FCC TEST REPORT

Product Name:	Smart Phone
Trade Mark:	BOLD
Model No.:	K5
Report Number:	24111214608RFM-2
Test Standards:	FCC 47 CFR Part 22 FCC 47 CFR Part 24 FCC 47 CFR Part 27
FCC ID:	YHLBLU5KSP
Test Result:	PASS
Date of Issue:	December 26, 2024

Prepared for:

BLU Products, Inc.
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Prepared by:

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Date: December 26, 2024

Version

Version No.	Date	Description
V1.0	December 26, 2024	Original

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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.:	K5	
Trade Mark:	BOLD	
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
		TDD Band 38/ Band 40
	2.4 GHz ISM Band:	IEEE 802.11b/g/n
		Bluetooth 4.2
Software Version:	BOLD_K0010_V14.0.01.01_GENERIC_20241104 (Provided by the customer)	
Hardware Version:	S63L0_V3.0 (Provided by the customer)	
Sample Received Date:	November 12, 2024	
Sample Tested Date:	November 13, 2024 to December 12, 2024	

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

1.2.2 Description of Accessories

Adapter	
Model No.:	US-BJD-2000
Input:	100-240 V~50/60 Hz 0.35 A
Output:	5.0 V ⎓ 2000 mA 10W

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

Battery	
Model No.:	C956547500P
Battery Type:	Lithium-ion Battery
Rated Voltage:	3.85 Vdc
Rated Capacity:	5000 mAh

1.3 PRODUCT SPECIFICATION SUBJECTIVE TO THIS STANDARD

Support Networks:	Single Carrier: LTE Band 2/4/5/7/12/13/17/38/66	
Type of Modulation:	QPSK, 16QAM, 64QAM	
Antenna Type: (Provided by the customer)	PIFA Antenna	
Antenna Gain: (Provided by the customer)	LTE Band 2:	-3 dBi
	LTE Band 4:	-3 dBi
	LTE Band 5:	-5.5 dBi
	LTE Band 7:	-3 dBi
	LTE Band 12:	-6 dBi
	LTE Band 13:	-6 dBi
	LTE Band 17:	-6 dBi
	LTE Band 38:	-2 dBi
	LTE Band 40:	-2 dBi
	LTE Band 66:	-3.5 dBi
Sample No.:	Radiated: S202411124624-ZJA02/7	
	Conducted: S202411124624-ZJA06/7	
Normal Test Voltage:	3.85 Vdc	
Extreme Test Voltage:	3.5 to 4.4Vdc	
Extreme Test Temperature:	-30 °C to +50 °C	

Summary of Results:

Bands	BW (MHz)	Modulation	Frequency Range (MHz)	Max RF Output Power (dBm) Conducted (Average)	Max RF Output Power (dBm) ERP/EIRP (Average)	ERP/EIRP (W)	99% BW (MHz)	Emission Designator
2	1.4	QPSK	1850.7-1909.3	22.75	19.75	0.0944	1.0996	1M10G7D
		16QAM		22.18	19.18	0.0828	1.1060	1M11W7D
		64QAM		20.58	17.58	0.0573	1.0940	1M09W7D
	3	QPSK	1851.5-1908.5	22.31	19.31	0.0853	2.7176	2M72G7D
		16QAM		22.20	19.20	0.0832	2.7063	2M71W7D
		64QAM		20.43	17.43	0.0553	2.7105	2M71W7D
	5	QPSK	1852.5-1907.5	22.46	19.46	0.0883	4.5115	4M51G7D
		16QAM		22.10	19.10	0.0813	4.5220	4M52W7D
		64QAM		20.29	17.29	0.0536	4.5073	4M51W7D
	10	QPSK	1855.0-1905.0	22.42	19.42	0.0875	9.0131	9M01G7D
		16QAM		22.03	19.03	0.0800	9.0296	9M03W7D
		64QAM		20.26	17.26	0.0532	9.0220	9M02W7D
	15	QPSK	1857.5-1902.5	22.42	19.42	0.0875	13.5390	13M5G7D
		16QAM		22.12	19.12	0.0817	13.5560	13M6W7D
		64QAM		20.34	17.34	0.0542	13.5140	13M5W7D
	20	QPSK	1860.0-1900.0	22.47	19.47	0.0885	18.1070	18M1G7D
		16QAM		22.21	19.21	0.0834	18.0360	18M0W7D
		64QAM		20.44	17.44	0.0555	18.0560	18M1W7D
4	1.4	QPSK	1710.7-1754.3	22.83	19.83	0.0962	1.1000	1M10G7D

Summary of Results:								
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)			
		16QAM		22.31	19.31	0.0853	1.1048	1M10W7D
		64QAM		20.84	17.84	0.0608	1.0953	1M10W7D
	3	QPSK	1711.5-1753.5	22.47	19.47	0.0885	2.7183	2M72G7D
		16QAM		22.32	19.32	0.0855	2.7113	2M71W7D
		64QAM		20.62	17.62	0.0578	2.7123	2M71W7D
	5	QPSK	1712.5-1752.5	22.62	19.62	0.0916	4.5132	4M51G7D
		16QAM		22.25	19.25	0.0841	4.5337	4M53W7D
		64QAM		20.55	17.55	0.0569	4.5090	4M51W7D
	10	QPSK	1715-1750	22.56	19.56	0.0904	9.0084	9M01G7D
		16QAM		22.20	19.20	0.0832	9.0283	9M03W7D
		64QAM		20.50	17.50	0.0562	8.9968	9M00W7D
	15	QPSK	1717.5-1747.5	22.57	19.57	0.0906	13.5600	13M6G7D
		16QAM		22.18	19.18	0.0828	13.5790	13M6W7D
		64QAM		20.53	17.53	0.0566	13.5050	13M5W7D
	20	QPSK	1720-1745	22.63	19.63	0.0918	18.0550	18M1G7D
		16QAM		22.33	19.33	0.0857	18.0890	18M1W7D
		64QAM		20.63	17.63	0.0579	18.0400	18M0W7D
5	1.4	QPSK	824.7-848.3	20.69	15.19	0.0330	1.1000	1M10G7D
		16QAM		20.19	14.69	0.0294	1.1051	1M11W7D
		64QAM		18.66	13.16	0.0207	1.1002	1M10W7D
	3	QPSK	825.5-847.5	20.13	14.63	0.0290	2.7167	2M72G7D
		16QAM		20.10	14.60	0.0288	2.7070	2M71W7D
		64QAM		18.14	12.64	0.0184	2.7086	2M71W7D
	5	QPSK	826.5-846.5	20.18	14.68	0.0294	4.5233	4M52G7D
		16QAM		20.13	14.63	0.0290	4.5414	4M54W7D
		64QAM		18.17	12.67	0.0185	4.5215	4M52W7D
	10	QPSK	829-844	20.23	14.73	0.0297	9.0218	9M02G7D
		16QAM		20.20	14.70	0.0295	9.0226	9M02W7D
		64QAM		18.23	12.73	0.0187	9.0180	9M02W7D
7	5	QPSK	2502.5-2567.5	22.45	19.45	0.0881	4.5109	4M51G7D
		16QAM		22.28	19.28	0.0847	4.5240	4M52W7D
		64QAM		20.42	17.42	0.0552	4.5091	4M51W7D
	10	QPSK	2505-2565	22.52	19.52	0.0895	9.0030	9M00G7D
		16QAM		22.15	19.15	0.0822	9.0121	9M01W7D
		64QAM		20.43	17.43	0.0553	9.0103	9M01W7D
	15	QPSK	2507.5-2562.5	22.47	19.47	0.0885	13.4870	13M5G7D
		16QAM		22.21	19.21	0.0834	13.5370	13M5W7D
		64QAM		20.47	17.47	0.0558	13.4920	13M5W7D

Summary of Results:								
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)			
	20	QPSK	2510-2560	22.53	19.53	0.0897	18.0470	18M0G7D
		16QAM		22.30	19.30	0.0851	18.0310	18M0W7D
		64QAM		20.53	17.53	0.0566	18.0440	18M0W7D
12	1.4	QPSK	699.7-715.3	23.03	14.88	0.0308	1.0988	1M10G7D
		16QAM		22.29	14.14	0.0259	1.1040	1M10W7D
		64QAM		20.90	12.75	0.0188	1.0998	1M10W7D
	3	QPSK	700.5-714.5	22.48	14.33	0.0271	2.7212	2M72G7D
		16QAM		22.32	14.17	0.0261	2.7045	2M70W7D
		64QAM		20.52	12.37	0.0173	2.7083	2M71W7D
	5	QPSK	701.5-713.5	22.46	14.31	0.0270	4.5212	4M52G7D
		16QAM		22.29	14.14	0.0259	4.5324	4M53W7D
		64QAM		20.38	12.23	0.0167	4.5113	4M51W7D
	10	QPSK	704-711	22.54	14.39	0.0275	9.0294	9M03G7D
		16QAM		22.34	14.19	0.0262	9.0286	9M03W7D
		64QAM		20.54	12.39	0.0173	9.0034	9M00W7D
13	5	QPSK	779.5-784.5	20.42	14.42	0.0277	4.5114	4M51G7D
		16QAM		20.34	14.34	0.0272	4.5176	4M52W7D
		64QAM		20.42	12.27	0.0169	4.5104	4M51W7D
	10	QPSK	782-782	20.49	14.49	0.0281	8.9729	8M97G7D
		16QAM		19.95	13.95	0.0248	8.9930	8M99W7D
		64QAM		20.49	12.34	0.0171	8.9677	8M97W7D
17	5	QPSK	706.5-713.5	20.27	14.27	0.0267	4.5218	4M52G7D
		16QAM		20.14	14.14	0.0259	4.5315	4M53W7D
		64QAM		18.25	12.25	0.0168	4.5110	4M51W7D
	10	QPSK	709-711	20.38	14.38	0.0274	8.9882	8M99G7D
		16QAM		20.19	14.19	0.0262	9.0179	9M02W7D
		64QAM		18.38	12.38	0.0173	8.9786	8M98W7D
38	5	QPSK	2572.5-2617.5	22.44	20.44	0.1107	4.5117	4M51G7D
		16QAM		22.97	20.97	0.1250	4.5070	4M51W7D
		64QAM		20.97	18.97	0.0789	4.5171	4M52W7D
	10	QPSK	2575-2615	22.68	20.68	0.1169	9.0235	9M02G7D
		16QAM		22.91	20.91	0.1233	9.0217	9M02W7D
		64QAM		20.91	18.91	0.0778	8.9959	9M00W7D
	15	QPSK	2577.5-2612.5	22.85	20.85	0.1216	13.4930	13M5G7D
		16QAM		22.88	20.88	0.1225	13.5600	13M6W7D
		64QAM		20.84	18.84	0.0766	13.5010	13M5W7D
	20	QPSK	2580-2610	23.20	21.20	0.1318	17.9970	18M0G7D
		16QAM		23.18	21.18	0.1312	18.0170	18M0W7D

Summary of Results:								
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)			
		64QAM		21.18	19.18	0.0828	18.0230	18M0W7D
40A	5	QPSK	2307.5-2312.5	18.45	16.45	0.0442	4.5102	4M51G7D
		16QAM		17.61	15.61	0.0364	4.5399	4M54W7D
		64QAM		16.61	14.61	0.0289	4.4999	4M50W7D
	10	QPSK	2310.0	17.68	15.68	0.0370	8.9994	9M00G7D
		16QAM		16.01	14.01	0.0252	8.9737	8M97W7D
		64QAM		16.00	14.00	0.0251	8.9937	8M99W7D
40B	5	QPSK	2352.5-2357.5	19.26	17.26	0.0532	4.5200	4M52G7D
		16QAM		19.12	17.12	0.0515	4.5383	4M54W7D
		64QAM		18.12	16.12	0.0409	4.5132	4M51W7D
	10	QPSK	2355.0	19.51	17.51	0.0564	9.0059	9M01G7D
		16QAM		19.18	17.18	0.0522	8.9932	8M99W7D
		64QAM		18.16	16.16	0.0413	8.9670	8M97W7D
66	1.4	QPSK	1710.7-1779.3	22.23	18.73	0.0746	1.0975	1M10G7D
		16QAM		21.93	18.43	0.0697	1.1067	1M11W7D
		64QAM		20.12	16.62	0.0459	1.0977	1M10W7D
	3	QPSK	1711.5-1778.5	22.26	18.76	0.0752	2.7171	2M72G7D
		16QAM		22.04	18.54	0.0714	2.7096	2M71W7D
		64QAM		20.15	16.65	0.0462	2.7136	2M71W7D
	5	QPSK	1712.5-1777.5	22.45	18.95	0.0785	4.5148	4M51G7D
		16QAM		22.17	18.67	0.0736	4.5324	4M53W7D
		64QAM		20.24	16.74	0.0472	4.5059	4M51W7D
	10	QPSK	1715-1775	22.53	19.03	0.0799	9.0213	9M02G7D
		16QAM		22.31	18.81	0.0760	9.0111	9M01W7D
		64QAM		20.41	16.91	0.0491	9.0109	9M01W7D
	15	QPSK	1717.5-1772.5	22.64	19.14	0.0821	13.5540	13M6G7D
		16QAM		22.32	18.82	0.0763	13.5490	13M5W7D
		64QAM		20.60	17.10	0.0513	13.5260	13M5W7D
	20	QPSK	1720-1770	22.65	19.15	0.0822	18.1080	18M1G7D
		16QAM		22.37	18.87	0.0771	18.0750	18M1W7D
		64QAM		20.65	17.15	0.0519	18.0360	18M0W7D

1.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested with associated equipment below.

1) Support Equipment

Description	Manufacturer	Model No.	Serial Number	Supplied by
--	--	--	--	--

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

1.6 TEST FACILITY

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

CNAS-Lab Code: L9069
The measuring equipment utilized to perform the tests documented in this report has been calibrated once a year or in accordance with the manufacturer's recommendations, and is traceable under the ISO/IEC 17025 to international or national standards. Equipment has been calibrated by accredited calibration laboratories.

A2LA-Lab Certificate No.: 4312.01
Shenzhen UnionTrust Quality and Technology Co., Ltd. has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

ISED Wireless Device Testing Laboratories
CAB identifier: CN0032

FCC Accredited Lab.
Designation Number: CN1194
Test Firm Registration Number: 259480

1.7 DEVIATION FROM STANDARDS

None.

1.8 ABNORMALITIES FROM STANDARD CONDITIONS

None.

1.9 OTHER INFORMATION REQUESTED BY THE CUSTOMER

None.

1.10 MEASUREMENT UNCERTAINTY

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& Band 38)			
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 40)			
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(a)(3)	ANSI/TIA/EIA-603-D 2010 & KDB 971168 D01v02r02	PASS
Conducted Output Power	FCC 47 CFR Part 2.1046(a) & FCC 47 CFR Part 27.50(a)(3)	ANSI/TIA/EIA-603-D 2010 & KDB 971168 D01v02r02	PASS
Peak-to-average ratio	FCC 47 CFR Part 27.50(a)(B)	KDB 971168 D01v02r02	PASS
99%&26dB Bandwidth	FCC 47 CFR Part 2.1049(h) FCC 47 CFR Part 27.50(a)	ANSI/TIA/EIA-603-D 2010 & KDB 971168 D01v02r02	PASS
Band Edge at antenna terminals	FCC 47 CFR Part 27.53(a)(4)	ANSI/TIA/EIA-603-D 2010 & KDB 971168 D01v02r02	PASS
Spurious emissions at antenna terminals	FCC 47 CFR Part 2.1051 & FCC 47 CFR Part 27.53(a) (4)	ANSI/TIA/EIA-603-D 2010 & KDB 971168 D01v02r02	PASS
Field strength of spurious radiation	FCC 47 CFR Part 2.1053 & FCC 47 CFR Part 27.53(a) (4)	ANSI/TIA/EIA-603-D 2010 & KDB 971168 D01v02r02	PASS
Frequency stability	FCC 47 CFR Part 2.1055 & FCC 47 CFR Part 27.54	ANSI/TIA/EIA-603-D 2010 & KDB 971168 D01v02r02	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	25-Oct-2024	24-Oct-2025
☒	EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY51440197	29-Mar-2024	28-Mar-2025
☒	Broadband Antenna	ETS-LINDGREN	3142E	00201566	29-Oct-2024	28-Oct-2025
☒	6dB Attenuator	Talent	RA6A5-N-18	18103001	29-Oct-2024	28-Oct-2025
☒	Preamplifier	HP	8447F	2805A02960	25-Oct-2024	24-Oct-2025
☒	Double-Ridged Waveguide Horn Antenna (Pre-amplifier)	ETS-LINDGREN	3117-PA	00201541	01-Apr-2024	31-Mar-2025
☒	Pre-amplifier	ETS-Lindgren	00118385	00201874	01-Apr-2024	31-Mar-2025
☒	Double-Ridged Waveguide Horn Antenna (Pre-amplifier)	ETS-LINDGREN	3116C-PA	00202652	28-Oct-2024	27-Oct-2025
☒	Pre-amplifier	ETS-Lindgren	00118384	00202652	28-Oct-2024	27-Oct-2025
☒	Wideband Radio Communication Tester	R&S	CMW500	119583	29-Mar-2024	28-Mar-2025
☒	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 Spectrum Analyzer	KEYSIGHT	N9020A	MY51286807	25-Oct-2024	24-Oct-2025
☒	DC Source	KIKUSUI	PWR400L	LK003024	N/A	N/A
☒	Digital multimeter	FLUKE	15B+	30701460WS15	29-Oct-2024	28-Oct-2025
☒	Temp & Humidity chamber	Votisch	VT4002	585661332900 20	29-Mar-2024	28-Mar-2025
☒	Wideband Radio Communication Tester	R&S	CMW500	119583	29-Mar-2024	28-Mar-2025
☒	Wideband Radio Communication Tester	R&S	CMW500	120932	29-Mar-2024	28-Mar-2025

4. TEST CONFIGURATION

4.1 ENVIRONMENTAL CONDITIONS FOR TESTING

Test Environment	Selected Values During Tests		
Test Condition	Ambient		
	Temperature (°C)	Voltage (V)	Relative Humidity (%)
TN/VN	+15 to +35	3.85	20 to 75
TL/VL	-30	3.5	20 to 75
TH/VL	+50	3.5	20 to 75
TL/VH	-30	4.4	20 to 75
TH/VH	+50	4.4	20 to 75

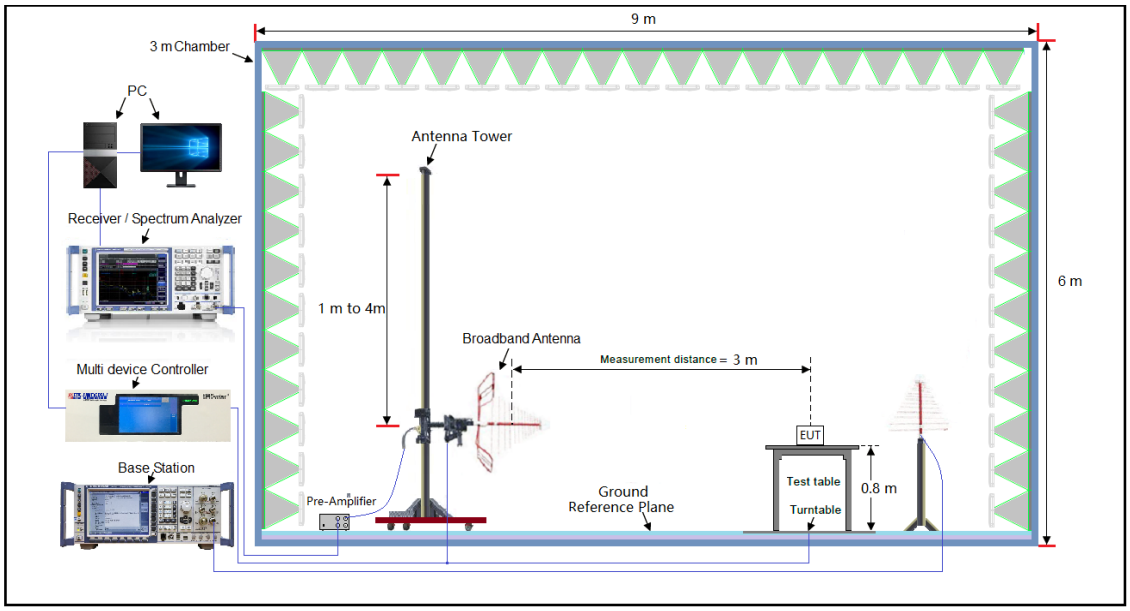
Remark:

1) The EUT just work in such extreme temperature of -30 °C to +50 °C and the extreme voltage of 3.5 V to 4.4 V, so here the EUT is tested in the temperature of -30 °C to +50 °C and the voltage of 3.5 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.

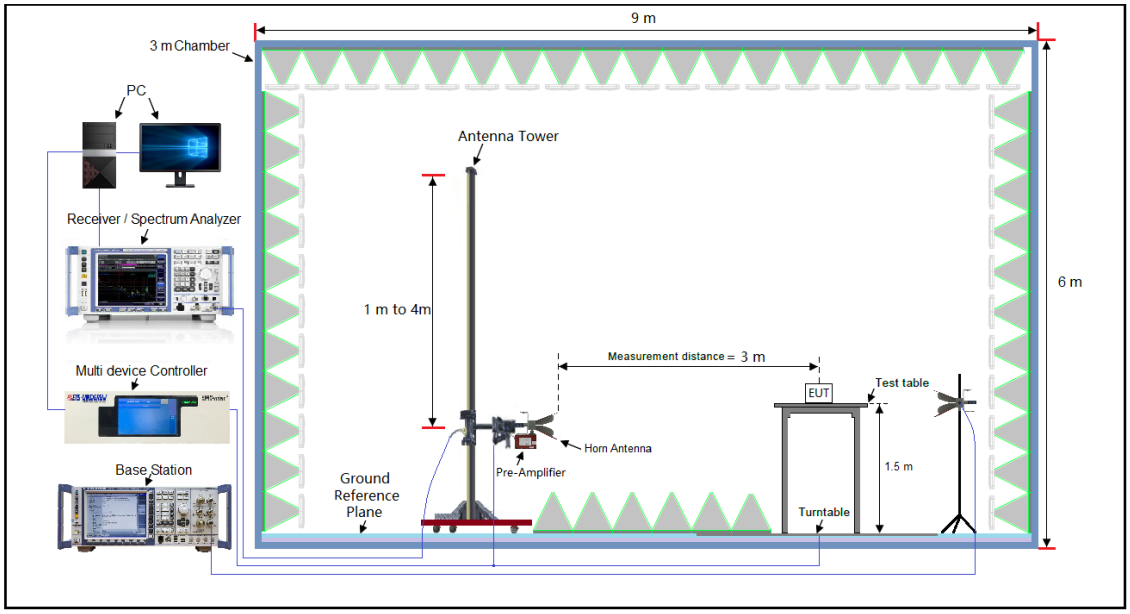
4.2 TEST SETUP

4.2.1 For Radiated Emissions test setup

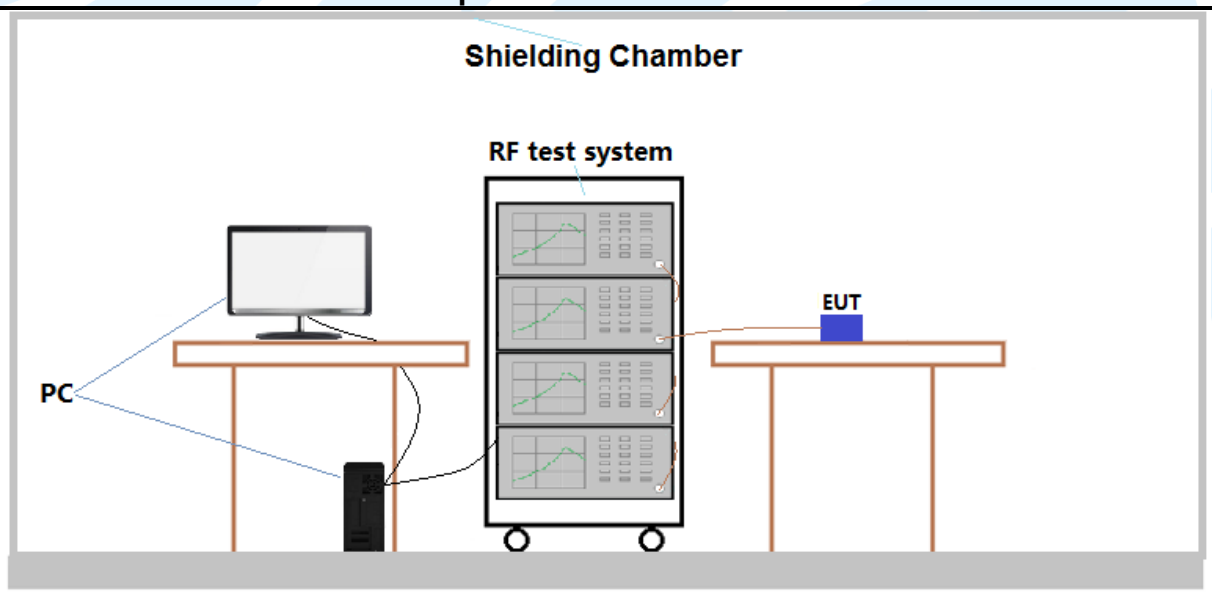
Radiated Emissions 30MHz to 1GHz Test setup



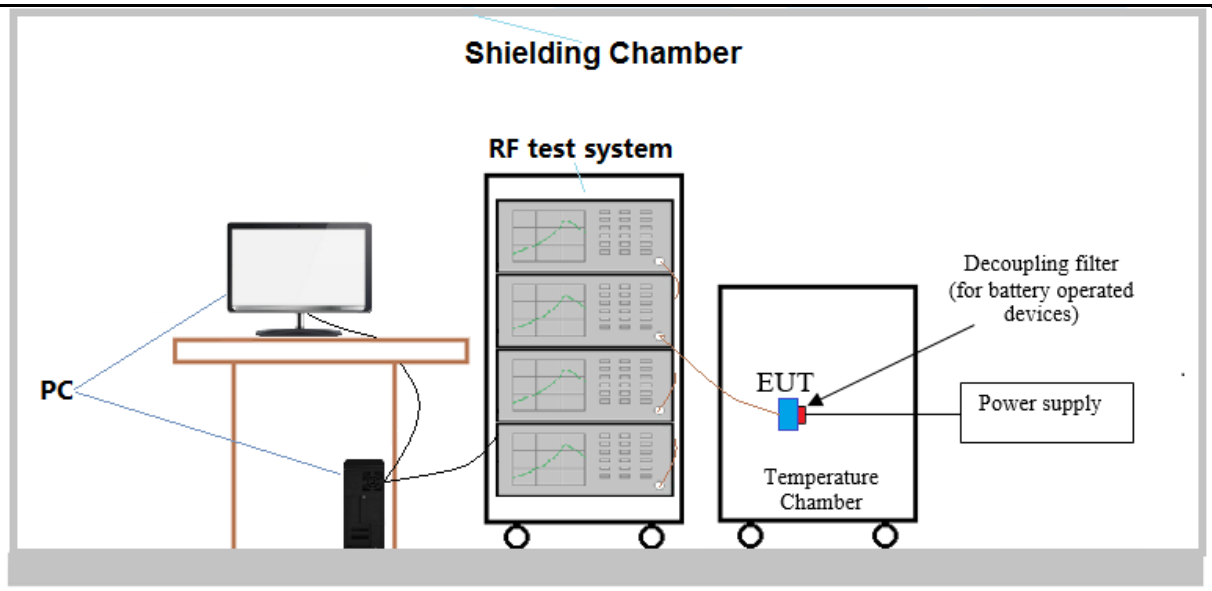
Radiated Emissions Above 1GHz Test setup



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

Band	Test Frequency ID	Bandwidth (MHz)	Number [UL]	Frequency of Uplink (MHz)
LTE Band 13 TX: 777-787MHz	Low Range	5	23205	779.5
		10	--	--
	Middle Range	5/10	23230	782
	High Range	5	23255	784.5
		10	--	--
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 38 TX: 2570-2620MHz	Low Range	5	37775	2572.5
		10	37800	2575
		15	37825	2577.5
		20	37850	2580
	Middle Range	5/10/ 15/20	38000	2595
	High Range	5	38225	2617.5
		10	38200	2615
		15	38175	2612.5
		20	38150	2610
LTE Band 40A TX:2305-2315MHz	Low Range	5	38725	2307.5
		10	/	/
	Middle Range	5/10	38750	2310
	High Range	5	38775	2312.5
LTE Band 40B TX: 2350-2360MHz	Low Range	5	39175	2352.5
		10	/	/
	Middle Range	5/10	39200	2355
	High Range	5	39225	2357.5
		10	/	/
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

4.4 SYSTEM TEST CONFIGURATION

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

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

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

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

4.5 PRE-SCAN

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

Item	Band	Bandwidth(MHz)						Modulation			RB			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	Half	Full	L	M	H
Conducted output power	2	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒
	4	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒
	5	☒	☒	☒	☒	--	--	☒	☒	☒	☒	☒	☒	☒	☒	☒
	7	-	-	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒
	12	☒	☒	☒	☒	-	-	☒	☒	☒	☒	☒	☒	☒	☒	☒
	13	-	-	☒	☒	-	-	☒	☒	☐	☒	☒	☒	☒	☒	☒
	17	-	-	☒	☒	-	-	☒	☒	☒	☒	☒	☒	☒	☒	☒
	40	-	-	☒	☒	-	-	☒	☒	☐	☒	☒	☒	☒	☒	☒
	38	-	-	☒	☒	☒	☒	☒	☒	☐	☐	☐	☒	☒	☒	☒
	66	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒
99%&26dB Bandwidth	2	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒	☒
	4	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒	☒
	5	☒	☒	☒	☒	--	--	☒	☒	☒	☐	☐	☒	☒	☒	☒
	7	-	-	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒	☒
	12	☒	☒	☒	☒	-	-	☒	☒	☒	☐	☐	☒	☒	☒	☒
	13	-	-	☒	☒	-	-	☒	☒	☐	☐	☐	☒	☒	☒	☒
	17	-	-	☒	☒	-	-	☒	☒	☒	☐	☐	☒	☒	☒	☒
	40	-	-	☒	☒	-	-	☒	☒	☐	☐	☐	☒	☒	☒	☒
	38	-	-	☒	☒	☒	☒	☒	☒	☐	☐	☐	☒	☒	☒	☒
	66	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒	☒
peak-to-average ratio	2	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☐	☒	☐
	4	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☐	☒	☐
	5	☒	☒	☒	☒	--	--	☒	☒	☒	☐	☐	☒	☐	☒	☐
	7	-	-	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☐	☒	☐
	12	☒	☒	☒	☒	-	-	☒	☒	☒	☐	☐	☒	☐	☒	☐
	13	-	-	☐	☒	-	-	☒	☒	☐	☐	☐	☒	☐	☒	☐
	17	-	-	☒	☒	-	-	☒	☒	☒	☐	☐	☒	☐	☒	☐
	40	-	-	☐	☒	-	-	☒	☒	☐	☐	☐	☒	☐	☒	☐
	38	-	-	☒	☒	☒	☒	☒	☒	☐	☐	☐	☒	☒	☒	☒
	66	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☐	☒	☐
Band Edge at antenna terminals	2	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☒	☒	☐	☒
	4	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☒	☒	☐	☒
	5	☒	☒	☒	☒	--	--	☒	☒	☒	☒	☐	☒	☒	☐	☒
	7	-	-	☒	☒	☒	☒	☒	☒	☒	☒	☐	☒	☒	☐	☒
	12	☒	☒	☒	☒	-	-	☒	☒	☒	☒	☐	☒	☒	☐	☒
	13	-	-	☒	☒	-	-	☒	☒	☐	☒	☐	☒	☒	☐	☒
	17	-	-	☒	☒	-	-	☒	☒	☒	☒	☐	☒	☒	☐	☒
	40	-	-	☒	☒	-	-	☒	☒	☐	☒	☐	☒	☒	☐	☒
	38	-	-	☒	☒	☒	☒	☒	☒	☐	☒	☐	☒	☒	☐	☒
	66	☒	☒	☒	☒	☒	--	☒	☒	☒	☒	☐	☒	☒	☐	☒

Item	Band	Bandwidth(MHz)						Modulation			RB			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	Half	Full	L	M	H
Spurious emissions at antenna terminals	2	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒
	4	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒
	5	☒	☒	☒	☒	--	--	☒	☒	☒	☒	☐	☐	☒	☒	☒
	7	-	-	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒
	12	☒	☒	☒	☒	-	-	☒	☒	☒	☒	☐	☐	☒	☒	☒
	13	-	-	☒	☒	-	-	☒	☒	☐	☒	☐	☐	☒	☒	☒
	17	-	-	☒	☒	-	-	☒	☒	☒	☒	☐	☐	☒	☒	☒
	40	-	-	☒	☒	-	-	☒	☒	☐	☒	☐	☐	☒	☒	☒
	38	-	-	☒	☒	☒	☒	☒	☒	☐	☒	☐	☐	☒	☒	☒
	66	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☒	☒	☒
Field strength of spurious radiation	2	☐	☐	☐	☐	☐	☒	☒	☐	☐	☒	☐	☐	☒	☒	☒
	4	☐	☐	☐	☐	☐	☒	☒	☐	☐	☒	☐	☐	☒	☒	☒
	5	☐	☐	☐	☒	--	--	☒	☐	☐	☒	☐	☐	☒	☒	☒
	7	-	-	☐	☐	☐	☒	☒	☐	☐	☒	☐	☐	☒	☒	☒
	12	☐	☐	☐	☒	-	-	☒	☐	☐	☒	☐	☐	☒	☒	☒
	13	-	-	☐	☒	-	-	☒	☐	☐	☒	☐	☐	☒	☒	☒
	17	-	-	☐	☒	-	-	☒	☐	☐	☒	☐	☐	☒	☒	☒
	40	-	-	☐	☒	-	-	☒	☐	☐	☒	☐	☐	☒	☒	☒
	38	-	-	☐	☐	☐	☒	☒	☐	☐	☒	☐	☐	☒	☒	☒
	66	☐	☐	☐	☐	☐	☒	☒	☐	☐	☒	☐	☐	☒	☒	☒
Frequency stability	2	☐	☐	☐	☐	☐	☒	☒	☐	☐	☐	☐	☒	☐	☒	☐
	4	☐	☐	☐	☐	☐	☒	☒	☐	☐	☐	☐	☒	☐	☒	☐
	5	☐	☐	☐	☒	--	--	☒	☐	☐	☐	☐	☒	☐	☒	☐
	7	-	-	☐	☐	☐	☒	☒	☐	☐	☐	☐	☒	☐	☒	☐
	12	☐	☐	☐	☒	-	-	☒	☐	☐	☐	☐	☒	☐	☒	☐
	13	-	-	☐	☒	-	-	☒	☐	☐	☐	☐	☒	☐	☒	☐
	17	-	-	☐	☒	-	-	☒	☐	☐	☐	☐	☒	☐	☒	☐
	40	-	-	☐	☒	-	-	☒	☐	☐	☐	☐	☒	☐	☒	☐
	38	-	-	☐	☐	☐	☒	☒	☐	☐	☐	☐	☒	☐	☒	☐
	66	☐	☐	☐	☐	☐	☒	☒	☐	☐	☐	☐	☒	☐	☒	☐

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 & Band 38: FCC 47 CFR Part 27.50(h)(2)
LTE Band 12 & LTE Band 17: FCC 47 CFR Part 27.50(c)(10)
LTE Band 13: FCC 47 CFR Part 27.50(b)(10)
LTE Band 40: FCC 47 CFR Part 27.50(a)(3)

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.

FCC 47 CFR Part 27.50(a)(3):
For mobile and portable stations transmitting in the 2305-2315 MHz band or the 2350-2360 MHz band, the average EIRP must not exceed 50 milliwatts within any 1 megahertz of authorized bandwidth, except that for mobile and portable stations compliant with 3GPP LTE standards or another advanced mobile broadband protocol that avoids concentrating energy at the edge of the operating band the average EIRP must not exceed 250 milliwatts within any 5 megahertz of authorized bandwidth but may exceed 50 milliwatts within any 1 megahertz of authorized bandwidth. For mobile and portable stations using time division duplexing (TDD) technology, the duty cycle must not exceed 38 percent in the 2305-2315 MHz and 2350-2360 MHz bands. Mobile and portable stations using FDD technology are restricted to transmitting in the 2305-2315 MHz band. Power averaging shall not include intervals in which the transmitter is off.

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	1RB#0	22.45	22.29	22.04	22.10	22.01	21.92	20.35	20.22	20.13	
		1RB#2	22.24	22.25	22.18	22.09	22.00	21.74	20.35	19.93	20.11	
		1RB#5	22.36	22.26	22.15	22.07	22.18	21.75	20.29	20.41	19.53	
		3RB#0	22.60	22.62	22.52	21.88	21.62	21.72	20.58	20.53	20.58	
		3RB#1	22.55	22.45	22.56	21.87	21.71	21.74	20.58	20.19	20.51	
		3RB#3	22.75	22.49	22.42	21.85	21.69	21.93	20.42	20.54	20.25	
		6RB#0	21.65	21.74	21.64	20.69	20.89	20.67	19.65	19.75	19.48	
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	1RB#0	22.31	22.19	21.96	22.11	22.01	21.76	20.36	20.22	19.97	
		1RB#8	22.18	22.18	22.13	22.01	22.06	21.72	20.27	19.99	20.09	
		1RB#14	22.20	22.27	22.02	21.98	22.20	21.86	20.20	20.43	19.64	
		8RB#0	21.50	21.61	21.62	20.77	20.73	20.71	19.47	19.64	19.57	
		8RB#4	21.51	21.60	21.50	20.83	20.78	20.71	19.54	19.26	19.48	
		8RB#7	21.63	21.59	21.56	20.91	20.71	20.93	19.48	19.56	19.25	
		15RB#0	21.64	21.60	21.59	20.82	20.72	20.77	19.78	19.58	19.58	
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	1RB#0	22.46	22.21	22.03	22.04	21.94	21.77	20.29	20.15	19.98	
		1RB#12	22.29	22.08	22.18	21.91	22.10	21.80	20.17	20.03	20.17	
		1RB#24	22.31	22.26	22.11	22.00	22.04	21.89	20.22	20.27	19.67	
		12RB#0	21.43	21.57	21.63	20.87	20.77	20.62	19.57	19.68	19.48	
		12RB#6	21.58	21.53	21.46	20.75	20.76	20.83	19.46	19.24	19.60	
		12RB#13	21.80	21.53	21.45	20.94	20.60	20.93	19.51	19.45	19.25	
		25RB#0	21.74	21.64	21.58	20.79	20.77	20.79	19.75	19.63	19.60	
Band	Bandwidth (MHz)	RB	18650	18900	19150	18650	18900	19150	18650	18900	19150	
			1855	1880	1905	1855	1880	1905	1855	1880	1905	
2	10	1RB#0	22.40	22.23	22.08	21.99	22.03	21.94	20.24	20.24	20.15	
		1RB#24	22.34	22.11	22.14	21.92	21.95	21.83	20.18	19.88	20.20	
		1RB#49	22.27	22.42	22.09	21.98	22.03	21.86	20.20	20.26	19.64	
		25RB#0	21.58	21.54	21.55	20.75	20.78	20.78	19.45	19.69	19.64	
		25RB#12	21.52	21.53	21.49	20.84	20.80	20.67	19.55	19.28	19.44	
		25RB#25	21.69	21.50	21.50	20.87	20.73	20.82	19.44	19.58	19.14	
		50RB#0	21.69	21.73	21.64	20.65	20.79	20.79	19.61	19.65	19.60	
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	1RB#0	22.39	22.28	22.03	21.97	22.02	21.89	20.22	20.23	20.10	
		1RB#38	22.16	22.22	22.13	22.08	22.02	21.83	20.34	19.95	20.20	
		1RB#74	22.38	22.42	22.08	22.12	22.08	21.81	20.34	20.31	19.59	
		38RB#0	21.55	21.69	21.52	20.83	20.75	20.76	19.53	19.66	19.62	
		38RB#18	21.50	21.55	21.56	20.71	20.78	20.71	19.42	19.26	19.48	
		38RB#37	21.68	21.58	21.47	20.93	20.77	20.91	19.50	19.62	19.23	
		75RB#0	21.61	21.72	21.53	20.64	20.71	20.77	19.60	19.57	19.58	
Band	Bandwidth (MHz)	RB	18700	18900	19100	18700	18900	19100	18700	18900	19100	
			1860	1880	1900	1860	1880	1900	1860	1880	1900	
2	20	1RB#0	22.47	22.34	22.15	22.12	22.13	21.94	20.37	20.34	20.15	
		1RB#49	22.36	22.26	22.24	22.10	22.13	21.87	20.36	20.06	20.24	
		1RB#99	22.39	22.44	22.21	22.17	22.21	21.93	20.39	20.44	19.71	
		50RB#0	21.63	21.73	21.68	20.93	20.82	20.82	19.63	19.73	19.68	
		50RB#25	21.61	21.62	21.61	20.90	20.84	20.84	19.61	19.32	19.61	
		50RB#50	21.83	21.65	21.59	20.96	20.80	20.97	19.53	19.65	19.29	
		100RB#0	21.80	21.76	21.65	20.84	20.90	20.84	19.80	19.76	19.65	

5.2.2 LTE Band 4

Conducted Power(dBm)											
Modulation			QPSK			16QAM			64QAM		
Band	Bandwidth (MHz)	RB	19957	20175	20393	19957	20175	20393	19957	20175	20393
			1710.7	1732.5	1754.3	1710.7	1732.5	1754.3	1710.7	1732.5	1754.3
4	1.4	1RB#0	22.61	22.30	22.22	22.31	22.11	21.92	20.61	20.23	20.01
		1RB#2	22.35	22.31	22.29	22.19	22.08	21.81	20.46	19.99	20.22
		1RB#5	22.55	22.18	22.33	22.13	22.21	21.80	20.48	20.33	20.01
		3RB#0	22.72	22.83	22.65	22.01	21.90	21.85	20.50	20.74	20.71
		3RB#1	22.68	22.78	22.82	22.02	21.98	21.87	20.71	20.82	20.47
		3RB#3	22.71	22.79	22.71	21.99	21.91	21.96	20.68	20.44	20.84
		6RB#0	21.74	21.86	21.91	20.94	21.00	20.82	19.74	19.87	19.75
Band	Bandwidth (MHz)	RB	19965	20175	20385	19965	20175	20385	19965	20175	20385
			1711.5	1732.5	1753.5	1711.5	1732.5	1753.5	1711.5	1732.5	1753.5
4	3	1RB#0	22.47	22.20	22.14	22.32	22.11	21.76	20.62	20.23	19.85
		1RB#8	22.29	22.24	22.24	22.11	22.14	21.79	20.38	20.05	20.20
		1RB#14	22.39	22.19	22.20	22.04	22.23	21.91	20.39	20.35	20.12
		8RB#0	21.62	21.82	21.75	20.90	21.01	20.84	19.39	19.85	19.70
		8RB#4	21.64	21.93	21.76	20.98	21.05	20.84	19.67	19.89	19.44
		8RB#7	21.59	21.89	21.85	21.05	20.93	20.96	19.74	19.46	19.84
		15RB#0	21.73	21.72	21.86	21.07	20.83	20.92	19.87	19.70	19.85
Band	Bandwidth (MHz)	RB	19975	20175	20375	19975	20175	20375	19975	20175	20375
			1712.5	1732.5	1752.5	1712.5	1732.5	1752.5	1712.5	1732.5	1752.5
4	5	1RB#0	22.62	22.22	22.21	22.25	22.04	21.77	20.55	20.16	19.86
		1RB#12	22.40	22.14	22.29	22.01	22.18	21.87	20.28	20.09	20.28
		1RB#24	22.50	22.18	22.29	22.06	22.07	21.94	20.41	20.19	20.15
		12RB#0	21.55	21.78	21.76	21.00	21.05	20.75	19.49	19.89	19.61
		12RB#6	21.71	21.86	21.72	20.90	21.03	20.96	19.59	19.87	19.56
		12RB#13	21.76	21.83	21.74	21.08	20.82	20.96	19.77	19.35	19.84
		25RB#0	21.83	21.76	21.85	21.04	20.88	20.94	19.84	19.75	19.87
Band	Bandwidth (MHz)	RB	20000	20175	20350	20000	20175	20350	20000	20175	20350
			1715	1732.5	1750	1715	1732.5	1750	1715	1732.5	1750
4	10	1RB#0	22.56	22.24	22.26	22.20	22.13	21.94	20.50	20.25	20.03
		1RB#24	22.45	22.17	22.25	22.02	22.03	21.90	20.29	19.94	20.31
		1RB#49	22.46	22.34	22.27	22.04	22.06	21.91	20.39	20.18	20.12
		25RB#0	21.70	21.75	21.68	20.88	21.06	20.91	19.37	19.90	19.77
		25RB#12	21.65	21.86	21.75	20.99	21.07	20.80	19.68	19.91	19.40
		25RB#25	21.65	21.80	21.79	21.01	20.95	20.85	19.70	19.48	19.73
		50RB#0	21.78	21.85	21.91	20.90	20.90	20.94	19.70	19.77	19.87
Band	Bandwidth (MHz)	RB	20025	20175	20325	20025	20175	20325	20025	20175	20325
			1717.5	1732.5	1747.5	1717.5	1732.5	1747.5	1717.5	1732.5	1747.5
4	15	1RB#0	22.55	22.29	22.21	22.18	22.12	21.89	20.48	20.24	19.98
		1RB#38	22.27	22.28	22.24	22.18	22.10	21.90	20.45	20.01	20.31
		1RB#74	22.57	22.34	22.26	22.18	22.11	21.86	20.53	20.23	20.07
		38RB#0	21.67	21.90	21.65	20.96	21.03	20.89	19.45	19.87	19.75
		38RB#18	21.63	21.88	21.82	20.86	21.05	20.84	19.55	19.89	19.44
		38RB#37	21.64	21.88	21.76	21.07	20.99	20.94	19.76	19.52	19.82
		75RB#0	21.70	21.84	21.80	20.89	20.82	20.92	19.69	19.69	19.85
Band	Bandwidth (MHz)	RB	20050	20175	20300	20050	20175	20300	20050	20175	20300
			1720	1732.5	1745	1720	1732.5	1745	1720	1732.5	1745
4	20	1RB#0	22.63	22.35	22.33	22.33	22.23	21.94	20.63	20.35	20.03
		1RB#49	22.47	22.32	22.35	22.20	22.21	21.94	20.47	20.12	20.35
		1RB#99	22.58	22.36	22.39	22.23	22.24	21.98	20.58	20.36	20.19
		50RB#0	21.75	21.94	21.81	21.06	21.10	20.95	19.55	19.94	19.81
		50RB#25	21.74	21.95	21.87	21.05	21.11	20.97	19.74	19.95	19.57
		50RB#50	21.79	21.95	21.88	21.10	21.02	21.00	19.79	19.55	19.88
		100RB#0	21.89	21.88	21.92	21.09	21.01	20.99	19.89	19.88	19.92

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	1RB#0	22.10	22.09	22.12	22.34	22.09	22.07	20.24	20.06	19.97	
		1RB#2	22.19	22.07	22.25	22.15	22.04	22.01	19.75	19.84	19.86	
		1RB#5	22.17	22.34	22.22	22.00	22.17	21.92	20.24	20.28	20.15	
		3RB#0	22.56	22.77	22.79	21.71	22.01	21.86	20.67	20.71	20.42	
		3RB#1	22.66	22.83	22.62	21.81	21.93	21.87	20.54	20.78	20.67	
		3RB#3	22.84	22.72	22.84	22.16	21.98	21.96	20.81	20.33	20.59	
		6RB#0	21.74	21.72	21.84	21.19	20.89	20.83	19.70	19.75	19.75	
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	1RB#0	22.17	22.11	22.21	22.18	21.97	22.03	20.08	19.94	19.93	
		1RB#8	22.06	22.09	22.15	22.25	22.21	22.19	19.85	20.01	20.04	
		1RB#14	22.26	22.28	22.20	22.03	22.18	21.95	20.27	20.29	20.18	
		8RB#0	21.64	21.63	21.77	20.59	20.98	20.95	19.55	19.68	19.51	
		8RB#4	21.63	21.72	21.72	20.74	20.92	20.82	19.47	19.77	19.62	
		8RB#7	21.76	21.73	21.68	21.13	21.03	20.98	19.78	19.38	19.61	
		15RB#0	21.69	21.73	21.78	21.26	20.92	20.95	19.77	19.78	19.87	
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	1RB#0	22.07	21.99	22.29	22.28	22.03	22.00	20.18	20.00	19.90	
		1RB#12	22.13	22.15	22.25	22.26	22.07	22.18	19.86	19.87	20.03	
		1RB#24	22.24	22.33	22.28	22.01	22.21	22.03	20.25	20.32	20.26	
		12RB#0	21.70	21.72	21.70	20.67	20.99	20.92	19.63	19.69	19.48	
		12RB#6	21.56	21.86	21.66	20.84	20.86	20.93	19.57	19.71	19.73	
		12RB#13	21.82	21.81	21.70	21.19	20.93	21.03	19.84	19.28	19.66	
		25RB#0	21.59	21.74	21.89	21.09	20.93	20.96	19.60	19.79	19.88	
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	1RB#0	22.25	22.14	22.29	22.35	22.17	22.19	20.25	20.14	20.09	
		1RB#24	22.21	22.24	22.35	22.31	22.24	22.20	19.91	20.04	20.05	
		1RB#49	22.28	22.38	22.33	22.04	22.27	22.10	20.28	20.38	20.33	
		25RB#0	21.73	21.77	21.87	20.77	21.07	21.01	19.73	19.77	19.57	
		25RB#12	21.72	21.90	21.82	20.89	21.05	21.02	19.62	19.90	19.82	
		25RB#25	21.88	21.89	21.84	21.23	21.04	21.11	19.88	19.39	19.74	
		50RB#0	21.79	21.86	21.91	21.28	21.00	20.99	19.79	19.86	19.91	

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	1RB#0	22.16	22.43	22.25	21.50	21.95	22.10	20.15	20.15	20.17
		1RB#12	21.92	22.37	22.09	21.63	21.86	22.16	19.87	20.31	20.23
		1RB#24	22.17	22.45	22.13	21.71	22.04	22.28	20.17	20.42	20.10
		12RB#0	21.45	21.76	21.60	20.75	20.98	20.86	19.50	19.74	19.19
		12RB#6	21.50	21.85	21.66	20.75	21.02	20.95	19.50	19.63	19.68
		12RB#13	21.50	21.49	21.77	21.00	20.84	20.99	19.32	18.99	19.43
		25RB#0	21.68	21.63	21.72	20.77	20.79	21.05	19.72	19.54	19.82
Band	Bandwidth (MHz)	RB	20800	21100	21400	20800	21100	21400	20800	21100	21400
			2505	2535	2565	2505	2535	2565	2505	2535	2565
7	10	1RB#0	22.18	22.33	22.31	21.54	21.85	22.15	20.19	20.05	20.22
		1RB#24	22.03	22.36	22.13	21.52	21.86	22.04	19.76	20.31	20.11
		1RB#49	22.16	22.52	22.26	21.68	22.05	22.12	20.14	20.43	19.94
		25RB#0	21.53	21.78	21.54	20.73	20.89	20.96	19.48	19.65	19.29
		25RB#12	21.51	21.76	21.59	20.85	20.98	20.79	19.60	19.59	19.52
		25RB#25	21.49	21.48	21.81	20.99	20.92	20.99	19.31	19.07	19.43
		50RB#0	21.72	21.49	21.85	20.71	20.92	20.99	19.66	19.67	19.76
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	1RB#0	22.12	22.37	22.29	21.65	21.89	22.14	20.30	20.09	20.21
		1RB#38	21.92	22.47	22.20	21.62	22.02	22.21	19.86	20.47	20.28
		1RB#74	22.21	22.39	22.23	21.64	22.09	22.17	20.10	20.47	19.99
		38RB#0	21.52	21.70	21.66	20.72	20.98	21.01	19.47	19.74	19.34
		38RB#18	21.63	21.79	21.59	20.89	20.98	20.90	19.64	19.59	19.63
		38RB#37	21.64	21.50	21.84	21.02	20.86	20.81	19.34	19.01	19.25
		75RB#0	21.62	21.51	21.69	20.70	20.79	21.02	19.65	19.54	19.79
Band	Bandwidth (MHz)	RB	20850	21100	21350	20850	21100	21350	20850	21100	21350
			2510	2535	2560	2510	2535	2560	2510	2535	2560
7	20	1RB#0	22.31	22.49	22.32	21.66	21.99	22.25	20.31	20.19	20.32
		1RB#49	22.10	22.48	22.29	21.66	22.03	22.22	19.90	20.48	20.29
		1RB#99	22.21	22.53	22.32	21.75	22.15	22.30	20.21	20.53	20.12
		50RB#0	21.63	21.78	21.68	20.88	21.02	21.05	19.63	19.78	19.38
		50RB#25	21.64	21.85	21.71	20.89	21.04	20.98	19.64	19.65	19.71
		50RB#50	21.67	21.67	21.84	21.05	21.02	21.00	19.37	19.17	19.44
		100RB#0	21.73	21.69	21.87	20.78	20.94	21.10	19.73	19.69	19.87

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	1RB#0	22.43	22.40	22.34	22.16	22.09	22.20	20.34	20.28	20.29
		1RB#2	22.31	22.29	22.37	21.97	22.22	22.29	19.78	20.09	20.46
		1RB#5	22.25	22.40	22.53	22.08	22.17	22.22	20.40	20.33	20.42
		3RB#0	22.82	22.91	22.95	21.74	22.29	22.00	20.85	20.85	20.90
		3RB#1	22.96	22.99	22.93	21.90	22.29	21.99	20.70	20.84	20.51
		3RB#3	23.01	23.03	22.74	22.12	22.22	21.95	20.89	20.72	20.74
		6RB#0	21.81	21.77	21.86	20.97	21.07	21.00	19.95	19.86	19.88
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	1RB#0	22.35	22.45	22.48	22.23	22.22	22.22	20.41	20.41	20.31
		1RB#8	22.23	22.28	22.32	21.97	22.26	22.28	19.78	20.13	20.45
		1RB#14	22.41	22.34	22.39	22.05	22.11	22.32	20.37	20.27	20.52
		8RB#0	21.94	21.93	21.86	20.77	21.36	20.92	19.88	19.92	19.82
		8RB#4	21.95	21.83	22.01	20.81	21.43	20.92	19.61	19.98	19.44
		8RB#7	21.94	22.03	21.73	21.12	21.24	21.09	19.89	19.74	19.88
		15RB#0	21.88	21.82	21.96	20.98	20.94	21.01	19.96	19.73	19.89
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	1RB#0	22.36	22.27	22.32	22.13	22.19	22.08	20.31	20.38	20.17
		1RB#12	22.22	22.35	22.46	21.98	22.29	22.17	19.79	20.16	20.34
		1RB#24	22.44	22.27	22.37	21.99	22.16	22.14	20.31	20.32	20.34
		12RB#0	22.00	22.00	21.82	20.83	21.38	21.07	19.94	19.94	19.97
		12RB#6	21.94	21.92	21.93	20.79	21.40	21.09	19.59	19.95	19.61
		12RB#13	21.91	22.05	21.86	21.19	21.17	20.94	19.96	19.67	19.73
		25RB#0	21.89	21.76	21.92	20.95	20.99	20.96	19.93	19.78	19.84
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	1RB#0	22.44	22.46	22.52	22.26	22.27	22.23	20.44	20.46	20.32
		1RB#24	22.41	22.38	22.50	22.10	22.31	22.33	19.91	20.18	20.50
		1RB#49	22.45	22.42	22.54	22.13	22.26	22.34	20.45	20.42	20.54
		25RB#0	22.01	22.01	21.99	20.90	21.45	21.09	20.01	20.01	19.99
		25RB#12	22.02	22.00	22.02	20.92	21.45	21.10	19.72	20.00	19.62
		25RB#25	22.07	22.05	21.90	21.30	21.25	21.11	20.07	19.75	19.90
		50RB#0	21.98	21.87	22.00	21.00	21.08	21.12	19.98	19.87	20.00

5.2.1 LTE Band 13

Conducted Power(dBm)											
Modulation			QPSK			16QAM			64QAM		
Band	Bandwidth (MHz)	RB	23205	23230	23255	23205	23230	23255	23205	23230	23255
			779.5	782	784.5	779.5	782	784.5	779.5	782	784.5
13	5	1@0	22.57	22.34	22.17	21.66	22.40	21.86	20.57	20.14	19.87
		1@12	22.43	22.35	22.24	21.71	22.44	21.92	20.43	19.95	20.24
		1@24	22.50	22.29	22.19	21.66	22.49	21.94	20.30	20.29	20.19
		12@0	21.93	21.75	21.80	21.01	21.02	20.77	19.93	19.75	19.80
		12@7	21.93	21.75	21.80	21.07	20.99	20.76	19.93	19.75	19.50
		12@13	21.74	21.82	21.78	20.88	21.07	20.78	19.74	19.82	19.78
		25@0	21.78	21.86	21.87	21.03	20.97	20.87	19.28	19.86	19.87
Band	Bandwidth (MHz)	RB	--	23230	--	--	23230	--	--	23230	--
			--	782	--	--	782	--	--	782	--
13	10	1@0	--	22.64	--	--	22.10	--	--	20.64	--
		1@25	--	22.59	--	--	22.06	--	--	20.59	--
		1@49	--	22.62	--	--	22.01	--	--	20.32	--
		25@0	--	21.89	--	--	20.83	--	--	19.89	--
		25@12	--	21.89	--	--	20.83	--	--	19.89	--
		25@25	--	21.86	--	--	20.92	--	--	19.56	--
		50@0	--	21.88	--	--	20.97	--	--	19.88	--

5.2.2 LTE Band 17

Conducted Power(dBm)											
Modulation			QPSK			16QAM			64QAM		
Band	Bandwidth (MHz)	RB	23755	23790	23825	23755	23790	23825	23755	23790	23825
			706.5	710	713.5	706.5	710	713.5	706.5	710	713.5
17	5	1@0	22.18	22.38	22.26	22.19	22.17	22.12	20.30	20.04	20.28
		1@12	22.37	22.28	22.32	22.16	22.29	22.22	20.33	20.40	20.00
		1@24	22.26	22.24	22.42	22.01	22.16	22.08	19.93	20.22	20.33
		12@0	21.84	21.90	21.98	21.29	21.04	21.08	19.92	19.54	19.58
		12@7	21.85	21.97	21.88	21.15	21.09	21.07	19.86	20.01	19.98
		12@13	21.96	21.69	21.73	21.25	21.48	20.97	19.91	19.50	19.57
		25@0	21.75	21.96	21.99	21.04	20.96	21.17	19.46	19.88	20.01
Band	Bandwidth (MHz)	RB	23780	23790	23800	23780	23790	23800	23780	23790	23800
			709	710	711	709	710	711	709	710	711
17	10	1@0	22.34	22.41	22.42	22.23	22.34	22.26	20.34	20.21	20.42
		1@25	22.40	22.44	22.40	22.23	22.33	22.32	20.40	20.44	20.10
		1@49	22.42	22.40	22.53	22.20	22.34	22.28	20.12	20.40	20.53
		25@0	22.04	22.04	22.00	21.41	21.14	21.10	20.04	19.64	19.60
		25@12	21.91	22.03	22.02	21.20	21.11	21.11	19.91	20.03	20.02
		25@25	21.98	21.85	21.90	21.32	21.53	21.10	19.98	19.55	19.70
		50@0	21.92	22.03	22.02	21.10	21.11	21.18	19.52	20.03	20.02

5.2.1 LTE Band 38

Conducted Power(dBm)											
Modulation			QPSK			16QAM			64QAM		
Band	Bandwidth (MHz)	RB	37775	38000	38225	37775	38000	38225	37775	38000	38225
			2572.5	2595	2617.5	2572.5	2595	2617.5	2572.5	2595	2617.5
38	5	1RB#0	22.28	22.32	22.31	22.84	22.55	22.74	20.84	20.55	20.74
		1RB#2	22.33	22.32	22.44	22.87	22.59	22.78	20.67	20.59	20.58
		1RB#5	22.34	22.36	22.34	22.97	22.57	22.94	20.97	20.27	20.94
		3RB#0	21.94	22.06	22.07	21.07	21.00	21.18	19.07	19.00	19.18
		3RB#1	21.96	21.91	22.09	21.08	21.13	21.19	19.08	19.13	18.89
		3RB#3	21.94	21.99	21.99	21.01	21.15	21.21	18.81	19.15	19.21
		6RB#0	21.92	22.06	22.07	21.04	21.11	21.31	19.04	19.11	19.31
Band	Bandwidth (MHz)	RB	37800	38000	38200	37800	38000	38200	37800	38000	38200
			2575	2595	2615	2575	2595	2615	2575	2595	2615
38	10	1RB#0	22.61	22.49	22.52	22.74	22.66	22.66	20.74	20.66	20.66
		1RB#8	22.59	22.41	22.65	22.87	22.60	22.65	20.67	20.30	20.25
		1RB#14	22.65	22.54	22.68	22.91	22.63	22.77	20.91	20.63	20.77
		8RB#0	21.90	21.99	21.99	21.09	21.44	21.37	19.09	19.14	19.37
		8RB#4	21.91	22.00	22.01	21.10	21.44	21.38	19.10	19.44	19.38
		8RB#7	22.04	22.05	22.10	21.11	21.50	21.42	19.11	19.50	19.12
		15RB#0	22.04	21.88	22.05	21.16	21.27	21.40	18.96	19.17	19.40
Band	Bandwidth (MHz)	RB	37825	38000	38175	37825	38000	38175	37825	38000	38175
			2577.5	2595	2612.5	2577.5	2595	2612.5	2577.5	2595	2612.5
38	15	1RB#0	22.62	22.85	22.63	22.81	21.77	22.69	20.81	19.77	20.69
		1RB#12	22.57	22.66	22.69	22.84	22.29	22.60	20.84	20.29	20.30
		1RB#24	22.66	22.80	22.59	22.88	21.77	22.70	20.58	19.77	20.70
		12RB#0	22.06	22.08	22.05	22.07	22.08	22.05	20.07	20.08	20.05
		12RB#6	22.07	22.07	22.05	22.06	22.07	22.06	19.56	19.77	19.56
		12RB#13	22.07	22.08	22.06	22.06	22.07	22.06	20.06	20.07	20.06
		25RB#0	22.06	22.07	22.06	21.12	21.34	21.34	19.12	19.34	19.34
Band	Bandwidth (MHz)	RB	37850	38000	38150	37850	38000	38150	37850	38000	38150
			2580	2595	2610	2580	2595	2610	2580	2595	2610
38	20	1RB#0	22.66	23.11	23.06	22.92	23.08	22.41	20.92	21.08	20.41
		1RB#24	22.74	23.11	23.01	22.88	23.07	22.47	20.88	20.67	20.47
		1RB#49	22.77	23.20	23.03	23.00	23.18	22.43	21.00	21.18	20.43
		25RB#0	21.82	22.06	21.97	21.42	21.29	21.22	19.12	19.29	18.92
		25RB#12	21.93	21.91	21.98	21.42	21.31	21.22	19.42	18.91	19.22
		25RB#25	22.05	22.04	22.00	21.39	21.25	21.22	19.39	19.25	19.22
		50RB#0	22.04	22.04	21.98	21.22	21.21	21.24	19.22	19.21	19.24

5.2.2 LTE Band 40A

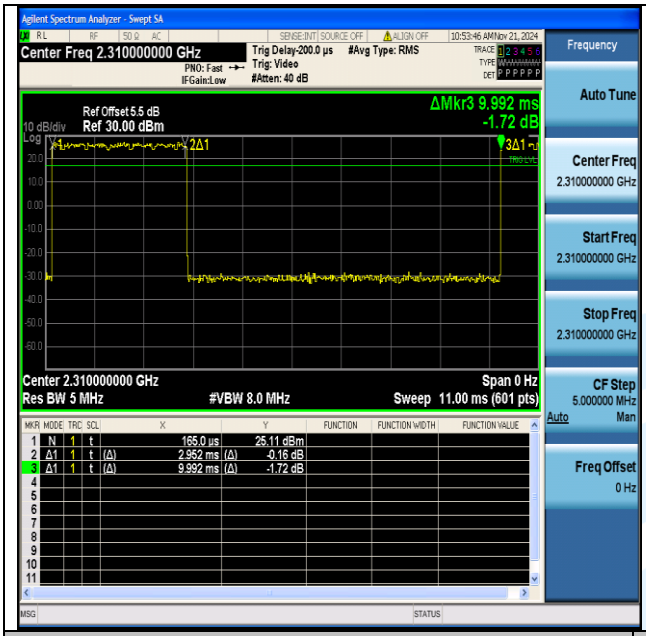
Conducted Power(dBm)										
Modulation			QPSK			16QAM			64QAM		
Band	Bandwidth (MHz)	RB	38725	38750	38775	38725	38750	38775	38725	38750	38775
			2307.5	2310	2312.5	2307.5	2310	2312.5	2307.5	2310	2312.5
40	5	1@0	17.76	17.61	17.48	17.61	17.48	17.39	16.61	16.55	16.36
		1@12	17.65	17.62	17.75	17.57	17.52	17.59	16.57	16.58	16.52
		1@24	17.69	17.68	17.67	17.52	17.59	17.58	16.52	16.39	16.51
		12@0	18.04	17.79	18.11	16.47	16.40	16.86	15.47	15.35	15.86
		12@7	18.14	17.86	18.06	16.61	16.44	16.83	15.61	15.45	15.82
		12@13	18.45	18.10	18.17	16.91	16.70	16.96	15.91	15.66	15.94
		25@0	17.94	17.67	17.75	16.42	16.26	16.44	15.42	15.38	15.41
Band	Bandwidth (MHz)	RB	--	38750	--	--	38750	--	--	38750	--
			--	2310	--	--	2310	--	--	2310	--
40	10	1@0	--	15.51	--	--	15.33	--	--	15.22	--
		1@25	--	15.54	--	--	15.44	--	--	15.19	--
		1@49	--	15.74	--	--	15.65	--	--	15.57	--
		25@0	--	17.01	--	--	15.36	--	--	15.31	--
		25@12	--	17.01	--	--	15.36	--	--	15.32	--
		25@25	--	17.68	--	--	16.01	--	--	16.00	--
		50@0	--	15.38	--	--	13.74	--	--	13.71	--

5.2.1 LTE Band 40B

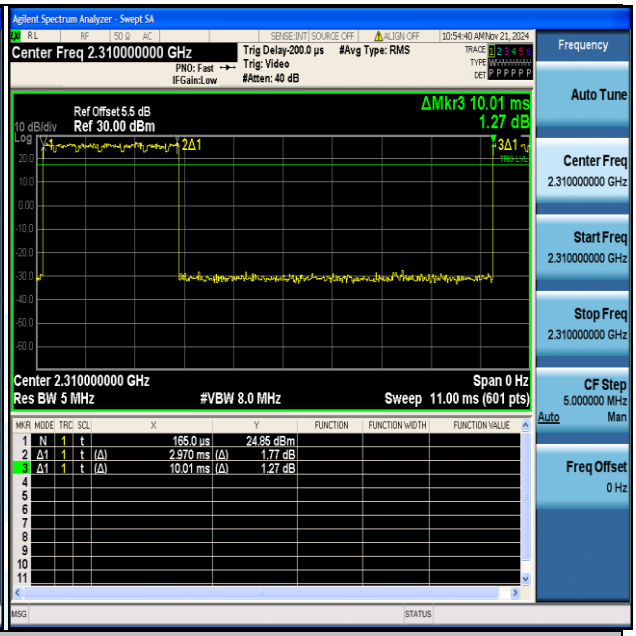
Conducted Power(dBm)										
Modulation			QPSK			16QAM			64QAM		
Band	Bandwidth (MHz)	RB	39175	39200	39225	39175	39200	39225	39175	39200	39225
			2352.5	2355	2357.5	2352.5	2355	2357.5	2352.5	2355	2357.5
40	5	1@0	18.53	18.67	18.91	18.47	18.54	18.79	17.45	17.56	17.78
		1@12	18.92	18.97	19.23	18.69	18.83	19.09	17.67	17.88	18.05
		1@24	18.97	19.03	19.26	18.77	18.91	19.12	17.74	17.93	18.12
		12@0	17.82	17.64	17.48	16.58	15.95	15.82	15.61	14.99	14.89
		12@7	17.93	17.61	17.40	16.59	15.94	15.79	15.55	14.97	14.77
		12@13	17.88	17.43	17.20	16.53	15.78	15.61	15.34	14.81	14.66
		25@0	17.55	17.12	16.91	16.11	15.59	15.31	15.23	14.55	14.35
Band	Bandwidth (MHz)	RB	--	39200	--	--	39200	--	--	39200	--
			--	2352.5	--	--	2352.5	--	--	2352.5	--
40	10	1@0		18.70	--	--	18.38	--	--	17.35	--
		1@25		19.51	--	--	18.69	--	--	17.67	--
		1@49		18.98	--	--	19.18	--	--	18.16	--
		25@0		17.30	--	--	15.72	--	--	14.70	--
		25@12		17.29	--	--	15.73	--	--	14.72	--
		25@25		17.32	--	--	15.76	--	--	14.75	--
		50@0		15.23	--	--	13.70	--	--	13.00	--

Duty cycle:

Band	Bandwidth	Modulation	Channel	RB Configuration	Result (%)	Verdict
Band40(2305-2315)	5MHz	QPSK	38750	25RB#0	29.54	PASS
Band40(2305-2315)	5MHz	16QAM	38750	25RB#0	29.67	PASS
Band40(2305-2315)	10MHz	QPSK	38750	50RB#0	29.54	PASS
Band40(2305-2315)	10MHz	16QAM	38750	50RB#0	29.60	PASS
Band40(2350-2360)	5MHz	QPSK	39200	25RB#0	29.67	PASS
Band40(2350-2360)	5MHz	16QAM	39200	25RB#0	29.50	PASS
Band40(2350-2360)	10MHz	QPSK	39200	50RB#0	29.54	PASS
Band40(2350-2360)	10MHz	16QAM	39200	50RB#0	29.60	PASS



Band40(2305-2315)-5MHz-QPSK-38750-25RB#0-PASS



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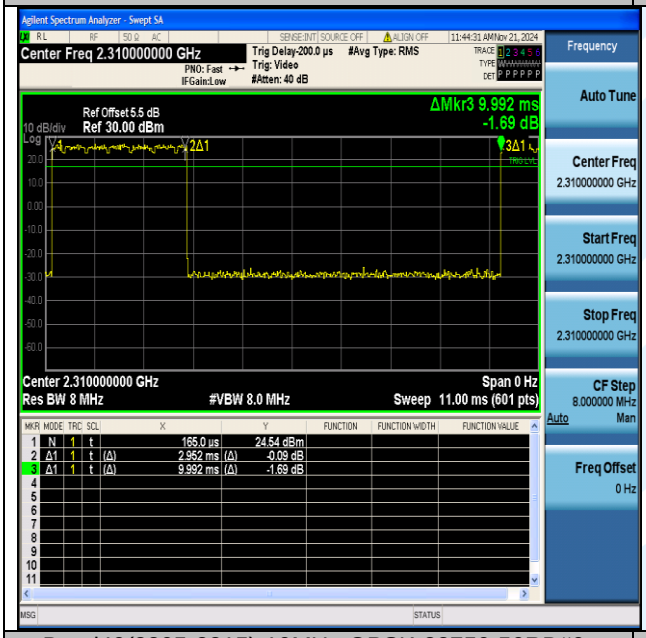

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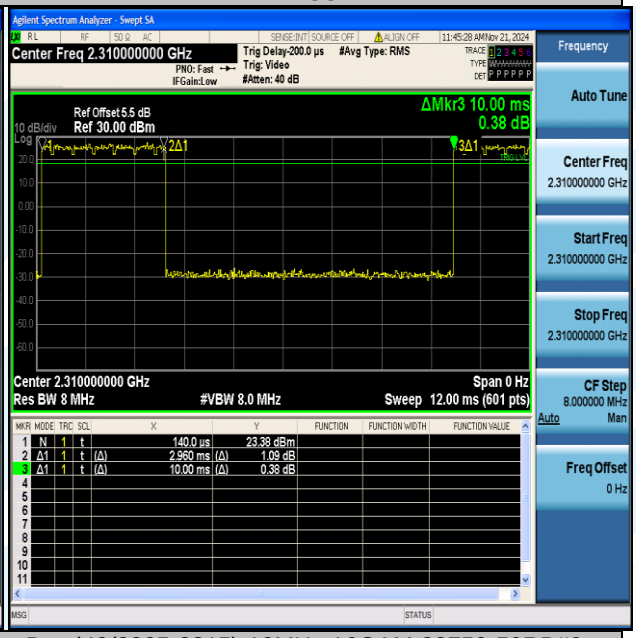
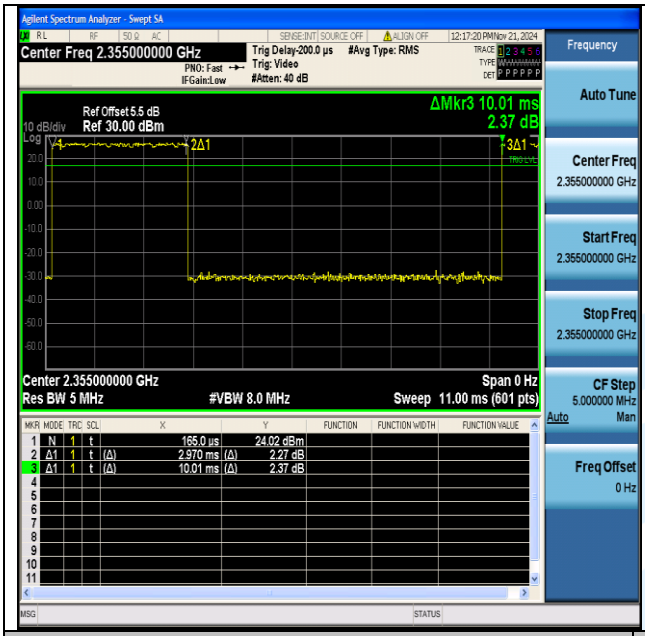
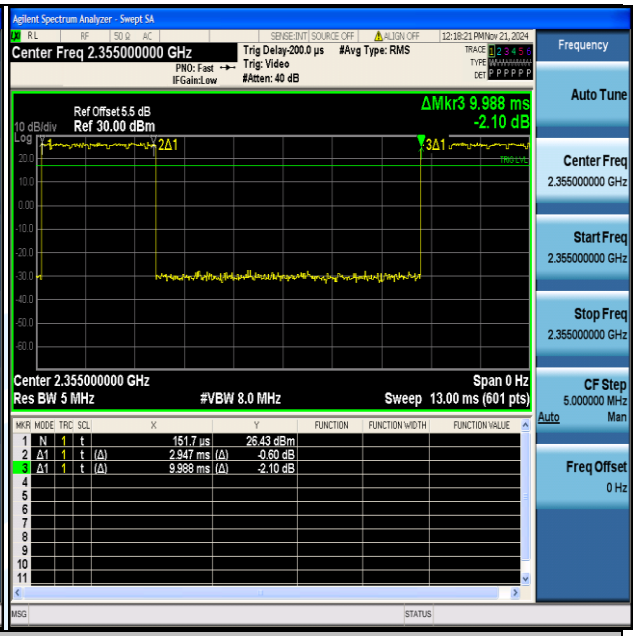


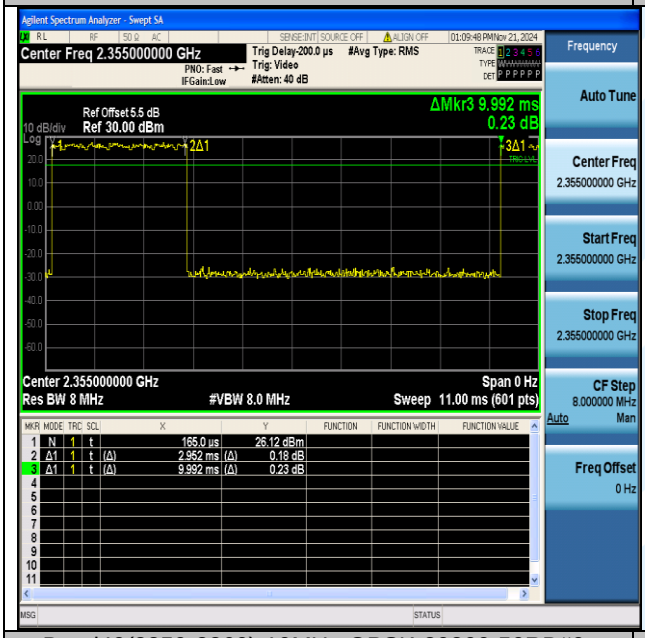
Band40(2305-2315)-10MHz-16QAM-38750-50RB#0-PASS



Band40(2350-2360)-5MHz-QPSK-39200-25RB#0-PASS



Band40(2350-2360)-5MHz-16QAM-39200-25RB#0-PASS



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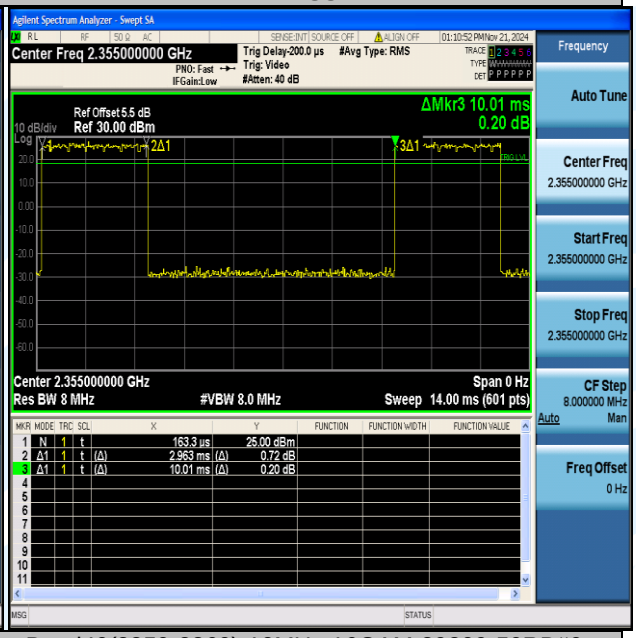

Band40(2350-2360)-10MHz-16QAM-39200-50RB#0-PASS

5.2.3 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	1RB#0	22.18	21.94	21.78	21.86	21.59	21.93	20.12	19.40	19.96
		1RB#2	21.90	21.93	21.90	21.78	21.61	21.89	19.89	19.86	19.62
		1RB#5	22.23	21.94	21.83	21.67	21.68	21.86	19.95	19.99	19.96
		3RB#0	21.28	21.30	21.35	20.54	20.63	20.52	19.22	19.48	19.41
		3RB#1	21.39	21.55	21.42	20.60	20.62	20.47	19.28	19.23	19.36
		3RB#3	21.26	21.34	21.24	20.74	20.56	20.75	19.54	19.02	18.86
		6RB#0	21.23	21.52	21.54	20.43	20.41	20.62	19.10	19.28	19.40
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	1RB#0	22.20	21.99	21.89	21.89	21.71	21.95	20.15	19.52	19.98
		1RB#8	22.02	21.94	21.96	21.79	21.74	22.02	19.90	19.99	19.75
		1RB#14	22.26	22.12	21.89	21.76	21.71	22.04	20.04	20.02	20.14
		8RB#0	21.31	21.41	21.51	20.59	20.82	20.62	19.27	19.67	19.51
		8RB#4	21.45	21.72	21.47	20.63	20.74	20.58	19.31	19.35	19.47
		8RB#7	21.34	21.50	21.42	20.85	20.66	20.79	19.65	19.12	18.90
		15RB#0	21.38	21.55	21.55	20.58	20.42	20.80	19.25	19.29	19.58
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	1RB#0	22.36	22.14	22.09	21.90	21.83	22.13	20.16	19.64	20.16
		1RB#12	22.20	22.02	22.08	21.89	21.82	22.17	20.00	20.07	19.90
		1RB#24	22.45	22.29	22.08	21.96	21.72	22.11	20.24	20.03	20.21
		12RB#0	21.44	21.53	21.57	20.76	20.91	20.73	19.44	19.76	19.62
		12RB#6	21.55	21.74	21.58	20.70	20.80	20.71	19.38	19.41	19.60
		12RB#13	21.54	21.56	21.45	20.91	20.75	20.83	19.71	19.21	18.94
		25RB#0	21.54	21.70	21.61	20.60	20.60	20.87	19.27	19.47	19.65
Band	Bandwidth (MHz)	RB	132022	132322	132622	132022	132322	132622	132022	132322	132622
			1715	1745	1775	1715	1745	1775	1715	1745	1775
66	10	1RB#0	22.37	22.27	22.21	21.98	22.02	22.31	20.24	19.83	20.34
		1RB#24	22.27	22.20	22.14	22.08	21.85	22.24	20.19	20.10	19.97
		1RB#49	22.53	22.47	22.18	22.13	21.90	22.15	20.41	20.21	20.25
		25RB#0	21.64	21.69	21.62	20.82	20.97	20.93	19.50	19.82	19.82
		25RB#12	21.58	21.83	21.72	20.85	20.88	20.71	19.53	19.49	19.60
		25RB#25	21.57	21.68	21.59	20.93	20.95	20.88	19.73	19.41	18.99
		50RB#0	21.60	21.82	21.67	20.65	20.73	20.91	19.32	19.60	19.69
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	1RB#0	22.43	22.38	22.27	22.10	22.12	22.31	20.36	19.93	20.34
		1RB#38	22.29	22.35	22.24	22.26	22.03	22.28	20.37	20.28	20.01
		1RB#74	22.64	22.49	22.30	22.32	22.07	22.21	20.60	20.38	20.31
		38RB#0	21.69	21.88	21.75	20.99	21.00	20.96	19.67	19.85	19.85
		38RB#18	21.67	21.92	21.85	20.91	20.92	20.88	19.59	19.53	19.77
		38RB#37	21.71	21.84	21.68	21.03	21.02	21.03	19.83	19.48	19.14
		75RB#0	21.71	21.86	21.69	20.83	20.84	20.96	19.50	19.71	19.74
Band	Bandwidth (MHz)	RB	132072	132322	132572	132072	132322	132572	132072	132322	132572
			1720	1745	1770	1720	1745	1770	1720	1745	1770
66	20	1RB#0	22.51	22.44	22.39	22.25	22.23	22.36	20.51	20.04	20.39
		1RB#49	22.49	22.39	22.35	22.28	22.14	22.32	20.39	20.39	20.05
		1RB#99	22.65	22.51	22.43	22.37	22.20	22.33	20.65	20.51	20.43
		50RB#0	21.77	21.92	21.91	21.09	21.07	21.02	19.77	19.92	19.91
		50RB#25	21.78	21.99	21.90	21.10	20.98	21.01	19.78	19.59	19.90
		50RB#50	21.86	21.91	21.80	21.06	21.05	21.09	19.86	19.51	19.20
		100RB#0	21.90	21.90	21.81	21.03	21.03	21.03	19.70	19.90	19.81

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& Band 38: FCC 47 CFR Part 27.50(h)(2)
LTE Band 12 & Band 17: FCC 47 CFR Part 27.50(c)(10)
LTE Band 13: FCC 47 CFR Part 27.50(b)(10)
LTE Band 40: FCC 47 CFR Part 27.50(a)(3)

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.

FCC 47 CFR Part 27.50(a)(3):
For mobile and portable stations transmitting in the 2305-2315 MHz band or the 2350-2360 MHz band, the average EIRP must not exceed 50 milliwatts within any 1 megahertz of authorized bandwidth, except that for mobile and portable stations compliant with 3GPP LTE standards or another advanced mobile broadband protocol that avoids concentrating energy at the edge of the operating band the average EIRP must not exceed 250 milliwatts within any 5 megahertz of authorized bandwidth but may exceed 50 milliwatts within any 1 megahertz of authorized bandwidth. For mobile and portable stations using time division duplexing (TDD) technology, the duty cycle must not exceed 38 percent in the 2305-2315 MHz and 2350-2360 MHz bands. Mobile and portable stations using FDD technology are restricted to transmitting in the 2305-2315 MHz band. Power averaging shall not include intervals in which the transmitter is off.

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	19.75	19.10	17.58	33.01	0.0944	0.0813	0.0573	2	Pass
Middle	19.62	19.18	17.54	33.01	0.0916	0.0828	0.0568	2	Pass
Highest	19.56	18.93	17.58	33.01	0.0904	0.0782	0.0573	2	Pass
Channel Bandwidth: 3MHz									
Lowest	19.31	19.11	17.36	33.01	0.0853	0.0815	0.0545	2	Pass
Middle	19.27	19.20	17.43	33.01	0.0845	0.0832	0.0553	2	Pass
Highest	19.13	18.86	17.09	33.01	0.0818	0.0769	0.0512	2	Pass
Channel Bandwidth: 5MHz									
Lowest	19.46	19.04	17.29	33.01	0.0883	0.0802	0.0536	2	Pass
Middle	19.26	19.10	17.27	33.01	0.0843	0.0813	0.0533	2	Pass
Highest	19.18	18.89	17.17	33.01	0.0828	0.0774	0.0521	2	Pass
Channel Bandwidth: 10MHz									
Lowest	19.40	18.99	17.24	33.01	0.0871	0.0793	0.0530	2	Pass
Middle	19.42	19.03	17.26	33.01	0.0875	0.0800	0.0532	2	Pass
Highest	19.14	18.94	17.20	33.01	0.0820	0.0783	0.0525	2	Pass
Channel Bandwidth: 15MHz									
Lowest	19.39	19.12	17.34	33.01	0.0869	0.0817	0.0542	2	Pass
Middle	19.42	19.08	17.31	33.01	0.0875	0.0809	0.0538	2	Pass
Highest	19.13	18.89	17.20	33.01	0.0818	0.0774	0.0525	2	Pass
Channel Bandwidth: 20MHz									
Lowest	19.47	19.17	17.39	33.01	0.0885	0.0826	0.0548	2	Pass
Middle	19.44	19.21	17.44	33.01	0.0879	0.0834	0.0555	2	Pass
Highest	19.24	18.94	17.24	33.01	0.0839	0.0783	0.0530	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	19.72	19.31	17.71	30.00	0.0938	0.0853	0.0590	1	Pass
Middle	19.83	19.21	17.82	30.00	0.0962	0.0834	0.0605	1	Pass
Highest	19.82	18.96	17.84	30.00	0.0959	0.0787	0.0608	1	Pass
Channel Bandwidth: 3MHz									
Lowest	19.47	19.32	17.62	30.00	0.0885	0.0855	0.0578	1	Pass
Middle	19.24	19.23	17.35	30.00	0.0839	0.0838	0.0543	1	Pass
Highest	19.24	18.91	17.20	30.00	0.0839	0.0778	0.0525	1	Pass
Channel Bandwidth: 5MHz									
Lowest	19.62	19.25	17.55	30.00	0.0916	0.0841	0.0569	1	Pass
Middle	19.22	19.18	17.19	30.00	0.0836	0.0828	0.0524	1	Pass
Highest	19.29	18.94	17.28	30.00	0.0849	0.0783	0.0535	1	Pass
Channel Bandwidth: 10MHz									
Lowest	19.56	19.20	17.50	30.00	0.0904	0.0832	0.0562	1	Pass
Middle	19.34	19.13	17.25	30.00	0.0859	0.0818	0.0531	1	Pass
Highest	19.27	18.94	17.31	30.00	0.0845	0.0783	0.0538	1	Pass
Channel Bandwidth: 15MHz									
Lowest	19.57	19.18	17.53	30.00	0.0906	0.0828	0.0566	1	Pass
Middle	19.34	19.12	17.24	30.00	0.0859	0.0817	0.0530	1	Pass
Highest	19.26	18.90	17.31	30.00	0.0843	0.0776	0.0538	1	Pass
Channel Bandwidth: 20MHz									
Lowest	19.63	19.33	17.63	30.00	0.0918	0.0857	0.0579	1	Pass
Middle	19.36	19.24	17.36	30.00	0.0863	0.0839	0.0545	1	Pass
Highest	19.39	18.98	17.35	30.00	0.0869	0.0791	0.0543	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	15.19	14.69	13.16	30.00	0.0330	0.0294	0.0207	7	Pass
Middle	15.18	14.52	13.13	30.00	0.0330	0.0283	0.0206	7	Pass
Highest	15.19	14.42	13.02	30.00	0.0330	0.0277	0.0200	7	Pass
Channel Bandwidth: 3MHz									
Lowest	14.61	14.60	12.62	30.00	0.0289	0.0288	0.0183	7	Pass
Middle	14.63	14.56	12.64	30.00	0.0290	0.0286	0.0184	7	Pass
Highest	14.56	14.54	12.53	30.00	0.0286	0.0284	0.0179	7	Pass
Channel Bandwidth: 5MHz									
Lowest	14.59	14.63	12.60	30.00	0.0288	0.0290	0.0182	7	Pass
Middle	14.68	14.56	12.67	30.00	0.0294	0.0286	0.0185	7	Pass
Highest	14.64	14.53	12.61	30.00	0.0291	0.0284	0.0182	7	Pass
Channel Bandwidth: 10MHz									
Lowest	14.63	14.70	12.63	30.00	0.0290	0.0295	0.0183	7	Pass
Middle	14.73	14.62	12.73	30.00	0.0297	0.0290	0.0187	7	Pass
Highest	14.70	14.55	12.68	30.00	0.0295	0.0285	0.0185	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	19.17	18.71	17.17	33.01	0.0826	0.0743	0.0521	2	Pass
Middle	19.45	19.04	17.42	33.01	0.0881	0.0802	0.0552	2	Pass
Highest	19.25	19.28	17.23	33.01	0.0841	0.0847	0.0528	2	Pass
Channel Bandwidth: 10MHz									
Lowest	19.18	18.68	17.19	33.01	0.0828	0.0738	0.0524	2	Pass
Middle	19.52	19.05	17.43	33.01	0.0895	0.0804	0.0553	2	Pass
Highest	19.31	19.15	17.22	33.01	0.0853	0.0822	0.0527	2	Pass
Channel Bandwidth: 15MHz									
Lowest	19.21	18.65	17.30	33.01	0.0834	0.0733	0.0537	2	Pass
Middle	19.47	19.09	17.47	33.01	0.0885	0.0811	0.0558	2	Pass
Highest	19.29	19.21	17.28	33.01	0.0849	0.0834	0.0535	2	Pass
Channel Bandwidth: 20MHz									
Lowest	19.31	18.75	17.31	33.01	0.0853	0.0750	0.0538	2	Pass
Middle	19.53	19.15	17.53	33.01	0.0897	0.0822	0.0566	2	Pass
Highest	19.32	19.30	17.32	33.01	0.0855	0.0851	0.0540	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	14.86	14.01	12.74	34.77	0.0306	0.0252	0.0188	3	Pass
Middle	14.88	14.14	12.70	34.77	0.0308	0.0259	0.0186	3	Pass
Highest	14.80	14.14	12.75	34.77	0.0302	0.0259	0.0188	3	Pass
Channel Bandwidth: 3MHz									
Lowest	14.26	14.08	12.26	34.77	0.0267	0.0256	0.0168	3	Pass
Middle	14.30	14.11	12.26	34.77	0.0269	0.0258	0.0168	3	Pass
Highest	14.33	14.17	12.37	34.77	0.0271	0.0261	0.0173	3	Pass
Channel Bandwidth: 5MHz									
Lowest	14.29	13.98	12.16	34.77	0.0269	0.0250	0.0164	3	Pass
Middle	14.20	14.14	12.23	34.77	0.0263	0.0259	0.0167	3	Pass
Highest	14.31	14.02	12.19	34.77	0.0270	0.0252	0.0166	3	Pass
Channel Bandwidth: 10MHz									
Lowest	14.30	14.11	12.30	34.77	0.0269	0.0258	0.0170	3	Pass
Middle	14.31	14.16	12.31	34.77	0.0270	0.0261	0.0170	3	Pass
Highest	14.39	14.19	12.39	34.77	0.0275	0.0262	0.0173	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	14.42	13.56	12.42	33.01	0.0277	0.0227	0.0175	2	Pass
Middle	14.20	14.34	12.14	33.01	0.0263	0.0272	0.0164	2	Pass
Highest	14.09	13.79	12.09	33.01	0.0256	0.0239	0.0162	2	Pass
Channel Bandwidth: 10MHz									
Middle	14.49	13.95	12.49	33.01	0.0281	0.0248	0.0177	2	Pass

5.3.1 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	14.22	14.04	12.18	30.00	0.0264	0.0254	0.0165	3	Pass
Middle	14.23	14.14	12.25	30.00	0.0265	0.0259	0.0168	3	Pass
Highest	14.27	14.07	12.18	30.00	0.0267	0.0255	0.0165	3	Pass
Channel Bandwidth: 10MHz									
Lowest	14.27	14.08	12.25	30.00	0.0267	0.0256	0.0168	3	Pass
Middle	14.29	14.19	12.29	30.00	0.0269	0.0262	0.0169	3	Pass
Highest	14.38	14.17	12.38	30.00	0.0274	0.0261	0.0173	3	Pass

5.3.1 LTE Band 38

Channel	Maximum EIRP (dBm)				Maximum EIRP (W)				Result
	QPSK	16QAM	64QAM	Limit (dBm)	QPSK	16QAM	64QAM	Limit (W)	
Channel Bandwidth: 5MHz									
Lowest	20.34	20.97	18.97	33.01	0.1081	0.1250	0.0789	2	Pass
Middle	20.36	20.59	18.59	33.01	0.1086	0.1146	0.0723	2	Pass
Highest	20.44	20.94	18.94	33.01	0.1107	0.1242	0.0783	2	Pass
Channel Bandwidth: 10MHz									
Lowest	20.65	20.91	18.91	33.01	0.1161	0.1233	0.0778	2	Pass
Middle	20.54	20.66	18.66	33.01	0.1132	0.1164	0.0735	2	Pass
Highest	20.68	20.77	18.77	33.01	0.1169	0.1194	0.0753	2	Pass
Channel Bandwidth: 15MHz									
Lowest	20.66	20.88	18.84	33.01	0.1164	0.1225	0.0766	2	Pass
Middle	20.85	20.29	18.29	33.01	0.1216	0.1069	0.0675	2	Pass
Highest	20.69	20.70	18.70	33.01	0.1172	0.1175	0.0741	2	Pass
Channel Bandwidth: 20MHz									
Lowest	20.77	21.00	19.00	33.01	0.1194	0.1259	0.0794	2	Pass
Middle	21.20	21.18	19.18	33.01	0.1318	0.1312	0.0828	2	Pass
Highest	21.06	20.47	18.47	33.01	0.1276	0.1114	0.0703	2	Pass

5.3.1 LTE Band 40A

Channel	Maximum EIRP (dBm)				Maximum EIRP (W)				Result
	QPSK	16QAM	64QAM	Limit (dBm)	QPSK	16QAM	64QAM	Limit (W)	
Channel Bandwidth: 5MHz									
Lowest	16.45	15.61	14.61	24.00	0.0442	0.0364	0.0289	0.25	Pass
Middle	16.10	15.59	14.58	24.00	0.0407	0.0362	0.0287	0.25	Pass
Highest	16.17	15.59	14.52	24.00	0.0414	0.0362	0.0283	0.25	Pass
Channel Bandwidth: 10MHz									
Middle	15.68	14.01	14.00	24.00	0.0370	0.0252	0.0251	0.25	Pass

5.3.1 LTE Band 40B

Channel	Maximum EIRP (dBm)				Maximum EIRP (W)				Result
	QPSK	16QAM	64QAM	Limit (dBm)	QPSK	16QAM	64QAM	Limit (W)	
Channel Bandwidth: 5MHz									
Lowest	16.97	16.77	15.74	24.00	0.0498	0.0475	0.0375	0.25	Pass
Middle	17.03	16.91	15.93	24.00	0.0505	0.0491	0.0392	0.25	Pass
Highest	17.26	17.12	16.12	24.00	0.0532	0.0515	0.0409	0.25	Pass
Channel Bandwidth: 10MHz									
Middle	17.51	17.18	16.16	24.00	0.0564	0.0522	0.0413	0.25	Pass

5.3.2 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	18.73	18.36	16.62	30.00	0.0746	0.0686	0.0459	1	Pass
Middle	18.44	18.18	16.49	30.00	0.0699	0.0658	0.0446	1	Pass
Highest	18.40	18.43	16.46	30.00	0.0692	0.0697	0.0443	1	Pass
Channel Bandwidth: 3MHz									
Lowest	18.76	18.39	16.65	30.00	0.0752	0.0689	0.0462	1	Pass
Middle	18.62	18.24	16.52	30.00	0.0728	0.0667	0.0449	1	Pass
Highest	18.46	18.54	16.64	30.00	0.0702	0.0714	0.0461	1	Pass
Channel Bandwidth: 5MHz									
Lowest	18.95	18.46	16.74	30.00	0.0785	0.0701	0.0472	1	Pass
Middle	18.79	18.33	16.57	30.00	0.0757	0.0681	0.0453	1	Pass
Highest	18.59	18.67	16.71	30.00	0.0722	0.0736	0.0469	1	Pass
Channel Bandwidth: 10MHz									
Lowest	19.03	18.63	16.91	30.00	0.0799	0.0730	0.0491	1	Pass
Middle	18.97	18.52	16.71	30.00	0.0789	0.0711	0.0468	1	Pass
Highest	18.71	18.81	16.84	30.00	0.0743	0.0760	0.0483	1	Pass
Channel Bandwidth: 15MHz									
Lowest	19.14	18.82	17.10	30.00	0.0821	0.0763	0.0513	1	Pass
Middle	18.99	18.62	16.88	30.00	0.0792	0.0727	0.0488	1	Pass
Highest	18.80	18.81	16.84	30.00	0.0759	0.0760	0.0483	1	Pass
Channel Bandwidth: 20MHz									
Lowest	19.15	18.87	17.15	30.00	0.0822	0.0771	0.0519	1	Pass
Middle	19.01	18.73	17.01	30.00	0.0796	0.0746	0.0502	1	Pass
Highest	18.93	18.86	16.93	30.00	0.0782	0.0769	0.0493	1	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& Band 38:** FCC 47 CFR Part 27.50(d)(5) **LTE Band 12 & Band 17:** 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**

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**

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: FCC 47 CFR Part 27.53(g)
LTE Band 13: FCC 47 CFR Part 27.53(c)(2)
LTE Band 40: FCC 47 CFR Part 27.53(a)(4)

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;

FCC 47 CFR Part 27.53(a)(4): For mobile and portable stations operating in the 2305-2315 MHz and 2350-2360 MHz bands:
(i) By a factor of not less than: 43 + 10 log (P) dB on all frequencies between 2305 and 2320 MHz and on all frequencies between 2345 and 2360 MHz that are outside the licensed band(s) of operation, not less than 55 + 10 log (P) dB on all frequencies between 2320 and 2324 MHz and on all frequencies between 2341 and 2345 MHz, not less than 61 + 10 log (P) dB on all frequencies between 2324 and 2328 MHz and on all frequencies between 2337 and 2341 MHz, and not less than 67 + 10 log (P) dB on all frequencies between 2328 and 2337 MHz;
(ii) By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2300 and 2305 MHz, 55 + 10 log (P) dB on all frequencies between 2296 and 2300 MHz, 61 + 10 log (P) dB on all frequencies between 2292 and 2296 MHz, 67 + 10 log (P) dB on all frequencies between 2288 and 2292 MHz, and 70 + 10 log (P) dB below 2288 MHz;
(iii) By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2360 and 2365 MHz, and not less than 70 + 10 log (P) dB above 2365 MHz.

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**

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: FCC 47 CFR Part 27.53(g)
LTE Band 13: FCC 47 CFR Part 27.53
LTE Band 40: FCC 47 CFR Part 27.53(a)(4)

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.

FCC 47 CFR Part 27.53(a)(4): For mobile and portable stations operating in the 2305-2315 MHz and 2350-2360 MHz bands:
(i) By a factor of not less than: 43 + 10 log (P) dB on all frequencies between 2305 and 2320 MHz and on all frequencies between 2345 and 2360 MHz that are outside the licensed band(s) of operation, not less than 55 + 10 log (P) dB on all frequencies between 2320 and 2324 MHz and on all frequencies between 2341 and 2345 MHz, not less than 61 + 10 log (P) dB on all frequencies between 2324 and 2328 MHz and on all frequencies between 2337 and 2341 MHz, and not less than 67 + 10 log (P) dB on all frequencies between 2328 and 2337 MHz;
(ii) By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2300 and 2305 MHz, 55 + 10 log (P) dB on all frequencies between 2296 and 2300 MHz, 61 + 10 log (P) dB on all frequencies between 2292 and 2296 MHz, 67 + 10 log (P) dB on all frequencies between 2288 and 2292 MHz, and 70 + 10 log (P) dB below 2288 MHz;
(iii) By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2360 and 2365 MHz, and not less than 70 + 10 log (P) dB above 2365 MHz.

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**

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: FCC 47 CFR Part 27.53(g)
LTE Band 13: FCC 47 CFR Part 27.53
LTE Band 40: FCC 47 CFR Part 27.53(a)(4)

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(a)(4): For mobile and portable stations operating in the 2305-2315 MHz and 2350-2360 MHz bands:
(i) By a factor of not less than: 43 + 10 log (P) dB on all frequencies between 2305 and 2320 MHz and on all frequencies between 2345 and 2360 MHz that are outside the licensed band(s) of operation, not less than 55 + 10 log (P) dB on all frequencies between 2320 and 2324 MHz and on all frequencies between 2341 and 2345 MHz, not less than 61 + 10 log (P) dB on all frequencies between 2324 and 2328 MHz and on all frequencies between 2337 and 2341 MHz, and not less than 67 + 10 log (P) dB on all frequencies between 2328 and 2337 MHz;
(ii) By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2300 and 2305 MHz, 55 + 10 log (P) dB on all frequencies between 2296 and 2300 MHz, 61 + 10 log (P) dB on all frequencies between 2292 and 2296 MHz, 67 + 10 log (P) dB on all frequencies between 2288 and 2292 MHz, and 70 + 10 log (P) dB below 2288 MHz;
(iii) By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2360 and 2365 MHz, and not less than 70 + 10 log (P) dB above 2365 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 (MHz)	SA Reading (dBm)	Correction factor (dB/m)	EIRP Result (dBm)	Limit (dBm)	Margin (dB)	Ant. Pol.
Lowest Channel							
1	809.924	-80.43	12.89	-67.54	-13.00	-54.54	Horizontal
2	919.132	-80.01	14.53	-65.48	-13.00	-52.48	Horizontal
3	979.139	-80.59	15.25	-65.34	-13.00	-52.34	Horizontal
4	3720.000	-61.28	7.54	-53.74	-13.00	-40.74	Horizontal
5	5554.060	-49.69	10.97	-38.72	-13.00	-25.72	Horizontal
6	7376.898	-49.52	13.05	-36.47	-13.00	-23.47	Horizontal
7	9246.582	-50.20	14.66	-35.54	-13.00	-22.54	Horizontal
8	850.760	-80.79	13.57	-67.22	-13.00	-54.22	Vertical
9	945.334	-81.25	14.69	-66.56	-13.00	-53.56	Vertical
10	986.044	-81.92	15.44	-66.48	-13.00	-53.48	Vertical
11	3720.000	-60.37	7.54	-52.83	-13.00	-39.83	Vertical
12	5554.060	-49.69	10.97	-38.72	-13.00	-25.72	Vertical
13	7376.898	-53.45	13.05	-40.40	-13.00	-27.40	Vertical
14	9246.582	-55.55	14.66	-40.89	-13.00	-27.89	Vertical
Middle Channel							
1	739.214	-80.11	11.58	-68.53	-13.00	-55.53	Horizontal
2	838.887	-80.08	13.30	-66.78	-13.00	-53.78	Horizontal
3	986.044	-81.21	15.44	-65.77	-13.00	-52.77	Horizontal
4	3724.224	-57.85	7.56	-50.29	-13.00	-37.29	Horizontal
5	5586.324	-49.81	11.05	-38.76	-13.00	-25.76	Horizontal
6	7462.854	-54.49	13.07	-41.42	-13.00	-28.42	Horizontal
7	9354.324	-52.67	14.71	-37.96	-13.00	-24.96	Horizontal
8	827.179	-79.93	13.16	-66.77	-13.00	-53.77	Vertical
9	856.760	-80.07	13.67	-66.40	-13.00	-53.40	Vertical
10	899.958	-80.30	14.32	-65.98	-13.00	-52.98	Vertical
11	3760.000	-61.74	7.73	-54.01	-13.00	-41.01	Vertical
12	5586.324	-50.04	11.05	-38.99	-13.00	-25.99	Vertical
13	7462.854	-55.39	13.07	-42.32	-13.00	-29.32	Vertical
14	9354.324	-52.11	14.71	-37.40	-13.00	-24.40	Vertical

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)	
Highest Channel							
1	862.802	-80.26	13.74	-66.52	-13.00	-53.52	Horizontal
2	906.304	-80.76	14.53	-66.23	-13.00	-53.23	Horizontal
3	986.044	-81.21	15.44	-65.77	-13.00	-52.77	Horizontal
4	3767.619	-58.36	7.77	-50.59	-13.00	-37.59	Horizontal
5	5651.416	-50.71	11.21	-39.50	-13.00	-26.50	Horizontal
6	7549.811	-54.64	13.06	-41.58	-13.00	-28.58	Horizontal
7	9463.320	-55.39	14.77	-40.62	-13.00	-27.62	Horizontal
8	856.760	-80.93	13.67	-67.26	-13.00	-54.26	Vertical
9	912.695	-80.74	14.49	-66.25	-13.00	-53.25	Vertical
10	945.334	-80.42	14.69	-65.73	-13.00	-52.73	Vertical
11	3800.000	-61.07	7.92	-53.15	-13.00	-40.15	Vertical
12	5651.416	-50.57	11.21	-39.36	-13.00	-26.36	Vertical
13	7549.811	-53.63	13.06	-40.57	-13.00	-27.57	Vertical
14	9463.320	-54.34	14.77	-39.57	-13.00	-26.57	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	739.214	-80.30	11.58	-68.72	-13.00	-55.72	Horizontal
2	821.387	-81.52	13.20	-68.32	-13.00	-55.32	Horizontal
3	899.958	-80.90	14.32	-66.58	-13.00	-53.58	Horizontal
4	3414.304	-57.85	6.38	-51.47	-13.00	-38.47	Horizontal
5	5121.445	-54.86	10.01	-44.85	-13.00	-31.85	Horizontal
6	6841.814	-55.40	13.00	-42.40	-13.00	-29.40	Horizontal
7	8526.351	-54.34	13.62	-40.72	-13.00	-27.72	Horizontal
8	875.013	-81.25	13.93	-67.32	-13.00	-54.32	Vertical
9	912.695	-80.95	14.49	-66.46	-13.00	-53.46	Vertical
10	958.714	-80.67	14.93	-65.74	-13.00	-52.74	Vertical
11	3440.000	-60.31	6.41	-53.90	-13.00	-40.90	Vertical
12	5160.000	-59.38	10.10	-49.28	-13.00	-36.28	Vertical
Middle Channel							
1	868.886	-80.78	13.80	-66.98	-13.00	-53.98	Horizontal
2	912.695	-79.99	14.49	-65.50	-13.00	-52.50	Horizontal
3	952.000	-80.13	14.82	-65.31	-13.00	-52.31	Horizontal
4	3465.000	-60.05	6.46	-53.59	-13.00	-40.59	Horizontal
5	5197.500	-61.23	10.18	-51.05	-13.00	-38.05	Horizontal
6	6881.560	-54.58	13.01	-41.57	-13.00	-28.57	Horizontal
7	793.028	-79.76	12.44	-67.32	-13.00	-54.32	Vertical
8	850.760	-80.39	13.57	-66.82	-13.00	-53.82	Vertical
9	945.334	-80.34	14.69	-65.65	-13.00	-52.65	Vertical
10	3465.000	-59.10	6.46	-52.64	-13.00	-39.64	Vertical
11	5197.500	-61.12	10.18	-50.94	-13.00	-37.94	Vertical
Highest Channel							
1	718.725	-80.01	11.51	-68.50	-13.00	-55.50	Horizontal
2	821.387	-81.45	13.20	-68.25	-13.00	-55.25	Horizontal
3	893.656	-81.02	14.20	-66.82	-13.00	-53.82	Horizontal
4	3490.000	-60.00	6.50	-53.50	-13.00	-40.50	Horizontal
5	5211.218	-57.03	10.21	-46.82	-13.00	-33.82	Horizontal
6	6921.535	-48.95	13.00	-35.95	-13.00	-22.95	Horizontal
7	8675.808	-56.33	13.90	-42.43	-13.00	-29.43	Horizontal
8	734.037	-80.28	11.71	-68.57	-13.00	-55.57	Vertical
9	844.803	-80.01	13.42	-66.59	-13.00	-53.59	Vertical
10	979.139	-81.45	15.25	-66.20	-13.00	-53.20	Vertical
11	3490.000	-60.88	6.50	-54.38	-13.00	-41.38	Vertical
12	5235.000	-60.42	10.26	-50.16	-13.00	-37.16	Vertical

5.8.3 LTE Band 5

LTE Band 5_ 10 MHz_ QPSK							
No.	Frequency (MHz)	SA Reading (dBm)	Correction factor (dB/m)	EIRP Result (dBm)	Limit (dBm)	Margin (dB)	Ant. Pol.
Lowest Channel							
1	723.793	-80.61	11.58	-69.03	-13.00	-56.03	Horizontal
2	919.132	-81.43	14.53	-66.90	-13.00	-53.90	Horizontal
3	979.139	-81.55	15.25	-66.30	-13.00	-53.30	Horizontal
4	1645.658	-53.10	-0.32	-53.42	-13.00	-40.42	Horizontal
5	2487.000	-62.59	3.50	-59.09	-13.00	-46.09	Horizontal
6	3278.635	-53.22	6.14	-47.08	-13.00	-34.08	Horizontal
7	718.725	-80.87	11.51	-69.36	-13.00	-56.36	Vertical
8	887.398	-79.99	14.17	-65.82	-13.00	-52.82	Vertical
9	1000.000	-81.08	15.60	-65.48	-13.00	-52.48	Vertical
10	1645.658	-53.51	-0.32	-53.83	-13.00	-40.83	Vertical
11	2487.000	-61.22	3.50	-57.72	-13.00	-44.72	Vertical
12	3278.635	-57.97	6.14	-51.83	-13.00	-38.83	Vertical
Middle Channel							
1	793.028	-80.81	12.44	-68.37	-13.00	-55.37	Horizontal
2	906.304	-80.28	14.53	-65.75	-13.00	-52.75	Horizontal
3	938.714	-80.32	14.52	-65.80	-13.00	-52.80	Horizontal
4	1664.833	-56.93	-0.17	-57.10	-13.00	-44.10	Horizontal
5	2509.500	-61.44	3.58	-57.86	-13.00	-44.86	Horizontal
6	3316.838	-55.53	6.21	-49.32	-13.00	-36.32	Horizontal
7	771.047	-80.54	11.94	-68.60	-13.00	-55.60	Vertical
8	912.695	-80.50	14.49	-66.01	-13.00	-53.01	Vertical
9	986.044	-81.11	15.44	-65.67	-13.00	-52.67	Vertical
10	1664.833	-54.86	-0.17	-55.03	-13.00	-42.03	Vertical
11	2509.500	-61.72	3.58	-58.14	-13.00	-45.14	Vertical
12	3316.838	-55.84	6.21	-49.63	-13.00	-36.63	Vertical
Highest Channel							
1	749.676	-80.10	11.67	-68.43	-13.00	-55.43	Horizontal
2	787.475	-79.60	12.31	-67.29	-13.00	-54.29	Horizontal
3	925.613	-80.50	14.46	-66.04	-13.00	-53.04	Horizontal
4	1674.504	-56.56	-0.11	-56.67	-13.00	-43.67	Horizontal
5	2532.000	-60.65	3.68	-56.97	-13.00	-43.97	Horizontal
6	3355.486	-55.65	6.27	-49.38	-13.00	-36.38	Horizontal
7	713.692	-78.63	11.53	-67.10	-13.00	-54.10	Vertical
8	793.028	-80.45	12.44	-68.01	-13.00	-55.01	Vertical
9	979.139	-80.05	15.25	-64.80	-13.00	-51.80	Vertical
10	1674.504	-56.64	-0.11	-56.75	-13.00	-43.75	Vertical
11	2532.000	-61.52	3.68	-57.84	-13.00	-44.84	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	815.635	-80.26	13.04	-67.22	-25.00	-42.22	Horizontal
2	906.304	-81.57	14.53	-67.04	-25.00	-42.04	Horizontal
3	965.474	-81.34	14.91	-66.43	-25.00	-41.43	Horizontal
4	4975.247	-56.66	9.73	-46.93	-25.00	-21.93	Horizontal
5	7506.207	-46.52	13.07	-33.45	-25.00	-8.45	Horizontal
6	10027.650	-48.38	15.07	-33.31	-25.00	-8.31	Horizontal
7	12496.580	-54.40	15.59	-38.81	-25.00	-13.81	Horizontal
8	15041.450	-57.23	19.66	-37.57	-25.00	-12.57	Horizontal
9	862.802	-80.85	13.74	-67.11	-25.00	-42.11	Vertical
10	919.132	-81.63	14.53	-67.10	-25.00	-42.10	Vertical
11	986.044	-81.32	15.44	-65.88	-25.00	-40.88	Vertical
12	4975.247	-54.83	9.73	-45.10	-25.00	-20.10	Vertical
13	7506.207	-41.95	13.07	-28.88	-25.00	-3.88	Vertical
14	10027.650	-51.11	15.07	-36.04	-25.00	-11.04	Vertical
15	12496.580	-54.78	15.59	-39.19	-25.00	-14.19	Vertical
Middle Channel							
1	815.635	-81.00	13.04	-67.96	-25.00	-42.96	Horizontal
2	906.304	-80.00	14.53	-65.47	-25.00	-40.47	Horizontal
3	986.044	-81.07	15.44	-65.63	-25.00	-40.63	Horizontal
4	5033.218	-56.27	9.81	-46.46	-25.00	-21.46	Horizontal
5	7549.811	-43.33	13.06	-30.27	-25.00	-5.27	Horizontal
6	10085.910	-52.29	15.08	-37.21	-25.00	-12.21	Horizontal
7	12642.190	-52.32	15.95	-36.37	-25.00	-11.37	Horizontal
8	15216.710	-52.71	19.53	-33.18	-25.00	-8.18	Horizontal
9	821.387	-81.00	13.20	-67.80	-25.00	-42.80	Vertical
10	893.656	-80.75	14.20	-66.55	-25.00	-41.55	Vertical
11	1000.000	-81.24	15.60	-65.64	-25.00	-40.64	Vertical
12	5033.218	-56.97	9.81	-47.16	-25.00	-22.16	Vertical
13	7549.811	-42.29	13.06	-29.23	-25.00	-4.23	Vertical
14	10085.910	-50.96	15.08	-35.88	-25.00	-10.88	Vertical
15	12642.190	-53.56	15.95	-37.61	-25.00	-12.61	Vertical

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)	
Highest Channel							
1	793.028	-81.08	12.44	-68.64	-25.00	-43.64	Horizontal
2	887.398	-80.98	14.17	-66.81	-25.00	-41.81	Horizontal
3	919.132	-81.20	14.53	-66.67	-25.00	-41.67	Horizontal
4	5091.865	-56.66	9.94	-46.72	-25.00	-21.72	Horizontal
5	7637.782	-45.72	13.02	-32.70	-25.00	-7.70	Horizontal
6	10203.430	-46.54	15.11	-31.43	-25.00	-6.43	Horizontal
7	12789.500	-57.80	16.31	-41.49	-25.00	-16.49	Horizontal
8	793.028	-80.96	12.44	-68.52	-25.00	-43.52	Vertical
9	838.887	-80.58	13.30	-67.28	-25.00	-42.28	Vertical
10	906.304	-79.75	14.53	-65.22	-25.00	-40.22	Vertical
11	5091.865	-54.99	9.94	-45.05	-25.00	-20.05	Vertical
12	7637.782	-45.26	13.02	-32.24	-25.00	-7.24	Vertical
13	10203.430	-50.46	15.11	-35.35	-25.00	-10.35	Vertical
14	12789.500	-58.35	16.31	-42.04	-25.00	-17.04	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	787.475	-80.46	12.31	-68.15	-13.00	-55.15	Horizontal
2	833.013	-80.43	13.24	-67.19	-13.00	-54.19	Horizontal
3	945.334	-80.14	14.69	-65.45	-13.00	-52.45	Horizontal
4	1408.000	-58.45	-1.31	-59.76	-13.00	-46.76	Horizontal
5	2074.735	-58.87	2.39	-56.48	-13.00	-43.48	Horizontal
6	3454.087	-56.98	6.45	-50.53	-13.00	-37.53	Horizontal
7	793.028	-80.66	12.44	-68.22	-13.00	-55.22	Vertical
8	862.802	-81.48	13.74	-67.74	-13.00	-54.74	Vertical
9	938.714	-80.23	14.52	-65.71	-13.00	-52.71	Vertical
10	1408.000	-58.63	-1.31	-59.94	-13.00	-46.94	Vertical
11	2112.000	-62.50	2.49	-60.01	-13.00	-47.01	Vertical
Middle Channel							
1	723.793	-78.36	11.58	-66.78	-13.00	-53.78	Horizontal
2	856.760	-80.26	13.67	-66.59	-13.00	-53.59	Horizontal
3	925.613	-80.42	14.46	-65.96	-13.00	-52.96	Horizontal
4	1415.000	-59.58	-1.32	-60.90	-13.00	-47.90	Horizontal
5	2122.500	-61.47	2.52	-58.95	-13.00	-45.95	Horizontal
6	3494.334	-55.72	6.51	-49.21	-13.00	-36.21	Horizontal
7	809.924	-80.33	12.89	-67.44	-13.00	-54.44	Vertical
8	862.802	-80.58	13.74	-66.84	-13.00	-53.84	Vertical
9	958.714	-81.03	14.93	-66.10	-13.00	-53.10	Vertical
10	1415.000	-58.64	-1.32	-59.96	-13.00	-46.96	Vertical
11	2122.500	-61.83	2.52	-59.31	-13.00	-46.31	Vertical
Highest Channel							
1	833.013	-81.21	13.24	-67.97	-13.00	-54.97	Horizontal
2	893.656	-80.11	14.20	-65.91	-13.00	-52.91	Horizontal
3	986.044	-81.10	15.44	-65.66	-13.00	-52.66	Horizontal
4	1422.000	-58.34	-1.32	-59.66	-13.00	-46.66	Horizontal
5	2133.000	-62.71	2.55	-60.16	-13.00	-47.16	Horizontal
6	3494.334	-56.37	6.51	-49.86	-13.00	-36.86	Horizontal
7	887.398	-81.30	14.17	-67.13	-13.00	-54.13	Vertical
8	958.714	-81.60	14.93	-66.67	-13.00	-53.67	Vertical
9	992.997	-81.86	15.56	-66.30	-13.00	-53.30	Vertical
10	1422.000	-59.37	-1.32	-60.69	-13.00	-47.69	Vertical
11	2133.000	-62.78	2.55	-60.23	-13.00	-47.23	Vertical

5.8.6 LTE Band 13

LTE Band 13_ 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	739.214	-80.50	11.58	-68.92	-13.00	-55.92	Horizontal
2	912.695	-81.19	14.49	-66.70	-13.00	-53.70	Horizontal
3	1000.000	-81.95	15.60	-66.35	-13.00	-53.35	Horizontal
4	1559.000	-60.62	-0.93	-61.55	-40.00	-21.55	Horizontal
5	2329.561	-46.72	3.08	-43.64	-13.00	-30.64	Horizontal
6	906.304	-81.12	14.53	-66.59	-13.00	-53.59	Vertical
7	958.714	-81.03	14.93	-66.10	-13.00	-53.10	Vertical
8	992.997	-81.20	15.56	-65.64	-13.00	-52.64	Vertical
9	1559.000	-61.36	-0.93	-62.29	-40.00	-22.29	Vertical
10	2329.561	-45.92	3.08	-42.84	-13.00	-29.84	Vertical
Highest Channel							
1	723.793	-80.48	11.58	-68.90	-13.00	-55.90	Horizontal
2	862.802	-80.52	13.74	-66.78	-13.00	-53.78	Horizontal
3	965.474	-79.96	14.91	-65.05	-13.00	-52.05	Horizontal
4	1564.000	-61.86	-0.88	-62.74	-40.00	-22.74	Horizontal
5	2329.561	-44.94	3.08	-41.86	-13.00	-28.86	Horizontal
6	708.694	-79.72	11.44	-68.28	-13.00	-55.28	Vertical
7	815.635	-79.75	13.04	-66.71	-13.00	-53.71	Vertical
8	952.000	-80.31	14.82	-65.49	-13.00	-52.49	Vertical
9	1564.000	-61.18	-0.88	-62.06	-40.00	-22.06	Vertical
10	2329.561	-43.11	3.08	-40.03	-13.00	-27.03	Vertical
11	3878.331	-57.87	8.28	-49.59	-13.00	-36.59	Vertical

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	646.822	-79.26	9.78	-69.48	-13.00	-56.48	Horizontal
2	868.886	-80.25	13.80	-66.45	-13.00	-53.45	Horizontal
3	952.000	-80.57	14.82	-65.75	-13.00	-52.75	Horizontal
4	1569.000	-61.36	-0.86	-62.22	-40.00	-22.22	Horizontal
5	2343.094	-50.06	3.11	-46.95	-13.00	-33.95	Horizontal
6	875.013	-80.54	13.93	-66.61	-13.00	-53.61	Vertical
7	906.304	-79.74	14.53	-65.21	-13.00	-52.21	Vertical
8	992.997	-80.82	15.56	-65.26	-13.00	-52.26	Vertical
9	1569.000	-61.12	-0.86	-61.98	-40.00	-21.98	Vertical
10	2343.094	-51.34	3.11	-48.23	-13.00	-35.23	Vertical

5.8.7 LTE Band 17

LTE Band 17_ 5 MHz_ QPSK							
No.	Frequency (MHz)	SA Reading (dBm)	Correction factor (dB/m)	EIRP Result (dBm)	Limit (dBm)	Margin (dB)	Ant. Pol.
Lowest Channel							
1	793.028	-80.49	12.44	-68.05	-13.00	-55.05	Horizontal
2	881.184	-81.22	14.07	-67.15	-13.00	-54.15	Horizontal
3	952.000	-80.87	14.82	-66.05	-13.00	-53.05	Horizontal
4	1418.000	-58.64	-1.31	-59.95	-13.00	-46.95	Horizontal
5	2127.000	-61.85	2.53	-59.32	-13.00	-46.32	Horizontal
6	821.387	-80.75	13.20	-67.55	-13.00	-54.55	Vertical
7	899.958	-80.68	14.32	-66.36	-13.00	-53.36	Vertical
8	972.283	-81.21	15.04	-66.17	-13.00	-53.17	Vertical
9	1418.000	-58.37	-1.31	-59.68	-13.00	-46.68	Vertical
10	2127.000	-61.40	2.53	-58.87	-13.00	-45.87	Vertical
Middle Channel							
1	815.635	-80.26	13.04	-67.22	-13.00	-54.22	Horizontal
2	893.656	-81.08	14.20	-66.88	-13.00	-53.88	Horizontal
3	945.334	-80.52	14.69	-65.83	-13.00	-52.83	Horizontal
4	1420.000	-59.27	-1.32	-60.59	-13.00	-47.59	Horizontal
5	2130.000	-61.97	2.54	-59.43	-13.00	-46.43	Horizontal
6	821.387	-80.28	13.20	-67.08	-13.00	-54.08	Vertical
7	899.958	-80.68	14.32	-66.36	-13.00	-53.36	Vertical
8	965.474	-79.73	14.91	-64.82	-13.00	-51.82	Vertical
9	1420.000	-58.48	-1.32	-59.80	-13.00	-46.80	Vertical
10	2111.103	-39.60	2.49	-37.11	-13.00	-24.11	Vertical
11	3514.633	-51.80	6.58	-45.22	-13.00	-32.22	Vertical
Highest Channel							
1	821.387	-80.70	13.20	-67.50	-13.00	-54.50	Horizontal
2	919.132	-80.34	14.53	-65.81	-13.00	-52.81	Horizontal
3	979.139	-80.22	15.25	-64.97	-13.00	-51.97	Horizontal
4	1422.000	-58.79	-1.32	-60.11	-13.00	-47.11	Horizontal
5	2111.103	-58.69	2.49	-56.20	-13.00	-43.20	Horizontal
6	3535.050	-57.10	6.69	-50.41	-13.00	-37.41	Horizontal
7	844.803	-80.88	13.42	-67.46	-13.00	-54.46	Vertical
8	919.132	-81.05	14.53	-66.52	-13.00	-53.52	Vertical
9	986.044	-81.18	15.44	-65.74	-13.00	-52.74	Vertical
10	1422.000	-58.59	-1.32	-59.91	-13.00	-46.91	Vertical
11	2133.000	-62.26	2.55	-59.71	-13.00	-46.71	Vertical

5.8.8 LTE Band 38

LTE Band 38_ 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	838.887	-80.48	13.30	-67.18	-25.00	-42.18	Horizontal
2	912.695	-80.26	14.49	-65.77	-25.00	-40.77	Horizontal
3	965.474	-80.25	14.91	-65.34	-25.00	-40.34	Horizontal
4	5120.000	-58.38	10.01	-48.37	-25.00	-23.37	Horizontal
5	7680.000	-42.93	13.02	-29.91	-25.00	-4.91	Horizontal
6	10262.700	-47.14	15.10	-32.04	-25.00	-7.04	Horizontal
7	12863.790	-51.41	16.49	-34.92	-25.00	-9.92	Horizontal
8	15394.020	-53.53	19.42	-34.11	-25.00	-9.11	Horizontal
9	734.037	-80.53	11.71	-68.82	-25.00	-43.82	Vertical
10	862.802	-81.28	13.74	-67.54	-25.00	-42.54	Vertical
11	912.695	-80.26	14.49	-65.77	-25.00	-40.77	Vertical
12	5120.000	-57.21	10.01	-47.20	-25.00	-22.20	Vertical
13	7680.000	-45.22	13.02	-32.20	-25.00	-7.20	Vertical
14	10262.700	-48.91	15.10	-33.81	-25.00	-8.81	Vertical
15	12863.790	-54.84	16.49	-38.35	-25.00	-13.35	Vertical
16	15394.020	-54.35	19.42	-34.93	-25.00	-9.93	Vertical
Middle Channel							
1	844.803	-81.22	13.42	-67.80	-25.00	-42.80	Horizontal
2	952.000	-81.09	14.82	-66.27	-25.00	-41.27	Horizontal
3	992.997	-81.36	15.56	-65.80	-25.00	-40.80	Horizontal
4	5120.000	-59.35	10.01	-49.34	-25.00	-24.34	Horizontal
5	7771.663	-44.84	13.00	-31.84	-25.00	-6.84	Horizontal
6	10322.320	-46.58	15.11	-31.47	-25.00	-6.47	Horizontal
7	15573.390	-54.83	19.27	-35.56	-25.00	-10.56	Horizontal
8	868.886	-80.64	13.80	-66.84	-25.00	-41.84	Vertical
9	906.304	-81.09	14.53	-66.56	-25.00	-41.56	Vertical
10	979.139	-80.61	15.25	-65.36	-25.00	-40.36	Vertical
11	5151.196	-56.21	10.07	-46.14	-25.00	-21.14	Vertical
12	7726.777	-46.71	13.00	-33.71	-25.00	-8.71	Vertical
13	10322.320	-46.52	15.11	-31.41	-25.00	-6.41	Vertical
14	12938.520	-57.61	16.67	-40.94	-25.00	-15.94	Vertical

LTE Band 38_ 20 MHz_ QPSK							
No.	Frequency	SA Reading	Correction factor	EIRP Result	Limit	Margin	Ant. Pol.
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	
Highest Channel							
1	749.676	-81.06	11.67	-69.39	-25.00	-44.39	Horizontal
2	821.387	-80.85	13.20	-67.65	-25.00	-42.65	Horizontal
3	919.132	-80.07	14.53	-65.54	-25.00	-40.54	Horizontal
4	5120.000	-59.59	10.01	-49.58	-25.00	-24.58	Horizontal
5	7771.663	-41.21	13.00	-28.21	-25.00	-3.21	Horizontal
6	10382.280	-46.34	15.12	-31.22	-25.00	-6.22	Horizontal
7	13013.680	-57.43	16.85	-40.58	-25.00	-15.58	Horizontal
8	15663.860	-56.08	19.18	-36.90	-25.00	-11.90	Horizontal
9	821.387	-80.63	13.20	-67.43	-25.00	-42.43	Vertical
10	906.304	-81.14	14.53	-66.61	-25.00	-41.61	Vertical
11	979.139	-81.08	15.25	-65.83	-25.00	-40.83	Vertical
12	5120.000	-59.73	10.01	-49.72	-25.00	-24.72	Vertical
13	7771.663	-41.08	13.00	-28.08	-25.00	-3.08	Vertical
14	10382.280	-49.64	15.12	-34.52	-25.00	-9.52	Vertical
15	13013.680	-56.11	16.85	-39.26	-25.00	-14.26	Vertical

5.8.9 LTE Band 40A

LTE Band 40_ 10 MHz_ QPSK							
No.	Frequency	SA Reading	Correction factor	EIRP Result	Limit	Margin	Ant. Pol.
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	
1	833.013	-80.60	13.24	-67.36	-40.00	-27.36	Horizontal
2	906.304	-81.40	14.53	-66.87	-40.00	-26.87	Horizontal
3	992.997	-81.68	15.56	-66.12	-40.00	-26.12	Horizontal
4	4620.000	-61.01	9.59	-51.42	-40.00	-11.42	Horizontal
5	6930.000	-60.64	13.01	-47.63	-40.00	-7.63	Horizontal
6	739.214	-79.93	11.58	-68.35	-40.00	-28.35	Vertical
7	833.013	-80.35	13.24	-67.11	-40.00	-27.11	Vertical
8	925.613	-79.99	14.46	-65.53	-40.00	-25.53	Vertical
9	4620.000	-61.17	9.59	-51.58	-40.00	-11.58	Vertical
10	6930.000	-59.83	13.01	-46.82	-40.00	-6.82	Vertical

5.8.10 LTE Band 40B

LTE Band 40_ 10 MHz_ QPSK							
No.	Frequency	SA Reading	Correction factor	EIRP Result	Limit	Margin	Ant. Pol.
	(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	
1	833.013	-80.57	13.24	-67.33	-40.00	-27.33	Horizontal
2	906.304	-81.07	14.53	-66.54	-40.00	-26.54	Horizontal
3	986.044	-80.82	15.44	-65.38	-40.00	-25.38	Horizontal
4	4710.000	-59.04	9.63	-49.41	-40.00	-9.41	Horizontal
5	7065.000	-58.86	13.02	-45.84	-40.00	-5.84	Horizontal
6	815.635	-80.36	13.04	-67.32	-40.00	-27.32	Vertical
7	919.132	-80.83	14.53	-66.30	-40.00	-26.30	Vertical
8	986.044	-81.01	15.44	-65.57	-40.00	-25.57	Vertical
9	4710.000	-60.60	9.63	-50.97	-40.00	-10.97	Vertical
10	7065.000	-59.58	13.02	-46.56	-40.00	-6.56	Vertical

5.8.11 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	821.387	-80.72	13.20	-67.52	-13.00	-54.52	Horizontal
2	919.132	-81.08	14.53	-66.55	-13.00	-53.55	Horizontal
3	979.139	-80.73	15.25	-65.48	-13.00	-52.48	Horizontal
4	3414.304	-55.83	6.38	-49.45	-13.00	-36.45	Horizontal
5	5121.445	-54.97	10.01	-44.96	-13.00	-31.96	Horizontal
6	6841.814	-54.26	13.00	-41.26	-13.00	-28.26	Horizontal
7	8526.351	-54.97	13.62	-41.35	-13.00	-28.35	Horizontal
8	809.924	-80.34	12.89	-67.45	-13.00	-54.45	Vertical
9	862.802	-80.50	13.74	-66.76	-13.00	-53.76	Vertical
10	906.304	-81.11	14.53	-66.58	-13.00	-53.58	Vertical
11	3440.000	-60.87	6.41	-54.46	-13.00	-41.46	Vertical
12	5121.445	-55.94	10.01	-45.93	-13.00	-32.93	Vertical
13	8526.351	-56.69	13.62	-43.07	-13.00	-30.07	Vertical
Middle Channel							
1	850.760	-80.92	13.57	-67.35	-13.00	-54.35	Horizontal
2	925.613	-79.91	14.46	-65.45	-13.00	-52.45	Horizontal
3	992.997	-80.51	15.56	-64.95	-13.00	-51.95	Horizontal
4	3490.000	-60.52	6.50	-54.02	-13.00	-41.02	Horizontal
5	5211.218	-56.69	10.21	-46.48	-13.00	-33.48	Horizontal
6	6921.535	-50.69	13.00	-37.69	-13.00	-24.69	Horizontal
7	8675.808	-56.11	13.90	-42.21	-13.00	-29.21	Horizontal
8	809.924	-80.36	12.89	-67.47	-13.00	-54.47	Vertical
9	887.398	-80.48	14.17	-66.31	-13.00	-53.31	Vertical
10	972.283	-81.04	15.04	-66.00	-13.00	-53.00	Vertical
11	3490.000	-60.11	6.50	-53.61	-13.00	-40.61	Vertical
12	5211.218	-55.51	10.21	-45.30	-13.00	-32.30	Vertical
13	8675.808	-54.70	13.90	-40.80	-13.00	-27.80	Vertical

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)	
Highest Channel							
1	844.803	-81.18	13.42	-67.76	-13.00	-54.76	Horizontal
2	919.132	-81.65	14.53	-67.12	-13.00	-54.12	Horizontal
3	972.283	-80.99	15.04	-65.95	-13.00	-52.95	Horizontal
4	3540.000	-60.60	6.70	-53.90	-13.00	-40.90	Horizontal
5	5271.939	-58.68	10.34	-48.34	-13.00	-35.34	Horizontal
6	7042.862	-54.82	13.01	-41.81	-13.00	-28.81	Horizontal
7	8776.898	-50.95	14.09	-36.86	-13.00	-23.86	Horizontal
8	809.924	-80.85	12.89	-67.96	-13.00	-54.96	Vertical
9	906.304	-81.12	14.53	-66.59	-13.00	-53.59	Vertical
10	965.474	-80.82	14.91	-65.91	-13.00	-52.91	Vertical
11	3540.000	-60.79	6.70	-54.09	-13.00	-41.09	Vertical
12	5271.939	-58.61	10.34	-48.27	-13.00	-35.27	Vertical
13	7042.862	-55.24	13.01	-42.23	-13.00	-29.23	Vertical
14	8776.898	-56.26	14.09	-42.17	-13.00	-29.17	Vertical
15	10564.270	-56.83	15.00	-41.83	-13.00	-28.83	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, 3.5 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 Results: Pass

Test Data: **Please refer to Appendix**

APPENDIX 1 PHOTOS OF TEST SETUP

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

APPENDIX 2 PHOTOS OF EUT CONSTRUCTIONAL DETAILS

Refer to Appendix 2 for EUT external and internal photos.

*** End of Report ***