

RF TEST REPORT

For

Dongguan city Humen Yongxin Electronic Factory

Product Name: Embedded wireless charger

Model(s): YX-388

Report Reference No. : POCE230821381TRW

FCC ID : 2BAYR-YX-388

Applicant's Name : Dongguan city Humen Yongxin Electronic Factory

Address : NO.2,hongmian road 1,danling district,Humen town,Dongguan city,China

Testing Laboratory : Shenzhen POCE Technology Co., Ltd.

Address : 102 Building H1 & 1/F., Building H, Hongfa Science & Technology Park,
Tangtou, Shiyan, Bao'an District, Shenzhen, Guangdong, China

Test Specification Standard : FCC CFR Title 47 Part 15 Subpart C

Date of Receipt : August 21, 2023

Date of Test : August 21, 2023 to August 25, 2023

Data of Issue : September 7, 2023

Result : Pass

Note: This report shall not be reproduced except in full, without the written approval of Shenzhen POCE Technology Co., Ltd. This document may be altered or revised by Shenzhen POCE Technology Co., Ltd. personnel only, and shall be noted in the revision section of the document. The test results in the report only apply to the tested sample

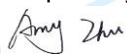
Revision History Of Report

Version	Description	REPORT No.	Issue Date
V1.0	Original	POCE230821381TRW	September 7, 2023

NOTE1:

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.

Compiled by:



Amy Zhu / File administrators

Supervised by:



Stone Yin / Technique principal

Approved by:



Machael Mo / Manager

CONTENTS

1 TEST SUMMARY	4
1.1 TEST STANDARDS	4
1.2 SUMMARY OF TEST RESULT	4
2 GENERAL INFORMATION	5
2.1 CLIENT INFORMATION	5
2.2 DESCRIPTION OF DEVICE (EUT)	5
2.3 DESCRIPTION OF TEST MODES	5
2.4 DESCRIPTION OF SUPPORT UNITS	5
2.5 EQUIPMENTS USED DURING THE TEST	6
2.6 STATEMENT OF THE MEASUREMENT UNCERTAINTY	8
2.7 IDENTIFICATION OF TESTING LABORATORY	8
2.8 ANNOUNCEMENT	8
3 EVALUATION RESULTS (EVALUATION)	9
3.1 ANTENNA REQUIREMENT	9
3.1.1 Conclusion:	9
4 RADIO SPECTRUM MATTER TEST RESULTS (RF)	10
4.1 CONDUCTED EMISSION AT AC POWER LINE	10
4.1.1 E.U.T. Operation:	10
4.1.2 Test Setup Diagram:	10
4.1.3 Test Data:	11
4.2 20dB OCCUPIED BANDWIDTH	13
4.2.1 E.U.T. Operation:	14
4.2.2 Test Setup Diagram:	14
4.2.3 Test Data:	14
4.3 EMISSIONS IN FREQUENCY BANDS (BELOW 30MHz)	15
4.3.1 E.U.T. Operation:	15
4.3.2 Test Data:	16
4.4 EMISSIONS IN FREQUENCY BANDS (30MHz - 1GHz)	18
4.4.1 E.U.T. Operation:	18
4.4.2 Test Data:	19
5 TEST SETUP PHOTOS	21
6 PHOTOS OF THE EUT	21

1 TEST SUMMARY

1.1 Test Standards

The tests were performed according to following standards:

47 CFR Part 15.209: Radiated emission limits; general requirements

1.2 Summary of Test Result

Item	Standard	Method	Requirement	Result
Antenna requirement			Part 15.203	Pass
Conducted Emission at AC power line	FCC CFR Title 47 Part 15 Subpart C	ANSI C63.10-2013 section 6.2	47 CFR 15.207(a)	Pass
20dB Occupied Bandwidth	FCC CFR Title 47 Part 15 Subpart C	ANSI C63.10-2013, section 6.9.2	47 CFR 15.215(c)	Pass
Emissions in frequency bands (below 30MHz)	FCC CFR Title 47 Part 15 Subpart C	ANSI C63.10-2013 section 6.6.4	47 CFR 15.209	Pass
Emissions in frequency bands (30MHz - 1GHz)	FCC CFR Title 47 Part 15 Subpart C	ANSI C63.10-2013 section 6.6.4	47 CFR 15.209	Pass

2 GENERAL INFORMATION

2.1 Client Information

Applicant's Name : Dongguan city Humen Yongxin Electronic Factory
Address : NO.2,hongmian road 1,danang district,Humen town,Dongguan city,China

Manufacturer : Dongguan city Humen Yongxin Electronic Factory
Address : NO.2,hongmian road 1,danang district,Humen town,Dongguan city,China

2.2 Description of Device (EUT)

Product Name:	Embedded wireless charger
Model/Type reference:	YX-388
Series Model:	N/A
Model Difference:	N/A
Trade Mark:	Yongxin
Operation Frequency:	124KHz~205KHz
Number of Channels:	N/A
Modulation Type:	MSK
Antenna Type:	Inductive loop coil Antenna
Antenna Gain:	0dBi (Max)
Hardware Version:	V1.0
Software Version:	V1.0

2.3 Description of Test Modes

No	Title	Description
TM1	Wireless output: 15W	Keep the EUT in wireless charging mode
TM2	Wireless output: 10W	Keep the EUT in wireless charging mode
TM3	Wireless output: 7.5W	Keep the EUT in wireless charging mode
TM4	Wireless output: 5W	Keep the EUT in wireless charging mode
Remark:TM1 is the full load mode, and the full load mode is the worst mode,Only the data of the worst mode would be recorded in this report.		

Test channel	Frequency (KHz)
Middle channel	147.9

2.4 Description of Support Units

Title	Manufacturer	Model No.	Serial No.
AC Adapter	UGREEN	CD112	N/A
Wireless Charging Load Module	N/A	N/A	Wireless Input Power:5W/7.5W/10W//15W

2.5 Equipments Used During The Test

Conducted Emission at AC power line					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
loop antenna	EVERFINE	LLA-2	80900L-C	2023-02-27	2024-02-26
Power absorbing clamp	SCHWARZ BECK	MESS-ELEKTRONIK	/	2023-02-28	2024-02-27
Electric Network	SCHWARZ BECK	CAT5 8158	CAT5 8158#207	/	/
Cable	SCHWARZ BECK	/	/	2022-12-27	2023-12-27
Pulse Limiter	SCHWARZ BECK	VTSD 9561-F Pulse limiter 10dB Ateennator	561-G071	2023-02-27	2024-02-26
50ΩCoaxial Switch	Anritsu	MP59B	M20531	/	/
Test Receiver	Rohde & Schwarz	ESPI TEST RECEIVER	ID:1164.6607K 03-102109-MH	2023-06-13	2024-06-12
L.I.S.N	R&S	ESH3-Z5	831.5518.52	2022-12-29	2023-12-28

20dB Occupied Bandwidth					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
RF Test Software	TACHOY	RTS-01	V2.0.0.0	/	/
High Pass filter	ZHINAN	OQHPF1-M1.5-18G-224	6210075	/	/
Power divider	MIDEWEST	PWD-2533	SMA-79	2023-05-11	2026-05-10
DC power	HP	66311B	38444359	/	/
RF Sensor Unit	Tachoy Information Technology(she nzhen) Co.,Ltd.	TR1029-2	000001	/	/
Wideband radio communication tester	R&S	CMW500	113410	2023-06-13	2024-06-12
Vector signal generator	Keysight	N5181A	MY48180415	2022-12-10	2023-12-09
Signal generator	Keysight	N5182A	MY50143455	2022-12-29	2023-12-28
Spectrum Analyzer	Keysight	N9020A	MY53420323	2022-12-29	2023-12-28

Emissions in frequency bands (below 30MHz)
Emissions in frequency bands (30MHz - 1GHz)

Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
EMI Test software	Farad	EZ -EMC	V1.1.42	/	/
Positioning Controller	/	MF-7802	/	/	/
High Pass filter	ZHINAN	OQHPF1-M1.5-18G-224	6210075	/	/
Amplifier(18-40G)	COM-POWER	AH-1840	10100008-1	2022-04-05	2025-04-04
Horn antenna	COM-POWER	AH-1840 (18-40G)	10100008	2023-04-05	2025-04-04
Loop antenna	ZHINAN	ZN30900C	ZN30900C	2021-07-05	2024-07-04
Cable(LF)#2	Schwarzbeck	/	/	2023-02-27	2024-02-26
Cable(LF)#1	Schwarzbeck	/	/	2023-02-27	2024-02-26
Cable(HF)#2	Schwarzbeck	AK9515E	96250	2023-02-28	2024-02-27
Cable(HF)#1	Schwarzbeck	SYV-50-3-1	/	2023-02-27	2024-02-26
Power amplifier(LF)	Schwarzbeck	BBV9743	9743-151	2023-06-13	2024-06-12
Power amplifier(HF)	Schwarzbeck	BBV9718	9718-282	2023-06-13	2024-06-12
Wideband radio communication tester	R&S	CMW500	113410	2023-06-13	2024-06-12
Spectrum Analyzer	R&S	FSP30	1321.3008K40-101729-jR	2023-06-14	2024-06-13
Horn Antenna	Sunol Sciences	DRH-118	A091114	2023-05-13	2025-05-12
Broadband Antenna	Sunol Sciences	JB6 Antenna	A090414	2023-05-21	2025-05-20
Test Receiver	R&S	ESCI	102109	2023-06-13	2024-06-12

2.6 Statement Of The Measurement Uncertainty

Test Item	Measurement Uncertainty
Conducted Disturbance (0.15~30MHz)	$\pm 3.41\text{dB}$
Occupied Bandwidth	$\pm 3.63\%$
Radiated Emission (Below 1GHz)	$\pm 5.79\text{dB}$
Note: (1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.	

2.7 Identification of Testing Laboratory

Company Name:	Shenzhen POCE Technology Co., Ltd.
Address:	101-102 Building H5 & 1/F., Building H, Hongfa Science & Technology Park, Tangtou, Shiyan, Bao'an District, Shenzhen, Guangdong, China
Phone Number:	+86-13267178997
Fax Number:	86-755-29113252

Identification of the Responsible Testing Location

Company Name:	Shenzhen POCE Technology Co., Ltd.
Address:	101-102 Building H5 & 1/F., Building H, Hongfa Science & Technology Park, Tangtou, Shiyan, Bao'an District, Shenzhen, Guangdong, China
Phone Number:	+86-13267178997
Fax Number:	86-755-29113252
FCC Registration Number:	0032847402
Designation Number:	CN1342

2.8 Announcement

- (1) The test report reference to the report template version v0.
- (2) The test report is invalid if not marked with the signatures of the persons responsible for preparing, reviewing and approving the test report.
- (3) The test report is invalid if there is any evidence and/or falsification.
- (4) This document may not be altered or revised in any way unless done so by POCE and all revisions are duly noted in the revisions section.
- (5) Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.
- (6) The laboratory is only responsible for the data released by the laboratory, except for the part provided by the applicant.

3 Evaluation Results (Evaluation)

3.1 Antenna requirement

Test Requirement:	Refer to 47 CFR Part 15.203, 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.
-------------------	---

3.1.1 Conclusion:



4 Radio Spectrum Matter Test Results (RF)

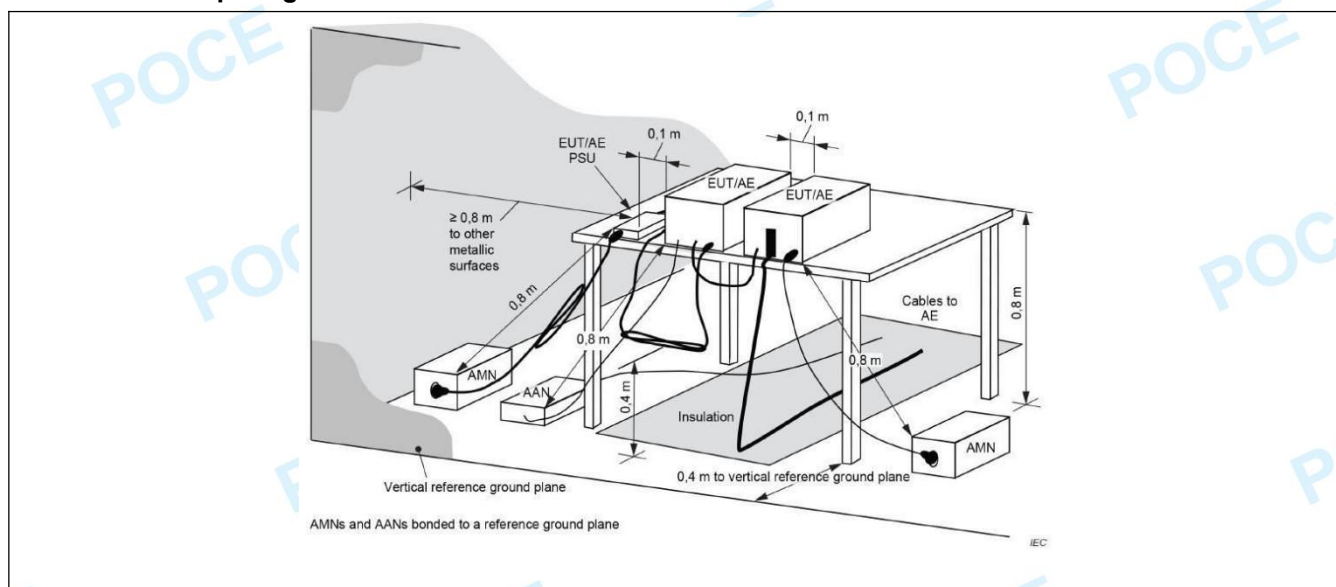
4.1 Conducted Emission at AC power line

Test Requirement:	Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μ H/50 ohms line impedance stabilization network (LISN).		
Test Limit:	Frequency of emission (MHz)	Conducted limit (dB μ V)	
		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.		
Test Method:	Refer to ANSI C63.10-2013 section 6.2, standard test method for ac power-line conducted emissions from unlicensed wireless devices		

4.1.1 E.U.T. Operation:

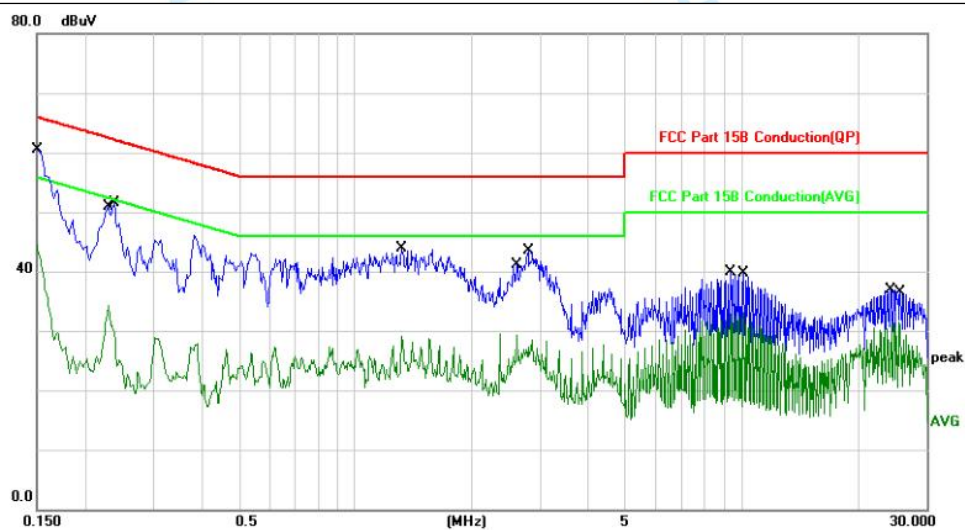
Operating Environment:					
Temperature:	23.2 °C	Humidity:	51.9 %	Atmospheric Pressure:	102 kPa
Pre test mode:		TM1			
Final test mode:		TM1			

4.1.2 Test Setup Diagram:



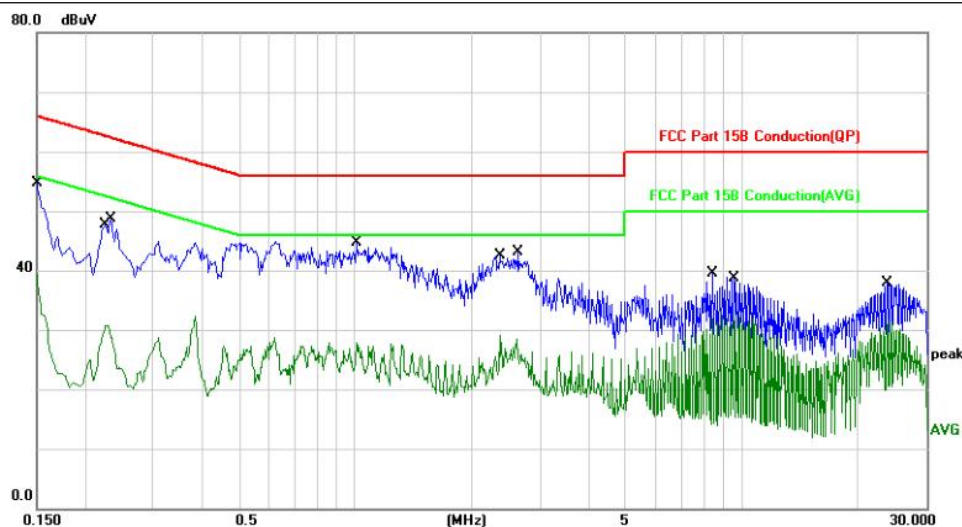
4.1.3 Test Data:

TM1 / Line: Line



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	0.1500	50.34	10.20	60.54	65.99	-5.45	QP	
2		0.1500	34.21	10.20	44.41	55.99	-11.58	AVG	
3		0.2300	24.13	10.19	34.32	52.45	-18.13	AVG	
4		0.2380	41.21	10.19	51.40	62.16	-10.76	QP	
5		1.3220	33.81	10.06	43.87	56.00	-12.13	QP	
6		1.3220	19.13	10.06	29.19	46.00	-16.81	AVG	
7		2.6180	19.12	10.16	29.28	46.00	-16.72	AVG	
8		2.8020	33.22	10.18	43.40	56.00	-12.60	QP	
9		9.3500	28.68	11.22	39.90	60.00	-20.10	QP	
10		10.0980	21.66	11.36	33.02	50.00	-16.98	AVG	
11		24.1820	23.28	13.58	36.86	60.00	-23.14	QP	
12		25.4340	17.73	13.72	31.45	50.00	-18.55	AVG	

TM1 / Line: Neutral



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1500	44.49	10.20	54.69	65.99	-11.30	QP	
2		0.1500	29.02	10.20	39.22	55.99	-16.77	AVG	
3		0.2260	20.52	10.19	30.71	52.59	-21.88	AVG	
4		0.2340	38.48	10.19	48.67	62.30	-13.63	QP	
5	*	1.0100	34.68	10.05	44.73	56.00	-11.27	QP	
6		1.0100	17.83	10.05	27.88	46.00	-18.12	AVG	
7		2.3660	18.99	10.14	29.13	46.00	-16.87	AVG	
8		2.6380	32.91	10.16	43.07	56.00	-12.93	QP	
9		8.3940	28.42	11.06	39.48	60.00	-20.52	QP	
10		9.6459	21.70	11.28	32.98	50.00	-17.02	AVG	
11		23.6700	24.44	13.52	37.96	60.00	-22.04	QP	
12		23.9220	18.14	13.55	31.69	50.00	-18.31	AVG	

4.2 20dB Occupied Bandwidth

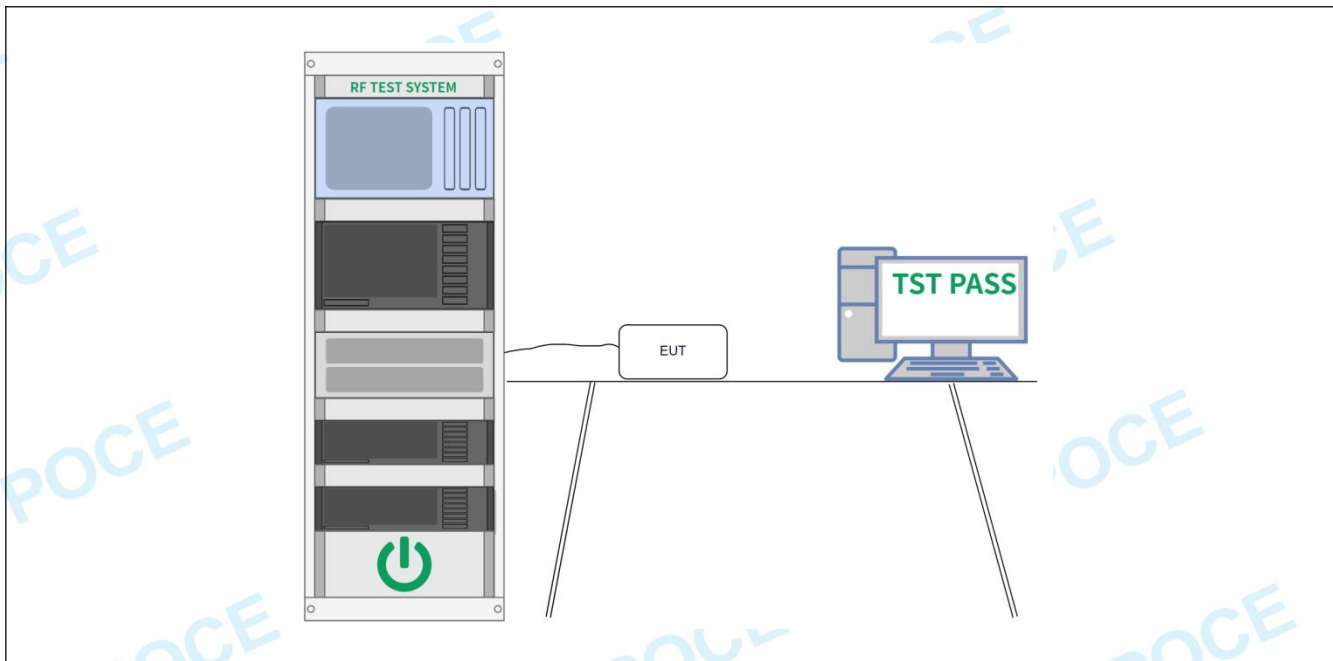
Test Requirement:	Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.
Test Limit:	Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.
Test Method:	Occupied bandwidth—relative measurement procedure
Procedure:	a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the EMI receiver or spectrum analyzer shall be between two times and five times the OBW. b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW and video bandwidth (VBW) shall be approximately three times RBW, unless otherwise specified by the applicable requirement. c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than $[10 \log (OBW/RBW)]$ below the reference level. Specific guidance is given in 4.1.5.2. d) Steps a) through c) might require iteration to adjust within the specified tolerances. e) The dynamic range of the instrument at the selected RBW shall be more than 10 dB below the target “-xx dB down” requirement; that is, if the requirement calls for measuring the -20 dB OBW, the instrument noise floor at the selected RBW shall be at least 30 dB below the reference value. f) Set detection mode to peak and trace mode to max hold. g) Determine the reference value: Set the EUT to transmit an unmodulated carrier or modulated signal, as applicable. Allow the trace to stabilize. Set the spectrum analyzer marker to the highest level of the displayed trace (this is the reference value). h) Determine the “-xx dB down amplitude” using $[(\text{reference value}) - \text{xx}]$. Alternatively, this calculation may be made by using the marker-delta function of the instrument. i) If the reference value is determined by an unmodulated carrier, then turn the EUT modulation ON, and either clear the existing trace or start a new trace on the spectrum analyzer and allow the new trace to stabilize. Otherwise, the trace from step g) shall be used for step j). j) Place two markers, one at the lowest frequency and the other at the highest frequency of the envelope of the spectral display, such that each marker is at or slightly below the “-xx dB down amplitude” determined in step h). If a marker is below this “-xx dB down amplitude” value, then it shall be as close as possible to this value. The occupied bandwidth is the frequency difference between the two markers. Alternatively, set a marker at the lowest frequency of the envelope of the spectral display, such that the marker is at or slightly below the “-xx dB down amplitude” determined in step h). Reset the marker-delta function and move the marker to the other side of the emission until the delta marker amplitude is at the same level as the reference marker amplitude. The marker-delta frequency reading at this point is the specified emission bandwidth. k) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

4.2.1 E.U.T. Operation:

Operating Environment:

Temperature:	23.4 °C	Humidity:	52.7 %	Atmospheric Pressure:	102 kPa
Pre test mode:	TM1				
Final test mode:	TM1				

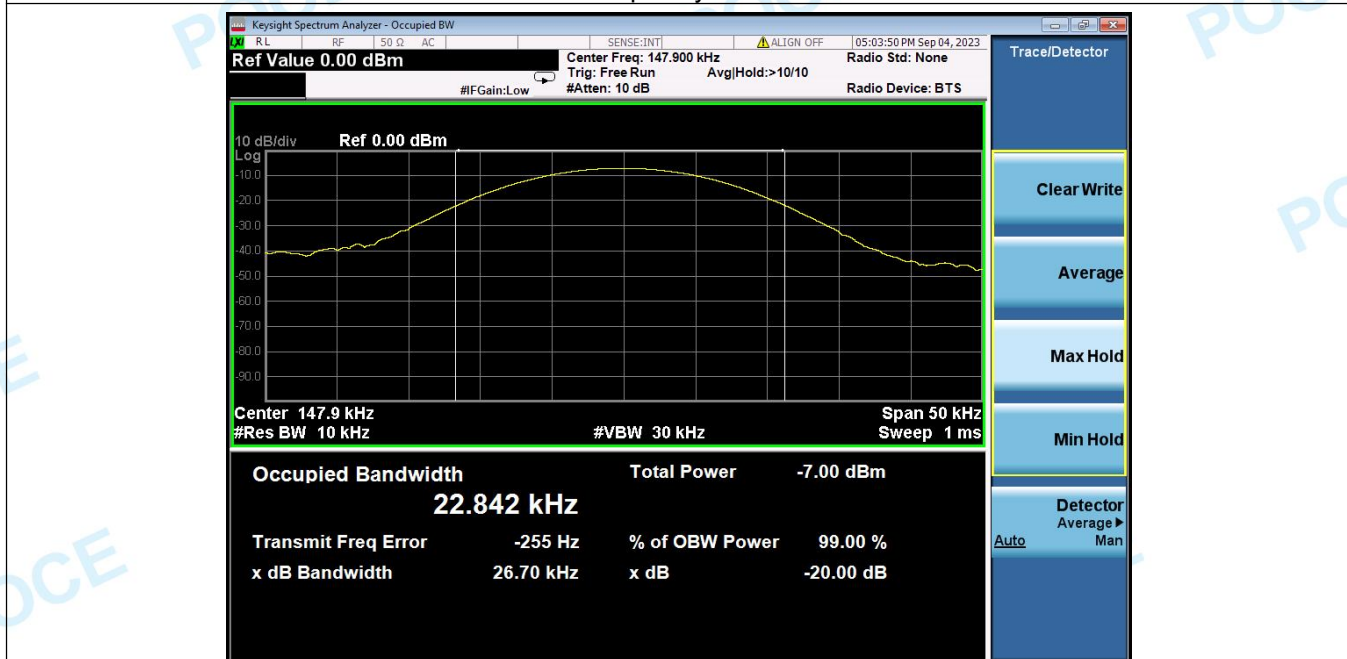
4.2.2 Test Setup Diagram:



4.2.3 Test Data:

Frequency(KHz)	-20dB_Emission_Bandwidth(KHz)	Occupied Bandwidth(KHz)
147.9	26.7	22.842

Test Frequency:147.9KHz



4.3 Emissions in frequency bands (below 30MHz)

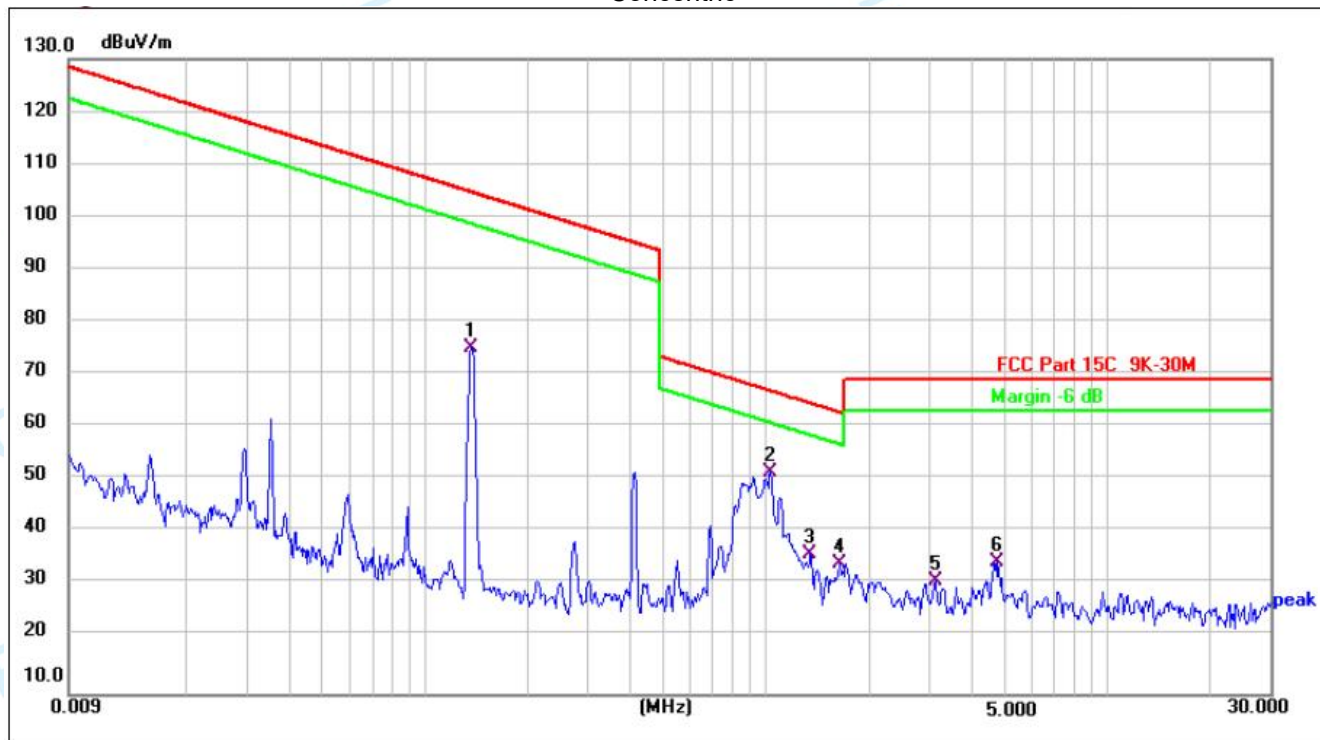
Test Requirement :	47 CFR 15.209																																																
Test Limit:	<table><tr><th rowspan="2">Frequency (MHz)</th><th colspan="2">Field Strength</th><th colspan="2">Field Strength Limit at 3m Measurement Dist</th></tr><tr><th>uV/m</th><th>Distance (m)</th><th>uV/m</th><th>dBuV/m</th></tr><tr><td>0.009 ~ 0.490</td><td>2400/F(kHz)</td><td>300</td><td>10000 * 2400/F(kHz)</td><td>$20\log^{(2400/F(kHz))} + 80$</td></tr><tr><td>0.490 ~ 1.705</td><td>24000/F(kHz)</td><td>30</td><td>100 * 24000/F(kHz)</td><td>$20\log^{(24000/F(kHz))} + 40$</td></tr><tr><td>1.705 ~ 30</td><td>30</td><td>30</td><td>100 * 30</td><td>$20\log^{(30)} + 40$</td></tr><tr><td>30 ~ 88</td><td>100</td><td>3</td><td>100</td><td>$20\log^{(100)}$</td></tr><tr><td>88 ~ 216</td><td>150</td><td>3</td><td>150</td><td>$20\log^{(150)}$</td></tr><tr><td>216 ~ 960</td><td>200</td><td>3</td><td>200</td><td>$20\log^{(200)}$</td></tr><tr><td>Above 960</td><td>500</td><td>3</td><td>500</td><td>$20\log^{(500)}$</td></tr></table> ** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241. As shown in § 15.35(b), for frequencies above 1000 MHz, the field strength limits in paragraphs (a)and (b)of this section are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For point-to-point operation under paragraph (b)of this section, the peak field strength shall not exceed 2500 millivolts/meter at 3 meters along the antenna azimuth.					Frequency (MHz)	Field Strength		Field Strength Limit at 3m Measurement Dist		uV/m	Distance (m)	uV/m	dBuV/m	0.009 ~ 0.490	2400/F(kHz)	300	10000 * 2400/F(kHz)	$20\log^{(2400/F(kHz))} + 80$	0.490 ~ 1.705	24000/F(kHz)	30	100 * 24000/F(kHz)	$20\log^{(24000/F(kHz))} + 40$	1.705 ~ 30	30	30	100 * 30	$20\log^{(30)} + 40$	30 ~ 88	100	3	100	$20\log^{(100)}$	88 ~ 216	150	3	150	$20\log^{(150)}$	216 ~ 960	200	3	200	$20\log^{(200)}$	Above 960	500	3	500	$20\log^{(500)}$
Frequency (MHz)	Field Strength		Field Strength Limit at 3m Measurement Dist																																														
	uV/m	Distance (m)	uV/m	dBuV/m																																													
0.009 ~ 0.490	2400/F(kHz)	300	10000 * 2400/F(kHz)	$20\log^{(2400/F(kHz))} + 80$																																													
0.490 ~ 1.705	24000/F(kHz)	30	100 * 24000/F(kHz)	$20\log^{(24000/F(kHz))} + 40$																																													
1.705 ~ 30	30	30	100 * 30	$20\log^{(30)} + 40$																																													
30 ~ 88	100	3	100	$20\log^{(100)}$																																													
88 ~ 216	150	3	150	$20\log^{(150)}$																																													
216 ~ 960	200	3	200	$20\log^{(200)}$																																													
Above 960	500	3	500	$20\log^{(500)}$																																													
Test Method:	Radiated emissions tests																																																
Procedure:	ANSI C63.10-2013 section 6.6.4																																																

4.3.1 E.U.T. Operation:

Operating Environment:					
Temperature:	23.4 °C	Humidity:	52.7 %	Atmospheric Pressure:	102 kPa
Pre test mode:	TM1				
Final test mode:	TM1				

4.3.2 Test Data:

Concentric



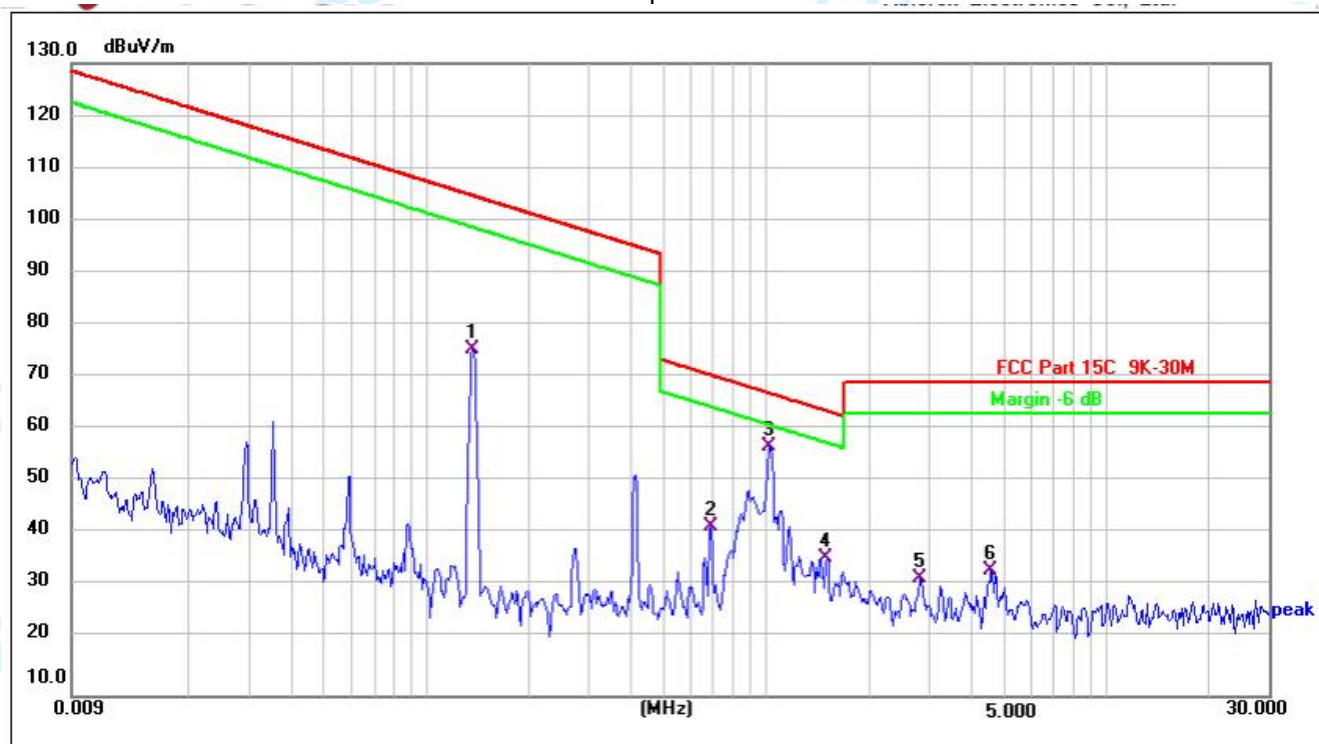
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)	Remark
1	0.1479	50.36	25.28	75.64	104.26	-28.62	QP	100	136	
2 *	1.0270	24.77	27.22	51.99	67.39	-15.40	QP	100	79	
3	1.3423	9.35	27.18	36.53	65.07	-28.54	QP	100	45	
4	1.6441	7.61	27.15	34.76	63.32	-28.56	QP	100	157	
5	3.1204	4.60	26.99	31.59	69.54	-37.95	QP	100	248	
6	4.7580	8.12	26.86	34.98	69.54	-34.56	QP	100	214	

Remark: Margin=Level - Limit

Level=Test receiver reading + correction factor

Correction Factor= Antenna Factor + Cable loss – Pre-amplifier

Coplanar



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)	Remark
1	0.1479	50.41	25.28	75.69	104.26	-28.57	QP	100	320	
2	0.6846	15.87	26.39	42.26	70.90	-28.64	QP	100	89	
3 *	1.0187	30.30	27.22	57.52	67.46	-9.94	QP	100	142	
4	1.5036	9.10	27.16	36.26	64.09	-27.83	QP	100	287	
5	2.8311	5.36	27.02	32.38	69.54	-37.16	QP	100	354	
6	4.5690	6.97	26.87	33.84	69.54	-35.70	QP	100	248	

Remark: Margin=Level - Limit

Level=Test receiver reading + correction factor

Correction Factor= Antenna Factor + Cable loss – Pre-amplifier

4.4 Emissions in frequency bands (30MHz - 1GHz)

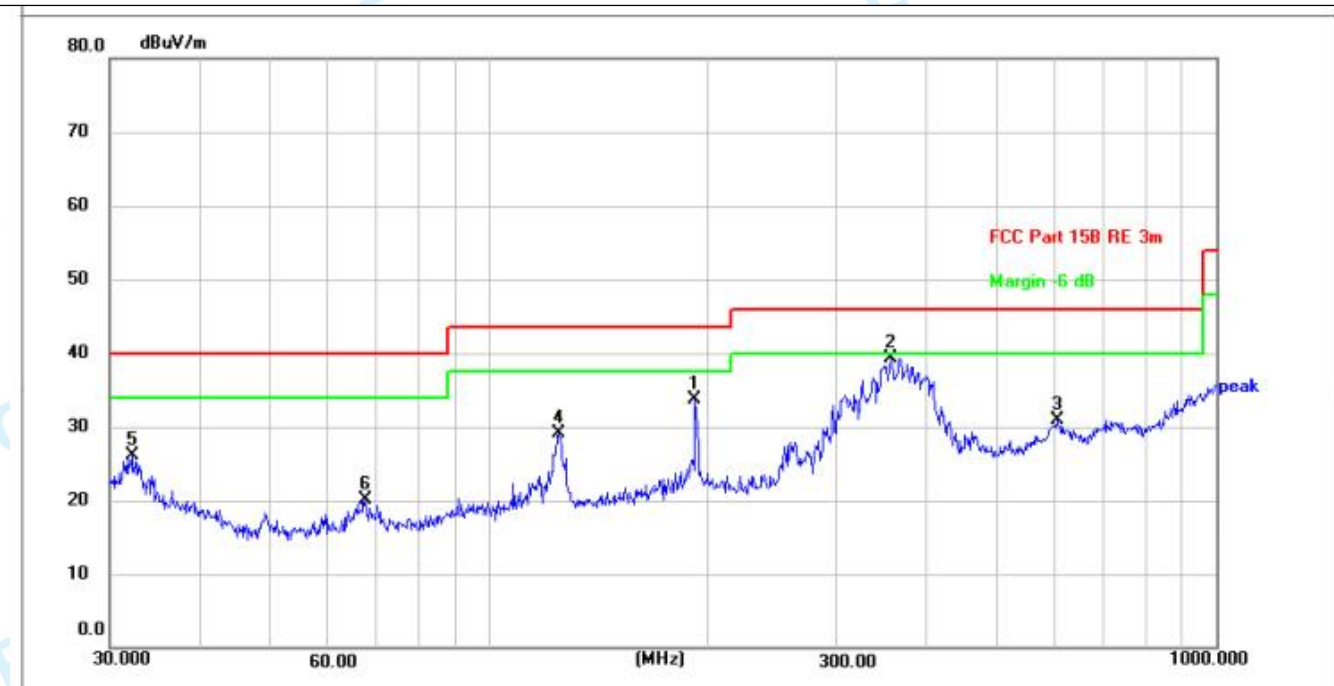
Test Requirement:	47 CFR 15.209		
Test Limit:	Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
	0.009-0.490	2400/F(kHz)	300
	0.490-1.705	24000/F(kHz)	30
	1.705-30.0	30	30
	30-88	100 **	3
	88-216	150 **	3
	216-960	200 **	3
	Above 960	500	3
	** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241. As shown in § 15.35(b), for frequencies above 1000 MHz, the field strength limits in paragraphs (a) and (b) of this section are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For point-to-point operation under paragraph (b) of this section, the peak field strength shall not exceed 2500 millivolts/meter at 3 meters along the antenna azimuth.		
Test Method:	Radiated emissions tests		
Procedure:	ANSI C63.10-2013 section 6.6.4		

4.4.1 E.U.T. Operation:

Operating Environment:			
Temperature:	23.4 °C	Humidity:	52.7 %
		Atmospheric Pressure:	102 kPa
Pre test mode:	TM1		
Final test mode:	TM1		

4.4.2 Test Data:

TM1 / Polarization: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	191.7450	36.66	-3.01	33.65	43.50	-9.85	QP	100	354	P	
2 *	356.6758	37.57	1.71	39.28	46.00	-6.72	QP	100	146	P	
3	603.5392	27.79	3.12	30.91	46.00	-15.09	QP	100	142	P	
4	124.5690	33.86	-4.69	29.17	43.50	-14.33	QP	100	248	P	
5	32.1795	29.52	-3.45	26.07	40.00	-13.93	QP	100	47	P	
6	67.4382	28.87	-8.69	20.18	40.00	-19.82	QP	100	126	P	

Remark: Margin=Level - Limit

Level=Test receiver reading + correction factor

Correction Factor= Antenna Factor + Cable loss – Pre-amplifier

TM1 / Polarization: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	65.3432	41.85	-8.79	33.06	40.00	-6.94	QP	100	25	P	
2	124.1330	37.24	-4.70	32.54	43.50	-10.96	QP	100	157	P	
3	191.7450	34.62	-3.01	31.61	43.50	-11.89	QP	100	248	P	
4 !	387.9920	39.29	1.23	40.52	46.00	-5.48	QP	100	57	P	
5 *	31.6202	38.15	-3.30	34.85	40.00	-5.15	QP	100	138	P	
6	49.0145	42.97	-9.44	33.53	40.00	-6.47	QP	100	69	P	

Remark: Margin=Level - Limit

Level=Test receiver reading + correction factor

Correction Factor= Antenna Factor + Cable loss – Pre-amplifier

5 TEST SETUP PHOTOS

Please refer to Setup Photo file

6 PHOTOS OF THE EUT

Please refer to external photos file and internal photos file

***** End of Report *****