



# FCC TEST REPORT

## FCC ID:2AZI6-X548

**Report Number**..... : **ZKT-2311249152E**

Date of Test..... Nov. 24, 2023 to Dec. 01, 2023

Date of issue..... Dec. 01, 2023

Total number of pages..... 31

Test Result ..... : **PASS**

**Testing Laboratory**..... : **Shenzhen ZKT Technology Co., Ltd.**

Address ..... : 1/F, No. 101, Building B, No. 6, Tangwei Community Industrial Avenue, Fuhai Street, Bao'an District, Shenzhen, China

**Applicant's name** ..... : **SHENZHEN XU HUI WEIYE ELECTRONIC TECHNOLOGY CO., LTD.**

Address ..... : 1/F, Building B9, Hengfeng Industrial City, Hezhou, Xixiang, Baoan District, Shenzhen, China

**Manufacturer's name** ..... : **SHENZHEN XU HUI WEIYE ELECTRONIC TECHNOLOGY CO., LTD.**

Address ..... : 1/F, Building B9, Hengfeng Industrial City, Hezhou, Xixiang, Baoan District, Shenzhen, China

**Test specification:**

Standard..... : FCC CFR Title 47 Part 15 Subpart C

Test procedure..... : /

Non-standard test method ..... : N/A

**Test Report Form No**..... : TRF-EL-107\_V0

**Test Report Form(s) Originator**..... : ZKT Testing

**Master TRF** ..... : Dated: 2020-01-06

This device described above has been tested by ZKT, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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**Product name**..... : **wireless charger**

Trademark ..... : N/A

Model/Type reference..... : X548  
X546, X550, X556, X545, X540, X541, X516, X528, X506, X509,  
X512, X508, X533, X543, X435, X549, X558, X559, X566, X568,  
X569, X576, X517, X435-A

Ratings..... : Input: 5V  $\text{---}$  3A, 9V  $\text{---}$  2A, 12V  $\text{---}$  1.5A  
Output for Phone: 5W/7.5W/10W/15W Max  
Output for Earphone: 3W Max  
Output for Smart watch: 2.5W Max



**Testing procedure and testing location:**

**Testing Laboratory**.....: **Shenzhen ZKT Technology Co., Ltd.**

**Address**.....: 1/F, No. 101, Building B, No. 6, Tangwei Community Industrial Avenue, Fuhai Street, Bao'an District, Shenzhen, China

**Tested by (name + signature)**.....: Tom Zou

*Tom Zou*

**Reviewer (name + signature)**.....: Jackson Fang

*Jackson Fang*

**Approved (name + signature)**.....: Lake Xie





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**1. VERSION**

Report No.	Version	Description	Approved
ZKT-2311249152E	Rev.01	Initial issue of report	Dec. 01, 2023



## 2. TEST SUMMARY

Test Item	Section in CFR 47	Result
Antenna requirement	15.203	Pass
AC Power Line Conducted Emission	15.207	Pass
Spurious Emission	15.209(a)(f)	Pass
20dB Bandwidth	15.215	Pass

NOTE:

(1) "N/A" denotes test is not applicable in this Test Report



## 2.1 TEST FACILITY

Shenzhen ZKT Technology Co., Ltd.  
Add. : 1/F, No. 101, Building B, No. 6, Tangwei Community Industrial Avenue, Fuhai Street,  
Bao'an District, Shenzhen, China

FCC Test Firm Registration Number: 692225  
Designation Number: CN1299  
IC Registered No.: 27033

## 2.2 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 %.

No.	Item	Uncertainty
1	3m chamber Radiated spurious emission(9KHz-30MHz)	U=4.5dB
2	3m chamber Radiated spurious emission(30MHz-1GHz)	U=4.8dB
3	3m chamber Radiated spurious emission(1GHz-18GHz)	U=4.9dB
4	3m chamber Radiated spurious emission(18GHz-40GHz)	U=5.0dB
5	Conducted Adjacent channel power	U=1.38dB
6	Conducted output power uncertainty Above 1G	U=1.576dB
7	Conducted output power uncertainty below 1G	U=1.28dB
8	humidity uncertainty	U=5.3%
9	Temperature uncertainty	U=0.59°C



### 3. GENERAL INFORMATION

#### 3.1 GENERAL DESCRIPTION OF EUT

Product Name:	wireless charger
Model No.:	X548
Model Difference:	All models are of the same circuit and RF module, except with different model names different
Serial No.:	X546, X550, X556, X545, X540, X541, X516, X528, X506, X509, X512, X508, X533, X543, X435, X549, X558, X559, X566, X568, X569, X576, X517, X435-A
Hardware version:	H1.0
Software version:	S1.0
Operation Frequency:	Phone Coil :115KHz-350KHz Earphone Coil :115KHz-350KHz iWatch Coil :115KHz-350KHz
Modulation type:	ASK
Antenna Type:	Inductive loop coil Antenna
Antenna gain:	0dBi
Power supply:	Input: 5V ---3A, 9V ---2A, 12V ---1.5A Output for Phone: 5W/7.5W/10W/15W Max Output for Earphone: 3W Max Output for Smart watch: 2.5W Max

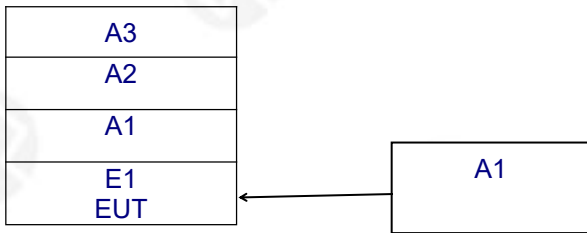
#### 3.2 Test mode

Test Modes:	Description:
Mode 1	AC Adapter+EUT +phone (Battery Status ≤1%)
Mode 2	AC Adapter+EUT +phone (Battery Status =50%)
Mode 3	AC Adapter+EUT +phone (Battery Status ≥98%)
Mode 4	AC Adapter+EUT +Earphone(Battery Status ≤1%)
Mode 5	AC Adapter+EUT +Earphone (Battery Status =50%)
Mode 6	AC Adapter+EUT +Earphone (Battery Status ≥98%)
Mode 7	AC Adapter+EUT +Watch (Battery Status ≤1%)
Mode 8	AC Adapter+EUT +Watch (Battery Status =50%)
Mode 9	AC Adapter+EUT +Watch (Battery Status ≥98%)
Mode 10	AC Adapter+EUT +phone + Earphone +Watch (Battery Status ≤1%)
Mode 11	AC Adapter+EUT +phone + Earphone +Watch (Battery Status=50%)
Mode 12	AC Adapter+EUT +phone + Earphone +Watch (Battery Status ≥98%)

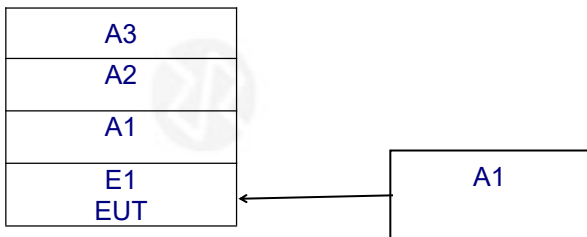


### 3.3 Block Diagram of EUT Configuration

#### Conducted Emission



#### Radiated Emission



### 3.4 Test Conditions

Temperature: 23~26°C

Relative Humidity: 54~63 %

### 3.5 Description Of Support Units (Conducted Mode)

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Note
E1	wireless charger	N/A	X548	See page 8	EUT
A1	Adapter	HUAWEI	HW-050100B3W	N/A	Auxiliary
A2	Phone	Xiaomi	Mi 10	N/A	Auxiliary
A3	iWatch	iPhone	S4	N/A	Auxiliary
A4	Earphone	iPhone	AirPods Pro 2	N/A	Auxiliary

Item	Shielded Type	Ferrite Core	Length	Note
C1	NO	NO	1.0M	DC cable unshielded

Note:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in 『Length』 column.
- (3) “YES” is means “shielded” “with core”; “NO” is means “unshielded” “without core”.





### 3.6 EQUIPMENTS LIST FOR ALL TEST ITEMS

#### Conducted emissions Test

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Firmware Version	Last calibration	Calibrated until
1	LISN	R&S	ENV216	101471	N/A	Nov. 14, 2023	Nov. 13, 2024
2	LISN	CYBERTEK	EM5040A	E1850400149	N/A	Nov. 02, 2023	Nov. 01, 2024
3	Test Cable	N/A	C-01	N/A	N/A	Nov. 02, 2023	Nov. 01, 2024
4	Test Cable	N/A	C-02	N/A	N/A	Nov. 02, 2023	Nov. 01, 2024
5	Test Cable	N/A	C-03	N/A	N/A	Nov. 02, 2023	Nov. 01, 2024
6	EMI Test Receiver	R&S	ESCI3	101393	4.42 SP3	Nov. 02, 2023	Nov. 01, 2024
7	Triple-Loop Antenna	N/A	RF300	N/A	N/A	Nov. 02, 2023	Nov. 01, 2024
8	Absorbing Clamp	DZ	ZN23201	15034	N/A	Nov. 07, 2023	Nov. 06, 2024
9	EMC Software	Frad	EZ-EMC	Ver.EMC-CON 3A1.1	N/A	\	\

#### Radiation emissions & Radio Test equipment

Item	Equipment	Manufacturer	Type No.	Serial No.	Firmware Version	Last calibration	Calibrated until
1	Spectrum Analyzer (9kHz-26.5GHz)	KEYSIGHT	9020A	MY55370835	A.17.05	Nov. 02, 2023	Nov. 01, 2024
2	Spectrum Analyzer (10kHz-39.9GHz)	R&S	FSV40-N	100363	1.71 SP2	Nov. 02, 2023	Nov. 01, 2024
3	EMI Test Receiver (9kHz-7GHz)	R&S	ESCI7	100969	4.32	Nov. 02, 2023	Nov. 01, 2024
4	Bilog Antenna (30MHz-1500MHz)	Schwarzbeck	VULB9168	N/A	N/A	Nov. 13, 2023	Nov. 12, 2024
5	Horn Antenna (1GHz-18GHz)	Agilent	AH-118	071145	N/A	Nov. 13, 2023	Nov. 12, 2024
6	Horn Antenna (15GHz-40GHz)	A.H.System	SAS-574	588	N/A	Nov. 13, 2023	Nov. 12, 2024
7	Loop Antenna	TESEQ	HLA6121	58357	N/A	Nov. 16, 2023	Nov. 15, 2024
8	Amplifier (30-1000MHz)	EM Electronics	EM330 Amplifier	60747	N/A	Nov. 02, 2023	Nov. 01, 2024
9	Amplifier (1GHz-26.5GHz)	HuiPu	8449B	3008A00315	N/A	Nov. 02, 2023	Nov. 01, 2024
10	Amplifier (500MHz-40GHz)	QuanJuDa	DLE-161	097	N/A	Nov. 02, 2023	Nov. 01, 2024
11	Test Cable	N/A	R-01	N/A	N/A	Nov. 02, 2023	Nov. 01, 2024
12	Test Cable	N/A	R-02	N/A	N/A	Nov. 02, 2023	Nov. 01, 2024
13	Test Cable	N/A	R-03	N/A	N/A	Nov. 02, 2023	Nov. 01, 2024
14	Test Cable	N/A	RF-01	N/A	N/A	Nov. 02, 2023	Nov. 01, 2024
15	Test Cable	N/A	RF-02	N/A	N/A	Nov. 02, 2023	Nov. 01, 2024



16	Test Cable	N/A	RF-03	N/A	N/A	Nov. 02, 2023	Nov. 01, 2024
17	ESG Signal Generator	Agilent	E4421B	N/A	B.03.84	Nov. 02, 2023	Nov. 01, 2024
18	Signal Generator	Agilent	N5182A	N/A	A.01.87	Nov. 02, 2023	Nov. 01, 2024
19	Magnetic Field Probe Tester	Narda	ELT-400	0-0344	N/A	Nov. 16, 2023	Nov. 15, 2024
20	Wideband Radio Communication Test	R&S	CMW500	106504	V 3.7.22	Nov. 02, 2023	Nov. 01, 2024
21	MWRF Power Meter Test system	MW	MW100-RF CB	N/A	N/A	Nov. 02, 2023	Nov. 01, 2024
22	D.C. Power Supply	LongWei	TPR-6405D	N/A	N/A	\	\
23	EMC Software	Frad	EZ-EMC	Ver.EMC-CO N 3A1.1	N/A	\	\
24	RF Software	MW	MTS8310	V2.0.0.0	N/A	\	\
25	Turntable	MF	MF-7802BS	N/A	N/A	\	\
26	Antenna tower	MF	MF-7802BS	N/A	N/A	\	\



#### 4. CONDUCTED EMISSION TEST

##### 4.1 CONDUCTED EMISSION MEASUREMENT

Test Requirement:	FCC Part15 C Section 15.207
Test Method:	ANSI C63.10:2013
Test Frequency Range:	150KHz to 30MHz
Receiver setup:	RBW=9KHz, VBW=30KHz, Sweep time=auto

##### 4.1.1 POWER LINE CONDUCTED EMISSION Limits

FREQUENCY (MHz)	Limit (dBuV)		Standard
	Quas-peak	Average	
0.15 -0.5	66 - 56 *	56 - 46 *	FCC
0.50 -5.0	56.00	46.00	FCC
5.0 -30.0	60.00	50.00	FCC

Note:

(1) \*Decreases with the logarithm of the frequency.

##### 4.1.2 TEST PROCEDURE

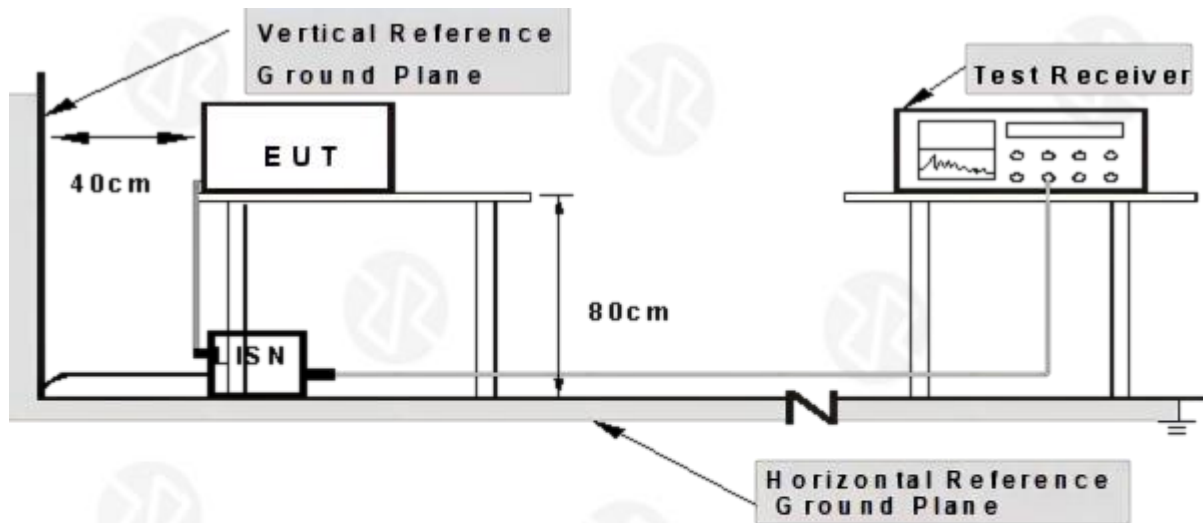
- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. 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.
- c. 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.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

##### 4.1.3 DEVIATION FROM TEST STANDARD

No deviation



#### 4.1.4 TEST SETUP



- Note: 1.Support units were connected to second LISN.**  
**2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes**

#### 4.1.5 EUT OPERATING CONDITIONS

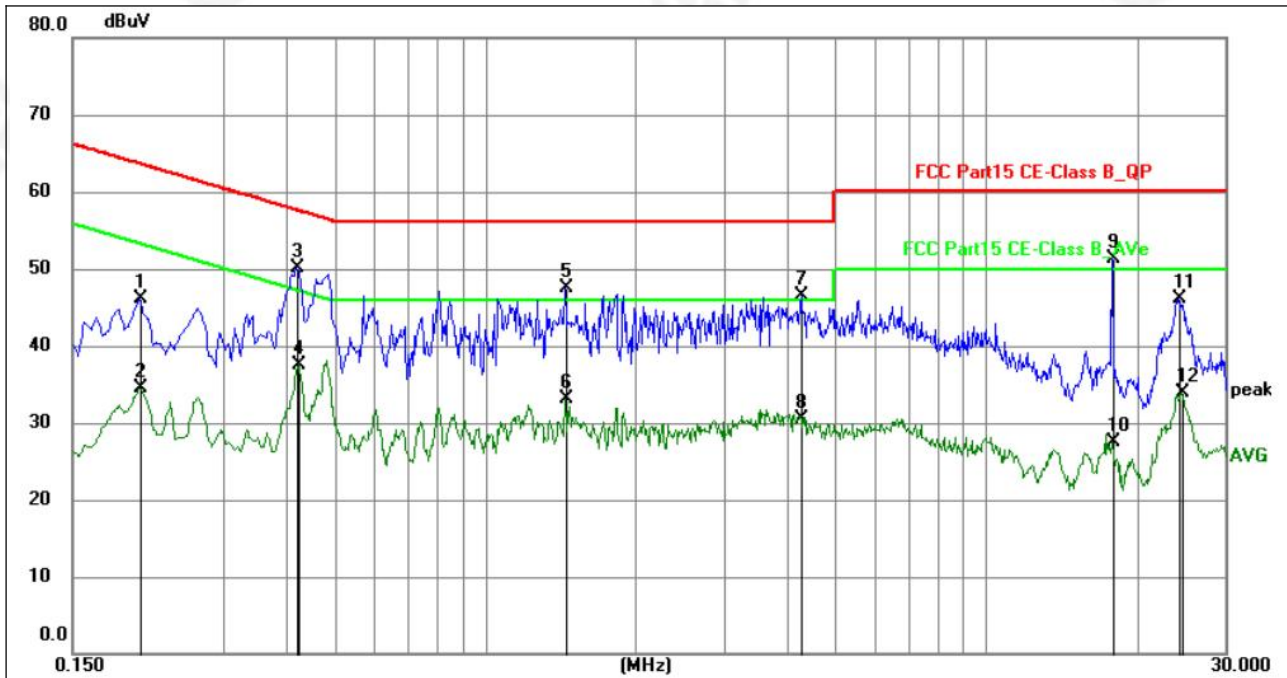
The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

We pretest AC 120V and AC 230V, the worst voltage was AC 120V and the data recording in the report.

#### 4.1.6 Test Result



Temperature:	26°C	Relative Humidity:	54%
Pressure:	101kPa	Phase :	L
Test Voltage :	AC 120V/60Hz	Test Mode:	Mode 10



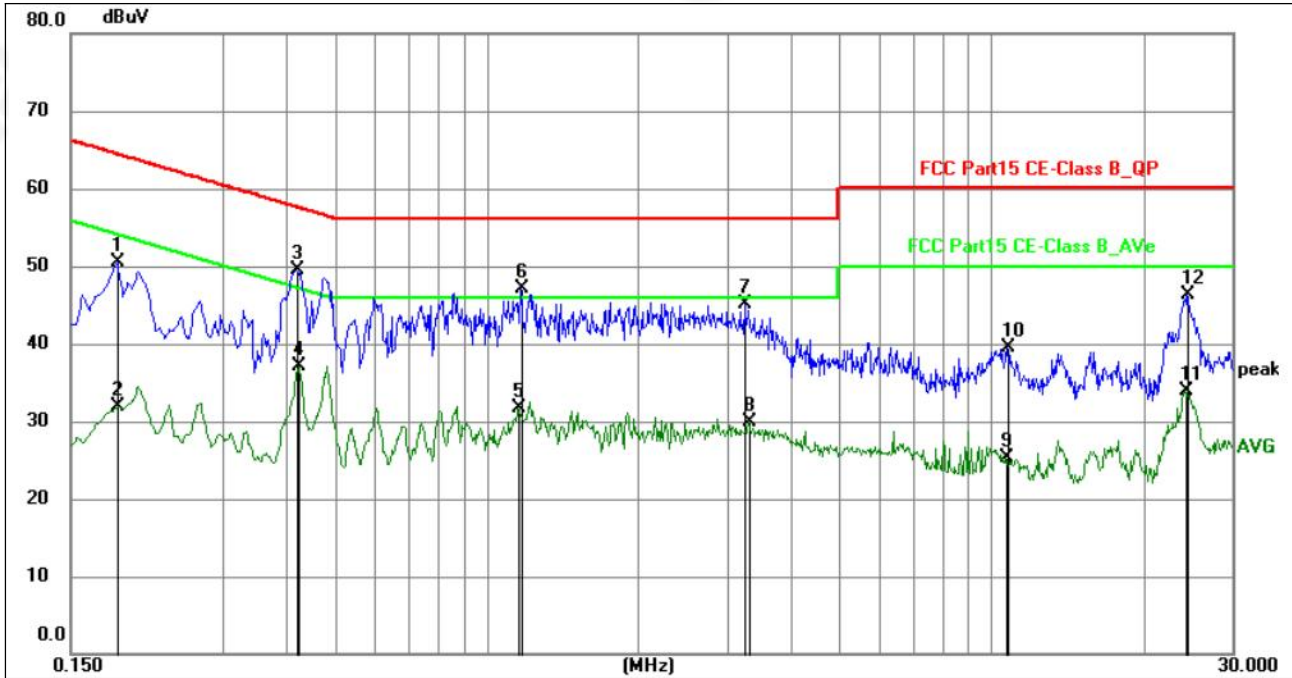
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.2040	25.01	21.03	46.04	63.45	-17.41	QP
2	0.2040	13.52	21.03	34.55	53.45	-18.90	AVG
3	0.4200	29.07	20.94	50.01	57.45	-7.44	QP
4	0.4245	16.67	20.93	37.60	47.36	-9.76	AVG
5	1.4414	26.50	20.99	47.49	56.00	-8.51	QP
6	1.4414	12.16	20.99	33.15	46.00	-12.85	AVG
7	4.2855	25.31	21.11	46.42	56.00	-9.58	QP
8	4.2855	9.48	21.11	30.59	46.00	-15.41	AVG
9	17.8530	27.94	23.35	51.29	60.00	-8.71	QP
10	17.8530	4.11	23.35	27.46	50.00	-22.54	AVG
11	24.2610	21.75	24.40	46.15	60.00	-13.85	QP
12	24.6030	9.42	24.45	33.87	50.00	-16.13	AVG

Notes:

1. An initial pre-scan was performed on the line and neutral lines with peak detector.
2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
3. Measurement Level = Reading level + Correct Factor



Temperature:	26°C	Relative Humidity:	54%
Pressure:	101kPa	Phase :	N
Test Voltage :	AC 120V/60Hz	Test Mode:	Mode 10



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1860	29.58	20.96	50.54	64.21	-13.67	QP	P
2	0.1860	10.95	20.96	31.91	54.21	-22.30	AVG	P
3	0.4200	28.59	20.91	49.50	57.45	-7.95	QP	P
4	0.4245	16.23	20.91	37.14	47.36	-10.22	AVG	P
5	1.1580	10.68	20.94	31.62	46.00	-14.38	AVG	P
6	1.1715	26.11	20.94	47.05	56.00	-8.95	QP	P
7	3.2415	23.98	21.08	45.06	56.00	-10.94	QP	P
8	3.3090	8.91	21.09	30.00	46.00	-16.00	AVG	P
9	10.7025	3.21	22.17	25.38	50.00	-24.62	AVG	P
10	10.7610	17.41	22.18	39.59	60.00	-20.41	QP	P
11	24.2520	9.41	24.43	33.84	50.00	-16.16	AVG	P
12	24.4005	21.91	24.46	46.37	60.00	-13.63	QP	P

Notes:

1. An initial pre-scan was performed on the line and neutral lines with peak detector.
2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
3. Measurement Level = Reading level + Correct Factor



## 5. RADIATED EMISSION MEASUREMENT

Test Requirement:	FCC Part15 C Section 15.209				
Test Method:	ANSI C63.10:2013				
Test Frequency Range:	9kHz to 1GHz				
Test site:	Measurement Distance: 3m				
Receiver setup:	Frequency	Detector	RBW	VBW	Value
	9KHz-150KHz	Quasi-peak	200Hz	600Hz	Quasi-peak
	150KHz-30MHz	Quasi-peak	9KHz	30KHz	Quasi-peak
	30MHz-1GHz	Quasi-peak	100KHz	300KHz	Quasi-peak
	Above 1GHz	Peak	1MHz	3MHz	Peak
Peak		1MHz	10Hz	Average	

### 5.1 Radiated Emission Limits

#### Limits for frequency below 30MHz

Frequency	Limit (uV/m)	Measurement Distance(m)	Remark
0.009-0.490	2400/F(kHz)	300	Quasi-peak Value
0.490-1.705	24000/F(kHz)	30	Quasi-peak Value
1.705-30	30	30	Quasi-peak Value

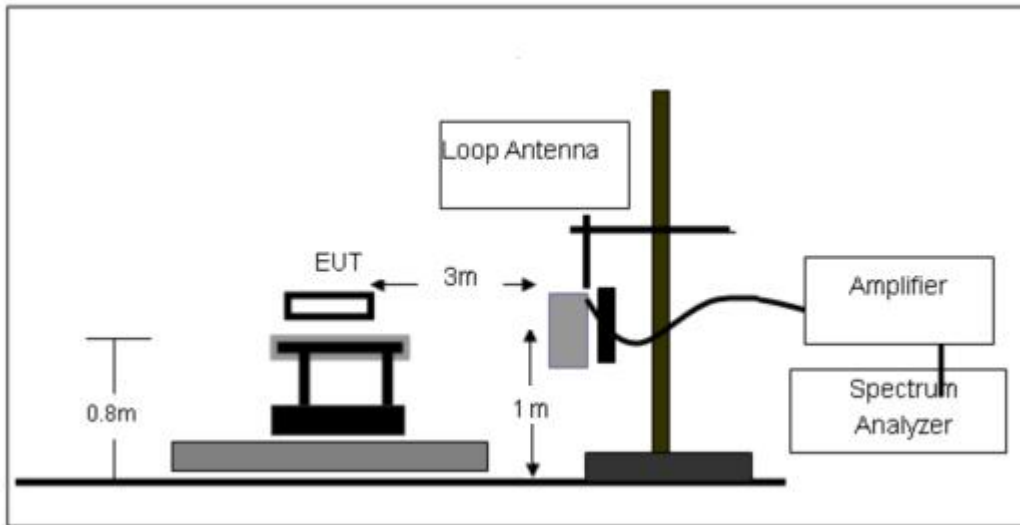
#### Limits for frequency Above 30MHz

Frequency	Limit (dBuV/m @3m)	Remark
30MHz-88MHz	40.00	Quasi-peak Value
88MHz-216MHz	43.50	Quasi-peak Value
216MHz-960MHz	46.00	Quasi-peak Value
960MHz-1GHz	54.00	Quasi-peak Value
Above 1GHz	54.00	Average Value
	74.00	Peak Value

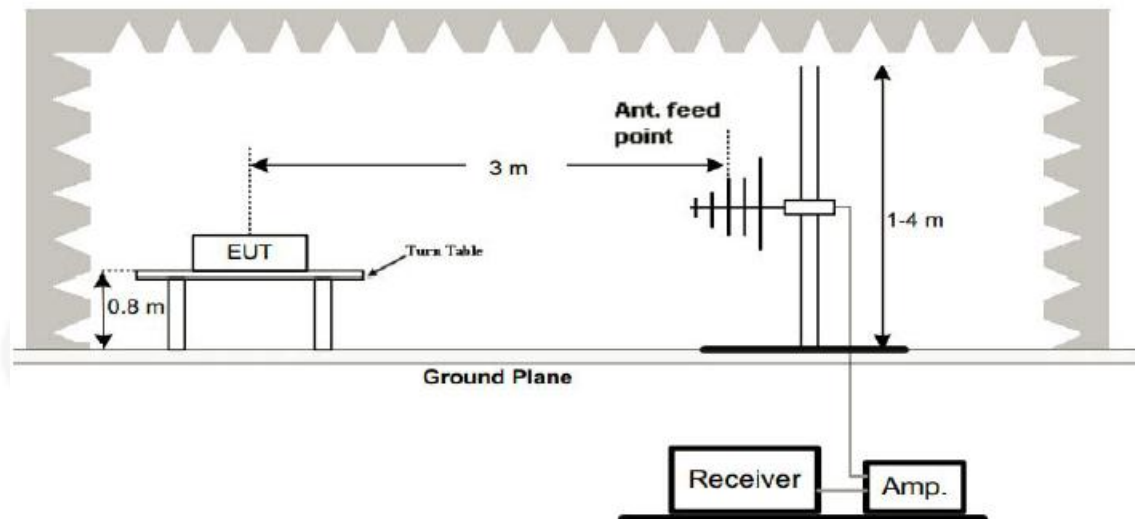


## 5.2 Anechoic Chamber Test Setup Diagram

(A) Radiated Emission Test-Up Frequency Below 30MHz



(B) Radiated Emission Test-Up Frequency 30MHz~1GHz



The radiated emission tests were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209 and FCC 15.205 limits.

## 5.3 Test Procedure

The EUT is placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna which is mounted on a antenna tower. The antenna can move up and down between 1 to 4 meters to find out the maximum emission level. Broadband antenna (calibrated by dipole antenna) are used as a receiving antenna. Both horizontal and vertical polarization of the antenna are set on measurement.

## 5.4 DEVIATION FROM TEST STANDARD

No deviation





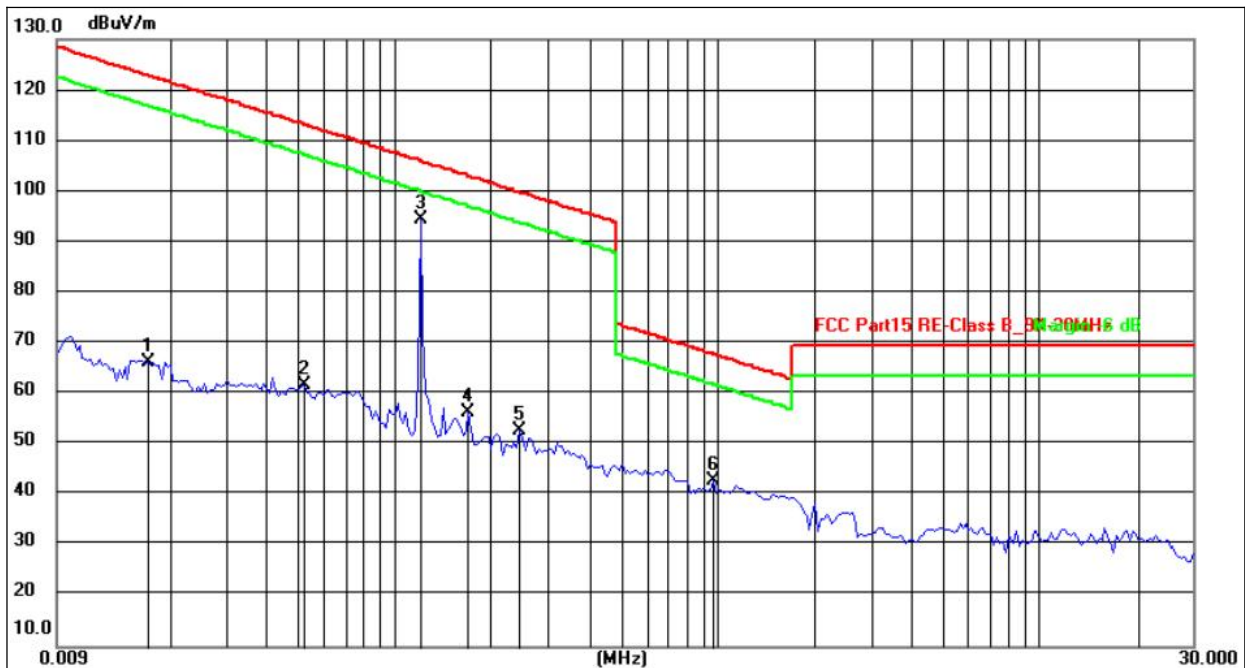
### 5.5 Test Result

#### Measurement data:

Note: Limit dBuV/m @3m = Limit dBuV/m @300m+ 80  
Limit dBuV/m @3m = Limit dBuV/m @30m + 40

9 kHz~30 MHz

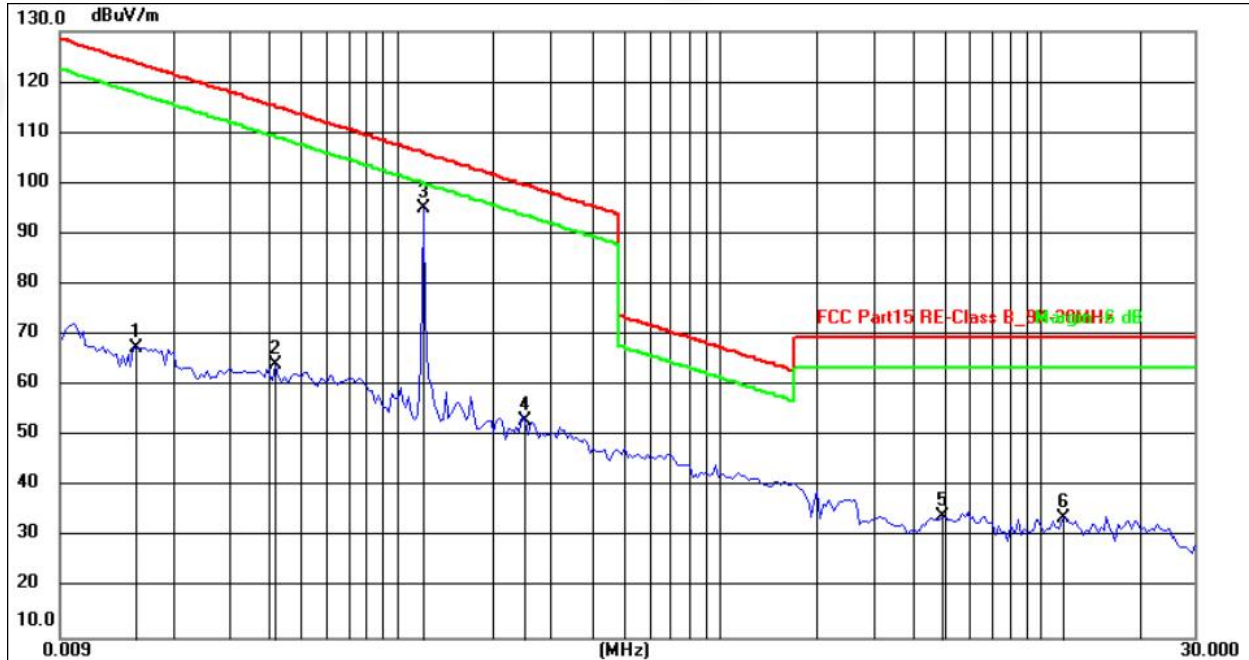
Temperature:	26°C	Relative Humidity:	54%
Pressure:	101kPa	Polarization:	Coaxial
Test Voltage:	AC 120V/60Hz	Test Mode:	Mode 1



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.0171	45.80	20.48	66.28	122.94	-56.66	peak
2	0.0524	41.85	19.76	61.61	113.22	-51.61	peak
3	0.1191	74.55	19.87	94.42	106.09	-11.67	peak
4	0.1703	36.18	20.08	56.26	102.98	-46.72	peak
5	0.2452	32.70	20.10	52.80	99.81	-47.01	peak
6	0.9743	22.88	20.00	42.88	67.83	-24.95	peak



Temperature:	26°C	Relative Humidity:	54%
Pressure:	101kPa	Polarization:	Coplaner
Test Voltage:	AC 120V/60Hz	Test Mode:	Mode 1



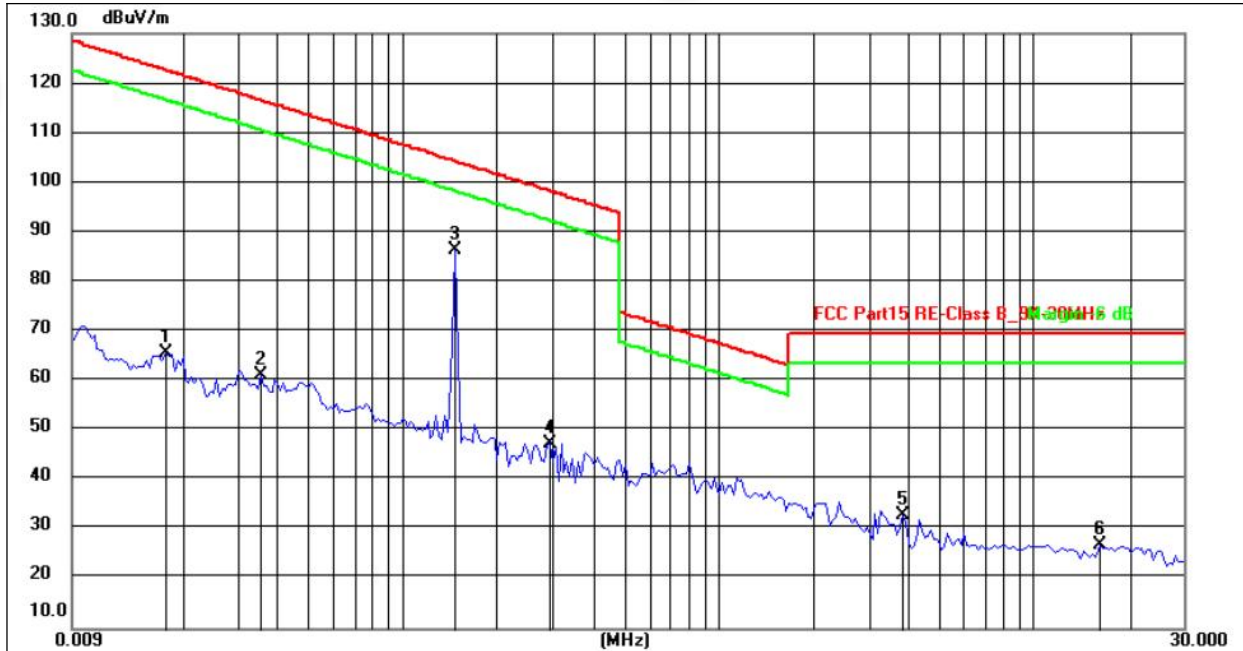
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.0154	47.07	20.50	67.57	123.85	-56.28	peak
2	0.0420	44.33	19.94	64.27	115.14	-50.87	peak
3	0.1191	75.05	19.87	94.92	106.09	-11.17	peak
4	0.2503	33.04	20.10	53.14	99.63	-46.49	peak
5	4.9348	14.59	19.47	34.06	69.54	-35.48	peak
6	11.8025	14.82	18.98	33.80	69.54	-35.74	peak

Remarks:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Pre-amplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.



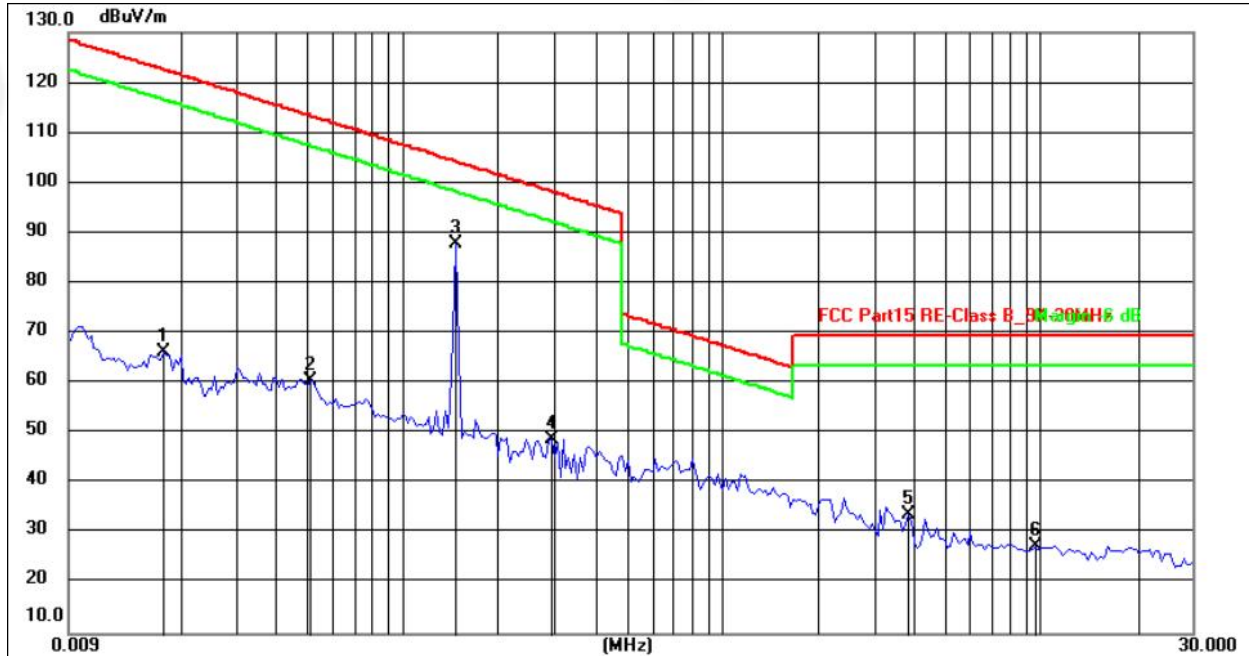
Temperature:	26°C	Relative Humidity:	54%
Pressure:	101kPa	Polarization:	Coaxial
Test Voltage:	AC 120V/60Hz	Test Mode:	Mode 4



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.0177	45.28	20.47	65.75	122.65	-56.90	peak
2	0.0357	41.11	20.08	61.19	116.55	-55.36	peak
3	0.1474	66.45	20.04	86.49	104.23	-17.74	peak
4	0.2943	27.23	20.12	47.35	98.23	-50.88	peak
5	3.8689	13.33	19.58	32.91	69.54	-36.63	peak
6	16.3262	8.21	18.79	27.00	69.54	-42.54	peak



Temperature:	26°C	Relative Humidity:	54%
Pressure:	101kPa	Polarization:	Coplaner
Test Voltage:	AC 120V/60Hz	Test Mode:	Mode 4



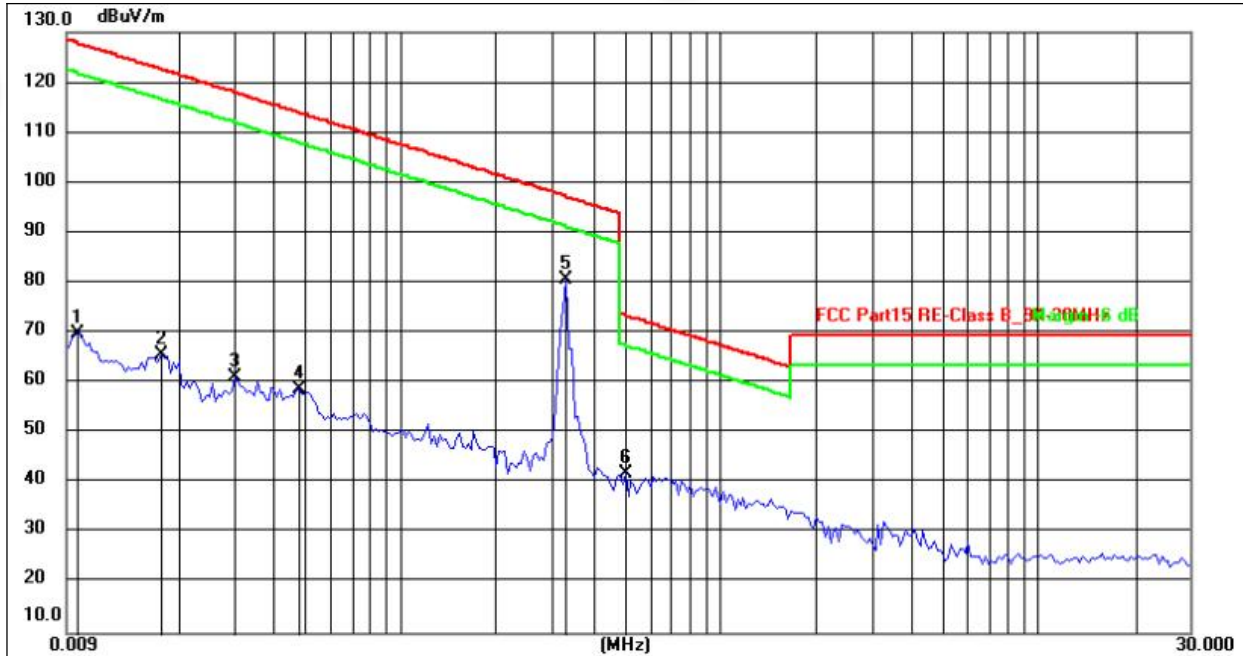
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.0177	45.78	20.47	66.25	122.65	-56.40	peak
2	0.0514	40.82	19.76	60.58	113.39	-52.81	peak
3	0.1474	67.95	20.04	87.99	104.23	-16.24	peak
4	0.2943	28.73	20.12	48.85	98.23	-49.38	peak
5	3.8689	14.33	19.58	33.91	69.54	-35.63	peak
6	9.6364	8.40	19.04	27.44	69.54	-42.10	peak

Remarks:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.



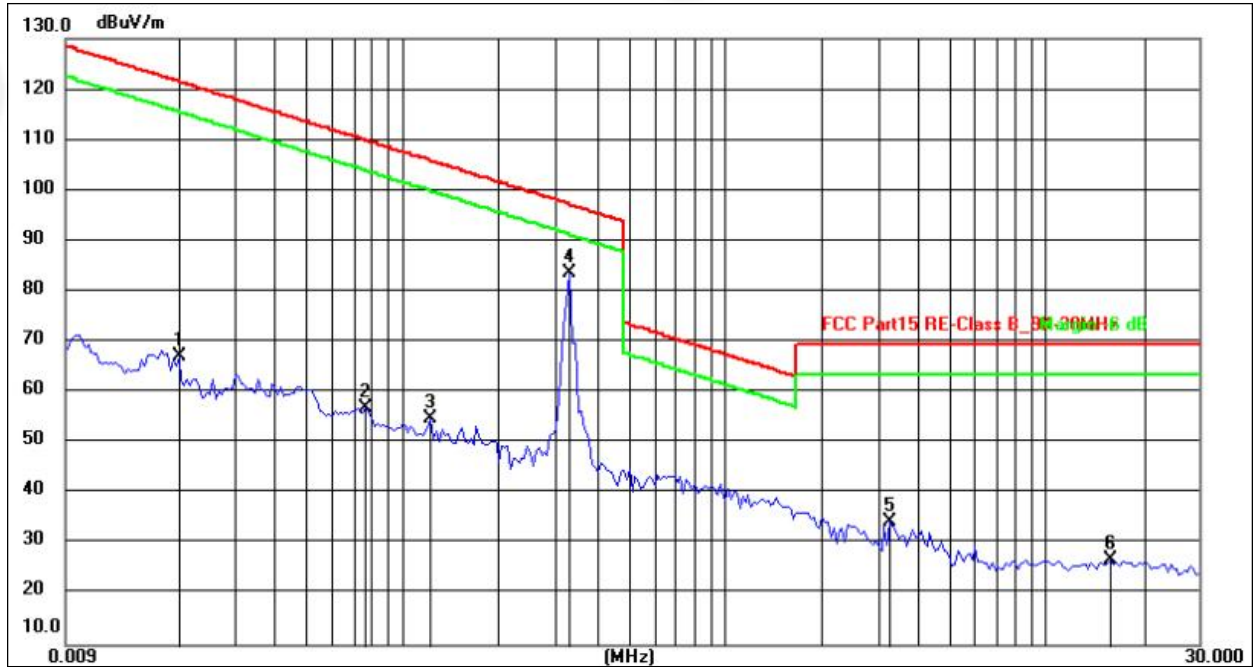
Temperature:	26°C	Relative Humidity:	54%
Pressure:	101kPa	Polarization:	Coaxial
Test Voltage:	AC 120V/60Hz	Test Mode:	Mode 7



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.0097	69.95	0.05	70.00	127.87	-57.87	peak
2	0.0177	45.28	20.47	65.75	122.65	-56.90	peak
3	0.0303	40.81	20.21	61.02	117.98	-56.96	peak
4	0.0483	38.93	19.79	58.72	113.93	-55.21	peak
5	0.3268	60.59	20.13	80.72	97.32	-16.60	peak
6	0.5090	21.85	20.21	42.06	73.47	-31.41	peak



Temperature:	26°C	Relative Humidity:	54%
Pressure:	101kPa	Polarization:	Coplaner
Test Voltage:	AC 120V/60Hz	Test Mode:	Mode 7



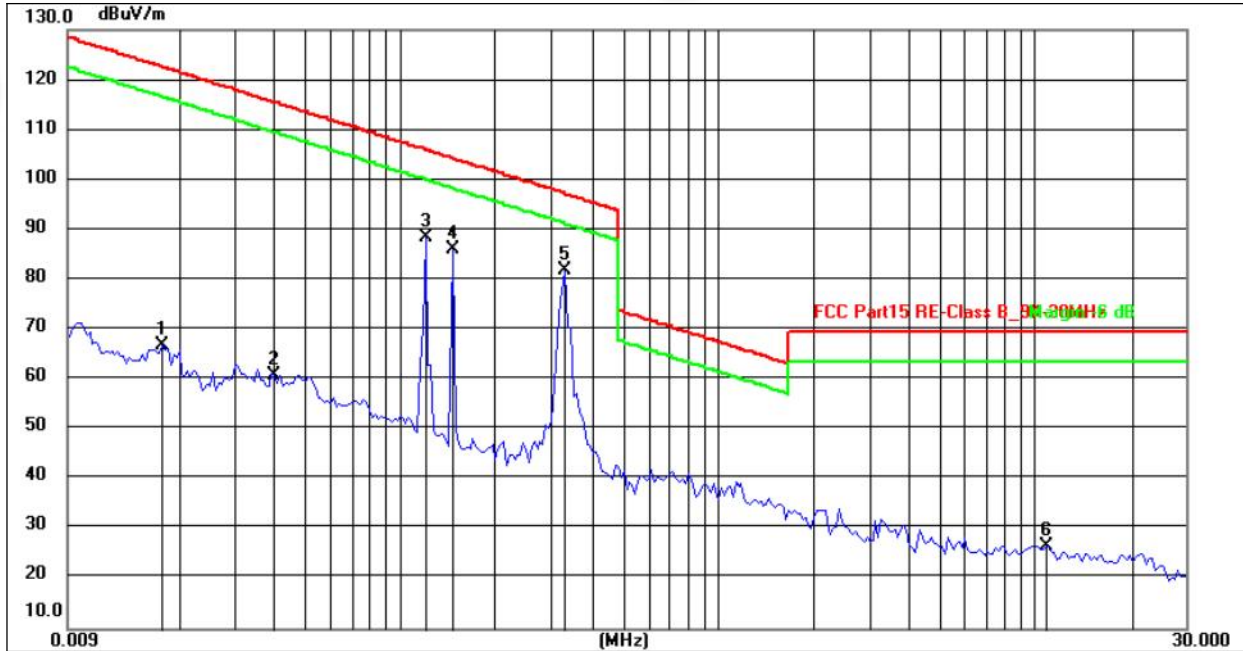
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.0200	46.56	20.45	67.01	121.58	-54.57	peak
2	0.0772	37.13	19.85	56.98	109.85	-52.87	peak
3	0.1231	35.03	19.90	54.93	105.80	-50.87	peak
4	0.3268	63.59	20.13	83.72	97.32	-13.60	peak
5	3.2894	14.82	19.63	34.45	69.54	-35.09	peak
6	15.9991	8.20	18.82	27.02	69.54	-42.52	peak

Remarks:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.



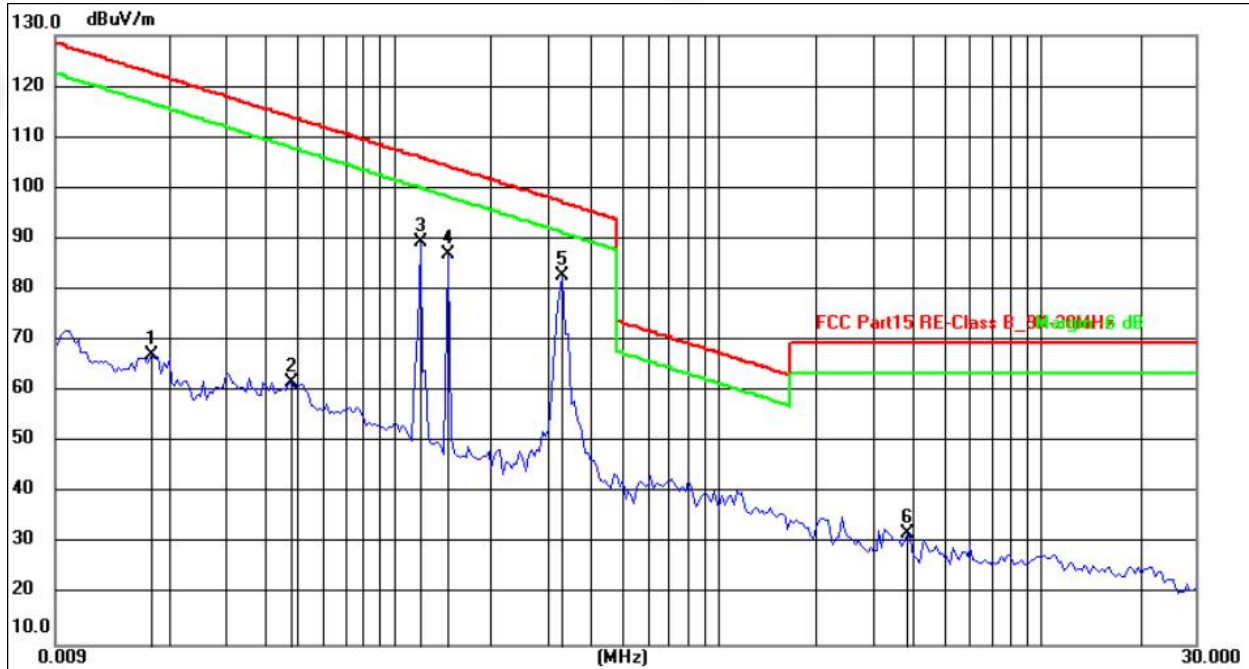
Temperature:	26°C	Relative Humidity:	54%
Pressure:	101kPa	Polarization:	Coaxial
Test Voltage:	AC 120V/60Hz	Test Mode:	Mode 10



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.0177	46.28	20.47	66.75	122.65	-55.90	peak
2	0.0403	40.81	19.98	60.79	115.50	-54.71	peak
3	0.1191	68.55	19.87	88.42	106.09	-17.67	peak
4	0.1474	65.95	20.04	85.99	104.23	-18.24	peak
5	0.3268	61.59	20.13	81.72	97.32	-15.60	peak
6	10.8833	7.71	18.99	26.70	69.54	-42.84	peak



Temperature:	26°C	Relative Humidity:	54%
Pressure:	101kPa	Polarization:	Coplaner
Test Voltage:	AC 120V/60Hz	Test Mode:	Mode 10



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.0177	46.78	20.47	67.25	122.65	-55.40	peak
2	0.0483	41.93	19.79	61.72	113.93	-52.21	peak
3	0.1191	69.55	19.87	89.42	106.09	-16.67	peak
4	0.1474	66.95	20.04	86.99	104.23	-17.24	peak
5	0.3268	62.59	20.13	82.72	97.32	-14.60	peak
6	3.8689	12.33	19.58	31.91	69.54	-37.63	peak

Remarks:

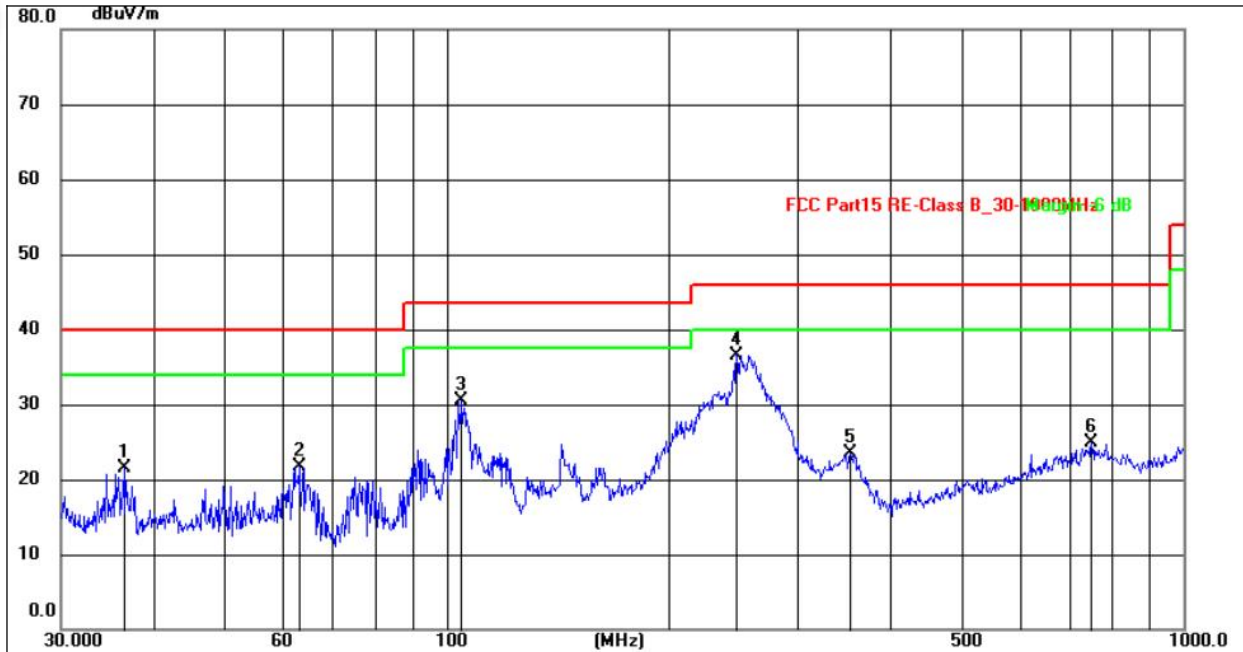
1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.





30MHz-1GHz

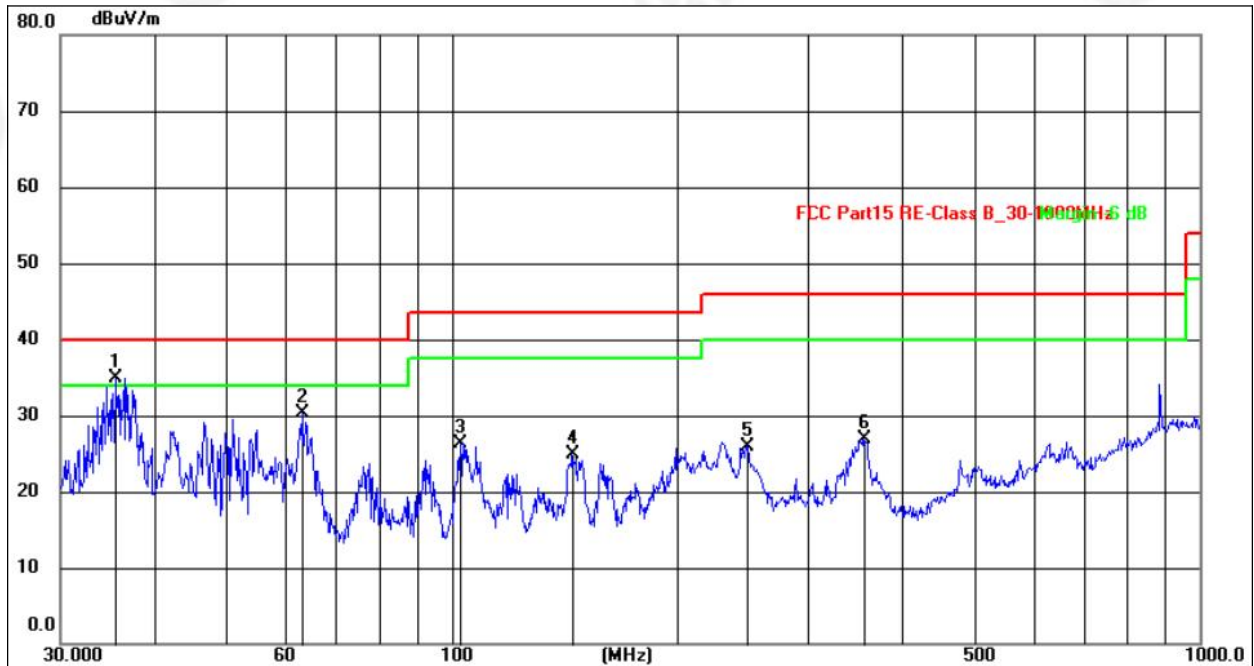
Temperature:	26°C	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	Horizontal
Test Voltage:	AC 120V/60Hz	Test Mode:	Mode 10



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	36.5092	36.25	-14.78	21.47	40.00	-18.53	QP
2	63.0916	36.71	-15.05	21.66	40.00	-18.34	QP
3	104.9032	50.03	-19.51	30.52	43.50	-12.98	QP
4	247.6818	52.60	-16.00	36.60	46.00	-9.40	QP
5	352.9433	40.31	-16.76	23.55	46.00	-22.45	QP
6	750.1082	31.68	-6.82	24.86	46.00	-21.14	QP



Temperature:	26°C	Relative Humidity:	54%
Pressure:	101kPa	Polarization:	Vertical
Test Voltage:	AC 120V/60Hz	Test Mode:	Mode 10



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	35.4993	52.47	-17.53	34.94	40.00	-5.06	QP
2	63.0916	48.86	-18.63	30.23	40.00	-9.77	QP
3	102.7192	47.65	-21.25	26.40	43.50	-17.10	QP
4	144.8418	45.74	-20.75	24.99	43.50	-18.51	QP
5	247.6819	46.02	-20.03	25.99	46.00	-20.01	QP
6	355.4273	43.47	-16.50	26.97	46.00	-19.03	QP

Remarks:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.



## 6. BANDWIDTH TEST

1. Set RBW: 200Hz/100Hz/30Hz
2. Set the video bandwidth (VBW)  $\geq 3 \times$  RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 20 dB relative to the maximum level measured in the fundamental emission.

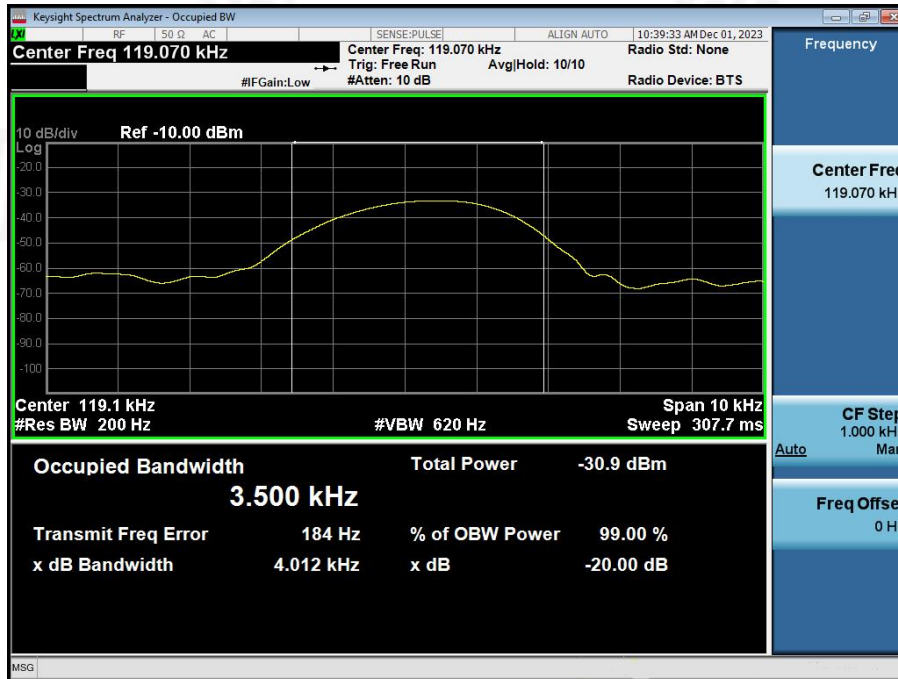
### TEST SETUP

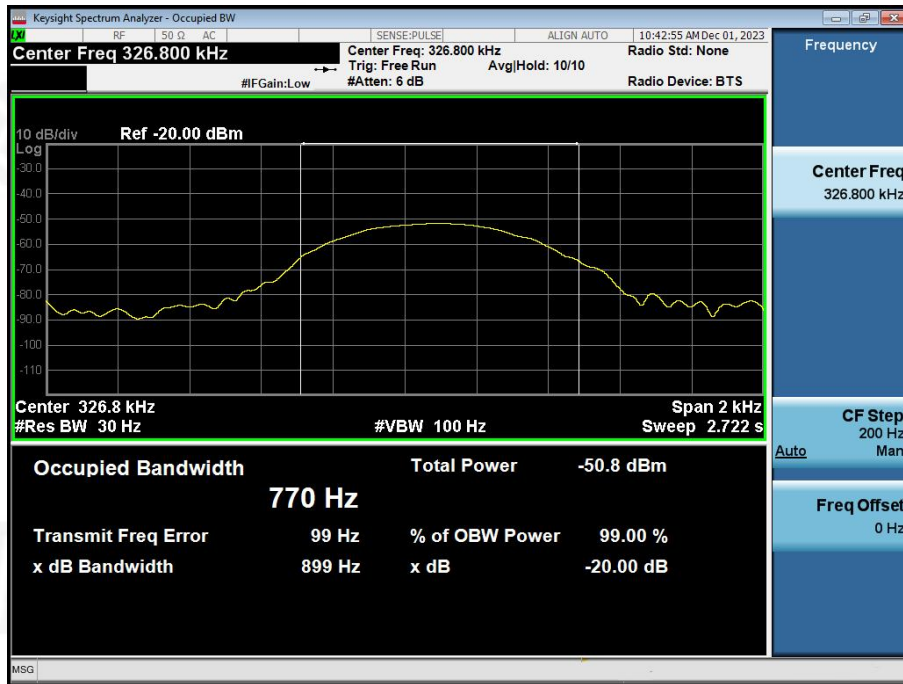




Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101kPa		

Coil	Frequency (KHz)	20dB bandwidth (KHz)	Result
Coil 1	119.07	4.012	Pass
Coil 2	147.50	0.800	Pass
Coil 3	326.80	0.899	Pass







## 7. ANTENNA REQUIREMENT

Standard requirement:	FCC Part15 C Section 15.203
15.203 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, 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.	
EUT Antenna:	
The antenna is Loop antenna, the best case gain of the antennas is 0dBi, reference to the appendix II for details	



## 8. TEST SETUP PHOTO

Reference to the appendix I for details.

## 9. EUT CONSTRUCTIONAL DETAILS

Reference to the appendix II for details.

\*\*\*\*\* END OF REPORT \*\*\*\*\*