



Test Report No.: RF2010WDG0293



# TEST REPORT



Applicant	Belkin International, Inc.
Address	12045 East Waterfront Drive, Playa Vista, CA 90094 USA

Manufacturer or Supplier	Belkin International, Inc.
Address	12045 East Waterfront Drive, Playa Vista, CA 90094 USA
Product	BOOST↑CHARGE™ Wireless Charging Pad 15W
Additional Product	Wireless Charging Pad 15W, see items 3.1
Brand Name	belkin, playa
Model	WIA002V2
Additional Model & Model Difference	PW0004V2, see items 3.1
Date of tests	Nov. 11, 2020 ~ Nov. 27, 2020

The submitted sample of the above equipment has been tested for according to the requirements of the following standards:

**FCC Part 15, Subpart C**

**CONCLUSION: The submitted sample was found to COMPLY with the test requirement**

Tested by Lucas Chen Project Engineer / EMC Department	Approved by Glyn He Assistant Manager/ EMC Department
	 Date: Dec. 23, 2020

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Test Report No.: RF2010WDG0293

## RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF2010WDG0293	Original release	Dec. 23, 2020

## 1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 15, Subpart C			
STANDARD SECTION	TEST TYPE AND LIMIT	RESULT	REMARK
§15.203	Antenna Requirement	PASS	No antenna connector is used.
§15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit.
§15.209	Radiated Emission	PASS	Meet the requirement of limit.
§15.215 (c)	20dB Bandwidth	PASS	Meet the requirement of limit.

## 2 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	9kHz~30MHz	3.05dB
Radiated emissions	9KHz ~ 30MHz	2.16dB
	30MHz ~ 1GMHz	4.00dB

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.



### 3 GENERAL INFORMATION

#### 3.1 GENERAL DESCRIPTION OF EUT

<b>PRODUCT</b>	BOOST↑CHARGE™ Wireless Charging Pad 15W
<b>ADDITIONAL PRODUCT</b>	Wireless Charging Pad 15W
<b>MODEL NO.</b>	WIA002V2
<b>ADDITIONAL MODE</b>	PW0004V2
<b>FCC ID</b>	K7SWIA002V2
<b>POWER SUPPLY</b>	Input: 5.0V==2.0A, Output: 5.0W; Input: 9.0V==2.0A, Output: 7.5W; Input: 9.0V==2.0A, Output: 10.0W; Input: 12.0V==1.67A, Output: 15.0W
<b>MODULATION TYPE</b>	FSK
<b>OPERATING FREQUENCY RANGE</b>	110KHz ~ 148KHz
<b>I/O PORTS</b>	Loop Antenna
<b>FIELD STRENGTH</b>	57.19dBuV/m
<b>MAXIMUM POWER OUTPUT FROM THE CHARGING COIL</b>	Max Power Should be 15W
<b>CABLE SUPPLIED</b>	USB-C to USB-C cable: Shielded, detachable 1.2m

**NOTES:**

- For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
- For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.
- Please refer to the EUT photo document (Reference No.: 2010WDG0293) for detailed product photo.
- Additional model PW0004V2 is identical with test model WIA002V2 except the model no. and brand name for trading purpose.
- The EUT can be powered by adapter as list as attach:

<b>ADAPTER</b>	
BRAND:	N/A
MODEL:	HKAP3231B-20US
INPUT:	AC 100-240V, 50/60Hz, 0.6A
OUTPUT:	5.0V==3.0A 15.0W, 9.0V==2.22A 20.0W, 12.0V==1.67A 20.0W
DC LINE:	N/A

- Model list:

Product	Brand	Model no.
BOOST↑CHARGE™ Wireless Charging Pad 15W	belkin	WIA002V2
Wireless Charging Pad 15W	playa	PW0004V2



### 3.2 DESCRIPTION OF TEST MODES

The following test frequencies are provided to this EUT:

Operating Frequency Range(KHz)	Tested Frequency(KHz)	Mode
110-148	136.100	Standby
110-148	127.770	iPhone X operating
110-148	142.016	Receiver load operating

### 3.3 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE	APPLICABLE TO			DESCRIPTION
	RE<1G	PLC	20BW	
A	√	√	√	Standby
B	√	√	√	iPhone X operating
C	√	√	√	Receiver load operating

Where **RE<1G**: Radiated Emission below 1GHz  
**20BW**: 20dB Bandwidth

**PLC**: Power Line Conducted Emission

Note:

- 1. The EUT is designed to be positioned on the **X-plane** only.

#### **Radiated Emission Test (Below 1GHz):**

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

EUT configure mode	Operating Frequency Range(KHz)	Tested Frequency(KHz)	Modulation Type
A	110-148	136.100	FSK
B	110-148	127.770	FSK
C	110-148	142.016	FSK

#### **Power Line Conducted Emission Test:**

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

EUT configure mode	Operating Frequency Range(KHz)	Tested Frequency(KHz)	Modulation Type
A	110-148	136.100	FSK
B	110-148	127.770	FSK
C	110-148	142.016	FSK

**20dB Bandwidth TEST:**

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

EUT configure mode	Operating Frequency Range(KHz)	Tested Frequency(KHz)	Modulation Type
A	110-148	136.100	FSK
B	110-148	127.770	FSK
C	110-148	142.016	FSK

**TEST CONDITION:**

Applicable to	Environmental conditions	Input Power(Adapter)	Tested by
RE<1G	24 °C, 64% RH	120Vac, 60Hz	Vincent
PLC	24 °C, 64% RH	120Vac, 60Hz	MingBai
20BW	24 °C, 64% RH	120Vac, 60Hz	Daniel

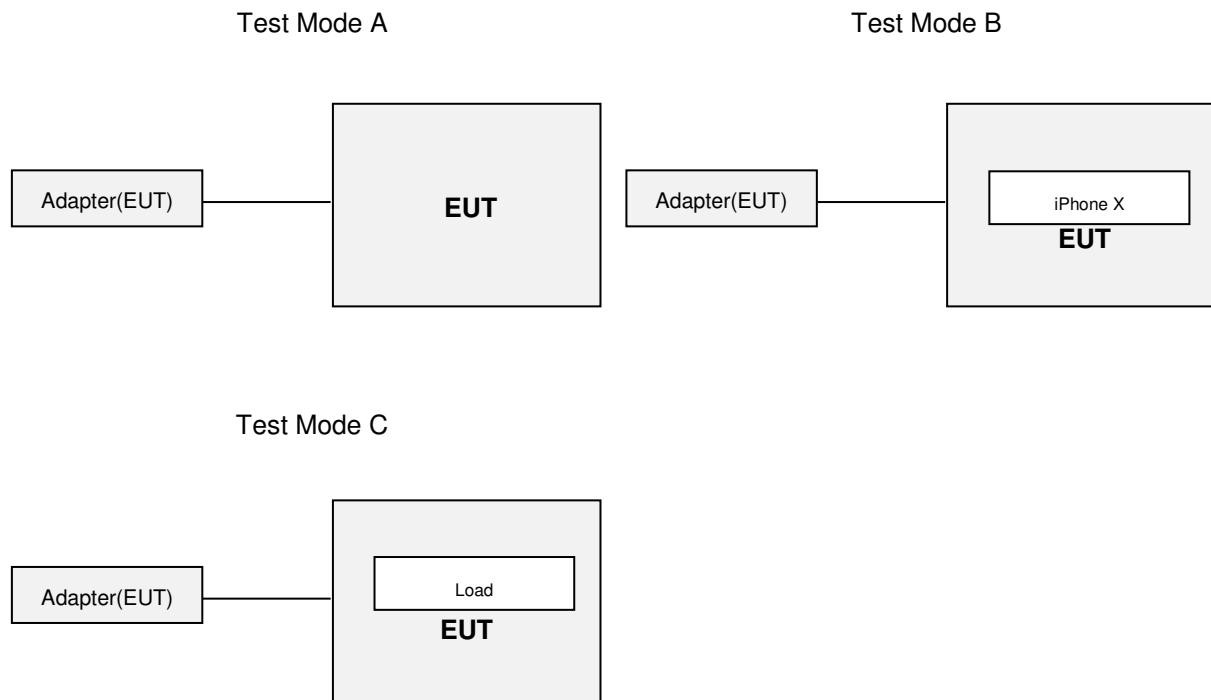
**3.4 DESCRIPTION OF SUPPORT UNITS**

The EUT has been tested as a dependent 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.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	iPhone X	Apple	MQA52CH/A	N/A	N/A
2	Receiver load	N/A	N/A	N/A	N/A

NO.	DESCRIPTION OF THE ABOVE SUPPORT UNITS
1-2	N/A

### 3.5 CONFIGURATION OF SYSTEM UNDER TEST



### 3.6 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

**FCC Part 15, Subpart C (15.207/15.209)**  
**ANSI C63.10-2013**

All test items have been performed and recorded as per the above standards.





## 4 EMISSION TEST

### 4.1 CONDUCTED EMISSION MEASUREMENT

#### 4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 - 0.5	79	66	66 - 56	56 - 46
0.50 - 5.0	73	60	56	46
5.0 - 30.0	73	60	60	50

- NOTES:** (1) The lower limit shall apply at the transition frequencies.  
(2) The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.  
(3) All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

#### 4.1.2 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESR7	101494	Mar. 17,21
Artificial Mains Network	Rohde&Schwarz	ENV216	101173	Mar. 17,21
Artificial Mains Network	Rohde&Schwarz	ESH3-Z5	100317	Mar. 17,21
Voltage probe	SCHWARZBECK	TK 9421	TK 9421-176	Sep. 17,21
Test software	ADT	ADT_Conc_V 7.3.7	N/A	N/A

- NOTES:** 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.  
2. The test was performed in shielding room 553.

### 4.1.3 TEST PROCEDURE

- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- c. The frequency range from 150 kHz to 30 MHz was searched. Emission levels under (Limit – 20dB) were not recorded.

#### NOTES:

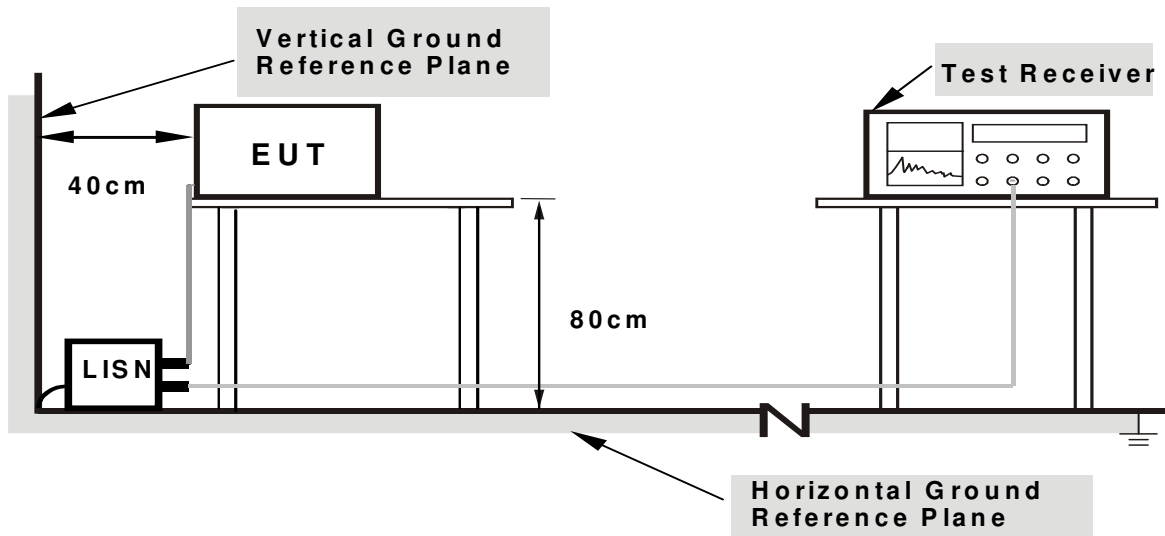
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

### 4.1.4 DEVIATION FROM TEST STANDARD

No deviation.



#### 4.1.5 TEST SETUP



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

#### 4.1.6 EUT OPERATING CONDITIONS

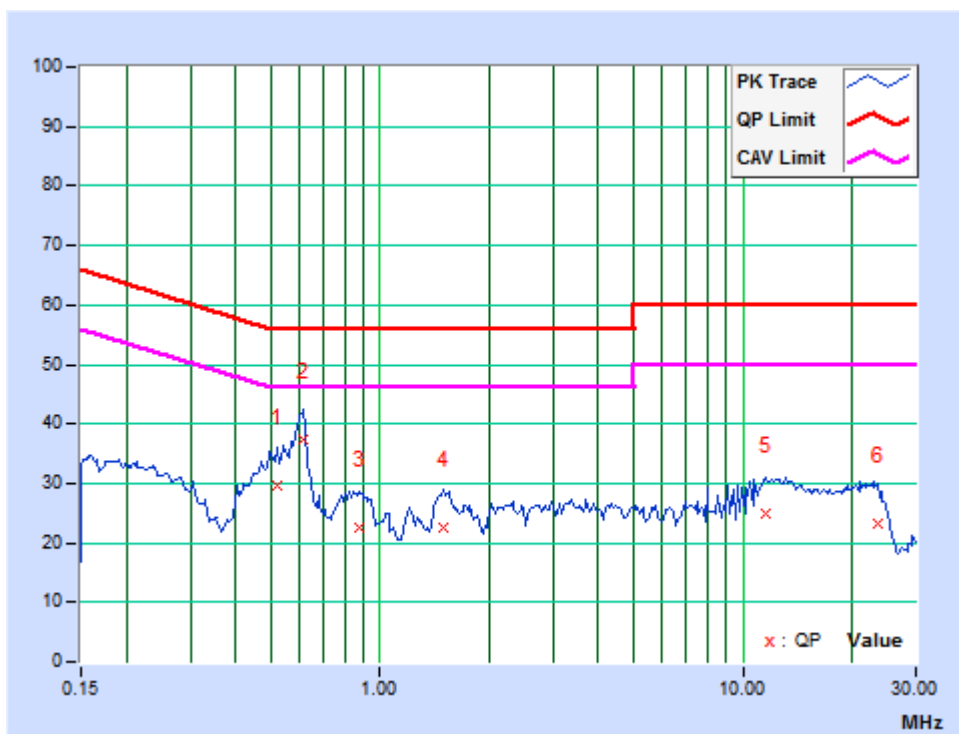
- Turn on the EUT.
- The EUT tested in charging mode and standby mode respectively.

### 4.1.7 TEST RESULTS

<b>TEST MODE</b>	A	<b>PHASE</b>	Line(L)
<b>TEST VOLTAGE</b>	AC 120V/60Hz	<b>6dB BANDWIDTH</b>	9 kHz
<b>ENVIRONMENTAL CONDITIONS</b>	25deg. C, 60% RH		<b>TESTED BY:</b> Ming Bai

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.51900	9.86	19.73	14.55	29.59	24.41	56.00	46.00	-26.41	-21.59
2	0.61350	9.84	27.66	21.19	37.50	31.03	56.00	46.00	-18.50	-14.97
3	0.87450	9.82	12.86	6.07	22.68	15.89	56.00	46.00	-33.32	-30.11
4	1.49325	9.84	12.57	6.13	22.41	15.97	56.00	46.00	-33.59	-30.03
5	11.56650	10.05	14.99	10.33	25.04	20.38	60.00	50.00	-34.96	-29.62
6	23.42850	10.39	12.97	8.37	23.36	18.76	60.00	50.00	-36.64	-31.24

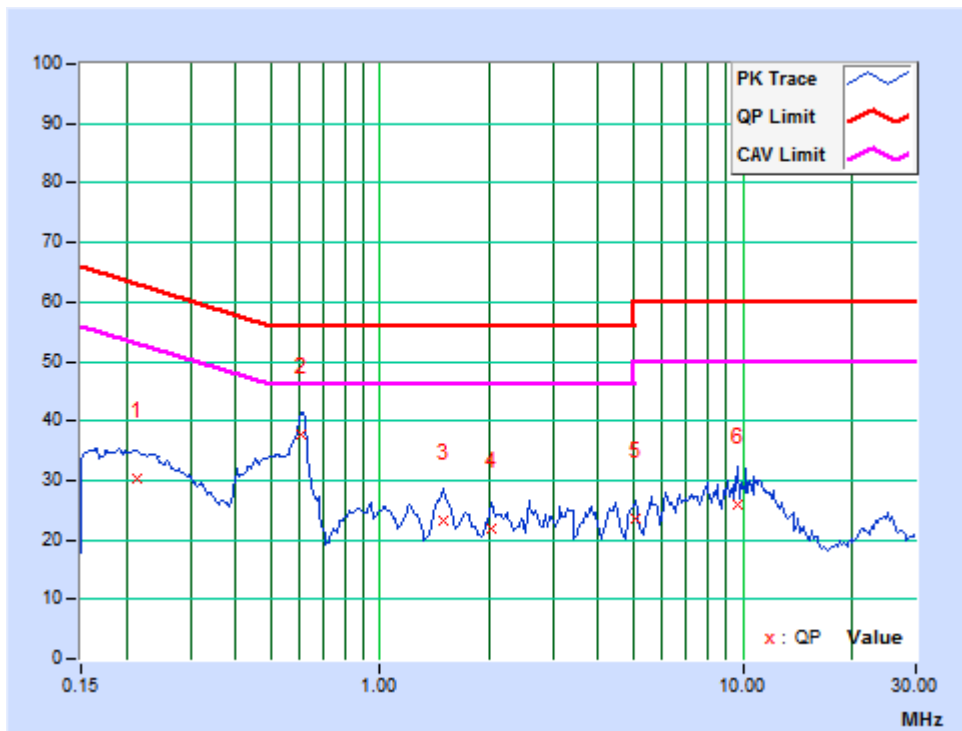
**REMARKS:** The emission levels of other frequencies were very low against the limit.



<b>TEST MODE</b>	A	<b>PHASE</b>	Neutral (N)
<b>TEST VOLTAGE</b>	AC 120V/60Hz	<b>6dB BANDWIDTH</b>	9 kHz
<b>ENVIRONMENTAL CONDITIONS</b>	25deg. C, 60% RH	<b>TESTED BY:</b> Ming Bai	

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.21300	9.72	20.53	16.32	30.25	26.04	63.09	53.09	-32.84	-27.05
2	0.60900	9.79	28.07	21.59	37.86	31.38	56.00	46.00	-18.14	-14.62
3	1.49550	9.80	13.57	9.63	23.37	19.43	56.00	46.00	-32.63	-26.57
4	2.04073	9.82	11.91	8.10	21.73	17.92	56.00	46.00	-34.27	-28.08
5	5.03475	9.81	13.74	11.17	23.55	20.98	60.00	50.00	-36.45	-29.02
6	9.66075	9.98	15.97	12.38	25.95	22.36	60.00	50.00	-34.05	-27.64

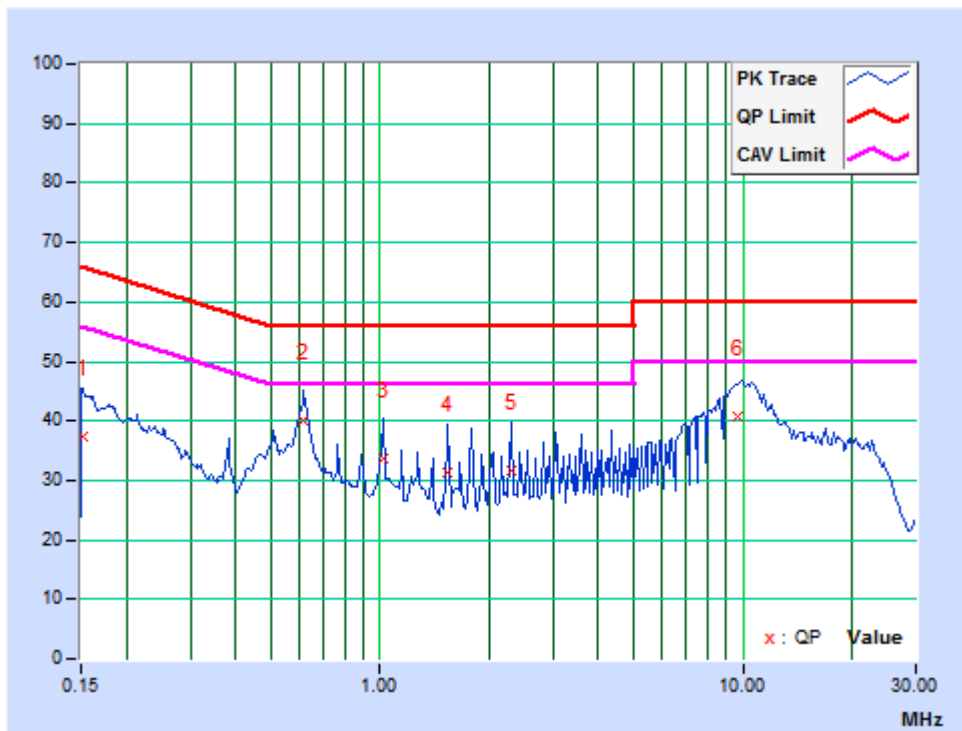
**REMARKS:** The emission levels of other frequencies were very low against the limit.



<b>TEST MODE</b>	B	<b>PHASE</b>	Line(L)
<b>TEST VOLTAGE</b>	AC 120V/60Hz	<b>6dB BANDWIDTH</b>	9 kHz
<b>ENVIRONMENTAL CONDITIONS</b>	25deg. C, 60% RH	<b>TESTED BY:</b> Ming Bai	

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15225	9.77	27.53	17.22	37.30	26.99	65.88	55.88	-28.58	-28.89
2	0.61800	9.84	30.38	24.42	40.22	34.26	56.00	46.00	-15.78	-11.74
3	1.02075	9.82	23.75	21.04	33.57	30.86	56.00	46.00	-22.43	-15.14
4	1.53150	9.84	21.43	20.39	31.27	30.23	56.00	46.00	-24.73	-15.77
5	2.29765	9.85	21.73	18.71	31.58	28.56	56.00	46.00	-24.42	-17.44
6	9.70800	10.02	30.68	27.94	40.70	37.96	60.00	50.00	-19.30	-12.04

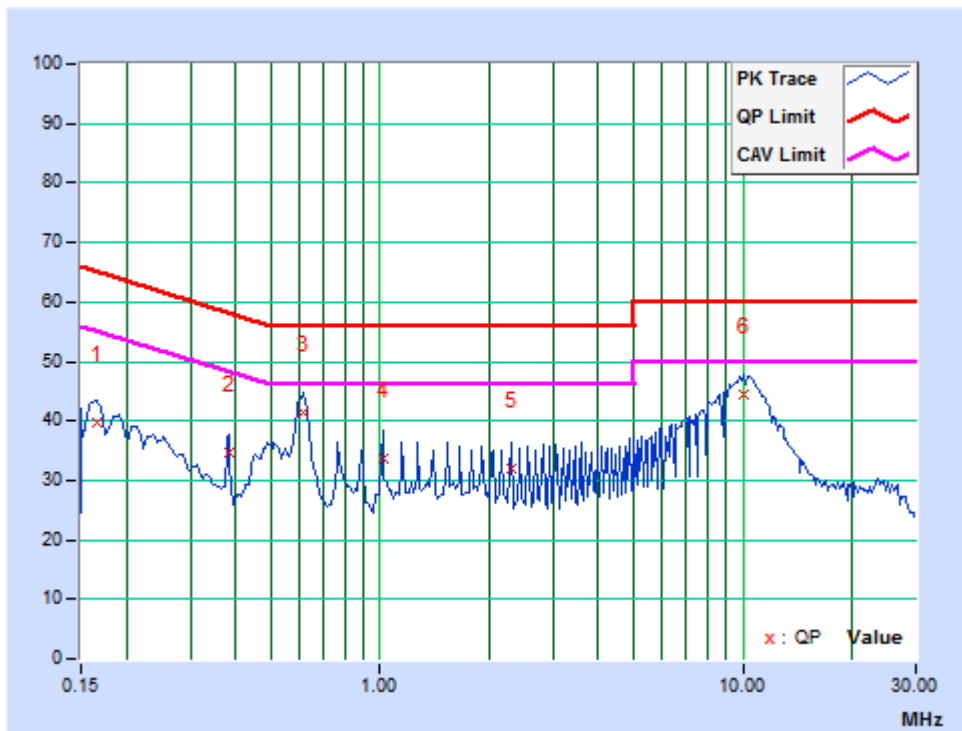
**REMARKS:** The emission levels of other frequencies were very low against the limit.



<b>TEST MODE</b>	B	<b>PHASE</b>	Neutral (N)
<b>TEST VOLTAGE</b>	AC 120V/60Hz	<b>6dB BANDWIDTH</b>	9 kHz
<b>ENVIRONMENTAL CONDITIONS</b>	25deg. C, 60% RH	<b>TESTED BY:</b> Ming Bai	

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16575	9.71	30.09	22.43	39.80	32.14	65.17	55.17	-25.37	-23.03
2	0.38175	9.79	24.99	22.03	34.78	31.82	58.24	48.24	-23.46	-16.42
3	0.61125	9.79	31.73	24.58	41.52	34.37	56.00	46.00	-14.48	-11.63
4	1.02075	9.78	23.96	20.35	33.74	30.13	56.00	46.00	-22.26	-15.87
5	2.29765	9.81	22.02	20.02	31.83	29.83	56.00	46.00	-24.17	-16.17
6	10.09275	9.99	34.48	29.52	44.47	39.51	60.00	50.00	-15.53	-10.49

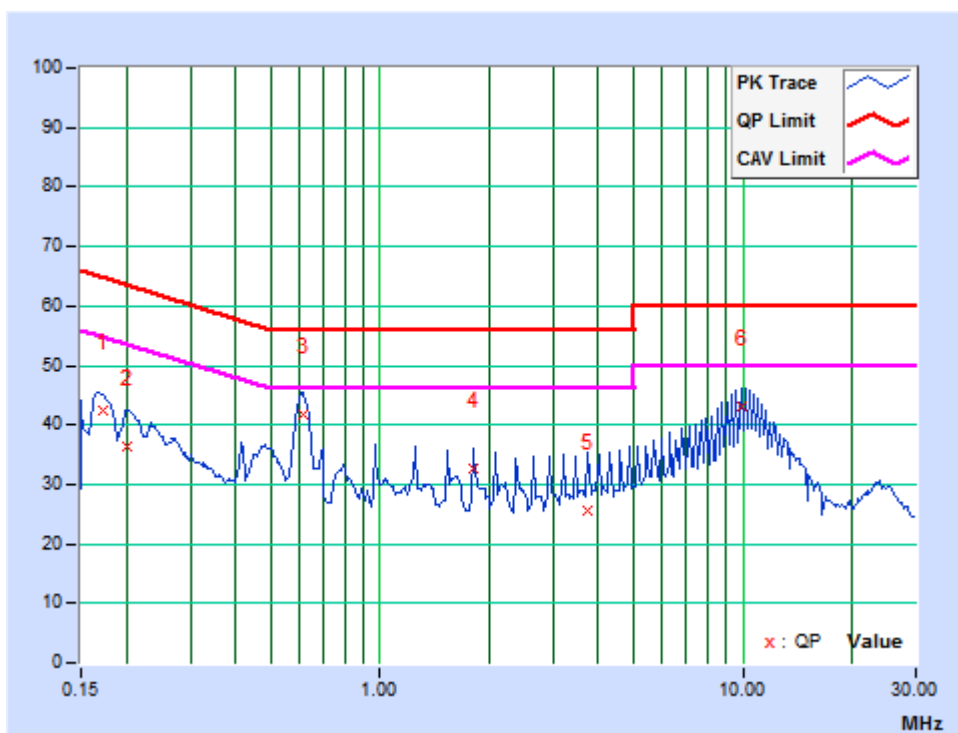
**REMARKS:** The emission levels of other frequencies were very low against the limit.



<b>TEST MODE</b>	C	<b>PHASE</b>	Line(L)
<b>TEST VOLTAGE</b>	AC 120V/60Hz	<b>6dB BANDWIDTH</b>	9 kHz
<b>ENVIRONMENTAL CONDITIONS</b>	25deg. C, 60% RH	<b>TESTED BY:</b> Ming Bai	

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.17250	9.71	32.76	22.99	42.47	32.70	64.84	54.84	-22.37	-22.14
2	0.20078	9.71	26.65	14.13	36.36	23.84	63.58	53.58	-27.22	-29.74
3	0.61530	9.79	31.88	24.59	41.67	34.38	56.00	46.00	-14.33	-11.62
4	1.80825	9.81	22.72	20.18	32.53	29.99	56.00	46.00	-23.47	-16.01
5	3.75450	9.82	15.65	11.15	25.47	20.97	56.00	46.00	-30.53	-25.03
6	9.88575	9.99	33.08	30.14	43.07	40.13	60.00	50.00	-16.93	-9.87

**REMARKS:** The emission levels of other frequencies were very low against the limit.

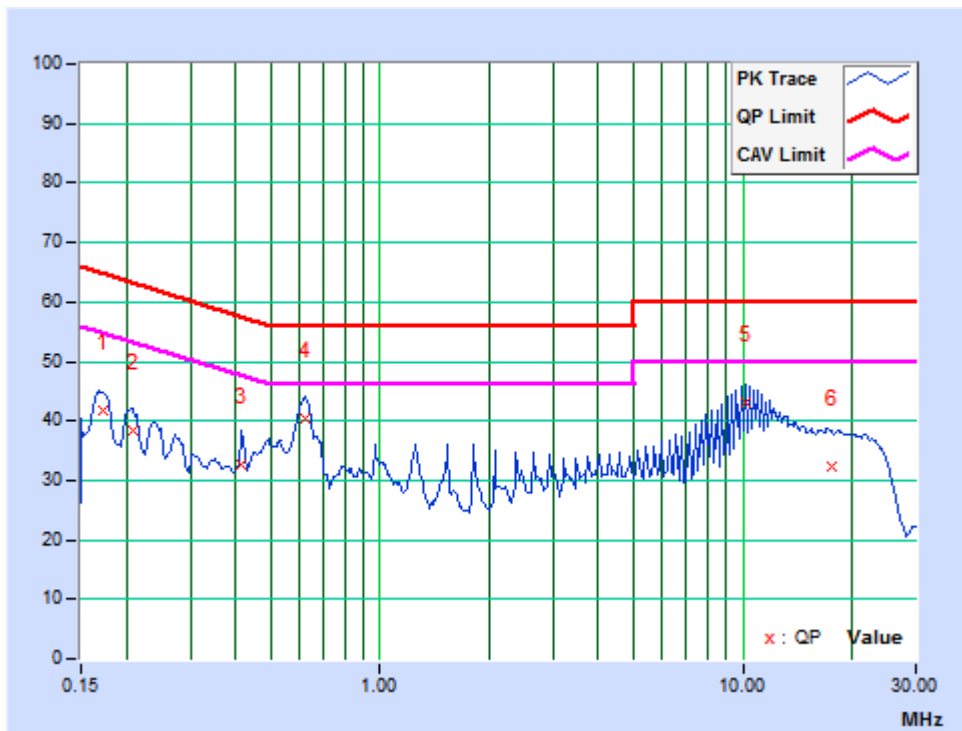




<b>TEST MODE</b>	C	<b>PHASE</b>	Neutral (N)
<b>TEST VOLTAGE</b>	AC 120V/60Hz	<b>6dB BANDWIDTH</b>	9 kHz
<b>ENVIRONMENTAL CONDITIONS</b>	25deg. C, 60% RH	<b>TESTED BY:</b> Ming Bai	

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.17250	9.77	31.83	23.25	41.60	33.02	64.84	54.84	-23.24	-21.82
2	0.20850	9.78	28.50	20.07	38.28	29.85	63.26	53.26	-24.98	-23.41
3	0.41550	9.85	22.80	19.90	32.65	29.75	57.54	47.54	-24.88	-17.78
4	0.62025	9.84	30.63	24.19	40.47	34.03	56.00	46.00	-15.53	-11.97
<b>5</b>	<b>10.16475</b>	<b>10.02</b>	<b>33.15</b>	<b>30.46</b>	<b>43.17</b>	<b>40.48</b>	<b>60.00</b>	<b>50.00</b>	<b>-16.83</b>	<b>-9.52</b>
6	17.68875	10.22	21.95	17.62	32.17	27.84	60.00	50.00	-27.83	-22.16

**REMARKS:** The emission levels of other frequencies were very low against the limit.





## 4.2 RADIATED EMISSION MEASUREMENT

### 4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

TEST STANDARD: FCC Part 15, Subpart C, Section 15.209

Emissions radiated outside of the specified bands, shall be according to the general radiated limits as following:

FREQUENCIES (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

**NOTE:**

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.
4. The measured field strength was extrapolated to distance 30 meters, using the formula that the limit of field strength varies as the inverse distance square (40dB per decade of distance)



### 4.2.2 TEST INSTRUMENTS

#### FREQUENCY 9KHz-30MHz

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESR7	101564	Mar. 17,21
Active Loop Antenna	SCHWARZBECK	FMZB 1519B	1519B-045	May 29,21
Amplifier	Burgeon	BPA-530	100210	Mar. 14,21
Test Software	ADT	ADT_Radiated_V8 .7.07	N/A	N/A

- NOTES:**
1. The test was performed in 10m Chamber.
  2. The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.
  3. The FCC Site Registration No. is 749762.

#### FREQUENCY 30MHz-1GHz

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESU40	100449	Mar. 17,21
Bilog Antenna	Teseq	CBL 6111D	30643	May 29,21
Amplifier	Burgeon	BPA-530	100220	Mar. 14,21
3m Semi-anechoic Chamber	ETS-LINDGREN	9m*6m*6m	NSEMC003	May 22,21
Test software	ADT	ADT_Radiated_V 7.6.15.9.2	N/A	N/A

- NOTES:**
1. The test was performed in 966 Chamber
  2. The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.
  3. The FCC Site Registration No. is 749762.

### 4.2.3 TEST PROCEDURE

< Below 30MHz >

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10 meters Semi-anechoic chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

<30MHz~1GHz >

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meters semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

#### NOTES:

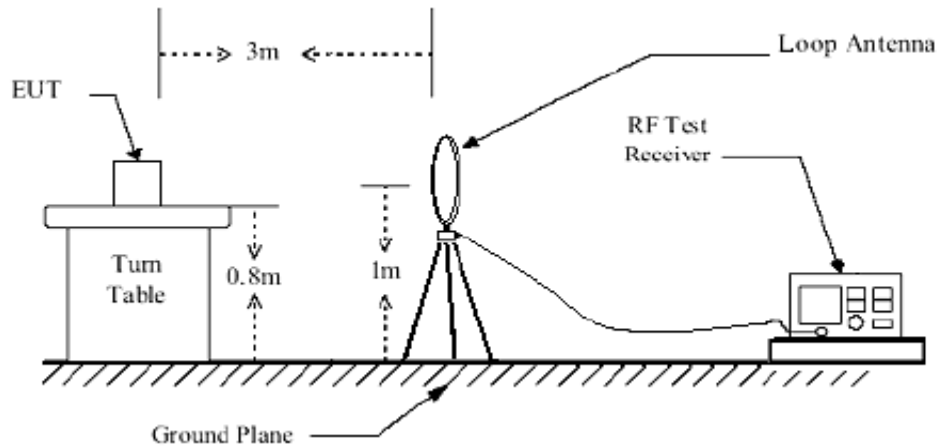
1. The resolution bandwidth of test receiver/spectrum analyzer is 100kHz for peak detection (PK) at fundamental frequency below 30MHz; The resolution bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at radiated spurious emission frequency below 1GHz.
2. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
3. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
4. Margin value = Emission level – Limit value.

### 4.2.4 DEVIATION FROM TEST STANDARD

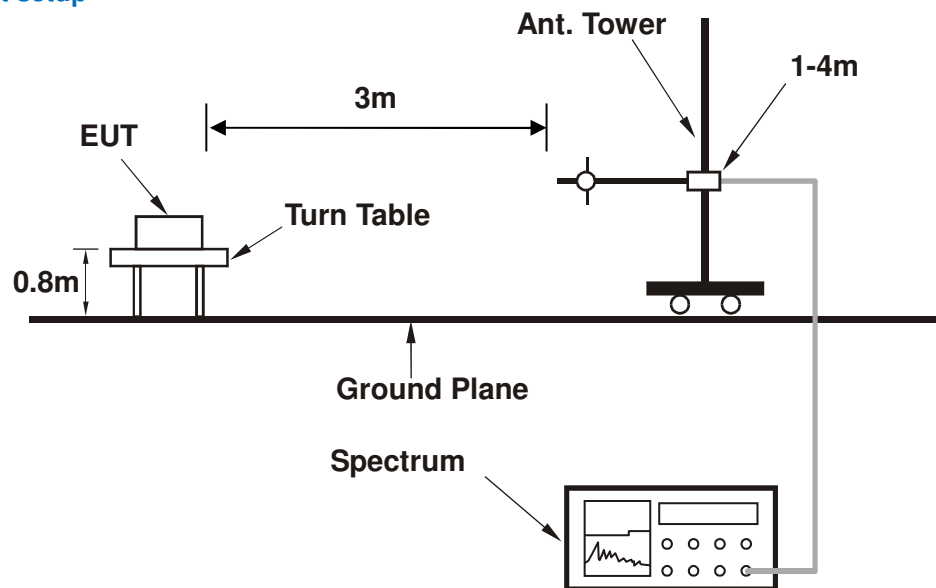
No deviation.

## 4.2.5 TEST SETUP

### Below 30MHz test setup



### Below 1GHz test setup



**Note:** For the actual test configuration, please refer to the attached file (Test Setup Photo).

## 4.2.6 EUT OPERATING CONDITIONS

- a. Turn on the EUT.
- b. The EUT tested in charging mode and standby mode respectively.

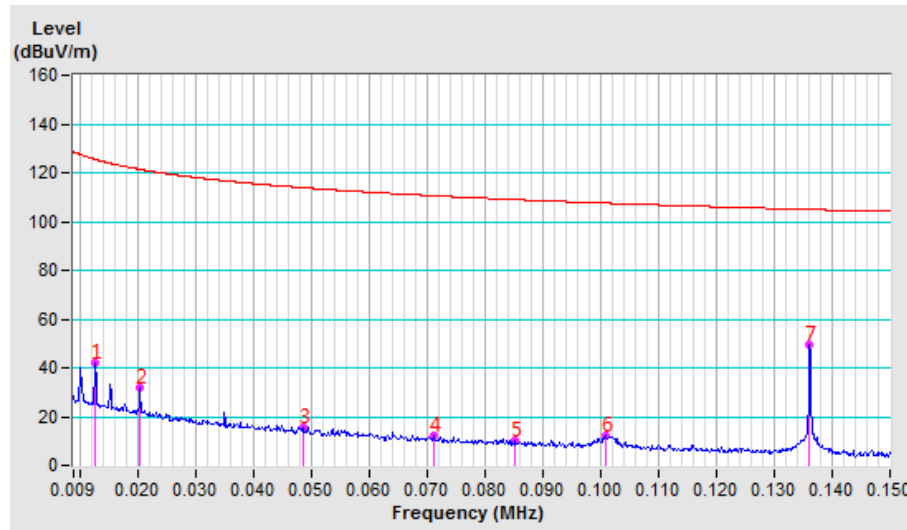


### 4.2.7 TEST RESULTS

#### Charging Mode

Test Mode	A	Frequency Range	9 kHz ~ 150 KHz
Test Voltage	AC 120V/60Hz	Detector Function	QP&AV
Environmental Conditions	21deg. C, 67% RH	Tested By	Vincent

ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA PARALLEL AT 3m								
No	Freq. (MHz)	Correction Factor (dB/m)	Raw Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
1	0.01280 AV	-27.71	69.70	41.99	125.46	-83.47	100	351
2	0.02050 AV	-28.17	60.11	31.94	121.37	-89.43	100	53
3	0.04860 AV	-29.04	44.66	15.62	113.87	-98.25	100	35
4	0.07120 AV	-29.13	41.17	12.04	110.55	-98.51	100	186
5	0.08520 AV	-29.21	39.15	9.94	109.00	-99.06	100	216
6	0.10090 QP	-29.28	41.49	12.21	107.52	-95.31	100	118
7	0.13610 AV	-29.35	78.52	49.17	104.92	-55.75	100	314



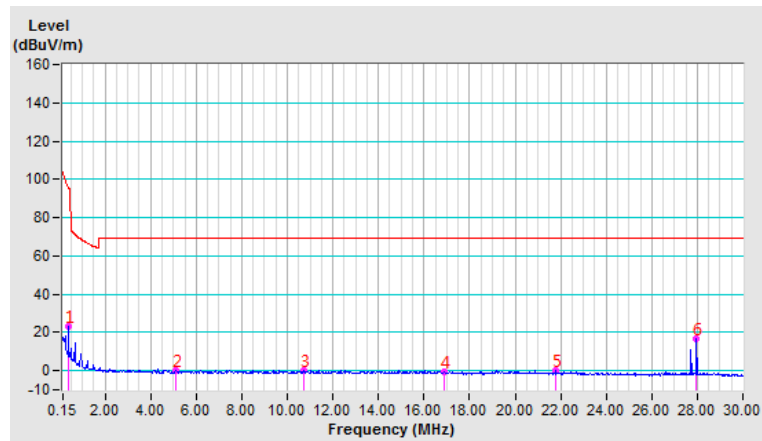


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**Test Report No.: RF2010WDG0293**

Test Mode	A	Frequency Range	150 kHz ~ 30 MHz
Test Voltage	AC 120V/60Hz	Detector Function	QP&AV
Environmental Conditions	21deg. C, 67% RH	Tested By	Vincent

ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA PARALLEL AT 3m								
No	Freq. (MHz)	Correction Factor (dB/m)	Raw Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
1	0.40820 AV	-29.57	52.77	23.20	95.39	-72.19	100	285
2	5.10240 QP	-29.47	29.43	-0.04	69.54	-69.58	100	354
3	10.72490 QP	-29.25	29.35	0.10	69.54	-69.44	100	26
4	16.89520 QP	-29.04	28.65	-0.39	69.54	-69.93	100	110
5	21.80880 QP	-29.08	28.89	-0.19	69.54	-69.73	100	173
6	27.96860 QP	-29.15	45.54	16.39	69.54	-53.15	100	360



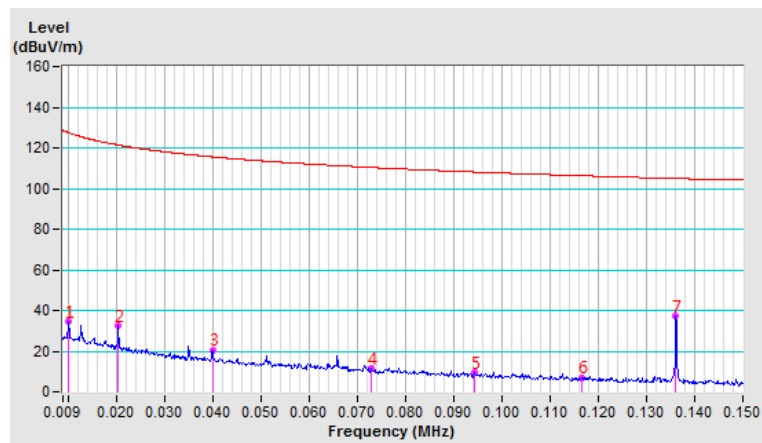


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**Test Report No.: RF2010WDG0293**

Test Mode	A	Frequency Range	9 kHz ~ 150 KHz
Test Voltage	AC 120V/60Hz	Detector Function	QP&AV
Environmental Conditions	21deg. C, 67% RH	Tested By	Vincent

ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA PERPENDICULAR AT 3m								
No	Freq. (MHz)	Correction Factor (dB/m)	Raw Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
1	0.01020 AV	-27.55	61.98	34.43	127.43	-93.00	100	263
2	0.02050 AV	-28.17	60.53	32.36	121.38	-89.02	100	16
3	0.04000 AV	-28.91	49.53	20.62	115.56	-94.94	100	217
4	0.07300 AV	-29.14	40.63	11.49	110.34	-98.85	100	255
5	0.09430 QP	-29.25	38.64	9.39	108.11	-98.72	100	191
6	0.11650 AV	-29.30	36.37	7.07	106.28	-99.21	100	16
7	0.13610 AV	-29.35	66.48	37.13	104.92	-67.79	100	27





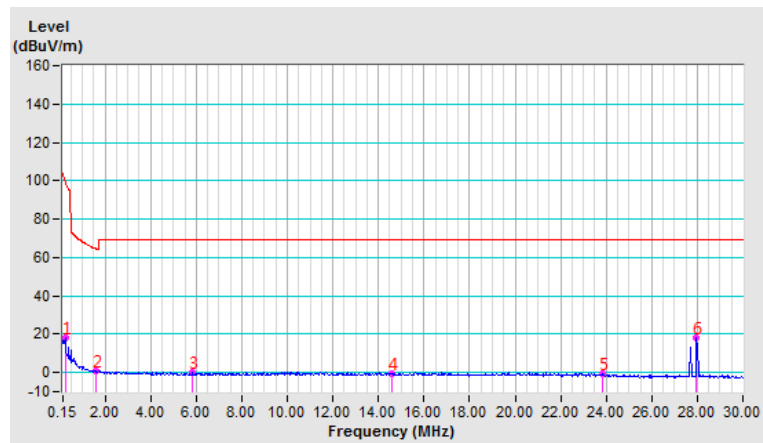


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Test Report No.: RF2010WDG0293

Test Mode	A	Frequency Range	150 kHz ~ 30 MHz
Test Voltage	AC 120V/60Hz	Detector Function	QP&AV
Environmental Conditions	21deg. C, 67% RH	Tested By	Vincent

ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA PERPENDICULAR AT 3m								
No	Freq. (MHz)	Correction Factor (dB/m)	Raw Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
1	0.24400 AV	-29.57	47.66	18.09	99.85	-81.76	100	280
2	1.60080 QP	-29.55	30.69	1.14	64.47	-63.33	100	78
3	5.83370 QP	-29.47	29.51	0.04	69.54	-69.50	100	213
4	14.59660 QP	-29.04	28.70	-0.34	69.54	-69.88	100	64
5	23.85810 QP	-29.06	28.28	-0.78	69.54	-70.32	100	11
6	27.96710 QP	-29.15	47.10	17.95	69.54	-51.59	100	174



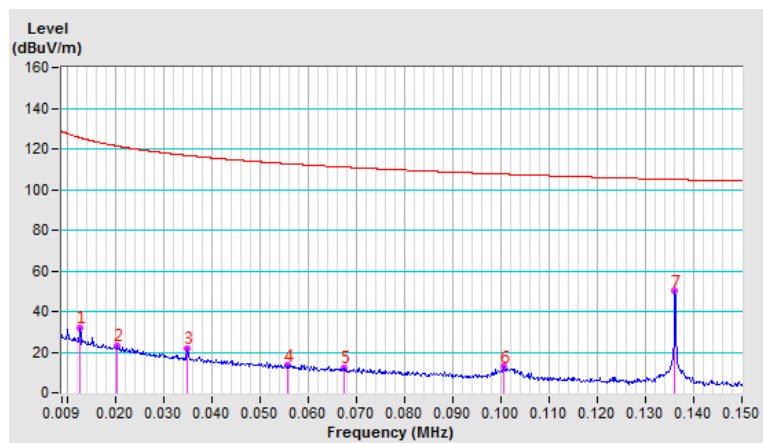


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**Test Report No.: RF2010WDG0293**

Test Mode	A	Frequency Range	9 kHz ~ 150 KHz
Test Voltage	AC 120V/60Hz	Detector Function	QP&AV
Environmental Conditions	21deg. C, 67% RH	Tested By	Vincent

ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA GROUND-PARALLEL AT 3m								
No	Freq. (MHz)	Correction Factor (dB/m)	Raw Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
1	0.01280 AV	-27.71	59.83	32.12	125.49	-93.37	100	276
2	0.02050 AV	-28.17	51.41	23.24	121.38	-98.14	100	73
3	0.03510 AV	-28.84	50.79	21.95	116.70	-94.75	100	318
4	0.05590 QP	-29.07	42.49	13.42	112.65	-99.23	100	153
5	0.06760 QP	-29.12	41.63	12.51	111.01	-98.50	100	358
6	0.10060 QP	-29.28	41.85	12.57	107.55	-94.98	100	0
7	0.13610 QP	-29.35	79.46	50.11	104.92	-54.81	100	311



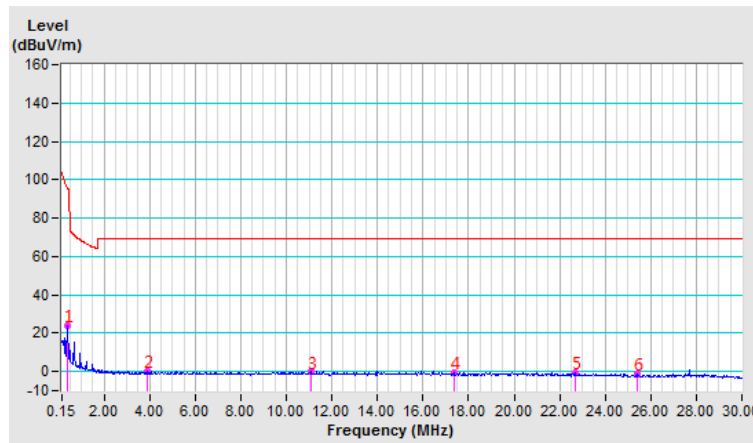


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**Test Report No.: RF2010WDG0293**

Test Mode	A	Frequency Range	150 kHz ~ 30 MHz
Test Voltage	AC 120V/60Hz	Detector Function	QP&AV
Environmental Conditions	21deg. C, 67% RH	Tested By	Vincent

ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA GROUND-PARALLEL AT 3m								
No	Freq. (MHz)	Correction Factor (dB/m)	Raw Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
1	0.40820 AV	-29.57	53.74	24.17	95.39	-71.22	100	295
2	3.91130 QP	-29.45	29.40	-0.05	69.54	-69.59	100	336
3	11.07420QP	-29.25	28.98	-0.27	69.54	-69.81	100	292
4	17.39970QP	-29.05	28.42	-0.63	69.54	-70.17	100	348
5	22.66700QP	-29.08	28.54	-0.54	69.54	-70.08	100	338
6	25.41180QP	-29.30	27.98	-1.32	69.54	-70.86	100	282

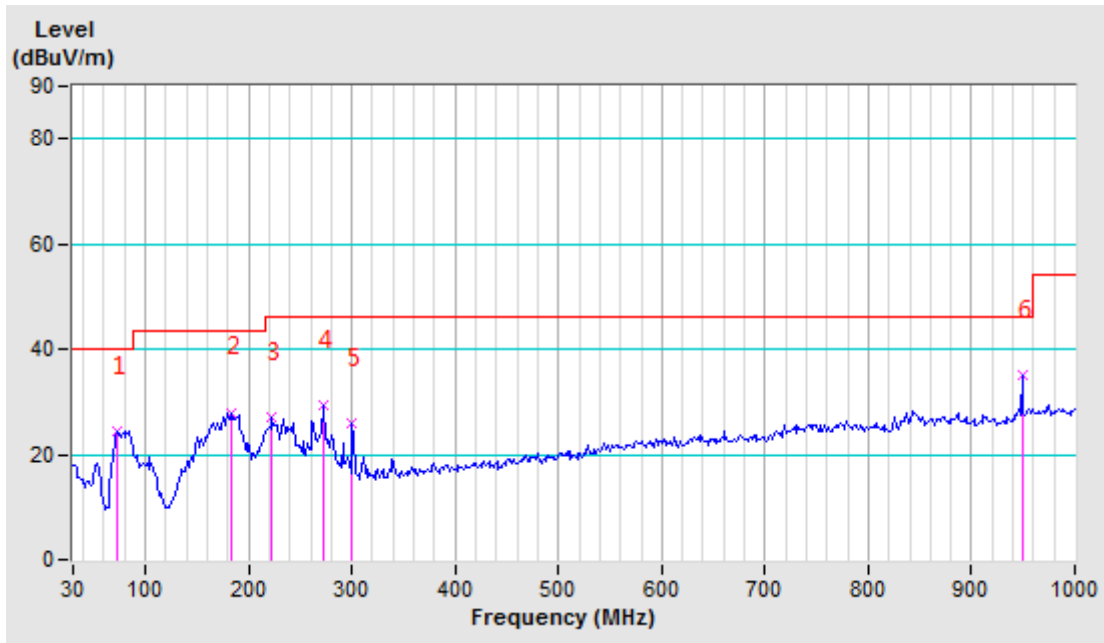




Test Mode	A	Frequency Range	30MHz ~ 1000MHz
Test Voltage	AC 120V/60Hz	Detector Function	Quasi-Peak (QP)
Environmental Conditions	21deg. C, 67% RH	Tested By	Vincent

Antenna Polarity & Test Distance: Horizontal At 3m								
No.	Freq. (MHz)	Correction Factor (dB/m)	Raw Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
1	71.97	-24.22	48.69	24.47	40.00	-15.53	100	0
2	183.89	-19.10	47.12	28.02	43.50	-15.48	100	0
3	222.76	-19.55	46.74	27.19	46.00	-18.81	100	0
4	272.50	-15.53	44.88	29.35	46.00	-16.65	100	0
5	300.48	-14.24	40.31	26.07	46.00	-19.93	100	0
6	948.70	-1.58	36.55	34.97	46.00	-11.03	100	3

- REMARKS:**
1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
  2. Negative sign (-) in the margin column signify levels below the limit.
  3. Frequency range scanned: 30-1000MHz.
  4. Only emissions significantly above equipment noise floor are reported.

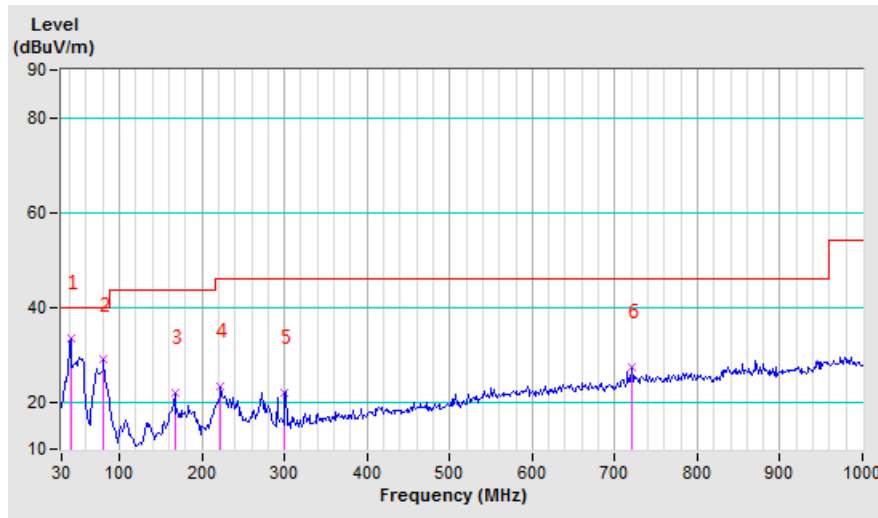




Test Mode	A	Frequency Range	30MHz ~ 1000MHz
Test Voltage	AC 120V/60Hz	Detector Function	Quasi-Peak (QP)
Environmental Conditions	21deg. C, 67% RH	Tested By	Vincent

Antenna Polarity & Test Distance: Vertical At 3m								
No.	Freq. (MHz)	Correction Factor (dB/m)	Raw Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
1	40.88	-16.42	49.79	33.37	40.00	-6.63	200	11
2	81.30	-21.98	50.84	28.86	40.00	-11.14	200	0
3	166.79	-17.70	39.61	21.91	43.50	-21.59	200	0
4	222.76	-19.55	42.86	23.31	46.00	-22.69	200	0
5	300.48	-14.24	36.19	21.95	46.00	-24.05	200	0
6	720.19	-4.66	31.93	27.27	46.00	-18.73	200	0

- REMARKS:**
1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
  2. Negative sign (-) in the margin column signify levels below the limit.
  3. Frequency range scanned: 30-1000MHz.
  4. Only emissions significantly above equipment noise floor are reported.



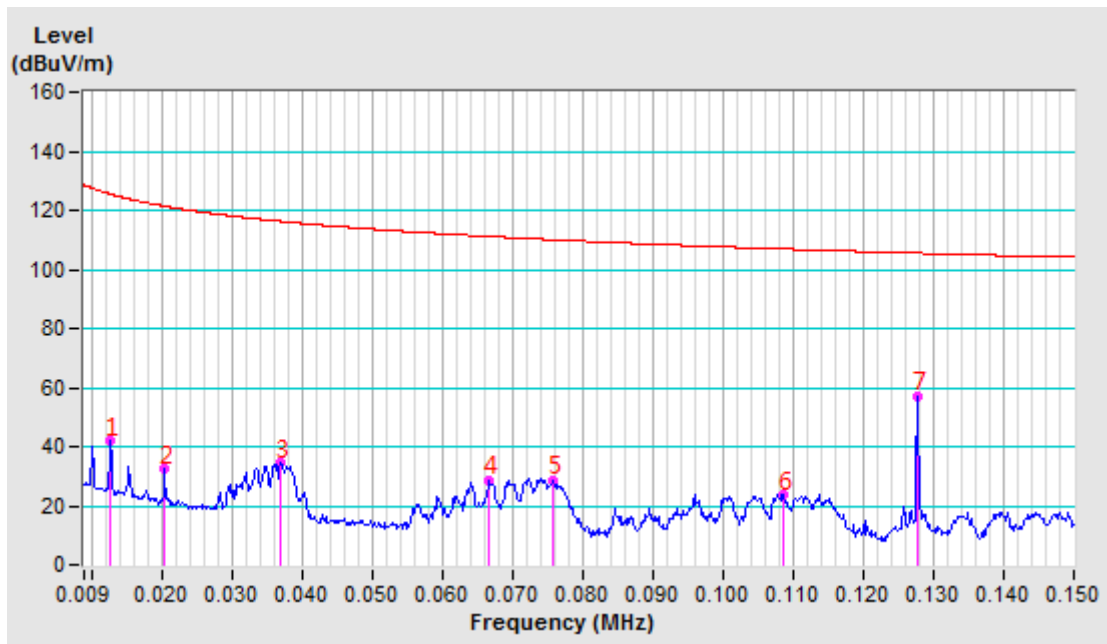


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**Test Report No.: RF2010WDG0293**

Test Mode	B	Frequency Range	9 kHz ~ 150 KHz
Test Voltage	AC 120V/60Hz	Detector Function	QP&AV
Environmental Conditions	21deg. C, 67% RH	Tested By	Vincent

ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA PARALLEL AT 3m								
No	Freq. (MHz)	Correction Factor (dB/m)	Raw Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
1	0.01280 AV	-27.71	69.59	41.88	125.46	-83.58	100	35
2	0.02050 AV	-28.17	60.38	32.21	121.38	-89.17	100	13
3	0.03690 AV	-28.86	63.31	34.45	116.25	-81.80	100	194
4	0.06660 QP	-29.12	57.72	28.60	111.13	-82.53	100	157
5	0.07580 QP	-29.16	57.76	28.60	110.01	-81.41	100	202
6	0.10850 QP	-29.29	52.93	23.64	106.89	-83.25	100	182
7	0.12780 QP	-29.34	86.53	57.19	105.47	-48.28	100	7



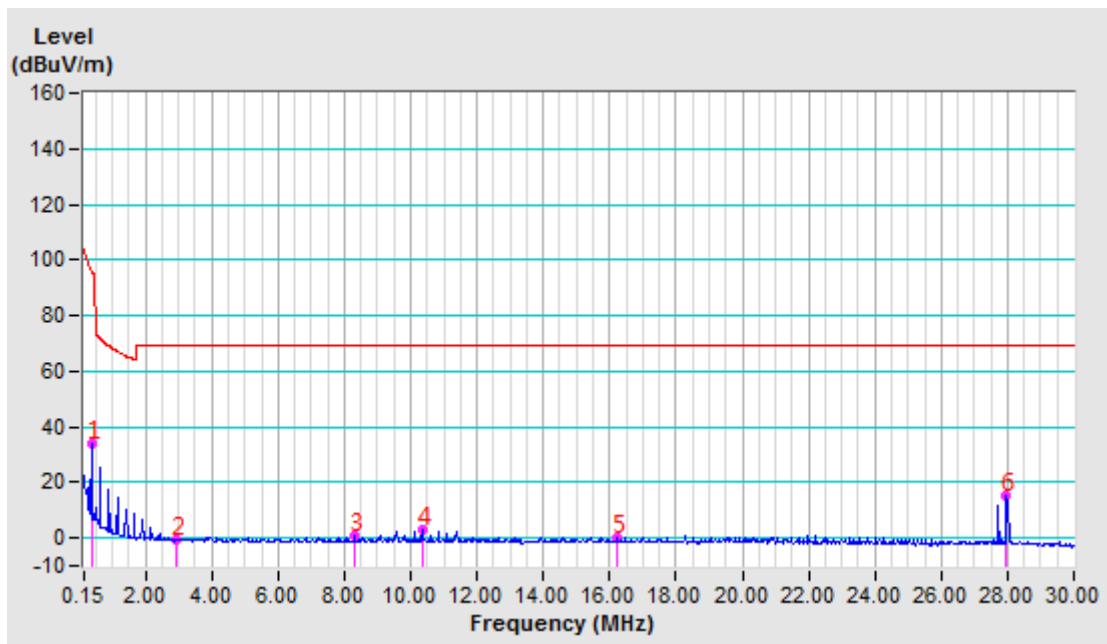


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VERITAS**

**Test Report No.: RF2010WDG0293**

Test Mode	B	Frequency Range	150 kHz ~ 30 MHz
Test Voltage	AC 120V/60Hz	Detector Function	QP&AV
Environmental Conditions	21deg. C, 67% RH	Tested By	Vincent

ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA PARALLEL AT 3m								
No	Freq. (MHz)	Correction Factor (dB/m)	Raw Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
1	0.38280 AV	-29.60	63.28	33.68	95.94	-62.26	100	4
2	2.93810 QP	-29.51	29.19	-0.32	69.54	-69.86	100	42
3	8.30540 QP	-29.35	30.03	0.68	69.54	-68.86	100	167
4	10.34880 QP	-29.24	32.29	3.05	69.54	-66.49	100	132
5	16.22650 QP	-29.04	29.16	0.12	69.54	-69.42	100	66
6	27.97160QP	-29.15	44.54	15.39	69.54	-54.15	100	277



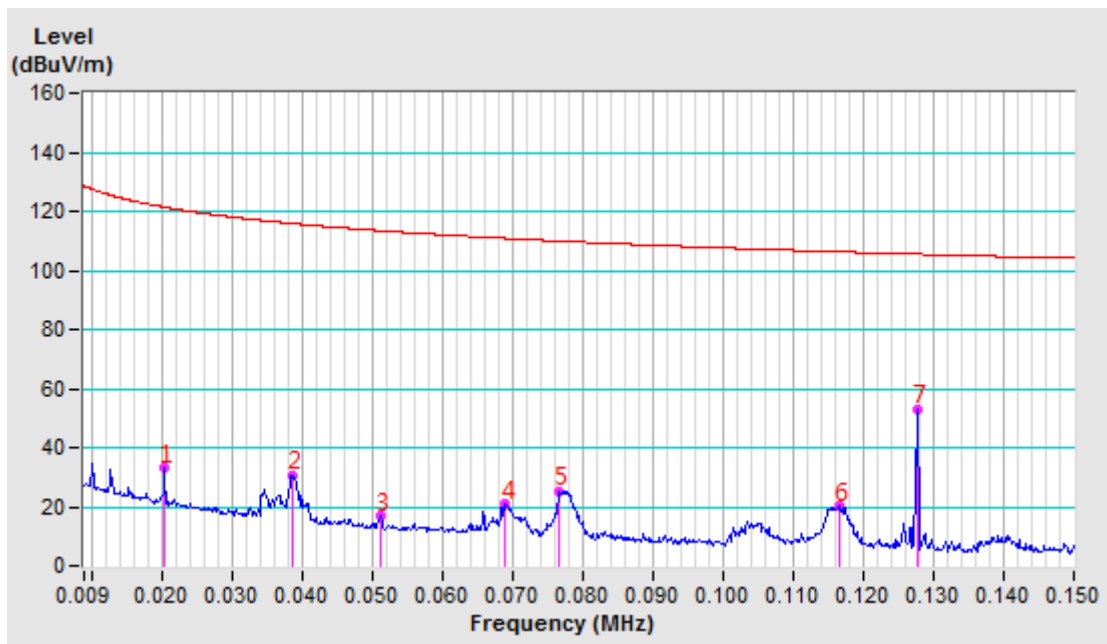


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VERITAS**

**Test Report No.: RF2010WDG0293**

Test Mode	B	Frequency Range	9 kHz ~ 150 KHz
Test Voltage	AC 120V/60Hz	Detector Function	QP&AV
Environmental Conditions	21deg. C, 67% RH	Tested By	Vincent

ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA PERPENDICULAR AT 3m								
No	Freq. (MHz)	Correction Factor (dB/m)	Raw Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
1	0.02050 AV	-28.17	61.15	32.98	121.38	-88.40	100	32
2	0.03860 AV	-28.89	59.61	30.72	115.86	-85.14	100	239
3	0.05120 AV	-29.06	45.83	16.77	113.41	-96.64	100	351
4	0.06910 AV	-29.12	50.14	21.02	110.82	-89.80	100	230
5	0.07670 AV	-29.16	54.35	25.19	109.90	-84.71	100	237
6	0.11650 AV	-29.30	49.43	20.13	106.28	-86.15	100	237
7	0.12780 AV	-29.34	82.38	53.04	105.47	-52.43	100	267





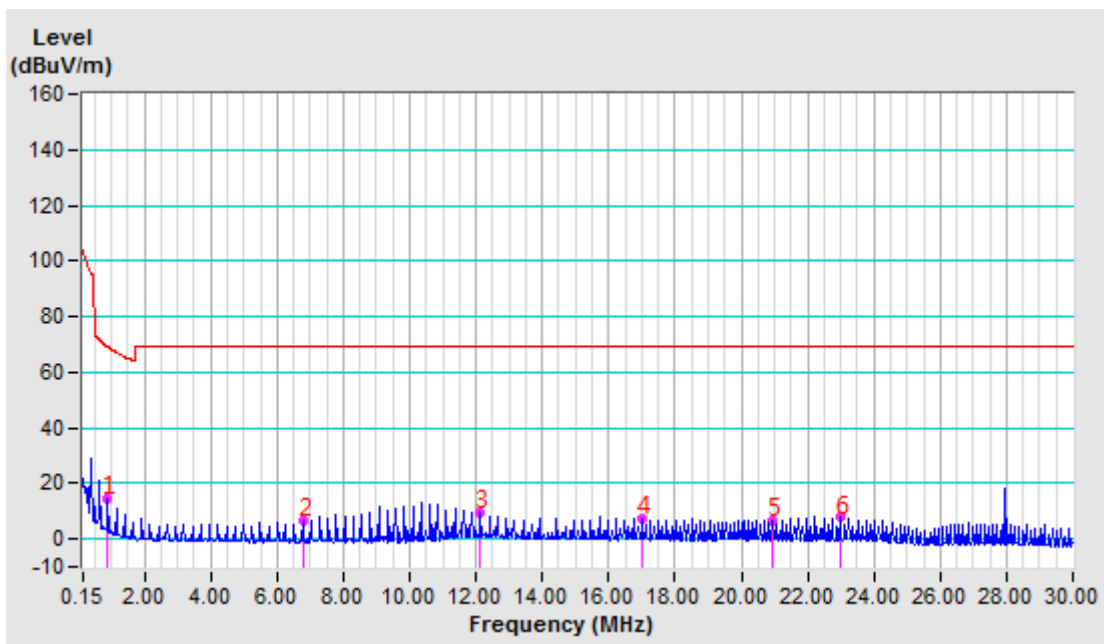


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VERITAS**

**Test Report No.: RF2010WDG0293**

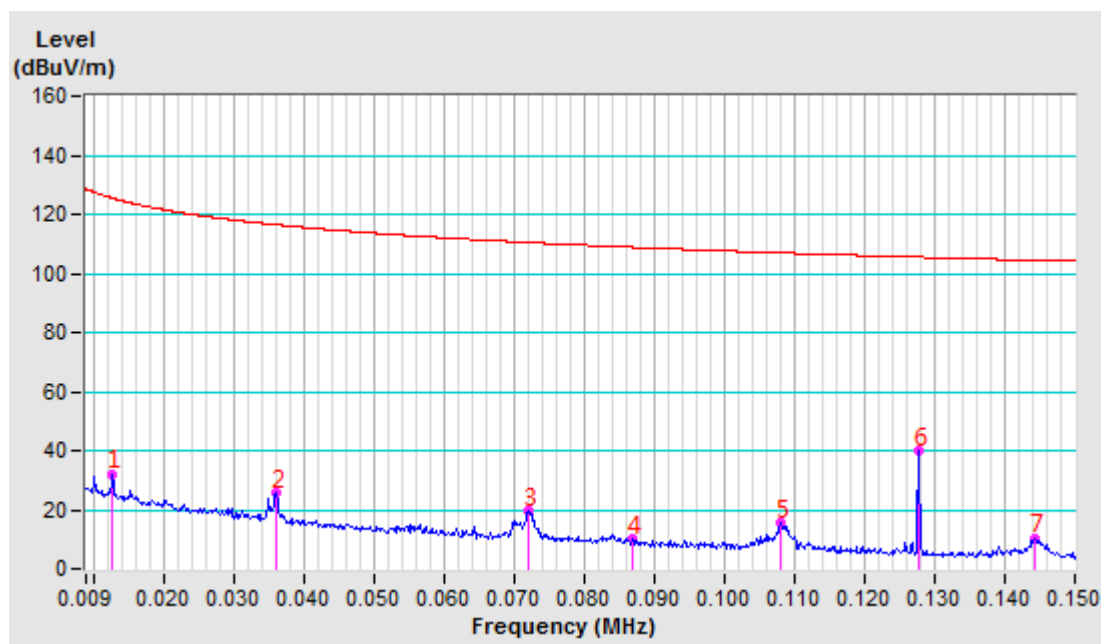
Test Mode	B	Frequency Range	150 kHz ~ 30 MHz
Test Voltage	AC 120V/60Hz	Detector Function	QP&AV
Environmental Conditions	21deg. C, 67% RH	Tested By	Vincent

ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA PERPENDICULAR AT 3m								
No	Freq. (MHz)	Correction Factor (dB/m)	Raw Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
1	0.89330 QP	-29.49	44.17	14.68	69.07	-54.39	100	264
2	6.77110 QP	-29.43	35.82	6.39	69.54	-63.15	100	208
3	12.13840 QP	-29.24	38.89	9.65	69.54	-59.89	100	240
4	16.99370 QP	-29.04	36.24	7.20	69.54	-62.34	100	360
5	20.95500 QP	-28.97	35.67	6.70	69.54	-62.84	100	334
6	22.99980 QP	-29.07	36.72	7.65	69.54	-61.89	100	338



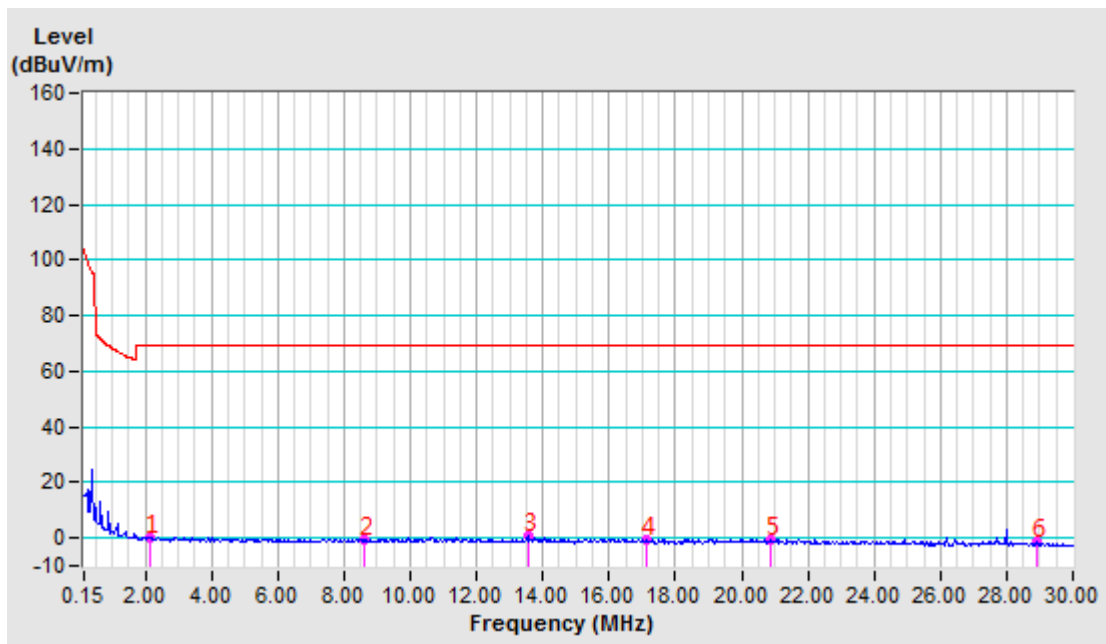
Test Mode	B	Frequency Range	9 kHz ~ 150 KHz
Test Voltage	AC 120V/60Hz	Detector Function	QP&AV
Environmental Conditions	21deg. C, 67% RH	Tested By	Vincent

ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA GROUND-PARALLEL AT 3m								
No	Freq. (MHz)	Correction Factor (dB/m)	Raw Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
1	0.01280 AV	-27.71	59.83	32.12	125.47	-93.35	100	6
2	0.03610 AV	-28.85	54.39	25.54	116.46	-90.92	100	170
3	0.07210 AV	-29.13	48.50	19.37	110.44	-91.07	100	179
4	0.08700 AV	-29.21	39.24	10.03	108.82	-98.79	100	295
5	0.10810 QP	-29.29	44.77	15.48	106.92	-91.44	100	176
6	0.12780 AV	-29.34	69.34	40.00	105.47	-65.47	100	191
7	0.14430 AV	-29.37	39.69	10.32	104.42	-94.10	100	174



Test Mode	B	Frequency Range	150 kHz ~ 30 MHz
Test Voltage	AC 120V/60Hz	Detector Function	QP&AV
Environmental Conditions	21deg. C, 67% RH	Tested By	Vincent

ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA GROUND-PARALLEL AT 3m								
No	Freq. (MHz)	Correction Factor (dB/m)	Raw Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
1	2.12770 QP	-29.57	29.91	0.34	69.54	-69.20	100	206
2	8.60840 QP	-29.34	28.92	-0.42	69.54	-69.96	100	160
3	13.54140 QP	-29.09	29.62	0.53	69.54	-69.01	100	178
4	17.10560 QP	-29.05	28.39	-0.66	69.54	-70.20	100	119
5	20.85800 QP	-28.96	28.27	-0.69	69.54	-70.23	100	164
6	28.93130 QP	-29.50	28.02	-1.48	69.54	-71.02	100	64

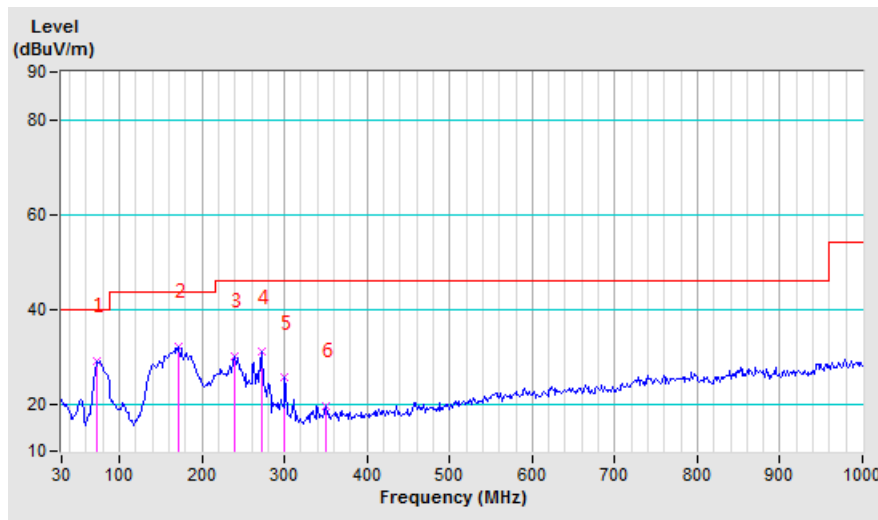




Test Mode	B	Frequency Range	30MHz ~ 1000MHz
Test Voltage	AC 120V/60Hz	Detector Function	Quasi-Peak (QP)
Environmental Conditions	21deg. C, 67% RH	Tested By	Vincent

Antenna Polarity & Test Distance: Horizontal At 3m								
No.	Freq. (MHz)	Correction Factor (dB/m)	Raw Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
1	73.53	-23.79	52.80	29.01	40.00	-10.99	200	0
2	171.46	-18.18	50.21	32.03	43.50	-11.47	200	0
3	239.86	-17.49	47.55	30.06	46.00	-15.94	200	0
4	272.50	-15.53	46.45	30.92	46.00	-15.08	200	0
5	300.48	-14.24	39.69	25.45	46.00	-20.55	200	0
6	350.22	-12.80	32.29	19.49	46.00	-26.51	200	0

- REMARKS:**
1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
  2. Negative sign (-) in the margin column signify levels below the limit.
  3. Frequency range scanned: 30-1000MHz.
  4. Only emissions significantly above equipment noise floor are reported.

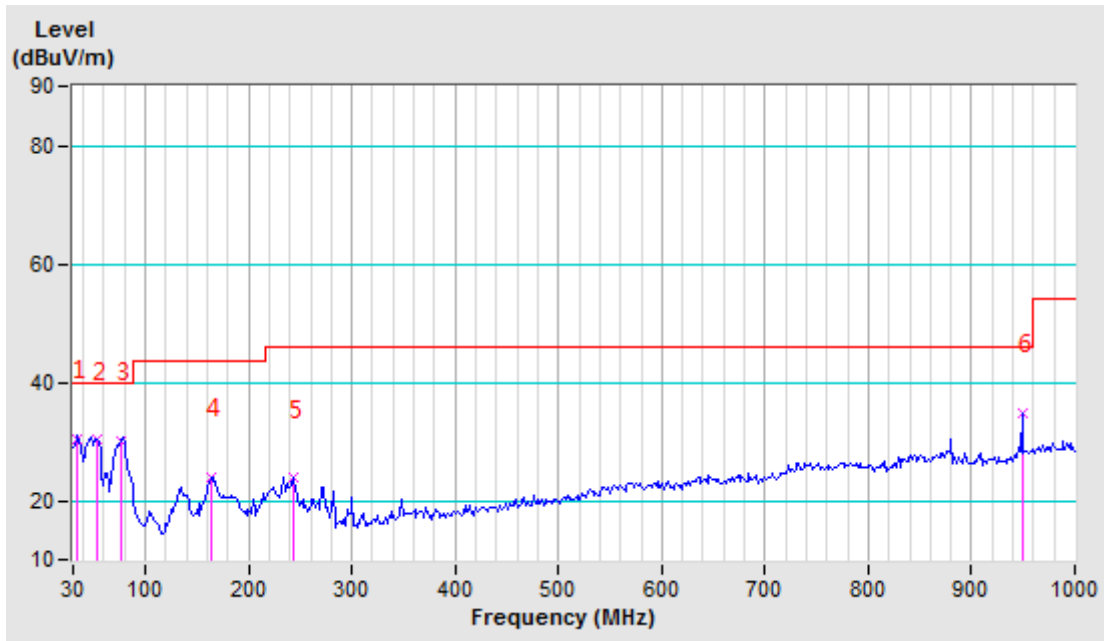




Test Mode	B	Frequency Range	30MHz ~ 1000MHz
Test Voltage	AC 120V/60Hz	Detector Function	Quasi-Peak (QP)
Environmental Conditions	21deg. C, 67% RH	Tested By	Vincent

Antenna Polarity & Test Distance: Vertical At 3m								
No.	Freq. (MHz)	Correction Factor (dB/m)	Raw Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
1	33.11	-13.33	43.73	30.40	40.00	-9.60	100	0
2	53.32	-22.34	52.53	30.19	40.00	-9.81	100	0
3	76.63	-22.99	53.13	30.14	40.00	-9.86	100	0
4	163.69	-17.39	41.21	23.82	43.50	-19.68	100	0
5	242.96	-17.22	41.03	23.81	46.00	-22.19	100	0
6	948.70	-1.58	36.40	34.82	46.00	-11.18	100	0

- REMARKS:**
1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
  2. Negative sign (-) in the margin column signify levels below the limit.
  3. Frequency range scanned: 30-1000MHz.
  4. Only emissions significantly above equipment noise floor are reported.



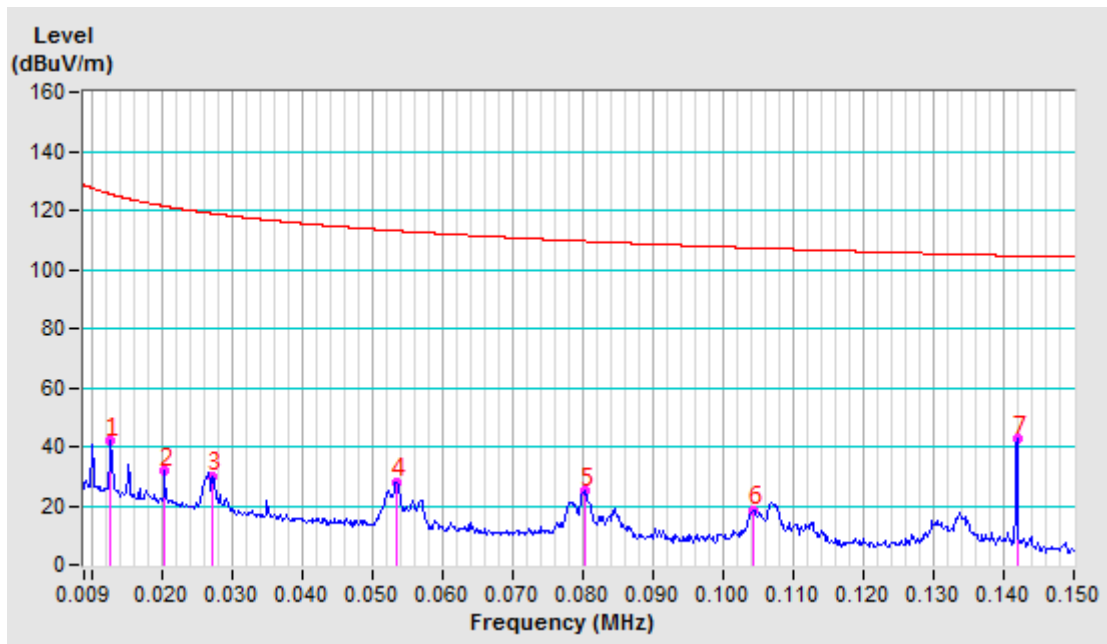


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**Test Report No.: RF2010WDG0293**

Test Mode	C	Frequency Range	9 kHz ~ 150 KHz
Test Voltage	AC 120V/60Hz	Detector Function	QP&AV
Environmental Conditions	21deg. C, 67% RH	Tested By	Vincent

ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA PARALLEL AT 3m								
No	Freq. (MHz)	Correction Factor (dB/m)	Raw Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
1	0.01280 AV	-27.71	69.58	41.87	125.47	-83.60	100	284
2	0.02050 AV	-28.17	59.95	31.78	121.38	-89.60	100	206
3	0.02730 AV	-28.58	58.71	30.13	118.87	-88.74	100	197
4	0.05350 AV	-29.07	57.16	28.09	113.03	-84.94	100	177
5	0.08030 AV	-29.17	53.98	24.81	109.51	-84.70	100	181
6	0.10430 QP	-29.29	47.80	18.51	107.24	-88.73	100	188
7	0.14190 AV	-29.36	72.04	42.68	104.56	-61.88	100	47



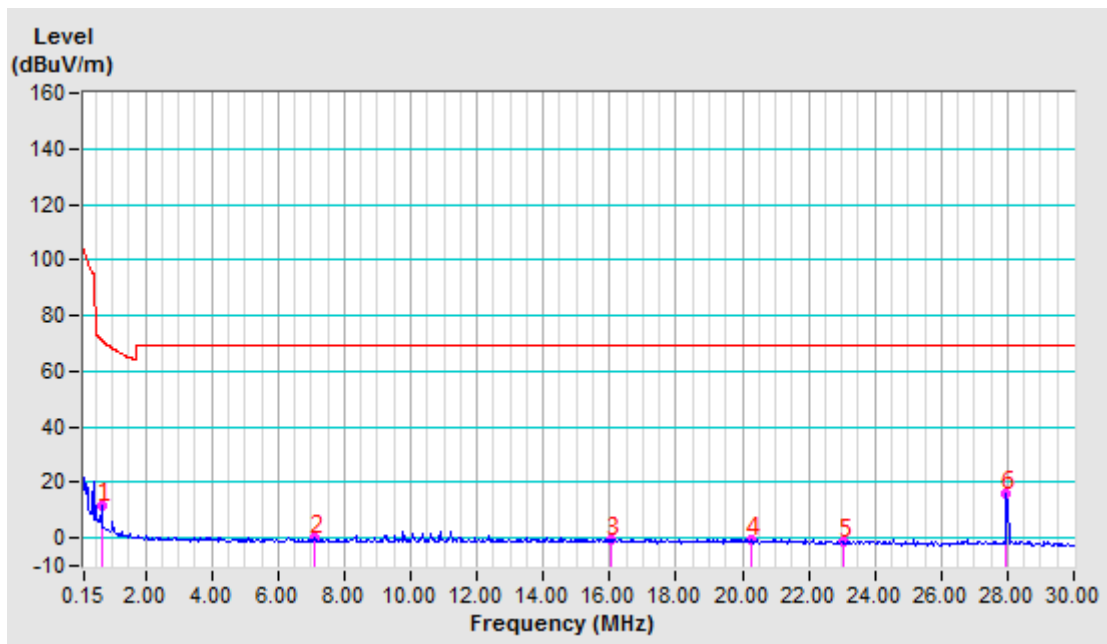


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**Test Report No.: RF2010WDG0293**

Test Mode	C	Frequency Range	150 kHz ~ 30 MHz
Test Voltage	AC 120V/60Hz	Detector Function	QP&AV
Environmental Conditions	21deg. C, 67% RH	Tested By	Vincent

ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA PARALLEL AT 3m								
No	Freq. (MHz)	Correction Factor (dB/m)	Raw Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
1	0.70820 QP	-29.46	40.90	11.44	70.90	-59.46	100	52
2	7.07550 QP	-29.43	29.64	0.21	69.54	-69.33	100	336
3	16.01910 QP	-29.04	28.66	-0.38	69.54	-69.92	100	163
4	20.26240 QP	-28.89	28.16	-0.73	69.54	-70.27	100	232
5	23.08040 QP	-29.07	27.95	-1.12	69.54	-70.66	100	280
6	27.97010 QP	-29.15	45.22	16.07	69.54	-53.47	100	201



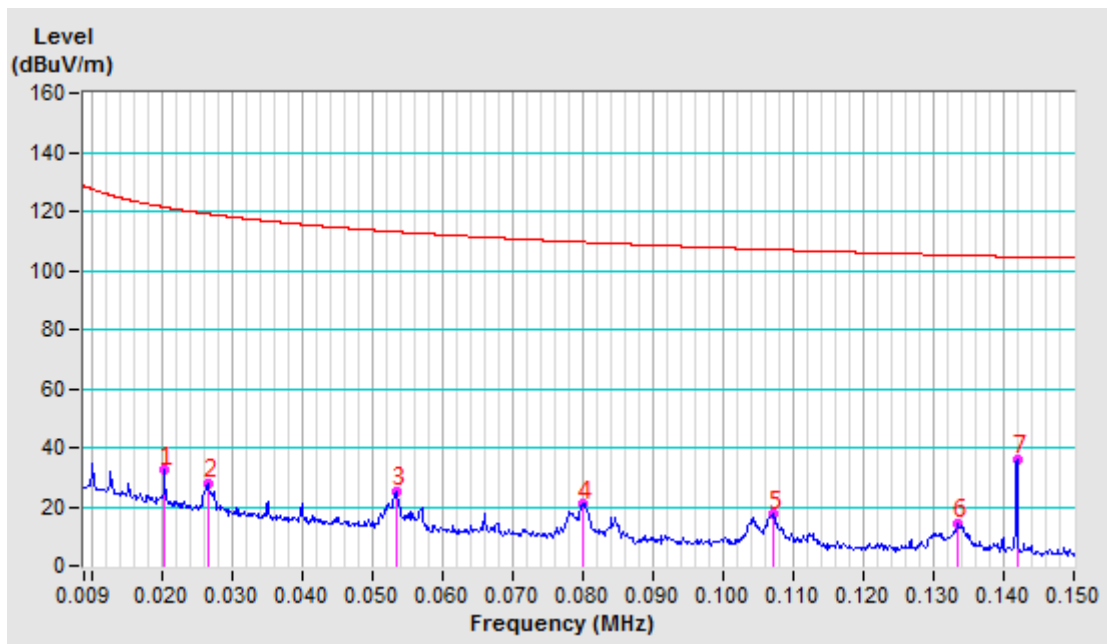


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**Test Report No.: RF2010WDG0293**

Test Mode	C	Frequency Range	9 kHz ~ 150 KHz
Test Voltage	AC 120V/60Hz	Detector Function	QP&AV
Environmental Conditions	21deg. C, 67% RH	Tested By	Vincent

ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA PERPENDICULAR AT 3m								
No	Freq. (MHz)	Correction Factor (dB/m)	Raw Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
1	0.02050 AV	-28.17	60.50	32.33	121.38	-89.05	100	360
2	0.02660 AV	-28.53	56.62	28.09	119.12	-91.03	100	250
3	0.05340 AV	-29.07	54.24	25.17	113.04	-87.87	100	239
4	0.08020 AV	-29.17	50.20	21.03	109.52	-88.49	100	253
5	0.10710 QP	-29.29	46.94	17.65	107.01	-89.36	100	226
6	0.13350 AV	-29.35	43.70	14.35	105.09	-90.74	100	240
7	0.14190 AV	-29.36	65.57	36.21	104.56	-68.35	100	127





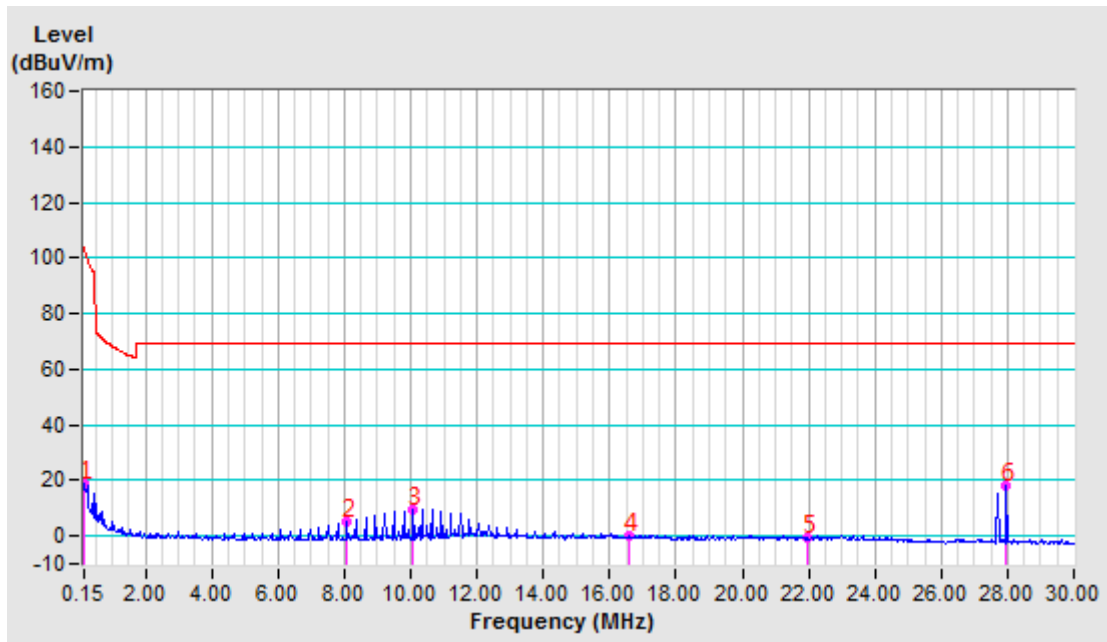


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**Test Report No.: RF2010WDG0293**

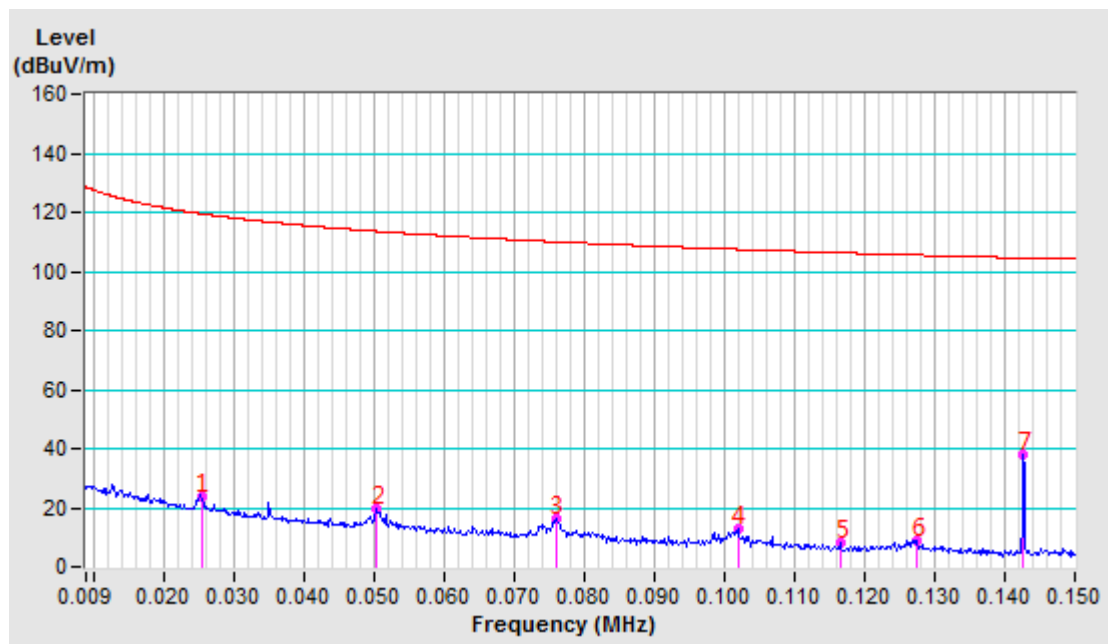
Test Mode	C	Frequency Range	150 kHz ~ 30 MHz
Test Voltage	AC 120V/60Hz	Detector Function	QP&AV
Environmental Conditions	21deg. C, 67% RH	Tested By	Vincent

ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA PERPENDICULAR AT 3m								
No	Freq. (MHz)	Correction Factor (dB/m)	Raw Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
1	0.15900 AV	-29.39	48.25	18.86	103.58	-84.72	100	252
2	8.08600 QP	-29.36	34.60	5.24	69.54	-64.30	100	250
3	10.07260 QP	-29.25	38.54	9.29	69.54	-60.25	100	236
4	16.59970 QP	-29.05	29.18	0.13	69.54	-69.41	100	345
5	21.98340 QP	-29.11	28.66	-0.45	69.54	-69.99	100	89
6	27.96560 QP	-29.15	47.01	17.86	69.54	-51.68	100	228



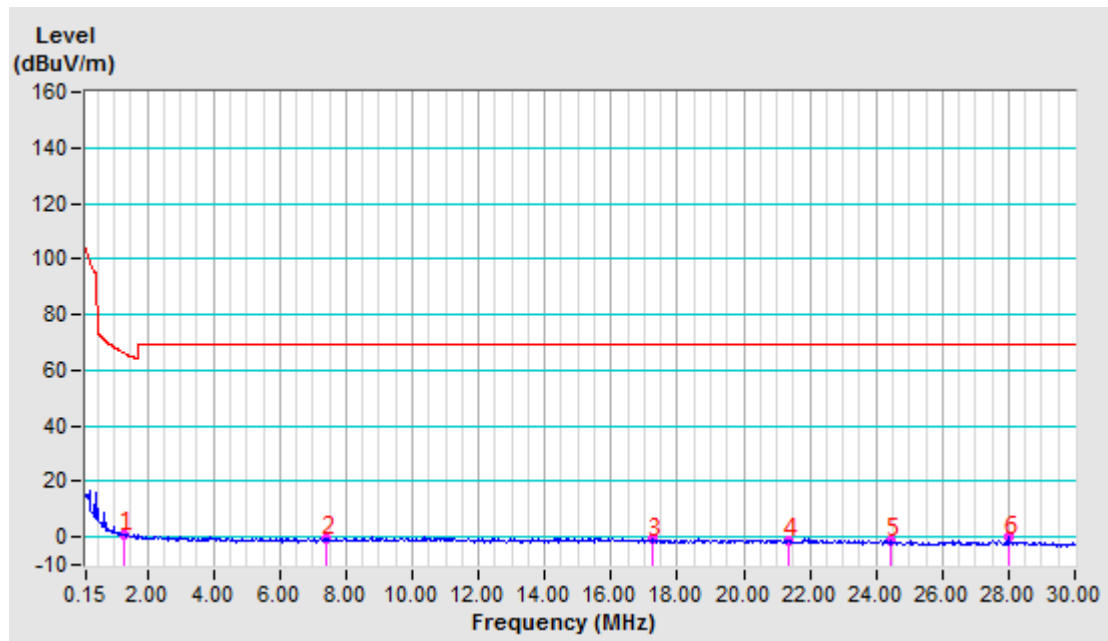
Test Mode	C	Frequency Range	9 kHz ~ 150 KHz
Test Voltage	AC 120V/60Hz	Detector Function	QP&AV
Environmental Conditions	21deg. C, 67% RH	Tested By	Vincent

ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA GROUND-PARALLEL AT 3m								
No	Freq. (MHz)	Correction Factor (dB/m)	Raw Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
1	0.02540 AV	-28.47	52.12	23.65	119.49	-95.84	100	200
2	0.05040 AV	-29.06	48.51	19.45	113.55	-94.10	100	189
3	0.07590 AV	-29.16	45.47	16.31	109.99	-93.68	100	208
4	0.10190 QP	-29.28	42.03	12.75	107.44	-94.69	100	204
5	0.11660 AV	-29.30	37.10	7.80	106.27	-98.47	100	7
6	0.12750 AV	-29.34	38.12	8.78	105.49	-96.71	100	185
7	0.14270 AV	-29.36	67.25	37.89	104.51	-66.62	100	40



Test Mode	C	Frequency Range	150 kHz ~ 30 MHz
Test Voltage	AC 120V/60Hz	Detector Function	QP&AV
Environmental Conditions	21deg. C, 67% RH	Tested By	Vincent

ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA GROUND-PARALLEL AT 3m								
No	Freq. (MHz)	Correction Factor (dB/m)	Raw Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
1	1.2829 QP	-29.53	30.41	0.88	66.21	-65.33	100	69
2	7.4308 QP	-29.41	29.06	-0.35	69.54	-69.89	100	58
3	17.2385 QP	-29.05	28.08	-0.97	69.54	-70.51	100	20
4	21.3565 QP	-29.03	28.00	-1.03	69.54	-70.57	100	102
5	24.4267 QP	-29.13	27.70	-1.43	69.54	-70.97	100	45
6	27.9985 QP	-29.15	28.91	-0.24	69.54	-69.78	100	44

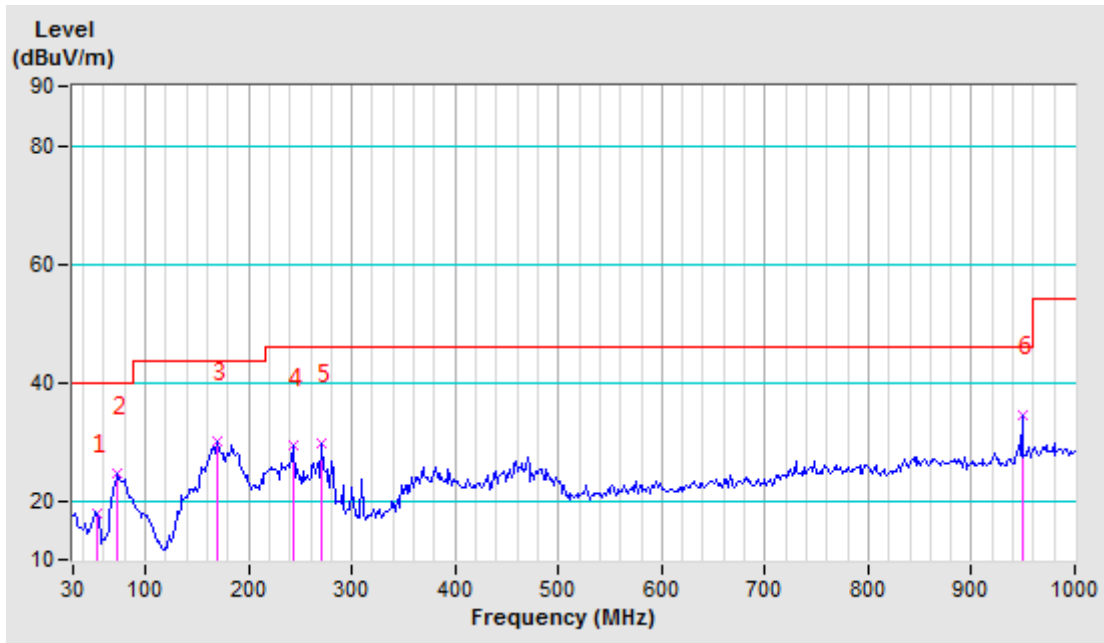




Test Mode	C	Frequency Range	30MHz ~ 1000MHz
Test Voltage	AC 120V/60Hz	Detector Function	Quasi-Peak (QP)
Environmental Conditions	21deg. C, 67% RH	Tested By	Vincent

Antenna Polarity & Test Distance: Horizontal At 3m								
No.	Freq. (MHz)	Correction Factor (dB/m)	Raw Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
1	53.32	-22.34	40.21	17.87	40.00	-22.13	100	0
2	73.53	-23.79	48.25	24.46	40.00	-15.54	100	0
3	169.90	-18.02	48.09	30.07	43.50	-13.43	100	0
4	242.96	-17.22	46.40	29.18	46.00	-16.82	100	0
5	270.95	-15.57	45.33	29.76	46.00	-16.24	100	0
6	948.70	-1.58	35.99	34.41	46.00	-11.59	100	0

- REMARKS:**
1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
  2. Negative sign (-) in the margin column signify levels below the limit.
  3. Frequency range scanned: 30-1000MHz.
  4. Only emissions significantly above equipment noise floor are reported.

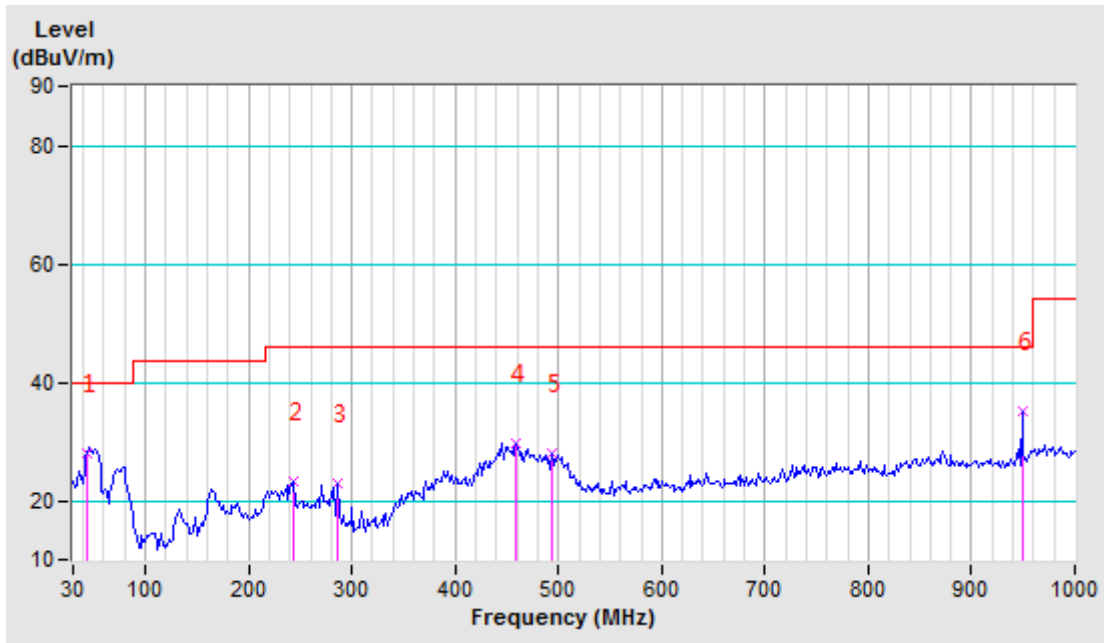




Test Mode	C	Frequency Range	30MHz ~ 1000MHz
Test Voltage	AC 120V/60Hz	Detector Function	Quasi-Peak (QP)
Environmental Conditions	21deg. C, 67% RH	Tested By	Vincent

Antenna Polarity & Test Distance: Vertical At 3m								
No.	Freq. (MHz)	Correction Factor (dB/m)	Raw Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
1	43.99	-18.01	46.08	28.07	40.00	-11.93	200	0
2	242.96	-17.22	40.43	23.21	46.00	-22.79	200	0
3	286.49	-15.01	37.88	22.87	46.00	-23.13	200	0
4	459.04	-10.28	39.95	29.67	46.00	-16.33	200	0
5	493.24	-9.63	37.57	27.94	46.00	-18.06	200	0
<b>6</b>	<b>948.70</b>	<b>-1.58</b>	<b>36.76</b>	<b>35.18</b>	<b>46.00</b>	<b>-10.82</b>	<b>200</b>	<b>9</b>

- REMARKS:**
1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
  2. Negative sign (-) in the margin column signify levels below the limit.
  3. Frequency range scanned: 30-1000MHz.
  4. Only emissions significantly above equipment noise floor are reported.



### 4.3. 20dB BANDWIDTH MEASUREMENT

#### 4.3.1 LIMITS OF 20dB BANDWIDTH MEASUREMENT

The field strength of any emissions appearing between the band edges and out of band shall be attenuated at least 20 dB below the level of the unmodulated carrier or to the general limits in Section 15.209.

#### 4.3.2 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
Power Sensor	Keysight	U2021XA	MY55060016	N/A
Power Sensor	Keysight	U2021XA	MY55060018	Jun. 03,21
Power Meter	Anritsu	ML2495A	1139001	Mar. 17,21
Power Sensor	Anritsu	MA2411B	1531155	Mar. 17,21
Digital Multimeter	FLUKE	15B	A1220010DG	N/A
Humid & Temp Programmable Tester	Haida	HD-225T	110807201	Oct. 30,21
Oscilloscope	Agilent	DSO9254A	MY51260160	Aug. 10,21
Signal and Spectrum Analyzer	Rohde&Schwarz	FSV40	101094	Mar. 17,21
Signal Generator	Agilent	N5183A	MY50140980	Aug. 10,21
MXG-B RF Vector Signal Generator	Keysight	N5182B	MY56200288	Sep. 04,21
Attenuator	MINI	BW-S10W2+	S130129FGE2	N/A
DC Source	Keysight	E3642A	MY56146098	N/A

**NOTE:** 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.  
2. The test was performed in RF Oven room.

#### 4.3.3 TEST PROCEDURE

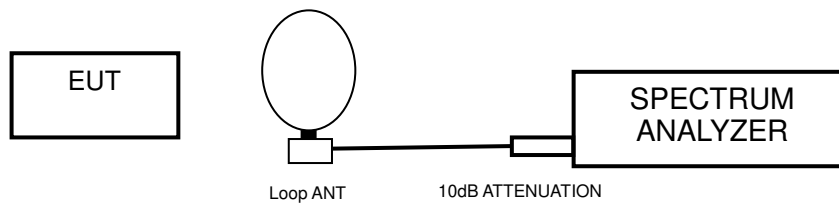
- a. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
- b. Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
- c. Measure the frequency difference of two frequencies that were attenuated 20dB from the reference level. Record the frequency difference as the emission bandwidth.
- d. Repeat above procedures until all frequencies measured were complete.



#### 4.3.4 DEVIATION FROM TEST STANDARD

No deviation.

#### 4.3.5 TEST SETUP



#### 4.3.6 EUT OPERATING CONDITION

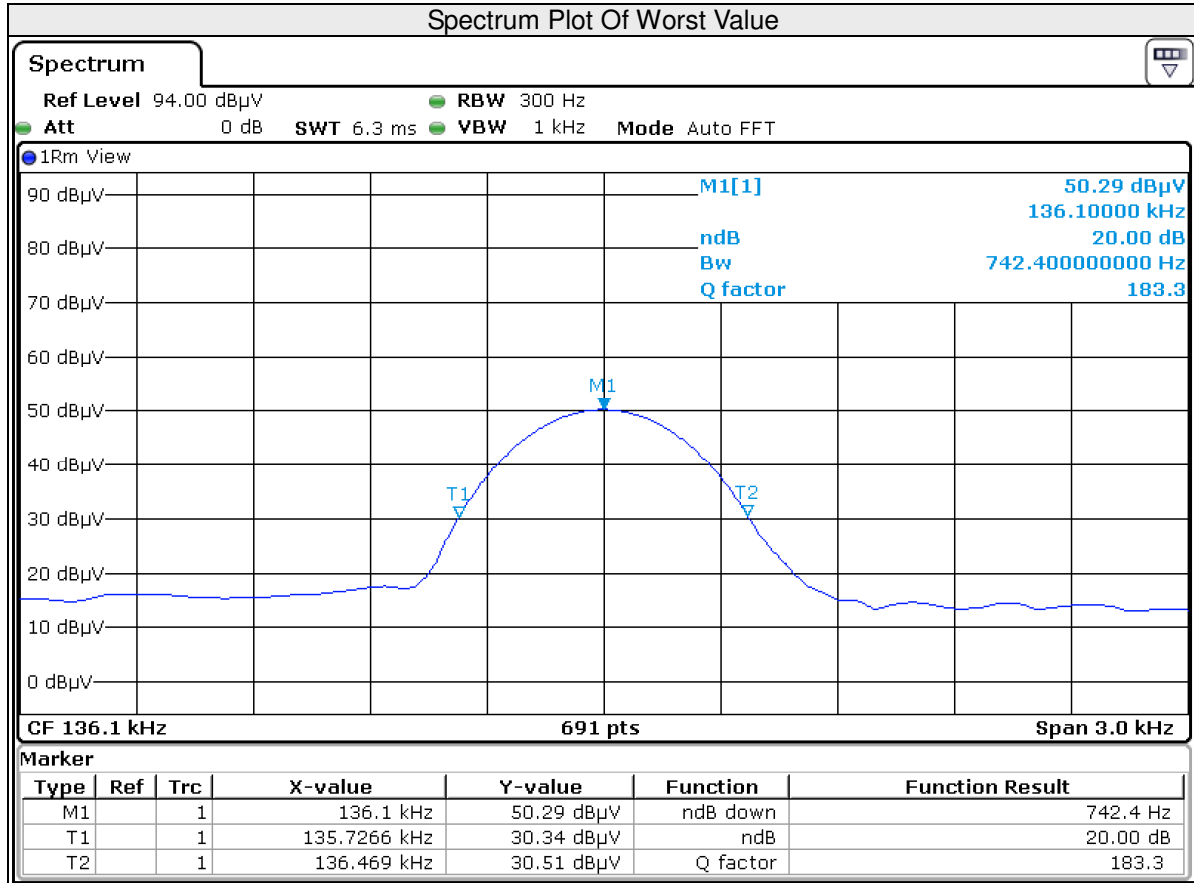
- a. Turn on the EUT.
- b. The EUT tested in charging mode and standby mode respectively.



### 4.3.7 TEST RESULTS

Test Mode	Frequency (kHz)	20dB Bandwidth (Hz)
A	136.100	742.4

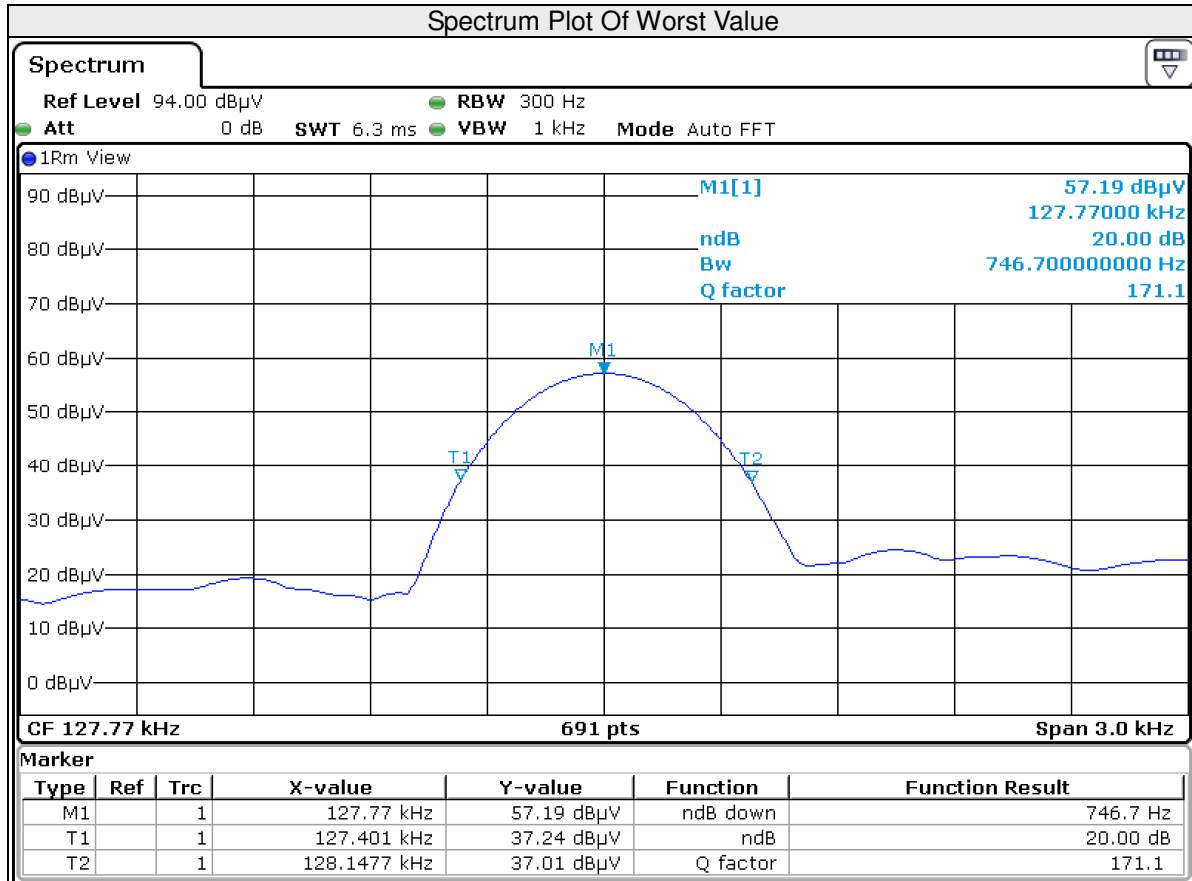
**Test Plot:**





Test Mode	Frequency (kHz)	20dB Bandwidth (Hz)
B	127.770	746.7

**Test Plot:**

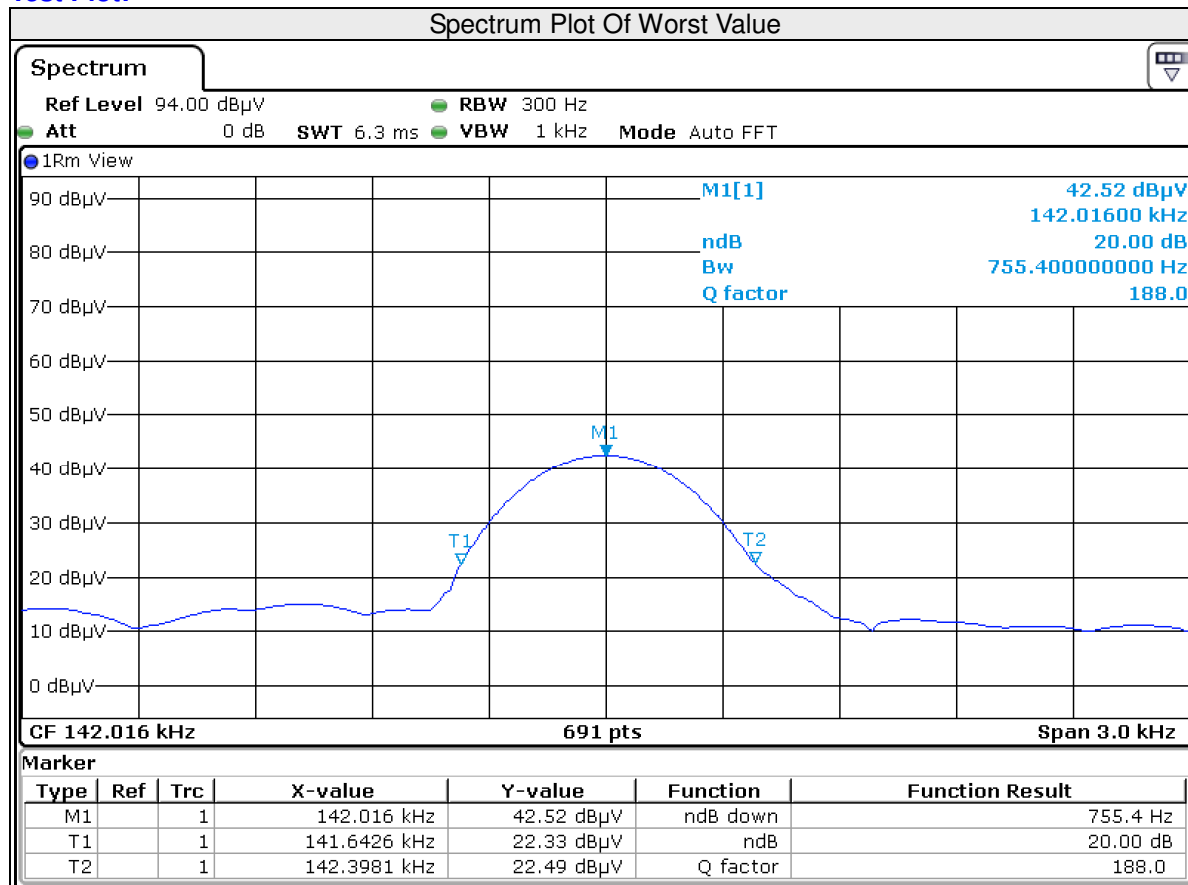




**Test Report No.: RF2010WDG0293**

Test Mode	Frequency (kHz)	20dB Bandwidth (Hz)
C	142.016	755.4

**Test Plot:**





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## 5 PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the attached file (Test Setup Photo).



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## **6 APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB**

No any modifications were made to the EUT by the lab during the test.

**---END---**