# FCC TEST REPORT

according to

## FCC Rules and Regulations

## Part 15 Subpart C

| | |
|---|---|
| Applicant | SonicWALL Inc. |
| Address | 1143 Borregas Ave. Sunnyvale CA 94089-1306 USA |
| Equipment | Ethernet Firewall/VPN/Router 10/100 MB with Wireless LAN |
| Model No. | APL18-046 |
| FCC ID | QWU-046 |
| Trade Name | SonicWALL |

Laboratory Accreditation

CNLA

1332

- The test result refers exclusively to the test presented test model / sample.,
- Without written approval of ***E**xclusive **C**ertification **C**orp.* the test report shall not be reproduced except in full.
- The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

# Contents

# CERTIFICATE OF COMPLIANCE

according to

## FCC Rules and Regulations

## Part 15 Subpart C

| | |
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| Applicant | SonicWALL Inc. |
| Address | 1143 Borregas Ave. Sunnyvale CA 94089-1306 USA |
| Equipment | Ethernet Firewall/VPN/Router 10/100 MB with Wireless LAN |
| Model No. | APL18-046 |
| FCC ID | QWU-046 |

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 (2003).**

The test was carried out on Dec. 25, 2006 at ***E**xclusive **C**ertification **C**orp.*

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 |

# 2. Test Configuration of Equipment under Test

## 2.1 Feature of Equipment under Test

- CPU Cavium CN210 200MHz
- CODE SIZE 16M bytes
- SDRAM 128M bytes
- WAN Port ICPLUS IP101ALF
- Option Port ICPLUS IP101ALF
- LAN Ports Marvell 88E6083
- WWAN PC Card interface
- Power Adapter 12VDC@1.66A
- LEDs LEDs * 14
- RTC S-350 AEFS-TB-01
- Cardbus TIPCI1520GHK
- Console ICL3243
- PCB Layout 4 layers
- PCB Size 241.30mm*177.80mm
- Operating temp. 0~40℃
- Storage temp -20 ~70 ℃

## 2.2 RF Specifications

**Data Rates**
**802.11g:** 6, 9, 12, 18, 24, 36, 48, 54 and 108Mbps in Super G mode
**802.11b:** 1, 2, 5.5, 11Mbps
**Standards / Compliance**
WECA (Wi-Fi & Wi-Fi5 compliance), IEEE802.11, IEEE802.11g, IEEE802.11b
**Regulation Certifications**
FCC Part 15, RoHS and WEEE compliant
**Operating Voltage**
3.3V ± 0.15V for RF Module
**Current consumption**
Tx Current ≦ 550mA
Rx Current ≦ 300mA
Card on Current ≦ 300mA
**Frequency Band**
**802.11b/g:**
U.S., Europe and Japan product covering 2.4 to 2.484 GHz, programmable for different country regulations
**Modulation Technology**
**802.11g:**
OFDM (64-QAM, 16-QAM, QPSK, BPSK)
**802.11b:**
DSSS (DBPSK, DQPSK, CCK)
**Operating Channels**
**802.11b/g**
11 for North America, 14 for Japan, 13 for Europe
**Receive Sensitivity (Typical)**
**802.11g:**
-91 dBm @ 6Mbps,
-73 dBm @ 54Mbp
**802.11b:**
-96 dBm @ 1Mbps
-89 dBm @ 11Mbps

## 2.3 Test Mode and Test Software

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

- 802.11b (CH 01: 2412MHz)
- 802.11b (CH 06: 2437MHz)
- 802.11b (CH 11: 2462MHz)
- 802.11g (CH 01: 2412MHz)
- 802.11g (CH 06: 2437MHz)
- 802.11g (CH 11: 2462MHz)
- 802.11 Super G (CH 06 2437MHz)
- An executive programs, “Hyperterminal.exe” Application under WIN XP.
- Test mode 1: 802.11b (11Mbps)
- Test mode 2: 802.11g (54 Mbps)
- Test mode 3: 802.11 Super G (108 Mbps)

The test mode including three kind of test adapter

- Test Adapter 1: The adapter model is SAL124A-1220V-6.
- Test Adapter 2: The adapter model is VE20-120
- Test Adapter 3: The adapter model is NUV20-8120166-I1.

Note: All the transmitter rates had been pre-tested, and the test data is worst case

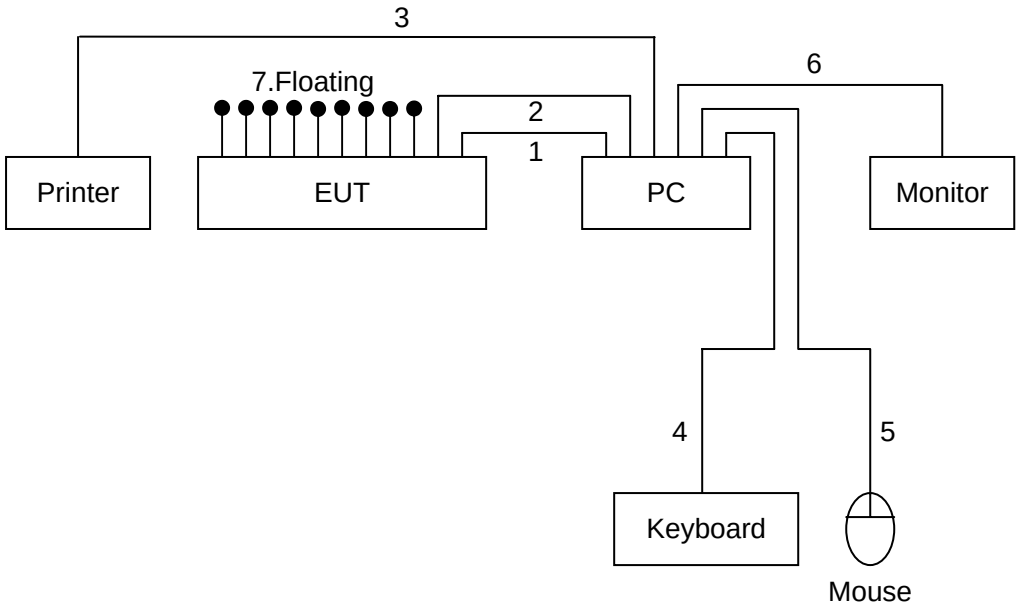
## 2.4 Description of Test System

| Device | Manufacturer | Model No. | Description |
|---|---|---|---|
| PC | IBM | IGV | Power Cable, Unshielding 1.8 m |
| Monitor | SlimAGE | 510A | Power Cable, Adapter Unshielding 1.8 m<br>Data Cable, VGA shielding 1.35 m |
| Keyboard | IBM | KB-0225 | Data Cable, PS2 shielding 1.85 m |
| Mouse | IBM | MO28VO | Data Cable, USB shielding 1.85 m |
| Printer | HP | Desk Jet400 | Power Cable, Unshielding 1.8 m<br>Data Cable, PRINT shielding 1.6 m |

Use Cable:

| Cable | Quantity | Description |
|---|---|---|
| RJ45 | 9 | Unshielding, 0.5m |
| RJ45 | 1 | Unshielding, 1.5m |
| RJ45 to RS232 | 1 | Unshielding, 1.5m |

## 2.5 Connection Diagram of Test System




1. The RJ45 cable is connected from PC to the EUT.
2. The RS232 cable is connected from PC to the EUT.
3. The PRINT cable is connected from PC to the. Printer.
4. The PS2 cable is connected from PC to the Keyboard.
5. The USB cable is connected from PC to the Mouse.
6. The VGA cable is connected from PC to the Monitor.
7. These RJ45 cables are floating.

## 2.6 General Information of Test

| | |
|---|---|
| Test Site: | Exclusive Certification Corp.<br>4F-2, No. 28, Lane 78, Xing-Ai Rd. Nei-hu, Taipei City 114 Taiwan R.O.C. |
| Test Site Location (OATS1-SD): | No.68-1, Shihbachongsi, shihding Township,<br>Taipei City 223, Taiwan, R.O.C. |
| FCC Registration Number | 632249 |
| Test Voltage: | AC 120V/ 60Hz |
| Test in Compliance with: | ANSI C63.4-2003<br>FCC Part 15 Subpart C |
| Frequency Range Investigated: | Conducted: from 150kHz to 30 MHz<br>Radiation: from 30 MHz to 24620MHz |
| Test Distance: | The test distance of radiated emission from antenna to EUT is 3 M. |

## 2.7 History of this test report

ORIGINAL.

# 3. Antenna Requirements

## 3.1 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.

## 3.2 Antenna Construction and Directional Gain

Antenna type: TNC Dipole Antenna

Antenna Gain: 5 dBi.

# 4. Test of Conducted Emission

## 4.1 Test Limit

Conducted Emissions were measured from 150 kHz to 30 MHz with a bandwidth of 9 KHz on the 120 VAC power and return leads of the EUT according to the methods defined in ANSI C63.4-2003 Section 3.1. The EUT was placed on a nonmetallic stand in a shielded room 0.8 meters above the ground plane as shown in section 2.2. The interface cables and equipment positioning were varied within limits of reasonable applications to determine the position produced maximum conducted emissions.

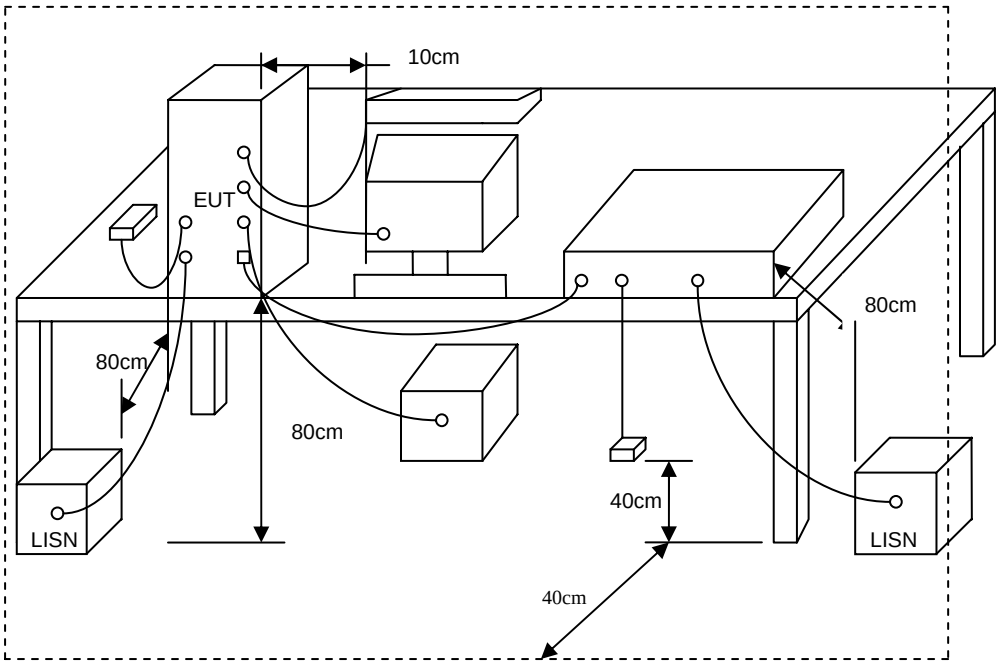
| Frequency (MHz) | Quasi Peak (dB μ V) | Average (dB μ V) |
|---|---|---|
| 0.15 – 0.5 | 66-56* | 56-46* |
| 0.5 – 5.0 | 56 | 46 |
| 5.0 – 30.0 | 60 | 50 |

*Decreases with the logarithm of the frequency.

## 4.2 Test Procedures

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

## 4.3 Typical Test Setup




## 4.4 Measurement equipment

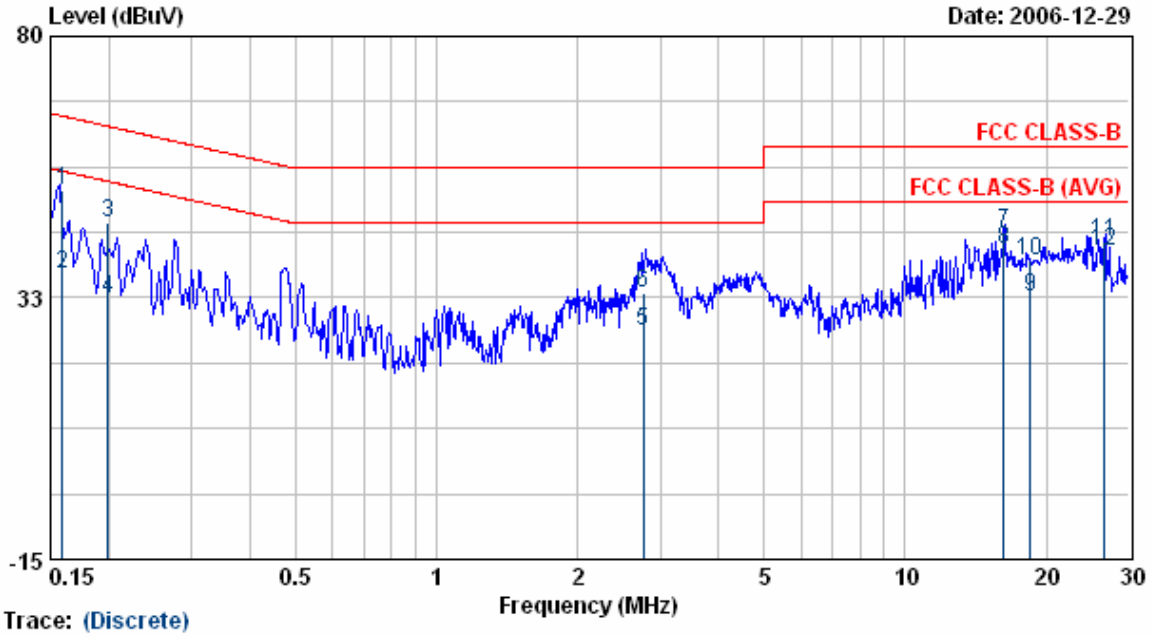
| Instrument/Ancillary | Model No. | Manufacturer | Serial No. | Calibration Date | Valid Date. |
|---|---|---|---|---|---|
| Receiver | R&S | ESCI | 100443 | 2006/09/20 | 2007/09/19 |
| LISN | NNB-2/16Z | MESS TEC | 02/10191 | 2006/03/31 | 2007/03/30 |
| LISN | NNB-2/16Z | ROLF HEINE | 03/10058 | 2006/04/27 | 2007/04/26 |

## 4.5 Test Result and Data

Test Adapter 1:

EUT : APL18-046
Power : AC 120V
Test Mode : 802.11g CH1
Memo : SAL124A-1220V-6

Pol/Phase : NEUTRAL
Temperature : 25 ℃
Humidity : 56 %

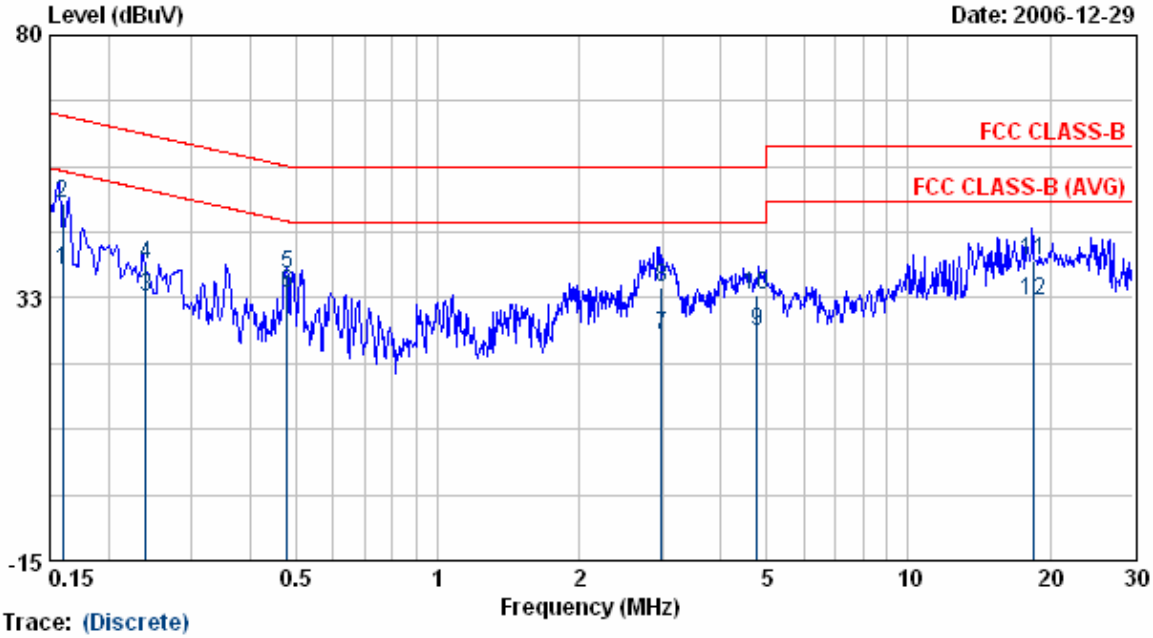



Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV | dB | dBuV | dBuV | dBuV | |
| 1 | 0.16 | 51.78 | 0.12 | 51.90 | 65.53 | -13.63 | QP |
| 2 | 0.16 | 36.70 | 0.12 | 36.82 | 55.53 | -18.72 | AVERAGE |
| 3 | 0.20 | 45.95 | 0.12 | 46.07 | 63.64 | -17.57 | QP |
| 4 | 0.20 | 32.09 | 0.12 | 32.21 | 53.64 | -21.43 | AVERAGE |
| 5 | 2.76 | 26.33 | 0.25 | 26.58 | 46.00 | -19.42 | AVERAGE |
| 6 | 2.76 | 33.13 | 0.25 | 33.38 | 56.00 | -22.62 | QP |
| 7 | 16.23 | 43.92 | 0.43 | 44.34 | 60.00 | -15.66 | QP |
| 8 | 16.23 | 41.00 | 0.43 | 41.42 | 50.00 | -8.58 | AVERAGE |
| 9 | 18.49 | 32.28 | 0.49 | 32.77 | 50.00 | -17.23 | AVERAGE |
| 10 | 18.49 | 38.75 | 0.49 | 39.24 | 60.00 | -20.76 | QP |
| 11 | 26.49 | 42.36 | 0.43 | 42.80 | 60.00 | -17.20 | QP |
| 12 | 26.49 | 40.43 | 0.43 | 40.87 | 50.00 | -9.13 | AVERAGE |

Remarks: 1. Level = Read Level + Factor
2. Factor = LISN(ISN) Factor + Cable Loss
3. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
4. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
5. The data is worse case.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : LINE |
| Test Mode | : 802.11g CH1 | Temperature | : 25 ℃ |
| Memo | : SAL124A-1220V-6 | Humidity | : 56 % |



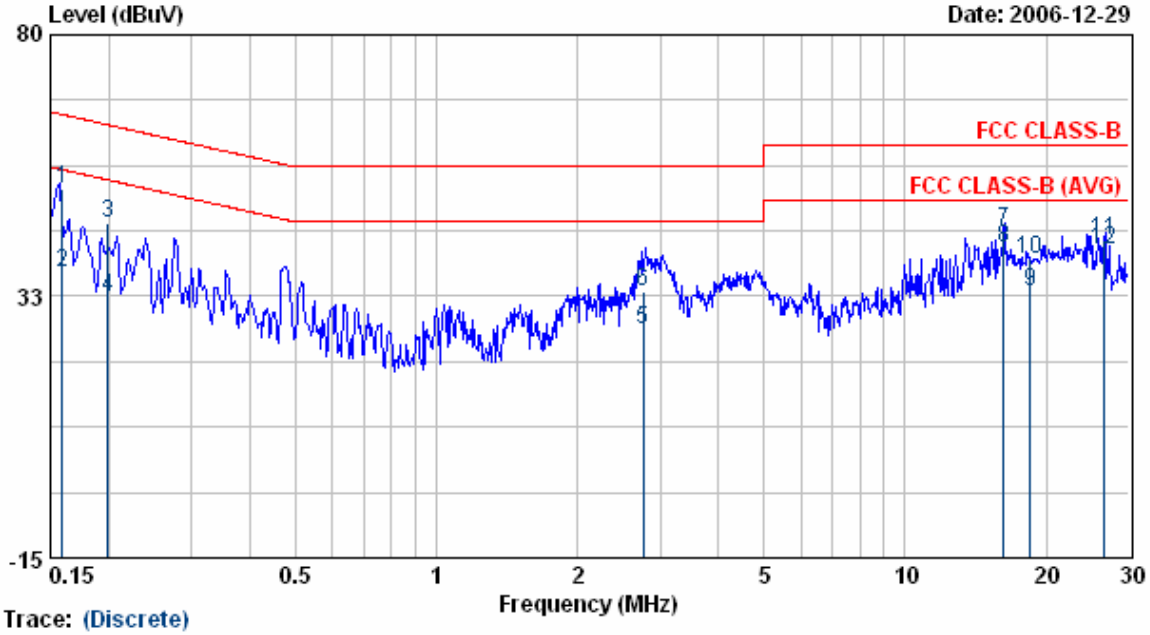

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV | dB | dBuV | dBuV | dBuV | |
| 1 | 0.16 | 37.35 | 0.12 | 37.47 | 55.48 | -18.01 | AVERAGE |
| 2 | 0.16 | 49.55 | 0.12 | 49.67 | 65.48 | -15.81 | QP |
| 3 | 0.24 | 32.44 | 0.13 | 32.56 | 52.09 | -19.53 | AVERAGE |
| 4 | 0.24 | 38.54 | 0.13 | 38.67 | 62.09 | -23.43 | QP |
| 5 | 0.48 | 36.54 | 0.16 | 36.71 | 56.38 | -19.67 | QP |
| 6 | 0.48 | 32.87 | 0.50 | 33.37 | 46.38 | -13.00 | AVERAGE |
| 7 | 2.99 | 25.36 | 0.30 | 25.67 | 46.00 | -20.33 | AVERAGE |
| 8 | 2.99 | 33.98 | 0.30 | 34.28 | 56.00 | -21.72 | QP |
| 9 | 4.76 | 26.23 | 0.34 | 26.56 | 46.00 | -19.44 | AVERAGE |
| 10 | 4.76 | 32.64 | 0.34 | 32.98 | 56.00 | -23.02 | QP |
| 11 | 18.49 | 38.99 | 0.35 | 39.34 | 60.00 | -20.66 | QP |
| 12 | 18.49 | 31.74 | 0.35 | 32.08 | 50.00 | -17.92 | AVERAGE |

Remarks:
1. Level = Read Level + Factor
2. Factor = LISN(ISN) Factor + Cable Loss
3. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
4. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
5. The data is worse case.

EUT : APL18-046
Power : AC 120V
Test Mode : 802.11SUPER G CH6
Memo : SAL124A-1220V-6

Pol/Phase : NEUTRAL
Temperature : 25 ℃
Humidity : 56 %

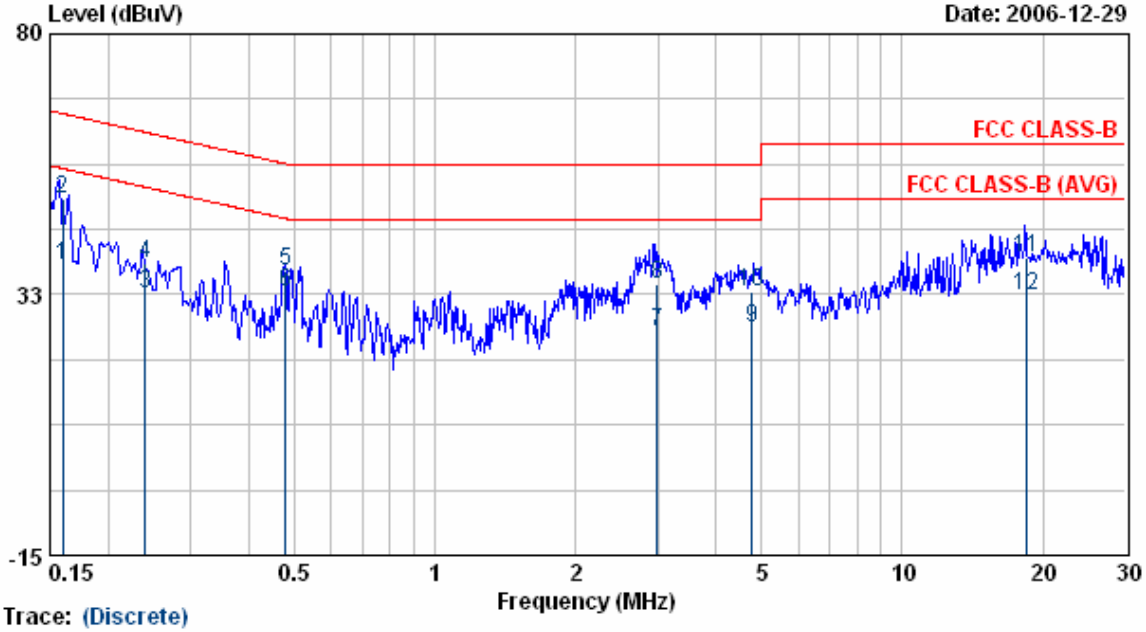



Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV | dB | dBuV | dBuV | dBuV | |
| 1 | 0.16 | 51.89 | 0.12 | 52.01 | 65.53 | -13.52 | QP |
| 2 | 0.16 | 36.70 | 0.12 | 36.82 | 55.53 | -18.72 | AVERAGE |
| 3 | 0.20 | 45.75 | 0.12 | 45.87 | 63.64 | -17.77 | QP |
| 4 | 0.20 | 32.10 | 0.12 | 32.22 | 53.64 | -21.43 | AVERAGE |
| 5 | 2.76 | 26.33 | 0.25 | 26.58 | 46.00 | -19.42 | AVERAGE |
| 6 | 2.76 | 33.13 | 0.25 | 33.38 | 56.00 | -22.62 | QP |
| 7 | 16.23 | 43.92 | 0.43 | 44.34 | 60.00 | -15.66 | QP |
| 8 | 16.23 | 41.00 | 0.43 | 41.42 | 50.00 | -8.58 | AVERAGE |
| 9 | 18.49 | 32.98 | 0.49 | 33.47 | 50.00 | -16.53 | AVERAGE |
| 10 | 18.49 | 38.75 | 0.49 | 39.24 | 60.00 | -20.76 | QP |
| 11 | 26.49 | 42.36 | 0.43 | 42.80 | 60.00 | -17.20 | QP |
| 12 | 26.49 | 40.43 | 0.43 | 40.87 | 50.00 | -9.13 | AVERAGE |

Remarks: 1. Level = Read Level + Factor
2. Factor = LISN(ISN) Factor + Cable Loss
3. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
4. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
5. The data is worse case.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : LINE |
| Test Mode | : 802.11SUPER G CH6 | Temperature | : 25 ℃ |
| Memo | : SAL124A-1220V-6 | Humidity | : 56 % |



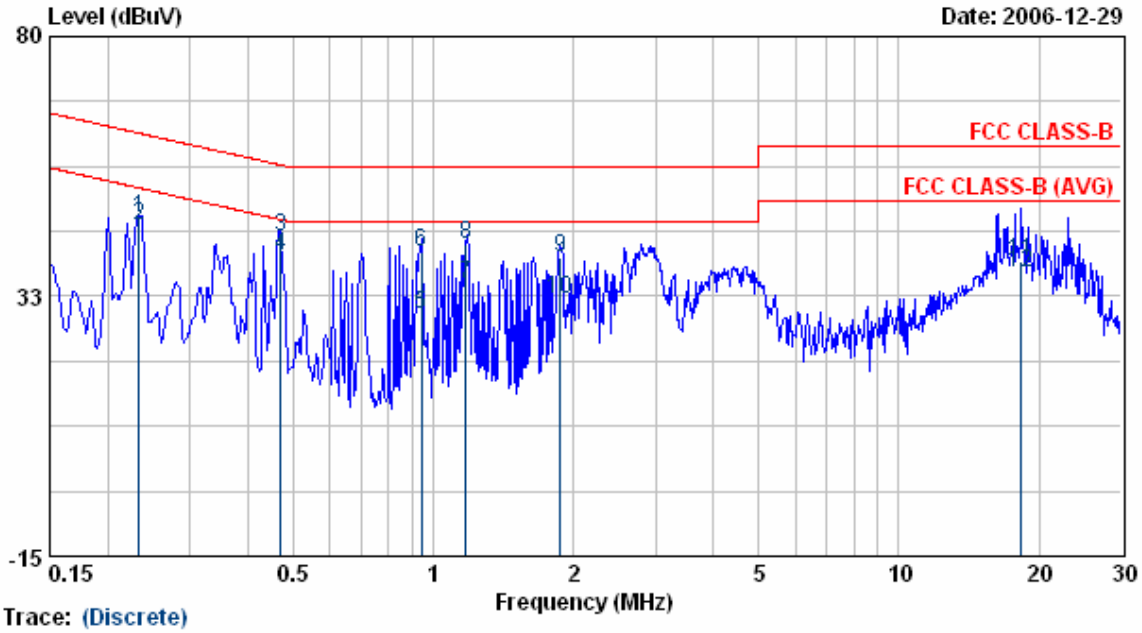

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV | dB | dBuV | dBuV | dBuV | |
| 1 | 0.16 | 37.85 | 0.12 | 37.97 | 55.48 | -17.51 | AVERAGE |
| 2 | 0.16 | 49.89 | 0.12 | 50.01 | 65.48 | -15.47 | QP |
| 3 | 0.24 | 32.44 | 0.13 | 32.56 | 52.09 | -19.53 | AVERAGE |
| 4 | 0.24 | 38.15 | 0.13 | 38.28 | 62.09 | -23.81 | QP |
| 5 | 0.48 | 36.54 | 0.16 | 36.71 | 56.38 | -19.67 | QP |
| 6 | 0.48 | 32.88 | 0.16 | 33.04 | 46.38 | -13.33 | AVERAGE |
| 7 | 2.99 | 25.46 | 0.30 | 25.77 | 46.00 | -20.23 | AVERAGE |
| 8 | 2.99 | 33.98 | 0.30 | 34.28 | 56.00 | -21.72 | QP |
| 9 | 4.76 | 26.23 | 0.34 | 26.56 | 46.00 | -19.44 | AVERAGE |
| 10 | 4.76 | 32.54 | 0.34 | 32.88 | 56.00 | -23.12 | QP |
| 11 | 18.49 | 38.93 | 0.35 | 39.27 | 60.00 | -20.73 | QP |
| 12 | 18.49 | 31.94 | 0.35 | 32.28 | 50.00 | -17.72 | AVERAGE |

Remarks: 1. Level = Read Level + Factor
2. Factor = LISN(ISN) Factor + Cable Loss
3. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
4. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
5. The data is worse case.

Test Adapter2:

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : NEUTRAL |
| Test Mode | : 802.11g CH1 | Temperature | : 25 ℃ |
| Memo | : VE20-120 | Humidity | : 56 % |



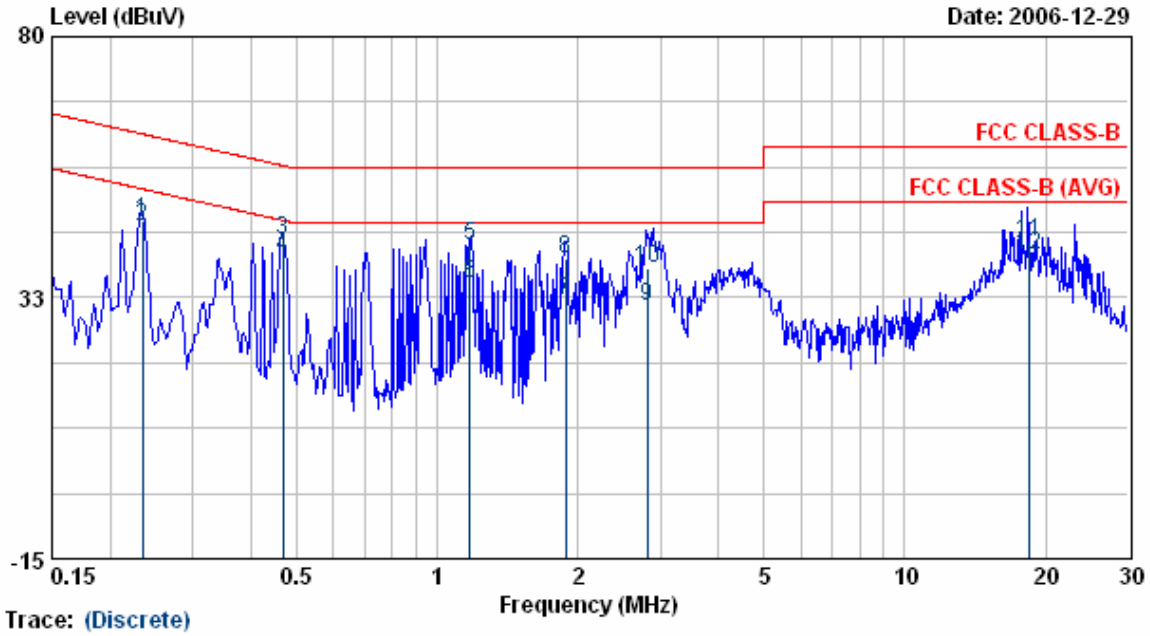

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV | dB | dBuV | dBuV | dBuV | |
| 1 | 0.23 | 46.66 | 0.12 | 46.78 | 62.32 | -15.54 | QP |
| 2 | 0.23 | 45.41 | 0.12 | 45.54 | 52.32 | -6.79 | AVERAGE |
| 3 | 0.47 | 43.23 | 0.14 | 43.37 | 56.52 | -13.15 | QP |
| 4 | 0.47 | 39.70 | 0.14 | 39.84 | 46.52 | -6.68 | AVERAGE |
| 5 | 0.95 | 29.20 | 0.16 | 29.36 | 46.00 | -16.64 | AVERAGE |
| 6 | 0.95 | 40.33 | 0.16 | 40.49 | 56.00 | -15.51 | QP |
| 7 | 1.17 | 34.61 | 0.17 | 34.78 | 46.00 | -11.22 | AVERAGE |
| 8 | 1.17 | 41.69 | 0.17 | 41.86 | 56.00 | -14.14 | QP |
| 9 | 1.87 | 39.55 | 0.19 | 39.74 | 56.00 | -16.26 | QP |
| 10 | 1.87 | 31.91 | 0.19 | 32.10 | 46.00 | -13.90 | AVERAGE |
| 11 | 18.35 | 38.53 | 0.49 | 39.02 | 60.00 | -20.98 | QP |
| 12 | 18.35 | 36.42 | 0.49 | 36.91 | 50.00 | -13.09 | AVERAGE |

Remarks: 1. Level = Read Level + Factor
2. Factor = LISN(ISN) Factor + Cable Loss
3. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
4. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
5. The data is worse case.

EUT : APL18-046
Power : AC 120V
Test Mode : 802.11g CH1
Memo : VE20-120

Pol/Phase : LINE
Temperature : 25 ℃
Humidity : 56 %




Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV | dB | dBuV | dBuV | dBuV | |
| 1 | 0.23 | 46.44 | 0.12 | 46.56 | 62.29 | -15.72 | QP |
| 2 | 0.23 | 45.44 | 0.12 | 45.57 | 52.29 | -6.72 | AVERAGE |
| 3 | 0.47 | 42.85 | 0.16 | 43.01 | 56.54 | -13.52 | QP |
| 4 | 0.47 | 39.75 | 0.16 | 39.91 | 46.54 | -6.62 | AVERAGE |
| 5 | 1.18 | 41.74 | 0.27 | 42.01 | 56.00 | -13.99 | QP |
| 6 | 1.18 | 34.83 | 0.27 | 35.10 | 46.00 | -10.90 | AVERAGE |
| 7 | 1.88 | 31.67 | 0.29 | 31.96 | 46.00 | -14.04 | AVERAGE |
| 8 | 1.88 | 39.32 | 0.29 | 39.61 | 56.00 | -16.39 | QP |
| 9 | 2.81 | 30.63 | 0.30 | 30.93 | 46.00 | -15.07 | AVERAGE |
| 10 | 2.81 | 37.44 | 0.30 | 37.74 | 56.00 | -18.26 | QP |
| 11 | 18.49 | 42.33 | 0.35 | 42.68 | 60.00 | -17.32 | QP |
| 12 | 18.49 | 39.84 | 0.35 | 40.19 | 50.00 | -9.81 | AVERAGE |

Remarks: 1. Level = Read Level + Factor
2. Factor = LISN(ISN) Factor + Cable Loss
3. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
4. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
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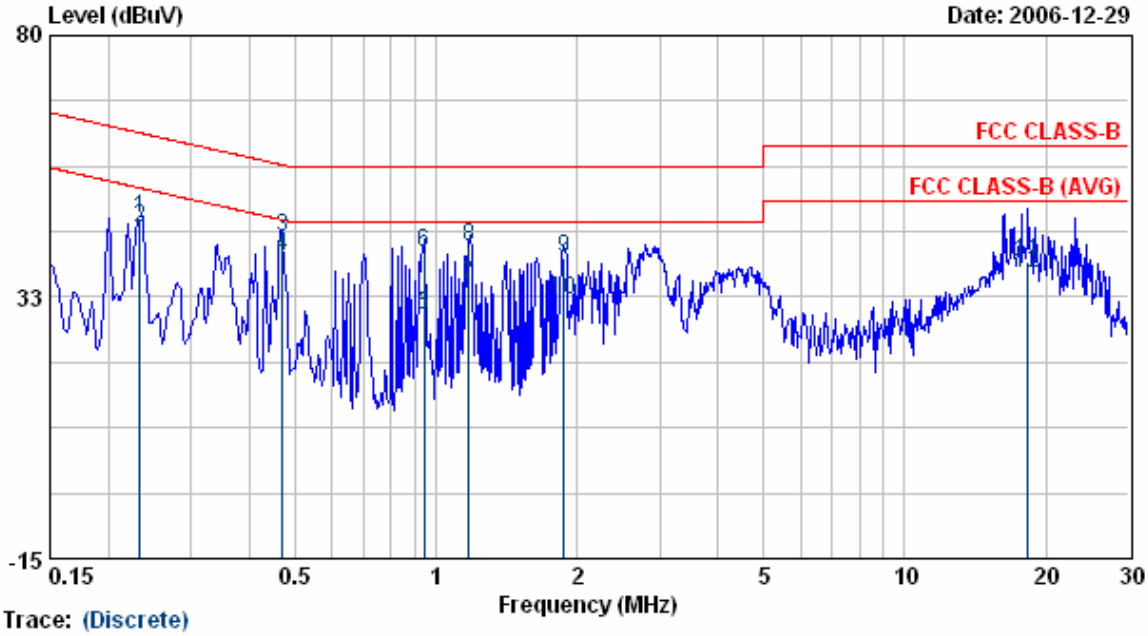
EUT : APL18-046
Power : AC 120V
Test Mode : 802.11SUPER G CH6
Memo : VE20-120

Pol/Phase : NEUTRAL
Temperature : 25 ℃
Humidity : 56 %

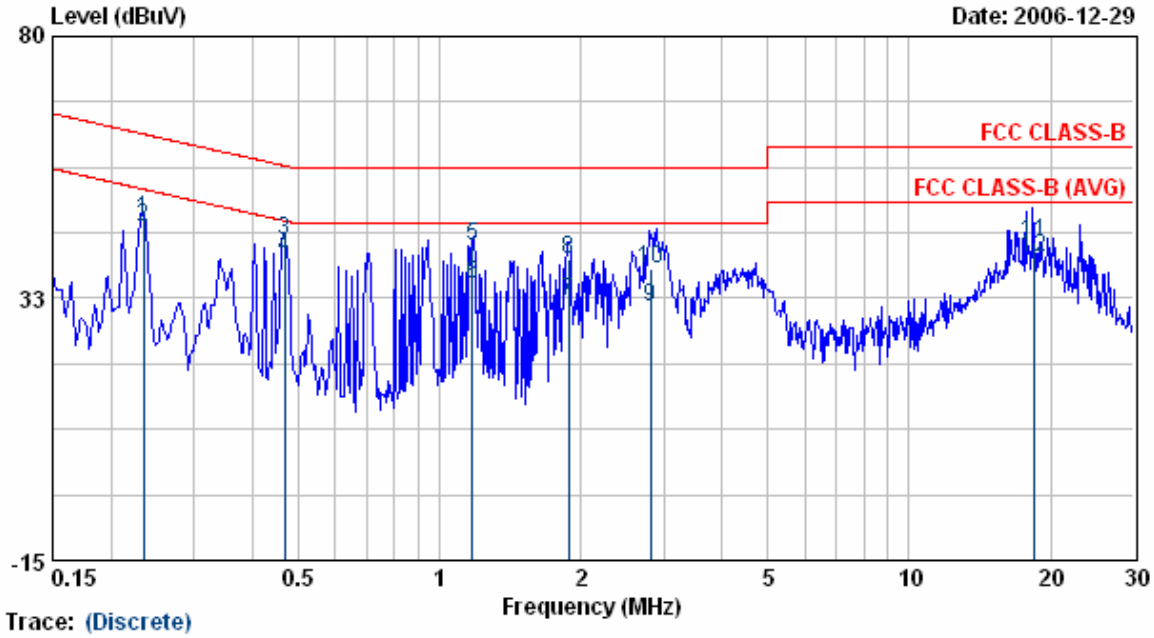



Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV | dB | dBuV | dBuV | dBuV | |
| 1 | 0.23 | 46.66 | 0.12 | 46.78 | 62.32 | -15.54 | QP |
| 2 | 0.23 | 45.01 | 0.12 | 45.14 | 52.32 | -7.19 | AVERAGE |
| 3 | 0.47 | 43.25 | 0.14 | 43.40 | 56.52 | -13.13 | QP |
| 4 | 0.47 | 39.68 | 0.14 | 39.82 | 46.52 | -6.70 | AVERAGE |
| 5 | 0.95 | 29.20 | 0.16 | 29.36 | 46.00 | -16.64 | AVERAGE |
| 6 | 0.95 | 40.33 | 0.16 | 40.49 | 56.00 | -15.51 | QP |
| 7 | 1.17 | 34.61 | 0.17 | 34.78 | 46.00 | -11.22 | AVERAGE |
| 8 | 1.17 | 41.64 | 0.17 | 41.81 | 56.00 | -14.19 | QP |
| 9 | 1.87 | 39.55 | 0.19 | 39.74 | 56.00 | -16.26 | QP |
| 10 | 1.87 | 31.81 | 0.19 | 32.00 | 46.00 | -14.00 | AVERAGE |
| 11 | 18.35 | 38.38 | 0.49 | 38.87 | 60.00 | -21.13 | QP |
| 12 | 18.35 | 36.22 | 0.49 | 36.71 | 50.00 | -13.29 | AVERAGE |

Remarks: 1. Level = Read Level + Factor
2. Factor = LISN(ISN) Factor + Cable Loss
3. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
4. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
5. The data is worse case.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : LINE |
| Test Mode | : 802.11SUPER G CH6 | Temperature | : 25 ℃ |
| Memo | : VE20-120 | Humidity | : 56 % |




Trace: (Discrete)

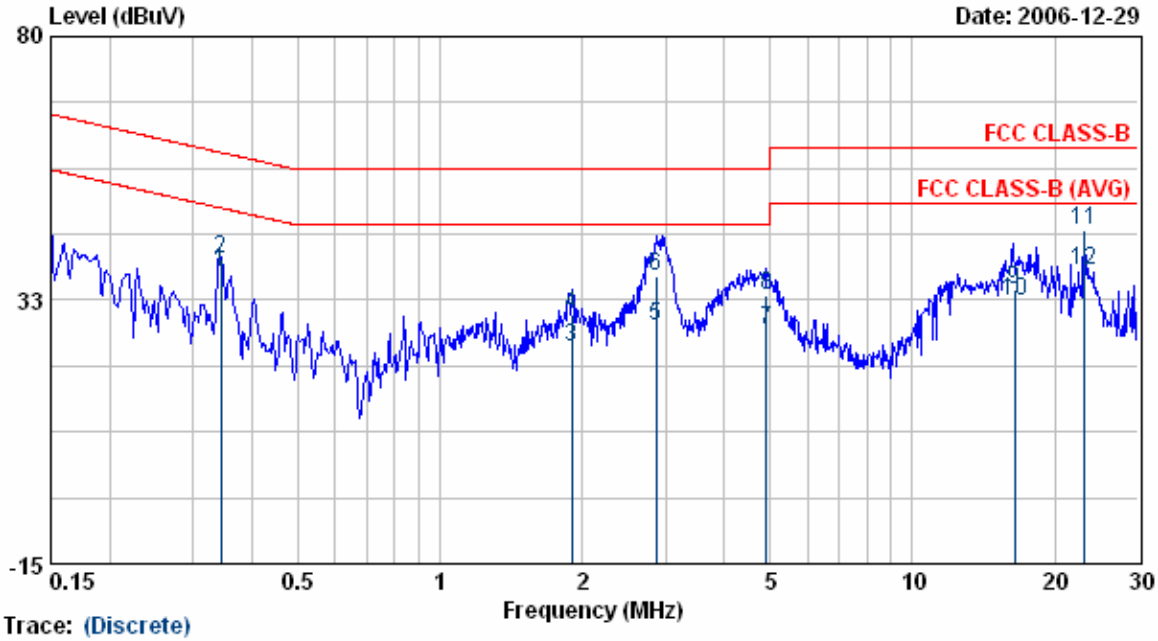
| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV | dB | dBuV | dBuV | dBuV | |
| 1 | 0.23 | 46.56 | 0.12 | 46.68 | 62.29 | -15.60 | QP |
| 2 | 0.23 | 45.44 | 0.12 | 45.57 | 52.29 | -6.72 | AVERAGE |
| 3 | 0.47 | 42.85 | 0.16 | 43.01 | 56.54 | -13.52 | QP |
| 4 | 0.47 | 39.75 | 0.16 | 39.91 | 46.54 | -6.62 | AVERAGE |
| 5 | 1.18 | 41.74 | 0.27 | 42.01 | 56.00 | -13.99 | QP |
| 6 | 1.18 | 34.83 | 0.27 | 35.10 | 46.00 | -10.90 | AVERAGE |
| 7 | 1.88 | 31.72 | 0.29 | 32.01 | 46.00 | -13.99 | AVERAGE |
| 8 | 1.88 | 39.32 | 0.29 | 39.61 | 56.00 | -16.39 | QP |
| 9 | 2.81 | 30.63 | 0.30 | 30.93 | 46.00 | -15.07 | AVERAGE |
| 10 | 2.81 | 37.44 | 0.30 | 37.74 | 56.00 | -18.26 | QP |
| 11 | 18.49 | 42.33 | 0.35 | 42.68 | 60.00 | -17.32 | QP |
| 12 | 18.49 | 39.64 | 0.35 | 39.99 | 50.00 | -10.01 | AVERAGE |

Remarks:
1. Level = Read Level + Factor
2. Factor = LISN(ISN) Factor + Cable Loss
3. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
4. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
5. The data is worse case.

Test Adapter 3:

EUT : APL18-046
Power : AC 120V
Test Mode : 802.11g CH1
Memo : NU20-8120166-I1

Pol/Phase : NEUTRAL
Temperature : 25 ℃
Humidity : 56 %

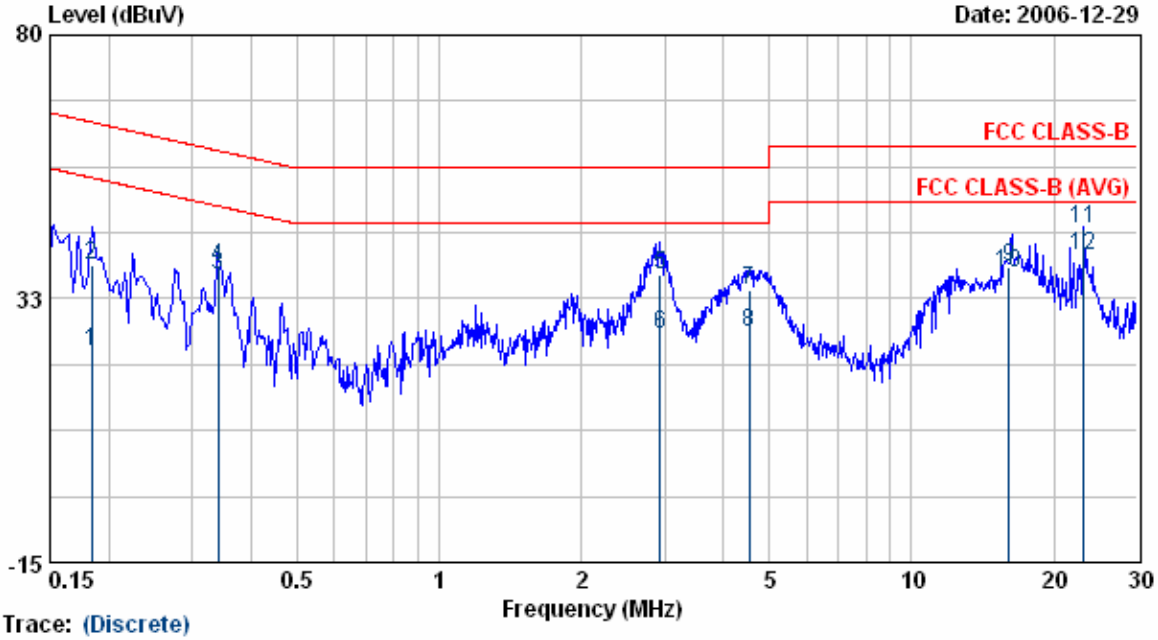



Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV | dB | dBuV | dBuV | dBuV | |
| 1 | 0.34 | 37.37 | 0.14 | 37.51 | 49.13 | -11.62 | AVERAGE |
| 2 | 0.34 | 39.88 | 0.14 | 40.01 | 59.13 | -19.11 | QP |
| 3 | 1.90 | 23.90 | 0.19 | 24.08 | 46.00 | -21.92 | AVERAGE |
| 4 | 1.90 | 29.59 | 0.19 | 29.78 | 56.00 | -26.22 | QP |
| 5 | 2.87 | 27.42 | 0.25 | 27.67 | 46.00 | -18.33 | AVERAGE |
| 6 | 2.87 | 36.68 | 0.25 | 36.93 | 56.00 | -19.07 | QP |
| 7 | 4.91 | 26.82 | 0.34 | 27.16 | 46.00 | -18.84 | AVERAGE |
| 8 | 4.91 | 32.96 | 0.34 | 33.31 | 56.00 | -22.69 | QP |
| 9 | 16.46 | 33.92 | 0.44 | 34.36 | 60.00 | -25.64 | QP |
| 10 | 16.46 | 31.76 | 0.44 | 32.19 | 50.00 | -17.81 | AVERAGE |
| 11 | 23.13 | 44.50 | 0.48 | 44.98 | 60.00 | -15.02 | QP |
| 12 | 23.13 | 37.54 | 0.48 | 38.03 | 50.00 | -11.97 | AVERAGE |

Remarks: 1. Level = Read Level + Factor
2. Factor = LISN(ISN) Factor + Cable Loss
3. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
4. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
5. The data is worse case.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : LINE |
| Test Mode | : 802.11g CH1 | Temperature | : 25 ℃ |
| Memo | : NU20-8120166-I1 | Humidity | : 56 % |



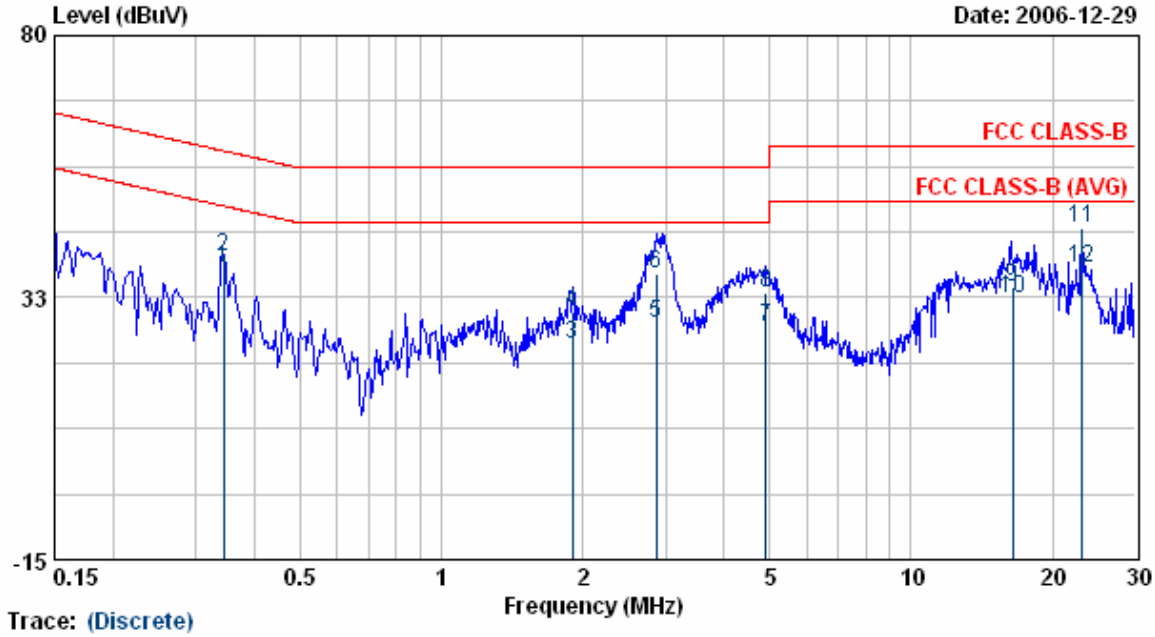

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV | dB | dBuV | dBuV | dBuV | |
| 1 | 0.18 | 22.87 | 0.12 | 22.99 | 54.33 | -31.34 | AVERAGE |
| 2 | 0.18 | 38.37 | 0.12 | 38.49 | 64.33 | -25.84 | QP |
| 3 | 0.34 | 36.52 | 0.14 | 36.65 | 49.18 | -12.53 | AVERAGE |
| 4 | 0.34 | 37.92 | 0.14 | 38.06 | 59.18 | -21.12 | QP |
| 5 | 2.93 | 36.53 | 0.30 | 36.83 | 56.00 | -19.17 | QP |
| 6 | 2.93 | 25.85 | 0.30 | 26.15 | 46.00 | -19.85 | AVERAGE |
| 7 | 4.53 | 33.55 | 0.33 | 33.88 | 56.00 | -22.12 | QP |
| 8 | 4.53 | 26.15 | 0.33 | 26.48 | 46.00 | -19.52 | AVERAGE |
| 9 | 16.09 | 37.86 | 0.38 | 38.24 | 60.00 | -21.76 | QP |
| 10 | 16.09 | 36.90 | 0.38 | 37.27 | 50.00 | -12.73 | AVERAGE |
| 11 | 23.13 | 44.56 | 0.41 | 44.97 | 60.00 | -15.03 | QP |
| 12 | 23.13 | 40.00 | 0.41 | 40.41 | 50.00 | -9.59 | AVERAGE |

Remarks:
1. Level = Read Level + Factor
2. Factor = LISN(ISN) Factor + Cable Loss
3. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
4. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
5. The data is worse case.

EUT : APL18-046
Power : AC 120V
Test Mode : 802.11SUPER G CH6
Memo : NU20-8120166-I1

Pol/Phase : NEUTRAL
Temperature : 25 ℃
Humidity : 56 %



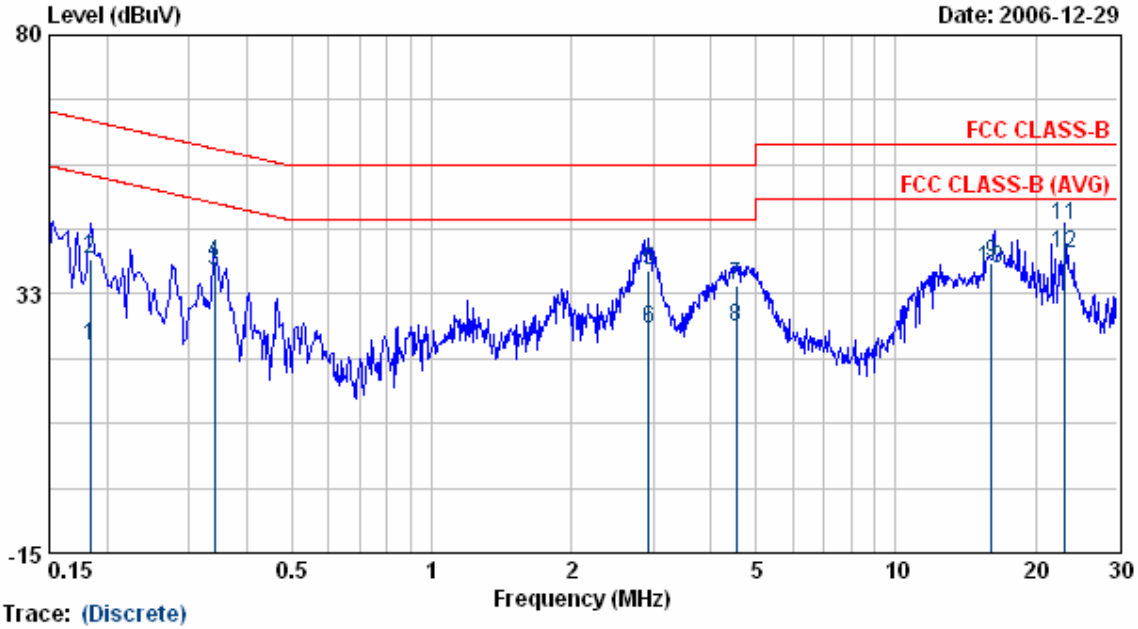

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV | dB | dBuV | dBuV | dBuV | |
| 1 | 0.34 | 37.87 | 0.14 | 38.01 | 49.13 | -11.12 | AVERAGE |
| 2 | 0.34 | 39.88 | 0.14 | 40.01 | 59.13 | -19.11 | QP |
| 3 | 1.90 | 23.90 | 0.19 | 24.08 | 46.00 | -21.92 | AVERAGE |
| 4 | 1.90 | 29.89 | 0.19 | 30.08 | 56.00 | -25.92 | QP |
| 5 | 2.87 | 27.42 | 0.25 | 27.67 | 46.00 | -18.33 | AVERAGE |
| 6 | 2.87 | 36.68 | 0.25 | 36.93 | 56.00 | -19.07 | QP |
| 7 | 4.91 | 26.82 | 0.34 | 27.16 | 46.00 | -18.84 | AVERAGE |
| 8 | 4.91 | 32.96 | 0.34 | 33.31 | 56.00 | -22.69 | QP |
| 9 | 16.46 | 33.92 | 0.44 | 34.36 | 60.00 | -25.64 | QP |
| 10 | 16.46 | 31.96 | 0.44 | 32.39 | 50.00 | -17.61 | AVERAGE |
| 11 | 23.13 | 44.50 | 0.48 | 44.98 | 60.00 | -15.02 | QP |
| 12 | 23.13 | 37.24 | 0.48 | 37.73 | 50.00 | -12.27 | AVERAGE |

Remarks: 1. Level = Read Level + Factor
2. Factor = LISN(ISN) Factor + Cable Loss
3. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
4. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
5. The data is worse case.

EUT : APL18-046
Power : AC 120V
Test Mode : 802.11SUPER G CH6
Memo : NU20-8120166-I1

Pol/Phase : LINE
Temperature : 25 ℃
Humidity : 56 %




Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark |
|---|---|---|---|---|---|---|---|
| | MHz | dBuV | dB | dBuV | dBuV | dBuV | |
| 1 | 0.18 | 22.87 | 0.12 | 22.99 | 54.33 | -31.34 | AVERAGE |
| 2 | 0.18 | 38.89 | 0.12 | 39.01 | 64.33 | -25.32 | QP |
| 3 | 0.34 | 36.82 | 0.14 | 36.95 | 49.18 | -12.23 | AVERAGE |
| 4 | 0.34 | 37.92 | 0.14 | 38.06 | 59.18 | -21.12 | QP |
| 5 | 2.93 | 36.53 | 0.30 | 36.83 | 56.00 | -19.17 | QP |
| 6 | 2.93 | 25.83 | 0.30 | 26.13 | 46.00 | -19.87 | AVERAGE |
| 7 | 4.53 | 33.55 | 0.33 | 33.88 | 56.00 | -22.12 | QP |
| 8 | 4.53 | 26.15 | 0.33 | 26.48 | 46.00 | -19.52 | AVERAGE |
| 9 | 16.09 | 37.86 | 0.38 | 38.24 | 60.00 | -21.76 | QP |
| 10 | 16.09 | 36.90 | 0.38 | 37.27 | 50.00 | -12.73 | AVERAGE |
| 11 | 23.13 | 44.59 | 0.41 | 45.00 | 60.00 | -15.00 | QP |
| 12 | 23.13 | 39.40 | 0.41 | 39.81 | 50.00 | -10.19 | AVERAGE |

Remarks: 1. Level = Read Level + Factor
2. Factor = LISN(ISN) Factor + Cable Loss
3. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
4. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
5. The data is worse case.

Test engineer: Ben

# 5. Test of Radiated Emission

## 5.1 Test Limit

Radiated emissions from 30 MHz to 25 GHz were measured according to the methods defines in ANSI C63.4-2003. 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

For unintentional device, according to § 15.109(a), except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

| Frequency (MHz) | Distance Meters | Radiated (μ V / M) | Radiated (dB μ V/ M) |
|---|---|---|---|
| 30-88 | 3 | 100 | 40.0 |
| 88-216 | 3 | 150 | 43.5 |
| 216-960 | 3 | 200 | 46.0 |
| Above 960 | 3 | 500 | 54.0 |

For unintentional device, according to CISPR PUB.22, for Class B digital devices, the general requirement of field strength of radiated emissions from intentional radiators at a distance of 10 meters shall not exceed the above table.

| Frequency (MHz) | Distance Meters | Radiated (dB μ V/ M) |
|---|---|---|
| 30-230 | 10 | 30 |
| 230-1000 | 10 | 37 |

## 5.2 Test Procedures

a. The EUT was placed on a rotatable table top 0.8 meter above ground.

b. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.

c. The table was rotated 360 degrees to determine the position of the highest radiation.

d. 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.

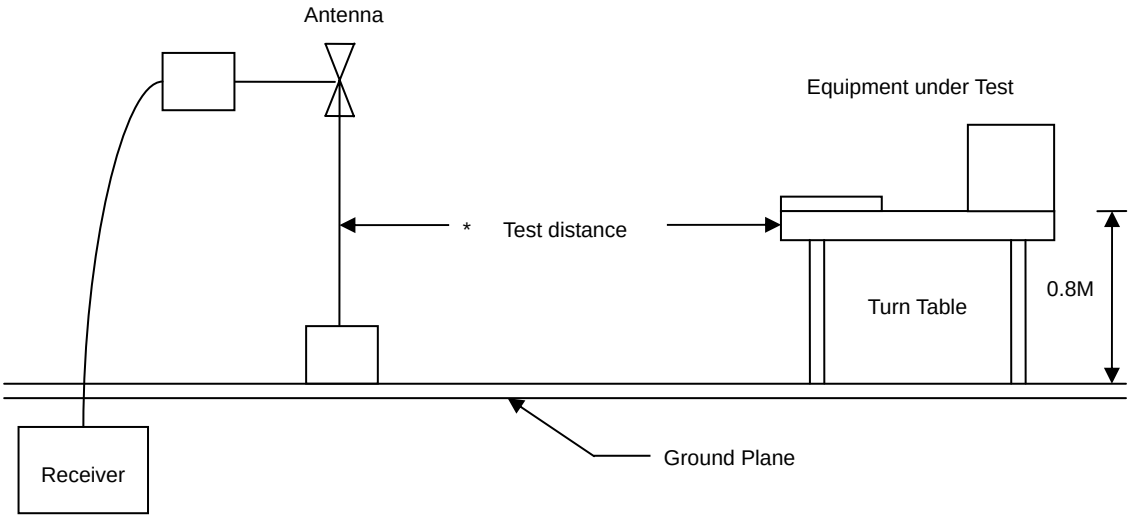
e. For each suspected emission the EUT was arranged to its worst case and then tune the antenna tower (from 1 M to 4 M) and turn table (from 0 degree to 360 degrees) to find the maximum reading.

f. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.

g. 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.

h. 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.

## 5.3 Typical Test Setup



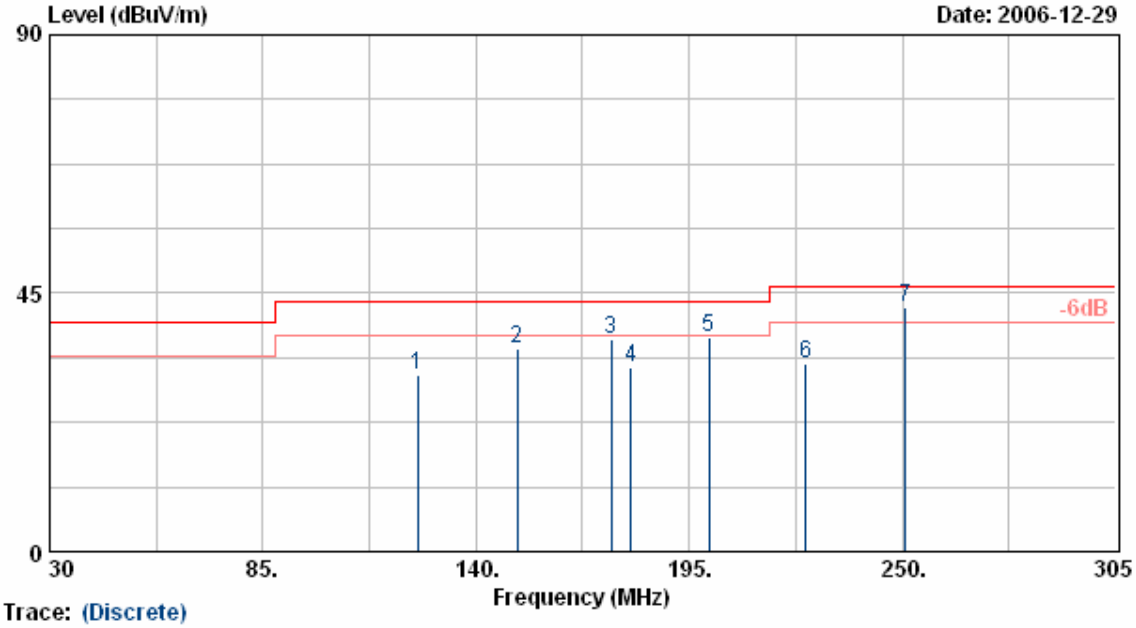

## 5.4 Measurement equipment

| Instrument/Ancillary | Model No. | Manufacturer | Serial No. | Calibration Date | Valid Date |
|---|---|---|---|---|---|
| EMI Receiver | 8546A | HP | 3807A00454 | 2006/05/12 | 2007/05/11 |
| Spectrum Analyzer | FSP40 | R&S | 10047 | 2006/01/17 | 2007/01/16 |
| Horn Antenna | 3115 | EMCO | 31589 | 2006/02/13 | 2007/02/12 |
| Horn Antenna | 3116 | EMCO | 31970 | 2006/02/10 | 2007/02/09 |
| Bilog Antenna | CBL6112B | Schaffner | 2840 | 2006/04/20 | 2007/04/19 |
| Amplifier | 8449B | Agilent | 3008A01954 | 2006/01/09 | 2007/01/08 |
| Amplifier | 8447D | Agilent | 2944A10593 | 2006/02/25 | 2007/02/24 |

## 5.5 Test Result and Data

Test Adapter 1:

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : HORIZONTAL |
| Test Mode | : Transmit/Receive | Temperature | : 25 ℃ |
| Operation Channel | : 1 | Humidity | : 68 % |
| Modulation Type | : 802.11g | Atmospheric Pressure | : 1010 hPa |
| Rate | : 54 Mbps | | |
| Memo | : SAL124A-1220V-6 | | |



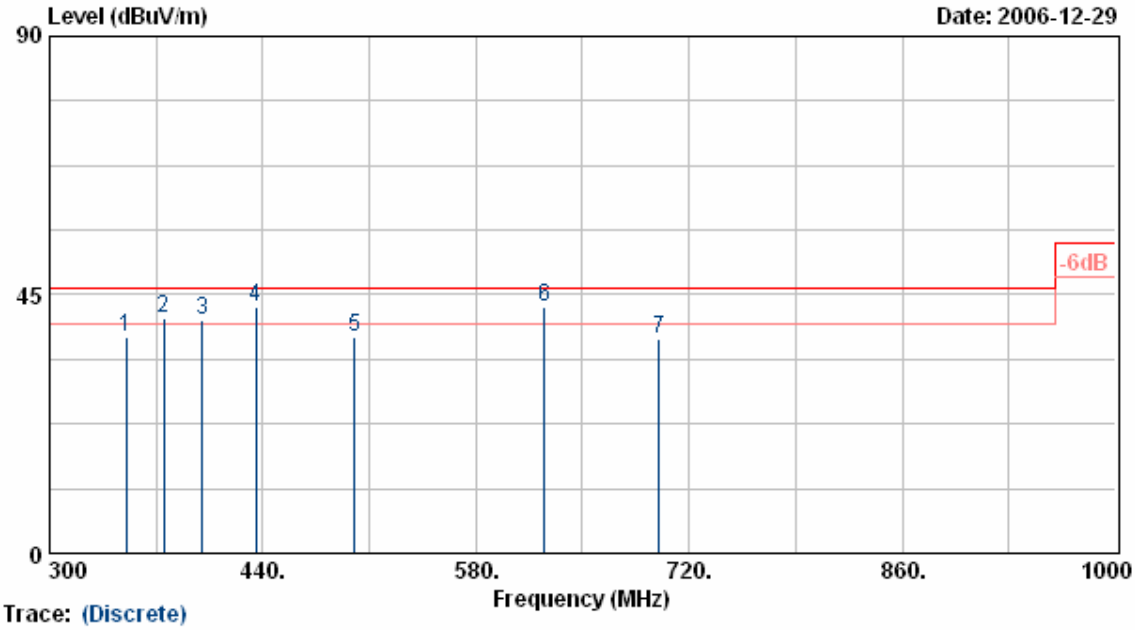

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 125.00 | 46.78 | -15.90 | 30.88 | 43.50 | -12.62 | Peak | 200 | 120 |
| 2 | 150.73 | 52.21 | -16.84 | 35.37 | 43.50 | -8.13 | Peak | 200 | 87 |
| 3 | 175.00 | 55.17 | -18.21 | 36.96 | 43.50 | -6.54 | Peak | 200 | 100 |
| 4 | 180.00 | 50.79 | -18.59 | 32.20 | 43.50 | -11.30 | Peak | 200 | 95 |
| 5 | 200.04 | 55.78 | -18.39 | 37.39 | 43.50 | -6.11 | Peak | 200 | 95 |
| 6 | 225.00 | 50.08 | -17.51 | 32.57 | 46.00 | -13.43 | Peak | 200 | 100 |
| 7 | 250.83 | 57.01 | -14.31 | 42.70 | 46.00 | -3.30 | QP | 200 | 100 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
5. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
6. The data is worse case.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : HORIZONTAL |
| Test Mode | : Transmit/Receive | Temperature | : 25 ℃ |
| Operation Channel | : 1 | Humidity | : 68 % |
| Modulation Type | : 802.11g | Atmospheric Pressure | : 1010 hPa |
| Rate | : 54 Mbps | | |
| Memo | : SAL124A-1220V-6 | | |



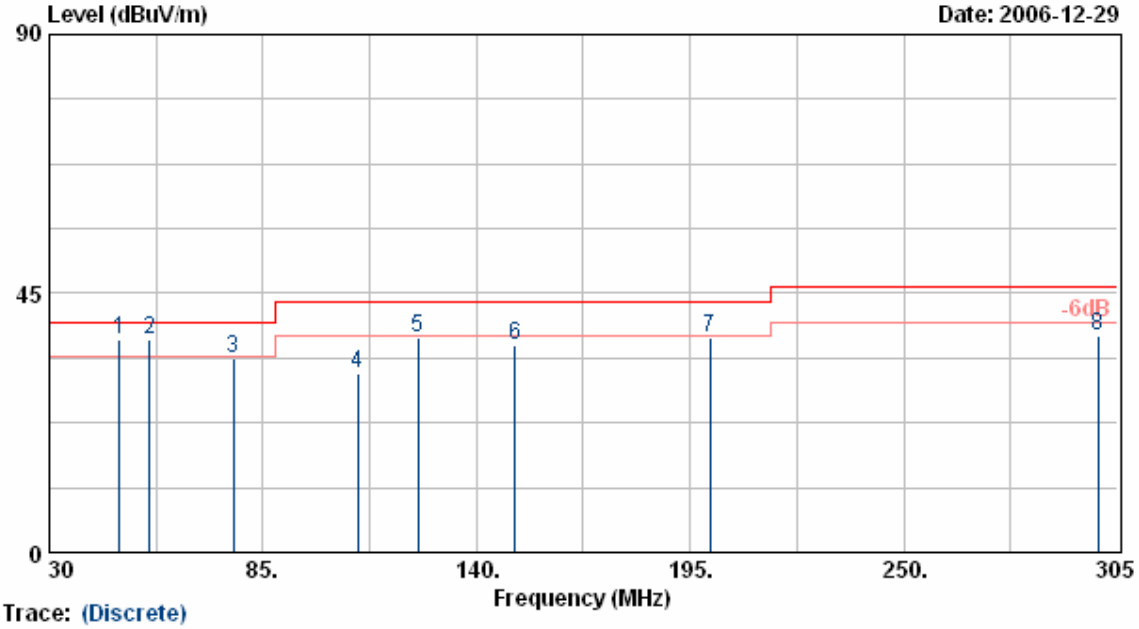

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 350.00 | 49.85 | -12.07 | 37.78 | 46.00 | -8.22 | Peak | 200 | 222 |
| 2 | 375.00 | 52.17 | -11.35 | 40.82 | 46.00 | -5.18 | QP | 200 | 210 |
| 3 | 400.00 | 51.34 | -10.63 | 40.70 | 46.00 | -5.30 | QP | 200 | 200 |
| 4 | 435.80 | 52.20 | -9.26 | 42.94 | 46.00 | -3.06 | QP | 200 | 200 |
| 5 | 500.00 | 44.95 | -7.18 | 37.77 | 46.00 | -8.23 | Peak | 200 | 200 |
| 6 | 625.00 | 47.24 | -4.31 | 42.93 | 46.00 | -3.07 | QP | 200 | 199 |
| 7 | 700.00 | 40.80 | -3.42 | 37.38 | 46.00 | -8.62 | Peak | 200 | 250 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
5. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
6. The data is worse case.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : VERTICAL |
| Test Mode | : Transmit/Receive | Temperature | : 25 ℃ |
| Operation Channel | : 1 | Humidity | : 68 % |
| Modulation Type | : 802.11g | Atmospheric Pressure | : 1010 hPa |
| Rate | : 54 Mbps | | |
| Memo | : SAL124A-1220V-6 | | |



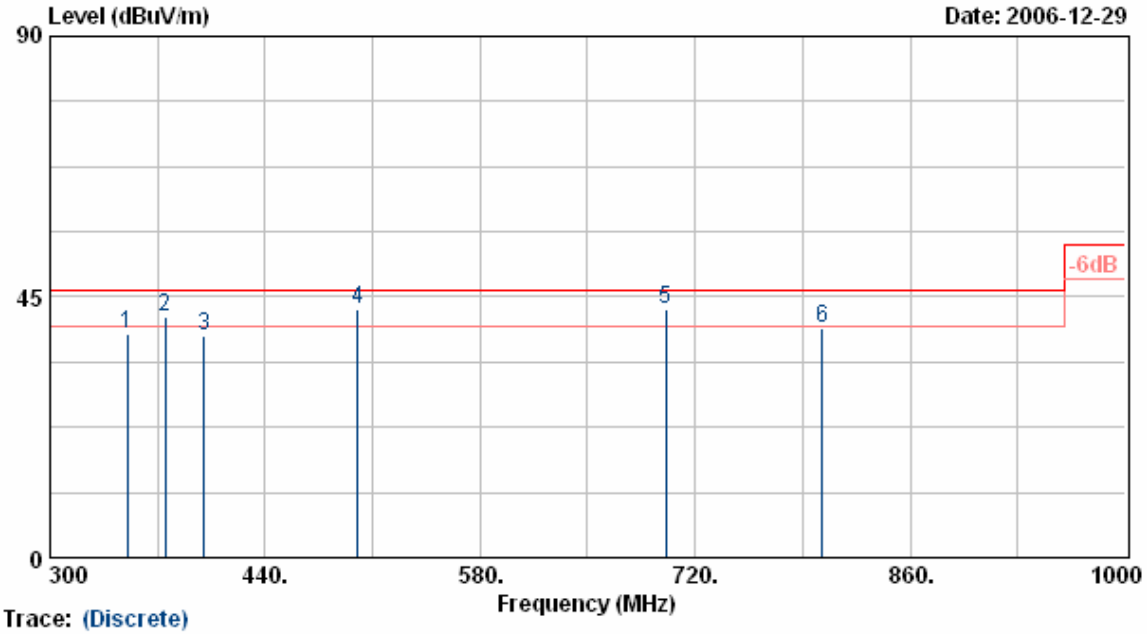

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 48.02 | 54.95 | -17.99 | 36.96 | 40.00 | -3.04 | QP | 100 | 96 |
| 2 | 55.93 | 57.31 | -20.43 | 36.88 | 40.00 | -3.12 | QP | 100 | 125 |
| 3 | 77.45 | 53.95 | -20.16 | 33.79 | 40.00 | -6.21 | Peak | 100 | 80 |
| 4 | 109.52 | 47.93 | -16.77 | 31.16 | 43.50 | -12.34 | Peak | 100 | 152 |
| 5 | 125.00 | 53.28 | -15.90 | 37.38 | 43.50 | -6.12 | Peak | 100 | 214 |
| 6 | 150.00 | 52.86 | -16.83 | 36.03 | 43.50 | -7.47 | Peak | 100 | 205 |
| 7 | 200.00 | 55.69 | -18.39 | 37.30 | 43.50 | -6.20 | Peak | 100 | 200 |
| 8 | 300.00 | 51.38 | -13.69 | 37.69 | 46.00 | -8.31 | Peak | 100 | 265 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
5. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
6. The data is worse case.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : VERTICAL |
| Test Mode | : Transmit/Receive | Temperature | : 25 ℃ |
| Operation Channel | : 1 | Humidity | : 68 % |
| Modulation Type | : 802.11g | Atmospheric Pressure | : 1010 hPa |
| Rate | : 54 Mbps | | |
| Memo | : SAL124A-1220V-6 | | |



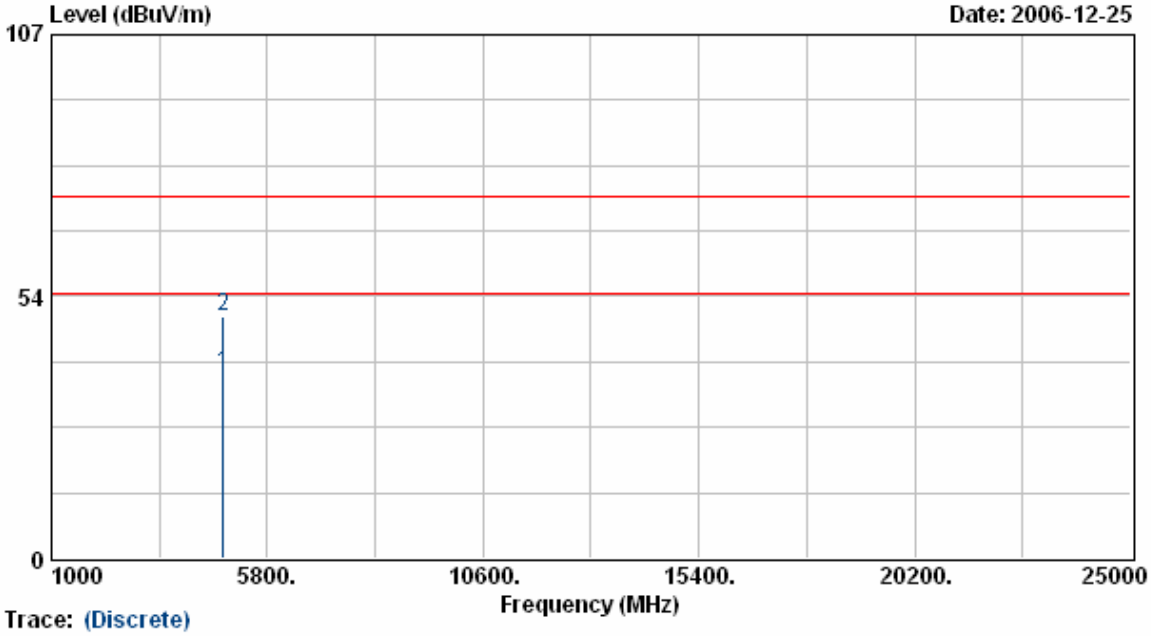

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 350.00 | 50.65 | -12.07 | 38.58 | 46.00 | -7.42 | Peak | 100 | 100 |
| 2 | 375.00 | 52.98 | -11.35 | 41.63 | 46.00 | -4.37 | Peak | 100 | 110 |
| 3 | 400.00 | 48.96 | -10.63 | 38.33 | 46.00 | -7.67 | Peak | 100 | 105 |
| 4 | 500.20 | 50.15 | -7.17 | 42.98 | 46.00 | -3.02 | QP | 100 | 89 |
| 5 | 701.10 | 46.36 | -3.39 | 42.97 | 46.00 | -3.03 | QP | 100 | 120 |
| 6 | 802.60 | 42.00 | -2.41 | 39.59 | 46.00 | -6.41 | Peak | 100 | 100 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
5. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
6. The data is worse case.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : HORIZONTAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 1 | Humidity | : 68 % |
| Modulation Type | : 802.11b | Atmospheric Pressure | : 1008 hPa |
| Rate | : 11 Mbps | | |
| Memo | : SAL124A-1220V-6 | | |



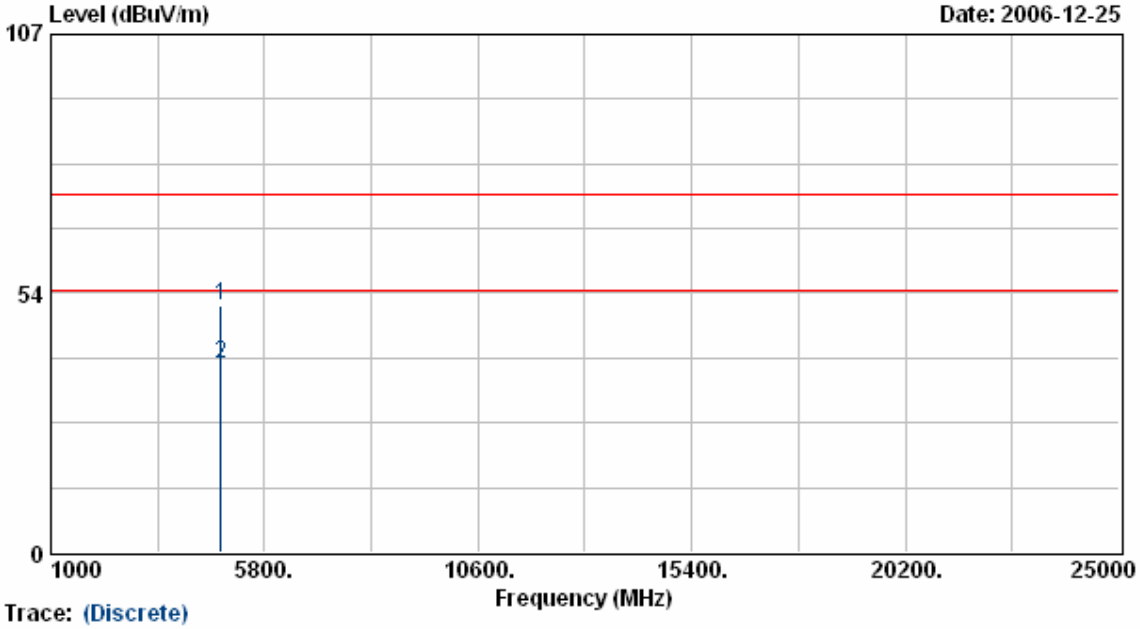

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4823.63 | 29.77 | 8.11 | 37.88 | 54.00 | -16.12 | Average | 100 | 128 |
| 2 | 4823.63 | 41.44 | 8.11 | 49.55 | 74.00 | -24.45 | Peak | 100 | 128 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : VERTICAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 1 | Humidity | : 68 % |
| Modulation Type | : 802.11b | Atmospheric Pressure | : 1008 hPa |
| Rate | : 11 Mbps | | |
| Memo | : SAL124A-1220V-6 | | |



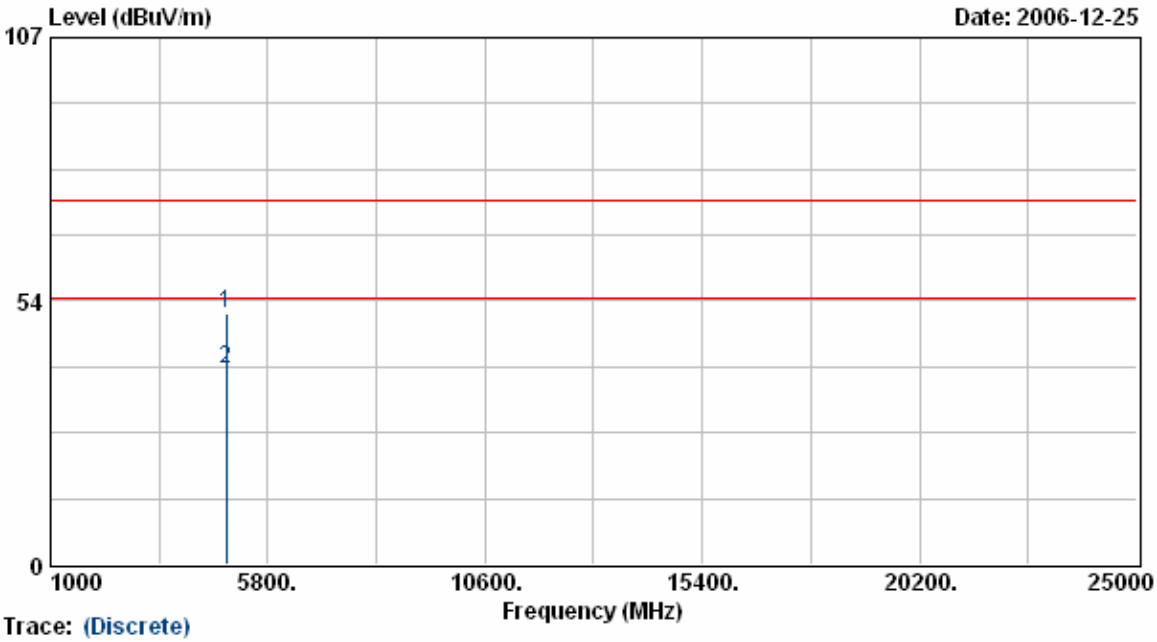

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4824.00 | 42.81 | 8.11 | 50.92 | 74.00 | -23.08 | Peak | 100 | 131 |
| 2 | 4824.00 | 30.76 | 8.11 | 38.87 | 54.00 | -15.13 | Average | 100 | 131 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : HORIZONTAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 6 | Humidity | : 68 % |
| Modulation Type | : 802.11b | Atmospheric Pressure | : 1008 hPa |
| Rate | : 11 Mbps | | |
| Memo | : SAL124A-1220V-6 | | |



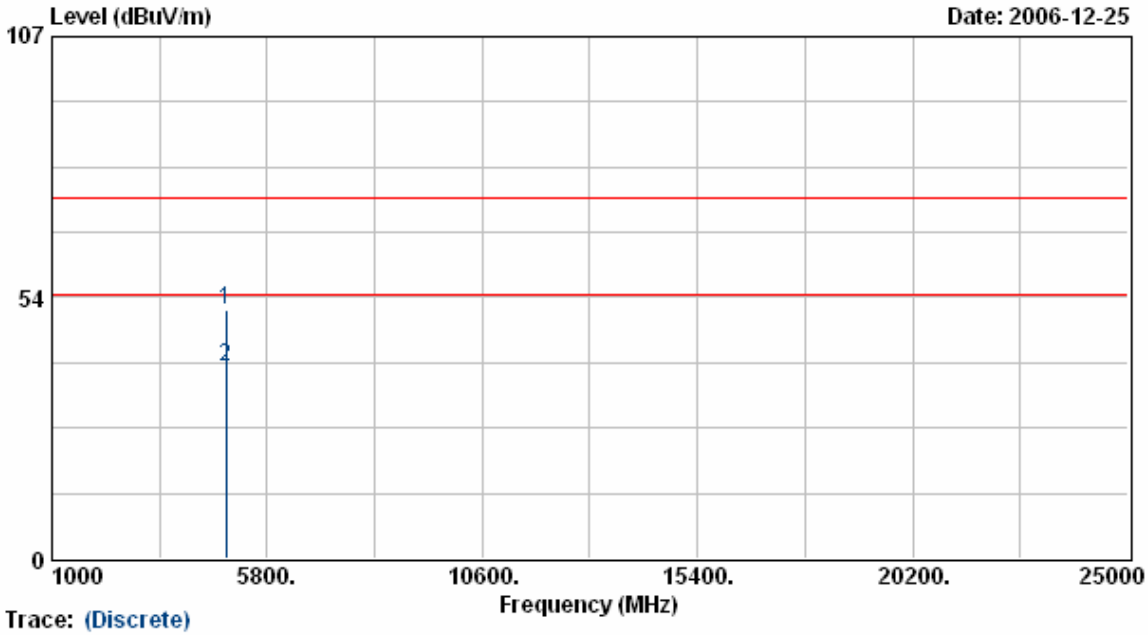

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4874.00 | 42.79 | 8.23 | 51.02 | 74.00 | -22.98 | Peak | 100 | 128 |
| 2 | 4874.00 | 31.37 | 8.23 | 39.60 | 54.00 | -14.40 | Average | 100 | 128 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : VERTICAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 6 | Humidity | : 68 % |
| Modulation Type | : 802.11b | Atmospheric Pressure | : 1008 hPa |
| Rate | : 11 Mbps | | |
| Memo | : SAL124A-1220V-6 | | |



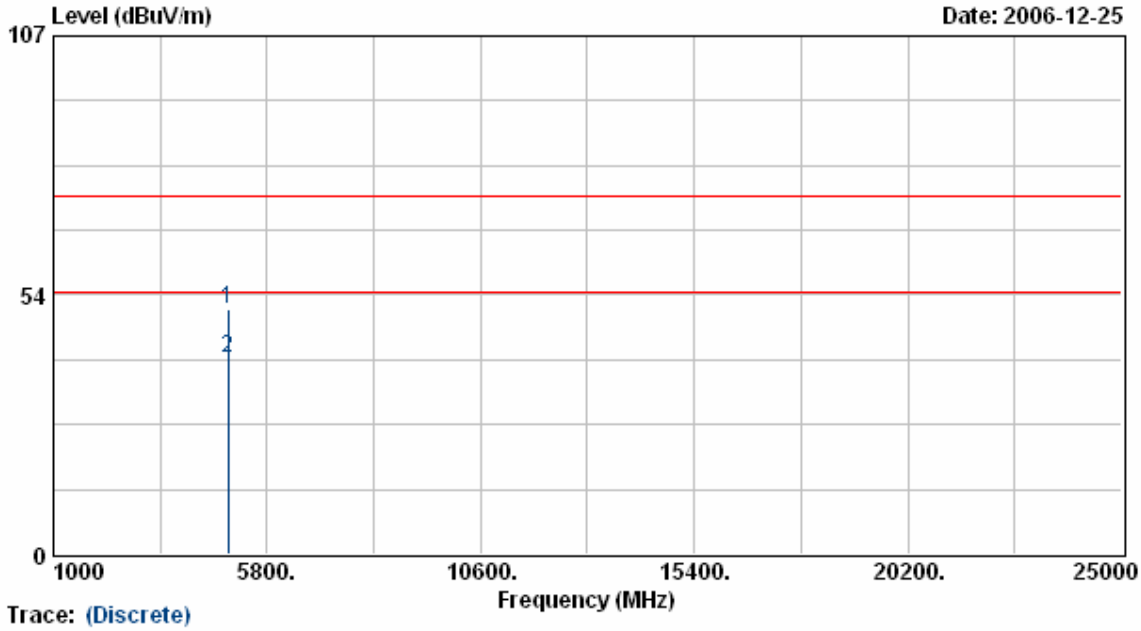

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4874.00 | 42.63 | 8.23 | 50.87 | 74.00 | -23.13 | Peak | 100 | 131 |
| 2 | 4874.00 | 31.00 | 8.23 | 39.23 | 54.00 | -14.77 | Average | 100 | 131 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : HORIZONTAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 11 | Humidity | : 68 % |
| Modulation Type | : 802.11b | Atmospheric Pressure | : 1008 hPa |
| Rate | : 11 Mbps | | |
| Memo | : SAL124A-1220V-6 | | |



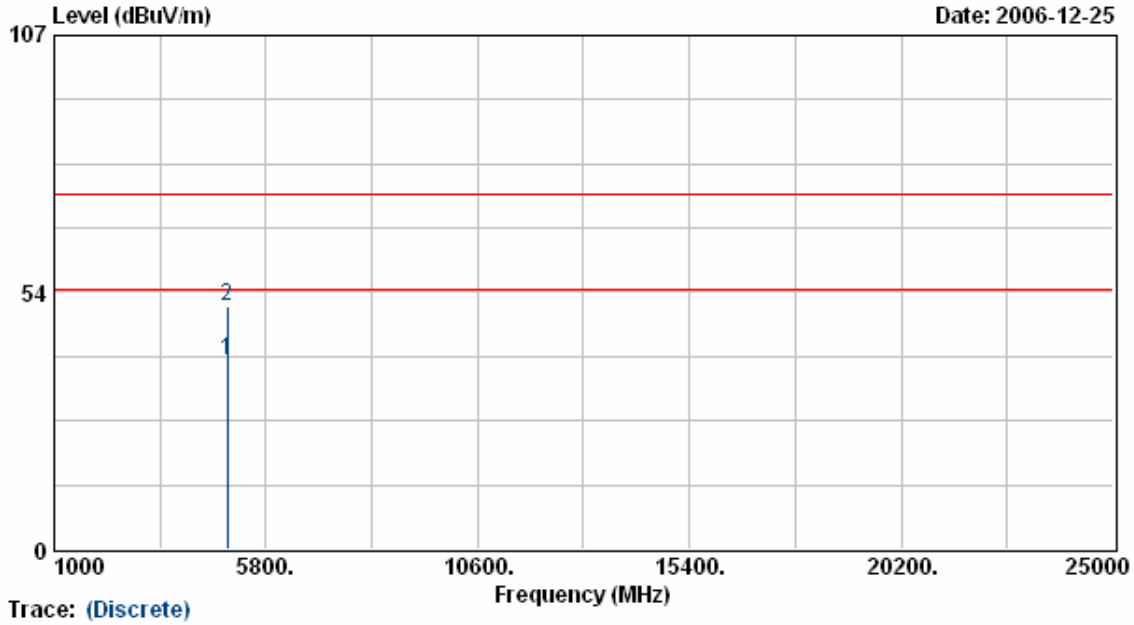

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4924.00 | 42.25 | 8.35 | 50.61 | 74.00 | -23.39 | Peak | 100 | 128 |
| 2 | 4924.00 | 31.96 | 8.35 | 40.31 | 54.00 | -13.69 | Average | 100 | 128 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : VERTICAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 11 | Humidity | : 68 % |
| Modulation Type | : 802.11b | Atmospheric Pressure | : 1008 hPa |
| Rate | : 11 Mbps | | |
| Memo | : SAL124A-1220V-6 | | |



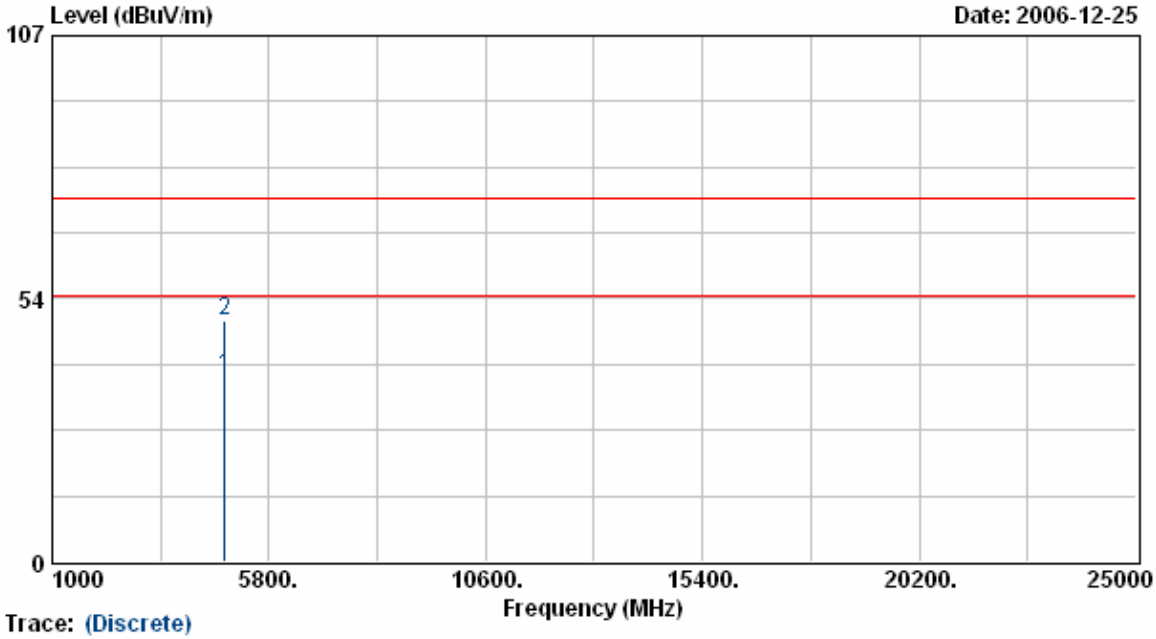

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4924.00 | 30.97 | 8.35 | 39.32 | 54.00 | -14.68 | Average | 100 | 131 |
| 2 | 4924.00 | 42.40 | 8.35 | 50.75 | 74.00 | -23.25 | Peak | 100 | 131 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : HORIZONTAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 1 | Humidity | : 68 % |
| Modulation Type | : 802.11g | Atmospheric Pressure | : 1008 hPa |
| Rate | : 54 Mbps | | |
| Memo | : SAL124A-1220V-6 | | |



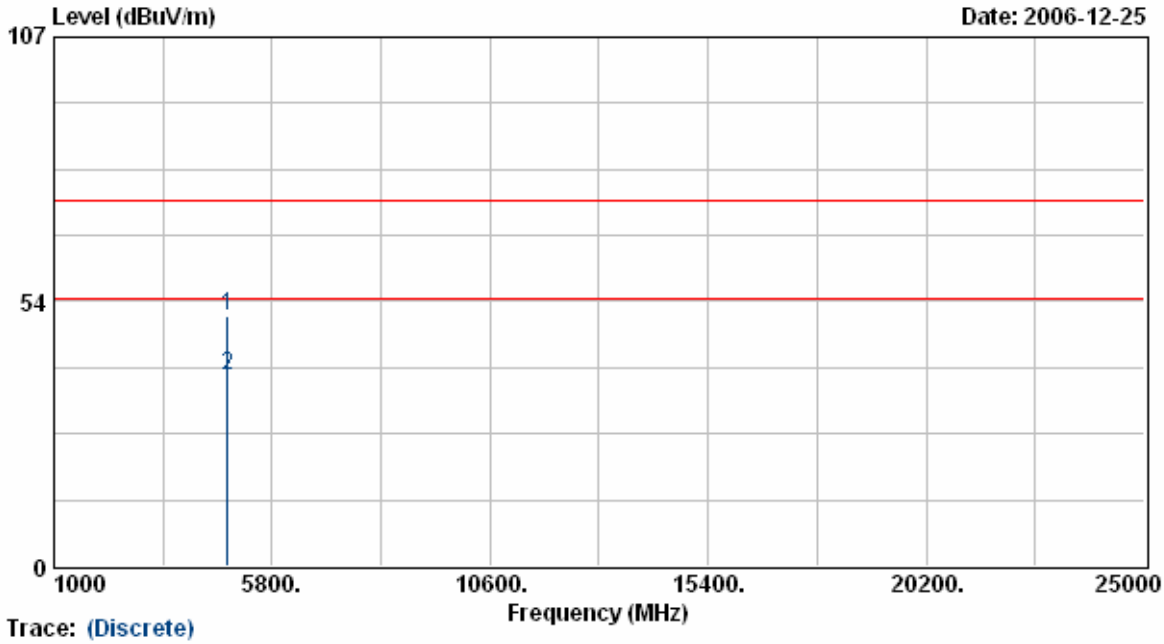

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4822.75 | 29.77 | 8.11 | 37.88 | 54.00 | -16.12 | Average | 100 | 128 |
| 2 | 4822.75 | 40.99 | 8.11 | 49.10 | 74.00 | -24.90 | Peak | 100 | 128 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : VERTICAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 1 | Humidity | : 68 % |
| Modulation Type | : 802.11g | Atmospheric Pressure | : 1008 hPa |
| Rate | : 54 Mbps | | |
| Memo | : SAL124A-1220V-6 | | |



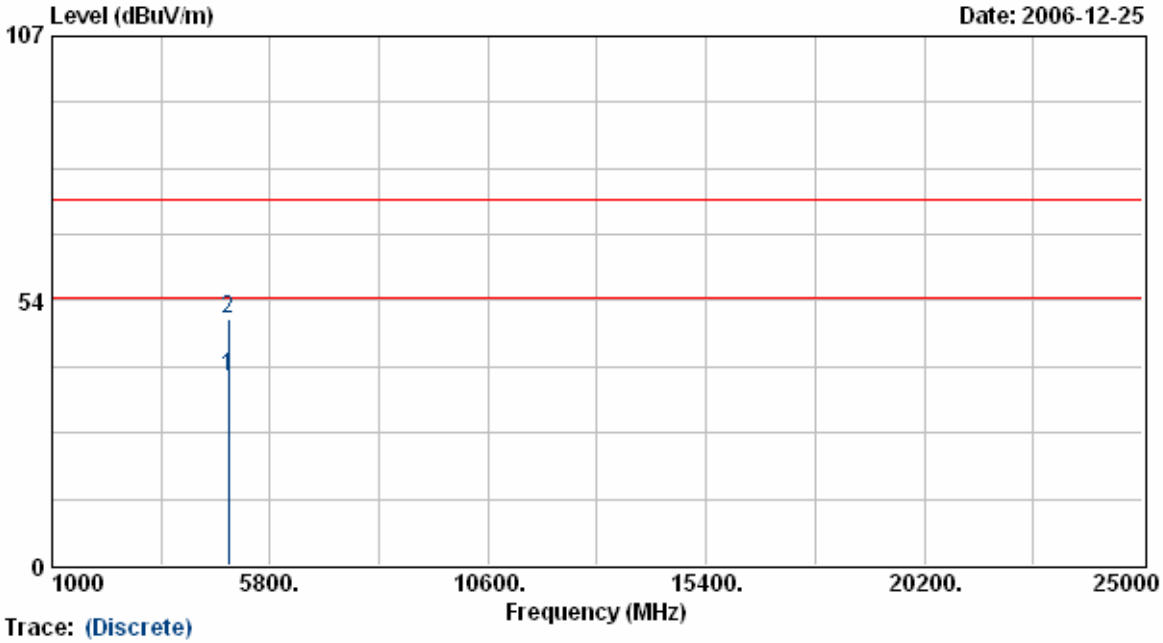

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4825.75 | 42.29 | 8.11 | 50.40 | 74.00 | -23.60 | Peak | 100 | 131 |
| 2 | 4825.75 | 30.34 | 8.11 | 38.45 | 54.00 | -15.55 | Average | 100 | 131 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : HORIZONTAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 6 | Humidity | : 68 % |
| Modulation Type | : 802.11g | Atmospheric Pressure | : 1008 hPa |
| Rate | : 54 Mbps | | |
| Memo | : SAL124A-1220V-6 | | |



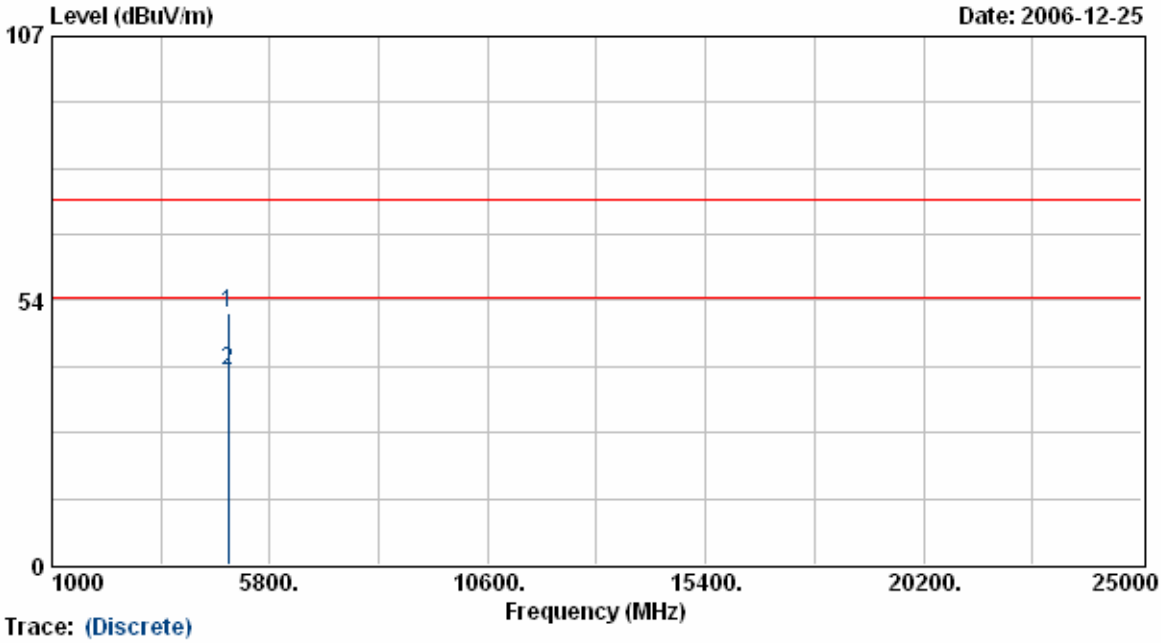

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4873.63 | 29.79 | 8.23 | 38.02 | 54.00 | -15.98 | Average | 100 | 128 |
| 2 | 4873.63 | 41.65 | 8.23 | 49.88 | 74.00 | -24.12 | Peak | 100 | 128 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : VERTICAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 6 | Humidity | : 68 % |
| Modulation Type | : 802.11g | Atmospheric Pressure | : 1008 hPa |
| Rate | : 54 Mbps | | |
| Memo | : SAL124A-1220V-6 | | |



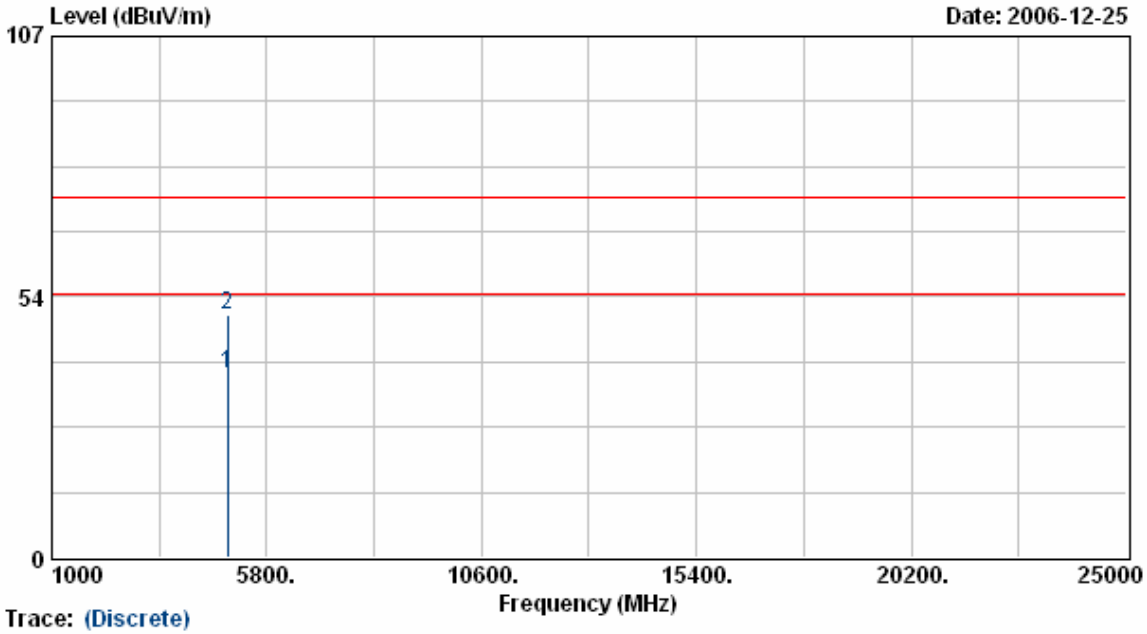

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4875.63 | 42.73 | 8.24 | 50.96 | 74.00 | -23.04 | Peak | 100 | 131 |
| 2 | 4875.63 | 30.99 | 8.24 | 39.22 | 54.00 | -14.78 | Average | 100 | 131 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : HORIZONTAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 11 | Humidity | : 68 % |
| Modulation Type | : 802.11g | Atmospheric Pressure | : 1008 hPa |
| Rate | : 54 Mbps | | |
| Memo | : SAL124A-1220V-6 | | |



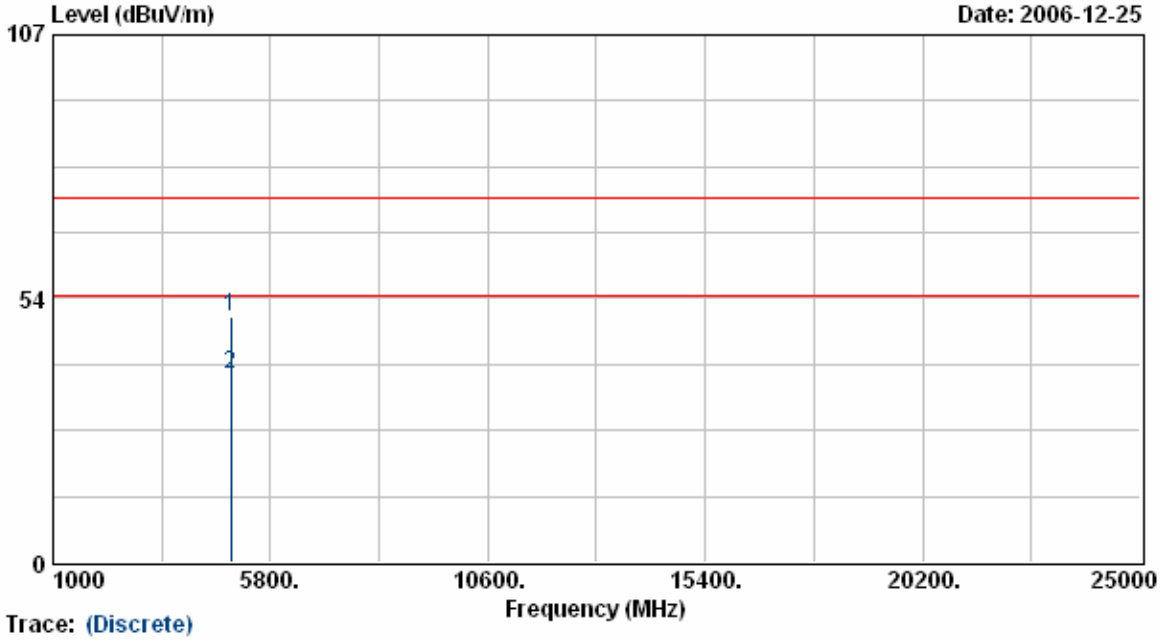

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4923.88 | 29.47 | 8.35 | 37.82 | 54.00 | -16.18 | Average | 100 | 128 |
| 2 | 4923.88 | 41.37 | 8.35 | 49.72 | 74.00 | -24.28 | Peak | 100 | 128 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : VERTICAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 11 | Humidity | : 68 % |
| Modulation Type | : 802.11g | Atmospheric Pressure | : 1008 hPa |
| Rate | : 54 Mbps | | |
| Memo | : SAL124A-1220V-6 | | |



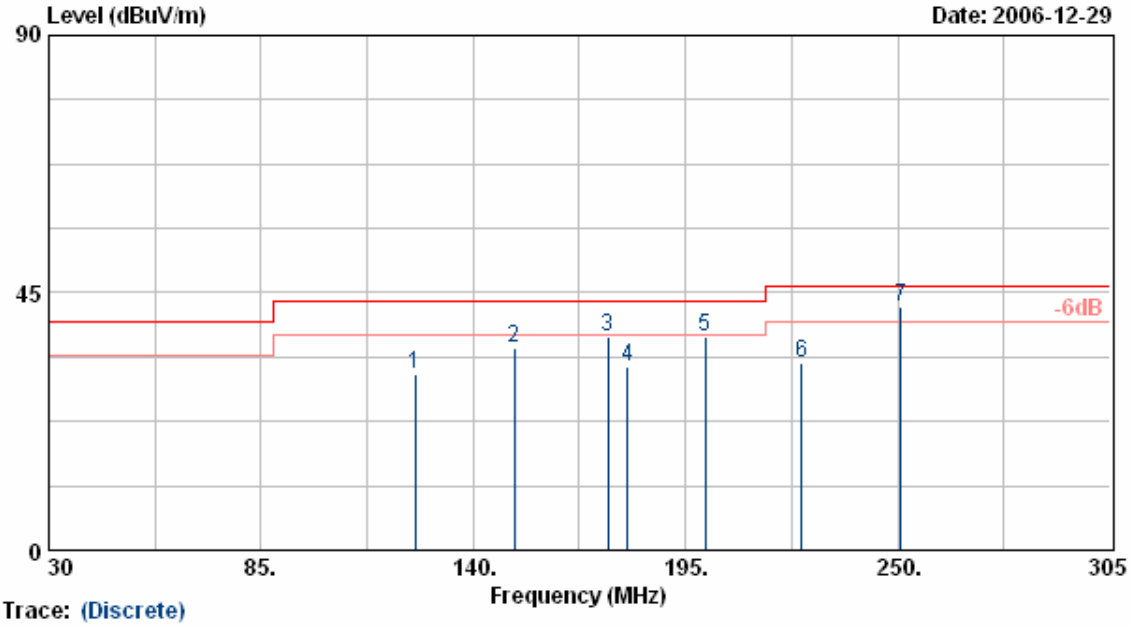

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4924.00 | 41.26 | 8.35 | 49.61 | 74.00 | -24.39 | Peak | 100 | 131 |
| 2 | 4924.00 | 29.72 | 8.35 | 38.07 | 54.00 | -15.93 | Average | 100 | 131 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : HORIZONTAL |
| Test Mode | : Transmit/Receive | Temperature | : 25 ℃ |
| Operation Channel | : 6 | Humidity | : 68 % |
| Modulation Type | : 802.11SUPER G | Atmospheric Pressure | : 1010 hPa |
| Rate | : 108 Mbps | | |
| Memo | : SAL124A-1220V-6 | | |



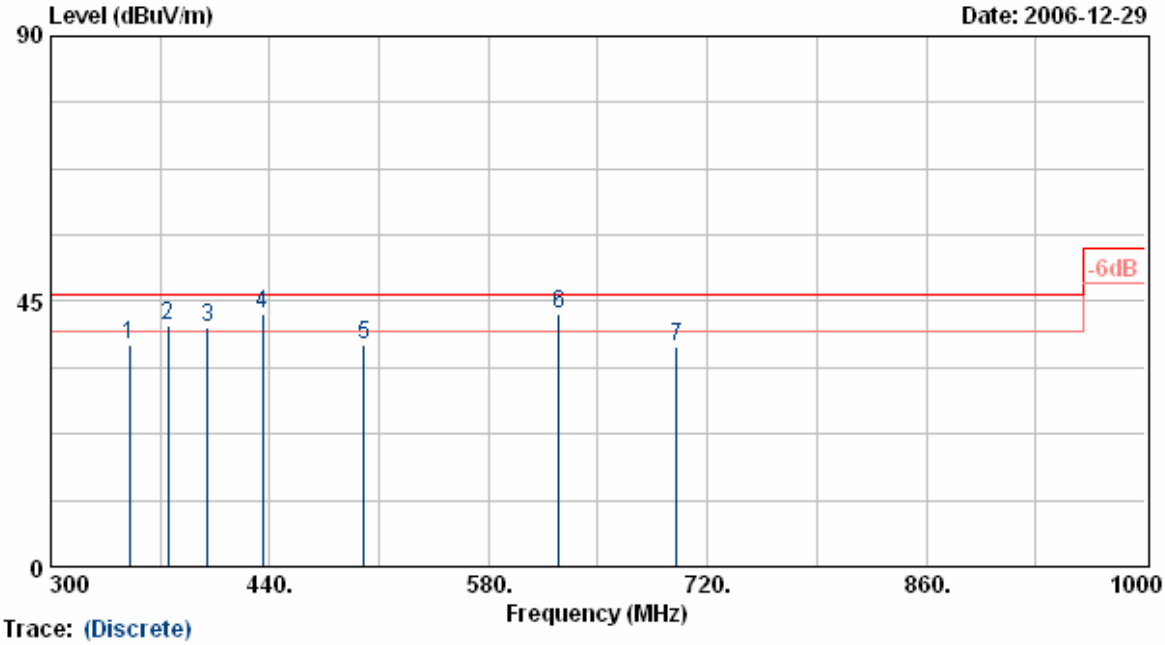

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 125.00 | 46.73 | -15.90 | 30.83 | 43.50 | -12.67 | Peak | 200 | 120 |
| 2 | 150.73 | 52.21 | -16.84 | 35.37 | 43.50 | -8.13 | Peak | 200 | 87 |
| 3 | 175.00 | 55.55 | -18.21 | 37.34 | 43.50 | -6.16 | Peak | 200 | 100 |
| 4 | 180.00 | 50.79 | -18.59 | 32.20 | 43.50 | -11.30 | Peak | 200 | 95 |
| 5 | 200.04 | 55.72 | -18.39 | 37.33 | 43.50 | -6.17 | Peak | 200 | 95 |
| 6 | 225.00 | 50.08 | -17.51 | 32.57 | 46.00 | -13.43 | Peak | 200 | 100 |
| 7 | 250.83 | 57.00 | -14.31 | 42.69 | 46.00 | -3.31 | QP | 200 | 100 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
5. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
6. The data is worse case.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : HORIZONTAL |
| Test Mode | : Transmit/Receive | Temperature | : 25 ℃ |
| Operation Channel | : 1 | Humidity | : 68 % |
| Modulation Type | : 802.11SUPER G | Atmospheric Pressure | : 1010 hPa |
| Rate | : 108 Mbps | | |
| Memo | : SAL124A-1220V-6 | | |



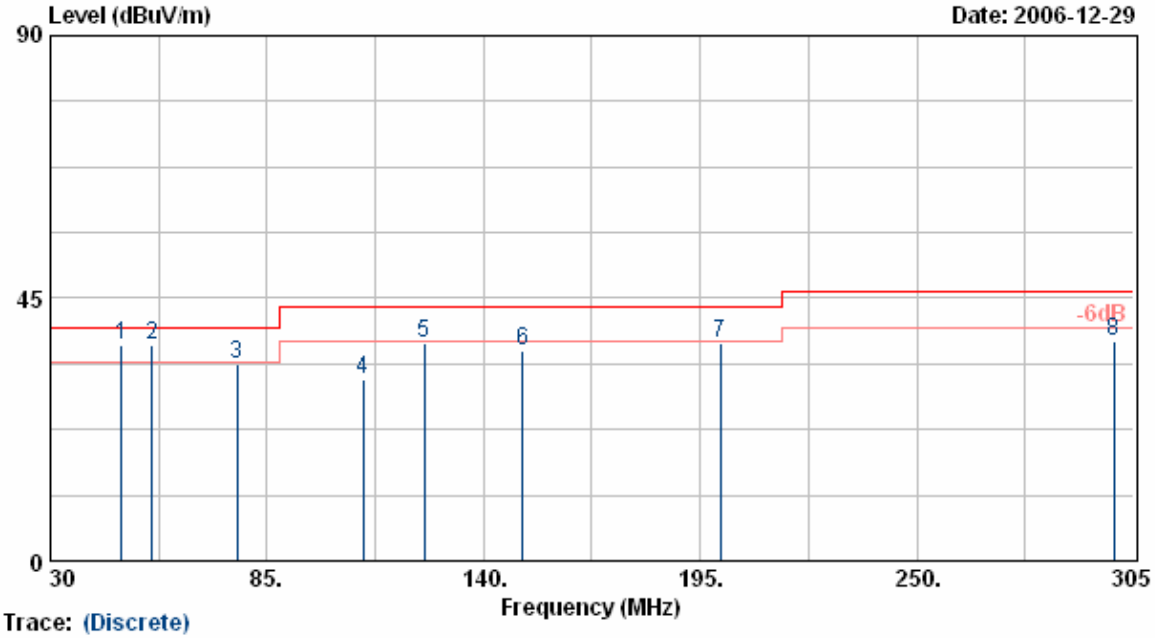

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 350.00 | 49.57 | -12.07 | 37.50 | 46.00 | -8.50 | Peak | 200 | 222 |
| 2 | 375.00 | 52.17 | -11.35 | 40.82 | 46.00 | -5.18 | QP | 200 | 210 |
| 3 | 400.00 | 51.30 | -10.63 | 40.67 | 46.00 | -5.33 | QP | 200 | 200 |
| 4 | 435.80 | 52.20 | -9.26 | 42.94 | 46.00 | -3.06 | QP | 200 | 200 |
| 5 | 500.00 | 44.90 | -7.18 | 37.72 | 46.00 | -8.28 | Peak | 200 | 200 |
| 6 | 625.00 | 47.24 | -4.31 | 42.93 | 46.00 | -3.07 | QP | 200 | 199 |
| 7 | 700.00 | 40.86 | -3.42 | 37.44 | 46.00 | -8.56 | Peak | 200 | 250 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
5. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
6. The data is worse case.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : VERTICAL |
| Test Mode | : Transmit/Receive | Temperature | : 25 ℃ |
| Operation Channel | : 6 | Humidity | : 68 % |
| Modulation Type | : 802.11SUPER G | Atmospheric Pressure | : 1010 hPa |
| Rate | : 108 Mbps | | |
| Memo | : SAL124A-1220V-6 | | |



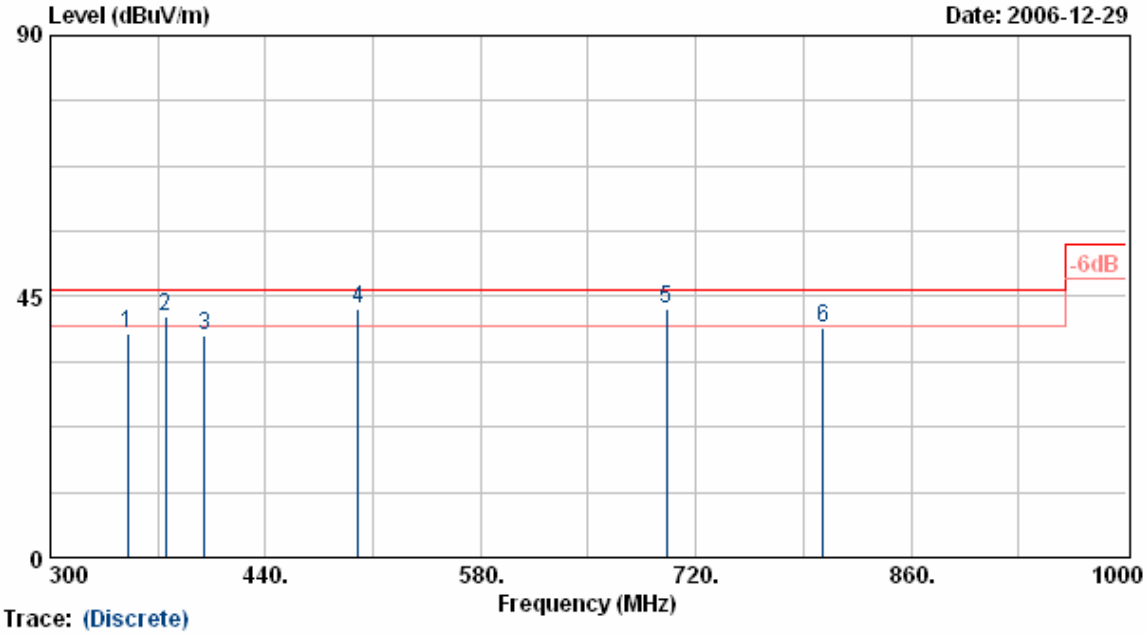

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 48.02 | 54.95 | -17.99 | 36.96 | 40.00 | -3.04 | QP | 100 | 96 |
| 2 | 55.93 | 57.30 | -20.43 | 36.87 | 40.00 | -3.13 | QP | 100 | 125 |
| 3 | 77.45 | 53.95 | -20.16 | 33.79 | 40.00 | -6.21 | Peak | 100 | 80 |
| 4 | 109.52 | 47.75 | -16.77 | 30.98 | 43.50 | -12.52 | Peak | 100 | 152 |
| 5 | 125.00 | 53.28 | -15.90 | 37.38 | 43.50 | -6.12 | Peak | 100 | 214 |
| 6 | 150.00 | 52.80 | -16.83 | 35.97 | 43.50 | -7.53 | Peak | 100 | 205 |
| 7 | 200.00 | 55.69 | -18.39 | 37.30 | 43.50 | -6.20 | Peak | 100 | 200 |
| 8 | 300.00 | 51.46 | -13.69 | 37.77 | 46.00 | -8.23 | Peak | 100 | 265 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
5. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
6. The data is worse case.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : VERTICAL |
| Test Mode | : Transmit/Receive | Temperature | : 25 ℃ |
| Operation Channel | : 6 | Humidity | : 68 % |
| Modulation Type | : 802.11SUPER G | Atmospheric Pressure | : 1010 hPa |
| Rate | : 108 Mbps | | |
| Memo | : SAL124A-1220V-6 | | |



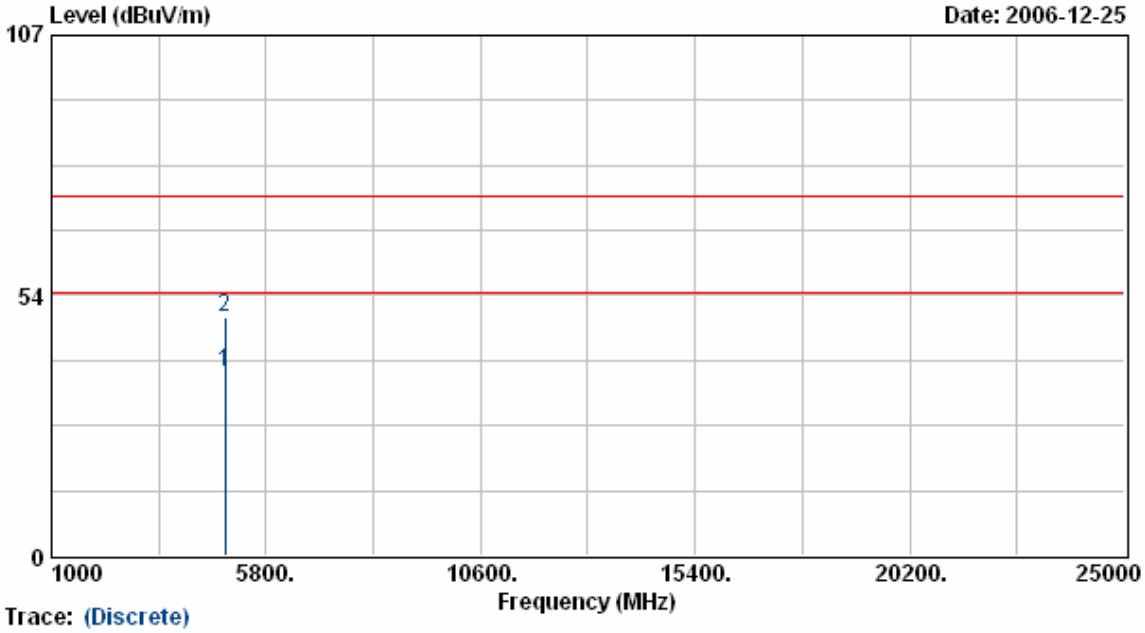

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 350.00 | 50.60 | -12.07 | 38.53 | 46.00 | -7.47 | Peak | 100 | 100 |
| 2 | 375.00 | 52.98 | -11.35 | 41.63 | 46.00 | -4.37 | Peak | 100 | 110 |
| 3 | 400.00 | 48.76 | -10.63 | 38.13 | 46.00 | -7.87 | Peak | 100 | 105 |
| 4 | 500.20 | 50.15 | -7.17 | 42.98 | 46.00 | -3.02 | QP | 100 | 89 |
| 5 | 701.10 | 46.22 | -3.39 | 42.83 | 46.00 | -3.17 | QP | 100 | 120 |
| 6 | 802.60 | 42.00 | -2.41 | 39.59 | 46.00 | -6.41 | Peak | 100 | 100 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
5. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
6. The data is worse case.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : HORIZONTAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 6 | Humidity | : 68 % |
| Modulation Type | : 802.11sg | Atmospheric Pressure | : 1008 hPa |
| Rate | : 108 Mbps | | |
| Memo | : SAL124A-1220V-6 | | |



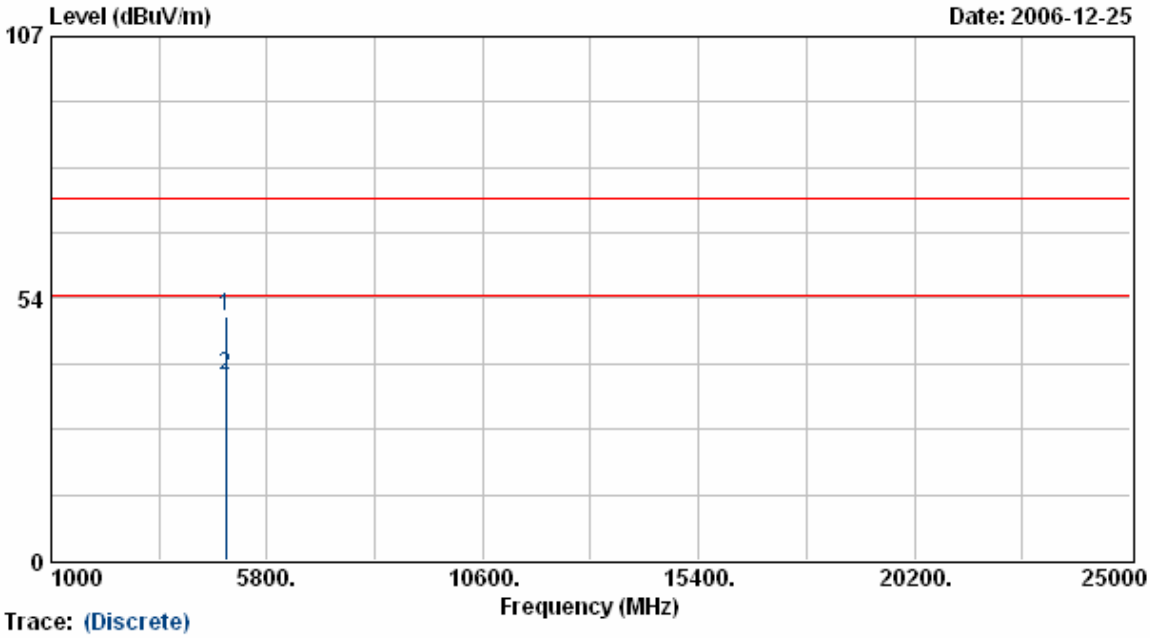

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4873.75 | 29.39 | 8.23 | 37.62 | 54.00 | -16.38 | Average | 100 | 128 |
| 2 | 4873.75 | 40.92 | 8.23 | 49.15 | 74.00 | -24.85 | Peak | 100 | 128 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : VERTICAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 6 | Humidity | : 68 % |
| Modulation Type | : 802.11sg | Atmospheric Pressure | : 1008 hPa |
| Rate | : 108 Mbps | | |
| Memo | : SAL124A-1220V-6 | | |




Trace: (Discrete)

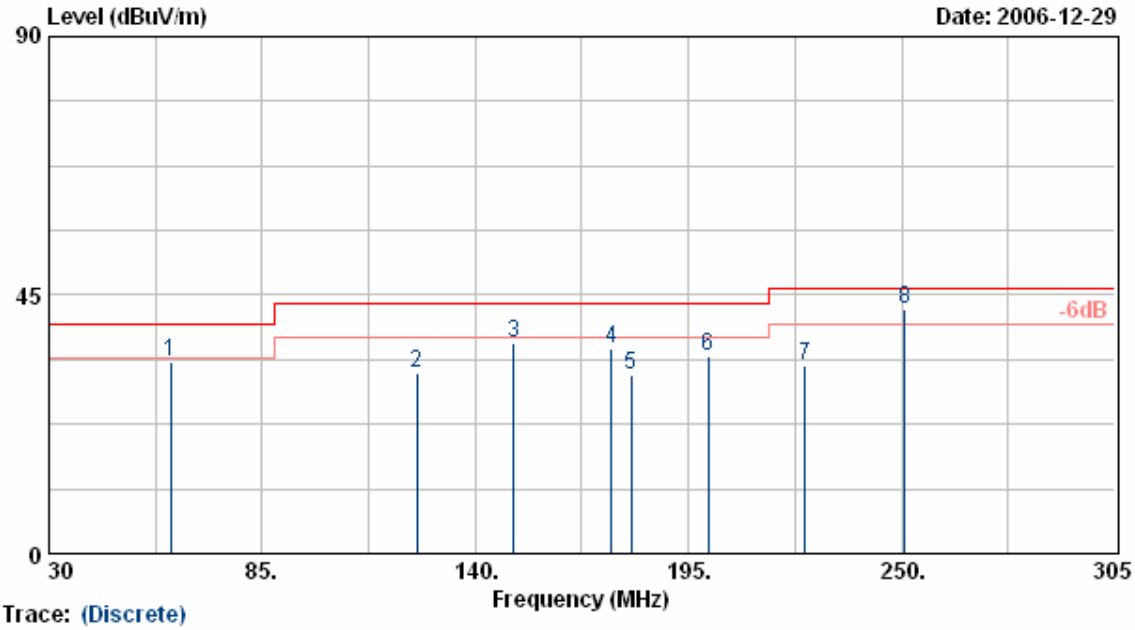
| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4874.00 | 41.49 | 8.23 | 49.73 | 74.00 | -24.27 | Peak | 100 | 131 |
| 2 | 4874.00 | 29.67 | 8.23 | 37.90 | 54.00 | -16.10 | Average | 100 | 131 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

Test Adapter 2:

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : HORIZONTAL |
| Test Mode | : Transmit/Receive | Temperature | : 25 ℃ |
| Operation Channel | : 1 | Humidity | : 68 % |
| Modulation Type | : 802.11g | Atmospheric Pressure | : 1010 hPa |
| Rate | : 54 Mbps | | |
| Memo | : VE20-120 | | |



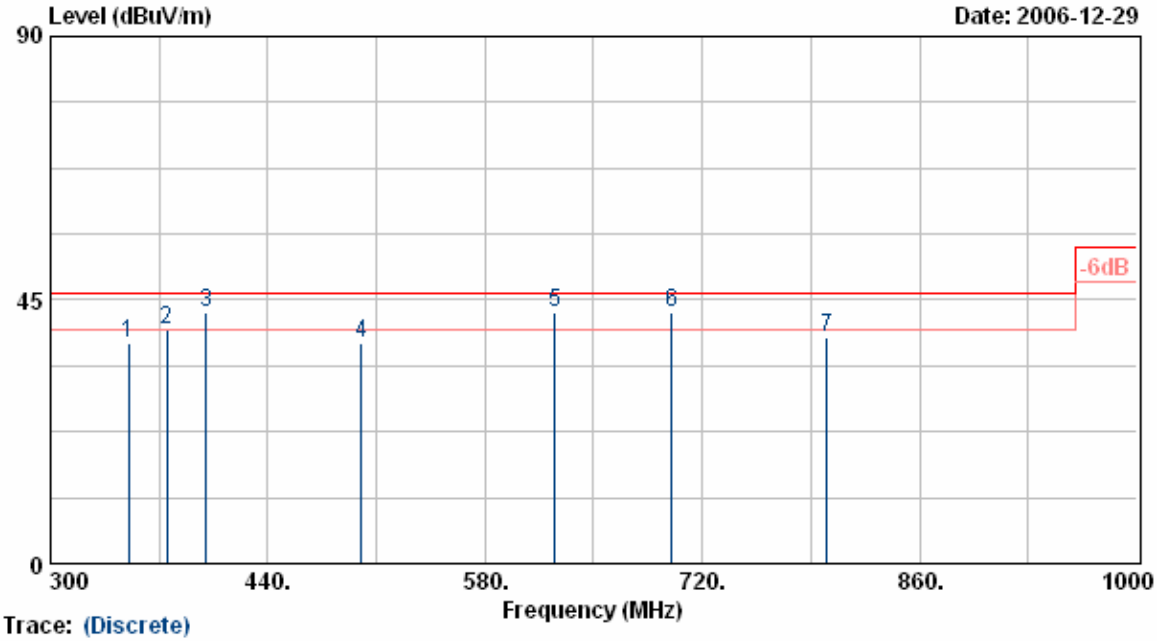

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 61.48 | 54.88 | -21.50 | 33.38 | 40.00 | -6.62 | Peak | 200 | 125 |
| 2 | 125.00 | 47.28 | -15.90 | 31.38 | 43.50 | -12.12 | Peak | 200 | 122 |
| 3 | 150.03 | 53.47 | -16.83 | 36.64 | 43.50 | -6.86 | Peak | 200 | 90 |
| 4 | 175.20 | 53.99 | -18.23 | 35.76 | 43.50 | -7.74 | Peak | 200 | 100 |
| 5 | 180.15 | 49.72 | -18.58 | 31.14 | 43.50 | -12.36 | Peak | 200 | 95 |
| 6 | 200.04 | 52.86 | -18.39 | 34.47 | 43.50 | -9.03 | Peak | 200 | 90 |
| 7 | 225.03 | 50.39 | -17.51 | 32.88 | 46.00 | -13.12 | Peak | 200 | 110 |
| 8 | 250.83 | 57.00 | -14.31 | 42.69 | 46.00 | -3.31 | QP | 200 | 109 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
5. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
6. The data is worse case.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : HORIZONTAL |
| Test Mode | : Transmit/Receive | Temperature | : 25 ℃ |
| Operation Channel | : 1 | Humidity | : 68 % |
| Modulation Type | : 802.11g | Atmospheric Pressure | : 1010 hPa |
| Rate | : 54 Mbps | | |
| Memo | : VE20-120 | | |



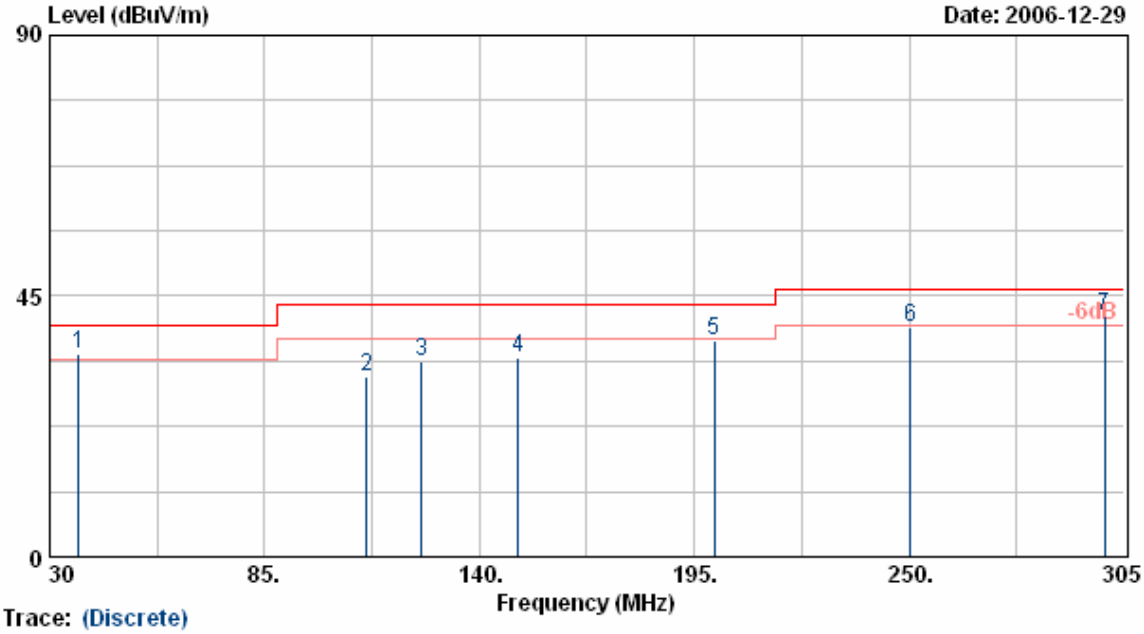

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 350.00 | 49.83 | -12.07 | 37.76 | 46.00 | -8.24 | Peak | 200 | 220 |
| 2 | 375.00 | 51.32 | -11.35 | 39.97 | 46.00 | -6.03 | Peak | 200 | 215 |
| 3 | 400.02 | 53.53 | -10.63 | 42.90 | 46.00 | -3.10 | QP | 200 | 200 |
| 4 | 500.21 | 44.85 | -7.17 | 37.68 | 46.00 | -8.32 | Peak | 200 | 200 |
| 5 | 625.03 | 47.10 | -4.31 | 42.79 | 46.00 | -3.21 | QP | 200 | 202 |
| 6 | 700.21 | 46.27 | -3.41 | 42.86 | 46.00 | -3.14 | QP | 200 | 250 |
| 7 | 800.50 | 41.09 | -2.47 | 38.62 | 46.00 | -7.38 | Peak | 200 | 204 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
5. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
6. The data is worse case.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : VERTICAL |
| Test Mode | : Transmit/Receive | Temperature | : 25 ℃ |
| Operation Channel | : 1 | Humidity | : 68 % |
| Modulation Type | : 802.11g | Atmospheric Pressure | : 1010 hPa |
| Rate | : 54 Mbps | | |
| Memo | : VE20-120 | | |



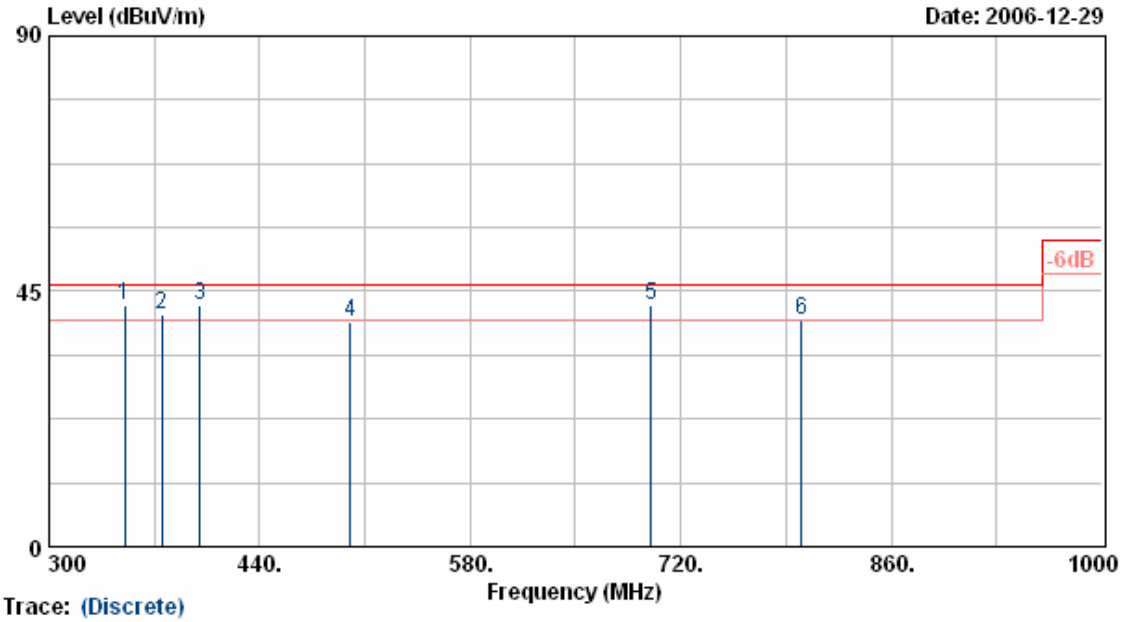

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 37.34 | 46.85 | -11.94 | 34.91 | 40.00 | -5.09 | QP | 100 | 100 |
| 2 | 111.13 | 47.75 | -16.63 | 31.12 | 43.50 | -12.38 | Peak | 100 | 150 |
| 3 | 125.11 | 49.65 | -15.90 | 33.75 | 43.50 | -9.75 | Peak | 100 | 215 |
| 4 | 150.01 | 51.21 | -16.83 | 34.38 | 43.50 | -9.12 | Peak | 100 | 210 |
| 5 | 200.23 | 55.79 | -18.40 | 37.39 | 43.50 | -6.11 | Peak | 100 | 200 |
| 6 | 250.28 | 54.00 | -14.39 | 39.61 | 46.00 | -6.39 | Peak | 100 | 219 |
| 7 | 300.04 | 55.11 | -13.69 | 41.42 | 46.00 | -4.58 | QP | 100 | 220 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
5. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
6. The data is worse case.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : VERTICAL |
| Test Mode | : Transmit/Receive | Temperature | : 25 ℃ |
| Operation Channel | : 1 | Humidity | : 68 % |
| Modulation Type | : 802.11g | Atmospheric Pressure | : 1010 hPa |
| Rate | : 54 Mbps | | |
| Memo | : VE20-120 | | |



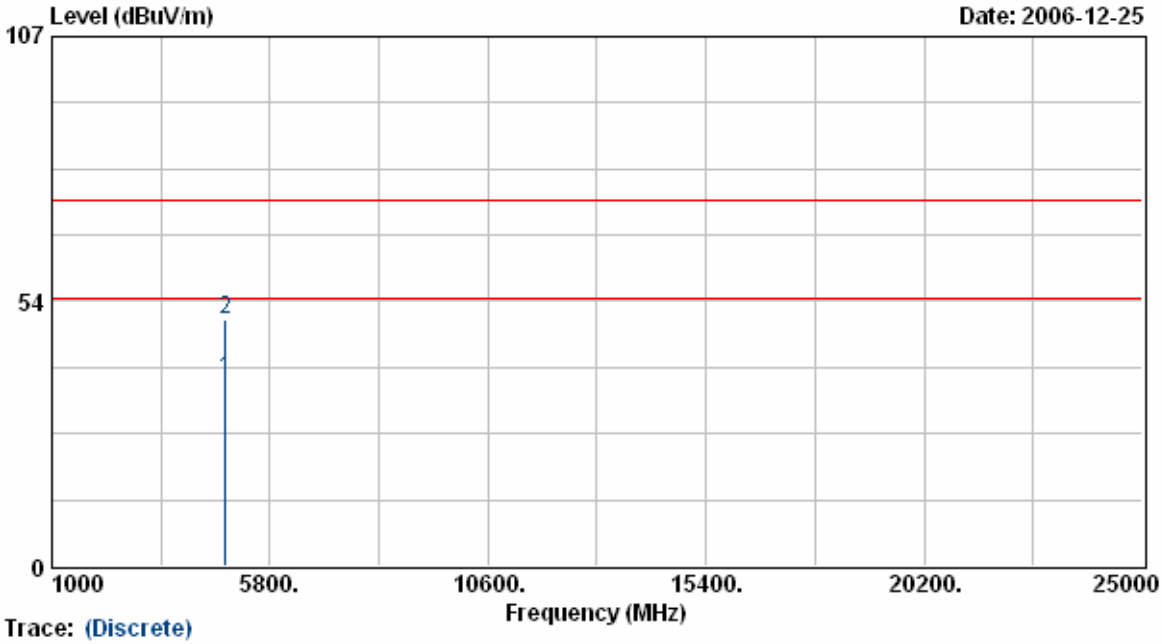

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 350.00 | 54.58 | -12.07 | 42.51 | 46.00 | -3.49 | QP | 100 | 100 |
| 2 | 375.00 | 52.25 | -11.35 | 40.90 | 46.00 | -5.10 | QP | 100 | 115 |
| 3 | 400.00 | 53.27 | -10.63 | 42.64 | 46.00 | -3.36 | QP | 100 | 110 |
| 4 | 500.02 | 46.75 | -7.18 | 39.57 | 46.00 | -6.43 | Peak | 100 | 95 |
| 5 | 700.00 | 46.10 | -3.42 | 42.68 | 46.00 | -3.32 | QP | 100 | 120 |
| 6 | 800.50 | 42.50 | -2.47 | 40.03 | 46.00 | -5.97 | QP | 100 | 100 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
5. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
6. The data is worse case.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : HORIZONTAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 1 | Humidity | : 68 % |
| Modulation Type | : 802.11b | Atmospheric Pressure | : 1008 hPa |
| Rate | : 11 Mbps | | |
| Memo | : VE20-120 | | |



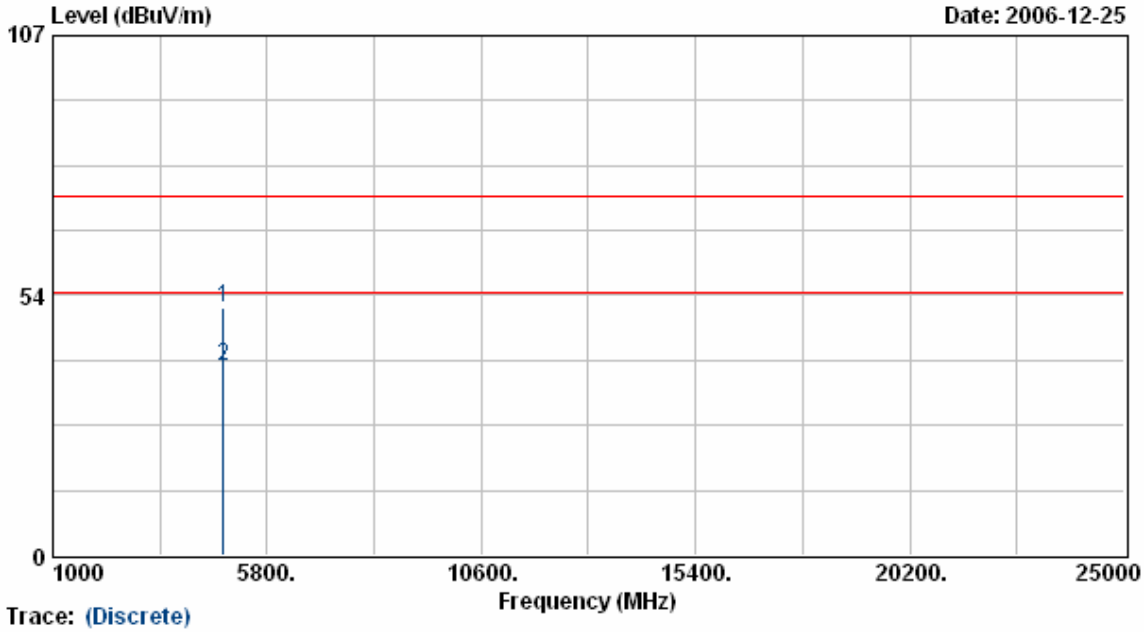

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4823.63 | 29.76 | 8.11 | 37.87 | 54.00 | -16.13 | Average | 100 | 128 |
| 2 | 4823.63 | 41.69 | 8.11 | 49.80 | 74.00 | -24.20 | Peak | 100 | 128 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : VERTICAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 1 | Humidity | : 68 % |
| Modulation Type | : 802.11b | Atmospheric Pressure | : 1008 hPa |
| Rate | : 11 Mbps | | |
| Memo | : VE20-120 | | |



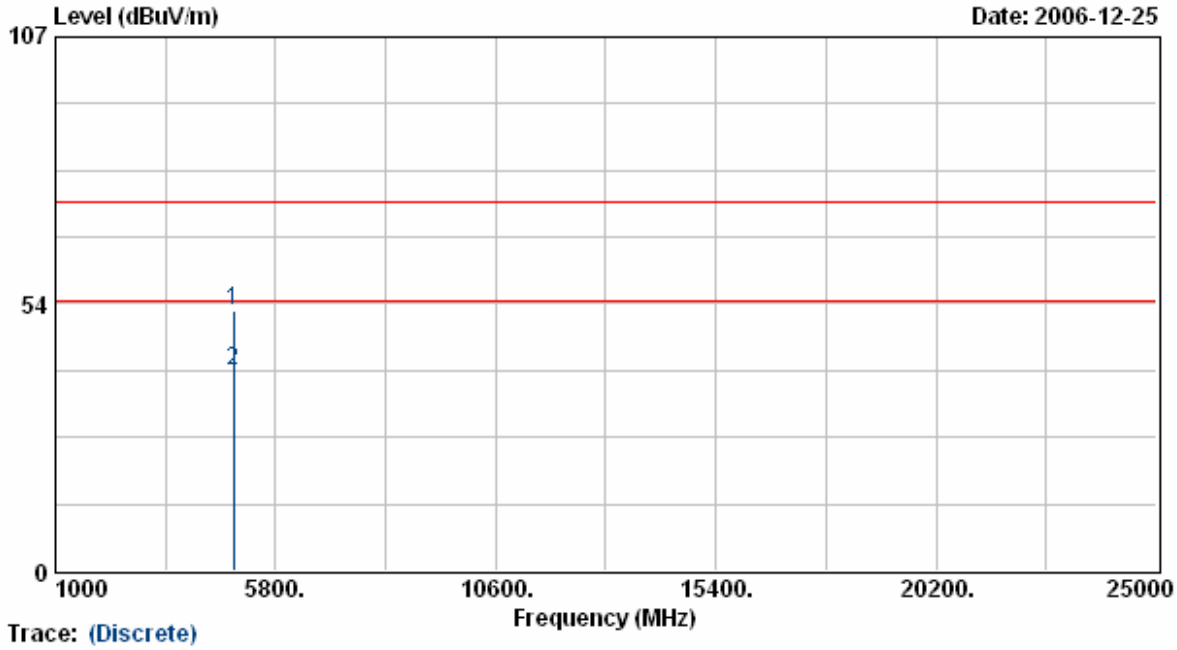

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4824.00 | 42.81 | 8.11 | 50.92 | 74.00 | -23.08 | Peak | 100 | 131 |
| 2 | 4824.00 | 30.76 | 8.11 | 38.87 | 54.00 | -15.13 | Average | 100 | 131 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : HORIZONTAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 6 | Humidity | : 68 % |
| Modulation Type | : 802.11b | Atmospheric Pressure | : 1008 hPa |
| Rate | : 11 Mbps | | |
| Memo | : VE20-120 | | |



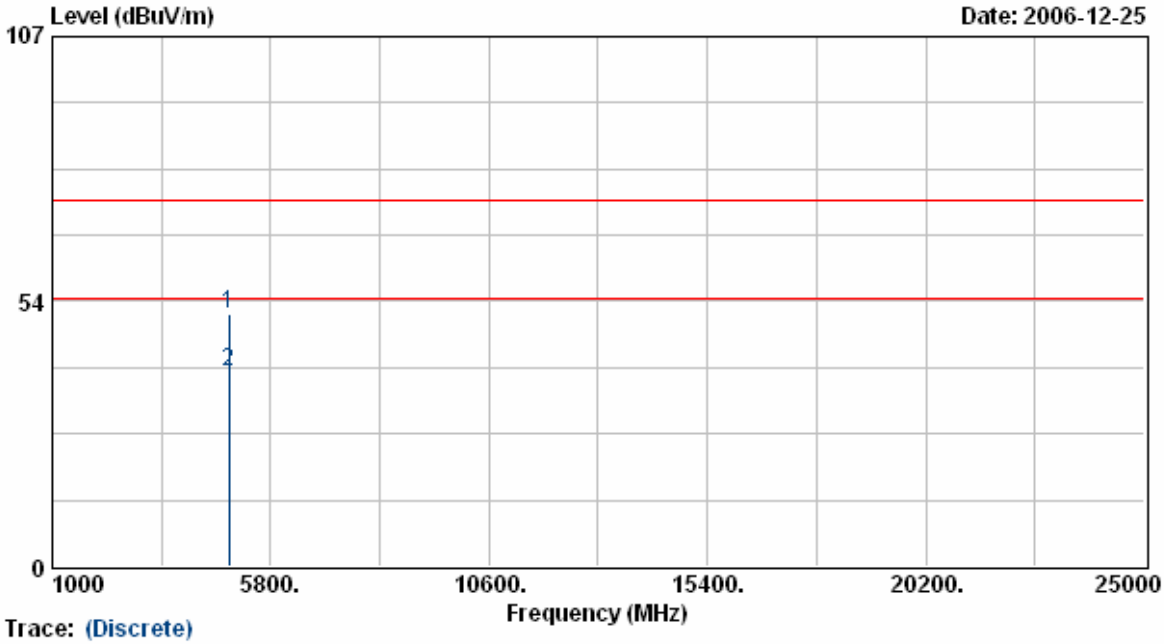

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4874.00 | 43.79 | 8.23 | 52.02 | 74.00 | -21.98 | Peak | 100 | 128 |
| 2 | 4874.00 | 31.84 | 8.23 | 40.07 | 54.00 | -13.93 | Average | 100 | 128 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : VERTICAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 6 | Humidity | : 68 % |
| Modulation Type | : 802.11b | Atmospheric Pressure | : 1008 hPa |
| Rate | : 11 Mbps | | |
| Memo | : VE20-120 | | |



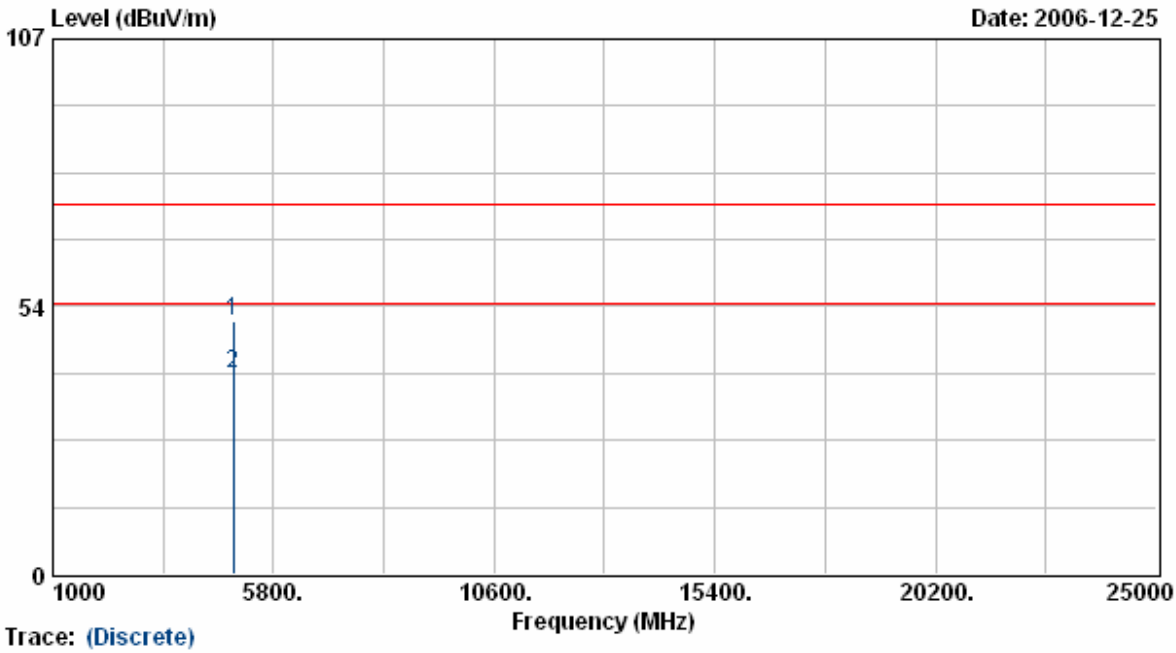

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4874.00 | 42.68 | 8.23 | 50.92 | 74.00 | -23.08 | Peak | 100 | 131 |
| 2 | 4874.00 | 31.00 | 8.23 | 39.23 | 54.00 | -14.77 | Average | 100 | 131 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : HORIZONTAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 11 | Humidity | : 68 % |
| Modulation Type | : 802.11b | Atmospheric Pressure | : 1008 hPa |
| Rate | : 11 Mbps | | |
| Memo | : VE20-120 | | |



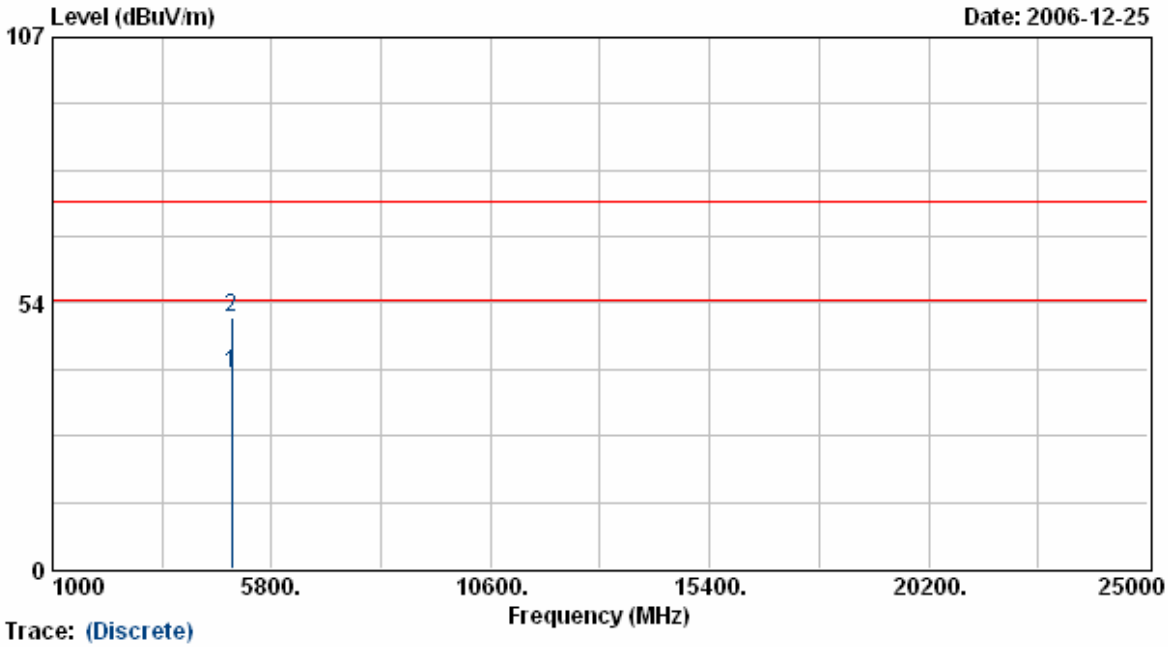

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4924.00 | 42.25 | 8.35 | 50.61 | 74.00 | -23.39 | Peak | 100 | 128 |
| 2 | 4924.00 | 31.76 | 8.35 | 40.11 | 54.00 | -13.89 | Average | 100 | 128 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : VERTICAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 11 | Humidity | : 68 % |
| Modulation Type | : 802.11b | Atmospheric Pressure | : 1008 hPa |
| Rate | : 11 Mbps | | |
| Memo | : VE20-120 | | |



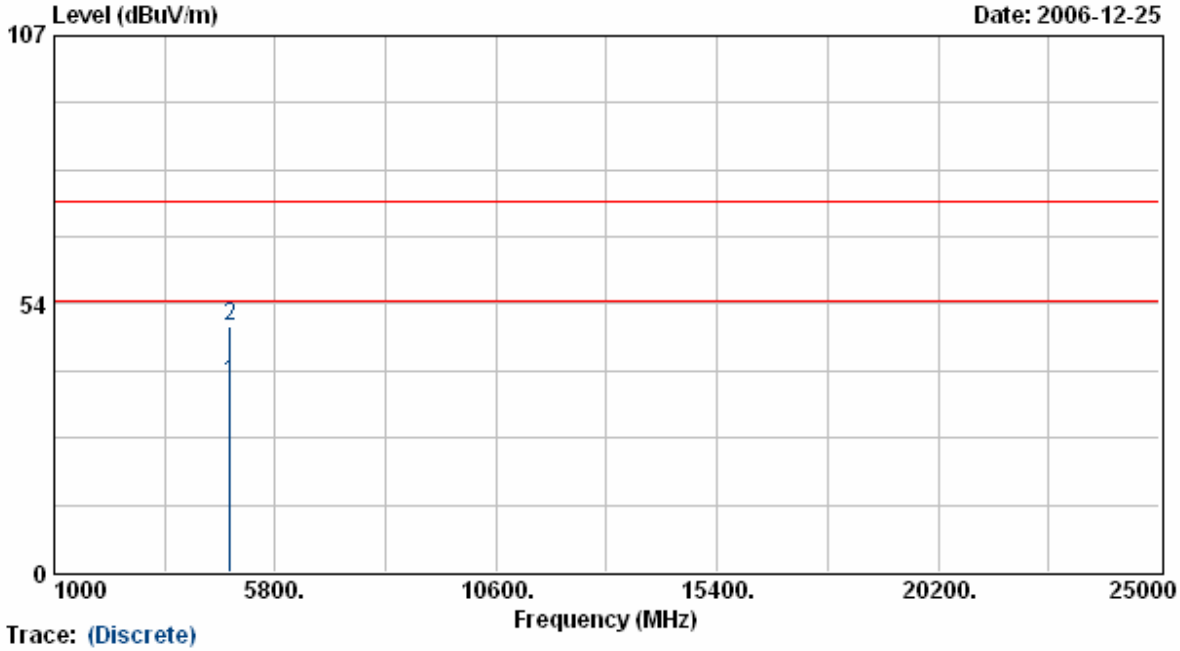

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4924.00 | 30.97 | 8.35 | 39.32 | 54.00 | -14.68 | Average | 100 | 131 |
| 2 | 4924.00 | 42.40 | 8.35 | 50.75 | 74.00 | -23.25 | Peak | 100 | 131 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : HORIZONTAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 1 | Humidity | : 68 % |
| Modulation Type | : 802.11g | Atmospheric Pressure | : 1008 hPa |
| Rate | : 54 Mbps | | |
| Memo | : VE20-120 | | |



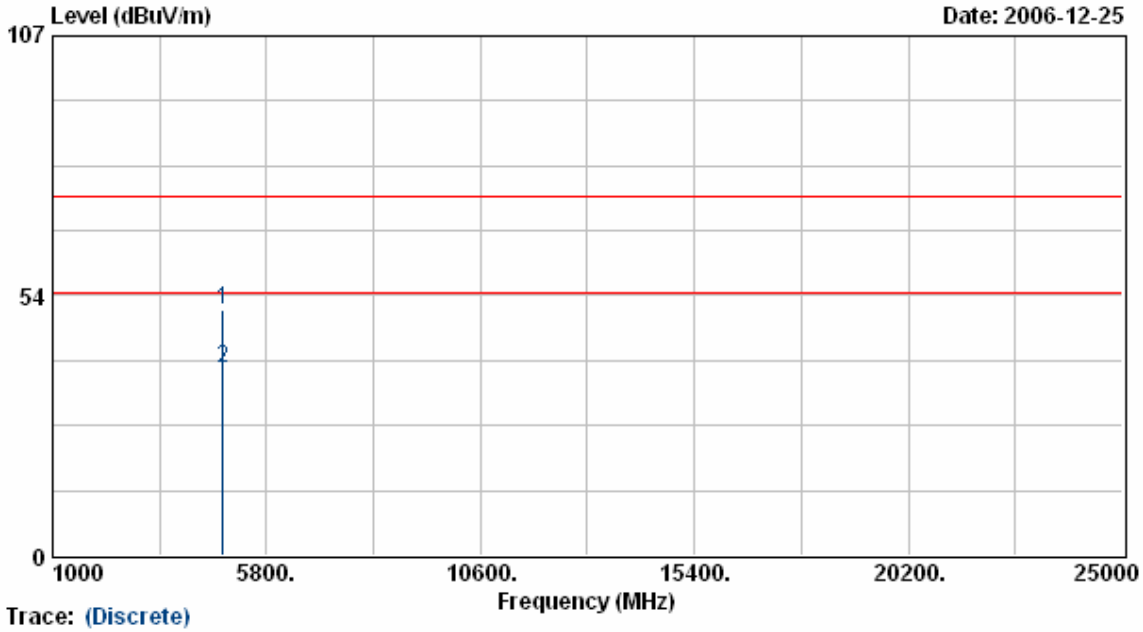

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4822.75 | 29.73 | 8.11 | 37.83 | 54.00 | -16.17 | Average | 100 | 128 |
| 2 | 4822.75 | 40.91 | 8.11 | 49.01 | 74.00 | -24.99 | Peak | 100 | 128 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : VERTICAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 1 | Humidity | : 68 % |
| Modulation Type | : 802.11g | Atmospheric Pressure | : 1008 hPa |
| Rate | : 54 Mbps | | |
| Memo | : VE20-120 | | |



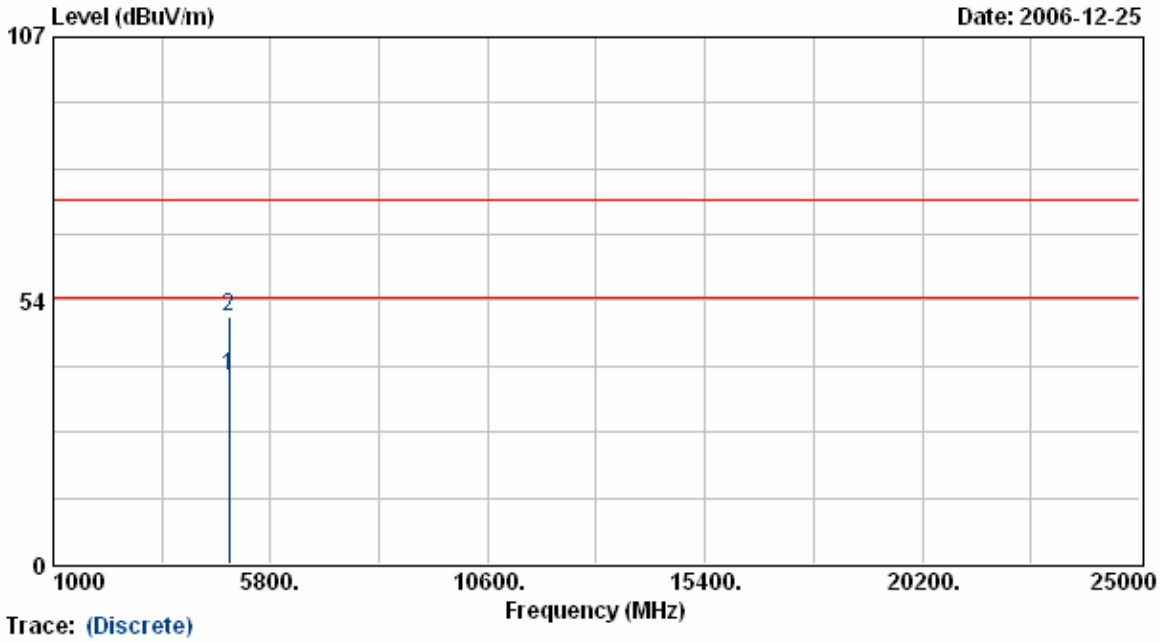

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4825.75 | 42.29 | 8.11 | 50.40 | 74.00 | -23.60 | Peak | 100 | 131 |
| 2 | 4825.75 | 30.34 | 8.11 | 38.45 | 54.00 | -15.55 | Average | 100 | 131 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : HORIZONTAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 6 | Humidity | : 68 % |
| Modulation Type | : 802.11g | Atmospheric Pressure | : 1008 hPa |
| Rate | : 54 Mbps | | |
| Memo | : VE20-120 | | |



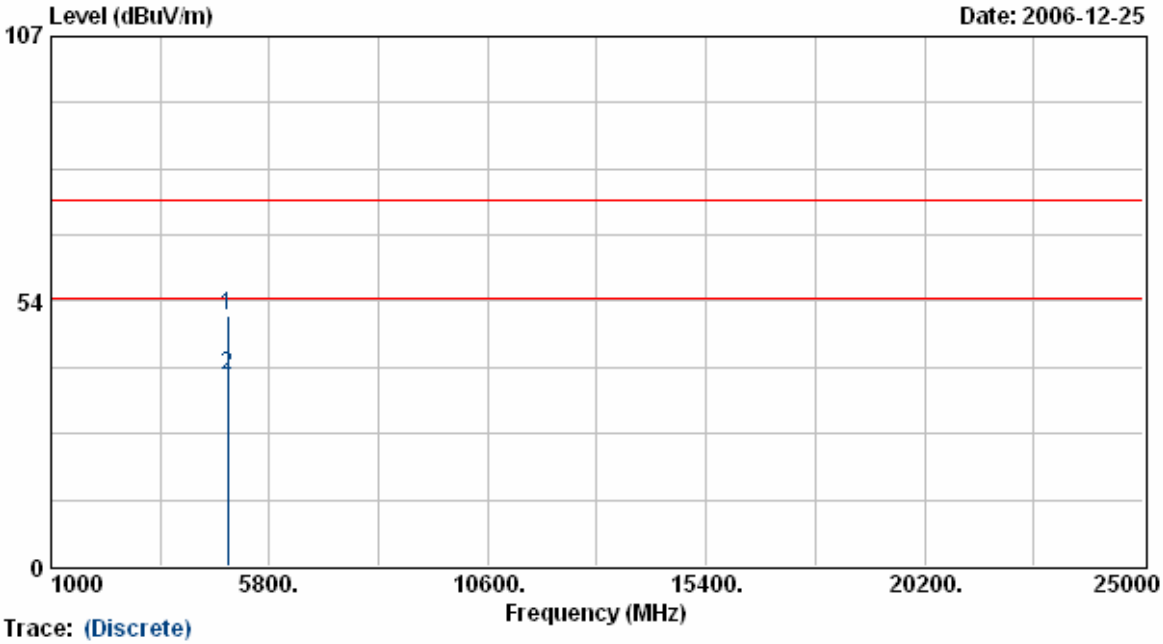

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4873.63 | 29.79 | 8.23 | 38.02 | 54.00 | -15.98 | Average | 100 | 128 |
| 2 | 4873.63 | 41.79 | 8.23 | 50.02 | 74.00 | -23.98 | Peak | 100 | 128 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : VERTICAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 6 | Humidity | : 68 % |
| Modulation Type | : 802.11g | Atmospheric Pressure | : 1008 hPa |
| Rate | : 54 Mbps | | |
| Memo | : VE20-120 | | |



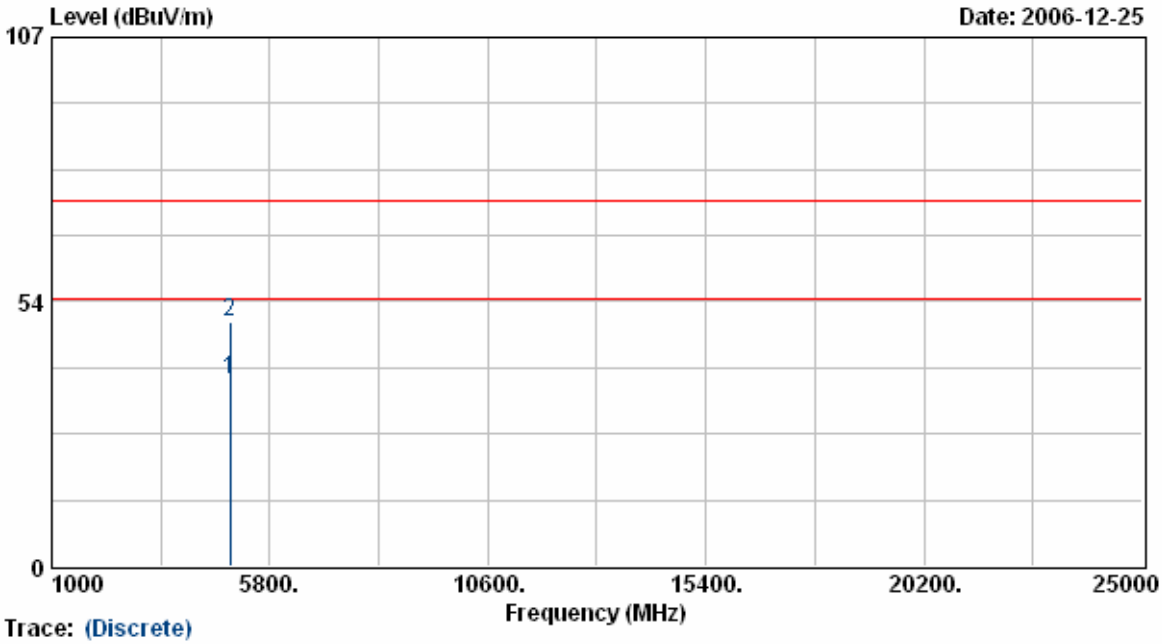

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4875.63 | 42.27 | 8.24 | 50.51 | 74.00 | -23.49 | Peak | 100 | 131 |
| 2 | 4875.63 | 30.39 | 8.24 | 38.62 | 54.00 | -15.38 | Average | 100 | 131 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : HORIZONTAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 11 | Humidity | : 68 % |
| Modulation Type | : 802.11g | Atmospheric Pressure | : 1008 hPa |
| Rate | : 54 Mbps | | |
| Memo | : VE20-120 | | |



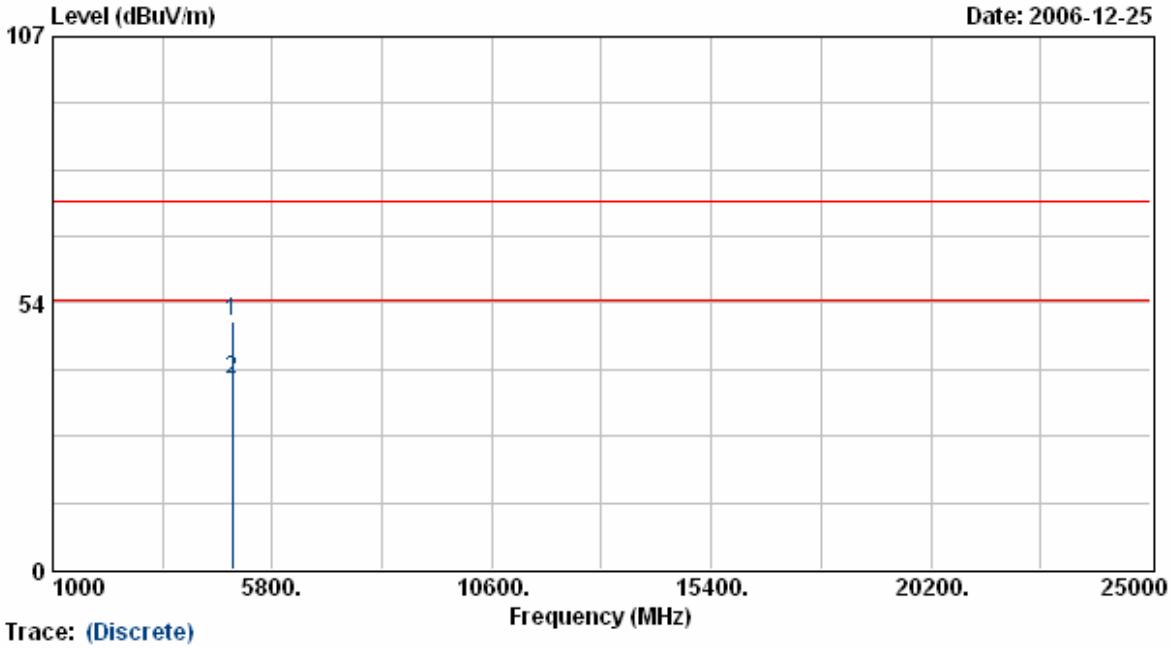

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4923.88 | 29.47 | 8.35 | 37.82 | 54.00 | -16.18 | Average | 100 | 128 |
| 2 | 4923.88 | 41.11 | 8.35 | 49.46 | 74.00 | -24.54 | Peak | 100 | 128 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : VERTICAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 11 | Humidity | : 68 % |
| Modulation Type | : 802.11g | Atmospheric Pressure | : 1008 hPa |
| Rate | : 54 Mbps | | |
| Memo | : VE20-120 | | |



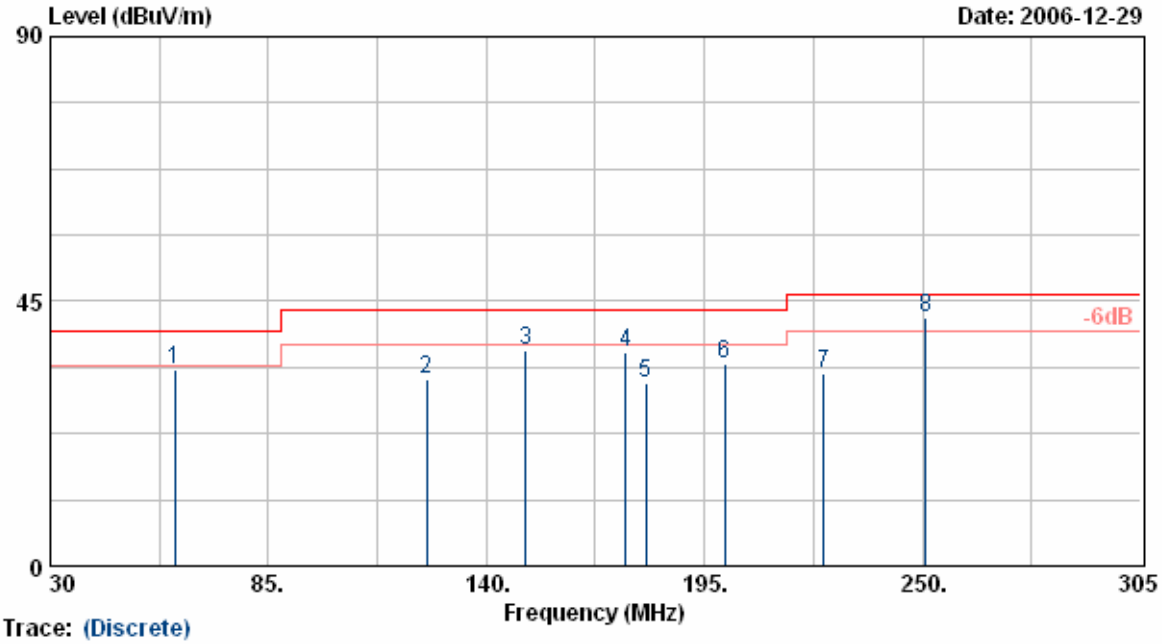

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4924.00 | 41.26 | 8.35 | 49.61 | 74.00 | -24.39 | Peak | 100 | 131 |
| 2 | 4924.00 | 29.72 | 8.35 | 38.07 | 54.00 | -15.93 | Average | 100 | 131 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : HORIZONTAL |
| Test Mode | : Transmit/Receive | Temperature | : 25 ℃ |
| Operation Channel | : 6 | Humidity | : 68 % |
| Modulation Type | : 802.11SUPER G | Atmospheric Pressure | : 1010 hPa |
| Rate | : 108 Mbps | | |
| Memo | : VE20-120 | | |



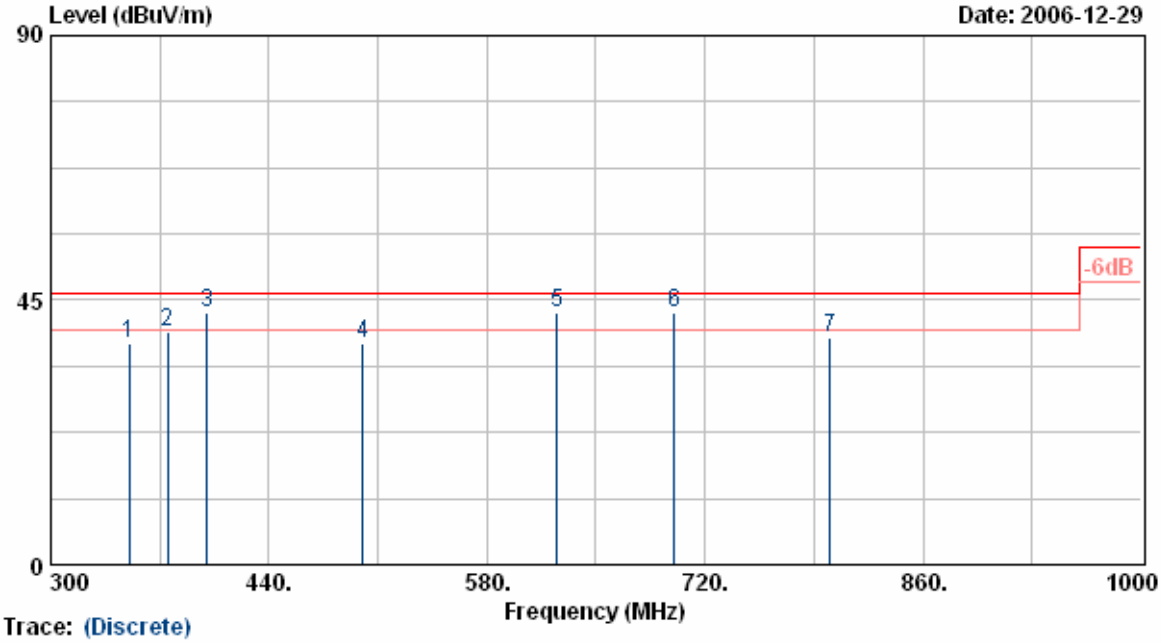

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 61.48 | 54.88 | -21.50 | 33.38 | 40.00 | -6.62 | Peak | 200 | 125 |
| 2 | 125.00 | 47.55 | -15.90 | 31.65 | 43.50 | -11.85 | Peak | 200 | 122 |
| 3 | 150.03 | 53.47 | -16.83 | 36.64 | 43.50 | -6.86 | Peak | 200 | 90 |
| 4 | 175.20 | 54.65 | -18.23 | 36.42 | 43.50 | -7.08 | Peak | 200 | 100 |
| 5 | 180.15 | 49.72 | -18.58 | 31.14 | 43.50 | -12.36 | Peak | 200 | 95 |
| 6 | 200.04 | 52.74 | -18.39 | 34.35 | 43.50 | -9.15 | Peak | 200 | 90 |
| 7 | 225.03 | 50.39 | -17.51 | 32.88 | 46.00 | -13.12 | Peak | 200 | 110 |
| 8 | 250.83 | 56.50 | -14.31 | 42.19 | 46.00 | -3.81 | QP | 200 | 109 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
5. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
6. The data is worse case.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : HORIZONTAL |
| Test Mode | : Transmit/Receive | Temperature | : 25 ℃ |
| Operation Channel | : 6 | Humidity | : 68 % |
| Modulation Type | : 802.11SUPER G | Atmospheric Pressure | : 1010 hPa |
| Rate | : 108 Mbps | | |
| Memo | : VE20-120 | | |



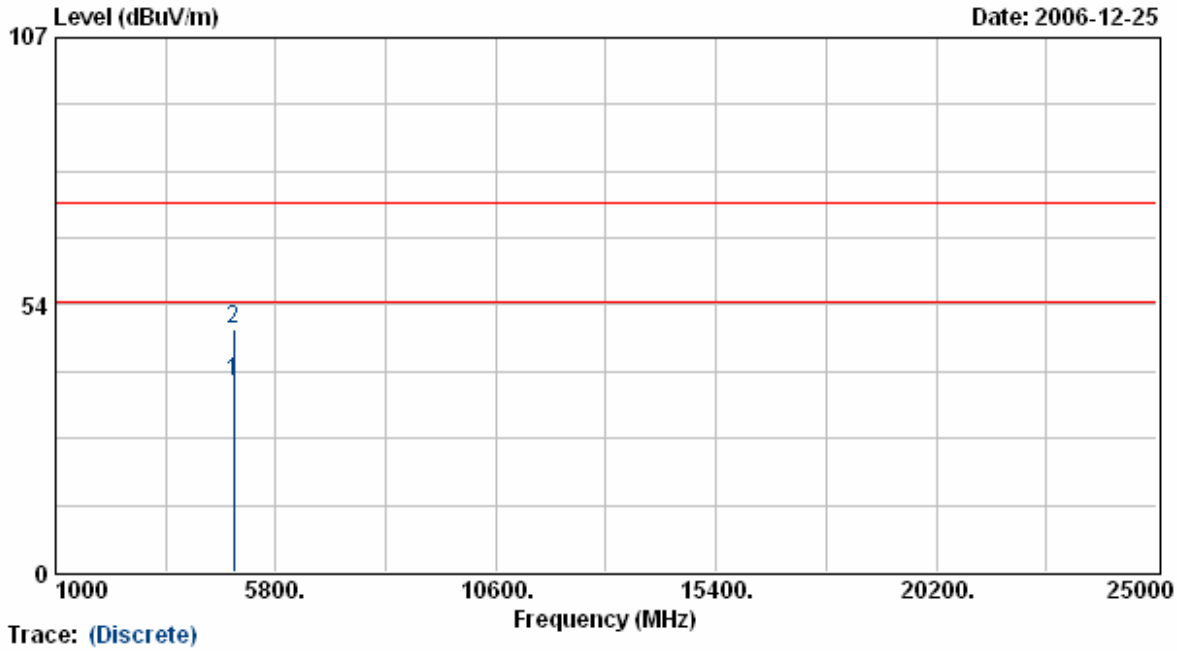

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 350.00 | 49.83 | -12.07 | 37.76 | 46.00 | -8.24 | Peak | 200 | 220 |
| 2 | 375.00 | 51.11 | -11.35 | 39.76 | 46.00 | -6.24 | Peak | 200 | 215 |
| 3 | 400.02 | 53.53 | -10.63 | 42.90 | 46.00 | -3.10 | QP | 200 | 200 |
| 4 | 500.21 | 44.89 | -7.17 | 37.72 | 46.00 | -8.28 | Peak | 200 | 200 |
| 5 | 625.03 | 47.10 | -4.31 | 42.79 | 46.00 | -3.21 | QP | 200 | 202 |
| 6 | 700.21 | 46.17 | -3.41 | 42.76 | 46.00 | -3.24 | QP | 200 | 250 |
| 7 | 800.50 | 41.09 | -2.47 | 38.62 | 46.00 | -7.38 | Peak | 200 | 204 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
5. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
6. The data is worse case.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : HORIZONTAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 6 | Humidity | : 68 % |
| Modulation Type | : 802.11sg | Atmospheric Pressure | : 1008 hPa |
| Rate | : 108 Mbps | | |
| Memo | : VE20-120 | | |



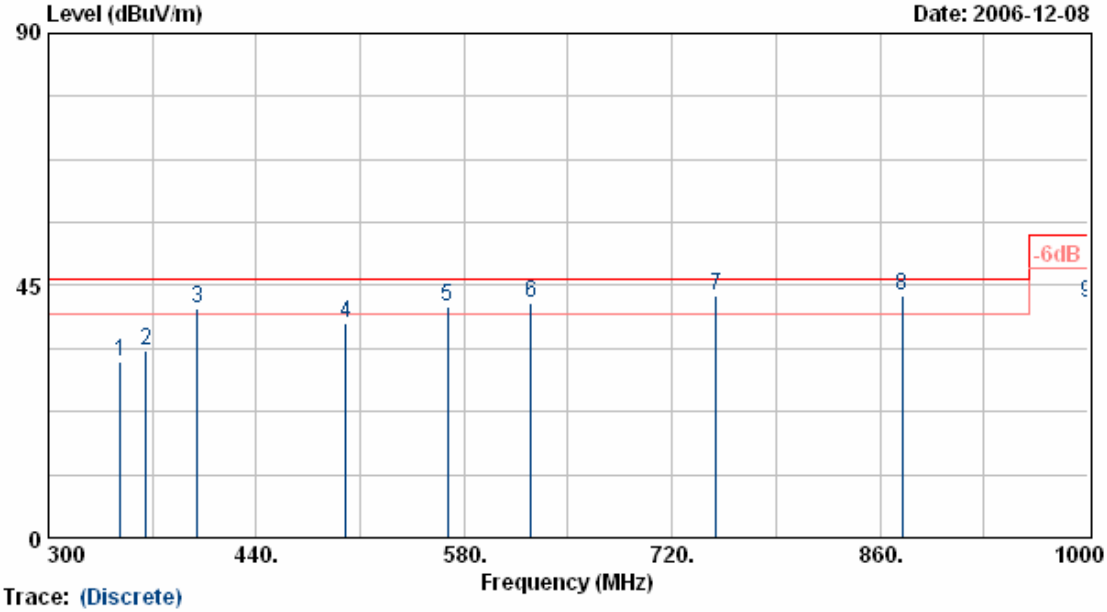

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4873.75 | 29.99 | 8.23 | 38.22 | 54.00 | -15.78 | Average | 100 | 128 |
| 2 | 4873.75 | 40.42 | 8.23 | 48.65 | 74.00 | -25.35 | Peak | 100 | 128 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL17-049 | | |
| Power | : AC 120V | Pol/Phase | : VERTICAL |
| Test Mode | : Transmit/Receive | Temperature | : 25 ℃ |
| Operation Channel | : 6 | Humidity | : 68 % |
| Modulation Type | : 802.11SUPER G | Atmospheric Pressure | : 1010 hPa |
| Rate | : 108 Mbps | | |
| Memo | : VE20-120 | | |



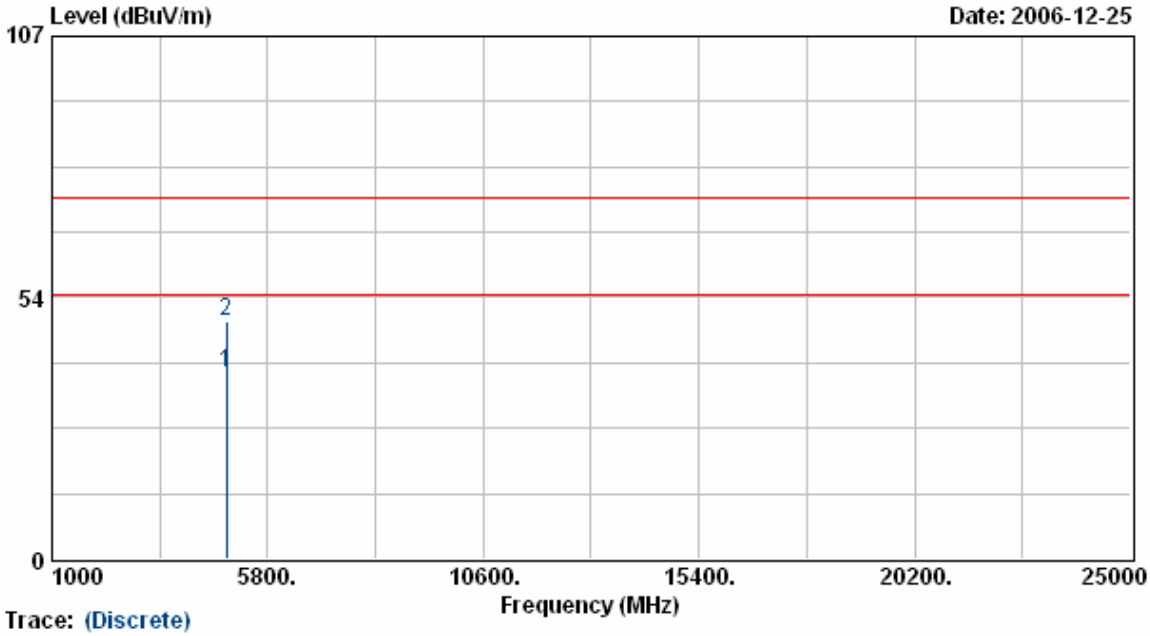

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 348.30 | 43.45 | -12.13 | 31.32 | 46.00 | -14.68 | Peak | 100 | 0 |
| 2 | 365.80 | 44.99 | -11.62 | 33.37 | 46.00 | -12.63 | Peak | 100 | 10 |
| 3 | 400.04 | 51.56 | -10.63 | 40.93 | 46.00 | -5.07 | QP | 100 | 172 |
| 4 | 500.05 | 45.33 | -7.18 | 38.15 | 46.00 | -7.85 | Peak | 100 | 169 |
| 5 | 568.80 | 46.45 | -5.07 | 41.38 | 46.00 | -4.62 | QP | 100 | 100 |
| 6 | 624.80 | 46.08 | -4.31 | 41.77 | 46.00 | -4.23 | QP | 100 | 81 |
| 7 | 749.98 | 45.17 | -1.99 | 43.18 | 46.00 | -2.82 | QP | 100 | 81 |
| 8 | 874.99 | 44.16 | -1.09 | 43.07 | 46.00 | -2.93 | QP | 100 | 106 |
| 9 | 999.99 | 41.66 | 0.10 | 41.76 | 54.00 | -12.24 | Peak | 100 | 185 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
5. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
6. The data is worse case.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : HORIZONTAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 6 | Humidity | : 68 % |
| Modulation Type | : 802.11sg | Atmospheric Pressure | : 1008 hPa |
| Rate | : 108 Mbps | | |
| Memo | : VE20-120 | | |



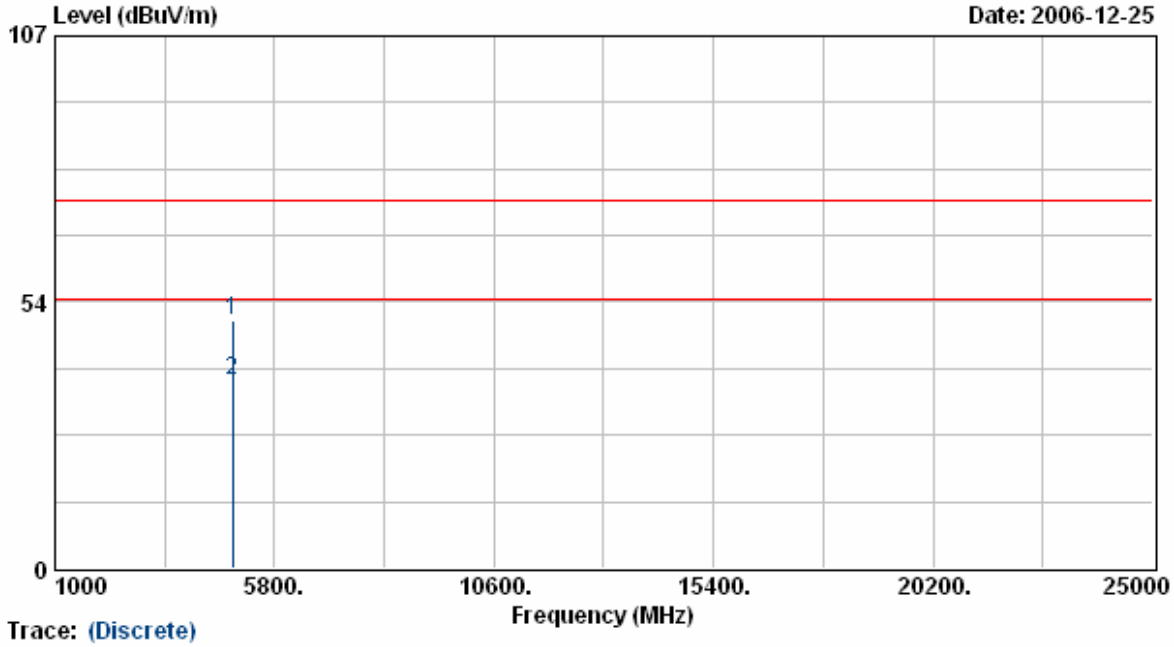

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4873.75 | 29.99 | 8.23 | 38.22 | 54.00 | -15.78 | Average | 100 | 128 |
| 2 | 4873.75 | 40.42 | 8.23 | 48.65 | 74.00 | -25.35 | Peak | 100 | 128 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : VERTICAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 6 | Humidity | : 68 % |
| Modulation Type | : 802.11sg | Atmospheric Pressure | : 1008 hPa |
| Rate | : 108 Mbps | | |
| Memo | : VE20-120 | | |




Trace: (Discrete)

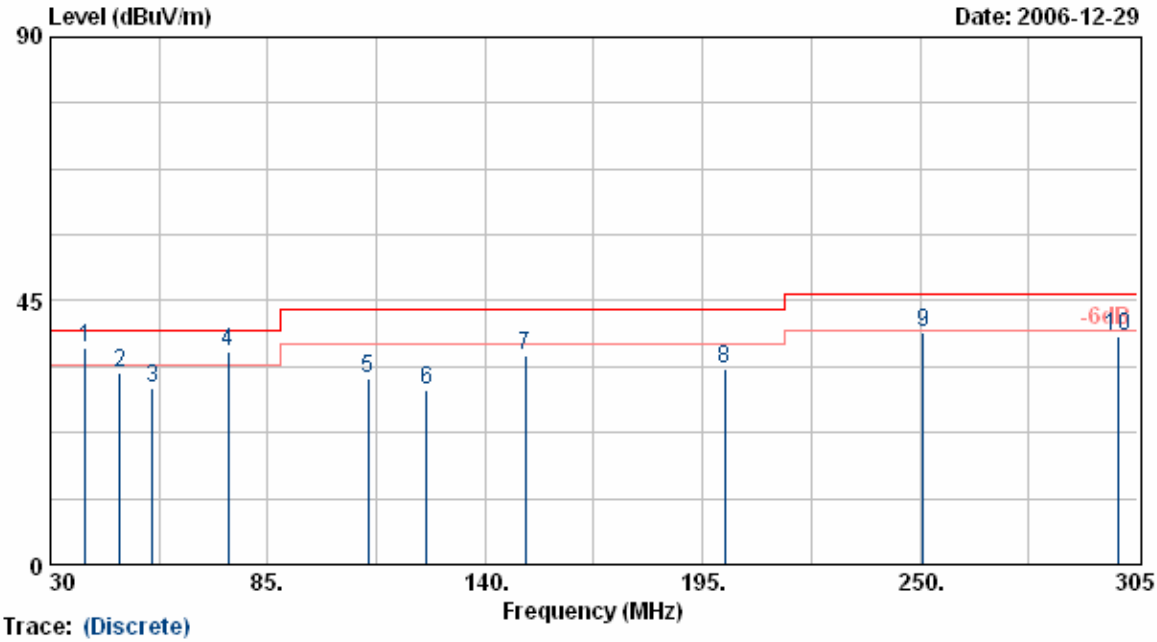
| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4874.00 | 41.69 | 8.23 | 49.93 | 74.00 | -24.07 | Peak | 100 | 131 |
| 2 | 4874.00 | 29.67 | 8.23 | 37.90 | 54.00 | -16.10 | Average | 100 | 131 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

Test Adapter 3:

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : HORIZONTAL |
| Test Mode | : Transmit/Receive | Temperature | : 25 ℃ |
| Operation Channel | : 1 | Humidity | : 68 % |
| Modulation Type | : 802.11g | Atmospheric Pressure | : 1010 hPa |
| Rate | : 54 Mbps | | |
| Memo | : NU20-8120166-I1 | | |



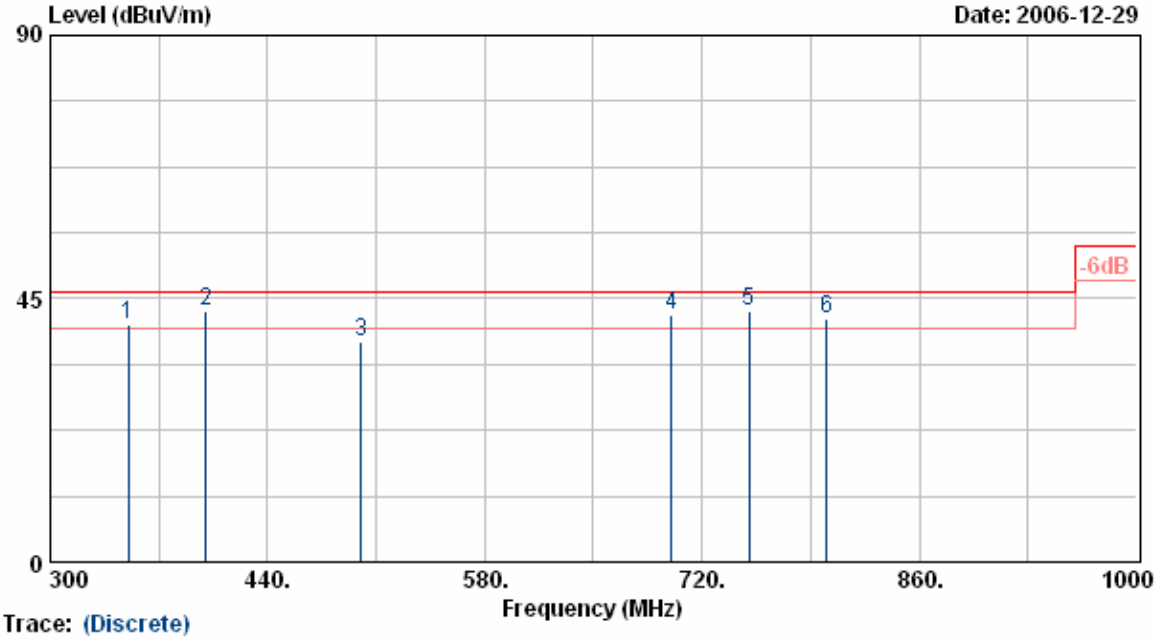

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 38.80 | 49.52 | -12.58 | 36.94 | 40.00 | -3.06 | QP | 200 | 129 |
| 2 | 47.60 | 50.44 | -17.82 | 32.62 | 40.00 | -7.38 | Peak | 200 | 152 |
| 3 | 55.85 | 50.39 | -20.41 | 29.98 | 40.00 | -10.02 | Peak | 200 | 148 |
| 4 | 75.02 | 56.82 | -20.49 | 36.33 | 40.00 | -3.67 | QP | 200 | 100 |
| 5 | 110.30 | 48.62 | -16.71 | 31.91 | 43.50 | -11.59 | Peak | 200 | 0 |
| 6 | 125.15 | 45.75 | -15.91 | 29.84 | 43.50 | -13.66 | Peak | 200 | 122 |
| 7 | 150.04 | 52.65 | -16.83 | 35.82 | 43.50 | -7.68 | Peak | 200 | 87 |
| 8 | 200.50 | 51.68 | -18.40 | 33.28 | 43.50 | -10.22 | Peak | 200 | 95 |
| 9 | 250.83 | 53.95 | -14.31 | 39.64 | 46.00 | -6.36 | Peak | 200 | 100 |
| 10 | 300.02 | 52.74 | -13.69 | 39.05 | 46.00 | -6.95 | Peak | 200 | 111 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
5. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
6. The data is worse case.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : HORIZONTAL |
| Test Mode | : Transmit/Receive | Temperature | : 25 ℃ |
| Operation Channel | : 1 | Humidity | : 68 % |
| Modulation Type | : 802.11g | Atmospheric Pressure | : 1010 hPa |
| Rate | : 54 Mbps | | |
| Memo | : NU20-8120166-I1 | | |



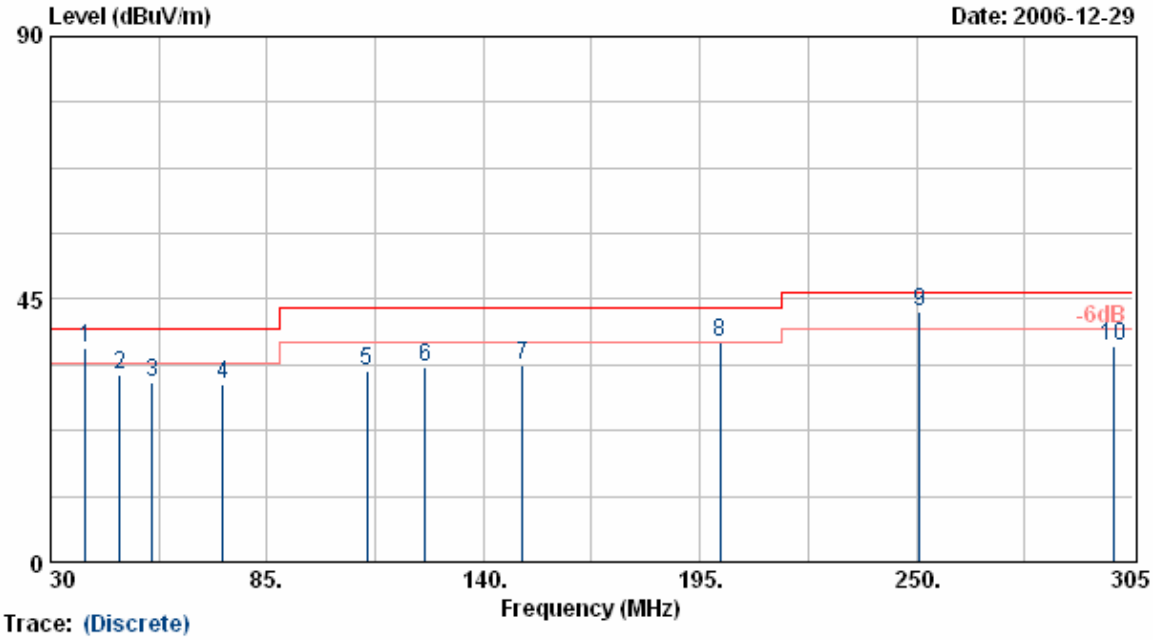

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 350.02 | 52.71 | -12.07 | 40.64 | 46.00 | -5.36 | QP | 200 | 222 |
| 2 | 400.02 | 53.47 | -10.63 | 42.84 | 46.00 | -3.16 | QP | 200 | 216 |
| 3 | 500.21 | 44.82 | -7.17 | 37.65 | 46.00 | -8.35 | Peak | 200 | 200 |
| 4 | 700.00 | 45.62 | -3.42 | 42.20 | 46.00 | -3.80 | QP | 200 | 252 |
| 5 | 750.10 | 44.97 | -1.99 | 42.98 | 46.00 | -3.02 | QP | 200 | 240 |
| 6 | 800.50 | 43.95 | -2.47 | 41.48 | 46.00 | -4.52 | QP | 200 | 200 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
5. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
6. The data is worse case.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : VERTICAL |
| Test Mode | : Transmit/Receive | Temperature | : 25 ℃ |
| Operation Channel | : 1 | Humidity | : 68 % |
| Modulation Type | : 802.11g | Atmospheric Pressure | : 1010 hPa |
| Rate | : 54 Mbps | | |
| Memo | : NU20-8120166-I1 | | |



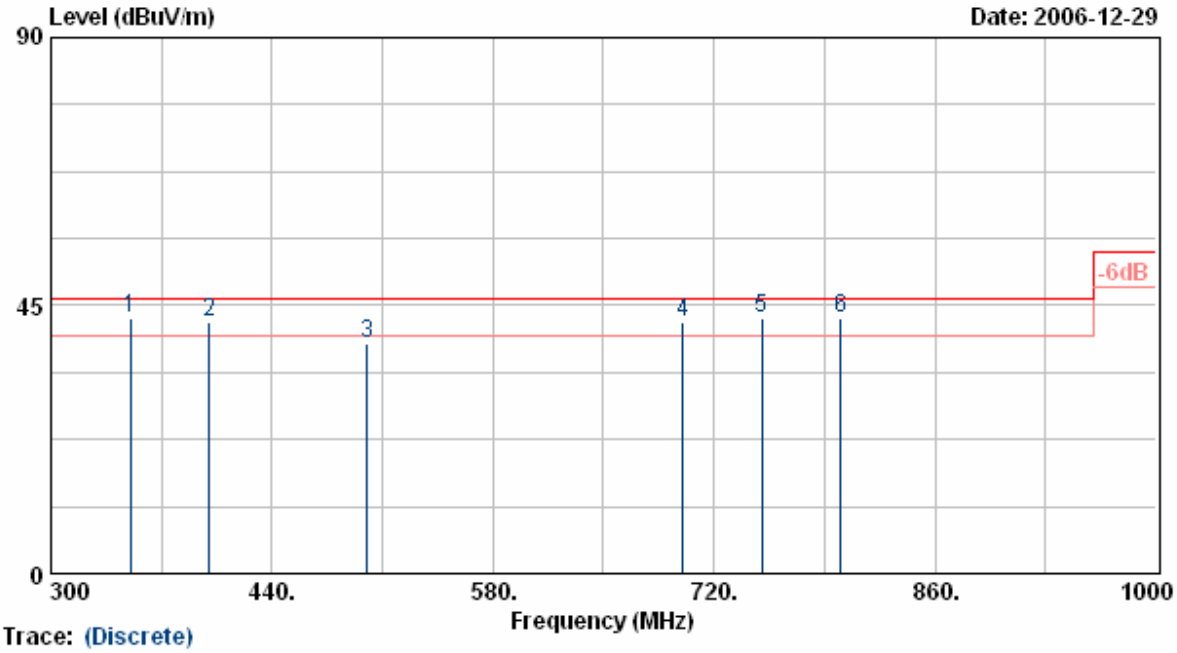

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 38.80 | 49.26 | -12.58 | 36.68 | 40.00 | -3.32 | QP | 100 | 188 |
| 2 | 47.62 | 49.85 | -17.83 | 32.02 | 40.00 | -7.98 | Peak | 100 | 202 |
| 3 | 55.87 | 51.18 | -20.41 | 30.77 | 40.00 | -9.23 | Peak | 100 | 126 |
| 4 | 73.80 | 50.98 | -20.65 | 30.33 | 40.00 | -9.67 | Peak | 100 | 82 |
| 5 | 110.30 | 49.52 | -16.71 | 32.81 | 43.50 | -10.69 | Peak | 100 | 152 |
| 6 | 125.15 | 49.35 | -15.91 | 33.44 | 43.50 | -10.06 | Peak | 100 | 214 |
| 7 | 150.00 | 50.38 | -16.83 | 33.55 | 43.50 | -9.95 | Peak | 100 | 205 |
| 8 | 200.03 | 56.17 | -18.39 | 37.78 | 43.50 | -5.72 | QP | 100 | 200 |
| 9 | 250.83 | 57.24 | -14.31 | 42.93 | 46.00 | -3.07 | QP | 100 | 262 |
| 10 | 300.01 | 50.69 | -13.69 | 37.00 | 46.00 | -9.00 | Peak | 100 | 270 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
5. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
6. The data is worse case.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : VERTICAL |
| Test Mode | : Transmit/Receive | Temperature | : 25 ℃ |
| Operation Channel | : 1 | Humidity | : 68 % |
| Modulation Type | : 802.11g | Atmospheric Pressure | : 1010 hPa |
| Rate | : 54 Mbps | | |
| Memo | : NU20-8120166-I1 | | |



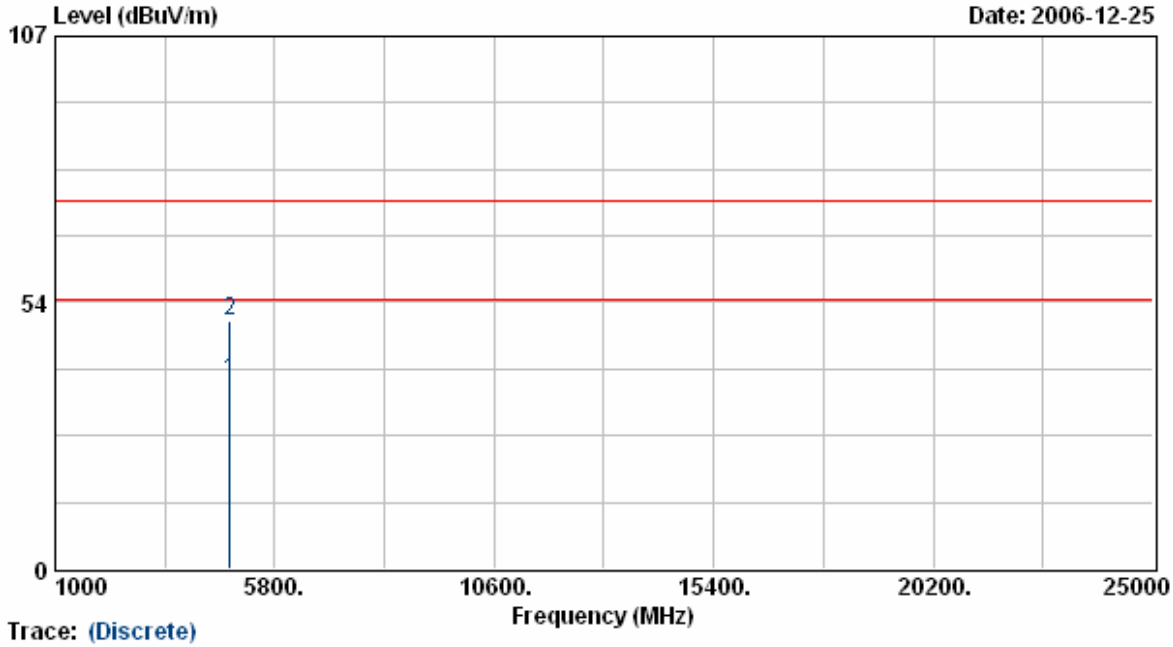

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 350.00 | 54.87 | -12.07 | 42.80 | 46.00 | -3.20 | QP | 100 | 222 |
| 2 | 400.02 | 52.95 | -10.63 | 42.32 | 46.00 | -3.68 | QP | 100 | 216 |
| 3 | 500.21 | 45.72 | -7.17 | 38.55 | 46.00 | -7.45 | Peak | 100 | 200 |
| 4 | 700.00 | 45.79 | -3.42 | 42.37 | 46.00 | -3.63 | QP | 100 | 252 |
| 5 | 750.10 | 44.83 | -1.99 | 42.84 | 46.00 | -3.16 | QP | 100 | 240 |
| 6 | 800.50 | 45.41 | -2.47 | 42.94 | 46.00 | -3.06 | QP | 100 | 200 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
5. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
6. The data is worse case.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : HORIZONTAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 1 | Humidity | : 68 % |
| Modulation Type | : 802.11b | Atmospheric Pressure | : 1008 hPa |
| Rate | : 11 Mbps | | |
| Memo | : NU20-8120166-I1 | | |



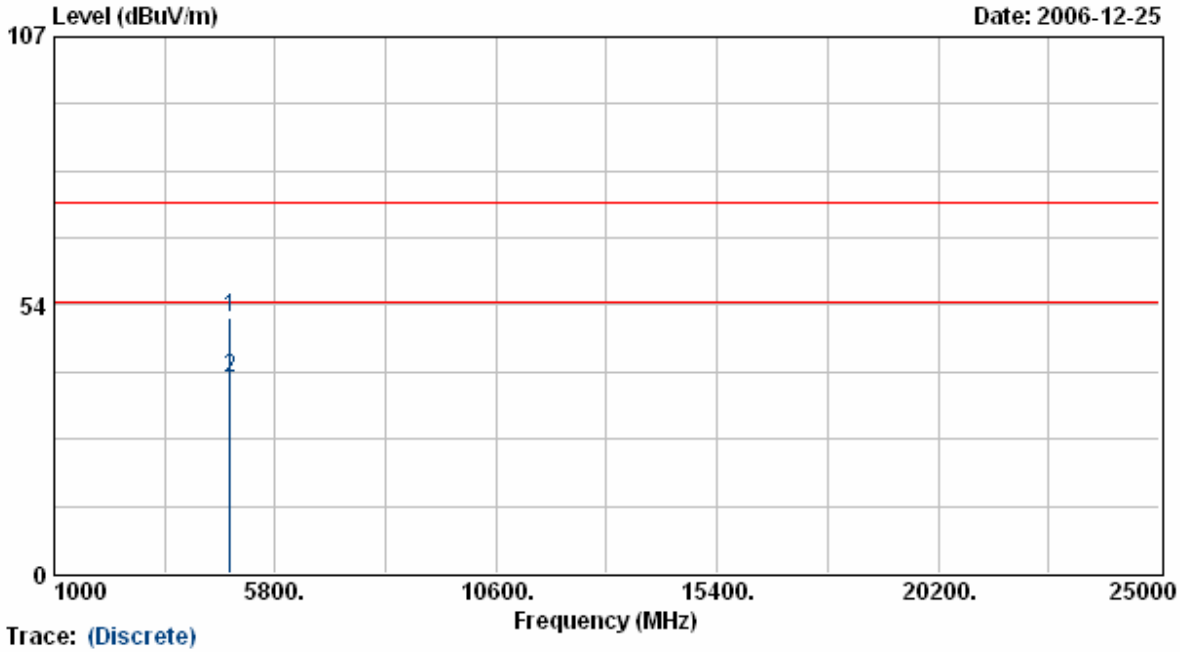

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4823.63 | 29.68 | 8.11 | 37.79 | 54.00 | -16.21 | Average | 100 | 128 |
| 2 | 4823.63 | 41.73 | 8.11 | 49.84 | 74.00 | -24.16 | Peak | 100 | 128 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : VERTICAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 1 | Humidity | : 68 % |
| Modulation Type | : 802.11b | Atmospheric Pressure | : 1008 hPa |
| Rate | : 11 Mbps | | |
| Memo | : NU20-8120166-I1 | | |



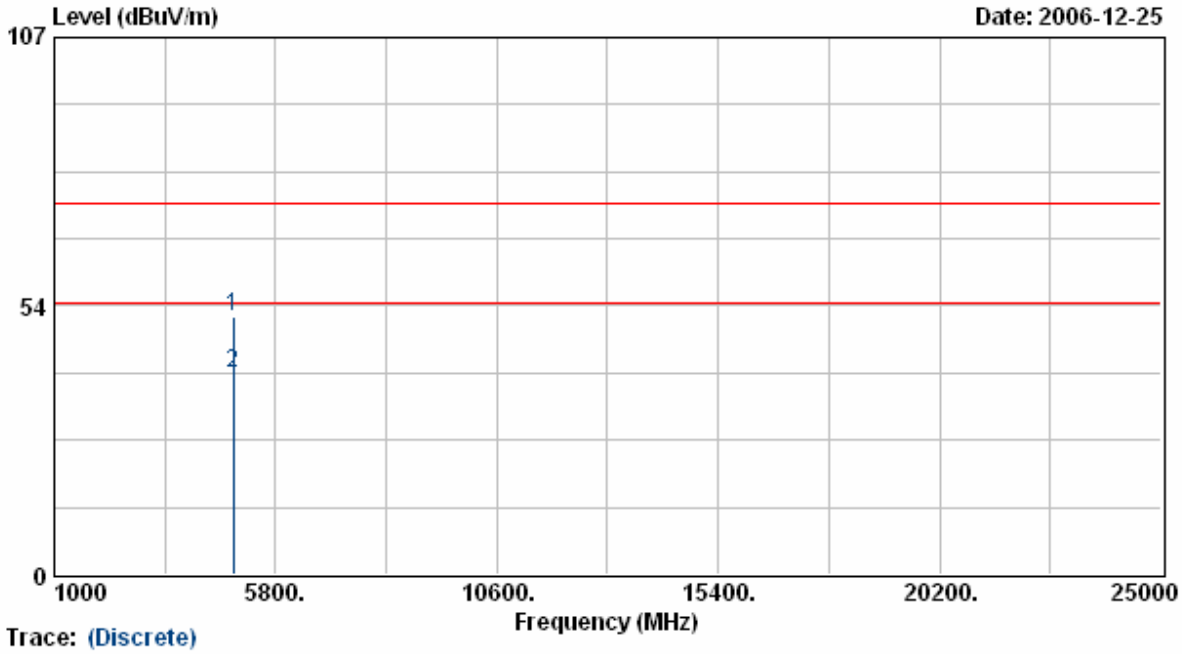

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4824.00 | 42.83 | 8.11 | 50.94 | 74.00 | -23.06 | Peak | 100 | 131 |
| 2 | 4824.00 | 30.71 | 8.11 | 38.82 | 54.00 | -15.18 | Average | 100 | 131 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : HORIZONTAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 6 | Humidity | : 68 % |
| Modulation Type | : 802.11b | Atmospheric Pressure | : 1008 hPa |
| Rate | : 11 Mbps | | |
| Memo | : NU20-8120166-I1 | | |



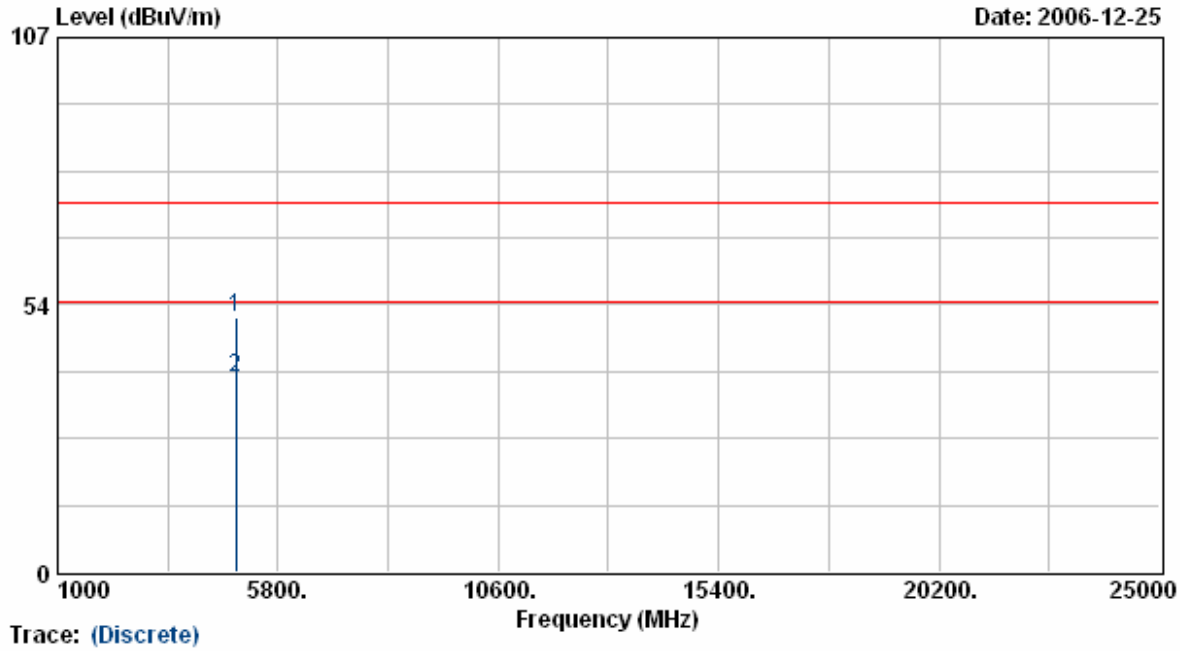

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4874.00 | 43.28 | 8.23 | 51.51 | 74.00 | -22.49 | Peak | 100 | 128 |
| 2 | 4874.00 | 31.82 | 8.23 | 40.06 | 54.00 | -13.94 | Average | 100 | 128 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : VERTICAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 6 | Humidity | : 68 % |
| Modulation Type | : 802.11b | Atmospheric Pressure | : 1008 hPa |
| Rate | : 11 Mbps | | |
| Memo | : NU20-8120166-I1 | | |



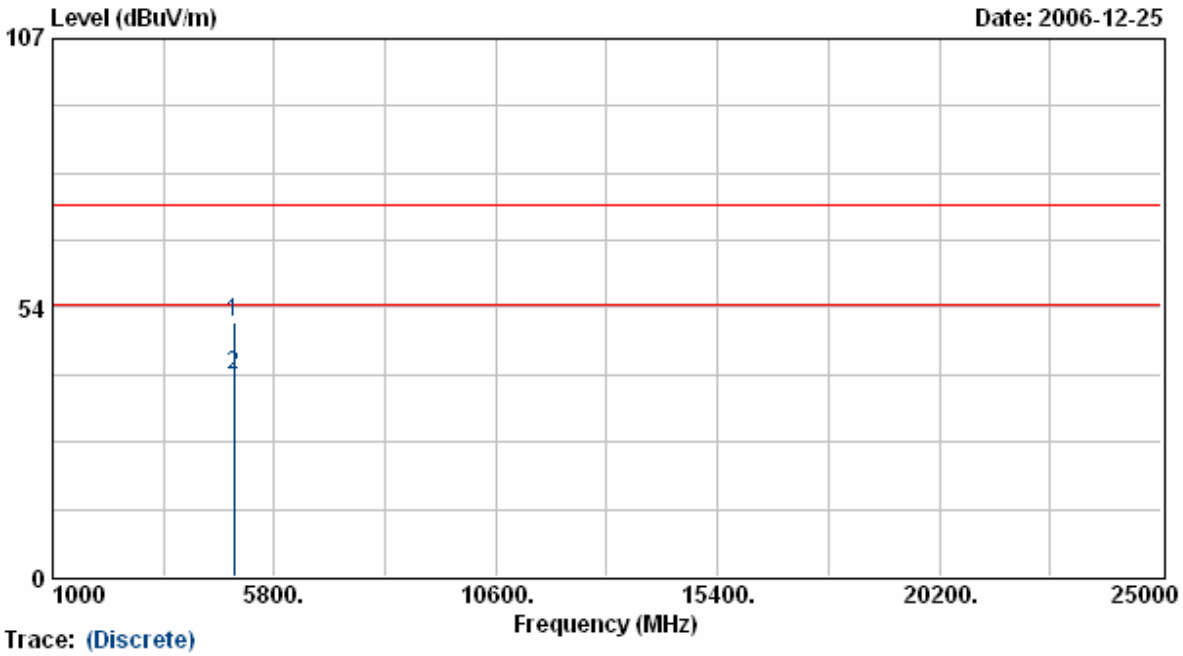

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4874.00 | 42.64 | 8.23 | 50.87 | 74.00 | -23.13 | Peak | 100 | 131 |
| 2 | 4874.00 | 30.80 | 8.23 | 39.03 | 54.00 | -14.97 | Average | 100 | 131 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : HORIZONTAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 11 | Humidity | : 68 % |
| Modulation Type | : 802.11b | Atmospheric Pressure | : 1008 hPa |
| Rate | : 11 Mbps | | |
| Memo | : NU20-8120166-I1 | | |



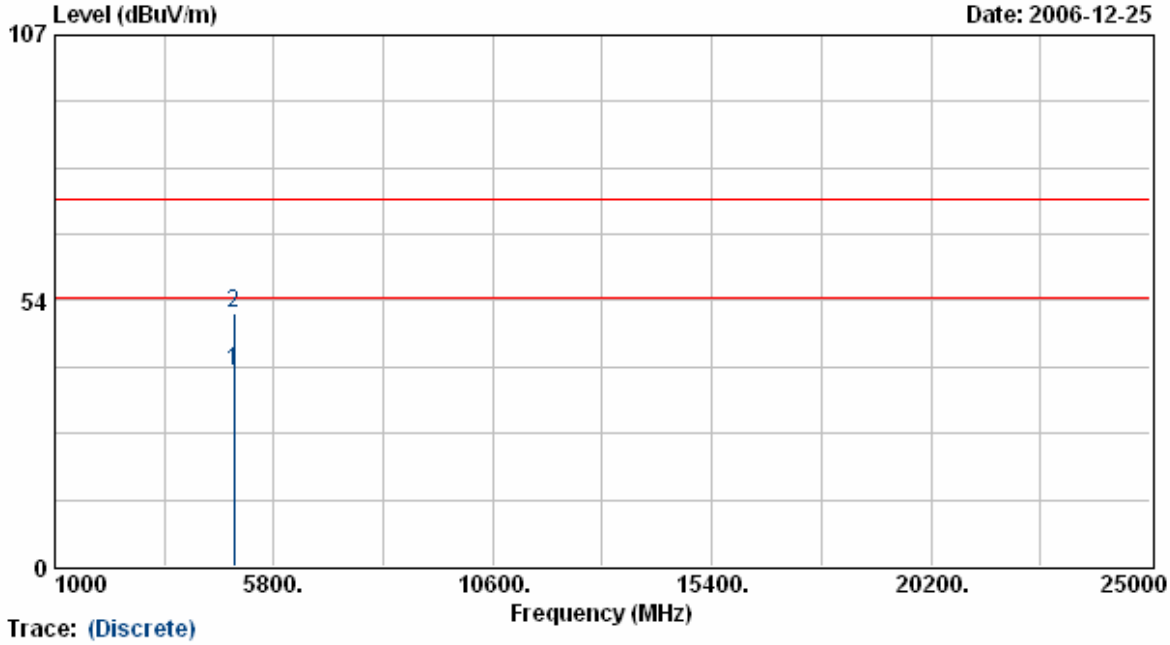

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4924.00 | 42.21 | 8.35 | 50.56 | 74.00 | -23.44 | Peak | 100 | 128 |
| 2 | 4924.00 | 31.80 | 8.35 | 40.15 | 54.00 | -13.85 | Average | 100 | 128 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : VERTICAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 11 | Humidity | : 68 % |
| Modulation Type | : 802.11b | Atmospheric Pressure | : 1008 hPa |
| Rate | : 11 Mbps | | |
| Memo | : NU20-8120166-I1 | | |

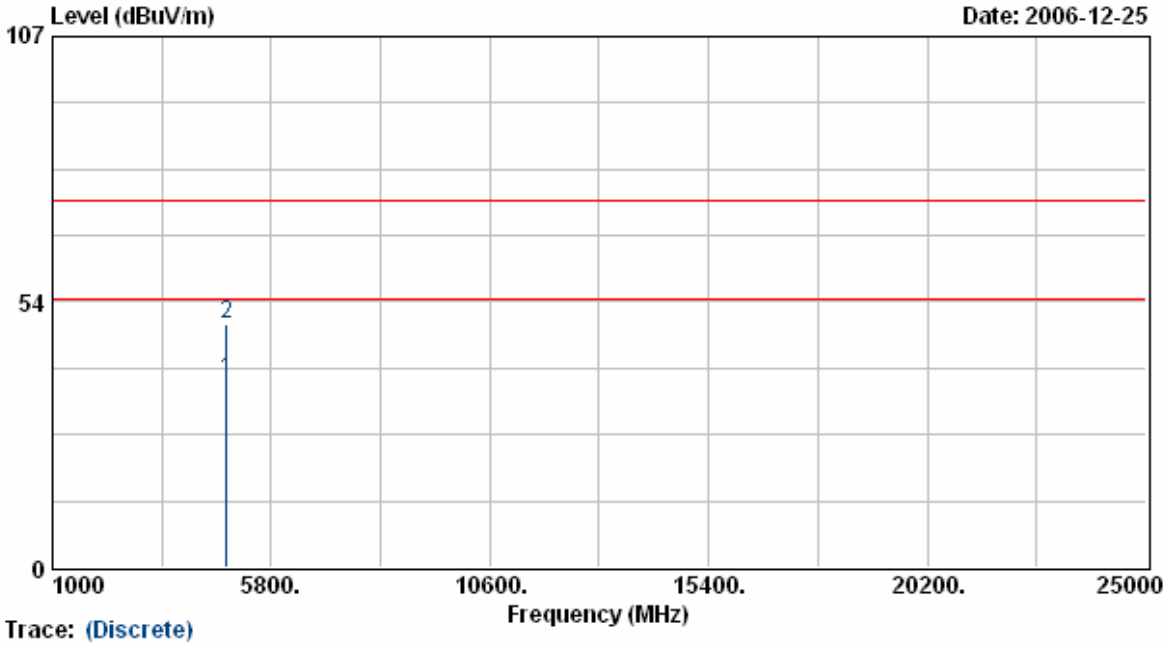



| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4924.00 | 30.92 | 8.35 | 39.27 | 54.00 | -14.73 | Average | 100 | 131 |
| 2 | 4924.00 | 42.47 | 8.35 | 50.82 | 74.00 | -23.18 | Peak | 100 | 131 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : HORIZONTAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 1 | Humidity | : 68 % |
| Modulation Type | : 802.11g | Atmospheric Pressure | : 1008 hPa |
| Rate | : 54 Mbps | | |
| Memo | : NU20-8120166-I1 | | |



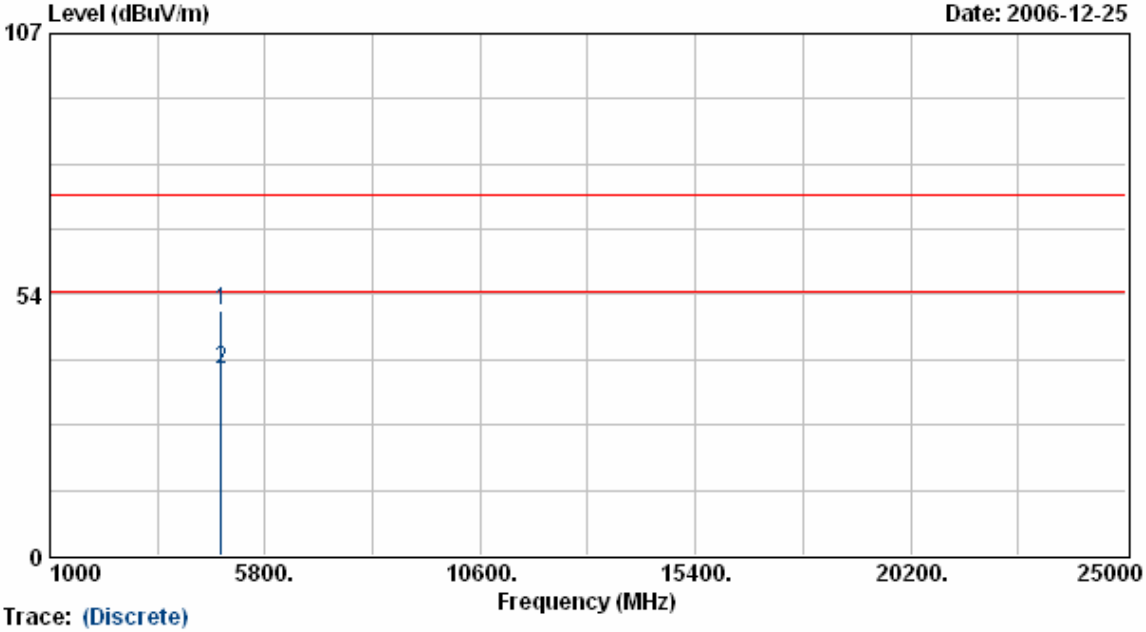

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4822.75 | 29.73 | 8.11 | 37.84 | 54.00 | -16.16 | Average | 100 | 128 |
| 2 | 4822.75 | 40.93 | 8.11 | 49.04 | 74.00 | -24.96 | Peak | 100 | 128 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : VERTICAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 1 | Humidity | : 68 % |
| Modulation Type | : 802.11g | Atmospheric Pressure | : 1008 hPa |
| Rate | : 54 Mbps | | |
| Memo | : NU20-8120166-I1 | | |



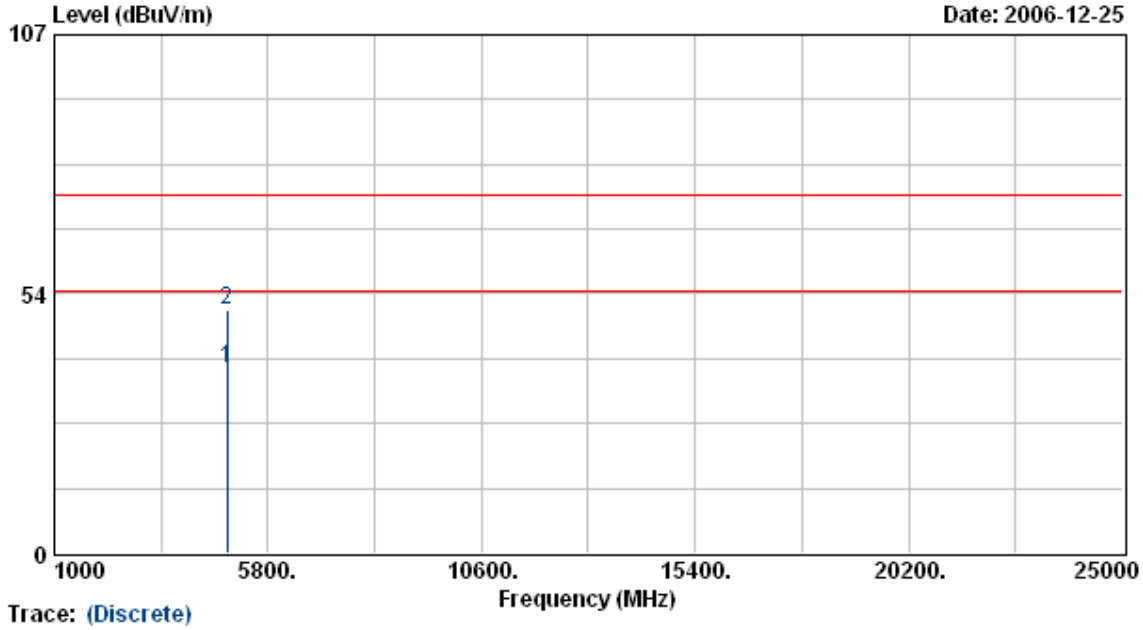

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4825.75 | 42.22 | 8.11 | 50.33 | 74.00 | -23.67 | Peak | 100 | 131 |
| 2 | 4825.75 | 30.13 | 8.11 | 38.25 | 54.00 | -15.75 | Average | 100 | 131 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : HORIZONTAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 6 | Humidity | : 68 % |
| Modulation Type | : 802.11g | Atmospheric Pressure | : 1008 hPa |
| Rate | : 54 Mbps | | |
| Memo | : NU20-8120166-I1 | | |



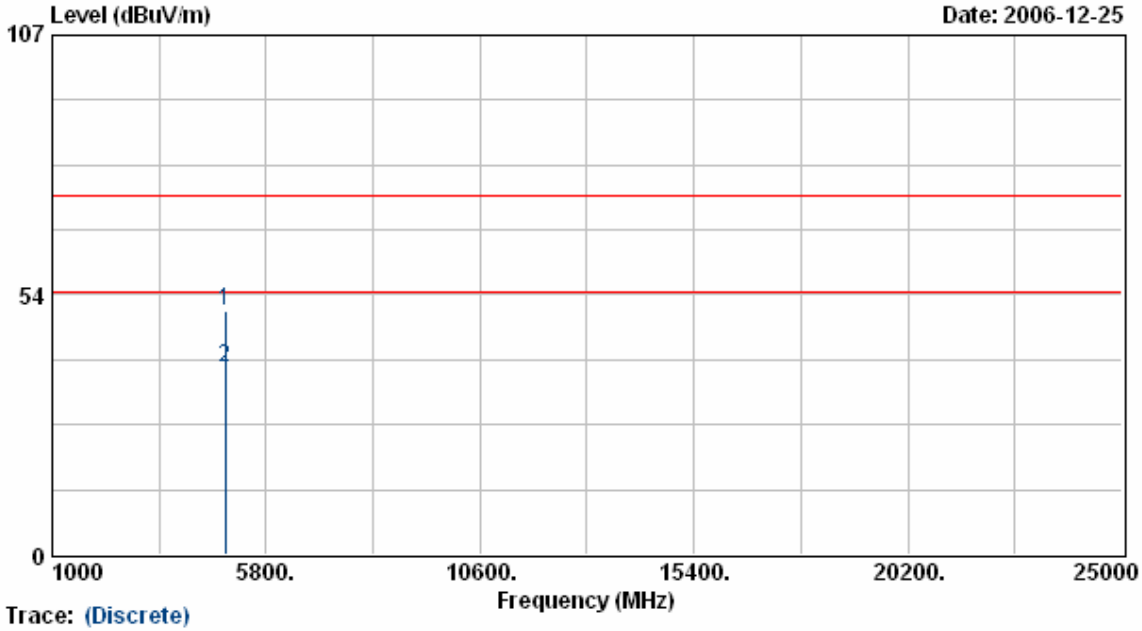

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4873.63 | 29.75 | 8.23 | 37.98 | 54.00 | -16.02 | Average | 100 | 128 |
| 2 | 4873.63 | 41.88 | 8.23 | 50.11 | 74.00 | -23.89 | Peak | 100 | 128 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : VERTICAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 6 | Humidity | : 68 % |
| Modulation Type | : 802.11g | Atmospheric Pressure | : 1008 hPa |
| Rate | : 54 Mbps | | |
| Memo | : NU20-8120166-I1 | | |



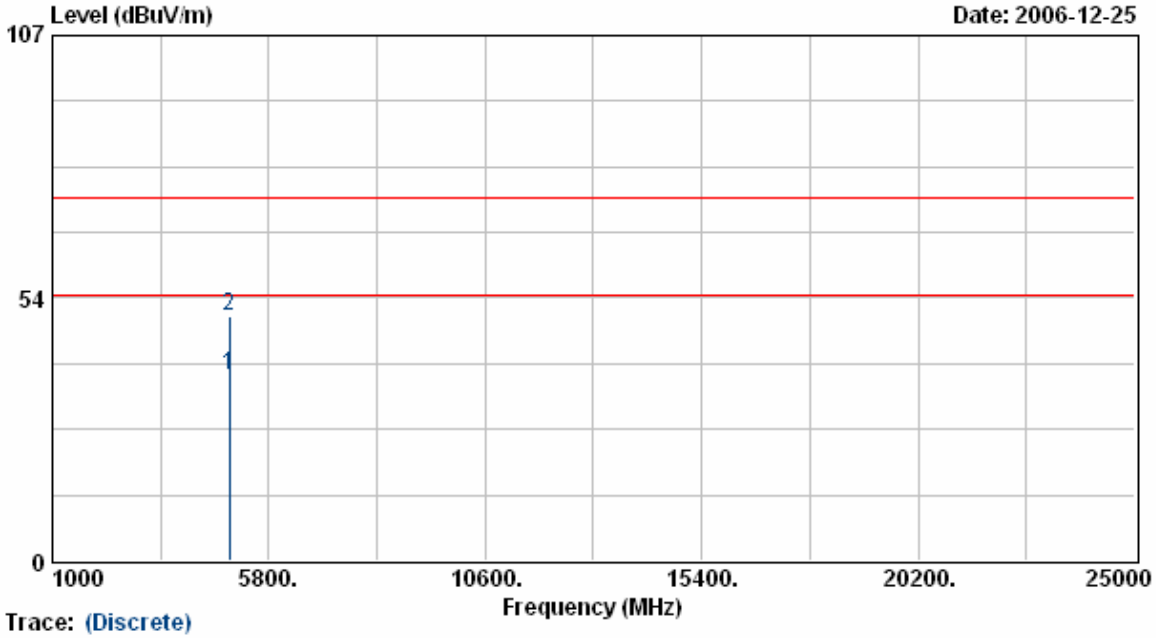

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4875.63 | 42.13 | 8.24 | 50.36 | 74.00 | -23.64 | Peak | 100 | 131 |
| 2 | 4875.63 | 30.40 | 8.24 | 38.64 | 54.00 | -15.36 | Average | 100 | 131 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : HORIZONTAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 11 | Humidity | : 68 % |
| Modulation Type | : 802.11g | Atmospheric Pressure | : 1008 hPa |
| Rate | : 54 Mbps | | |
| Memo | : NU20-8120166-I1 | | |



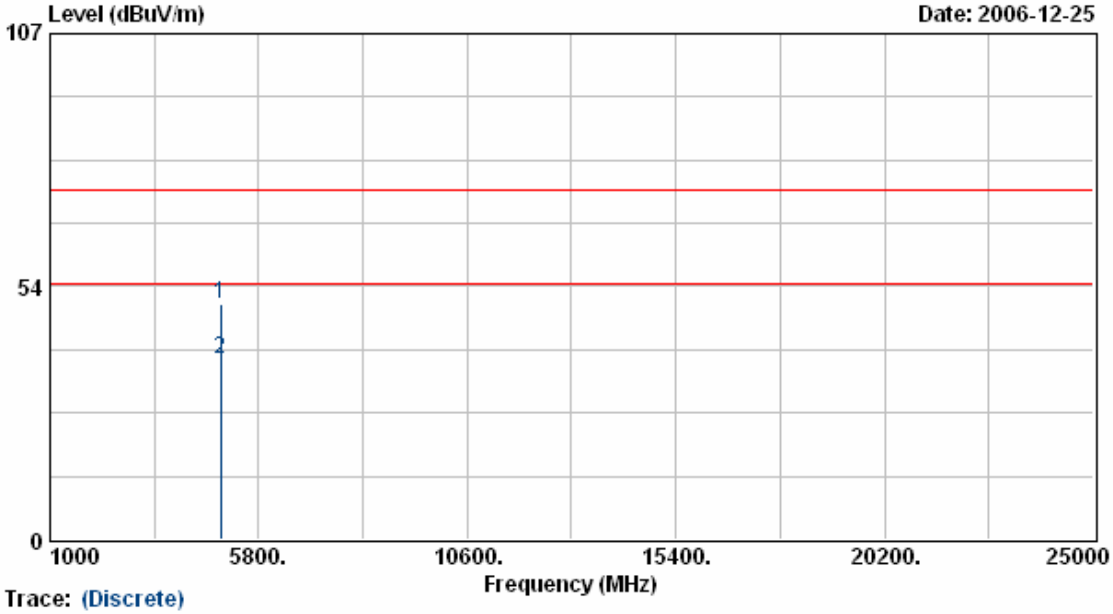

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4923.88 | 29.41 | 8.35 | 37.76 | 54.00 | -16.24 | Average | 100 | 128 |
| 2 | 4923.88 | 41.39 | 8.35 | 49.74 | 74.00 | -24.26 | Peak | 100 | 128 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : VERTICAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 11 | Humidity | : 68 % |
| Modulation Type | : 802.11g | Atmospheric Pressure | : 1008 hPa |
| Rate | : 54 Mbps | | |
| Memo | : NU20-8120166-I1 | | |



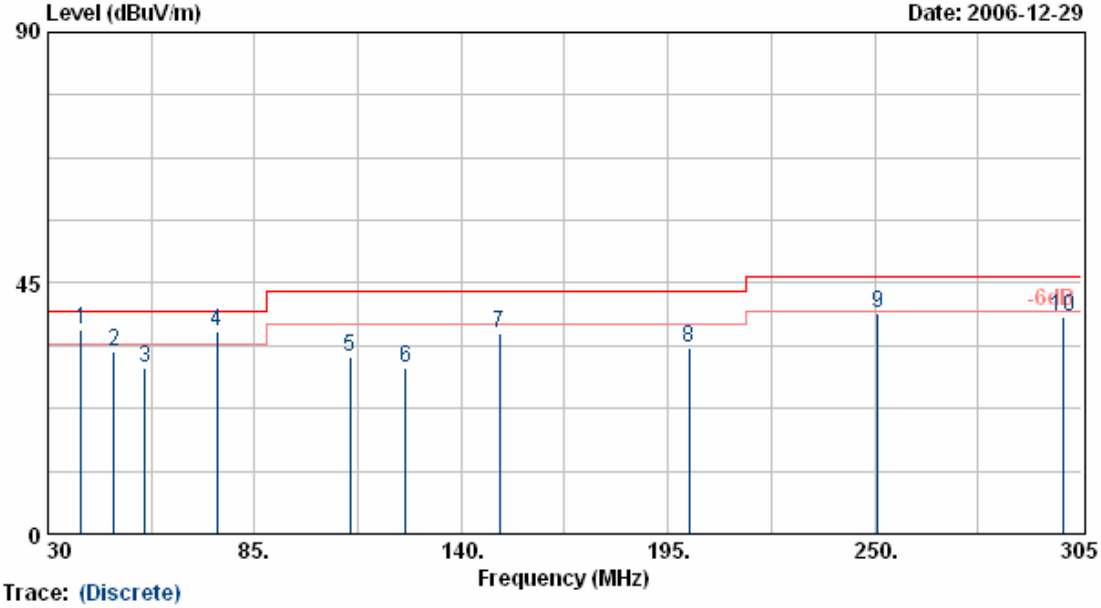

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4924.00 | 41.29 | 8.35 | 49.64 | 74.00 | -24.36 | Peak | 100 | 131 |
| 2 | 4924.00 | 29.67 | 8.35 | 38.03 | 54.00 | -15.97 | Average | 100 | 131 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : HORIZONTAL |
| Test Mode | : Transmit/Receive | Temperature | : 25 ℃ |
| Operation Channel | : 6 | Humidity | : 68 % |
| Modulation Type | : 802.11SUPER G | Atmospheric Pressure | : 1010 hPa |
| Rate | : 108 Mbps | | |
| Memo | : NU20-8120166-I1 | | |



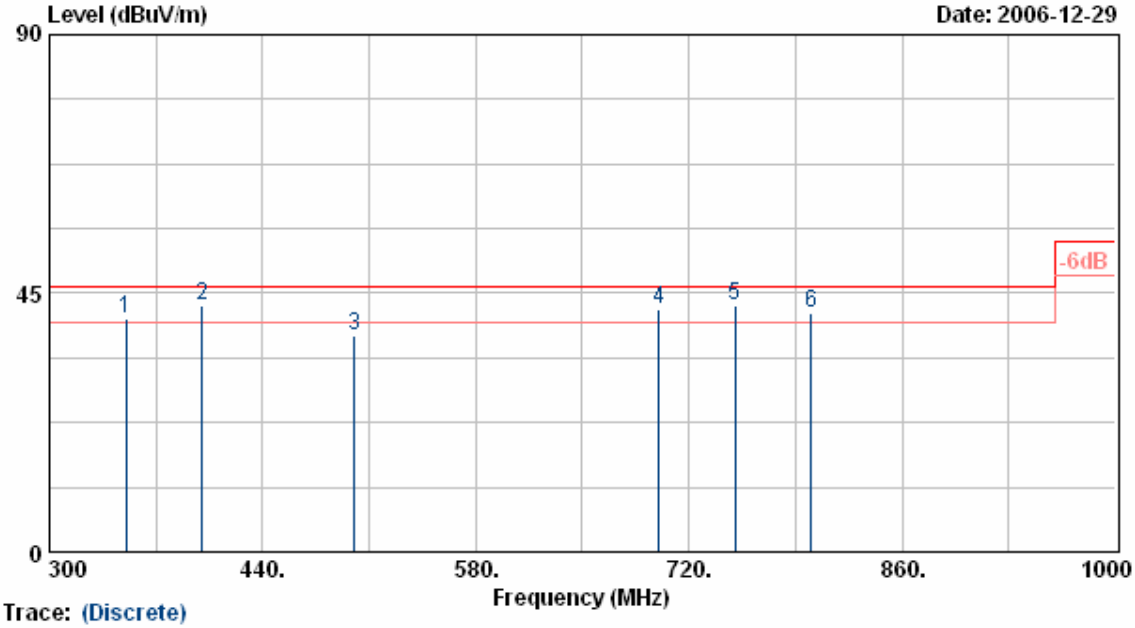

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 38.80 | 49.37 | -12.58 | 36.79 | 40.00 | -3.21 | QP | 200 | 129 |
| 2 | 47.60 | 50.44 | -17.82 | 32.62 | 40.00 | -7.38 | Peak | 200 | 152 |
| 3 | 55.85 | 50.30 | -20.41 | 29.89 | 40.00 | -10.11 | Peak | 200 | 148 |
| 4 | 75.02 | 56.82 | -20.49 | 36.33 | 40.00 | -3.67 | QP | 200 | 100 |
| 5 | 110.30 | 48.60 | -16.71 | 31.89 | 43.50 | -11.61 | Peak | 200 | 0 |
| 6 | 125.15 | 45.75 | -15.91 | 29.84 | 43.50 | -13.66 | Peak | 200 | 122 |
| 7 | 150.04 | 52.79 | -16.83 | 35.96 | 43.50 | -7.54 | Peak | 200 | 87 |
| 8 | 200.50 | 51.68 | -18.40 | 33.28 | 43.50 | -10.22 | Peak | 200 | 95 |
| 9 | 250.83 | 53.91 | -14.31 | 39.60 | 46.00 | -6.40 | Peak | 200 | 100 |
| 10 | 300.02 | 52.74 | -13.69 | 39.05 | 46.00 | -6.95 | Peak | 200 | 111 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
5. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
6. The data is worse case.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : HORIZONTAL |
| Test Mode | : Transmit/Receive | Temperature | : 25 ℃ |
| Operation Channel | : 6 | Humidity | : 68 % |
| Modulation Type | : 802.11SUPER G | Atmospheric Pressure | : 1010 hPa |
| Rate | : 108 Mbps | | |
| Memo | : NU20-8120166-I1 | | |



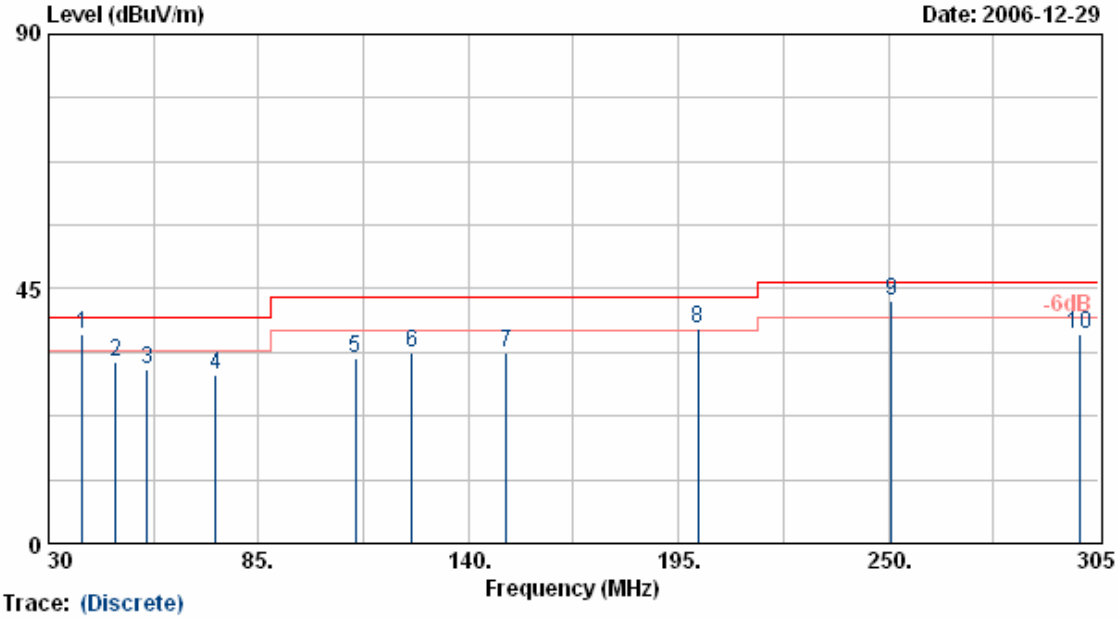

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 350.02 | 52.70 | -12.07 | 40.63 | 46.00 | -5.37 | QP | 200 | 222 |
| 2 | 400.02 | 53.47 | -10.63 | 42.84 | 46.00 | -3.16 | QP | 200 | 216 |
| 3 | 500.21 | 44.75 | -7.17 | 37.58 | 46.00 | -8.42 | Peak | 200 | 200 |
| 4 | 700.00 | 45.62 | -3.42 | 42.20 | 46.00 | -3.80 | QP | 200 | 252 |
| 5 | 750.10 | 44.93 | -1.99 | 42.94 | 46.00 | -3.06 | QP | 200 | 240 |
| 6 | 800.50 | 43.95 | -2.47 | 41.48 | 46.00 | -4.52 | QP | 200 | 200 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
5. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
6. The data is worse case.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : VERTICAL |
| Test Mode | : Transmit/Receive | Temperature | : 25 ℃ |
| Operation Channel | : 6 | Humidity | : 68 % |
| Modulation Type | : 802.11SUPER G | Atmospheric Pressure | : 1010 hPa |
| Rate | : 108 Mbps | | |
| Memo | : NU20-8120166-I1 | | |



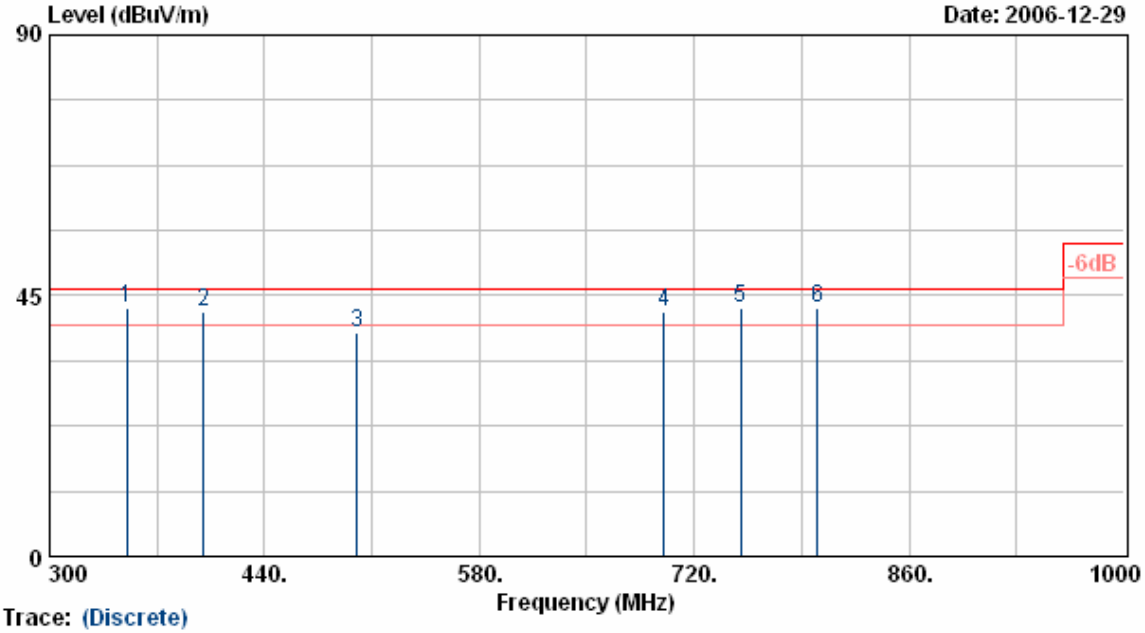

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 38.80 | 49.45 | -12.58 | 36.87 | 40.00 | -3.13 | QP | 100 | 188 |
| 2 | 47.62 | 49.85 | -17.83 | 32.02 | 40.00 | -7.98 | Peak | 100 | 202 |
| 3 | 55.87 | 51.33 | -20.41 | 30.92 | 40.00 | -9.08 | Peak | 100 | 126 |
| 4 | 73.80 | 50.47 | -20.65 | 29.82 | 40.00 | -10.18 | Peak | 100 | 82 |
| 5 | 110.30 | 49.39 | -16.71 | 32.68 | 43.50 | -10.82 | Peak | 100 | 152 |
| 6 | 125.15 | 49.60 | -15.91 | 33.69 | 43.50 | -9.81 | Peak | 100 | 214 |
| 7 | 150.00 | 50.38 | -16.83 | 33.55 | 43.50 | -9.95 | Peak | 100 | 205 |
| 8 | 200.03 | 56.44 | -18.39 | 38.05 | 43.50 | -5.45 | QP | 100 | 200 |
| 9 | 250.83 | 57.27 | -14.31 | 42.96 | 46.00 | -3.04 | QP | 100 | 262 |
| 10 | 300.01 | 50.57 | -13.69 | 36.88 | 46.00 | -9.12 | Peak | 100 | 270 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
5. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
6. The data is worse case.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : VERTICAL |
| Test Mode | : Transmit/Receive | Temperature | : 25 ℃ |
| Operation Channel | : 6 | Humidity | : 68 % |
| Modulation Type | : 802.11SUPER G | Atmospheric Pressure | : 1010 hPa |
| Rate | : 108 Mbps | | |
| Memo | : NU20-8120166-I1 | | |



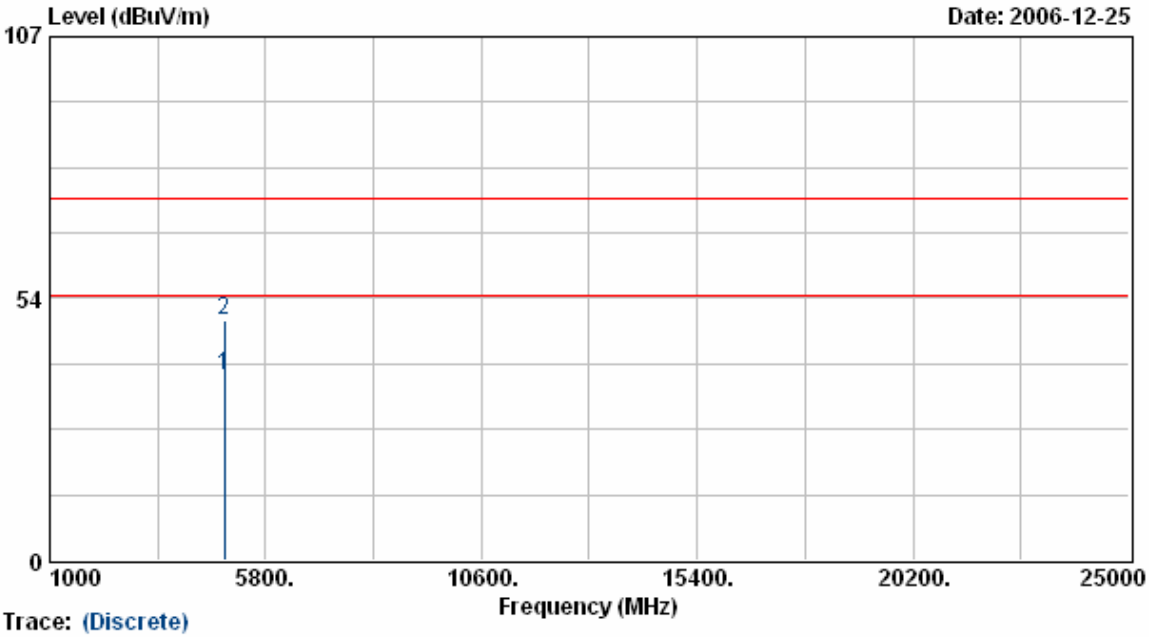

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 350.00 | 54.87 | -12.07 | 42.80 | 46.00 | -3.20 | QP | 100 | 222 |
| 2 | 400.02 | 52.90 | -10.63 | 42.27 | 46.00 | -3.73 | QP | 100 | 216 |
| 3 | 500.21 | 45.72 | -7.17 | 38.55 | 46.00 | -7.45 | Peak | 100 | 200 |
| 4 | 700.00 | 45.55 | -3.42 | 42.13 | 46.00 | -3.87 | QP | 100 | 252 |
| 5 | 750.10 | 44.82 | -1.99 | 42.83 | 46.00 | -3.17 | QP | 100 | 240 |
| 6 | 800.50 | 45.40 | -2.47 | 42.93 | 46.00 | -3.07 | QP | 100 | 200 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. All emission below 1GHz at 802.11b/g mode are all the same,so the 802.11g mode chosen as representative in final test.
5. According to technical experiences,all spurious emission of 802.11g mode at channel 1,6,11 are almost the same below 1GHz,so that the channel 1 was chosen as representative in final test.
6. The data is worse case.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : HORIZONTAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 6 | Humidity | : 68 % |
| Modulation Type | : 802.11sg | Atmospheric Pressure | : 1008 hPa |
| Rate | : 108 Mbps | | |
| Memo | : NU20-8120166-I1 | | |



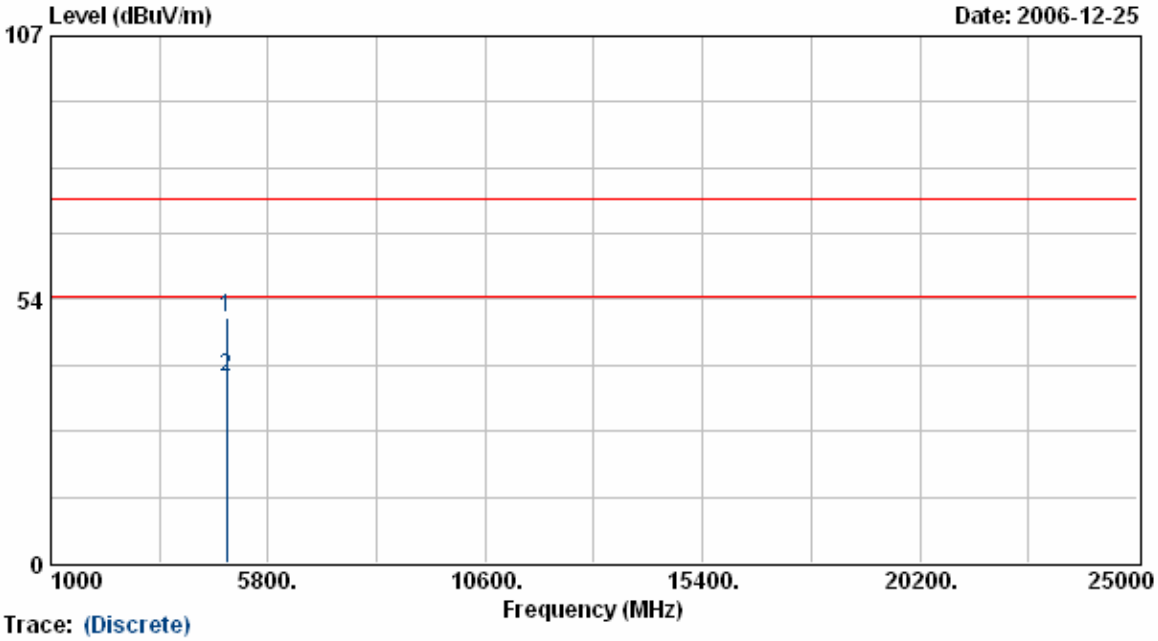

Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4873.75 | 29.40 | 8.23 | 37.63 | 54.00 | -16.37 | Average | 100 | 128 |
| 2 | 4873.75 | 40.94 | 8.23 | 49.17 | 74.00 | -24.83 | Peak | 100 | 128 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

| | | | |
|---|---|---|---|
| EUT | : APL18-046 | | |
| Power | : AC 120V | Pol/Phase | : VERTICAL |
| Test Mode | : Transmit/Receive | Temperature | : 20 ℃ |
| Operation Channel | : 6 | Humidity | : 68 % |
| Modulation Type | : 802.11sg | Atmospheric Pressure | : 1008 hPa |
| Rate | : 108 Mbps | | |
| Memo | : NU20-8120166-I1 | | |




Trace: (Discrete)

| Item | Freq | Read Value | Factor | Result | Limit | Margin | Remark | Ant Pos | Tab Pos |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | | cm | Deg |
| 1 | 4874.00 | 41.65 | 8.23 | 49.88 | 74.00 | -24.12 | Peak | 100 | 131 |
| 2 | 4874.00 | 29.61 | 8.23 | 37.84 | 54.00 | -16.16 | Average | 100 | 131 |

Notes:

1. Result = Read Value + Factor
2. Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too low to be measured.

Test engineer: Ben

# 6. 6dB Bandwidth Measurement Data

## 6.1 Test Limit

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

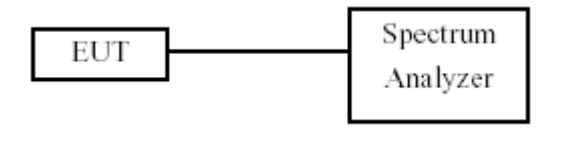
## 6.2 Test Procedures

a. The transmitter output was connected to the spectrum analyzer.

b. Set RBW of spectrum analyzer to 100 KHz and VBW to 100 KHz.

c. The 6 dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6 dB.

## 6.3 Test Setup Layout




## 6.4 Measurement equipment

| Instrument/Ancillary | Model No. | Manufacturer | Serial No. | Valid Date. |
|---|---|---|---|---|
| Spectrum Analyzer | FSP40 | R&S | 100047 | 2007/01/16 |

## 6.5 Test Result and Data

(1) Modulation Standard: IEEE 802.11b (11Mbps)

Test Date: Dec. 20, 2006 Temperature: 25℃ Humidity: 65% Atmospheric pressure: 1010 hPa

| Channel | Frequency (MHz) | 6dB Bandwidth (MHz) |
|---|---|---|
| 01 | 2412 | 10.6 |
| 06 | 2437 | 10.4 |
| 11 | 2462 | 10.4 |

(2) Modulation Standard: IEEE 802.11g (54Mbps)

Test Date: Dec. 20, 2006 Temperature: 25℃ Humidity: 65% Atmospheric pressure: 1010 hPa

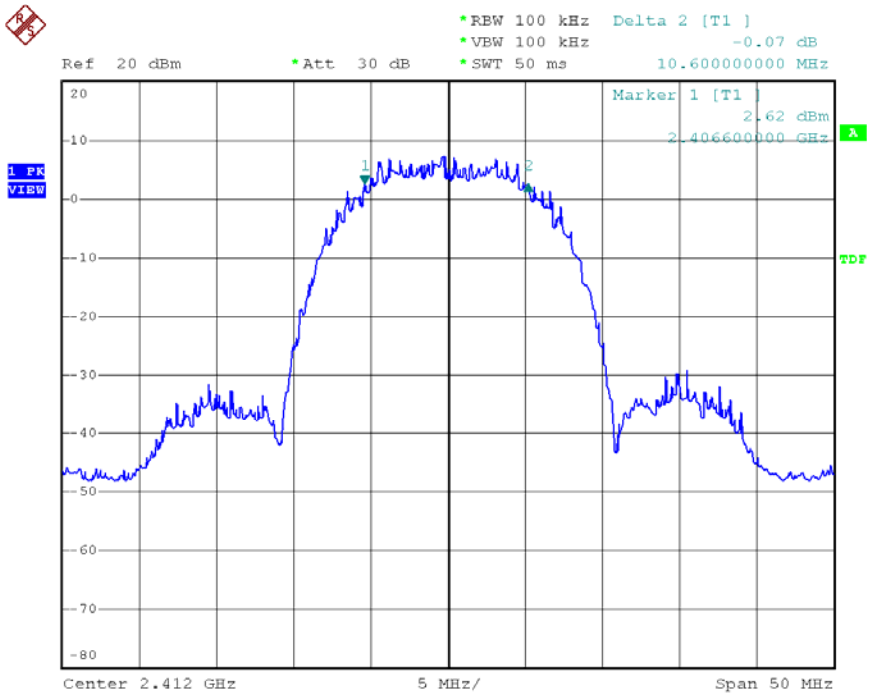
| Channel | Frequency (MHz) | 6dB Bandwidth (MHz) |
|---|---|---|
| 01 | 2412 | 16.4 |
| 06 | 2437 | 16.4 |
| 11 | 2462 | 16.5 |

(3) Modulation Standard: IEEE 802.11 Super G (108Mbps)

Test Date: Dec. 20, 2006 Temperature: 25℃ Humidity: 65% Atmospheric pressure: 1010 hPa

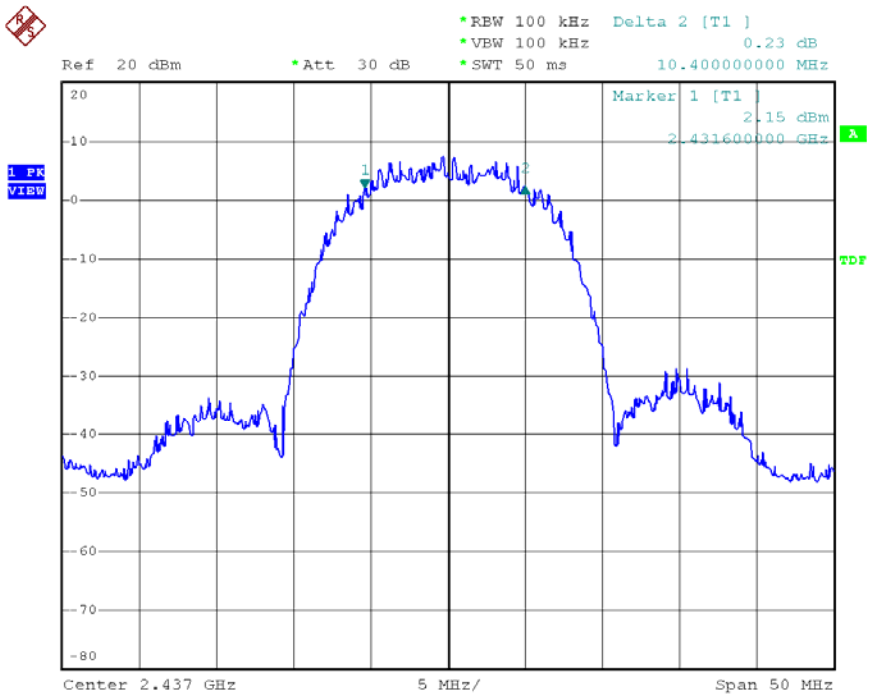
| Channel | Frequency (MHz) | 6dB Bandwidth (MHz) |
|---|---|---|
| 01 | 2412 | --- |
| 06 | 2437 | 30.8 |
| 11 | 2462 | --- |

Modulation Standard: 802.11b (11Mbps)
Channel: 01



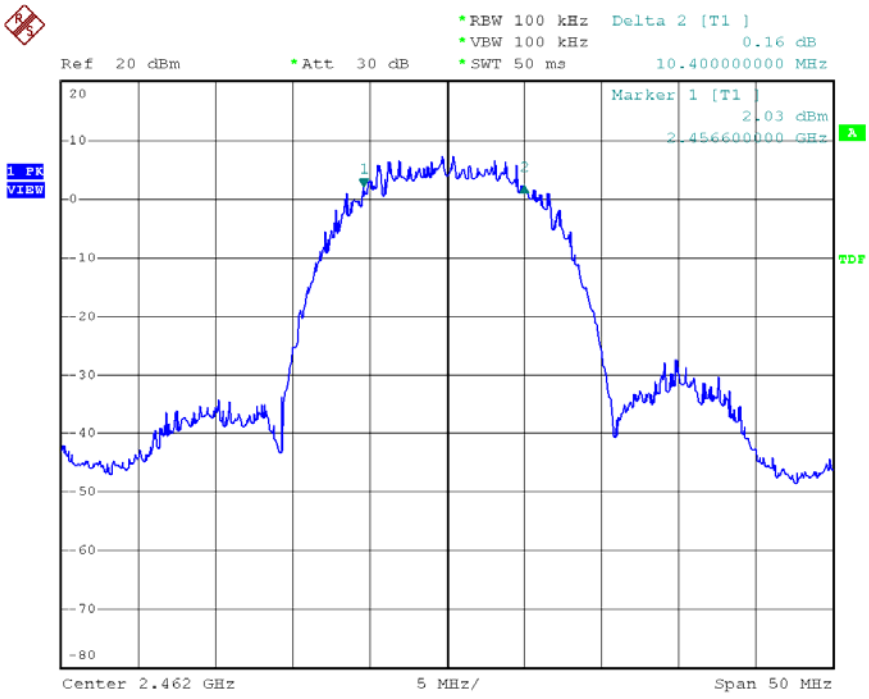

Date: 20.DEC.2006 14:59:07

Modulation Standard: 802.11b (11Mbps)
Channel: 06



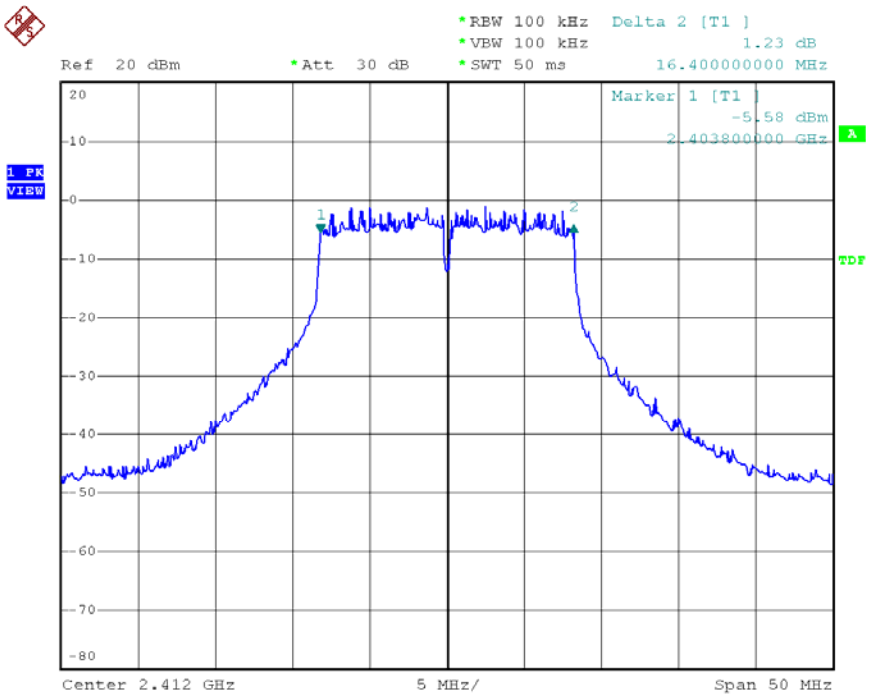

Date: 20.DEC.2006 14:04:09

Modulation Standard: 802.11b (11Mbps)
Channel: 11



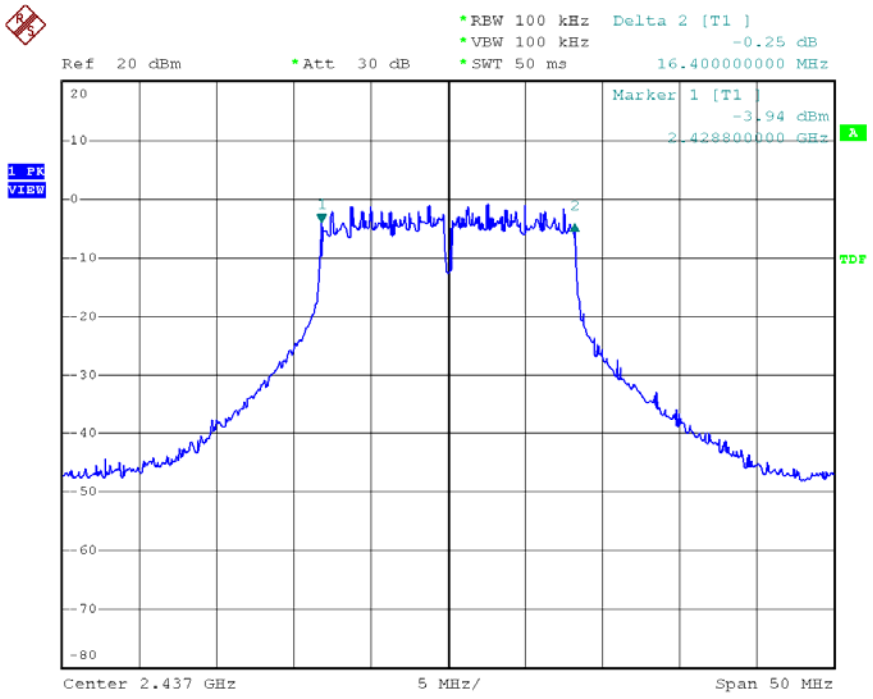

Date: 20.DEC.2006 15:33:13

Modulation Standard: 802.11g (54Mbps)
Channel: 01



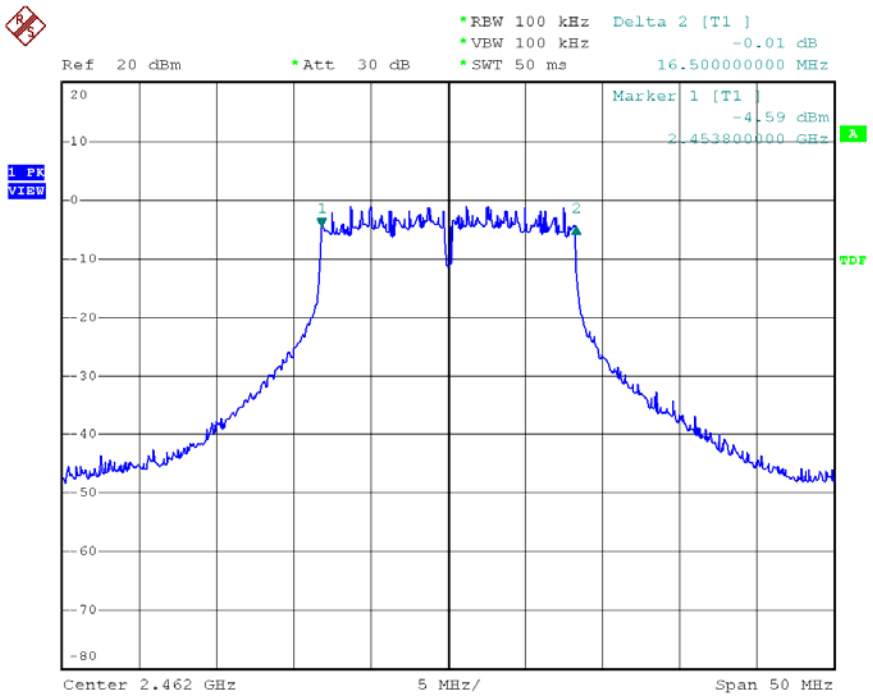

Date: 20.DEC.2006 16:55:18

Modulation Standard: 802.11g (54Mbps)
Channel: 06



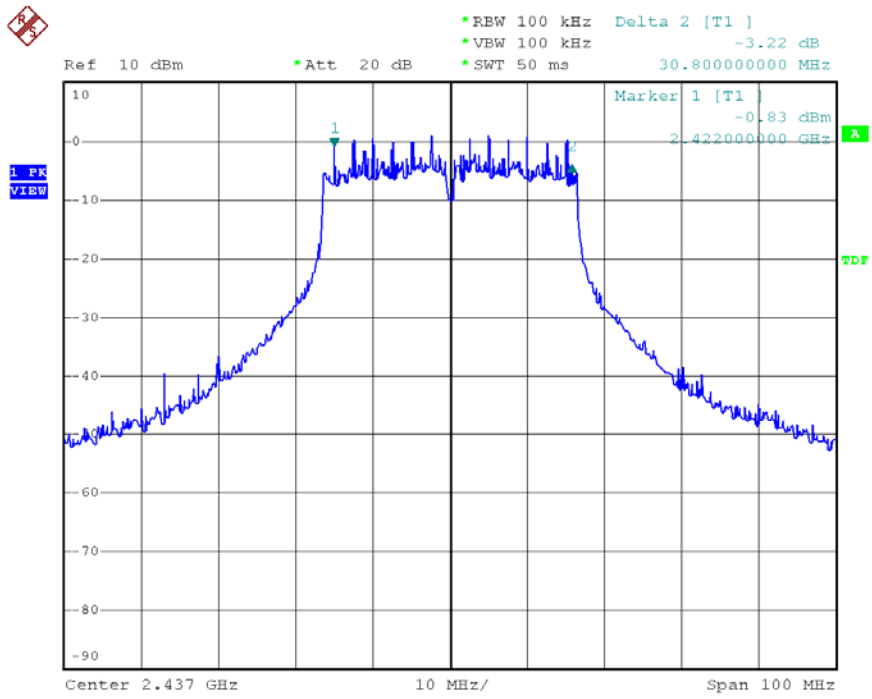

Date: 20.DEC.2006 16:42:06

Modulation Standard: 802.11g (54Mbps)
Channel: 11




Date: 20.DEC.2006 16:21:01

Modulation Standard:802.11 Super G (108Mbps)
Channel:06




Date: 20.DEC.2006 11:01:07

# 7. Maximum Peak Output Power

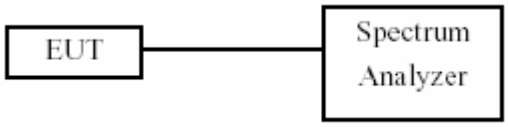
## 7.1 Test Limit

The Maximum Peak Output Power Measurement is 30dBm.

## 7.2 Test Procedures

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.

## 7.3 Test Setup Layout




## 7.4 Measurement equipment

| Instrument/Ancillary | Model No. | Manufacturer | Serial No. | Valid Date. |
|---|---|---|---|---|
| Spectrum Analyzer | FSP40 | R&S | 100047 | 2007/01/16 |

## 7.5 Test Result and Data

(1) Modulation Standard: IEEE 802.11b (11Mbps)

Test Date: Dec. 20, 2006 Temperature: 25℃ Humidity: 65% Atmospheric pressure: 1010 hPa

| Channel | Frequency (MHz) | Peak Power Output (dBm) | Peak Power Output (mW) |
|---|---|---|---|
| 01 | 2412 | 23.40 | 218.8 |
| 06 | 2437 | 23.11 | 204.6 |
| 11 | 2462 | 23.06 | 202.3 |

(2) Modulation Standard: IEEE 802.11g (54Mbps)

Test Date: Dec. 20, 2006 Temperature: 25℃ Humidity: 65% Atmospheric pressure: 1010 hPa

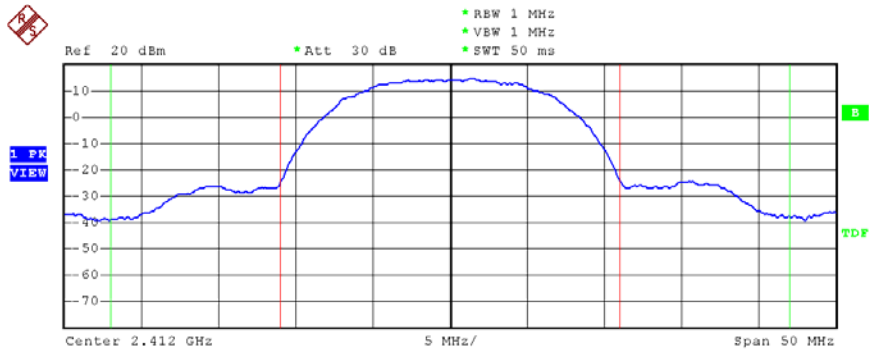
| Channel | Frequency (MHz) | Peak Power Output (dBm) | Peak Power Output (mW) |
|---|---|---|---|
| 01 | 2412 | 19.46 | 88.3 |
| 06 | 2437 | 19.47 | 88.5 |
| 11 | 2462 | 19.57 | 90.6 |

(3) Modulation Standard: IEEE 802.11 Super G (108Mbps)

Test Date: Dec. 20, 2006 Temperature: 25℃ Humidity: 65% Atmospheric pressure: 1010 hPa

| Channel | Frequency (MHz) | Peak Power Output (dBm) | Peak Power Output (mW) |
|---|---|---|---|
| 01 | 2412 | --- | --- |
| 06 | 2437 | 20.43 | 110.4 |
| 11 | 2462 | --- | --- |

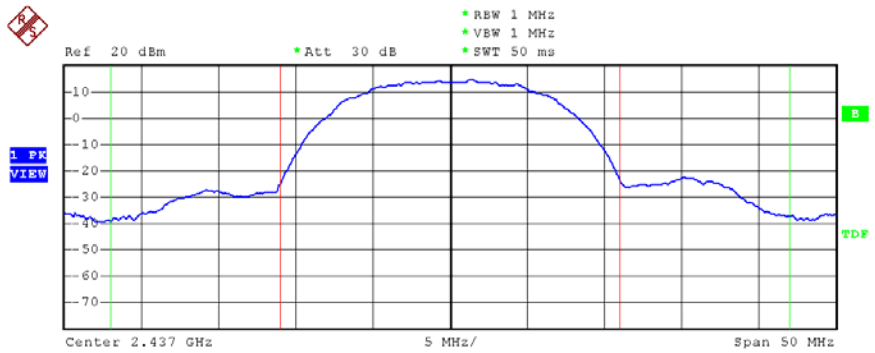
Modulation Standard: 802.11b (11Mbps)
Channel: 01




| | | | |
|---|---|---|---|
| **Tx Channel** | | **WLAN 802.11B** | |
| Bandwidth | 22 MHz | Power | 23.40 dBm |
| **Adjacent Channel** | | | |
| Bandwidth | 11 MHz | Lower | -42.68 dB |
| Spacing | 16.5 MHz | Upper | -40.95 dB |
| **Alternate Channel** | | | |
| Bandwidth | 11 MHz | Lower | ----- |
| Spacing | 27.5 MHz | Upper | ----- |

Date: 20.DEC.2006 13:14:10

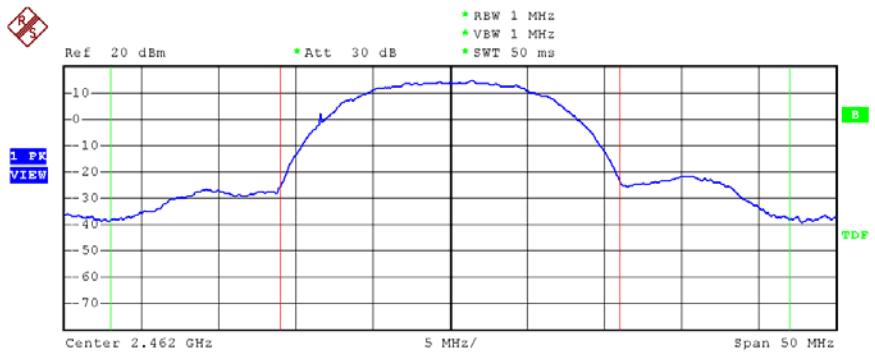
Modulation Standard: 802.11b (11Mbps)
Channel: 06




| | | | |
|---|---|---|---|
| **Tx Channel** | | **WLAN 802.11B** | |
| Bandwidth | 22 MHz | Power | 23.11 dBm |
| **Adjacent Channel** | | | |
| Bandwidth | 11 MHz | Lower | -43.54 dB |
| Spacing | 16.5 MHz | Upper | -39.41 dB |
| **Alternate Channel** | | | |
| Bandwidth | 11 MHz | Lower | ----- |
| Spacing | 27.5 MHz | Upper | ----- |

Date: 20.DEC.2006 13:54:12

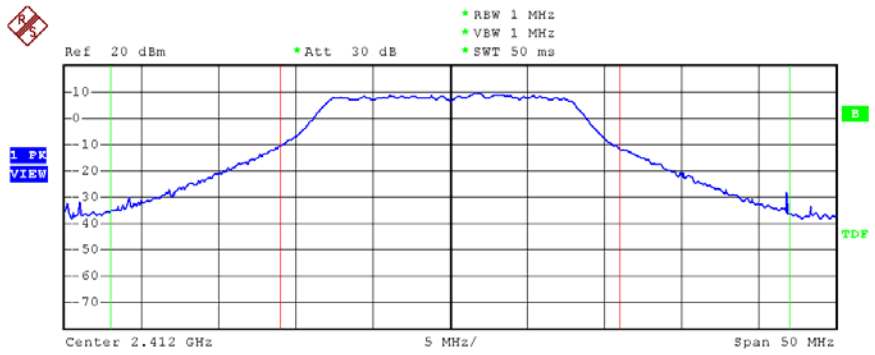
Modulation Standard: 802.11b (11Mbps)
Channel: 11




| | | | |
|---|---|---|---|
| **Tx Channel** | | **WLAN 802.11B** | |
| Bandwidth | 22 MHz | Power | 23.06 dBm |
| **Adjacent Channel** | | | |
| Bandwidth | 11 MHz | Lower | -42.91 dB |
| Spacing | 16.5 MHz | Upper | -38.32 dB |
| **Alternate Channel** | | | |
| Bandwidth | 11 MHz | Lower | ----- |
| Spacing | 27.5 MHz | Upper | ----- |

Date: 20.DEC.2006 15:30:11

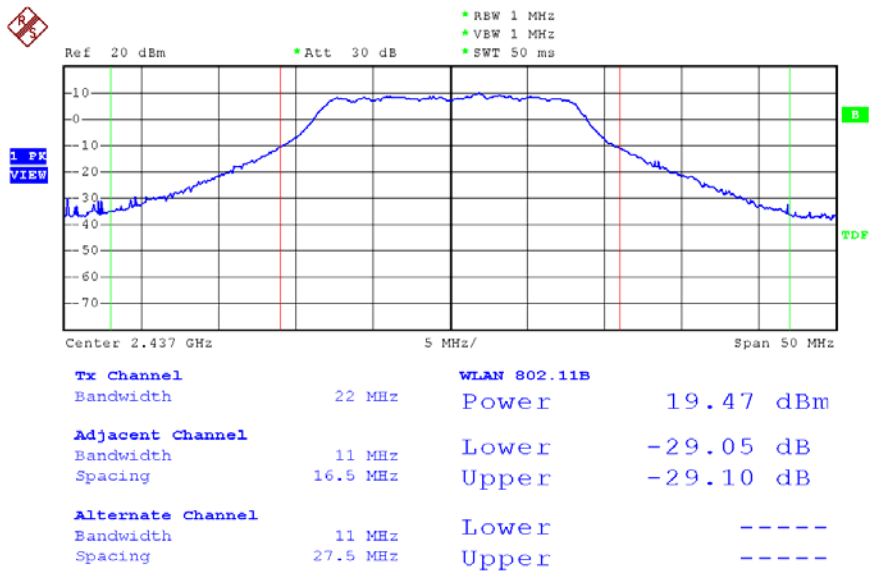
Modulation Standard: 802.11g (54Mbps)
Channel: 01




| | | | |
|---|---|---|---|
| **Tx Channel** | | **WLAN 802.11B** | |
| Bandwidth | 22 MHz | Power | 19.46 dBm |
| **Adjacent Channel** | | | |
| Bandwidth | 11 MHz | Lower | -28.79 dB |
| Spacing | 16.5 MHz | Upper | -29.26 dB |
| **Alternate Channel** | | | |
| Bandwidth | 11 MHz | Lower | ----- |
| Spacing | 27.5 MHz | Upper | ----- |

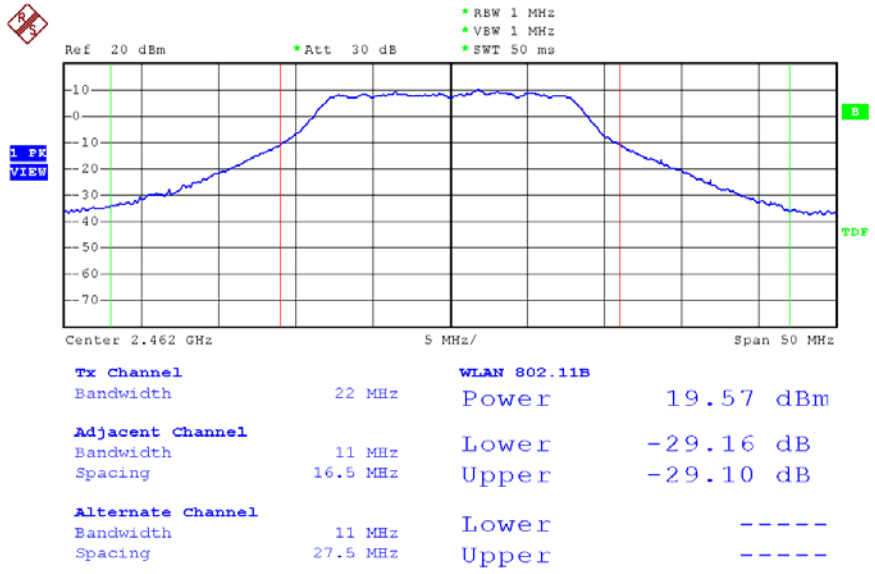
Date: 20.DEC.2006 16:53:41

Modulation Standard: 802.11g (54Mbps)
Channel: 06



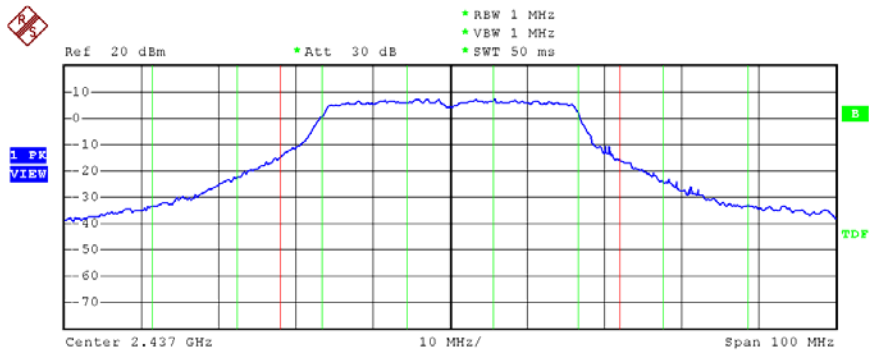

Date: 20.DEC.2006 16:40:48

Modulation Standard: 802.11g (54Mbps)
Channel: 11




Date: 20.DEC.2006 16:19:29

Modulation Standard:802.11 Super G (108Mbps)
Channel:06




| | | | |
|---|---|---|---|
| **Tx Channel** | | **WLAN 802.11B** | |
| Bandwidth | 44 MHz | Power | 20.43 dBm |
| **Adjacent Channel** | | | |
| Bandwidth | 22 MHz | Lower | -4.97 dB |
| Spacing | 16.5 MHz | Upper | -4.73 dB |
| **Alternate Channel** | | | |
| Bandwidth | 22 MHz | Lower | -19.08 dB |
| Spacing | 27.5 MHz | Upper | -18.83 dB |

Date: 20.DEC.2006 17:26:02

# 8. Band Edges Measurement

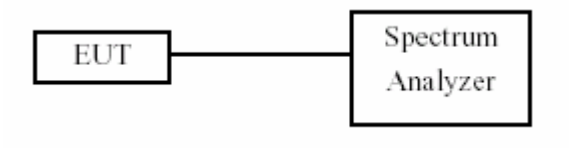
## 8.1 Test Limit

Below –20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).

## 8.2 Test Procedures

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

## 8.3 Test Setup Layout




## 8.4 List of Measuring Equipment Used

| Instrument/Ancillary | Model No. | Manufacturer | Serial No. | Valid Date. |
|---|---|---|---|---|
| Spectrum Analyzer | FSP40 | R&S | 100047 | 2007/01/16 |

## 8.5 Test Result and Data

(1) Modulation Standard: IEEE 802.11b (11Mbps)

Test Date: Dec. 20, 2006 Temperature: 25℃ Humidity: 65% Atmospheric pressure: 1010 hPa

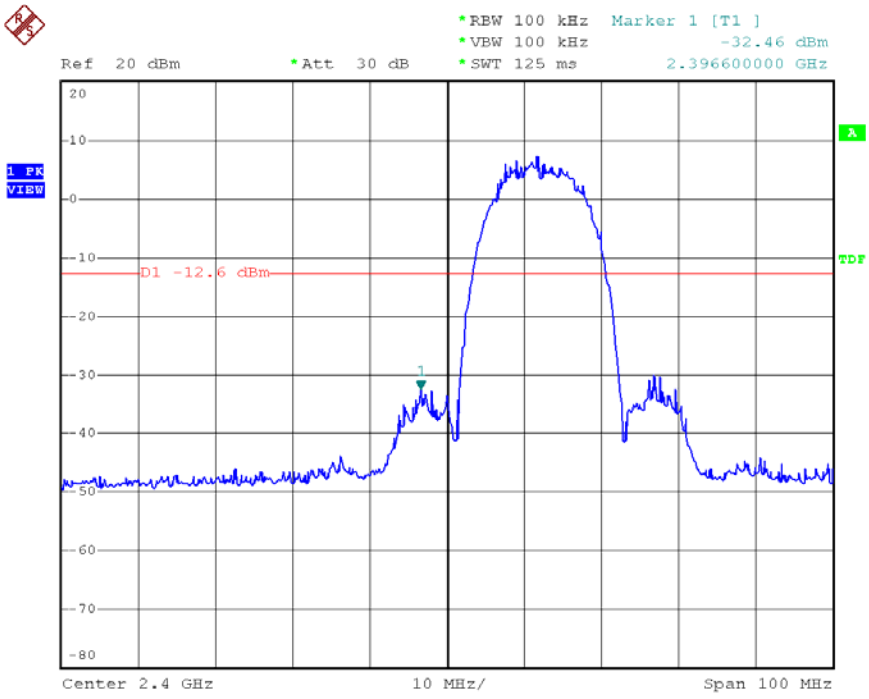
| Channel | Frequency | maximum value in frequency (MHz) | maximum value is (dBm) |
|---|---|---|---|
| 01 | 2412 | 2397.00 | -26.62 |
| 11 | 2462 | 2860.00 | -33.88 |

(2) Modulation Standard: IEEE 802.11g (54Mbps)

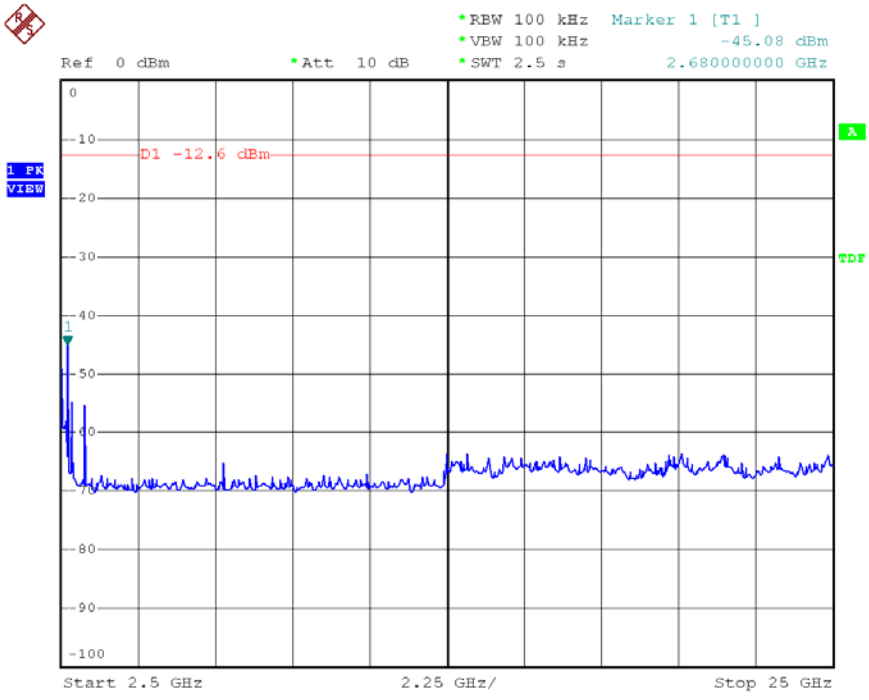
Test Date: Dec. 20, 2006 Temperature: 25℃ Humidity: 65% Atmospheric pressure: 1010 hPa

| Channel | Frequency | maximum value in frequency (MHz) | maximum value is (dBm) |
|---|---|---|---|
| 01 | 2412 | 2399.80 | -30.92 |
| 11 | 2462 | 2520.10 | -47.62 |

Modulation Standard: 802.11b (11Mbps)
Channel: 01

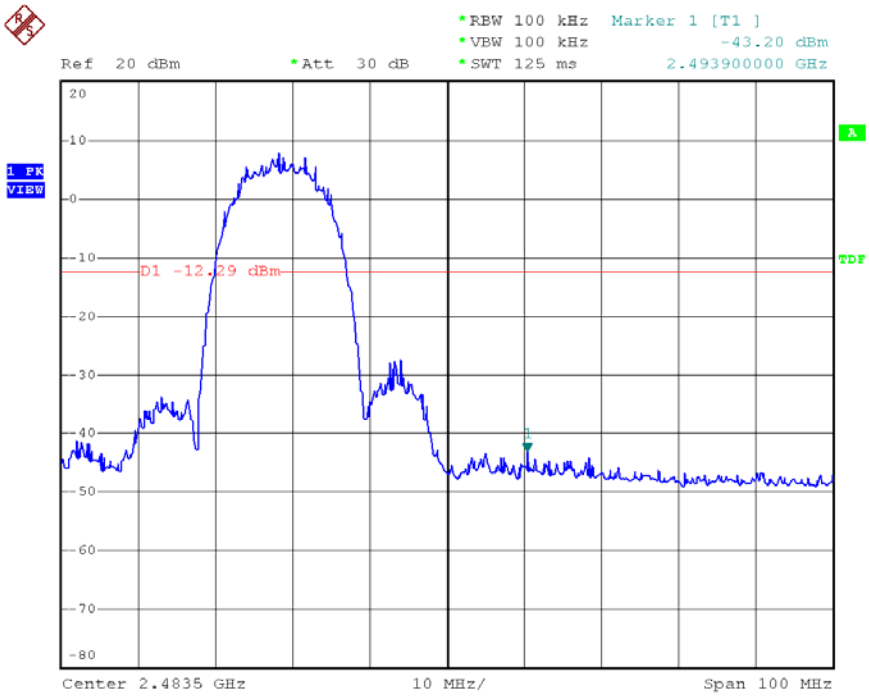



Date: 20.DEC.2006 15:05:01

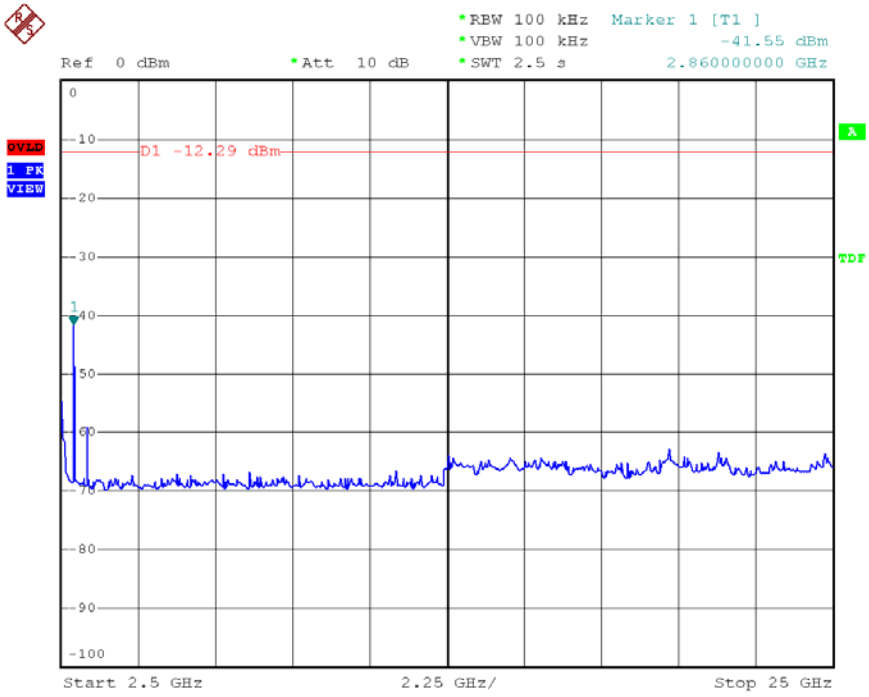



Date: 20.DEC.2006 15:05:40

Modulation Standard: 802.11b (11Mbps)
Channel: 11

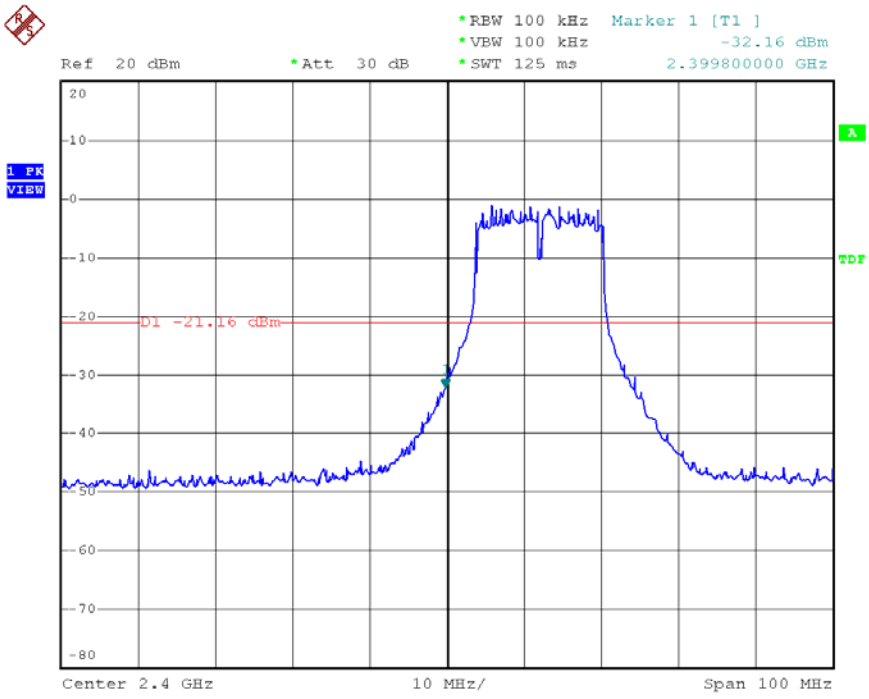



Date: 20.DEC.2006 15:36:59

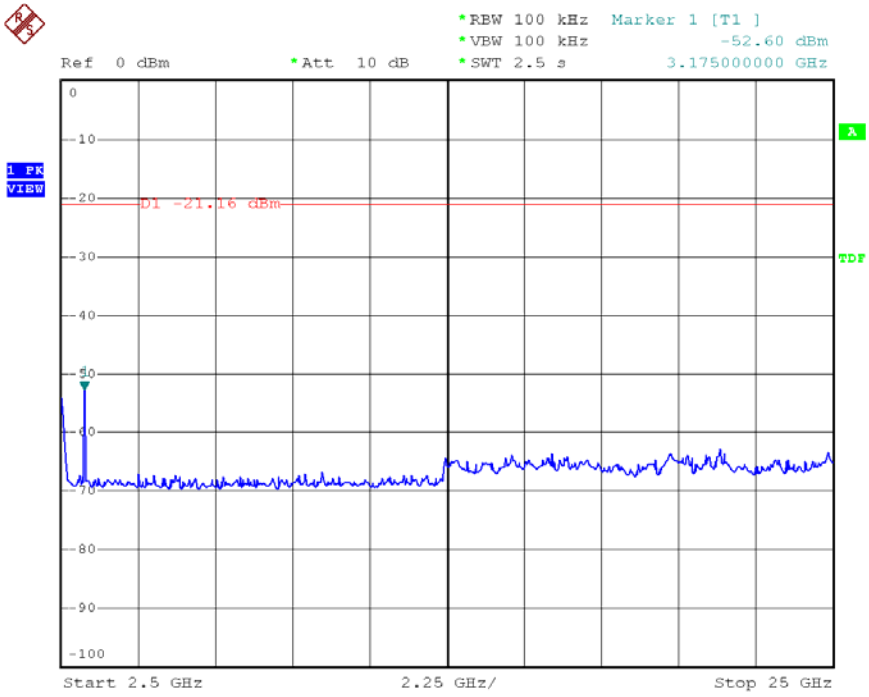



Date: 20.DEC.2006 15:38:20

Modulation Standard: 802.11g (54Mbps)
Channel: 01

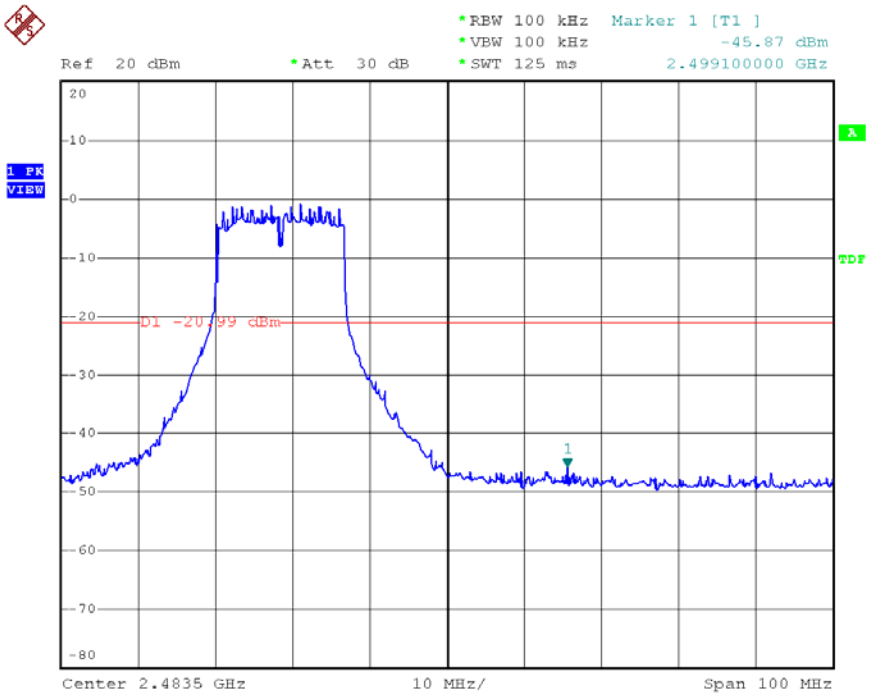



Date: 20.DEC.2006 16:59:19

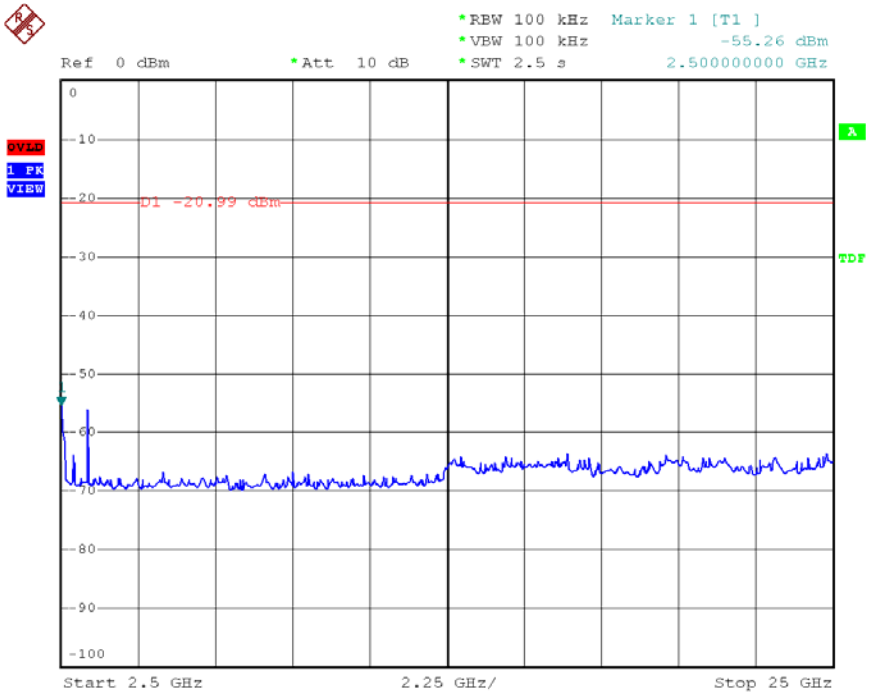



Date: 20.DEC.2006 17:00:19

Modulation Standard: 802.11g (54Mbps)
Channel: 11




Date: 20.DEC.2006 16:24:01




Date: 20.DEC.2006 16:24:53

## 8.6 Restrict band emission Measurement Data

Test Adapter 1:

Modulation Standard: IEEE 802.11b (11Mbps)

Test Date: Dec. 25, 2006 Temperature: 18℃ Humidity: 69% Atmospheric pressure: 1015 hPa

a) Channel 1

| Frequency (MHz) | Ant-Pol H/V | Meter Reading | Corrected Factor | Result (dBuV/m) | Remark | Limit@3m (dBuV/m) | | Margin (dB) | Table (Deg.) | Ant High (m) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Peak | Ave. | | | |
| 2386.194 | H | 51.21 | -0.27 | 50.94 | Peak | 74 | 54 | -13.06 | 128 | 1.1 |
| 2386.194 | H | 41.69 | -0.27 | 41.42 | Ave | 74 | 54 | -12.58 | 128 | 1.1 |
| 2383.848 | V | 61.74 | -0.28 | 61.46 | Peak | 74 | 54 | -12.54 | 130 | 1.0 |
| 2385.378 | V | 49.87 | -0.28 | 49.59 | Ave | 74 | 54 | -4.41 | 130 | 1.0 |

b) Channel 11

| Frequency (MHz) | Ant-Pol H/V | Meter Reading | Corrected Factor | Result (dBuV/m) | Remark | Limit@3m (dBuV/m) | | Margin (dB) | Table (Deg.) | Ant High (m) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Peak | Ave. | | | |
| 2496.162 | H | 51.66 | -0.01 | 51.65 | Peak | 74 | 54 | -22.35 | 128 | 1.1 |
| 2487.536 | H | 40.36 | -0.03 | 40.33 | Ave | 74 | 54 | -13.67 | 128 | 1.1 |
| 2490.082 | V | 62.22 | -0.02 | 62.20 | Peak | 74 | 54 | -11.80 | 130 | 1.0 |
| 2488.372 | V | 50.76 | -0.03 | 50.73 | Ave | 74 | 54 | -3.27 | 130 | 1.0 |

Modulation Standard: 802.11g (54Mbps)

Test Date: Dec. 25, 2006 Temperature: 18℃ Humidity: 69% Atmospheric pressure: 1015 hPa

a) Channel 1

| Frequency (MHz) | Ant-Pol H/V | Meter Reading | Corrected Factor | Result (dBuV/m) | Remark | Limit@3m (dBuV/m) | | Margin (dB) | Table (Deg.) | Ant High (m) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Peak | Ave. | | | |
| 2389.458 | H | 49.68 | -0.27 | 49.41 | Peak | 74 | 54 | -24.59 | 128 | 1.1 |
| 2389.458 | H | 38.07 | -0.27 | 37.80 | Ave | 74 | 54 | -16.20 | 128 | 1.1 |
| 2389.866 | V | 61.12 | -0.26 | 60.86 | Peak | 74 | 54 | -13.14 | 130 | 1.0 |
| 2389.968 | V | 50.92 | -0.26 | 50.66 | Ave | 74 | 54 | -3.36 | 130 | 1.0 |

b) Channel 11

| Frequency (MHz) | Ant-Pol H/V | Meter Reading | Corrected Factor | Result (dBuV/m) | Remark | Limit@3m (dBuV/m) | | Margin (dB) | Table (Deg.) | Ant High (m) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Peak | Ave. | | | |
| 2486.396 | H | 50.83 | -0.03 | 50.80 | Peak | 74 | 54 | -23.20 | 128 | 1.1 |
| 2483.508 | H | 38.84 | -0.04 | 38.80 | Ave | 74 | 54 | -15.20 | 128 | 1.1 |
| 2483.546 | V | 60.77 | -0.04 | 60.73 | Peak | 74 | 54 | -12.27 | 130 | 1.0 |
| 2483.508 | V | 48.79 | -0.04 | 48.75 | Ave | 74 | 54 | -5.25 | 130 | 1.0 |

Notes:
1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3 MHz for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz

Test Adapter 2:

Modulation Standard: IEEE 802.11b (11Mbps)

Test Date: Dec. 25, 2006 Temperature: 18℃ Humidity: 69% Atmospheric pressure: 1015 hPa

a) Channel 1

| Frequency (MHz) | Ant-Pol H/V | Meter Reading | Corrected Factor | Result (dBuV/m) | Remark | Limit@3m (dBuV/m) | | Margin (dB) | Table (Deg.) | Ant High (m) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Peak | Ave. | | | |
| 2386.194 | H | 51.76 | -0.27 | 51.49 | Peak | 74 | 54 | -22.51 | 128 | 1.1 |
| 2386.194 | H | 41.09 | -0.27 | 40.82 | Ave | 74 | 54 | -13.18 | 128 | 1.1 |
| 2383.848 | V | 61.37 | -0.28 | 61.09 | Peak | 74 | 54 | -12.91 | 130 | 1.0 |
| 2385.378 | V | 50.01 | -0.28 | 49.73 | Ave | 74 | 54 | -4.27 | 130 | 1.0 |

b) Channel 11

| Frequency (MHz) | Ant-Pol H/V | Meter Reading | Corrected Factor | Result (dBuV/m) | Remark | Limit@3m (dBuV/m) | | Margin (dB) | Table (Deg.) | Ant High (m) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Peak | Ave. | | | |
| 2496.162 | H | 52.30 | -0.01 | 52.29 | Peak | 74 | 54 | -21.71 | 128 | 1.1 |
| 2487.536 | H | 40.51 | -0.03 | 40.48 | Ave | 74 | 54 | -13.52 | 128 | 1.1 |
| 2490.082 | V | 62.19 | -0.02 | 62.17 | Peak | 74 | 54 | -11.83 | 130 | 1.0 |
| 2488.372 | V | 50.83 | -0.03 | 50.80 | Ave | 74 | 54 | -3.20 | 130 | 1.0 |

Modulation Standard: 802.11g (54Mbps)

Test Date: Dec. 25, 2006 Temperature: 18℃ Humidity: 69% Atmospheric pressure: 1015 hPa

a) Channel 1

| Frequency (MHz) | Ant-Pol H/V | Meter Reading | Corrected Factor | Result (dBuV/m) | Remark | Limit@3m (dBuV/m) | | Margin (dB) | Table (Deg.) | Ant High (m) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Peak | Ave. | | | |
| 2389.458 | H | 49.92 | -0.27 | 49.65 | Peak | 74 | 54 | -24.35 | 128 | 1.1 |
| 2389.458 | H | 38.12 | -0.27 | 38.12 | Ave | 74 | 54 | -16.15 | 128 | 1.1 |
| 2389.866 | V | 61.54 | -0.26 | 61.28 | Peak | 74 | 54 | -12.72 | 130 | 1.0 |
| 2389.968 | V | 50.88 | -0.26 | 50.62 | Ave | 74 | 54 | -3.38 | 130 | 1.0 |

b) Channel 11

| Frequency (MHz) | Ant-Pol H/V | Meter Reading | Corrected Factor | Result (dBuV/m) | Remark | Limit@3m (dBuV/m) | | Margin (dB) | Table (Deg.) | Ant High (m) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Peak | Ave. | | | |
| 2486.396 | H | 51.26 | -0.03 | 51.23 | Peak | 74 | 54 | -22.77 | 128 | 1.1 |
| 2483.508 | H | 39.00 | -0.04 | 38.96 | Ave | 74 | 54 | -15.04 | 128 | 1.1 |
| 2483.546 | V | 60.54 | -0.04 | 60.50 | Peak | 74 | 54 | -13.50 | 130 | 1.0 |
| 2483.508 | V | 48.61 | -0.04 | 48.57 | Ave | 74 | 54 | -5.43 | 130 | 1.0 |

Notes:
1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3 MHz for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz

Test Adapter 3:

Modulation Standard: IEEE 802.11b (11Mbps)

Test Date: Dec. 25, 2006 Temperature: 18℃ Humidity: 69% Atmospheric pressure: 1015 hPa

a) Channel 1

| Frequency (MHz) | Ant-Pol H/V | Meter Reading | Corrected Factor | Result (dBuV/m) | Remark | Limit@3m (dBuV/m) | | Margin (dB) | Table (Deg.) | Ant High (m) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Peak | Ave. | | | |
| 2386.194 | H | 51.60 | -0.27 | 51.33 | Peak | 74 | 54 | -22.67 | 128 | 1.1 |
| 2386.194 | H | 41.47 | -0.27 | 41.20 | Ave | 74 | 54 | -12.80 | 128 | 1.1 |
| 2483.848 | V | 61.50 | -0.28 | 61.22 | Peak | 74 | 54 | -12.78 | 130 | 1.0 |
| 2385.378 | V | 49.60 | -0.28 | 49.32 | Ave | 74 | 54 | -4.68 | 130 | 1.0 |

b) Channel 11

| Frequency (MHz) | Ant-Pol H/V | Meter Reading | Corrected Factor | Result (dBuV/m) | Remark | Limit@3m (dBuV/m) | | Margin (dB) | Table (Deg.) | Ant High (m) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Peak | Ave. | | | |
| 2496.162 | H | 51.88 | -0.01 | 51.87 | Peak | 74 | 54 | -22.13 | 128 | 1.1 |
| 2487.536 | H | 40.26 | -0.03 | 40.23 | Ave | 74 | 54 | -13.77 | 128 | 1.1 |
| 2490.082 | V | 62.33 | -0.02 | 62.31 | Peak | 74 | 54 | -11.69 | 130 | 1.0 |
| 2488.372 | V | 50.69 | -0.03 | 50.66 | Ave | 74 | 54 | -3.34 | 130 | 1.0 |

Modulation Standard: 802.11g (54Mbps)

Test Date: Dec. 25, 2006 Temperature: 18℃ Humidity: 69% Atmospheric pressure: 1015 hPa

a) Channel 1

| Frequency (MHz) | Ant-Pol H/V | Meter Reading | Corrected Factor | Result (dBuV/m) | Remark | Limit@3m (dBuV/m) | | Margin (dB) | Table (Deg.) | Ant High (m) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Peak | Ave. | | | |
| 2389.458 | H | 49.97 | -0.27 | 49.70 | Peak | 74 | 54 | -24.30 | 128 | 1.1 |
| 2389.458 | H | 38.14 | -0.27 | 37.87 | Ave | 74 | 54 | -16.13 | 128 | 1.1 |
| 2389.866 | V | 61.26 | -0.26 | 61.00 | Peak | 74 | 54 | -13.00 | 130 | 1.0 |
| 2389.968 | V | 51.03 | -0.26 | 50.77 | Ave | 74 | 54 | -3.23 | 130 | 1.0 |

b) Channel 11

| Frequency (MHz) | Ant-Pol H/V | Meter Reading | Corrected Factor | Result (dBuV/m) | Remark | Limit@3m (dBuV/m) | | Margin (dB) | Table (Deg.) | Ant High (m) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Peak | Ave. | | | |
| 2486.396 | H | 50.97 | -0.03 | 50.94 | Peak | 74 | 54 | -23.06 | 128 | 1.1 |
| 2483.508 | H | 38.90 | -0.04 | 38.86 | Ave | 74 | 54 | -15.14 | 128 | 1.1 |
| 2483.546 | V | 61.04 | -0.04 | 61.00 | Peak | 74 | 54 | -13.00 | 130 | 1.0 |
| 2483.508 | V | 49.25 | -0.04 | 49.21 | Ave | 74 | 54 | -4.79 | 130 | 1.0 |

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3 MHz for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz

# 9. Power Spectral Density

## 9.1 Test Limit

The Maximum of Power Spectral Density Measurement is 8dBm.

## 9.2 Test Procedures

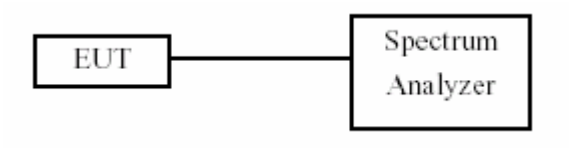
a. The transmitter output was connected to spectrum analyzer.

b. 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.

c. The power spectral density was measured and recorded.

d. The Sweep time is allowed to be longer than span/3KHz for a full response of the mixer in the spectrum analyzer.

## 9.3 Test Setup Layout：




## 9.4 Measurement equipment

| Instrument/Ancillary | Model No. | Manufacturer | Serial No. | Valid Date. |
|---|---|---|---|---|
| Spectrum Analyzer | FSP40 | R&S | 100047 | 2007/01/16 |

## 9.5 Test Result and Data

(1) Modulation Standard: IEEE 802.11b (11Mbps)

Test Date: Dec. 20, 2006 Temperature: 25℃ Humidity: 65% Atmospheric pressure: 1010 hPa

| Channel | Frequency | Maximum Power Density of 3 kHz Bandwidth (dBm) |
|---|---|---|
| 01 | 2412 | -6.67 |
| 06 | 2437 | -7.26 |
| 11 | 2462 | -6.65 |

(2) Modulation Standard: IEEE 802.11g (54Mbps)

Test Date: Dec. 20, 2006 Temperature: 25℃ Humidity: 65% Atmospheric pressure: 1010 hPa

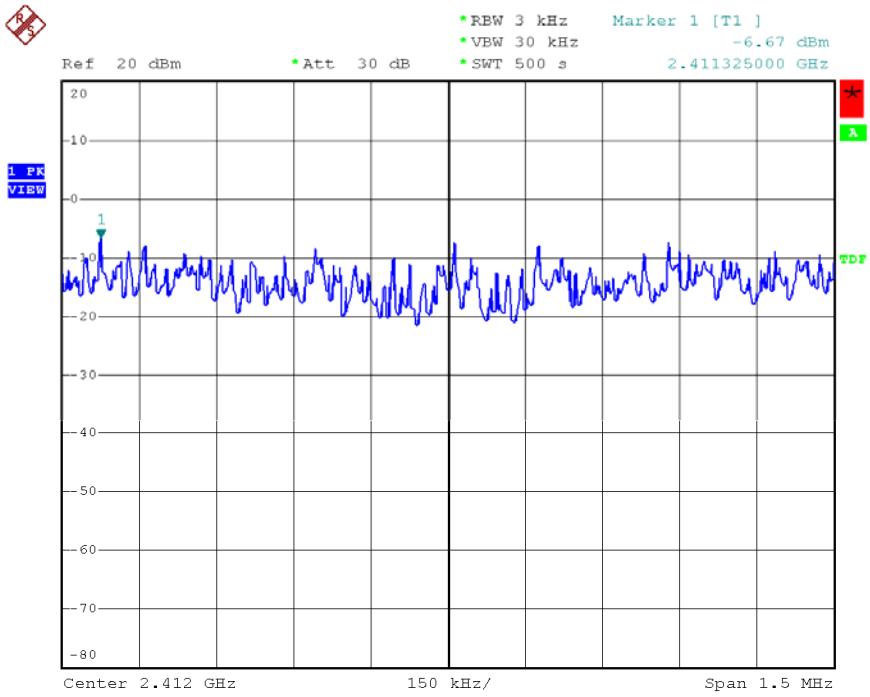
| Channel | Frequency | Maximum Power Density of 3 kHz Bandwidth (dBm) |
|---|---|---|
| 01 | 2412 | -16.07 |
| 06 | 2437 | -16.39 |
| 11 | 2462 | -15.69 |

(3) Modulation Standard: IEEE 802.11 Super G (108Mbps)

Test Date: Dec. 20, 2006 Temperature: 25℃ Humidity: 65% Atmospheric pressure: 1010 hPa

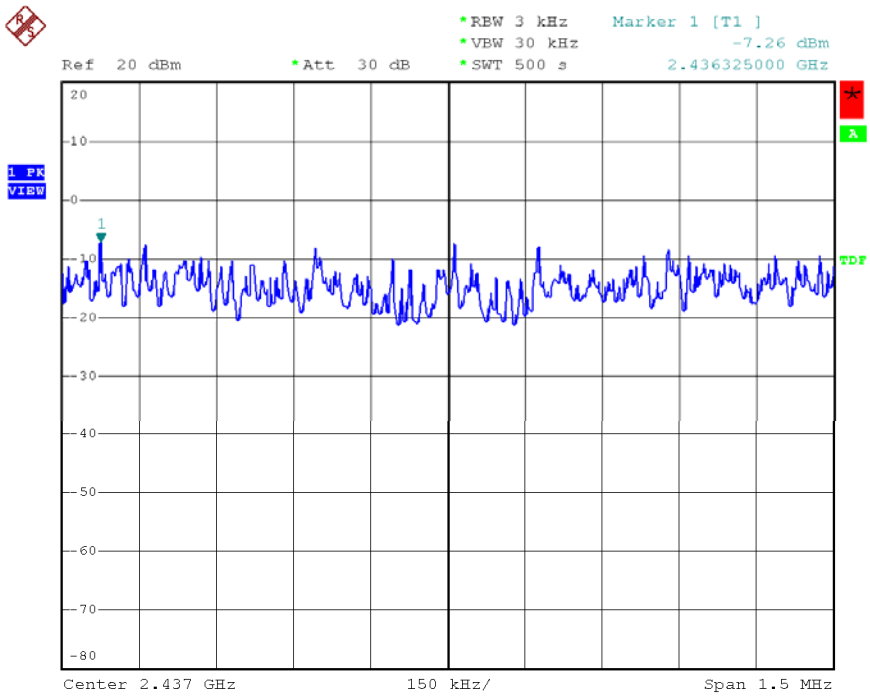
| Channel | Frequency | Maximum Power Density of 3 kHz Bandwidth (dBm) |
|---|---|---|
| 01 | 2412 | --- |
| 06 | 2437 | -17.36 |
| 11 | 2462 | --- |

Modulation Standard: 802.11b (11Mbps)
Channel: 01



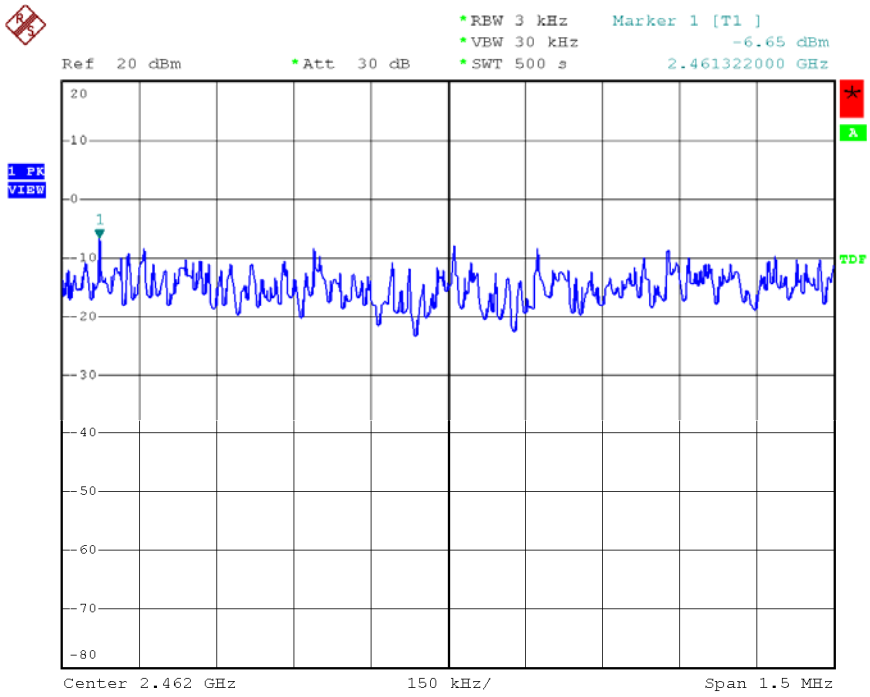

Date: 20.DEC.2006 15:02:31

Modulation Standard: 802.11b (11Mbps)
Channel: 06



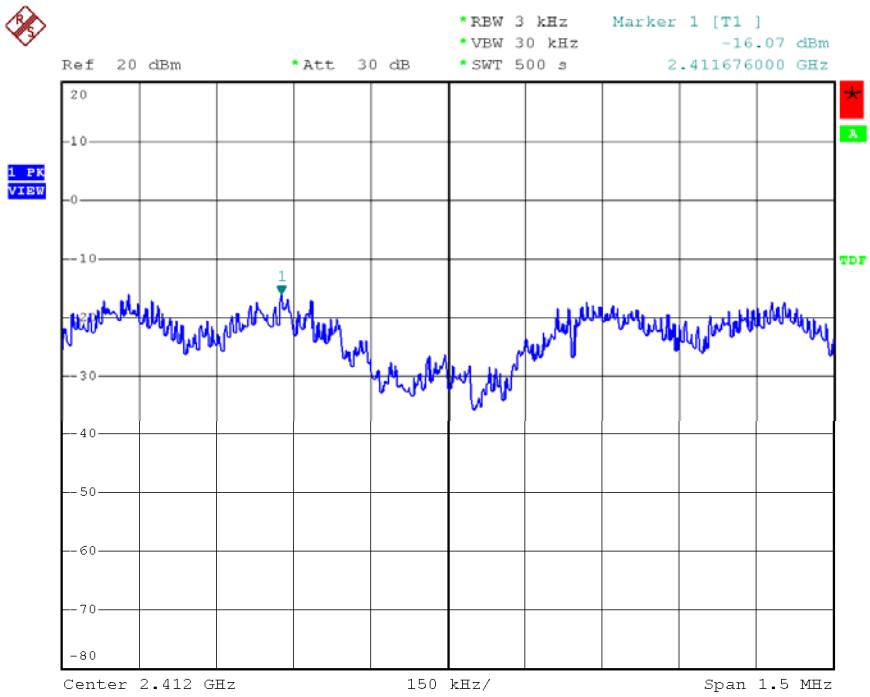

Date: 20.DEC.2006 14:17:22

Modulation Standard: 802.11b (11Mbps)
Channel: 11



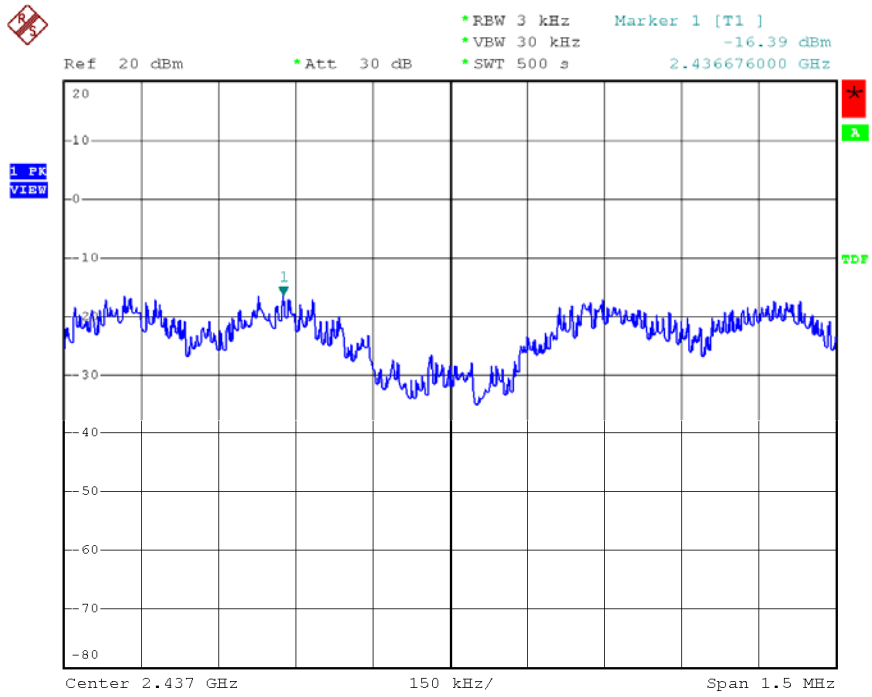

Date: 20.DEC.2006 15:35:08

Modulation Standard: 802.11g (54Mbps)
Channel: 01



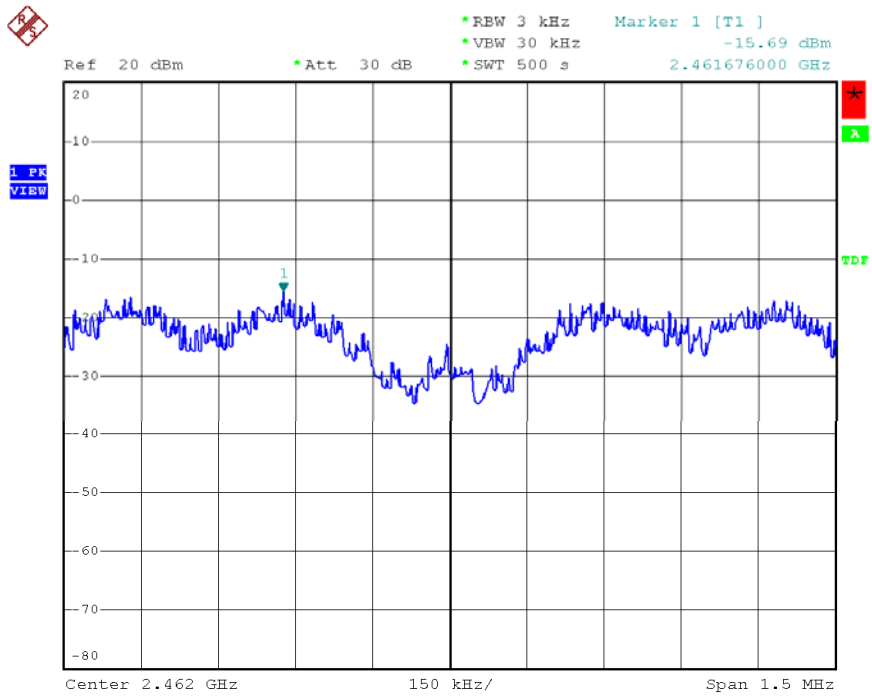

Date: 20.DEC.2006 16:57:36

Modulation Standard: 802.11g (54Mbps)
Channel: 06



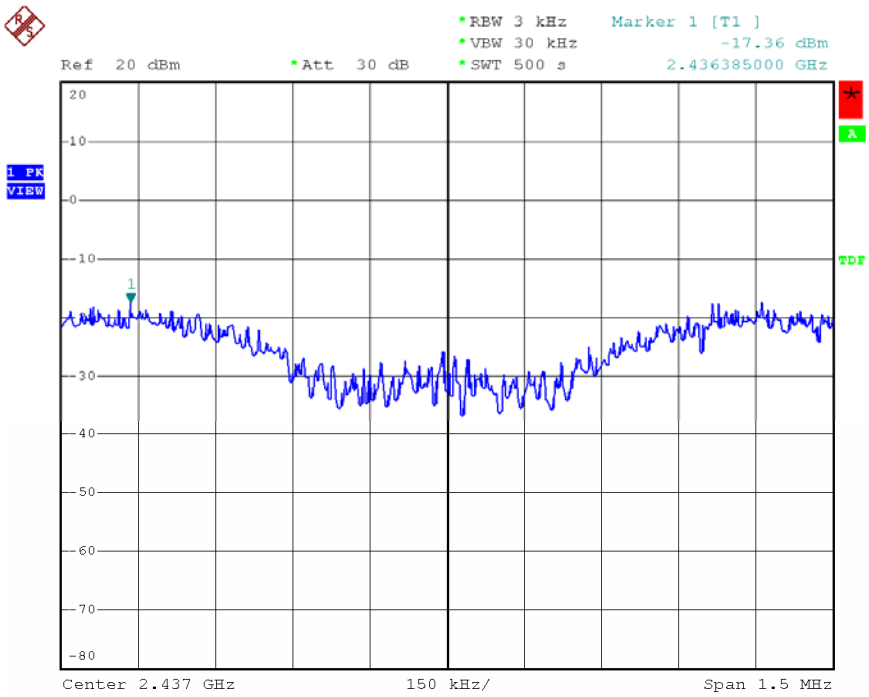

Date: 20.DEC.2006 16:43:35

Modulation Standard: 802.11g (54Mbps)
Channel: 11




Date: 20.DEC.2006 16:22:43

Modulation Standard:802.11 Super G (108Mbps)
Channel:06




Date: 20.DEC.2006 17:31:38

# 10. 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

## 10.1 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.