

# FCC TEST REPORT

according to

## FCC Rules and Regulations

### Part 15 Subpart C

|            |                                                                |
|------------|----------------------------------------------------------------|
| Applicant  | Netgear Inc.                                                   |
| Address    | 4500 Great America Parkway Santa Clara<br>California 95054 USA |
| Equipment  | 54 Mbps Wireless Game Adapter                                  |
| Model No.  | WGE111                                                         |
| FCC ID     | PY3WGE111                                                      |
| Trade Name | Netgear                                                        |

- The test result refers exclusively to the test presented test model / sample.,
- Without written approval of **Exclusive Certification Corp.** the test report shall not be reproduced except in full.

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# CERTIFICATE OF COMPLIANCE

according to

## FCC Rules and Regulations

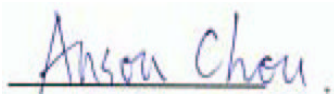
### Part 15 Subpart C

|           |                                                                |
|-----------|----------------------------------------------------------------|
| Applicant | Netgear Inc.                                                   |
| Address   | 4500 Great America Parkway Santa Clara<br>California 95054 USA |
| Equipment | 54 Mbps Wireless Game Adapter                                  |
| Model No. | WGE111                                                         |
| FCC ID    | PY3WGE111                                                      |

#### I HEREBY CERTIFY THAT :

The measurements shown in this test report were made in accordance with the procedures given in **ANSI C63.4**. The equipment was ***passed*** the test performed according to **FCC Rules and Regulations Part 15 Subpart C (2002)**. The test was carried out on Jun. 26, 2004 at ***Exclusive Certification Corp.***

Signature



Anson Chou / Manager

## 1. Report of Measurements and Examinations

### 1.1. List of Measurements and Examinations

| FCC Rule                             | Description of Test                        | Result |
|--------------------------------------|--------------------------------------------|--------|
| 15.203                               | . Antenna Requirement                      | Pass   |
| 15.207                               | . Conducted Emission                       | Pass   |
| 15.209                               | . Radiated Emission                        | Pass   |
| 15.247(a)(2)                         | . 6dB Bandwidth                            | Pass   |
| 15.247(b)                            | . Maximum Peak Output Power                | Pass   |
| 15.247(c)                            | . 100kHz Bandwidth of Frequency Band Edges | Pass   |
| 15.247(d)                            | . Power Spectral Density                   | Pass   |
| 1.1307<br>1.1310<br>2.1091<br>2.1093 | . RF Exposure Compliance                   | Pass   |

Test by:

Jerry

## **1.2. Antenna Requirements**

### **1.2.1. 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.

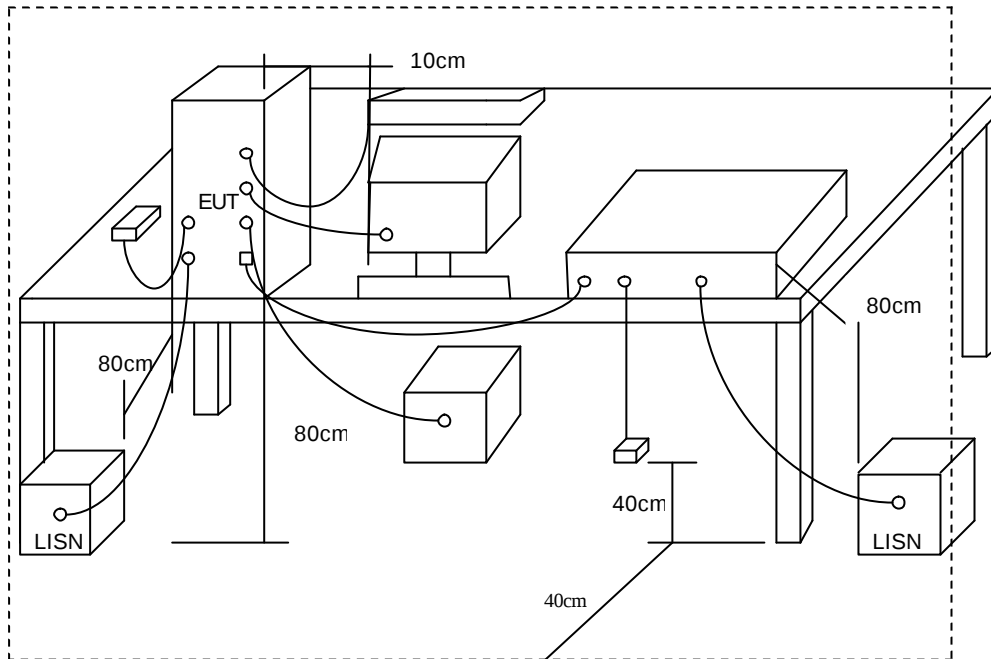
### **1.3. Test of Conducted Emission**

Conducted Emissions were measured from 150 kHz to 30 MHz with a bandwidth of 9 KHz on the 115 VAC power and return leads of the EUT according to the methods defined in ANSI C63.4-1992 Section 3.1. The EUT was placed on a nonmetallic stand in a shielded room 0.8 meters above the ground plane as shown in section 2.2. The interface cables and equipment positioning were varied within limits of reasonable applications to determine the position produced maximum conducted emissions.

#### **1.3.1. Test Procedures**

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

### 1.3.2. Typical Test Setup Layout of Conducted Emission



### 1.3.3. Conducted Emission Requirement

Except for A digital devices, for equipment that is designed to be connected to the public utility (AC) power line on any frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150KHz to 30MHz shall not exceed the limits in the following table, as measured using a 50 $\mu$ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the Radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the band edges.

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

\*Decreases with the logarithm of the frequency.

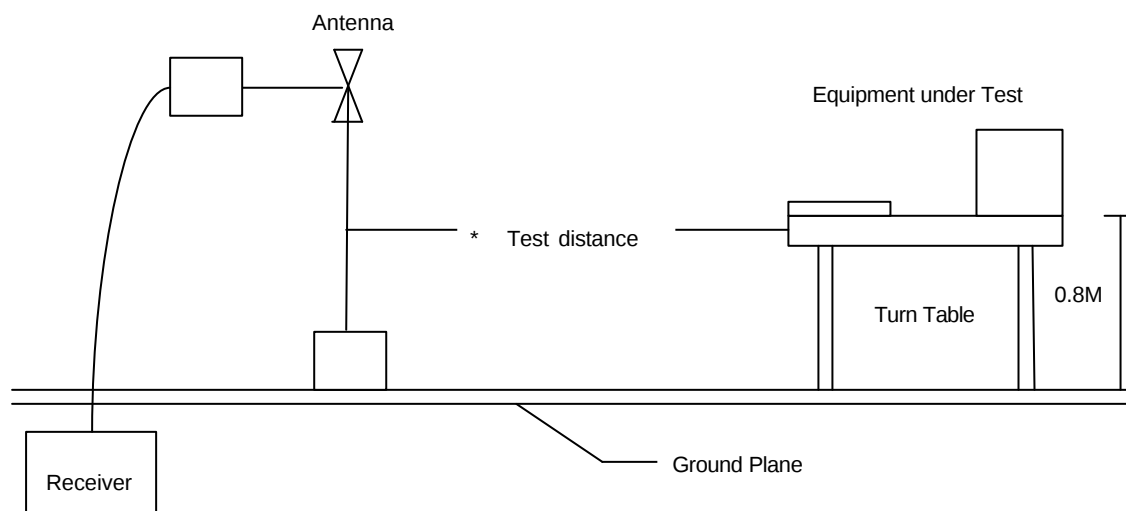
## 1.4. Test of Radiated Emission

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

### 1.4.1. 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.

### 1.4.2. Typical Test Setup Layout of Radiated Emission

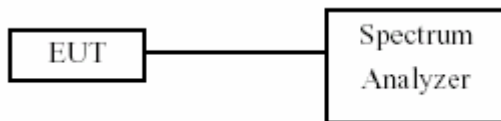


## 1.5. 6dB Bandwidth

### 1.5.1. Test Procedure :

1. The transmitter output was connected to the spectrum analyzer.
2. Set RBW of spectrum analyzer to 100 KHz and VBW to 100 KHz.
3. The 6 dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6 dB.

### 1.5.2. Test Setup Layout :

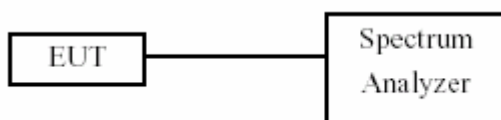


## 1.6. Maximum Peak Output Power

### 1.6.1. Test Procedure :

The antenna port ( RF output ) of the EUT was connected to the input ( RF input ) of a spectrum analyzer. Power was read directly from the spectrum analyzer 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.

### 1.6.2. Test Setup Layout :



## 1.7. Band Edges Measurement

### 1.7.1. Test Procedure :

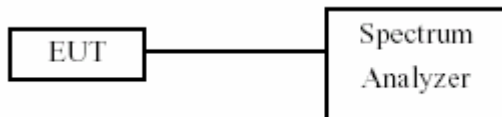
1. The transmitter output was connected to the spectrum analyzer via a low lose cable.
2. Set both RBW and VBW of spectrum analyzer to 100 KHz with convenient frequency span including 100 MHz bandwidth from band edge.
3. The band edges was measured and recorded.

## 1.8. Power Spectral Density

### 1.8.1. Test Procedure :

1. The transmitter output was connected to spectrum analyzer.
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.

### 1.8.2. Test Setup Layout :



### 1.9. Restricted Bands of Operation

Only spurious emissions are permitted in any of the frequency bands listed below:

| MHz                 | MHz                   | MHz             | GHz             |
|---------------------|-----------------------|-----------------|-----------------|
| 0.09000 – 0.11000   | 16.42000 – 16.42300   | 399.9 – 410.0   | 4.500 – 5.250   |
| 0.49500 – 0.505**   | 16.69475 – 16.69525   | 608.0 – 614.0   | 5.350 – 5.460   |
| 2.17350 – 2.19050   | 16.80425 – 16.80475   | 960.0 – 1240.0  | 7.250 – 7.750   |
| 4.12500 – 4.12800   | 25.50000 – 25.67000   | 1300.0 – 1427.0 | 8.025 – 8.500   |
| 4.17725 – 4.17775   | 37.50000 – 38.25000   | 1435.0 – 1626.5 | 9.000 – 9.200   |
| 4.20725 – 4.20775   | 73.00000 – 74.60000   | 1645.5 – 1646.5 | 9.300 – 9.500   |
| 6.21500 – 6.21800   | 74.80000 – 75.20000   | 1660.0 – 1710.0 | 10.600 – 12.700 |
| 6.26775 – 6.26825   | 108.00000 – 121.94000 | 1718.8 – 1722.2 | 13.250 – 13.400 |
| 6.31175 – 6.31225   | 123.00000 – 138.00000 | 2200.0 – 2300.0 | 14.470 – 14.500 |
| 8.29100 – 8.29400   | 149.90000 – 150.05000 | 2310.0 – 2390.0 | 15.350 – 16.200 |
| 8.36200 – 8.36600   | 156.52475 – 156.52525 | 2483.5 – 2500.0 | 17.700 – 21.400 |
| 8.37625 – 8.38675   | 156.70000 – 156.90000 | 2655.0 – 2900.0 | 22.010 – 23.120 |
| 8.41425 – 8.41475   | 162.01250 – 167.17000 | 3260.0 – 3267.0 | 23.600 – 24.000 |
| 12.29000 – 12.29300 | 167.72000 – 173.20000 | 3332.0 – 3339.0 | 31.200 – 31.800 |
| 12.51975 – 12.52025 | 240.00000 – 285.00000 | 3345.8 – 3358.0 | 36.430 – 36.500 |
| 12.57675 – 12.57725 | 322.00000 – 335.40000 | 3600.0 – 4400.0 | Above 38.6      |
| 13.36000 – 13.41000 |                       |                 |                 |

\*\* : Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz

### 1.10. Labeling Requirement

The device shall bear the following statement in a conspicuous location on the device:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

### 1.11. RF Exposure

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

RF Exposure Compliance

#### 1.11.1. 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

### 1.11.2. MPE Calculations

$$S = (P \times G) / (4 \times \pi \times d^2)$$

Where:

S = power density

P = transmitter conducted power in (mW)

G = antenna numeric gain

d = distance to radiation center (m) or (.02<sup>2</sup>) = 0.20 cm

### 1.11.3. 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.

## 2. Test Configuration of Equipment under Test

### 2.1. Test Mode and Test Software

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

- 802.11b (CH LO: 2412MHz) • 802.11b (CH MID: 2437MHz) • 802.11b (CH HI: 2462MHz)
- 802.11g (CH LO: 2412MHz) • 802.11g (CH MID: 2437MHz) • 802.11g (CH HI: 2462MHz)
- An executive programs, "DUTAPIDLL" Application under WIN XP.
- Link Mode (The function of EUT is data transmitting which can be operated by connecting with two hosts through UTP cable and wireless .)
- During the test, "Ping. exe" was executive under WinXP to link with the remote workstation to transmitting data by UTP cable and wireless.

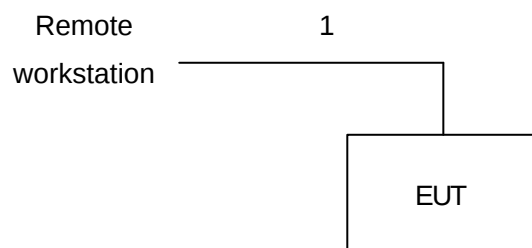
### 2.2. Description of Test System

| Device                 | Model No. | Manufacturer | Description                                                   |
|------------------------|-----------|--------------|---------------------------------------------------------------|
| PC (Remote site)       | IGV       | IBM          | Power Cord, Unshielding, 1.8m                                 |
| Monitor (Remote site)  | 510A      | SlimAGE      | Power Cord, Unshielding, 1.8m<br>Data Cable, Shielding, 1.35m |
| Keyboard (Remote site) | KB-0225   | IBM          | Data Cable, Shielding, 1.85m                                  |
| Mouse (Remote site)    | MO28VO    | IBM          | Data Cable, Shielding, 1.85m                                  |
| AP Router(Remote site) | ARM804    | Abocom       | Power Cord, Unshielding, 1.8m                                 |

Use Cable:

| Cable | Description      |
|-------|------------------|
| RJ-45 | Unshielding, 10m |

### 2.3. Connection Diagram of Test System



1. The TP cable is connected from remote workstation to the EUT.

## 2.4. Feature of Equipment under Test

|                                   |                                                                                       |
|-----------------------------------|---------------------------------------------------------------------------------------|
| Type of Modulation                | BPSK, QPSK, CCK-OFDM, OFDM                                                            |
| Number of Channels                | USA/Canada: 11<br>European: 13<br>Japan: 13, 14                                       |
| Frequency Band                    | 2412MHz~2484MHz                                                                       |
| Carrier Frequency of each channel | 2412, 2417, 2422, 2427, 2432, 2437, 2442, 2447, 2452, 2457, 2462, 2467, 2472, 2484MHz |
| Bandwidth of each channel         | 16MHz / 802.11g, 22MHz / 802.11b                                                      |
| Maximum Output Power to Antenna   | 20dBm                                                                                 |
| IF & L.O. frequency               | 374MHz                                                                                |
| Antenna Type / Class and Gain     | 1.8dBi                                                                                |
| Function Type                     | Transceiver                                                                           |
| Power Rating (DC/AC, Voltage)     | DC5V, 2A                                                                              |
| Basic function of product         | IEEE 802.11g/b Wireless Game Adapter                                                  |
| Temperature Range (Operating)     | Normal 0~40                                                                           |

## 2.5. History of this test report

ORIGINAL.

### 3. General Information of Test

|                                |                                                                                                              |
|--------------------------------|--------------------------------------------------------------------------------------------------------------|
| Test Site:                     | Exclusive Certification Corp.<br>4F-2, No. 28, Lane 78, Xing-Ai Rd. Nei-hu, Taipei<br>City 114 Taiwan R.O.C. |
| Test Site Location (OATS1-SD): | No.68-1, Shihbachongsi, shihding Township,<br>Taipei County 223, Taiwan, R.O.C.                              |
| Test Voltage:                  | AC 110V/ 60Hz                                                                                                |
| Test in Compliance with:       | ANSI C63.4-1992<br>FCC Part 15 Subpart C                                                                     |
| Frequency Range Investigated:  | Conduction: from 150kHz to 30 MHz<br>Radiation: from 30 MHz to 24620MHz                                      |
| Test Distance:                 | The test distance of radiated emission from antenna<br>to EUT is 10 M.                                       |

## **4. Test Result and Data**

### **4.1. Antenna Requirement**

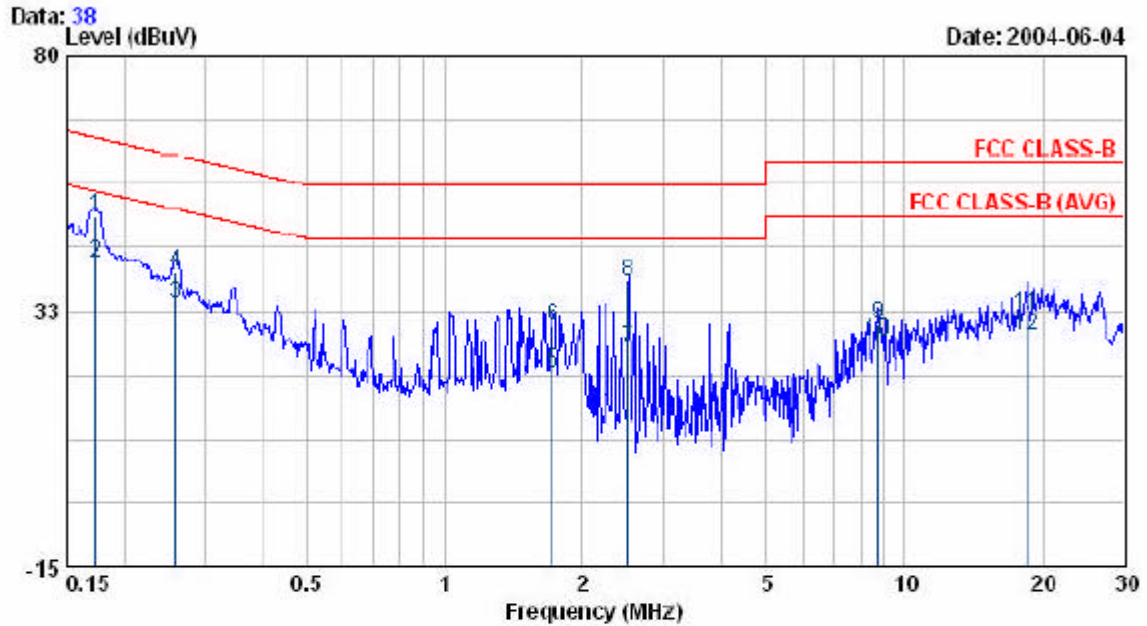
#### 4.1.1. Antenna Construction and Directional Gain

Antenna type: Integral antenna; the Maximum antenna gain 1.8 dBi

## 4.2. Test Result of Conducted Emission

EUT : W0E111  
 Power : 110V 60Hz  
 Test Mode : LINK  
 Memo :

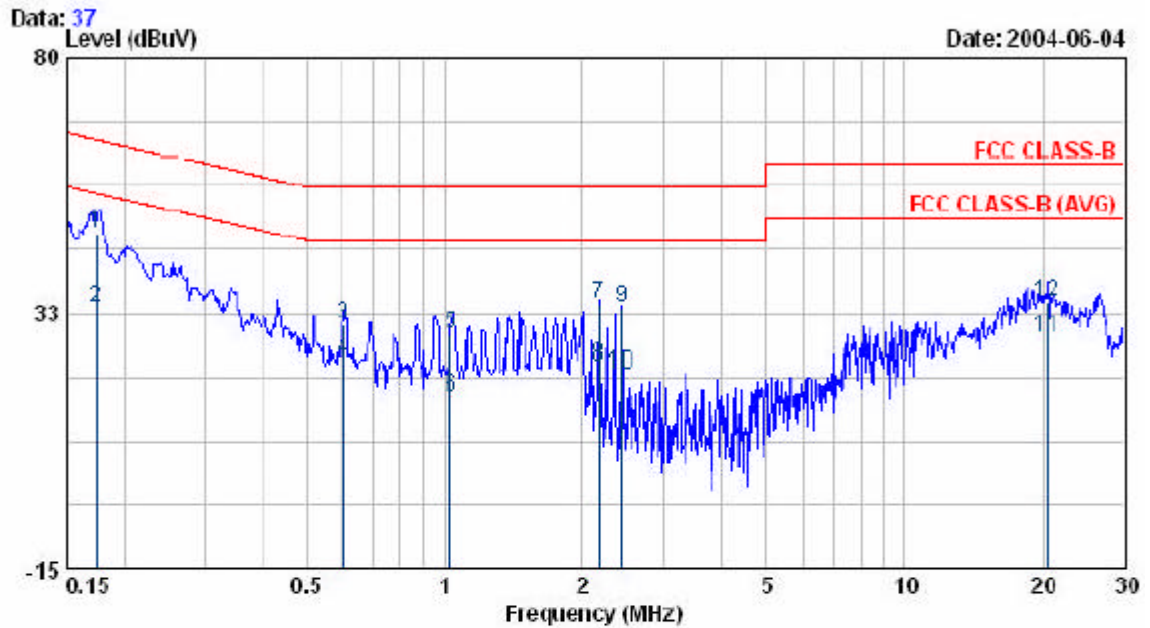
Pol/Phase : NEUTRAL  
 Temperature : 26 °C  
 Humidity : 59 %



| Freq   | Read   |       |       |       | Over   |         |
|--------|--------|-------|-------|-------|--------|---------|
| Level  | Factor | Level | Limit | Limit | Remark |         |
| dBuV   | dB     | dBuV  | dBuV  | dBuV  | dBuV   |         |
| MHz    |        |       |       |       |        |         |
| 0.173  | 49.66  | 0.41  | 50.07 | 64.81 | -14.74 | QP      |
| 0.173  | 40.97  | 0.41  | 41.38 | 54.81 | -13.43 | AVERAGE |
| 0.259  | 33.30  | 0.43  | 33.73 | 51.48 | -17.75 | AVERAGE |
| 0.259  | 39.37  | 0.43  | 39.80 | 61.48 | -21.68 | QP      |
| 1.721  | 20.64  | 0.54  | 21.18 | 46.00 | -24.82 | AVERAGE |
| 1.721  | 20.99  | 0.54  | 29.53 | 56.00 | -26.47 | QP      |
| 2.509  | 24.88  | 0.55  | 25.43 | 46.00 | -20.57 | AVERAGE |
| 2.509  | 37.34  | 0.55  | 37.89 | 56.00 | -18.11 | QP      |
| 8.749  | 29.21  | 0.70  | 29.91 | 60.00 | -30.09 | QP      |
| 8.749  | 25.94  | 0.70  | 26.64 | 50.00 | -23.36 | AVERAGE |
| 18.439 | 30.74  | 0.84  | 31.58 | 60.00 | -28.42 | QP      |
| 18.439 | 26.94  | 0.84  | 27.78 | 50.00 | -22.22 | AVERAGE |

EUT : W0E111  
 Power : 110V 60Hz  
 Test Mode : LINK  
 Memo :

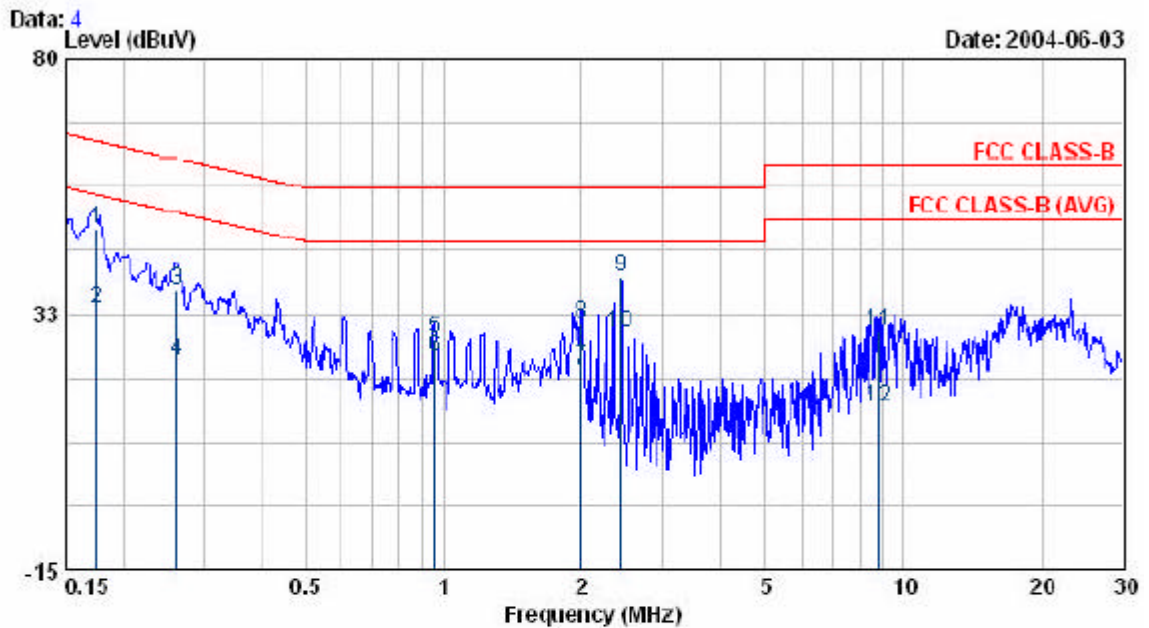
Pol/Phase : LINE  
 Temperature : 26 °C  
 Humidity : 59 %



| Freq   | Read Level | Factor | Level | Limit | Over Limit | Remark  |
|--------|------------|--------|-------|-------|------------|---------|
| MHz    | dBuV       | dB     | dBuV  | dBuV  | dBuV       |         |
| 0.174  | 46.93      | 0.41   | 47.34 | 64.79 | -17.45     | QP      |
| 0.174  | 32.97      | 0.41   | 33.38 | 54.79 | -21.41     | AVERAGE |
| 0.604  | 29.81      | 0.48   | 30.29 | 56.00 | -25.71     | QP      |
| 0.604  | 23.17      | 0.48   | 23.65 | 46.00 | -22.35     | AVERAGE |
| 1.033  | 28.15      | 0.51   | 28.66 | 56.00 | -27.34     | QP      |
| 1.033  | 16.43      | 0.51   | 16.94 | 46.00 | -29.06     | AVERAGE |
| 2.169  | 33.44      | 0.55   | 33.99 | 56.00 | -22.01     | QP      |
| 2.169  | 22.13      | 0.55   | 22.68 | 46.00 | -23.32     | AVERAGE |
| 2.430  | 32.94      | 0.55   | 33.49 | 56.00 | -22.51     | QP      |
| 2.430  | 20.47      | 0.55   | 21.02 | 46.00 | -24.98     | AVERAGE |
| 20.459 | 26.97      | 0.91   | 27.88 | 50.00 | -22.12     | AVERAGE |
| 20.459 | 33.67      | 0.91   | 34.58 | 60.00 | -25.42     | QP      |

EUT : W0E111  
 Power : 110V 60Hz  
 Test Mode : 802.11b CH LO  
 Memo :

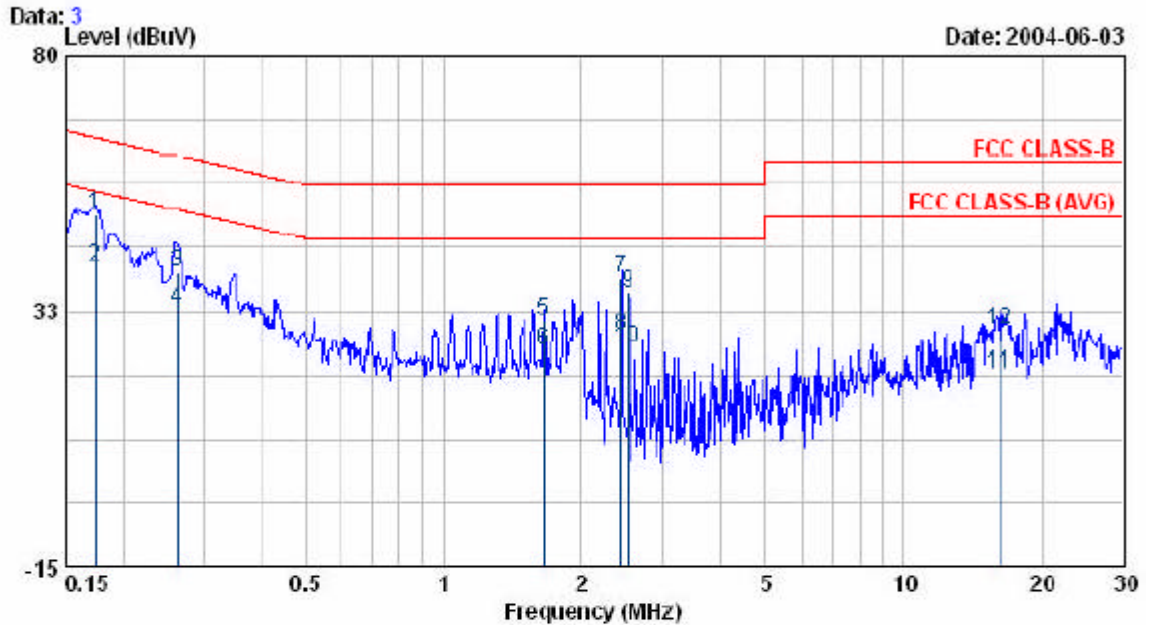
Pol/Phase : NEUTRAL  
 Temperature : 26 °C  
 Humidity : 59 %



| Freq  | Read Level | Factor | Level | Limit | Over Limit | Remark  |
|-------|------------|--------|-------|-------|------------|---------|
| MHz   | dBuV       | dB     | dBuV  | dBuV  | dBuV       |         |
| 0.174 | 47.76      | 0.41   | 48.17 | 64.75 | -16.58     | QP      |
| 0.174 | 33.10      | 0.41   | 33.51 | 54.75 | -21.24     | AVERAGE |
| 0.261 | 36.40      | 0.43   | 36.83 | 61.40 | -24.57     | QP      |
| 0.261 | 23.13      | 0.43   | 23.56 | 51.40 | -27.84     | AVERAGE |
| 0.957 | 27.46      | 0.51   | 27.97 | 56.00 | -28.03     | QP      |
| 0.957 | 23.65      | 0.51   | 24.16 | 46.00 | -21.84     | AVERAGE |
| 2.003 | 21.75      | 0.54   | 22.29 | 46.00 | -23.71     | AVERAGE |
| 2.003 | 30.14      | 0.54   | 30.68 | 56.00 | -25.32     | QP      |
| 2.435 | 38.64      | 0.55   | 39.19 | 56.00 | -16.81     | QP      |
| 2.435 | 28.24      | 0.55   | 28.79 | 46.00 | -17.21     | AVERAGE |
| 8.854 | 28.38      | 0.70   | 29.08 | 60.00 | -30.92     | QP      |
| 8.854 | 14.57      | 0.70   | 15.27 | 50.00 | -34.73     | AVERAGE |

EUT : W0E111  
 Power : 110V 60Hz  
 Test Mode : 802.11b CH LO  
 Memo :

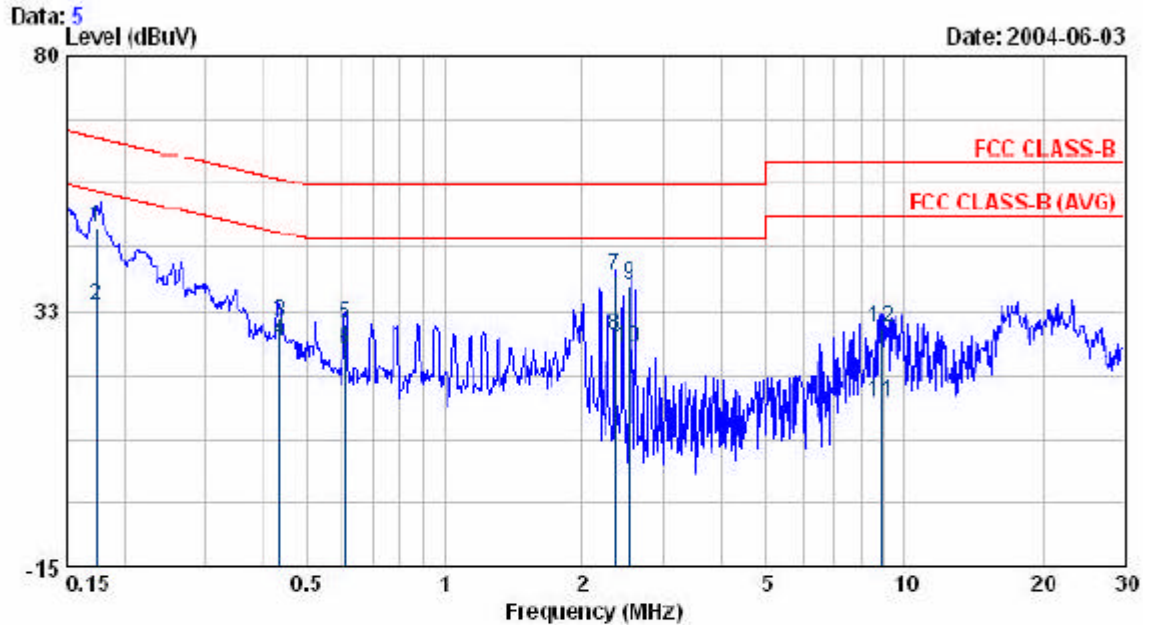
Pol/Phase : LINE  
 Temperature : 26 °C  
 Humidity : 59 %



| Freq   | Read Level | Factor | Level | Limit | Over Limit | Remark  |
|--------|------------|--------|-------|-------|------------|---------|
| MHz    | dBuV       | dB     | dBuV  | dBuV  | dBuV       |         |
| 0.174  | 49.95      | 0.41   | 50.36 | 64.78 | -14.42     | QP      |
| 0.174  | 40.29      | 0.41   | 40.70 | 54.78 | -14.08     | AVERAGE |
| 0.262  | 39.24      | 0.43   | 39.67 | 61.36 | -21.69     | QP      |
| 0.262  | 32.13      | 0.43   | 32.56 | 51.36 | -18.80     | AVERAGE |
| 1.651  | 29.98      | 0.53   | 30.51 | 56.00 | -25.49     | QP      |
| 1.651  | 24.54      | 0.53   | 25.07 | 46.00 | -20.93     | AVERAGE |
| 2.435  | 37.94      | 0.55   | 38.49 | 56.00 | -17.51     | QP      |
| 2.435  | 27.32      | 0.55   | 27.87 | 46.00 | -18.13     | AVERAGE |
| 2.525  | 35.09      | 0.55   | 35.64 | 56.00 | -20.36     | QP      |
| 2.525  | 24.77      | 0.55   | 25.32 | 46.00 | -20.68     | AVERAGE |
| 16.166 | 19.92      | 0.78   | 20.70 | 50.00 | -29.30     | AVERAGE |
| 16.166 | 28.07      | 0.78   | 28.85 | 60.00 | -31.15     | QP      |

EUT : W0E111  
 Power : 110V 60Hz  
 Test Mode : 802.11b CH MID  
 Memo :

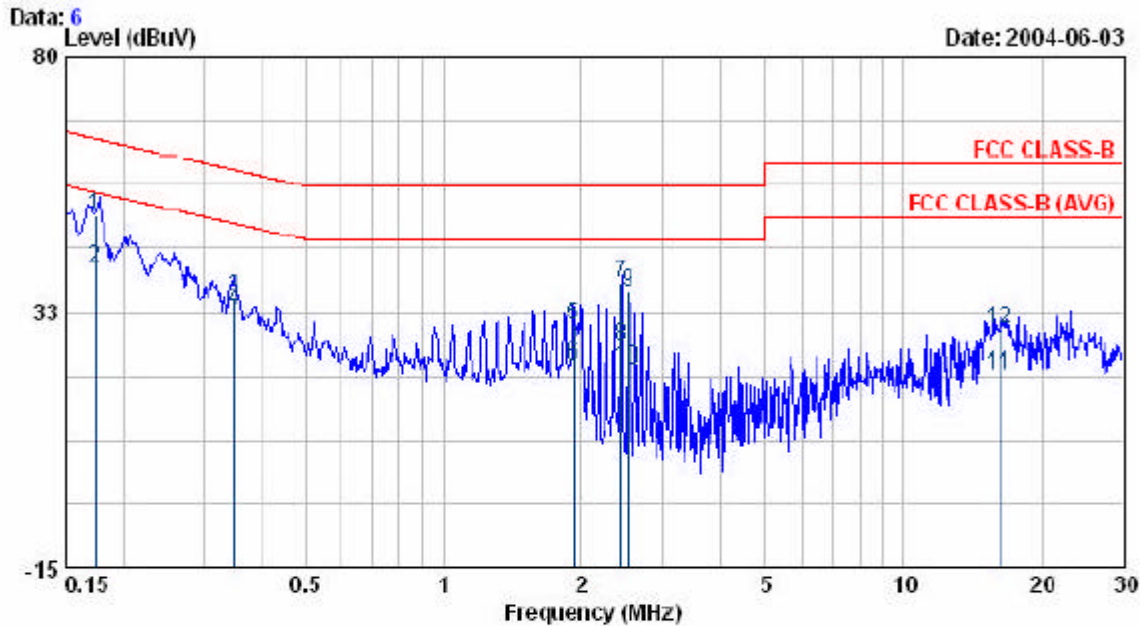
Pol/Phase : NEUTRAL  
 Temperature : 26 °C  
 Humidity : 59 %



| Freq  | Read  | Factor | Level | Limit | Over   | Remark  |
|-------|-------|--------|-------|-------|--------|---------|
| MHz   | dBuV  | dB     | dBuV  | dBuV  | dBuV   |         |
| 0.174 | 47.61 | 0.41   | 48.02 | 64.79 | -16.77 | QP      |
| 0.174 | 33.04 | 0.41   | 33.45 | 54.79 | -21.34 | AVERAGE |
| 0.436 | 29.92 | 0.46   | 30.38 | 57.14 | -26.76 | QP      |
| 0.436 | 26.40 | 0.46   | 26.86 | 47.14 | -20.28 | AVERAGE |
| 0.608 | 29.27 | 0.48   | 29.75 | 56.00 | -26.25 | QP      |
| 0.608 | 24.43 | 0.48   | 24.91 | 46.00 | -21.09 | AVERAGE |
| 2.354 | 38.32 | 0.55   | 38.87 | 56.00 | -17.13 | QP      |
| 2.354 | 27.21 | 0.55   | 27.76 | 46.00 | -18.24 | AVERAGE |
| 2.526 | 36.67 | 0.55   | 37.22 | 56.00 | -18.78 | QP      |
| 2.526 | 24.78 | 0.55   | 25.33 | 46.00 | -20.67 | AVERAGE |
| 8.854 | 14.82 | 0.70   | 15.52 | 50.00 | -34.48 | AVERAGE |
| 8.854 | 28.55 | 0.70   | 29.25 | 60.00 | -30.75 | QP      |

EUT : W0E111  
 Power : 110V 60Hz  
 Test Mode : 802.11b CH MID  
 Memo :

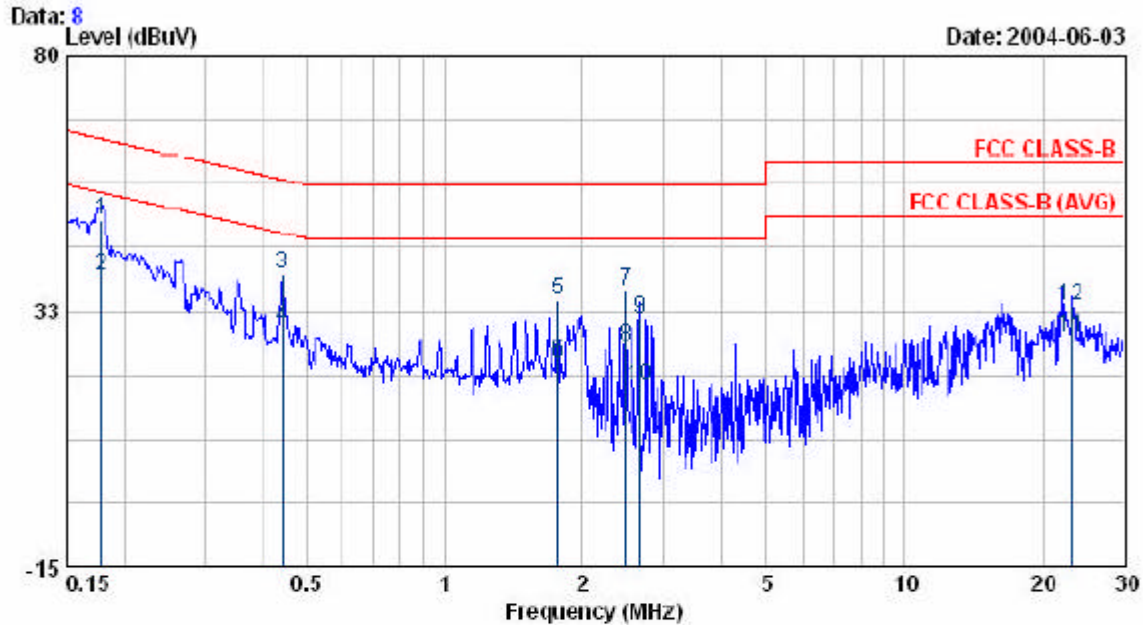
Pol/Phase : LINE  
 Temperature : 26 °C  
 Humidity : 59 %



| Freq   | Read  | Factor | Level | Limit | Over   | Remark  |
|--------|-------|--------|-------|-------|--------|---------|
| MHz    | dBuV  | dB     | dBuV  | dBuV  | dBuV   |         |
| 0.173  | 49.90 | 0.41   | 50.31 | 64.80 | -14.49 | QP      |
| 0.173  | 40.11 | 0.41   | 40.52 | 54.80 | -14.28 | AVERAGE |
| 0.349  | 34.79 | 0.45   | 35.24 | 59.00 | -23.76 | QP      |
| 0.349  | 32.38 | 0.45   | 32.83 | 49.00 | -16.17 | AVERAGE |
| 1.916  | 29.23 | 0.54   | 29.77 | 56.00 | -26.23 | QP      |
| 1.916  | 22.21 | 0.54   | 22.75 | 46.00 | -23.25 | AVERAGE |
| 2.436  | 37.40 | 0.55   | 37.95 | 56.00 | -18.05 | QP      |
| 2.436  | 25.53 | 0.55   | 26.08 | 46.00 | -19.92 | AVERAGE |
| 2.531  | 35.43 | 0.55   | 35.98 | 56.00 | -20.02 | QP      |
| 2.531  | 21.41 | 0.55   | 21.96 | 46.00 | -24.04 | AVERAGE |
| 16.231 | 20.16 | 0.79   | 20.95 | 50.00 | -29.05 | AVERAGE |
| 16.231 | 28.35 | 0.79   | 29.14 | 60.00 | -30.86 | QP      |

EUT : W0E111  
 Power : 110V 60Hz  
 Test Mode : 802.11b CH HI  
 Memo :

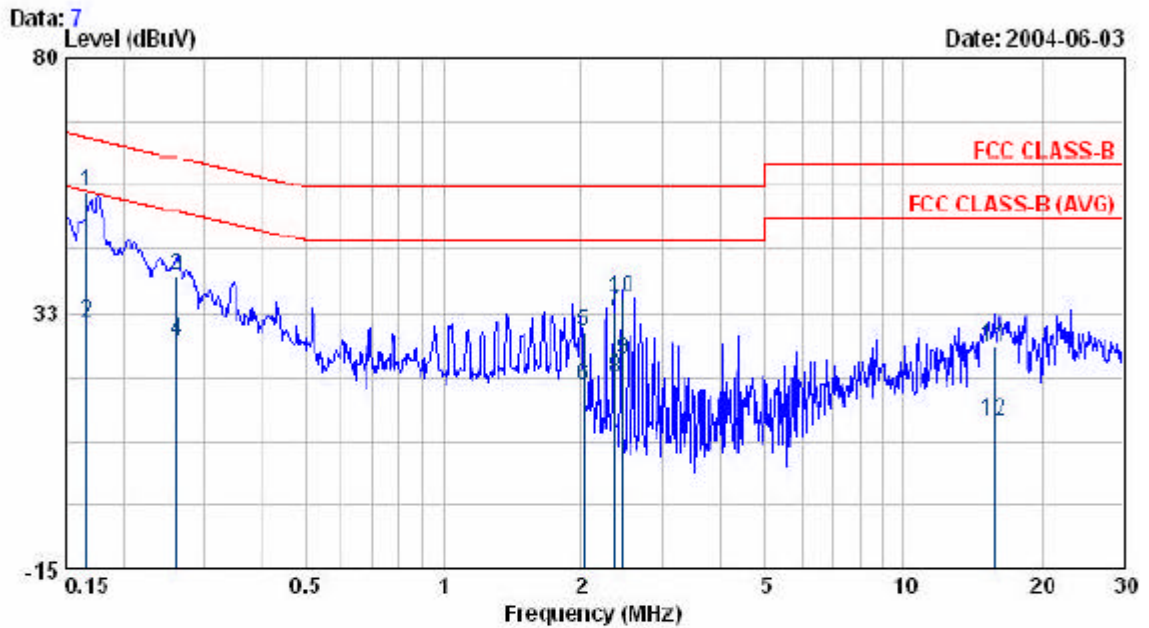
Pol/Phase : NEUTRAL  
 Temperature : 26 °C  
 Humidity : 59 %



| Freq   | Read  | Factor | Level | Limit | Over   | Remark  |
|--------|-------|--------|-------|-------|--------|---------|
| MHz    | dBuV  | dB     | dBuV  | dBuV  | dBuV   |         |
| 0.178  | 49.05 | 0.41   | 49.46 | 64.59 | -15.13 | QP      |
| 0.178  | 38.59 | 0.41   | 39.00 | 54.59 | -15.59 | AVERAGE |
| 0.442  | 38.89 | 0.46   | 39.35 | 57.02 | -17.66 | QP      |
| 0.442  | 28.84 | 0.46   | 29.30 | 47.02 | -17.71 | AVERAGE |
| 1.771  | 33.73 | 0.54   | 34.27 | 56.00 | -21.73 | QP      |
| 1.771  | 22.50 | 0.54   | 23.04 | 46.00 | -22.96 | AVERAGE |
| 2.486  | 35.48 | 0.55   | 36.03 | 56.00 | -19.97 | QP      |
| 2.486  | 25.30 | 0.55   | 25.85 | 46.00 | -20.15 | AVERAGE |
| 2.668  | 30.51 | 0.56   | 31.07 | 56.00 | -24.93 | QP      |
| 2.668  | 18.29 | 0.56   | 18.85 | 46.00 | -27.15 | AVERAGE |
| 23.130 | 26.60 | 0.95   | 27.55 | 50.00 | -22.45 | AVERAGE |
| 23.130 | 32.32 | 0.95   | 33.27 | 60.00 | -26.73 | QP      |

EUT : W0E111  
 Power : 110V 60Hz  
 Test Mode : 802.11b CH HI  
 Memo :

Pol/Phase : LINE  
 Temperature : 26 °C  
 Humidity : 59 %



| Freq   | Read   |       |       |       | Over   |         |
|--------|--------|-------|-------|-------|--------|---------|
| Level  | Factor | Level | Limit | Limit | Remark |         |
| dBuV   | dB     | dBuV  | dBuV  | dBuV  | dBuV   |         |
| 0.167  | 54.63  | 0.41  | 55.04 | 65.11 | -10.07 | QP      |
| 0.167  | 30.30  | 0.41  | 30.71 | 55.11 | -24.40 | AVERAGE |
| 0.261  | 38.97  | 0.43  | 39.40 | 61.39 | -21.98 | QP      |
| 0.261  | 26.83  | 0.43  | 27.26 | 51.39 | -24.12 | AVERAGE |
| 2.029  | 28.25  | 0.54  | 28.79 | 56.00 | -27.21 | QP      |
| 2.029  | 18.70  | 0.54  | 19.24 | 46.00 | -26.76 | AVERAGE |
| 2.370  | 32.14  | 0.55  | 32.69 | 56.00 | -23.31 | QP      |
| 2.370  | 19.93  | 0.55  | 20.48 | 46.00 | -25.52 | AVERAGE |
| 2.458  | 23.01  | 0.55  | 23.56 | 46.00 | -22.44 | AVERAGE |
| 2.458  | 34.63  | 0.55  | 35.18 | 56.00 | -20.82 | QP      |
| 15.727 | 25.45  | 0.77  | 26.22 | 60.00 | -33.78 | QP      |
| 15.727 | 11.78  | 0.77  | 12.55 | 50.00 | -37.45 | AVERAGE |