

FCC TEST REPORT

FOR

Guilin Huayi Peakmeter Technology Co., LTD

Multi-Funtion Wire Tracker

Test Model: PM6819A/MT01

Additional Model No.: /

Prepared for : Guilin Huayi Peakmeter Technology Co., LTD
Address : #3 Building, Huawei Shuangchuang Garden Lingsu Road, Guilin, GuangXi, China

Prepared by : Shenzhen LCS Compliance Testing Laboratory Ltd
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Date of receipt of test sample : May 29, 2020
Number of tested samples : 1
Sample number : 200525124A
Date of Test : May 29, 2020~June 01, 2020
Date of Report : June 05, 2020

FCC TEST REPORT

FCC CFR 47 PART 15 C

Report Reference No. : **LCS200525124AEA**

Date of Issue..... : June 05, 2020

Testing Laboratory Name : **Shenzhen LCS Compliance Testing Laboratory Ltd.**

Address..... : 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Shajing Street, Baoan District, Shenzhen, China

Testing Location/ Procedure : Full application of Harmonised standards
 Partial application of Harmonised standards
 Other standard testing method

Applicant's Name : **Guilin Huayi Peakmeter Technology Co., LTD**

Address..... : #3 Building, Huawei Shuangchuang Garden Lingsu Road, Guilin, GuangXi, China

Test Specification

Standard : FCC CFR 47 PART 15 C / ANSI C63.10: 2013

Test Report Form No..... : LCSEMC-1.0

TRF Originator..... : Shenzhen LCS Compliance Testing Laboratory Ltd.

Master TRF..... : Dated 2011-03

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Test Item Description..... : **Multi-Funtion Wire Tracker**

Trade Mark : PEAKMETER/TACKLIFE

Test Model..... : PM6819A/MT01

Ratings..... : Input: DC 5V/1A
 DC 3.7V By rechargeable Li-ion battery(1800mAh)

Result : **Positive**

Compiled by:

Linda He

Linda He/ Administrators

Supervised by:

Jin Wang

Jin Wang / Technique principal

Approved by:



Gavin Liang/ Manager

FCC -- TEST REPORT

Test Report No. : LCS200525124AEA	<u>June 05, 2020</u> Date of issue
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Test Model.....	: PM6819A/MT01
EUT.....	: Multi-Funtion Wire Tracker
Applicant.....	: Guilin Huayi Peakmeter Technology Co., LTD
Address.....	: #3 Building, Huawei Shuangchuang Garden Lingsu Road, Guilin, GuangXi, China
Telephone.....	: /
Fax.....	: /
Manufacturer.....	: Guilin Huayi Peakmeter Technology Co., LTD
Address.....	: #3 Building, Huawei Shuangchuang Garden Lingsu Road, Guilin, GuangXi, China
Telephone.....	: /
Fax.....	: /
Factory.....	: /
Address.....	: /
Telephone.....	: /
Fax.....	: /

Test Result	Positive
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The test report merely corresponds to the test sample.
 It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

Revision History

Revision	Issue Date	Revisions	Revised By
000	June 05, 2020	Initial Issue	Gavin Liang

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1. GENERAL INFORMATION

1.1. Description of Device (EUT)

EUT	Multi-Funtion Wire Tracker
Test Model	PM6819A/MT01
Additional Model(s)	/
Model Declaration	/
Hardware Version	V1.0
Software Version	V1.0
Power Supply	Input: DC 5V/1A DC 3.7V By rechargeable Li-ion battery(1800mAh)
Wireless technology	
Frequency Range	1MHz
Channel Spacing	N/A
Channel Number	1 channel
Modulation Type	AM
Antenna Description	Wire Antenna, 0dBi (Max.)

1.2. Support Equipment List

Manufacturer	Description	Model	Serial Number	Certificate
--	--	--	--	--

1.3. External I/O

I/O Port Description	Quantity	Cable
USB Type-C Port	1	--

1.4. Description of Test Facility

FCC Registration Number is 254912.

Industry Canada Registration Number is 9642A.

EMSD Registration Number is ARCB0108.

UL Registration Number is 100571-492.

TUV SUD Registration Number is SCN1081.

TUV RH Registration Number is UA 50296516-001.

NVLAP Accreditation Code is 600167-0.

FCC Designation Number is CN5024

CAB identifier: CN0071

The 3m-Semi anechoic test site fulfils CISPR 16-1-4 according to ANSI C63.4:2014 and CISPR 16-1-4:2010 SVSWR requirement for radiated emission above 1GHz.

1.5. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. To CISPR 16 – 4 “Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements” and is documented in the LCS quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

1.6. Measurement Uncertainty

Test Item	Frequency Range	Uncertainty	Note
Radiation Uncertainty	9KHz~30MHz	3.10dB	(1)
	30MHz~200MHz	2.96dB	(1)
	200MHz~1000MHz	3.10dB	(1)
	1GHz~26.5GHz	4.00dB	(1)
Conduction Uncertainty	150kHz~30MHz	1.63dB	(1)
Power disturbance	30MHz~300MHz	1.60dB	(1)

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

1.7. Description of Test Modes

The EUT operates at 20 KHz. The following operating modes were applied for the related test items. All test modes were tested, only the result of the worst case was recorded in the report.

It was pre-tested on the positioned of each 3 axis. The worst case was found positioned on X-plane.

Mode of Operations	Transmitting Frequency (MHz)
AM	1
For Conducted Emission	
Test Mode	TX Mode
For Radiated Emission	
Test Mode	TX Mode

***Note: Using a temporary antenna connector for the EUT when the conducted measurements are performed.

2. TEST METHODOLOGY

All measurements contained in this report were conducted with ANSI C63.10: 2013, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.

The radiated testing was performed at an antenna-to-EUT distance of 3 meters. All radiated and conducted emissions measurement was performed at Shenzhen LCS Compliance Testing Laboratory Ltd.

2.1. EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

2.2. EUT Exercise

The EUT was operated in the engineering mode to fix the TX frequency that was for the purpose of the measurements.

According to its specifications, the EUT must comply with the requirements of the Section 15.201, 15.203, 15.205, 15.207, 15.209 under the FCC Rules Part 15 Subpart C.

2.3. General Test Procedures

2.3.1 Conducted Emissions

According to the requirements in Section 6.2 of ANSI C63.10: 2013, AC power-line conducted emissions shall be measured in the frequency range between 0.15 MHz and 30MHz using Quasi-peak and average detector modes.

2.3.2 Radiated Emissions

The EUT is placed on a turn table and the turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna, which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the maximum emissions, exploratory radiated emission measurements were made according to the requirements in Section 6.3 of ANSI C63.10: 2013.

3. CONNECTION DIAGRAM OF TEST SYSTEM

3.1. Justification

The system was configured for testing in a continuous transmitting condition.

3.2. EUT Exercise Software

Powered on the EUT then the EUT will transmit at 1 MHz.

3.3. Special Accessories

N/A

3.4. Block Diagram/Schematics

Please refer to the related document

3.5. Equipment Modifications

Shenzhen LCS Compliance Testing Laboratory Ltd. has not done any modification on the EUT.

3.6. Test Setup

Please refer to the test setup photo.

4. SUMMARY OF TEST RESULTS

Applied Standard: FCC Part 15 Subpart C		
FCC Rules	Description Of Test	Result
§15.203	Antenna Requirement	Compliant
§15.207(a)	Power Line Conducted Emissions	Compliant
§15.201(a), §15.205(a), §15.209(a), §15.215(a)	Radiated Emissions Measurement	Compliant
§2.1049 §15.215	99% and 20dB Bandwidth	Compliant

Remark:

Note 1 --- Test results inside test report.

5. POWER LINE CONDUCTED EMISSIONS

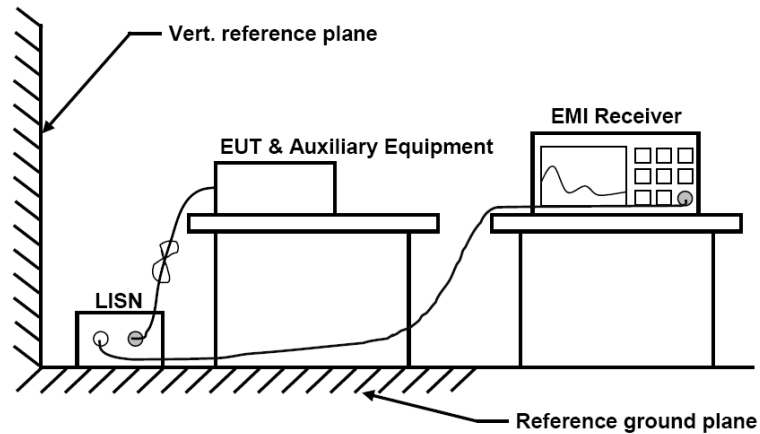
5.1 Standard Applicable

According to §15.207 (a): For an intentional radiator which is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed 250 microvolts (The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz). The limits at specific frequency range is listed as follows:

Frequency Range (MHz)	Limits (dBµV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5	56	46
5 to 30	60	50

* Decreasing linearly with the logarithm of the frequency

5.2 Block Diagram of Test Setup



5.3 Test Results

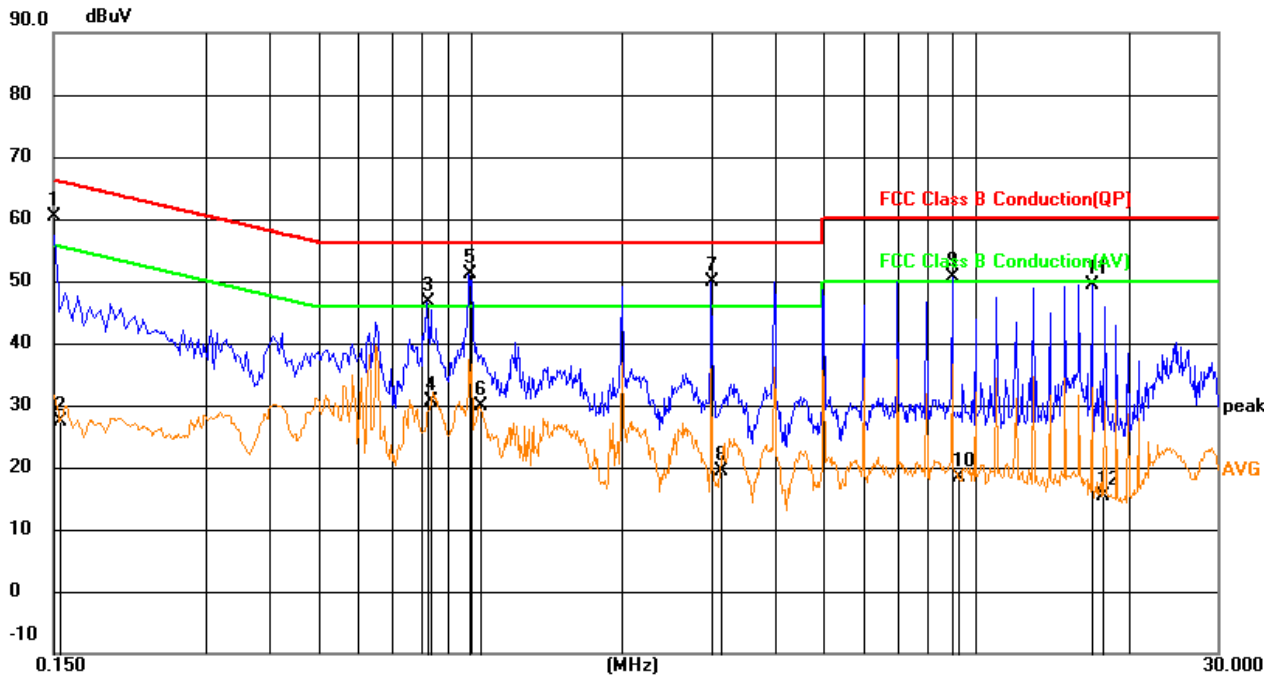
PASS.

The test data please refer to following page.

Temperature	23.3°C	Humidity	53.7%
Test Engineer	Diamond Lu	Test Mode	TX

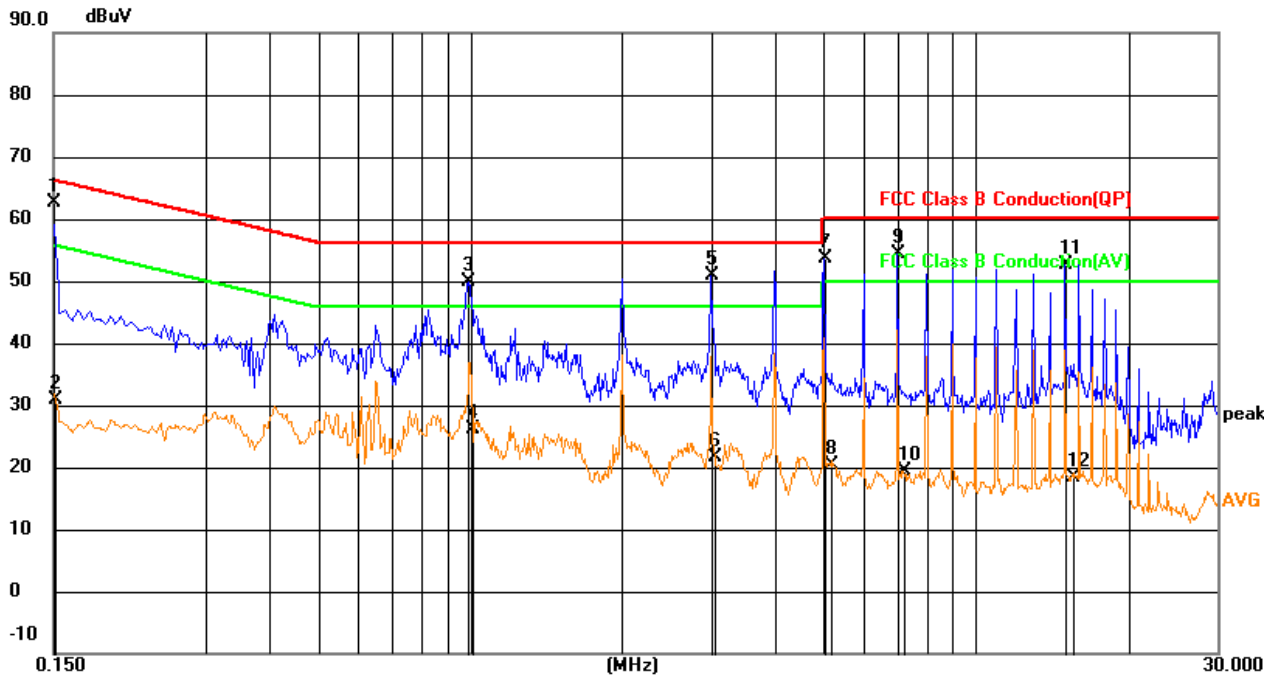
AC Conducted Emission of charge from power adapter mode @ AC 120V/60Hz @ (worst case)

Line



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV	Limit dBuV	Margin dB	Detector	Comment
1		0.1500	41.33	19.14	60.47	66.00	-5.53	QP	
2		0.1544	8.26	19.14	27.40	55.76	-28.36	AVG	
3		0.8247	27.26	19.31	46.57	56.00	-9.43	QP	
4		0.8384	11.34	19.30	30.64	46.00	-15.36	AVG	
5	*	0.9959	31.76	19.26	51.02	56.00	-4.98	QP	
6		1.0454	10.73	19.27	30.00	46.00	-16.00	AVG	
7		2.9984	30.34	19.47	49.81	56.00	-6.19	QP	
8		3.1379	-0.08	19.47	19.39	46.00	-26.61	AVG	
9		9.0014	31.09	19.66	50.75	60.00	-9.25	QP	
10		9.2218	-1.38	19.67	18.29	50.00	-31.71	AVG	
11		17.0025	29.25	20.23	49.48	60.00	-10.52	QP	
12		17.7807	-4.82	20.26	15.44	50.00	-34.56	AVG	

Neutral



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1500	43.50	19.14	62.64	66.00	-3.36	QP	
2		0.1514	11.75	19.14	30.89	55.92	-25.03	AVG	
3		0.9912	30.59	19.27	49.86	56.00	-6.14	QP	
4		1.0139	6.97	19.26	26.23	46.00	-19.77	AVG	
5		2.9984	31.30	19.47	50.77	56.00	-5.23	QP	
6		3.0434	2.19	19.47	21.66	46.00	-24.34	AVG	
7		5.0053	34.02	19.49	53.51	60.00	-6.49	QP	
8		5.1585	0.81	19.49	20.30	50.00	-29.70	AVG	
9		6.9988	34.70	19.58	54.28	60.00	-5.72	QP	
10		7.2060	-0.23	19.59	19.36	50.00	-30.64	AVG	
11		15.0000	32.53	20.15	52.68	60.00	-7.32	QP	
12		15.6074	-1.82	20.19	18.37	50.00	-31.63	AVG	

***Note: 1)Pre-scan all modes and recorded the worst case results in this report.
 2) Measure= Reading level + Correct factor
 Margin= Measure - Limit

6. RADIATED EMISSION MEASUREMENT

6.1. Standard Applicable

According to FCC §15.201 (a) "Intentional radiators operated as carrier current systems, devices operated under the provisions of §§15.211, 15.213, and 15.221, and devices operating below 490 kHz in which all emissions are at least 40 dB below the limits in §15.209 are subject to Suppliers Declaration of Conformity pursuant to the procedures in subpart J of part 2 of this chapter prior to marketing."

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

6.2. Instruments Setting

Please refer to of equipment list in this report. The following table is the setting of spectrum analyzer and receiver.

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10 th carrier harmonic
RB / VB (Emission in restricted band)	1MHz / 1MHz for Peak, 1 MHz / 1/B kHz for Average
RB / VB (Emission in non-restricted band)	1MHz / 1MHz for Peak, 1 MHz / 1/B kHz for Average

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB/VB 200Hz/1KHz for QP/AVG
Start ~ Stop Frequency	150kHz~30MHz / RB/VB 9kHz/30KHz for QP/AVG
Start ~ Stop Frequency	30MHz~1000MHz / RB/VB 120kHz/1MHz for QP

6.3. Test Procedure

1) Sequence of testing 9 kHz to 30 MHz

Setup:

- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.
- If the EUT is a tabletop system, a rotatable table with 0.8 m height is used.
- If the EUT is a floor standing device, it is placed on the ground.
- Auxiliary equipment and cables were positioned to simulate normal operation conditions.
- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- The measurement distance is 3 meter.
- The EUT was set into operation.

Premeasurement:

- The turntable rotates from 0° to 315° using 45° steps.
- The antenna height is 0.8 meter.
- At each turntable position the analyzer sweeps with peak detection to find the maximum of all emissions

Final measurement:

- Identified emissions during the premeasurement the software maximizes by rotating the turntable position (0° to 360°) and by rotating the elevation axes (0° to 360°).
- The final measurement will be done in the position (turntable and elevation) causing the highest emissions with QPK detector.
- The final levels, frequency, measuring time, bandwidth, turntable position, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the premeasurement and the limit will be stored.

2) Sequence of testing 30 MHz to 1 GHz

Setup:

- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.
- If the EUT is a tabletop system, a table with 0.8 m height is used, which is placed on the ground plane.
- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.
- Auxiliary equipment and cables were positioned to simulate normal operation conditions
- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- The measurement distance is 3 meter.
- The EUT was set into operation.

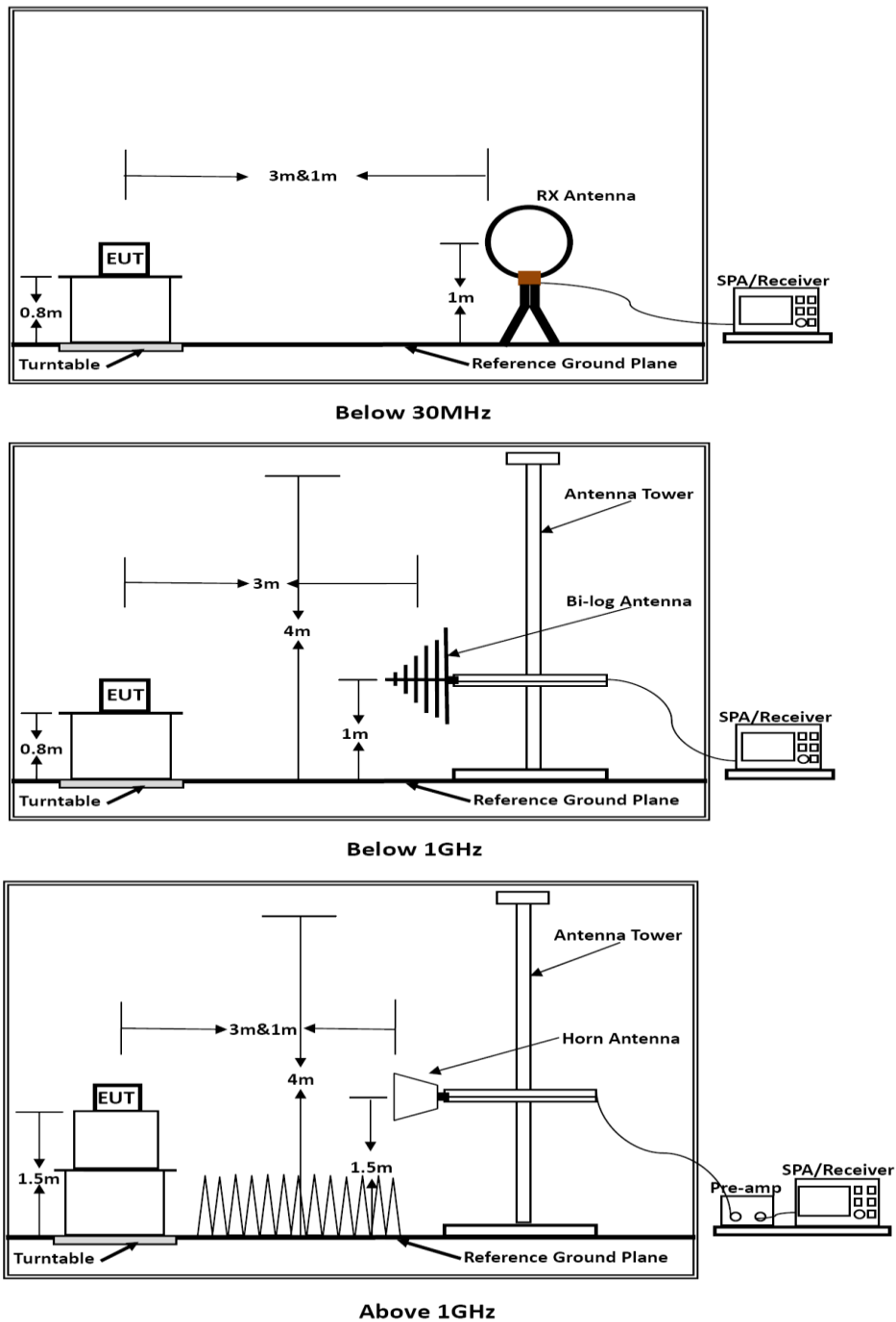
Premeasurement:

- The turntable rotates from 0° to 315° using 45° steps.
- The antenna is polarized vertical and horizontal.
- The antenna height changes from 1 to 3 meter.
- At each turntable position, antenna polarization and height the analyzer sweeps three times in peak to find the maximum of all emissions.

Final measurement:

- The final measurement will be performed with minimum the six highest peaks.
- According to the maximum antenna and turntable positions of premeasurement the software maximize the peaks by changing turntable position ($\pm 45^\circ$) and antenna movement between 1 and 4 meter.
- The final measurement will be done with QP detector with an EMI receiver.
- The final levels, frequency, measuring time, bandwidth, antenna height, antenna polarization, turntable angle, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the premeasurement with marked maximum final measurements and the limit will be stored.

6.4. Block Diagram of Test Setup



Above 18 GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade from 3m to 1m.

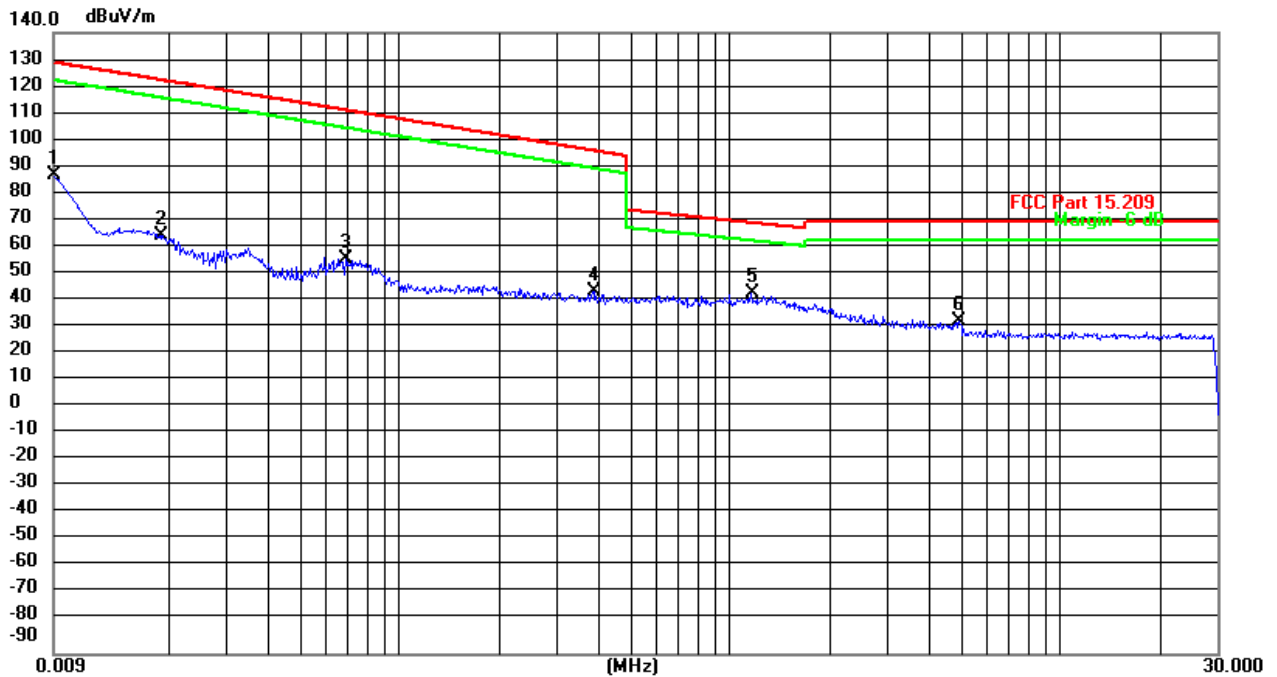
Distance extrapolation factor = $20 \log (\text{specific distance [3m]} / \text{test distance [1m]})$ (dB);
 Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

6.5. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

6.6. Results of Radiated Emissions (9 KHz~30MHz)

Temperature	24.6°C	Humidity	54.1%
Test Engineer	Diamond Lu	Test Mode	TX



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	0.0090	66.82	20.67	87.49	128.40	-40.91	QP
2	0.0191	44.37	20.60	64.97	121.89	-56.92	QP
3	0.0689	35.57	20.61	56.18	110.78	-54.60	QP
4	0.3880	24.00	20.28	44.28	95.82	-51.54	QP
5	1.1600	23.64	20.27	43.91	69.10	-25.19	QP
6	4.9549	12.87	20.25	33.12	69.50	-36.38	QP

Note:

The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.

Distance extrapolation factor = 40 log (specific distance / test distance) (dB);

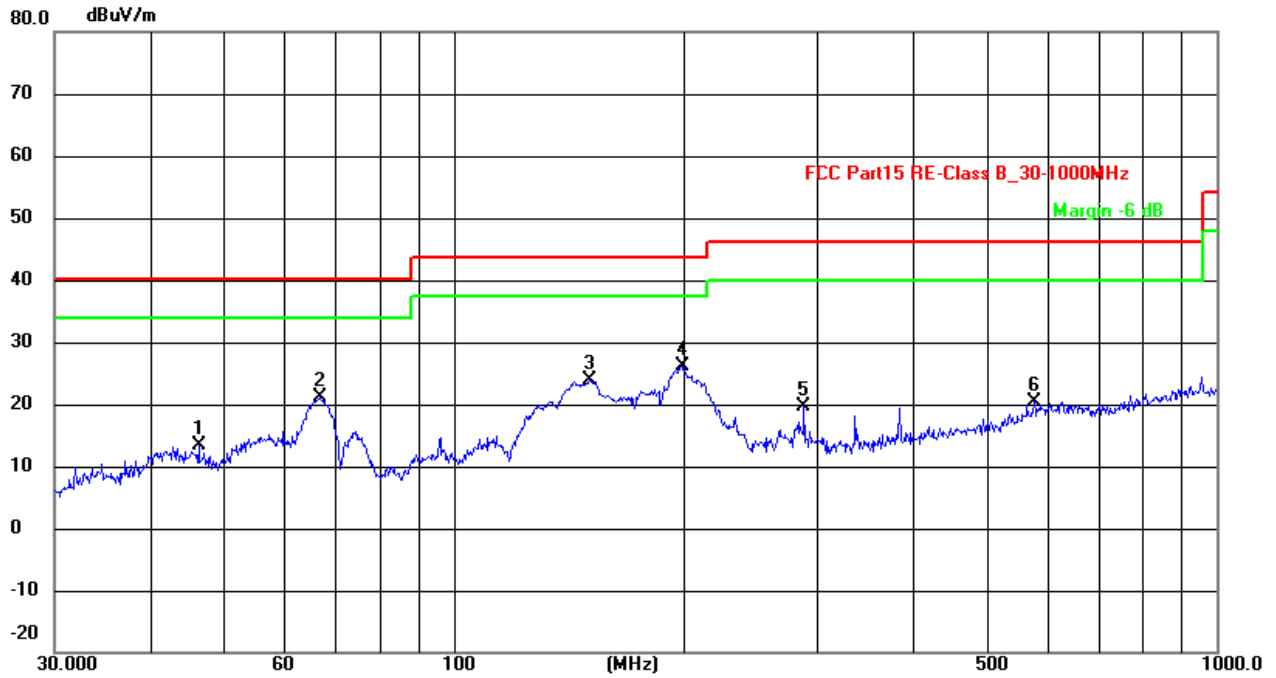
Limit line = specific limits (dBuV) + distance extrapolation factor.

6.7. Results of Radiated Emissions (30 MHz~1000 MHz)

Temperature	24.6°C	Humidity	54.1%
Test Engineer	Diamond Lu	Test Mode	TX

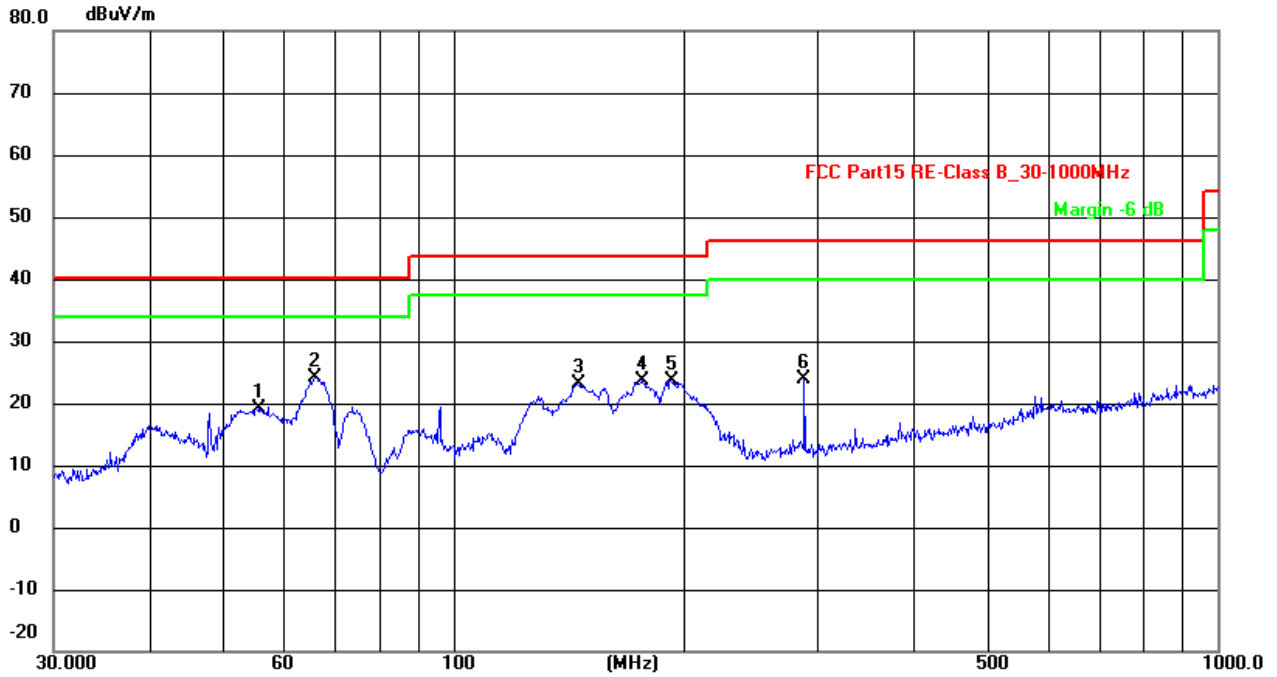
PASS.

Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	46.3402	29.01	-15.60	13.41	40.00	-26.59	QP
2	66.7325	40.11	-18.95	21.16	40.00	-18.84	QP
3	150.5378	45.07	-21.17	23.90	43.50	-19.60	QP
4	198.5880	43.52	-17.37	26.15	43.50	-17.35	QP
5	287.9904	34.46	-14.84	19.62	46.00	-26.38	QP
6	576.6443	29.32	-8.93	20.39	46.00	-25.61	QP

Vertical



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	55.8047	35.46	-16.30	19.16	40.00	-20.84	QP
2	65.8031	42.90	-18.66	24.24	40.00	-15.76	QP
3	145.3506	44.46	-21.40	23.06	43.50	-20.44	QP
4	176.8878	43.44	-19.80	23.64	43.50	-19.86	QP
5	192.4186	41.85	-18.12	23.73	43.50	-19.77	QP
6	287.9904	38.65	-14.84	23.81	46.00	-22.19	QP

***Note:

- 1). Pre-scan all modes and recorded the worst case results in this report (TX).
- 2). Emission level (dBuV/m) = 20 log Emission level (uV/m).
- 3). Level=Reading level + Factor
Margin=Level – Limit

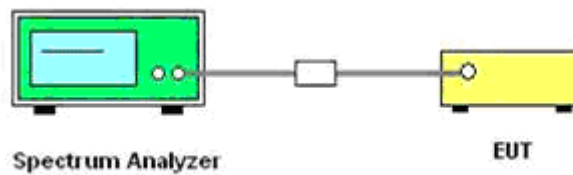
7. 99% AND 20 DB BANDWIDTH MEASUREMENT

7.1. Standard Applicable

According to §15.215, device must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

According to §2.1049, The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured under the following conditions as applicable.

7.2. Block Diagram of Test Setup



7.3. Test Procedure

Use the following spectrum analyzer settings:

Span = 100 KHz

RBW \geq 1% 20 db bandwidth

VBW = 3*RBW

Sweep = auto

Detector function = peak

Trace = max hold

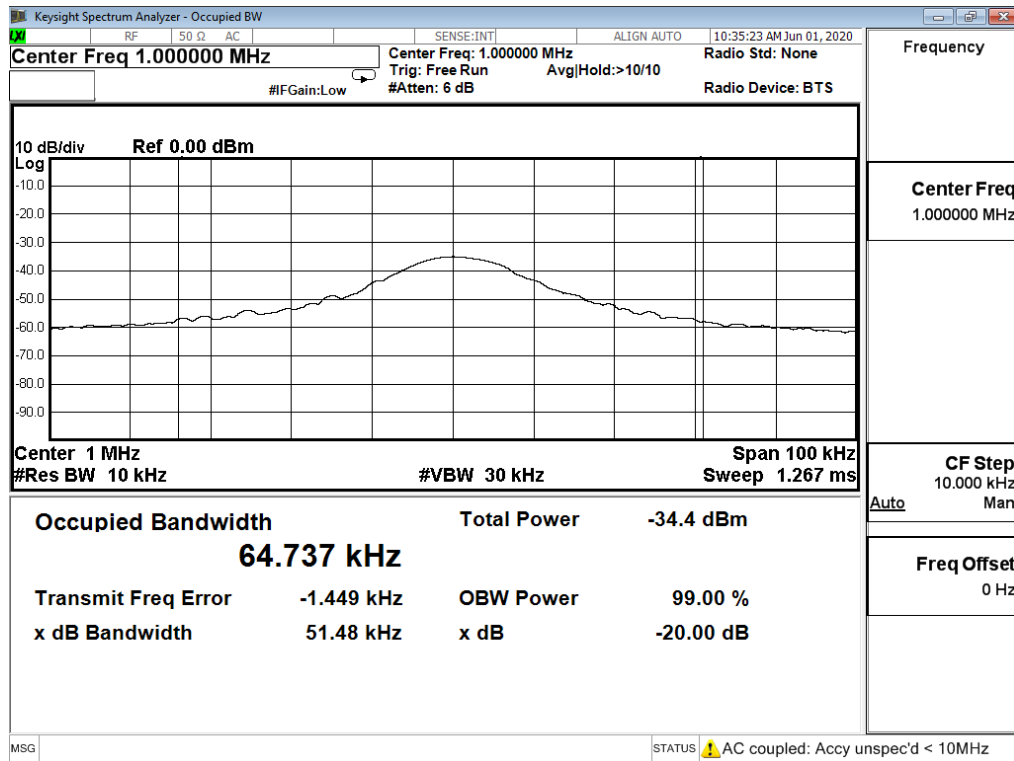
The EUT should be transmitting at its maximum data rate. Allow the trace to stabilize. Use the marker-to-peak function to set the marker to the peak of the emission. Use the marker-delta function to measure 20 dB down one side of the emission. Reset the marker-delta function, and move the marker to the other side of the emission, until it is (as close as possible to) even with the reference marker level. The marker-delta reading at this point is the 20 dB bandwidth of the emission. If this value varies with different modes of operation (e.g., data rate, modulation format, etc.), repeat this test for each variation. The limit is specified in one of the subparagraphs of this Section. Submit this plot(s).

7.4. Test Results

Test Result Of 99% and 20dB Bandwidth Measurement			
Test Frequency (MHz)	99% Bandwidth (KHz)	20dB Bandwidth (KHz)	Limit (MHz)
1	64.737	51.48	No Limit

Remark:

1. Test results including cable loss;
2. Please refer to following test plots;



8. ANTENNA REQUIREMENTS

8.1 Standard Applicable

According to antenna requirement of §15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be re-placed by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of Sections 15.211, 15.213, 15.217, 15.219, or 15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with Section 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this Part are not exceeded.

8.2 Antenna Connected Construction

8.2.1. Standard Applicable

According to § 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

8.2.2. Antenna Connector Construction

The directional gains of internal antenna used for transmitting is 0dBi, and the antenna is connect to PCB board and no consideration of replacement, meet FCC §15.203 antenna requirement.

8.2.3. Results: Compliance.

9. LIST OF MEASURING EQUIPMENT

Item	Equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	MXA Signal Analyzer	Agilent	N9020A	MY49100060	2019-11-15	2020-11-14
2	DC Power Supply	Agilent	E3642A	N/A	2019-11-15	2020-11-14
3	Temperature & Humidity Chamber	GUANGZHOU GOGN WEN	GDS-100	70932	2019-10-10	2020-10-09
4	EMI Test Software	EZ	EZ-EMC	/	N/A	N/A
5	3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	2019-06-12	2020-06-11
6	Positioning Controller	MF	MF-7082	/	2019-06-12	2020-06-11
7	Active Loop Antenna	SCHWARZBECK	FMZB 1519B	00005	2019-07-26	2020-07-25
8	By-log Antenna	SCHWARZBECK	VULB9163	9163-470	2019-07-26	2020-07-25
9	Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1925	2019-07-02	2020-07-01
10	EMI Test Receiver	R&S	ESR 7	101181	2019-06-12	2020-06-11
11	RS SPECTRUM ANALYZER	R&S	FSP40	100503	2019-11-15	2020-11-14
12	Broadband Preamplifier	/	BP-01M18G	P190501	2019-07-01	2020-06-30
13	RF Cable-R03m	Jye Bao	RG142	CB021	2019-06-12	2020-06-11
14	RF Cable-HIGH	SUHNER	SUCOFLEX 106	03CH03-HY	2019-06-12	2020-06-11
15	EMI Test Receiver	R&S	ESPI	101840	2019-06-11	2020-06-10
16	Artificial Mains	R&S	ENV216	101288	2019-06-12	2020-06-11
17	10dB Attenuator	SCHWARZBECK	MTS-IMP-136	261115-001-0032	2019-06-11	2020-06-10

Note: All equipment is calibrated through CHINA CEPREI LABORATORY and GUANGZHOU LISAI CALIBRATION AND TEST CO., LTD.

10. TEST SETUP PHOTOGRAPHS

10.1. Photo of Radiated Emissions Measurement

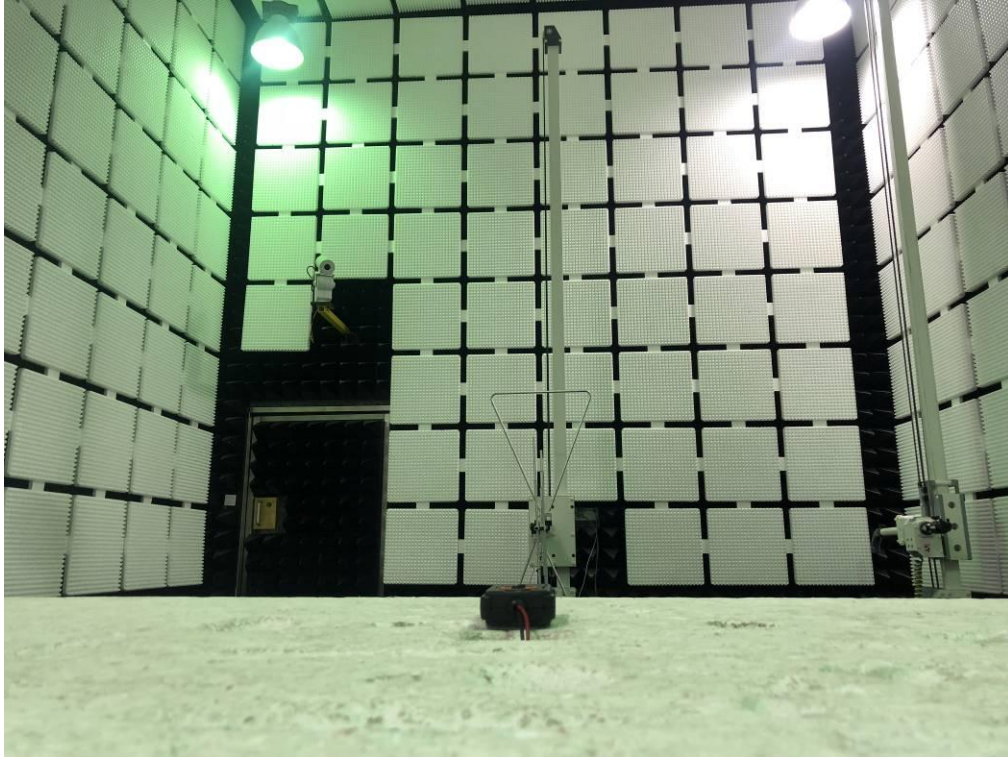


Fig. 1

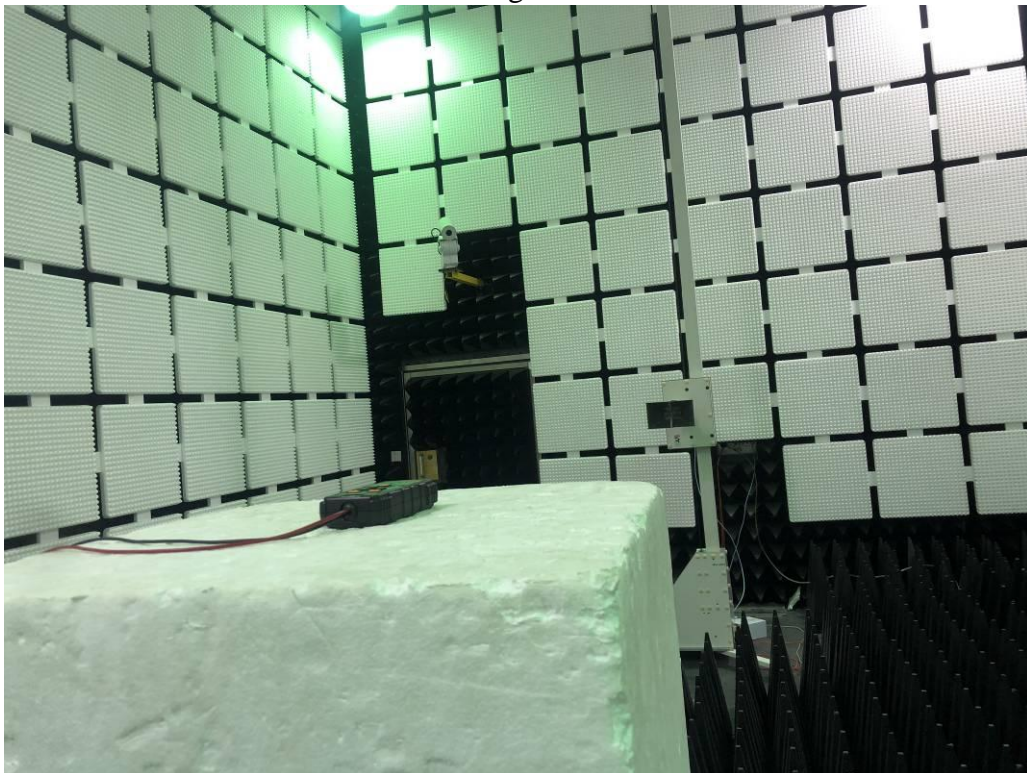
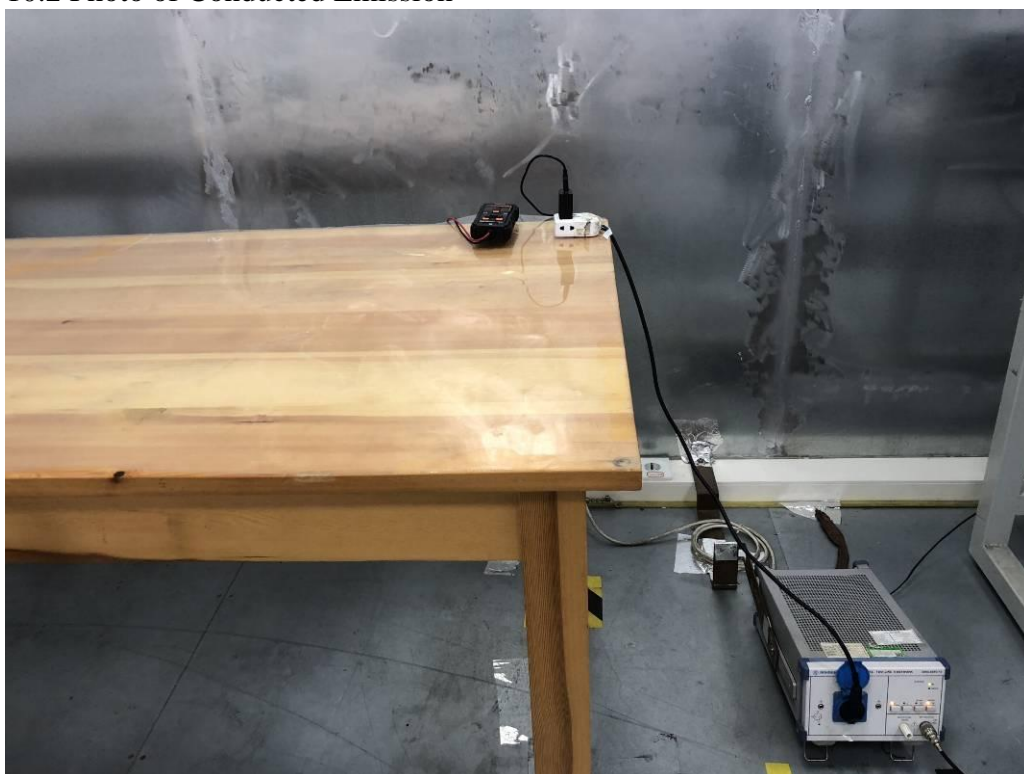


Fig. 2

10.2 Photo of Conducted Emission



11. EXTERIOR PHOTOGRAPHS



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6

12. INTERIOR PHOTOGRAPHS



Fig. 1

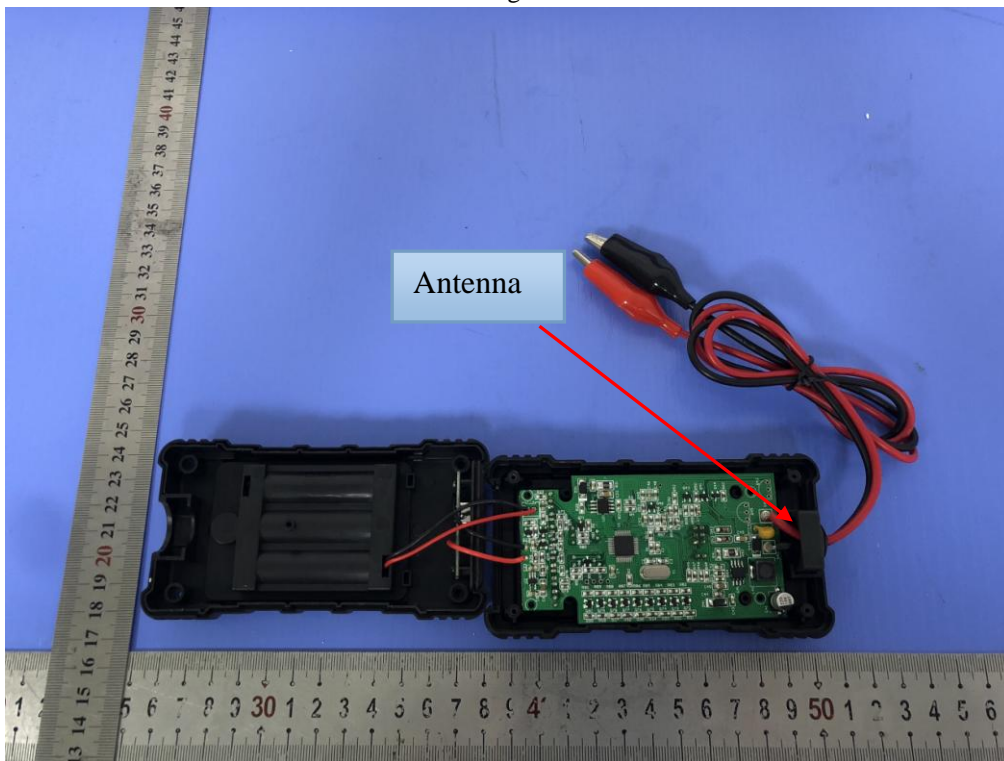


Fig. 2

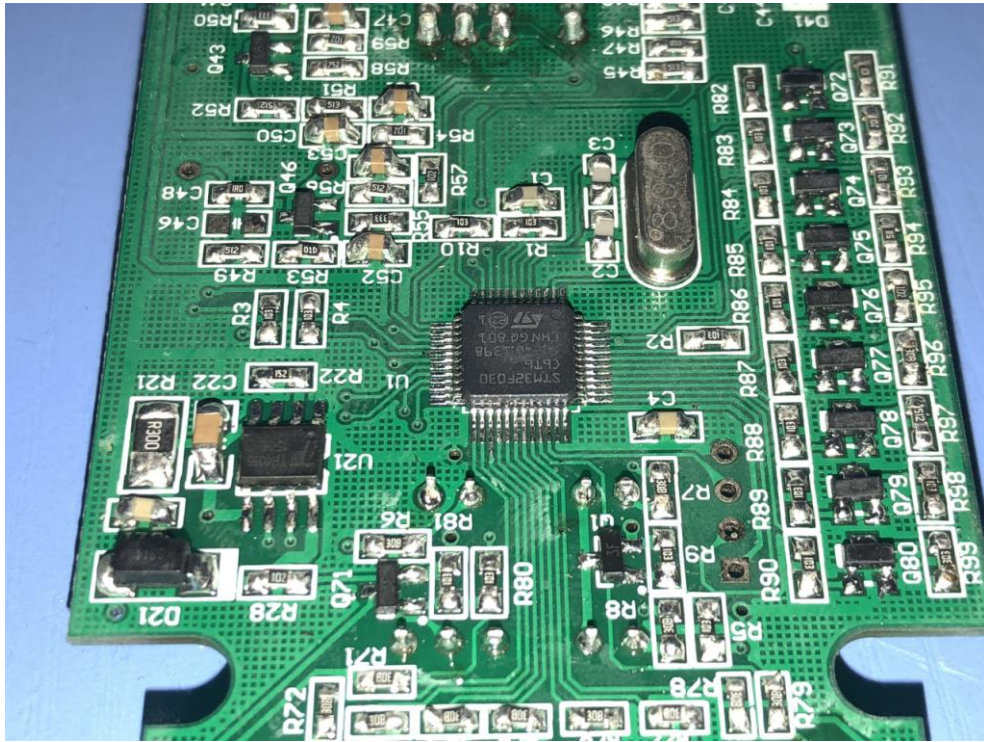


Fig. 5

-----THE END OF TEST REPORT-----