Report No.: GZ12090322-2

TEST REPORT

Applicant Name & Address	:	Chung Mei Industries Limited 11th Floor Chung Mei Centre, 15B Hing Yip Street ,Kwun Tong Kowloon Hong Kong
Sample Description		
Product	:	Bed Fan with Wireless Remote
Model No.	:	SKU No. 826456, E1212
Electrical Rating	:	Adaptor model: YJS03-1201400U input:100-240V,50/60Hz, output:12V DC 16W
FCC ID	:	N67-826456-R-F
Date Received	:	08 Sep.,2012
Date Test Conducted	:	26 Sep.,2012 – 09 Oct.,2012
Test standards	:	FCC Part 15:2011
Test Result	:	Pass
Conclusion	:	The submitted samples complied with the above rules/standards.
Remark	:	None.

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Prepared and Checked By:

Helen Ma

Helen Ma
Project Engineer
Intertek Guangzhou

Approved By:

Maggie Xie ***Signature***

Maggie Xie
Project Engineer
Intertek Guangzhou
24 Oct., 2012 ***Date***

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CONTENT

1 TEST RESULTS SUMMARY

Classification of EUT: Class B

Test Item	Standard	Result
Conducted Emission	FCC Part 15, Subpart B: 2011	Pass
Radiated Emission	FCC Part 15, Subpart B: 2011	Pass

Remark: 1. The symbol "N/A" in above table means Not Applicable.
2. When determining the test results, measurement uncertainty of tests has been considered.

2 Test Results Conclusion
(with Justification)

RE: EMC Testing Pursuant to FCC Part 15, Subpart B: 2011 Performed On the Bed Fan with Wireless Remote, Model: SKU No. 826456, E1212.

We tested the Bed Fan with Wireless Remote, Model: E1212, to determine if it was in compliance with the relevant FCC rules as marked on the Test Results Summary. We found that the unit met the requirement of FCC Part 15, Subpart B: 2011 when tested as received. The worst case's test data was presented in this test report. Test items Conducted Emission and Radiated Emission were subcontracted.

The Equipment Under Test (EUT) is controlled by a controller, the controller is an intentional radiator using 315MHz frequency.

Antenna Type: Integral wire antenna.

The controller option of this receiver is subject to Certification procedure.

Model SKU No. 826456 is declared to be identical to model E1212 in terms of electrical and mechanical design. Their difference lies in the model name due to business purpose which will not affect EMC characteristics.

There are two alternative motors that can be used in the EUT, models are:SM8025SH, JD8025HS, the data in this report is for JD8025HS, since it's the worse case of the two.

The data on the below test result table lists the significant emission frequencies, the limit and the margin of compliance. Numbers with a minus sign are below the limit.

According 15.107, the worst case conducted emission at 0.2000MHz

Judgement: Passed by -13.02 dB

According 15.109, the worst case radiated emission at 105.66 MHz
Judgement: Passed by -14.21 dB

The production units are required to conform to the initial sample as received when the units are placed on the market.

3 LABORATORY MEASUREMENTS

Configuration Information

Equipment Under Test (EUT):	Bed Fan with Wireless Remote
Model:	E1212
Serial No.	Not Labelled
Support Equipment:	A controller
Rated Voltage:	120V/60Hz
Condition of Environment:	Temperature : 15~35°C Relative Humidity: 35~60% Atmosphere Pressure 86~106kPa

Notes:

1. Test Environment

If ambient levels of emissions exceed the appropriate limit, the following steps were taken to assure compliance. First, the measurement bandwidth was reduced, if this did not affect the peak readings. Such a reduction can allow much closer examination of emissions close to local ambient signals. Second, the antenna could be brought closer to the EUT. Finally, in severe cases, testing was re-performed at night or other times when the offending signal was off the air. The measurements were made at nominal room temperature ($25^{o}C \pm 10^{o}C$).

2. Test Site

Conducted Emission test and Radiated Emission test were subcontracted to Intertek Testing Services Shenzhen ltd. Kejiyuan Branch and located at 6F, Block D, Huahan Building, Langshan Road, Nanshan District Shenzhen, P.R.China. This test facility and site measurement data have been fully placed on file with File Number 242492

3. Test Platform

Radiated emission test was made on 0.8m high, 1m x 1.5m wide non-conductive platform. Conducted emission test was made on 0.8m high non-metallic table above earthed ground plane (Ground Reference Plane). The vertical conducting plane or wall of a screened room shall be located 40 cm to the rear of the EUT. All other surfaces of tabletop EUTs shall be at least 80 cm from any other grounded conducting surface, including the case or cases of one or more LISNs.

4. Measurement Uncertainty

When determining of the test conclusion, the Measurement Uncertainty of test has been considered.

4 TEST RESULTS

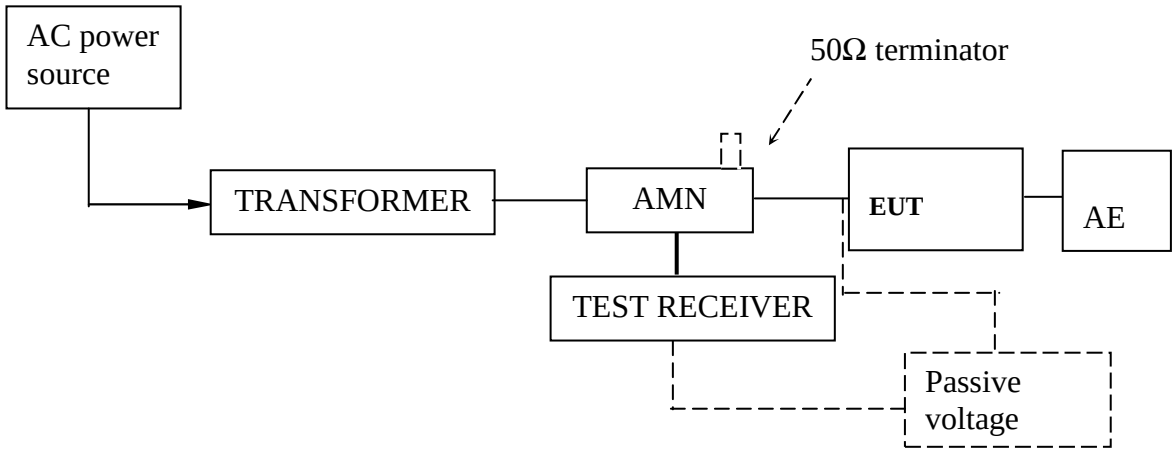
4.1 Conducted Emission Test

Test Result: Pass

4.1.1 Used Test Equipment

Equip No.	Description	Manufacturer	Model No.	Cal. Date	Due Date
101156	EMI Test Receiver	Rohde&Schwarz	ESCI	07 Jul 2012	07 Jul 2013
101315	Artificial Mains Network	Rohde&Schwarz	ENV216	02 Jul 2012	02 Jul 2013
944 Cable	RF Cable	FUJIKURA	3D-2W	02 Jul 2012	02 Jul 2013

4.1.2 Block Diagram of Test Setup



4.1.3 Test Setup and Procedure

Test was performed according to ANSI C63.4: 2009. The EUT was set to achieve the maximum emission level. The mains terminal disturbance voltage was measured with the EUT in a shielded room. The EUT was connected to AC power source through an Artificial Mains Network which provides a 50Ω linear impedance Artificial hand is used if appropriate (for handheld apparatus). The load/control terminal disturbance voltage was measured with passive voltage probe if appropriate.

The vertical conducting plane or wall of a screened room shall be located 40 cm to the rear of the EUT. All other surfaces of tabletop EUTs shall be at least 80 cm from any other grounded conducting surface, including the case or cases of one or more LISNs The table-top EUT was placed on a 0.8m high non-metallic table above earthed ground plane(Ground Reference Plane).And for floor standing EUT, was placed on a 0.1m high non-metallic supported on GRP. The Artificial Mains Network is situated at a distance of 0.8m from the EUT.

During the test, mains lead of EUT excess 0.8m was folded back and forth parallel to the lead so as to form a horizontal bundle with a length between 0.3m and 0.4m.

The bandwidth of test receiver was set at 9 kHz. The frequency range from 150 kHz to 30MHz was checked.

4.1.4 Test Data

At main terminal: Pass

Operation Mode: fan on

L line:

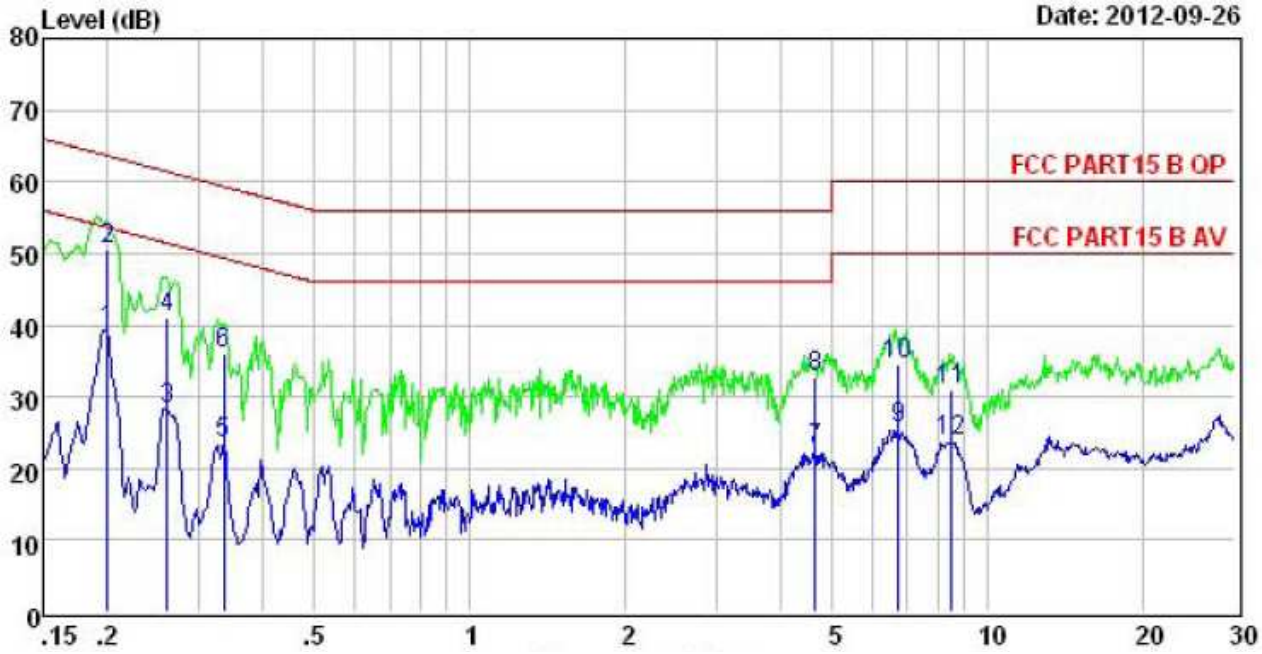
Frequency	Quasi-Peak		Average	
MHz	Disturbance Level dBuV	Permitted limit dBuV	Disturbance Level dBuV	Permitted limit dBuV
0.2000	50.60	63.62	39.37	53.62
0.2600	41.00	61.42	28.37	51.42
0.3400	36.00	59.31	23.60	49.31
4.6500	32.70	56.00	22.73	46.00
6.7300	34.60	60.00	25.69	50.00
8.4800	30.90	60.00	23.83	50.00

N line:

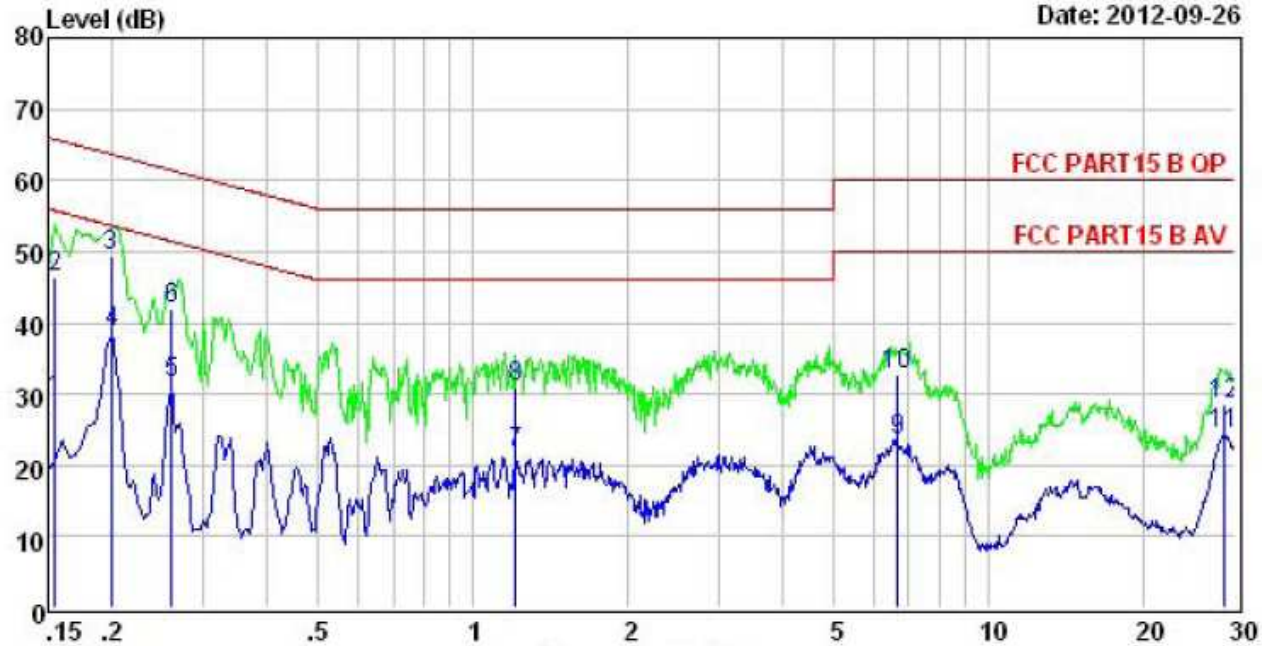
Frequency	Quasi-Peak		Average	
MHz	Disturbance Level dBuV	Permitted limit dBuV	Disturbance Level dBuV	Permitted limit dBuV
0.1600	46.40	65.73	29.20	55.73
0.2000	49.50	63.65	38.63	53.62
0.2600	41.80	61.42	31.45	51.42
1.2100	30.90	56.00	21.73	46.00
6.6600	32.70	60.00	23.60	50.00
28.6000	28.60	60.00	24.30	50.00

4.1.5 Emission Curve

Tested Wire: Live



Tested Wire: Neutral



4.1.6 Measurement Uncertainty

Uncertainty: 2.50 dB at a level of confidence of 95%

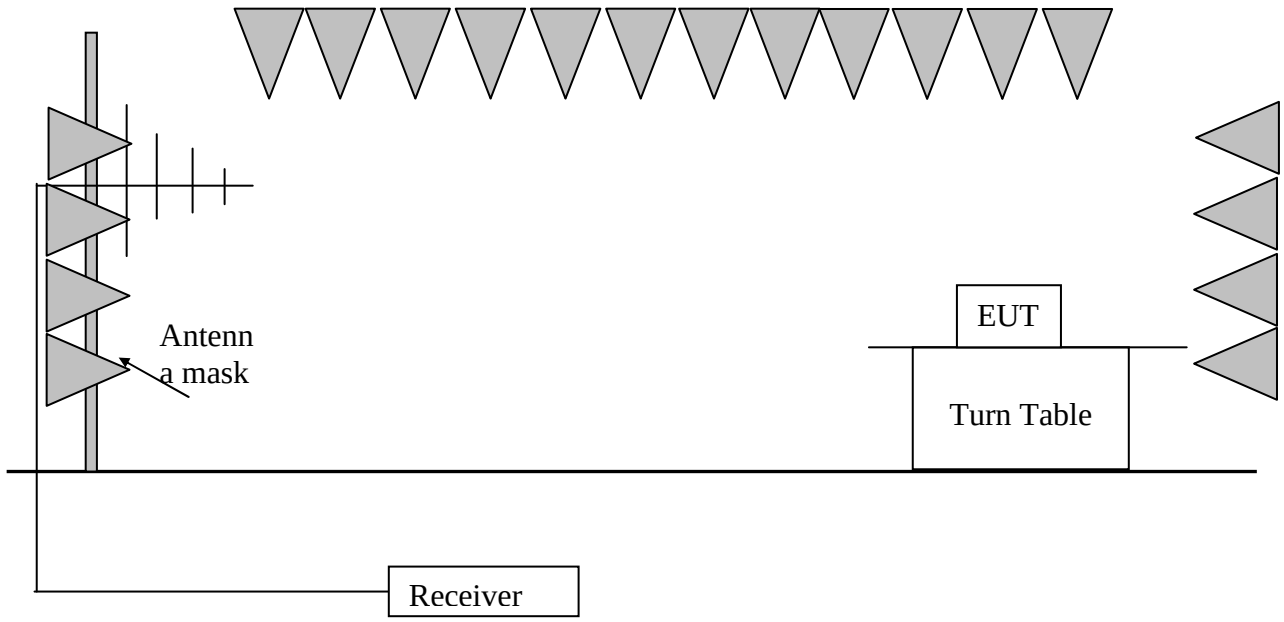
4.2 Radiated Emission

Test Result: Pass

4.2.1 Used Test Equipment

Equipment No.	Equipment	Manufacturer	Model No.	Cal. Date	Due Date
101156	EMI Test Receiver	Rohde&Schwarz	ESCI	07 Jul 2012	07 Jul 2013
00135452	Bilog Antenna	ETS-LINDGREN	3142D	28 Jun. 2012	28 Jun 2013
3911A04271	Spectrum Analyzer	Agilent	8593E	28 Nov. 2011	28 Nov. 2012
KW01	3m Semi-anechoic Chamber	ETS-LINDGREN	966	07 Jul 2012	07 Jul 2013
187303	Signal Amplifier	SONOMA	310	07 Jul 2012	07 Jul 2013
966 Cable 1#	RF Cable	IMRO	IMRO-400	07 Jul 2012	07 Jul 2013
11003	Horn Antenna	DAZE	ZN30701	11 Jul 2012	11 Jul 2013
11001	Signal Amplifier	DAZE	ZN3380C	07 Jul 2012	07 Jul 2013
966 Cable 1#	RF Cable	IMRO	IMRO-400	07 Jul 2012	07 Jul 2013

4.2.2 Block Diagram of Test Setup



4.2.3 Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain (if any), Average Factor (optional) from the measured reading. The basic equation with a sample calculation is as follows:

FS = RA + AF + CF - AG + AV

→ FS = RA + Correct Factor + AV

where FS = Field Strength in dBμV/m
RA = Receiver Amplitude (including preamplifier) in dBμV
CF = Cable Attenuation Factor in dB
AF = Antenna Factor in dB
AG = Amplifier Gain in dB
AV = Average Factor in -dB
Correct Factor = AF + CF – AG

In the following table(s), the reading shown on the data table reflects the preamplifier gain. An example for the calculations in the following table is as follows:

FS = RA + Correct Factor + AV

Assume a receiver reading of 52.0 dBμV is obtained. The antenna factor of 7.4 dB and cable factor of 1.6 dB are added. The amplifier gain of 29 dB and average factor of 5 dB are subtracted, giving a field strength of 27 dBμV/m. This value in dBμV/m was converted to its corresponding level in μV/m.

RA = 52.0 dBμV/m
AF = 7.4 dB
CF = 1.6 dB
AG = 29.0 dB
AV = -5.0 dB
Correct Factor = -20
FS = 52.0 - 20 -5.0 = 27.0 dBμV/m

Level in μV/m = Common Antilogarithm [(27 dBμV/m)/20] = 22.4 μV/m

4.2.4 Test Setup and Procedure

The measurement was applied in a 3 m semi-anechoic chamber. The EUT and simulators were placed on a 0.8m high wooden turntable above the horizontal metal ground plane. The turn table rotated 360 degrees to determine the position of the maximum emission level. The EUT was set 3 meters away from the receiving antenna which was mounted on an antenna mask. The antenna moved up and down between from 1meter to 4 meters to find out the maximum emission level.

Broadband antenna was used as receiving antenna. Both horizontal and vertical polarization of the antenna was set on measurement. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4: 2009 requirement during radiated test. The bandwidth setting on R&S Test Receiver was 120 kHz. The frequency range from 30MHz to 2000MHz was checked

4.2.5 Test Data

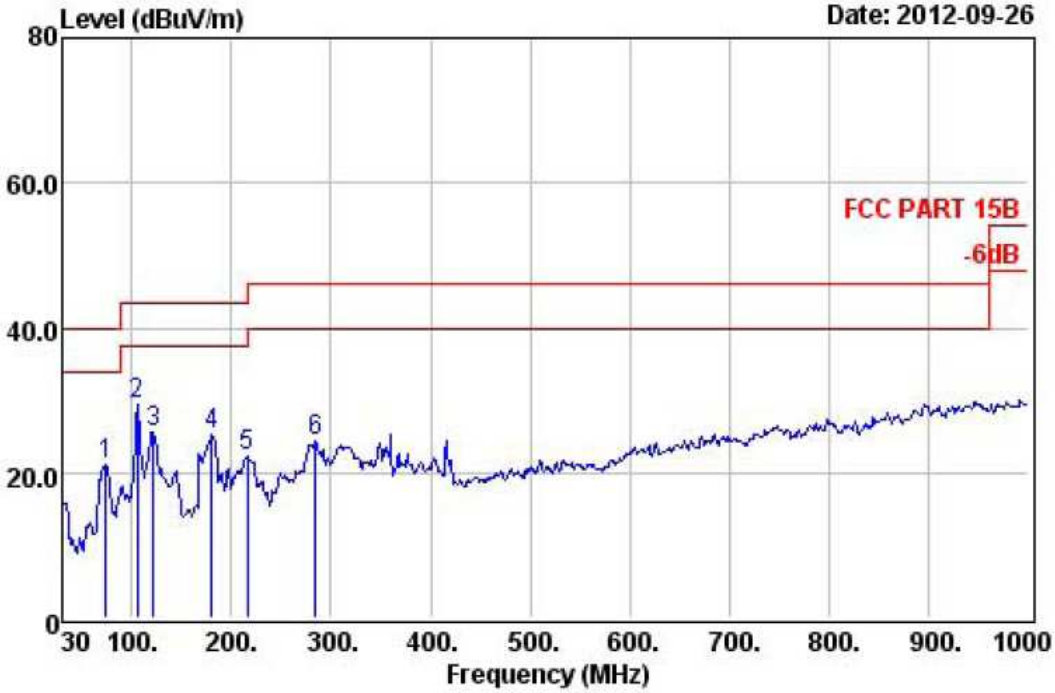
Radiated Emissions
Pursuant to FCC 15.109: Emissions Requirement: 30MHz-1GHz

Polarization	Frequency (MHz)	Reading (dBµV)	Correction factor (dB/m)	Net at 3m (dBµV/m)	Limit at 3m (dBµV/m)	Margin (dB)
Horizontal	105.66	44.02	-22.83	21.19	40.00	-18.81
Horizontal	284.14	40.14	-15.81	24.33	46.00	-21.67
Horizontal	1130.00	32.29	-3.43	35.72	74.00	-38.28
Vertical	105.66	50.47	-21.18	29.29	43.50	-14.21
Vertical	180.35	47.61	-19.38	28.23	43.50	-15.27
Vertical	1230.00	32.48	-3.73	36.21	74.00	-37.79

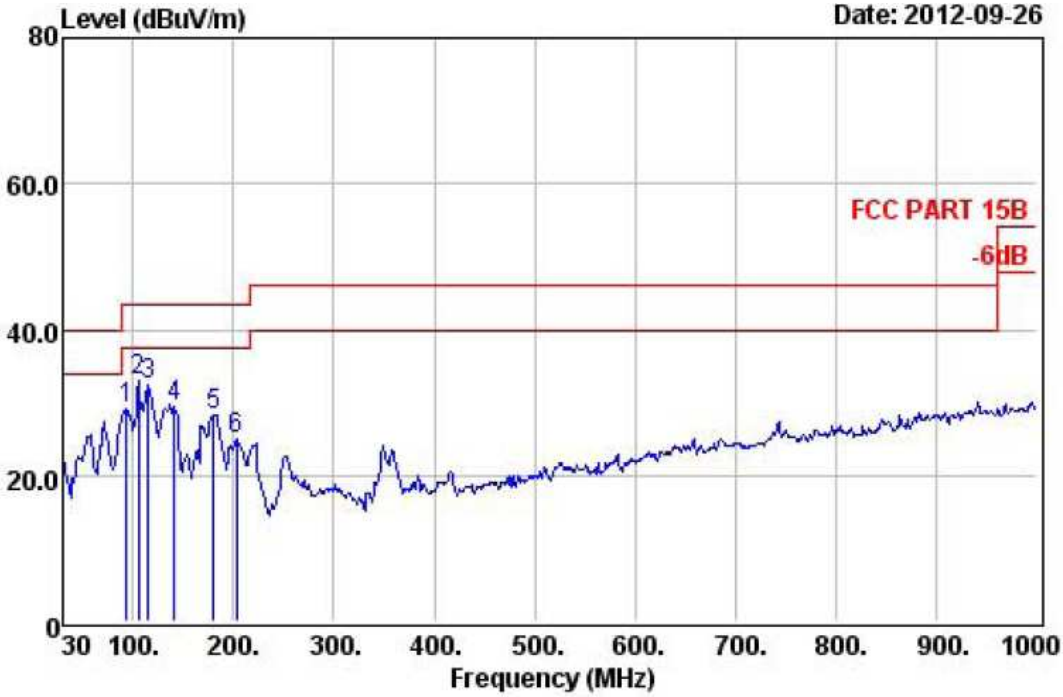
Notes:
1. Quasi-peak detector was used at below 1GHz, peak detector was used at above 1GHz.
2. All measurements were made at 3 meter.
3. Negative value in the margin column shows emission below limit.
4. When tested above 1GHz, the emissions found were at least 20 dB below the limit.

4.2.6 Test Curve

Horizontal:



Vertical:



4.2.7 Measurement uncertainty

Uncertainty: 3.2 dB at a level of confidence of 95%