FCC TEST REPORT

Client Name	:	Jye Wang Enterprise Co.,Ltd.
Address	:	7F.-6, No.20, Wu Chuan 2nd Rd., Hsin-Chuang Dist., New Taipei City 24892, Taiwan (R.O.C.)
Product Name	:	Backlit Wireless Keybord
Date	:	Mar. 09, 2022

Shenzhen Anbotek Compliance Laboratory Limited

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TEST REPORT

Applicant	:	Jye Wang Enterprise Co.,Ltd.
Manufacturer	:	Dongguan You Hong Plastic and Electrics Co., LTD
Product Name	:	Backlit Wireless Keybord
Model No.	:	KB-RF720
Trade Mark	:	POWZAN / B.FRIENDIT
Rating(s)	:	Input: DC 5V, 1A(with DC 3.7V, 1500mAh battery inside)

Test Standard(s)	**:**	**FCC Part15 Subpart C, Paragraph 15.249**
Test Method(s)	**:**	**ANSI C63.10: 2020**

The device described above is tested by Shenzhen Anbotek Compliance Laboratory Limited to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The measurement results are contained in this test report and Shenzhen Anbotek Compliance Laboratory Limited is assumed full of responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT (Equipment Under Test) is technically compliant with the FCC Part 15 Subpart C requirements.

This report applies to above tested sample only and shall not be reproduced in part without written approval of Shenzhen Anbotek Compliance Laboratory Limited.

Date of Receipt	Feb. 25, 2022
Date of Test	Feb. 25~Mar. 08, 2022

Prepared by (TuTu Hong)

Approved & Authorized Signer (Kingkong Jin)

1. General Information

1.1. Client Information

Applicant	:	Jye Wang Enterprise Co.,Ltd.
Address	:	7F.-6, No.20, Wu Chuan 2nd Rd., Hsin-Chuang Dist., New Taipei City 24892, Taiwan (R.O.C.)
Manufacturer	:	Dongguan You Hong Plastic and Electrics Co., LTD
Address	:	Zhen Hua Road, Tie Lu Keng Village, Qi Shi Town, Dong Gang City, Guang Dong
Factory	:	Dongguan You Hong Plastic and Electrics Co., LTD
Address	:	Zhen Hua Road, Tie Lu Keng Village, Qi Shi Town, Dong Gang City, Guang Dong

1.2. Description of Device (EUT)

Product Name	:	Backlit Wireless Keybord	
Model No.	:	KB-RF720	
Trade Mark	:	POWZAN / B.FRIENDIT	
Test Power Supply	:	AC 120V, 60Hz for adapter/ AC 240V, 60Hz for adapter/DC 3.7V Battery inside	
Test Sample No.	:	1-2-1(Normal Sample), 1-2-2(Engineering Sample)	
Product Description	:	Operation Frequency:	2408~2474MHz
		Number of Channel:	34 Channels
		Modulation Type:	FSK
		Antenna Type:	PCB Antenna
		Antenna Gain(Peak):	-2 dBi
		Adapter	N.A.
Remark: 1) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.			

1.3. Auxiliary Equipment Used During Test

adapter	:	M/N: A2023 Input: AC 100-240V 0.7A 50-60Hz USB1 Output: DC 5V 2.4A USB2 Output: DC 5V 2.4A

1.4. Description of Test Modes

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	CH01
Mode 2	CH17
Mode 3	CH34

For Conducted Emission	
Final Test Mode	Description
Mode 1	CH01
Mode 2	CH17
Mode 3	CH34

For Radiated Emission	
Final Test Mode	Description
Mode 1	CH01
Mode 2	CH17
Mode 3	CH34

Note:

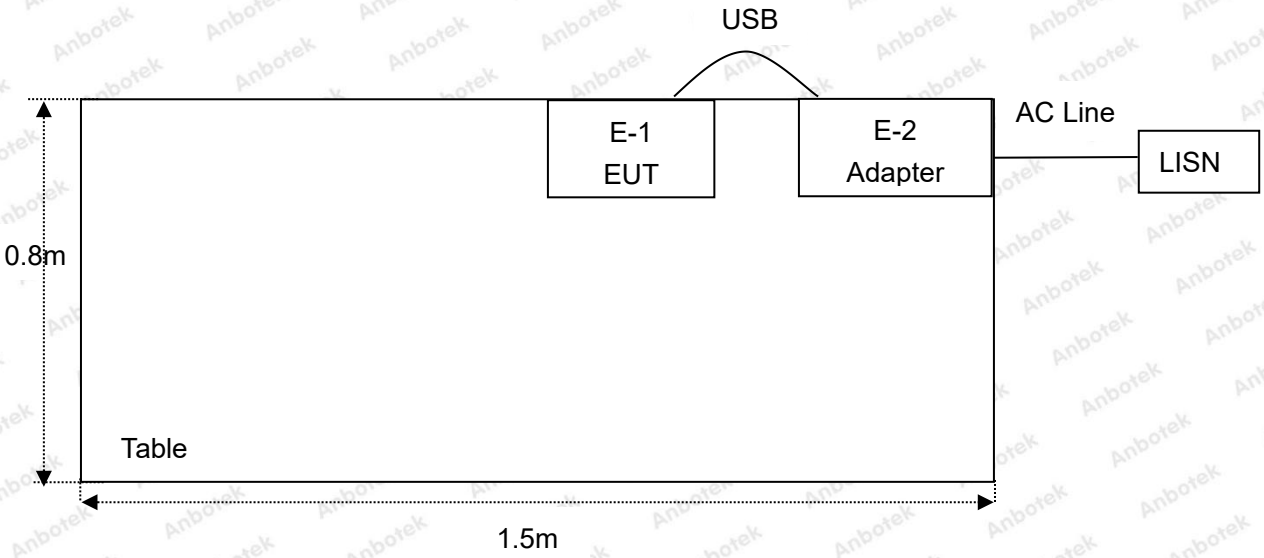
1. The engineering test program was provided and the EUT was programmed to be in continuously transmitting mode.

1.5. List of Channels

Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)
1	2408	2	2410	3	2412	4	2414	5	2416
6	2418	7	2420	8	2422	9	2424	10	2426
11	2428	12	2430	13	2432	14	2434	15	2436
16	2438	17	2440	18	2442	19	2444	20	2446
21	2448	22	2450	23	2452	24	2454	25	2546
26	2458	27	2460	28	2462	29	2464	30	2666
31	2468	32	2470	33	2472	34	2474	/	/

1.6. Description of Test Setup

CE



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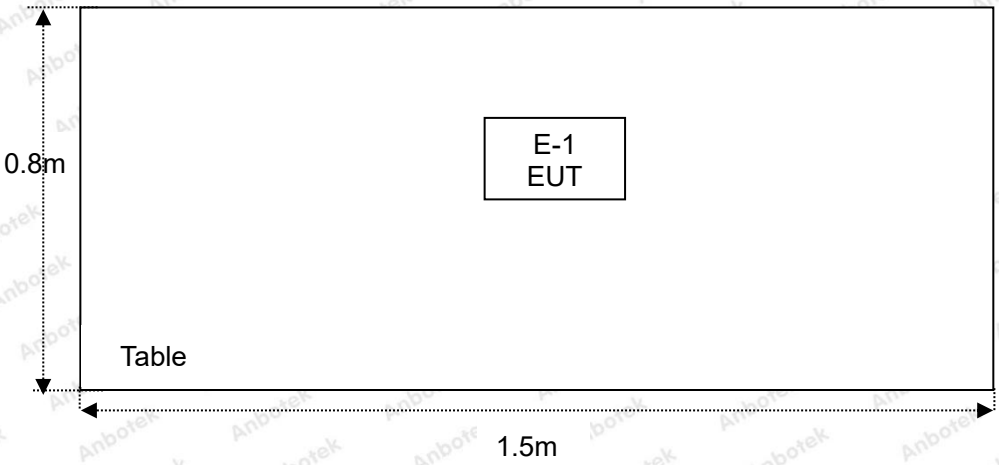


1.7. Test Equipment List

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Three Phase V-type Artificial Power Network	CYBERTEK	EM5040DT	E215040DT001	Jul 05, 2021	1 Year
2.	EMI Test Receiver	Rohde & Schwarz	ESCI	100627	Oct. 22, 2021	1 Year
3.	EMI Test Receiver	Rohde & Schwarz	ESR26	101481	Oct. 22, 2021	1 Year
4.	RF Switching Unit	Compliance Direction	RSU-M2	38303	Oct. 22, 2021	1 Year
5.	MAX Spectrum Analysis	Agilent	N9020A	MY51170037	Oct. 22, 2021	1 Year
6.	Preamplifier	SKET Electronic	BK1G18G30D	KD17503	Oct. 22, 2021	1 Year
7.	Double Ridged Horn Antenna	Instruments corporation	GTH-0118	351600	Oct. 22, 2021	2 Year
8.	Bilog Broadband Antenna	Schwarzbeck	VULB9163	VULB 9163-289	Oct. 22, 2021	2 Year
9.	Loop Antenna	Schwarzbeck	FMZB1519B	00053	Oct. 22, 2021	2 Year
10.	Horn Antenna	A-INFO	LB-180400-KF	J211060628	Oct. 22, 2021	2 Year
11.	Pre-amplifier	SONOMA	310N	186860	Oct. 22, 2021	1 Year
12.	EMI Test Software EZ-EMC	SHURPLE	N/A	N/A	N/A	N/A
13.	RF Test Control System	YIHENG	YH3000	2017430	Oct. 22, 2021	1 Year
14.	Power Sensor	DAER	RPR3006W	15I00041SN045	Oct. 22, 2021	1 Year
15.	Power Sensor	DAER	RPR3006W	15I00041SN046	Oct. 22, 2021	1 Year
16.	MXA Spectrum Analysis	KEYSIGHT	N9020A	MY53280032	Oct. 22, 2021	1 Year
17.	MXG RF Vector Signal Generator	Agilent	N5182A	MY48180656	Oct. 22, 2021	1 Year
18.	Signal Generator	Agilent	E4421B	MY41000743	Oct. 22, 2021	1 Year
19.	DC Power Supply	IVYTECH	IV3605	1804D360510	Oct. 22, 2021	1 Year
20.	Constant Temperature Humidity Chamber	ZHONGJIAN	ZJ-KHWS80B	N/A	Oct. 22, 2021	1 Year

1.8. Measurement Uncertainty

Radiation Uncertainty	:	Ur = 3.9 dB (Horizontal)
		Ur = 3.8 dB (Vertical)
Conduction Uncertainty	:	Uc = 3.4 dB

1.9. Description of Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

FCC-Registration No.: 184111

Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No. 184111.

ISED-Registration No.: 8058A

Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (ISED) Innovation, Science and Economic Development Canada. The acceptance letter from the ISED is maintained in our files. Registration 8058A.

Test Location

Shenzhen Anbotek Compliance Laboratory Limited.
1/F, Building D, Sogood Science and Technology Park, Sanwei community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China.518102

2. Summary of Test Results

Standard Section	Test Item	Result
15.203	Antenna Requirement	PASS
15.207	Conducted Emission	PASS
15.249	Radiated Emission	PASS
15.215(c)	20dB Bandwidth	PASS
15.249(c)	Band Edge	PASS
Remark: “N/A” is an abbreviation for Not Applicable.		

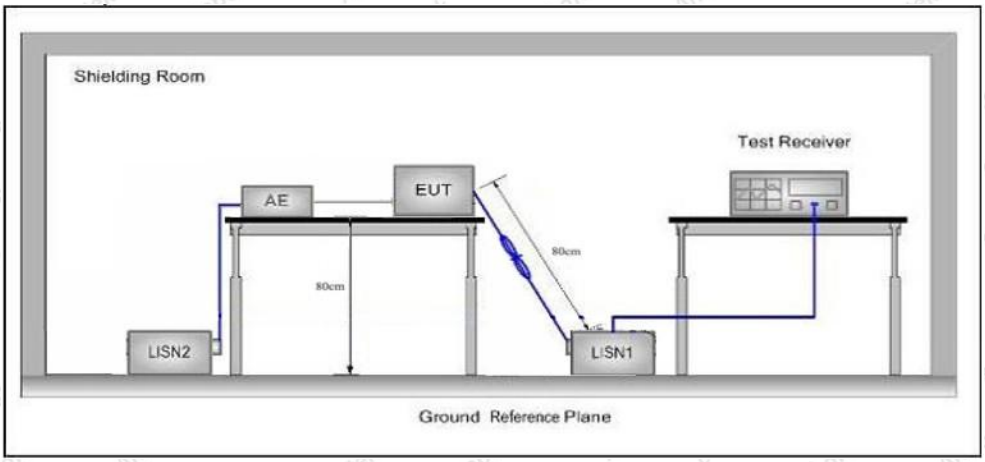
Address: 1/F., Building D, Sogood Science and Technology Park, Sanwei Community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China.
Tel:(86) 755-26066440 Fax: (86) 755-26014772 Email: service@anbotek.com
Hotline 400-003-0500
www.anbotek.com

3. Conducted Emission Test

3.1. Test Standard and Limit

Test Standard	FCC Part15 Section 15.207		
Test Limit	Frequency	Maximum RF Line Voltage (dBuV)	
		Quasi-peak Level	Average Level
	150kHz~500kHz	66 ~ 56 *	56 ~ 46 *
	500kHz~5MHz	56	46
	5MHz~30MHz	60	50
Remark: (1) *Decreasing linearly with logarithm of the frequency. (2) The lower limit shall apply at the transition frequency.			

3.2. Test Setup



3.3. Test Procedure

The EUT system is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to FCC ANSI C63.10-2020 on Conducted Emission Measurement.

The bandwidth of test receiver (ESCI) set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.

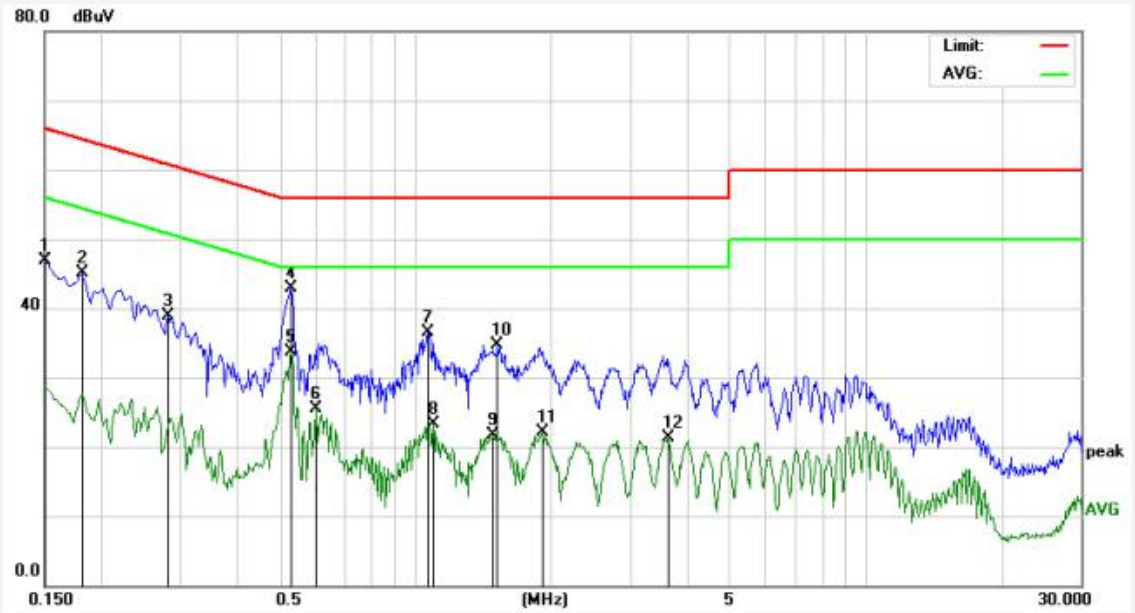
3.4. Test Data

During the test, pre-scan all the modes, only the worst case is recorded in the report.

Please to see the following pages.

Conducted Emission Test Data

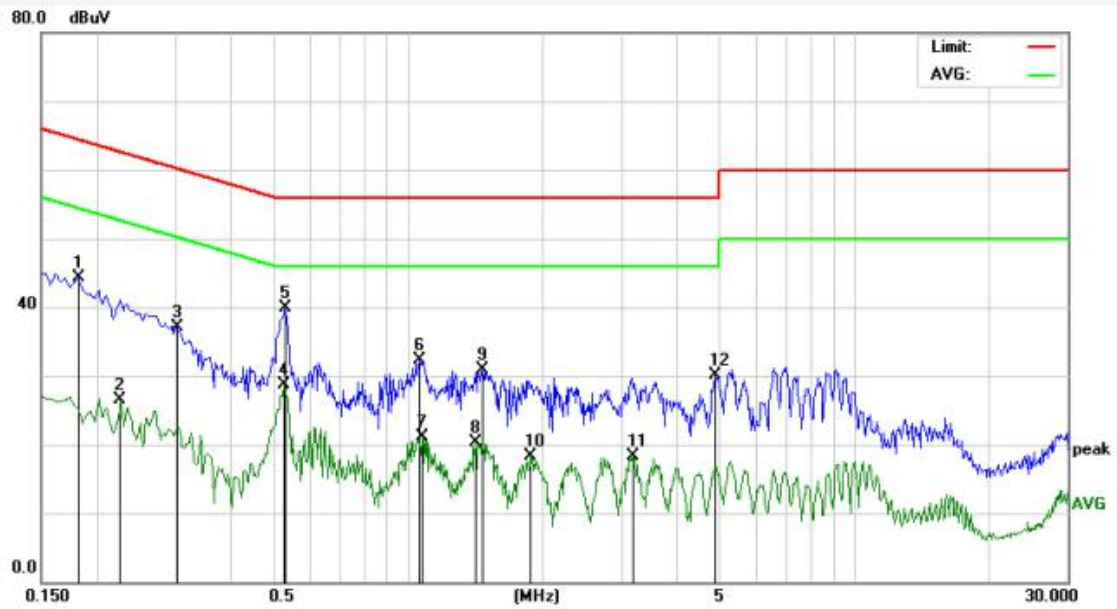
Test Site: 1# Shielded Room
Operating Condition: CH01
Test Specification: AC 120V, 60Hz for adapter
Comment: Live Line
Tem.: 21.6℃ Hum.: 50%



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Over Limit (dB)	Detector	Remark
1	0.1500	46.83	0.11	46.94	65.99	-19.05	QP	
2	0.1819	44.96	0.12	45.08	64.39	-19.31	QP	
3	0.2819	38.87	0.13	39.00	60.76	-21.76	QP	
4	0.5299	42.85	0.15	43.00	56.00	-13.00	QP	
5	0.5299	33.47	0.15	33.62	46.00	-12.38	AVG	
6	0.6020	25.27	0.15	25.42	46.00	-20.58	AVG	
7	1.0660	36.43	0.15	36.58	56.00	-19.42	QP	
8	1.0940	23.07	0.15	23.22	46.00	-22.78	AVG	
9	1.4900	21.50	0.14	21.64	46.00	-24.36	AVG	
10	1.5220	34.54	0.13	34.67	56.00	-21.33	QP	
11	1.9100	21.89	0.12	22.01	46.00	-23.99	AVG	
12	3.6460	21.28	0.12	21.40	46.00	-24.60	AVG	

Conducted Emission Test Data

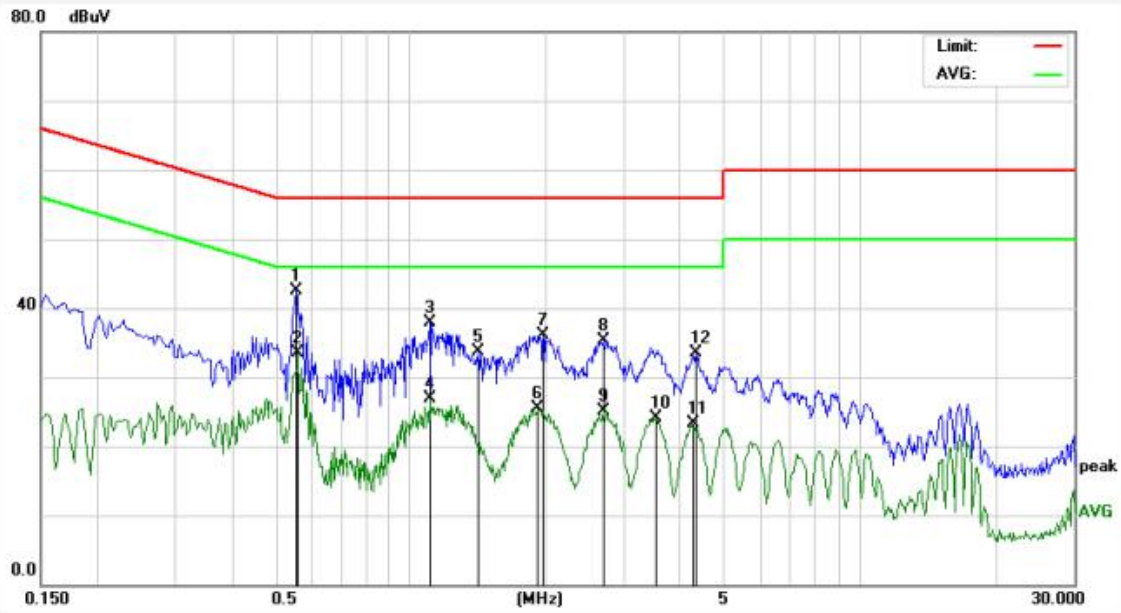
Test Site: 1# Shielded Room
Operating Condition: CH01
Test Specification: AC 120V, 60Hz for adapter
Comment: Neutral Line
Tem.: 21.6℃ Hum.: 50%



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Over Limit (dB)	Detector	Remark
1	0.1819	44.11	0.12	44.23	64.39	-20.16	QP	
2	0.2260	26.36	0.12	26.48	52.59	-26.11	AVG	
3	0.3020	37.07	0.13	37.20	60.19	-22.99	QP	
4	0.5260	28.63	0.15	28.78	46.00	-17.22	AVG	
5	0.5299	39.73	0.15	39.88	56.00	-16.12	QP	
6	1.0620	32.09	0.15	32.24	56.00	-23.76	QP	
7	1.0740	20.88	0.15	21.03	46.00	-24.97	AVG	
8	1.4180	20.25	0.14	20.39	46.00	-25.61	AVG	
9	1.4660	30.67	0.14	30.81	56.00	-25.19	QP	
10	1.8780	18.23	0.12	18.35	46.00	-27.65	AVG	
11	3.2020	18.18	0.12	18.30	46.00	-27.70	AVG	
12	4.8540	29.94	0.11	30.05	56.00	-25.95	QP	

Conducted Emission Test Data

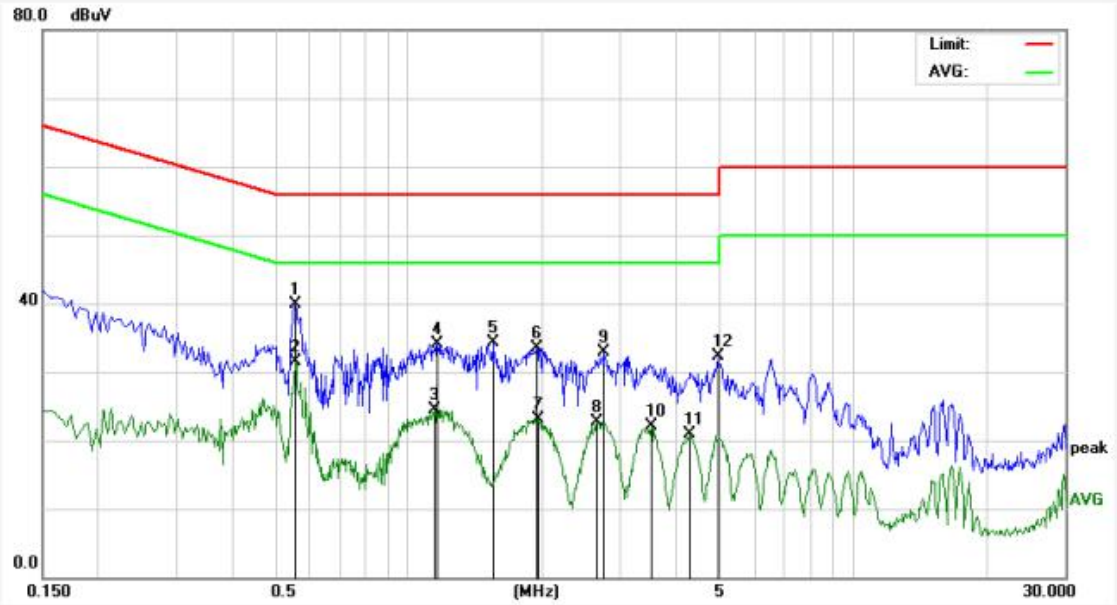
Test Site: 1# Shielded Room
Operating Condition: CH01
Test Specification: AC 240V, 60Hz for adapter
Comment: Live Line
Tem.: 21.6℃ Hum.: 50%



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Over Limit (dB)	Detector	Remark
1	0.5580	42.28	0.15	42.43	56.00	-13.57	QP	
2	0.5620	33.29	0.15	33.44	46.00	-12.56	AVG	
3	1.1019	37.76	0.15	37.91	56.00	-18.09	QP	
4	1.1019	26.73	0.15	26.88	46.00	-19.12	AVG	
5	1.4180	33.53	0.14	33.67	56.00	-22.33	QP	
6	1.9260	25.41	0.12	25.53	46.00	-20.47	AVG	
7	1.9780	35.96	0.12	36.08	56.00	-19.92	QP	
8	2.6820	35.25	0.12	35.37	56.00	-20.63	QP	
9	2.6820	24.97	0.12	25.09	46.00	-20.91	AVG	
10	3.5180	24.03	0.12	24.15	46.00	-21.85	AVG	
11	4.2300	23.18	0.11	23.29	46.00	-22.71	AVG	
12	4.3220	33.30	0.11	33.41	56.00	-22.59	QP	

Conducted Emission Test Data

Test Site: 1# Shielded Room
Operating Condition: CH01
Test Specification: AC 240V, 60Hz for adapter
Comment: Neutral Line
Tem.: 21.6℃ Hum.: 50%



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit (dBuV)	Over Limit (dB)	Detector	Remark
1	0.5580	39.73	0.15	39.88	56.00	-16.12	QP	
2	0.5580	31.38	0.15	31.53	46.00	-14.47	AVG	
3	1.1460	24.30	0.15	24.45	46.00	-21.55	AVG	
4	1.1620	33.91	0.15	34.06	56.00	-21.94	QP	
5	1.5460	34.13	0.13	34.26	56.00	-21.74	QP	
6	1.9460	33.33	0.12	33.45	56.00	-22.55	QP	
7	1.9540	23.04	0.12	23.16	46.00	-22.84	AVG	
8	2.6500	22.67	0.12	22.79	46.00	-23.21	AVG	
9	2.7540	32.76	0.12	32.88	56.00	-23.12	QP	
10	3.5180	22.08	0.12	22.20	46.00	-23.80	AVG	
11	4.2700	20.79	0.11	20.90	46.00	-25.10	AVG	
12	4.9780	32.12	0.11	32.23	56.00	-23.77	QP	

4. Radiated Emission and Band Edge

4.1. Test Standard and Limit

Test Standard	FCC Part15 C Section 15.209 and 15.205				
Test Limit	Frequency (MHz)	Field strength (microvolt/meter)	Limit (dBuV/m)	Remark	Measurement distance (m)
	0.009MHz~0.490MHz	2400/F(kHz)	-	-	300
	0.490MHz-1.705MHz	24000/F(kHz)	-	-	30
	1.705MHz-30MHz	30	-	-	30
	30MHz~88MHz	100	40.0	Quasi-peak	3
	88MHz~216MHz	150	43.5	Quasi-peak	3
	216MHz~960MHz	200	46.0	Quasi-peak	3
	960MHz~1000MHz	500	54.0	Quasi-peak	3
	Above 1000MHz	500	54.0	Average	3
		-	74.0	Peak	3

Remark:
(1)The lower limit shall apply at the transition frequency.
(2) 15.35(b), Unless otherwise specified, the limit on peak radio frequency emissions is 20dB above the maximum permitted average emission limit applicable to the equipment under test. This peak limit applies to the total peak emission level radiated by the device.

Test Standard	FCC Part15 C Section 15.249					
Test Limit	Frequency (MHz)	Field Strength of fundamental ((millivolts /meter)	Field Strength of Harmonics (microvolts/meter)	Limit (dBuV/m)	Remark	Measurement distance (m)
	2400~2483.5	50	-	114.0	Peak	3
	2400~2483.5	50	-	94.0	Average	3
	2400~2483.5	-	500	74.0	Peak	3
	2400~2483.5	-	500	54.0	Average	3

Remark:
(1) 15.35(b), Unless otherwise specified, the limit on peak radio frequency emissions is 20dB above the maximum permitted average emission limit applicable to the equipment under test. This peak limit applies to the total peak emission level radiated by the device.

4.2. Test Setup

Figure 1. Below 30MHz

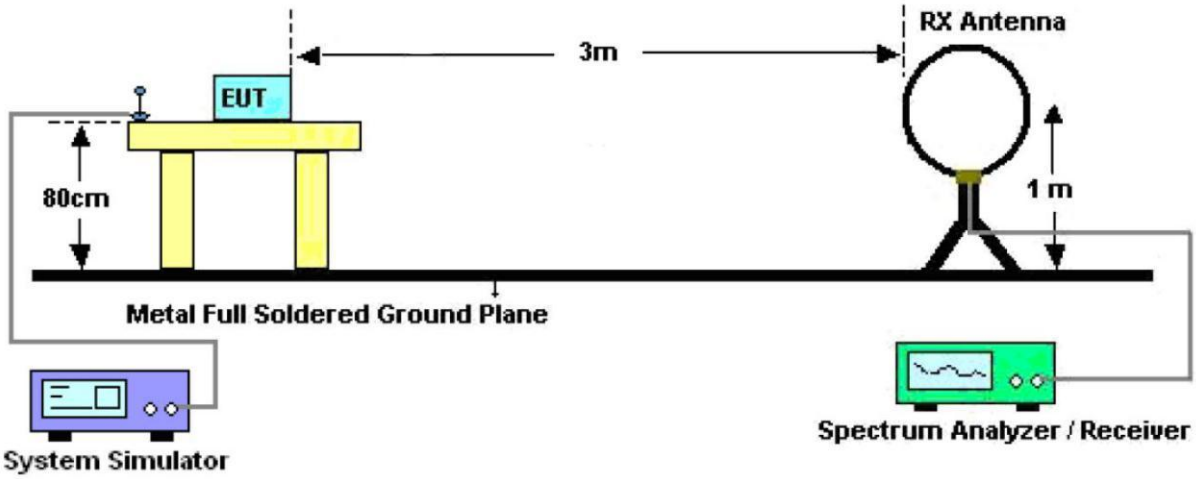


Figure 2. 30MHz to 1GHz

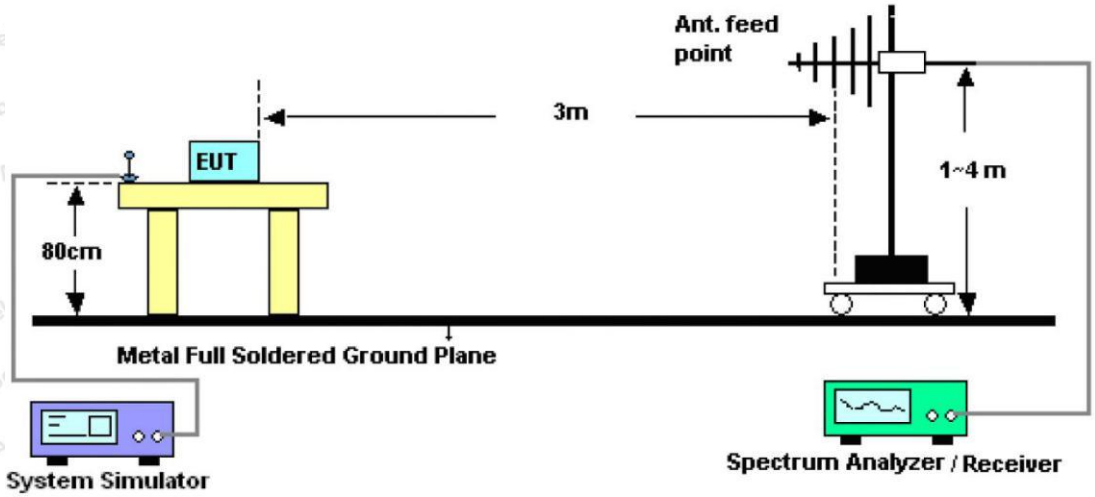
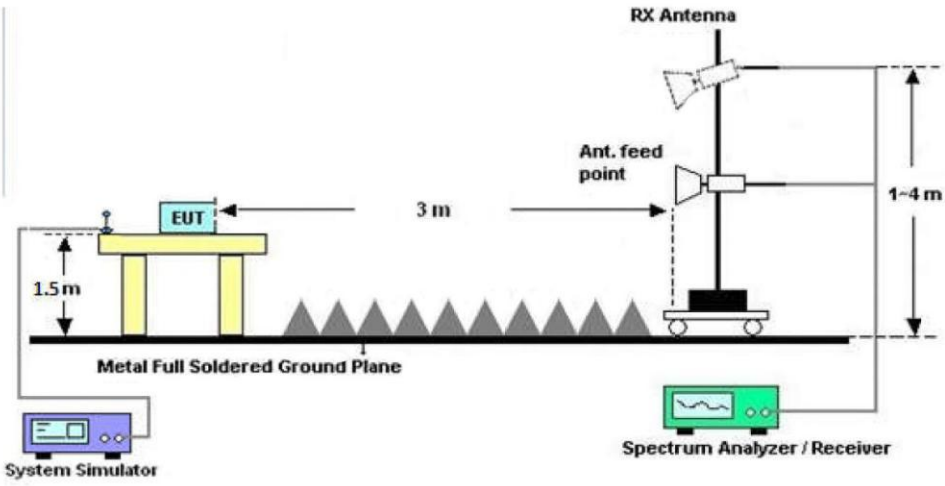


Figure 3. Above 1 GHz



4.3. Test Procedure

For below 1GHz: The EUT is placed on a turntable, which is 0.8m above the ground plane.
For above 1GHz: The EUT is placed on a turntable, which is 1.5m above the ground plane.
The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna which is mounted on a antenna tower. The antenna can be moved up and down from 1 to 4 meters to find out the maximum emission level. Rotated the EUT through three orthogonal axes to determine the maximum emissions, both horizontal and vertical polarization of the antenna are set on test. The EUT is tested in 9*6*6 Chamber. The device is evaluated in xyz orientation.

For the radiated emission test above 1GHz:
Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.

For 9kHz to 150kHz, Set the spectrum analyzer as:
RBW = 200Hz, VBW =1kHz, Detector= Quasi-Peak, Trace mode= Max hold, Sweep- auto couple.

For 150kHz to 30MHz, Set the spectrum analyzer as:
RBW = 9KHz, VBW =30kHz, Detector= Quasi-Peak, Trace mode= Max hold, Sweep- auto couple.

For 30MHz to 1000MHz, Set the spectrum analyzer as:
RBW = 100kHz, VBW =300kHz, Detector= Quasi-Peak, Trace mode= Max hold, Sweep- auto couple.

For above 1GHz,Set the spectrum analyzer as:
RBW =1MHz, VBW =1MHz, Detector= Peak, Trace mode= Max hold, Sweep- auto couple.
RBW =1MHz, VBW =10Hz, Detector= Average, Trace mode= Max hold, Sweep- auto couple.

4.4. Test Data

PASS

During the test, Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the X-axis is the worst case.

The test results of 9kHz-30MHz was attenuated more than 20dB below the permissible limits, so the results don't record in the report.

During the test, pre-scan all the modes, only the worst case is recorded in the report.

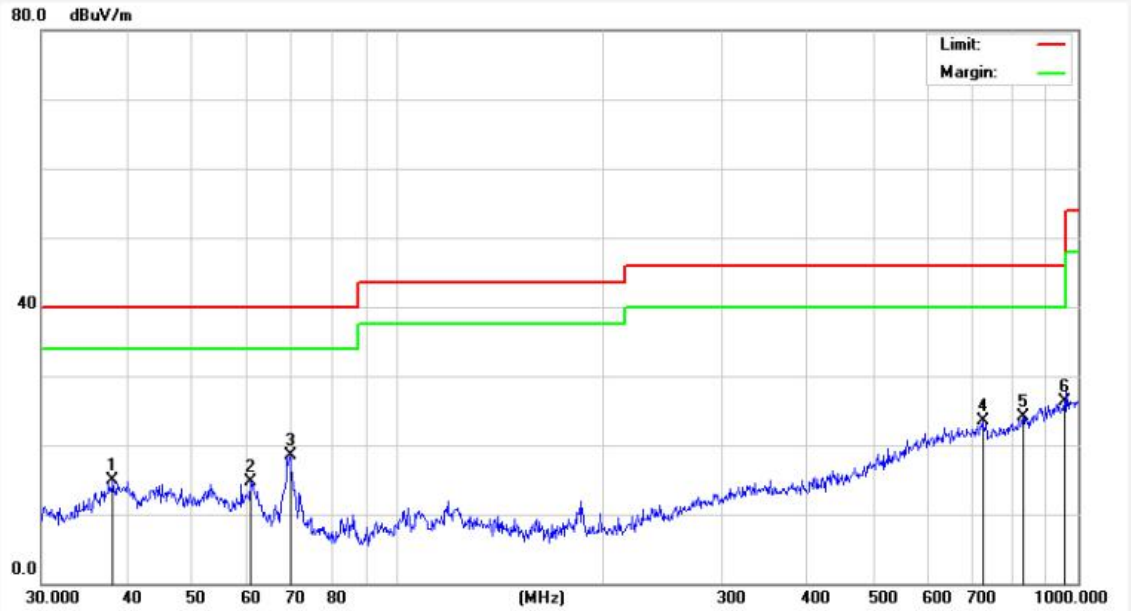
Test Results (30~1000MHz)

Test Mode: CH01

Power Source: DC 3.7V Battery inside

Polarization: Vertical

Temp.(℃)/Hum.(%RH): 22.5℃/50%RH



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	38.2120	30.36	-15.49	14.87	40.00	-25.13	QP			
2	60.9176	32.55	-17.82	14.73	40.00	-25.27	QP			
3	69.6005	38.40	-19.91	18.49	40.00	-21.51	QP			
4	724.2611	33.01	-9.59	23.42	46.00	-22.58	QP			
5	830.4002	31.97	-7.80	24.17	46.00	-21.83	QP			
6	955.4379	31.94	-5.55	26.39	46.00	-19.61	QP			

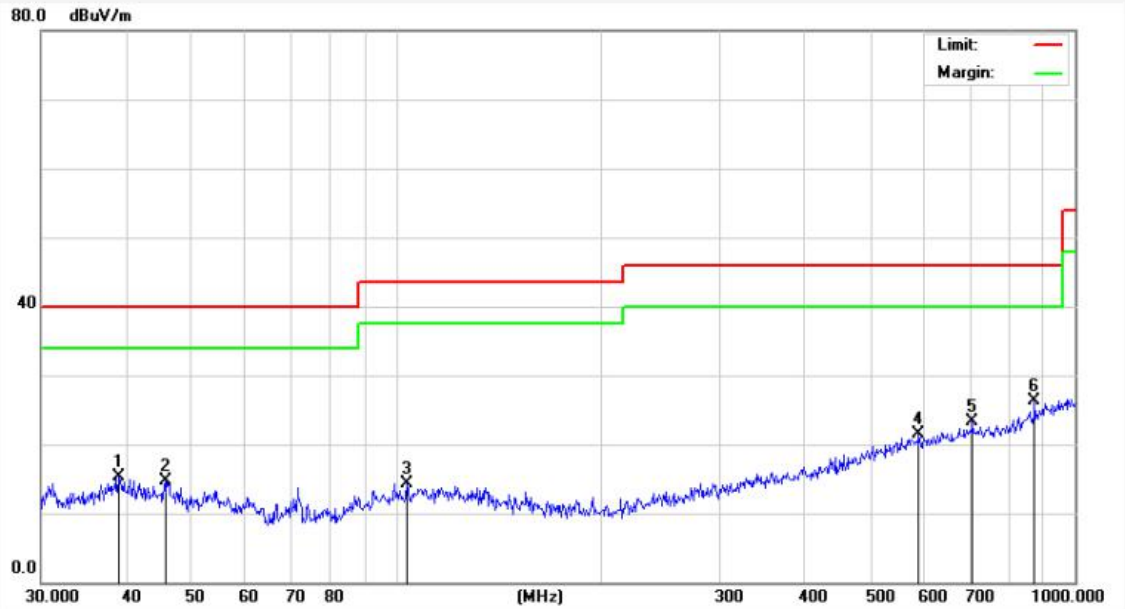
Test Results (30~1000MHz)

Test Mode: CH01

Power Source: DC 3.7V Battery inside

Polarization: Horizontal

Temp.(℃)/Hum.(%RH): 22.5℃/50%RH



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	39.0245	31.88	-16.50	15.38	40.00	-24.62	QP			
2	45.6948	30.03	-15.28	14.75	40.00	-25.25	QP			
3	103.8055	36.23	-22.00	14.23	43.50	-29.27	QP			
4	588.9049	32.20	-10.79	21.41	46.00	-24.59	QP			
5	706.6999	33.11	-9.83	23.28	46.00	-22.72	QP			
6	872.1832	33.27	-6.93	26.34	46.00	-19.66	QP			

Test Results (1GHz-25GHz)

Test Mode: CH01(Low channel)									
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.	Detector
2408.0000	93.75	31.12	2.18	35.33	91.72	114.00	-22.28	V	Peak
2408.0000	84.35	31.12	2.18	35.33	82.32	94.00	-11.68	V	AVG
4816.0000	50.41	34.01	2.58	34.65	52.35	74.00	-21.65	V	Peak
4816.0000	41.75	34.01	2.58	34.65	43.69	54.00	-10.31	V	AVG
7224.0000	47.43	36.16	2.97	35.07	51.49	74.00	-22.51	V	Peak
7224.0000	35.93	36.16	2.97	35.07	39.99	54.00	-14.01	V	AVG
9632.0000	*								
12040.0000	*								
14448.0000	*								
16856.0000	*								
2408.0000	96.59	31.12	2.18	35.33	94.56	114.00	-19.44	H	Peak
2408.0000	85.81	31.12	2.18	35.33	83.78	94.00	-10.22	H	AVG
4816.0000	48.08	34.01	2.58	34.65	50.02	74.00	-23.98	H	Peak
4816.0000	41.70	34.01	2.58	34.65	43.64	54.00	-10.36	H	AVG
7224.0000	46.19	36.16	2.97	35.07	50.25	74.00	-23.75	H	Peak
7224.0000	35.45	36.16	2.97	35.07	39.51	54.00	-14.49	H	AVG
9632.0000	*								
12040.0000	*								
14448.0000	*								
16856.0000	*								

Note:

1. Level =Read Level + Antenna Factor + Cable Loss – Preamp Factor

2. "*" means the test results were attenuated more than 20dB below the permissible limits, so the results don't record in the report.

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Hotline 400-003-0500
www.anbotek.com

Test Mode: CH17 (Middle channel)									
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.	Detector
2440.0000	95.02	31.12	2.20	34.51	93.83	114.00	-20.17	V	Peak
2440.0000	83.44	31.22	2.20	34.51	82.35	94.00	-11.65	V	AVG
4880.0000	50.84	34.98	2.49	34.14	54.17	74.00	-19.83	V	Peak
4880.0000	38.41	34.98	2.49	34.14	41.74	54.00	-12.26	V	AVG
7320.0000	47.20	36.01	3.01	34.56	51.66	74.00	-22.34	V	Peak
7320.0000	36.15	36.01	3.01	34.56	40.61	54.00	-13.39	V	AVG
9760.0000	*								
12200.0000	*								
14640.0000	*								
17080.0000	*								
2440.0000	94.61	31.12	2.20	34.51	93.42	114.00	-20.58	H	Peak
2440.0000	82.40	31.12	2.20	34.51	81.21	94.00	-12.79	H	AVG
4880.0000	47.07	34.98	2.49	34.14	50.40	74.00	-23.60	H	Peak
4880.0000	40.54	34.98	2.49	34.14	43.87	54.00	-10.13	H	AVG
7320.0000	47.07	36.01	3.01	34.56	51.53	74.00	-22.47	H	Peak
7320.0000	38.44	36.01	3.01	34.56	42.90	54.00	-11.10	H	AVG
9760.0000	*								
12200.0000	*								
14640.0000	*								
17080.0000	*								

Note:

1. Level =Read Level + Antenna Factor + Cable Loss – Preamp Factor

2. "*" means the test results were attenuated more than 20dB below the permissible limits, so the results don't record in the report.

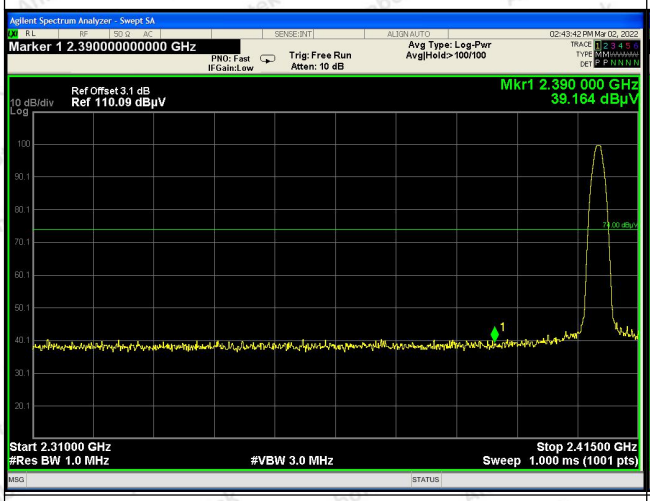
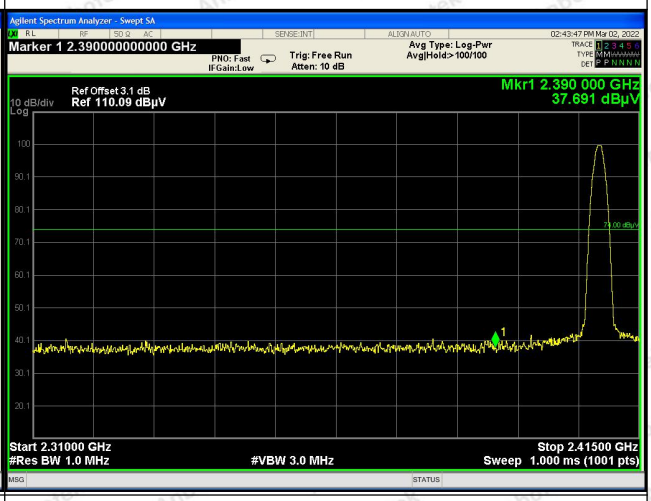
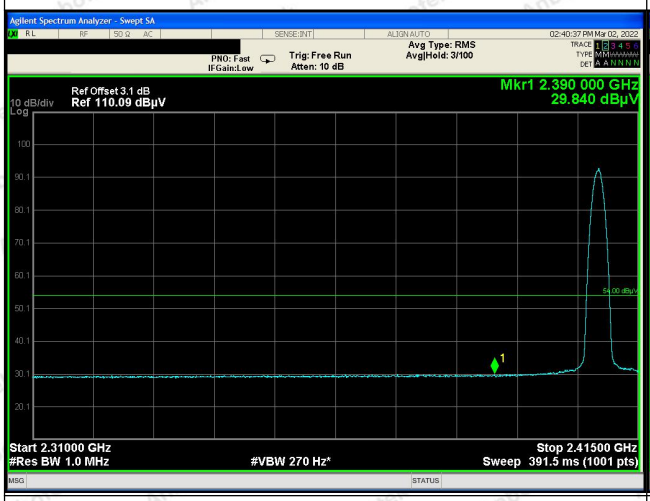
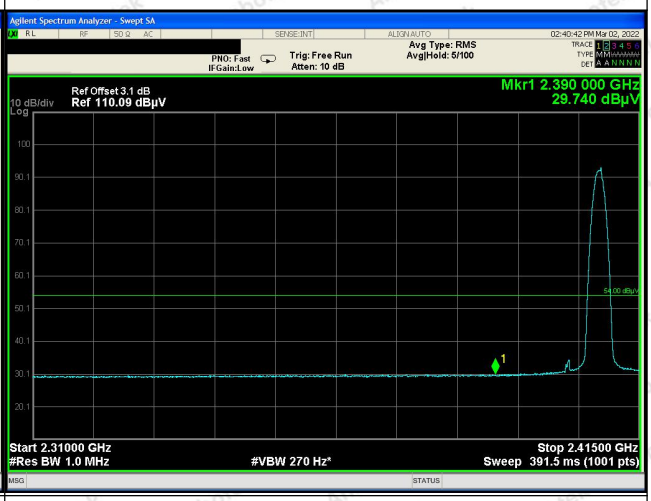
Test Mode: CH34(High channel)									
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.	Detector
2474.0000	95.58	31.65	2.23	36.07	93.39	114.00	-20.61	V	Peak
2474.0000	83.29	31.65	2.23	36.07	81.10	94.00	-12.90	V	AVG
4948.0000	47.90	35.06	2.60	34.93	50.63	74.00	-23.37	V	Peak
4948.0000	38.16	35.06	2.60	34.93	40.89	54.00	-13.11	V	AVG
7422.0000	47.29	36.19	3.12	35.11	51.49	74.00	-22.51	V	Peak
7422.0000	35.14	36.19	3.12	35.11	39.34	54.00	-14.66	V	AVG
9896.0000	*								
12370.0000	*								
14844.0000	*								
17318.0000	*								
2474.0000	94.60	31.65	2.23	36.07	92.41	114.00	-21.59	H	Peak
2474.0000	84.59	31.65	2.23	36.07	82.40	94.00	-11.60	H	AVG
4948.0000	50.49	35.06	2.60	34.93	53.22	74.00	-20.78	H	Peak
4948.0000	38.27	35.06	2.60	34.93	41.00	54.00	-13.00	H	AVG
7422.0000	45.42	36.19	3.12	35.11	49.62	74.00	-24.38	H	Peak
7422.0000	37.57	36.19	3.12	35.11	41.77	54.00	-12.23	H	AVG
9896.0000	*								
12370.0000	*								
14844.0000	*								
17318.0000	*								

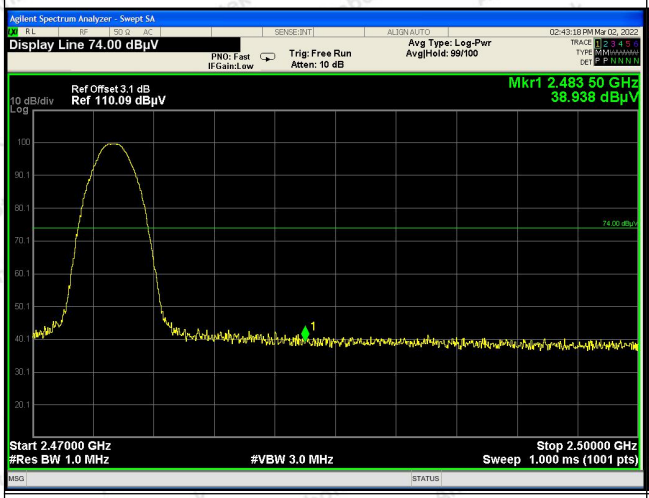
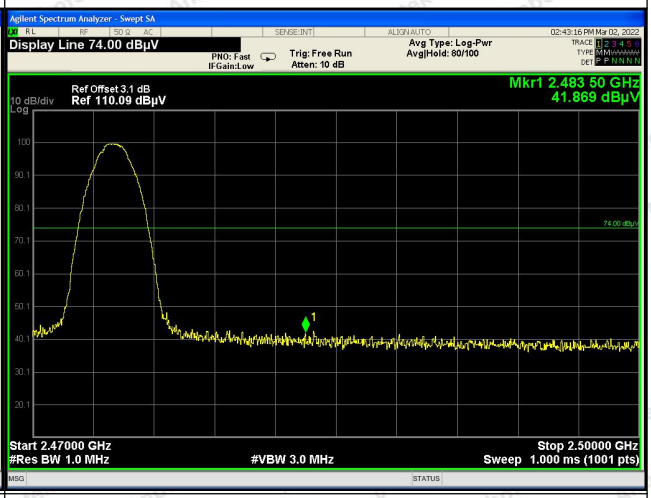
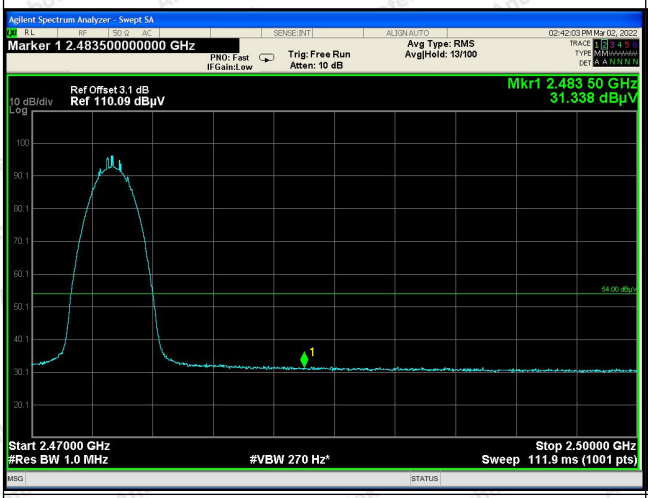
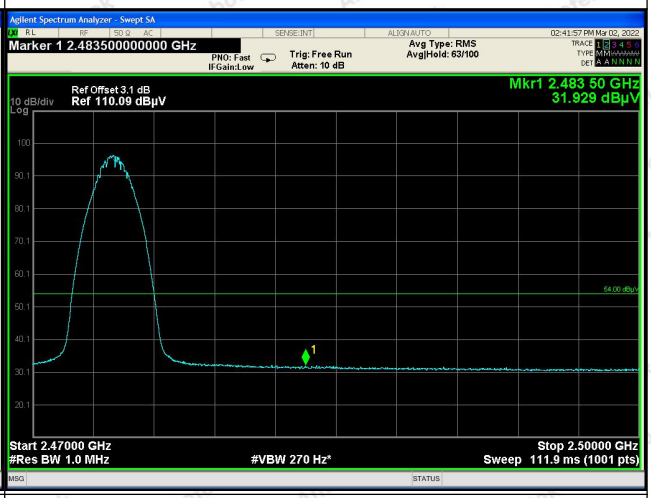
Note:

1. Level =Read Level + Antenna Factor + Cable Loss – Preamp Factor

2. "*" means the test results were attenuated more than 20dB below the permissible limits, so the results don't record in the report.

Radiated Band Edge:

Test Mode: CH01	Test channel: Lowest
	
Peak Value(Vertical)	Peak Value(Horizontal)
	
Average Value(Vertical)	Average Value(Horizontal)

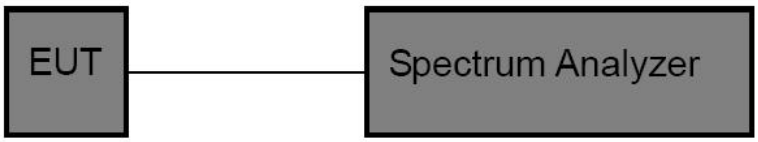
Test Mode: CH34	Test channel: Highest
	
Peak Value(Vertical)	Peak Value(Horizontal)
	
Average Value(Vertical)	Average Value(Horizontal)

5. 20dB Bandwidth Test

5.1. Test Standard and Limit

Test Standard	FCC Part15 C Section 15.249

5.2. Test Setup



5.3. Test Procedure

1. Place the EUT on the table and set it in the transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
3. Set the spectrum analyzer as:

RBW = 30kHz, VBW≥3*RBW =100kHz,

Detector= Average

Trace mode= Max hold.

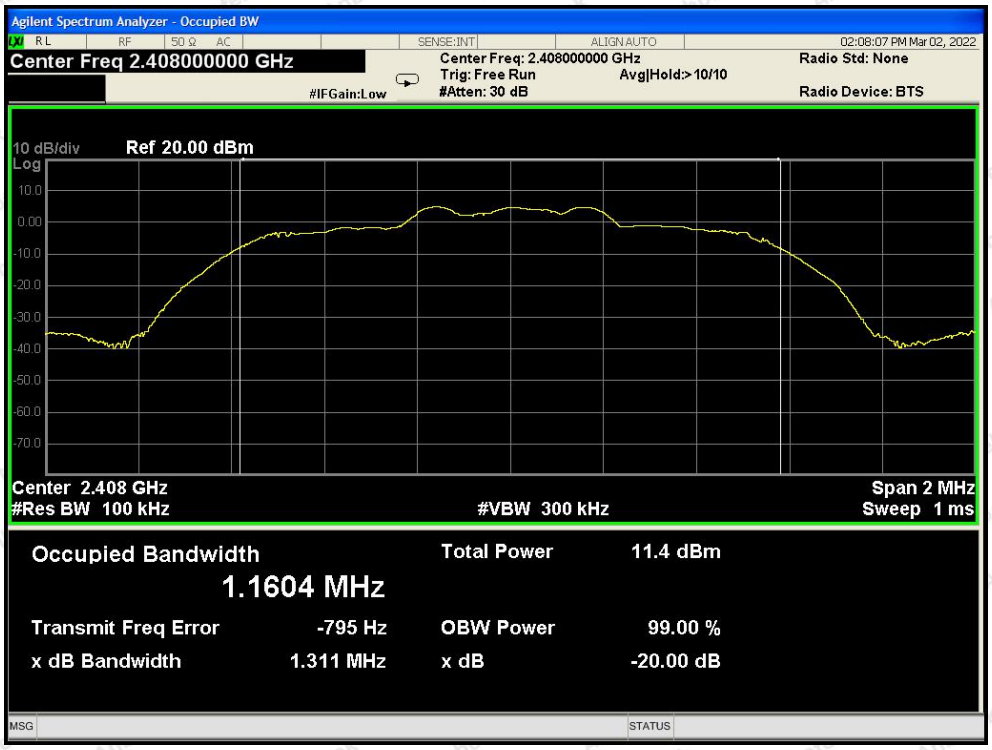
Sweep- auto couple.

4. Mark the peak frequency and –20dB (upper and lower) frequency.
5. Repeat until all the rest channels are investigated.

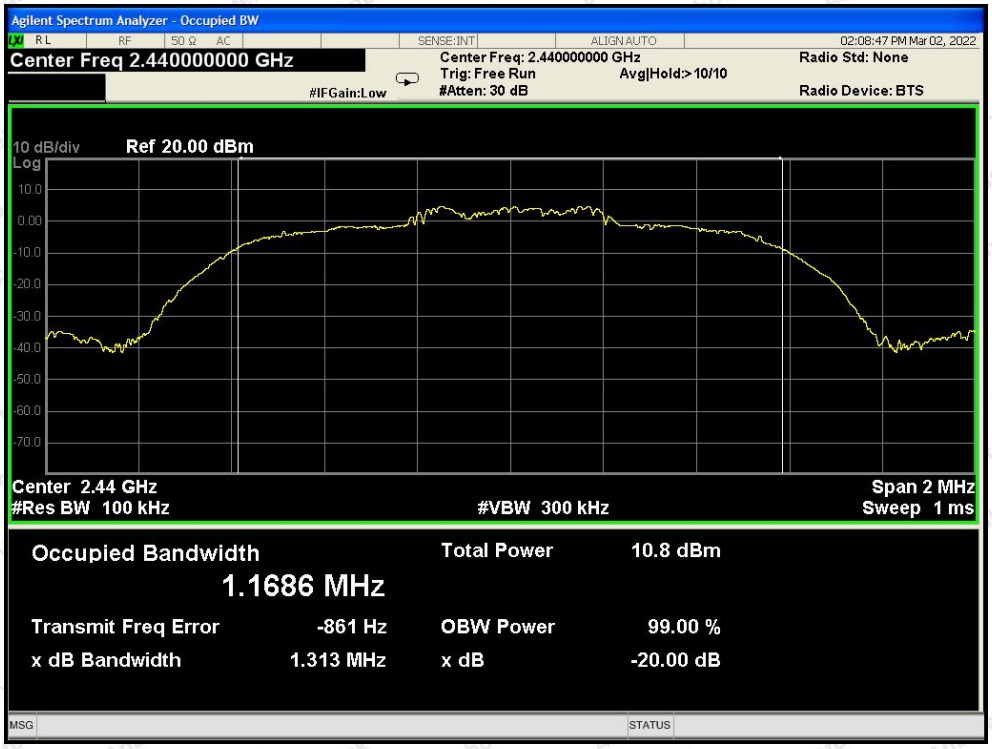
5.4. Test Data

Test Item	:	20dB Bandwidth	Test Mode	:	Mode 1~3
Test Voltage	:	DC 3.7V Battery inside	Temperature	:	22.4℃
Test Result	:	PASS	Humidity	:	55%RH

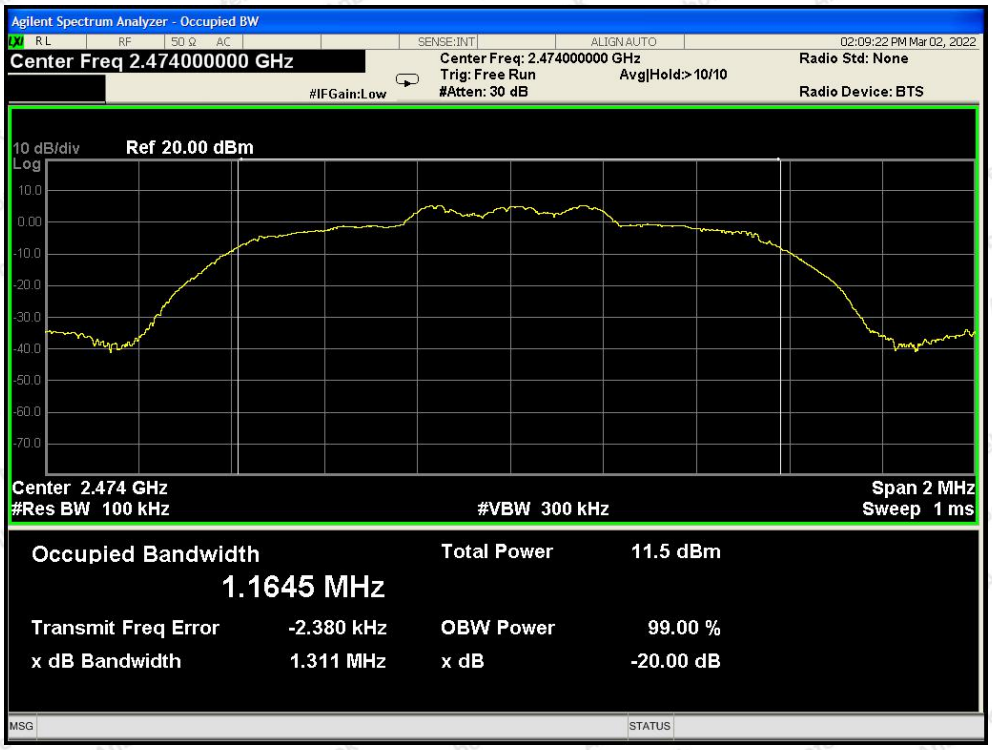
Test Channel	Bandwidth (kHz)	Result
Low CH	1311	PASS
Mid CH	1313	PASS
High CH	1311	PASS



Test Mode: Low



Test Mode: Middle



Test Mode: High

6. Antenna Requirement

6.1. Test Standard and Requirement

Test Standard	FCC Part15 Section 15.203
Requirement	1) 15.203 requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

6.2. Antenna Connected Construction

The antenna is a PCB Antenna which permanently attached, and the best case gain of the antenna is -2 dBi. It complies with the standard requirement.

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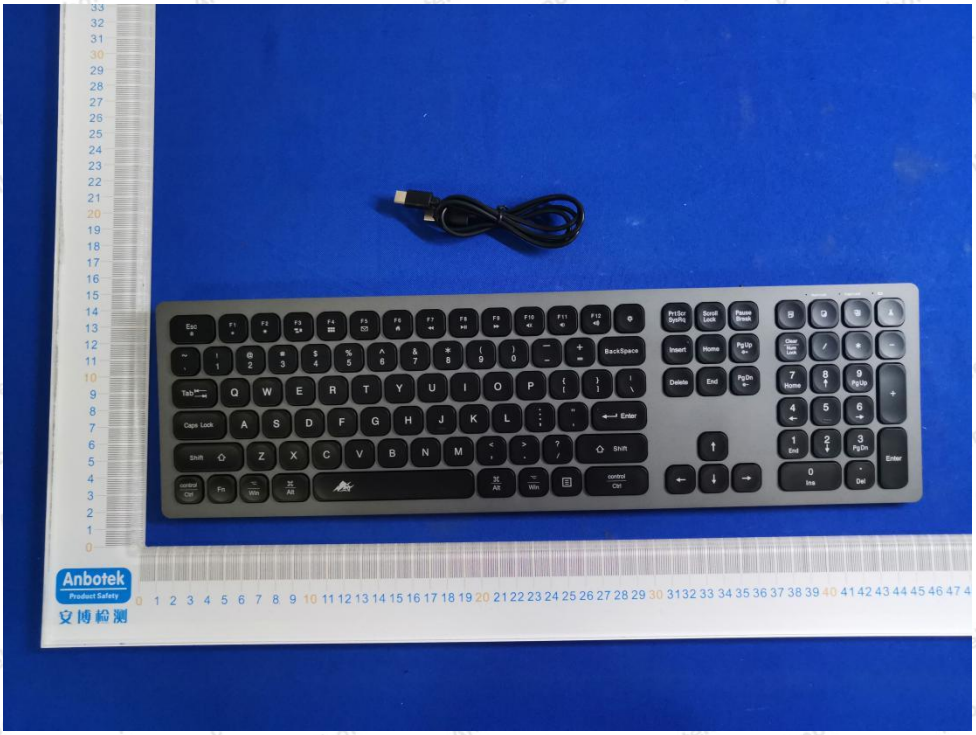
Hotline 400-003-0500
www.anbotek.com

APPENDIX I -- TEST SETUP PHOTOGRAPH

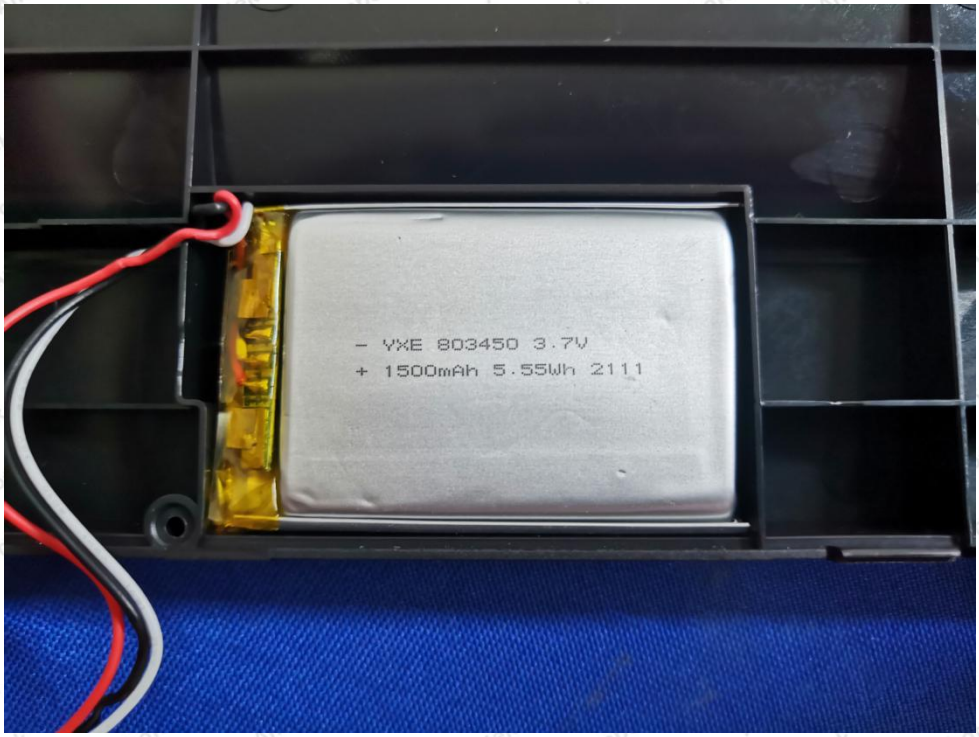
Photo of Conducted Emission Measurement

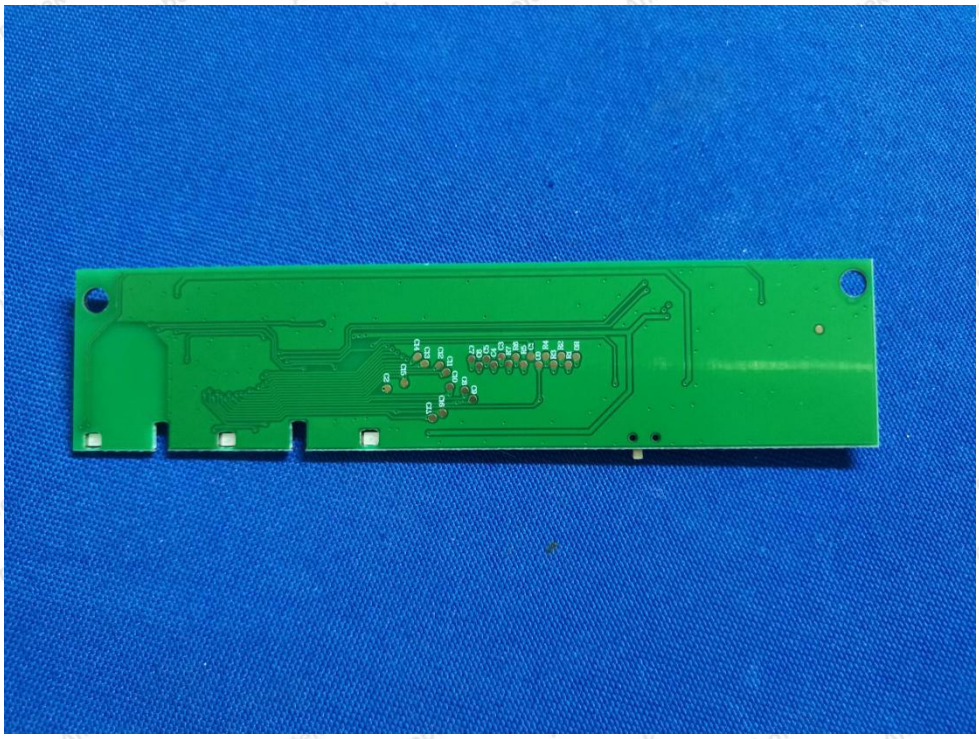
Photo of Radiation Emission Test

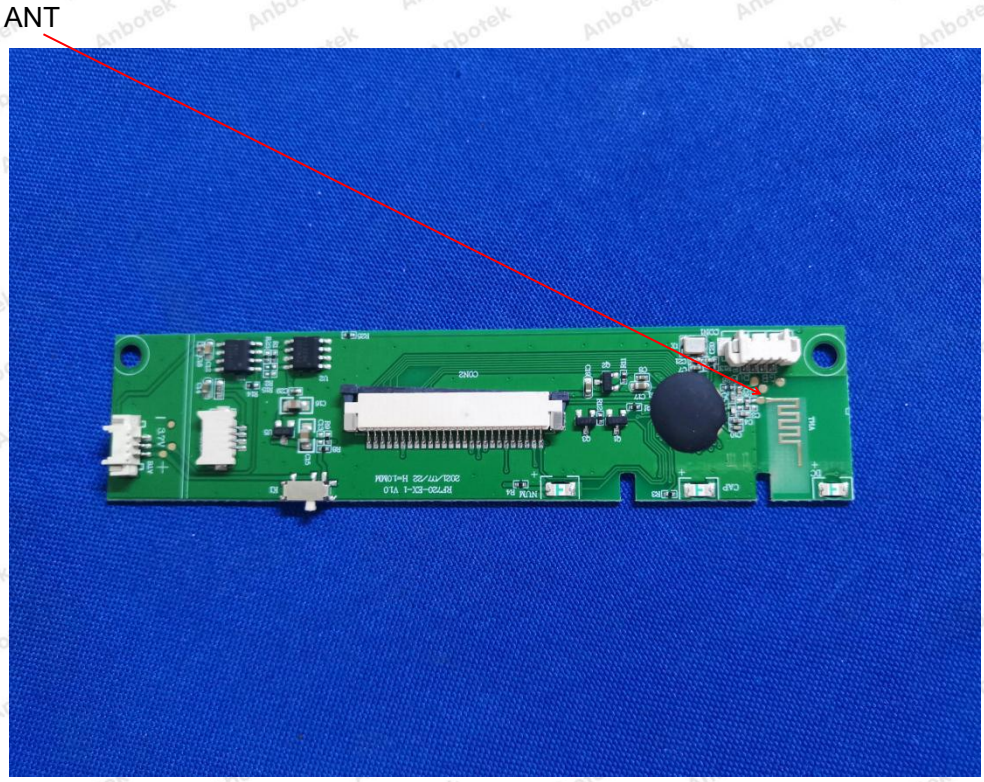
APPENDIX II -- EXTERNAL PHOTOGRAPH



APPENDIX III -- INTERNAL PHOTOGRAPH







---------- End of Report ----------