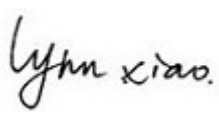
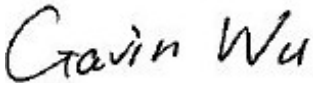
TEST REPORT

Report No.:	**EM201300540-6**	**Application No.:**	**ZJ00032382**
Client:	Beijing Huasun Unicreate Technology Co.,Ltd		
Address:	Huizhi Plaza,No.9-6,Xueqing Road, Haidian,Beijing ,10085,China		
Sample Description:	Customer Premise Equipment		
Model:	BXM5		
Adding model:	/		
FCC ID:	2AAEA-BXM5		
Test Specification:	FCC PART 15 SUBPART B:2010		
Test date:	2013-08-29 to 2013-09-16		
Issue Date:	2013-09-16		
Test Result:	*Pass.*		

Prepared By:	**Reviewed By:**	**Approved By:**
Lynn Xiao / Test Engineer	Jane Cao / Technical Assistance	Gavin Wu / Manager
		
Date:2013-09-16	Date:2013-09-16	Date:2013-09-16

Other Aspects:

None

Abbreviations: *ok / P = passed; fail / F = failed; n.a. / N = not applicable*

DIRECTIONS OF TEST

1. **This station carries out test task according to the national regulation of verifications which can be traced to National Primary Standards and BIPM.**

2. **The test report merely corresponds to the test sample. It is not permitted to copy extracts of these test result without the written permission of the test laboratory.**

3. **If there is any objection concerning the test, the client should inform the laboratory within 15 days from the date of receiving the test report.**

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1. TEST RESULT SUMMARY

FCC PART 15 SUBPART B:2010			
Standard	**Item**	**Limit / Severity**	**Result**
FCC PART 15 SUBPART B:2010	Conducted Emission	Class B	PASS
	Radiated Emission	Class B	PASS

2. GENERAL DESCRIPTION OF EUT

2.1 APPLICANT

Name: Beijing Huasun Unicreate Technology Co.,Ltd

Address: Huizhi Plaza,No.9-6,Xueqing Road, Haidian,Beijing ,10085,China

2.2 MANFACTURER

Name: Beijing Huasun Unicreate Technology Co.,Ltd

Address: Huizhi Plaza,No.9-6,Xueqing Road, Haidian,Beijing ,10085,China

2.3 BASIC DESCRIPTION OF EQUIPMENT UNDER TEST

Equipment: Customer Premise Equipment

Model No.: BXM5

Adding Model /

Trade Name: /

Power Supply: Input:100-240V~50/60Hz
Output:DC24V-800mA

Note:

2.4 TEST OPERATION MODES

Emission: Test mode: Internet

2.5 LOCAL SUPPORTIVE INSTRUMENTS

Name of Equipment	Manufacturer	Model	Serial Number
Notebook	Lenovo	E46A	EB24320428

3. LABORATORY AND ACCREDITATIONS

3.1 LABORATORY

The tests and measurements refer to this report were performed by EMC Laboratory of Guangzhou GRG Metrology and Test Technology Co,. Ltd.

Add. : 163 Pingyun Rd, West of Huangpu Ave, Guangzhou, 510656, P. R. China

Telephone: +86-20-38699959, 38699960, 38699961

Fax : +86-20-38695185

3.2 ACCREDITATIONS

Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025.

USA	FCC Listed Lab No. 688188
China	CNAS NO.L0446
China	DILAC No.DL175
Canada	Registration No.:8355A-1

3.3 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:

Measurement		**Frequency**	**Uncertainty**
Radiated Emission	Horizontal	30MHz～1000MHz	4.2dB
	Vertical	30MHz～1000MHz	4.4dB
Conducted Emission		9kHz～30MHz	3.1 dB

This uncertainty represents an expanded uncertainty factor of k=2.

3.4 LIST OF USED TEST EQUIPMENT AT GRGT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Radiated Emission				
Receiver	R&S	ESU40	100106	2014-01-24
Biconical Log-periodic Antenna	ETS.LINDGREN	3142C	00075971	2014-05-26
Horn antenna	SCHWARZBECK	BBHA9120D	D752	2013-10-14
Conducted Emission				
EMI Receiver	R&S	ESU40	100529	2014-01-24
L.I.S.N	SCHWARZBECK	NSLK 8127	8127450	2014-08-21

4. EMISSION TEST

4.1 RADIATED ELECTROMAGNETIC DISTURBANCE MEASUREMENT

4.1.1 LIMITS

Frequency (MHz)	Quasi-peak(dBμV/m)
30 ~ 88	40
88~216	43.5
216 ~ 960	46
Above 960	54

NOTE: (1) The lower limit shall apply at the transition frequencies.

4.1.2 TEST PROCEDURE

1) Procedure of Preliminary Test

Radiated emission tests shall be made with the receive or transmit antenna located at a horizontal distance of 3 m plus half of the maximum width of the EUT being tested, measured from the centre of the EUT. The tests shall be performed with the equipment configured as closely as possible to its typical, practical operation. Unless stated otherwise, cables and wiring shall be as specified by the manufacturer and the equipment shall be in its housing (or cabinet) with all covers and access panels in place. Any deviation from normal EUT operating conditions shall be included in the test report.

The EUT (on a non-conductive support structure, where applicable) shall be placed on a remotely operated turntable, to allow the EUT to be rotated. The height of the EUT above the ground plane shall be according to the following requirements.

• Table-top equipment is placed on a non-conductive set-up table with height 0,8 m ± 0,01 m, ANSI C63.4 specifies the method to determine the impact of the non-conductive set-up table on test results.

• Floor-standing equipment is placed on a non-conductive support, as specified in the applicable product standard. If there are no EUT height placement requirements in the product standard, the EUT shall be placed on a non-conductive support at a height of 5 cm to 15 cm above the ground plane.

Interface cables, loads, and devices should be connected to at least one of each type of the interface ports of the EUT and, where practical, each cable shall be terminated in a device typical for its actual use. Where there are multiple interface ports of the same type, a typical number of these devices shall be connected to devices or loads. It is sufficient to connect only one of the loads, provided that it can be shown, for example by preliminary testing, that the connection of further ports would not significantly increase the level of disturbance (that is, more than 2 dB) or significantly degrade the immunity level.

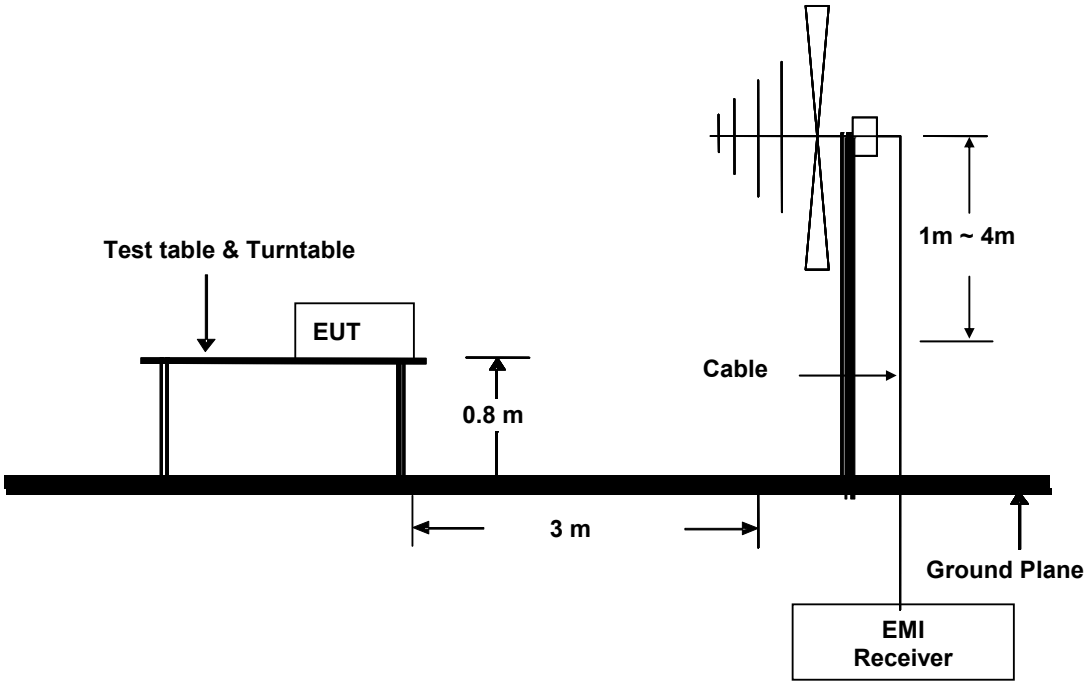
The test mode(s) described in Item 2.4 were scanned during the preliminary test. After the preliminary scan, we found the test mode described in Item 2.4 producing the highest emission level. The EUT and cable configuration, antenna position, polarization and turntable position of the above highest emission level were recorded for the final test.

2) Procedure of Final Test

EUT and support equipment were set up on the turntable as per the configuration with highest emission level in the preliminary test. The Analyzer / Receiver scanned from 30MHz to 1000MHz. Emissions were scanned and measured rotating the EUT to 360 degrees, varying cable placement and positioning the antenna 1 to 4 meters above the ground plane, in both the vertical and the horizontal polarization, to maximize the emission reading level. Record at least six highest emissions. Emission frequency, amplitude, antenna position, polarization and turntable position were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit and only QP reading is presented. The test data of the worst-case condition(s) was recorded. Pre-test for EUT in three axes and find the X axe is the worst case.

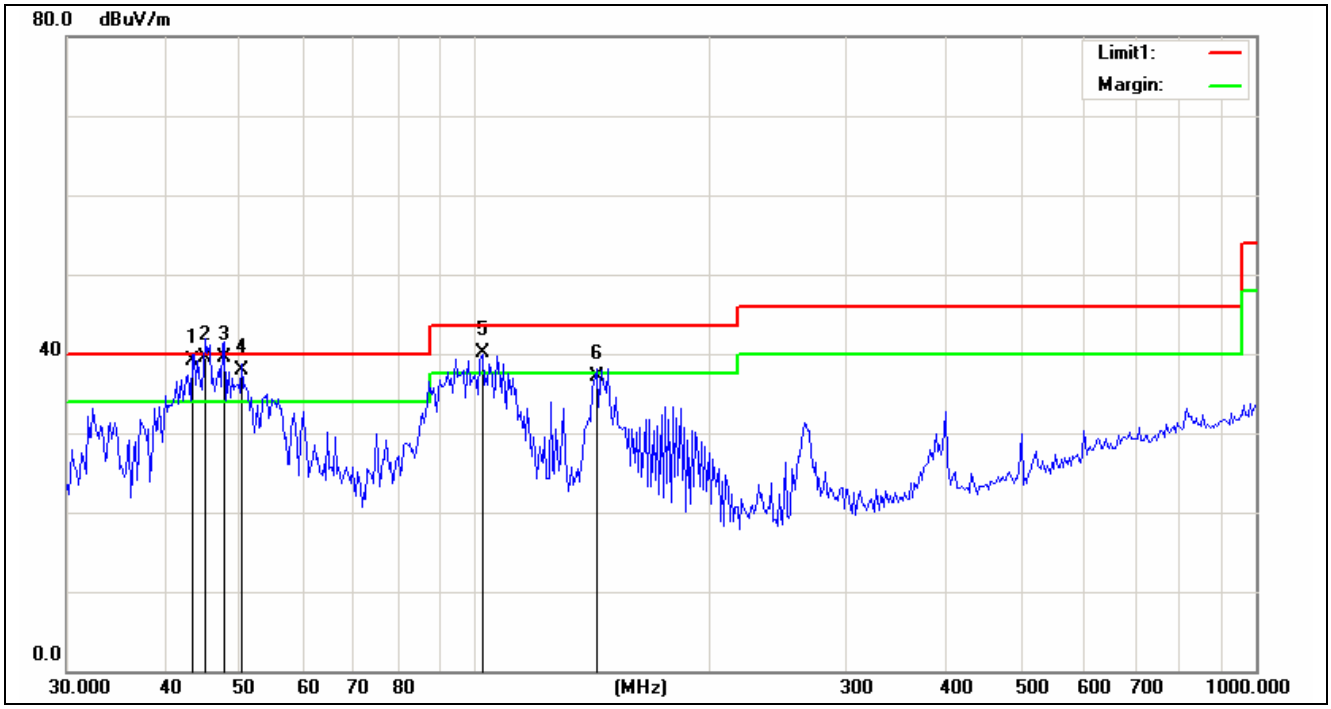
The worst case emissions were reported.

4.1.3 TEST SETUP



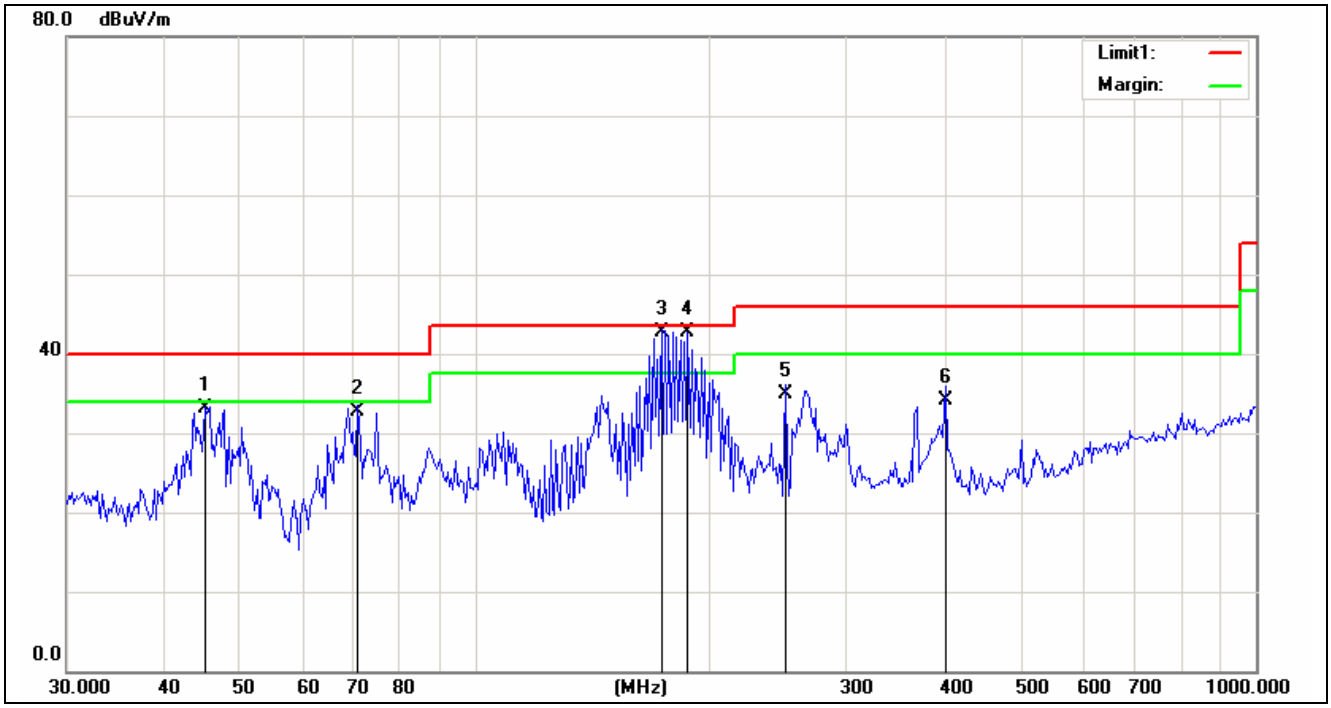
4.1.4 TEST RESULTS

Project No.:	**ZJ00032382**	**Polarization:**	**Vertical**
Standard:	**(RE)FCC PART 15 class B 3m**	**Power Source:**	**AC 120V/60Hz**
Test item:	**Radiation Test**	**Date:**	**2013-9-15**
Temp./Hum.(%RH):	**23/55%RH**	**Time:**	**15:03:08**
EUT:	**Customer Premise Equipment**	**Distance:**	**3m**
Model:	**BXM5**	**Test Result:**	**Pass**
Note:	**Internet**		



No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	43.4705	27.09	12.11	39.20	40.00	-0.80	QP
2	45.2146	28.03	11.47	39.50	40.00	-0.50	QP
3	47.8282	29.08	10.52	39.60	40.00	-0.40	QP
4	50.3092	28.22	9.68	37.90	40.00	-2.10	QP
5	102.1298	30.22	9.88	40.10	43.50	-3.40	QP
6	143.0814	27.73	9.47	37.20	43.50	-6.30	QP

Project No.:	**ZJ00032382**	**Polarization:**	**Horizontal**
Standard:	**(RE)FCC PART 15 class B 3m**	**Power Source:**	**AC 120V/60Hz**
Test item:	**Radiation Test**	**Date:**	**2013-9-15**
Temp./Hum.(%RH):	**23/55%RH**	**Time:**	**14:59:54**
EUT:	**Customer Premise Equipment**	**Distance:**	**3m**
Model:	**BXM5**	**Test Result:**	**Pass**
Note:	**Internet**		



No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	45.2146	21.63	11.47	33.10	40.00	-6.90	QP
2	70.8793	24.98	7.72	32.70	40.00	-7.30	QP
3	173.2051	32.02	10.68	42.70	43.50	-0.80	QP
4	187.3820	31.44	11.36	42.80	43.50	-0.70	QP
5	249.5708	21.34	13.66	35.00	46.00	-11.00	QP
6	400.1260	15.91	18.19	34.10	46.00	-11.90	QP

4.2 CONDUCTED EMISSION MEASUREMENT

4.2.1 LIMITS

Frequency range	Limits (dBμV)	
	Quasi-peak	Average
150kHz ～ 0.5MHz	66～56	56～46
0.5 MHz ～ 5 MHz	56	46
5 MHz ～ 30 MHz	60	50

NOTE: (1) The lower limit shall apply at the transition frequencies.
(2) The limit decreases in line with the logarithm of the frequency in the range of 150kHz to 0.5MHz.

4.2.2 TEST PROCEDURES

Procedure of Preliminary Test

For measurement of the disturbance voltage the equipment under test (EUT) is connected to the power supply mains and any other extended network via one or more artificial network(s). An EUT, whether intended to be grounded or not, and which is to be used on a table is configured as follows:

– Either the bottom or the rear of the EUT shall be at a controlled distance of 40 cm from a reference ground plane. This ground plane is normally the wall or floor of a shielded room. It may also be a grounded metal plane of at least 2 m by 2 m. This is physically accomplished as follows:

1) place the EUT on a table of non-conducting material which is at least 80 cm high. Place the EUT so that it is 40 cm from the wall of the shielded room, or

2) place the EUT on a table of non-conducting material which is 40 cm high so that the bottom of the EUT is 40 cm above the ground plane;

– All other conductive surfaces of the EUT shall be at least 80 cm from the reference ground plane;

– The EUT are placed on the floor that one side of the housings is 40 cm from the vertical reference ground plane and other metallic parts;

– Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth forming a bundle 30 cm to 40 cm long, hanging approximately in the middle between the ground plane and the table.

– I/O cables that are connected to a peripheral shall be bundled in the centre. The end of the cable may be terminated if required using correct terminating impedance. The total length shall not exceed 1 m.

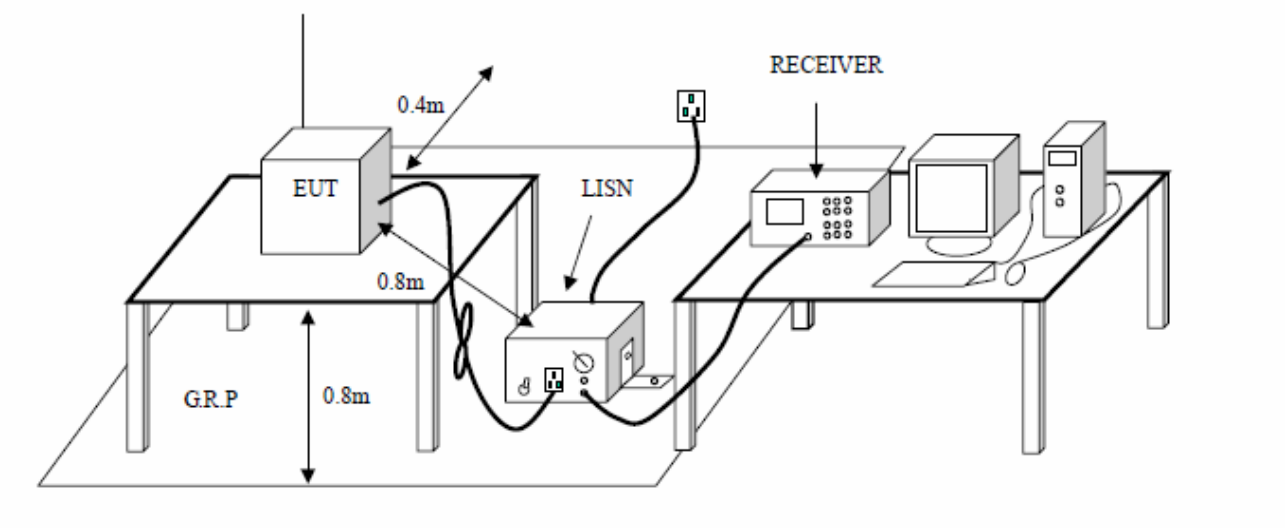
The test mode(s) described in Item 2.4 were scanned during the preliminary test. After the preliminary scan, we found the test mode described in Item 2.4 producing the highest emission level. The EUT configuration and cable configuration of the above highest emission levels were recorded for reference of the final test.

Procedure of Final Test

EUT and support equipment were set up on the test bench as per the configuration with highest emission level in the preliminary test. A scan was taken on both power lines, recording at least the six highest emissions. Emission frequency and amplitude were recorded

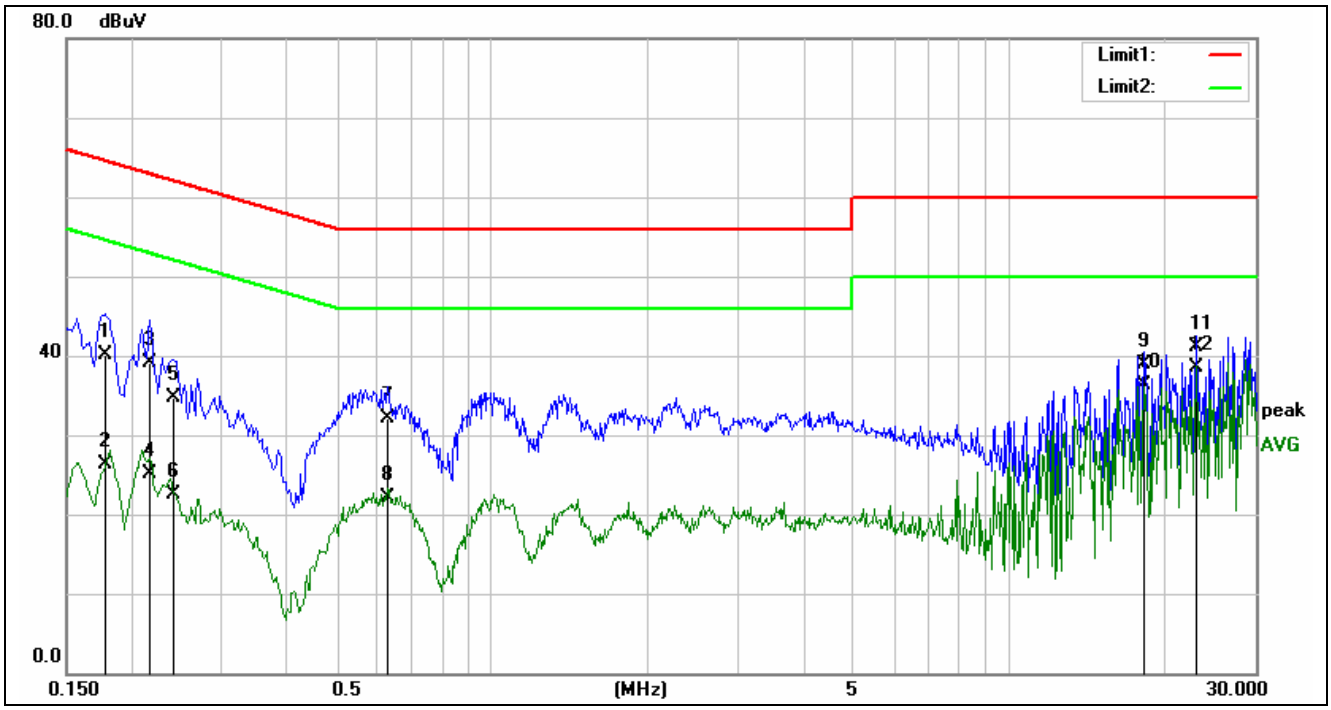
into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. The test data of the worst-case condition(s) was recorded.

4.2.3 TEST SETUP



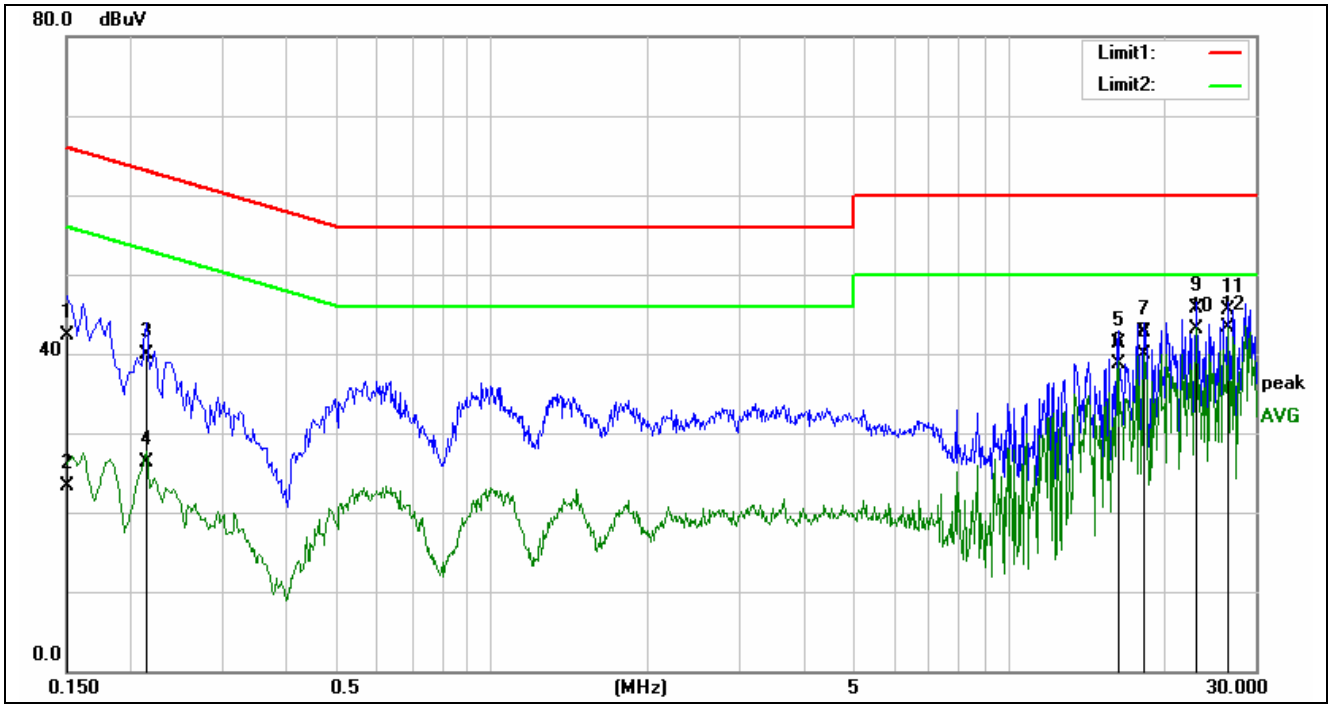
4.2.4 TEST RESULTS

Project No.:	**ZJ00032382**	**Probe:**	**L1**
Standard:	**(CE)FCC PART 15 class B _QP**	**Power Source:**	**AC 120V/60Hz**
Test item:	**Conduction Test**	**Date:**	**2013-8-8**
Temp./Hum.(%RH):	**25/57%RH**	**Time:**	**16:07:56**
EUT:	**Customer Premise Equipment**		
Model:	**BXM5**	**Test Result:**	**Pass**
Note:	**Internet**		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1780	39.67	0.53	40.20	64.57	-24.37	QP
2	0.1780	25.87	0.53	26.40	54.57	-28.17	AVG
3	0.2180	38.71	0.49	39.20	62.89	-23.69	QP
4	0.2180	24.71	0.49	25.20	52.89	-27.69	AVG
5	0.2420	34.21	0.49	34.70	62.02	-27.32	QP
6	0.2420	22.11	0.49	22.60	52.02	-29.42	AVG
7	0.6300	31.61	0.49	32.10	56.00	-23.90	QP
8	0.6300	21.61	0.49	22.10	46.00	-23.90	AVG
9	18.2420	37.96	1.04	39.00	60.00	-21.00	QP
10	18.2420	35.26	1.04	36.30	50.00	-13.70	AVG
11	23.1299	40.22	0.98	41.20	60.00	-18.80	QP
12	23.1299	37.62	0.98	38.60	50.00	-11.40	AVG

Project No.:	**ZJ00032382**	**Probe:**	**N**
Standard:	**(CE)FCC PART 15 class B _QP**	**Power Source:**	**AC 120V/60Hz**
Test item:	**Conduction Test**	**Date:**	**2013-8-8**
Temp./Hum.(%RH):	**25/57%RH**	**Time:**	**16:07:56**
EUT:	**Customer Premise Equipment**		
Model:	**BXM5**	**Test Result:**	**Pass**
Note:	**Internet**		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1500	41.92	0.48	42.40	65.99	-23.59	QP
2	0.1500	22.82	0.48	23.30	55.99	-32.69	AVG
3	0.2140	39.45	0.45	39.90	63.04	-23.14	QP
4	0.2140	25.85	0.45	26.30	53.04	-26.74	AVG
5	16.2300	40.49	0.81	41.30	60.00	-18.70	QP
6	16.2300	37.99	0.81	38.80	50.00	-11.20	AVG
7	18.2420	41.76	1.04	42.80	60.00	-17.20	QP
8	18.2420	38.96	1.04	40.00	50.00	-10.00	AVG
9	23.1299	44.72	0.98	45.70	60.00	-14.30	QP
10	23.1299	42.12	0.98	43.10	50.00	-6.90	AVG
11	26.6100	44.45	1.15	45.60	60.00	-14.40	QP
12	26.6100	42.15	1.15	43.30	50.00	-6.70	AVG

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