



FCC Test Report

FCC ID: 2BLBB-B25

Applicant: Shenzhen Furuimi Intelligent Technology Co., Ltd
Address: 5th Floor, Building 1, Hongzhu Yongqi Science and Technology Park, Zhujiao, Jiuwei Community, Hangcheng Street, Bao'an District, Shenzhen
Manufacturer: Shenzhen Furuimi Intelligent Technology Co., Ltd
Address: 5th Floor, Building 1, Hongzhu Yongqi Science and Technology Park, Zhujiao, Jiuwei Community, Hangcheng Street, Bao'an District, Shenzhen
EUT: Phone watch
Trade Mark: N/A
Model Number: B25
B1, B2, B3, B6, B7, B10, B15, B18, B22, B23, B29, B31, B33
Date of Receipt: Aug. 22, 2024
Test Date: Aug. 22, 2024 - Sep. 02, 2024
Date of Report: Sep. 02, 2024
Prepared By: Shenzhen DL Testing Technology Co., Ltd.
Address: 101-201, Building C, Shuanghuan, No.8, Baoqing Road, Baolong Industrial Zone, Baolong Street, Longgang District, Shenzhen, Guangdong, China
Applicable Standards: FCC CFR Title 47 Part22 Subpart H
FCC CFR Title 47 Part27
ANSI/ TIA/ EIA-603-E-2016
FCC KDB 971168 D01 Power Meas. License Digital Systems v03v01
ANSI C63.26:2015
Test Result: Pass
Report Number: DL-240716041ER

Prepared (Test Engineer): Alisa Song

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	Test Requirement	Result
Conducted RF Output Power	2.1046	PASS
Peak to Average Ratio	2.1055,22.355,27.54	PASS
99% & -26 dB Occupied Bandwidth	2.1049, 22.917	PASS
Frequency Stability	2.1055, 22.355 27.54	PASS
Conducted Out of Band Emissions	2.1051,2.1057 22.917, 27.53(h) /27.53(m)	PASS
Band Edge	2.1051,2.1057 22.917, 27.53(h) /27.53(m)	PASS
Transmitter Radiated Power (EIPR/ERP)	22.913, 27.50(d)(4)/27.50(h)(2)	PASS
Radiated Out of Band Emissions	2.1053,2.1057 22.917, 27.53(h) /27.53(m)	PASS



2. GENERAL PRODUCT INFORMATION

2.1. Description of Device (EUT)

Product Name:	Phone watch
Trademark	N/A
Model No.:	B25 B1, B2, B3, B6, B7, B10, B15, B18, B22, B23, B29, B31, B33
Test Model:	B25
Model Difference	The product's different for model number and appearance color.
Operation Frequency:	LTE Band 5: Tx: 824.00 - 849.00MHz; Rx: 869.00 - 894.00MHz LTE Band 7: Tx: 2500.00 -2570.00MHz; Rx:2620.00 - 2690.00MHz
Modulation technology:	LTE Mode with QPSK,16QAM
Antenna Type:	Internal Antenna
Antenna gain:	LTE Band 5: -1.84dBi LTE Band 7: 0.18dBi
Power supply:	DC 5V from charger DC 3.85V from battery
LTE Category	4
Hardware Version	1.0
Software Version	1.0

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 5	Bandwidth:(MHz)1.4/3/5/10MHz Modulation: QPSK/16QAM RB: 1/50/100%	Bandwidth:(MHz)1.4/3/5/10/15/20MHz Modulation: QPSK/16QAM RB: 1/50/100%
LTE Band7	Bandwidth:(MHz) 5/10/15/20MHz Modulation: QPSK/16QAM RB: 1/50/100%	Bandwidth:(MHz) 5/10/15/20MHz Modulation: QPSK/16QAM RB: 1/50/100%

Note: RB Settings for Conducted RF Output Power are: 1/50/100%, Other test items only reflect the worst-case results.

Test Channel(MHz)			
Band	Low	Middle	High
LTE Band 5	824.7	836.5	848.3
LTE Band 7	2502.5	2535	2567.5

Note1: for LTE mode, if the bandwidth is different, the test frequency is changed.

2: we pretest all voltage, only the DC 3.85V 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.

101-201, Building C, Shuanghuan, No.8, Baoqing Road, Baolong

Site Location : Industrial Zone, Baolong Street, Longgang District, Shenzhen,
Guangdong, 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 $y \pm U$, where expanded 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	$\pm 1.38\text{dB}$
2	RF power,conducted	$\pm 0.16\text{dB}$
3	Spurious emissions,conducted	$\pm 0.21\text{dB}$
4	All emissions,radiated(<1G)	$\pm 4.68\text{dB}$
5	All emissions,radiated(>1G)	$\pm 4.89\text{dB}$
6	Temperature	$\pm 0.5^\circ\text{C}$
7	Humidity	$\pm 2\%$
8	99% & -26 dB Occupied Bandwidth	$\pm 0.21\text{MHz}$
9	Peak to Average Ratio	$\pm 0.59\text{dB}$



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. 06, 2023	Nov. 05, 2026
EMI Receiver	R&S	ESR	101421	Nov. 05, 2023	Nov. 04, 2024
LISN	R&S	ENV216	102417	Nov. 05, 2023	Nov. 04, 2024
843 Cable 1#	ChengYu	CE Cable	001	Nov. 05, 2023	Nov. 04, 2024
843 Cable 1#	FUJIKURA	843C1#	001	Nov. 05, 2023	Nov. 04, 2024

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. 05, 2023	Nov. 04, 2024
Test Receiver (9kHz-7GHz)	R&S	ESRP7	101393	Nov. 05, 2023	Nov. 04, 2024
Bilog Antenna (30MHz-1GHz)	R&S	VULB9162	00306	Nov. 05, 2023	Nov. 04, 2024
Horn Antenna (1GHz-18GHz)	Schwarzbeck	BBHA9120D	02139	Nov. 05, 2023	Nov. 04, 2024
Horn Antenna (18GHz-40GHz)	A.H. Systems	SAS-574	588	Nov. 05, 2023	Nov. 04, 2024
Bilog Antenna (30MHz-1GHz)	R&S	VULB9162	00308	Nov. 05, 2023	Nov. 04, 2024
Horn Antenna (1GHz-18GHz)	Schwarzbeck	BBHA9120D	02135	Nov. 05, 2023	Nov. 04, 2024
Horn Antenna (18GHz-40GHz)	A.H. Systems	SAS-574	587	Nov. 05, 2023	Nov. 04, 2024
Amplifier (9KHz-6GHz)	Schwarzbeck	BBV9743B	00153	Nov. 05, 2023	Nov. 04, 2024
Amplifier (1GHz-18GHz)	EMEC	EM01G8GA	00270	Nov. 05, 2023	Nov. 04, 2024
Amplifier(18GHz-40GHz)	Quanjuda	DLE-161	97	Nov. 05, 2023	Nov. 04, 2024
Loop Antenna(9KHz-30MHz)	Schwarzbeck	FMZB1519B	00014	Nov. 05, 2023	Nov. 04, 2024
RF cables1 (9kHz-1GHz)	ChengYu	966	004	Nov. 05, 2023	Nov. 04, 2024
RF cables2 (1GHz-40GHz)	ChengYu	966	003	Nov. 05, 2023	Nov. 04, 2024
Antenna connector	Florida RF Labs	N/A	RF 01#	Nov. 05, 2023	Nov. 04, 2024
Power probe	KEYSIGHT	U2021XA	MY55210018	Nov. 05, 2023	Nov. 04, 2024
Signal Analyzer	Agilent	N9020A	MY55370280	Nov. 05, 2023	Nov. 04, 2024
Test Receiver	R&S	ESU 40	100376	Nov. 05, 2023	Nov. 04, 2024
D.C. Power Supply	LongWei	PS-305D	010964729	Nov. 05, 2023	Nov. 04, 2024
Signal Amplifier	DAZE	ZN3380B	11235	Nov. 05, 2023	Nov. 04, 2024
High Pass filter	KANGMAI	WHKX1.0/1.5G-10SS	40	Nov. 05, 2023	Nov. 04, 2024
Filter	COM-MW	ZBSF-C836.5-25-X	BCTC042	Nov. 05, 2023	Nov. 04, 2024
Filter	COM-MW	ZBSF-C1747.5-75-X2	BCTC045	Nov. 05, 2023	Nov. 04, 2024
Filter	COM-MW	ZBSF-C1880-60-X2	BCTC047	Nov. 05, 2023	Nov. 04, 2024
Splitter	Agilent	11435B	1125162	Nov. 05, 2023	Nov. 04, 2024
RF CONDUCTED TEST					
System Simulator	Agilent	E5515C	GB43130252	Nov. 05, 2023	Nov. 04, 2024



Spectrum Analyzer	Agilent	N9020A	MY45108040	Nov. 05, 2023	Nov. 04, 2024
DC Power Supply	LongWei	PS-305D	010965682	Nov. 05, 2023	Nov. 04, 2024
Constant temperature and humidity box	GF	GTH-800-40-2P	MAA9906-012	Nov. 05, 2023	Nov. 04, 2024
Universal radio communication tester	R&S	CMW500	115295	Nov. 05, 2023	Nov. 04, 2024

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



4.3. Test Environment:

Ambient conditions in the test laboratory:

Items	Actual
Temperature (°C)	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 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.

5.1.3. Test Result

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

Pass, the table and plot please see annex.

The conducted power tables are as follows:



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	23.12	22.99	23.03
		1	2	23.28	23.14	23.17
		1	5	23.12	22.98	23.01
		3	0	23.16	23.11	23.14
		3	2	23.19	23.14	23.12
		3	3	23.17	23.12	23.11
		6	0	22.17	22.06	22.06
	16QAM	1	0	22.04	22.05	22.29
		1	2	22.21	22.20	22.43
		1	5	22.06	22.03	22.31
		3	0	22.26	22.18	22.25
		3	2	22.25	22.18	22.23
		3	3	22.25	22.14	22.24
		6	0	21.30	21.33	21.22
Bandwidth	Modulation	RB size	RB offset	20415/825.5	20525/836.5	20635/847.5
3MHz	QPSK	1	0	23.14	23.12	23.07
		1	7	23.35	23.31	23.30
		1	14	23.17	22.99	23.07
		8	0	22.16	22.06	22.08
		8	4	22.17	22.08	22.14
		8	7	22.14	22.05	22.06
		15	0	22.13	22.08	22.08
	16QAM	1	0	22.49	22.29	22.16
		1	7	22.69	22.57	22.43
		1	14	22.41	22.31	22.11
		8	0	21.13	21.22	21.21
		8	4	21.19	21.23	21.24
		8	7	21.15	21.21	21.23
		15	0	21.22	21.06	21.07



Average Conducted Power						
Band	LTE Band 5			Channel/Frequency (MHz)		
Bandwidth	Modulation	RB size	RB offset	20425/826.5	20525/836.5	20625/846.5
5MHz	QPSK	1	0	23.11	23.01	22.99
		1	13	23.48	23.35	23.37
		1	24	23.03	22.95	22.95
		12	0	22.10	22.10	22.12
		12	6	22.20	22.12	22.14
		12	13	22.15	22.07	22.09
		25	0	22.14	22.08	22.07
	16QAM	1	0	22.23	22.35	22.20
		1	13	22.49	22.73	22.45
		1	24	22.15	22.30	22.15
		12	0	21.22	21.15	21.25
		12	6	21.27	21.20	21.30
		12	13	21.26	21.07	21.25
		25	0	21.21	21.21	21.18
Bandwidth	Modulation	RB size	RB offset	20450/829	20525/836.5	20600/844
10MHz	QPSK	1	0	23.02	23.08	23.12
		1	25	23.14	23.14	23.19
		1	49	23.03	23.07	23.11
		25	0	22.10	22.19	22.10
		25	13	22.08	22.12	22.09
		25	25	22.08	22.10	22.06
		50	0	22.05	22.13	22.09
	16QAM	1	0	22.36	22.14	22.39
		1	25	22.37	22.26	22.45
		1	49	22.23	22.12	22.31
		25	0	21.14	21.24	21.15
		25	13	21.23	21.16	21.18
		25	25	21.17	21.19	21.15
		50	0	21.15	21.23	21.18

Note: Measurement Uncertainty: ±2.6 dB.



Average Conducted Power(dBm)						
Band	LTE Band 7			Channel/Frequency (MHz)		
Bandwidth	Modulation	RB size	RB offset	20775/2502.5	21100/2535.0	21425/2567.5
5MHz	QPSK	1	0	22.43	22.42	22.40
		1	12	22.78	22.72	22.79
		1	24	22.40	22.42	22.40
		12	0	21.44	21.38	21.52
		12	6	21.55	21.43	21.51
		12	13	21.46	21.38	21.48
		25	0	21.49	21.38	21.49
	16QAM	1	0	21.50	21.41	21.68
		1	12	21.81	21.83	21.97
		1	24	21.47	21.38	21.66
		12	0	20.53	20.48	20.49
		12	6	20.64	20.52	20.48
		12	13	20.59	20.48	20.45
		25	0	20.47	20.42	20.55
Bandwidth	Modulation	RB size	RB offset	20800/2505.0	21100/2535.0	21400/2565.0
10MHz	QPSK	1	0	22.53	22.55	22.47
		1	24	22.57	22.55	22.65
		1	49	22.46	22.38	22.51
		25	0	21.39	21.51	21.61
		25	12	21.49	21.43	21.54
		25	25	21.50	21.45	21.51
		50	0	21.41	21.44	21.54
	16QAM	1	0	21.71	21.51	21.41
		1	24	21.80	21.63	21.62
		1	49	21.64	21.51	21.50
		25	0	20.41	20.55	20.67
		25	12	20.50	20.50	20.57
		25	25	20.53	20.50	20.54
		50	0	20.45	20.49	20.61



Average Conducted Power(dBm)						
Band	LTE Band 7			Channel/Frequency (MHz)		
Bandwidth	Modulation	RB size	RB offset	20825/2507.5	21100/2535.0	21375/2562.5
15MHz	QPSK	1	0	22.47	22.46	22.49
		1	38	22.76	22.74	22.87
		1	74	22.32	22.28	22.45
		38	0	21.50	21.74	21.64
		38	18	21.59	21.61	21.63
		38	37	21.55	21.54	21.57
		75	0	21.54	21.63	21.64
	16QAM	1	0	21.60	21.29	21.39
		1	38	21.87	21.61	21.71
		1	74	21.44	21.25	21.35
		38	0	20.51	20.60	20.58
		38	18	20.56	20.51	20.54
		38	37	20.50	20.55	20.51
		75	0	20.49	20.56	20.62
Bandwidth	Modulation	RB size	RB offset	20850/2510.0	21100/2535.0	21350/2560.0
20MHz	QPSK	1	0	22.26	22.32	22.20
		1	49	22.60	22.54	22.60
		1	99	22.21	22.14	22.27
		50	0	21.29	21.47	21.56
		50	25	21.46	21.41	21.52
		50	50	21.26	21.47	21.36
		100	0	21.34	21.46	21.49
	16QAM	1	0	21.24	21.20	21.35
		1	49	21.54	21.52	21.66
		1	99	21.06	21.19	21.34
		50	0	20.35	20.54	20.60
		50	25	20.46	20.51	20.54
		50	50	20.34	20.58	20.41
		100	0	20.34	20.54	20.49

Note: Measurement Uncertainty: ±2.6 dB.



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

All channels have been tested and only the worst channels are represented in the report. Pass, the table and plot please see annex.



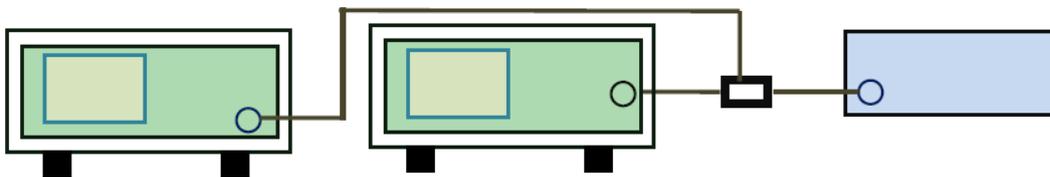
5.3. Peak to Average Ratio

5.3.1. Limit

-§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.

- §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

According with KDB 971168 v02r02

1. The signal analyzer's CCDF measurement profile is enabled
2. Frequency = carrier center frequency
3. Measurement BW > Emission bandwidth of signal
4. The signal analyzer was set to collect one million samples to generate the CCDF curve
5. The measurement interval was set depending on the type of signal analyzed. For continuous signals (>98% duty cycle), the measurement interval was set to 1ms. For burst transmissions, the spectrum analyzer is set to use an internal "RF Burst" trigger that is synced with an incoming pulse and the measurement interval is set to less than the duration of the "on time" of one burst to ensure that energy is only captured during a time in which the transmitter is operating at maximum power

5.3.4. Test Result

Pass, the table and plot please see annex.



5.4. Frequency Stability

5.4.1. Limit

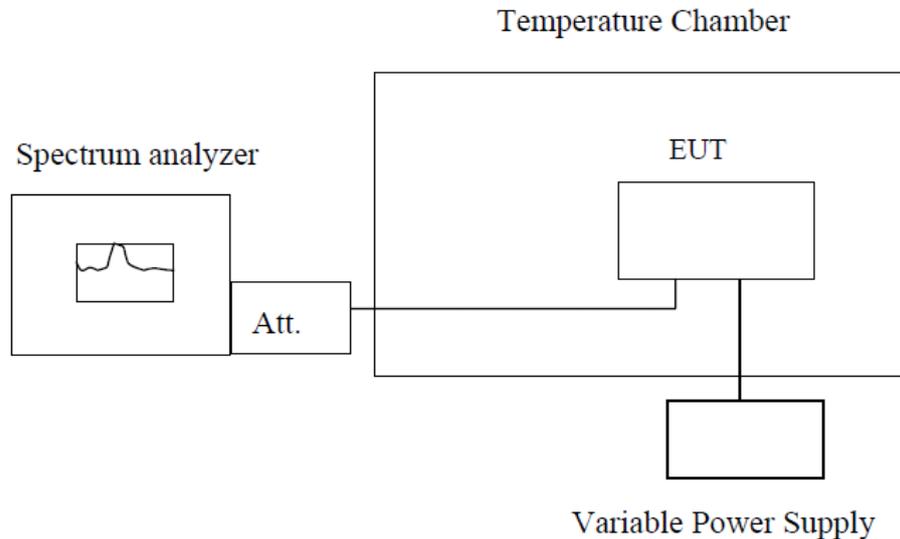
-§ 2.1055 (a), § 2.1055 (d) & following:

-§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.

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

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

The nominal, highest and lowest extreme voltages are separately 3.85VDC, 4.25VDC and 3.34VDC

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

deviation limit of 850MHz band is ±2.5ppm, and 1900MHz is ±1ppm

For LTE mode, only test the max bandwidth.

The table and plot please see annex.



Test Conditions			Frequency Deviation			Result
Band	Power(Vdc)	Temperature(°C)	Frequency Error(Hz)	ppm	Limit	
LTE Band 5 Bandwidth 10MHz QPSK Middle channel 836.5MHz	3.7	-40	65	0.0736	±2.5	PASS
	3.7	-30	43	0.0554		
	3.7	-20	45	0.0514		
	3.7	-10	32	0.0369		
	3.7	0	67	0.0858		
	3.7	10	75	0.0841		
	3.7	20	35	0.0469		
	3.7	30	68	0.0852		
	3.7	40	32	0.0314		
	3.7	50	56	0.0636		
	3.7	60	78	0.0985		
	3.7	70	46	0.0546		
	3.7	80	87	0.1085		
	4.25	25	35	0.0463		
	3.7	25	87	0.1014		
3.34	25	43	0.0589			
LTE Band 5 Bandwidth 10MHz 16QAM Middle channel 836.5MHz	3.7	-40	34	0.0444	±2.5	PASS
	3.7	-30	65	0.0769		
	3.7	-20	67	0.0852		
	3.7	-10	67	0.0831		
	3.7	0	87	0.1052		
	3.7	10	54	0.0658		
	3.7	20	21	0.0263		
	3.7	30	67	0.0852		
	3.7	40	43	0.0541		
	3.7	50	89	0.1036		
	3.7	60	54	0.0658		
	3.7	70	78	0.0936		
	3.7	80	45	0.0558		
	4.25	25	89	0.1014		
	3.7	25	46	0.0536		
3.34	25	89	0.1047			

Note: Measurement Uncertainty: ±20Hz.



Test Conditions			Frequency Deviation			Result
Band	Power(Vdc)	Temperature(°C)	Frequency Error(Hz)	ppm	Limit	
LTE Band 7 Bandwidth 20MHz QPSK Middle channel 2535.0MHz	3.7	-40	78	0.0336	±2.5	PASS
	3.7	-30	97	0.0341		
	3.7	-20	67	0.0225		
	3.7	-10	76	0.0365		
	3.7	0	34	0.0158		
	3.7	10	35	0.0169		
	3.7	20	86	0.0341		
	3.7	30	43	0.0163		
	3.7	40	78	0.0352		
	3.7	50	78	0.0314		
	3.7	60	43	0.0169		
	3.7	70	78	0.0352		
	3.7	80	65	0.0241		
	4.25	25	112	0.0469		
	3.7	25	68	0.0245		
3.34	25	65	0.0294			
LTE Band 7 Bandwidth 20MHz 16QAM Middle channel 2535.0MHz	3.7	-40	64	0.0211	±2.5	PASS
	3.7	-30	45	0.0169		
	3.7	-20	78	0.0352		
	3.7	-10	32	0.0141		
	3.7	0	76	0.0336		
	3.7	10	86	0.0352		
	3.7	20	43	0.0163		
	3.7	30	78	0.0341		
	3.7	40	67	0.0236		
	3.7	50	53	0.0214		
	3.7	60	75	0.0236		
	3.7	70	54	0.0258		
	3.7	80	75	0.0236		
	4.25	25	123	0.0441		
	3.7	25	67	0.0236		
3.34	25	78	0.0347			

Note: Measurement Uncertainty: ±20Hz.



5.5. Conducted Spurious Emissions

5.5.1. Limit

-§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.

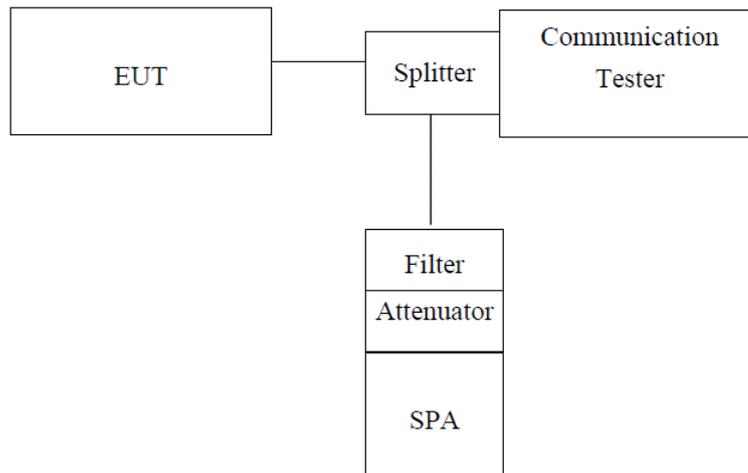
-§27.53(c)(2), on any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB.

-§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) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log10 (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log10 (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 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 RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation. The resolution bandwidth of the spectrum analyzer was set at 1MHz, sufficient scans were taken to show the out of band Emissions if any up to 10th harmonic.

For the out of band: Set the RBW, VBW = 100KHz, Start=30MHz, Stop= 10th harmonic.

Limit = -13dBm

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

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

-§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.

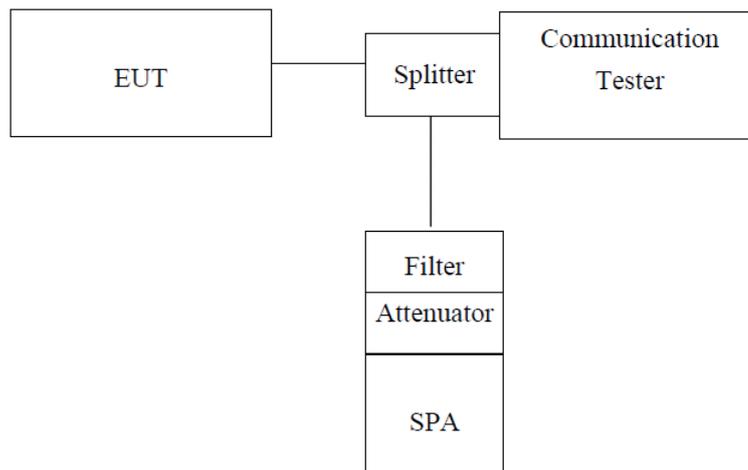
-§27.53(c)(4), on all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than $65 + 10 \log (P)$ dB in a 6.25 kHz band segment, for mobile and portable stations;

-§27.53(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 $43 + 10 \log_{10} (P)$ dB.

-§27.53(m)(4), for mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log_{10} (P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log_{10} (P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log_{10} (P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than $43 + 10 \log_{10} (P)$ dB on all frequencies between 2 490.5 MHz and 2 496 MHz and $55 + 10 \log_{10} (P)$ 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 EUT, which is powered by the adapter, is coupled to the Spectrum Analyzer and the System Simulator 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 System Simulator to operate at the maximum output power i.e. Power Control Level (PCL) = 5 and Power Class = 4. A call is established between the EUT and the System Simulator.

RBW is set to 15 kHz, VBW is set to 51 kHz for LTE Band 5 (1.4MHz),
RBW is set to 30 kHz, VBW is set to 100 kHz for LTE Band 5 (3MHz),
RBW is set to 51 kHz, VBW is set to 160 kHz for LTE Band 5 (5MHz),
RBW is set to 100 kHz, VBW is set to 300 kHz for LTE Band 5 (10MHz),
RBW is set to 50 kHz, VBW is set to 200 kHz for LTE Band 7 (5MHz).
RBW is set to 100 kHz, VBW is set to 300kHz for LTE Band 7 (10MHz).
RBW is set to 200 kHz, VBW is set to 1MHz for LTE Band 7 (15MHz/20MHz)

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 Radiated Power (EIRP/ERP)

5.7.1. Limit

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

-§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.

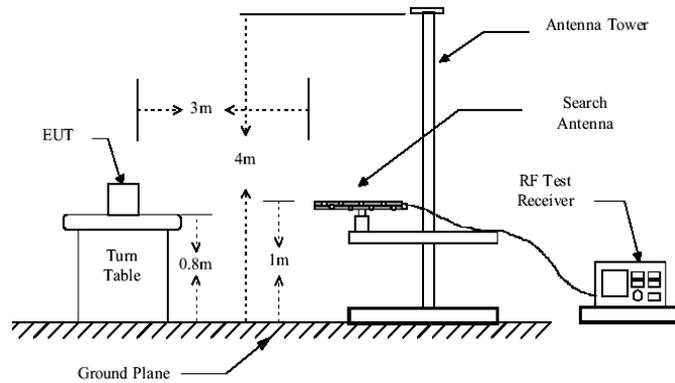
-§27.50(c)(10), portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP.

-§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.

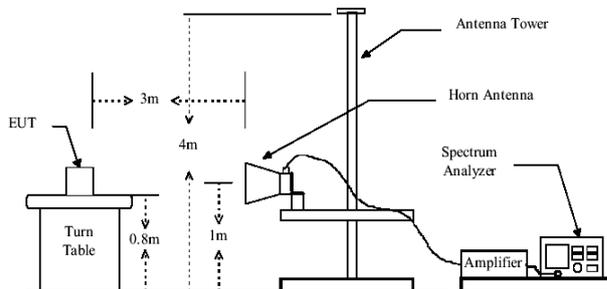
-§27.50(h)(2), Mobile and other user stations. Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.

5.7.2. Test Setup

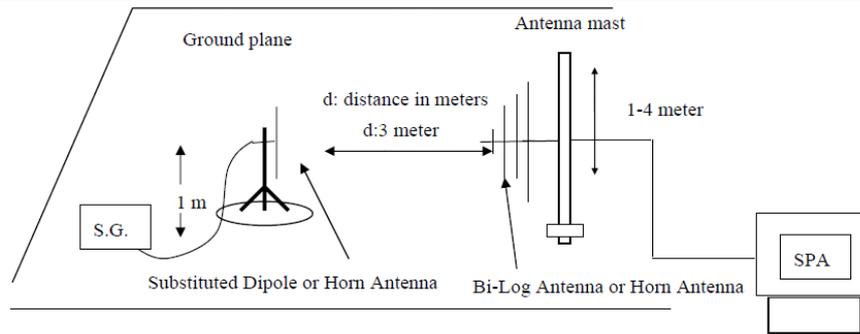
Below 1GHz



Above 1GHz



Substituted method:



5.7.3. Measurement Procedure

The EUT was placed on an non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer. all test in Full-Anechoic Chamber.

During the measurement, the EUT was communication with the station. The highest emission was recorded with the rotation of the turntable and the lowering of the test antenna from 4m to 1m. The reading was recorded and the field strength (E in dBuV/m) was calculated.

ERP in frequency band 824.2 –848.80.8MHz were measured using a substitution method. The EUT was replaced by dipole antenna connected, the S.G. output was recorded and ERP was calculated as follows:

EIRP in frequency band 1850.2 –1909.8MHz were measured using a substitution method. The EUT was replaced by or horn antenna connected, the S.G. output was recorded and EIRP was calculated as follows:

$$ERP = \text{S.G. output (dBm)} + \text{Antenna Gain (dBi)} - \text{Cable Loss (dB)}$$

$$EIRP = \text{S.G. output (dBm)} + \text{Antenna Gain (dBi)} - \text{Cable Loss (dB)}$$

5.7.4. Test Result

Pass, the table and plot please see annex.



EUT mode	Channel	Antenna Pol.	S.G. output (dBm)	Antenna Gain (dBd)	Cable Loss (dB)	ERP (dBm)	Limit (dBm)	Result
LTE BAND 5 1.4MHz QPSK	Lowest	V	9.85	12.54	2.54	19.85	38.45	Pass
		H	9.96	12.54	2.54	19.96		
	Middle	V	9.14	12.34	2.62	18.86	38.45	Pass
		H	9.32	12.34	2.62	19.04		
	Highest	V	9.57	12.48	2.69	19.36	38.45	Pass
		H	9.63	12.49	2.69	19.43		
LTE BAND 5 3MHz QPSK	Lowest	V	9.52	12.54	2.54	19.52	38.45	Pass
		H	9.44	12.54	2.54	19.44		
	Middle	V	9.73	12.34	2.62	19.45	38.45	Pass
		H	9.85	12.34	2.62	19.57		
	Highest	V	9.11	12.48	2.69	18.90	38.45	Pass
		H	9.23	12.49	2.69	19.03		
LTE BAND 5 5MHz QPSK	Lowest	V	9.25	12.54	2.54	19.25	38.45	Pass
		H	9.41	12.54	2.54	19.41		
	Middle	V	9.19	12.34	2.62	18.91	38.45	Pass
		H	9.55	12.34	2.62	19.27		
	Highest	V	9.32	12.48	2.69	19.11	38.45	Pass
		H	9.34	12.49	2.69	19.14		
LTE BAND 5 10MHz QPSK	Lowest	V	9.49	12.54	2.54	19.49	38.45	Pass
		H	9.65	12.54	2.54	19.65		
	Middle	V	9.25	12.34	2.62	18.97	38.45	Pass
		H	9.53	12.34	2.62	19.25		
	Highest	V	9.34	12.48	2.69	19.13	38.45	Pass
		H	9.96	12.49	2.69	19.76		
LTE BAND 5 1.4MHz 16QAM	Lowest	V	9.21	12.54	2.54	19.21	38.45	Pass
		H	9.53	12.54	2.54	19.53		
	Middle	V	9.41	12.34	2.62	19.13	38.45	Pass
		H	9.36	12.34	2.62	19.08		
	Highest	V	9.55	12.48	2.69	19.34	38.45	Pass
		H	9.39	12.49	2.69	19.19		
LTE BAND 5 3MHz 16QAM	Lowest	V	9.14	12.54	2.54	19.14	38.45	Pass
		H	9.23	12.54	2.54	19.23		
	Middle	V	9.38	12.34	2.62	19.10	38.45	Pass
		H	9.56	12.34	2.62	19.28		
	Highest	V	9.38	12.48	2.69	19.17	38.45	Pass
		H	9.52	12.49	2.69	19.32		
LTE BAND 5 5MHz 16QAM	Lowest	V	9.06	12.54	2.54	19.06	38.45	Pass
		H	9.85	12.54	2.54	19.85		
	Middle	V	9.26	12.34	2.62	18.98	38.45	Pass
		H	9.34	12.34	2.62	19.06		
	Highest	V	9.85	12.48	2.69	19.64	38.45	Pass
		H	9.53	12.49	2.69	19.33		
LTE BAND 5 10MHz 16QAM	Lowest	V	9.14	12.54	2.54	19.14	38.45	Pass
		H	9.63	12.54	2.54	19.63		
	Middle	V	9.48	12.34	2.62	19.20	38.45	Pass
		H	9.25	12.34	2.62	18.97		
	Highest	V	9.36	12.48	2.69	19.15	38.45	Pass
		H	9.34	12.49	2.69	19.14		



EUT mode	Channel	Antenna Pol.	S.G. output (dBm)	Antenna Gain (dBd)	Cable Loss (dB)	EIRP (dBm)	Limit (dBm)	Result
LTE BAND 7 5MHz QPSK	Lowest	V	9.28	12.54	2.54	19.28	33.00	Pass
		H	9.95	12.54	2.54	19.95		
	Middle	V	9.55	12.34	2.62	19.27	33.00	Pass
		H	9.33	12.34	2.62	19.05		
	Highest	V	9.85	12.48	2.69	19.64	33.00	Pass
		H	9.34	12.49	2.69	19.14		
LTE BAND 7 10MHz QPSK	Lowest	V	9.52	12.54	2.52	19.54	33.00	Pass
		H	9.23	12.54	2.52	19.25		
	Middle	V	9.85	12.34	2.6	19.59	33.00	Pass
		H	9.04	12.34	2.6	18.78		
	Highest	V	9.33	12.48	2.71	19.10	33.00	Pass
		H	9.38	12.49	2.71	19.16		
LTE BAND 7 15MHz QPSK	Lowest	V	9.96	12.54	2.52	19.98	33.00	Pass
		H	9.52	12.54	2.52	19.54		
	Middle	V	9.41	12.34	2.6	19.15	33.00	Pass
		H	9.36	12.34	2.6	19.10		
	Highest	V	9.52	12.48	2.71	19.29	33.00	Pass
		H	9.51	12.49	2.71	19.29		
LTE BAND 7 20MHz QPSK	Lowest	V	9.96	12.54	2.52	19.98	33.00	Pass
		H	9.25	12.54	2.52	19.27		
	Middle	V	9.79	12.34	2.6	19.53	33.00	Pass
		H	9.54	12.34	2.6	19.28		
	Highest	V	9.88	12.48	2.71	19.65	33.00	Pass
		H	9.63	12.49	2.71	19.41		
LTE BAND 7 5MHz 16QAM	Lowest	V	9.14	12.54	2.54	19.14	33.00	Pass
		H	9.25	12.54	2.54	19.25		
	Middle	V	9.89	12.34	2.62	19.61	33.00	Pass
		H	9.85	12.34	2.62	19.57		
	Highest	V	9.34	12.48	2.69	19.13	33.00	Pass
		H	9.85	12.49	2.69	19.65		
LTE BAND 7 10MHz 16QAM	Lowest	V	9.26	12.54	2.54	19.26	33.00	Pass
		H	9.84	12.54	2.54	19.84		
	Middle	V	9.34	12.34	2.62	19.06	33.00	Pass
		H	9.19	12.34	2.62	18.91		
	Highest	V	9.36	12.48	2.69	19.15	33.00	Pass
		H	9.47	12.49	2.69	19.27		
LTE BAND 7 15MHz 16QAM	Lowest	V	9.69	12.54	2.54	19.69	33.00	Pass
		H	9.52	12.54	2.54	19.52		
	Middle	V	9.55	12.34	2.62	19.27	33.00	Pass
		H	9.96	12.34	2.62	19.68		
	Highest	V	9.31	12.48	2.69	19.10	33.00	Pass
		H	9.48	12.49	2.69	19.28		
LTE BAND 7 20MHz 16QAM	Lowest	V	9.63	12.54	2.52	19.65	33.00	Pass
		H	9.38	12.54	2.52	19.40		
	Middle	V	9.15	12.34	2.6	18.89	33.00	Pass
		H	9.39	12.34	2.6	19.13		
	Highest	V	9.51	12.48	2.71	19.28	33.00	Pass
		H	9.19	12.49	2.71	18.97		

5.8. Radiated Out of Band Emissions

5.8.1. Limit

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

-§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;

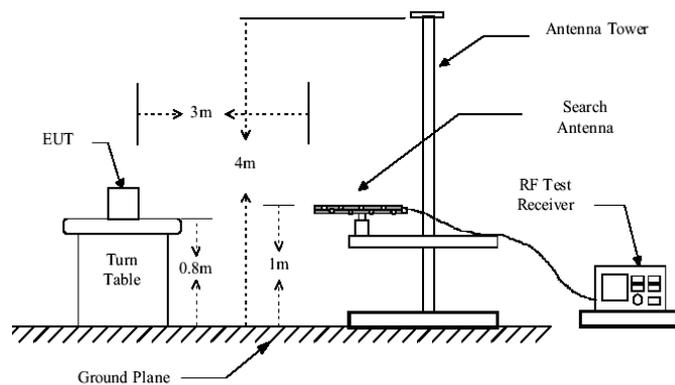
-§27.53(g), the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log (P)$ dB.

-§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 $43 + 10 \log_{10} (P)$ dB.

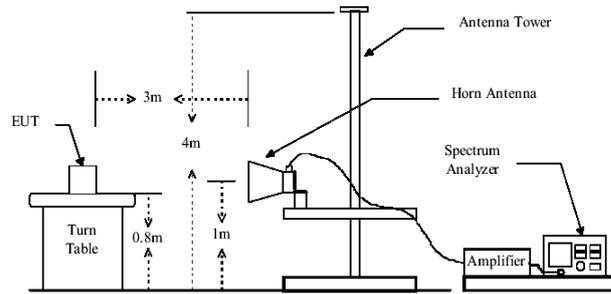
-§27.53(m)(4), for mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log_{10} (P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log_{10} (P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log_{10} (P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than $43 + 10 \log_{10} (P)$ dB on all frequencies between 2 490.5 MHz and 2 496 MHz and $55 + 10 \log_{10} (P)$ 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

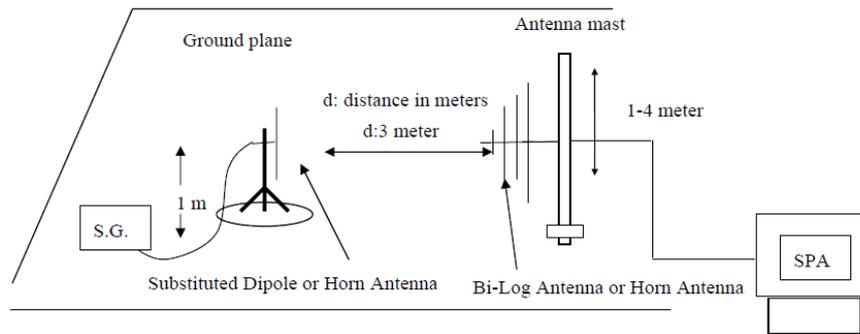
Below 1GHz



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.

$EIRP \text{ (Level)} = S.G. \text{ output (dBm)} + \text{Antenna Gain(dBi)} - \text{Cable Loss (dB)}$

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 5 1.4MHz Lowest	87.45	Vertical	-74.68	3.35	0.38	-71.71	-13	PASS
	3700.40	Vertical	-45.85	7.76	3.75	-41.84		
	5550.60	Vertical	-46.69	9.84	4.94	-41.79		
	7400.80	Vertical	-39.58	10.21	5.32	-34.69		
	9251.00	Vertical	-42.81	11.36	6.02	-37.47		
	11101.20	Vertical	-44.69	14.52	6.68	-36.85		
LTE BAND 5 1.4MHz Middle	88.21	Vertical	-74.52	3.35	0.38	-71.55	-13	PASS
	3760.00	Vertical	-47.63	7.76	3.75	-43.62		
	5640.00	Vertical	-46.52	9.84	4.94	-41.62		
	7520.00	Vertical	-42.69	10.21	5.32	-37.8		
	9400.00	Vertical	-41.14	11.36	6.02	-35.8		
	11280.00	Vertical	-45.63	14.52	6.68	-37.79		
LTE BAND 5 1.4MHz Highest	88.77	Vertical	-74.45	3.35	0.38	-71.48	-13	PASS
	3819.60	Vertical	-46.69	7.79	3.53	-42.43		
	5729.40	Vertical	-41.52	9.88	5.02	-36.66		
	7639.20	Vertical	-37.69	10.25	5.54	-32.98		
	9549.00	Vertical	-44.14	11.38	6.16	-38.92		
	11458.80	Vertical	-46.63	14.56	6.72	-38.79		
LTE BAND 5 3MHz Lowest	87.98	Vertical	-74.41	3.35	0.38	-71.44	-13	PASS
	3700.40	Vertical	-45.36	7.76	3.75	-41.35		
	5550.60	Vertical	-46.52	9.84	4.94	-41.62		
	7400.80	Vertical	-39.63	10.21	5.32	-34.74		
	9251.00	Vertical	-42.84	11.36	6.02	-37.5		
	11101.20	Vertical	-44.33	14.52	6.68	-36.49		
LTE BAND 5 3MHz Middle	88.78	Vertical	-75.58	3.35	0.38	-72.61	-13	PASS
	3760.00	Vertical	-47.63	7.76	3.75	-43.62		
	5640.00	Vertical	-46.25	9.84	4.94	-41.35		
	7520.00	Vertical	-42.63	10.21	5.32	-37.74		
	9400.00	Vertical	-41.14	11.36	6.02	-35.8		
	11280.00	Vertical	-45.25	14.52	6.68	-37.41		
LTE BAND 5 3MHz Highest	88.67	Vertical	-74.69	3.35	0.38	-71.72	-13	PASS
	3819.60	Vertical	-46.54	7.79	3.53	-42.28		
	5729.40	Vertical	-41.36	9.88	5.02	-36.5		
	7639.20	Vertical	-37.32	10.25	5.54	-32.61		
	9549.00	Vertical	-44.58	11.38	6.16	-39.36		
	11458.80	Vertical	-46.69	14.56	6.72	-38.85		



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	87.66	Vertical	-74.54	3.35	0.38	-71.57	-13	PASS
	3700.40	Vertical	-45.69	7.76	3.75	-41.68		
	5550.60	Vertical	-46.21	9.84	4.94	-41.31		
	7400.80	Vertical	-39.69	10.21	5.32	-34.8		
	9251.00	Vertical	-42.52	11.36	6.02	-37.18		
	11101.20	Vertical	-44.36	14.52	6.68	-36.52		
LTE BAND 5 5MHz Middle	88.32	Vertical	-74.58	3.35	0.38	-71.61	-13	PASS
	3760.00	Vertical	-46.69	7.76	3.75	-42.68		
	5640.00	Vertical	-46.41	9.84	4.94	-41.51		
	7520.00	Vertical	-42.36	10.21	5.32	-37.47		
	9400.00	Vertical	-41.21	11.36	6.02	-35.87		
	11280.00	Vertical	-45.69	14.52	6.68	-37.85		
LTE BAND 5 5MHz Highest	88.32	Vertical	-74.54	3.35	0.38	-71.57	-13	PASS
	3819.60	Vertical	-46.63	7.79	3.53	-42.37		
	5729.40	Vertical	-41.25	9.88	5.02	-36.39		
	7639.20	Vertical	-37.63	10.25	5.54	-32.92		
	9549.00	Vertical	-44.58	11.38	6.16	-39.36		
	11458.80	Vertical	-46.69	14.56	6.72	-38.85		
LTE BAND 5 10MHz Lowest	87.23	Vertical	-74.52	3.35	0.38	-71.55	-13	PASS
	3700.40	Vertical	-45.69	7.76	3.75	-41.68		
	5550.60	Vertical	-46.52	9.84	4.94	-41.62		
	7400.80	Vertical	-39.63	10.21	5.32	-34.74		
	9251.00	Vertical	-42.14	11.36	6.02	-36.8		
	11101.20	Vertical	-44.36	14.52	6.68	-36.52		
LTE BAND 5 10MHz Middle	88.21	Vertical	-74.58	3.35	0.38	-71.61	-13	PASS
	3760.00	Vertical	-46.69	7.76	3.75	-42.68		
	5640.00	Vertical	-46.54	9.84	4.94	-41.64		
	7520.00	Vertical	-42.69	10.21	5.32	-37.8		
	9400.00	Vertical	-41.21	11.36	6.02	-35.87		
	11280.00	Vertical	-45.36	14.52	6.68	-37.52		
LTE BAND 5 10MHz Highest	88.15	Vertical	-74.58	3.35	0.38	-71.61	-13	PASS
	3819.60	Vertical	-46.69	7.79	3.53	-42.43		
	5729.40	Vertical	-41.52	9.88	5.02	-36.66		
	7639.20	Vertical	-37.21	10.25	5.54	-32.5		
	9549.00	Vertical	-44.63	11.38	6.16	-39.41		
	11458.80	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 7 5MHz Lowest	87.89	Vertical	-74.69	3.35	0.38	-71.72	-25	PASS
	5005.00	Vertical	-45.54	7.76	3.75	-41.53		
	7507.50	Vertical	-46.63	9.84	4.94	-41.73		
	10010.00	Vertical	-39.58	10.21	5.32	-34.69		
	12512.50	Vertical	-42.36	11.36	6.02	-37.02		
LTE BAND 7 5MHz Middle	87.87	Vertical	-74.63	3.35	0.38	-71.66	-25	PASS
	5070.00	Vertical	-46.41	7.76	3.75	-42.4		
	7605.00	Vertical	-46.36	9.84	4.94	-41.46		
	10140.00	Vertical	-42.58	10.21	5.32	-37.69		
	12675.00	Vertical	-41.52	11.36	6.02	-36.18		
LTE BAND 7 5MHz Highest	88.87	Vertical	-74.54	3.35	0.38	-71.57	-25	PASS
	5135.00	Vertical	-46.36	7.79	3.53	-42.1		
	7702.50	Vertical	-41.84	9.88	5.02	-36.98		
	10270.00	Vertical	-37.69	10.25	5.54	-32.98		
	12837.50	Vertical	-44.58	11.38	6.16	-39.36		
LTE BAND 7 10MHz Lowest	87.53	Vertical	-73.54	3.35	0.38	-70.57	-25	PASS
	5010.00	Vertical	-45.36	7.76	3.75	-41.35		
	7515.00	Vertical	-46.54	9.84	4.94	-41.64		
	10020.00	Vertical	-38.94	10.21	5.32	-34.05		
	12525.00	Vertical	-42.85	11.36	6.02	-37.51		
LTE BAND 7 10MHz Middle	88.23	Vertical	-74.36	3.35	0.38	-71.39	-25	PASS
	5070.00	Vertical	-46.58	7.76	3.75	-42.57		
	7605.00	Vertical	-46.69	9.84	4.94	-41.79		
	10140.00	Vertical	-42.54	10.21	5.32	-37.65		
	12675.00	Vertical	-41.33	11.36	6.02	-35.99		
LTE BAND 7 10MHz Highest	88.23	Vertical	-74.63	3.35	0.38	-71.66	-25	PASS
	5130.00	Vertical	-46.52	7.79	3.53	-42.26		
	7695.00	Vertical	-41.63	9.88	5.02	-36.77		
	10260.00	Vertical	-37.39	10.25	5.54	-32.68		
	12825.00	Vertical	-44.14	11.38	6.16	-38.92		
	15390.00	Vertical	-46.96	14.56	6.72	-39.12		



Band	Frequency (MHz)	Spurious Emission					Limit (dBm)	Result
		Polarization	S.G. output (dBm)	Antenna Gain (dBi)	Cable Loss (dB)	Level (dBm)		
LTE BAND 7 15MHz Lowest	87.12	Vertical	-74.58	3.35	0.38	-71.61	-25	PASS
	5015.00	Vertical	-45.63	7.76	3.75	-41.62		
	7522.50	Vertical	-46.54	9.84	4.94	-41.64		
	10030.00	Vertical	-39.36	10.21	5.32	-34.47		
	12537.50	Vertical	-42.58	11.36	6.02	-37.24		
LTE BAND 7 15MHz Middle	88.87	Vertical	-74.25	3.35	0.38	-71.28	-25	PASS
	5070.00	Vertical	-46.63	7.76	3.75	-42.62		
	7605.00	Vertical	-46.58	9.84	4.94	-41.68		
	10140.00	Vertical	-42.63	10.21	5.32	-37.74		
	12675.00	Vertical	-41.54	11.36	6.02	-36.2		
LTE BAND 7 15MHz Highest	88.29	Vertical	-74.25	3.35	0.38	-71.28	-25	PASS
	5125.00	Vertical	-46.39	7.79	3.53	-42.13		
	7687.50	Vertical	-40.21	9.88	5.02	-35.35		
	10250.00	Vertical	-37.63	10.25	5.54	-32.92		
	12812.50	Vertical	-43.25	11.38	6.16	-38.03		
LTE BAND 7 20MHz Lowest	87.81	Vertical	-74.63	3.35	0.38	-71.66	-25	PASS
	5020.00	Vertical	-45.58	7.76	3.75	-41.57		
	7530.00	Vertical	-46.36	9.84	4.94	-41.46		
	10040.00	Vertical	-39.25	10.21	5.32	-34.36		
	12550.00	Vertical	-42.63	11.36	6.02	-37.29		
LTE BAND 7 20MHz Middle	88.56	Vertical	-74.69	3.35	0.38	-71.72	-25	PASS
	5070.00	Vertical	-46.52	7.76	3.75	-42.51		
	7605.00	Vertical	-46.36	9.84	4.94	-41.46		
	10140.00	Vertical	-42.25	10.21	5.32	-37.36		
	12675.00	Vertical	-41.96	11.36	6.02	-36.62		
LTE BAND 7 20MHz Highest	88.22	Vertical	-75.69	3.35	0.38	-72.72	-25	PASS
	5120.00	Vertical	-44.54	7.79	3.53	-40.28		
	7680.00	Vertical	-42.36	9.88	5.02	-37.5		
	10240.00	Vertical	-36.25	10.25	5.54	-31.54		
	12800.00	Vertical	-43.96	11.38	6.16	-38.74		
	15360.00	Vertical	-45.54	14.56	6.72	-37.7		



6. PHOTOGRAPHS OF TEST SET-UP

Reference to the appendix I for details.

7. PHOTOGRAPHS OF THE EUT

Reference to the appendix II for details.

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