

EMC Test Report


Product Name : POS Termina
Model No. : MF960

Applicant : Fujian Morefun Electronic Technology Co., Ltd.
: 4th Floor, #15 Building, Standard plant, Fuwan, Jinshan
Address Industry Center Area, #869 Panyu Rd, Gaishan Town,
Cangshan Area, Fuzhou, Fujian, China


Date of Receipt : October 14, 2024
Test Date : November 29, 2024~ December 05, 2024
Issued Date : December 09, 2024
Report Number : 24A0319R-IT-US-P01V01

The test results presented in this report relate only to the object tested.
This report is not used for social proof in China (or Mainland China) market.
The measurement result is considered in conformance with the requirement if it is within the prescribed limit,
it is not necessary to calculate the uncertainty associated with the measurement result.
This report shall not be reproduced, except in full, without the written approval of DEKRA Testing and
Certification (Suzhou) Co., Ltd.


Issued Date : December 09, 2024
Report Number : 24A0319R-IT-US-P01V01

Product Name : POS Termina
Applicant : Fujian Morefun Electronic Technology Co., Ltd.
Address : 4th Floor, #15 Building, Standard plant, Fuwan, Jinshan Industry Center Area, #869 Panyu Rd, Gaishan Town, Cangshan Area, Fuzhou, Fujian, China
Manufacturer : Fujian Morefun Electronic Technology Co., Ltd.
Address : 4th Floor, #15 Building, Standard plant, Fuwan, Jinshan Industry Center Area, #869 Panyu Rd, Gaishan Town, Cangshan Area, Fuzhou, Fujian, China
Model No. : MF960
FCC ID : 2AQRE-MF960
Brand Name : 
EUT Voltage : 5Vdc
Test Voltage : 120 Vac, 60 Hz
Applicable Standard : FCC CFR Title 47 Part 15 Subpart B: 2023
ANSI C63.4: 2014
Test Result : Complied
Performed Location : DEKRA Testing and Certification (Suzhou) Co., Ltd.
No.99 Hongye Rd., Suzhou Industrial Park, Suzhou, 215006, Jiangsu, China
FCC Designation : CN1199

Number
This report is made under FCC Part 2.1075. No modifications were required during testing to bring this product into compliance.

Tested By : 

(Sue Cai/Project Engineer)

Approved By : 

(Star Wang/Manager)

TABLE OF CONTENTS


Description	Page No.
1 General Information.....	5
1.1 EUT Description.....	5
1.2 Mode of Operation	6
1.3 Tested System Details	7
1.4 Configuration of Tested System	8
1.5 EUT Exercise Software	11
2 Technical Test.....	12
2.1 Summary of Test Result.....	12
2.2 List of Test Equipment.....	13
2.3 Test Environment	14
2.4 Measurement Uncertainty.....	15
3 Conducted disturbance.....	16
3.1 Test Specification.....	16
3.2 Test Setup.....	16
3.3 Limit.....	17
3.4 Test Procedure.....	17
3.5 Deviation from Test Standard.....	17
3.6 Test Result.....	18
3.7 Test Photograph.....	24
4 Radiated disturbance.....	25
4.1 Test Specification.....	25
4.2 Test Setup.....	25
4.3 Limit.....	27
4.4 Test Procedure.....	28
4.5 Deviation from Test Standard.....	28
4.6 Test Result.....	29
4.7 Test Photograph.....	44
5 Attachment	45
EUT Photograph	45

Document History

Report Number	Date	Description
24A0319R-IT-US-P01V01	December 09, 2024	First release

1 General Information

1.1 EUT Description

Product Name	POS Termina
Model No.	MF960
Brand Name	

Note 1: The EUT information is from customer declaration.

Component	
Adapter	Manufacturer: Dongguan Dingguanlong Electrical Appliance Co, Ltd M/N: DGL0502000LUS Input: 100-240V~50/60Hz 0.3A Max Output: 5V===2000mA
Wireless Card	Z400-H

1.2 Mode of Operation

We have verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

Pre-Test Mode
Mode 1: (Charging and card reading mode) +GSM850 Idle+BT+2.4GWLAN+GNSS+NFC
Mode 2: (Charging, read card and print receipt mode) +GSM850 Ide+BT+5GWLAN+GNSS
Mode 3: mode 2 + WCDMA Band 5 Idle
Mode 4: mode 2 + LTE 5 Idle
Mode 5: mode 2 + LTE 12 Idle
Mode 6: mode 2 + LTE 13 Idle
Mode 7: mode 2 + LTE 14 Idle
Mode 8: mode 2 + LTE 17 Idle
Mode 9: mode 2 + LTE 26 Idle
Mode 10: mode 2 Idle + data transmission
Final Test Mode
Mode 1
Mode 2
Mode 10

The report only shows Final Test Mode results

1.3 Tested System Details

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

Mode 1

Product	Manufacturer	Model No.	Serial No.	Power Cord
1 Phone	Hua Wei	P50pro	N/A	N/A
2 Magnetic card	ICBC	N/A	N/A	N/A
3 UXM 5G Wireless Test Platform	Keysight	E7515B	MY58120445	Non-Shielded, 1.8 m
4 TF Card	SAMSUNG	U3A2V30	N/A	N/A
5 SIM Card	N/A	N/A	N/A	N/A

Mode 2

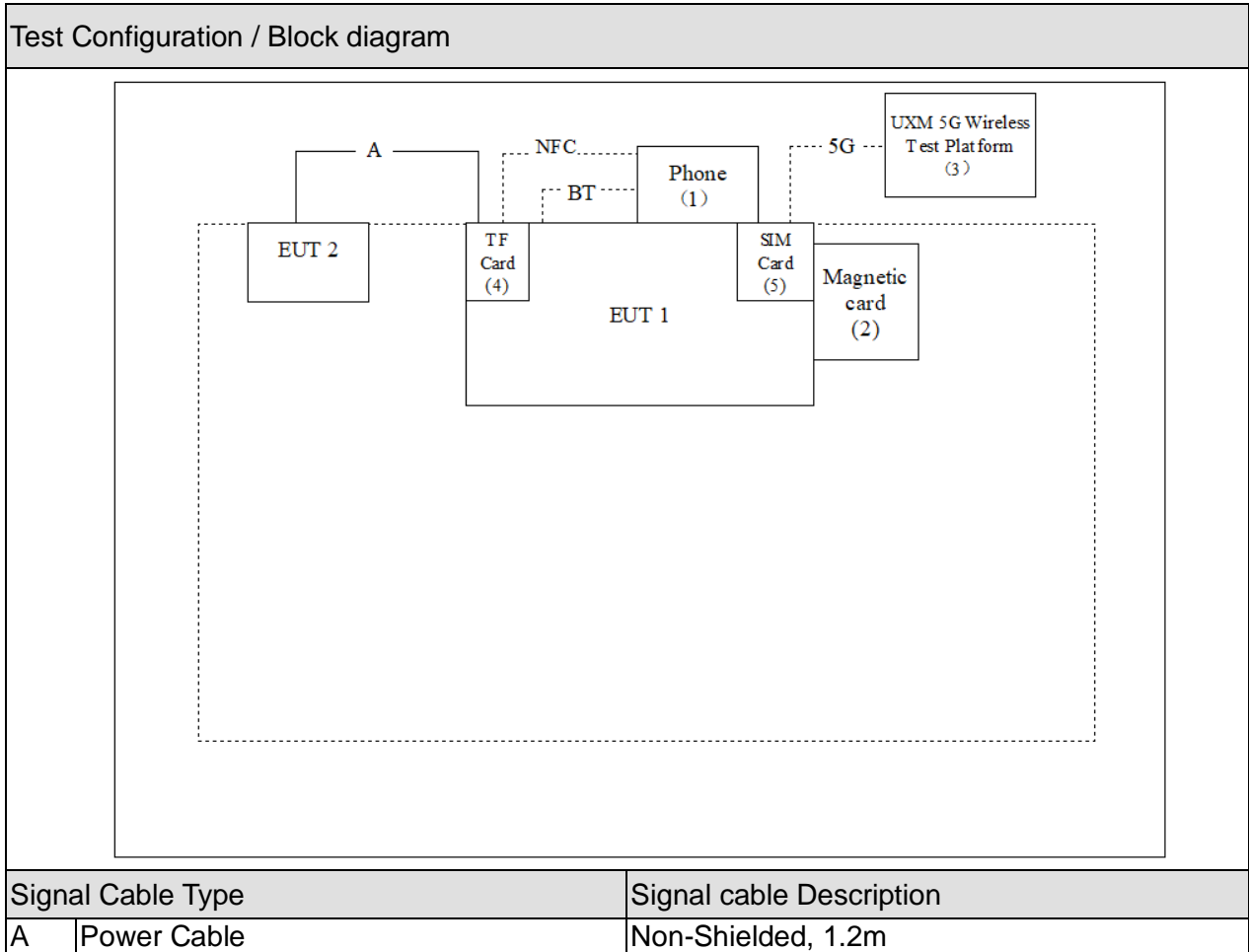
Product	Manufacturer	Model No.	Serial No.	Power Cord
1 IC card	ICBC	N/A	N/A	N/A
2 Wireless Communication Tester	R&S	CMW 270	102593	Non-Shielded, 1.8 m
3 TF Card	SAMSUNG	U3A2V30	N/A	N/A
4 SIM Card	N/A	N/A	N/A	N/A

Mode 10

Product	Manufacturer	Model No.	Serial No.	Power Cord
1 Thinkplus USB flash disk	Lenovo	MU110	2S36006327B W4A800499	Powered by EUT
2 TF Card	SAMSUNG	U3A2V30	N/A	N/A
3 SIM Card	N/A	N/A	N/A	N/A

1.4 Configuration of Tested System

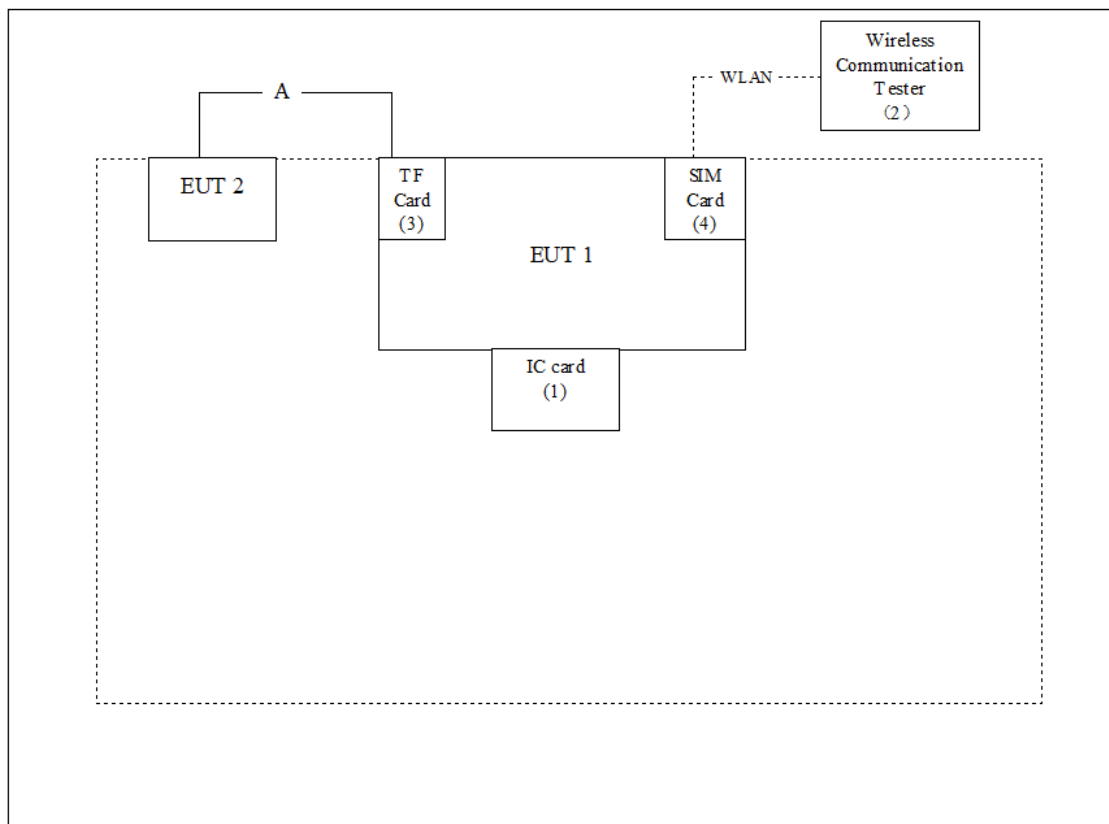
Mode 1



EUT 1 is POS Terminal, EUT 2 is Adapter, EUT 1 Charged by EUT 2.

Mode 2:

Test Configuration / Block diagram

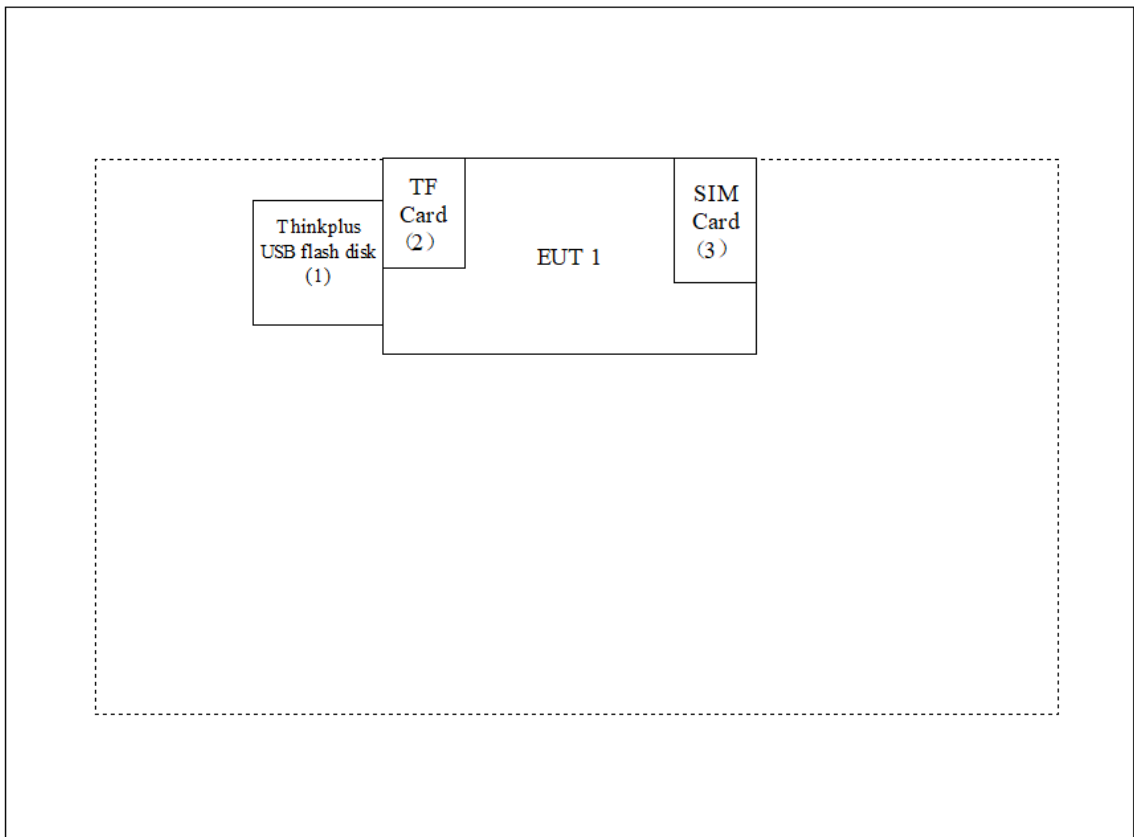


Signal Cable Type		Signal cable Description
A	Power Cable	Non-Shielded, 1.2m

EUT 1 is POS Terminal, EUT 2 is Adapter, EUT 1 Charged by EUT 2.

Mode 10:

Test Configuration / Block diagram



Signal Cable Type		Signal cable Description
N/A	N/A	N/A

EUT 1 is POS Terminal.

1.5 EUT Exercise Software

1	Setup the EUT and simulators as shown on above.
2	Turn on the power of all equipment.
3	Confirm the EUT working normally.
4	Start testing.

2 Technical Test

2.1 Summary of Test Result

- No deviations from the test standards
- Deviations from the test standards as below description:

Emission			
Performed Test Item	Normative References	Test Performed	Deviation
Conducted disturbance	FCC CFR Title 47 Part 15 Subpart B: 2023 Class B ANSI C63.4: 2014	Yes	No
Radiated disturbance	FCC CFR Title 47 Part 15 Subpart B: 2023 Class B ANSI C63.4: 2014	Yes	No

2.2 List of Test Equipment

Wireless Connectivity

Instrument	Manufacturer	Model No.	Serial No.	Cali. Date	Cali. Due Date
UXM 5G Wireless Test Platform	Keysight	E7515B	MY58120445	2024.04.03	2025.04.02

Conducted Emission / TR1

Instrument	Manufacturer	Model No.	Serial No.	Cali. Date	Cali. Due Date
EMI Test Receiver	R&S	ESR7	102086	2024.01.21	2025.01.20
Two-Line V-Network	R&S	ENV216	101189	2024.07.06	2025.07.05
50ohm Coaxial Switch	Anritsu	MP59B	6200464462	2024.04.20	2025.04.19
Coaxial Cable	Suhner	RG 223	TR1-C1	2024.04.27	2025.04.26
Temperature/Humidity Meter	RTS	RTS-1909	THM-012	2024.05.17	2025.05.16
Software	Quietek	EMI_V3	V3.0.0	N/A	N/A

Radiated Emission / AC2

Instrument	Manufacturer	Model No.	Serial No.	Cali. Date	Cali. Due Date
EMI Test Receiver	R&S	ESR7	100176	2024.05.12	2025.05.11
Bilog Antenna	Teseq GmbH	CBL6112D	27611	2024.03.20	2025.03.19
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC2-C	2024.04.27	2025.04.26
Temperature/Humidity Meter	RTS	RTS-1909	THM-021	2024.05.17	2025.05.16
Software	Quietek	EMI_V3	V3.0.0	N/A	N/A

Radiated Emission / AC5

Instrument	Manufacturer	Model No.	Serial No.	Cali. Date	Cali. Due Date
MXA Signal Analyzer	Keysight	N9020B	MY60112218	2024.11.02	2025.11.01
Pre-Amplifier	SKET	LNPA_0118G-45	SK2021090101	2024.04.27	2025.04.26
DRG Horn Antenna	ETS-Lindgren	3117	00167055	2024.08.29	2025.08.28
Coaxial Cable	Rosenberger	LA1-C011-1000	0523	2024.05.26	2025.05.25
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	294	2024.02.29	2025.02.28
Pre-Amplifier	ChengYi	EMC184045SE	980263	2024.07.06	2025.07.05
Coaxial Cable	ROSENBERGER	LA1-C011-2000/3000	AC5-40G	2024.01.25	2025.01.26
Temperature/Humidity Meter	RTS	RTS-1909	THM-024	2024.05.17	2025.05.16
Software	Quietek	EMI_V3	V3.0.0	N/A	N/A

2.3 Test Environment

Tests have been performed in a controlled laboratory environment, where the environmental conditions are maintained within the applicable ranges.

Performed Item	Items	Required	Actual
Conducted Emission	Temperature (°C)	10-40	23
	Humidity (%RH)	25-75	40
	Barometric pressure (mbar)	860-1060	1010
Radiated Emission (30~1000MHz)	Temperature (°C)	10-40	24
	Humidity (%RH)	25-75	40
	Barometric pressure (mbar)	860-1060	1010
Radiated Emission (1~40GHz)	Temperature (°C)	10-40	21
	Humidity (%RH)	25-75	43
	Barometric pressure (mbar)	860-1060	1010

2.4 Measurement Uncertainty

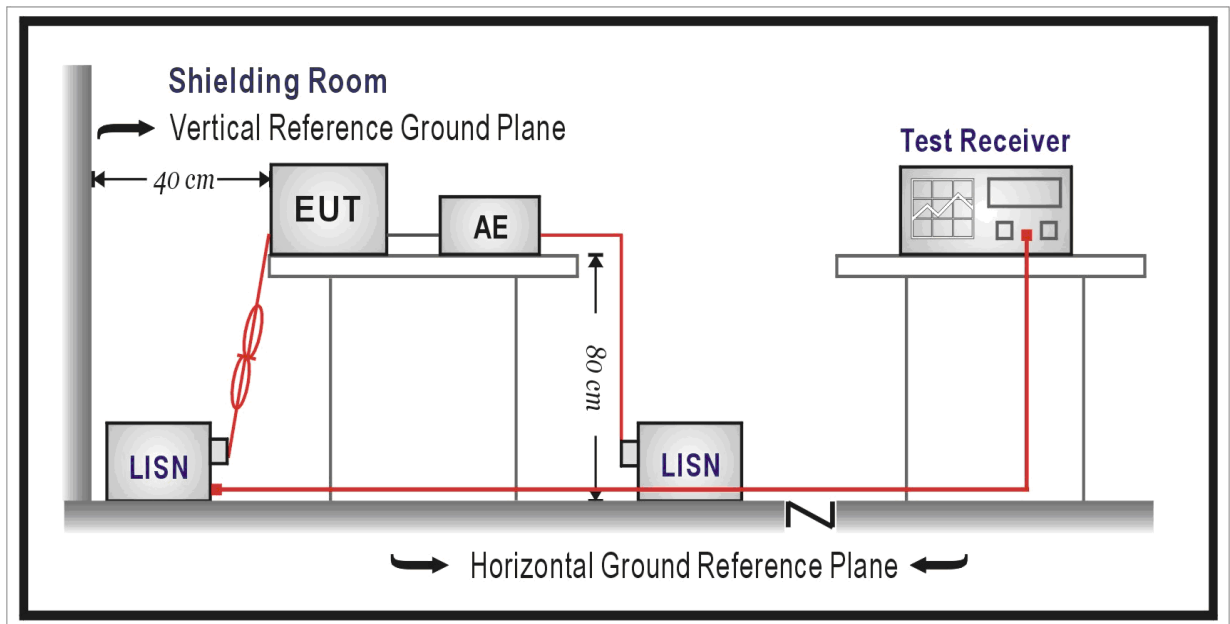
Conducted disturbance voltage – AC&DC power port(s) / TR1
The maximum measurement uncertainty is evaluated as: Mains: 9 kHz~30 MHz: 3.1 dB
Radiated emission / AC2
The maximum measurement uncertainty is evaluated as: Horizontal: 30 MHz~200 MHz: 4.7 dB 200 MHz~1 GHz: 4.4 dB Vertical: 30 MHz~200 MHz: 4.9 dB 200 MHz~1 GHz: 4.3 dB
Radiated emission / AC5
The maximum measurement uncertainty is evaluated as: Horizontal: 1 GHz~18 GHz: 5.2 dB Vertical: 1 GHz~18 GHz: 5.4 dB Horizontal: 18 GHz~40 GHz: 4.7 dB Vertical: 18 GHz~40 GHz: 4.6 dB

3 Conducted disturbance

3.1 Test Specification

According to Standard: FCC Part 15.107, ANSI C63.4

3.2 Test Setup



3.3 Limit

<input type="checkbox"/> Limits for conducted disturbance of class A		
Frequency range MHz	Limits dB(μV)	
	Quasi-peak	Average
0.15 to 0.50	79	66
0.50 to 30	73	60

NOTE: The lower limit shall apply at the transition frequency.

<input checked="" type="checkbox"/> Limits for conducted disturbance of class B		
Frequency range MHz	Limits dB(μV)	
	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

NOTE 1: The lower limit shall apply at the transition frequencies.
 NOTE 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.

3.4 Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50Ω / 50μH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50Ω / 50μH coupling impedance with 50Ω termination. (Please refer to the block diagram of the test setup and photographs.)

Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed on conducted measurement.

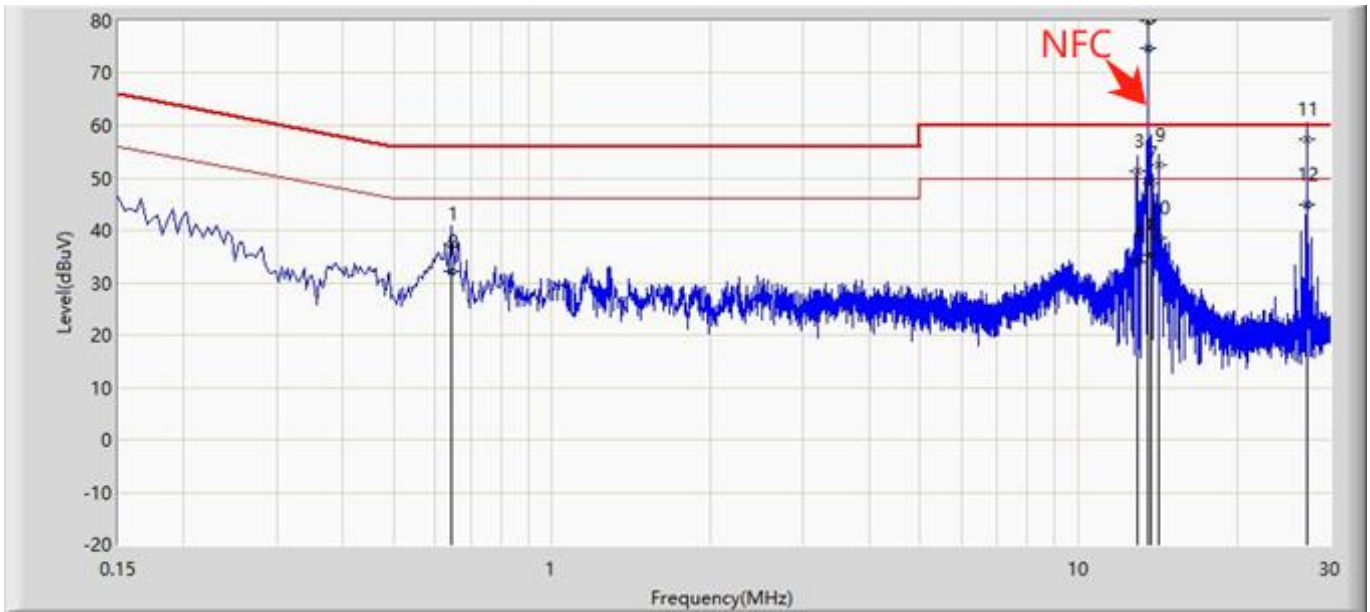
Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

3.5 Deviation from Test Standard

No deviation.

3.6 Test Result

Engineer: Jim Fu	
Site: TR1	Time: 2024/12/02
Limit: FCC_Part 15.107_CE_AC Power_Class B	Margin: 0
Probe: ENV216_101189(0.009-30MHz)	Polarity: Line
EUT: POS Termina	Power: 120Vac, 60Hz
Note: Mode 1	



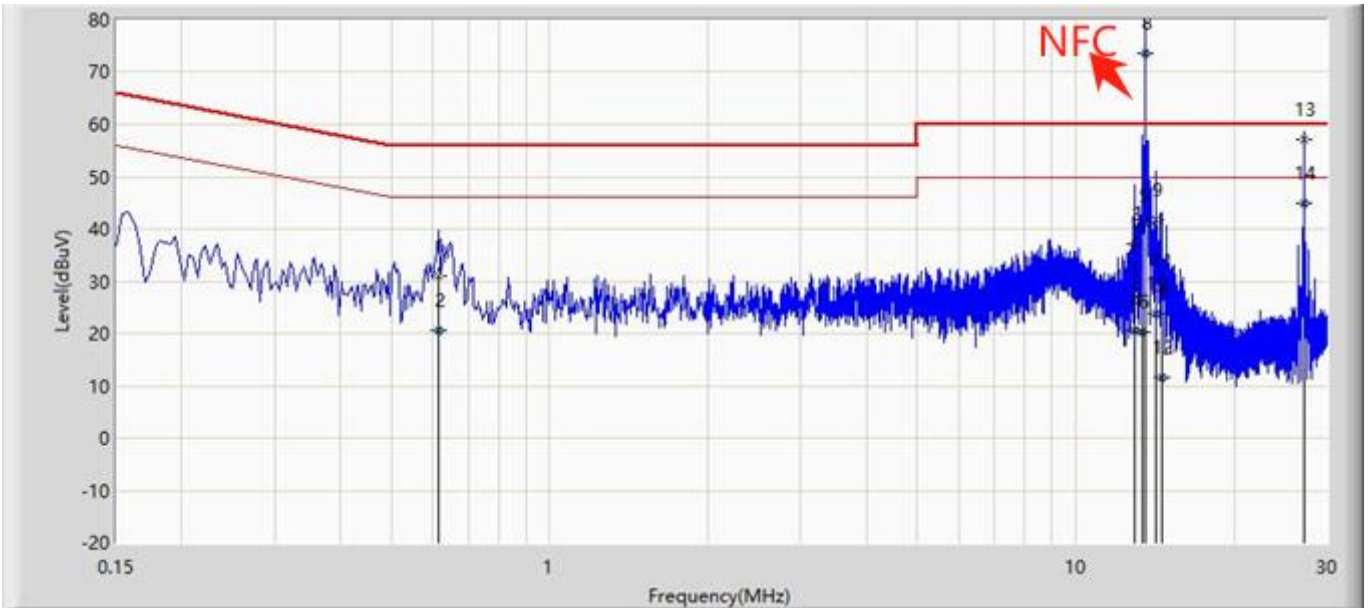
No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Probe (dB)	Cable (dB)	Amp (dB)	Type
1		0.642	37.418	27.775	-18.582	56.000	9.560	0.083	0.000	QP
2		0.642	32.200	22.558	-13.800	46.000	9.560	0.083	0.000	AV
3		12.906	51.380	41.464	-8.620	60.000	9.637	0.279	0.000	QP
4		12.906	33.919	24.003	-16.081	50.000	9.637	0.279	0.000	AV
5		13.558	79.893	69.969	19.893	60.000	9.641	0.283	0.000	QP
6	*	13.558	74.758	64.834	24.758	50.000	9.641	0.283	0.000	AV
7		13.690	48.909	38.984	-11.091	60.000	9.642	0.284	0.000	QP
8		13.690	35.232	25.307	-14.768	50.000	9.642	0.284	0.000	AV
9		14.198	52.392	42.461	-7.608	60.000	9.645	0.286	0.000	QP
10		14.198	38.652	28.721	-11.348	50.000	9.645	0.286	0.000	AV
11		27.118	57.428	47.351	-2.572	60.000	9.683	0.394	0.000	QP
12		27.118	44.841	34.764	-5.159	50.000	9.683	0.394	0.000	AV

Note:

1. " * ", means this data is the worst emission level.
2. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).

3. The point of the NFC is the customer's wireless frequency and is considered for exemption.

Engineer: Jim Fu	
Site: TR1	Time: 2024/12/02
Limit: FCC_Part 15.107_CE_AC Power_Class B	Margin: 0
Probe: ENV216_101189(0.009-30MHz)	Polarity: Neutral
EUT: POS Termina	Power: 120Vac, 60Hz
Note: Mode 1	

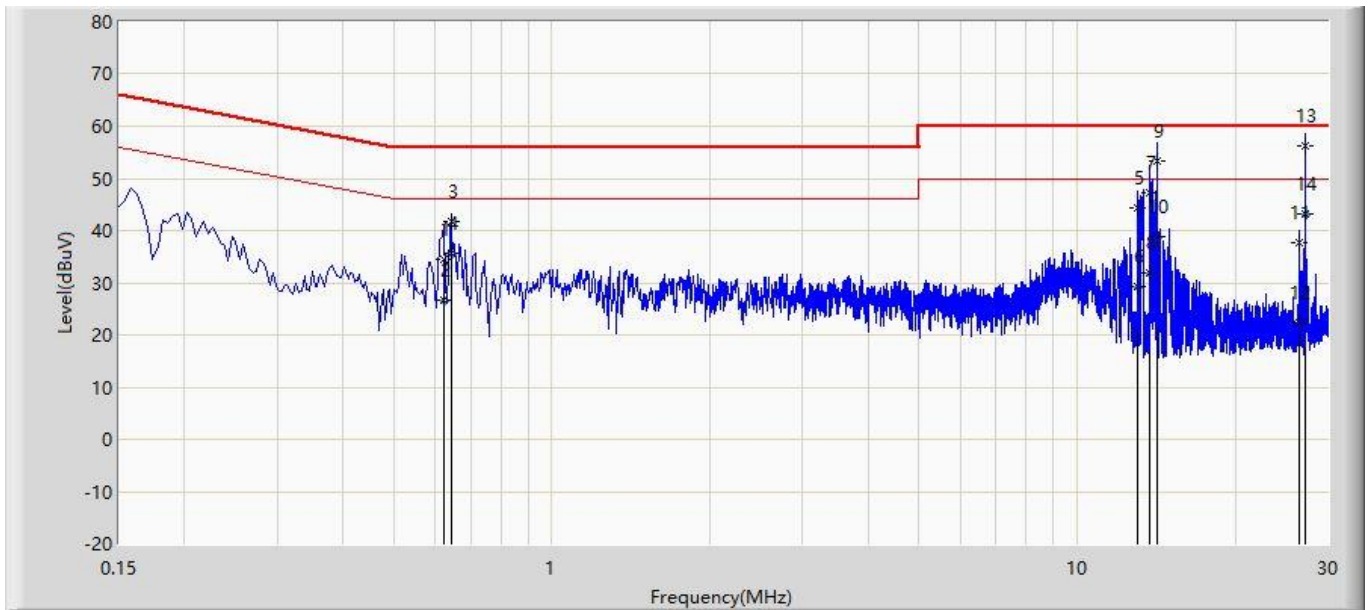


No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Probe (dB)	Cable (dB)	Amp (dB)	Type
1		0.614	31.133	21.482	-24.867	56.000	9.570	0.082	0.000	QP
2		0.614	20.532	10.880	-25.468	46.000	9.570	0.082	0.000	AV
3		12.946	37.240	27.303	-22.760	60.000	9.658	0.280	0.000	QP
4		12.946	20.564	10.627	-29.436	50.000	9.658	0.280	0.000	AV
5		13.346	40.685	30.743	-19.315	60.000	9.660	0.282	0.000	QP
6		13.346	20.394	10.452	-29.606	50.000	9.660	0.282	0.000	AV
7		13.558	81.082	71.138	21.082	60.000	9.661	0.283	0.000	QP
8	*	13.558	73.642	63.698	23.642	50.000	9.661	0.283	0.000	AV
9		14.194	41.652	31.701	-18.348	60.000	9.665	0.286	0.000	QP
10		14.194	23.867	13.916	-26.133	50.000	9.665	0.286	0.000	AV
11		14.546	28.200	18.245	-31.800	60.000	9.667	0.288	0.000	QP
12		14.546	11.604	1.649	-38.396	50.000	9.667	0.288	0.000	AV
13		27.122	57.060	46.944	-2.940	60.000	9.722	0.394	0.000	QP
14		27.122	44.876	34.760	-5.124	50.000	9.722	0.394	0.000	AV

Note:

1. " * ", means this data is the worst emission level.
2. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).
3. The point of the NFC is the customer's wireless frequency and is considered for exemption.

Engineer: Jim Fu	
Site: TR1	Time: 2024/12/02
Limit: FCC_Part 15.107_CE_AC Power_Class B	Margin: 0
Probe: ENV216_101189(0.009-30MHz)	Polarity: Line
EUT: POS Termina	Power: 120Vac, 60Hz
Note: Mode 2	

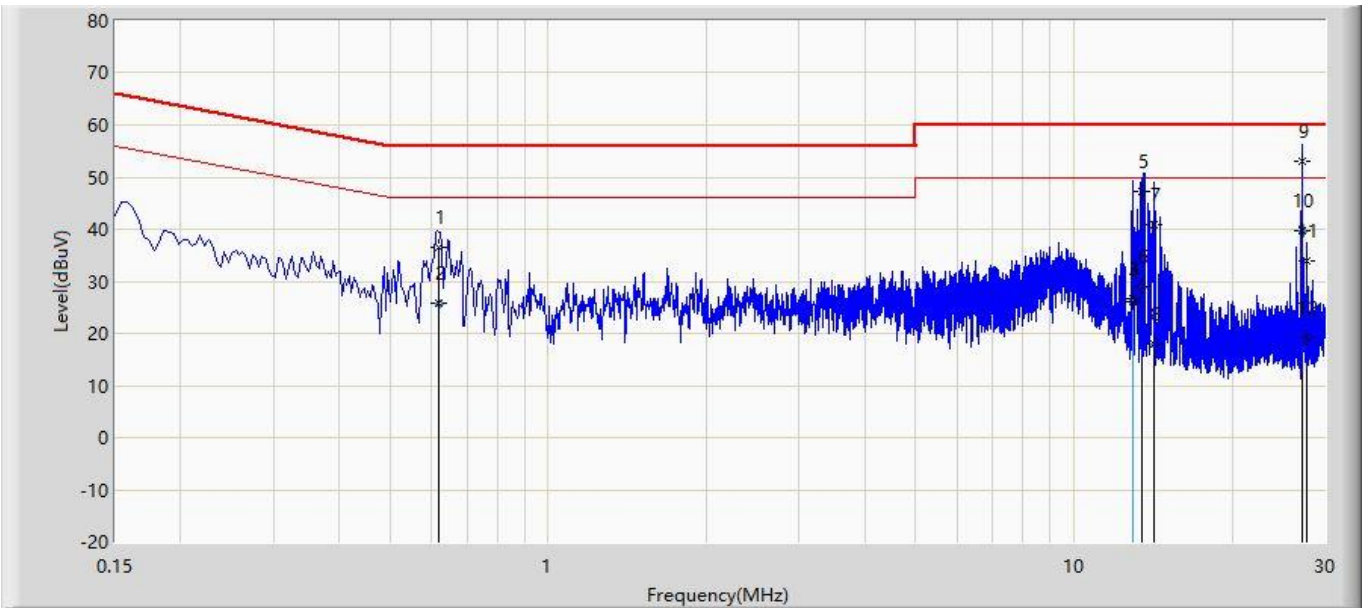


No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Probe (dB)	Cable (dB)	Amp (dB)	Type
1		0.622	34.430	24.788	-21.570	56.000	9.560	0.082	0.000	QP
2		0.622	26.750	17.108	-19.250	46.000	9.560	0.082	0.000	AV
3		0.642	41.611	31.968	-14.389	56.000	9.560	0.083	0.000	QP
4		0.642	35.677	26.034	-10.323	46.000	9.560	0.083	0.000	AV
5		13.042	44.286	34.368	-15.714	60.000	9.638	0.280	0.000	QP
6		13.042	29.390	19.472	-20.610	50.000	9.638	0.280	0.000	AV
7		13.746	47.220	37.294	-12.780	60.000	9.642	0.284	0.000	QP
8		13.746	32.027	22.101	-17.973	50.000	9.642	0.284	0.000	AV
9		14.206	53.249	43.318	-6.751	60.000	9.645	0.286	0.000	QP
10		14.206	38.851	28.920	-11.149	50.000	9.645	0.286	0.000	AV
11		26.474	37.624	27.546	-22.376	60.000	9.688	0.390	0.000	QP
12		26.474	22.237	12.159	-27.763	50.000	9.688	0.390	0.000	AV
13	*	27.122	56.249	46.172	-3.751	60.000	9.683	0.394	0.000	QP
14		27.122	43.135	33.058	-6.865	50.000	9.683	0.394	0.000	AV

Note:

1. " * ", means this data is the worst emission level.
2. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).

Engineer: Jim Fu	
Site: TR1	Time: 2024/12/02
Limit: FCC_Part 15.107_CE_AC Power_Class B	Margin: 0
Probe: ENV216_101189(0.009-30MHz)	Polarity: Neutral
EUT: POS Termina	Power: 120Vac, 60Hz
Note: Mode 2	



No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Probe (dB)	Cable (dB)	Amp (dB)	Type
1		0.618	36.461	26.810	-19.539	56.000	9.570	0.082	0.000	QP
2		0.618	25.730	16.078	-20.270	46.000	9.570	0.082	0.000	AV
3		12.946	26.699	16.761	-23.301	50.000	9.658	0.280	0.000	AV
4		12.946	26.014	16.077	-23.986	50.000	9.658	0.280	0.000	AV
5		13.470	47.386	37.443	-12.614	60.000	9.661	0.282	0.000	QP
6		13.470	29.066	19.123	-20.934	50.000	9.661	0.282	0.000	AV
7		14.186	40.984	31.033	-19.016	60.000	9.665	0.286	0.000	QP
8		14.186	18.025	8.074	-31.975	50.000	9.665	0.286	0.000	AV
9	*	27.118	53.046	42.930	-6.954	60.000	9.722	0.394	0.000	QP
10		27.118	39.633	29.517	-10.367	50.000	9.722	0.394	0.000	AV
11		27.762	33.876	23.759	-26.124	60.000	9.719	0.398	0.000	QP
12		27.762	19.115	8.998	-30.885	50.000	9.719	0.398	0.000	AV

Note:

1. " * ", means this data is the worst emission level.
2. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).

3.7 Test Photograph

Remark: The test setup photo please see appendix.

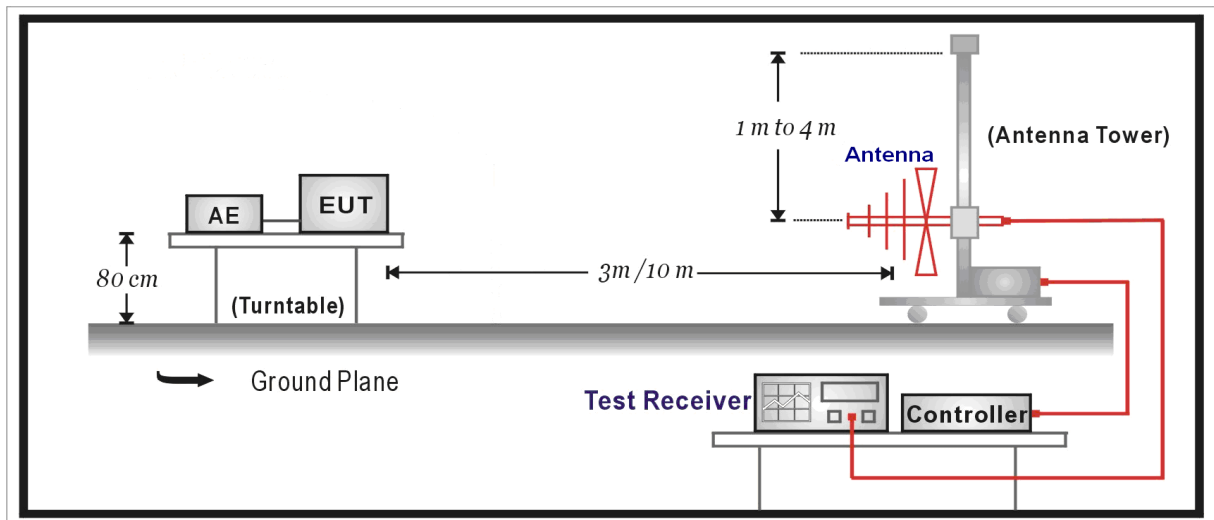
4 Radiated disturbance

4.1 Test Specification

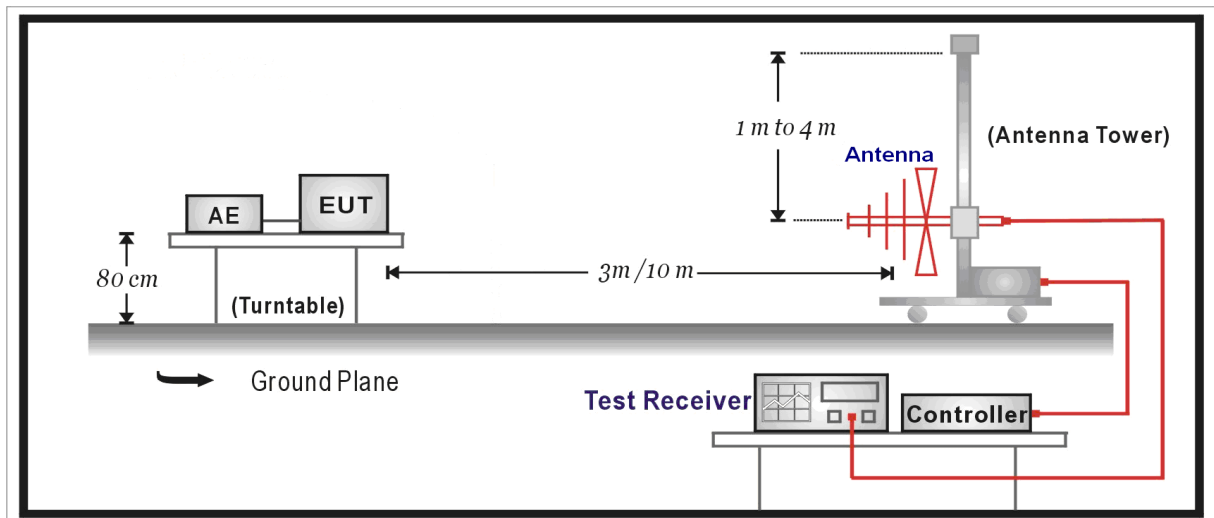
According to Standard: FCC Part 15.109, ANSI C63.4

4.2 Test Setup

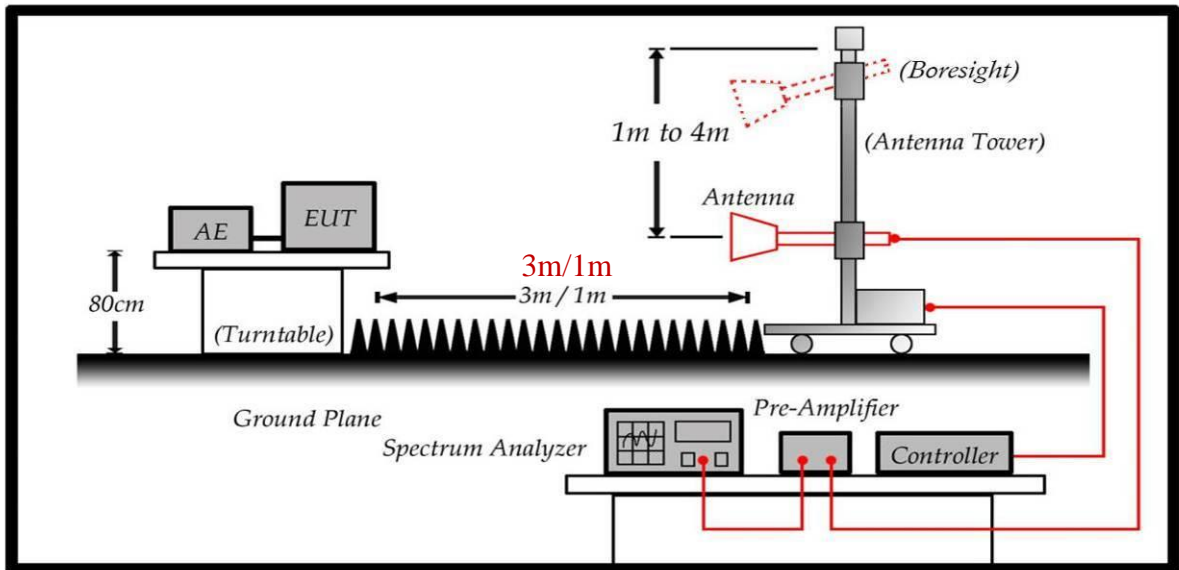
Below 1GHz Test Setup



Above 1GHz Test Setup



Above 1GHz Test Setup



4.3 Limit

Limits for Radiated disturbance of CLASS A

Measuring Distance	10m	3m
Frequency of Emission (MHz)	Field Strength(QP) dB(µV/m)	Field Strength(QP) dB(µV/m)
30 to 88	39	49
88 to 216	43.5	53.5
216 to 960	46.4	56.4
960 to 1000	49.5	59.5

NOTE: The lower limit shall apply at the transition frequency.

Measuring Distance	10m		3m	
Frequency of Emission (MHz)	Field Strength(PK) dB(µV/m)	Field Strength(AV) dB(µV/m)	Field Strength(PK) dB(µV/m)	Field Strength(AV) dB(µV/m)
1000 to 18000	70	50	80	60
18000 to 40000	70	50	80	60

Limits for Radiated disturbance of CLASS B

Measuring Distance	10m	3m
Frequency of Emission (MHz)	Field Strength(QP) dB(µV/m)	Field Strength(QP) dB(µV/m)
30 to 88	30	40
88 to 216	33.5	43.5
216 to 960	36	46
960 to 1000	44	54

NOTE: The lower limit shall apply at the transition frequency.

Measuring Distance	10m		3m	
Frequency of Emission (MHz)	Field Strength(PK) dB(µV/m)	Field Strength(AV) dB(µV/m)	Field Strength(PK) dB(µV/m)	Field Strength(AV) dB(µV/m)
1000 to 18000	64	44	74	54
18000 to 40000	64	44	74	54

4.4 Test Procedure

The EUT and its simulators are placed on a turntable which is 0.8 meter above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. The antenna (boresight antenna tower) can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be changed during radiated measurement.

The bandwidth below 1GHz setting on the receiver is 120kHz and above 1GHz is 1MHz.

For an unintentional radiator, including a digital device, the spectrum shall be investigated from the lowest radio frequency signal generated or used in the device, without going below the lowest frequency for which a radiated emission limit is specified, up to the frequency shown in the following table:

Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
Below 1.705	30
1.705 to 108	1000
108 to 500	2000
500 to 1000	5000
Above 1000	5 th harmonic of the highest frequency or 40GHz, whichever is lower

On any frequency or frequencies below or equal to 1000MHz, the radiated limits shown are based on measuring equipment employing a quasi-peak detector function and above 1000MHz, the radiated limits shown are based measuring equipment employing an average detector function.

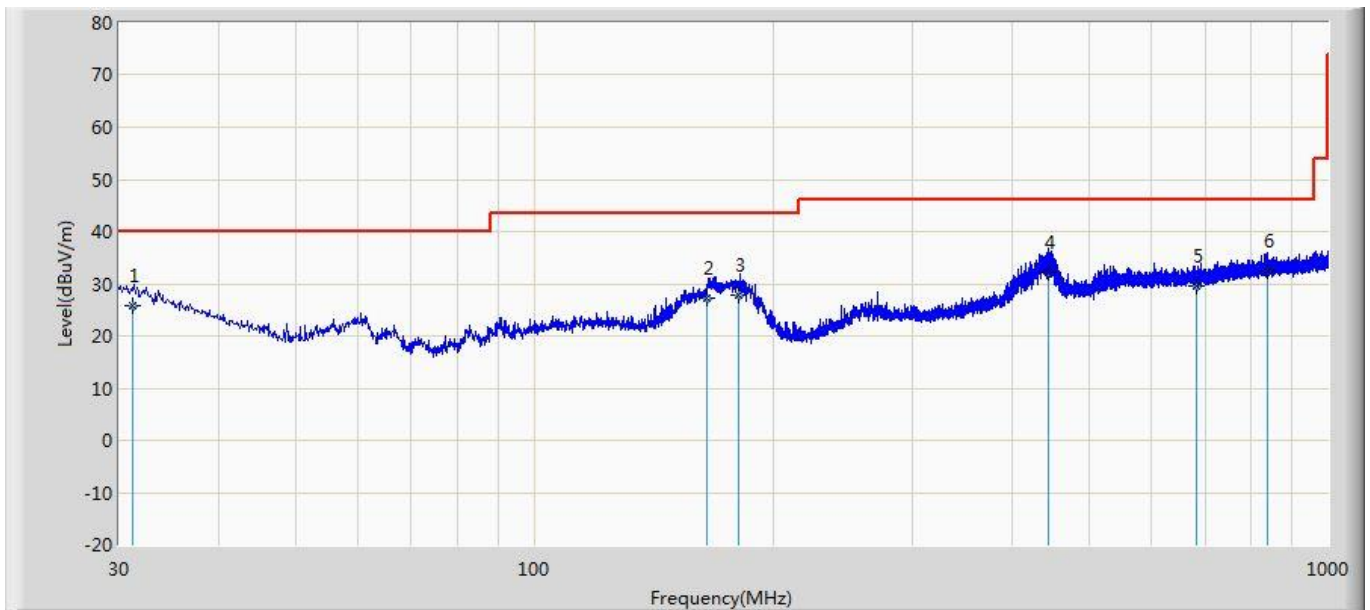
When average radiated emission measurement included emission measurement above 1000MHz, there also is a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit.

4.5 Deviation from Test Standard

No deviation.

4.6 Test Result

Engineer: Tony Guo	
Site: AC2	Time: 2024/11/29
Limit: FCC_Part 15.109_RE (3m)_Class B	Margin: 0
Probe: CBL6112D_27611(30-1000MHz)	Polarity: Horizontal
EUT: POS Termina	Power: 120Vac, 60Hz
Note: Mode 1	

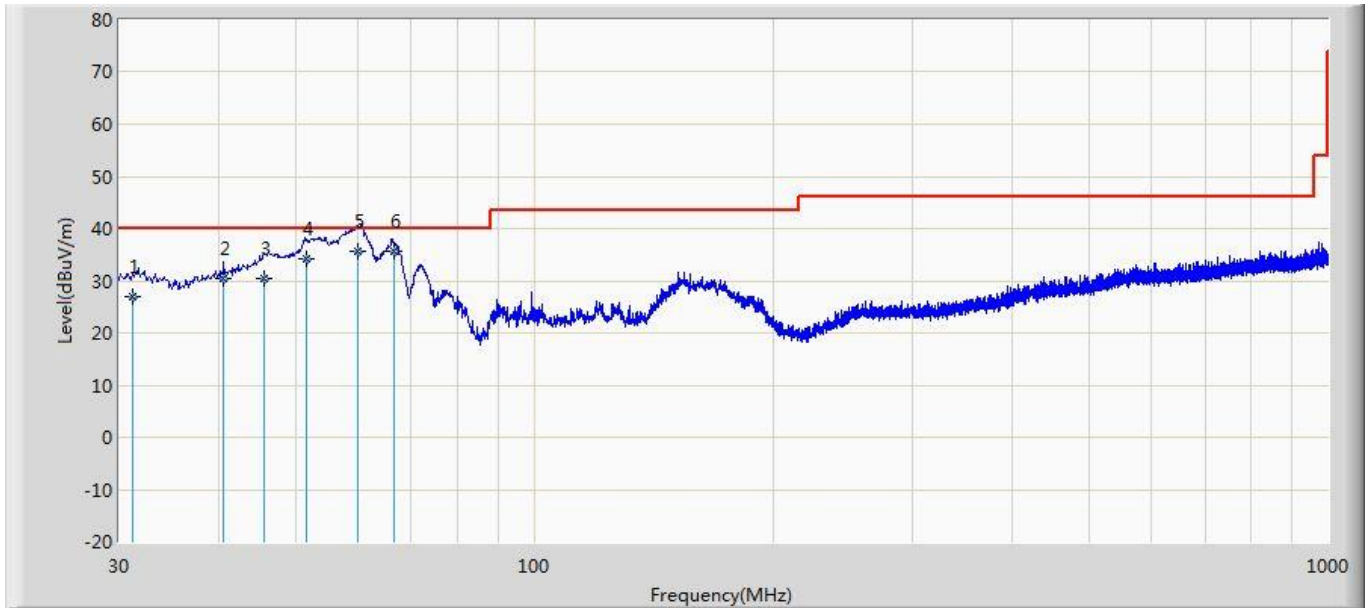


No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Probe (dB/m)	Cable (dB)	Amp (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1		31.260	25.906	1.260	-14.094	40.000	18.288	6.358	0.000	102	54	QP
2		165.260	27.188	10.260	-16.312	43.500	9.864	7.064	0.000	150	347	QP
3		181.260	27.749	11.260	-15.751	43.500	9.353	7.136	0.000	261	184	QP
4		444.260	32.221	7.600	-13.779	46.000	16.623	7.998	0.000	125	159	QP
5		684.260	29.584	1.600	-16.416	46.000	19.317	8.667	0.000	269	25	QP
6	*	839.630	32.331	2.600	-13.669	46.000	20.686	9.045	0.000	100	317	QP

Note:

1. " * ", means this data is the worst emission level.
2. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).

Engineer: Tony Guo	
Site: AC2	Time: 2024/11/29
Limit: FCC_Part 15.109_RE (3m)_Class B	Margin: 0
Probe: CBL6112D_27611(30-1000MHz)	Polarity: Vertical
EUT: POS Termina	Power: 120Vac, 60Hz
Note: Mode 1	

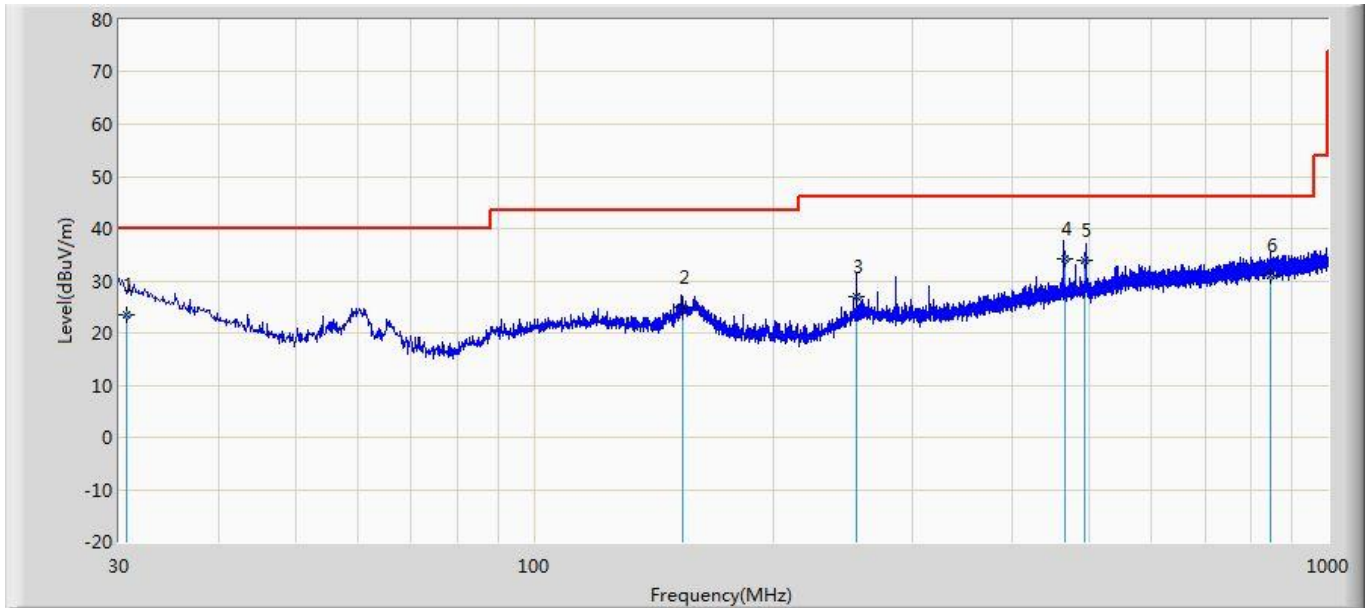


No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Probe (dB/m)	Cable (dB)	Amp (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1		31.260	27.046	2.400	-12.954	40.000	18.288	6.358	0.000	146	269	QP
2		40.630	30.460	11.260	-9.540	40.000	12.785	6.415	0.000	300	117	QP
3		45.630	30.400	13.600	-9.600	40.000	10.350	6.450	0.000	138	13	QP
4		51.630	34.181	19.600	-5.819	40.000	8.089	6.491	0.000	100	149	QP
5	*	59.990	35.706	22.600	-4.294	40.000	6.557	6.550	0.000	117	167	QP
6		66.630	35.546	22.600	-4.454	40.000	6.363	6.583	0.000	217	163	QP

Note:

1. " * ", means this data is the worst emission level.
2. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).

Engineer: Tony Guo	
Site: AC2	Time: 2024/11/29
Limit: FCC_Part 15.109_RE (3m)_Class B	Margin: 0
Probe: CBL6112D_27611(30-1000MHz)	Polarity: Horizontal
EUT: POS Termina	Power: 120Vac, 60Hz
Note: Mode 2	

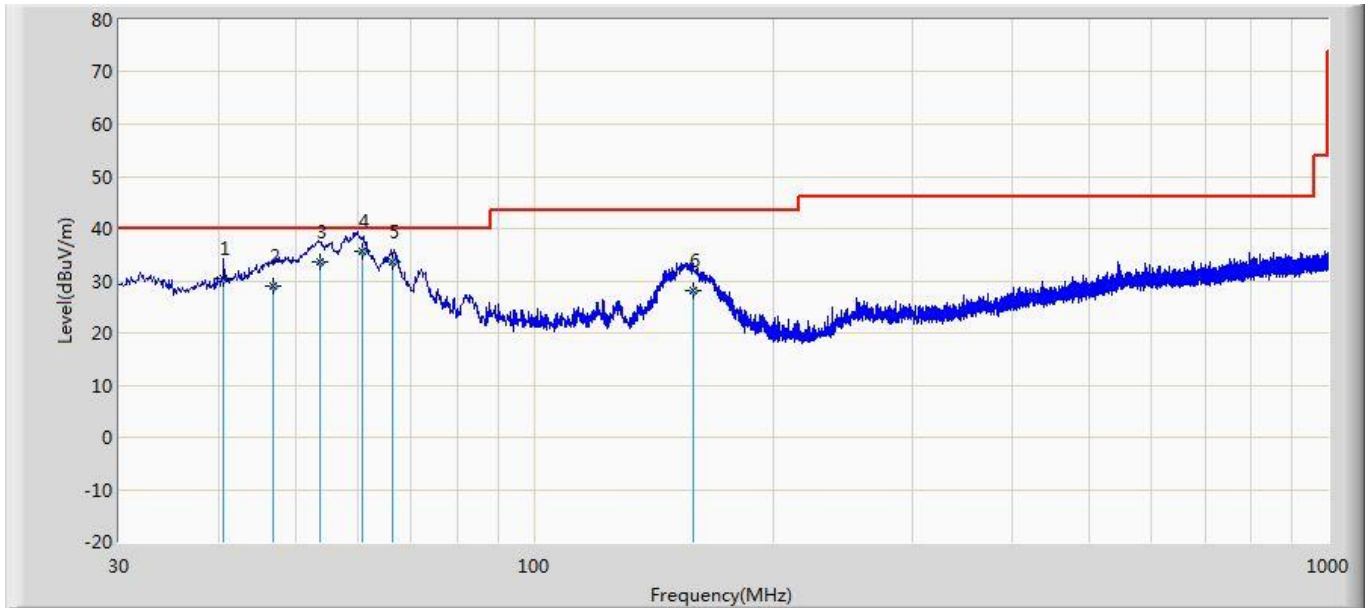


No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Probe (dB/m)	Cable (dB)	Amp (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1		30.630	23.402	-1.600	-16.598	40.000	18.648	6.354	0.000	113	227	QP
2		153.630	24.836	7.660	-18.664	43.500	10.164	7.011	0.000	125	67	QP
3		254.630	27.013	6.630	-18.987	46.000	12.971	7.411	0.000	272	298	QP
4	*	465.630	34.081	8.900	-11.919	46.000	17.121	8.060	0.000	300	112	QP
5		494.630	34.025	8.400	-11.975	46.000	17.481	8.144	0.000	235	7	QP
6		846.630	31.058	1.260	-14.942	46.000	20.736	9.062	0.000	100	211	QP

Note:

1. " * ", means this data is the worst emission level.
2. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).

Engineer: Tony Guo	
Site: AC2	Time: 2024/11/29
Limit: FCC_Part 15.109_RE (3m)_Class B	Margin: 0
Probe: CBL6112D_27611(30-1000MHz)	Polarity: Vertical
EUT: POS Termina	Power: 120Vac, 60Hz
Note: Mode 2	

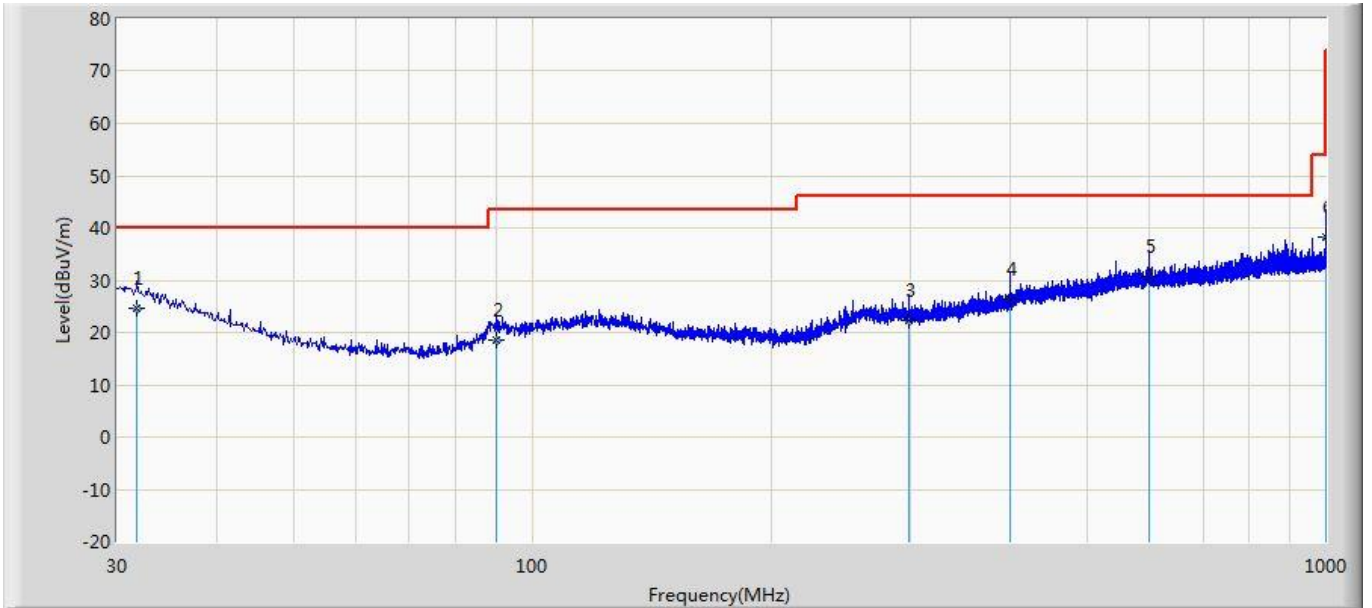


No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Probe (dB/m)	Cable (dB)	Amp (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1		40.630	30.460	11.260	-9.540	40.000	12.785	6.415	0.000	130	77	QP
2		46.900	29.124	12.900	-10.876	40.000	9.766	6.458	0.000	300	179	QP
3		53.630	33.667	19.600	-6.333	40.000	7.562	6.506	0.000	297	192	QP
4	*	60.800	35.771	22.700	-4.229	40.000	6.518	6.554	0.000	200	71	QP
5		66.450	33.544	20.600	-6.456	40.000	6.362	6.582	0.000	253	198	QP
6		158.630	28.254	11.200	-15.246	43.500	10.020	7.034	0.000	239	316	QP

Note:

1. " * ", means this data is the worst emission level.
2. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).

Engineer: Tony Guo	
Site: AC2	Time: 2024/12/05
Limit: FCC_Part 15.109_RE (3m)_Class B	Margin: 0
Probe: CBL6112D_27611(30-1000MHz)	Polarity: Horizontal
EUT: POS Termina	Power: Powered by Battery
Note: Mode 10	

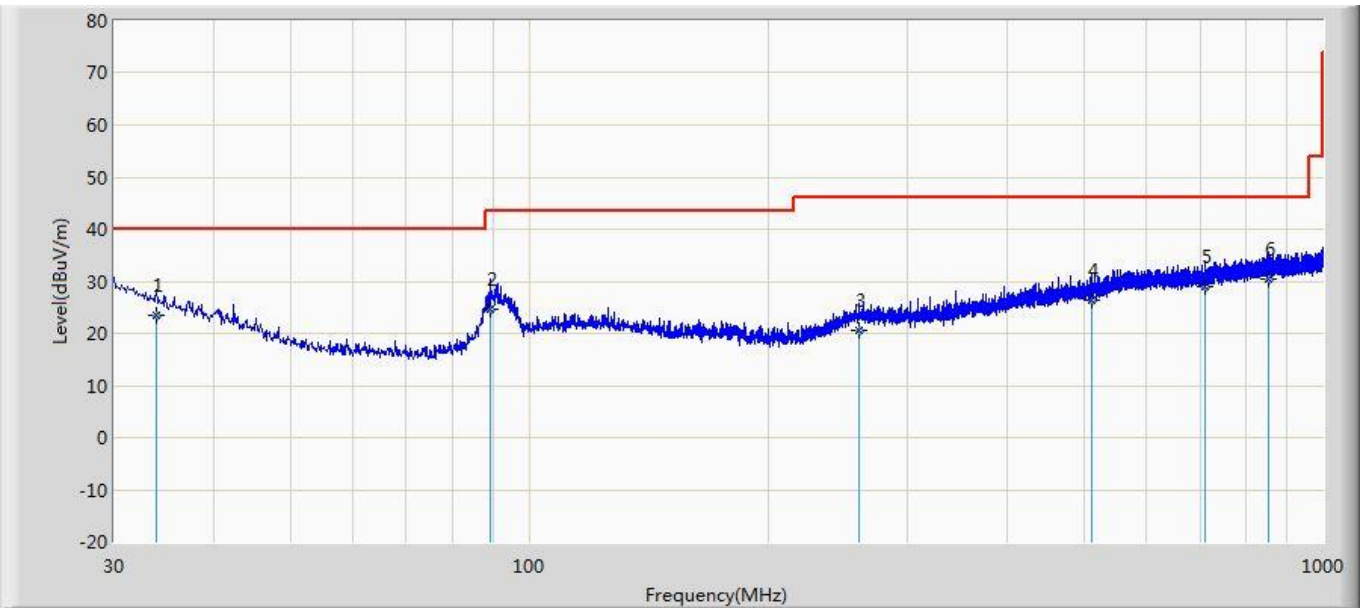


No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Probe (dB/m)	Cable (dB)	Amp (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1		31.819	24.641	0.300	-15.359	40.000	17.980	6.361	0.000	110	223	QP
2		90.140	18.550	2.500	-24.950	43.500	9.329	6.721	0.000	139	88	QP
3		298.326	22.277	1.400	-23.723	46.000	13.313	7.564	0.000	179	344	QP
4		399.934	26.307	2.600	-19.693	46.000	15.837	7.870	0.000	200	262	QP
5	*	599.875	30.665	3.200	-15.335	46.000	19.026	8.439	0.000	100	202	QP
6		999.614	38.376	7.300	-15.624	54.000	21.637	9.439	0.000	356	310	QP

Note:

1. " * ", means this data is the worst emission level.
2. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).

Engineer: Tony Guo	
Site: AC2	Time: 2024/12/05
Limit: FCC_Part 15.109_RE (3m)_Class B	Margin: 0
Probe: CBL6112D_27611(30-1000MHz)	Polarity: Vertical
EUT: POS Termina	Power: Powered by Battery
Note: Mode 10	

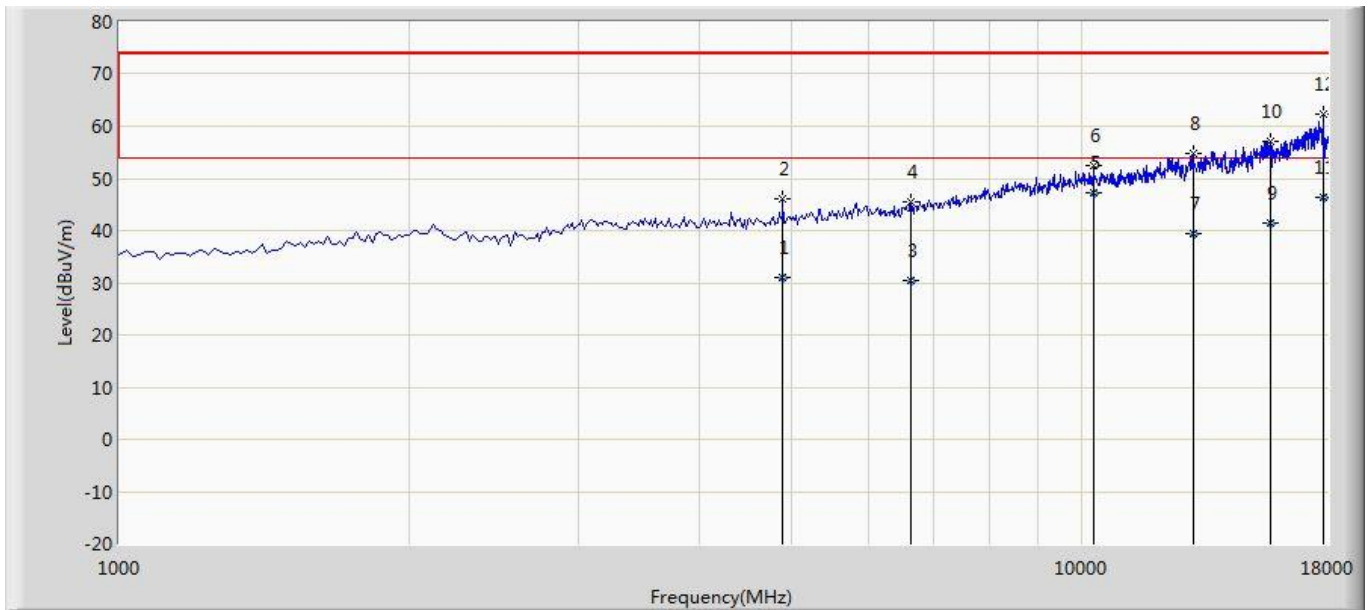


No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Probe (dB/m)	Cable (dB)	Amp (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1		33.880	23.389	0.400	-16.611	40.000	16.616	6.373	0.000	175	148	QP
2		89.412	24.782	8.900	-18.718	43.500	9.165	6.716	0.000	181	283	QP
3		260.739	20.642	-0.300	-25.358	46.000	13.509	7.433	0.000	100	103	QP
4		512.090	26.392	0.400	-19.608	46.000	17.798	8.194	0.000	120	165	QP
5		709.364	28.933	0.900	-17.067	46.000	19.301	8.733	0.000	289	63	QP
6	*	855.834	30.544	0.700	-15.456	46.000	20.760	9.084	0.000	100	79	QP

Note:

1. " * ", means this data is the worst emission level.
2. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).

Engineer: Jim Fu	
Site: AC5	Time: 2024/12/02
Limit: FCC_Part15.109_RE(3m)_ClassB	Margin: 0
Probe: Horn_3117_00167055_(1-18GHz)	Polarity: Horizontal
EUT: POS Termina	Power: 120Vac, 60Hz
Note: Mode 1	

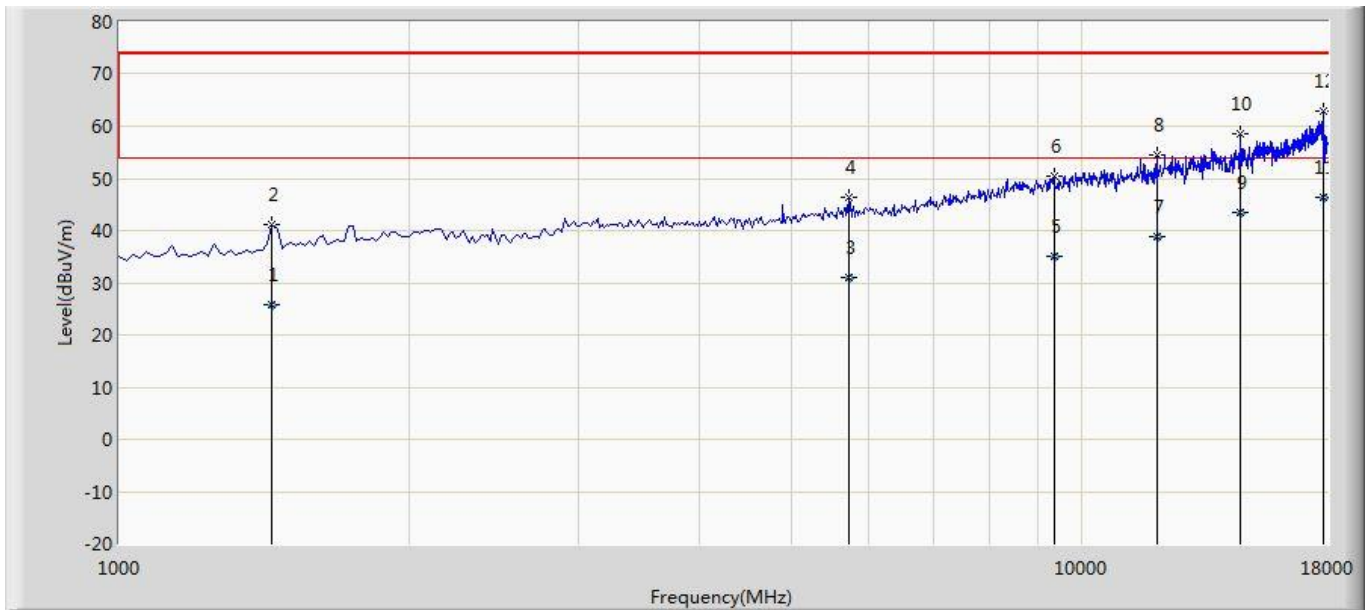


No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Probe (dB/m)	Cable (dB)	Amp (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1		4891.636	31.058	42.350	-22.942	54.000	33.776	8.808	53.876	128	157	AV
2		4893.000	46.201	57.554	-27.799	74.000	33.777	8.745	53.875	128	157	PK
3		6640.863	30.466	38.370	-23.534	54.000	35.023	10.110	53.036	181	74	AV
4		6644.000	45.428	53.214	-28.572	74.000	35.024	10.226	53.036	181	74	PK
5	*	10280.733	47.385	48.720	-6.615	54.000	37.455	13.410	52.200	125	239	AV
6		10282.000	52.380	53.729	-21.620	74.000	37.456	13.395	52.200	125	239	PK
7		13034.936	39.468	36.270	-14.532	54.000	39.320	16.392	52.514	120	175	AV
8		13036.000	54.763	51.465	-19.237	74.000	39.320	16.492	52.514	120	175	PK
9		15701.937	41.336	35.420	-12.664	54.000	40.385	17.189	51.658	234	166	AV
10		15705.000	57.235	50.878	-16.765	74.000	40.386	17.625	51.654	234	166	PK
11		17792.735	46.467	34.290	-7.533	54.000	41.754	22.684	52.262	116	89	AV
12		17796.000	62.249	49.357	-11.751	74.000	41.756	23.397	52.261	116	89	PK

Note:

1. " * ", means this data is the worst emission level.
2. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).
3. To Protect the pre-amplifier, a band stop filter is added to the front of the antenna during the test.

Engineer: Jim Fu	
Site: AC5	Time: 2024/12/02
Limit: FCC_Part15.109_RE(3m)_ClassB	Margin: 0
Probe: Horn_3117_00167055_(1-18GHz)	Polarity: Vertical
EUT: POS Termina	Power: 120Vac, 60Hz
Note: Mode 1	

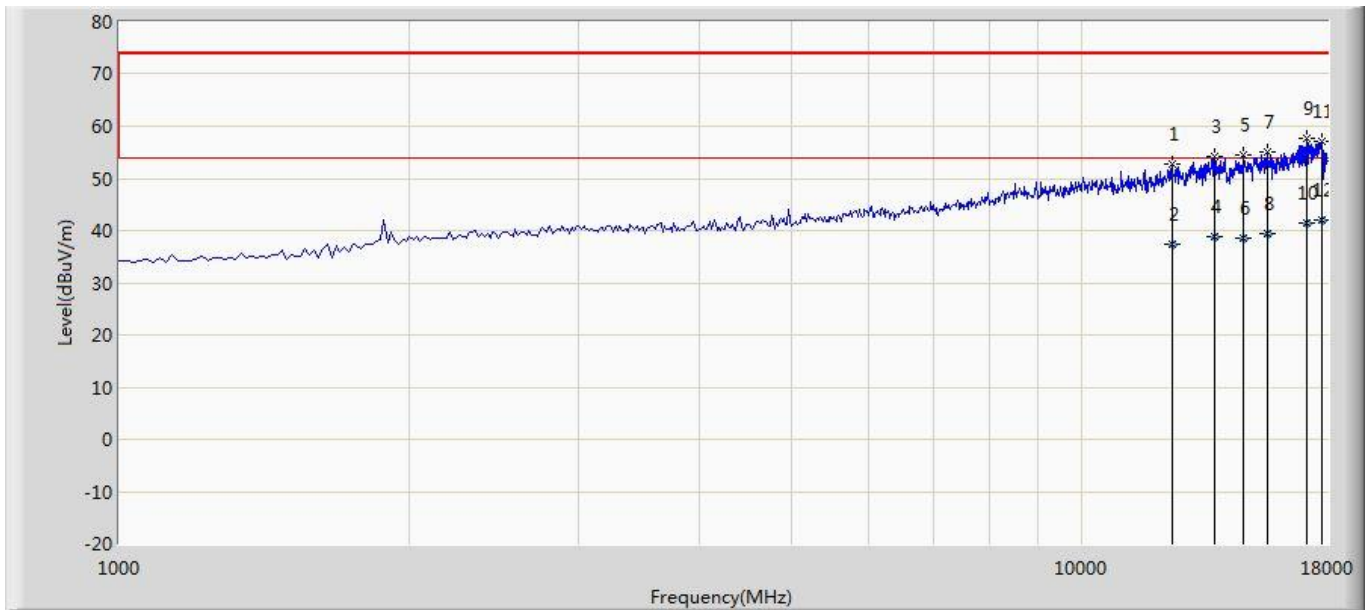


No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Probe (dB/m)	Cable (dB)	Amp (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1		1441.032	25.934	46.390	-28.066	54.000	29.486	4.634	54.577	104	223	AV
2		1442.000	41.151	61.618	-32.849	74.000	29.490	4.620	54.577	104	223	PK
3		5723.435	31.143	41.380	-22.857	54.000	34.511	8.546	53.294	275	55	AV
4		5726.000	46.448	56.631	-27.552	74.000	34.513	8.596	53.292	275	55	PK
5		9345.965	35.217	38.160	-18.783	54.000	36.629	12.956	52.527	233	339	AV
6		9347.000	50.466	53.431	-23.534	74.000	36.630	12.932	52.527	233	339	PK
7		11946.987	38.921	37.290	-15.079	54.000	38.811	15.304	52.484	156	7	AV
8		11948.000	54.519	52.850	-19.481	74.000	38.812	15.341	52.484	156	7	PK
9		14612.736	43.576	41.390	-10.424	54.000	39.861	14.980	52.655	355	248	AV
10		14617.000	58.604	56.324	-15.396	74.000	39.865	15.068	52.653	355	248	PK
11	*	17792.732	46.456	34.280	-7.544	54.000	41.754	22.684	52.262	123	200	AV
12		17796.000	62.784	49.892	-11.216	74.000	41.756	23.397	52.261	123	200	PK

Note:

1. " * ", means this data is the worst emission level.
2. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).
3. To Protect the pre-amplifier, a band stop filter is added to the front of the antenna during the test.

Engineer: Jim Fu	
Site: AC5	Time: 2024/12/02
Limit: FCC_Part15.109_RE(3m)_ClassB	Margin: 0
Probe: Horn_3117_00167055_(1-18GHz)	Polarity: Horizontal
EUT: POS Termina	Power: 120Vac, 60Hz
Note: Mode 2	

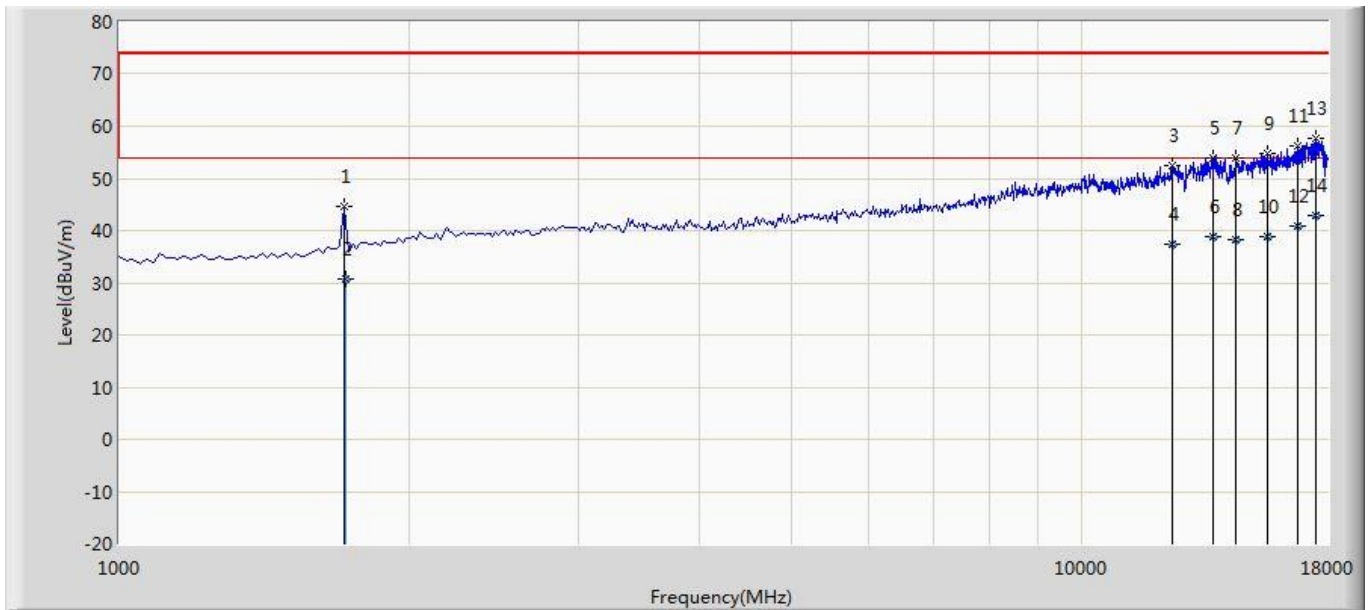


No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Probe (dB/m)	Cable (dB)	Amp (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1		12407.000	52.732	51.708	-21.268	74.000	39.047	14.477	52.500	161	3	PK
2		12407.800	37.383	36.480	-16.617	54.000	39.047	14.355	52.500	161	3	AV
3		13750.000	54.065	52.071	-19.935	74.000	39.312	15.482	52.800	114	97	PK
4		13751.540	38.754	36.910	-15.246	54.000	39.312	15.333	52.801	114	97	AV
5		14719.000	54.351	52.540	-19.649	74.000	39.957	14.466	52.612	104	23	PK
6		14719.120	38.538	36.730	-15.462	54.000	39.957	14.463	52.612	104	23	AV
7		15586.000	55.190	52.134	-18.810	74.000	40.357	14.496	51.797	191	309	PK
8		15586.210	39.286	36.250	-14.714	54.000	40.357	14.475	51.797	191	309	AV
9		17133.000	57.681	51.800	-16.319	74.000	41.418	16.923	52.460	123	31	PK
10		17133.780	41.494	35.690	-12.506	54.000	41.418	16.845	52.460	123	31	AV
11		17745.000	57.160	51.067	-16.840	74.000	41.730	16.639	52.276	168	341	PK
12	*	17746.300	42.106	36.150	-11.894	54.000	41.731	16.501	52.276	168	341	AV

Note:

1. " * ", means this data is the worst emission level.
2. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).
3. To Protect the pre-amplifier, a band stop filter is added to the front of the antenna during the test.

Engineer: Jim Fu	
Site: AC5	Time: 2024/12/02
Limit: FCC_Part15.109_RE(3m)_ClassB	Margin: 0
Probe: Horn_3117_00167055_(1-18GHz)	Polarity: Vertical
EUT: POS Termina	Power: 120Vac, 60Hz
Note: Mode 2	

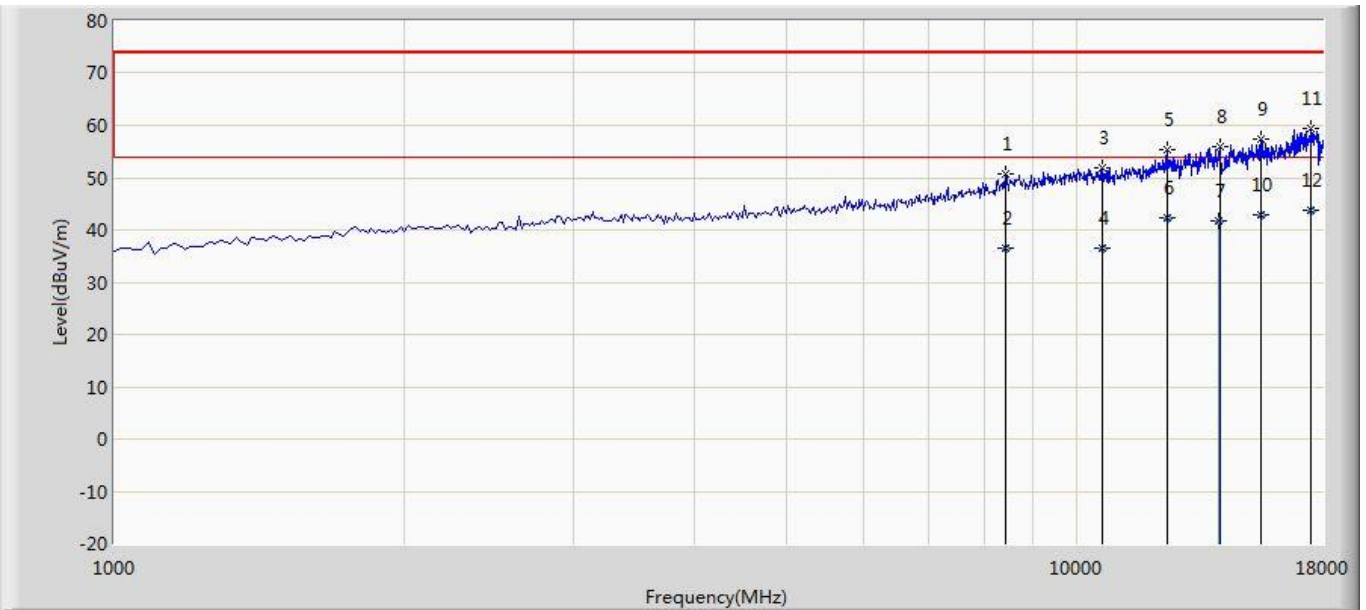


No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Probe (dB/m)	Cable (dB)	Amp (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1		1714.000	44.762	64.574	-29.238	74.000	30.523	4.351	54.686	192	337	PK
2		1716.540	30.601	50.400	-23.399	54.000	30.533	4.355	54.687	192	337	AV
3		12407.000	52.605	51.581	-21.395	74.000	39.047	14.477	52.500	199	352	PK
4		12408.525	37.333	36.540	-16.667	54.000	39.048	14.246	52.500	199	352	AV
5		13665.000	53.931	52.300	-20.069	74.000	39.313	15.084	52.766	252	314	PK
6		13666.524	38.963	37.500	-15.037	54.000	39.313	14.917	52.767	252	314	AV
7		14447.000	53.841	51.824	-20.159	74.000	39.712	15.026	52.721	120	283	PK
8		14449.524	38.291	36.540	-15.709	54.000	39.714	14.757	52.720	120	283	AV
9		15586.000	54.645	51.589	-19.355	74.000	40.357	14.496	51.797	218	285	PK
10		15589.524	38.858	36.140	-15.142	54.000	40.358	14.152	51.793	218	285	AV
11		16725.000	56.114	51.053	-17.886	74.000	41.105	16.126	52.170	274	133	PK
12		16729.540	40.898	36.410	-13.102	54.000	41.109	15.554	52.175	274	133	AV
13		17507.000	57.690	52.155	-16.310	74.000	41.609	16.274	52.348	149	126	PK
14	*	17509.524	42.915	37.500	-11.085	54.000	41.610	16.152	52.347	149	126	AV

Note:

1. " * ", means this data is the worst emission level.
2. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).
3. To Protect the pre-amplifier, a band stop filter is added to the front of the antenna during the test.

Engineer: Jim Fu	
Site: AC5	Time: 2024/12/05
Limit: FCC_Part15.109_RE(3m)_ClassB	Margin: 0
Probe: Horn_3117_00167055_(1-18GHz)	Polarity: Horizontal
EUT: POS Termina	Power: Powered by Battery
Note: Mode 10	

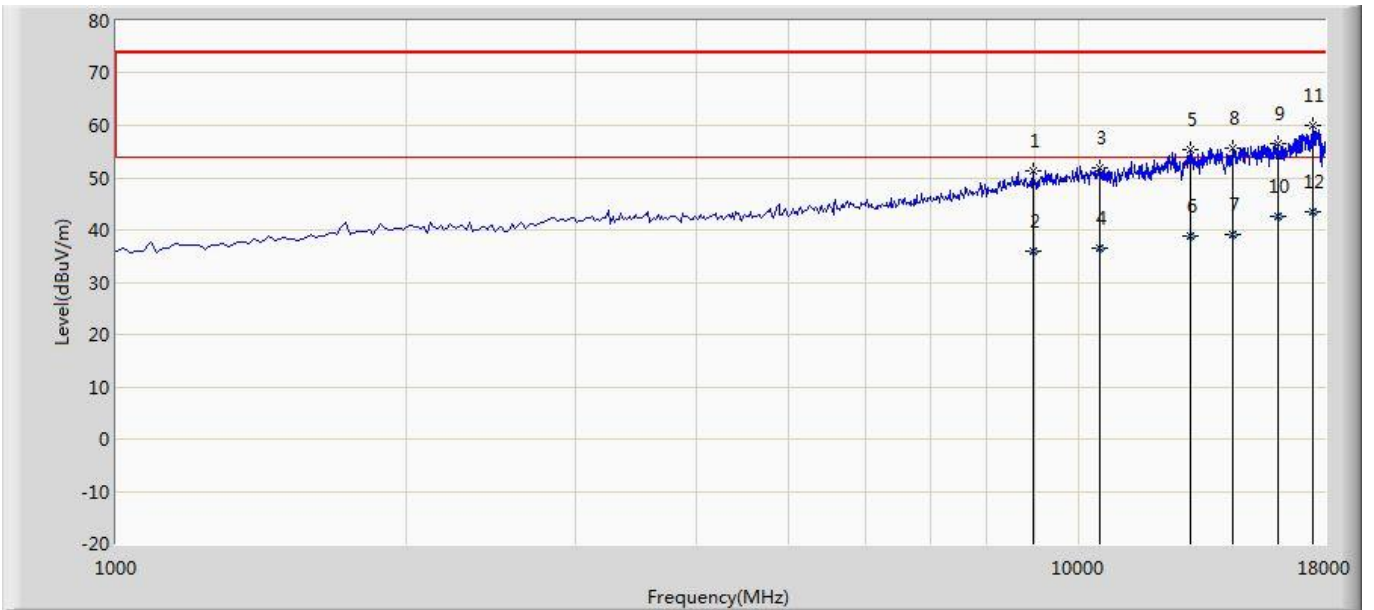


No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Probe (dB/m)	Cable (dB)	Amp (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1		8429.000	50.764	57.177	-23.236	74.000	35.947	10.511	52.871	394	5	PK
2		8433.461	36.526	42.810	-17.474	54.000	35.950	10.635	52.870	394	5	AV
3		10622.000	51.903	54.772	-22.097	74.000	37.681	11.650	52.200	355	92	PK
4		10625.843	36.573	39.460	-17.427	54.000	37.683	11.629	52.200	355	92	AV
5		12407.000	55.412	54.388	-18.588	74.000	39.047	14.477	52.500	248	174	PK
6		12407.355	42.260	41.290	-11.740	54.000	39.047	14.423	52.500	248	174	AV
7		14051.435	41.628	40.270	-12.372	54.000	39.356	14.882	52.880	121	219	AV
8		14056.000	55.950	54.475	-18.050	74.000	39.360	14.993	52.878	121	219	PK
9		15535.000	57.362	54.693	-16.638	74.000	40.344	14.183	51.858	382	135	PK
10		15536.294	42.820	40.170	-11.180	54.000	40.344	14.162	51.856	382	135	AV
11		17507.000	59.313	53.778	-14.687	74.000	41.609	16.274	52.348	159	279	PK
12	*	17510.229	43.772	38.390	-10.228	54.000	41.611	16.118	52.347	159	279	AV

Note:

1. " * ", means this data is the worst emission level.
2. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).
3. To Protect the pre-amplifier, a band stop filter is added to the front of the antenna during the test.

Engineer: Jim Fu	
Site: AC5	Time: 2024/12/05
Limit: FCC_Part15.109_RE(3m)_ClassB	Margin: 0
Probe: Horn_3117_00167055_(1-18GHz)	Polarity: Vertical
EUT: POS Termina	Power: Powered by Battery
Note: Mode 10	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Probe (dB/m)	Cable (dB)	Amp (dB)	Ant Pos (cm)	Table Pos (deg)	Type
1		8956.000	51.375	55.554	-22.625	74.000	36.264	12.270	52.713	289	273	PK
2		8958.146	35.955	40.280	-18.045	54.000	36.265	12.122	52.712	289	273	AV
3		10520.000	51.749	54.274	-22.251	74.000	37.613	12.062	52.200	175	242	PK
4		10524.843	36.508	39.240	-17.492	54.000	37.616	11.852	52.200	175	242	AV
5		13036.000	55.446	54.370	-18.554	74.000	39.320	14.270	52.514	269	17	PK
6		13039.846	38.902	38.220	-15.098	54.000	39.320	13.878	52.516	269	17	AV
7		14443.516	39.048	37.160	-14.952	54.000	39.709	14.901	52.722	269	155	AV
8		14447.000	55.767	53.750	-18.233	74.000	39.712	15.026	52.721	269	155	PK
9		16079.000	56.651	52.166	-17.349	74.000	40.530	15.350	51.395	190	104	PK
10		16081.572	42.584	38.290	-11.416	54.000	40.532	15.160	51.398	190	104	AV
11		17507.000	59.995	54.460	-14.005	74.000	41.609	16.274	52.348	365	323	PK
12	*	17512.664	43.426	38.160	-10.574	54.000	41.612	16.001	52.346	365	323	AV

Note:

1. " * ", means this data is the worst emission level.
2. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).
3. To Protect the pre-amplifier, a band stop filter is added to the front of the antenna during the test.

The Radiated disturbance 18~40G is the noise, the report only show the worst data 1-18G.

4.7 Test Photograph

Remark: The test setup photo please see appendix.

5 Attachment

EUT Photograph

Remark: The EUT photo please see appendix.

The End
