FCC Test Report
On Behalf of
10MOONS TECHNOLOGY DEVELOPMENT CO., LTD.

Digital Media Player
Model No.: DMP422

Prepared for	:	10MOONS TECHNOLOGY DEVELOPMENT CO., LTD.
Address	:	6F, Bldg. A, 10moons Technology Park, No.6 Hechang Road, Zhongkai High-tech Zone, Huizhou, P.R.China

Prepared By	:	Anbotek Compliance Laboratory Limited
Address	:	1/F, 1/Build, SEC Industrial Park, No. 4 Qianhai Road, Nanshan District, Shenzhen, 518054, China Tel: (86) 755-26014771 Fax: (86) 755-26014772

Report Number	:	201108783F
Date of Test	:	Sept. 27~Oct. 08, 2011
Date of Report	:	Oct. 08, 2011

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TEST REPORT VERIFICATION

Applicant	:	10MOONS TECHNOLOGY DEVELOPMENT CO., LTD.
Manufacturer	:	10MOONS TECHNOLOGY DEVELOPMENT CO., LTD.
EUT	:	Digital Media Player
Model No.	:	DMP422
Rating	:	5V⎓, 10W, 2A
Trade Mark	:	N.A.

Measurement Procedure Used:

FCC Rules and Regulations Part 15 Subpart B 2010 & FCC / ANSI C63.4-2009

The device described above is tested by Anbotek Compliance Laboratory Limited 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 both radiated and conducted emissions. The measurement results are contained in this test report and Anbotek Compliance Laboratory Limited Is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Anbotek Compliance Laboratory Limited

Date of Test : Sept. 27~Oct. 08, 2011

Prepared by : Heise chen

(Engineer/ Heise Chen)

Reviewer : Yoyo Zhu

(Project Manager/ Yoyo Zhu)

Approved & Authorized Signer : Henry. Yang.

(Manager/ Henry Yang)

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

Description	**:**	Digital Media Player
Model Number	**:**	DMP422
Test Power Supply	**:**	120V~, 60Hz for Adapter
Switching Adapter	**:**	Input: 100~240V~, 50/60Hz, 0.3A max Output: 5V⎓, 2.0A UL, FCC
Applicant	:	10MOONS TECHNOLOGY DEVELOPMENT CO., LTD.
Address	:	6F, Bldg. A, 10moons Technology Park, No.6 Hechang Road, Zhongkai High-tech Zone, Huizhou, P.R.China
Manufacturer	:	10MOONS TECHNOLOGY DEVELOPMENT CO., LTD.
Address	:	6F, Bldg. A, 10moons Technology Park, No.6 Hechang Road, Zhongkai High-tech Zone, Huizhou, P.R.China
Date of Sample received	**:**	Sept. 27, 2011
Date of Test	:	Sept. 27~Oct. 08, 2011

1.2. Auxiliary Equipment Used during Test

SD card		Manufacturer: Kingston M/N: SD4/4GBFE S/N: N/A CE , FCC: DOC
USB Cable	:	0.5m, SHIELD
TV		LCD HDTV RATING: 110-240V~, 50Hz

1.3. Description of Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

CNAS - LAB Code: L3503
Anbotek Compliance Laboratory Limited., Laboratory has been assessed and in compliance with CNAS/CL01: 2006 accreditation criteria for testing laboratories (identical to ISO/IEC 17025: 2005 General Requirements) for the Competence of Testing Laboratories.

FCC-Registration No.: 752021
Anbotek Compliance Laboratory Limited, EMC Laboratory has been registed and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 752021, August 20, 2010

IC-Registration No.: 8058A-1
Anbotek Compliance Laboratory Limited., EMC Laboratory has been registered and fully described in a report filed with the (IC) Industry Canada. The acceptance letter from the IC is maintained in our files. Registration 8058A-1, August 30, 2010

Test Location
All Emissions tests were performed
Anbotek Compliance Laboratory Limited. at 1/F, 1/Build, SEC Industrial Park, No. 4 Qianhai Road, Nanshan District, Shenzhen, 518054, China

1.4. Measurement Uncertainty

Radiation Uncertainty	**:**	Ur = 4.3dB
Conduction Uncertainty	**:**	Uc = 3.4dB

1.5. Test Summary

For the EUT described above. The standards used were FCC Part 15 Subpart B for Emissions.
Table 1 : Tests Carried Out Under FCC Part 15 Subpart B

Standard	Test Items	Status
FCC Part 15 Subpart B	Power Line Conducted Emission Test (150KHz To 30MHz)	√
FCC Part 15 Subpart B	Radiated Emission Test (30MHz To 1000MHz)	√

√ Indicates that the test is applicable
x Indicates that the test is not applicable

2. POWER LINE CONDUCTED MEASUREMENT

2.1. Test Equipment

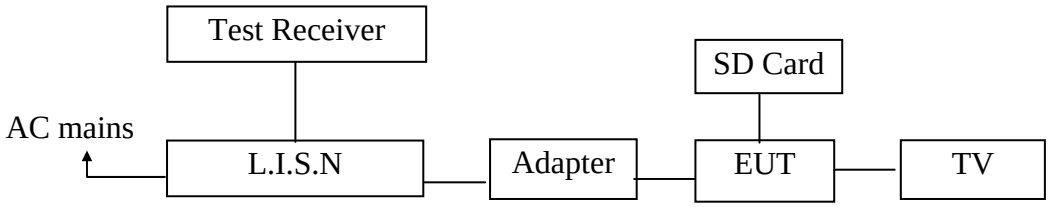
The following test equipments are used during the power line conducted measurement:

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	EMI Receiver	Rohde & Schwarz	ESCI	100627	Nov. 12, 2010	1 Year
2.	Two-Line V-network	Rohde & Schwarz	ENV216	10055	May 19, 2011	1 Year
3.	RF Switching Unit	Compliance Direction	RSU-M2	38303	May 19, 2011	1 Year
4.	EMI Test Software	ES-K1	N/A	N/A	N/A	N/A

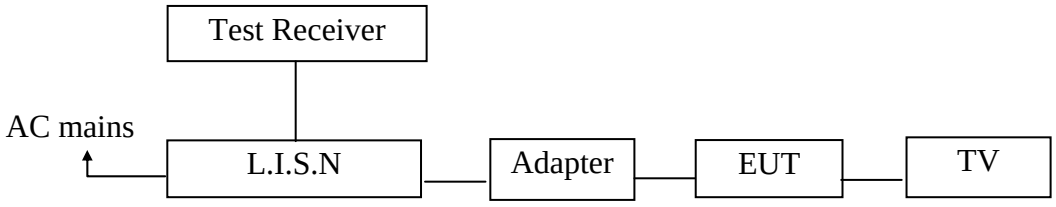
2.2. Block Diagram of Test Setup

2.2.1. Block diagram of connection between the EUT and simulators

2.1.1.1. SD Card Playing Mode



2.1.1.2. USB Playing Mode



(EUT: Digital Media Player)

2.3. Power Line Conducted Emission Measurement Limits (FCC Part 15 Subpart B Class B)

Frequency MHz	Limits dB(μV)	
	Quasi-peak Level	Average Level
0.15 ~ 0.50	66 ~ 56*	56 ~ 46*
0.50 ~ 5.00	56	46
5.00 ~ 30.00	60	50

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

2.4. Configuration of EUT on Measurement

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

EUT	:	Digital Media Player
Model Number	:	DMP422
Applicant	**:**	10MOONS TECHNOLOGY DEVELOPMENT CO., LTD.

2.5. Operating Condition of EUT

2.5.1. Setup the EUT and simulator as shown as Section 2.2.
2.5.2. Turn on the power of all equipment.
2.5.3. Let the EUT work in test mode (On) and measure it.

2.6. Test Procedure

The EUT system is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to FCC ANSI C63.4-2009 on Conducted Emission Measurement.

The bandwidth of test receiver (ESCI) set at 9KHz.
The frequency range from 150KHz to 30MHz is checked.
The test result are reported on Section 2.7.

2.7. Power Line Conducted Emission Measurement Results

PASS.

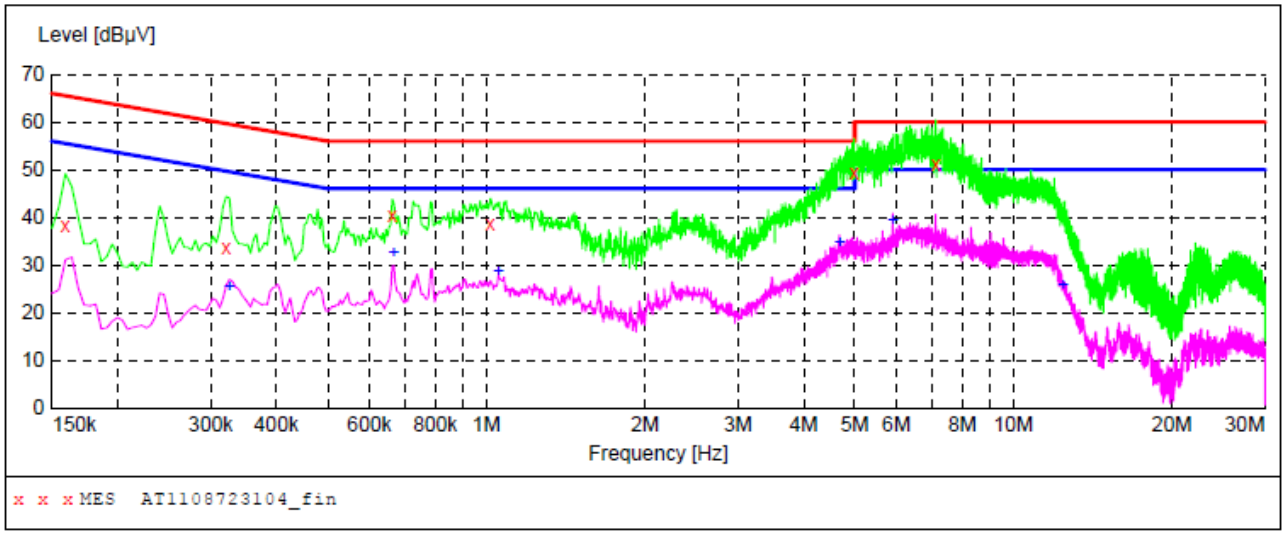
The frequency range from 150KHz to 30 MHz is investigated.
The test curves are shown in the following pages.

CONDUCTED EMISSION TEST DATA

EUT:	Digital Media Player M/N: DMP422
Operating Condition:	SD Card Playing
Test Site:	1# Shielded Room
Operator:	Heise Chen
Test Specification:	120V~, 60Hz for Adapter
Comment:	Live Line
	Tem:22.2 Hum:60%

SCAN TABLE: "Voltage(150K~30M)FIN"

Short Description: 150K-30M Disturbance Voltages



MEASUREMENT RESULT: "AT1108723104_fin"

10/8/2011 10:06AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.159000	38.20	10.1	66	27.3	QP	L1	GND
0.321000	33.60	10.1	60	26.1	QP	L1	GND
0.663000	40.30	10.1	56	15.7	QP	L1	GND
1.018000	38.60	10.2	56	17.4	QP	L1	GND
4.982500	49.30	10.5	56	6.7	QP	L1	GND
7.124500	51.20	10.5	60	8.8	QP	L1	GND

MEASUREMENT RESULT: "AT1108723104_fin2"

10/8/2011 10:06AM

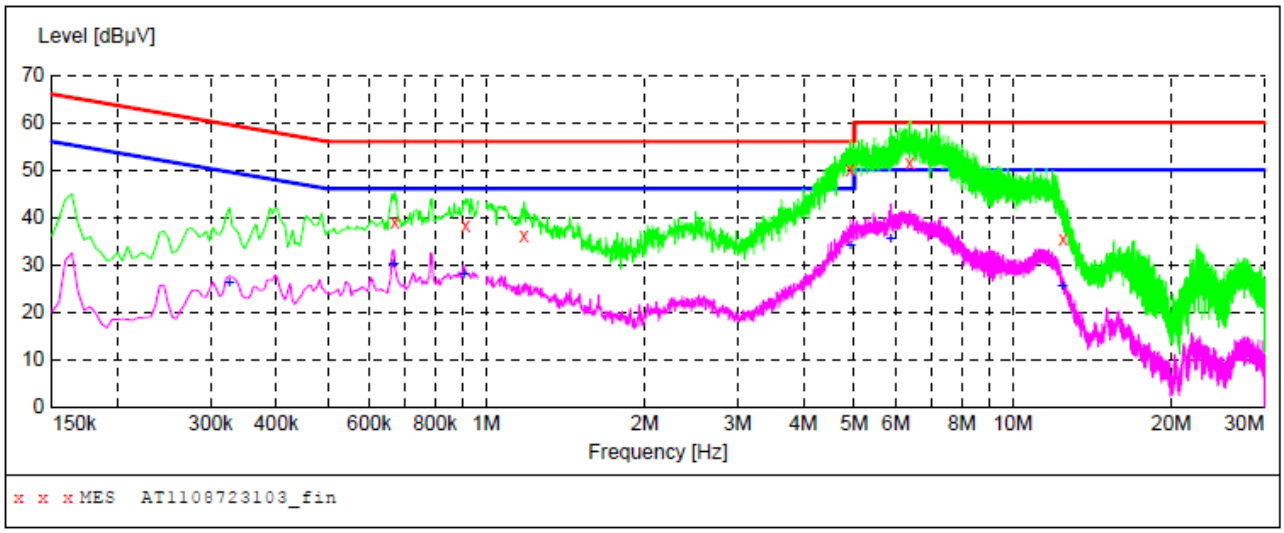
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.325500	25.60	10.1	50	24.0	AV	L1	GND
0.667500	32.50	10.1	46	13.5	AV	L1	GND
1.054000	28.50	10.2	46	17.5	AV	L1	GND
4.676500	34.80	10.5	46	11.2	AV	L1	GND
5.905000	39.30	10.5	50	10.7	AV	L1	GND
12.412000	25.90	10.7	50	24.1	AV	L1	GND

CONDUCTED EMISSION TEST DATA

EUT:	Digital Media Player M/N: DMP422
Operating Condition:	SD Card Playing
Test Site:	1# Shielded Room
Operator:	Heise Chen
Test Specification:	120V~, 60Hz for Adapter
Comment:	Neutral Line
	Tem:22.2 Hum:60%

SCAN TABLE: "Voltage(150K~30M)FIN"

Short Description: 150K-30M Disturbance Voltages



MEASUREMENT RESULT: "AT1108723103_fin"

10/8/2011 10:02AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.672000	39.00	10.1	56	17.0	QP	N	GND
0.915000	38.20	10.1	56	17.8	QP	N	GND
1.180000	36.30	10.2	56	19.7	QP	N	GND
4.915000	50.00	10.5	56	6.0	QP	N	GND
6.382000	51.50	10.5	60	8.5	QP	N	GND
12.466000	35.50	10.7	60	24.5	QP	N	GND

MEASUREMENT RESULT: "AT1108723103_fin2"

10/8/2011 10:02AM

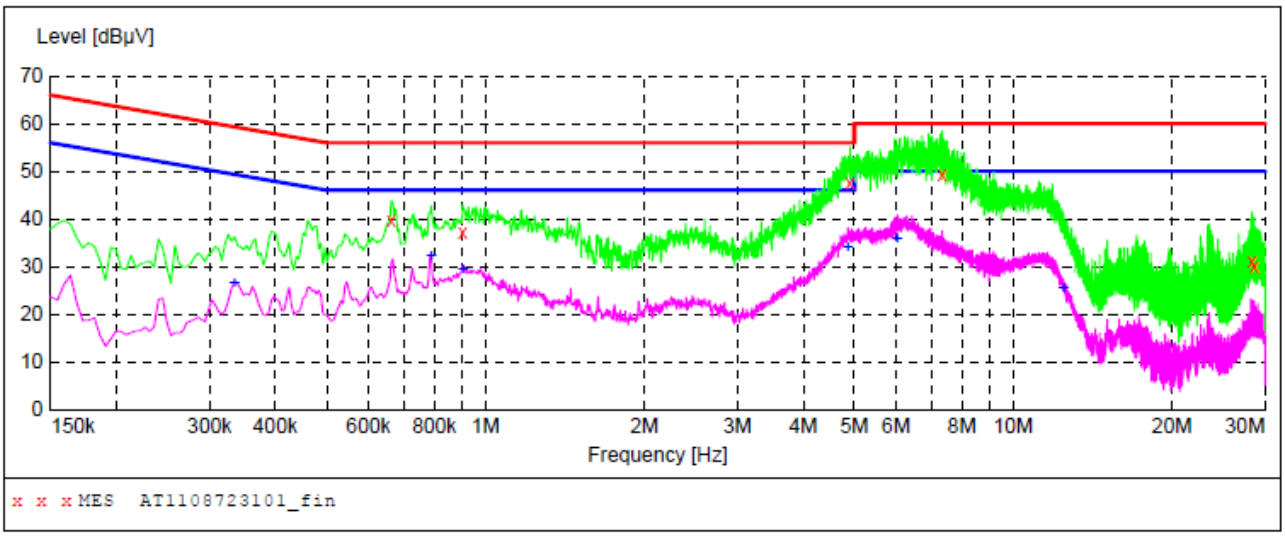
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.325500	26.20	10.1	50	23.4	AV	N	GND
0.667500	30.20	10.1	46	15.8	AV	N	GND
0.906000	28.00	10.1	46	18.0	AV	N	GND
4.924000	34.00	10.5	46	12.0	AV	N	GND
5.860000	35.60	10.5	50	14.4	AV	N	GND
12.407500	25.30	10.7	50	24.7	AV	N	GND

CONDUCTED EMISSION TEST DATA

EUT:	Digital Media Player M/N: DMP422
Operating Condition:	USB Playing
Test Site:	1# Shielded Room
Operator:	Heise Chen
Test Specification:	120V~, 60Hz for Adapter
Comment:	Live Line
	Tem:22.2 Hum:60%

SCAN TABLE: "Voltage(150K~30M)FIN"

Short Description: 150K-30M Disturbance Voltages



MEASUREMENT RESULT: "AT1108723101_fin"

10/8/2011 9:38AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.663000	39.60	10.1	56	16.4	QP	L1	GND
0.906000	37.20	10.1	56	18.8	QP	L1	GND
4.906000	47.50	10.5	56	8.5	QP	L1	GND
7.327000	49.30	10.5	60	10.7	QP	L1	GND
28.355500	31.20	10.9	60	28.8	QP	L1	GND
28.625500	30.10	10.9	60	29.9	QP	L1	GND

MEASUREMENT RESULT: "AT1108723101_fin2"

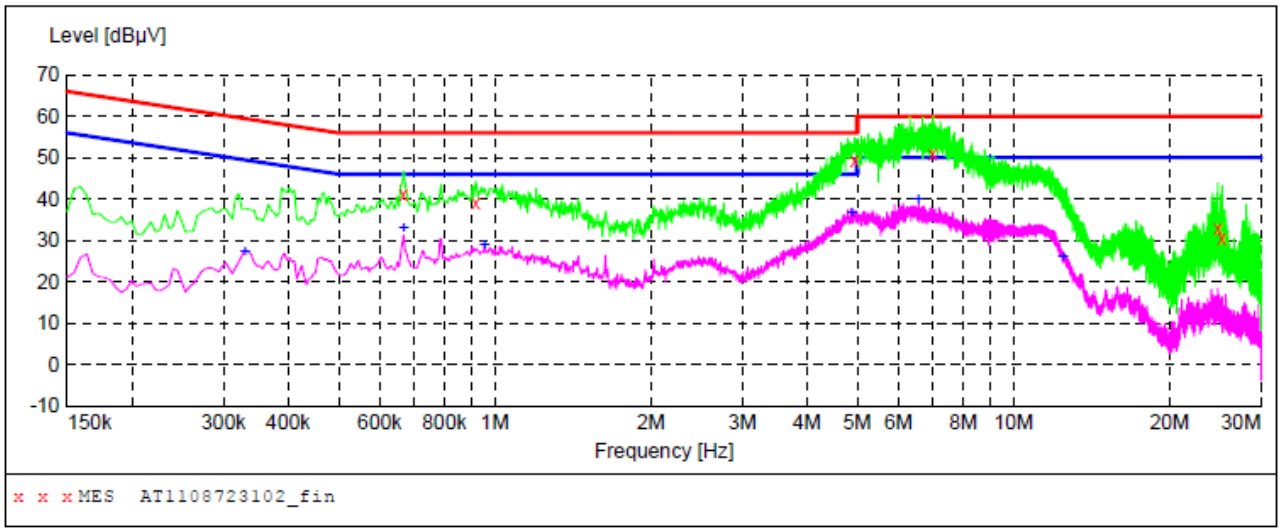
10/8/2011 9:38AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.334500	26.50	10.1	49	22.8	AV	L1	GND
0.789000	32.40	10.1	46	13.6	AV	L1	GND
0.906000	29.20	10.1	46	16.8	AV	L1	GND
4.861000	33.90	10.5	46	12.1	AV	L1	GND
6.031000	36.00	10.5	50	14.0	AV	L1	GND
12.430000	25.30	10.7	50	24.7	AV	L1	GND

CONDUCTED EMISSION TEST DATA

EUT:	Digital Media Player M/N: DMP422
Operating Condition:	USB Playing
Test Site:	1# Shielded Room
Operator:	Heise Chen
Test Specification:	120V~, 60Hz for Adapter
Comment:	Neutral Line
	Tem:22.2 Hum:60%

SCAN TABLE: "Voltage(150K~30M)FIN"
Short Description: 150K-30M Disturbance Voltages



MEASUREMENT RESULT: "AT1108723102_fin"

10/8/2011 9:42AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.667500	41.30	10.1	56	14.7	QP	N	GND
0.919500	38.90	10.1	56	17.1	QP	N	GND
4.942000	49.50	10.5	56	6.5	QP	N	GND
6.994000	50.90	10.5	60	9.1	QP	N	GND
24.773500	33.00	10.9	60	27.0	QP	N	GND
25.250500	30.50	10.9	60	29.5	QP	N	GND

MEASUREMENT RESULT: "AT1108723102_fin2"

10/8/2011 9:42AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.330000	27.40	10.1	50	22.1	AV	N	GND
0.667500	32.90	10.1	46	13.1	AV	N	GND
0.955500	29.00	10.2	46	17.0	AV	N	GND
4.874500	36.60	10.5	46	9.4	AV	N	GND
6.566500	40.10	10.5	50	9.9	AV	N	GND
12.461500	26.20	10.7	50	23.8	AV	N	GND

3. RADIATED EMISSION MEASUREMENT

3.1. Test Equipment

The following test equipments are used during the radiated emission measurement:

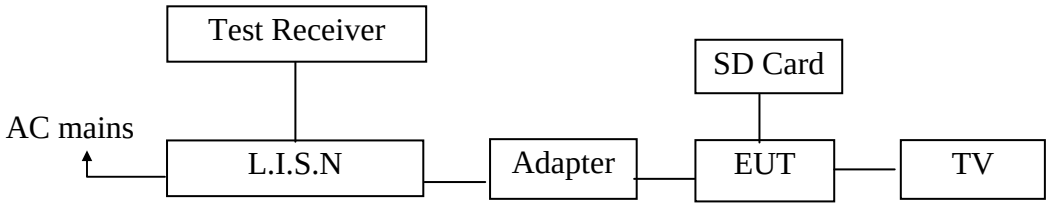
3.1.1. For Anechoic Chamber

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	EMI Test Receiver	Rohde & Schwarz	ESCI	100627	Nov. 12, 2011	1 Year
2.	Bilog Broadband Antenna	Schwarzbeck	VULB9163	100015	May 17, 2011	1 Year
3.	RF Switching Unit	Compliance Direction	RSU-M2	38303	May 19, 2011	1 Year
4.	EMI Test Software	ES-K1	N/A	N/A	N/A	N/A

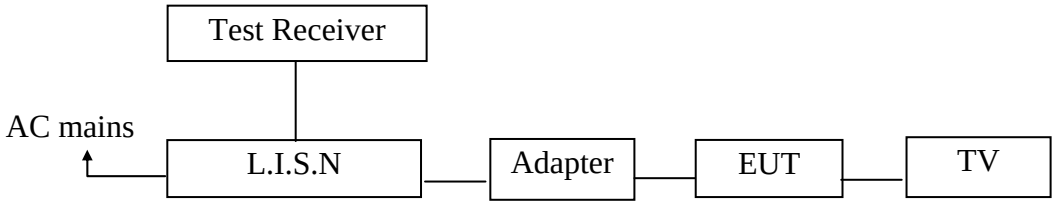
3.2. Block Diagram of Test Setup

3.2.1. Block diagram of connection between the EUT and simulators

3.1.1.1. SD Card Playing Mode

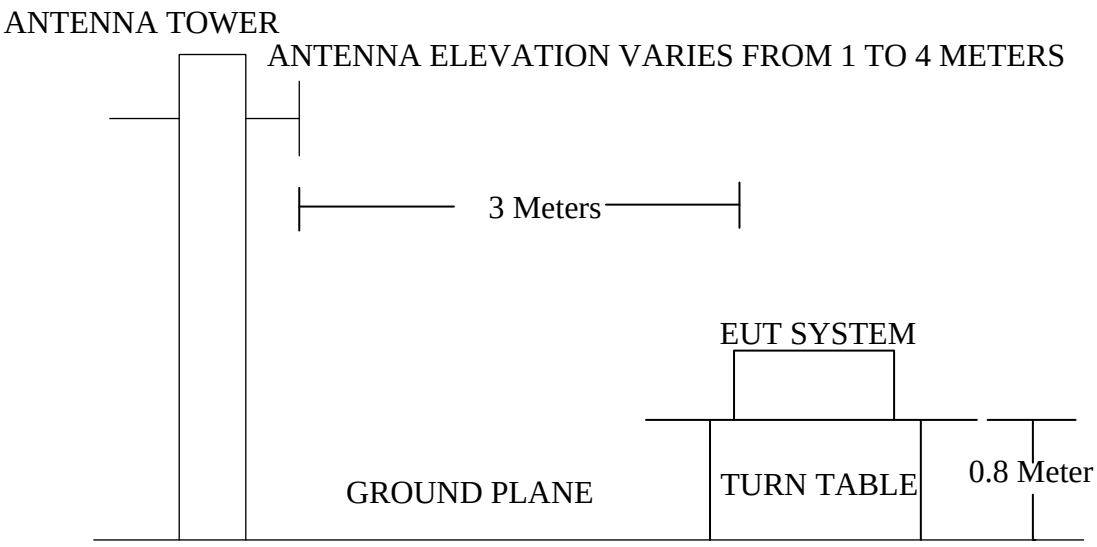


3.1.1.2. USB Playing Mode



(EUT: Digital Media Player)

3.2.2. Anechoic Chamber Test Setup Diagram



(EUT: Digital Photo Frame)

3.3. Radiated Emission Limit (Subpart B Class B)

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		μV/m	dB(μV)/m
30~88	3	100	40.0
88~216	3	150	43.5
216~960	3	200	46.0
960~1000	3	500	54.0

Remark： (1) Emission level (dB)μV = 20 log Emission level μV/m

(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.

3.4. EUT Configuration on Measurement

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

EUT : Digital Media Player
Model Number : DMP422
Applicant : 10MOONS TECHNOLOGY DEVELOPMENT CO., LTD.

3.5. Operating Condition of EUT

3.5.1. Setup the EUT as shown in Section 3.2.
3.5.2. Let the EUT work in test mode (On) and measure it.

3.6. Test Procedure

EUT and its simulators are placed on a turn table, which is 0.8 meter high above ground. The turn table can rotate 360 degrees to determine the position of the

maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (Trilog Broadband Antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4-2009 on radiated emission measurement.
The bandwidth of the EMI test receiver (ESCI) is set at 120kHz.
The frequency range from 30MHz to 1000MHz is checked.

The test mode (On) is tested in chamber and all the test results are listed in Section 3.7.

3.7. Radiated Emission Measurement Results

PASS.
The test curves are shown in the following pages.

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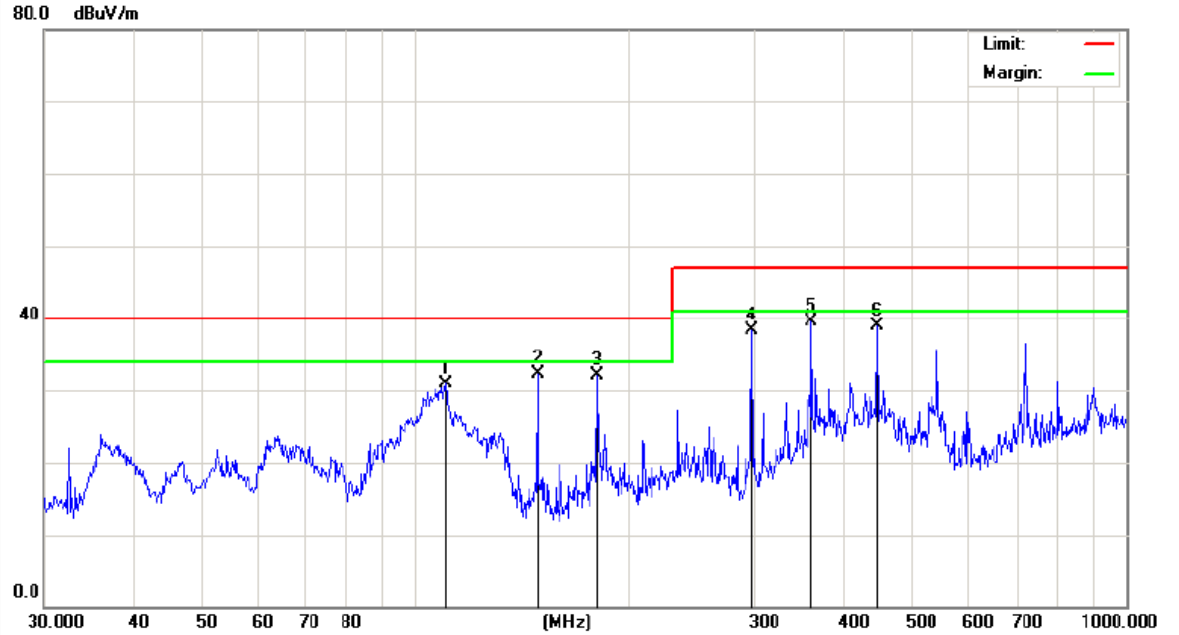
Job No.:	**AT1108723F**	**Polarziation:**	**Horizontal**
Standard:	**(RE)FCC PART15 B _3m**	**Power Source:**	**120V~, 60Hz**
Test item:	**Radiation Test**	**Date:**	**2011/09/30**
Temp.(C)/Hum.(%RH):	**24.3(C)/55%RH**	**Time:**	**18:59:06**
EUT:	**Digital Media Player**	**Test By:**	**Heise Chen**
Model:	**DMP422**	**Distance:**	**3m**
Note:	**SD Card Playing**		



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	110.1816	60.22	-29.36	30.86	40.00	-9.14	peak			
2	148.4410	64.34	-32.00	32.34	40.00	-7.66	peak			
3	180.0165	62.48	-30.41	32.07	40.00	-7.93	peak			
4	297.2241	64.55	-26.25	38.30	47.00	-8.70	peak			
5	360.4476	61.74	-22.19	39.55	47.00	-7.45	peak			
6	446.4141	59.61	-20.63	38.98	47.00	-8.02	peak			

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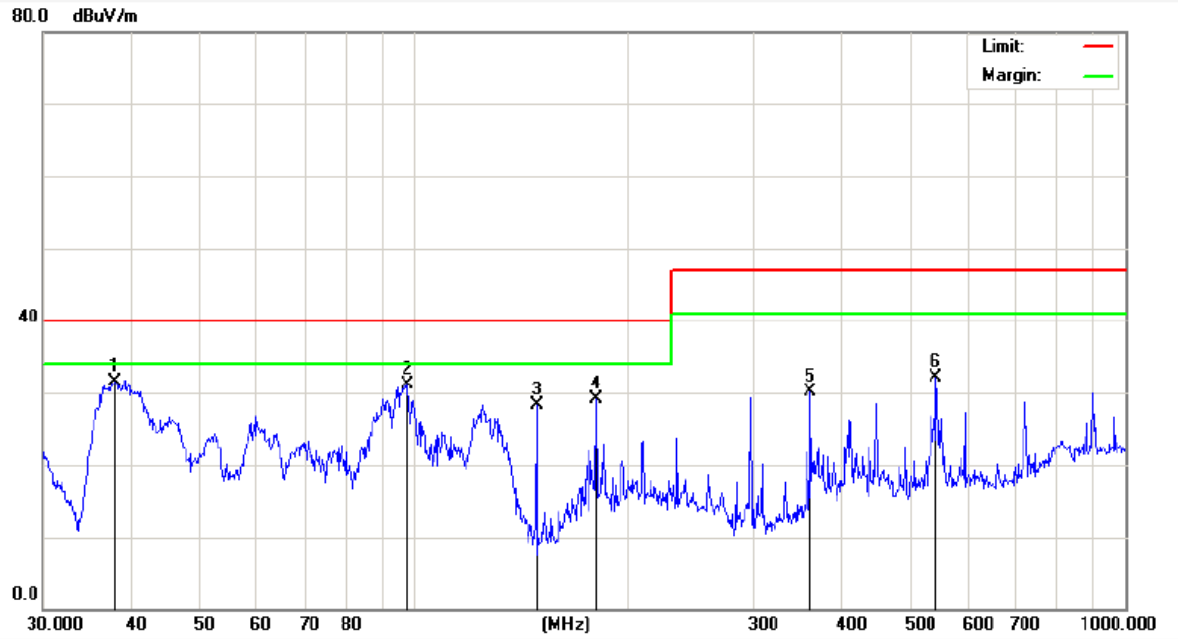
Http://www.anbotek.com

Job No.:	**AT1108723F**	**Polarziation:**	**Vertical**
Standard:	**(RE)FCC PART15 B _3m**	**Power Source:**	**120V~, 60Hz**
Test item:	**Radiation Test**	**Date:**	**2011/09/30**
Temp.(C)/Hum.(%RH):	**24.3(C)/55%RH**	**Time:**	**18:57:33**
EUT:	**Digital Media Player**	**Test By:**	**Heise Chen**
Model:	**DMP422**	**Distance:**	**3m**

Note: **SD Card Playing**



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	37.8121	56.96	-25.43	31.53	40.00	-8.47	peak			
2	97.4560	55.73	-24.72	31.01	40.00	-8.99	peak			
3	148.4410	55.35	-27.00	28.35	40.00	-11.65	peak			
4	180.0165	54.56	-25.41	29.15	40.00	-10.85	peak			
5	360.4476	51.26	-21.19	30.07	47.00	-16.93	peak			
6	541.3721	50.35	-18.20	32.15	47.00	-14.85	peak			

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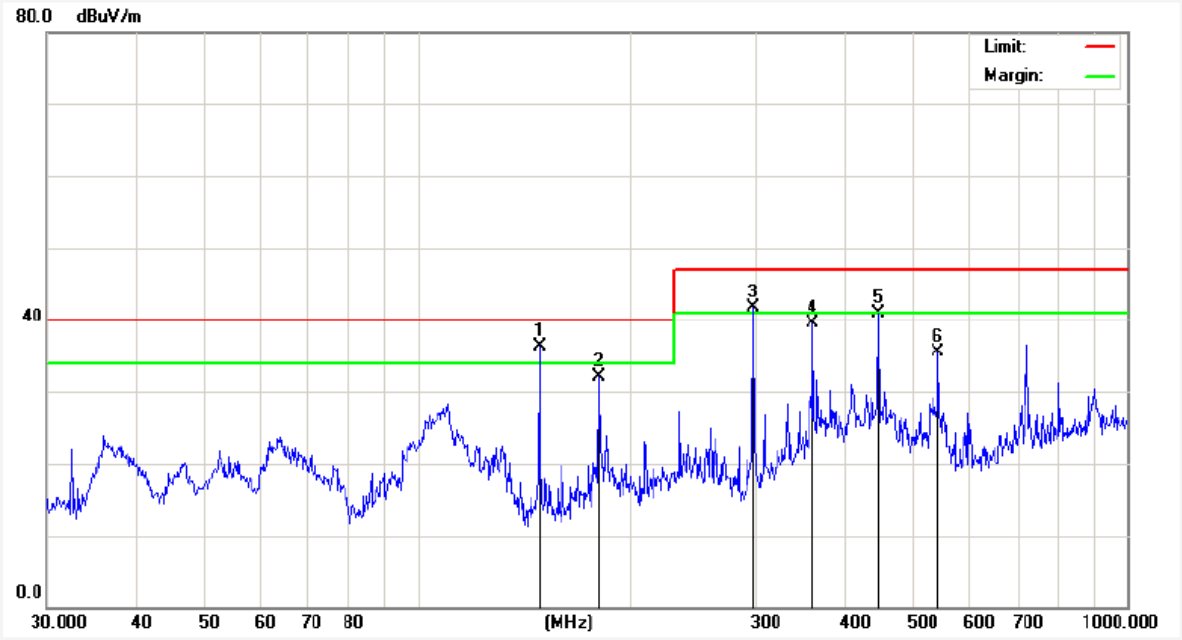
Job No.:	**AT1108723F**	**Polarziation:**	**Horizontal**
Standard:	**(RE)FCC PART15 B _3m**	**Power Source:**	**120V~, 60Hz**
Test item:	**Radiation Test**	**Date:**	**2011/09/30**
Temp.(C)/Hum.(%RH):	**24.3(C)/55%RH**	**Time:**	**18:54:16**
EUT:	**Digital Media Player**	**Test By:**	**Heise Chen**
Model:	**DMP422**	**Distance:**	**3m**
Note:	**USB Playing**		



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	148.4410	68.34	-32.00	36.34	40.00	-3.66	QP	300	0	
2	180.0165	62.48	-30.41	32.07	40.00	-7.93	peak			
3	297.2241	68.05	-26.25	41.80	47.00	-5.20	QP	300	360	
4	360.4476	61.74	-22.19	39.55	47.00	-7.45	peak			
5	446.4141	61.61	-20.63	40.98	47.00	-6.02	peak			
6	541.3725	54.53	-19.02	35.51	47.00	-11.49	peak			

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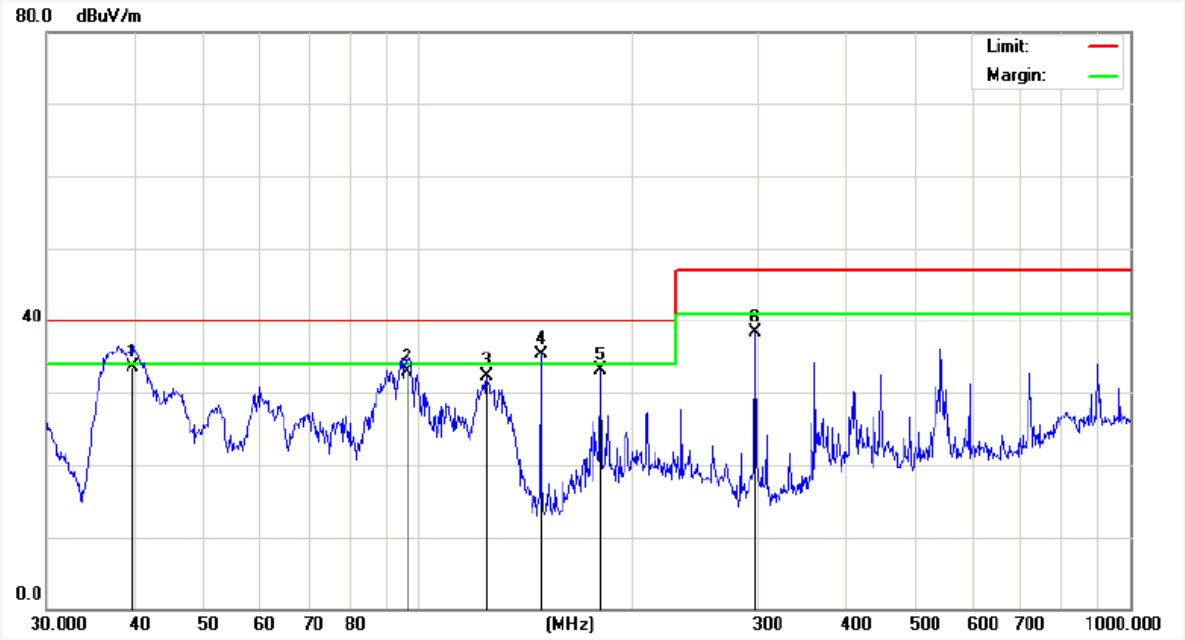
Job No.:	**AT1108723F**	**Polarziation:**	**Vertical**
Standard:	**(RE)FCC PART15 B _3m**	**Power Source:**	**120V~, 60Hz**
Test item:	**Radiation Test**	**Date:**	**2011/09/30**
Temp.(C)/Hum.(%RH):	**24.3(C)/55%RH**	**Time:**	**18:51:00**
EUT:	**Digital Media Player**	**Test By:**	**Heise Chen**
Model:	**DMP422**	**Distance:**	**3m**

Note: **USB Playing**



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	39.5757	58.52	-24.94	33.58	40.00	-6.42	QP	100	0	
2	96.0986	57.71	-24.84	32.87	40.00	-7.13	QP	100	360	
3	124.5690	57.98	-25.70	32.28	40.00	-7.72	peak			
4	148.4410	62.35	-27.00	35.35	40.00	-4.65	QP	100	0	
5	180.0165	58.56	-25.41	33.15	40.00	-6.85	peak			
6	297.2241	61.53	-23.25	38.28	47.00	-8.72	peak			

4. PHOTOGRAPH

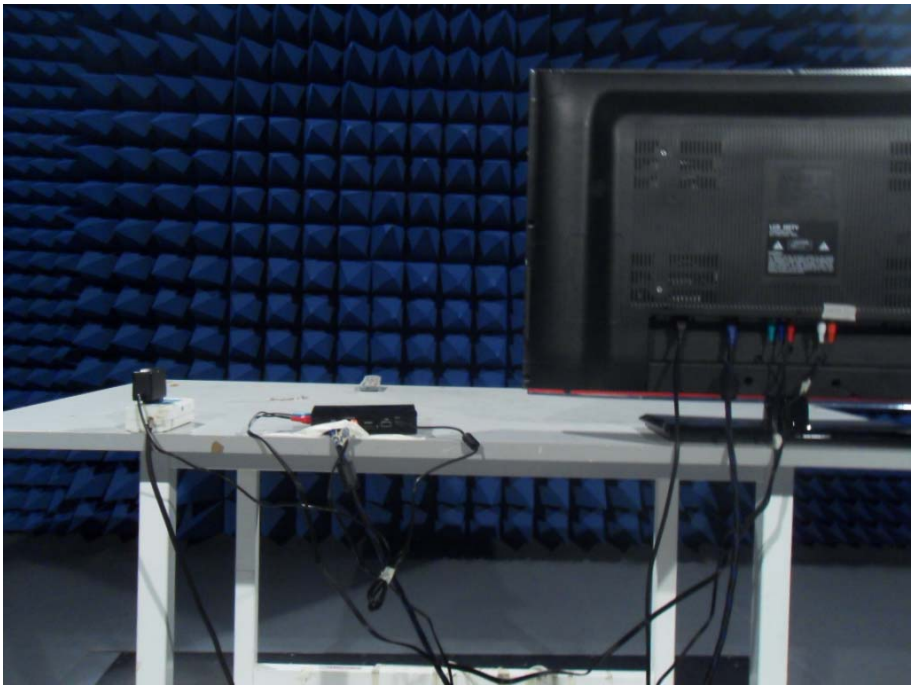
4.1. Photo of Power Line Conducted Emission Test

SD Card Playing Mode

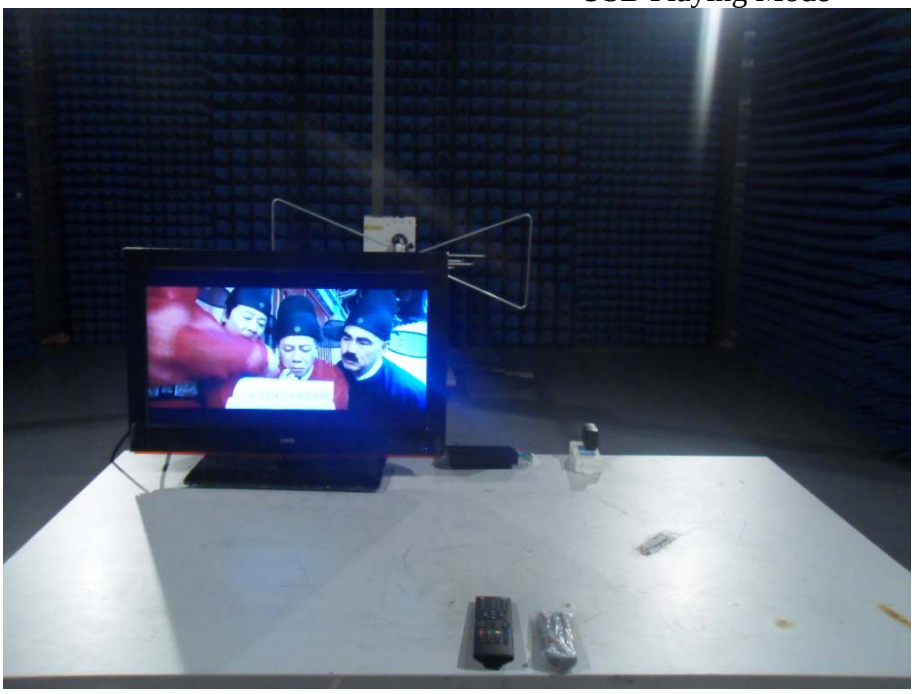
USB Playing Mode

4.2. Photo of Radiated Emission Test

SD Card Playing Mode



USB Playing Mode



APPENDIX I (EXTERNAL PHOTOS)

Figure 1
The EUT-Overall View

Figure 2
The EUT- Front View

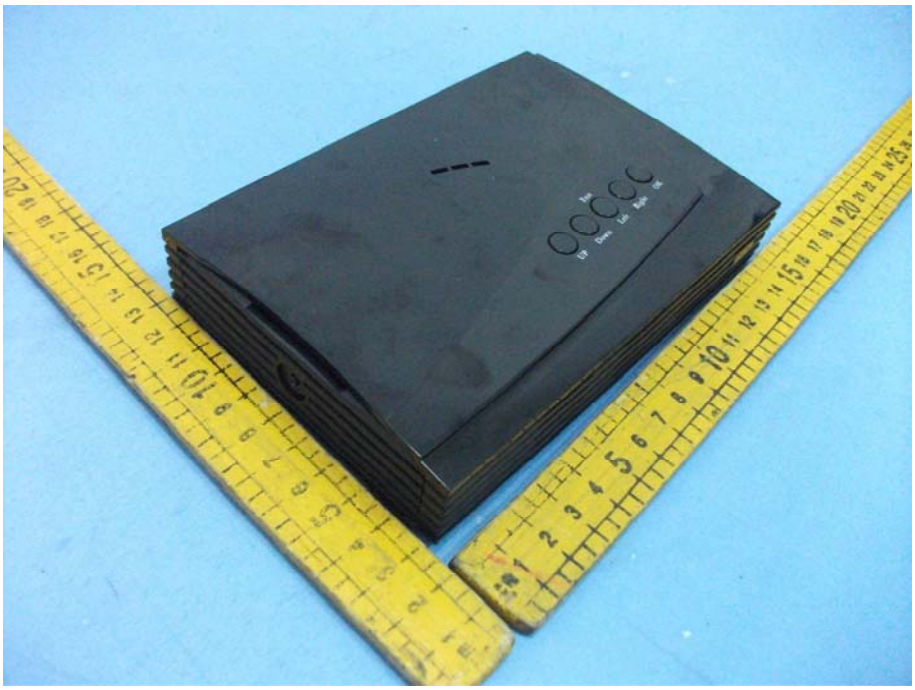


Figure 3
The EUT-Back View

Figure 4
The EUT-Side View

Figure 5
The EUT-Side View

APPENDIX II (INTERNALPHOTOS)

Figure 6
The EUT-Inside View

Figure 7
PCB of the EUT-Front View

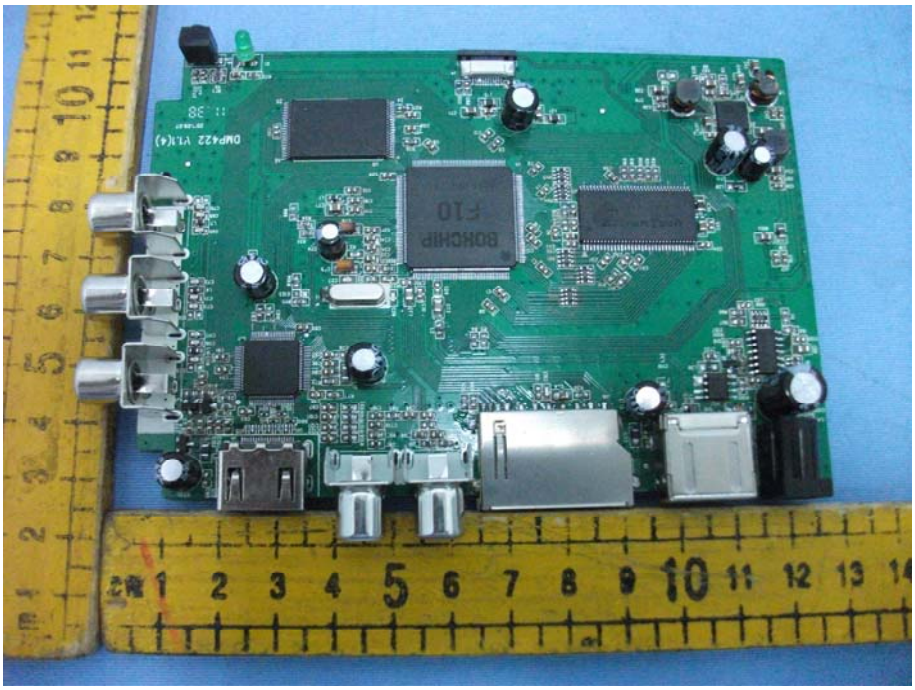


Figure 8
PCB of the EUT-Back View

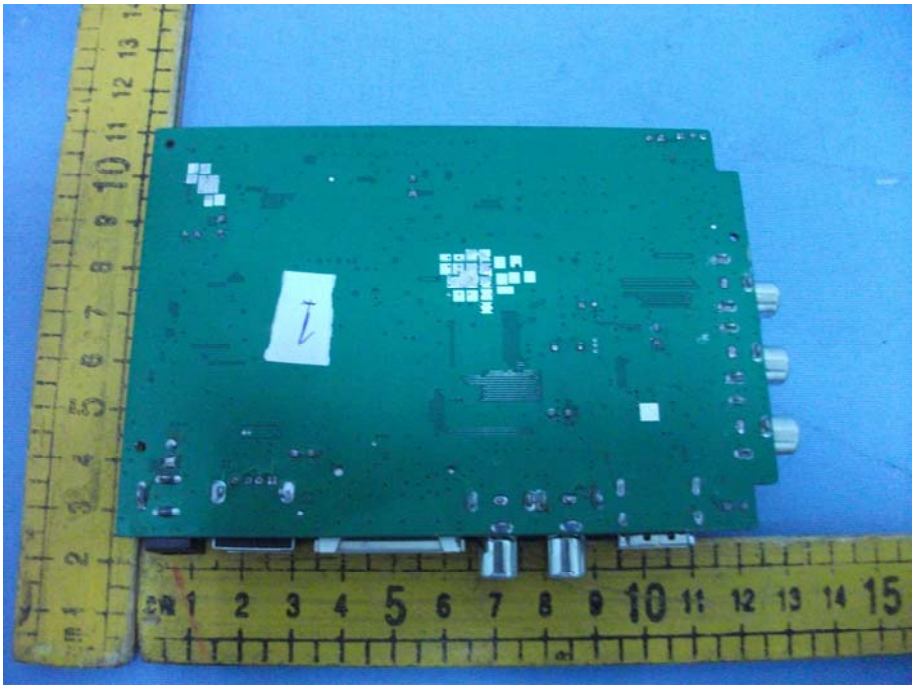


Figure 9
PCB of the EUT-Front View

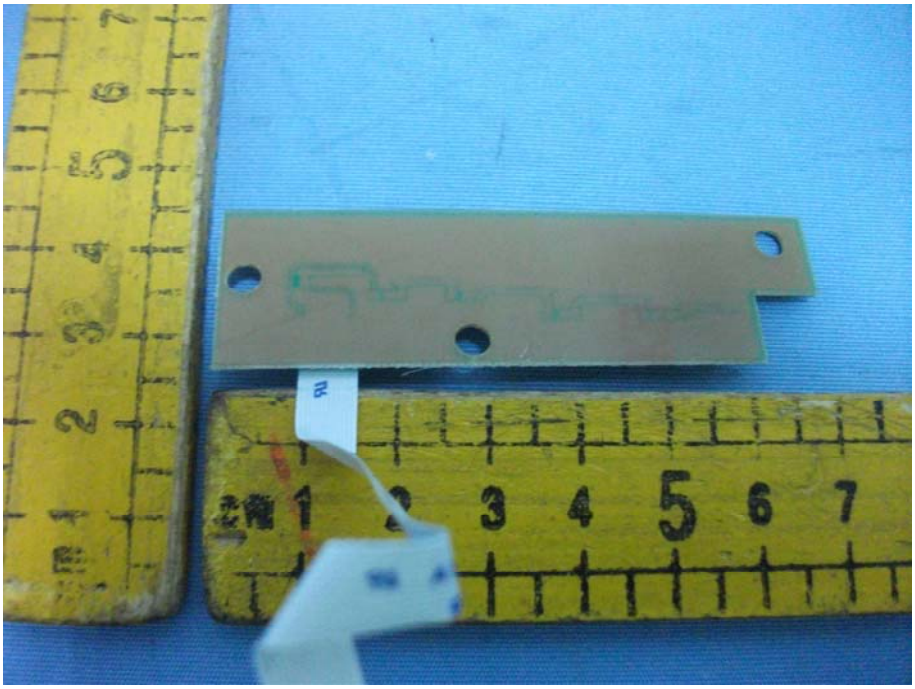


Figure 10
PCB of the EUT-Back View