

APPLICATION FOR CERTIFICATION  
On Behalf of

Philips Consumer Electronics Company

Digital Audio Player

Model Number	Brand Name
SA5225BT/37	PHILIPS

Prepared for : Philips Consumer Electronics Company  
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Tennessee, 37914, United States

Prepared By : Audix Technology (Shenzhen) Co., Ltd.  
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Report Number : ACS-F08161  
Date of Test : Feb.21, 2008  
Date of Report : Mar.21, 2008

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Reg. No.: DAT-P-091/99-01

## TEST REPORT CERTIFICATION

Applicant : Philips Consumer Electronics Company  
 Factory (1) : Success Bright Industries -Goodview  
 Factory (2) : Shenzhen Sang Fei Consumer Communications Co., Ltd  
 Factory (3) : Philips Ltd. Assembly Centre Hungary (PACH)  
 EUT Description : Digital Audio Player

(A) MODEL NO. &	Model Number	Brand Name
BRAND NAME	SA5225BT/37	PHILIPS

(B) SERIAL NO. : N/A  
 (C) POWER SUPPLY : DC 3.7V

## Test Procedure Used:

FCC Rules and Regulations Part 15 Subpart B Class B 2007

The device described above is tested by Audix Technology (Shenzhen) Co., Ltd. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart B Class B limits for radiated and conducted emissions. The test results are contained in this test report and Audix Technology (Shenzhen) Co., Ltd. is assumed full responsibility for the accuracy and completeness of tests. Also, this report shows that EUT is technically compliant with FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Audix Technology (Shenzhen) Co., Ltd.

Date of Test : Feb.21, 2008Prepared by : YoYo Wang  
YoYo Wang / AssistantReviewer : Iceman Hu  
Iceman Hu / SupervisorApproved & Authorized Signer : Ken Lu / Deputy Manager

## 1. SUMMARY OF STANDARDS AND RESULTS

### 1.1. Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below.

EMISSION			
Description of Test Item	Standard	Limits	Results
Power Line Conducted Emission Test	FCC Part 15: 2007 ANSI C63.4: 2003	Class B	PASS
Radiated Emission Test	FCC Part 15: 2007 ANSI C63.4: 2003	Class B	PASS

## 2. GENERAL INFORMATION

### 2.1. Description of Device (EUT)

Description	: Digital Audio Player This product is a Digital Audio Player with Bluetooth function, and it can transmit music to other Bluetooth Receiver. For detail information please see the user manual of this product.				
Model Number & Brand Name	: <table border="1" data-bbox="531 550 1135 628"> <tr> <td>Model Number</td> <td>Brand Name</td> </tr> <tr> <td>SA5225BT/37</td> <td>PHILIPS</td> </tr> </table> <p>The “X” used in the series model SA522X/YY represents 0 to 9. All models included in this series models are identical in electrical, mechanical and physical, constructions except with different accessory (e.g: FM radio earphone) and packaging used and colour of cosmetic. The marking artwork of all models included in these series model are exactly identical except with different model number and various safety marking.</p>	Model Number	Brand Name	SA5225BT/37	PHILIPS
Model Number	Brand Name				
SA5225BT/37	PHILIPS				
	: Except the following(s) : Stroke number, Packaging and memory size are differences /YY				
	: /07 denote sales for U.S.A. and the packaging in Blister type /17 denote sales for Canada and the packaging in Blister type /37 denote sales for USA and Canada and the packaging in Blister type				
Remarks:	All series model do not by-back with the AC-DC adaptor and plastic painting color as non-conductive type.				
Applicant	: Philips Consumer Electronics Company 5/F., Philips Electronics Building, 5 Science Park East Avenue, Hong Kong Science Park, Shatin, New Territories, Hong Kong				
Factory (1)	: Success Bright Industries -Goodview Dong Huan Road Central, San Yi Cun, Sha Jing Zhen, ShenZhen, China				
Factory (2)	: Shenzhen Sang Fei Consumer Communications Co., Ltd 11 Science and Technology Road, ShenZhen Hi-tech Industrial Park, Nanshan District, ShenZhen, PRC				
Factory (3)	: Philips Ltd. Assembly Centre Hungary (PACH) Szekesfehervar Holland fasor 6. H-8000 Hungary				
Power Supply	: Battery 3.7V or DC 5V form PC USB port, and the worst case is DC 5V Form computer USB port in exploratory measurements, So all the final test data below were only DC 5V recorded.				
USB Cable	: Unshielded, Detachable, 1.5m				
Earphone	: Manufacturer: CommTech Technology Macao Commercial Offshore Ltd. M/N: SHE9700				

Date of Test : Feb.21, 2008  
Date of Receipt : Feb.18, 2008  
Sample Type : Series production

## 2.2. Tested Supporting System Details

### 2.2.1. PERSONAL COMPUTER

EMC CODE	:	Test PC F
M/N	:	HP Pavilion W1000
S/N	:	THT442106N
Manufacturer	:	HP
Power Cord	:	Unshielded, Detachable, 1.8m
FCC ID	:	By DoC
BSMI ID	:	R33001

### 2.2.2. MONITOR

EMC CODE	:	ACS-EMC-LM03R
M/N	:	1907FPt
S/N	:	CN-009759-71618-6AP-ACPP
Manufacturer	:	DELL
Data Cable (VGA)	:	Shielded, Detachable, 2.0m (Bond two ferrite cores)
Power Cord	:	Unshielded, Detachable, 1.8m
FCC ID	:	By DoC
BSMI ID	:	R3A002

### 2.2.3. PS/2 KEYBOARD

EMC CODE	:	ACS-EMC-K08R
M/N	:	5219
S/N	:	BN44300510
Manufacturer	:	HP
Data Cable	:	Shielded, Undetachable, 1.8m
FCC ID	:	E5XKB5209
BSMI ID	:	R31213

#### 2.2.4. PS/2 MOUSE

EMC CODE	:	ACS-EMC-M06R
M/N	:	N3+ Optical
S/N	:	K043801559
Manufacturer	:	HP
Data Cable	:	Shielded, Undetachable, 1.8m
FCC ID	:	By DoC
BSMI ID	:	R31258

#### 2.2.5. MODEM

EMC CODE	:	ACS-EMC-MD01
M/N	:	1414
S/N	:	980013578
Manufacturer	:	ACEEX
Data Cable	:	Shielded, Detachable, 1.5m
Power Adaptor	:	Unshielded, Detachable, 1.6
Adaptor Manufacturer	:	TGL
Adaptor Model No	:	MDE130100TH
FCC ID	:	IFAXDM1414
BSMI ID	:	N/A

#### 2.2.6. HDD

EMC CODE	:	ACS-EMC-HDD09
M/N	:	HTS541680J9SA00
S/N	:	SGJDEH9E
Manufacturer	:	HITACHI
Data Cable	:	Unshielded, Detachable, 0.6m
FCC ID	:	By DoC
BSMI ID	:	D33373

#### 2.2.7. SG

M/N	:	8648A
Manufacturer	:	HP

### 2.3. Test Facility

Site Description	
Name of Firm	: Audix Technology (Shenzhen) Co., Ltd. No. 6, Ke Feng Rd., 52 Block, Shenzhen Science & Industrial Park, Nantou, Shenzhen, Guangdong, China
3m Anechoic Chamber	: Jun. 13, 2006 File on Federal Communication Commission Registration Number: 90454
3m & 10m Anechoic Chamber	: Jan. 31, 2007 File on Federal Communication Commission Registration Number: 794232
EMC Lab.	: Accredited by DATech, German Registration Number: DAT-P-091/99-01 Feb. 02, 2004
	Accredited by NVLAP, USA NVLAP Code: 200372-0 Apr. 01, 2007

### 2.4. Measurement Uncertainty

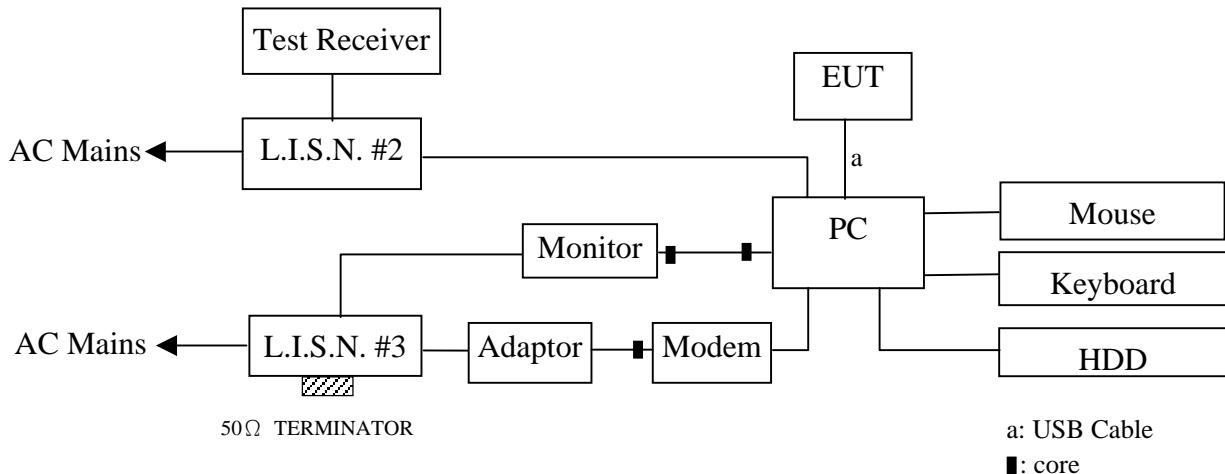
No.	Item	Uncertainty	Remark
1.	Uncertainty for Conducted Emission Test	1.22dB	
2.	Uncertainty for Radiated Emission Test	3.14dB	3m Chamber
3.	Uncertainty for Radiated Emission Test	3.18dB	10m Chamber
4.	Uncertainty for Power Clamp Test	1.38dB	

### 3. POWER LINE CONDUCTED EMISSION TEST

#### 3.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESHS10	838693/001	Dec.19, 07	1 Year
2.	L.I.S.N.#2	Kyoritsu	KNW-407	8-1636-1	May 11, 07	1 Year
3.	L.I.S.N.#3	EMCO	3825/2	9006-1660	May 11, 07	1 Year
4.	Terminator	Hubersuhner	50Ω	No. 1	May 11, 07	1 Year
5.	RF Cable	MIYAZAKI	5D-2W	LISN Cable 1#	Jan.09, 08	1/2 Year
6.	Coaxial Switch	Anritsu	MP59B	M55367	Jan.09, 08	1/2 Year
7.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100340	Jan.09, 08	1/2 Year

#### 3.2. Block Diagram of Test Setup



#### 3.3. Power Line Conducted Emission Limits (§15.107(a), class B)

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

Notes: 1. \* Decreasing linearly with logarithm of frequency.  
2. The lower limit shall apply at the transition frequencies.

#### 3.4. EUT 's Configuration during Compliance Measurement

The following equipment are installed on Power Line Conducted Emission Test to meet the commission requirement and operating regulations in a manner which tends to maximize its emission characteristics in a normal application.

### 3.4.1.Digital Audio Player (EUT)

Model Number : SA5225BT/37  
 Serial Number : N/A

3.4.2.Support Equipment : As Tested Supporting System Detail, in Section 2.2.

## 3.5. Operating Condition of EUT

3.5.1.Setup the EUT and simulator as shown as Section 3.2.

3.5.2.Turned on the power of all equipment.

3.5.3.Let the EUT worked in test mode (Data Transmitting + Charging) and measured it.

3.5.4.Data Transmitting mode: Transmitted data through USB Cable

3.5.5.The other peripheral devices were driven and operated in turn during all testing.

## 3.6. Test Procedure

The EUT was placed on a non-metallic table, 80cm above the ground plane. The EUT Power connected to the power mains through a line impedance stabilization network (L.I.S.N. #2). The other peripheral devices power cord connected to the power mains through a line impedance stabilization network (L.I.S.N.#3). This provided a 50-ohm coupling impedance for the EUT (Please refer to the block diagram of the test setup and photographs). Both sides of power line were checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipments and all of the interface cables were changed according to ANSI C63.4: 2003 on conducted Emission test.

The bandwidth of the R&S Test Receiver ESHS10 was set at 10kHz.

The frequency range from 150kHz to 30MHz was checked using a peak detector.

The all reading of measurement 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)

EUT with the following test modes were done conducted measurement (Mode 1) to read Q.P & Average value and the test results are listed and the other all test data on section 3.7.

The details of test modes are as follow:

Test Date: Feb.21, 2008

Temperature: 23°C

Humidity: 54%

No.	Test Mode	Reference Test Data No.	
		VA	VB
1.	<b>Data Transmitting +Charging</b>	# 7	# 8

## 3.7. Power Line Conducted Emission Measurement Results

**PASSED.**

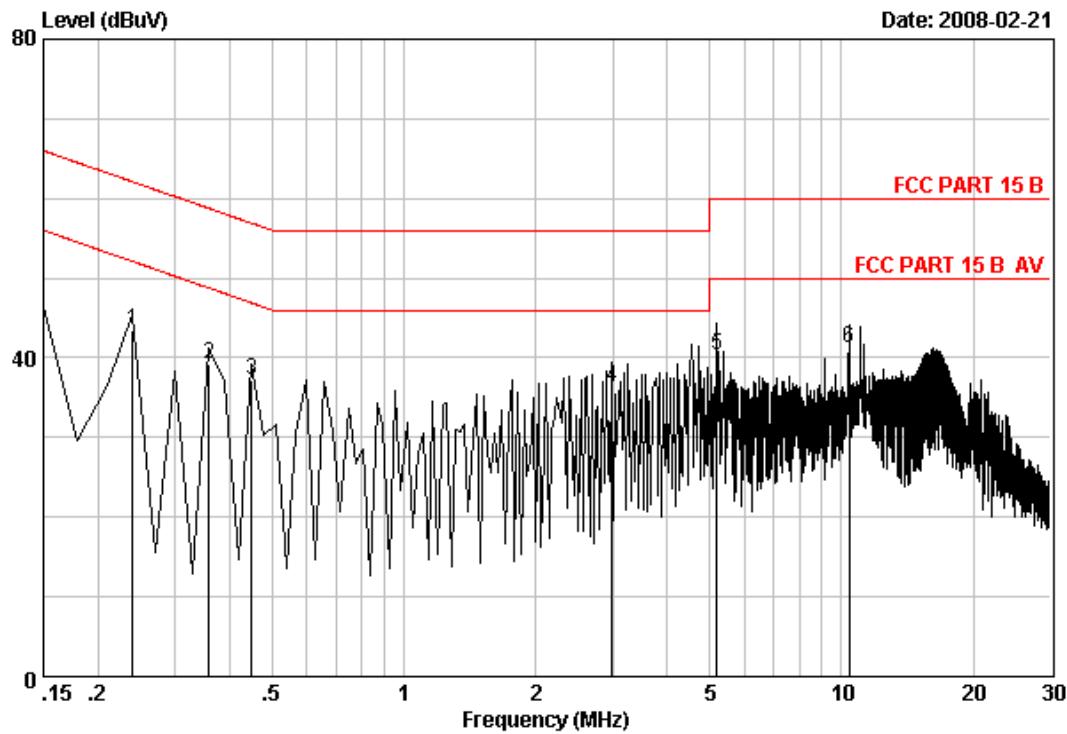


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Data: 7

File: D:\emc 002\DATA\2008 Report\P\PHILIPS\ACS8QH009.EMI (10)

Date: 2008-02-21



Site no : AUDIX No.1 Conduction Data no : 7  
 Dis./Ant. : -- KNU407 VA (1#)  
 Limit : FCC PART 15 B  
 Env./Ins. : Temp:23' Humi:54% ESHS10 Engineer : Jamy  
 EUT : Digital Audio Player M/N:SA5225BT/37  
 Power Rating : DC 5V From PC 120V/60Hz  
 Test Mode : Data transmitting + charging  
 Memo :

No	Freq	LISN Factor	Cable Loss	Reading	Emission Level	Limits	Margin	Remark
1	0.24	0.14	10.15	33.07	43.36	62.11	18.75	QP
2	0.36	0.10	10.14	29.00	39.24	58.75	19.51	QP
3	0.45	0.07	10.14	27.02	37.23	56.90	19.67	QP
4	2.99	0.08	10.17	26.18	36.43	56.00	19.57	QP
5	5.19	0.10	10.19	30.01	40.30	60.00	19.70	QP
6	10.39	0.19	10.25	30.72	41.16	60.00	18.84	QP

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.

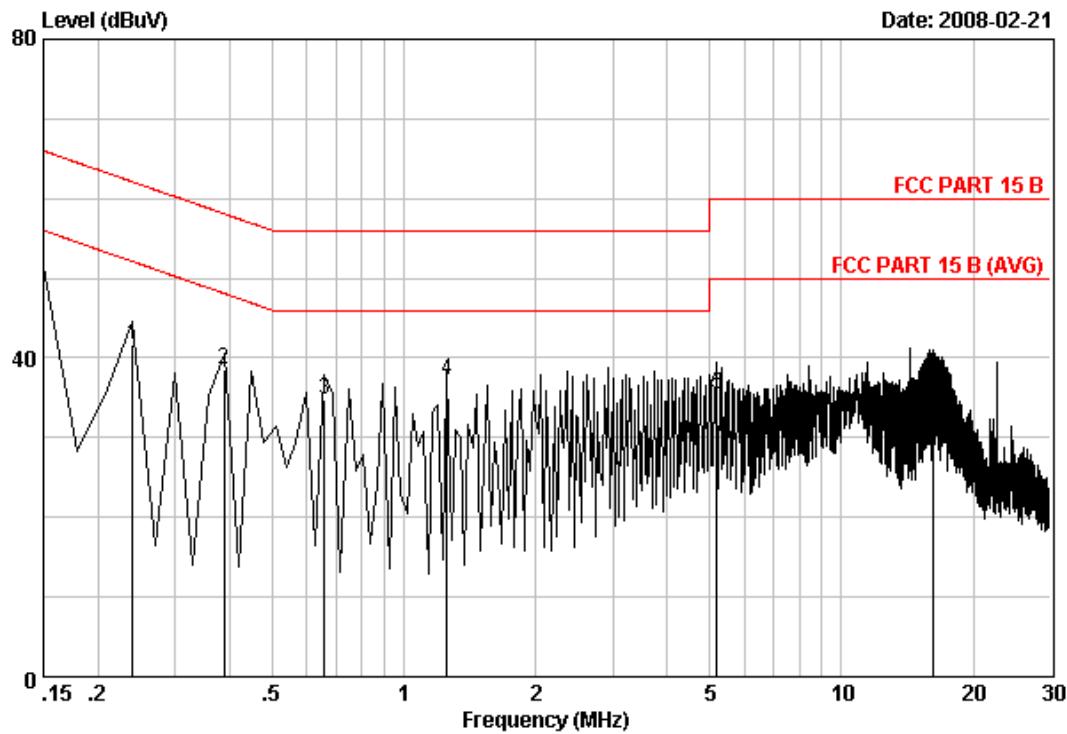


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Data: 8

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Date: 2008-02-21



Site no : AUDIX No.1 Conduction Data no : 8  
 Dis./Ant. : -- KNU407 VB (1#)  
 Limit : FCC PART 15 B  
 Env./Ins. : Temp:23' Humi:54% ESHS10 Engineer : Jamy  
 EUT : Digital Audio Player M/N:SA5225BT/37  
 Power Rating : DC 5V From PC 120V/60Hz  
 Test Mode : Data transmitting + charging  
 Memo :

No	Freq	LISN Factor	Cable Loss	Reading	Emission Level	Limits	Margin	Remark
1	0.24	0.14	10.15	31.28	41.57	62.11	20.54	QP
2	0.39	0.09	10.14	28.30	38.53	58.09	19.56	QP
3	0.66	0.04	10.14	24.60	34.78	56.00	21.22	QP
4	1.25	0.04	10.15	27.05	37.24	56.00	18.76	QP
5	5.19	0.09	10.19	25.10	35.38	60.00	24.62	QP
6	16.15	0.34	10.31	27.32	37.97	60.00	22.03	QP

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 TEST

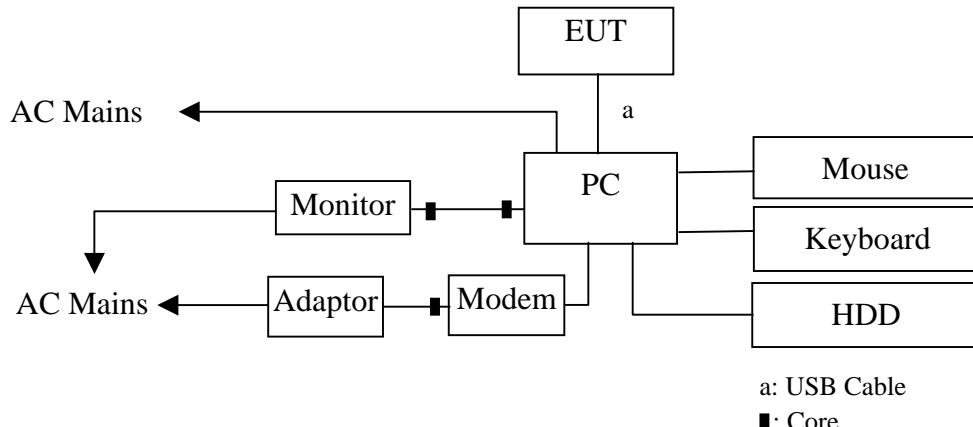
### 4.1. Test Equipments

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	3#Chamber	AUDIX	N/A	N/A	Dec.20, 07	1/2 Year
2	EMI Spectrum	Agilent	E7403A	MY42000106	May 11, 07	1 Year
3	Test Receiver	Rohde & Schwarz	ESVS20	830350/005	Dec.19, 07	1 Year
4	Amplifier	HP	8447D	2944A04738	Jan.09, 08	1/2 Year
5	Bilog Antenna	Schaffner	CBL6111C	2598	Feb.21, 08	1 Year
6	RF Cable	MIYAZAKI	5D-2W	3# Chamber No.1	Jan.09, 08	1/2 Year
7	RF Cable	MIYAZAKI	5D-2W	3# Chamber No.2	Jan.09, 08	1/2 Year
8	RF Cable	FUJIKURA <sup>w</sup>	RG-55/U	3# Chamber No.3	Jan.09, 08	1/2 Year
9	RF Cable	FUJIKURA	RG-55/U	3# Chamber No.4	Jan.09, 08	1/2 Year
10	Coaxial Switch	Anritsu	MP59B	M73989	Jan.09, 08	1/2 Year

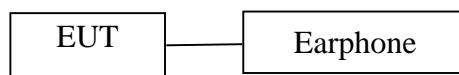
### 4.2. Block Diagram of Test Setup

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

Test Mode: Data Transmitting + Charging



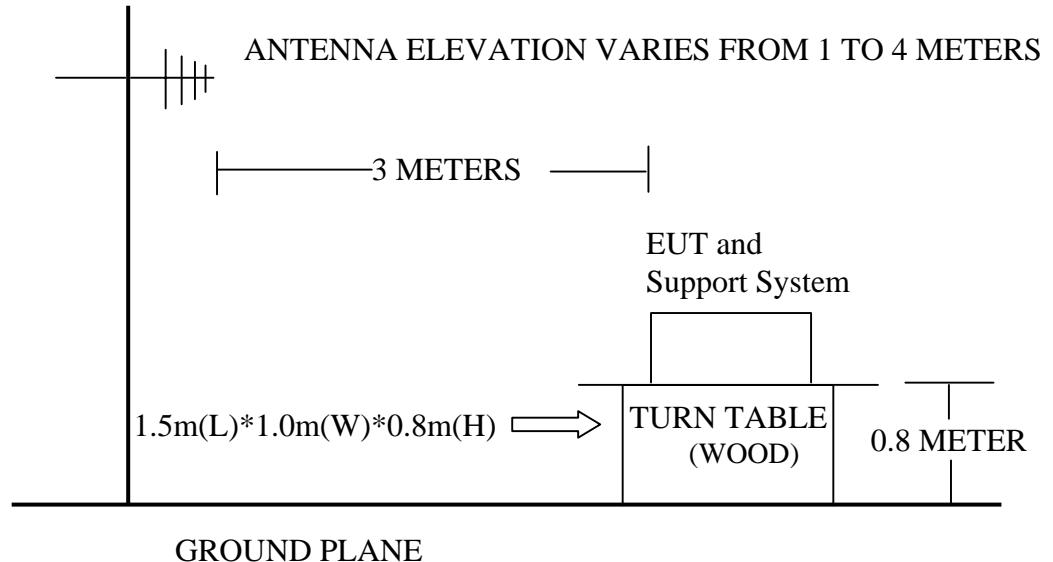
Test Mode: MP3 Playing & Video Playing & Recording & FM Mode



(EUT: Digital Audio Player)

#### 4.2.2. In Anechoic Chamber Test Setup Diagram

##### ANTENNA TOWER



#### 4.3. Radiated Emission Limit (§15.109(a), Class B)

Frequency MHz	Distance (Meters)	Field Strengths Limits dB( $\mu$ V)/m
30 ~ 88	3	40.0
88 ~ 216	3	43.5
216 ~ 960	3	46.0
960 ~ 1000	3	54.0

Remark : (1) Emission level = Antenna Factor + Cable Loss + Reading

(2) The smaller limit shall apply at the cross point between two frequency bands.

(3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

#### 4.4. EUT 's Configuration during Compliance Measurement

The following equipment are installed on Radiated Emission Test to meet the commission requirements and operating regulations in a manner that tends to maximize its emission characteristics in normal application.

##### 4.4.1.Digital Audio Player (EUT)

Model Number : SA5225BT/37  
Serial Number : N/A

4.4.2.Support Equipment : As Tested Supporting System Detail, in Section 2.2.

#### 4.5. Operating Condition of the EUT

- 4.5.1. Setup the EUT and simulator as shown as Section 4.2.
- 4.5.2. Turned on the power of all equipment.
- 4.5.3. Let the EUT worked in test mode (Data Transmitting + Charging/ MP3 Playing / Video Playing /Recording /FM 88.1MHz / FM 98.1MHz / FM 107.9MHz) and measured it.
- 4.5.4. Data Transmitting mode: Transmitted data through USB Cable
- 4.5.5. MP3 Playing: Played 1kHz Signal MP3.
- 4.5.6. FM Mode: EUT received signal from SG.
- 4.5.7. The other peripheral devices were driven and operated in turn during all testing.

#### 4.6. Test Procedure

The EUT was placed on a non-metallic table, 80 cm above the ground plane inside a semi-anechoic chamber. An antenna was located 3m from the EUT on an adjustable mast. A pre-scan was first performed in order to find prominent radiated emissions. For final emissions measurements at each frequency of interest, the EUT were rotated and the antenna height was varied between 1m and 4m in order to maximize the emission. Measurements in both horizontal and vertical polarities were made and the data was recorded. In order to find the maximum emission, the relative positions of equipments and all of the interface cables were changed according to ANSI C63.4-2003 on Radiated Emission test.

The bandwidth setting on the test receiver (R&S TEST RECEIVER ESVS20) is 120kHz.

The frequency range from 30MHz to 1000MHz was pre-scanned with a peak detector and all final readings of measurement from Test Receiver are Quasi-Peak values.

For frequency range 30MHz~1000MHz, EUT with the following test modes were measured within Anechoic Chamber and all the scanning waveform were attached on section 4.7.

which include :

No.	Test Mode	Reference Test Data No.	
		Horizontal	Vertical
1. <b>※</b>	<b>Data Transmitting + Charging</b>	<b>#6</b>	<b>#5</b>
2.	MP3 Playing	#3	#4
3.	Video Playing	#7	#8
4.	Recording	#9	#10
5.	FM 88.1MHz	#12	#11
6.	FM 98.1MHz	#13	#14
7.	FM 107.8MHz	#16	#15

(※ Worst test mode)

Test Date: Feb.21, 2008      Temperature: 24°C      Humidity: 56%

Finally, selected operating situations at Anechoic Chamber measurement, all the test results are listed in section 4.7.

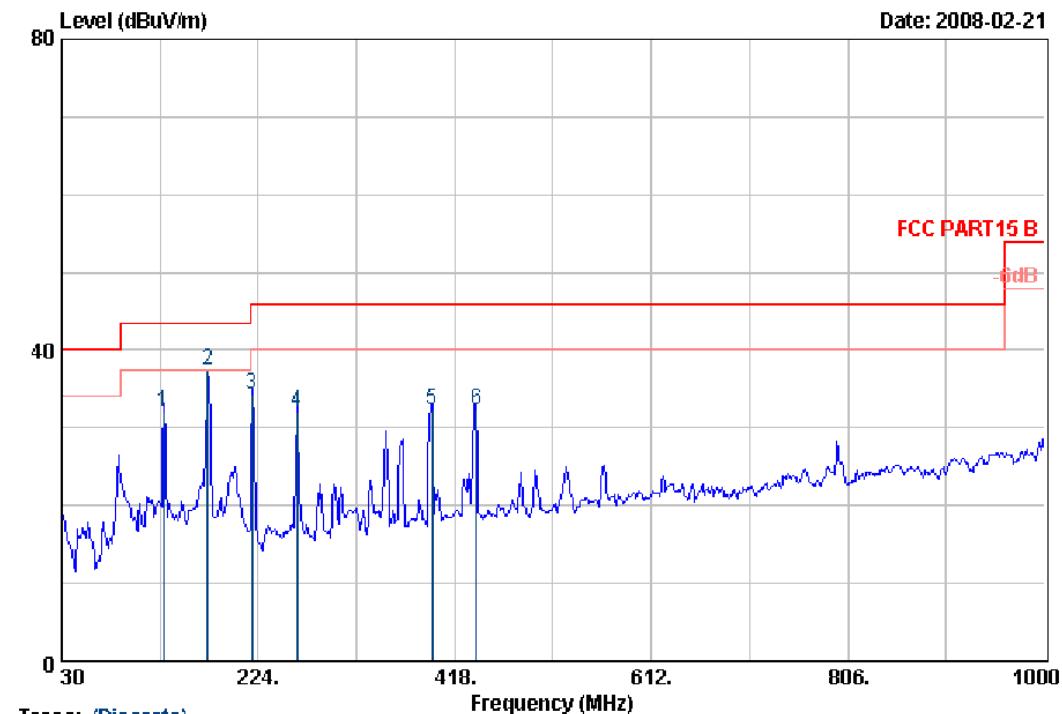
#### 4.7. Radiated Disturbance Test Results

**PASSED.**



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Data: 6 File: D:\2008 Report Data\P\PHILIPS\ACS8QH009.EMI (36)



Trace: (Discrete)

Site no. : 3# Chamber Radiation Data no. : 6  
Dis. / Ant. : 3m 2598 Ant. pol. : HORIZONTAL  
Limit : FCC PART15 B  
Env. / Ins. : 24°C/56% ESW20 Engineer : Jamy  
EUT : Digital Audio Player M/N:SA5225BT/37  
Power Rating : DC 5V From PC 120V/60Hz  
Test Mode : Data Transmitting + Charging

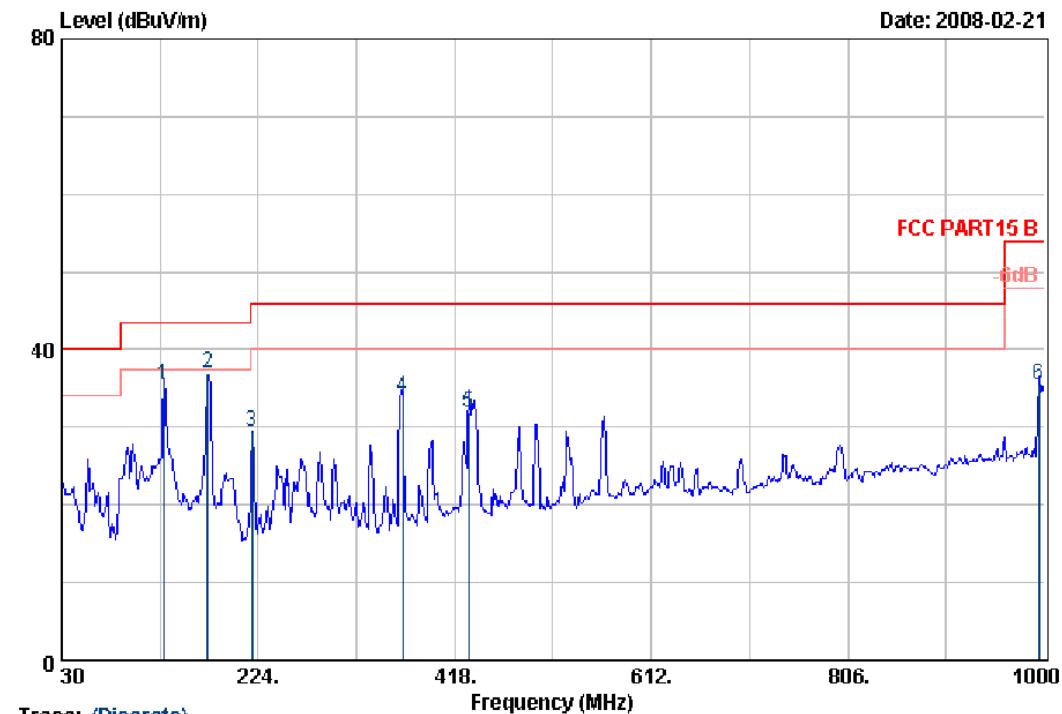
Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Emission				
			Reading (dB $\mu$ V)	Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	Remark
1 130.88	12.06	1.16	18.92	32.14	43.50	11.36	QP
2 174.53	9.60	1.27	26.65	37.52	43.50	5.98	QP
3 218.18	10.18	1.41	22.69	34.28	46.00	11.72	QP
4 261.83	13.98	1.55	16.52	32.05	46.00	13.95	QP
5 395.69	16.34	1.87	14.07	32.28	46.00	13.72	QP
6 439.34	17.08	2.04	13.11	32.23	46.00	13.77	QP

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 174.53MHz with corrected signal level of 37.52dB $\mu$ V/m (Limit is 43.50dB $\mu$ V/m) when the antenna was at horizontal polarization and at 1.0m high and the turn table was at 130°.  
4. 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.



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Trace: (Discrete)

Site no. : 3# Chamber Radiation Data no. : 5  
Dis. / Ant. : 3m 2598 Ant. pol. : VERTICAL  
Limit : FCC PART15 B  
Env. / Ins. : 24°C/56% ESW520 Engineer : Jamy  
EUT : Digital Audio Player M/N:SA5225BT/37  
Power Rating : DC 5V From PC 120V/60Hz  
Test Mode : Data Transmitting + Charging

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Emission				Remark
			Reading (dB $\mu$ V)	Level (dB $\mu$ V/m)	Limits (dB $\mu$ V/m)	Margin (dB)	
1 130.88	12.06	1.16	22.20	35.42	43.50	8.08	QP
2 174.53	9.60	1.27	26.10	36.97	43.50	6.53	QP
3 218.18	10.18	1.41	17.72	29.31	46.00	16.69	QP
4 366.59	15.43	1.76	16.78	33.97	46.00	12.03	QP
5 431.58	17.00	1.99	12.80	31.79	46.00	14.21	QP
6 994.18	24.12	2.77	8.56	35.45	54.00	18.55	QP

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 174.53MHz with corrected signal level of 36.97dB $\mu$ V/m (Limit is 43.50dB $\mu$ V/m) when the antenna was at vertical polarization and at 1.0m high and the turn table was at 330°.

4. 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

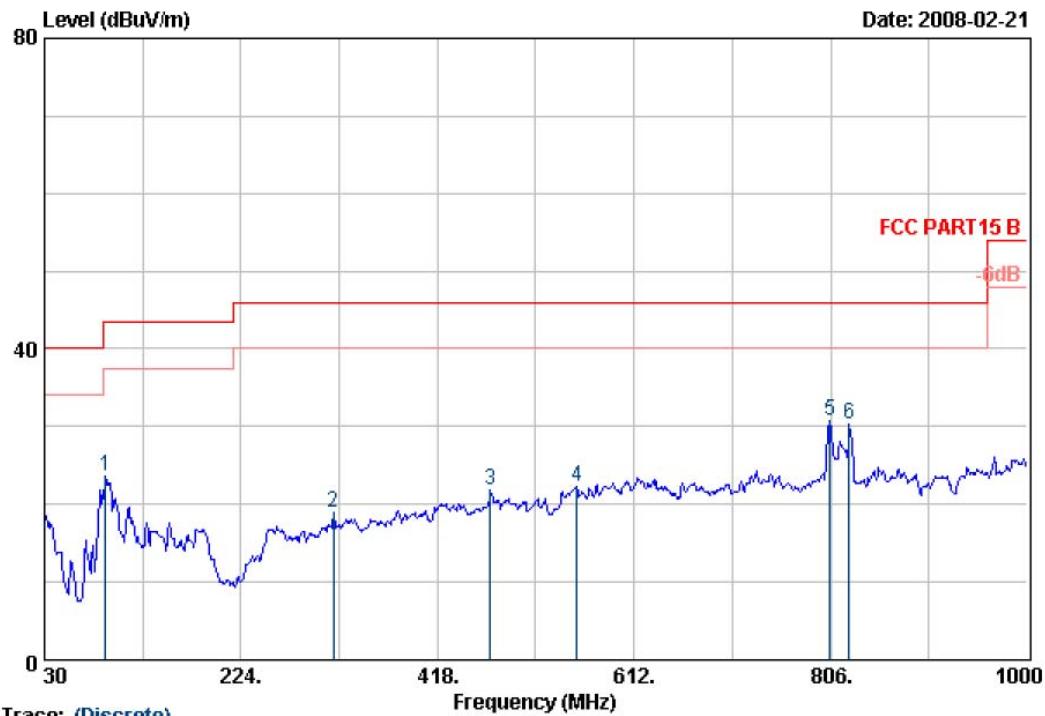


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Postcode:518057

Data: 3

File: D:\2008 report data\P\30M-1G\ACS8QH009.EMI (38)

Date: 2008-02-21



## Trace: (Discrete)

Site no. : 3# Chamber Data no. : 3  
 Dis. / Ant. : 3m 2598 Ant. pol. : HORIZONTAL  
 Limit : FCC PART15 B  
 Env. / Ins. : 24°C/56% ESVS20 Engineer : Jamy  
 EUT : Digital Audio Player M/N:SA5225BT/37  
 Power Rating : DC 3.7V  
 Test Mode : MP3 Playing

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Emission				
			Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 90.14	9.00	1.20	13.40	23.60	43.50	19.90	QP
2 315.18	14.00	2.34	2.51	18.85	46.00	27.15	QP
3 470.38	17.60	2.85	1.42	21.87	46.00	24.13	QP
4 555.74	19.38	3.13	0.12	22.63	46.00	23.61	QP
5 805.03	21.90	3.80	5.09	30.79	46.00	15.21	QP
6 824.43	22.25	3.85	4.11	30.21	46.00	15.79	QP

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

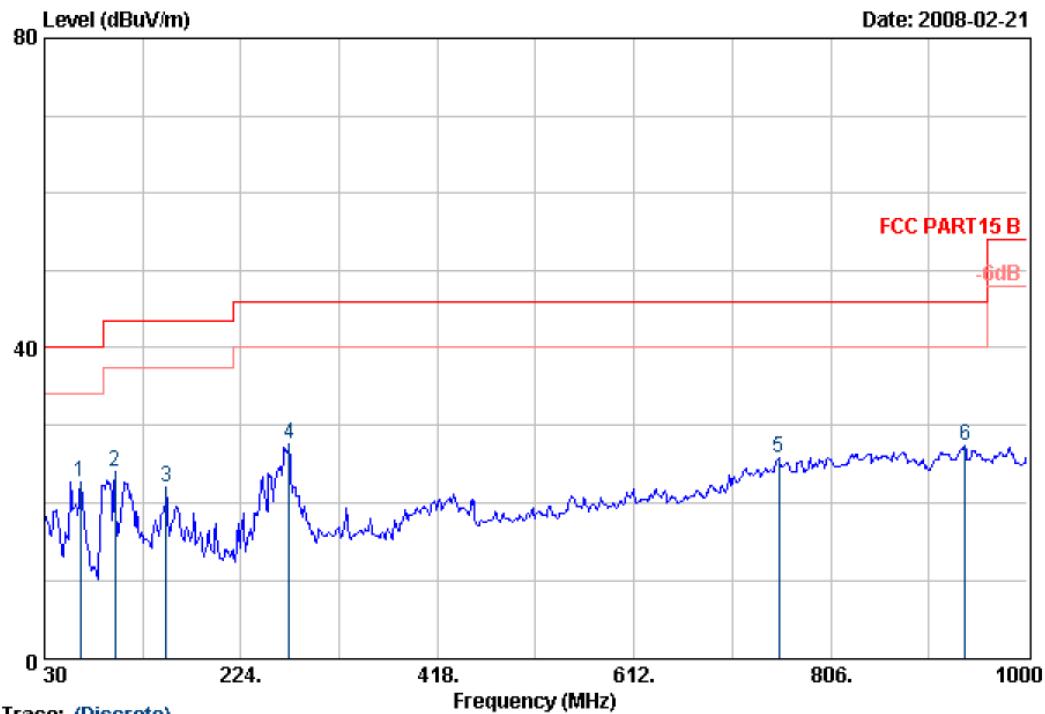


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Data: 4

File: D:\2008 report data\P\30M-1G\ACS8QH009.EMI (38)

Date: 2008-02-21



Trace: (Discrete)

Site no. : 3# Chamber Data no. : 4  
 Dis. / Ant. : 3m 2598 Ant. pol. : VERTICAL  
 Limit : FCC PART15 B  
 Env. / Ins. : 24°C/56% ESVS20 Engineer : Jamy  
 EUT : Digital Audio Player M/N:SA5225BT/37  
 Power Rating : DC 3.7V  
 Test Mode : MP3 Playing

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Emission				Margin (dB)	Remark
			Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)			
1 65.89	5.74	1.08	15.84	22.66	40.00	17.34	QP	
2 99.84	10.40	1.30	12.26	23.96	43.50	19.54	QP	
3 150.28	11.40	1.54	9.07	22.01	43.50	21.49	QP	
4 271.53	13.43	2.20	11.95	27.58	46.00	18.42	QP	
5 754.59	22.00	3.68	0.18	25.86	46.00	20.14	QP	
6 938.89	23.88	4.18	0.60	28.66	46.00	18.54	QP	

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

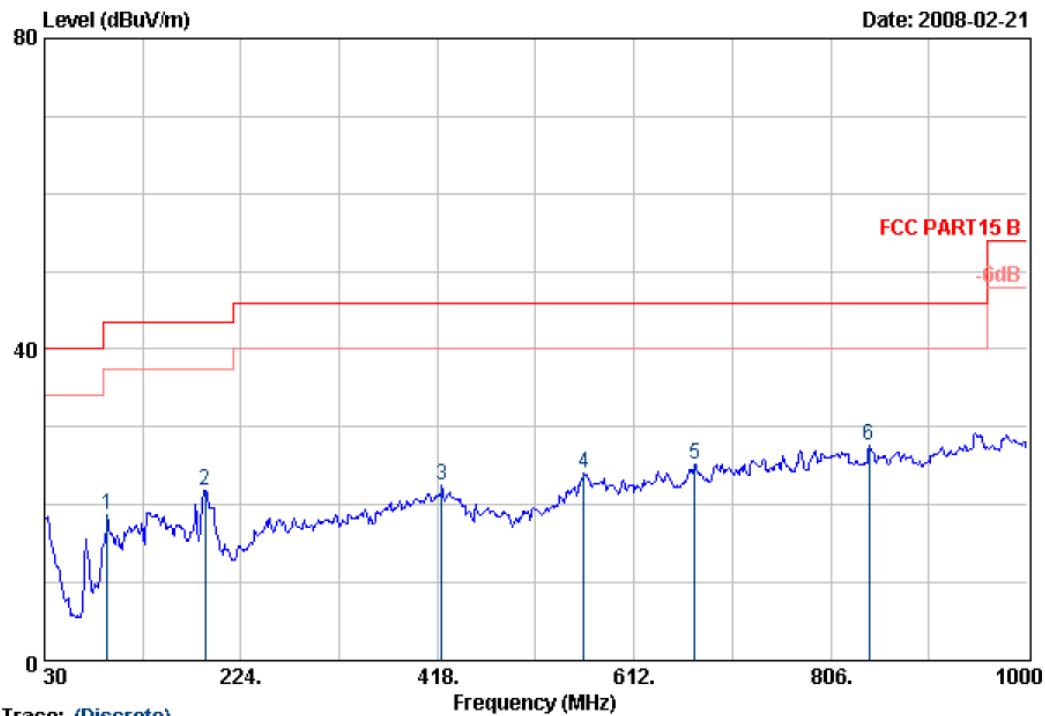


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Data: 7

File: D:\2008 report data\P\30M-1G\ACS8QH009.EMI (38)

Date: 2008-02-21



Trace: (Discrete)

Site no. : 3# Chamber Data no. : 7  
 Dis. / Ant. : 3m 2598 Ant. pol. : HORIZONTAL  
 Limit : FCC PART15 B  
 Env. / Ins. : 24°C/56% EVS20 Engineer : Jamy  
 EUT : Digital Audio Player M/N:SA5225BT/37  
 Power Rating : DC 3.7V  
 Test Mode : Video playing

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Emission			
			Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)
1 92.08	9.28	1.20	8.25	18.73	43.50	24.77 QP
2 189.08	9.36	1.77	10.81	21.94	43.50	21.56 QP
3 421.88	17.26	2.72	2.60	22.58	46.00	23.42 QP
4 562.53	19.30	3.13	1.58	24.01	46.00	21.99 QP
5 672.14	20.54	3.49	1.12	25.15	46.00	20.85 QP
6 843.83	22.68	3.91	1.08	27.67	46.00	18.33 QP

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

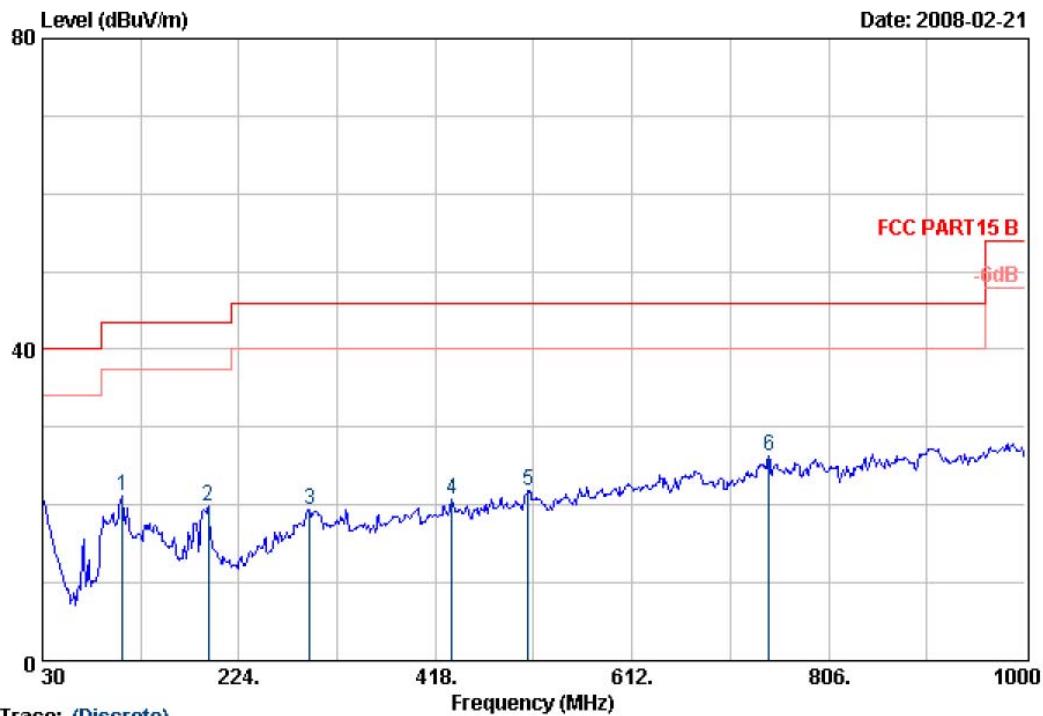


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Data: 8

File: D:\2008 report data\P\30M-1G\ACS8QH009.EMI (38)

Date: 2008-02-21



## Trace: (Discrete)

Site no. : 3# Chamber Data no. : 8  
 Dis. / Ant. : 3m 2598 Ant. pol. : VERTICAL  
 Limit : FCC PART15 B  
 Env. / Ins. : 24°C/56% EVS20 Engineer : Jamy  
 EUT : Digital Audio Player M/N:SA5225BT/37  
 Power Rating : DC 3.7V  
 Test Mode : Video playing

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Emission				
			Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 109.54	11.30	1.30	8.58	21.18	43.50	22.32	QP
2 193.93	9.72	1.89	8.16	19.77	43.50	23.73	QP
3 293.84	13.66	2.28	3.46	19.40	46.00	26.60	QP
4 434.49	17.00	2.72	1.04	20.76	46.00	25.24	QP
5 509.18	18.18	2.99	0.63	21.80	46.00	24.20	QP
6 746.83	21.84	3.68	0.72	26.24	46.00	19.76	QP

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

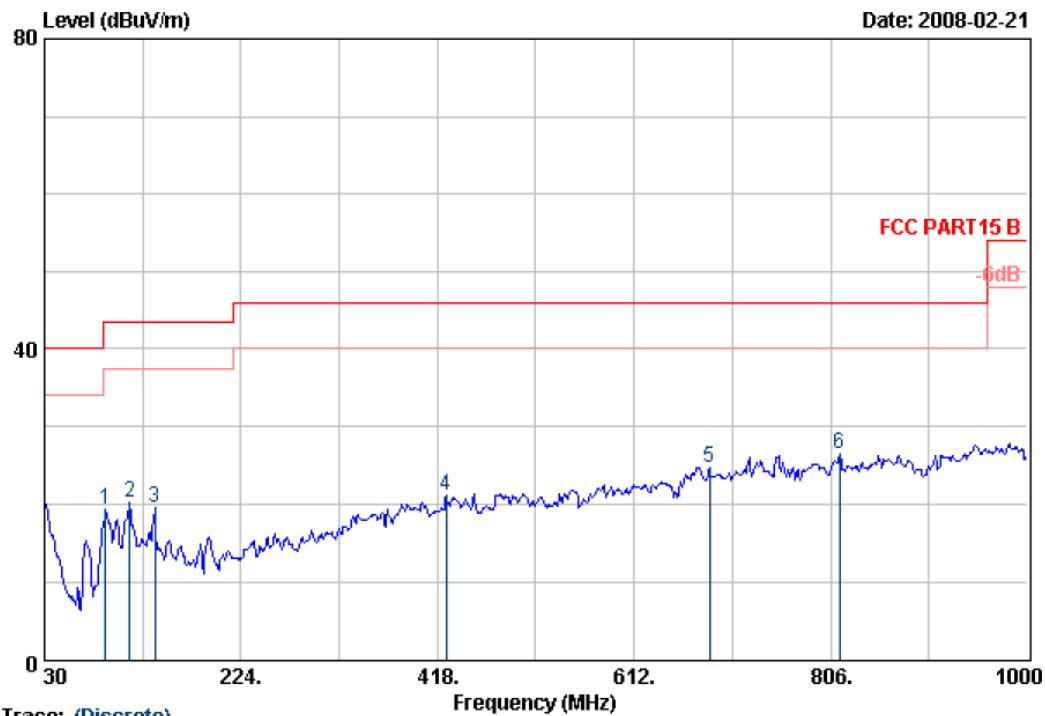


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Data: 9

File: D:\2008 report data\P\30M-1G\ACS8QH009.EMI (38)

Date: 2008-02-21



## Trace: (Discrete)

Site no. : 3# Chamber Data no. : 9  
 Dis. / Ant. : 3m 2598 Ant. pol. : VERTICAL  
 Limit : FCC PART15 B  
 Env. / Ins. : 24°C/56% EHSV20 Engineer : Jamy  
 EUT : Digital Audio Player M/N:SA5225BT/37  
 Power Rating : DC 3.7V  
 Test Mode : Recording

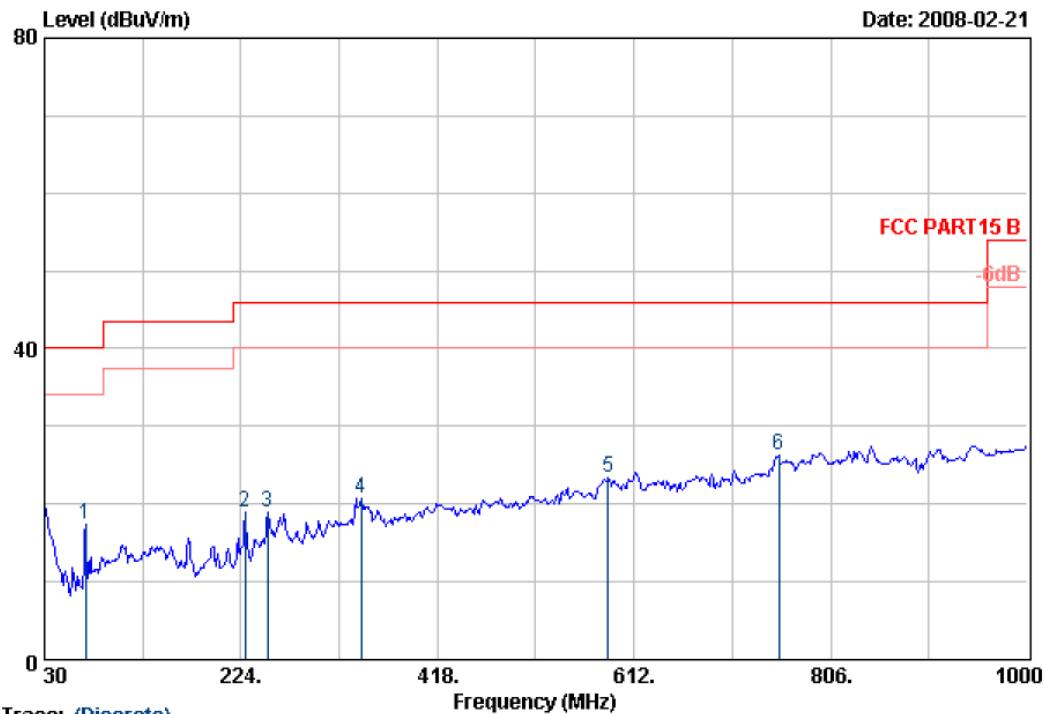
Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Emission				
			Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 90.14	9.00	1.20	9.11	19.31	43.50	24.19	QP
2 114.39	11.63	1.30	7.34	20.27	43.50	23.23	QP
3 138.64	11.98	1.54	6.00	19.52	43.50	23.98	QP
4 426.73	17.12	2.72	1.37	21.21	46.00	24.79	QP
5 686.69	20.60	3.56	0.59	24.75	46.00	21.25	QP
6 814.73	22.10	3.80	0.57	26.47	46.00	19.53	QP

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: 10 File: D:\2008 report data\P\30M-1G\ACS8QH009.EMI (38)



## Trace: (Discrete)

Site no. : 3# Chamber Data no. : 10  
Dis. / Ant. : 3m 2598 Ant. pol. : VERTICAL  
Limit : FCC PART15 B  
Env. / Ins. : 24°C/56% EVS20 Engineer : Jamy  
EUT : Digital Audio Player M/N:SA5225BT/37  
Power Rating : DC 3.7V  
Test Mode : Recording

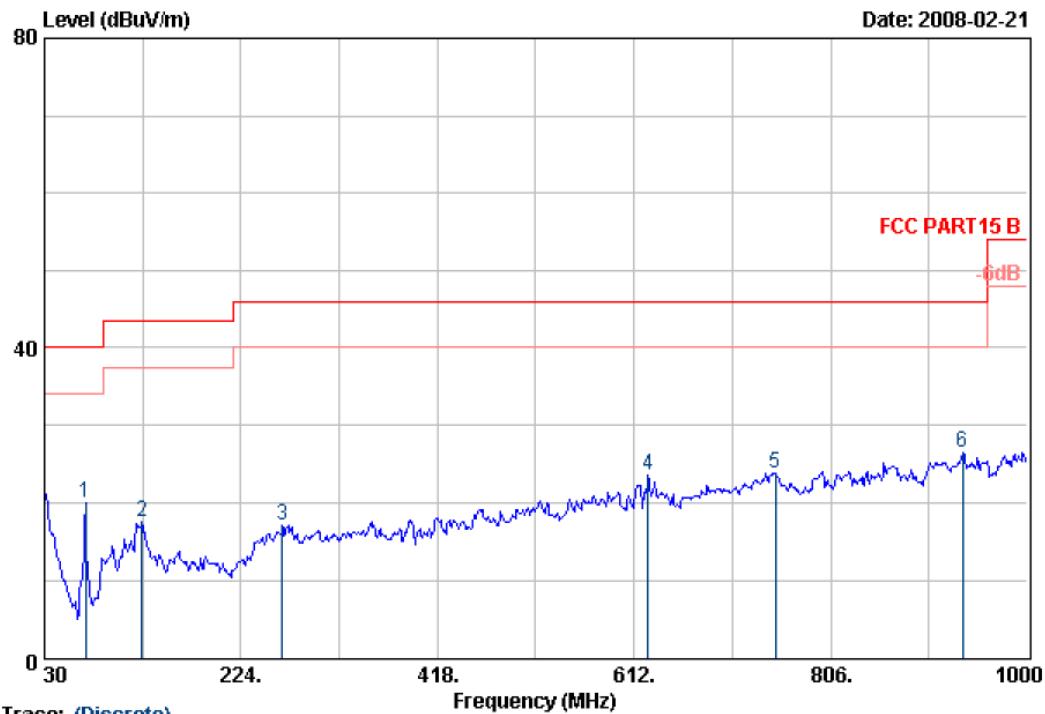
Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Emission				
			Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 70.74	6.48	1.08	9.89	17.45	40.00	22.55	QP
2 227.88	10.88	1.97	6.14	18.99	46.00	27.01	QP
3 250.19	12.70	2.12	4.20	19.02	46.00	26.98	QP
4 342.34	14.88	2.47	3.48	20.83	46.00	25.17	QP
5 586.78	19.64	3.18	0.68	23.50	46.00	22.50	QP
6 754.59	22.00	3.68	0.52	26.20	46.00	19.80	QP

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: 12 File: D:\2008 report data\P\30M-1G\ACS8QH009.EMI (38)



## Trace: (Discrete)

Site no. : 3# Chamber Data no. : 12  
 Dis. / Ant. : 3m 2598 Ant. pol. : HORIZONTAL  
 Limit : FCC PART15 B  
 Env. / Ins. : 24°C/56% ESVS20 Engineer : Jamy  
 EUT : Digital Audio Player M/N:SA5225BT/37  
 Power Rating : DC 3.7V  
 Test Mode : FM Receive 88.1MHz

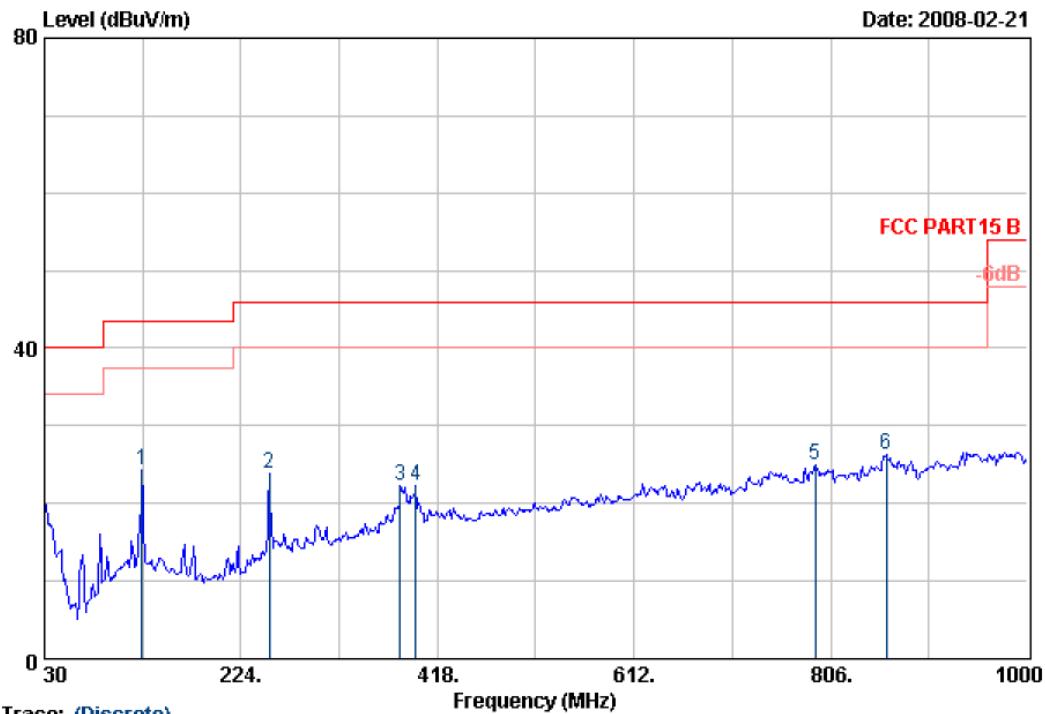
Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Emission				Margin (dB)	Remark
			Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)			
1 70.74	6.48	1.08	12.45	20.01	40.00	19.99	QP	
2 126.03	11.86	1.42	4.25	17.53	43.50	25.97	QP	
3 264.74	14.10	2.12	0.96	17.18	46.00	28.82	QP	
4 625.58	20.00	3.30	0.35	23.65	46.00	22.35	QP	
5 751.68	21.94	3.68	1.76	27.38	46.00	18.62	QP	
6 935.98	23.82	4.18	1.51	29.51	46.00	16.49	QP	

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: 11 File: D:\2008 report data\P\30M-1G\ACS8QH009.EMI (38)



## Trace: (Discrete)

Site no. : 3# Chamber Data no. : 11  
Dis. / Ant. : 3m 2598 Ant. pol. : VERTICAL  
Limit : FCC PART15 B  
Env. / Ins. : 24°C/56% EVS20 Engineer : Jamy  
EUT : Digital Audio Player M/N:SA5225BT/37  
Power Rating : DC 3.7V  
Test Mode : FM Receive 88.1MHz

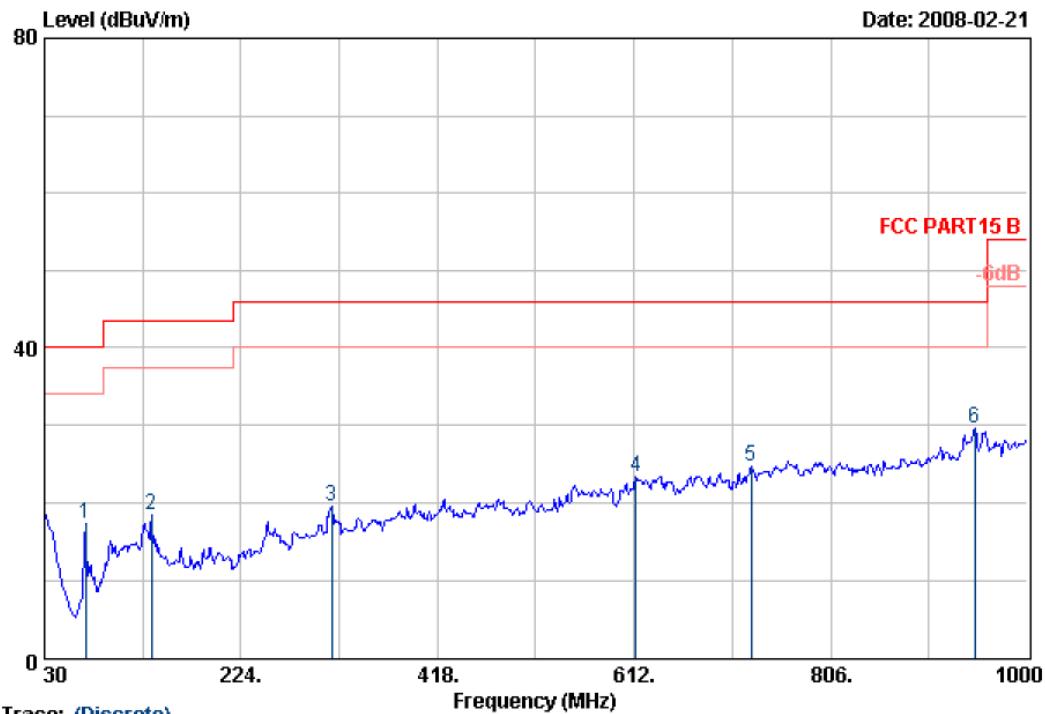
Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Emission				
			Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 126.03	11.86	1.42	11.10	24.38	43.50	19.12	QP
2 252.13	12.90	2.12	8.81	23.83	46.00	22.17	QP
3 381.14	15.92	2.59	3.67	22.18	46.00	23.82	QP
4 396.66	16.38	2.59	3.39	22.36	46.00	23.64	QP
5 790.48	22.00	3.76	0.89	26.65	46.00	19.35	QP
6 861.29	22.80	3.96	0.52	27.28	46.00	18.72	QP

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: 13 File: D:\2008 report data\P\30M-1G\ACS8QH009.EMI (38)



## Trace: (Discrete)

Site no. : 3# Chamber Data no. : 13  
 Dis. / Ant. : 3m 2598 Ant. pol. : HORIZONTAL  
 Limit : FCC PART15 B  
 Env. / Ins. : 24°C/56% ESVS20 Engineer : Jamy  
 EUT : Digital Audio Player M/N:SA5225BT/37  
 Power Rating : DC 3.7V  
 Test Mode : FM Receive 98.1MHz

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Emission			
			Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)
1 70.74	6.48	1.08	9.93	17.49	40.00	22.51 QP
2 135.73	11.92	1.54	5.10	18.56	43.50	24.94 QP
3 313.24	13.96	2.34	3.28	19.58	46.00	26.42 QP
4 613.94	19.98	3.30	0.19	23.47	46.00	22.53 QP
5 727.43	21.40	3.64	0.38	25.42	46.00	20.58 QP
6 948.59	24.08	4.18	1.30	29.56	46.00	16.44 QP

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

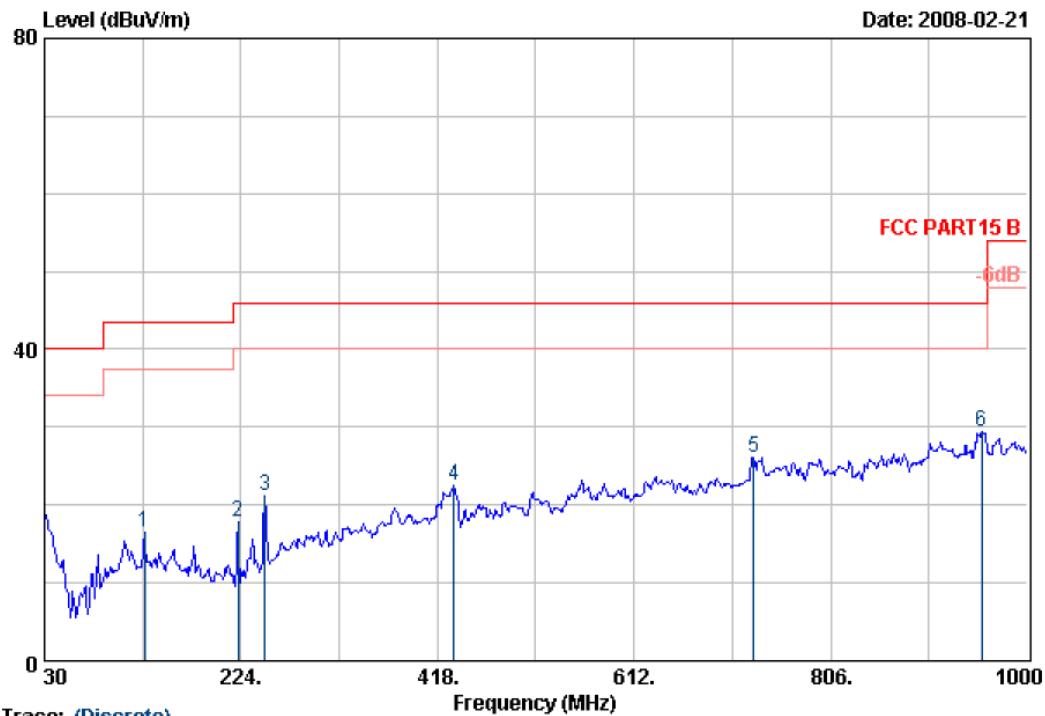


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Data: 14

File: D:\2008 report data\P\30M-1G\ACS8QH009.EMI (38)

Date: 2008-02-21



## Trace: (Discrete)

Site no. : 3# Chamber Data no. : 14  
 Dis. / Ant. : 3m 2598 Ant. pol. : VERTICAL  
 Limit : FCC PART15 B  
 Env. / Ins. : 24°C/56% EHSV20 Engineer : Jamy  
 EUT : Digital Audio Player M/N:SA5225BT/37  
 Power Rating : DC 3.7V  
 Test Mode : FM Receive 98.1MHz

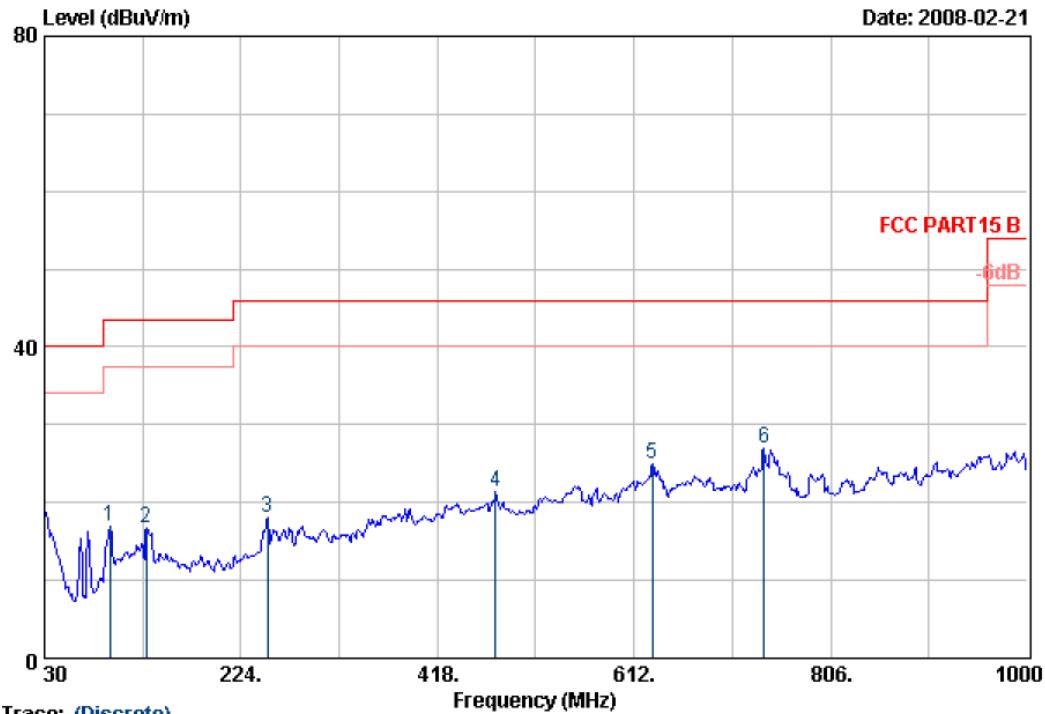
Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Emission				
			Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 128.94	12.04	1.42	2.96	16.42	43.50	27.08	QP
2 221.09	10.38	1.97	5.48	17.83	46.00	28.17	QP
3 247.28	12.46	2.05	6.64	21.15	46.00	24.85	QP
4 434.49	17.00	2.72	2.86	22.58	46.00	23.42	QP
5 730.34	21.50	3.64	0.99	26.13	46.00	19.87	QP
6 955.38	24.20	4.24	0.97	29.41	46.00	16.59	QP

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: 16 File: D:\2008 report data\P\30M-1G\ACS8QH009.EMI (38)



## Trace: (Discrete)

Site no. : 3# Chamber Data no. : 16  
 Dis. / Ant. : 3m 2598 Ant. pol. : HORIZONTAL  
 Limit : FCC PART15 B  
 Env. / Ins. : 24°C/56% EHSV20 Engineer : Jamy  
 EUT : Digital Audio Player M/N:SA5225BT/37  
 Power Rating : DC 3.7V  
 Test Mode : FM Receive 107.9MHz

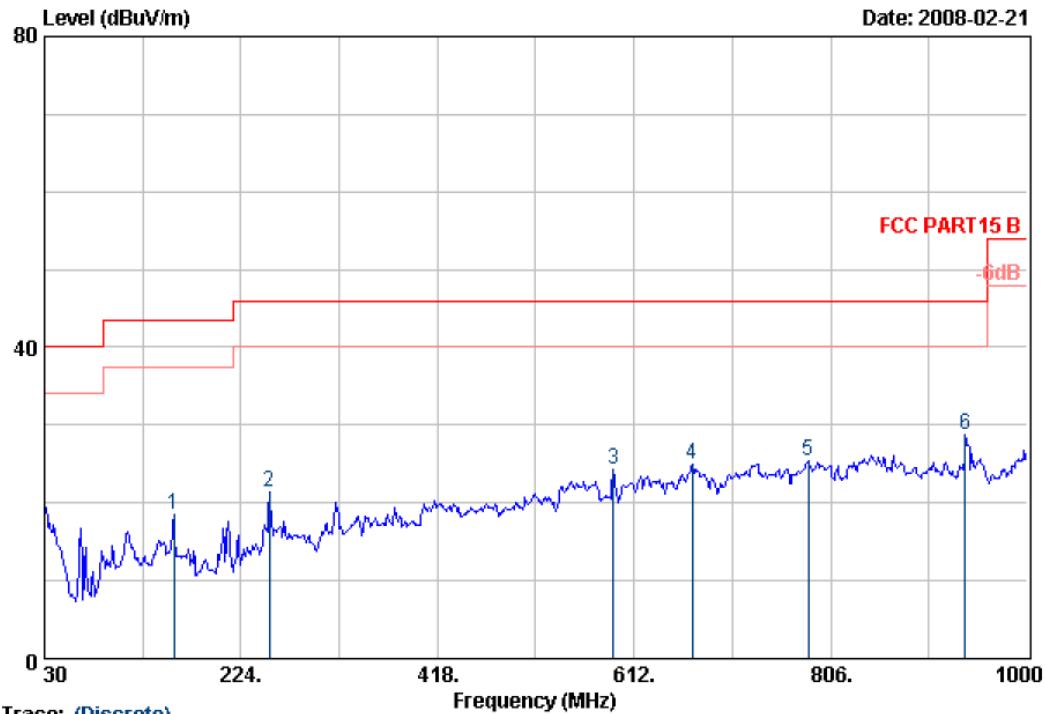
Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Emission				
			Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 94.99	9.70	1.20	6.01	16.91	43.50	26.59	QP
2 130.88	12.06	1.42	3.25	16.73	43.50	26.77	QP
3 250.19	12.70	2.12	3.27	18.09	46.00	27.91	QP
4 475.23	17.80	2.85	0.71	21.36	46.00	24.64	QP
5 630.43	20.00	3.36	1.56	24.92	46.00	21.08	QP
6 740.04	21.80	3.64	1.44	26.88	46.00	19.12	QP

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: 15 File: D:\2008 report data\P\30M-1G\ACS8QH009.EMI (38)



## Trace: (Discrete)

Site no. : 3# Chamber Data no. : 15  
Dis. / Ant. : 3m 2598 Ant. pol. : VERTICAL  
Limit : FCC PART15 B  
Env. / Ins. : 24°C/56% ESVS20 Engineer : Jamy  
EUT : Digital Audio Player M/N:SA5225BT/37  
Power Rating : DC 3.7V  
Test Mode : FM Receive 107.9MHz

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Emission				
			Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 158.04	11.06	1.65	5.86	18.57	43.50	24.93	QP
2 252.13	12.90	2.12	6.33	21.35	46.00	24.65	QP
3 591.63	19.70	3.23	1.31	24.24	46.00	21.76	QP
4 669.23	20.50	3.49	1.06	25.05	46.00	20.95	QP
5 783.69	21.98	3.76	0.31	26.05	46.00	19.95	QP
6 938.89	23.88	4.18	0.64	28.70	46.00	17.30	QP

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]