FCC Test Report
FCC ID: 2BLRU-ICAMC8

Applicant:	Shenzhen Hike Video Technology Co.,Ltd
Address:	Workshop, Building C, 409 Jihua Road, Xinxue Community, Bantian Street, Longgong District, Shenzhen
Manufacturer:	Shenzhen Hike Video Technology Co.,Ltd
Address:	Workshop, Building C, 409 Jihua Road, Xinxue Community, Bantian Street, Longgong District, Shenzhen
EUT:	Smart Camera
Trade Mark:	N/A
Model Number:	ICAM-C8, ICAM-C8-M, ICAM-C8-W ,ICAM-C8-B, G08
Date of Receipt:	Sep. 23, 2025
Test Date:	Sep. 23, 2025 - Nov. 15, 2025
Date of Report:	Nov. 15, 2025
Prepared By:	Shenzhen DL Testing Technology Co., Ltd.
Address:	101-201, Comprehensive Building, Tongzhou Electronics Longgang Factory Area, No.1 Baolong Fifth Road, Baolong Community, Baolong Street, Longgang District, Shenzhen, China
Applicable Standards:	FCC Part 2 Subpart J, Part 22 Subpart H, Part 24 Subpart E, Part 27 FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01 ANSI C63.26:2015, ANSI/TIA-603-E-2016
Test Result:	Pass
Report Number:	DLE-250923101R

Prepared (Test Engineer):	Randy Xie
Reviewer (Supervisor):	Jack Bu
Approved (Manager):	Jade Yang

This test report is based on a single evaluation of one sample of above mentioned products. It is not permitted to be duplicated in extracts without written approval of Shenzhen DL Testing Technology Co., Ltd.

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1. TEST SUMMARY

Test Items	FCC Test Requirement	Result
Peak to Average Radio	§22.913 §24.232 §27.50	PASS
Conducted Output Power	§2.1046	PASS
99% & -26 dB Occupied Bandwidth	§2.1049	PASS
Frequency Stability	§2.1055 §22.355 §24.235 §27.54	PASS
Conducted Out of Band Emissions	§22.917 §24.238 §27.53	PASS
Band Edge	§22.917 §24.238 §27.53	PASS
Transmitter Radiated Power (EIPR/ERP)	§2.1046 §22.913 §24.232 §27.50	PASS
Radiated Out of Band Emissions	§22.917 §24.238 §27.53	PASS

2. GENERAL PRODUCT INFORMATION

2.1. Description of Device (EUT)

Product Name:	Smart Camera
Trademark	N/A
Model No.:	ICAM-C8, ICAM-C8-M, ICAM-C8-W ,ICAM-C8-B, G08
Test Model:	ICAM-C8
Model Difference	All models are same as the samples except model name and appearance color, they have the same structure and circuit.
Operation Frequency:	LTE Band 2: Tx: 1850.00 - 1910.00MHz; Rx: 1930.00 - 1990.00MHz LTE Band 4: Tx: 1710.00 - 1755.00MHz; Rx: 2110.00 - 2155.00MHz LTE Band 5: Tx: 824.00 - 849.00MHz; Rx: 869.00 - 894.00MHz LTE Band 12: Tx: 699.00 -716.00MHz; Rx:728.00 - 746.00MHz LTE Band 13: Tx: 777.00 -787.00MHz; Rx:746.00 - 757.00MHz LTE Band 17: Tx: 704.00 – 716.00MHz; Rx:734.00 – 746.00MHz LTE Band 66: Tx: 1710.00 - 1780.00MHz; Rx: 2110.00 - 2180.00MHz
Modulation technology:	LTE Mode with QPSK,16QAM
Antenna Type:	Internal Antenna
Antenna gain:	LTE Band 2: -0.14dBi, LTE Band 4: -0.14dBi, LTE Band 5: 1.32dBi, LTE Band 12: 1.32dBi, LTE Band 13: 1.32dBi, LTE Band 17: 1.32dBi, LTE Band 66: -0.14dBi
Power supply:	DC 3.7V from battery DC 5V from USB
LTE Category	1
Hardware Version	HV01
Software Version	SV01

Note:

1.For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

2.The EUT's all information provided by client.

2.2. Product Function

Refer to Technical Construction Form and User Manual.

2.3. Independent Operation Modes

During all testing, EUT is in link mode with base station emulator at maximum power level. The spurious emission measurements were carried out in semi-anechoic chamber with 3-meter test range, and EUT is rotated on three test planes to find out the worst emission.

Test modes		
Band	Radiated	Conducted
LTE Band 2	Bandwidth:(MHz)1.4/3/5/10/15/20MHz Modulation: QPSK/16QAM RB:1/100%	Bandwidth:(MHz)1.4/3/5/10/15/20MHz Modulation: QPSK/16QAM RB:1/100%
LTE Band 4	Bandwidth:(MHz)1.4/3/5/10/15/20MHz Modulation: QPSK/16QAM RB:1/100%	Bandwidth:(MHz)1.4/3/5/10/15/20MHz Modulation: QPSK/16QAM RB:1/100%
LTE Band 5	Bandwidth:(MHz)1.4/3/5/10MHz Modulation: QPSK/16QAM RB:1/100%	Bandwidth:(MHz)1.4/3/5/10MHz Modulation: QPSK/16QAM RB:1/100%
LTE Band 12	Bandwidth:(MHz)1.4/3/5/10MHz Modulation: QPSK/16QAM RB:1/100%	Bandwidth:(MHz)1.4/3/5/10MHz Modulation: QPSK/16QAM RB:1/100%
LTE Band 13	Bandwidth:(MHz) 5/10MHz Modulation: QPSK/16QAM RB:1/100%	Bandwidth:(MHz) 5/10MHz Modulation: QPSK/16QAM RB:1/100%
LTE Band 17	Bandwidth:(MHz) 5/10MHz Modulation: QPSK/16QAM RB:1/100%	Bandwidth:(MHz) 5/10MHz Modulation: QPSK/16QAM RB:1/100%
LTE Band66	Bandwidth:(MHz)1.4/3/5/10/15/20MHz Modulation: QPSK/16QAM RB:1/100%	Bandwidth:(MHz)1.4/3/5/10/15/20MHz Modulation: QPSK/16QAM RB:1/100%

Note: 1. The product was LTE Category 1 device, the QAM16 of 10/15/20M bandwidth supports a maximum of 25 RB nodes.
2. RB Settings for Conducted RF Output Power are: 1/100%, Other test items only reflect the worst-case results.
3. we pretest all voltage, only the DC 3.7V was worst mode, and the data show in the report.

3. TEST SITES

3.1. Test Facilities

Site Description

Name of Firm : Shenzhen DL Testing Technology Co., Ltd.

Site Location : 101-201, Comprehensive Building, Tongzhou Electronics Longgang Factory Area, No.1 Baolong Fifth Road, Baolong Community, Baolong Street, Longgang District, Shenzhen, China

FCC Test Firm Registration Number: 854456

Designation Number: CN1307

IC Registered No.: 27485

CAB ID.: CN0118

3.2. Measurement Uncertainty

The reported uncertainty of measurement **y** ± **U**，where expended uncertainty **U** is based on a standard uncertainty multiplied by a coverage factor of **k=2**，providing a level of confidence of approximately **95** %。

No.	Item	Uncertainty
1	Conducted Emission Test	±1.38dB
2	RF power,conducted	±0.16dB
3	Spurious emissions,conducted	±0.21dB
4	All emissions,radiated(<1G)	±4.68dB
5	All emissions,radiated(>1G)	±4.89dB
6	Temperature	±0.5°C
7	Humidity	±2%
8	Bandwidth	±0.2MHz
9	Frequency Stability	±0.02MHz

3.3. List of Test and Measurement Instruments

3.3.1. For conducted emission at the mains terminals test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
843 Shielded Room	YIHENG	843 Room	843	Nov. 05, 2023	Nov. 04, 2026
EMI Receiver	R&S	ESR	101421	Nov. 01, 2024 Oct. 25, 2025	Oct. 31, 2025 Oct. 24, 2026
LISN	R&S	ENV216	102417	Nov. 01, 2024 Oct. 25, 2025	Oct. 31, 2025 Oct. 24, 2026
843 Cable 1#	ChengYu	CE Cable	001	Nov. 01, 2024 Oct. 25, 2025	Oct. 31, 2025 Oct. 24, 2026
843 Cable 1#	FUJIKURA	843C1#	001	Nov. 01, 2024 Oct. 25, 2025	Oct. 31, 2025 Oct. 24, 2026

3.3.2. For radiated test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Spectrum Analyzer (9kHz-26.5GHz)	Agilent	E4408B	MY50140780	Nov. 01, 2024 Oct. 25, 2025	Oct. 31, 2025 Oct. 24, 2026
Test Receiver(9kHz-7GHz)	R&S	ESRP7	101393	Nov. 01, 2024 Oct. 25, 2025	Oct. 31, 2025 Oct. 24, 2026
Bilog Antenna (30MHz-1GHz)	R&S	VULB9162	00311	Nov. 01, 2024 Oct. 25, 2025	Oct. 31, 2025 Oct. 24, 2026
Bilog Antenna (30MHz-1GHz)	R&S	VULB9162	00306	Nov. 01, 2024 Oct. 25, 2025	Oct. 31, 2025 Oct. 24, 2026
Horn Antenna(1GHz-18GHz)	Schwarzbeck	BBHA9120D	02139	Nov. 01, 2024 Oct. 25, 2025	Oct. 31, 2025 Oct. 24, 2026
Horn Antenna(1GHz-18GHz)	Schwarzbeck	BBHA9120D	02133	Nov. 01, 2024 Oct. 25, 2025	Oct. 31, 2025 Oct. 24, 2026
Horn Antenna(18GHz-40GHz)	A.H. Systems	SAS-574	588	Nov. 01, 2024 Oct. 25, 2025	Oct. 31, 2025 Oct. 24, 2026
Horn Antenna(18GHz-40GHz)	A.H. Systems	SAS-574	585	Nov. 01, 2024 Oct. 25, 2025	Oct. 31, 2025 Oct. 24, 2026
Amplifier(9KHz-6GHz)	Schwarzbeck	BBV9743B	00153	Nov. 01, 2024 Oct. 25, 2025	Oct. 31, 2025 Oct. 24, 2026
Amplifier(1GHz-18GHz)	EMEC	EM01G8GA	00270	Nov. 01, 2024 Oct. 25, 2025	Oct. 31, 2025 Oct. 24, 2026
Amplifier(18GHz-40GHz)	Quanjuda	DLE-161	97	Nov. 01, 2024 Oct. 25, 2025	Oct. 31, 2025 Oct. 24, 2026
Loop Antenna(9KHz-30MHz)	Schwarzbeck	FMZB1519B	00014	Nov. 01, 2024 Oct. 25, 2025	Oct. 31, 2025 Oct. 24, 2026
RF cables1(9kHz-1GHz)	ChengYu	966	004	Nov. 01, 2024 Oct. 25, 2025	Oct. 31, 2025 Oct. 24, 2026
RF cables2(1GHz-40GHz)	ChengYu	966	003	Nov. 01, 2024 Oct. 25, 2025	Oct. 31, 2025 Oct. 24, 2026
Antenna connector	Florida RF Labs	N/A	RF 01#	Nov. 01, 2024 Oct. 25, 2025	Oct. 31, 2025 Oct. 24, 2026
Power probe	KEYSIGHT	U2021XA	MY55210018	Nov. 01, 2024 Oct. 25, 2025	Oct. 31, 2025 Oct. 24, 2026
Signal Analyzer	Agilent	N9020A	MY55370280	Nov. 01, 2024 Oct. 25, 2025	Oct. 31, 2025 Oct. 24, 2026
Test Receiver	R&S	ESU 40	100376	Nov. 01, 2024 Oct. 25, 2025	Oct. 31, 2025 Oct. 24, 2026
D.C. Power Supply	LongWei	PS-305D	010964729	Nov. 01, 2024 Oct. 25, 2025	Oct. 31, 2025 Oct. 24, 2026

Signal Amplifier	DAZE	ZN3380B	11235	Nov. 01, 2024 Oct. 25, 2025	Oct. 31, 2025 Oct. 24, 2026
High Pass filter	KANGMAI	WHKX1.0/1.5G-10SS	40	Nov. 01, 2024 Oct. 25, 2025	Oct. 31, 2025 Oct. 24, 2026
Filter	COM-MW	ZBSF-C836.5-25-X	BCTC042	Nov. 01, 2024 Oct. 25, 2025	Oct. 31, 2025 Oct. 24, 2026
Filter	COM-MW	ZBSF-C1747.5-75-X2	BCTC045	Nov. 01, 2024 Oct. 25, 2025	Oct. 31, 2025 Oct. 24, 2026
Filter	COM-MW	ZBSF-C1880-60-X2	BCTC047	Nov. 01, 2024 Oct. 25, 2025	Oct. 31, 2025 Oct. 24, 2026
Splitter	Agilent	11435B	1125162	Nov. 01, 2024 Oct. 25, 2025	Oct. 31, 2025 Oct. 24, 2026
RF CONDUCTED TEST					
System Simulator	Agilent	E5515C	GB43130252	Nov. 01, 2024 Oct. 25, 2025	Oct. 31, 2025 Oct. 24, 2026
Spectrum Analyzer	Agilent	N9020A	MY45108040	Nov. 01, 2024 Oct. 25, 2025	Oct. 31, 2025 Oct. 24, 2026
DC Power Supply	LongWei	PS-305D	010965682	Nov. 01, 2024 Oct. 25, 2025	Oct. 31, 2025 Oct. 24, 2026
Constant temperature and humidity box	GF	GTH-800-40-2P	MAA9906-012	Nov. 01, 2024 Oct. 25, 2025	Oct. 31, 2025 Oct. 24, 2026
Universal radio communication tester	R&S	CMW500	115295	Nov. 01, 2024 Oct. 25, 2025	Oct. 31, 2025 Oct. 24, 2026

4. TEST SET-UP

4.1. Principle of Configuration Selection

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the Operating Instructions.

4.2. Block Diagram of Test Set-up

System Diagram of Connections between EUT and Simulators

EUT

4.3. Test Environment:

Ambient conditions in the test laboratory:

Items	Actual
Temperature (℃)	21~23
Humidity (%RH)	50~65

5. EMISSION TEST RESULTS

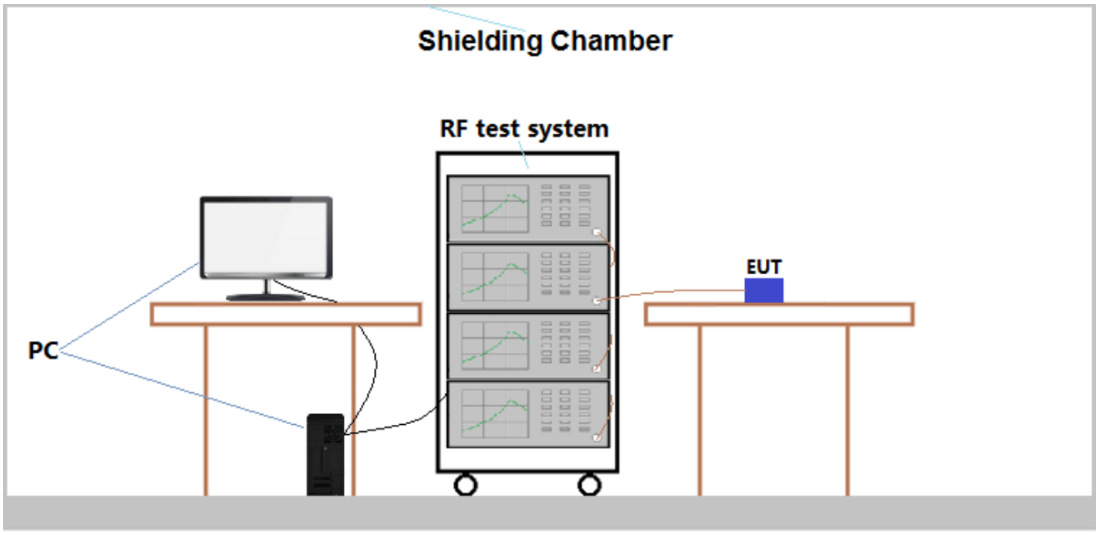
5.1. Conducted RF Output Power

5.1.1. Limit

CFR 47, Section FCC §2.1046.

5.1.2. Test Setup

The EUT, which is powered by the adapter, is coupled to the CMW500 and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power.



5.1.3. Test Result

Here the lowest, middle and highest channels are selected to perform testing to verify the conducted RF output power of the EUT.

The conducted power tables are as follows:

Average Conducted Power						
Band	LTE Band 2			Channel/Frequency (MHz)		
Bandwidth	Modulation	RB size	RB offset	18607/1850.7	18900/1880	19193/1909.3
1.4MHz	QPSK	1	0.00	22.33	22.85	22.56
		1	3.00	22.11	22.33	22.34
		1	5.00	22.12	22.41	22.31
		3	0.00	22.45	22.46	22.36
		3	2.00	22.06	22.54	22.35
		3	3.00	22.04	22.45	22.31
		6	0.00	21.41	21.46	21.42
	16QAM	1	0.00	22.13	22.19	22.91
		1	3.00	22.04	22.57	22.26
		1	5.00	22.18	22.53	22.75
		3	0.00	22.16	22.45	22.41
		3	2.00	22.24	22.44	22.63
		3	3.00	22.21	22.47	22.55
		6	0.00	21.23	21.26	21.41
Bandwidth	Modulation	RB size	RB offset	18615/1851.5	18900/1880	19185/1908.5
3MHz	QPSK	1	0.00	22.59	22.46	22.56
		1	7.00	22.31	22.65	22.21
		1	14.00	22.25	22.23	22.36
		8	0.00	22.14	22.85	22.52
		8	4.00	22.33	22.23	22.24
		8	7.00	22.31	22.55	22.51
		15	0.00	21.23	21.54	21.53
	16QAM	1	0.00	22.54	22.46	22.64
		1	7.00	22.51	22.65	22.06
		1	14.00	22.22	22.54	22.55
		8	0.00	22.36	22.51	22.52
		8	4.00	22.43	22.63	22.66
		8	7.00	22.44	22.62	22.54
		15	0.00	22.21	22.46	22.41
Bandwidth	Modulation	RB size	RB offset	18625/1852.5	18900/1880	19175/1907.5
5MHz	QPSK	1	0.00	22.56	22.33	22.21
		1	12.00	22.42	22.41	22.53
		1	24.00	22.28	22.66	22.44
		12	0.00	22.26	22.35	22.22
		12	6.00	22.34	22.53	22.14
		12	13.00	22.21	22.45	22.46
		25	0.00	21.11	21.46	21.32
	16QAM	1	0.00	22.73	22.64	22.43
		1	12.00	22.75	22.77	22.23
		1	24.00	22.83	22.41	22.54
		12	0.00	22.24	22.53	22.41
		12	6.00	22.38	22.12	22.53
		12	13.00	22.16	22.73	22.55
		25	0.00	21.21	21.54	21.36

Average Conducted Power						
Band	LTE Band 2			Channel/Frequency (MHz)		
Bandwidth	Modulation	RB size	RB offset	18650/1855	18900/1880	19150/1905
10MHz	QPSK	1	0.00	22.13	22.56	22.13
		1	24.00	22.03	22.45	22.25
		1	49.00	22.65	22.54	22.23
		25	0.00	21.54	22.01	22.41
		25	12.00	22.26	22.22	22.16
		25	25.00	22.75	22.23	22.05
		50	0.00	21.59	21.64	21.63
	16QAM	1	0.00	22.35	22.18	22.55
		1	24.00	22.31	22.46	22.51
		1	49.00	21.93	22.54	22.54
Bandwidth	Modulation	RB size	RB offset	18675/1857.5	18900/1880	19125/1902.5
15MHz	QPSK	1	0.00	22.21	22.36	22.25
		1	37.00	22.53	22.28	22.16
		1	74.00	22.55	22.65	22.45
		36	0.00	22.07	22.26	22.23
		36	18.00	21.93	22.54	22.54
		36	38.00	22.64	22.51	22.12
		75	0.00	21.76	21.36	21.13
	16QAM	1	0.00	22.45	22.55	22.25
		1	38.00	22.66	22.41	22.21
		1	74.00	22.22	22.13	22.36
Bandwidth	Modulation	RB size	RB offset	18700/1860	18900/1880	19100/1900
20MHz	QPSK	1	0.00	22.14	22.35	22.23
		1	49.00	22.63	22.85	22.45
		1	99.00	22.58	22.26	22.41
		50	0.00	22.66	22.41	22.56
		50	25.00	21.52	22.36	22.55
		50	50.00	22.36	22.35	22.04
		100	0.00	21.75	21.21	21.51
	16QAM	1	0.00	22.64	21.36	22.23
		1	49.00	22.11	22.64	22.25
		1	99.00	22.69	22.74	22.34

Note: Measurement Uncertainty: ±2.6 dB.

Average Conducted Power						
Band	LTE Band 4			Channel/Frequency (MHz)		
Bandwidth	Modulation	RB size	RB offset	19957/1710.7	20175/1732.5	20393/1754.3
1.4MHz	QPSK	1	0.00	22.41	22.26	22.83
		1	3.00	22.53	22.64	22.24
		1	5.00	22.52	22.31	22.26
		3	0.00	22.53	22.13	22.25
		3	2.00	22.11	22.25	22.21
		3	3.00	22.64	22.33	22.26
		6	0.00	21.78	21.54	21.45
	16QAM	1	0.00	22.32	22.17	22.81
		1	2.00	22.14	22.26	22.06
		1	5.00	22.63	22.84	22.45
		3	0.00	22.65	22.65	22.12
		3	1.00	22.51	22.36	22.34
		3	3.00	22.53	22.15	22.12
		6	0.00	21.45	21.88	21.43
Bandwidth	Modulation	RB size	RB offset	19965/1711.5	20175/1732.5	20385/1753.5
3MHz	QPSK	1	0.00	22.36	22.12	22.41
		1	7.00	22.34	22.33	22.46
		1	14.00	22.61	22.54	22.15
		8	0.00	22.53	22.61	22.16
		8	4.00	22.41	22.03	22.24
		8	7.00	22.54	22.15	22.41
		15	0.00	21.56	21.96	21.23
	16QAM	1	0.00	22.42	22.37	22.07
		1	7.00	22.56	22.21	22.63
		1	14.00	22.34	22.76	22.15
		8	0.00	22.56	22.23	22.21
		8	4.00	22.14	22.65	22.33
		8	7.00	22.36	22.14	22.64
		15	0.00	21.44	21.86	21.55
Bandwidth	Modulation	RB size	RB offset	19975/1712.5	20175/1732.5	20375/1752.5
5MHz	QPSK	1	0.00	22.46	22.23	22.11
		1	12.00	22.22	22.64	22.26
		1	24.00	22.53	22.66	22.04
		12	0.00	22.52	22.52	22.51
		12	6.00	22.43	22.63	22.13
		12	13.00	22.55	22.54	22.25
		25	0.00	21.37	21.51	21.11
	16QAM	1	0.00	22.14	22.63	22.53
		1	12.00	22.56	22.14	22.15
		1	24.00	22.35	22.63	22.16
		12	0.00	22.56	22.11	22.52
		12	6.00	22.52	22.25	22.01
		12	13.00	22.43	22.21	22.06
		25	0.00	22.41	22.46	22.11

Average Conducted Power						
Band	LTE Band 4			Channel/Frequency (MHz)		
Bandwidth	Modulation	RB size	RB offset	20000/1715	20175/1732.5	20350/1750
10MHz	QPSK	1	0.00	22.25	22.21	22.22
		1	24.00	22.31	22.13	22.23
		1	49.00	22.55	22.64	22.25
		25	0.00	22.33	22.23	22.23
		25	12.00	22.55	22.15	22.44
		25	25.00	22.24	22.36	22.55
		50	0.00	22.31	21.24	22.56
	16QAM	1	0.00	22.33	22.45	22.26
		1	24.00	22.45	22.63	22.22
		1	49.00	22.33	22.87	22.16
Bandwidth	Modulation	RB size	RB offset	20025/1717.5	20175/1732.5	20325/1747.5
15MHz	QPSK	1	0.00	22.21	22.33	22.36
		1	37.00	22.65	22.14	22.48
		1	74.00	22.04	22.15	22.54
		36	0.00	22.12	22.63	22.43
		36	18.00	22.46	22.58	22.35
		36	38.00	22.68	22.63	22.26
		75	0.00	22.34	22.44	22.34
	16QAM	1	0.00	22.65	22.147	22.21
		1	37.00	22.41	22.56	22.06
		1	74.00	22.32	22.54	22.44
Bandwidth	Modulation	RB size	RB offset	20050/1720	20175/1732.5	20300/1745
20MHz	QPSK	1	0.00	22.23	22.52	22.25
		1	49.00	22.64	22.22	22.76
		1	99.00	22.66	22.71	22.44
		50	0.00	22.15	22.16	22.21
		50	25.00	22.36	22.52	22.16
		50	50.00	22.24	22.46	22.14
		100	0.00	22.48	22.44	22.21
	16QAM	1	0.00	22.16	22.51	22.43
		1	49.00	22.03	22.16	22.45
		1	99.00	22.14	22.55	22.41

Note: Measurement Uncertainty: ±2.6 dB.

Average Conducted Power						
Band	LTE Band 5			Channel/Frequency (MHz)		
Bandwidth	Modulation	RB size	RB offset	20407/824.7	20525/836.5	20643/848.3
1.4MHz	QPSK	1	0.00	22.25	22.41	22.21
		1	3.00	22.76	22.63	22.73
		1	5.00	22.41	22.41	22.52
		3	0.00	22.56	22.73	22.56
		3	2.00	22.15	22.34	22.52
		3	3.00	22.71	22.13	22.16
		6	0.00	22.56	22.55	22.54
	16QAM	1	0.00	22.34	22.51	22.51
		1	2.00	22.72	22.56	22.46
		1	5.00	22.53	22.52	22.65
		3	0.00	22.52	22.56	22.21
		3	1.00	22.21	22.74	22.66
		3	3.00	22.63	22.22	22.75
		6	0.00	22.05	22.66	22.51
Bandwidth	Modulation	RB size	RB offset	20415/825.5	20525/836.5	20635/847.5
3MHz	QPSK	1	0.00	22.22	22.23	22.23
		1	7.00	22.66	22.45	22.41
		1	14.00	22.52	22.53	22.36
		8	0.00	22.56	22.35	22.52
		8	4.00	22.54	22.36	22.56
		8	7.00	22.51	22.45	22.44
		15	0.00	22.14	22.14	22.81
	16QAM	1	0.00	22.63	22.71	22.13
		1	8.00	22.65	22.36	22.65
		1	14.00	22.01	22.55	22.56
		8	0.00	22.53	22.66	22.52
		8	4.00	22.34	22.21	22.36
		8	7.00	22.14	22.23	22.55
		15	0.00	22.56	22.41	22.48
Bandwidth	Modulation	RB size	RB offset	20425/826.5	20525/836.5	20625/846.5
5MHz	QPSK	1	0.00	22.41	22.52	22.52
		1	12.00	22.36	22.33	22.64
		1	24.00	22.38	22.41	22.72
		12	0.00	22.64	22.06	22.41
		12	6.00	22.11	22.07	22.26
		12	13.00	22.43	22.56	22.42
		25	0.00	22.18	22.35	22.31
	16QAM	1	0.00	22.16	22.22	22.15
		1	12.00	22.04	22.64	22.33
		1	24.00	22.61	22.63	22.14
		12	0.00	22.53	22.41	22.51
		12	6.00	22.32	22.46	22.36
		12	13.00	22.26	22.52	22.05
		25	0.00	22.64	22.73	22.23

Average Conducted Power						
Band	LTE Band 5			Channel/Frequency (MHz)		
Bandwidth	Modulation	RB size	RB offset	20450/829	20525/836.5	20600/844
10MHz	QPSK	1	0.00	22.23	22.33	22.25
		1	24.00	22.52	22.45	22.36
		1	49.00	22.43	22.36	22.52
		25	0.00	22.24	22.24	22.13
		25	12.00	22.31	22.51	22.52
		25	25.00	22.56	22.66	22.16
		50	0.00	22.14	22.45	22.14
	16QAM	1	0.00	22.06	22.13	22.68
		1	24.00	22.52	22.15	22.66
		1	49.00	22.63	22.36	22.54

Note: Measurement Uncertainty: ±2.6 dB.

Average Conducted Power						
Band	LTE Band 12			Channel/Frequency (MHz)		
Bandwidth	Modulation	RB size	RB offset	23017/699.7	23095/707.5	23173/715.3
1.4MHz	QPSK	1	0.00	22.63	22.36	22.12
		1	3.00	22.04	22.24	22.36
		1	5.00	22.85	22.06	22.64
		3	0.00	22.16	22.35	22.45
		3	2.00	22.22	22.64	22.36
		3	3.00	22.26	22.23	22.85
		6	0.00	22.77	22.52	22.36
	16QAM	1	0.00	22.31	22.03	22.55
		1	2.00	22.34	22.45	22.14
		1	5.00	22.26	22.21	22.26
		3	0.00	22.45	22.42	22.05
		3	2.00	22.53	22.36	22.11
		3	3.00	22.44	22.34	22.63
		6	0.00	22.81	22.28	22.52
Bandwidth	Modulation	RB size	RB offset	23025/700.5	23095/707.5	23165/714.5
3MHz	QPSK	1	0.00	22.36	22.25	22.33
		1	7.00	22.23	22.16	22.45
		1	14.00	22.52	22.35	22.64
		8	0.00	22.43	22.16	22.36
		8	4.00	22.54	22.14	22.36
		8	7.00	22.18	22.51	22.28
		15	0.00	22.53	22.02	22.22
	16QAM	1	0.00	22.51	22.23	22.33
		1	7.00	22.46	22.22	22.24
		1	14.00	22.58	22.46	22.51
		8	0.00	22.16	22.28	22.03
		8	4.00	22.45	22.21	22.52
		8	7.00	22.34	22.38	22.53
		15	0.00	22.29	22.34	22.46
Bandwidth	Modulation	RB size	RB offset	26035/701.5	23095/707.5	23155/713.5
5MHz	QPSK	1	0.00	22.58	22.21	22.25
		1	12.00	22.63	22.36	22.36
		1	24.00	22.54	22.44	22.55
		12	0.00	22.42	22.51	22.14
		12	6.00	22.16	22.33	22.52
		12	13.00	22.41	22.02	22.56
		25	0.00	22.83	22.06	22.21
	16QAM	1	0.00	22.35	22.41	22.63
		1	12.00	22.53	22.46	22.52
		1	24.00	22.12	22.52	22.23
		12	0.00	22.06	22.03	22.41
		12	6.00	22.52	22.14	22.55
		12	13.00	22.31	22.51	22.76
		25	0.00	22.34	22.03	22.04

Average Conducted Power						
Band	LTE Band 12			Channel/Frequency (MHz)		
Bandwidth	Modulation	RB size	RB offset	23060/714	23095/707.5	23130/711
10MHz	QPSK	1	0.00	22.36	22.25	22.22
		1	24.00	22.14	22.16	22.66
		1	49.00	22.36	22.54	22.55
		25	0.00	22.52	22.12	22.61
		25	12.00	22.53	22.66	22.23
		25	25.00	22.43	22.52	22.54
		50	0.00	22.51	22.11	22.69
	16QAM	1	0.00	22.61	22.63	22.45
		1	24.00	22.54	22.41	22.26
		1	49.00	22.17	22.66	22.06

Average Conducted Power						
Band	LTE Band 13		Channel/Frequency (MHz)			
Bandwidth	Modulation	RB size	RB offset	23205/779.5	23230/782	23255/784.5
5MHz	QPSK	1	0.00	22.21	22.23	22.52
		1	37.00	22.66	22.54	22.33
		1	74.00	22.24	22.23	22.14
		36	0.00	22.63	22.52	22.68
		36	18.00	22.25	22.23	22.52
		36	38.00	22.22	22.25	22.23
		75	0.00	22.03	22.01	22.21
	16QAM	1	0.00	22.54	22.36	22.36
		1	37.00	22.01	22.58	22.52
		1	74.00	22.53	22.41	22.36
		36	0.00	22.42	22.16	22.12
		36	18.00	22.46	22.52	22.41
		36	38.00	22.65	22.33	22.33
		75	0.00	22.24	22.52	22.74
Bandwidth	Modulation	RB size	RB offset		23230/782	
10MHz	QPSK	1	0.00		22.23	
		1	49.00		22.45	
		1	99.00		22.53	
		50	0.00		22.47	
		50	25.00		22.34	
		50	50.00		22.46	
		100	0.00		22.14	
	16QAM	1	0.00		22.56	
		1	49.00		22.52	
		1	99.00		22.33	

Note: Measurement Uncertainty: ±2.6dB.

Average Conducted Power						
Band	LTE Band 17			Channel/Frequency (MHz)		
Bandwidth	Modulation	RB size	RB offset	23755/706.5	23790/710	23825/713.5
5MHz	QPSK	1	0.00	22.21	22.12	22.12
		1	12.00	22.03	22.69	22.76
		1	24.00	22.14	22.04	22.64
		12	0.00	22.27	22.31	22.21
		12	6.00	22.63	22.46	22.23
		12	13.00	22.55	22.22	22.52
		25	0.00	22.63	22.36	22.66
	16QAM	1	0.00	22.35	22.04	22.64
		1	12.00	22.34	22.14	22.15
		1	24.00	22.46	22.36	22.36
		12	0.00	22.41	22.42	22.24
		12	6.00	22.42	22.31	22.12
		12	13.00	22.66	22.63	22.66
		25	0.00	22.74	22.89	22.59
Bandwidth	Modulation	RB size	RB offset	23780/700.5	23790/710	23800/711
10MHz	QPSK	1	0.00	22.41	22.24	22.52
		1	24.00	22.56	22.26	22.43
		1	49.00	22.52	22.35	22.25
		25	0.00	22.43	22.63	22.36
		25	12.00	22.55	22.52	22.33
		25	25.00	22.51	22.31	22.52
		50	0.00	22.26	22.54	22.38
	16QAM	1	0.00	22.41	22.26	22.54
		1	7.00	22.06	22.16	22.21
		1	14.00	22.52	22.61	22.41

Average Conducted Power						
Band	LTE Band 66			Channel/Frequency (MHz)		
Bandwidth	Modulation	RB size	RB offset	131979/1710.7	132322/1745	132665/1779.3
1.4MHz	QPSK	1	0.00	22.36	22.26	22.36
		1	3.00	22.35	22.15	22.52
		1	5.00	22.11	22.56	22.33
		3	0.00	22.23	22.04	22.41
		3	2.00	22.25	22.01	22.36
		3	3.00	22.23	22.06	22.55
		6	0.00	22.26	22.05	22.16
	16QAM	1	0.00	22.54	22.23	22.41
		1	2.00	22.35	22.21	22.36
		1	5.00	22.23	22.43	22.41
		3	0.00	22.14	22.25	22.53
		3	2.00	22.46	22.54	22.16
		3	3.00	22.33	22.21	22.25
		6	0.00	22.85	22.14	22.36
Bandwidth	Modulation	RB size	RB offset	131987/1711.5	132322/1745	132657/1778.5
3MHz	QPSK	1	0.00	22.14	22.21	22.63
		1	7.00	22.63	22.06	22.24
		1	14.00	22.22	22.34	22.16
		8	0.00	22.63	22.06	22.36
		8	4.00	22.34	22.05	22.18
		8	7.00	22.22	22.22	22.14
		15	0.00	22.48	22.26	22.36
	16QAM	1	0.00	22.43	22.24	22.52
		1	7.00	22.54	22.21	22.63
		1	14.00	22.56	22.63	22.15
		8	0.00	22.52	22.28	22.41
		8	4.00	22.33	22.63	22.36
		8	7.00	22.41	22.34	22.52
		15	0.00	22.26	22.41	22.14
Bandwidth	Modulation	RB size	RB offset	131997/1712.5	132322/1745	132647/1777.5
5MHz	QPSK	1	0.00	22.26	22.24	22.25
		1	12.00	22.21	22.66	22.26
		1	24.00	22.36	22.35	22.52
		12	0.00	22.21	22.01	22.66
		12	6.00	22.24	22.63	22.52
		12	13.00	22.63	22.25	22.53
		25	0.00	22.31	22.26	22.21
	16QAM	1	0.00	22.32	22.52	22.63
		1	12.00	22.64	22.56	22.35
		1	24.00	22.21	22.14	22.34
		12	0.00	22.23	22.21	22.44
		12	6.00	22.35	22.55	22.52
		12	13.00	22.36	22.13	22.33
		25	0.00	22.34	22.74	22.18

Average Conducted Power						
Band	LTE Band 66			Channel/Frequency (MHz)		
Bandwidth	Modulation	RB size	RB offset	132022/1715	132322/1745	132622/1775
10MHz	QPSK	1	0.00	22.33	22.25	22.25
		1	24.00	22.45	22.03	22.63
		1	49.00	22.51	22.41	22.52
		25	0.00	22.06	22.66	22.36
		25	12.00	22.55	22.21	22.44
		25	25.00	22.26	22.63	22.51
		50	0.00	22.15	22.11	22.26
	16QAM	1	0.00	22.66	22.41	22.35
		1	24.00	22.14	22.36	22.36
		1	49.00	22.13	22.14	22.54
Bandwidth	Modulation	RB size	RB offset	132047/1717.5	132322/1745	132597/1772.5
15MHz	QPSK	1	0.00	22.36	22.22	22.36
		1	37.00	22.45	22.56	22.54
		1	74.00	22.16	22.41	22.38
		36	0.00	22.04	22.23	22.56
		36	18.00	22.12	22.69	22.15
		36	38.00	22.43	22.56	22.14
		75	0.00	22.41	22.75	22.16
	16QAM	1	0.00	22.36	22.36	22.35
		1	37.00	22.14	22.53	22.22
		1	74.00	22.58	22.51	22.36
Bandwidth	Modulation	RB size	RB offset	132072/1720	132322/1745	132572/1770
20MHz	QPSK	1	0.00	22.14	22.33	22.23
		1	49.00	22.03	22.54	22.54
		1	99.00	22.15	22.77	22.31
		50	0.00	22.22	22.03	22.36
		50	25.00	22.36	22.34	22.52
		50	50.00	22.65	22.42	22.36
		100	0.00	22.36	22.14	22.15
	16QAM	1	0.00	22.41	22.36	22.56
		1	49.00	22.06	22.52	22.52
		1	99.00	22.14	22.44	22.63

Note: Measurement Uncertainty: ±2.6dB.

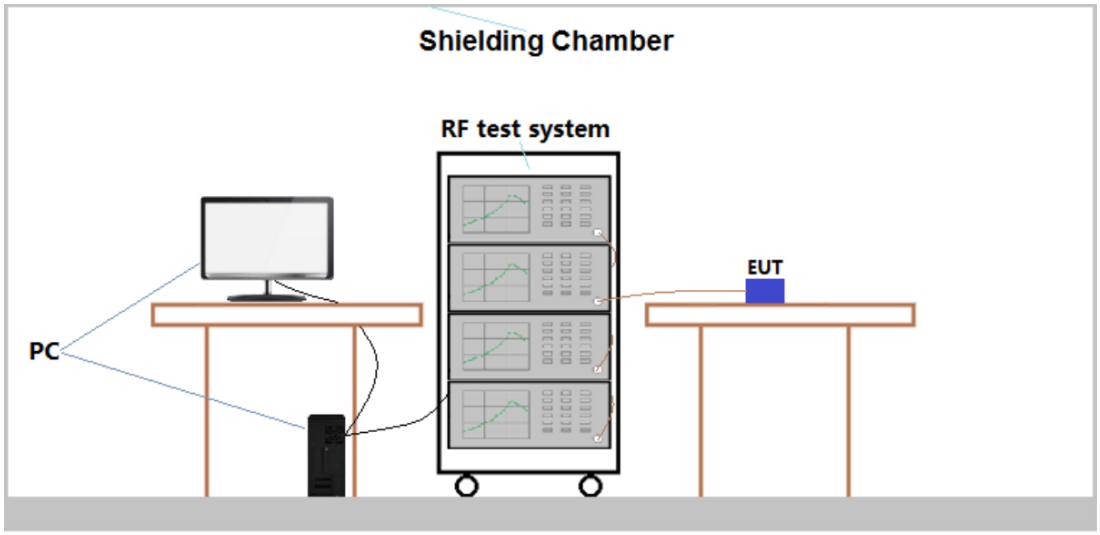
5.2. -26dB and 99% Occupied Bandwidth

5.2.1. Limit

CFR 47, Section FCC §2.1049.

5.2.2. Test Setup

The EUT, which is powered by the adapter, is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power.



5.2.3. Test Result

Pass, the table and plot please see annex.

5.3. Peak to Average Radio

5.3.1. Limit

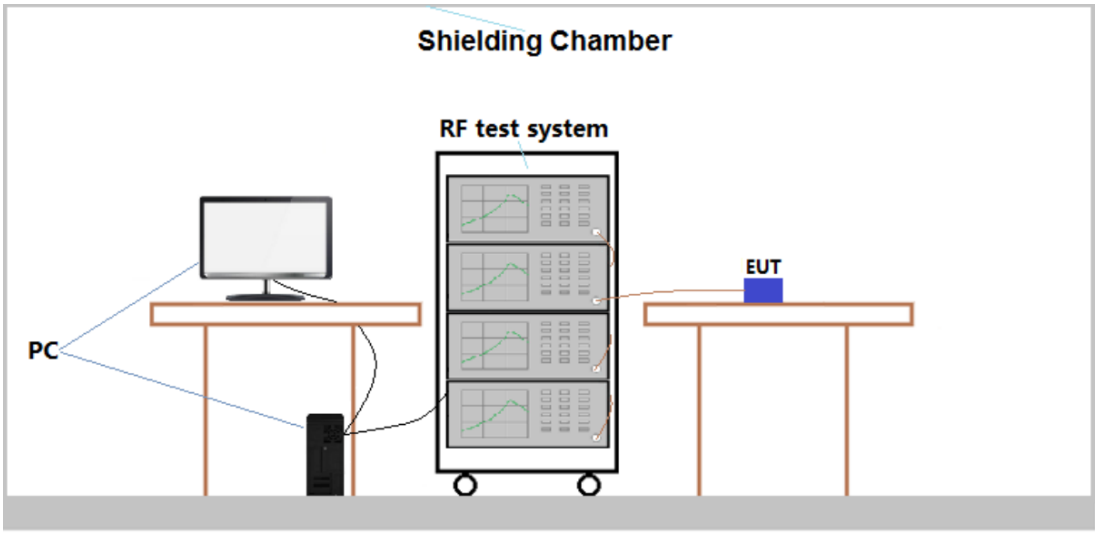
FCC

-§22.913(d) Measurement of the ERP of Cellular base transmitters and repeaters must be made using an average power measurement technique. The peak-to-average ratio (PAR) of the transmission must not exceed 13 dB.

-§24.232(d), power measurements for transmissions by stations authorized under this section may be made either in accordance with a Commission-approved average power technique or in compliance with paragraph (e) of this section. In both instances, equipment employed must be authorized in accordance with the provisions of §24.51. 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.

- §27.50(d)(5), power measurements for transmissions by stations authorized under this section may be made either in accordance with a Commission-approved average power technique or in compliance with paragraph (d)(6) of this section. 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.

5.3.2. Test Setup



5.3.3. Test Procedure

The test follows section 5.2.3.4 of ANSI C63.26-2015.
See instrumentation-specific application literature for further guidance regarding use of the CCDF capability.
The following guidelines are offered for performing a CCDF measurement.
a. Set resolution/measurement bandwidth ≥ OBW or specified reference bandwidth.
b. Set the number of counts to a value that stabilizes the measured CCDF curve.
c. Set the measurement interval as follows:
1) For continuous transmissions, set to greater of [10 x (number of points in sweep) x (transmission symbol period)] or 1 ms.
2) For burst transmissions, employ an external trigger that is synchronized with the EUT burst timing sequence, or use the internal burst trigger with a trigger level that allows the burst to stabilize. Set the measurement interval to a time that is less than or equal to the burst duration.
3) If there are several carriers in a single antenna port, the peak power shall be determined for each individual carrier (by disabling the other carriers while measuring the required carrier) and the total peak power calculated from the sum of the individual carrier peak powers.
d. Record the maximum PAPR level associated with a probability of 0.1 %.
e. The peak power level is calculated form the sum of the PAPR value from step d) to the measured average power.

5.3.4. Test Result

Pass, the table and plot please see annex.

5.4. Frequency Stability

5.4.1. Limit

FCC

-§ 2.1055 (a), § 2.1055 (d) & following:

-§22.355, the carrier frequency of each transmitter in the Public Mobile Services must be maintained within the tolerances given in Table of this section.

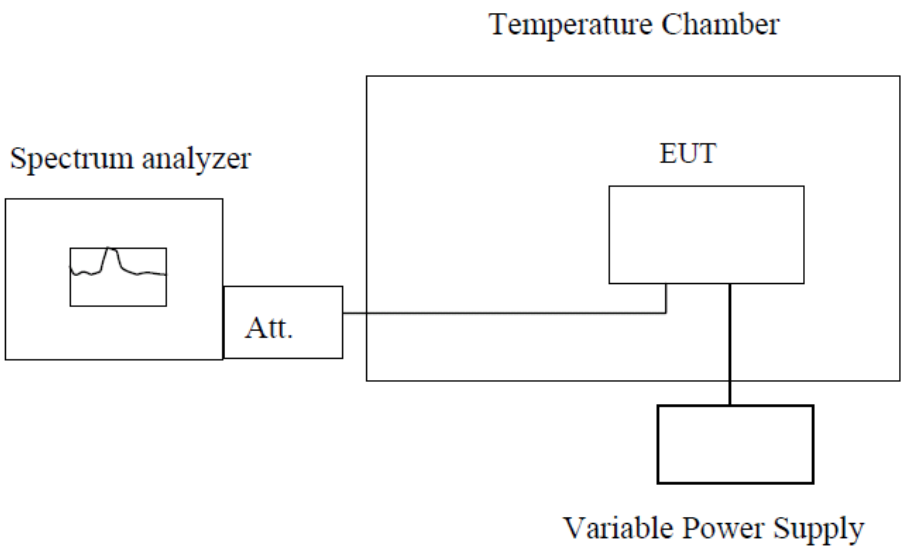
For Mobile devices operating in the 824 to 849 MHz band at a power level less than or equal to 3 Watts, the limit specified in Table C-1 is +/- 2.5 ppm.

-§24.235, the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

-§27.54, the frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

For Mobile devices operating in the 809 to 824 MHz band at a power level 2 Watts or less, the limit specified in Table is +/- 2.5 ppm.

5.4.2. Test Setup



Note : Measurement setup for testing on Antenna connector

The EUT, which is powered by the DC Power Supply directly, is located in the Temperature Chamber.

The EUT is commanded by the System Simulator (SS) to operate at the maximum output power

5.4.3. Test Result

Tested the result of ± 10% of normal voltage

which are specified by the applicant; the normal temperature here used is 25℃. The frequency

deviation limit of 850MHz band is ±2.5ppm.

For LTE mode, only test the max bandwidth.

The table and plot please see next page.

Test Conditions			Frequency Deviation			Result
Band	Power(Vdc)	Temperature(℃)	Frequency Error(Hz)	ppm	Limit ppm	
LTE Band 2 Bandwidth 20MHz QPSK Middle channel 1880MHz	3.7	-40	75	0.0412	whole band	PASS
	3.7	-30	53	0.0341		
	3.7	-20	64	0.0343		
	3.7	-10	65	0.0315		
	3.7	0	55	0.0241		
	3.7	10	72	0.0416		
	3.7	20	56	0.0221		
	3.7	30	62	0.0346		
	3.7	40	65	0.0314		
	3.7	50	57	0.0263		
	3.7	60	73	0.0464		
	3.7	70	52	0.0301		
	3.7	80	78	0.0456		
	4.10	25	69	0.0353		
	3.7	25	81	0.0452		
	3.33	25	102	0.0544		
LTE Band 2 Bandwidth 20MHz 16QAM Middle channel 1880MHz	3.7	-40	62	0.0317	whole band	PASS
	3.7	-30	54	0.0323		
	3.7	-20	71	0.0426		
	3.7	-10	57	0.0324		
	3.7	0	73	0.0458		
	3.7	10	59	0.0323		
	3.7	20	72	0.0435		
	3.7	30	83	0.0456		
	3.7	40	41	0.0264		
	3.7	50	64	0.0331		
	3.7	60	66	0.0333		
	3.7	70	73	0.0454		
	3.7	80	82	0.0456		
	4.10	25	97	0.0504		
	3.7	25	71	0.0425		
	3.33	25	101	0.0574		

Test Conditions			Frequency Deviation			Result
Band	Power(Vdc)	Temperature(℃)	Frequency Error(Hz)	ppm	Limit ppm	
LTE Band 4 Bandwidth 20MHz QPSK Middle channel 1732.5MHz	3.7	-40	72	0.0436	whole band	PASS
	3.7	-30	28	0.0154		
	3.7	-20	81	0.0482		
	3.7	-10	68	0.0354		
	3.7	0	31	0.0263		
	3.7	10	52	0.0314		
	3.7	20	64	0.0355		
	3.7	30	54	0.0311		
	3.7	40	65	0.0356		
	3.7	50	42	0.0252		
	3.7	60	76	0.0453		
	3.7	70	92	0.0552		
	3.7	80	81	0.0493		
	4.10	25	72	0.0441		
	3.7	25	83	0.0553		
	3.33	25	98	0.0522		
LTE Band 4 Bandwidth 20MHz 16QAM Middle channel 1732.5MHz	3.7	-40	81	0.0431	whole band	PASS
	3.7	-30	72	0.0434		
	3.7	-20	83	0.0556		
	3.7	-10	64	0.0352		
	3.7	0	56	0.0336		
	3.7	10	63	0.0341		
	3.7	20	77	0.0436		
	3.7	30	62	0.0352		
	3.7	40	78	0.0421		
	3.7	50	62	0.0364		
	3.7	60	51	0.0306		
	3.7	70	79	0.0445		
	3.7	80	62	0.0321		
	4.10	25	79	0.0436		
	3.7	25	82	0.0513		
	3.33	25	91	0.0566		

Note: Measurement Uncertainty: ±20Hz.

Test Conditions			Frequency Deviation			Result
Band	Power(Vdc)	Temperature(℃)	Frequency Error(Hz)	ppm	Limit ppm	
LTE Band 5 Bandwidth 10MHz QPSK Middle channel 836.5MHz	3.7	-40	72	0.0921	±2.5	PASS
	3.7	-30	83	0.1036		
	3.7	-20	44	0.0554		
	3.7	-10	77	0.0841		
	3.7	0	22	0.0316		
	3.7	10	48	0.0525		
	3.7	20	72	0.0856		
	3.7	30	64	0.0841		
	3.7	40	79	0.0933		
	3.7	50	52	0.0654		
	3.7	60	78	0.0811		
	3.7	70	52	0.0622		
	3.7	80	63	0.0741		
	4.10	25	78	0.0836		
	3.7	25	52	0.0652		
	3.33	25	99	0.1141		
LTE Band 5 Bandwidth 10MHz 16QAM Middle channel 836.5MHz	3.7	-40	77	0.0836	±2.5	PASS
	3.7	-30	67	0.0741		
	3.7	-20	59	0.0696		
	3.7	-10	62	0.0754		
	3.7	0	54	0.0623		
	3.7	10	67	0.0721		
	3.7	20	63	0.0763		
	3.7	30	58	0.0644		
	3.7	40	63	0.0716		
	3.7	50	78	0.0821		
	3.7	60	52	0.0706		
	3.7	70	73	0.0922		
	3.7	80	66	0.0763		
	4.10	25	56	0.0694		
	3.7	25	82	0.1014		
	3.33	25	98	0.1158		

Note: Measurement Uncertainty: ±20Hz.

Test Conditions			Frequency Deviation			Result
Band	Power(Vdc)	Temperature(℃)	Frequency Error(Hz)	ppm	Limit ppm	
LTE Band 12 Bandwidth 10MHz QPSK Middle channel 707.5MHz	3.7	-40	82	0.1235	whole band	PASS
	3.7	-30	55	0.0341		
	3.7	-20	67	0.0953		
	3.7	-10	49	0.0652		
	3.7	0	26	0.0336		
	3.7	10	34	0.0466		
	3.7	20	68	0.0921		
	3.7	30	72	0.1063		
	3.7	40	65	0.0924		
	3.7	50	52	0.0822		
	3.7	60	73	0.1063		
	3.7	70	68	0.0954		
	3.7	80	26	0.0314		
	4.10	25	62	0.0946		
	3.7	25	73	0.1033		
	3.33	25	99	0.1341		
LTE Band 12 Bandwidth 10MHz 16QAM Middle channel 707.5MHz	3.7	-40	55	0.0826	whole band	PASS
	3.7	-30	63	0.0955		
	3.7	-20	56	0.0812		
	3.7	-10	63	0.0906		
	3.7	0	65	0.0914		
	3.7	10	52	0.0831		
	3.7	20	48	0.0656		
	3.7	30	52	0.0805		
	3.7	40	79	0.1063		
	3.7	50	52	0.0841		
	3.7	60	78	0.1076		
	3.7	70	92	0.1352		
	3.7	80	56	0.0832		
	4.10	25	53	0.0824		
	3.7	25	98	0.1341		
	3.33	25	105	0.1358		

Note: Measurement Uncertainty: ±20Hz.

Test Conditions			Frequency Deviation			Result
Band	Power(Vdc)	Temperature(℃)	Frequency Error(Hz)	ppm	Limit ppm	
LTE Band 13 Bandwidth 10MHz QPSK Middle channel 782MHz	3.7	-40	84	0.1221	whole band	PASS
	3.7	-30	54	0.0816		
	3.7	-20	65	0.0952		
	3.7	-10	56	0.0883		
	3.7	0	77	0.1064		
	3.7	10	48	0.0641		
	3.7	20	65	0.0923		
	3.7	30	53	0.0852		
	3.7	40	88	0.1114		
	3.7	50	53	0.0753		
	3.7	60	78	0.1052		
	3.7	70	53	0.0864		
	3.7	80	24	0.0341		
	4.10	25	65	0.0946		
	3.7	25	87	0.1121		
	3.33	25	93	0.1312		
LTE Band 13 Bandwidth 10MHz 16QAM Middle channel 782MHz	3.7	-40	52	0.0816	whole band	PASS
	3.7	-30	74	0.1052		
	3.7	-20	55	0.0813		
	3.7	-10	57	0.0854		
	3.7	0	62	0.0908		
	3.7	10	54	0.0816		
	3.7	20	22	0.0355		
	3.7	30	54	0.0804		
	3.7	40	61	0.0963		
	3.7	50	54	0.0841		
	3.7	60	61	0.0916		
	3.7	70	78	0.1041		
	3.7	80	52	0.0863		
	4.10	25	63	0.0952		
	3.7	25	96	0.1314		
	3.33	25	98	0.1377		

Note: Measurement Uncertainty: ±20Hz.

Test Conditions			Frequency Deviation			Result
Band	Power(Vdc)	Temperature(℃)	Frequency Error(Hz)	ppm	Limit ppm	
LTE Band 17 Bandwidth 10MHz QPSK Middle channel 709MHz	3.7	-40	82	0.1221	whole band	PASS
	3.7	-30	55	0.0336		
	3.7	-20	67	0.0941		
	3.7	-10	49	0.0636		
	3.7	0	26	0.0352		
	3.7	10	34	0.0456		
	3.7	20	68	0.0934		
	3.7	30	72	0.1061		
	3.7	40	65	0.0926		
	3.7	50	52	0.0825		
	3.7	60	73	0.1044		
	3.7	70	68	0.0906		
	3.7	80	26	0.0321		
	4.10	25	62	0.0963		
	3.7	25	73	0.1052		
	3.33	25	99	0.1396		
LTE Band 12 Bandwidth 10MHz 16QAM Middle channel 711MHz	3.7	-40	55	0.0821	whole band	PASS
	3.7	-30	63	0.0903		
	3.7	-20	56	0.0864		
	3.7	-10	63	0.0912		
	3.7	0	65	0.0946		
	3.7	10	52	0.0865		
	3.7	20	48	0.0693		
	3.7	30	52	0.0852		
	3.7	40	79	0.1043		
	3.7	50	52	0.0852		
	3.7	60	78	0.1076		
	3.7	70	92	0.1341		
	3.7	80	56	0.0803		
	4.10	25	53	0.0855		
	3.7	25	98	0.1341		
	3.33	25	105	0.1358		

Note: Measurement Uncertainty: ±20Hz.

Test Conditions			Frequency Deviation			Result
Band	Power(Vdc)	Temperature(℃)	Frequency Error(Hz)	ppm	Limit ppm	
LTE Band 66 Bandwidth 20MHz QPSK Middle channel 1745MHz	3.7	-40	87	0.0421	whole band	PASS
	3.7	-30	73	0.0436		
	3.7	-20	55	0.0294		
	3.7	-10	61	0.0371		
	3.7	0	44	0.0263		
	3.7	10	76	0.0425		
	3.7	20	68	0.0384		
	3.7	30	53	0.0351		
	3.7	40	72	0.0463		
	3.7	50	64	0.0358		
	3.7	60	81	0.0486		
	3.7	70	65	0.0344		
	3.7	80	63	0.0361		
	4.10	25	76	0.0433		
	3.7	25	81	0.0425		
	3.33	25	95	0.0552		
LTE Band 66 Bandwidth 20MHz 16QAM Middle channel 1745MHz	3.7	-40	52	0.0321	whole band	PASS
	3.7	-30	73	0.0446		
	3.7	-20	52	0.0341		
	3.7	-10	63	0.0383		
	3.7	0	84	0.0425		
	3.7	10	55	0.0333		
	3.7	20	76	0.0454		
	3.7	30	51	0.0336		
	3.7	40	62	0.0325		
	3.7	50	84	0.0463		
	3.7	60	52	0.0352		
	3.7	70	74	0.0423		
	3.7	80	56	0.0352		
	4.10	25	62	0.0363		
	3.7	25	74	0.0441		
	3.33	25	99	0.0556		

Note: Measurement Uncertainty: ±20Hz.

5.5. Conducted Spurious Emissions

5.5.1. Limit

FCC

-§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 + 10log(P) dB.

-§24.238(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.

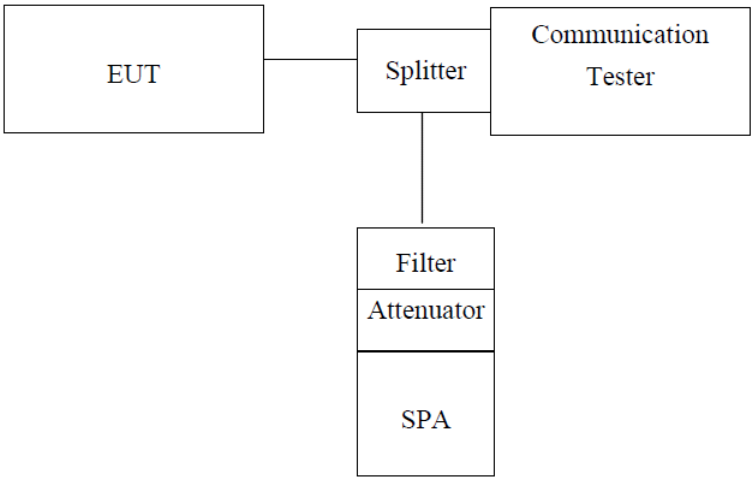
-§27.53(c)(2), on any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB.

-§27.53(g), 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.

-§27.53(h)(1), for operations in the 1 695-1 710 MHz, 1 710-1 755 MHz, 1 755-1 780 MHz, 1 915-1 920 MHz, 1 995-2 000 MHz, 2 000-2 020 MHz, 2 110-2 155 MHz, 2 155-2 180 MHz, and 2 180-2 200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 log10 (P) dB.

-§27.53(m)(4), for mobile digital stations, the attenuation factor shall be not less than 40 + 10 log10 (P) dBon all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log10 (P) dBon all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log10 (P) dBon 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 log10 (P) dB on all frequencies between 2 490.5 MHz and 2 496 MHz and 55 + 10 log10 (P) dB at or below 2 490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2 495 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.

5.5.2. Test Setup



Note: *Measurement setup for testing on Antenna connector*

5.5.3. Measurement Procedure

The test follows section 5.7 of ANSI C63.26-2015.

1. Start frequency was set to 9 kHz and stop frequency was set to at least 10* the fundamental frequency.

2. Detector = RMS.

3. Trace mode = Max hold.

4. Sweep time = Auto couple.

5. The trace was allowed to stabilize.

6. Please see notes below for RBW and VBW settings.

7. For plots showing conducted spurious emissions from 9 kHz to 26 ㎓, all path loss of wide frequency range was investigated and compensated to spectrum analyzer as TDF function.

5.5.4. Test Result

The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. The lowest, middle and highest channels are tested to verify the out of band emissions.

For LTE mode, the plot only show the min and max bandwidth's data.

Pass, the table and plot please see annex.

5.6. Conducted Out of Band Emissions

5.6.1. Limit

FCC

-§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 + 10log(P) dB.

-§24.238(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.

-§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.

-§27.53(c)(4), on all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than 65 + 10 log(P) dB in a 6.25 kHz band segment, for mobile and portable stations;

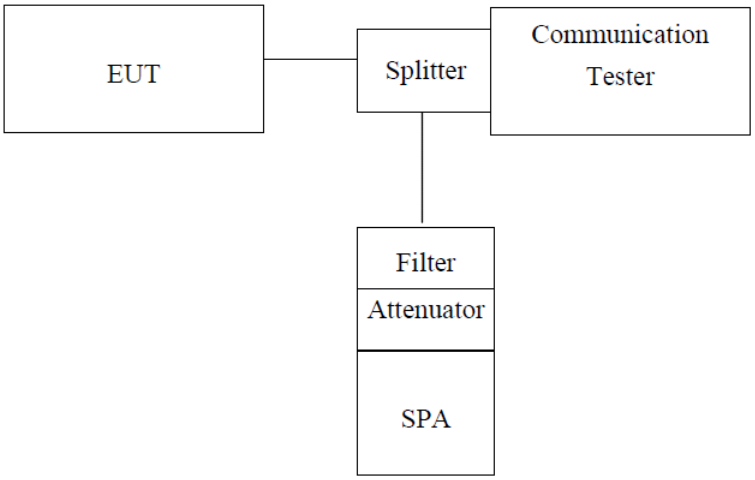
-§27.53 (f) For operations in the 746-758 MHz, 775-788 MHz, and 805-806 MHz bands, emissions in the band 1559-1610 MHz shall be limited to −70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and −80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

-§27.53(g), 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.

-§27.53(h)(1), for operations in the 1 695-1 710 MHz, 1 710-1 755 MHz, 1 755-1 780 MHz, 1 915-1 920 MHz, 1 995-2 000 MHz, 2 000-2 020 MHz, 2 110-2 155 MHz, 2 155-2 180 MHz, and 2 180-2 200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 log10 (P) dB.

-§27.53(m)(4), for mobile digital stations, the attenuation factor shall be not less than 40 + 10 log10 (P) dBon all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log10 (P) dBon all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log10 (P) dBon 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 log10 (P) dB on all frequencies between 2 490.5 MHz and 2 496 MHz and 55 + 10 log10 (P) dB at or below 2 490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2 495 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.

5.6.2. Test Setup



Note: *Measurement setup for testing on Antenna connector*

5.6.3. Measurement Procedure

The test follows section 5.7 of ANSI C63.26-2015.

a. Span was set large enough so as to capture all out of band emissions near the band edge.
b. RBW ≥ 1 % of OBW
c. VBW ≥ 3 x RBW.
d. Detector = RMS.
e. Trace mode = Average.
f. Sweep time = Auto.
g. The trace was allowed to stabilize.
h. All path loss of frequency range was investigated and compensated to spectrum analyzer as TDF function.

5.6.4. Test Result

The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. The lowest, middle and highest channels are tested to verify the out of band emissions.

Pass, the table and plot please see annex.

5.7. Transmitter Power (EIRP/ERP)

5.7.1. Limit

FCC

-§22.913(a)(5), the ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

-§24.232(c), mobile and portable stations are limited to 2 watts EIRP and the equipment must employ a means for limiting power to the minimum necessary for successful communications.

-§27.50(b)(9), control stations and mobile stations transmitting in the 746-757 MHz, 776-788 MHz, and 805–806 MHz bands and fixed stations transmitting in the 787-788 MHz and 805-806 MHz bands are limited to 30 watts ERP.

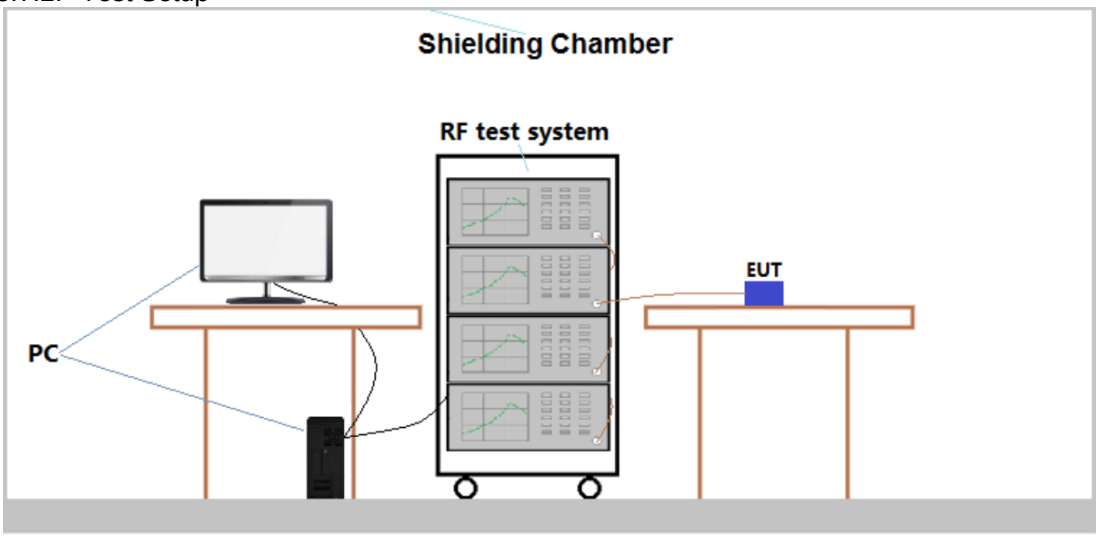
-§27.50(c)(9), control and mobile stations in the 698–746 MHz band are limited to 30 watts ERP.

-§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.

-§27.50(d)(4), fixed, mobile, and portable (hand-held) stations operating in the 1 710-1 755 MHz band and mobile and portable stations operating in the 1 695-1 710 MHz and 1 755-1 780 MHz bands are limited to 1 watt EIRP.

-§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.

5.7.2. Test Setup



5.7.3. Measurement Procedure

ERP in frequency below 1GHz, the ERP was calculated as follows:

ERP = S.G. output (dBm) + Antenna Gain (dBi) -2.15

EIRP in frequency above 1GHz the EIRP was calculated as follows:

EIRP = S.G. output (dBm) + Antenna Gain (dBi)

5.7.4. Test Result

Pass,

EIRP Power dBm								
Band	LTE Band 2			Channel/Frequency (MHz)				
Bandwidth	Modulation	RB size	RB offset	18607/1850.7	18900/1880	19193/1909.3	Limit	Result
1.4MHz	QPSK	1	0.00	26.14	26.14	26.21	33.00	Pass
		1	3.00	25.42	26.23	26.23	33.00	Pass
		1	5.00	25.46	26.54	26.25	33.00	Pass
		3	0.00	25.14	26.02	26.44	33.00	Pass
		3	2.00	25.62	26.14	26.23	33.00	Pass
		3	3.00	25.94	26.36	26.15	33.00	Pass
		6	0.00	24.93	25.25	25.23	33.00	Pass
	16QAM	1	0.00	26.52	26.41	26.12	33.00	Pass
		1	3.00	25.21	26.33	26.66	33.00	Pass
		1	5.00	26.21	26.34	26.41	33.00	Pass
		3	0.00	26.03	26.31	26.33	33.00	Pass
		3	2.00	26.13	26.22	26.44	33.00	Pass
		3	3.00	26.44	26.31	26.14	33.00	Pass
		6	0.00	25.56	25.63	25.36	33.00	Pass
Bandwidth	Modulation	RB size	RB offset	18615/1851.5	18900/1880	19185/1908.5	Limit	Result
3MHz	QPSK	1	0.00	26.23	26.53	26.11	33.00	Pass
		1	7.00	26.14	26.44	26.36	33.00	Pass
		1	14.00	26.01	26.32	26.34	33.00	Pass
		8	0.00	26.33	26.36	26.32	33.00	Pass
		8	4.00	26.15	26.45	26.55	33.00	Pass
		8	7.00	26.21	26.14	26.33	33.00	Pass
		15	0.00	25.26	25.36	25.34	33.00	Pass
	16QAM	1	0.00	26.41	26.65	26.41	33.00	Pass
		1	7.00	26.22	26.42	25.66	33.00	Pass
		1	14.00	26.56	26.41	26.45	33.00	Pass
		8	0.00	26.24	26.46	26.34	33.00	Pass
		8	4.00	26.51	26.14	26.42	33.00	Pass
		8	7.00	26.33	26.36	26.13	33.00	Pass
		15	0.00	26.14	26.22	26.23	33.00	Pass
Bandwidth	Modulation	RB size	RB offset	18625/1852.5	18900/1880	19175/1907.5	Limit	Result
5MHz	QPSK	1	0.00	26.23	26.23	26.11	33.00	Pass
		1	12.00	26.21	26.44	26.36	33.00	Pass
		1	24.00	26.04	26.56	26.23	33.00	Pass
		12	0.00	26.16	26.25	26.15	33.00	Pass
		12	6.00	26.25	26.44	26.23	33.00	Pass
		12	13.00	26.03	26.46	26.24	33.00	Pass
		25	0.00	25.05	25.14	25.11	33.00	Pass
	16QAM	1	0.00	26.54	26.56	26.36	33.00	Pass
		1	12.00	26.56	26.21	26.21	33.00	Pass
		1	24.00	26.25	25.53	26.43	33.00	Pass
		12	0.00	26.56	26.24	26.55	33.00	Pass
		12	6.00	26.41	26.56	26.46	33.00	Pass
		12	13.00	26.33	26.51	26.44	33.00	Pass
		25	0.00	25.15	25.46	25.28	33.00	Pass

EIRP Power dBm								
Band	LTE Band 2			Channel/Frequency (MHz)				
Bandwidth	Modulation	RB size	RB offset	18650/1855	18900/1880	19150/1905	Limit	Result
10MHz	QPSK	1	0.00	26.11	25.26	26.23	33.00	Pass
		1	24.00	25.96	26.25	26.04	33.00	Pass
		1	49.00	26.55	26.36	26.16	33.00	Pass
		25	0.00	25.86	25.84	26.55	33.00	Pass
		25	12.00	26.25	26.23	25.51	33.00	Pass
		25	25.00	26.51	26.15	25.22	33.00	Pass
		50	0.00	25.56	24.66	25.76	33.00	Pass
	16QAM	1	0.00	26.21	26.04	25.94	33.00	Pass
		1	24.00	26.56	26.11	26.52	33.00	Pass
		1	49.00	25.45	26.36	26.41	33.00	Pass
Bandwidth	Modulation	RB size	RB offset	18675/1857.5	18900/1880	19125/1902.5	Limit	Result
15MHz	QPSK	1	0.00	26.23	25.21	25.41	33.00	Pass
		1	37.00	26.45	26.03	26.06	33.00	Pass
		1	74.00	26.33	26.44	26.22	33.00	Pass
		36	0.00	25.14	26.06	26.01	33.00	Pass
		36	18.00	25.76	26.52	26.23	33.00	Pass
		36	38.00	26.33	26.46	26.05	33.00	Pass
		75	0.00	25.54	25.21	25.06	33.00	Pass
	16QAM	1	0.00	26.33	26.03	26.44	33.00	Pass
		1	37.00	26.05	25.52	26.15	33.00	Pass
		1	74.00	25.93	25.22	26.43	33.00	Pass
Bandwidth	Modulation	RB size	RB offset	18700/1860	18900/1880	19100/1900	Limit	Result
20MHz	QPSK	1	0.00	26.12	26.22	26.23	33.00	Pass
		1	49.00	26.43	**26.96**	25.36	33.00	Pass
		1	99.00	26.24	26.17	26.52	33.00	Pass
		50	0.00	26.25	26.44	26.51	33.00	Pass
		50	25.00	25.66	26.22	26.63	33.00	Pass
		50	50.00	26.66	26.23	25.84	33.00	Pass
		100	0.00	25.54	25.84	25.51	33.00	Pass
	16QAM	1	0.00	26.15	25.55	26.23	33.00	Pass
		1	49.00	**26.86**	26.59	26.55	33.00	Pass
		1	99.00	26.14	26.44	26.14	33.00	Pass

EIRP Power dBm								
Band	LTE Band 4			Channel/Frequency (MHz)				
Bandwidth	Modulation	RB size	RB offset	19957/1710.7	20175/1732.5	20393/1754.3	Limit	Result
1.4MHz	QPSK	1	0.00	26.23	26.25	26.21	30.00	Pass
		1	3.00	26.54	26.43	26.23	30.00	Pass
		1	5.00	26.46	26.14	26.11	30.00	Pass
		3	0.00	26.44	26.13	26.24	30.00	Pass
		3	2.00	26.56	26.22	26.23	30.00	Pass
		3	3.00	26.54	26.03	26.15	30.00	Pass
		6	0.00	25.35	25.24	25.41	30.00	Pass
	16QAM	1	0.00	26.43	26.11	26.53	30.00	Pass
		1	2.00	26.61	26.26	25.23	30.00	Pass
		1	5.00	26.53	26.11	26.64	30.00	Pass
		3	0.00	26.54	26.56	26.41	30.00	Pass
		3	1.00	26.52	26.35	26.23	30.00	Pass
		3	3.00	26.43	26.41	26.25	30.00	Pass
		6	0.00	25.42	25.13	25.33	30.00	Pass
Bandwidth	Modulation	RB size	RB offset	19965/1711.5	20175/1732.5	20385/1753.5	Limit	Result
3MHz	QPSK	1	0.00	26.11	26.13	26.22	30.00	Pass
		1	7.00	26.23	26.22	26.36	30.00	Pass
		1	14.00	26.55	26.36	26.41	30.00	Pass
		8	0.00	26.63	25.54	26.13	30.00	Pass
		8	4.00	26.21	26.31	26.21	30.00	Pass
		8	7.00	26.46	26.56	26.26	30.00	Pass
		15	0.00	25.25	25.52	25.52	30.00	Pass
	16QAM	1	0.00	26.33	26.53	26.33	30.00	Pass
		1	7.00	26.41	26.15	26.41	30.00	Pass
		1	14.00	26.56	26.46	26.13	30.00	Pass
		8	0.00	26.12	26.14	26.54	30.00	Pass
		8	4.00	26.46	26.56	26.32	30.00	Pass
		8	7.00	26.35	26.05	26.03	30.00	Pass
		15	0.00	25.47	25.21	25.21	30.00	Pass
Bandwidth	Modulation	RB size	RB offset	19975/1712.5	20175/1732.5	20375/1752.5	Limit	Result
5MHz	QPSK	1	0.00	26.33	26.64	26.12	30.00	Pass
		1	12.00	26.64	26.61	26.36	30.00	Pass
		1	24.00	26.55	26.63	26.44	30.00	Pass
		12	0.00	26.21	26.52	26.22	30.00	Pass
		12	6.00	26.36	26.21	26.36	30.00	Pass
		12	13.00	26.41	26.23	26.64	30.00	Pass
		25	0.00	25.46	25.34	25.51	30.00	Pass
	16QAM	1	0.00	26.31	26.56	26.33	30.00	Pass
		1	12.00	26.53	26.36	26.55	30.00	Pass
		1	24.00	26.34	26.45	26.22	30.00	Pass
		12	0.00	26.23	26.22	26.23	30.00	Pass
		12	6.00	26.55	26.21	26.41	30.00	Pass
		12	13.00	26.43	26.36	26.54	30.00	Pass
		25	0.00	26.45	26.45	26.16	30.00	Pass

EIRP Power dBm								
Band	LTE Band 4			Channel/Frequency (MHz)				
Bandwidth	Modulation	RB size	RB offset	20000/1715	20175/1732.5	20350/1750	Limit	Result
10MHz	QPSK	1	0.00	26.21	26.11	26.41	30.00	Pass
		1	24.00	26.36	26.13	26.26	30.00	Pass
		1	49.00	26.52	26.55	26.24	30.00	Pass
		25	0.00	26.51	26.23	26.46	30.00	Pass
		25	12.00	26.44	26.25	26.44	30.00	Pass
		25	25.00	26.53	26.16	26.51	30.00	Pass
		50	0.00	26.22	25.41	26.56	30.00	Pass
	16QAM	1	0.00	26.34	26.26	26.35	30.00	Pass
		1	24.00	26.56	26.42	26.13	30.00	Pass
		1	49.00	26.34	26.36	26.12	30.00	Pass
Bandwidth	Modulation	RB size	RB offset	20025/1717.5	20175/1732.5	20325/1747.5	Limit	Result
15MHz	QPSK	1	0.00	26.54	26.21	26.22	30.00	Pass
		1	37.00	26.25	26.13	26.43	30.00	Pass
		1	74.00	25.56	26.41	26.41	30.00	Pass
		36	0.00	26.41	26.43	26.36	30.00	Pass
		36	18.00	26.33	26.45	26.36	30.00	Pass
		36	38.00	26.52	26.25	26.25	30.00	Pass
		75	0.00	26.14	26.53	26.52	30.00	Pass
	16QAM	1	0.00	26.56	26.41	26.23	30.00	Pass
		1	37.00	26.65	26.63	26.52	30.00	Pass
		1	74.00	26.36	26.54	26.36	30.00	Pass
Bandwidth	Modulation	RB size	RB offset	20050/1720	20175/1732.5	20300/1745	Limit	Result
20MHz	QPSK	1	0.00	26.22	26.25	26.36	30.00	Pass
		1	49.00	26.13	**26.89**	26.35	30.00	Pass
		1	99.00	26.65	26.36	26.24	30.00	Pass
		50	0.00	26.04	26.44	26.16	30.00	Pass
		50	25.00	26.06	26.41	26.02	30.00	Pass
		50	50.00	26.21	26.23	25.51	30.00	Pass
		100	0.00	26.46	26.44	25.36	30.00	Pass
	16QAM	1	0.00	26.44	26.56	26.55	30.00	Pass
		1	49.00	26.06	26.52	**26.76**	30.00	Pass
		1	99.00	26.16	26.22	26.41	30.00	Pass

ERP Power dBm								
Band	LTE Band 5			Channel/Frequency (MHz)				
Bandwidth	Modulation	RB size	RB offset	20407/824.7	20525/836.5	20643/848.3	Limit	Result
1.4MHz	QPSK	1	0.00	25.12	25.41	25.22	38.45	Pass
		1	3.00	25.53	24.36	25.21	38.45	Pass
		1	5.00	25.22	25.34	25.36	38.45	Pass
		3	0.00	25.23	25.51	25.41	38.45	Pass
		3	2.00	25.64	25.26	25.63	38.45	Pass
		3	3.00	25.51	25.23	25.54	38.45	Pass
		6	0.00	25.25	25.55	25.31	38.45	Pass
	16QAM	1	0.00	25.62	25.34	24.25	38.45	Pass
		1	2.00	25.54	25.52	25.14	38.45	Pass
		1	5.00	25.62	25.61	25.33	38.45	Pass
		3	0.00	25.54	25.56	25.52	38.45	Pass
		3	1.00	25.46	25.41	25.53	38.45	Pass
		3	3.00	25.54	25.43	25.55	38.45	Pass
		6	0.00	24.51	25.14	25.14	38.45	Pass
Bandwidth	Modulation	RB size	RB offset	20415/825.5	20525/836.5	20635/847.5	Limit	Result
3MHz	QPSK	1	0.00	24.23	24.22	25.52	38.45	Pass
		1	7.00	25.35	25.23	25.03	38.45	Pass
		1	14.00	24.94	25.41	25.52	38.45	Pass
		8	0.00	24.51	25.23	24.86	38.45	Pass
		8	4.00	25.26	25.45	25.41	38.45	Pass
		8	7.00	25.52	25.36	25.36	38.45	Pass
		15	0.00	25.33	25.54	25.21	38.45	Pass
	16QAM	1	0.00	25.44	25.53	25.53	38.45	Pass
		1	8.00	25.06	24.25	25.35	38.45	Pass
		1	14.00	24.54	25.63	25.66	38.45	Pass
		8	0.00	25.51	25.41	25.54	38.45	Pass
		8	4.00	25.26	25.23	25.38	38.45	Pass
		8	7.00	25.04	25.54	25.63	38.45	Pass
		15	0.00	25.46	25.46	25.24	38.45	Pass
Bandwidth	Modulation	RB size	RB offset	20425/826.5	20525/836.5	20625/846.5	Limit	Result
5MHz	QPSK	1	0.00	24.21	25.41	25.25	38.45	Pass
		1	12.00	25.23	25.23	24.66	38.45	Pass
		1	24.00	25.54	25.42	25.52	38.45	Pass
		12	0.00	25.31	24.16	25.23	38.45	Pass
		12	6.00	24.46	24.84	25.22	38.45	Pass
		12	13.00	25.34	25.21	25.36	38.45	Pass
		25	0.00	25.16	25.33	24.41	38.45	Pass
	16QAM	1	0.00	25.65	25.41	25.46	38.45	Pass
		1	12.00	24.41	25.23	25.23	38.45	Pass
		1	24.00	25.66	25.55	24.33	38.45	Pass
		12	0.00	25.25	25.33	25.55	38.45	Pass
		12	6.00	25.26	25.64	25.13	38.45	Pass
		12	13.00	25.45	25.45	24.94	38.45	Pass
		25	0.00	25.13	25.33	25.06	38.45	Pass

ERP Power dBm								
Band	LTE Band 5			Channel/Frequency (MHz)				
Bandwidth	Modulation	RB size	RB offset	20450/829	20525/836.5	20600/844	Limit	Result
10MHz	QPSK	1	0.00	25.25	25.12	25.25	38.45	Pass
		1	24.00	**25.86**	25.23	25.36	38.45	Pass
		1	49.00	24.41	25.55	25.44	38.45	Pass
		25	0.00	25.53	25.41	25.36	38.45	Pass
		25	12.00	25.34	24.46	25.55	38.45	Pass
		25	25.00	25.61	25.36	25.03	38.45	Pass
		50	0.00	24.96	25.55	25.41	38.45	Pass
	16QAM	1	0.00	24.85	25.24	**25.96**	38.45	Pass
		1	24.00	25.54	25.46	25.51	38.45	Pass
		1	49.00	24.93	25.25	25.38	38.45	Pass

ERP Power dBm							Limit	Result
Band	LTE Band 12			Channel/Frequency (MHz)				
Bandwidth	Modulation	RB size	RB offset	23017/699.7	23095/707.5	23173/715.3		
1.4MHz	QPSK	1	0.00	25.23	25.21	25.22	38.45	Pass
		1	3.00	24.96	25.12	25.36	38.45	Pass
		1	5.00	25.03	24.32	25.44	38.45	Pass
		3	0.00	25.48	25.23	25.51	38.45	Pass
		3	2.00	25.63	25.14	25.25	38.45	Pass
		3	3.00	25.65	25.53	25.56	38.45	Pass
		6	0.00	25.51	25.24	25.25	38.45	Pass
	16QAM	1	0.00	25.13	24.31	25.64	38.45	Pass
		1	2.00	25.14	25.25	24.52	38.45	Pass
		1	5.00	25.08	25.63	25.53	38.45	Pass
		3	0.00	25.33	25.54	24.21	38.45	Pass
		3	2.00	25.24	25.11	24.96	38.45	Pass
		3	3.00	25.66	25.16	25.52	38.45	Pass
		6	0.00	25.54	25.25	24.22	38.45	Pass
Bandwidth	Modulation	RB size	RB offset	23025/700.5	23095/707.5	23165/714.5	Limit	Result
3MHz	QPSK	1	0.00	25.23	24.13	24.22	38.45	Pass
		1	7.00	25.34	24.25	25.26	38.45	Pass
		1	14.00	25.32	25.46	25.55	38.45	Pass
		8	0.00	25.54	24.94	25.13	38.45	Pass
		8	4.00	25.63	24.91	25.25	38.45	Pass
		8	7.00	25.35	25.53	25.55	38.45	Pass
		15	0.00	25.31	24.95	25.16	38.45	Pass
	16QAM	1	0.00	25.36	25.16	25.21	38.45	Pass
		1	7.00	25.24	25.52	25.56	38.45	Pass
		1	14.00	25.35	25.33	25.25	38.45	Pass
		8	0.00	25.36	24.55	24.96	38.45	Pass
		8	4.00	25.52	24.64	25.41	38.45	Pass
		8	7.00	25.63	25.21	25.36	38.45	Pass
		15	0.00	25.23	25.26	25.34	38.45	Pass
Bandwidth	Modulation	RB size	RB offset	26035/701.5	23095/707.5	23155/713.5	Limit	Result
5MHz	QPSK	1	0.00	25.25	25.21	24.12	38.45	Pass
		1	12.00	25.16	25.13	25.06	38.45	Pass
		1	24.00	25.15	25.34	25.35	38.45	Pass
		12	0.00	25.26	24.91	25.03	38.45	Pass
		12	6.00	25.65	25.56	24.24	38.45	Pass
		12	13.00	25.36	24.28	25.61	38.45	Pass
		25	0.00	25.52	24.54	24.36	38.45	Pass
	16QAM	1	0.00	25.53	25.16	25.62	38.45	Pass
		1	12.00	25.52	25.21	24.94	38.45	Pass
		1	24.00	25.06	25.36	25.03	38.45	Pass
		12	0.00	24.41	24.94	24.55	38.45	Pass
		12	6.00	25.23	24.91	24.14	38.45	Pass
		12	13.00	25.52	25.13	25.56	38.45	Pass
		25	0.00	25.26	24.94	24.85	38.45	Pass

ERP Power dBm								
Band	LTE Band 12			Channel/Frequency (MHz)				
Bandwidth	Modulation	RB size	RB offset	23060/714	23095/707.5	23130/711	Limit	Result
10MHz	QPSK	1	0.00	25.21	25.35	24.21	38.45	Pass
		1	24.00	24.32	**25.86**	25.36	38.45	Pass
		1	49.00	25.54	24.41	25.55	38.45	Pass
		25	0.00	25.22	25.36	24.43	38.45	Pass
		25	12.00	25.43	25.33	24.14	38.45	Pass
		25	25.00	25.34	24.44	24.53	38.45	Pass
		50	0.00	25.51	24.31	24.52	38.45	Pass
	16QAM	1	0.00	25.63	25.16	25.61	38.45	Pass
		1	24.00	25.44	25.65	**25.78**	38.45	Pass
		1	49.00	24.52	25.47	24.41	38.45	Pass

ERP Power dBm							Limit	Result
Band	LTE Band 13			Channel/Frequency (MHz)				
Bandwidth	Modulation	RB size	RB offset	23205/779.5	23230/782	23255/784.5		
5MHz	QPSK	1	0.00	25.36	25.14	25.26	38.45	Pass
		1	12.00	25.41	25.16	25.15	38.45	Pass
		1	24.00	25.23	25.14	24.41	38.45	Pass
		12	0.00	25.24	25.14	24.56	38.45	Pass
		12	6.00	25.16	25.32	25.52	38.45	Pass
		12	13.00	24.21	24.33	25.36	38.45	Pass
		25	0.00	24.36	24.14	24.94	38.45	Pass
	16QAM	1	0.00	25.45	25.33	25.25	38.45	Pass
		1	12.00	24.56	25.25	25.16	38.45	Pass
		1	24.00	24.41	24.24	25.11	38.45	Pass
		12	0.00	24.83	24.96	24.92	38.45	Pass
		12	6.00	25.22	25.63	25.52	38.45	Pass
		12	13.00	24.36	25.51	25.16	38.45	Pass
		25	0.00	25.14	25.04	25.04	38.45	Pass
Bandwidth	Modulation	RB size	RB offset		23230/782		Limit	Result
10MHz	QPSK	1	0.00		25.22		38.45	Pass
		1	24.00		**25.98**		38.45	Pass
		1	49.00		25.21		38.45	Pass
		25	0.00		25.63		38.45	Pass
		25	12.00		25.04		38.45	Pass
		25	25.00		24.11		38.45	Pass
		50	0.00		25.05		38.45	Pass
	16QAM	1	0.00		25.02		38.45	Pass
		1	24.00		**25.85**		38.45	Pass
		1	49.00		25.56		38.45	Pass

ERP Power dBm							Limit	Result
Band	LTE Band 17			Channel/Frequency (MHz)				
Bandwidth	Modulation	RB size	RB offset	23755/706.5	23790/710	23825/713.5		
5MHz	QPSK	1	0.00	25.21	25.22	24.25	38.45	Pass
		1	12.00	25.46	25.13	25.06	38.45	Pass
		1	24.00	25.22	25.35	25.35	38.45	Pass
		12	0.00	25.23	24.43	25.14	38.45	Pass
		12	6.00	25.52	25.55	24.83	38.45	Pass
		12	13.00	25.56	24.54	25.55	38.45	Pass
		25	0.00	25.54	24.83	24.83	38.45	Pass
	16QAM	1	0.00	25.11	25.31	25.44	38.45	Pass
		1	12.00	25.56	25.56	24.91	38.45	Pass
		1	24.00	25.23	25.52	25.03	38.45	Pass
		12	0.00	24.85	24.23	24.95	38.45	Pass
		12	6.00	25.26	24.55	24.86	38.45	Pass
		12	13.00	25.44	25.16	25.56	38.45	Pass
		25	0.00	25.14	24.41	24.22	38.45	Pass
Bandwidth	Modulation	RB size	RB offset	23780/700.5	23790/710	23800/711	Limit	Result
10MHz	QPSK	1	0.00	25.14	25.21	24.25	38.45	Pass
		1	24.00	24.53	**25.97**	25.56	38.45	Pass
		1	49.00	25.45	24.83	25.41	38.45	Pass
		25	0.00	25.33	25.04	24.63	38.45	Pass
		25	12.00	25.24	25.51	24.52	38.45	Pass
		25	25.00	25.63	24.46	24.23	38.45	Pass
		50	0.00	25.55	24.54	24.41	38.45	Pass
	16QAM	1	0.00	25.61	25.56	25.53	38.45	Pass
		1	24.00	25.46	25.32	**25.88**	38.45	Pass
		1	49.00	24.44	25.56	24.43	38.45	Pass

EIRP Power dBm							Limit	Result
Band	LTE Band 66			Channel/Frequency (MHz)				
Bandwidth	Modulation	RB size	RB offset	131979/1710.7	132322/1745	132665/1779.3		
1.4MHz	QPSK	1	0.00	26.21	26.11	26.51	30.00	Pass
		1	3.00	26.33	26.23	26.23	30.00	Pass
		1	5.00	26.35	25.65	26.25	30.00	Pass
		3	0.00	26.23	26.36	26.33	30.00	Pass
		3	2.00	26.25	26.05	26.35	30.00	Pass
		3	3.00	26.26	26.04	26.16	30.00	Pass
		6	0.00	26.24	25.51	26.04	30.00	Pass
	16QAM	1	0.00	26.28	26.26	26.14	30.00	Pass
		1	2.00	26.26	26.54	26.26	30.00	Pass
		1	5.00	26.64	26.12	26.15	30.00	Pass
		3	0.00	26.56	26.63	26.23	30.00	Pass
		3	2.00	26.34	26.51	26.14	30.00	Pass
		3	3.00	26.35	26.15	26.06	30.00	Pass
		6	0.00	26.46	26.33	26.23	30.00	Pass
Bandwidth	Modulation	RB size	RB offset	131987/1711.5	132322/1745	132657/1778.5	Limit	Result
3MHz	QPSK	1	0.00	26.54	26.21	26.25	30.00	Pass
		1	7.00	26.11	26.06	26.23	30.00	Pass
		1	14.00	26.23	26.24	26.05	30.00	Pass
		8	0.00	26.15	26.33	25.93	30.00	Pass
		8	4.00	26.26	26.05	26.15	30.00	Pass
		8	7.00	26.24	26.66	26.13	30.00	Pass
		15	0.00	26.54	26.25	26.55	30.00	Pass
	16QAM	1	0.00	26.31	26.61	26.64	30.00	Pass
		1	7.00	26.53	26.23	26.31	30.00	Pass
		1	14.00	26.65	26.55	26.23	30.00	Pass
		8	0.00	26.33	26.26	26.05	30.00	Pass
		8	4.00	26.54	26.25	26.06	30.00	Pass
		8	7.00	26.31	26.43	26.25	30.00	Pass
		15	0.00	26.63	26.41	26.51	30.00	Pass
Bandwidth	Modulation	RB size	RB offset	131997/1712.5	132322/1745	132647/1777.5	Limit	Result
5MHz	QPSK	1	0.00	26.23	25.22	26.21	30.00	Pass
		1	12.00	26.25	25.93	26.13	30.00	Pass
		1	24.00	26.57	26.52	26.75	30.00	Pass
		12	0.00	26.16	26.06	26.23	30.00	Pass
		12	6.00	26.25	26.54	26.05	30.00	Pass
		12	13.00	26.66	26.61	26.16	30.00	Pass
		25	0.00	26.25	26.56	26.04	30.00	Pass
	16QAM	1	0.00	26.14	26.25	26.31	30.00	Pass
		1	12.00	26.46	26.53	26.36	30.00	Pass
		1	24.00	26.25	26.05	26.24	30.00	Pass
		12	0.00	26.26	25.93	26.32	30.00	Pass
		12	6.00	26.34	26.52	26.13	30.00	Pass
		12	13.00	26.14	26.56	26.35	30.00	Pass
		25	0.00	26.53	26.52	26.36	30.00	Pass

EIRP Power dBm								
Band	LTE Band 66			Channel/Frequency (MHz)				
Bandwidth	Modulation	RB size	RB offset	132022/1715	132322/1745	132622/1775	Limit	Result
10MHz	QPSK	1	0.00	26.21	26.25	26.55	30.00	Pass
		1	24.00	26.36	26.56	26.63	30.00	Pass
		1	49.00	26.25	26.34	26.18	30.00	Pass
		25	0.00	26.03	26.86	26.64	30.00	Pass
		25	12.00	26.24	26.54	26.23	30.00	Pass
		25	25.00	26.14	26.62	26.24	30.00	Pass
		50	0.00	26.56	26.23	26.26	30.00	Pass
	16QAM	1	0.00	26.62	26.25	26.34	30.00	Pass
		1	24.00	26.56	26.14	26.46	30.00	Pass
		1	49.00	26.14	26.13	26.34	30.00	Pass
Bandwidth	Modulation	RB size	RB offset	132047/1717.5	132322/1745	132597/1772.5	Limit	Result
15MHz	QPSK	1	0.00	26.21	26.21	26.25	30.00	Pass
		1	37.00	26.46	26.25	26.36	30.00	Pass
		1	74.00	26.15	26.63	26.65	30.00	Pass
		36	0.00	25.66	26.78	26.36	30.00	Pass
		36	18.00	26.57	26.63	26.64	30.00	Pass
		36	38.00	26.34	26.64	26.51	30.00	Pass
		75	0.00	26.25	26.14	26.16	30.00	Pass
	16QAM	1	0.00	26.53	26.36	26.35	30.00	Pass
		1	37.00	26.35	26.52	26.15	30.00	Pass
		1	74.00	26.16	26.43	26.25	30.00	Pass
Bandwidth	Modulation	RB size	RB offset	132072/1720	132322/1745	132572/1770	Limit	Result
20MHz	QPSK	1	0.00	26.21	26.22	26.55	30.00	Pass
		1	49.00	**26.87**	26.46	26.36	30.00	Pass
		1	99.00	26.24	26.54	26.54	30.00	Pass
		50	0.00	26.16	26.55	26.36	30.00	Pass
		50	25.00	26.26	26.43	26.55	30.00	Pass
		50	50.00	26.44	26.21	26.12	30.00	Pass
		100	0.00	26.62	26.33	26.53	30.00	Pass
	16QAM	1	0.00	26.26	26.55	**26.86**	30.00	Pass
		1	49.00	26.04	26.31	26.35	30.00	Pass
		1	99.00	26.28	26.36	26.34	30.00	Pass

5.8. Radiated Out of Band Emissions

5.8.1. Limit

FCC

-§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 + 10log(P) dB.

-§24.238(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.

-§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.

-§27.53(f), For operations in the 746-758 MHz, 775-788 MHz, and 805-806 MHz bands, emissions in the band 1559-1610 MHz shall be limited to -70dB W/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80dB W EIRP for discrete emissions of less than 700Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

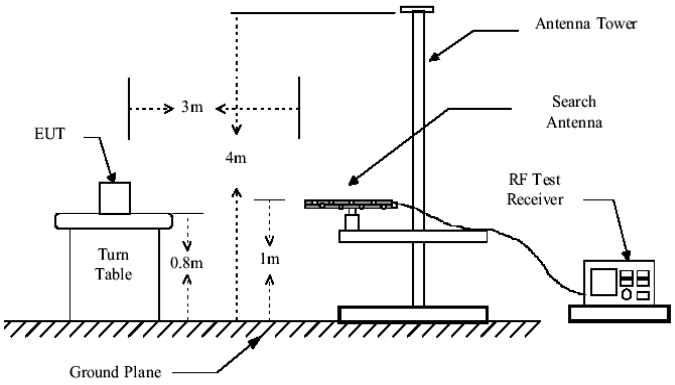
-§27.53(g), the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB.

-§27.53(h)(1), for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 log10 (P) dB.

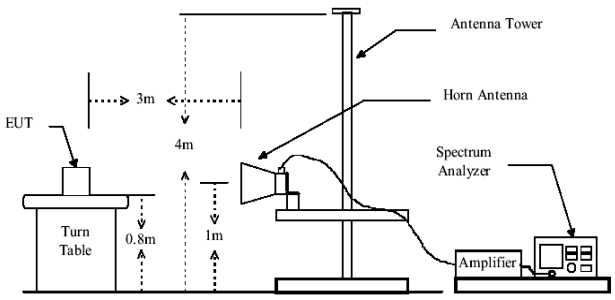
-§27.53(m)(4), for mobile digital stations, the attenuation factor shall be not less than 40 + 10 log10 (P) dBon all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log10 (P) dBon all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log10 (P) dBon 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 log10 (P) dB on all frequencies between 2 490.5 MHz and 2 496 MHz and 55 + 10 log10 (P) dB at or below 2 490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2 495 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.

5.8.2. Test Setup

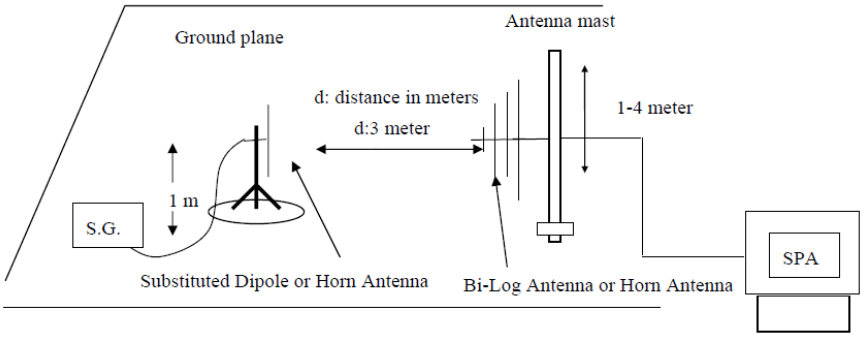
Below 1GHz



Above 1GHz



Substituted method:



5.8.3. Measurement Procedure

The EUT was placed on a non-conductive, The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations. all test in Full-Anechoic Chamber.

The frequency range up to tenth harmonic was investigated for each of three fundamental frequency (low, middle and high channels). Once spurious emission was identified, the power of the emission was determined using the substitution method.

The spurious emissions attenuation was calculated as the difference between radiated power at the fundamental frequency and the spurious emissions frequency.

EIRP (Level)= S.G. output (dBm) + Antenna Gain(dBi) – Cable Loss (dB)

Note: Measurement Uncertainty: ±3.6 dB.

The data show only the worst results, and the other results are very low and not shown in the report.

5.8.4. Test Result

Band	Frequency (MHz)	Spurious Emission					Limit (dBm)	Result
		Polarization	S.G. output (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Level (dBm)		
LTE BAND 2 1.4MHz Lowest	87.67	Vertical	-75.33	3.35	0.38	-72.36	-13	PASS
	3701.40	Vertical	-45.48	7.76	3.75	-41.47		
	5552.10	Vertical	-47.21	9.84	4.94	-42.31		
	7402.80	Vertical	-39.65	10.21	5.32	-34.76		
	9253.50	Vertical	-42.26	11.36	6.02	-36.92		
	11104.20	Vertical	-44.27	14.52	6.68	-36.43		
LTE BAND 2 1.4MHz Middle	88.58	Vertical	-75.25	3.35	0.38	-72.28	-13	PASS
	3760.00	Vertical	-47.13	7.76	3.75	-43.12		
	5640.00	Vertical	-46.11	9.84	4.94	-41.21		
	7520.00	Vertical	-42.35	10.21	5.32	-37.46		
	9400.00	Vertical	-41.17	11.36	6.02	-35.83		
	11280.00	Vertical	-45.36	14.52	6.68	-37.52		
LTE BAND 2 1.4MHz Highest	88.78	Vertical	-75.35	3.35	0.38	-72.38	-13	PASS
	3819.60	Vertical	-46.84	7.79	3.53	-42.58		
	5729.40	Vertical	-41.65	9.88	5.02	-36.79		
	7639.20	Vertical	-37.62	10.25	5.54	-32.91		
	9549.00	Vertical	-44.74	11.38	6.16	-39.52		
	11458.80	Vertical	-46.43	14.56	6.72	-38.59		
LTE BAND 2 3MHz Lowest	87.64	Vertical	-75.22	3.35	0.38	-72.25	-13	PASS
	3700.40	Vertical	-45.36	7.76	3.75	-41.35		
	5550.60	Vertical	-46.41	9.84	4.94	-41.51		
	7400.80	Vertical	-39.63	10.21	5.32	-34.74		
	9251.00	Vertical	-42.17	11.36	6.02	-36.83		
	11101.20	Vertical	-44.26	14.52	6.68	-36.42		
LTE BAND 2 3MHz Middle	88.86	Vertical	-74.54	3.35	0.38	-71.57	-13	PASS
	3760.00	Vertical	-47.36	7.76	3.75	-43.35		
	5640.00	Vertical	-46.21	9.84	4.94	-41.31		
	7520.00	Vertical	-42.66	10.21	5.32	-37.77		
	9400.00	Vertical	-41.41	11.36	6.02	-36.07		
	11280.00	Vertical	-45.26	14.52	6.68	-37.42		
LTE BAND 2 3MHz Highest	88.76	Vertical	-74.21	3.35	0.38	-71.24	-13	PASS
	3819.60	Vertical	-46.63	7.79	3.53	-42.37		
	5729.40	Vertical	-41.34	9.88	5.02	-36.48		
	7639.20	Vertical	-37.58	10.25	5.54	-32.87		
	9549.00	Vertical	-44.63	11.38	6.16	-39.41		
	11458.80	Vertical	-46.24	14.56	6.72	-38.40		

Band	Frequency (MHz)	Spurious Emission					Limit (dBm)	Result
		Polarization	S.G. output (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Level (dBm)		
LTE BAND 2 5MHz Lowest	87.59	Vertical	-74.52	3.35	0.38	-71.55	-13	PASS
	3700.40	Vertical	-45.53	7.76	3.75	-41.52		
	5550.60	Vertical	-46.85	9.84	4.94	-41.95		
	7400.80	Vertical	-39.63	10.21	5.32	-34.74		
	9251.00	Vertical	-42.52	11.36	6.02	-37.18		
	11101.20	Vertical	-44.63	14.52	6.68	-36.79		
LTE BAND 2 5MHz Middle	88.76	Vertical	-74.65	3.35	0.38	-71.68	-13	PASS
	3760.00	Vertical	-47.57	7.76	3.75	-43.56		
	5640.00	Vertical	-46.63	9.84	4.94	-41.73		
	7520.00	Vertical	-42.41	10.21	5.32	-37.52		
	9400.00	Vertical	-41.33	11.36	6.02	-35.99		
	11280.00	Vertical	-45.45	14.52	6.68	-37.61		
LTE BAND 2 5MHz Highest	88.69	Vertical	-74.83	3.35	0.38	-71.86	-13	PASS
	3819.60	Vertical	-46.64	7.79	3.53	-42.38		
	5729.40	Vertical	-41.66	9.88	5.02	-36.80		
	7639.20	Vertical	-37.84	10.25	5.54	-33.13		
	9549.00	Vertical	-44.66	11.38	6.16	-39.44		
	11458.80	Vertical	-46.68	14.56	6.72	-38.84		
LTE BAND 2 10MHz Lowest	87.76	Vertical	-74.21	3.35	0.38	-71.24	-13	PASS
	3700.40	Vertical	-45.6	7.76	3.75	-41.59		
	5550.60	Vertical	-46.41	9.84	4.94	-41.51		
	7400.80	Vertical	-39.46	10.21	5.32	-34.57		
	9251.00	Vertical	-42.55	11.36	6.02	-37.21		
	11101.20	Vertical	-44.54	14.52	6.68	-36.70		
LTE BAND 2 10MHz Middle	88.59	Vertical	-74.37	3.35	0.38	-71.40	-13	PASS
	3760.00	Vertical	-47.26	7.76	3.75	-43.25		
	5640.00	Vertical	-46.21	9.84	4.94	-41.31		
	7520.00	Vertical	-42.36	10.21	5.32	-37.47		
	9400.00	Vertical	-41.24	11.36	6.02	-35.90		
	11280.00	Vertical	-45.52	14.52	6.68	-37.68		
LTE BAND 2 10MHz Highest	88.67	Vertical	-74.23	3.35	0.38	-71.26	-13	PASS
	3819.60	Vertical	-46.17	7.79	3.53	-41.91		
	5729.40	Vertical	-41.63	9.88	5.02	-36.77		
	7639.20	Vertical	-37.26	10.25	5.54	-32.55		
	9549.00	Vertical	-44.14	11.38	6.16	-38.92		
	11458.80	Vertical	-46.66	14.56	6.72	-38.82		

Band	Frequency (MHz)	Spurious Emission					Limit (dBm)	Result
		Polarization	S.G. output (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Level (dBm)		
LTE BAND 2 15MHz Lowest	87.78	Vertical	-74.36	3.35	0.38	-71.39	-13	PASS
	3700.40	Vertical	-45.35	7.76	3.75	-41.34		
	5550.60	Vertical	-46.31	9.84	4.94	-41.41		
	7400.80	Vertical	-39.88	10.21	5.32	-34.99		
	9251.00	Vertical	-42.63	11.36	6.02	-37.29		
	11101.20	Vertical	-44.65	14.52	6.68	-36.81		
LTE BAND 2 15MHz Middle	88.58	Vertical	-74.54	3.35	0.38	-71.57	-13	PASS
	3760.00	Vertical	-46.81	7.76	3.75	-42.80		
	5640.00	Vertical	-46.63	9.84	4.94	-41.73		
	7520.00	Vertical	-42.65	10.21	5.32	-37.76		
	9400.00	Vertical	-41.68	11.36	6.02	-36.34		
	11280.00	Vertical	-45.41	14.52	6.68	-37.57		
LTE BAND 2 15MHz Highest	88.76	Vertical	-74.66	3.35	0.38	-71.69	-13	PASS
	3819.60	Vertical	-46.52	7.79	3.53	-42.26		
	5729.40	Vertical	-41.63	9.88	5.02	-36.77		
	7639.20	Vertical	-37.52	10.25	5.54	-32.81		
	9549.00	Vertical	-44.36	11.38	6.16	-39.14		
	11458.80	Vertical	-46.55	14.56	6.72	-38.71		
LTE BAND 2 20MHz Lowest	87.59	Vertical	-74.44	3.35	0.38	-71.47	-13	PASS
	3700.40	Vertical	-45.36	7.76	3.75	-41.35		
	5550.60	Vertical	-46.35	9.84	4.94	-41.45		
	7400.80	Vertical	-39.34	10.21	5.32	-34.45		
	9251.00	Vertical	-42.32	11.36	6.02	-36.98		
	11101.20	Vertical	-44.57	14.52	6.68	-36.73		
LTE BAND 2 20MHz Middle	88.85	Vertical	-74.36	3.35	0.38	-71.39	-13	PASS
	3760.00	Vertical	-46.64	7.76	3.75	-42.63		
	5640.00	Vertical	-46.85	9.84	4.94	-41.95		
	7520.00	Vertical	-42.66	10.21	5.32	-37.77		
	9400.00	Vertical	-41.41	11.36	6.02	-36.07		
	11280.00	Vertical	-45.23	14.52	6.68	-37.39		
LTE BAND 2 20MHz Highest	88.66	Vertical	-74.65	3.35	0.38	-71.68	-13	PASS
	3819.60	Vertical	-46.43	7.79	3.53	-42.17		
	5729.40	Vertical	-41.55	9.88	5.02	-36.69		
	7639.20	Vertical	-37.58	10.25	5.54	-32.87		
	9549.00	Vertical	-44.64	11.38	6.16	-39.42		
	11458.80	Vertical	-46.63	14.56	6.72	-38.79		

Band	Frequency (MHz)	Spurious Emission					Limit (dBm)	Result
		Polarization	S.G. output (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Level (dBm)		
LTE BAND 4 1.4MHz Lowest	87.78	Vertical	-74.52	3.35	0.38	-71.55	-13	PASS
	3421.40	Vertical	-45.66	7.76	3.75	-41.65		
	5132.10	Vertical	-46.21	9.84	4.94	-41.31		
	6842.80	Vertical	-39.26	10.21	5.32	-34.37		
	8553.50	Vertical	-42.65	11.36	6.02	-37.31		
	10264.20	Vertical	-44.34	14.52	6.68	-36.50		
LTE BAND 4 1.4MHz Middle	88.68	Vertical	-74.26	3.35	0.38	-71.29	-13	PASS
	3465.00	Vertical	-47.22	7.76	3.75	-43.21		
	5197.50	Vertical	-46.63	9.84	4.94	-41.73		
	6930.00	Vertical	-42.85	10.21	5.32	-37.96		
	8662.50	Vertical	-41.21	11.36	6.02	-35.87		
	10395.00	Vertical	-45.63	14.52	6.68	-37.79		
LTE BAND 4 1.4MHz Highest	88.78	Vertical	-74.22	3.35	0.38	-71.25	-13	PASS
	3508.60	Vertical	-46.65	7.79	3.53	-42.39		
	5262.90	Vertical	-41.63	9.88	5.02	-36.77		
	7017.20	Vertical	-37.54	10.25	5.54	-32.83		
	8771.50	Vertical	-44.41	11.38	6.16	-39.19		
	10525.80	Vertical	-46.33	14.56	6.72	-38.49		
LTE BAND 4 3MHz Lowest	87.67	Vertical	-74.54	3.35	0.38	-71.57	-13	PASS
	3423.00	Vertical	-45.68	7.76	3.75	-41.67		
	5134.50	Vertical	-46.23	9.84	4.94	-41.33		
	6846.00	Vertical	-39.65	10.21	5.32	-34.76		
	8557.50	Vertical	-42.54	11.36	6.02	-37.20		
	10269.00	Vertical	-44.36	14.52	6.68	-36.52		
LTE BAND 4 3MHz Middle	88.58	Vertical	-74.25	3.35	0.38	-71.28	-13	PASS
	3508.60	Vertical	-47.36	7.76	3.75	-43.35		
	5262.90	Vertical	-46.61	9.84	4.94	-41.71		
	7017.20	Vertical	-42.67	10.21	5.32	-37.78		
	8771.50	Vertical	-41.56	11.36	6.02	-36.22		
	10525.80	Vertical	-45.25	14.52	6.68	-37.41		
LTE BAND 4 3MHz Highest	88.76	Vertical	-74.66	3.35	0.38	-71.69	-13	PASS
	3507.00	Vertical	-46.25	7.79	3.53	-41.99		
	5260.50	Vertical	-41.13	9.88	5.02	-36.27		
	7014.00	Vertical	-37.64	10.25	5.54	-32.93		
	8767.50	Vertical	-44.27	11.38	6.16	-39.05		
	10521.00	Vertical	-46.63	14.56	6.72	-38.79		

Band	Frequency (MHz)	Spurious Emission					Limit (dBm)	Result
		Polarization	S.G. output (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Level (dBm)		
LTE BAND 4 5MHz Lowest	87.58	Vertical	-74.58	3.35	0.38	-71.61	-13	PASS
	3425.00	Vertical	-45.21	7.76	3.75	-41.20		
	5137.50	Vertical	-46.46	9.84	4.94	-41.56		
	6850.00	Vertical	-39.85	10.21	5.32	-34.96		
	8562.50	Vertical	-42.22	11.36	6.02	-36.88		
	10275.00	Vertical	-44.56	14.52	6.68	-36.72		
LTE BAND 4 5MHz Middle	88.76	Vertical	-74.34	3.35	0.38	-71.37	-13	PASS
	3423.00	Vertical	-47.25	7.76	3.75	-43.24		
	5134.50	Vertical	-46.63	9.84	4.94	-41.73		
	6846.00	Vertical	-42.45	10.21	5.32	-37.56		
	8557.50	Vertical	-41.63	11.36	6.02	-36.29		
	10269.00	Vertical	-45.44	14.52	6.68	-37.60		
LTE BAND 4 5MHz Highest	88.67	Vertical	-74.31	3.35	0.38	-71.34	-13	PASS
	3505.00	Vertical	-46.63	7.79	3.53	-42.37		
	5257.50	Vertical	-41.17	9.88	5.02	-36.31		
	7010.00	Vertical	-37.69	10.25	5.54	-32.98		
	8762.50	Vertical	-44.55	11.38	6.16	-39.33		
	10515.00	Vertical	-46.52	14.56	6.72	-38.68		
LTE BAND 4 10MHz Lowest	87.57	Vertical	-74.36	3.35	0.38	-71.39	-13	PASS
	3430.00	Vertical	-45.74	7.76	3.75	-41.73		
	5145.00	Vertical	-46.81	9.84	4.94	-41.91		
	6860.00	Vertical	-39.26	10.21	5.32	-34.37		
	8575.00	Vertical	-42.58	11.36	6.02	-37.24		
	10290.00	Vertical	-44.14	14.52	6.68	-36.30		
LTE BAND 4 10MHz Middle	88.56	Vertical	-74.52	3.35	0.38	-71.55	-13	PASS
	3505.00	Vertical	-47.23	7.76	3.75	-43.22		
	5257.50	Vertical	-46.54	9.84	4.94	-41.64		
	7010.00	Vertical	-42.56	10.21	5.32	-37.67		
	8762.50	Vertical	-41.44	11.36	6.02	-36.10		
	10515.00	Vertical	-45.52	14.52	6.68	-37.68		
LTE BAND 4 10MHz Highest	88.57	Vertical	-74.53	3.35	0.38	-71.56	-13	PASS
	3500.00	Vertical	-46.85	7.79	3.53	-42.59		
	5250.00	Vertical	-41.36	9.88	5.02	-36.50		
	7000.00	Vertical	-37.34	10.25	5.54	-32.63		
	8750.00	Vertical	-44.85	11.38	6.16	-39.63		
	10500.00	Vertical	-46.53	14.56	6.72	-38.69		

Band	Frequency (MHz)	Spurious Emission					Limit (dBm)	Result
		Polarization	S.G. output (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Level (dBm)		
LTE BAND 4 15MHz Lowest	87.66	Vertical	-74.52	3.35	0.38	-71.55	-13	PASS
	3435.00	Vertical	-45.36	7.76	3.75	-41.35		
	5152.50	Vertical	-46.21	9.84	4.94	-41.31		
	6870.00	Vertical	-39.33	10.21	5.32	-34.44		
	8587.50	Vertical	-42.68	11.36	6.02	-37.34		
	10305.00	Vertical	-44.24	14.52	6.68	-36.40		
LTE BAND 4 15MHz Middle	88.52	Vertical	-74.66	3.35	0.38	-71.69	-13	PASS
	3505.00	Vertical	-46.55	7.76	3.75	-42.54		
	5257.50	Vertical	-46.53	9.84	4.94	-41.63		
	7010.00	Vertical	-42.21	10.21	5.32	-37.32		
	8762.50	Vertical	-41.63	11.36	6.02	-36.29		
	10515.00	Vertical	-45.41	14.52	6.68	-37.57		
LTE BAND 4 15MHz Highest	88.74	Vertical	-74.36	3.35	0.38	-71.39	-13	PASS
	3495.00	Vertical	-46.35	7.79	3.53	-42.09		
	5242.50	Vertical	-41.67	9.88	5.02	-36.81		
	6990.00	Vertical	-37.33	10.25	5.54	-32.62		
	8737.50	Vertical	-44.84	11.38	6.16	-39.62		
	10485.00	Vertical	-46.33	14.56	6.72	-38.49		
LTE BAND 4 20MHz Lowest	87.26	Vertical	-74.64	3.35	0.38	-71.67	-13	PASS
	3440.00	Vertical	-45.46	7.76	3.75	-41.45		
	5160.00	Vertical	-46.24	9.84	4.94	-41.34		
	6880.00	Vertical	-39.33	10.21	5.32	-34.44		
	8600.00	Vertical	-42.41	11.36	6.02	-37.07		
	10320.00	Vertical	-44.63	14.52	6.68	-36.79		
LTE BAND 4 20MHz Middle	88.74	Vertical	-74.84	3.35	0.38	-71.87	-13	PASS
	3505.00	Vertical	-46.37	7.76	3.75	-42.36		
	5257.50	Vertical	-46.36	9.84	4.94	-41.46		
	7010.00	Vertical	-42.52	10.21	5.32	-37.63		
	8762.50	Vertical	-41.63	11.36	6.02	-36.29		
	10515.00	Vertical	-45.35	14.52	6.68	-37.51		
LTE BAND 4 20MHz Highest	88.56	Vertical	-74.34	3.35	0.38	-71.37	-13	PASS
	3490.00	Vertical	-46.66	7.79	3.53	-42.40		
	5235.00	Vertical	-41.54	9.88	5.02	-36.68		
	6980.00	Vertical	-37.85	10.25	5.54	-33.14		
	8725.00	Vertical	-44.33	11.38	6.16	-39.11		
	10470.00	Vertical	-46.58	14.56	6.72	-38.74		

Band	Frequency (MHz)	Spurious Emission					Limit (dBm)	Result
		Polarization	S.G. output (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Level (dBm)		
LTE BAND 5 1.4MHz Lowest	87.75	Vertical	-74.22	3.35	0.38	-71.25	-13	PASS
	3700.40	Vertical	-45.36	7.76	3.75	-41.35		
	5550.60	Vertical	-46.41	9.84	4.94	-41.51		
	7400.80	Vertical	-39.13	10.21	5.32	-34.24		
	9251.00	Vertical	-42.65	11.36	6.02	-37.31		
	11101.20	Vertical	-44.33	14.52	6.68	-36.49		
LTE BAND 5 1.4MHz Middle	88.62	Vertical	-74.64	3.35	0.38	-71.67	-13	PASS
	3760.00	Vertical	-47.38	7.76	3.75	-43.37		
	5640.00	Vertical	-46.21	9.84	4.94	-41.31		
	7520.00	Vertical	-42.26	10.21	5.32	-37.37		
	9400.00	Vertical	-41.14	11.36	6.02	-35.8		
	11280.00	Vertical	-45.36	14.52	6.68	-37.52		
LTE BAND 5 1.4MHz Highest	88.53	Vertical	-74.25	3.35	0.38	-71.28	-13	PASS
	3819.60	Vertical	-46.43	7.79	3.53	-42.17		
	5729.40	Vertical	-41.57	9.88	5.02	-36.71		
	7639.20	Vertical	-37.66	10.25	5.54	-32.95		
	9549.00	Vertical	-44.52	11.38	6.16	-39.3		
	11458.80	Vertical	-46.66	14.56	6.72	-38.82		
LTE BAND 5 3MHz Lowest	87.67	Vertical	-74.59	3.35	0.38	-71.62	-13	PASS
	3700.40	Vertical	-45.11	7.76	3.75	-41.1		
	5550.60	Vertical	-46.56	9.84	4.94	-41.66		
	7400.80	Vertical	-39.54	10.21	5.32	-34.65		
	9251.00	Vertical	-42.33	11.36	6.02	-36.99		
	11101.20	Vertical	-44.45	14.52	6.68	-36.61		
LTE BAND 5 3MHz Middle	88.58	Vertical	-75.26	3.35	0.38	-72.29	-13	PASS
	3760.00	Vertical	-47.27	7.76	3.75	-43.26		
	5640.00	Vertical	-46.26	9.84	4.94	-41.36		
	7520.00	Vertical	-42.65	10.21	5.32	-37.76		
	9400.00	Vertical	-41.66	11.36	6.02	-36.32		
	11280.00	Vertical	-45.25	14.52	6.68	-37.41		
LTE BAND 5 3MHz Highest	88.57	Vertical	-74.53	3.35	0.38	-71.56	-13	PASS
	3819.60	Vertical	-46.64	7.79	3.53	-42.38		
	5729.40	Vertical	-41.21	9.88	5.02	-36.35		
	7639.20	Vertical	-37.36	10.25	5.54	-32.65		
	9549.00	Vertical	-44.54	11.38	6.16	-39.32		
	11458.80	Vertical	-46.89	14.56	6.72	-39.05		

Band	Frequency (MHz)	Spurious Emission					Limit (dBm)	Result
		Polarization	S.G. output (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Level (dBm)		
LTE BAND 5 5MHz Lowest	87.74	Vertical	-74.63	3.35	0.38	-71.66	-13	PASS
	3700.40	Vertical	-45.38	7.76	3.75	-41.37		
	5550.60	Vertical	-46.44	9.84	4.94	-41.54		
	7400.80	Vertical	-39.22	10.21	5.32	-34.33		
	9251.00	Vertical	-42.53	11.36	6.02	-37.19		
	11101.20	Vertical	-44.74	14.52	6.68	-36.9		
LTE BAND 5 5MHz Middle	88.58	Vertical	-74.21	3.35	0.38	-71.24	-13	PASS
	3760.00	Vertical	-46.36	7.76	3.75	-42.35		
	5640.00	Vertical	-46.28	9.84	4.94	-41.38		
	7520.00	Vertical	-42.65	10.21	5.32	-37.76		
	9400.00	Vertical	-41.46	11.36	6.02	-36.12		
	11280.00	Vertical	-45.64	14.52	6.68	-37.8		
LTE BAND 5 5MHz Highest	88.74	Vertical	-74.22	3.35	0.38	-71.25	-13	PASS
	3819.60	Vertical	-46.43	7.79	3.53	-42.17		
	5729.40	Vertical	-41.24	9.88	5.02	-36.38		
	7639.20	Vertical	-37.53	10.25	5.54	-32.82		
	9549.00	Vertical	-44.52	11.38	6.16	-39.3		
	11458.80	Vertical	-46.41	14.56	6.72	-38.57		
LTE BAND 5 10MHz Lowest	87.55	Vertical	-74.53	3.35	0.38	-71.56	-13	PASS
	3700.40	Vertical	-45.22	7.76	3.75	-41.21		
	5550.60	Vertical	-46.56	9.84	4.94	-41.66		
	7400.80	Vertical	-39.21	10.21	5.32	-34.32		
	9251.00	Vertical	-42.63	11.36	6.02	-37.29		
	11101.20	Vertical	-44.35	14.52	6.68	-36.51		
LTE BAND 5 10MHz Middle	88.62	Vertical	-74.33	3.35	0.38	-71.36	-13	PASS
	3760.00	Vertical	-46.64	7.76	3.75	-42.63		
	5640.00	Vertical	-46.51	9.84	4.94	-41.61		
	7520.00	Vertical	-42.32	10.21	5.32	-37.43		
	9400.00	Vertical	-41.28	11.36	6.02	-35.94		
	11280.00	Vertical	-45.63	14.52	6.68	-37.79		
LTE BAND 5 10MHz Highest	88.57	Vertical	-74.64	3.35	0.38	-71.67	-13	PASS
	3819.60	Vertical	-46.25	7.79	3.53	-41.99		
	5729.40	Vertical	-41.53	9.88	5.02	-36.67		
	7639.20	Vertical	-37.55	10.25	5.54	-32.84		
	9549.00	Vertical	-44.63	11.38	6.16	-39.41		
	11458.80	Vertical	-46.24	14.56	6.72	-38.4		

Band	Frequency (MHz)	Spurious Emission					Limit (dBm)	Result
		Polarization	S.G. output (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Level (dBm)		
LTE BAND 12 1.4MHz Lowest	88.62	Vertical	-74.36	3.35	0.38	-71.39	-13	PASS
	1399.40	Vertical	-45.64	7.76	3.75	-41.63		
	2099.10	Vertical	-46.63	9.84	4.94	-41.73		
	2798.80	Vertical	-39.32	10.21	5.32	-34.43		
	3498.50	Vertical	-42.24	11.36	6.02	-36.90		
	4198.20	Vertical	-43.33	14.52	6.68	-35.49		
LTE BAND 12 1.4MHz Middle	89.58	Vertical	-74.55	3.35	0.38	-71.58	-13	PASS
	1415.00	Vertical	-46.86	7.76	3.75	-42.85		
	2122.50	Vertical	-46.44	9.84	4.94	-41.54		
	2830.00	Vertical	-42.21	10.21	5.32	-37.32		
	3537.50	Vertical	-41.23	11.36	6.02	-35.89		
	4245.00	Vertical	-45.55	14.52	6.68	-37.71		
LTE BAND 12 1.4MHz Highest	88.68	Vertical	-74.33	3.35	0.38	-71.36	-13	PASS
	1430.60	Vertical	-46.45	7.79	3.53	-42.19		
	2145.90	Vertical	-40.53	9.88	5.02	-35.67		
	2861.20	Vertical	-37.25	10.25	5.54	-32.54		
	3576.50	Vertical	-43.93	11.38	6.16	-38.71		
	4291.80	Vertical	-46.55	14.56	6.72	-38.71		
LTE BAND 12 3MHz Lowest	87.57	Vertical	-73.63	3.35	0.38	-70.66	-13	PASS
	1401.00	Vertical	-44.21	7.76	3.75	-40.20		
	2101.50	Vertical	-46.36	9.84	4.94	-41.46		
	2802.00	Vertical	-38.41	10.21	5.32	-33.52		
	3502.50	Vertical	-42.33	11.36	6.02	-36.99		
	4203.00	Vertical	-43.52	14.52	6.68	-35.68		
LTE BAND12 3MHz Middle	88.62	Vertical	-74.56	3.35	0.38	-71.59	-13	PASS
	1415.00	Vertical	-46.52	7.76	3.75	-42.51		
	2122.50	Vertical	-46.33	9.84	4.94	-41.43		
	2830.00	Vertical	-42.11	10.21	5.32	-37.22		
	3537.50	Vertical	-41.53	11.36	6.02	-36.19		
	4245.00	Vertical	-45.87	14.52	6.68	-38.03		
LTE BAND 12 3MHz Highest	88.34	Vertical	-74.21	3.35	0.38	-71.24	-13	PASS
	1429.00	Vertical	-46.63	7.79	3.53	-42.37		
	2143.50	Vertical	-40.88	9.88	5.02	-36.02		
	2858.00	Vertical	-37.84	10.25	5.54	-33.13		
	3572.50	Vertical	-44.26	11.38	6.16	-39.04		
	4287.00	Vertical	-46.85	14.56	6.72	-39.01		

Band	Frequency (MHz)	Spurious Emission					Limit (dBm)	Result
		Polarization	S.G. output (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Level (dBm)		
LTE BAND 12 5MHz Lowest	87.52	Vertical	-74.26	3.35	0.38	-71.29	-13	PASS
	1403.00	Vertical	-45.54	7.76	3.75	-41.53		
	2104.50	Vertical	-46.12	9.84	4.94	-41.22		
	2806.00	Vertical	-39.03	10.21	5.32	-34.14		
	3507.50	Vertical	-42.54	11.36	6.02	-37.20		
	4209.00	Vertical	-43.57	14.52	6.68	-35.73		
LTE BAND 12 5MHz Middle	88.26	Vertical	-74.46	3.35	0.38	-71.49	-13	PASS
	1415.00	Vertical	-46.32	7.76	3.75	-42.31		
	2122.50	Vertical	-46.36	9.84	4.94	-41.46		
	2830.00	Vertical	-41.52	10.21	5.32	-36.63		
	3537.50	Vertical	-41.23	11.36	6.02	-35.89		
	4245.00	Vertical	-45.85	14.52	6.68	-38.01		
LTE BAND 12 5MHz Highest	88.56	Vertical	-74.43	3.35	0.38	-71.46	-13	PASS
	1427.00	Vertical	-46.64	7.79	3.53	-42.38		
	2140.50	Vertical	-40.88	9.88	5.02	-36.02		
	2854.00	Vertical	-37.56	10.25	5.54	-32.85		
	3567.50	Vertical	-43.21	11.38	6.16	-37.99		
	4281.00	Vertical	-46.43	14.56	6.72	-38.59		
LTE BAND 12 10MHz Lowest	87.67	Vertical	-74.21	3.35	0.38	-71.24	-13	PASS
	1428.00	Vertical	-45.36	7.76	3.75	-41.35		
	2142.00	Vertical	-46.54	9.84	4.94	-41.64		
	2856.00	Vertical	-39.22	10.21	5.32	-34.33		
	3570.00	Vertical	-42.83	11.36	6.02	-37.49		
	4284.00	Vertical	-43.44	14.52	6.68	-35.60		
LTE BAND 12 10MHz Middle	88.76	Vertical	-74.28	3.35	0.38	-71.31	-13	PASS
	1415.00	Vertical	-46.63	7.76	3.75	-42.62		
	2122.50	Vertical	-46.54	9.84	4.94	-41.64		
	2830.00	Vertical	-42.25	10.21	5.32	-37.36		
	3537.50	Vertical	-41.36	11.36	6.02	-36.02		
	4245.00	Vertical	-45.24	14.52	6.68	-37.40		
LTE BAND 12 10MHz Highest	88.58	Vertical	-74.38	3.35	0.38	-71.41	-13	PASS
	1422.00	Vertical	-46.25	7.79	3.53	-41.99		
	2133.00	Vertical	-40.33	9.88	5.02	-35.47		
	2844.00	Vertical	-37.41	10.25	5.54	-32.70		
	3555.00	Vertical	-43.46	11.38	6.16	-38.24		
	4266.00	Vertical	-46.52	14.56	6.72	-38.68		

Band	Frequency (MHz)	Spurious Emission					Limit (dBm)	Result
		Polarization	S.G. output (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Level (dBm)		
LTE BAND 13 5MHz Lowest	87.76	Vertical	-74.33	3.35	0.38	-71.36	-13	PASS
	1600.32	Vertical	-45.57	7.76	3.75	-41.56	-40	
	2119.50	Vertical	-46.55	9.84	4.94	-41.65	-13	
	2826.00	Vertical	-39.25	10.21	5.32	-34.36		
	3532.50	Vertical	-42.26	11.36	6.02	-36.92		
	4239.00	Vertical	-44.88	14.52	6.68	-37.04		
LTE BAND 13 5MHz Middle	88.26	Vertical	-74.43	3.35	0.38	-71.46	-13	PASS
	1600.65	Vertical	-46.55	7.76	3.75	-42.54	-40	
	2130.00	Vertical	-46.16	9.84	4.94	-41.26	-13	
	2840.00	Vertical	-42.85	10.21	5.32	-37.96		
	3550.00	Vertical	-41.53	11.36	6.02	-36.19		
	4260.00	Vertical	-45.44	14.52	6.68	-37.6		
LTE BAND 13 5MHz Highest	88.67	Vertical	-74.46	3.35	0.38	-71.49	-13	PASS
	1601.63	Vertical	-46.58	7.79	3.53	-42.32	-40	
	2140.50	Vertical	-41.62	9.88	5.02	-36.76	-13	
	2854.00	Vertical	-37.24	10.25	5.54	-32.53		
	3567.50	Vertical	-44.01	11.38	6.16	-38.79		
	4281.00	Vertical	-46.63	14.56	6.72	-38.79		
LTE BAND 13 10MHz Middle	88.16	Vertical	-74.85	3.35	0.38	-71.88	-13	PASS
	1602.65	Vertical	-46.63	7.76	3.75	-42.62	-40	
	2130.00	Vertical	-46.44	9.84	4.94	-41.54	-13	
	2840.00	Vertical	-42.54	10.21	5.32	-37.65		
	3550.00	Vertical	-41.56	11.36	6.02	-36.22		
	4260.00	Vertical	-45.22	14.52	6.68	-37.38		

Band	Frequency (MHz)	Spurious Emission					Limit (dBm)	Result
		Polarization	S.G. output (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Level (dBm)		
LTE BAND 17 5MHz Lowest	87.52	Vertical	-74.36	3.35	0.38	-71.39	-13	PASS
	1403.00	Vertical	-45.41	7.76	3.75	-41.4		
	2104.50	Vertical	-46.63	9.84	4.94	-41.73		
	2806.00	Vertical	-39.27	10.21	5.32	-34.38		
	3507.50	Vertical	-42.25	11.36	6.02	-36.91		
	4209.00	Vertical	-44.13	14.52	6.68	-36.29		
LTE BAND 17 5MHz Middle	88.26	Vertical	-74.36	3.35	0.38	-71.39	-13	PASS
	1415.00	Vertical	-46.52	7.76	3.75	-42.51		
	2122.50	Vertical	-46.32	9.84	4.94	-41.42		
	2830.00	Vertical	-42.28	10.21	5.32	-37.39		
	3537.50	Vertical	-41.33	11.36	6.02	-35.99		
	4245.00	Vertical	-45.45	14.52	6.68	-37.61		
LTE BAND 17 5MHz Highest	88.56	Vertical	-74.24	3.35	0.38	-71.27	-13	PASS
	1427.00	Vertical	-46.63	7.79	3.53	-42.37		
	2140.50	Vertical	-41.44	9.88	5.02	-36.58		
	2854.00	Vertical	-37.68	10.25	5.54	-32.97		
	3567.50	Vertical	-44.46	11.38	6.16	-39.24		
	4281.00	Vertical	-46.52	14.56	6.72	-38.68		
LTE BAND 17 10MHz Lowest	87.67	Vertical	-73.23	3.35	0.38	-70.26	-13	PASS
	1428.00	Vertical	-45.54	7.76	3.75	-41.53		
	2142.00	Vertical	-46.36	9.84	4.94	-41.46		
	2856.00	Vertical	-38.68	10.21	5.32	-33.79		
	3570.00	Vertical	-42.44	11.36	6.02	-37.1		
	4284.00	Vertical	-43.15	14.52	6.68	-35.31		
LTE BAND 17 10MHz Middle	88.76	Vertical	-74.53	3.35	0.38	-71.56	-13	PASS
	1415.00	Vertical	-46.22	7.76	3.75	-42.21		
	2122.50	Vertical	-46.26	9.84	4.94	-41.36		
	2830.00	Vertical	-42.34	10.21	5.32	-37.45		
	3537.50	Vertical	-41.28	11.36	6.02	-35.94		
	4245.00	Vertical	-45.63	14.52	6.68	-37.79		
LTE BAND 17 10MHz Highest	88.58	Vertical	-74.25	3.35	0.38	-71.28	-13	PASS
	1422.00	Vertical	-46.43	7.79	3.53	-42.17		
	2133.00	Vertical	-41.28	9.88	5.02	-36.42		
	2844.00	Vertical	-37.26	10.25	5.54	-32.55		
	3555.00	Vertical	-44.14	11.38	6.16	-38.92		
	4266.00	Vertical	-46.47	14.56	6.72	-38.63		

Band	Frequency (MHz)	Spurious Emission					Limit (dBm)	Result
		Polarization	S.G. output (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Level (dBm)		
LTE BAND 66 1.4MHz Lowest	87.76	Vertical	-75.35	3.35	0.38	-72.38	-13	PASS
	3421.40	Vertical	-45.23	7.76	3.75	-41.22		
	5132.10	Vertical	-47.63	9.84	4.94	-42.73		
	6842.80	Vertical	-39.64	10.21	5.32	-34.75		
	8553.50	Vertical	-42.27	11.36	6.02	-36.93		
	10264.20	Vertical	-44.26	14.52	6.68	-36.42		
LTE BAND 66 1.4MHz Middle	88.85	Vertical	-75.21	3.35	0.38	-72.24	-13	PASS
	3490.00	Vertical	-47.16	7.76	3.75	-43.15		
	5235.00	Vertical	-46.15	9.84	4.94	-41.25		
	6980.00	Vertical	-42.37	10.21	5.32	-37.48		
	8725.00	Vertical	-41.15	11.36	6.02	-35.81		
	10470.00	Vertical	-45.33	14.52	6.68	-37.49		
LTE BAND 66 1.4MHz Highest	88.76	Vertical	-75.34	3.35	0.38	-72.37	-13	PASS
	3558.60	Vertical	-46.21	7.79	3.53	-41.95		
	5337.90	Vertical	-41.63	9.88	5.02	-36.77		
	7117.20	Vertical	-37.85	10.25	5.54	-33.14		
	8896.50	Vertical	-44.63	11.38	6.16	-39.41		
	10675.80	Vertical	-46.45	14.56	6.72	-38.61		
LTE BAND 66 3MHz Lowest	87.58	Vertical	-75.28	3.35	0.38	-72.31	-13	PASS
	3423.00	Vertical	-45.33	7.76	3.75	-41.32		
	5134.50	Vertical	-46.45	9.84	4.94	-41.55		
	6846.00	Vertical	-39.64	10.21	5.32	-34.75		
	8557.50	Vertical	-42.18	11.36	6.02	-36.84		
	10269.00	Vertical	-44.23	14.52	6.68	-36.39		
LTE BAND 66 3MHz Middle	88.67	Vertical	-74.55	3.35	0.38	-71.58	-13	PASS
	3490.00	Vertical	-47.21	7.76	3.75	-43.20		
	5235.00	Vertical	-46.26	9.84	4.94	-41.36		
	6980.00	Vertical	-42.68	10.21	5.32	-37.79		
	8725.00	Vertical	-41.45	11.36	6.02	-36.11		
	10470.00	Vertical	-45.36	14.52	6.68	-37.52		
LTE BAND 66 3MHz Highest	88.67	Vertical	-74.25	3.35	0.38	-71.28	-13	PASS
	3557.00	Vertical	-46.67	7.79	3.53	-42.41		
	5335.50	Vertical	-41.63	9.88	5.02	-36.77		
	7114.00	Vertical	-37.21	10.25	5.54	-32.50		
	8892.50	Vertical	-44.66	11.38	6.16	-39.44		
	10671.00	Vertical	-46.28	14.56	6.72	-38.44		

Band	Frequency (MHz)	Spurious Emission					Limit (dBm)	Result
		Polarization	S.G. output (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Level (dBm)		
LTE BAND 66 5MHz Lowest	87.94	Vertical	-74.41	3.35	0.38	-71.44	-13	PASS
	3425.00	Vertical	-45.56	7.76	3.75	-41.55		
	5137.50	Vertical	-46.84	9.84	4.94	-41.94		
	6850.00	Vertical	-39.21	10.21	5.32	-34.32		
	8562.50	Vertical	-42.56	11.36	6.02	-37.22		
	10275.00	Vertical	-44.88	14.52	6.68	-37.04		
LTE BAND 66 5MHz Middle	88.28	Vertical	-74.41	3.35	0.38	-71.44	-13	PASS
	3490.00	Vertical	-47.56	7.76	3.75	-43.55		
	5235.00	Vertical	-46.25	9.84	4.94	-41.35		
	6980.00	Vertical	-42.46	10.21	5.32	-37.57		
	8725.00	Vertical	-41.38	11.36	6.02	-36.04		
	10470.00	Vertical	-45.36	14.52	6.68	-37.52		
LTE BAND 66 5MHz Highest	88.86	Vertical	-74.41	3.35	0.38	-71.44	-13	PASS
	3555.00	Vertical	-46.63	7.79	3.53	-42.37		
	5332.50	Vertical	-41.74	9.88	5.02	-36.88		
	7110.00	Vertical	-37.21	10.25	5.54	-32.50		
	8887.50	Vertical	-44.63	11.38	6.16	-39.41		
	10665.00	Vertical	-46.67	14.56	6.72	-38.83		
LTE BAND 66 10MHz Lowest	87.68	Vertical	-74.26	3.35	0.38	-71.29	-13	PASS
	3430.00	Vertical	-45.52	7.76	3.75	-41.51		
	5145.00	Vertical	-46.46	9.84	4.94	-41.56		
	6860.00	Vertical	-39.41	10.21	5.32	-34.52		
	8575.00	Vertical	-42.36	11.36	6.02	-37.02		
	10290.00	Vertical	-44.58	14.52	6.68	-36.74		
LTE BAND 66 10MHz Middle	88.76	Vertical	-74.36	3.35	0.38	-71.39	-13	PASS
	3490.00	Vertical	-47.27	7.76	3.75	-43.26		
	5235.00	Vertical	-46.26	9.84	4.94	-41.36		
	6980.00	Vertical	-42.21	10.21	5.32	-37.32		
	8725.00	Vertical	-41.26	11.36	6.02	-35.92		
	10470.00	Vertical	-45.58	14.52	6.68	-37.74		
LTE BAND 66 10MHz Highest	88.58	Vertical	-74.63	3.35	0.38	-71.66	-13	PASS
	3550.00	Vertical	-46.15	7.79	3.53	-41.89		
	5325.00	Vertical	-41.35	9.88	5.02	-36.49		
	7100.00	Vertical	-37.22	10.25	5.54	-32.51		
	8875.00	Vertical	-44.16	11.38	6.16	-38.94		
	10650.00	Vertical	-46.67	14.56	6.72	-38.83		

Band	Frequency (MHz)	Spurious Emission					Limit (dBm)	Result
		Polarization	S.G. output (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Level (dBm)		
LTE BAND 66 20MHz Lowest	87.94	Vertical	-74.14	3.35	0.38	-71.17	-13	PASS
	3440.00	Vertical	-45.33	7.76	3.75	-41.32		
	5160.00	Vertical	-46.38	9.84	4.94	-41.48		
	6880.00	Vertical	-39.25	10.21	5.32	-34.36		
	8600.00	Vertical	-42.66	11.36	6.02	-37.32		
	10320.00	Vertical	-44.64	14.52	6.68	-36.80		
LTE BAND 66 20MHz Middle	88.85	Vertical	-74.51	3.35	0.38	-71.54	-13	PASS
	3490.00	Vertical	-46.64	7.76	3.75	-42.63		
	5235.00	Vertical	-46.68	9.84	4.94	-41.78		
	6980.00	Vertical	-42.63	10.21	5.32	-37.74		
	8725.00	Vertical	-41.21	11.36	6.02	-35.87		
	10470.00	Vertical	-45.46	14.52	6.68	-37.62		
LTE BAND 66 20MHz Highest	87.68	Vertical	-74.21	3.35	0.38	-71.24	-13	PASS
	3540.00	Vertical	-46.56	7.79	3.53	-42.30		
	5310.00	Vertical	-41.67	9.88	5.02	-36.81		
	7080.00	Vertical	-37.55	10.25	5.54	-32.84		
	8850.00	Vertical	-44.33	11.38	6.16	-39.11		
	10620.00	Vertical	-46.54	14.56	6.72	-38.70		

6. PHOTOGRAPHS OF TEST SET-UP

Please see setup photo.

7. PHOTOGRAPHS OF THE EUT

Please see external photo and internal photo.

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