

FCC CLASS B CONFORMITY REPORT

Product Name : High Definition Multi-Media Player
Model Number : MED500X
Trade Name : Mede8er
FCC ID : XX4MED500X
Report Number : SZEE091124578210-1
Date : Dec. 03, 2009

Standards	Results
<input checked="" type="checkbox"/> FCC Part 15: 2008	PASS

Prepared for:
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CENTRE TESTING INTERNATIONAL CORPORATION

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1. VERIFICATION OF CONFORMITY

Applicant & Address: Sanji Electronics (Pty) Ltd
106,16th, Road, Midrand, Gauteng, South Africa

Manufacturer & Address: Sanji Electronics (Pty) Ltd
106,16th, Road, Midrand, Gauteng, South Africa

Type of Test: FCC Part 15B

FCC ID: XX4MED500X

Equipment Under Test: High Definition Multi-Media Player

Model Name: MED500X

Trade Name: Mede8er

Serial Number: N/A

Date of test: Nov. 24, 2009 to Dec. 03, 2009

Condition of Test Sample: Normal

The above equipment was tested by Centre Testing International Corporation for compliance with the requirements set forth in the FCC Rules and Regulations Part 15, Subpart B and the measurement procedure according to ANSI C63.4.

The test results of this report relate only to the tested sample identified in this report.

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Date :

Dec. 04, 2009



2. TEST SUMMARY

The EUT has been tested according to the following specifications:

EMISSION			
Standard	Test Type	Result	Remark
FCC Part 15B	Conducted emission at AC power port	PASS	See clause 7 in this report
	Radiated emission	PASS	See clause 8 in this report

3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

Measurement items	Value
Conducted emission	3.2 dB
Radiated emission	4.6 dB

4. PRODUCT INFORMATION

I/O Port of EUT

I/O Port Type	Quantity
USB	3
LAN	1
AV port	6
HDMI	1
Optical coaxial	1

5. FACILITIES AND ACCREDITATIONS

5.1 TEST FACILITY

Centre Testing International Corporation

Building C, Hongwei Industrial Zone, Baoan 70 District, Shenzhen, Guangdong, China

5.2 TEST EQUIPMENT LIST

Instrumentation: The following list contains equipments used at CTI for testing. The calibrations of the measuring instruments, including any accessories that may effect such calibration, are checked frequently to assure their accuracy. Adjustments are made and correction factors applied in accordance with instructions contained in the manual for the measuring instrument.

Table 1: List of Test and Measurement Equipment

Equipment	Manufacturer	Model Number	Serial Number	Last Calibration Date	Next Calibration Date
Shielding Room No. 1 —AC Power Line Conducted Emissions Measurement					
Receiver	R&S	ESCI	100435	01/29/2009	01/28/2010
LISN	R&S	ENV216	100098	06/13/2009	06/12/2010
3M Semi-anechoic Chamber — Radio Test Site					
Spectrum Analyzer	Agilent	E4443A	MY45300910	09/07/2009	09/06/2010
Biconilog Antenna	A.H.System	SAS-521-2	487	06/05/2009	06/04/2010
3M Chamber & Accessories	ETS-LINDG REN	FACT-3	N/A	05/11/2009	05/10/2010

5.3 LABORATORY ACCREDITATIONS AND LISTINGS

The test facilities used to perform radiated and conducted emissions tests are accredited by China National Accreditation Board for Laboratories (CNAS). Electromagnetic Interference tests according to ANSI C63.4 and CISPR 16 requirements.

6. SETUP OF EQUIPMENT UNDER TEST

6.1 SETUP CONFIGURATION OF EUT

1. See test photographs attached in Appendix 1 for the actual connections between EUT and support equipment.
2. Make sure EUT work normally during the whole test.

6.2 SUPPORT EQUIPMENT

No.	Device Type	Brand	Model	Series No.	Data Cable	Power Cord
1.	PC	IBM	8143	BD-241	--	Un-shielded 1.2M
2.	Monitor	IBM	9205-AB6	VK-KZ133	Un-shielded 1M	Un-shielded 1 M
3.	Mouse	IBM	M028UOL	23-468157	Un-shielded 1.2M	--
4.	TV	PHILIPS	32PF7320193	BZ1A0627401425	Un-Shielded 1M	--

Notes:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

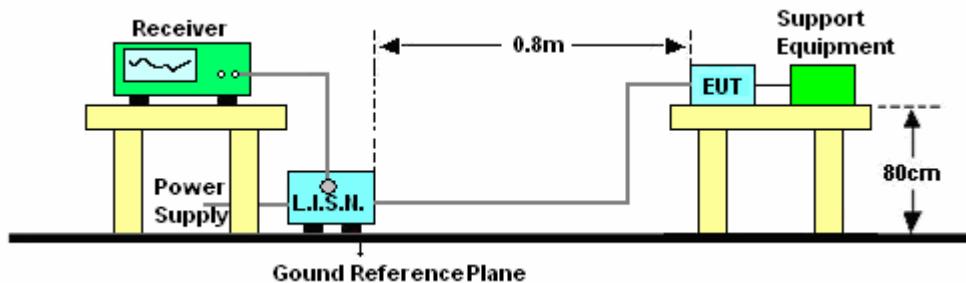
7. AC POWER LINE CONDUCTED EMISSIONS MEASUREMENT

7.1 LIMITS

Frequency (MHz)	Conducted Limit (dBuV) – Class B Digital Device	
	Q.P. (dBuV)	Average (dBuV)
0.150 – 0.5	66-56	56-46
0.5 – 5	56	46
5 - 30	60	50

Note: the tighter limit applies at the band edges.

7.2 BLOCK DIAGRAM OF TEST SETUP

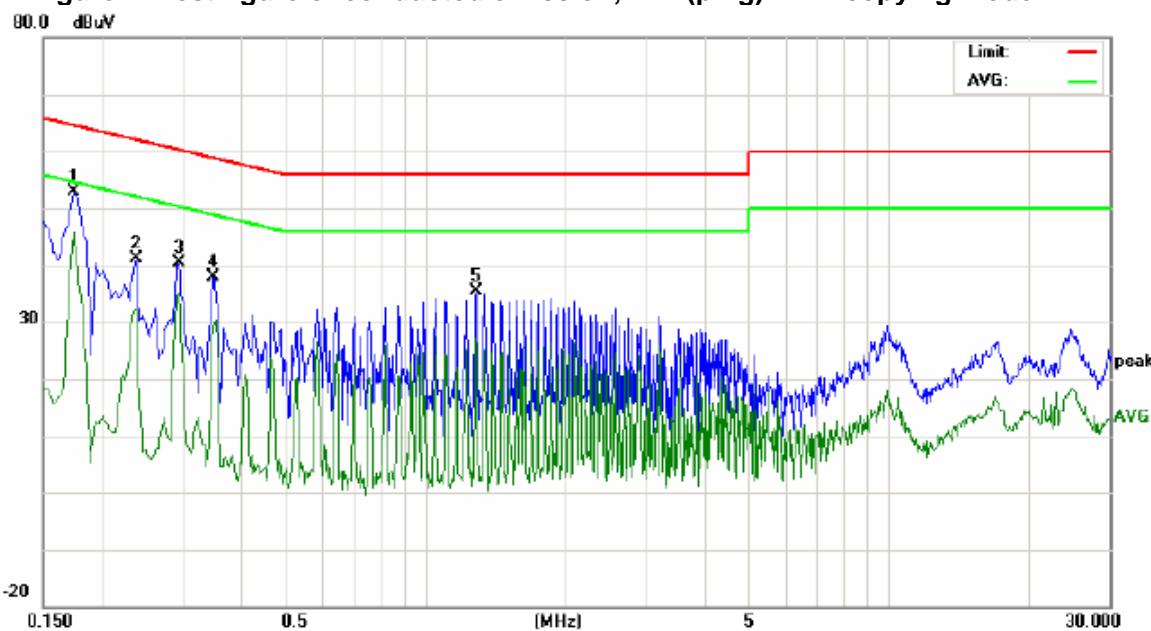


7.3 TEST PROCEDURE

- The EUT was placed on a non-conductive table 0.8 m above the horizontal ground reference plane, and 0.4 m from the vertical ground reference plane, and connected to the main through Line Impedance Stability Network (L.I.S.N.).
- The RBW of the receiver was set at 9 kHz in 150 kHz ~ 30MHz with Peak and AVG detector in Max Hold mode. Run the receiver's pre-scan to record the maximum disturbance generated from EUT in all power lines in the full band.
- For each frequency whose maximum record was higher or close to limit, measure its QP and AVG values and record.

7.4 TEST RESULT

Figure 1: Test figure of conducted emission, LAN(ping) + HD copying mode



Site: site #1 Phase: *L1* Temperature: 24

Limit: FCC Class B Conduction (QP) Power: AC 120V/60Hz Humidity: 53 %

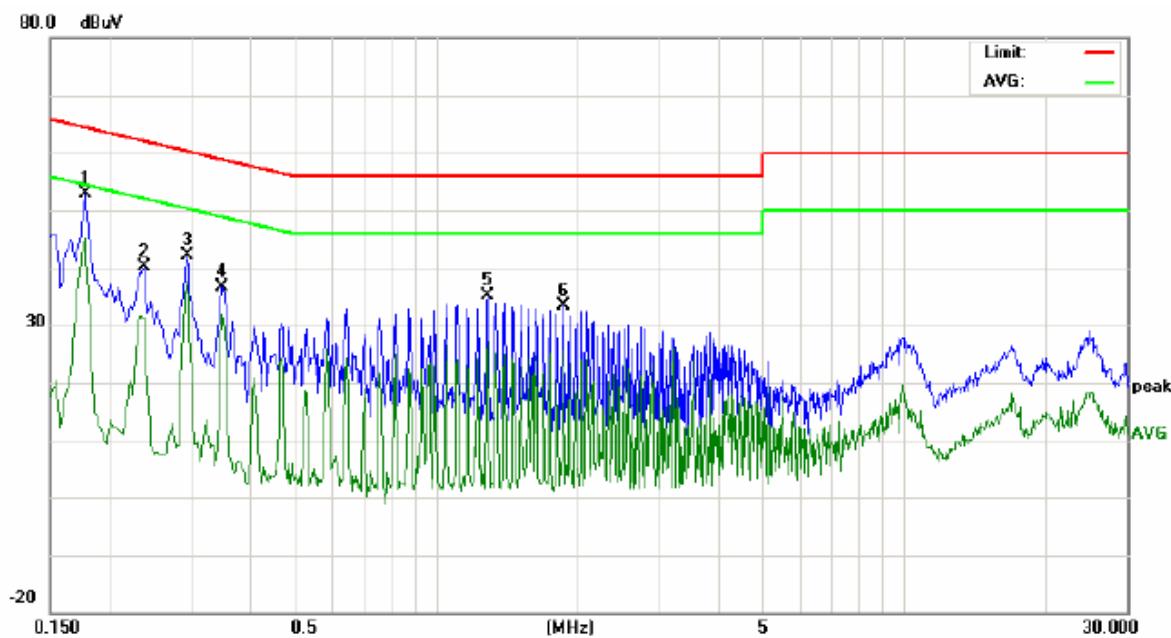
EUT: High Definition Multi-Media Player

M/N: MED500X

Mode: LAN(ping) + HD copying

Note: adaptor name: HONOR

No.	Freq.	Reading_Level (dBuV)			Correct Factor	Measurement (dBuV)			Limit (dBuV)		Margin (dB)		
		MHz	Peak	QP	Avg	dB	peak	QP	Avg	QP	Avg	P/F	Comment
1	0.1740	42.79		35.93	9.96	52.75		45.89	64.77	54.77	-12.02	-8.88	P
2	0.2380	31.10		22.53	9.94	41.04		32.47	62.17	52.17	-21.13	-19.70	P
3	0.2940	30.32		25.07	9.94	40.26		35.01	60.41	50.41	-20.15	-15.40	P
4	0.3500	27.87		19.10	9.94	37.81		29.04	58.96	48.96	-21.15	-19.92	P
5	1.2900	25.42		15.89	9.88	35.30		25.77	56.00	46.00	-20.70	-20.23	P



Site site #1

Phase: **N**

Temperature: 24

Limit: FCC Class B Conduction (QP)

Power: AC 120V/60Hz

Humidity: 53 %

EUT: High Definition Multi-Media Player

M/N: MED500X

Mode: LAN(ping) + HD copying

Note: adaptor name: HONOR

No.	Reading_Level (dBuV)			Correct Factor		Measurement (dBuV)			Limit (dBuV)			Margin (dB)			
	Freq.	MHz	Peak	QP	Avg	dB	peak	QP	Avg	QP	Avg	QP	Avg	P/F	Comment
1	0.1780	42.89		35.16	9.95	52.84		45.11	64.58	54.58	-11.74	-9.47	P		
2	0.2380	30.15		21.41	9.94	40.09		31.35	62.17	52.17	-22.08	-20.82	P		
3	0.2940	32.09		27.64	9.94	42.03		37.58	60.41	50.41	-18.38	-12.83	P		
4	0.3500	26.79		21.86	9.94	36.73		31.80	58.96	48.96	-22.23	-17.16	P		
5	1.2900	25.36		17.17	9.88	35.24		27.05	56.00	46.00	-20.76	-18.95	P		
6	1.8740	23.42		15.77	9.90	33.32		25.67	56.00	46.00	-22.68	-20.33	P		

8. RADIATED EMISSION TEST

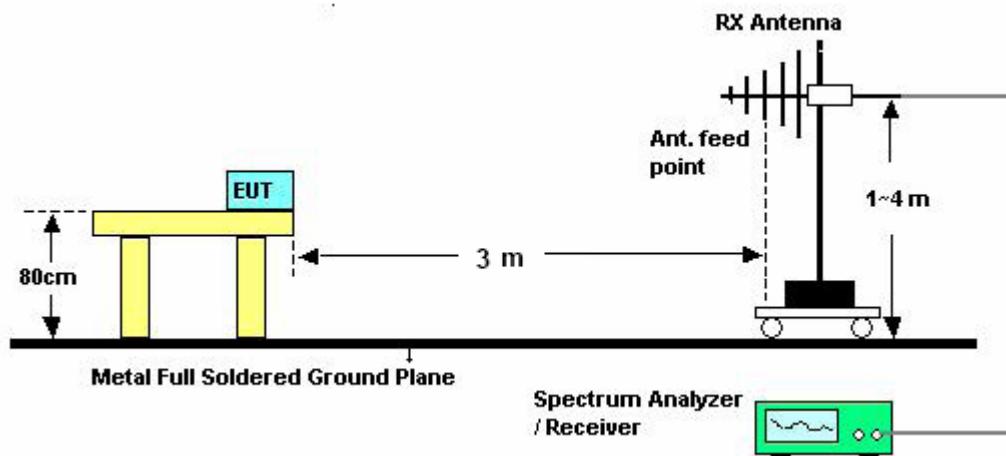
8.1 LIMITS

Frequency (MHz)	Field strength (μ V/m)	Distance (m)
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Note: the tighter limit applies at the band edges.

8.2 BLOCK DIAGRAM OF TEST SETUP

For radiated emissions from 30 - 1000MHz



8.3 PROCEDURE

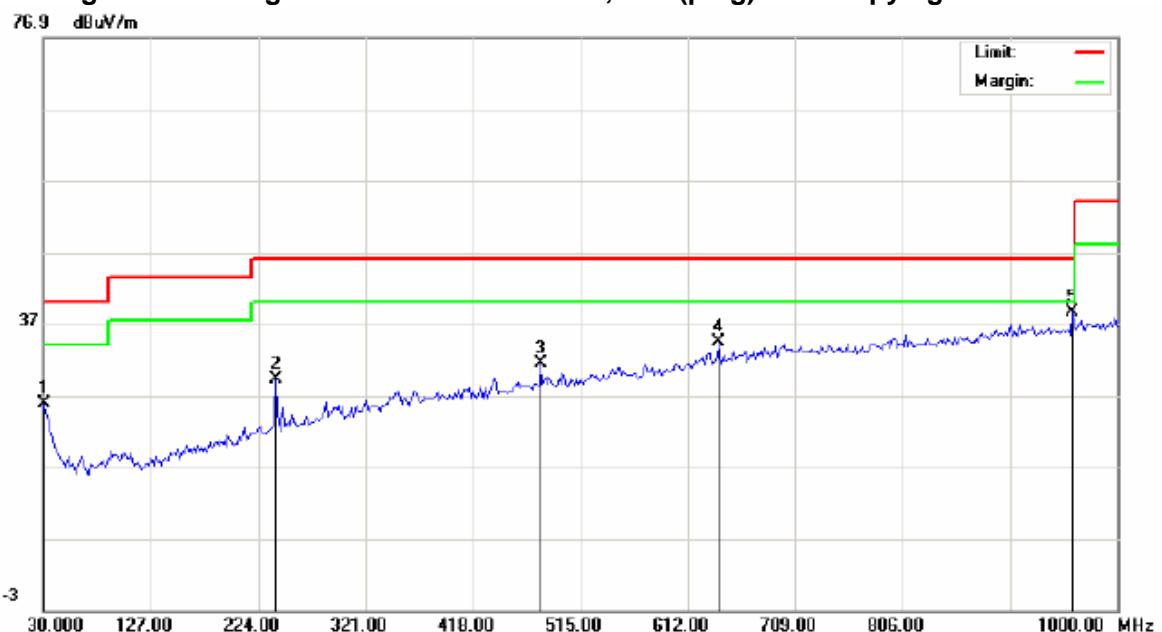
1. Configure the EUT according to ANSI C63.4. The EUT was placed on the top of the turntable 0.8meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
6. For emissions above 1GHz, use 1MHz VBW and RBW for peak reading. Then 1MHz BW and 10Hz VBW for average reading in spectrum analyzer.

7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum value.

8. If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.

8.4 TEST RESULT OF RADIATED EMISSION TEST

Pass

Figure 2: Test figure of radiated emission, LAN(ping) + HD copying mode


Site site #1

Polarization: **Horizontal**

Temperature: 23

Limit: FCC Class B 3M Radiation

Power: AC 120V/60Hz

Humidity: 60 %

EUT: High Definition Multi-media Player

M/N: MED500X

Mode: LAN(ping) + HD copying

Note:

No.	Freq.	Reading_Level (dBuV)			Correct Factor	Measurement (dBuV/m)			Limit (dBuV/m)		Margin (dB)		
		MHz	Peak	QP	Avg	Peak	QP	Avg	QP	Avg	QP	Avg	P/F
1	30.0000	8.21				17.63	25.84		40.00		-14.16		P
2	240.1667	15.49				13.78	29.27		46.00		-16.73		P
3	479.4333	11.41				20.07	31.48		46.00		-14.52		P
4	639.4833	11.04				23.29	34.33		46.00		-11.67		P
5	959.5833	11.62				26.98	38.60		46.00		-7.40		P



Site site #1

Polarization: **Vertical**

Temperature: 23

Limit: FCC Class B 3M Radiation

Power: AC 120V/60Hz

Humidity: 60 %

EUT: High Definition Multi-media Player

M/N: MED500X

Mode: LAN(ping) + HD copying

Note:

No.	Freq.	Reading_Level (dBuV)			Correct Factor	Measurement (dBuV/m)			Limit (dBuV/m)		Margin (dB)		P/F	Comment
		MHz	Peak	QP	Avg	peak	QP	Avg	QP	Avg	QP	Avg		
1	30.000	8.18				17.63	25.81		40.00		-14.19		P	
2	351.7167	13.43				17.63	31.06		46.00		-14.94		P	
3	479.4333	13.53				20.07	33.60		46.00		-12.40		P	
4	639.4833	11.98				23.29	35.27		46.00		-10.73		P	
5	896.5333	13.89	12.06			26.57	40.46	38.63	46.00		-7.37		P	
6	995.1500	15.20				27.71	42.91		54.00		-11.09		P	

APPENDIX 1 PHOTOGRAPHS OF TEST SETUP**TEST SETUP OF CONDUCTED EMISSION****TEST SETUP OF RADIATED EMISSION (30MHz-1GHz)**

APPENDIX 2 EXTERNAL PHOTOGRAPHS OF EUT

View of EUT-1



View of EUT-2



View of EUT-3



View of EUT-4



View of EUT-5



View of EUT-6



View of adaptor-1



View of adaptor-2



View of adaptor-3



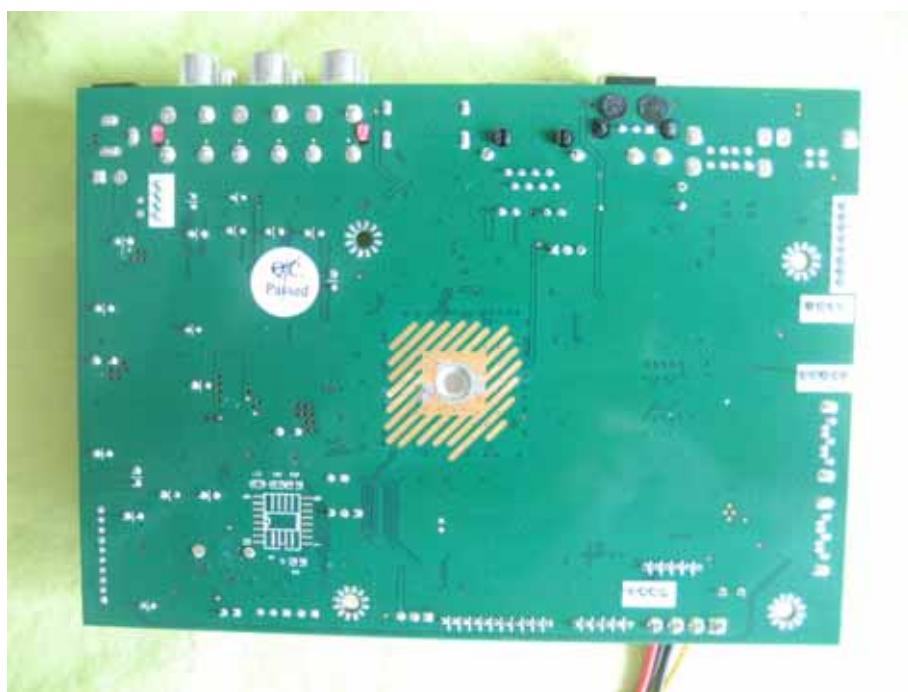
View of remote controller-1



View of remote controller-2

APPENDIX 3 INTERNAL PHOTOGRAPHS OF EUT

Internal View of EUT-1



Internal View of EUT-2



Internal View of EUT-3



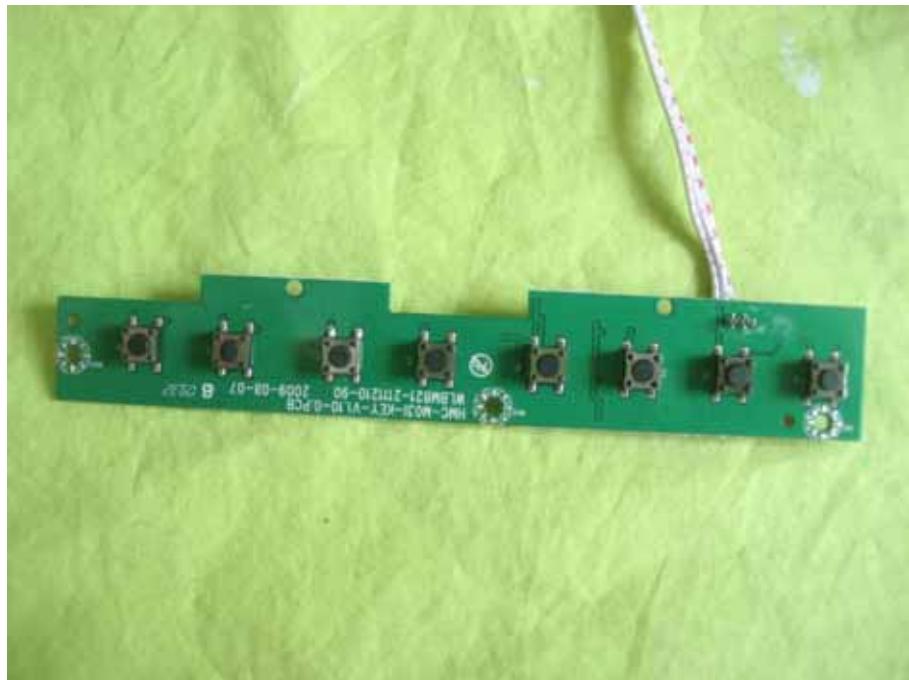
Internal View of EUT-4



Internal View of EUT-5



Internal View of EUT-6



Internal View of EUT-7



Internal View of HD-1



Internal View of HD-2

----- End of report -----