



Certificate of Conformity

The products

EUT : Audio Distribution System
Trade Name : RTI
Model No. : AD-4

which produced by

Remote Technologies Inc.
5775 12th Ave. East, Suite 180, Shakopee,
MN 55379, U.S.A.

Has been tested by Electronics Testing Center, Taiwan ETC
And was found to comply with the EMC requirements on the basis of

EN 55013:2001/A1:2003/A2:2006
EN 61000-3-2:2006
EN 61000-3-3:2008

Signature

Will Yauro

Manager of EMC Testing Department II
Electronics Testing Center, Taiwan



Report Number : 10-05-RBF-100-04

Date of Issue: Jun. 22, 2010

Note: 1. The results of the Test Report relate only to the items tested.

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4. EC Declaration of Conformity is the responsibility of the manufacturer/ importer.

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TEST REPORT

Responsible Party : **Remote Technologies Inc.**
Manufacturer : **Amcli International Corp.**
Description of Product : **Audio Distribution System**
Trade Name : **RTI**
Model No. : **AD-4**
Test Report File No. : **10-05-RBF-100-04**
Date Test Item Received : **May 17, 2010**
Date Test Campaign : **May 28, 2010**
Completed
Date of Issue : **Jun. 22, 2010**

Test Performed by

ELECTRONICS TESTING CENTER, TAIWAN

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TAIPEI COUNTY, TAIWAN, 24442, R.O.C.

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Note : 1. The results of the Test Report relate only to the items tested.

2. The Test Report shall not be reproduced except in full, without the written approval of ETC.

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1. TEST REPORT CERTIFICATION

Client : Remote Technologies Inc.
Address : 5775 12th Ave. East, Suite 180, Shakopee, MN 55379, U.S.A.
Manufacturer : Amcli International Corp.
Address : 2Fl., No. 14. Lane 327, Sec 2, Chung San Rd., Chung Ho,
Taipei Hsien, Taiwan, R.O.C.
EUT : Audio Distribution System
Trade name : RTI
Model No. : AD-4
Test specifications :
Emissions : EN 55013:2001/A1:2003/A2:2006
EN 61000-3-2:2006
EN 61000-3-3:2008
Regulations applied :
Emissions : EN 55013:2001/A1:2003/A2:2006
EN 61000-3-2:2006
EN 61000-3-3:2008

The testing described in this report has been carried out to the best of our knowledge and ability, and our responsibility is limited to the exercise of reasonable care. This certification is not intended to relieve the sellers from their legal and/or contractual obligations. Besides, the "Comment Issues" highlight above is important information for this test report. Responsible must read carefully about the description.

Test Engineer :

Kimi Li
(Kimi Li, Engineer)

Check By :

Charles Wang
(Charles Wang, Supervisor)

Approve & Authorized :

Will Yauo
Will Yauo, Manager
EMC Dept. II of ELECTRONICS
TESTING CENTER, TAIWAN



Laboratory Introduction: Electronics Testing Center, Taiwan is recognized, filed and mutual recognition arrangement as following:

- ① ISO9002 : BSMI, TÜV Product Service
- ② ISO/IEC 17025 : BSMI, CNLA, DGT, NVLAP, CCIBLAC, UL, Compliance
- ③ EN45001 : TÜV Rheinland, NEMKO, FIMKO, SGS
- ④ Filing : FCC, Industry Canada, VCCI
- ⑤ MRA : Australia, Hong Kong, New Zealand, Singapore, USA, Japan, Korea, China, APLAC through CNLA

2. GENERAL INFORMATION

2.1 Description of EUT:

Audio Distribution System

2.2 Related Information of EUT:

Size of EUT : 430mm(W) × 335mm(D) × 50mm(H)

Power Adapter : 230V/50Hz, 120W

Signal Line : [X] Nonshielded [] Shielded [] None, Length: 1.8 m

* For more detailed features , please refer to User's Manual.

2.3 Tested Configuration:

The EUT connected with other devices.

Following peripheral devices and interface cables were connected during the measurement:

Device	Manufacture	Model	Description
Audio Distribution System *	Amcli International Corp.	AD-4	1.8m Unshielded Signal Line
Notebook PC	IBM	Thinkpad X21	2.5mUnshielded AC Adaptor Power Cord
Load*8	----	----	----
iPod	Apple	A1051	1.0m Unshielded Line
Speaker	YAMAHA	TSS-1	1.2m Unshielded AC Power Cord

Remark “*” means equipment under test.

2.4 Deviation Record:

No modifications were required. (That is the EUT complied with the requirement as tested.)

2.5 Modification Record:

No modifications were required. (That is the EUT complied with the requirement as tested.)

3. SUMMARY OF TEST RESULTS

3.1 Emissions:

3.1.1 Conducted Emissions

[X] – PASS (Audio in-1 –Neutral)

Minimum EMI QP Margin to the limit: -13.0 dB at 1.289 MHz

[X] – PASS (Audio in-1 –Line)

Minimum EMI QP Margin to the limit: -16.1 dB at 12.289 MHz

[X] – PASS (Audio in-2 –Neutral)

Minimum EMI QP Margin to the limit: -17.3 dB at 12.272 MHz

[X] – PASS (Audio in-2 –Line)

Minimum EMI QP Margin to the limit: -16.8 dB at 12.291 MHz

[X] – PASS (Audio in-3 –Neutral)

Minimum EMI QP Margin to the limit: -17.3 dB at 0.315 MHz

[X] – PASS (Audio in-3 –Line)

Minimum EMI QP Margin to the limit: -17.5 dB at 12.295 MHz

[X] – PASS (Audio in-4 –Neutral)

Minimum EMI QP Margin to the limit: -17.3 dB at 0.309 MHz

[X] – PASS (Audio in-4 –Line)

Minimum EMI QP Margin to the limit: -17.3 dB at 12.292 MHz

3.1.2 Radiated Emissions (Absorbing Clamp)Test Data

[X] – PASS (Mode: Power Cord)

Minimum EMI Margin to the limit: -15.3 dB at 236.38 MHz

[X] – PASS (Mode: RS232)

Minimum EMI Margin to the limit: -13.2 dB at 123.680 MHz

[X] – PASS (Mode: Speaker)

Minimum EMI Margin to the limit: -14.8 dB at 114.580 MHz

[X] – PASS (Mode: status)

Minimum EMI Margin to the limit: 16.1 dB at 184.060 MHz

[X] – PASS (Mode: LINK)

Minimum EMI Margin to the limit: -15.1 dB at 189.270 MHz

[X] – PASS (Mode: MUTE)

Minimum EMI Margin to the limit: -16.6 dB at 61.940 MHz

[X] – PASS (Mode: CTRL IN)

Minimum EMI Margin to the limit: -16.6 dB at 214.880 MHz

3.1.4 Harmonics Current Emissions**[X] –PASS**

The harmonics current values were under the limits of the class A equipment of the EN 61000-3-2

3.1.5 Voltage Fluctuations and Flicker**[X] –PASS**

The voltage fluctuations and flicker values were under the limits of the EN 61000-3-3 requirements.

4. TEST DATA & RELATED INFORMATION

4.1 Emissions:

4.1.1 Conducted Emissions Test :

4.1.1.1 Conducted Emissions Test Data:

1. Operating Conditions of The EUT : Audio in-1

Test Date : May 22, 2010

Test Specification	EN 55013:2001/A1:2003/A2:2006 (Class B)			
Equipment	Manufacturer	Model No.	Calibration Date	Next Cal. Date
EMI Test Receiver	Rohde & Schwarz	ESCI	2010/02/03	2011/02/02
LISN	EMCO	3625/2	2010/02/08	2011/02/07
LISN	Rohde & Schwarz	ESH2-Z5	2009/07/16	2010/07/15
Climatic Condition	Ambient Temperature: <u>23</u> °C Relative Humidity: <u>54</u> %RH			
Power Supply System	AC Power : <u>230</u> Vac <u>50</u> Hz			
Test Set-up	Table-top Equipment			

Test data see the next pages.

Mode: Audio in-1

Neutral

Frequency (MHz)	Meter Reading (dB μ V)		Factor (dB)	Result (dB μ V)		Limit (dB μ V)		Margin (dB μ V)	
	Q.P	AVG		Q.P	AVG	Q.P	AVG	Q.P	AVG
0.157	39.0	----	0.4	39.4	----	65.6	55.6	-26.2	----
0.306	41.2	----	0.4	41.6	----	60.1	50.1	-18.5	----
0.454	30.2	----	0.4	30.6	----	56.8	46.8	-26.2	----
0.618	25.9	----	0.4	26.3	----	56.0	46.0	-29.7	----
1.075	27.6	----	0.4	28.0	----	56.0	46.0	-28.0	----
1.289	42.6	----	0.4	43.0	----	56.0	46.0	-13.0	----

Mode: Audio in-1

Line

Frequency (MHz)	Meter Reading (dB μ V)		Factor (dB)	Result (dB μ V)		Limit (dB μ V)		Margin (dB μ V)	
	Q.P	AVG		Q.P	AVG	Q.P	AVG	Q.P	AVG
0.153	42.9	----	0.3	43.2	----	65.8	55.8	-22.6	----
0.302	36.7	----	0.3	37.0	----	60.2	50.2	-23.2	----
0.462	34.8	----	0.4	35.2	----	56.7	46.7	-21.5	----
0.614	28.5	----	0.4	28.9	----	56.0	46.0	-27.1	----
12.289	43.0	----	0.9	43.9	----	60.0	50.0	-16.1	----
18.066	14.5	----	1.2	15.7	----	60.0	50.0	-44.3	----

Notes: 1) Place of measurement: EMC LAB. of the ETC

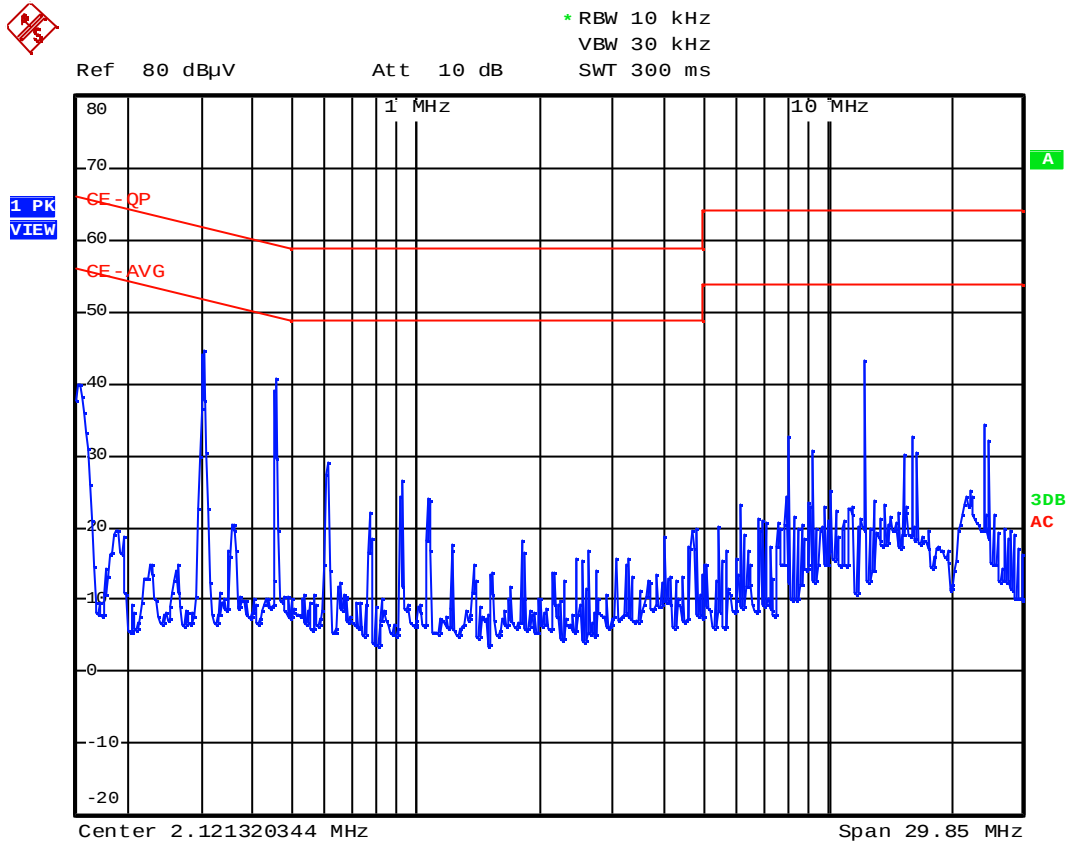
2) The EUT was placed 0.8m above reference ground plane.

3) The symbol of "----" means the Q.P. value is under the limit for AVG. so, the AVG. value doesn't need to be measured.

4) The expanded uncertainty of the conducted emission tests is 2.45 dB.

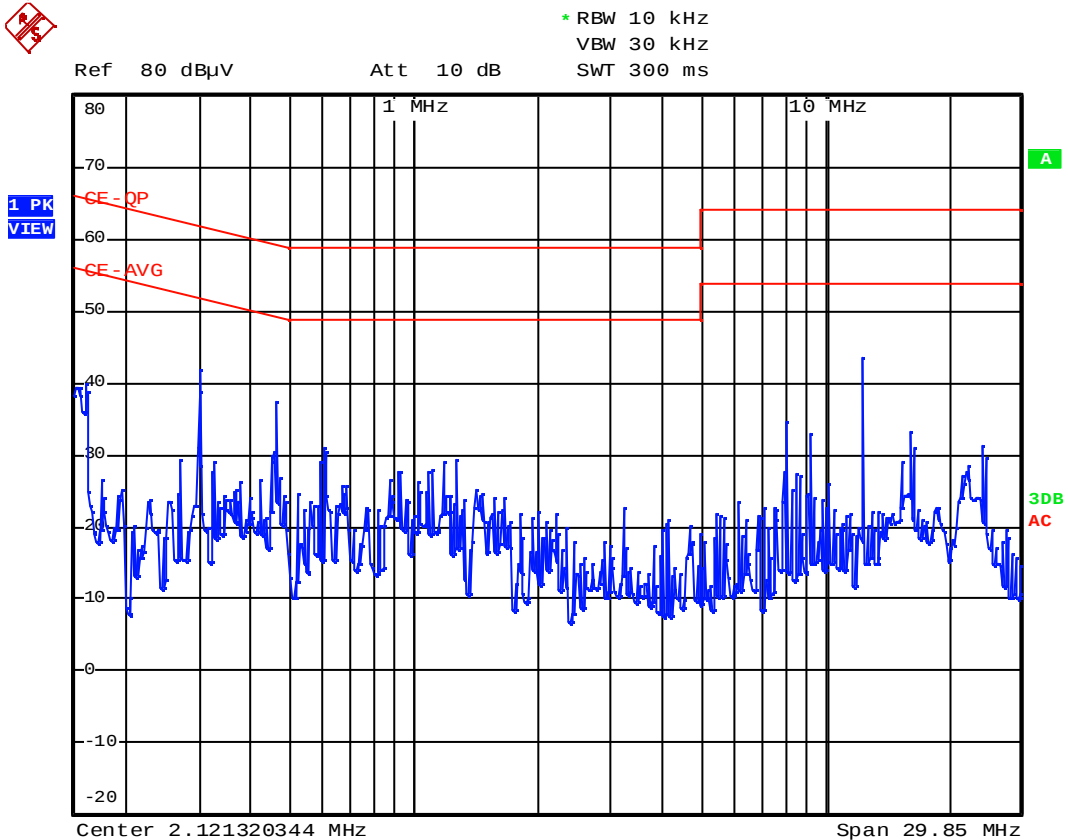
Mode: Audio in-1

Neutral



Mode: Audio in-1

Line



2. Operating Conditions of The EUT : Audio in-2

Test Date : May 22, 2010

Test Specification	EN 55013:2001/A1:2003/A2:2006 (Class B)			
Equipment	Manufacturer	Model No.	Calibration Date	Next Cal. Date
EMI Test Receiver	Rohde & Schwarz	ESCI	2010/02/03	2011/02/02
LISN	EMCO	3625/2	2010/02/08	2011/02/07
LISN	Rohde & Schwarz	ESH2-Z5	2009/07/16	2010/07/15
Climatic Condition	Ambient Temperature: <u>25</u> °C Relative Humidity: <u>54</u> %RH			
Power Supply System	AC Power : <u>230</u> Vac <u>50</u> Hz			
Test Set-up	Table-top Equipment			

Test data see the next pages.

Mode: Audio in-2

Neutral

Frequency (MHz)	Meter Reading (dB μ V)		Factor (dB)	Result (dB μ V)		Limit (dB μ V)		Margin (dB μ V)	
	Q.P	AVG		Q.P	AVG	Q.P	AVG	Q.P	AVG
0.155	38.7	----	0.4	39.1	----	65.7	55.7	-26.6	----
0.313	42.0	----	0.4	42.4	----	59.9	49.9	-17.5	----
0.451	31.6	----	0.4	32.0	----	56.9	46.9	-24.9	----
0.613	26.4	----	0.4	26.8	----	56.0	46.0	-29.2	----
1.079	26.3	----	0.4	26.7	----	56.0	46.0	-29.3	----
12.272	41.9	----	0.8	42.7	----	60.0	50.0	-17.3	----

Mode: Audio in-2

Line

Frequency (MHz)	Meter Reading (dB μ V)		Factor (dB)	Result (dB μ V)		Limit (dB μ V)		Margin (dB μ V)	
	Q.P	AVG		Q.P	AVG	Q.P	AVG	Q.P	AVG
0.158	42.0	----	0.3	42.3	----	65.6	55.6	-23.3	----
0.304	37.0	----	0.3	37.3	----	60.1	50.1	-22.8	----
0.473	33.9	----	0.4	34.3	----	56.5	46.5	-22.2	----
0.618	281.0	----	0.4	281.4	----	56.0	46.0	225.4	----
12.291	42.3	----	0.9	43.2	----	60.0	50.0	-16.8	----
18.084	14.9	----	1.2	16.1	----	60.0	50.0	-43.9	----

Notes: 1) Place of measurement: EMC LAB. of the ETC

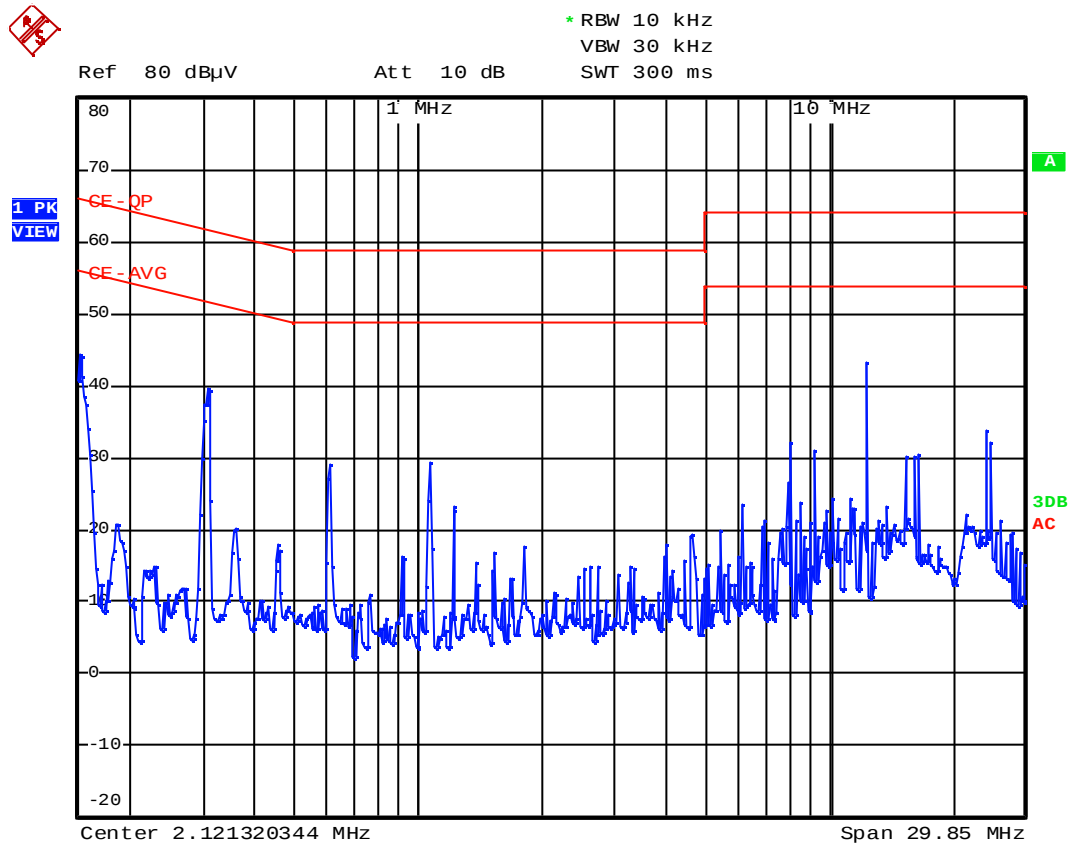
2) The EUT was placed 0.8m above reference ground plane.

3) The symbol of "----" means the Q.P. value is under the limit for AVG. so, the AVG. value doesn't need to be measured.

4) The expanded uncertainty of the conducted emission tests is 2.45 dB.

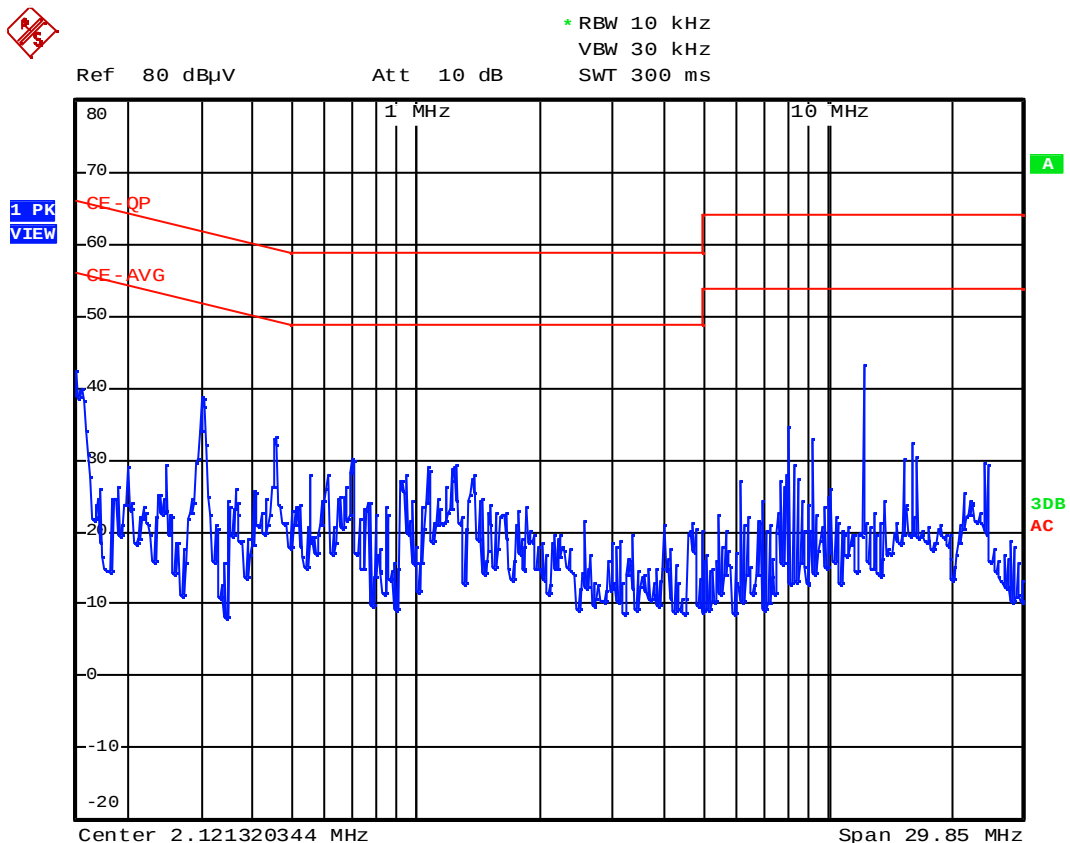
Mode: Audio in-2

Neutral



Mode: Audio in-2

Line



3. Operating Conditions of The EUT : Audio in-3

Test Date : May 22, 2010

Test Specification	EN 55013:2001/A1:2003/A2:2006 (Class B)			
Equipment	Manufacturer	Model No.	Calibration Date	Next Cal. Date
EMI Test Receiver	Rohde & Schwarz	ESCI	2010/02/03	2011/02/02
LISN	EMCO	3625/2	2010/02/08	2011/02/07
LISN	Rohde & Schwarz	ESH2-Z5	2009/07/16	2010/07/15
Climatic Condition	Ambient Temperature: <u>25</u> °C Relative Humidity: <u>54</u> %RH			
Power Supply System	AC Power : <u>230</u> Vac <u>50</u> Hz			
Test Set-up	Table-top Equipment			

Test data see the next pages.

Mode: Audio in-3

Neutral

Frequency (MHz)	Meter Reading (dB μ V)		Factor (dB)	Result (dB μ V)		Limit (dB μ V)		Margin (dB μ V)	
	Q.P	AVG		Q.P	AVG	Q.P	AVG	Q.P	AVG
0.152	37.2	----	0.4	37.6	----	65.9	55.9	-28.3	----
0.315	42.1	----	0.4	42.5	----	59.8	49.8	-17.3	----
0.457	31.5	----	0.4	31.9	----	56.7	46.7	-24.8	----
0.615	26.7	----	0.4	27.1	----	56.0	46.0	-28.9	----
1.078	26.0	----	0.4	26.4	----	56.0	46.0	-29.6	----
12.279	40.2	----	0.8	41.0	----	60.0	50.0	-19.0	----

Mode: Audio in-3

Line

Frequency (MHz)	Meter Reading (dB μ V)		Factor (dB)	Result (dB μ V)		Limit (dB μ V)		Margin (dB μ V)	
	Q.P	AVG		Q.P	AVG	Q.P	AVG	Q.P	AVG
0.157	41.0	----	0.3	41.3	----	65.6	55.6	-24.3	----
0.309	38.0	----	0.3	38.3	----	60.0	50.0	-21.7	----
0.470	34.2	----	0.4	34.6	----	56.5	46.5	-21.9	----
0.615	27.5	----	0.4	27.9	----	56.0	46.0	-28.1	----
12.295	41.6	----	0.9	42.5	----	60.0	50.0	-17.5	----
18.081	15.2	----	1.2	16.4	----	60.0	50.0	-43.6	----

Notes: 1) Place of measurement: EMC LAB. of the ETC

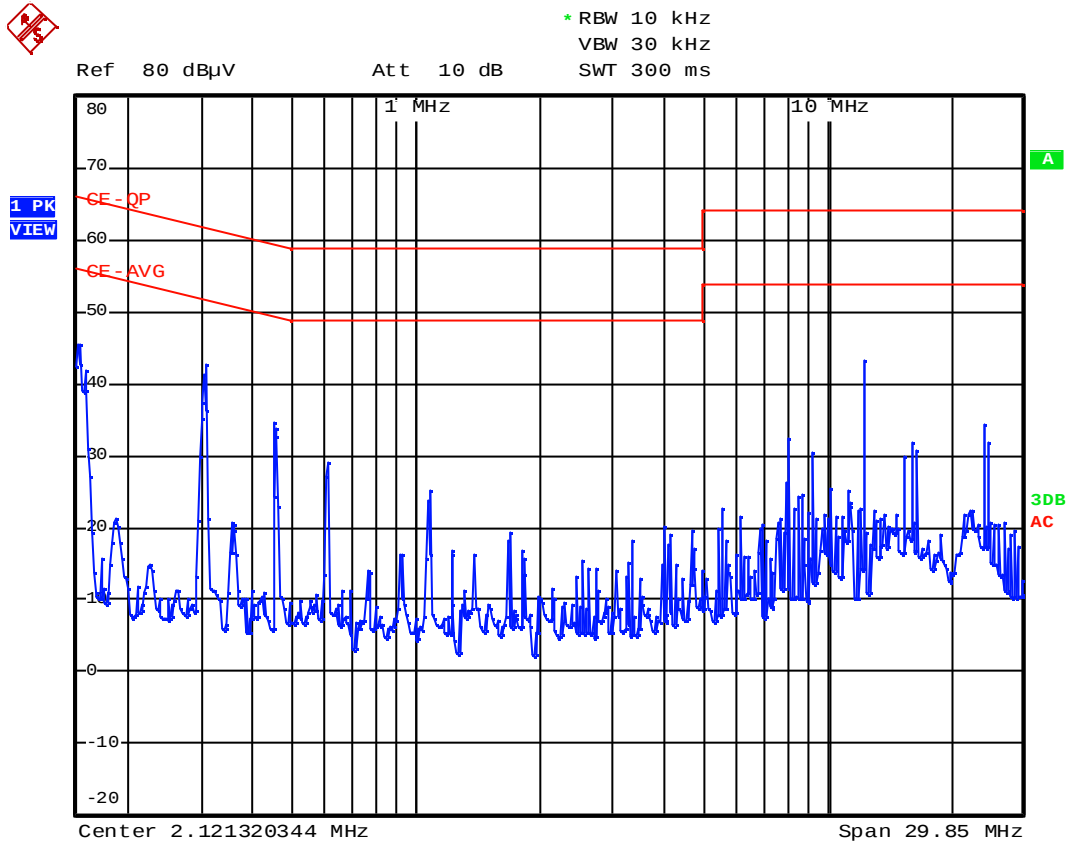
2) The EUT was placed 0.8m above reference ground plane.

3) The symbol of "----" means the Q.P. value is under the limit for AVG. so, the AVG. value doesn't need to be measured.

4) The expanded uncertainty of the conducted emission tests is 2.45 dB.

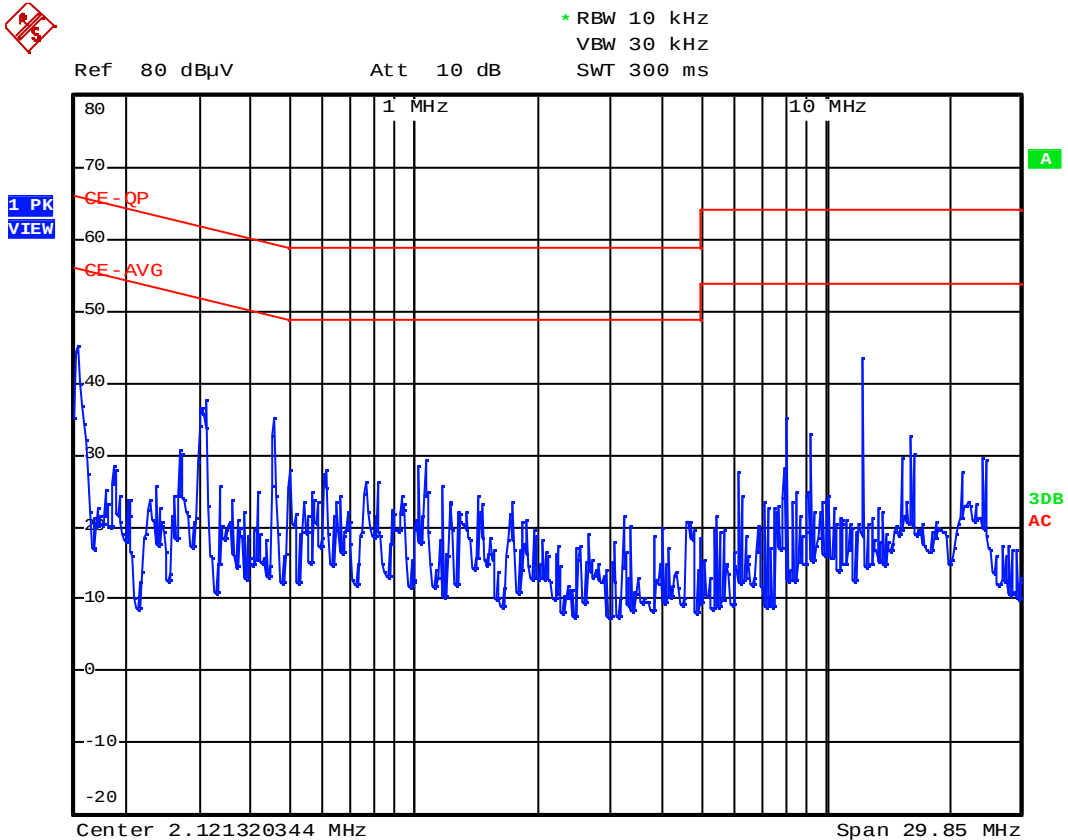
Mode: Audio in-3

Neutral



Mode: Audio in-3

Line



4. Operating Conditions of The EUT : Audio in-4

Test Date : May 22, 2010

Test Specification	EN 55013:2001/A1:2003/A2:2006 (Class B)			
Equipment	Manufacturer	Model No.	Calibration Date	Next Cal. Date
EMI Test Receiver	Rohde & Schwarz	ESCI	2010/02/03	2011/02/02
LISN	EMCO	3625/2	2010/02/08	2011/02/07
LISN	Rohde & Schwarz	ESH2-Z5	2009/07/16	2010/07/15
Climatic Condition	Ambient Temperature: <u>25</u> °C Relative Humidity: <u>54</u> %RH			
Power Supply System	AC Power : <u>230</u> Vac <u>50</u> Hz			
Test Set-up	Table-top Equipment			

Test data see the next pages.

Mode: Audio in-4

Neutral

Frequency (MHz)	Meter Reading (dB μ V)		Factor (dB)	Result (dB μ V)		Limit (dB μ V)		Margin (dB μ V)	
	Q.P	AVG		Q.P	AVG	Q.P	AVG	Q.P	AVG
0.154	39.0	----	0.4	39.4	----	65.8	55.8	-26.4	----
0.309	42.3	----	0.4	42.7	----	60.0	50.0	-17.3	----
0.456	30.9	----	0.4	31.3	----	56.8	46.8	-25.5	----
0.615	27.2	----	0.4	27.6	----	56.0	46.0	-28.4	----
1.074	26.7	----	0.4	27.1	----	56.0	46.0	-28.9	----
12.282	41.5	----	0.8	42.3	----	60.0	50.0	-17.7	----

Mode: Audio in-4

Line

Frequency (MHz)	Meter Reading (dB μ V)		Factor (dB)	Result (dB μ V)		Limit (dB μ V)		Margin (dB μ V)	
	Q.P	AVG		Q.P	AVG	Q.P	AVG	Q.P	AVG
0.156	42.5	----	0.3	42.8	----	65.7	55.7	-22.9	----
0.305	37.2	----	0.3	37.5	----	60.1	50.1	-22.6	----
0.469	32.9	----	0.4	33.3	----	56.5	46.5	-23.2	----
0.613	27.5	----	0.4	27.9	----	56.0	46.0	-28.1	----
12.292	41.8	----	0.9	42.7	----	60.0	50.0	-17.3	----
18.077	14.5	----	1.2	15.7	----	60.0	50.0	-44.3	----

Notes: 1) Place of measurement: EMC LAB. of the ETC

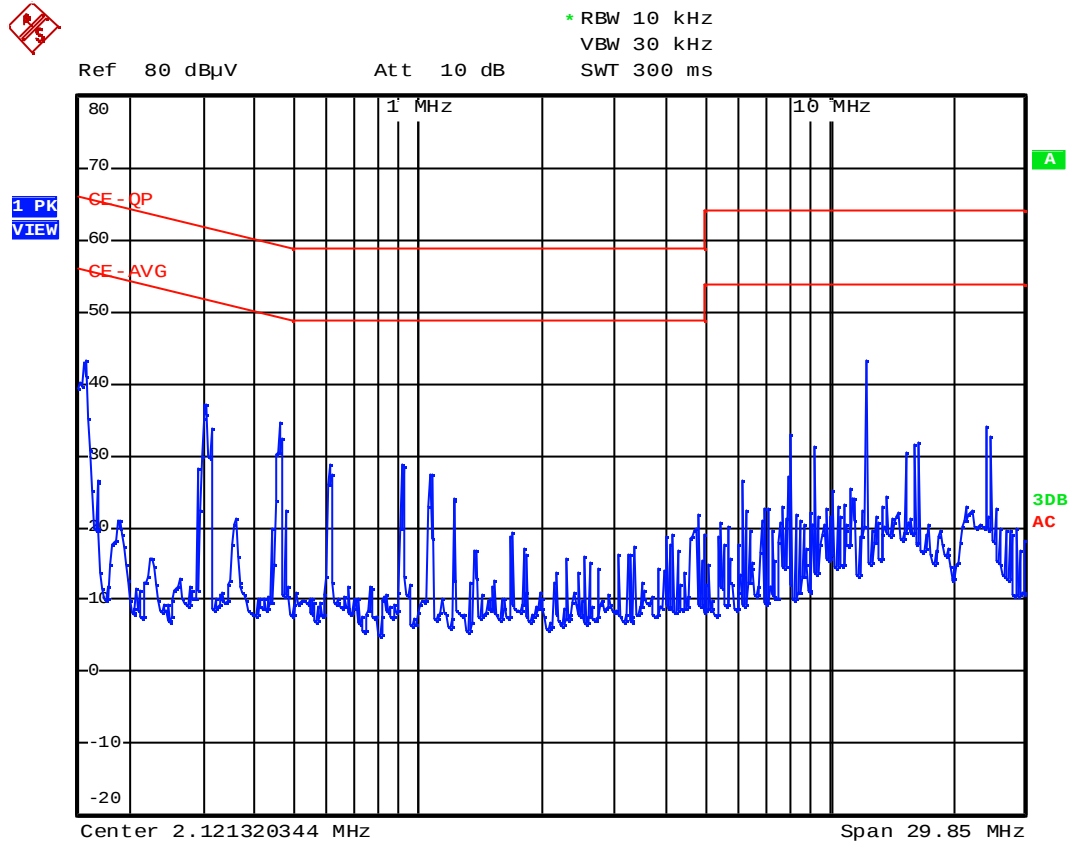
2) The EUT was placed 0.8m above reference ground plane.

3) The symbol of "----" means the Q.P. value is under the limit for AVG. so, the AVG. value doesn't need to be measured.

4) The expanded uncertainty of the conducted emission tests is 2.45 dB.

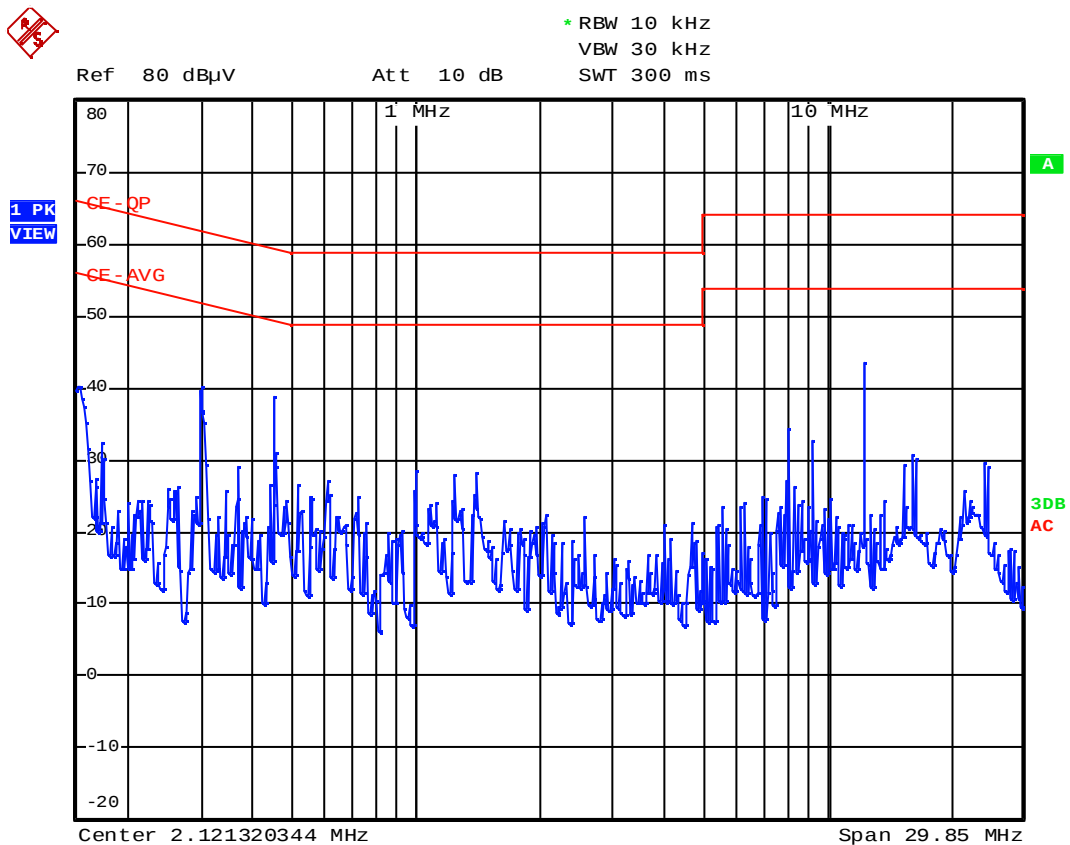
Mode: Audio in-4

Neutral

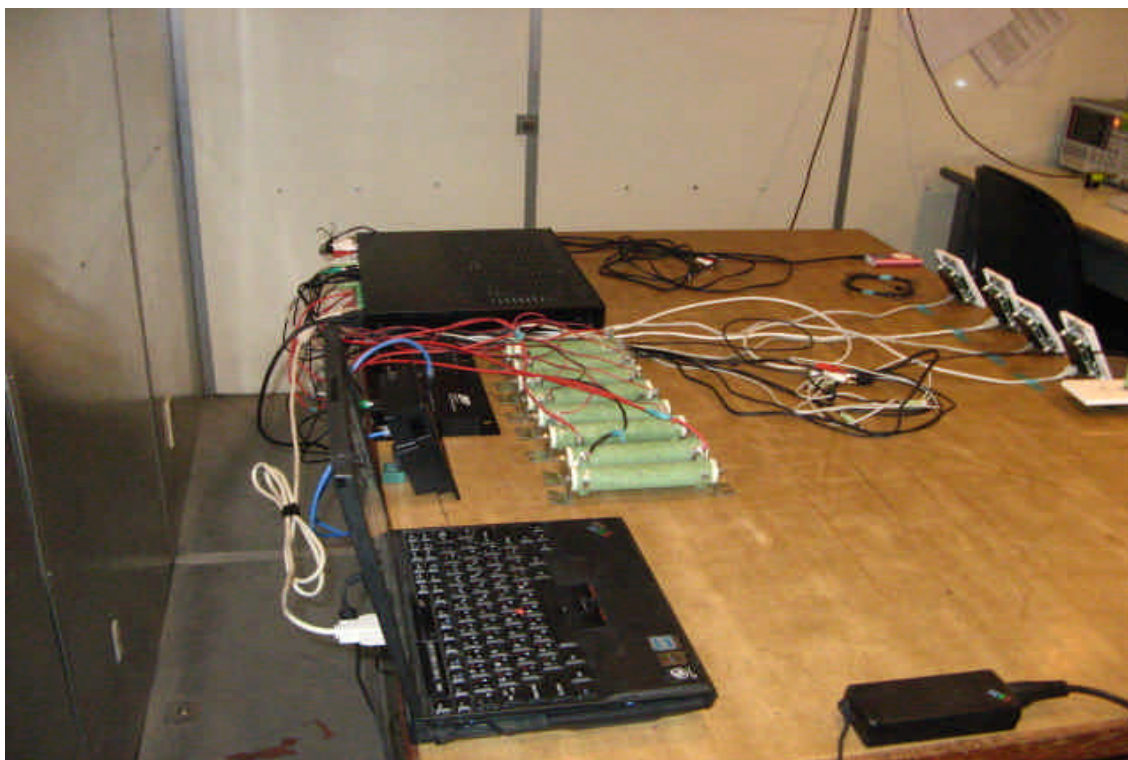


Mode: Audio in-4

Line



4.1.1.2 Conducted Emissions Test Setup Photos :



4.1.2 Radiated Emission Data(Absorbing Clamp)

4.1.2.1 Radiated Emissions (Absorbing Clamp) Test Date:

1. Operating Conditions of The EUT : Power Cord

Test Date : May 30, 2010

Test Specification	EN 55013:2001/A1:2003/A2:2006			
Equipment	Manufacturer	Model No.	Calibration Date	Next Cal. Date
LISN	EMCO	3850/2	2010/05/07	2011/05/06
Absorbing Clamp	Rohde & Schwarz	MDS-21	2010/02/05	2011/02/04
EMI Test Receiver	Rohde & Schwarz	ESCI	2010/02/03	2011/02/02
Climatic Condition	Ambient Temperature: <u>26</u> °C Relative Humidity: <u>54</u> %RH			
Power Supply System	AC Power : <u>230</u> Vac <u>50</u> Hz			
Test Set-up	Table-top Equipment			

Emission Frequency (MHz)	Meter Reading (dBuV)		CORR'd Factor (dB)	Results (dBpW/m)		Limit (dBpW/m)		Margins (dB)	
	Q.P	AVG.		Q.P	AVG.	Q.P	AVG.	Q.P	AVG.
114.260	27.6	----	0.9	28.5	----	48.1	38.1	-19.6	----
136.870	29.6	----	1.5	31.1	----	49.0	39.0	-17.9	----
162.740	31.5	----	-0.4	31.1	----	49.9	39.9	-18.8	----
194.580	33.2	----	0.2	33.4	----	51.1	41.1	-17.7	----
211.730	34.5	----	0.4	34.9	----	51.7	41.7	-16.8	----
236.380	36.4	----	0.9	37.3	----	52.6	42.6	-15.3	----

Notes: 1) Place of Measurement: Measuring site of the ETC

2) Remark “----” means that the emissions level is too low to be measured.

3) The expanded uncertainty of the radiated emission tests is 3.53 dB.

2. Operating Conditions of The EUT : RS232

Test Date : May 30, 2010

Test Specification	EN 55013:2001/A1:2003/A2:2006			
Equipment	Manufacturer	Model No.	Calibration Date	Next Cal. Date
LISN	EMCO	3850/2	2010/05/07	2011/05/06
Absorbing Clamp	Rohde & Schwarz	MDS-21	2010/02/05	2011/02/04
EMI Test Receiver	Rohde & Schwarz	ESCI	2010/02/03	2011/02/02
Climatic Condition	Ambient Temperature: <u>26</u> °C Relative Humidity: <u>54</u> %RH			
Power Supply System	AC Power : <u>230</u> Vac <u>50</u> Hz			
Test Set-up	Table-top Equipment			

Emission Frequency (MHz)	Meter Reading (dBuV)		CORR'd Factor (dB)	Results (dBpW/m)		Limit (dBpW/m)		Margins (dB)	
	Q.P	AVG.		Q.P	AVG.	Q.P	AVG.	Q.P	AVG.
63.270	32.3	----	0.2	32.5	----	46.2	36.2	-13.7	----
123.680	34.1	----	1.2	35.3	----	48.5	38.5	-13.2	----
187.640	30.5	----	-0.1	30.4	----	50.8	40.8	-20.4	----
193.280	29.6	----	0.1	29.7	----	51.0	41.0	-21.3	----
216.730	31.4	----	0.4	31.8	----	51.9	41.9	-20.1	----
254.180	32.5	----	1.1	33.6	----	53.3	43.3	-19.7	----

Notes: 1) Place of Measurement: Measuring site of the ETC

2) Remark “----” means that the emissions level is too low to be measured.

3) The expanded uncertainty of the radiated emission tests is 3.53 dB.

3. Operating Conditions of The EUT : Speaker

Test Date : May 30, 2010

Test Specification	EN 55013:2001/A1:2003/A2:2006			
Equipment	Manufacturer	Model No.	Calibration Date	Next Cal. Date
LISN	EMCO	3850/2	2010/05/07	2011/05/06
Asorbing Clamp	Rohde & Schwarz	MDS-21	2010/02/05	2011/02/04
EMI Test Receiver	Rohde & Schwarz	ESCI	2010/02/03	2011/02/02
Climatic Condition	Ambient Temperature: <u>26</u> °C Relative Humidity: <u>54</u> %RH			
Power Supply System	AC Power : <u>230</u> Vac <u>50</u> Hz			
Test Set-up	Table-top Equipment			

Emission Frequency (MHz)	Meter Reading (dBuV)		CORR'd Factor (dB)	Results (dBpW/m)		Limit (dBpW/m)		Margins (dB)	
	Q.P	AVG.		Q.P	AVG.	Q.P	AVG.	Q.P	AVG.
74.180	30.4	----	0.2	30.6	----	46.6	36.6	-16.0	----
114.580	32.4	----	0.9	33.3	----	48.1	38.1	-14.8	----
136.940	28.7	----	1.5	30.2	----	49.0	39.0	-18.8	----
157.410	30.3	----	-0.1	30.2	----	49.7	39.7	-19.5	----
186.660	34.9	----	-0.2	34.7	----	50.8	40.8	-16.1	----
193.750	33.7	----	0.1	33.8	----	51.1	41.1	-17.3	----

Notes: 1) Place of Measurement: Measuring site of the ETC

2) Remark “----” means that the emissions level is too low to be measured.

3) The expanded uncertainty of the radiated emission tests is 3.53 dB.

4. Operating Conditions of The EUT : status

Test Date : May 30, 2010

Test Specification	EN 55013:2001/A1:2003/A2:2006			
Equipment	Manufacturer	Model No.	Calibration Date	Next Cal. Date
LISN	EMCO	3850/2	2010/05/07	2011/05/06
Absorbing Clamp	Rohde & Schwarz	MDS-21	2010/02/05	2011/02/04
EMI Test Receiver	Rohde & Schwarz	ESCI	2010/02/03	2011/02/02
Climatic Condition	Ambient Temperature: <u>26</u> °C Relative Humidity: <u>54</u> %RH			
Power Supply System	AC Power : <u>230</u> Vac <u>50</u> Hz			
Test Set-up	Table-top Equipment			

Emission Frequency (MHz)	Meter Reading (dBuV)		CORR'd Factor (dB)	Results (dBpW/m)		Limit (dBpW/m)		Margins (dB)	
	Q.P	AVG.		Q.P	AVG.	Q.P	AVG.	Q.P	AVG.
112.340	27.4	----	0.8	28.2	----	48.0	38.0	-19.8	----
157.480	28.2	----	-0.1	28.1	----	49.7	39.7	-21.6	----
168.260	30.3	----	-0.4	29.9	----	50.1	40.1	-20.2	----
184.060	34.9	----	-0.3	34.6	----	50.7	40.7	-16.1	----
217.980	31.5	----	0.4	31.9	----	52.0	42.0	-20.1	----
243.260	30.3	----	1.1	31.4	----	52.9	42.9	-21.5	----

Notes: 1) Place of Measurement: Measuring site of the ETC

2) Remark “----” means that the emissions level is too low to be measured.

3) The expanded uncertainty of the radiated emission tests is 3.53 dB.

5. Operating Conditions of The EUT : LINK

Test Date : May 30, 2010

Test Specification	EN 55013:2001/A1:2003/A2:2006			
Equipment	Manufacturer	Model No.	Calibration Date	Next Cal. Date
LISN	EMCO	3850/2	2010/05/07	2011/05/06
Absorbing Clamp	Rohde & Schwarz	MDS-21	2010/02/05	2011/02/04
EMI Test Receiver	Rohde & Schwarz	ESCI	2010/02/03	2011/02/02
Climatic Condition	Ambient Temperature: <u>26</u> °C Relative Humidity: <u>54</u> %RH			
Power Supply System	AC Power : <u>230</u> Vac <u>50</u> Hz			
Test Set-up	Table-top Equipment			

Emission Frequency (MHz)	Meter Reading (dBuV)		CORR'd Factor (dB)	Results (dBpW/m)		Limit (dBpW/m)		Margins (dB)	
	Q.P	AVG.		Q.P	AVG.	Q.P	AVG.	Q.P	AVG.
57.280	26.5	----	0.2	26.7	----	46.0	36.0	-19.3	----
89.310	30.6	----	0.3	30.9	----	47.2	37.2	-16.3	----
147.180	28.1	----	0.9	29.0	----	49.3	39.3	-20.3	----
166.240	32.4	----	-0.4	32.0	----	50.0	40.0	-18.0	----
189.270	35.9	----	-0.1	35.8	----	50.9	40.9	-15.1	----
204.530	34.1	----	0.4	34.5	----	51.5	41.5	-17.0	----

Notes: 1) Place of Measurement: Measuring site of the ETC

2) Remark “----” means that the emissions level is too low to be measured.

3) The expanded uncertainty of the radiated emission tests is 3.53 dB.

6. Operating Conditions of The EUT : MUTE

Test Date : May 30, 2010

Test Specification	EN 55013:2001/A1:2003/A2:2006			
Equipment	Manufacturer	Model No.	Calibration Date	Next Cal. Date
LISN	EMCO	3850/2	2010/05/07	2011/05/06
Asorbing Clamp	Rohde & Schwarz	MDS-21	2010/02/05	2011/02/04
EMI Test Receiver	Rohde & Schwarz	ESCI	2010/02/03	2011/02/02
Climatic Condition	Ambient Temperature: <u>23</u> °C Relative Humidity: <u>54</u> %RH			
Power Supply System	AC Power : <u>230</u> Vac <u>50</u> Hz			
Test Set-up	Table-top Equipment			

Emission Frequency (MHz)	Meter Reading (dBuV)		CORR'd Factor (dB)	Results (dBpW/m)		Limit (dBpW/m)		Margins (dB)	
	Q.P	AVG.		Q.P	AVG.	Q.P	AVG.	Q.P	AVG.
61.940	29.3	----	0.3	29.6	----	46.2	36.2	-16.6	----
137.580	30.3	----	1.5	31.8	----	49.0	39.0	-17.2	----
153.280	28.4	----	0.3	28.7	----	49.6	39.6	-20.9	----
189.470	33.7	----	-0.1	33.6	----	50.9	40.9	-17.3	----
196.890	34.1	----	0.3	34.4	----	51.2	41.2	-16.8	----
213.410	32.8	----	0.4	33.2	----	51.8	41.8	-18.6	----

Notes: 1) Place of Measurement: Measuring site of the ETC

2) Remark "----" means that the emissions level is too low to be measured.

3) The expanded uncertainty of the radiated emission tests is 3.53 dB.

7. Operating Conditions of The EUT : CTRL IN

Test Date : May 30, 2010

Test Specification	EN 55013:2001/A1:2003/A2:2006			
Equipment	Manufacturer	Model No.	Calibration Date	Next Cal. Date
LISN	EMCO	3850/2	2010/05/07	2011/05/06
Asorbing Clamp	Rohde & Schwarz	MDS-21	2010/02/05	2011/02/04
EMI Test Receiver	Rohde & Schwarz	ESCI	2010/02/03	2011/02/02
Climatic Condition	Ambient Temperature: <u>26</u> °C Relative Humidity: <u>54</u> %RH			
Power Supply System	AC Power : <u>230</u> Vac <u>50</u> Hz			
Test Set-up	Table-top Equipment			

Emission Frequency (MHz)	Meter Reading (dBuV)		CORR'd Factor (dB)	Results (dBpW/m)		Limit (dBpW/m)		Margins (dB)	
	Q.P	AVG.		Q.P	AVG.	Q.P	AVG.	Q.P	AVG.
94.170	26.4	----	0.4	26.8	----	47.4	37.4	-20.6	----
106.380	29.8	----	0.7	30.5	----	47.8	37.8	-17.3	----
147.580	28.4	----	0.8	29.2	----	49.4	39.4	-20.2	----
198.550	32.6	----	0.3	32.9	----	51.2	41.2	-18.3	----
214.880	34.8	----	0.4	35.2	----	51.8	41.8	-16.6	----
271.260	33.2	----	0.9	34.1	----	53.9	43.9	-19.8	----

Notes: 1) Place of Measurement: Measuring site of the ETC

2) Remark “----” means that the emissions level is too low to be measured.

3) The expanded uncertainty of the radiated emission tests is 3.53 dB.

8. Operating Conditions of The EUT : REMOTE SOURCE IR INPUT

Test Date : May 30, 2010

Test Specification	EN 55013:2001/A1:2003/A2:2006			
Equipment	Manufacturer	Model No.	Calibration Date	Next Cal. Date
LISN	EMCO	3850/2	2010/05/07	2011/05/06
Asorbing Clamp	Rohde & Schwarz	MDS-21	2010/02/05	2011/02/04
EMI Test Receiver	Rohde & Schwarz	ESCI	2010/02/03	2011/02/02
Climatic Condition	Ambient Temperature: <u>26</u> °C Relative Humidity: <u>54</u> %RH			
Power Supply System	AC Power : <u>230</u> Vac <u>50</u> Hz			
Test Set-up	Table-top Equipment			

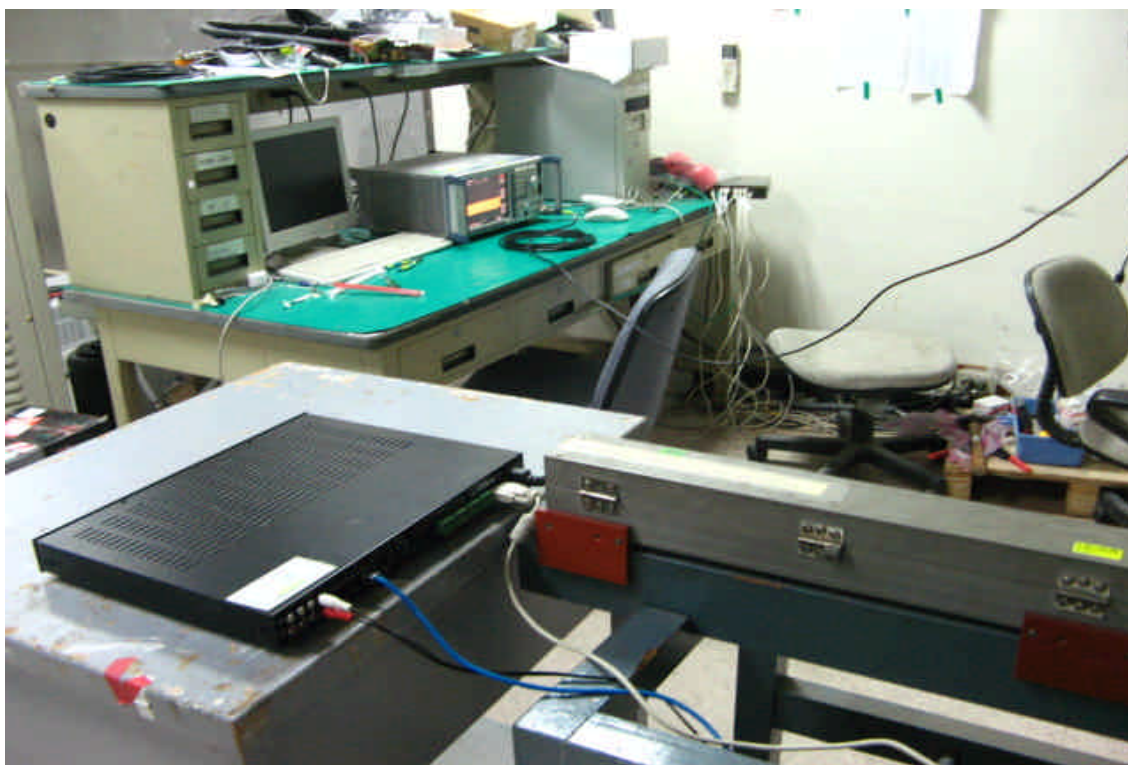
Emission Frequency (MHz)	Meter Reading (dBuV)		CORR'd Factor (dB)	Results (dBpW/m)		Limit (dBpW/m)		Margins (dB)	
	Q.P	AVG.		Q.P	AVG.	Q.P	AVG.	Q.P	AVG.
84.590	32.8	----	0.4	33.2	----	47.0	37.0	-13.8	----
126.340	31.7	----	1.2	32.9	----	48.6	38.6	-15.7	----
174.160	33.9	----	-0.4	33.5	----	50.3	40.3	-16.8	----
196.380	27.9	----	0.2	28.1	----	51.2	41.2	-23.1	----
234.760	30.6	----	0.9	31.5	----	52.6	42.6	-21.1	----
259.840	31.7	----	1.1	32.8	----	53.5	43.5	-20.7	----

Notes: 1) Place of Measurement: Measuring site of the ETC

2) Remark "----" means that the emissions level is too low to be measured.

3) The expanded uncertainty of the radiated emission tests is 3.53 dB.

4.1.2.2 Radiated Emissions (Absorbing Clamp) Test Setup Photos :



4.1.3 Harmonics Current Emissions Test

4.1.3.1 Harmonics Current Emissions Test Data

Operating Conditions of The EUT : Operation Mode

Test Date : May 28, 2010

Test Specification	EN 61000-3-2:2006			
Equipment	Manufacturer	Model No.	Calibration Date	Next Cal. Date
Harmonics-1000	EMC-Partner	Harmonics-1000	2009/12/09	2010/12/08
Climatic Condition	Ambient Temperature: <u>25</u> °C Relative Humidity: <u>53</u> %RH			
Power Supply System	AC Power : <u>230</u> Vac <u>50</u> Hz			
Test Set-up	Table-top Equipment			

Test data see the next pages.

Urms = 229.9V Freq = 50 Range: 0.5 A

Irms = 0.078A Ipk = 0.270A cf = 3.464

P = 6.172W S = 17.91VA pf = 0.345

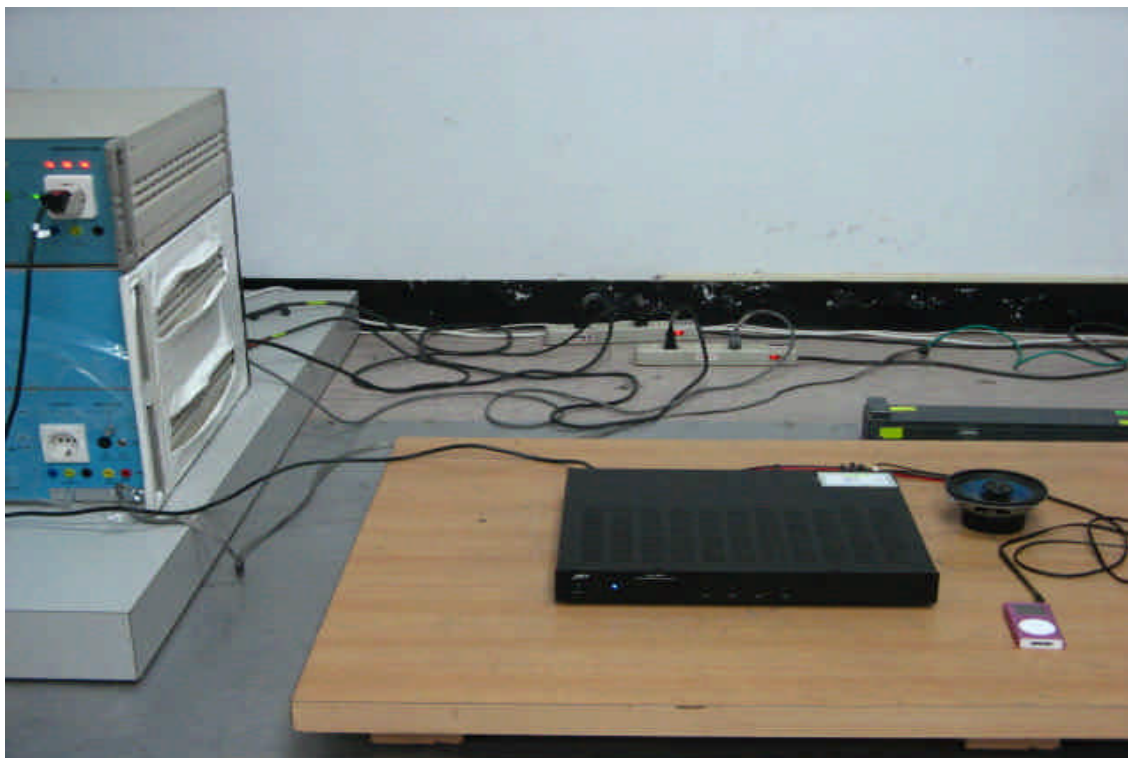
THDi = 78.10% THDu = 0.10% Class A

Test - Time :3min -100%

Test completed, Result: PASSED

Order	Freq. [Hz]	Iavg [A]	Imax [A]	Limit [A]	Order	Freq. [Hz]	Iavg [A]	Imax [A]	Limit [A]
1	50	0.0473	0.0479		21	1050	0	0.0002	0.1071
2	100	0.0262	0.0265	1.08	22	1100	0	0.0001	0.0836
3	150	0.0307	0.031	2.3	23	1150	0	0.0007	0.0978
4	200	0.0201	0.0204	0.43	24	1200	0	0.0001	0.0767
5	250	0.0262	0.0264	1.14	25	1250	0	0.001	0.09
6	300	0.0119	0.012	0.3	26	1300	0	0.0001	0.0708
7	350	0.0156	0.0157	0.77	27	1350	0	0.001	0.0833
8	400	0.0078	0.0079	0.23	28	1400	0	0	0.0657
9	450	0.0137	0.0138	0.4	29	1450	0	0.0009	0.0776
10	500	0	0.0036	0.184	30	1500	0	0	0.0613
11	550	0.0091	0.0092	0.33	31	1550	0	0.0006	0.0726
12	600	0	0.0019	0.1533	32	1600	0	0	0.0575
13	650	0.0069	0.007	0.21	33	1650	0	0.0003	0.0682
14	700	0	0.0005	0.1314	34	1700	0	0.0001	0.0541
15	750	0	0.0045	0.15	35	1750	0	0.0002	0.0643
16	800	0	0.0001	0.115	36	1800	0	0	0.0511
17	850	0	0.0026	0.1324	37	1850	0	0.0002	0.0608
18	900	0	0.0001	0.1022	38	1900	0	0	0.0484
19	950	0	0.0012	0.1184	39	1950	0	0.0003	0.0577
20	1000	0	0.0002	0.092	40	2000	0	0	0.046

4.1.3.2 Harmonics Current Emissions Test Setup Photos



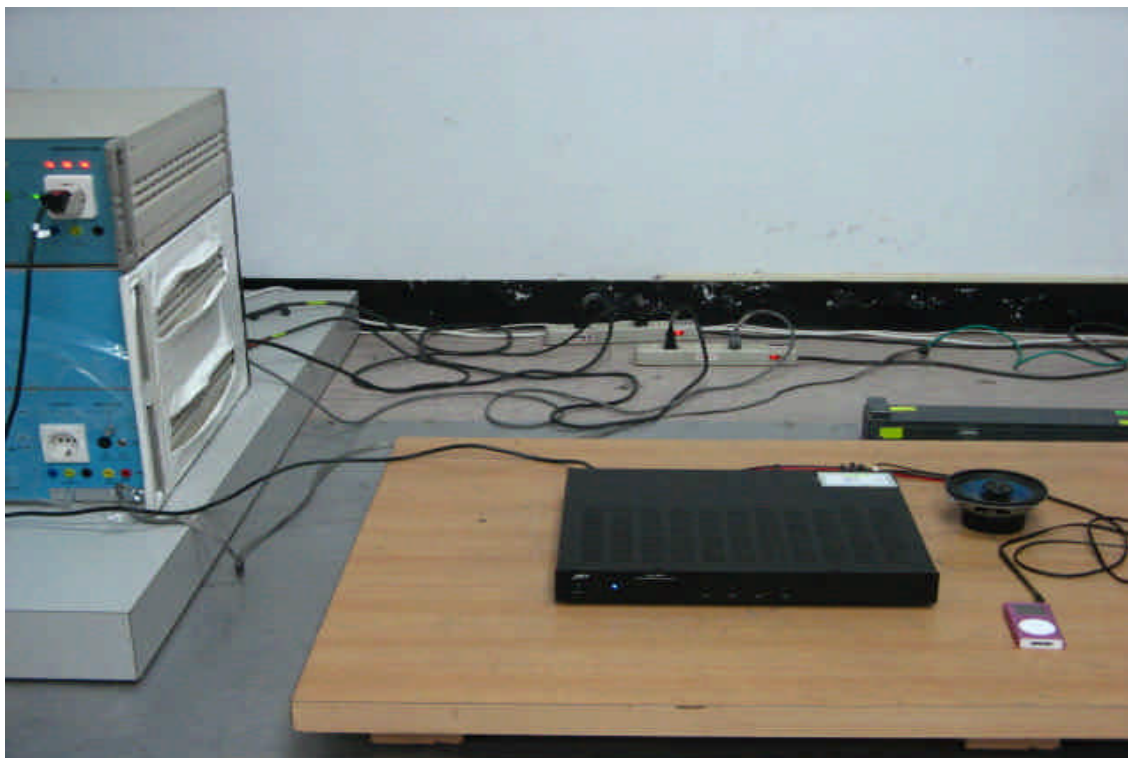
4.1.4 Voltage Fluctuations and Flicker Test**4.1.4.1 Voltage Fluctuations and Flicker Test Data**Operating Conditions of The EUT : Operation Mode

Test Date : May 28, 2010

Test Specification	EN 61000-3-3:2008			
Equipment	Manufacturer	Model No.	Calibration Date	Next Cal. Date
Hormonics-1000	EMC-Partner	Hormonics-1000	2009/12/10	2010/12/09
Climatic Condition	Ambient Temperature: <u>25</u> °C Relative Humidity: <u>53</u> %RH			
Power Supply System	AC Power : <u>230</u> Vac <u>50</u> Hz			
Test Set-up	Table-top Equipment			

	Test Data	Limit	Pass or Fail
Plt	0.07	0.65	Pass
Pst	0.07	1.00	Pass
dt	0.00 ms	500 ms	Pass
dmax	0.00 %	4.0 %	Pass
dc	0.01 %	3.3 %	Pass

4.1.4.2 Voltage Fluctuations and Flicker Test Setup Photos



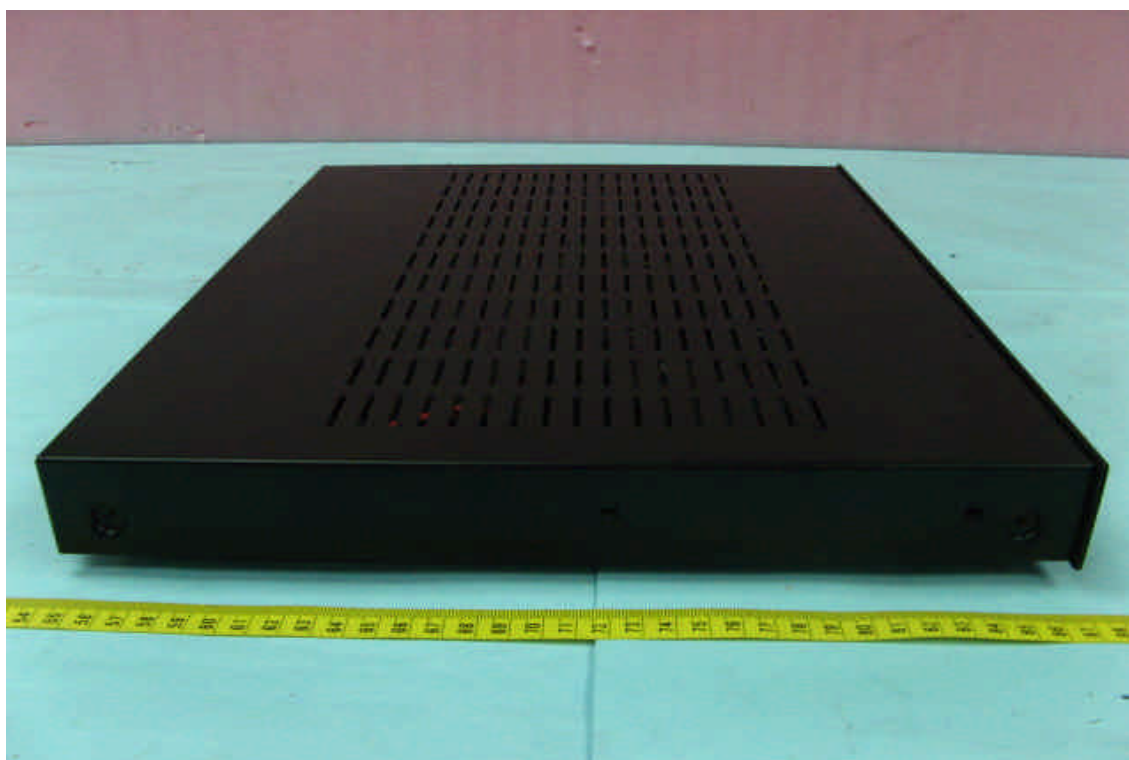
CONSTRUCTION PHOTOS OF EUT

Model: AD-4

1. Front View of EUT



2. Side View of EUT



CONSTRUCTION PHOTOS OF EUT

3. Rear View of EUT

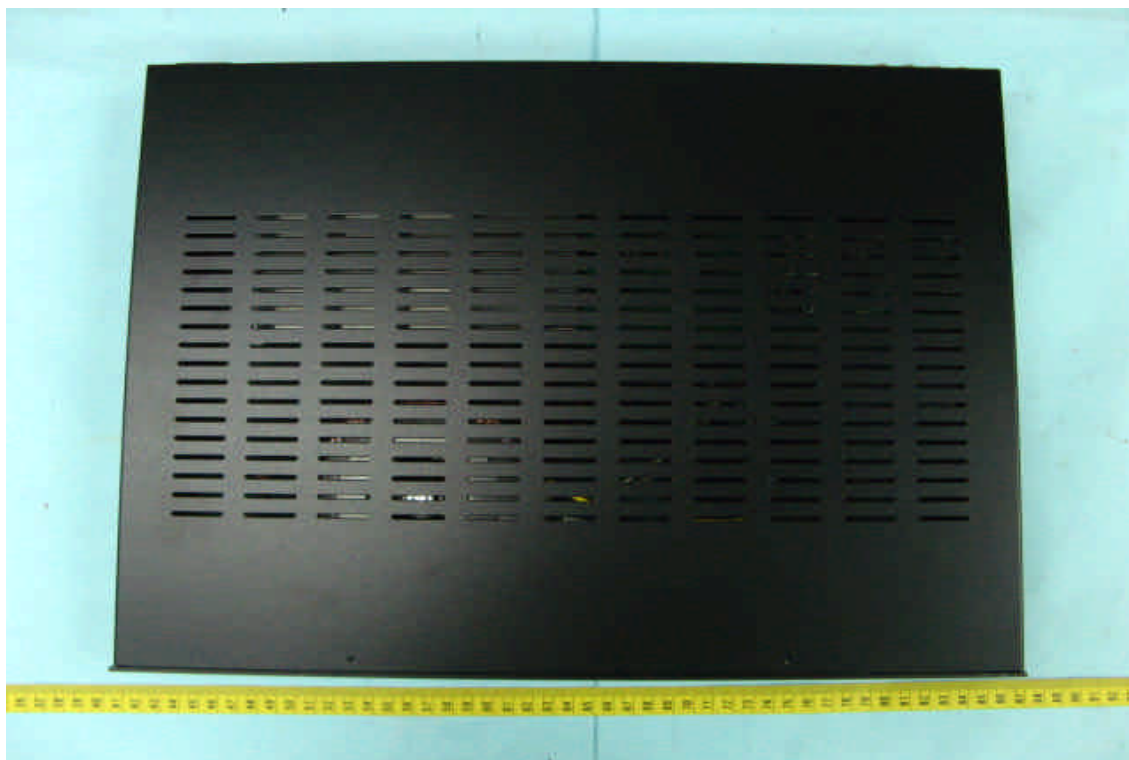


4. Side View of EUT



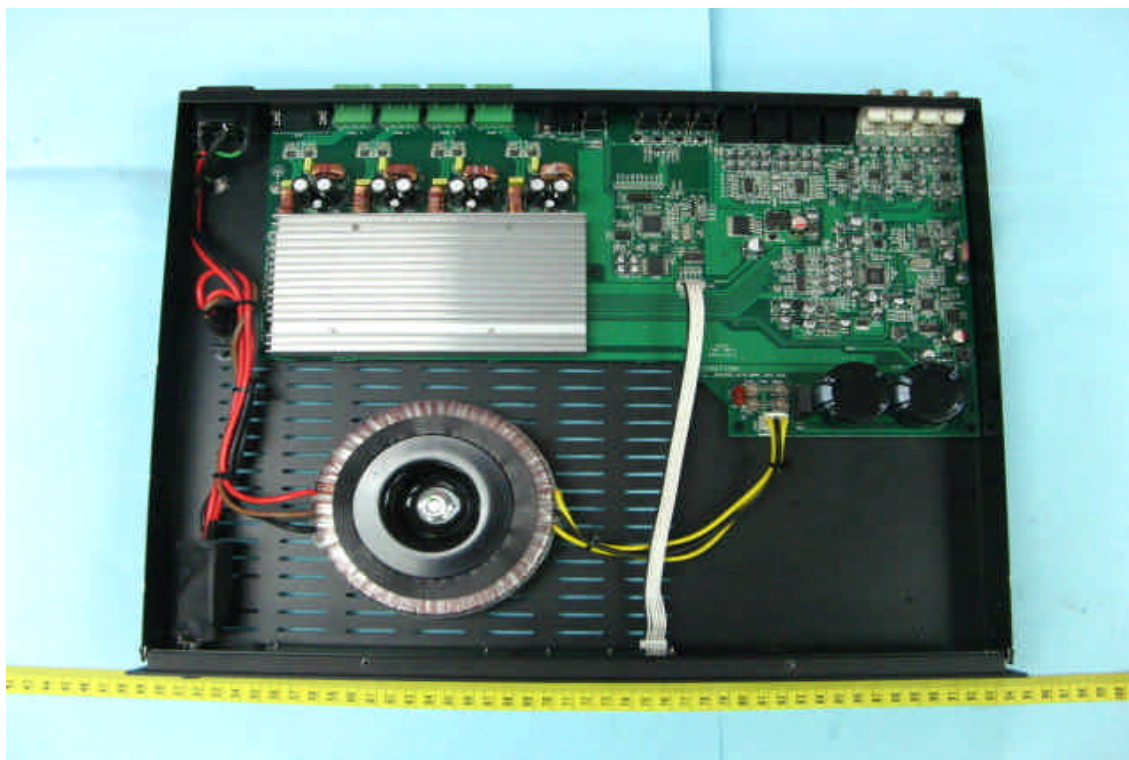
CONSTRUCTION PHOTOS OF EUT

5. Top View of EUT



CONSTRUCTION PHOTOS OF EUT

6. Internal View of EUT



CONSTRUCTION PHOTOS OF EUT

7. Component View of PCB

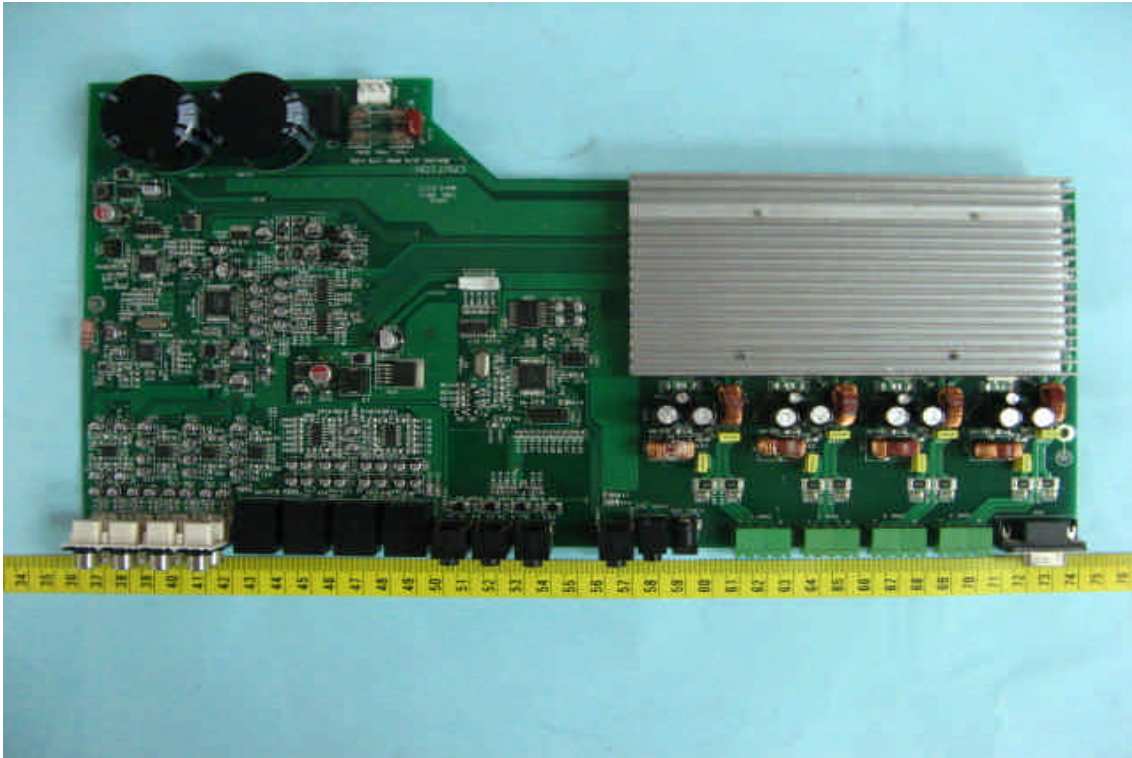


8. Solder View of PCB



CONSTRUCTION PHOTOS OF EUT

9. Component View of PCB



10. Solder View of PCB

