# EMC
# TEST REPORT

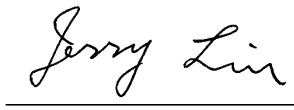
**Report No. : EME-031119**
**Model No. : DWL-G810**
**Issued Date : Sep. 24, 2003**

**Applicant : D-Link Corporation**
**2F, No. 233-2, Pao-Chiao Road, Hsin-tien, Taipei, Taiwan**

**Test By : Intertek Testing Services Taiwan Ltd.**
**No. 11, Lane 275, Ko-Nan 1 Street, Chia-Tung Li,**
**Shiang-Shan District, Hsinchu City, Taiwan**

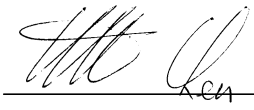


Project Engineer



Jerry Liu

Reviewed By



Elton Chen

# Table of Contents

**Summary of Tests**

## 802.11g High-speed Ethernet-to-Wireless Bridge-Model: DWL-G810
## FCC ID: KA2DWLG810

| Test | Reference | Results |
|---|---|---|
| Minimum 6dB Bandwidth test | 15.247(a)(2) | Complies |
| Maximum Output Power test | 15.247(b) | Complies |
| Radiated Spurious Emission test | 15.205, 15.209 | Complies |
| Power Spectrum Density test | 15.247(d) | Complies |
| Power Line Conducted Emission test | 15.207 | Complies |

# 1. General information

## 1.1 Identification of the EUT

| | |
|---|---|
| Applicant | : D-Link Corporation |
| Product | : 802.11g High-speed Ethernet-to-Wireless Bridge |
| Model No. | : DWL-G810 |
| FCC ID. | : KA2DWLG810 |
| Frequency Range | : 2412~2462MHz |
| Channel Number | : 11 channels |
| Frequency of Each Channel | : 2412MHz, 2417MHz, 2422MHz, 2427MHz, 2432MHz, 2437MHz, 2442MHz, 2447MHz, 2452MHz, 2457MHz, 2462MHz |
| Type of Modulation | : DSSS, OFDM |
| Rated Power | : 120Vac, 60Hz |
| Power Cord | : N/A |
| Sample Received | : Sep. 9, 2003 |
| Test Date(s) | : Sep. 9, 2003 ~ Oct. 2, 2003 |

A FCC DoC report has been generated for the client.

## 1.2 Additional information about the EUT

The D-Link AirPlus XtremeG DWL-G810 Ethernet-to-Wireless Bridge is a device that can be implemented in a variety of ways to provide wireless access by converting an Ethernet connection. For devices with a built-in Ethernet port, the DWL-G810 provides a cost effective way to gain wireless connectivity virtually transforming wired devices into wireless units! Connect any Ethernet-enabled device to 802.11g wireless network and legacy 802.11g wireless network using the DWL-G810.

For more detail features, please refer to User's manual as file name “Installation guide.pdf”

### 1.3 Antenna description

The antenna is affixed to the EUT using a unique connector, which allows for replacement of a broken antenna, but DOES NOT use a standard antenna jack or electrical connector.

Antenna Gain : 2 dBi max
Antenna Type : Dipole antenna
Connector Type : SMA-R

### 1.4 Peripherals equipment

| Peripherals | Manufacturer | Product No. | Serial No. | FCC ID |
|---|---|---|---|---|
| Notebook 1 | Twinhead | P79T | H0905483 | FCC DoC Approved |
| Notebook 2 | DELL | PP01L | CN-06P83-48643-33V-0112 | FCC DoC Approved |
| Wireless LAN CardBus | BUFFALO | WLI-CB-G54A | 0007407964D4 | FCC DoC Approved |

## 2. Test specifications

### 2.1 Test standard

The EUT was performed according to the procedures in FCC Part 15 Subpart C Section § 15.205、§15.207、§15.209、§15.247 and ANSI C63.4/2001.

The test of radiated measurements according to FCC Part15 Section 15.33(a) had been conducted and the field strength of this frequency band were all meet limit requirement, thus we evaluate the EUT pass the specified test.

### 2.2 Operation mode

During conducted emission test, the EUT was operated in normal mode, communicating with a wireless LAN Card; while in other tests, it worked in the status of continuously transmitting.

After verifying the maximum output power, we found the maximum output power was occurred at 54Mbps/11Mbps data rate. The final test was executed under this condition and recorded in this report individually.

**2.3 Test equipment**

| Equipment | Brand | Frequency range | Model No. | Series No. | Last Cal.Date |
|---|---|---|---|---|---|
| EMI Test Receiver | Rohde & Schwarz | 9kHz~2.75GHz | ESCS 30 | 825788/014 | Feb. 18, 2003 |
| EMI Test Receiver | Rohde & Schwarz | 20Hz~26.5GHz | ESMI | 825428/005 | June 10, 2003 |
| Spectrum Analyzer | Rohde & Schwarz | 9kHz~30GHz | FSP 30 | 100137 | July 10, 2003 |
| Spectrum Analyzer | Rohde & Schwarz | 20Hz~40GHz | FSEK 30 | 100186 | Oct. 9, 2002 |
| Horn Antenna | EMCO | 1GHz~18GHz | 3115 | 9906-5890 | Sep. 19, 2002 |
| Horn Antenna | SCHWARZBECK | 14GHz~40GHz | BBHA 9170 | 159 | June 21, 2003 |
| Bilog Antenna | SCHWARZBECK | 25MHz~1.7GHz | VULB 9160 | 3133 | Feb. 21, 2003 |
| Turn Table | HDGmbH | N/A | DS 420S | 420/669/01 | N/A |
| Antenna Tower | HDGmbH | N/A | MA 240 | 240/573 | N/A |
| Microwave Amplifier | Agilent | 2GHz~26.5GHz | 8348A | 3111A00567 | Dec. 20, 2002 |
| Crystal Detector | Agilent | 10MHz~18GHz | 8472B | MY42240243 | N/A |
| Signal Generator | Rohde & Schwarz | 20MHz~27GHz | SMR27 | 100036 | Aug. 15, 2003 |
| Two Channel Digital Storage Oscilloscope | Tektronix | N/A | TDS1012 | C031679 | Aug. 16, 2003 |

Note:
1. The calibration interval of the above instruments is 12 months.

## 3. Minimum 6dB Bandwidth test

### 3.1 Operating environment

| | | |
|---|---|---|
| Temperature: | 24 | ℃ |
| Relative Humidity: | 53 | % |
| Atmospheric Pressure | 1023 | hPa |

### 3.2 Test setup & procedure

The minimum 6dB bandwidth per FCC §15.247(a)(2) was measured using a 50 ohm spectrum analyzer with the resolutions bandwidth set at 100kHz, the video bandwidth set at 300kHz, and the SPAN>>RBW. The test was performed at 3 channels (lowest, middle and highest channel). The minimum 6-dB modulation bandwidth is in the following Table.

### 3.3 Measured data of Minimum 6dB Bandwidth test results

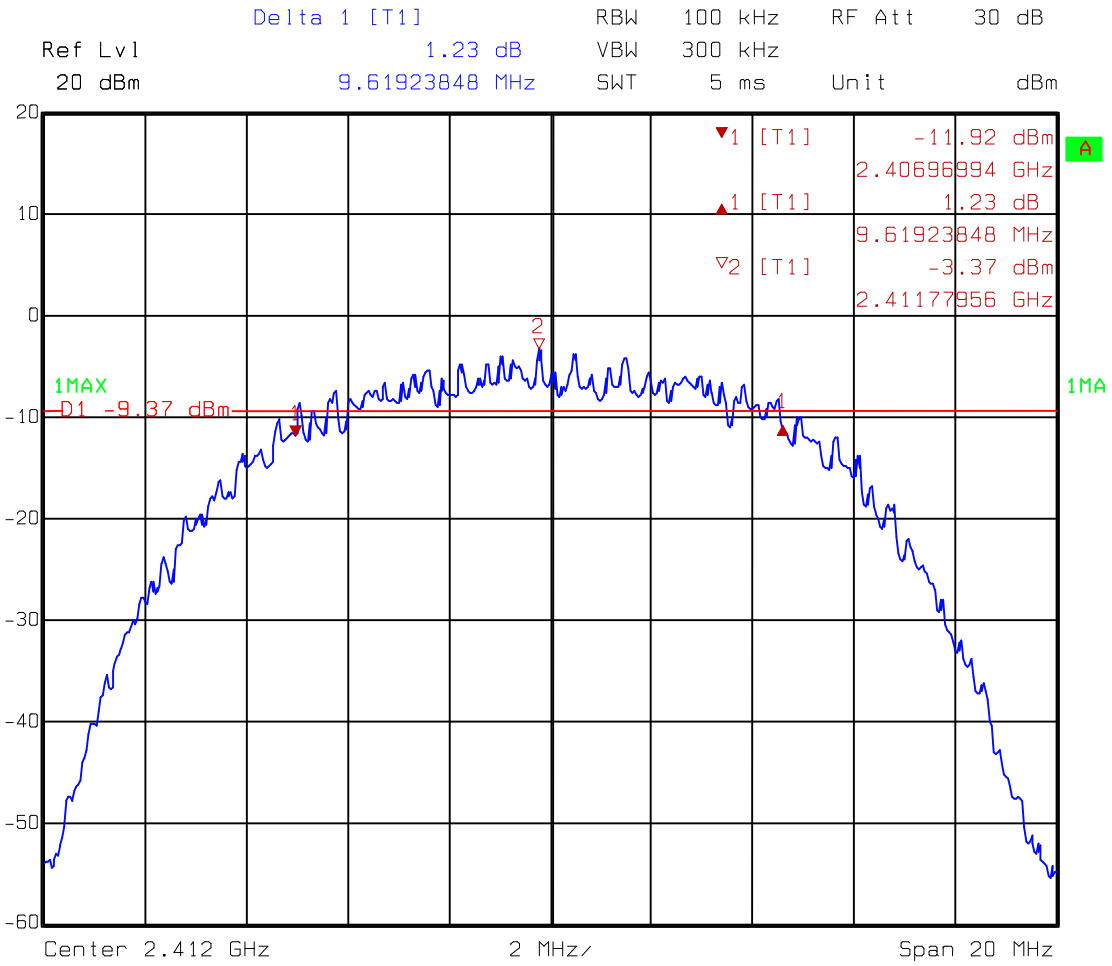
Test Condition: 802.11b operation (DSSS modulation)

| Channel | Frequency (MHz) | Bandwidth (MHz) | Limit |
|---|---|---|---|
| Low | 2412 | 9.61924 | ＞500kHz |
| Middle | 2437 | 9.61924 | ＞500kHz |
| High | 2462 | 9.61924 | ＞500kHz |

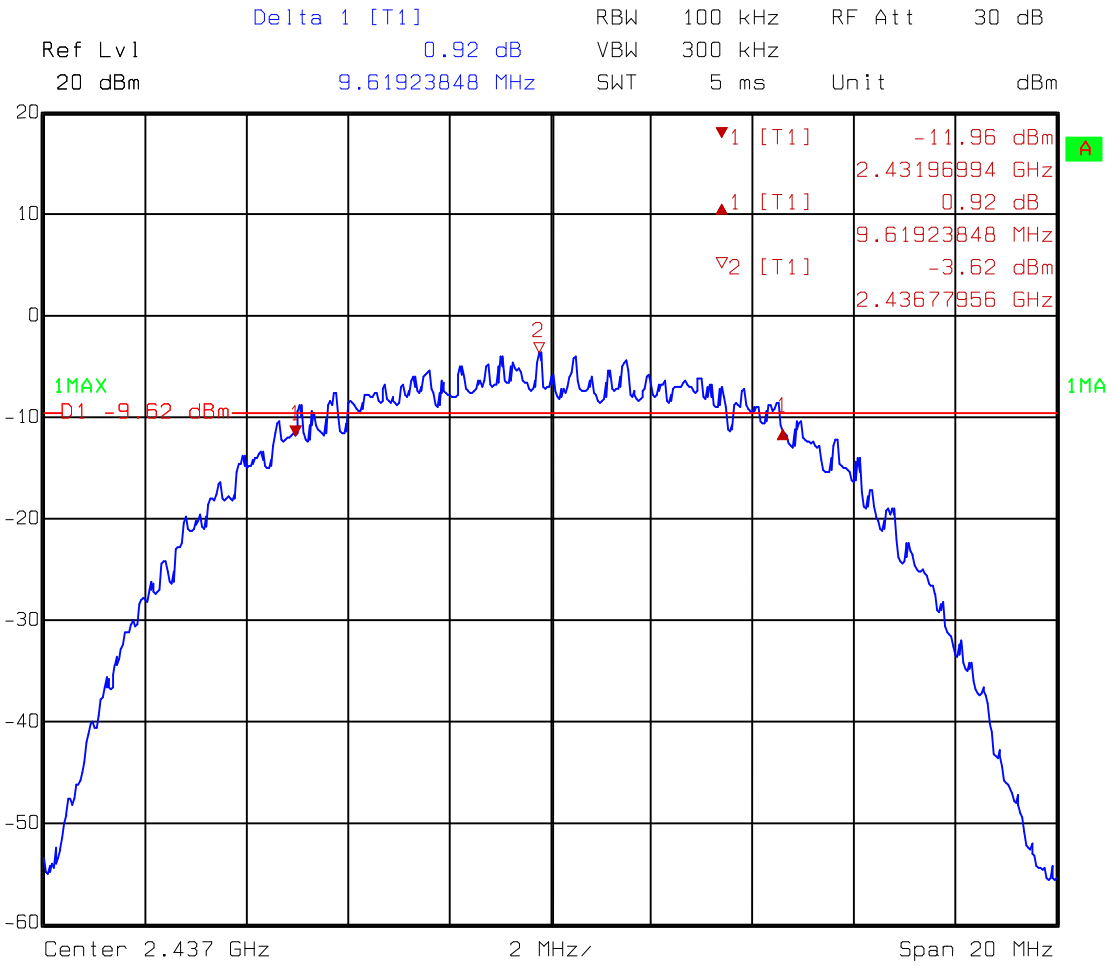
Test Condition: 802.11g operation (OFDM modulation)

| Channel | Frequency (MHz) | Bandwidth (MHz) | Limit |
|---|---|---|---|
| Low | 2412 | 15.63126 | ＞500kHz |
| Middle | 2437 | 15.59118 | ＞500kHz |
| High | 2462 | 15.55110 | ＞500kHz |

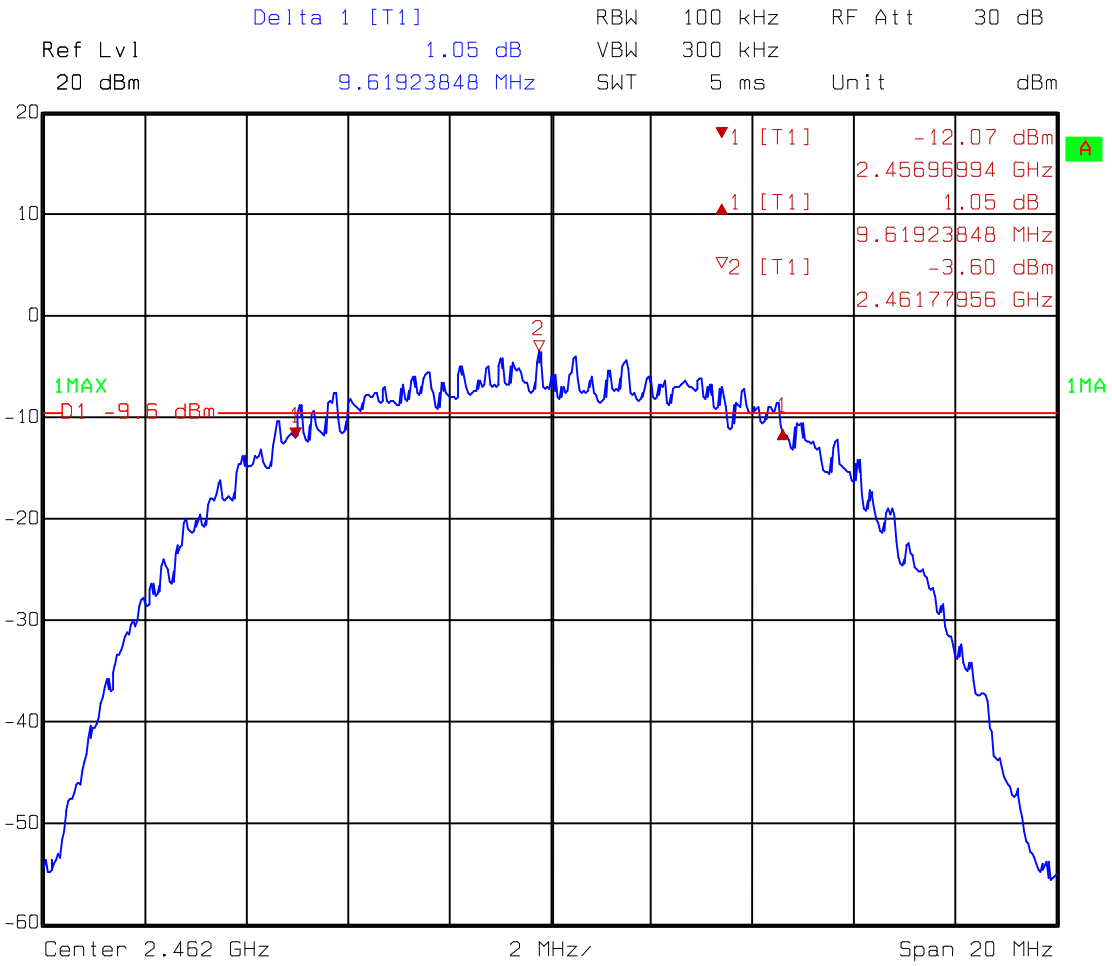
Please see the plot below.



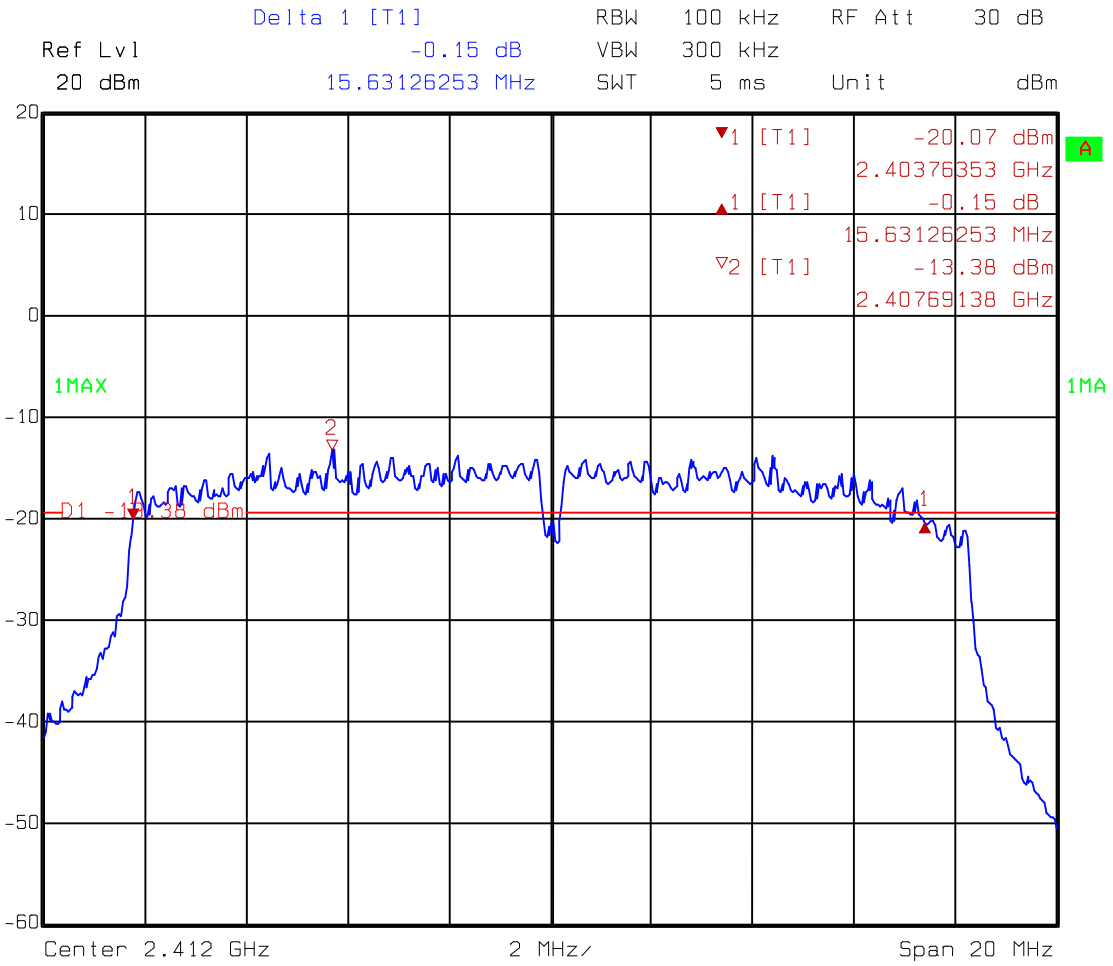

Comment A: 6dB bandwidth at low channel (EC365) 802.11b
Date: 02.OCT.2003 17:23:58



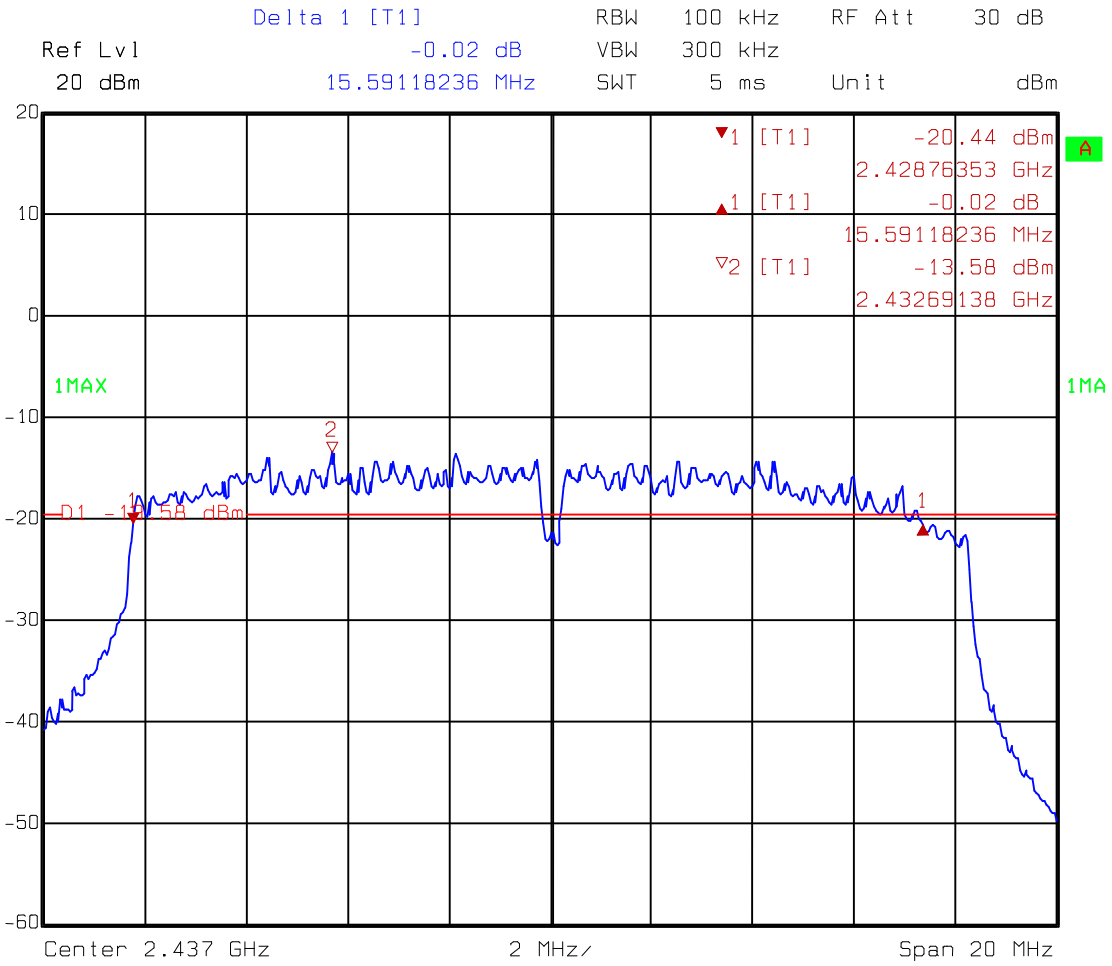

Comment A: 6dB bandwidth at middle channel (EC365) 802.11b
Date: 02.OCT.2003 17:18:50



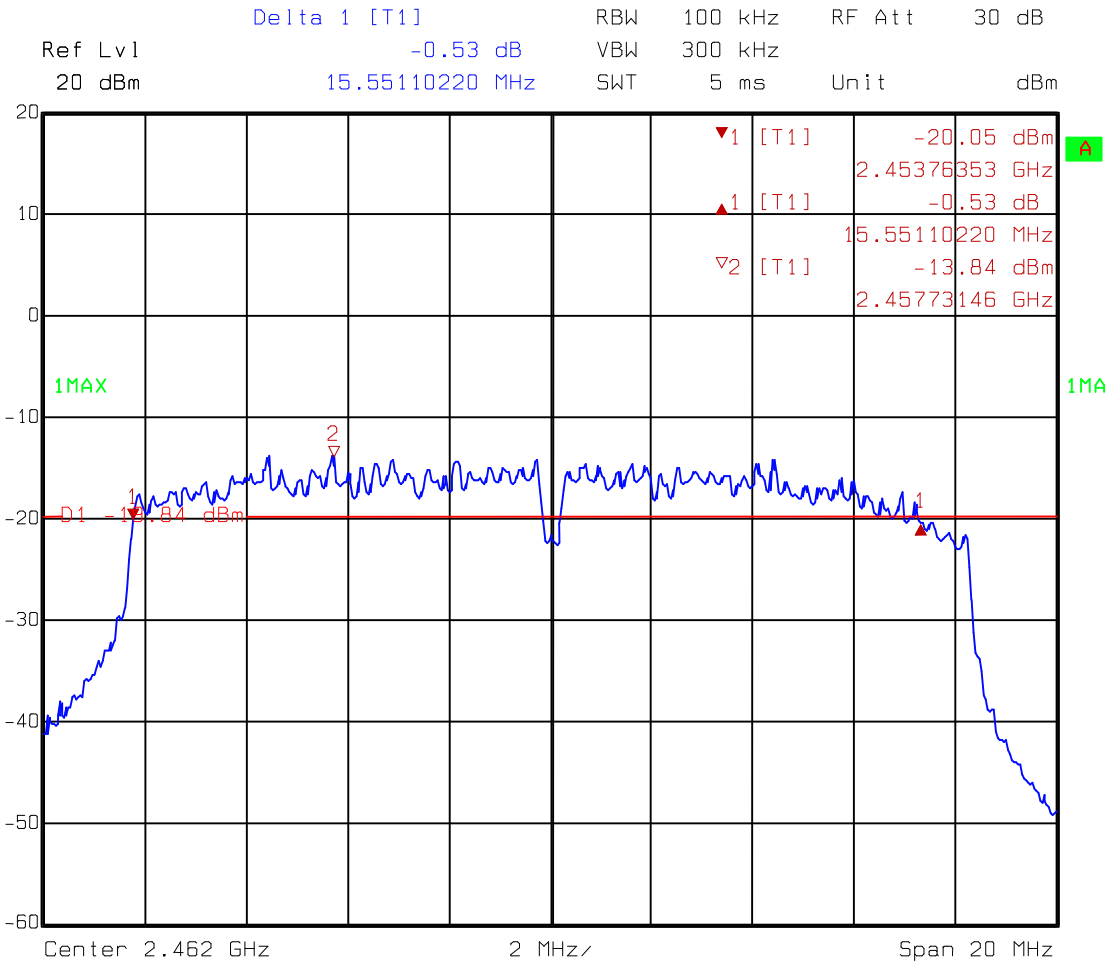

Comment A: 6dB bandwidth at high channel (EC365) 802.11b
Date: 02.OCT.2003 17:16:45




Comment A: 6dB bandwidth at low channel (EC365) 802.11g
Date: 02.OCT.2003 17:22:21




Comment A: 6dB bandwidth at middle channel (EC365) 802.11g
Date: 02.OCT.2003 17:20:31




Comment A: 6dB bandwidth at high channel (EC365) 802.11g
Date: 02.OCT.2003 17:14:20

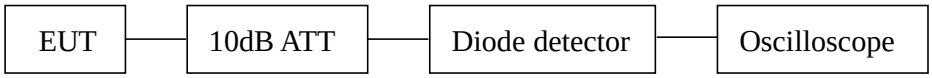
## 4. Maximum Output Power test

### 4.1 Operating environment

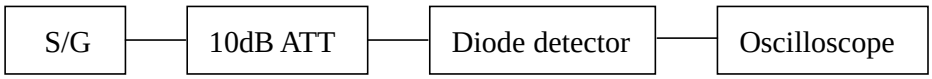
| | | |
|---|---|---|
| Temperature: | 24 | ℃ |
| Relative Humidity: | 53 | % |
| Atmospheric Pressure | 1023 | hPa |

### 4.2 Test setup & procedure

A:




B:




1. The output of the transmitter via a 10 dB attenuator and coupled to a diode detector.
2. The output of the diode detector connected to the vertical channel of and oscilloscope. The observed trace of the oscilloscope shall be recorded as “A”.
3. The transmitter replaced by a signal generator. The output frequency of the signal made equal to the center of the frequency range occupied by the transmitter and unmodulated.
4. The output of the signal generator raised to reach the peak of trace “A” named X.
5. The signal generator output level X (dBm) is the transmitter peak output power.

### 4.3 Measured data of Maximum Output Power test results

Test Condition: 802.11b operation (DSSS modulation)

| Channel | Frequency (MHz) | Reading (dBm) | Output Power | | Limit (dBm) |
|---|---|---|---|---|---|
| | | | (dBm) | (mW) | |
| Lowest | 2412 | 13.83 | 13.83 | 24.15 | 30 |
| Middle | 2437 | 13.43 | 13.43 | 22.03 | 30 |
| Highest | 2462 | 12.53 | 12.53 | 17.91 | 30 |

Test Condition: 802.11g operation (OFDM modulation)

| Channel | Frequency (MHz) | Reading (dBm) | Output Power | | Limit (dBm) |
|---|---|---|---|---|---|
| | | | (dBm) | (mW) | |
| Lowest | 2412 | 14.93 | 14.93 | 31.12 | 30 |
| Middle | 2437 | 14.53 | 14.53 | 28.38 | 30 |
| Highest | 2462 | 14.83 | 14.83 | 30.41 | 30 |

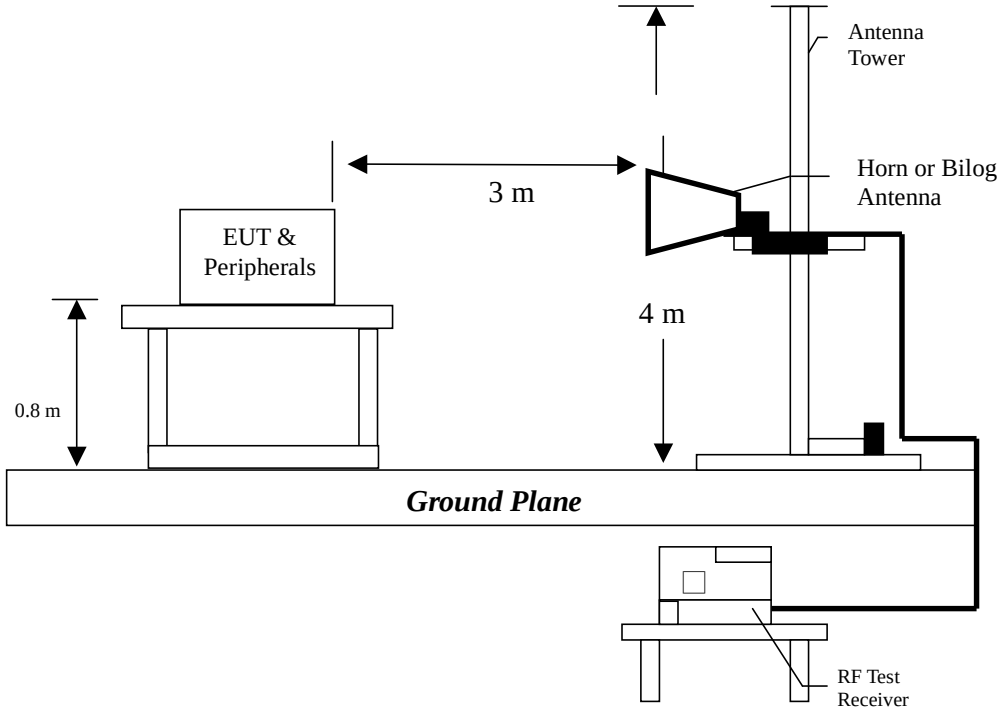
## 5. Radiated Emission test

### 5.1 Operating environment

| | | | |
|---|---|---|---|
| Temperature: | 23 | ℃ | (10-40℃) |
| Relative Humidity: | 58 | % | (10-90%) |
| Atmospheric Pressure | 1023 | hPa | (860-1060hPa) |

### 5.2 Test setup & procedure

The Diagram below shows the test setup, which is utilized to make these measurements.




Radiated emissions were invested cover the frequency range from 30MHz to 1000MHz using a receiver RBW of 120kHz record QP reading, and the frequency over 1GHz using a spectrum analyzer RBW of 1MHz and 10Hz VBW record Average reading. (15.209 paragraph), the Peak reading (1MHz RBW/VBW) recorded also on the report.
The EUT for testing is arranged on a wooden turntable. If some peripherals apply to the EUT, the peripherals will be connected to EUT and the whole system. During the test, all cables were arranged to produce worst-case emissions. The signal is maximized through rotation. The height of antenna and polarization is changing constantly for exploring for maximum signal level. The height of antenna can be up to 4 meters and down to 1 meter.

The measurement for radiated emission will be done at the distance of three meters unless the signal level is too low to measure at that distance. In the case of the reading under noise floor, a pre-amplifier is used and/or the test is conducted at a closer distance. And then all readings are extrapolated back to the equivalent three meter reading using inverse scaling with distance.

The EUT configuration please refer to the "Spurious set-up photo.pdf".

**5.3 Emission limits**

The spurious Emission shall test through the 10th harmonic. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a).

| Frequency (MHz) | Limits (dB $\mu$ V/m@3m) |
|---|---|
| 30-88 | 40 |
| 88-216 | 43.5 |
| 216-960 | 46 |
| Above 960 | 54 |

Remark:
1. In the above table, the tighter limit applies at the band edges.
2. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system

Uncertainty was calculated in accordance with NAMAS NIS 81.
Expanded uncertainty (k=2) of radiated emission measurement is ±4.98 dB.
Expanded uncertainty (k=2) of conducted emission measurement is ±2.02 dB.

**5.4 Radiated spurious emission test data**

**5.4.1 Measurement results: frequencies equal to or less than 1 GHz**

**The radiated spurious emissions at**

| Frequency(MHz) | Margin |
|---|---|
| 249.00000 | -1.93 |
| 349.00000 | -4.43 |
| 450.00000 | -4.36 |

**are less than uncertainty. This is within the stated measurement uncertainty, this may affect compliance determined in other test arrangements.**

EUT : DWL-G810
Worst Case Condition : 802.11b (DSSS modulation) Tx at low channel

| Frequency (MHz) | Spectrum Analyzer Detector | Antenna Polariz. (H/V) | Correction Factor (dB/m) | Reading (dBuV) | Corrected Level (dBuV) | Limit @ 3 m (dBuV) | Margin (dB) | Antenna high (cm) | Turn Table angle (degree) |
|---|---|---|---|---|---|---|---|---|---|
| 349.99000 | QP | V | 15.56 | 22.38 | 37.94 | 46.00 | -8.06 | 339 | 91 |
| 450.00000 | QP | V | 17.86 | 22.64 | 40.50 | 46.00 | -5.50 | 142 | 303 |
| 480.00000 | QP | V | 18.61 | 12.08 | 30.69 | 46.00 | -15.31 | 120 | 66 |
| 549.00000 | QP | V | 19.60 | 14.26 | 33.86 | 46.00 | -12.14 | 152 | 337 |
| 799.00000 | QP | V | 23.49 | 8.90 | 32.39 | 46.00 | -13.61 | 154 | 44 |
| 960.00000 | QP | V | 25.81 | 9.21 | 35.02 | 46.00 | -10.98 | 187 | 247 |
| 249.00000 | QP | H | 12.85 | 31.22 | 44.07 | 46.00 | -1.93 | 188 | 300 |
| 349.00000 | QP | H | 15.56 | 26.01 | 41.57 | 46.00 | -4.43 | 252 | 40 |
| 450.00000 | QP | H | 17.86 | 23.78 | 41.64 | 46.00 | -4.36 | 100 | 236 |
| 549.00000 | QP | H | 19.60 | 16.09 | 35.69 | 46.00 | -10.31 | 100 | 50 |
| 799.00000 | QP | H | 23.49 | 7.94 | 31.43 | 46.00 | -14.57 | 281 | 333 |
| 960.00000 | QP | H | 25.81 | 9.79 | 35.60 | 46.00 | -10.40 | 158 | 109 |

Remark:
1.Corrected Level = Reading Level + Correction Factor
2.Correction Factor = Antenna Factor + Cable Loss

**The radiated spurious emissions at**

| Frequency(MHz) | Margin |
|---|---|
| 450.08000 | -2.56 |

**are less than uncertainty. This is within the stated measurement uncertainty, this may affect compliance determined in other test arrangements.**

EUT : DWL-G810
Worst Case Condition : 802.11g (OFDM modulation) Tx at low channel

| Frequency (MHz) | Spectrum Analyzer Detector | Antenna Polariz. (H/V) | Correction Factor (dB/m) | Reading (dBuV) | Corrected Level (dBuV) | Limit @ 3 m (dBuV) | Margin (dB) | Antenna high (cm) | Turn Table angle (degree) |
|---|---|---|---|---|---|---|---|---|---|
| 249.99000 | QP | V | 12.85 | 25.94 | 38.79 | 46.00 | -7.21 | 100 | 113 |
| 349.99000 | QP | V | 15.56 | 25.03 | 40.59 | 46.00 | -5.41 | 121 | 97 |
| 449.99000 | QP | V | 17.86 | 19.46 | 37.32 | 46.00 | -8.68 | 278 | 338 |
| 479.99000 | QP | V | 18.21 | 18.25 | 36.46 | 46.00 | -9.54 | 111 | 267 |
| 549.98000 | QP | V | 19.60 | 15.22 | 34.82 | 46.00 | -11.18 | 100 | 200 |
| 649.99000 | QP | V | 21.32 | 9.43 | 30.75 | 46.00 | -15.25 | 153 | 206 |
| 249.98000 | QP | H | 12.85 | 26.37 | 39.22 | 46.00 | -6.78 | 127 | 262 |
| 319.99000 | QP | H | 14.45 | 11.26 | 25.71 | 46.00 | -20.29 | 340 | 114 |
| 349.99000 | QP | H | 15.56 | 24.19 | 39.75 | 46.00 | -6.25 | 267 | 258 |
| 450.08000 | QP | H | 17.86 | 25.58 | 43.44 | 46.00 | -2.56 | 100 | 208 |
| 479.97000 | QP | H | 18.21 | 9.13 | 27.34 | 46.00 | -18.66 | 119 | 347 |
| 549.99000 | QP | H | 19.60 | 12.02 | 31.62 | 46.00 | -14.38 | 299 | 84 |

Remark:
1.Corrected Level = Reading Level + Correction Factor
2.Correction Factor = Antenna Factor + Cable Loss

### 5.4.2 Measurement results: frequency above 1GHz

EUT : DWL-G810
Test Condition : Tx at low, middle and high channel

Test Result:
No spurious emission was found above the spectrum analyzer's noise floor.
The noise floor are listed as below:

For PK:
1GHz-3GHz: 50dBuV
3GHz-14GHz: 54dBuV
14GHz-26.5GHz: 60dBuV

For AV:
1GHz-3GHz: 41.5dBuV
3GHz-14GHz: 46dBuV
14GHz-26.5GHz: 46.5dBuV

## 6. Power Spectrum Density test

### 6.1 Operating environment

| | | |
|---|---|---|
| Temperature: | 23 | ℃ |
| Relative Humidity: | 53 | % |
| Atmospheric Pressure | 1023 | hPa |

### 6.2 Test setup & procedure

The power spectrum density per FCC §15.247(d) was measured from the antenna port of the EUT using a 50ohm spectrum analyzer with the resolution bandwidth set at 3kHz, the video bandwidth set at 10kHz, a span of 1.5 MHz, and the sweep time set at 500 seconds. Power Density was read directly and cable loss (2.13dB)/external attenuator (10dB) correction was added to the reading to obtain power at the EUT antenna terminals. The test was performed at 3 channels (lowest, middle and highest channel). The Power Spectral Density measured result is in the following table.

### 6.3 Measured data of Power Spectrum Density test results

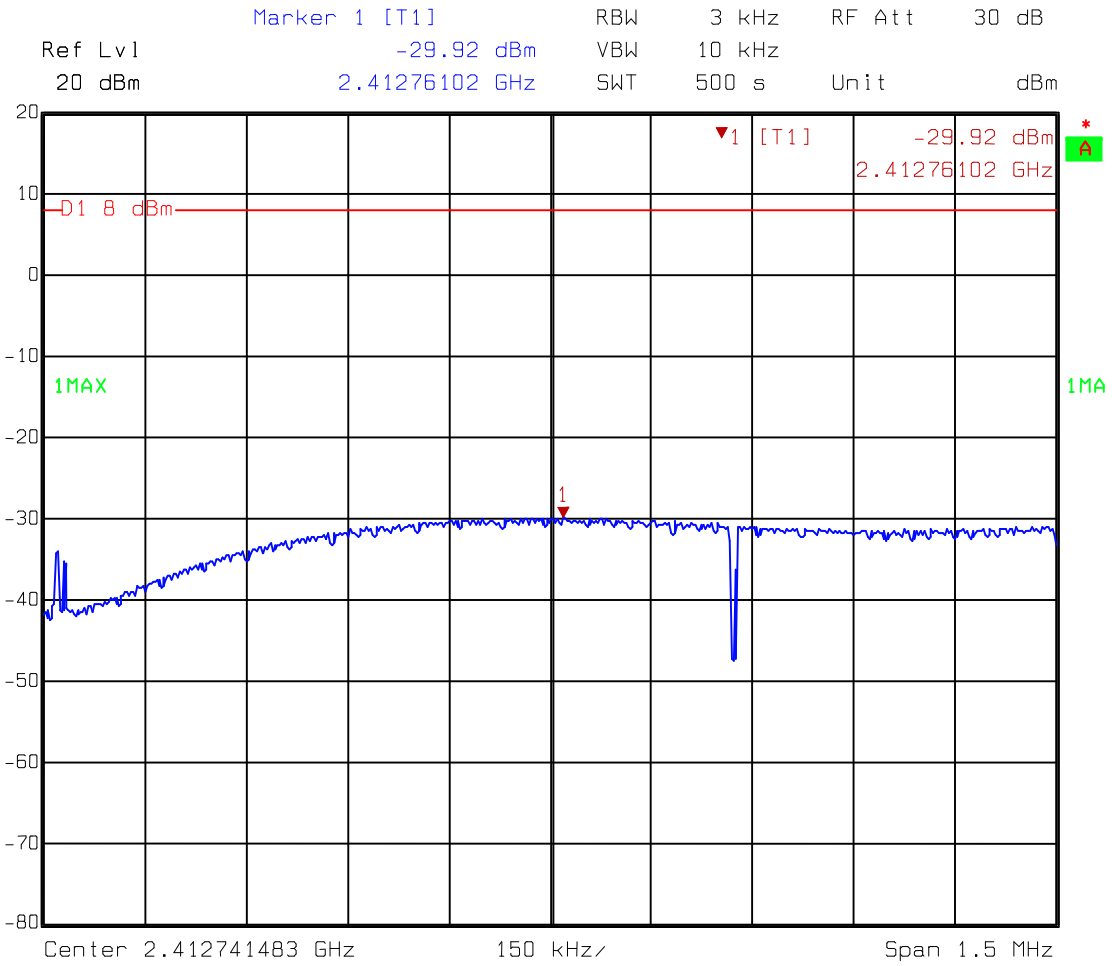
Test Condition: 802.11b operation (DSSS modulation)

| Channel | Frequency (MHz) | Measured level (dBm) | Limit (dBm) |
|---|---|---|---|
| Low | 2.41276 | -17.79 | 8 |
| Middle | 2.43768 | -20.24 | 8 |
| High | 2.46136 | -20.35 | 8 |

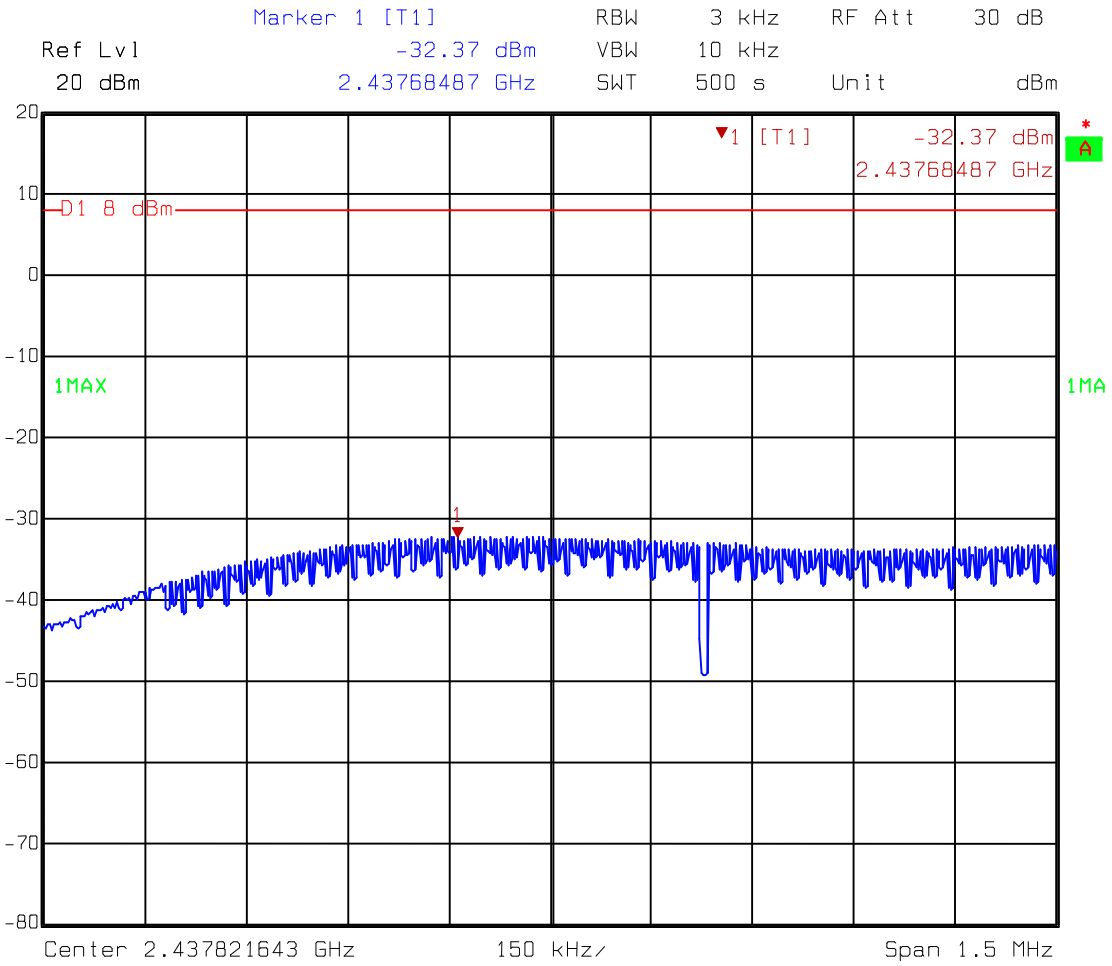
Test Condition: 802.11g operation (OFDM modulation)

| Channel | Frequency (MHz) | Measured level (dBm) | Limit (dBm) |
|---|---|---|---|
| Low | 2.41017 | -24.49 | 8 |
| Middle | 2.43516 | -24.31 | 8 |
| High | 2.46023 | -24.62 | 8 |

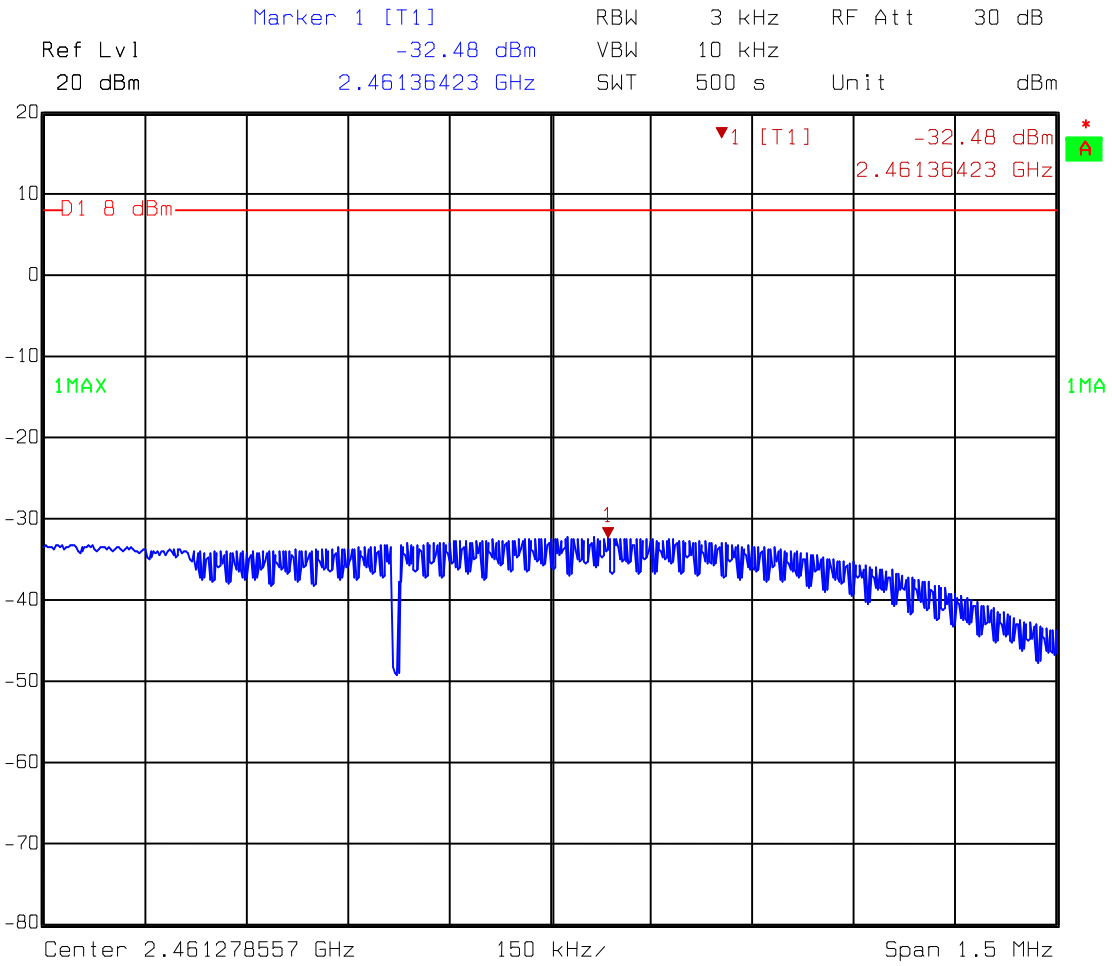
Please see the plot below.



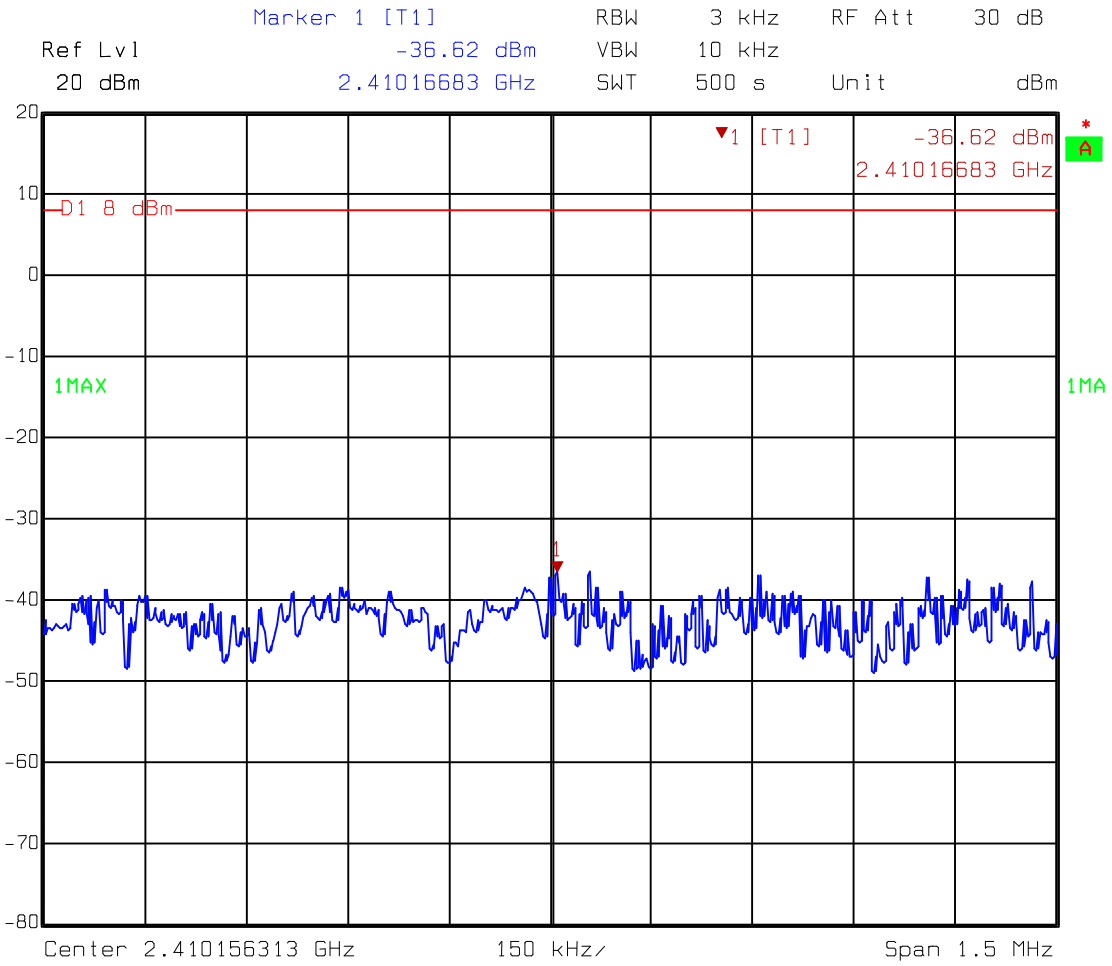

Comment A: Power spectrum density at low channel
ATT=10dB CL=2.13 802.11b
Date: 09.SEP.2003 22:43:40



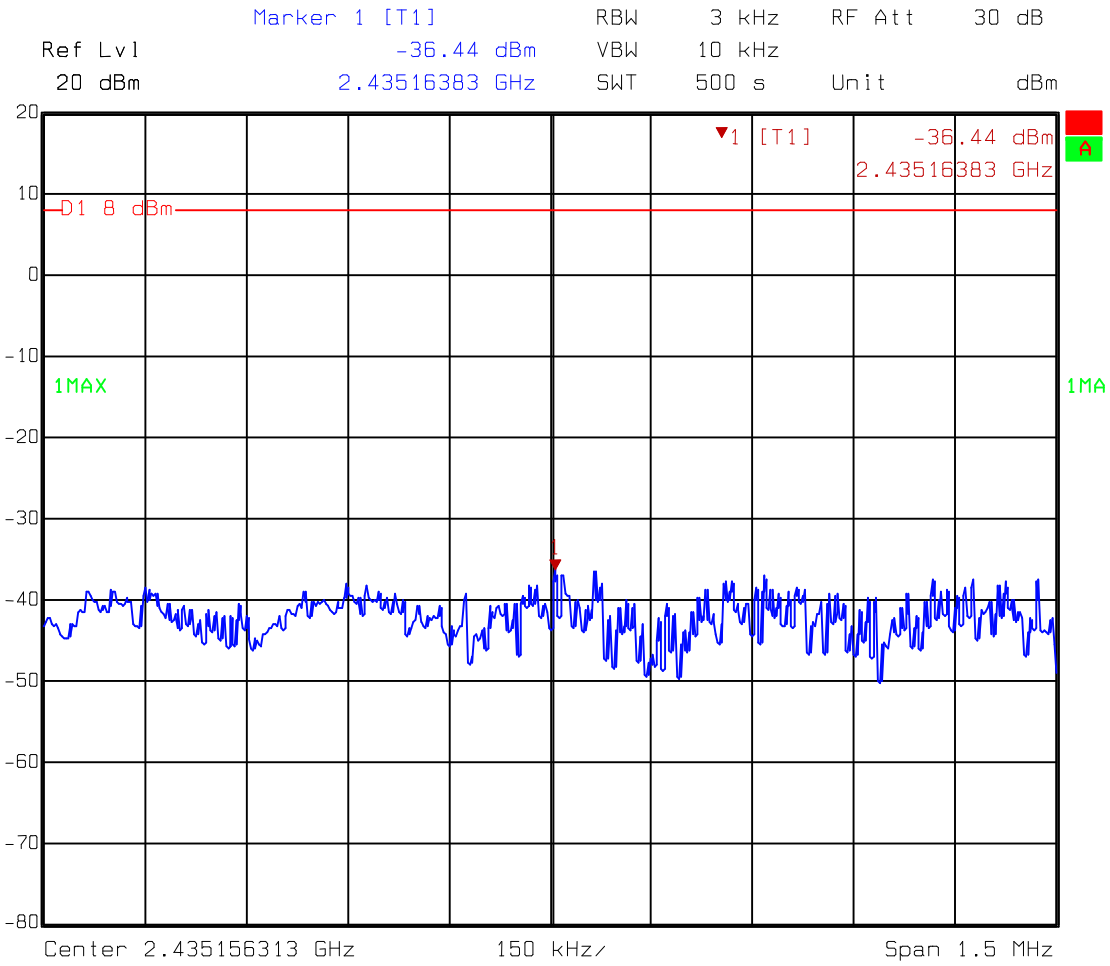

Comment A: Power spectrum density at middle channel
ATT=10dB CL=2.13 802.11b EC365
Date: 09.SEP.2003 22:55:46



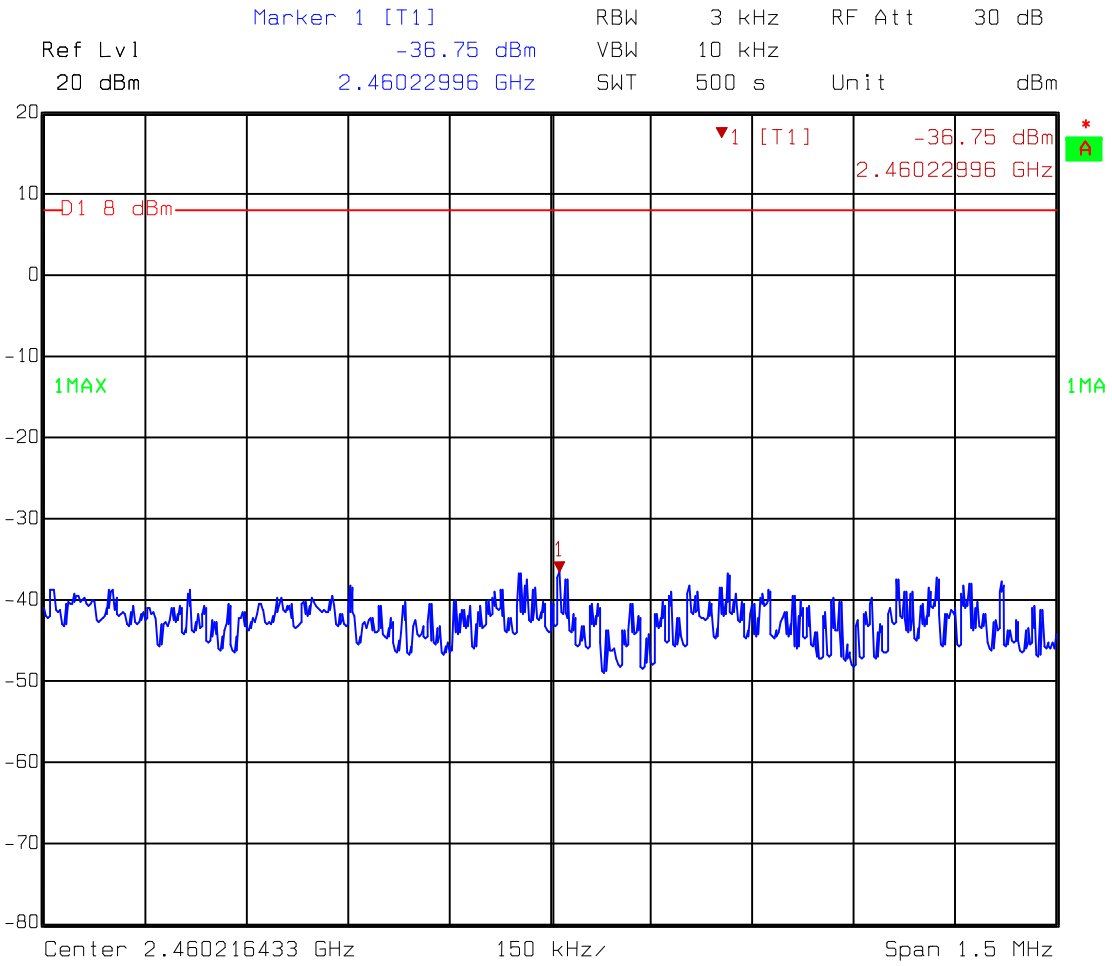

Comment A: Power spectrum density at high channel
ATT=10dB CL=2.13 802.11b EC365
Date: 09.SEP.2003 23:03:56




Comment A: Power spectrum density at low channel
ATT=10dB CL=2.13 802.11g (EC365)
Date: 09.SEP.2003 22:47:30




Comment A: Power spectrum density at middle channel
ATT=10dB CL=2.13 802.11g
Date: 09.SEP.2003 22:51:34



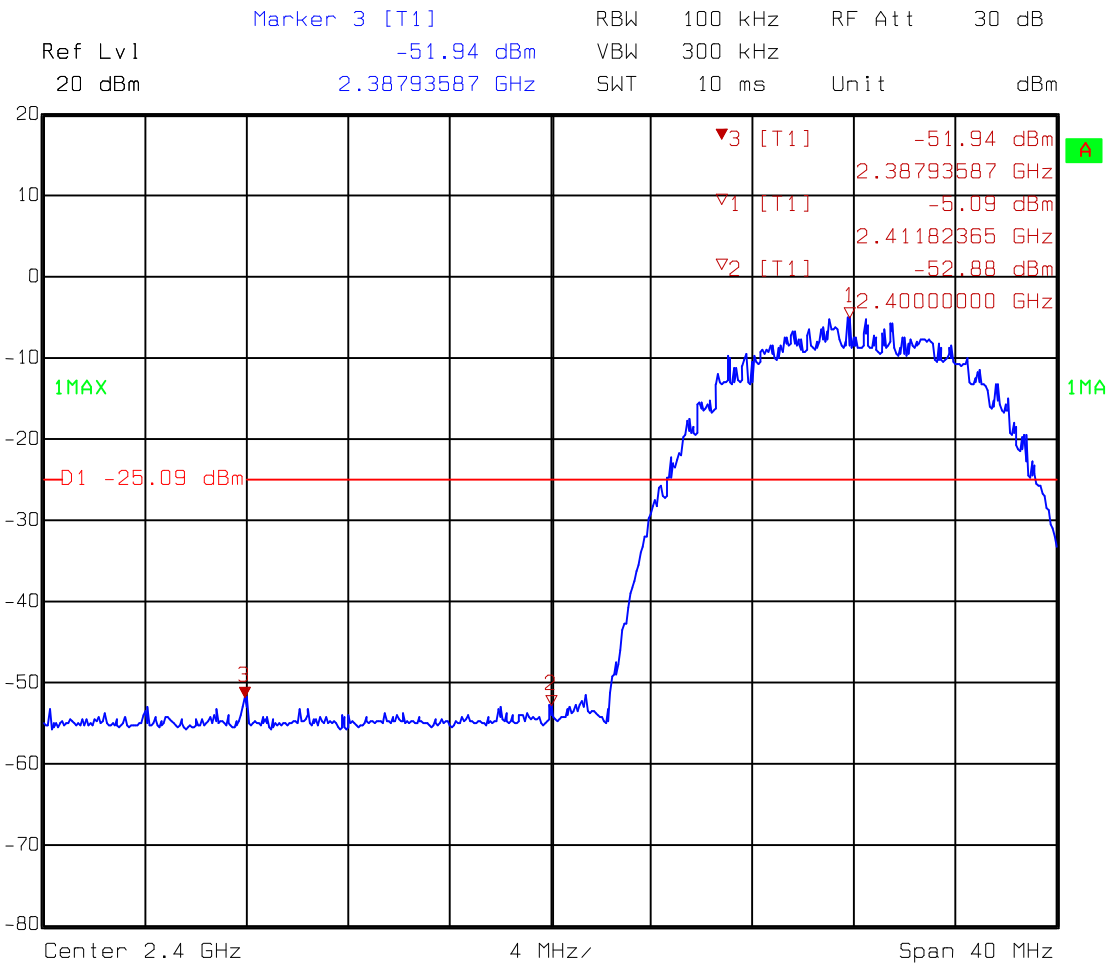

Comment A: Power spectrum density at high channel
CL=2.13 802.11g EC365
Date: 09.SEP.2003 22:59:13

## 7. Emission on the band edge §FCC 15.247(C)

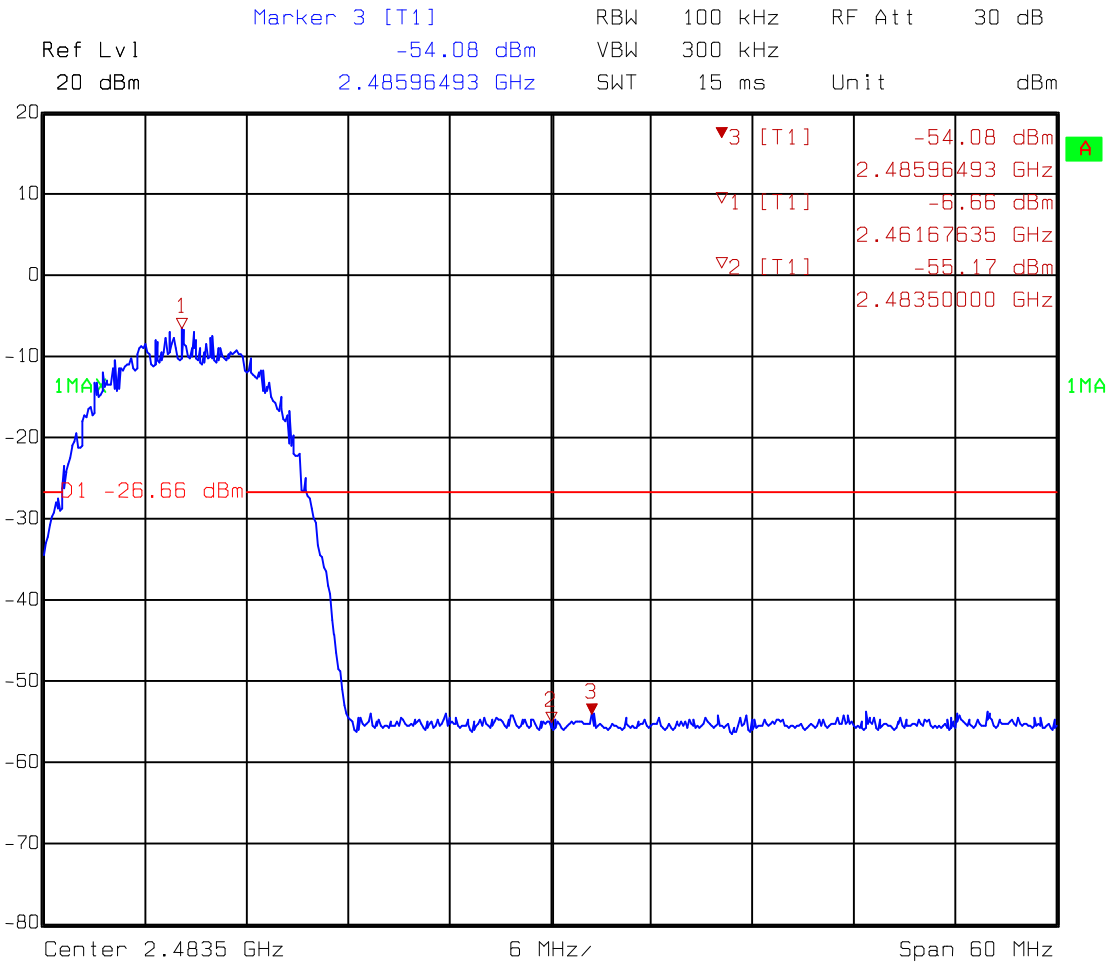
In any 100kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

Please see the plot below.

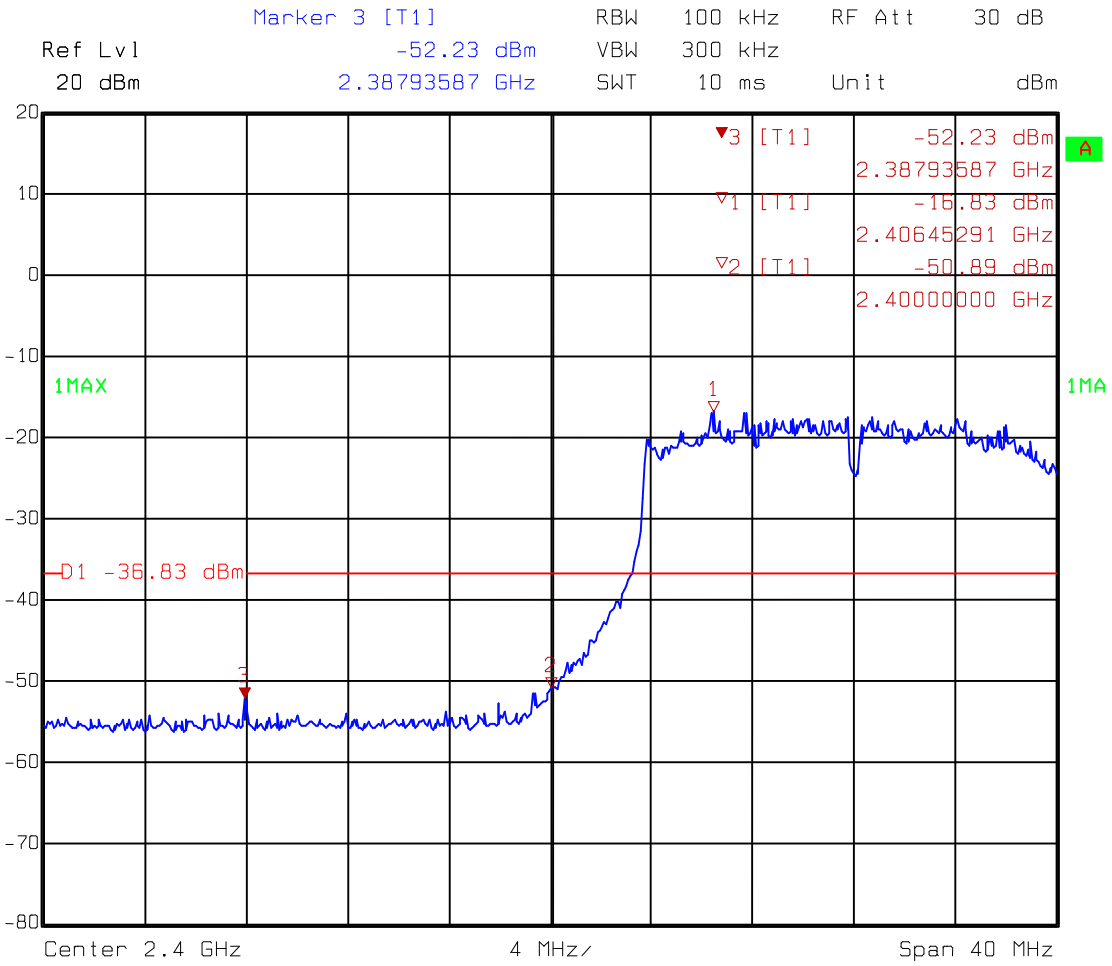
## 7.1 Band-edge (Conducted method)



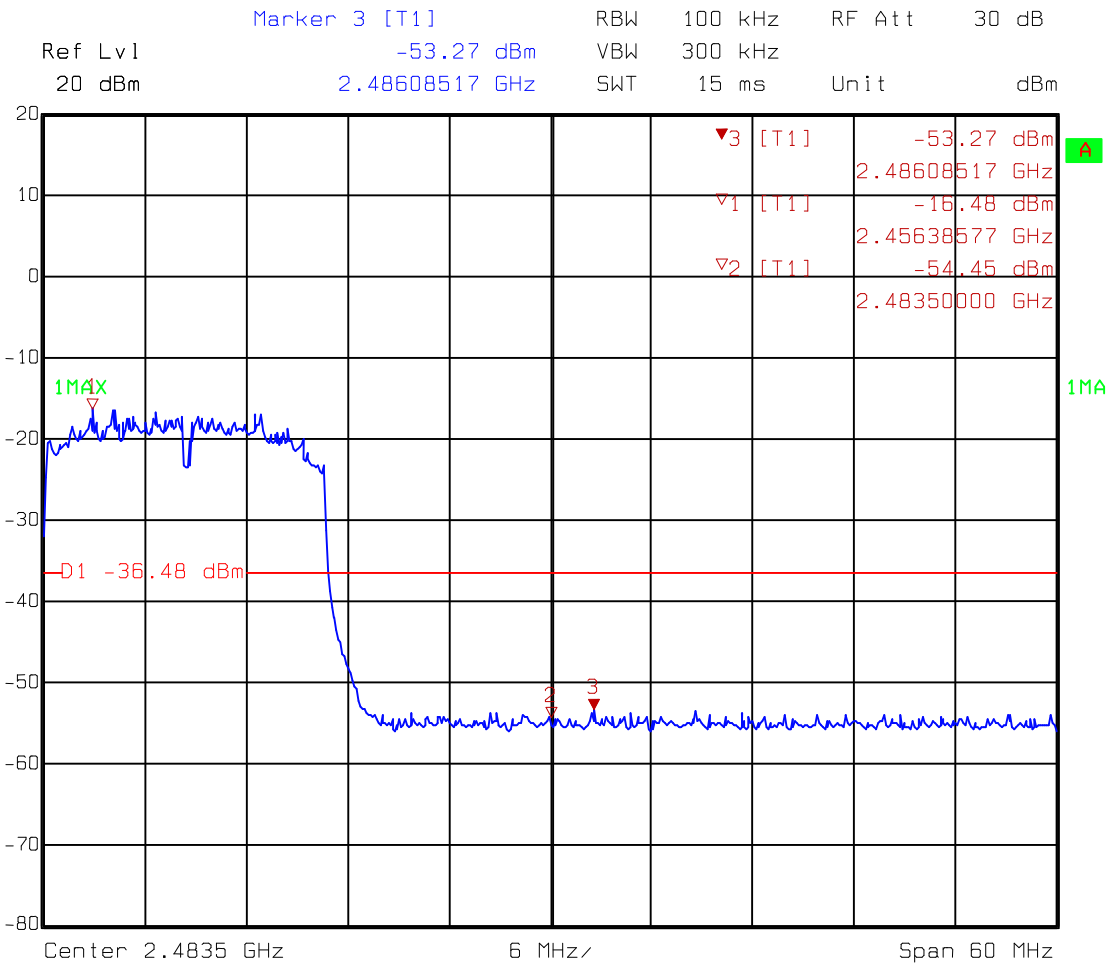

Comment A: Band-edge at low channel 802.11b
Date: 06.OCT.2003 17:46:52




Comment A: Band-edge at high channel 802.11b
Date: 06.OCT.2003 17:51:11

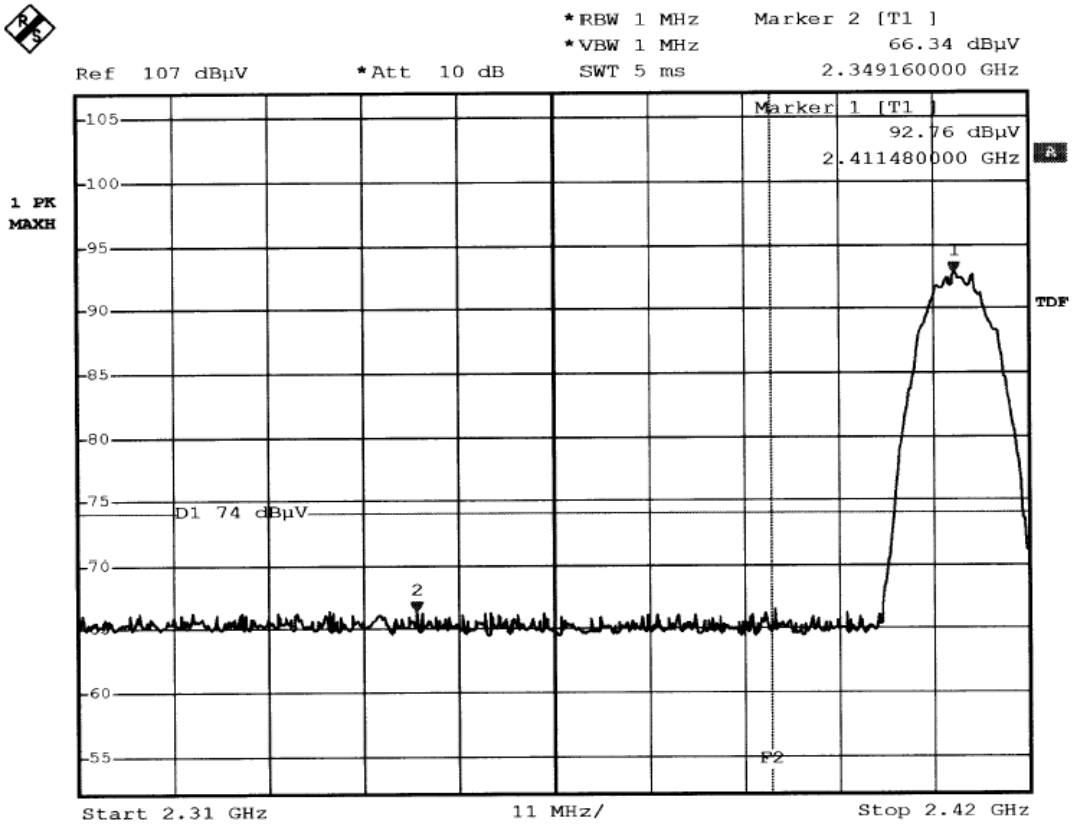



Comment A: Band-edge at low channel 802.11g
Date: 06.OCT.2003 17:49:28

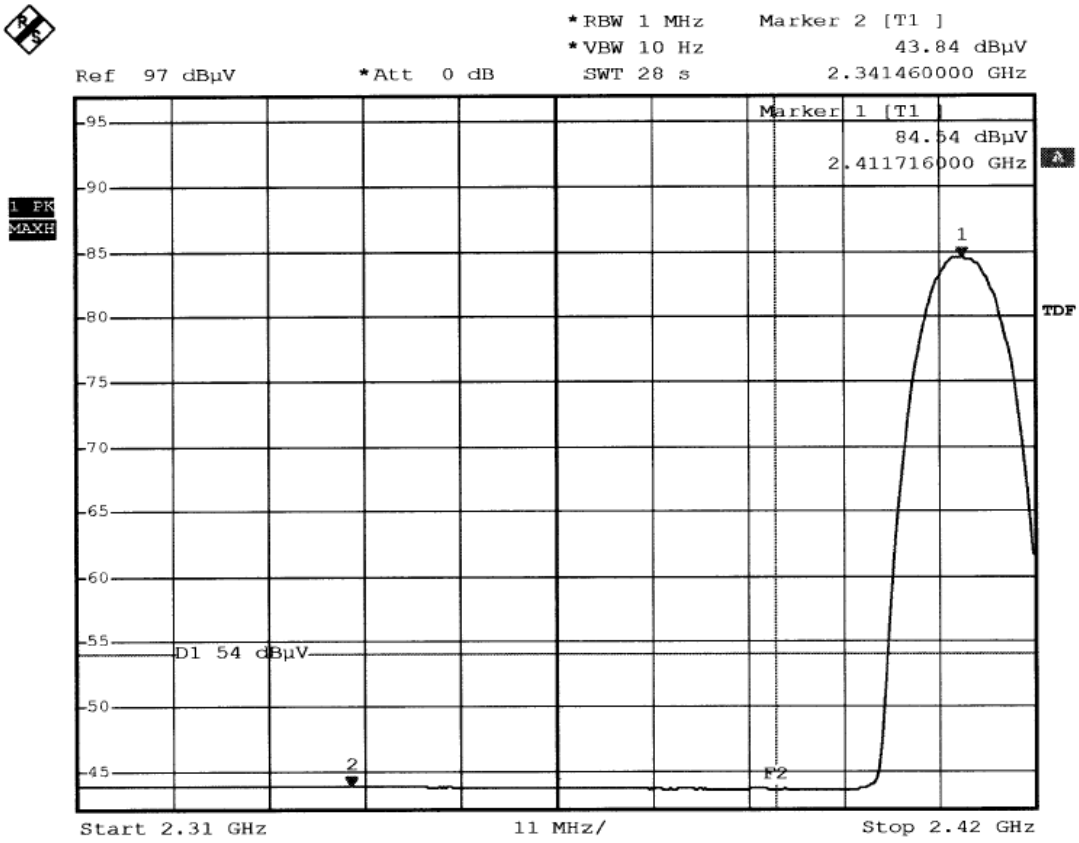



Comment A: Band-edge at high channel 802.11g
Date: 06.OCT.2003 17:53:39

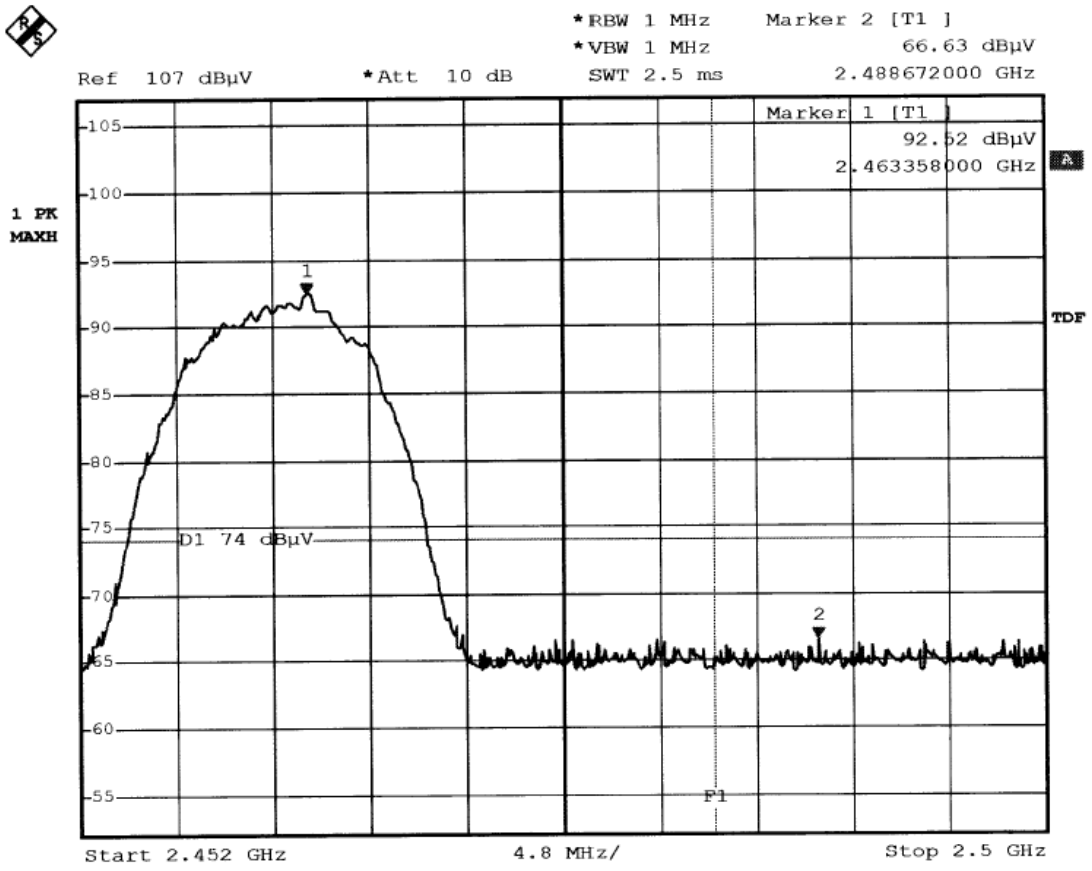
## 7.2 Band-edge (Radiated method)



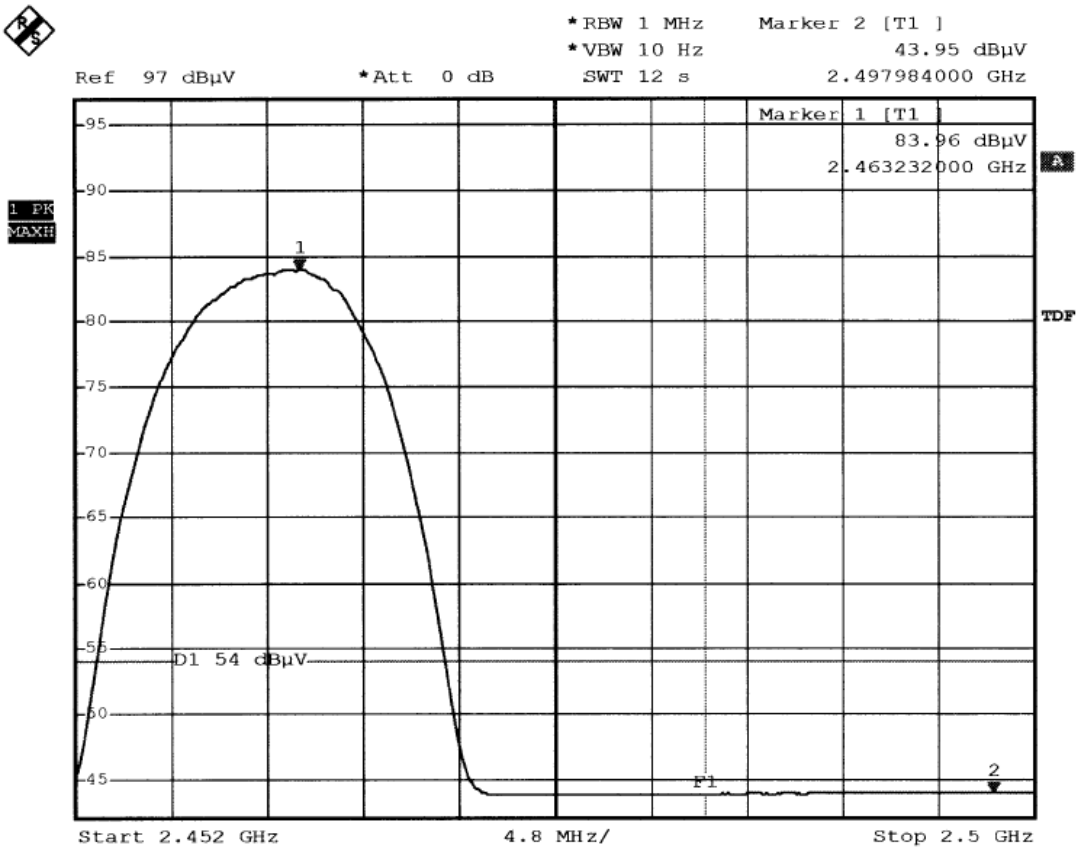

Comment A: Band-edge test at low channel1
Peak detector F2=2390MHz ATT=10dB 802.11b
Date: 23.SEP.2003 19:46:51



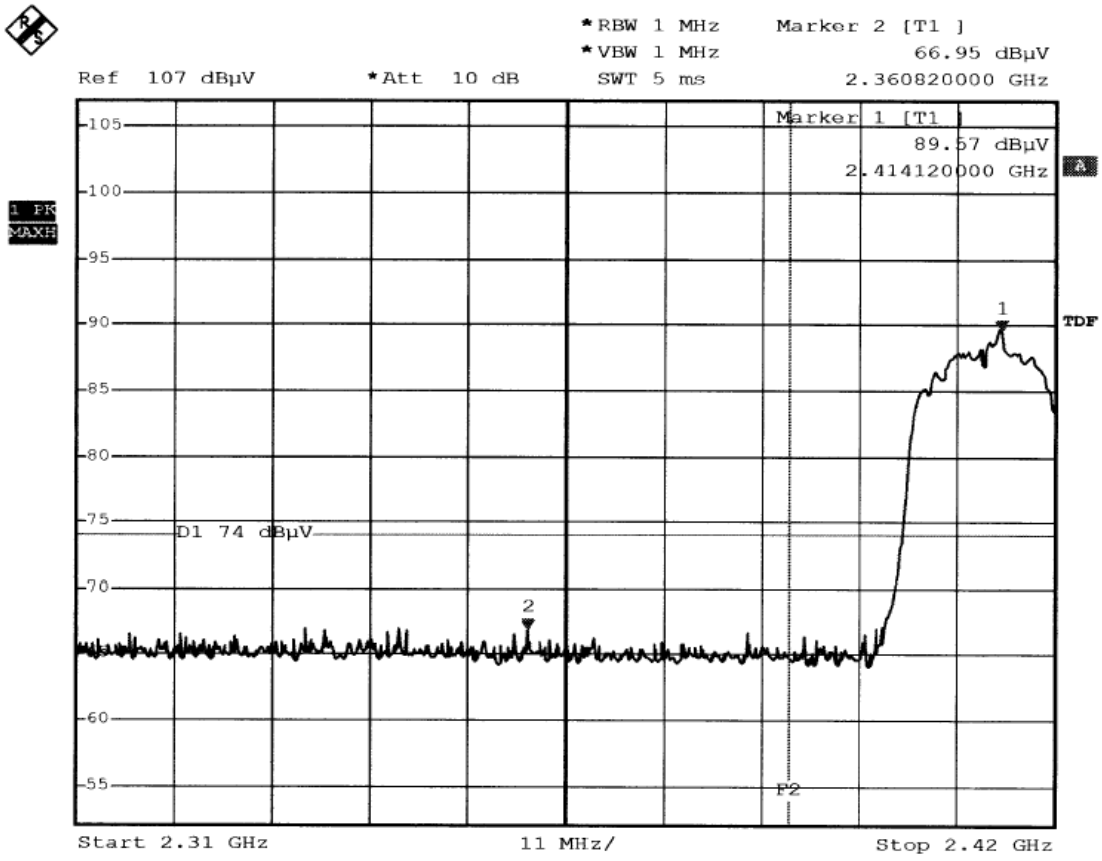

Comment A: Band-edge test at low channelEN B
Average detector F2=2390MHz ATT=10dB 802.11b
Date: 23.SEP.2003 19:48:00



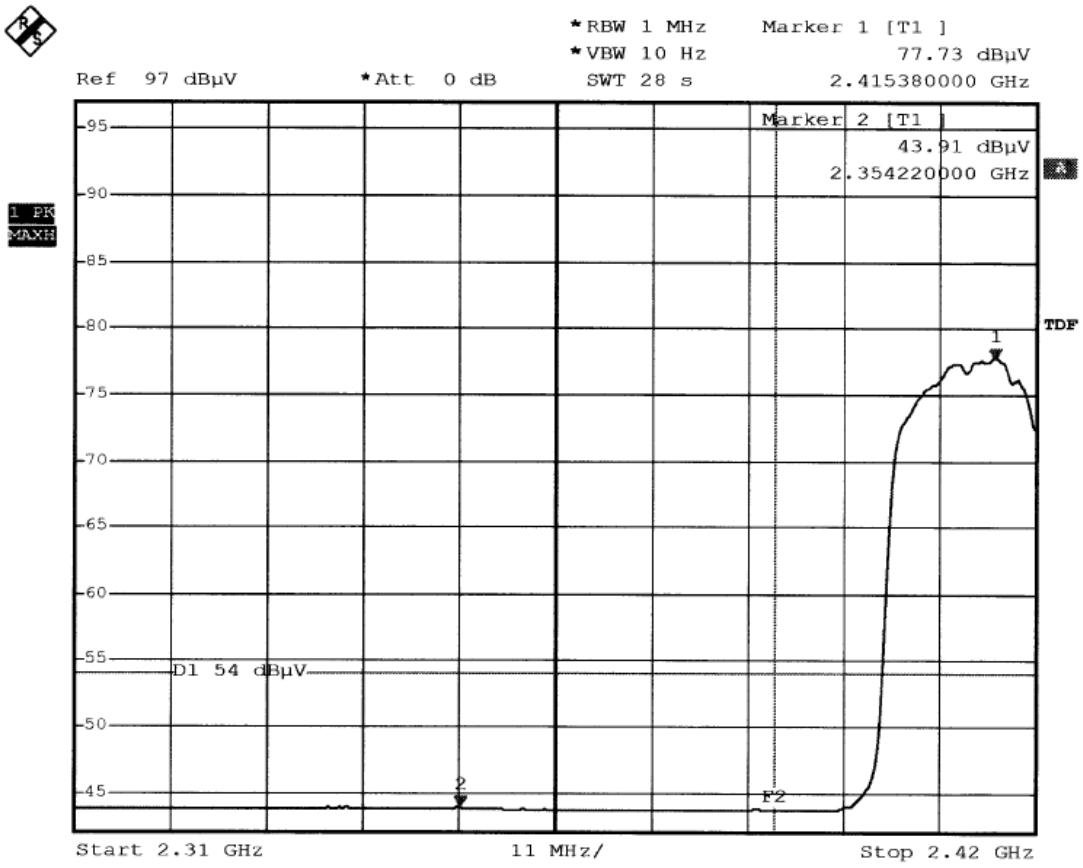

Comment A: Band-edge test at high channelN B
Peak detector F1=2483.5MHz ATT=10dB 802.11b
Date: 23.SEP.2003 19:40:35



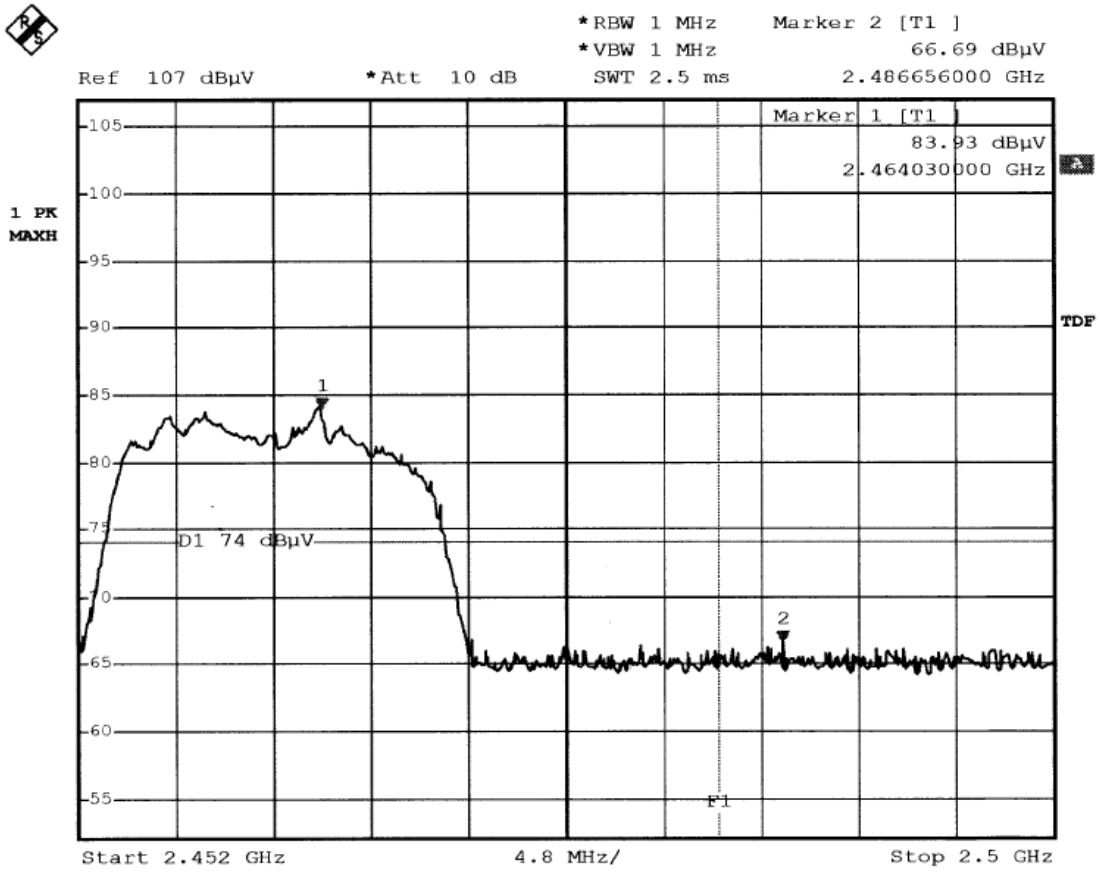

Comment A: Band-edge test at high channelN B
Average detector F1=2483.5MHz ATT=10dB 802.11b
Date: 23.SEP.2003 19:41:43



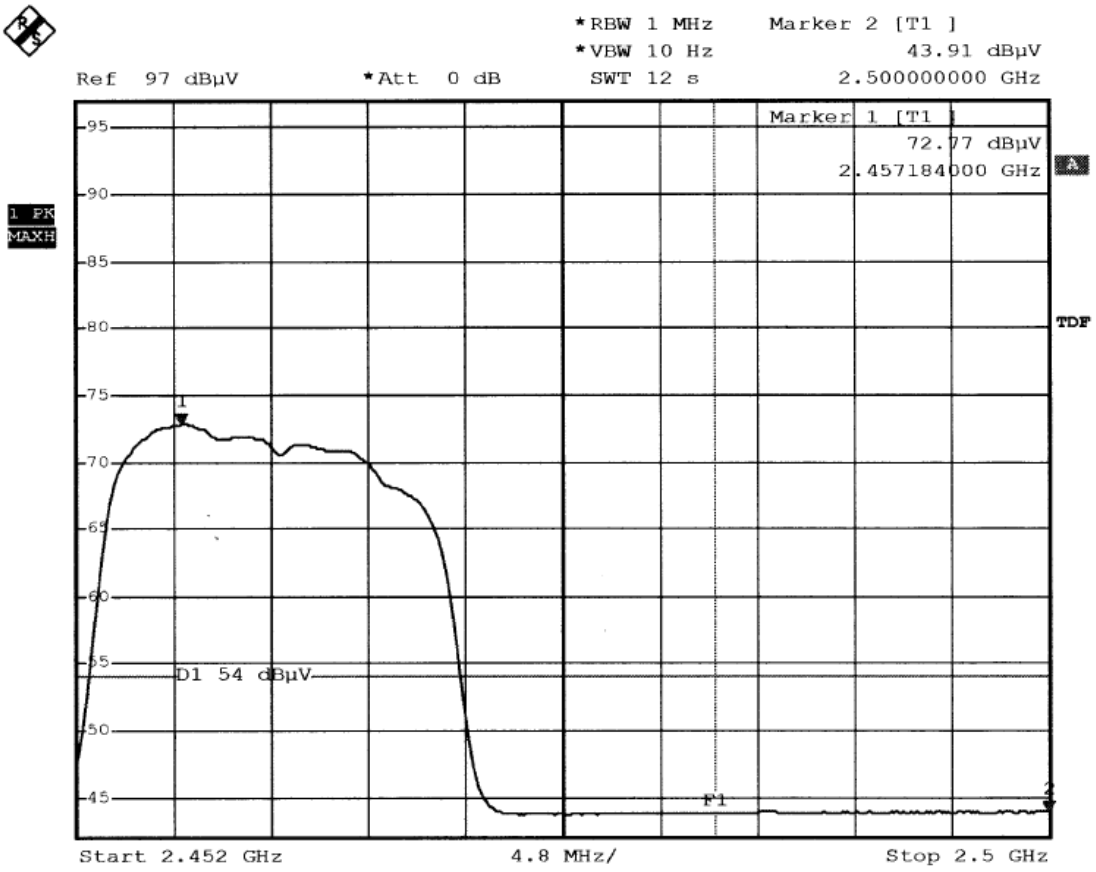

Comment A: Band-edge test at low channel1
Peak detector F2=2390MHz 802.11g
Date: 24.SEP.2003 09:28:40




Comment A: Band-edge test at low channelEN B
Average detector F2=2390MHz 802.11g
Date: 24.SEP.2003 09:30:43




Comment A: Band-edge test at high channelN B
Peak detector F1=2483.5MHz 802.11g
Date: 24.SEP.2003 10:59:55



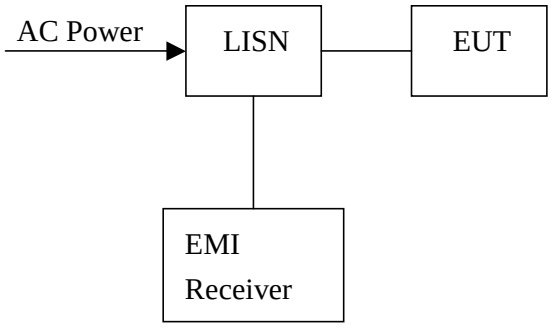

Comment A: Band-edge test at high channelN B
Average detector F1=2483.5MHz 802.11g
Date: 24.SEP.2003 11:01:03

## 8. Power Line Conducted Emission test §FCC 15.207

### 8.1 Operating environment

| | | | |
|---|---|---|---|
| Temperature: | 24 | ℃ | (10-40℃) |
| Relative Humidity: | 58 | % | (10-90%) |
| Atmospheric Pressure | 1023 | hPa | (860-1061hPa) |

### 8.2 Test setup & procedure




The EUT are connected to the main power through a line impedance stabilization network (LISN). This provides a 50 ohm/50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination.
Both sides (Line and Neutral) of AC line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4/1992 on conducted measurement. The AC power conducted emissions was invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz. (15.207 paragraph)

The EUT configuration please refer to the “Conducted set-up photo.pdf”.

Emission Limit

| Freq. (MHz) | Conducted Limit (dBuV) | |
|---|---|---|
| | Q.P. | Ave. |
| 0.15~0.50 | 66 – 56* | 56 – 46* |
| 0.50~5.00 | 56 | 46 |
| 5.00~30.0 | 60 | 50 |

*Decreases with the logarithm of the frequency.

**8.3 Power Line Conducted Emission test data**

(1) Line

EUT : DWL-G810

Test Condition : Normal operation

| Freq. (MHz) | Reading (dB $\mu$ V) QP | Limit (dB $\mu$ V) QP | Reading (dB $\mu$ V) AV | Limit (dB $\mu$ V) AV | Margin (dB) | |
|---|---|---|---|---|---|---|
| | | | | | QP | AV |
| 0.20600 | 45.4 | 63.37 | 39.1 | 53.37 | -17.97 | -14.27 |
| 1.15800 | 37.8 | 56.00 | 34.2 | 46.00 | -18.20 | -11.80 |
| 1.83800 | 38.6 | 56.00 | 33.2 | 46.00 | -17.40 | -12.80 |
| 2.11000 | 38.9 | 56.00 | 33.3 | 46.00 | -17.10 | -12.70 |
| 2.51800 | 36.4 | 56.00 | 29.5 | 46.00 | -19.60 | -16.50 |
| 2.79000 | 35.4 | 56.00 | 30.8 | 46.00 | -20.60 | -15.20 |

(2) Neutral

EUT : DWL-G810

Test Condition : Normal operation

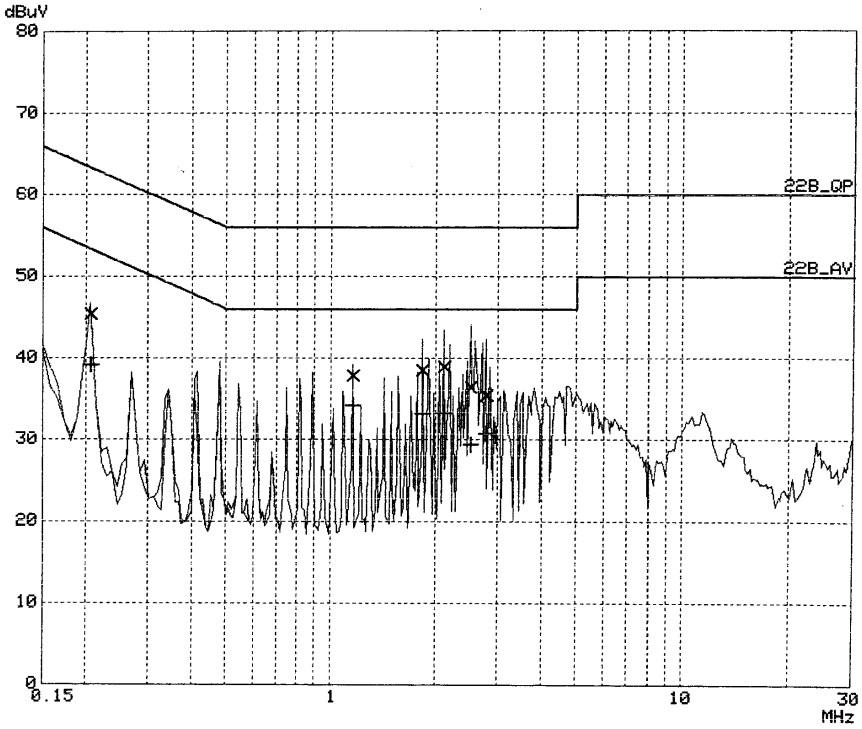
| Freq. (MHz) | Reading (dB $\mu$ V) QP | Limit (dB $\mu$ V) QP | Reading (dB $\mu$ V) AV | Limit (dB $\mu$ V) AV | Margin (dB) | |
|---|---|---|---|---|---|---|
| | | | | | QP | AV |
| 0.47650 | 37.5 | 56.40 | 32.4 | 46.40 | -18.90 | -14.00 |
| 0.81550 | 36.5 | 56.00 | 31.5 | 46.00 | -19.50 | -14.50 |
| 1.83325 | 37.4 | 56.00 | 34.9 | 46.00 | -18.60 | -11.10 |
| 2.03815 | 38.6 | 56.00 | 36.3 | 46.00 | -17.40 | -9.70 |
| 2.30813 | 31.6 | 56.00 | 25.5 | 46.00 | -24.40 | -20.50 |
| 2.71813 | 38.7 | 56.00 | 27.7 | 46.00 | -17.30 | -18.30 |

Remark:
1. The reading value included cable loss and LISN factor.
2. Uncertainty was calculated in accordance with NAMAS NIS 81.
   Expanded uncertainty (k=2) of conducted emission measurement is ±2.6 dB.

Please see the plot below.

**RF Voltage**

EUT : DWL-G810
Manufacturer : D-Link Corporation
Op Cond : LISN-L at normal operating
Operator : Jerry
Test Spec. : FCC P15 CLASS B
Comment : EMI RCV: EC346 LISN: EC320
TEMP: 24℃ R.H.:50% 120Vac, 60Hz EME-031119
Date : Sep. 9, 2003 11:48



**RF Voltage**

EUT : DWL-G810
Manufacturer : D-Link Corporation
Op Cond : LISN-N at normal operating
Operator : Jerry
Test Spec. : FCC P15 CLASS B
Comment : EMI RCV: EC346 LISN: EC320
TEMP: 24℃ R.H.:50% 120Vac, 60Hz EME-031119
Date : Sep. 9, 2003 11:42