




# FCC Radio Test Report

## FCC ID: 2BCNR-MOBI-8C-010

### Original Grant

**Report No.** : TBR-C-202212-0155-21  
**Applicant** : SHENZHEN EESTANDARD TECHNOLOGY CO., LTD  
**Equipment Under Test (EUT)**  
**EUT Name** : Mobi Scale  
**Model No.** : MOBI-8C-010  
**Series Model No.** : MOBI-XX-XXX  
**Brand Name** : Bintracker  
**Sample ID** : 202212-0155-2-1# & 202212-0155-2-2#  
**Receipt Date** : 2023-08-11  
**Test Date** : 2023-08-11 to 2023-09-06  
**Issue Date** : 2023-09-06  
**Standards** : FCC Part 15, Subpart C(15.209)  
**Test Method** : ANSI C63.10: 2013  
**Conclusions** : **PASS**

In the configuration tested, the EUT complied with the standards specified above,

**Test/Witness Engineer** :   
**Engineer Supervisor** :   
**Engineer Manager** : 



This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in the report.

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## Revision History

Report No.	Version	Description	Issued Date
TBR-C-202212-0155-21	Rev.01	Initial issue of report	2023-09-06

# 1. General Information about EUT

## 1.1 Client Information

<b>Applicant</b>	:	SHENZHEN EESTANDARD TECHNOLOGY CO., LTD
<b>Address</b>	:	601, Building 1, Yibaolai Industrial City, Qiaotou Community, Fuhai Street, Bao 'an District, Shenzhen City, China
<b>Manufacturer</b>	:	SHENZHEN EESTANDARD TECHNOLOGY CO., LTD
<b>Address</b>	:	601, Building 1, Yibaolai Industrial City, Qiaotou Community, Fuhai Street, Bao 'an District, Shenzhen City, China

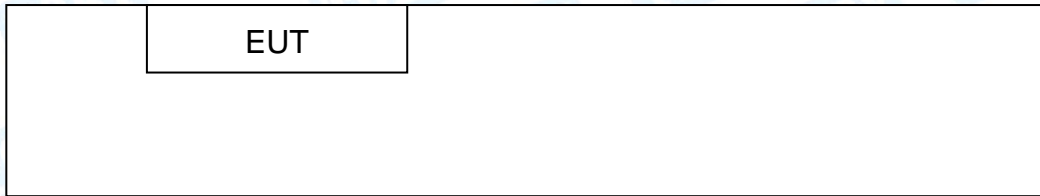
## 1.2 General Description of EUT (Equipment Under Test)

<b>EUT Name</b>	:	Mobi Scale
<b>Model(s)</b>	:	MOBI-8C-010, MOBI-XX-XXX
<b>Model Difference</b>	:	All PCB boards and circuit diagrams are the same, the only difference is that model names.
<b>Product Description</b>	Operation Frequency:	110KHz-205KHz
	Modulation Type:	ASK
	Antenna:	Coil Antenna
<b>Power Rating</b>	:	DC 7.2V by 3000mAh Rechargeable Li-ion battery
<b>Software Version</b>	:	V0.9
<b>Hardware Version</b>	:	V1.1
<b>Connecting I/O Port(S)</b>	:	Please refer to the User's Manual

**Note:**

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

### 1.3 Block Diagram Showing the Configuration of System Tested



### 1.4 Description of Support Units

The EUT has been tested as an independent unit.

### 1.5 Description of Test Mode

To investigate the maximum EMI emission characteristics generated from EUT, the test system was pre-scanning tested based on the consideration of following EUT operation mode or test configuration mode which possibly have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned follows was evaluated respectively.

Pretest Mode	
Final Test Mode	Description
Mode 1	Working Mode
For Radiated Test	
Final Test Mode	Description
Mode 1	Working Mode
For Bandwidth Test	
Final Test Mode	Description
Mode 1	Working Mode

**Note:**

- (1) For all test, we have verified the construction and function in typical operation. And all the test modes were carried out with the EUT in transmitting operation in maximum power with all kinds of data rate.  
According to ANSI C63.10 standards, All test modes were pre-tested, but we only recorded the worst case in this report.
- (2) During the testing procedure, the continuously transmitting with the maximum power mode was programmed by the customer.
- (3) The EUT is considered a portable unit; in normal use it was positioned on X-plane. The worst case was found positioned on X-plane. Therefore only the test data of this X-plane was used for radiated emission measurement test.

## 1.6 Description of Test Software Setting

During testing channel & Power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters of RF setting.

<b>Test Software Version</b>	<b>N/A</b>
Frequency	110-205KHz

## 1.7 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 %.

Test Item	Parameters	Expanded Uncertainty ( $U_{Lab}$ )
Conducted Emission	Level Accuracy: 9kHz~150kHz 150kHz to 30MHz	$\pm 3.50$ dB $\pm 3.10$ dB
Radiated Emission	Level Accuracy: 9kHz to 30 MHz	$\pm 4.60$ dB
Radiated Emission	Level Accuracy: 30MHz to 1000 MHz	$\pm 4.50$ dB
Radiated Emission	Level Accuracy: Above 1000MHz	$\pm 4.20$ dB

## 1.8 Test Facility

The testing report were performed by the Shenzhen Toby Technology Co., Ltd., in their facilities located at 1/F., Building 6, Rundongsheng Industrial Zone, Longzhu, Xixiang, Bao'an District, Shenzhen, Guangdong, China. At the time of testing, the following bodies accredited the Laboratory:

### **CNAS (L5813)**

The Laboratory has been accredited by CNAS to ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories for the competence in the field of testing. And the Registration No.: CNAS L5813.

### **A2LA Certificate No.: 4750.01**

The laboratory has been accredited by American Association for Laboratory Accreditation(A2LA) to ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories for the technical competence in the field of Electrical Testing. And the A2LA Certificate No.: 4750.01.FCC Accredited Test Site Number: 854351. Designation Number: CN1223.

### **IC Registration No.: (11950A)**

The Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing. The site registration: Site# 11950A. CAB identifier: CN0056.



## 2. Test Summary

FCC Part 15 Subpart C(15.209)			
Standard Section	Test Item	Judgment	Remark
15.203	Antenna Requirement	PASS	N/A
15.207(a)	Conducted Emission	N/A	N/A
15.209(a)(f)	Radiated emissions	PASS	N/A
15.215	Bandwidth	PASS	N/A

**Note:** N/A is an abbreviation for Not Applicable.

## 3. Test Software

Test Item	Test Software	Manufacturer	Version No.
Conducted Emission	EZ-EMC	EZ	CDI-03A2
Radiation Emission	EZ-EMC	EZ	FA-03A2RE

## 4. Test Equipment

Radiation Emission Test (A Site)					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Rohde & Schwarz	FSV40-N	102197	Jun. 20, 2023	Jun. 19, 2024
EMI Test Receiver	Rohde & Schwarz	ESPI	100010/007	Jun. 20, 2023	Jun. 19, 2024
Bilog Antenna	ETS-LINDGREN	3142E	00117537	Feb. 27, 2022	Feb.26, 2024
Horn Antenna	ETS-LINDGREN	3117	00143207	Feb. 26, 2022	Feb.25, 2024
Horn Antenna	SCHWARZBECK	BBHA 9170	1118	Feb. 26, 2022	Feb.25, 2024
Loop Antenna	SCHWARZBECK	FMZB 1519 B	1519B-059	Jun. 26, 2022	Jun.25, 2024
Pre-amplifier	SONOMA	310N	185903	Jun. 20, 2023	Jun. 19, 2024
Pre-amplifier	HP	8449B	3008A00849	Jun. 20, 2023	Jun. 19, 2024
HF Amplifier	Tonscend	TAP0184050	AP21C806129	Aug. 30, 2023	Aug. 29, 2024
Radiation Emission Test (B Site)					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	N9020A	MY49100060	Aug. 30, 2023	Aug. 29, 2024
Spectrum Analyzer	Rohde & Schwarz	FSV40-N	102197	Jun. 20, 2023	Jun. 19, 2024
EMI Test Receiver	Rohde & Schwarz	ESU-8	100472/008	Feb. 23, 2023	Feb. 22, 2024
Bilog Antenna	SCHWARZBECK	VULB 9168	1225	Dec. 05, 2021	Dec. 04, 2023
Horn Antenna	SCHWARZBECK	BBHA 9120 D	2463	Feb. 26, 2022	Feb.25, 2024
Horn Antenna	SCHWARZBECK	BBHA 9170	1118	Jun. 26, 2022	Jun.25, 2024
Loop Antenna	SCHWARZBECK	FMZB 1519 B	1519B-059	Jun. 26, 2022	Jun.25, 2024
HF Amplifier	Tonscend	TAP9E6343	AP21C806117	Aug. 30, 2023	Aug. 29, 2024
HF Amplifier	Tonscend	TAP051845	AP21C806141	Aug. 30, 2023	Aug. 29, 2024
HF Amplifier	Tonscend	TAP0184050	AP21C806129	Aug. 30, 2023	Aug. 29, 2024
Highpass Filter	CD	HPM-6.4/18G	---	N/A	N/A
Highpass Filter	CD	HPM-2.8/18G	---	N/A	N/A
Highpass Filter	XINBO	XBLBQ-HTA67(8-25G)	22052702-1	N/A	N/A
Antenna Conducted Emission					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	MY45106456	Jun. 20, 2023	Jun. 19, 2024
Spectrum Analyzer	Rohde & Schwarz	FSV40-N	102197	Jun. 20, 2023	Jun. 19, 2024
MXA Signal Analyzer	KEYSIGHT	N9020B	MY60110172	Aug. 30, 2023	Aug. 29, 2024
MXA Signal Analyzer	Agilent	N9020A	MY47380425	Aug. 30, 2023	Aug. 29, 2024
Vector Signal Generator	Agilent	N5182A	MY50141294	Aug. 30, 2023	Aug. 29, 2024

Analog Signal Generator	Agilent	N5181A	MY48180463	Aug. 30, 2023	Aug. 29, 2024
Vector Signal Generator	KEYSIGHT	N5182B	MY59101429	Aug. 30, 2023	Aug. 29, 2024
Analog Signal Generator	KEYSIGHT	N5173B	MY61252685	Aug. 30, 2023	Aug. 29, 2024
RF Power Sensor	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO26	Aug. 30, 2023	Aug. 29, 2024
	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO29	Aug. 30, 2023	Aug. 29, 2024
	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO31	Aug. 30, 2023	Aug. 29, 2024
	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO33	Aug. 30, 2023	Aug. 29, 2024
RF Control Unit	Tonsced	JS0806-1	21C8060380	N/A	N/A
RF Control Unit	Tonsced	JS0806-2	21F8060439	Aug. 30, 2023	Aug. 29, 2024
Power Control Box	Tonsced	JS0806-4ADC	21C8060387	N/A	N/A
Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	144382	Aug. 30, 2023	Aug. 29, 2024
Universal Radio Communication Tester	Rohde&Schwarz	CMW500	168796	Feb. 23, 2023	Feb.22, 2024
Temperature and Humidity Chamber	ZhengHang	ZH-QTH-1500	ZH2107264	Jun. 20, 2023	Jun. 19, 2024

Conducted Emission Test					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
EMI Test Receiver	Rohde & Schwarz	ESCI	100321	Jun. 23, 2022	Jun. 22, 2023
RF Switching Unit	Compliance Direction Systems Inc	RSU-A4	34403	Jun. 23, 2022	Jun. 22, 2023
AMN	SCHWARZBECK	NNBL 8226-2	8226-2/164	Jun. 22, 2022	Jun. 21, 2023
LISN	Rohde & Schwarz	ENV216	101131	Jun. 22, 2022	Jun. 21, 2023
ISN	SCHWARZBECK	NTFM 8131	8131-193	Jun. 22, 2022	Jun. 21, 2023
ISN	SCHWARZBECK	CAT3 8158	cat3 5158-0094	Jun. 22, 2022	Jun. 21, 2023
ISN	SCHWARZBECK	NTFM5158	NTFM5158 0145	Jun. 22, 2022	Jun. 21, 2023
ISN	SCHWARZBECK	CAT 8158	cat5 8158-179	Jun. 22, 2022	Jun. 21, 2023
Radiation Emission Test (B Site)					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	N9020A	MY49100060	Sep.01.2022	Aug. 31, 2023
Spectrum Analyzer	Rohde & Schwarz	FSV40-N	102197	Jun. 23, 2022	Jun. 22, 2023
EMI Test Receiver	Rohde & Schwarz	ESU-8	100472/008	Feb. 23, 2023	Feb.22, 2024
Bilog Antenna	SCHWARZBECK	VULB 9168	1225	Dec. 05, 2021	Dec. 04, 2023
Horn Antenna	SCHWARZBECK	BBHA 9120 D	2463	Feb. 26, 2022	Feb.25, 2024
Horn Antenna	SCHWARZBECK	BBHA 9170	1118	Jun. 26, 2022	Jun.25, 2024
Loop Antenna	SCHWARZBECK	FMZB 1519 B	1519B-059	Jun. 26, 2022	Jun.25, 2024
HF Amplifier	Tonscend	TAP9E6343	AP21C806117	Sep.01.2022	Aug. 31, 2023
HF Amplifier	Tonscend	TAP051845	AP21C806141	Sep.01.2022	Aug. 31, 2023
HF Amplifier	Tonscend	TAP0184050	AP21C806129	Sep.01.2022	Aug. 31, 2023
Antenna Conducted Emission					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	MY45106456	Jun. 23, 2022	Jun. 22, 2023
Spectrum Analyzer	Rohde & Schwarz	FSV40-N	102197	Jun. 23, 2022	Jun. 22, 2023
MXA Signal Analyzer	KEYSIGHT	N9020B	MY60110172	Sep.01.2022	Aug. 31, 2023
MXA Signal Analyzer	Agilent	N9020A	MY47380425	Sep.01.2022	Aug. 31, 2023
Vector Signal Generator	Agilent	N5182A	MY50141294	Sep.01.2022	Aug. 31, 2023
Analog Signal Generator	Agilent	N5181A	MY48180463	Sep.01.2022	Aug. 31, 2023
Vector Signal Generator	KEYSIGHT	N5182B	MY59101429	Sep.01.2022	Aug. 31, 2023
Analog Signal Generator	KEYSIGHT	N5173B	MY61252685	Dec. 15, 2022	Dec. 14, 2023

RF Power Sensor	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO26	Sep.01.2022	Aug. 31, 2023
	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO29	Sep.01.2022	Aug. 31, 2023
	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO31	Sep.01.2022	Aug. 31, 2023
	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO33	Sep.01.2022	Aug. 31, 2023
RF Control Unit	Tonsced	JS0806-1	21C8060380	N/A	N/A
RF Control Unit	Tonsced	JS0806-2	21F8060439	Sep.01.2022	Aug. 31, 2023
Band Reject Filter Group	Tonsced	JS0806-F	21D8060414	Jun. 23, 2022	Jun. 22, 2023
Power Control Box	Tonsced	JS0806-4ADC	21C8060387	N/A	N/A
Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	144382	Sep.01.2022	Aug. 31, 2023
Universal Radio Communication Tester	Rohde&Schwarz	CMW500	168796	Jun. 23, 2022	Jun. 22, 2023
Temperature and Humidity Chamber	ZhengHang	ZH-QTH-1500	ZH2107264	Jun. 22, 2022	Jun. 21, 2023

## 5. Conducted Emission Test

### 5.1 Test Standard and Limit

#### 5.1.1 Test Standard

FCC Part 15.207

#### 5.1.2 Test Limit

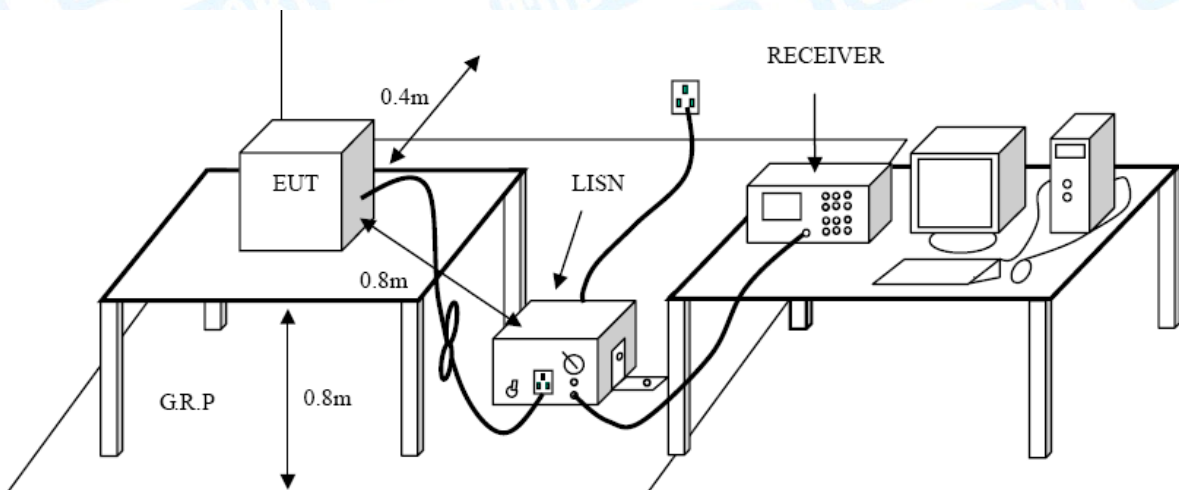
**Conducted Emission Test Limit**

Frequency	Maximum RF Line Voltage (dB $\mu$ V)	
	Quasi-peak Level	Average Level
150kHz~500kHz	66 ~ 56 *	56 ~ 46 *
500kHz~5MHz	56	46
5MHz~30MHz	60	50

Notes:

- (1) \*Decreasing linearly with logarithm of the frequency.
- (2) The lower limit shall apply at the transition frequencies.
- (3) The limit decrease in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

### 5.2 Test Setup



### 5.3 Test Procedure

The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/50uH of coupling impedance for the measuring instrument.

Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

LISN at least 80 cm from nearest part of EUT chassis.

The bandwidth of EMI test receiver is set at 9 kHz, and the test frequency band is from 0.15MHz to 30MHz.

### 5.4 Deviation From Test Standard

No deviation

### 5.5 EUT Operating Mode

Please refer to the description of test mode.

### 5.6 Test Data

Not applicable.

## 6. Radiated Emission Test

### 6.1 Test Standard and Limit

#### 6.1.1 Test Standard

FCC Part 15.209(a)(f)

#### 6.1.2 Test Limit

#### Radiated Emission Limits ( 9 kHz~1000 MHz)

Frequency (MHz)	Field Strength (microvolt/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

Note: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

#### Radiated Emission Limit (Above 1000MHz)

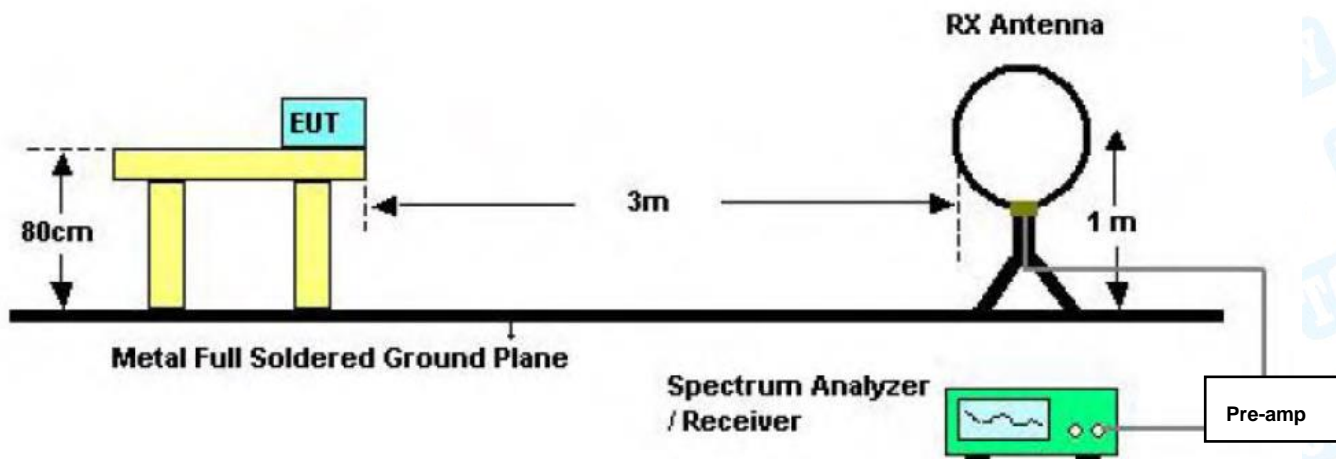
Frequency (MHz)	Distance of 3m (dBuV/m)	
	Peak	Average
Above 1000	74	54

**Note:**

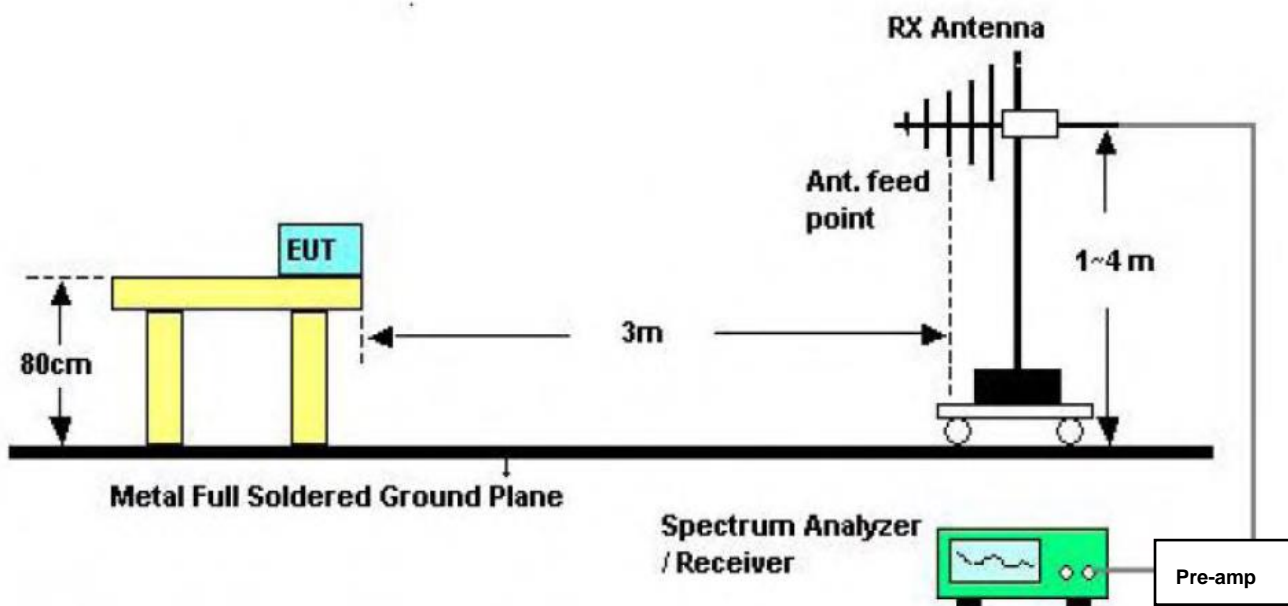
- (1) The tighter limit applies at the band edges.
- (2) Emission Level(dBuV/m)=20log Emission Level(uV/m)



## 6.2 Test Setup



Below 30MHz Test Setup



Below 1000MHz Test Setup

### 6.3 Test Procedure

- (1) Measurements at frequency 9KHz~30MHz and Below 1GHz. The EUT was placed on a rotating 0.8m high above the ground. RF absorbers covered the ground plane with a minimum area of 3.0m by 3.0m between the EUT and measurement receiver antenna. The table was rotated 360 degrees to determine the position of the highest radiation.
- (2) 9KHz~30MHz the test antenna 1m away from the ground, Both 0° and 90° antenna are set to make measurement.  
Below 1GHz the test antenna shall vary between 1m and 4m, Both Horizontal and Vertical antenna are set to make measurement.
- (3) The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- (4) If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit Bellow 1 GHz, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed. But the Peak Value and average value both need to comply with applicable limit above 1 GHz.
- (5) Testing frequency range below 1GHz the measuring instrument use VBW=120 kHz with Quasi-peak detection.
- (6) Testing frequency range above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.
- (7) For 9kHz to 150kHz, Set the spectrum analyzer as:  
RBW= 200Hz, VBW =1kHz, Detector= Quasi-Peak, Trace mode= Max hold,  
Sweep- auto couple.  
For 150kHz to 30MHz, Set the spectrum analyzer as:  
RBW= 9KHz, VBW =30kHz, Detector= Quasi-Peak, Trace mode= Max hold,  
Sweep- auto couple
- (8) For the actual test configuration, please see the test setup photo.

### 6.4 Deviation From Test Standard

No deviation

### 6.5 EUT Operating Condition

The Equipment Under Test was set to Continual Transmitting in maximum power.

### 6.6 Test Data

Please refer to the Attachment A.

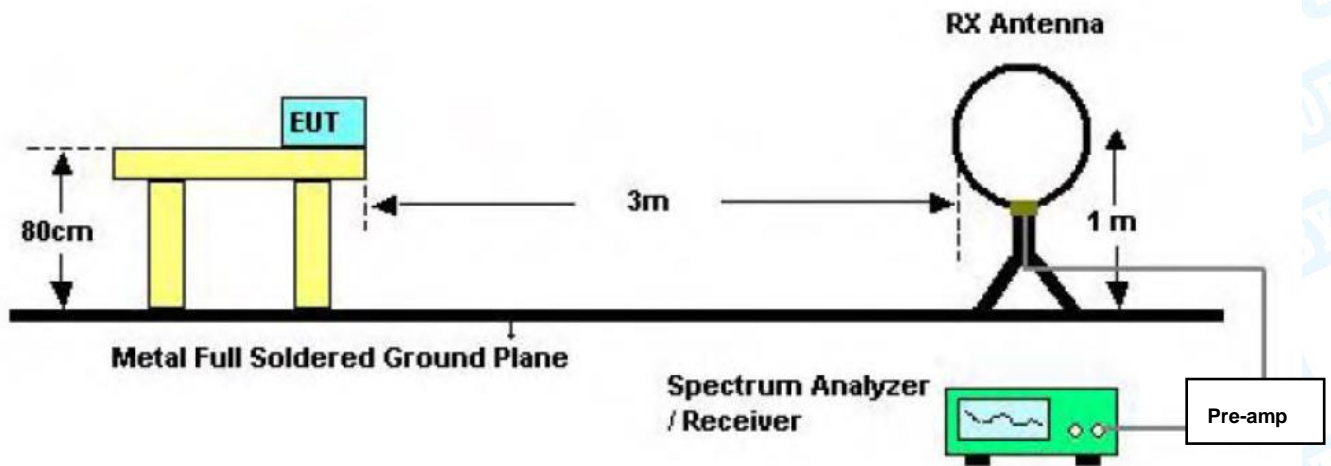
## 7. Bandwidth Measurement

### 7.1 Test Standard and Limit

#### 7.1.1 Test Standard

FCC Part 15.215

### 7.2 Test Setup



### 7.3 Test Procedure

1. The transmitter shall be operated at its maximum carrier power measured under normal test conditions;
2. The span of the analyzer shall be set to capture all products of the modulation process, including the emission skirts.
3. The resolution bandwidth (RBW) shall be in the range of 1% to 5% of the occupied bandwidth (OBW) and video bandwidth (VBW) shall be approximately 3x RBW.

### 7.4 Deviation From Test Standard

No deviation

### 7.5 EUT Operating Condition

The Equipment Under Test was set to Continual Transmitting in maximum power.

### 7.6 Test Data

Please refer to the Attachment B.

## 8. Antenna Requirement

### 8.1 Standard Requirement

#### 8.1.1 Standard

FCC Part 15.203

#### 8.1.2 Requirement

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 permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

### 8.2 Deviation From Test Standard

No deviation

### 8.3 Antenna Connected Construction

The antenna is Coil Antenna, and the antenna connector is de-signed with permanent attachment and no consideration of replacement. Please see the EUT photo for details.

### 8.4 Result

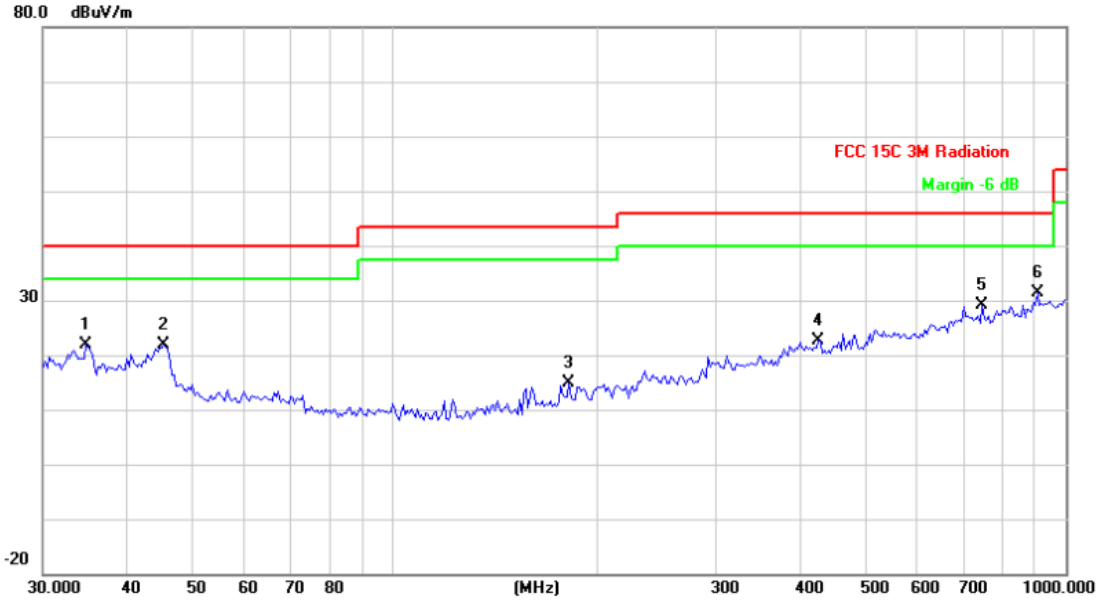
The EUT antenna is a Coil Antenna. It complies with the standard requirement.

Antenna Type
<input checked="" type="checkbox"/> Permanent attached antenna
<input type="checkbox"/> Unique connector antenna
<input type="checkbox"/> Professional installation antenna

# Attachment A-- Radiated Emission Test Data

30MHz~1GHz

Temperature:	24.6°C	Relative Humidity:	52%
Test Voltage:	DC 7.2V		
Ant. Pol.	Horizontal		
Test Mode:	Mode 1		
Remark:	Only worse case is reported		



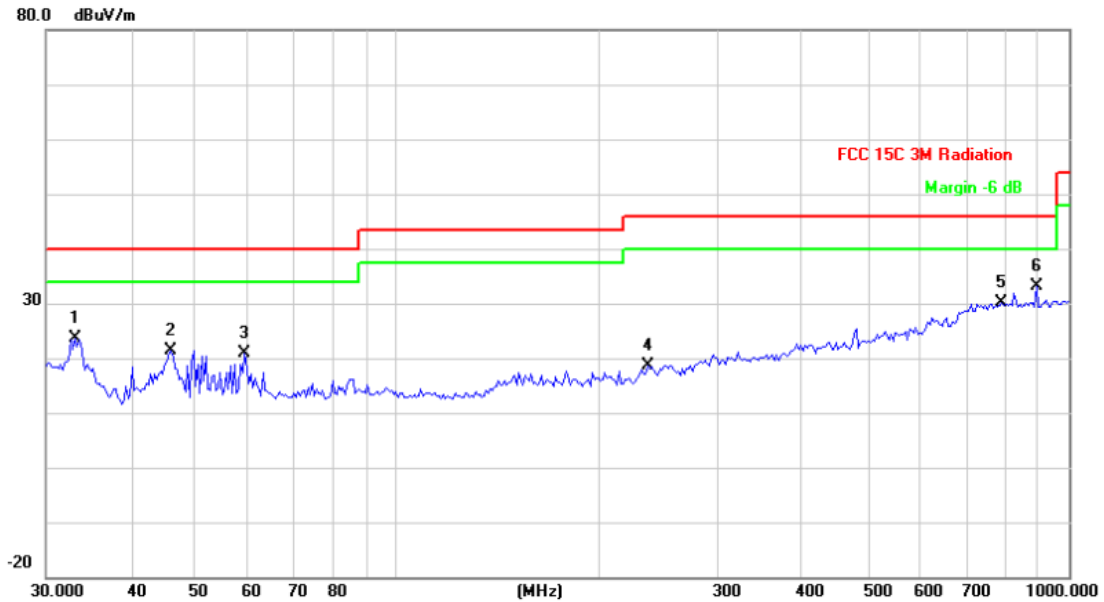
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		34.7601	34.08	-12.16	21.92	40.00	-18.08	peak
2		45.3755	38.54	-16.59	21.95	40.00	-18.05	peak
3		181.9200	28.30	-13.31	14.99	43.50	-28.51	peak
4		428.0192	27.78	-5.17	22.61	46.00	-23.39	peak
5		750.1082	28.04	1.00	29.04	46.00	-16.96	peak
6	*	906.4823	28.02	3.29	31.31	46.00	-14.69	peak

\*:Maximum data    x:Over limit    !:over margin

**Remark:**

- 1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
- 2. QuasiPeak (dBµV/m)= Corr. (dB/m)+ Read Level (dBµV)
- 3. Margin (dB) = QuasiPeak (dBµV/m)-Limit QPK(dBµV/m)

<b>Temperature:</b>	24.6°C	<b>Relative Humidity:</b>	52%
<b>Test Voltage:</b>	DC 7.2V		
<b>Ant. Pol.</b>	Vertical		
<b>Test Mode:</b>	Mode 1		
<b>Remark:</b>	Only worse case is reported		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		33.0949	34.51	-10.78	23.73	40.00	-16.27	peak
2		46.0162	37.99	-16.60	21.39	40.00	-18.61	peak
3		59.2325	37.77	-16.77	21.00	40.00	-19.00	peak
4		235.8163	30.51	-11.95	18.56	46.00	-27.44	peak
5		793.3958	29.33	0.90	30.23	46.00	-15.77	peak
6	*	893.8567	30.44	2.78	33.22	46.00	-12.78	peak

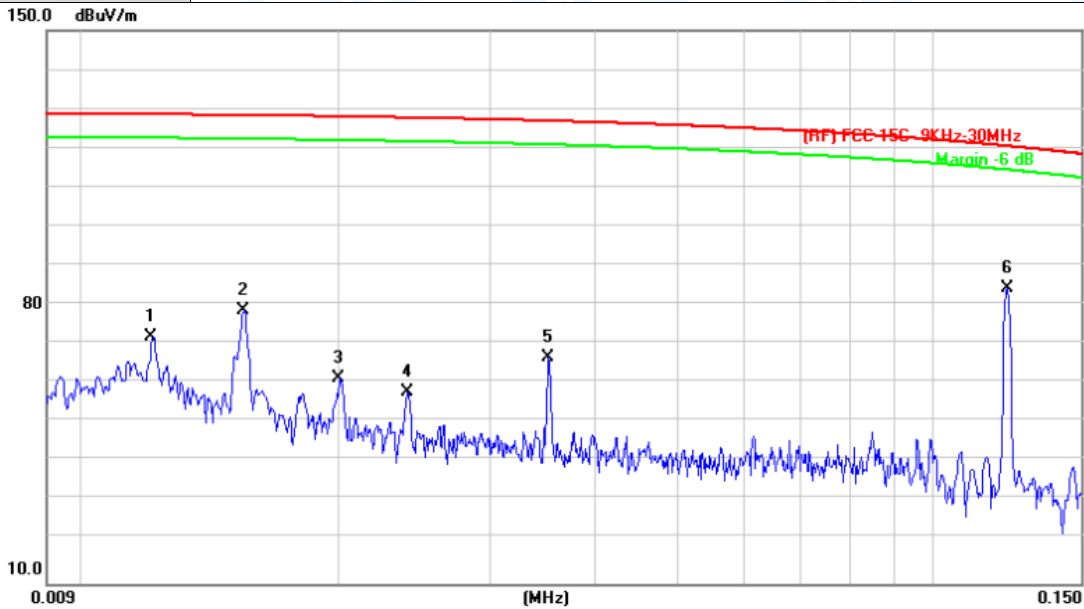
\*:Maximum data    x:Over limit    !:over margin

**Remark:**

1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. QuasiPeak (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = QuasiPeak (dBμV/m)-Limit QPK(dBμV/m)

**9KMz-30MHz**

<b>Temperature:</b>	23.5°C	<b>Relative Humidity:</b>	46%
<b>Test Voltage:</b>	DC 7.2V		
<b>Ant. Pol.</b>	Ant. 0°		
<b>Test Mode:</b>	Mode 1		
<b>Remark:</b>	N/A		

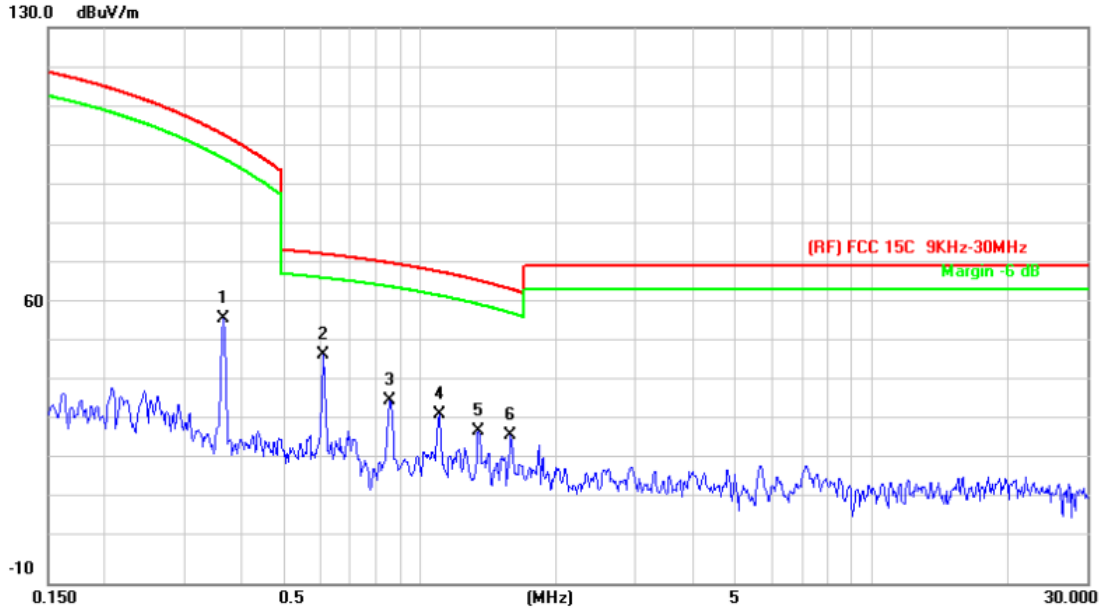


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		0.0120	83.53	-11.19	72.34	126.30	-53.96	peak
2		0.0154	90.15	-11.17	78.98	124.13	-45.15	peak
3		0.0200	73.06	-11.16	61.90	121.85	-59.95	peak
4		0.0240	69.46	-11.14	58.32	120.26	-61.94	peak
5		0.0352	78.28	-11.09	67.19	116.93	-49.74	peak
6	*	0.1224	90.65	-5.91	84.74	106.08	-21.34	peak

**Remark:**

1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. QuasiPeak/AVG(dBuV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = QuasiPeak/AVG (dBμV/m)-Limit QPK/AVG(dBuV/m)

Temperature:	23.5°C	Relative Humidity:	46%
Test Voltage:	DC 7.2V		
Ant. Pol.	Ant. 0°		
Test Mode:	Mode 1		
Remark:	N/A		



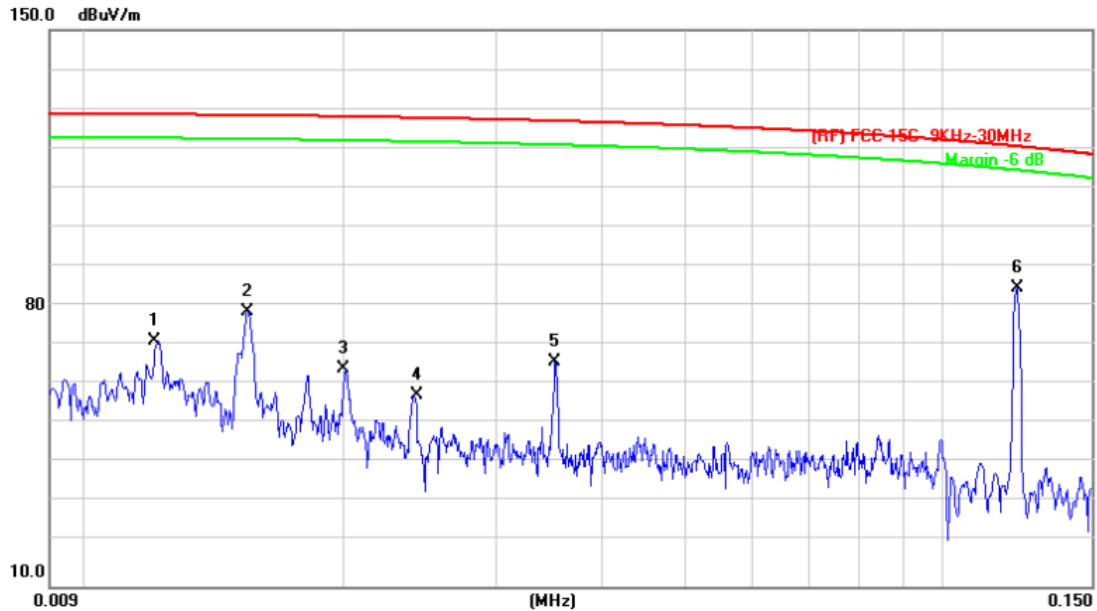
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		0.3673	66.34	-9.59	56.75	96.52	-39.77	peak
2	*	0.6108	58.10	-10.60	47.50	72.06	-24.56	peak
3		0.8573	47.04	-10.85	36.19	69.07	-32.88	peak
4		1.0997	43.48	-10.91	32.57	66.87	-34.30	peak
5		1.3450	39.24	-10.93	28.31	65.09	-36.78	peak
6		1.5851	38.18	-10.96	27.22	63.64	-36.42	peak

**Remark:**

1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. QuasiPeak/AVG(dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = QuasiPeak/AVG (dBμV/m)-Limit QPK/AVG(dBμV/m)



Temperature:	23.5°C	Relative Humidity:	46%
Test Voltage:	DC 7.2V		
Ant. Pol.	Ant. 90°		
Test Mode:	Mode 1		
Remark:	N/A		

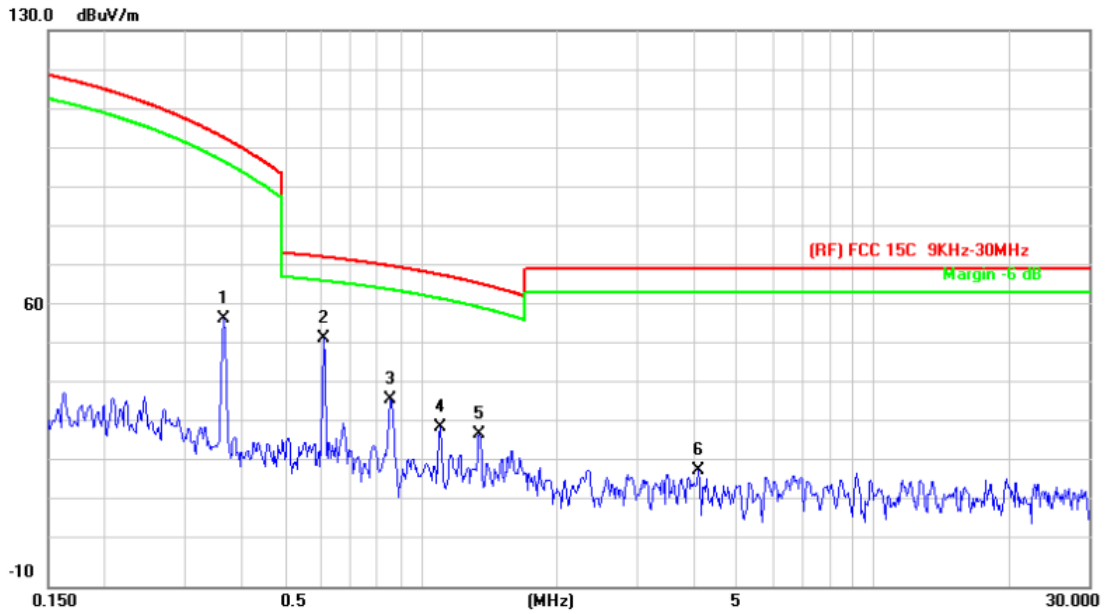


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measurement dBuV/m	Limit dBuV/m	Over dB	Detector
1		0.0120	82.98	-11.19	71.79	126.30	-54.51	peak
2		0.0154	90.42	-11.17	79.25	124.13	-44.88	peak
3		0.0200	75.78	-11.16	64.62	121.85	-57.23	peak
4		0.0241	69.30	-11.14	58.16	120.23	-62.07	peak
5		0.0352	77.52	-11.09	66.43	116.93	-50.50	peak
6	*	0.1225	90.88	-5.90	84.98	106.07	-21.09	peak

**Remark:**

1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. QuasiPeak/AVG(dBµV/m)= Corr. (dB/m)+ Read Level (dBµV)
3. Margin (dB) = QuasiPeak/AVG (dBµV/m)-Limit QPK/AVG(dBµV/m)

Temperature:	23.5°C	Relative Humidity:	46%
Test Voltage:	DC 7.2V		
Ant. Pol.	Ant. 90°		
Test Mode:	Mode 1		
Remark:	N/A		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		0.3673	66.99	-9.59	57.40	96.52	-39.12	peak
2	*	0.6108	63.01	-10.60	52.41	72.06	-19.65	peak
3		0.8573	48.03	-10.85	37.18	69.07	-31.89	peak
4		1.0997	41.06	-10.91	30.15	66.87	-36.72	peak
5		1.3450	39.38	-10.93	28.45	65.09	-36.64	peak
6		4.0920	30.44	-11.14	19.30	70.00	-50.70	peak

**Remark:**

1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. QuasiPeak/AVG(dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = QuasiPeak/AVG (dBμV/m)-Limit QPK/AVG(dBμV/m)

## Attachment B-- Bandwidth Measurement Data

Frequency (KHz)	20 dBc Bandwidth (kHz)	99% OBW (kHz)	Result
124.5	3.118	2.800	PASS

Keysight Spectrum Analyzer - Occupied BW

Center Freq 124.500 kHz  
Trig: Free Run  
#Atten: 0 dB

Center Freq: 124.500 kHz  
Avg/Hold: >10/10  
Radio Std: None  
Radio Device: BTS

10 dB/div  
Log  
Ref 0.00 dBm

Center 124.5 kHz  
#Res BW 1 kHz  
#VBW 3 kHz  
Span 50 kHz  
Sweep 47.8 ms

Occupied Bandwidth	Total Power	-14.1 dBm
<b>2.800 kHz</b>		
Transmit Freq Error	% of OBW Power	99.00 %
-151 Hz	x dB	-20.00 dB
x dB Bandwidth		
3.118 kHz		

MSG STATUS DC Coupled

-----END OF REPORT-----