

# Technical Compliance Statement



## For the following information

Ref. File No.: C1M112269

Product : POS terminal  
Model Number : IPA280-01P1802  
Brand Name : INGENICO  
Applicant : INGENICO  
Manufacturer : Inventec Appliances Corp.  
Standards : FCC 47 CFR Part 15 Subpart B/Oct. 2010 and  
CISPR 22/1997 and ICES-003 (Class B Limit)

We hereby certify that the above product has been tested by us and complied with the FCC official limits. These products might be marketed at the US accordance to FCC Rule based on the standard 47 CFR Part 2 and Part 15 Class B Equipment Regulations. The test was performed accordance to the procedures from ANSI C63.4-2003. The test data & results are issued on the test report no. EM-F1001063.

Signature

  
\_\_\_\_\_

Ben Cheng/Manager

Date: Mar. 05, 2012

Test Laboratory:  
AUDIX Technology Corporation, EMC Department  
NVLAP Lab Code: 200077-0  
FCC OET Designation: TW1004  
Web Site: [www.audixtech.com](http://www.audixtech.com)



NVLAP Lab Code 200077-0

The statement is based on a single evaluation of one sample of the above-mentioned products. It does not imply an assessment of the whole production and does permit the use of the test lab logo.

TEST REPORT FOR FCC DoC  
for  
INGENICO  
POS terminal  
Model No. : IPA280-01P1802  
Brand: INGENICO

Prepared for : INGENICO  
192, avenue Charles de Gaulle , 92200  
Neuilly-sur-Seine, FRANCE

Prepared by : AUDIX Technology Corporation  
EMC Department  
No. 53-11, Dingfu, Linkou Dist.,  
New Taipei City 244, Taiwan, R.O.C.

Tel : (02) 2609-9301, 2609-2133  
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File Number : C1M1112269  
Report Number : EM-F1001063  
Date of Test : Jan. 16 ~ 17, 2012  
Date of Report : Jan. 19, 2012

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APPENDIX I (The pre-scanned data)

APPENDIX II (Photos of EUT)

### DESCRIPTION OF VERSION

Edition No.	Date of Rev.	Revision Summary	Report No.
0	Jan. 19, 2012	Original Report.	EM-F1001063
(Rev. 01)	Mar. 05, 2012	To delete the model “iPA280” and correct the test model from “iPA280” into “IPA280-01P1802”.	EM-F1001063
Remark: This reissue report of F1001063 is revised directly for delete the model “iPA280” and correct the test model from “iPA280” into “IPA280-01P1802”.			

## TEST REPORT FOR FCC COMPLIANCE DECLARATION

Applicant : INGENICO  
 Manufacturer : Inventec Appliances Corp.  
 EUT Description : POS terminal  
                   (A) Model No. : IPA280-01P1802  
                   (B) Serial No. : N/A  
                   (C) Brand : INGENICO  
                   (D) Power Supply : AC 100-240V, 50/60Hz  
                   (E) Test Voltage : AC 120V/60Hz

Measurement Standard Used:  
 FCC CFR 47 Part 15 Subpart B/Oct. 2010  
 ANSI C63.4-2003  
 ICES-003 Issue 4 Feb. 2004

**(NOTE : These results are deemed satisfactory evidence of compliance with ICES-003 of the Canadian Interference-Causing Equipment Regulations.)**

The device described above was tested by AUDIX Technology Corporation, to determine the maximum emission levels emanating from the device. The maximum emission levels were compared to the FCC Part 15 subpart B with the provisions of sections 15.107(a) and 15.109(a)(g) Class B limits both conducted and radiated emissions.

The measurement results are contained in this test report and AUDIX Technology Corporation is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliant with the FCC official limits.

This report applies to above tested sample only and which shall not be reproduced in part without written approval of AUDIX Technology Corporation.

This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

Date of Test : Jan. 16 ~ 17, 2012      Date of Report : Mar. 05, 2012

Producer by:   
 (Sandy Chen/Assistant Administrator)

Approval by:   
 (Ben Cheng/Manager)

Name of the Representative of the Responsible Party : \_\_\_\_\_

Signature : \_\_\_\_\_

## 1. GENERAL INFORMATION

### 1.1. Description of Device (EUT)

Description	:	POS terminal This test report is for EUT Link PC Function Only.
Model Number	:	IPA280-01P1802
Brand	:	INGENICO
Applicant	:	INGENICO 192, avenue Charles de Gaulle , 92200 Neuilly-sur-Seine, FRANCE
Manufacturer	:	Inventec Appliances Corp. 37, Wu-Kung 5 Road Wu-Ku Industrial Park, Wu-Ku Hsiang, New Taipei City, Taiwan, R.O.C.
USB Cable	:	Shielded, Undetachable, 0.3m
Lithium ion Battery Pack	:	INGENICO, M/N IPA200-BAT VBT 3.7V, 1900mA 7.03Whr
FCC ID	:	XKBIPA280NEWMODEM
WLAN Module	:	Murata, M/N LBWA18HLZZ-287
Bluetooth Module	:	CSR, M/N BC06
GPS	:	Broadcom, M/N BCM4750
Cradle (Option)	:	INGENICO, M/N iPA200-BASE Evolution Input: 5V DC 4A

AC Adapter#1 : PI Electronics, M.N AD7011LF  
 Input: 100-240V~50/60Hz, 0.6A  
 Output: 5V 4.0A  
 DC Power Cord: Shielded, Undetachable, 1.5m  
 Bonded a ferrite core

Switching Adapter#2 : DVE, DSA-10CU-05 050200  
 Input: 100-24V~ 50/60Hz 0.5A  
 Output: 5V 2A

Interface Ports of EUT : **EUT**  
 SD Slot\*1  
 USB Port\*1  
 Connect Port\*1  
**Docking**  
 Micro USB port\*1  
 RJ45 LAN port\*1  
 RS-232 port\*1  
 DC In\*1

Date of Receipt of Sample : Jan. 12, 2012

Date of Test : Jan. 16 ~ 17, 2012

**Remark:**

This EUT with the following test modes was pre-scanned. Finally, this report was selected the worst test mode to issue report.

**The details of pre-scanned modes are as follows : (Total 4 modes)**

Test Voltage	Operating Mode
AC 120V/60Hz	Link PC (USB Mode) with Cradle & AC Adapter #1 (Via PI Electronics, M.N AD7011LF)
	Link PC (LAN Mode) with Cradle & AC Adapter #1 (Via PI Electronics, M.N AD7011LF)
	Link PC with EUT Only (Via PC System)
	Stand Alone Mode AC Adapter #2 (Via DVE, DSA-10CU-05 050200)

**The worst test modes are as follow :**

Test Item	Operating Mode
Powerline Conducted Emission Measurement	(1)Link PC (USB Mode) with Cradle & AC Adapter #1 (Via PI Electronics, M.N AD7011LF)
Radiated Emission Measurement	(2)Stand Alone Mode AC Adapter #2 (Via DVE, DSA-10CU-05 050200)

## 1.2. Description of Tested Supporting Unit and Cable

### 1.2.1. Support Peripheral Unit

No.	Product	Brand	Model No.	Serial No.	FCC ID
1.	PC System	LENOVO	MT-M 7611-PV2	R82RT28	FCC DoC Approved
2.	15" LCD Monitor	HP	D5063	CN206A6581	ARSLM562H
3.	USB Keyboard	LENOVO	KU-0225	0904489	FCC DoC Approved
4.	USB Mouse	LENOVO	LXB MO28UOAUSB	4402692	FCC DoC Approved
5.	DeskJet 400 Printer	HP	C2642A	MY83N1C0J0	B94C2642X
6.	I-POD Earphone	APPLE	N/A	N/A	N/A
7.	I-POD Player	APPLE	A1204	4H722T84VTE	N/A
8.	Simulator (AC Socket)	N/A	N/A	N/A	N/A
9.	Bluetooth Earphone	Innostar	IH-05	N/A	UU9MBH200

### 1.2.2. Cable List

No.	Signal Cable Description Of The Above Support Units
1.	AC Power Cord: Non-Shielded, Detachable, 1.8m (3 Pin) USB Cable: Shielded, Undetachable, 1.8m RS-232 Cable: Shielded, Detachable, 2.0m LAN Cable: Shielded, Detachable, 2.0m
2.	AC Power Cord: Non-Shielded, Detachable, 1.8m (3 Pin) D-Sub Cable: Shielded, Detachable, 1.8m, Bonded two ferrite cores
3.	USB Cable: Shielded, Undetachable, 1.8m
4.	USB Cable: Shielded, Undetachable, 1.8m
5.	AC Power Cord: Non-Shielded, Detachable, 1.8m (3 Pin) Data Cable: Shielded, Undetachable, 1.8m
6.	Earphone Cable: Non-Shielded, Detachable, 0.9m
7.	USB Data Cable: Shielded, Undetachable, 1m
8.	AC Power Cord: Non-Shielded, Detachable, 1.8m (3 Pin)
9.	N/A

### 1.3. Description of Test Facility

Name of Firm : **AUDIX Technology Corporation**  
**EMC Department**  
 No. 53-11, Dingfu, Linkou Dist.,  
 New Taipei City 244, Taiwan, R.O.C.

Test Site : **No. 3 Shielded Room**  
 No. 67-4, Dingfu, Linkou Dist.,  
 New Taipei City 244, Taiwan, R.O.C.

**No. 3 Open Area Test Site**  
 No. 67-4, Dingfu, Linkou Dist.,  
 New Taipei City 244, Taiwan, R.O.C.  
 Federal Communication Commission  
 Registration Number: 90996  
 Renewal on February 03, 2009

NVLAP Lab. Code : 200077-0

TAF Accreditation No : 1724

### 1.4. Measurement Uncertainty

Test Item	Frequency Range	Uncertainty (dB)
Conduction Test	150kHz~30MHz	± 1.73dB
Radiation Test (Distance: 10m)	30MHz~300MHz	± 2.99dB
	300MHz~1000MHz	± 2.73dB

Remark : Uncertainty =  $kuc(y)$



## 2. POWERLINE CONDUCTED EMISSION MEASUREMENT

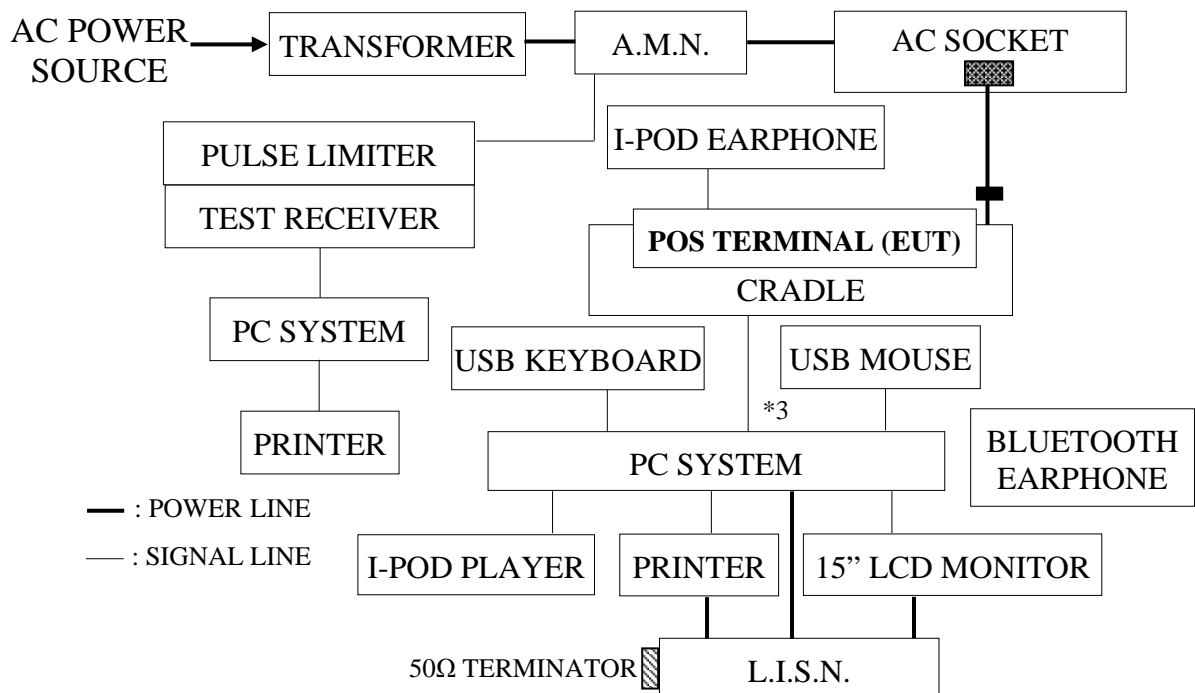
### 2.1. Test Equipment

The following test equipment was used during the powerline conducted emission measurement: (No. 3 Shielded Room)

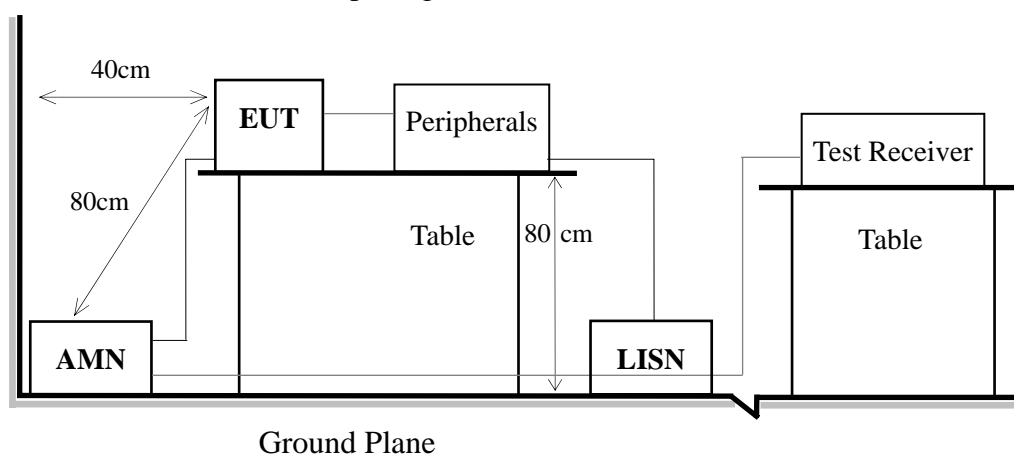
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	R & S	ESCS 30	100337	Apr. 11, 11'	Apr. 10, 12'
2.	A.M.N.	Kyoritsu	KNW-244C	8-1373-5	Jul. 14, 11'	Jul. 13, 12'
3.	L.I.S.N.	Kyoritsu	KNW-407	8-1370-9	Jun. 09, 11'	Jun. 08, 12'
4.	Pulse Limiter	R & S	ESH3Z2	100041	Feb. 01, 11'	Jan. 31, 12'

### 2.2. Block Diagram of Test Setup

#### 2.2.1. Block Diagram of connection between EUT and simulators



#### 2.2.2. Shielded Room Setup Diagram



### 2.3. Powerline Conducted Emission Limit (§15.107(a), Class B)

Frequency	Maximum RF Line Voltage, dB( $\mu$ V)	
	Quasi-Peak Level	Average Level
150kHz ~ 500kHz	66 ~ 56 dB $\mu$ V*	56 ~ 46 dB $\mu$ V*
500kHz ~ 5MHz	56 dB $\mu$ V	46 dB $\mu$ V
5MHz ~ 30MHz	60 dB $\mu$ V	50 dB $\mu$ V

Remark: 1.\*Decreases with the logarithm of the frequency.

2. If the average limit is met when using a Quasi-Peak detector, the EUT shall be deemed to meet both limits and measurement with the average detector is unnecessary.

### 2.4. Operating Condition of EUT

EUT Condition	
Operating System	Windows 7
Test Program	ActiveSync & Data transfer to PC System
Data was communication between EUT and PC System via USB or LAN cable.	
The other peripheral devices were driven and operated in turn during all testing.	

### 2.5. Test Procedure

The EUT was placed on table which was above the ground by 80cm and it's adapter power cord was connected to the AC mains through an Artificial Mains Network (A.M.N.). The other peripheral devices power cord connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provided a 50 ohm coupling impedance for the measuring equipment. (Please refer to the block diagram of the test setup and photographs.)

Both sides of A.C. line were checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables were changed according to FCC ANSI C63.4-2003 during conducted measurement.

The bandwidth of the R & S Test Receiver ESCS 30 was set at 9 kHz.

The frequency range from 150kHz to 30MHz was pre-scanned with a peak detector.

All the readings of measurements were with the Quasi-Peak detector and Average detector. (Remark: If the Average limit is met when using a Quasi-Peak detector, the Average detector is unnecessary)

## 2.6. Powerline Conducted Emission Measurement Results

**PASSED.** All emissions not reported below are too low against the prescribed limits.

The EUT was measured during this section testing and the worst test results are attached in next pages.

EUT : POS terminal      Model No.: IPA280-01P1802

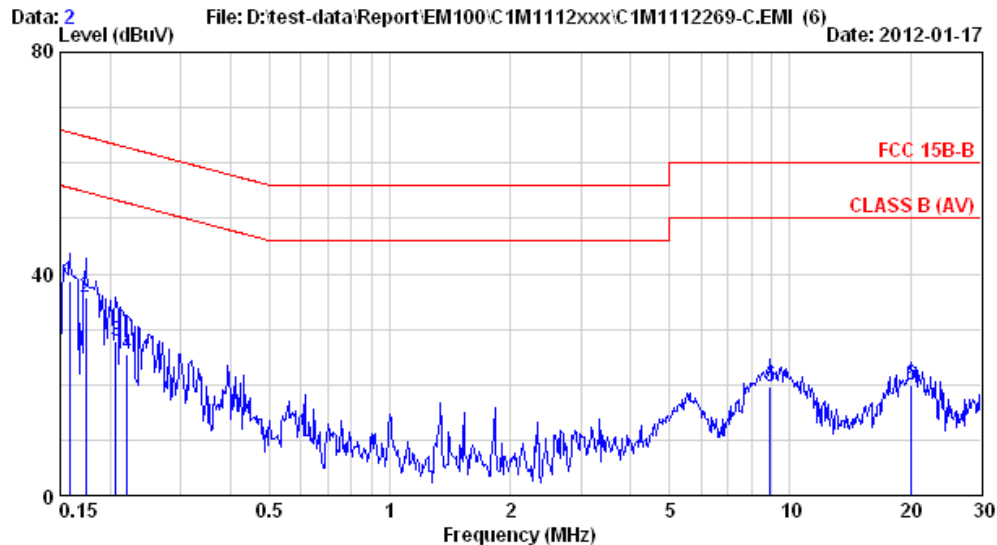
Test Date: Jan. 17, 2012      Temperature: 25      Humidity: 52%

The details are as follows :

No.	Adapter	Test Mode	Reference Test Data No.	
			Neutral	Line
1.	PI Electronics, M.N AD7011LF	Link PC Mode	# 2	# 1
2.	DVE, DSA-10CU-05 050200		# 6	# 5



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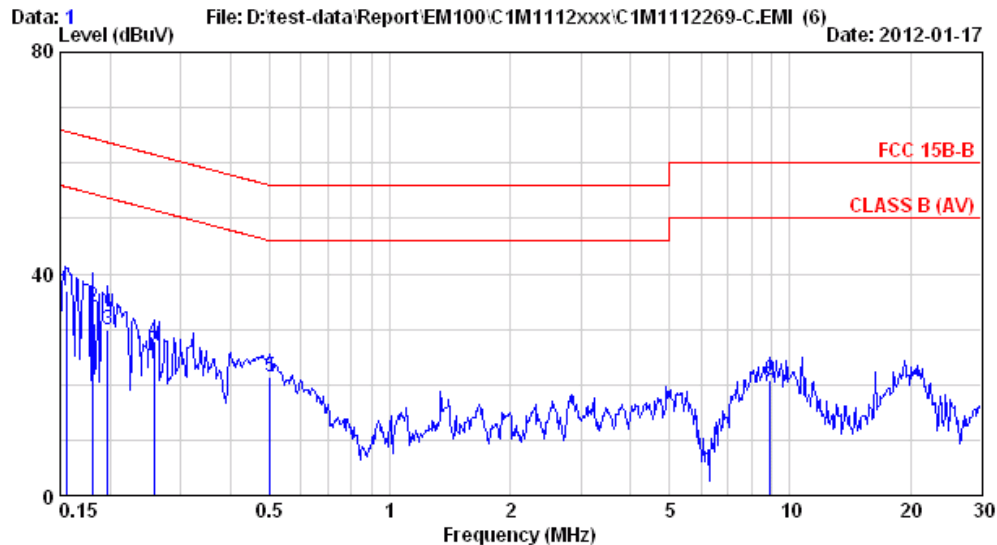
Site : No.3 Shielded Room Data : 2  
 Condition : KNW-244C Phase : NEUTRAL  
 Limit : FCC 15B-B  
 Env. / Ins. : 25°C / 52% ESCS 30 (337) Engineer: Jasper  
 EUT : IPA280-01P1802  
 Power Rating : 120Vac / 60Hz  
 Test Mode : Link PC +Cradle (Operating)

	AMN	Cable	Emission		Limits	Margin	Remark
Freq. (MHz)	Factor (dB)	Loss (dB)	Reading (dBuV)	Level (dBuV)	(dBuV)	(dB)	
1	0.13	0.20	38.43	38.76	65.56	26.80	QP
2	0.12	0.20	35.56	35.88	64.77	28.89	QP
3	0.10	0.20	27.49	27.79	63.36	35.57	QP
4	0.10	0.20	25.18	25.48	62.79	37.31	QP
5	0.29	0.60	18.72	19.61	60.00	40.39	QP
6	0.39	0.70	18.96	20.05	60.00	39.95	QP

Remarks: 1.Emission Level= AMN Factor + Cable Loss + Reading.  
 2.If the average limit is met when using a quasi-peak detector  
 , the EUT shall be deemed to meet both limits and measurement  
 with average detector is unnecessary.



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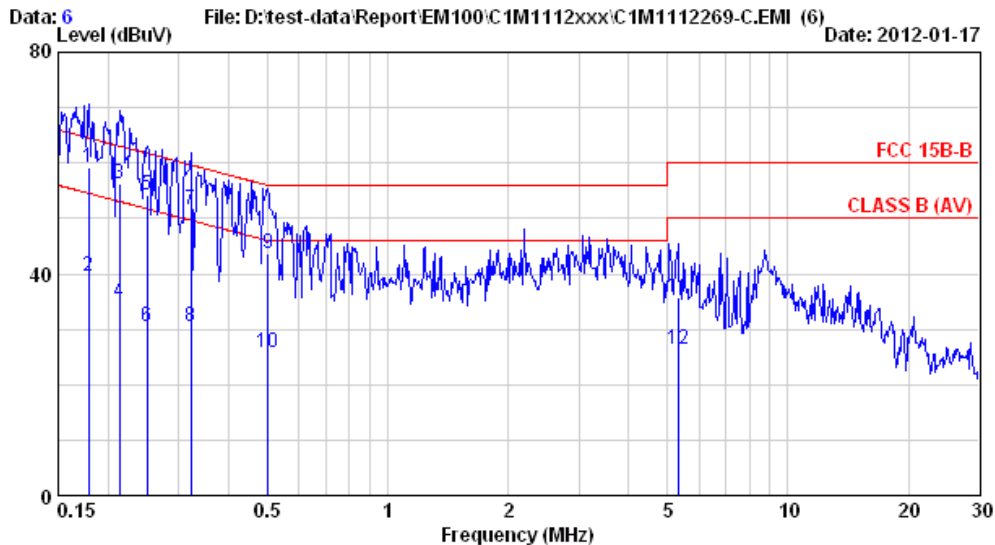
Site : No.3 Shielded Room Data : 1  
 Condition : KNW-244C Phase : LINE  
 Limit : FCC 15B-B  
 Env. / Ins. : 25°C / 52% ESCS 30 (337) Engineer: Jasper  
 EUT : IPA280-01P1802  
 Power Rating : 120Vac / 60Hz  
 Test Mode : Link PC +Cradle (Operating)

	AMN	Cable	Emission		Limits	Margin	Remark	
Freq. (MHz)	Factor (dB)	Loss (dB)	Reading (dBuV)	Level (dBuV)	(dBuV)	(dB)		
1	0.156	0.14	0.20	36.66	37.00	65.69	28.70	QP
2	0.182	0.11	0.20	33.78	34.09	64.42	30.32	QP
3	0.198	0.10	0.20	29.55	29.85	63.71	33.86	QP
4	0.258	0.10	0.20	27.49	27.79	61.51	33.72	QP
5	0.502	0.10	0.20	21.06	21.36	56.00	34.64	QP
6	8.916	0.37	0.60	19.86	20.83	60.00	39.17	QP

Remarks: 1.Emission Level= AMN Factor + Cable Loss + Reading.  
 2.If the average limit is met when using a quasi-peak detector  
 , the EUT shall be deemed to meet both limits and measurement  
 with average detector is unnecessary.



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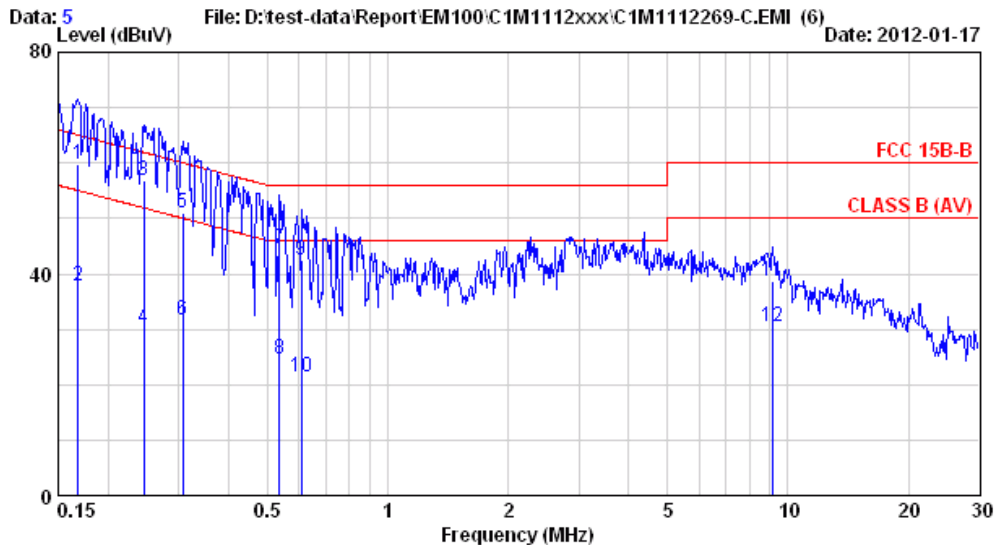
Site : NO.3 Shielded Room Data : 6  
 Condition : KNW-244C Phase : NEUTRAL  
 Limit : FCC 15B-B  
 Env. / Ins. : 25°C / 52% ESCS 30 (337) Engineer: Jasper  
 EUT : IPA280-01P1802  
 Power Rating : 120Vac / 60Hz  
 Test Mode : OPERATING  
 ADP:DSA-10CU-05

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.179	0.12	0.20	58.85	59.17	64.55	5.38	QP
2	0.179	0.12	0.20	39.32	39.64	54.55	14.91	AVERAGE
3	0.214	0.10	0.20	55.82	56.12	63.05	6.93	QP
4	0.214	0.10	0.20	34.67	34.97	53.05	18.08	AVERAGE
5	0.251	0.10	0.20	53.95	54.25	61.73	7.48	QP
6	0.251	0.10	0.20	30.04	30.34	51.73	21.39	AVERAGE
7	0.322	0.10	0.20	51.31	51.61	59.66	8.05	QP
8	0.322	0.10	0.20	30.05	30.35	49.66	19.31	AVERAGE
9	0.502	0.10	0.20	43.46	43.76	56.00	12.24	QP
10	0.502	0.10	0.20	25.46	25.76	46.00	20.24	AVERAGE
11	5.305	0.23	0.60	35.03	35.86	60.00	24.14	QP
12	5.305	0.23	0.60	25.58	26.41	50.00	23.59	AVERAGE

Remarks: 1. Emission Level= AMN Factor + Cable Loss + Reading.  
 2. If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.



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Site : NO.3 Shielded Room Data : 5  
 Condition : KNW-244C Phase : LINE  
 Limit : FCC 15B-B  
 Env. / Ins. : 25°C / 52% ESCS 30 (337) Engineer: Jasper  
 EUT : IPA280-01P1802  
 Power Rating : 120Vac / 60Hz  
 Test Mode : OPERATING  
 ADP:DSA-10CU-05

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.169	10.05	0.20	49.66	59.91	65.03	5.12	QP
2	0.169	10.05	0.20	27.55	37.80	55.03	17.23	AVERAGE
3	0.246	9.98	0.20	46.72	56.90	61.91	5.00	QP
4	0.246	9.98	0.20	20.09	30.27	51.91	21.63	AVERAGE
5	0.307	9.95	0.20	40.98	51.13	60.06	8.93	QP
6	0.307	9.95	0.20	21.57	31.72	50.06	18.34	AVERAGE
7	0.535	9.88	0.20	34.43	44.51	56.00	11.50	QP
8	0.535	9.88	0.20	14.52	24.60	46.00	21.41	AVERAGE
9	0.608	9.87	0.20	32.50	42.57	56.00	13.44	QP
10	0.608	9.87	0.20	11.23	21.30	46.00	24.71	AVERAGE
11	9.156	9.89	0.60	28.26	38.75	60.00	21.25	QP
12	9.156	9.89	0.60	19.96	30.45	50.00	19.55	AVERAGE

Remarks: 1. Emission Level= AMN Factor + Cable Loss + Reading.  
 2. If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

### 3. RADIATED EMISSION MEASUREMENT

#### 3.1. Test Equipment

The following test equipments are used during the radiated emission measurement:

##### 3.1.1. For 30MHz~1000MHz Frequency (At No. 3 Open Area Test Site)

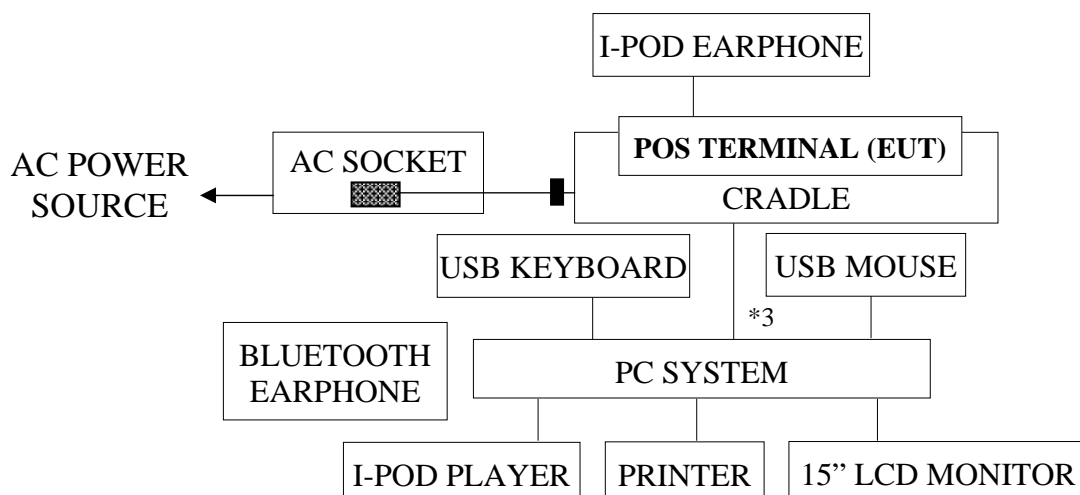
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	N9010A-503	MY51120074	Apr. 05, 11'	Apr. 04, 12'
2.	Test Receiver	R & S	ESVS 10	845165/018	Aug. 04, 11'	Aug. 03, 12'
3.	Amplifier	HP	8447D	2727A05737	N/A	N/A
4.	Biconical Antenna	CHASE	VBA6106A	1227	Mar. 08, 11'	Mar. 07, 12'
5.	Log Periodic Antenna	CHASE	UPA6109	1031	Mar. 08, 11'	Mar. 07, 12'

##### 3.1.2. For Above 1GHz Frequency (At No. 3 Open Area Test Site)

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	E7405A	MY42000132	Jun. 10, 11'	Jun. 09, 12'
2.	Amplifier	HP	8449B	3008A02596	Jan. 09, 12'	Jan. 08, 13'
3.	Horn Antenna	EMCO	3115	9609-4927	Jul. 12, 11'	Jul. 11, 12'

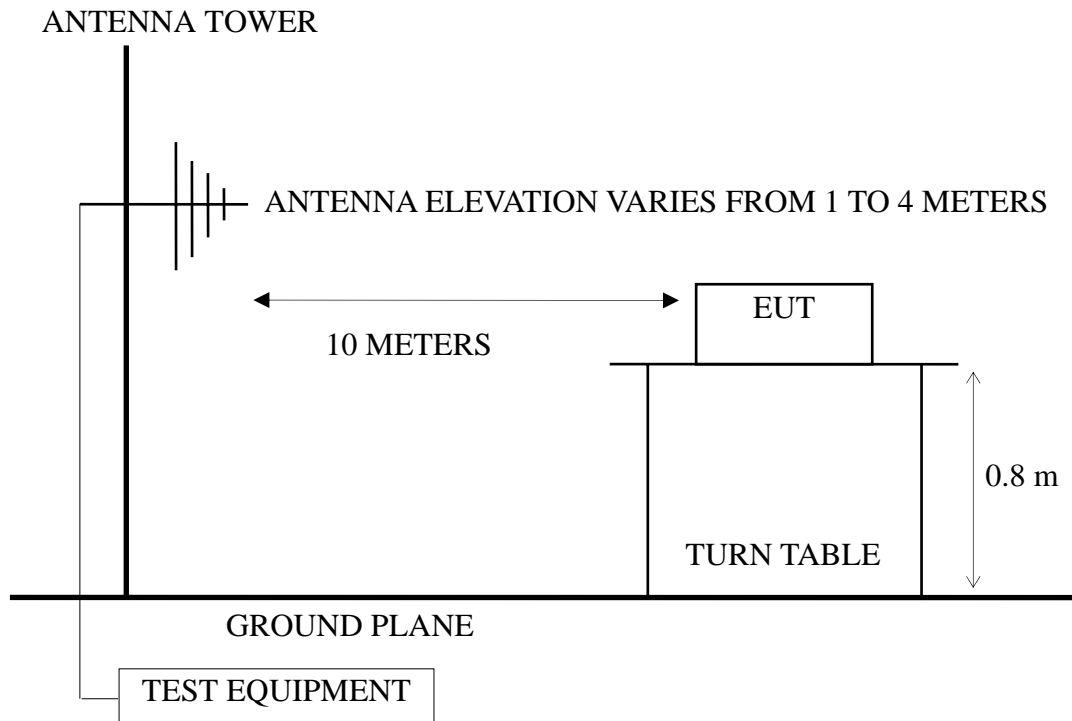
#### 3.2. Block Diagram of Test Setup

##### 3.2.1. Block Diagram of connection between EUT and simulators

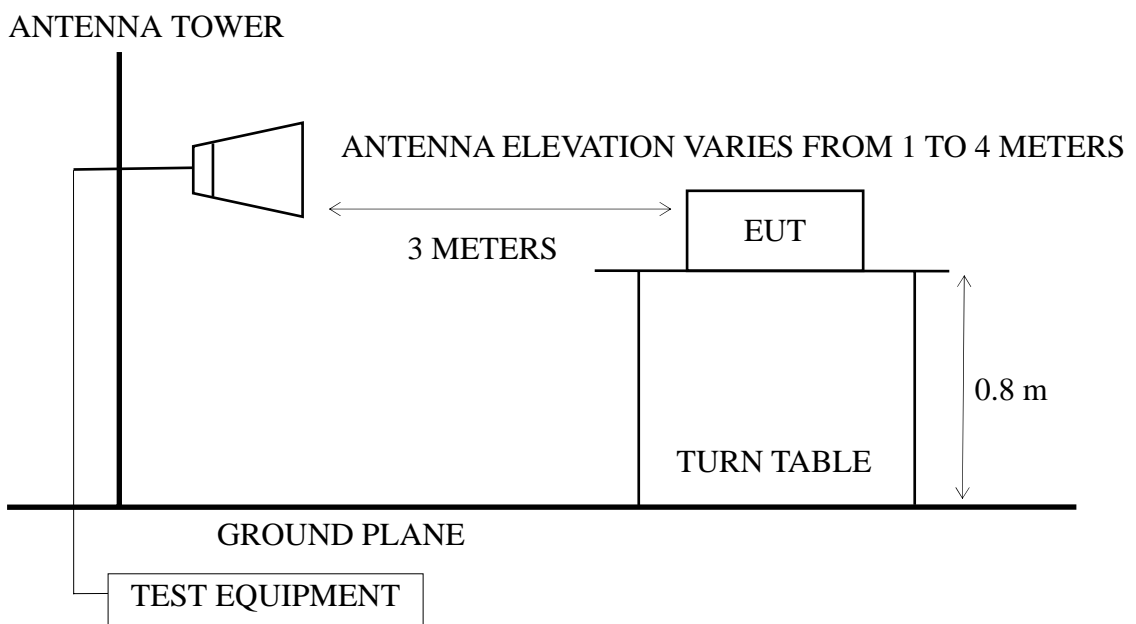




3.2.2. Open Area Test Site Setup Diagram (10m) for 30-1000MHz



3.2.3. Open Area Test Site Setup Diagram (3m) Setup Diagram for above 1GHz



### 3.3. Radiated Emission Limit (§15.109(a)(g)/CISPR 22, Class B)

FREQUENCY (MHz)	DISTANCE (Meters)	FIELD STRENGTHS LIMITS (dB $\mu$ V/m)
30 ~ 230	10	30
230 ~ 1000	10	37
Above 1000	3	74.0 (Peak)
Above 1000	3	54.0 (Average)

- Note :
- (1) The tighter limit applies at the edge between two frequency bands.
  - (2) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the E.U.T.
  - (3) There is no over 1GHz limits in CISPR 22 standard. Therefore, a FCC limit is used based on CFR 47 Part 15.35 (b) and Part 15.109 (a)(g).

### 3.4. Operating Condition of EUT

Same as powerline conducted emission which is listed in 2.4. except the test set up replaced by section 3.2.

### 3.5. Test Procedure

- 3.5.1. For Frequency Range was 30MHz-1000MHz which measurement distance was 10m at Open Area Test Site:

The EUT and its simulator were placed on a turn table which was 0.8 meter above ground. The turn table rotate 360 degrees to determine the position of the maximum emission level. EUT was set 10 meters away from the receiving antenna which were mounted on an antenna tower. The antenna could be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antennas (Biconical Antenna & Log Periodic Antenna) were used as a receiving antenna. Both horizontal and vertical polarizations of the antenna were set on measurement. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4-2003 and CISPR 22 on radiated measurement.

The bandwidth of the R & S Test Receiver ESVS 10 was set at 120 kHz.

The frequency range from 30MHz to 1000MHz was checked with Peak detector and all final readings of measurement were with Quasi-Peak detector at open area test site.

- 3.5.2. For Frequency Range was above 1GHz which measurement distance was 3m at Open Area Test Site:

The EUT and its simulators were placed on a turn table which was 0.8 meter above ground. The turn table rotated 360 degrees to determine the position of the maximum emission level. EUT was set 3 meters away from the receiving antenna which was mounted on an antenna tower. The antenna 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 were set on measurement, and both average and peak emission level were recorded from spectrum analyzer. In order to find the maximum emission level, all the interface cables were manipulated according to ANSI C63.4-2003 on radiated measurement.

The resolution bandwidth of Agilent Spectrum Analyzer E7405A was set at 1MHz.

The frequency range above 1GHz was checked and all final readings of measurement were with Peak and Average detector at Open Area Test Site.

### 3.6. Radiated Emission Measurement Results

**PASSED.** All emissions not reported below are too low against the prescribed limits.

#### **For 30MHz~1000MHz frequency range:**

The EUT was measured during this section testing and the worst test results are attached in section 3.6.1.

EUT : POS terminal      Model No.: IPA280-01P1802

Test Date: Jan. 16, 2012      Temperature: 16      Humidity: 55%

The details are as follows :

No.	Adapter	Test Mode	Reference Test Data No.	
			Horizontal	Vertical
1.	PI Electronics, M.N AD7011LF	Link PC Mode	# 2	# 1
2.	DVE, DSA-10CU-05 050200		# 8	# 7

( mode for maximum detected emission)

#### **For above 1GHz frequency range:**

The EUT was measured during this section testing and all the worst test results are attached in section 3.6.2.

EUT : POS terminal      Model No.:IPA280-01P1802

Test Date: Jan. 16, 2012      Temperature: 16      Humidity: 55%

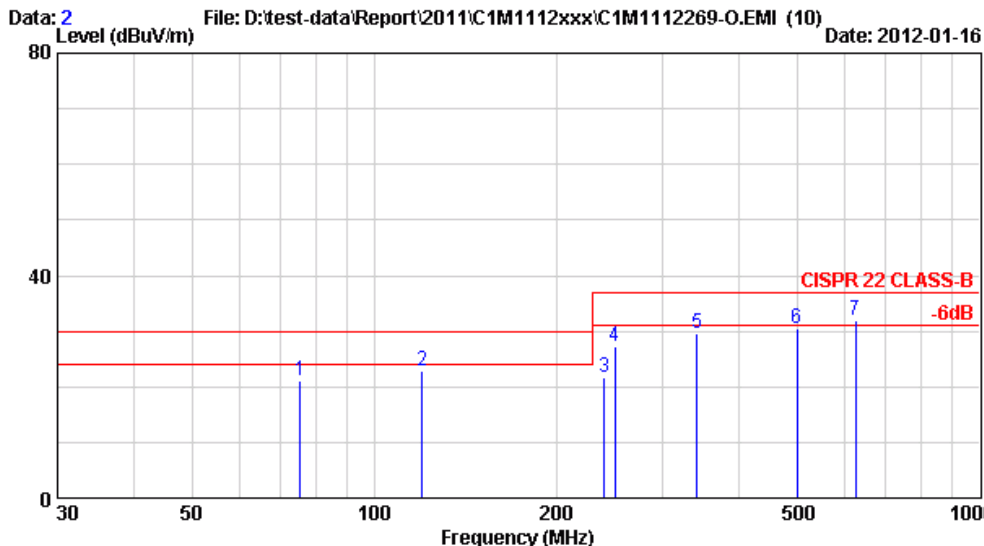
The details are as follows :

No.	Adapter	Test Mode	Reference Test Data No.	
			Horizontal	Vertical
1.	PI Electronics, M.N AD7011LF	Link PC Mode	# 10	# 9

3.6.1. For Frequency Range was 30MHz-1000MHz which measurement distance was 10m at Open Area Test Site:



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 Email:emc@audixtech.com



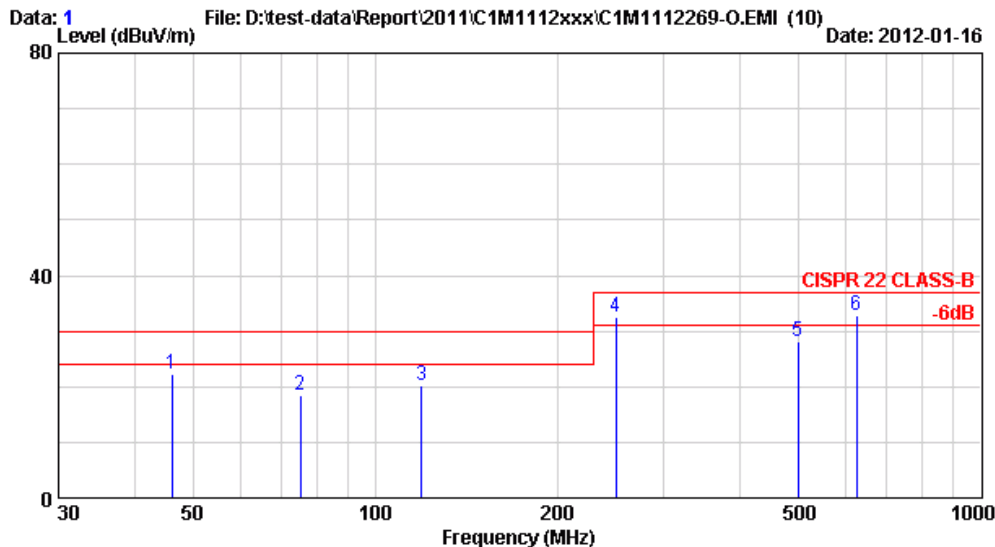
Site no. : Open site NO.3 Data no. : 2  
 Dis. / Ant. : 10m VBA6106A/UPA6109(10) Ant. pol. : HORIZONTAL  
 Limit : CISPR 22 CLASS-B  
 Env. / Ins. : 16°C / 55% ESVS 10 (018) Engineer : TIM  
 EUT M/N : IPA280-01P1802  
 Power Rating : 120Vac / 60Hz  
 Test Mode : LINK PC+Cradle(Operating)  
 Adapter:AD7011LF

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	75.52	14.70	0.99	5.43	21.12	30.00	8.88	
2	119.94	20.62	1.29	0.94	22.85	30.00	7.15	
3	239.93	24.12	1.90	-4.47	21.55	37.00	15.45	
4	249.99	24.31	2.00	0.82	27.13	37.00	9.87	
5	341.96	18.24	2.36	8.86	29.46	37.00	7.54	
6	500.02	20.63	2.88	7.08	30.59	37.00	6.41	
7	624.96	22.61	3.33	5.94	31.88	37.00	5.12*	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.  
 3. The worst emission is detected at 624.96MHz with corrected signal level of 31.88dBuV/m (limit is 37.0dBuV/m) when the antenna is at horizontal polarization and is at 4m high and the turn table is at 210°.  
 4. 0°was the table front facing the antenna. Degree is calculated from 0°clockwise facing the antenna.



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 Email:emc@audixtech.com



Site no. : Open site NO.3 Data no. : 1  
 Dis. / Ant. : 10m VBA6106A/UPA6109(10) Ant. pol. : VERTICAL  
 Limit : CISPR 22 CLASS-B  
 Env. / Ins. : 16°C / 55% ESVS 10 (018) Engineer : TIM  
 EUT M/N : IPA280-01P1802  
 Power Rating : 120Vac / 60Hz  
 Test Mode : LINK PC+Cradle(Operating)  
 Adapter:AD7011LF

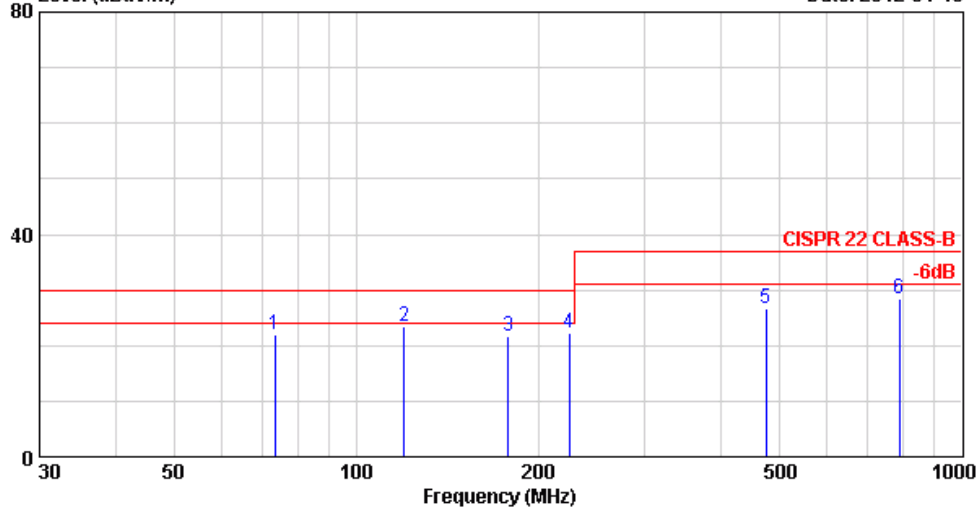
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	46.25	19.55	0.75	1.92	22.22	30.00	7.78	
2	75.25	14.69	0.99	2.85	18.52	30.00	11.48	
3	119.25	20.59	1.29	-1.53	20.35	30.00	9.65	
4	250.02	24.31	2.00	6.14	32.45	37.00	4.55	
5	499.93	20.63	2.88	4.50	28.01	37.00	8.99	
6	624.96	22.61	3.33	6.85	32.79	37.00	4.21*	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.  
 3. The worst emission is detected at 624.96MHz with corrected signal level of 32.79dBuV/m (limit is 37.0dBuV/m) when the antenna is at vertical polarization and is at 1m high and the turn table is at 120°.  
 4. 0°was the table front facing the antenna. Degree is calculated from 0°clockwise facing the antenna.



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 Email:emc@audixtech.com

Data: 8 File: D:\test-data\Report\2011\C1M1112xxx\C1M1112269-O.EMI (10) Date: 2012-01-16



Site no. : Open site NO.3 Data no. : 8  
 Dis. / Ant. : 10m VBA6106A/UPA6109(10) Ant. pol. : HORIZONTAL  
 Limit : CISPR 22 CLASS-B  
 Env. / Ins. : 16°C / 55% ESVS 10 (018) Engineer : TIM  
 EUT M/N : IPA280-01P1802  
 Power Rating : 120Vac/ 60Hz  
 Test Mode : Operating  
 Adapter: DSA-10CU-05 050200

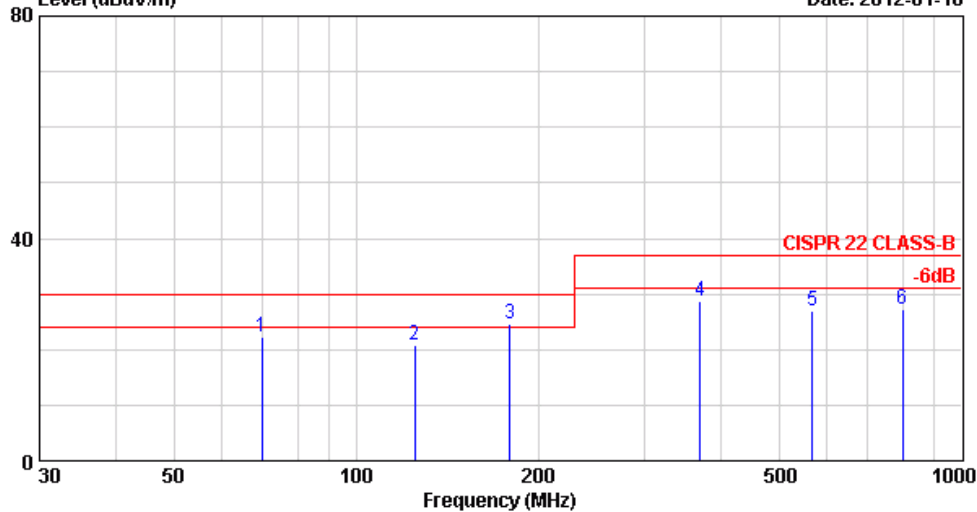
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	73.53	14.67	0.99	6.26	21.91	30.00	8.09	
2	120.11	20.65	1.29	1.54	23.49	30.00	6.51	
3	178.23	22.59	1.63	-2.56	21.66	30.00	8.34	
4	225.01	23.75	1.84	-3.39	22.20	30.00	7.80	
5	475.88	20.35	2.88	3.32	26.54	37.00	10.46	
6	789.16	24.56	3.71	0.23	28.50	37.00	8.50	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 7 File: D:\test-data\Report\2011\C1M1112xxx\C1M1112269-O.EMI (10) Date: 2012-01-16



Site no. : Open site NO.3 Data no. : 7  
 Dis. / Ant. : 10m VBA6106A/UPA6109(10) Ant. pol. : VERTICAL  
 Limit : CISPR 22 CLASS-B  
 Env. / Ins. : 16°C / 55% ESVS 10 (018) Engineer : TIM  
 EUT M/N : IPA280-01P1802  
 Power Rating : 120Vac/ 60Hz  
 Test Mode : Operating  
 Adapter: DSA-10CU-05 050200

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	69.81	14.74	0.99	6.40	22.13	30.00	7.87	
2	125.00	21.20	1.33	-1.63	20.89	30.00	9.11	
3	179.74	22.67	1.63	0.42	24.73	30.00	5.27	
4	369.54	18.52	2.52	7.60	28.64	37.00	8.36	
5	567.44	21.43	3.21	2.43	27.07	37.00	9.93	
6	799.60	24.73	3.76	-1.17	27.32	37.00	9.68	

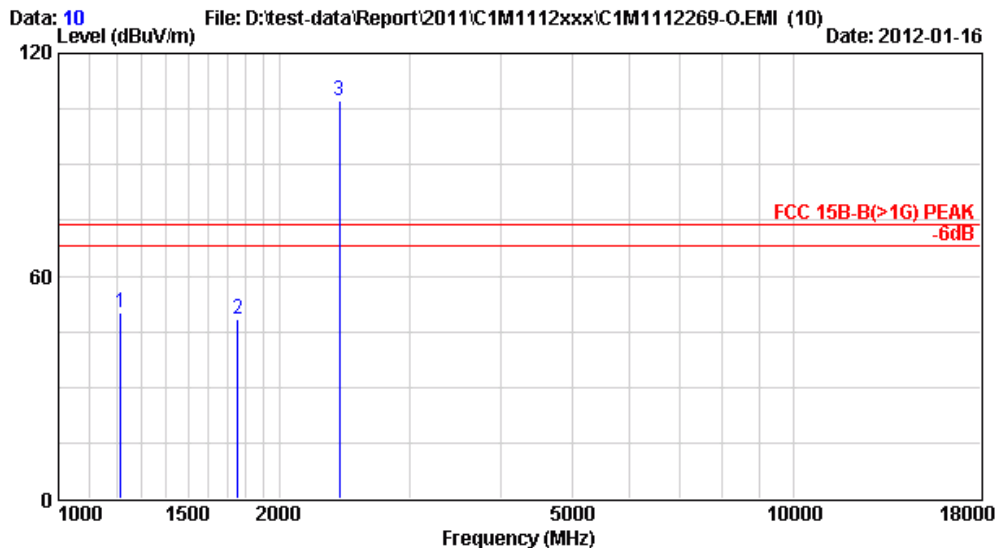
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.



3.6.2. For Frequency Range was above 1GHz which measurement distance was 3m at Open Area Test Site:



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Site no. : Open site NO.3 Data no. : 10  
Dis. / Ant. : 3m HORN ANT Ant. pol. : HORIZONTAL  
Limit : FCC 15B-B(>1G) PEAK  
Env. / Ins. : 16°C/ 55% E7405A (132) Engineer : TIM  
EUT : IPA280-01P1802  
Power Rating : 120Vac/ 60Hz  
Test Mode : LINK PC+Cradle(Operating)  
Adapter:AD7011LF

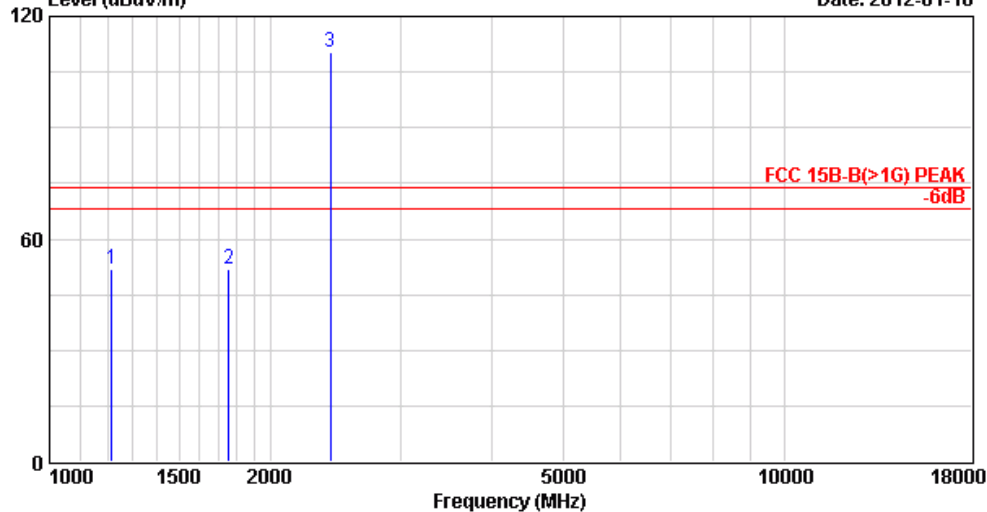
	Ant. Factor	Cable Loss	PREAMP GAIN	Reading	Emission Level	Limits	Margin	Remark
Freq. (MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	25.21	2.03	32.41	55.30	50.14	74.00	23.86	Peak
2	26.39	2.10	32.15	51.88	48.22	74.00	25.78	Peak
*3	28.56	2.14	32.18	108.52				

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Preamp Gain + Reading.  
2. The emission levels that are 20dB below the official limit are not reported.  
3. "\*" means the radiated emission from the transmitter/transceiver, it is ignored in this report.



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Data: 9 File: D:\test-data\Report\2011\C1M1112xxx\C1M1112269-O.EMI (10) Date: 2012-01-16



Site no. : Open site NO.3 Data no. : 9  
 Dis. / Ant. : 3m HORN ANT Ant. pol. : VERTICAL  
 Limit : FCC 15B-B(>1G) PEAK  
 Env. / Ins. : 16°C/ 55% E7405A (132) Engineer : TIM  
 EUT : IPA280-01P1802  
 Power Rating : 120Vac/ 60Hz  
 Test Mode : LINK PC+Cradle(Operating)  
 Adapter:AD7011LF

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	PREAMP GAIN (dB)	Reading (dBuV)	Emission		Margin (dB)	Remark
						Level (dBuV/m)	Limits (dBuV/m)		
1	1215.09	25.21	2.03	32.41	57.18	52.02	74.00	21.98	Peak
2	1755.75	26.39	2.10	32.15	55.63	51.97	74.00	22.03	Peak
*3	2412.02	28.56	2.14	32.18	111.83				

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Preamp Gain + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.  
 3. "\*" means the radiated emission from the transmitter/transceiver, it is ignored in this report.

#### **4. DEVIATION TO TEST SPECIFICATIONS**

**[NONE]**

## 5. PHOTOGRAPHS

### 5.1. Photos of Powerline Conducted Emission Measurement



FRONT VIEW OF CONDUCTED MEASUREMENT



BACK VIEW OF CONDUCTED MEASUREMENT

5.2. Photos of Radiated Emission Measurement at Open Area Test Site  
(30-1000MHz)



FRONT VIEW OF RADIATED MEASUREMENT



BACK VIEW OF RADIATED MEASUREMENT

### 5.3. Photos of Radiated Emission Measurement at Open Area Test Site (Above 1GHz)



FRONT VIEW OF RADIATED MEASUREMENT



BACK VIEW OF RADIATED MEASUREMENT

# APPENDIX I

## (The pre-scanned data)

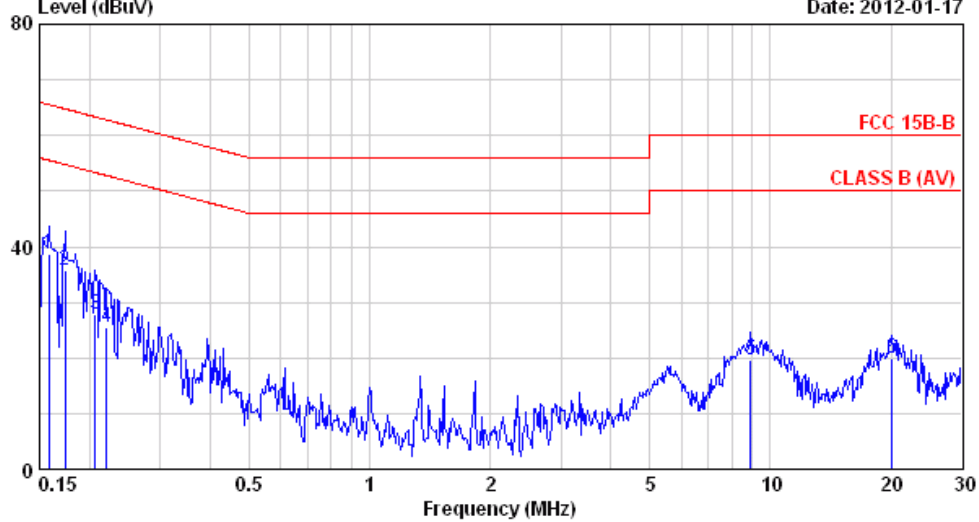
Total Pages: 16 Pages

**For Powerline Conducted Emission Measurement**



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 Email:emc@audixtech.com

Data: 2 File: D:\test-data\Report\EM100\C1M1112xxx\C1M1112269-C.EMI (6) Date: 2012-01-17



Site : No.3 Shielded Room Data : 2  
 Condition : KNW-244C Phase : NEUTRAL  
 Limit : FCC 15B-B  
 Env. / Ins. : 25°C / 52% ESCS 30 (337) Engineer: Jasper  
 EUT : IPA280-01P1802  
 Power Rating : 120Vac / 60Hz  
 Test Mode : Link PC +Cradle (Operating)

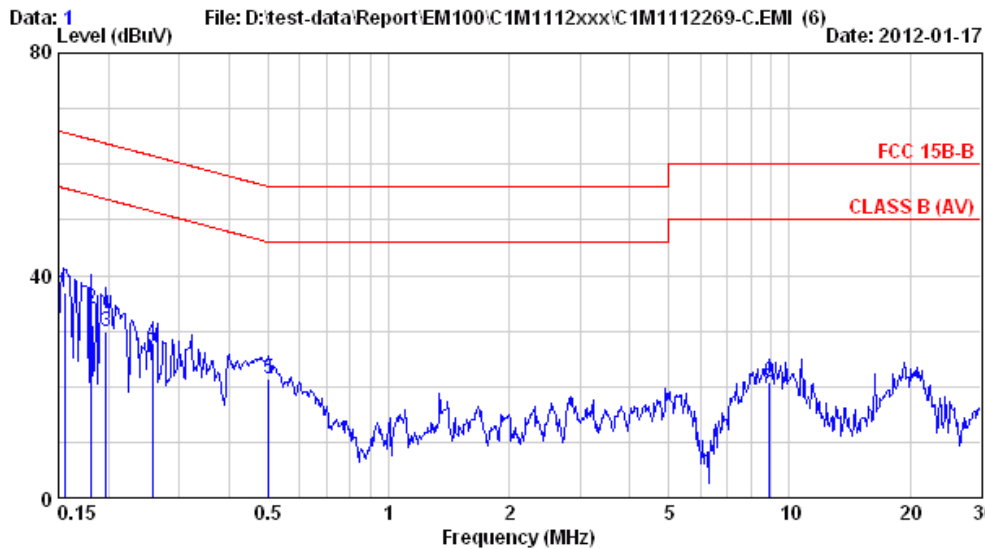
	AMN	Cable	Emission		Limits	Margin	Remark
Freq. (MHz)	Factor (dB)	Loss (dB)	Reading (dBuV)	Level (dBuV)	(dBuV)	(dB)	
1	0.158	0.13	38.43	38.76	65.56	26.80	QP
2	0.174	0.12	35.56	35.88	64.77	28.89	QP
3	0.206	0.10	27.49	27.79	63.36	35.57	QP
4	0.221	0.10	25.18	25.48	62.79	37.31	QP
5	8.916	0.29	18.72	19.61	60.00	40.39	QP
6	20.162	0.39	18.96	20.05	60.00	39.95	QP

Remarks: 1. Emission Level= AMN Factor + Cable Loss + Reading.  
 2. If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.





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Site : No.3 Shielded Room Data : 1  
 Condition : KNW-244C Phase : LINE  
 Limit : FCC 15B-B  
 Env. / Ins. : 25°C / 52% ESCS 30 (337) Engineer: Jasper  
 EUT : IPA280-01P1802  
 Power Rating : 120Vac / 60Hz  
 Test Mode : Link PC +Cradle (Operating)

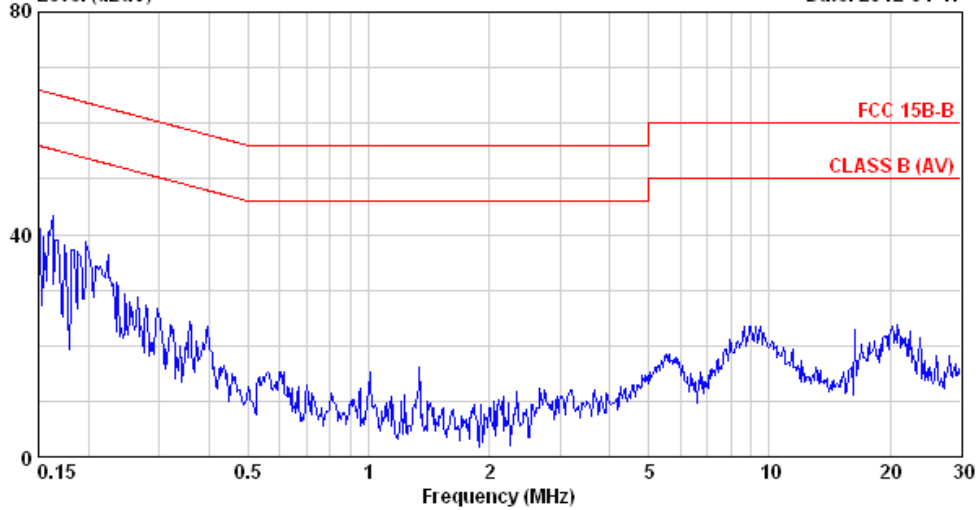
	AMN	Cable	Emission		Limits	Margin	Remark	
Freq. (MHz)	Factor (dB)	Loss (dB)	Reading (dBµV)	Level (dBµV)	(dBµV)	(dB)		
1	0.156	0.14	0.20	36.66	37.00	65.69	28.70	QP
2	0.182	0.11	0.20	33.78	34.09	64.42	30.32	QP
3	0.198	0.10	0.20	29.55	29.85	63.71	33.86	QP
4	0.258	0.10	0.20	27.49	27.79	61.51	33.72	QP
5	0.502	0.10	0.20	21.06	21.36	56.00	34.64	QP
6	8.916	0.37	0.60	19.86	20.83	60.00	39.17	QP

Remarks: 1. Emission Level= AMN Factor + Cable Loss + Reading.  
 2. If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.



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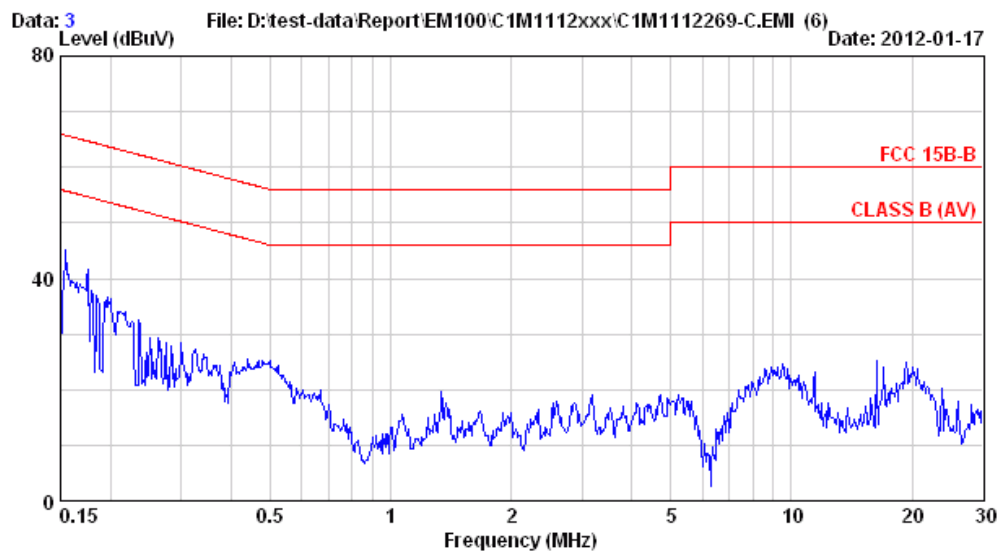
Data: 4 File: D:\test-data\Report\EM100\C1M1112xxx\C1M1112269-C.EMI (6) Date: 2012-01-17  
 Level (dBuV)



Site	: No.3 Shielded Room	Data	: 4
Condition	: KNW-244C	Phase	: NEUTRAL
Limit	: FCC 15B-B		
Env. / Ins.	: 25°C / 52% ESCS 30 (337)	Engineer:	Jasper
EUT	: IPA280-01P1802		
Power Rating	: 120Vac / 60Hz		
Test Mode	: LAN Mode		



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 Email:emc@audixtech.com

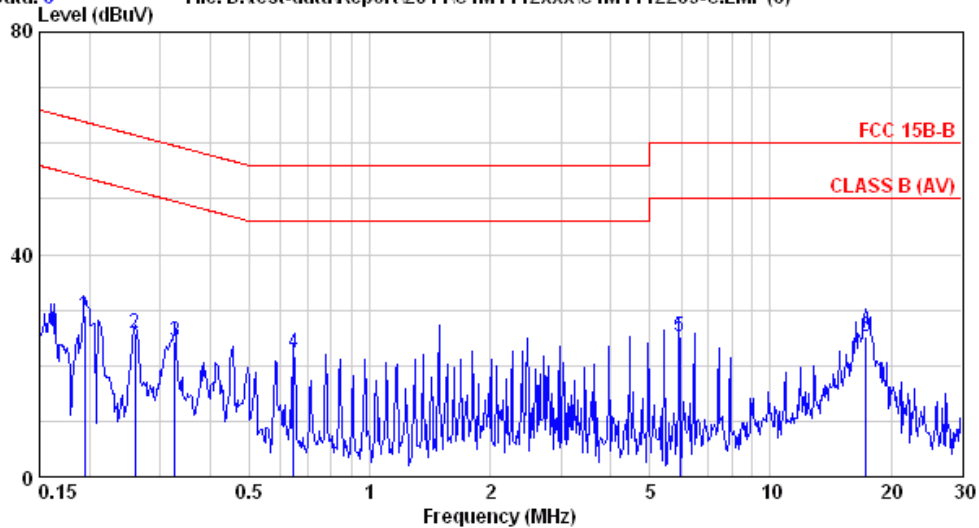


Site	: No.3 Shielded Room	Data	: 3
Condition	: KNW-244C	Phase	: LINE
Limit	: FCC 15B-B		
Env. / Ins.	: 25°C / 52% ESCS 30 (337)	Engineer:	Jasper
EUT	: IPA280-01P1802		
Power Rating	: 120Vac / 60Hz		
Test Mode	: LAN Mode		



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 Email:emc@audixtech.com

Data: 6 File: D:\test-data\Report\2011\C1M1112xxx\C1M1112269-C.EMI (6)



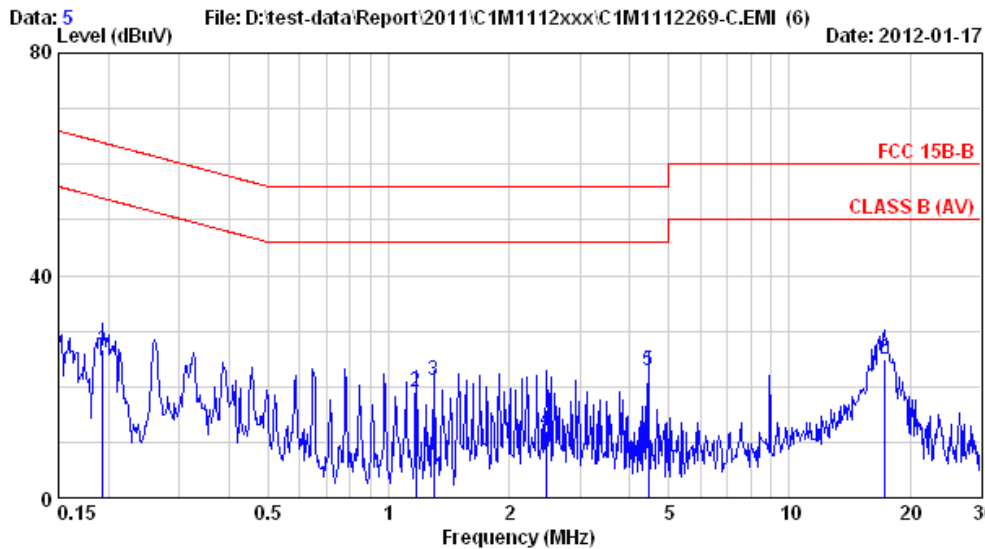
Site : No.3 Shielded Room Data : 6  
 Condition : KNW-244C Phase : NEUTRAL  
 Limit : FCC 15B-B  
 Env. / Ins. : 25°C / 52% ESCS 30 (337) Engineer: Jasper  
 EUT M/N : IPA280-01P1802  
 Power Rating : 120Vac / 60Hz  
 Test Mode : LINK PC+EUT ONLY

	AMN	Cable	Emission		Limits	Margin	Remark
Freq. (MHz)	Factor (dB)	Loss (dB)	Reading (dBuV)	Level (dBuV)	(dBuV)	(dB)	
1	0.10	0.20	28.77	29.07	63.84	34.77	QP
2	0.10	0.20	25.47	25.77	61.42	35.65	QP
3	0.10	0.20	23.97	24.27	59.53	35.26	QP
4	0.10	0.20	22.09	22.39	56.00	33.61	QP
5	0.24	0.60	24.45	25.29	60.00	34.71	QP
6	0.40	0.70	24.10	25.20	60.00	34.80	QP

Remarks: 1. Emission Level= AMN Factor + Cable Loss + Reading.  
 2. If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.



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Site : No.3 Shielded Room Data : 5  
 Condition : KNW-244C Phase : LINE  
 Limit : FCC 15B-B  
 Env. / Ins. : 25°C / 52% ESCS 30 (337) Engineer: Jasper  
 EUT M/N : IPA280-01P1802  
 Power Rating : 120Vac / 60Hz  
 Test Mode : LINK PC+EUT ONLY

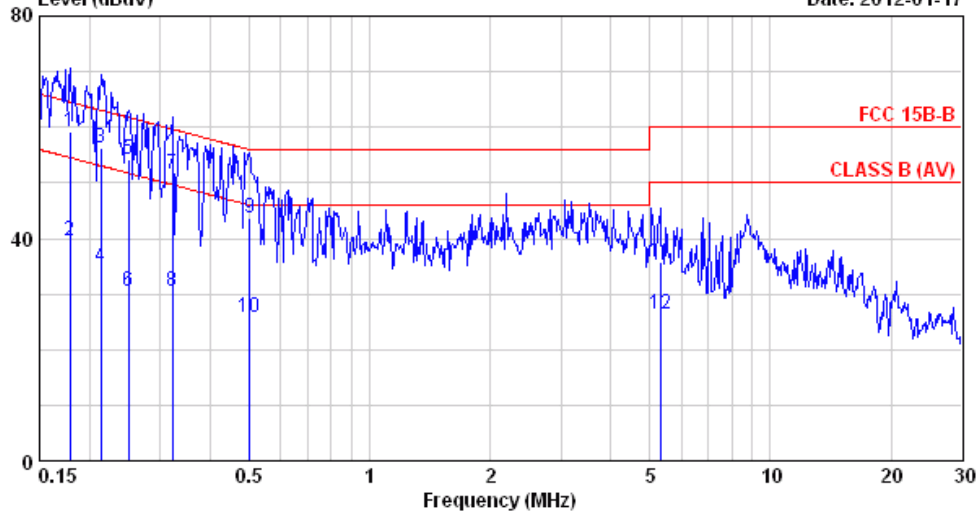
	AMN	Cable	Emission					
Freq. (MHz)	Factor (dB)	Loss (dB)	Reading (dBµV)	Level (dBµV)	Limits (dBµV)	Margin (dB)	Remark	
1	0.10	0.20	26.46	26.76	63.89	37.12	QP	
2	0.10	0.40	18.50	19.00	56.00	37.00	QP	
3	0.10	0.40	20.74	21.24	56.00	34.76	QP	
4	0.13	0.40	11.57	12.10	56.00	43.90	QP	
5	0.22	0.60	22.10	22.92	56.00	33.08	QP	
6	0.40	0.70	23.73	24.83	60.00	35.17	QP	

Remarks: 1. Emission Level= AMN Factor + Cable Loss + Reading.  
 2. If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.



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Data: 6 File: D:\test-data\Report\EM100\C1M1112xxx\C1M1112269-C.EMI (6) Date: 2012-01-17



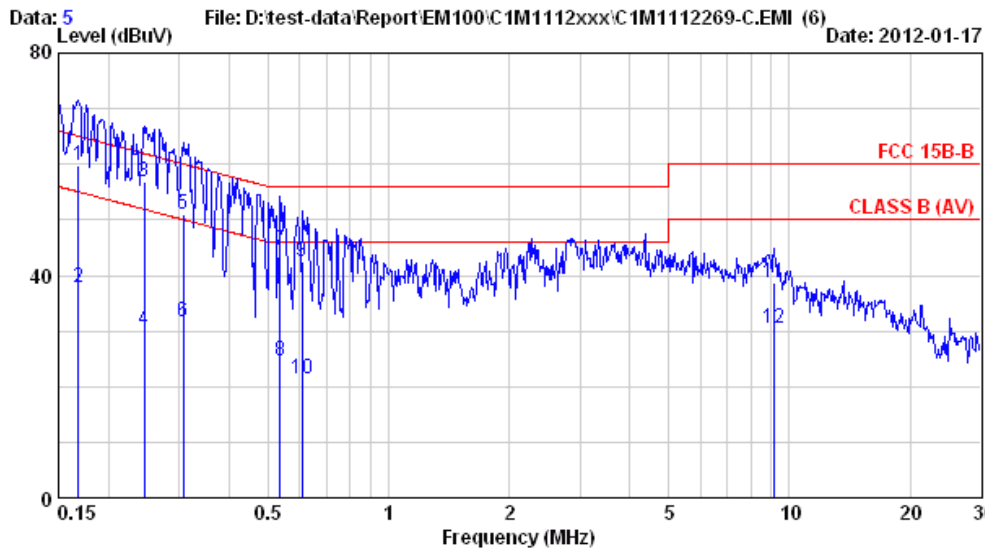
Site : NO.3 Shielded Room Data : 6  
 Condition : KNW-244C Phase : NEUTRAL  
 Limit : FCC 15B-B  
 Env. / Ins. : 25°C / 52% ESCS 30 (337) Engineer: Jasper  
 EUT : IPA280-01P1802  
 Power Rating : 120Vac / 60Hz  
 Test Mode : OPERATING  
 ADP:DSA-10CU-05

	AMN	Cable	Emission		Limits	Margin	Remark
Freq. (MHz)	Factor (dB)	Loss (dB)	Reading (dBµV)	Level (dBµV)	(dBµV)	(dB)	
1	0.179	0.12	58.85	59.17	64.55	5.38	QP
2	0.179	0.12	39.32	39.64	54.55	14.91	AVERAGE
3	0.214	0.10	55.82	56.12	63.05	6.93	QP
4	0.214	0.10	34.67	34.97	53.05	18.08	AVERAGE
5	0.251	0.10	53.95	54.25	61.73	7.48	QP
6	0.251	0.10	30.04	30.34	51.73	21.39	AVERAGE
7	0.322	0.10	51.31	51.61	59.66	8.05	QP
8	0.322	0.10	30.05	30.35	49.66	19.31	AVERAGE
9	0.502	0.10	43.46	43.76	56.00	12.24	QP
10	0.502	0.10	25.46	25.76	46.00	20.24	AVERAGE
11	5.305	0.23	35.03	35.86	60.00	24.14	QP
12	5.305	0.23	25.58	26.41	50.00	23.59	AVERAGE

Remarks: 1. Emission Level= AMN Factor + Cable Loss + Reading.  
 2. If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.



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Site : NO.3 Shielded Room Data : 5  
 Condition : KNW-244C Phase : LINE  
 Limit : FCC 15B-B  
 Env. / Ins. : 25°C / 52% ESCS 30 (337) Engineer: Jasper  
 EUT : IPA280-01P1802  
 Power Rating : 120Vac / 60Hz  
 Test Mode : OPERATING  
 ADP:DSA-10CU-05

	AMN	Cable	Emission		Limits	Margin	Remark
Freq. (MHz)	Factor (dB)	Loss (dB)	Reading (dBuV)	Level (dBuV)	(dBuV)	(dB)	
1	10.05	0.20	49.66	59.91	65.03	5.12	QP
2	10.05	0.20	27.55	37.80	55.03	17.23	AVERAGE
3	9.98	0.20	46.72	56.90	61.91	5.00	QP
4	9.98	0.20	20.09	30.27	51.91	21.63	AVERAGE
5	9.95	0.20	40.98	51.13	60.06	8.93	QP
6	9.95	0.20	21.57	31.72	50.06	18.34	AVERAGE
7	9.88	0.20	34.43	44.51	56.00	11.50	QP
8	9.88	0.20	14.52	24.60	46.00	21.41	AVERAGE
9	9.87	0.20	32.50	42.57	56.00	13.44	QP
10	9.87	0.20	11.23	21.30	46.00	24.71	AVERAGE
11	9.89	0.60	28.26	38.75	60.00	21.25	QP
12	9.89	0.60	19.96	30.45	50.00	19.55	AVERAGE

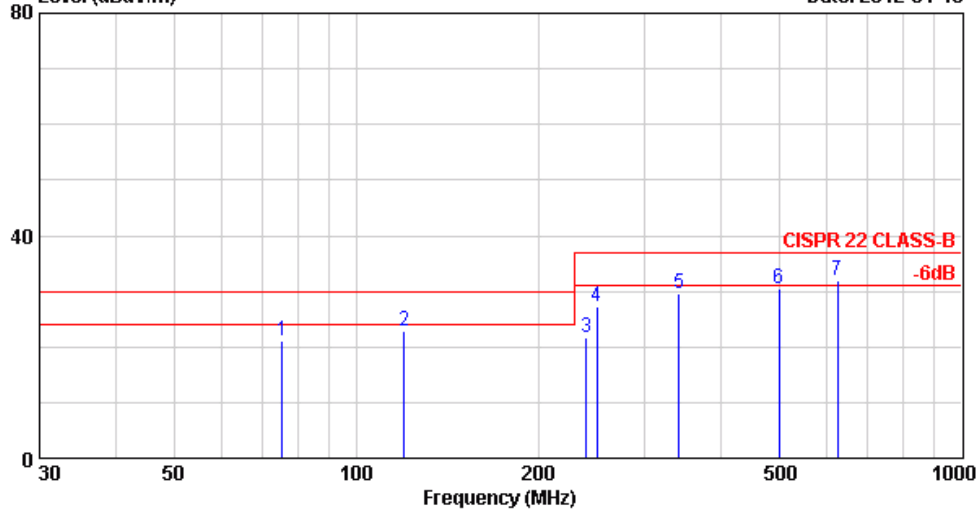
Remarks: 1.Emission Level= AMN Factor + Cable Loss + Reading.  
 2.If the average limit is met when using a quasi-peak detector ,the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

## For Radiated Emission Measurement



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Data: 2 File: D:\test-data\Report\2011\1M1112xxx\1M1112269-O.EMI (10) Date: 2012-01-16



Site no. : Open site NO.3 Data no. : 2  
 Dis. / Ant. : 10m VBA6106A/UPA6109(10) Ant. pol. : HORIZONTAL  
 Limit : CISPR 22 CLASS-B  
 Env. / Ins. : 16°C / 55% ESVS 10 (018) Engineer : TIM  
 EUT M/N : IPA280-01P1802  
 Power Rating : 120Vac / 60Hz  
 Test Mode : LINK PC+Cradle(Operating)  
 Adapter:AD7011LF

	Ant. Factor	Cable Loss	Reading	Emission Level	Limits	Margin	Remark
Freq. (MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	14.70	0.99	5.43	21.12	30.00	8.88	
2	20.62	1.29	0.94	22.85	30.00	7.15	
3	24.12	1.90	-4.47	21.55	37.00	15.45	
4	24.31	2.00	0.82	27.13	37.00	9.87	
5	18.24	2.36	8.86	29.46	37.00	7.54	
6	20.63	2.88	7.08	30.59	37.00	6.41	
7	22.61	3.33	5.94	31.88	37.00	5.12	

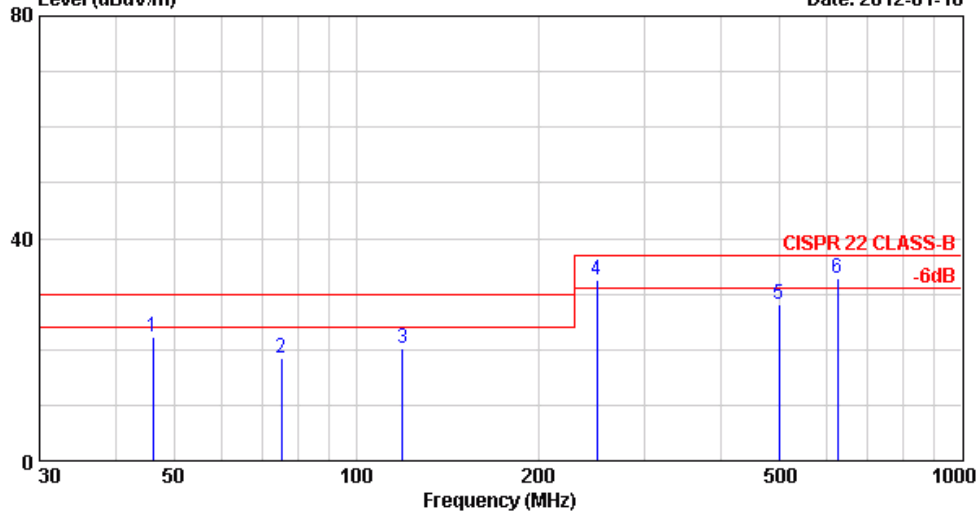
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.





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Data: 1 File: D:\test-data\Report\2011\C1M1112xxx\C1M1112269-O.EMI (10) Date: 2012-01-16



Site no. : Open site NO.3 Data no. : 1  
 Dis. / Ant. : 10m VBA6106A/UPA6109(10) Ant. pol. : VERTICAL  
 Limit : CISPR 22 CLASS-B  
 Env. / Ins. : 16°C / 55% ESVS 10 (018) Engineer : TIM  
 EUT M/N : IPA280-01P1802  
 Power Rating : 120Vac / 60Hz  
 Test Mode : LINK PC+Cradle(Operating)  
 Adapter:AD7011LF

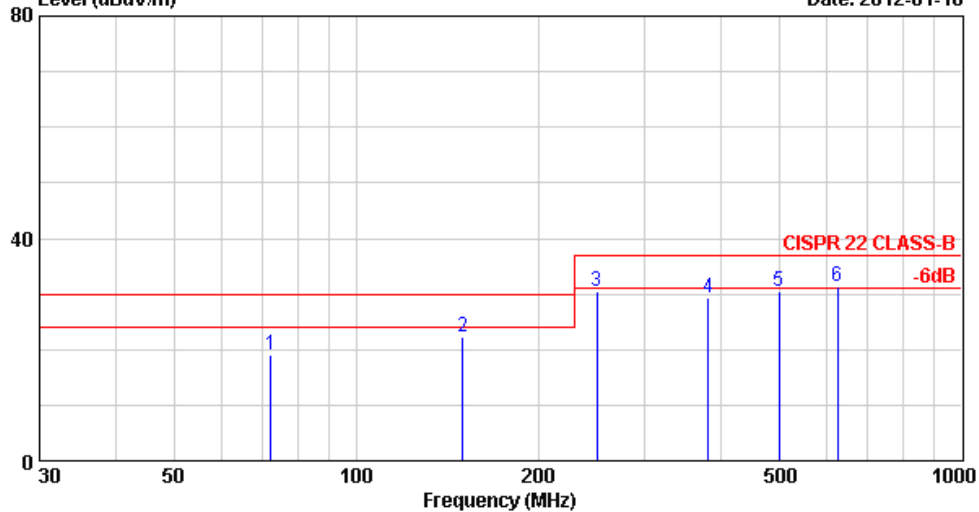
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	46.25	19.55	0.75	1.92	22.22	30.00	7.78	
2	75.25	14.69	0.99	2.85	18.52	30.00	11.48	
3	119.25	20.59	1.29	-1.53	20.35	30.00	9.65	
4	250.02	24.31	2.00	6.14	32.45	37.00	4.55	
5	499.93	20.63	2.88	4.50	28.01	37.00	8.99	
6	624.96	22.61	3.33	6.85	32.79	37.00	4.21	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 4 File: D:\test-data\Report\2011\C1M1112xxx\C1M1112269-O.EMI (10) Date: 2012-01-16



Site no. : Open site NO.3 Data no. : 4  
 Dis. / Ant. : 10m VBA6106A/UPA6109(10) Ant. pol. : HORIZONTAL  
 Limit : CISPR 22 CLASS-B  
 Env. / Ins. : 16°C / 55% ESVS 10 (018) Engineer : TIM  
 EUT M/N : IPA280-01P1802  
 Power Rating : 120Vac / 60Hz  
 Test Mode : LAN Mode  
 Adapter:AD7011LF

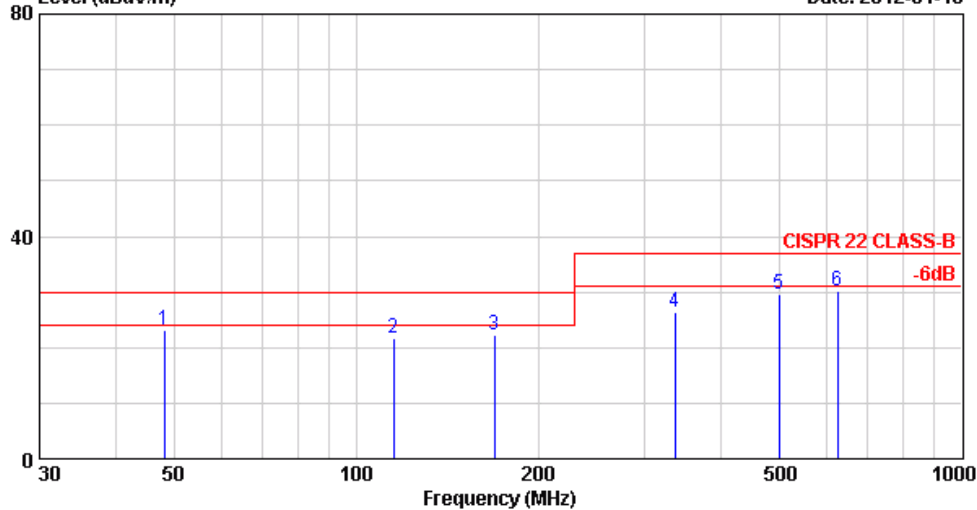
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	72.40	14.64	0.99	3.50	19.12	30.00	10.88	
2	150.15	21.60	1.56	-0.83	22.33	30.00	7.67	
3	250.03	24.31	2.00	4.10	30.41	37.00	6.59	
4	382.23	17.55	2.66	9.11	29.32	37.00	7.68	
5	500.04	20.63	2.88	7.04	30.55	37.00	6.45	
6	624.90	22.61	3.33	5.48	31.42	37.00	5.58	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 3 File: D:\test-data\Report\2011\C1M1112xxx\C1M1112269-O.EMI (10) Date: 2012-01-16



Site no. : Open site NO.3 Data no. : 3  
 Dis. / Ant. : 10m VBA6106A/UPA6109(10) Ant. pol. : VERTICAL  
 Limit : CISPR 22 CLASS-B  
 Env. / Ins. : 16°C / 55% ESVS 10 (018) Engineer : TIM  
 EUT M/N : IPA280-01P1802  
 Power Rating : 120Vac / 60Hz  
 Test Mode : LAN Mode  
 Adapter:AD7011LF

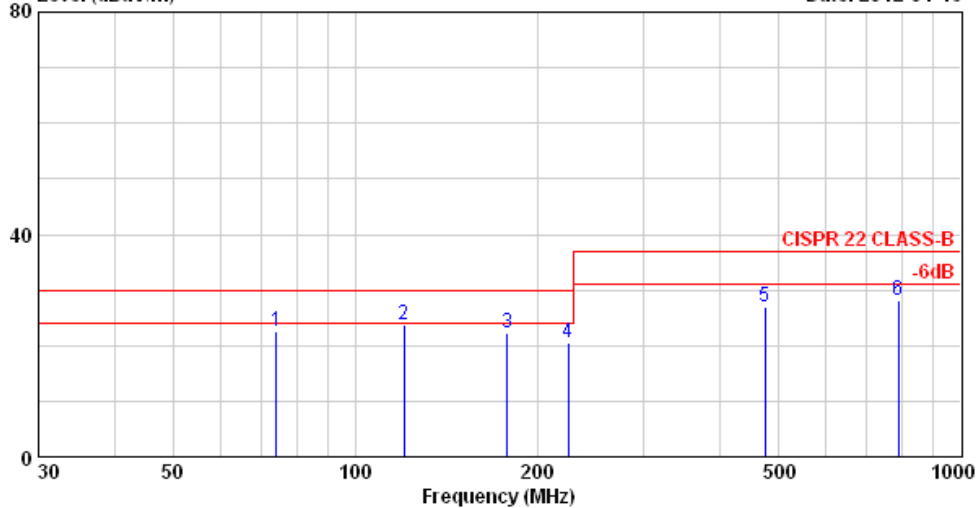
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	48.24	18.67	0.79	3.69	23.15	30.00	6.85	
2	115.25	20.39	1.28	0.12	21.79	30.00	8.21	
3	169.24	22.26	1.66	-1.56	22.35	30.00	7.65	
4	336.22	18.00	2.36	6.06	26.42	37.00	10.58	
5	500.01	20.63	2.88	6.21	29.72	37.00	7.28	
6	624.95	22.61	3.33	4.38	30.32	37.00	6.68	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 6 File: C:\Documents and Settings\Administrator\桌面\269\DATA\C1M1112269-0.EMI (10) Date: 2012-01-16



Site no. : Open site NO.3 Data no. : 6  
 Dis. / Ant. : 10m VBA6106A/UPA6109(10) Ant. pol. : HORIZONTAL  
 Limit : CISPR 22 CLASS-B  
 Env. / Ins. : 16°C / 55% ESVS 10 (018) Engineer : TIM  
 EUT M/N : IPA280-01P1802  
 Power Rating : 120Vac/60Hz  
 Test Mode : LINK PC + EUT ONLY

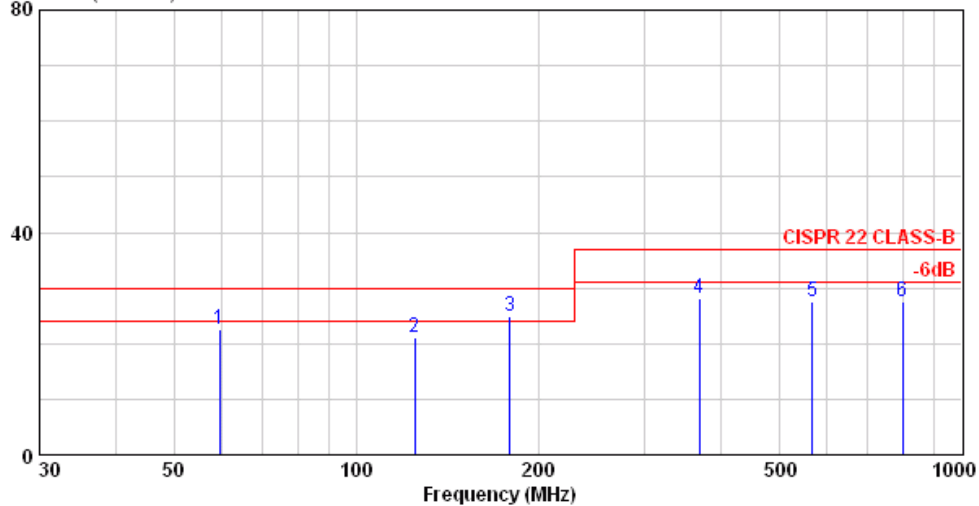
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	74.155	14.67	0.99	6.93	22.58	30.00	7.42	
2	120.354	20.65	1.29	1.93	23.88	30.00	6.12	
3	178.445	22.59	1.63	-2.00	22.22	30.00	7.78	
4	225.012	23.75	1.84	-5.04	20.54	30.00	9.46	
5	475.545	20.35	2.88	3.67	26.90	37.00	10.10	
6	789.659	24.56	3.71	-0.01	28.25	37.00	8.75	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 5 File: C:\Documents and Settings\Administrator\桌面\269\DATA\C1M1112269-0.EMI (10) Date: 2012-01-16



Site no. : Open site NO.3 Data no. : 5  
 Dis. / Ant. : 10m VBA6106A/UPA6109(10) Ant. pol. : VERTICAL  
 Limit : CISPR 22 CLASS-B  
 Env. / Ins. : 16°C / 55% ESVS 10 (018) Engineer : TIM  
 EUT M/N : IPA280-01P1802  
 Power Rating : 120Vac/60Hz  
 Test Mode : LINK PC + EUT ONLY

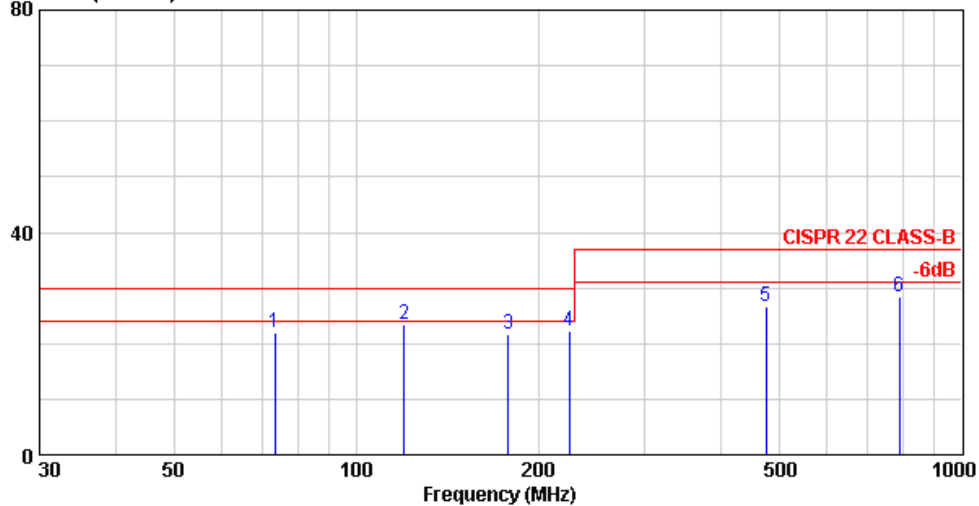
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBµV)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Remark
1	59.488	15.99	0.97	5.62	22.59	30.00	7.41	
2	125.033	21.20	1.33	-1.29	21.24	30.00	8.76	
3	179.459	22.65	1.63	0.60	24.88	30.00	5.12	
4	369.215	18.52	2.50	7.13	28.15	37.00	8.85	
5	567.542	21.43	3.21	2.81	27.44	37.00	9.56	
6	799.527	24.73	3.76	-1.02	27.47	37.00	9.53	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 8 File: D:\test-data\Report\2011\C1M1112xxx\C1M1112269-O.EMI (10) Date: 2012-01-16



Site no. : Open site NO.3 Data no. : 8  
 Dis. / Ant. : 10m VBA6106A/UPA6109(10) Ant. pol. : HORIZONTAL  
 Limit : CISPR 22 CLASS-B  
 Env. / Ins. : 16°C / 55% ESVS 10 (018) Engineer : TIM  
 EUT M/N : IPA280-01P1802  
 Power Rating : 120Vac/ 60Hz  
 Test Mode : Operating  
 Adapter: DSA-10CU-05 050200

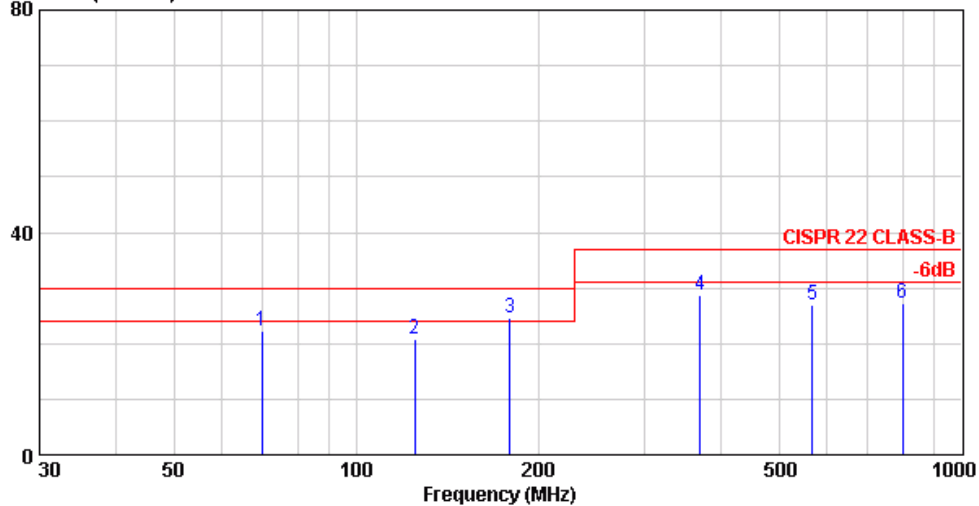
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBµV)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Remark
1	73.53	14.67	0.99	6.26	21.91	30.00	8.09	
2	120.11	20.65	1.29	1.54	23.49	30.00	6.51	
3	178.23	22.59	1.63	-2.56	21.66	30.00	8.34	
4	225.01	23.75	1.84	-3.39	22.20	30.00	7.80	
5	475.88	20.35	2.88	3.32	26.54	37.00	10.46	
6	789.16	24.56	3.71	0.23	28.50	37.00	8.50	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.



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Data: 7 File: D:\test-data\Report\2011\C1M1112xxx\C1M1112269-O.EMI (10) Date: 2012-01-16  
 Level (dBuV/m)



Site no. : Open site NO.3 Data no. : 7  
 Dis. / Ant. : 10m VBA6106A/UPA6109(10) Ant. pol. : VERTICAL  
 Limit : CISPR 22 CLASS-B  
 Env. / Ins. : 16°C / 55% ESVS 10 (018) Engineer : TIM  
 EUT M/N : IPA280-01P1802  
 Power Rating : 120Vac/ 60Hz  
 Test Mode : Operating  
 Adapter: DSA-10CU-05 050200

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	69.81	14.74	0.99	6.40	22.13	30.00	7.87	
2	125.00	21.20	1.33	-1.63	20.89	30.00	9.11	
3	179.74	22.67	1.63	0.42	24.73	30.00	5.27	
4	369.54	18.52	2.52	7.60	28.64	37.00	8.36	
5	567.44	21.43	3.21	2.43	27.07	37.00	9.93	
6	799.60	24.73	3.76	-1.17	27.32	37.00	9.68	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.

# APPENDIX II

## (Photos of EUT)

Total Pages: 26 Pages



Figure 1  
General Appearance (Front View)



Figure 2  
General Appearance (Back View)



Figure 3  
General Appearance (Side View)



Figure 4  
General Appearance (Side View)



Figure 5  
General Appearance (Side View)



Figure 6  
General Appearance (Side View)



Figure 7  
Internal View (Removed Back Cover)



Figure 8  
Internal View (Removed Battery)



Figure 9  
Internal View



Figure 10  
Internal View



Figure 11  
Internal View



Figure 12  
Internal View





Figure 13  
Internal View



Figure 14  
Internal View (Removed Cover)



Figure 15  
Internal View



Figure 16  
Internal View





Figure 17  
Internal View



Figure 18  
Internal View



Figure 19  
Internal View (Main Board, Front View)



Figure 20  
Internal View (Main Board, Front View)



Figure 21  
Internal View (USB Connect, Front View)

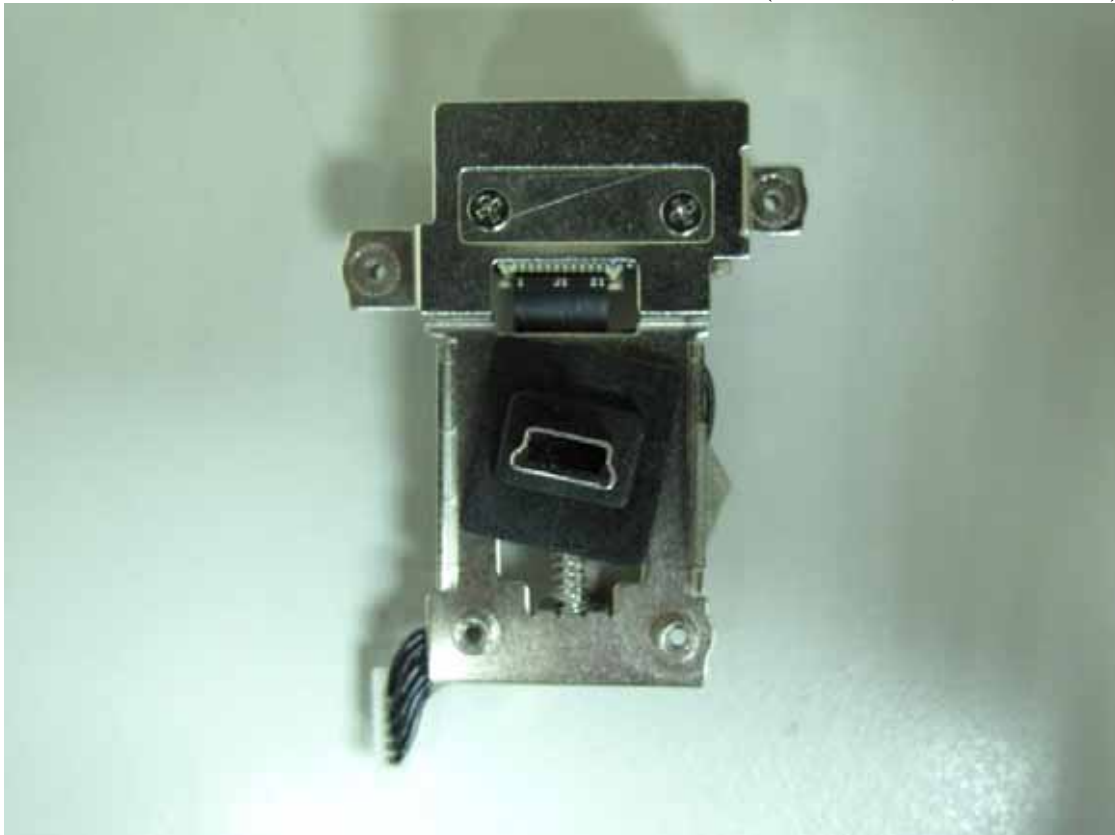


Figure 22  
Internal View (USB Connect, Back View)



Figure 23  
Internal View (Main Board, Front View)



Figure 24  
Internal View (Main Board, Front View)





Figure 25  
Internal View (Module, Front View)



Figure 26  
Internal View (Module, Front View)

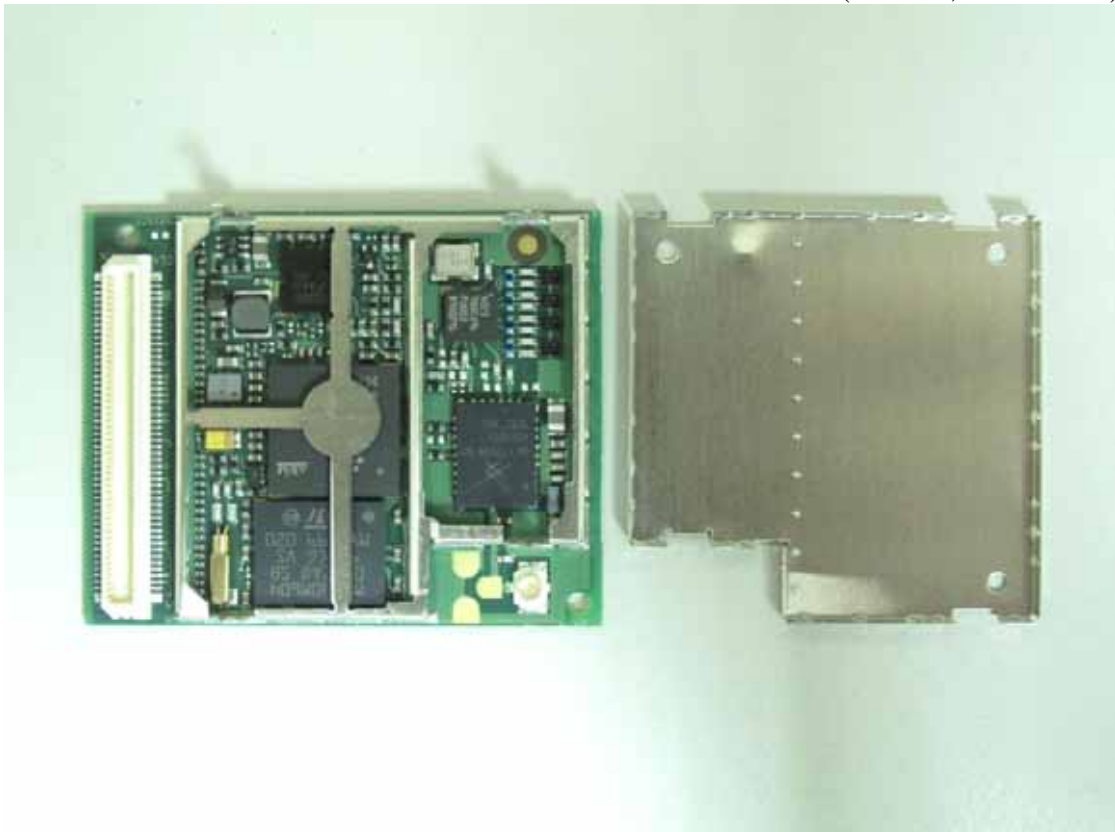


Figure 27  
Internal View (Module, Front View)



Figure 28  
Internal View (Module, Front View)



Figure 29  
Internal View (Module, Label View)



Figure 30  
Internal View (Main Board, Front View)





Figure 31  
Internal View (Main Board, Front View)

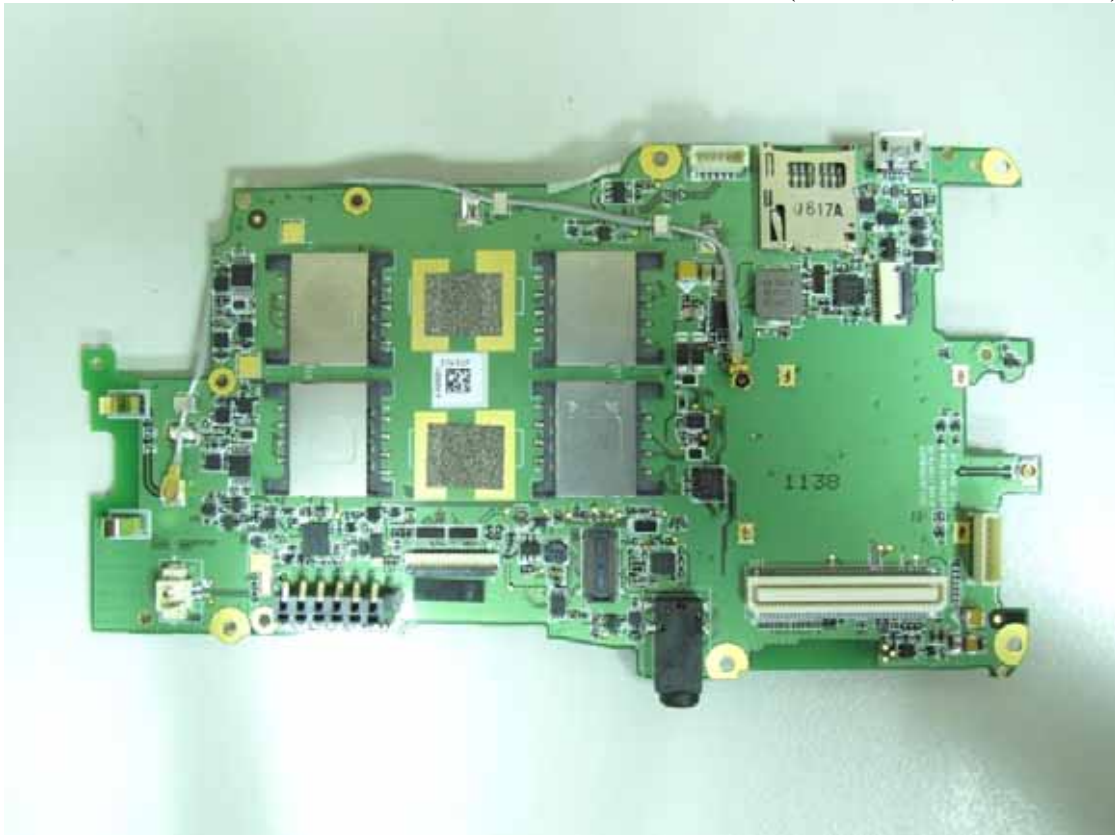


Figure 32  
Internal View (Main Board, Back View)





Figure 33  
Internal View (Main Board, Back View and Removed LCD Panel)



Figure 34  
Internal View (Main Board, Back View)

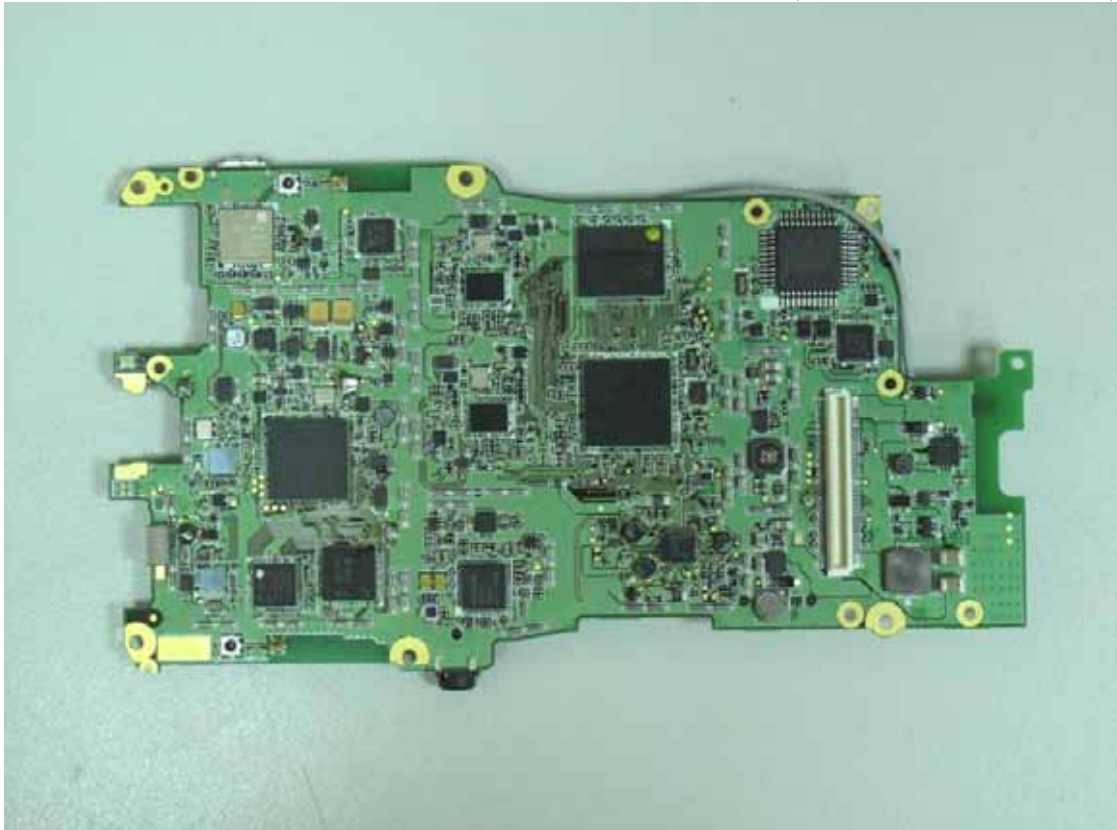


Figure 35  
Internal View



Figure 36  
Internal View



Figure 37  
Internal View

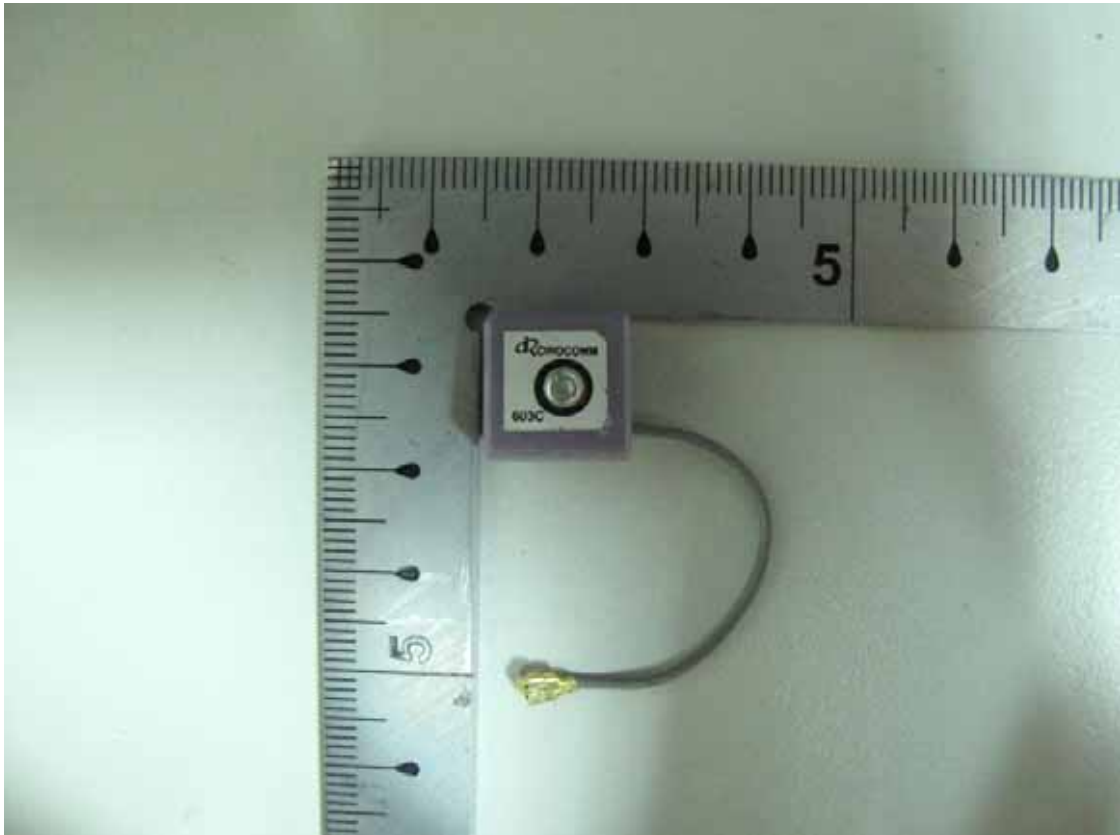


Figure 38  
Internal View

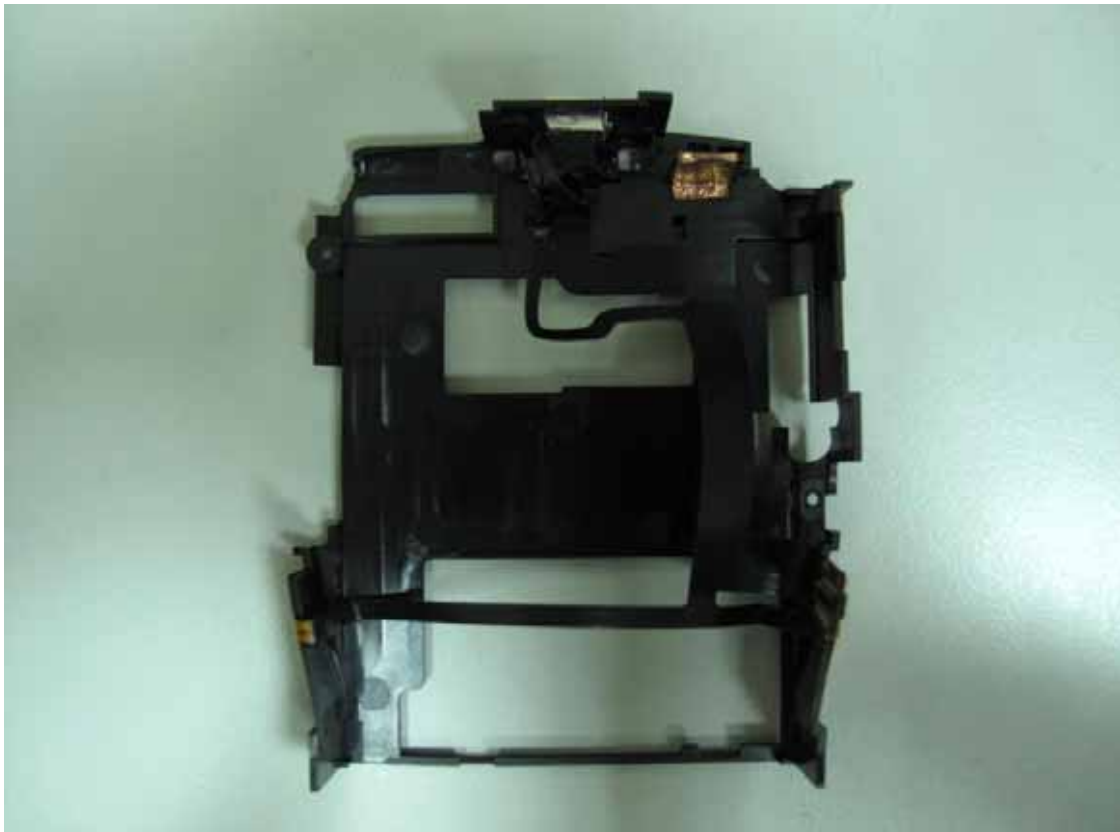


Figure 39  
Internal View



Figure 40  
Internal View (LCD Panel, Back View)



Figure 41  
Internal View (LCD Panel, Front View)



Figure 42  
Internal View





Figure 43  
Internal View



Figure 44  
Internal View



Figure 45  
Internal View



Figure 46  
Internal View



Figure 47  
Internal View (Removed Button Control Board)



Figure 48  
Internal View (Button Control Board, Front View)





Figure 49  
Internal View (Button Control Board, Back View)

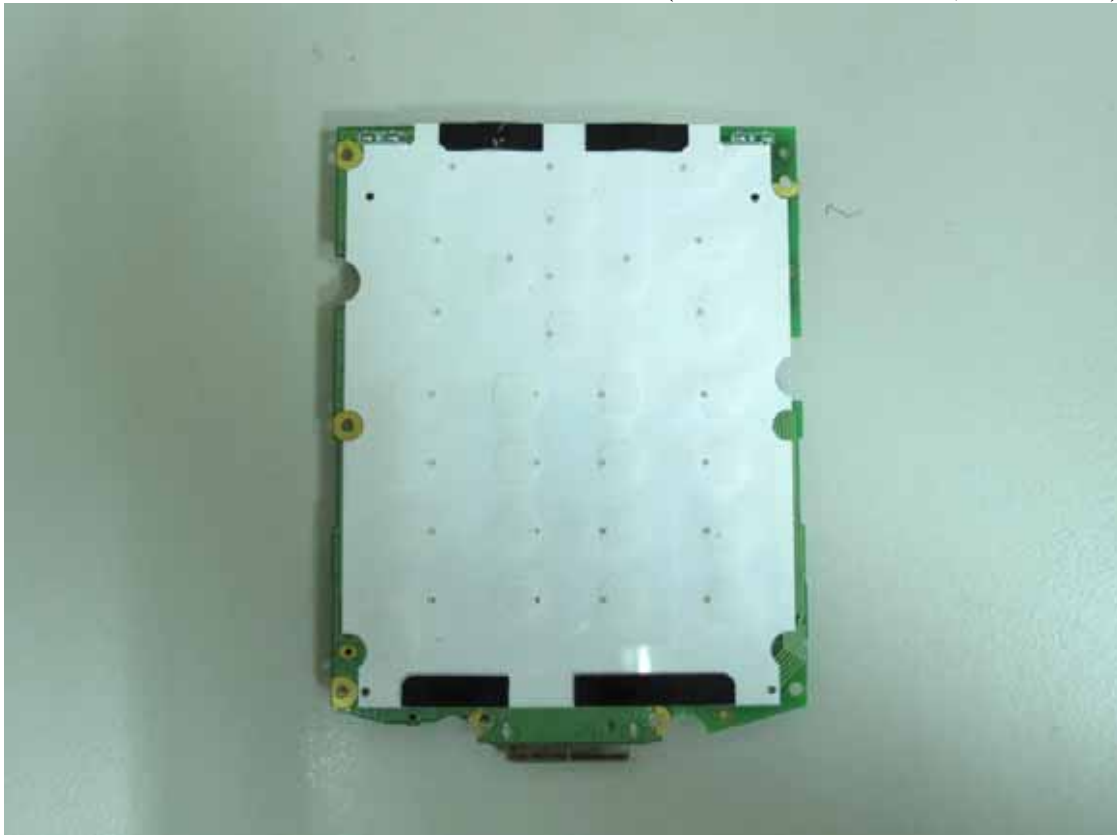


Figure 50  
Internal View (Button Control Board, Back View)

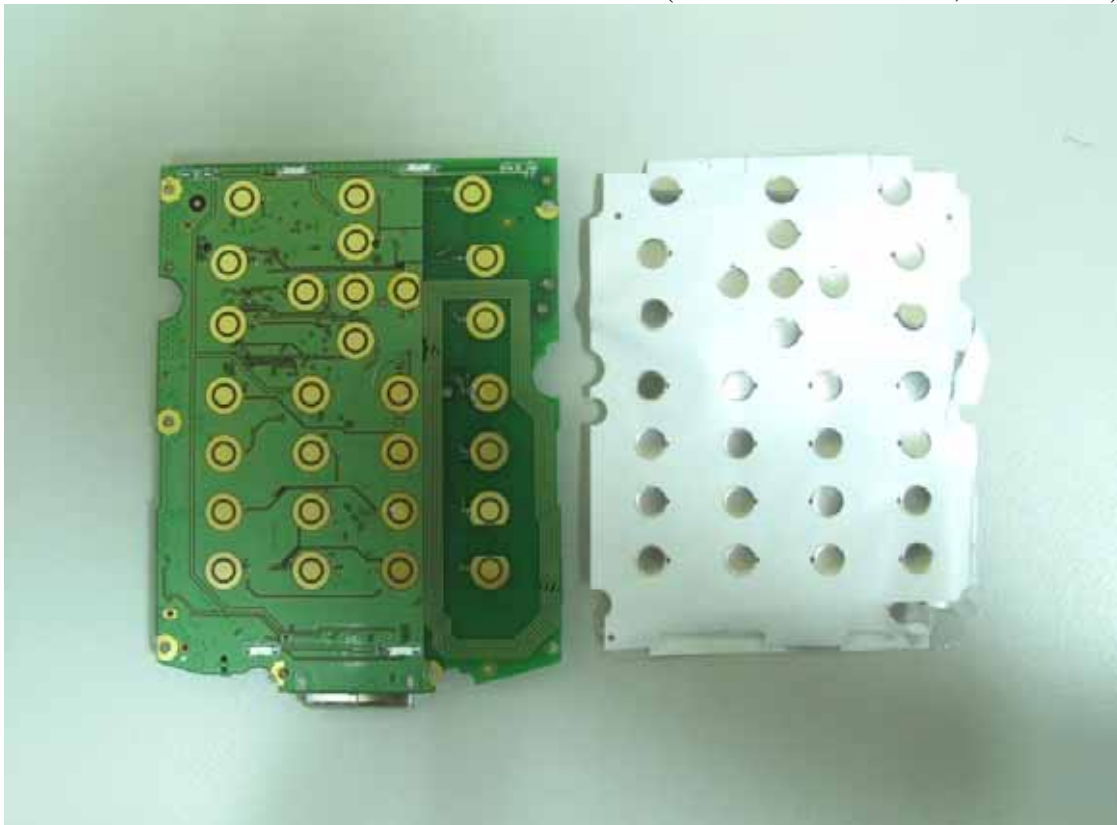


Figure 51  
Internal View (Button Control Board, Back View)

