FCC Radio Test Report

FCC ID: 2A8WE-K13B

Original Grant

Report No.	:	TBR-C-202209-0288-2
Applicant	:	Dongguan Haoyu Technology Co., Ltd
Equipment Under Test (EUT)		
EUT Name	:	3in1 Fast Wireless Charger
Model No.	:	K13B
Series Model No.	:	K13A
Brand Name	:	----
Sample ID	:	202209-0288_01-01
Receipt Date	:	2022-10-19
Test Date	:	2022-10-19 to 2022-11-04
Issue Date	:	2022-11-04
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	:	Camille Li
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.

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Contents

Revision History

Report No.	Version	Description	Issued Date
TBR-C-202209-0288-2	Rev.01	Initial issue of report	2022-11-04

1. General Information about EUT

1.1 Client Information

Applicant	:	Dongguan Haoyu Technology Co., Ltd
Address	:	No. 1, Shuiwei Lane 5, Yangwu Village, Dailingshan Town, Dongguan City, China
Manufacturer	:	Dongguan Haoyu Technology Co., Ltd
Address	:	No. 1, Shuiwei Lane 5, Yangwu Village, Dailingshan Town, Dongguan City, China

1.2 General Description of EUT (Equipment Under Test)

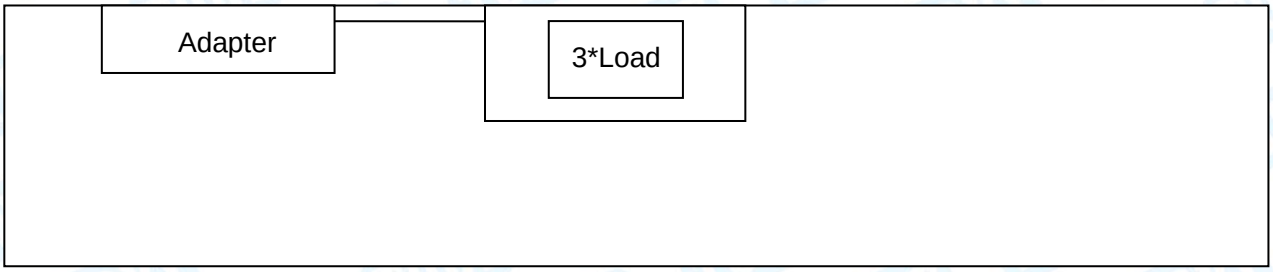
EUT Name	:	3in1 Fast Wireless Charger	
Model(s)	:	K13B, K13A	
Model Difference	:	All these models are identical in the same PCB layout and electrical circuit, the only difference is that appearance and model name.	
Product Description	:	Operation Frequency:	Watch:300-350KHz Earphone & Phone:110-205KHz
		Modulation Type:	ASK
		Antenna:	Coil Antenna 1 (Earphone) Coil Antenna 2 (Phone) Coil Antenna 3 (Watch)
Power Rating	:	Input: DC 5V/3A; 9V/2A Wireless Charging: 15W(Max)	
Software Version	:	----	
Hardware Version	:	K13-V3.0	
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

Charging + TX Mode



1.4 Description of Support Units

Equipment Information				
Name	**Model**	**S/N**	**Manufacturer**	**Used "√"**
Watch	-------	-------	Apple	√
Phone	-------	-------	HUAWEI	√
AirPods	-------	-------	Apple	√
Remark: the USB Cable and adapter provided by the Applicant, The Load provided by TOBY test lab.				

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:		
Mode 1	AC/DC Adapter + EUT + Phone + Watch + AirPods (Battery Status: <1%)	Record
Mode 2	AC/DC Adapter + EUT + Phone + Watch + AirPods (Battery Status: <50%)	Pre-tested
Mode 3	AC/DC Adapter + EUT + Phone + Watch +AirPods (Battery Status: 99%)	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, 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.

Test Software Version	N/A
Frequency	110-350KHz (Watch:300-350KHz, Phone& Earphone:110-205KHz)

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. 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	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					
Equipment	**Manufacturer**	**Model No.**	**Serial No.**	**Last Cal.**	**Cal. Due Date**
Spectrum Analyzer	Agilent	E4407B	MY45106456	Jun. 23, 2022	Jun. 22, 2023
EMI Test Receiver	Rohde & Schwarz	ESPI	100010/007	Jun. 23, 2022	Jun. 22, 2023
Bilog Antenna	ETS-LINDGREN	3142E	00117537	Feb. 27, 2022	Feb.26, 2024
Loop Antenna	SCHWARZBECK	FMZB 1519 B	1519B-059	Feb. 26, 2022	Feb.25, 2024
Pre-amplifier	Sonoma	310N	185903	Feb. 26, 2022	Feb.25, 2023
Pre-amplifier	HP	8449B	3008A00849	Feb. 26, 2022	Feb.25, 2023
Cable	HUBER+SUHNER	100	SUCOFLEX	Feb. 26, 2022	Feb.25, 2023
Positioning Controller	ETS-LINDGREN	2090	N/A	N/A	N/A
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	ESPI	100010/007	Jun. 23, 2022	Jun. 22, 2023
MXA Signal Analyzer	Agilent	N9020A	MY49100060	Sep. 01, 2022	Aug. 31, 2023
Vector Signal Generator	Agilent	N5182A	MY50141294	Sep. 01, 2022	Aug. 31, 2023
Analog Signal Generator	Agilent	N5181A	MY50141953	Sep. 01, 2022	Aug. 31, 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
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

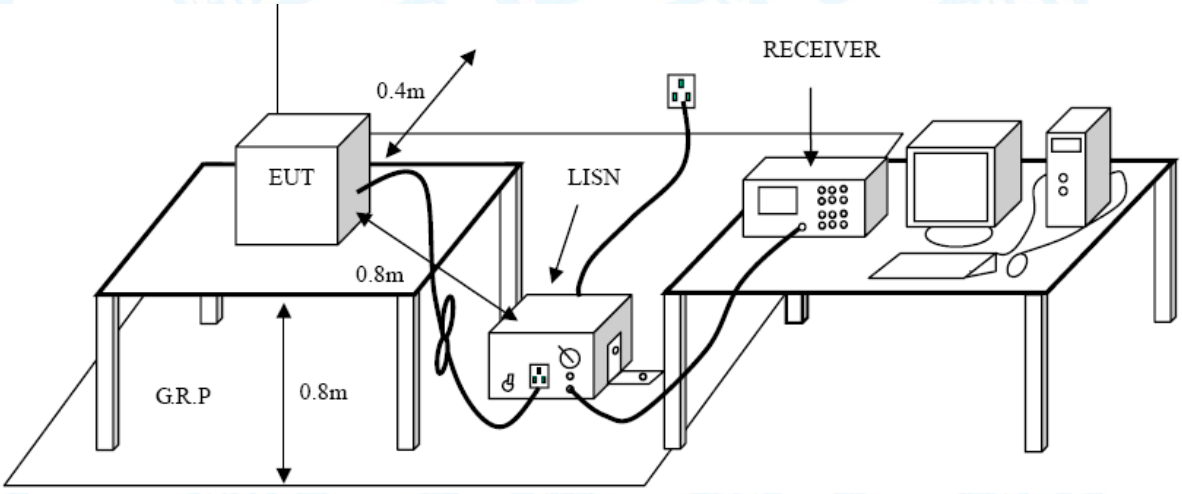
Notes:

(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 0.8 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

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)

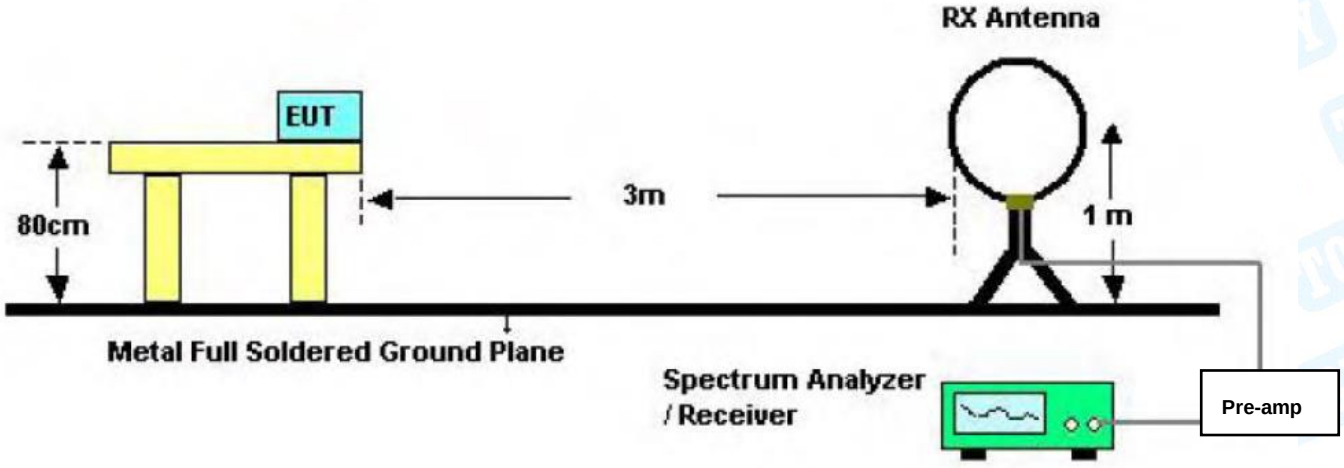
Frequency (MHz)	Distance of 3m (dBuV/m)	
	Peak	Average
Above 1000	74	54

Note:

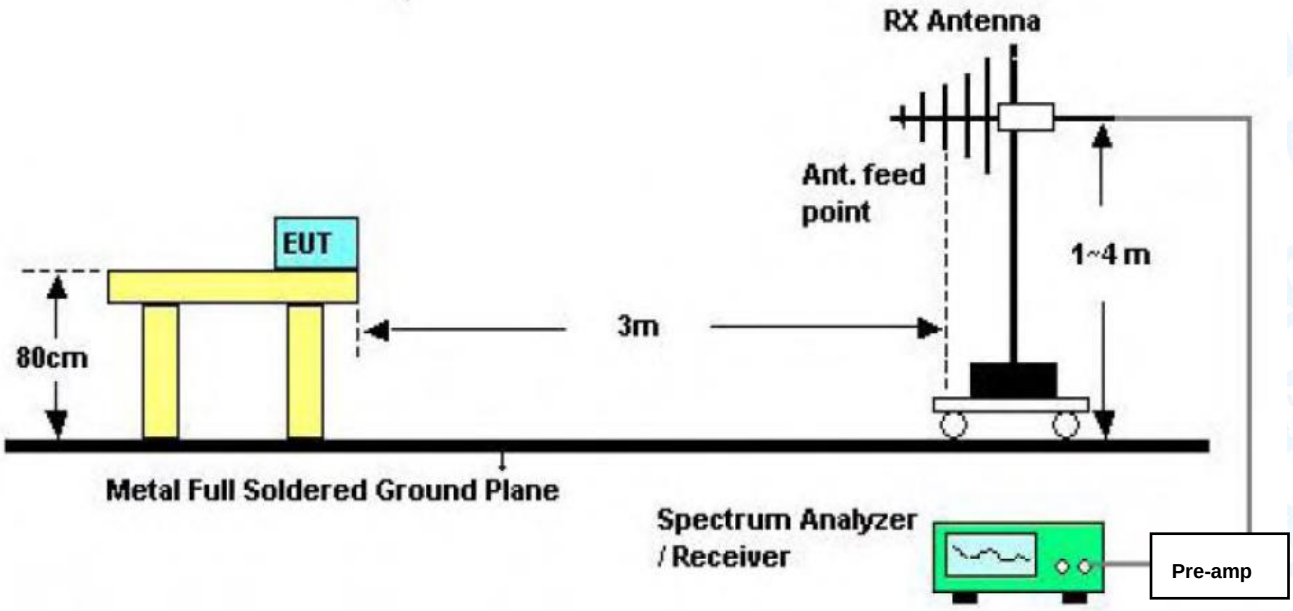
(1) The tighter limit applies at the band edges.

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

6.2 Test Setup



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 B.

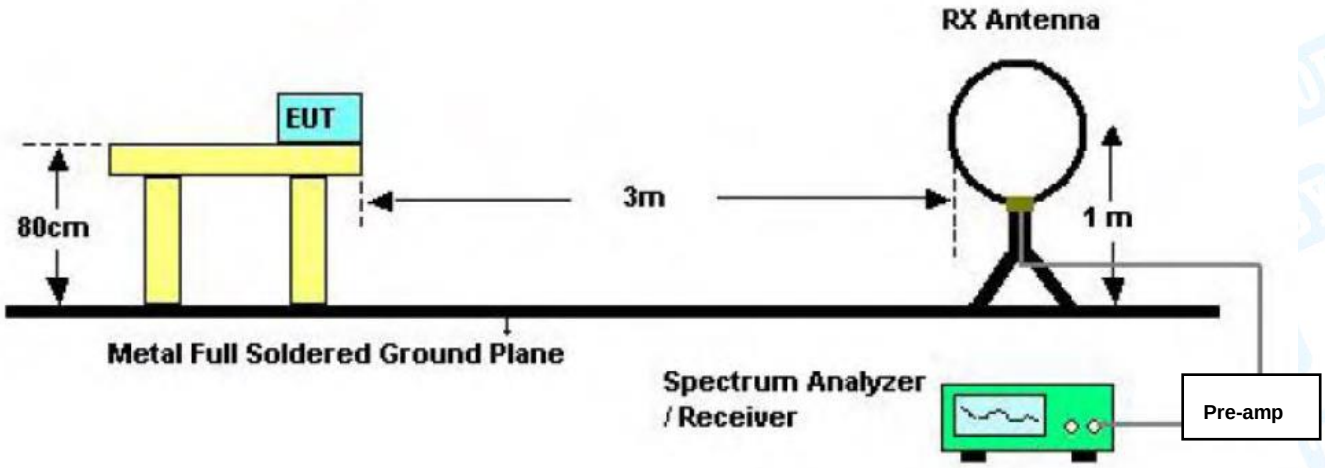
7. Bandwidth Measurement

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

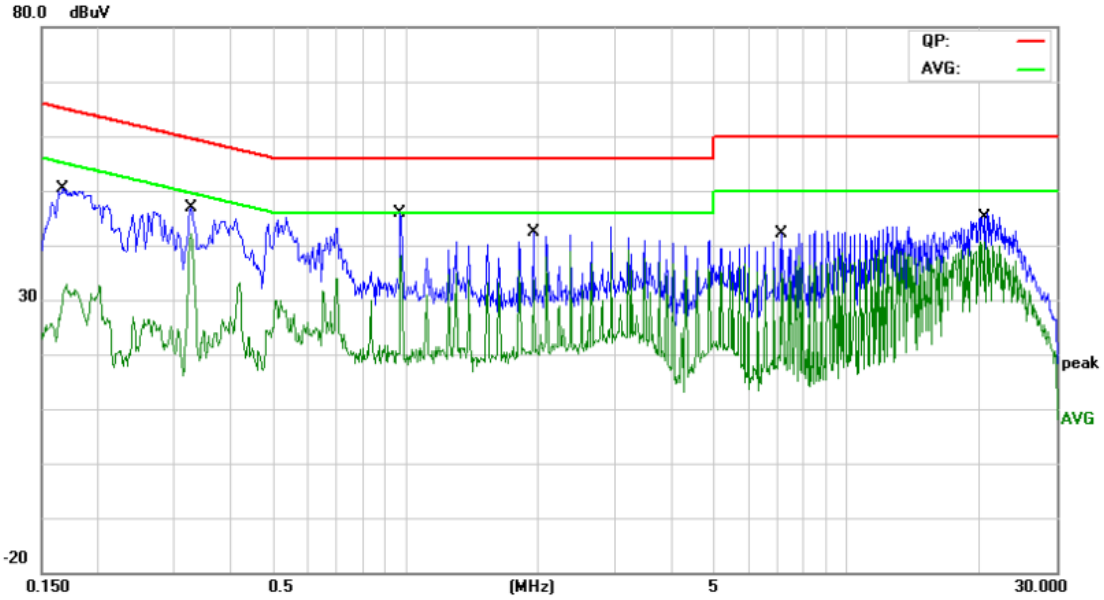
Attachment A-- Conducted Emission Test Data

Temperature:	23.4℃	**Relative Humidity:**	45%
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		0.1758	39.69	11.05	50.74	64.68	-13.94	QP
2		0.1758	22.33	11.05	33.38	54.68	-21.30	AVG
3		0.3234	34.65	10.87	45.52	59.62	-14.10	QP
4		0.3234	29.61	10.87	40.48	49.62	-9.14	AVG
5		0.4889	33.91	10.93	44.84	56.19	-11.35	QP
6		0.4889	15.44	10.93	26.37	46.19	-19.82	AVG
7		0.9735	33.74	10.70	44.44	56.00	-11.56	QP
8		0.9735	25.32	10.70	36.02	46.00	-9.98	AVG
9		3.2069	35.67	10.17	45.84	56.00	-10.16	QP
10	*	3.2069	29.98	10.17	40.15	46.00	-5.85	AVG
11		5.8668	31.60	10.03	41.63	60.00	-18.37	QP
12		5.8668	27.09	10.03	37.12	50.00	-12.88	AVG

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

Temperature:	23.4℃	**Relative Humidity:**	45%
Test Voltage:	AC 120V/60 Hz		
Terminal:	Neutral		
Test Mode:	Mode 1		
Remark:	Only worse case is reported		



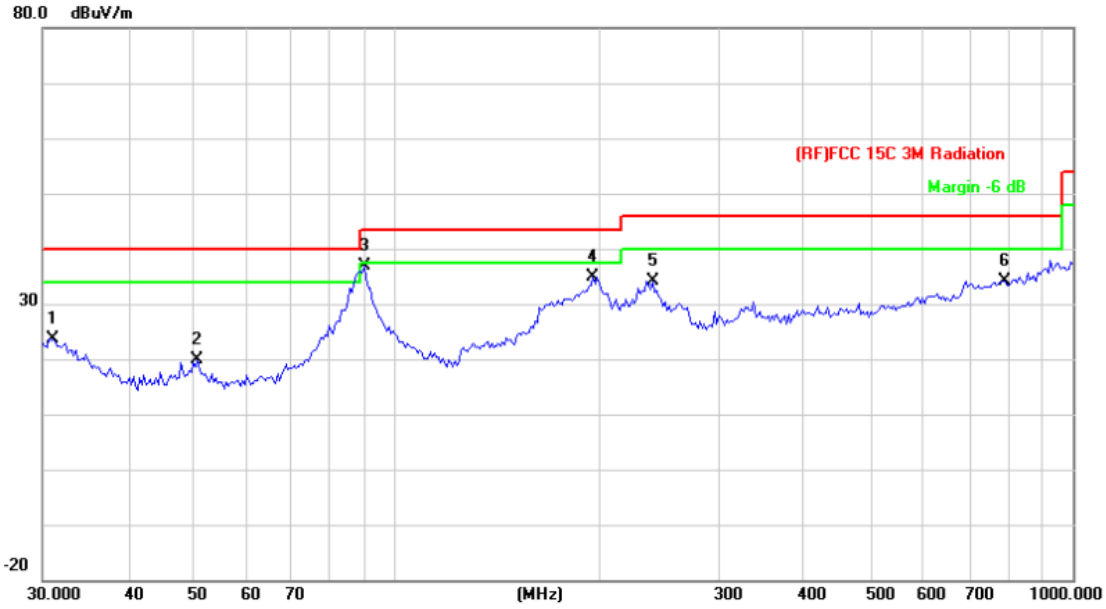
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1		0.1676	39.36	11.03	50.39	65.07	-14.68	QP
2		0.1676	21.82	11.03	32.85	55.07	-22.22	AVG
3		0.3268	35.88	10.96	46.84	59.53	-12.69	QP
4	*	0.3268	31.11	10.96	42.07	49.53	-7.46	AVG
5		0.9735	35.24	10.72	45.96	56.00	-10.04	QP
6		0.9735	27.32	10.72	38.04	46.00	-7.96	AVG
7		1.9489	31.70	10.55	42.25	56.00	-13.75	QP
8		1.9489	23.16	10.55	33.71	46.00	-12.29	AVG
9		7.0997	32.10	10.06	42.16	60.00	-17.84	QP
10		7.0997	24.77	10.06	34.83	50.00	-15.17	AVG
11		20.4854	35.26	10.57	45.83	60.00	-14.17	QP
12		20.4854	30.18	10.57	40.75	50.00	-9.25	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:	23.5℃	**Relative Humidity:**	46%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Horizontal		
Test Mode:	Mode 1		
Remark:	Only worse case is reported		

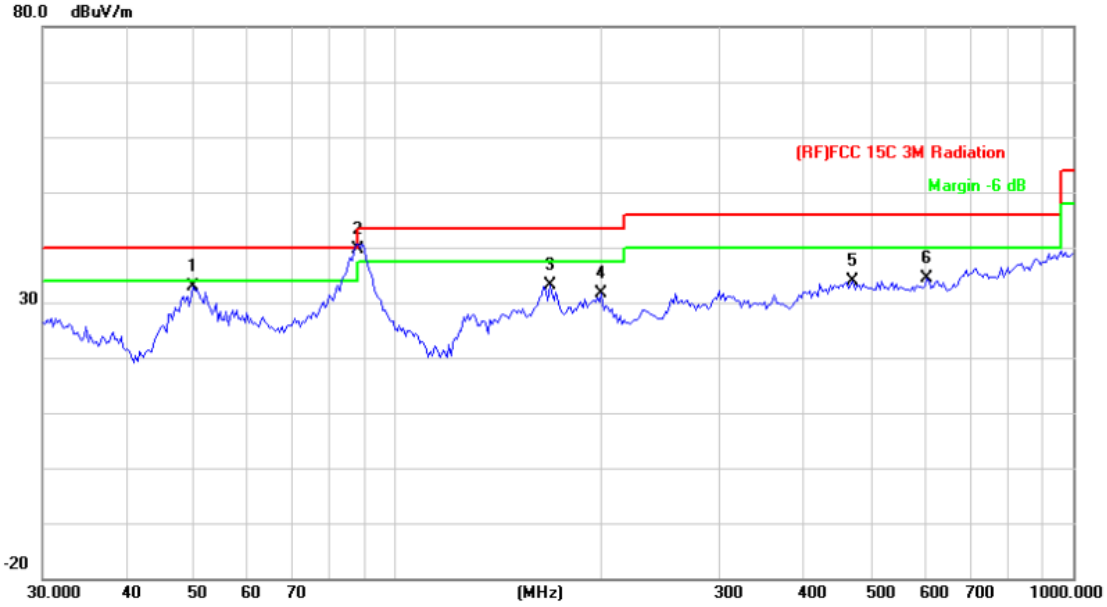


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		31.0706	32.98	-9.28	23.70	40.00	-16.30	peak
2		50.7637	36.70	-16.76	19.94	40.00	-20.06	peak
3	*	89.5899	51.94	-15.06	36.88	43.50	-6.62	peak
4		195.1365	48.46	-13.52	34.94	43.50	-8.56	peak
5		239.1473	46.16	-11.97	34.19	46.00	-11.81	peak
6		793.3960	33.60	0.50	34.10	46.00	-11.90	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:	23.5℃	**Relative Humidity:**	46%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Vertical		
Test Mode:	Mode 1		
Remark:	Only worse case is reported		



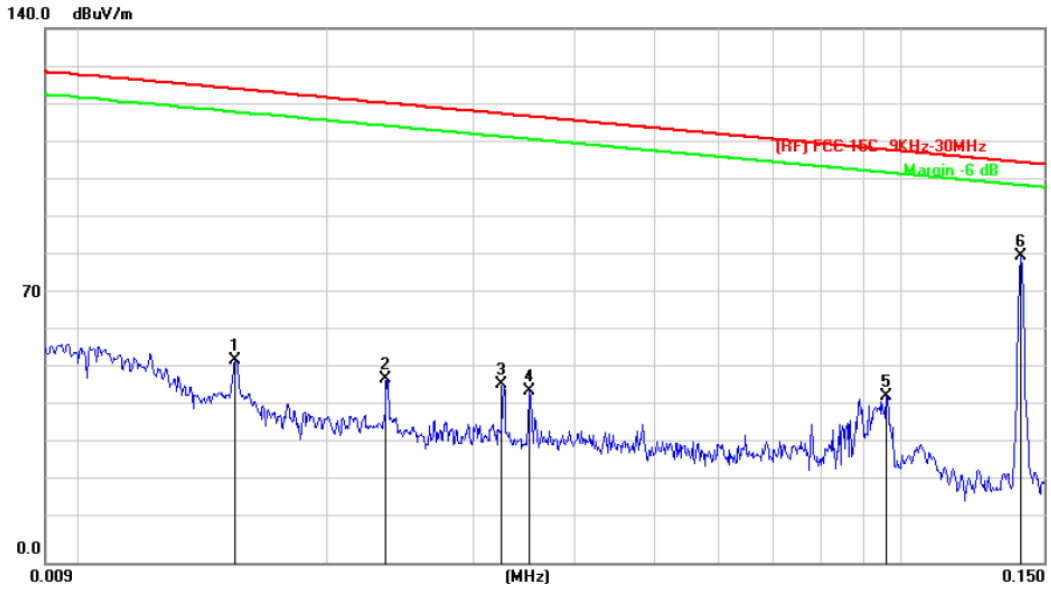
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		50.0566	49.74	-16.75	32.99	40.00	-7.01	peak
2	*	87.7248	54.87	-15.27	39.60	40.00	-0.40	QP
3		168.4138	46.65	-13.63	33.02	43.50	-10.48	peak
4		200.6881	44.70	-13.11	31.59	43.50	-11.91	peak
5		472.1760	38.18	-4.38	33.80	46.00	-12.20	peak
6		607.7867	36.71	-2.42	34.29	46.00	-11.71	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

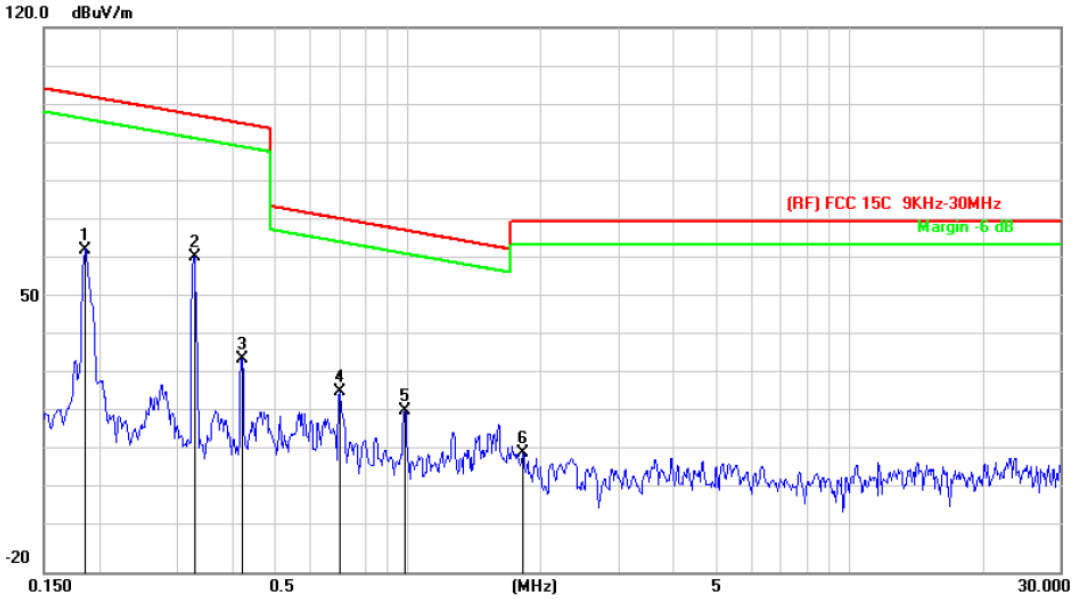
Temperature:	23.5℃	**Relative Humidity:**	46%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Ant. 0°		
Test Mode:	Mode 1		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		0.0154	64.74	-11.67	53.07	124.13	-71.06	peak
2		0.0235	59.57	-11.60	47.97	120.45	-72.48	peak
3		0.0325	58.13	-11.57	46.56	117.62	-71.06	peak
4		0.0352	56.38	-11.57	44.81	116.93	-72.12	peak
5		0.0961	54.72	-11.27	43.45	108.18	-64.73	peak
6	*	0.1406	87.42	-6.98	80.44	104.87	-24.43	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)

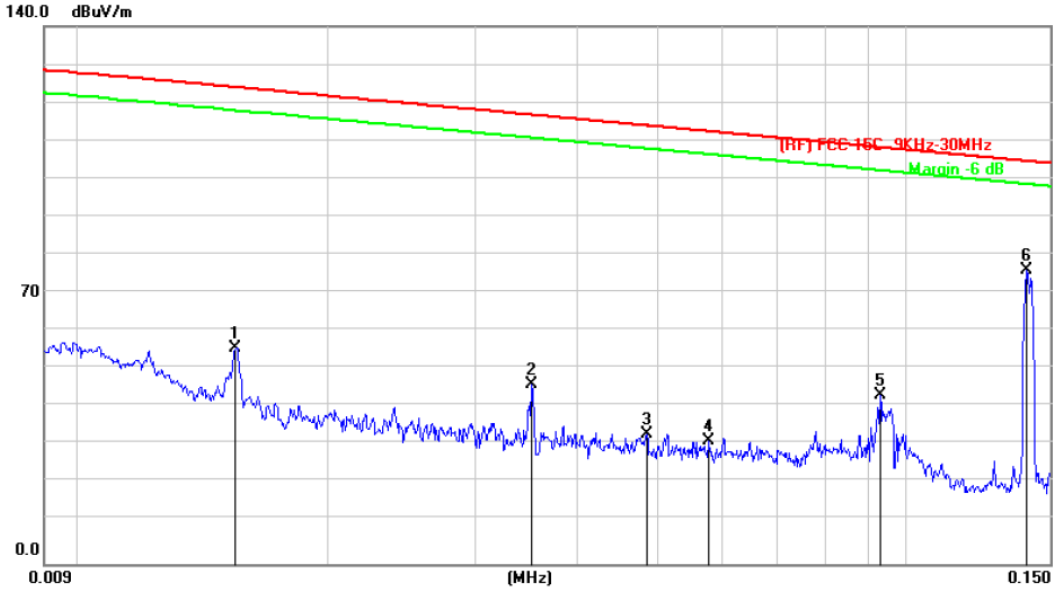
Temperature:	23.5℃	Relative Humidity:	46%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Ant. 0°		
Test Mode:	Mode 1		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		0.1864	71.80	-8.85	62.95	102.42	-39.47	peak
2	*	0.3286	71.33	-10.38	60.95	97.48	-36.53	peak
3		0.4215	45.79	-10.87	34.92	95.31	-60.39	peak
4		0.7010	38.00	-11.48	26.52	70.84	-44.32	peak
5		0.9839	33.19	-11.60	21.59	67.85	-46.26	peak
6		1.8189	22.14	-11.66	10.48	70.00	-59.52	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)

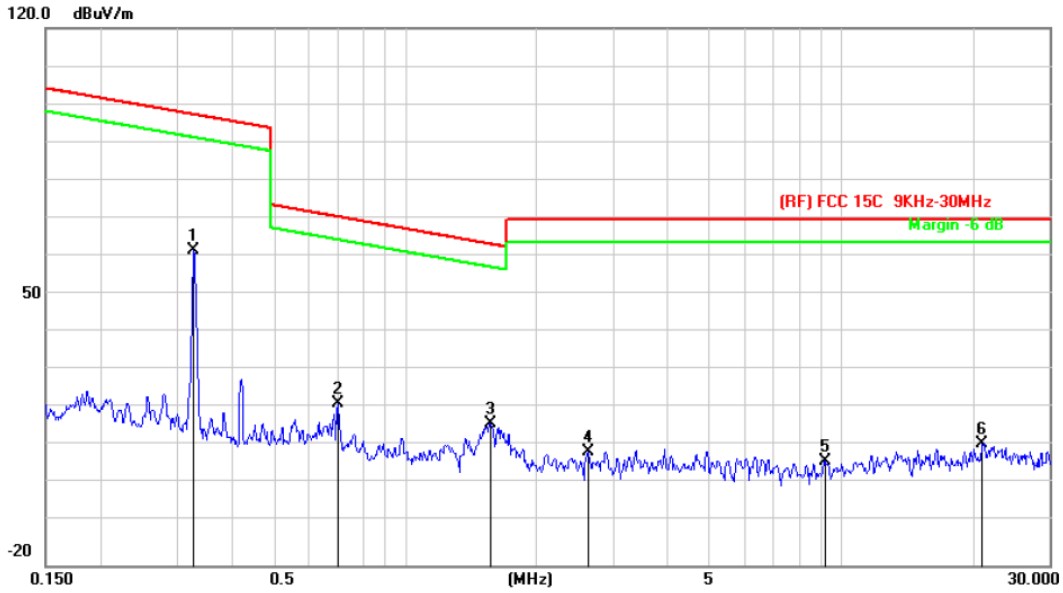
Temperature:	23.5℃	**Relative Humidity:**	46%
Test Voltage:	AC 120V/60 Hz		
Ant. Pol.	Ant. 90°		
Test Mode:	Mode 1		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		0.0154	67.84	-11.67	56.17	124.13	-67.96	peak
2		0.0352	58.23	-11.57	46.66	116.93	-70.27	peak
3		0.0485	45.25	-11.61	33.64	114.14	-80.50	peak
4		0.0577	43.52	-11.51	32.01	112.63	-80.62	peak
5		0.0932	55.17	-11.25	43.92	108.45	-64.53	peak
6	*	0.1406	83.57	-6.98	76.59	104.87	-28.28	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 120V/60 Hz		
Ant. Pol.	Ant. 90°		
Test Mode:	Mode 1		
Remark:	N/A		



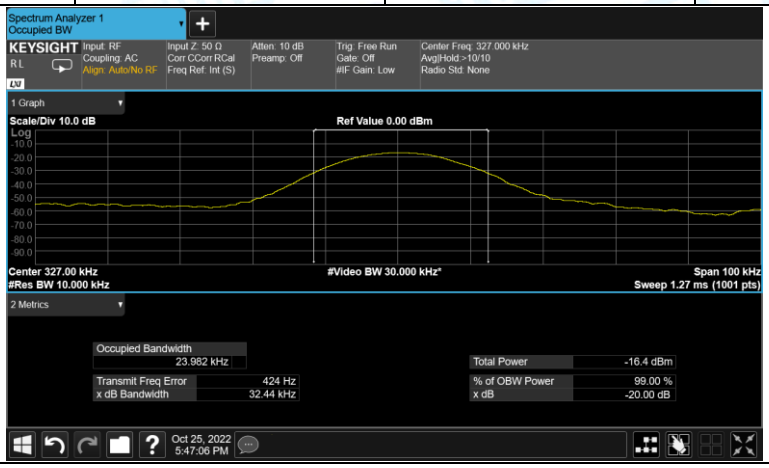
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	0.3266	72.32	-10.37	61.95	97.53	-35.58	peak
2		0.7006	33.56	-11.48	22.08	70.85	-48.77	peak
3		1.5684	28.64	-11.65	16.99	63.74	-46.75	peak
4		2.6221	21.23	-11.72	9.51	70.00	-60.49	peak
5		9.1554	18.99	-11.81	7.18	70.00	-62.82	peak
6		21.0350	23.63	-11.99	11.64	70.00	-58.36	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
127.0	79.77	83.509	PASS

Frequency (KHz)	20 dBc Bandwidth (kHz)	99% OBW (kHz)	Result
327.0	32.44	23.982	PASS



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