



FCC 15B TEST REPORT

REPORT NO.: ZEZ-13SE0011VNCY-A1

MODEL NO.: BH-B102D

FCC ID.: 2AAXDZHJBBH102VTXD

RECEIVED: Sep. 02, 2013

ISSUED: Sep. 16, 2013

APPLICANT: Jiangsu Bluebell video InfoTech Inc.

ADDRESS: Room 501-29, Building 1, No.36, Nanwei
Road four, Dingmao street, Zhenjiang New

ISSUED BY: BUREAU VERITAS ADT (Shanghai) Corporation

LAB LOCATION: 2F, Building C, No.1618, Yishan rd., 201103,
Shanghai, China

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1 CERTIFICATION

PRODUCT: High Definition Multimedia Player
MODEL NO.: BH-B102D
TEST ITEM: ENGINEERING SAMPLE
APPLICANT: Jiangsu Bluebell video InfoTech Inc.
TESTED: Sep. 04, 2013
STANDARDS: CFR 47 FCC Part 15: 2012
ANSI C63.4-2003

We, BUREAU VERITAS ADT (Shanghai) Corporation, declare that the equipment above has been tested in our facility and found compliance with the requirement limits of applicable standards, except for Radiated Emission test, which was subcontracted to IAC. The test record, data evaluation and Equipment Under Test (EUT) configurations represented herein are true and accurate under the standards herein specified.

PREPARED BY : Kevin Jiang, **DATE:** Sep. 16, 2013
Kevin Jiang
Testing Engineer

TECHNICAL ACCEPTANCE : Joy Zhu, **DATE:** Sep. 16, 2013
Joy Zhu
Lab Manager

APPROVED BY : Yzhu, **DATE:** Sep. 16, 2013
Zhaoqian Yu
Director of Operations



2 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

Standard	Test Type	Result	Remarks
FCC Part 15: 2009, Subpart B, Class B	Conducted Test	PASS	Meets Class B Limit Minimum passing margin is -12.70dB at 0.47844MHz .
	Radiated Test	PASS	Meets Class B Limit Minimum passing margin is -2.97dB at 742.48MHz .

2.1 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 Ed 1.0.

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

This lab's measurement uncertainty U_{Lab} , is low than U_{Cispr} , Table 1 – Values of U_{Cispr} of CISPR 16-4-2 Ed. 1.0, therefore compliance is deemed to occur if no measured disturbance exceeds the disturbance limit.

Measurement	Value
Conducted emissions	2.55 dB
Radiated emissions	3.22 dB

3 GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	High Definition Multimedia Player
MODEL NO.	BH-B102D
POWER SUPPLY	110VAC 60Hz
100MBASE-T RJ45 WIRED NETWORK PORT	Use CAT5 wire to connect to network router
HDMI PORT	High Definition audio/video output port to meet HDMI1.3 standard with high resolution up to 1080@60Hz. BH102 box comes with HDMI cable
RJ11 PORT	Regular telephone port
AV PORT	Using AV wire to connect with TV AV input port
SPDIF PORT	Optical Fiber for Stereo output to home stereo system
USB PORT	USB port on the box can be connected usb disk for local video, music and picture
MICRO USB PORT	Micro USB port can be connected to pc
ELECTRICAL DC POWER PORT	Input requires 12V/1.5A

Notes:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

3.2 DESCRIPTION OF TEST MODES

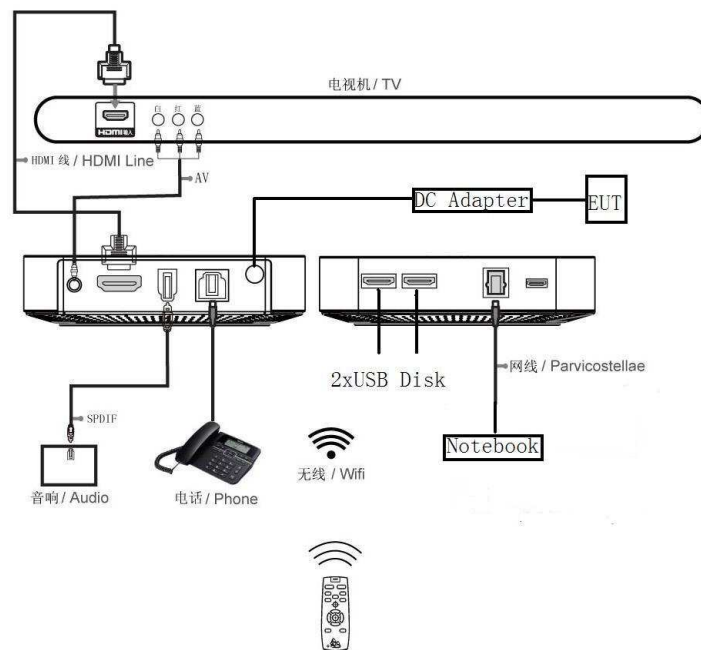
Test Item	Test Mode	Description
Emission	1	Normal work status

3.3 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.
1	Notebook	LENOVO	R61i	--
2	Phone	SIEMENS	805HF	--
3	TV	SONY	KLV-205400A	5021229
4	Audio	SONY	--	--
5	USB Disk	KINGSTON	--	--

TEST CONFIGURATION





4 EMISSION TEST

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

TEST STANDARD:

CFR 47 FCC Part 15: 2009, Subpart B (Section: 15.107)

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 - 0.5	79	66	66 - 56	56 - 46
0.50 - 5.0	73	60	56	46
5.0 - 30.0	73	60	60	50

4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESCS30	E1R1002	May. 10, 2014
LISN ROHDE & SCHWARZ	ENV216	E1L1011	Aug. 14, 2014
RF signal cable Woken	RG-58	E1CBL09	Mar. 31, 2014
Software ADT	ADT_Cond_ V7.3.1	N/A	N/A

NOTE:

1. Test Site: SR1

4.1.3 TEST PROCEDURE

- a. Refer ANSI C63.4-2003 Clause 7.2

4.1.4 DEVIATION FROM TEST STANDARD

No deviation



4.1.5 TEST SETUP

Refer ANSI C63.4-2003 Figure 10a,

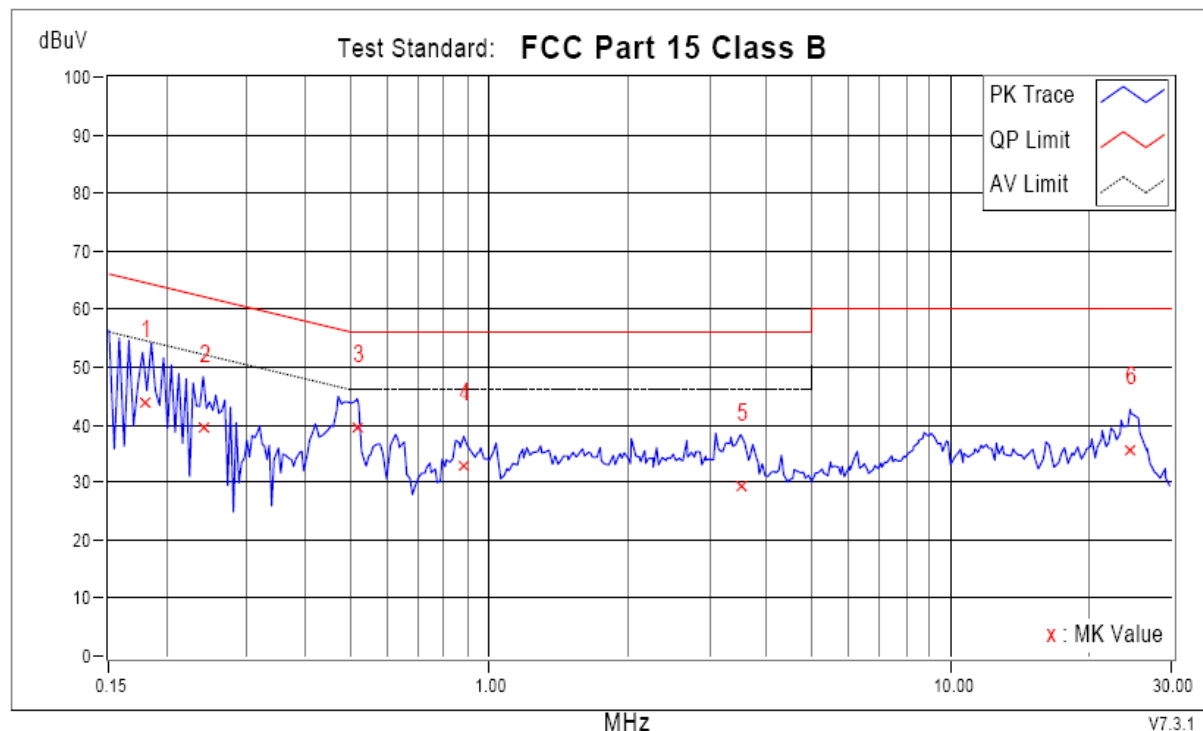
For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

4.1.6 TEST RESULTS

TEST MODE	Mode 1	6dB BANDWIDTH	9 kHz
INPUT POWER	110Vac, 60Hz	PHASE	Line (L1)
ENVIRONMENTAL CONDITIONS	25.2deg. C, 48.6 RH, 101kPa	TESTED BY: Bing YE	

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.17964	9.76	34.17	18.14	43.93	27.90	64.50	54.50	-20.57	-26.60
2	0.23993	9.75	29.61	13.96	39.36	23.71	62.10	52.10	-22.74	-28.39
3	0.51754	9.75	29.84	15.89	39.59	25.64	56.00	46.00	-16.41	-20.36
4	0.88117	9.63	23.12	12.22	32.75	21.85	56.00	46.00	-23.25	-24.15
5	3.50631	9.73	19.61	12.58	29.34	22.31	56.00	46.00	-26.66	-23.69
6	24.50610	10.25	25.33	15.27	35.58	25.52	60.00	50.00	-24.42	-24.48

- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = Emission level - Limit value
 5. Correction factor = Insertion loss + Cable loss
 6. Emission Level = Correction Factor + Reading Value.

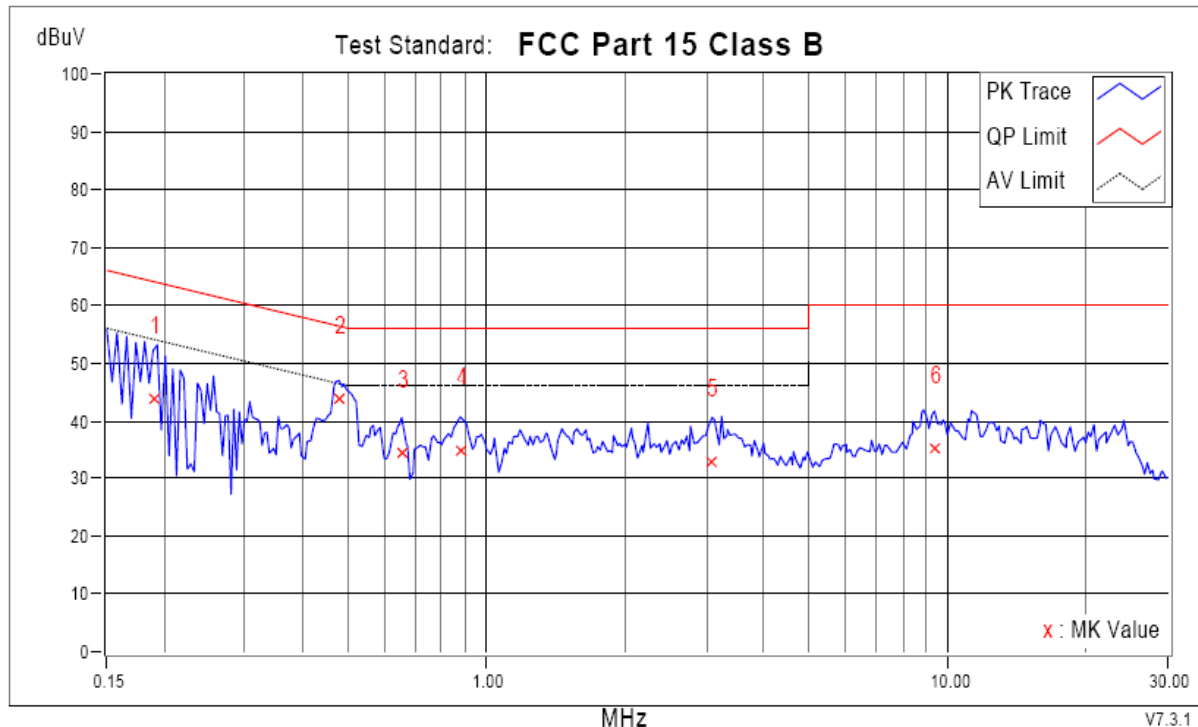




TEST MODE	Mode 1	6dB BANDWIDTH	9 kHz
INPUT POWER	110Vac, 60Hz	PHASE	Neutral (N)
ENVIRONMENTAL CONDITIONS	25.2deg. C, 48.6 RH, 101kPa	TESTED BY: Bing YE	

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.19032	9.69	33.99	17.50	43.68	27.19	64.02	54.02	-20.35	-26.84
2	0.47844	9.74	33.93	22.52	43.67	32.26	56.37	46.37	-12.70	-14.11
3	0.65439	9.66	24.77	12.34	34.43	22.00	56.00	46.00	-21.57	-24.00
4	0.87726	9.64	25.04	14.10	34.68	23.74	56.00	46.00	-21.32	-22.26
5	3.08794	9.88	22.77	13.65	32.65	23.53	56.00	46.00	-23.35	-22.47
6	9.38695	10.08	25.25	13.36	35.33	23.44	60.00	50.00	-24.67	-26.56

- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = Emission level - Limit value
 5. Correction factor = Insertion loss + Cable loss
 6. Emission Level = Correction Factor + Reading Value.





4.2 RADIATED EMISSION MEASUREMENT

4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

TEST STANDARD:

CFR 47 FCC Part 15: 2009, Subpart B (Section: 15.109)

FOR FREQUENCY BELOW 1000 MHz

FREQUENCY (MHz)	Class A (at 10m)		Class B (at 3m)	
	uV/m	dBuV/m	uV/m	dBuV/m
30 – 88	90	39.1	100	40.0
88 – 216	150	43.5	150	43.5
216 – 960	210	46.4	200	46.0
960 – 1000	300	49.5	500	54.0

LIMIT OF RADIATED EMISSION OF FCC PART 15, SUBPART B FOR FREQUENCY ABOVE 1000 MHz

FREQUENCY (MHz)	Class A (dBuV/m) (at 3m)		Class B (dBuV/m) (at 3m)	
	PEAK	AVERAGE	PEAK	AVERAGE
Above 1000	80.0	60.0	74.0	54.0

- Note:** (1) The lower limit shall apply at the transition frequencies.
 (2) Emission level (dBuV/m) = 20 log Emission level (uV/m).
 (3) All emanation from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.



4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESCS30	E1R1001	May. 10, 2014
BILOG Antenna SCHWARZBECK	VULB9168	E1A1001	Apr. 27, 2014
Preamplifier Agilent	8447D	E1A2001	Nov. 22, 2013
Preamplifier Agilent	8449B	E1A2002	Apr. 15, 2014
Double Ridged Broadband Horn Antenna Schwarzbeck	BBHA 9120D	E1A1002	Sep. 08, 2014
*Spectrum Analyzer Agilent	E4403B	E1S1001	Aug. 14, 2014
*Spectrum Analyzer ROHDE & SCHWARZ	FSP	E1S1002	Aug. 15, 2014
RF signal cable Woken	RG-402	E1CBH01	May. 30, 2014
RF signal cable Woken	RG-402	E1CBH16	May. 30, 2014
RF signal cable Woken	RG-402	E1CBH20	May. 30, 2014
RF signal cable Woken	RG-412	E1CBL02	May. 30, 2014
RF signal cable Woken	RG-412	E1CBL03	May. 30, 2014
RF signal cable Woken	RG-412	E1CBL04	May. 30, 2014
Software ADT	ADT_Radiated_V7.5	N/A	N/A

NOTE:

1. The test was performed in SAC I



4.2.3 TEST PROCEDURE

- a. Refer to ANSI C 63.4 Clause 8.3

4.2.4 DEVIATION FROM TEST STANDARD

No deviation

4.2.5 TEST SETUP

Refer to ANSI C 63.4 Figure 11a

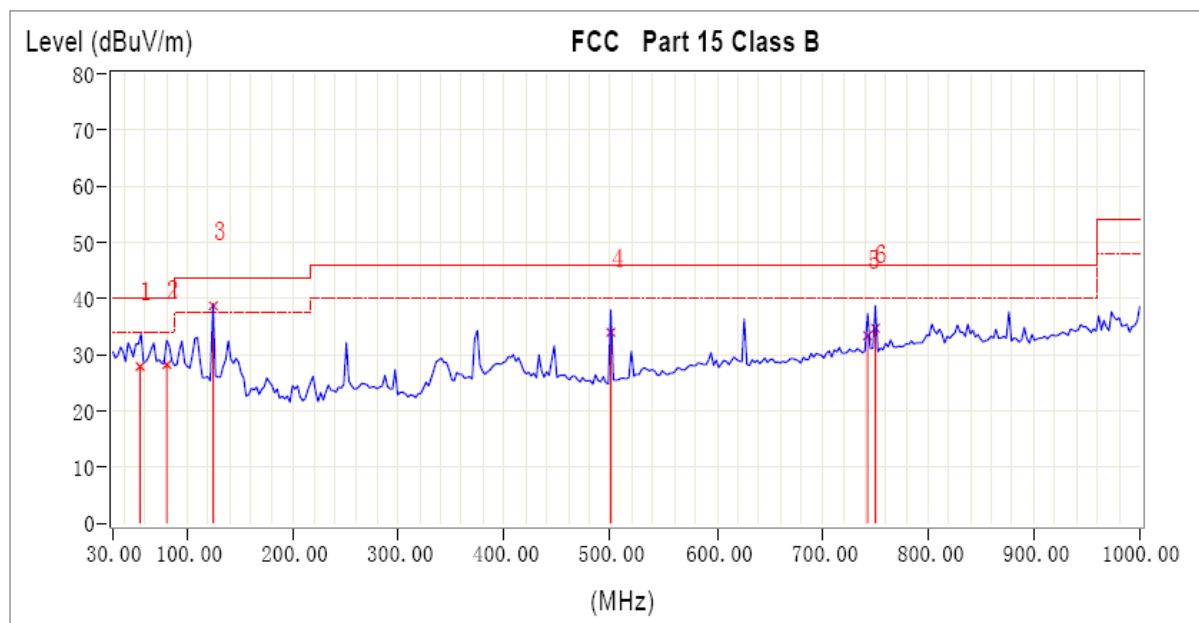
For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

4.2.6 TEST RESULTS

TEST MODE	Mode 1	FREQUENCY RANGE	30-1000 MHz
INPUT POWER	110Vac, 60Hz	DETECTOR FUNCTION & BANDWIDTH	Quasi-Peak, 120kHz
ENVIRONMENTAL CONDITIONS	25.2deg. C, 48.6 RH, 101kPa	TESTED BY: Bing YE	

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Factor (dB)	Reading (dBuV/m)	Emission (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Tower cm	Table deg
1	55.83	13.25	14.63	27.88	40.00	-12.12	100	252
2	81.17	9.89	18.30	28.19	40.00	-11.81	100	0
3	125.00	12.55	26.11	38.66	43.50	-4.84	100	284
4	500.45	19.47	14.49	33.96	46.00	-12.04	100	298
5	742.95	24.97	8.38	33.35	46.00	-12.65	100	217
6	750.23	25.04	9.66	34.70	46.00	-11.30	100	134

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m)
 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.



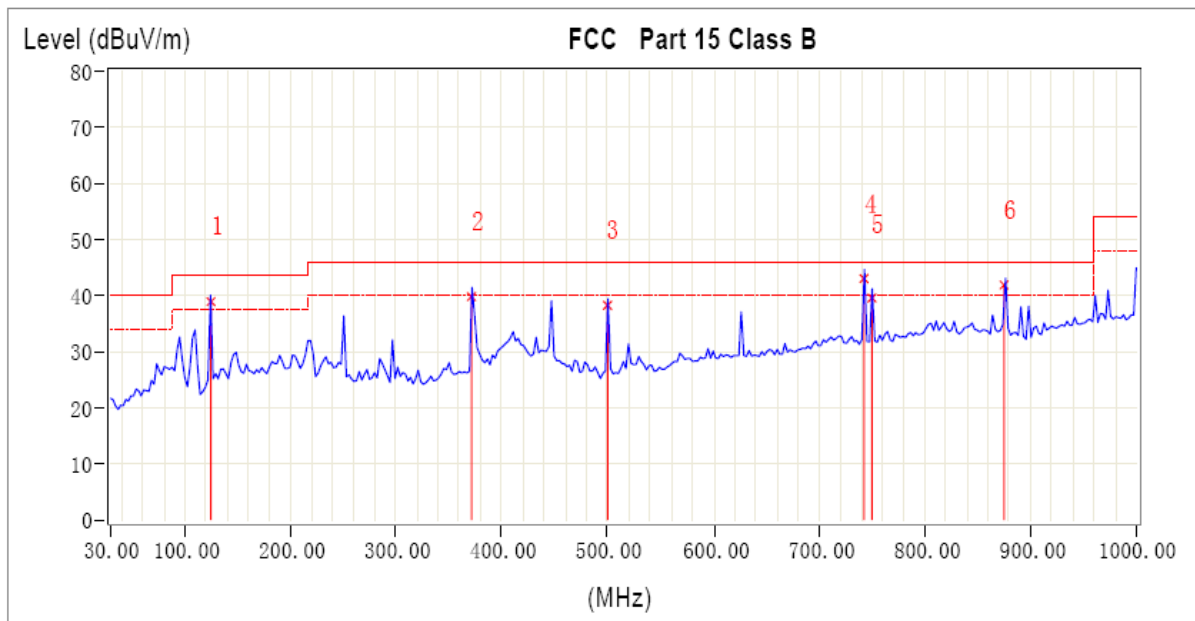


TEST MODE	Mode 1	FREQUENCY RANGE	30-1000 MHz
INPUT POWER	110Vac, 60Hz	DETECTOR FUNCTION & BANDWIDTH	Quasi-Peak, 120kHz
ENVIRONMENTAL CONDITIONS	25.2deg. C, 48.6 RH, 101kPa	TESTED BY: Bing YE	

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Factor (dB)	Reading (dBuV/m)	Emission (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Tower cm	Table deg
1	125.00	12.55	26.36	38.91	43.50	-4.59	169	0
2	371.25	16.51	23.29	39.79	46.00	-6.21	100	236
3	500.00	19.46	18.78	38.24	46.00	-7.76	100	177
4	742.48	24.97	18.07	43.03	46.00	-2.97	100	219
5	750.00	25.04	14.50	39.54	46.00	-6.46	116	135
6	875.00	26.68	15.19	41.87	46.00	-4.13	100	168

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m)
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.





TEST MODE	Mode 1	FREQUENCY RANGE	Above 1GHz
INPUT POWER	110Vac, 60Hz	DETECTOR FUNCTION & BANDWIDTH	Peak, 1MHz
ENVIRONMENTAL CONDITIONS	25.2deg. C, 48.6 RH, 101kPa	TESTED BY: Bing YE	

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Factor (dB)	Reading (dBuV/m)	Emission (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Tower cm	Table deg
1	3516.00	34.45	10.01	44.45	74.00	-29.55	100	0
2	4197.60	36.17	9.78	45.95	74.00	-28.05	100	0
3	5628.96	38.87	9.62	48.50	74.00	-25.50	100	0

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Factor (dB)	Reading (dBuV/m)	Emission (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Tower cm	Table deg
1	1607.52	29.94	16.78	46.72	74.00	-27.28	100	0
2	4572.48	37.10	10.02	47.12	74.00	-26.88	100	0
3	5560.80	38.73	8.74	47.47	74.00	-26.53	100	0

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m)
 2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
 3. The other emission levels were very low against the limit.
 4. Margin value = Emission level – Limit value.



TEST MODE	Mode 1	FREQUENCY RANGE	Above 1GHz
INPUT POWER	110Vac, 60Hz	DETECTOR FUNCTION & BANDWIDTH	Average, 1MHz
ENVIRONMENTAL CONDITIONS	25.2deg. C, 48.6 RH, 101kPa	TESTED BY: Bing YE	

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Factor (dB)	Reading (dBuV/m)	Emission (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Tower cm	Table deg
1	1266.72	29.75	15.22	44.98	54.00	-9.02	100	0
2	4368.00	36.57	9.46	46.03	54.00	-7.97	100	0
3	5083.68	38.16	9.36	47.52	54.00	-6.48	100	0

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Factor (dB)	Reading (dBuV/m)	Emission (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Tower cm	Table deg
1	1266.72	29.75	15.43	45.18	54.00	-8.82	201	0
2	1607.52	29.94	16.23	46.17	54.00	-7.83	201	0
3	3072.96	34.06	10.60	44.66	54.00	-9.34	201	0

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m)
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.



5 APPENDIX - INFORMATION ON THE TESTING LABORATORIES

We, BUREAU VERITAS ADT (Shanghai) Corporation, were founded in 2004 to provide our best service in EMC, Radio and Vehicle consultation. Our laboratories are accredited by the following accreditation bodies according to ISO/IEC 17025 (2005) .

USA	A2LA Certificate No.: 2343.01
China	CNAS Certificate No.: L2810

Copies of accreditation certificates could be inquired from our office. If you have any comments, please feel free to contact us at the following:

EMC / RF / Vehicle Lab:

Tel: +86 21 6465 9091

Fax: +86 21 6465 9092

Email: bvadtshmail@cn.bureauveritas.com

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