FCC Radio Test Report

FCC ID: 2BAUL-D5

Original Grant

Report No.	:	TBR-C-202303-0336-4
Applicant	:	Guangdong Zhiding Innovation Electronics Co., ltd.
Equipment Under Test (EUT)		
EUT Name	:	portable energy storage power station
Model No.	:	D5
Series Model No.	:	----
Brand Name	:	----
Sample ID	:	RW-C-202303-0336-4-1#& RW-C-202303-0336-4-2#
Receipt Date	:	2022-04-07
Test Date	:	2022-04-07 to 2022-05-06
Issue Date	:	2023-05-09
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	:	Seven Wu
Engineer Supervisor	:	IVAN SU
Engineer Manager	:	Ray Lai

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.

1/F.,Building 6, Rundongsheng Industrial Zone, Longzhu, Xixiang,Bao'an District, Shenzhen, Guangdong, China
Tel: +86 75526509301 Fax: +86 75526509195

Contents

CONTENTS 2
1. GENERAL INFORMATION ABOUT EUT 5
1.1 Client Information 5
1.2 General Description of EUT (Equipment Under Test) 5
1.3 Block Diagram Showing the Configuration of System Tested 6
1.4 Description of Support Units 6
1.5 Description of Test Mode 6
1.6 Description of Test Software Setting 7
1.7 Measurement Uncertainty 8
1.8 Test Facility 8
2. TEST SUMMARY 9
3. TEST SOFTWARE 9
4. TEST EQUIPMENT 10
5. CONDUCTED EMISSION TEST 12
5.1 Test Standard and Limit 12
5.2 Test Setup 12
5.3 Test Procedure 13
5.4 Deviation From Test Standard 13
5.5 EUT Operating Mode 13
5.6 Test Data 13
6. RADIATED EMISSION TEST 14
6.1 Test Standard and Limit 14
6.2 Test Setup 15
6.3 Test Procedure 16
6.4 Deviation From Test Standard 16
6.5 EUT Operating Condition 16
6.6 Test Data 16
7. BANDWIDTH MEASUREMENT 17
7.1 Test Standard and Limit 17
7.2 Test Setup 17
7.3 Test Procedure 17
7.4 Deviation From Test Standard 17

7.5 EUT Operating Condition 17
7.6 Test Data 17
8. ANTENNA REQUIREMENT 18
8.1 Standard Requirement 18
8.2 Deviation From Test Standard 18
8.3 Antenna Connected Construction 18
8.4 Result 18
ATTACHMENT A-- CONDUCTED EMISSION TEST DATA 19
ATTACHMENT B-- RADIATED EMISSION TEST DATA 21
ATTACHMENT C-- BANDWIDTH MEASUREMENT DATA 27

Revision History

Report No.	Version	Description	Issued Date
TBR-C-202303-0336-4	Rev.01	Initial issue of report	2023-05-09

1. General Information about EUT

1.1 Client Information

Applicant	:	Guangdong Zhiding Innovation Electronics Co., ltd.
Address	:	Floor 5, building 6, Wanjin hi tech Industrial Park, No. 10, Qiaoxi Second Road, Qiaotou town, Dongguan, China
Manufacturer	:	Guangdong Zhiding Innovation Electronics Co., ltd.
Address	:	Floor 5, building 6, Wanjin hi tech Industrial Park, No. 10, Qiaoxi Second Road, Qiaotou town, Dongguan, China

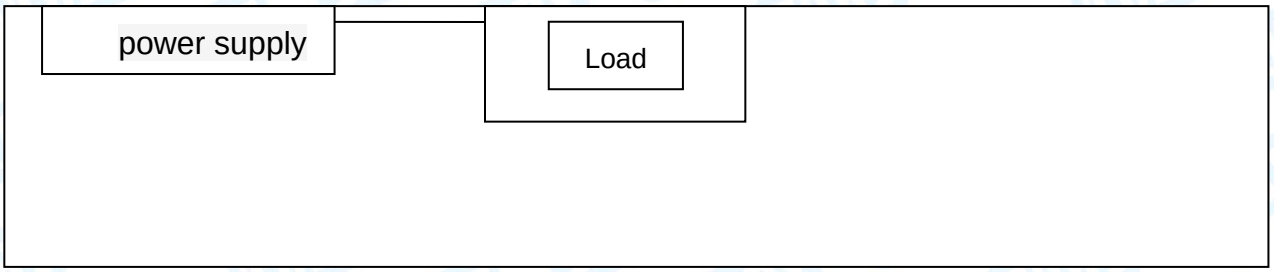
1.2 General Description of EUT (Equipment Under Test)

EUT Name	:	portable energy storage power station	
Models No.	:	D5	
Model Difference	:	----	
Product Description	:	Operation Frequency:	113-205KHz
		Modulation Type:	ASK
		Antenna:	Coil Antenna
Power Rating	:	AC Input: 100-120V, 50/60Hz; Solar Input: DC 11V-50V,12A Output: AC 110V, 50/60Hz*4 Car Charge: DC12V8.3A USB-A: DC 5V2.4A*4 USB-A: DC 5V3A, 9V2A,12V1.5A, 18W*2 USB-C: DC 5V3A, 9V3A, 12V3A, 15V3A, 20V5A, 100W*1 USB-C: DC 5V3A, 9V3A, 12V3A, 15V3A, 20V2.25A, 45W*2 Wireless Charging:15W	
Software Version	:	V1.0	
Hardware Version	:	V1.0	
Connecting I/O Port(S)	:	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

Equipment Information				
Name	**Model**	**S/N**	**Manufacturer**	**Used " √ "**
Load	----	----	----	√
Cable Information				
Number	**Shielded Type**	**Ferrite Core**	**Length**	**Note**
----	----	----	----	----

1.5 Description of Test Mode

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

Test Modes:		
Mode1	AC/DC power supply (15W) + EUT + Full load	Pre-tested
Mode2	AC/DC power supply (15W) + EUT + Half load	Pre-tested
Mode3	AC/DC power supply (15W) + EUT + Empty load	Pre-tested
Note: All test modes were pre-tested, but we only recorded the worst case in this report.		

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, the measurements are performed at the highest, middle, lowest available channels, and the worst case data rate as follows:

TX Mode: Transmitting mode.

(2) During the testing procedure, the continuously transmitting with the maximum power

mode was programmed by the customer.

(3) The EUT is considered a Mobile 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.

Test Software Version	**N/A**
Frequency	113-205KHz

1.7 Measurement Uncertainty

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

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

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	PASS	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

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
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	KEYSIGT	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 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
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

5.1.1Test Standard

FCC Part 15.207

5.1.2 Test Limit

Conducted Emission Test Limit

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

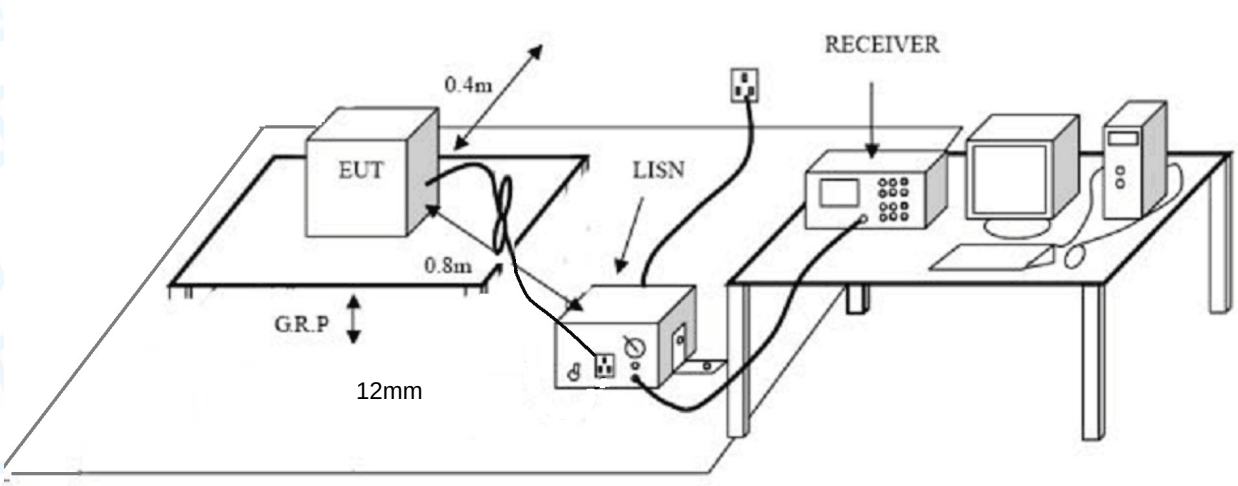
Notes:

(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 0.12mm 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

Please refer to the Attachment A.

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)

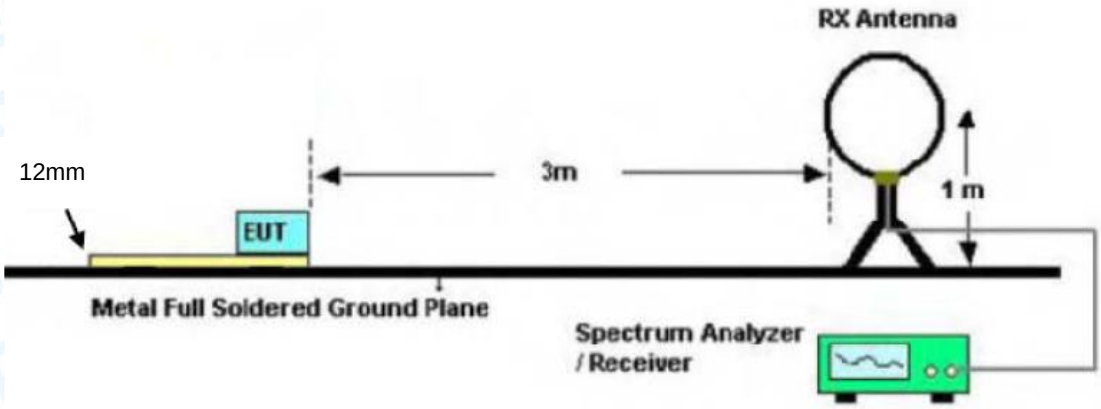
Frequency (MHz)	Distance of 3m (dBuV/m)	
	Peak	Average
Above 1000	74	54

Note:

(1) The tighter limit applies at the band edges.

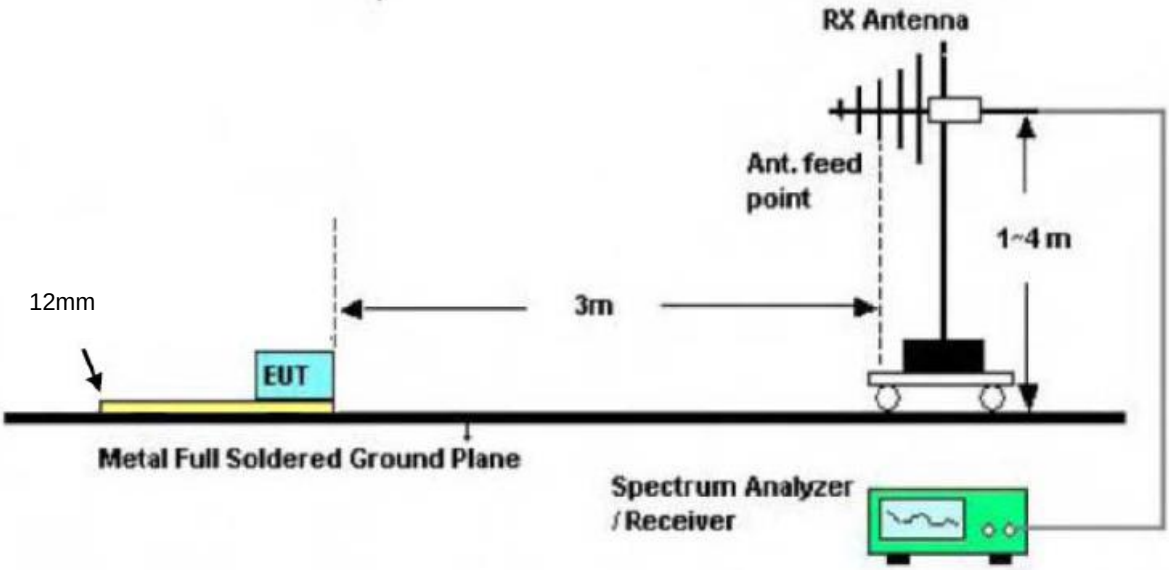
(2) Emission Level(dBuV/m)=20log Emission Level(uV/m)

6.2 Test Setup



Pre-amp

Below 30MHz Test Setup



Below 1000MHz Test Setup

Pre-amp

6.3 Test Procedure

(1) Measurements at frequency 9KHz~30MHz and Below 1GHz. The EUT was placed on a rotating 0.12mm 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 B.

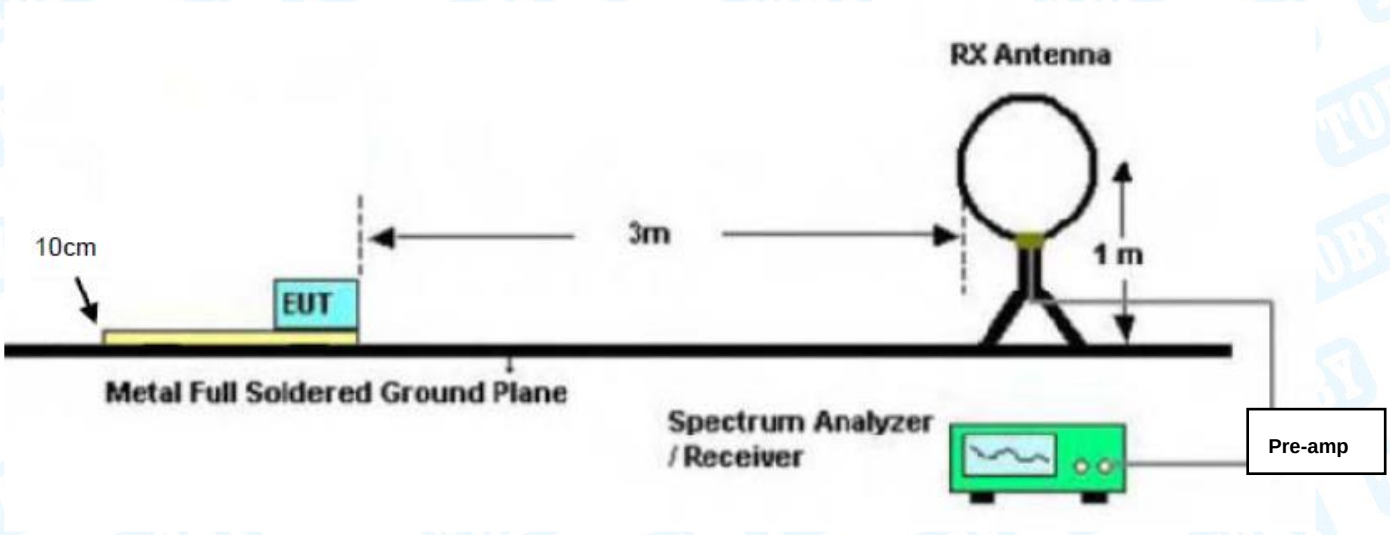
7. Bandwidth Measurement

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 C.

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.

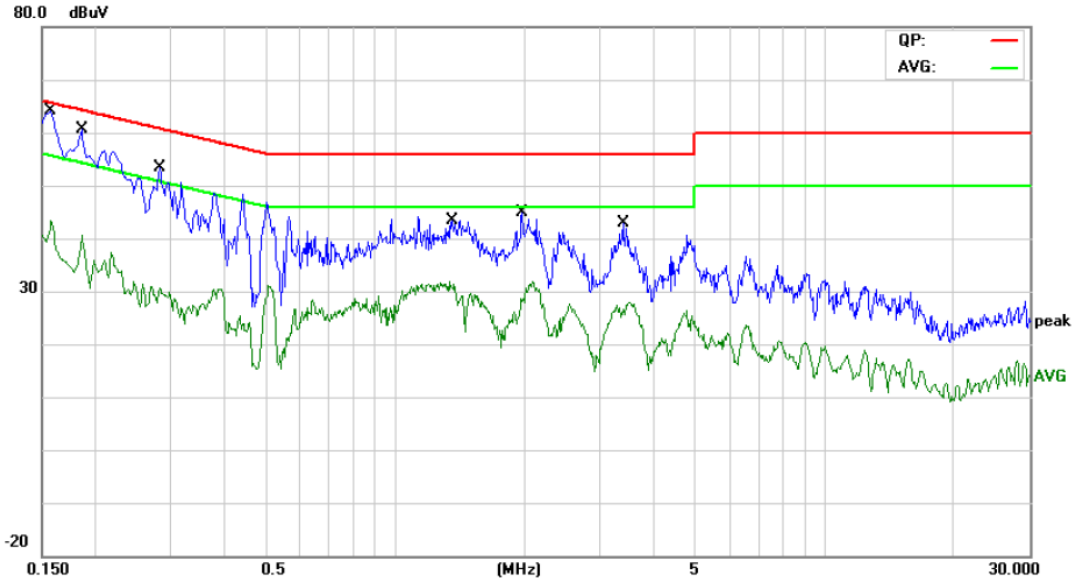
8.4 Result

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

Antenna Type
☒Permanent attached antenna
☐Unique connector antenna
☐Professional installation antenna

Attachment A-- Conducted Emission Test Data

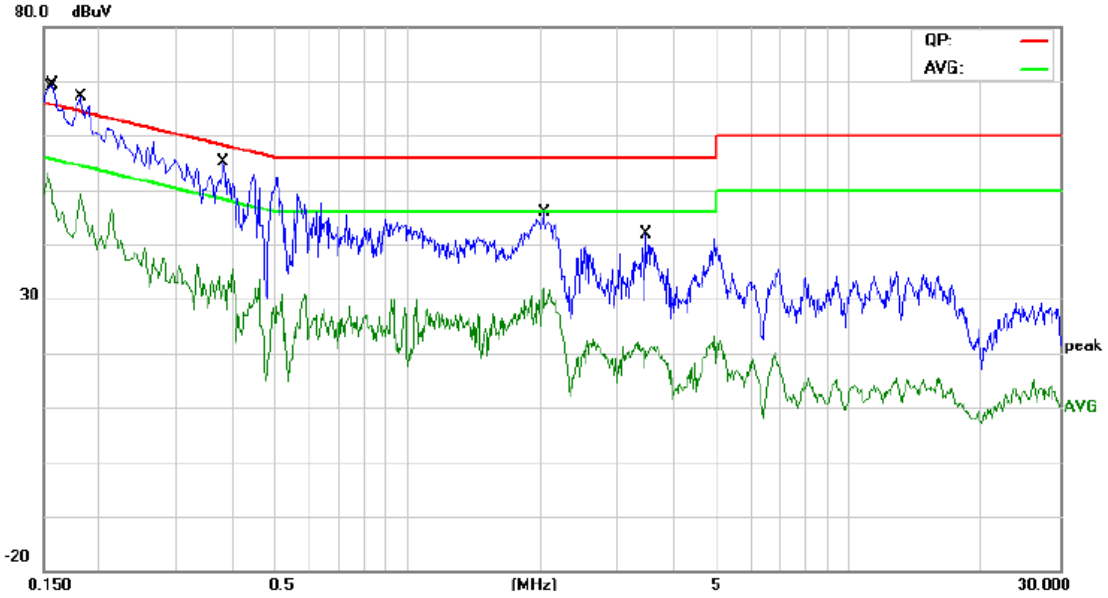
Temperature:	24.3℃	**Relative Humidity:**	56%
Test Voltage:	AC 120V/60 Hz		
Terminal:	Line		
Test Mode:	Mode 1		
Remark:	Only worse case is reported.		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1	*	0.1580	43.41	11.00	54.41	65.57	-11.16	QP
2		0.1580	25.55	11.00	36.55	55.57	-19.02	AVG
3		0.1860	40.99	11.08	52.07	64.21	-12.14	QP
4		0.1860	23.07	11.08	34.15	54.21	-20.06	AVG
5		0.2819	31.71	11.00	42.71	60.76	-18.05	QP
6		0.2819	15.90	11.00	26.90	50.76	-23.86	AVG
7		1.3580	28.31	10.64	38.95	56.00	-17.05	QP
8		1.3580	19.33	10.64	29.97	46.00	-16.03	AVG
9		1.9780	28.47	10.54	39.01	56.00	-16.99	QP
10		1.9780	17.72	10.54	28.26	46.00	-17.74	AVG
11		3.3900	27.18	10.16	37.34	56.00	-18.66	QP
12		3.3900	15.95	10.16	26.11	46.00	-19.89	AVG

Remark:
1. Corr. Factor (dB) = LISN Factor (dB) + Cable Loss (dB)
2. Margin (dB) =QuasiPeak/Average (dBuV)-Limit (dBuV)

Temperature:	24.3℃	**Relative Humidity:**	56%
Test Voltage:	AC 120V/60 Hz		
Terminal:	Neutral		
Test Mode:	Mode 1		
Remark:	Only worse case is reported		



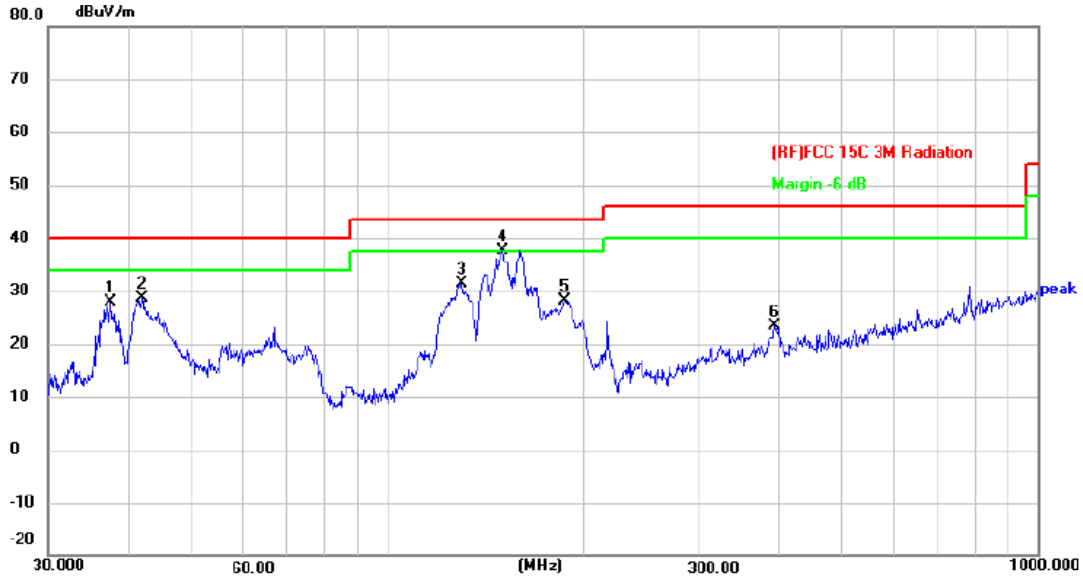
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1	*	0.1539	42.03	10.99	53.02	55.79	-2.77	AVG
2		0.1580	48.43	11.00	59.43	65.57	-6.14	QP
3		0.1580	31.62	11.00	42.62	55.57	-12.95	AVG
4		0.1819	44.85	11.07	55.92	64.40	-8.48	QP
5		0.1819	28.62	11.07	39.69	54.40	-14.71	AVG
6		0.3820	37.42	10.91	48.33	58.24	-9.91	QP
7		0.3820	16.94	10.91	27.85	48.24	-20.39	AVG
8		2.0420	27.43	10.52	37.95	56.00	-18.05	QP
9		2.0420	17.18	10.52	27.70	46.00	-18.30	AVG
10		3.4660	25.57	10.15	35.72	56.00	-20.28	QP
11		3.4660	10.30	10.15	20.45	46.00	-25.55	AVG

Remark:
1. Corr. Factor (dB) = LISN Factor (dB) + Cable Loss (dB)
2. Margin (dB) =QuasiPeak/Average (dBuV)-Limit (dBuV)

Attachment B-- Radiated Emission Test Data

30MHz~1GHz

Temperature:	24.3℃	**Relative Humidity:**	45%
Test Voltage:	AC 120/60Hz		
Ant. Pol.	Horizontal		
Test Mode:	Mode 1		
Remark:	Only worse case is reported		

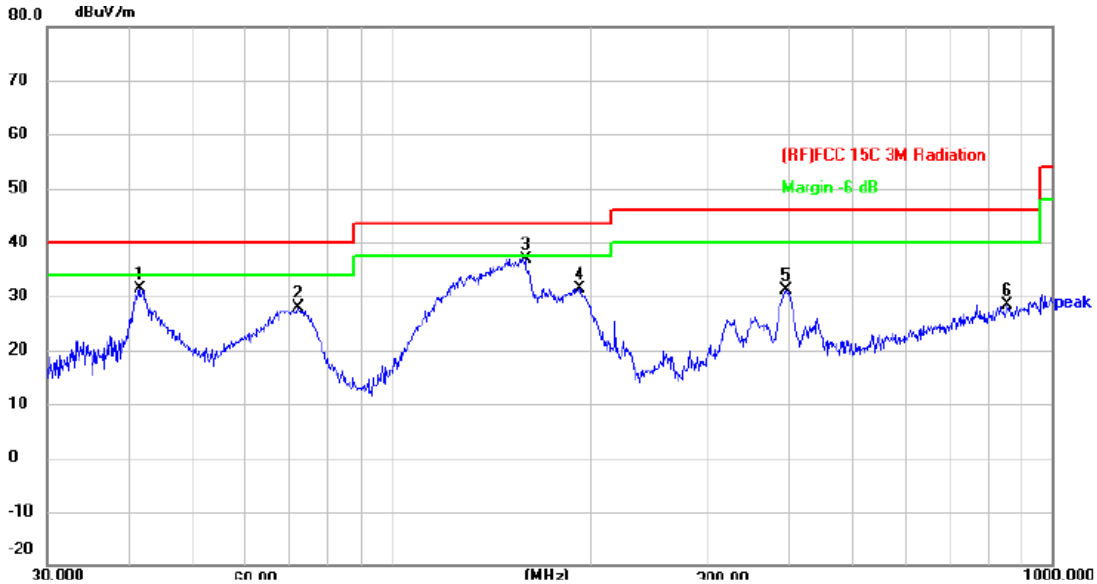


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	37.4165	50.75	-22.91	27.84	40.00	-12.16	peak
2	41.8596	51.44	-22.85	28.59	40.00	-11.41	peak
3	129.9226	54.69	-23.25	31.44	43.50	-12.06	peak
4 *	150.0108	60.19	-22.44	37.75	43.50	-5.75	peak
5	187.0958	52.32	-24.25	28.07	43.50	-15.43	peak
6	393.4723	41.41	-18.06	23.35	46.00	-22.65	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)

Temperature:	24.3℃	**Relative Humidity:**	45%
Test Voltage:	AC 120/60Hz		
Ant. Pol.	Vertical		
Test Mode:	Mode 1		
Remark:	Only worse case is reported		



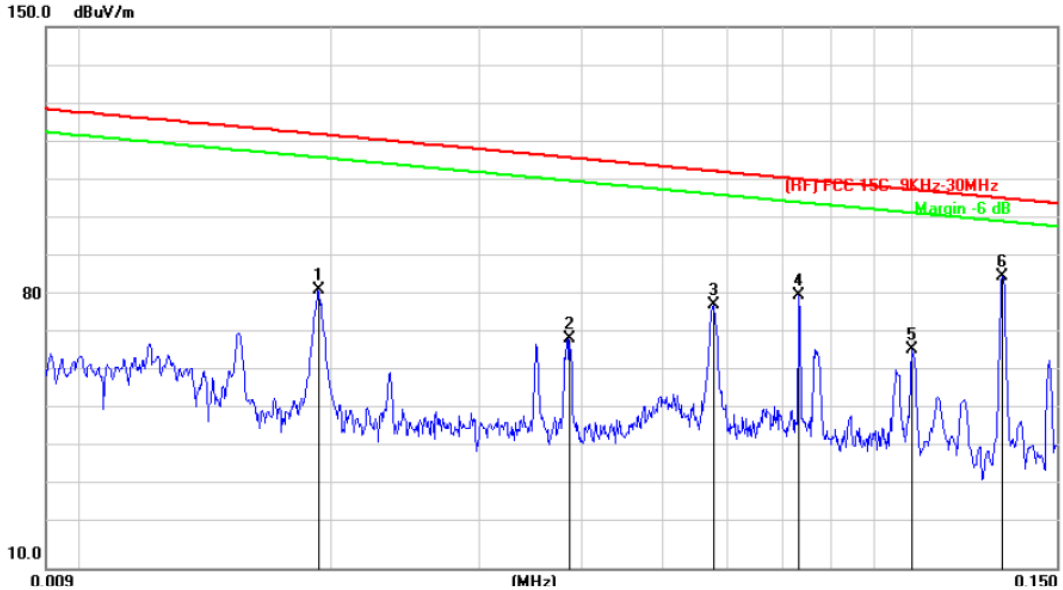
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	41.5670	54.24	-22.86	31.38	40.00	-8.62	peak
2	72.0843	52.92	-24.95	27.97	40.00	-12.03	peak
3 *	159.2251	59.13	-22.17	36.96	43.50	-6.54	peak
4	192.4186	55.96	-24.52	31.44	43.50	-12.06	peak
5	394.8545	49.19	-18.01	31.18	46.00	-14.82	peak
6	854.0247	36.65	-8.23	28.42	46.00	-17.58	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

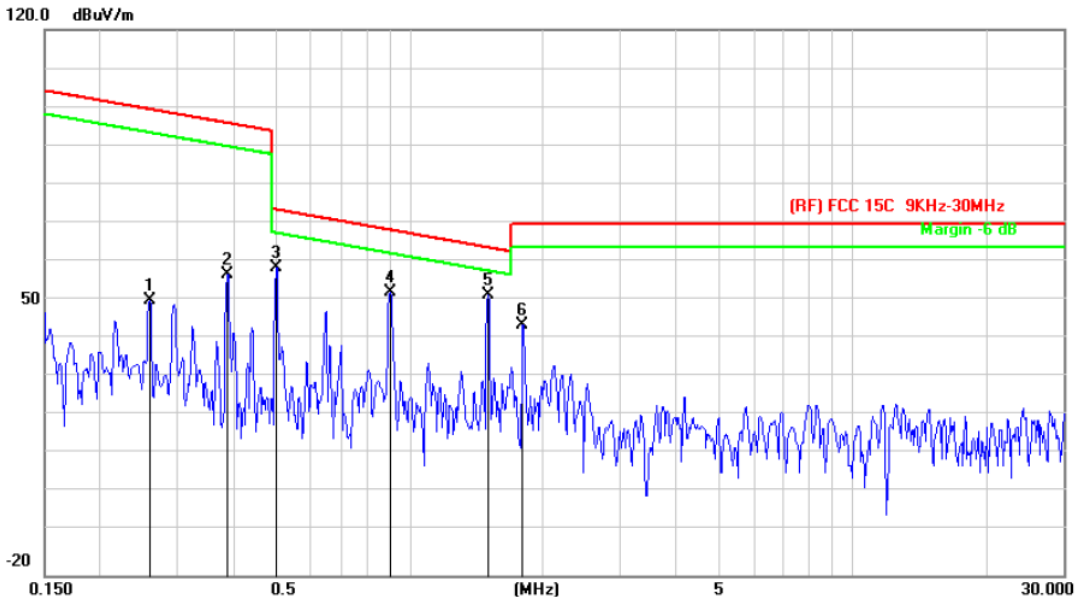
Temperature:	23.5℃	**Relative Humidity:**	46%
Test Voltage:	AC 120/60Hz		
Ant. Pol.	Ant. 0°		
Test Mode:	Mode 1		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		0.0192	93.42	-11.42	82.00	122.21	-40.21	peak
2		0.0384	80.65	-11.32	69.33	116.17	-46.84	peak
3		0.0576	89.12	-11.22	77.90	112.64	-34.74	peak
4		0.0732	91.55	-11.01	80.54	110.55	-30.01	peak
5		0.1000	71.40	-4.74	66.66	107.84	-41.18	peak
6	*	0.1289	91.39	-5.95	85.44	105.63	-20.19	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)

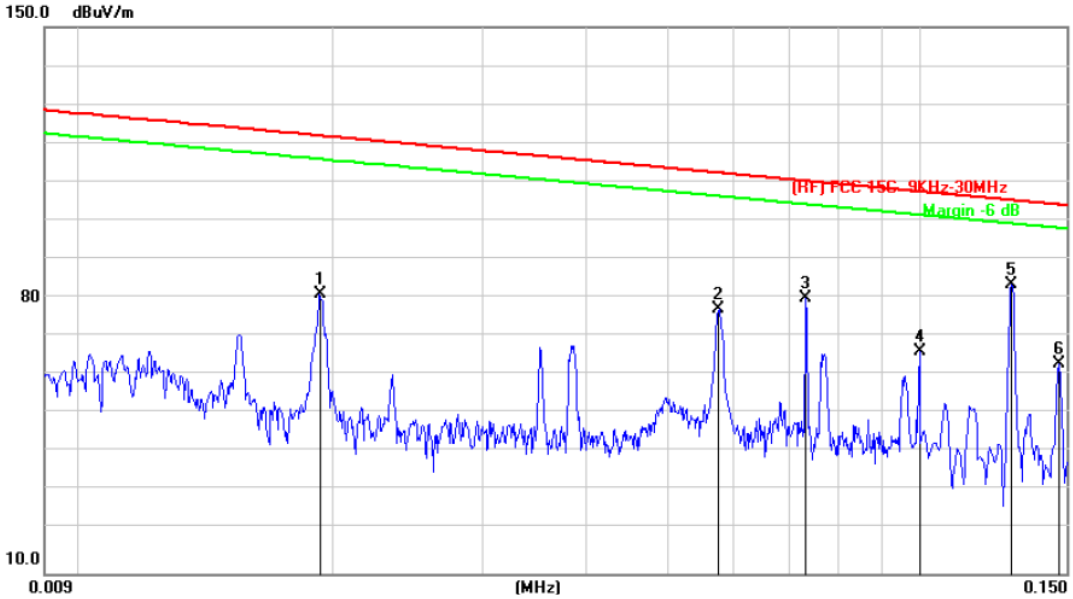
Temperature:	23.5℃	**Relative Humidity:**	46%
Test Voltage:	AC 120/60Hz		
Ant. Pol.	Ant. 0°		
Test Mode:	Mode 1		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		0.2589	59.84	-9.16	50.68	99.57	-48.89	peak
2		0.3871	67.20	-9.92	57.28	96.06	-38.78	peak
3		0.4994	69.66	-10.57	59.09	73.83	-14.74	peak
4		0.9039	63.70	-11.05	52.65	68.60	-15.95	peak
5	*	1.5033	62.95	-11.16	51.79	64.11	-12.32	peak
6		1.8000	55.31	-11.18	44.13	70.00	-25.87	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℃	**Relative Humidity:**	46%
Test Voltage:	AC 120/60Hz		
Ant. Pol.	Ant. 90°		
Test Mode:	Mode 1		
Remark:	N/A		

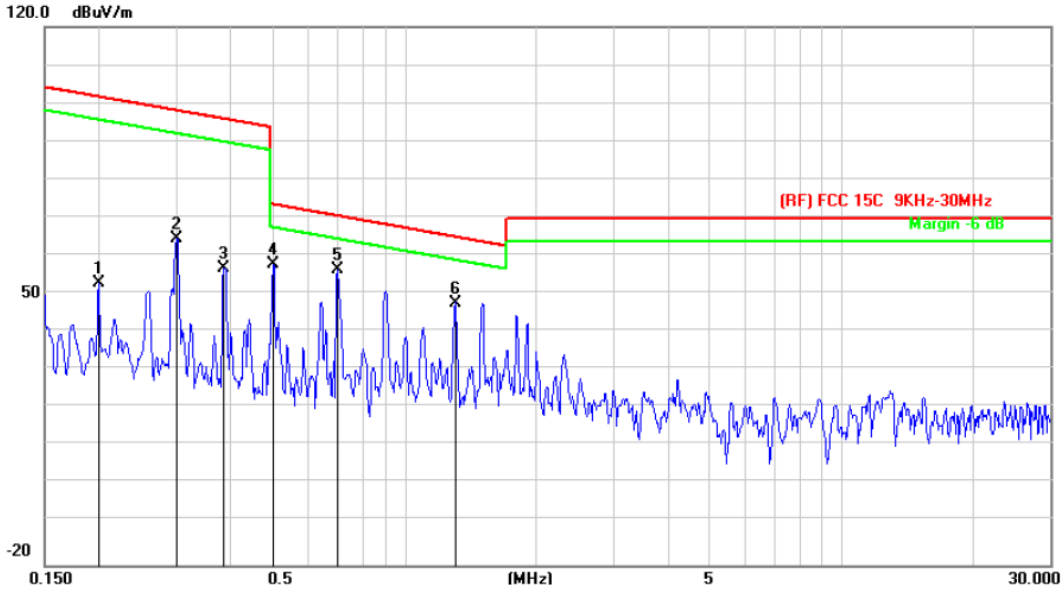


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		0.0191	93.12	-11.42	81.70	122.25	-40.55	peak
2		0.0575	88.94	-11.22	77.72	112.66	-34.94	peak
3		0.0732	91.65	-11.01	80.64	110.55	-29.91	peak
4		0.1000	71.54	-4.74	66.80	107.84	-41.04	peak
5	*	0.1287	89.86	-5.95	83.91	105.64	-21.73	peak
6		0.1466	70.56	-6.79	63.77	104.51	-40.74	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℃	**Relative Humidity:**	46%
Test Voltage:	AC 120/60Hz		
Ant. Pol.	Ant. 90°		
Test Mode:	Mode 1		
Remark:	N/A		

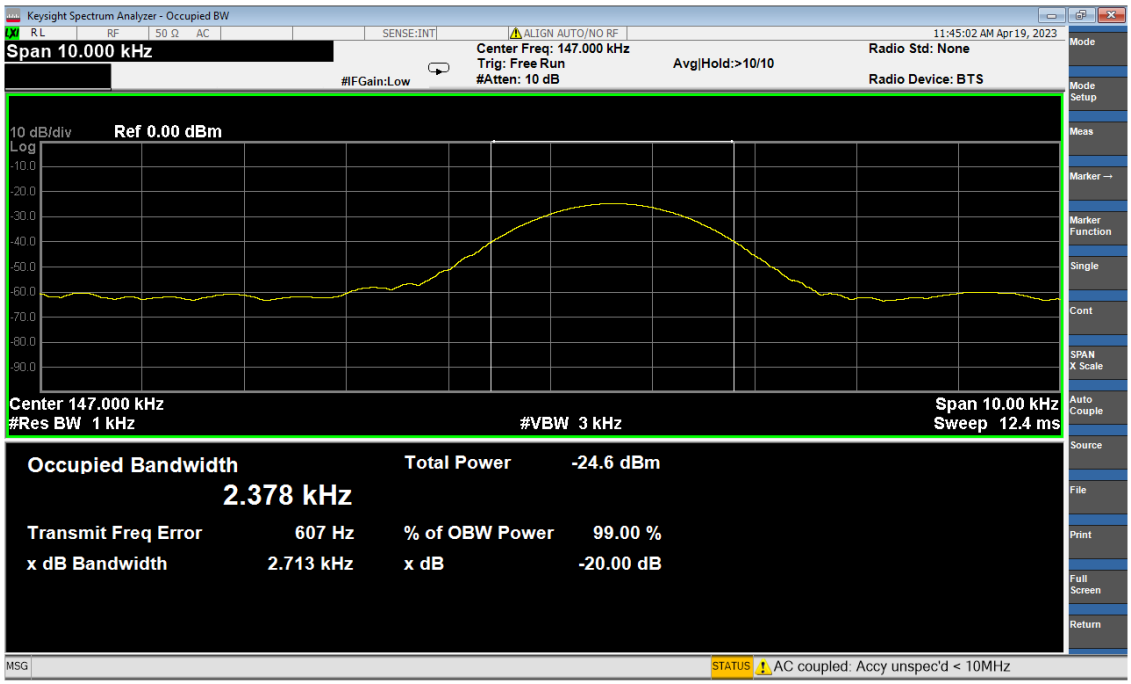


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		0.1997	62.05	-8.77	53.28	101.82	-48.54	peak
2		0.3003	74.37	-9.42	64.95	98.26	-33.31	peak
3		0.3852	67.18	-9.92	57.26	96.10	-38.84	peak
4		0.4994	68.74	-10.57	58.17	73.83	-15.66	peak
5	*	0.7010	67.68	-10.85	56.83	70.84	-14.01	peak
6		1.3029	59.38	-11.13	48.25	65.37	-17.12	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 C-- Bandwidth Measurement Data

Frequency (KHz)	20 dBc Bandwidth (kHz)	99% OBW (kHz)	Result
147.000	2.713	2.378	Pass



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