FCC TEST REPORT

Product Name:	Smart Phone
Trade Mark:	BLU
Model No.:	G64
Report Number:	24060411802RFM-2
Test Standards:	FCC 47 CFR Part 22 FCC 47 CFR Part 24 FCC 47 CFR Part 27
FCC ID:	YHLBLU64W
Test Result:	PASS
Date of Issue:	August 1, 2024

Prepared for:

BLU Products, Inc.
8600 NW 36th Street, Suite #300 | Miami, FL 33166

Prepared by:

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Approved by:	Robert Chen	Date:	August 1, 2024
	Assistant Manager		

Version

Version No.	Date	Description
V1.0	August 1, 2024	Original

CONTENTS

1. GENERAL INFORMATION

1.1 CLIENT INFORMATION

Applicant:	BLU Products, Inc.
Address of Applicant:	8600 NW 36th Street, Suite #300 | Miami, FL 33166
Manufacturer:	BLU Products, Inc.
Address of Manufacturer:	8600 NW 36th Street, Suite #300 | Miami, FL 33166

1.2 EUT INFORMATION

1.2.1 General Description of EUT

Product Name:	Smart Phone		
Model No.:	G64		
Trade Mark:	BLU		
DUT Stage:	Identical Prototype		
EUT Supports Function: (Provided by the customer)	GSM Bands:	GSM850/PCS 1900	
	UTRA Bands:	WCDMA Band II/ Band IV/ Band V	
	E-UTRA Bands:	FDD Band 2/ 4/ 5/ 7/ 12/ 17/ 66/ 71	
	2.4 GHz ISM Band:	IEEE 802.11b/g/n	
		Bluetooth 5.0	
	5 GHz U-NII Bands:	5 150 MHz to 5 250 MHz	IEEE 802.11a/n/ac
		5 250 MHz to 5 350 MHz	IEEE 802.11a/n/ac
		5 470 MHz to 5 725 MHz	IEEE 802.11a/n/ac
		5 725 MHz to 5 850 MHz	IEEE 802.11a/n/ac
	RNSS Band:	1559 MHz to 1610 MHz	BDS/ GPS/ GLONASS/ Galileo/ SBAS
	BSR:	VHF Band II	FM
Software Version:	BLU_G1010_V14.0.03.01_GENERIC_21-05-2024_1645 (Provided by the customer)		
Hardware Version:	FS310-MB-V0.1 (Provided by the customer)		
Sample Received Date:	May 31, 2024		
Sample Tested Date:	June 11, 2024 to July 4, 2024		

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

Adapter	
Model No.:	US-TY-2001
Input:	100-240 V~50/60 Hz 0.3 A
Output:	5.0 V ⎓ 2000 mA

Battery	
Model No.:	C936549500P
Battery Type:	Lithium-ion Battery
Rated Voltage:	3.87 Vdc
Limited Charge Voltage:	4.45 Vdc
Rated Capacity:	4900 mAh

Cable	
Description:	USB Type-C to USB 3.0 Type A Cable
Connector:	USB Type-C / USB 3.0 Type A
Cable Type:	Unshielded without ferrite
Length:	1 Meter

1.3 PRODUCT SPECIFICATION SUBJECTIVE TO THIS STANDARD

Support Networks:	Single Carrier: LTE Band 2/4/5/7/12/17/66/71	
Type of Modulation:	QPSK, 16QAM, 64QAM	
Antenna Type: (Provided by the customer)	FPCB Antenna	
Antenna Gain: (Provided by the customer)	LTE Band 2:	-0.67 dBi
	LTE Band 4:	-0.65 dBi
	LTE Band 5:	-1.71 dBi
	LTE Band 7:	-0.96 dBi
	LTE Band 12:	-2.14 dBi
	LTE Band 17:	-2.12 dBi
	LTE Band 66:	-0.65 dBi
	LTE Band 71:	-1.97 dBi
Sample No.:	Radiated: S202405313546-ZJA06/9	
	Conducted: S202405313546-ZJA02/9	
Normal Test Voltage:	3.87 Vdc	
Extreme Test Voltage:	3.4 to 4.45Vdc	
Extreme Test Temperature:	-30 °C to +50 °C	

Summary of Results:								
Bands	BW (MHz)	Modulation	Frequency Range (MHz)	Max RF Output Power (dBm) Conducted (Average)	Max RF Output Power (dBm) ERP/EIRP (Average)	ERP/EIRP (W)	99% BW (MHz)	Emission Designator
2	1.4	QPSK	1850.7-1909.3	22.17	21.50	0.1413	1.0994	1M10G7D
		16QAM		21.95	21.28	0.1343	1.1031	1M10W7D
		64QAM		21.66	20.99	0.1256	1.0991	1M10W7D
	3	QPSK	1851.5-1908.5	22.25	21.58	0.1439	2.7162	2M72G7D
		16QAM		22.20	21.53	0.1422	2.7052	2M71W7D
		64QAM		21.19	20.52	0.1127	2.7117	2M71W7D
	5	QPSK	1852.5-1907.5	22.31	21.64	0.1459	4.5169	4M52G7D
		16QAM		21.62	20.95	0.1245	4.5275	4M53W7D
		64QAM		20.96	20.29	0.1069	4.5101	4M51W7D
	10	QPSK	1855.0-1905.0	22.29	21.62	0.1452	9.0143	9M01G7D
		16QAM		21.57	20.90	0.1230	9.0087	9M01W7D
		64QAM		21.06	20.39	0.1094	9.0052	9M01W7D
	15	QPSK	1857.5-1902.5	22.30	21.63	0.1455	13.4840	13M5G7D
		16QAM		22.15	21.48	0.1406	13.5040	13M5W7D
		64QAM		21.61	20.94	0.1242	13.5070	13M5W7D
	20	QPSK	1860.0-1900.0	22.55	21.88	0.1542	18.0540	18M1G7D
		16QAM		22.15	21.48	0.1406	18.0040	18M0W7D
		64QAM		22.20	21.53	0.1422	18.0100	18M0W7D
4	1.4	QPSK	1710.7-1754.3	22.39	21.74	0.1493	1.0957	1M10G7D
		16QAM		21.94	21.29	0.1346	1.1042	1M10W7D
		64QAM		21.58	20.93	0.1239	1.0926	1M09W7D
	3	QPSK	1711.5-1753.5	22.36	21.71	0.1483	2.7136	2M71G7D
		16QAM		22.00	21.35	0.1365	2.7093	2M71W7D
		64QAM		21.40	20.75	0.1189	2.7127	2M71W7D
	5	QPSK	1712.5-1752.5	22.54	21.89	0.1545	4.5095	4M51G7D
		16QAM		21.94	21.29	0.1346	4.5327	4M53W7D
		64QAM		21.41	20.76	0.1191	4.5107	4M51W7D
	10	QPSK	1715-1750	22.33	21.68	0.1472	9.0127	9M01G7D
		16QAM		21.86	21.21	0.1321	8.9998	9M00W7D
		64QAM		21.44	20.79	0.1199	9.0126	9M01W7D
	15	QPSK	1717.5-1747.5	22.39	21.74	0.1493	13.5200	13M5G7D
		16QAM		22.37	21.72	0.1486	13.5300	13M5W7D
		64QAM		21.82	21.17	0.1309	13.5470	13M5W7D
	20	QPSK	1720-1745	22.56	21.91	0.1552	18.0300	18M0G7D
		16QAM		22.32	21.67	0.1469	18.0300	18M0W7D
		64QAM		21.80	21.15	0.1303	18.0140	18M0W7D
5	1.4	QPSK	824.7-848.3	22.42	18.56	0.0718	1.0969	1M10G7D
		16QAM		21.96	18.10	0.0646	1.1033	1M10W7D
		64QAM		21.68	17.82	0.0605	1.0946	1M09W7D
	3	QPSK	825.5-847.5	22.48	18.62	0.0728	2.7106	2M71G7D
		16QAM		22.49	18.63	0.0729	2.7066	2M71W7D
		64QAM		21.60	17.74	0.0594	2.7111	2M71W7D
	5	QPSK	826.5-846.5	22.29	18.43	0.0697	4.5084	4M51G7D
		16QAM		21.77	17.91	0.0618	4.5299	4M53W7D
		64QAM		21.37	17.51	0.0564	4.5067	4M51W7D
	10	QPSK	829-844	22.53	18.67	0.0736	9.0110	9M01G7D
		16QAM		21.93	18.07	0.0641	9.0125	9M01W7D
		64QAM		21.08	17.22	0.0527	9.0147	9M01W7D
7	5	QPSK	2502.5-2567.5	17.78	16.82	0.0481	4.5134	4M51G7D
		16QAM		17.15	16.19	0.0416	4.5187	4M52W7D
		64QAM		16.60	15.64	0.0366	4.5057	4M51W7D
	10	QPSK	2505-2565	17.67	16.71	0.0469	8.9976	9M00G7D
		16QAM		17.68	16.72	0.0470	8.9945	8M99W7D
		64QAM		16.47	15.51	0.0356	9.0187	9M02W7D
	15	QPSK	2507.5-2562.5	17.56	16.60	0.0457	13.5140	13M5G7D
		16QAM		17.67	16.71	0.0469	13.5170	13M5W7D
		64QAM		17.07	16.11	0.0408	13.5370	13M5W7D
	20	QPSK	2510-2560	17.88	16.92	0.0492	18.0430	18M0G7D
		16QAM		17.58	16.62	0.0459	18.0260	18M0W7D
		64QAM		17.72	16.76	0.0474	17.9990	18M0W7D

Bands	BW (MHz)	Modulation	Frequency Range (MHz)	Max RF Output Power (dBm) Conducted (Average)	Max RF Output Power (dBm) ERP/EIRP (Average)	ERP/EIRP (W)	99% BW (MHz)	Emission Designator
12	1.4	QPSK	699.7-715.3	22.31	15.87	0.0386	1.0994	1M10G7D
		16QAM		22.33	15.89	0.0388	1.1024	1M10W7D
		64QAM		21.67	15.23	0.0333	1.0961	1M10W7D
	3	QPSK	700.5-714.5	22.27	15.83	0.0383	2.7154	2M72G7D
		16QAM		22.21	15.77	0.0378	2.7044	2M70W7D
		64QAM		21.35	14.91	0.0310	2.7109	2M71W7D
	5	QPSK	701.5-713.5	22.44	16.00	0.0398	4.5117	4M51G7D
		16QAM		22.09	15.65	0.0367	4.5283	4M53W7D
		64QAM		21.02	14.58	0.0287	4.5044	4M50W7D
	10	QPSK	704-711	22.50	16.06	0.0404	9.0073	9M00G7D
		16QAM		21.64	15.20	0.0331	9.0123	9M01W7D
		64QAM		21.19	14.75	0.0299	8.9944	8M99W7D
17	5	QPSK	706.5-713.5	22.31	15.89	0.0388	4.5053	4M51G7D
		16QAM		21.82	15.40	0.0347	4.5049	4M50W7D
		64QAM		20.79	14.37	0.0274	4.5086	4M51W7D
	10	QPSK	709-711	22.36	15.94	0.0393	9.0004	9M00G7D
		16QAM		21.64	15.22	0.0333	9.0141	9M01W7D
		64QAM		21.40	14.98	0.0315	9.0111	9M01W7D
66	1.4	QPSK	1710.7-1779.3	22.37	21.72	0.1486	1.0934	1M09G7D
		16QAM		22.20	21.55	0.1429	1.1048	1M10W7D
		64QAM		21.40	20.75	0.1189	1.0950	1M10W7D
	3	QPSK	1711.5-1778.5	22.59	21.94	0.1563	2.7179	2M72G7D
		16QAM		22.52	21.87	0.1538	2.7078	2M71W7D
		64QAM		22.17	21.52	0.1419	2.7093	2M71W7D
	5	QPSK	1712.5-1777.5	22.48	21.83	0.1524	4.5134	4M51G7D
		16QAM		21.96	21.31	0.1352	4.5249	4M52W7D
		64QAM		21.39	20.74	0.1186	4.5075	4M51W7D
	10	QPSK	1715-1775	22.61	21.96	0.1570	9.0048	9M00G7D
		16QAM		22.45	21.80	0.1514	9.0011	9M00W7D
		64QAM		21.78	21.13	0.1297	9.0071	9M01W7D
	15	QPSK	1717.5-1772.5	22.57	21.92	0.1556	13.5160	13M5G7D
		16QAM		22.08	21.43	0.1390	13.5040	13M5W7D
		64QAM		21.93	21.28	0.1343	13.5140	13M5W7D
	20	QPSK	1720-1770	22.63	21.98	0.1578	18.0300	18M0G7D
		16QAM		22.21	21.56	0.1432	18.0280	18M0W7D
		64QAM		21.88	21.23	0.1327	18.0120	18M0W7D
71	5	QPSK	665.5-695.5	22.46	18.34	0.0682	4.5044	4M50G7D
		16QAM		21.95	17.83	0.0607	4.5210	4M52W7D
		64QAM		20.86	16.74	0.0472	4.5059	4M51W7D
	10	QPSK	668-693	22.44	18.32	0.0679	9.0059	9M01G7D
		16QAM		22.47	18.35	0.0684	9.0096	9M01W7D
		64QAM		21.33	17.21	0.0526	9.0017	9M00W7D
	15	QPSK	670.5-690.5	22.54	18.42	0.0695	13.4810	13M5G7D
		16QAM		22.03	17.91	0.0618	13.5030	13M5W7D
		64QAM		21.37	17.25	0.0531	13.4990	13M5W7D
	20	QPSK	673-688	22.58	18.46	0.0701	18.0000	18M0G7D
		16QAM		22.43	18.31	0.0678	18.0230	18M0W7D
		64QAM		22.29	18.17	0.0656	17.9710	18M0W7D

1.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested with associated equipment below.

1) Support Equipment

Description	Manufacturer	Model No.	Serial Number	Supplied by
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2) Support Cable

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

1.5 TEST LOCATION

Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: Unit D/E of 9/F and 16/F, Block A, Building 6, Baoneng science and technology park, Longhua district, Shenzhen, China 518109
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

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 ℃
9	DC Voltages	±0.68 %

2. TEST SUMMARY

FCC 47 CFR Part 24 Test Cases (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 & Band 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

FCC 47 CFR Part 22 Test Cases (Band 5)			
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 27 Test Cases (LTE Band 7)			
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 12& 17)			
Test Item	**Test Requirement**	**Test Method**	**Result**
Effective Radiated Power (ERP)	FCC 47 CFR Part 2.1046(a) & FCC 47 CFR Part 27.50(c)(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(c)(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) FCC 47 CFR Part 27.53(g)	ANSI C63.26-2015 & KDB 971168 D01v03r01	PASS
Band Edge at antenna terminals	FCC 47 CFR Part 27.53(g)	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(g)	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(g)	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 71)			
Test Item	**Test Requirement**	**Test Method**	**Result**
Effective Radiated Power (ERP)	FCC 47 CFR Part 2.1046(a) & FCC 47 CFR Part 27.50(c)(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(c)(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) FCC 47 CFR Part 27.53(g)	ANSI C63.26-2015 & KDB 971168 D01v03r01	PASS
Band Edge at antenna terminals	FCC 47 CFR Part 27.53(g)	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(g)	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(g)	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

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**
☑	3m SAC	ETS-LINDGREN	3M	Euroshiedpn-CT001270-1317	11-Nov-2023	10-Nov-2026
☑	Receiver	R&S	ESIB26	100114	27-Oct-2023	26-Oct-2024
☑	Broadband Antenna	ETS-LINDGREN	3142E	00201566	30-Oct-2023	29-Oct-2024
☑	6dB Attenuator	Talent	RA6A5-N-18	18103001	30-Oct-2023	29-Oct-2024
☑	Preamplifier	HP	8447F	2805A02960	31-Oct-2023	30-Oct-2024
☑	Double-Ridged Waveguide Horn Antenna (Pre-amplifier)	ETS-LINDGREN	3117-PA	00201541	16-Apr-2023	15-Apr-2025
☑	Pre-amplifier	ETS-LINDGREN	00118385	00201874	31-Oct-2023	30-Oct-2024
☑	Double-Ridged Waveguide Horn Antenna (Pre-amplifier)	ETS-LINDGREN	3116C-PA	00202652	30-Oct-2023	29-Oct-2024
☑	Pre-amplifier	ETS-LINDGREN	00118384	00202652	30-Oct-2023	29-Oct-2024
☑	Multi device Controller	ETS-LINDGREN	7006-001	00160105	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**
☑	EXA Signal Analyzer	KEYSIGHT	N9010B	MY62060155	29-Mar-2024	28-Mar-2025
☑	DC Source	KIKUSUI	PWR400L	LK003024	N/A	N/A
☑	Digital multimeter	FLUKE	15B+	30701460WS15	31-Oct-2023	30-Oct-2024
☑	Temp & Humidity chamber	Votisch	VT4002	58566133290020	29-Mar-2024	28-Mar-2025
☑	Wideband Radio Communication Tester	R&S	CMW500	119583	29-Mar-2024	28-Mar-2025
☐	Wideband Radio Communication Tester	R&S	CMW500	120932	29-Mar-2024	28-Mar-2025

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	3.87	20 to 75
TL/VL	-30	3.4	20 to 75
TH/VL	+50	3.4	20 to 75
TL/VH	-30	4.45	20 to 75
TH/VH	+50	4.45	20 to 75

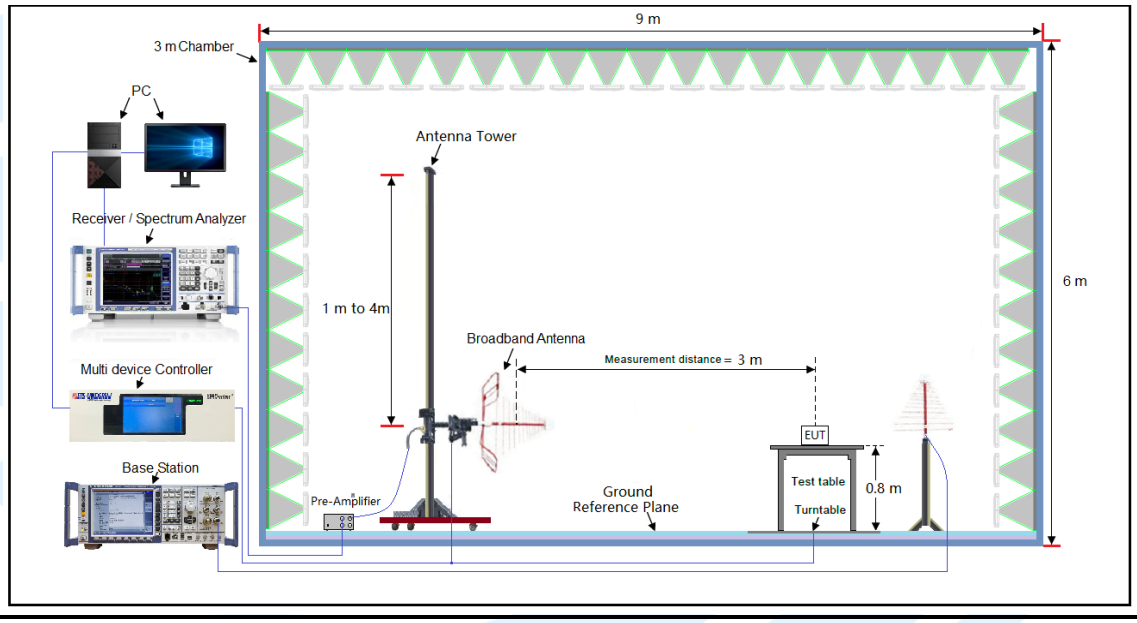
Remark:

1) The EUT just work in such extreme temperature of -30 °C to +50 °C and the extreme voltage of 3.4 V to 4.45 V, so here the EUT is tested in the temperature of -30 °C to +50 °C and the voltage of 3.4 V to 4.45 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.

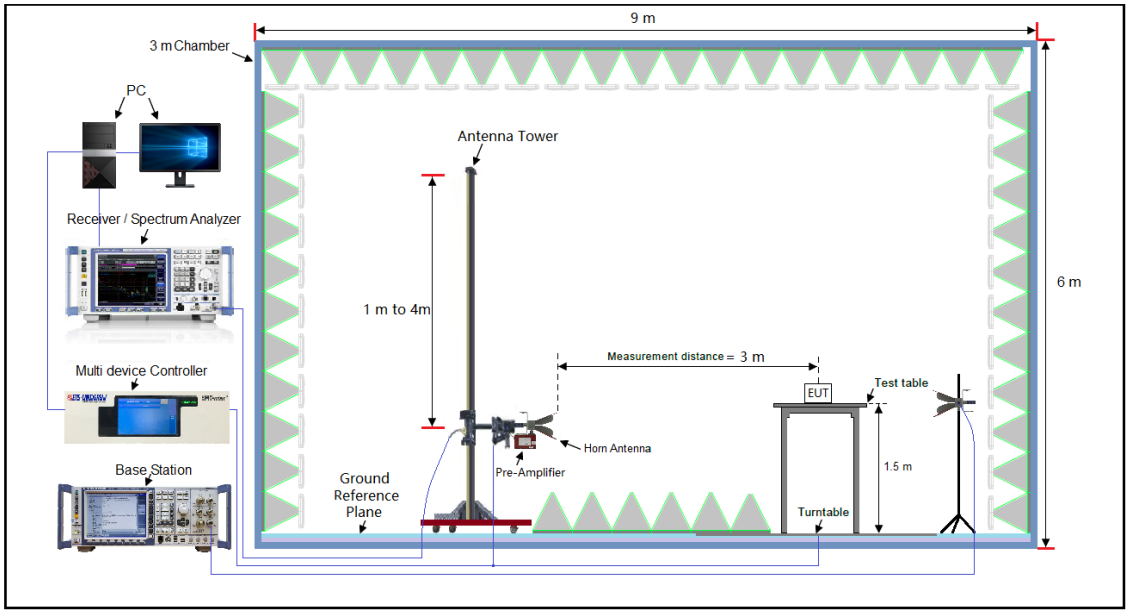
4.2 TEST SETUP

4.2.1 For Radiated Emissions test setup

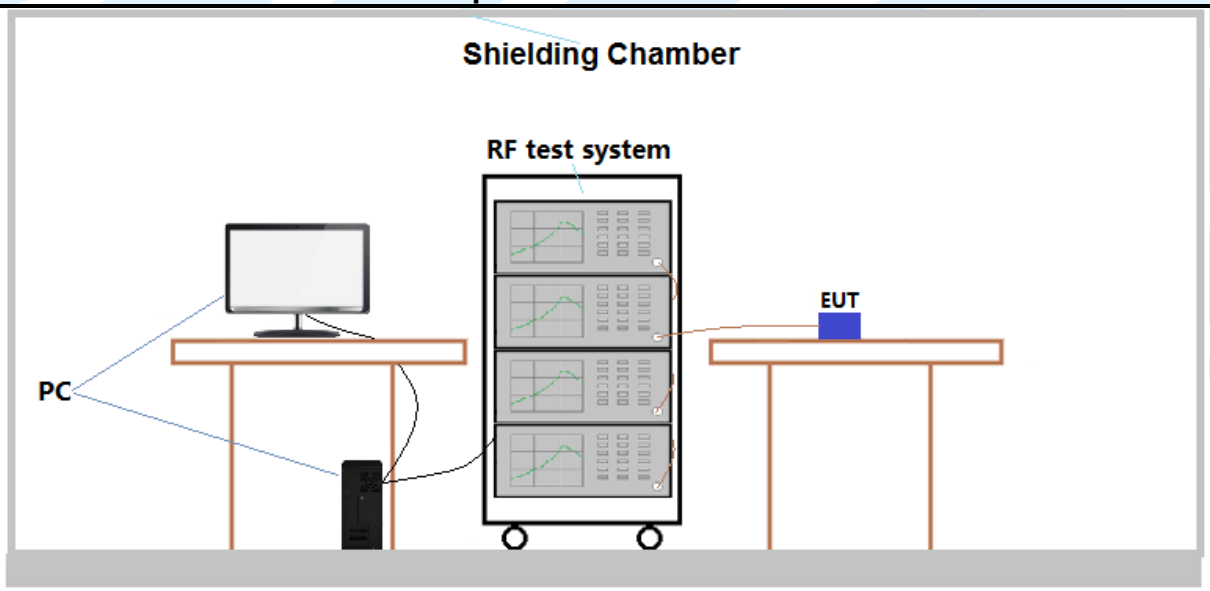
Radiated Emissions 30MHz to 1GHz Test setup



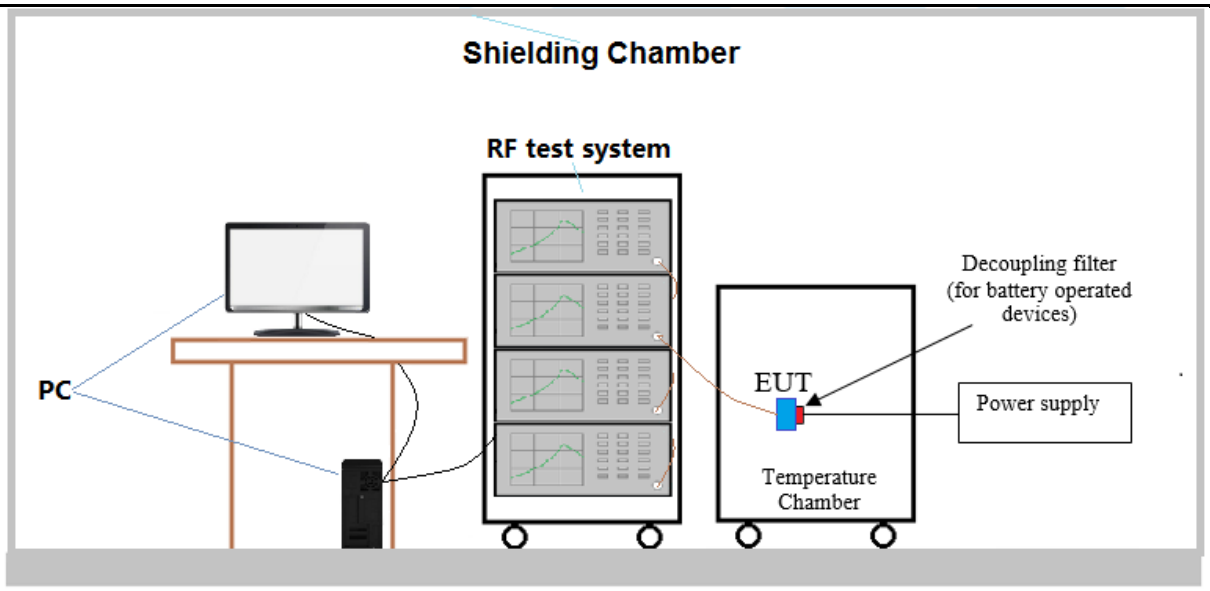
Radiated Emissions Above 1GHz Test setup



4.2.2 For Conducted RF test setup



Normal Environment



Extreme Environment

4.3 TEST CHANNELS

Band	Test Frequency ID	Bandwidth (MHz)	Number [UL]	Frequency of Uplink (MHz)
LTE Band 2 TX: 1850-1910MHz	Low Range	1.4	18607	1850.7
		3	18615	1851.5
		5	18625	1852.5
		10	18650	1855
		15	18675	1857.5
		20	18700	1860
	Middle Range	1.4/3/5/10/15/20	18900	1880
	High Range	1.4	19193	1909.3
		3	19185	1908.5
		5	19175	1907.5
		10	19150	1905
		15	19125	1902.5
		20	19100	1900
LTE Band 4 TX: 1710-1755MHz	Low Range	1.4	19957	1710.7
		3	19965	1711.5
		5	19975	1712.5
		10	20000	1715
		15	20025	1717.5
		20	20050	1720
	Middle Range	1.4/3/5/10/ 15/20	20175	1732.5
	High Range	1.4	20393	1754.3
		3	20385	1753.5
		5	20375	1752.5
		10	20350	1750
		15	20325	1747.5
		20	20300	1745
LTE band 5 TX: 824–849MHz	Low Range	1.4	20407	824.7
		3	20415	825.5
		5	20425	826.5
		10	20450	829
	Middle Range	1.4/3/5/10	20525	836.5
	High Range	1.4	20643	848.3
		3	20635	847.5
		5	20625	846.5
		10	20600	844
LTE Band 7 TX: 2500-2570MHz	Low Range	5	20775	2502.5
		10	20800	2505
		15	20825	2507.5
		20	20850	2510
	Middle Range	5/10/15/20	21100	2535
	High Range	5	21425	2567.5
		10	21400	2565
		15	21375	2562.5
		20	21350	2560
LTE Band 12 TX: 699-716MHz	Low Range	1.4	23017	699.7
		3	23025	700.5
		5	23035	701.5
		10	23060	704
	Middle Range	1.4/3/5/10	23095	707.5
	High Range	1.4	23173	715.3
		3	23165	714.5
		5	23155	713.5
		10	23130	711

LTE Band 17 TX:704-716MHz	Low Range	5	23755	706.5
		10	23780	709
	Middle Range	5/10	23790	710
	High Range	5	23825	713.5
		10	23800	711
LTE Band 66 TX: 1710-1780MHz	Low Range	1.4	131979	1710.7
		3	131987	1711.5
		5	131997	1712.5
		10	132022	1715
		15	132047	1717.5
		20	132072	1720
	Middle Range	1.4/3/5/10/ 15/20	132322	1745
	High Range	1.4	132665	1779.3
		3	132657	1778.5
		5	132647	1777.5
		10	132622	1775
		15	132597	1772.5
		20	132572	1770
LTE Band 71 TX: 663–698MHz	Low Range	5	133147	665.5
		10	133172	668
		15	133197	670.5
		20	133222	673
	Middle Range	5/10/15	133297	680.5
		20	133322	683
	High Range	5	133447	695.5
		10	133422	693
		15	133397	690.5
		20	133372	688

4.4 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. 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.

4.5 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
Conducted output power	2	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒
	4	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒
	5	☒	☒	☒	☒	--	--	☒	☒	☒	☒	☒	☒	☒	☒	☒
	7	-	-	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒
	12	☒	☒	☒	☒	-	-	☒	☒	☒	☒	☒	☒	☒	☒	☒
	17	-	-	☒	☒	-	-	☒	☒	☒	☒	☒	☒	☒	☒	☒
	66	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒
	71	-	-	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒
99%&26dB Bandwidth	2	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒	☒
	4	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒	☒
	5	☒	☒	☒	☒	--	--	☒	☒	☒	☐	☐	☒	☒	☒	☒
	7	-	-	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒	☒
	12	☒	☒	☒	☒	-	-	☒	☒	☒	☐	☐	☒	☒	☒	☒
	17	-	-	☒	☒	-	-	☒	☒	☒	☐	☐	☒	☒	☒	☒
	66	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒	☒
	71	-	-	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒	☒

Item	Band	Bandwidth(MHz)						Modulation			RB			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	Half	Full	L	M	H
peak-to-average ratio	2	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☒	☒	☒	☒
	4	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☒	☒	☒	☒
	5	☒	☒	☒	☒	--	--	☒	☒	☒	☒	☐	☒	☒	☒	☒
	7	-	-	☒	☒	☒	☒	☒	☒	☒	☒	☐	☒	☒	☒	☒
	12	☒	☒	☒	☒	-	-	☒	☒	☒	☒	☐	☒	☒	☒	☒
	17	-	-	☒	☒	-	-	☒	☒	☒	☒	☐	☒	☒	☒	☒
	66	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☒	☒	☒	☒
	71	-	-	☒	☒	☒	☒	☒	☒	☒	☒	☐	☒	☒	☒	☒
Band Edge at antenna terminals	2	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☒	☒	☐	☒
	4	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☒	☒	☐	☒
	5	☒	☒	☒	☒	--	--	☒	☒	☒	☒	☐	☒	☒	☐	☒
	7	-	-	☒	☒	☒	☒	☒	☒	☒	☒	☐	☒	☒	☐	☒
	12	☒	☒	☒	☒	-	-	☒	☒	☒	☒	☐	☒	☒	☐	☒
	17	-	-	☒	☒	-	-	☒	☒	☒	☒	☐	☒	☒	☐	☒
	66	☒	☒	☒	☒	☒	--	☒	☒	☒	☒	☐	☒	☒	☐	☒
	71	-	-	☒	☒	☒	☒	☒	☒	☒	☒	☐	☒	☒	☐	☒
Spurious emissions at antenna terminals	2	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒
	4	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒
	5	☒	☒	☒	☒	--	--	☒	☒	☒	☒	☐	☐	☒	☒	☒
	7	-	-	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒
	12	☒	☒	☒	☒	-	-	☒	☒	☒	☒	☐	☐	☒	☒	☒
	17	-	-	☒	☒	-	-	☒	☒	☒	☒	☐	☐	☒	☒	☒
	66	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒
	71	-	-	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒

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	-	-	☐	☐	☐	☒	☒	☐	☐	☒	☐	☐	☒	☒	☒
	12	☐	☐	☐	☒	-	-	☒	☐	☐	☒	☐	☐	☒	☒	☒
	17	-	-	☐	☒	-	-	☒	☐	☐	☒	☐	☐	☒	☒	☒
	66	☐	☐	☐	☐	☐	☒	☒	☐	☐	☒	☐	☐	☒	☒	☒
	71	-	-	☐	☐	☐	☒	☒	☐	☐	☒	☐	☐	☒	☒	☒
Frequency stability	2	☐	☐	☐	☐	☐	☒	☒	☐	☐	☐	☐	☒	☐	☒	☐
	4	☐	☐	☐	☐	☐	☒	☒	☐	☐	☐	☐	☒	☐	☒	☐
	5	☐	☐	☐	☒	--	--	☒	☐	☐	☐	☐	☒	☐	☒	☐
	7	-	-	☐	☐	☐	☒	☒	☐	☐	☐	☐	☒	☐	☒	☐
	12	☐	☐	☐	☒	-	-	☒	☐	☐	☐	☐	☒	☐	☒	☐
	17	-	-	☐	☒	-	-	☒	☐	☐	☐	☐	☒	☐	☒	☐
	66	☐	☐	☐	☐	☐	☒	☒	☐	☐	☐	☐	☒	☐	☒	☐
	71	-	-	☐	☐	☐	☒	☒	☐	☐	☐	☐	☒	☐	☒	☐

Remark:
The mark "☒" means is chosen for testing; The mark "☐" means is not chosen for testing;
The mark "-" means is not supported bandwidth

5. 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	ANSI C63.26-2015	American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services
6	KDB 971168 D01	KDB 971168 D01 Power Meas License Digital Systems v03r01

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 & LTE Band 66: FCC 47 CFR Part 27.50(d)(4)
LTE Band 5: FCC 47 CFR Part 22.913(a)
LTE Band 7: FCC 47 CFR Part 27.50(h)(2)
LTE Band 12 & Band 17& Band 71: FCC 47 CFR Part 27.50(c)(10)

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(c)(10):
Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP.

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.

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

5.2.1 LTE Band 2

Conducted Power(dBm)												
Modulation			QPSK			16QAM			64QAM			
Band	Bandwidth	RB	18607	18900	19193	18607	18900	19193	18607	18900	19193	
	(MHz)		1850.7 MHz	1880 MHz	1909.3 MHz	1850.7 MHz	1880 MHz	1909.3 MHz	1850.7 MHz	1880 MHz	1909.3 MHz	
2	1.4	1RB#0	21.90	22.07	22.01	21.38	21.95	21.51	20.89	21.66	20.98	
		1RB#2	22.09	21.99	22.07	20.87	21.83	20.99	20.31	20.60	20.26	
		1RB#5	22.01	21.91	22.08	20.88	21.72	20.89	20.20	20.48	20.36	
		3RB#0	22.04	22.02	22.14	21.50	21.13	21.25	20.61	20.61	21.01	
		3RB#1	22.04	22.03	22.14	21.47	21.13	21.58	20.61	20.60	20.66	
		3RB#3	22.09	22.00	22.17	21.49	21.17	21.51	20.62	20.59	20.68	
		6RB#0	21.58	21.55	21.64	20.46	20.58	20.78	19.03	19.04	19.08	
Band	Bandwidth	RB	18615	18900	19185	18615	18900	19185	18615	18900	19185	
	(MHz)		1851.5 MHz	1880 MHz	1908.5 MHz	1851.5 MHz	1880 MHz	1908.5 MHz	1851.5 MHz	1880 MHz	1908.5 MHz	
2	3	1RB#0	21.98	21.95	22.19	21.53	21.54	22.20	21.00	20.73	20.90	
		1RB#8	22.03	21.94	22.25	21.26	21.50	21.45	20.79	20.62	20.36	
		1RB#14	21.95	21.88	22.16	21.15	21.46	22.20	21.19	20.63	21.00	
		8RB#0	21.62	21.57	21.62	20.65	20.75	20.81	19.19	19.08	19.20	
		8RB#4	21.66	21.47	21.63	20.65	20.76	20.65	19.25	19.08	19.23	
		8RB#7	21.55	21.45	21.57	21.06	20.71	20.65	18.97	19.07	19.21	
		15RB#0	21.53	21.47	21.59	20.59	20.50	20.63	19.27	19.07	19.08	
Band	Bandwidth	RB	18625	18900	19175	18625	18900	19175	18625	18900	19175	
	(MHz)		1852.5 MHz	1880 MHz	1907.5 MHz	1852.5 MHz	1880 MHz	1907.5 MHz	1852.5 MHz	1880 MHz	1907.5 MHz	
2	5	1RB#0	22.18	22.09	22.31	20.80	21.62	21.39	20.32	20.58	20.96	
		1RB#12	21.99	22.10	22.00	20.76	21.28	21.22	20.85	20.23	20.72	
		1RB#24	22.14	22.13	22.00	20.77	21.57	21.21	20.29	20.47	20.87	
		12RB#0	21.60	21.51	21.61	20.50	20.70	20.50	19.31	19.31	19.29	
		12RB#6	21.55	21.65	21.62	20.50	20.76	20.43	19.25	19.32	19.29	
		12RB#13	21.38	21.46	21.63	20.92	20.70	20.50	19.10	19.14	19.25	
		25RB#0	21.54	21.50	21.57	21.06	20.66	20.71	19.07	19.25	19.29	
Band	Bandwidth	RB	18650	18900	19150	18650	18900	19150	18650	18900	19150	
	(MHz)		1855 MHz	1880 MHz	1905 MHz	1855 MHz	1880 MHz	1905 MHz	1855 MHz	1880 MHz	1905 MHz	
2	10	1RB#0	21.93	22.07	22.22	21.22	20.93	21.38	21.06	20.36	20.77	
		1RB#24	21.97	22.07	22.29	21.18	20.96	21.57	20.74	20.39	20.29	
		1RB#49	21.94	21.96	22.23	21.15	20.83	21.45	20.72	20.72	20.39	
		25RB#0	21.56	21.67	21.67	20.92	20.69	20.75	19.21	19.17	19.20	
		25RB#12	21.56	21.56	21.65	20.93	20.77	20.66	19.20	19.33	19.40	
		25RB#25	21.57	21.58	21.62	20.43	20.66	20.66	19.00	19.10	19.20	
		50RB#0	21.55	21.44	21.56	20.60	20.66	20.71	19.15	19.04	19.12	
Band	Bandwidth	RB	18675	18900	19125	18675	18900	19125	18675	18900	19125	
	(MHz)		1857.5 MHz	1880 MHz	1902.5 MHz	1857.5 MHz	1880 MHz	1902.5 MHz	1857.5 MHz	1880 MHz	1902.5 MHz	
2	15	1RB#0	22.01	22.09	22.30	21.23	21.76	22.12	20.80	20.95	20.97	
		1RB#38	22.00	21.99	22.17	21.29	21.65	22.15	20.83	20.94	20.89	
		1RB#74	21.96	21.95	22.23	21.56	21.69	21.42	21.00	20.84	20.37	
		38RB#0	21.52	21.60	21.51	21.52	21.60	21.50	21.51	21.59	21.50	
		38RB#18	21.50	21.61	21.50	21.51	21.60	21.50	21.50	21.60	21.51	
		38RB#37	21.51	21.60	21.51	21.51	21.60	21.50	21.52	21.61	21.51	
		75RB#0	21.51	21.60	21.51	20.47	20.63	20.59	18.96	19.26	19.43	
Band	Bandwidth	RB	18700	18900	19100	18700	18900	19100	18700	18900	19100	
	(MHz)		1860 MHz	1880 MHz	1900 MHz	1860 MHz	1880 MHz	1900 MHz	1860 MHz	1880 MHz	1900 MHz	
2	20	1RB#0	22.18	22.15	22.55	21.34	22.02	21.49	21.11	22.20	21.56	
		1RB#49	21.89	22.14	22.34	21.13	22.15	21.27	20.72	21.54	21.20	
		1RB#99	21.96	22.07	22.42	21.15	22.12	21.55	20.74	21.79	20.79	
		50RB#0	21.56	21.50	21.59	20.65	20.57	20.79	19.11	19.40	19.20	
		50RB#25	21.56	21.67	21.63	20.65	20.58	20.75	19.10	19.27	19.11	
		50RB#50	21.61	21.56	21.69	20.62	20.96	20.72	19.19	19.15	19.29	
		100RB#0	21.42	21.53	21.51	20.42	20.65	21.03	19.08	19.38	19.16	

5.2.2 LTE Band 4

Conducted Power(dBm)											
Modulation			QPSK			16QAM			64QAM		
Band	Bandwidth	RB	19957	20175	20393	19957	20175	20393	19957	20175	20393
	(MHz)		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	1.4	1RB#0	22.24	22.14	22.39	21.93	21.87	21.55	21.02	20.96	21.58
		1RB#2	22.30	22.14	22.31	21.94	21.93	21.26	21.12	20.89	21.19
		1RB#5	22.24	22.03	22.26	21.93	21.74	21.25	21.07	20.96	21.22
		3RB#0	22.30	22.18	22.21	21.63	21.34	21.29	20.79	20.77	20.92
		3RB#1	22.28	22.18	22.20	21.62	21.33	21.30	20.89	20.79	20.92
		3RB#3	22.30	22.21	22.22	21.66	21.48	21.25	20.88	20.80	20.90
		6RB#0	21.90	21.75	21.69	21.23	21.01	20.92	19.18	19.04	19.10
Band	Bandwidth	RB	19965	20175	20385	19965	20175	20385	19965	20175	20385
	(MHz)		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	3	1RB#0	22.31	22.13	22.14	21.86	21.56	21.96	21.34	21.20	21.06
		1RB#8	22.36	22.26	22.10	21.61	21.08	22.00	21.15	20.53	21.00
		1RB#14	22.19	22.22	22.23	21.52	21.53	21.98	21.40	21.24	20.98
		8RB#0	21.90	21.74	21.76	21.05	20.97	20.89	19.35	19.22	19.23
		8RB#4	21.85	21.75	21.78	21.07	20.98	20.86	19.35	19.23	19.36
		8RB#7	21.72	21.78	21.81	20.99	20.94	20.78	18.96	19.23	19.26
		15RB#0	21.76	21.77	21.79	20.94	20.65	20.79	19.48	19.21	18.92
Band	Bandwidth	RB	19975	20175	20375	19975	20175	20375	19975	20175	20375
	(MHz)		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	5	1RB#0	22.54	22.26	22.31	21.31	21.90	21.18	20.28	20.71	21.41
		1RB#12	22.37	22.32	22.15	21.07	21.52	21.36	20.68	20.40	21.32
		1RB#24	22.39	22.30	22.20	21.02	21.94	21.17	20.97	21.18	21.01
		12RB#0	21.79	21.78	21.65	20.82	20.96	21.05	19.22	19.08	19.23
		12RB#6	21.79	21.79	21.66	20.82	20.91	21.07	19.22	19.11	19.22
		12RB#13	21.75	21.74	21.70	20.75	20.94	20.65	19.04	19.15	19.26
		25RB#0	21.68	21.66	21.69	20.90	20.76	20.79	18.95	19.22	19.34
Band	Bandwidth	RB	20000	20175	20350	20000	20175	20350	20000	20175	20350
	(MHz)		1715 MHz	1732.5 MHz	1750 MHz	1715 MHz	1732.5 MHz	1750 MHz	1715 MHz	1732.5 MHz	1750 MHz
4	10	1RB#0	22.28	22.32	22.30	21.81	21.15	21.86	21.34	20.52	20.81
		1RB#24	22.23	22.29	22.29	21.44	21.13	21.76	21.44	20.53	20.33
		1RB#49	22.24	22.25	22.33	21.46	21.08	21.86	21.03	20.61	20.35
		25RB#0	21.70	21.80	21.78	20.80	20.91	20.85	19.17	19.18	19.25
		25RB#12	21.77	21.80	21.79	20.79	20.91	20.86	19.18	19.19	19.25
		25RB#25	21.82	21.70	21.75	20.77	21.35	20.88	19.20	19.07	19.16
		50RB#0	21.81	21.73	21.74	21.19	20.79	20.78	19.16	19.36	19.25
Band	Bandwidth	RB	20025	20175	20325	20025	20175	20325	20025	20175	20325
	(MHz)		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	15	1RB#0	22.28	22.31	22.31	21.59	21.75	21.91	21.11	21.43	20.40
		1RB#38	22.21	22.33	22.26	21.52	21.70	22.37	20.99	21.12	21.27
		1RB#74	22.22	22.34	22.39	21.82	21.91	21.96	21.64	21.12	21.29
		38RB#0	21.83	21.67	21.83	21.82	21.79	21.81	21.81	21.79	21.82
		38RB#18	21.80	21.77	21.81	21.81	21.83	21.81	21.81	21.81	21.82
		38RB#37	21.81	21.78	21.82	21.80	21.75	21.82	21.80	21.74	21.82
		75RB#0	21.80	21.72	21.82	20.82	20.84	20.88	19.04	19.21	19.03
Band	Bandwidth	RB	20050	20175	20300	20050	20175	20300	20050	20175	20300
	(MHz)		1720 MHz	1732.5 MHz	1745 MHz	1720 MHz	1732.5 MHz	1745 MHz	1720 MHz	1732.5 MHz	1745 MHz
4	20	1RB#0	22.56	22.24	22.20	21.54	22.23	21.27	21.09	21.80	21.60
		1RB#49	22.23	22.40	22.33	21.45	22.31	21.59	21.05	21.73	21.23
		1RB#99	22.18	22.33	22.39	21.44	22.32	21.34	21.13	21.70	21.12
		50RB#0	21.65	21.82	21.61	21.29	20.79	20.90	19.15	19.46	19.09
		50RB#25	21.66	21.84	21.63	21.32	20.78	20.90	19.09	19.34	19.09
		50RB#50	21.73	21.88	21.65	21.26	20.80	20.93	19.26	19.53	19.11
		100RB#0	21.86	21.86	21.63	20.81	20.86	21.19	19.08	19.34	19.32

5.2.3 LTE Band 5

Conducted Power(dBm)											
Modulation			QPSK			16QAM			64QAM		
Band	Bandwidth (MHz)	RB	20407 824.7 MHz	20525 836.5 MHz	20643 848.3 MHz	20407 824.7 MHz	20525 836.5 MHz	20643 848.3 MHz	20407 824.7 MHz	20525 836.5 MHz	20643 848.3 MHz
5	1.4	1RB#0	21.48	21.63	21.98	21.52	21.68	21.72	20.95	21.62	21.40
		1RB#2	21.49	22.03	22.28	21.15	21.82	21.41	20.03	20.71	21.51
		1RB#5	21.42	22.01	22.30	21.46	21.96	21.68	20.97	21.68	21.36
		3RB#0	21.53	22.20	22.12	20.82	21.46	21.93	20.01	20.73	20.97
		3RB#1	21.50	22.21	21.95	20.82	21.46	21.93	20.01	20.74	20.97
		3RB#3	21.47	22.16	22.42	20.43	21.48	21.92	19.72	20.77	20.93
		6RB#0	20.97	21.65	21.97	20.09	20.70	20.93	18.46	18.89	19.33
Band	Bandwidth (MHz)	RB	20415 825.5 MHz	20525 836.5 MHz	20635 847.5 MHz	20415 825.5 MHz	20525 836.5 MHz	20635 847.5 MHz	20415 825.5	20525 836.5	20635 847.5
5	3	1RB#0	21.45	21.67	21.97	20.60	20.61	22.04	20.22	20.45	20.59
		1RB#8	21.51	22.14	22.15	21.01	21.52	22.49	20.63	21.08	21.60
		1RB#14	21.45	22.16	22.48	21.01	21.03	22.08	20.48	20.46	20.56
		8RB#0	20.96	21.12	21.98	20.19	20.82	20.95	18.69	18.69	19.43
		8RB#4	20.96	21.12	21.92	20.17	20.78	20.96	18.70	18.77	19.42
		8RB#7	21.50	21.53	21.83	20.61	20.89	20.96	18.98	19.13	19.31
		15RB#0	20.95	21.57	21.86	19.92	20.61	20.85	18.62	19.10	19.34
Band	Bandwidth (MHz)	RB	20425 826.5 MHz	20525 836.5 MHz	20625 846.5 MHz	20425 826.5 MHz	20525 836.5 MHz	20625 846.5 MHz	20425 826.5 MHz	20525 836.5 MHz	20625 846.5 MHz
5	5	1RB#0	21.68	21.82	22.00	20.52	20.95	21.27	19.44	20.21	21.37
		1RB#12	21.61	22.11	21.88	20.79	21.77	21.49	19.88	20.72	21.12
		1RB#24	22.00	21.79	22.29	20.96	21.43	21.52	19.93	20.70	21.15
		12RB#0	21.01	21.12	21.52	19.88	20.77	20.84	18.74	18.67	19.02
		12RB#6	21.02	21.13	21.47	19.89	20.78	20.76	18.75	18.84	19.03
		12RB#13	21.30	21.55	21.98	20.39	20.70	20.85	18.81	19.29	19.62
		25RB#0	21.39	21.71	21.83	20.51	20.73	20.84	19.05	19.21	19.43
Band	Bandwidth (MHz)	RB	20450 829 MHz	20525 836.5 MHz	20600 844 MHz	20450 829 MHz	20525 836.5 MHz	20600 844 MHz	20450 829 MHz	20525 836.5 MHz	20600 844 MHz
5	10	1RB#0	21.42	21.66	21.95	20.68	20.78	21.19	20.20	20.24	21.02
		1RB#24	21.94	22.14	22.07	21.20	20.96	21.93	20.95	21.08	20.67
		1RB#49	21.94	21.88	22.53	21.40	21.21	21.67	21.08	20.71	20.73
		25RB#0	21.37	21.19	21.27	20.34	20.76	20.55	18.88	18.68	18.81
		25RB#12	21.45	21.41	21.45	20.35	20.76	20.45	18.88	18.40	18.82
		25RB#25	21.60	21.37	21.84	20.51	20.91	21.06	18.82	18.92	19.14
		50RB#0	21.49	21.71	21.33	20.41	20.64	20.44	18.92	18.91	18.84

5.2.4 LTE Band 7

Conducted Power(dBm)											
Modulation			QPSK			16QAM			64QAM		
Band	Bandwidth (MHz)	RB	20775 2502.5 MHz	21100 2535 MHz	21425 2567.5 MHz	20775 2502.5 MHz	21100 2535 MHz	21425 2567.5 MHz	20775 2502.5 MHz	21100 2535 MHz	21425 2567.5 MHz
7	5	1RB#0	17.78	17.73	17.64	16.34	16.32	16.65	15.50	15.80	15.62
		1RB#12	17.54	17.45	17.46	16.51	16.56	17.15	15.44	15.35	16.60
		1RB#24	17.51	17.48	17.49	16.52	16.55	16.63	15.41	15.37	15.64
		12RB#0	17.06	16.94	16.86	16.11	15.99	16.34	14.69	14.49	14.63
		12RB#6	17.06	16.95	17.00	16.07	15.91	16.68	14.55	14.50	14.65
		12RB#13	16.97	16.91	16.97	16.06	16.02	16.22	14.61	14.44	14.75
		25RB#0	17.04	16.94	16.94	16.13	16.09	16.49	14.68	14.44	14.47
Band	Bandwidth (MHz)	RB	20800 2505 MHz	21100 2535 MHz	21400 2565 MHz	20800 2505 MHz	21100 2535 MHz	21400 2565 MHz	20800 2505 MHz	21100 2535 MHz	21400 2565 MHz
7	10	1RB#0	17.50	17.55	17.67	16.64	16.29	16.94	16.22	15.79	15.77
		1RB#24	17.49	17.56	17.66	16.62	16.28	17.03	16.17	15.73	15.79
		1RB#49	17.62	17.59	17.62	16.67	16.46	17.68	16.30	16.40	16.47
		25RB#0	16.99	16.97	16.94	15.96	16.11	16.12	14.64	14.48	14.32
		25RB#12	17.07	16.99	16.98	15.97	16.13	16.13	14.65	14.48	14.45
		25RB#25	17.07	16.79	16.89	16.00	16.16	16.55	14.48	14.40	14.25
		50RB#0	17.08	16.91	17.15	16.00	16.05	16.15	14.55	14.31	14.29
Band	Bandwidth (MHz)	RB	20825 2507.5 MHz	21100 2535 MHz	21375 2562.5 MHz	20825 2507.5 MHz	21100 2535 MHz	21375 2562.5 MHz	20825 2507.5 MHz	21100 2535 MHz	21375 2562.5 MHz
7	15	1RB#0	17.49	17.46	17.56	16.68	17.24	17.67	16.34	16.40	16.62
		1RB#38	17.47	17.45	17.52	16.63	16.83	17.16	16.20	16.52	15.79
		1RB#74	17.47	17.43	17.56	17.12	17.32	17.16	16.96	16.47	15.79
		38RB#0	17.10	17.02	16.96	17.08	17.01	16.97	17.07	17.01	16.97
		38RB#18	17.07	17.01	16.97	17.08	17.02	16.97	17.07	17.01	16.97
		38RB#37	17.07	17.00	16.96	17.06	17.01	16.97	17.06	17.00	16.97
		75RB#0	17.07	17.00	16.97	15.98	15.97	16.08	14.29	14.49	14.47
Band	Bandwidth (MHz)	RB	20850 2510 MHz	21100 2535 MHz	21350 2560 MHz	20850 2510 MHz	21100 2535 MHz	21350 2560 MHz	20850 2510 MHz	21100 2535 MHz	21350 2560 MHz
7	20	1RB#0	17.88	17.63	17.55	16.88	17.54	16.92	16.38	17.72	16.44
		1RB#49	17.59	17.62	17.60	16.46	17.51	16.94	16.54	16.97	16.41
		1RB#99	17.50	17.57	17.59	16.47	17.58	17.11	16.42	17.68	16.65
		50RB#0	17.03	16.90	17.14	16.17	16.11	16.34	14.44	14.77	14.72
		50RB#25	17.06	17.04	17.04	16.14	16.01	16.36	14.53	14.54	14.31
		50RB#50	16.86	17.20	16.99	16.62	16.01	16.29	14.46	14.64	14.60
		100RB#0	17.01	17.13	17.17	16.10	16.04	16.00	14.36	14.45	14.20

5.2.5 LTE Band 12

Conducted Power(dBm)											
Modulation			QPSK			16QAM			64QAM		
Band	Bandwidth (MHz)	RB	23017 699.7 MHz	23095 707.5 MHz	23173 715.3 MHz	23017 699.7 MHz	23095 707.5 MHz	23173 715.3 MHz	23017 699.7 MHz	23095 707.5 MHz	23173 715.3 MHz
12	1.4	1RB#0	22.18	21.85	22.07	22.33	21.85	21.34	20.93	20.36	20.52
		1RB#2	22.20	21.83	21.74	21.91	21.80	20.80	21.67	20.74	20.69
		1RB#5	22.18	21.75	21.68	21.90	22.01	20.72	20.81	20.77	20.59
		3RB#0	22.29	21.95	22.29	21.30	21.24	21.35	20.43	20.50	21.09
		3RB#1	22.28	21.96	22.28	21.39	21.24	21.37	20.39	20.47	21.09
		3RB#3	22.31	21.92	21.80	21.33	21.23	20.89	20.74	20.47	20.84
		6RB#0	21.83	21.83	21.27	20.82	20.85	20.74	19.01	19.06	18.45
Band	Bandwidth (MHz)	RB	23025 700.5 MHz	23095 707.5 MHz	23165 714.5 MHz	23025 700.5 MHz	23095 707.5 MHz	23165 714.5 MHz	23025 700.5 MHz	23095 707.5 MHz	23165 714.5 MHz
12	3	1RB#0	22.22	21.85	22.27	21.87	21.16	22.21	21.35	20.58	21.28
		1RB#8	22.25	21.89	22.24	21.36	21.21	21.79	20.91	20.51	21.23
		1RB#14	22.25	21.94	21.90	21.35	21.19	21.36	20.95	21.07	21.22
		8RB#0	21.87	21.54	21.59	20.99	20.49	20.81	19.13	18.75	18.91
		8RB#4	21.88	21.39	21.66	20.99	20.45	20.72	19.15	18.94	19.11
		8RB#7	21.89	21.84	21.14	21.06	20.98	20.69	19.15	19.24	18.48
		15RB#0	21.87	21.86	21.70	20.86	20.67	20.66	19.08	19.30	19.02
Band	Bandwidth (MHz)	RB	23035 701.5 MHz	23095 707.5 MHz	23155 713.5 MHz	23035 701.5 MHz	23095 707.5 MHz	23155 713.5 MHz	23035 701.5 MHz	23095 707.5 MHz	23155 713.5 MHz
12	5	1RB#0	22.44	22.01	21.77	21.22	21.54	21.38	20.23	20.47	21.02
		1RB#12	22.31	22.07	22.15	21.05	21.47	21.30	20.66	20.46	20.93
		1RB#24	22.25	22.22	21.67	21.22	22.09	20.84	20.25	20.99	20.93
		12RB#0	21.80	21.49	21.81	20.74	20.41	20.65	19.16	18.92	19.23
		12RB#6	21.80	21.50	21.67	20.74	20.48	20.66	19.15	18.92	19.21
		12RB#13	21.86	21.75	21.68	20.81	20.77	20.74	19.25	19.22	19.03
		25RB#0	21.85	21.81	21.75	20.96	20.67	20.77	19.21	19.06	19.13
Band	Bandwidth (MHz)	RB	23060 704 MHz	23095 707.5 MHz	23130 711 MHz	23060 704 MHz	23095 707.5 MHz	23130 711 MHz	23060 704 MHz	23095 707.5 MHz	23130 711 MHz
12	10	1RB#0	22.50	22.25	22.02	21.27	21.09	21.28	21.02	20.45	20.06
		1RB#24	22.28	21.80	22.34	21.28	21.10	21.64	20.91	20.53	21.19
		1RB#49	21.90	21.80	21.85	21.34	21.12	21.14	21.03	20.51	21.17
		25RB#0	21.79	21.38	21.77	20.72	20.47	20.78	19.28	18.68	19.06
		25RB#12	21.78	21.38	21.65	20.70	20.51	20.79	19.02	18.69	19.15
		25RB#25	21.41	21.78	21.65	20.43	20.85	20.93	18.67	19.37	19.03
		50RB#0	21.75	21.84	21.79	20.71	20.82	20.75	19.14	19.30	19.04

5.2.6 LTE Band 17

Conducted Power(dBm)											
Modulation			QPSK			16QAM			64QAM		
Band	Bandwidth (MHz)	RB	23755 706.5 MHz	23790 710 MHz	23825 713.5 MHz	23755 706.5 MHz	23790 710 MHz	23825 713.5 MHz	23755 706.5 MHz	23790 710 MHz	23825 713.5 MHz
17	5	1RB#0	22.27	22.10	21.86	21.16	21.20	21.74	20.07	20.14	20.59
		1RB#12	21.96	22.31	22.19	20.77	21.23	21.82	19.69	20.10	20.79
		1RB#24	21.95	21.85	21.80	21.15	21.13	21.17	20.11	20.11	20.58
		12RB#0	21.44	21.69	21.78	20.32	20.74	20.81	18.90	19.10	18.98
		12RB#6	21.45	21.79	21.80	20.33	20.67	20.83	18.91	19.13	19.11
		12RB#13	21.84	21.76	21.69	20.80	20.76	20.80	19.21	19.25	18.96
		25RB#0	21.50	21.73	21.71	20.49	20.77	20.79	18.98	19.26	19.22
Band	Bandwidth (MHz)	RB	23780 709 MHz	23790 710 MHz	23800 711 MHz	23780 709 MHz	23790 710 MHz	23800 711 MHz	23780 709 MHz	23790 710 MHz	23800 711 MHz
17	10	1RB#0	22.26	21.96	22.11	21.27	20.84	21.29	20.96	20.20	20.22
		1RB#24	21.93	22.24	22.36	21.26	21.12	21.64	20.80	20.52	21.21
		1RB#49	22.24	22.09	21.96	21.23	21.02	21.15	21.40	20.42	21.18
		25RB#0	21.54	21.81	21.81	20.29	20.91	20.87	18.81	19.29	19.32
		25RB#12	21.38	21.81	21.82	20.37	20.89	20.93	18.97	19.29	19.16
		25RB#25	21.81	21.81	21.77	20.65	20.77	20.90	19.23	19.23	19.20
		50RB#0	21.67	21.65	21.64	20.93	20.77	20.75	19.27	19.10	19.04

5.2.7 LTE Band 66

Conducted Power(dBm)											
Modulation			QPSK			16QAM			64QAM		
Band	Bandwidth (MHz)	RB	131979 1710.7 MHz	132322 1745 MHz	132665 1779.3 MHz	131979 1710.7 MHz	132322 1745 MHz	132665 1779.3 MHz	131979 1710.7 MHz	132322 1745 MHz	132665 1779.3 MHz
66	1.4	1RB#0	22.17	22.34	22.23	21.82	22.13	21.18	21.01	21.20	20.51
		1RB#2	22.20	22.30	22.36	21.90	22.18	21.22	20.94	21.40	20.60
		1RB#5	22.20	22.26	22.36	22.00	22.20	21.19	20.95	21.22	20.56
		3RB#0	22.32	22.35	22.37	21.26	21.19	21.62	20.64	20.35	21.29
		3RB#1	22.32	22.26	22.36	21.25	21.19	21.61	20.63	20.35	20.92
		3RB#3	22.35	22.22	22.34	21.28	21.19	21.81	20.67	21.02	20.90
		6RB#0	21.84	21.79	21.87	20.86	20.85	21.06	18.96	19.01	19.25
Band	Bandwidth (MHz)	RB	131987 1711.5 MHz	132322 1745 MHz	132657 1778.5 MHz	131987 1711.5 MHz	132322 1745 MHz	132657 1778.5 MHz	131987 1711.5 MHz	132322 1745 MHz	132657 1778.5 MHz
66	3	1RB#0	22.35	22.47	22.41	21.86	21.61	22.38	21.42	22.17	21.20
		1RB#8	22.33	22.32	22.59	21.57	21.33	22.45	21.08	21.37	21.22
		1RB#14	22.29	22.33	22.59	21.53	21.60	22.52	21.55	21.65	21.25
		8RB#0	21.88	21.79	21.81	21.20	21.03	20.92	19.21	19.18	19.50
		8RB#4	21.88	21.80	21.85	21.19	21.16	20.83	19.16	19.19	19.39
		8RB#7	21.80	21.82	21.80	21.46	21.18	20.87	19.10	19.39	19.23
		15RB#0	21.85	21.87	21.80	20.91	20.66	20.86	19.30	19.38	19.33
Band	Bandwidth (MHz)	RB	131997 1712.5 MHz	132322 1745 MHz	132647 1777.5 MHz	131997 1712.5 MHz	132322 1745 MHz	132647 1777.5 MHz	131997 1712.5 MHz	132322 1745 MHz	132647 1777.5 MHz
66	5	1RB#0	22.46	22.36	22.48	21.34	21.50	21.61	20.19	21.12	21.39
		1RB#12	22.36	22.37	22.30	21.31	21.91	21.46	21.11	20.86	20.95
		1RB#24	22.31	22.26	22.29	21.26	21.96	21.42	20.75	20.70	21.09
		12RB#0	21.75	21.82	21.89	20.76	21.36	20.79	19.13	19.12	19.57
		12RB#6	21.88	21.77	21.89	20.76	21.33	20.89	19.25	19.12	19.44
		12RB#13	21.78	21.72	21.81	21.32	20.91	20.78	19.13	19.14	19.60
		25RB#0	21.85	21.72	21.80	21.45	20.83	20.84	19.05	19.40	19.50
Band	Bandwidth (MHz)	RB	132022 1715 MHz	132322 1745 MHz	132622 1775 MHz	132022 1715 MHz	132322 1745 MHz	132622 1775 MHz	132022 1715 MHz	132322 1745 MHz	132622 1775 MHz
66	10	1RB#0	22.23	22.30	22.51	21.53	21.23	21.64	21.12	20.72	20.55
		1RB#24	22.26	22.30	22.55	21.82	21.35	21.72	21.78	20.78	20.65
		1RB#49	22.30	22.25	22.61	21.47	21.51	22.45	21.13	21.34	21.22
		25RB#0	21.86	21.82	21.88	21.32	21.48	20.99	19.07	19.21	19.30
		25RB#12	21.85	21.85	21.84	21.33	21.44	21.01	19.07	19.21	19.32
		25RB#25	21.87	21.69	21.82	20.92	20.88	21.01	19.20	19.23	19.37
		50RB#0	21.82	21.75	21.89	21.42	20.87	20.87	19.09	19.18	19.13
Band	Bandwidth (MHz)	RB	132047 1717.5 MHz	132322 1745 MHz	132597 1772.5 MHz	132047 1717.5 MHz	132322 1745 MHz	132597 1772.5 MHz	132047 1717.5 MHz	132322 1745 MHz	132597 1772.5 MHz
66	15	1RB#0	22.29	22.03	22.41	21.85	21.72	21.67	21.32	21.42	21.05
		1RB#38	22.33	22.35	22.48	21.57	22.08	21.76	21.38	21.33	20.58
		1RB#74	22.30	22.31	22.57	21.62	22.07	21.79	21.64	21.83	20.62
		38RB#0	21.85	21.93	21.88	21.85	21.92	21.87	21.84	21.93	21.87
		38RB#18	21.84	21.93	21.89	21.84	21.92	21.88	21.84	21.93	21.87
		38RB#37	21.83	21.92	21.87	21.83	21.92	21.87	21.83	21.93	21.87
		75RB#0	21.83	21.92	21.87	20.89	21.00	20.90	19.12	19.28	19.19
Band	Bandwidth (MHz)	RB	132072 1720 MHz	132322 1745 MHz	132572 1770 MHz	132072 1720 MHz	132322 1745 MHz	132572 1770 MHz	132072 1720 MHz	132322 1745 MHz	132572 1770 MHz
66	20	1RB#0	22.47	22.32	22.63	21.66	22.21	21.44	21.42	21.88	21.11
		1RB#49	22.27	22.39	22.54	21.51	22.18	21.80	21.11	21.83	21.60
		1RB#99	22.26	22.32	22.55	21.78	22.18	21.78	21.44	21.84	21.64
		50RB#0	21.81	21.65	21.74	21.39	20.79	21.48	19.12	19.38	19.33
		50RB#25	21.78	21.82	21.81	21.40	20.70	21.49	19.12	19.04	19.33
		50RB#50	21.81	21.86	21.91	21.48	20.87	21.10	19.33	19.40	19.15
		100RB#0	21.86	21.91	21.78	20.77	20.98	20.81	19.25	19.36	19.26

5.2.8 LTE Band 71

Conducted Power(dBm)												
Modulation			QPSK			16QAM			64QAM			
Band	Bandwidth (MHz)	RB	133147 665.5 MHz	133297 680.5 MHz	133447 695.5 MHz	133147 665.5 MHz	133297 680.5 MHz	133447 695.5 MHz	133147 665.5 MHz	133297 680.5 MHz	133447 695.5 MHz	
71	5	1RB#0	22.23	22.35	22.28	21.28	21.06	21.79	20.26	20.56	20.86	
		1RB#12	22.46	22.36	22.46	21.19	21.28	21.81	20.60	20.17	20.72	
		1RB#24	22.21	22.44	21.84	21.09	21.04	21.95	20.12	20.69	20.80	
		12RB#0	21.81	21.82	21.84	20.71	20.79	20.92	19.25	19.30	19.23	
		12RB#6	21.83	21.82	21.85	20.69	20.80	20.89	19.25	19.30	19.23	
		12RB#13	21.88	21.92	21.86	20.75	20.84	20.76	19.30	19.36	19.24	
		25RB#0	21.84	21.79	21.89	20.95	20.95	20.84	19.43	19.39	19.29	
Band	Bandwidth (MHz)	RB	133172 668 MHz	133297 680.5 MHz	133422 693 MHz	133172 668 MHz	133297 680.5 MHz	133422 693 MHz	133172 668 MHz	133297 680.5 MHz	133422 693 MHz	
71	10	1RB#0	22.27	22.41	22.29	21.13	22.47	21.42	20.45	21.21	21.08	
		1RB#24	22.16	22.44	21.88	21.06	21.67	21.46	20.40	21.32	21.09	
		1RB#49	22.29	22.34	21.88	21.19	22.40	21.53	21.24	21.33	21.14	
		25RB#0	21.79	21.79	21.89	20.85	20.93	20.74	19.34	19.40	19.24	
		25RB#12	21.78	21.78	21.77	20.89	20.87	20.75	19.35	19.15	19.25	
		25RB#25	21.85	21.71	21.80	20.92	20.91	20.78	19.50	19.28	19.24	
		50RB#0	21.60	21.95	21.75	20.67	20.86	20.79	19.16	19.22	19.20	
Band	Bandwidth (MHz)	RB	133197 670.5 MHz	133297 680.5 MHz	133397 690.5 MHz	133197 670.5 MHz	133297 680.5 MHz	133397 690.5 MHz	133197 670.5 MHz	133297 680.5 MHz	133397 690.5 MHz	
71	15	1RB#0	22.25	22.38	22.28	21.87	21.92	21.41	21.10	21.20	21.03	
		1RB#38	21.79	22.36	22.29	21.98	21.65	21.51	21.24	20.55	21.10	
		1RB#74	22.39	22.54	21.94	22.03	21.72	21.56	21.24	20.56	21.37	
		38RB#0	21.14	20.51	21.33	21.13	20.52	21.02	21.10	20.59	21.03	
		38RB#18	21.23	20.57	21.35	21.14	20.56	21.02	21.24	20.56	21.02	
		38RB#37	21.25	20.57	21.06	21.25	21.35	21.19	21.21	21.25	21.11	
		75RB#0	21.87	21.90	21.97	20.96	20.84	20.89	19.41	19.12	19.30	
Band	Bandwidth (MHz)	RB	133222 673 MHz	133322 683 MHz	133372 688 MHz	133222 673 MHz	133322 683 MHz	133372 688 MHz	133222 673 MHz	133322 683 MHz	133372 688 MHz	
71	20	1RB#0	22.19	22.21	22.36	22.11	21.45	21.39	22.24	20.76	21.38	
		1RB#49	22.48	22.29	22.23	22.43	21.55	21.23	21.81	20.86	21.00	
		1RB#99	22.29	22.58	22.48	22.26	21.89	21.44	22.29	21.36	21.43	
		50RB#0	21.67	21.84	21.93	20.72	20.92	20.97	18.93	19.23	19.35	
		50RB#25	21.69	21.70	21.79	20.72	20.92	20.97	19.10	19.23	19.17	
		50RB#50	21.94	21.76	21.83	20.87	21.04	20.99	19.35	19.52	19.37	
		100RB#0	21.89	21.83	21.88	20.91	20.81	20.90	19.29	19.38	19.25	

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 & LTE Band 66: FCC 47 CFR Part 27.50(d)(4)
LTE Band 5: FCC 47 CFR Part 22.913(a)
LTE Band 7: FCC 47 CFR Part 27.50(h)(2)
LTE Band 12 & Band 17& LTE Band 71: FCC 47 CFR Part 27.50(c)(10)

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(c)(10):
Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP.

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.

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
Test Data: See table below

Note: 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.

5.3.1 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	21.42	20.83	20.22	33.01	0.1387	0.1211	0.1052	2	Pass
Middle	21.40	21.28	20.99	33.01	0.1380	0.1343	0.1256	2	Pass
Highest	21.50	20.91	20.34	33.01	0.1413	0.1233	0.1081	2	Pass
Channel Bandwidth: 3MHz									
Lowest	21.36	20.86	20.52	33.01	0.1368	0.1219	0.1127	2	Pass
Middle	21.28	20.87	20.06	33.01	0.1343	0.1222	0.1014	2	Pass
Highest	21.58	21.53	20.33	33.01	0.1439	0.1422	0.1079	2	Pass
Channel Bandwidth: 5MHz									
Lowest	21.51	20.39	20.18	33.01	0.1416	0.1094	0.1042	2	Pass
Middle	21.46	20.95	19.91	33.01	0.1400	0.1245	0.0979	2	Pass
Highest	21.64	20.72	20.29	33.01	0.1459	0.1180	0.1069	2	Pass
Channel Bandwidth: 10MHz									
Lowest	21.30	20.55	20.39	33.01	0.1349	0.1135	0.1094	2	Pass
Middle	21.40	20.29	20.05	33.01	0.1380	0.1069	0.1012	2	Pass
Highest	21.62	20.90	20.10	33.01	0.1452	0.1230	0.1023	2	Pass
Channel Bandwidth: 15MHz									
Lowest	21.34	20.89	20.85	33.01	0.1361	0.1227	0.1216	2	Pass
Middle	21.42	21.09	20.94	33.01	0.1387	0.1285	0.1242	2	Pass
Highest	21.63	21.48	20.84	33.01	0.1455	0.1406	0.1213	2	Pass
Channel Bandwidth: 20MHz									
Lowest	21.51	20.67	20.44	33.01	0.1416	0.1167	0.1107	2	Pass
Middle	21.48	21.48	21.53	33.01	0.1406	0.1406	0.1422	2	Pass
Highest	21.88	20.88	20.89	33.01	0.1542	0.1225	0.1227	2	Pass

5.3.2 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	21.65	21.29	20.47	30.00	0.1462	0.1346	0.1114	1	Pass
Middle	21.56	21.28	20.31	30.00	0.1432	0.1343	0.1074	1	Pass
Highest	21.74	20.90	20.93	30.00	0.1493	0.1230	0.1239	1	Pass
Channel Bandwidth: 3MHz									
Lowest	21.71	21.21	20.75	30.00	0.1483	0.1321	0.1189	1	Pass
Middle	21.61	20.91	20.59	30.00	0.1449	0.1233	0.1146	1	Pass
Highest	21.58	21.35	20.41	30.00	0.1439	0.1365	0.1099	1	Pass
Channel Bandwidth: 5MHz									
Lowest	21.89	20.66	20.32	30.00	0.1545	0.1164	0.1076	1	Pass
Middle	21.67	21.29	20.53	30.00	0.1469	0.1346	0.1130	1	Pass
Highest	21.66	20.71	20.76	30.00	0.1466	0.1178	0.1191	1	Pass
Channel Bandwidth: 10MHz									
Lowest	21.63	21.16	20.79	30.00	0.1455	0.1306	0.1199	1	Pass
Middle	21.67	20.70	19.96	30.00	0.1469	0.1175	0.0991	1	Pass
Highest	21.68	21.21	20.16	30.00	0.1472	0.1321	0.1038	1	Pass
Channel Bandwidth: 15MHz									
Lowest	21.63	21.17	21.16	30.00	0.1455	0.1309	0.1306	1	Pass
Middle	21.69	21.26	21.16	30.00	0.1476	0.1337	0.1306	1	Pass
Highest	21.74	21.72	21.17	30.00	0.1493	0.1486	0.1309	1	Pass
Channel Bandwidth: 20MHz									
Lowest	21.91	20.89	20.48	30.00	0.1552	0.1227	0.1117	1	Pass
Middle	21.75	21.67	21.15	30.00	0.1496	0.1469	0.1303	1	Pass
Highest	21.74	20.94	20.95	30.00	0.1493	0.1242	0.1245	1	Pass

5.3.3 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	17.67	17.66	17.11	38.45	0.0585	0.0583	0.0514	7	Pass
Middle	18.35	18.10	17.82	38.45	0.0684	0.0646	0.0605	7	Pass
Highest	18.56	18.07	17.65	38.45	0.0718	0.0641	0.0582	7	Pass
Channel Bandwidth: 3MHz									
Lowest	17.65	17.15	16.77	38.45	0.0582	0.0519	0.0475	7	Pass
Middle	18.30	17.66	17.22	38.45	0.0676	0.0583	0.0527	7	Pass
Highest	18.62	18.63	17.74	38.45	0.0728	0.0729	0.0594	7	Pass
Channel Bandwidth: 5MHz									
Lowest	18.14	17.10	16.07	38.45	0.0652	0.0513	0.0405	7	Pass
Middle	18.25	17.91	16.86	38.45	0.0668	0.0618	0.0485	7	Pass
Highest	18.43	17.66	17.51	38.45	0.0697	0.0583	0.0564	7	Pass
Channel Bandwidth: 10MHz									
Lowest	18.08	17.54	17.22	38.45	0.0643	0.0568	0.0527	7	Pass
Middle	18.28	17.35	17.22	38.45	0.0673	0.0543	0.0527	7	Pass
Highest	18.67	18.07	17.16	38.45	0.0736	0.0641	0.0520	7	Pass

5.3.4 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	16.82	15.56	14.54	33.01	0.0481	0.0360	0.0284	2	Pass
Middle	16.77	15.60	14.84	33.01	0.0475	0.0363	0.0305	2	Pass
Highest	16.68	16.19	15.64	33.01	0.0466	0.0416	0.0366	2	Pass
Channel Bandwidth: 10MHz									
Lowest	16.66	15.71	15.34	33.01	0.0463	0.0372	0.0342	2	Pass
Middle	16.63	15.50	15.44	33.01	0.0460	0.0355	0.0350	2	Pass
Highest	16.71	16.72	15.51	33.01	0.0469	0.0470	0.0356	2	Pass
Channel Bandwidth: 15MHz									
Lowest	16.53	16.16	16.11	33.01	0.0450	0.0413	0.0408	2	Pass
Middle	16.50	16.36	16.05	33.01	0.0447	0.0433	0.0403	2	Pass
Highest	16.60	16.71	16.01	33.01	0.0457	0.0469	0.0399	2	Pass
Channel Bandwidth: 20MHz									
Lowest	16.92	15.92	15.58	33.01	0.0492	0.0391	0.0361	2	Pass
Middle	16.67	16.62	16.76	33.01	0.0465	0.0459	0.0474	2	Pass
Highest	16.64	16.15	15.69	33.01	0.0461	0.0412	0.0371	2	Pass

5.3.5 LTE Band 12

Channel	Maximum ERP (dBm)				Maximum ERP (W)				Result
	QPSK	16QAM	64QAM	Limit (dBm)	QPSK	16QAM	64QAM	Limit (W)	
Channel Bandwidth: 1.4MHz									
Lowest	15.87	15.89	15.23	34.77	0.0386	0.0388	0.0333	3	Pass
Middle	15.52	15.57	14.33	34.77	0.0356	0.0361	0.0271	3	Pass
Highest	15.85	14.93	14.65	34.77	0.0385	0.0311	0.0292	3	Pass
Channel Bandwidth: 3MHz									
Lowest	15.81	15.43	14.91	34.77	0.0381	0.0349	0.0310	3	Pass
Middle	15.50	14.77	14.63	34.77	0.0355	0.0300	0.0290	3	Pass
Highest	15.83	15.77	14.84	34.77	0.0383	0.0378	0.0305	3	Pass
Channel Bandwidth: 5MHz									
Lowest	16.00	14.78	14.22	34.77	0.0398	0.0301	0.0264	3	Pass
Middle	15.78	15.65	14.55	34.77	0.0378	0.0367	0.0285	3	Pass
Highest	15.71	14.94	14.58	34.77	0.0372	0.0312	0.0287	3	Pass
Channel Bandwidth: 10MHz									
Lowest	16.06	14.90	14.59	34.77	0.0404	0.0309	0.0288	3	Pass
Middle	15.81	14.68	14.09	34.77	0.0381	0.0294	0.0256	3	Pass
Highest	15.90	15.20	14.75	34.77	0.0389	0.0331	0.0299	3	Pass

5.3.6 LTE Band 17

Channel	Maximum ERP (dBm)				Maximum ERP (W)				Result
	QPSK	16QAM	64QAM	Limit (dBm)	QPSK	16QAM	64QAM	Limit (W)	
Channel Bandwidth: 5MHz									
Lowest	15.85	14.74	13.69	34.77	0.0385	0.0298	0.0234	3	Pass
Middle	15.89	14.81	13.72	34.77	0.0388	0.0303	0.0236	3	Pass
Highest	15.77	15.40	14.37	34.77	0.0378	0.0347	0.0274	3	Pass
Channel Bandwidth: 10MHz									
Lowest	15.84	14.85	14.98	34.77	0.0384	0.0305	0.0315	3	Pass
Middle	15.82	14.70	14.10	34.77	0.0382	0.0295	0.0257	3	Pass
Highest	15.94	15.22	14.79	34.77	0.0393	0.0333	0.0301	3	Pass

5.3.7 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	21.70	21.35	20.36	30.00	0.1479	0.1365	0.1086	1	Pass
Middle	21.70	21.55	20.75	30.00	0.1479	0.1429	0.1189	1	Pass
Highest	21.72	21.16	20.64	30.00	0.1486	0.1306	0.1159	1	Pass
Channel Bandwidth: 3MHz									
Lowest	21.70	21.21	20.90	30.00	0.1479	0.1321	0.1230	1	Pass
Middle	21.82	20.96	21.52	30.00	0.1521	0.1247	0.1419	1	Pass
Highest	21.94	21.87	20.60	30.00	0.1563	0.1538	0.1148	1	Pass
Channel Bandwidth: 5MHz									
Lowest	21.81	20.80	20.46	30.00	0.1517	0.1202	0.1112	1	Pass
Middle	21.72	21.31	20.47	30.00	0.1486	0.1352	0.1114	1	Pass
Highest	21.83	20.96	20.74	30.00	0.1524	0.1247	0.1186	1	Pass
Channel Bandwidth: 10MHz									
Lowest	21.65	21.17	21.13	30.00	0.1462	0.1309	0.1297	1	Pass
Middle	21.65	20.86	20.69	30.00	0.1462	0.1219	0.1172	1	Pass
Highest	21.96	21.80	20.57	30.00	0.1570	0.1514	0.1140	1	Pass
Channel Bandwidth: 15MHz									
Lowest	21.68	21.20	21.19	30.00	0.1472	0.1318	0.1315	1	Pass
Middle	21.70	21.43	21.28	30.00	0.1479	0.1390	0.1343	1	Pass
Highest	21.92	21.23	21.22	30.00	0.1556	0.1327	0.1324	1	Pass
Channel Bandwidth: 20MHz									
Lowest	21.82	21.13	20.79	30.00	0.1521	0.1297	0.1199	1	Pass
Middle	21.74	21.56	21.23	30.00	0.1493	0.1432	0.1327	1	Pass
Highest	21.98	21.15	20.99	30.00	0.1578	0.1303	0.1256	1	Pass

5.3.8 LTE Band 71

Channel	Maximum ERP (dBm)				Maximum ERP (W)				Result
	QPSK	16QAM	64QAM	Limit (dBm)	QPSK	16QAM	64QAM	Limit (W)	
Channel Bandwidth: 5MHz									
Lowest	18.34	17.16	16.48	34.77	0.0682	0.0520	0.0445	3	Pass
Middle	18.32	17.16	16.57	34.77	0.0679	0.0520	0.0454	3	Pass
Highest	18.34	17.83	16.74	34.77	0.0682	0.0607	0.0472	3	Pass
Channel Bandwidth: 10MHz									
Lowest	18.17	17.07	17.12	34.77	0.0656	0.0509	0.0515	3	Pass
Middle	18.32	18.35	17.21	34.77	0.0679	0.0684	0.0526	3	Pass
Highest	18.17	17.41	17.02	34.77	0.0656	0.0551	0.0504	3	Pass
Channel Bandwidth: 15MHz									
Lowest	18.27	17.91	17.12	34.77	0.0671	0.0618	0.0515	3	Pass
Middle	18.42	17.80	17.13	34.77	0.0695	0.0603	0.0516	3	Pass
Highest	18.17	17.44	17.25	34.77	0.0656	0.0555	0.0531	3	Pass
Channel Bandwidth: 20MHz									
Lowest	18.36	18.31	18.17	34.77	0.0685	0.0678	0.0656	3	Pass
Middle	18.46	17.77	17.24	34.77	0.0701	0.0598	0.0530	3	Pass
Highest	18.36	17.32	17.31	34.77	0.0685	0.0540	0.0538	3	Pass

5.4 PEAK-TO-AVERAGE RATIO

Test Requirement:	**LTE Band 2:** FCC 47 CFR Part 24.232(d) **LTE Band 4 & LTE Band 66:** FCC 47 CFR Part 27.50(d)(5) **LTE Band 5:** FCC 47 CFR Part 22.913(a) **LTE Band 7:** FCC 47 CFR Part 27.50(d)(5) **LTE Band 12 & Band 17& LTE Band 71:** FCC 47 CFR Part 27.50(d)(5)
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 ≥ 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 A1**

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 A2**

5.6 BAND EDGE AT ANTENNA TERMINALS

Test Requirement: **LTE Band 2:** FCC 47 CFR Part 24.238(a)
LTE Band 4 & LTE Band 66: FCC 47 CFR Part 27.53(h)(1)
LTE Band 5: FCC 47 CFR Part 22.917(a)
LTE Band 7: FCC 47 CFR Part 27.53(m)(4)
LTE Band 12 & Band 17& LTE Band 71:: FCC 47 CFR Part 27.53(g)

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(g):
For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

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 that 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.

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

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 A3**

5.7 SPURIOUS EMISSIONS AT ANTENNA TERMINALS

Test Requirement: **LTE Band 2:** FCC 47 CFR Part 24.238(a)
LTE Band 4 & LTE Band 66: FCC 47 CFR Part 27.53(h)
LTE Band 5: FCC 47 CFR Part 22.917(a)
LTE Band 7: FCC 47 CFR Part 27.53(m)(4)
LTE Band 12 & Band 17& LTE Band 71: FCC 47 CFR Part 27.53(g)

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(g), 27.53(c)(2):
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 A4**

5.8 FIELD STRENGTH OF SPURIOUS RADIATION

Test Requirement: **LTE Band 2:** FCC 47 CFR Part 24.238(a)
LTE Band 4 & LTE Band 66: FCC 47 CFR Part 27.53(h)
LTE Band 5: FCC 47 CFR Part 22.917(a)
LTE Band 7: FCC 47 CFR Part 27.53(m)(4)
LTE Band 12 & Band 17& LTE Band 71: FCC 47 CFR Part 27.53(g)

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(g):
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 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 worst 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	693.910	-80.41	11.17	-69.24	-13.00	-56.24	Horizontal
2	912.695	-81.47	14.49	-66.98	-13.00	-53.98	Horizontal
3	958.714	-81.43	14.93	-66.50	-13.00	-53.50	Horizontal
4	3720.000	-61.11	7.54	-53.57	-13.00	-40.57	Horizontal
5	5580.000	-58.31	11.04	-47.27	-13.00	-34.27	Horizontal
6	821.387	-80.50	13.20	-67.30	-13.00	-54.30	Vertical
7	912.695	-80.63	14.49	-66.14	-13.00	-53.14	Vertical
8	952.000	-80.04	14.82	-65.22	-13.00	-52.22	Vertical
9	3720.000	-61.12	7.54	-53.58	-13.00	-40.58	Vertical
10	5580.000	-60.66	11.04	-49.62	-13.00	-36.62	Vertical
Middle Channel							
1	739.214	-80.40	11.58	-68.82	-13.00	-55.82	Horizontal
2	804.252	-80.93	12.75	-68.18	-13.00	-55.18	Horizontal
3	919.132	-81.44	14.53	-66.91	-13.00	-53.91	Horizontal
4	3760.000	-60.51	7.73	-52.78	-13.00	-39.78	Horizontal
5	5640.000	-61.20	11.18	-50.02	-13.00	-37.02	Horizontal
6	771.047	-80.69	11.94	-68.75	-13.00	-55.75	Vertical
7	781.961	-80.57	12.07	-68.50	-13.00	-55.50	Vertical
8	906.304	-81.13	14.53	-66.60	-13.00	-53.60	Vertical
9	3760.000	-57.41	7.73	-49.68	-13.00	-36.68	Vertical
10	5640.000	-60.85	11.18	-49.67	-13.00	-36.67	Vertical
Highest Channel							
1	887.398	-80.95	14.17	-66.78	-13.00	-53.78	Horizontal
2	925.613	-81.06	14.46	-66.60	-13.00	-53.60	Horizontal
3	972.283	-81.11	15.04	-66.07	-13.00	-53.07	Horizontal
4	3800.000	-59.45	7.92	-51.53	-13.00	-38.53	Horizontal
5	5700.000	-60.33	11.33	-49.00	-13.00	-36.00	Horizontal
6	698.804	-80.36	11.44	-68.92	-13.00	-55.92	Vertical
7	925.613	-81.33	14.46	-66.87	-13.00	-53.87	Vertical
8	979.139	-81.77	15.25	-66.52	-13.00	-53.52	Vertical
9	3800.000	-59.69	7.92	-51.77	-13.00	-38.77	Vertical
10	5700.000	-61.28	11.33	-49.95	-13.00	-36.95	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	723.793	-80.10	11.58	-68.52	-13.00	-55.52	Horizontal
2	856.760	-80.25	13.67	-66.58	-13.00	-53.58	Horizontal
3	992.997	-80.66	15.56	-65.10	-13.00	-52.10	Horizontal
4	3440.000	-60.66	6.41	-54.25	-13.00	-41.25	Horizontal
5	5160.000	-60.39	10.10	-50.29	-13.00	-37.29	Horizontal
6	665.261	-79.41	10.14	-69.27	-13.00	-56.27	Vertical
7	765.648	-80.41	11.85	-68.56	-13.00	-55.56	Vertical
8	906.304	-81.67	14.53	-67.14	-13.00	-54.14	Vertical
9	3440.000	-56.84	6.41	-50.43	-13.00	-37.43	Vertical
10	5160.000	-60.67	10.10	-50.57	-13.00	-37.57	Vertical
Middle Channel							
1	708.694	-81.18	11.44	-69.74	-13.00	-56.74	Horizontal
2	781.961	-80.95	12.07	-68.88	-13.00	-55.88	Horizontal
3	868.886	-81.49	13.80	-67.69	-13.00	-54.69	Horizontal
4	3465.000	-60.45	6.46	-53.99	-13.00	-40.99	Horizontal
5	5197.500	-60.27	10.18	-50.09	-13.00	-37.09	Horizontal
6	531.291	-79.87	7.82	-72.05	-13.00	-59.05	Vertical
7	698.804	-80.83	11.44	-69.39	-13.00	-56.39	Vertical
8	992.997	-82.81	15.56	-67.25	-13.00	-54.25	Vertical
9	3465.000	-60.39	6.46	-53.93	-13.00	-40.93	Vertical
10	5197.500	-60.49	10.18	-50.31	-13.00	-37.31	Vertical
Highest Channel							
1	679.435	-79.75	10.55	-69.20	-13.00	-56.20	Horizontal
2	875.013	-81.10	13.93	-67.17	-13.00	-54.17	Horizontal
3	906.304	-80.64	14.53	-66.11	-13.00	-53.11	Horizontal
4	3490.000	-60.38	6.50	-53.88	-13.00	-40.88	Horizontal
5	5235.000	-60.65	10.26	-50.39	-13.00	-37.39	Horizontal
6	881.184	-81.46	14.07	-67.39	-13.00	-54.39	Vertical
7	925.613	-81.23	14.46	-66.77	-13.00	-53.77	Vertical
8	986.044	-81.45	15.44	-66.01	-13.00	-53.01	Vertical
9	3490.000	-60.22	6.50	-53.72	-13.00	-40.72	Vertical
10	5235.000	-59.59	10.26	-49.33	-13.00	-36.33	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	868.886	-87.80	42.90	-44.90	-13.00	-31.90	Horizontal
2	919.132	-87.30	43.55	-43.75	-13.00	-30.75	Horizontal
3	965.474	-87.04	43.86	-43.18	-13.00	-30.18	Horizontal
4	1658.000	-60.11	-0.23	-60.34	-13.00	-47.34	Horizontal
5	2487.000	-55.86	3.50	-52.36	-13.00	-39.36	Horizontal
6	703.731	-88.90	40.80	-48.10	-13.00	-35.10	Vertical
7	899.958	-87.89	43.37	-44.52	-13.00	-31.52	Vertical
8	932.141	-86.88	43.41	-43.47	-13.00	-30.47	Vertical
9	1658.000	-60.49	-0.23	-60.72	-13.00	-47.72	Vertical
10	2487.000	-55.66	3.50	-52.16	-13.00	-39.16	Vertical
Middle Channel							
1	713.692	-89.02	40.86	-48.16	-13.00	-35.16	Horizontal
2	887.398	-87.71	43.24	-44.47	-13.00	-31.47	Horizontal
3	952.000	-87.80	43.79	-44.01	-13.00	-31.01	Horizontal
4	1673.000	-59.07	-0.12	-59.19	-13.00	-46.19	Horizontal
5	2509.500	-53.77	3.58	-50.19	-13.00	-37.19	Horizontal
6	637.795	-88.26	39.10	-49.16	-13.00	-36.16	Vertical
7	698.804	-89.09	40.79	-48.30	-13.00	-35.30	Vertical
8	932.141	-86.16	43.41	-42.75	-13.00	-29.75	Vertical
9	1673.000	-59.97	-0.12	-60.09	-13.00	-47.09	Vertical
10	2509.500	-55.30	3.58	-51.72	-13.00	-38.72	Vertical
Highest Channel							
1	899.958	-87.67	43.37	-44.30	-13.00	-31.30	Horizontal
2	952.000	-87.17	43.79	-43.38	-13.00	-30.38	Horizontal
3	986.044	-87.61	44.36	-43.25	-13.00	-30.25	Horizontal
4	1688.000	-60.04	-0.01	-60.05	-13.00	-47.05	Horizontal
5	2532.000	-52.16	3.68	-48.48	-13.00	-35.48	Horizontal
6	689.051	-88.35	40.41	-47.94	-13.00	-34.94	Vertical
7	718.725	-87.98	40.83	-47.15	-13.00	-34.15	Vertical
8	912.695	-87.69	43.52	-44.17	-13.00	-31.17	Vertical
9	1688.000	-60.44	-0.01	-60.45	-13.00	-47.45	Vertical
10	2532.000	-54.25	3.68	-50.57	-13.00	-37.57	Vertical

5.8.4 LTE Band 7

LTE Band 7_ 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	703.731	-80.37	11.46	-68.91	-25.00	-43.91	Horizontal
2	868.886	-80.70	13.80	-66.90	-25.00	-41.90	Horizontal
3	958.714	-81.13	14.93	-66.20	-25.00	-41.20	Horizontal
4	5020.000	-60.52	9.79	-50.73	-25.00	-25.73	Horizontal
5	7530.000	-60.74	13.06	-47.68	-25.00	-22.68	Horizontal
6	881.184	-80.70	14.07	-66.63	-25.00	-41.63	Vertical
7	945.334	-81.43	14.69	-66.74	-25.00	-41.74	Vertical
8	992.997	-81.61	15.56	-66.05	-25.00	-41.05	Vertical
9	5020.000	-59.89	9.79	-50.10	-25.00	-25.10	Vertical
10	7530.000	-60.76	13.06	-47.70	-25.00	-22.70	Vertical
Middle Channel							
1	815.635	-80.96	13.04	-67.92	-25.00	-42.92	Horizontal
2	838.887	-80.62	13.30	-67.32	-25.00	-42.32	Horizontal
3	932.141	-81.53	14.41	-67.12	-25.00	-42.12	Horizontal
4	5070.000	-59.59	9.90	-49.69	-25.00	-24.69	Horizontal
5	7605.000	-60.82	13.04	-47.78	-25.00	-22.78	Horizontal
6	821.387	-80.72	13.20	-67.52	-25.00	-42.52	Vertical
7	919.132	-81.37	14.53	-66.84	-25.00	-41.84	Vertical
8	986.044	-81.45	15.44	-66.01	-25.00	-41.01	Vertical
9	5070.000	-60.16	9.90	-50.26	-25.00	-25.26	Vertical
10	7605.000	-60.24	13.04	-47.20	-25.00	-22.20	Vertical
Highest Channel							
1	723.793	-80.87	11.58	-69.29	-25.00	-44.29	Horizontal
2	850.760	-80.95	13.57	-67.38	-25.00	-42.38	Horizontal
3	986.044	-81.55	15.44	-66.11	-25.00	-41.11	Horizontal
4	5120.000	-60.22	10.01	-50.21	-25.00	-25.21	Horizontal
5	7680.000	-59.76	13.02	-46.74	-25.00	-21.74	Horizontal
6	718.725	-80.90	11.51	-69.39	-25.00	-44.39	Vertical
7	862.802	-81.86	13.74	-68.12	-25.00	-43.12	Vertical
8	979.139	-81.70	15.25	-66.45	-25.00	-41.45	Vertical
9	5120.000	-59.71	10.01	-49.70	-25.00	-24.70	Vertical
10	7680.000	-60.31	13.02	-47.29	-25.00	-22.29	Vertical

5.8.5 LTE Band 12

LTE Band 12_ 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	798.620	-88.20	41.73	-46.47	-13.00	-33.47	Horizontal
2	833.013	-88.34	42.39	-45.95	-13.00	-32.95	Horizontal
3	906.304	-88.01	43.57	-44.44	-13.00	-31.44	Horizontal
4	1408.000	-59.48	-1.31	-60.79	-13.00	-47.79	Horizontal
5	2112.000	-61.59	2.49	-59.10	-13.00	-46.10	Horizontal
6	809.924	-87.44	42.08	-45.36	-13.00	-32.36	Vertical
7	899.958	-88.52	43.37	-45.15	-13.00	-32.15	Vertical
8	972.283	-86.96	43.98	-42.98	-13.00	-29.98	Vertical
9	1408.000	-59.45	-1.31	-60.76	-13.00	-47.76	Vertical
10	2112.000	-61.44	2.49	-58.95	-13.00	-45.95	Vertical
Middle Channel							
1	531.291	-88.29	37.22	-51.07	-13.00	-38.07	Horizontal
2	679.435	-88.47	39.93	-48.54	-13.00	-35.54	Horizontal
3	838.887	-87.47	42.44	-45.03	-13.00	-32.03	Horizontal
4	1415.000	-52.58	-1.32	-53.90	-13.00	-40.90	Horizontal
5	2122.500	-61.27	2.52	-58.75	-13.00	-45.75	Horizontal
6	669.952	-88.79	39.73	-49.06	-13.00	-36.06	Vertical
7	833.013	-88.56	42.39	-46.17	-13.00	-33.17	Vertical
8	906.304	-87.38	43.57	-43.81	-13.00	-30.81	Vertical
9	1415.000	-52.12	-1.32	-53.44	-13.00	-40.44	Vertical
10	2122.500	-57.48	2.52	-54.96	-13.00	-41.96	Vertical
Highest Channel							
1	655.977	-88.44	39.42	-49.02	-13.00	-36.02	Horizontal
2	932.141	-87.56	43.41	-44.15	-13.00	-31.15	Horizontal
3	979.139	-87.94	44.18	-43.76	-13.00	-30.76	Horizontal
4	1422.000	-50.24	-1.32	-51.56	-13.00	-38.56	Horizontal
5	2133.000	-60.53	2.55	-57.98	-13.00	-44.98	Horizontal
6	833.013	-88.52	42.39	-46.13	-13.00	-33.13	Vertical
7	919.132	-87.84	43.55	-44.29	-13.00	-31.29	Vertical
8	986.044	-87.36	44.36	-43.00	-13.00	-30.00	Vertical
9	1422.000	-52.95	-1.32	-54.27	-13.00	-41.27	Vertical
10	2133.000	-57.58	2.55	-55.03	-13.00	-42.03	Vertical

5.8.6 LTE Band 17

LTE Band 17_ 5 MHz_ QPSK							
No.	Frequency (MHz)	SA Reading (dBm)	Correction factor (dB/m)	EIRP Result (dBm)	Limit (dBm)	Margin (dB)	Ant. Pol.
Lowest Channel							
1	624.490	-87.25	38.78	-48.47	-13.00	-35.47	Horizontal
2	833.013	-88.34	42.39	-45.95	-13.00	-32.95	Horizontal
3	932.141	-87.49	43.41	-44.08	-13.00	-31.08	Horizontal
4	1418.000	-49.67	-1.31	-50.98	-13.00	-37.98	Horizontal
5	2127.000	-60.69	2.53	-58.16	-13.00	-45.16	Horizontal
6	887.398	-88.11	43.24	-44.87	-13.00	-31.87	Vertical
7	912.695	-88.02	43.52	-44.50	-13.00	-31.50	Vertical
8	972.283	-87.23	43.98	-43.25	-13.00	-30.25	Vertical
9	1418.000	-53.17	-1.31	-54.48	-13.00	-41.48	Vertical
10	2127.000	-58.10	2.53	-55.57	-13.00	-42.57	Vertical
Middle Channel							
1	787.475	-88.12	41.53	-46.59	-13.00	-33.59	Horizontal
2	881.184	-87.68	43.15	-44.53	-13.00	-31.53	Horizontal
3	952.000	-87.72	43.79	-43.93	-13.00	-30.93	Horizontal
4	1420.000	-50.02	-1.32	-51.34	-13.00	-38.34	Horizontal
5	2130.000	-60.17	2.54	-57.63	-13.00	-44.63	Horizontal
6	821.387	-88.37	42.37	-46.00	-13.00	-33.00	Vertical
7	881.184	-87.59	43.15	-44.44	-13.00	-31.44	Vertical
8	932.141	-87.49	43.41	-44.08	-13.00	-31.08	Vertical
9	1420.000	-52.06	-1.32	-53.38	-13.00	-40.38	Vertical
10	2130.000	-56.35	2.54	-53.81	-13.00	-40.81	Vertical
Highest Channel							
1	765.648	-88.11	41.10	-47.01	-13.00	-34.01	Horizontal
2	925.613	-87.95	43.47	-44.48	-13.00	-31.48	Horizontal
3	972.283	-87.29	43.98	-43.31	-13.00	-30.31	Horizontal
4	1422.000	-51.44	-1.32	-52.76	-13.00	-39.76	Horizontal
5	2133.000	-58.65	2.55	-56.10	-13.00	-43.10	Horizontal
6	815.635	-88.44	42.22	-46.22	-13.00	-33.22	Vertical
7	856.760	-87.89	42.78	-45.11	-13.00	-32.11	Vertical
8	912.695	-88.04	43.52	-44.52	-13.00	-31.52	Vertical
9	1422.000	-52.75	-1.32	-54.07	-13.00	-41.07	Vertical
10	2133.000	-57.89	2.55	-55.34	-13.00	-42.34	Vertical

5.8.7 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	734.037	-80.49	11.71	-68.78	-13.00	-55.78	Horizontal
2	844.803	-80.97	13.42	-67.55	-13.00	-54.55	Horizontal
3	906.304	-81.64	14.53	-67.11	-13.00	-54.11	Horizontal
4	3440.000	-60.24	6.41	-53.83	-13.00	-40.83	Horizontal
5	5160.000	-60.77	10.10	-50.67	-13.00	-37.67	Horizontal
6	693.910	-80.53	11.17	-69.36	-13.00	-56.36	Vertical
7	723.793	-80.66	11.58	-69.08	-13.00	-56.08	Vertical
8	925.613	-81.01	14.46	-66.55	-13.00	-53.55	Vertical
9	3440.000	-60.34	6.41	-53.93	-13.00	-40.93	Vertical
10	5160.000	-60.36	10.10	-50.26	-13.00	-37.26	Vertical
Middle Channel							
1	899.958	-80.43	14.32	-66.11	-13.00	-53.11	Horizontal
2	925.613	-81.25	14.46	-66.79	-13.00	-53.79	Horizontal
3	986.044	-81.83	15.44	-66.39	-13.00	-53.39	Horizontal
4	3490.000	-60.07	6.50	-53.57	-13.00	-40.57	Horizontal
5	5235.000	-60.98	10.26	-50.72	-13.00	-37.72	Horizontal
6	875.013	-80.70	13.93	-66.77	-13.00	-53.77	Vertical
7	912.695	-80.79	14.49	-66.30	-13.00	-53.30	Vertical
8	992.997	-80.39	15.56	-64.83	-13.00	-51.83	Vertical
9	3490.000	-60.13	6.50	-53.63	-13.00	-40.63	Vertical
10	5235.000	-61.00	10.26	-50.74	-13.00	-37.74	Vertical
Highest Channel							
1	655.977	-79.38	10.00	-69.38	-13.00	-56.38	Horizontal
2	881.184	-81.26	14.07	-67.19	-13.00	-54.19	Horizontal
3	952.000	-81.61	14.82	-66.79	-13.00	-53.79	Horizontal
4	3540.000	-60.41	6.70	-53.71	-13.00	-40.71	Horizontal
5	5310.000	-60.59	10.43	-50.16	-13.00	-37.16	Horizontal
6	887.398	-81.43	14.17	-67.26	-13.00	-54.26	Vertical
7	965.474	-81.38	14.91	-66.47	-13.00	-53.47	Vertical
8	992.997	-81.71	15.56	-66.15	-13.00	-53.15	Vertical
9	3540.000	-60.52	6.70	-53.82	-13.00	-40.82	Vertical
10	5310.000	-61.23	10.43	-50.80	-13.00	-37.80	Vertical

5.8.8 LTE Band 71

LTE Band 71_ 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	693.910	-88.14	40.53	-47.61	-13.00	-34.61	Horizontal
2	827.179	-87.98	42.32	-45.66	-13.00	-32.66	Horizontal
3	906.304	-87.36	43.57	-43.79	-13.00	-30.79	Horizontal
4	1346.000	-58.31	-1.30	-59.61	-13.00	-46.61	Horizontal
5	2019.000	-60.44	2.24	-58.20	-13.00	-45.20	Horizontal
6	793.028	-88.20	41.65	-46.55	-13.00	-33.55	Vertical
7	906.304	-87.73	43.57	-44.16	-13.00	-31.16	Vertical
8	938.714	-87.29	43.51	-43.78	-13.00	-30.78	Vertical
9	1346.000	-58.82	-1.30	-60.12	-13.00	-47.12	Vertical
10	2019.000	-59.93	2.24	-57.69	-13.00	-44.69	Vertical
Middle Channel							
1	875.013	-87.86	43.02	-44.84	-13.00	-31.84	Horizontal
2	958.714	-87.39	43.89	-43.50	-13.00	-30.50	Horizontal
3	986.044	-87.57	44.36	-43.21	-13.00	-30.21	Horizontal
4	1366.000	-59.13	-1.30	-60.43	-13.00	-47.43	Horizontal
5	2049.000	-61.95	2.32	-59.63	-13.00	-46.63	Horizontal
6	875.013	-87.77	43.02	-44.75	-13.00	-31.75	Vertical
7	912.695	-87.05	43.52	-43.53	-13.00	-30.53	Vertical
8	992.997	-87.53	44.47	-43.06	-13.00	-30.06	Vertical
9	1366.000	-59.13	-1.30	-60.43	-13.00	-47.43	Vertical
10	2049.000	-60.80	2.32	-58.48	-13.00	-45.48	Vertical
Highest Channel							
1	628.894	-88.43	38.87	-49.56	-13.00	-36.56	Horizontal
2	850.760	-87.11	42.69	-44.42	-13.00	-31.42	Horizontal
3	945.334	-87.31	43.67	-43.64	-13.00	-30.64	Horizontal
4	1376.000	-59.25	-1.31	-60.56	-13.00	-47.56	Horizontal
5	2064.000	-60.82	2.36	-58.46	-13.00	-45.46	Horizontal
6	809.924	-88.11	42.08	-46.03	-13.00	-33.03	Vertical
7	862.802	-87.83	42.85	-44.98	-13.00	-31.98	Vertical
8	906.304	-87.10	43.57	-43.53	-13.00	-30.53	Vertical
9	1376.000	-58.94	-1.31	-60.25	-13.00	-47.25	Vertical
10	2064.000	-61.69	2.36	-59.33	-13.00	-46.33	Vertical

Remark:

1. Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain, the value was added to Original Receiver Reading by the software automatically.
2. Result = Reading + Correct Factor.
3. Margin = Result – Limit

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 Par 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°Ca
   b) Voltage =low voltage, 3.4 Vdc, Normal, 3.87 Vdc and High voltage, 4.45 Vdc.
2) Frequency Stability vs Temperature:

The EUT is place inside a temperature chamber. The temperature is set to 20ºC and allowed to stabilize. After sufficient soak time, the transmitting frequency error is measured. The temperature is increased by 10 degrees, allowed to stabilize and soak, and then the measurement is repeated. This is repeated until +50ºC is reached.

3) Frequency Stability vs Voltage:

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

Equipment Used: Refer to section 3 for details.

Test Results: Pass

Test Data: **Please refer to Appendix A5**

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 ***
