ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT

Applicant:	SHARP Corporation Mobile Communication BU 2-13-1 Iida Hachihonmatsu, Higashi-hiroshima city, Hiroshima, 739-0192, Japan
Manufacturer:	Sharp Corporation 1 Takumi-cho, Sakai-ku, Sakai City, Osaka 590-8522, Japan
Product Name:	Smart Phone
Brand Name:	SHARP
Report Number:	TERF2404001245ER
FCC ID	APYHRO00332
Date of EUT Received:	April 18, 2024
Date of Test:	April 18, 2024~May 10, 2024
Issue Date:	May 23, 2024

Approved By _____
Blue Yang

We hereby certify that:

The above equipment was tested by SGS Taiwan Ltd. Central RF Lab The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI ANSI C63.26-2015 and the energy emitted by the sample EUT comply with FCC rule part 2 , 22H & 24E & 27 C.

The results of this report relate only to the sample identified in this report.

Revision History

Report Number	Revision	Description	Issue Date	Revised By	Remark
TERF2404001245ER	00	Original.	May 23, 2024	Karen Huang	

Note:

1、 The remark "*" indicates modification of the report upon requests from certification body.

Contents

1 GENERAL PRODUCT INFORMATION

1.1 Product Description

Product Name:	Smart Phone
Brand Name:	SHARP
Hardware Version:	DVT
Firmware Version:	N/A
Power Supply:	3.89Vdc from Rechargeable Battery
Test Software (Name/Version)	Connect with call box

1.2 Operation Frequency Range

LTE Band 2			
BW (MHz)	Operation Frequency (MHz)		
1.4	1850.7	-	1909.3
3	1851.5	-	1908.5
5	1852.5	-	1907.5
10	1855.0	-	1905.0
15	1857.5	-	1902.5
20	1860.0	-	1900.0

LTE Band 4			
BW (MHz)	Operation Frequency (MHz)		
1.4	1710.7	-	1754.3
3	1711.5	-	1753.5
5	1712.5	-	1752.5
10	1715.0	-	1750.0
15	1717.5	-	1747.5
20	1720.0	-	1745.0

LTE Band 5			
BW (MHz)	Operation Frequency (MHz)		
1.4	824.7	-	848.3
3	825.5	-	847.5
5	826.5	-	846.5
10	829.0	-	844.0

LTE Band 7			
BW (MHz)	Operation Frequency (MHz)		
5	2502.5	-	2567.5
10	2505.0	-	2565.0
15	2507.5	-	2562.5
20	2510.0	-	2560.0

LTE Band 12			
BW (MHz)	Operation Frequency (MHz)		
1.4	699.7	-	715.3
3	700.5	-	714.5
5	701.5	-	713.5
10	704.0	-	711.0

LTE Band 13			
BW (MHz)	Operation Frequency (MHz)		
5	779.5	-	784.5
10	782.0		

LTE Band 17			
BW (MHz)	Operation Frequency (MHz)		
5	706.5	-	713.5
10	709.0	-	711.0

LTE Band 38			
BW (MHz)	Operation Frequency (MHz)		
5	2572.5	-	2617.5
10	2575.0	-	2615.0
15	2577.5	-	2612.5
20	2580.0	-	2610.0

LTE Band 41			
BW (MHz)	Operation Frequency (MHz)		
5	2498.5	-	2687.5
10	2501.0	-	2685.0
15	2503.5	-	2682.5
20	2506.0	-	2680.0

LTE Band 66			
BW (MHz)	Operation Frequency (MHz)		
1.4	1710.7	-	1779.3
3	1711.5	-	1778.5
5	1712.5	-	1777.5
10	1715.0	-	1775.0
15	1717.5	-	1772.5
20	1720.0	-	1770.0

1.3 Antenna Designation

Antenna Type	Antenna Model No.
Inverted-F Antenna	ANT2
	ANT3
Note: Transmission frequencies in this test report are only available by the above antenna(s).	

Modulation	Frequency (MHz)			Peak Antenna Gain (dBi)	
				ANT2	ANT3
LTE-Band 2	1850	~	1910	-1.2	-
LTE-Band 4	1710	~	1755	-3.1	-
LTE-Band 5	824	~	849	-	-3.9
LTE-Band 7	2500	~	2570	-3.8	-
LTE-Band 12	699	~	716	-	-4.2
LTE-Band 13	777	~	787	-	-2.5
LTE-Band 17	704	~	716	-	-4.2
LTE-Band 38	2570	~	2620	-5.2	-
LTE-Band 41	2496	~	2690	-5.2	-
LTE-Band 66	1710	~	1780	-0.9	-

Note: Antenna information is provided by the applicant.

1.4 Type of Emission & Max ERP/EIRP Power Measurement Result:

LTE Band	BW	Frequency		Modulation	ERP / EIRP (dBm)		(W)	99%	Type of Emission
2	1.4	1850.7	1909.3	QPSK	21.00	EIRP	0.126	1.0925	1M09G7D
				16QAM	20.00	EIRP	0.100	1.0979	1M10D7W
				64QAM	18.98	EIRP	0.079	1.0950	1M10D7W
2	3	1851.5	1908.5	QPSK	20.98	EIRP	0.125	2.7015	2M70G7D
				16QAM	19.99	EIRP	0.100	2.7011	2M70D7W
				64QAM	18.97	EIRP	0.079	2.7025	2M70D7W
2	5	1852.5	1907.5	QPSK	20.98	EIRP	0.125	4.5006	4M50G7D
				16QAM	19.92	EIRP	0.098	4.4998	4M50D7W
				64QAM	18.97	EIRP	0.079	4.5061	4M51D7W
2	10	1855.0	1905.0	QPSK	21.00	EIRP	0.126	8.9869	8M99G7D
				16QAM	19.98	EIRP	0.100	8.9915	8M99D7W
				64QAM	19.00	EIRP	0.079	9.0021	9M00D7W
2	15	1857.5	1902.5	QPSK	21.00	EIRP	0.126	13.490	13M5G7D
				16QAM	19.97	EIRP	0.099	13.480	13M5D7W
				64QAM	18.99	EIRP	0.079	13.486	13M5D7W
2	20	1860.0	1900.0	QPSK	21.15	EIRP	0.130	17.949	17M9G7D
				16QAM	19.94	EIRP	0.099	17.981	18M0D7W
				64QAM	19.76	EIRP	0.095	17.949	17M9D7W
LTE Band	BW	Frequency		Modulation	ERP / EIRP (dBm)		(W)	99%	Type of Emission
4	1.4	1710.7	1754.3	QPSK	19.35	EIRP	0.086	1.0911	1M09G7D
				16QAM	18.34	EIRP	0.068	1.0990	1M10D7W
				64QAM	17.28	EIRP	0.053	1.0940	1M09D7W
4	3	1711.5	1753.5	QPSK	19.35	EIRP	0.086	2.7021	2M70G7D
				16QAM	18.34	EIRP	0.068	2.7016	2M70D7W
				64QAM	17.34	EIRP	0.054	2.6982	2M70D7W
4	5	1712.5	1752.5	QPSK	19.32	EIRP	0.086	4.5010	4M50G7D
				16QAM	18.33	EIRP	0.068	4.5013	4M50D7W
				64QAM	17.32	EIRP	0.054	4.5009	4M50D7W
4	10	1715.0	1750.0	QPSK	19.28	EIRP	0.085	8.9846	8M98G7D
				16QAM	18.33	EIRP	0.068	8.9914	8M99D7W
				64QAM	17.31	EIRP	0.054	8.9919	8M99D7W
4	15	1717.5	1747.5	QPSK	19.34	EIRP	0.086	13.4890	13M5G7D
				16QAM	18.30	EIRP	0.068	13.5000	13M5D7W
				64QAM	17.31	EIRP	0.054	13.4970	13M5D7W
4	20	1720.0	1745.0	QPSK	19.36	EIRP	0.086	17.9780	18M0G7D
				16QAM	18.27	EIRP	0.067	17.9440	17M9D7W
				64QAM	17.32	EIRP	0.054	17.9430	17M9D7W

LTE Band	BW	Frequency		Modulation	ERP / EIRP (dBm)		(W)	99%	Type of Emission
5	1.4	824.7	848.3	QPSK	17.14	ERP	0.052	1.0897	1M09G7D
				16QAM	16.14	ERP	0.041	1.0971	1M10D7W
				64QAM	15.14	ERP	0.033	1.0938	1M09D7W
5	3	825.5	847.5	QPSK	17.09	ERP	0.051	2.7014	2M70G7D
				16QAM	16.14	ERP	0.041	2.6972	2M70D7W
				64QAM	15.12	ERP	0.033	2.7021	2M70D7W
5	5	826.5	846.5	QPSK	17.14	ERP	0.052	4.4933	4M49G7D
				16QAM	16.06	ERP	0.040	4.4904	4M49D7W
				64QAM	15.15	ERP	0.033	4.5094	4M51D7W
5	10	829.0	844.0	QPSK	17.17	ERP	0.052	8.9988	9M00G7D
				16QAM	16.15	ERP	0.041	8.9994	9M00D7W
				64QAM	15.14	ERP	0.033	9.0007	9M00D7W
LTE Band	BW	Frequency		Modulation	ERP / EIRP (dBm)		(W)	99%	Type of Emission
7	5	2502.5	2567.5	QPSK	18.35	EIRP	0.068	4.4911	4M49G7D
				16QAM	17.38	EIRP	0.055	4.4832	4M48D7W
				64QAM	16.40	EIRP	0.044	4.4874	4M49D7W
7	10	2505.0	2565.0	QPSK	18.39	EIRP	0.069	8.9713	8M97G7D
				16QAM	17.41	EIRP	0.055	8.9754	8M98D7W
				64QAM	16.41	EIRP	0.044	8.9744	8M97D7W
7	15	2507.5	2562.5	QPSK	18.38	EIRP	0.069	13.4700	13M5G7D
				16QAM	17.39	EIRP	0.055	13.4600	13M5D7W
				64QAM	16.40	EIRP	0.044	13.4570	13M5D7W
7	20	2510.0	2560.0	QPSK	18.45	EIRP	0.070	17.9340	17M9G7D
				16QAM	17.32	EIRP	0.054	17.9580	18M0D7W
				64QAM	16.40	EIRP	0.044	17.9390	17M9D7W
LTE Band	BW	Frequency		Modulation	ERP / EIRP (dBm)		(W)	99%	Type of Emission
12	1.4	699.7	715.3	QPSK	16.36	ERP	0.043	1.0896	1M09G7D
				16QAM	15.34	ERP	0.034	1.0956	1M10D7W
				64QAM	14.39	ERP	0.027	1.0936	1M09D7W
12	3	700.5	714.5	QPSK	16.40	ERP	0.044	2.7009	2M70G7D
				16QAM	15.37	ERP	0.034	2.7011	2M70D7W
				64QAM	14.34	ERP	0.027	2.6975	2M70D7W
12	5	701.5	713.5	QPSK	16.39	ERP	0.044	4.4950	4M50G7D
				16QAM	15.39	ERP	0.035	4.4924	4M49D7W
				64QAM	14.40	ERP	0.028	4.5016	4M50D7W
12	10	704.0	711.0	QPSK	16.41	ERP	0.044	9.0146	9M01G7D
				16QAM	15.39	ERP	0.035	9.0070	9M01D7W
				64QAM	14.36	ERP	0.027	8.9968	9M00D7W

LTE Band	BW	Frequency		Modulation	ERP / EIRP (dBm)		(W)	99%	Type of Emission
13	5	779.5	784.5	QPSK	18.25	ERP	0.067	4.5030	4M50G7D
				16QAM	17.25	ERP	0.053	4.5019	4M50D7W
				64QAM	16.25	ERP	0.042	4.5067	4M51D7W
13	10	782.0	782.0	QPSK	18.36	ERP	0.069	8.9541	8M95G7D
				16QAM	17.33	ERP	0.054	8.9546	8M95D7W
				64QAM	16.30	ERP	0.043	8.9734	8M97D7W
LTE Band	BW	Frequency		Modulation	ERP / EIRP (dBm)		(W)	99%	Type of Emission
17	5	706.5	713.5	QPSK	16.60	ERP	0.046	4.5029	4M50G7D
				16QAM	15.56	ERP	0.036	4.5005	4M50D7W
				64QAM	14.55	ERP	0.029	4.4949	4M49D7W
17	10	709.0	711.0	QPSK	16.61	ERP	0.046	8.9935	8M99G7D
				16QAM	15.84	ERP	0.038	9.0036	9M00D7W
				64QAM	14.85	ERP	0.031	9.0222	9M02D7W
LTE Band	BW	Frequency		Modulation	ERP / EIRP (dBm)		(W)	99%	Type of Emission
38	5	2572.5	2617.5	QPSK	17.54	EIRP	0.057	4.4916	4M49G7D
				16QAM	16.54	EIRP	0.045	4.4887	4M49D7W
				64QAM	15.45	EIRP	0.035	4.4843	4M48D7W
38	10	2575.0	2615.0	QPSK	17.57	EIRP	0.057	8.9969	9M00G7D
				16QAM	16.53	EIRP	0.045	8.9724	8M97D7W
				64QAM	15.57	EIRP	0.036	8.9957	9M00D7W
38	15	2577.5	2612.5	QPSK	17.53	EIRP	0.057	13.4340	13M4G7D
				16QAM	16.57	EIRP	0.045	13.4750	13M5D7W
				64QAM	15.51	EIRP	0.036	13.4820	13M5D7W
38	20	2580.0	2610.0	QPSK	17.58	EIRP	0.057	17.9260	17M9G7D
				16QAM	16.51	EIRP	0.045	17.9450	17M9D7W
				64QAM	15.66	EIRP	0.037	17.9730	18M0D7W
LTE Band	BW	Frequency		Modulation	ERP / EIRP (dBm)		(W)	99%	Type of Emission
41	5	2498.5	2687.5	QPSK	17.82	EIRP	0.061	4.4879	4M49G7D
				16QAM	16.84	EIRP	0.048	4.4872	4M49D7W
				64QAM	15.84	EIRP	0.038	4.4876	4M49D7W
41	10	2501.0	2685.0	QPSK	17.83	EIRP	0.061	8.9852	8M99G7D
				16QAM	16.80	EIRP	0.048	8.9817	8M98D7W
				64QAM	15.79	EIRP	0.038	8.9863	8M99D7W
41	15	2503.5	2682.0	QPSK	17.84	EIRP	0.061	13.4730	13M5G7D
				16QAM	16.82	EIRP	0.048	13.4620	13M5D7W
				64QAM	15.82	EIRP	0.038	13.4480	13M4D7W
41	20	2506.0	2680.0	QPSK	17.85	EIRP	0.061	17.9490	17M9G7D
				16QAM	16.77	EIRP	0.048	17.9220	17M9D7W
				64QAM	15.82	EIRP	0.038	17.9410	17M9D7W

LTE Band	BW	Frequency		Modulation	ERP / EIRP (dBm)		(W)	99%	Type of Emission
66	1.4	1710.7	1779.3	QPSK	21.51	EIRP	0.142	1.0925	1M09G7D
				16QAM	20.53	EIRP	0.113	1.0958	1M10D7W
				64QAM	19.53	EIRP	0.090	1.0934	1M09D7W
66	3	1711.5	1778.5	QPSK	21.49	EIRP	0.141	2.6939	2M69G7D
				16QAM	20.54	EIRP	0.113	2.7001	2M70D7W
				64QAM	19.46	EIRP	0.088	2.6993	2M70D7W
66	5	1712.5	1777.5	QPSK	21.48	EIRP	0.141	4.4975	4M50G7D
				16QAM	20.50	EIRP	0.112	4.4855	4M49D7W
				64QAM	19.52	EIRP	0.090	4.4855	4M49D7W
66	10	1715.0	1775.0	QPSK	21.51	EIRP	0.142	8.9909	8M99G7D
				16QAM	20.45	EIRP	0.111	9.0101	9M01D7W
				64QAM	19.51	EIRP	0.089	9.0024	9M00D7W
66	15	1717.5	1772.5	QPSK	21.54	EIRP	0.143	13.4710	13M5G7D
				16QAM	20.53	EIRP	0.113	13.4810	13M5D7W
				64QAM	19.45	EIRP	0.088	13.4790	13M5D7W
66	20	1720.0	1770.0	QPSK	21.55	EIRP	0.143	17.9620	18M0G7D
				16QAM	20.50	EIRP	0.112	17.9600	18M0D7W
				64QAM	19.43	EIRP	0.088	17.9650	18M0D7W

1.5 Test Methodology of Applied Standards

FCC 47 CFR Part 2, 22H, 24E, 27C.
ANSI C63.26-2015
KDB971168 D01 Power Meas license Digital System v03r01
KDB412172 D01 Determining ERP and EIRP v01r01

1.6 Test Facility

Laboratory	Test Site Address	Test Site Name	FCC Designation number	IC CAB identifier
SGS Taiwan Ltd. Central RF Lab. (TAF code 3702)	No.134, Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan.	SAC 1	TW0027	TW3702
		SAC 2		
		SAC 3		
		Conduction 1		
		Conducted 1		
		Conducted 2		
		Conducted 3		
		Conducted 4		
		Conducted 5		
		Conducted 6		
	No.2, Keji 1st Rd., Guishan District, Taoyuan City, Taiwan 333	Conduction C	TW0028	
		SAC C		
		SAC D		
		SAC G		
		Conducted A		
		Conducted B		
		Conducted C		
		Conducted D		
		Conducted E		
		Conducted F		
		Conducted G		

Note: Test site name is remarked on the equipment list in each section of this report as an indication where measurements occurred in specific test site and address.

1.7 Special Accessories

No special accessories were used during testing.

1.8 Equipment Modifications

There was no modifications incorporated into the EUT.

1.9 Radiated Emission Test Sites For Measurements From 9 kHz To 30 MHz

Radiated emission below 30MHz is measured in a 9m*6m*6m semi-anechoic chamber, the measurements correspond to those obtained at an open-field test site.
There is a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.

2 SYSTEM TEST CONFIGURATION

2.1 EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

2.2 EUT Exercise

The EUT (Transmitter) was operated in the continuous transmission mode employed with the simulator of the Base Station that fixates at test default channels to fix the Tx frequency which was for the purpose of the measurements.

2.3 Test Procedure

2.3.1 Conducted Measurement at Antenna Port

The EUT is placed on a table which is 0.8 m above ground plane. A low loss of RF cable was used to connect the antenna port of EUT to measurement equipment.

2.3.2 Radiated Emissions (ERP/EIRP)

The EUT is placed on a turn table, for emission measurements below 1 GHz is 0.8 m above ground plane, for emission measurements above 1 GHz, the table height shall be 1.5 m. The turn table shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both Horizontal and Vertical. In order to find out the max. emission, the relative positions of this transmitter (EUT) was rotated through three orthogonal axes and measurement procedures for electric field radiated emissions above 1 GHz the EUT measurement is to be made “while keeping the antenna in the ‘cone of radiation’ from that area and pointed at the area both in azimuth and elevation, with polarization oriented for maximum response.” is still within the 3dB illumination BW of the measurement antenna.

2.4 Measurement Results Explanation Example

For all conducted test items:
The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuation factor between EUT conducted port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly EUT RF output level.
Note:
The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

2.5 Final Amplifier Voltage and Current Information:

LTE Band 2

Test mode	DC voltage (V)	DC current (mA)
LTE Band 2_20M QPSK	3.89	690

LTE Band 4

Test mode	DC voltage (V)	DC current (mA)
LTE Band 4_20M QPSK	3.89	670

LTE Band 5

Test mode	DC voltage (V)	DC current (mA)
LTE Band 5_10M QPSK	3.89	700

LTE Band 7

Test mode	DC voltage (V)	DC current (mA)
LTE Band 7_20M QPSK	3.89	680

LTE Band 12

Test mode	DC voltage (V)	DC current (mA)
LTE Band 12_10M QPSK	3.89	660

LTE Band 13

Test mode	DC voltage (V)	DC current (mA)
LTE Band 13_10M QPSK	3.89	610

LTE Band 17

Test mode	DC voltage (V)	DC current (mA)
LTE Band 17_10M QPSK	3.89	620

LTE Band 38

Test mode	DC voltage (V)	DC current (mA)
LTE Band 38_20M QPSK	3.89	540

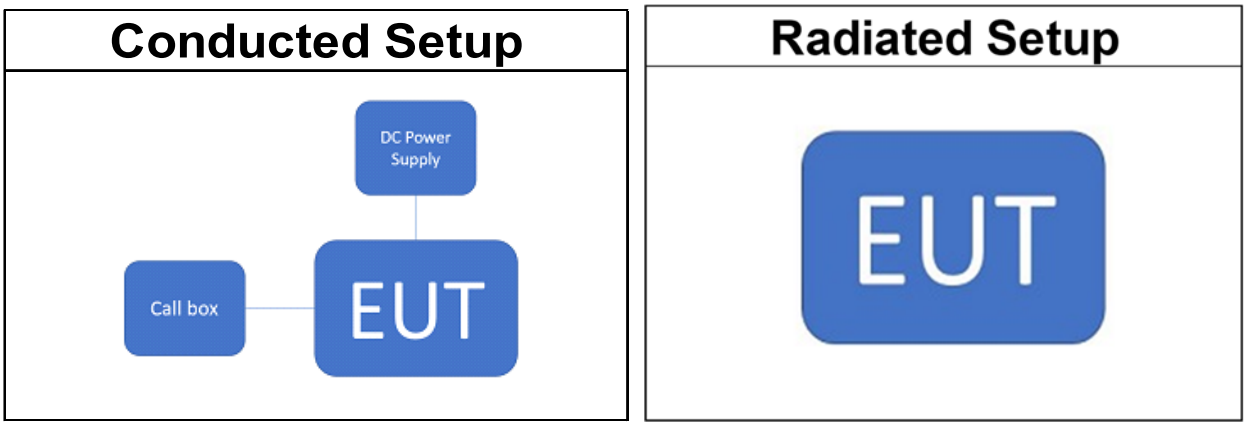
LTE Band 41

Test Mode	DC voltage (V)	DC current (mA)
LTE Band 41_20M QPSK	3.89	640

LTE Band 66

Test mode	DC voltage (V)	DC current (mA)
LTE Band 66_20M QPSK	3.89	680

2.6 Test Configuration



Note: Radio Communication Analyzer is placed in remote side for radiated test.

2.7 Control Unit(s)

N/A

3 SUMMARY OF TEST RESULTS

FCC Rules	Description Of Test	Result
§2.1046(a)	RF Power Output	Compliant
§22.913(a)(5) §24.232(c) §27.50(b)(10) §27.50(c)(10) §27.50(d)(4) §27.50(h)(2)	ERP/ EIRP measurement	Compliant
§2.1049(h)	99% & 26dB Occupied Band-width	Compliant
§2.1051 §22.917(a)(b) §24.238(a)(b) §27.53(c)(2)&(5) §27.53(g) §27.53(h)(1)&(3) §27.53(m)(4)&(6)	Out of Band Emissions at An-tenna Terminals and Band Edge / Emission mask requirements	Compliant
§2.1053, §2.1057(a)(1) §22.917(a)(b) §24.238(a) §27.53(c)(2)~(6) §27.53(f) §27.53(g) §27.53(h) §27.53(h)(1)&(3) §27.53(m)(4)	Field Strength of Spurious Radiation	Compliant
§24.232(d) §27.50(d)(5) §22.913(d) §27.50(a)(1)(B)	Peak to Average Ratio	Compliant
§2.1055(1) §24.235 §27.54 §22.355 §27.54	Frequency Stability	Compliant

4 DESCRIPTION OF TEST MODES

4.1 The Worst Test Modes and Channel Details

1. The EUT has been tested under operating condition.
2. Pre-Scan has been conducted to determine the worst-case scenario from all possible combinations among available modulations, data rates and antenna ports, the worst case configurations listed below for the final test.
3. The field strength of radiated emission was measured as the EUT positioned in different orthogonal planes (E1/E2/H) based on actual usage of the EUT to pre-scan the emissions for determining the worst case scenario.

4.2 Measurement Configuration

Test Items				Max. Output Power											
Band	Test Channel			Bandwidth (MHz)						Modulation			RB #		
	L	M	H	1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	Half	Full
2	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V
4	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V
5	V	V	V	V	V	V	V	-	-	V	V	V	V	V	V
7	V	V	V	-	-	V	V	V	V	V	V	V	V	V	V
12	V	V	V	V	V	V	V	-	-	V	V	V	V	V	V
13	V	V	V	-	-	V	V	-	-	V	V	V	V	V	V
17	V	V	V	-	-	V	V	-	-	V	V	V	V	V	V
38	V	V	V	-	-	V	V	V	V	V	V	V	V	V	V
41	V	V	V	-	-	V	V	V	V	V	V	V	V	V	V
66	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V
Test Items				Freqency Stability											
2	-	V	-	-	-	-	V	-	-	V	-	-	-	-	V
4	-	V	-	-	-	-	V	-	-	V	-	-	-	-	V
5	-	V	-	-	-	-	V	-	-	V	-	-	-	-	V
7	-	V	-	-	-	-	V	-	-	V	-	-	-	-	V
12	-	V	-	-	-	-	V	-	-	V	-	-	-	-	V
13	-	V	-	-	-	-	V	-	-	V	-	-	-	-	V
17	-	V	-	-	-	-	V	-	-	V	-	-	-	-	V
38	-	V	-	-	-	-	V	-	-	V	-	-	-	-	V
41	-	V	-	-	-	-	V	-	-	V	-	-	-	-	V
66	-	V	-	-	-	-	V	-	-	V	-	-	-	-	V
71	-	V	-	-	-	-	V	-	-	V	-	-	-	-	V

Test Items				26dB and 99% Bandwidth											
Band	Test Channel			Bandwidth (MHz)						Modulation			RB #		
	L	M	H	1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	Half	Full
2	V	V	V	V	V	V	V	V	V	V	V	V	-	-	V
4	V	V	V	V	V	V	V	V	V	V	V	V	-	-	V
5	V	V	V	V	V	V	V	-	-	V	V	V	-	-	V
7	V	V	V	-	-	V	V	V	V	V	V	V	-	-	V
12	V	V	V	V	V	V	V	-	-	V	V	V	-	-	V
13	V	V	V	-	-	V	V	-	-	V	V	V	-	-	V
17	V	V	V	-	-	V	V	-	-	V	V	V	-	-	V
38	V	V	V	-	-	V	V	V	V	V	V	V	-	-	V
41	V	V	V	-	-	V	V	V	V	V	V	V	-	-	V
66	V	V	V	V	V	V	V	V	V	V	V	V	-	-	V
Test Items				Peak-to-Av erage Ratio											
2	V	V	V	V	V	V	V	V	V	-	-	V	-	-	V
4	V	V	V	V	V	V	V	V	V	-	-	V	-	-	V
5	V	V	V	V	V	V	V	-	-	-	-	V	-	-	V
7	V	V	V	-	-	V	V	V	V	-	-	V	-	-	V
12	V	V	V	V	V	V	V	-	-	-	-	V	-	-	V
13	V	V	V	-	-	V	V	-	-	-	-	V	-	-	V
17	V	V	V	-	-	V	V	-	-	-	-	V	-	-	V
38	V	V	V	-	-	V	V	V	V	-	-	V	-	-	V
41	V	V	V	-	-	V	V	V	V	-	-	V	-	-	V
66	V	V	V	V	V	V	V	V	V	-	-	V	-	-	V
Test Items				Band Edge											
Band	Test Channel			Bandwidth (MHz)						Modulation			RB #		
	L	M	H	1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	Half	Full
2	V	-	V	V	V	V	V	V	V	V	-	-	V	V	V
4	V	-	V	V	V	V	V	V	V	V	-	-	V	V	V
5	V	-	V	V	V	V	V	-	-	V	-	-	V	V	V
7	V	V	V	-	-	V	V	V	V	V	-	-	V	V	V
12	V	-	V	V	V	V	V	-	-	V	-	-	V	V	V
13	V	-	V	-	-	V	V	-	-	V	-	-	V	V	V
17	V	-	V	-	-	V	V	-	-	V	-	-	V	V	V
38	V	V	V	-	-	V	V	V	V	V	-	-	V	V	V
41	V	V	V	-	-	V	V	V	V	V	-	-	V	V	V
66	V	-	V	V	V	V	V	V	V	V	-	-	V	V	V
Test Items				Conducted Emission											
2	V	V	V	-	-	-	-	-	V	V	-	-	V	-	-
4	V	V	V	-	-	-	-	-	V	V	-	-	V	-	-
5	V	V	V	-	-	-	V	-	-	V	-	-	V	-	-
7	V	V	V	-	-	-	-	-	V	V	-	-	V	-	-
12	V	V	V	-	-	-	V	-	-	V	-	-	V	-	-
13	V	V	V	-	-	-	V	-	-	V	-	-	V	-	-
17	V	V	V	-	-	-	V	-	-	V	-	-	V	-	-
38	V	V	V	-	-	-	-	-	V	V	-	-	V	-	-
41	V	V	V	-	-	-	-	-	V	V	-	-	V	-	-
66	V	V	V	-	-	-	-	-	V	V	-	-	V	-	-

Test Items				Radiated Emission											
Band	Test Channel			Bandwidth (MHz)						Modulation			RB #		
	L	M	H	1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	Half	Full
2	v	v	v	-	-	-	-	-	v	v	-	-	v	-	-
4	v	v	v	-	-	-	-	-	v	v	-	-	v	-	-
5	v	v	v	-	-	-	v	-	-	v	-	-	v	-	-
7	v	v	v	-	-	-	-	-	v	v	-	-	v	-	-
12	v	v	v	-	-	-	v	-	-	v	-	-	v	-	-
13	v	v	v	-	-	-	v	-	-	v	-	-	v	-	-
17	v	v	v	-	-	-	v	-	-	v	-	-	v	-	-
38	v	v	v	-	-	-	-	-	v	v	-	-	v	-	-
41	v	v	v	-	-	-	-	-	v	v	-	-	v	-	-
66	v	v	v	-	-	-	-	-	v	v	-	-	v	-	-

5 MEASUREMENT UNCERTAINTY

Test Items	Uncertainty		
Power Density	+/-	0.61	dB
RF Power Output	+/-	0.97	dB
ERP/ EIRP measurement	+/-	2.15	dB
	+/-	2.15	dB
Emission Bandwidth	+/-	1.38	Hz
Out of Band Emissions at Antenna Terminals and Band Edge	+/-	0.77	dB
Peak to Average Ratio	+/-	0.97	dB
Frequency Stability vs. Temperature	+/-	1.48	Hz
Frequency Stability vs. Voltage	+/-	1.48	Hz
Temperature	+/-	0.6	°C
Humidity	+/-	3	%
DC / AC Power Source	+/-	1	%

Radiated Spurious Emission Measurement Uncertainty				
Polarization: Vertical	**+/-**	**1.89**	**dB**	9kHz~30MHz
	+/-	**4.15**	**dB**	30MHz - 1000MHz
	+/-	**3.43**	**dB**	1GHz - 18GHz
	+/-	**3.86**	**dB**	18GHz - 40GHz
Polarization: Horizontal	**+/-**	**1.89**	**dB**	9kHz~30MHz
	+/-	**4.02**	**dB**	30MHz - 1000MHz
	+/-	**3.43**	**dB**	1GHz - 18GHz
	+/-	**3.86**	**dB**	18GHz - 40GHz
Radiated Spurious Emission	**+/-**	**2**	**dB**	33GHz-50GHz
	+/-	**1.59**	**dB**	50GHz-60GHz
	+/-	**1.7**	**dB**	60GHz-90GHz
	+/-	**1.64**	**dB**	90GHz-140GHz
	+/-	**3.83**	**dB**	140GHz-220GHz

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

6 MEASUREMENT EQUIPMENT USED

6.1 Conducted Measurement

Conducted Emission Test Site: Conducted 4					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
DC Power Supply	Gwinstek	SPS-3610	GEV856733	12/04/2023	12/03/2024
EXA Spectrum Analyzer	KEYSIGHT	N9010B	MY60240503	12/18/2023	12/17/2024
Radio Communication Analyer	Anritsu	MT8821C	6262044670	08/23/2023	08/22/2024
Temperature Chamber	Giant Force	GTH-150-40-CP-AR	MAA0512-018	05/24/2023	05/23/2024
Test Software	SGS	Radio Test Software	Ver. 21	N.C.R	N.C.R
Attenuator	Mini-Circuits	BW-S10W2+	12	12/12/2023	12/11/2024
DC Block	Mini-Circuits	BLK-18-S+	8	12/12/2023	12/11/2024
Splitter	RF-LAMBAD	RFLT2W1G18G	11-JSPF412-017	12/12/2023	12/11/2024

6.2 Radiated Measurement

Radiated Emission Test Site: SAC 2					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
Bi-log Antenna	SCHWARZBECK	VULB9168	1208	07/21/2023	07/20/2024
Horn Antenna	SCHWARZBECK	BBHA9120D	603	05/11/2023	05/10/2024
Horn Antenna	SCHWARZBECK	BBHA9170	184	12/28/2023	12/27/2024
Horn Antenna	RF SPIN	DRH0844	LE2D05A0844	07/03/2023	07/02/2024
Horn Antenna	RF SPIN	DRH18-E	210303A18-ES	02/16/2024	02/15/2025
Bi-log Antenna	SCHWARZBECK	VULB9168	9168-1278	03/04/2024	03/03/2025
EXA Spectrum Analyzer	KEYSIGHT	N9010B	MY60242392	12/22/2023	12/21/2024
Network Analyzer	Anritsu	MS4644A	1216312	12/07/2023	12/06/2024
Radio Communication Analyer	Anritsu	MT8821C	6261786084	01/16/2024	01/15/2025
Test Software	Audix	e3	Ver. 9.210616	N.C.R	N.C.R
Site Cal	SGS	SAC 2	N/A	08/31/2023	08/30/2024
Pre-Amplifier	EMCI	EMC184045B	980135	08/31/2023	08/30/2024
Pre-Amplifier	EMCI	EMC330N	980826	08/31/2023	08/30/2024
Pre-Amplifier	EMCI	EMC118A45SEE	980867	08/31/2023	08/30/2024
4G High Pass Filter	WI	WHKX4.0	22	12/12/2023	12/11/2024
2G High Pass Filter	Micro-Tronics	HPM50110	36	12/12/2023	12/11/2024
1G High Pass Filter	Micro-Tronics	HPM50108	32	12/12/2023	12/11/2024
Band Reject Filter 2240-2700	Titan	T04N224027005OS01	23040703-12	12/12/2023	12/11/2024
Band Reject Filter 635-920	WI	WRCGV695/920-635/980-40/12SS	1	12/12/2023	12/11/2024
Band Reject Filter 1700-2000	EWT	EWT-54-0038	M1	12/12/2023	12/11/2024
Coaxial Cables	Huber Suhner	SUCOFLEX 102	RX Cable 18G-40G MY2630/2+805062/2	08/31/2023	08/30/2024
Coaxial Cables	Huber Suhner	SUCOFLEX 102+SUCOFLEX 106	TX Cable 30M-40G 23051/2+76096/6+22962/2	08/31/2023	08/30/2024
Coaxial Cables	EMCI	EMC104-SM-SM-1000+EMC105-SM-SM-1000+EMC105-SM-SM-1500+EMC104-SM-SM-600+EMC105-SM-SM-2000	RX Cable 9K-18G (220236+201211+220906+220237+220909)	08/31/2023	08/30/2024

NOTE: *N.C.R refers to Not Calibrated Required.*

7 STANDARD APPLICABLE

7.1 Maximum Output Power

A base station simulator was used to establish communication with the EUT. Its parameters were set to transmit the maximum power on the EUT. The measured power in the radio frequency on the transmitter output terminals.

7.1.1 ERP/EIRP LIMIT

According to FCC §2.1046

FCC 22.913(a)

(5) mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

FCC 24.232(c)

Mobile and portable stations are limited to 2 W EIRP.

FCC 27.50 (b)

(10) Portable stations (hand-held devices) transmitting in the 746-757 MHz, 776-788 MHz, and 805-806 MHz bands are limited to 3 watts ERP.

FCC 27.50(c)

(10) Portable stations (hand-held devices) are limited to 3 watts ERP.

FCC 27.50(d)

(4) Mobile, and portable (hand-held) stations operating in the 1710-1755 MHz, 1695-1710 MHz and 1755-1780 MHz bands are limited to 1W EIRP.

FCC 27, 50(h)

(2) Mobile and other user stations transmitting in the BRS and EBS bands are limited to 2 W EIRP.

7.2 Occupied Bandwidth Measurement

The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power.

7.3 Out Of Band Emission At Antenna Terminals

FCC §22.917(a), §24.238(a), §27.53(h)

Out of band emissions.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.

FCC §27.53(c)

For operations in the 746–758 MHz band and the 776–788 MHz band, the power of any emission outside the 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, in accordance with the following:

(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 (-13dBm)

(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;

FCC §27.53(g)

Compliance for operations in the 600 MHz, 698-746 MHz, 746-758 MHz and the 776-788 MHz band with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

(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;

(3) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than 76 + 10 log (P) dB in a 6.25 kHz band segment, for base and fixed stations;

(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;

FCC §27.53(h)(1)

(h) *AWS emission limits*—(1) *General protection levels.* Except as otherwise specified below, 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 $\log_{10}$ (P) dB.

FCC §27.53(m) (4) (6)

For mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

Measurement procedure. Compliance with these rules is based on the use of measurement nstrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed; for mobile digital stations, in the 1 megahertz bands immediately outside and adjacent to

the frequency block a resolution bandwidth of at least two percent may be employed, except when the 1 megahertz band is 2495-2496 MHz, in which case a resolution bandwidth of at least one percent may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 megahertz or 1 percent of emission bandwidth, as specified; or 1 megahertz or 2 percent for mobile digital stations, except in the band 2495-2496 MHz). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power. With respect to television operations, measurements must be made of the separate visual and aural operating powers at sufficiently frequent intervals to ensure compliance with the rules.

7.4 Field Strength Of Spurious Radiation Measurement

According to FCC §2.1053,

FCC §22.917(a), §24.238(a), §27.53(h)

Out of band emissions.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.

FCC §27.53(g)

Compliance for operations in the 600 MHz, 698-746 MHz, 746-758 MHz and the 776-788 MHz band with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

(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;

(3) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than 76 + 10 log (P) dB in a 6.25 kHz band segment, for base and fixed stations;

(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;

FCC §27.53(h)(1)

(h) *AWS emission limits*—(1) *General protection levels.* Except as otherwise specified below, 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 $\log_{10}$ (P) dB.

FCC §27.53(m) (4) (6)

For mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

Measurement procedure. Compliance with these rules is based on the use of measurement nstrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed; for mobile digital stations, in the 1 megahertz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least two percent may be employed, except when the 1 megahertz band is 2495-2496 MHz, in which case a resolution bandwidth of at least one percent may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 megahertz or 1 percent of emission bandwidth, as specified; or 1 megahertz or 2 percent for mobile digital stations, except in the band 2495-2496 MHz). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power. With respect to television operations, measurements must be made of the separate visual and aural operating powers at sufficiently frequent intervals to ensure compliance with the rules.

7.5 Frequency Stability Measurement

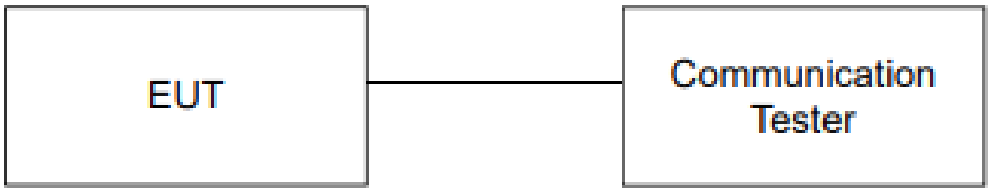
The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

7.6 Peak to Average Ratio

The peak-to-average ratio (PAR) of the transmission may not exceed 13dB.

8 TEST SETUP

8.1 Maximum Output Power

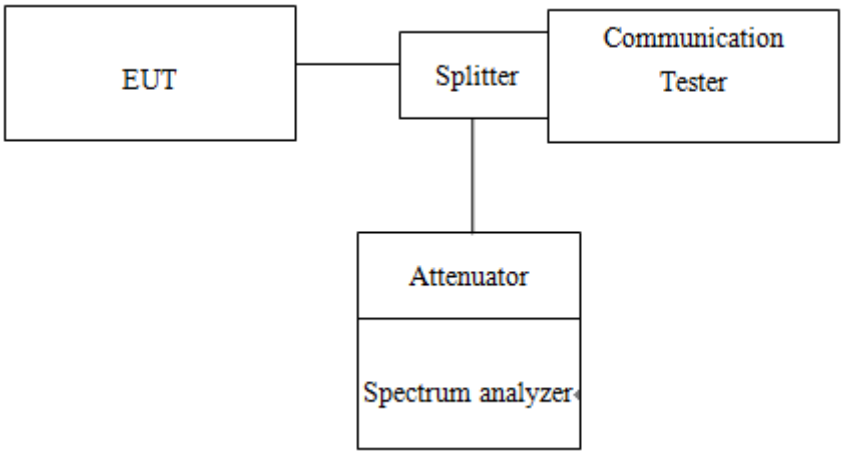


Note: *Measurement setup for testing on Antenna connector*

8.2 Occupied Bandwidth Measurement

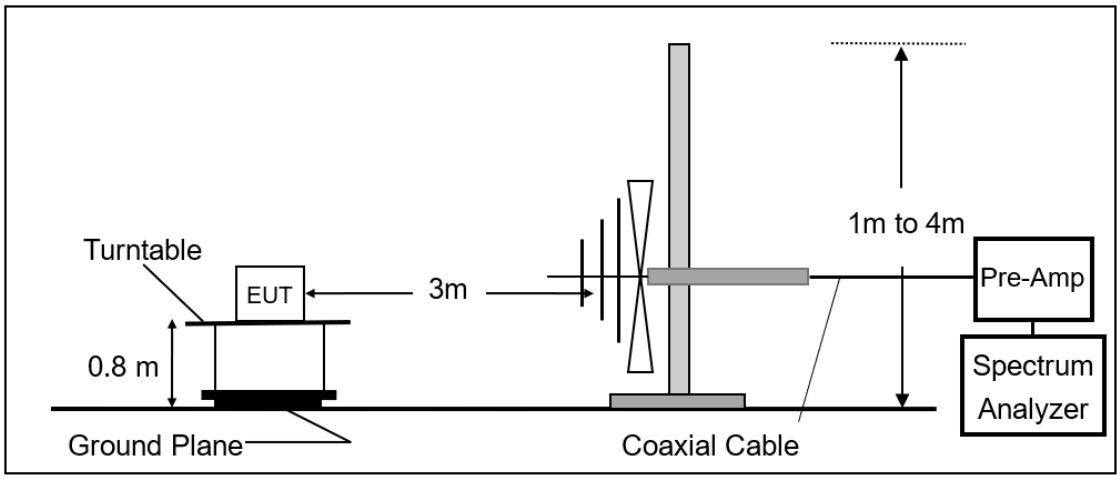
Note: *Measurement setup for testing on Antenna connector*

8.3 Out of Band Emission At Antenna Terminals

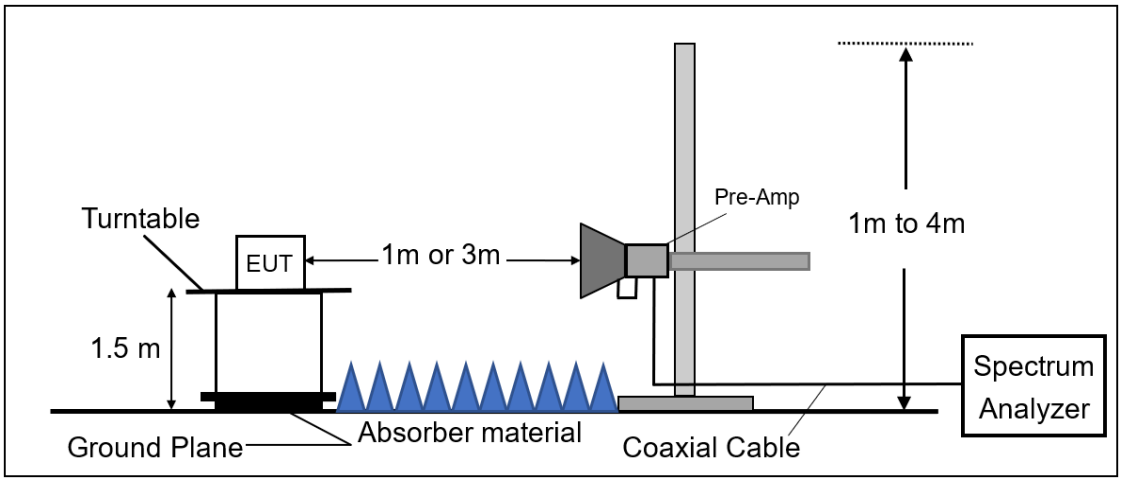


8.4 Field Strength of Spurious Radiation Measurement

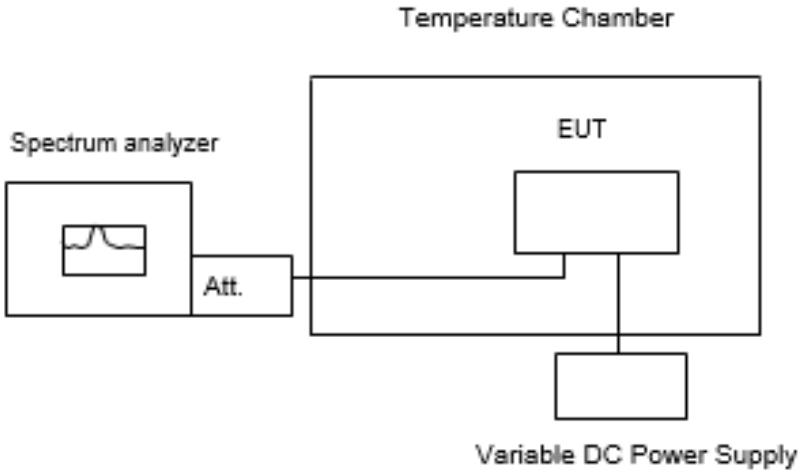
Radiated Emission Test Set-Up, Frequency From 30MHz to 1000MHz.



Radiated Emission Test Set-Up, Frequency Above 1GHz.

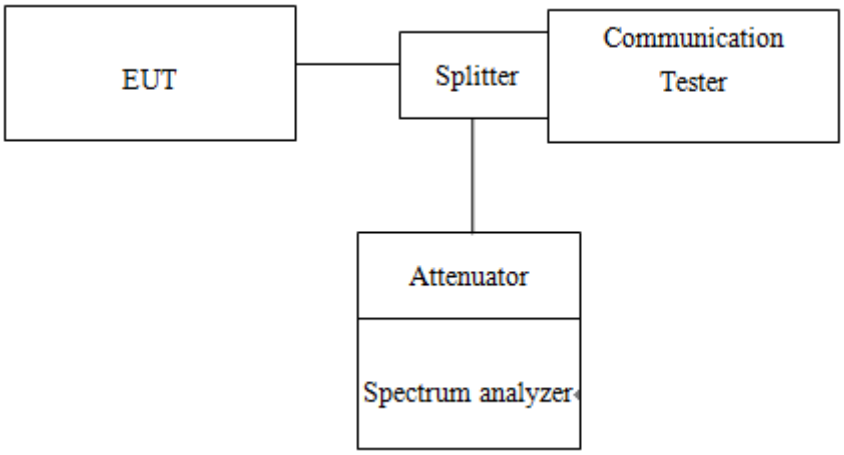


8.5 Frequency Stability Measurement



Note: *Measurement setup for testing on Antenna connector*

8.6 Peak To Average Ratio



9 TEST PROCEDURE

9.1 Maximum Output Power

9.1.1 Output Power Measurement Applicable Guideance

The transmitter output was connected to a communication tester. Transmitter output was read off the communication tester in dBm. The power output at the transmitter antenna port was determined by the communication tester reading.
KDB 971168 D01 Power Meas License Digital System as the supplemental test methodology to adjust the proper setting obtaining the measurement results.
All LTE bands conducted average power is obtained from the simulator telecommunication test set.

9.1.2 Determining ERP and/or EIRP from conducted RF output power measurements

According to KDB 412172 D01 Power Approach,

$EIRP = P_T + G_T - L_C$,

$ERP = EIRP - 2.15$,

Where:

ERP or EIRP	= effective radiated power or equivalent isotropically radiated power (expressed in the same units as PT, typically dBW, dBm, or power spectral density (PSD)2), relative to either a dipole antenna (ERP) or an isotropic antenna (EIRP);
P_T	= transmitter output power, expressed in dBW, dBm, or PSD;
G_T	= gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);
L_C	= signal attenuation in the connecting cable between the transmitter and antenna, in dB.

9.2 Occupied Bandwidth Measurement

99% &26dB Bandwidth with detector peak

The EUT's output RF connector was connected with a short cable to the spectrum analyzer, RBW was set to about 1% of emission BW, VBW= 3 times RBW, -26dBc display line was placed on the screen (or 26dB bandwidth), the occupied bandwidth is the delta frequency between the two points where the display line intersects the signal trace. Then set RBW to 99% bandwidth, RBW= 1%, VBW= 3 * RBW, with span > 2 * Signal BW, set % Power = 99%.

9.3 Out of Band Emission at Antenna Terminals

9.3.1 Conducted Emission

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.

1. To connect Antenna Port of EUT to Spectrum.
2. Set RBW = 1MHz & VBW = 1MHz on Spectrum.
3. Allow trace to fully stabilize
4. Repeat above procedures until all default test channel measured were complete.

9.3.2 Band Edge

1. To connect Antenna Port of EUT to Spectrum.
2. The band edge of low and high channels for the highest RF powers was measured. Setting RBW ≥ 1% EBW.
3. Allow trace to fully stabilize
4. Repeat above procedures until all default test channel measured were complete.

9.4 Field Strength of Spurious Radiation Measurement

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.

The frequency range up to tenth harmonic was investigated for each of three fundamental frequencies (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.

ERP (dBm) = SG Level(dBm) + Antenna Gain(dBd) + Cable Loss(dB)

EIRP (dBm) = SG Level(dBm) + Antenna Gain(dBi) + Cable Loss(dB)

9.5 Frequency Stability Measurement

The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 25°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to –30°C. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached.

Set chamber temperature to 25℃. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.
Reduce the input voltage to specify extreme voltage variation (+/- 15%) and endpoint as declared by the manufacturer, record the maximum frequency change.

9.6 Peak to Average Ratio

1. KDB 971168 D01 is employed as the following procedure is proper adjusted accordingly:
2. Set resolution/measurement bandwidth ≥ signal's occupied bandwidth; & internal =1ms
3. Set the number of counts to a value that stabilizes the measured CCDF curve.

10 MEASUREMENT RESULTS

Please refer to the Annex A-Measurement Results.

~End of Report~