

FCC TEST REPORT

for

47 CFR Part 15 Subpart C

Equipment : TeamPad7500W

Model No. : FHTLA681

FCC ID : IXM-TP7500W

Filing Type : Certification

Applicant : Universal Scientific Industrial Co., Ltd.
135,Lane 351,Taiping Road,Sec.1,Tsao
Tuen,Nan -Tou,Taiwan

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SPORTON International Inc.

6F, No.106, Sec. 1, Hsin Tai Wu Rd., Hsi Chih, Taipei Hsien, Taiwan, R.O.C.

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History of this test report

Original Report Issue Date: July 01, 2004

☒ No additional attachment.

☐ Additional attachment were issued as following record:

Attachment No.	Issue Date	Description

CERTIFICATE OF COMPLIANCE
for
47 CFR Part 15 Subpart C

Equipment : TeamPad7500W

Model No. : FHTLA681

FCC ID : IXM-TP7500W

Filing Type : Certification

Applicant : Universal Scientific Industrial Co.,Ltd
135,Lane 351,Taiping Road,Sec.1,Tsao
Tuen,Nan-Tou,Taiwan

I HEREBY CERTIFY THAT :

The measurements shown in this test report were made in accordance with the procedures given in **ANSI C63.4 - 2001** and the equipment under test was **passed** all test items required in FCC Part 15 subpart C, relative to the equipment under test. Testing was carried out on July 01, 2004 at **SPORTON International Inc. LAB.**



Daniel Lee

Manager

SPORTON International Inc.

6F, No.106, Sec. 1, Hsin Tai Wu Rd., Hsi Chih, Taipei Hsien, Taiwan, R.O.C.

1. General Description of Equipment under Test

1.1. Applicant

Universal Scientific Industrial Co., Ltd.
135,Lane 351,Taiping Road, Sec.1,Tsao Tuen,Nan-Tou, Taiwan

1.2 Manufacturer

Same as 1.1

1.3 Basic Description of Equipment under Test

Equipment	: TeamPad7500W
Trade Name	: FUJITSU LIMITED
Model No.	: FHTLA681
FCC ID	: IXM-TP7500W
Power Supply Type	: Switching
AC Power Cord	: AC 100~240V, Non-shielded, 1meter,2pin
DC Power Cable	: DC 16V, Non-shielded, 1.8 meter, 2 pin

1.4 Feature of Equipment under Test

Product Feature & Specification					
1.	Host/Radio Interface	Mini-PCI			
2.	Type of Modulation	11g: OFDM(BPSK,QPSK,16QAM,64QAM) 11b: CCK, DQPSK, DBPSK			
3.	Number of Channels	USA/Canada: 11	V	European: 13	X
		Japan: 13,14.	X	Other:	
4.	Frequency Band	11b/g: 2.400GHz ~ 2.4835GHz			
5.	Carrier Frequency of each channel	2412+5*(N-1)MHz; N=1~13			
6.	Channel Spacing	5MHz			
7.	Maximum Output Power to Antenna	11b: 15dBm, 11g: 15dBm			
8.	Type of Antenna Connector	I-PEX			
9.	Antenna Type / Gain	PCB Antenna / 1.5dBi			
10.	Function Type	Transmitter		Transceiver	V
11.	Power Rating (DC/AC , Voltage)	DC 3.3V±0.3V			
12.	Temperature Range (Operating)	-20°C ~ 70°C			

2 Test Configuration of Equipment under Test

2.1 Test Manner

- a. The EUT has been associated with peripherals pursuant to ANSI C63.4-2001 and configuration operated in a manner tended to maximize its emission characteristics in a typical application.
- b. The complete test system included LOGITECH USB Mouse, EPSON Printer, ACEEX Modem, and EUT as local workstation and IBM Notebook, BTC PS2 Keyboard as remote workstation for EMI test.
- c. The EUT can operate on eleven channels from 2412MHz to 2462MHz. (as listed in section 1.4).
- d. The following test modes were tested for conduction test:
 - Mode 1:Link mode
- e. The following test modes were pretested for radiation test:
 - Mode 1:802.11b TX CH01(6Mbps)
 - Mode 2:802.11b TX CH06(6Mbps)
 - Mode 3:802.11b TX CH11(6Mbps)
 - Mode 4:802.11g TX CH01(11Mbps)
 - Mode 5:802.11g TX CH06(11Mbps)
 - Mode 6:802.11g TX CH11(11Mbps)
- f. Frequency range investigated: conduction 150 kHz to 30 MHz, radiation 30 MHz to 25000MHz.

2.2 Description of Test System

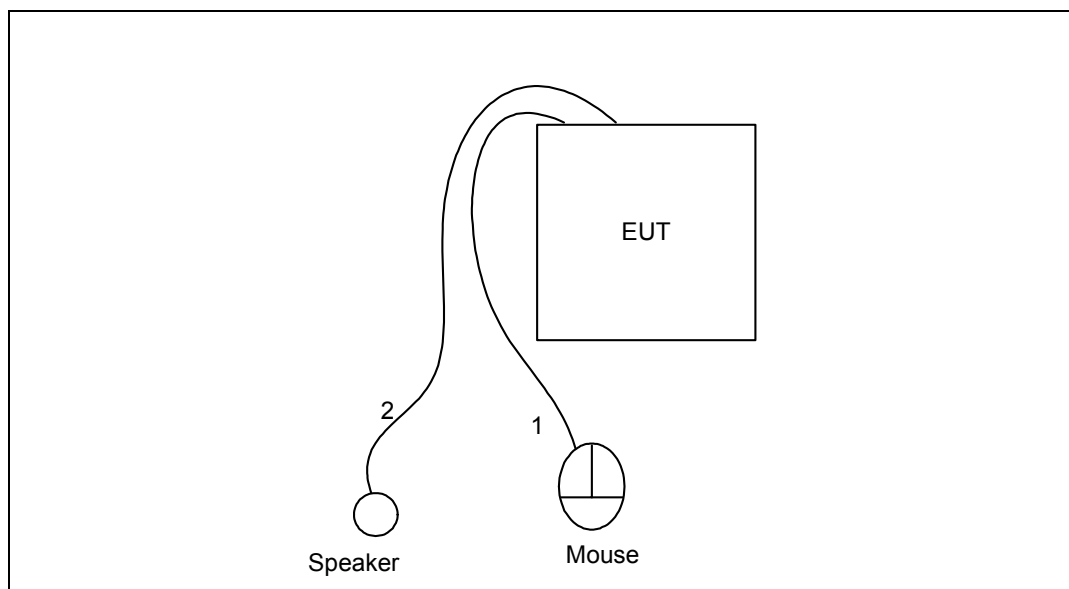
Support Unit 1. -(USB) Mouse(LOGITECH) -local workstation and remote workstation

FCC ID	: N/A
Model No.	: M-BE58
Power Cord	: Shielded1.7m
Serial No.	: SP0039
Remark	: This support device was tested to comply with FCC standards and authorized under a declaration of conformity.

Support Unit 2. -Speaker (KOKA) -local workstation

FCC ID	: N/A
Model No.	: HD-305
Serial No.	: SP0050
Data Cable	: Non-Shielded, 1.2m
Remark	: This support device was tested to comply with FCC standards and authorized under a declaration of conformity.

2.3 Connection Diagram of Test System



1. The I/O cable is connected from EUT to the support unit 1.
2. The I/O cable is connected from EUT to the support unit 2.

3 Operation of Equipment under Test

An executive program, EMCTEST.EXE on EUT continuously generating a complete line of "H" pattern, was used as the test software.

The program was executed as follows:

- a. Turn on the power of all equipment.
- b. The PC reads the test program from the hard disk drive and runs it.
- c. The PC sends "H" messages to the monitor, and the monitor displays "H" patterns on the screen.
- d. The PC sends "H" messages to the printer, then the printer prints them on the paper.
- e. The PC sends "H" messages to the internal hard disk , and the hard disk reads and writes the message.
- f. Repeat the steps from c to e.

At the same time, the following program was executed:

"Interest continuous transmit Receive zillion" sends continuous Tx.

4 General Information of Test

Test Site Location : No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park,
Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.
TEL : 886-3-327-3456
FAX : 886-3-318-0055
Test Site No : CO01-HY, 03CH03-HY

4.1 Test Voltage

110V/ 60Hz

4.2 Standard for Methods of Measurement

ANSI C63.4-2001

4.3 Test in Compliance with

47 CFR Part 15 Subpart C

4.4 Frequency Range Investigated

- a. Conduction: from 150 kHz to 30 MHz
- b. Radiation: from 30 MHz to 25000 MHz

4.5 Test Distance

The test distance of radiated emission from antenna to EUT is 3 m.

5 Report of Measurements and Examinations

5.1 List of Measurements and Examinations

FCC Rule	Description of Test	Result
15.207	Conducted Emission	Pass
15.247(a)(2)	6dB Bandwidth	Pass
15.247(b)	Maximum Peak Output Power	Pass
15.209(a)	Radiated Emission	Pass
15.247 (c)	100kHz Bandwidth of Frequency Band Edges	Pass
15.247(d)	Power Spectral Density	Pass
15.203 15.247(B)(4)	Antenna Requirement	Pass

5.2 6dB Bandwidth

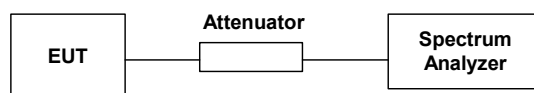
5.2.1 Measuring Instruments :

As described in chapter 7 of this test report.

5.2.2 Test Procedure :

1. The transmitter output was connected to the spectrum analyzer through an attenuator.
2. Set RBW of spectrum analyzer to 100kHz and VBW to 100kHz.
3. The 6 dB bandwidth is defined as the frequency range where the power is higher than the peak power minus 6dB.

5.2.3 Test Setup Layout :



5.2.4 Test Result :

- Mode 1~3 : WLAN 802.11b
- Temperature : 22°C
- Relative Humidity : 53%

Channel	Frequency (MHz)	6dB Emission bandwidth (MHz)	Limits (MHz)	Plot Ref. No.
01	2412	7.32 MHz	0.5	1
06	2437	7.32 MHz	0.5	2
11	2462	7.32 MHz	0.5	3

5.2.5 Test Result :

- Mode 4~6 : WLAN 802.11g
- Temperature : 22°C
- Relative Humidity : 53%

Channel	Frequency (MHz)	6dB Emission bandwidth (MHz)	Limits (MHz)	Plot Ref. No.
01	2412	16.4	0.5	4
06	2437	16.4	0.5	5
11	2462	16.4	0.5	6

5.3 Power Spectral Density

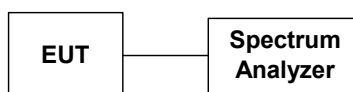
5.3.1 Measuring Instruments :

As described in chapter 7 of this test report.

5.3.2 Test Procedure :

1. The transmitter output was connected to spectrum analyzer directly.
2. The spectrum analyzer's resolution bandwidth was set at 3kHz RBW and 30kHz VBW as that of the fundamental frequency. Set the sweep time=span/3kHz.
3. The power spectral density was measured and recorded.
4. The sweep time is allowed to be longer than span/3kHz for a full response of the mixer in the spectrum analyzer.

5.3.3 Test Setup Layout :



5.3.4 Test Result :

- Mode 1~3: WLAN 802.11b
- Temperature : 22°C,
- Relative Humidity : 53%

Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Plot Ref. No.
01	2412	-8.13	8	7
06	2437	-7.58	8	8
11	2462	-7.14	8	9

5.3.5 Test Result :

- Mode 4~6: WLAN 802.11g
- Temperature : 22°C,
- Relative Humidity : 53%

Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Plot Ref. No.
01	2412	-19.88	8	10
06	2437	-19.54	8	11
11	2462	-19.22	8	12

5.4 Band Edges Measurement

5.4.1 Measuring Instruments :

As described in chapter 7 of this test report.

5.4.2 Test Procedure :

1. The transmitter output was connected to the spectrum analyzer via a low lose cable.
2. Set both RBW and VBW of spectrum analyzer to 100kHz with suitable frequency span including 100 kHz bandwidth from band edge.
3. The band edges was measured and recorded.

5.4.3 Test Result :

- Mode 1 and 3 : WLAN 802.11b
- Temperature : 22°C,
- Relative Humidity : 53%

- Test Result in lower band (Channel 1) : PASS
- Test Result in higher band (Channel 11) : PASS

5.4.4 Test Result :

- Mode 4 and 6 : WLAN 802.11g
- Temperature : 22°C
- Relative Humidity : 53%

- Test Result in lower band (Channel 1) : PASS
- Test Result in higher band (Channel 11) : PASS

Remark: The data above can refer to radiated emission in section 1.3 of Test Plot.

5.5 Peak Output Power

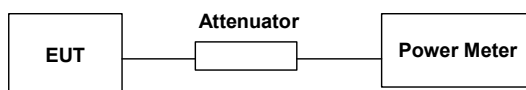
5.5.1 Measuring Instruments :

As described in chapter 7 of this test report.

5.5.2 Test Procedure :

The antenna port (RF output) of the EUT was connected to the input (RF input) of a power meter.
The power is equal to the reading level on power meter plus cable loss at the EUT antenna terminal.

5.5.3 Test Setup Layout :



5.5.4 Test Result :

- Mode 1~3 : WLAN 802.11b
- Temperature : 22°C
- Relative Humidity : 53 %
- Antenna Gain: 1.5 dBi

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
01	2412	14.8	1W/30 dBm
06	2437	15.0	1W/30 dBm
11	2462	14.8	1W/30 dBm

5.5.5 Test Result :

- Mode 4~6 : WLAN 802.11g
- Temperature : 22°C
- Relative Humidity : 53 %
- Antenna Gain: 1.5 dBi

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
01	2412	14.8	1W/30 dBm
06	2437	14.9	1W/30 dBm
11	2462	14.7	1W/30 dBm

6. Test of Conducted Emission

Conducted emissions were measured from 150 kHz to 30 MHz with a bandwidth of 9 kHz and return leads of the EUT according to the methods defined in ANSI C63.4-2001 Section 3.1. The EUT was placed on a nonmetallic stand in a shielded room 0.8 meters above the ground plane. The interface cables and equipment positioning were varied within limits of reasonable applications to determine the position produced maximum conducted emissions.

6.1. Major Measuring Instruments :

● Test Receiver	(R&S ESCS 30)
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

6.2. Test Procedures :

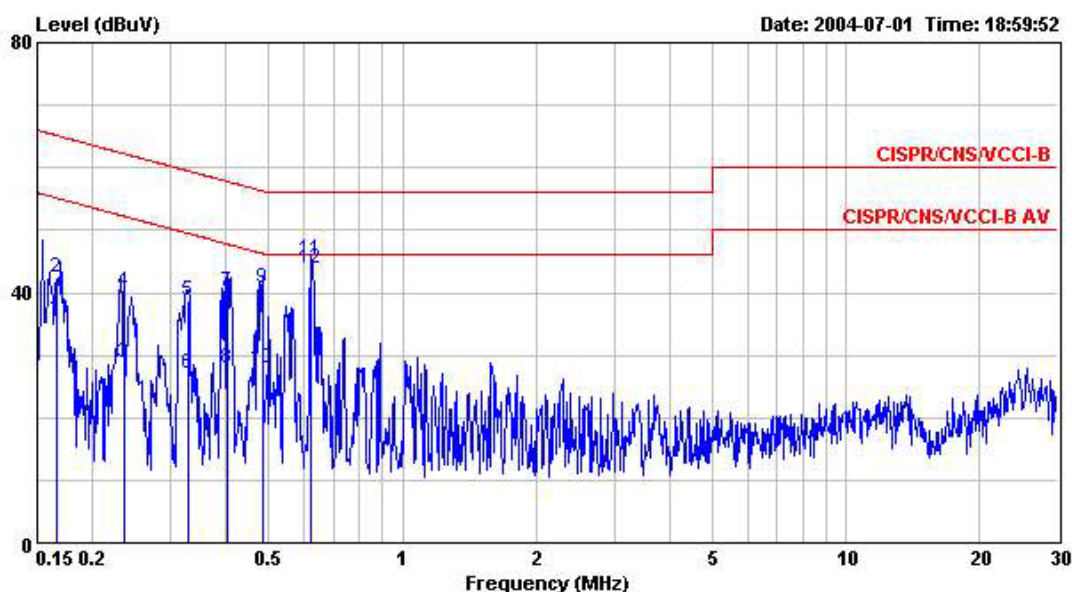
- a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- b. Connect EUT to the power port of the line impedance stabilization network (LISN).
- c. All the support units are connect to the other LISN.
- d. The LISN provides 50 ohm coupling impedance for the measuring instrument.
- e. The FCC states that a 50 ohm, 50 microhenry 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.

6.3. Test Result of Conducted Emission :

6.3.1 Frequency Range of Test : 150kHz to 30 MHz

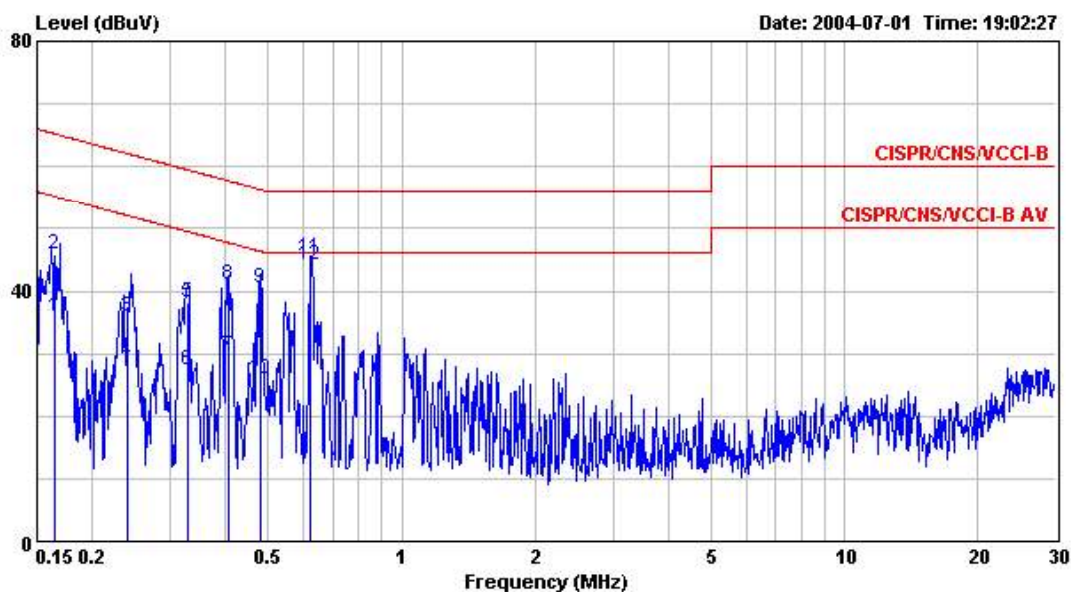
- Test Mode : Mode 1
- Temperature : 21°C
- Relative Humidity : 54 %

■ The test that passed at minimum margin was marked by the frame in the following table.



Site : CO04-HY
 Condition : CISPR/CNS/VCCI-B 2004 2001/004 LINE
 EUT : TeamPed7500w
 POWER: AC 110V/60Hz
 MODEL : FHT68XXXX
 MEMO : Link mode

	Freq	Level	Over	Limit	Read	LISN	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1667900	35.82	-19.30	55.12	35.71	0.10	0.01	Average
2	0.1667900	42.40	-22.72	65.12	42.29	0.10	0.01	QP
3	0.2353310	28.64	-23.62	52.26	28.53	0.10	0.01	Average
4	0.2353310	40.12	-22.14	62.26	40.01	0.10	0.01	QP
5	0.3285820	38.79	-20.70	59.49	38.67	0.10	0.02	QP
6	0.3285820	27.13	-22.36	49.49	27.01	0.10	0.02	Average
7	0.4018680	40.15	-17.66	57.81	40.03	0.10	0.02	QP
8	0.4018680	27.79	-20.02	47.81	27.67	0.10	0.02	Average
9	0.4837480	40.77	-15.50	56.27	40.65	0.10	0.02	QP
10	0.4837480	27.86	-18.41	46.27	27.74	0.10	0.02	Average
11	0.6238330	45.24	-10.76	56.00	45.11	0.10	0.03	QP
12	0.6238330	43.96	-2.04	46.00	43.83	0.10	0.03	Average



Site : CO04-HY
 Condition : CISPR/CNS/VCCI-B 2004 2001/004 NEUTRAL
 EUT : TeamPed7500w
 POWER: AC 110V/60Hz
 MODEL : FHT68XXXX
 MEMO : Link mode

	Freq	Level	Over	Limit	Read	LISN	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1647240	35.93	-19.29	55.22	35.82	0.10	0.01	Average
2	0.1647240	45.82	-19.40	65.22	45.71	0.10	0.01	QP
3	0.2399030	35.95	-26.15	62.10	35.84	0.10	0.01	QP
4	0.2399030	28.80	-23.30	52.10	28.69	0.10	0.01	Average
5	0.3285820	38.12	-21.37	59.49	38.00	0.10	0.02	QP
6	0.3285820	27.24	-22.25	49.49	27.12	0.10	0.02	Average
7	0.4083060	29.48	-18.20	47.68	29.36	0.10	0.02	Average
8	0.4083060	40.86	-16.82	57.68	40.74	0.10	0.02	QP
9	0.4811910	40.51	-15.81	56.32	40.39	0.10	0.02	QP
10	0.4811910	25.95	-20.37	46.32	25.83	0.10	0.02	Average
11	0.6238330	45.38	-10.62	56.00	45.25	0.10	0.03	QP
12	0.6238330	44.08	-1.92	46.00	43.95	0.10	0.03	Average

Test Engineer : Jones Tsai
 Jones Tsai

7. Test of Radiated Emission

Radiated emissions from 30 MHz to 25 GHz were measured according to the methods defined in ANSI C63.4-2001. The EUT was placed, 0.8 meter above the ground plane, as shown in section 5.6.3. The interface cables and equipment positions were varied within limits of reasonable applications to determine the positions producing maximum radiated emissions

7.1. Major Measuring Instruments

- Amplifier (MITEQ AFS44)
 - RF Gain 40 dB
 - Signal Input 100 MHz to 26.5 GHz

- Amplifier (HP8447D)
 - RF Gain 30 dB
 - Signal Input 100 MHz to 1.3 GHz

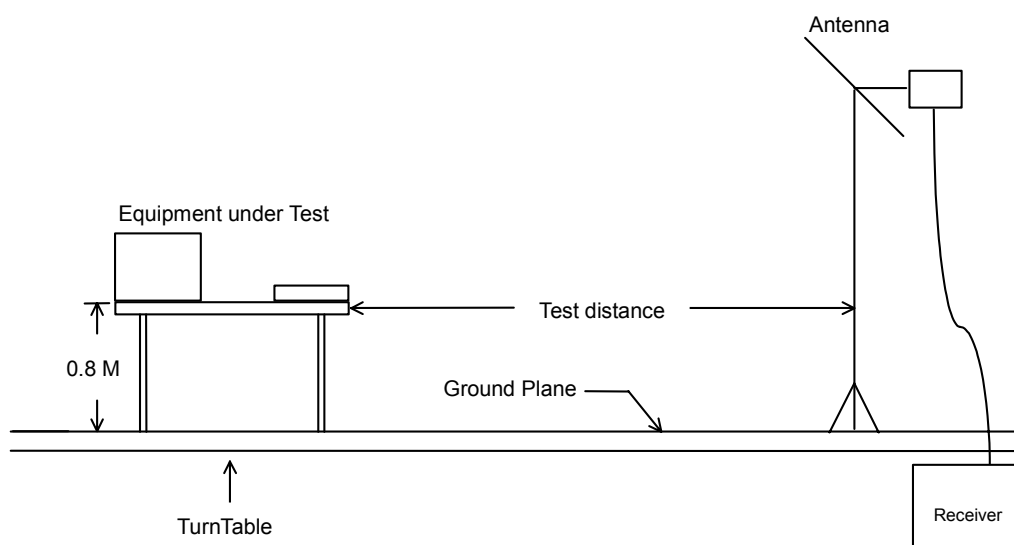
- Spectrum analyzer (R&S FSP40)
 - Attenuation 10 dB
 - Start Frequency 1 GHz
 - Stop Frequency 25 GHz
 - Resolution Bandwidth 1 MHz
 - Video Bandwidth 1 MHz
 - Signal Input 9 kHz to 40 GHz

- Spectrum analyzer (R&S FSP40)
 - Attenuation 10 dB
 - Start Frequency 30MHz
 - Stop Frequency 1 GHz
 - Resolution Bandwidth 120 KHz
 - Video Bandwidth 300KHz
 - Signal Input 9 kHz to 40 GHz

7.2. Test Procedures

1. The EUT was placed on a rotatable table top 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna is a broadband antenna and its height is varied between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
5. For each suspected emission, the EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
6. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
7. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the quasi-peak method and reported.
8. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

7.3. Typical Test Setup Layout of Radiated Emission



7.4. Test Result of Radiated Emission

7.4.1 Test Mode: Mode 1

- Test Distance : 3 m
- Temperature : 22.5°C
- Relative Humidity :56 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading : Probe Factor + Cable Loss + Read Level - Preamp Factor = Level

■ The test that passed at minimum margin was marked by the frame in the following table.

Site : 03CH03-HY
 Condition : FCC CLASS-B 3m HORN-ANT-6741 VERTICAL
 EUT : TeamPed7500w
 Power : 110 V /60Hz
 Memo : FHT68XXXX/MiniPCI 11b Ch01 2412MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1 !	2390.000	72.72	-1.28	74.00	73.79	28.20	6.97	36.24	Peak	---	---
2 !	2390.000	50.35	-3.65	54.00	51.42	28.20	6.97	36.24	Average	---	---
3 X	2414.000	103.88	49.88	54.00	104.86	28.25	7.00	36.23	Average	112	295
4 X	2414.000	112.67	38.67	74.00	113.65	28.25	7.00	36.23	Peak	---	---
5	2483.500	63.28	-10.72	74.00	63.95	28.39	7.16	36.22	Peak	---	---
6 !	2483.500	51.81	-2.19	54.00	52.48	28.39	7.16	36.22	Average	---	---

Site : 03CH03-HY
 Condition : FCC CLASS-B 3m HORN-ANT-6741 VERTICAL
 EUT : TeamPed7500w
 Power : 110 V /60Hz
 Memo : FHT68XXXX/MiniPCI 11b Ch01 2412MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	4824.000	36.26	-17.74	54.00	29.23	33.07	10.16	36.20	Average	112	295
2	4824.000	56.10	-17.90	74.00	49.07	33.07	10.16	36.20	Peak	---	---

FCC TEST REPORT

Report No. : F411614-01-A

Site : 03CH03-HY
Condition : FCC CLASS-B 3m HORN-ANT-6741 VERTICAL
EUT : TeamPed7500w
Power : 110 V /60Hz
Memo : FHT68XXXX/MiniPCI 11b Ch01 2412MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	7236.000	38.18	-15.82	54.00	25.56	35.89	13.20	36.47	Average	112	295
2	7236.000	62.94	-11.06	74.00	50.32	35.89	13.20	36.47	Peak	---	---

Site : 03CH03-HY
Condition : FCC CLASS-B 3m HORN-ANT-6741 HORIZONTAL
EUT : TeamPed7500w
Power : 110 V /60Hz
Memo : FHT68XXXX/MiniPCI 11b Ch01 2412MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2390.000	62.36	-11.64	74.00	63.43	28.20	6.97	36.24	Peak	---	---
2	2390.000	43.25	-10.75	54.00	44.32	28.20	6.97	36.24	Average	---	---
3 X	2412.000	106.50	32.50	74.00	107.49	28.24	7.00	36.23	Peak	112	295
4 X	2412.000	98.54	44.54	54.00	99.53	28.24	7.00	36.23	Average	112	295
5	2483.500	56.93	-17.07	74.00	57.60	28.39	7.16	36.22	Peak	---	---
6	2483.500	44.45	-9.55	54.00	45.12	28.39	7.16	36.22	Average	---	---

Site : 03CH03-HY
Condition : FCC CLASS-B 3m HORN-ANT-6741 HORIZONTAL
EUT : TeamPed7500w
Power : 110 V /60Hz
Memo : FHT68XXXX/MiniPCI 11b Ch01 2412MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	4824.000	56.11	-17.89	74.00	50.18	33.07	9.06	36.20	Peak	---	---
2	4824.000	44.99	-9.01	54.00	39.06	33.07	9.06	36.20	Average	112	295

FCC TEST REPORT

Report No. : F411614-01-A

Site : 03CH03-HY
Condition : FCC CLASS-B 3m HORN-ANT-6741 HORIZONTAL
EUT : TeamPed7500w
Power : 110 V /60Hz
Memo : FHT68XXXX/MiniPCI 11b Ch01 2412MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	7236.000	62.84	-11.16	74.00	51.07	35.89	12.35	36.47	Peak	---	---
2	7236.000	50.28	-3.72	54.00	38.51	35.89	12.35	36.47	Average	112	295

For 7.236GHz ~ 25GHz

Frequency from 7236MHz to 25000MHz, the emission emitted by the EUT is too low to be measured

FCC TEST REPORT

Report No. : F411614-01-A

■ Field strength of fundamental and harmonics

Frequency	Antenna	Cable	Reading	Limits	Emission	Level	Margin	Detect
Polarity	Factor	Loss						
(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(uV/m)	(dB)	Mode
2414.000	V	28.25	7.00	77.42	-	112.67	430031.23	- Peak
2414.000	V	28.25	7.00	68.63	-	103.88	156314.76	- AV
2412.000	H	28.24	7.00	71.26	-	106.50	211348.90	- Peak
2412.000	H	28.24	7.00	63.30	-	98.54	84527.88	- AV
4824.000	V	33.07	10.16	12.87	74.00	56.10	638.26	-17.90 Peak
4824.000	V	33.07	10.16	-6.97	54.00	36.26	65.01	-17.74 AV
7236.000	V	35.89	13.20	13.85	74.00	62.94	1402.81	-11.06 Peak
7236.000	V	35.89	13.20	-10.91	54.00	38.18	81.10	-15.82 AV
4824.000	H	33.07	9.06	13.98	74.00	56.11	639.00	-17.89 Peak
4824.000	H	33.07	9.06	2.86	54.00	44.99	177.62	-9.01 AV
7236.000	H	35.89	12.35	-15.40	74.00	32.84	43.85	-41.16 Peak
7236.000	H	35.89	12.35	2.04	54.00	50.28	326.59	-3.72 AV
9648.000	V/H	-	-	-	-	-	-	- AV/Peak
12060.000	V/H	-	-	-	-	-	-	- AV/Peak
14472.000	V/H	-	-	-	-	-	-	- AV/Peak
16884.000	V/H	-	-	-	-	-	-	- AV/Peak
19296.000	V/H	-	-	-	-	-	-	- AV/Peak
21708.000	V/H	-	-	-	-	-	-	- AV/Peak
24120.000	V/H	-	-	-	-	-	-	- AV/Peak

Remark:

1. The emission emitted by the EUT is too low to be measured except the emission listed above,
2. Reading = Reading on SA-Preamp Factor

Test Engineer :

Jones Tsai

Jones Tsai

SPORTON International Inc.

TEL : 886-2-2696-2468

FAX : 886-2-2696-2255

FCC ID : IXM-PT7500W

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Issued Date : July 01, 2004

7.4.2 Test Mode: Mode 2

- Test Distance : 3 m
- Temperature : 22.5°C
- Relative Humidity :56 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading : Probe Factor + Cable Loss + Read Level - Preamp Factor = Level

■ The test that passed at minimum margin was marked by the frame in the following table.

Site : 03CH03-HY
 Condition : FCC CLASS-B 3m HORN-ANT-6741 VERTICAL
 EUT : TeamPed7500w
 Power : 110 V /60Hz
 Memo : FHT68XXXX/MiniPCI 11b Ch06 2437MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2390.000	56.10	-17.90	74.00	57.17	28.20	6.97	36.24	Peak	---	---
2	2390.000	43.80	-10.20	54.00	44.87	28.20	6.97	36.24	Average	---	---
3 X	2438.000	105.96	51.96	54.00	106.86	28.30	7.03	36.23	Average	112	295
4 X	2438.000	114.83	40.83	74.00	115.73	28.30	7.03	36.23	Peak	---	---
5	2483.500	56.83	-17.17	74.00	57.50	28.39	7.16	36.22	Peak	---	---
6	2483.500	44.97	-9.03	54.00	45.64	28.39	7.16	36.22	Average	---	---

Site : 03CH03-HY
 Condition : FCC CLASS-B 3m HORN-ANT-6741 VERTICAL
 EUT : TeamPed7500w
 Power : 110 V /60Hz
 Memo : FHT68XXXX/MiniPCI 11b Ch06 2437MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	4874.000	65.35	-8.65	74.00	59.29	33.17	9.09	36.20	Peak	---	---
2	4874.000	44.56	-9.44	54.00	38.50	33.17	9.09	36.20	Average	112	259

FCC TEST REPORT

Report No. : F411614-01-A

Site : 03CH03-HY
Condition : FCC CLASS-B 3m HORN-ANT-6741 VERTICAL
EUT : TeamPed7500w
Power : 110 V /60Hz
Memo : FHT68XXXX/MiniPCI 11b Ch06 2437MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	7311.000	61.78	-12.22	74.00	49.80	36.07	12.41	36.50	Peak	---	---
2	7311.000	50.58	-3.42	54.00	38.60	36.07	12.41	36.50	Average	112	295

Site : 03CH03-HY
Condition : FCC CLASS-B 3m HORN-ANT-6741 HORIZONTAL
EUT : TeamPed7500w
Power : 110 V /60Hz
Memo : FHT68XXXX/MiniPCI 11b Ch06 2437MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2390.000	55.61	-18.39	74.00	56.68	28.20	6.97	36.24	Peak	---	---
2	2390.000	43.68	-10.32	54.00	44.75	28.20	6.97	36.24	Average	---	---
3	2438.000	98.13	44.13	54.00	99.03	28.30	7.03	36.23	Average	112	259
4	2438.000	106.86	32.86	74.00	107.76	28.30	7.03	36.23	Peak	---	---
5	2483.500	56.25	-17.75	74.00	56.92	28.39	7.16	36.22	Peak	---	---
6	2483.500	45.11	-8.89	54.00	45.78	28.39	7.16	36.22	Average	---	---

Site : 03CH03-HY
Condition : FCC CLASS-B 3m HORN-ANT-6741 HORIZONTAL
EUT : TeamPed7500w
Power : 110 V /60Hz
Memo : FHT68XXXX/MiniPCI 11b Ch06 2437MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	4874.000	55.92	-18.08	74.00	49.86	33.17	9.09	36.20	Peak	---	---
2	4874.000	44.56	-9.44	54.00	38.50	33.17	9.09	36.20	Average	112	295

FCC TEST REPORT

Report No. : F411614-01-A

Site : 03CH03-HY
Condition : FCC CLASS-B 3m HORN-ANT-6741 HORIZONTAL
EUT : TeamPed7500w
Power : 110 V /60Hz
Memo : FHT68XXXX/MiniPCI 11b Ch06 2437MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	7311.000	62.44	-11.56	74.00	50.46	36.07	12.41	36.50	Peak	---	---
2	7311.000	50.09	-3.91	54.00	38.11	36.07	12.41	36.50	Average	112	295

For 7.311GHz ~ 25GHz

Frequency from 7311MHz to 25000MHz, the emission emitted by the EUT is too low to be measured

FCC TEST REPORT

Report No. : F411614-01-A

■ Field strength of fundamental and harmonics

Frequency	Antenna	Cable	Reading	Limits	Emission	Level	Margin	Detect
Polarity	Factor	Loss						
(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(uV/m)	(dB)	Mode
2438.000	V	28.30	7.03	79.50	-	114.83	551442.20	- Peak
2438.000	V	28.30	7.03	70.63	-	105.96	198609.49	- AV
2438.000	H	28.30	7.03	71.53	-	106.86	220292.65	- Peak
2438.000	H	28.30	7.03	62.80	-	98.13	80630.62	- AV
4874.000	V	33.17	9.09	23.09	74.00	65.35	1851.40	-8.65 Peak
4874.000	V	33.17	9.09	2.30	54.00	44.56	169.04	-9.44 AV
7311.000	V	36.07	12.41	13.30	74.00	61.78	1227.44	-12.22 Peak
7311.000	V	36.07	12.41	2.10	54.00	50.58	338.06	-3.42 AV
4874.000	H	33.17	9.09	13.66	74.00	55.92	625.17	-18.08 Peak
4874.000	H	33.17	9.09	2.30	54.00	44.56	169.04	-9.44 AV
7311.000	H	36.07	12.41	13.96	74.00	62.44	1324.34	-11.56 Peak
7311.000	H	36.07	12.41	1.61	54.00	50.09	319.52	-3.91 AV
9648.000	V/H	-	-	-	-	-	-	- AV/Peak
12060.000	V/H	-	-	-	-	-	-	- AV/Peak
14472.000	V/H	-	-	-	-	-	-	- AV/Peak
16884.000	V/H	-	-	-	-	-	-	- AV/Peak
19296.000	V/H	-	-	-	-	-	-	- AV/Peak
21708.000	V/H	-	-	-	-	-	-	- AV/Peak
24120.000	V/H	-	-	-	-	-	-	- AV/Peak

Remark:

1. The emission emitted by the EUT is too low to be measured except the emission listed above,
2. Reading = Reading on SA-Preamp Factor

Test Engineer :



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FCC ID : IXM-PT7500W

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Issued Date : July 01, 2004

7.4.3 Test Mode: Mode 3

- Test Distance : 3 m
- Temperature : 22.5°C
- Relative Humidity :56 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading : Probe Factor + Cable Loss + Read Level - Preamp Factor = Level

■ The test that passed at minimum margin was marked by the frame in the following table.

Site : 03CH03-HY
 Condition : FCC CLASS-B 3m BIC-9124--301 HORIZONTAL
 EUT : TeamPed7500w
 Power : AC 110V / 60Hz
 Model : FHT68XXXX
 Memo : 11b TX CH11 2462MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	54.990	32.08	-7.92	40.00	48.60	10.21	1.26	27.99	Peak	---	---
2	110.750	26.61	-16.89	43.50	42.17	10.45	1.87	27.88	Peak	---	---
3	143.390	26.26	-17.24	43.50	40.00	11.96	2.11	27.81	Peak	---	---

Site : 03CH03-HY
 Condition : FCC CLASS-B 3m LOG-9111-221 HORIZONTAL
 EUT : TeamPed7500w
 Power : AC 110V / 60Hz
 Model : FHT68XXXX
 Memo : 11b TX CH11 2462MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	361.600	32.55	-13.45	46.00	41.57	15.24	3.35	27.61	Peak	---	---
2	428.800	33.37	-12.63	46.00	41.61	16.21	3.61	28.06	Peak	---	---
3	592.800	32.31	-13.69	46.00	37.95	18.82	4.33	28.79	Peak	---	---

FCC TEST REPORT

Report No. : F411614-01-A

Site : 03CH03-HY
Condition : FCC CLASS-B 3m BIC-9124--301 VERTICAL
EUT : TeamPed7500w
Power : AC 110V / 60Hz
Model : FHT68XXXX
Memo : 11b TX CH11 2462MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	34.590	32.27	-7.73	40.00	46.16	13.14	1.01	28.04	Peak	---	---
2	54.990	34.59	-5.41	40.00	51.11	10.21	1.26	27.99	Peak	---	---
3	137.270	30.54	-12.96	43.50	44.71	11.64	2.01	27.82	Peak	---	---

Site : 03CH03-HY
Condition : FCC CLASS-B 3m LOG-9111-221 VERTICAL
EUT : TeamPed7500w
Power : AC 110V / 60Hz
Model : FHT68XXXX
Memo : 11b TX CH11 2462MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	496.800	42.06	-3.94	46.00	49.54	17.31	3.87	28.66	Peak	100	351
2	592.800	33.79	-12.21	46.00	39.43	18.82	4.33	28.79	Peak	---	---
3	996.000	35.66	-18.34	54.00	35.98	22.20	5.68	28.20	Peak	---	---

Site : 03CH03-HY
Condition : FCC CLASS-B 3m HORN-ANT-6741 VERTICAL
EUT : TeamPed7500w
Power : 110 V /60Hz
Memo : FHT68XXXX/MiniPCI 11b Ch11 2462MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2390.000	56.02	-17.98	74.00	57.09	28.20	6.97	36.24	Peak	---	---
2	2390.000	42.61	-11.39	54.00	43.68	28.20	6.97	36.24	Average	---	---
3	X 2462.000	103.78	49.78	54.00	104.59	28.35	7.06	36.22	Average	112	257
4	X 2462.000	112.37	38.37	74.00	113.18	28.35	7.06	36.22	Peak	---	---
5	2483.500	66.19	-7.81	74.00	66.86	28.39	7.16	36.22	Peak	---	---
6	2483.500	47.12	-6.88	54.00	47.79	28.39	7.16	36.22	Average	---	---

FCC TEST REPORT

Report No. : F411614-01-A

Site : 03CH03-HY
Condition : FCC CLASS-B 3m HORN-ANT-6741 VERTICAL
EUT : TeamPed7500w
Power : 110 V /60Hz
Memo : FHT68XXXX/MiniPCI 11b Ch11 2462MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	4924.000	55.36	-18.64	74.00	49.16	33.27	9.12	36.19	Peak	---	---
2	4924.000	44.90	-9.10	54.00	38.70	33.27	9.12	36.19	Average	112	257

Site : 03CH03-HY
Condition : FCC CLASS-B 3m HORN-ANT-6741 VERTICAL
EUT : TeamPed7500w
Power : 110 V /60Hz
Memo : FHT68XXXX/MiniPCI 11b Ch11 2462MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	7311.000	61.36	-12.64	74.00	49.38	36.07	12.41	36.50	Peak	---	---
2	7311.000	50.32	-3.68	54.00	38.34	36.07	12.41	36.50	Average	112	257

Site : 03CH03-HY
Condition : FCC CLASS-B 3m HORN-ANT-6741 HORIZONTAL
EUT : TeamPed7500w
Power : 110 V /60Hz
Memo : FHT68XXXX/MiniPCI 11b Ch11 2462MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2390.000	56.38	-17.62	74.00	57.45	28.20	6.97	36.24	Peak	---	---
2	2390.000	44.87	-9.13	54.00	45.94	28.20	6.97	36.24	Average	---	---
3 X	2462.000	107.38	33.38	74.00	108.19	28.35	7.06	36.22	Peak	---	---
4 X	2462.000	95.68	41.68	54.00	96.49	28.35	7.06	36.22	Average	112	232
5	2483.500	61.01	-12.99	74.00	61.68	28.39	7.16	36.22	Peak	---	---
6	2483.500	44.92	-9.08	54.00	45.59	28.39	7.16	36.22	Average	---	---

FCC TEST REPORT

Report No. : F411614-01-A

Site : 03CH03-HY
Condition : FCC CLASS-B 3m HORN-ANT-6741 HORIZONTAL
EUT : TeamPed7500w
Power : 110 V /60Hz
Memo : FHT68XXXX/MiniPCI 11b Ch11 2462MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	4924.000	55.27	-18.73	74.00	49.07	33.27	9.12	36.19	Peak	---	---
2	4924.000	45.70	-8.30	54.00	39.50	33.27	9.12	36.19	Average	112	232

Site : 03CH03-HY
Condition : FCC CLASS-B 3m HORN-ANT-6741 HORIZONTAL
EUT : TeamPed7500w
Power : 110 V /60Hz
Memo : FHT68XXXX/MiniPCI 11b Ch11 2462MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	7386.000	62.42	-11.58	74.00	50.24	36.25	12.47	36.54	Peak	---	---
2	7386.000	49.68	-4.32	54.00	37.50	36.25	12.47	36.54	Average	112	232

For 7.386GHz ~ 25GHz

Frequency from 7386MHz to 25000MHz, the emission emitted by the EUT is too low to be measured

FCC TEST REPORT

Report No. : F411614-01-A

■ Field strength of fundamental and harmonics

Frequency	Antenna	Cable	Reading	Limits	Emission	Level	Margin	Detect
Polarity	Factor	Loss						
(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(uV/m)	(dB)	Mode
2462.000	V	28.35	7.06	76.96	-	112.37	415432.05	- Peak
2462.000	V	28.35	7.06	68.37	-	103.78	154525.44	- AV
2462.000	H	28.35	7.06	71.97	-	107.38	233883.72	- Peak
2462.000	H	28.35	7.06	60.27	-	95.68	60813.50	- AV
4924.000	V	33.27	9.12	12.97	74.00	55.36	586.14	-18.64 Peak
4924.000	V	33.27	9.12	2.51	54.00	44.90	175.79	-9.10 AV
7311.000	V	36.07	12.41	12.88	74.00	61.36	1169.50	-12.64 Peak
7311.000	V	36.07	12.41	1.84	54.00	50.32	328.10	-3.68 AV
4924.000	H	33.27	9.12	12.88	74.00	55.27	580.10	-18.73 Peak
4924.000	H	33.27	9.12	3.31	54.00	45.70	192.75	-8.30 AV
7386.000	H	36.07	12.41	13.94	74.00	62.42	1321.30	-11.58 Peak
7386.000	H	36.07	12.41	1.20	54.00	49.68	304.79	-4.32 AV
9648.000	V/H	-	-	-	-	-	-	- AV/Peak
12060.000	V/H	-	-	-	-	-	-	- AV/Peak
14472.000	V/H	-	-	-	-	-	-	- AV/Peak
16884.000	V/H	-	-	-	-	-	-	- AV/Peak
19296.000	V/H	-	-	-	-	-	-	- AV/Peak
21708.000	V/H	-	-	-	-	-	-	- AV/Peak
24120.000	V/H	-	-	-	-	-	-	- AV/Peak

Remark:

1. The emission emitted by the EUT is too low to be measured except the emission listed above,
2. Reading = Reading on SA-Preamp Factor

Test Engineer :



Jones Tsai

SPORTON International Inc.

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FCC ID : IXM-PT7500W

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Issued Date : July 01, 2004

7.4.4 Test Mode: Mode 4

- Test Distance : 3 m
- Temperature : 22.5°C
- Relative Humidity :56 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading : Probe Factor + Cable Loss + Read Level - Preamp Factor = Level

■ The test that passed at minimum margin was marked by the frame in the following table.

Site : 03CH03-HY
 Condition : FCC CLASS-B 3m HORN-ANT-6741 VERTICAL
 EUT : TeamPed7500w
 Power : 110 V /60Hz
 Memo : FHT68XXXX/MiniPCI 11g TX Ch01 2412MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	1830.000	45.70	-28.30	74.00	53.62	26.72	6.17	40.81	Peak	---	---
2	2390.000	70.04	-3.96	74.00	76.01	28.20	6.97	41.14	Peak	---	---
3	2390.000	47.07	-6.93	54.00	53.04	28.20	6.97	41.14	Average	---	---
4	2412.000	105.10	31.10	74.00	111.01	28.24	7.00	41.15	Peak	---	---
5	2412.000	97.85	43.85	54.00	103.76	28.24	7.00	41.15	Average	---	---
6	2483.500	60.84	-13.16	74.00	66.49	28.39	7.16	41.20	Peak	---	---
7	2483.500	47.72	-6.28	54.00	53.37	28.39	7.16	41.20	Average	---	---

Site : 03CH03-HY
 Condition : FCC CLASS-B 3m HORN-ANT-6741 HORIZONTAL
 EUT : TeamPed7500w
 Power : 110 V /60Hz
 Memo : FHT68XXXX/MiniPCI 11g TX Ch01 2412MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2390.000	65.60	-8.40	74.00	71.57	28.20	6.97	41.14	Peak	---	---
2	2390.000	47.48	-6.52	54.00	53.45	28.20	6.97	41.14	Average	---	---
3	2412.000	96.80	22.80	74.00	102.71	28.24	7.00	41.15	Peak	---	---
4	2412.000	88.73	34.73	54.00	94.64	28.24	7.00	41.15	Average	---	---
5	2483.500	63.93	-10.07	74.00	69.58	28.39	7.16	41.20	Peak	---	---
6	2483.500	48.47	-5.53	54.00	54.12	28.39	7.16	41.20	Average	---	---

FCC TEST REPORT

Report No. : F411614-01-A

Site : 03CH03-HY
Condition : FCC CLASS-B 3m HORN-ANT-6741 HORIZONTAL
EUT : TeamPed7500w
Power : 110 V /60Hz
Memo : FHT68XXXX/MiniPCI 11g Ch01 2412MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	3942.000	61.65	-12.35	74.00	61.37	32.48	9.28	41.48	Peak	112	152
2	3942.000	51.58	-2.42	54.00	51.30	32.48	9.28	41.48	Average	112	152

For 3.942GHz ~ 25GHz

Frequency from 3942MHz to 25000MHz, the emission emitted by the EUT is too low to be measured

■ Field strength of fundamental and harmonics

Frequency	Antenna	Cable	Reading	Limits	Emission	Level	Margin	Detect
Polarity	Factor	Loss						
(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(uV/m)	(dB)	Mode
2412.000	V	28.24	7.00	69.86	-	105.10	179887.09	- Peak
2412.000	V	28.24	7.00	62.61	-	97.85	78072.84	- AV
2412.000	H	28.24	7.00	61.56	-	96.80	69183.10	- Peak
2412.000	H	28.24	7.00	53.49	-	88.73	27321.21	- AV
3942.000	H	32.48	9.28	19.89	74.00	61.65	1209.21	-12.35 Peak
3942.000	H	32.48	9.28	9.82	54.00	51.58	379.31	-2.42 AV
4821.000	V/H	-	-	-	-	-	-	- AV/Peak
7236.000	V/H	-	-	-	-	-	-	- AV/Peak
9648.000	V/H	-	-	-	-	-	-	- AV/Peak
12060.000	V/H	-	-	-	-	-	-	- AV/Peak
14472.000	V/H	-	-	-	-	-	-	- AV/Peak
16884.000	V/H	-	-	-	-	-	-	- AV/Peak
19296.000	V/H	-	-	-	-	-	-	- AV/Peak
21708.000	V/H	-	-	-	-	-	-	- AV/Peak
24120.000	V/H	-	-	-	-	-	-	- AV/Peak

Remark:

1. The emission emitted by the EUT is too low to be measured except the emission listed above,
2. Reading = Reading on SA-Preamplifier Factor

Test Engineer : Jones Tsai
Jones Tsai

7.4.5 Test Mode: Mode 5

- Test Distance : 3 m
- Temperature : 22.5°C
- Relative Humidity :56 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading : Probe Factor + Cable Loss + Read Level - Preamp Factor = Level

■ The test that passed at minimum margin was marked by the frame in the following table.

Site : 03CH03-HY
 Condition : FCC CLASS-B 3m HORN-ANT-6741 VERTICAL
 EUT : TeamPed7500w
 Power : 110 V /60Hz
 Memo : FHT68XXXX/MiniPCI 11g TX Ch06 2437MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2390.000	65.79	-8.21	74.00	71.76	28.20	6.97	41.14	Peak	---	---
2	2390.000	47.40	-6.60	54.00	53.37	28.20	6.97	41.14	Average	---	---
3 X	2444.230	95.78	41.78	54.00	101.60	28.31	7.04	41.17	Average	---	---
4 X	2444.230	104.97	30.97	74.00	110.79	28.31	7.04	41.17	Peak	---	---
5	2483.500	67.81	-6.19	74.00	73.46	28.39	7.16	41.20	Peak	---	---
6 !	2483.500	48.81	-5.19	54.00	54.46	28.39	7.16	41.20	Average	---	---

Site : 03CH03-HY
 Condition : FCC CLASS-B 3m HORN-ANT-6741 VERTICAL
 EUT : TeamPed7500w
 Power : 110 V /60Hz
 Memo : FHT68XXXX/MiniPCI 11g Ch06 2437MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	4874.000	43.21	-30.79	74.00	43.39	33.17	9.09	42.44	Peak	---	---

FCC TEST REPORT

Report No. : F411614-01-A

Site : 03CH03-HY
Condition : FCC CLASS-B 3m HORN-ANT-6741 VERTICAL
EUT : TeamPed7500w
Power : 110 V /60Hz
Memo : FHT68XXXX/MiniPCI 11g Ch06 2437MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	7311.000	49.55	-24.45	74.00	37.57	36.07	12.41	36.50	Peak	---	---
2	7311.000	42.55	-11.45	54.00	30.57	36.07	12.41	36.50	Average	112	256

Site : 03CH03-HY
Condition : FCC CLASS-B 3m HORN-ANT-6741 HORIZONTAL
EUT : TeamPed7500w
Power : 110 V /60Hz
Memo : FHT68XXXX/MiniPCI 11g TX Ch06 2437MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	1830.000	49.27	-24.73	74.00	57.19	26.72	6.17	40.81	Peak	---	---
2	2390.000	47.70	-6.30	54.00	53.67	28.20	6.97	41.14	Average	---	---
3	2390.000	60.98	-13.02	74.00	66.95	28.20	6.97	41.14	Peak	---	---
4 X	2444.230	95.75	21.75	74.00	101.57	28.31	7.04	41.17	Peak	---	---
5 X	2444.230	88.42	34.42	54.00	94.24	28.31	7.04	41.17	Average	---	---
6	2483.500	66.07	-7.93	74.00	71.72	28.39	7.16	41.20	Peak	---	---
7	2483.500	47.74	-6.26	54.00	53.39	28.39	7.16	41.20	Average	---	---

Site : 03CH03-HY
Condition : FCC CLASS-B 3m HORN-ANT-6741 HORIZONTAL
EUT : TeamPed7500w
Power : 110 V /60Hz
Memo : FHT68XXXX/MiniPCI 11g Ch06 2437MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	4874.000	36.92	-17.08	54.00	35.65	33.17	10.54	42.44	Average	---	---
2	4874.000	51.70	-22.30	74.00	50.43	33.17	10.54	42.44	Peak	---	---

FCC TEST REPORT

Report No. : F411614-01-A

Site : 03CH03-HY
Condition : FCC CLASS-B 3m HORN-ANT-6741 HORIZONTAL
EUT : TeamPed7500w
Power : 110 V /60Hz
Memo : FHT68XXXX/MiniPCI 11g Ch06 2437MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	7311.000	49.38	-24.62	74.00	43.51	36.07	12.41	42.61	Peak	---	---
2	7311.000	36.39	-17.61	54.00	30.52	36.07	12.41	42.61	Average	112	259

For 7.311GHz ~ 25GHz

Frequency from 7311MHz to 25000MHz, the emission emitted by the EUT is too low to be measured

■ Field strength of fundamental and harmonics

Frequency	Antenna	Cable	Reading	Limits	Emission	Level	Margin	Detect
Polarity	Factor	Loss						
(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(uV/m)	(dB)	Mode
2444.000	V	28.31	7.04	69.62	-	104.97	177214.80	- Peak
2444.000	V	28.31	7.04	60.43	-	95.78	61517.69	- AV
2444.000	H	28.31	7.04	60.40	-	95.75	61305.58	- Peak
2444.000	H	28.31	7.04	53.07	-	88.42	26363.31	- AV
4874.000	V	33.17	9.09	0.95	74.00	43.21	144.71	-30.79 Peak
7311.000	V	36.07	12.41	1.07	74.00	49.55	300.26	-24.45 Peak
7311.000	V	36.07	12.41	-5.93	54.00	42.55	134.12	-11.45 AV
4874.000	H	33.17	10.54	7.99	74.00	51.70	384.59	-22.30 Peak
4874.000	H	33.17	10.54	-6.79	54.00	36.92	70.15	-17.08 AV
7311.000	H	36.07	12.41	0.90	74.00	49.38	294.44	-24.62 Peak
7311.000	H	36.07	12.41	-12.09	54.00	36.39	65.99	-17.61 AV
9648.000	V/H	-	-	-	-	-	-	- AV/Peak
12060.000	V/H	-	-	-	-	-	-	- AV/Peak
14472.000	V/H	-	-	-	-	-	-	- AV/Peak
16884.000	V/H	-	-	-	-	-	-	- AV/Peak
19296.000	V/H	-	-	-	-	-	-	- AV/Peak
21708.000	V/H	-	-	-	-	-	-	- AV/Peak
24120.000	V/H	-	-	-	-	-	-	- AV/Peak

Remark:

1. The emission emitted by the EUT is too low to be measured except the emission listed above,
2. Reading = Reading on SA-Preamp Factor

Test Engineer :

Jones Tsai

Jones Tsai

7.4.6 Test Mode: Mode 6

- Test Distance : 3 m
- Temperature : 22.5°C
- Relative Humidity :56 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading : Probe Factor + Cable Loss + Read Level - Preamp Factor = Level

■ The test that passed at minimum margin was marked by the frame in the following table.

Site : 03CH03-HY
 Condition : FCC CLASS-B 3m BIC-9124--301 HORIZONTAL
 EUT : TeamPed7500w
 Power : AC 110V / 60Hz
 Model : FHT68XXXX
 Memo : 11g TX CH11 2462MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m		dBuV/m	dBuV	dB	dB	dB		cm	deg
1	54.990	33.02	-6.98	40.00	49.54	10.21	1.26	27.99	Peak	---	---
2	164.980	24.30	-19.20	43.50	36.78	12.97	2.32	27.77	Peak	---	---
3	200.000	26.35	-17.15	43.50	36.68	14.80	2.57	27.70	Peak	---	---

Site : 03CH03-HY
 Condition : FCC CLASS-B 3m LOG-9111-221 HORIZONTAL
 EUT : TeamPed7500w
 Power : AC 110V / 60Hz
 Model : FHT68XXXX
 Memo : 11g TX CH11 2462MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m		dBuV/m	dBuV	dB	dB	dB		cm	deg
1	359.200	32.39	-13.61	46.00	41.42	15.23	3.34	27.60	Peak	---	---
2	496.800	34.62	-11.38	46.00	42.10	17.31	3.87	28.66	Peak	---	---
3	759.200	31.20	-14.80	46.00	35.04	20.08	4.84	28.76	Peak	---	---

Site : 03CH03-HY
 Condition : FCC CLASS-B 3m BIC-9124--301 VERTICAL
 EUT : TeamPed7500w
 Power : AC 110V / 60Hz
 Model : FHT68XXXX
 Memo : 11g TX CH11 2462MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m		dBuV/m	dBuV	dB	dB	dB		cm	deg
1	34.590	32.76	-7.24	40.00	46.65	13.14	1.01	28.04	Peak	---	---
2	54.990	34.36	-5.64	40.00	50.88	10.21	1.26	27.99	Peak	---	---
3	137.270	30.91	-12.59	43.50	45.08	11.64	2.01	27.82	Peak	---	---

FCC TEST REPORT

Report No. : F411614-01-A

Site : 03CH03-HY
Condition : FCC CLASS-B 3m LOG-9111-221 VERTICAL
EUT : TeamPed7500w
Power : AC 110V / 60Hz
Model : FHT68XXXX
Memo : 11g TX CH11 2462MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	496.800	41.60	-4.40	46.00	49.08	17.31	3.87	28.66	Peak	100	331
2	596.000	34.44	-11.56	46.00	39.99	18.90	4.35	28.80	Peak	---	---
3	996.000	34.97	-19.03	54.00	35.29	22.20	5.68	28.20	Peak	---	---

Site : 03CH03-HY
Condition : FCC CLASS-B 3m HORN-ANT-6741 VERTICAL
EUT : TeamPed7500w
Power : 110 V /60Hz
Memo : FHT68XXXX/MiniPCI 11g TX Ch11 2462MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2390.000	66.02	-7.98	74.00	71.99	28.20	6.97	41.14	Peak	---	---
2	2390.000	47.65	-6.35	54.00	53.62	28.20	6.97	41.14	Average	---	---
3	X 2464.720	106.38	32.38	74.00	112.16	28.35	7.06	41.19	Peak	100	321
4	X 2464.720	98.85	44.85	54.00	104.63	28.35	7.06	41.19	Average	100	321
5	! 2483.500	71.64	-2.36	74.00	77.29	28.39	7.16	41.20	Peak	100	321
6	2483.500	47.84	-6.16	54.00	53.49	28.39	7.16	41.20	Average	100	321

Site : 03CH03-HY
Condition : FCC CLASS-B 3m HORN-ANT-6741 VERTICAL
EUT : TeamPed7500w
Power : 110 V /60Hz
Memo : FHT68XXXX/MiniPCI 11g Ch11 2462MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	4924.000	56.06	-17.94	74.00	49.86	33.27	9.12	36.19	Peak	---	---
2	4924.000	44.62	-9.38	54.00	38.42	33.27	9.12	36.19	Average	112	251

FCC TEST REPORT

Report No. : F411614-01-A

Site : 03CH03-HY
Condition : FCC CLASS-B 3m HORN-ANT-6741 VERTICAL
EUT : TeamPed7500w
Power : 110 V /60Hz
Memo : FHT68XXXX/MiniPCI 11g Ch11 2462MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	7386.000	63.07	-10.93	74.00	50.89	36.25	12.47	36.54	Peak	---	---
2	7386.000	50.60	-3.40	54.00	38.42	36.25	12.47	36.54	Average	112	255

Site : 03CH03-HY
Condition : FCC CLASS-B 3m HORN-ANT-6741 HORIZONTAL
EUT : TeamPed7500w
Power : 110 V /60Hz
Memo : FHT68XXXX/MiniPCI 11g TX Ch11 2462MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2390.000	58.13	-15.87	74.00	64.10	28.20	6.97	41.14	Peak	---	---
2	2390.000	47.45	-6.55	54.00	53.42	28.20	6.97	41.14	Average	---	---
3	X 2466.670	97.34	23.34	74.00	103.12	28.35	7.06	41.19	Peak	---	---
4	X 2466.670	91.26	37.26	54.00	97.04	28.35	7.06	41.19	Average	---	---
5	! 2483.500	69.38	-4.62	74.00	75.03	28.39	7.16	41.20	Peak	---	---
6	! 2483.500	48.09	-5.91	54.00	53.74	28.39	7.16	41.20	Average	---	---

Site : 03CH03-HY
Condition : FCC CLASS-B 3m HORN-ANT-6741 HORIZONTAL
EUT : TeamPed7500w
Power : 110 V /60Hz
Memo : FHT68XXXX/MiniPCI 11g Ch11 2462MHz

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	4924.000	56.06	-17.94	74.00	49.86	33.27	9.12	36.19	Peak	---	---
2	4924.000	45.24	-8.76	54.00	39.04	33.27	9.12	36.19	Average	112	295

FCC TEST REPORT

Report No. : F411614-01-A

Site : 03CH03-HY
Condition : FCC CLASS-B 3m HORN-ANT-6741 HORIZONTAL
EUT : TeamPed7500w
Power : 110 V /60Hz
Memo : FHT68XXXX/MiniPCI 11g Ch11 2462MHz

	Freq	Level	Over	Limit	Read	Probe	Cable	Preamp	Remark	Ant	Table
			Limit	Line	Level	Factor	Loss	Factor		Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	7386.000	62.41	-11.59	74.00	50.23	36.25	12.47	36.54	Peak	---	---
2	7386.000	50.68	-3.32	54.00	38.50	36.25	12.47	36.54	Average	112	259

For 7.386GHz ~ 25GHz

Frequency from 7386MHz to 25000MHz, the emission emitted by the EUT is too low to be measured

■ Field strength of fundamental and harmonics

Frequency	Antenna	Cable	Reading	Limits	Emission	Level	Margin	Detect	
Polarity	Factor	Loss							
(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(uV/m)	(dB)	Mode	
2464.000	V	28.35	7.06	70.97	-	106.38	208449.09	-	Peak
2464.000	V	28.35	7.06	63.44	-	98.85	87599.17	-	AV
2466.000	H	28.35	7.06	61.93	-	97.34	73620.71	-	Peak
2466.000	H	28.35	7.06	55.85	-	91.26	36559.48	-	AV
4924.000	V	33.27	9.12	13.67	74.00	56.06	635.33	-17.94	Peak
4924.000	V	33.27	9.12	2.23	54.00	44.62	170.22	-9.38	AV
7386.000	V	36.25	12.47	14.35	74.00	63.07	1423.97	-10.93	Peak
7386.000	V	36.25	12.47	1.88	54.00	50.60	338.84	-3.40	AV
4924.000	H	33.27	9.12	13.67	74.00	56.06	635.33	-17.94	Peak
4924.000	H	33.27	9.12	2.85	54.00	45.24	182.81	-8.76	AV
7386.000	H	36.25	12.47	13.69	74.00	62.41	1319.78	-11.59	Peak
7386.000	H	36.25	12.47	1.96	54.00	50.68	341.98	-3.32	AV
9648.000	V/H	-	-	-	-	-	-	-	AV/Peak
12060.000	V/H	-	-	-	-	-	-	-	AV/Peak
14472.000	V/H	-	-	-	-	-	-	-	AV/Peak
16884.000	V/H	-	-	-	-	-	-	-	AV/Peak
19296.000	V/H	-	-	-	-	-	-	-	AV/Peak
21708.000	V/H	-	-	-	-	-	-	-	AV/Peak
24120.000	V/H	-	-	-	-	-	-	-	AV/Peak

Remark:

1. The emission emitted by the EUT is too low to be measured except the emission listed above,
2. Reading = Reading on SA-Preamplifier Factor

Test Engineer :

Jones Tsai

Jones Tsai

8. Antenna Requirements

The EUT use an embedded PCB antenna with I-PEX connector. It is considered to meet antenna requirement of FCC.

8.1. Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no other antenna except assembled by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.247 (b), if directional gain of transmitting antennas is greater than 6dBi, the power shall be reduced by the same level in dB comparing to gain minus 6dBi.

8.2. Antenna Connected Construction

The antenna used in this product is embedded PCB antenna with I-PEX connector.

9. List of Measuring Equipments Used

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
EMC Receiver	R&S	ESCS 30	100174	9 KHz – 2.75 GHz	Feb. 16, 2004	Conduction (CO04-HY)
LISN	MessTec	NNB-2/16Z	2001/004	9 KHz – 30 MHz	Jun. 09, 2004	Conduction (CO04-HY)
LISN (Support Unit)	MessTec	NNB-2/16Z	99041	9 KHz – 30 MHz	Apr. 27, 2004	Conduction (CO04-HY)
EMI Filter	LINDGREN	LRE-2030	2651	< 450 Hz	N/A	Conduction (CO04-HY)
RF Cable-CON	UTIFLEX	3102-26886-4	CB044	9KHz~30MHz	Apr. 21, 2004	Conduction (CO04-HY)
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30MHz~1GHz 3m	Jun. 21, 2004	Radiation (03CH03-HY)
Spectrum analyzer	R&S	FSP40	100004	9KHz~40GHz	Aug. 23, 2003	Radiation (03CH03-HY)
Amplifier	HP	8447D	2944A09072	100KHz – 1.3GHz	Nov. 05, 2003	Radiation (03CH03-HY)
Biconical Antenna	SCHWARZBECK	VHBB 9124	301	30MHz – 200MHz	Jul. 24, 2003	Radiation (03CH03-HY)
Log Antenna	SCHWARZBECK	VUSLP 9111	221	200MHz - 1GHz	Jul. 24, 2003	Radiation (03CH03-HY)
RF Cable-R03m	Jye Bao	RG142	CB021	30MHz~1GHz	Dec. 03, 2003	Radiation (03CH03-HY)
Amplifier	MITEQ	AFS44	879981	100MHz~26.5GHz	Jul. 23, 2003	Radiation (03CH03-HY)
Horn Antenna	EMCO	3115	6821	1GHz – 18GHz	Sep. 12, 2003	Radiation (03CH03-HY)
Turn Table	HD	DS 420	420/650/00	0 ~ 360 degree	N/A	Radiation (03CH03-HY)
Antenna Mast	HD	MA 240	240/560/00	1 m - 4 m	N/A	Radiation (03CH03-HY)
Horn Antenna	Schwarzbeck	BBHA9170	154	15GHz~40GHz	Jun. 02, 2003	Radiation (03CH03-HY)
RF Cable-HIGH	Jye Bao	RG142	CB030-HIGH	1GHz~29.5GHz	Dec. 05, 2003	Radiation (03CH03-HY)

※ Calibration Interval of instruments listed above is one year, except for Horn Antenna, BBHA9170.

※ Calibration Interval of Horn Antenna, BBHA9170, is three years.

10. Uncertainty of Test Site

Uncertainty of Radiated Emission Measurement

Contribution	Probability Distribution	3m
Antenna factor calibration	normal(k=2)	±1
cable loss calibration	normal(k=2)	±0.3
RCV/SPA specification	rectangular	±2
Antenna Directivity	rectangular	±3
Antenna Factor V.S. Height	rectangular	±2
Antenna Factor Interpolation for Frequency	rectangular	±0.25
site imperfection	rectangular	±2
Mismatch Receiver VSWR $\Gamma_1=0.09$ Antenna VSWR $\Gamma_2=0.67$ Uncertainty= $20\log(1-\Gamma_1\Gamma_2)$	U-shaped	±0.54
combined standard uncertainty $U_e(y)$	normal	±2.7
Measuring uncertainty for a level of confidence of 95% $U=2U_e(y)$	normal (k=2)	±5.4

$U=\sqrt{\{(1/2)^2+(0.3/2)^2+(2^2+0.5^2+2^2+0.25^2+2^2)/3+(0.54)^2/2\}}=2.2$ for 10m test distance

$U=\sqrt{\{(1/2)^2+(0.3/2)^2+(2^2+3^2+2^2+0.25^2+2^2)/3+(0.54)^2/2\}}=2.7$ for 3m test distance

Uncertainty of Radiated Emission Measurement (30MHz ~ 1000MHz)

Contribution	Uncertainty of x_i		$u(x_i)$
	dB	Probability Distribution	
Receiver reading	0.41	Normal(k=2)	0.21
Antenna factor calibration	0.83	Normal(k=2)	0.42
Cable loss calibration	0.25	Normal(k=2)	0.13
Pre Amplifier Gain calibration	0.27	Normal(k=2)	0.14
RCV/SPA specification	2.50	Rectangular	0.72
Antenna Factor Interpolation for Frequency	1.00	Rectangular	0.29
Site imperfection	1.43	Rectangular	0.83
Mismatch Receiver VSWR $\Gamma_1=0.20$ Antenna VSWR $\Gamma_2=0.23$ Uncertainty= $20\log(1-\Gamma_1\Gamma_2)$	+0.39/-0.41	U-shaped	0.28
combined standard uncertainty $U_c(y)$	1.27		
Measuring uncertainty for a level of confidence of 95% $U=2U_c(y)$	2.54		

$U=\sqrt{\{(0.3/2)^2+(2^2+1.5^2+0.2^2)/3+(0.2)^2/2\}}=1.66$