

# FCC DOC TEST REPORT

Authorized under **Declaration of Conformity**

according to

**47 CFR, Part 2, Part 15 and CISPR PUB. 22**

Applicant	Firetide Inc.
Address	16795 Lark Ave., Ste. 200, Los Gatos, CA 95032
Equipment	HotPort Wireless Mesh Node
Model No.	HotPort3203
Trade Name	Firetide

Laboratory accreditation



1332

"The test result refers exclusively to the test presented test model / sample.

"Without written approval of **Exclusive Certification Corp.** the test report shall not be reproduced except in full.

Contents

**CERTIFICATE OF COMPLIANCE.....3**

**1. Test Configuration of Equipment under Test .....4**

    1.1. Feature of Equipment under Test.....4

    1.2. Test Mode and Test Software.....5

    1.3. Description of Test System.....5

    1.4. Connection Diagram of Test System .....6

    1.5. General Information of Test .....7

    1.6. History of this test report .....7

**2. Test of Conducted Emission .....8**

    2.1. Test Limit.....8

    2.2. Test Procedures.....8

    2.3. Typical test Setup .....9

    2.4. Measurement equipment .....9

    2.5. Test Result and Data.....10

**3. Test of Radiated Emission .....20**

    3.1. Test Limit.....20

    3.2. Test Procedures.....21

    3.3. Typical test Setup .....22

    3.4. Measurement equipment .....22

    3.5. Test Result and Data.....23

**Appendix A. Photographs of EUT.....A1 ~ A10**

# CERTIFICATE OF COMPLIANCE

Authorized under Declaration of Conformity

according to

**47 CFR, Part 2, Part 15 and CISPR PUB. 22**

Applicant	Firetide Inc.
Address	16795 Lark Ave., Ste. 200, Los Gatos, CA 95032
Equipment	HotPort Wireless Mesh Node
Model No.	HotPort3203

I **HEREBY** CERTIFY THAT :

The measurements shown in this test report were made in accordance with the procedures given in **ANSI C63.4 – 2003** and the energy emitted by this equipment was **passed** **CISPR PUB. 22 and FCC Part 15** in both radiated and conducted emission class B limits. Testing was carried out on Apr. 20, 2005 at **Exclusive Certification Corp.**

Signature

  
Anson Chou / Manager

## 1. Test Configuration of Equipment under Test

### 1.1. Feature of Equipment under Test

<p><b>Model</b> HotPort 3203</p> <p><b>Protocol</b> Firetide Mesh Routing Protocol (FMRP)</p> <p><b>Encryption</b></p> <ul style="list-style-type: none"> <li>ε 40/64 bit, 104/128 bit WEP keys</li> <li>ε 128 bit, 256 bit AES keys</li> </ul> <p><b>Wireless interface</b></p> <p>2.4 GHz spectrum</p> <ul style="list-style-type: none"> <li>ε 2.400–2.497 GHz (actual channels available for use are subject to country-specific regulatory approvals)</li> <li>ε TX Power: Up to 4 W EIRP depending on country of operation and antenna configuration</li> </ul> <p>5 GHz spectrum</p> <ul style="list-style-type: none"> <li>ε 5.150 – 5.250 GHz</li> <li>ε 5.250 – 5.350 GHz</li> <li>ε 5.750 – 5.825 GHz (actual channels available for use are subject to country-specific regulatory approvals)</li> <li>ε TX Power: Up to 1 W EIRP depending on country of operation and antenna configuration</li> </ul> <p>Dynamic Frequency Selection (DFS) Transmit Power Control (TPC)</p> <p><b>Network ports</b></p> <ul style="list-style-type: none"> <li>ε Dual 10/100 Mbps Ethernet ports with circular, watertight IP67-rated connectors</li> <li>ε IEEE 802.3, 802.3u compliant CSMA/CD 10/100 autosense</li> </ul> <p><b>Antennas</b></p> <ul style="list-style-type: none"> <li>ε Two detachable, 6 dBi omni-directional, vertical polarization, dual spectrum antennas (included for network staging only)</li> <li>ε Single detachable 8 dBi omni-directional, vertical polarization antenna (order separately) Note: antennas are spectrum specific</li> <li>ε Spectrum: 2.4 GHz and 5 GHz</li> <li>ε Connectors: TNC reverse polarity</li> <li>ε Length: 16.5 in. (42 cm)</li> <li>ε Range: up to 2600 ft (800 m) depending on spectrum and environmental attenuation</li> <li>ε Gain: up to 8 dBi</li> </ul>	<p><b>Enclosure</b></p> <ul style="list-style-type: none"> <li>ε Cast aluminum NEMA-4X/IP67 enclosure</li> <li>ε Two antenna connectors (TNC reverse polarity)</li> <li>ε One power connector</li> <li>ε Two circular, watertight IP67-rated Ethernet data connectors</li> <li>ε System indicator LEDs (power, status, fault)</li> <li>ε Physical security via lockable mounting bracket</li> <li>ε Weight: 4.85 lbs (2.2 Kg) with sun shield</li> <li>ε Dimensions: 9.812" x 7.812" x 2.687" (25 cm x 19.8 cm x 6.82 cm)</li> </ul> <p><b>Power</b></p> <ul style="list-style-type: none"> <li>ε Input voltage: 24 VDC</li> <li>ε Indoor-rated power supply (transformer): 90-240 VAC, 50/60 Hz</li> <li>ε Power consumption: 25 W nominal</li> <li>ε 802.3af compliant PoE (PD and PSE)</li> <li>ε Power transition cable: 32.8 ft (10 m)</li> </ul> <p><b>Regulatory Agency Certifications</b> Contact your Firetide dealer for product availability and certifications for your country</p> <p><b>Environmental specifications</b></p> <ul style="list-style-type: none"> <li>ε Operating temperature: -40°C to +55 °C (-40° F to 131° F)</li> <li>ε Storage temperature: -40°C to +80°C (-40° F to 176° F)</li> <li>ε Humidity (non-condensing) 5% to 95%</li> <li>ε Storage humidity (non-condensing): 10% to 90%</li> </ul> <p><b>Mesh Management Software</b> Includes HotView mesh management software</p> <p><b>Warranty</b> One year limited warranty (see warranty card for details)</p> <p><b>Included Accessories</b></p> <ul style="list-style-type: none"> <li>ε Lockable bracket for pole and wall mounting</li> <li>ε Indoor-rated power supply</li> <li>ε Sun shield</li> <li>ε Weatherized Ethernet transition cable (circular, watertight IP67-rated connector to RJ-45 connector)</li> <li>ε Weatherized RJ-45 connector kit</li> </ul>
---	---

## 1.2. Test Mode and Test Software

The following test mode and test software was performed for conduction and radiation test:

‰ Link Mode (The function of EUT is data transmitting which can be operated by connecting with host through UTP cable and wireless.)

The test mode including four kind of mode

Test mode 1: 5.8G (Antenna gain 4dBi)

Test mode 2: 2.4G (Antenna gain 3dBi)

Test mode 3: 5.8G (Antenna gain 8dBi)

Test mode 4: 2.4G (Antenna gain 8dBi)

‰ During the test, "Ping.exe" was executive under WinXP to link with the remote workstation to transmit data by UTP cable and wireless.

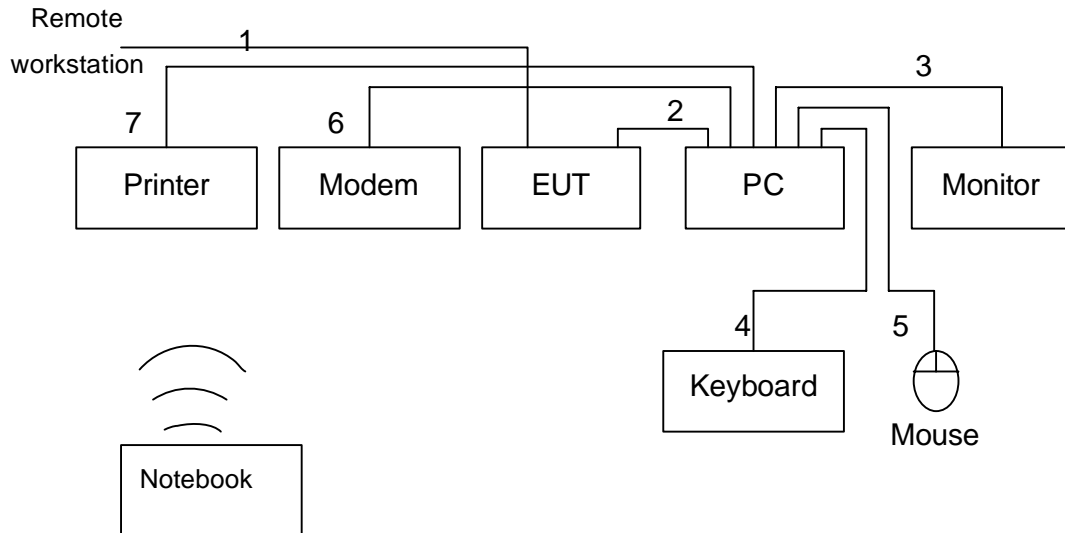
## 1.3. Description of Test System

Device	Manufacturer	Model No.	Description
PC	IBM	IGV	Power Cable, Unshielding 1.8 m
Monitor	SlimAGE	510A	Power Cable, Adapter Unshielding 1.8 m Data Cable, VGA shielding 1.35 m
Keyboard	IBM	KB-0225	Data Cable, PS2 shielding 1.85 m
Mouse	IBM	MO28VO	Data Cable, USB shielding 1.85 m
Modem	ACEXX	DM-1414	Power Cable, Adapter Unshielding 1.8 m Data Cable, RS232 Unshielding 1.35 m
Printer	HP	Desk Jet400	Power Cable, Adapter Unshielding 1.8 m Data Cable, PRINT shielding 1.6 m
Notebook (Remote site)	Dell	510m	Power Cable, Adapter Unshielding 1.8 m

Use Cable:

Cable	Description
LAN	Unshielding, 1.9m
LAN	Unshielding, 10m

#### 1.4. Connection Diagram of Test System



1. The LAN cable is connected form remote workstation to the EUT.
2. The LAN cable is connected form PC to the EUT.
3. The I/O cable is connected from PC to the Monitor.
4. The I/O cable is connected from PC to the Keyboard.
5. The I/O cable is connected from PC to the Mouse.
6. The I/O cable is connected from PC to the MODEM
7. The I/O cable is connected from PC to the Printer.

**1.5. General Information of Test**

Test Site :	Exclusive Certification Corp. 4F-2, No. 28, Lane 78, Xing-Ai Rd. Nei-hu, Taipei City 114 Taiwan R.O.C.
Test Site Location (OATS1-SD):	No.68-1, Shihbachongsi, shihding Township, Taipei County 223, Taiwan, R.O.C.
Test Voltage:	AC 110V/ 60Hz
Test in Compliance with:	ANSI C63.4-2003 FCC Part 15 Subpart B
Frequency Range Investigated :	Conducted: from 150kHz to 30 MHz Radiation: from 30 MHz to 1,000 MHz
Test Distance :	The test distance of radiated emission from antenna to EUT is 10 M.

**1.6. History of this test report**

ORIGINAL.

## 2. Test of Conducted Emission

### 2.1. Test Limit

Conducted Emissions were measured from 150 kHz to 30 MHz with a bandwidth of 9 KHz on the 115 VAC power and return leads of the EUT according to the methods defined in ANSI C63.4-2003 Section 3.1. The EUT was placed on a nonmetallic stand in a shielded room 0.8 meters above the ground plane as shown in section 2.2. The interface cables and equipment positioning were varied within limits of reasonable applications to determine the position produced maximum conducted emissions.

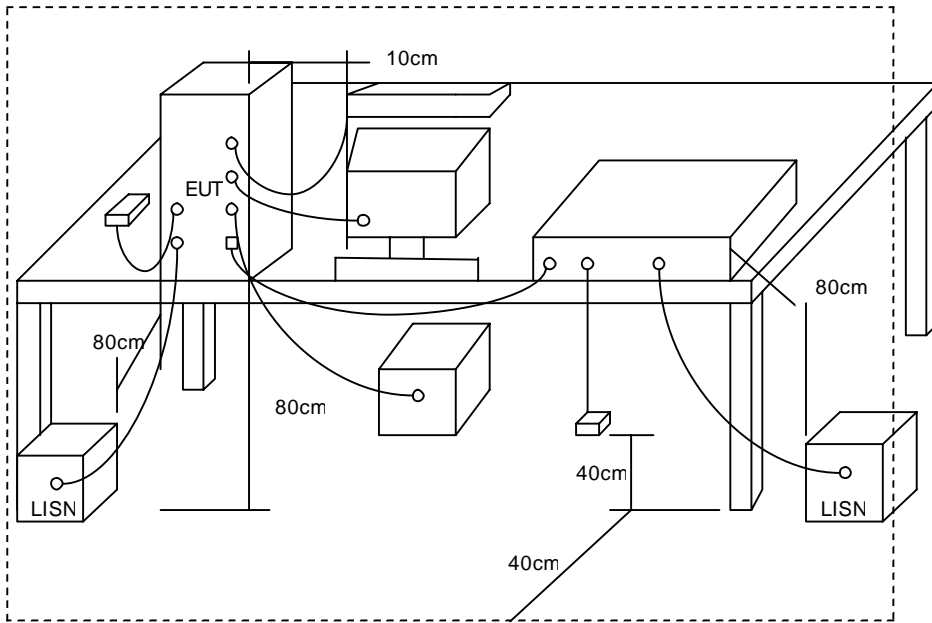
Frequency (MHz)	Quasi Peak (dB $\mu$ V)	Average (dB $\mu$ V)
0.15 – 0.5	66-56*	56-46*
0.5 – 5.0	56	46
5.0 – 30.0	60	50

### 2.2. Test Procedures

- a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- b. Connect EUT to the power mains through a line impedance stabilization network (LISN).
- c. All the support units are connecting to the other LISN.
- d. The LISN provides 50 ohm coupling impedance for the measuring instrument.
- e. The FCC states that a 50 ohm, 50 micro-henry LISN should be used.
- f. Both sides of AC line were checked for maximum conducted interference.
- g. The frequency range from 150 kHz to 30 MHz was searched.
- h. Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.



### 2.3. Typical test Setup



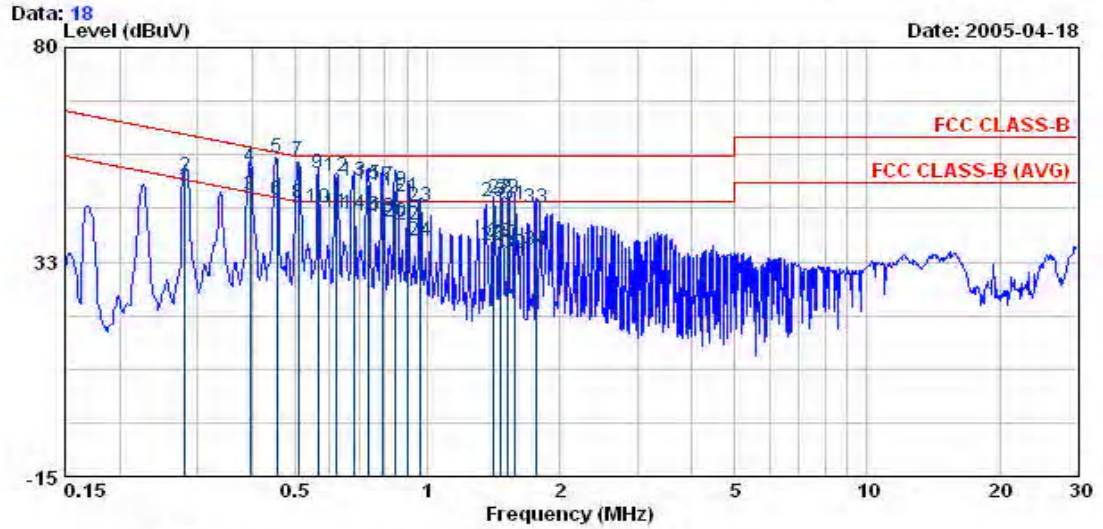
### 2.4. Measurement equipment

Instrument	Model No.	Manufacturer	Next Cal. Date
Receiver	Schaffner	SCR3501	2005/11/04
LISN	Mess TEC	NNB-2/16Z	2006/03/30
LISN	ROLF HEINE	NNB-2/16Z	2005/04/25

2.5. Test Result and Data

The test result including four kind of mode  
 Test mode1:

EUT : Razor  
 Power : AC 110V  
 Test Mode : LINK  
 Memo : 5.8G(4dBi)  
 Pol/Phase : NEUTRAL  
 Temperature : 25 °C  
 Humidity : 58 %

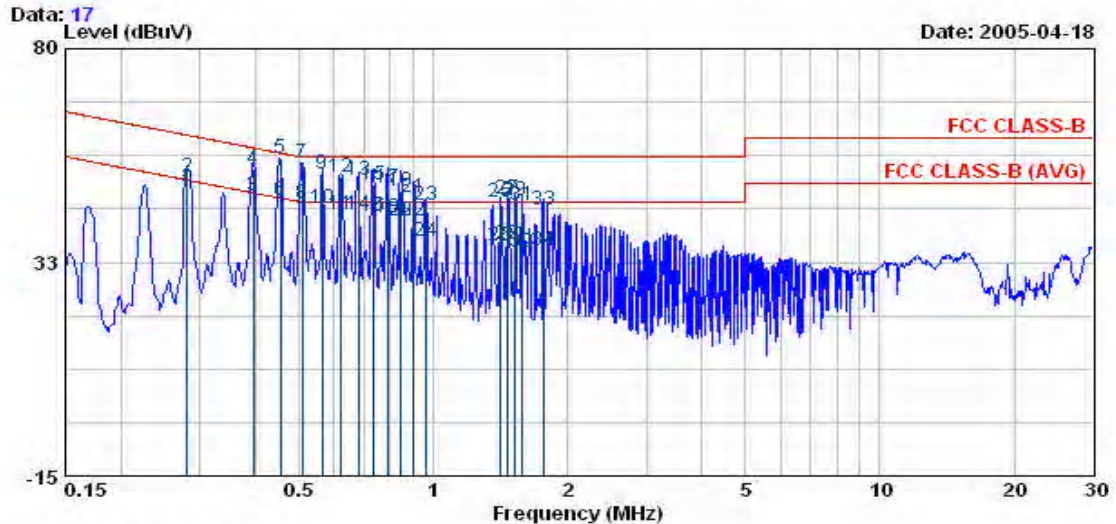


Freq	Read Level	Factor	Level	Limit	Over Limit	Remark
MHz	dBuV	dB	dBuV	dBuV	dBuV	
0.282	48.21	0.35	48.56	50.76	-2.20	AVERAGE
0.282	51.24	0.35	51.59	60.76	-9.17	QP
0.396	46.75	0.50	47.25	47.95	-0.70	AVERAGE
0.396	52.96	0.50	53.46	57.95	-4.49	QP
0.454	55.19	0.49	55.68	56.80	-1.12	QP
0.454	45.82	0.49	46.31	46.80	-0.49	AVERAGE
0.510	54.31	0.47	54.78	56.00	-1.22	QP
0.510	45.10	0.47	45.57	46.00	-0.43	AVERAGE
0.564	51.87	0.46	52.33	56.00	-3.67	QP
0.564	43.98	0.46	44.44	46.00	-1.56	AVERAGE
0.621	42.87	0.45	43.32	46.00	-2.68	AVERAGE
0.621	50.96	0.45	51.41	56.00	-4.59	QP
0.679	50.12	0.44	50.56	56.00	-5.44	QP
0.679	42.75	0.44	43.19	46.00	-2.81	AVERAGE
0.731	49.36	0.43	49.79	56.00	-6.21	QP
0.731	42.21	0.43	42.64	46.00	-3.36	AVERAGE
0.792	48.95	0.43	49.38	56.00	-6.62	QP
0.792	41.95	0.43	42.38	46.00	-3.62	AVERAGE
0.848	47.91	0.42	48.33	56.00	-7.67	QP
0.848	41.12	0.42	41.54	46.00	-4.46	AVERAGE
0.904	46.51	0.41	46.92	56.00	-9.08	QP
0.904	40.31	0.41	40.72	46.00	-5.28	AVERAGE
0.963	44.50	0.40	44.90	56.00	-11.10	QP
0.963	36.80	0.40	37.20	46.00	-8.80	AVERAGE
1.418	45.36	0.45	45.81	56.00	-10.19	QP
1.418	35.78	0.45	36.23	46.00	-9.77	AVERAGE
1.472	46.12	0.46	46.58	56.00	-9.42	QP
1.472	36.34	0.46	36.80	46.00	-9.20	AVERAGE
1.527	45.98	0.46	46.44	56.00	-9.56	QP
1.527	35.87	0.46	36.33	46.00	-9.67	AVERAGE
1.585	44.87	0.47	45.34	56.00	-10.66	QP
1.585	34.12	0.47	34.59	46.00	-11.41	AVERAGE
1.762	43.89	0.48	44.37	56.00	-11.63	QP
1.762	34.71	0.48	35.19	46.00	-10.81	AVERAGE

Remarks: 1. Level = Read Level + Factor  
 2. Factor = LISN(ISN) Factor + Cable Loss

EUT : Razor  
 Power : AC 110V  
 Test Mode : LINK  
 Memo : 5.8G(4dBi)

Pol/Phase : LINE  
 Temperature : 26 °C  
 Humidity : 58 %



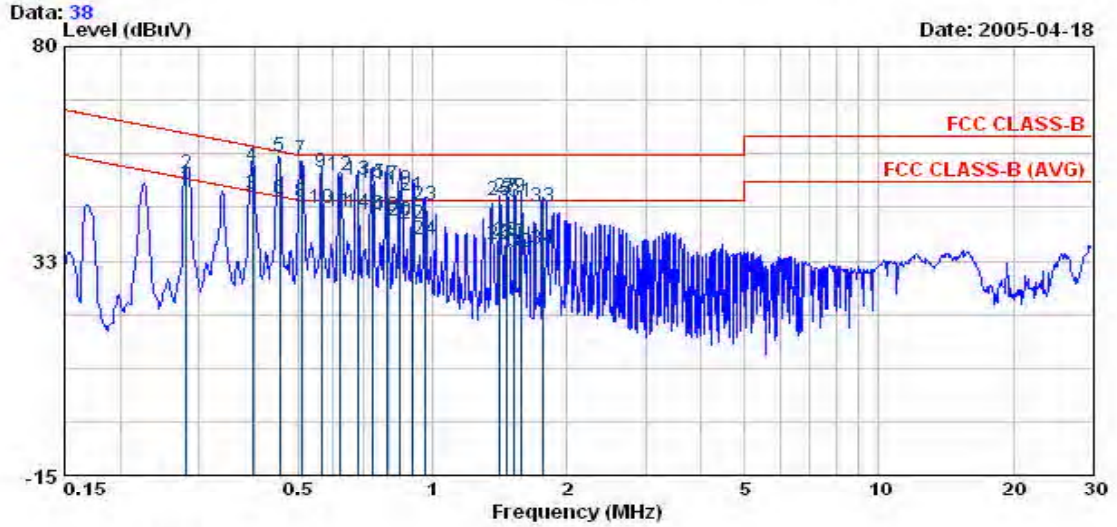
Freq	Read Level	Factor	Level	Limit	Over Limit	Remark
MHz	dBuV	dB	dBuV	dBuV	dBuV	
0.282	48.13	0.35	48.48	50.76	-2.28	AVERAGE
0.282	51.21	0.35	51.56	60.76	-9.20	QP
0.396	46.79	0.50	47.29	47.95	-0.66	AVERAGE
0.396	52.87	0.50	53.37	57.95	-4.58	QP
0.454	55.26	0.49	55.75	56.80	-1.05	QP
0.454	45.75	0.49	46.24	46.80	-0.56	AVERAGE
0.510	54.22	0.47	54.69	56.00	-1.31	QP
0.510	45.21	0.47	45.68	46.00	-0.32	AVERAGE
0.564	51.75	0.46	52.21	56.00	-3.79	QP
0.564	44.01	0.46	44.47	46.00	-1.53	AVERAGE
0.621	42.75	0.45	43.20	46.00	-2.80	AVERAGE
0.621	51.12	0.45	51.57	56.00	-4.43	QP
0.679	50.25	0.44	50.69	56.00	-5.31	QP
0.679	42.69	0.44	43.13	46.00	-2.87	AVERAGE
0.731	49.41	0.43	49.84	56.00	-6.16	QP
0.731	42.36	0.43	42.79	46.00	-3.21	AVERAGE
0.792	48.75	0.43	49.18	56.00	-6.82	QP
0.792	41.82	0.43	42.25	46.00	-3.75	AVERAGE
0.848	47.95	0.42	48.37	56.00	-7.63	QP
0.848	41.21	0.42	41.63	46.00	-4.37	AVERAGE
0.904	46.61	0.41	47.02	56.00	-8.98	QP
0.904	41.42	0.41	41.83	46.00	-4.17	AVERAGE
0.963	44.69	0.40	45.09	56.00	-10.91	QP
0.963	36.95	0.40	37.35	46.00	-8.65	AVERAGE
1.418	45.48	0.45	45.93	56.00	-10.07	QP
1.418	35.81	0.45	36.26	46.00	-9.74	AVERAGE
1.472	46.25	0.46	46.71	56.00	-9.29	QP
1.472	36.21	0.46	36.67	46.00	-9.33	AVERAGE
1.527	45.71	0.46	46.17	56.00	-9.83	QP
1.527	35.61	0.46	36.07	46.00	-9.93	AVERAGE
1.585	44.71	0.47	45.18	56.00	-10.82	QP
1.585	34.23	0.47	34.70	46.00	-11.30	AVERAGE
1.762	43.72	0.48	44.20	56.00	-11.80	QP
1.762	34.65	0.48	35.13	46.00	-10.87	AVERAGE

Remarks: 1. Level = Read Level + Factor  
 2. Factor = LISN(ISN) Factor + Cable Loss

Test mode 2

EUT : Razor  
 Power : AC 110V  
 Test Mode : LINK  
 Memo : 2.4G(3dB)

Pol/Phase : NEUTRAL  
 Temperature : 26 °C  
 Humidity : 58 %

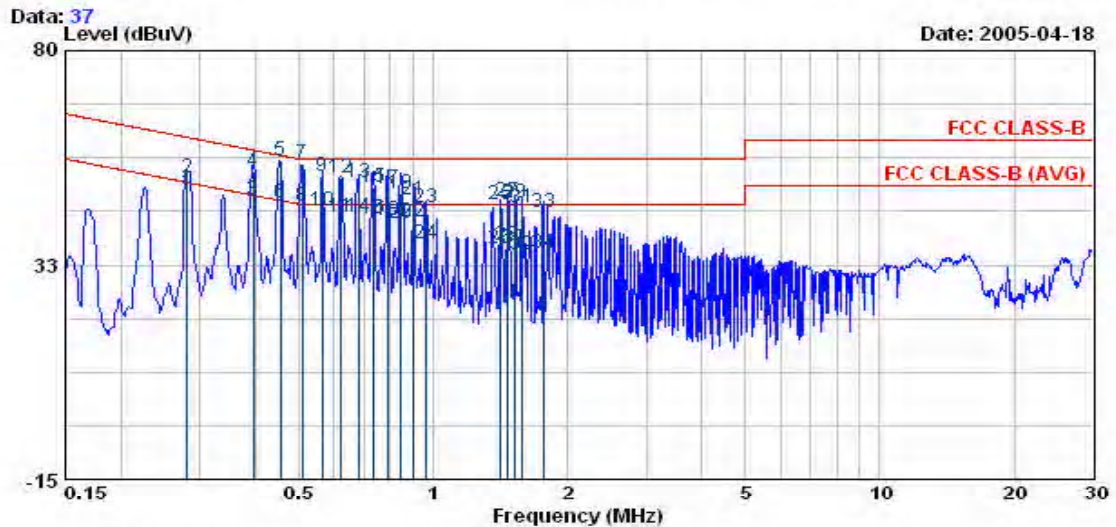


Freq	Read Level	Factor	Level	Limit	Over Limit	Remark
MHz	dBuV	dB	dBuV	dBuV	dBuV	
0.282	48.21	0.35	48.56	50.76	-2.20	AVERAGE
0.282	51.36	0.35	51.71	60.76	-9.05	QP
0.396	46.69	0.50	47.19	47.95	-0.76	AVERAGE
0.396	52.97	0.50	53.47	57.95	-4.48	QP
0.454	55.15	0.49	55.64	56.80	-1.16	QP
0.454	45.80	0.49	46.29	46.80	-0.51	AVERAGE
0.510	54.31	0.47	54.78	56.00	-1.22	QP
0.510	45.08	0.47	45.55	46.00	-0.45	AVERAGE
0.564	51.85	0.46	52.31	56.00	-3.69	QP
0.564	43.81	0.46	44.27	46.00	-1.73	AVERAGE
0.621	42.87	0.45	43.32	46.00	-2.68	AVERAGE
0.621	50.91	0.45	51.36	56.00	-4.64	QP
0.679	50.12	0.44	50.56	56.00	-5.44	QP
0.679	42.81	0.44	43.25	46.00	-2.75	AVERAGE
0.731	49.36	0.43	49.79	56.00	-6.21	QP
0.731	42.21	0.43	42.64	46.00	-3.36	AVERAGE
0.792	48.86	0.43	49.29	56.00	-6.71	QP
0.792	41.95	0.43	42.38	46.00	-3.62	AVERAGE
0.848	47.95	0.42	48.37	56.00	-7.63	QP
0.848	41.12	0.42	41.54	46.00	-4.46	AVERAGE
0.904	46.58	0.41	46.99	56.00	-9.01	QP
0.904	40.31	0.41	40.72	46.00	-5.28	AVERAGE
0.963	44.50	0.40	44.90	56.00	-11.10	QP
0.963	36.91	0.40	37.31	46.00	-8.69	AVERAGE
1.418	45.36	0.45	45.81	56.00	-10.19	QP
1.418	35.78	0.45	36.23	46.00	-9.77	AVERAGE
1.472	46.25	0.46	46.71	56.00	-9.29	QP
1.472	36.34	0.46	36.80	46.00	-9.20	AVERAGE
1.527	45.98	0.46	46.44	56.00	-9.56	QP
1.527	35.87	0.46	36.33	46.00	-9.67	AVERAGE
1.585	44.91	0.47	45.38	56.00	-10.62	QP
1.585	34.12	0.47	34.59	46.00	-11.41	AVERAGE
1.762	43.89	0.48	44.37	56.00	-11.63	QP
1.762	34.71	0.48	35.19	46.00	-10.81	AVERAGE

Remarks: 1. Level = Read Level + Factor  
 2. Factor = LISN(ISN) Factor + Cable Loss

EUT : Razor  
 Power : AC 110V  
 Test Mode : LINK  
 Memo : 2.4G(3dBi)

Pol/Phase : LINE  
 Temperature : 26 °C  
 Humidity : 58 %



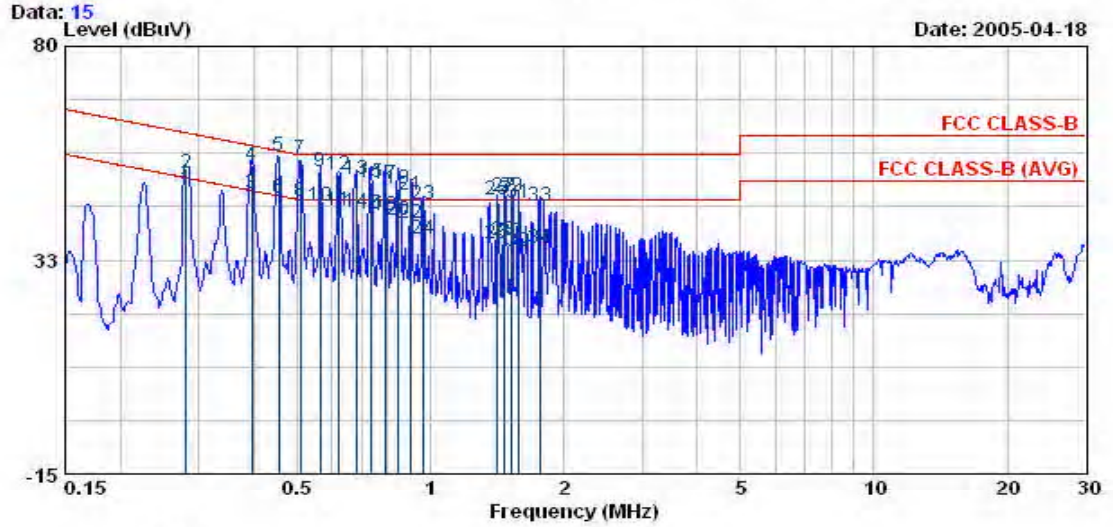
Freq	Read Level	Factor	Level	Limit	Over Limit	Remark
MHz	dBuV	dB	dBuV	dBuV	dBuV	
0.282	48.18	0.35	48.53	50.76	-2.23	AVERAGE
0.282	51.31	0.35	51.66	60.76	-9.10	QP
0.396	46.59	0.50	47.09	47.95	-0.86	AVERAGE
0.396	52.86	0.50	53.36	57.95	-4.59	QP
0.454	55.21	0.49	55.70	56.80	-1.10	QP
0.454	45.71	0.49	46.20	46.80	-0.60	AVERAGE
0.510	54.31	0.47	54.78	56.00	-1.22	QP
0.510	44.98	0.47	45.45	46.00	-0.55	AVERAGE
0.564	51.69	0.46	52.15	56.00	-3.85	QP
0.564	44.06	0.46	44.52	46.00	-1.48	AVERAGE
0.621	42.71	0.45	43.16	46.00	-2.84	AVERAGE
0.621	51.21	0.45	51.66	56.00	-4.34	QP
0.679	50.25	0.44	50.69	56.00	-5.31	QP
0.679	42.71	0.44	43.15	46.00	-2.85	AVERAGE
0.731	49.41	0.43	49.84	56.00	-6.16	QP
0.731	42.41	0.43	42.84	46.00	-3.16	AVERAGE
0.792	48.81	0.43	49.24	56.00	-6.76	QP
0.792	41.82	0.43	42.25	46.00	-3.75	AVERAGE
0.848	47.98	0.42	48.40	56.00	-7.60	QP
0.848	41.36	0.42	41.78	46.00	-4.22	AVERAGE
0.904	46.61	0.41	47.02	56.00	-8.98	QP
0.904	41.53	0.41	41.94	46.00	-4.06	AVERAGE
0.963	44.69	0.40	45.09	56.00	-10.91	QP
0.963	36.95	0.40	37.35	46.00	-8.65	AVERAGE
1.418	45.48	0.45	45.93	56.00	-10.07	QP
1.418	35.86	0.45	36.31	46.00	-9.69	AVERAGE
1.472	46.31	0.46	46.77	56.00	-9.23	QP
1.472	36.38	0.46	36.84	46.00	-9.16	AVERAGE
1.527	45.71	0.46	46.17	56.00	-9.83	QP
1.527	35.61	0.46	36.07	46.00	-9.93	AVERAGE
1.585	44.81	0.47	45.28	56.00	-10.72	QP
1.585	34.23	0.47	34.70	46.00	-11.30	AVERAGE
1.762	43.75	0.48	44.23	56.00	-11.77	QP
1.762	34.65	0.48	35.13	46.00	-10.87	AVERAGE

Remarks: 1. Level = Read Level + Factor  
 2. Factor = LISN(ISN) Factor + Cable Loss

Test mode3

EUT : Razor  
 Power : AC 110V  
 Test Mode : LINK  
 Memo : 5.8G(8dBi)

Poi/Phase : NEUTRAL  
 Temperature : 25 °C  
 Humidity : 58 %



Freq	Read Level	Factor	Level	Limit	Over Limit	Remark
MHz	dBuV	dB	dBuV	dBuV	dBuV	
0.282	48.12	0.35	48.47	50.76	-2.29	AVERAGE
0.282	51.31	0.35	51.66	60.76	-9.10	QP
0.396	46.75	0.50	47.25	47.95	-0.70	AVERAGE
0.396	52.97	0.50	53.47	57.95	-4.48	QP
0.454	55.19	0.49	55.68	56.80	-1.12	QP
0.454	45.80	0.49	46.29	46.80	-0.51	AVERAGE
0.510	54.31	0.47	54.78	56.00	-1.22	QP
0.510	45.10	0.47	45.57	46.00	-0.43	AVERAGE
0.564	51.85	0.46	52.31	56.00	-3.69	QP
0.564	43.98	0.46	44.44	46.00	-1.56	AVERAGE
0.621	42.87	0.45	43.32	46.00	-2.68	AVERAGE
0.621	50.96	0.45	51.41	56.00	-4.59	QP
0.679	50.12	0.44	50.56	56.00	-5.44	QP
0.679	42.75	0.44	43.19	46.00	-2.81	AVERAGE
0.731	49.36	0.43	49.79	56.00	-6.21	QP
0.731	42.21	0.43	42.64	46.00	-3.36	AVERAGE
0.792	48.95	0.43	49.38	56.00	-6.62	QP
0.792	41.95	0.43	42.38	46.00	-3.62	AVERAGE
0.848	47.91	0.42	48.33	56.00	-7.67	QP
0.848	41.12	0.42	41.54	46.00	-4.46	AVERAGE
0.904	46.51	0.41	46.92	56.00	-9.08	QP
0.904	40.31	0.41	40.72	46.00	-5.28	AVERAGE
0.963	44.50	0.40	44.90	56.00	-11.10	QP
0.963	36.80	0.40	37.20	46.00	-8.80	AVERAGE
1.418	45.36	0.45	45.81	56.00	-10.19	QP
1.418	35.78	0.45	36.23	46.00	-9.77	AVERAGE
1.472	46.12	0.46	46.58	56.00	-9.42	QP
1.472	36.34	0.46	36.80	46.00	-9.20	AVERAGE
1.527	45.98	0.46	46.44	56.00	-9.56	QP
1.527	35.87	0.46	36.33	46.00	-9.67	AVERAGE
1.585	44.87	0.47	45.34	56.00	-10.66	QP
1.585	34.12	0.47	34.59	46.00	-11.41	AVERAGE
1.762	43.89	0.48	44.37	56.00	-11.63	QP
1.762	34.71	0.48	35.19	46.00	-10.81	AVERAGE

Remarks: 1. Level = Read Level + Factor  
 2. Factor = LISN(ISN) Factor + Cable Loss