TEST REPORT

Applicant	Shenzhen Orderly Electronics Co., Ltd
Address	4F, Building7, Asian Industrial Park, Bantian Street, Longgang District, Shenzhen, China

Manufacturer or Supplier	Shenzhen Orderly Electronics Co., Ltd
Address	4F, Building7, Asian Industrial Park, Bantian Street, Longgang District, Shenzhen, China
Product	Wireless Charging Pad
Brand Name	MAGNAVOX, CRAIG
Model	MCH4016
Additional Model & Model Difference	CCH4016; see item 2.1
Date of tests	Jul. 22, 2019 ~ Aug. 12, 2019

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 Supervisor/ EMC Department
	 Date: Aug. 20, 2019

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF190722N052	Original release	Aug. 20, 2019

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	2.70dB
Radiated emissions	9KHz ~ 30MHz	2.16dB
	30MHz ~ 1GMHz	3.76dB

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	Wireless Charging Pad
MODEL NO.	MCH4016
ADDITIONAL MODEL	CCH4016
FCC ID	2AD5YWMCH4016
POWER SUPPLY	Input: DC 5V 2A Output: DC 5V 1A
MODULATION TYPE	FSK
OPERATING FREQUENCY	110KHz ~ 205KHz
ANTENNA TYPE	Coil Antenna
CABLE SUPPLIED	USB Line: Unshielded, Un-detachable,100cm

NOTE:

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.: 190722N052) for detailed product photo.
4. Additional model CCH4016 is identical with the test model MCH4016 except the model number and trade name for trading purpose.

3.2 DESCRIPTION OF TEST MODES

The EUT was tested under the following modes the final worst mode was marked in boldface and recorded in this report.

TEST FREQUENCY	TEST MODE	TEST VOLTAGE
114.4082KHz	**wireless charging + Transmiting**	**DC 5V from Adapter**
173.2398KHz	Standby	

3.3 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
ANSI C63.10-2013

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

3.4 DESCRIPTION OF SUPPORT UNITS

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.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Adapter	Intertek	F8J24911	N/A	N/A
2	Adapter	N/A	5V/2A	N/A	N/A
3	Dummy load	N/A	N/A	N/A	N/A
4	Mobile Phone	APPLE	N/A	N/A	N/A

NO.	DESCRIPTION OF THE ABOVE SUPPORT UNITS
1~4	N/A

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.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESR7	101494	Mar. 21,19	Mar. 20,20
Artificial Mains Network	Rohde&Schwarz	ENV216	101173	Mar. 03,19	Mar. 02,20
Artificial Mains Network	Rohde&Schwarz	ESH3-Z5	100317	Apr. 11,19	Apr. 10,20
Voltage probe	SCHWARZBECK	TK 9421	TK 9421-176	Jan. 17,19	Jan. 16,20
Test software	ADT	ADT_Cond _V7.3.7	N/A	N/A	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 shielding room 553.

4.1.3 TEST PROCEDURE

The basic test procedure was in accordance with ANSI C63.4:2014 (section 7).

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.

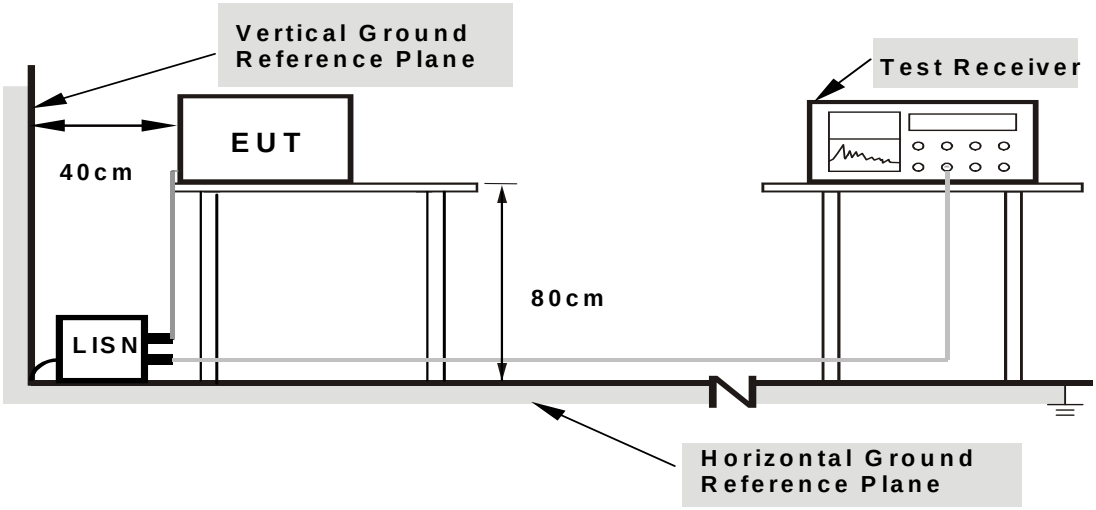
NOTE:

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. Turned on the power of all equipment.

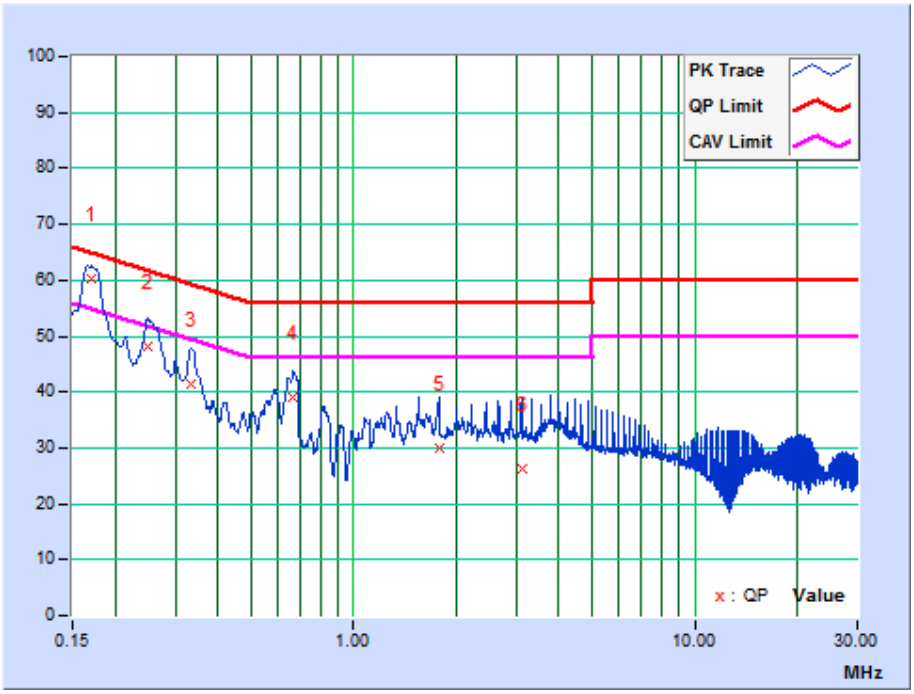
b. EUT was operated according to the type description in manufacturer's specifications or the User's Manual.

4.1.7 TEST RESULTS

TEST MODE	See section 3.2	**6DB BANDWIDTH**	9 kHz
TEST VOLTAGE	See section 3.2	**PHASE**	Line (L)
ENVIRONMENTAL CONDITIONS	25deg.C, 55% RH	**TESTED BY**	Dragon

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	**0.17011**	**10.15**	**50.21**	**34.77**	**60.36**	**44.92**	**64.96**	**54.96**	**-4.59**	**-10.03**
2	0.24945	10.16	38.00	22.83	48.16	32.99	61.78	51.78	-13.62	-18.79
3	0.33264	10.17	31.08	19.30	41.25	29.47	59.39	49.39	-18.14	-19.92
4	0.66750	10.22	28.71	21.21	38.93	31.43	56.00	46.00	-17.07	-14.57
5	1.77675	10.20	19.80	9.65	30.00	19.85	56.00	46.00	-26.00	-26.15
6	3.10875	10.18	16.00	8.77	26.18	18.95	56.00	46.00	-29.82	-27.05

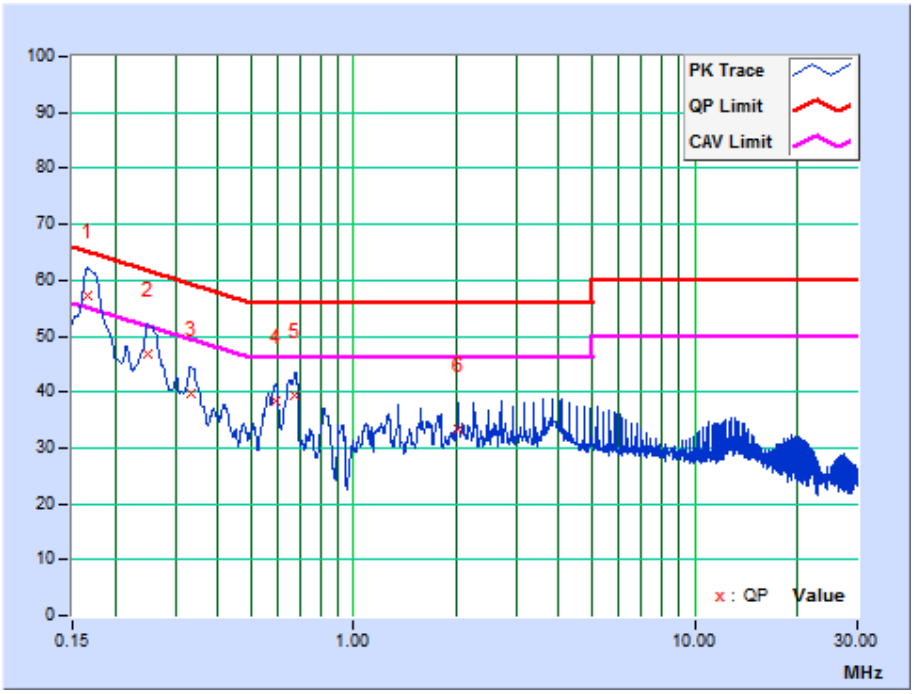
REMARKS: The emission levels of other frequencies were very low against the limit.



TEST MODE	See section 3.2	**6DB BANDWIDTH**	9 kHz
TEST VOLTAGE	See section 3.2	**PHASE**	Neutral (N)
ENVIRONMENTAL CONDITIONS	25deg.C, 55% RH	**TESTED BY**	Dragon

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	0.16567	9.95	47.45	30.06	57.40	40.01	65.17	55.17	-7.78	-15.17
2	0.24814	9.95	36.84	20.63	46.79	30.58	61.82	51.82	-15.03	-21.24
3	0.33352	9.97	29.86	18.13	39.83	28.10	59.36	49.36	-19.54	-21.27
4	0.59150	10.00	28.39	15.27	38.39	25.27	56.00	46.00	-17.61	-20.73
5	0.67319	10.02	29.46	19.79	39.48	29.81	56.00	46.00	-16.52	-16.19
6	2.02650	9.98	23.35	20.98	33.33	30.96	56.00	46.00	-22.67	-15.04

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)

   Example:

   13.56MHz = 15848uV/m 30m
   = 84dBuV/m 30m
   = $84+20\log(30/3)^2$ 3m
   = 124dBuV/m

4.2.2 TEST INSTRUMENTS

FREQUENCY 9KHz-30MHz

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESR7	101564	Jan. 18,19	Jan. 17,20
Active Loop Antenna	SCHWARZBECK	FMZB 1519B	1519B-045	May 04,19	May 03,20
Amplifier	Burgeon	BPA-530	100210	Apr. 18,19	Apr. 18,20
Test Software	ADT	ADT_Radiated_V8.7.07	N/A	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.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESU40	100449	Mar. 21,19	Mar. 20,20
Bilog Antenna	Teseq	CBL 6111D	30643	Aug.11,19	Aug. 10,20
Amplifier	Burgeon	BPA-530	100220	Apr. 18,19	Apr. 18,20
3m Semi-anechoic Chamber	ETS-LINDGREN	9m*6m*6m	NSEMC003	Feb. 10,19	Feb. 09,20
Test software	ADT	ADT_Radiated_V7.6.15.9.2	N/A	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 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 quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
f. For below 30MHz, a loop antenna with its vertical plane is place 3m from the EUT and rotated about its vertical axis for maximum response at each azimuth about the EUT. And the centre of the loop shall be 1m above the ground.

<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.

NOTE:

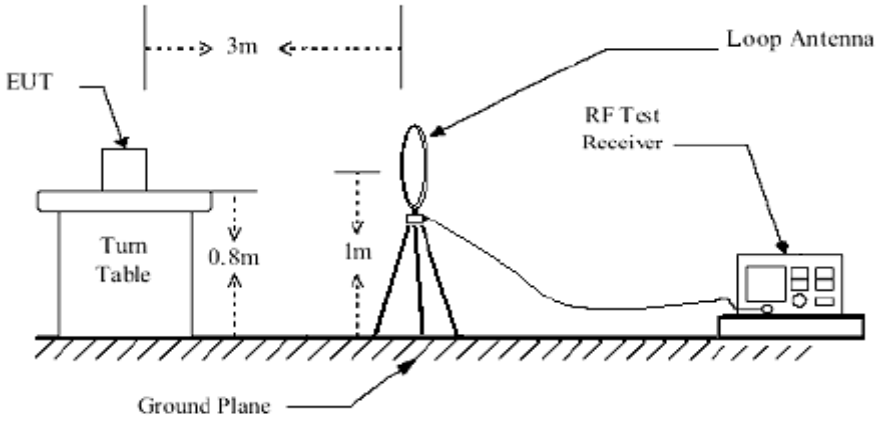
1. The resolution bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
3. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
4. Margin value = Emission level –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

4.2.4 DEVIATION FROM TEST STANDARD

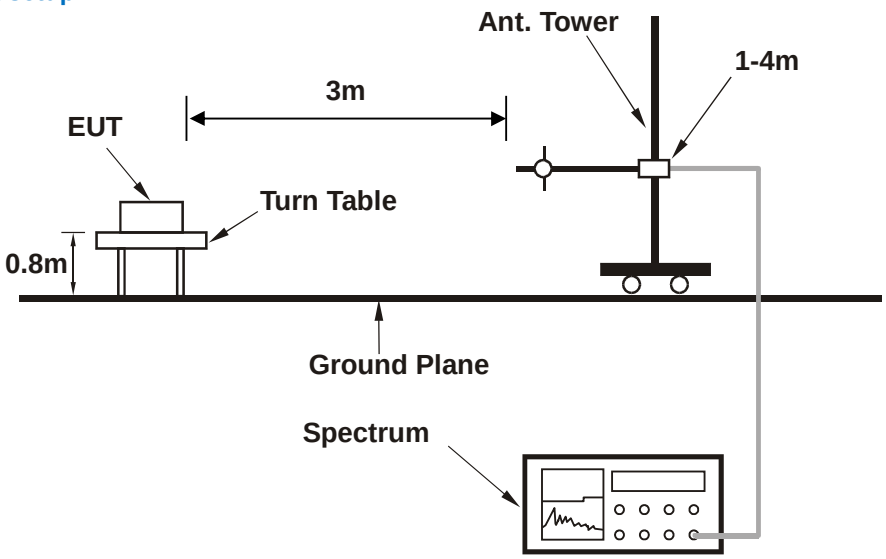
No deviation.

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 power supply of the EUT.

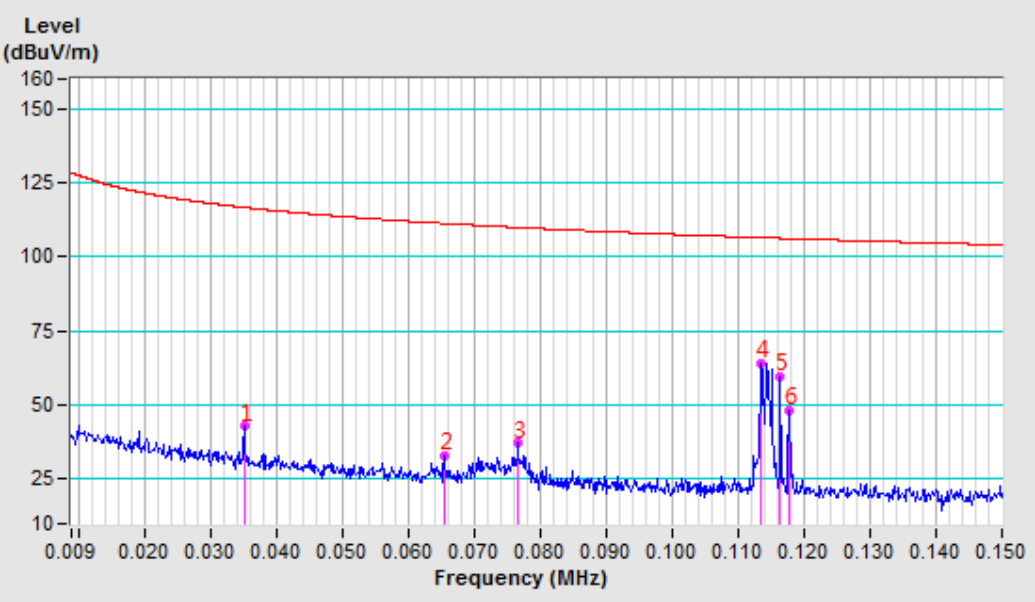
b. EUT was operated according to the type description in manufacturer's specifications or the User's Manual.

4.2.7 TEST RESULTS

TEST MODE	See section 3.2	FREQUENCY RANGE	9 -150KHz
TEST VOLTAGE	See section 3.2	DETECTOR FUNCTION & RESOLUTION BANDWIDTH	Quasi-Peak, 200Hz
ENVIRONMENTAL CONDITIONS	25deg. C, 55% RH	**TESTED BY**: Ming Bai	

ANTENNA POLARITY & TEST DISTANCE: 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	0.03520	-11.72	54.49	42.77	116.67	-73.90	100	7
2	0.06550	-11.75	44.44	32.69	111.28	-78.59	100	227
3	0.07660	-11.71	48.75	37.04	109.92	-72.88	100	136
4	0.11350	-11.56	75.79	64.23	106.51	-42.28	100	360
5	0.11640	-11.54	70.99	59.45	106.28	-46.83	100	0
6	0.11770	-11.54	59.98	48.44	106.18	-57.74	100	0

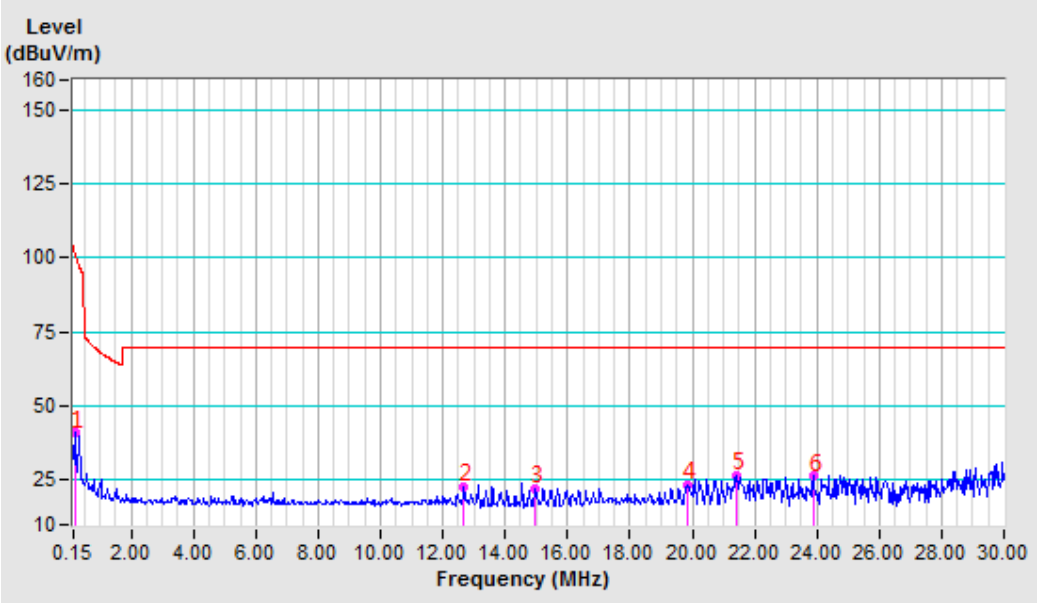
REMARKS: 1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
2. Negative sign (-) in the margin column signify levels below the limit.
3. Frequency range scanned: 0.009-0.15MHz.
4. Only emissions significantly above equipment noise floor are reported.



TEST MODE	See section 3.2	**FREQUENCY RANGE**	150KHz-30MHz
TEST VOLTAGE	See section 3.2	**DETECTOR FUNCTION & RESOLUTION BANDWIDTH**	Quasi-Peak, 200Hz
ENVIRONMENTAL CONDITIONS	25deg. C, 55% RH	**TESTED BY**: Ming Bai	

ANTENNA POLARITY & TEST DISTANCE: 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	0.22460	-11.38	52.24	40.86	100.57	-59.71	100	179
2	12.67580	-10.76	33.63	22.87	69.54	-46.67	100	241
3	14.97050	-10.86	32.91	22.05	69.54	-47.49	100	339
4	19.87340	-10.05	33.49	23.44	69.54	-46.10	100	216
5	21.43680	-10.08	36.44	26.36	69.54	-43.18	100	316
6	23.90310	-10.16	36.43	26.27	69.54	-43.27	100	360

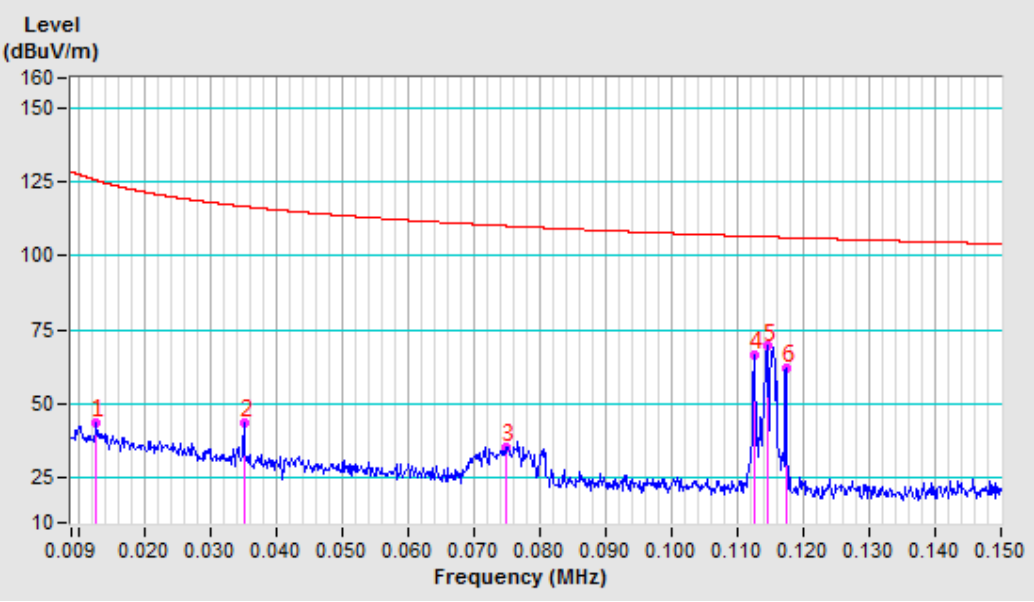
REMARKS: 1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
2. Negative sign (-) in the margin column signify levels below the limit.
3. Frequency range scanned: 0.15-30MHz.
4. Only emissions significantly above equipment noise floor are reported.



TEST MODE	See section 3.2	**FREQUENCY RANGE**	9 -150KHz
TEST VOLTAGE	See section 3.2	**DETECTOR FUNCTION & RESOLUTION BANDWIDTH**	Quasi-Peak, 200Hz
ENVIRONMENTAL CONDITIONS	25deg. C, 55% RH	**TESTED BY**: Ming Bai	

ANTENNA POLARITY & TEST DISTANCE: PERPENDICYLARL 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	-11.35	55.05	43.70	125.46	-81.76	100	188
2	0.03520	-11.72	55.18	43.46	116.67	-73.21	100	360
3	0.07480	-11.71	47.29	35.58	110.12	-74.54	100	245
4	0.11250	-11.56	78.06	66.50	106.58	-40.08	100	218
5	**0.11450**	**-11.55**	**81.06**	**69.51**	**106.43**	**-36.92**	**100**	**316**
6	0.11750	-11.54	73.66	62.12	106.20	-44.08	100	115

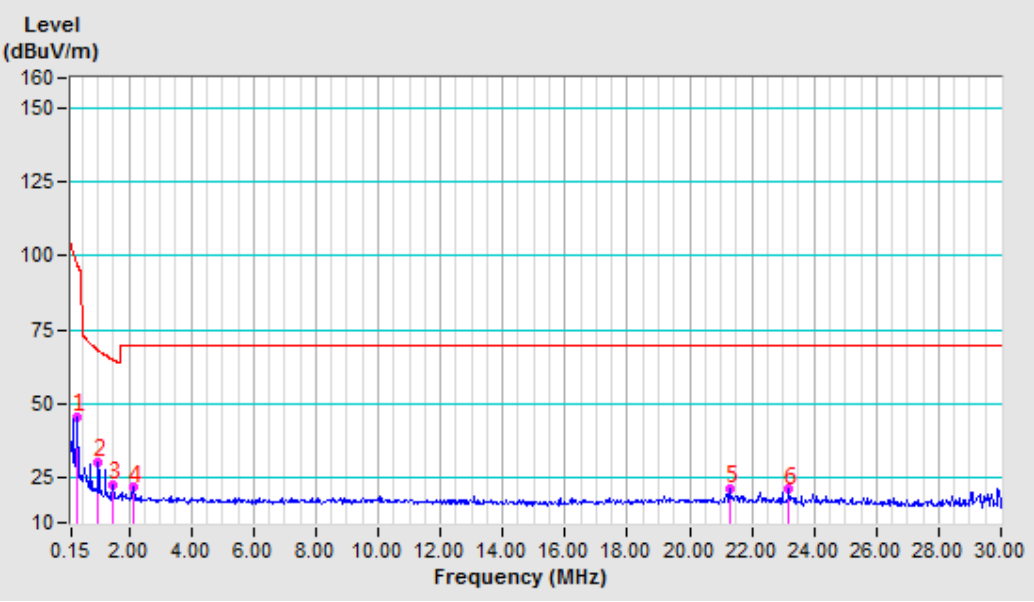
REMARKS: 1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
2. Negative sign (-) in the margin column signify levels below the limit.
3. Frequency range scanned: 0.009-0.15MHz.
4. Only emissions significantly above equipment noise floor are reported.



TEST MODE	See section 3.2	**FREQUENCY RANGE**	150KHz-30MHz
TEST VOLTAGE	See section 3.2	**DETECTOR FUNCTION & RESOLUTION BANDWIDTH**	Quasi-Peak, 200Hz
ENVIRONMENTAL CONDITIONS	25deg. C, 55% RH	**TESTED BY**: Ming Bai	

ANTENNA POLARITY & TEST DISTANCE: PERPENDICYLARL 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	0.33660	-11.42	56.98	45.56	97.06	-51.50	100	307
2	1.00820	-11.03	41.30	30.27	68.11	-37.84	100	310
3	1.46340	-11.05	33.59	22.54	65.17	-42.63	100	311
4	2.15000	-11.04	32.82	21.78	69.54	-47.76	100	314
5	21.29130	-10.07	31.32	21.25	69.54	-48.29	100	63
6	23.17930	-10.14	31.34	21.20	69.54	-48.34	100	70

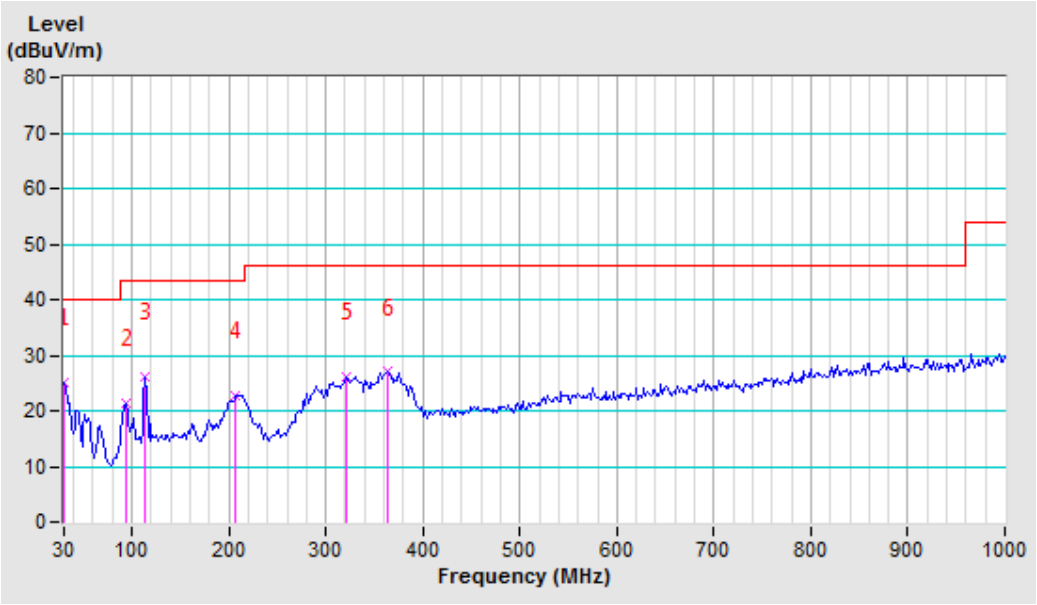
REMARKS: 1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
2. Negative sign (-) in the margin column signify levels below the limit.
3. Frequency range scanned: 0.15-30MHz
4. Only emissions significantly above equipment noise floor are reported.



TEST MODE	See section 3.2	FREQUENCY RANGE	30-1000MHz
TEST VOLTAGE	See section 3.2	DETECTOR FUNCTION & RESOLUTION BANDWIDTH	Quasi-Peak, 120kHz
ENVIRONMENTAL CONDITIONS	22deg. C, 55% RH	TESTED BY: Ming Bai	

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	30.00	-10.10	35.28	25.18	40.00	-14.82	200	0
2	93.73	-18.92	40.38	21.46	43.50	-22.04	200	0
3	113.94	-16.95	43.10	26.15	43.50	-17.35	200	0
4	207.21	-17.76	40.46	22.70	43.50	-20.80	200	0
5	320.69	-11.73	37.81	26.08	46.00	-19.92	200	0
6	364.21	-10.29	37.26	26.97	46.00	-19.03	200	0

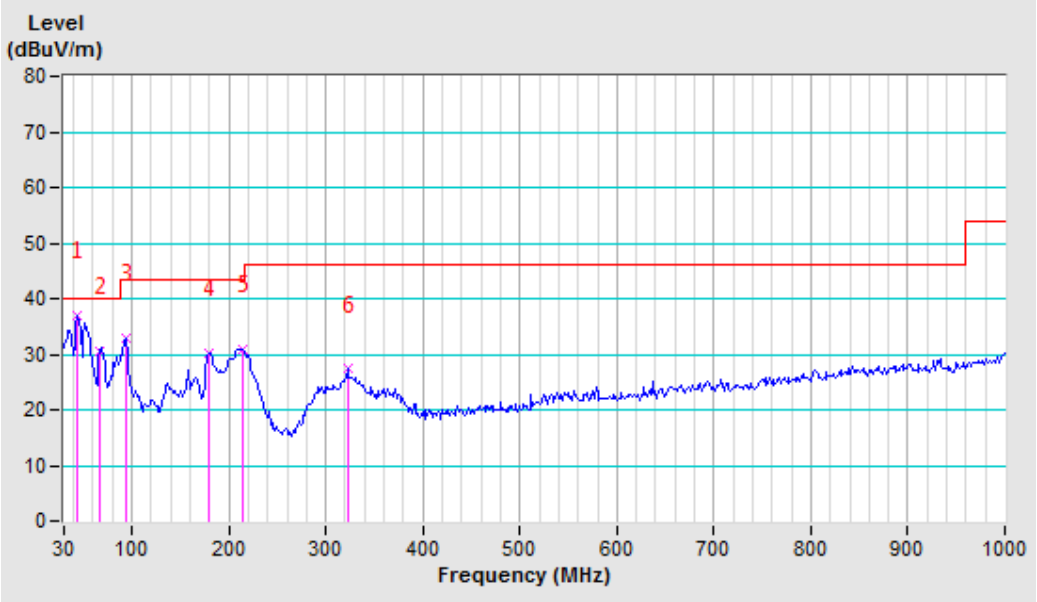
REMARKS:
1. Peak detector quick scan is showed on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
2. Negative sign (-) in the margin column signify levels below the limit.
3. Frequency range scanned: 30MHz to 1000MHz.
4. Only emissions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



TEST MODE	See section 3.2	**FREQUENCY RANGE**	30-1000MHz
TEST VOLTAGE	See section 3.2	**DETECTOR FUNCTION & RESOLUTION BANDWIDTH**	Quasi-Peak, 120kHz
ENVIRONMENTAL CONDITIONS	22deg. C, 55% RH	**TESTED BY**: Luke	

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**	**-17.74**	**54.62**	**36.88**	**40.00**	**-3.12**	**100**	**0**
2	67.31	-23.06	53.51	30.45	40.00	-9.55	100	0
3	93.73	-18.92	51.80	32.88	43.50	-10.62	100	0
4	179.23	-17.67	47.78	30.11	43.50	-13.39	100	0
5	213.43	-17.53	48.55	31.02	43.50	-12.48	100	0
6	322.24	-11.68	38.99	27.31	46.00	-18.69	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: 30MHz to 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.	Last Cal.	Next Cal.
Power Sensor	Keysight	U2021XA	MY55060016	Jun. 13,19	Jun. 12,20
Power Sensor	Keysight	U2021XA	MY55060018	Jun. 13,19	Jun. 12,20
Power Meter	Anritsu	ML2495A	1139001	Apr. 13,19	Apr. 13,20
Power Sensor	Anritsu	MA2411B	1531155	Apr. 13,19	Apr. 13,20
Digital Multimeter	FLUKE	15B	A1220010DG	Oct. 17, 18	Oct.16, 19
Humid & Temp Programmable Tester	Haida	HD-2257	110807201	Sep.20,18	Sep. 19,19
Oscilloscope	Agilent	DSO9254A	MY51260160	Nov. 08,18	Nov. 07,18
Signal Analyzer	Rohde & Schwarz	FSV7	102331	Nov. 04,18	Nov. 03,19
Signal Generator	Agilent	N5183A	MY50140980	Jan. 02,19	Jan. 01,20
Agile Signal Generator	Agilent	8645A	Agilent	Oct.27, 18	Oct.26, 19
Spectrum Analyzer	Keysight	N9020A	MY55400499	Mar. 21,19	Mar. 20,20
MXG-B RF Vector Signal Generator	Keysight	N5182B	MY56200288	Jan. 02,19	Jan. 01,20
BLUETOOTH TESTER	Rohde&Schwarz	CBT32	100811	Jul.06, 19	Jul. 05, 20
Attenuator	MINI	BW-S10W2+	S130129FGE2	N/A	N/A
DC Source	Keysight	E3642A	MY56146098	N/A	N/A

NOTE:

1. The test was performed in RF Oven room.
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.

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.

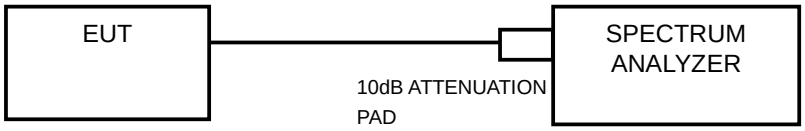
c. Measure the frequency difference of two frequencies that were attenuated 20dB from the reference level. Record the frequency difference as the emission bandwidth.

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.

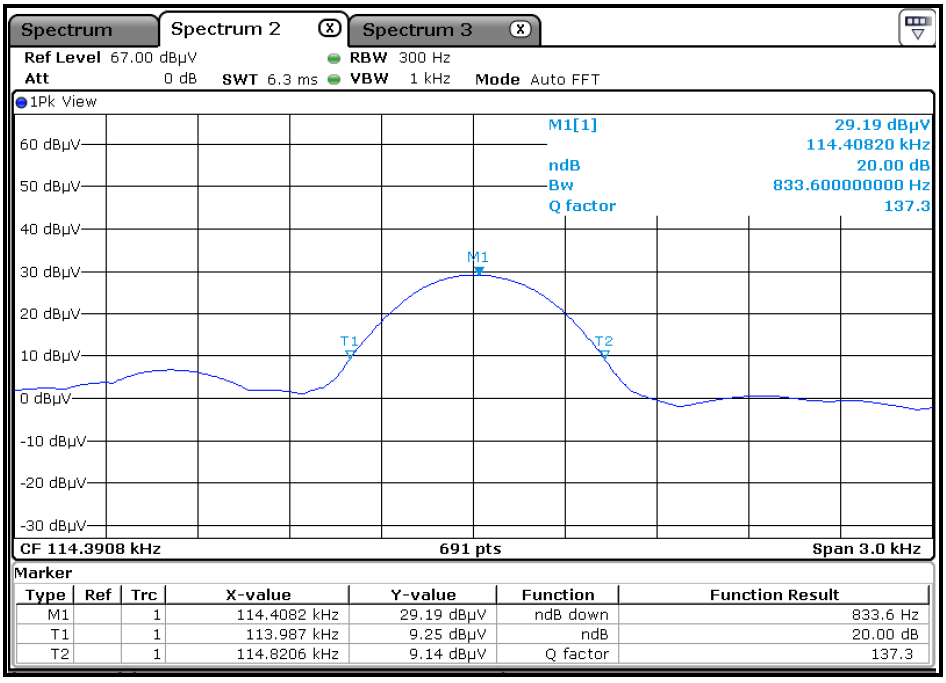
b. The EUT tested in charging mode and standby mode respectively.

4.3.7 TEST RESULTS

TEST MODE	CHANNEL FREQUENCY (KHz)	20dB BANDWIDTH (Hz)
Wireless Charging + Transmiting	114.4082	833.6

Lower & Upper Test Frequency Point (MHz)	Test Frequency (KHz)	P/F
Lower	113.9870	PASS
Upper	114.8206	PASS

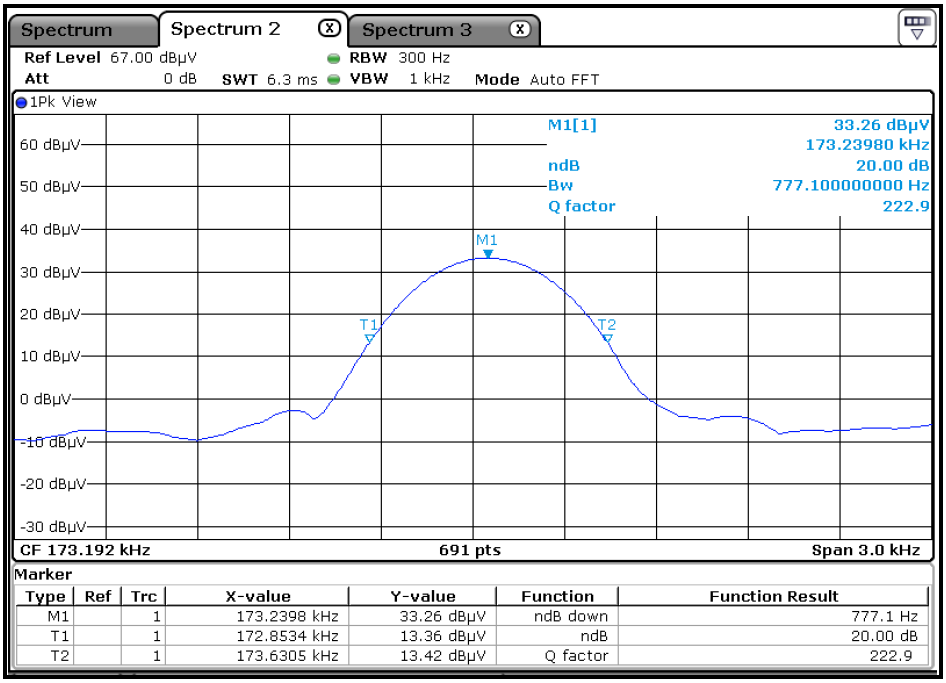
Test Data:



TEST MODE	CHANNEL FREQUENCY (KHz)	20dB BANDWIDTH (kHz)
Standby	173.2398	0.7771

Lower & Upper Test Frequency Point (MHz)	Test Frequency (KHz)	P/F
Lower	172.8534	PASS
Upper	173.6305	PASS

Test Data:



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---