

# Verification of Compliance

Product Name : Fanless embedded controller  
Model Number : xxxxxAEC-6611-xxxxxxxx  
(Where x is 0-9 , A-Z , -or blank) for marketing purpose  
Applicant : AAEON Technology Inc.  
Address : 5F, No.135, Lane 235, Pao Chiao Rd., Hsin-Tien City, Taipei, Taiwan,  
R.O.C.  
Report Number : F-U070-1008-036  
Issue Date : August 13, 2010  
Applicable Standards : FCC Part 15, Subpart B Class A ITE  
ANSI C63.4:2003

One sample of the designated product has been tested in our laboratory and found to be in compliance with the FCC rules cited above.



NVLAP LAB CODE 200575-0

TAF 0905

FCC CAB Code TW1053

IC Code 4699A

VCCI Accep. No. R-1527, C-1609, T-131, T-1441, G-10



**Central Research Technology Co.**

EMC Test Laboratory

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(Tsun-Yu Shih/ General Manager)

Date: August 13, 2010

# **FCC Test Report**

for

## **Fanless embedded controller**

**Model Number : xxxxxAEC-6611-xxxxxxx**  
**(Where x is 0-9 , A-Z , -or blank)**  
**for marketing purpose**

**Report Number : F-U070-1008-036**

**Date of Receipt : August 9, 2010**

**Date of Report : August 13, 2010**

Prepared for

### **AAEON Technology Inc.**

5F, No.135, Lane 235, Pao Chiao Rd., Hsin-Tien City, Taipei, Taiwan, R.O.C.

Prepared by



**Central Research Technology Co.**

**EMC Test Laboratory**

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NVLAP LAB CODE 200575-0

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# Verification of Compliance

**Equipment Under Test** : Fanless embedded controller  
**Model No.** : xxxxxAEC-6611-xxxxxxxx  
(Where x is 0-9 , A-Z , -or blank) for marketing purpose  
**Applicant** : AAEON Technology Inc.  
**Address** : 5F, No.135, Lane 235, Pao Chiao Rd., Hsin-Tien City, Taipei,  
Taiwan, R.O.C.  
**Applicable Standards** : **FCC Part 15, Subpart B Class A ITE**  
**ANSI C63.4:2003**

**Date of Testing** : August 10, 2010  
**Deviation** : N/A  
**Condition of Test Sample** : Engineering Sample



We, **Central Research Technology Co.**, hereby certify that one sample of the designated product was tested in our facility during the period mentioned above. The test records, data evaluation and Equipment Under Test (EUT) configurations shown in the present report are true and accurate representation of the measurements of the sample's EMC characteristics under the conditions herein specified.

The test results show that the EUT as described in the present report is in compliance with the requirements set forth in the standards mentioned above and apply to the tested sample identified in the present report only. The test report shall not be reproduced, except in its entirety, without the written approval of Central Research Technology Co.

**PREPARED BY** : Yiwen Huang , **DATE** : Aug. 13, 2010  
(Yiwen Huang/System Executive)

**APPROVED BY** : J. Y. Shih , **DATE** : Aug. 13, 2010  
(Tsun-Yu Shih/General Manager)

## Contents

<b>1. General Description .....</b>	<b>4</b>
1.1 General Description of EUT .....	4
1.2 Test Mode .....	5
1.3 Applied standards .....	6
1.4 Test Setup for the EUT .....	7
1.5 The Support Units .....	8
1.6 Layout of the Setup .....	9
1.7 Test Capability .....	10
<b>2. Conducted Emission Measurement.....</b>	<b>12</b>
2.1 Limits for Emission Measurement .....	12
2.2 Test Instruments .....	13
2.3 Test Procedures .....	15
2.4 Test Configurations .....	16
2.5 Photographs of the Test Configurations .....	17
2.6 Test Results .....	18
<b>3. Radiated Emission Measurement .....</b>	<b>20</b>
3.1 Limits for Emission Measurement .....	20
3.2 Test Instruments .....	21
3.3 Test Procedures .....	24
3.4 Test Configurations .....	25
3.5 Photographs of the Test Configurations .....	26
3.6 Test Results .....	27
<b>Attachment 1 Photographs of EUT .....</b>	<b>31</b>
<b>Attachment 2 Modifications of EUT .....</b>	<b>39</b>

## 1. General Description

### 1.1 General Description of EUT

Equipment Under Test : Fanless embedded controller  
 Model No. : xxxxxAEC-6611-xxxxxxxx  
 (Where x is 0-9 , A-Z , -or blank)  
 for marketing purpose

Power in : Supplied by the adapter.

Adapter Specification : Trade Name : FSP  
 Model No. : FSP060-DBAB1  
 Input : 100-240V~1.5A, 50/60Hz  
 Output : 12Vdc, 5.0A MAX

Highest Operating Frequency : 1.6GHz  
 Manufacturer : AAEON Technology Inc.  
 Function Description :

The EUT is an engineering sample of the Fanless embedded controller. Please refer to the user’s manual for the details.

The I/O ports of EUT are listed below:

No.	I/O Port Type	Quantity
1	D-Sub port	1
3	USB port	2
4	RS232 port	8
5	LAN port	2
6	CF Card Slot	1

All the devices listed below to equip a host system are supplied by the manufacturer to be tested in this report.

<b>Components</b>	<b>Specification</b>
M/B	GENE-9455-xxxxxx (Where x is 0-9 , A-Z , -or blank) for marketing purpose
CPU	Intel ATOM N270 1.6GHZ
HDD	Fujitsu , MHZ2080BH 80GB
CFD	Transcend 128 MB
Memory	DSL , DDR2-533 1GB
OSC	14.31818MHZ ; 25MHZ ; 32.768KHz
AC Adapter	AC Adapter Manufacturer : FSP AC Adapter Module Number : FSP060-DBAB1 AC Adapter Power Rating : I/P : 100~240VAC O/P : 12V/5A

## 1.2 Test Mode

Normal operating as the customer's requirement. The EUT with D-SUB 1920 x 1080@60Hz resolution to monitor was selected by the manufacturer to be test herein.

**1.3 Applied standards**

According to the specifications of the manufacturer and the requirements set in 47CFR Part 15, Subpart B, the applied standards to evaluate the compliance of the EUT are as following, and the measurement procedures specified in ANSI C63.4: 2003 are performed.

According to 47CFR Part 15 Section 15.33(b), the test frequency range of radiated emission measurements are listed below and the EUT herein shall be tested as:

Type of EUT	Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
<input type="checkbox"/>	Below 1.705	30
<input type="checkbox"/>	1.705 - 108	1000
<input type="checkbox"/>	108 - 500	2000
<input type="checkbox"/>	500 - 1000	5000
<input checked="" type="checkbox"/>	Above 1000	5 <sup>th</sup> harmonic of the highest frequency or 40GHz, whichever is lower

All the test items are as following:

Applied Standards	Test Items	Results
FCC Part 15, Subpart B Class A ITE	<input checked="" type="checkbox"/> Conducted Emission Measurement	<u>PASS</u>
	<input checked="" type="checkbox"/> Radiated Emission Measurement	<u>PASS</u>

## 1.4 Test Setup for the EUT

The EUT is an unique unit connected with other necessary accessories and support units listed in the next section. It has been tested against each standard through the following steps:

The EUT is an unique unit connected with other necessary accessories and support units listed in the next section. It has been tested against each standard through the following steps:

- a. Connect the EUT and all the support units to the appropriate power source.
- b. Turn on the EUT and all the accessories and support units.
- c. Install an EMC test software into EUT and execute it under the Windows environment.
- d. Plug in the CF card into the slot of the EUT.
- e. The EUT sends “H” patterns to the monitor which fills the whole screen of it.
- f. The EUT sends messages to the modems.
- g. Another PC sends/ receives messages to/ from the EUT through a Hub by executing the command of “PING”.
- h. Repeat and keep setup steps listed above before and during all tests.

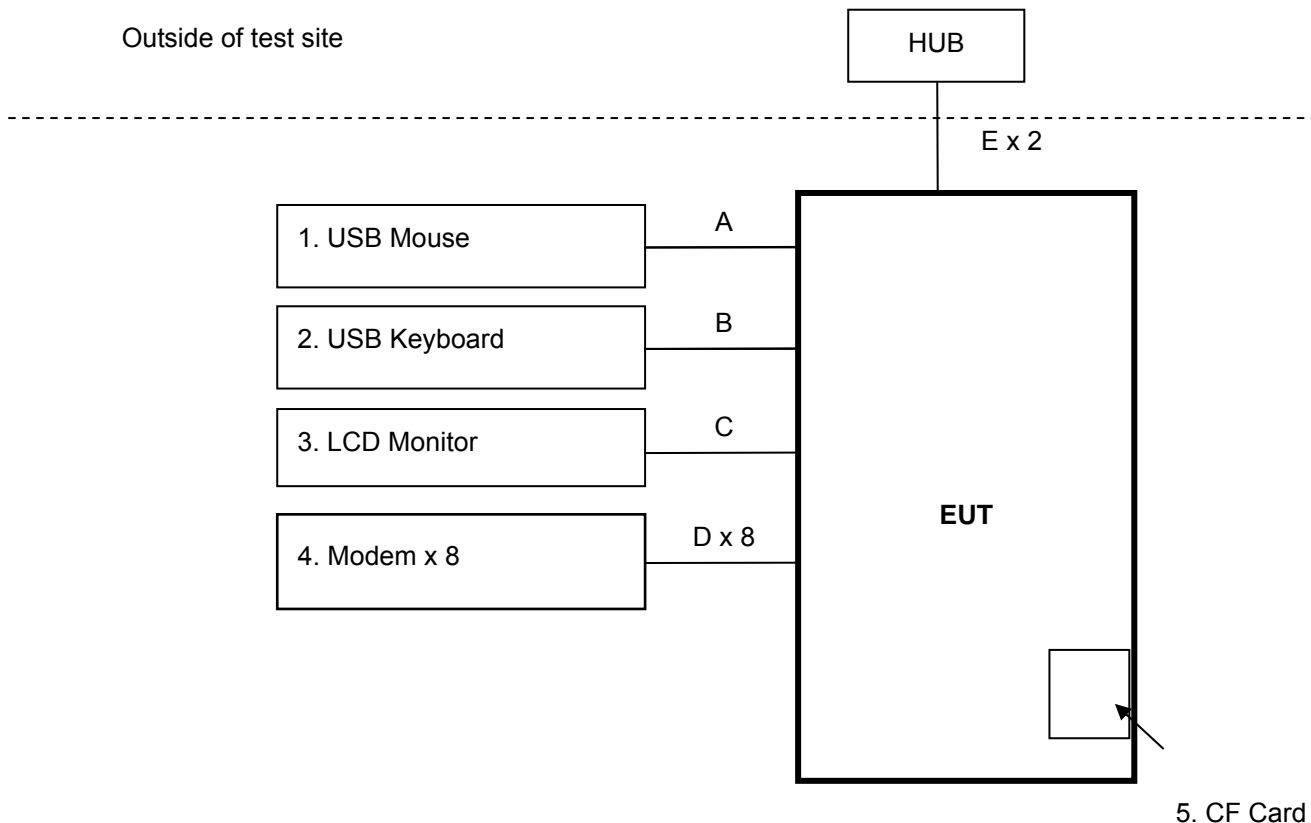
EUT I/O ports / Peripherals	Exerciser Program (software)	Version of Program
Modem	BurnIn Test	V 4.0
Monitor		



## 1.5 The Support Units

No.	Unit	Model No./ Serial No.	FCC ID	Trade Name	Power Cord	Supported by lab.
1	USB Mouse	MO56UC / 516034240	DoC	DELL	N/A	✓
2	USB Keyboard	SK-8115/ CN0J46357161655G 0ANV	DoC	DELL	N/A	✓
3	Monitor	2408WFP/ CN-0G293H-74261- 94U-3RMS	DoC	DELL	1.8m	✓
4	Modem	DM-1414/ 0406031779	IFAXDM1414	ACEEX	1.9m	✓
		DM-1414/ 0406031776	IFAXDM1414	ACEEX	1.9m	✓
		DM-1414/ 0505012779	IFAXDM1414	ACEEX	1.9m	✓
		DM-1414/ 0509019803	IFAXDM1414	ACEEX	1.9m	✓
		DM-1414/ 0509019802	IFAXDM1414	ACEEX	1.9m	✓
		DM-1414/ 0509019804	IFAXDM1414	ACEEX	1.9m	✓
		DM-1414/ 0509019801	IFAXDM1414	ACEEX	1.9m	✓
		DM-1414/ 0509019805	IFAXDM1414	ACEEX	1.9m	✓
5	CF Card (128MB)	N/A	N/A	Transcend	N/A	✓

### 1.6 Layout of the Setup



#### Connecting Cables :

No.	Cable	Length	Shielded	Core	Shielded Backshell	Supported by lab.	Note
A	PS/2 Mouse Cable	1.8m	✓			✓	
B	PS/2 Keyboard Cable	1.8m	✓			✓	
C	VGA Cable	1.7m	✓	✓		✓	2 Cores
D	Modem Cable	1.8m	✓	✓		✓	2 Cores
E	LAN Cable	1.8m				✓	

## 1.7 Test Capability

### Test Facility

The test facility used for evaluating the conformance of the EUT with each standard in the present report meets what required in CISPR16-1-4, CISPR16-2-3 and ANSI C63.4: 2003.

<b>Test Room</b>	<b>Type of Test Room</b>	<b>Descriptions</b>
TR1	10m semi-anechoic chamber (23m × 14m × 9m)	Complying with the NSA requirements in documents CISPR 22 and ANSI C63.4: 2003. for the radiated emission measurement.
TR11	3m semi-anechoic chamber (9m × 6m × 6m)	
TR5	Shielding Room (8m × 5m × 4m)	For the conducted emission measurement.

**Test Laboratory Competence Information**

Central Research Technology Co. has been accredited / filed / authorized by the agencies listed in the following table.

<b>Certificate</b>	<b>Nation</b>	<b>Agency</b>	<b>Code</b>	<b>Mark</b>
Accreditation Certificate	USA	NVLAP	200575-0	ISO/IEC 17025
	R.O.C. (Taiwan)	TAF	0905	ISO/IEC 17025
	R.O.C. (Taiwan)	BSMI	SL2-IN-E-0033, SL2-IS-E-0033, SL2-R1/R2-E-0033, SL2-A1-E-0033	ISO/IEC 17025
Site Filing Document	USA	FCC	474046,TW1053	Test facility list & NSA Data
	Canada	IC	4699A-1,-3	Test facility list & NSA Data
	Japan	VCCI	R-1527,C-1609,T-131,T-1441, G-10	Test facility list & NSA Data
Authorization Certificate	Germany	TUV	10021687-2010	ISO/IEC 17025
	Norway	Nemko	ELA 212	ISO/IEC 17025

The copy of each certificate can be downloaded from our web site: [www.crc-lab.com](http://www.crc-lab.com)

**2. Conducted Emission Measurement**

Test Result : PASS

**2.1 Limits for Emission Measurement**

**Limits for conducted disturbances at the power mains**

Frequency (MHz)	Class A Equipment		Class B Equipment	
	Quasi-peak (dBµV)	Average (dBµV)	Quasi-peak (dBµV)	Average (dBµV)
0.15 to 0.5	79	66	66 – 56	56 – 46
0.5 to 5	73	60	56	46
5 to 30	73	60	60	50

Note 1- The lower limit shall apply at the transition frequency.  
 Note 2- The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5MHz for Class B equipment.

## 2.2 Test Instruments

Test Site and Equipment	Manufacturer	Model No./ Serial No.	Last Calibration Date	Calibration Due Date
Test Receiver	R&S	ESCS 30/ 836858/021	Jan. 12, 2010	Jan. 12, 2011
LISN	R&S	ESH2-Z5/ 836613/001	May 26, 2010	May 26, 2011
2 <sup>nd</sup> LISN	R&S	ENV4200/ 833209/010	Jan. 12, 2010	Jan. 12, 2011
50Ω terminator	N/A	N/A/ 001	Aug. 26, 2009	Aug. 26, 2010
RF Switch	N/A	RSU28/ 338965/002	Feb. 23, 2010	Aug. 23, 2010
RF Cable	N/A	N/A/ C0052 ~ 56	Feb. 23, 2010	Aug. 23, 2010
Test Software	Audix	e3/ Ver. 5.2004-2-19k	NCR	NCR
TR5 shielded room	ETS LINDGREN	TR5/ 15353-F	NCR	NCR

Note:

1. The calibrations are traceable to NML/ROC.
2. NCR : No Calibration Required.

## Measurement Uncertainty

The assessed measurement uncertainty with a suitable coverage factor K to ensure 95% confidence level for the normal distribution are shown as below, the values are less than  $U_{CISPR}$  in table 1 of CISPR 16-4-2.

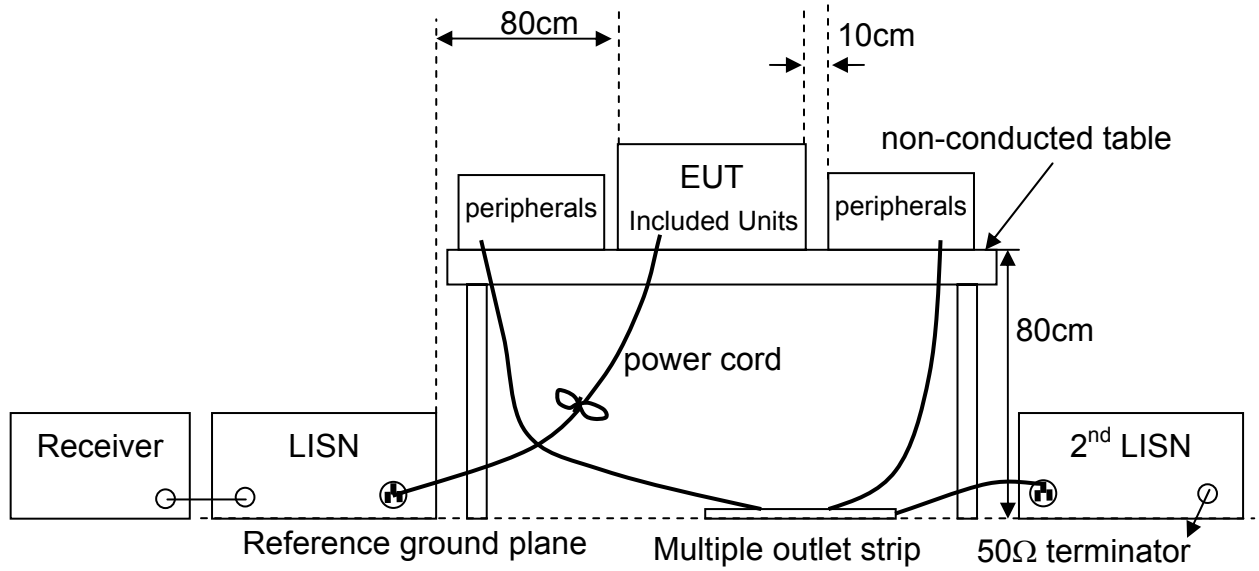
Equipment	Model Number	Uncertainty Value
LISN	ESH2-Z5	3.1dB
	ENV 4200	2.9dB

## 2.3 Test Procedures

- a. The EUT was set up per the test configuration figured in the next section of this chapter to simulate the typical usage per the user's manual.
- b. If the EUT is tabletop equipment, it was placed on a non-conducted table with a height of 0.8 meters above the reference ground plane and 0.4 meters from the conducting wall of the shielded room. Also if the EUT is floor-standing equipment, it was placed on a non-conducted support with a height of 12 millimeters above the reference ground plane.
- c. Connect the EUT's power source to the appropriate power mains through the LISN.
- d. All the other peripherals are connected to the 2<sup>nd</sup> LISN, if any.
- e. The LISN was placed 0.8 meters from the EUT and at least 0.8 meters from other units and other metal planes.
- f. Measure the conducted emissions on each power line (Neutral Line and Line 1 – Hot side) of the EUT's power source by using the test receiver connected to the coupling RF output port of LISN.
- g. Rapidly scan the signal from 150kHz to 30MHz by using the receiver through the Maximum-Peak detector to determine those frequencies associated with higher emission levels for each measured line.
- h. Then measure the maximum level of conducted disturbance for each frequency found from step g. by using the receiver through the Quasi-Peak and Average detectors per CISPR 16-1.
- i. Record the level for each frequency and compare with the required limit.



## 2.4 Test Configurations

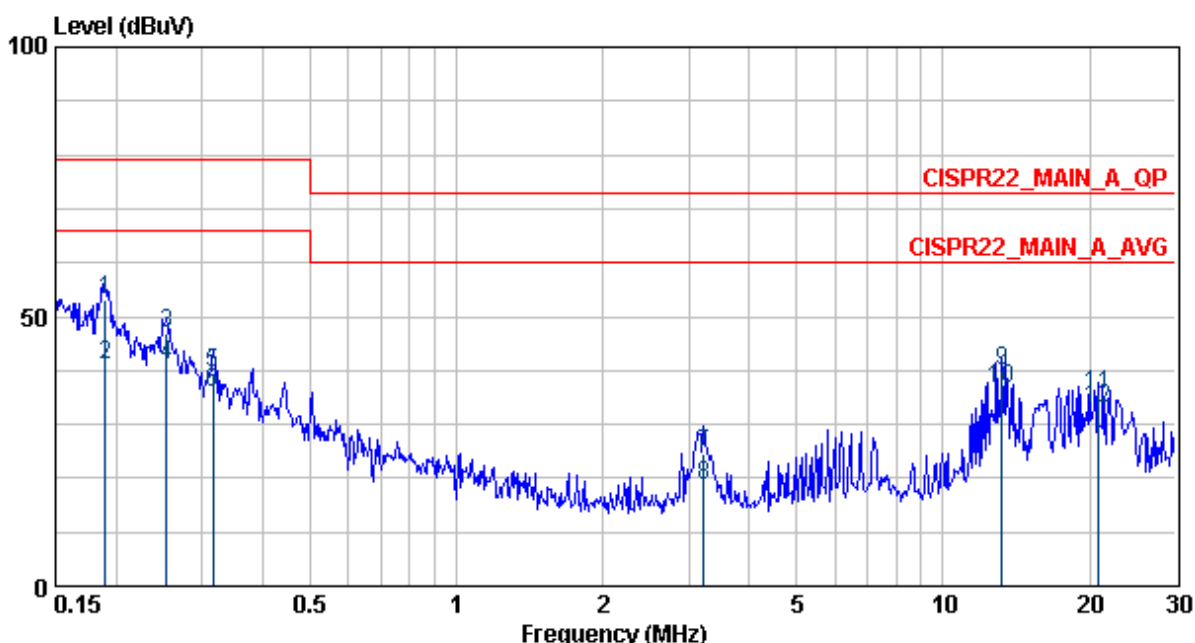


## 2.5 Photographs of the Test Configurations



## 2.6 Test Results

**Test Mode** : As description of section 1.2  
**Test Voltage** : 120V/60Hz to the adapter  
**Tester** : Kevin Liu      **Temperature** : 26°C  
**Humidity** : 65%RH      **Frequency Range** : 150kHz~30MHz  
**IF Bandwidth** : 9kHz      **Phase** : Line

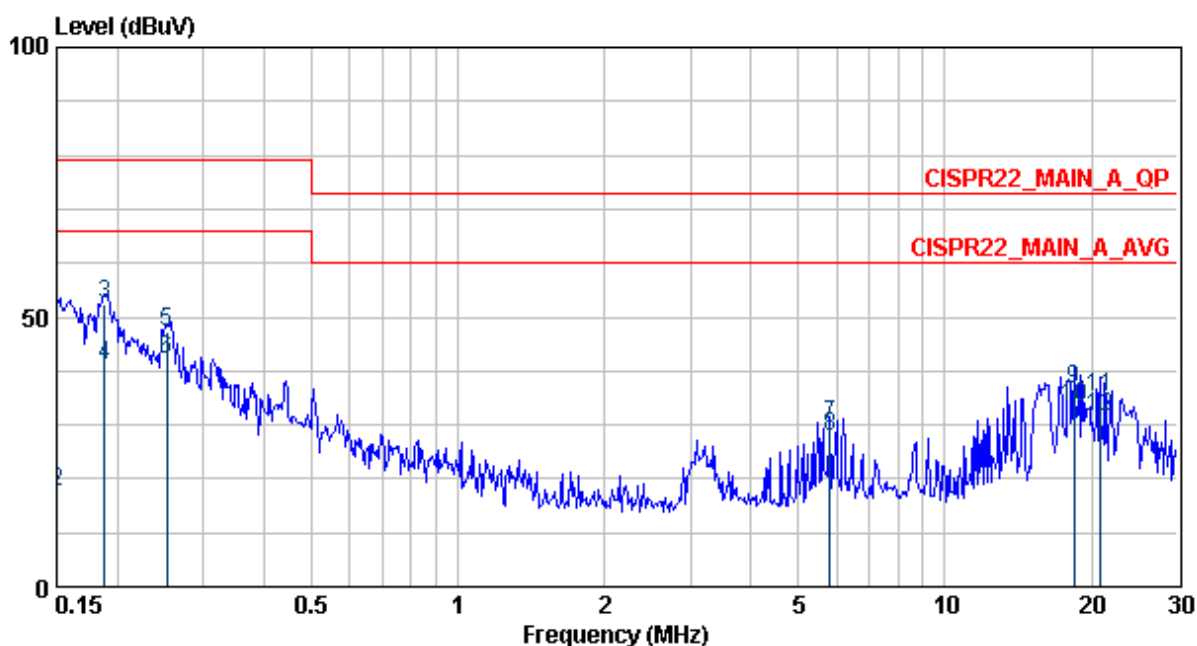


	Freq	Level	Factor	Read Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB		
1	0.190	52.95	0.17	52.78	79.00	-26.05	LINE	QP
2	0.190	40.90	0.17	40.73	66.00	-25.10	LINE	AVERAGE
3	0.253	47.07	0.18	46.89	79.00	-31.93	LINE	QP
4	0.253	41.11	0.18	40.93	66.00	-24.89	LINE	AVERAGE
5	0.317	39.38	0.19	39.19	79.00	-39.62	LINE	QP
6	0.317	36.07	0.19	35.88	66.00	-29.93	LINE	AVERAGE
7	3.224	24.48	0.44	24.04	73.00	-48.52	LINE	QP
8	3.224	18.65	0.44	18.21	60.00	-41.35	LINE	AVERAGE
9	13.213	40.06	1.12	38.94	73.00	-32.94	LINE	QP
10	13.213	36.57	1.12	35.45	60.00	-23.43	LINE	AVERAGE
11	20.800	35.66	1.57	34.09	73.00	-37.34	LINE	QP
12	20.800	32.90	1.57	31.33	60.00	-27.10	LINE	AVERAGE

**Note:**

1. Emission Level = reading value + correction factor.
2. Correction factor = cable loss + insertion loss of LISN.
3. Q.P. is abbreviation of quasi-peak.

**Test Mode** : As description of section 1.2  
**Test Voltage** : 120V/60Hz to the adapter  
**Tester** : Kevin Liu      **Temperature** : 26°C  
**Humidity** : 65%RH      **Frequency Range** : 150kHz~30MHz  
**IF Bandwidth** : 9kHz      **Phase** : Neutral



	Freq	Level	Factor	Read Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB		
1	0.150	44.29	0.22	44.07	79.00	-34.71	NEUTRAL	QP
2	0.150	17.69	0.22	17.47	66.00	-48.31	NEUTRAL	AVERAGE
3	0.188	52.40	0.22	52.18	79.00	-26.60	NEUTRAL	QP
4	0.188	40.91	0.22	40.69	66.00	-25.09	NEUTRAL	AVERAGE
5	0.253	47.24	0.23	47.01	79.00	-31.76	NEUTRAL	QP
6	0.253	42.09	0.23	41.86	66.00	-23.91	NEUTRAL	AVERAGE
7	5.817	29.88	0.61	29.27	73.00	-43.12	NEUTRAL	QP
8	5.817	27.95	0.61	27.34	60.00	-32.05	NEUTRAL	AVERAGE
9	18.397	36.71	1.02	35.69	73.00	-36.29	NEUTRAL	QP
10	18.397	33.36	1.02	32.34	60.00	-26.64	NEUTRAL	AVERAGE
11	20.798	35.14	1.01	34.13	73.00	-37.86	NEUTRAL	QP
12	20.798	31.46	1.01	30.45	60.00	-28.54	NEUTRAL	AVERAGE

Note:

1. Emission Level = reading value + correction factor.
2. Correction factor = cable loss + insertion loss of LISN.
3. Q.P. is abbreviation of quasi-peak.

### 3. Radiated Emission Measurement

Test Result : **PASS**

#### 3.1 Limits for Emission Measurement

**Limits for radiated disturbances below 1000MHz**

Frequency (MHz)	Class A Equipment (10m distance)		Class B Equipment (3m distance)	
	Quasi-peak (dBµV/m)		Quasi-peak (dBµV/m)	
30 to 88	39.1		40	
88 to 216	43.5		43.5	
216 to 960	46.4		46	
960 to 1000	49.5		54	

Note 1- The lower limit shall apply at the transition frequency.  
 Note 2- Additional provisions may be required for cases where interference occurs.  
 Note 3- According to 15.109(g), as an alternative to the radiated emission limits shown above, digital devices may be shown to comply with the standards (CISPR), Pub. 22 shown as below.

30 to 230	40	30
230 to 1000	47	37

**Limits for radiated disturbances in the frequency range 1000MHz ~ 2000MHz at a measuring distance of 10m**

Frequency (GHz)	Class A Equipment		Class B Equipment	
	Peak (dBµV/m)	Average (dBµV/m)	Peak (dBµV/m)	Average (dBµV/m)
1 to 2	69.5	49.5	63.5	43.5

**Limits for radiated disturbances above 1000MHz at a measuring distance of 3m**

Frequency (GHz)	Class A Equipment		Class B Equipment	
	Peak (dBµV/m)	Average (dBµV/m)	Peak (dBµV/m)	Average (dBµV/m)
1 to 40	80	60	74	54

### 3.2 Test Instruments

For Measurement at the distance of 10m

Test Site and Equipment	Manufacturer	Model No./ Serial No.	Last Calibration Date	Calibration Due Date
EMI Test Receiver	R&S	ESCS 30/ 836858/020	Aug. 17, 2009	Aug. 17, 2010
Broadband Antenna	R&S	HL-562/ 360543/007	March 19, 2010	March 19, 2011
Broadband Antenna	R&S	HL-562/ 830547/010	April 29, 2010	April 29, 2011
Pre-Amplifier	Mini Circuit	ZKL-2/ 001	July 20, 2010	Jan. 20, 2011
Pre-Amplifier	Mini Circuit	ZKL-2/ 002	July 20, 2010	Jan. 20, 2011
Spectrum	R&S	FSP7/ 100108	June 4, 2010	June 4, 2011
Spectrum	R&S	FSP7/ 100384	Dec. 18, 2009	Dec. 18, 2010
RF Cable	JYEBAO	0214/ C0049	July 20, 2010	Jan. 20, 2011
RF Cable	JYEBAO	0214/ C0050	July 20, 2010	Jan. 20, 2011
Test Software	Audix	e3/ Ver. 4.3.714.e	NCR	NCR
TR1 Semi - anechoic Chamber	ETS. LINDGREN	TR1/ 17627-B	April 24, 2010	April 24, 2011

Note:

1. The calibrations are traceable to NML/ROC.
2. NCR : No Calibration Required.
3. The calibration date of the semi-anechoic chamber listed above is the date of NSA measurement.

For Measurement at the distance of 3m

Test Site and Equipment	Manufacturer	Model No./ Serial No.	Last Calibration Date	Calibration Due Date
EMI Test Receiver	R&S	ESCI/ 100019	May 19, 2010	May 19, 2011
Bi-Log Antenna	EMCO	3142C/ 52088	May 18, 2010	May 18, 2011
Horn Antenna	EMCO	3117/ 57416	March 5, 2010	March 5, 2011
Bore-sight Antenna Mast	Sunol	TLT2/ 051110-5	NCR	NCR
Pre-Amplifier	KMIC	<input type="checkbox"/> KMA010180A01/ 99056	Sept. 30, 2009	Sept. 30, 2010
	Mini Circuit	<input type="checkbox"/> ZKL-2/ 004	Aug. 6, 2010	Feb. 6, 2011
	MITEQ	<input checked="" type="checkbox"/> JS4-00101800- 28-5A/742229	Dec.15, 2009	Dec.15, 2010
	MITEQ	<input checked="" type="checkbox"/> AFS6-02001800- 35-10P-6/949196	Sept. 11, 2009	Sept. 11, 2010
Spectrum Analyzer	Agilent	E4407B/ MY45106795	May 4, 2010	May 4, 2011
RF Cable	N/A	N/A/ C0080	Aug. 6, 2010	Feb. 6, 2011
RF Cable	N/A	N/A/ C0081	April 21, 2010	Oct. 21, 2010
Test Software	Audix	e3/ Ver. 4.3.714.e	NCR	NCR
TR11 Semi - anechoic Chamber	ETS. LINDGREN	TR11/ 906-A	April 19, 2010	April 19, 2011

Note:

1. The calibrations are traceable to NML/ROC.
2. NCR : No Calibration Required.
3. The calibration date of the semi-anechoic chamber listed above is the date of NSA measurement.

**Measurement Uncertainty**

The assessed measurement uncertainty with a suitable coverage factor K to ensure 95% confidence level for the normal distribution are shown as below, the values are less than  $U_{CISPR}$  in table 1 of CISPR 16-4-2.

Test Site (Measuring distance)	Polarization	Frequency Range	
		30MHz ~200MHz	200MHz ~1000MHz
TR1(10m)	Horizontal	3.5dB	3.4dB
	Vertical	3.6dB	3.5dB
TR11(3m)	Horizontal	3.5dB	4.2dB
	Vertical	4.0dB	3.9dB

Test Site (Measuring distance)	Polarization	Frequency Range
		1GHz ~18GHz
TR11(3m)	Horizontal	2.5dB
	Vertical	2.5dB

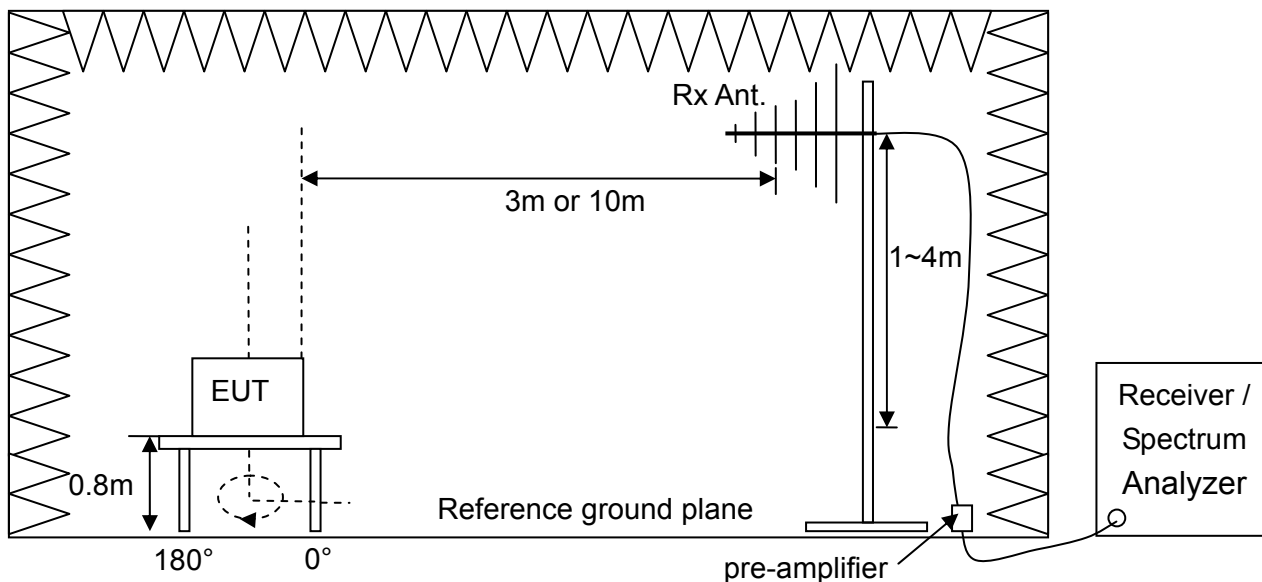


### 3.3 Test Procedures

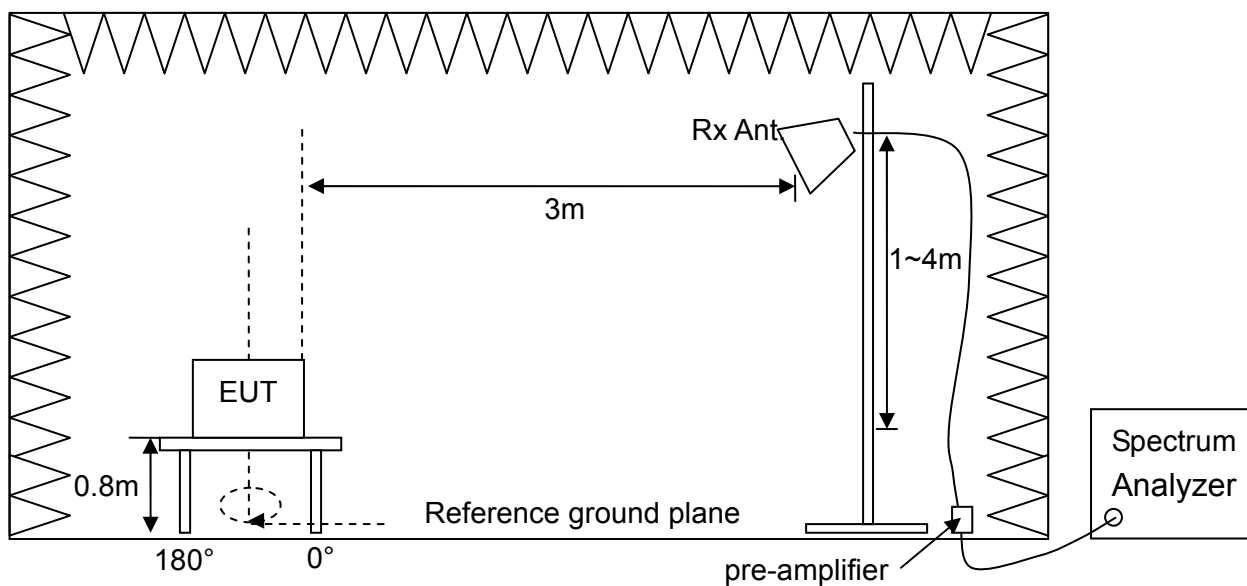
- a. The EUT was set up per the test configuration figured in the next section of this chapter to simulate the typical usage per the user's manual.
- b. If the EUT is tabletop equipment, it was placed on a non-conducted table with a height of 0.8 meters above the reference ground plane in the semi-anechoic chamber. If the EUT is floor-standing equipment, it was placed on a non-conducted support with a height of 12 millimeters above the reference ground plane in the semi-anechoic chamber.
- c. For the measurement of frequency below 1000MHz, the EUT was set 10m away from the interference receiving antenna for the limit of Class A equipment or CISPR 22. For Class B equipment and the measurement of frequency above 1000MHz, the EUT was set 3m away from the interference receiving antenna.
- d. Rapidly sweep the signal in the test frequency range by using the spectrum through the Maximum-peak detector.
- e. Rotate the EUT from 0° to 360° and position the receiving antenna at heights from 1 to 4 meters above the reference ground plane continuously to determine at least six frequencies associated with higher emission levels and record them.
- f. For measurement of frequency above 1000MHz, the beamwidth of receiving horn antenna should keep covering EUT when the receiving horn antenna height varied.
- g. Then measure each frequency found from step e. by using the spectrum with rotating the EUT and positioning the receiving antenna height to determine the maximum level.
- h. Finely tune the antenna and turntable around the recorded position of each frequency found from step f.
- i. For measurement of frequency below 1000MHz, set the receiver detector to be Quasi-Peak per CISPR 16-1 to find out the maximum level occurred.
- j. For measurement of frequency above 1000MHz, set the spectrum detector to be Peak or Average to find out the maximum level occurred, if any.
- k. Record frequency, azimuth angle of the turntable, height, and polarization of the receiving antenna and compare the maximum level with the required limit.
- l. Change the receiving antenna to another polarization to measure radiated emission by following step d. to k. again.
- m. If the peak emission level measured from step e. is 4dB lower than the limit specified, then the emission values presented will be the peak value only. Otherwise, accurate Q.P. value will be measured and presented.

### 3.4 Test Configurations

#### Radiated Emission Measurement below 2000MHz



#### Radiated Emission Measurement above 1000MHz (if any)



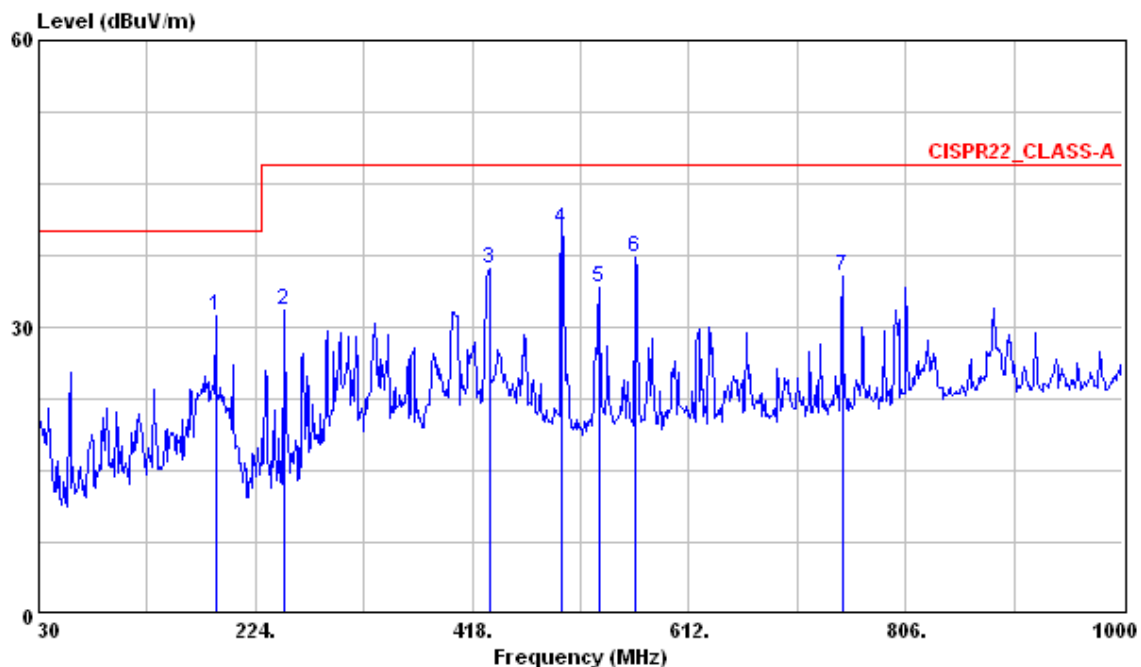
**3.5 Photographs of the Test Configurations**



### 3.6 Test Results

#### Radiated Emission Measurement below 1000MHz

**Test Mode** : As description of section 1.2  
**Test Voltage** : 120V/60Hz to the adapter  
**Tester** : Meng Lin      **Temperature** : 28°C  
**Humidity** : 72%RH      **Frequency Range** : 30MHz~1GHz  
**IF Bandwidth** : 120kHz      **Polarization** : Horizontal

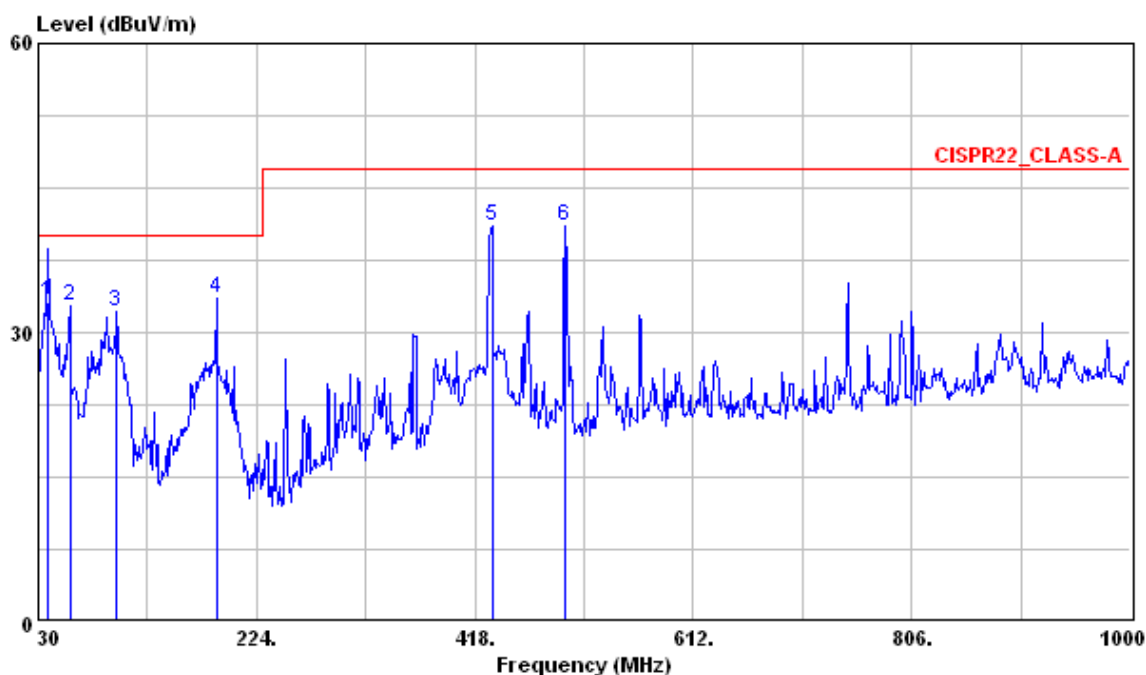


	Freq	Level	Factor	Read Level	Limit	Over	Pol/Phase	Ant	Table	Remark
	MHz	dBuV/m	dB/m	dBuV	dBuV/m	dB		cm	deg	
1	188.110	31.22	-21.47	52.69	40.00	-8.78	HORIZONTAL	---	---	Peak
2	250.190	31.72	-18.28	50.00	47.00	-15.28	HORIZONTAL	---	---	Peak
3	433.520	36.09	-12.37	48.46	47.00	-10.91	HORIZONTAL	---	---	Peak
4	497.960	40.31	-10.57	50.88	47.00	-6.69	HORIZONTAL	181	335	QP
5	531.490	34.06	-10.01	44.07	47.00	-12.94	HORIZONTAL	---	---	Peak
6	564.470	37.39	-9.40	46.79	47.00	-9.61	HORIZONTAL	---	---	Peak
7	749.740	35.31	-6.15	41.46	47.00	-11.69	HORIZONTAL	---	---	Peak

**Note:**

1. Emission Level = reading value + correction factor.
2. Correction factor = cable loss + antenna factor – gain of pre-amplifier.
3. Q.P is abbreviation of quasi-peak.

**Test Mode** : As description of section 1.2  
**Test Voltage** : 120V/60Hz to the adapter  
**Tester** : Meng Lin      **Temperature** : 28°C  
**Humidity** : 72%RH      **Frequency Range** : 30MHz~1GHz  
**IF Bandwidth** : 120kHz      **Polarization** : Vertical



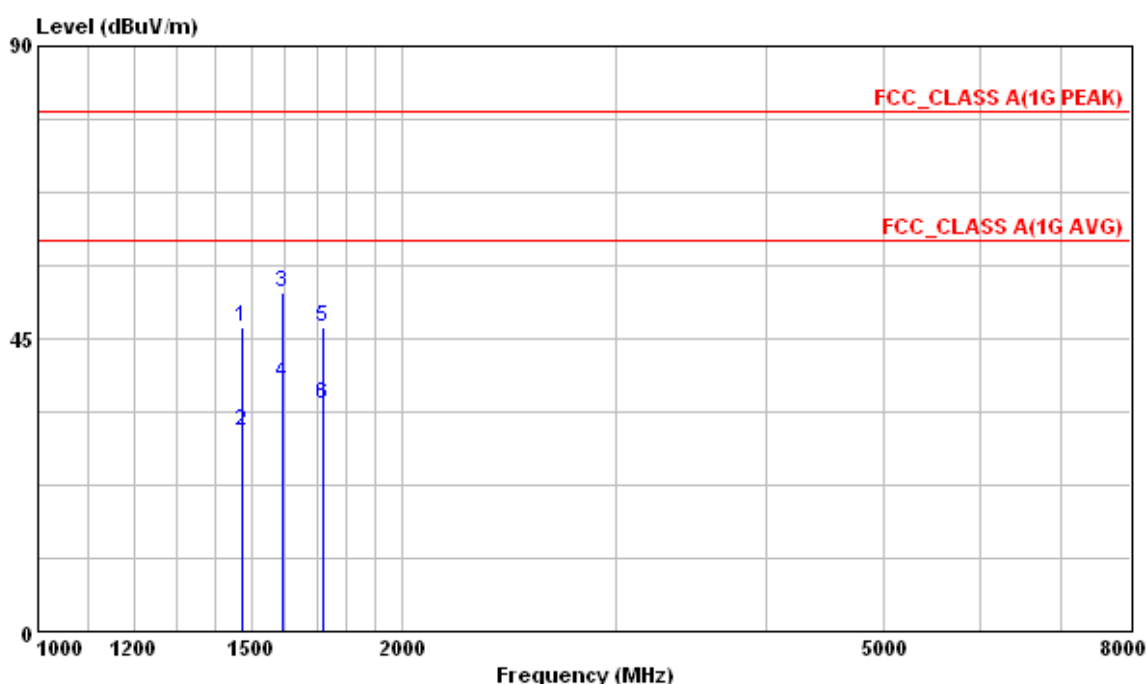
	Freq	Level	Factor	Read Level	Limit Line	Over Limit	Pol/Phase	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB/m	dBuV	dBuV/m	dB		cm	deg	
1	38.412	33.11	-15.26	48.37	40.00	-6.89	VERTICAL	269	155	QP
2	58.130	32.81	-24.23	57.04	40.00	-7.19	VERTICAL	---	---	Peak
3	99.840	32.11	-19.86	51.97	40.00	-7.89	VERTICAL	---	---	Peak
4	188.110	33.62	-21.29	54.91	40.00	-6.38	VERTICAL	---	---	Peak
5	433.520	41.10	-11.16	52.26	47.00	-5.90	VERTICAL	---	---	Peak
6 @	498.510	41.11	-9.24	50.35	47.00	-5.89	VERTICAL	---	---	Peak

Note:

1. Emission Level = reading value + correction factor.
2. Correction factor = cable loss + antenna factor – gain of pre-amplifier.
3. Q.P is abbreviation of quasi-peak.

### Radiated Emission Measurement above 1000MHz

**Test Mode** : As description of section 1.2  
**Test Voltage** : 120V/60Hz to the adapter  
**Tester** : Meng Lin      **Temperature** : 25°C  
**Humidity** : 62%RH      **Frequency Range** : 1GHz~8GHz  
**IF Bandwidth** : 1MHz      **Polarization** : Horizontal

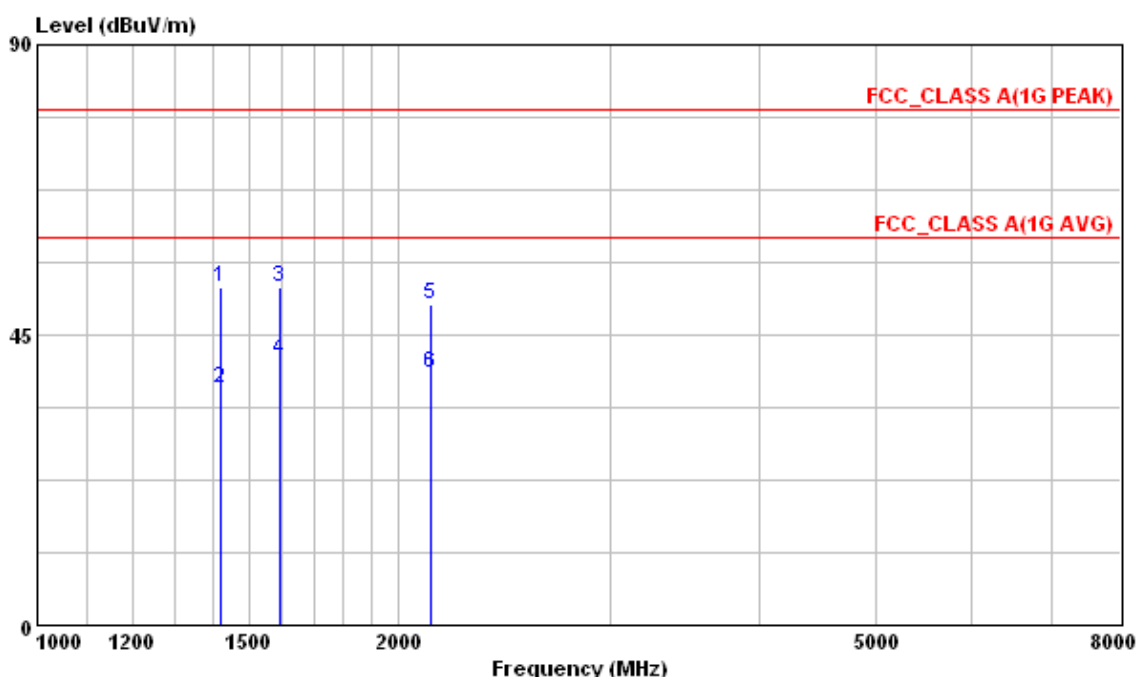


	Freq	Level	Factor	Read	Limit	Over	Rnt	Table	Remark
				Level	Line	Limit	Pos	Pos	
	MHz	dBuV/m	dB/m	dBuV	dBuV/m	dB	cm	deg	
1	1476.325	46.73	-41.28	88.01	80.00	-33.27	199	213	HORIZONTAL Peak
2	1476.325	30.78	-41.28	72.06	60.00	-29.22	199	213	HORIZONTAL Average
3	1595.662	52.01	-40.37	92.38	80.00	-27.99	228	226	HORIZONTAL Peak
4 @	1595.662	38.10	-40.37	78.47	60.00	-21.90	228	226	HORIZONTAL Average
5	1721.250	46.73	-39.38	86.11	80.00	-33.27	346	280	HORIZONTAL Peak
6	1721.250	34.90	-39.38	74.28	60.00	-25.10	346	280	HORIZONTAL Average

Note:

1. Emission Level = reading value + correction factor.
2. Correction factor = cable loss + antenna factor – gain of pre-amplifier.

**Test Mode** : As description of section 1.2  
**Test Voltage** : 120V/60Hz to the adapter  
**Tester** : Meng Lin      **Temperature** : 25°C  
**Humidity** : 62%RH      **Frequency Range** : 1GHz~8GHz  
**IF Bandwidth** : 1MHz      **Polarization** : Vertical



	Freq	Level	Factor	Read	Limit	Over	Ant	Table	Pol/Phase	Remark
				Level	Line	Limit				
	MHz	dBuV/m	dB/m	dBuV	dBuV/m	dB	cm	deg		
1	1421.338	52.44	-41.38	93.82	80.00	-27.56	214	179	VERTICAL	Peak
2	1421.338	36.85	-41.38	78.23	60.00	-23.15	214	179	VERTICAL	Average
3	1594.725	52.44	-40.38	92.82	80.00	-27.56	270	185	VERTICAL	Peak
4 @	1594.725	41.06	-40.38	81.44	60.00	-18.94	270	185	VERTICAL	Average
5	2132.313	49.83	-36.73	86.56	80.00	-30.17	119	226	VERTICAL	Peak
6 @	2132.313	39.04	-36.73	75.77	60.00	-20.96	119	226	VERTICAL	Average

Note:

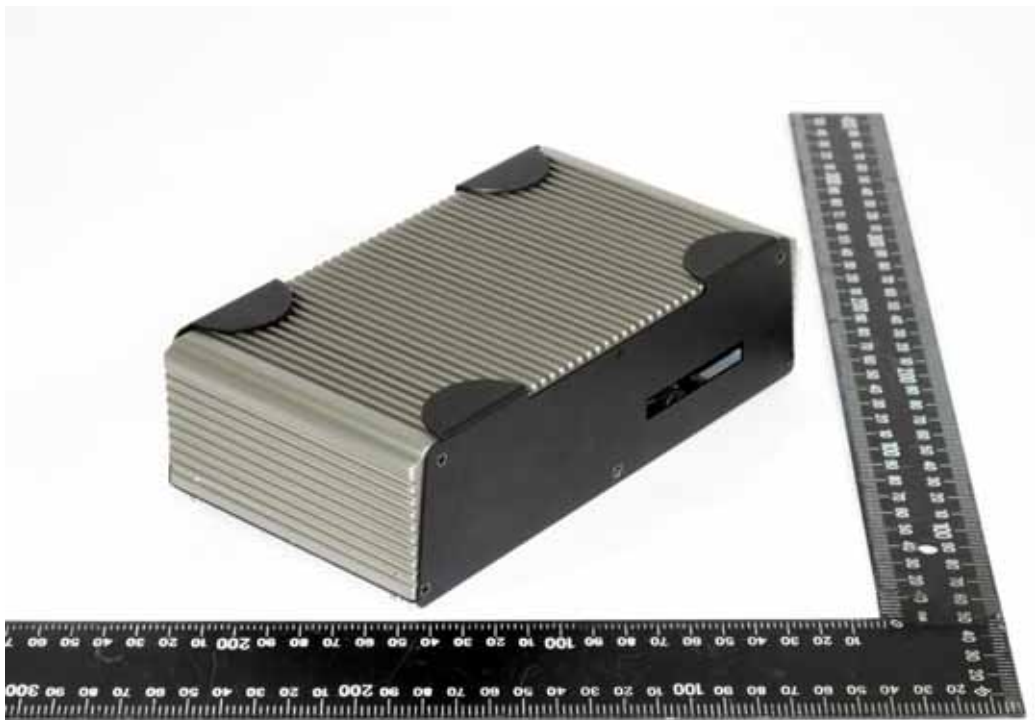
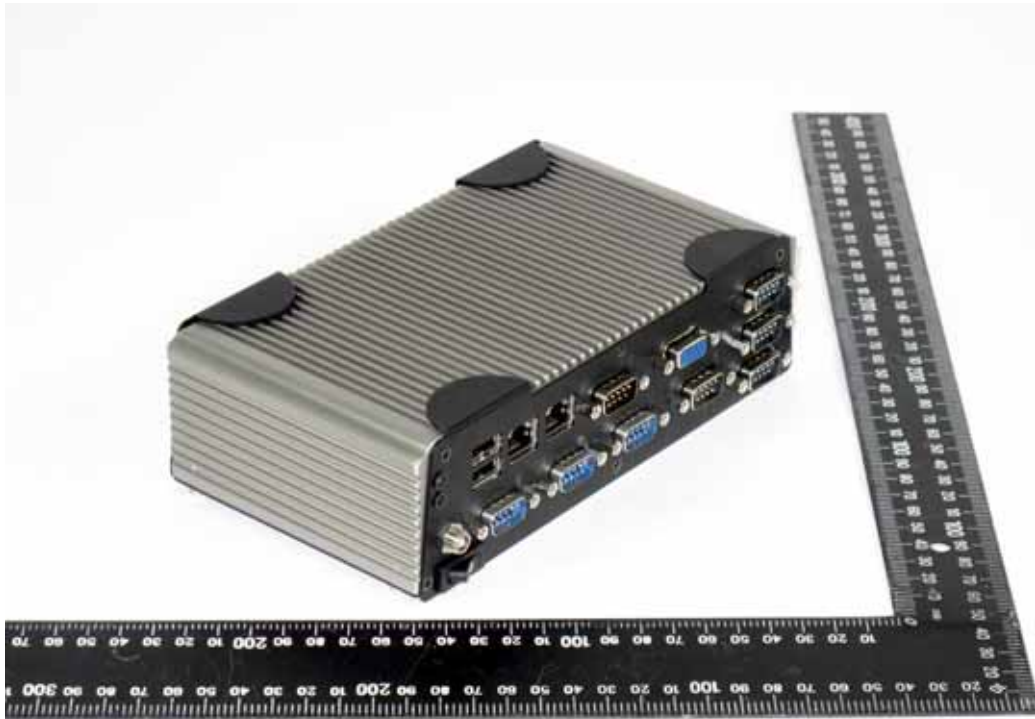
1. Emission Level = reading value + correction factor.
2. Correction factor = cable loss + antenna factor – gain of pre-amplifier.

# **Attachment 1**

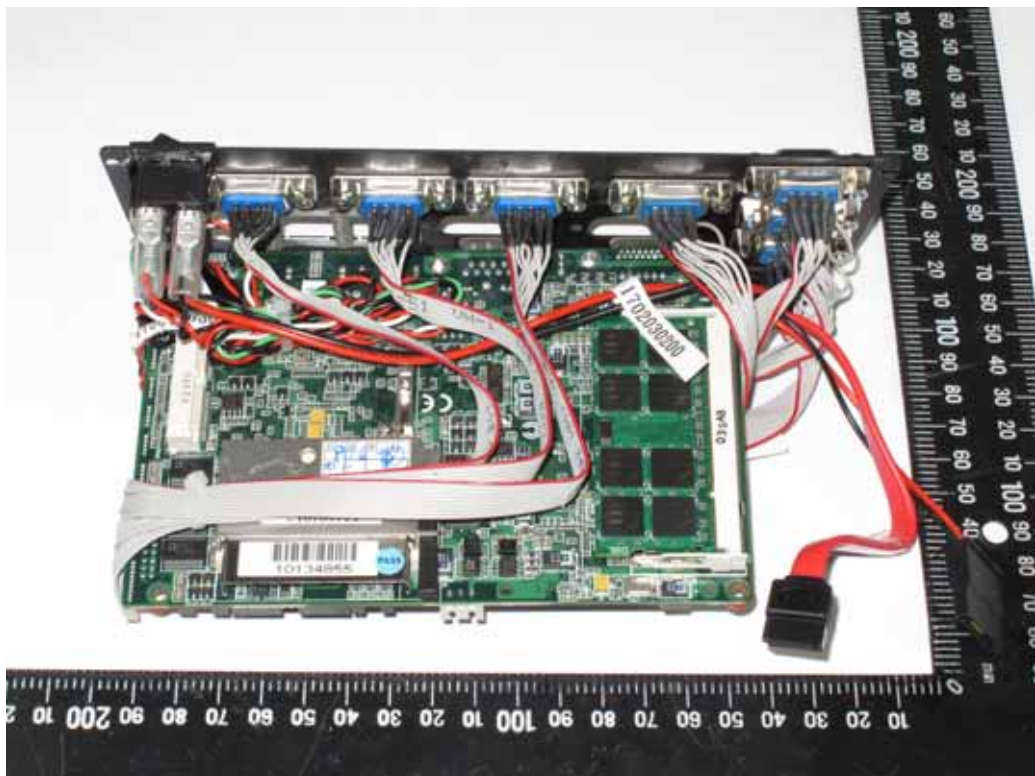
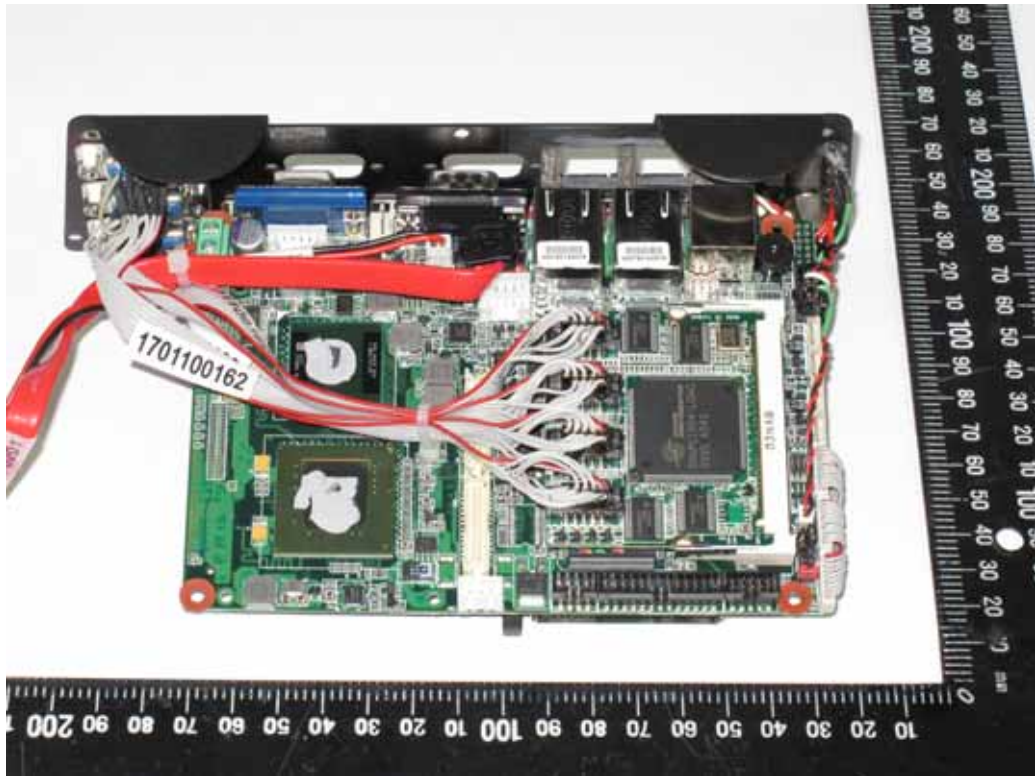
## **Photographs of EUT**













Adapter: FSP060-DBAB1





## **Attachment 2**

# **Modifications of EUT**



## Statement of the EUT Modifications

According to the rules of ANSI C63.4-2003 clause 10.1.13, the following equipment (EUT):

**Product** : Fanless embedded controller  
**Model No.** : xxxxxAEC-6611-xxxxxxxx  
 (Where x is 0-9 , A-Z , -or blank) for marketing purpose  
**Manufacturer** : AAEON Technology Inc.  
**Address** : 5F, No.135, Lane 235, Pao Chiao Rd., Hsin-Tien City, Taipei, Taiwan, R.O.C.

- should be **without** any modifications made
- should be **with** some modifications made

to bring the EUT into compliance with the appropriate specifications (47CFR Part 15, Subpart B). If any, the details of the modifications including the complete descriptions, reasons and so on are described in next page of this report.

**We** , AAEON Technology Inc. hereby ensure that the product specified above will have all of the modifications incorporated in the product when manufactured and placed on the market.

The following importer or manufacturer is responsible for this statement:

Company Name : \_\_\_\_\_  
 Company Address : \_\_\_\_\_  
 Telephone : \_\_\_\_\_ E-mail : \_\_\_\_\_

Legal Signature of the responsible personal:

\_\_\_\_\_ Date

The details of the modifications:

<b>Item</b>	<b>Solution Component</b>	<b>Specifications</b>	<b>Manufacturer</b>	<b>Quantity</b>	<b>Reasons</b>
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					

If needed, some modification items are shown in the photographs in the following.