

TEST REPORT OF FCC DoC

On Behalf of  
Sonos, Inc.

Zone Player (Red Rocks)

Model No.: ZP80

Brand: SONOS

Prepared for : Sonos, Inc.  
223 DeLa Cuerra St. Santa Barbara,  
LA 93101, U.S.A.

Prepared by : Audix Corporation  
Technical Division EMC Department  
No. 53-11, Tin-Fu Tsun, Lin-Kou Hsiang,  
Taipei County 24443, Taiwan, R.O.C.

Tel : (02) 2609-9301, 2609-2133  
Fax : (02) 2609-9303

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Report Number : EM-F940237A  
Date of Test of Revision A : Dec. 15~ 16, 2005  
Date of Revision A : Dec. 26, 2005

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APPENDIX I (Photos of EUT)

## TEST REPORT FOR FCC COMPLIANCE DECLARATION

Applicant : Sonos, Inc.  
 Manufacturer : Inventec Electronics (M) Sdn Bhd  
 EUT Description : Zone Player (Red Rocks)  
     (A) MODEL NO. : ZP80  
     (B) SERIAL NO. : N/A  
     (C) BRAND : SONOS  
     (D) POWER SUPPLY : 100-240Vac, 50/60Hz  
     (E) TEST VOLTAGE : AC 120V/60Hz

Measurement Regulations and Procedure Used:

FCC CFR 47 Part 15 Subpart B/Sep. 2005 and CISPR 22/1997  
ANSI C63.4-2003

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

The measurement results are contained in this test report and AUDIX 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 Corporation.

The applicant to claim product endorsement by NVLAP or any agency of the U.S. Government must not use this report.

This report is based on report of EM-F940237.

Date of Revision A : Dec. 26, 2005      Date of Test of Revision A : Dec. 15 ~ 16, 2005

Date of Test of Original : Oct. 11 ~ 13, 2005

Prepared by : Tina Huang Dec. 30, 2005  
(Tina Huang/Assistant)

Test Engineer : Ben Cheng Dec. 30, 2005  
(Ben Cheng/Section Manager)

Approved & Authorized Signer : Leon Liu Dec. 31, 2005  
(Leon Liu/Senior Manager)

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

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

## 1. DESCRIPTION OF VERSION

Edition No.	Date of Revision	Revision Summary	Report Number
0	Oct. 20, 2005	Original Report.	EM-F940237
Rev. A	Dec. 26, 2005	1. Changed PC Boards, circuit re- layout and component parts difference. 2. Changed Power Board. 3. Supplementary test data are recorded in this report.	EM-F940237A

## 2. GENERAL INFORMATION

### 2.1. Description of Device (EUT)

Description	:	Zone Player (Red Rocks) This device is a digital music system using a wired or wireless connection.
Model Number	:	ZP80
Serial Number	:	N/A
Brand	:	SONOS
Applicant	:	Sonos, Inc. 223 DeLa Cuerra St. Santa Barbara, LA 93101, U.S.A.
Manufacturer	:	Inventec Electronics (M) Sdn. Bhd. Plot 102, Bayan Lepas Industrial Estate, 11900 Bayan Lepas, Penang, Malaysia.
High Frequency of Used	:	16.0MHz, 20.0MHz, 20.0MHz, 20.0MHz, 25.0MHz, 33.0MHz for Main Controller 11.289MHz for Audio Controller 40 MHz for Wireless LAN Card
Wireless LAN Card	:	Askey, M/N WLL3090(LF) IEEE 802.11g
Interfaces of EUT	:	<ul style="list-style-type: none"> <li>• Audio Digital Out (RCA x 1)</li> <li>• Audio Analog Out (L/R, RCA x2)</li> <li>• Audio Analog In (L/R, RCA x2)</li> <li>• 10/100 Base-T Ethernet RJ45 x2</li> <li>• AC In x1</li> </ul>
AC Power Cord (3Pin)	:	Non-Shielded, Detachable, 2.0m
Date of Receipt of Sample	:	Dec. 15, 2005
Date of Test	:	Dec. 15 ~ 16, 2005

**Remark for Rev. A:**

1. This EUT is an additional of original report EM-F940237. The difference are following list:

- (1) Changed PC Boards, circuit re-layout and component parts difference
- (2) Changed Power Board.

All test items were criticized and reconfirmed. This supplementary test data are recorded in this report of EM- E940237A. In this report, the operating condition of EUT is same as original report.

2. This report is based on report of EM-F940237.

**2.2. Tested Supporting System Details****2.2.1. PARTNER NOTEBOOK PC**

Model Number	:	2378
Serial Number	:	N/A
FCC ID	:	By DoC
Manufacturer	:	IBM
Power Adapter	:	IBM, M/N 02K6808
		DC Cord: Non-Shielded, Undetachable, 1.0m
		AC Cord: Non-Shielded, Detachable, 1.8m
RJ45 LAN Cable *1EA	:	Non-Shielded, Detachable, 20m

**2.2.2. PARTNER CONTROLLER**

Model Number	:	CR100
Serial Number	:	N/A
FCC ID	:	By DoC
Manufacturer	:	Inventec Electronics (M) Sdn. Bhd.
I.T.E. Power Supply	:	UNIFIUE, M/N UIA324-06
		S/N 410-0215062, BSMI ID. D53003
		I/O: AC 100-240V, 50/60Hz, 0.6A
		O/P: DC 6V, 3.8A
		DC Cord: Shielded, Undetachable, 1.85m
		Bonded a ferrite core
AC Power Cord	:	Non-Shielded, Detachable, 2.0m

**2.2.3. AUDIO INPUT/OUTPUT LOAD**

Model Number	:	N/A
Serial Number	:	N/A
Manufacturer	:	Sonos
Audio Cable-In *1EA	:	Non-Shielded, Detachable, 0.9m
Audio Cable-Out *1EA	:	Non-Shielded, Detachable, 0.9m
Audio Cable-Out *1EA	:	Non-Shielded, Detachable, 1.8m

**2.2.4. ETHERNET TERMINATOR (100 OHM)**

Model Number	:	N/A
Serial Number	:	N/A
Manufacturer	:	Sonos
RJ45 LAN Cable *1EA	:	Non-Shielded, Detachable, 1.8m

### 2.3. Description of Test Facility

Name of Firm	:	<b>Audix Corporation</b> <b>Technical Division EMC Department</b> No. 53-11, Tin-Fu Tsun, Lin-Kou, Taipei County, Taiwan, R.O.C.
Test Site & Facility	:	<b>No. 5 Shielded Room</b> No. 67-4, Tin-Fu Tsun, Lin-Kou Hsiang, Taipei Hsien 24443, Taiwan, R.O.C.  <b>Semi-Anechoic Chamber</b> No. 53-11, Tin-Fu Tsun, Lin-Kou Hsiang, Taipei Hsien 24443, Taiwan, R.O.C.  May 16, 2003 Renewal on Federal Communication Commission Registration Number: 90993  <b>No. 6 Open Area Test Site</b> No. 67-4, Tin-Fu Tsun, Lin-Kou Hsiang, Taipei Hsien 24443, Taiwan, R.O.C.  June. 11, 2003 Renewal on Federal Communication Commission Registration Number: 98448
NVLAP Lab. Code	:	200077-0 (NVLAP is a NATA accredited body under Mutual Recognition Agreement)
DAR-Registration No.	:	DAT-P-145/03-01

### 2.4. 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
Radiation Test (Distance: 3m)	30MHz~300MHz	± 2.91dB
	300MHz~1000MHz	± 2.94dB

Remark : Uncertainty =  $k_{uc}(y)$

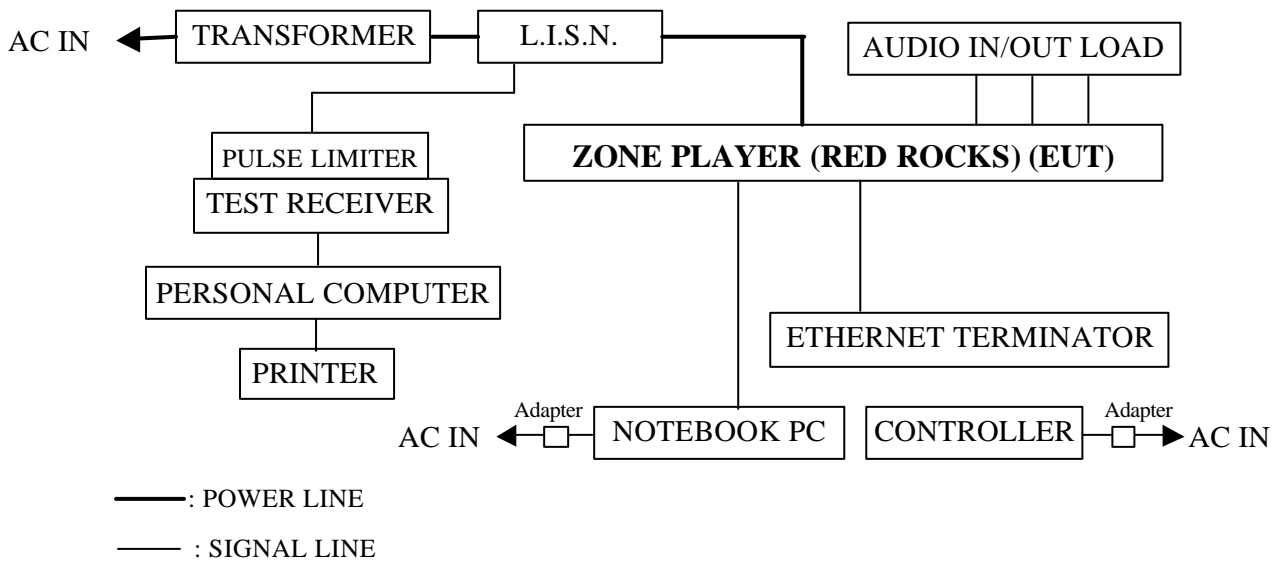
### 3. CONDUCTED EMISSION MEASUREMENT

#### 3.1. Test Equipment

The following test equipment was used during the conducted emission measurement:

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	R&S	ESCS 30	100039	Jun. 23, 05'	Jun. 22, 06'
2.	L.I.S. N.	R & S	KNW-407	8-1539-2	Nov. 11, 05'	Nov. 10, 06'
3.	Pulse Limiter	R & S	ESH3Z2	100040	Apr. 09, 05'	Apr. 08, 06'

#### 3.2. Block Diagram of Test Setup



#### 3.3. Conducted Emission Limits (§15.107, Class B)

Frequency	Maximum RF Line Voltage	
	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

Remark1.: 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.: The lower limit applies at the band edges.



### 3.4. Conducted Emission Measurement Results

**PASSED.**

(All emissions not reported below are too low against the prescribed limits.)

The EUT was performed during conducted measurement and all the test results are attached in the next pages.

EUT : Zone Player (Red Rocks)

M/N : ZP80

Test Date : Dec. 16, 2005

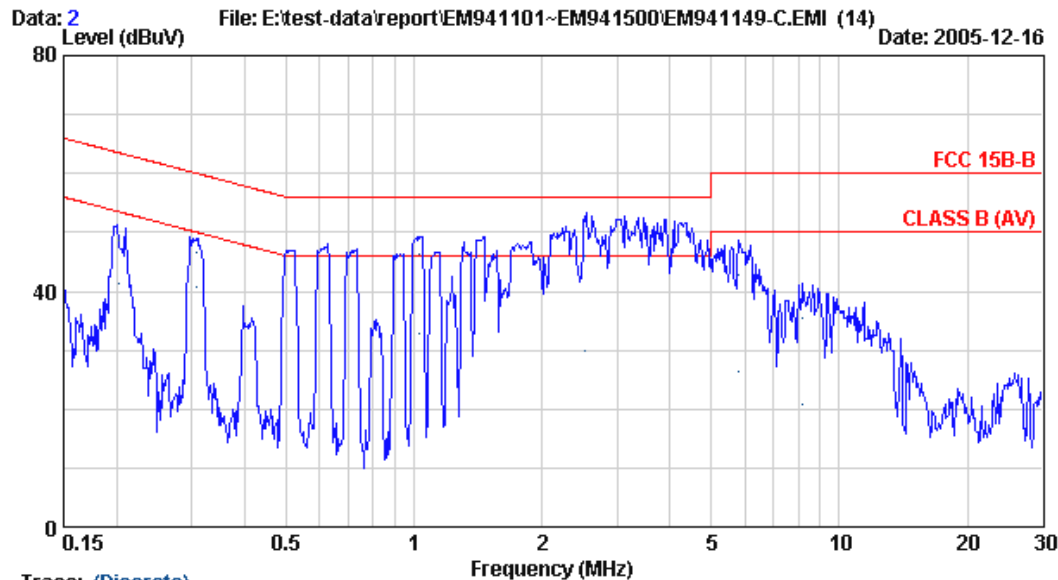
Temperature : 19

Humidity : 53%

Mode	Operating Mode of EUT	Reference Test Data No.	
		Neutral	Line
1.	Play Music & Communication	# 2	# 1



AUDIX Corp. EMC Laboratory  
 NO.53-11, Tin-fu Tsun, Lin-kou Hsiang, Taipei  
 County, Taiwan R.O.C. Post Code:24443  
 Tel:02-26099301 Fax:02-26099303  
 Email:ttemc@ttemc.com.tw



Trace: (Discrete)

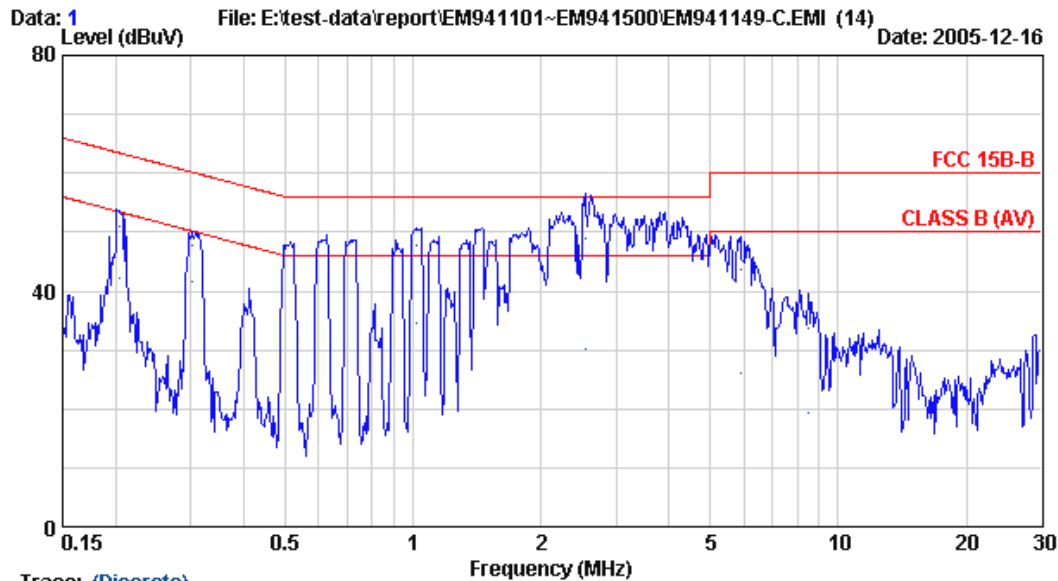
Site : NO.5 Shielded room Data : 2  
 Condition : KMW-407(8-1539-3) Phase : NEUTRAL  
 Limit : FCC 15B-B  
 Env. / Ins. : 19°C / 53 % ESCS 30 Engineer: Allen Hsia  
 EUT : Zone Player (Red Rocks) M/N: ZP80  
 Power Rating : 120Vac / 60Hz  
 Test Mode : Play Music & Communication

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V)	Limits (dB $\mu$ V)	Margin (dB)	Remark
1	0.203	0.10	0.20	48.49	48.79	63.49	14.70	QP
2	0.203	0.10	0.20	40.93	41.23	53.49	12.26	AVERAGE
3	0.308	0.10	0.20	46.28	46.58	60.03	13.45	QP
4	0.308	0.10	0.20	40.48	40.78	50.03	9.25	AVERAGE
5	1.033	0.10	0.40	45.69	46.19	56.00	9.81	QP
6	1.033	0.10	0.40	32.37	32.87	46.00	13.13	AVERAGE
7	2.517	0.10	0.40	45.64	46.14	56.00	9.86	QP
8	2.517	0.10	0.40	29.47	29.97	46.00	16.03	AVERAGE
9	5.797	0.13	0.60	42.03	42.76	60.00	17.24	QP
10	5.797	0.13	0.60	25.63	26.36	50.00	23.64	AVERAGE
11	8.193	0.17	0.60	34.61	35.38	60.00	24.62	QP
12	8.193	0.17	0.60	20.16	20.93	50.00	29.07	AVERAGE

Remarks: 1. Emission Level = LISN 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.



AUDIX Corp. EMC Laboratory  
 NO.53-11,Tin-fu Tsun, Lin-kou Hsiang, Taipei  
 County, Taiwan R.O.C. Post Code:24443  
 Tel:02-26099301 Fax:02-26099303  
 Email:ttemc@ttemc.com.tw



Trace: (Discrete)

Site : NO.5 Shielded room Data : 1  
 Condition : KNW-407(8-1539-3) Phase : LINE  
 Limit : FCC 15B-B  
 Env. / Ins. : 19°C / 53 % ESCS 30 Engineer: Allen Hsia  
 EUT : Zone Player (Red Rocks) M/N: ZP80  
 Power Rating : 120Vac / 60Hz  
 Test Mode : Play Music & Communication

	Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dB μV)	Emission Level (dB μV)	Limits (dB μV)	Margin (dB)	Remark
1	0.204	0.20	0.20	50.65	51.05	63.45	12.40	QP
2	0.204	0.20	0.20	41.86	42.26	53.45	11.19	AVERAGE
3	0.302	0.15	0.20	47.38	47.73	60.18	12.45	QP
4	0.302	0.15	0.20	41.16	41.51	50.18	8.67	AVERAGE
5	1.023	0.10	0.40	47.12	47.62	56.00	8.38	QP
6	1.023	0.10	0.40	34.03	34.53	46.00	11.47	AVERAGE
7	2.547	0.10	0.40	48.44	48.94	56.00	7.06	QP
8	2.547	0.10	0.40	29.78	30.28	46.00	15.72	AVERAGE
9	5.908	0.13	0.60	42.98	43.71	60.00	16.29	QP
10	5.908	0.13	0.60	25.41	26.14	50.00	23.86	AVERAGE
11	8.505	0.18	0.60	33.04	33.82	60.00	26.18	QP
12	8.505	0.18	0.60	18.66	19.44	50.00	30.56	AVERAGE

Remarks: 1. Emission Level= LISN 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.

## 4. RADIATED EMISSION MEASUREMENT

### 4.1. Test Equipment

The following test equipment was used during the radiated emission measurement :

#### 4.1.1. For 30MHz~1000MHz Frequency at No. 6 Open Area Test Site

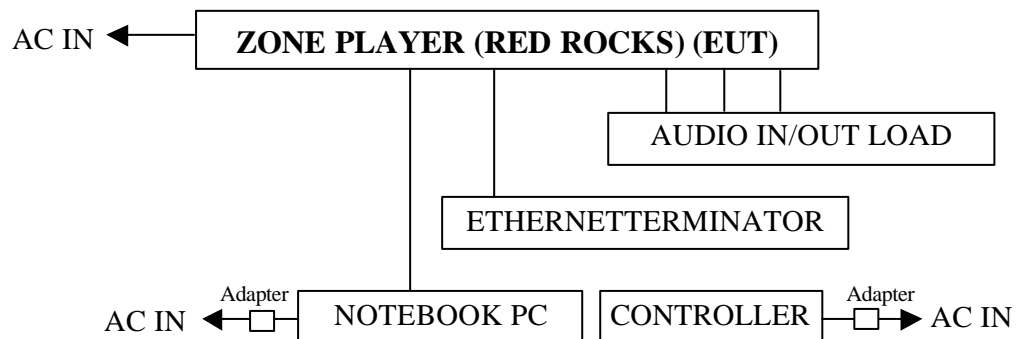
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	E7405A	MY42000132	Jun. 04, 05'	Jun. 03, 06'
2.	Test Receiver	R&S	ESCS30	100338	May 07, 05'	May 06, 06'
3.	Bilog Antenna	Schwarzbeck	CBL6112B	2828	May 17, 05'	May 16, 06'

#### 4.1.2. For 1GHz~2GHz Frequency at Semi-Anechoic Chamber

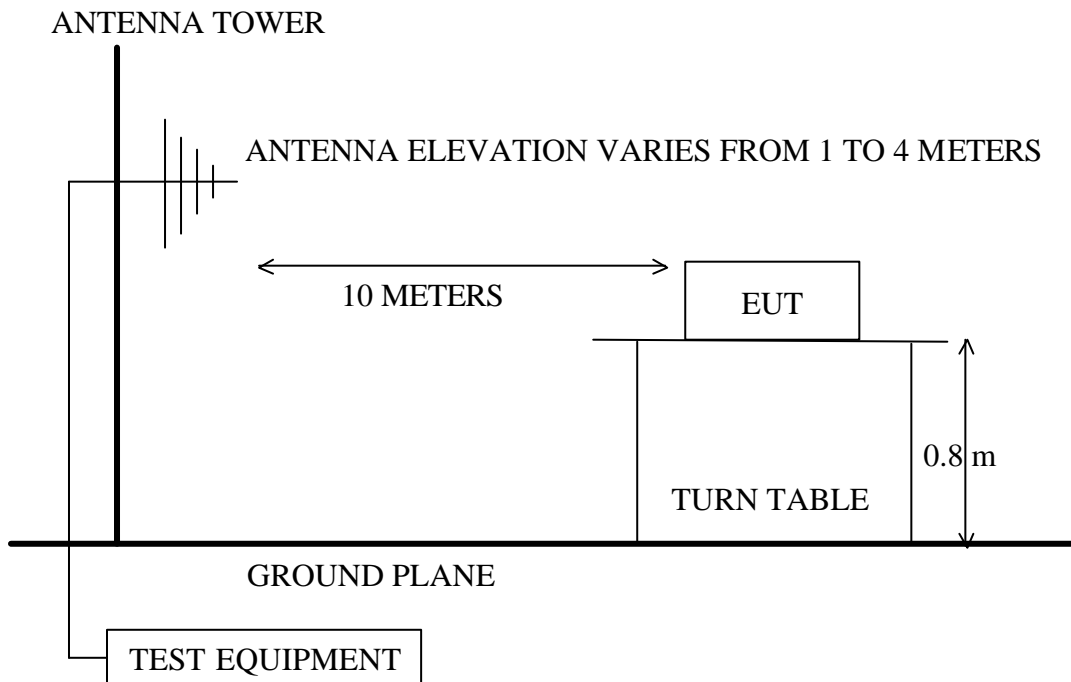
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	HP	8593EM	3826A00248	Sep. 26, 05'	Sep. 25, 06'
2.	Amplifier	HP	8449B	3008A01284	Jul. 05, 05'	Jul. 04, 06'
3.	Horn Antenna	EMCO	3115	9112-3775	May 04, 05'	May 03, 06'

### 4.2. Block Diagram of Test Setup

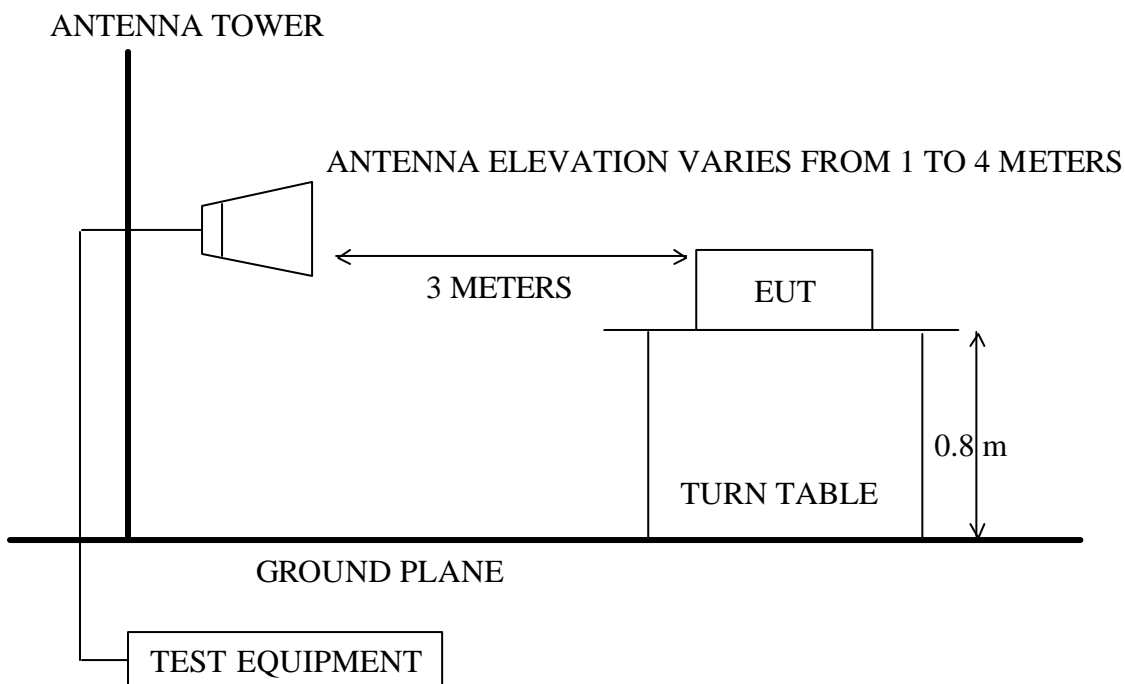
#### 4.2.1. Block Diagram of connection between EUT and simulators



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



4.2.3. Semi-Anechoic Chamber (3m) Setup Diagram for 1-2GHz Frequency Range



### 4.3. 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 performed during radiated measurement and all the test results are attached in section 4.3.1.

EUT : Zone Player (Red Rocks)

M/N : ZP80

Test Date : Dec. 16, 2005

Temperature : 18

Humidity : 56%

Mode	Operating Mode of EUT	Reference Test Data No.	
		Horizontal	Vertical
1.	Play Music & Communication	# 2	# 1

**For 1GHz~2GHz frequency range:**

The EUT was performed during 1GHz~2GHz measurement and all the test results are attached in section 4.3.2.

EUT : Zone Player (Red Rocks)

M/N : ZP80

Test Date : Dec. 15, 2005

Temperature : 19

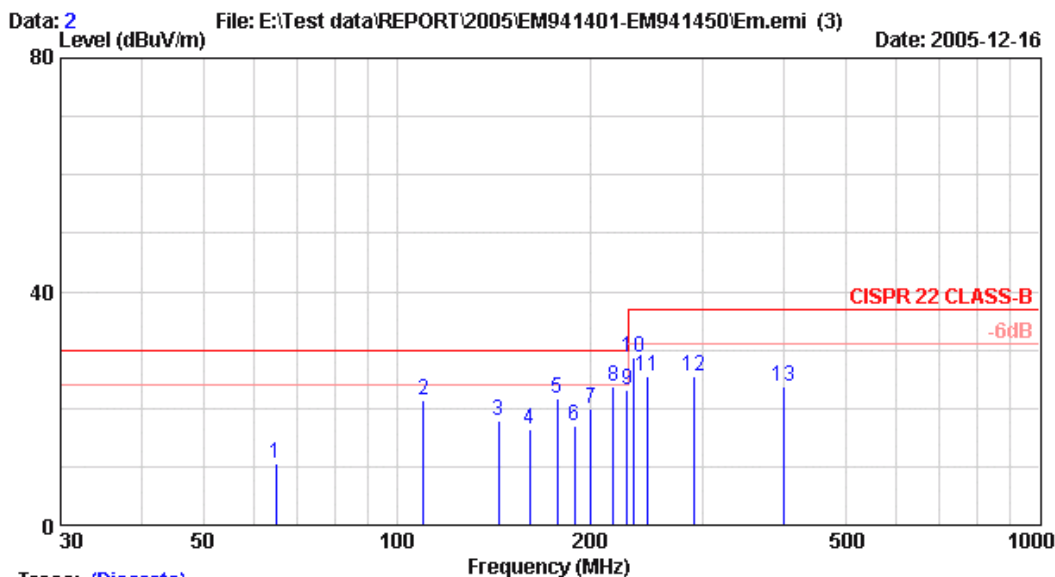
Humidity : 51%

Mode	Operating Mode of EUT	Reference Test Data No.			
		Horizontal		Vertical	
1.	Play Music & Communication	Peak	# 5	Peak	# 6
		Average	# 7	Average	# 8

4.3.1. 30MHz to 1000MHz frequency range and at 10 meters distance measurement



AUDIX Corp. EMC Laboratory  
 No.53-11, Tin-fu Tsun, Lin-kou Hsiang, Taipei  
 County, Taiwan R.O.C. Post Code:24443  
 Tel:+886-2-26092133 Fax:-886-2-26099303  
 Email:ttemc@ttemc.com.tw



Trace: (Discrete)

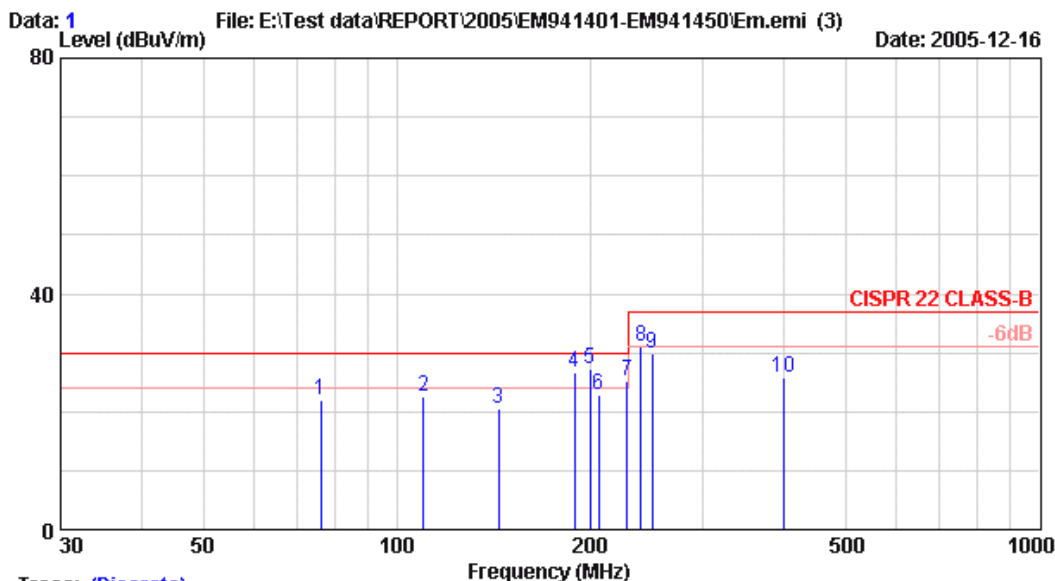
Site no. : NO.6 OPEN SITE Data no. : 2  
 Dis. / Ant. : 10m CBL6112B(2828) Ant. pol. : HORIZONTAL  
 Limit : CISPR 22 CLASS-B  
 Env. / Ins. : 18°C /56 % ESCS30 Engineer : capa yang  
 EUT : Zone Player (Red Rocks) M/N:ZP80  
 Power Rating : 120Vac / 60Hz  
 Test Mode : Play Music&Communication

	Ant. Factor	Cable Loss	Emission Reading	Emission Level	Limits	Margin	Remark
Freq. (MHz)	(dB/m)	(dB)	(dB μ V)	(dB μ V/m)	(dB μ V/m)	(dB)	
1	64.913	6.06	1.13	3.48	10.66	30.00	19.34
2	110.073	11.88	1.35	8.13	21.35	30.00	8.65
3	143.940	10.82	1.49	5.55	17.86	30.00	12.14
4	160.875	10.06	1.65	4.58	16.29	30.00	13.71
5	177.810	9.39	1.74	10.56	21.69	30.00	8.31
6	189.100	9.00	1.80	6.16	16.96	30.00	13.04
7	200.390	9.39	1.84	8.66	19.88	30.00	10.12
8	217.323	9.17	1.88	12.74	23.79	30.00	6.21 *
9	228.613	10.18	1.92	10.96	23.06	30.00	6.94
10	234.250	10.87	1.94	15.79	28.60	37.00	8.40
11	245.547	11.86	1.98	11.76	25.60	37.00	11.40
12	290.705	13.17	2.18	10.19	25.55	37.00	11.45
13	400.033	15.42	2.59	5.62	23.63	37.00	13.37

- 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 was detected at 217.323MHz with corrected signal level of 23.79dBmV/m (limit is 30.0dBmV/m) when the antenna was at horizontal polarization and was at 4m high and the turn table was at 5°.
  4. 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.



AUDIX Corp. EMC Laboratory  
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Trace: (Discrete)

Site no.	: NO.6 OPEN SITE	Data no.	: 1
Dis. / Ant.	: 10m CBL6112B(2828)	Ant. pol.	: VERTICAL
Limit	: CISPR 22 CLASS-B		
Env. / Ins.	: 18°C /56 % ESCS30	Engineer	: capa yang
EUT	: Zone Player (Red Rocks) M/N:ZP80		
Power Rating	: 120Vac / 60Hz		
Test Mode	: Play Music&Communication		

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	76.205	7.70	1.20	12.98	21.88	30.00	8.12	
2	110.074	11.46	1.35	9.78	22.59	30.00	7.41	
3	143.944	10.49	1.49	8.43	20.40	30.00	9.60	
4	189.102	8.78	1.80	16.14	26.72	30.00	3.28	
5	200.028	9.15	1.84	16.18	27.16	30.00	2.84 *	
6	206.033	9.07	1.85	11.91	22.83	30.00	7.17	
7	228.616	10.06	1.92	13.36	25.34	30.00	4.66	
8	239.903	11.09	1.96	18.09	31.14	37.00	5.86	
9	250.011	12.18	2.00	15.79	29.97	37.00	7.03	
10	400.033	16.15	2.59	7.01	25.75	37.00	11.25	

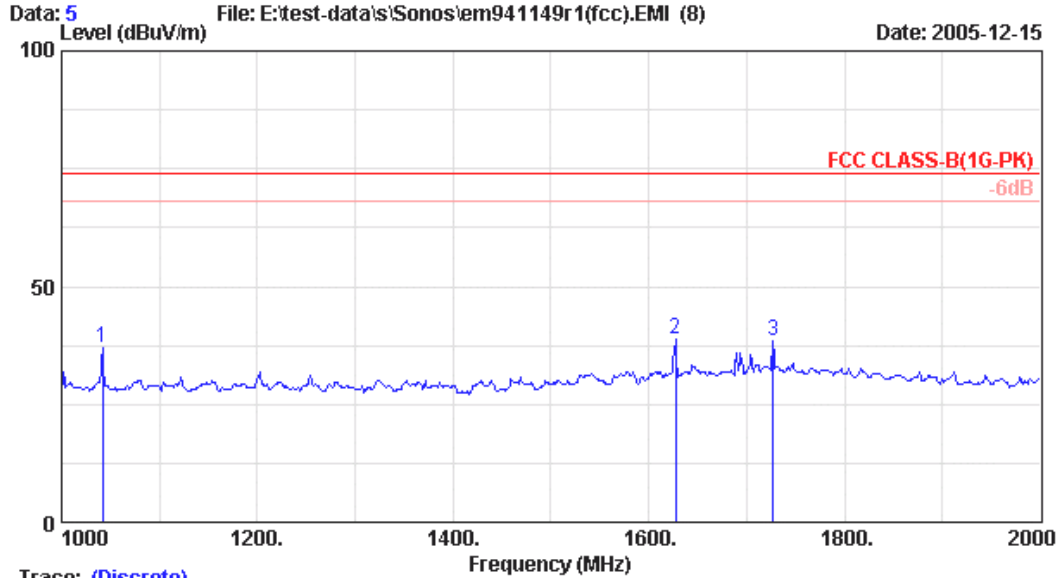
- Remarks:
1. Emission Level= Antenna Factor + Cable Loss + Reading.
  2. The emission levels that are 20dB below the official limit are not reported.
  3. The worst emission was detected at 200.028MHz with corrected signal level of 27.16dBmV/m (limit is 30.0dBmV/m) when the antenna was at vertical polarization and was at 1m high and the turn table was at 100°.
  4. 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.



4.3.2. 1GHz to 2GHz frequency range and at 3 meters distance measurement



AUDIX Corp. EMC Laboratory  
 No.53-11, Tin-fu Tsun, Lin-kou Hsiang, Taipei  
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 Email:ttemc@ttemc.com.tw



Trace: (Discrete)

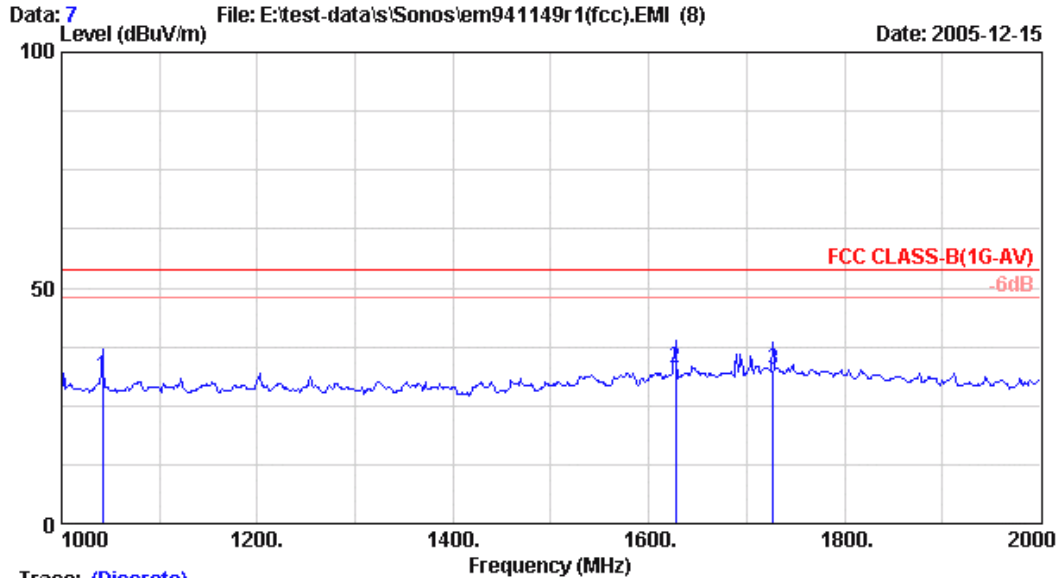
Site no. : A/C Chamber Data no. : 5  
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL  
 Limit : FCC CLASS-B(1G-PK)  
 Env. / Ins. : 8593EM 19°C/51% Enginner : Cater Chou  
 EUT : Zone Player (Red Rocks) M/N: ZP80  
 Power Rating : 120Vac/60Hz  
 Test Mode : Player Music&Communication

	Ant.	Cable	Emission		Limits	Margin	Remark	
Freq. (MHz)	Factor (dB/m)	Loss (dB)	Reading (dB μ V)	Level (dB μ V/m)	(dB μ V/m)	(dB)		
1	1042.000	25.22	4.27	7.66	37.15	74.00	36.85	Peak
2	1627.000	26.07	6.32	6.55	38.95	74.00	35.05	Peak
3	1727.000	26.58	7.00	4.86	38.43	74.00	35.57	Peak

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



AUDIX Corp. EMC Laboratory  
 No.53-11, Tin-fu Tsun, Lin-kou Hsiang, Taipei  
 County, Taiwan R.O.C. Post Code:24443  
 Tel:02-26092133 Fax:02-26099303  
 Email:ttemc@ttemc.com.tw



Trace: (Discrete)

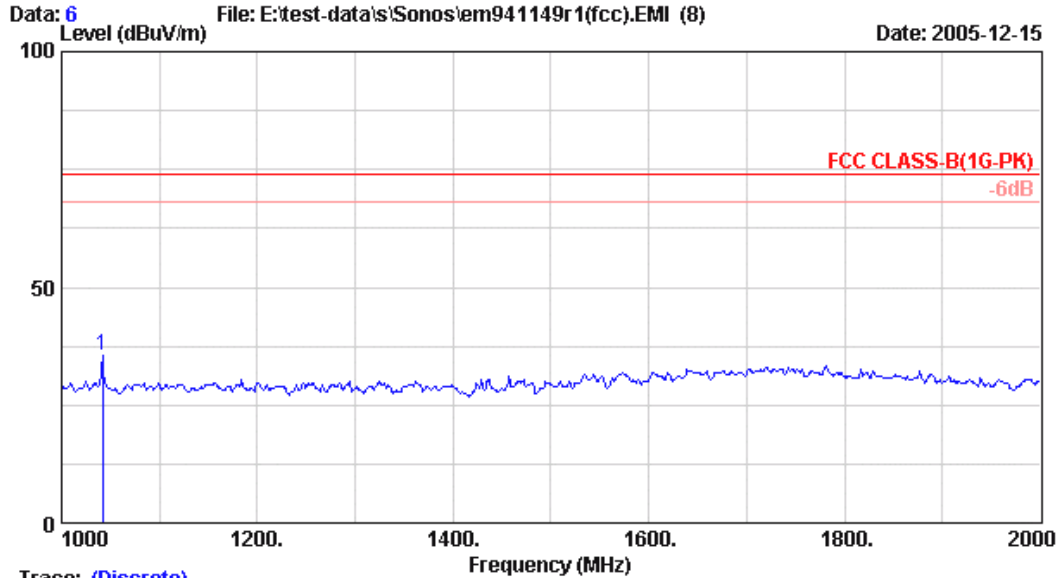
Site no. : A/C Chamber Data no. : 7  
 Dis. / Ant. : 3m 3115 Ant. pol. : HORIZONTAL  
 Limit : FCC CLASS-B(1G-AV)  
 Env. / Ins. : 8593EM 19°C/51% Enginner : Cater Chou  
 EUT : Zone Player (Red Rocks) M/N:ZP80  
 Power Rating : 120Vac/60Hz  
 Test Mode : Player Music&Communication

	Ant.	Cable	Emission					
Freq. (MHz)	Factor (dB/m)	Loss (dB)	Reading (dB μ V)	Level (dB μ V/m)	Limits (dB μ V/m)	Margin (dB)	Remark	
1 1042.000	25.22	4.27	1.66	31.15	54.00	22.85	Average	
2 1627.000	26.07	6.32	0.55	32.95	54.00	21.05	Average	
3 1727.000	26.58	7.00	-1.14	32.43	54.00	21.57	Average	

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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 Email:ttemc@ttemc.com.tw



Trace: (Discrete)

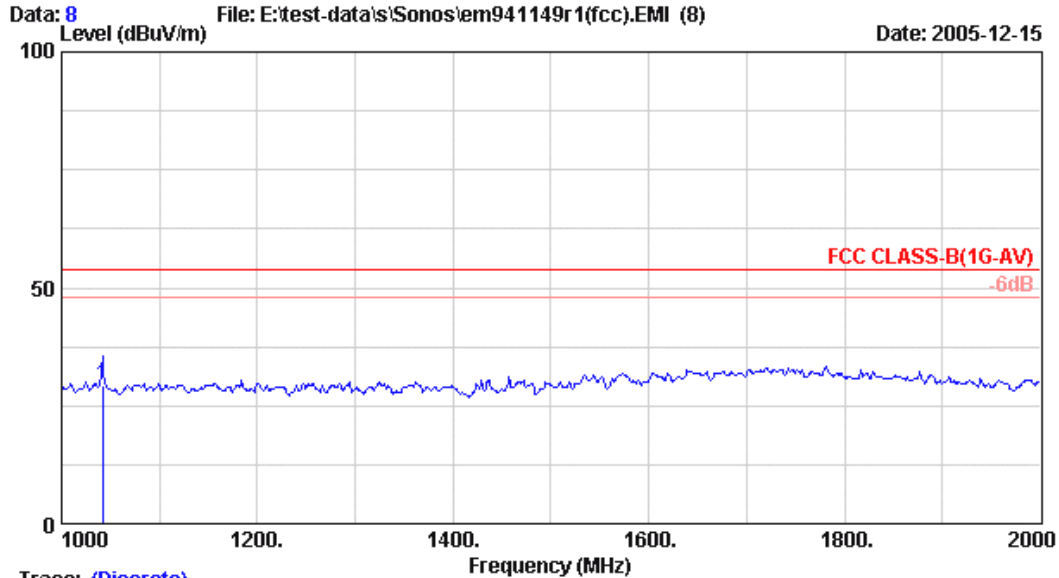
Site no.	: A/C Chamber	Data no.	: 6
Dis. / Ant.	: 3m 3115	Ant. pol.	: VERTICAL
Limit	: FCC CLASS-B(1G-PK)		
Env. / Ins.	: 8593EM 19°C/51%	Enginner	: Cater Chou
EUT	: Zone Player (Red Rocks) M/N: ZP80		
Power Rating	: 120Vac/60Hz		
Test Mode	: Player Music&Communication		

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dB $\mu$ V)	Emission Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	Remark	
-----	1	1042.000	25.22	4.27	5.91	35.40	74.00	38.60	Peak
-----									

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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 Tel:02-26092133 Fax:02-26099303  
 Email:ttemc@ttemc.com.tw



Trace: (Discrete)

Site no.	: A/C Chamber	Data no.	: 8
Dis. / Ant.	: 3m 3115	Ant. pol.	: VERTICAL
Limit	: FCC CLASS-B(1G-AV)		
Env. / Ins.	: 8593EM 19°C/51%	Enginner	: Cater Chou
EUT	: Zone Player (Red Rocks) M/N:ZP80		
Power Rating	: 120Vac/60Hz		
Test Mode	: Player Music&Communication		

	Freq.	Ant. Factor	Cable Loss	Reading	Emission Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB μV)	(dB μV/m)	(dB μV/m)	(dB)	
1	1042.000	25.22	4.27	-0.09	29.40	54.00	24.60	Average

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

## 5. DEVIATION TO TEST SPECIFICATIONS

【NONE】

## 6. PHOTOGRAPHS

### 6.1. Photos of Conducted Emission Measurement



FRONT VIEW OF CONDUCTED MEASUREMENT



BACK VIEW OF CONDUCTED MEASUREMENT

PARTNER NOTEBOOK PC



VIEW OF CONDUCTED MEASUREMENT



6.2. Photos of Radiated Measurement at Open Area Test Site (30-1000MHz, 10m)



FRONT VIEW OF RADIATED MEASUREMENT



BACK VIEW OF RADIATED MEASUREMENT





SETUP WITH MAXIMUM DETECTED EMISSION AT HORIZONTAL POLARIZATION



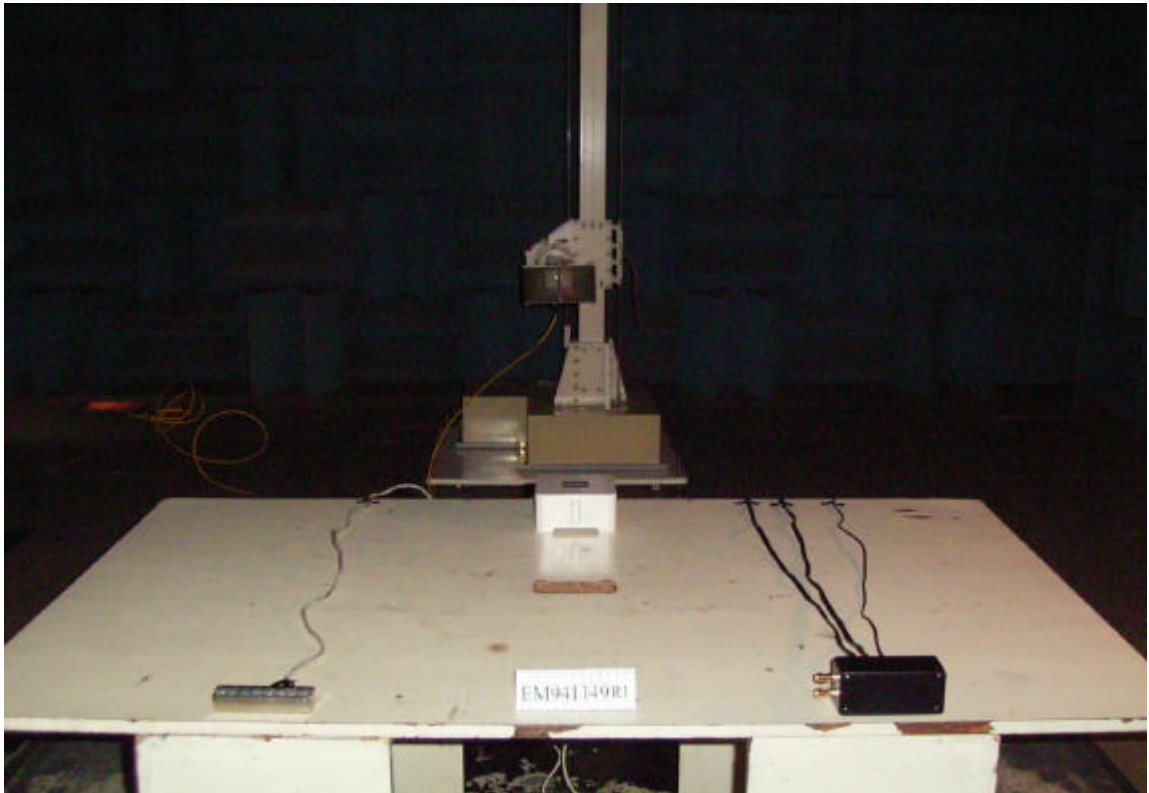
SETUP WITH MAXIMUM DETECTED EMISSION AT VERTICAL POLARIZATION

PARTNER NOTEBOOK PC & CONTROLLER

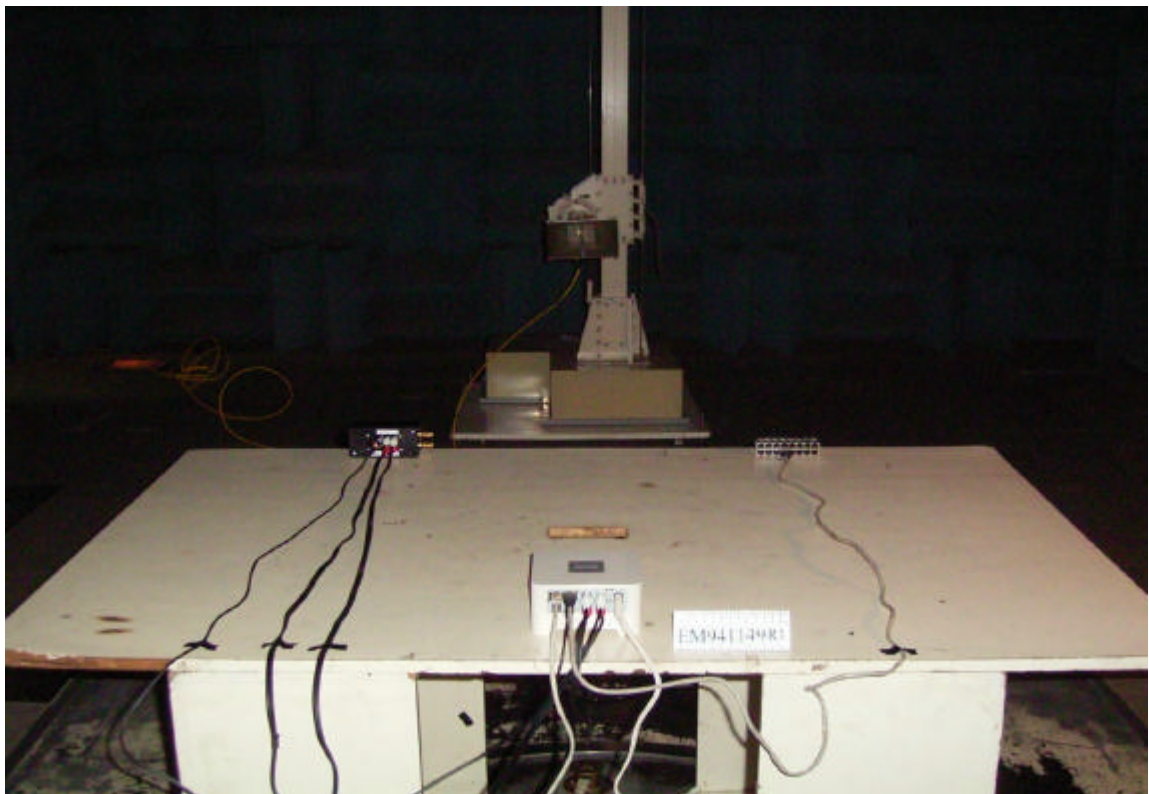


VIEW OF RADIATED MEASUREMENT

6.3. Photos of Radiated Measurement at Semi-Anechoic Chamber (1-2GHz, 3m)



FRONT VIEW OF RADIATED MEASUREMENT



BACK VIEW OF RADIATED MEASUREMENT



PARTNER NOTEBOOK PC & CONTROLLER



VIEW OF RADIATED MEASUREMENT

# APPENDIX I

## (Photos of EUT)

Total Pages: 11 Pages

Figure 1  
General Appearance (Front & Top & Side View)

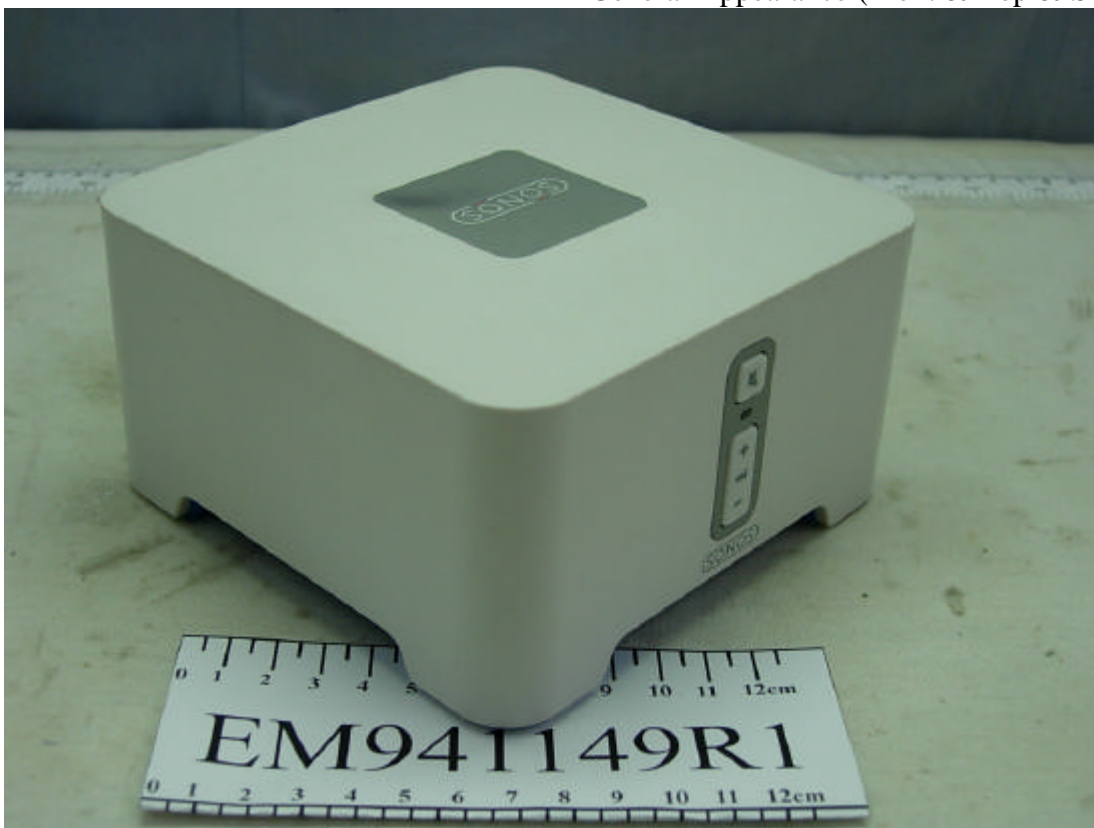


Figure 2  
General Appearance (Rear & Bottom & Side View)



Figure 3  
Appearance (Rear View, Interface Ports)



Figure 4  
Removed Top Cover, Frame of Internal

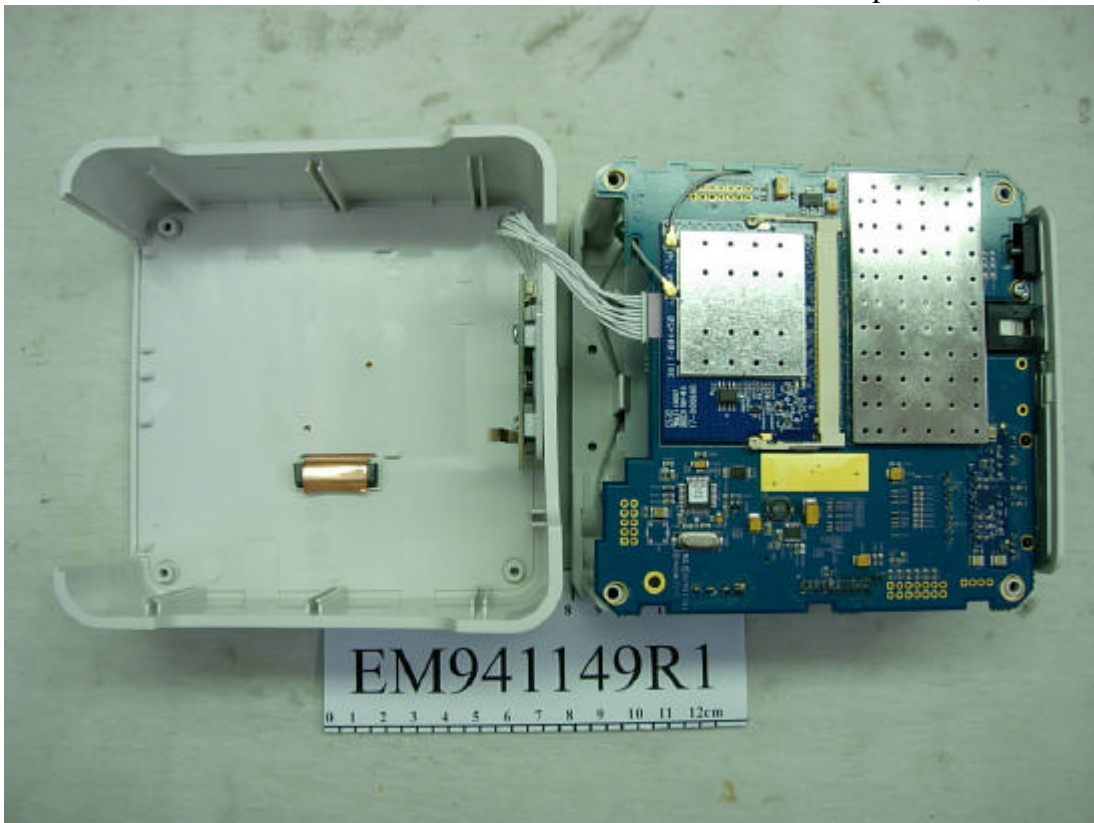




Figure 5  
Internal View (Removed Function Board)

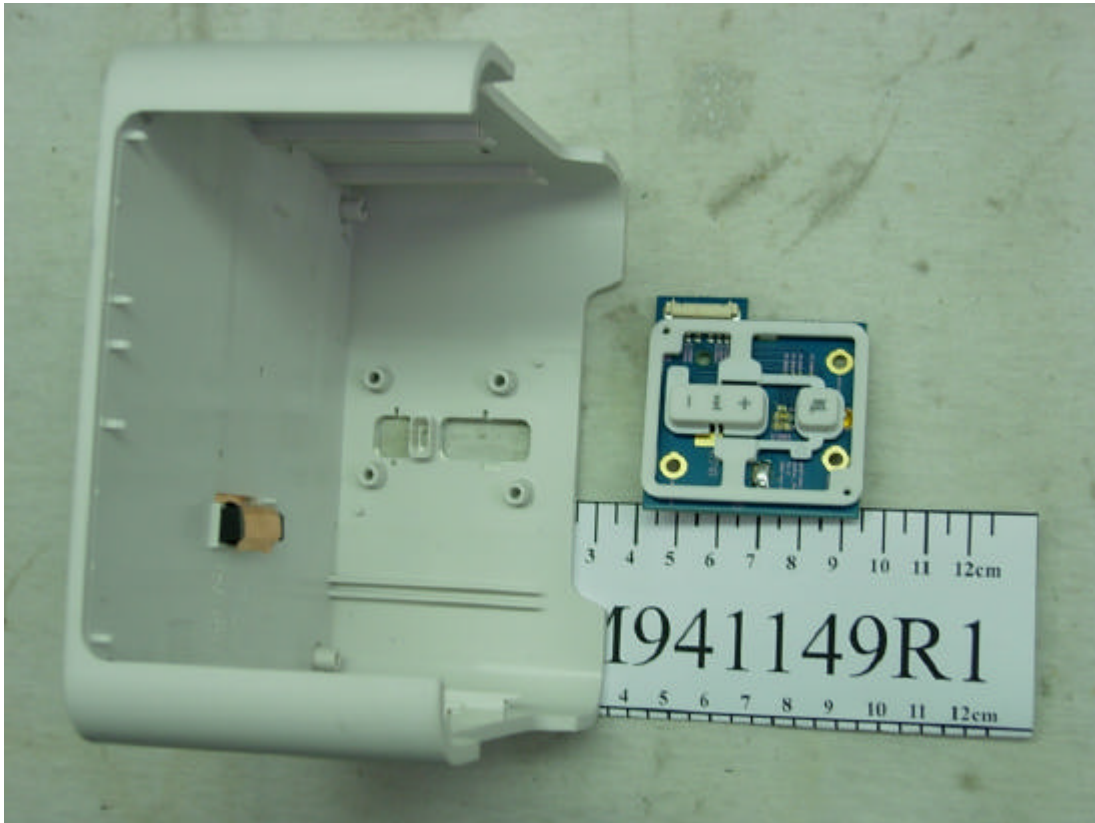


Figure 6  
Internal View (Function Board, Front View)

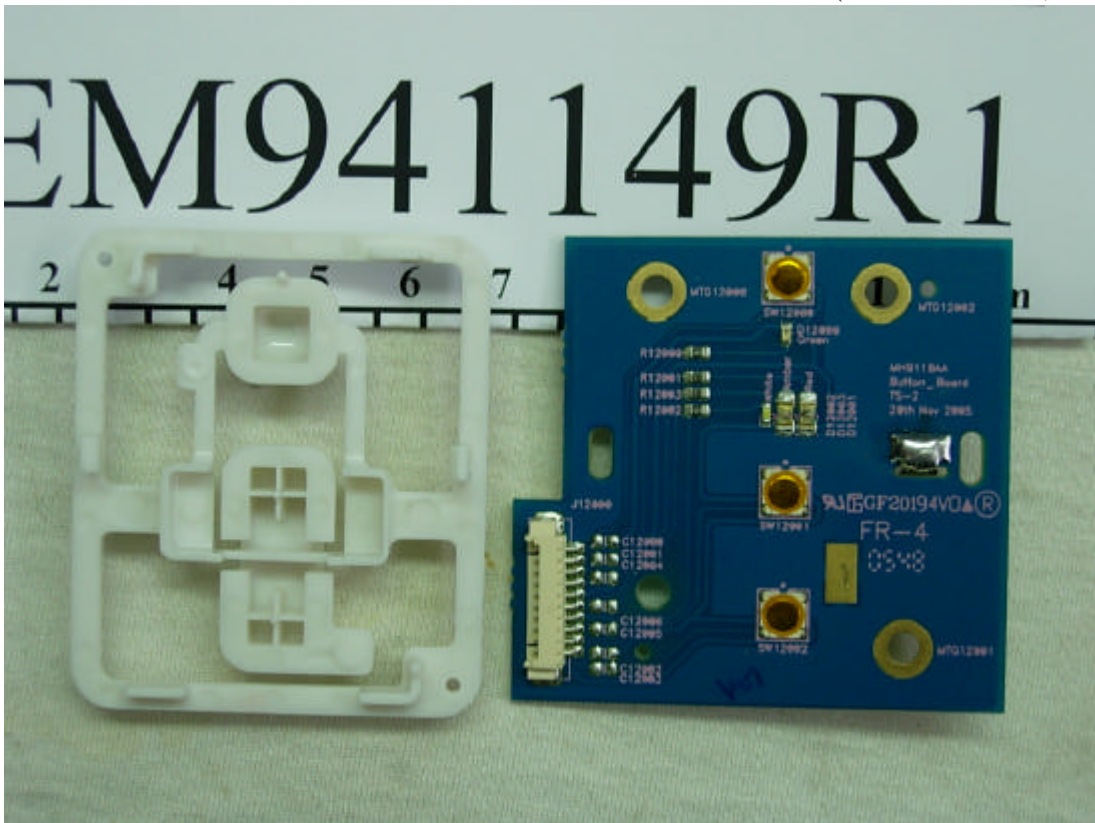




Figure 7  
Internal View (Function Board, Back View)



Figure 8  
Internal View (Removed Main Board)

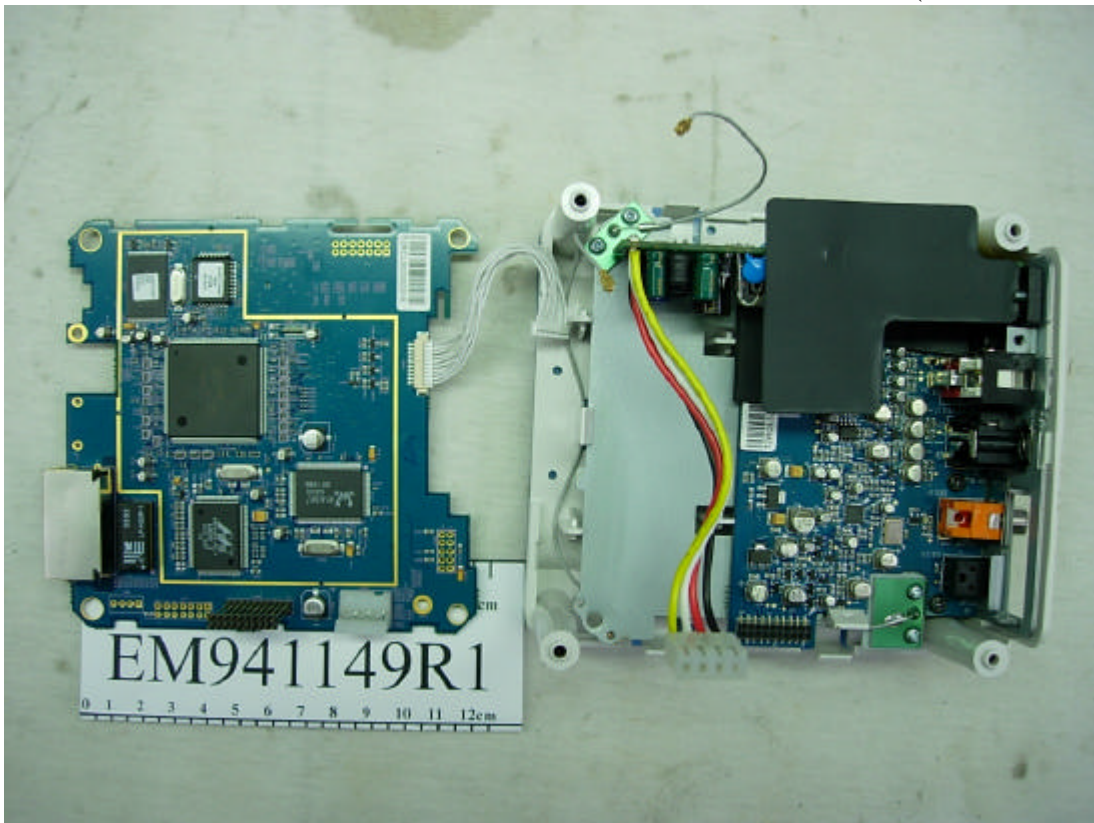


Figure 9  
Internal View (Main Board, Front View)



Figure 10  
Internal View (Main Board, Back View)

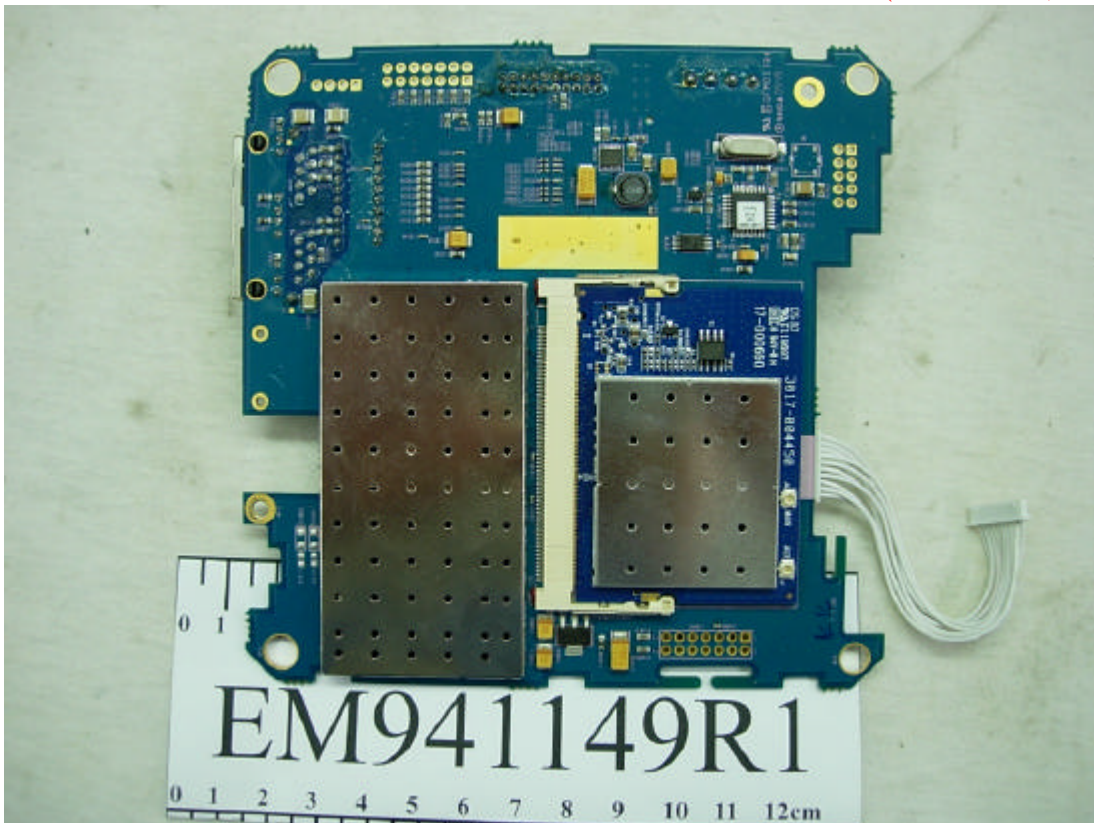




Figure 11  
Internal View (Removed Wireless LAN Card)

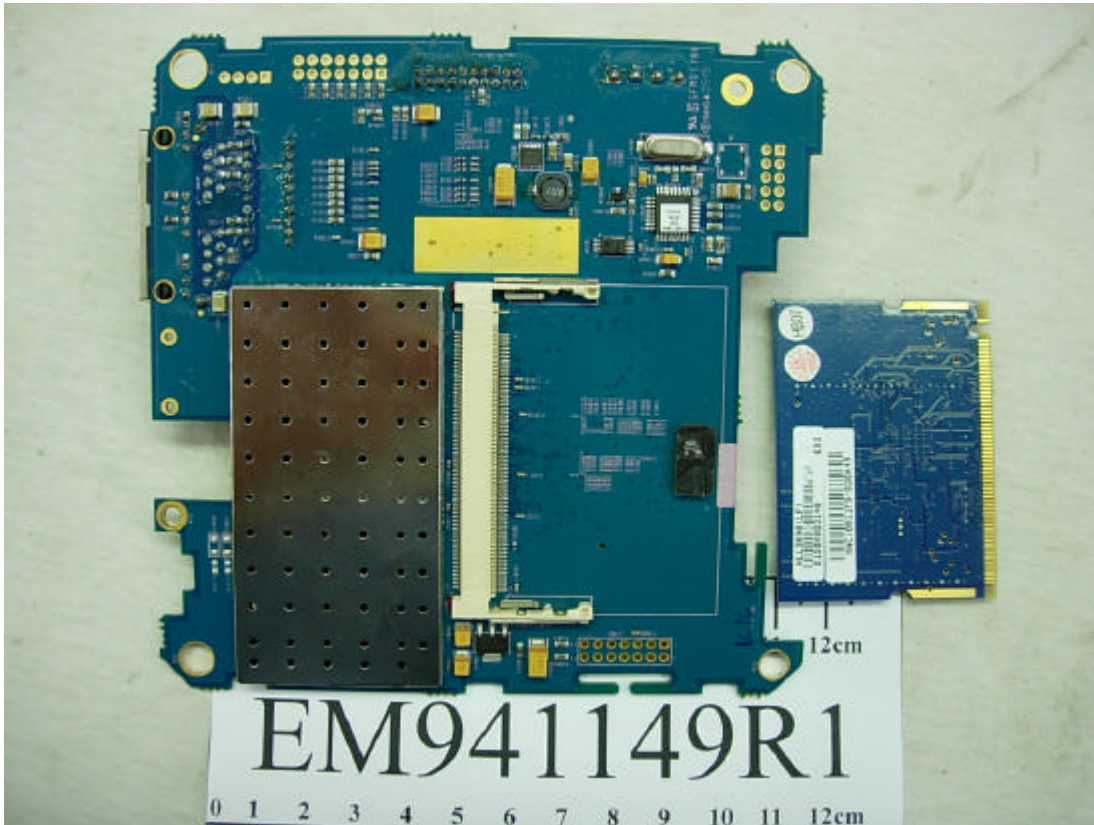


Figure 12  
Internal View (Wireless LAN Card, Front View)

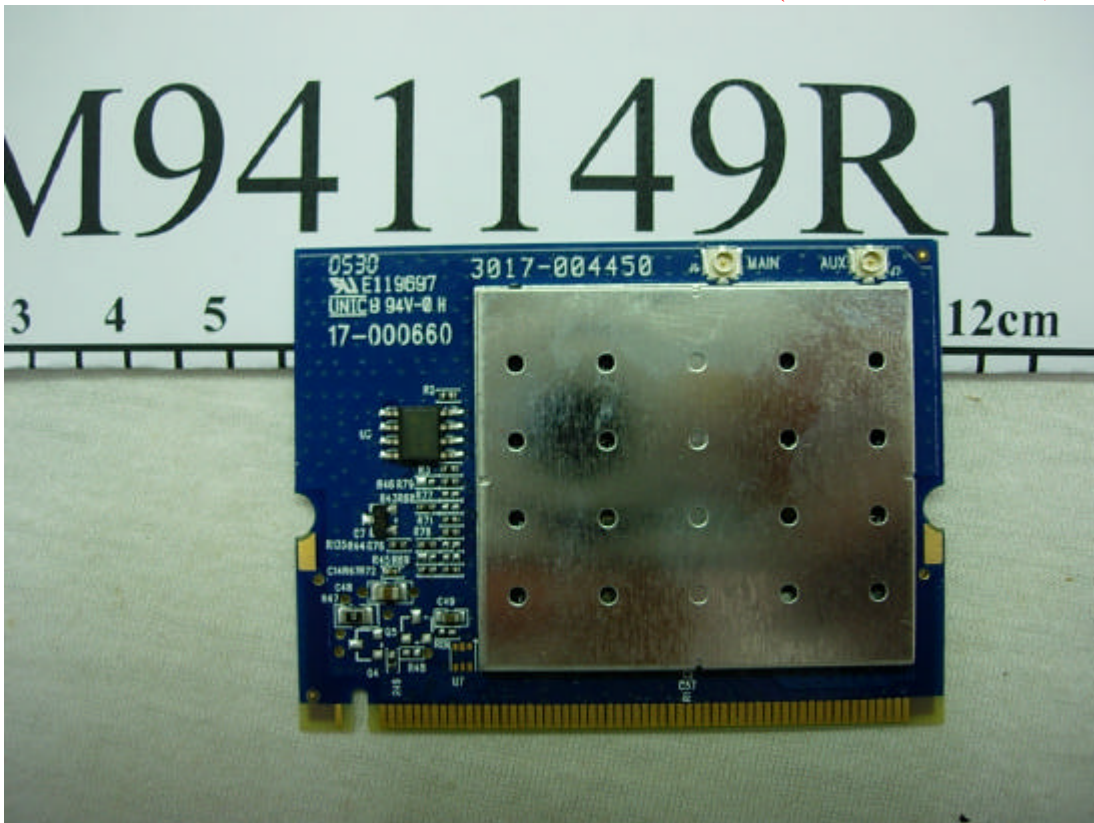


Figure 13  
Internal View (Wireless LAN Card, Back View)



Figure 14  
Internal View (Removed Audio Control and Power Board)

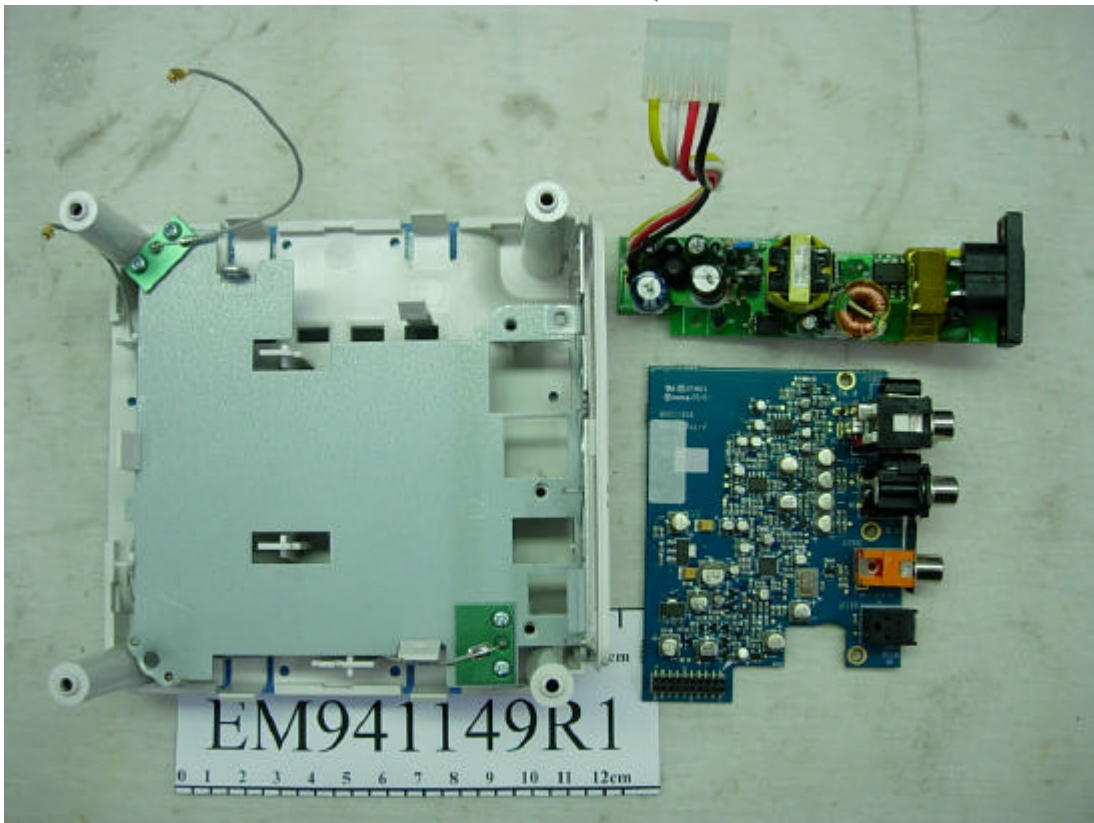




Figure 15  
Internal View (Power Board, Front View)

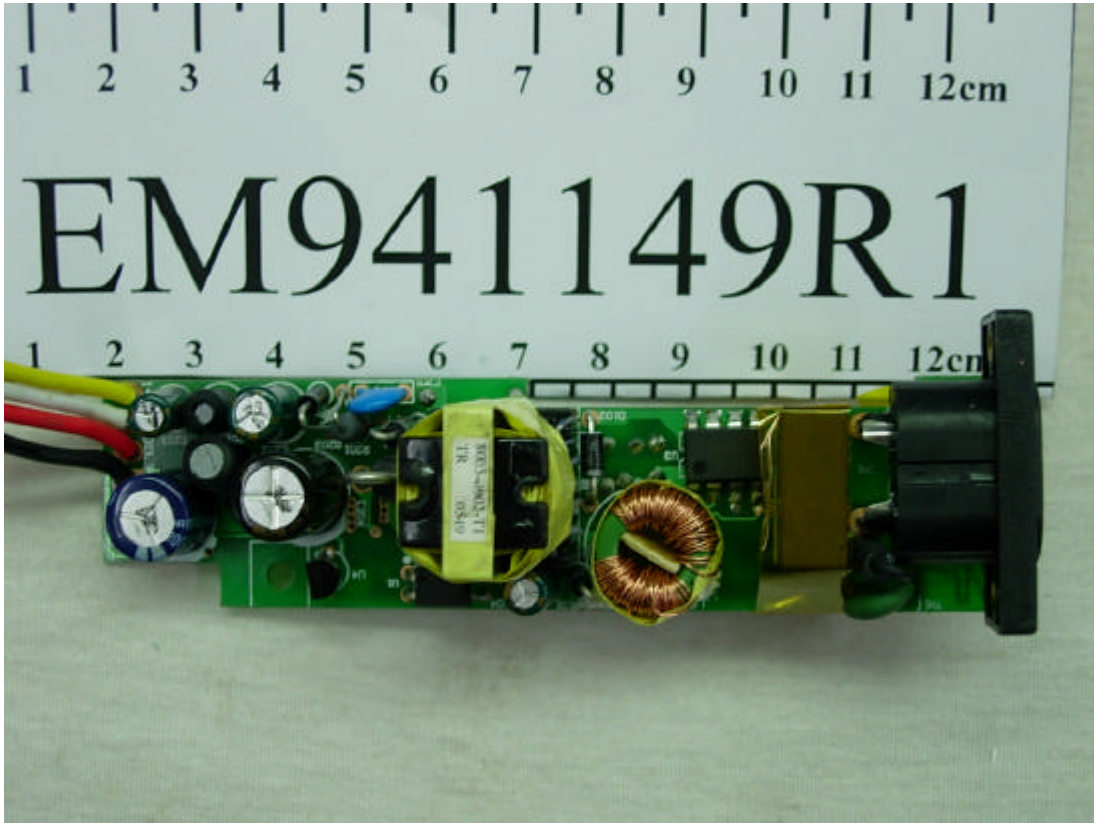


Figure 16  
Internal View (Power Board, Back View)

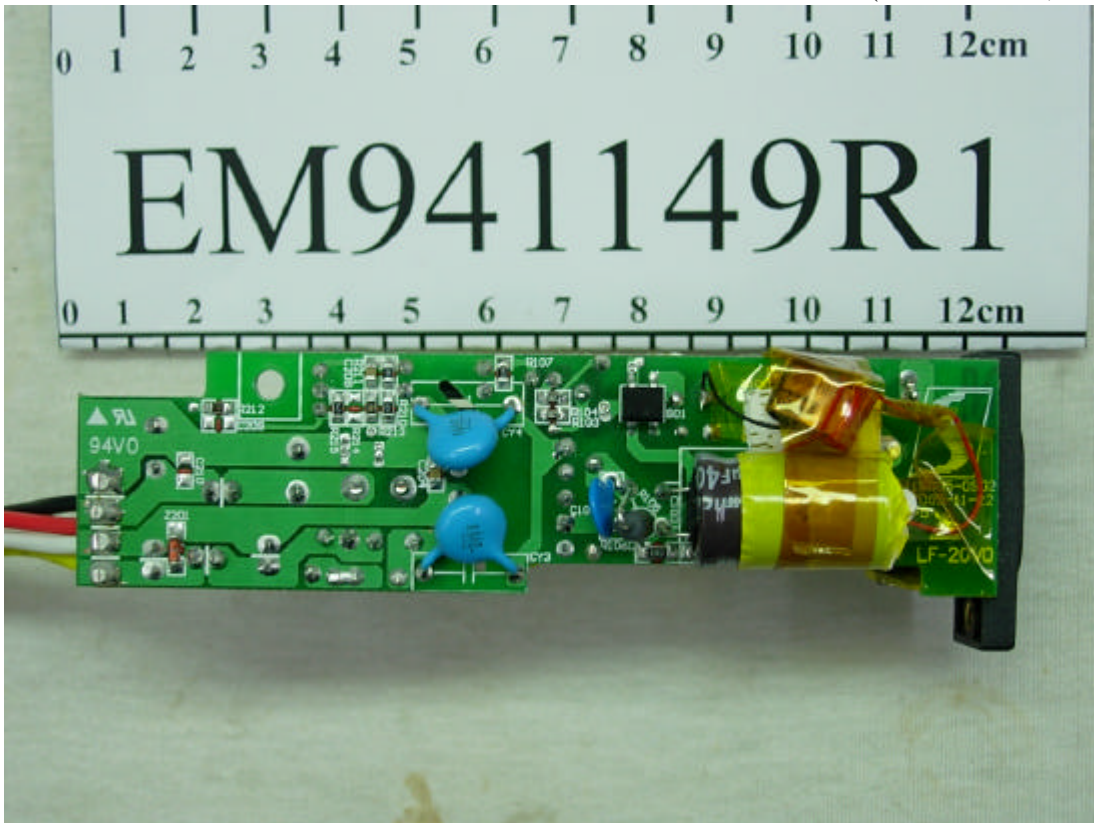


Figure 17  
Internal View (Audio Control Board, Front View)

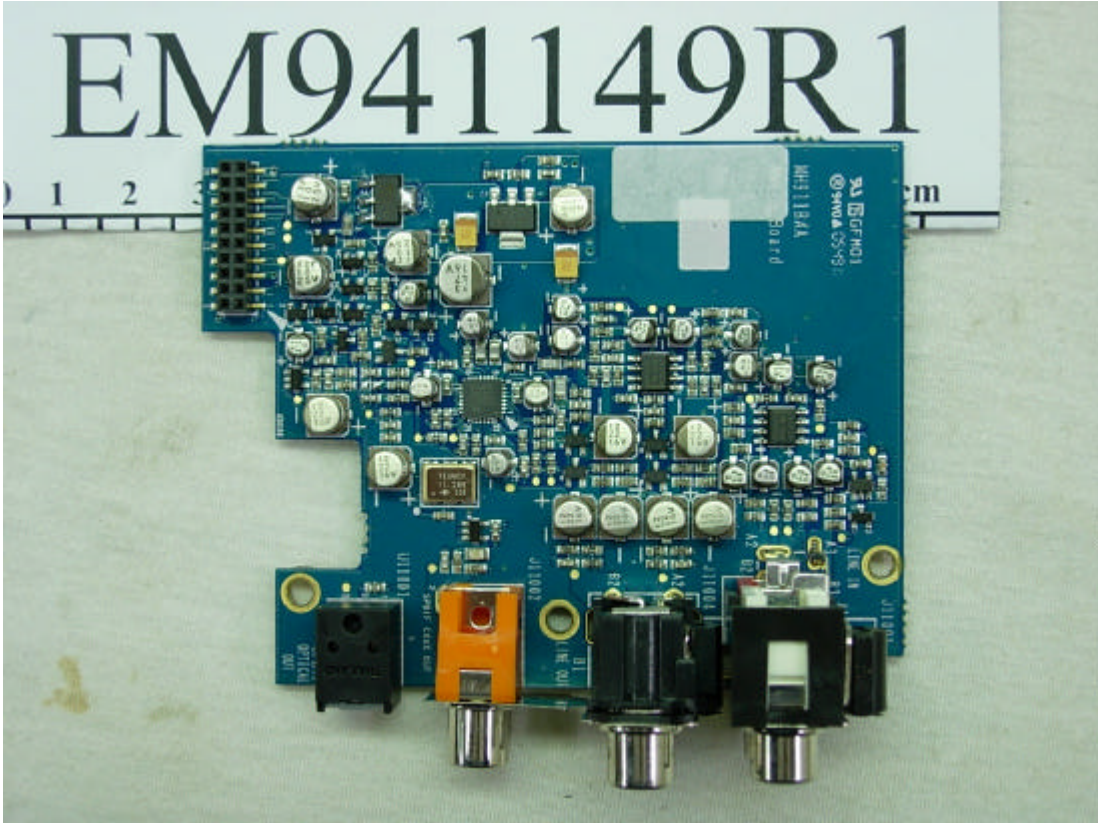


Figure 18  
Internal View (Audio Control Board, Back View)

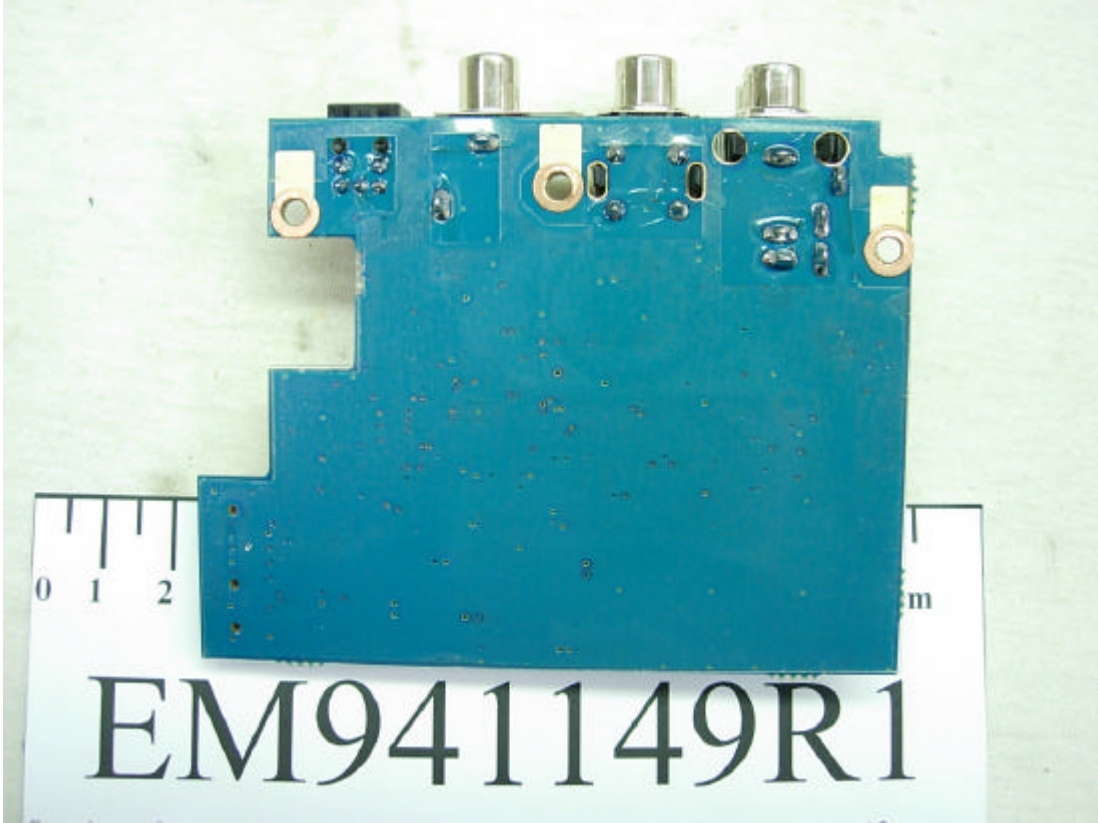




Figure 19  
Internal View (Antenna Board, Back View)

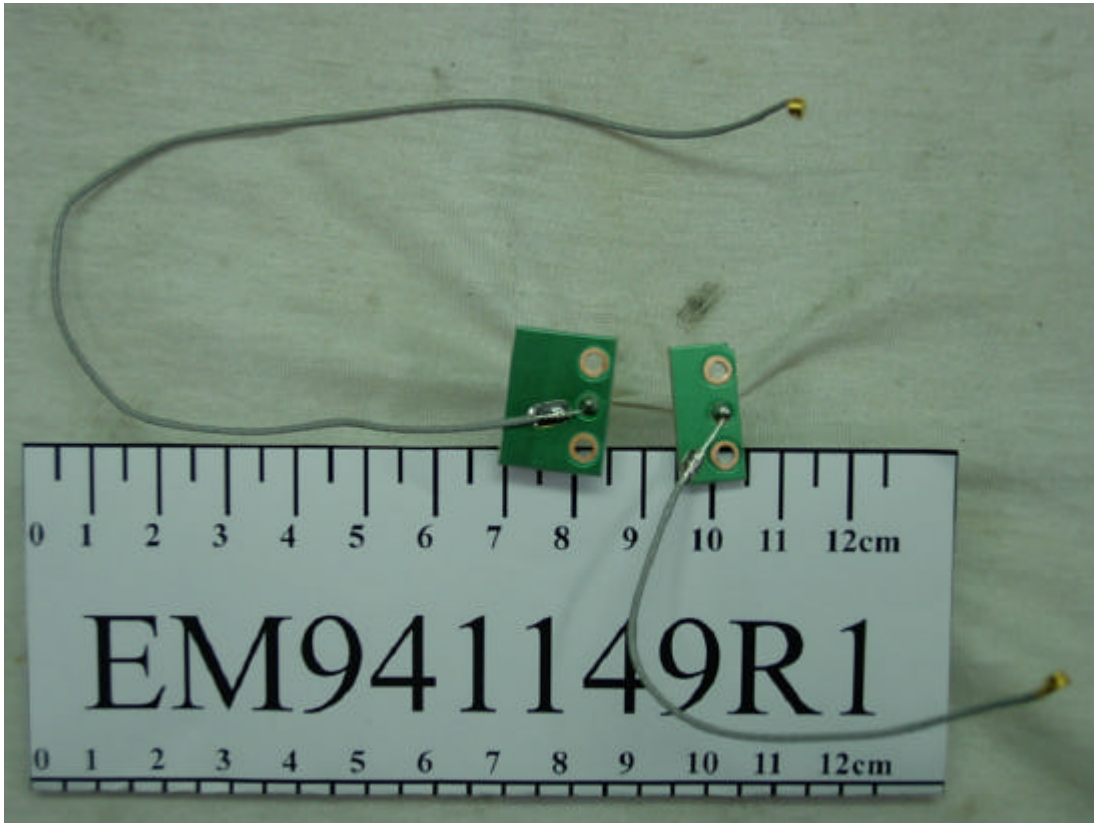


Figure 20  
Internal View (Antenna Board, Front View)

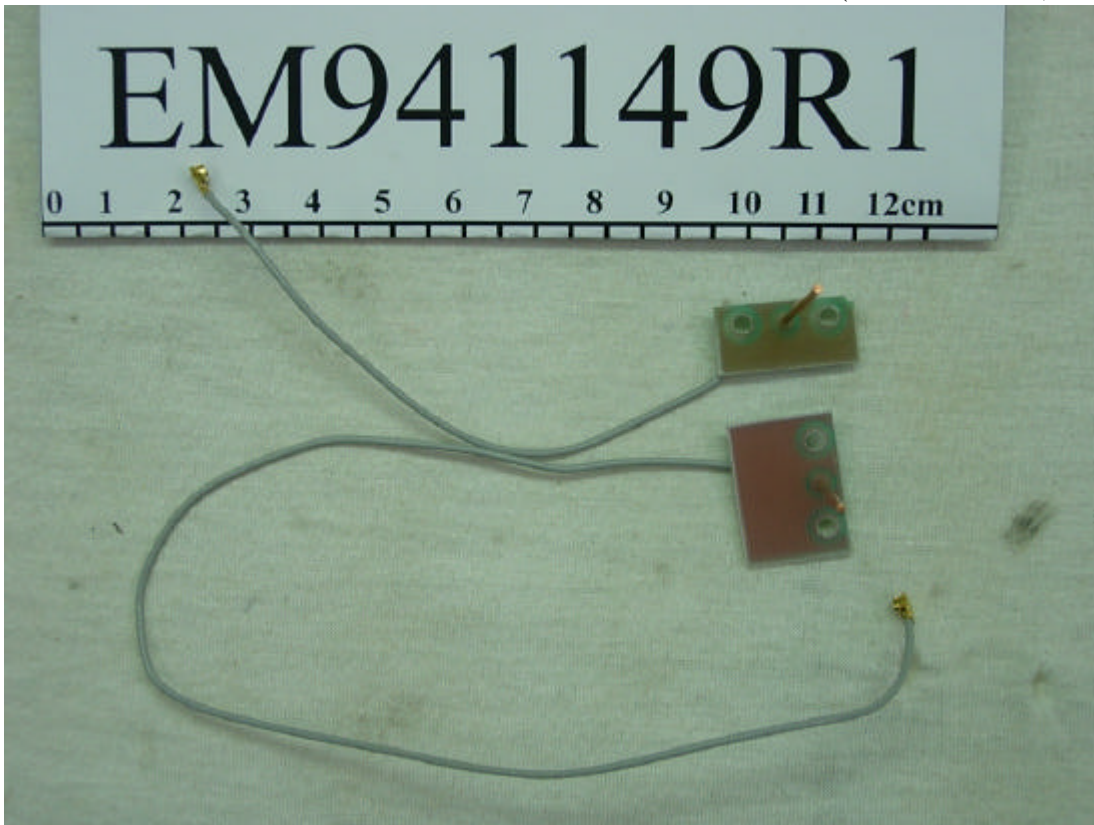


Figure 21  
AC Power Cord

