



Product Service

FCC TEST REPORT

Report Number : **68.760.11.095.01** Date of Issue: 10 May 2011

Model : **PC-A1007**

Product Type : Classmate Personal Computer

Applicant : Wanlida Group Co., Ltd.

Address : No.618, Jiahe Road, Wanlida Industry Zone,
Xiamen, Fujian, China 361006

Production Facility : Wanlida Group Co., Ltd.

Address : Wanlida Industry Zone, Nanjing, Fujian, China 363601

Test Result : ☒ **Positive** ☐ **Negative**

Total pages including
Appendices : 20

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2 Details about the Test Laboratory

Details about the Test Laboratory

Test site1:

Company name: Jiangsu TÜV Product Service Ltd. – Shenzhen Branch
6th Floor, H Hall,
Century Craftwork Culture Square,
No. 4001, Fuqiang Road,
Futian District 518048,
Shenzhen,P.R.C.

Telephone: 86 755 8828 6998

Fax: 86 755 8828 5299

Test site2:

Company name: Audix Technology (Shenzhen) Co.,Ltd
Block Shenzhen, Science & Industry Park,
Nantou, Shenzhen,
Guangdong,
China

Telephone: 86 755 2663 9496

Fax: 86 755 2663 2877

3 Description of the Equipment Under Test

Description of the Equipment Under Test

Product: Classmate Personal Computer

Model no.: PC-A1007

Serial number: NIL

Options and accessories: NIL

Rating: DC 19V, 2.1A
AC Adaptor:
Input: 100-240V, 50-60Hz, 1A
Output: 19V DC, 2.1A

Antenna: Integral antenna inside enclosure of EUT, NOT accessible by end user
Antenna Gain=0.975dBi

RF Transmission
Frequency: 2412-2462MHz

Description of the EUT: NIL

Auxiliary Equipment and Cable Used during Test:

DESCRIPTION	MANUFACTURER	MODEL NO.(SHIELD)	S/N(LENGTH)
LCD monitor	DELL	1907FPt	7735430660P0G WD-04
SD card	Kingston	SD4/4GBFE	----
Earphone	OVANN	OV880V	----
iPod nano	APPLE	A1199	----
USB flash drive	Kingston	USB/4GB	---
VGA cable	DELL	Shield	140cm
AC Power cable	DELL	Unshield	180cm



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4 Summary of Test Standards

Test Standards	
FCC Part 15 Subpart B, Oct. 1, 2009	PART 15 - RADIO FREQUENCY DEVICES Subpart B - Unintentional Radiators



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5 Summary of Test Results

Technical Requirements					
FCC Part 15 Subpart B					
Test Condition	Pages	Test Result			Test Location
		Pass	Fail	N/A	
15.107 Conducted Emission AC Power Port	8	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Test Site2
15.109 Spurious radiated emissions	12	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Test Site2



Product Service

6 General Remarks

Remarks

This submittal(s) (test report) is intended for FCC ID: SMFPCA1007 filing to comply with Section 15.107, 15.109 of the FCC Part 15, Subpart B Rules.

SUMMARY:

All tests according to the regulations cited on page 5 were

■ - Performed

□ - **Not** Performed

The Equipment Under Test

■ - **Fulfills** the general approval requirements.


□ - **Does not** fulfill the general approval requirements.


Sample Received Date: 06 April 2011


Testing Start Date: 08 April 2011

Testing End Date: 27 April 2011

- Jiangsu TÜV Product Service Ltd. – Shenzhen Branch –

Tested By	2011-05-10	Sunny Lu	
Test Lab Engineer	Date	Name	Signature

Prepared By	2011-05-10	Ken Li	
Project Engineer	Date	Name	Signature

Reviewed By	2011-05-10	Paul Yu	
Assistant EMC Manager	Date	Name	Signature

7 Technical Requirement

7.1 Conducted Emission

Test Method

- 1 The EUT was placed on a table, which is 0.8m above ground plane
- 2 The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.).
- 3 Maximum procedure was performed to ensure EUT compliance
- 4 A EMI test receiver is used to test the emissions from both sides of AC line

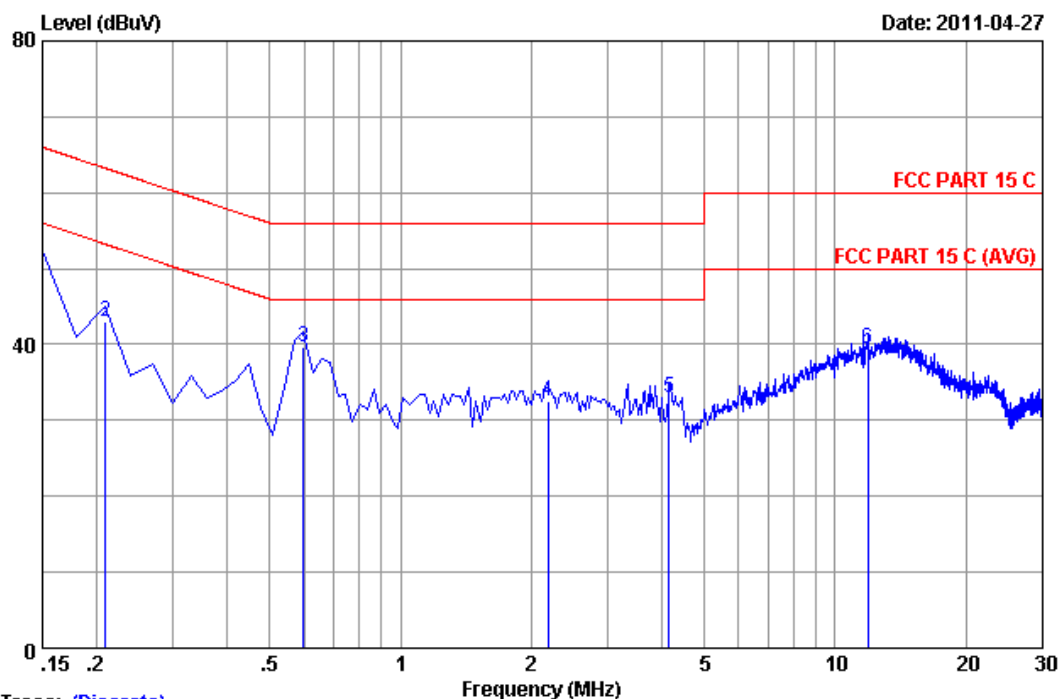
Limit

Frequency MHz	QP Limit dB μ V	AV Limit dB μ V
0.150-0.500	66-56*	56-46*
0.500-5	56	46
5-30	60	50

Note: "*" Decreasing linearly with logarithm of the frequency

Remark: The EUT operation mode is "Run test program", which the test program BIT.exe exercises all the drive and ports of the EUT, and displaying scrolling H on the screen.

Conducted Emission



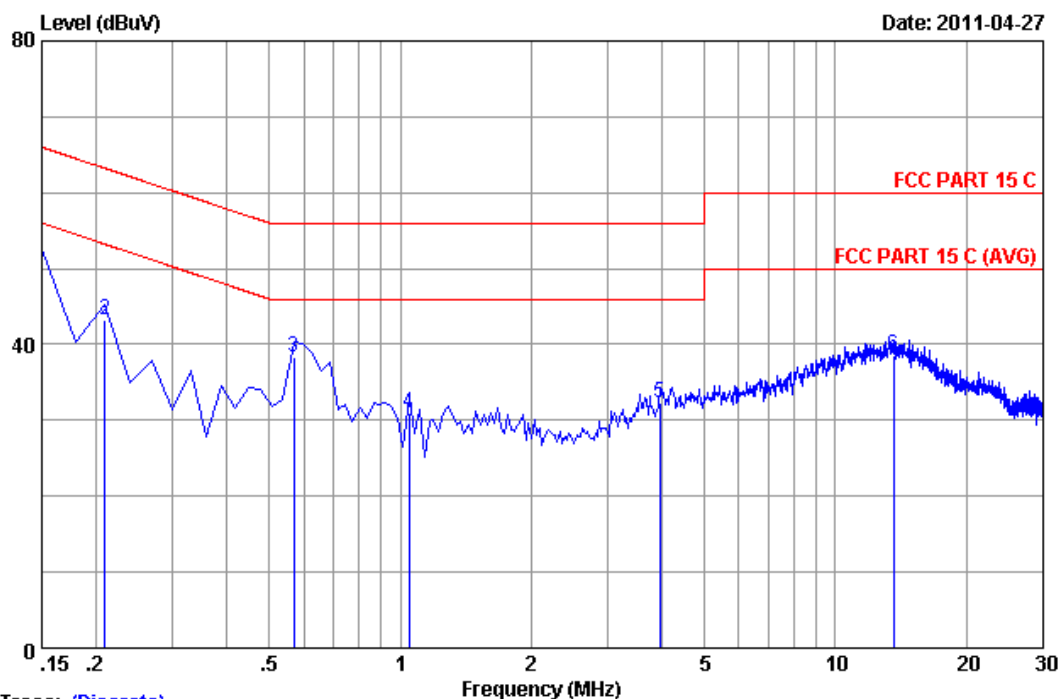
Trace: (Discrete)

Site no :1#conduction Data No :5
 Dis./Ant. : ** 2011 ESH2-25 LINE
 Limit : FCC PART 15 C
 Env./Ins. : 29.5°C/55% Engineer : Leo-Li
 EUT : PC-A1007
 Power Rating : 120V/60Hz
 Test Mode : Running Burntest Program

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.15000	0.17	9.88	35.32	45.37	66.00	20.63	QP
2	0.20970	0.17	9.88	32.89	42.94	63.22	20.28	QP
3	0.59775	0.19	9.88	29.58	39.65	56.00	16.35	QP
4	2.180	0.31	9.91	22.34	32.56	56.00	23.44	QP
5	4.150	0.35	9.94	22.71	33.00	56.00	23.00	QP
6	11.911	0.78	10.00	28.66	39.44	60.00	20.56	QP

Remarks: 1. Emission Level = LISN Factor + Cable Loss (Include 10dB pulse limit) + Reading.
 2. If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

Conducted Emission



Trace: (Discrete)

Site no :1#conduction Data No :6
 Dis./Ant. : ** 2011 ESH2-Z5 NEUTRAL
 Limit : FCC PART 15 C
 Env./Ins. : 29.5°C/55% Engineer : Leo-Li
 EUT : PC-A1007
 Power Rating : 120V/60Hz
 Test Mode : Running Burntest Program

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.15000	0.21	9.88	35.42	45.51	66.00	20.49	QP
2	0.20970	0.21	9.88	33.09	43.18	63.22	20.04	QP
3	0.56790	0.22	9.88	28.29	38.39	56.00	17.61	QP
4	1.046	0.24	9.89	20.77	30.90	56.00	25.10	QP
5	3.941	0.31	9.94	22.12	32.37	56.00	23.63	QP
6	13.583	0.56	10.02	27.98	38.56	60.00	21.44	QP

Remarks: 1. Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)
 +Reading.
 2. If the average limit is met when using a quasi-peak detector,
 the EUT shall be deemed to meet both limits and measurement
 with average detector is unnecessary.

Test Equipment List**Conducted Emission Test**

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE
Test Receiver	Rohde & Schwarz	ESHS10	838693/001	Dec.18, 11
L.I.S.N.#1	Rohde & Schwarz	ESH2-Z5	834066/011	Mar.30, 12
L.I.S.N.#3	Kyoritsu	KNW-242C	8-1920-1	May.08, 12
Terminator	Hubersuhner	50Ω	No. 1	May.08, 12
Terminator	Hubersuhner	50Ω	No. 2	May.08, 12
RF Cable	Fujikura	3D-2W	LISN Cable 1#	May.08, 12
Coaxial Switch	Anritsu	MP59B	M55367	May.08, 12
Passive Probe	Rohde & Schwarz	ESH2-Z3	299.7810.52	May.08, 12
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100341	May.08, 12

7.2 Radiated emissions

Test Method

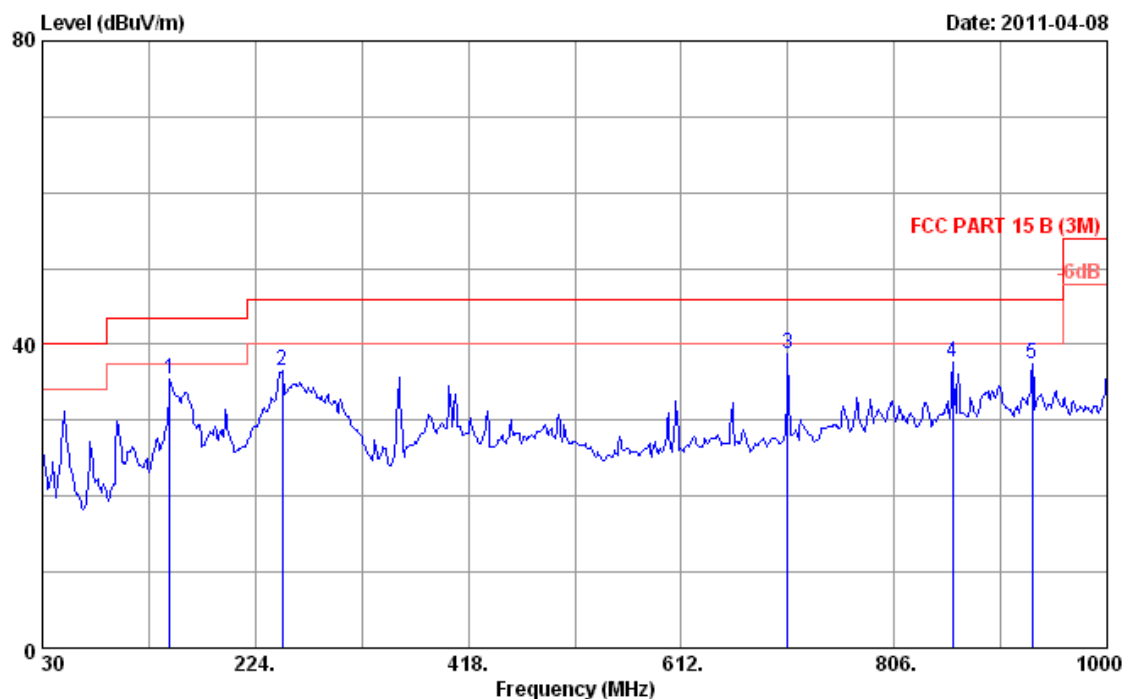
- 1 The EUT is placed on a turntable, which is 0.8m above ground plane.
- 2 The turntable shall be rotated for 360 degrees to determine the position of maximum emission level
- 3 EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
- 4 Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
- 5 Each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.

Limit

Frequency MHz	Field Strength uV/m	Field Strength dBμV/m	Detector
30-88	100	40	QP
88-216	150	43.5	QP
216-960	200	46	QP
960-1000	500	54	QP
Above 1000	500	54	AV
Above 1000	5000	74	PK

Remark: The EUT operation mode is "Run test program", which the test program BIT.exe exercises all the drive and ports of the EUT, and displaying scrolling H on the screen.

Radiated Emission



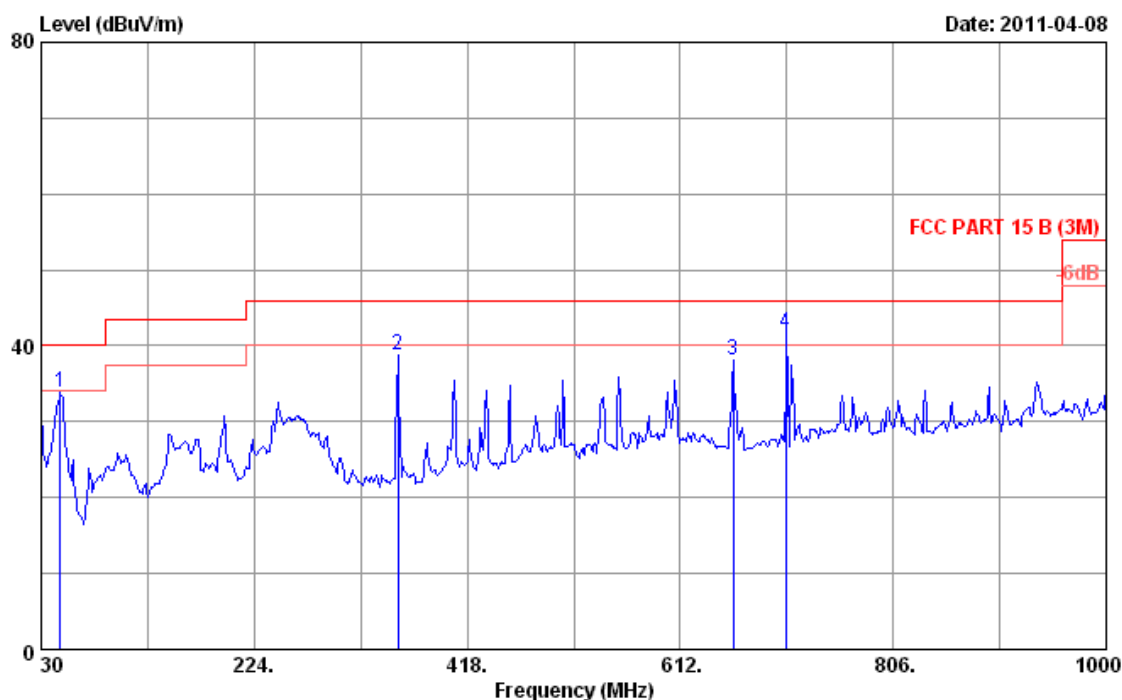
Site no. : 3m Chamber
 Dis. / Ant. : 3m 2010 CBL6111C
 Limit : FCC PART 15 B (3M)
 Env. / Ins. : 24°C/56%
 EUT : PC-A1007
 Power rating : AC 120V/60Hz
 Test Mode : Run test program

Data no. : 10
 Ant. pol. : HORIZONTAL
 Engineer : Rock_su

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	146.400	11.84	1.14	22.39	35.37	43.50	8.13	Peak
2	248.250	12.56	2.15	21.77	36.48	46.00	9.52	Peak
3	709.000	20.71	4.53	13.63	38.87	46.00	7.13	Peak
4	859.350	22.79	5.08	9.72	37.59	46.00	8.41	Peak
5	932.100	23.88	5.32	8.27	37.47	46.00	8.53	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Radiated Emission

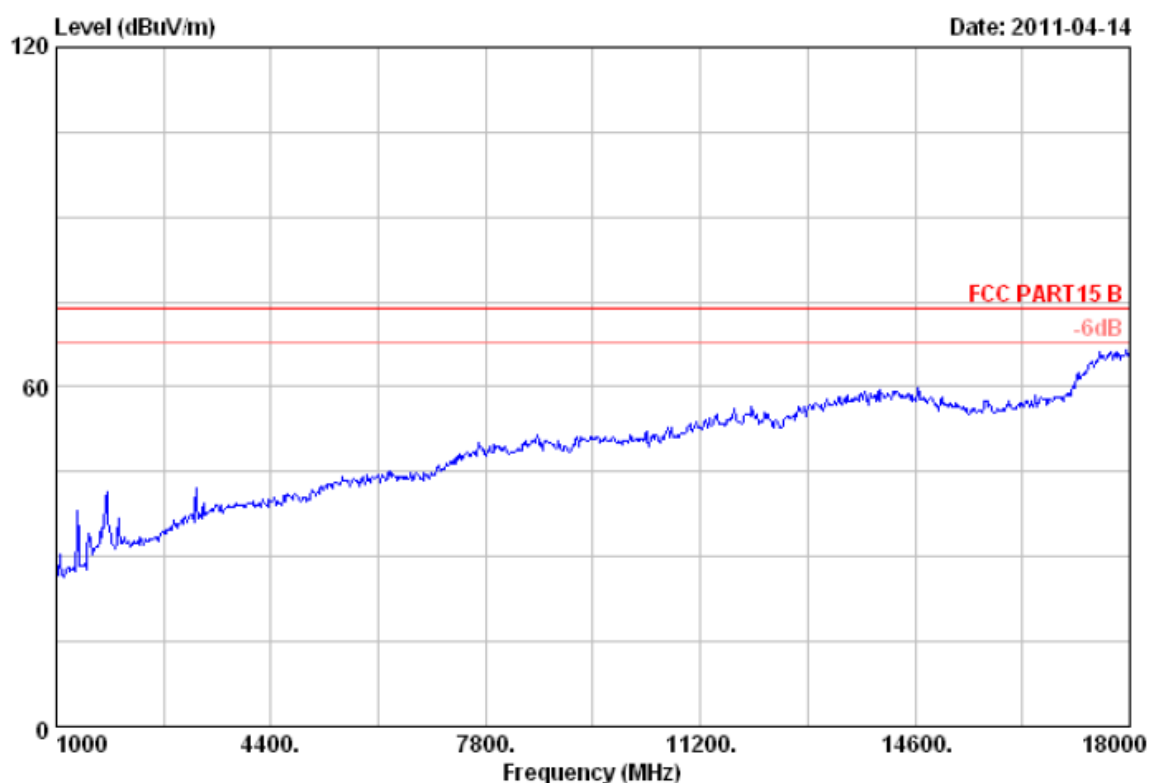


Site no.	: 3m Chamber	Data no.	: 9
Dis. / Ant.	: 3m 2010 CBL6111C	Ant. pol.	: VERTICAL
Limit	: FCC PART 15 B (3M)		
Env. / Ins.	: 24°C/56%	Engineer	: Rock_su
EUT	: PC-A1007		
Power rating	: AC 120V/60Hz		
Test Mode	: Run test program		

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission		Margin (dB)	Remark
					Level (dBuV/m)	Limits (dBuV/m)		
1	47.460	10.55	0.76	22.49	33.80	40.00	6.20	Peak
2	354.950	15.35	2.72	20.80	38.87	46.00	7.13	Peak
3	660.500	20.62	4.35	13.19	38.16	46.00	7.84	Peak
4	708.050	20.72	4.53	16.50	41.75	46.00	4.25	QP

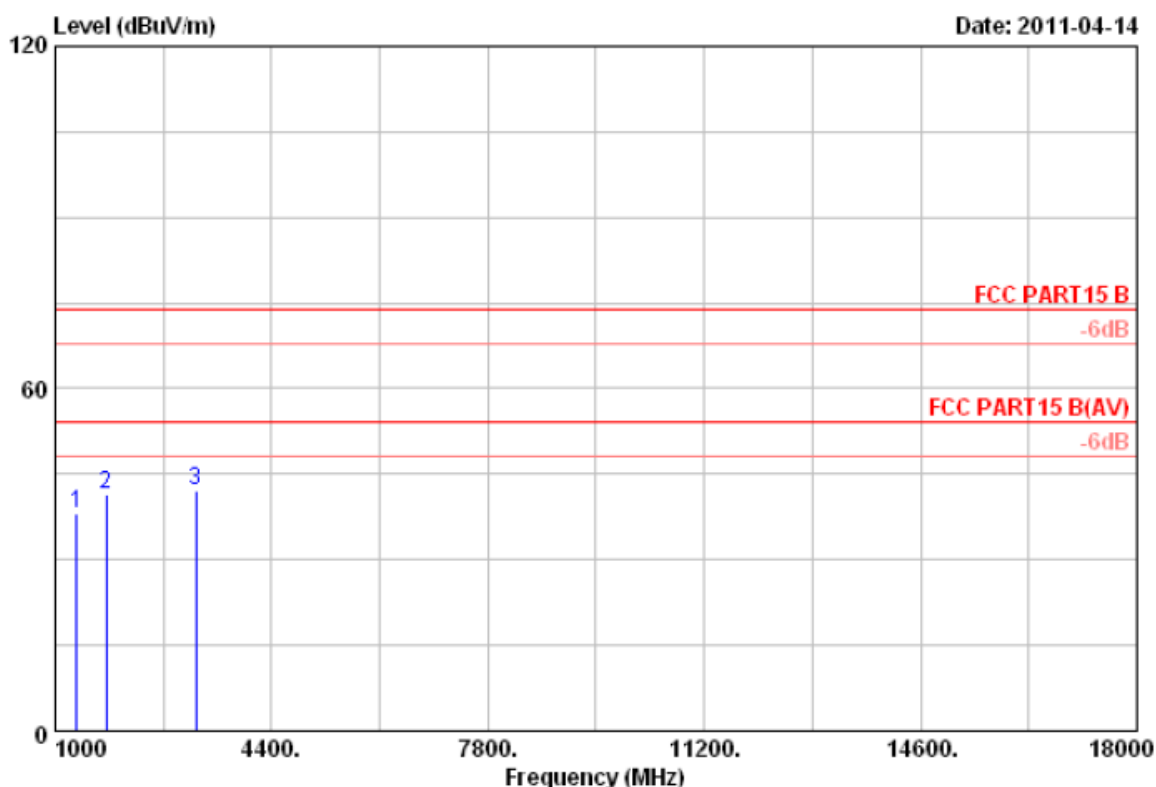
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

Radiated Emission



Site no.	: 3m Chamber	Data no. :	39
Dis. / Ant.	: 3m 3115(0911)	Ant. pol. :	VERTICAL
Limit	: FCC PART15 B	Engineer :	Paul Tian
Env. / Ins.	: 23°C/54%		
EUT	: PC-A1007		
Power	: AC 120V/60Hz		
Test mode	: Run Test Program		
M/N	:		

Radiated Emission



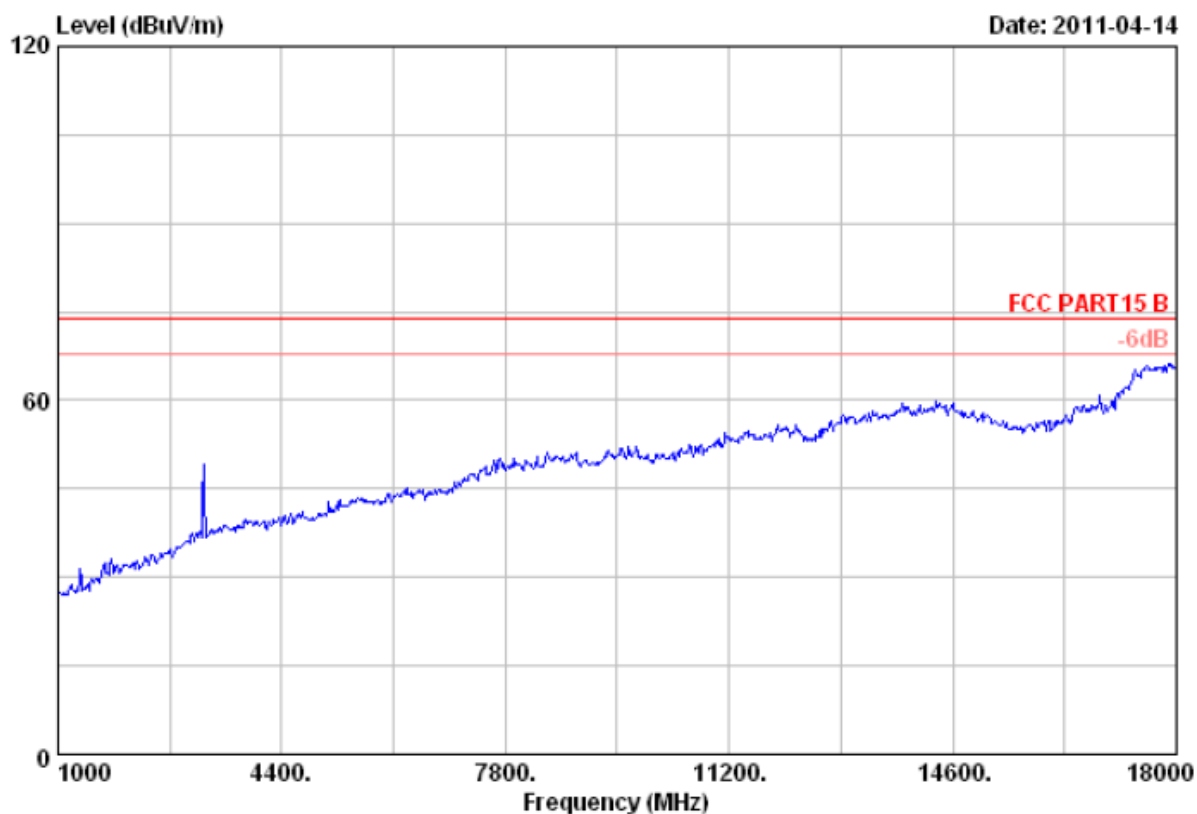
Site no.	: 3m Chamber	Data no. :	40
Dis. / Ant.	: 3m 3115(0911)	Ant. pol. :	VERTICAL
Limit	: FCC PART15 B		
Env. / Ins.	: 23°C/54%	Engineer :	Paul Tian
EUT	: PC-A1007		
Power	: AC 120V/60Hz		
Test mode	: Run Test Program		
M/N	:		

	Ant.	Cable	Amp.		Emission				
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1 1340.000	26.09	5.42	37.32	43.98	38.17	74.00	35.83	Peak	
2 1799.000	28.08	6.25	36.83	44.02	41.52	74.00	32.48	Peak	
3 3210.000	32.54	8.79	36.28	37.07	42.12	74.00	31.88	Peak	

Remarks:

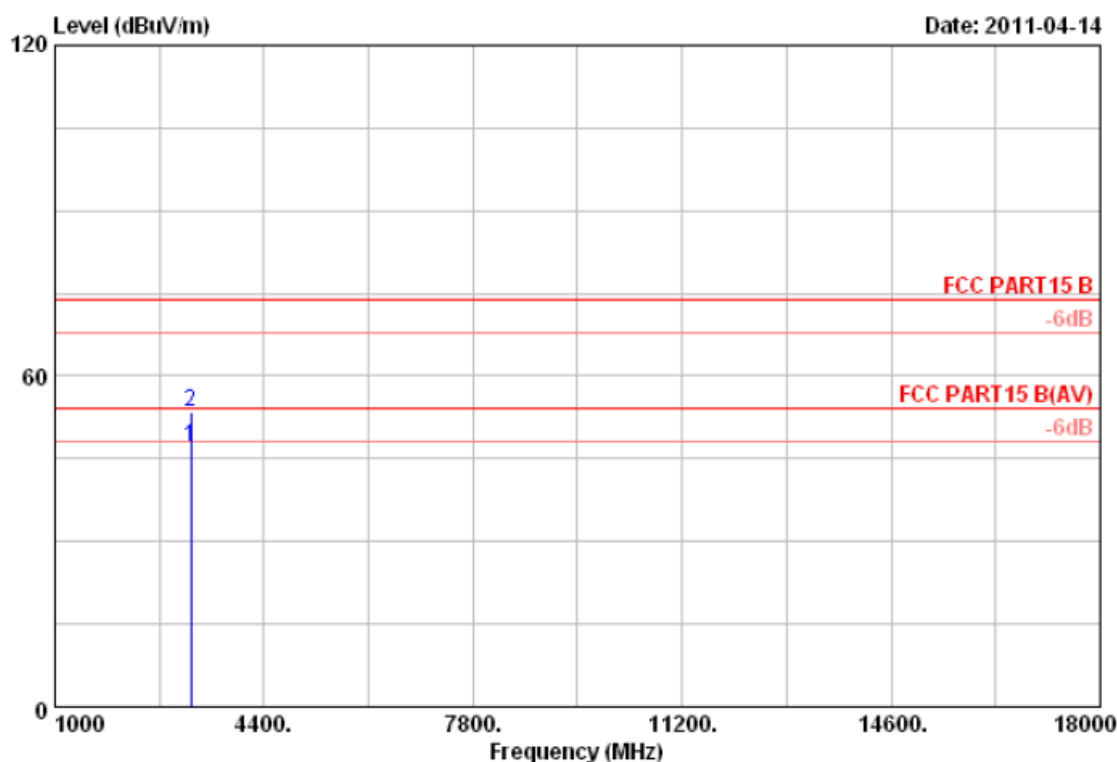
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

Radiated Emission



Site no.	: 3m Chamber	Data no. :	41
Dis. / Ant.	: 3m 3115(0911)	Ant. pol. :	HORIZONTAL
Limit	: FCC PART15 B		
Env. / Ins.	: 23°C/54%	Engineer :	Paul Tian
EUT	: PC-A1007		
Power	: AC 120V/60Hz		
Test mode	: Run Test Program		
M/N	:		

Radiated Emission



Site no.	: 3m Chamber	Data no. :	42
Dis. / Ant.	: 3m 3115(0911)	Ant. pol. :	HORIZONTAL
Limit	: FCC PART15 B		
Env. / Ins.	: 23°C/54%	Engineer :	Paul Tian
EUT	: PC-A1007		
Power	: AC 120V/60Hz		
Test mode	: Run Test Program		
M/N	:		

	Ant.	Cable	Amp.		Emission				
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1 3210.000	32.54	8.79	36.28	42.24	47.29	54.00	6.71	Average	
2 3210.000	32.54	8.79	36.28	48.55	53.60	74.00	20.40	Peak	

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

Test Equipment List

Radiated Emission Test

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE
EMI Spectrum	Agilent	E4407B	MY41440292	May.08, 12
Test Receiver	Rohde & Schwarz	ESVS10	834468/011	May.08, 12
Amplifier	HP	8447D	2648A04738	May.08, 12
Bilog Antenna	Schaffner	CBL6111C	2598	Dec.14, 11
Horn Antenna	EMCO	3115	9607-4877	Nov.25, 11
Amplifier	Agilent	8449B	3008A00863	May.08, 12
RF Cable	MIYAZAKI	8D-FB	3# Chamber No.1	May.08, 12
RF Cable	Hubersuhner	SUCOFLEX 102	28620/2	May.08, 12
RF Cable	Hubersuhner	SUCOFLEX 102	29091/2	May.08, 12
Coaxial Switch	Anritsu	MP59B	M73989	May.08, 12

8 System Measurement Uncertainty

For a 95% confidence level, the measurement expanded uncertainties for defined systems, in accordance with the recommendations of ISO 17025 were:

System Measurement Uncertainty

Items		Extended Uncertainty
RE	Field strength (dB μ V/m)	U=4.32dB (30MHz-25GHz)
CE	Disturbance Voltage (dB μ V)	U=2.4dB