FCC TEST REPORT

for

DESAY A&V SCIENCE AND TECHNOLOGY CO.,LTD

BLU-RAY DISC PLAYER

Prepared for : DESAY A&V SCIENCE AND TECHNOLOGY CO.,LTD
Address : Desay 3rd Industry Zone, Chenjiang Town, Huizhou City, Guangdong, 516229, China

Prepared by : EST Technology Co., Ltd.
Address : San Tun Management Zone, Houjie District, Dongguan, Guangdong, China

Tel: 86-769-83081888
Fax: 86-769-83081878

Report No. : ESTE-F120628
Date of Report : June.30, 2012

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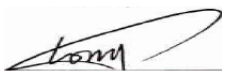
EST Technology Co., Ltd.

Applicant: **Address:**	DESAY A&V SCIENCE AND TECHNOLOGY CO.,LTD Desay 3rd Industry Zone, Chenjiang Town, Huizhou City, Guangdong, 516229, China
Manufacturer: **Address:**	DESAY A&V SCIENCE AND TECHNOLOGY CO.,LTD Desay 3rd Industry Zone, Chenjiang Town, Huizhou City, Guangdong, 516229, China
Factory: **Address:**	DESAY A&V SCIENCE AND TECHNOLOGY CO.,LTD Desay 3rd Industry Zone, Chenjiang Town, Huizhou City, Guangdong, 516229, China
E.U.T:	BLU-RAY DISC PLAYER
Model Number:	DS-B202-R , HBD316; DS-XXXXX (where X could be any alphanumeric or blank)
Trade Name:	DESAY; HITACHI **Serial No.:** ------
Date of Receipt:	Apr.20.2012 Date of Test: May.18,2012~June,30,2012
Test Specification:	FCC Part 15 Subpart B Class B: 2011 ANSI C63.4:2003
Test Result:	The equipment under test was found to be compliance with the requirements of the standards applied. **Issue Date:** June.30.2012

Prepared by:	Tested by:	Approved by:
		
Ada / Assistant	Tony / Engineer	Iceman Hu / Manager

Other Aspects:

None.

Abbreviations: OK/P=passed fail/F=failed n.a/N=not applicable E.U.T=equipment under tested

This test report is based on a single evaluation of one sample of above mentioned products. It is not permitted to be duplicated in extracts without written approval of EST Technology Co., Ltd.

1. GENERAL PRODUCT INFORMATION

1.1. Product Function

Refer to Technical Construction Form and User Manual.

1.2. Description of Device (EUT)

Description	:	BLU-RAY DISC PLAYER
Model No.	:	DS-B202-R
System Input Voltage	:	AC 110~240V, 50/60Hz
mainboard crystal frequency	:	27 MHz
AC Line	:	Unshielded, Undetachable 1.6m
Ethernet Cable	:	Shielded, Detachable 1.6m
Coaxial Cable	:	Unshielded, Detachable 1.6m
HDMI Cable	:	Shielded, Detachable 1.6m

1.3. Difference between Model Numbers

***No**te: The products are difference for the model number only. But the PCB board inside are identical.*

1.4. Independent Operation Modes

The basic operation modes are:

1.4.1. Network & BD Playing

2. TEST SITES

2.1. 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**
Conducted disturbance at mains terminals	FCC Part 15:2011 ANSI C63.4:2003	Class B	PASS
		Minimum passing margin is 8.36 dB at 2.12 MHz	
Radiated Emission Test	FCC Part 15:2011 ANSI C63.4:2003	Class B	PASS
		Minimum passing margin is 3.00 dB at 959.55 MHz	

2.2. Test Facilities

EMC Lab : Certificated by CNAL, CHINA
Registration No.: L5288
Date of registration: October 28, 2011

Certificated by FCC, USA
Registration No.: 989591
Date of registration: December 07, 2010

Certificated by Industry Canada
Registration No.: 144350
Date of registration: December 16, 2010

Certificated by VCCI, Japan
Registration No.: R-3663 & C-4103
Date of registration: July 25, 2011

Certificated by TUV Rheinland, Germany
Registration No.: UA 50195514 0001
Date of registration: January 07, 2011

Certificated by TUV/PS, Shenzhen
Registration No.: SCN1017
Date of registration: January 27, 2011

Certificated by Intertek ETL SEMKO
Registration No.: 2011-RTL-L1-18
Date of registration: April 28, 2011

Certificated by Nemko, Hong Kong
Registration No.: 175193
Date of registration: May 4, 2011

Name of Firm : EST Technology Co., Ltd.

Site Location : San Tun Management Zone, Houjie District, Dongguan, Guangdong, China

2.3. List of Test and Measurement Instruments

2.3.1. For conducted emission at the mains terminals test (844 Room)

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde& Schwarz	ESVS30	832354	Mar,17,12	1 Year
Artificial Mains Network	Rohde& Schwarz	ENV216	101260	Mar,17,12	1 Year
Pulse Limiter	Rohde& Schwarz	ESH3-Z2	101100	Aug,25,11	1 Year

2.3.2. For radiated emission test (30MHz-1GHz, 966 Chamber)

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde& Schwarz	ESVS10	100004	Mar,17,12	1 Year
Spectrum Analyzer	Agilent	E4411B	MY50140697	Mar,17,12	1 Year
Bilog Antenna	Teseq	CBL 6111D	25872	Nov,08,11	1.5 Year
Signal Amplifier	Agilent	310N	187037	Aug,25,11	1 Year

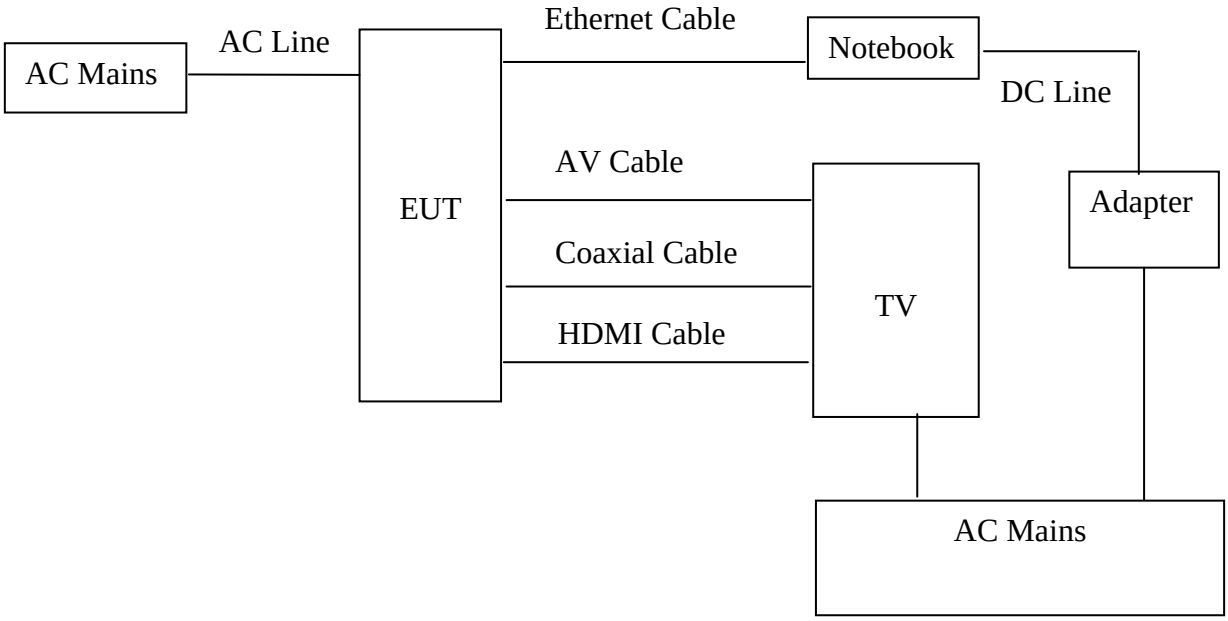
3. TEST SET-UP AND OPERATION MODES

3.1. Principle of Configuration Selection

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the Operating Instructions.

3.2. Block Diagram of Test Set-up

System Diagram of Connections between EUT and Simulators



(EUT: BLU-RAY DISC PLAYER*)*

3.3. Test Operation Mode and Test Software

Refer to Test Setup in clause 4.

3.4. Special Accessories and Auxiliary Equipment

3.4.1. TV

Manufacturer	:	SAMSUNG
M/N	:	LA32S11B
S/N	:	D5323VML802611V

3.4.2. Notebook

Manufacturer	:	DELL
M/N	:	E6420
DPN	:	VVF52A01
Adapter	:	M/N:LA90PM111

3.5. Countermeasures to Achieve EMC Compliance

None.

4. EMISSION TEST RESULTS

4.1. Conducted Emission at the Mains Terminals Test

RESULT	**:**	**Pass**
Test Procedure	:	ANSI C63.4:2003
Frequency Range	:	0.15 to 30MHz
Test Site	:	Shielded Room
Limits	:	FCC Part 15 :2011

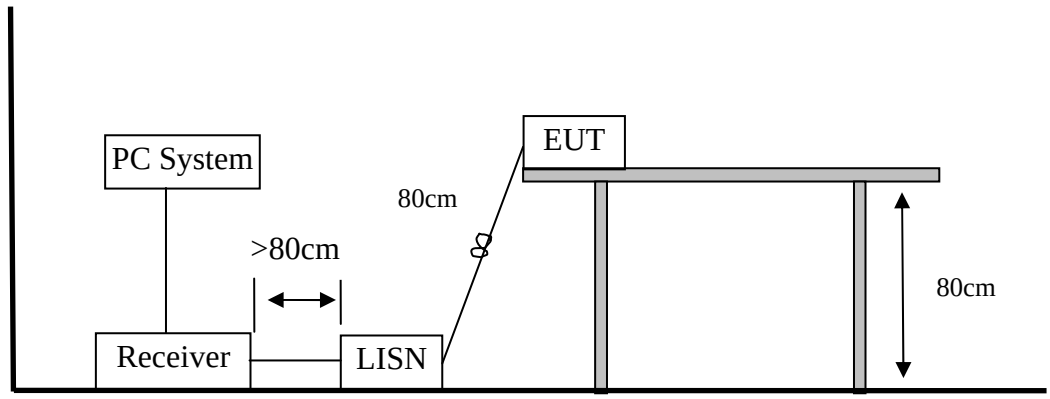
Test Setup

Date of Test	:	May.18, 2011
M/N		DS-B202-R
Input Voltage	:	AC 120V/60Hz
Operation Mode	:	Network + BD Playing

The frequency range from 150 kHz to 30 MHz was investigated.

The bandwidth of the test receiver was set at 9 kHz.

The test data of the worst case condition(s) was reported on the following page.



Note: Measurement Uncertainty: ±2.54 dB at a level of confidence of 95%.

Test Data

EST Technology

San Tun Management Zone,Houjie Town,
Dongguan,Guangdong,China
Tel:+86-769-83081888
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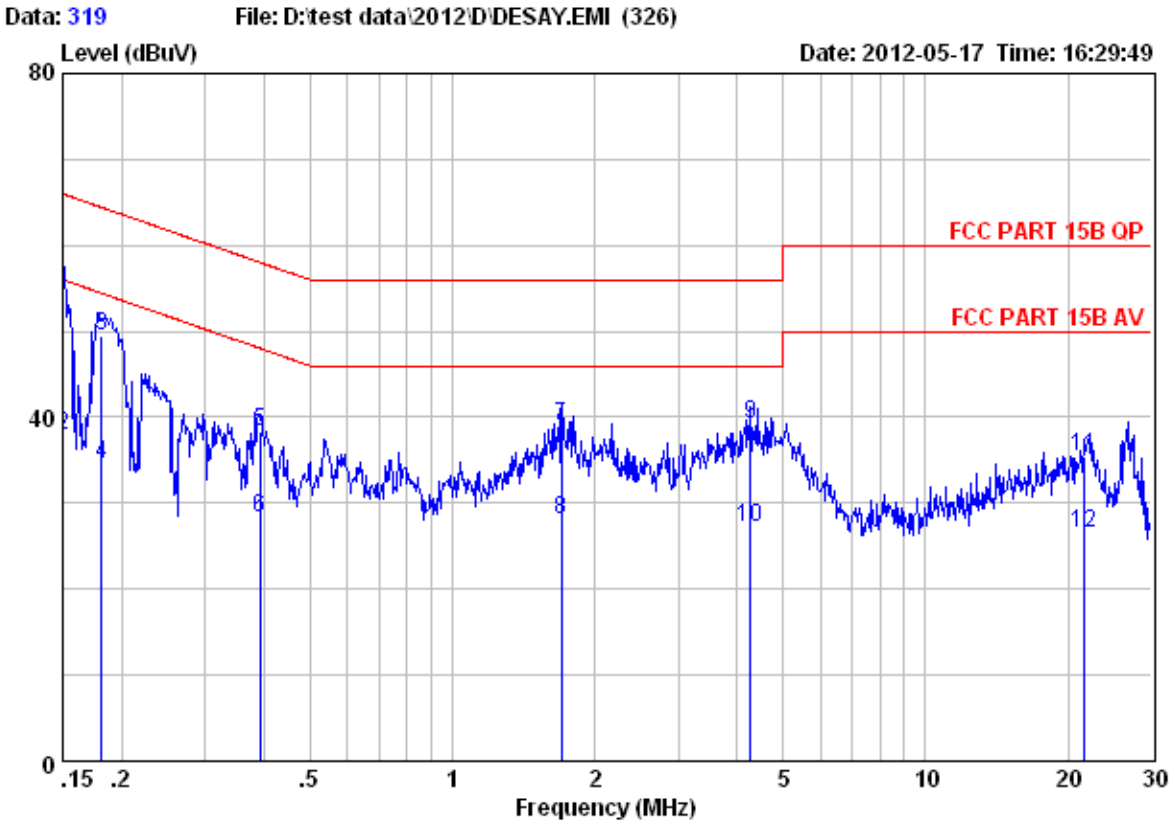
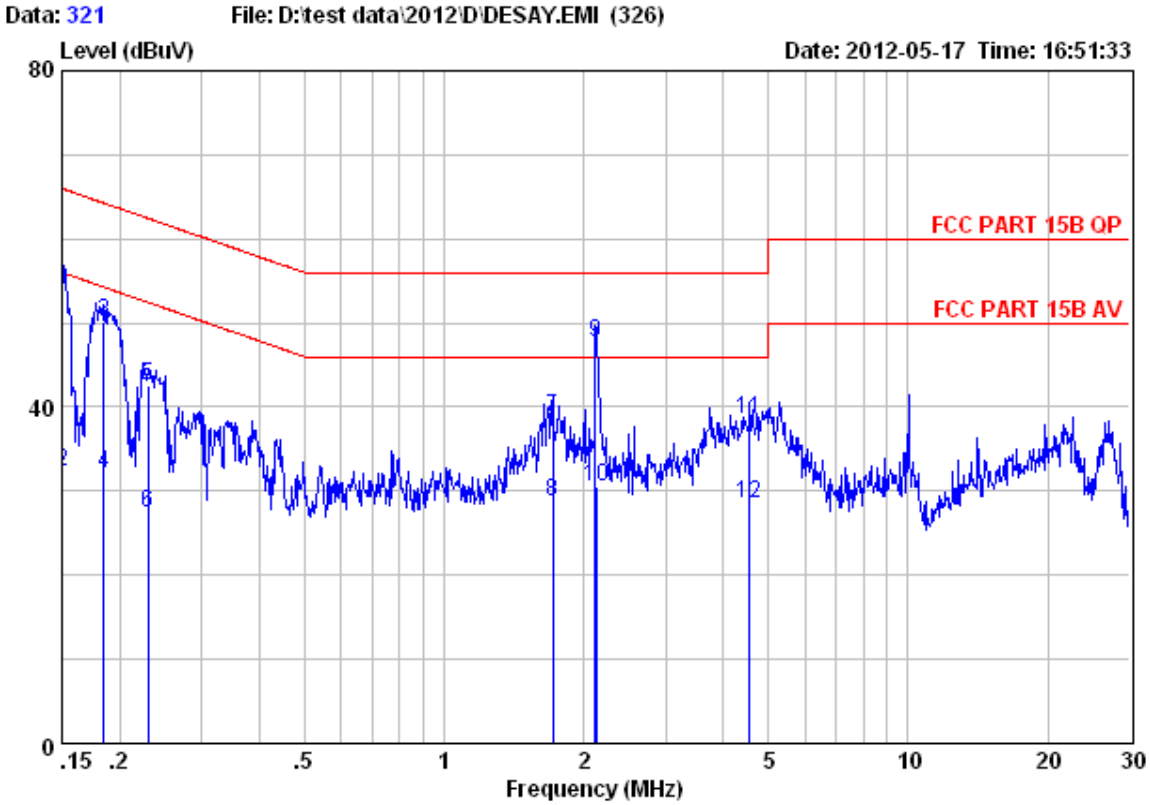



```
Site no.      : EST 844 Shielded Room        Data no.    : 319
Limit         : FCC PART 15B QP              LINE Phase  : LINE
Env. / Ins.   : Temp:24.3'C Humi:58% Press:101.50kPa
Engineer      : Tony
EUT           : BLU-RAY DISC PLAYER
Power         : AC 120V/60Hz
M/N           : DS-B202-R
Test Mode     : Network+BD Playing
```

	Freq. (MHz)	LISN Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuv/m)	Limits (dBuv/m)	Margin (dB)	Remark
1	0.15	9.61	9.81	36.54	55.96	66.00	10.04	QP
2	0.15	9.61	9.81	18.54	37.96	55.99	18.03	Average
3	0.18	9.61	9.80	30.14	49.55	64.42	14.87	QP
4	0.18	9.61	9.80	15.14	34.55	54.42	19.87	Average
5	0.39	9.61	9.82	18.89	38.32	58.03	19.71	QP
6	0.39	9.61	9.82	8.89	28.32	48.03	19.71	Average
7	1.70	9.62	9.83	19.52	38.97	56.00	17.03	QP
8	1.70	9.62	9.83	8.52	27.97	46.00	18.03	Average
9	4.27	9.64	9.85	19.64	39.13	56.00	16.87	QP
10	4.27	9.64	9.85	7.64	27.13	46.00	18.87	Average
11	21.60	9.68	10.00	15.75	35.43	60.00	24.57	QP
12	21.60	9.68	10.00	6.75	26.43	50.00	23.57	Average



Site no. : EST 844 Shielded Room Data no. : 321
Limit : FCC PART 15B QP LINE Phase : NEUTRAL
Env. / Ins. : Temp:24.3'C Humi:58% Press:101.50kPa
Engineer : Tony
EUT : BLU-RAY DISC PLAYER
Power : AC 120V/60Hz
M/N : DS-B202-R
Test Mode : Network+BD Playing

	Freq. (MHz)	LISN Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuv/m)	Limits (dBuv/m)	Margin (dB)	Remark
1	0.15	9.46	9.81	35.97	55.24	66.00	10.76	QP
2	0.15	9.46	9.81	12.97	32.24	55.98	23.74	Average
3	0.18	9.56	9.80	30.69	50.05	64.28	14.23	QP
4	0.18	9.56	9.80	12.69	32.05	54.28	22.23	Average
5	0.23	9.60	9.80	23.11	42.51	62.44	19.93	QP
6	0.23	9.60	9.80	8.11	27.51	52.44	24.93	Average
7	1.72	9.62	9.83	19.38	38.83	56.00	17.17	QP
8	1.72	9.62	9.83	9.38	28.83	46.00	17.17	Average
9	2.12	9.62	9.84	28.18	47.64	56.00	8.36	QP
10	2.12	9.62	9.84	11.18	30.64	46.00	15.36	Average
11	4.55	9.65	9.85	19.06	38.56	56.00	17.44	QP
12	4.55	9.65	9.85	9.06	28.56	46.00	17.44	Average

4.2. Radiated Emission Test

RESULT	**:**	**Pass**
Test Procedure	:	ANSI C63.4:2003
Frequency Range	:	30 to 1000 MHz
Test Site	:	966 Chamber
Limits	:	FCC Part 15 :2011

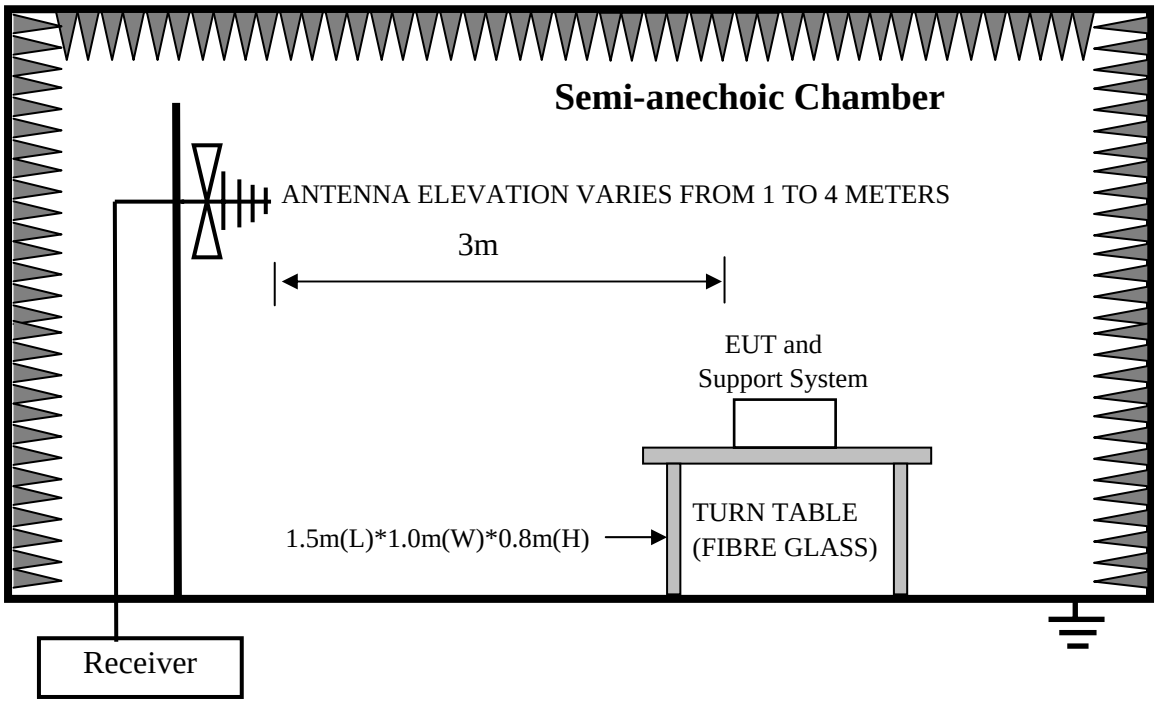
Test Setup

Date of Test	:	June.26, 2012
M/N	:	DS-B202-R
Input Voltage	:	AC 120V/60Hz
Operation Mode	:	Network + BD Playing

The EUT was placed on a turn table which was 0.8 m above the ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was set 3 m away from the receiving antenna which was mounted on an antenna tower. The measuring antenna moved up and down to find out the maximum emission level. It moved from 1 m to 4 m for both horizontal and vertical polarizations.

The EUT was tested in the Chamber Site. It was pre-scanned with a Peak detector from the spectrum, and all the final readings from the test receiver were measured with the Quasi-Peak detector.

The bandwidth setting on the test receiver was 120 kHz.



Note: Measurement Uncertainty: ±3.62 dB at a level of confidence of 95%.

Test Data

EST Technology

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Dongguan City,Guangdong,China
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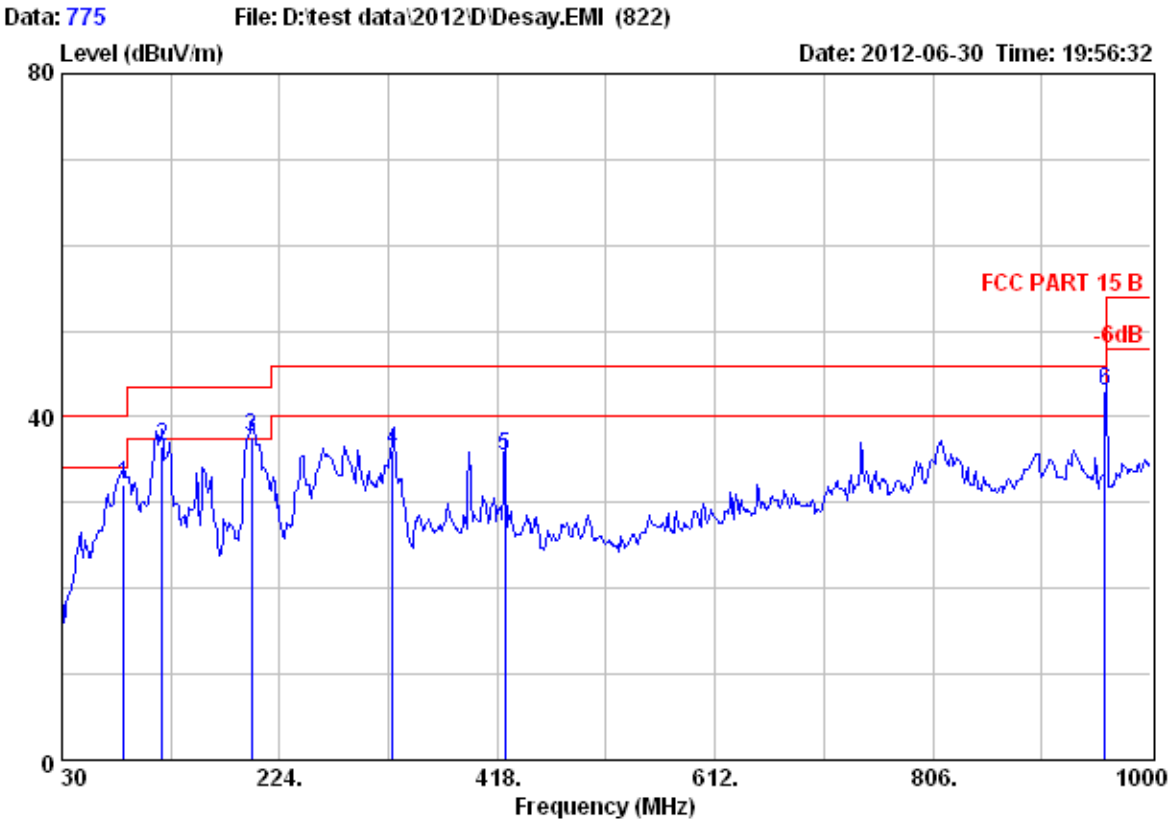
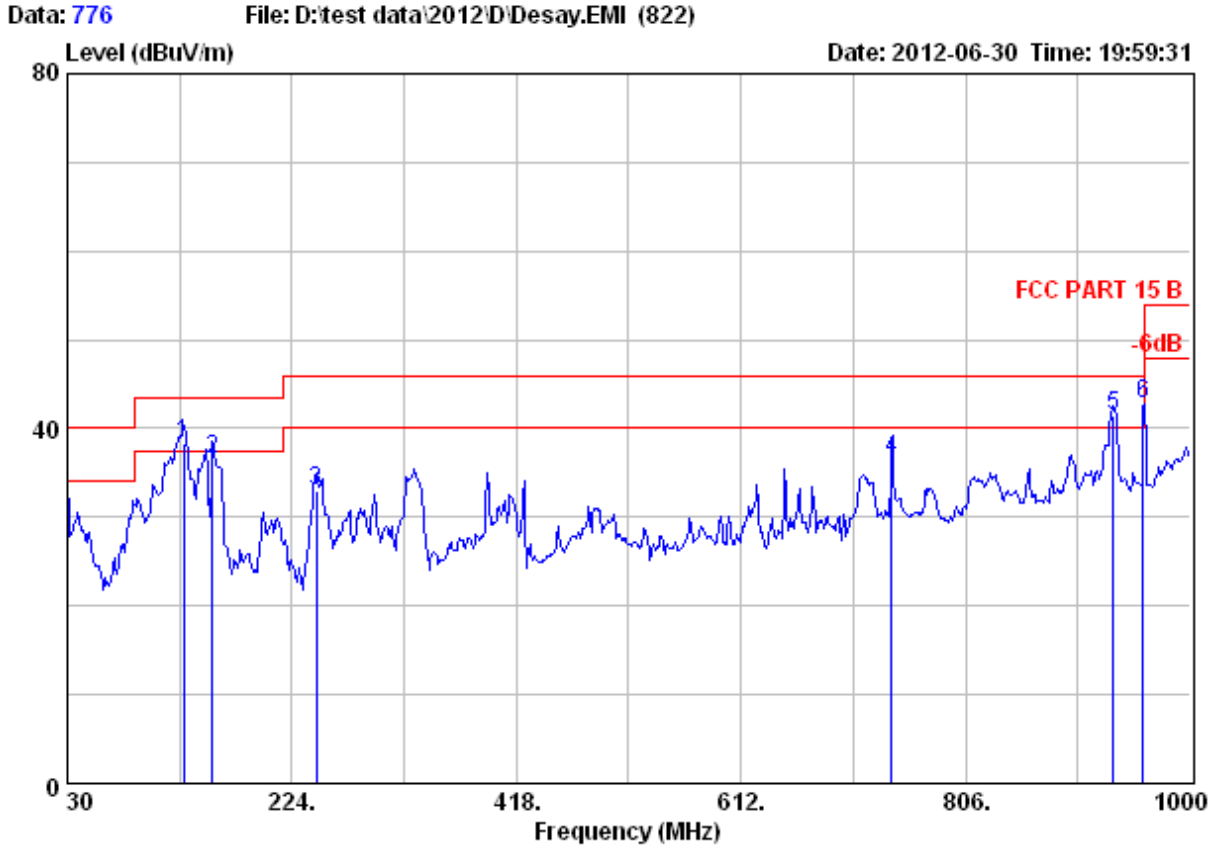
Fax:+86-769-83081878



Site no. : 3m Chamber Data no. : 775
Dis. / Ant. : 3m 27137 Ant. pol. : HORIZONTAL
Limit : FCC PART 15 B
Env. / Ins. : Temp:25.6';Humi:56%;Press:101.52kPa
Engineer : Tony
EUT : BLU-RAY DISC PLAYER
Power : AC 120V/60Hz
M/N : DS-B202-R
Test Mode : Network+BD Playing

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reamark (dB)
1	85.29	7.72	2.75	21.64	32.11	40.00	7.89	QP
2	119.24	11.11	3.22	22.23	36.56	43.50	6.94	QP
3	198.78	7.71	4.17	25.79	37.67	43.50	5.83	QP
4	324.88	13.71	5.48	16.88	36.07	46.00	9.93	QP
5	424.79	16.18	6.23	13.05	35.46	46.00	10.54	QP
6	959.55	24.48	10.37	8.15	43.00	46.00	3.00	QP

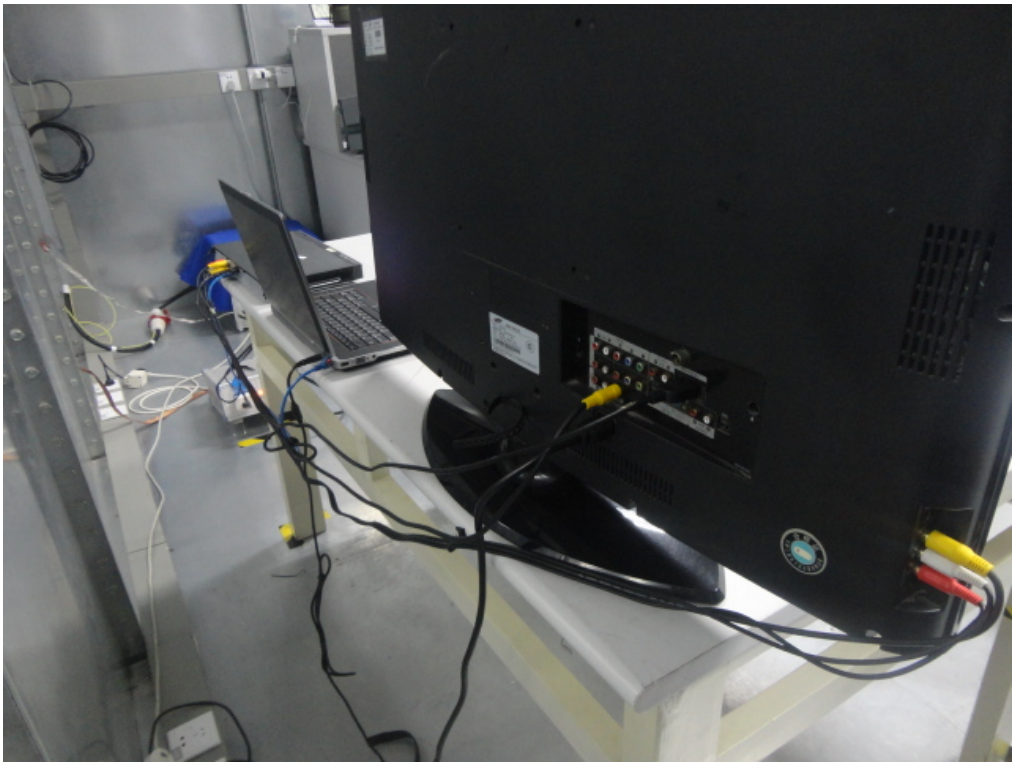


Site no. : 3m Chamber Data no. : 776
Dis. / Ant. : 3m 27137 Ant. pol. : VERTICAL
Limit : FCC PART 15 B
Env. / Ins. : Temp:25.6';Humi:56%;Press:101.52kPa
Engineer : Tony
EUT : BLU-RAY DISC PLAYER
Power : AC 120V/60Hz
M/N : DS-B202-R
Test Mode : Network+BD Playing

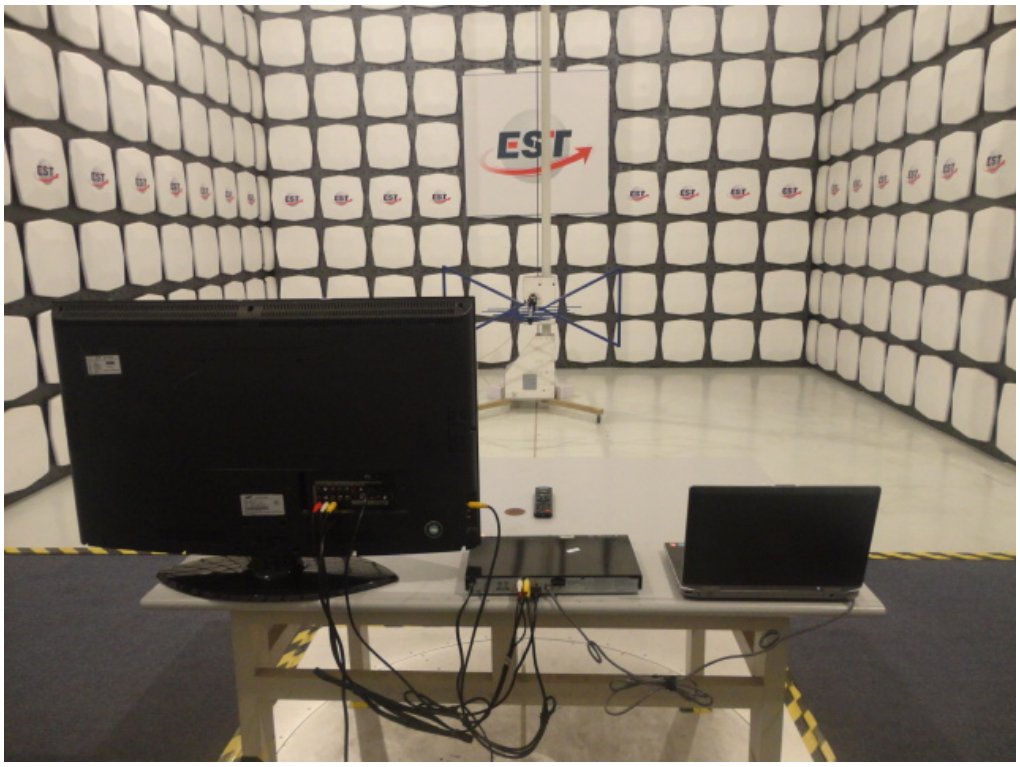
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Reamark (dB)
1	130.88	11.33	3.36	23.68	38.37	43.50	5.13	QP
2	155.13	10.67	3.68	22.20	36.55	43.50	6.95	QP
3	245.34	11.06	4.78	17.16	33.00	46.00	13.00	QP
4	741.98	22.33	8.88	5.28	36.49	46.00	9.51	QP
5	934.04	24.53	9.81	7.14	41.48	46.00	4.52	QP
6	959.73	24.48	10.37	8.03	42.88	46.00	3.12	QP

5. PHOTOGRAPHS OF TEST SETUP

Conducted Emission Test



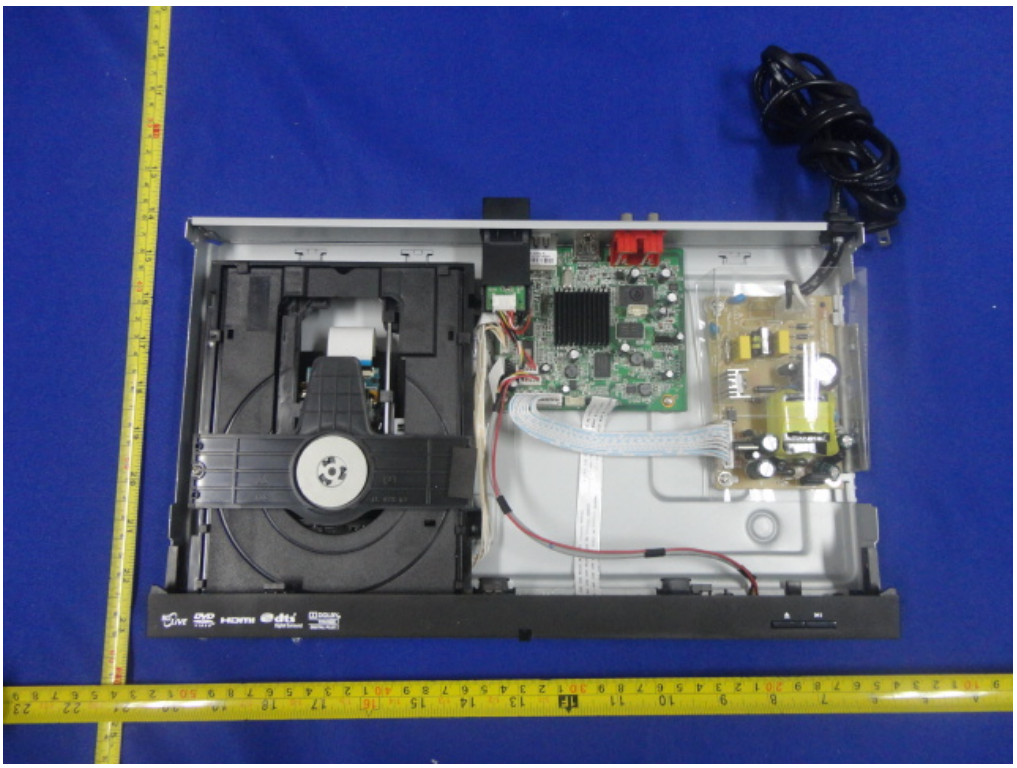
Radiated Emission Test

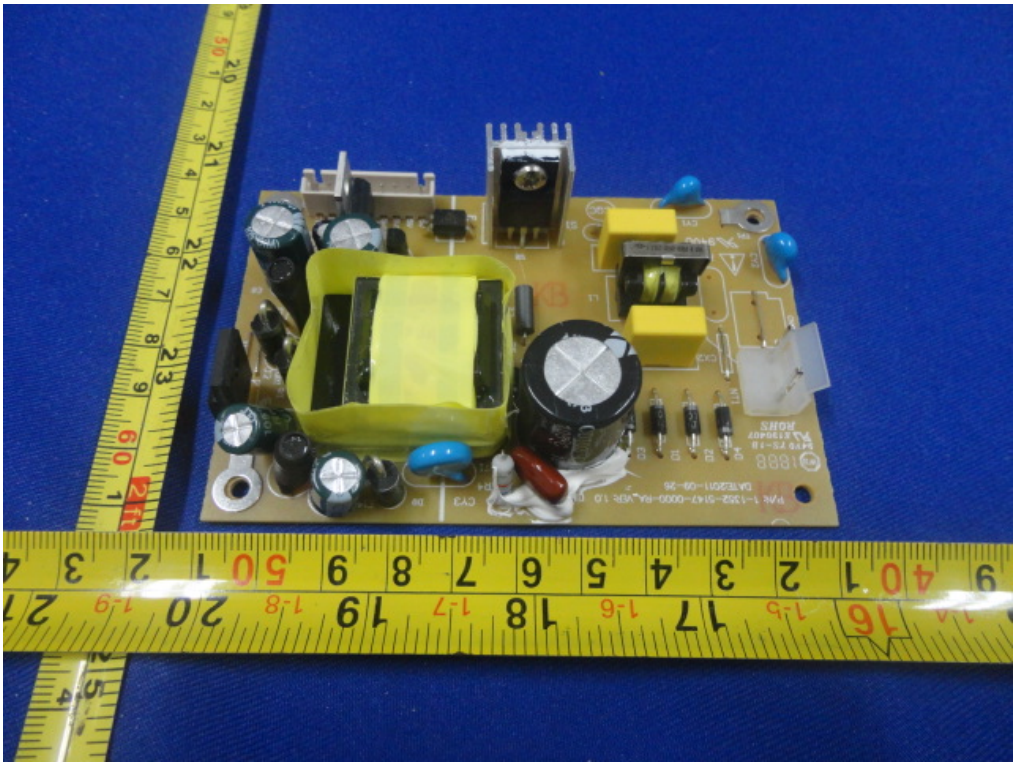


6. PHOTOGRAPHS OF THE EUT

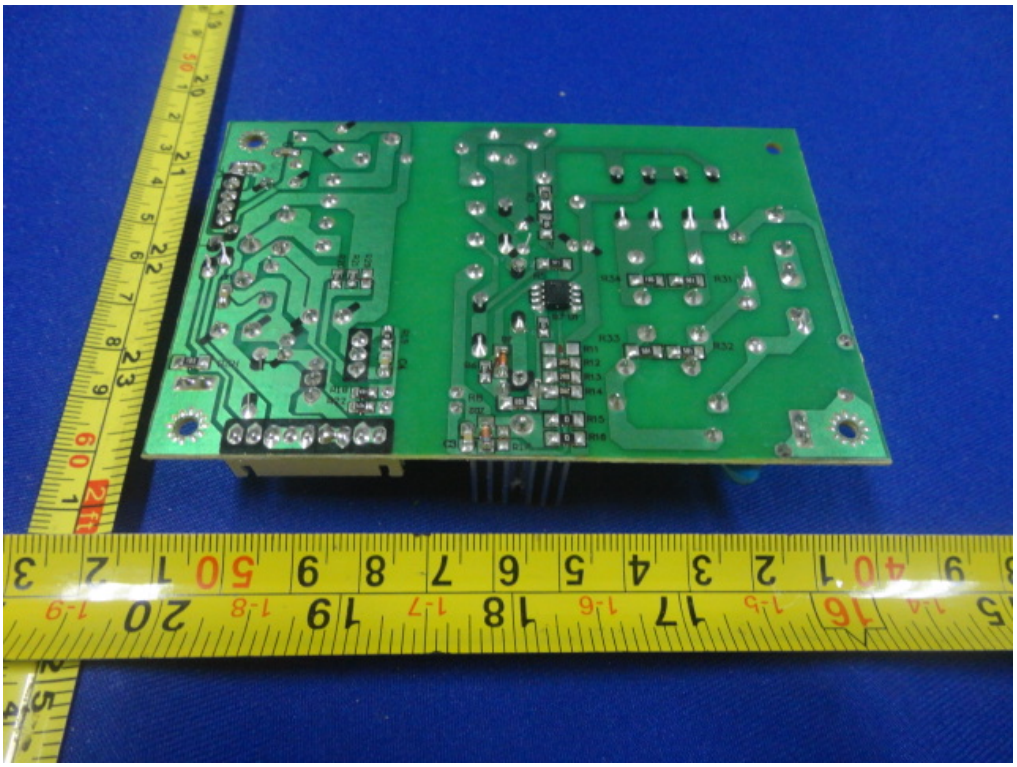
External Photos

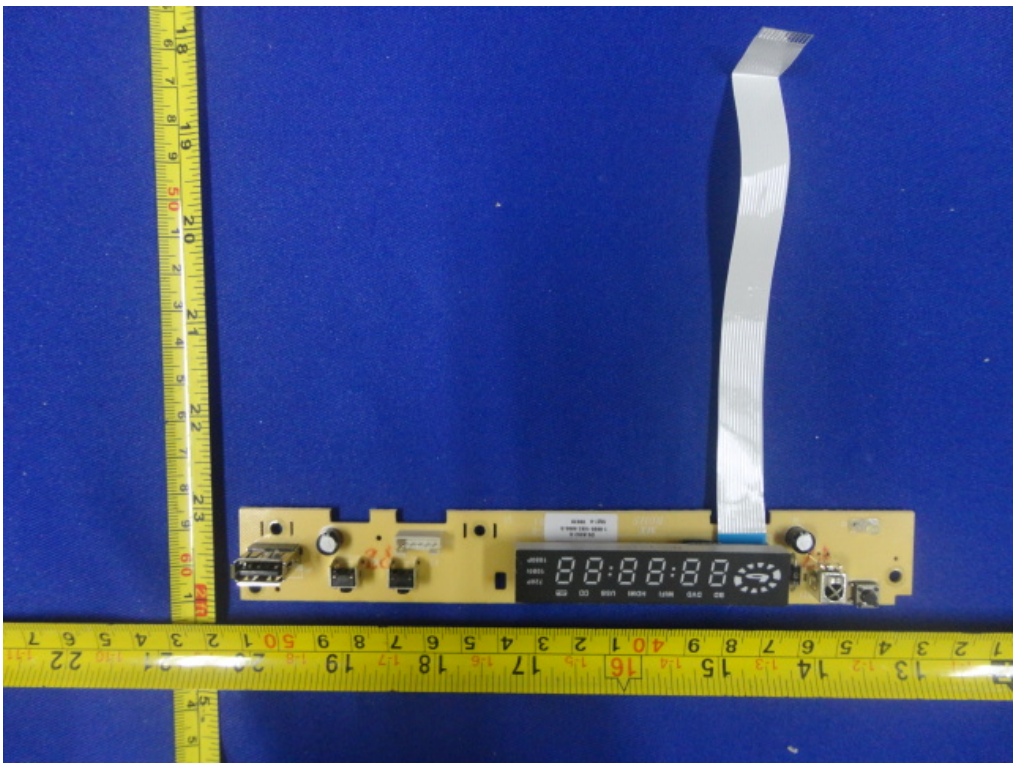
Internal Photos



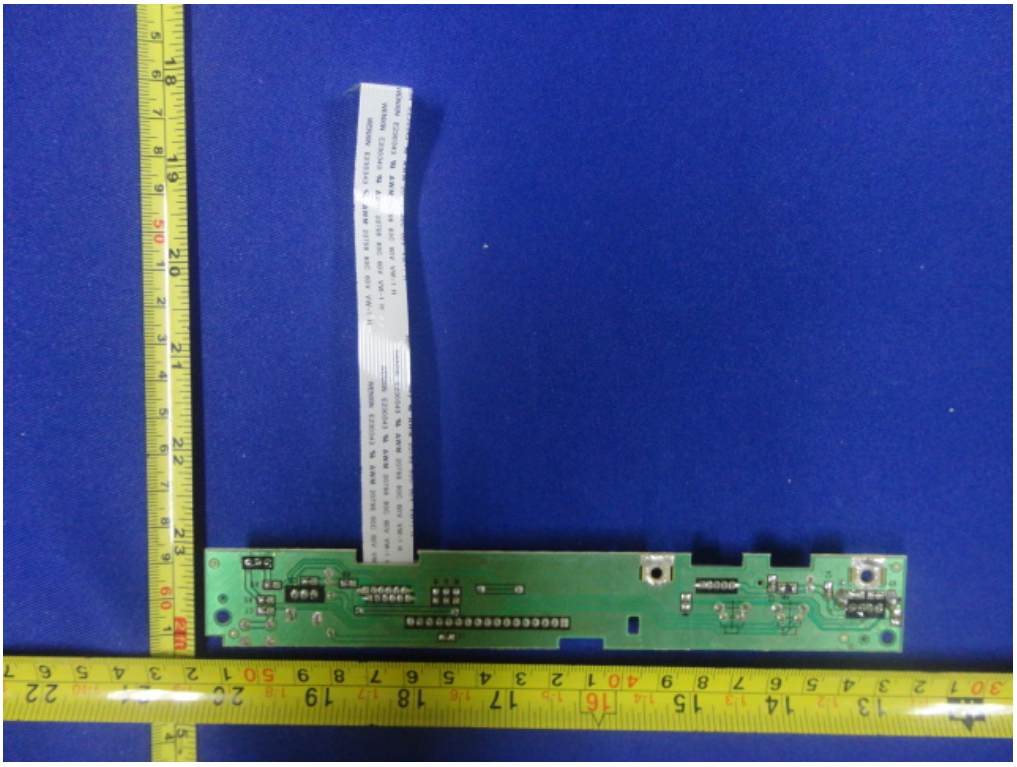


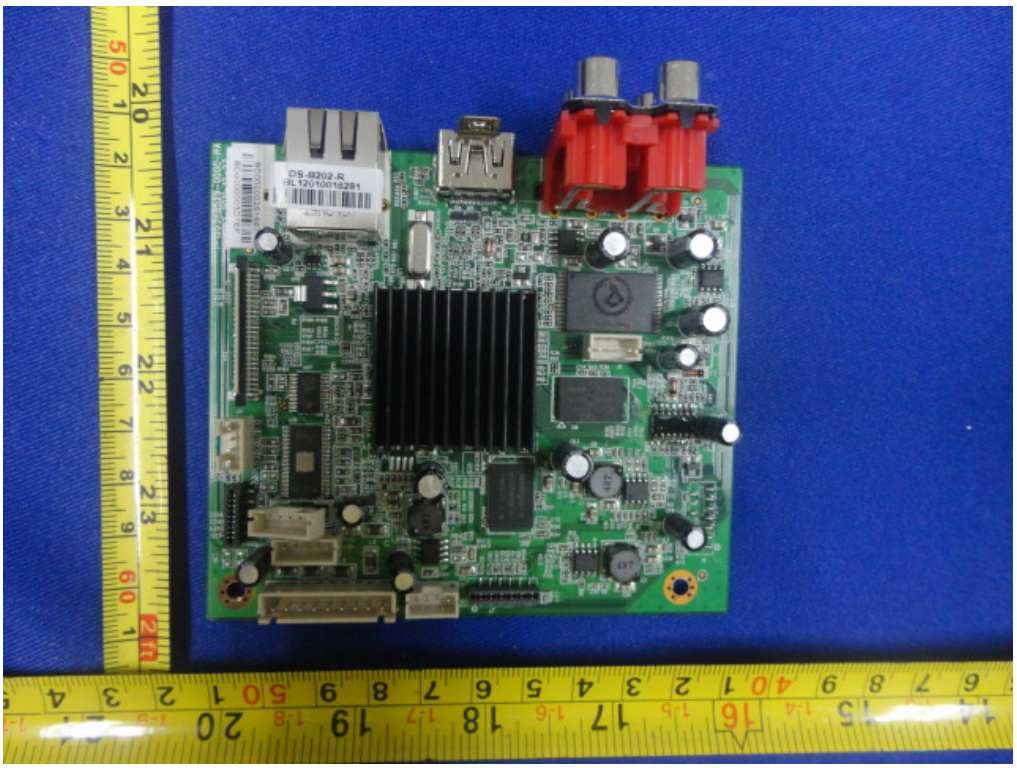
Internal Photos



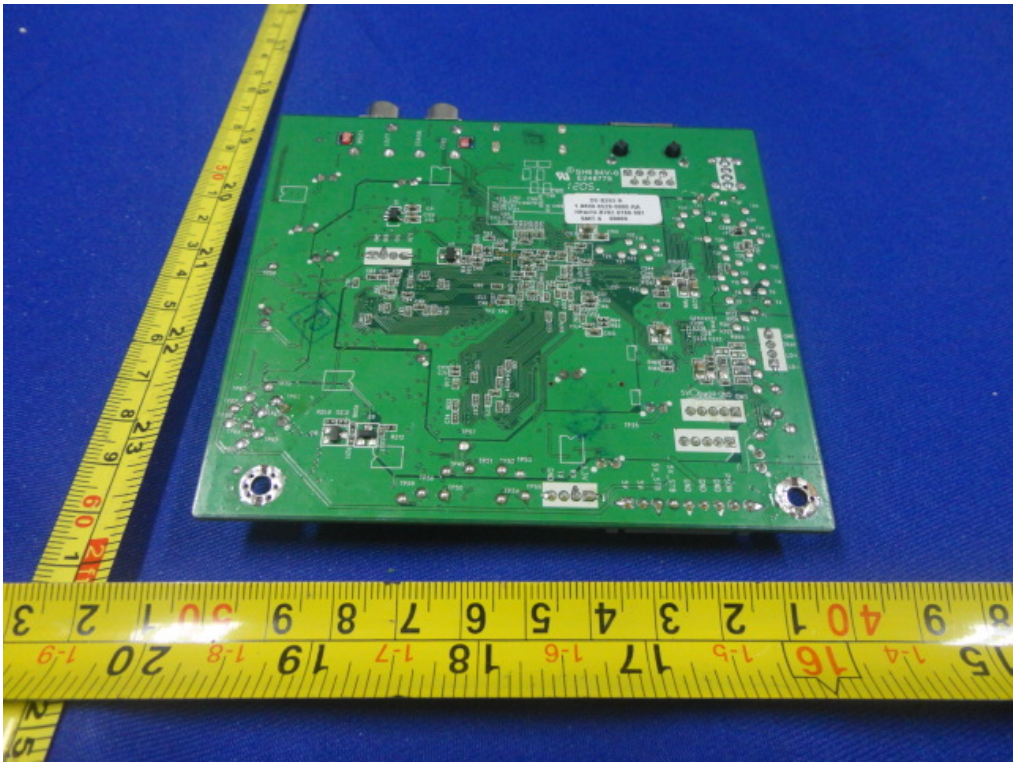


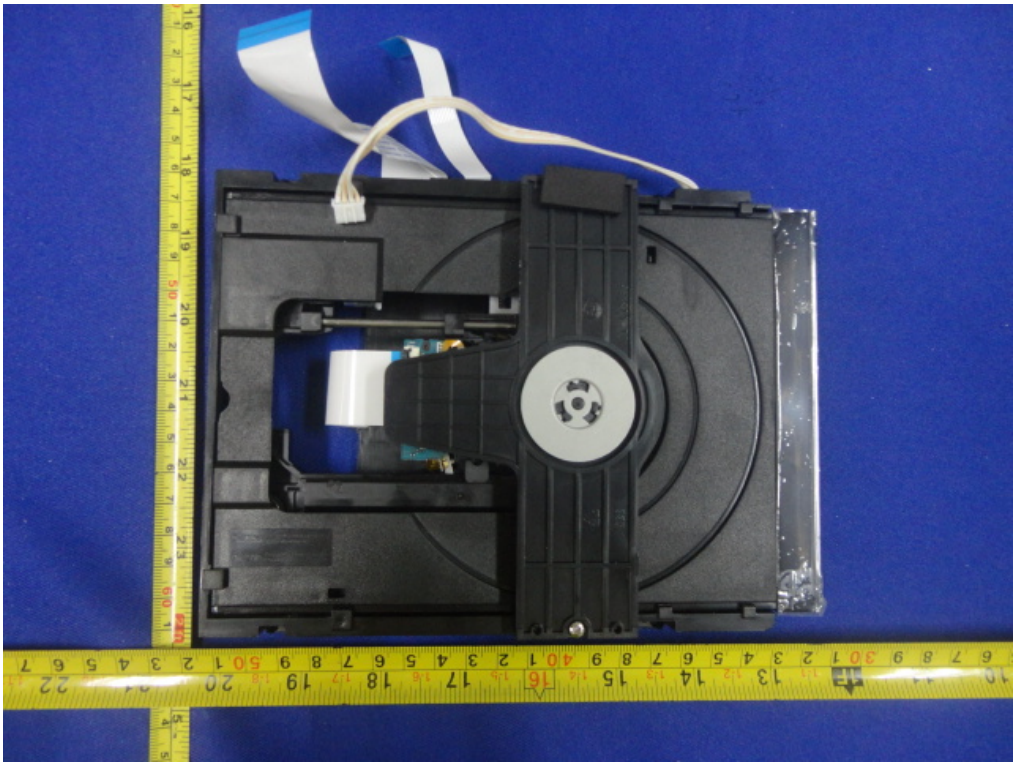
Internal Photos



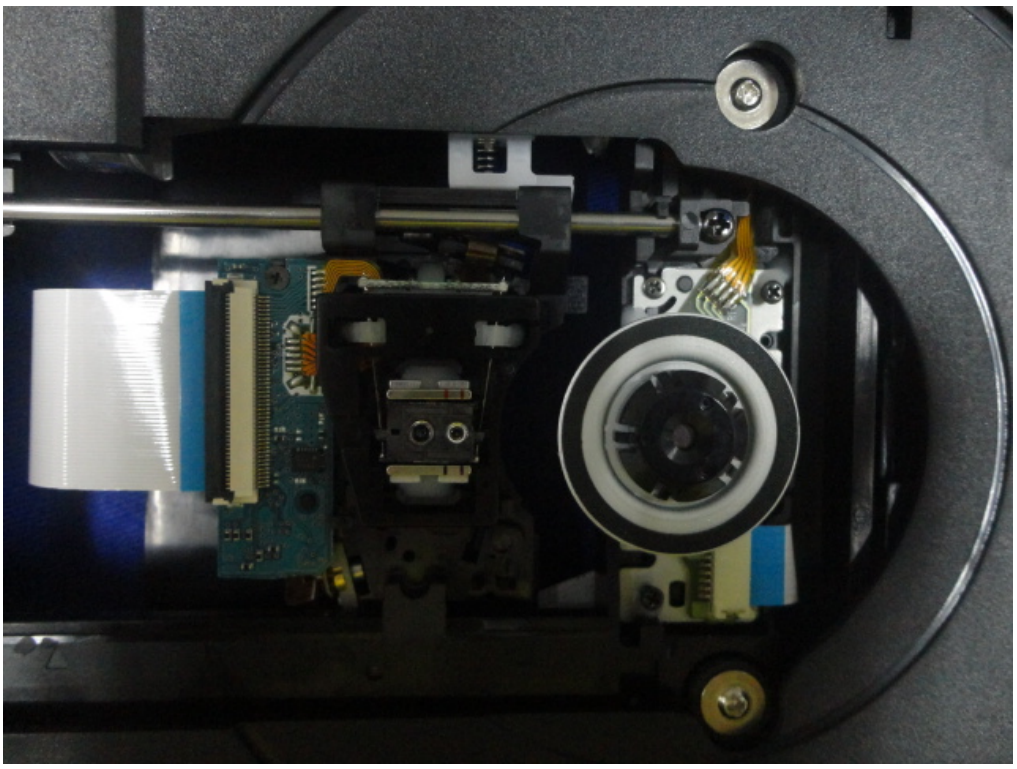


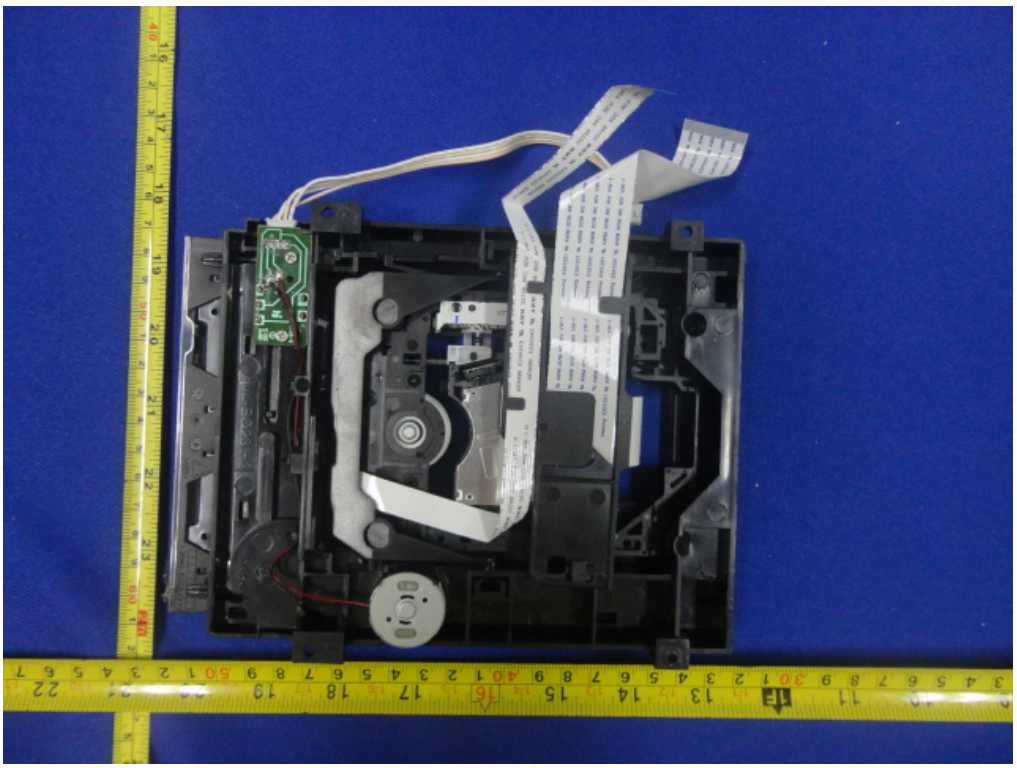
Internal Photos



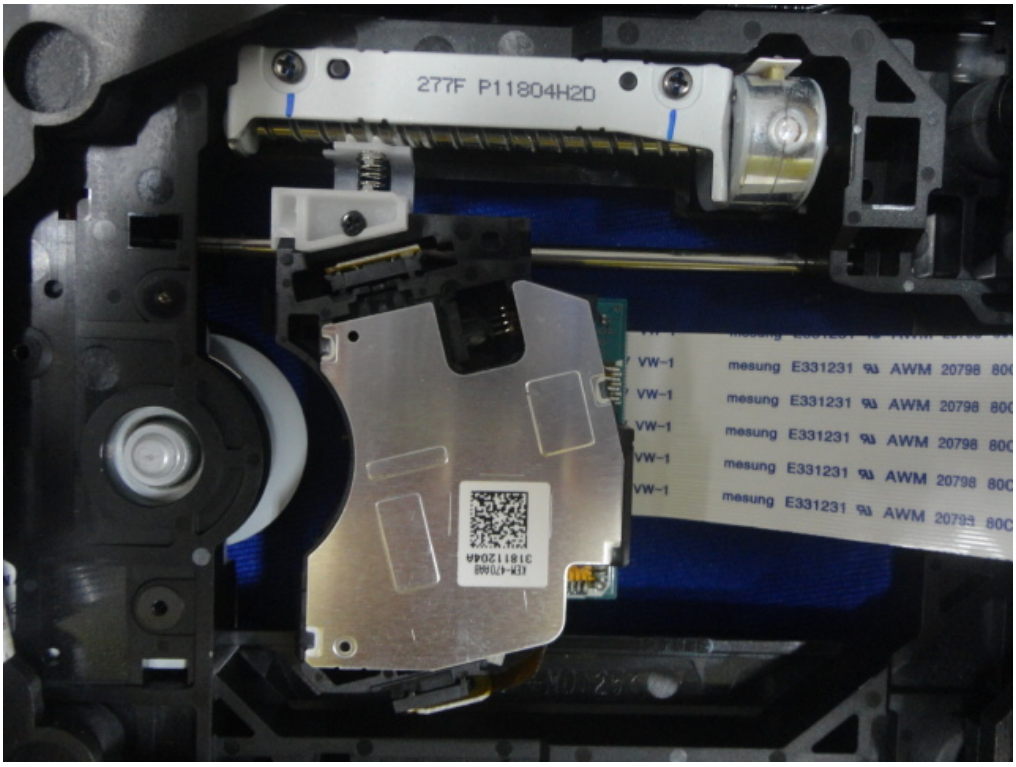


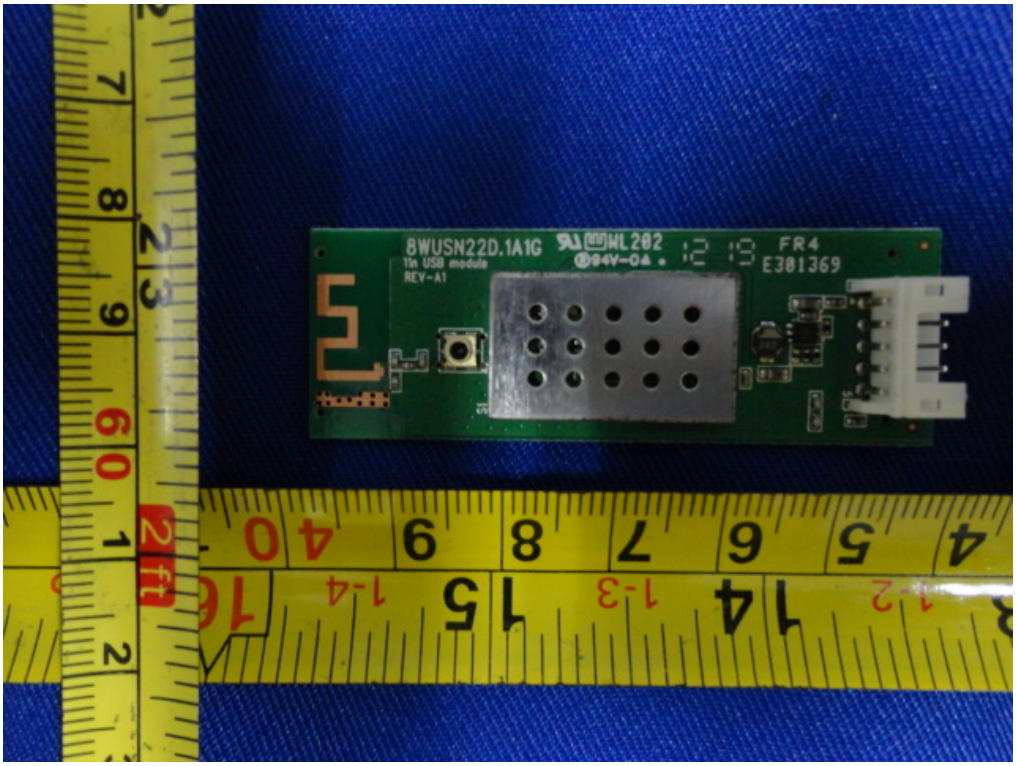
Internal Photos





Internal Photos





Internal Photos