EMC TEST REPORT

No. JSH006070510-001

Applicant	:Pyramat LLC 16200A Carmenita Road., Cerritos, CA90703-2213, U.S.A
Manufacturer	:Xiamen Comfort Science and Technology Co., Ltd. No. 18 Longshan South Road, Xiamen 361009, China
Equipment	:Sound Rocker
Type/Model	:S2500

Summary

The test report is to certify that the tested equipment properly complies with the requirements of:

FCC Rules and Regulations: 47CFR Part 15: Radio Frequency Devices: 2006
ANSIC63.4 (2003): American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz

Description

The appliances were tested by Intertek Testing Services Limited Shanghai and found compliance with relevant requirements described in FCC Part 15: Radio Frequency Devices.

Test results are contained in this test report and Intertek Testing Services Limited Shanghai is assumed full responsibility for the accuracy and completeness of these measurements.

Date of issue: November 30, 2006

Prepared by: Approved by:

Daniel Zhao(*Project engineer*) Steve Li (*Reviewer*)

Description of Test Facility

Name: Intertek Testing Services Limited Shanghai

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Content

1.Applicant Information

Applicant :Pyramat LLC
16200A Carmenita Road., Cerritos, CA90703-2213, U.S.A

Name of contact : Mr. Michael Feldman

Telephone : +1-562-3456058

Telefax : -1-562-3456082

Manufacture : Xiamen Comfort Science and Technology Co., Ltd.
No. 18 Longshan South Road, Xiamen 361009, China

Country of origin : P.R. China

2.Information of Equipment Under Test (EUT)

2.1 Identification of the EUT

Equipment : Sound Rocker

Type/model : S2500

FCC ID : UJA0001A

Date of sample receipt : November 20, 2006

Date of test : November 20 - 30, 2006

2.2 Technical specification

Operation Frequency : 88.5MHz , 88.7MHz

Modulation : Frequency Modulation(FM)

Antenna Designation : Non-User Replaceable(Fixed)

Rating : DC 6V, Battery Operated.

Description of EUT : none.

2.3 Mode of operation during the test / Test peripherals used

The compliance tests were performed under the following operation mode.
The EUT (Transmitter) was operated in the normal operating mode and it powered by a new battery.

2.4 Related Grant and test Standard

This product is complying with section 15.239 of FCC Part 15, Subpart C Rules. The composite system (receiver) is compliance with Subpart B is authorized under a DOC Procedure.

Both conducted and radiated testing was performed according to the procedures in ANSI C63.4 (2003). Radiated testing was performed at an antenna to EUT distance 3 meters.

2.5 Instrument list

Equipment	Type	Manu.	Serials number	Cal. Date	Cal. Interval
Test receiver	ESCS 30	R&S	835418/003	2006-3-14	1 Year
Passive voltage probe	ESH2-Z3	R&S	100009	2006-3-14	2 Years
Artificial mains network	ESH3-Z5	R&S	835239/008	2006-3-14	1 Year
Absorbing Clamp	MDS 21	R&S	831676/016	2006-3-15	1 Year
Oscilloscope	TDS430A	TEK	B061847	2006-11-20	1 Year
Harmonic & Flicker test system	500lix-CTS-400	California Instruments	HK53885	2006-3-15	1 Year
Signal generator	SML03	R & S	838503/018	2006-3-14	1 Year
Log-periodic Antenna	HL046	R & S	100001	2006-10-10	1 Year
Horn Antenna	AT4002A	AR	302196	2006-10-10	1 Year
Power Amplifier	500W1000A	AR	302108	2006-8-16	1 Year
Power Amplifier	30S1G3	AR	302240	2006-9-6	1 Year
Field Monitor Mainframe 4 slors	FM5004	AR	300546	2006-8-2	1 Year
Isotropic “E” field probe	FP6001	AR	300540	2006-9-4	1 Year
RF generator with amplifier	NSG-2070	SCHAFFNER	1013	2006-8-2	2 Years
CDN	CDN M216	SCHAFFNER	15609	2006-8-2	2 Years
CDN	CDN M316	SCHAFFNER	15128	2006-8-2	2 Years
Attenuator	INA2070-1	SCHAFFNER	2013	2006-8-2	2 Years
EMC immunity	BEST EMC	SCHAFFNER	200024-001SC	2006-8-2	1 Year

system					
EMI test receiver	ESI 26	R&S	838687/011	2006-8-13	1 Year
Broadband antenna	HL562	R&S	100019	2006-10-10	1 Year
Horn antenna	HF906	R&S	100023	2006-6-24	1 Year
10m anechoic chamber	-	Franconia	-	2006-9-6	Half year

3. Test Summary

This report applies to tested sample only. This report shall not be reproduced in part without written approval of Intertek Testing Service Shanghai Limited.

TEST ITEM	RESULT	NOTE
Conducted Emission	NA	
Radiation Emission	Pass	
Emission Bandwidth	Pass	

Notes: 1: NA =Not Applicable

4. Conducted Emissions Test (Not applicable in this report)

4.1 Limits

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.

4.2 Test Procedure:

1. The EUT was placed on a table that is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT Compliance.
3. Repeat above procedures until all frequency measured was complete.

4.3 Test SET-UP (Block Diagram of Configuration)

N/A

4.4 Test Result:

N/A

5. Radiated Emission Test

5.1 Limits

According to 15.239(b), the field strength of emissions within the permitted 200kHz band shall not exceed 250 microvolts/meter at 3 meters. The emission limit in this paragraph is based on measurement instrumentation employing an average detector. The provisions in section 15.35 for limiting peak emissions apply.

the field strength of emissions from Intentional Radiators operated under this section shall not exceed the following:

Fundamental Frequency (MHz)	Field Strength (microvolts/meter)	Field strength (dBμV/m)
88 – 108	250	48

According to 15.239(c), the field strength of any emissions radiated on any frequency outside of the specified 200kHz band shall not exceed the general radiated emission limits in section 15.209.

Frequency of emission (MHz)	Field Strength (microvolts/meter)	Field strength (dBμV/m)
30-88	100	40.0
88-216	150	43.5
216-960	200	46.0
Above 960	500	54.0
Radiated emission in dBμV/m = 20lg (microvolts/meter)		

5.2 Test Procedure:

The EUT is a placed on as turn table which is 0.8 m above ground plane. The turn table shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the max. emission, the relative positions of this hand-held transmitter(EUT) was rotated through three orthogonal axes according to the requirements in ANSI C63.4-2003.

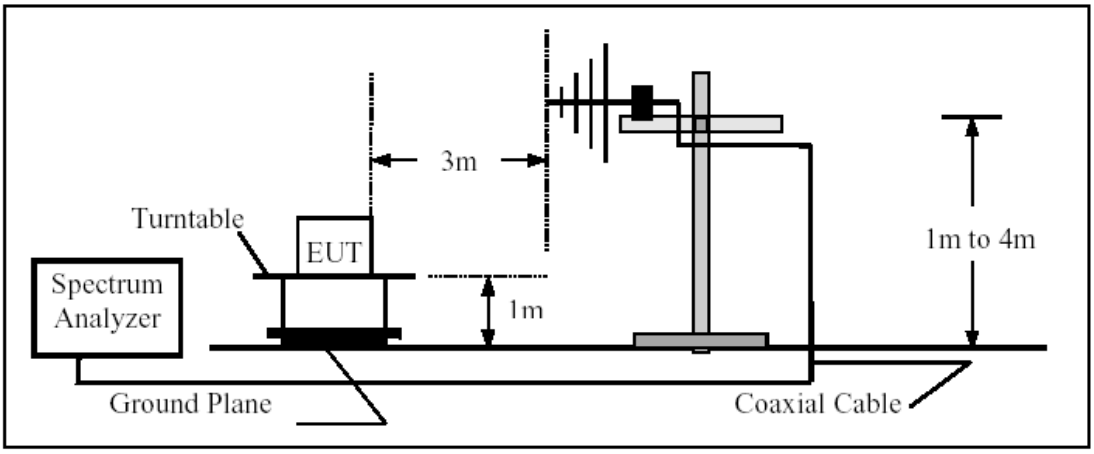
The EUT was placed on a turntable which is 0.8m above ground plane. .
The turntable shall rotate 360 degrees to determine the position of maximum emission level.
EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out

the highest emissions.
And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.

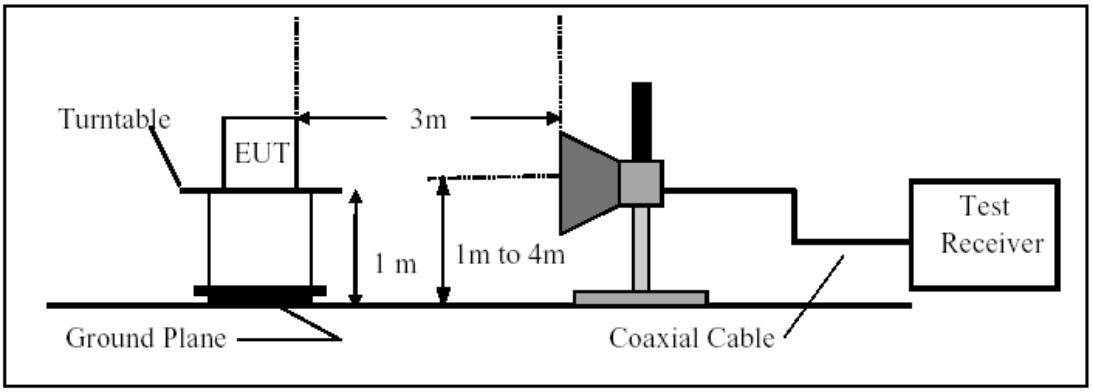
The frequency from 30MHz to 1000MHz was checked and the detector bandwidth of the test receiver was set to 120kHz; the frequency above 1GHz was checked and the detector bandwidth of the test receiver was set to 1MHz.

5.3 Test SET-UP (Block Diagram of Configuration)

(A) Radiated Emission Test Set-Up, Frequency Below 1000MHz



(B) Radiated Emission Test Set-UP Frequency Over 1 GHz



5.4 Test result.

Temperature: 22 °C

Humidity: 40%

Carrier emission:

Frequency (MHz)	Ant. Pol. (H/V)	Reading level (dBuV)		Factor (dB)	Emission Level (dBuV/m)		Limit (dBuV/m)		Margin (dB)	
		PK	AV		PK	AV	PK	AV	PK	AV
88.50	H	24.5	24.1	9.7	34.2	33.8	68.0	48.0	33.8	14.2
88.50	V	36.2	36.0	9.7	45.9	45.7	68.0	48.0	22.1	2.3

Spurious emission:

Frequency (MHz)	Ant. Pol. (H/V)	Reading level (dBuV	Factor (dB)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)
				QP	QP	QP
177.00	H	12.6	9.8	22.4	43.5	21.1
265.50	H	17.2	12.0	29.2	46.0	16.8
354.00	H	23.1	13.9	37.0	46.0	9.0
442.50	H	15.2	16.8	32.0	46.0	14.0
531.00	V	13.6	18.7	32.3	46.0	13.7
619.50	V	8.6	19.7	28.4	46.0	17.7
708.00	H	/	/	/	46.0	
796.50	H	10.4	22.0	32.4	46.0	13.6
885.00	H	13.4	24.1	37.5	46.0	8.5

Note:

(1) Emission level = Reading level (dBuV) + Factor(dB)

Example: 177.00MHz
Reading level = 12.6dBuV;
Factor= 9.8 dB;
Emission level (dBuV/m) = 12.6 + 9.8 = 22.4 dBuV/m

(2) Measuring frequencies from 30 MHz to the 10th harmonic of fundamental frequency of 88.5MHz.

(3) Margin (dB)= Limit - Emission level

6. Emission Bandwidth

6.1 Limits

According to 15.239(a), emission from the intentional radiator shall be confined within a band 200kHz wide centered on the operating frequency. The 200kHz band shall lie wholly within the frequency range of 88 – 108MHz.

6.2 Test Procedure

The Occupied bandwidth is measured with a spectrum analyzer connected to the transmitter output while EUT is operating in transmit mode with modulation at the appropriate frequency. The spectrum analyzer was set to: RBW = 10 kHz, VBW = 10 kHz, span = 500 kHz

6.3 Test Configuration

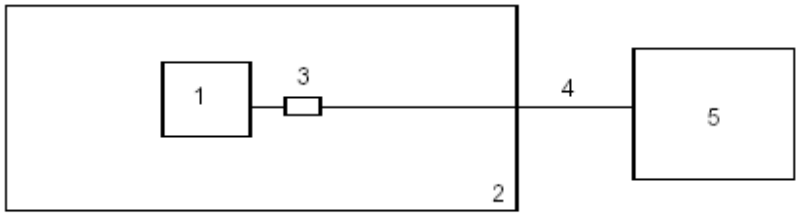


Figure 3: Measurement setup for operating bandwidth test

1 Transmitter (EUT)
2 Wooden table
3 DC-block
4 Test cable
5 Spectrum analyzer

6.4 Test Results

Ref Level (dBm)	Center Frequency (MHz)	F_{low} (MHz)	F_{high} (MHz)	26dB down Bandwidth (kHz)
-69.5	88.515531	88.490982	88.537074	46.09