

# MEASUREMENT REPORT

## FCC Part 15B/ICES-003

---

**Applicant:** HAN Networks Co., Ltd.  
**Address:** 101-A16, 1st Floor, Building 3, No.9 compound, Yongfeng Road, Haidian District, Beijing, P.R. China

**Product:** HAN Access Point  
**Model No.:** AP311  
**Serial Model No.** AP301  
**Brand Name:** HAN NETWORKS; HANNETWORKS  
**FCC Rule Part(s):** FCC Part 15 Subpart B: 2020 Class B  
**ISED Rule Part(s):** ICES-003 Issue 6 Class B  
**Test Procedure(s):** ANSI C63.4: 2014  
**Result:** Complies  
**Test Date:** September 02, 2020

Reviewed By:

*Oscar Shi*

(Oscar Shi)

Approved By:

*Robin Wu*

(Robin Wu)



The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.4-2014. Test results reported herein relate only to the item(s) tested.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.

---

## Revision History

Report No.	Version	Description	Issue Date	Note
2008RSU054-U1	Rev. 01	Initial Report	11-09-2020	Valid

---

## CONTENTS

Description	Page
<b>General Information</b> .....	<b>4</b>
<b>Testing Facility</b> .....	<b>4</b>
<b>1. PRODUCT INFORMATION</b> .....	<b>5</b>
1.1. Equipment Description .....	5
1.2. Test Mode .....	5
1.3. Configuration of Tested System .....	6
1.4. Test System Details .....	6
1.5. Test Procedure .....	7
1.6. EMI Suppression Device(s)/Modifications .....	7
<b>2. TEST EQUIPMENT CALIBRATION DATE</b> .....	<b>8</b>
<b>3. MEASUREMENT UNCERTAINTY</b> .....	<b>10</b>
<b>4. TEST RESULT</b> .....	<b>11</b>
4.1. Summary .....	11
4.2. Conducted Emission Measurement .....	12
4.2.1. Test Limit .....	12
<b>FCC Part 15.107 / ICES-003 Issue 6-6.1 Limit</b> .....	<b>12</b>
4.2.2. Test Setup .....	12
4.2.3. Test Result of Conducted Emissions .....	13
4.3. Radiated Emission Measurement .....	17
4.3.1. Test Limit .....	17
<b>FCC Part 15.109 / ICES-003 Issue 6-6.2 Limit</b> .....	<b>17</b>
4.3.2. Test Setup .....	17
4.3.3. Test Result of Radiated Emissions .....	19
<b>5. CONCLUSION</b> .....	<b>27</b>
<b>Appendix A - Test Setup Photograph</b> .....	<b>28</b>
<b>Appendix B - EUT Photograph</b> .....	<b>29</b>



## 1. PRODUCT INFORMATION

### 1.1. Equipment Description

Product Name	HAN Access Point
Model No.	AP311
Serial Model No.	AP301
Brand Name	HAN NETWORKS; HANNETWORKS
Wi-Fi Specification	802.11a/b/g/n/ac/ax
Operating Temperature:	0 ~ 50 °C
Power Type:	PoE input or AC adapter input (100 - 240VAC ~ 50/60Hz, 1.0A Output Power: 48VDC/0.66A )
Operating Environment:	Indoor Use

Note 1: AP311 and AP301 are identical in PCB layout, AP301 remove Bluetooth Module and one Gigabit LAN port, so choose AP311 for EMC testing.

Note 2: POE adaptor and AC adaptor not sold with product.

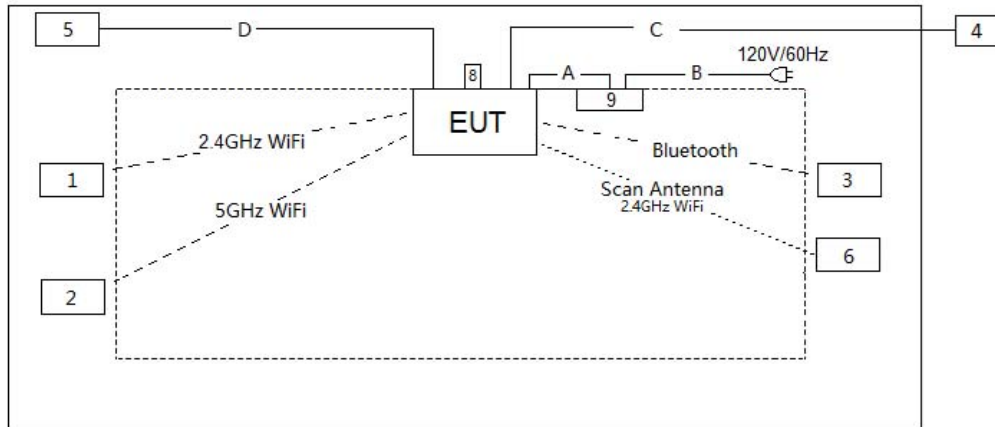
### 1.2. Test Mode

Test Mode
Mode 1: Power by AC Adapter & Communicate with Notebook by LAN Cable and Wi-Fi & Communicate with mobile phone by Wi-Fi and Bluetooth& USB Copy via command & RS485 PSE 12V Output.
Mode 2: Power by PoE Adapter & Communicate with Notebook by LAN Cable and Wi-Fi & Communicate with mobile phone by Wi-Fi and Bluetooth & USB Copy via command & RS485 PSE 12V Output.

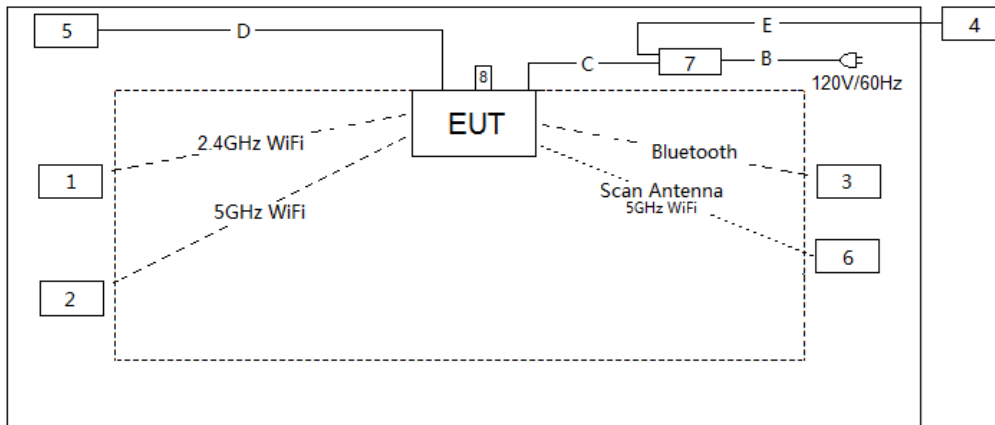
### 1.3. Configuration of Tested System

This device was tested per the guidance ANSI C63.4:2014 was used to reference the appropriate EUT setup for radiated emissions testing and AC line conducted testing.

Connection Diagram (Mode 1)



Connection Diagram (Mode 2)



Cable Type	cable Description	
A	Power Cable	Non-Shielding, 1.5m
B	Power Cable	Non-Shielding, 1.5m
C	LAN Cable	Non-Shielding, > 10m
D	LAN Cable	Non-Shielding, > 10m
E	LAN Cable	Non-Shielding, > 10m

### 1.4. Test System Details

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

Product	Manufacturer	Model No.	Serial No.	Power Cord
1 Notebook	Lenovo	E430c	MP-4CFX213/10	Non-Shielded, 1.8m
2 iPhone	Apple	ML7E2CH/A	C6KR9BR2GRY	N/A
3 Mobile Phone	OPPO	X9009	N/A	N/A
4 Notebook	ASUS	PRO45V	N/A	Non-Shielded, 1.8m
5 Notebook	Lenovo	E431	PF-10ZRN 13/12	Non-Shielded, 1.8m
6 Mobile Phone	HUAWEI	M836	N/A	N/A
7 PoE Adapter	Microsemi	PD-9001-25GR/AT/AC	C19456582000002321	Non-Shielded, 1.8m
8 USB Dongle	SanDisk	BL161025264V	N/A	N/A
9 Adapter	DELTA	ADP-30HR B	1WMD05S00T5	Non-Shielded, 1.8m

### 1.5. Test Procedure

1	Setup the EUT and simulators as shown on above.
2	<p>Mode 1: Power by AC Adapter &amp; Communicate with Notebook by LAN Cable and Wi-Fi &amp; Communicate with mobile phone by Wi-Fi and Bluetooth &amp; USB Copy via command &amp; RS485 PSE 12V Output.</p> <p>Mode 2: Power by PoE Adapter &amp; Communicate with Notebook by LAN Cable and Wi-Fi &amp; Communicate with mobile phone by Wi-Fi and Bluetooth &amp; USB Copy via command &amp; RS485 PSE 12V Output.</p>
3	Begin to test.

### 1.6. EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and/or no modifications were made during testing.

## 2. TEST EQUIPMENT CALIBRATION DATE

### Conducted Emission - SR2

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR3	MRTSUE06185	1 year	2021/01/18
Two-Line V-Network	R&S	ENV216	MRTSUE06002	1 year	2021/06/11
Thermal Hygrometer	testo	608-H1	MRTSUE06404	1 year	2021/07/26
Shielding Room	MIX-BEP	Chamber-SR2	MRTSUE06215	N/A	N/A

### Radiated Emission - AC1

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cal. Due Date
EMI Test Receiver	R&S	ESR7	MRTSUE06001	1 year	2021/01/18
PXA Signal Analyzer	Keysight	N9030B	MRTSUE06395	1 year	2021/08/30
Loop Antenna	Schwarzbeck	FMZB 1519	MRTSUE06025	1 year	2021/10/22
Bilog Period Antenna	Schwarzbeck	VULB 9168	MRTSUE06172	1 year	2021/04/03
Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06023	1 year	2021/09/27
Horn Antenna	Schwarzbeck	BBHA9170	MRTSUE06597	1 year	2020/12/17
Microwave System Amplifier	Agilent	83017A	MRTSUE06076	1 year	2021/10/15
Preamplifier	Schwarzbeck	BBV 9721	MRTSUE06121	1 year	2021/06/11
Thermal Hygrometer	testo	608-H1	MRTSUE06403	1 year	2021/07/26
Anechoic Chamber	TDK	Chamber-AC1	MRTSUE06212	1 year	2021/04/30



## Radiated Emission - AC2

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
MXE EMI Receiver	Keysight	N9038A	MRTSUE06125	1 year	2021/07/02
Loop Antenna	Schwarzbeck	FMZB 1519	MRTSUE06025	1 year	2021/10/13
Bilog Period Antenna	Schwarzbeck	VULB 9162	MRTSUE06022	1 year	2021/09/13
Broad-Band Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06171	1 year	2021/09/27
Horn Antenna	Schwarzbeck	BBHA9170	MRTSUE06597	1 year	2020/12/17
Broadband Coaxial Preamplifier	Schwarzbeck	BBV 9718	MRTSUE06176	1 year	2021/10/15
Preamplifier	Schwarzbeck	BBV 9721	MRTSUE06121	1 year	2021/06/11
Thermal Hygrometer	Minggao	ETH529	MRTSUE06170	1 year	2020/12/15
Anechoic Chamber	RIKEN	Chamber-AC2	MRTSUE06213	1 year	2021/04/30

Software	Version	Function
EMI Software	V3	EMI Test Software

### 3. MEASUREMENT UNCERTAINTY

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of  $k = 2$ .

#### Conducted Emission Measurement

The maximum measurement uncertainty is evaluated as:

9kHz~150kHz: 3.74dB

150kHz~30MHz: 3.44dB

#### Radiated Emission Measurement

The maximum measurement uncertainty is evaluated as:

Horizontal: 30MHz~300MHz: 5.04dB

300MHz~1GHz: 4.95dB

1GHz~6GHz: 6.40dB

Vertical: 30MHz~300MHz: 5.24dB

300MHz~1GHz: 6.03dB

1GHz~40GHz: 6.40dB

## 4. TEST RESULT

### 4.1. Summary

FCC Part Section(s)	ISED Part Section(s)	Test Description	Test Result
15.107	ICES-003 Issue 6 - 6.1	Conducted Emissions	Pass
15.109	ICES-003 Issue 6 - 6.2	Radiated Emissions	Pass

## 4.2. Conducted Emission Measurement

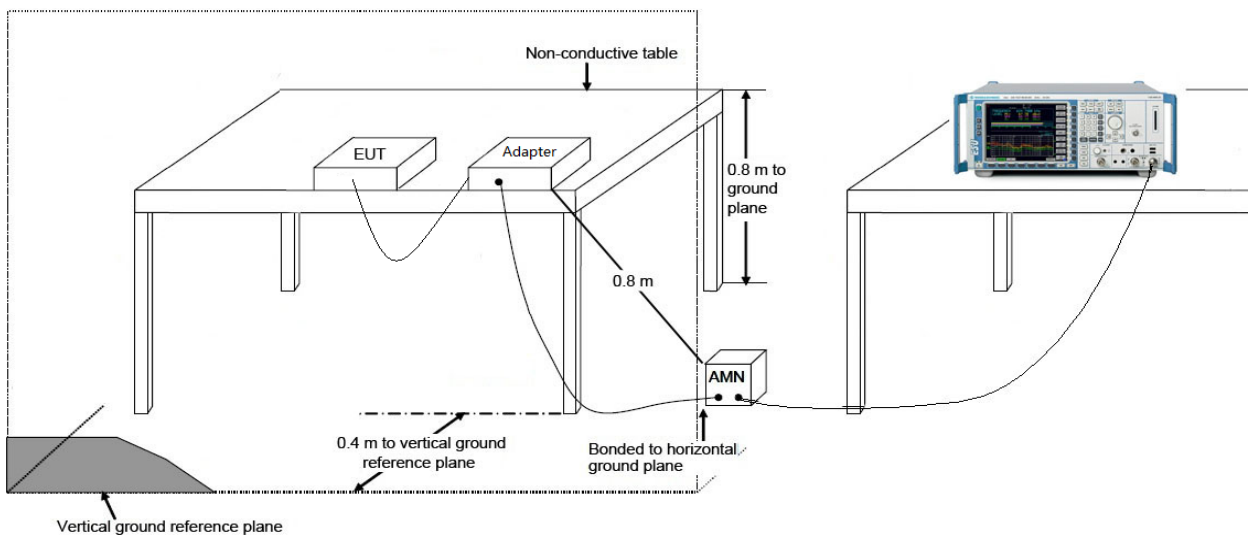
### 4.2.1. Test Limit

FCC Part 15.107 / ICES-003 Issue 6-6.1 Limit		
Frequency (MHz)	QP (dB $\mu$ V)	AV (dB $\mu$ V)
0.15 ~ 0.50	66 ~ 56	56 ~ 46
0.50 ~ 5.0	56	46
5.0 ~ 30	60	50

Note 1: The lower limit shall apply at the transition frequencies.

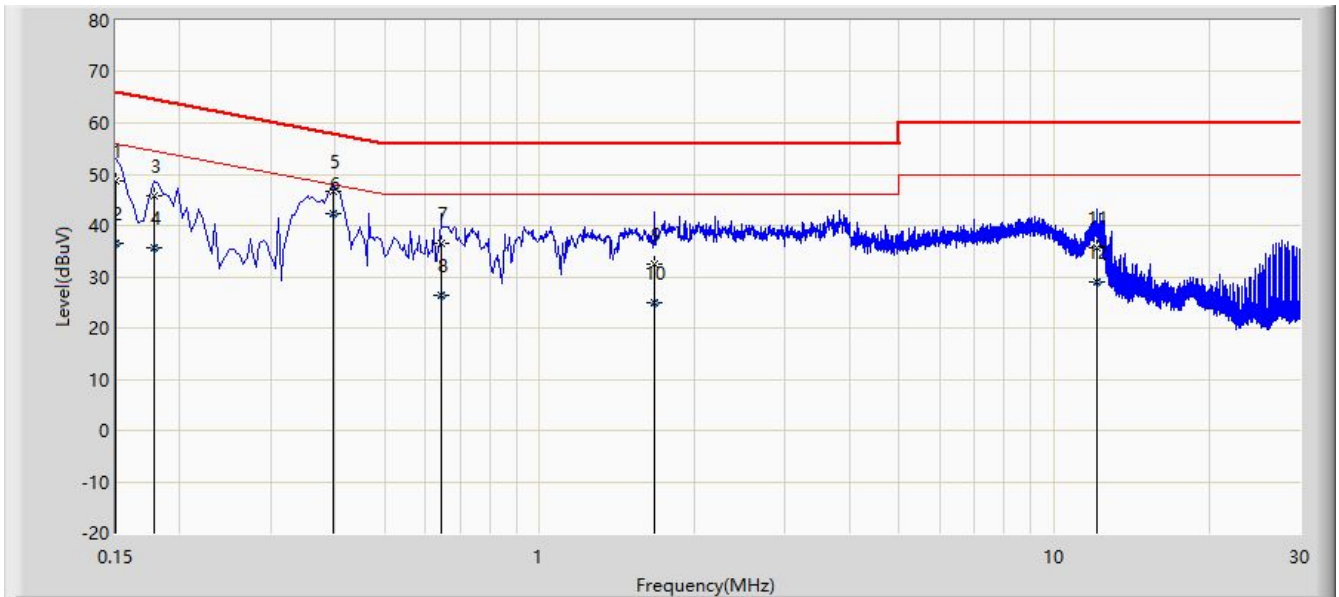
Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

### 4.2.2. Test Setup



### 4.2.3. Test Result of Conducted Emissions

Site: SR2	Time: 2020/09/02 - 17:47
Limit: FCC_Part15.107_CE_AC Power_Class B	Engineer: Linda Wei
Probe: ENV216_101683_Filter On	Polarity: Line
EUT: AP311	Power: AC 120V/60Hz
Test Mode 1	

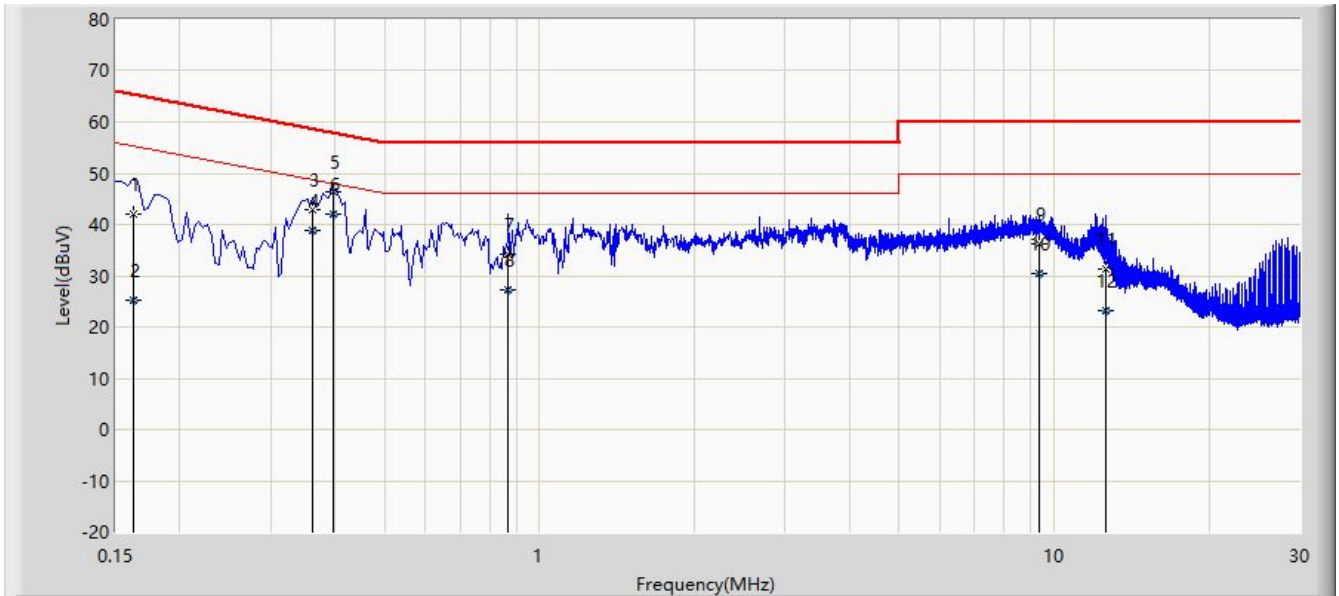


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV)	Factor	Type
1			0.150	48.675	39.062	-17.325	66.000	9.613	QP
2			0.150	36.663	27.050	-19.337	56.000	9.613	AV
3			0.178	45.795	36.167	-18.784	64.578	9.628	QP
4			0.178	35.722	26.094	-18.857	54.578	9.628	AV
5			0.398	46.787	37.109	-11.108	57.895	9.678	QP
6		*	0.398	42.412	32.735	-5.483	47.895	9.678	AV
7			0.642	36.460	26.744	-19.540	56.000	9.716	QP
8			0.642	26.250	16.533	-19.750	46.000	9.716	AV
9			1.674	32.584	22.826	-23.416	56.000	9.758	QP
10			1.674	24.906	15.148	-21.094	46.000	9.758	AV
11			12.142	35.590	25.488	-24.410	60.000	10.102	QP
12			12.142	28.936	18.834	-21.064	50.000	10.102	AV

Note: Measure Level (dBμV) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB).

Site: SR2	Time: 2020/09/02 - 19:23
Limit: FCC_Part15.107_CE_AC Power_Class B	Engineer: Linda Wei
Probe: ENV216_101683_Filter On	Polarity: Neutral
EUT: AP311	Power: AC 120V/60Hz
Test Mode 1	

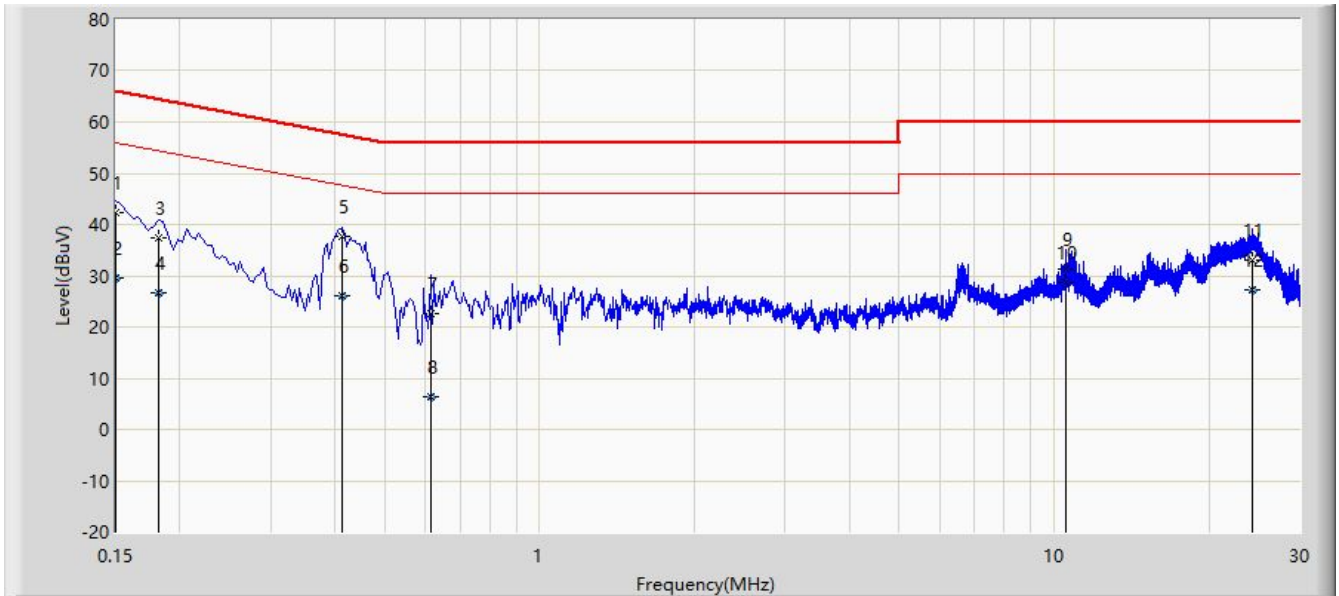


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV)	Factor	Type
1			0.162	42.145	32.536	-23.216	65.361	9.609	QP
2			0.162	25.120	15.511	-30.241	55.361	9.609	AV
3			0.362	42.803	33.142	-15.880	58.682	9.660	QP
4			0.362	38.851	29.191	-9.831	48.682	9.660	AV
5			0.398	46.391	36.723	-11.504	57.895	9.668	QP
6		*	0.398	42.081	32.413	-5.814	47.895	9.668	AV
7			0.870	34.162	24.432	-21.838	56.000	9.729	QP
8			0.870	27.107	17.378	-18.893	46.000	9.729	AV
9			9.350	36.253	26.223	-23.747	60.000	10.030	QP
10			9.350	30.554	20.524	-19.446	50.000	10.030	AV
11			12.634	31.373	21.252	-28.627	60.000	10.121	QP
12			12.634	23.175	13.054	-26.825	50.000	10.121	AV

Note: Measure Level (dBμV) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB).

Site: SR2	Time: 2020/09/02 - 17:31
Limit: FCC_Part15.107_CE_AC Power_Class B	Engineer: Linda Wei
Probe: ENV216_101683_Filter On	Polarity: Line
EUT: AP311	Power: By POE
Test Mode 2	

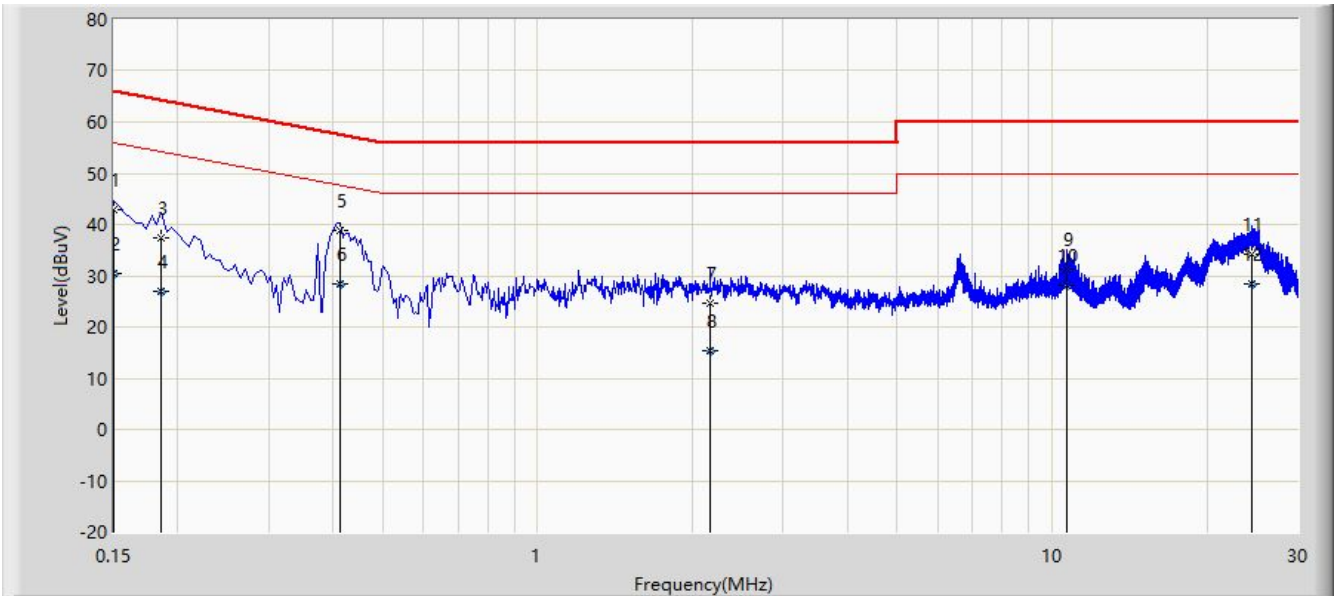


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV)	Factor	Type
1			0.150	42.449	32.836	-23.551	66.000	9.613	QP
2			0.150	29.549	19.935	-26.451	56.000	9.613	AV
3			0.182	37.470	27.841	-26.924	64.394	9.630	QP
4			0.182	26.591	16.961	-27.803	54.394	9.630	AV
5		*	0.414	37.549	27.869	-20.018	57.568	9.681	QP
6			0.414	25.998	16.317	-21.570	47.568	9.681	AV
7			0.614	22.550	12.838	-33.450	56.000	9.713	QP
8			0.614	6.282	-3.430	-39.718	46.000	9.713	AV
9			10.538	31.256	21.193	-28.744	60.000	10.063	QP
10			10.538	28.559	18.496	-21.441	50.000	10.063	AV
11			24.346	33.107	22.699	-26.893	60.000	10.408	QP
12			24.346	27.355	16.947	-22.645	50.000	10.408	AV

Note: Measure Level (dB $\mu$ V) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB).

Site: SR2	Time: 2020/09/02 - 17:41
Limit: FCC_Part15.107_CE_AC Power_Class B	Engineer: Linda Wei
Probe: ENV216_101683_Filter On	Polarity: Neutral
EUT: AP311	Power: By POE
Test Mode 2	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV)	Factor	Type
1			0.150	42.890	33.287	-23.110	66.000	9.603	QP
2			0.150	30.360	20.757	-25.640	56.000	9.603	AV
3			0.186	37.463	27.841	-26.751	64.213	9.622	QP
4			0.186	26.840	17.219	-27.373	54.213	9.622	AV
5		*	0.414	38.756	29.085	-18.812	57.568	9.671	QP
6			0.414	28.428	18.757	-19.140	47.568	9.671	AV
7			2.162	24.623	14.857	-31.377	56.000	9.766	QP
8			2.162	15.498	5.732	-30.502	46.000	9.766	AV
9			10.646	31.190	21.125	-28.810	60.000	10.066	QP
10			10.646	28.226	18.160	-21.774	50.000	10.066	AV
11			24.438	34.270	23.846	-25.730	60.000	10.425	QP
12			24.438	28.352	17.927	-21.648	50.000	10.425	AV

Note: Measure Level (dB $\mu$ V) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB).



### 4.3. Radiated Emission Measurement

#### 4.3.1. Test Limit

FCC Part 15.109 / ICES-003 Issue 6-6.2 Limit		
Frequency (MHz)	Distance (m)	Level (dB $\mu$ V/m)
30 - 88	3	40
88 - 216	3	43.5
216 - 960	3	46
Above 960	3	54

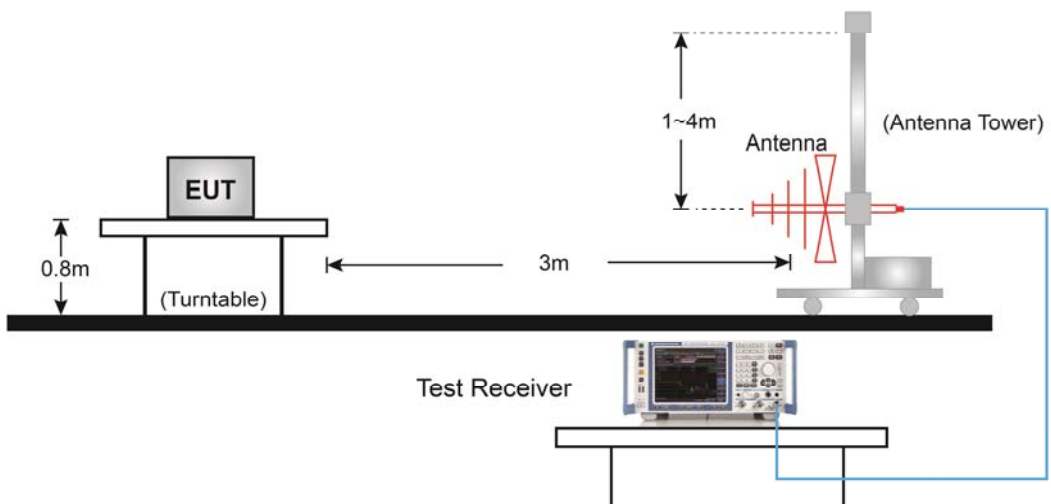
Note 1: The lower limit shall apply at the transition frequency.

Note 2: Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

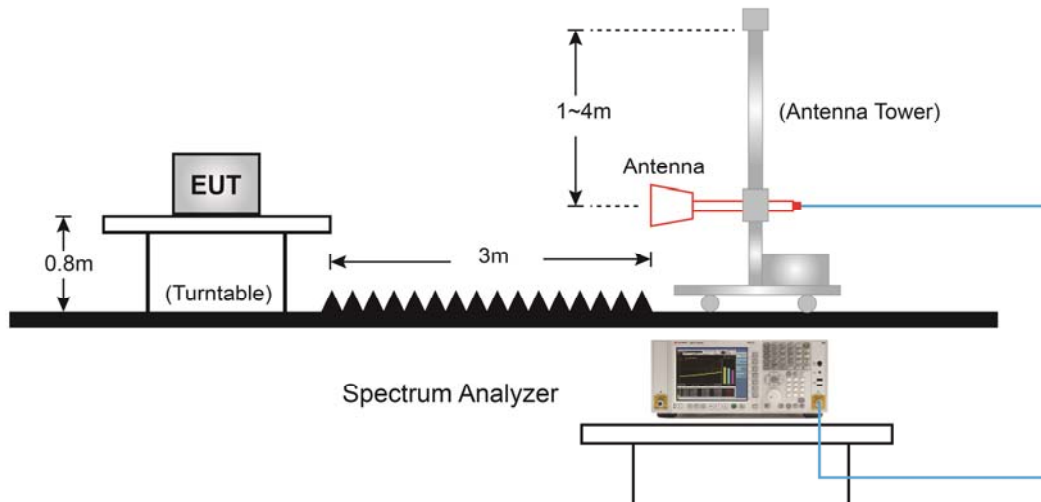
Note 3: E field strength (dB $\mu$ V/m) = 20 log E field strength (uV/m)

#### 4.3.2. Test Setup

Below 1GHz Test Setup:

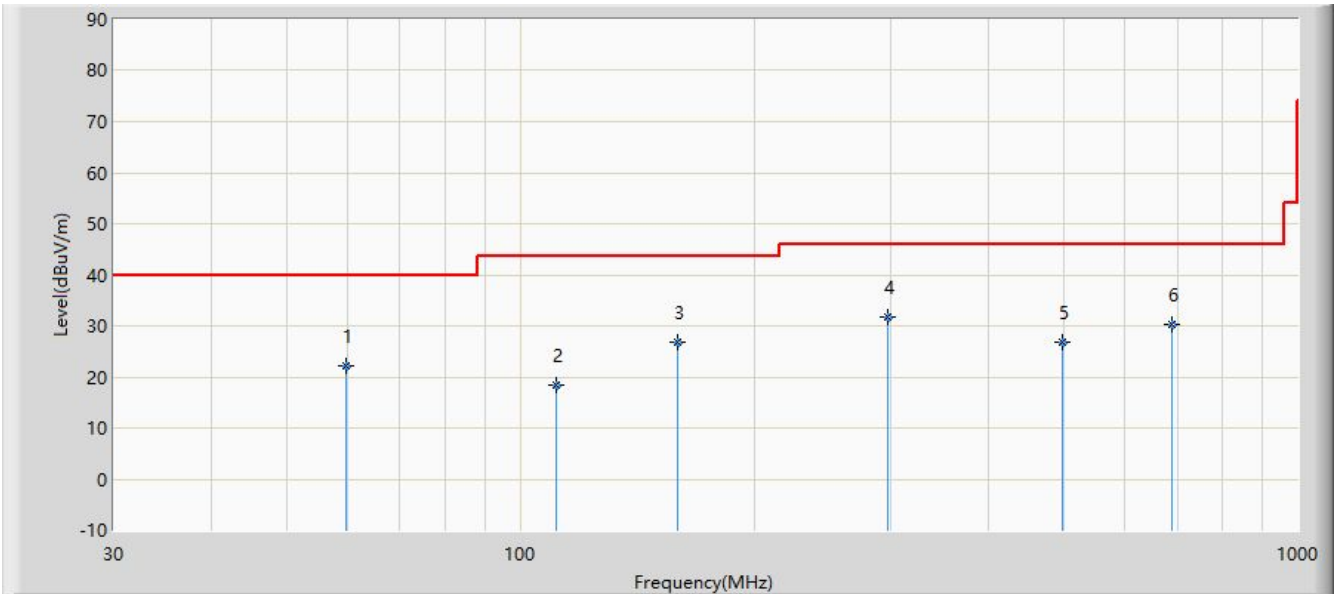


Above 1GHz Test Setup:



### 4.3.3. Test Result of Radiated Emissions

Site: AC1	Time: 2020/09/02
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Buter Shi
Probe: AC1_VULB 9168 _30-1000MHz	Polarity: Horizontal
EUT: AP311	Power: AC 120V/60Hz
Test Mode 1	

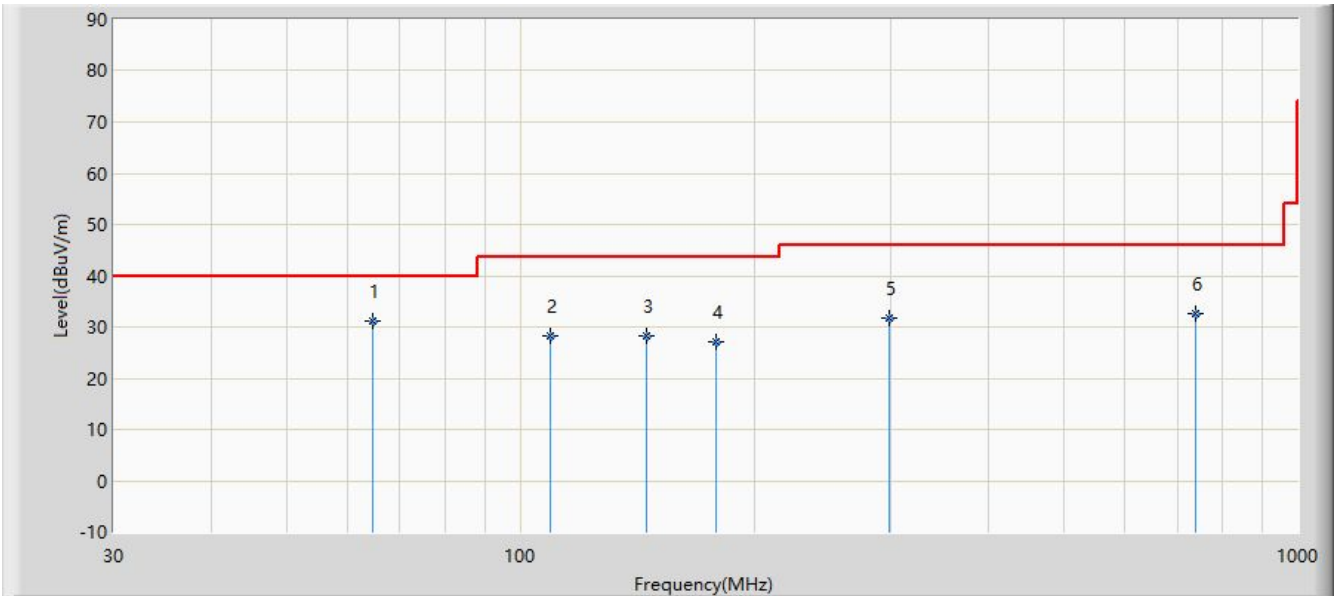


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			59.620	22.095	4.520	-17.905	40.000	17.575	QP
2			111.110	18.398	3.240	-25.102	43.500	15.158	QP
3			159.360	26.852	8.650	-16.648	43.500	18.201	QP
4		*	296.540	31.784	13.210	-14.216	46.000	18.574	QP
5			498.510	26.799	3.240	-19.201	46.000	23.559	QP
6			688.630	30.286	3.260	-15.714	46.000	27.026	QP

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2020/09/02
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Buter Shi
Probe: AC1_VULB 9168 _30-1000MHz	Polarity: Vertical
EUT: AP311	Power: AC 120V/60Hz
Test Mode 1	

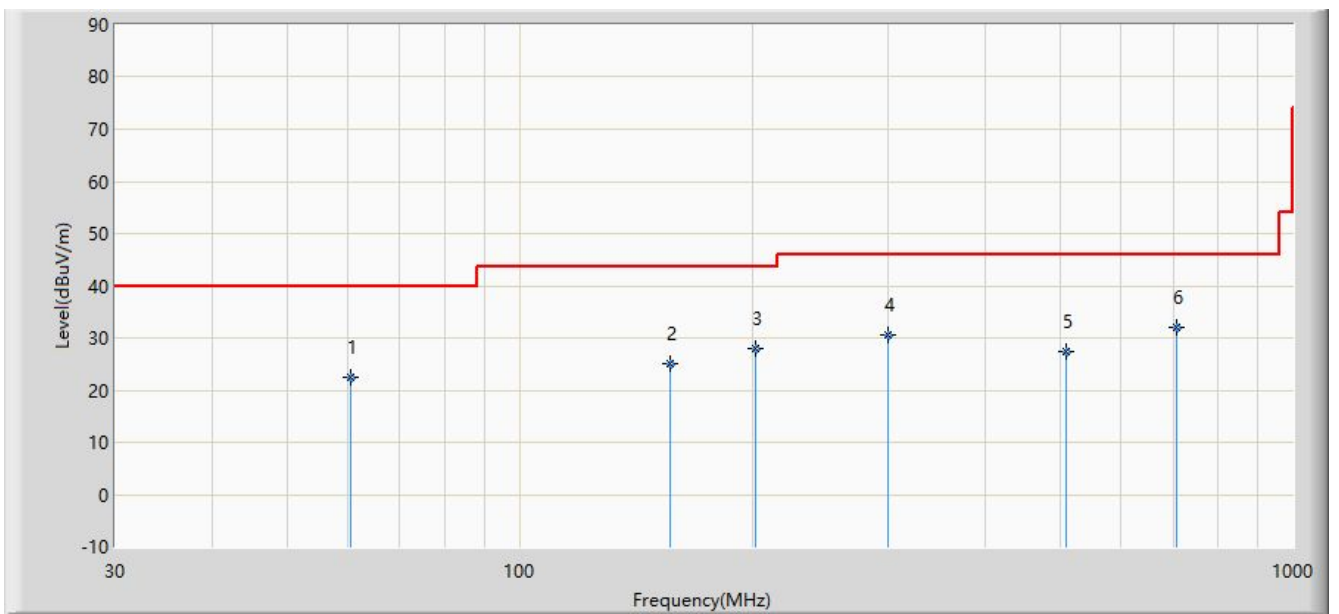


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	64.490	31.029	14.090	-8.971	40.000	16.939	QP
2			109.440	28.187	13.240	-15.313	43.500	14.947	QP
3			145.240	28.303	10.260	-15.197	43.500	18.044	QP
4			178.650	27.050	10.240	-16.450	43.500	16.811	QP
5			297.630	31.839	13.240	-14.161	46.000	18.598	QP
6			740.150	32.619	4.360	-13.381	46.000	28.259	QP

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2020/09/02
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Buter Shi
Probe: AC1_VULB 9168 _30-1000MHz	Polarity: Horizontal
EUT: AP311	Power: By POE
Test Mode 2	

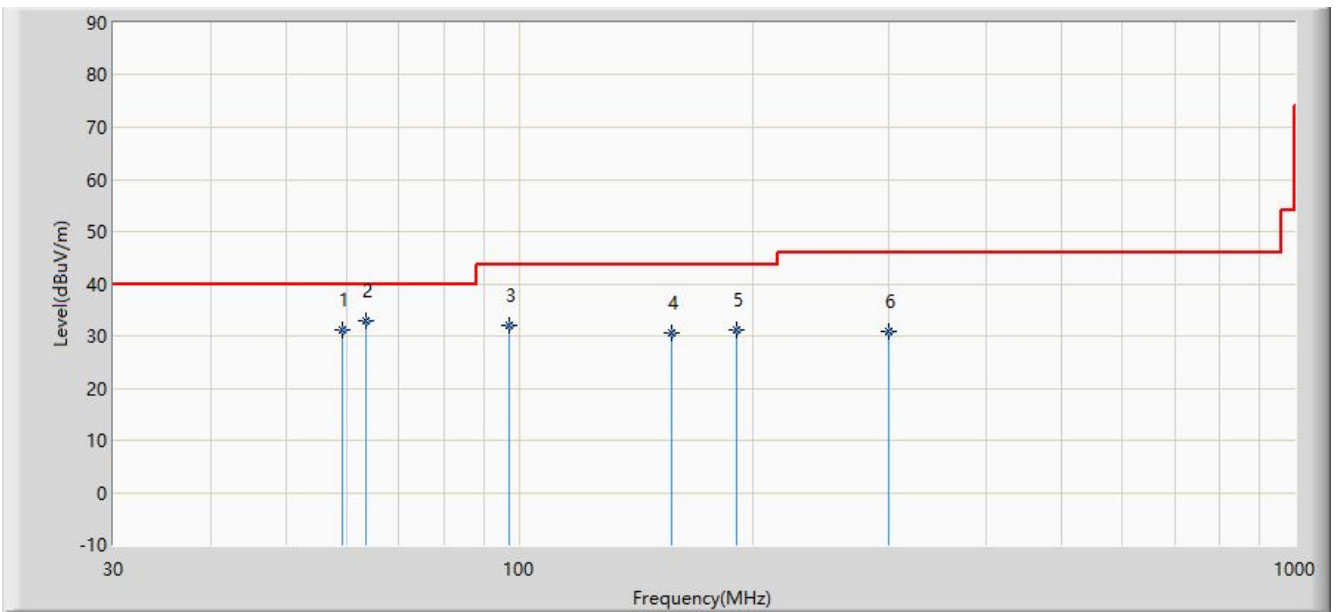


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			60.520	22.353	4.910	-17.647	40.000	17.443	QP
2			156.480	25.104	6.820	-18.396	43.500	18.283	QP
3			202.350	28.086	13.260	-15.414	43.500	14.827	QP
4			300.210	30.512	11.840	-15.488	46.000	18.671	QP
5			508.684	27.272	3.520	-18.728	46.000	23.752	QP
6		*	706.540	31.940	4.520	-14.060	46.000	27.419	QP

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2020/09/02
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Buter Shi
Probe: AC1_VULB 9168 _30-1000MHz	Polarity: Vertical
EUT: AP311	Power: By POE
Test Mode 2	

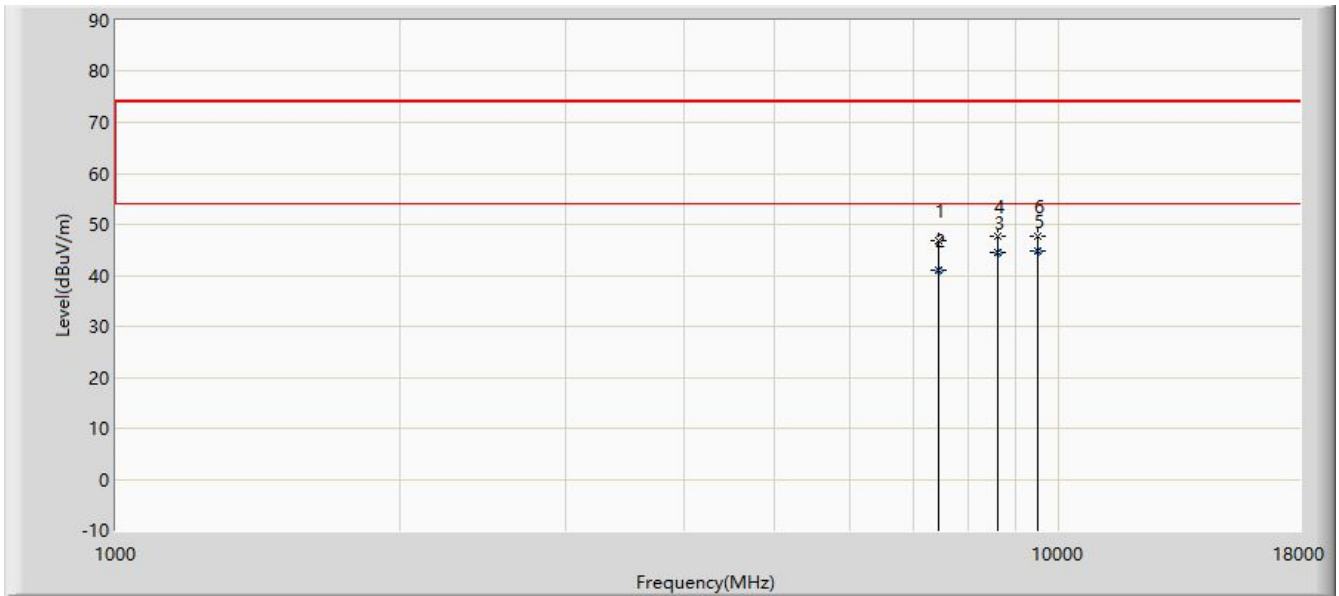


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			59.260	31.257	13.620	-8.743	40.000	17.637	QP
2		*	63.540	32.826	15.720	-7.174	40.000	17.106	QP
3			96.950	31.905	18.950	-11.595	43.500	12.954	QP
4			157.540	30.592	12.320	-12.908	43.500	18.271	QP
5			191.040	31.168	15.640	-12.332	43.500	15.528	QP
6			300.140	30.990	12.320	-15.010	46.000	18.669	QP

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC1	Time: 2020/09/02
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Buter Shi
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: AP311	Power: AC 120V/60Hz
Test Mode 1	



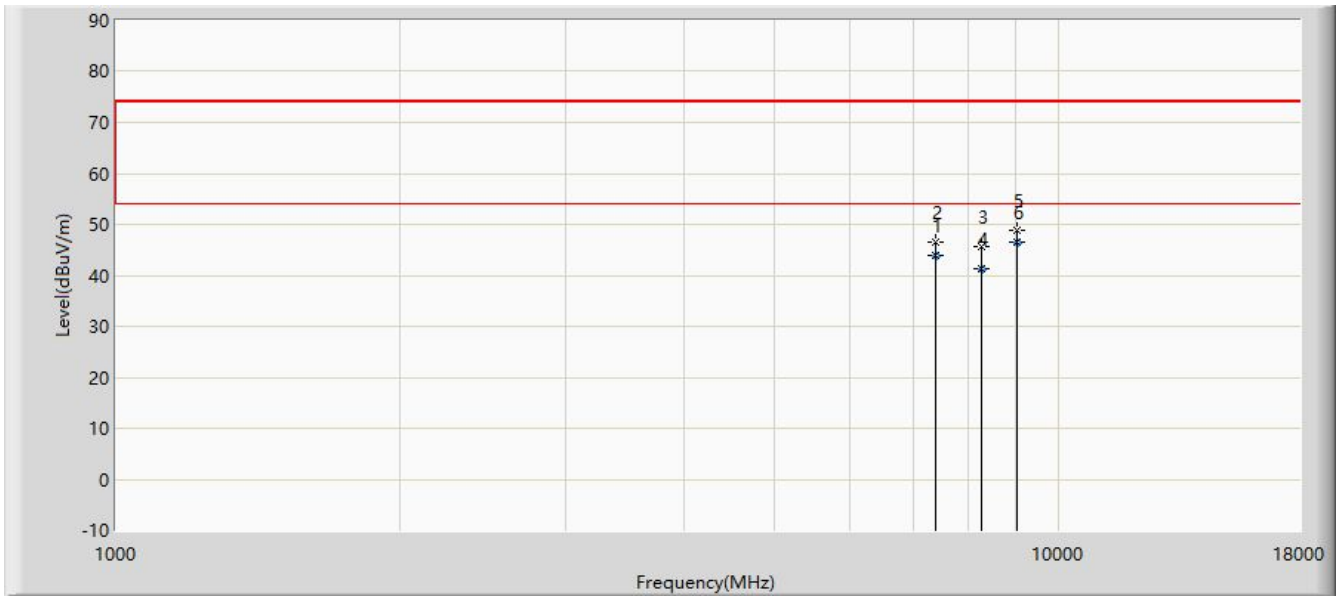
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			7460.000	46.946	35.980	-27.054	74.000	10.966	PK
2			7462.500	41.118	30.160	-12.882	54.000	10.958	AV
3			8607.210	44.385	32.160	-9.615	54.000	12.225	AV
4			8607.500	47.711	35.479	-26.289	74.000	12.232	PK
5		*	9508.200	44.824	30.160	-9.176	54.000	14.664	AV
6			9508.500	47.659	32.991	-26.341	74.000	14.668	PK

Note 1: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre Amplifier Gain (dB)

Note 2: The amplitude of radiated emissions (frequency range from 18GHz to 40GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value. Therefore, the data is not presented in the report.

Site: AC1	Time: 2020/09/02
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Buter Shi
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: AP311	Power: AC 120V/60Hz
Test Mode 1	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			7408.540	43.868	33.130	-10.132	54.000	10.738	AV
2			7409.000	46.429	35.691	-27.571	74.000	10.738	PK
3			8276.000	45.662	34.445	-28.338	74.000	11.217	PK
4			8278.900	41.384	30.180	-12.616	54.000	11.204	AV
5			9015.500	48.833	35.580	-25.167	74.000	13.253	PK
6		*	9016.590	46.500	33.240	-7.500	54.000	13.260	AV

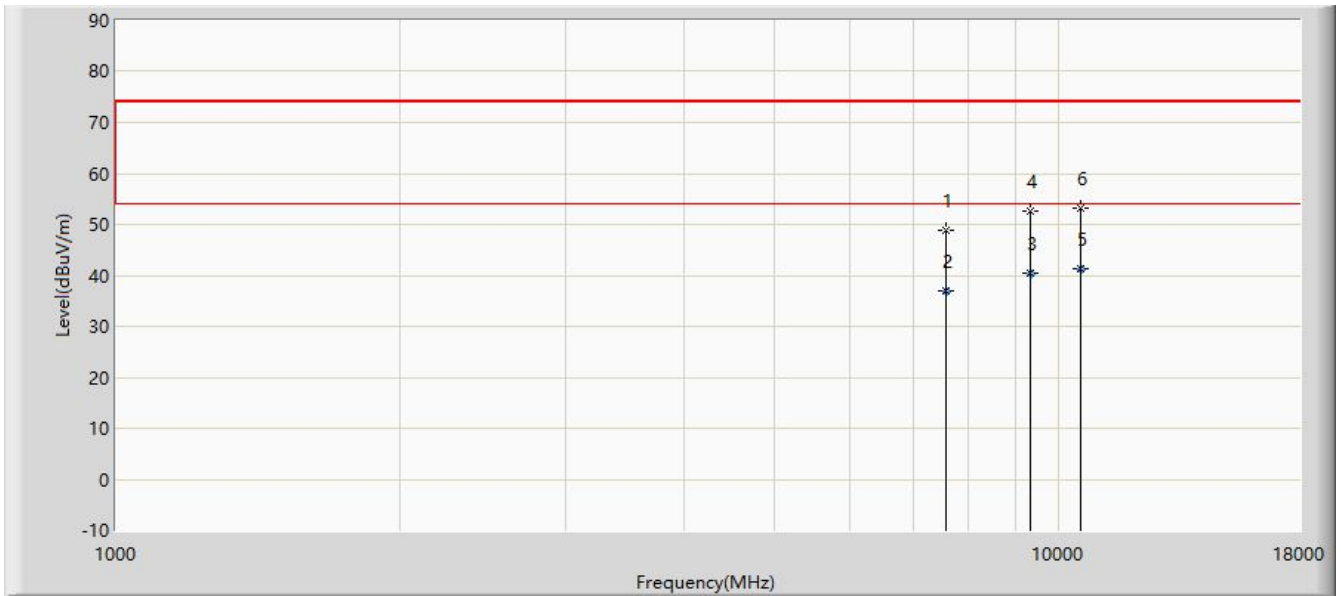
Note 1: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre Amplifier Gain (dB)

Note 2: The amplitude of radiated emissions (frequency range from 18GHz to 40GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value. Therefore, the data is not presented in the report.



Site: AC1	Time: 2020/09/02
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Buter Shi
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: AP311	Power: By POE
Test Mode 2	



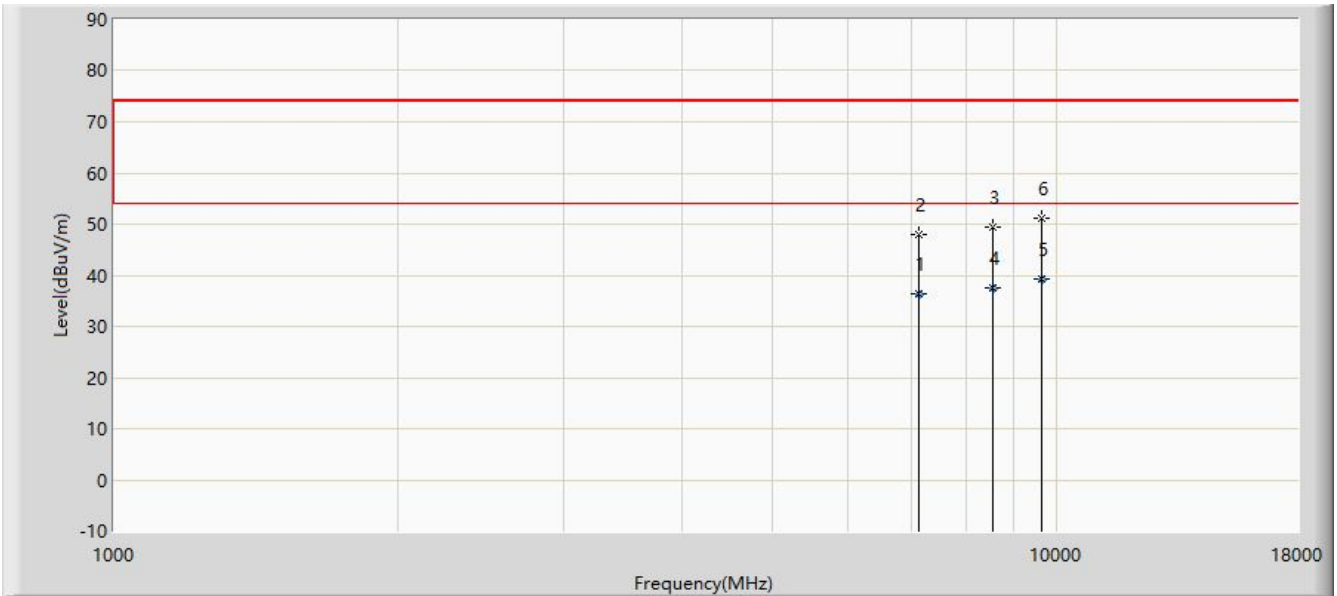
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			7596.000	48.882	38.132	-25.118	74.000	10.750	PK
2			7596.400	36.870	26.120	-17.130	54.000	10.750	AV
3			9336.200	40.480	26.240	-13.520	54.000	14.240	AV
4			9338.500	52.518	38.241	-21.482	74.000	14.277	PK
5		*	10543.200	41.332	24.850	-12.668	54.000	16.482	AV
6			10545.500	53.246	36.779	-20.754	74.000	16.467	PK

Note 1: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre Amplifier Gain (dB)

Note 2: The amplitude of radiated emissions (frequency range from 18GHz to 40GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value. Therefore, the data is not presented in the report.

Site: AC1	Time: 2020/09/02
Limit: FCC_Part15.109_RE(3m)_Class B	Engineer: Buter Shi
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: AP311	Power: By POE
Test Mode 2	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			7126.300	36.420	25.920	-17.580	54.000	10.500	AV
2			7128.500	47.934	37.446	-26.066	74.000	10.488	PK
3			8556.500	49.468	37.532	-24.532	74.000	11.937	PK
4			8565.200	37.591	25.540	-16.409	54.000	12.051	AV
5		*	9624.300	39.174	24.520	-14.826	54.000	14.654	AV
6			9627.500	51.084	36.459	-22.916	74.000	14.625	PK

Note 1: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre Amplifier Gain (dB)

Note 2: The amplitude of radiated emissions (frequency range from 18GHz to 40GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value. Therefore, the data is not presented in the report.

## 5. CONCLUSION

The data collected relate only the item(s) tested and show that this device has been tested to comply with the requirements specified in §15.107 / §15.109 of the FCC Rules and ICES-003 of ISED Rules.

.

## **Appendix A - Test Setup Photograph**

Refer to "2008RSU054-UT" file.

## **Appendix B - EUT Photograph**

Refer to "2008RSU054-UE" file.