

# **FCC TEST REPORT**

**for**

## **47 CFR, Part 15, Subpart C**

**Equipment : Broadband Prosafe 802.11g Wireless Firewall With  
Print Server**

**Model No. : FWG114P**

**FCC ID. : PY3FWG114P**

**Filing Type : Certification**

**Applicant : Netgear Inc.  
4500 Great America Parkway, Santa Clara,  
CA 95054 USA**

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# CERTIFICATE OF COMPLIANCE

for

## 47 CFR, Part 15, Subpart C

Equipment : Broadband Prosafe 802.11g Wireless Firewall With  
Print Server

Model No. : FWG114P

FCC ID. : PY3FWG114P

Filing Type : Certification

Applicant : **Netgear Inc.**  
4500 Great America Parkway, Santa Clara,  
CA 95054 USA

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 Oct. 20, 2003 at **SPORTON International Inc.** LAB.



Alex Chen  
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**

Netgear Inc.  
4500 Great America Parkway, Santa Clara,  
CA 95054 USA

### **1.2. Manufacturer**

Same as 1.1

### **1.3. Basic Description of Equipment under Test**

Equipment	: Broadband Prosafe 802.11g Wireless Firewall With Print Server
Model No.	: FWG114P
FCC ID	: PY3FWG114P
Trade Name	: Netgear
TP Cable	: Non-Shielded, 10 m / 1 m
RF Cable	: Shielded, 1.5m
Power Supply Type	: Linear
AC Power Cord	: Wall-mount, 2 pin
DC Power Cable	: Non-Shielded, 1.8 m

**1.4. Feature of Equipment under Test**

Product Feature & Specification		
Type of Modulation	DSSS	
Number of Channels	11	
Frequency Band	2414MHz – 2484MHz	
Carrier Frequency of each channel	2412,2417,2422,2427,2432, 2437,2442, 2447,2452,2457,2462,2467,2472,2484	
Bandwidth of each channel	22MHz	
Maximum Output Power of Antenna	10.41dBm	
Function Type	Transceiver	
	NETGEAR P/N	Item Description
1	ACC-10314-01	Low loss antenna cable of 1.5m
2	ACC-10314-02	Low loss antenna cable of 3m
3	ACC-10314-03	Low loss antenna cable of 5m
4	ACC-10314-04	Low loss antenna cable of 10m
5	ACC-10314-05 TBC*	Low loss antenna cable of 30m
6	ANT24P2 TBC*	2dBi Omnidirectional Antenna
7	ANT24P3 TBC*	3dBi Omnidirectional Antenna
8	ANT24P4 TBC*	4dBi Omnidirectional Antenna
9	ANT24S4 TBC*	4dBi Omnidirectional Triband Stand Antenna
10	ANT24P5 TBC*	5dBi Omnidirectional Antenna
11	ANT24S5 TBC*	5dBi Omnidirectional Stand Antenna
12	ANT24P7 TBC*	7dBi Omnidirectional Antenna
13	ANT24P93 TBC*	9dBi Omnidirectional Tiband Antenna
14	ANT24P9 TBC*	9dBi Omnidirectional Antenna
15	ANT24P12 TBC*	12dBi Omnidirectional Antenna
16	ANT24P123 TBC*	12dBi Omnidirectional Triband Antenna
17	ANT24O5	5dBi Ceiling Antenna
18	ANT24D12 TBC*	12dBi Patch Antenna
19	ANT24D18	18dBi Patch Antenna
20	C147	5dBi Dipole Antenna

## **2. Test Configuration of Equipment under Test**

### **2.1. Test Manner**

- a. The EUT has been associated with personal computer and peripherals pursuant to ANSI C63.4-2001 and configuration operated in a manner, which tended to maximize its emission characteristics in a typical application.
- b. The complete test system included remote workstation, COMPAQ PC, VIEWSONIC Monitor, Genuine PS/2 Keyboard, LOGITECH PS/2 Mouse, EPSON Printer, ACEEX Modem and EUT for EMI test. The remote workstation included HP PC, HITACHI Monitor, Genuine PS/2 Keyboard and LOGITECH PS/2 Mouse.
- c. This equipment has different types, gains of antennas, and different length of RF cables. It chose the max gain antenna of the same type and specifications. and the shortest RF cable in the same type for testing, this collocation of 5dBi Ceiling Antenna +1.5m RF Cable was ensure to perform the max RF Level and E.R.P.
- d. For conducted power line test and radiated emission test, the following test modes were performed:
  - Mode 1: CH01 2412MHz (IEEE 802.11b 5dBi Ceiling)
  - Mode 2: CH06 2437MHz (IEEE 802.11b 5dBi Ceiling)
  - Mode 3: CH11 2462MHz (IEEE 802.11b 5dBi Ceiling)
  - Mode 4: CH01 2412MHz (IEEE 802.11b 5dBi Dipole)
  - Mode 5: CH06 2437MHz (IEEE 802.11b 5dBi Dipole)
  - Mode 6: CH11 2462MHz (IEEE 802.11b 5dBi Dipole)
  - Mode 7: CH01 2412MHz (IEEE 802.11b 12dBi Omnidirectional)
  - Mode 8: CH06 2437MHz (IEEE 802.11b 12dBi Omnidirectional)
  - Mode 9: CH11 2462MHz (IEEE 802.11b 12dBi Omnidirectional)
  - Mode 10: CH01 2412MHz (IEEE 802.11b 18dBi Patch)
  - Mode 11: CH06 2437MHz (IEEE 802.11b 18dBi Patch)
  - Mode 12: CH11 2462MHz (IEEE 802.11b 18dBi Patch)
  - Mode 13: CH01 2412MHz (IEEE 802.11g 5dBi Ceiling)
  - Mode 14: CH06 2437MHz (IEEE 802.11g 5dBi Ceiling)
  - Mode 15: CH11 2462MHz (IEEE 802.11g 5dBi Ceiling)
  - Mode 16: CH01 2412MHz (IEEE 802.11g 5dBi Dipole)
  - Mode 17: CH06 2437MHz (IEEE 802.11g 5dBi Dipole)
  - Mode 18: CH11 2462MHz (IEEE 802.11g 5dBi Dipole)
  - Mode 19: CH01 2412MHz (IEEE 802.11g 12dBi Omnidirectional)
  - Mode 20: CH06 2437MHz (IEEE 802.11g 12dBi Omnidirectional)
  - Mode 21: CH11 2462MHz (IEEE 802.11g 12dBi Omnidirectional)
  - Mode 22: CH01 2412MHz (IEEE 802.11g 18dBi Patch)
  - Mode 23: CH06 2437MHz (IEEE 802.11g 18dBi Patch)
  - Mode 24: CH11 2462MHz (IEEE 802.11g 18dBi Patch)

- e. The following test modes were performed for RF output test:
  - Mode 1. IEEE 802.11b 5dBi Ceiling
  - Mode 2. IEEE 802.11b 5dBi Dipole
  - Mode 3. IEEE 802.11b 12dBi Omnidirectional
  - Mode 4. IEEE 802.11b 18dBi Patch
  - Mode 5. IEEE 802.11g 5dBi Ceiling
  - Mode 6. IEEE 802.11g 5dBi Dipole
  - Mode 7. IEEE 802.11g 12dBi Omnidirectional
  - Mode 8. IEEE 802.11g 18dBi Patch
- f. Frequency range investigated: conduction 150 KHz to 30 MHz, radiation 30 MHz to 25000MHz.

**2.2. Description of Test System**

Support Unit 1. -- Personal Computer (COMPAQ) – for local workstation

FCC ID : N/A  
Model No. : Evo D380mx  
Power Supply Type : Switching  
Power Cord : Non-Shielded  
Serial No. : SP0037  
Remark : This support device was tested to comply with FCC standards and authorized under a declaration of conformity.

Support Unit 2. -- Monitor (VIEWSONIC) – for local workstation

FCC ID : N/A  
Model No. : E53  
Power Supply Type : Switching  
Power Cord : Non-Shielded  
Serial No. : SP0052  
Data Cable : Shielded, 1.7m  
Remark : This support device was tested to comply with FCC standards and authorized under a declaration of conformity.

Support Unit 3. -- PS/2 Keyboard (Genuine) – for local and remote workstation

FCC ID : N/A  
Model No. : K288  
Serial No. : SP0054  
Data Cable : Shielded, 360 degree via metal backshells, 1.3m  
Remark : This support device was tested to comply with FCC standards and authorized under a declaration of conformity.



Support Unit 4. -- PS/2 Mouse (LOGITECH) – for local and remote workstation

FCC ID : DZL211029  
Model No. : M-S34  
Serial No. : SP0041  
Data Cable : Shielded, 1.7m

Support Unit 5. -- Printer (EPSON) – for local workstation

FCC ID : N/A  
Model No. : STYLUS COLOR C61  
Power Supply Type : Linear  
Power Cord : Non-Shielded  
Serial No. : SP0048  
Data Cable : Shielded, 1 m

Support Unit 6. -- Modem (ACEEX) – for local workstation

FCC ID : IFAXDM1414  
Model No. : DM1414  
Power Supply Type : Linear  
Power Cord : Non-Shielded  
Serial No. : SP0015  
Data Cable : Shielded, 1.15m

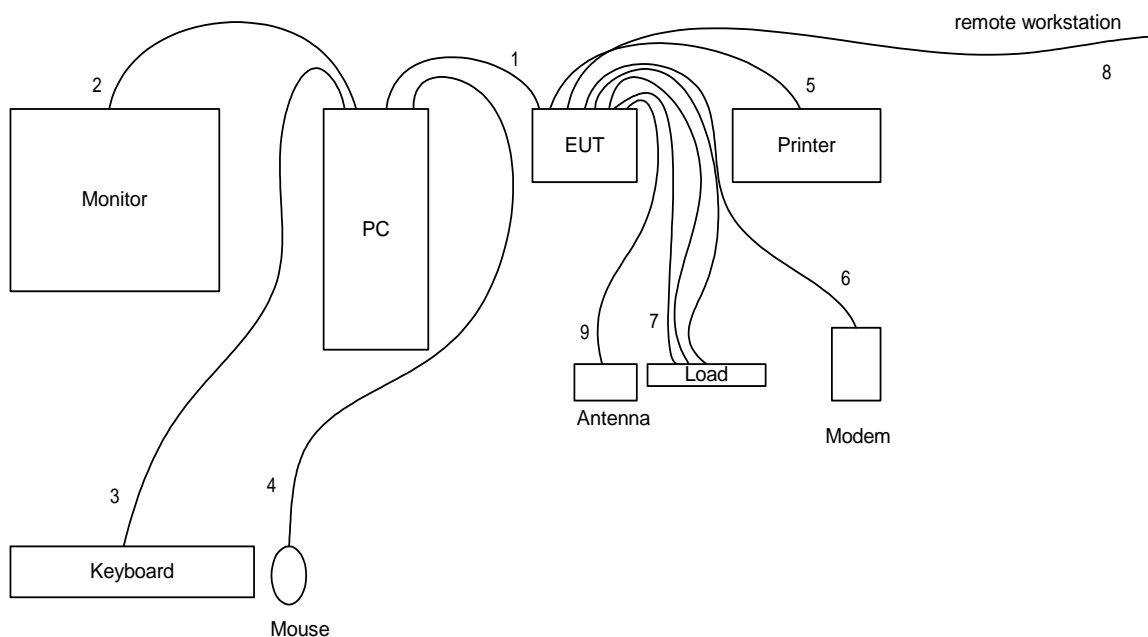
Support Unit 7. -- Personal Computer (HP) – for remote workstation

FCC ID : N/A  
Model No. : VECTRAC VL420 DT  
Power Supply Type : Switching  
Power Cord : Non-Shielded  
Serial No. : SP0036  
Remark : This support device was tested to comply with FCC standards and authorized under a declaration of conformity.

Support Unit 8. -- Monitor (HITACHI) – for remote workstation

FCC ID : N/A  
Model No. : CM753ET  
Power Supply Type : Switching  
Power Cord : Non-Shielded  
Serial No. : SP0050  
Data Cable : Shielded, 1.15m  
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 TP cable is connected from EUT to the support unit 1.
2. The I/O cable is connected from PC to the support unit 2.
3. The I/O cable is connected from PC to the support unit 3.
4. The I/O cable is connected from PC to the support unit 4.
5. The I/O cable is connected from EUT to the support unit 5.
6. The I/O cable is connected from EUT to the support unit 6.
7. These are loop-back TP cables.
8. The TP cable is connected from EUT to the remote workstation.
9. The RF cable is connected from EUT to Antenna.

### **3. Test Software**

An executive programs, EMCTEST.EXE under WIN XP, which generate a complete line of continuously repeating " 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 modem.
- f. The PC sends " H " messages to the internal Hard Disk, and the Hard Disk reads and writes the message.
- g. Repeat the steps from c to f.

At the same time, "WGR614" was executed to keep transmitting signals at fixed frequency.

## 4. General Information of Test

Test Site Location : No. 30-2, Lin 6, Diing-Fwu Tsuen, Lin-Kou-Hsiang,  
Taipei Hsien, Taiwan, R.O.C.  
TEL : 886-2-2601-1640  
FAX : 886-2-2601-1695

Test Site No. : CO01-LK, OS01-LK

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

Test Site No : 03CH02-HY, 03CH05-HY, 05CH06-HY

### 4.1. Test Voltage

110V/60Hz

### 4.2. Standard for Methods of Measurement

ANSI C63.4-2001 for conducted power line test and radiated emission test,  
"Guidance on Measurements for Direct Sequence Spread Spectrum Systems" for test of 6dB Bandwidth  
"Guidance on Measurements for Direct Sequence Spread Spectrum Systems" for test of Maximum Peak  
Output Power  
"Guidance on Measurements for Direct Sequence Spread Spectrum Systems" for test of 100kHz Bandwidth  
of Frequency Band Edges  
"Guidance on Measurements for Direct Sequence Spread Spectrum Systems" for test of Power Spectral  
Density

### 4.3. Test in Compliance with

FCC Part 15, Subpart C 15.247

### 4.4. Frequency Range Investigated

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

**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
<u>15.247(a)(2)</u>	6dB Bandwidth	Pass
<u>15.247(b)</u>	Maximum Peak Output Power	Pass
<u>15.247(d)</u>	Power Spectral Density	Pass
15.207	Conducted Emission	Pass
15.209	Radiated Emission	Pass
<u>15.247(c)</u>	100kHz Bandwidth of Frequency Band Edges	Pass
<u>15.203</u>	Antenna Requirement	Pass
1.1307 1.1310 2.1091 2.1093	RF Exposure Compliance	Pass

**5.2. 6dB Bandwidth**

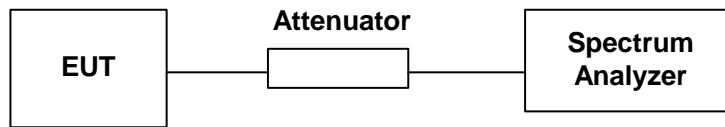
5.2.1. Measuring Instruments :

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 total spectrum the power of which is higher than peak power minus 6 dB.

5.2.3. Test Setup Layout :



5.2.4. Test Result : The spectrum analyzer plots are attached as below

- Temperature : 26°C
- Relative Humidity : 52 %

■ Mode 1

Channel	Frequency ( MHz )	6dB Emission bandwidth ( MHz )	Limits ( MHz )	Plot Ref. No.
1	2412	12.04	0.5	1
6	2437	12.04	0.5	2
11	2462	12.04	0.5	3

■ Mode 2

Channel	Frequency ( MHz )	6dB Emission bandwidth ( MHz )	Limits ( MHz )	Plot Ref. No.
1	2412	12.04	0.5	1
6	2437	12.04	0.5	2
11	2462	12.04	0.5	3



■ **Mode 3**

Channel	Frequency ( MHz )	6dB Emission bandwidth ( MHz )	Limits ( MHz )	Plot Ref. No.
1	2412	12.04	0.5	1
6	2437	12.04	0.5	2
11	2462	12.04	0.5	3

■ **Mode 4**

Channel	Frequency ( MHz )	6dB Emission bandwidth ( MHz )	Limits ( MHz )	Plot Ref. No.
1	2412	12.04	0.5	1
6	2437	12.04	0.5	2
11	2462	12.04	0.5	3

■ **Mode 5**

Channel	Frequency ( MHz )	6dB Emission bandwidth ( MHz )	Limits ( MHz )	Plot Ref. No.
1	2412	15.00	0.5	1
6	2437	16.24	0.5	2
11	2462	16.28	0.5	3

■ **Mode 6**

Channel	Frequency ( MHz )	6dB Emission bandwidth ( MHz )	Limits ( MHz )	Plot Ref. No.
1	2412	15.00	0.5	1
6	2437	16.24	0.5	2
11	2462	16.28	0.5	3

■ **Mode 7**

Channel	Frequency ( MHz )	6dB Emission bandwidth ( MHz )	Limits ( MHz )	Plot Ref. No.
1	2412	15.00	0.5	1
6	2437	16.24	0.5	2
11	2462	16.28	0.5	3

■ **Mode 8**

Channel	Frequency ( MHz )	6dB Emission bandwidth ( MHz )	Limits ( MHz )	Plot Ref. No.
1	2412	15.00	0.5	1
6	2437	16.24	0.5	2
11	2462	16.28	0.5	3

**5.3. Peak Output Power**

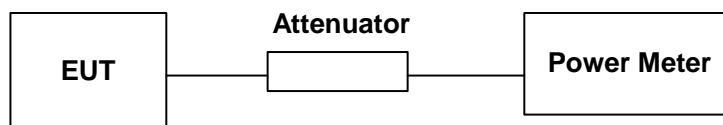
5.3.1. Measuring Instruments :

As described in chapter 7 of this test report.

5.3.2. Test Procedure :

The antenna port ( RF output ) of the EUT was connected to the input ( RF input ) of a power meter. Power was read directly from the meter and cable loss connection was added to the reading to obtain power at the EUT antenna terminal. The EUT Output Power was set to maximum to produce the worse case test result.

5.3.3. Test Setup Layout :



5.3.4. Test Result : See spectrum analyzer plots below

- Temperature: 26°C
- Relative Humidity: 52 %

■ Mode 1

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (mW)	Limits (Watt/dBm )
1	2412	10.41	10.99005839	1W/30 dBm
6	2437	9.85	9.66050879	1W/30 dBm
11	2462	10.11	10.25651926	1W/30 dBm

■ Mode 2

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (mW)	Limits (Watt/dBm )
1	2412	10.41	10.99005839	1W/30 dBm
6	2437	9.85	9.66050879	1W/30 dBm
11	2462	10.11	10.25651926	1W/30 dBm

■ Mode 3

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (mW)	Limits (Watt/dBm )
1	2412	10.41	10.99005839	1W/30 dBm
6	2437	9.85	9.66050879	1W/30 dBm
11	2462	10.11	10.25651926	1W/30 dBm

■ Mode 4

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (mW)	Limits (Watt/dBm )
1	2412	10.41	10.99005839	1W/30 dBm
6	2437	9.85	9.66050879	1W/30 dBm
11	2462	10.11	10.25651926	1W/30 dBm

■ Mode 5

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (mW)	Limits (Watt/dBm )
1	2412	6.12	4.092606597	1W/30 dBm
6	2437	6.35	4.315190738	1W/30 dBm
11	2462	6.77	4.753352259	1W/30 dBm

■ Mode 6

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (mW)	Limits (Watt/dBm )
1	2412	6.12	4.092606597	1W/30 dBm
6	2437	6.35	4.315190768	1W/30 dBm
11	2462	6.77	4.753352259	1W/30 dBm

■ Mode 7

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (mW)	Limits (Watt/dBm )
1	2412	6.12	4.092606597	1W/30 dBm
6	2437	6.35	4.315190768	1W/30 dBm
11	2462	6.77	4.753352259	1W/30 dBm

■ Mode 8

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (mW)	Limits (Watt/dBm )
1	2412	6.12	4.092606597	1W/30 dBm
6	2437	6.35	4.315190768	1W/30 dBm
11	2462	6.77	4.753352259	1W/30 dBm

- Comments : Maximum Peak Output Power < 30dBm ( 1Watt)

**5.4. Power Spectral Density**

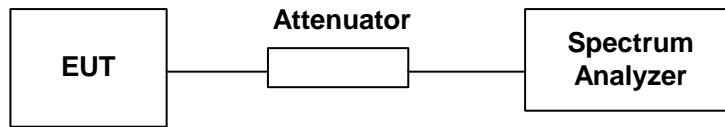
5.4.1. Measuring Instruments :

As described in chapter 7 of this test report.

5.4.2. Test Procedure :

1. The transmitter output was connected to spectrum analyzer through an attenuator.
2. The spectrum analyzer's resolution bandwidth were 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.

5.4.3. Test Setup Layout :



5.4.4. Test Result : See spectrum analyzer plots below

- Temperature: 26°C
- Relative Humidity: 52 %

■ Mode 1

Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Plot Ref. No.
1	2412	-25.09	8	1
6	2437	-24.70	8	2
11	2462	-25.08	8	3

■ Mode 2

Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Plot Ref. No.
1	2412	-25.09	8	1
6	2437	-24.70	8	2
11	2462	-25.08	8	3

■ Mode 3

Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Plot Ref. No.
1	2412	-25.09	8	1
6	2437	-24.70	8	2
11	2462	-25.08	8	3

■ Mode 4

Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Plot Ref. No.
1	2412	-25.09	8	1
6	2437	-24.70	8	2
11	2462	-25.08	8	3

■ Mode 5

Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Plot Ref. No.
1	2412	-19.97	8	1
6	2437	-19.58	8	2
11	2462	-26.11	8	3

■ Mode 6

Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Plot Ref. No.
1	2412	-19.97	8	1
6	2437	-19.58	8	2
11	2462	-26.11	8	3

■ Mode 7

Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Plot Ref. No.
1	2412	-19.97	8	1
6	2437	-19.58	8	2
11	2462	-26.11	8	3

■ Mode 8

Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Plot Ref. No.
1	2412	-19.97	8	1
6	2437	-19.58	8	2
11	2462	-26.11	8	3



## 5.5. 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.

### 5.5.1. 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

### 5.5.2. 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 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.



- Test Mode: Mode 2
- Frequency Range of Test: from 150KHz to 30 MHz
- 6dB Bandwidth: 9KHz
- Temperature: 26 °C
- Relative Humidity: 48 %

The test was passed at the minimum margin that marked by a frame in the following data

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN-92-06-02 LINE  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 54BI CEILING CHD6 11B

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
			Limit	Line	Level	Factor	Loss	
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.152	49.62	-16.26	65.88	49.46	0.10	0.06	QP
2	0.152	21.45	-34.43	55.88	21.29	0.10	0.06	Average
3	0.264	45.90	-15.40	61.30	45.70	0.10	0.10	QP
4	0.264	16.00	-35.30	51.30	15.80	0.10	0.10	Average
5	0.518	40.63	-15.37	56.00	40.43	0.10	0.10	QP
6	0.518	12.21	-33.79	46.00	12.01	0.10	0.10	Average
7	10.079	20.03	-39.97	60.00	19.63	0.20	0.20	QP
8	10.079	18.21	-31.79	50.00	17.81	0.20	0.20	Average
9	15.405	18.97	-41.03	60.00	18.47	0.20	0.30	QP
10	15.405	15.78	-34.22	50.00	15.28	0.20	0.30	Average
11	27.262	22.14	-37.86	60.00	21.24	0.50	0.40	QP
12	27.262	18.16	-31.64	50.00	17.46	0.50	0.40	Average

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN-92-06-02 NEUTRAL  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 54BI CEILING CHD6 11B

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
			Limit	Line	Level	Factor	Loss	
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.151	49.52	-16.43	65.95	49.36	0.10	0.06	QP
2	0.151	21.60	-34.27	55.95	21.52	0.10	0.06	Average
3	0.232	46.18	-16.20	62.38	45.98	0.10	0.10	QP
4	0.232	16.18	-36.20	52.38	15.98	0.10	0.10	Average
5	0.352	42.32	-16.60	58.92	42.12	0.10	0.10	QP
6	0.352	13.24	-35.68	48.92	13.04	0.10	0.10	Average
7	10.918	23.45	-36.55	60.00	22.93	0.30	0.22	QP
8	10.918	22.59	-27.41	50.00	22.07	0.30	0.22	Average
9	15.406	24.55	-35.45	60.00	23.95	0.30	0.30	QP
10	15.406	20.53	-29.47	50.00	19.93	0.30	0.30	Average
11	27.263	17.07	-32.93	50.00	16.22	0.45	0.40	Average
12	27.263	20.81	-39.19	60.00	19.96	0.45	0.40	QP

Test Engineer : Neil  
 Neil Huang

- Test Mode: Mode 3
- Frequency Range of Test: from 150KHz to 30 MHz
- 6dB Bandwidth: 9KHz
- Temperature: 26 °C
- Relative Humidity: 48 %

The test was passed at the minimum margin that marked by a frame in the following data

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN-92-06-02 LINE  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 5dBi CEILING CH11 11B

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
			Limit	Line	Level	Factor	Loss	
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.154	49.62	-16.16	65.78	49.46	0.10	0.06	QP
2	0.154	20.93	-34.85	55.78	20.77	0.10	0.06	Average
3	0.262	45.96	-15.41	61.37	45.76	0.10	0.10	QP
4	0.262	16.00	-35.37	51.37	15.80	0.10	0.10	Average
5	0.546	39.94	-16.06	56.00	39.74	0.10	0.10	QP
6	0.546	12.03	-33.97	46.00	11.83	0.10	0.10	Average
7	7.560	16.43	-43.57	60.00	16.06	0.20	0.17	QP
8	7.560	14.73	-35.27	50.00	14.36	0.20	0.17	Average
9	14.611	14.77	-35.23	50.00	14.20	0.20	0.29	Average
10	14.611	17.45	-42.55	60.00	16.96	0.20	0.29	QP
11	27.882	22.64	-37.36	60.00	21.72	0.52	0.40	QP
12	27.882	17.26	-32.74	50.00	16.34	0.52	0.40	Average

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN-92-06-02 NEUTRAL  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 5dBi CEILING CH11 11B

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
			Limit	Line	Level	Factor	Loss	
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.154	49.50	-16.28	65.78	49.34	0.10	0.06	QP
2	0.154	20.98	-34.80	55.78	20.82	0.10	0.06	Average
3	0.269	44.90	-16.25	61.15	44.70	0.10	0.10	QP
4	0.269	15.29	-35.86	51.15	15.09	0.10	0.10	Average
5	0.408	40.68	-17.01	57.69	40.48	0.10	0.10	QP
6	0.408	12.28	-35.41	47.69	12.08	0.10	0.10	Average
7	10.079	23.89	-36.11	60.00	23.39	0.30	0.20	QP
8	10.079	21.92	-28.08	50.00	21.42	0.30	0.20	Average
9	15.063	26.50	-33.50	60.00	25.90	0.30	0.30	QP
10	15.063	22.40	-27.60	50.00	21.80	0.30	0.30	Average
11	24.291	23.38	-36.62	60.00	22.55	0.43	0.40	QP
12	24.291	19.25	-30.75	50.00	18.42	0.43	0.40	Average

Test Engineer : Neil  
 Neil Huang

- Test Mode: Mode 4
- Frequency Range of Test: from 150KHz to 30 MHz
- 6dB Bandwidth: 9KHz
- Temperature: 26 °C
- Relative Humidity: 48 %

The test was passed at the minimum margin that marked by a frame in the following data

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN-92-06-02 LINE  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 5dBi DIPOLE CH01 11B

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.151	49.78	-16.18	65.96	49.62	0.10	0.06	QP
2	0.151	24.40	-31.56	55.96	24.24	0.10	0.06	Average
3	0.266	46.20	-15.04	61.24	46.00	0.10	0.10	QP
4	0.266	16.68	-34.56	51.24	16.48	0.10	0.10	Average
5	0.567	40.35	-15.65	56.00	40.15	0.10	0.10	QP
6	0.567	11.67	-34.33	46.00	11.47	0.10	0.10	Average
7	6.085	23.32	-26.68	50.00	22.92	0.20	0.20	Average
8	6.085	25.43	-34.57	60.00	25.03	0.20	0.20	QP
9	19.713	29.04	-20.16	50.00	29.34	0.20	0.30	Average
10	19.713	31.06	-28.14	60.00	31.36	0.20	0.30	QP
11	24.354	32.92	-27.08	60.00	32.15	0.38	0.39	QP
12	24.354	31.53	-18.47	50.00	30.76	0.38	0.39	Average

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN-92-06-02 NEUTRAL  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 5dBi DIPOLE CH01 11B

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.151	49.50	-16.44	65.94	49.34	0.10	0.06	QP
2	0.151	23.64	-32.30	55.94	23.48	0.10	0.06	Average
3	0.218	46.67	-16.22	62.89	46.47	0.10	0.10	QP
4	0.218	20.35	-32.54	52.89	20.15	0.10	0.10	Average
5	0.325	42.97	-16.61	59.58	42.77	0.10	0.10	QP
6	0.325	13.44	-36.14	49.58	13.24	0.10	0.10	Average
7	11.260	26.32	-23.68	50.00	25.79	0.30	0.23	Average
8	11.260	28.04	-31.96	60.00	27.51	0.30	0.23	QP
9	17.696	29.38	-20.62	50.00	28.78	0.30	0.30	Average
10	17.696	32.58	-27.42	60.00	31.98	0.30	0.30	QP
11	24.355	31.19	-28.81	60.00	30.41	0.39	0.39	QP
12	24.355	29.87	-20.13	50.00	29.09	0.39	0.39	Average

Test Engineer : Neil Huang

- Test Mode: Mode 5
- Frequency Range of Test: from 150KHz to 30 MHz
- 6dB Bandwidth: 9KHz
- Temperature: 26 °C
- Relative Humidity: 48 %

The test was passed at the minimum margin that marked by a frame in the following data

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN.92-06-02 LNE  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 5dBi DIPOLE CH06 11B

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
			Limit	Line	Level	Factor	Loss	
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.152	49.80	-16.08	65.88	49.64	0.10	0.06	QP
2	0.152	23.86	-32.02	55.88	23.70	0.10	0.06	Average
3	0.251	46.59	-15.13	61.72	46.39	0.10	0.10	QP
4	0.251	16.13	-35.59	51.72	15.93	0.10	0.10	Average
5	0.538	41.09	-14.91	56.00	40.89	0.10	0.10	QP
6	0.538	12.23	-33.77	46.00	12.03	0.10	0.10	Average
7	6.050	25.71	-34.29	60.00	25.31	0.20	0.20	QP
8	6.050	23.73	-26.27	50.00	23.33	0.20	0.20	Average
9	17.697	31.62	-28.38	60.00	31.12	0.20	0.30	QP
10	17.697	28.00	-21.20	50.00	28.30	0.20	0.30	Average
11	24.353	31.58	-18.42	50.00	30.81	0.30	0.39	Average
12	24.353	33.26	-26.74	60.00	32.49	0.30	0.39	QP

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN.92-06-02 NEUTRAL  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 5dBi DIPOLE CH06 11B

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
			Limit	Line	Level	Factor	Loss	
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.151	49.56	-16.36	65.92	49.40	0.10	0.06	QP
2	0.151	23.64	-32.28	55.92	23.48	0.10	0.06	Average
3	0.267	44.95	-16.26	61.21	44.75	0.10	0.10	QP
4	0.267	15.32	-35.89	51.21	15.12	0.10	0.10	Average
5	0.505	37.05	-18.95	56.00	36.85	0.10	0.10	QP
6	0.505	9.87	-36.13	46.00	9.67	0.10	0.10	Average
7	6.120	26.02	-33.98	60.00	25.57	0.25	0.20	QP
8	6.120	23.78	-26.22	50.00	23.33	0.25	0.20	Average
9	17.696	32.36	-27.64	60.00	31.76	0.30	0.30	QP
10	17.696	29.29	-20.71	50.00	28.69	0.30	0.30	Average
11	24.353	30.33	-19.67	50.00	29.55	0.39	0.39	Average
12	24.353	31.89	-28.11	60.00	31.11	0.39	0.39	QP

Test Engineer : Neil Huang

- Test Mode: Mode 6
- Frequency Range of Test: from 150KHz to 30 MHz
- 6dB Bandwidth: 9KHz
- Temperature: 26 °C
- Relative Humidity: 48 %

The test was passed at the minimum margin that marked by a frame in the following data

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN-92-06-02 LENE  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 5dBi DIPOLE CH11 11B

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
			Limit	Line	Level	Factor	Loss	
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.152	49.86	-16.02	65.88	49.70	0.10	0.06	QP
2	0.152	23.99	-31.89	55.88	23.83	0.10	0.06	Average
3	0.256	46.53	-15.03	61.56	46.33	0.10	0.10	QP
4	0.256	16.06	-35.50	51.56	15.86	0.10	0.10	Average
5	0.544	40.95	-15.05	56.00	40.75	0.10	0.10	QP
6	0.544	12.18	-33.82	46.00	11.98	0.10	0.10	Average
7	9.300	18.70	-31.30	50.00	18.30	0.20	0.20	Average
8	9.300	21.84	-30.16	60.00	21.44	0.20	0.20	QP
9	17.696	28.93	-21.07	50.00	28.43	0.20	0.30	Average
10	17.696	32.08	-27.92	60.00	31.58	0.20	0.30	QP
11	24.353	33.32	-26.68	60.00	32.55	0.30	0.39	QP
12	24.353	31.65	-18.35	50.00	30.88	0.30	0.39	Average

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN-92-06-02 NEUTRAL  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 5dBi DIPOLE CH11 11B

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
			Limit	Line	Level	Factor	Loss	
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.152	49.56	-16.33	65.89	49.40	0.10	0.06	QP
2	0.152	23.35	-32.54	55.89	23.19	0.10	0.06	Average
3	0.243	45.70	-16.21	61.99	45.50	0.10	0.10	QP
4	0.243	15.76	-36.23	51.99	15.56	0.10	0.10	Average
5	0.435	39.46	-17.69	57.15	39.26	0.10	0.10	QP
6	0.435	19.90	-27.25	47.15	19.70	0.10	0.10	Average
7	6.120	23.78	-26.22	50.00	23.33	0.25	0.20	Average
8	6.120	25.94	-34.06	60.00	25.49	0.25	0.20	QP
9	17.695	28.62	-21.38	50.00	28.02	0.30	0.30	Average
10	17.695	31.98	-20.02	60.00	31.38	0.30	0.30	QP
11	24.354	31.89	-20.11	60.00	31.11	0.39	0.39	QP
12	24.354	30.33	-19.67	50.00	29.55	0.39	0.39	Average

Test Engineer : Neil  
 Neil Huang

- Test Mode: Mode 7
- Frequency Range of Test: from 150KHz to 30 MHz
- 6dB Bandwidth: 9KHz
- Temperature: 26 °C
- Relative Humidity: 48 %

The test was passed at the minimum margin that marked by a frame in the following data

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN-92-06-02 LINE  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 11B (CH01)

	12dBI							Remark
	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.154	50.16	-15.62	65.78	50.00	0.10	0.06	QP
2	0.154	24.47	-31.31	55.78	24.31	0.10	0.06	Average
3	0.280	46.21	-14.61	60.82	46.01	0.10	0.10	QP
4	0.280	15.89	-34.93	50.82	15.69	0.10	0.10	Average
5	0.486	42.30	-13.94	56.24	42.10	0.10	0.10	QP
6	0.486	13.04	-33.20	46.24	12.84	0.10	0.10	Average
7	9.300	21.58	-38.42	60.00	21.18	0.20	0.20	QP
8	9.300	18.89	-31.11	50.00	18.49	0.20	0.20	Average
9	19.714	33.72	-26.28	60.00	33.22	0.20	0.30	QP
10	19.714	31.71	-18.29	50.00	31.21	0.20	0.30	Average
11	24.354	31.78	-18.22	50.00	31.01	0.38	0.39	Average
12	24.354	32.80	-27.20	60.00	32.03	0.38	0.39	QP

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN-92-06-02 NEUTRAL  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 11B (CH01)

	12dBI							Remark
	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.152	49.82	-16.07	65.89	49.66	0.10	0.06	QP
2	0.152	24.67	-31.22	55.89	24.51	0.10	0.06	Average
3	0.235	15.99	-36.28	52.27	15.79	0.10	0.10	Average
4	0.235	46.22	-16.05	62.27	46.02	0.10	0.10	QP
5	1.090	17.08	-28.92	46.00	16.87	0.11	0.10	Average
6	1.090	24.39	-31.61	56.00	24.18	0.11	0.10	QP
7	6.049	27.58	-32.42	60.00	27.13	0.25	0.20	QP
8	6.049	25.23	-24.77	50.00	24.78	0.25	0.20	Average
9	15.620	33.20	-26.80	60.00	32.60	0.30	0.30	QP
10	15.620	31.60	-18.40	50.00	31.00	0.30	0.30	Average
11	19.712	32.58	-27.42	60.00	31.98	0.30	0.30	QP
12	19.712	31.03	-18.97	50.00	30.43	0.30	0.30	Average

Test Engineer : Neil  
 Neil Huang



- Test Mode: Mode 8
- Frequency Range of Test: from 150KHz to 30 MHz
- 6dB Bandwidth: 9KHz
- Temperature: 26 °C
- Relative Humidity: 48 %

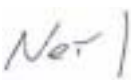
The test was passed at the minimum margin that marked by a frame in the following data

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN-92-06-02 LINE  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 11B (CH06)

	Freq	Level	12dBI		Read	LISN	Cable	Remark
			Over Limit	Limit Line				
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.152	50.16	-15.73	65.89	50.00	0.10	0.06	QP
2	0.152	24.86	-31.03	55.89	24.70	0.10	0.06	Average
3	0.219	47.85	-15.00	62.85	47.65	0.10	0.10	QP
4	0.219	20.81	-32.04	52.85	20.61	0.10	0.10	Average
5	0.461	42.80	-13.87	56.67	42.60	0.10	0.10	QP
6	0.461	13.25	-33.42	46.67	13.05	0.10	0.10	Average
7	0.323	24.41	-35.59	60.00	24.01	0.20	0.20	QP
8	0.323	20.55	-29.45	50.00	20.15	0.20	0.20	Average
9	19.713	34.08	-25.92	60.00	33.58	0.20	0.30	QP
10	19.713	32.43	-17.57	50.00	31.93	0.20	0.30	Average
11	24.353	31.84	-18.16	50.00	31.07	0.30	0.39	Average
12	24.353	32.90	-27.10	60.00	32.13	0.30	0.39	QP

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN-92-06-02 NEUTRAL  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 11B (CH06)

	Freq	Level	12dBI		Read	LISN	Cable	Remark
			Over Limit	Limit Line				
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.150	49.86	-16.14	66.00	49.70	0.10	0.06	QP
2	0.150	24.99	-31.01	56.00	24.83	0.10	0.06	Average
3	0.200	44.50	-16.24	60.82	44.30	0.10	0.10	QP
4	0.200	14.90	-35.04	50.82	14.70	0.10	0.10	Average
5	1.000	24.49	-31.51	56.00	24.28	0.11	0.10	QP
6	1.000	16.83	-29.17	46.00	16.62	0.11	0.10	Average
7	6.120	24.07	-25.93	50.00	23.62	0.25	0.20	Average
8	6.120	26.46	-33.54	60.00	26.01	0.25	0.20	QP
9	17.696	29.53	-20.47	50.00	28.93	0.30	0.30	Average
10	17.696	32.02	-27.90	60.00	31.42	0.30	0.30	QP
11	24.353	31.55	-20.45	60.00	30.77	0.39	0.39	QP
12	24.353	30.56	-19.44	50.00	29.78	0.39	0.39	Average

Test Engineer :   
 Neil Huang

- Test Mode: Mode 9
- Frequency Range of Test: from 150KHz to 30 MHz
- 6dB Bandwidth: 9KHz
- Temperature: 26 °C
- Relative Humidity: 48 %


The test was passed at the minimum margin that marked by a frame in the following data

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN-92-06-02 LINE  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 11B (CH11)

	Freq	Level	12dBI		Read	LISN	Cable	Remark
			Over Limit	Line				
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.152	50.18	-15.71	65.89	50.02	0.10	0.06	QP
2	0.152	24.53	-31.36	55.89	24.37	0.10	0.06	Average
3	0.216	20.95	-32.01	52.96	20.75	0.10	0.10	Average
4	0.216	47.93	-15.03	62.96	47.73	0.10	0.10	QP
5	0.334	15.12	-34.23	49.35	14.92	0.10	0.10	Average
6	0.334	45.08	-14.27	59.35	44.88	0.10	0.10	QP
7	8.324	23.87	-36.13	60.00	23.47	0.20	0.20	QP
8	8.324	19.93	-30.07	50.00	19.53	0.20	0.20	Average
9	17.696	29.19	-20.81	50.00	28.69	0.20	0.30	Average
10	17.696	31.82	-28.18	60.00	31.32	0.20	0.30	QP
11	19.711	34.40	-25.60	60.00	33.90	0.20	0.30	QP
12	19.711	32.43	-17.57	50.00	31.93	0.20	0.30	Average

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN-92-06-02 NEUTRAL  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 11B (CH11)

	Freq	Level	12dBI		Read	LISN	Cable	Remark
			Over Limit	Line				
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.154	49.82	-15.98	65.80	49.66	0.10	0.06	QP
2	0.154	23.99	-31.81	55.80	23.83	0.10	0.06	Average
3	0.274	44.83	-16.17	61.00	44.63	0.10	0.10	QP
4	0.274	14.83	-36.17	51.00	14.63	0.10	0.10	Average
5	1.309	22.82	-33.18	56.00	22.58	0.14	0.10	QP
6	1.309	17.64	-28.36	46.00	17.40	0.14	0.10	Average
7	6.050	27.50	-32.50	60.00	27.05	0.25	0.20	QP
8	6.050	25.29	-24.71	50.00	24.84	0.25	0.20	Average
9	12.589	25.36	-24.64	50.00	24.80	0.30	0.26	Average
10	12.589	29.45	-30.55	60.00	28.89	0.30	0.26	QP
11	19.715	29.21	-20.79	50.00	28.61	0.30	0.30	Average
12	19.715	31.04	-28.96	60.00	30.44	0.30	0.30	QP

Test Engineer :   
 Neil Huang

- Test Mode: Mode 10
- Frequency Range of Test: from 150KHz to 30 MHz
- 6dB Bandwidth: 9KHz
- Temperature: 26 °C
- Relative Humidity: 48 %

The test was passed at the minimum margin that marked by a frame in the following data

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN-92-06-02 LINE  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 18dBi PATCH CH01 11B

	Freq	Level	Over Limit	Limit	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.153	50.00	-15.85	65.85	49.84	0.10	0.06	QP
2	0.153	24.33	-31.52	55.85	24.17	0.10	0.06	Average
3	0.291	45.82	-14.68	60.50	45.62	0.10	0.10	QP
4	0.291	15.65	-34.85	50.50	15.45	0.10	0.10	Average
5	0.589	39.61	-16.39	56.00	39.41	0.10	0.10	QP
6	0.589	11.33	-34.67	46.00	11.13	0.10	0.10	Average
7	6.294	23.48	-36.52	60.00	23.08	0.20	0.20	QP
8	6.294	18.87	-31.13	50.00	18.47	0.20	0.20	Average
9	17.696	31.82	-28.18	60.00	31.32	0.20	0.30	QP
10	17.696	28.85	-21.15	50.00	28.35	0.20	0.30	Average
11	23.743	34.24	-25.76	60.00	33.50	0.36	0.38	QP
12	23.743	29.41	-20.59	50.00	28.67	0.36	0.38	Average

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN-92-06-02 NEUTRAL  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 18dBi PATCH CH01 11B

	Freq	Level	Over Limit	Limit	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.154	49.66	-16.12	65.78	49.50	0.10	0.06	QP
2	0.154	23.50	-32.28	55.78	23.34	0.10	0.06	Average
3	0.220	46.71	-16.09	62.80	46.51	0.10	0.10	QP
4	0.220	19.93	-32.87	52.80	19.73	0.10	0.10	Average
5	0.393	40.79	-17.21	58.00	40.59	0.10	0.10	QP
6	0.393	11.91	-36.09	48.00	11.71	0.10	0.10	Average
7	6.120	26.32	-33.68	60.00	25.87	0.25	0.20	QP
8	6.120	24.07	-25.93	50.00	23.62	0.25	0.20	Average
9	12.592	28.01	-31.99	60.00	27.45	0.30	0.26	QP
10	12.592	23.98	-26.02	50.00	23.42	0.30	0.26	Average
11	17.696	29.21	-20.79	50.00	28.61	0.30	0.30	QP
12	17.696	32.48	-27.52	60.00	31.88	0.30	0.30	QP

Test Engineer : Neil  
 Neil Huang

- Test Mode: Mode 11
- Frequency Range of Test: from 150KHz to 30 MHz
- 6dB Bandwidth: 9KHz
- Temperature: 26 °C
- Relative Humidity: 48 %

The test was passed at the minimum margin that marked by a frame in the following data

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN-92-06-02 LINE  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 18dB PATCH CHD6 11B

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
			Limit	Line	Level	Factor	Loss	
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.154	50.00	-15.78	65.78	49.84	0.10	0.06	QP
2	0.154	23.64	-32.14	55.78	23.48	0.10	0.06	Average
3	0.341	44.82	-14.36	59.18	44.62	0.10	0.10	QP
4	0.341	15.03	-34.15	49.18	14.83	0.10	0.10	Average
5	0.564	40.39	-15.61	56.00	40.19	0.10	0.10	QP
6	0.564	11.67	-34.33	46.00	11.47	0.10	0.10	Average
7	6.120	24.94	-35.06	60.00	24.54	0.20	0.20	QP
8	6.120	22.83	-27.17	50.00	22.43	0.20	0.20	Average
9	17.696	28.93	-21.07	50.00	28.43	0.20	0.30	Average
10	17.696	32.00	-20.00	60.00	31.50	0.20	0.30	QP
11	24.354	33.24	-26.76	60.00	32.47	0.30	0.39	QP
12	24.354	31.65	-18.35	50.00	30.88	0.30	0.39	Average

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN-92-06-02 NEUTRAL  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 18dB PATCH CHD6 11B

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
			Limit	Line	Level	Factor	Loss	
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.151	49.72	-16.22	65.94	49.56	0.10	0.06	QP
2	0.151	24.73	-31.21	55.94	24.57	0.10	0.06	Average
3	0.299	43.87	-16.40	60.27	43.67	0.10	0.10	QP
4	0.299	14.37	-35.90	50.27	14.17	0.10	0.10	Average
5	0.435	39.40	-17.75	57.15	39.20	0.10	0.10	QP
6	0.435	20.32	-26.83	47.15	20.12	0.10	0.10	Average
7	6.120	26.42	-33.58	60.00	25.97	0.25	0.20	QP
8	6.120	24.15	-25.85	50.00	23.70	0.25	0.20	Average
9	12.067	29.47	-30.53	60.00	28.92	0.30	0.25	QP
10	12.067	24.53	-25.47	50.00	23.98	0.30	0.25	Average
11	17.697	28.81	-21.19	50.00	28.21	0.30	0.30	Average
12	17.697	31.72	-28.28	60.00	31.12	0.30	0.30	QP

Test Engineer : Neil  
 Neil Huang

- Test Mode: Mode 12
- Frequency Range of Test: from 150KHz to 30 MHz
- 6dB Bandwidth: 9KHz
- Temperature: 26 °C
- Relative Humidity: 48 %

The test was passed at the minimum margin that marked by a frame in the following data

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN-92-06-02 LINE  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 18dB PATCH CH11 11B

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.154	50.04	-15.74	65.78	49.88	0.10	0.06	QP
2	0.154	24.40	-31.38	55.78	24.24	0.10	0.06	Average
3	0.247	46.91	-14.95	61.86	46.71	0.10	0.10	QP
4	0.247	16.54	-35.32	51.86	16.34	0.10	0.10	Average
5 @	0.479	42.41	-13.95	56.36	42.21	0.10	0.10	QP
6	0.479	13.05	-33.31	46.36	12.85	0.10	0.10	Average
7	6.120	25.00	-35.00	60.00	24.60	0.20	0.20	QP
8	6.120	22.83	-27.17	50.00	22.43	0.20	0.20	Average
9	19.712	30.29	-19.71	50.00	29.79	0.20	0.30	Average
10	19.712	32.34	-27.66	60.00	31.84	0.20	0.30	QP
11	23.744	34.68	-25.32	60.00	33.94	0.36	0.38	QP
12	23.744	29.41	-20.59	50.00	28.67	0.36	0.38	Average

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN-92-06-02 NEUTRAL  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 18dB PATCH CH11 11B

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.150	49.74	-16.24	65.98	49.58	0.10	0.06	QP
2	0.150	24.67	-31.31	55.98	24.51	0.10	0.06	Average
3	0.251	45.57	-16.15	61.72	45.37	0.10	0.10	QP
4	0.251	15.33	-36.39	51.72	15.13	0.10	0.10	Average
5	0.434	39.48	-17.69	57.17	39.28	0.10	0.10	QP
6	0.434	20.05	-27.12	47.17	19.85	0.10	0.10	Average
7	8.321	25.59	-34.41	60.00	25.11	0.28	0.20	QP
8	8.321	21.44	-28.56	50.00	20.96	0.28	0.20	Average
9	17.697	31.80	-28.20	60.00	31.20	0.30	0.30	QP
10	17.697	29.03	-20.97	50.00	28.43	0.30	0.30	Average
11	24.355	29.95	-20.05	50.00	29.17	0.39	0.39	Average
12	24.355	31.59	-20.41	60.00	30.81	0.39	0.39	QP

Test Engineer : Neil Huang

- Test Mode: Mode 13
- Frequency Range of Test: from 150KHz to 30 MHz
- 6dB Bandwidth: 9KHz
- Temperature: 26 °C
- Relative Humidity: 48 %

The test was passed at the minimum margin that marked by a frame in the following data

Site : CO01-LK  
 Condition : CISPR CLASS-B C001 LISN-92-06-02 LINE  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 5dBi CEILING CH01 11G

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.151	49.58	-16.35	65.93	49.42	0.10	0.06	QP
2	0.151	22.40	-33.53	55.93	22.24	0.10	0.06	Average
3	0.237	46.63	-15.57	62.20	46.43	0.10	0.10	QP
4	0.237	16.40	-35.80	52.20	16.20	0.10	0.10	Average
5	0.456	41.85	-14.92	56.77	41.65	0.10	0.10	QP
6	0.456	13.17	-33.60	46.77	12.97	0.10	0.10	Average
7	0.948	28.30	-27.70	56.00	28.10	0.10	0.10	QP
8	0.948	7.48	-30.52	46.00	7.28	0.10	0.10	Average
9	8.490	15.75	-34.25	50.00	15.37	0.20	0.18	Average
10	8.490	17.38	-42.62	60.00	17.00	0.20	0.18	QP
11	27.847	16.24	-33.76	50.00	15.32	0.52	0.40	Average
12	27.847	21.00	-39.00	60.00	20.08	0.52	0.40	QP

Site : CO01-LK  
 Condition : CISPR CLASS-B C001 LISN-92-06-02 NEUTRAL  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 5dBi CEILING CH01 11G

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.153	49.46	-16.39	65.85	49.30	0.10	0.06	QP
2	0.153	21.98	-33.87	55.85	21.82	0.10	0.06	Average
3	0.248	45.57	-16.25	61.82	45.37	0.10	0.10	QP
4	0.248	15.55	-36.27	51.82	15.35	0.10	0.10	Average
5	0.400	40.66	-17.03	57.69	40.46	0.10	0.10	QP
6	0.400	12.22	-35.47	47.69	12.02	0.10	0.10	Average
7	1.200	18.61	-37.39	56.00	18.38	0.13	0.10	QP
8	1.200	6.37	-39.63	46.00	6.14	0.13	0.10	Average
9	15.063	27.46	-32.54	60.00	26.86	0.30	0.30	QP
10	15.063	22.31	-27.69	50.00	21.71	0.30	0.30	Average
11	26.139	18.44	-31.56	50.00	17.61	0.43	0.40	Average
12	26.139	22.61	-37.39	60.00	21.78	0.43	0.40	QP

Test Engineer : Neil Huang

- Test Mode: Mode 14
- Frequency Range of Test: from 150KHz to 30 MHz
- 6dB Bandwidth: 9KHz
- Temperature: 26 °C
- Relative Humidity: 48 %

The test was passed at the minimum margin that marked by a frame in the following data

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN-92-06-02 LINE  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 54BI CEILING CHD6 11G

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
			Limit	Line	Level	Factor	Loss	
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.164	49.46	-15.80	65.26	49.29	0.10	0.07	QP
2	0.164	18.81	-36.45	55.26	18.64	0.10	0.07	Average
3	0.247	46.32	-15.54	61.86	46.12	0.10	0.10	QP
4	0.247	16.17	-35.69	51.86	15.97	0.10	0.10	Average
5	0.449	42.00	-14.89	56.89	41.80	0.10	0.10	QP
6	0.449	13.18	-33.71	46.89	12.98	0.10	0.10	Average
7	1.460	20.04	-35.96	56.00	19.79	0.15	0.10	QP
8	1.460	6.47	-39.53	46.00	6.22	0.15	0.10	Average
9	0.491	16.30	-33.70	50.00	15.92	0.20	0.18	Average
10	0.491	17.82	-42.18	60.00	17.44	0.20	0.18	QP
11	20.297	24.55	-35.45	60.00	23.61	0.54	0.40	QP
12	20.297	20.29	-29.71	50.00	19.35	0.54	0.40	Average

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN-92-06-02 NEUTRAL  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 54BI CEILING CHD6 11G

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
			Limit	Line	Level	Factor	Loss	
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.151	49.50	-16.42	65.92	49.34	0.10	0.06	QP
2	0.151	21.59	-34.33	55.92	21.43	0.10	0.06	Average
3	0.226	46.42	-16.18	62.60	46.22	0.10	0.10	QP
4	0.226	16.79	-35.81	52.60	16.59	0.10	0.10	Average
5	0.327	43.06	-16.47	59.53	42.86	0.10	0.10	QP
6	0.327	13.80	-35.73	49.53	13.60	0.10	0.10	Average
7	1.210	18.67	-37.33	56.00	18.44	0.13	0.10	QP
8	1.210	6.69	-39.31	46.00	6.46	0.13	0.10	Average
9	15.064	26.00	-33.12	60.00	26.20	0.30	0.30	QP
10	15.064	22.13	-27.87	50.00	21.53	0.30	0.30	Average
11	26.717	16.77	-33.23	50.00	15.93	0.44	0.40	Average
12	26.717	20.51	-39.49	60.00	19.67	0.44	0.40	QP

Test Engineer : Neil Huang

- Test Mode: Mode 15
- Frequency Range of Test: from 150KHz to 30 MHz
- 6dB Bandwidth: 9KHz
- Temperature: 26 °C
- Relative Humidity: 48 %

The test was passed at the minimum margin that marked by a frame in the following data

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN-92-06-02 LINE  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 5dBi CEILING CH11 11G

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.152	49.62	-16.27	65.89	49.46	0.10	0.06	QP
2	0.152	21.72	-34.17	55.89	21.56	0.10	0.06	Average
3	0.217	47.28	-15.67	62.95	47.08	0.10	0.10	QP
4	0.217	19.59	-33.36	52.95	19.39	0.10	0.10	Average
5	0.358	43.74	-15.03	58.77	43.54	0.10	0.10	QP
6	0.358	14.30	-34.47	48.77	14.10	0.10	0.10	Average
7	0.899	28.48	-27.52	56.00	28.28	0.10	0.10	QP
8	0.899	7.73	-38.27	46.00	7.53	0.10	0.10	Average
9	14.799	15.64	-34.36	50.00	15.14	0.20	0.30	Average
10	14.799	19.43	-40.57	60.00	18.93	0.20	0.30	QP
11	26.980	18.86	-31.14	50.00	17.97	0.49	0.40	Average
12	26.980	22.28	-37.72	60.00	21.39	0.49	0.40	QP

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN-92-06-02 NEUTRAL  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 5dBi CEILING CH11 11G

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.169	49.15	-15.86	65.01	48.97	0.10	0.08	QP
2	0.169	18.64	-36.37	55.01	18.46	0.10	0.08	Average
3	0.263	45.04	-16.30	61.34	44.84	0.10	0.10	QP
4	0.263	15.46	-35.88	51.34	15.26	0.10	0.10	Average
5	0.410	40.61	-17.04	57.65	40.41	0.10	0.10	QP
6	0.410	12.21	-35.44	47.65	12.01	0.10	0.10	Average
7	10.918	24.06	-35.94	60.00	23.54	0.30	0.22	QP
8	10.918	22.33	-27.67	50.00	21.81	0.30	0.22	Average
9	15.404	24.95	-35.05	60.00	24.35	0.30	0.30	QP
10	15.404	20.69	-29.31	50.00	20.09	0.30	0.30	Average
11	25.304	23.31	-36.69	60.00	22.50	0.41	0.40	QP
12	25.304	17.86	-32.14	50.00	17.05	0.41	0.40	Average

Test Engineer : Neil  
 Neil Huang



- Test Mode: Mode 16
- Frequency Range of Test: from 150KHz to 30 MHz
- 6dB Bandwidth: 9KHz
- Temperature: 26 °C
- Relative Humidity: 48 %

The test was passed at the minimum margin that marked by a frame in the following data

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN.92-06-02 LINE  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 5dBi DIPOLE CH01 11G

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.152	49.90	-15.99	65.89	49.74	0.10	0.06	QP
2	0.152	23.99	-31.90	55.89	23.83	0.10	0.06	Average
3	0.240	46.94	-15.16	62.10	46.74	0.10	0.10	QP
4	0.240	16.70	-35.40	52.10	16.50	0.10	0.10	Average
5	0.582	39.89	-16.11	56.00	39.69	0.10	0.10	QP
6	0.582	11.45	-34.55	46.00	11.25	0.10	0.10	Average
7	8.323	24.41	-35.59	60.00	24.01	0.20	0.20	QP
8	8.323	20.23	-29.77	50.00	19.83	0.20	0.20	Average
9	19.711	32.38	-27.62	60.00	31.88	0.20	0.30	QP
10	19.711	30.37	-19.63	50.00	29.87	0.20	0.30	Average
11	24.354	33.26	-26.74	60.00	32.49	0.30	0.30	QP
12	24.354	31.65	-18.35	50.00	30.88	0.30	0.30	Average

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN.92-06-02 NEUTRAL  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 5dBi DIPOLE CH01 11G

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.153	49.58	-16.27	65.85	49.42	0.10	0.06	QP
2	0.153	23.35	-32.50	55.85	23.19	0.10	0.06	Average
3	0.219	46.75	-16.12	62.87	46.55	0.10	0.10	QP
4	0.219	20.35	-32.52	52.87	20.15	0.10	0.10	Average
5	0.371	41.52	-16.96	58.48	41.32	0.10	0.10	QP
6	0.371	12.48	-36.00	48.48	12.28	0.10	0.10	Average
7	6.120	24.07	-25.93	50.00	23.62	0.25	0.20	Average
8	6.120	26.40	-33.60	60.00	25.95	0.25	0.20	QP
9	17.696	29.12	-20.88	50.00	28.52	0.30	0.30	Average
10	17.696	32.10	-27.90	60.00	31.50	0.30	0.30	QP
11	23.744	32.74	-27.26	60.00	31.98	0.30	0.30	QP
12	23.744	27.83	-22.17	50.00	27.07	0.30	0.30	Average

Test Engineer : Neil  
 Neil Huang

- Test Mode: Mode 17
- Frequency Range of Test: from 150KHz to 30 MHz
- 6dB Bandwidth: 9KHz
- Temperature: 26 °C
- Relative Humidity: 48 %

The test was passed at the minimum margin that marked by a frame in the following data

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN-92-06-02 LINE  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 5dBI DIPOLE CH06 11G

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.154	49.92	-15.88	65.80	49.76	0.10	0.06	QP
2	0.154	23.72	-32.08	55.80	23.56	0.10	0.06	Average
3	0.367	44.26	-14.31	58.57	44.06	0.10	0.10	QP
4	0.367	14.32	-34.25	48.57	14.12	0.10	0.10	Average
5	1.088	30.06	-25.94	56.00	29.85	0.11	0.10	QP
6	1.088	14.88	-31.12	46.00	14.67	0.11	0.10	Average
7	6.120	25.00	-35.00	60.00	24.60	0.20	0.20	QP
8	6.120	22.83	-27.17	50.00	22.43	0.20	0.20	Average
9	17.695	31.86	-28.14	60.00	31.36	0.20	0.30	QP
10	17.695	28.52	-21.48	50.00	28.02	0.20	0.30	Average
11	23.071	33.40	-26.60	60.00	32.71	0.33	0.36	QP
12	23.071	30.22	-19.78	50.00	29.53	0.33	0.36	Average

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN-92-06-02 NEUTRAL  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 5dBI DIPOLE CH06 11G

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.154	49.62	-16.16	65.78	49.46	0.10	0.06	QP
2	0.154	22.83	-32.95	55.78	22.67	0.10	0.06	Average
3	0.292	44.89	-16.38	60.47	43.89	0.10	0.10	QP
4	0.292	14.24	-36.23	50.47	14.04	0.10	0.10	Average
5	0.538	35.59	-20.41	56.00	35.39	0.10	0.10	QP
6	0.538	9.09	-36.91	46.00	8.89	0.10	0.10	Average
7	12.588	30.58	-29.42	60.00	30.02	0.30	0.26	QP
8	12.588	26.27	-23.73	50.00	25.71	0.30	0.26	Average
9	17.696	32.42	-27.58	60.00	31.82	0.30	0.30	QP
10	17.696	29.12	-20.88	50.00	28.52	0.30	0.30	Average
11	24.352	31.09	-28.91	60.00	30.31	0.39	0.39	QP
12	24.352	29.55	-20.45	50.00	28.77	0.39	0.39	Average

Test Engineer : Neil  
 Neil Huang

- Test Mode: Mode 18
- Frequency Range of Test: from 150KHz to 30 MHz
- 6dB Bandwidth: 9KHz
- Temperature: 26 °C
- Relative Humidity: 48 %

The test was passed at the minimum margin that marked by a frame in the following data

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN-92-06-02 LENE  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 5dBi DIPOLE CH11 11G

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
			Limit	Line	Level	Factor	Loss	
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.156	49.91	-15.76	65.67	49.75	0.10	0.06	QP
2	0.156	22.19	-33.48	55.67	22.03	0.10	0.06	Average
3	0.329	44.98	-14.50	59.48	44.78	0.10	0.10	QP
4	0.329	14.95	-34.53	49.48	14.75	0.10	0.10	Average
5	0.958	30.68	-25.32	56.00	30.48	0.10	0.10	QP
6	0.958	7.58	-38.42	46.00	7.38	0.10	0.10	Average
7	7.275	23.11	-36.89	60.00	22.71	0.20	0.20	QP
8	7.275	16.47	-33.53	50.00	16.07	0.20	0.20	Average
9	16.050	21.13	-28.87	50.00	20.63	0.20	0.30	Average
10	16.050	26.65	-33.35	60.00	26.15	0.20	0.30	QP
11	22.587	30.63	-29.37	60.00	29.96	0.31	0.36	QP
12	22.587	26.19	-23.81	50.00	25.52	0.31	0.36	Average

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN-92-06-02 NEUTRAL  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 5dBi DIPOLE CH11 11G

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
			Limit	Line	Level	Factor	Loss	
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.151	49.70	-16.24	65.94	49.54	0.10	0.06	QP
2	0.151	23.99	-31.95	55.94	23.83	0.10	0.06	Average
3	0.260	45.20	-16.23	61.43	45.00	0.10	0.10	QP
4	0.260	15.24	-36.19	51.43	15.04	0.10	0.10	Average
5	0.435	39.44	-17.72	57.16	39.24	0.10	0.10	QP
6	0.435	20.05	-27.11	47.16	19.85	0.10	0.10	Average
7	6.120	26.40	-33.60	60.00	25.95	0.25	0.20	QP
8	6.120	24.07	-25.93	50.00	23.62	0.25	0.20	Average
9	14.212	25.75	-24.25	50.00	25.16	0.30	0.29	Average
10	14.212	27.41	-32.59	60.00	26.82	0.30	0.29	QP
11	24.353	30.41	-19.59	50.00	29.63	0.39	0.39	Average
12	24.353	32.01	-27.99	60.00	31.23	0.39	0.39	QP

Test Engineer : Neil  
 Neil Huang

- Test Mode: Mode 19
- Frequency Range of Test: from 150KHz to 30 MHz
- 6dB Bandwidth: 9KHz
- Temperature: 26 °C
- Relative Humidity: 48 %


The test was passed at the minimum margin that marked by a frame in the following data

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN-92-06-02 LINE  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 11G(CH01)

	Freq	Level	12dBI		Read	LISN	Cable	Remark
			Over Limit	Limit Line				
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.153	50.16	-15.68	65.84	50.00	0.10	0.06	QP
2	0.153	24.67	-31.17	55.84	24.51	0.10	0.06	Average
3	0.237	47.32	-14.88	62.20	47.12	0.10	0.10	QP
4	0.237	16.84	-35.36	52.20	16.64	0.10	0.10	Average
5	0.436	43.24	-13.90	57.14	43.04	0.10	0.10	QP
6	0.436	20.62	-26.52	47.14	20.42	0.10	0.10	Average
7	6.295	23.28	-36.72	60.00	22.88	0.20	0.20	QP
8	6.295	18.68	-31.32	50.00	18.28	0.20	0.20	Average
9	19.713	33.96	-26.04	60.00	33.46	0.20	0.30	QP
10	19.713	32.13	-17.87	50.00	31.63	0.20	0.30	Average
11	24.354	31.78	-18.22	50.00	31.01	0.30	0.39	Average
12	24.354	32.80	-27.20	60.00	32.03	0.30	0.39	QP

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN-92-06-02 NEUTRAL  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 11G(CH01)

	Freq	Level	12dBI		Read	LISN	Cable	Remark
			Over Limit	Limit Line				
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.152	49.86	-16.03	65.89	49.70	0.10	0.06	QP
2	0.152	24.53	-31.36	55.89	24.37	0.10	0.06	Average
3	0.247	45.75	-16.11	61.86	45.55	0.10	0.10	QP
4	0.247	15.75	-36.11	51.86	15.55	0.10	0.10	Average
5	0.437	39.26	-17.86	57.12	39.06	0.10	0.10	QP
6	0.437	20.21	-26.91	47.12	20.01	0.10	0.10	Average
7	6.120	26.50	-33.50	60.00	26.05	0.25	0.20	QP
8	6.120	24.07	-25.93	50.00	23.62	0.25	0.20	Average
9	16.050	29.93	-30.07	60.00	29.33	0.30	0.30	QP
10	16.050	24.61	-25.39	50.00	24.01	0.30	0.30	Average
11	24.352	31.25	-28.75	60.00	30.47	0.39	0.39	QP
12	24.352	30.27	-19.73	50.00	29.49	0.39	0.39	Average

Test Engineer :   
 Neil Huang

- Test Mode: Mode 20
- Frequency Range of Test: from 150KHz to 30 MHz
- 6dB Bandwidth: 9KHz
- Temperature: 26 °C
- Relative Humidity: 48 %


The test was passed at the minimum margin that marked by a frame in the following data

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN-92-06-02 LINE  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 11G (CH06)

	12dBI							Remark
	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.154	50.16	-15.62	65.78	50.00	0.10	0.06	QP
2	0.154	23.72	-32.06	55.78	23.56	0.10	0.06	Average
3	0.243	47.16	-14.83	61.99	46.96	0.10	0.10	QP
4	0.243	16.70	-35.29	51.99	16.50	0.10	0.10	Average
5	0.491	42.20	-13.95	56.15	42.00	0.10	0.10	QP
6	0.491	13.09	-33.06	46.15	12.89	0.10	0.10	Average
7	0.323	24.35	-35.65	60.00	23.95	0.20	0.20	QP
8	0.323	20.60	-29.40	50.00	20.20	0.20	0.20	Average
9	19.713	33.82	-26.18	60.00	33.32	0.20	0.30	QP
10	19.713	32.13	-17.87	50.00	31.63	0.20	0.30	Average
11	24.352	32.50	-27.50	60.00	31.73	0.30	0.39	QP
12	24.352	31.46	-18.54	50.00	30.69	0.30	0.39	Average

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN-92-06-02 NEUTRAL  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 11G (CH06)

	12dBI							Remark
	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.156	22.97	-32.70	55.67	22.81	0.10	0.06	Average
2	0.156	49.79	-15.88	65.67	49.63	0.10	0.06	QP
3	0.220	46.83	-15.99	62.82	46.63	0.10	0.10	QP
4	0.220	20.66	-32.16	52.82	20.46	0.10	0.10	Average
5	1.089	24.61	-31.39	56.00	24.40	0.11	0.10	QP
6	1.089	17.22	-28.78	46.00	17.01	0.11	0.10	Average
7	11.260	25.72	-24.28	50.00	25.19	0.30	0.23	Average
8	11.260	27.64	-32.36	60.00	27.11	0.30	0.23	QP
9	17.696	29.53	-20.47	50.00	28.93	0.30	0.30	Average
10	17.696	32.04	-27.96	60.00	31.44	0.30	0.30	QP
11	24.353	31.67	-28.33	60.00	30.89	0.39	0.39	QP
12	24.353	30.64	-19.36	50.00	29.86	0.39	0.39	Average

Test Engineer :   
 Neil Huang

- Test Mode: Mode 21
- Frequency Range of Test: from 150KHz to 30 MHz
- 6dB Bandwidth: 9KHz
- Temperature: 26 °C
- Relative Humidity: 48 %


The test was passed at the minimum margin that marked by a frame in the following data

Site : C001-LK  
 Condition : CISPR CLASS-B C001 LISN-92-06-02 LINE  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 11G(CH11)

	12dBI							Remark
	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.152	50.20	-15.69	65.89	50.04	0.10	0.06	QP
2	0.152	25.05	-30.04	55.89	24.89	0.10	0.06	Average
3	0.253	46.91	-14.75	61.66	46.71	0.10	0.10	QP
4	0.253	16.54	-35.12	51.66	16.34	0.10	0.10	Average
5	0.436	43.32	-13.82	57.14	43.12	0.10	0.10	QP
6	0.436	20.57	-26.57	47.14	20.37	0.10	0.10	Average
7	8.320	22.33	-37.67	60.00	21.93	0.20	0.20	QP
8	8.320	18.25	-31.75	50.00	17.85	0.20	0.20	Average
9	17.697	31.22	-20.78	60.00	30.72	0.20	0.30	QP
10	17.697	28.93	-21.07	50.00	28.43	0.20	0.30	Average
11	24.353	31.71	-18.29	50.00	30.94	0.30	0.39	Average
12	24.353	32.80	-27.20	60.00	32.03	0.30	0.39	QP

Site : C001-LK  
 Condition : CISPR CLASS-B C001 LISN-92-06-02 NEUTRAL  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 11G(CH11)

	12dBI							Remark
	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.153	49.82	-16.00	65.82	49.66	0.10	0.06	QP
2	0.153	24.13	-31.69	55.82	23.97	0.10	0.06	Average
3	0.300	43.89	-16.35	60.24	43.69	0.10	0.10	QP
4	0.300	14.54	-35.70	50.24	14.34	0.10	0.10	Average
5	1.220	23.55	-32.45	56.00	23.32	0.13	0.10	QP
6	1.220	6.67	-39.33	46.00	6.44	0.13	0.10	Average
7	12.626	24.13	-25.87	50.00	23.57	0.30	0.26	Average
8	12.626	28.19	-31.81	60.00	27.63	0.30	0.26	QP
9	19.713	30.96	-19.04	50.00	30.36	0.30	0.30	Average
10	19.713	32.58	-27.42	60.00	31.98	0.30	0.30	QP
11	24.354	31.41	-20.59	60.00	30.63	0.39	0.39	QP
12	24.354	30.41	-19.59	50.00	29.63	0.39	0.39	Average

Test Engineer :   
 Neil Huang

- Test Mode: Mode 22
- Frequency Range of Test: from 150KHz to 30 MHz
- 6dB Bandwidth: 9KHz
- Temperature: 26 °C
- Relative Humidity: 48 %


The test was passed at the minimum margin that marked by a frame in the following data

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN-92-06-02 LENE  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 184Bi PATCH CHD1 11G

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.151	50.04	-15.90	65.94	49.88	0.10	0.06	QP
2	0.151	25.42	-30.52	55.94	25.26	0.10	0.06	Average
3	0.252	46.03	-14.86	61.69	46.63	0.10	0.10	QP
4	0.252	16.94	-35.15	51.69	16.34	0.10	0.10	Average
5	0.507	41.85	-14.15	56.00	41.65	0.10	0.10	QP
6	0.507	12.54	-33.46	46.00	12.34	0.10	0.10	Average
7	8.289	24.66	-35.34	60.00	24.26	0.20	0.20	QP
8	8.289	20.54	-29.46	50.00	20.14	0.20	0.20	Average
9	17.695	20.24	-21.76	50.00	27.74	0.20	0.30	Average
10	17.695	31.20	-20.72	60.00	30.70	0.20	0.30	QP
11	23.743	34.76	-25.24	60.00	34.02	0.36	0.38	QP
12	23.743	29.50	-20.50	50.00	28.76	0.36	0.38	Average

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN-92-06-02 NEUTRAL  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 184Bi PATCH CHD1 11G

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.155	49.72	-16.01	65.73	49.56	0.10	0.06	QP
2	0.155	22.11	-33.62	55.73	21.95	0.10	0.06	Average
3	0.269	44.93	-16.22	61.15	44.73	0.10	0.10	QP
4	0.269	15.08	-36.07	51.15	14.88	0.10	0.10	Average
5	0.437	39.26	-17.85	57.11	39.06	0.10	0.10	QP
6	0.437	19.63	-27.48	47.11	19.43	0.10	0.10	Average
7	8.287	26.63	-33.37	60.00	26.15	0.20	0.20	QP
8	8.287	22.42	-27.58	50.00	21.94	0.20	0.20	Average
9	17.698	31.16	-20.84	60.00	30.56	0.30	0.30	QP
10	17.698	28.10	-21.90	50.00	27.50	0.30	0.30	Average
11	24.354	30.33	-19.67	50.00	29.55	0.39	0.39	Average
12	24.354	32.03	-27.97	60.00	31.25	0.39	0.39	QP

Test Engineer :   
 Neil Huang

- Test Mode: Mode 23
- Frequency Range of Test: from 150KHz to 30 MHz
- 6dB Bandwidth: 9KHz
- Temperature: 26 °C
- Relative Humidity: 48 %

The test was passed at the minimum margin that marked by a frame in the following data

Site : C001-LK  
 Condition : CISPR CLASS-B C001 LISN-92-06-02 LINE  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 18dB PATCH CHD6 11G

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.151	50.08	-15.87	65.95	49.92	0.10	0.06	QP
2	0.151	23.99	-31.96	55.95	23.83	0.10	0.06	Average
3	0.274	46.32	-14.68	61.00	46.12	0.10	0.10	QP
4	0.274	16.05	-34.95	51.00	15.85	0.10	0.10	Average
5	0.529	41.35	-14.65	56.00	41.15	0.10	0.10	QP
6	0.529	12.39	-33.61	46.00	12.19	0.10	0.10	Average
7	6.120	22.83	-27.17	50.00	22.43	0.20	0.20	Average
8	6.120	24.98	-35.02	60.00	24.58	0.20	0.20	QP
9	17.694	30.27	-29.73	60.00	29.77	0.20	0.30	QP
10	17.694	26.85	-23.15	50.00	26.35	0.20	0.30	Average
11	24.353	33.36	-26.64	60.00	32.59	0.30	0.39	QP
12	24.353	31.65	-18.35	50.00	30.88	0.30	0.39	Average

Site : C001-LK  
 Condition : CISPR CLASS-B C001 LISN-92-06-02 NEUTRAL  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 18dB PATCH CHD6 11G

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.152	49.74	-16.15	65.89	49.58	0.10	0.06	QP
2	0.152	23.06	-32.83	55.89	22.90	0.10	0.06	Average
3	0.218	46.85	-16.04	62.89	46.65	0.10	0.10	QP
4	0.218	20.86	-32.03	52.89	20.66	0.10	0.10	Average
5	1.088	24.61	-31.39	56.00	24.40	0.11	0.10	QP
6	1.088	17.08	-28.92	46.00	16.87	0.11	0.10	Average
7	11.260	28.50	-31.50	60.00	27.97	0.30	0.23	QP
8	11.260	26.67	-23.33	50.00	26.14	0.30	0.23	Average
9	17.696	31.90	-28.10	60.00	31.30	0.30	0.30	QP
10	17.696	29.12	-20.88	50.00	28.52	0.30	0.30	Average
11	24.353	30.33	-19.67	50.00	29.55	0.39	0.39	Average
12	24.353	32.03	-27.97	60.00	31.25	0.39	0.39	QP

Test Engineer : Neil Huang



- Test Mode: Mode 24
- Frequency Range of Test: from 150KHz to 30 MHz
- 6dB Bandwidth: 9KHz
- Temperature: 26 °C
- Relative Humidity: 48 %

The test was passed at the minimum margin that marked by a frame in the following data

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN-92-06-02 LINE  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 184Bi PATCH CH11 11G

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.151	50.04	-15.84	65.92	49.92	0.10	0.06	QP
2	0.151	23.42	-32.50	55.92	23.26	0.10	0.06	Average
3	0.263	46.58	-14.76	61.34	46.38	0.10	0.10	QP
4	0.263	16.61	-34.73	51.34	16.41	0.10	0.10	Average
5	0.435	43.30	-13.86	57.16	43.10	0.10	0.10	QP
6	0.435	20.81	-26.35	47.16	20.61	0.10	0.10	Average
7	6.120	24.94	-35.06	60.00	24.54	0.20	0.20	QP
8	6.120	22.83	-27.17	50.00	22.43	0.20	0.20	Average
9	15.437	25.78	-24.22	50.00	25.28	0.20	0.30	Average
10	15.437	29.15	-30.85	60.00	28.65	0.20	0.30	QP
11	24.354	33.26	-26.74	60.00	32.49	0.30	0.39	QP
12	24.354	31.65	-18.35	50.00	30.88	0.30	0.39	Average

Site : CO01-LK  
 Condition : CISPR CLASS-B CO01 LISN-92-06-02 NEUTRAL  
 EUT : AP ROUTER  
 MODEL : FWG114P  
 POWER : 110V/60HZ  
 MEMO : 184Bi PATCH CH11 11G

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.153	49.74	-16.07	65.81	49.58	0.10	0.06	QP
2	0.153	22.83	-32.98	55.81	22.67	0.10	0.06	Average
3	0.277	44.64	-16.27	60.91	44.44	0.10	0.10	QP
4	0.277	14.82	-36.09	50.91	14.62	0.10	0.10	Average
5	1.383	24.36	-31.64	56.00	24.12	0.14	0.10	QP
6	1.383	15.50	-30.50	46.00	15.26	0.14	0.10	Average
7	8.252	26.72	-33.28	60.00	26.24	0.20	0.20	QP
8	8.252	22.92	-27.08	50.00	22.44	0.20	0.20	Average
9	16.050	30.16	-29.84	60.00	29.56	0.30	0.30	QP
10	16.050	24.75	-25.25	50.00	24.15	0.30	0.30	Average
11	24.354	31.87	-28.13	60.00	31.09	0.39	0.39	QP
12	24.354	30.27	-19.73	50.00	29.49	0.39	0.39	Average

Test Engineer : Neil  
 Neil Huang

## 5.6. Test of Radiated Emission

Radiated emissions from 30 MHz to 25 GHz were measured according to the methods defines in ANSI C63.4-2001. The EUT was placed on a nonmetallic stand, 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

### 5.6.1. Major Measuring Instruments

#### 5.6.1.1 from 30MHz to 1GHz

- Spectrum Analyzer ( ADVANTEST R3261C )
  - Attenuation 10 dB
  - Start Frequency 30 MHz
  - Stop Frequency 1000 MHz
  - Resolution Bandwidth 120 KHz
  - Signal Input 30MHz – 2.6GHz

- Amplifier (HP 8447D)
  - RF Gain 25 dB
  - Signal Input 100KHz -1.3GHz

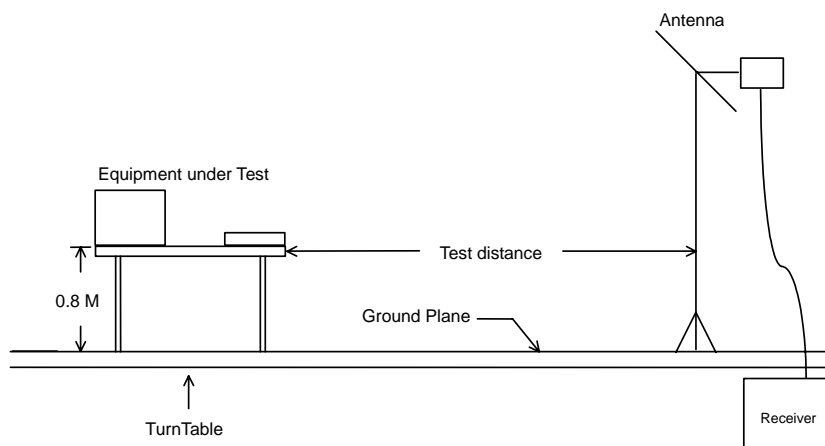
#### 5.6.1.2 from 1GHz to 25GHz

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

5.6.2. 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 both horizontal polarization and vertical polarization of the antenna are set to make the measurement.
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 turn table (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 which do not have 3 dB margin 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 peak 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.

5.6.3. Typical Test Setup Layout of Radiated Emission



5.6.4. Test Result of Radiated Emission

- Test Mode: Mode 1
- Test Distance: 3M
- Temperature: 30 °C
- Relative Humidity: 39 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

**The test was passed at the minimum margin that marked by the frame in the following test record**

■ Spurious Emission

Site : OSD1-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-16-2003 HORIZONTAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 11B CH01  
 : NAP-2405 (CEILING)

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1	46.260	27.58	-12.42	40.00	42.14	0.62	26.40	11.22	Peak	---	---
2	73.770	22.39	-17.61	40.00	41.16	0.75	26.35	6.83	Peak	---	---
3	110.960	26.58	-16.92	43.50	40.31	0.88	26.26	11.65	Peak	---	---
4	124.800	32.47	-11.03	43.50	45.23	0.93	26.20	12.51	Peak	---	---
5	149.540	30.78	-12.72	43.50	44.83	1.02	26.10	11.03	Peak	---	---
6	165.110	36.87	-6.63	43.50	52.00	1.03	26.04	9.88	Peak	---	---
7	172.030	27.22	-16.28	43.50	42.78	1.08	26.01	9.37	Peak	---	---
8	185.700	27.17	-16.33	43.50	42.84	1.13	25.96	9.16	Peak	---	---
1	250.000	35.88	-10.12	46.00	48.40	1.28	25.85	12.05	Peak	---	---
2 @	364.940	41.86	-4.14	46.00	51.22	1.65	26.26	15.25	QP	---	---
3	396.000	37.50	-8.50	46.00	46.00	1.67	26.47	16.30	Peak	---	---
4	498.000	34.29	-11.71	46.00	41.60	2.16	27.19	17.72	Peak	---	---
5	663.570	39.63	-6.37	46.00	46.00	2.42	27.40	18.61	Peak	---	---
1	1588.000	48.62	-25.38	74.00	57.08	27.56	4.88	40.90	Peak	---	---
2	1588.000	31.73	-22.27	54.00	40.19	27.56	4.88	40.90	Average	---	---
3	1878.000	44.16	-9.84	54.00	49.99	29.73	5.45	41.01	Average	---	---
4	1878.000	50.26	-23.74	74.00	56.09	29.73	5.45	41.01	Peak	---	---

Site : OSD1-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-16-2003 VERTICAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 11B CH01  
 : NAP-2405 (CEILING)

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1 @	31.900	37.45	-2.55	40.00	45.92	0.50	26.40	17.43	QP	110	143
2 @	39.520	36.01	-3.99	40.00	46.28	0.55	26.40	15.58	QP	---	---
3	110.960	34.35	-9.15	43.50	48.08	0.88	26.26	11.65	Peak	---	---
4	124.800	37.83	-5.67	43.50	50.59	0.93	26.20	12.51	Peak	---	---
5	149.890	30.34	-13.16	43.50	44.40	1.02	26.10	11.02	Peak	---	---
6	171.510	27.41	-16.09	43.50	42.97	1.08	26.01	9.37	Peak	---	---
7	195.730	27.08	-16.42	43.50	42.61	1.18	25.92	9.21	Peak	---	---
1	250.000	34.94	-11.06	46.00	47.46	1.28	25.85	12.05	Peak	---	---
2	364.940	39.29	-6.71	46.00	48.65	1.65	26.26	15.25	Peak	---	---
3	498.000	34.55	-11.45	46.00	41.86	2.16	27.19	17.72	Peak	---	---
4 @	663.600	41.49	-4.51	46.00	47.86	2.42	27.40	18.61	QP	200	174
1	1196.000	51.21	-22.79	74.00	61.99	25.63	4.24	40.65	Peak	---	---
2	1196.000	27.09	-26.91	54.00	37.07	25.63	4.24	40.65	Average	---	---
3	1590.000	34.75	-19.25	54.00	43.19	27.58	4.88	40.90	Average	---	---
4	1590.000	52.89	-21.11	74.00	61.33	27.58	4.88	40.90	Peak	---	---
5	1878.000	42.93	-11.07	54.00	48.76	29.73	5.45	41.01	Average	---	---
6	1878.000	49.04	-24.96	74.00	54.87	29.73	5.45	41.01	Peak	---	---

- For 3GHz ~ 25GHz  
 Remark: Frequency from 3000MHz to 25000MHz, the emission emitted by the EUT is too low to be measured

■ Field strength of fundamental and harmonics

Frequency ( MHz )	Antenna Polarity	Cable Factor	Reading Loss	Limits ( dBuV )	Emission ( dBuV/m )	Level ( uV/m )	Margin ( dB )	Detect Mode	
2412.000	H	30.18	6.22	68.30	-	-	104.70	171790.84	Peak
2412.000	H	30.18	6.22	63.29	-	-	99.69	96493.93	A.V.
2412.000	V	30.18	6.22	67.64	-	-	104.04	159220.87	A.V.
2412.000	V	30.18	6.22	62.68	-	-	99.08	89949.76	Peak
4828.000	V/H						-		Peak, A.V.
7236.000	V/H						-		Peak, A.V.
9648.000	V/H						-		Peak, A.V.
12060.000	V/H						-		Peak, A.V.
14472.000	V/H						-		Peak, A.V.
16884.000	V/H						-		Peak, A.V.
19296.000	V/H						-		Peak, A.V.
21708.000	V/H						-		Peak, A.V.
24120.000	V/H						-		Peak, A.V.

Remark: The emission emitted by the EUT is too low to be measured except the emission listed above

Test Engineer :   
 \_\_\_\_\_  
 William Lee

- Test Mode: Mode 2
- Test Distance: 3M
- Temperature: 30 °C
- Relative Humidity: 39 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

**The test was passed at the minimum margin that marked by the frame in the following test record**

■ Spurious Emission

Site : OSD1-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-24-2002 HORIZONTAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : SDBI CEILING CH06 B

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	PreampFactor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1	65.980	34.11	-5.89	40.00	53.23	0.94	26.37	6.31	Peak	---	---
2	124.800	32.24	-11.26	43.50	44.23	1.24	26.20	12.97	QF	---	---
3	133.110	39.23	-4.27	43.50	51.80	1.28	26.17	12.32	Peak	---	---
4	149.540	37.16	-6.34	43.50	51.27	1.33	26.10	10.66	Peak	---	---
5	166.150	35.63	-7.87	43.50	50.35	1.43	26.03	9.88	Peak	---	---
6	199.190	29.54	-13.96	43.50	44.15	1.64	25.90	9.65	Peak	---	---
1	250.000	40.59	-5.41	46.00	51.86	1.85	25.85	12.73	Peak	---	---
2	300.000	39.49	-6.51	46.00	49.66	2.00	25.80	13.63	Peak	---	---
3	366.000	41.89	-4.11	46.00	50.46	2.36	26.26	15.33	Peak	---	---
4	450.000	41.22	-4.78	46.00	48.26	2.62	26.85	17.19	Peak	---	---
5	500.000	38.51	-7.49	46.00	44.61	2.92	27.20	18.18	Peak	---	---

Site : OS01-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-24-2002 VERTICAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 5DBI CEILING CH06 B

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	PreampFactor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1 @	43.320	35.85	-4.15	40.00	48.08	0.72	26.40	13.45	Peak	---	---
2	71.000	32.59	-7.41	40.00	51.42	1.10	26.36	6.43	Peak	---	---
3	82.070	34.00	-6.00	40.00	52.11	0.95	26.34	7.28	Peak	---	---
4	124.800	37.60	-5.90	43.50	49.59	1.24	26.20	12.97	QP	---	---
5 @	133.110	41.39	-2.11	43.50	53.96	1.28	26.17	12.32	QP	---	---
6	149.540	33.72	-9.78	43.50	47.83	1.33	26.10	10.66	Peak	---	---
7	165.810	37.79	-5.71	43.50	52.52	1.43	26.04	9.88	Peak	---	---
8	199.190	32.10	-11.40	43.50	46.71	1.64	25.90	9.65	Peak	---	---
1	225.000	35.87	-10.13	46.00	48.93	1.63	25.88	11.19	Peak	---	---
2 @	250.000	44.79	-1.21	46.00	56.06	1.85	25.85	12.73	QP	100	285
3	300.000	39.09	-6.91	46.00	49.26	2.00	25.80	13.63	Peak	---	---
4 @	375.000	41.41	-4.59	46.00	49.81	2.35	26.33	15.58	Peak	---	---
5	433.000	40.13	-5.87	46.00	47.49	2.52	26.73	16.85	QP	---	---
6	500.000	40.91	-5.09	46.00	47.01	2.92	27.20	18.18	Peak	---	---

- For 3GHz ~ 25GHz  
 Remark: Frequency from 3000MHz to 25000MHz, the emission emitted by the EUT is too low to be measured



■ Field strength of fundamental and harmonics

Frequency ( MHz )	Antenna Polarity	Cable Factor	Reading Loss	Limits ( dBuV )	Emission ( dBuV/m )	Level ( uV/m )	Margin ( dB )	Detect Mode	
2438.000	H	28.30	6.26	61.20	-	-	95.76	61376.20	Peak
2438.000	H	28.30	6.26	55.14	-	-	89.70	30549.21	A.V.
2438.000	V	28.30	6.26	61.26	-	-	95.82	61801.64	Peak
2438.000	V	28.30	6.26	55.17	-	-	89.73	30654.91	A.V.
4876.000	V/H						-		Peak, A.V.
7311.000	V/H						-		Peak, A.V.
9748.000	V/H						-		Peak, A.V.
12185.000	V/H						-		Peak, A.V.
14622.000	V/H						-		Peak, A.V.
17059.000	V/H						-		Peak, A.V.
19496.000	V/H						-		Peak, A.V.
21933.000	V/H						-		Peak, A.V.
24370.000	V/H						-		Peak, A.V.

Remark: The emission emitted by the EUT is too low to be measured except the emission listed above

Test Engineer :   
 \_\_\_\_\_  
 William Lee

- Test Mode: Mode 3
- Test Distance: 3M
- Temperature: 30 °C
- Relative Humidity: 39 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

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

■ Spurious Emission

Site : OSD1-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-24-2002 HORIZONTAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 5DBI CILING CH11 B

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1 @	65.980	35.55	-4.45	40.00	54.67	0.94	26.37	6.31	Peak	---	---
2	124.800	32.68	-10.82	43.50	44.67	1.24	26.20	12.97	QP	---	---
3 @	133.110	38.67	-4.83	43.50	51.24	1.28	26.17	12.32	Peak	---	---
4	149.540	34.60	-8.90	43.50	48.71	1.33	26.10	10.66	Peak	---	---
5 @	166.150	38.07	-5.43	43.50	52.79	1.43	26.03	9.88	Peak	---	---
6	199.190	29.98	-13.52	43.50	44.59	1.64	25.90	9.65	Peak	---	---
1	250.000	39.10	-6.90	46.00	50.37	1.85	25.85	12.73	Peak	---	---
2 @	300.000	41.00	-5.00	46.00	51.17	2.00	25.80	13.63	Peak	---	---
3 @	366.000	42.40	-3.60	46.00	50.97	2.36	26.26	15.33	Peak	---	---
4 @	450.000	40.73	-5.27	46.00	47.77	2.62	26.85	17.19	Peak	---	---
5 @	500.000	41.02	-4.98	46.00	47.12	2.92	27.20	18.18	Peak	---	---

**FCC TEST REPORT**

Report No. : F370909

Site : OSD1-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-24-2002 VERTICAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 5DBI CILING CH11 B

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1 @	43.320	35.22	-4.78	40.00	47.45	0.72	26.40	13.45	Peak	---	---
2	71.000	32.96	-7.04	40.00	51.79	1.10	26.36	6.43	Peak	---	---
3	82.070	33.37	-6.63	40.00	51.48	0.95	26.34	7.28	Peak	---	---
4 @	124.800	38.97	-4.53	43.50	50.96	1.24	26.20	12.97	QP	---	---
5 @	133.110	40.76	-2.74	43.50	53.33	1.28	26.17	12.32	QP	---	---
6	149.540	37.09	-6.41	43.50	51.20	1.33	26.10	10.66	Peak	---	---
7	165.810	36.16	-7.34	43.50	50.89	1.43	26.04	9.88	Peak	---	---
8	199.190	32.47	-11.03	43.50	47.08	1.64	25.90	9.65	Peak	---	---
1	225.000	34.90	-11.10	46.00	47.96	1.63	25.88	11.19	Peak	---	---
2 @	250.000	44.82	-1.18	46.00	56.09	1.85	25.85	12.73	QP	100	293
3	300.000	36.12	-9.88	46.00	46.29	2.00	25.80	13.63	Peak	---	---
4	375.000	39.44	-6.56	46.00	47.84	2.35	26.33	15.58	Peak	---	---
5 @	433.000	42.16	-3.84	46.00	49.52	2.52	26.73	16.85	QP	---	---
6	500.000	39.94	-6.06	46.00	46.04	2.92	27.20	18.18	Peak	---	---

➤ For 3GHz ~ 25GHz

Remark: Frequency from 3000MHz to 25000MHz, the emission emitted by the EUT is too low to be measured

■ Field strength of fundamental and harmonics

Frequency ( MHz )	Antenna Polarity	Cable Factor ( dB/m )	Cable Loss ( dB )	Reading ( dBuV )	Limits ( dBuV/m )	Emission ( uV/m )	Level ( dBuV/m )	Margin ( uV/m )	Detect ( dB )	Mode
2462.000	H	28.35	6.29	66.59	-	-	101.23	115212.61		Peak
2462.000	H	28.35	6.29	61.26	-	-	95.90	62373.48		AV
2462.000	V	28.35	6.29	68.49	-	-	103.13	143383.77		Peak
2462.000	V	28.35	6.29	63.37	-	-	98.01	79524.33		AV
4920.000	V/H						-			AV/ Peak
7386.000	V/H						-			AV/ Peak
9848.000	V/H						-			AV/ Peak
12310.000	V/H						-			AV/ Peak
14772.000	V/H						-			AV/ Peak
17234.000	V/H						-			AV/ Peak
19696.000	V/H						-			AV/ Peak
22158.000	V/H						-			AV/ Peak
24620.000	V/H						-			AV/ Peak

Remark: The emission emitted by the EUT is too low to be measured except the emission listed above,

Test Engineer :   
 \_\_\_\_\_  
 William Lee

- Test Mode: Mode 4
- Test Distance: 3M
- Temperature: 30 °C
- Relative Humidity: 39 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

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

■ Spurious Emission

Site : OSD1-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-16-2003 HORIZONTAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 11B CH01  
 : 5DBI DIPOLE

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1	45.740	28.31	-11.69	40.00	42.25	0.62	26.40	11.84	Peak	---	---
2	60.450	28.62	-11.38	40.00	48.70	0.65	26.38	5.65	Peak	---	---
3	65.470	24.34	-15.66	40.00	44.05	0.70	26.37	5.96	Peak	---	---
4	124.980	27.17	-16.33	43.50	39.93	0.93	26.20	12.51	Peak	---	---
5	150.750	36.14	-7.36	43.50	50.20	1.02	26.10	11.02	Peak	---	---
6	162.170	28.67	-14.83	43.50	43.61	1.01	26.05	10.10	Peak	---	---
7	165.110	37.48	-6.02	43.50	52.61	1.03	26.04	9.88	Peak	---	---
8	168.050	23.08	-20.42	43.50	38.39	1.06	26.03	9.66	Peak	---	---
9	178.090	26.89	-16.61	43.50	42.65	1.09	25.99	9.14	Peak	---	---
10	199.540	20.99	-22.51	43.50	36.46	1.20	25.90	9.23	Peak	---	---
1	250.000	34.97	-11.03	46.00	47.49	1.28	25.85	12.05	Peak	---	---
2	298.000	40.19	-5.81	46.00	51.49	1.50	25.80	13.00	Peak	---	---
3	364.000	44.13	-1.87	46.00	53.52	1.65	26.25	15.21	QP	200	295
4	498.000	31.98	-14.02	46.00	39.29	2.16	27.19	17.72	Peak	---	---
5	663.600	35.52	-10.48	46.00	41.89	2.42	27.40	18.61	Peak	---	---
6	763.110	34.22	-11.78	46.00	39.50	2.56	27.34	19.50	Peak	---	---
1	1582.000	50.34	-23.66	74.00	58.88	27.52	4.87	40.90	Peak	---	---
2	1582.000	30.18	-23.82	54.00	38.69	27.52	4.87	40.90	Average	---	---

Site : OS01-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-16-2003 VERTICAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 11B CH01  
 : 5DBI DIPOLE

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	PreampAntenna Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1	39.340	37.58	-2.42	40.00	47.85	0.55	26.40	15.58	QP	---	---
2	46.260	33.09	-6.91	40.00	47.65	0.62	26.40	11.22	Peak	---	---
3	66.680	29.50	-10.50	40.00	49.16	0.70	26.37	6.01	Peak	---	---
4	110.960	28.69	-14.81	43.50	42.42	0.88	26.26	11.65	Peak	---	---
5	124.980	34.97	-8.53	43.50	47.73	0.93	26.20	12.51	Peak	---	---
6	158.190	26.25	-17.25	43.50	40.92	1.00	26.07	10.40	Peak	---	---
7	165.460	37.76	-5.74	43.50	52.95	1.04	26.04	9.81	Peak	---	---
8	172.380	23.91	-19.59	43.50	39.54	1.08	26.01	9.30	Peak	---	---
9	185.350	24.33	-19.17	43.50	40.02	1.12	25.96	9.15	Peak	---	---
10	199.020	27.68	-15.82	43.50	43.17	1.19	25.90	9.22	Peak	---	---
1	250.000	35.84	-10.16	46.00	48.36	1.28	25.85	12.05	Peak	---	---
2	298.000	40.66	-5.34	46.00	51.96	1.50	25.80	13.00	Peak	---	---
3	364.940	42.43	-3.57	46.00	51.79	1.65	26.26	15.25	QP	---	---
4	497.710	33.05	-12.95	46.00	40.36	2.16	27.19	17.72	Peak	---	---
5	530.000	38.35	-7.65	46.00	45.36	2.10	27.26	18.15	Peak	---	---
6	663.540	37.39	-8.61	46.00	43.76	2.42	27.40	18.61	Peak	---	---
1	1062.000	46.96	-27.04	74.00	58.40	25.08	4.03	40.55	Peak	---	---
2	1062.000	30.92	-23.08	54.00	42.36	25.08	4.03	40.55	Average	---	---
3	1596.000	32.64	-21.36	54.00	41.03	27.62	4.89	40.90	Average	---	---
4	1596.000	52.22	-21.78	74.00	60.61	27.62	4.89	40.90	Peak	---	---

➤ For 3GHz ~ 25GHz

Remark: Frequency from 3000MHz to 25000MHz, the emission emitted by the EUT is too low to be measured

■ Field strength of fundamental and harmonics

Frequency ( MHz )	Antenna Polarity	Cable Factor ( dB/m )	Cable Loss ( dB )	Reading ( dBuV )	Limits ( dBuV/m )	Emission ( uV/m )	Level ( dBuV/m )	Margin ( uV/m )	Detect ( dB )	Mode
2410.000	H	30.18	6.22	62.22	-	-	98.62	85310.01		Peak
2410.000	H	30.18	6.22	60.19	-	-	96.59	67530.51		AV
2408.000	V	30.18	6.22	59.66	-	-	96.06	63533.09		Peak
2408.000	V	30.18	6.22	57.46	-	-	93.86	49317.38		AV
4824.000	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: The emission emitted by the EUT is too low to be measured except the emission listed above,

Test Engineer :   
 William Lee

- Test Mode: Mode 5
- Test Distance: 3M
- Temperature: 30 °C
- Relative Humidity: 39 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

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

■ Spurious Emission

Site : OSD1-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-24-2002 HORIZONTAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 5DBI DIPOLE CH06 B

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1	124.800	34.80	-8.70	43.50	46.79	1.24	26.20	12.97	Peak	---	---
2	133.110	32.60	-10.90	43.50	45.17	1.28	26.17	12.32	Peak	---	---
3 @	149.540	38.93	-4.57	43.50	53.04	1.33	26.10	10.66	Peak	---	---
4	166.000	35.21	-8.29	43.50	49.93	1.43	26.03	9.88	QP	---	---
5	180.680	37.37	-6.13	43.50	52.25	1.47	25.98	9.63	Peak	---	---
6	199.190	35.71	-7.79	43.50	50.32	1.64	25.90	9.65	Peak	---	---
1 @	250.000	42.37	-3.63	46.00	53.64	1.85	25.85	12.73	Peak	---	---
2	300.000	38.65	-7.35	46.00	48.82	2.00	25.80	13.63	Peak	---	---
3 @	366.000	42.07	-3.93	46.00	50.64	2.36	26.26	15.33	Peak	---	---
4 @	500.000	42.09	-3.91	46.00	48.19	2.92	27.20	18.18	Peak	---	---
5 @	666.000	41.96	-4.04	46.00	46.39	3.67	27.40	19.30	Peak	---	---



Site : OSD1-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-24-2002 VERTICAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 5DBI DIPOLE CH06 B

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1	51.450	34.05	-5.95	40.00	50.43	0.74	26.40	9.28	Peak	---	---
2 @	59.410	35.42	-4.58	40.00	54.38	0.88	26.38	6.54	Peak	---	---
3	72.730	34.40	-5.60	40.00	53.25	0.96	26.35	6.54	Peak	---	---
4	86.400	33.99	-6.01	40.00	51.46	0.97	26.33	7.89	Peak	---	---
5	124.290	35.32	-8.18	43.50	48.49	1.23	26.20	11.80	QP	---	---
6	133.110	36.48	-7.02	43.50	49.05	1.28	26.17	12.32	Peak	---	---
7	149.540	36.01	-7.49	43.50	50.12	1.33	26.10	10.66	Peak	---	---
8	165.630	35.49	-8.01	43.50	50.22	1.43	26.04	9.88	Peak	---	---
9	179.990	38.03	-5.47	43.50	52.91	1.47	25.98	9.63	Peak	---	---
10	199.190	36.19	-7.31	43.50	50.80	1.64	25.90	9.65	Peak	---	---
1	233.000	34.17	-11.83	46.00	46.68	1.70	25.87	11.66	Peak	---	---
2 @	250.000	44.84	-1.16	46.00	56.11	1.85	25.85	12.73	QP	100	299
3 @	300.000	41.44	-4.56	46.00	51.61	2.00	25.80	13.63	Peak	---	---
4	366.000	39.24	-6.76	46.00	47.81	2.36	26.26	15.33	Peak	---	---
5	433.000	41.08	-4.92	46.00	48.44	2.52	26.73	16.85	QP	---	---
6 @	488.000	42.53	-3.47	46.00	48.88	2.84	27.12	17.93	Peak	---	---

➤ For 3GHz ~ 25GHz

Remark: Frequency from 3000MHz to 25000MHz, the emission emitted by the EUT is too low to be measured

■ Field strength of fundamental and harmonics

Frequency ( MHz )	Antenna Polarity	Cable Factor	Loss	Reading ( dBuV )	Limits ( dBuV/m )	Emission ( uV/m )	Level ( dBuV/m )	Margin ( uV/m )	Detect ( dB )	Mode
2436.000	H	28.29	6.26	65.87	-	-	100.42	104954.24		Peak
2436.000	H	28.29	6.26	60.06	-	-	94.61	53765.04		AV
2438.000	V	28.30	6.26	72.37	-	-	106.93	222075.17		Peak
2438.000	V	28.30	6.26	65.35	-	-	99.91	98969.19		AV
4876.000	V/H						-			AV/Peak
7311.000	V/H						-			AV/Peak
9748.000	V/H						-			AV/Peak
12185.000	V/H						-			AV/Peak
14622.000	V/H						-			AV/Peak
17059.000	V/H						-			AV/Peak
19496.000	V/H						-			AV/Peak
21933.000	V/H						-			AV/Peak
24370.000	V/H						-			AV/Peak

Remark: The emission emitted by the EUT is too low to be measured except the emission listed above,

Test Engineer :   
 \_\_\_\_\_  
 William Lee

- Test Mode: Mode 6
- Test Distance: 3M
- Temperature: 30 °C
- Relative Humidity: 39 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

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

■ Spurious Emission

Site : OSD1-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-24-2002 HORIZONTAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : SDBI DIPOLE CH11 B

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1	124.800	32.81	-10.69	43.50	44.80	1.24	26.20	12.97	Peak	---	---
2	133.110	30.61	-12.89	43.50	43.18	1.28	26.17	12.32	Peak	---	---
3	149.540	33.94	-9.56	43.50	48.05	1.33	26.10	10.66	Peak	---	---
4	166.000	37.22	-6.28	43.50	51.94	1.43	26.03	9.88	OP	---	---
5	180.680	34.38	-9.12	43.50	49.26	1.47	25.98	9.63	Peak	---	---
6	199.190	33.72	-9.78	43.50	48.33	1.64	25.90	9.65	Peak	---	---
1 @	250.000	42.50	-3.50	46.00	53.77	1.85	25.85	12.73	Peak	---	---
2 @	300.000	40.78	-5.22	46.00	50.95	2.00	25.80	13.63	Peak	---	---
3 @	366.000	41.20	-4.80	46.00	49.77	2.36	26.26	15.33	Peak	---	---
4 @	500.000	42.22	-3.78	46.00	48.32	2.92	27.20	18.18	Peak	---	---
5 @	666.000	41.09	-4.91	46.00	45.52	3.67	27.40	19.30	Peak	---	---

Site : OSD1-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-24-2002 VERTICAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 5DBI DIPOLE CH11 B

	Over	Limit	Read	Cable	Preamp	Antenna	Remark	Ant	Table		
Freq	Level	Limit	Line	Loss	Factor	Factor		Pos	Pos		
MHz	dBuV/m	dB	dBuV/m	dB	dB	dB/m		cm	deg		
1 @	51.450	35.49	-4.51	40.00	51.87	0.74	26.40	9.28	Peak	---	---
2	59.410	33.86	-6.14	40.00	52.82	0.88	26.38	6.54	Peak	---	---
3 @	72.730	34.84	-5.16	40.00	53.69	0.96	26.35	6.54	Peak	---	---
4	86.400	34.43	-5.57	40.00	51.90	0.97	26.33	7.89	Peak	---	---
5	124.290	37.76	-5.74	43.50	50.93	1.23	26.20	11.80	QP	---	---
6	133.110	36.92	-6.58	43.50	49.49	1.28	26.17	12.32	Peak	---	---
7	149.540	35.45	-8.05	43.50	49.56	1.33	26.10	10.66	Peak	---	---
8	165.630	35.93	-7.57	43.50	50.66	1.43	26.04	9.88	Peak	---	---
9	179.990	37.47	-6.03	43.50	52.35	1.47	25.98	9.63	Peak	---	---
10	199.190	36.63	-6.87	43.50	51.24	1.64	25.90	9.65	Peak	---	---
1	233.000	34.33	-11.67	46.00	46.84	1.70	25.87	11.66	Peak	---	---
2 @	250.000	45.00	-1.00	46.00	56.27	1.85	25.85	12.73	QP	100	281
3	300.000	39.60	-6.40	46.00	49.77	2.00	25.80	13.63	Peak	---	---
4	366.000	39.40	-6.60	46.00	47.97	2.36	26.26	15.33	Peak	---	---
5 @	433.000	42.24	-3.76	46.00	49.60	2.52	26.73	16.85	QP	---	---
6 @	488.000	41.69	-4.31	46.00	48.04	2.84	27.12	17.93	Peak	---	---

➤ For 3GHz ~ 25GHz

Remark: Frequency from 3000MHz to 25000MHz, the emission emitted by the EUT is too low to be measured

■ Field strength of fundamental and harmonics

Frequency ( MHz )	Antenna Polarity	Cable Factor ( dB/m )	Cable Loss ( dB )	Reading ( dBuV )	Limits ( dBuV/m )	Emission ( uV/m )	Level ( dBuV/m )	Margin ( uV/m )	Detect ( dB )	Mode
2462.000	H	28.35	6.29	64.67	-	-	99.31	92363.42		Peak
2462.000	H	28.35	6.29	52.29	-	-	86.93	22207.52		AV
2462.000	V	28.35	6.29	72.56	-	-	107.20	229086.77		Peak
2462.000	V	28.35	6.29	63.56	-	-	98.20	81283.05		AV
4942.000	V/H						-			AV/ Peak
7386.000	V/H						-			AV/ Peak
9848.000	V/H						-			AV/ Peak
12310.000	V/H						-			AV/ Peak
14772.000	V/H						-			AV/ Peak
17234.000	V/H						-			AV/ Peak
19696.000	V/H						-			AV/ Peak
22158.000	V/H						-			AV/ Peak
24620.000	V/H						-			AV/ Peak

Remark: The emission emitted by the EUT is too low to be measured except the emission listed above,

Test Engineer :   
 \_\_\_\_\_  
 William Lee

- Test Mode: Mode 7
- Test Distance: 3M
- Temperature: 30 °C
- Relative Humidity: 39 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

The test was passed at the minimum margin that marked by the frame in the following test record

■ Spurious Emission

Site : OSD1-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-16-2003 HORIZONTAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 11B CH1 (TX)  
 : 12DBI ANT.

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1	46.260	29.02	-10.98	40.00	43.58	0.62	26.40	11.22	Peak	---	---
2	73.770	23.83	-16.17	40.00	42.60	0.75	26.35	6.83	Peak	---	---
3	110.960	28.02	-15.48	43.50	41.75	0.88	26.26	11.65	Peak	---	---
4	124.800	33.91	-9.59	43.50	46.67	0.93	26.20	12.51	Peak	---	---
5	149.540	32.22	-11.28	43.50	46.27	1.02	26.10	11.03	Peak	---	---
6	165.110	38.31	-5.19	43.50	53.44	1.03	26.04	9.88	Peak	---	---
7	172.030	28.66	-14.84	43.50	44.22	1.08	26.01	9.37	Peak	---	---
8	185.700	28.61	-14.89	43.50	44.28	1.13	25.96	9.16	Peak	---	---
1	250.000	37.03	-8.97	46.00	49.55	1.28	25.85	12.05	Peak	---	---
2 @	364.940	44.01	-1.99	46.00	53.37	1.65	26.26	15.25	QP	200	305
3	396.000	38.65	-7.35	46.00	47.15	1.67	26.47	16.30	Peak	---	---
4	498.000	35.44	-10.56	46.00	42.75	2.16	27.19	17.72	Peak	---	---
5	663.570	40.78	-5.22	46.00	47.15	2.42	27.40	18.61	Peak	---	---
1	1582.000	48.22	-25.78	74.00	56.73	27.52	4.87	40.90	Peak	---	---
2	1582.000	30.96	-23.04	54.00	39.47	27.52	4.87	40.90	Average	---	---

Site : OS01-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-16-2003 VERTICAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 11B CH1 (TX)  
 : 12DBI ANT.

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1 @	31.900	37.87	-2.13	40.00	46.34	0.50	26.40	17.43	QP	---	---
2 @	39.520	36.43	-3.57	40.00	46.70	0.55	26.40	15.58	QP	---	---
3	110.960	34.77	-8.73	43.50	48.50	0.88	26.26	11.65	Peak	---	---
4	124.800	38.25	-5.25	43.50	51.01	0.93	26.20	12.51	Peak	---	---
5	149.890	30.76	-12.74	43.50	44.82	1.02	26.10	11.02	Peak	---	---
6	171.510	27.83	-15.67	43.50	43.39	1.08	26.01	9.37	Peak	---	---
7	195.730	27.50	-16.00	43.50	43.03	1.18	25.92	9.21	Peak	---	---
1	250.000	36.07	-9.93	46.00	48.59	1.28	25.85	12.05	Peak	---	---
2	364.940	40.42	-5.58	46.00	49.78	1.65	26.26	15.25	Peak	---	---
3	498.000	35.68	-10.32	46.00	42.99	2.16	27.19	17.72	Peak	---	---
4 @	663.600	42.62	-3.38	46.00	48.99	2.42	27.40	18.61	QP	---	---
1	1596.000	51.63	-22.37	74.00	60.02	27.62	4.89	40.90	Peak	---	---
2	1596.000	43.49	-10.51	54.00	51.00	27.62	4.89	40.90	Average	---	---
3	1878.000	63.86	-10.14	74.00	69.69	29.73	5.45	41.01	Peak	---	---
4	1878.000	52.93	-1.07	54.00	58.76	29.73	5.45	41.01	Average	200	305

- For 3GHz ~ 25GHz  
 Remark: Frequency from 3000MHz to 25000MHz, the emission emitted by the EUT is too low to be measured

■ Field strength of fundamental and harmonics

Frequency ( MHz )	Antenna Polarity	Cable Factor	Cable Loss	Reading ( dBuV )	Limits ( dBuV/m )	Emission ( uV/m )	Level ( dBuV/m )	Margin ( uV/m )	Detect ( dB )	Mode
2412.000	H	30.18	6.22	64.60	-	-	101.00	112201.85		Peak
2412.000	H	30.18	6.22	59.14	-	-	95.54	59841.16		A.V.
2412.000	V	30.18	6.22	71.37	-	-	107.77	244624.53		A.V.
24120.000	V	30.18	6.22	65.38	-	-	101.78	122743.92		Peak
4828.000	H						-			Peak, A.V.
4828.000	V	33.28	9.06	11.11	74.00	5011.87	53.45	470.44	-20.55	Peak
4828.000	V	33.28	9.06	2.58	54.00	501.19	44.92	176.20	-9.08	A.V.
7236.000	V/H						-			Peak, A.V.
9648.000	V/H						-			Peak, A.V.
12060.000	V/H						-			Peak, A.V.
14472.000	V/H						-			Peak, A.V.
16884.000	V/H						-			Peak, A.V.
19296.000	V/H						-			Peak, A.V.
21708.000	V/H						-			Peak, A.V.
24120.000	V/H						-			Peak, A.V.

Remark: The emission emitted by the EUT is too low to be measured except the emission listed above

Test Engineer :   
 \_\_\_\_\_  
 William Lee



- Test Mode: Mode 8
- Test Distance: 3M
- Temperature: 30 °C
- Relative Humidity: 39 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

**The test was passed at the minimum margin that marked by the frame in the following test record**

■ Spurious Emission

Site : OS01-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-16-2003 HORIZONTAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 11B CH6 (TX)  
 : 12DBI ANT.

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	PreampAntenna Factor	Remark	Ant Pos	Table Pos	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m	cm	deg	
1	46.260	25.74	-14.26	40.00	40.30	0.62	26.40	11.22	Peak	---	---
2	75.330	22.19	-17.81	40.00	40.62	0.75	26.35	7.17	Peak	---	---
3	111.830	20.84	-22.66	43.50	34.47	0.88	26.25	11.74	Peak	---	---
4	125.320	26.39	-17.11	43.50	39.15	0.93	26.20	12.51	Peak	---	---
5	132.420	20.94	-22.56	43.50	34.41	0.95	26.17	11.75	Peak	---	---
6	150.060	26.53	-16.97	43.50	40.59	1.02	26.10	11.02	Peak	---	---
7	162.690	26.79	-16.71	43.50	41.79	1.02	26.05	10.03	Peak	---	---
8	165.110	37.43	-6.07	43.50	52.56	1.03	26.04	9.88	Peak	---	---
9	171.340	23.42	-20.08	43.50	38.98	1.08	26.01	9.37	Peak	---	---
10	189.850	21.79	-21.71	43.50	37.40	1.15	25.94	9.18	Peak	---	---
11	199.190	24.54	-18.96	43.50	40.03	1.19	25.90	9.22	Peak	---	---
1	250.000	35.71	-10.29	46.00	48.23	1.28	25.85	12.05	Peak	---	---
2	298.000	40.92	-5.08	46.00	52.22	1.50	25.80	13.00	Peak	---	---
3	364.000	43.87	-2.13	46.00	53.26	1.65	26.25	15.21	QP	200	277
4	500.000	30.97	-15.03	46.00	38.23	2.18	27.20	17.76	Peak	---	---
5	663.600	36.66	-9.34	46.00	43.03	2.42	27.40	18.61	Peak	---	---
6	763.000	32.76	-13.24	46.00	38.04	2.56	27.34	19.50	Peak	---	---
1	1596.000	51.16	-22.84	74.00	59.55	27.62	4.89	40.90	Peak	---	---
2	1596.000	33.77	-20.23	54.00	42.16	27.62	4.89	40.90	Avera	---	---

Site : OSD1-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-16-2003 VERTICAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 11B CH6 (TX)  
 : 12DBI ANT.

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Presamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1 @	31.900	37.24	-2.76	40.00	45.71	0.50	26.40	17.43	QP	---	---
2 @	39.340	37.12	-2.88	40.00	47.39	0.55	26.40	15.58	QP	---	---
3	46.440	33.23	-6.77	40.00	47.79	0.62	26.40	11.22	Peak	---	---
4	69.440	32.89	-7.11	40.00	52.39	0.70	26.36	6.16	Peak	---	---
5	110.960	34.54	-8.96	43.50	48.27	0.88	26.26	11.65	Peak	---	---
6	124.800	37.42	-6.08	43.50	50.18	0.93	26.20	12.51	Peak	---	---
7	149.890	31.73	-11.77	43.50	45.79	1.02	26.10	11.02	Peak	---	---
8	165.110	35.82	-7.68	43.50	50.95	1.03	26.04	9.88	Peak	---	---
9	171.340	27.41	-16.09	43.50	42.97	1.08	26.01	9.37	Peak	---	---
10	195.910	28.27	-15.23	43.50	43.80	1.18	25.92	9.21	Peak	---	---
1	250.000	36.37	-9.63	46.00	48.89	1.28	25.85	12.05	Peak	---	---
2	364.000	37.90	-8.10	46.00	47.29	1.65	26.25	15.21	Peak	---	---
3	497.000	35.14	-10.86	46.00	42.46	2.15	27.18	17.71	Peak	---	---
4	663.570	40.09	-5.91	46.00	46.46	2.42	27.40	18.61	Peak	---	---
1	1590.000	42.33	-11.67	54.00	50.77	27.58	4.88	40.90	Avera	---	---
2	1590.000	50.56	-23.44	74.00	59.00	27.58	4.88	40.90	Peak	---	---

- For 3GHz ~ 25GHz  
 Remark: Frequency from 3000MHz to 25000MHz, the emission emitted by the EUT is too low to be measured

■ Field strength of fundamental and harmonics

Frequency ( MHz )	Antenna Polarity	Cable Factor	Reading Loss	Limits ( dBuV )	Emission ( dBuV/m )	Level ( uV/m )	Margin ( dB )	Detect Mode	
2438.000	H	30.15	6.26	59.41	-	-	95.82	61801.64	Peak
2438.000	H	30.15	6.26	60.65	-	-	97.06	71285.30	A.V.
2436.000	V	30.15	6.26	64.17	-	-	100.58	106905.49	Peak
2436.000	V	30.15	6.26	70.48	-	-	106.89	221054.83	A.V.
4876.000	V/H						-		Peak, A.V.
7311.000	V/H						-		Peak, A.V.
9748.000	V/H						-		Peak, A.V.
12185.000	V/H						-		Peak, A.V.
14622.000	V/H						-		Peak, A.V.
17059.000	V/H						-		Peak, A.V.
19496.000	V/H						-		Peak, A.V.
21933.000	V/H						-		Peak, A.V.
24370.000	V/H						-		Peak, A.V.

Remark: The emission emitted by the EUT is too low to be measured except the emission listed above

Test Engineer :   
 \_\_\_\_\_  
 William Lee

- Test Mode: Mode 9
- Test Distance: 3M
- Temperature: 30 °C
- Relative Humidity: 39 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

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

■ Spurious Emission

Site : OSD1-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-16-2003 HORIZONTAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 11B CH11 (TX)  
 : 12DBI ANT.

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1	45.740	28.60	-11.40	40.00	42.54	0.62	26.40	11.84	Peak	---	---
2	60.450	28.91	-11.09	40.00	48.99	0.65	26.38	5.65	Peak	---	---
3	65.470	24.63	-15.37	40.00	44.34	0.70	26.37	5.96	Peak	---	---
4	124.980	27.46	-16.04	43.50	40.22	0.93	26.20	12.51	Peak	---	---
5	150.750	36.43	-7.07	43.50	50.49	1.02	26.10	11.02	Peak	---	---
6	162.170	28.96	-14.54	43.50	43.90	1.01	26.05	10.10	Peak	---	---
7	165.110	37.77	-5.73	43.50	52.90	1.03	26.04	9.88	Peak	---	---
8	168.050	23.37	-20.13	43.50	38.68	1.06	26.03	9.66	Peak	---	---
9	178.090	27.18	-16.32	43.50	42.94	1.09	25.99	9.14	Peak	---	---
10	199.540	21.28	-22.22	43.50	36.75	1.20	25.90	9.23	Peak	---	---
1	250.000	35.01	-10.99	46.00	47.53	1.28	25.85	12.05	Peak	---	---
2	298.000	40.23	-5.77	46.00	51.53	1.50	25.80	13.00	Peak	---	---
3	364.000	44.17	-1.83	46.00	53.56	1.65	26.25	15.21	QP	200	290
4	498.000	32.02	-13.98	46.00	39.33	2.16	27.19	17.72	Peak	---	---
5	663.600	35.56	-10.44	46.00	41.93	2.42	27.40	18.61	Peak	---	---
1	1588.000	47.85	-26.15	74.00	56.31	27.56	4.88	40.90	Peak	---	---
2	1588.000	30.14	-23.86	54.00	38.60	27.56	4.88	40.90	Avera	---	---

**FCC TEST REPORT**

Report No. : F370909

Site : OSD1-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-16-2003 VERTICAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 11B CH11 (TX)  
 : 12DBI ANT.

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1	39.340	37.85	-2.15	40.00	48.12	0.55	26.40	15.58	QP	---	---
2	46.260	33.36	-6.64	40.00	47.92	0.62	26.40	11.22	Peak	---	---
3	66.680	29.77	-10.23	40.00	49.43	0.70	26.37	6.01	Peak	---	---
4	110.960	28.96	-14.54	43.50	42.69	0.88	26.26	11.65	Peak	---	---
5	124.980	35.24	-8.26	43.50	48.00	0.93	26.20	12.51	Peak	---	---
6	158.190	26.52	-16.98	43.50	41.19	1.00	26.07	10.40	Peak	---	---
7	165.460	38.03	-5.47	43.50	53.22	1.04	26.04	9.81	Peak	---	---
8	172.380	24.18	-19.32	43.50	39.81	1.08	26.01	9.30	Peak	---	---
9	185.350	24.60	-18.90	43.50	40.29	1.12	25.96	9.15	Peak	---	---
10	199.020	27.95	-15.55	43.50	43.44	1.19	25.90	9.22	Peak	---	---
1	250.000	36.17	-9.83	46.00	48.69	1.28	25.85	12.05	Peak	---	---
2	298.000	40.99	-5.01	46.00	52.29	1.50	25.80	13.00	Peak	---	---
3	364.940	42.76	-3.24	46.00	52.12	1.65	26.26	15.25	QP	---	---
4	497.710	33.38	-12.62	46.00	40.69	2.16	27.19	17.72	Peak	---	---
5	530.000	38.68	-7.32	46.00	45.69	2.10	27.26	18.15	Peak	---	---
6	663.540	37.72	-8.28	46.00	44.09	2.42	27.40	18.61	Peak	---	---
1	1588.000	54.17	-19.83	74.00	62.63	27.56	4.88	40.90	Peak	---	---
2	1588.000	46.55	-7.45	54.00	55.01	27.56	4.88	40.90	Average	---	---
3	1956.000	55.16	-18.84	74.00	60.29	30.30	5.61	41.04	Peak	---	---
4	1956.000	44.69	-9.31	54.00	49.82	30.30	5.61	41.04	Average	---	---

➤ For 3GHz ~ 25GHz

Remark: Frequency from 3000MHz to 25000MHz, the emission emitted by the EUT is too low to be measured

■ Field strength of fundamental and harmonics

Frequency ( MHz )	Antenna Polarity	Cable Factor ( dB/m )	Cable Loss ( dB )	Reading ( dBuV )	Limits ( dBuV/m )	Emission ( uV/m )	Level ( dBuV/m )	Margin ( uV/m )	Detect ( dB )	Mode
2460.000	H	30.13	6.29	61.84	-	-	98.26	81846.48		Peak
2460.000	H	30.13	6.29	61.20	-	-	97.62	76032.63		AV
2460.000	V	30.13	6.29	-3.81	-	-	32.61	42.71		Peak
2460.000	V	30.13	6.29	10.14	-	-	46.56	212.81		AV
4920.000	V/H						-			AV/ Peak
7386.000	V/H						-			AV/ Peak
9848.000	V/H						-			AV/ Peak
12310.000	V/H						-			AV/ Peak
14772.000	V/H						-			AV/ Peak
17234.000	V/H						-			AV/ Peak
19696.000	V/H						-			AV/ Peak
22158.000	V/H						-			AV/ Peak
24620.000	V/H						-			AV/ Peak

Remark: The emission emitted by the EUT is too low to be measured except the emission listed above,

Test Engineer :   
 \_\_\_\_\_  
 William Lee

- Test Mode: Mode 10
- Test Distance: 3M
- Temperature: 30 °C
- Relative Humidity: 39 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

**The test was passed at the minimum margin that marked by the frame in the following test record**

■ Spurious Emission

Site : OS01-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-16-2003 HORIZONTAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 11B CH01  
 : 18DBI PATCH

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1	46.260	25.56	-14.44	40.00	40.12	0.62	26.40	11.22	Peak	---	---
2	75.330	22.01	-17.99	40.00	40.44	0.75	26.35	7.17	Peak	---	---
3	111.830	20.66	-22.84	43.50	34.29	0.88	26.25	11.74	Peak	---	---
4	125.320	26.21	-17.29	43.50	38.97	0.93	26.20	12.51	Peak	---	---
5	132.420	20.76	-22.74	43.50	34.23	0.95	26.17	11.75	Peak	---	---
6	150.060	26.35	-17.15	43.50	40.41	1.02	26.10	11.02	Peak	---	---
7	162.690	26.61	-16.89	43.50	41.61	1.02	26.05	10.03	Peak	---	---
8	165.110	37.25	-6.25	43.50	52.38	1.03	26.04	9.88	Peak	---	---
9	171.340	23.24	-20.26	43.50	38.80	1.08	26.01	9.37	Peak	---	---
10	189.850	21.61	-21.89	43.50	37.22	1.15	25.94	9.18	Peak	---	---
11	199.190	24.36	-19.14	43.50	39.85	1.19	25.90	9.22	Peak	---	---
1	250.000	35.66	-10.34	46.00	48.18	1.28	25.85	12.05	Peak	---	---
2	290.000	40.87	-5.13	46.00	52.17	1.50	25.80	13.00	Peak	---	---
3	364.000	43.82	-2.18	46.00	53.21	1.65	26.25	15.21	QP	200	282
4	500.000	30.92	-15.08	46.00	38.18	2.18	27.20	17.76	Peak	---	---
5	663.600	36.61	-9.39	46.00	42.98	2.42	27.40	18.61	Peak	---	---
6	763.000	32.71	-13.29	46.00	37.99	2.56	27.34	19.50	Peak	---	---
1	1596.000	50.74	-23.26	74.00	59.13	27.62	4.89	40.90	Peak	---	---
2	1596.000	32.50	-21.50	54.00	40.89	27.62	4.89	40.90	Average	---	---

Site : OS01-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-16-2003 VERTICAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 11B CH01  
 : 18DBI PATCH

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	PreampAntenna Factor	Ant Pos	Table Pos		
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	cm	deg		
1 @	31.900	37.07	-2.93	40.00	45.54	0.50	26.40	17.43	QP	---	---
2 @	39.340	36.95	-3.05	40.00	47.22	0.55	26.40	15.58	QP	---	---
3	46.440	33.06	-6.94	40.00	47.62	0.62	26.40	11.22	Peak	---	---
4	69.440	32.72	-7.28	40.00	52.22	0.70	26.36	6.16	Peak	---	---
5	110.960	34.37	-9.13	43.50	48.10	0.88	26.26	11.65	Peak	---	---
6	124.800	37.25	-6.25	43.50	50.01	0.93	26.20	12.51	Peak	---	---
7	149.890	31.56	-11.94	43.50	45.62	1.02	26.10	11.02	Peak	---	---
8	165.110	35.65	-7.85	43.50	50.78	1.03	26.04	9.88	Peak	---	---
9	171.340	27.24	-16.26	43.50	42.80	1.08	26.01	9.37	Peak	---	---
10	195.910	28.10	-15.40	43.50	43.63	1.18	25.92	9.21	Peak	---	---
1	250.000	36.09	-9.91	46.00	48.61	1.28	25.85	12.05	Peak	---	---
2	364.000	37.62	-8.38	46.00	47.01	1.65	26.25	15.21	Peak	---	---
3	497.000	34.86	-11.14	46.00	42.18	2.15	27.18	17.71	Peak	---	---
4	663.570	39.81	-6.19	46.00	46.18	2.42	27.40	18.61	Peak	---	---
1	1060.000	47.54	-26.46	74.00	58.98	25.08	4.03	40.55	Peak	---	---
2	1060.000	32.72	-21.28	54.00	44.16	25.08	4.03	40.55	Average	---	---
3	1596.000	53.22	-20.78	74.00	61.61	27.62	4.89	40.90	Peak	---	---
4	1596.000	34.35	-19.65	54.00	42.74	27.62	4.89	40.90	Average	---	---

- For 3GHz ~ 25GHz  
 Remark: Frequency from 3000MHz to 25000MHz, the emission emitted by the EUT is too low to be measured



■ Field strength of fundamental and harmonics

Frequency ( MHz )	Antenna Polarity	Cable Factor	Reading Loss	Limits ( dBuV )	Emission ( dBuV/m )	Level ( uV/m )	Margin ( dB )	Detect Mode	
2412.000	H	30.18	6.22	59.69	-	-	96.09	63752.91	Peak
2412.000	H	30.18	6.22	63.80	-	-	100.20	102329.30	A.V.
2412.000	V	30.18	6.22	61.64	-	-	98.04	79799.47	Peak
2412.000	V	30.18	6.22	59.00	-	-	95.40	58884.37	A.V.
4828.000	V/H						-		Peak, A.V.
7236.000	V/H						-		Peak, A.V.
9648.000	V/H						-		Peak, A.V.
12060.000	V/H						-		Peak, A.V.
14472.000	V/H						-		Peak, A.V.
16884.000	V/H						-		Peak, A.V.
19296.000	V/H						-		Peak, A.V.
21708.000	V/H						-		Peak, A.V.
24120.000	V/H						-		Peak, A.V.

Remark: The emission emitted by the EUT is too low to be measured except the emission listed above

Test Engineer :   
 \_\_\_\_\_  
 William Lee

- Test Mode: Mode 11
- Test Distance: 3M
- Temperature: 30 °C
- Relative Humidity: 39 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

**The test was passed at the minimum margin that marked by the frame in the following test record**

■ Spurious Emission

Site : OSD1-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-24-2002 HORIZONTAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 18DBI PATCH CH06 B

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1	64.600	34.62	-5.38	40.00	53.82	0.88	26.37	6.29	Peak	---	---
2	116.500	27.72	-15.78	43.50	40.35	1.19	26.23	12.41	Peak	---	---
3	124.800	37.25	-6.25	43.50	49.24	1.24	26.20	12.97	Peak	---	---
4	149.540	37.38	-6.12	43.50	51.49	1.33	26.10	10.66	Peak	---	---
5	166.150	38.05	-5.45	43.50	52.77	1.43	26.03	9.88	Peak	---	---
6 @	172.550	39.93	-3.57	43.50	54.85	1.43	26.01	9.66	Peak	---	---
7 @	186.050	39.03	-4.47	43.50	53.85	1.50	25.96	9.64	Peak	---	---
8	199.370	35.66	-7.84	43.50	50.26	1.65	25.90	9.65	Peak	---	---
1	233.000	33.72	-12.28	46.00	46.23	1.70	25.87	11.66	Peak	---	---
2 @	250.000	41.49	-4.51	46.00	52.76	1.85	25.85	12.73	Peak	---	---
3	350.000	40.60	-5.40	46.00	49.44	2.38	26.15	14.93	Peak	---	---
4	366.000	40.99	-5.01	46.00	49.56	2.36	26.26	15.33	Peak	---	---
5	500.000	40.41	-5.59	46.00	46.51	2.92	27.20	18.18	Peak	---	---
6	666.000	39.48	-6.52	46.00	43.91	3.67	27.40	19.30	Peak	---	---
7	766.000	40.04	-5.96	46.00	44.56	3.75	27.33	19.06	Peak	---	---

Site : OSD1-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-24-2002 VERTICAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 18DBI PATCH CH06 B

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1	58.200	35.35	-4.65	40.00	53.99	0.86	26.38	6.88	Peak	---	---
2	74.290	33.05	-6.95	40.00	51.93	0.82	26.35	6.65	Peak	---	---
3	124.630	38.23	-5.27	43.50	50.22	1.24	26.20	12.97	Peak	---	---
4	133.450	33.20	-10.30	43.50	45.84	1.29	26.17	12.24	Peak	---	---
5	166.150	38.53	-4.97	43.50	53.25	1.43	26.03	9.88	QP	---	---
6	172.550	35.10	-8.40	43.50	50.02	1.43	26.01	9.66	Peak	---	---
7	185.870	36.29	-7.21	43.50	51.11	1.50	25.96	9.64	Peak	---	---
8	199.190	35.93	-7.57	43.50	50.54	1.64	25.90	9.65	Peak	---	---
1	233.000	40.26	-5.74	46.00	52.77	1.70	25.87	11.66	Peak	---	---
2	250.000	44.43	-1.57	46.00	55.70	1.85	25.85	12.73	QP	100	303
3	300.000	37.93	-8.07	46.00	48.10	2.00	25.80	13.63	Peak	---	---
4	366.000	41.33	-4.67	46.00	49.90	2.36	26.26	15.33	Peak	---	---
5	400.000	41.52	-4.48	46.00	49.50	2.32	26.50	16.20	Peak	---	---
6	433.000	41.87	-4.13	46.00	49.23	2.52	26.73	16.85	Peak	---	---
7	500.000	41.95	-4.05	46.00	48.05	2.92	27.20	18.18	Peak	---	---
8	666.000	42.22	-3.78	46.00	46.65	3.67	27.40	19.30	Peak	---	---

- For 3GHz ~ 25GHz  
 Remark: Frequency from 3000MHz to 25000MHz, the emission emitted by the EUT is too low to be measured

■ Field strength of fundamental and harmonics

Frequency ( MHz )	Antenna Polarity	Cable Factor	Reading Loss	Limits ( dBuV )	Emission ( dBuV/m )	Level ( uV/m )	Margin ( dB )	Detect Mode	
2438.000	H	28.30	6.26	64.93	-	-	99.49	94297.46	Peak
2438.000	H	28.30	6.26	59.38	-	-	93.94	49773.71	A.V.
2438.000	V	28.30	6.26	73.48	-	-	108.04	252348.08	Peak
2438.000	V	28.30	6.26	66.27	-	-	100.83	110065.19	A.V.
4876.000	V/H						-		Peak, A.V.
7311.000	V/H						-		Peak, A.V.
9748.000	V/H						-		Peak, A.V.
12185.000	V/H						-		Peak, A.V.
14622.000	V/H						-		Peak, A.V.
17059.000	V/H						-		Peak, A.V.
19496.000	V/H						-		Peak, A.V.
21933.000	V/H						-		Peak, A.V.
24370.000	V/H						-		Peak, A.V.

Remark: The emission emitted by the EUT is too low to be measured except the emission listed above

Test Engineer :   
 \_\_\_\_\_  
 William Lee

- Test Mode: Mode 12
- Test Distance: 3M
- Temperature: 30 °C
- Relative Humidity: 39 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

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

■ Spurious Emission

Site : OSD1-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-24-2002 HORIZONTAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 18DBI PATCH CH11 B

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1	64.600	34.43	-5.57	40.00	53.63	0.88	26.37	6.29	Peak	---	---
2	116.500	26.53	-16.97	43.50	39.16	1.19	26.23	12.41	Peak	---	---
3	124.800	36.06	-7.44	43.50	48.05	1.24	26.20	12.97	Peak	---	---
4	149.540	37.19	-6.31	43.50	51.30	1.33	26.10	10.66	Peak	---	---
5 @	166.150	38.86	-4.64	43.50	53.58	1.43	26.03	9.88	Peak	---	---
6 @	172.550	38.74	-4.76	43.50	53.66	1.43	26.01	9.66	Peak	---	---
7	186.050	37.84	-5.66	43.50	52.66	1.50	25.96	9.64	Peak	---	---
8	199.370	36.47	-7.03	43.50	51.07	1.65	25.90	9.65	Peak	---	---
1	233.000	34.94	-11.06	46.00	47.45	1.70	25.87	11.66	Peak	---	---
2 @	250.000	40.71	-5.29	46.00	51.98	1.85	25.85	12.73	Peak	---	---
3	350.000	39.82	-6.18	46.00	48.66	2.38	26.15	14.93	Peak	---	---
4 @	366.000	42.21	-3.79	46.00	50.78	2.36	26.26	15.33	Peak	---	---
5	500.000	38.63	-7.37	46.00	44.73	2.92	27.20	18.18	Peak	---	---
6 @	666.000	40.70	-5.30	46.00	45.13	3.67	27.40	19.30	Peak	---	---
7	766.000	40.26	-5.74	46.00	44.78	3.75	27.33	19.06	Peak	---	---

Site : OS01-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-24-2002 VERTICAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 18DBI PATCH CH11 B

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1 @	58.200	36.17	-3.83	40.00	54.81	0.86	26.38	6.88	Peak	---	---
2	74.290	31.87	-8.13	40.00	50.75	0.82	26.35	6.65	Peak	---	---
3 @	124.630	39.05	-4.45	43.50	51.04	1.24	26.20	12.97	Peak	---	---
4	133.450	32.02	-11.48	43.50	44.66	1.29	26.17	12.24	Peak	---	---
5 @	166.150	38.35	-5.15	43.50	53.07	1.43	26.03	9.88	QP	---	---
6	172.550	34.92	-8.58	43.50	49.84	1.43	26.01	9.66	Peak	---	---
7	185.870	35.11	-8.39	43.50	49.93	1.50	25.96	9.64	Peak	---	---
8	199.190	35.75	-7.75	43.50	50.36	1.64	25.90	9.65	Peak	---	---
1	233.000	39.20	-6.80	46.00	51.71	1.70	25.87	11.66	Peak	---	---
2 @	250.000	44.37	-1.63	46.00	55.64	1.85	25.85	12.73	QP	100	291
3	300.000	36.87	-9.13	46.00	47.04	2.00	25.80	13.63	Peak	---	---
4 @	366.000	41.27	-4.73	46.00	49.84	2.36	26.26	15.33	Peak	---	---
5 @	400.000	42.46	-3.54	46.00	50.44	2.32	26.50	16.20	Peak	---	---
6 @	433.000	41.81	-4.19	46.00	49.17	2.52	26.73	16.85	Peak	---	---
7 @	500.000	42.89	-3.11	46.00	48.99	2.92	27.20	18.18	Peak	---	---
8 @	666.000	41.16	-4.84	46.00	45.59	3.67	27.40	19.30	Peak	---	---

➤ For 3GHz ~ 25GHz

Remark: Frequency from 3000MHz to 25000MHz, the emission emitted by the EUT is too low to be measured

■ Field strength of fundamental and harmonics

Frequency ( MHz )	Antenna Polarity	Cable Factor ( dB/m )	Cable Loss ( dB )	Reading ( dBuV )	Limits ( dBuV/m )	Emission ( uV/m )	Level ( dBuV/m )	Margin ( uV/m )	Detect ( dB )	Mode
2462.000	H	28.35	6.29	66.22	-	-	100.86	110407.86		Peak
2462.000	H	28.35	6.29	56.39	-	-	91.03	35604.10		AV
2460.000	V	28.34	6.29	72.86	-	-	107.49	236864.51		Peak
2460.000	V	28.34	6.29	63.38	-	-	98.01	79524.33		AV
4920.000	V/H						-			AV/ Peak
7386.000	V/H						-			AV/ Peak
9848.000	V/H						-			AV/ Peak
12310.000	V/H						-			AV/ Peak
14772.000	V/H						-			AV/ Peak
17234.000	V/H						-			AV/ Peak
19696.000	V/H						-			AV/ Peak
22158.000	V/H						-			AV/ Peak
24620.000	V/H						-			AV/ Peak

Remark: The emission emitted by the EUT is too low to be measured except the emission listed above,

Test Engineer :   
 \_\_\_\_\_  
 William Lee

- Test Mode: Mode 13
- Test Distance: 3M
- Temperature: 30 °C
- Relative Humidity: 39 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

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

■ Spurious Emission

Site : OS01-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-24-2002 HORIZONTAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 5DBI CILING CH01 G

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1	65.980	34.00	-6.00	40.00	53.12	0.94	26.37	6.31	Peak	---	---
2	124.800	31.13	-12.37	43.50	43.12	1.24	26.20	12.97	QP	---	---
3	133.110	36.12	-7.38	43.50	48.69	1.28	26.17	12.32	Peak	---	---
4	149.540	33.05	-10.45	43.50	47.16	1.33	26.10	10.66	Peak	---	---
5	166.150	36.52	-6.98	43.50	51.24	1.43	26.03	9.88	Peak	---	---
6	199.190	28.43	-15.07	43.50	43.04	1.64	25.90	9.65	Peak	---	---
1	250.000	39.48	-6.52	46.00	50.75	1.85	25.85	12.73	Peak	---	---
2 @	300.000	41.38	-4.62	46.00	51.55	2.00	25.80	13.63	Peak	---	---
3 @	366.000	42.78	-3.22	46.00	51.35	2.36	26.26	15.33	Peak	---	---
4 @	450.000	41.11	-4.89	46.00	48.15	2.62	26.85	17.19	Peak	---	---
5 @	500.000	41.40	-4.60	46.00	47.50	2.92	27.20	18.18	Peak	---	---



Site : OS01-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-24-2002 VERTICAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : SDBI CILING CH01 G

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1 @	43.320	35.38	-4.62	40.00	47.61	0.72	26.40	13.45	Peak	---	---
2	71.000	33.12	-6.88	40.00	51.95	1.10	26.36	6.43	Peak	---	---
3	82.070	33.53	-6.47	40.00	51.64	0.95	26.34	7.28	Peak	---	---
4 @	124.800	39.13	-4.37	43.50	51.12	1.24	26.20	12.97	QP	---	---
5 @	133.110	40.92	-2.58	43.50	53.49	1.28	26.17	12.32	QP	---	---
6	149.540	37.25	-6.25	43.50	51.36	1.33	26.10	10.66	Peak	---	---
7	165.810	36.32	-7.18	43.50	51.05	1.43	26.04	9.88	Peak	---	---
8	199.190	32.63	-10.87	43.50	47.24	1.64	25.90	9.65	Peak	---	---
1	225.000	36.16	-9.84	46.00	49.22	1.63	25.88	11.19	Peak	---	---
2 @	250.000	44.08	-1.92	46.00	55.35	1.85	25.85	12.73	QP	100	277
3	300.000	37.38	-8.62	46.00	47.55	2.00	25.80	13.63	Peak	---	---
4	366.000	37.98	-8.02	46.00	46.55	2.36	26.26	15.33	Peak	---	---
5 @	375.000	40.70	-5.30	46.00	49.10	2.35	26.33	15.58	Peak	---	---
6 @	433.000	43.42	-2.58	46.00	50.78	2.52	26.73	16.85	QP	---	---
7 @	500.000	41.20	-4.80	46.00	47.30	2.92	27.20	18.18	Peak	---	---

➤ For 3GHz ~ 25GHz

Remark: Frequency from 3000MHz to 25000MHz, the emission emitted by the EUT is too low to be measured

■ Field strength of fundamental and harmonics

Frequency ( MHz )	Antenna Polarity	Cable Factor ( dB/m )	Cable Loss ( dB )	Reading ( dBuV )	Limits ( dBuV/m )	Emission ( uV/m )	Level ( dBuV/m )	Margin ( uV/m )	Detect ( dB )	Mode
2412.000	H	28.24	6.22	67.34	-	-	101.80	123026.88		Peak
2412.000	H	28.24	6.22	61.84	-	-	96.30	65313.06		AV
2412.000	V	28.24	6.22	68.18	-	-	102.64	135518.94		Peak
2412.000	V	28.24	6.22	63.88	-	-	98.34	82603.79		AV
4824.000	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: The emission emitted by the EUT is too low to be measured except the emission listed above,

Test Engineer :   
 William Lee

- Test Mode: Mode 14
- Test Distance: 3M
- Temperature: 30 °C
- Relative Humidity: 39 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

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

■ Spurious Emission

Site : OSD1-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-24-2002 HORIZONTAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : SDBI CEILING CH06 G

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1	65.980	34.72	-5.28	40.00	53.84	0.94	26.37	6.31	Peak	---	---
2	124.800	35.85	-7.65	43.50	47.84	1.24	26.20	12.97	QF	---	---
3	133.110	36.84	-6.66	43.50	49.41	1.28	26.17	12.32	Peak	---	---
4	149.540	36.77	-6.73	43.50	50.88	1.33	26.10	10.66	Peak	---	---
5	166.150	36.24	-7.26	43.50	50.96	1.43	26.03	9.88	Peak	---	---
6	199.190	31.15	-12.35	43.50	45.76	1.64	25.90	9.65	Peak	---	---
1	250.000	38.10	-7.90	46.00	49.37	1.85	25.85	12.73	Peak	---	---
2 @	300.000	42.00	-4.00	46.00	52.17	2.00	25.80	13.63	Peak	---	---
3	366.000	40.40	-5.60	46.00	48.97	2.36	26.26	15.33	Peak	---	---
4	450.000	40.73	-5.27	46.00	47.77	2.62	26.85	17.19	Peak	---	---
5 @	500.000	42.02	-3.98	46.00	48.12	2.92	27.20	18.18	Peak	---	---

Site : OSD1-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-24-2002 VERTICAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 5DBI CEILING CH06 G

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1	43.320	34.36	-5.64	40.00	46.59	0.72	26.40	13.45	Peak	---	---
2	71.000	32.10	-7.90	40.00	50.93	1.10	26.36	6.43	Peak	---	---
3	82.070	32.51	-7.49	40.00	50.62	0.95	26.34	7.28	Peak	---	---
4	124.800	38.11	-5.39	43.50	50.10	1.24	26.20	12.97	QF	---	---
5 @	133.110	39.90	-3.60	43.50	52.47	1.28	26.17	12.32	QF	---	---
6	149.540	37.23	-6.27	43.50	51.34	1.33	26.10	10.66	Peak	---	---
7	165.810	37.30	-6.20	43.50	52.03	1.43	26.04	9.88	Peak	---	---
8	199.190	31.61	-11.89	43.50	46.22	1.64	25.90	9.65	Peak	---	---
1	225.000	36.05	-9.95	46.00	49.11	1.63	25.88	11.19	Peak	---	---
2 @	250.000	44.97	-1.03	46.00	56.24	1.85	25.85	12.73	QF	100	300
3	300.000	36.27	-9.73	46.00	46.44	2.00	25.80	13.63	Peak	---	---
4 @	375.000	42.59	-3.41	46.00	50.99	2.35	26.33	15.58	Peak	---	---
5	433.000	40.31	-5.69	46.00	47.67	2.52	26.73	16.85	QF	---	---
6	500.000	41.09	-4.91	46.00	47.19	2.92	27.20	18.18	Peak	---	---

➤ For 3GHz ~ 25GHz

Remark: Frequency from 3000MHz to 25000MHz, the emission emitted by the EUT is too low to be measured

■ Field strength of fundamental and harmonics

Frequency ( MHz )	Antenna Polarity	Cable Factor	Loss	Reading ( dBuV )	Limits ( dBuV/m )	Emission ( uV/m )	Level ( dBuV/m )	Margin ( uV/m )	Detect ( dB )	Mode
2438.000	H	28.30	6.26	60.52	-	-	95.08	56754.46		Peak
2438.000	H	28.30	6.26	54.36	-	-	88.92	27925.44		AV
2436.000	V	28.29	6.26	61.55	-	-	96.10	63826.35		Peak
2436.000	V	28.29	6.26	55.35	-	-	89.90	31260.79		AV
4876.000	V/H						-			AV/Peak
7311.000	V/H						-			AV/Peak
9748.000	V/H						-			AV/Peak
12185.000	V/H						-			AV/Peak
14622.000	V/H						-			AV/Peak
17059.000	V/H						-			AV/Peak
19496.000	V/H						-			AV/Peak
21933.000	V/H						-			AV/Peak
24370.000	V/H						-			AV/Peak

Remark: The emission emitted by the EUT is too low to be measured except the emission listed above,

Test Engineer :   
 \_\_\_\_\_  
 William Lee

- Test Mode: Mode 15
- Test Distance: 3M
- Temperature: 30 °C
- Relative Humidity: 39 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

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

■ Spurious Emission

Site : OSD1-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-24-2002 HORIZONTAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : SDBI CILING CH11 G

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1 @	65.980	35.34	-4.66	40.00	54.46	0.94	26.37	6.31	Peak	---	---
2	124.800	32.47	-11.03	43.50	44.46	1.24	26.20	12.97	QP	---	---
3 @	133.110	38.46	-5.04	43.50	51.03	1.28	26.17	12.32	Peak	---	---
4	149.540	35.39	-8.11	43.50	49.50	1.33	26.10	10.66	Peak	---	---
5	166.150	37.86	-5.64	43.50	52.58	1.43	26.03	9.88	Peak	---	---
6	199.190	29.77	-13.73	43.50	44.38	1.64	25.90	9.65	Peak	---	---
1	250.000	39.37	-6.63	46.00	50.64	1.85	25.85	12.73	Peak	---	---
2 @	300.000	42.27	-3.73	46.00	52.44	2.00	25.80	13.63	Peak	---	---
3 @	366.000	41.67	-4.33	46.00	50.24	2.36	26.26	15.33	Peak	---	---
4 @	450.000	41.00	-5.00	46.00	48.04	2.62	26.85	17.19	Peak	---	---
5 @	500.000	41.29	-4.71	46.00	47.39	2.92	27.20	18.18	Peak	---	---

Site : OS01-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-24-2002 VERTICAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : SDBI CILING CH11 G

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1 @	43.320	36.05	-3.95	40.00	48.28	0.72	26.40	13.45	Peak	---	---
2	71.000	32.79	-7.21	40.00	51.62	1.10	26.36	6.43	Peak	---	---
3	82.070	33.20	-6.80	40.00	51.31	0.95	26.34	7.28	Peak	---	---
4	124.800	37.80	-5.70	43.50	49.79	1.24	26.20	12.97	QP	---	---
5 @	133.110	40.59	-2.91	43.50	53.16	1.28	26.17	12.32	QP	---	---
6 @	149.540	38.92	-4.58	43.50	53.03	1.33	26.10	10.66	Peak	---	---
7	165.810	35.99	-7.51	43.50	50.72	1.43	26.04	9.88	Peak	---	---
8	199.190	32.30	-11.20	43.50	46.91	1.64	25.90	9.65	Peak	---	---
1	225.000	36.86	-9.14	46.00	49.92	1.63	25.88	11.19	Peak	---	---
2 @	250.000	44.78	-1.22	46.00	56.05	1.85	25.85	12.73	QP	100	288
3	300.000	36.08	-9.92	46.00	46.25	2.00	25.80	13.63	Peak	---	---
4 @	375.000	41.40	-4.60	46.00	49.80	2.35	26.33	15.58	Peak	---	---
5 @	433.000	41.12	-4.88	46.00	48.48	2.52	26.73	16.85	QP	---	---
6	500.000	39.90	-6.10	46.00	46.00	2.92	27.20	18.18	Peak	---	---

➤ For 3GHz ~ 25GHz

Remark: Frequency from 3000MHz to 25000MHz, the emission emitted by the EUT is too low to be measured

■ Field strength of fundamental and harmonics

Frequency ( MHz )	Antenna Polarity	Cable Factor ( dB/m )	Cable Loss ( dB )	Reading ( dBuV )	Limits ( dBuV/m )	Emission ( uV/m )	Level ( dBuV/m )	Margin ( uV/m )	Detect ( dB )	Mode
2462.000	H	28.35	6.29	66.14	-	-	100.78	109395.64		Peak
2462.000	H	28.35	6.29	58.66	-	-	93.30	46238.10		AV
2462.000	V	28.35	6.29	69.04	-	-	103.68	152756.61		Peak
2462.000	V	28.35	6.29	59.37	-	-	94.01	50176.46		AV
4942.000	V/H						-			AV/ Peak
7386.000	V/H						-			AV/ Peak
9848.000	V/H						-			AV/ Peak
12310.000	V/H						-			AV/ Peak
14772.000	V/H						-			AV/ Peak
17234.000	V/H						-			AV/ Peak
19696.000	V/H						-			AV/ Peak
22158.000	V/H						-			AV/ Peak
24620.000	V/H						-			AV/ Peak

Remark: The emission emitted by the EUT is too low to be measured except the emission listed above,

Test Engineer :   
 \_\_\_\_\_  
 William Lee



- Test Mode: Mode 16
- Test Distance: 3M
- Temperature: 30 °C
- Relative Humidity: 39 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

**The test was passed at the minimum margin that marked by the frame in the following test record**

■ Spurious Emission

Site : OSD1-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-24-2002 HORIZONTAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : SDBI DIPOLE CH01 G

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1	124.800	32.72	-10.78	43.50	44.71	1.24	26.20	12.97	Peak	---	---
2	133.110	29.52	-13.98	43.50	42.09	1.28	26.17	12.32	Peak	---	---
3	149.540	30.85	-12.65	43.50	44.96	1.33	26.10	10.66	Peak	---	---
4	166.000	36.13	-7.37	43.50	50.85	1.43	26.03	9.88	QP	---	---
5	180.680	30.29	-13.21	43.50	45.17	1.47	25.98	9.63	Peak	---	---
6	199.190	32.63	-10.87	43.50	47.24	1.64	25.90	9.65	Peak	---	---
1 @	250.000	42.88	-3.12	46.00	54.15	1.85	25.85	12.73	Peak	---	---
2 @	300.000	41.16	-4.84	46.00	51.33	2.00	25.80	13.63	Peak	---	---
3 @	366.000	42.58	-3.42	46.00	51.15	2.36	26.26	15.33	Peak	---	---
4 @	500.000	40.60	-5.40	46.00	46.70	2.92	27.20	18.18	Peak	---	---
5	666.000	39.47	-6.53	46.00	43.90	3.67	27.40	19.30	Peak	---	---

Site : OSD1-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-24-2002 VERTICAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 5DBI DIPOLE CH01 G

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1	51.450	34.49	-5.51	40.00	50.07	0.74	26.40	9.28	Peak	---	---
2	59.410	33.06	-6.14	40.00	52.02	0.88	26.30	6.54	Peak	---	---
3	72.730	33.04	-6.16	40.00	52.69	0.96	26.35	6.54	Peak	---	---
4	86.400	33.43	-6.57	40.00	50.90	0.97	26.33	7.09	Peak	---	---
5	124.290	35.76	-7.74	43.50	48.93	1.23	26.20	11.00	QP	---	---
6	133.110	35.92	-7.58	43.50	48.49	1.28	26.17	12.32	Peak	---	---
7	149.540	36.45	-7.05	43.50	50.56	1.33	26.10	10.66	Peak	---	---
8	165.630	34.93	-8.57	43.50	49.66	1.43	26.04	9.08	Peak	---	---
9	179.990	34.47	-9.03	43.50	49.35	1.47	25.98	9.63	Peak	---	---
10	199.190	34.63	-8.07	43.50	49.24	1.64	25.90	9.65	Peak	---	---
1	233.000	33.11	-12.89	46.00	45.62	1.70	25.87	11.66	Peak	---	---
2	250.000	44.78	-1.22	46.00	56.05	1.85	25.85	12.73	QP	100	271
3	300.000	37.38	-8.62	46.00	47.55	2.00	25.80	13.63	Peak	---	---
4	366.000	39.18	-6.82	46.00	47.75	2.36	26.26	15.33	Peak	---	---
5	433.000	43.02	-2.98	46.00	50.38	2.52	26.73	16.85	QP	---	---
6	488.000	41.47	-4.53	46.00	47.82	2.84	27.12	17.93	Peak	---	---

- For 3GHz ~ 25GHz  
 Remark: Frequency from 3000MHz to 25000MHz, the emission emitted by the EUT is too low to be measured

■ Field strength of fundamental and harmonics

Frequency ( MHz )	Antenna Polarity	Cable Factor ( dB/m )	Reading Loss ( dB )	Reading ( dBuV )	Limits ( dBuV/m )	Emission ( uV/m )	Level ( dBuV/m )	Margin ( uV/m )	Detect ( dB )	Mode
2412.000	H	28.24	6.22	72.14	-	-	106.60	213796.21		Peak
2412.000	H	28.24	6.22	67.96	-	-	102.42	132129.56		A.V.
2412.000	V	28.24	6.22	65.64	-	-	100.10	101157.95		Peak
2412.000	V	28.24	6.22	60.09	-	-	94.55	53394.93		A.V.
4828.000	V/H						-			Peak, A.V.
7236.000	V/H						-			Peak, A.V.
9648.000	V/H						-			Peak, A.V.
12060.000	V/H						-			Peak, A.V.
14472.000	V/H						-			Peak, A.V.
16884.000	V/H						-			Peak, A.V.
19296.000	V/H						-			Peak, A.V.
21708.000	V/H						-			Peak, A.V.
24120.000	V/H						-			Peak, A.V.

Remark: The emission emitted by the EUT is too low to be measured except the emission listed above

Test Engineer :   
 \_\_\_\_\_  
 William Lee

- Test Mode: Mode 17
- Test Distance: 3M
- Temperature: 30 °C
- Relative Humidity: 39 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

**The test was passed at the minimum margin that marked by the frame in the following test record**

■ Spurious Emission

Site : OSD1-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-24-2002 HORIZONTAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 5DBI DIPOLE CH06 G

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1	124.800	32.78	-10.72	43.50	44.77	1.24	26.20	12.97	Peak	---	---
2	133.110	36.58	-6.92	43.50	49.15	1.28	26.17	12.32	Peak	---	---
3	149.540	37.91	-5.59	43.50	52.02	1.33	26.10	10.66	Peak	---	---
4	166.000	35.19	-8.31	43.50	49.91	1.43	26.03	9.88	QP	---	---
5	180.680	38.35	-5.15	43.50	53.23	1.47	25.98	9.63	Peak	---	---
6	199.190	36.69	-6.81	43.50	51.30	1.64	25.90	9.65	Peak	---	---
1 @	250.000	42.49	-3.51	46.00	53.76	1.85	25.85	12.73	Peak	---	---
2	300.000	38.77	-7.23	46.00	48.94	2.00	25.80	13.63	Peak	---	---
3 @	366.000	42.19	-3.81	46.00	50.76	2.36	26.26	15.33	Peak	---	---
4 @	500.000	42.21	-3.79	46.00	48.31	2.92	27.20	18.18	Peak	---	---
5	666.000	38.08	-7.92	46.00	42.51	3.67	27.40	19.30	Peak	---	---

**FCC TEST REPORT**

Report No. : F370909

Site : OSD1-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-24-2002 VERTICAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 5DBI DIPOLE CH06 G

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1	51.450	32.89	-7.11	40.00	49.27	0.74	26.40	9.28	Peak	---	---
2	59.410	33.26	-6.74	40.00	52.22	0.88	26.38	6.54	Peak	---	---
3 @	72.730	36.24	-3.76	40.00	55.09	0.96	26.35	6.54	Peak	---	---
4	86.400	33.83	-6.17	40.00	51.30	0.97	26.33	7.89	Peak	---	---
5	124.290	35.16	-8.34	43.50	48.33	1.23	26.20	11.80	QP	---	---
6	133.110	38.32	-5.18	43.50	50.89	1.28	26.17	12.32	Peak	---	---
7	149.540	34.85	-8.65	43.50	48.96	1.33	26.10	10.66	Peak	---	---
8	165.630	35.33	-8.17	43.50	50.06	1.43	26.04	9.88	Peak	---	---
9 @	179.990	38.87	-4.63	43.50	53.75	1.47	25.98	9.63	Peak	---	---
10	199.190	36.03	-7.47	43.50	50.64	1.64	25.90	9.65	Peak	---	---
1	233.000	35.96	-10.04	46.00	48.47	1.70	25.87	11.66	Peak	---	---
2 @	250.000	44.63	-1.37	46.00	55.90	1.85	25.85	12.73	QP	100	286
3	300.000	38.23	-7.77	46.00	48.40	2.00	25.80	13.63	Peak	---	---
4	366.000	40.03	-5.97	46.00	48.60	2.36	26.26	15.33	Peak	---	---
5 @	433.000	42.87	-3.13	46.00	50.23	2.52	26.73	16.85	QP	---	---
6 @	488.000	42.32	-3.68	46.00	48.67	2.84	27.12	17.93	Peak	---	---

- For 3GHz ~ 25GHz  
 Remark: Frequency from 3000MHz to 25000MHz, the emission emitted by the EUT is too low to be measured

■ Field strength of fundamental and harmonics

Frequency ( MHz )	Antenna Polarity	Cable Factor	Reading Loss	Limits ( dBuV )	Emission ( dBuV/m )	Level ( uV/m )	Margin ( dB )	Detect Mode	
2436.000	H	28.29	6.26	57.23	-	-	91.78	38815.04	Peak
2436.000	H	28.29	6.26	51.19	-	-	85.74	19364.22	A.V.
2438.000	V	28.30	6.26	66.97	-	-	101.53	119261.43	Peak
2438.000	V	28.30	6.26	64.94	-	-	99.50	94406.09	A.V.
4876.000	V/H						-		Peak, A.V.
7311.000	V/H						-		Peak, A.V.
9748.000	V/H						-		Peak, A.V.
12185.000	V/H						-		Peak, A.V.
14622.000	V/H						-		Peak, A.V.
17059.000	V/H						-		Peak, A.V.
19496.000	V/H						-		Peak, A.V.
21933.000	V/H						-		Peak, A.V.
24370.000	V/H						-		Peak, A.V.

Remark: The emission emitted by the EUT is too low to be measured except the emission listed above

Test Engineer :   
 \_\_\_\_\_  
 William Lee

- Test Mode: Mode 18
- Test Distance: 3M
- Temperature: 30 °C
- Relative Humidity: 39 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

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

■ Spurious Emission

Site : OSD1-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-24-2002 HORIZONTAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : SDBI DIPOLE CH11 G

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1	124.800	34.36	-9.14	43.50	46.35	1.24	26.20	12.97	Peak	---	---
2	133.110	32.16	-11.34	43.50	44.73	1.28	26.17	12.32	Peak	---	---
3	149.540	35.49	-8.01	43.50	49.60	1.33	26.10	10.66	Peak	---	---
4 @	166.000	38.77	-4.73	43.50	53.49	1.43	26.03	9.88	QP	---	---
5	180.680	35.93	-7.57	43.50	50.81	1.47	25.98	9.63	Peak	---	---
6	199.190	35.27	-8.23	43.50	49.88	1.64	25.90	9.65	Peak	---	---
1 @	250.000	42.63	-3.37	46.00	53.90	1.85	25.85	12.73	Peak	---	---
2 @	300.000	40.91	-5.09	46.00	51.08	2.00	25.80	13.63	Peak	---	---
3 @	366.000	41.33	-4.67	46.00	49.90	2.36	26.26	15.33	Peak	---	---
4 @	500.000	42.35	-3.65	46.00	48.45	2.92	27.20	18.18	Peak	---	---
5 @	666.000	41.22	-4.78	46.00	45.65	3.67	27.40	19.30	Peak	---	---

Site : OSD1-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-24-2002 VERTICAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 5DBI DIPOLE CH11 G

	Over	Limit	Read	Cable	Preamp	Antenna	Remark	Ant	Table		
Freq	Level	Limit	Line	Loss	Factor	Factor		Pos	Pos		
MHz	dBuV/m	dB	dBuV/m	dB	dB	dB/m		cm	deg		
1 @	51.450	35.20	-4.80	40.00	51.58	0.74	26.40	9.28	Peak	---	---
2	59.410	33.57	-6.43	40.00	52.53	0.88	26.38	6.54	Peak	---	---
3 @	72.730	34.55	-5.45	40.00	53.40	0.96	26.35	6.54	Peak	---	---
4	86.400	34.14	-5.86	40.00	51.61	0.97	26.33	7.89	Peak	---	---
5	124.290	37.47	-6.03	43.50	50.64	1.23	26.20	11.80	QP	---	---
6	133.110	36.63	-6.87	43.50	49.20	1.28	26.17	12.32	Peak	---	---
7	149.540	35.16	-8.34	43.50	49.27	1.33	26.10	10.66	Peak	---	---
8	165.630	35.64	-7.86	43.50	50.37	1.43	26.04	9.88	Peak	---	---
9	179.990	37.18	-6.32	43.50	52.06	1.47	25.98	9.63	Peak	---	---
10	199.190	36.34	-7.16	43.50	50.95	1.64	25.90	9.65	Peak	---	---
1	233.000	34.14	-11.86	46.00	46.65	1.70	25.87	11.66	Peak	---	---
2 @	250.000	44.81	-1.19	46.00	56.08	1.85	25.85	12.73	QP	100	309
3	300.000	39.41	-6.59	46.00	49.58	2.00	25.80	13.63	Peak	---	---
4	366.000	39.21	-6.79	46.00	47.78	2.36	26.26	15.33	Peak	---	---
5 @	433.000	42.05	-3.95	46.00	49.41	2.52	26.73	16.85	QP	---	---
6 @	488.000	41.50	-4.50	46.00	47.85	2.84	27.12	17.93	Peak	---	---

➤ For 3GHz ~ 25GHz

Remark: Frequency from 3000MHz to 25000MHz, the emission emitted by the EUT is too low to be measured



■ Field strength of fundamental and harmonics

Frequency ( MHz )	Antenna Polarity	Cable Factor ( dB/m )	Cable Loss ( dB )	Reading ( dBuV )	Limits ( dBuV/m )	Emission ( uV/m )	Level ( dBuV/m )	Margin ( uV/m )	Detect ( dB )	Mode
2462.000	H	28.35	6.29	64.07	-	-	98.71	86198.56		Peak
2462.000	H	28.35	6.29	56.24	-	-	90.88	34994.52		AV
2462.000	V	28.35	6.29	72.64	-	-	107.28	231206.48		Peak
2462.000	V	28.35	6.29	60.93	-	-	95.57	60048.20		AV
4920.000	V/H						-			AV/ Peak
7386.000	V/H						-			AV/ Peak
9848.000	V/H						-			AV/ Peak
12310.000	V/H						-			AV/ Peak
14772.000	V/H						-			AV/ Peak
17234.000	V/H						-			AV/ Peak
19696.000	V/H						-			AV/ Peak
22158.000	V/H						-			AV/ Peak
24620.000	V/H						-			AV/ Peak

Remark: The emission emitted by the EUT is too low to be measured except the emission listed above,

Test Engineer :   
 \_\_\_\_\_  
 William Lee

- Test Mode: Mode 19
- Test Distance: 3M
- Temperature: 30 °C
- Relative Humidity: 39 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

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

■ Spurious Emission

Site : OSD1-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-16-2003 HORIZONTAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 11G CH1 (TX)  
 : 12DBI ANT.

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1	45.740	28.84	-11.16	40.00	42.78	0.62	26.40	11.84	Peak	---	---
2	60.450	26.15	-13.85	40.00	46.23	0.65	26.38	5.65	Peak	---	---
3	65.470	24.87	-15.13	40.00	44.58	0.70	26.37	5.96	Peak	---	---
4	124.980	27.70	-15.80	43.50	40.46	0.93	26.20	12.51	Peak	---	---
5	150.750	34.67	-8.83	43.50	48.73	1.02	26.10	11.02	Peak	---	---
6	162.170	29.20	-14.30	43.50	44.14	1.01	26.05	10.10	Peak	---	---
7	165.110	38.01	-5.49	43.50	53.14	1.03	26.04	9.88	Peak	---	---
8	168.050	23.61	-19.89	43.50	38.92	1.06	26.03	9.66	Peak	---	---
9	178.090	27.42	-16.08	43.50	43.18	1.09	25.99	9.14	Peak	---	---
10	199.540	21.52	-21.98	43.50	36.99	1.20	25.90	9.23	Peak	---	---
1	250.000	35.02	-10.98	46.00	47.54	1.28	25.85	12.05	Peak	---	---
2	298.000	40.24	-5.76	46.00	51.54	1.50	25.80	13.00	Peak	---	---
3	364.000	44.18	-1.82	46.00	53.57	1.65	26.25	15.21	QP	---	---
4	498.000	32.03	-13.97	46.00	39.34	2.16	27.19	17.72	Peak	---	---
5	663.600	35.57	-10.43	46.00	41.94	2.42	27.40	18.61	Peak	---	---
6	763.110	34.27	-11.73	46.00	39.55	2.56	27.34	19.50	Peak	---	---
1	1588.000	47.00	-27.00	74.00	55.46	27.56	4.88	40.90	Peak	---	---
2	1588.000	30.20	-23.80	54.00	38.66	27.56	4.88	40.90	Average	---	---

Site : OSD1-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-16-2003 VERTICAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 11G CH1 (TX)  
 : 12DBI ANT.

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Presamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1 @	39.340	38.22	-1.78	40.00	48.49	0.55	26.40	15.58	QP	100	267
2 @	46.260	35.73	-4.27	40.00	50.29	0.62	26.40	11.22	Peak	---	---
3	66.680	29.14	-10.86	40.00	48.80	0.70	26.37	6.01	Peak	---	---
4	110.960	29.33	-14.17	43.50	43.06	0.88	26.26	11.65	Peak	---	---
5	124.980	37.61	-5.89	43.50	50.37	0.93	26.20	12.51	Peak	---	---
6	158.190	26.89	-16.61	43.50	41.56	1.00	26.07	10.40	Peak	---	---
7	165.460	37.40	-6.10	43.50	52.59	1.04	26.04	9.81	Peak	---	---
8	172.380	24.55	-18.95	43.50	40.18	1.08	26.01	9.30	Peak	---	---
9	199.020	28.32	-15.18	43.50	43.81	1.19	25.90	9.22	Peak	---	---
1	250.000	35.48	-10.52	46.00	48.00	1.28	25.85	12.05	Peak	---	---
2	298.000	40.30	-5.70	46.00	51.60	1.50	25.80	13.00	Peak	---	---
3 @	364.940	42.07	-3.93	46.00	51.43	1.65	26.26	15.25	QP	---	---
4	497.710	32.69	-13.31	46.00	40.00	2.16	27.19	17.72	Peak	---	---
5	530.000	35.99	-10.01	46.00	43.00	2.10	27.26	18.15	Peak	---	---
6	663.540	36.03	-9.97	46.00	42.40	2.42	27.40	18.61	Peak	---	---
1	1596.000	52.09	-21.91	74.00	60.48	27.62	4.89	40.90	Peak	---	---
2	1596.000	44.60	-9.40	54.00	52.99	27.62	4.89	40.90	Average	---	---


➤ For 3GHz ~ 25GHz

Remark: Frequency from 3000MHz to 25000MHz, the emission emitted by the EUT is too low to be measured

■ Field strength of fundamental and harmonics

Frequency ( MHz )	Antenna Polarity	Cable Factor ( dB/m )	Cable Loss ( dB )	Reading ( dBuV )	Limits ( dBuV/m )	Emission ( uV/m )	Level ( dBuV/m )	Margin ( uV/m )	Detect ( dB )	Mode
2412.000	H	30.18	6.22	66.17	-	-	102.57	134431.18		Peak
2412.000	H	30.18	6.22	60.02	-	-	96.42	66221.65		AV
2412.000	V	30.18	6.22	73.94	-	-	110.34	328851.63		AV
2412.000	V	30.18	6.22	77.24	-	-	113.64	480839.35		Peak
4824.000	H						-			AV/Peak
4822.000	V	33.26	9.06	12.28	74.00	5011.87	54.60	537.03	-19.40	Peak
4822.000	V	33.26	9.06	4.77	54.00	501.19	47.09	226.20	-6.91	AV
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: The emission emitted by the EUT is too low to be measured except the emission listed above,

Test Engineer :   
 \_\_\_\_\_  
 William Lee

- Test Mode: Mode 20
- Test Distance: 3M
- Temperature: 30 °C
- Relative Humidity: 39 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

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

■ Spurious Emission

Site : OS01-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-16-2003 HORIZONTAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 11G CH6 (TX)  
 : 12DBI ANT.

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1	46.260	25.95	-14.05	40.00	40.51	0.62	26.40	11.22	Peak	---	---
2	75.330	21.40	-18.60	40.00	39.83	0.75	26.35	7.17	Peak	---	---
3	111.830	21.05	-22.45	43.50	34.68	0.88	26.25	11.74	Peak	---	---
4	125.320	23.60	-19.90	43.50	36.36	0.93	26.20	12.51	Peak	---	---
5	132.420	21.15	-22.35	43.50	34.62	0.95	26.17	11.75	Peak	---	---
6	150.060	26.74	-16.76	43.50	40.80	1.02	26.10	11.02	Peak	---	---
7	162.690	28.00	-15.50	43.50	43.00	1.02	26.05	10.03	Peak	---	---
8	165.110	37.64	-5.86	43.50	52.77	1.03	26.04	9.88	Peak	---	---
9	171.340	23.63	-19.87	43.50	39.19	1.08	26.01	9.37	Peak	---	---
10	189.850	22.00	-21.50	43.50	37.61	1.15	25.94	9.18	Peak	---	---
11	199.190	22.75	-20.75	43.50	38.24	1.19	25.90	9.22	Peak	---	---
1	250.000	35.93	-10.07	46.00	48.45	1.28	25.85	12.05	Peak	---	---
2	298.000	41.15	-4.85	46.00	52.45	1.50	25.80	13.00	Peak	---	---
3	364.000	44.09	-1.91	46.00	53.48	1.65	26.25	15.21	QP	200	302
4	500.000	33.19	-12.81	46.00	40.45	2.18	27.20	17.76	Peak	---	---
5	663.600	36.88	-9.12	46.00	43.25	2.42	27.40	18.61	Peak	---	---
6	763.000	34.98	-11.02	46.00	40.26	2.56	27.34	19.50	Peak	---	---
1	1588.000	50.59	-23.41	74.00	59.05	27.56	4.88	40.90	Peak	---	---
2	1588.000	32.85	-21.15	54.00	41.31	27.56	4.88	40.90	Average	---	---
3	1916.000	49.97	-24.03	74.00	55.45	30.01	5.53	41.02	Peak	---	---
4	1916.000	41.28	-12.72	54.00	46.76	30.01	5.53	41.02	Average	---	---

Site : OS01-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-16-2003 VERTICAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 11G CH6 (TX)  
 : 12DBI ANT.

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Preamp	Antenna	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1 @	31.900	37.82	-2.18	40.00	46.29	0.50	26.40	17.43	QP	---	---
2 @	39.340	36.70	-3.30	40.00	46.97	0.55	26.40	15.58	Peak	---	---
3	46.440	34.81	-5.19	40.00	49.37	0.62	26.40	11.22	Peak	---	---
4	69.440	33.47	-6.53	40.00	52.97	0.70	26.36	6.16	Peak	---	---
5	110.960	34.12	-9.38	43.50	47.85	0.88	26.26	11.65	Peak	---	---
6	124.800	37.00	-6.50	43.50	49.76	0.93	26.20	12.51	Peak	---	---
7	149.890	31.31	-12.19	43.50	45.37	1.02	26.10	11.02	Peak	---	---
8	165.110	35.40	-8.10	43.50	50.53	1.03	26.04	9.88	Peak	---	---
9	171.340	27.99	-15.51	43.50	43.55	1.08	26.01	9.37	Peak	---	---
10	195.910	27.85	-15.65	43.50	43.38	1.18	25.92	9.21	Peak	---	---
1	250.000	37.16	-8.84	46.00	49.68	1.28	25.85	12.05	Peak	---	---
2	364.000	38.69	-7.31	46.00	48.08	1.65	26.25	15.21	Peak	---	---
3	497.000	35.93	-10.07	46.00	43.25	2.15	27.18	17.71	Peak	---	---
1	1596.000	52.95	-21.05	74.00	61.34	27.62	4.89	40.90	Peak	---	---
2	1596.000	44.31	-9.69	54.00	52.70	27.62	4.89	40.90	Average	---	---


➤ For 3GHz ~ 25GHz

Remark: Frequency from 3000MHz to 25000MHz, the emission emitted by the EUT is too low to be measured

■ Field strength of fundamental and harmonics

Frequency ( MHz )	Antenna Polarity	Cable Factor ( dB/m )	Cable Loss ( dB )	Reading ( dBuV )	Limits ( dBuV/m )	Emission ( uV/m )	Level ( dBuV/m )	Margin ( uV/m )	Detect ( dB )	Mode
2438.000	H	30.15	6.26	67.44	-	-	103.85	155775.80		Peak
2438.000	H	30.15	6.26	60.99	-	-	97.40	74131.02		AV
2438.000	V	30.15	6.26	73.78	-	-	110.19	323221.32		Peak
2438.000	V	30.15	6.26	69.20	-	-	105.61	190765.57		AV
4876.000	H						-			AV/Peak
4876.000	V	33.44	9.09	13.97	74.00	5011.87	56.50	668.34	-17.50	Peak
4876.000	V	33.44	9.09	6.60	54.00	501.19	49.13	286.09	-4.87	AV
7311.000	V/H						-			AV/Peak
9748.000	V/H						-			AV/Peak
12185.000	V/H						-			AV/Peak
14622.000	V/H						-			AV/Peak
17059.000	V/H						-			AV/Peak
19496.000	V/H						-			AV/Peak
21933.000	V/H						-			AV/Peak
24370.000	V/H						-			AV/Peak

Remark: The emission emitted by the EUT is too low to be measured except the emission listed above,

Test Engineer :   
 \_\_\_\_\_  
 William Lee

- Test Mode: Mode 21
- Test Distance: 3M
- Temperature: 30 °C
- Relative Humidity: 39 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

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

■ Spurious Emission

Site : OSD1-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-16-2003 HORIZONTAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 11G CH11 (TX)  
 : 12DBI ANT.

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1	46.260	28.13	-11.87	40.00	42.69	0.62	26.40	11.22	Peak	---	---
2	73.770	24.94	-15.06	40.00	43.71	0.75	26.35	6.83	Peak	---	---
3	110.960	27.13	-16.37	43.50	40.86	0.88	26.26	11.65	Peak	---	---
4	124.800	34.02	-9.48	43.50	46.78	0.93	26.20	12.51	Peak	---	---
5	149.540	32.33	-11.17	43.50	46.38	1.02	26.10	11.03	Peak	---	---
6	165.110	38.42	-5.08	43.50	53.55	1.03	26.04	9.88	Peak	---	---
7	172.030	28.77	-14.73	43.50	44.33	1.08	26.01	9.37	Peak	---	---
8	185.700	27.72	-15.78	43.50	43.39	1.13	25.96	9.16	Peak	---	---
1	250.000	36.20	-9.80	46.00	48.72	1.28	25.85	12.05	Peak	---	---
2	364.960	43.32	-2.68	46.00	52.68	1.65	26.26	15.25	QP	---	---
3	398.000	37.85	-8.15	46.00	46.31	1.67	26.49	16.36	Peak	---	---
4	498.000	34.78	-11.22	46.00	42.09	2.16	27.19	17.72	Peak	---	---
1	1590.000	49.99	-24.01	74.00	58.43	27.58	4.88	40.90	Peak	---	---
2	1590.000	32.11	-21.89	54.00	40.55	27.58	4.88	40.90	Average	---	---



Site : OSD1-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-16-2003 VERTICAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 11G CH11 (TX)  
 : 12DBI ANT.

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	PreampAntenna Factor	Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1 0	31.900	38.38	-1.62	40.00	46.85	0.50	26.40	17.43	QP	100	241
2 0	39.520	35.94	-4.06	40.00	46.21	0.55	26.40	15.58	Peak	---	---
3	110.960	34.28	-9.22	43.50	48.01	0.88	26.26	11.65	Peak	---	---
4	124.800	37.76	-5.74	43.50	50.52	0.93	26.20	12.51	Peak	---	---
5	149.890	32.27	-11.23	43.50	46.33	1.02	26.10	11.02	Peak	---	---
6	171.510	27.34	-16.16	43.50	42.90	1.08	26.01	9.37	Peak	---	---
7	195.730	27.01	-16.49	43.50	42.54	1.18	25.92	9.21	Peak	---	---
1	250.000	37.10	-8.90	46.00	49.62	1.28	25.85	12.05	Peak	---	---
2	364.940	39.46	-6.54	46.00	48.82	1.65	26.26	15.25	Peak	---	---
3	498.000	34.71	-11.29	46.00	42.02	2.16	27.19	17.72	Peak	---	---
4 0	663.600	42.65	-3.35	46.00	49.02	2.42	27.40	18.61	QP	---	---
1	1596.000	51.16	-22.84	74.00	59.55	27.62	4.89	40.90	Peak	---	---
2	1596.000	43.13	-10.87	54.00	51.52	27.62	4.89	40.90	Average	---	---

➤ For 3GHz ~ 25GHz

Remark: Frequency from 3000MHz to 25000MHz, the emission emitted by the EUT is too low to be measured

■ Field strength of fundamental and harmonics

Frequency ( MHz )	Antenna Polarity	Cable Factor ( dB/m )	Cable Loss ( dB )	Reading ( dBuV )	Limits ( dBuV/m )	Emission ( uV/m )	Level ( dBuV/m )	Margin ( uV/m )	Detect ( dB )	Mode
2460.000	H	30.13	6.29	57.83	-	-	94.25	51582.22		AV
2460.000	H	30.13	6.29	64.06	-	-	100.48	105681.75		Peak
2460.000	V	30.13	6.29	59.00	-	-	95.42	59020.11		AV
2460.000	V	30.13	6.29	67.96	-	-	104.38	165577.00		Peak
4942.000	V/H						-			AV/ Peak
7386.000	V/H						-			AV/ Peak
9848.000	V/H						-			AV/ Peak
12310.000	V/H						-			AV/ Peak
14772.000	V/H						-			AV/ Peak
17234.000	V/H						-			AV/ Peak
19696.000	V/H						-			AV/ Peak
22158.000	V/H						-			AV/ Peak
24620.000	V/H						-			AV/ Peak

Remark: The emission emitted by the EUT is too low to be measured except the emission listed above,

Test Engineer :   
 \_\_\_\_\_  
 William Lee

- Test Mode: Mode 22
- Test Distance: 3M
- Temperature: 30 °C
- Relative Humidity: 39 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

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

■ Spurious Emission

Site : OSD1-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-24-2002 HORIZONTAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 18DBI PATCH CH01 G

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1	64.600	32.09	-7.91	40.00	51.29	0.88	26.37	6.29	Peak	---	---
2	116.500	25.19	-18.31	43.50	37.82	1.19	26.23	12.41	Peak	---	---
3	124.800	34.72	-8.78	43.50	46.71	1.24	26.20	12.97	Peak	---	---
4	149.540	35.85	-7.65	43.50	49.96	1.33	26.10	10.66	Peak	---	---
5	166.150	37.52	-5.98	43.50	52.24	1.43	26.03	9.88	Peak	---	---
6	172.550	36.40	-7.10	43.50	51.32	1.43	26.01	9.66	Peak	---	---
7	186.050	36.50	-7.00	43.50	51.32	1.50	25.96	9.64	Peak	---	---
8	199.370	35.13	-8.37	43.50	49.73	1.65	25.90	9.65	Peak	---	---
1	233.000	34.31	-11.69	46.00	46.82	1.70	25.87	11.66	Peak	---	---
2	250.000	39.08	-6.92	46.00	50.35	1.85	25.85	12.73	Peak	---	---
3	350.000	39.19	-6.81	46.00	48.03	2.38	26.15	14.93	Peak	---	---
4 @	366.000	41.58	-4.42	46.00	50.15	2.36	26.26	15.33	Peak	---	---
5	500.000	38.00	-8.00	46.00	44.10	2.92	27.20	18.18	Peak	---	---
6 @	666.000	41.07	-4.93	46.00	45.50	3.67	27.40	19.30	Peak	---	---
7	766.000	39.63	-6.37	46.00	44.15	3.75	27.33	19.06	Peak	---	---

Site : OS01-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-24-2002 VERTICAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 18DBI PATCH CH01 G

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	PreampFactor	AntennaFactor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1 @	58.200	36.45	-3.55	40.00	55.09	0.86	26.38	6.88	Peak	---	---
2	74.290	31.15	-8.85	40.00	50.03	0.82	26.35	6.65	Peak	---	---
3 @	124.630	39.33	-4.17	43.50	51.32	1.24	26.20	12.97	Peak	---	---
4	133.450	32.30	-11.20	43.50	44.94	1.29	26.17	12.24	Peak	---	---
5 @	166.150	38.63	-4.87	43.50	53.35	1.43	26.03	9.88	QP	---	---
6	172.550	34.20	-9.30	43.50	49.12	1.43	26.01	9.66	Peak	---	---
7	185.870	35.39	-8.11	43.50	50.21	1.50	25.96	9.64	Peak	---	---
8	199.190	36.03	-7.47	43.50	50.64	1.64	25.90	9.65	Peak	---	---
1	233.000	40.11	-5.89	46.00	52.62	1.70	25.87	11.66	Peak	---	---
2 @	250.000	44.28	-1.72	46.00	55.55	1.85	25.85	12.73	QP	100	286
3	300.000	36.78	-9.22	46.00	46.95	2.00	25.80	13.63	Peak	---	---
4	366.000	40.18	-5.82	46.00	48.75	2.36	26.26	15.33	Peak	---	---
5 @	400.000	42.37	-3.63	46.00	50.35	2.32	26.50	16.20	Peak	---	---
6 @	433.000	42.72	-3.28	46.00	50.08	2.52	26.73	16.85	Peak	---	---
7 @	500.000	42.80	-3.20	46.00	48.90	2.92	27.20	18.18	Peak	---	---
8 @	666.000	41.07	-4.93	46.00	45.50	3.67	27.40	19.30	Peak	---	---

➤ For 3GHz ~ 25GHz

Remark: Frequency from 3000MHz to 25000MHz, the emission emitted by the EUT is too low to be measured

■ Field strength of fundamental and harmonics

Frequency ( MHz )	Antenna Polarity	Cable Factor ( dB/m )	Cable Loss ( dB )	Reading ( dBuV )	Limits ( dBuV/m )	Emission ( uV/m )	Level ( dBuV/m )	Margin ( uV/m )	Detect ( dB )	Mode
2412.000	H	28.24	6.22	57.60	-	-	92.06	40086.67		Peak
2412.000	H	28.24	6.22	51.98	-	-	86.44	20989.40		AV
2412.000	V	28.24	6.22	72.91	-	-	107.37	233614.61		Peak
2412.000	V	28.24	6.22	67.88	-	-	102.34	130918.19		AV
4824.000	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: The emission emitted by the EUT is too low to be measured except the emission listed above,

Test Engineer :   
 \_\_\_\_\_  
 William Lee

- Test Mode: Mode 23
- Test Distance: 3M
- Temperature: 30 °C
- Relative Humidity: 39 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

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

■ Spurious Emission

Site : OS01-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-24-2002 HORIZONTAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 18DBI PATCH CH06 G

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1	64.600	33.93	-6.07	40.00	53.13	0.88	26.37	6.29	Peak	---	---
2	116.500	25.03	-18.47	43.50	37.66	1.19	26.23	12.41	Peak	---	---
3	124.800	36.56	-6.94	43.50	48.55	1.24	26.20	12.97	Peak	---	---
4	149.540	36.69	-6.81	43.50	50.80	1.33	26.10	10.66	Peak	---	---
5 @	166.150	39.36	-4.14	43.50	54.08	1.43	26.03	9.88	Peak	---	---
6	172.550	38.24	-5.26	43.50	53.16	1.43	26.01	9.66	Peak	---	---
7	186.050	38.34	-5.16	43.50	53.16	1.50	25.96	9.64	Peak	---	---
8	199.370	33.97	-9.53	43.50	48.57	1.65	25.90	9.65	Peak	---	---
1	233.000	33.94	-12.06	46.00	46.45	1.70	25.87	11.66	Peak	---	---
2	250.000	38.71	-7.29	46.00	49.98	1.85	25.85	12.73	Peak	---	---
3	366.000	41.21	-4.79	46.00	49.78	2.36	26.26	15.33	Peak	---	---
4	500.000	40.63	-5.37	46.00	46.73	2.92	27.20	18.18	Peak	---	---
5	666.000	37.70	-8.30	46.00	42.13	3.67	27.40	19.30	Peak	---	---
6 @	766.000	42.26	-3.74	46.00	46.78	3.75	27.33	19.06	Peak	---	---

Site : OS01-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-24-2002 VERTICAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 18DBI PATCH CH06 G

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1	58.200	33.47	-6.53	40.00	52.11	0.86	26.38	6.88	Peak	---	---
2	74.290	32.17	-7.83	40.00	51.05	0.82	26.35	6.65	Peak	---	---
3	124.630	37.35	-6.15	43.50	49.34	1.24	26.20	12.97	Peak	---	---
4	133.450	33.32	-10.18	43.50	45.96	1.29	26.17	12.24	Peak	---	---
5 @	166.150	39.65	-3.85	43.50	54.37	1.43	26.03	9.88	QP	---	---
6	172.550	34.22	-9.28	43.50	49.14	1.43	26.01	9.66	Peak	---	---
7	185.870	35.41	-8.09	43.50	50.23	1.50	25.96	9.64	Peak	---	---
8	199.190	36.05	-7.45	43.50	50.66	1.64	25.90	9.65	Peak	---	---
1	233.000	38.17	-7.83	46.00	50.68	1.70	25.87	11.66	Peak	---	---
2 @	250.000	44.34	-1.66	46.00	55.61	1.85	25.85	12.73	QP	100	279
3	300.000	37.84	-8.16	46.00	48.01	2.00	25.80	13.63	Peak	---	---
4	366.000	40.24	-5.76	46.00	48.81	2.36	26.26	15.33	Peak	---	---
5 @	400.000	42.43	-3.57	46.00	50.41	2.32	26.50	16.20	Peak	---	---
6 @	433.000	41.78	-4.22	46.00	49.14	2.52	26.73	16.85	Peak	---	---
7 @	500.000	42.86	-3.14	46.00	48.96	2.92	27.20	18.18	Peak	---	---
8	666.000	41.13	-4.87	46.00	45.56	3.67	27.40	19.30	Peak	---	---

➤ For 3GHz ~ 25GHz

Remark: Frequency from 3000MHz to 25000MHz, the emission emitted by the EUT is too low to be measured

■ Field strength of fundamental and harmonics

Frequency ( MHz )	Antenna Polarity	Cable Factor ( dB/m )	Cable Loss ( dB )	Reading ( dBuV )	Limits ( dBuV/m )	Emission ( uV/m )	Level ( dBuV/m )	Margin ( uV/m )	Detect ( dB )	Mode
2438.000	H	28.30	6.26	64.45	-	-	99.01	89227.76		Peak
2438.000	H	28.30	6.26	56.96	-	-	91.52	37670.38		AV
2438.000	V	28.30	6.26	73.40	-	-	107.96	250034.54		Peak
2438.000	V	28.30	6.26	68.44	-	-	103.00	141253.75		AV
4876.000	V/H						-			AV/Peak
7311.000	V/H						-			AV/Peak
9748.000	V/H						-			AV/Peak
12185.000	V/H						-			AV/Peak
14622.000	V/H						-			AV/Peak
17059.000	V/H						-			AV/Peak
19496.000	V/H						-			AV/Peak
21933.000	V/H						-			AV/Peak
24370.000	V/H						-			AV/Peak

Remark: The emission emitted by the EUT is too low to be measured except the emission listed above,

Test Engineer :   
 \_\_\_\_\_  
 William Lee



- Test Mode: Mode 24
- Test Distance: 3M
- Temperature: 30 °C
- Relative Humidity: 39 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

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

■ Spurious Emission

Site : OSD1-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-24-2002 HORIZONTAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 18DBI PATCH CH11 G

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1	64.600	31.77	-8.23	40.00	50.97	0.88	26.37	6.29	Peak	---	---
2	116.500	23.87	-19.63	43.50	36.50	1.19	26.23	12.41	Peak	---	---
3	124.800	34.40	-9.10	43.50	46.39	1.24	26.20	12.97	Peak	---	---
4	149.540	36.53	-6.97	43.50	50.64	1.33	26.10	10.66	Peak	---	---
5 @	166.150	39.20	-4.30	43.50	53.92	1.43	26.03	9.88	Peak	---	---
6 @	172.550	38.08	-5.42	43.50	53.00	1.43	26.01	9.66	Peak	---	---
7	186.050	36.18	-7.32	43.50	51.00	1.50	25.96	9.64	Peak	---	---
8	199.370	33.81	-9.69	43.50	48.41	1.65	25.90	9.65	Peak	---	---
1	233.000	34.45	-11.55	46.00	46.96	1.70	25.87	11.66	Peak	---	---
2	250.000	40.22	-5.78	46.00	51.49	1.85	25.85	12.73	Peak	---	---
3 @	366.000	41.72	-4.28	46.00	50.29	2.36	26.26	15.33	Peak	---	---
4	500.000	40.14	-5.86	46.00	46.24	2.92	27.20	18.18	Peak	---	---
5	666.000	39.21	-6.79	46.00	43.64	3.67	27.40	19.30	Peak	---	---
6 @	766.000	41.77	-4.23	46.00	46.29	3.75	27.33	19.06	Peak	---	---

Site : OSD1-LK  
 Condition : FCC CLASS-B 3m 2672-JUNE-24-2002 VERTICAL  
 EUT : WIRELESS ROUTER  
 Power : 110VAC  
 Memo : 18DBI PATCH CH11 G

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB/m		cm	deg
1	58.200	33.80	-6.20	40.00	52.44	0.86	26.38	6.88	Peak	---	---
2	74.290	31.50	-8.50	40.00	50.38	0.82	26.35	6.65	Peak	---	---
3	124.630	37.68	-5.82	43.50	49.67	1.24	26.20	12.97	Peak	---	---
4	133.450	32.65	-10.85	43.50	45.29	1.29	26.17	12.24	Peak	---	---
5 @	166.150	37.98	-5.52	43.50	52.70	1.43	26.03	9.88	QP	---	---
6	172.550	33.55	-9.95	43.50	48.47	1.43	26.01	9.66	Peak	---	---
7	185.870	34.74	-8.76	43.50	49.56	1.50	25.96	9.64	Peak	---	---
8	199.190	34.38	-9.12	43.50	48.99	1.64	25.90	9.65	Peak	---	---
1	233.000	39.12	-6.88	46.00	51.63	1.70	25.87	11.66	Peak	---	---
2 @	250.000	44.29	-1.71	46.00	55.56	1.85	25.85	12.73	QP	100	298
3	300.000	36.79	-9.21	46.00	46.96	2.00	25.80	13.63	Peak	---	---
4 @	366.000	41.19	-4.81	46.00	49.76	2.36	26.26	15.33	Peak	---	---
5 @	400.000	42.38	-3.62	46.00	50.36	2.32	26.50	16.20	Peak	---	---
6 @	433.000	41.73	-4.27	46.00	49.09	2.52	26.73	16.85	Peak	---	---
7 @	500.000	42.81	-3.19	46.00	48.91	2.92	27.20	18.18	Peak	---	---
8 @	666.000	41.08	-4.92	46.00	45.51	3.67	27.40	19.30	Peak	---	---

➤ For 3GHz ~ 25GHz

Remark: Frequency from 3000MHz to 25000MHz, the emission emitted by the EUT is too low to be measured

■ Field strength of fundamental and harmonics

Frequency ( MHz )	Antenna Polarity	Cable Factor ( dB/m )	Cable Loss ( dB )	Reading ( dBuV )	Limits ( dBuV/m )	Emission ( uV/m )	Level ( dBuV/m )	Margin ( uV/m )	Detect ( dB )	Mode
2460.000	H	28.34	6.29	65.71	-	-	100.34	103992.02		Peak
2460.000	H	28.34	6.29	55.27	-	-	89.90	31260.79		AV
2462.000	V	28.35	6.29	73.02	-	-	107.66	241546.08		Peak
2462.000	V	28.34	6.29	62.41	-	-	97.04	71121.35		AV
4942.000	V/H						-			AV/ Peak
7386.000	V/H						-			AV/ Peak
9848.000	V/H						-			AV/ Peak
12310.000	V/H						-			AV/ Peak
14772.000	V/H						-			AV/ Peak
17234.000	V/H						-			AV/ Peak
19696.000	V/H						-			AV/ Peak
22158.000	V/H						-			AV/ Peak
24620.000	V/H						-			AV/ Peak

Remark: The emission emitted by the EUT is too low to be measured except the emission listed above,

Test Engineer :   
 \_\_\_\_\_  
 William Lee

**5.7. Band Edges Measurement**

5.7.1. Measuring Instruments :

As described in chapter 7 of this test report.

5.7.2. 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 convenient frequency span including 100 KHz bandwidth from band edge.
3. The band edges was measured and recorded.
4. We tested all antennas, which is 12dBi Omnidirectional antenna generated the worst case. This band edge test was conducted with 12dBi Omnidirectional antenna.

5.7.3. Test Result :

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

5.7.4. Note on Band edge Emission

The band edge emission plot on appendix B page B14. shows 46.69dB delta between carrier maximum power and local maximum emission in the restricted band (2.4835GHz).

■ Mode 1

Polarity	The emission of carrier power strength (dB $\mu$ V/m)	The maximum field strength in restrict band (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Result
H	101.23	54.54	74.00	-19.46	Peak
H	95.90	49.21	54.00	-4.79	Average
V	103.13	56.44	74.00	-17.56	Peak
V	98.01	51.32	54.00	-2.68	Average

The band edge emission plot on appendix B page B14. shows 46.69dB delta between carrier maximum power and local maximum emission in the restricted band (2.4835GHz).

■ Mode 2

Polarity	The emission of carrier power strength (dB $\mu$ V/m)	The maximum field strength in restrict band (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Result
H	99.31	52.62	74.00	-21.38	Peak
H	86.93	40.24	54.00	-13.76	Average
V	107.20	60.51	74.00	-13.49	Peak
V	98.20	51.51	54.00	-2.49	Average

The band edge emission plot on appendix B page B14. shows 46.69dB delta between carrier maximum power and local maximum emission in the restricted band (2.4835GHz).

■ Mode 3

Polarity	The emission of carrier power strength (dB $\mu$ V/m)	The maximum field strength in restrict band (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Result
H	98.26	51.57	74.00	-22.43	Peak
H	97.62	50.93	54.00	-3.07	Average
V	106.61	59.92	74.00	-14.08	Peak
V	100.56	53.87	54.00	-0.13	Average

The band edge emission plot on appendix B page B14. shows 46.69dB delta between carrier maximum power and local maximum emission in the restricted band (2.4835GHz).

■ Mode 4

Polarity	The emission of carrier power strength (dB $\mu$ V/m)	The maximum field strength in restrict band (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Result
H	100.86	54.17	74.00	-19.83	Peak
H	91.03	44.34	54.00	-9.66	Average
V	107.49	60.80	74.00	-13.20	Peak
V	98.01	51.32	54.00	-2.68	Average

The band edge emission plot on appendix B page B16. shows 45.18dB delta between carrier maximum power and local maximum emission in the restricted band (2.4835GHz).

■ Mode 5

Polarity	The emission of carrier power strength (dB $\mu$ V/m)	The maximum field strength in restrict band (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Result
H	100.78	57.53	74.00	-16.47	Peak
H	93.30	50.05	54.00	-3.95	Average
V	103.68	60.43	74.00	-13.57	Peak
V	94.01	50.76	54.00	-3.24	Average

The band edge emission plot on appendix B page B16. shows 45.18dB delta between carrier maximum power and local maximum emission in the restricted band (2.4835GHz).

■ Mode 6

Polarity	The emission of carrier power strength (dB $\mu$ V/m)	The maximum field strength in restrict band (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Result
H	98.71	55.46	74.00	-18.54	Peak
H	90.88	47.63	54.00	-6.37	Average
V	107.28	64.03	74.00	-9.97	Peak
V	95.57	52.32	54.00	-1.68	Average

The band edge emission plot on appendix B page B16. shows 45.18dB delta between carrier maximum power and local maximum emission in the restricted band (2.4835GHz).

■ Mode 7

Polarity	The emission of carrier power strength (dB $\mu$ V/m)	The maximum field strength in restrict band (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Result
H	100.48	57.23	74.00	-16.77	Peak
H	94.25	51.00	54.00	-3.00	Average
V	104.38	61.13	74.00	-12.87	Peak
V	95.42	52.17	54.00	-1.83	Average

The band edge emission plot on appendix B page B16. shows 45.18dB delta between carrier maximum power and local maximum emission in the restricted band (2.4835GHz).

■ Mode 8

Polarity	The emission of carrier power strength (dB $\mu$ V/m)	The maximum field strength in restrict band (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Result
H	100.34	57.09	74.00	-16.91	Peak
H	89.90	46.65	54.00	-7.35	Average
V	107.66	64.41	74.00	-9.59	Peak
V	97.04	53.79	54.00	-0.21	Average

The maximum field strength in restricted band is the emission of carrier power strength subtract to the delta between carrier maximum power and local maximum emission in the restricted band.

## **5.8. Antenna Requirements**

The EUT use a detachable antenna via SMA-reversed external connector. It is considered meet antenna requirement of FCC.

### **5.8.1. Standard Applicable**

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

And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

### **5.8.2. Antenna Connected Construction**

The maximum Gain antenna used in this product is Patch antenna. The antenna connector type is SMA-reversed. The coaxial cable has a unique connector.

**5.9. RF Exposure**

FCC Rules and Regulations Part 1.1307,1.1310,2.1091,2.1093:

RF Exposure Compliance

5.9.1. Limit For Maximum Permissible Exposure (MPE)

(A) Limits for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm <sup>2</sup> )	Averaging Time  E  <sup>2</sup> , H  <sup>2</sup> or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f)*	6
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-100,000			5	6

(B) Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time  E  <sup>2</sup> , H  <sup>2</sup> or S ( minutes )
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1.0	30

F=frequency in MHz

\*Plane-wave equivalent power density



5.9.2. MPE Calculations

$$E \text{ (V/m)} = \frac{\sqrt{30 \times P \times G}}{d} \quad \text{Power Density: } Pd \text{ (mW/cm}^2\text{)} = \frac{E^2}{3770}$$

- E = Electric field (V/m)
- P = Peak output power (mW)
- G = Antenna numeric gain (numeric)
- d = Separation distance (m)

Because the EUT is belong to General Population/ Uncontrolled Exposure. So the Limit of Power Density is 1.0 mW/cm<sup>2</sup>. We can change the formula to:

$$d = \sqrt{\frac{30 \times P \times G}{3770}}$$

■ Mode 1

Channel NO.	Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power ( mW )	Calculated RF Exposure Separation Distance ( cm )	Minimum RF Exposure Separation Distance ( cm )
Channel 1	5.00	3.16	10.41	11.0	1.66	20
Channel 6	5.00	3.16	9.85	9.7	1.56	20
Channel 11	5.00	3.16	10.11	10.3	1.61	20

■ Mode 2

Channel NO.	Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power ( mW )	Calculated RF Exposure Separation Distance ( cm )	Minimum RF Exposure Separation Distance ( cm )
Channel 1	5.00	3.16	10.41	11.0	1.66	20
Channel 6	5.00	3.16	9.85	9.7	1.56	20
Channel 11	5.00	3.16	10.11	10.3	1.61	20

■ Mode 3

Channel NO.	Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power ( mW )	Calculated RF Exposure Separation Distance ( cm )	Minimum RF Exposure Separation Distance ( cm )
Channel 1	12.00	15.85	10.41	11.0	3.72	20
Channel 6	12.00	15.85	9.85	9.7	3.49	20
Channel 11	12.00	15.85	10.11	10.3	3.60	20

■ Mode 4

Channel NO.	Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power ( mW )	Calculated RF Exposure Separation Distance ( cm )	Minimum RF Exposure Separation Distance ( cm )
Channel 1	18.00	63.10	10.41	11.0	7.43	20
Channel 6	18.00	63.10	9.85	9.7	6.96	20
Channel 11	18.00	63.10	10.11	10.3	7.18	20

■ Mode 5

Channel NO.	Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power ( mW )	Calculated RF Exposure Separation Distance ( cm )	Minimum RF Exposure Separation Distance ( cm )
Channel 1	5.00	3.16	6.12	4.1	1.01	20
Channel 6	5.00	3.16	6.35	4.3	1.04	20
Channel 11	5.00	3.16	6.77	4.8	1.09	20

■ Mode 6

Channel NO.	Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power ( mW )	Calculated RF Exposure Separation Distance ( cm )	Minimum RF Exposure Separation Distance ( cm )
Channel 1	5.00	3.16	6.12	4.1	1.01	20
Channel 6	5.00	3.16	6.35	4.3	1.04	20
Channel 11	5.00	3.16	6.77	4.8	1.09	20

■ Mode 7

Channel NO.	Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power ( mW )	Calculated RF Exposure Separation Distance ( cm )	Minimum RF Exposure Separation Distance ( cm )
Channel 1	12.00	15.85	6.12	4.1	2.27	20
Channel 6	12.00	15.85	6.35	4.3	2.33	20
Channel 11	12.00	15.85	6.77	4.8	2.45	20

■ Mode 8

Channel NO.	Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power ( mW )	Calculated RF Exposure Separation Distance ( cm )	Minimum RF Exposure Separation Distance ( cm )
Channel 1	18.00	63.10	6.12	4.1	4.53	20
Channel 6	18.00	63.10	6.35	4.3	4.65	20
Channel 11	18.00	63.10	6.77	4.8	4.89	20

5.9.3. FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20cm (8 inches) during normal operation. Proposed RF exposure safety information to include in User's Manual.

## **6. EMI Suppression Component List**

1. Add a core on RF cable.  
(As the Internal photo No. 1)

7. Antenna Factor & Cable Loss

Frequency (MHz)	Antenna Factor (dB)	Cable Loss (dB)	Frequency (MHz)	Antenna Factor (dB)	Cable Loss (dB)
30	17.85	0.68	1000	24.30	3.89
35	16.79	0.76	2000	31.10	5.41
40	15.58	0.75	3000	29.60	6.92
45	12.47	0.84	4000	30.80	8.24
50	8.71	0.85	5000	34.20	9.22
55	7.18	0.96	6000	33.30	10.25
60	5.65	1.00	7000	37.80	11.61
65	5.91	1.15	8000	39.40	11.78
70	6.16	0.93	9000	38.40	12.59
75	7.00	0.98	10000	38.90	13.84
80	8.01	1.00	11000	41.10	14.64
85	8.78	1.07	12000	42.70	14.12
90	9.54	1.12	13000	43.90	16.01
95	10.09	1.12	14000	43.70	13.76
100	10.63	1.20	15000	43.40	14.30
110	11.55	1.25	16000	40.90	15.16
120	12.57	1.30	17000	44.40	15.88
130	12.04	1.30	18000	47.10	16.09
140	11.09	1.38	19000	37.60	16.98
150	11.02	1.42	20000	37.30	16.21
160	10.25	1.47	21000	37.00	20.13
170	9.52	1.50	22000	38.00	19.24
180	9.13	1.60	23000	38.70	19.64
190	9.18	1.68	24000	38.60	20.54
200	9.23	1.68	25000	38.90	20.14
220	10.37	1.71	14000	43.70	13.76
240	11.45	1.82	15000	43.40	14.30
260	12.24	1.92	16000	40.90	15.16
280	12.65	1.98	17000	44.40	15.88
300	13.04	2.12	18000	47.10	16.09
320	13.73	2.22	19000	37.60	16.98
340	14.42	2.32	20000	37.30	16.21
360	15.08	2.38	21000	37.00	20.13
380	15.77	2.40	22000	38.00	19.24
400	16.43	2.42	23000	38.70	19.64
450	17.10	2.70	24000	38.60	20.54
500	17.76	2.85	25000	38.90	20.14
550	18.42	2.93			
600	19.09	3.20			
650	18.72	3.45			
700	18.33	3.50			
750	19.25	3.73			
800	20.19	3.93			
850	19.84	4.09			
900	19.49	4.20			
950	20.86	4.18			
1000	22.25	4.33			

**8. List of Measuring Equipments Used**

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
Receiver	R&S	ESCS 30	836858/024	9 KHz - 2.75 GHz	Dec. 10, 2002	Conduction (CO01-LK)
LISN	MessTec	NNB-2/16Z	2001/007	9KHz ~ 30MHz	Jun. 02, 2003	Conduction (CO01-LK)
LISN	MessTec	NNB-2/16Z	2001/004	9KHz ~ 30MHz	Jun. 02, 2003	Conduction (CO01-LK)
RF Cable-CON	Suhner Switzerland	RG223/U	CB017	9KHz~30MHz	Jan. 08, 2003	Conduction
50 ohm BNC type	NOBLE	50ohm	TM002	50 ohm	May 19, 2003	Conduction
Open Area Test Site	SPORTON	OATS-10	OS01-LK	30MHz~1GHz 10m,3m	Nov. 23, 2002	Radiation (OS01-LK)
Spectrum Analyzer	Advantest	R3261C	81720145	9KHz-2.6GHz	May 15, 2003	Radiation
Receiver	R&S	ESCS 30	838251/003	9KHz~2.75GHz	Jan. 13, 2003	Radiation
Amplifier	HP	8447D	2944A09068	100KHz -1.3GHz	Oct. 14, 2002	Radiation
Bilog Antenna	CHASE	CBL6112A	2672	30MHz -2GHz	Jun. 16, 2003	Radiation
Turn Table	EMCO	2080	9711-2022	0 ~ 360 degree	N/A	Radiation
Antenna Mast	EMCO	2075	9710-2101	1 m- 4 m	N/A	Radiation
RF Cable-R10m	BELDEN	RG8/U	CB005	30MHz~1GHz	Jan. 20, 2003	Radiation
RF Cable-R03m	BELDEN	RG8/U	CB006	30MHz~1GHz	Jan. 20, 2003	Radiation
Horn Antenna	COM-POWER	AH-118	10094	1GHz – 18GHz	Apr. 10, 2003	Radiation
Spectrum analyzer	R&S	FSP30	100023	9KHZ~30GHz	Jul. 22, 2003	Radiation
Amplifier	MITEQ	AFS44	879981	100MHz~26.5GHz	Jul. 23, 2003	Radiation
RF Cable-HIGH	Jye Bao	RG142	CB030-HIGH	1GHz~29.5GHz	Mar. 14, 2003	Radiation

Calibration Interval of instruments listed above is one year.

9. Uncertainty of Test Site

Uncertainty of Conducted Emission Measurement

Contribution	Probability Distribution	150KHz – 30MHz
Cable and I/P attenuator calibration	normal(k=2)	±0.3
RCV/SPA specification	Rectangular	±2.5
LISN coupling specification	Rectangular	±1.5
Transducer factor frequency interpolation	Rectangular	±0.2
Mismatch Receiver VSWR $\Gamma_1=0.09$ LISN VSWR $\Gamma_2=0.33$ Uncertainty= $20\log(1-\Gamma_1*\Gamma_2)$	U-shaped	0.2
combined standard uncertainty $u_c(y)$	Normal	±1.7
Measuring uncertainty for a level of confidence of 95% $U=2 u_c(y)$	normal (k=2)	±3.4

$u_c(y) = \{(0.3/2)^2 + (2.5^2 + 1.5^2 + 0.2^2)/3 + (1.7)^2/2\} = 1.7$

Uncertainty of Radiated Emission Measurement

Contribution	Probability Distribution	3m	10m
Antenna factor calibration	normal(k=2)	±1.6	±1.6
cable loss calibration	normal(k=2)	±0.3	±0.3
RCV/SPA specification	rectangular	±2.5	±2.5
Antenna Directivity	rectangular	±3	±0.5
Antenna Factor V.S. Height	rectangular	±2	±2
Antenna Factor Interpolation for Frequency	rectangular	±0.25	±0.25
site imperfection	rectangular	±2	±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	±0.54
combined standard uncertainty $u_c(y)$	normal	±2.9	±2.4
Measuring uncertainty for a level of confidence of 95% $U=2 u_c(y)$	normal (k=2)	±5.8	±4.8

$u_c(y) = \{(1.6/2)^2 + (0.3/2)^2 + (2.5^2 + 0.5^2 + 2^2 + 0.25^2 + 2^2)/3 + (0.54)^2/2\} = 2.4$  for 10m test distance

$u_c(y) = \{(1.6/2)^2 + (0.3/2)^2 + (2.5^2 + 3^2 + 2^2 + 0.25^2 + 2^2)/3 + (0.54)^2/2\} = 2.9$  for 3m test distance