



Most Technology Service Co., Ltd.  
Tel:(86) 755-86170306 Fax:(86) 755-86170310  
Http:// www. szmost.com Email: szmost@szmost.com

### Test Report

Product Name: BoomBoom

FCC ID: YL5SPF4008P

MODEL NO.: SPF4008P/G7 , SPF4908P/G7

GS-8DNM-2 , GS-8DNM-1

Applicant:

SHENZHEN 3NOD AUDIO&VIDEO Co., Ltd

Tangxiayong yangyong road 74<sup>th</sup>, Songgang Baoan, shenzhen, China

Test by:

(candy zhang )

Reviewed by:

(key wang)

Approved by:

(Yvette zhou)

Date Received: 19/07/2010

Date Tested: 15/07/2010



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SHENZHEN MOST ELECTRONICS CO., LTD.  
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## EMC Equipment List

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
EMI Test Receiver	ROHDE&SCHWARZ	ESCI	100492	Mar. 06, 2010	1 Year
LISN	ROHDE&SCHWARZ	ENV216	100093	Mar. 06, 2010	1Year
EMI Test Receiver	ROHDE&SCHWARZ	ESPI	101202	Mar. 06, 2010	1 Year
Spectrum Analyzer	ANRITSU	MS2651B	6200238316	Mar. 06, 2010	1 Year
50 Coaxial Switch	ANRITSU CORP	MP59B	6200283933	Mar. 06, 2010	1 Year
Bilog Antenna	Sunol	JB3	A121206	Mar. 06, 2010	1 Year
Horn Antenna	EMCO	3115	640201028-06	Mar. 06, 2010	1 Year
50 Coaxial Switch	ANRITSU CORP	MP59B	6200283933	Mar. 06, 2010	1 Year
Cable	Resenberger	N/A	NO.1	Mar. 06, 2010	1 Year
Cable	SCHWARZBECK	N/A	NO.2	Mar. 06, 2010	1 Year
Cable	SCHWARZBECK	N/A	NO.3	Mar. 06, 2010	1 Year

Remark:

Test Firm Name: Most Technology Service Co., Ltd.

Test Firm Address:

No. 5, 2nd Langshan Road, North District, Hi-tech Industrial  
Park, Nanshan, Shenzhen, Guangdong, China

FCC Registered Test Site Number: 490827

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## TEST PROCEDURE

**GENERAL:** This report shall NOT be reproduced except in full without the written approval of MOST TECHNOLOGY SERVICE CO., LTD. The EUT was transmitting a test signal during the testing.

**POWER LINE CONDUCTED INTERFERENCE:** The test procedure used was ANSI Standard C63.4-2003 using a 50 UH LISN. Both Lines were observed. The bandwidth of the receiver was 10kHz with an appropriate sweep speed. The ambient temperature of the EUT was 25 with a humidity of 58%.

**RADIATION INTERFERENCE:** The test procedure used was ANSI Standard C63.4-2003 using a ANRITSU spectrum analyzer with a pre-selector. The analyzer was calibrated in dB above a micro volt at the output of the antenna. The resolution bandwidth was 100 kHz and the video bandwidth was 300 kHz up to 1 GHz and 1 MHz with a video BW of 3 MHz above 1 GHz. The ambient temperature of the EUT was 25 with a humidity of 58%.

**FORMULA OF CONVERSION FACTORS:** The Field Strength at 3m was established by adding the meter reading of the spectrum analyzer (which is set to read in units of dBuV) to the antenna correction factor supplied by the antenna manufacturer and cable loss. The antenna correction factors and cable loss are stated in terms of dB. The gain of the Pre-selector was accounted for in the Spectrum Analyzer Meter Reading.

Example:

Freq (MHz) METER READING + ACF + CABLE = FS  
33 20 dBuV + 10.36 dB + 0.9 dB= 31.26 dBuV/m @ 3m

**ANSI STANDARD C63.4-2003 10.1.7 MEASUREMENT PROCEDURES:** The EUT was placed on a table 80 cm high and with dimensions of 1m by 1.5m. The EUT was placed in the edge of the table (1.5m side). The table used for radiated measurements is capable of continuous rotation. The spectrum was scanned from 30 MHz to 10th harmonic of the fundamental.

Peak readings were taken in three (3) orthogonal planes and the highest readings were converted to average readings based on the duration of "ON" time.

When an emission was found, the table was rotated to produce the maximum signal strength. At this point, the antenna was raised and lowered from 1m to 4m. The antenna was placed in both the horizontal and vertical planes.

The situation was similar for the conducted measurement except that the table did not rotate. The EUT was setup as described in ANSI Standard C63.4-2003 10.1.7 with the EUT 40 cm from the vertical ground wall.

The external I/O cable were draped along the test table formed a bundle 30 to 40cm long in the middle, the spacing between the peripherals was 10cm.



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## Test information

### 1: Accessories equipment list and detail

Manufacturer	Description	Model	Serial number
Kingston	USB Driver	DTIG2 2G	
Lenovo	PC	T3900	SS05750640
Dell	Monitor	E178FPc	78682
I-pod	I-pod 80G	A1238	2Z8181UQYMV
Kingston	SD Card	SD M02G	0935 T05885D

### 2: information about the EUT

Description	Model	Specification
The mains chip	AM7331	Support from the 24MHz crystal
Screen	Q08009-701	800*600@60Hz only that rate
Memory storage		1G
Audio cable		3.5mm plug
USB Cable		Long 1m shielded
SPF4008P/G7 1.1.12		EZ display

**Note:** 1:you can install the software(EZ display) to your computer ,connect the EUT by USB cable. It will be PC Sync display.

2 :Because the cable not long , setup is limited. For tabletop systems setup in it's typical configuration and arrangement .we find according to the test photograph setup is the max

### 3:Measurement uncertainty

No.	Item	Uncertainty
1.	Uncertainty for Conducted Disturbance Test	1.25dB
2.	Uncertainty for Radiated Disturbance Test	3.15dB

### 4:Model Similarity

The apparatus in all of the models has the exact same circuitry , the only difference is appearance and color .We choose SPF4008P/G7 to test .

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## POWER LINE CONDUCTED INTERFERENCE TEST DATA

**APPLICANT:** SHENZHEN 3NOD AUDIO&VIDEO Co., Ltd.

**FCC ID:** YL5SPF4008P

**NAME OF TEST:** POWER LINE CONDUCTED INTERFERENCE

**RULES PART NUMBER:** 15.107

### REQUIREMENTS:

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56 *	56 to 46 *
0.5-5	56	46
5-30	60	50

\* Decreases with the logarithm of the frequency.

**TEST PROCEDURE:** ANSI STANDARD C63.4-2003

Note: adjust the brightness and contrast to maximum

Test Mode: SD Playing (standard television color bar signal with 1kHz audio signal)

Frequency (MHz)	Line Under Test	Emission Level (dBuV/m)		FCC 15 Subpart B Limit (dBuV/m)Avg	FCC 15 Subpart B Limit (dBuV/m)QP
		Avg	QP		
0.354	L	37.82	47.69	48.87	58.87
1.714	L	30.23	37.79	46.00	56.00
10.66	L	11.99	37.55	46.00	56.00
0.354	N	39.26	49.07	48.87	58.87
1.386	N	24.37	32.66	46.00	56.00
5.110	N	11.02	20.73	50.00	60.00

Test Mode: USB Playing (standard television color bar signal with 1kHz audio signal)

Frequency (MHz)	Line Under Test	Emission Level (dBuV/m)		FCC 15 Subpart B Limit (dBuV/m)Avg	FCC 15 Subpart B Limit (dBuV/m)QP
		Avg	QP		
0.186	L	34.90	48.52	54.21	64.21
1.462	L	29.67	38.01	46.00	56.00
10.73	L	29.13	36.13	50.00	60.00
0.186	N	37.92	49.10	54.21	64.21
1.462	N	24.73	35.05	46.00	56.00
10.73	N	36.16	39.19	50.00	60.00

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Test Mode: NAND Playing (standard television color bar signal with 1kHz audio signal)

Frequency (MHz)	Line Under Test	Emission Level (dBuV/m)		FCC 15 Subpart B Limit (dBuV/m)Avg	FCC 15 Subpart B Limit (dBuV/m)QP
		Avg	QP		
0.310	L	35.62	48.51	49.97	59.97
0.350	L	31.64	46.38	48.96	58.96
4.882	L	28.88	33.49	46.00	56.00
0.310	N	36.89	48.12	49.97	59.97
0.350	N	29.00	35.61	48.96	58.96
22.88	N	29.39	36.77	50.00	60.00

Test Mode: AUXIN Playing (standard television color bar signal with 1kHz audio signal)

Frequency (MHz)	Line Under Test	Emission Level (dBuV/m)		FCC 15 Subpart B Limit (dBuV/m)Avg	FCC 15 Subpart B Limit (dBuV/m)QP
		Avg	QP		
0.312	L	36.62	47.58	49.97	59.97
0.356	L	31.65	45.36	48.96	58.96
4.888	L	30.88	38.49	46.00	56.00
0.316	N	36.85	47.15	49.97	59.97
0.348	N	32.00	37.63	48.96	58.96
22.86	N	29.85	36.73	50.00	60.00

Test Mode: Data Transmitting

Frequency (MHz)	Line Under Test	Emission Level (dBuV/m)		FCC 15 Subpart B Limit (dBuV/m)Avg	FCC 15 Subpart B Limit (dBuV/m)QP
		Avg	QP		
0.378	L	34.71	46.48	48.32	58.32
1.330	L	30.38	36.68	46.00	56.00
4.938	L	28.35	34.09	50.00	60.00
0.244	N	37.51	47.10	51.99	61.99
0.694	N	29.21	37.51	46.00	56.00
5.006	N	33.66	38.96	50.00	60.00

Test Mode: Display (800\*600@60Hz Running "H" pattern )

Frequency (MHz)	Line Under Test	Emission Level (dBuV/m)		FCC 15 Subpart B Limit (dBuV/m)Avg	FCC 15 Subpart B Limit (dBuV/m)QP
		Avg	QP		
0.330	L	35.93	48.12	48.32	58.32
1.790	L	35.38	40.32	46.00	56.00
5.930	L	28.35	34.09	50.00	60.00
0.241	N	38.51	48.10	51.99	61.99
0.693	N	32.21	40.51	46.00	56.00
5.001	N	33.66	38.96	50.00	60.00

#### RADIATION INTERFERENCE TEST DATA

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**NAME OF TEST:** RADIATION INTERFERENCE

**RULES PART NUMBER:** 15.109

**REQUIREMENTS:**

S15.109  
30 -88 MHz 40 dBuV/m @3M  
88 - 216 MHz 43.5  
216 - 960 MHz 46  
ABOVE 960 MHz 54dBuV/m

Note: adjust the brightness and contrast to maximum

**REMARK:** Emissions attenuated more than 20 dB below the permissible value are not reported.

Test Mode: SD Playing ( standard television color bar signal with 1kHz audio signal )

Frequency (MHz)	Antenna Polarization	Emission Level (dBuV/m)			FCC 15 Subpart B Limit (dBuV/m)
		Avg	QP	Peak	
105.66	Vertical	--	38.64	--	43.5
496.57	Vertical	--	32.71	--	46.0
718.70	Vertical	--	41.17	--	46.0
114.39	Horizontal	--	38.12	--	43.5
494.62	Horizontal	--	34.85	--	46.0
833.15	Horizontal	--	41.74	--	46.0

Test Mode: USB Playing ( standard television color bar signal with 1kHz audio signal )

Frequency (MHz)	Antenna Polarization	Emission Level (dBuV/m)			FCC 15 Subpart B Limit (dBuV/m)
		Avg	QP	Peak	
45.52	Vertical	--	35.72	--	43.5
243.40	Vertical	--	42.27	--	46.0
831.21	Vertical	--	37.56	--	46.0
196.84	Horizontal	--	40.25	--	43.5
499.48	Horizontal	--	36.33	--	46.0
720.64	Horizontal	--	41.14	--	46.0

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Test Mode: NAND Playing ( standard television color bar signal with 1kHz audio signal )

Frequency (MHz)	Antenna Polarization	Emission Level (dBuV/m)			FCC 15 Subpart B Limit (dBuV/m)
		Avg	QP	Peak	
111.48	Vertical	--	37.34	--	43.5
243.01	Vertical	--	41.45	--	46.0
575.14	Vertical	--	41.12	--	46.0
135.73	Horizontal	--	36.82	--	43.5
700.27	Horizontal	--	41.47	--	46.0
832.19	Horizontal	--	39.04	--	46.0

Test Mode: AUXIN Playing ( standard television color bar signal with 1kHz audio signal )

Frequency (MHz)	Antenna Polarization	Emission Level (dBuV/m)			FCC 15 Subpart B Limit (dBuV/m)
		Avg	QP	Peak	
101.48	Vertical	--	38.31	--	43.5
242.02	Vertical	--	42.43	--	46.0
573.13	Vertical	--	41.15	--	46.0
135.73	Horizontal	--	35.83	--	43.5
701.27	Horizontal	--	40.42	--	46.0
833.39	Horizontal	--	39.85	--	46.0

Test Mode: Data Transmitting

Frequency (MHz)	Antenna Polarization	Emission Level (dBuV/m)			FCC 15 Subpart B Limit (dBuV/m)
		Avg	QP	Peak	
154.16	Vertical	--	35.46	--	43.5
480.00	Vertical	--	42.01	--	46.0
560.59	Vertical	--	39.32	--	46.0
216.24	Horizontal	--	35.10	--	46.0
480.00	Horizontal	--	40.07	--	46.0
767.20	Horizontal	--	37.96	--	46.0

Test Mode: Display (800\*600@60Hz Running "H" Pattern )

Frequency (MHz)	Antenna Polarization	Emission Level (dBuV/m)			FCC 15 Subpart B Limit (dBuV/m)
		Avg	QP	Peak	
151.10	Vertical	--	38.46	--	43.5
243.00	Vertical	--	42.01	--	46.0
560.59	Vertical	--	39.32	--	46.0
135.73	Horizontal	--	39.10	--	43.5
700.27	Horizontal	--	38.07	--	46.0
832.10	Horizontal	--	39.16	--	46.0