FCC TEST REPORT

Product Name:	Smart Phone
Trade Mark:	BLU
Model No.:	C9
Report Number:	2402189665RFM-2
Test Standards:	FCC 47 CFR Part 22 FCC 47 CFR Part 24 FCC 47 CFR Part 27
FCC ID:	YHLBLUC9C
Test Result:	PASS
Date of Issue:	May 7, 2024

Prepared for:

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

Prepared by:

Shenzhen UnionTrust Quality and Technology Co., Ltd.
Unit D/E of 9/F and 16/F, Block A, Building 6, Baoneng science and technology park, Longhua district, Shenzhen, China

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Version

Version No.	Date	Description
V1.0	May 7, 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.:	C9		
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/ Band 4/ Band 5/ Band 7/ Band 12/ / Band 13/ Band 17/ Band 66/ Band 71	
	2.4 GHz ISM Band:	IEEE 802.11b/g/n	
		Bluetooth 4.2	
	RNSS Band:	1559 MHz to 1610 MHz	GPS/ GLONASS
	BSR:	VHF Band II	FM
Software Version:	TP1A.220624.014(Provided by the customer)		
Hardware Version:	KC9ZH_01 (Provided by the customer)		
Sample Received Date:	February 5, 2024		
Sample Tested Date:	February 5, 2024 to May 2, 2024		

Note: This device comes in two different configuration differences

Sample No.	Fingerprint unlock	Memory
S202402052722-ZJA03/6	Not support	2+32G
S202404033055-ZJC01/1	support	2+64G

In electrical characteristics, the above two configuration have the same PCB layout. The differences among them are fingerprint unlock and memory. By configuring the pre-scanning of different sample, the sample with worst data S202402052722-ZJA03/6 was chosen to perform the 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

Adapter	
Model No.:	US-KB-1501
Input:	100-240 V~50/60 Hz 0.6 A
Output:	5.0 V ⎓ 1500 mA

Cable	
Connector:	USB Cable
Cable Type:	Unshielded without ferrite
Length:	1.0 Meter

Battery	
Model No.:	C896351400L
Battery Type:	Lithium-ion Battery
Rated Voltage:	3.85 Vdc
Typical Capacity:	4000 mAh
Rated Capacity:	3850 mAh

1.3 PRODUCT SPECIFICATION SUBJECTIVE TO THIS STANDARD

Support Networks:	Single Carrier: LTE Band 2/4/5/7/12/13/17/66/71	
Type of Modulation:	QPSK, 16QAM, 64QAM	
Antenna Type: (Provided by the customer)	PIFA Antenna	
Antenna Gain: (Provided by the customer)	LTE Band 2:	-2.3 dBi
	LTE Band 4:	-3 dBi
	LTE Band 5:	-3.2 dBi
	LTE Band 7:	-3.2 dBi
	LTE Band 12:	-3.4 dBi
	LTE Band 13:	-3.5 dBi
	LTE Band 17:	-3.5 dBi
	LTE Band 66:	-3 dBi
	LTE Band 71:	-3.8 dBi
Sample No.:	Radiated: S202402052722-ZJA03/6	
	Conducted: S202402052722-ZJA05/6	
Normal Test Voltage:	3.85 Vdc	
Extreme Test Voltage:	3.4 to 4.4Vdc	
Extreme Test Temperature:	-20 °C to +60 °C	

Summary of Results:								
Bands	BW	Modulation	Frequency Range	Max RF Output Power (dBm)		ERP/EIRP	99% BW	Emission Designator
	(MHz)		(MHz)	Conducted (Average)	ERP/EIRP (Average)	(W)	(MHz)	
2	1.4	QPSK	1850.7-1909.3	22.72	20.42	0.1102	1.0808	1M08G7D
		16QAM		22.61	20.31	0.1074	1.0804	1M08W7D
		64QAM		22.11	19.81	0.0957	1.0810	1M08W7D
	3	QPSK	1851.5-1908.5	22.39	20.09	0.1021	2.6850	2M69G7D
		16QAM		22.74	20.44	0.1107	2.6834	2M68W7D
		64QAM		22.06	19.76	0.0946	2.6858	2M69W7D
	5	QPSK	1852.5-1907.5	22.39	20.09	0.1021	4.4763	4M48G7D
		16QAM		22.11	19.81	0.0957	4.4685	4M47W7D
		64QAM		21.48	19.18	0.0828	4.4536	4M45W7D
	10	QPSK	1855.0-1905.0	22.78	20.48	0.1117	8.9545	8M95G7D
		16QAM		22.51	20.21	0.1050	8.9679	8M97W7D
		64QAM		22.17	19.87	0.0971	8.9655	8M97W7D
	15	QPSK	1857.5-1902.5	22.78	20.48	0.1117	13.410	13M4G7D
		16QAM		22.65	20.35	0.1084	13.422	13M4W7D
		64QAM		22.21	19.91	0.0979	13.417	13M4W7D
	20	QPSK	1860.0-1900.0	22.95	20.65	0.1161	17.914	17M9G7D
		16QAM		22.89	20.59	0.1146	17.911	17M9W7D
		64QAM		22.17	19.87	0.0971	17.948	17M9W7D
4	1.4	QPSK	1710.7-1754.3	22.56	19.56	0.0904	1.0823	1M08G7D
		16QAM		22.15	19.15	0.0822	1.0817	1M08W7D
		64QAM		21.41	18.41	0.0693	1.0828	1M08W7D
	3	QPSK	1711.5-1753.5	22.52	19.52	0.0895	2.6865	2M69G7D
		16QAM		22.39	19.39	0.0869	2.6852	2M69W7D
		64QAM		21.63	18.63	0.0729	2.6866	2M69W7D
	5	QPSK	1712.5-1752.5	22.65	19.65	0.0923	4.4646	4M46G7D
		16QAM		21.99	18.99	0.0793	4.4654	4M47W7D
		64QAM		21.30	18.30	0.0676	4.4619	4M46W7D
	10	QPSK	1715-1750	22.63	19.63	0.0918	8.9552	8M96G7D
		16QAM		22.55	19.55	0.0902	8.9534	8M95W7D
		64QAM		22.17	19.17	0.0826	8.9500	8M95W7D
	15	QPSK	1717.5-1747.5	22.81	19.81	0.0957	13.422	13M4G7D
		16QAM		22.79	19.79	0.0953	13.426	13M4W7D
		64QAM		22.18	19.18	0.0828	13.440	13M4W7D
	20	QPSK	1720-1745	22.84	19.84	0.0964	17.890	17M9G7D
		16QAM		22.73	19.73	0.0940	17.918	17M9W7D
		64QAM		22.11	19.11	0.0815	17.921	17M9W7D

Bands	BW	Modulation	Frequency Range	Max RF Output Power (dBm)		ERP/EIRP	99% BW	Emission Designator
	(MHz)		(MHz)	Conducted (Average)	ERP/EIRP (Average)	(W)	(MHz)	
5	1.4	QPSK	824.7-848.3	22.83	20.68	0.1169	1.0819	1M08G7D
		16QAM		22.69	20.54	0.1132	1.0796	1M08W7D
		64QAM		22.58	20.43	0.1104	1.0806	1M08W7D
	3	QPSK	825.5-847.5	22.77	20.62	0.1153	2.6870	2M69G7D
		16QAM		22.54	20.39	0.1094	2.6862	2M69W7D
		64QAM		21.98	19.83	0.0962	2.6855	2M69W7D
	5	QPSK	826.5-846.5	22.76	20.61	0.1151	4.4701	4M47G7D
		16QAM		22.31	20.16	0.1038	4.4638	4M46W7D
		64QAM		21.74	19.59	0.0910	4.4593	4M46W7D
	10	QPSK	829-844	22.89	20.74	0.1186	8.9427	8M94G7D
		16QAM		22.69	20.54	0.1132	8.9556	8M96W7D
		64QAM		22.55	20.40	0.1096	8.9409	8M94W7D
7	5	QPSK	2502.5-2567.5	22.57	19.37	0.0865	4.4608	4M46G7D
		16QAM		22.23	19.03	0.0800	4.4729	4M47W7D
		64QAM		21.34	18.14	0.0652	4.4578	4M46W7D
	10	QPSK	2505-2565	22.95	19.75	0.0944	8.9463	8M95G7D
		16QAM		22.86	19.66	0.0925	8.9479	8M95W7D
		64QAM		22.13	18.93	0.0782	8.9530	8M95W7D
	15	QPSK	2507.5-2562.5	22.92	19.72	0.0938	13.413	13M4G7D
		16QAM		22.85	19.65	0.0923	13.423	13M4W7D
		64QAM		22.23	19.03	0.0800	13.440	13M4W7D
	20	QPSK	2510-2560	22.99	19.79	0.0953	17.877	17M9G7D
		16QAM		22.88	19.68	0.0929	17.914	17M9W7D
		64QAM		22.16	18.96	0.0787	17.891	17M9W7D
12	1.4	QPSK	699.7-715.3	22.99	17.44	0.0555	1.0798	1M08G7D
		16QAM		22.81	17.26	0.0532	1.0821	1M08W7D
		64QAM		22.79	17.24	0.0530	1.0795	1M08W7D
	3	QPSK	700.5-714.5	22.89	17.34	0.0542	2.6878	2M69G7D
		16QAM		22.65	17.10	0.0513	2.6837	2M68W7D
		64QAM		22.21	16.66	0.0463	2.6861	2M69W7D
	5	QPSK	701.5-713.5	22.93	17.38	0.0547	4.4586	4M46G7D
		16QAM		22.44	16.89	0.0489	4.4613	4M46W7D
		64QAM		22.07	16.52	0.0449	4.4657	4M47W7D
	10	QPSK	704-711	22.99	17.44	0.0555	8.9533	8M95G7D
		16QAM		22.96	17.41	0.0551	8.9433	8M94W7D
		64QAM		22.91	17.36	0.0545	8.9493	8M95W7D
13	5	QPSK	779.5-784.5	22.73	17.08	0.0511	4.4545	4M45G7D
		16QAM		22.18	16.53	0.0450	4.4505	4M45W7D
		64QAM		21.83	16.18	0.0415	4.4627	4M46W7D

Bands	BW (MHz)	Modulation	Frequency Range (MHz)	Max RF Output Power (dBm)		ERP/EIRP (W)	99% BW (MHz)	Emission Designator
				Conducted (Average)	ERP/EIRP (Average)			
	10	QPSK	782-782	22.78	17.13	0.0516	8.9455	8M95G7D
		16QAM		21.63	15.98	0.0396	8.9265	8M93W7D
		64QAM		21.22	15.57	0.0361	8.9208	8M92W7D
17	5	QPSK	706.5-713.5	22.91	17.26	0.0532	4.4782	4M48G7D
		16QAM		22.47	16.82	0.0481	4.4655	4M47W7D
		64QAM		22.06	16.41	0.0438	4.4666	4M47W7D
	10	QPSK	709-711	22.96	17.31	0.0538	8.9576	8M96G7D
		16QAM		22.95	17.30	0.0537	8.9413	8M94W7D
		64QAM		22.91	17.26	0.0532	8.9442	8M94W7D
66	1.4	QPSK	1710.7-1779.3	22.47	19.47	0.0885	1.0815	1M08G7W
		16QAM		22.46	19.46	0.0883	1.0806	1M08D7W
		64QAM		21.64	18.64	0.0731	1.0805	1M08D7W
	3	QPSK	1711.5-1778.5	22.66	19.66	0.0925	2.6891	2M69G7D
		16QAM		22.35	19.35	0.0861	2.6850	2M69W7D
		64QAM		21.70	18.70	0.0741	2.6850	2M69W7D
	5	QPSK	1712.5-1777.5	22.64	19.64	0.0920	4.4619	4M46G7D
		16QAM		22.03	19.03	0.0800	4.4619	4M46W7D
		64QAM		21.32	18.32	0.0679	4.4688	4M47W7D
	10	QPSK	1715-1775	22.71	19.71	0.0935	8.9641	8M96G7D
		16QAM		22.64	19.64	0.0920	8.9597	8M96W7D
		64QAM		22.37	19.37	0.0865	8.9623	8M96W7D
	15	QPSK	1717.5-1772.5	22.81	19.81	0.0957	13.430	13M4G7D
		16QAM		22.79	19.79	0.0953	13.429	13M4W7D
		64QAM		22.37	19.37	0.0865	13.428	13M4W7D
	20	QPSK	1720-1770	22.88	19.88	0.0973	17.938	17M9G7D
		16QAM		22.73	19.73	0.0940	17.891	17M9W7D
		64QAM		22.13	19.13	0.0818	17.904	17M9W7D
71	5	QPSK	665.5-695.5	22.75	16.80	0.0479	4.4612	4M46G7D
		16QAM		21.83	15.88	0.0387	4.4680	4M47W7D
		64QAM		21.79	15.84	0.0384	4.4605	4M46W7D
	10	QPSK	668-693	22.74	16.79	0.0478	8.9633	8M96G7D
		16QAM		22.69	16.74	0.0472	8.9638	8M96W7D
		64QAM		22.36	16.41	0.0438	8.9488	8M95W7D
	15	QPSK	670.5-690.5	22.73	16.78	0.0476	13.434	13M4G7D
		16QAM		22.74	16.79	0.0478	13.453	13M5W7D
		64QAM		22.49	16.54	0.0451	13.419	13M4W7D
	20	QPSK	673-688	22.82	16.87	0.0486	17.921	17M9G7D
		16QAM		22.74	16.79	0.0478	17.927	17M9W7D
		64QAM		22.34	16.39	0.0436	17.884	17M9W7D

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	0.1 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 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 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
☒	EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY51440197	14-Apr-2023	13-Apr-2024
					29-Mar-2024	28-Mar-2025
☒	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	19-Apr-2023	18-Apr-2024
					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	585661332900 20	14-Apr-2023	13-Apr-2024
					29-Mar-2024	28-Mar-2025
☒	Wideband Radio Communication Tester	R&S	CMW500	119583	14-Apr-2023	13-Apr-2024
					29-Mar-2024	28-Mar-2025
☒	Wideband Radio Communication Tester	R&S	CMW500	120932	14-Apr-2023	13-Apr-2024
					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	3.85	20 to 75
TL/VL	-20	3.4	20 to 75
TH/VL	+60	3.4	20 to 75
TL/VH	-20	4.4	20 to 75
TH/VH	+60	4.4	20 to 75

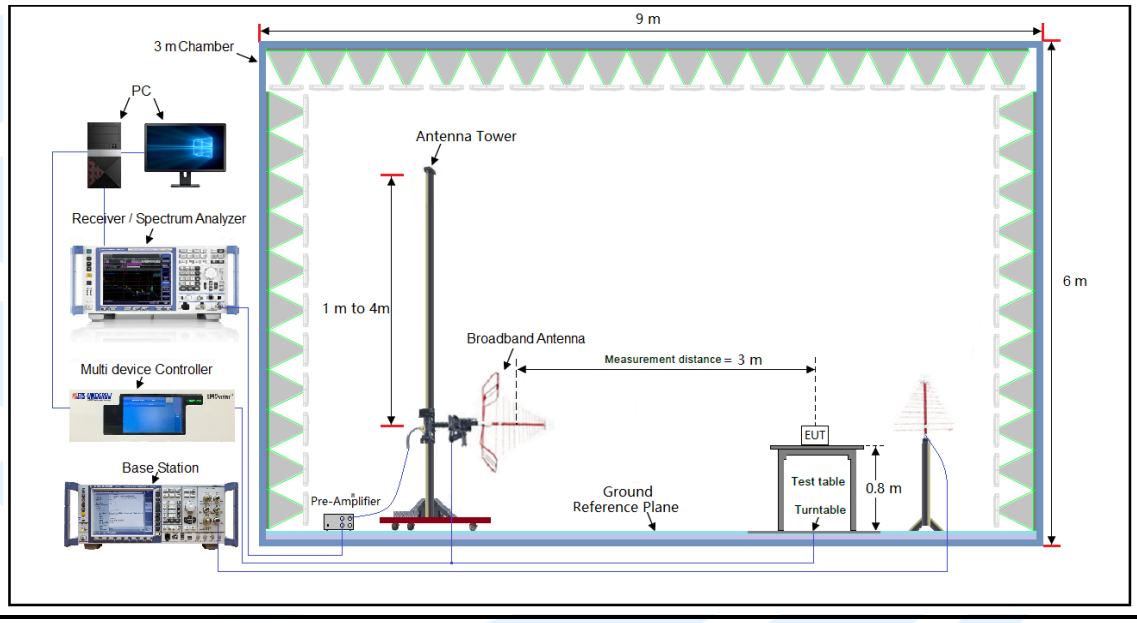
Remark:

1) The EUT just work in such extreme temperature of -20 °C to +60 °C and the extreme voltage of 3.4 V to 4.4 V, so here the EUT is tested in the temperature of -20 °C to +60 °C and the voltage of 3.4 V to 4.4 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.

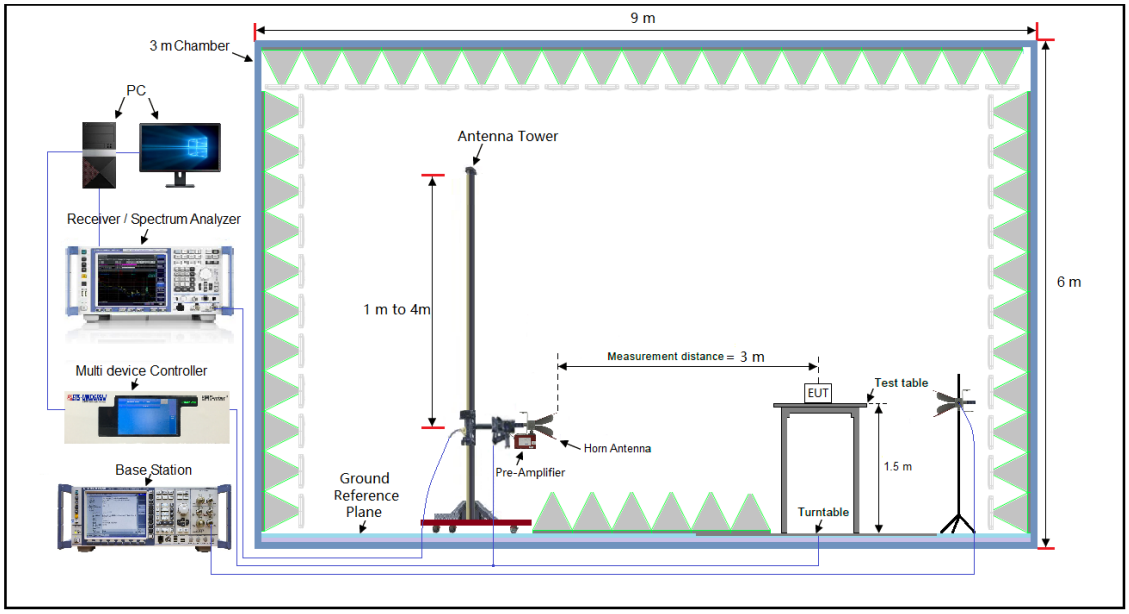
4.2 TEST SETUP

4.2.1 For Radiated Emissions test setup

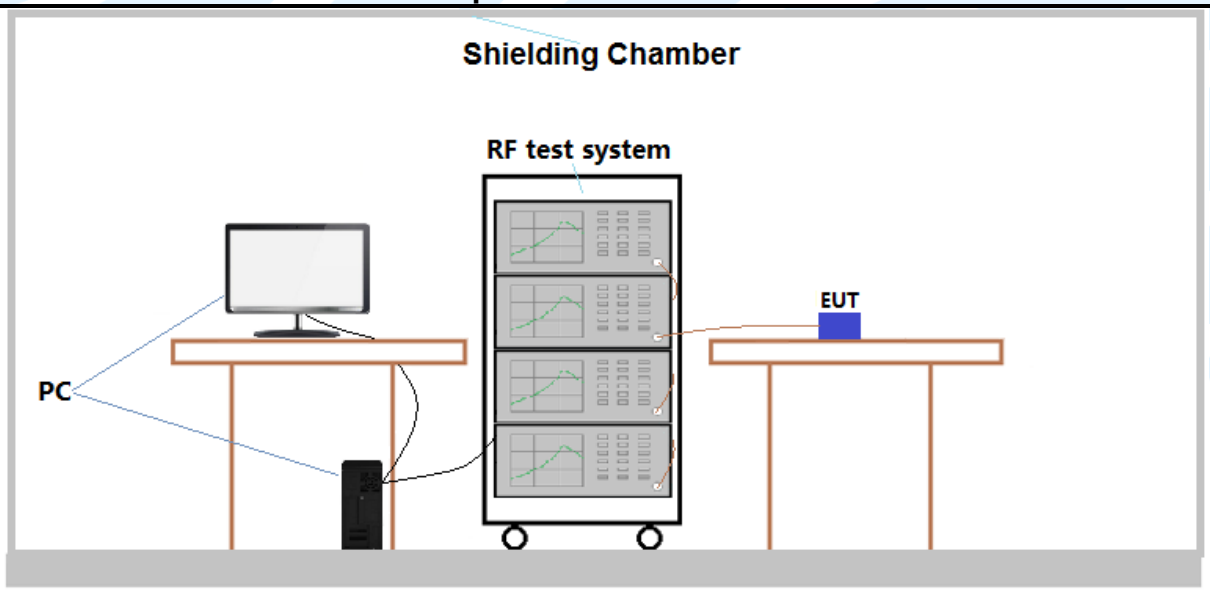
Radiated Emissions 30MHz to 1GHz Test setup



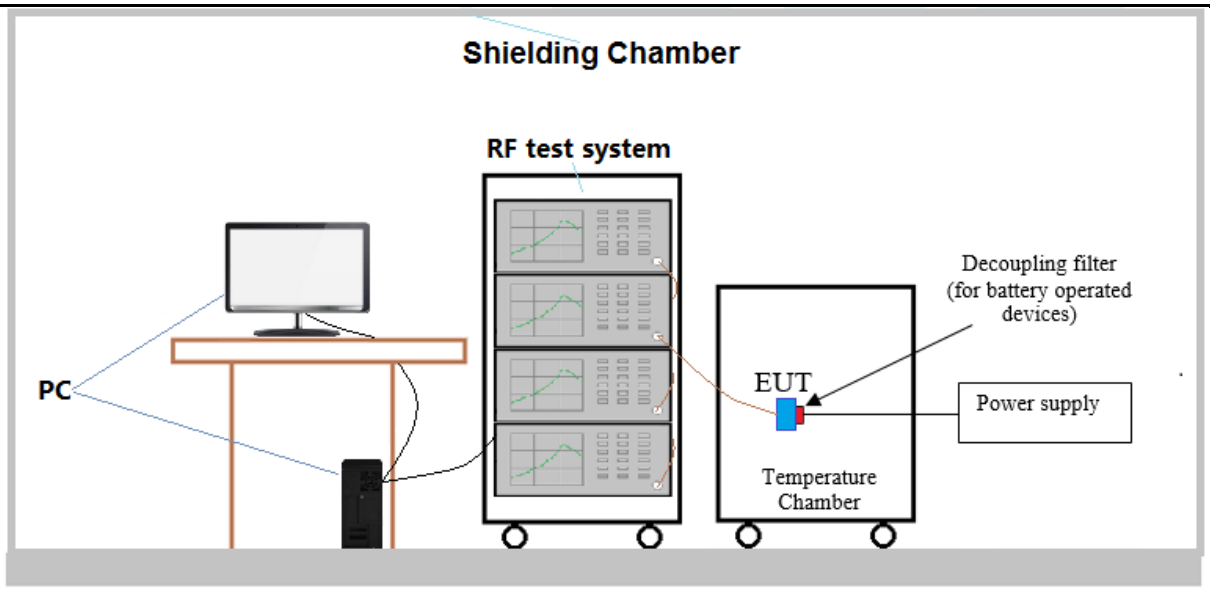
Radiated Emissions Above 1GHz Test setup



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 13 TX: 777-787MHz	Low Range	5	23205	779.5
		10	23230	782
	Middle Range	5/10	23230	782
	High Range	5	23255	784.5
		10	23230	782
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. It was powered by a 3.85Vdc 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.

4.5 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	☒	☒	☒	☒	-	-	☒	☒	☒	☒	☒	☒	☒	☒	☒
	13	-	-	☒	☒	-	-	☒	☒	☒	☒	☒	☒	☒	☒	☒
	17	-	-	☒	☒	-	-	☒	☒	☒	☒	☒	☒	☒	☒	☒
	66	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒
	71	-	-	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒
99%&26dB Bandwidth	2	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒	☒
	4	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒	☒
	5	☒	☒	☒	☒	--	--	☒	☒	☒	☐	☐	☒	☒	☒	☒
	7	-	-	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒	☒
	12	☒	☒	☒	☒	-	-	☒	☒	☒	☐	☐	☒	☒	☒	☒
	13	-	-	☒	☒	-	-	☒	☒	☒	☐	☐	☒	☒	☒	☒
	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	☒	☒	☒	☒	-	-	☒	☒	☒	☐	☐	☒	☐	☒	☐
	13	-	-	☐	☒	-	-	☒	☒	☒	☐	☐	☒	☐	☒	☐
	17	-	-	☒	☒	-	-	☒	☒	☒	☐	☐	☒	☐	☒	☐
	66	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☐	☒	☐
	71	-	-	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☐	☒	☐
Band Edge at antenna terminals	2	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☒	☒	☐	☒
	4	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☒	☒	☐	☒
	5	☒	☒	☒	☒	--	--	☒	☒	☒	☒	☐	☒	☒	☐	☒
	7	-	-	☒	☒	☒	☒	☒	☒	☒	☒	☐	☒	☒	☐	☒
	12	☒	☒	☒	☒	-	-	☒	☒	☒	☒	☐	☒	☒	☐	☒
	13	-	-	☒	☒	-	-	☒	☒	☒	☒	☐	☐	☒	☒	☒
	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
Spurious emissions at antenna terminals	2	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒
	4	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒
	5	☒	☒	☒	☒	--	--	☒	☒	☒	☒	☐	☐	☒	☒	☒
	7	-	-	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒
	12	☒	☒	☒	☒	-	-	☒	☒	☒	☒	☐	☐	☒	☒	☒
	13	-	-	☒	☒	-	-	☒	☒	☒	☒	☐	☐	☒	☒	☒
	17	-	-	☒	☒	-	-	☒	☒	☒	☒	☐	☐	☒	☒	☒
	66	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒
	71	-	-	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒

Field strength of spurious radiation	2	☐	☐	☐	☐	☐	☒	☒	☐	☐	☒	☐	☐	☒	☒	☒
	4	☐	☐	☐	☐	☐	☒	☒	☐	☐	☒	☐	☐	☒	☒	☒
	5	☐	☐	☐	☒	--	--	☒	☐	☐	☒	☐	☐	☒	☒	☒
	7	-	-	☐	☐	☐	☒	☒	☐	☐	☒	☐	☐	☒	☒	☒
	12	☐	☐	☐	☒	-	-	☒	☐	☐	☒	☐	☐	☒	☒	☒
	13	-	-	☐	☒	-	-	☒	☐	☐	☒	☐	☐	☒	☒	☒
	17	-	-	☐	☒	-	-	☒	☐	☐	☒	☐	☐	☒	☒	☒
	66	☐	☐	☐	☐	☐	☒	☒	☐	☐	☒	☐	☐	☒	☒	☒
	71	-	-	☐	☐	☐	☒	☒	☐	☐	☒	☐	☐	☒	☒	☒
Frequency stability	2	☐	☐	☐	☐	☐	☒	☒	☐	☐	☐	☐	☒	☐	☒	☐
	4	☐	☐	☐	☐	☐	☒	☒	☐	☐	☐	☐	☒	☐	☒	☐
	5	☐	☐	☐	☒	--	--	☒	☐	☐	☐	☐	☒	☐	☒	☐
	7	-	-	☐	☐	☐	☒	☒	☐	☐	☐	☐	☒	☐	☒	☐
	12	☐	☐	☐	☒	-	-	☒	☐	☐	☐	☐	☒	☐	☒	☐
	13	-	-	☐	☒	-	-	☒	☐	☐	☐	☐	☒	☐	☒	☐
	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)
LTE Band 13: FCC 47 CFR Part 27.50(b)(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.

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.

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 (MHz)	RB	18607	18900	19193	18607	18900	19193	18607	18900	19193
			1850.7	1880	1909.3	1850.7	1880	1909.3	1850.7	1880	1909.3
2	1.4	1@0	22.26	22.72	22.41	21.98	22.43	21.28	21.35	21.94	20.79
		1@3	22.23	22.27	22.27	21.95	22.61	21.33	21.84	22.11	20.70
		1@5	22.26	22.56	22.46	21.97	22.38	21.34	21.85	22.10	20.70
		3@0	22.36	22.43	22.47	21.36	21.69	21.58	21.00	20.88	20.98
		3@1	22.41	22.38	22.43	21.65	21.43	21.68	20.95	20.73	21.03
		3@3	22.34	22.42	22.42	21.40	21.71	21.53	20.74	21.12	20.93
		6@0	21.35	21.38	21.41	20.56	20.61	20.74	19.96	19.97	20.12
Band	Bandwidth (MHz)	RB	18615	18900	19185	18615	18900	19185	18615	18900	19185
			1851.5	1880	1908.5	1851.5	1880	1908.5	1851.5	1880	1908.5
2	3	1@0	22.32	22.28	22.34	22.30	22.71	21.25	21.70	22.06	20.67
		1@8	22.35	22.37	22.37	22.31	22.70	21.33	21.69	22.04	20.66
		1@14	22.38	22.35	22.39	22.26	22.74	21.27	21.65	22.01	20.65
		8@0	21.37	21.43	21.34	20.80	20.61	20.93	20.22	20.02	20.30
		8@4	21.40	21.47	21.36	20.63	20.65	20.72	19.91	19.98	20.08
		8@7	21.35	21.43	21.46	20.80	20.63	20.90	20.21	20.06	20.26
		15@0	21.37	21.44	21.48	20.67	20.61	20.72	20.02	19.94	20.08
Band	Bandwidth (MHz)	RB	18625	18900	19175	18625	18900	19175	18625	18900	19175
			1852.5	1880	1907.5	1852.5	1880	1907.5	1852.5	1880	1907.5
2	5	1@0	22.38	22.27	22.31	21.26	21.94	21.98	20.60	21.27	21.37
		1@12	22.39	22.26	22.36	21.27	21.94	22.04	20.58	21.25	21.41
		1@24	22.30	22.33	22.35	21.25	22.00	22.11	20.66	21.36	21.48
		12@0	21.34	21.39	21.40	20.62	20.41	20.65	19.89	19.86	19.94
		12@7	21.44	21.53	21.46	20.48	20.55	20.54	19.86	19.94	19.96
		12@13	21.46	21.38	21.43	20.56	20.52	20.67	19.92	19.70	19.95
		25@0	21.30	21.40	21.49	20.65	20.47	20.77	20.08	19.88	20.10
Band	Bandwidth (MHz)	RB	18650	18900	19150	18650	18900	19150	18650	18900	19150
			1855	1880	1905	1855	1880	1905	1855	1880	1905
2	10	1@0	22.44	22.26	22.36	22.40	22.15	21.87	21.63	22.07	21.12
		1@25	22.36	22.78	22.33	22.32	22.51	21.24	21.89	21.42	20.54
		1@49	22.42	22.32	22.55	22.38	22.16	21.84	21.65	22.17	21.26
		25@0	21.32	21.42	21.56	20.64	20.64	20.82	20.01	20.01	20.18
		25@12	21.33	21.46	21.48	20.52	20.56	20.82	19.92	20.01	20.16
		25@25	21.35	21.39	21.53	20.64	20.71	20.83	20.00	20.03	20.20
		50@0	21.40	21.35	21.48	20.62	20.70	20.70	19.97	20.04	20.06
Band	Bandwidth (MHz)	RB	18675	18900	19125	18675	18900	19125	18675	18900	19125
			1857.5	1880	1902.5	1857.5	1880	1902.5	1857.5	1880	1902.5
2	15	1@0	22.36	22.25	22.11	22.29	22.14	22.26	21.91	22.14	21.29
		1@37	22.53	22.78	22.57	22.38	22.65	21.88	21.69	21.56	21.62
		1@74	22.35	22.34	22.12	22.33	22.26	22.30	21.88	22.21	21.28
		36@0	21.37	21.42	21.46	20.63	20.66	20.73	20.09	20.06	20.04
		36@20	21.38	21.50	21.47	20.64	20.81	20.64	19.92	20.08	19.93
		36@39	21.38	21.54	21.58	20.63	20.62	20.75	19.96	20.08	20.08
		75@0	21.57	21.50	21.45	20.72	20.64	20.75	20.00	20.03	20.06
Band	Bandwidth (MHz)	RB	18700	18900	19100	18700	18900	19100	18700	18900	19100
			1860	1880	1900	1860	1880	1900	1860	1880	1900
2	20	1@0	22.36	22.41	22.91	21.99	22.22	22.66	22.13	21.64	21.33
		1@49	22.34	22.57	22.93	21.91	22.19	22.89	22.17	21.60	21.71
		1@99	22.59	22.70	22.95	21.91	22.39	22.88	22.06	21.76	21.31
		50@0	21.50	21.49	21.42	20.71	20.64	20.65	19.87	19.98	20.04
		50@24	21.37	21.52	21.46	20.62	20.62	20.66	20.00	19.95	20.05
		50@50	21.43	21.45	21.39	20.66	20.76	20.69	19.88	19.94	20.11
		100@0	21.51	21.55	21.40	20.67	20.59	20.73	20.06	19.93	19.92

5.2.2 LTE Band 4

Conducted Power(dBm)										
Modulation			QPSK			16QAM			64QAM		
Band	Bandwidth (MHz)	RB	19957 1710.7	20175 1732.5	20393 1754.3	19957 1710.7	20175 1732.5	20393 1754.3	19957 1710.7	20175 1732.5	20393 1754.3
4	1.4	1@0	22.15	22.48	22.37	22.09	22.02	21.51	21.34	21.39	20.83
		1@3	22.32	22.52	22.27	22.10	22.09	21.57	21.38	21.38	20.81
		1@5	22.28	22.51	22.33	22.12	22.15	21.59	21.34	21.41	20.91
		3@0	22.49	22.46	22.31	21.42	21.33	21.26	20.76	20.94	20.59
		3@1	22.56	22.42	22.36	21.75	21.48	21.39	21.02	20.76	20.69
		3@3	22.51	22.45	22.23	21.42	21.71	21.26	20.71	20.96	20.56
		6@0	21.43	21.38	21.26	20.60	20.89	20.69	19.96	20.09	20.12
Band	Bandwidth (MHz)	RB	19965 1711.5	20175 1732.5	20385 1753.5	19965 1711.5	20175 1732.5	20385 1753.5	19965 1711.5	20175 1732.5	20385 1753.5
4	3	1@0	22.42	22.49	22.41	22.39	22.06	21.52	21.63	21.39	20.87
		1@8	22.34	22.52	22.33	22.28	22.00	21.59	21.53	21.36	20.86
		1@14	22.31	22.51	22.33	22.29	22.07	21.54	21.56	21.33	20.78
		8@0	21.40	21.43	21.37	20.86	20.61	20.90	20.15	19.90	20.15
		8@4	21.50	21.31	21.22	20.58	20.76	20.63	19.87	20.08	19.95
		8@7	21.39	21.28	21.35	20.88	20.62	20.87	20.16	19.98	20.11
		15@0	21.44	21.45	21.36	20.71	20.61	20.50	20.01	19.94	19.73
Band	Bandwidth (MHz)	RB	19975 1712.5	20175 1732.5	20375 1752.5	19975 1712.5	20175 1732.5	20375 1752.5	19975 1712.5	20175 1732.5	20375 1752.5
4	5	1@0	22.49	22.28	22.24	21.09	21.99	21.28	20.57	21.16	21.19
		1@12	22.60	22.65	22.36	21.07	21.90	21.92	20.43	21.30	21.21
		1@24	22.32	22.26	22.19	21.03	21.96	21.26	20.54	21.23	21.20
		12@0	21.50	21.38	21.35	20.61	20.41	20.50	19.95	19.69	19.77
		12@7	21.34	21.38	21.31	20.61	20.58	20.45	19.83	19.85	19.77
		12@13	21.33	21.40	21.31	20.54	20.37	20.37	19.84	19.70	19.68
		25@0	21.34	21.41	21.34	20.64	20.66	20.57	20.01	19.58	19.64
Band	Bandwidth (MHz)	RB	20000 1715	20175 1732.5	20350 1750	20000 1715	20175 1732.5	20350 1750	20000 1715	20175 1732.5	20350 1750
4	10	1@0	22.58	22.31	22.45	22.43	22.09	21.30	21.63	22.10	21.04
		1@25	22.39	22.55	22.33	22.37	22.48	21.69	21.75	21.37	20.73
		1@49	22.63	22.36	22.35	22.55	22.02	21.33	21.47	22.17	20.98
		25@0	21.47	21.37	21.31	20.61	20.58	20.68	19.88	19.82	19.94
		25@12	21.40	21.43	21.39	20.56	20.58	20.65	19.90	19.92	19.94
		25@25	21.43	21.43	21.42	20.64	20.59	20.72	19.87	19.82	19.94
		50@0	21.42	21.37	21.43	20.64	20.65	20.56	19.82	19.97	19.94
Band	Bandwidth (MHz)	RB	20025 1717.5	20175 1732.5	20325 1747.5	20025 1717.5	20175 1732.5	20325 1747.5	20025 1717.5	20175 1732.5	20325 1747.5
4	15	1@0	22.57	22.75	22.22	22.41	22.79	22.17	21.82	22.18	21.26
		1@37	22.45	22.81	22.18	22.39	22.68	22.01	21.74	21.41	21.50
		1@74	22.48	22.79	22.11	22.27	22.71	22.03	21.49	22.10	21.33
		36@0	21.45	21.42	21.40	20.61	20.77	20.64	19.82	20.13	19.95
		36@20	21.36	21.36	21.41	20.66	20.70	20.48	19.87	19.86	19.77
		36@39	21.39	21.40	21.30	20.78	20.62	20.57	19.89	20.02	19.86
		75@0	21.50	21.40	21.34	20.74	20.72	20.60	19.94	19.89	19.75
Band	Bandwidth (MHz)	RB	20050 1720	20175 1732.5	20300 1745	20050 1720	20175 1732.5	20300 1745	20050 1720	20175 1732.5	20300 1745
4	20	1@0	22.83	22.68	22.84	22.08	22.04	22.69	21.31	22.11	20.75
		1@49	22.66	22.45	22.81	21.96	21.99	22.54	21.20	22.04	20.76
		1@99	22.67	22.48	22.77	21.93	22.05	22.73	21.14	22.10	20.60
		50@0	21.54	21.36	21.53	20.75	20.72	20.61	19.84	19.78	20.02
		50@24	21.39	21.45	21.51	20.75	20.69	20.60	19.85	19.76	19.97
		50@50	21.42	21.41	21.42	20.71	20.57	20.59	19.83	19.81	19.89
		100@0	21.48	21.51	21.31	20.63	20.63	20.62	19.74	19.85	19.85

5.2.3 LTE Band 5

Conducted Power(dBm)												
Modulation			QPSK			16QAM			64QAM			
Band	Bandwidth (MHz)	RB	20407	20525	20643	20407	20525	20643	20407	20525	20643	
			824.7	836.5	848.3	824.7	836.5	848.3	824.7	836.5	848.3	
5	1.4	1@0	22.67	22.74	22.66	22.59	22.69	22.09	21.78	22.03	21.20	
		1@3	22.75	22.58	22.72	22.30	22.49	21.65	22.17	22.58	21.64	
		1@5	22.68	22.70	22.75	22.57	22.68	22.11	21.74	22.03	21.15	
		3@0	22.77	22.80	22.81	21.81	21.79	21.61	21.49	21.25	21.50	
		3@1	22.83	22.72	22.75	21.91	21.84	21.81	21.47	21.36	21.26	
		3@3	22.77	22.78	22.74	22.09	21.64	22.03	21.52	21.19	21.50	
		6@0	21.68	21.72	21.77	20.90	20.98	21.03	20.38	20.56	20.51	
Band	Bandwidth (MHz)	RB	20415	20525	20635	20415	20525	20635	20415	20525	20635	
			825.5	836.5	847.5	825.5	836.5	847.5	825.5	836.5	847.5	
5	3	1@0	22.62	22.75	22.71	22.54	22.49	21.66	21.98	21.97	21.15	
		1@8	22.59	22.72	22.69	22.44	22.33	21.66	21.86	21.92	21.10	
		1@14	22.68	22.77	22.71	22.46	22.42	21.68	21.93	21.87	21.22	
		8@0	21.75	21.78	21.78	21.13	20.87	21.01	20.65	20.24	20.50	
		8@4	21.81	21.66	21.73	20.84	21.00	20.91	20.31	20.40	20.47	
		8@7	21.81	21.75	21.62	21.05	20.87	21.09	20.58	20.42	20.60	
		15@0	21.79	21.77	22.68	20.94	20.87	20.89	20.46	20.38	20.33	
Band	Bandwidth (MHz)	RB	20425	20525	20625	20425	20525	20625	20425	20525	20625	
			826.5	836.5	846.5	826.5	836.5	846.5	826.5	836.5	846.5	
5	5	1@0	22.75	22.57	22.71	21.54	22.14	22.28	21.08	21.74	21.31	
		1@12	22.72	22.58	22.73	21.46	22.17	22.31	21.02	21.72	21.25	
		1@24	22.76	22.57	22.67	21.49	22.20	22.30	21.05	21.63	21.29	
		12@0	21.72	21.84	21.70	20.83	20.67	20.75	20.31	20.22	20.30	
		12@7	21.77	21.83	21.75	20.85	20.79	20.82	20.26	20.35	20.32	
		12@13	21.68	21.66	21.77	20.92	20.67	20.88	20.27	20.19	20.33	
		25@0	21.63	21.71	21.75	20.96	20.79	20.91	20.43	20.34	20.44	
Band	Bandwidth (MHz)	RB	20450	20525	20600	20450	20525	20600	20450	20525	20600	
			829	836.5	844	829	836.5	844	829	836.5	844	
5	10	1@0	22.66	22.76	22.79	22.14	22.57	22.68	21.65	22.20	22.46	
		1@25	22.67	22.82	22.89	22.17	22.64	22.65	21.59	22.28	22.51	
		1@49	22.63	22.80	22.76	22.10	22.68	22.69	21.65	22.24	22.55	
		25@0	21.69	21.71	21.74	21.11	20.84	20.87	20.61	20.38	20.39	
		25@12	21.80	21.72	21.75	21.05	20.81	20.91	20.49	20.29	20.41	
		25@25	21.75	21.74	21.78	21.04	20.85	20.91	20.50	20.41	20.47	
		50@0	21.78	21.78	21.76	20.88	20.91	20.90	20.36	20.31	20.41	

5.2.4 LTE Band 7

Conducted Power(dBm)											
Modulation			QPSK			16QAM			64QAM		
Band	Bandwidth (MHz)	RB	20775	21100	21425	20775	21100	21425	20775	21100	21425
			2502.5	2535	2567.5	2502.5	2535	2567.5	2502.5	2535	2567.5
7	5	1@0	22.47	22.51	22.43	21.14	21.86	22.23	20.46	20.97	21.30
		1@12	22.49	22.56	22.46	21.22	21.90	22.16	20.38	21.03	21.32
		1@24	22.52	22.57	22.40	21.38	21.91	22.18	20.57	21.18	21.34
		12@0	21.41	21.53	21.61	20.67	20.61	20.71	19.82	19.75	19.82
		12@7	21.43	21.67	21.51	20.68	20.79	20.71	19.78	19.97	19.83
		12@13	21.50	21.67	21.59	20.62	20.84	20.72	19.79	19.99	19.84
		25@0	21.46	21.54	21.67	20.80	20.75	20.86	19.92	19.80	19.98
Band	Bandwidth (MHz)	RB	20800	21100	21400	20800	21100	21400	20800	21100	21400
			2505	2535	2565	2505	2535	2565	2505	2535	2565
7	10	1@0	22.49	22.85	22.63	22.32	22.79	22.14	21.47	22.11	21.23
		1@25	22.43	22.92	22.55	22.35	22.81	22.07	21.45	22.10	21.15
		1@49	22.40	22.95	22.71	22.35	22.86	22.06	21.84	22.13	21.22
		25@0	21.50	21.56	21.67	20.70	20.83	20.90	19.80	19.93	20.04
		25@12	21.45	21.59	21.59	20.70	20.90	20.96	19.71	19.96	20.15
		25@25	21.52	21.64	21.58	20.68	20.84	21.03	19.87	19.94	20.05
		50@0	21.53	21.52	21.61	20.64	20.82	20.84	19.78	20.01	20.02
Band	Bandwidth (MHz)	RB	20825	21100	21375	20825	21100	21375	20825	21100	21375
			2507.5	2535	2562.5	2507.5	2535	2562.5	2507.5	2535	2562.5
7	15	1@0	22.53	22.83	22.30	22.37	22.74	22.28	21.70	22.23	21.42
		1@37	22.52	22.87	22.29	22.33	22.81	22.23	21.65	22.20	21.36
		1@74	22.56	22.92	22.41	22.41	22.85	22.18	21.60	22.22	21.35
		36@0	21.49	21.49	21.67	20.63	20.83	20.90	19.85	19.94	20.02
		36@20	21.53	21.59	21.55	20.62	20.91	20.75	19.82	20.09	19.86
		36@39	21.51	21.67	21.64	20.67	20.81	20.76	19.85	20.09	19.93
		75@0	21.59	21.62	21.55	20.70	20.82	20.80	19.81	19.90	19.90
Band	Bandwidth (MHz)	RB	20850	21100	21350	20850	21100	21350	20850	21100	21350
			2510	2535	2560	2510	2535	2560	2510	2535	2560
7	20	1@0	22.99	22.83	22.74	22.72	22.07	22.37	22.16	21.12	21.45
		1@49	22.86	22.84	22.73	22.75	22.05	22.41	21.90	21.13	21.46
		1@99	22.92	22.88	22.84	22.88	22.14	22.29	22.07	21.35	21.44
		50@0	21.58	21.64	21.73	20.68	20.88	20.83	19.90	20.00	20.02
		50@24	21.49	21.57	21.75	20.66	20.87	20.85	19.86	19.99	20.01
		50@50	21.52	21.59	21.53	20.75	20.80	20.83	19.83	19.99	20.03
		100@0	21.55	21.57	21.67	20.78	20.94	20.81	20.03	19.95	19.98

5.2.5 LTE Band 12

Conducted Power(dBm)											
Modulation			QPSK			16QAM			64QAM		
Band	Bandwidth (MHz)	RB	23017	23095	23173	23017	23095	23173	23017	23095	23173
			699.7	707.5	715.3	699.7	707.5	715.3	699.7	707.5	715.3
12	1.4	1@0	22.75	22.89	22.86	22.61	22.81	22.15	22.20	22.13	21.43
		1@3	22.78	22.85	22.93	22.25	22.65	22.14	21.91	22.79	21.81
		1@5	22.78	22.83	22.84	22.51	22.79	21.89	21.93	22.17	21.43
		3@0	22.89	22.99	22.84	21.65	21.83	22.21	21.55	21.35	21.78
		3@1	22.80	22.88	22.88	21.83	21.92	21.91	21.49	21.42	21.52
		3@3	22.79	22.89	22.93	21.91	21.71	22.13	21.46	21.27	21.73
		6@0	21.62	21.90	22.02	20.80	21.05	21.17	20.34	20.68	20.81
Band	Bandwidth (MHz)	RB	23025	23095	23165	23025	23095	23165	23025	23095	23165
			700.5	707.5	714.5	700.5	707.5	714.5	700.5	707.5	714.5
12	3	1@0	22.64	22.85	22.89	22.47	22.63	21.88	22.05	22.20	21.45
		1@8	22.71	22.85	22.87	22.47	22.62	21.93	22.01	22.21	21.41
		1@14	22.85	22.88	22.77	22.65	22.55	21.90	22.19	22.19	21.53
		8@0	21.62	21.73	21.86	20.89	20.84	21.22	20.60	20.46	20.79
		8@4	21.75	21.93	21.90	20.72	20.95	21.20	20.32	20.57	20.67
		8@7	21.84	21.91	22.00	21.18	20.87	21.19	20.79	20.55	20.77
		15@0	21.70	21.90	21.87	20.76	20.90	21.03	20.35	20.53	20.65
Band	Bandwidth (MHz)	RB	23035	23095	23155	23035	23095	23155	23035	23095	23155
			701.5	707.5	713.5	701.5	707.5	713.5	701.5	707.5	713.5
12	5	1@0	22.79	22.78	22.93	21.50	22.04	22.44	20.98	21.82	22.00
		1@12	22.83	22.78	22.83	21.71	22.15	22.42	21.10	21.76	22.02
		1@24	22.92	22.87	22.89	21.61	22.12	22.37	21.14	21.85	22.07
		12@0	21.61	21.73	21.96	20.59	20.69	21.03	20.35	20.45	20.62
		12@7	21.85	21.80	21.87	20.86	20.90	21.03	20.59	20.56	20.66
		12@13	21.82	21.81	22.01	20.90	20.78	21.00	20.53	20.52	20.65
		25@0	21.76	21.86	22.05	20.99	20.79	21.09	20.64	20.51	20.70
Band	Bandwidth (MHz)	RB	23060	23095	23130	23060	23095	23130	23060	23095	23130
			704	707.5	711	704	707.5	711	704	707.5	711
12	10	1@0	22.79	22.86	22.88	22.08	22.77	22.86	22.07	22.82	21.73
		1@25	22.92	22.90	22.99	22.20	22.81	22.96	22.26	22.80	21.85
		1@49	22.90	22.93	22.97	22.13	22.89	22.93	22.16	22.91	21.84
		25@0	22.02	21.93	21.71	21.08	20.90	20.87	20.55	20.47	20.61
		25@12	21.83	21.93	21.87	21.09	20.74	21.03	20.59	20.62	20.72
		25@25	21.95	21.87	21.90	21.06	21.03	21.14	20.58	20.68	20.83
		50@0	21.89	21.92	21.82	21.02	20.92	20.96	20.51	20.51	20.63

5.2.6 LTE Band 13

Conducted Power(dBm)											
Modulation			QPSK			16QAM			64QAM		
Band	Bandwidth (MHz)	RB	23205 779.5	23230 782	23255 784.5	23205 779.5	23230 782	23255 784.5	23205 779.5	23230 782	23255 784.5
13	5	1@0	22.71	22.67	22.66	21.66	22.13	22.17	21.19	21.69	21.78
		1@12	22.61	22.52	22.65	21.60	22.14	22.12	21.18	21.73	21.79
		1@24	22.67	22.58	22.73	21.63	22.15	22.18	21.05	21.67	21.83
		12@0	21.73	21.70	21.75	20.91	21.00	20.89	20.45	20.58	20.41
		12@7	21.81	21.69	21.83	21.16	20.83	20.82	20.63	20.35	20.36
		12@13	21.79	21.76	21.73	21.11	20.71	20.91	20.62	20.38	20.47
		25@0	21.75	21.75	21.69	21.23	20.73	20.93	20.75	20.28	20.50
Band	Bandwidth (MHz)	RB	0 0	23230 782	0 0	0 0	23230 782	0 0	0 0	23230 782	0 0
3	10	1@0	/	22.78	/	/	21.63	/	/	21.22	/
		1@25	/	22.61	/	/	21.43	/	/	21.07	/
		1@49	/	22.69	/	/	21.54	/	/	21.09	/
		25@0	/	21.78	/	/	21.25	/	/	20.83	/
		25@12	/	21.81	/	/	20.88	/	/	20.50	/
		25@25	/	21.70	/	/	20.98	/	/	20.59	/
		50@0	/	21.70	/	/	20.83	/	/	20.42	/

5.2.7 LTE Band 17

Conducted Power(dBm)											
Modulation			QPSK			16QAM			64QAM		
Band	Bandwidth	RB	23755	23790	23825	23755	23790	23825	23755	23790	23825
	(MHz)		706.5	710	713.5	706.5	710	713.5	706.5	710	713.5
17	5	1@0	22.84	22.86	22.91	21.73	22.02	22.47	21.23	21.70	22.00
		1@12	22.79	22.79	22.83	21.54	22.12	22.37	21.19	21.70	22.06
		1@24	22.81	22.82	22.88	21.69	22.18	22.35	21.35	21.71	21.96
		12@0	21.81	21.84	21.95	20.87	20.61	21.03	20.53	20.33	20.62
		12@7	21.83	21.88	21.87	20.76	20.91	21.03	20.43	20.55	20.64
		12@13	21.93	21.90	22.01	20.91	20.89	20.99	20.51	20.52	20.63
		25@0	21.69	21.91	22.05	20.89	20.90	21.08	20.58	20.54	20.69
Band	Bandwidth	RB	23780	23790	23800	23780	23790	23800	23780	23790	23800
	(MHz)		709	710	711	709	710	711	709	710	711
17	10	1@0	22.85	22.87	22.93	22.11	22.79	22.91	21.39	22.49	22.80
		1@25	22.79	22.85	22.90	22.10	22.82	22.89	21.28	22.60	22.86
		1@49	22.88	22.96	22.89	22.26	22.95	22.88	21.40	22.54	22.91
		25@0	21.81	21.86	21.86	20.93	20.76	20.86	20.60	20.47	20.55
		25@12	21.84	21.95	21.87	20.95	20.86	21.02	20.59	20.43	20.72
		25@25	21.96	21.93	21.90	21.17	21.05	21.10	20.79	20.57	20.81
		50@0	21.85	21.80	21.96	20.93	20.93	20.95	20.46	20.53	20.53

5.2.8 LTE Band 66

Conducted Power(dBm)											
Modulation			QPSK			16QAM			64QAM		
Band	Bandwidth (MHz)	RB	131979	132322	132665	131979	132322	132665	131979	132322	132665
			1710.7	1745	1779.3	1710.7	1745	1779.3	1710.7	1745	1779.3
66	1.4	1@0	22.31	22.25	22.27	21.97	22.23	21.14	21.40	21.63	20.50
		1@3	22.27	22.25	22.24	22.46	22.22	21.12	21.38	21.62	20.46
		1@5	22.30	22.30	22.25	22.42	22.24	21.11	21.38	21.64	20.49
		3@0	22.47	22.42	22.37	21.67	21.27	21.41	20.69	20.62	20.75
		3@1	22.38	22.37	22.26	21.56	21.16	21.49	21.02	20.75	20.80
		3@3	22.43	22.41	22.28	21.38	21.26	21.33	20.71	20.61	20.78
		6@0	21.41	21.45	21.30	20.54	20.75	20.59	19.97	20.08	19.91
Band	Bandwidth (MHz)	RB	131987	132322	132657	131987	132322	132657	131987	132322	132657
			1711.5	1745	1778.5	1711.5	1745	1778.5	1711.5	1745	1778.5
66	3	1@0	22.58	22.36	22.31	22.35	22.27	21.21	21.70	21.67	20.46
		1@8	22.66	22.23	22.30	22.28	22.12	21.19	21.65	21.61	20.46
		1@14	22.63	22.28	22.24	22.28	22.25	21.14	21.61	21.58	20.42
		8@0	21.30	21.30	21.23	20.82	20.73	20.75	20.20	19.95	20.09
		8@4	21.43	21.34	21.36	20.51	20.82	20.61	19.85	20.14	19.97
		8@7	21.44	21.30	21.26	20.87	20.67	20.75	20.24	20.12	20.12
		15@0	21.37	21.31	21.32	20.58	20.60	20.52	19.93	20.06	19.93
Band	Bandwidth (MHz)	RB	131997	132322	132647	131997	132322	132647	131997	132322	132647
			1712.5	1745	1777.5	1712.5	1745	1777.5	1712.5	1745	1777.5
66	5	1@0	22.38	22.34	22.28	21.02	22.03	21.48	20.54	21.29	21.32
		1@12	22.47	22.64	22.40	21.30	21.88	21.87	20.48	21.22	21.26
		1@24	22.43	22.25	22.26	21.08	21.96	21.34	20.52	21.27	21.21
		12@0	21.37	21.38	21.33	20.62	20.42	20.50	19.88	19.75	19.86
		12@7	21.41	21.34	21.32	20.59	20.59	20.42	19.87	19.94	19.88
		12@13	21.37	21.36	21.31	20.63	20.49	20.39	20.06	20.10	19.86
		25@0	21.39	21.39	21.35	20.75	20.65	20.59	20.10	20.14	19.96
Band	Bandwidth (MHz)	RB	132022	132322	132622	132022	132322	132622	132022	132322	132622
			1715	1745	1775	1715	1745	1775	1715	1745	1775
66	10	1@0	22.55	22.66	22.33	22.48	22.51	21.18	21.66	22.37	21.17
		1@25	22.54	22.71	22.34	22.31	22.64	21.77	21.72	21.94	20.52
		1@49	22.60	22.61	22.23	22.51	22.45	21.11	21.81	22.29	21.12
		25@0	21.41	21.37	21.37	20.56	20.64	20.72	20.00	20.05	20.03
		25@12	21.33	21.36	21.38	20.49	20.66	20.59	19.88	20.03	20.11
		25@25	21.36	21.30	21.21	20.68	20.63	20.68	19.97	20.01	19.99
		50@0	21.36	21.41	21.37	20.55	20.53	20.58	19.92	20.00	19.97
Band	Bandwidth (MHz)	RB	132047	132322	132597	132047	132322	132597	132047	132322	132597
			1717.5	1745	1772.5	1717.5	1745	1772.5	1717.5	1745	1772.5
66	15	1@0	22.58	22.74	22.36	22.48	22.79	22.23	21.93	22.07	21.16
		1@37	22.57	22.81	22.77	22.50	22.77	21.69	21.64	22.37	21.55
		1@74	22.68	22.76	22.21	22.48	22.72	22.14	21.82	21.95	21.12
		36@0	21.46	21.42	21.34	20.57	20.53	20.58	20.08	19.93	19.91
		36@20	21.42	21.46	21.43	20.60	20.61	20.52	19.91	20.00	19.89
		36@39	21.32	21.30	21.35	20.69	20.71	20.51	20.11	19.92	19.88
		75@0	21.45	21.35	21.37	20.64	20.69	20.55	19.99	19.98	19.91
Band	Bandwidth (MHz)	RB	132072	132322	132572	132072	132322	132572	132072	132322	132572
			1720	1745	1770	1720	1745	1770	1720	1745	1770
66	20	1@0	22.47	22.88	22.55	21.96	22.73	21.94	21.39	21.32	22.13
		1@49	22.39	22.71	22.59	21.96	22.67	21.94	21.39	21.20	22.12
		1@99	22.48	22.66	22.53	21.92	22.69	21.96	21.32	21.12	22.09
		50@0	21.44	21.44	21.39	20.52	20.49	20.63	20.01	19.99	19.96
		50@24	21.41	21.30	21.38	20.64	20.57	20.58	20.01	20.00	19.92
		50@50	21.41	21.46	21.29	20.73	20.53	20.51	20.03	19.96	19.91
		100@0	21.42	21.47	21.35	20.62	20.59	20.60	20.04	19.85	20.01

5.2.9 LTE Band 71

Conducted Power(dBm)												
Modulation			QPSK			16QAM			64QAM			
Band	Bandwidth (MHz)	RB	133147	133297	133447	133147	133297	133447	133147	133297	133447	
			665.5	680.5	695.5	665.5	680.5	695.5	665.5	680.5	695.5	
71	5	1@0	22.31	22.18	22.75	21.19	21.66	21.73	20.84	21.32	21.63	
		1@12	22.41	22.30	22.69	21.22	21.83	21.64	20.89	21.40	21.79	
		1@24	22.31	22.35	22.70	21.12	21.76	21.73	20.67	21.46	21.78	
		12@0	21.39	21.40	21.58	20.34	20.34	20.56	19.85	19.98	20.21	
		12@7	21.35	21.37	21.68	20.29	20.44	20.66	19.96	19.90	20.29	
		12@13	21.40	21.39	21.73	20.33	20.37	20.67	19.82	19.99	20.29	
		25@0	21.37	21.35	21.75	20.46	20.27	20.79	19.97	19.90	20.44	
Band	Bandwidth (MHz)	RB	133172	133297	133422	133172	133297	133422	133172	133297	133422	
			668	680.5	693	668	680.5	693	668	680.5	693	
71	10	1@0	22.33	22.61	22.41	22.13	22.52	21.82	21.73	22.14	20.88	
		1@25	22.37	22.70	22.49	21.98	22.66	21.90	21.66	22.28	21.00	
		1@49	22.38	22.74	22.59	22.13	22.69	21.89	21.73	22.36	21.13	
		25@0	21.44	21.23	21.56	20.25	20.28	20.66	19.92	19.91	20.26	
		25@12	21.35	21.40	21.48	20.35	20.47	20.64	20.03	20.13	20.33	
		25@25	21.28	21.48	21.67	20.39	20.44	20.92	19.98	20.06	20.51	
		50@0	21.30	21.46	21.66	20.47	20.50	20.61	20.00	20.02	20.23	
Band	Bandwidth (MHz)	RB	133197	133297	133397	133197	133297	133397	133197	133297	133397	
			670.5	680.5	690.5	670.5	680.5	690.5	670.5	680.5	690.5	
71	15	1@0	22.25	22.73	22.03	22.11	22.71	21.82	21.97	22.45	21.40	
		1@37	22.21	22.71	22.07	21.95	22.71	21.83	21.90	22.34	21.48	
		1@74	22.26	22.72	22.35	22.02	22.74	22.05	21.98	22.49	21.74	
		36@0	21.36	21.39	21.51	20.41	20.32	20.59	19.93	19.85	20.20	
		36@20	21.38	21.44	21.61	20.39	20.43	20.54	19.96	20.01	20.20	
		36@39	21.53	21.47	21.58	20.46	20.48	20.73	19.98	20.14	20.32	
		75@0	21.29	21.33	21.57	20.50	20.42	20.51	20.06	19.94	20.13	
Band	Bandwidth (MHz)	RB	133222	133322	133372	133222	133322	133372	133222	133322	133372	
			673	683	688	673	683	688	673	683	688	
71	20	1@0	22.72	22.47	22.34	22.64	21.70	22.21	22.28	21.43	21.51	
		1@49	22.73	22.36	22.42	22.69	21.76	22.17	22.17	21.41	21.73	
		1@99	22.82	22.74	22.74	22.74	21.81	22.64	22.34	21.65	21.97	
		50@0	21.42	21.33	21.48	20.25	20.33	20.44	19.90	20.03	20.16	
		50@24	21.25	21.39	21.54	20.38	20.49	20.60	19.94	20.08	20.20	
		50@50	21.40	21.50	21.63	20.33	20.65	20.53	19.90	20.28	20.28	
		100@0	21.24	21.29	21.46	20.54	20.49	20.56	20.07	20.02	20.16	

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)
LTE Band 13: FCC 47 CFR Part 27.50(b)(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.

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.

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	20.11	19.68	19.55	33.01	0.1026	0.0929	0.0902	2	Pass
Middle	20.42	20.31	19.81	33.01	0.1102	0.1074	0.0957	2	Pass
Highest	20.17	19.38	18.73	33.01	0.1040	0.0867	0.0746	2	Pass
Channel Bandwidth: 3MHz									
Lowest	20.08	20.01	19.40	33.01	0.1019	0.1002	0.0871	2	Pass
Middle	20.07	20.44	19.76	33.01	0.1016	0.1107	0.0946	2	Pass
Highest	20.09	19.03	18.37	33.01	0.1021	0.0800	0.0687	2	Pass
Channel Bandwidth: 5MHz									
Lowest	20.09	18.97	18.36	33.01	0.1021	0.0789	0.0685	2	Pass
Middle	20.03	19.70	19.06	33.01	0.1007	0.0933	0.0805	2	Pass
Highest	20.06	19.81	19.18	33.01	0.1014	0.0957	0.0828	2	Pass
Channel Bandwidth: 10MHz									
Lowest	20.14	20.10	19.59	33.01	0.1033	0.1023	0.0910	2	Pass
Middle	20.48	20.21	19.87	33.01	0.1117	0.1050	0.0971	2	Pass
Highest	20.25	19.57	18.96	33.01	0.1059	0.0906	0.0787	2	Pass
Channel Bandwidth: 15MHz									
Lowest	20.23	20.08	19.61	33.01	0.1054	0.1019	0.0914	2	Pass
Middle	20.48	20.35	19.91	33.01	0.1117	0.1084	0.0979	2	Pass
Highest	20.27	20.00	19.32	33.01	0.1064	0.1000	0.0855	2	Pass
Channel Bandwidth: 20MHz									
Lowest	20.29	19.69	19.87	33.01	0.1069	0.0931	0.0971	2	Pass
Middle	20.40	20.09	19.46	33.01	0.1096	0.1021	0.0883	2	Pass
Highest	20.65	20.59	19.41	33.01	0.1161	0.1146	0.0873	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	19.56	19.12	18.38	30.00	0.0904	0.0817	0.0689	1	Pass
Middle	19.52	19.15	18.41	30.00	0.0895	0.0822	0.0693	1	Pass
Highest	19.37	18.59	17.91	30.00	0.0865	0.0723	0.0618	1	Pass
Channel Bandwidth: 3MHz									
Lowest	19.42	19.39	18.63	30.00	0.0875	0.0869	0.0729	1	Pass
Middle	19.52	19.07	18.39	30.00	0.0895	0.0807	0.0690	1	Pass
Highest	19.41	18.59	17.87	30.00	0.0873	0.0723	0.0612	1	Pass
Channel Bandwidth: 5MHz									
Lowest	19.60	18.09	17.57	30.00	0.0912	0.0644	0.0571	1	Pass
Middle	19.65	18.99	18.30	30.00	0.0923	0.0793	0.0676	1	Pass
Highest	19.36	18.92	18.21	30.00	0.0863	0.0780	0.0662	1	Pass
Channel Bandwidth: 10MHz									
Lowest	19.63	19.55	18.75	30.00	0.0918	0.0902	0.0750	1	Pass
Middle	19.55	19.48	19.17	30.00	0.0902	0.0887	0.0826	1	Pass
Highest	19.45	18.69	18.04	30.00	0.0881	0.0740	0.0637	1	Pass
Channel Bandwidth: 15MHz									
Lowest	19.57	19.41	18.82	30.00	0.0906	0.0873	0.0762	1	Pass
Middle	19.81	19.79	19.18	30.00	0.0957	0.0953	0.0828	1	Pass
Highest	19.22	19.17	18.50	30.00	0.0836	0.0826	0.0708	1	Pass
Channel Bandwidth: 20MHz									
Lowest	19.83	19.08	18.31	30.00	0.0962	0.0809	0.0678	1	Pass
Middle	19.68	19.05	19.11	30.00	0.0929	0.0804	0.0815	1	Pass
Highest	19.84	19.73	17.76	30.00	0.0964	0.0940	0.0597	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	20.68	20.44	20.02	38.45	0.1169	0.1107	0.1005	7	Pass
Middle	20.65	20.54	20.43	38.45	0.1161	0.1132	0.1104	7	Pass
Highest	20.66	19.96	19.49	38.45	0.1164	0.0991	0.0889	7	Pass
Channel Bandwidth: 3MHz									
Lowest	20.53	20.39	19.83	38.45	0.1130	0.1094	0.0962	7	Pass
Middle	20.62	20.34	19.82	38.45	0.1153	0.1081	0.0959	7	Pass
Highest	20.56	19.53	19.07	38.45	0.1138	0.0897	0.0807	7	Pass
Channel Bandwidth: 5MHz									
Lowest	20.61	19.39	18.93	38.45	0.1151	0.0869	0.0782	7	Pass
Middle	20.43	20.05	19.59	38.45	0.1104	0.1012	0.0910	7	Pass
Highest	20.58	20.16	19.16	38.45	0.1143	0.1038	0.0824	7	Pass
Channel Bandwidth: 10MHz									
Lowest	20.52	20.02	19.50	38.45	0.1127	0.1005	0.0891	7	Pass
Middle	20.67	20.53	20.13	38.45	0.1167	0.1130	0.1030	7	Pass
Highest	20.74	20.54	20.40	38.45	0.1186	0.1132	0.1096	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	19.32	18.18	17.37	33.01	0.0855	0.0658	0.0546	2	Pass
Middle	19.37	18.71	17.98	33.01	0.0865	0.0743	0.0628	2	Pass
Highest	19.26	19.03	18.14	33.01	0.0843	0.0800	0.0652	2	Pass
Channel Bandwidth: 10MHz									
Lowest	19.29	19.15	18.64	33.01	0.0849	0.0822	0.0731	2	Pass
Middle	19.75	19.66	18.93	33.01	0.0944	0.0925	0.0782	2	Pass
Highest	19.51	18.94	18.03	33.01	0.0893	0.0783	0.0635	2	Pass
Channel Bandwidth: 15MHz									
Lowest	19.36	19.21	18.50	33.01	0.0863	0.0834	0.0708	2	Pass
Middle	19.72	19.65	19.03	33.01	0.0938	0.0923	0.0800	2	Pass
Highest	19.21	19.08	18.22	33.01	0.0834	0.0809	0.0664	2	Pass
Channel Bandwidth: 20MHz									
Lowest	19.79	19.68	18.96	33.01	0.0953	0.0929	0.0787	2	Pass
Middle	19.68	18.94	18.15	33.01	0.0929	0.0783	0.0653	2	Pass
Highest	19.64	19.21	18.26	33.01	0.0920	0.0834	0.0670	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	17.34	17.06	16.65	34.77	0.0542	0.0508	0.0462	3	Pass
Middle	17.44	17.26	17.24	34.77	0.0555	0.0532	0.0530	3	Pass
Highest	17.38	16.66	16.26	34.77	0.0547	0.0463	0.0423	3	Pass
Channel Bandwidth: 3MHz									
Lowest	17.30	17.10	16.64	34.77	0.0537	0.0513	0.0461	3	Pass
Middle	17.33	17.08	16.66	34.77	0.0541	0.0511	0.0463	3	Pass
Highest	17.34	16.38	15.98	34.77	0.0542	0.0435	0.0396	3	Pass
Channel Bandwidth: 5MHz									
Lowest	17.37	16.16	15.59	34.77	0.0546	0.0413	0.0362	3	Pass
Middle	17.32	16.60	16.30	34.77	0.0540	0.0457	0.0427	3	Pass
Highest	17.38	16.89	16.52	34.77	0.0547	0.0489	0.0449	3	Pass
Channel Bandwidth: 10MHz									
Lowest	17.37	16.65	16.71	34.77	0.0546	0.0462	0.0469	3	Pass
Middle	17.38	17.34	17.36	34.77	0.0547	0.0542	0.0545	3	Pass
Highest	17.44	17.41	16.30	34.77	0.0555	0.0551	0.0427	3	Pass

5.3.6 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	17.06	16.01	15.54	34.77	0.0508	0.0399	0.0358	3	Pass
Middle	17.02	16.50	16.08	34.77	0.0504	0.0447	0.0406	3	Pass
Highest	17.08	16.53	16.18	34.77	0.0511	0.0450	0.0415	3	Pass
Channel Bandwidth: 10MHz									
Lowest	/	/	/	34.77	/	/	/	3	Pass
Middle	17.13	15.98	15.57	34.77	0.0516	0.0396	0.0361	3	Pass
Highest	/	/	/	34.77	/	/	/	3	Pass

5.3.7 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	17.19	16.08	15.70	34.77	0.0524	0.0406	0.0372	3	Pass
Middle	17.21	16.53	16.06	34.77	0.0526	0.0450	0.0404	3	Pass
Highest	17.26	16.82	16.41	34.77	0.0532	0.0481	0.0438	3	Pass
Channel Bandwidth: 10MHz									
Lowest	17.23	16.61	15.75	34.77	0.0528	0.0458	0.0376	3	Pass
Middle	17.31	17.30	16.95	34.77	0.0538	0.0537	0.0495	3	Pass
Highest	17.28	17.26	17.26	34.77	0.0535	0.0532	0.0532	3	Pass

5.3.8 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	19.47	19.46	18.40	30.00	0.0885	0.0883	0.0692	1	Pass
Middle	19.42	19.24	18.64	30.00	0.0875	0.0839	0.0731	1	Pass
Highest	19.37	18.49	17.80	30.00	0.0865	0.0706	0.0603	1	Pass
Channel Bandwidth: 3MHz									
Lowest	19.66	19.35	18.70	30.00	0.0925	0.0861	0.0741	1	Pass
Middle	19.36	19.27	18.67	30.00	0.0863	0.0845	0.0736	1	Pass
Highest	19.31	18.21	17.46	30.00	0.0853	0.0662	0.0557	1	Pass
Channel Bandwidth: 5MHz									
Lowest	19.47	18.30	17.54	30.00	0.0885	0.0676	0.0568	1	Pass
Middle	19.64	19.03	18.29	30.00	0.0920	0.0800	0.0675	1	Pass
Highest	19.40	18.87	18.32	30.00	0.0871	0.0771	0.0679	1	Pass
Channel Bandwidth: 10MHz									
Lowest	19.60	19.51	18.81	30.00	0.0912	0.0893	0.0760	1	Pass
Middle	19.71	19.64	19.37	30.00	0.0935	0.0920	0.0865	1	Pass
Highest	19.34	18.77	18.17	30.00	0.0859	0.0753	0.0656	1	Pass
Channel Bandwidth: 15MHz									
Lowest	19.68	19.50	18.93	30.00	0.0929	0.0891	0.0782	1	Pass
Middle	19.81	19.79	19.37	30.00	0.0957	0.0953	0.0865	1	Pass
Highest	19.77	19.23	18.55	30.00	0.0948	0.0838	0.0716	1	Pass
Channel Bandwidth: 20MHz									
Lowest	19.48	18.96	18.39	30.00	0.0887	0.0787	0.0690	1	Pass
Middle	19.88	19.73	18.32	30.00	0.0973	0.0940	0.0679	1	Pass
Highest	19.59	18.96	19.13	30.00	0.0910	0.0787	0.0818	1	Pass

5.3.9 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	16.46	15.27	14.94	33.01	0.0443	0.0337	0.0312	3	Pass
Middle	16.40	15.88	15.51	33.01	0.0437	0.0387	0.0356	3	Pass
Highest	16.80	15.78	15.84	33.01	0.0479	0.0378	0.0384	3	Pass
Channel Bandwidth: 10MHz									
Lowest	16.43	16.18	15.78	33.01	0.0440	0.0415	0.0378	3	Pass
Middle	16.79	16.74	16.41	33.01	0.0478	0.0472	0.0438	3	Pass
Highest	16.64	15.95	15.18	33.01	0.0461	0.0394	0.0330	3	Pass
Channel Bandwidth: 15MHz									
Lowest	16.31	16.16	16.03	33.01	0.0428	0.0413	0.0401	3	Pass
Middle	16.78	16.79	16.54	33.01	0.0476	0.0478	0.0451	3	Pass
Highest	16.40	16.10	15.79	33.01	0.0437	0.0407	0.0379	3	Pass
Channel Bandwidth: 20MHz									
Lowest	16.87	16.79	16.39	33.01	0.0486	0.0478	0.0436	3	Pass
Middle	16.79	15.86	15.70	33.01	0.0478	0.0385	0.0372	3	Pass
Highest	16.79	16.69	16.02	33.01	0.0478	0.0467	0.0400	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) **LTE Band 13:** 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 A**

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**

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)
LTE Band 13: FCC 47 CFR Part 27.53(c)(2)

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.

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;

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 A**

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)
LTE Band 13: FCC 47 CFR Part 27.53

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 A**

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)
LTE Band 13: FCC 47 CFR Part 27.53

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.

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 worst measurement data as follows:

5.8.1 LTE Band 2

LTE Band 2_ 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	754.963	-79.26	11.60	-67.66	-13.00	-54.66	Horizontal
2	850.760	-79.29	13.57	-65.72	-13.00	-52.72	Horizontal
3	965.474	-79.67	14.91	-64.76	-13.00	-51.76	Horizontal
4	3720.000	-43.56	9.00	-34.56	-13.00	-21.56	Horizontal
5	7440.000	-51.27	14.79	-36.48	-13.00	-23.48	Horizontal
6	798.620	-79.13	12.53	-66.60	-13.00	-53.60	Vertical
7	932.141	-79.63	14.41	-65.22	-13.00	-52.22	Vertical
8	986.044	-79.86	15.44	-64.42	-13.00	-51.42	Vertical
9	3720.000	-45.96	9.00	-36.96	-13.00	-23.96	Vertical
10	7440.000	-53.27	14.79	-38.48	-13.00	-25.48	Vertical
Middle Channel							
1	718.725	-79.13	11.51	-67.62	-13.00	-54.62	Horizontal
2	850.760	-79.42	13.57	-65.85	-13.00	-52.85	Horizontal
3	986.044	-79.05	15.44	-63.61	-13.00	-50.61	Horizontal
4	3760.000	-44.46	9.14	-35.32	-13.00	-22.32	Horizontal
5	7520.000	-53.20	14.86	-38.34	-13.00	-25.34	Horizontal
6	804.252	-79.82	12.75	-67.07	-13.00	-54.07	Vertical
7	919.132	-79.79	14.53	-65.26	-13.00	-52.26	Vertical
8	958.714	-79.63	14.93	-64.70	-13.00	-51.70	Vertical
9	3760.000	-43.24	9.14	-34.10	-13.00	-21.10	Vertical
10	7520.000	-50.83	14.86	-35.97	-13.00	-22.97	Vertical
Highest Channel							
1	703.731	-79.14	11.46	-67.68	-13.00	-54.68	Horizontal
2	862.802	-79.58	13.74	-65.84	-13.00	-52.84	Horizontal
3	938.714	-79.31	14.52	-64.79	-13.00	-51.79	Horizontal
4	3800.000	-42.11	9.27	-32.84	-13.00	-19.84	Horizontal
5	7600.000	-46.94	14.92	-32.02	-13.00	-19.02	Horizontal
6	607.181	-79.13	9.02	-70.11	-13.00	-57.11	Vertical
7	713.692	-79.01	11.53	-67.48	-13.00	-54.48	Vertical
8	793.028	-79.35	12.44	-66.91	-13.00	-53.91	Vertical
9	3800.000	-44.35	9.27	-35.08	-13.00	-22.08	Vertical
10	7600.000	-50.24	14.92	-35.32	-13.00	-22.32	Vertical

5.8.2 LTE Band 4

LTE Band 4_ 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	708.694	-78.81	11.44	-67.37	-13.00	-54.37	Horizontal
2	771.047	-79.08	11.94	-67.14	-13.00	-54.14	Horizontal
3	912.695	-79.55	14.49	-65.06	-13.00	-52.06	Horizontal
4	3440.000	-42.63	7.83	-34.80	-13.00	-21.80	Horizontal
5	5160.000	-45.61	11.38	-34.23	-13.00	-21.23	Horizontal
6	765.648	-79.16	11.85	-67.31	-13.00	-54.31	Vertical
7	899.958	-80.07	14.32	-65.75	-13.00	-52.75	Vertical
8	986.044	-80.58	15.44	-65.14	-13.00	-52.14	Vertical
9	3440.000	-43.69	7.83	-35.86	-13.00	-22.86	Vertical
10	5160.000	-49.26	11.38	-37.88	-13.00	-24.88	Vertical
Middle Channel							
1	856.760	-79.52	13.67	-65.85	-13.00	-52.85	Horizontal
2	952.000	-80.05	14.82	-65.23	-13.00	-52.23	Horizontal
3	992.997	-80.08	15.56	-64.52	-13.00	-51.52	Horizontal
4	3465.000	-41.80	7.96	-33.84	-13.00	-20.84	Horizontal
5	5197.500	-51.15	11.45	-39.70	-13.00	-26.70	Horizontal
6	728.897	-79.52	11.61	-67.91	-13.00	-54.91	Vertical
7	781.961	-79.45	12.07	-67.38	-13.00	-54.38	Vertical
8	992.997	-79.32	15.56	-63.76	-13.00	-50.76	Vertical
9	3465.000	-43.28	7.96	-35.32	-13.00	-22.32	Vertical
10	5197.500	-48.09	11.45	-36.64	-13.00	-23.64	Vertical
Highest Channel							
1	754.963	-79.41	11.60	-67.81	-13.00	-54.81	Horizontal
2	875.013	-80.31	13.93	-66.38	-13.00	-53.38	Horizontal
3	986.044	-80.22	15.44	-64.78	-13.00	-51.78	Horizontal
4	3490.000	-42.36	8.09	-34.27	-13.00	-21.27	Horizontal
5	5235.000	-49.01	11.57	-37.44	-13.00	-24.44	Horizontal
6	809.924	-79.69	12.89	-66.80	-13.00	-53.80	Vertical
7	899.958	-79.60	14.32	-65.28	-13.00	-52.28	Vertical
8	958.714	-79.78	14.93	-64.85	-13.00	-51.85	Vertical
9	3490.000	-43.52	8.09	-35.43	-13.00	-22.43	Vertical
10	5235.000	-53.75	11.57	-42.18	-13.00	-29.18	Vertical

5.8.3 LTE Band 5

LTE Band 5_ 10 MHz_ QPSK							
No.	Frequency	SA Reading	Correction factor	EIRP Result	Limit	Margin	Ant. Pol.
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	
Lowest Channel							
1	637.795	-86.37	39.10	-47.27	-13.00	-34.27	Horizontal
2	899.958	-86.39	43.37	-43.02	-13.00	-30.02	Horizontal
3	958.714	-86.45	43.89	-42.56	-13.00	-29.56	Horizontal
4	2487.000	-44.50	4.80	-39.70	-13.00	-26.70	Horizontal
5	3316.000	-51.62	7.22	-44.40	-13.00	-31.40	Horizontal
6	546.437	-86.47	37.35	-49.12	-13.00	-36.12	Vertical
7	809.924	-86.62	42.08	-44.54	-13.00	-31.54	Vertical
8	912.695	-86.09	43.52	-42.57	-13.00	-29.57	Vertical
9	2487.000	-42.15	4.80	-37.35	-13.00	-24.35	Vertical
10	3316.000	-50.91	7.22	-43.69	-13.00	-30.69	Vertical
Middle Channel							
1	744.427	-87.20	40.85	-46.35	-13.00	-33.35	Horizontal
2	862.802	-86.74	42.85	-43.89	-13.00	-30.89	Horizontal
3	965.474	-86.24	43.86	-42.38	-13.00	-29.38	Horizontal
4	2509.500	-45.96	4.90	-41.06	-13.00	-28.06	Horizontal
5	3346.000	-54.04	7.36	-46.68	-13.00	-33.68	Horizontal
6	693.910	-86.66	40.53	-46.13	-13.00	-33.13	Vertical
7	899.958	-86.13	43.37	-42.76	-13.00	-29.76	Vertical
8	992.997	-86.84	44.47	-42.37	-13.00	-29.37	Vertical
9	2509.500	-42.92	4.90	-38.02	-13.00	-25.02	Vertical
10	3346.000	-52.87	7.36	-45.51	-13.00	-32.51	Vertical
Highest Channel							
1	527.571	-87.05	37.16	-49.89	-13.00	-36.89	Horizontal
2	698.804	-86.11	40.79	-45.32	-13.00	-32.32	Horizontal
3	965.474	-86.21	43.86	-42.35	-13.00	-29.35	Horizontal
4	1688.000	-45.07	0.93	-44.14	-13.00	-31.14	Horizontal
5	2532.000	-47.89	4.93	-42.96	-13.00	-29.96	Horizontal
6	787.475	-87.55	41.53	-46.02	-13.00	-33.02	Vertical
7	912.695	-86.64	43.52	-43.12	-13.00	-30.12	Vertical
8	945.334	-86.14	43.67	-42.47	-13.00	-29.47	Vertical
9	1688.000	-50.17	0.93	-49.24	-13.00	-36.24	Vertical
10	2532.000	-45.37	4.93	-40.44	-13.00	-27.44	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	703.731	-78.50	11.46	-67.04	-25.00	-42.04	Horizontal
2	893.656	-78.47	14.20	-64.27	-25.00	-39.27	Horizontal
3	986.044	-78.86	15.44	-63.42	-25.00	-38.42	Horizontal
4	5020.000	-52.71	11.14	-41.57	-25.00	-16.57	Horizontal
5	10040.000	-57.61	18.35	-39.26	-25.00	-14.26	Horizontal
6	698.804	-80.46	11.44	-69.02	-25.00	-44.02	Vertical
7	856.760	-80.14	13.67	-66.47	-25.00	-41.47	Vertical
8	958.714	-80.24	14.93	-65.31	-25.00	-40.31	Vertical
9	5020.000	-54.20	11.14	-43.06	-25.00	-18.06	Vertical
10	10040.000	-60.24	18.35	-41.89	-25.00	-16.89	Vertical
Middle Channel							
1	674.677	-78.68	10.43	-68.25	-25.00	-43.25	Horizontal
2	827.179	-79.58	13.16	-66.42	-25.00	-41.42	Horizontal
3	972.283	-80.00	15.04	-64.96	-25.00	-39.96	Horizontal
4	7605.000	-62.82	14.93	-47.89	-25.00	-22.89	Horizontal
5	10140.000	-60.88	18.21	-42.67	-25.00	-17.67	Horizontal
6	881.184	-79.74	14.07	-65.67	-25.00	-40.67	Vertical
7	925.613	-79.09	14.46	-64.63	-25.00	-39.63	Vertical
8	979.139	-79.30	15.25	-64.05	-25.00	-39.05	Vertical
9	7605.000	-61.61	14.93	-46.68	-25.00	-21.68	Vertical
10	10140.000	-63.91	18.21	-45.70	-25.00	-20.70	Vertical
Highest Channel							
1	856.760	-79.77	13.67	-66.10	-25.00	-41.10	Horizontal
2	899.958	-80.04	14.32	-65.72	-25.00	-40.72	Horizontal
3	986.044	-80.41	15.44	-64.97	-25.00	-39.97	Horizontal
4	7680.000	-64.97	14.99	-49.98	-25.00	-24.98	Horizontal
5	10240.000	-64.02	18.06	-45.96	-25.00	-20.96	Horizontal
6	787.475	-79.38	12.31	-67.07	-25.00	-42.07	Vertical
7	850.760	-80.01	13.57	-66.44	-25.00	-41.44	Vertical
8	912.695	-79.91	14.49	-65.42	-25.00	-40.42	Vertical
9	7680.000	-64.36	14.99	-49.37	-25.00	-24.37	Vertical
10	10240.000	-66.46	18.06	-48.40	-25.00	-23.40	Vertical

5.8.5 LTE Band 12

LTE Band 12_ 10 MHz_ QPSK							
No.	Frequency	SA Reading	Correction factor	EIRP Result	Limit	Margin	Ant. Pol.
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	
Lowest Channel							
1	821.387	-86.85	42.37	-44.48	-13.00	-31.48	Horizontal
2	893.656	-86.67	43.26	-43.41	-13.00	-30.41	Horizontal
3	945.334	-86.22	43.67	-42.55	-13.00	-29.55	Horizontal
4	1408.000	-56.11	0.03	-56.08	-13.00	-43.08	Horizontal
5	2112.000	-44.51	2.38	-42.13	-13.00	-29.13	Horizontal
6	669.952	-87.59	39.73	-47.86	-13.00	-34.86	Vertical
7	815.635	-87.24	42.22	-45.02	-13.00	-32.02	Vertical
8	887.398	-86.04	43.24	-42.80	-13.00	-29.80	Vertical
9	1408.000	-55.37	0.03	-55.34	-13.00	-42.34	Vertical
10	2112.000	-45.49	2.38	-43.11	-13.00	-30.11	Vertical
Middle Channel							
1	798.620	-86.92	41.73	-45.19	-13.00	-32.19	Horizontal
2	906.304	-86.95	43.57	-43.38	-13.00	-30.38	Horizontal
3	965.474	-85.72	43.86	-41.86	-13.00	-28.86	Horizontal
4	1415.000	-55.38	0.06	-55.32	-13.00	-42.32	Horizontal
5	2122.500	-44.60	2.44	-42.16	-13.00	-29.16	Horizontal
6	765.648	-86.74	41.10	-45.64	-13.00	-32.64	Vertical
7	919.132	-87.03	43.55	-43.48	-13.00	-30.48	Vertical
8	979.139	-87.13	44.18	-42.95	-13.00	-29.95	Vertical
9	1415.000	-55.31	0.06	-55.25	-13.00	-42.25	Vertical
10	2122.500	-50.37	2.44	-47.93	-13.00	-34.93	Vertical
Highest Channel							
1	669.952	-87.17	39.73	-47.44	-13.00	-34.44	Horizontal
2	938.714	-86.74	43.51	-43.23	-13.00	-30.23	Horizontal
3	958.714	-86.39	43.89	-42.50	-13.00	-29.50	Horizontal
4	1422.000	-55.15	0.09	-55.06	-13.00	-42.06	Horizontal
5	2133.000	-45.02	2.49	-42.53	-13.00	-29.53	Horizontal
6	693.910	-86.52	40.53	-45.99	-13.00	-32.99	Vertical
7	862.802	-86.01	42.85	-43.16	-13.00	-30.16	Vertical
8	986.044	-85.24	44.36	-40.88	-13.00	-27.88	Vertical
9	1422.000	-56.30	0.09	-56.21	-13.00	-43.21	Vertical
10	2133.000	-45.65	2.49	-43.16	-13.00	-30.16	Vertical

5.8.6 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	804.252	-86.71	41.94	-44.77	-13.00	-31.77	Horizontal
2	856.760	-87.17	42.78	-44.39	-13.00	-31.39	Horizontal
3	986.044	-87.26	44.36	-42.90	-13.00	-29.90	Horizontal
4	1564.000	-56.99	0.55	-56.44	-40.00	-16.44	Horizontal
5	2346.000	-56.84	3.84	-53.00	-13.00	-40.00	Horizontal
6	809.924	-87.16	42.08	-45.08	-13.00	-32.08	Vertical
7	919.132	-86.97	43.55	-43.42	-13.00	-30.42	Vertical
8	979.139	-85.79	44.18	-41.61	-13.00	-28.61	Vertical
9	1564.000	-57.21	0.55	-56.66	-40.00	-16.66	Vertical
10	2346.000	-55.25	3.84	-51.41	-13.00	-38.41	Vertical

5.8.7 LTE Band 17

LTE Band 17_ 5 MHz_ QPSK							
No.	Frequency	SA Reading	Correction factor	EIRP Result	Limit	Margin	Ant. Pol.
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	
Lowest Channel							
1	669.952	-86.93	39.73	-47.20	-13.00	-34.20	Horizontal
2	771.047	-86.86	41.18	-45.68	-13.00	-32.68	Horizontal
3	952.000	-86.16	43.79	-42.37	-13.00	-29.37	Horizontal
4	1418.000	-56.29	0.08	-56.21	-13.00	-43.21	Horizontal
5	2127.000	-56.11	2.46	-53.65	-13.00	-40.65	Horizontal
6	815.635	-87.48	42.22	-45.26	-13.00	-32.26	Vertical
7	893.656	-86.91	43.26	-43.65	-13.00	-30.65	Vertical
8	992.997	-86.82	44.47	-42.35	-13.00	-29.35	Vertical
9	1418.000	-56.13	0.08	-56.05	-13.00	-43.05	Vertical
10	2127.000	-55.47	2.46	-53.01	-13.00	-40.01	Vertical
Middle Channel							
1	651.383	-87.54	39.27	-48.27	-13.00	-35.27	Horizontal
2	862.802	-86.78	42.85	-43.93	-13.00	-30.93	Horizontal
3	919.132	-86.94	43.55	-43.39	-13.00	-30.39	Horizontal
4	1420.000	-55.70	0.09	-55.61	-13.00	-42.61	Horizontal
5	2130.000	-56.80	2.47	-54.33	-13.00	-41.33	Horizontal
6	542.610	-87.60	37.34	-50.26	-13.00	-37.26	Vertical
7	912.695	-87.38	43.52	-43.86	-13.00	-30.86	Vertical
8	986.044	-85.89	44.36	-41.53	-13.00	-28.53	Vertical
9	1420.000	-57.87	0.09	-57.78	-13.00	-44.78	Vertical
10	2130.000	-57.32	2.47	-54.85	-13.00	-41.85	Vertical
Highest Channel							
1	809.924	-88.23	42.08	-46.15	-13.00	-33.15	Horizontal
2	844.803	-87.81	42.55	-45.26	-13.00	-32.26	Horizontal
3	952.000	-87.40	43.79	-43.61	-13.00	-30.61	Horizontal
4	1422.000	-54.58	0.09	-54.49	-13.00	-41.49	Horizontal
5	2133.000	-55.16	2.49	-52.67	-13.00	-39.67	Horizontal
6	554.171	-87.13	37.44	-49.69	-13.00	-36.69	Vertical
7	821.387	-87.18	42.37	-44.81	-13.00	-31.81	Vertical
8	906.304	-86.03	43.57	-42.46	-13.00	-29.46	Vertical
9	1422.000	-55.83	0.09	-55.74	-13.00	-42.74	Vertical
10	2133.000	-56.76	2.49	-54.27	-13.00	-41.27	Vertical

5.8.8 LTE Band 66

LTE Band 66_ 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	728.897	-79.94	11.61	-68.33	-13.00	-55.33	Horizontal
2	887.398	-79.94	14.17	-65.77	-13.00	-52.77	Horizontal
3	932.141	-79.61	14.41	-65.20	-13.00	-52.20	Horizontal
4	3440.000	-42.55	7.83	-34.72	-13.00	-21.72	Horizontal
5	5160.000	-46.73	11.38	-35.35	-13.00	-22.35	Horizontal
6	689.051	-79.27	11.04	-68.23	-13.00	-55.23	Vertical
7	827.179	-79.47	13.16	-66.31	-13.00	-53.31	Vertical
8	912.695	-79.36	14.49	-64.87	-13.00	-51.87	Vertical
9	3440.000	-44.01	7.83	-36.18	-13.00	-23.18	Vertical
10	5160.000	-51.49	11.38	-40.11	-13.00	-27.11	Vertical
Middle Channel							
1	804.252	-79.55	12.75	-66.80	-13.00	-53.80	Horizontal
2	912.695	-79.95	14.49	-65.46	-13.00	-52.46	Horizontal
3	986.044	-80.40	15.44	-64.96	-13.00	-51.96	Horizontal
4	3490.000	-45.04	8.09	-36.95	-13.00	-23.95	Horizontal
5	5235.000	-48.41	11.57	-36.84	-13.00	-23.84	Horizontal
6	793.028	-80.00	12.44	-67.56	-13.00	-54.56	Vertical
7	844.803	-79.74	13.42	-66.32	-13.00	-53.32	Vertical
8	952.000	-79.82	14.82	-65.00	-13.00	-52.00	Vertical
9	3490.000	-46.67	8.09	-38.58	-13.00	-25.58	Vertical
10	5235.000	-54.16	11.57	-42.59	-13.00	-29.59	Vertical
Highest Channel							
1	749.676	-79.04	11.67	-67.37	-13.00	-54.37	Horizontal
2	932.141	-79.51	14.41	-65.10	-13.00	-52.10	Horizontal
3	986.044	-79.71	15.44	-64.27	-13.00	-51.27	Horizontal
4	3540.000	-42.59	8.30	-34.29	-13.00	-21.29	Horizontal
5	5310.000	-54.35	11.83	-42.52	-13.00	-29.52	Horizontal
6	809.924	-78.30	12.89	-65.41	-13.00	-52.41	Vertical
7	838.887	-77.97	13.30	-64.67	-13.00	-51.67	Vertical
8	992.997	-78.62	15.56	-63.06	-13.00	-50.06	Vertical
9	3540.000	-44.12	8.30	-35.82	-13.00	-22.82	Vertical
10	5310.000	-59.52	11.83	-47.69	-13.00	-34.69	Vertical

5.8.9 LTE Band 71

LTE Band 71_ 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	598.707	-87.31	38.31	-49.00	-13.00	-36.00	Horizontal
2	821.387	-85.54	42.37	-43.17	-13.00	-30.17	Horizontal
3	986.044	-86.81	44.36	-42.45	-13.00	-29.45	Horizontal
4	1346.000	-55.90	-0.23	-56.13	-13.00	-43.13	Horizontal
5	2019.000	-57.26	1.88	-55.38	-13.00	-42.38	Horizontal
6	642.292	-86.57	39.15	-47.42	-13.00	-34.42	Vertical
7	919.132	-85.80	43.55	-42.25	-13.00	-29.25	Vertical
8	972.283	-86.36	43.98	-42.38	-13.00	-29.38	Vertical
9	1346.000	-55.39	-0.23	-55.62	-13.00	-42.62	Vertical
10	2019.000	-56.14	1.88	-54.26	-13.00	-41.26	Vertical
Middle Channel							
1	624.490	-87.69	38.78	-48.91	-13.00	-35.91	Horizontal
2	793.028	-86.31	41.65	-44.66	-13.00	-31.66	Horizontal
3	952.000	-86.30	43.79	-42.51	-13.00	-29.51	Horizontal
4	1366.000	-54.93	-0.14	-55.07	-13.00	-42.07	Horizontal
5	2049.000	-52.79	2.04	-50.75	-13.00	-37.75	Horizontal
6	578.036	-87.18	37.73	-49.45	-13.00	-36.45	Vertical
7	844.803	-87.24	42.55	-44.69	-13.00	-31.69	Vertical
8	986.044	-86.71	44.36	-42.35	-13.00	-29.35	Vertical
9	1366.000	-56.14	-0.14	-56.28	-13.00	-43.28	Vertical
10	2049.000	-52.55	2.04	-50.51	-13.00	-37.51	Vertical
Highest Channel							
1	430.305	-87.00	34.94	-52.06	-13.00	-39.06	Horizontal
2	520.208	-87.18	37.09	-50.09	-13.00	-37.09	Horizontal
3	881.184	-87.05	43.15	-43.90	-13.00	-30.90	Horizontal
4	1376.000	-55.59	-0.09	-55.68	-13.00	-42.68	Horizontal
5	2064.000	-52.52	2.13	-50.39	-13.00	-37.39	Horizontal
6	899.958	-86.88	43.37	-43.51	-13.00	-30.51	Vertical
7	958.714	-86.73	43.89	-42.84	-13.00	-29.84	Vertical
8	992.997	-86.86	44.47	-42.39	-13.00	-29.39	Vertical
9	1376.000	-54.47	-0.09	-54.56	-13.00	-41.56	Vertical
10	2064.000	-56.24	2.13	-54.11	-13.00	-41.11	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, 3.85 Vdc and High voltage, 4.4 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 Result: Pass

Modulation	Channel/ Frequency (MHz)	Voltage (Vdc)	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Result
LTE Band 2 / 20MHz / Full RB							
QPSK	18900 / 1880.0	VL	TN	20.92	0.0111	Note 1	Pass
		VN		22.17	0.0118		Pass
		VH		23.39	0.0124		Pass
		VN	50	24.35	0.0130		Pass
			40	22.68	0.0121		Pass
			30	23.45	0.0125		Pass
			20	22.17	0.0118		Pass
			10	20.72	0.0110		Pass
			0	19.57	0.0104		Pass
			-10	18.95	0.0101		Pass
			-20	20.76	0.0110		Pass
			-30	19.52	0.0104		Pass

Modulation	Channel/ Frequency (MHz)	Voltage (Vdc)	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Pass/ Fail
LTE Band 4 / 20MHz / Full RB							
QPSK	20175 / 1732.5	VL	TN	6.53	0.0038	Note 1	Pass
		VN		4.57	0.0026		Pass
		VH		3.19	0.0018		Pass
		VN	50	4.59	0.0026		Pass
			40	5.62	0.0032		Pass
			30	3.87	0.0022		Pass
			20	4.57	0.0026		Pass
			10	5.25	0.0030		Pass
			0	7.37	0.0043		Pass
			-10	3.12	0.0018		Pass
			-20	4.28	0.0025		Pass
			-30	5.49	0.0032		Pass

Modulation	Channel/ Frequency (MHz)	Voltage (Vdc)	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Pass/ Fail
LTE Band 5 / 10MHz / Full RB							
QPSK	20525 / 836.5	VL	TN	7.49	0.0090	± 2.5	Pass
		VN		5.35	0.0064	± 2.5	Pass
		VH		8.64	0.0103	± 2.5	Pass
		VN	50	5.25	0.0063	± 2.5	Pass
			40	7.58	0.0091	± 2.5	Pass
			30	9.81	0.0117	± 2.5	Pass
			20	5.35	0.0064	± 2.5	Pass
			10	8.64	0.0103	± 2.5	Pass
			0	6.36	0.0076	± 2.5	Pass
			-10	5.44	0.0065	± 2.5	Pass
			-20	7.51	0.0090	± 2.5	Pass
			-30	6.47	0.0077	± 2.5	Pass

Modulation	Channel/ Frequency	Voltage	Temperature	Deviation	Deviation	Limit	Pass/ Fail
	(MHz)	(Vdc)	(℃)	(Hz)	(ppm)	(ppm)	
LTE Band 7 / 20MHz / Full RB							
QPSK	21100 / 2535	VL	TN	7.46	0.0029	N/A	Pass
		VN		6.68	0.0026		Pass
		VH		5.41	0.0021		Pass
		VN	50	6.38	0.0025		Pass
			40	8.53	0.0034		Pass
			30	7.54	0.0030		Pass
			20	6.68	0.0026		Pass
			10	6.46	0.0025		Pass
			0	8.54	0.0034		Pass
			-10	9.38	0.0037		Pass
			-20	8.17	0.0032		Pass
			-30	6.49	0.0026		Pass

Modulation	Channel/ Frequency	Voltage	Temperature	Deviation	Deviation	Limit	Pass/ Fail
	(MHz)	(Vdc)	(℃)	(Hz)	(ppm)	(ppm)	
LTE Band 12 / 10MHz / Full RB							
QPSK	23095 / 707.5	VL	TN	-13.07	-0.0185	Note 1	Pass
		VN		-10.67	-0.0151		Pass
		VH		-12.91	-0.0182		Pass
		VN	50	-10.33	-0.0146		Pass
			40	-9.24	-0.0131		Pass
			30	-14.49	-0.0205		Pass
			20	-10.67	-0.0151		Pass
			10	-11.07	-0.0156		Pass
			0	-13.36	-0.0189		Pass
			-10	-14.35	-0.0203		Pass
			-20	-13.93	-0.0197		Pass
			-30	-11.72	-0.0166		Pass

Modulation	Channel/ Frequency	Voltage	Temperature	Deviation	Deviation	Limit	Pass/ Fail
	(MHz)	(Vdc)	(℃)	(Hz)	(ppm)	(ppm)	
LTE Band 13 / 20MHz / Full RB							
QPSK	23230 / 782	VL	TN	-14.46	-0.0185	Note 1	Pass
		VN		-16.15	-0.0207		Pass
		VH		-15.21	-0.0195		Pass
		VN	50	-15.33	-0.0196		Pass
			40	-16.28	-0.0208		Pass
			30	-15.65	-0.0200		Pass
			20	-16.15	-0.0207		Pass
			10	-16.39	-0.0210		Pass
			0	-17.58	-0.0225		Pass
			-10	-13.43	-0.0172		Pass
			-20	-14.09	-0.0180		Pass
			-30	-13.98	-0.0179		Pass

Modulation	Channel/ Frequency	Voltage	Temperature	Deviation	Deviation	Limit	Pass/ Fail
	(MHz)	(Vdc)	(℃)	(Hz)	(ppm)	(ppm)	
LTE Band 17 / 10MHz / Full RB							
QPSK	23790 / 710	VL	TN	-13.75	-0.0194	Note 1	Pass
		VN		3.28	0.0046		Pass
		VH		-5.06	-0.0071		Pass
		VN	50	5.42	0.0076		Pass
			40	7.42	0.0105		Pass
			30	6.97	0.0098		Pass
			20	3.28	0.0046		Pass
			10	4.02	0.0057		Pass
			0	3.47	0.0049		Pass
			-10	5.27	0.0074		Pass
			-20	4.32	0.0061		Pass
			-30	6.49	0.0091		Pass

Modulation	Channel/ Frequency (MHz)	Voltage (Vdc)	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Pass/ Fail
LTE Band 66/ 20MHz / Full RB							
QPSK	132322 / 1745	VL	TN	-6.76	-0.0039	Note 1	Pass
		VN		-5.68	-0.0033		Pass
		VH		-9.57	-0.0055		Pass
		VN	50	-8.74	-0.0050		Pass
			40	-9.53	-0.0055		Pass
			30	-7.48	-0.0043		Pass
			20	-5.68	-0.0033		Pass
			10	-9.54	-0.0055		Pass
			0	-7.43	-0.0043		Pass
			-10	-8.74	-0.0050		Pass
			-20	-9.25	-0.0053		Pass
			-30	-7.33	-0.0042		Pass

Modulation	Channel/ Frequency (MHz)	Voltage (Vdc)	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Pass/ Fail
LTE Band 71 / 20MHz / Full RB							
QPSK	133322 / 683.0	VL	TN	5.86	0.0086	Note 1	Pass
		VN		8.13	0.0119		Pass
		VH		6.24	0.0091		Pass
		VN	50	8.67	0.0127		Pass
			40	7.53	0.0110		Pass
			30	8.41	0.0123		Pass
			20	8.13	0.0119		Pass
			10	7.08	0.0104		Pass
			0	6.16	0.0090		Pass
			-10	5.31	0.0078		Pass
			-20	8.24	0.0121		Pass
			-30	6.38	0.0093		Pass

APPENDIX A RF TEST DATA

A.1 LTE BAND 2

Peak to Average Ratio

Band	Bandwidth (MHz)	Channel	Freq (MHz)	Modulation	RB	Result (dB)	Limit (dB)	Verdict
2	20.0	18700	1860.0	QPSK	100@0	5.65	13	PASS
2	20.0	18700	1860.0	16QAM	100@0	6.27	13	PASS
2	20.0	18900	1880.0	QPSK	100@0	5.60	13	PASS
2	20.0	18900	1880.0	16QAM	100@0	6.25	13	PASS
2	20.0	19100	1900.0	QPSK	100@0	5.58	13	PASS
2	20.0	19100	1900.0	16QAM	100@0	6.25	13	PASS
2	15.0	18675	1857.5	QPSK	75@0	5.39	13	PASS
2	15.0	18675	1857.5	16QAM	75@0	6.11	13	PASS
2	15.0	18900	1880.0	QPSK	75@0	5.39	13	PASS
2	15.0	18900	1880.0	16QAM	75@0	6.12	13	PASS
2	15.0	19125	1902.5	QPSK	75@0	5.41	13	PASS
2	15.0	19125	1902.5	16QAM	75@0	6.15	13	PASS
2	10.0	18650	1855.0	QPSK	50@0	5.52	13	PASS
2	10.0	18650	1855.0	16QAM	50@0	6.19	13	PASS
2	10.0	18900	1880.0	QPSK	50@0	5.51	13	PASS
2	10.0	18900	1880.0	16QAM	50@0	6.26	13	PASS
2	10.0	19150	1905.0	QPSK	50@0	5.63	13	PASS
2	10.0	19150	1905.0	16QAM	50@0	6.30	13	PASS
2	5.0	18625	1852.5	QPSK	25@0	5.44	13	PASS
2	5.0	18625	1852.5	16QAM	25@0	6.08	13	PASS
2	5.0	18900	1880.0	QPSK	25@0	5.52	13	PASS
2	5.0	18900	1880.0	16QAM	25@0	6.16	13	PASS
2	5.0	19175	1907.5	QPSK	25@0	5.56	13	PASS
2	5.0	19175	1907.5	16QAM	25@0	6.22	13	PASS
2	3.0	18615	1851.5	QPSK	15@0	5.46	13	PASS
2	3.0	18615	1851.5	16QAM	15@0	6.09	13	PASS
2	3.0	18900	1880.0	QPSK	15@0	5.41	13	PASS
2	3.0	18900	1880.0	16QAM	15@0	6.19	13	PASS
2	3.0	19185	1908.5	QPSK	15@0	5.58	13	PASS
2	3.0	19185	1908.5	16QAM	15@0	6.28	13	PASS
2	1.4	18607	1850.7	QPSK	6@0	5.34	13	PASS
2	1.4	18607	1850.7	16QAM	6@0	6.06	13	PASS
2	1.4	18900	1880.0	QPSK	6@0	5.45	13	PASS
2	1.4	18900	1880.0	16QAM	6@0	6.15	13	PASS
2	1.4	19193	1909.3	QPSK	6@0	5.51	13	PASS
2	1.4	19193	1909.3	16QAM	6@0	6.24	13	PASS

Band	Bandwidth (MHz)	Channel	Freq (MHz)	Modulation	RB	Result (dB)	Limit (dB)	Verdict
2	20.0	18700	1860.0	64QAM	100@0	6.29	13	PASS
2	20.0	18900	1880.0	64QAM	100@0	6.31	13	PASS
2	20.0	19100	1900.0	64QAM	100@0	6.25	13	PASS
2	15.0	18675	1857.5	64QAM	75@0	6.13	13	PASS
2	15.0	18900	1880.0	64QAM	75@0	6.12	13	PASS
2	15.0	19125	1902.5	64QAM	75@0	6.14	13	PASS
2	10.0	18650	1855.0	64QAM	50@0	6.23	13	PASS
2	10.0	18900	1880.0	64QAM	50@0	6.25	13	PASS
2	10.0	19150	1905.0	64QAM	50@0	6.31	13	PASS
2	5.0	18625	1852.5	64QAM	25@0	6.12	13	PASS
2	5.0	18900	1880.0	64QAM	25@0	6.20	13	PASS
2	5.0	19175	1907.5	64QAM	25@0	6.19	13	PASS
2	3.0	18615	1851.5	64QAM	15@0	6.20	13	PASS
2	3.0	18900	1880.0	64QAM	15@0	6.25	13	PASS
2	3.0	19185	1908.5	64QAM	15@0	6.25	13	PASS
2	1.4	18607	1850.7	64QAM	6@0	6.06	13	PASS
2	1.4	18900	1880.0	64QAM	6@0	6.26	13	PASS
2	1.4	19193	1909.3	64QAM	6@0	6.13	13	PASS

Test Graphs

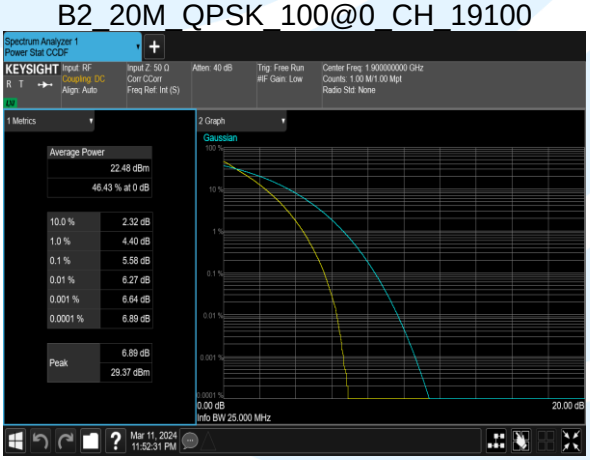
B2_20M_QPSK_100@0_CH_18700

B2_20M_16QAM_100@0_CH_18700

B2_20M_QPSK_100@0_CH_18900

B2_20M_16QAM_100@0_CH_18900

B2_20M_QPSK_100@0_CH_19100



B2_20M_16QAM_100@0_CH_19100

B2_15M_QPSK_75@0_CH_18675

B2_15M_16QAM_75@0_CH_18675

B2_15M_QPSK_75@0_CH_18900

B2_15M_16QAM_75@0_CH_18900

B2_15M_QPSK_75@0_CH_19125

B2_15M_16QAM_75@0_CH_19125

B2_10M_QPSK_50@0_CH_18650

B2_10M_16QAM_50@0_CH_18650

B2_10M_QPSK_50@0_CH_18900

B2_10M_16QAM_50@0_CH_18900

B2_10M_QPSK_50@0_CH_19150

B2_10M_16QAM_50@0_CH_19150

B2_5M_QPSK_25@0_CH_18625

B2_5M_16QAM_25@0_CH_18625

B2_5M_QPSK_25@0_CH_18900

B2_5M_16QAM_25@0_CH_18900

B2_5M_QPSK_25@0_CH_19175

B2_5M_16QAM_25@0_CH_19175

B2_3M_QPSK_15@0_CH_18615

B2_3M_16QAM_15@0_CH_18615

B2_3M_QPSK_15@0_CH_18900

B2_3M_16QAM_15@0_CH_18900

B2_3M_QPSK_15@0_CH_19185

B2_3M_16QAM_15@0_CH_19185

B2_1.4M_QPSK_6@0_CH_18607

B2_1.4M_16QAM_6@0_CH_18607

B2_1.4M_QPSK_6@0_CH_18900

B2_1.4M_16QAM_6@0_CH_18900

B2_1.4M_QPSK_6@0_CH_19193

B2_1.4M_16QAM_6@0_CH_19193

B2_20M_64QAM_100@0_CH_18700

B2_20M_64QAM_100@0_CH_18900

B2_20M_64QAM_100@0_CH_19100

B2_15M_64QAM_75@0_CH_18675

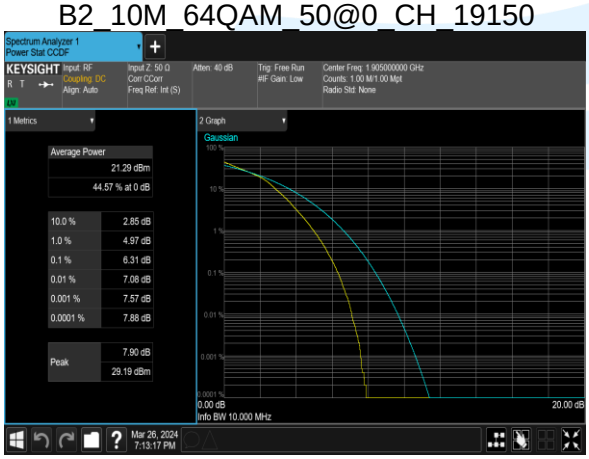
B2_15M_64QAM_75@0_CH_18900

B2_15M_64QAM_75@0_CH_19125

B2_10M_64QAM_50@0_CH_18650

B2_10M_64QAM_50@0_CH_18900

B2_10M_64QAM_50@0_CH_19150



B2_5M_64QAM_25@0_CH_18625