a)
LTE Band 7/38/41: FCC 47 CFR Part 27.50(h)(2)
LTE Band 13: FCC 47 CFR Part 27.50(b)(10)
LTE Band 26: FCC 47 CFR Part 90.635

Test Method: KDB 971168 D01v03r01 Section 5.6 & ANSI C63.26-2015

Limit:

FCC 47 CFR Part 22.913(a):

The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

FCC 47 CFR Part 24.232(c):

Mobile and portable stations are limited to 2 watts EIRP.

FCC 47 CFR Part 27.50(d)(4):

Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP.

FCC 47 CFR Part 27.50(h)(2):

Mobile and other user stations. Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.

FCC 47 CFR Part 27.50(b)(10):

Portable stations (hand-held devices) transmitting in the 746-757 MHz, 776-788 MHz, and 805-806 MHz bands are limited to 3 watts ERP.

FCC 47 CFR Part 90.635:

(a) The effective radiated power and antenna height for base stations may not exceed 1 kilowatt (30 dBw) and 304 m. (1,000 ft.) above average terrain (AAT), respectively, or the equivalent thereof as determined from the Table. These are maximum values, and applicants will be required to justify power levels and antenna heights requested.

(b) The maximum output power of the transmitter for mobile stations is 100 watts (20 dBw).

Table—Equivalent Power and Antenna Heights for Base Stations in the 851–869 MHz and 935–940 MHz Bands Which Have a Requirement for a 32 km (20 mi) Service Area Radius

Antenna height (ATT) meters (feet)	Effective radiated power (watts) ^{1 2 4}
Above 1,372 (4,500)	65
Above 1,220 (4,000) to 1,372 (4,500)	70
Above 1,067 (3,500) to 1,220 (4,000)	75
Above 915 (3,000) to 1,067 (3,500)	100
Above 763 (2,500) to 915 (3,000)	140
Above 610 (2,000) to 763 (2,500)	200
Above 458 (1,500) to 610 (2,000)	350
Above 305 (1,000) to 458 (1,500)	600
Up to 305 (1,000)	31,000

- Power is given in terms of effective radiated power (ERP).
- Applicants in the Los Angeles, CA, area who demonstrate a need to serve both the downtown and fringe areas will be permitted to utilize an ERP of 1 kw at the following mountaintop sites: Santiago Park, Sierra Peak, Mount Lukens, and Mount Wilson.
- Stations with antennas below 305 m (1,000 ft) (AAT) will be restricted to a maximum power of 1 kw

Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F., Block A, Building 6, Baoneng Science and Technology Park, Longhua Street, Longhua District, Shenzhen, Guangdong, China

Tel: +86-755-28230888

Fax: +86-755-28230886

E-mail: info@uttlab.com

<http://www.uttlab.com>

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(ERP).

4. Licensees in San Diego, CA, will be permitted to utilize an ERP of 500 watts at the following mountaintop sites: Palomar, Otay, Woodson and Miguel.

Test Procedure:

According to KDB 412172 D01 Power Approach,

- **ERP or EIRP = $P_T + G_T - L_c$**
- **ERP = EIRP - 2.15**

where

- **P_T** = transmitter output power, expressed in dBW, dBm, or PSD;
- **G_T** = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);
- **L_c** = **signal attenuation in the connecting cable between the transmitter and antenna, in dB.**

Test Setup: Refer to section 4.2.1 for details.

Instruments Used: Refer to section 3 for details

Test Mode: Link mode

Test Results: Pass

➤ LTE Band 2

Channel	Maximum EIRP (dBm)				Maximum EIRP (W)				Result
	QPSK	16QAM	64QAM	Limit (dBm)	QPSK	16QAM	64QAM	Limit (W)	
Channel Bandwidth: 1.4MHz									
Lowest	18.01	17.27	16.64	33.01	0.0632	0.0533	0.0461	2	Pass
Middle	17.95	17.01	16.93	33.01	0.0624	0.0502	0.0493	2	Pass
Highest	17.90	17.00	16.79	33.01	0.0617	0.0501	0.0478	2	Pass
Channel Bandwidth: 3MHz									
Lowest	18.01	17.14	16.61	33.01	0.0632	0.0518	0.0458	2	Pass
Middle	17.98	17.01	16.86	33.01	0.0628	0.0502	0.0485	2	Pass
Highest	17.94	16.98	16.72	33.01	0.0622	0.0499	0.0470	2	Pass
Channel Bandwidth: 5MHz									
Lowest	17.99	17.15	16.69	33.01	0.0630	0.0519	0.0467	2	Pass
Middle	18.02	17.17	16.92	33.01	0.0634	0.0521	0.0492	2	Pass
Highest	17.93	17.19	16.71	33.01	0.0621	0.0524	0.0469	2	Pass
Channel Bandwidth: 10MHz									
Lowest	18.00	17.14	16.62	33.01	0.0631	0.0518	0.0459	2	Pass
Middle	18.00	17.05	16.89	33.01	0.0631	0.0507	0.0489	2	Pass
Highest	17.93	17.02	16.63	33.01	0.0621	0.0504	0.0460	2	Pass
Channel Bandwidth: 15MHz									
Lowest	17.97	17.10	16.71	33.01	0.0627	0.0513	0.0469	2	Pass
Middle	17.95	17.08	16.93	33.01	0.0624	0.0511	0.0493	2	Pass
Highest	17.90	17.21	16.85	33.01	0.0617	0.0526	0.0484	2	Pass
Channel Bandwidth: 20MHz									
Lowest	17.94	16.92	16.78	33.01	0.0622	0.0492	0.0476	2	Pass
Middle	17.98	17.15	16.96	33.01	0.0628	0.0519	0.0497	2	Pass
Highest	17.90	16.91	16.82	33.01	0.0617	0.0491	0.0481	2	Pass

➤ LTE Band 4

Channel	Maximum EIRP (dBm)				Maximum EIRP (W)				Result
	QPSK	16QAM	64QAM	Limit (dBm)	QPSK	16QAM	64QAM	Limit (W)	
Channel Bandwidth: 1.4MHz									
Lowest	18.47	17.70	17.30	30.00	0.0703	0.0589	0.0537	1	Pass
Middle	18.54	17.72	17.56	30.00	0.0714	0.0592	0.0570	1	Pass
Highest	18.52	17.80	17.54	30.00	0.0711	0.0603	0.0568	1	Pass
Channel Bandwidth: 3MHz									
Lowest	18.53	17.54	17.31	30.00	0.0713	0.0568	0.0538	1	Pass
Middle	18.59	17.73	17.27	30.00	0.0723	0.0593	0.0533	1	Pass
Highest	18.57	17.82	17.56	30.00	0.0719	0.0605	0.0570	1	Pass
Channel Bandwidth: 5MHz									
Lowest	18.55	17.52	17.26	30.00	0.0716	0.0565	0.0532	1	Pass
Middle	18.56	17.79	17.38	30.00	0.0718	0.0601	0.0547	1	Pass
Highest	18.60	17.59	17.52	30.00	0.0724	0.0574	0.0565	1	Pass
Channel Bandwidth: 10MHz									
Lowest	18.56	17.61	17.33	30.00	0.0718	0.0577	0.0541	1	Pass
Middle	18.60	17.87	17.40	30.00	0.0724	0.0612	0.0550	1	Pass
Highest	18.60	17.61	17.57	30.00	0.0724	0.0577	0.0571	1	Pass
Channel Bandwidth: 15MHz									
Lowest	18.58	17.73	17.36	30.00	0.0721	0.0593	0.0545	1	Pass
Middle	18.59	17.57	17.44	30.00	0.0723	0.0571	0.0555	1	Pass
Highest	18.62	17.61	17.59	30.00	0.0728	0.0577	0.0574	1	Pass
Channel Bandwidth: 20MHz									
Lowest	18.61	17.72	17.45	30.00	0.0726	0.0592	0.0556	1	Pass
Middle	18.63	17.85	17.47	30.00	0.0729	0.0610	0.0558	1	Pass
Highest	18.63	17.65	17.63	30.00	0.0729	0.0582	0.0579	1	Pass

➤ LTE Band 5

Channel	Maximum ERP (dBm)				Maximum ERP (W)				Result
	QPSK	16QAM	64QAM	Limit (dBm)	QPSK	16QAM	64QAM	Limit (W)	
Channel Bandwidth: 1.4MHz									
Lowest	17.32	16.36	16.19	38.45	0.0540	0.0433	0.0416	7	Pass
Middle	17.39	16.46	16.41	38.45	0.0548	0.0443	0.0438	7	Pass
Highest	17.48	16.60	16.27	38.45	0.0560	0.0457	0.0424	7	Pass
Channel Bandwidth: 3MHz									
Lowest	17.36	16.55	16.21	38.45	0.0545	0.0452	0.0418	7	Pass
Middle	17.38	16.46	16.37	38.45	0.0547	0.0443	0.0434	7	Pass
Highest	17.47	16.78	16.33	38.45	0.0558	0.0476	0.0430	7	Pass
Channel Bandwidth: 5MHz									
Lowest	17.38	16.41	16.12	38.45	0.0547	0.0438	0.0409	7	Pass
Middle	17.43	16.50	16.39	38.45	0.0553	0.0447	0.0436	7	Pass
Highest	17.43	16.67	16.35	38.45	0.0553	0.0465	0.0432	7	Pass
Channel Bandwidth: 10MHz									
Lowest	17.42	16.67	16.26	38.45	0.0552	0.0465	0.0423	7	Pass
Middle	17.46	16.63	16.46	38.45	0.0557	0.0460	0.0443	7	Pass
Highest	17.41	16.65	16.41	38.45	0.0551	0.0462	0.0438	7	Pass

➤ LTE Band 7

Channel	Maximum EIRP (dBm)				Maximum EIRP (W)				Result
	QPSK	16QAM	64QAM	Limit (dBm)	QPSK	16QAM	64QAM	Limit (W)	
Channel Bandwidth: 5MHz									
Lowest	14.69	13.73	13.46	33.01	0.0294	0.0236	0.0222	2	Pass
Middle	14.67	13.79	13.70	33.01	0.0293	0.0239	0.0234	2	Pass
Highest	14.69	13.83	13.46	33.01	0.0294	0.0242	0.0222	2	Pass
Channel Bandwidth: 10MHz									
Lowest	14.78	13.90	13.56	33.01	0.0301	0.0245	0.0227	2	Pass
Middle	14.74	13.87	13.68	33.01	0.0298	0.0244	0.0233	2	Pass
Highest	14.71	13.78	13.39	33.01	0.0296	0.0239	0.0218	2	Pass
Channel Bandwidth: 15MHz									
Lowest	14.77	13.73	13.45	33.01	0.0300	0.0236	0.0221	2	Pass
Middle	14.74	14.06	13.73	33.01	0.0298	0.0255	0.0236	2	Pass
Highest	14.66	13.64	13.37	33.01	0.0292	0.0231	0.0217	2	Pass
Channel Bandwidth: 20MHz									
Lowest	14.75	13.84	13.59	33.01	0.0299	0.0242	0.0229	2	Pass
Middle	14.77	13.96	13.77	33.01	0.0300	0.0249	0.0238	2	Pass
Highest	14.69	13.82	13.55	33.01	0.0294	0.0241	0.0226	2	Pass

➤ LTE Band 13

Channel	Maximum ERP (dBm)				Maximum ERP (W)				Result
	QPSK	16QAM	64QAM	Limit (dBm)	QPSK	16QAM	64QAM	Limit (W)	
Channel Bandwidth: 5MHz									
Lowest	18.10	16.99	16.94	34.77	0.0646	0.0500	0.0494	3	Pass
Middle	18.09	17.20	17.09	34.77	0.0644	0.0525	0.0512	3	Pass
Highest	18.05	17.10	17.05	34.77	0.0638	0.0513	0.0507	3	Pass
Channel Bandwidth: 10MHz									
Lowest	/	/	/	34.77	/	/	/	3	Pass
Middle	18.38	17.14	17.24	34.77	0.0689	0.0518	0.0530	3	Pass
Highest	/	/	/	34.77	/	/	/	3	Pass

➤ LTE Band 26

Part 90S

Channel	Maximum ERP (dBm)				Maximum ERP (W)				Result
	QPSK	16QAM	64QAM	Limit (dBm)	QPSK	16QAM	64QAM	Limit (W)	
Channel Bandwidth: 1.4MHz									
Lowest	17.45	16.60	16.27	50	0.0556	0.0457	0.0424	100	Pass
Middle	17.41	16.42	16.17	50	0.0551	0.0439	0.0414	100	Pass
Highest	17.34	16.54	16.22	50	0.0542	0.0451	0.0419	100	Pass
Channel Bandwidth: 3MHz									
Lowest	17.49	16.68	16.25	50	0.0561	0.0466	0.0422	100	Pass
Middle	17.48	16.52	16.19	50	0.0560	0.0449	0.0416	100	Pass
Highest	17.40	16.67	16.12	50	0.0550	0.0465	0.0409	100	Pass
Channel Bandwidth: 5MHz									
Lowest	17.45	16.50	16.26	50	0.0556	0.0447	0.0423	100	Pass
Middle	17.44	16.43	16.21	50	0.0555	0.0440	0.0418	100	Pass
Highest	17.26	16.35	16.15	50	0.0532	0.0432	0.0412	100	Pass
Channel Bandwidth: 10MHz									
Middle	17.48	16.61	16.19	50	0.0560	0.0458	0.0416	100	Pass

Part 22

Channel	Maximum ERP (dBm)				Maximum ERP (W)				Result
	QPSK	16QAM	64QAM	Limit (dBm)	QPSK	16QAM	64QAM	Limit (W)	
Channel Bandwidth: 1.4MHz									
Lowest	17.26	16.45	16.13	38.45	0.0532	0.0442	0.0410	7	Pass
Middle	17.45	16.62	16.48	38.45	0.0556	0.0459	0.0445	7	Pass
Highest	17.42	16.55	16.33	38.45	0.0552	0.0452	0.0430	7	Pass
Channel Bandwidth: 3MHz									
Lowest	17.38	16.46	16.20	38.45	0.0547	0.0443	0.0417	7	Pass
Middle	17.54	16.59	16.51	38.45	0.0568	0.0456	0.0448	7	Pass
Highest	17.47	16.73	16.27	38.45	0.0558	0.0471	0.0424	7	Pass
Channel Bandwidth: 5MHz									
Lowest	17.33	16.29	16.31	38.45	0.0541	0.0426	0.0428	7	Pass
Middle	17.45	16.44	16.50	38.45	0.0556	0.0441	0.0447	7	Pass
Highest	17.47	16.65	16.36	38.45	0.0558	0.0462	0.0433	7	Pass
Channel Bandwidth: 10MHz									
Lowest	17.38	16.35	16.23	38.45	0.0547	0.0432	0.0420	7	Pass
Middle	17.51	16.83	16.45	38.45	0.0564	0.0482	0.0442	7	Pass
Highest	17.48	16.44	16.26	38.45	0.0560	0.0441	0.0423	7	Pass
Channel Bandwidth: 15MHz									
Lowest	17.46	16.48	16.30	38.45	0.0557	0.0445	0.0427	7	Pass
Middle	17.53	16.61	16.53	38.45	0.0566	0.0458	0.0450	7	Pass
Highest	17.52	16.51	16.38	38.45	0.0565	0.0448	0.0435	7	Pass

Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F., Block A, Building 6, Baoneng Science and Technology Park, Longhua Street, Longhua District, Shenzhen, Guangdong, China

Tel: +86-755-28230888

Fax: +86-755-28230886

E-mail: info@uttlab.com

<http://www.uttlab.com>

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➤ LTE Band 38

Channel	Maximum EIRP (dBm)				Maximum EIRP (W)				Result
	QPSK	16QAM	64QAM	Limit (dBm)	QPSK	16QAM	64QAM	Limit (W)	
Channel Bandwidth: 5MHz									
Lowest	16.52	15.67	15.43	33.01	0.0449	0.0369	0.0349	2	Pass
Middle	16.57	15.76	15.55	33.01	0.0454	0.0377	0.0359	2	Pass
Highest	16.53	15.84	15.39	33.01	0.0450	0.0384	0.0346	2	Pass
Channel Bandwidth: 10MHz									
Lowest	16.58	15.65	15.38	33.01	0.0455	0.0367	0.0345	2	Pass
Middle	16.64	15.83	15.43	33.01	0.0461	0.0383	0.0349	2	Pass
Highest	16.57	15.58	15.55	33.01	0.0454	0.0361	0.0359	2	Pass
Channel Bandwidth: 15MHz									
Lowest	16.57	15.57	15.49	33.01	0.0454	0.0361	0.0354	2	Pass
Middle	16.62	15.73	15.43	33.01	0.0459	0.0374	0.0349	2	Pass
Highest	16.54	15.62	15.57	33.01	0.0451	0.0365	0.0361	2	Pass
Channel Bandwidth: 20MHz									
Lowest	16.59	15.53	15.43	33.01	0.0456	0.0357	0.0349	2	Pass
Middle	16.62	15.78	15.62	33.01	0.0459	0.0378	0.0365	2	Pass
Highest	16.58	15.55	15.58	33.01	0.0455	0.0359	0.0361	2	Pass

➤ LTE Band 41

Channel	Maximum EIRP (dBm)				Maximum EIRP (W)				Result
	QPSK	16QAM	64QAM	Limit (dBm)	QPSK	16QAM	64QAM	Limit (W)	
Channel Bandwidth: 5MHz									
Lowest	16.69	15.64	15.53	33.01	0.0467	0.0366	0.0357	2	Pass
Middle	16.66	15.76	15.66	33.01	0.0463	0.0377	0.0368	2	Pass
Highest	16.68	15.76	15.58	33.01	0.0466	0.0377	0.0361	2	Pass
Channel Bandwidth: 10MHz									
Lowest	16.69	15.59	15.44	33.01	0.0467	0.0362	0.0350	2	Pass
Middle	16.68	15.73	15.65	33.01	0.0466	0.0374	0.0367	2	Pass
Highest	16.71	16.00	15.50	33.01	0.0469	0.0398	0.0355	2	Pass
Channel Bandwidth: 15MHz									
Lowest	16.72	15.78	15.48	33.01	0.0470	0.0378	0.0353	2	Pass
Middle	16.73	15.85	15.68	33.01	0.0471	0.0385	0.0370	2	Pass
Highest	16.70	15.67	15.63	33.01	0.0468	0.0369	0.0366	2	Pass
Channel Bandwidth: 20MHz									
Lowest	16.72	15.74	15.61	33.01	0.0470	0.0375	0.0364	2	Pass
Middle	16.75	15.63	15.75	33.01	0.0473	0.0366	0.0376	2	Pass
Highest	16.72	15.71	15.74	33.01	0.0470	0.0372	0.0375	2	Pass

➤ LTE Band 66

Channel	Maximum EIRP (dBm)				Maximum EIRP (W)				Result
	QPSK	16QAM	64QAM	Limit (dBm)	QPSK	16QAM	64QAM	Limit (W)	
Channel Bandwidth: 1.4MHz									
Lowest	19.22	18.27	18.15	30.00	0.0836	0.0671	0.0653	1	Pass
Middle	19.40	18.39	18.41	30.00	0.0871	0.0690	0.0693	1	Pass
Highest	19.50	18.51	18.31	30.00	0.0891	0.0710	0.0678	1	Pass
Channel Bandwidth: 3MHz									
Lowest	19.29	18.33	18.16	30.00	0.0849	0.0681	0.0655	1	Pass
Middle	19.40	18.58	18.24	30.00	0.0871	0.0721	0.0667	1	Pass
Highest	19.49	18.65	18.32	30.00	0.0889	0.0733	0.0679	1	Pass
Channel Bandwidth: 5MHz									
Lowest	19.32	18.48	18.11	30.00	0.0855	0.0705	0.0647	1	Pass
Middle	19.43	18.36	18.35	30.00	0.0877	0.0685	0.0684	1	Pass
Highest	19.46	18.76	18.28	30.00	0.0883	0.0752	0.0673	1	Pass
Channel Bandwidth: 10MHz									
Lowest	19.35	18.47	18.18	30.00	0.0861	0.0703	0.0658	1	Pass
Middle	19.42	18.57	18.37	30.00	0.0875	0.0719	0.0687	1	Pass
Highest	19.42	18.72	18.33	30.00	0.0875	0.0745	0.0681	1	Pass
Channel Bandwidth: 15MHz									
Lowest	19.38	18.71	18.21	30.00	0.0867	0.0743	0.0662	1	Pass
Middle	19.41	18.51	18.41	30.00	0.0873	0.0710	0.0693	1	Pass
Highest	19.37	18.49	18.35	30.00	0.0865	0.0706	0.0684	1	Pass
Channel Bandwidth: 20MHz									
Lowest	19.41	18.59	18.30	30.00	0.0873	0.0723	0.0676	1	Pass
Middle	19.44	18.39	18.44	30.00	0.0879	0.0690	0.0698	1	Pass
Highest	19.37	18.32	18.39	30.00	0.0865	0.0679	0.0690	1	Pass

Note:

1. The maximum ERP/EIRP is calculated from max output power and antenna gain, the antenna gain provided by the customer, and the customer takes all the responsibilities for the accuracy of antenna gain.
2. $EIRP = \text{Conducted output power (dBm)} + \text{Antenna Gain (dBi)}$, $ERP = EIRP - 2.15$

5.4 PEAK-TO-AVERAGE RATIO

Test Requirement:	LTE Band 2: FCC 47 CFR Part 24.232(d)
	LTE Band 4/66: FCC 47 CFR Part 27.50(d)(5)
	LTE Band 5/26: FCC 47 CFR Part 22.913(a)
	LTE Band 7/38/41: FCC 47 CFR Part 27.50(d)(5)
	LTE Band 13: FCC 47 CFR Part 27.50(d)(5)
	LTE Band 26: N/A
Test Method:	KDB 971168 D01v03r01 Section 5.7
Limit:	In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB
Test Procedure:	The transmitter output was connected to a calibrated coaxial cable and coupler, the other end of which was connected to a spectrum analyzer. a) Set resolution/measurement bandwidth $\geq$ signal's occupied bandwidth b) Set the number of counts to a value that stabilizes the measured CCDF curve c) Record the maximum PAPR level associated with a probability of 0.1 %
	Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.
Test Setup:	Refer to section 4.2.2 for details.
Instruments Used:	Refer to section 3 for details
Test Mode:	Link mode
Test Results:	Pass
Test Data:	Please refer to Appendix A - I

5.5 99%&26DB BANDWIDTH

Test Requirement: FCC 47 CFR Part 2.1049(h)

Test Method: ANSI C63.26-2015 & KDB 971168 D01v03r01 Section 4

Limit: No Limit, for reporting purposes only.

Test Procedure:

The transmitter output was connected to a calibrated coaxial cable and coupler, the other end of which was connected to a spectrum analyzer. The occupied bandwidth was measured with the spectrum analyzer at the low, middle and high channel in each band. The 99% and -26dB bandwidths was also measured and recorded.

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

Test Setup: Refer to section 4.2.2 for details.

Instruments Used: Refer to section 3 for details

Test Mode: Link mode

Test Results: Pass

Test Data: Please refer to Appendix A - I

5.6 BAND EDGE AT ANTENNA TERMINALS & EMISSION MASK

Test Requirement: FCC 47 CFR Part 2.1051
LTE Band 2: FCC 47 CFR Part 24.238(a)
LTE Band 4/66: FCC 47 CFR Part 27.53(h)(1)
LTE Band 5/26: FCC 47 CFR Part 22.917(a)
LTE Band 7/38/41: FCC 47 CFR Part 27.53(m)(4)
LTE Band 13: FCC 47 CFR Part 27.53
LTE Band 26: FCC 47 CFR Part 90.691
Test Method: ANSI C63.26-2015 & KDB 971168 D01v03r01

Limit:

FCC 47 CFR Part 24.238(a), 27.53(h)(1), 22.917(a):

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. The emission limit equal to -13 dBm.

FCC 47 CFR Part 27.53(m)(4):

For mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log(P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log(P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log(P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than $43 + 10 \log(P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log(P)$ dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

FCC 47 CFR Part 27.53(c)(2):

On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log(P)$ dB;

FCC 47 CFR Part 90.691:

(a)(1) For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $116 \log_{10}(f/6.1)$ decibels or $50 + 10 \log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.

(a)(2) For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz.

FCC 47 CFR Part 27.53(a)(5): Measurement procedure. Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the channel blocks at 2305, 2310, 2315, 2320, 2345, 2350, 2355, and 2360 MHz, a resolution bandwidth of at least 1 percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e., 1 MHz). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

Test Procedure:

The transmitter output was connected to a calibrated coaxial cable and coupler, the other end of which was connected to a spectrum analyzer.

For each band edge measurement:

- 1) Set the spectrum analyzer span to include the block edge frequency.
- 2) Set a marker to point the corresponding band edge frequency in each test case.
- 3) Set display line at -13 dBm
- 4) Set resolution bandwidth to at least 1% of emission bandwidth.
- 5) Set spectrum analyzer with RMS detector.
- 6) Record the max trace plot into the test report

Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F., Block A, Building 6, Baoneng Science and Technology Park, Longhua Street, Longhua District, Shenzhen, Guangdong, China

Tel: +86-755-28230888

Fax: +86-755-28230886

E-mail: info@uttlab.com

<http://www.uttlab.com>

UTTR-RF-FCC4G-V1.1

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

Test Setup: Refer to section 4.2.2 for details.

Instruments Used: Refer to section 3 for details

Test Mode: Link mode

Test Results: Pass

Test Data: Please refer to Appendix A - I



5.7 SPURIOUS EMISSIONS AT ANTENNA TERMINALS

Test Requirement: FCC 47 CFR Part 2.1051
LTE Band 2: FCC 47 CFR Part 24.238(a)(b)
LTE Band 4/66: FCC 47 CFR Part 27.53(h)
LTE Band 5/26: FCC 47 CFR Part 22.917(a)(b)
LTE Band 7/38/41: FCC 47 CFR Part 27.53(m)(4)
LTE Band 13: FCC 47 CFR Part 27.53
LTE Band 26: FCC 47 CFR Part 90.691

Test Method: ANSI C63.26-2015 & KDB 971168 D01v03r01

Limit:

FCC 47 CFR Part 24.238(a), 27.53(h)(1), 22.917(a), 27.53(c)(2), 90.691:

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. The emission limit equal to -13 dBm.

FCC 47 CFR Part 27.53(m)(4):

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $55 + 10 \log(P)$ dB. The emission limit equal to -25 dBm.

Test Procedure:

The EUT makes a phone call to the communication simulator. All measurements were done at low, middle and high operational frequency range. b. Measuring frequency range is from 30 MHz to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower. Set RBW & VBW to 100 kHz for the measurement below 1 GHz, and 1 MHz for the measurement above 1 GHz.

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

Test Setup: Refer to section 4.2.2 for details.

Instruments Used: Refer to section 3 for details

Test Mode: Link mode

Test Results: Pass

Test Data: Please refer to Appendix A - I

5.8 FIELD STRENGTH OF SPURIOUS RADIATION

Test Requirement: FCC 47 CFR Part 2.1051
LTE Band 2: FCC 47 CFR Part 24.238(a)(b)
LTE Band 4/66: FCC 47 CFR Part 27.53(h)
LTE Band 5/26 : FCC 47 CFR Part 22.917(a)(b)
LTE Band 7/38/41: FCC 47 CFR Part 27.53(m)(4)
LTE Band 13: FCC 47 CFR Part 27.53
LTE Band 26: FCC 47 CFR Part 90.691

Test Method: ANSI C63.26-2015 & KDB 971168 D01v03r01

Receiver Setup:

Frequency	Detector	RBW	VBW	Remark
0.009 MHz-30 MHz	Peak	10 kHz	30 KHz	Peak
30 MHz-1 GHz	Quasi-peak	100 kHz	300 KHz	Peak
Above 1 GHz	Peak	1 MHz	3 MHz	Peak

Limits:

FCC 47 CFR Part 24.238(a), 27.53(h)(1), 22.917(a), 27.53(c)(2), 90.691:

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. The emission limit equal to -13 dBm.

FCC 47 CFR Part 27.53(m)(4):

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $55 + 10 \log(P)$ dB. The emission limit equal to -25 dBm.

FCC 47 CFR Part 27.53:

(c) The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

(f) Emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals. (-70 dBW/MHz = -40dBm/MHz).

Test Setup: Refer to section 4.2.1 for details.

Test Procedures: KDB 971168 D01v03r01 Section 7

Equipment Used: Refer to section 3 for details.

Test Result: Pass

The measurement data as follows:

5.8.1 LTE Band 2

LTE Band 2_20 MHz_QPSK							
No.	Frequency (MHz)	SA Reading (dBm)	Correction factor (dB/m)	EIRP Result (dBm)	Limit (dBm)	Margin (dB)	Ant. Pol.
Lowest Channel							
1	47.703	-72.13	25.15	-46.98	-13.00	-33.98	Horizontal
2	55.678	-68.03	21.66	-46.37	-13.00	-33.37	Horizontal
3	655.977	-78.95	41.08	-37.87	-13.00	-24.87	Horizontal
4	3720.000	-49.60	11.06	-38.54	-13.00	-25.54	Horizontal
5	5580.000	-50.17	12.39	-37.78	-13.00	-24.78	Horizontal
6	44.154	-61.98	25.99	-35.99	-13.00	-22.99	Vertical
7	55.678	-65.17	21.66	-43.51	-13.00	-30.51	Vertical
8	912.695	-79.99	45.32	-34.67	-13.00	-21.67	Vertical
9	3720.000	-44.20	11.06	-33.14	-13.00	-20.14	Vertical
10	5580.000	-49.69	12.39	-37.30	-13.00	-24.30	Vertical
Middle Channel							
1	44.154	-69.67	25.99	-43.68	-13.00	-30.68	Horizontal
2	47.703	-70.72	25.15	-45.57	-13.00	-32.57	Horizontal
3	925.613	-79.60	45.33	-34.27	-13.00	-21.27	Horizontal
4	3760.000	-39.61	11.30	-28.31	-13.00	-15.31	Horizontal
5	5640.000	-47.10	12.52	-34.58	-13.00	-21.58	Horizontal
6	44.154	-64.02	25.99	-38.03	-13.00	-25.03	Vertical
7	55.678	-67.31	21.66	-45.65	-13.00	-32.65	Vertical
8	912.695	-79.88	45.32	-34.56	-13.00	-21.56	Vertical
9	3760.000	-45.95	11.30	-34.65	-13.00	-21.65	Vertical
10	5640.000	-52.63	12.52	-40.11	-13.00	-27.11	Vertical
Highest Channel							
1	44.154	-71.06	25.99	-45.07	-13.00	-32.07	Horizontal
2	50.461	-70.21	24.46	-45.75	-13.00	-32.75	Horizontal
3	925.613	-78.89	45.33	-33.56	-13.00	-20.56	Horizontal
4	3800.000	-49.95	11.53	-38.42	-13.00	-25.42	Horizontal
5	5700.000	-50.25	12.64	-37.61	-13.00	-24.61	Horizontal
6	44.154	-62.19	25.99	-36.20	-13.00	-23.20	Vertical
7	54.901	-67.65	21.90	-45.75	-13.00	-32.75	Vertical
8	844.803	-79.79	44.32	-35.47	-13.00	-22.47	Vertical
9	3800.000	-41.32	11.53	-29.79	-13.00	-16.79	Vertical
10	5700.000	-49.61	12.64	-36.97	-13.00	-23.97	Vertical

5.8.2 LTE Band 4

LTE Band 4_20 MHz_QPSK							
No.	Frequency (MHz)	SA Reading (dBm)	Correction factor (dB/m)	EIRP Result (dBm)	Limit (dBm)	Margin (dB)	Ant. Pol.
Lowest Channel							
1	47.703	-71.38	25.15	-46.23	-13.00	-33.23	Horizontal
2	56.864	-67.20	21.31	-45.89	-13.00	-32.89	Horizontal
3	972.283	-78.81	45.42	-33.39	-13.00	-20.39	Horizontal
4	3440.000	-47.71	9.61	-38.10	-13.00	-25.10	Horizontal
5	5160.000	-51.53	11.62	-39.91	-13.00	-26.91	Horizontal
6	44.154	-59.51	25.99	-33.52	-13.00	-20.52	Vertical
7	56.071	-65.59	21.55	-44.04	-13.00	-31.04	Vertical
8	868.886	-79.46	44.75	-34.71	-13.00	-21.71	Vertical
9	3440.000	-43.73	9.61	-34.12	-13.00	-21.12	Vertical
10	5160.000	-46.48	11.62	-34.86	-13.00	-21.86	Vertical
Middle Channel							
1	38.096	-77.59	30.79	-46.80	-13.00	-33.80	Horizontal
2	47.703	-71.18	25.15	-46.03	-13.00	-33.03	Horizontal
3	899.958	-80.05	45.27	-34.78	-13.00	-21.78	Horizontal
4	3465.000	-49.03	9.68	-39.35	-13.00	-26.35	Horizontal
5	5197.500	-53.59	11.69	-41.90	-13.00	-28.90	Horizontal
6	44.154	-64.60	25.99	-38.61	-13.00	-25.61	Vertical
7	55.288	-64.74	21.77	-42.97	-13.00	-29.97	Vertical
8	815.635	-79.11	43.58	-35.53	-13.00	-22.53	Vertical
9	3465.000	-42.45	9.68	-32.77	-13.00	-19.77	Vertical
10	5197.500	-52.59	11.69	-40.90	-13.00	-27.90	Vertical
Highest Channel							
1	33.335	-78.22	31.93	-46.29	-13.00	-33.29	Horizontal
2	47.703	-70.50	25.15	-45.35	-13.00	-32.35	Horizontal
3	912.695	-79.73	45.32	-34.41	-13.00	-21.41	Horizontal
4	3490.000	-48.33	9.74	-38.59	-13.00	-25.59	Horizontal
5	5235.000	-55.33	11.76	-43.57	-13.00	-30.57	Horizontal
6	44.154	-58.36	25.99	-32.37	-13.00	-19.37	Vertical
7	56.071	-67.78	21.55	-46.23	-13.00	-33.23	Vertical
8	850.760	-77.82	44.25	-33.57	-13.00	-20.57	Vertical
9	3490.000	-50.71	9.74	-40.97	-13.00	-27.97	Vertical
10	5235.000	-52.16	11.76	-40.40	-13.00	-27.40	Vertical

5.8.3 LTE Band 5

LTE Band 5_ 10 MHz_ QPSK							
No.	Frequency (MHz)	SA Reading (dBm)	Correction factor (dB/m)	EIRP Result (dBm)	Limit (dBm)	Margin (dB)	Ant. Pol.
Lowest Channel							
1	42.931	-73.21	27.84	-45.37	-13.00	-32.37	Horizontal
2	56.864	-62.42	21.31	-41.11	-13.00	-28.11	Horizontal
3	739.214	-78.70	42.11	-36.59	-13.00	-23.59	Horizontal
4	1658.000	-49.36	2.10	-47.26	-13.00	-34.26	Horizontal
5	2487.000	-52.70	6.30	-46.40	-13.00	-33.40	Horizontal
6	44.154	-59.78	25.99	-33.79	-13.00	-20.79	Vertical
7	55.678	-67.19	21.66	-45.53	-13.00	-32.53	Vertical
8	669.952	-79.19	41.28	-37.91	-13.00	-24.91	Vertical
9	1658.000	-47.54	2.10	-45.44	-13.00	-32.44	Vertical
10	2487.000	-53.24	6.30	-46.94	-13.00	-33.94	Vertical
Middle Channel							
1	47.703	-70.78	25.15	-45.63	-13.00	-32.63	Horizontal
2	56.071	-68.01	21.55	-46.46	-13.00	-33.46	Horizontal
3	713.692	-79.81	41.95	-37.86	-13.00	-24.86	Horizontal
4	1673.000	-42.86	2.22	-40.64	-13.00	-27.64	Horizontal
5	2509.500	-51.51	6.38	-45.13	-13.00	-32.13	Horizontal
6	38.096	-72.91	30.79	-42.12	-13.00	-29.12	Vertical
7	44.154	-61.69	25.99	-35.70	-13.00	-22.70	Vertical
8	56.071	-63.81	21.55	-42.26	-13.00	-29.26	Vertical
9	1673.000	-47.64	2.22	-45.42	-13.00	-32.42	Vertical
10	2509.500	-51.08	6.38	-44.70	-13.00	-31.70	Vertical
Highest Channel							
1	44.154	-71.53	25.99	-45.54	-13.00	-32.54	Horizontal
2	50.461	-69.76	24.46	-45.30	-13.00	-32.30	Horizontal
3	698.804	-78.95	41.72	-37.23	-13.00	-24.23	Horizontal
4	1688.000	-47.88	2.36	-45.52	-13.00	-32.52	Horizontal
5	2532.000	-54.53	6.47	-48.06	-13.00	-35.06	Horizontal
6	38.096	-73.39	30.79	-42.60	-13.00	-29.60	Vertical
7	44.154	-62.41	25.99	-36.42	-13.00	-23.42	Vertical
8	55.678	-67.44	21.66	-45.78	-13.00	-32.78	Vertical
9	1688.000	-46.34	2.36	-43.98	-13.00	-30.98	Vertical
10	2532.000	-52.34	6.47	-45.87	-13.00	-32.87	Vertical

5.8.4 LTE Band 7

LTE Band 7 _ 20 MHz_ QPSK							
No.	Frequency	SA Reading	Correction factor	EIRP Result	Limit	Margin	Ant. Pol.
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	
Lowest Channel							
1	56.071	-64.21	21.55	-42.66	-25.00	-17.66	Horizontal
2	611.462	-79.33	40.45	-38.88	-25.00	-13.88	Horizontal
3	804.252	-79.56	43.45	-36.11	-25.00	-11.11	Horizontal
4	5020.000	-50.66	11.38	-39.28	-25.00	-14.28	Horizontal
5	7530.000	-54.23	14.22	-40.01	-25.00	-15.01	Horizontal
6	44.154	-58.62	25.99	-32.63	-25.00	-7.63	Vertical
7	55.288	-66.96	21.77	-45.19	-25.00	-20.19	Vertical
8	919.132	-80.24	45.27	-34.97	-25.00	-9.97	Vertical
9	5020.000	-46.76	11.38	-35.38	-25.00	-10.38	Vertical
10	7530.000	-54.01	14.22	-39.79	-25.00	-14.79	Vertical
Middle Channel							
1	55.678	-65.73	21.66	-44.07	-25.00	-19.07	Horizontal
2	708.694	-78.72	41.95	-36.77	-25.00	-11.77	Horizontal
3	906.304	-79.59	45.37	-34.22	-25.00	-9.22	Horizontal
4	5070.000	-49.68	11.47	-38.21	-25.00	-13.21	Horizontal
5	7605.000	-56.16	14.19	-41.97	-25.00	-16.97	Horizontal
6	44.154	-58.80	25.99	-32.81	-25.00	-7.81	Vertical
7	56.071	-65.96	21.55	-44.41	-25.00	-19.41	Vertical
8	925.613	-79.80	45.33	-34.47	-25.00	-9.47	Vertical
9	5070.000	-51.05	11.47	-39.58	-25.00	-14.58	Vertical
10	7605.000	-56.28	14.19	-42.09	-25.00	-17.09	Vertical
Highest Channel							
1	57.669	-63.81	20.88	-42.93	-25.00	-17.93	Horizontal
2	498.730	-78.64	38.45	-40.19	-25.00	-15.19	Horizontal
3	906.304	-79.93	45.37	-34.56	-25.00	-9.56	Horizontal
4	5120.000	-53.04	11.55	-41.49	-25.00	-16.49	Horizontal
5	7680.000	-55.43	14.16	-41.27	-25.00	-16.27	Horizontal
6	44.154	-63.21	25.99	-37.22	-25.00	-12.22	Vertical
7	50.461	-71.86	24.46	-47.40	-25.00	-22.40	Vertical
8	938.714	-79.75	44.87	-34.88	-25.00	-9.88	Vertical
9	5120.000	-52.43	11.55	-40.88	-25.00	-15.88	Vertical
10	7680.000	-56.89	14.16	-42.73	-25.00	-17.73	Vertical

5.8.5 LTE Band 13

LTE Band 13 _ 10 MHz_ QPSK							
No.	Frequency	SA Reading	Correction factor	EIRP Result	Limit	Margin	Ant. Pol.
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	
Middle Channel							
1	47.703	-70.40	25.15	-45.25	-13.00	-32.25	Horizontal
2	56.071	-62.87	21.55	-41.32	-13.00	-28.32	Horizontal
3	607.181	-78.78	40.34	-38.44	-13.00	-25.44	Horizontal
4	1564.000	-49.74	1.29	-48.45	-40.00	-8.45	Horizontal
5	2346.000	-53.64	5.93	-47.71	-13.00	-34.71	Horizontal
6	44.154	-60.55	25.99	-34.56	-13.00	-21.56	Vertical
7	56.071	-63.73	21.55	-42.18	-13.00	-29.18	Vertical
8	615.774	-79.08	40.66	-38.42	-13.00	-25.42	Vertical
9	1564.000	-53.44	1.29	-52.15	-40.00	-12.15	Vertical
10	2346.000	-54.90	5.93	-48.97	-13.00	-35.97	Vertical

Note: Emissions in the GPS band were wideband emissions therefore the -40 dBm/MHz limit was used.

5.8.6 LTE Band 26 _Part 90S

LTE Band 26 _ 10 MHz_ QPSK							
No.	Frequency	SA Reading	Correction factor	EIRP Result	Limit	Margin	Ant. Pol.
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	
Middle Channel							
1	50.461	-69.30	24.46	-44.84	-13.00	-31.84	Horizontal
2	56.071	-64.87	21.55	-43.32	-13.00	-30.32	Horizontal
3	531.291	-78.36	39.35	-39.01	-13.00	-26.01	Horizontal
4	1638.000	-49.35	1.93	-47.42	-13.00	-34.42	Horizontal
5	2457.000	-55.38	6.22	-49.16	-13.00	-36.16	Horizontal
6	38.096	-75.05	30.79	-44.26	-13.00	-31.26	Vertical
7	44.154	-63.36	25.99	-37.37	-13.00	-24.37	Vertical
8	55.288	-65.70	21.77	-43.93	-13.00	-30.93	Vertical
9	1638.000	-53.34	1.93	-51.41	-13.00	-38.41	Vertical
10	2457.000	-56.16	6.22	-49.94	-13.00	-36.94	Vertical

Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F., Block A, Building 6, Baoneng Science and Technology Park, Longhua Street, Longhua District, Shenzhen, Guangdong, China

Tel: +86-755-28230888

Fax: +86-755-28230886

E-mail: info@uttlab.com

<http://www.uttlab.com>

UTTR-RF-FCC4G-V1.1

5.8.7 LTE Band 26 _Part 22

LTE Band 26_ 15 MHz_ QPSK							
No.	Frequency	SA Reading	Correction factor	EIRP Result	Limit	Margin	Ant. Pol.
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	
Lowest Channel							
1	44.154	-71.57	25.99	-45.58	-13.00	-32.58	Horizontal
2	56.864	-63.82	21.31	-42.51	-13.00	-29.51	Horizontal
3	689.051	-79.05	41.46	-37.59	-13.00	-24.59	Horizontal
4	1663.000	-51.42	2.14	-49.28	-13.00	-36.28	Horizontal
5	2494.500	-54.18	6.32	-47.86	-13.00	-34.86	Horizontal
6	44.154	-62.53	25.99	-36.54	-13.00	-23.54	Vertical
7	54.901	-65.97	21.90	-44.07	-13.00	-31.07	Vertical
8	679.435	-79.28	41.27	-38.01	-13.00	-25.01	Vertical
9	1663.000	-51.21	2.14	-49.07	-13.00	-36.07	Vertical
10	2494.500	-54.47	6.32	-48.15	-13.00	-35.15	Vertical
Middle Channel							
1	44.154	-71.41	25.99	-45.42	-13.00	-32.42	Horizontal
2	50.461	-70.29	24.46	-45.83	-13.00	-32.83	Horizontal
3	637.795	-79.24	40.67	-38.57	-13.00	-25.57	Horizontal
4	1673.000	-51.65	2.22	-49.43	-13.00	-36.43	Horizontal
5	2509.500	-53.47	6.38	-47.09	-13.00	-34.09	Horizontal
6	37.830	-71.82	30.96	-40.86	-13.00	-27.86	Vertical
7	44.154	-61.90	25.99	-35.91	-13.00	-22.91	Vertical
8	50.461	-71.31	24.46	-46.85	-13.00	-33.85	Vertical
9	1673.000	-46.05	2.22	-43.83	-13.00	-30.83	Vertical
10	2509.500	-52.22	6.38	-45.84	-13.00	-32.84	Vertical
Highest Channel							
1	56.071	-64.25	21.55	-42.70	-13.00	-29.70	Horizontal
2	573.988	-78.37	39.59	-38.78	-13.00	-25.78	Horizontal
3	703.731	-78.29	41.82	-36.47	-13.00	-23.47	Horizontal
4	1683.000	-46.10	2.31	-43.79	-13.00	-30.79	Horizontal
5	2524.500	-54.17	6.43	-47.74	-13.00	-34.74	Horizontal
6	38.096	-74.06	30.79	-43.27	-13.00	-30.27	Vertical
7	44.154	-59.79	25.99	-33.80	-13.00	-20.80	Vertical
8	56.071	-65.66	21.55	-44.11	-13.00	-31.11	Vertical
9	1683.000	-41.13	2.31	-38.82	-13.00	-25.82	Vertical
10	2524.500	-50.55	6.43	-44.12	-13.00	-31.12	Vertical

5.8.8 LTE Band 38

LTE Band 38_ 20 MHz_ QPSK							
No.	Frequency (MHz)	SA Reading (dBm)	Correction factor (dB/m)	EIRP Result (dBm)	Limit (dBm)	Margin (dB)	Ant. Pol.
Lowest Channel							
1	35.263	-77.97	31.43	-46.54	-25.00	-21.54	Horizontal
2	56.466	-63.25	21.43	-41.82	-25.00	-16.82	Horizontal
3	798.620	-78.70	43.25	-35.45	-25.00	-10.45	Horizontal
4	5160.000	-56.59	11.62	-44.97	-25.00	-19.97	Horizontal
5	7740.000	-55.82	14.14	-41.68	-25.00	-16.68	Horizontal
6	37.830	-73.59	30.96	-42.63	-25.00	-17.63	Vertical
7	44.154	-60.55	25.99	-34.56	-25.00	-9.56	Vertical
8	55.678	-66.19	21.66	-44.53	-25.00	-19.53	Vertical
9	5160.000	-51.70	11.62	-40.08	-25.00	-15.08	Vertical
10	7740.000	-55.96	14.14	-41.82	-25.00	-16.82	Vertical
Middle Channel							
1	44.154	-70.48	25.99	-44.49	-25.00	-19.49	Horizontal
2	56.864	-64.00	21.31	-42.69	-25.00	-17.69	Horizontal
3	925.613	-79.78	45.33	-34.45	-25.00	-9.45	Horizontal
4	5190.000	-52.02	11.67	-40.35	-25.00	-15.35	Horizontal
5	7785.000	-51.94	14.12	-37.82	-25.00	-12.82	Horizontal
6	44.154	-57.59	25.99	-31.60	-25.00	-6.60	Vertical
7	56.864	-67.25	21.31	-45.94	-25.00	-20.94	Vertical
8	809.924	-79.26	43.70	-35.56	-25.00	-10.56	Vertical
9	5190.000	-50.31	11.67	-38.64	-25.00	-13.64	Vertical
10	7785.000	-53.60	14.12	-39.48	-25.00	-14.48	Vertical
Highest Channel							
1	50.461	-70.01	24.46	-45.55	-25.00	-20.55	Horizontal
2	55.288	-64.52	21.77	-42.75	-25.00	-17.75	Horizontal
3	925.613	-80.05	45.33	-34.72	-25.00	-9.72	Horizontal
4	5220.000	-54.44	11.73	-42.71	-25.00	-17.71	Horizontal
5	7830.000	-52.72	14.11	-38.61	-25.00	-13.61	Horizontal
6	44.154	-59.72	25.99	-33.73	-25.00	-8.73	Vertical
7	55.288	-68.44	21.77	-46.67	-25.00	-21.67	Vertical
8	856.760	-79.41	44.15	-35.26	-25.00	-10.26	Vertical
9	5220.000	-50.27	11.73	-38.54	-25.00	-13.54	Vertical
10	7830.000	-54.38	14.11	-40.27	-25.00	-15.27	Vertical

5.8.9 LTE Band 41

LTE Band 41_20 MHz_QPSK							
No.	Frequency	SA Reading	Correction factor	EIRP Result	Limit	Margin	Ant. Pol.
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	
Lowest Channel							
1	50.461	-70.39	24.46	-45.93	-25.00	-20.93	Horizontal
2	56.466	-66.43	21.43	-45.00	-25.00	-20.00	Horizontal
3	844.803	-79.56	44.32	-35.24	-25.00	-10.24	Horizontal
4	5012.000	-59.85	11.36	-48.49	-25.00	-23.49	Horizontal
5	7518.000	-59.47	14.22	-45.25	-25.00	-20.25	Horizontal
6	44.154	-60.85	25.99	-34.86	-25.00	-9.86	Vertical
7	55.288	-66.80	21.77	-45.03	-25.00	-20.03	Vertical
8	899.958	-79.37	45.27	-34.10	-25.00	-9.10	Vertical
9	5012.000	-59.11	11.36	-47.75	-25.00	-22.75	Vertical
10	7518.000	-59.97	14.22	-45.75	-25.00	-20.75	Vertical
Middle Channel							
1	44.154	-71.41	25.99	-45.42	-25.00	-20.42	Horizontal
2	56.071	-64.99	21.55	-43.44	-25.00	-18.44	Horizontal
3	925.613	-80.20	45.33	-34.87	-25.00	-9.87	Horizontal
4	5186.000	-62.80	11.67	-51.13	-25.00	-26.13	Horizontal
5	7779.000	-59.72	14.12	-45.60	-25.00	-20.60	Horizontal
6	44.154	-63.71	25.99	-37.72	-25.00	-12.72	Vertical
7	55.678	-65.93	21.66	-44.27	-25.00	-19.27	Vertical
8	972.283	-79.17	45.42	-33.75	-25.00	-8.75	Vertical
9	5186.000	-62.00	11.67	-50.33	-25.00	-25.33	Vertical
10	7779.000	-60.79	14.12	-46.67	-25.00	-21.67	Vertical
Highest Channel							
1	36.781	-77.65	31.36	-46.29	-25.00	-21.29	Horizontal
2	56.466	-67.30	21.43	-45.87	-25.00	-20.87	Horizontal
3	906.304	-80.27	45.37	-34.90	-25.00	-9.90	Horizontal
4	5360.000	-61.88	11.97	-49.91	-25.00	-24.91	Horizontal
5	8040.000	-61.36	14.04	-47.32	-25.00	-22.32	Horizontal
6	44.154	-58.67	25.99	-32.68	-25.00	-7.68	Vertical
7	56.071	-65.49	21.55	-43.94	-25.00	-18.94	Vertical
8	899.958	-80.09	45.27	-34.82	-25.00	-9.82	Vertical
9	5360.000	-61.98	11.97	-50.01	-25.00	-25.01	Vertical
10	8040.000	-61.11	14.04	-47.07	-25.00	-22.07	Vertical

Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F., Block A, Building 6, Baoneng Science and Technology Park, Longhua Street, Longhua District, Shenzhen, Guangdong, China

Tel: +86-755-28230888

Fax: +86-755-28230886

E-mail: info@uttlab.com

<http://www.uttlab.com>

UTTR-RF-FCC4G-V1.1

5.8.10 LTE Band 66

LTE Band 66 _ 20 MHz_ QPSK							
No.	Frequency (MHz)	SA Reading (dBm)	Correction factor (dB/m)	EIRP Result (dBm)	Limit (dBm)	Margin (dB)	Ant. Pol.
Lowest Channel							
1	42.630	-74.01	28.11	-45.90	-13.00	-32.90	Horizontal
2	54.517	-67.24	22.04	-45.20	-13.00	-32.20	Horizontal
3	979.139	-80.44	45.47	-34.97	-13.00	-21.97	Horizontal
4	3440.000	-54.75	9.61	-45.14	-13.00	-32.14	Horizontal
5	5160.000	-54.06	11.62	-42.44	-13.00	-29.44	Horizontal
6	44.154	-63.50	25.99	-37.51	-13.00	-24.51	Vertical
7	55.678	-68.26	21.66	-46.60	-13.00	-33.60	Vertical
8	862.802	-79.54	44.29	-35.25	-13.00	-22.25	Vertical
9	3440.000	-51.82	9.61	-42.21	-13.00	-29.21	Vertical
10	5160.000	-55.51	11.62	-43.89	-13.00	-30.89	Vertical
Middle Channel							
1	47.703	-70.11	25.15	-44.96	-13.00	-31.96	Horizontal
2	56.864	-66.47	21.31	-45.16	-13.00	-32.16	Horizontal
3	912.695	-80.05	45.32	-34.73	-13.00	-21.73	Horizontal
4	3490.000	-53.25	9.74	-43.51	-13.00	-30.51	Horizontal
5	5235.000	-50.49	11.76	-38.73	-13.00	-25.73	Horizontal
6	44.154	-60.94	25.99	-34.95	-13.00	-21.95	Vertical
7	56.071	-67.78	21.55	-46.23	-13.00	-33.23	Vertical
8	850.760	-79.74	44.25	-35.49	-13.00	-22.49	Vertical
9	3490.000	-52.34	9.74	-42.60	-13.00	-29.60	Vertical
10	5235.000	-56.30	11.76	-44.54	-13.00	-31.54	Vertical
Highest Channel							
1	56.071	-64.26	21.55	-42.71	-13.00	-29.71	Horizontal
2	674.677	-78.71	41.05	-37.66	-13.00	-24.66	Horizontal
3	887.398	-80.08	44.96	-35.12	-13.00	-22.12	Horizontal
4	3540.000	-49.88	10.01	-39.87	-13.00	-26.87	Horizontal
5	5310.000	-55.84	11.88	-43.96	-13.00	-30.96	Horizontal
6	44.154	-64.64	25.99	-38.65	-13.00	-25.65	Vertical
7	54.901	-66.63	21.90	-44.73	-13.00	-31.73	Vertical
8	868.886	-80.38	44.75	-35.63	-13.00	-22.63	Vertical
9	3540.000	-53.58	10.01	-43.57	-13.00	-30.57	Vertical
10	5310.000	-56.74	11.88	-44.86	-13.00	-31.86	Vertical

5.9 FREQUENCY STABILITY

Test Requirement: FCC 47 CFR Part 2.1055 &
FCC 47 CFR Part 22.355 &
FCC 47 CFR Part 24.235 &
FCC 47 CFR Part 27.54

Test Method: ANSI C63.26-2015 & KDB 971168 D01v03r01

Limits:

FCC 47 CFR Part 22.355, FCC 47 CFR Part 90.213

The carrier frequency shall not depart from the reference frequency in excess of ± 2.5 ppm for mobile stations.

FCC 47 CFR Part 24.235, FCC 47 CFR Part 27.54

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

Test Setup: Refer to section 4.2.2 for details.

Test Procedures:

- 1) Use CMW 500 with Frequency Error measurement capability.
 - a) Temp. = -30° to $+50^{\circ}\text{C}$
 - b) Voltage = low voltage, 3.4 Vdc, Normal, 3.91 Vdc and High voltage, 4.5 Vdc.

- 2) Frequency Stability vs Temperature:

The EUT is placed inside a temperature chamber. The temperature is set to 20°C and allowed to stabilize. After sufficient soak time, the transmitting frequency error is measured. The temperature is increased by 10°C degrees, allowed to stabilize and soak, and then the measurement is repeated. This is repeated until $+50^{\circ}\text{C}$ is reached.

- 3) Frequency Stability vs Voltage:

The peak frequency error is recorded (worst-case).

Equipment Used: Refer to section 3 for details.

Test Result: Please refer to Appendix A - I

Note 1: The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

APPENDIX 1 PHOTOS OF TEST SETUP

See test photos attached in Appendix 1 for the actual connections between Product and support equipment.

APPENDIX 2 PHOTOS OF EUT CONSTRUCTIONAL DETAILS

Refer to Appendix 2 for EUT external and internal photos.

*** End of Report ***

The test report is effective only with both signature and specialized stamp. The result(s) shown in this report refer only to the sample(s) tested. Without written approval of UnionTrust, this report can't be reproduced except in full.
