



## SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

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Report No.: SZEM170300179202  
Page: 1 of 28

## TEST REPORT

**Application No.:** SZEM1703001792CR  
**Applicant:** ADMOBILIZE LLC  
**Address of Applicant:** 1680 Michigan Avenue Suite 918, Miami Beach, Florida, United States  
**Manufacturer:** EMBEST TECHNOLOGY CO.,LTD.  
**Address of Manufacturer:** Tower B 4/F, Shanshui Building, Nanshan Yungu Innovation Industry Park, Liuxian Ave.No.1183, Nanshan District, Shenzhen, Guangdong, China  
**Factory:** EMBEST TECHNOLOGY CO.,LTD.  
**Address of Factory:** Tower B 4/F, Shanshui Building, Nanshan Yungu Innovation Industry Park, Liuxian Ave.No.1183, Nanshan District, Shenzhen, Guangdong, China  
**Equipment Under Test (EUT):**  
**EUT Name:** MATRIX Creator  
**Model No.:** MATRIX.C1.US  
**FCC ID:** 2ALM5-MTxC1  
**Standards:** 47 CFR Part 15, Subpart C 15.225  
**Date of Receipt:** 2017-03-15  
**Date of Test:** 2017-03-17 to 2017-04-18  
**Date of Issue:** 2017-04-27

<b>Test Result :</b>	<b>Pass*</b>
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\* In the configuration tested, the EUT complied with the standards specified above.

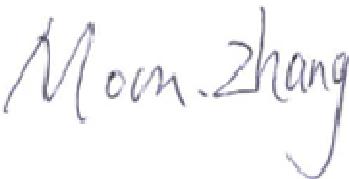


Jack Zhang  
EMC Laboratory Manager

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.

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<b>Revision Record</b>				
<b>Version</b>	<b>Chapter</b>	<b>Date</b>	<b>Modifier</b>	<b>Remark</b>
01		2017-04-27		Original

<b>Authorized for issue by:</b>			
<b>Tested By</b>	 _____ <b>Moon Zhang /Project Engineer</b>	2017-04-18	<b>Date</b>
<b>Checked By</b>	 _____ <b>Eric Fu /Reviewer</b>	2017-04-27	<b>Date</b>

## 2 Test Summary

<b>Radio Spectrum Technical Requirement</b>				
<b>Item</b>	<b>Standard</b>	<b>Method</b>	<b>Requirement</b>	<b>Result</b>
Antenna Requirement	47 CFR Part 15, Subpart C 15.225	N/A	47 CFR Part 15, Subpart C 15.203	Pass

<b>Radio Spectrum Matter Part</b>				
<b>Item</b>	<b>Standard</b>	<b>Method</b>	<b>Requirement</b>	<b>Result</b>
Conducted Disturbance at AC Power Line(150kHz-30MHz)	47 CFR Part 15, Subpart C 15.225	ANSI C63.10 (2013) Section 6.2	47 CFR Part 15, Subpart C 15.207	Pass
Emission Mask	47 CFR Part 15, Subpart C 15.225	ANSI C63.10 (2013) Section 6.4	47 CFR Part 15, Subpart C 15.225(a)&(b)&(C)	Pass
Radiated Emissions(9kHz-30MHz)	47 CFR Part 15, Subpart C 15.225	ANSI C63.10 (2013) Section 6.4&6.5	47 CFR Part 15, Subpart C 15.225(d) & 15.209	Pass
Radiated Emissions(30MHz-1GHz)	47 CFR Part 15, Subpart C 15.225	ANSI C63.10 (2013) Section 6.4&6.5	47 CFR Part 15, Subpart C 15.225(d) & 15.209	Pass
Frequency tolerance	47 CFR Part 15, Subpart C 15.225	ANSI C63.10 (2013) Section 6.8	47 CFR Part 15, Subpart C 15.225(e)	Pass
20dB Bandwidth	47 CFR Part 15, Subpart C 15.225	ANSI C63.10 (2013) Section 6.9	47 CFR Part 15, Subpart C 15.215	Pass

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## 4 General Information

### 4.1 Details of E.U.T.

Operation Frequency:	13.56MHz
Antenna Type:	MicroStrip Loop Inductor Antenna
Antenna Gain:	0dBi
Power supply:	DC 5V

### 4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Adapter	Apple	A1357 W010A051	REF. No.SEA0500
Micro USB Cable	PHILIPS	SWR2101	REF. No.SEA0700
Raspberry Pi	Raspberry Pi Foundation	Raspberry Pi 3	--

### 4.3 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	7.25 x 10-8
2	Duty cycle	0.37%
3	Occupied Bandwidth	3%
4	RF conducted power	0.75dB
5	RF power density	2.84dB
6	Conducted Spurious emissions	0.75dB
7	RF Radiated power	4.5dB (below 1GHz)
		4.8dB (above 1GHz)
8	Radiated Spurious emission test	4.5dB (30MHz-1GHz)
		4.8dB (1GHz-18GHz)
9	Temperature test	1°C
10	Humidity test	3%
11	Supply voltages	1.5%
12	Time	3%

#### **4.4 Test Location**

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen Branch

No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, Guangdong, China.  
518057.

Tel: +86 755 2601 2053      Fax: +86 755 2671 0594

No tests were sub-contracted.

#### **4.5 Test Facility**

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

- CNAS (No. CNAS L2929)**

CNAS has accredited SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

- A2LA (Certificate No. 3816.01)**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

- VCCI**

The 10m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-823, R-4188, T-1153 and C-2383 respectively.

- FCC – Registration No.: 556682**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No.: 556682.

- Industry Canada (IC)**

Two 3m Semi-anechoic chambers and the 10m Semi-anechoic chamber of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab have been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 4620C-1, 4620C-2, 4620C-3.

#### **4.6 Deviation from Standards**

None

#### **4.7 Abnormalities from Standard Conditions**

None

## 5 Equipment List

<b>Conducted Disturbance at AC Power Line(150kHz-30MHz)</b>					
<b>Equipment</b>	<b>Manufacturer</b>	<b>Model No</b>	<b>Inventory No</b>	<b>Cal Date</b>	<b>Cal Due Date</b>
Shielding Room	ZhongYu Electron	GB-88	SEM001-06	2016-05-13	2017-05-13
LISN	Rohde & Schwarz	ENV216	SEM007-01	2016-10-09	2017-10-09
LISN	ETS-LINDGREN	3816/2	SEM007-02	2016-04-25	2017-04-25
8 Line ISN	Fischer Custom Communications Inc.	FCC-TLISN-T8-02	EMC0120	2016-09-28	2017-09-28
4 Line ISN	Fischer Custom Communications Inc.	FCC-TLISN-T4-02	EMC0121	2016-09-28	2017-09-28
2 Line ISN	Fischer Custom	FCC-TLISN-T2-02	EMC0122	2016-09-28	2017-09-28

<b>Radiated Emissions(9kHz-30MHz)</b>					
<b>Equipment</b>	<b>Manufacturer</b>	<b>Model No</b>	<b>Inventory No</b>	<b>Cal Date</b>	<b>Cal Due Date</b>
10m Semi-Anechoic Chamber	SAEMC	FSAC1018	SEM001-03	2016-05-13	2017-05-13
EMI Test Receiver (9k-3GHz)	Rohde & Schwarz	ESCI	SEM004-01	2016-04-25	2017-04-25
Trilog-Broadband Antenna(30M-1GHz)	Schwarzbeck	VULB9168	SEM003-17	2016-06-29	2019-06-29
Pre-amplifier	Sonoma Instrument Co	310N	SEM005-03	2016-07-06	2017-07-06
Active Loop Antenna	ETS-Lindgren	6502	SEM003-08	2015-08-14	2018-08-14

<b>Radiated Emissions(30MHz-1GHz)</b>					
<b>Equipment</b>	<b>Manufacturer</b>	<b>Model No</b>	<b>Inventory No</b>	<b>Cal Date</b>	<b>Cal Due Date</b>
3m Semi-Anechoic Chamber	ETS-LINDGREN	N/A	SEM001-01	2016-05-13	2017-05-13
EMI Test Receiver	Agilent Technologies	N9038A	SEM004-05	2016-10-09	2017-10-09
BiConiLog Antenna (26-3000MHz)	ETS-LINDGREN	3142C	SEM003-01	2014-11-01	2017-11-01
Double-ridged horn (1-18GHz)	ETS-LINDGREN	3117	SEM003-11	2015-10-17	2018-10-17
Horn Antenna (18-26GHz)	ETS-LINDGREN	3160	SEM003-12	2014-11-24	2017-11-24

<b>Frequency tolerance</b>					
<b>Equipment</b>	<b>Manufacturer</b>	<b>Model No</b>	<b>Inventory No</b>	<b>Cal Date</b>	<b>Cal Due Date</b>
DC Power Supply	ZhaoXin	RXN-305D	SEM011-02	2016-10-09	2017-10-09
Spectrum Analyzer	Rohde & Schwarz	FSP	SEM004-06	2016-10-09	2017-10-09
Power Meter	Rohde & Schwarz	NRVS	SEM014-02	2016-10-09	2017-10-09

<b>20dB Bandwidth</b>					
<b>Equipment</b>	<b>Manufacturer</b>	<b>Model No</b>	<b>Inventory No</b>	<b>Cal Date</b>	<b>Cal Due Date</b>
DC Power Supply	ZhaoXin	RXN-305D	SEM011-02	2016-10-09	2017-10-09
Spectrum Analyzer	Rohde & Schwarz	FSP	SEM004-06	2016-10-09	2017-10-09
Power Meter	Rohde & Schwarz	NRVS	SEM014-02	2016-10-09	2017-10-09

<b>General used equipment</b>					
<b>Equipment</b>	<b>Manufacturer</b>	<b>Model No</b>	<b>Inventory No</b>	<b>Cal Date</b>	<b>Cal Due Date</b>
Humidity/ Temperature Indicator	Shanghai Meteorological Industry Factory	ZJ1-2B	SEM002-03	2016-10-12	2017-10-12
Humidity/ Temperature Indicator	Shanghai Meteorological Industry Factory	ZJ1-2B	SEM002-04	2016-10-12	2017-10-12
Humidity/ Temperature Indicator	Mingle	N/A	SEM002-08	2016-10-12	2017-10-12
Barometer	Changchun Meteorological Industry Factory	DYM3	SEM002-01	2016-05-18	2017-05-18

## 6 Radio Spectrum Technical Requirement

### 6.1 Antenna Requirement

#### 6.1.1 Test Requirement:

47 CFR Part 15, Subpart C 15.203

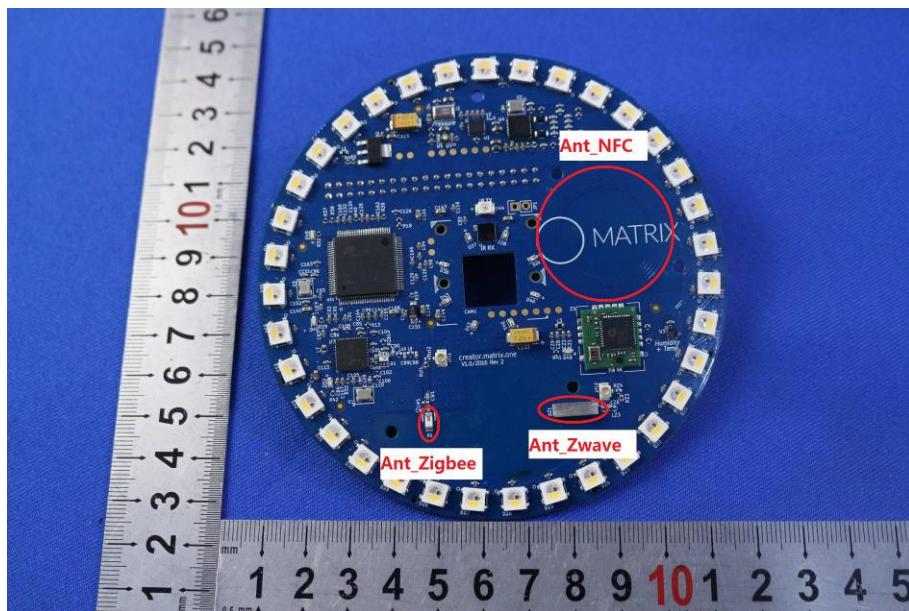
#### 6.1.2 Conclusion

Standard Requirment:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit permanently attached antenna or of an so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

EUT Antenna:

The antenna is integrated on the main PCB and no consideration of replacement. The best case gain of the antenna is 0dBi.



## 7 Radio Spectrum Matter Test Results

### 7.1 Conducted Disturbance at AC Power Line(150kHz-30MHz)

Test Requirement 47 CFR Part 15, Subpart C 15.207

Test Method: ANSI C63.10 (2013) Section 6.2

Limit:

Frequency range (MHz)	Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

\* Decreases with the logarithm of the frequency.

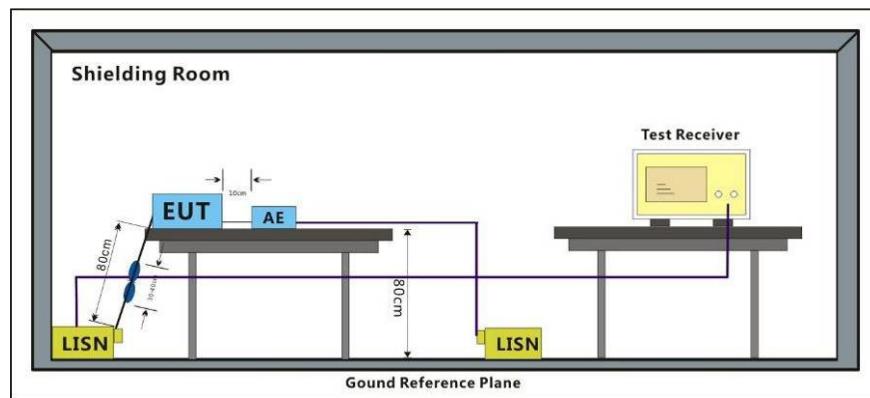
#### 7.1.1 E.U.T. Operation

Operating Environment:

Temperature: 25 °C Humidity: 55 % RH Atmospheric Pressure: 1015 mbar

Test mode: c:TX mode\_Keep the EUT in transmitting mode(NFC)

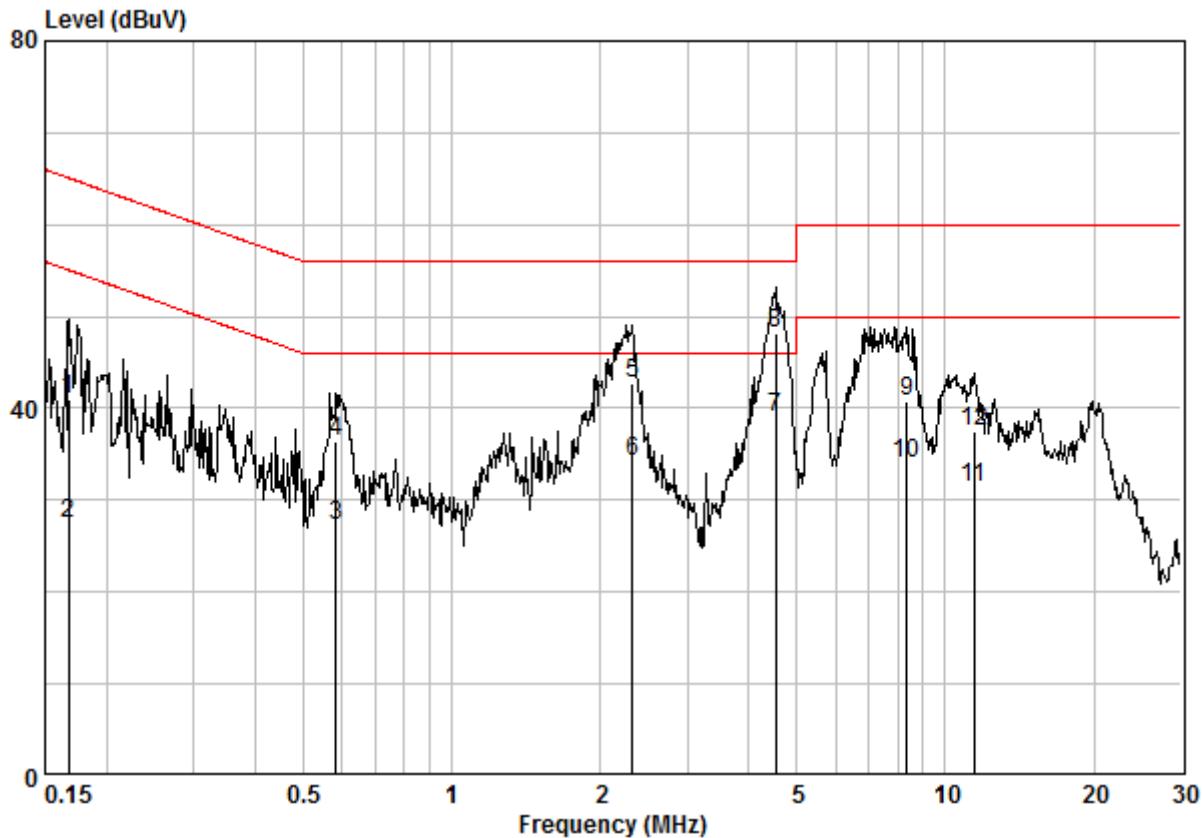
#### 7.1.2 Test Setup Diagram



### **7.1.3 Measurement Procedure and Data**

- 1) The mains terminal disturbance voltage test was conducted in a shielded room.
- 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50ohm/50µH + 5ohm linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.
- 3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,
- 4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.
- 5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.

Mode:c; Line:Live Line



Site : Shielding Room

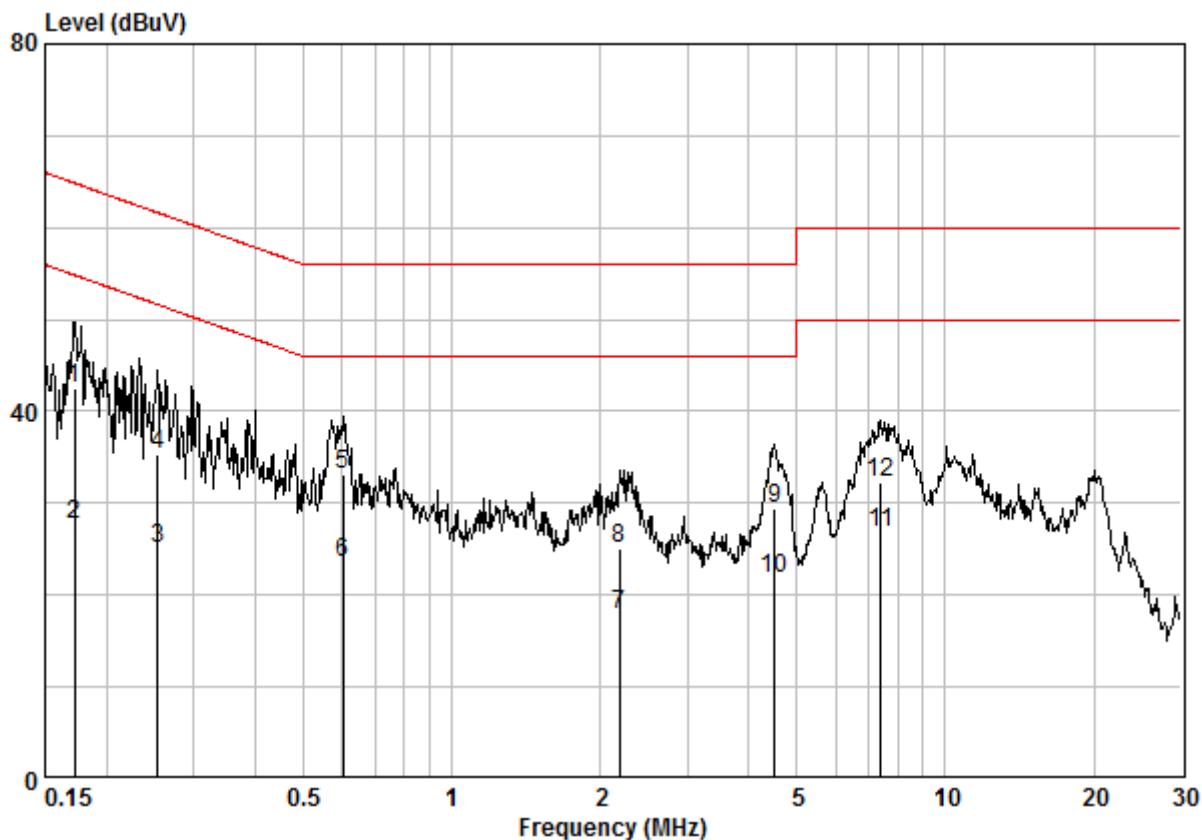
Condition : CE LINE

Job No. : 01792CR

Test Mode : c

	Freq	Cable	LISN	Read	Limit	Over	Remark
		Loss	Factor	Level			
	MHz	dB	dB	dBuV	dBuV	dBuV	dB
1	0.16765	0.02	9.64	31.30	40.96	65.08	-24.12 QP
2	0.16765	0.02	9.64	17.81	27.47	55.08	-27.60 AVERAGE
3	0.58231	0.02	9.65	17.66	27.33	46.00	-18.67 AVERAGE
4	0.58231	0.02	9.65	26.68	36.35	56.00	-19.65 QP
5	2.321	0.03	9.68	33.06	42.76	56.00	-13.24 QP
6	2.321	0.03	9.68	24.44	34.14	46.00	-11.86 AVERAGE
7 @	4.525	0.02	9.73	29.29	39.03	46.00	-6.97 AVERAGE
8	4.525	0.02	9.73	38.46	48.21	56.00	-7.79 QP
9	8.367	0.11	9.82	30.85	40.78	60.00	-19.22 QP
10	8.367	0.11	9.82	24.18	34.11	50.00	-15.89 AVERAGE
11	11.438	0.15	9.89	21.27	31.30	50.00	-18.70 AVERAGE
12	11.438	0.15	9.89	27.44	37.47	60.00	-22.53 QP

Mode:c; Line:Neutral Line



Site : Shielding Room  
Condition : CE NEUTRAL  
Job No. : 01792CR  
Test Mode : c

	Freq	Cable	LISN	Read	Limit	Over	Remark
		Loss	Factor	Level			
	MHz	dB	dB	dBuV	dBuV	dBuV	dB
1	0.17215	0.02	9.63	32.75	42.40	64.86	-22.46 QP
2	0.17215	0.02	9.63	17.95	27.60	54.86	-27.26 AVERAGE
3	0.25345	0.02	9.63	15.42	25.07	51.64	-26.58 AVERAGE
4	0.25345	0.02	9.63	25.60	35.25	61.64	-26.39 QP
5	0.60112	0.02	9.63	23.46	33.11	56.00	-22.89 QP
6	0.60112	0.02	9.63	14.00	23.65	46.00	-22.35 AVERAGE
7	2.190	0.03	9.66	8.25	17.94	46.00	-28.06 AVERAGE
8	2.190	0.03	9.66	15.44	25.13	56.00	-30.87 QP
9	4.501	0.02	9.71	19.61	29.34	56.00	-26.66 QP
10	4.501	0.02	9.71	12.12	21.85	46.00	-24.15 AVERAGE
11	7.407	0.09	9.78	16.93	26.80	50.00	-23.20 AVERAGE
12	7.407	0.09	9.78	22.32	32.19	60.00	-27.81 QP

## 7.2 Emission Mask

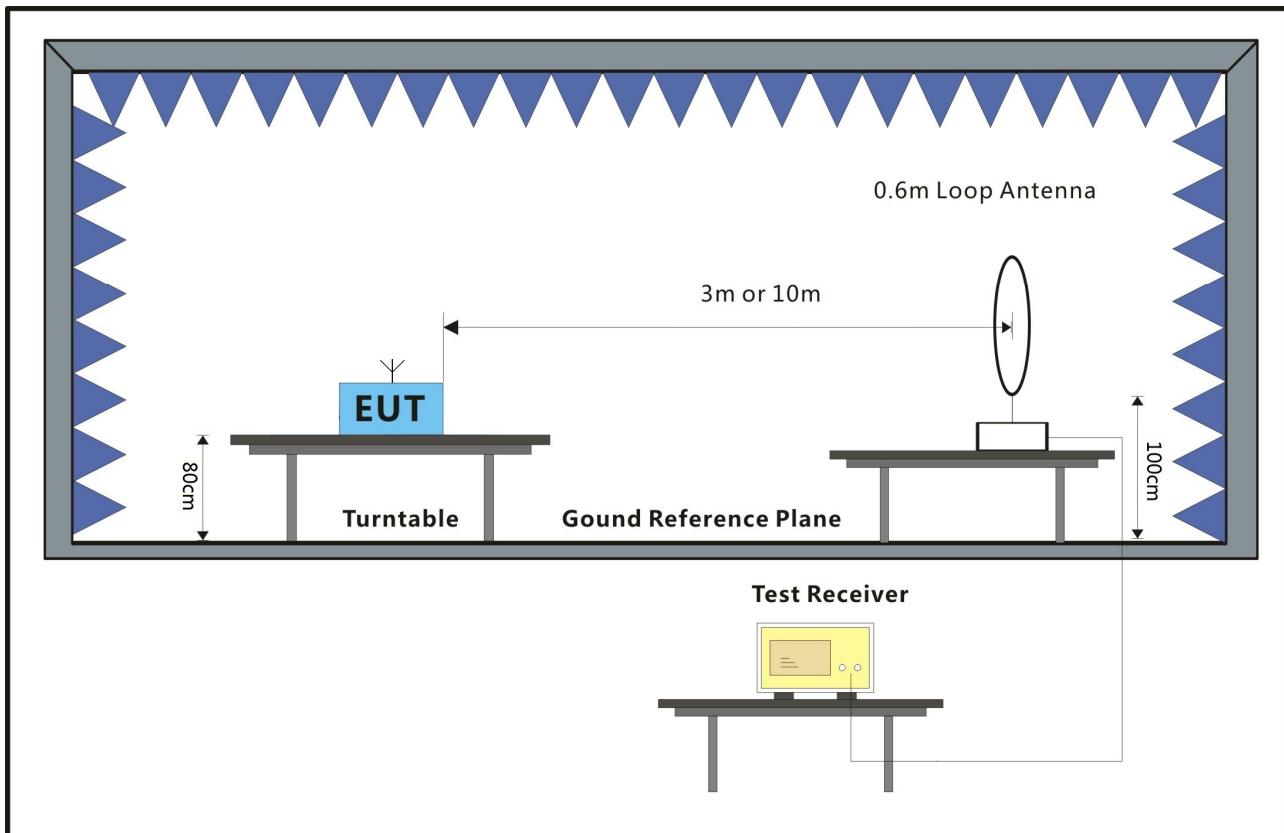
Test Requirement 47 CFR Part 15, Subpart C 15.225(a)&(b)&(C )  
Test Method: ANSI C63.10 (2013) Section 6.4  
Measurement Distance: 10m  
Limit:

- (a) The field strength of any emissions within the band 13.553-13.567 MHz shall not exceed 15.848 microvolts/meter at 30 meters.
- (b) Within the bands 13.410-13.553 MHz and 13.567-13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts/meter at 30 meters.
- (c) Within the bands 13.110-13.410 MHz and 13.710-14.010 MHz the field strength of any emissions shall not exceed 106 microvolts/meter at 30 meters.
- (d) The field strength of any emissions appearing outside of the 13.110-14.010 MHz band shall not exceed the general radiated emission limits in § 15.209.

### 7.2.1 E.U.T. Operation

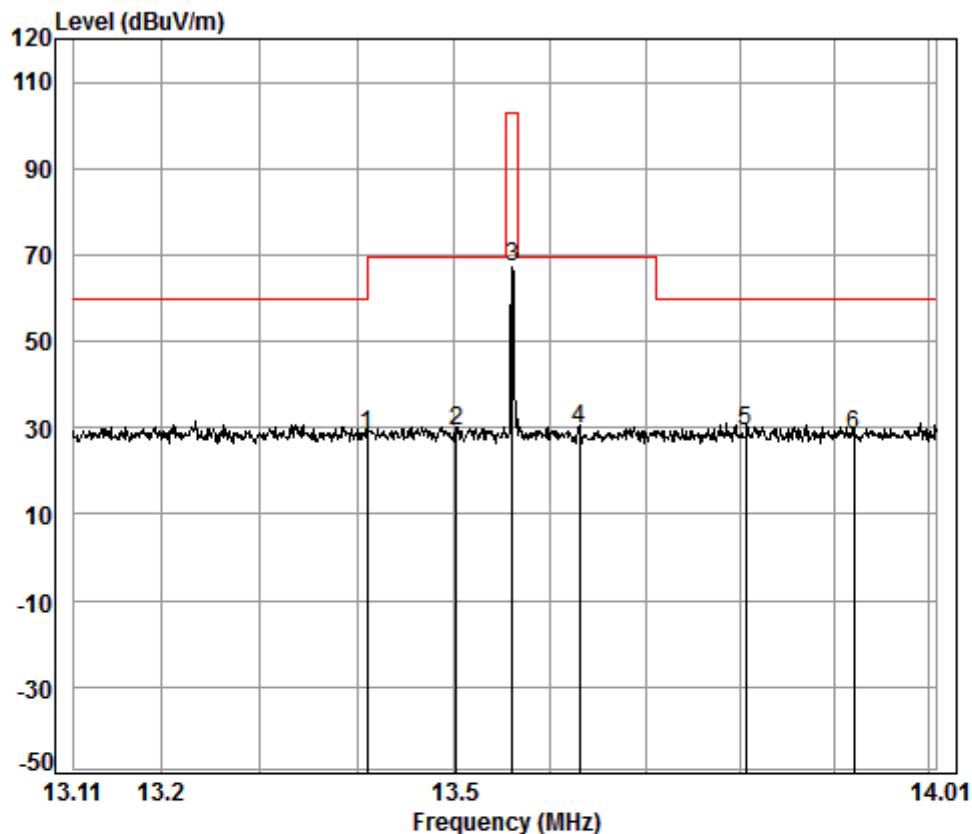
Operating Environment:  
Temperature: 23 °C      Humidity: 54 % RH      Atmospheric Pressure: 1015 mbar  
Test mode: c:TX mode\_Keep the EUT in transmitting mode(NFC)

### 7.2.2 Test Setup Diagram



**7.2.3 Measurement Procedure and Data**

For testing performed with the loop antenna, the bottom of the loop was positioned 1 m above the ground and positioned with its plane vertical at the specified distance from the EUT. During testing the loop was rotated about its vertical axis for maximum response at each azimuth and also investigated with the loop positioned in the horizontal plane. Only the worst position of vertical was shown in the report.



Condition: 10m

Job No. : 01792CR

Test Mode: c

1	13.41	0.57	10.38	0.00	17.32	28.27	69.56	Over	
								Cable	Ant
	Freq	Loss	Factor	Factor	Level	Level	Level	Limit	Line
		MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	13.41	0.57	10.38	0.00	17.32	28.27	69.56	-41.29	
2	13.50	0.57	10.38	0.00	18.42	29.37	69.56	-40.19	
3	13.56	0.57	10.37	0.00	56.22	67.16	103.08	-35.92	
4	13.63	0.57	10.37	0.00	18.62	29.56	69.56	-40.00	
5 pp	13.81	0.58	10.36	0.00	18.12	29.06	59.59	-30.53	
6	13.92	0.58	10.36	0.00	17.41	28.35	59.59	-31.24	

### 7.3 Radiated Emissions(9kHz-30MHz)

Test Requirement 47 CFR Part 15, Subpart C 15.225(d) &amp; 15.209

Test Method: ANSI C63.10 (2013) Section 6.4&amp;6.5

Measurement Distance: 10m

Limit:

Frequency(MHz)	Field strength (microvolts/meter)	Limit (dBuV/m)	Detector	Measurement Distance (meters)
0.009-0.490	2400/F(kHz)	-	-	300
0.490-1.705	24000/F(kHz)	-	-	30
1.705-30	30	-	-	30
30-88	100	40.0	QP	3
88-216	150	43.5	QP	3
216-960	200	46.0	QP	3
960-1000	500	54.0	QP	3
Above 1000	500	54.0	AV	3

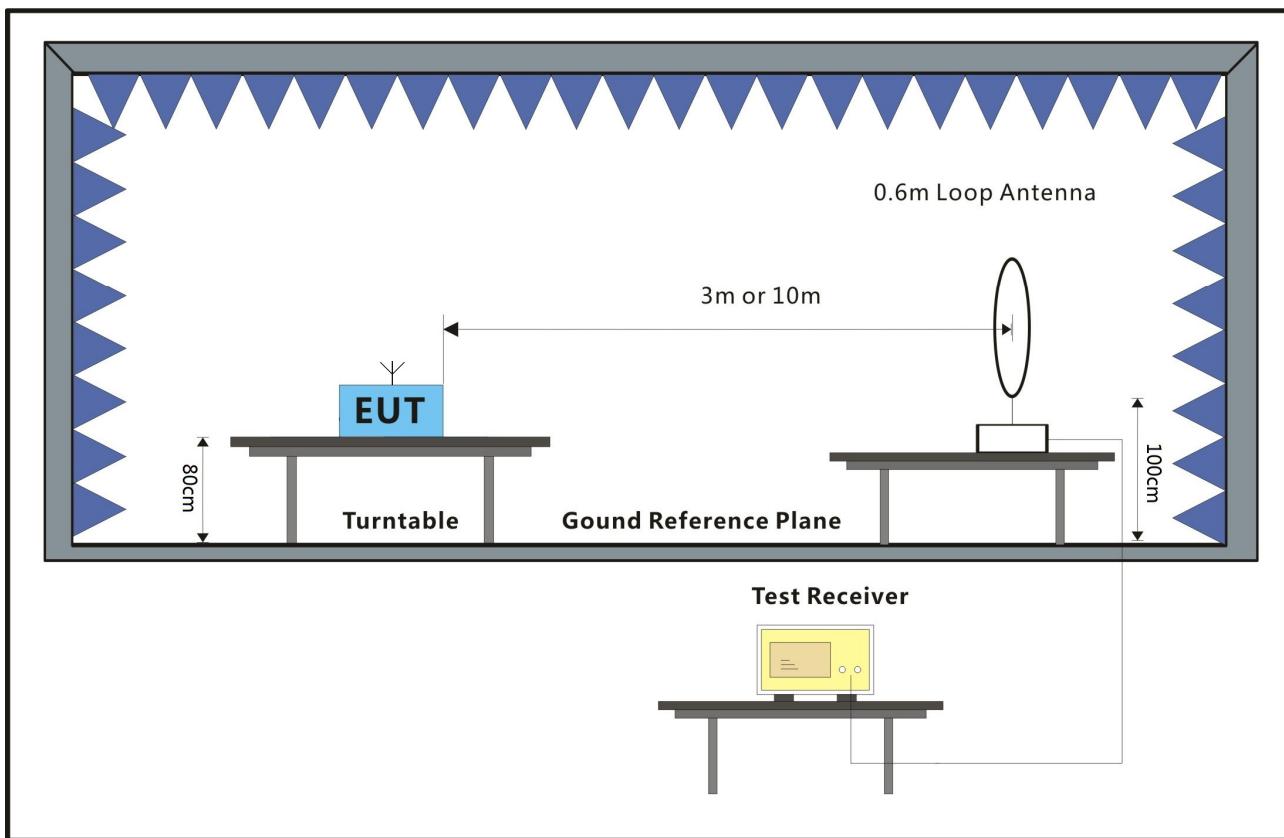
### 7.3.1 E.U.T. Operation

Operating Environment:

Temperature: 24 °C      Humidity: 54 % RH      Atmospheric Pressure: 1015 mbar

Test mode: c:TX mode\_Keep the EUT in transmitting mode(NFC)

### 7.3.2 Test Setup Diagram



### 7.3.3 Measurement Procedure and Data

For testing performed with the loop antenna, the bottom of the loop was positioned 1 m above the ground and positioned with its plane vertical at the specified distance from the EUT. During testing the loop was rotated about its vertical axis for maximum response at each azimuth and also investigated with the loop positioned in the horizontal plane. Only the worst position of vertical was shown in the report.

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)
0.010	0.30	20.00	0.00	27.57	47.87	107.60	-59.73
9.010	0.48	10.88	0.00	-9.13	2.23	48.63	-46.40
22.140	0.70	9.18	0.00	-7.25	2.63	48.63	-46.00
27.780	-0.76	8.22	0.00	-7.88	-0.42	48.63	-49.05

## 7.4 Radiated Emissions(30MHz-1GHz)

Test Requirement 47 CFR Part 15, Subpart C 15.225(d) & 15.209

Test Method: ANSI C63.10 (2013) Section 6.4&6.5

Measurement Distance: 3m

Limit:

Frequency	Field strength (microvolt/meter)	Limit (dBuV/m)	Remark	Measurement distance (m)
30MHz-88MHz	100	40.0	Quasi-peak	3
88MHz-216MHz	150	43.5	Quasi-peak	3
216MHz-960MHz	200	46.0	Quasi-peak	3
960MHz-1GHz	500	54.0	Quasi-peak	3

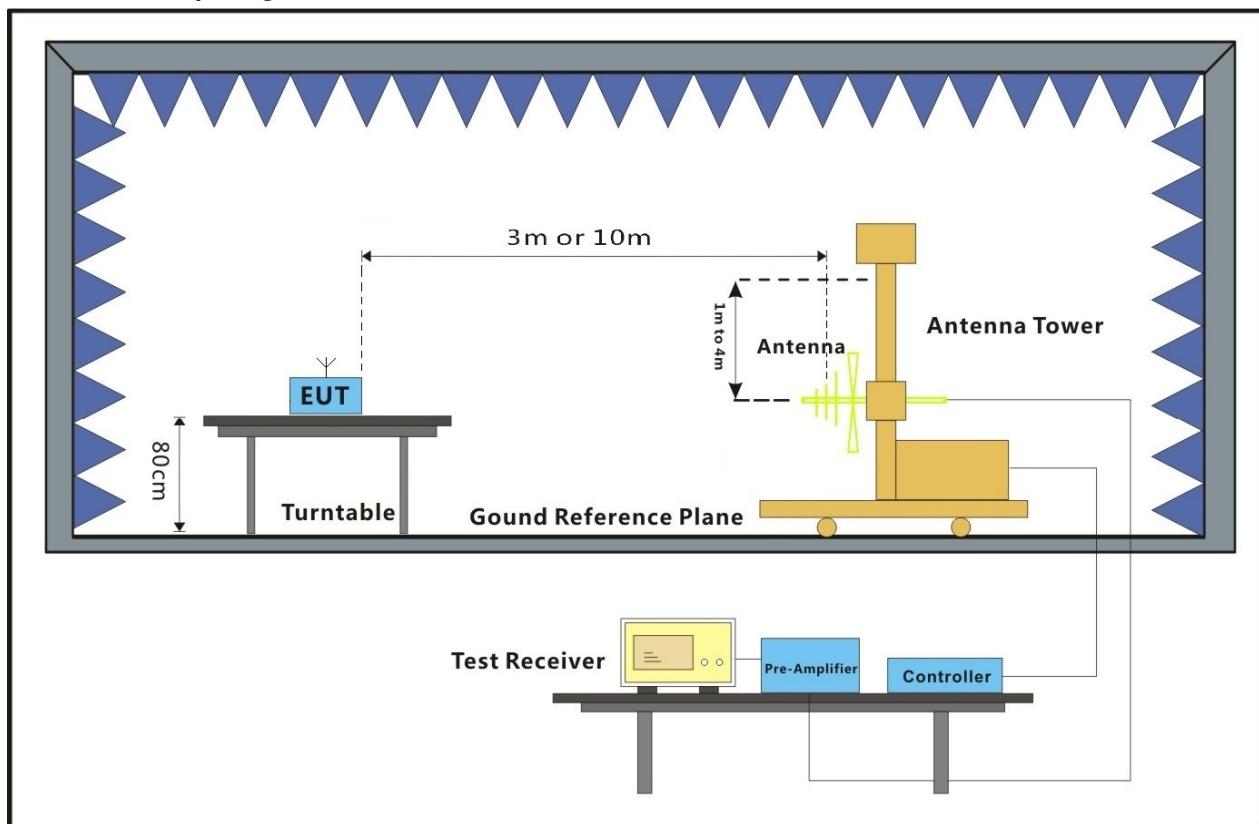
### 7.4.1 E.U.T. Operation

Operating Environment:

Temperature: 23 °C Humidity: 54 % RH Atmospheric Pressure: 1015 mbar

Test mode: c:TX mode\_Keep the EUT in transmitting mode(NFC)

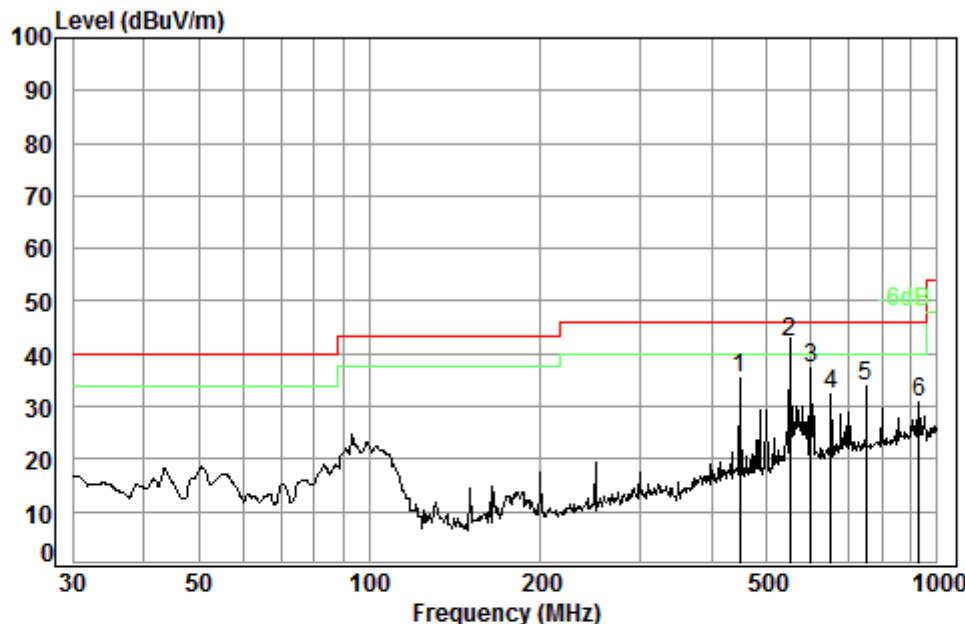
### 7.4.2 Test Setup Diagram



#### **7.4.3 Measurement Procedure and Data**

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground for below 1GHz at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
- g. The radiation measurements are performed in X, Y, Z axis positioning. And found the X axis positioning which it is worse case, only the test worst case mode is recorded in the report.

Radiated Emission below 1GHz		
30MHz~1GHz (QP)		
Test mode:	Transmitting mode	Vertical



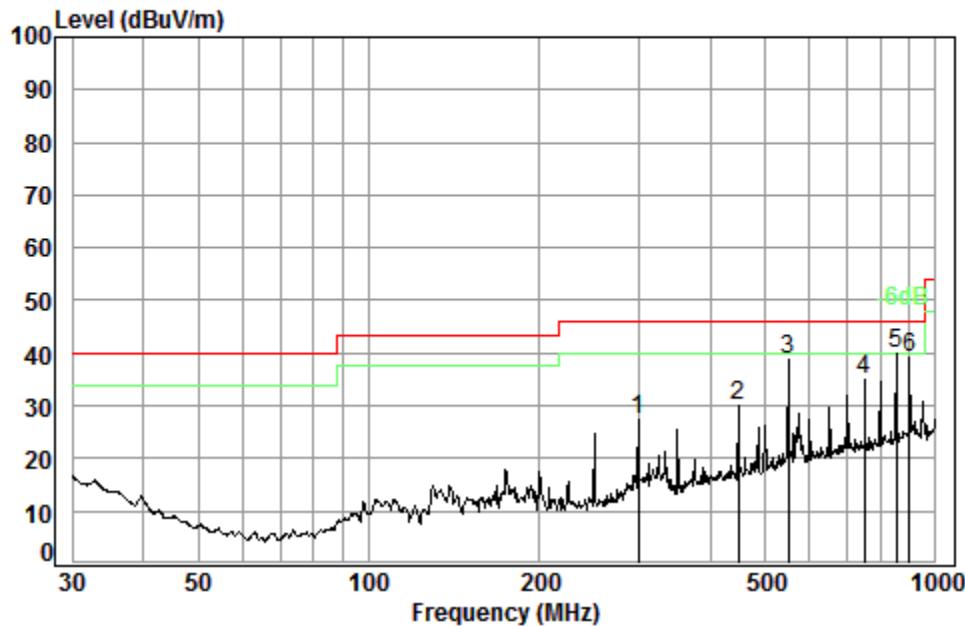
Condition: 3m VERTICAL

Job No. : 01792CR

Test mode: TX mode

Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level		Limit Line	Over Limit			
				MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m
1	449.56	2.41	16.89	27.44	43.68	35.54	46.00	35.54	46.00	-10.46
2 pp	549.02	2.65	18.88	27.62	48.14	42.05	46.00	42.05	46.00	-3.95
3	599.32	2.70	19.78	27.54	42.44	37.38	46.00	37.38	46.00	-8.62
4	649.66	2.80	20.60	27.47	36.22	32.15	46.00	32.15	46.00	-13.85
5	750.11	3.06	21.70	27.35	36.55	33.96	46.00	33.96	46.00	-12.04
6	929.01	3.63	23.30	26.64	30.44	30.73	46.00	30.73	46.00	-15.27

Test mode:	Transmitting mode	Horizontal
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Condition: 3m HORIZONTAL

Job No. : 01792CR

Test mode: TX mode

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Limit Level	Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	299.32	1.90	13.87	26.41	37.83	27.19	46.00	-18.81
2	449.56	2.41	16.89	27.44	38.02	29.88	46.00	-16.12
3	549.02	2.65	18.88	27.62	44.93	38.84	46.00	-7.16
4	750.11	3.06	21.70	27.35	37.49	34.90	46.00	-11.10
5 pp	851.04	3.41	22.42	27.02	41.03	39.84	46.00	-6.16
6	900.15	3.60	23.20	26.78	39.31	39.33	46.00	-6.67

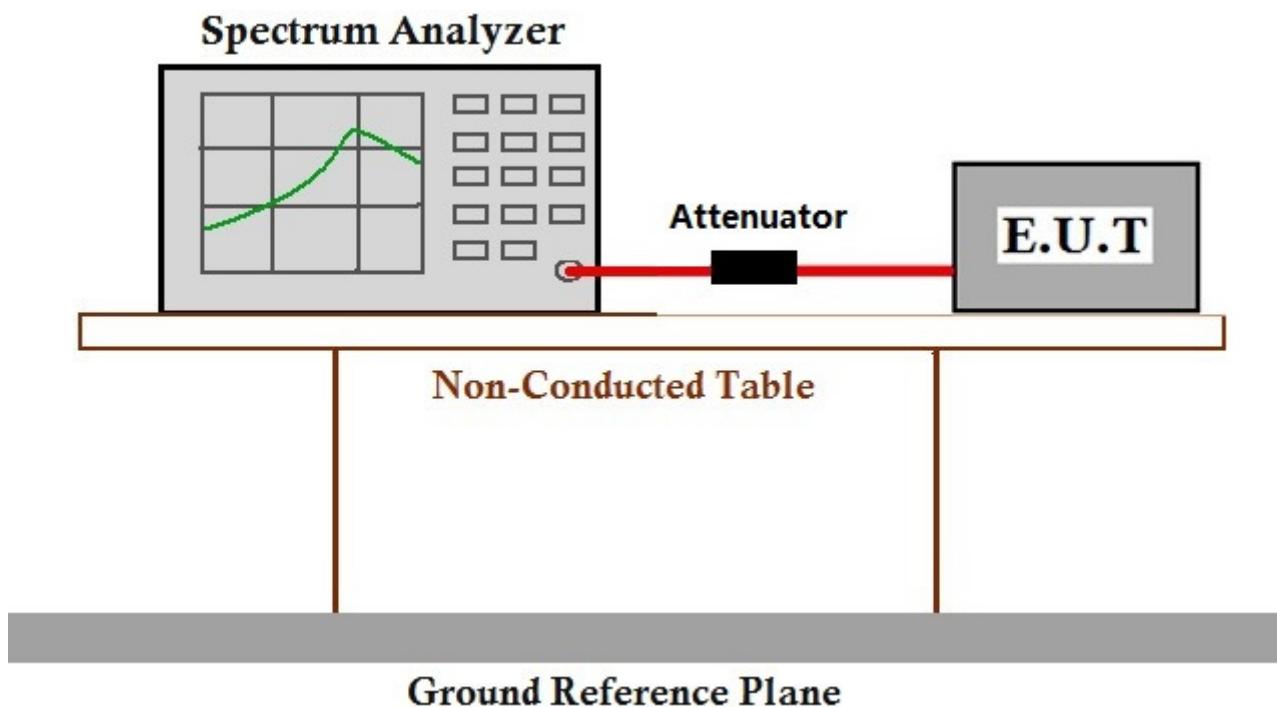
## 7.5 Frequency tolerance

Test Requirement 47 CFR Part 15, Subpart C 15.225(e)  
Test Method: ANSI C63.10 (2013) Section 6.8  
Limit: 1.356kHz

### 7.5.1 E.U.T. Operation

Operating Environment:  
Temperature: 24 °C Humidity: 54 % RH Atmospheric Pressure: 1015 mbar  
Test mode: c:TX mode\_Keep the EUT in transmitting mode(NFC)

### 7.5.2 Test Setup Diagram



### 7.5.3 Measurement Data

Declared Frequency (MHz)	13.56MHz	
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Frequency Tolerance (%)	Limit (%)	Result
50	120	13.5597	-0.0022	±0.01	Pass
40		13.5594	-0.0044		Pass
30		13.5595	-0.0037		Pass
20		13.5596	-0.0029		Pass
10		13.5596	-0.0029		Pass
0		13.5600	0		Pass
-10		13.5599	-0.0007		Pass
-20		13.5595	-0.0037		Pass
20	138	13.5598	-0.0015		Pass
	120	13.5596	-0.0029		Pass
	102	13.5595	-0.0037		Pass

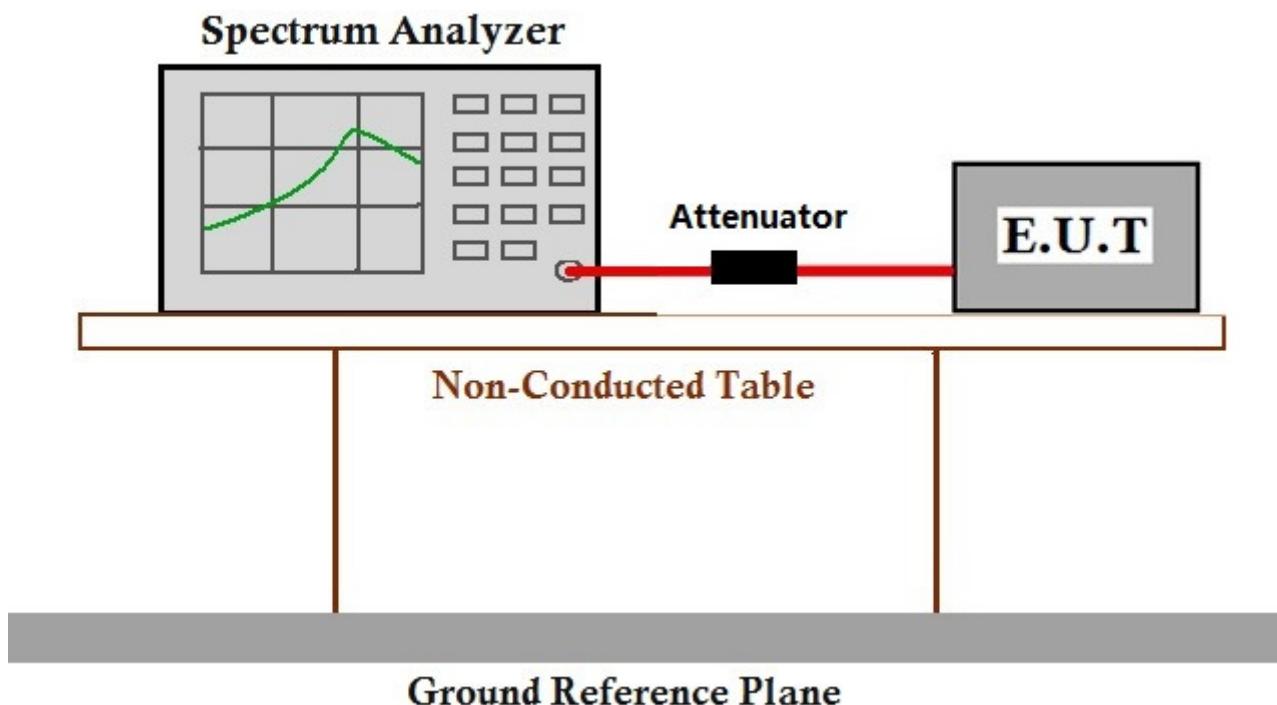
## 7.6 20dB Bandwidth

Test Requirement 47 CFR Part 15, Subpart C 15.215  
Test Method: ANSI C63.10 (2013) Section 6.9  
Limit: N/A

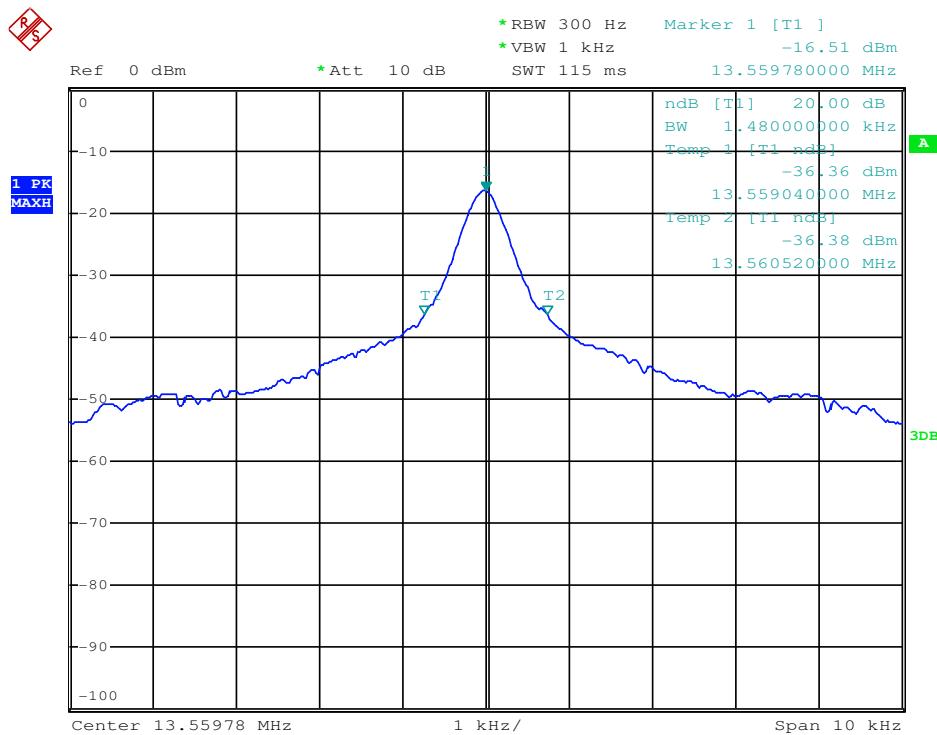
### 7.6.1 E.U.T. Operation

Operating Environment:  
Temperature: 24 °C      Humidity: 54 % RH      Atmospheric Pressure: 1015 mbar  
Test mode: c:TX mode\_Keep the EUT in transmitting mode(NFC)

### 7.6.2 Test Setup Diagram



### 7.6.3 Measurement Data



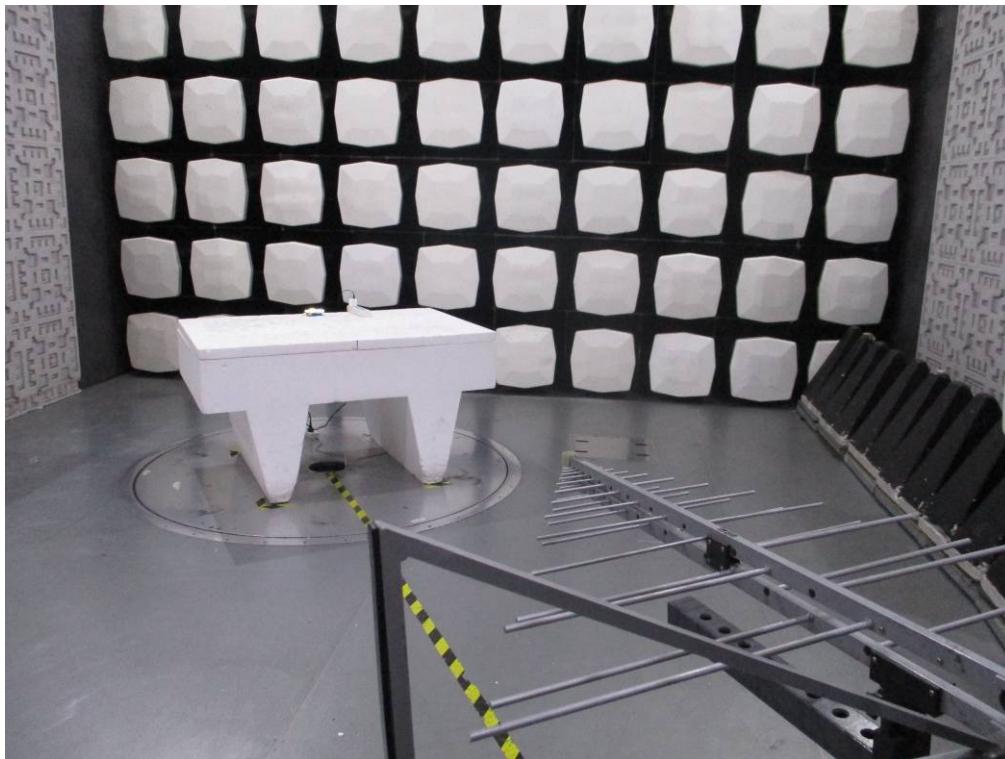
## 8 Photographs

### 8.1 Conducted Disturbance at AC Power Line(150kHz-30MHz) Test Setup



### 8.2 Radiated Emissions Test Setup





### 8.3 EUT Constructional Details

Refer to Appendix A - Photographs of EUT Constructional Details for SZEM1703001792CR.