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™ Magnetic Portable Wireless Charger Pad
Brand Name	belkin
Model	WIA005
Additional Model & Model Difference	N/A
Date of tests	Jan. 22, 2021 ~ Feb. 03, 2021

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: Feb. 08, 2021

Bureau Veritas Shenzhen Co., Ltd. Dongguan Branch

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF2101WDG0239	Original release	Feb. 08, 2021

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	3.82dB

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

PRODUCT	BOOST↑CHARGE™ Magnetic Portable Wireless Charger Pad
MODEL NO.	WIA005
ADDITIONAL MODE	N/A
FCC ID	K7SWIA005
POWER SUPPLY	Input: DC 5V or 9V or 12V from USB-C host unit Output: 10W max
MODULATION TYPE	FSK
OPERATING FREQUENCY RANGE	111KHz ~ 148KHz
I/O PORTS	Coil Antenna
FIELD STRENGTH	67.69dBuV/m
MAXIMUM POWER OUTPUT FROM THE CHARGING COIL	Max Power is 10W
CABLE SUPPLIED	USB-C to USB-C cable: Shielded, Non-detachable 2.0m

NOTES:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
2. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.
3. Please refer to the EUT photo document (Reference No.: 2101WDG0239) for detailed product photo.
4. The EUT can be powered by adapter as list as attach:

ADAPTER	
BRAND:	N/A
MODEL:	A829-120167C-US1
INPUT:	AC 100-240V, 50/60Hz, 0.5A
OUTPUT:	5.0V⎓3.0A 9.0V⎓2.23A 12.0V⎓1.67A 3.3-5.9V⎓3.0A 17.7W MAX 3.3-11.0V⎓2.0A 20.0W MAX
DC LINE:	N/A

3.2 DESCRIPTION OF TEST MODES

The following test frequencies are provided to this EUT:

Operating Frequency Range(KHz)	Tested Frequency(KHz)	Mode
111-148	128.47	Standby
111-148	127.77	iPhone 12 Pro operating

3.3 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE	APPLICABLE TO			DESCRIPTION
	RE<1G	PLC	20BW	
A	√	√	√	Standby
B	√	√	√	iPhone 12 Pro operating

Where **RE<1G:** Radiated Emission below 1GHz **PLC:** Power Line Conducted Emission

20BW: 20dB Bandwidth

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	111-148	128.47	FSK
B	111-148	127.77	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	111-148	128.47	FSK
B	111-148	127.77	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	111-148	128.47	FSK
B	111-148	127.77	FSK

TEST CONDITION:

Applicable to	Environmental conditions	Input Power(Adapter)	Tested by
RE<1G	21 ℃, 67% RH	120Vac, 60Hz	Vincent
PLC	25 ℃, 60% RH	120Vac, 60Hz	MingBai
20BW	25 ℃, 57% RH	120Vac, 60Hz	Daniel

3.4 DESCRIPTION OF SUPPORT UNITS

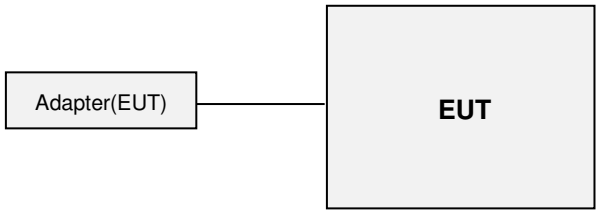
The EUT has been tested as a dependent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	iPhone 12 Pro	Apple	A2408	N/A	N/A

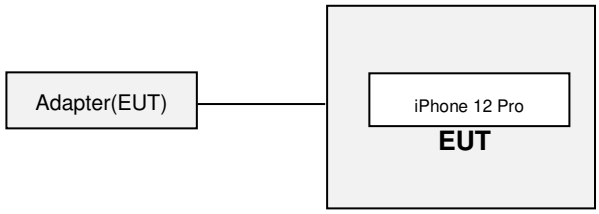
NO.	DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	N/A

3.5 CONFIGURATION OF SYSTEM UNDER TEST

Test Mode A



Test Mode B



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_Cond_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.

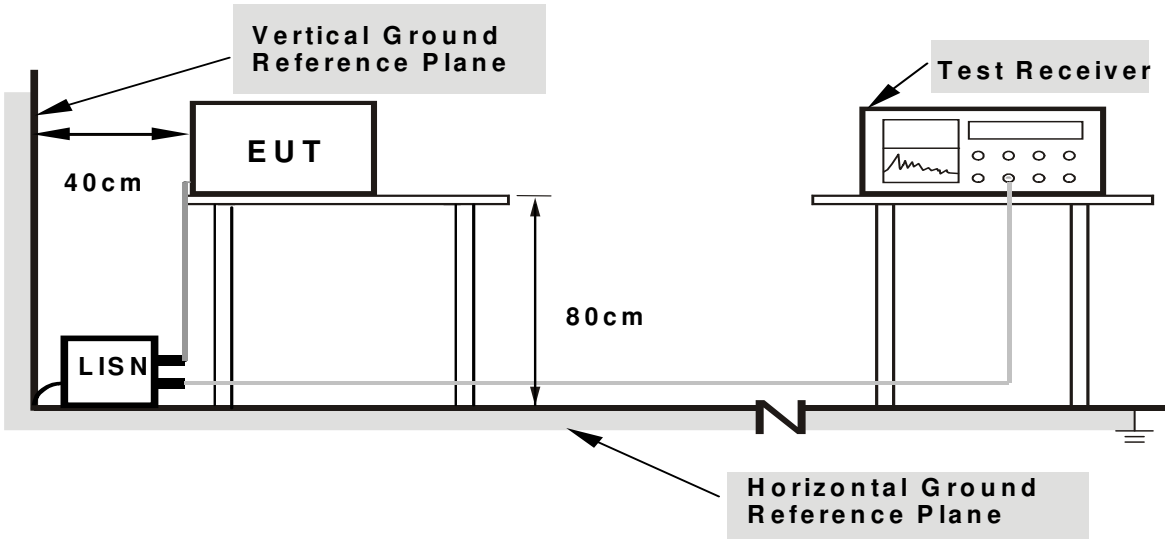
NOTES:

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

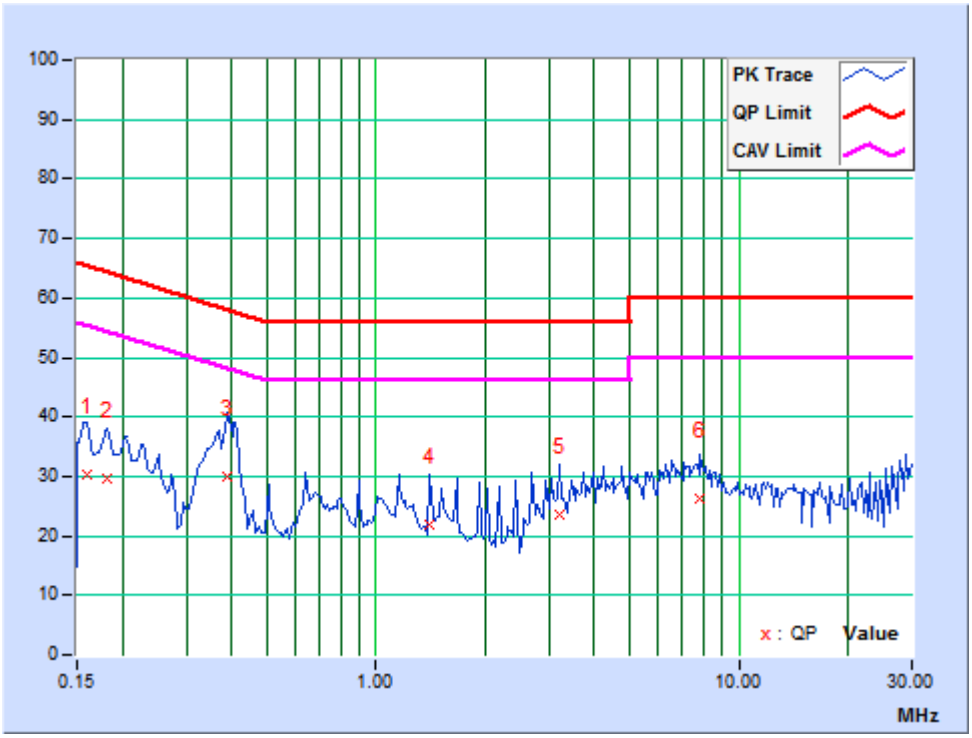
a. Turn on the EUT.
b. The EUT tested in charging mode and standby mode respectively.

4.1.7 TEST RESULTS

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

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15900	9.77	20.69	11.22	30.46	20.99	65.52	55.52	-35.06	-34.53
2	0.18069	9.77	19.76	10.62	29.53	20.39	64.45	54.45	-34.92	-34.06
3	0.39075	9.85	20.28	10.73	30.13	20.58	58.05	48.05	-27.92	-27.47
4	1.41000	9.84	12.10	8.30	21.94	18.14	56.00	46.00	-34.06	-27.86
5	3.20775	9.86	13.82	9.52	23.68	19.38	56.00	46.00	-32.32	-26.62
6	7.82925	9.98	16.44	11.64	26.42	21.62	60.00	50.00	-33.58	-28.38

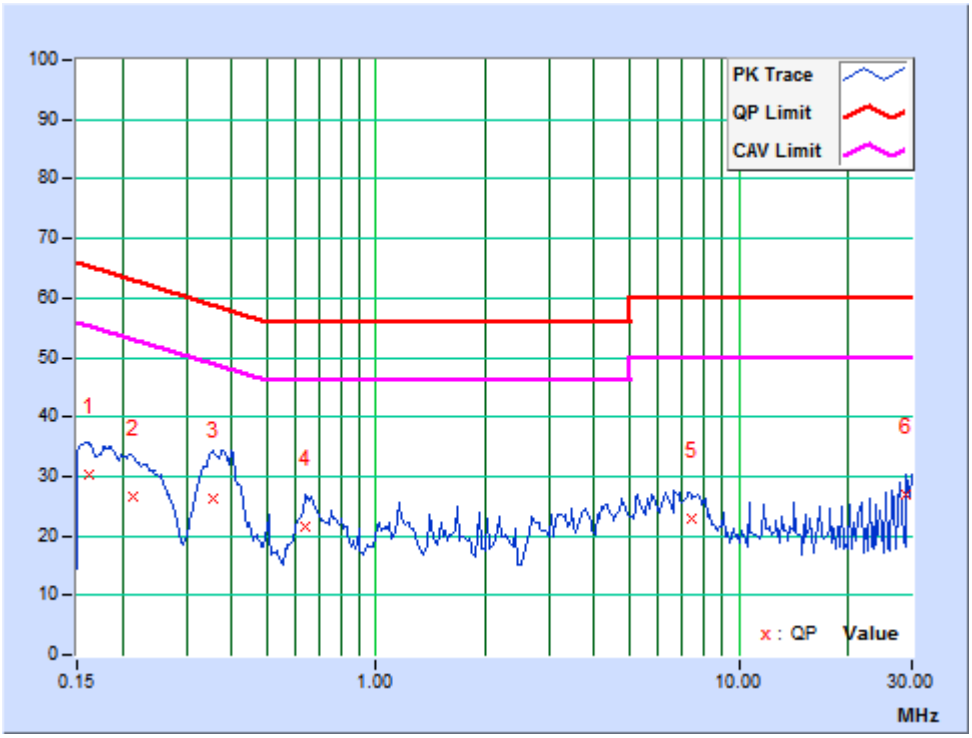
REMARKS: The emission levels of other frequencies were very low against the limit.



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

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16262	9.71	20.46	11.29	30.17	21.00	65.33	55.33	-35.16	-34.33
2	0.21300	9.72	16.99	9.73	26.71	19.45	63.09	53.09	-36.38	-33.64
3	0.35380	9.78	16.47	10.28	26.25	20.06	58.87	48.87	-32.62	-28.81
4	0.63825	9.78	11.71	8.23	21.49	18.01	56.00	46.00	-34.51	-27.99
5	7.39275	9.92	13.01	10.29	22.93	20.21	60.00	50.00	-37.07	-29.79
6	28.92975	10.81	16.17	12.07	26.98	22.88	60.00	50.00	-33.02	-27.12

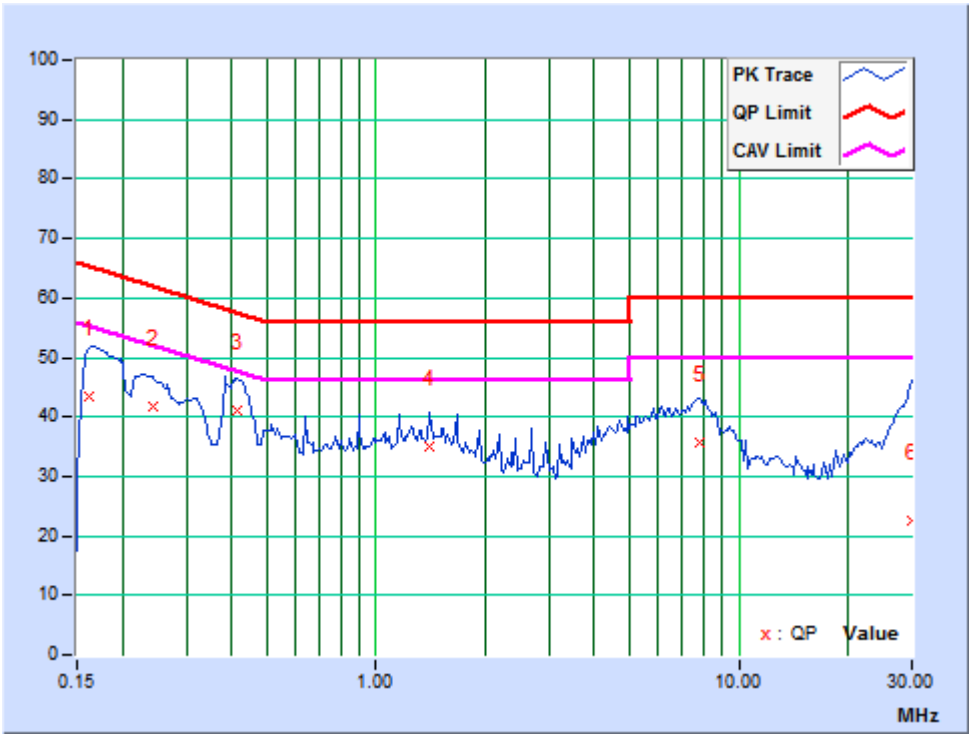
REMARKS: The emission levels of other frequencies were very low against the limit.



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

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16262	9.77	33.73	13.70	43.50	23.47	65.33	55.33	-21.83	-31.86
2	0.24225	9.80	32.10	13.61	41.90	23.41	62.02	52.02	-20.12	-28.61
3	0.41550	9.85	31.10	14.79	40.95	24.64	57.54	47.54	-16.58	-22.89
4	1.41000	9.84	25.04	19.92	34.88	29.76	56.00	46.00	-21.12	-16.24
5	7.81125	9.98	25.56	18.41	35.54	28.39	60.00	50.00	-24.46	-21.61
6	30.00000	10.54	12.00	10.11	22.54	20.65	60.00	50.00	-37.46	-29.35

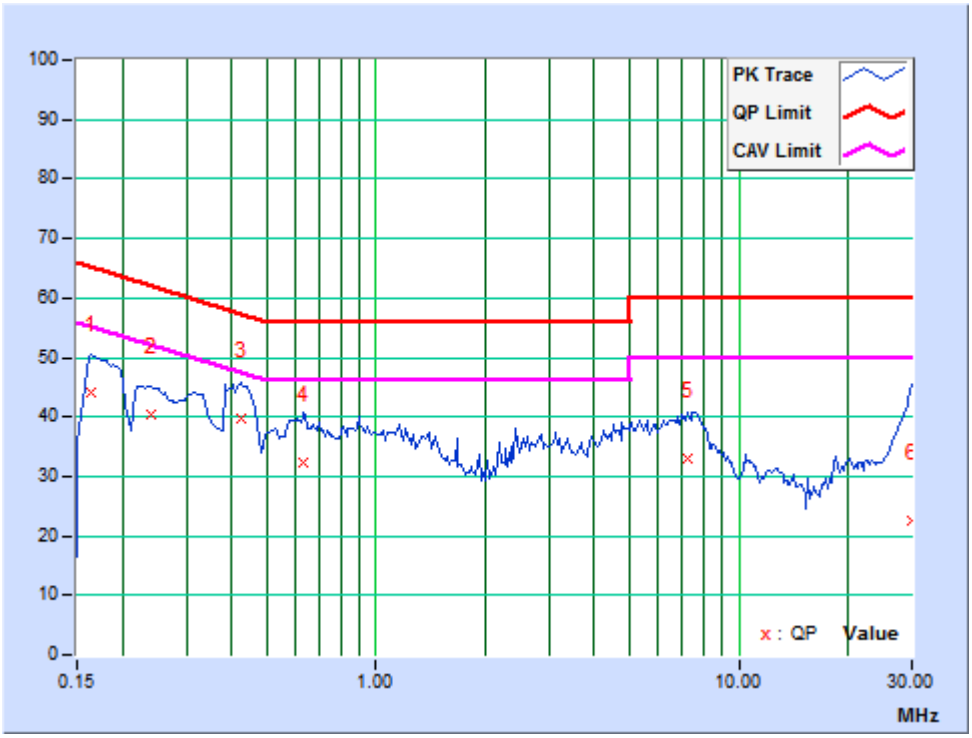
REMARKS: The emission levels of other frequencies were very low against the limit.



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

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16477	9.71	34.27	14.07	43.98	23.78	65.22	55.22	-21.24	-31.44
2	0.24145	9.73	30.60	12.86	40.33	22.59	62.05	52.05	-21.72	-29.46
3	0.42675	9.80	30.00	15.69	39.80	25.49	57.32	47.32	-17.52	-21.83
4	0.63375	9.78	22.70	12.26	32.48	22.04	56.00	46.00	-23.52	-23.96
5	7.21950	9.92	22.99	15.05	32.91	24.97	60.00	50.00	-27.09	-25.03
6	30.00000	10.88	11.70	10.10	22.58	20.98	60.00	50.00	-37.42	-29.02

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_V7.6.15.9.2	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:

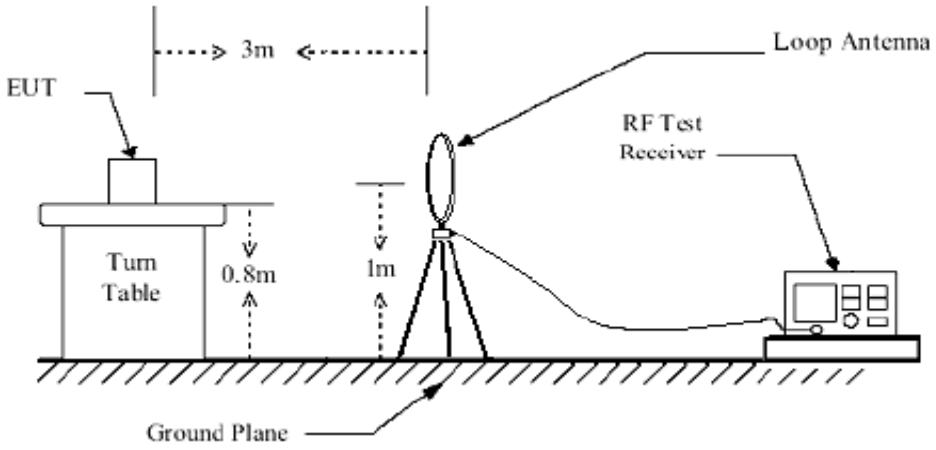
1. The resolution bandwidth of test receiver/spectrum analyzer is 100kHz for peak detection (PK) at fundamental frequency below 30MHz; The resolution bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at radiated spurious emission frequency below 1GHz.
2. Emission level(dBuV/m)=Raw 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

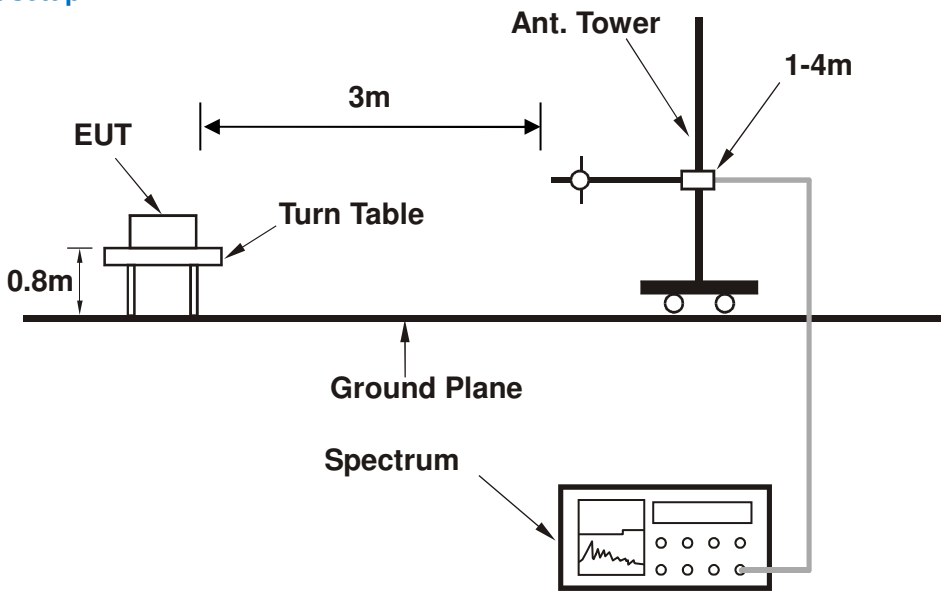
No deviation.

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.

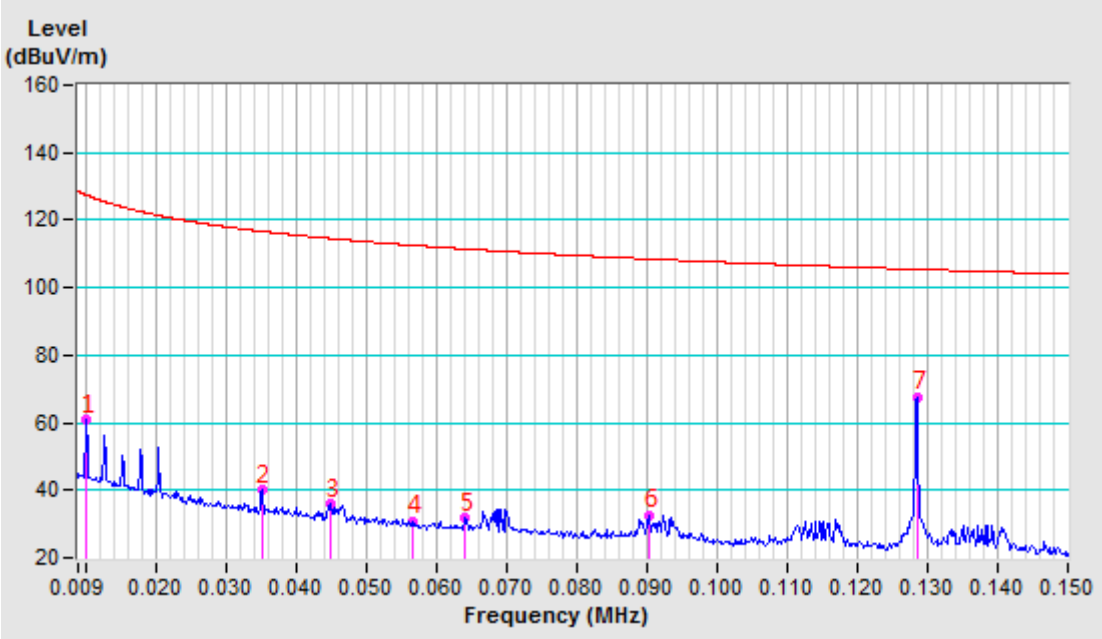
b. The EUT tested in charging mode and standby mode respectively.

4.2.7 TEST RESULTS

Standby Mode

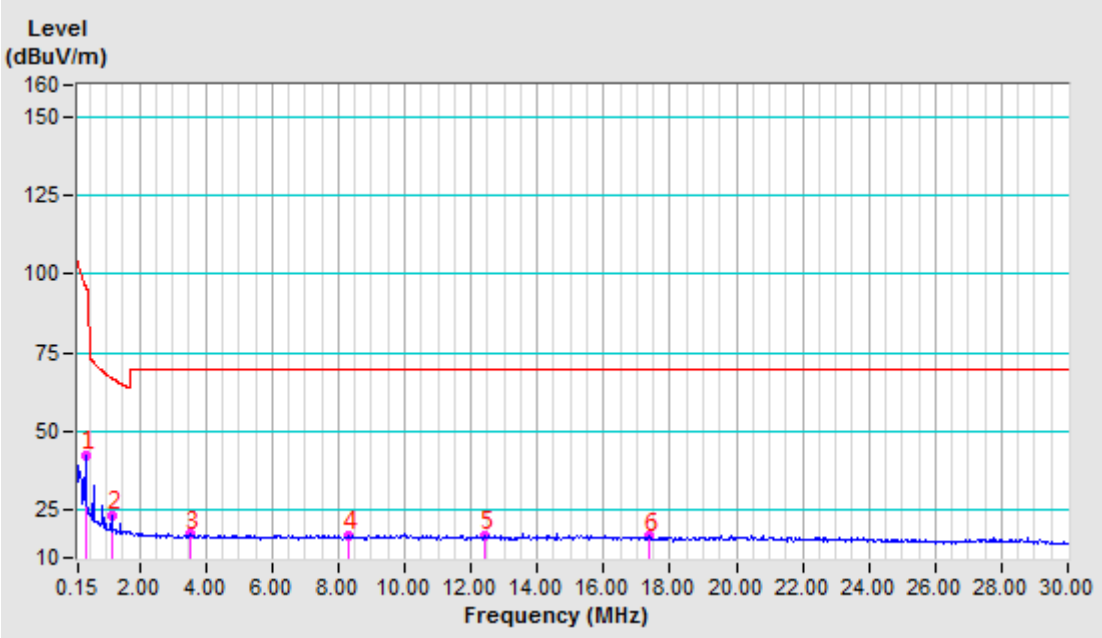
Test Mode	A	Frequency Range	9 kHz ~ 150 KHz
Test Voltage	AC 120V/60Hz	Detector Function	QP&AV
Environmental Conditions	21deg. C, 67% RH	Tested By	Vincent

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	0.01020 AV	-10.05	70.86	60.81	127.40	-66.59	100	112
2	0.03510 AV	-11.34	51.28	39.94	116.69	-76.75	100	254
3	0.04490 AV	-11.48	47.22	35.74	114.55	-78.81	100	187
4	0.05670 AV	-11.57	42.48	30.91	112.53	-81.62	100	92
5	0.06420 AV	-11.60	43.49	31.89	111.45	-79.56	100	119
6	0.09040 QP	-11.73	44.31	32.58	108.48	-75.90	100	180
7	0.12850 AV	-11.84	79.51	67.67	105.43	-37.76	100	159



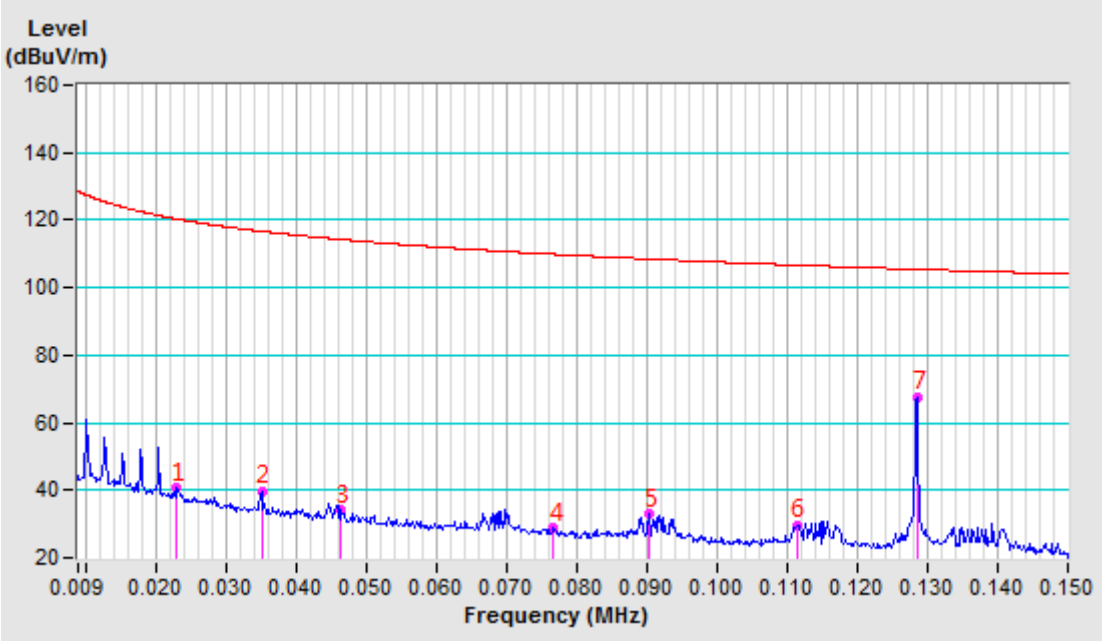
Test Mode	A	Frequency Range	150 kHz ~ 30 MHz
Test Voltage	AC 120V/60Hz	Detector Function	QP&AV
Environmental Conditions	21deg. C, 67% RH	Tested By	Vincent

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	0.38430 AV	-12.09	54.34	42.25	95.91	-53.66	100	142
2	1.15450 QP	-12.02	35.39	23.37	67.04	-43.67	100	127
3	3.53220 QP	-11.97	29.35	17.38	69.54	-52.16	100	143
4	8.30240 QP	-11.85	28.81	16.96	69.54	-52.58	100	143
5	12.44280 QP	-11.70	28.74	17.04	69.54	-52.50	100	288
6	17.35940 QP	-11.55	28.25	16.70	69.54	-52.84	100	142



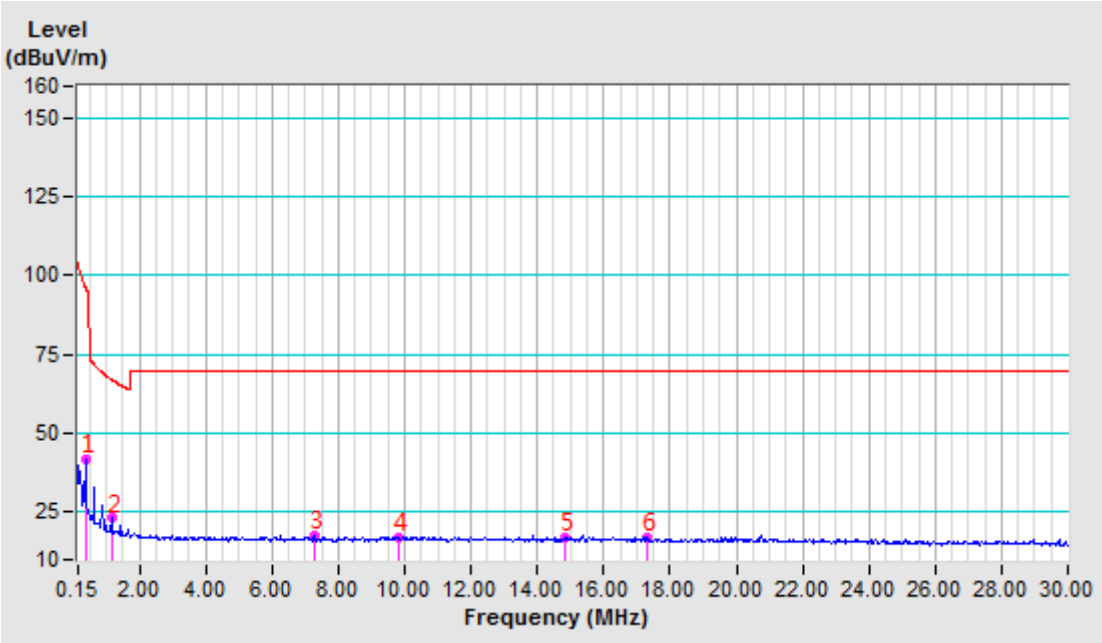
Test Mode	A	Frequency Range	9 kHz ~ 150 KHz
Test Voltage	AC 120V/60Hz	Detector Function	QP&AV
Environmental Conditions	21deg. C, 67% RH	Tested By	Vincent

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	0.02310 AV	-10.83	51.42	40.59	120.33	-79.74	100	360
2	0.03510 AV	-11.34	50.99	39.65	116.69	-77.04	100	62
3	0.04650 AV	-11.51	45.62	34.11	114.25	-80.14	100	186
4	0.07680 AV	-11.66	40.31	28.65	109.90	-81.25	100	298
5	0.09040 QP	-11.73	44.62	32.89	108.48	-75.59	100	186
6	0.11130 AV	-11.80	41.55	29.75	106.67	-76.92	100	178
7	0.12850 AV	-11.84	79.53	67.69	105.42	-37.73	100	158



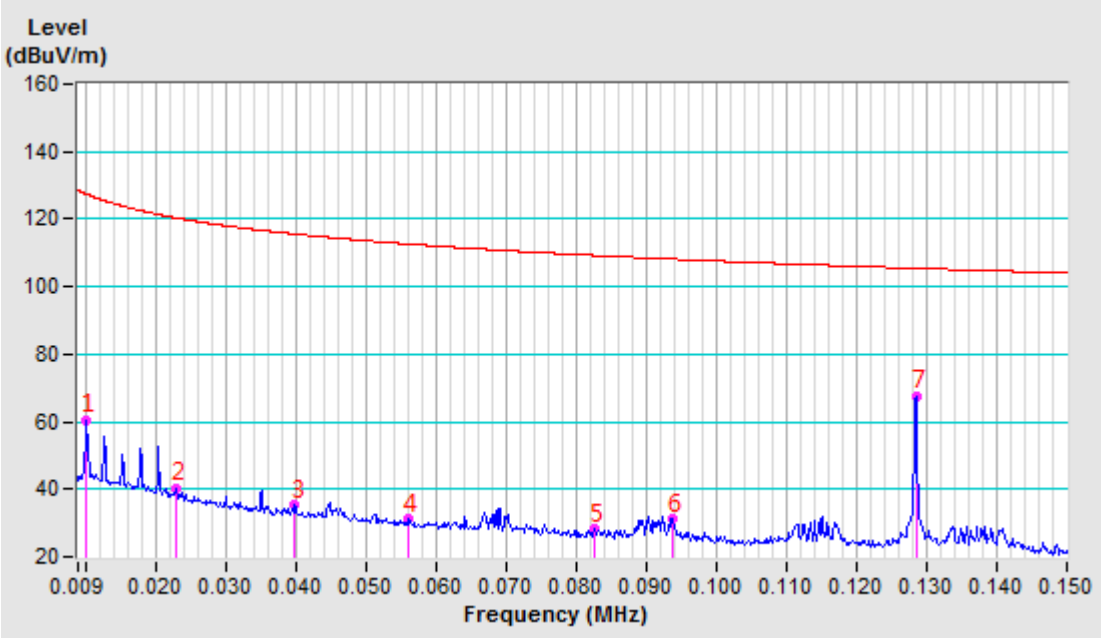
Test Mode	A	Frequency Range	150 kHz ~ 30 MHz
Test Voltage	AC 120V/60Hz	Detector Function	QP&AV
Environmental Conditions	21deg. C, 67% RH	Tested By	Vincent

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	0.38430 AV	-12.09	54.15	42.06	95.91	-53.85	100	158
2	1.15600 QP	-12.02	35.11	23.09	67.03	-43.94	100	116
3	7.25760 QP	-11.91	29.31	17.40	69.54	-52.14	100	33
4	9.82640 QP	-11.77	29.07	17.30	69.54	-52.24	100	114
5	14.84590 QP	-11.54	28.67	17.13	69.54	-52.41	100	151
6	17.29820 QP	-11.55	28.66	17.11	69.54	-52.43	100	0



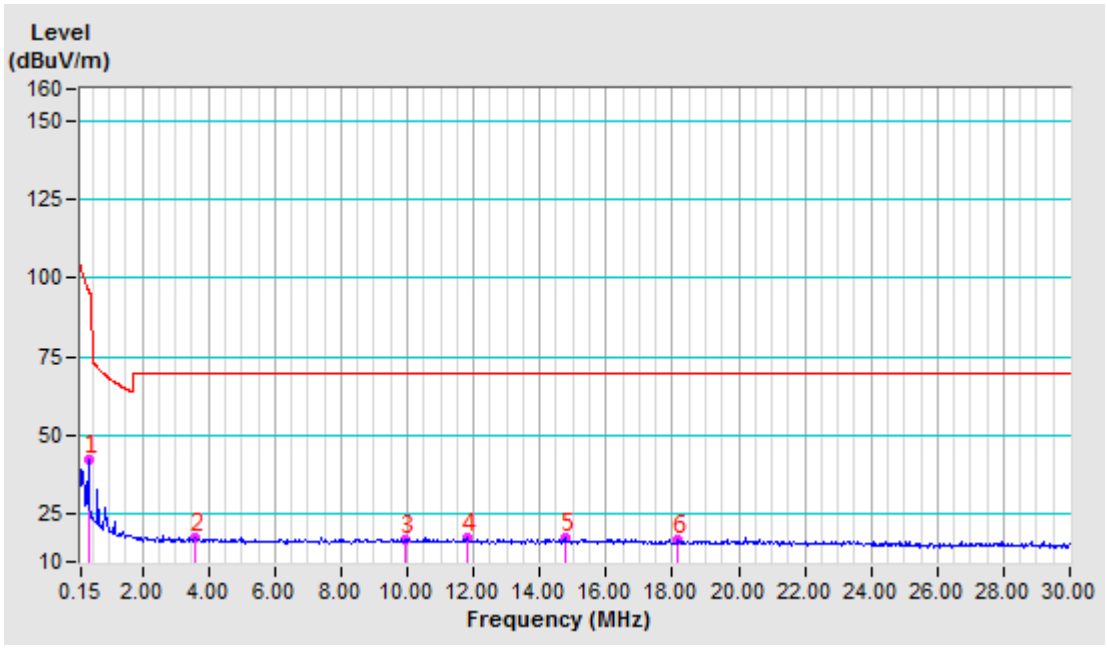
Test Mode	A	Frequency Range	9 kHz ~ 150 KHz
Test Voltage	AC 120V/60Hz	Detector Function	QP&AV
Environmental Conditions	21deg. C, 67% RH	Tested By	Vincent

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	0.01020 AV	-10.05	70.63	60.58	127.40	-66.82	100	153
2	0.02310 AV	-10.83	51.14	40.31	120.32	-80.01	100	169
3	0.04000 AV	-11.41	46.70	35.29	115.57	-80.28	100	34
4	0.05600 AV	-11.57	42.85	31.28	112.64	-81.36	100	273
5	0.08260 AV	-11.68	39.86	28.18	109.26	-81.08	100	360
6	0.09380 QP	-11.75	43.00	31.25	108.16	-76.91	100	163
7	0.12850 AV	-11.84	79.52	67.68	105.43	-37.75	100	163



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

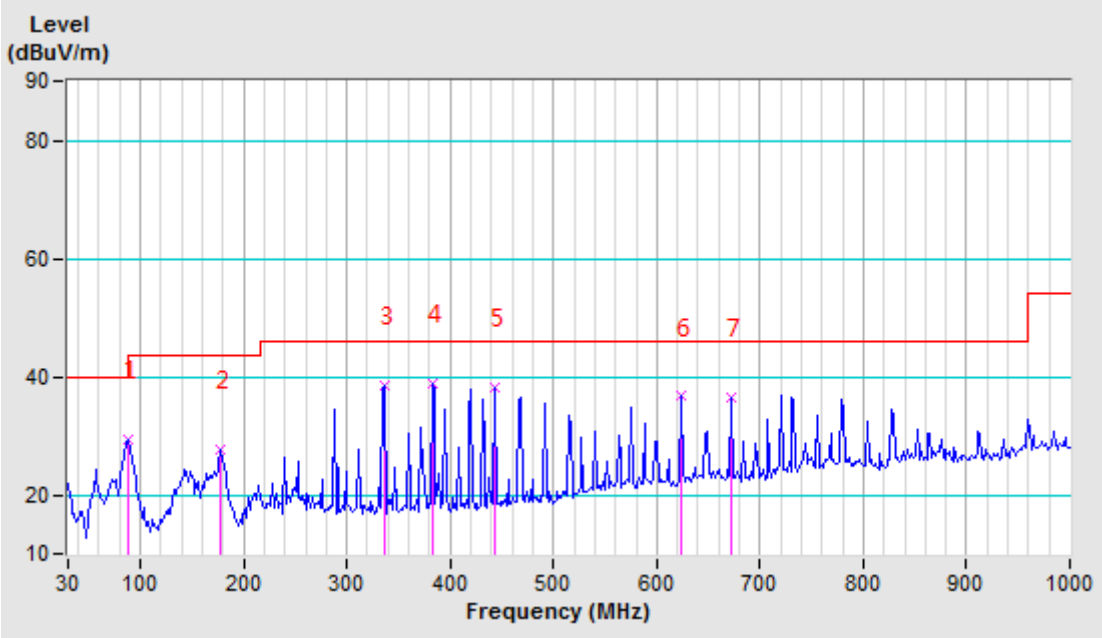
ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA GROUND-PARALLEL AT 3m								
No	Freq. (MHz)	Correction Factor (dB/m)	Raw Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
1	0.38430 AV	-12.09	54.64	42.55	95.91	-53.36	100	158
2	3.57990 QP	-11.97	29.71	17.74	69.54	-51.80	100	31
3	9.96670 QP	-11.75	28.69	16.94	69.54	-52.60	100	308
4	11.84130 QP	-11.75	29.31	17.56	69.54	-51.98	100	322
5	14.79660 QP	-11.54	29.02	17.48	69.54	-52.06	100	17
6	18.16540 QP	-11.53	28.30	16.77	69.54	-52.77	100	128



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	87.52	-21.14	50.47	29.33	40.00	-10.67	100	0
2	177.68	-18.81	46.42	27.61	43.50	-15.89	100	0
3	336.23	-13.29	51.79	38.50	46.00	-7.50	100	0
4	382.87	-11.89	50.72	38.83	46.00	-7.17	100	0
5	443.49	-10.80	48.96	38.16	46.00	-7.84	100	0
6	623.81	-6.55	43.19	36.64	46.00	-9.36	100	0
7	672.00	-5.78	42.32	36.54	46.00	-9.46	100	0

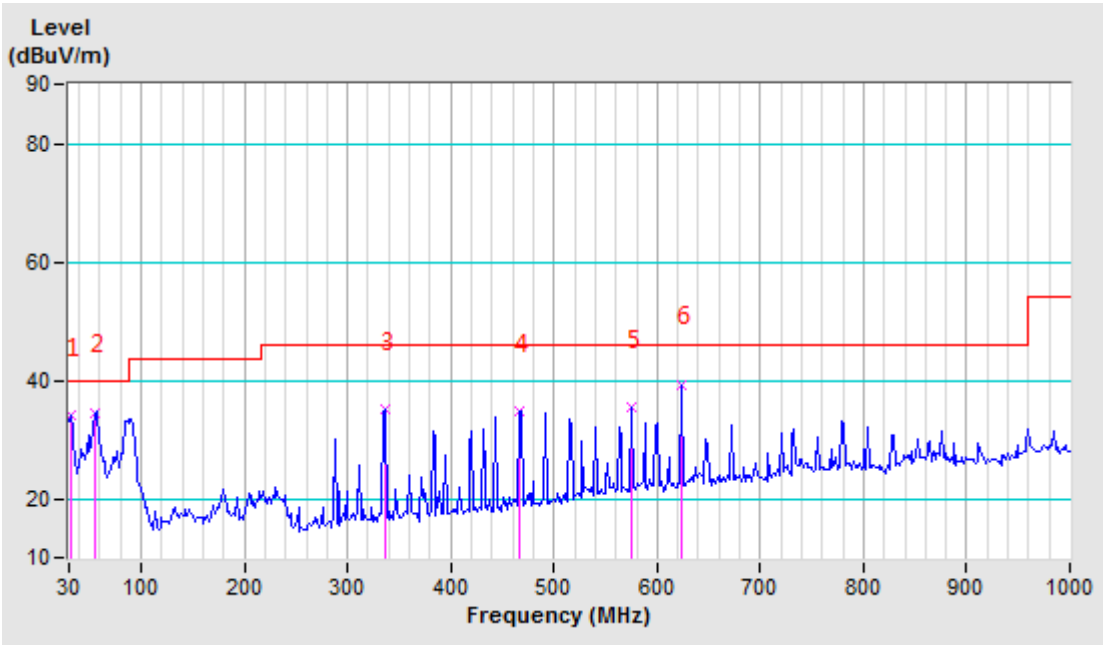
REMARKS: 1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
2. Negative sign (-) in the margin column signify levels below the limit.
3. Frequency range scanned: 30-1000MHz.
4. Only emissions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



Test Mode	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	31.55	-12.72	46.67	33.95	40.00	-6.05	200	0
2	54.87	-22.94	57.38	34.44	40.00	-5.56	200	0
3	336.23	-13.29	48.26	34.97	46.00	-11.03	200	0
4	466.81	-10.19	44.82	34.63	46.00	-11.37	200	0
5	575.62	-7.15	42.41	35.26	46.00	-10.74	200	0
6	623.81	-6.55	45.78	39.23	46.00	-6.77	200	0

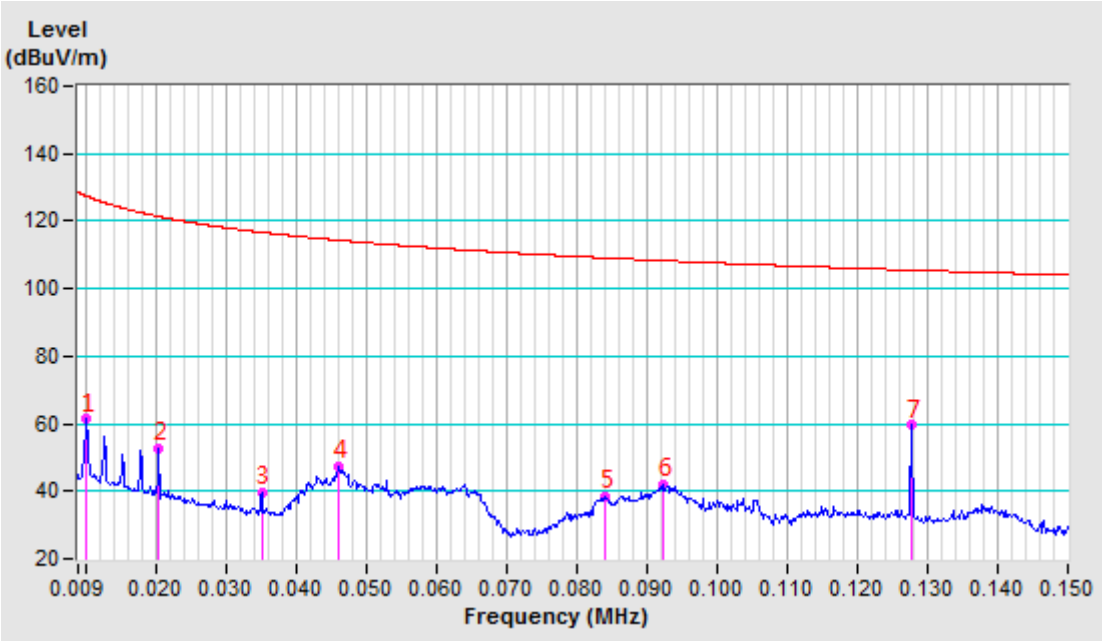
REMARKS: 1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
2. Negative sign (-) in the margin column signify levels below the limit.
3. Frequency range scanned: 30-1000MHz.
4. Only emissions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



Charging Mode

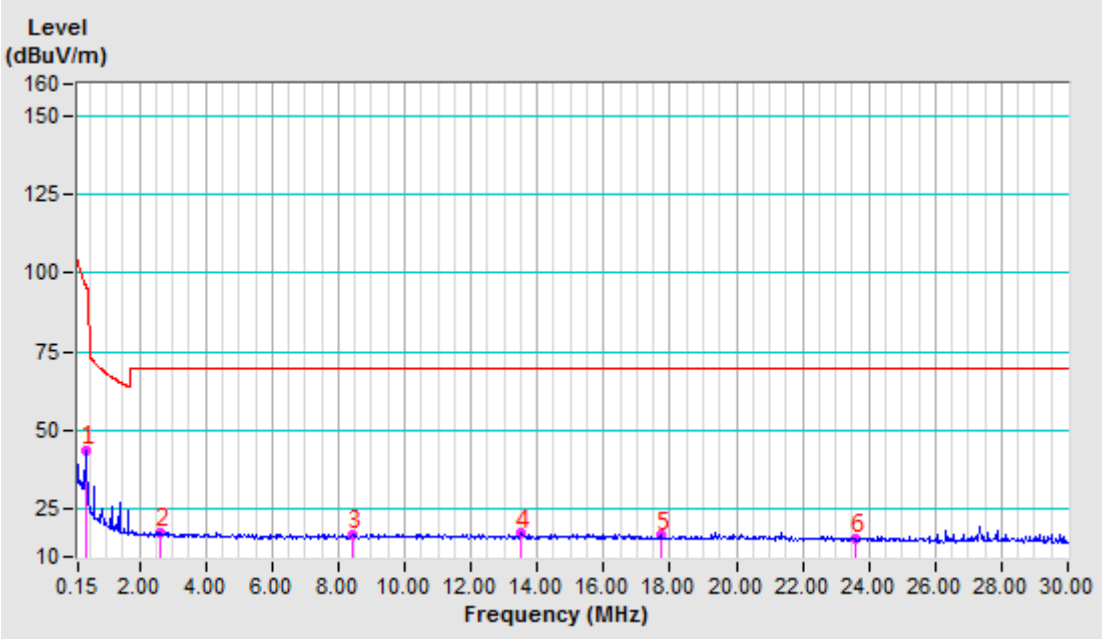
Test Mode	B	Frequency Range	9 kHz ~ 150 KHz
Test Voltage	AC 120V/60Hz	Detector Function	QP&AV
Environmental Conditions	21deg. C, 67% RH	Tested By	Vincent

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	0.01020 AV	-10.05	71.55	61.50	127.40	-65.90	100	111
2	0.02050 AV	-10.67	63.54	52.87	121.38	-68.51	100	88
3	0.03510 AV	-11.34	51.11	39.77	116.69	-76.92	100	53
4	0.04620 AV	-11.50	59.05	47.55	114.31	-66.76	100	183
5	0.08400 AV	-11.69	50.17	38.48	109.12	-70.64	100	164
6	0.09240 QP	-11.74	53.86	42.12	108.29	-66.17	100	183
7	0.12780 AV	-11.84	71.44	59.60	105.47	-45.87	100	217



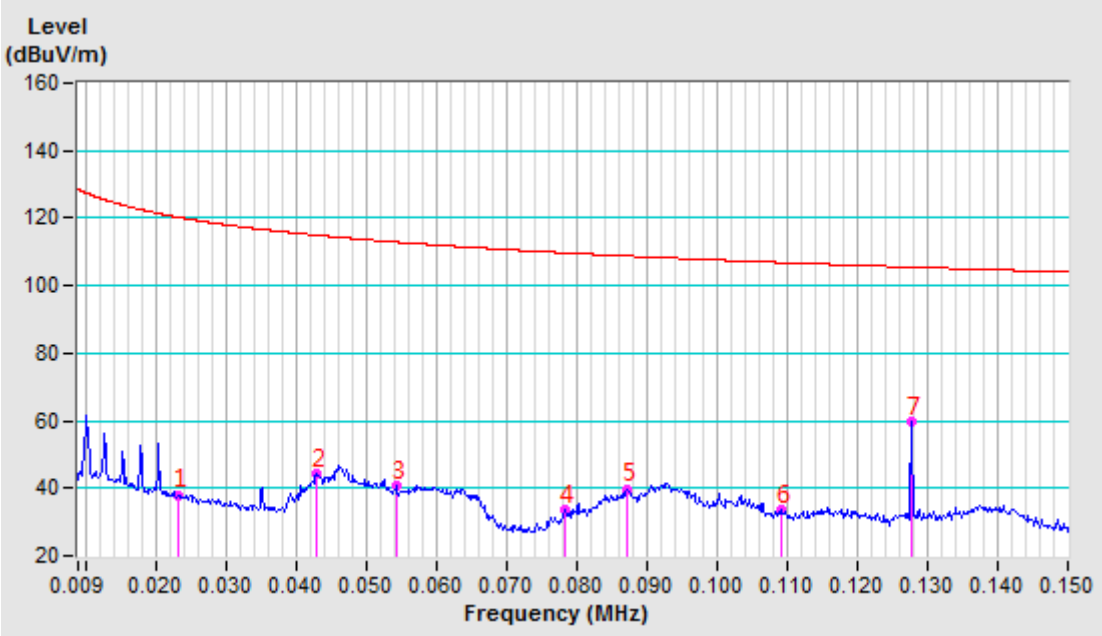
Test Mode	B	Frequency Range	150 kHz ~ 30 MHz
Test Voltage	AC 120V/60Hz	Detector Function	QP&AV
Environmental Conditions	21deg. C, 67% RH	Tested By	Vincent

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	-12.10	55.58	43.48	95.94	-52.46	100	182
2	2.61270 QP	-12.03	29.57	17.54	69.54	-52.00	100	200
3	8.41740 QP	-11.84	28.73	16.89	69.54	-52.65	100	317
4	13.51300 QP	-11.59	28.92	17.33	69.54	-52.21	100	182
5	17.70720 QP	-11.55	28.24	16.69	69.54	-52.85	100	149
6	23.61480 QP	-11.55	27.53	15.98	69.54	-53.56	100	229



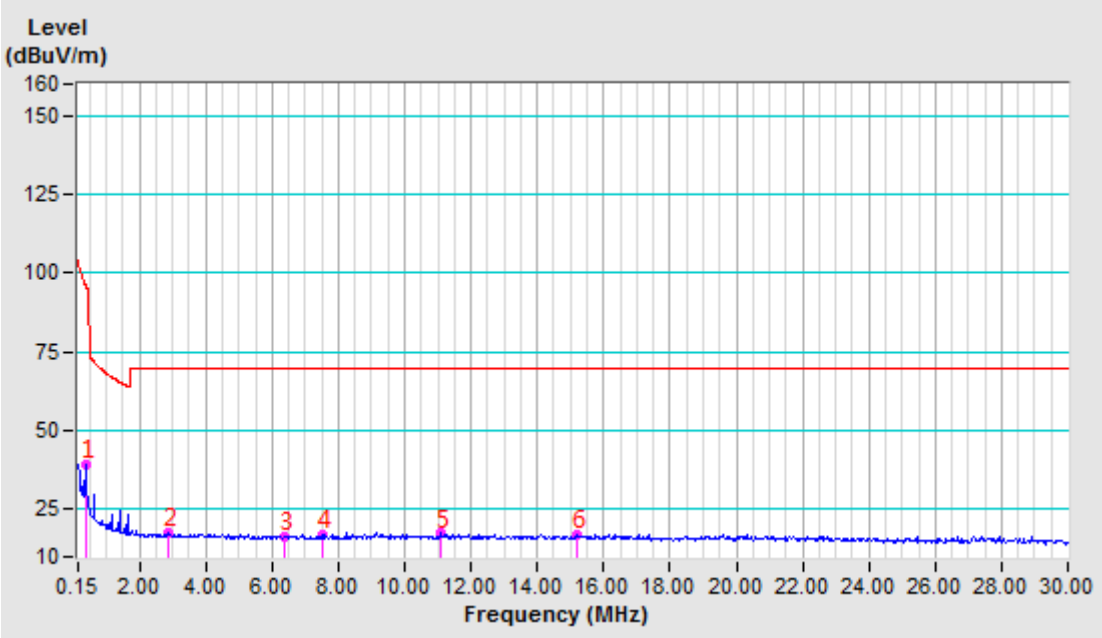
Test Mode	B	Frequency Range	9 kHz ~ 150 KHz
Test Voltage	AC 120V/60Hz	Detector Function	QP&AV
Environmental Conditions	21deg. C, 67% RH	Tested By	Vincent

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	0.02330 AV	-10.84	48.78	37.94	120.26	-82.32	100	253
2	0.04310 AV	-11.46	55.52	44.06	114.92	-70.86	100	177
3	0.05430 AV	-11.57	52.27	40.70	112.90	-72.20	100	354
4	0.07840 AV	-11.66	45.28	33.62	109.72	-76.10	100	181
5	0.08730 AV	-11.72	51.46	39.74	108.79	-69.05	100	177
6	0.10910 QP	-11.79	45.21	33.42	106.85	-73.43	100	352
7	0.12780 AV	-11.84	71.45	59.61	105.47	-45.86	100	214



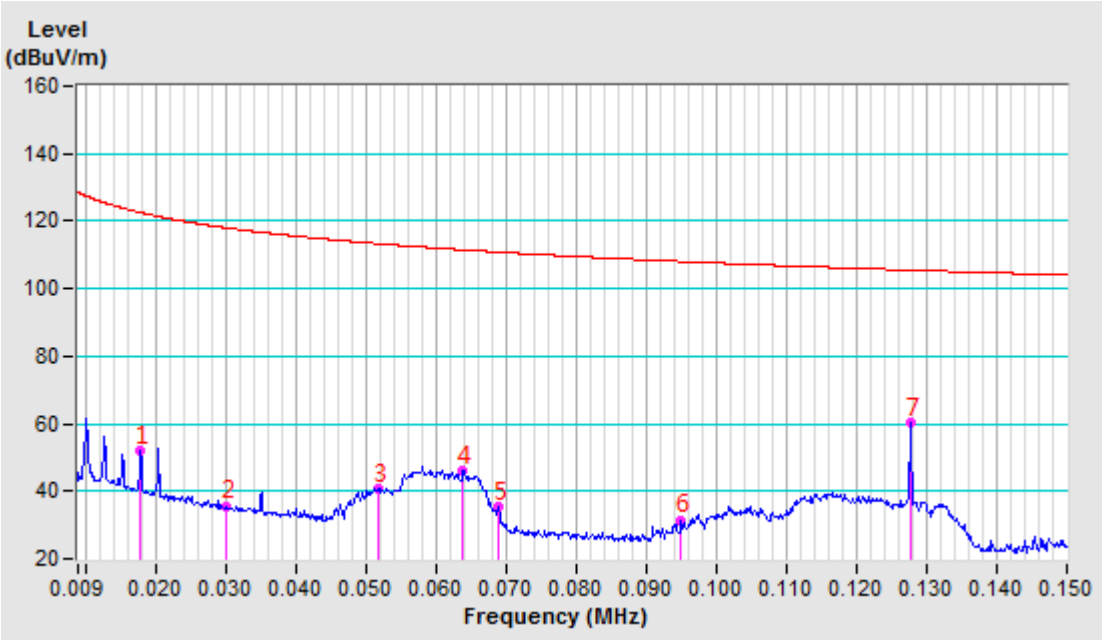
Test Mode	B	Frequency Range	150 kHz ~ 30 MHz
Test Voltage	AC 120V/60Hz	Detector Function	QP&AV
Environmental Conditions	21deg. C, 67% RH	Tested By	Vincent

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	0.38280 AV	-12.10	51.63	39.53	95.94	-56.41	100	0
2	2.89340 QP	-12.01	29.57	17.56	69.54	-51.98	100	70
3	6.35910 QP	-11.95	28.58	16.63	69.54	-52.91	100	28
4	7.49650 QP	-11.90	28.73	16.83	69.54	-52.71	100	86
5	11.09060 QP	-11.75	29.14	17.39	69.54	-52.15	100	64
6	15.17570 QP	-11.54	28.45	16.91	69.54	-52.63	100	88



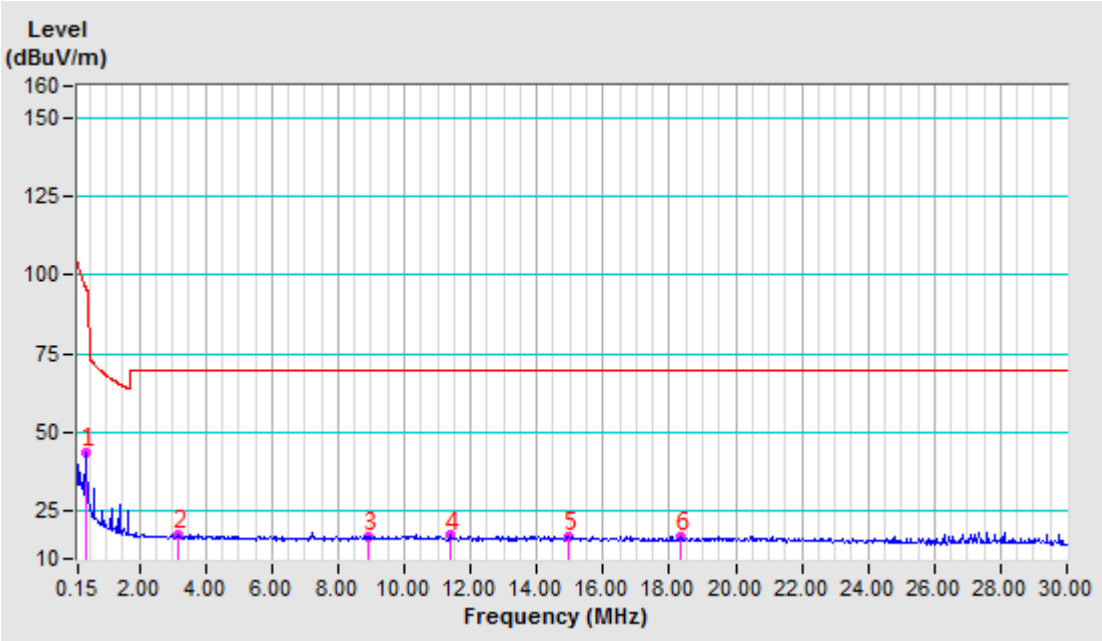
Test Mode	B	Frequency Range	9 kHz ~ 150 KHz
Test Voltage	AC 120V/60Hz	Detector Function	QP&AV
Environmental Conditions	21deg. C, 67% RH	Tested By	Vincent

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	0.01790 AV	-10.51	62.50	51.99	122.54	-70.55	100	321
2	0.03000 AV	-11.25	46.91	35.66	118.06	-82.40	100	112
3	0.05170 AV	-11.57	52.29	40.72	113.33	-72.61	100	360
4	0.06390 AV	-11.60	57.63	46.03	111.49	-65.46	100	173
5	0.06890 AV	-11.62	46.88	35.26	110.83	-75.57	100	174
6	0.09500 QP	-11.76	43.10	31.34	108.04	-76.70	100	360
7	0.12780 AV	-11.84	71.99	60.15	105.47	-45.32	100	206



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

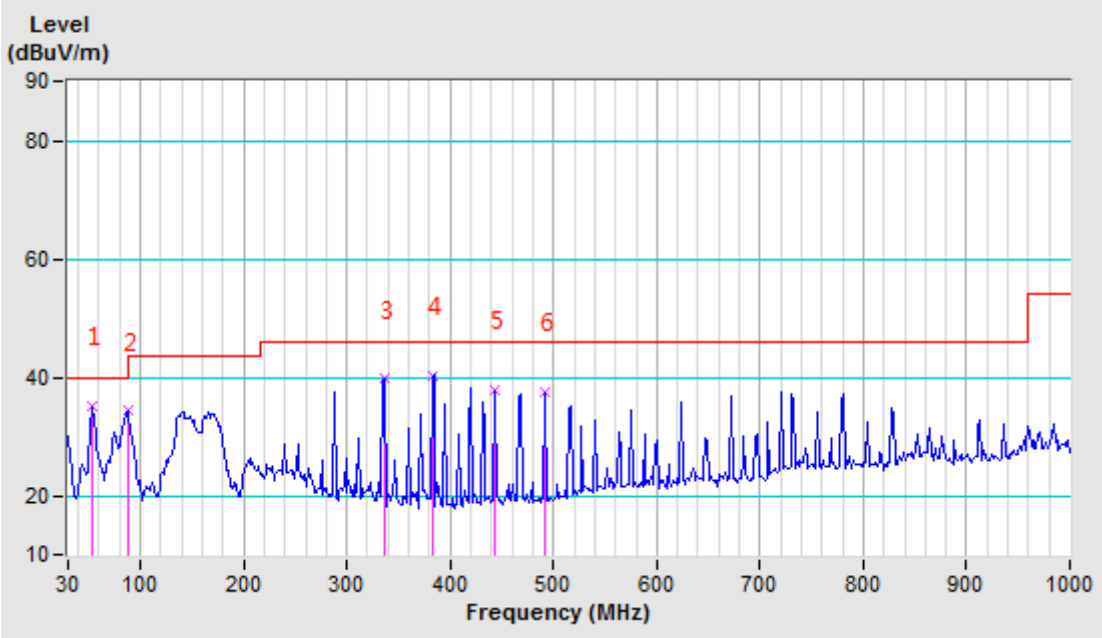
ANTENNA POLARITY & TEST DISTANCE: LOOP ANTENNA GROUND-PARALLEL AT 3m								
No	Freq. (MHz)	Correction Factor (dB/m)	Raw Value (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)
1	0.38280 AV	-12.10	55.69	43.59	95.94	-52.35	100	175
2	3.15600 QP	-11.99	29.55	17.56	69.54	-51.98	100	133
3	8.92190 QP	-11.81	28.95	17.14	69.54	-52.40	100	188
4	11.38760 QP	-11.75	29.13	17.38	69.54	-52.16	100	0
5	14.95630 QP	-11.54	28.49	16.95	69.54	-52.59	100	197
6	18.32060 QP	-11.52	28.73	17.21	69.54	-52.33	100	333



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	53.32	-22.34	57.35	35.01	40.00	-4.99	200	0
2	87.52	-21.14	55.39	34.25	40.00	-5.75	200	0
3	336.23	-13.29	53.00	39.71	46.00	-6.29	200	0
4	382.87	-11.89	52.19	40.30	46.00	-5.70	200	0
5	443.49	-10.80	48.73	37.93	46.00	-8.07	200	0
6	491.68	-9.69	47.29	37.60	46.00	-8.40	200	0

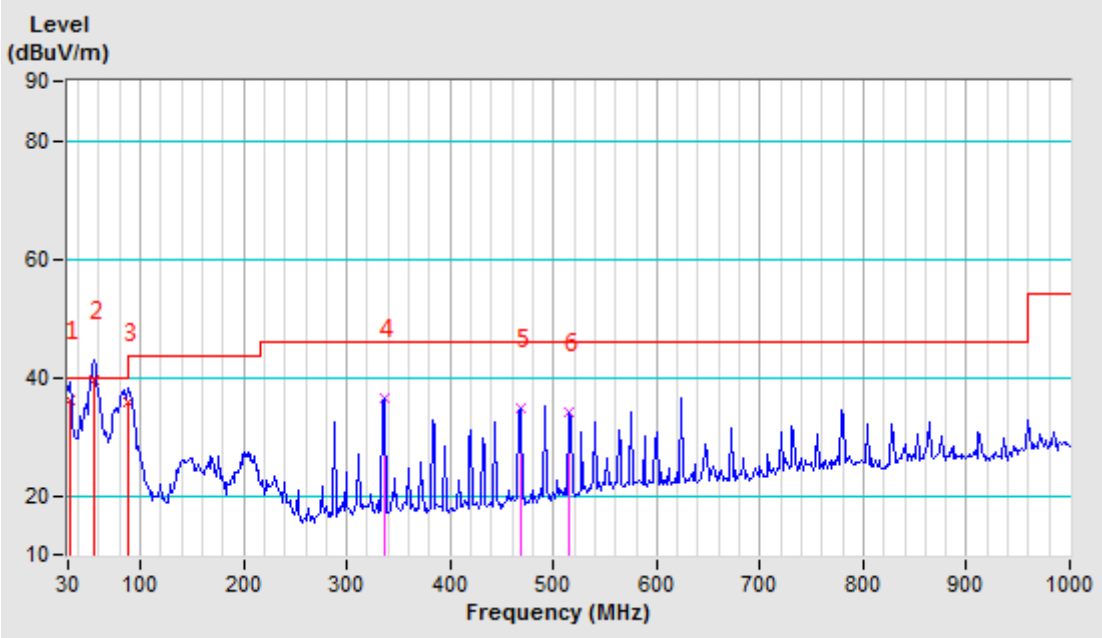
REMARKS: 1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
2. Negative sign (-) in the margin column signify levels below the limit.
3. Frequency range scanned: 30-1000MHz.
4. Only emissions 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	31.55	-12.72	48.82	36.10	40.00	-3.90	100	0
2	55.84	-23.35	62.95	39.60	40.00	-0.40	100	0
3	87.52	-21.14	56.94	35.80	40.00	-4.20	100	0
4	336.23	-13.29	49.78	36.49	46.00	-9.51	100	45
5	468.37	-10.17	44.95	34.78	46.00	-11.22	100	37
6	515.00	-9.15	43.28	34.13	46.00	-11.87	100	18

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.

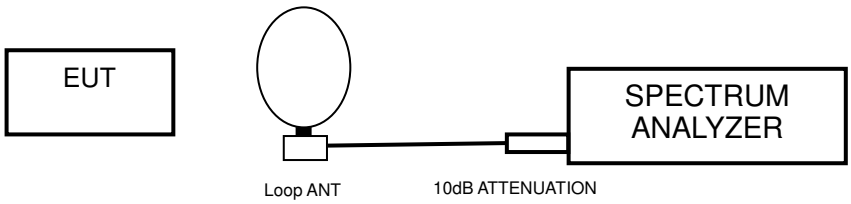
c. Measure the frequency difference of two frequencies that were attenuated 20dB from the reference level. Record the frequency difference as the emission bandwidth.

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

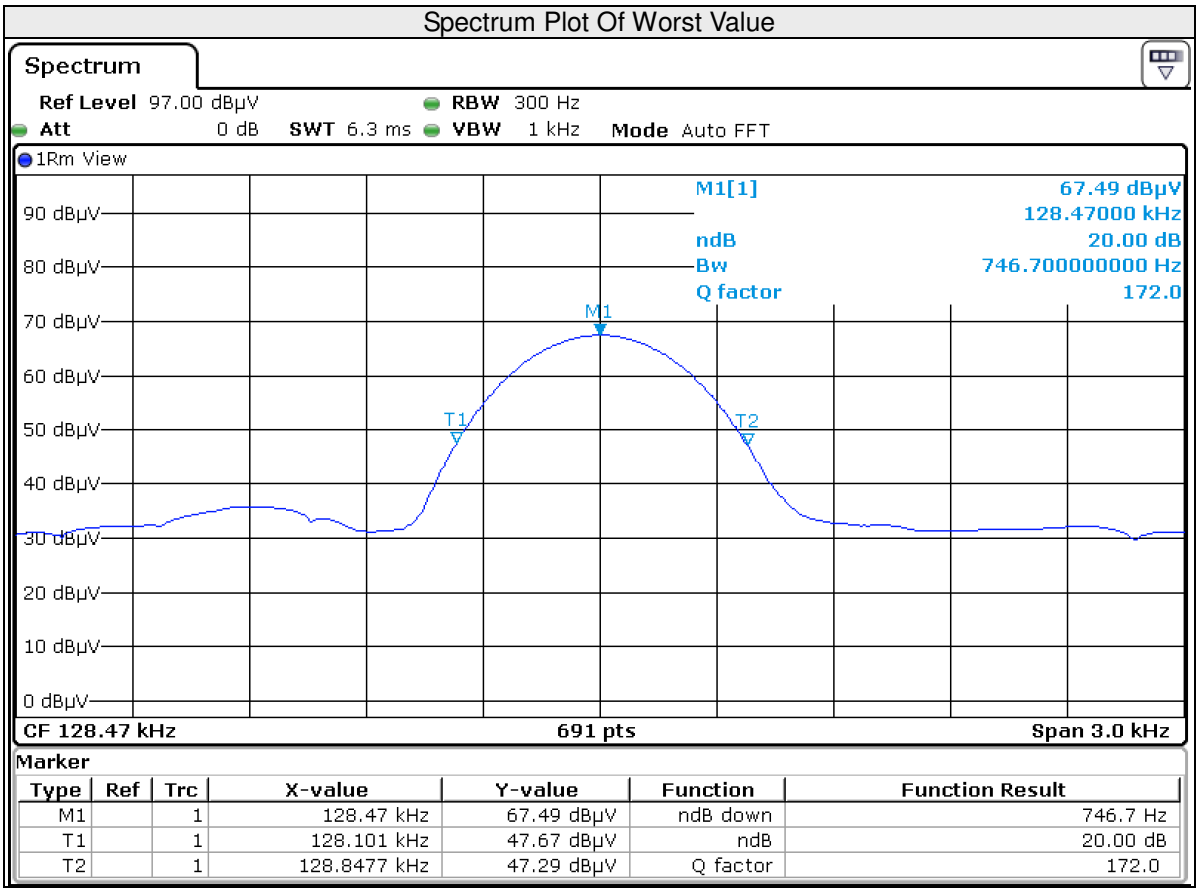
a. Turn on the EUT.
b. The EUT tested in charging mode and standby mode respectively.

4.3.7 TEST RESULTS

Test Mode	Frequency (kHz)	20dB Bandwidth (Hz)
A	128.47	746.70

Test Plot:

Spectrum Plot Of Worst Value



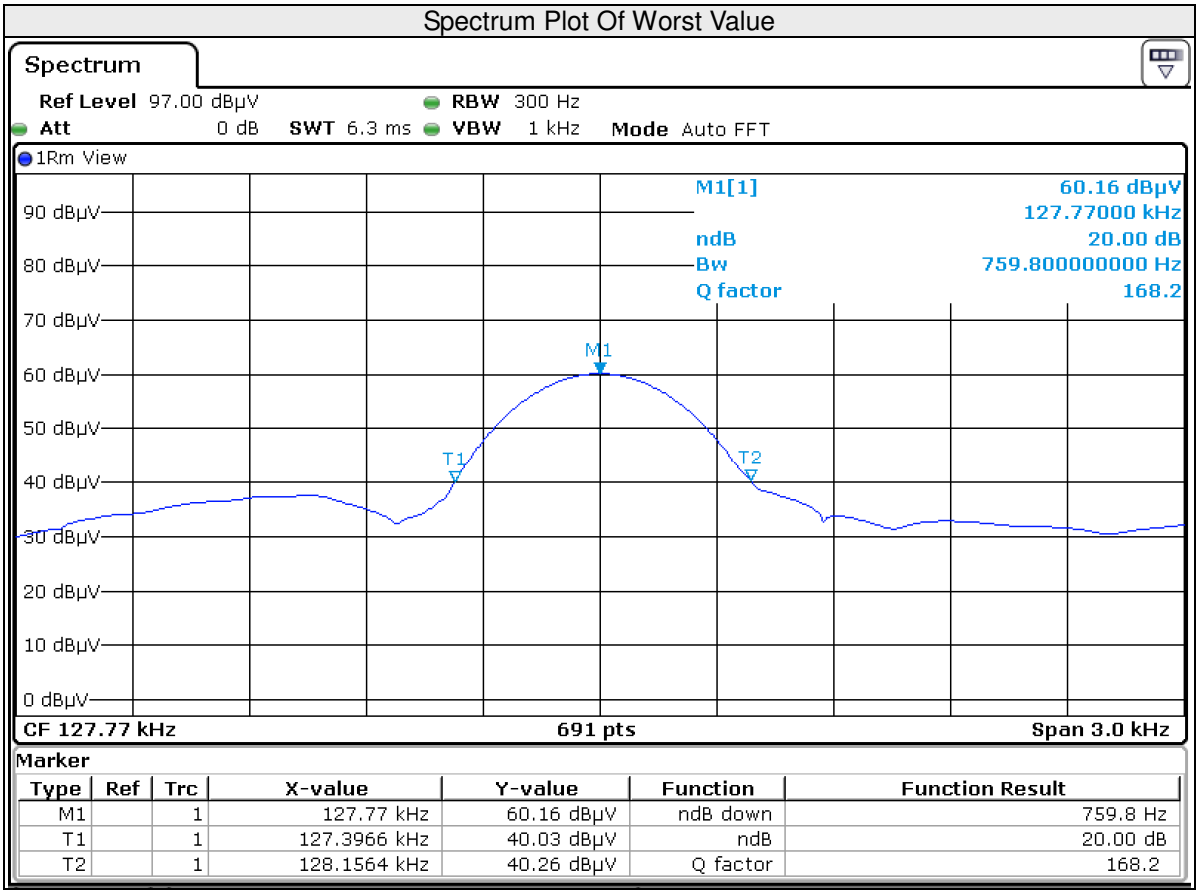
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	128.47 kHz	67.49 dBµV	ndB down	746.7 Hz
T1		1	128.101 kHz	47.67 dBµV	ndB	20.00 dB
T2		1	128.8477 kHz	47.29 dBµV	Q factor	172.0

Test Mode	Frequency (kHz)	20dB Bandwidth (Hz)
B	127.77	759.80

Test Plot:

Spectrum Plot Of Worst Value



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	127.77 kHz	60.16 dBµV	ndB down	759.8 Hz
T1		1	127.3966 kHz	40.03 dBµV	ndB	20.00 dB
T2		1	128.1564 kHz	40.26 dBµV	Q factor	168.2

5 PHOTOGRAPHS OF THE TEST CONFIGURATION

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

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---