

FCC 47 CFR PART 15 SUBPART C

Product Type : DM300 WiFi Module
Applicant : Delta Mobile Systems
Address : 700 Remington Road, 2nd Floor, Schaumburg, IL. 60173
Trade Name : DM300
Model Number : DM300
Test Specification : FCC 47 CFR PART 15 SUBPART C: Oct., 2009
ANSI C63.4-2003
Issue Date : Oct. 01, 2010

Issue by

A Test Lab Techno Corp.
No. 140-1, Changan Street, Bade City,
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Taiwan Accreditation Foundation accreditation number: 1330

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Revision History

| Rev. | Issue Date | Revisions | Revised By |
|-------------|-------------------|--|-------------------|
| 00 | Sep. 27, 2010 | Initial Issue | |
| 01 | Oct. 01, 2010 | Re-test and revised data of IEEE 802.11b (internal ant.) and IEEE 802.11b (internal ant. and External ant.). | Joyce Liao |
| | | | |
| | | | |

Verification

Issued Date: 2010/10/01

Product Type : DM300 WiFi Module
Applicant : Delta Mobile Systems
Address : 700 Remington Road, 2nd Floor, Schaumburg, IL. 60173
Trade Name : DM300
Model Number : DM300
FCC ID : YSI-DM300-DM300I
EUT Rated Voltage : DC 3.3V ~ 3.7V
Test Voltage : 120 Vac / 60 Hz
Applicable Standard : FCC 47 CFR PART 15 SUBPART C: Oct., 2009
ANSI C63.4-2003
Test Result : Complied
Performing Lab. : A Test Lab Techno Corp.

No. 140-1, Changan Street, Bade City,
Taoyuan County 334, Taiwan R.O.C.

Tel : +86-3-2710188 / Fax : +86-3-2710190


Taiwan Accreditation Foundation accreditation number:
1330

<http://www.atl-lab.com.tw/e-index.htm>



The above equipment was tested by A Test Lab Techno Corp. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4: 2003 and the energy emitted by the sample tested as described in this report is in compliance with the requirements of FCC Rules Part 15.207, 15.209, 15.247 .

The test results of this report relate only to the tested sample identified in this report.

Approved By : 
(Manager) (Miller Lee)

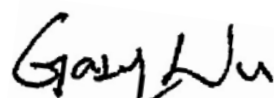
Reviewed By : 
(Testing Engineer) (Gary Wu)

TABLE OF CONTENTS

| | | |
|----------|--|-----------|
| 1 | General Information | 6 |
| 2 | EUT Description | 7 |
| 3 | Test Methodology..... | 8 |
| | 3.1. Mode of Operation | 8 |
| | 3.2. EUT Exercise Software..... | 8 |
| | 3.3. Configuration of Test System Details | 9 |
| | 3.4. Test Site Environment..... | 9 |
| 4 | Conducted Emission Measurement..... | 10 |
| | 4.1. Limit..... | 10 |
| | 4.2. Test Instruments | 10 |
| | 4.3. Test Setup..... | 10 |
| | 4.4. Test Procedure | 11 |
| | 4.5. Test Result..... | 12 |
| 5 | Radiated Interference Measurement..... | 16 |
| | 5.1. Limit..... | 16 |
| | 5.2. Test Instruments | 16 |
| | 5.3. Setup | 17 |
| | 5.4. Test Procedure | 17 |
| | 5.5. Test Result..... | 19 |
| 6 | Maximum Conducted Output Power Measurement..... | 33 |
| | 6.1. Limit..... | 33 |
| | 6.2. Test Setup..... | 33 |
| | 6.3. Test Instruments | 33 |
| | 6.4. Test Procedure | 33 |
| | 6.5. Test Result..... | 34 |
| 7 | 6dB RF Bandwidth Measurement | 37 |
| | 7.1. Limit..... | 37 |
| | 7.2. Test Setup..... | 37 |
| | 7.3. Test Instruments | 37 |
| | 7.4. Test Procedure | 37 |
| | 7.5. Test Result..... | 38 |
| | 7.6. Test Graphs | 39 |

| | | |
|-----------|--|-----------|
| 8 | Maximum Power Density Measurement | 43 |
| 8.1. | Limit..... | 43 |
| 8.2. | Test Setup..... | 43 |
| 8.3. | Test Instruments | 43 |
| 8.4. | Test Procedure | 43 |
| 8.5. | Test Result..... | 44 |
| 8.6. | Test Graphs | 45 |
| 9 | Out of Band Conducted Emissions Measurement | 49 |
| 9.1. | Limit..... | 49 |
| 9.2. | Test Setup..... | 49 |
| 9.3. | Test Instruments | 49 |
| 9.4. | Test Procedure | 49 |
| 9.5. | Test Graphs | 50 |
| 10 | Band Edges Measurement..... | 54 |
| 10.1. | Limit..... | 54 |
| 10.2. | Test Setup..... | 54 |
| 10.3. | Test Instruments | 54 |
| 10.4. | Test Procedure | 55 |
| 10.5. | Test Result..... | 56 |
| 11 | 99 % Occupied Bandwidth Measurement..... | 72 |
| 11.1. | Limit..... | 72 |
| 11.2. | Test Setup..... | 72 |
| 11.3. | Test Instruments | 72 |
| 11.4. | Test Procedure | 72 |
| 11.5. | Test Result..... | 73 |
| 11.6. | Test Graphs | 74 |
| 12 | Antenna Measurement | 78 |
| 12.1. | Limit..... | 78 |
| 12.2. | Antenna Connector Construction..... | 78 |

1 General Information

1.1 Summary of Test Result

| Standard | | Item | Result | Remark |
|--------------|----------|---|--------|--------|
| 15.247 | RSS-GEN | | | |
| 15.207 | 7.2.2 | AC Power Conducted Emission | PASS | ----- |
| ----- | 6 | Receiver Radiated Emissions | PASS | ----- |
| Standard | | Item | Result | Remark |
| 15.247 | RSS-210 | | | |
| 15.247(d) | A8.5 | Transmitter Radiated Emissions | PASS | ----- |
| 15.247(b)(3) | A8.4 | Max. Output Power | PASS | ----- |
| 15.247(a)(2) | A8.2 (a) | 6dB RF Bandwidth | PASS | ----- |
| 15.247(e) | A8.2 (b) | Power Spectral Density | PASS | ----- |
| 15.247(c) | A8.5 | Out of Band Conducted Spurious Emission | PASS | ----- |
| 15.247(d) | A8.5 | Band Edge Measurement | PASS | ----- |
| 15.247(c) | A8.5 | Occupied Bandwidth Measurement | PASS | ----- |
| 15.203 | - | Antenna Requirement | PASS | ----- |

The test results of this report relate only to the tested sample(s) identified in this report. Manufacturer or whom it may concern should recognize the pass or fail of the test result.

1.2 Measurement Uncertainty

Conducted Emission

The measurement uncertainty is evaluated as ± 2.24 dB.

Radiated Emission

The measurement uncertainty of 30 MHz - 1GHz is evaluated as ± 3.072 dB.

2 EUT Description

| | | | |
|-----------------|--------------------|---|-----------------------------------|
| Product | : | DM300 WiFi Module | |
| Trade Name | : | DM300 | |
| Model No. | : | DM300 | |
| Applicant | : | Delta Mobile Systems 700 Remington Road, 2nd Floor, Schaumburg, IL. 60173 | |
| Manufacturer | : | Trison Technology Corporation No.3 Kung-Yeh 12th Rd., Ping-Jen Industrial Park, Ping-Jen City, Tao Yuan County, Taiwan, R.O.C | |
| FCC ID | : | YSI-DM300-DM300I | |
| Frequency Range | : | 2412 ~ 2462 MHz | |
| Modulation Type | : | IEEE 802.11b:DSSS(CCK, DQPSK, DBPSK) | |
| | | IEEE 802.11g:DSSS(CCK, DQPSK, DBPSK)+ OFDM(QPSK, BPSK, 16-QAM, 64-QAM) | |
| Antenna Type | : | Internal Ant.: PIFA Type | |
| | | External Ant.: External Type | |
| Antenna Gain | : | Internal Ant.: 2.3 dBi | |
| | | External Ant.: 2.0 dBi | |
| RF Output Power | : | Internal Ant. Port | IEEE 802.11b: 0.016 W / 11.94 dBm |
| | | | IEEE 802.11g: 0.044 W / 16.45 dBm |
| | External Ant. Port | IEEE 802.11b: 0.042 W / 16.22 dBm | |
| | | IEEE 802.11g: 0.107 W / 20.37 dBm | |

3 Test Methodology

3.1. Mode of Operation

Decision of Test ATL has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

| Test Mode |
|--------------------------------|
| Mode 1: Normal Operation Mode |
| Mode 2: IEEE 802.11b Link Mode |
| Mode 3: IEEE 802.11g Link Mode |
| Mode 4: Receiver Mode |

Software used to control the EUT for staying in continuous transmitting mode was programmed.

After verification, all tests were carried out with the worst case test modes as shown below except radiated spurious emission below 1GHz and power line conducted emissions below 30MHz, which worst case was in normal link mode only.

IEEE 802.11b mode:

Internal Antenna: Channel Low (2412MHz), Channel Mid (2437MHz) and Channel High (2462MHz) with 5.5Mbps data rate were chosen for full testing.

External Antenna: Channel Low (2412MHz), Channel Mid (2437MHz) and Channel High (2462MHz) with 11Mbps data rate were chosen for full testing.

IEEE 802.11g mode:

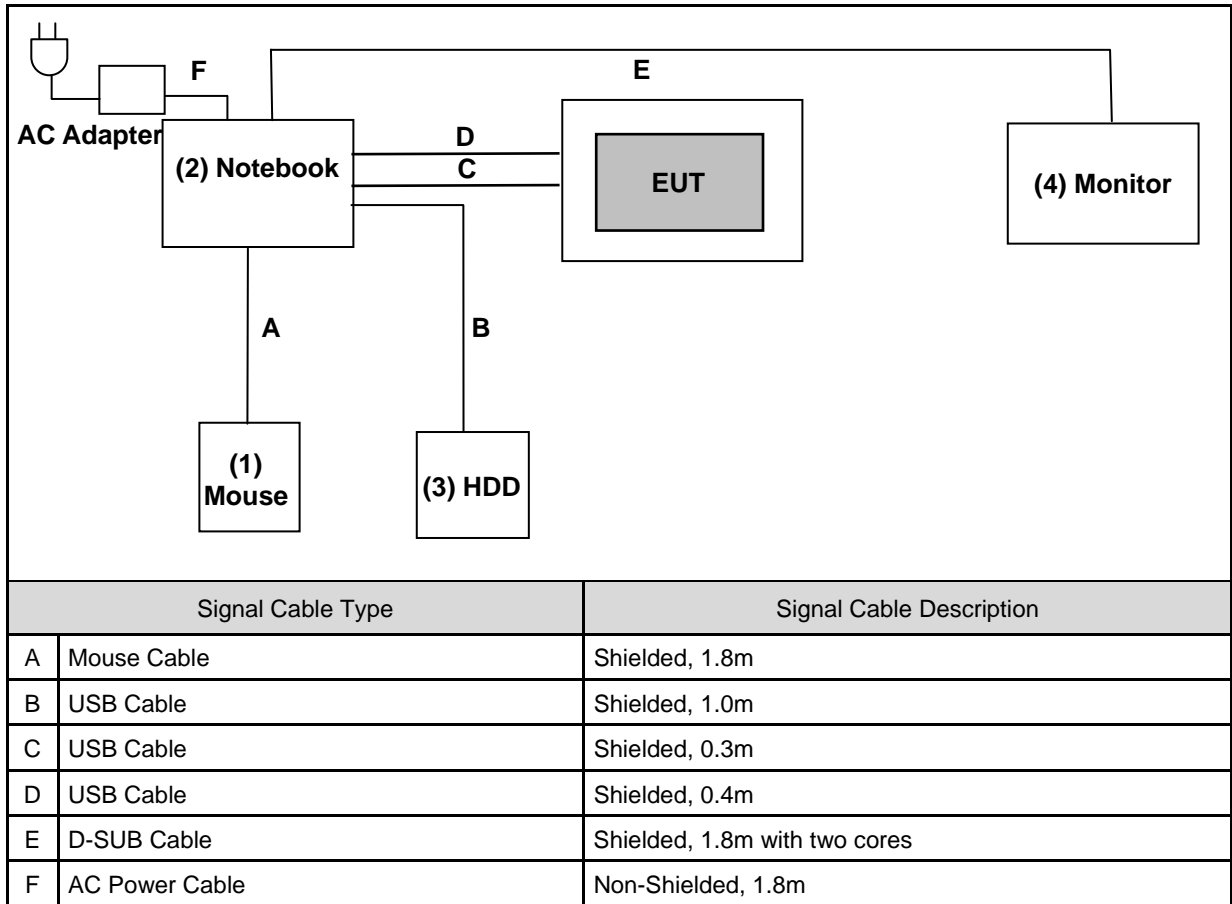
Internal Antenna: Channel Low (2412MHz), Channel Mid (2437MHz) and Channel High (2462MHz) with 18Mbps data rate were chosen for full testing.

External Antenna: Channel Low (2412MHz), Channel Mid (2437MHz) and Channel High (2462MHz) with 18Mbps data rate were chosen for full testing.

3.2. EUT Exercise Software

| | |
|----|-------------------------------------|
| 1. | Setup the EUT shown on 3.3. |
| 2. | Turn on the power of all equipment. |
| 3. | Turn on Wi-Fi function link to AP. |
| 4. | EUT run test program. |

3.3. Configuration of Test System Details



| Devices Description | | | | | |
|---------------------|-----------------|--------------|--------------|--------------------------|---------------------|
| | Product | Manufacturer | Model Number | Serial Number | Power Cord |
| 1. | Mouse | Logitech | M-UAG96B | PID-LZ815AA | Power by Notebook |
| 2. | Notebook | DELL | D830 | CN-OHN341-48643-88Q-1221 | Non-Shielded, 1.8m |
| 3. | Hard Disk Drive | Buffalo | HD-HXU3 | 15564891200435 | Power by Notebook |
| 4. | Monitor | DELL | 2408WFT | CN-0G293H-74261-95M-1NGS | Non-Shielded, 1.8 m |

3.4. Test Site Environment

| Items | Required (IEC 68-1) | Actual |
|----------------------------|---------------------|--------|
| Temperature (°C) | 15-35 | 25 |
| Humidity (%RH) | 25-75 | 50 |
| Barometric pressure (mbar) | 860-1060 | 950 |

4 Conducted Emission Measurement

4.1. Limit

| Frequency (MHz) | Quasi-peak | Average |
|-----------------|------------|----------|
| 0.15 - 0.5 | 66 to 56 | 56 to 46 |
| 0.50 - 5.0 | 56 | 46 |
| 5.0 - 30.0 | 60 | 50 |

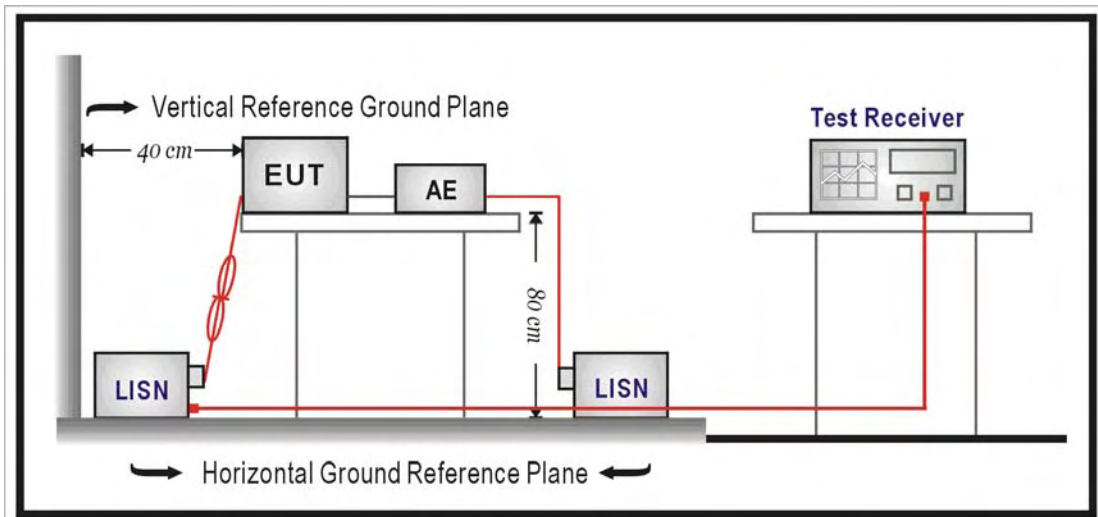
4.2. Test Instruments

| Describe | Manufacturer | Model Number | Serial Number | Cal. Date | Remark |
|---------------|--------------|--------------|---------------|------------|--------|
| Test Receiver | R&S | ESCI | 100367 | 07/01/2010 | (1) |
| LISN | R&S | ENV216 | 101040 | 03/02/2010 | (1) |
| LISN | R&S | ENV216 | 101041 | 03/02/2010 | (1) |
| Test Site | ATL | TE02 | TE02 | N.C.R. | ----- |

Remark: (1) Calibration period 1 year. (2) Calibration period 2 years.

NOTE: N.C.R. = No Calibration Request.

4.3. Test Setup



4.4. Test Procedure

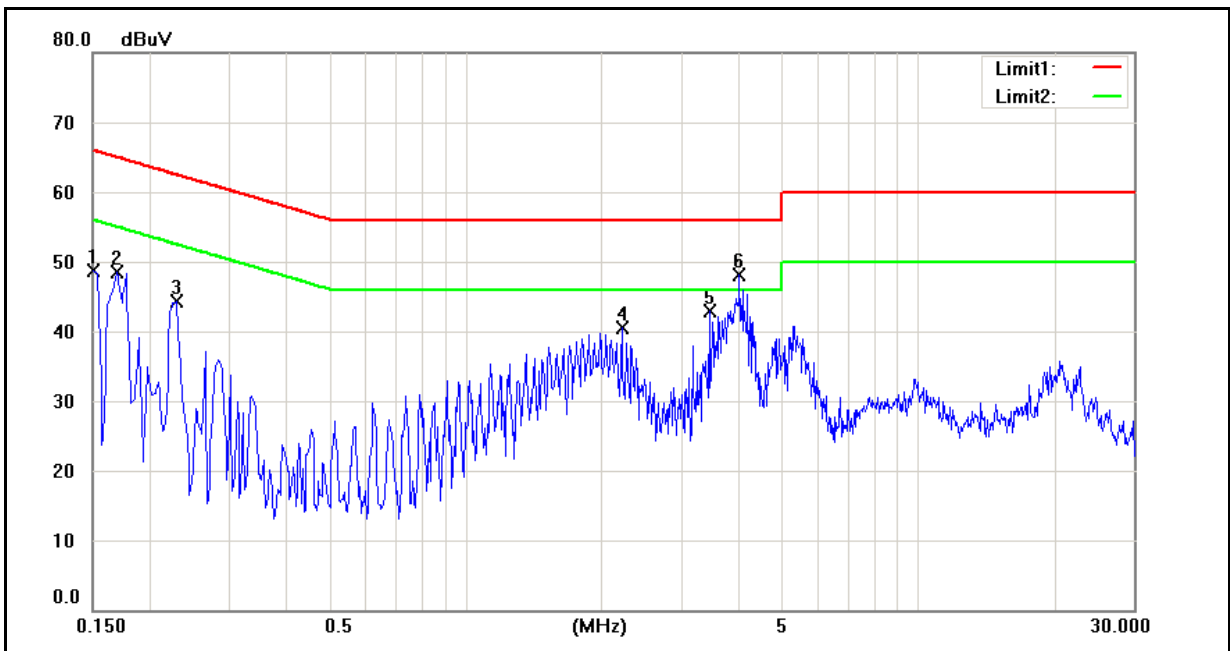
The power line conducted emission measurements were performed in a shielded enclosure. The EUT was assembled on a wooden table which is 80 centimeters high, was placed 40 centimeters from the back wall and at least 1 meter from the sidewall.

Power was fed to the EUT from the public utility power grid through a line filter and EMCO Model 3162/2 SH Line Impedance Stabilization Networks (LISN). The LISN housing, measuring instrumentation case, ground plane, etc., were electrically bonded together at the same RF potential. The Spectrum analyzer was connected to the AC line through an isolation transformer. The 50-ohm output of the LISN was connected to the spectrum analyzer directly. Conducted emission levels were in the CISPR quasi-peak detection mode. The analyzer's 6 dB bandwidth was set to 9 KHz. No post-detector video filter was used.

The spectrum was scanned from 150 KHz to 30 MHz. The physical arrangement of the test system and associated cabling was varied (within the scope of arrangements likely to be encountered in actual use) to determine the effect on the unit's emanations in amplitude and frequency. All spurious emission frequencies were observed. The highest emission amplitudes relative to the appropriate limit were measured and have been recorded in paragraph 4.1.

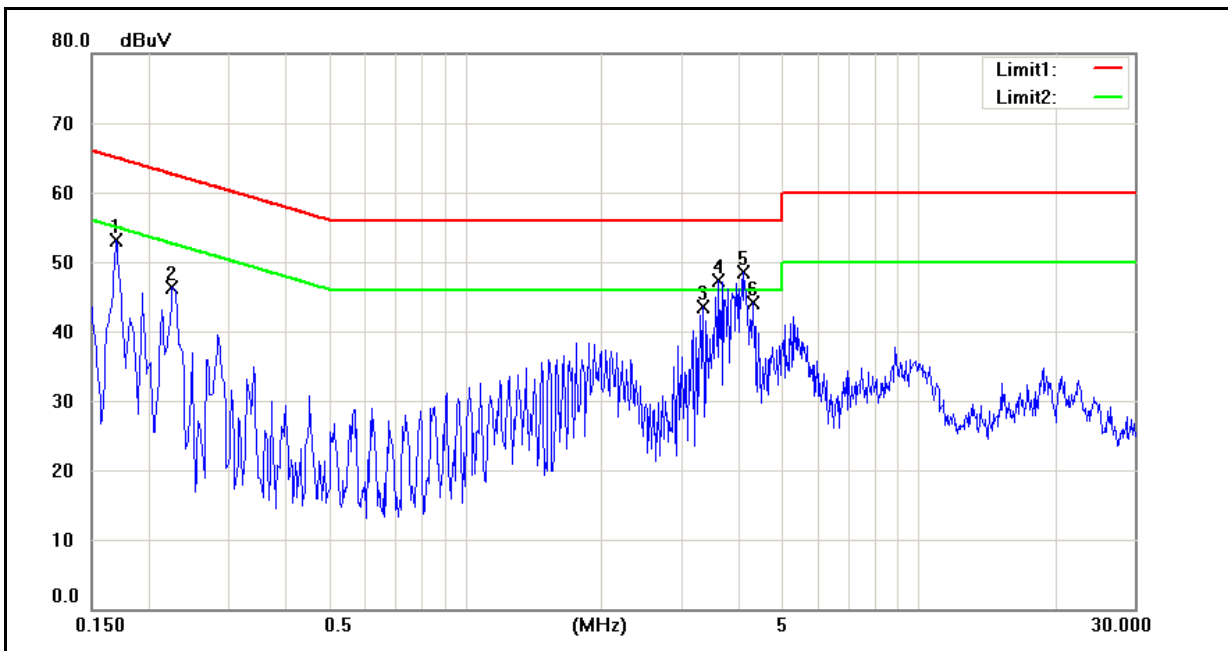
4.5. Test Result

| | | | |
|---------------|--------------------|----------------------|--------------|
| Standard: | FCC Part 15C | Line: | L1 |
| Test item: | Conducted Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 1 | Date: | 2010/09/20 |
| Ant. Used: | Internal Ant. | Test By: | Gary Wu |
| Description: | | | |



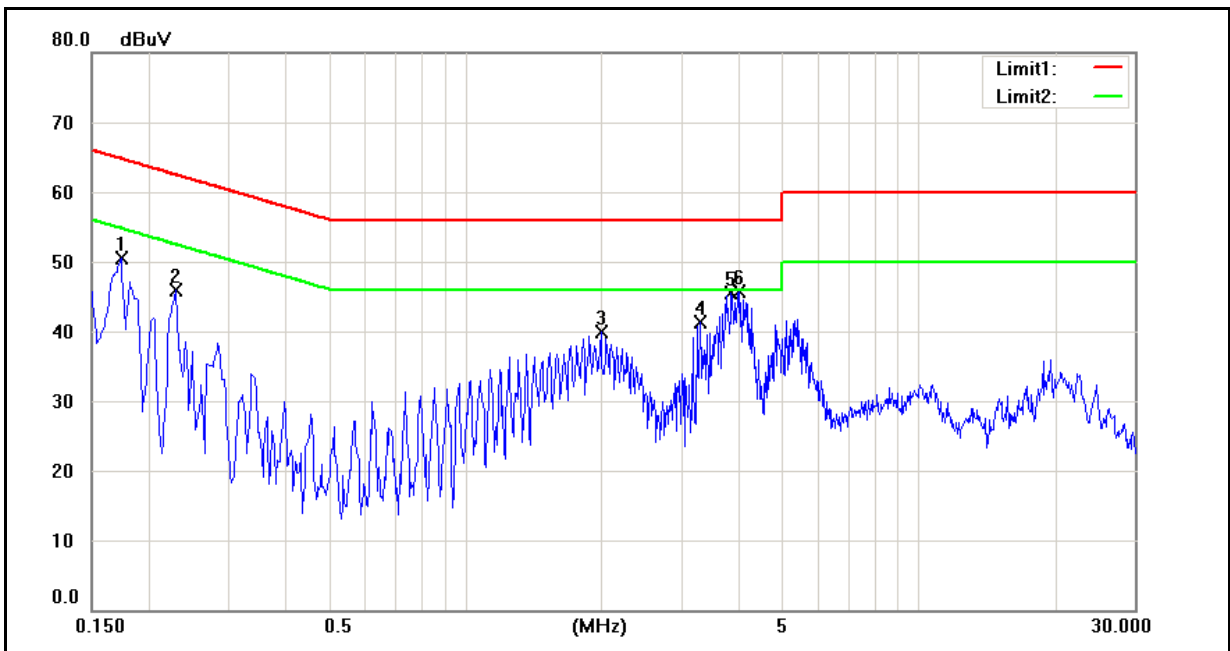
| No. | Frequency (MHz) | QP reading (dBuV) | AVG reading (dBuV) | Correction factor (dB) | QP result (dBuV) | AVG result (dBuV) | QP limit (dBuV) | AVG limit (dBuV) | QP margin (dB) | AVG margin (dB) | Remark |
|-----|-----------------|-------------------|--------------------|------------------------|------------------|-------------------|-----------------|------------------|----------------|-----------------|--------|
| 1 | 0.1500 | 32.87 | 10.40 | 9.60 | 42.47 | 20.00 | 66.00 | 56.00 | -23.53 | -36.00 | Pass |
| 2 | 0.1700 | 40.22 | 32.80 | 9.60 | 49.82 | 42.40 | 64.96 | 54.96 | -15.14 | -12.56 | Pass |
| 3 | 0.2300 | 33.13 | 23.11 | 9.59 | 42.72 | 32.70 | 62.45 | 52.45 | -19.73 | -19.75 | Pass |
| 4 | 2.2180 | 27.84 | 22.90 | 9.61 | 37.45 | 32.51 | 56.00 | 46.00 | -18.55 | -13.49 | Pass |
| 5 | 3.4700 | 28.35 | 14.69 | 9.62 | 37.97 | 24.31 | 56.00 | 46.00 | -18.03 | -21.69 | Pass |
| 6 | 4.0380 | 34.22 | 19.72 | 9.63 | 43.85 | 29.35 | 56.00 | 46.00 | -12.15 | -16.65 | Pass |

| | | | |
|---------------|--------------------|----------------------|--------------|
| Standard: | FCC Part 15C | Line: | N |
| Test item: | Conducted Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 1 | Date: | 2010/09/20 |
| Ant. Used: | Internal Ant. | Test By: | Gary Wu |
| Description: | | | |



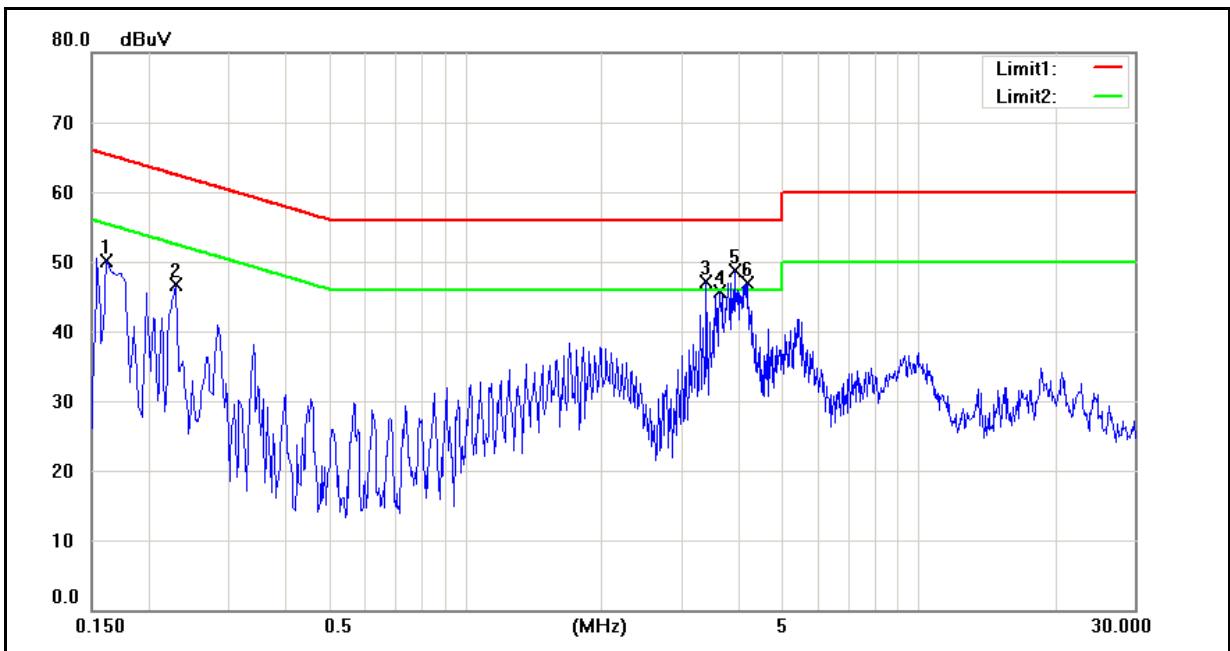
| No. | Frequency (MHz) | QP reading (dBuV) | AVG reading (dBuV) | Correction factor (dB) | QP result (dBuV) | AVG result (dBuV) | QP limit (dBuV) | AVG limit (dBuV) | QP margin (dB) | AVG margin (dB) | Remark |
|-----|-----------------|-------------------|--------------------|------------------------|------------------|-------------------|-----------------|------------------|----------------|-----------------|--------|
| 1 | 0.1700 | 40.06 | 32.96 | 9.59 | 49.65 | 42.55 | 64.96 | 54.96 | -15.31 | -12.41 | Pass |
| 2 | 0.2260 | 35.21 | 24.77 | 9.58 | 44.79 | 34.35 | 62.60 | 52.60 | -17.81 | -18.25 | Pass |
| 3 | 3.3540 | 29.12 | 14.08 | 9.61 | 38.73 | 23.69 | 56.00 | 46.00 | -17.27 | -22.31 | Pass |
| 4 | 3.6380 | 32.86 | 17.62 | 9.62 | 42.48 | 27.24 | 56.00 | 46.00 | -13.52 | -18.76 | Pass |
| 5 | 4.0980 | 33.98 | 19.15 | 9.62 | 43.60 | 28.77 | 56.00 | 46.00 | -12.40 | -17.23 | Pass |
| 6 | 4.3220 | 31.59 | 17.87 | 9.62 | 41.21 | 27.49 | 56.00 | 46.00 | -14.79 | -18.51 | Pass |

| | | | |
|---------------|--------------------|----------------------|--------------|
| Standard: | FCC Part 15C | Line: | L1 |
| Test item: | Conducted Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 1 | Date: | 2010/09/20 |
| Ant. Used: | External Ant. | Test By: | Gary Wu |
| Description: | | | |



| No. | Frequency (MHz) | QP reading (dBuV) | AVG reading (dBuV) | Correction factor (dB) | QP result (dBuV) | AVG result (dBuV) | QP limit (dBuV) | AVG limit (dBuV) | QP margin (dB) | AVG margin (dB) | Remark |
|-----|-----------------|-------------------|--------------------|------------------------|------------------|-------------------|-----------------|------------------|----------------|-----------------|--------|
| 1 | 0.1740 | 38.09 | 30.35 | 9.60 | 47.69 | 39.95 | 64.77 | 54.77 | -17.08 | -14.82 | Pass |
| 2 | 0.2300 | 33.86 | 23.60 | 9.59 | 43.45 | 33.19 | 62.45 | 52.45 | -19.00 | -19.26 | Pass |
| 3 | 1.9940 | 28.50 | 22.86 | 9.61 | 38.11 | 32.47 | 56.00 | 46.00 | -17.89 | -13.53 | Pass |
| 4 | 3.3020 | 24.83 | 12.75 | 9.62 | 34.45 | 22.37 | 56.00 | 46.00 | -21.55 | -23.63 | Pass |
| 5 | 3.8740 | 32.72 | 17.78 | 9.63 | 42.35 | 27.41 | 56.00 | 46.00 | -13.65 | -18.59 | Pass |
| 6 | 4.0420 | 33.90 | 19.21 | 9.63 | 43.53 | 28.84 | 56.00 | 46.00 | -12.47 | -17.16 | Pass |

| | | | |
|---------------|--------------------|----------------------|--------------|
| Standard: | FCC Part 15C | Line: | N |
| Test item: | Conducted Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 1 | Date: | 2010/09/20 |
| Ant. Used: | External Ant. | Test By: | Gary Wu |
| Description: | | | |



| No. | Frequency (MHz) | QP reading (dBuV) | AVG reading (dBuV) | Correction factor (dB) | QP result (dBuV) | AVG result (dBuV) | QP limit (dBuV) | AVG limit (dBuV) | QP margin (dB) | AVG margin (dB) | Remark |
|-----|-----------------|-------------------|--------------------|------------------------|------------------|-------------------|-----------------|------------------|----------------|-----------------|--------|
| 1 | 0.1620 | 31.31 | 15.13 | 9.59 | 40.90 | 24.72 | 65.36 | 55.36 | -24.46 | -30.64 | Pass |
| 2 | 0.2300 | 34.49 | 23.94 | 9.58 | 44.07 | 33.52 | 62.45 | 52.45 | -18.38 | -18.93 | Pass |
| 3 | 3.4140 | 29.27 | 13.97 | 9.61 | 38.88 | 23.58 | 56.00 | 46.00 | -17.12 | -22.42 | Pass |
| 4 | 3.6460 | 30.20 | 15.57 | 9.62 | 39.82 | 25.19 | 56.00 | 46.00 | -16.18 | -20.81 | Pass |
| 5 | 3.9300 | 34.47 | 19.63 | 9.62 | 44.09 | 29.25 | 56.00 | 46.00 | -11.91 | -16.75 | Pass |
| 6 | 4.2100 | 33.95 | 19.18 | 9.62 | 43.57 | 28.80 | 56.00 | 46.00 | -12.43 | -17.20 | Pass |

5 Radiated Interference Measurement

5.1. Limit

| Frequency Range (MHz) | Peak (dBuV) |
|-----------------------|-------------|
| 30 to 88 | 40 |
| 88 to 216 | 43.5 |
| 216 to 960 | 46 |
| Above 960 | 54 |

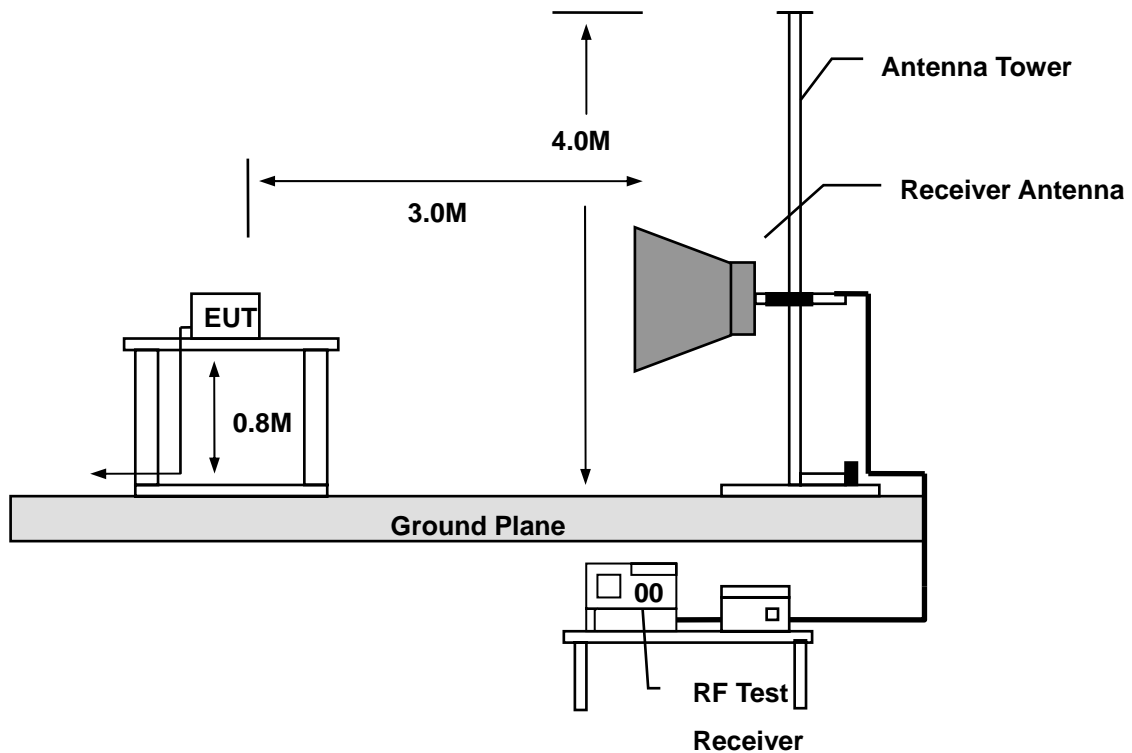
5.2. Test Instruments

| 3 Meter Chamber | | | | | |
|-------------------|--------------------------------|--------------|---------------|------------|--------|
| Equipment | Manufacturer | Model Number | Serial Number | Cal. Date | Remark |
| RF Pre-selector | Agilent | N9039A | MY46520256 | 01/07/2009 | (2) |
| Spectrum Analyzer | Agilent | E4446A | MY46180578 | 02/24/2010 | (1) |
| Pre Amplifier | Agilent | 8449B | 3008A02237 | 02/24/2010 | (1) |
| Pre Amplifier | Agilent | 8447D | 2944A10961 | 02/24/2010 | (1) |
| Bi-log Antenna | SCHWARZBECK MESS-ELEKTRONIK | VULB9163 | 9163-270 | 08/02/2010 | (1) |
| Horn Antenna | SCHWARZBECK MESS-ELEKTRONIK | BBHA9120D | 9120D-550 | 06/29/2010 | (1) |
| Horn Antenna | SCHWARZBECK MESS-ELEKTRONIK | BBHA9170 | 9170-320 | 06/29/2010 | (1) |
| Test Site | ATL | TE01 | 888001 | 07/30/2010 | (1) |

Remark: (1) Calibration period 1 year. (2) Calibration period 2 years.

NOTE: N.C.R. = No Calibration Request.

5.3. Setup



5.4. Test Procedure

Final radiation measurements were made on a three-meter, Semi Anechoic Chamber. The EUT system was placed on a nonconductive turntable which is 0.8 meters height, top surface 1.0 x 1.5 meter. The spectrum was examined from 250 MHz to 2.5 GHz in order to cover the whole spectrum below 10th harmonic which could generate from the EUT. During the test, EUT was set to transmit continuously & Measurements spectrum range from 30 MHz to 26.5 GHz is investigated.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, and then the video bandwidth is set to 1 MHz for peak measurements and 10 Hz for average measurements.

A nonconductive material surrounded the EUT to supporting the EUT for standing on three orthogonal planes. At each condition, the EUT was rotated 360 degrees, and the antenna was raised and lowered from one to four meters to find the maximum emission levels. Measurements were taken using both horizontal and vertical antenna polarization.

SCHWARZBECK MESS-ELEKTRONIK Biconilog Antenna (model VULB9163) at 3 Meter and the SCHWARZBECK Double Ridged Guide Antenna (model BBHA9120D&9170) was used in frequencies 1 – 26.5 GHz at a distance of 1 meter. All test results were extrapolated to equivalent signal at 3 meters utilizing an inverse linear distance extrapolation Factor (20dB/decade).

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.

Appropriate preamplifiers were used for improving sensitivity and precautions were taken to avoid overloading or desensitizing the spectrum analyzer. No post – detector video filters were used in the test.

The spectrum analyzer's 6 dB bandwidth was set to 1 MHz, and the analyzer was operated in the peak detection mode, for frequencies both below and up 1 GHz. The average levels were obtained by subtracting the duty cycle correction factor from the peak readings.

The following procedures were used to convert the emission levels measured in decibels referenced to 1 microvolt (dBuV) into field intensity in micro volts pre meter (uV/m).

The actual field intensity in decibels referenced to 1 microvolt in to field intensity in micro volts per meter (dBuV/m).

The actual field intensity in referenced to 1 microvolt per meter (dBuV/m) is determined by algebraically adding the measured reading in dBuV, the antenna factor (dB), and cable loss (dB) and Subtracting the gain of preamplifier (dB) is auto calculate in spectrum analyzer.

$$(1) \text{ Amplitude (dBuV/m) = FI (dBuV) +AF (dBuV) +CL (dBuV)-Gain (dB)}$$

FI= Reading of the field intensity.

AF= Antenna factor.

CL= Cable loss.

P.S Amplitude is auto calculate in spectrum analyzer.

$$(2) \text{ Actual Amplitude (dBuV/m) = Amplitude (dBuV)-Dis(dB)}$$

The FCC specified emission limits were calculated according the EUT operating frequency and by following linear interpolation equations:

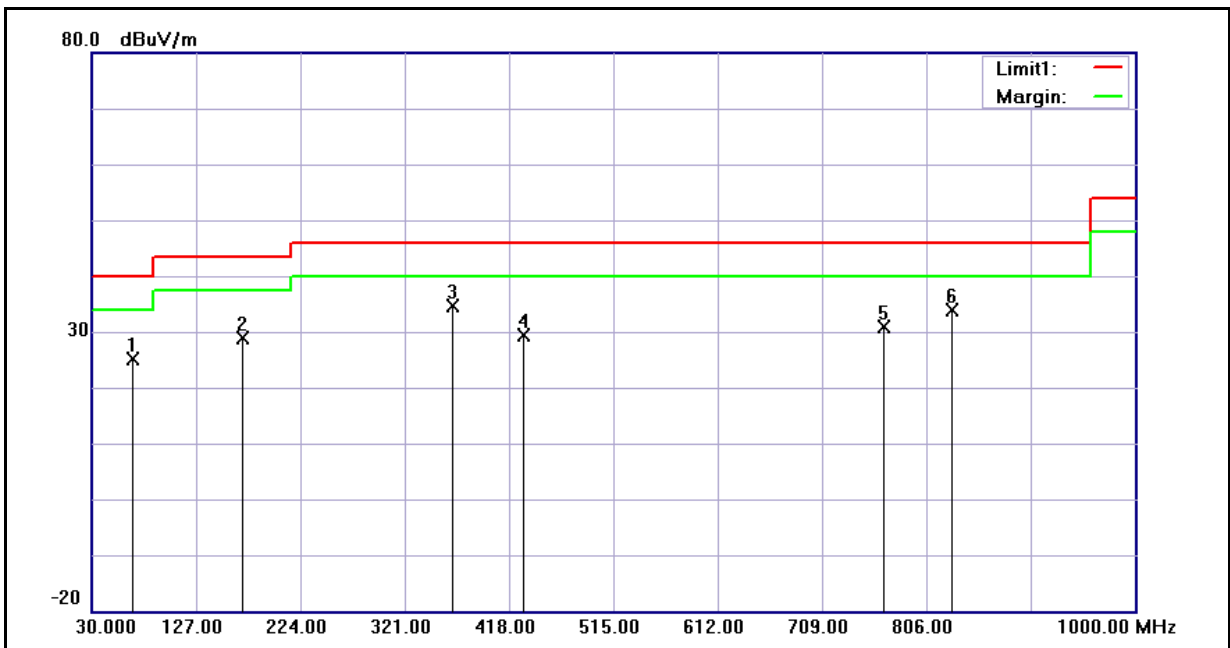
(a) For fundamental frequency : Transmitter Output < +30dBm

(b) For spurious frequency : Spurious emission limits = fundamental emission limit /10

5.5. Test Result

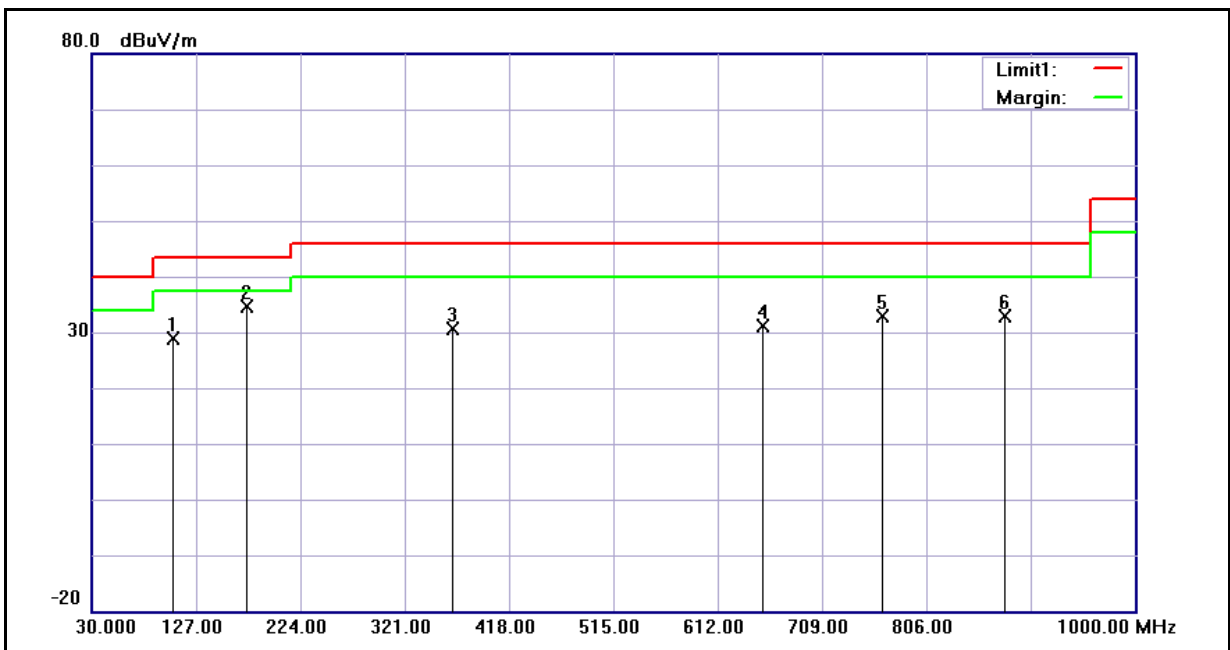
Below 1GHz

| | | | |
|---------------|-------------------|----------------------|--------------|
| Standard: | FCC Part 15C | Test Distance: | 3m |
| Test item: | Radiated Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 1 | Date: | 2010/10/01 |
| Ant.Polar.: | Horizontal | Test By: | Gary Wu |
| Ant. Used: | Internal Ant. | | |



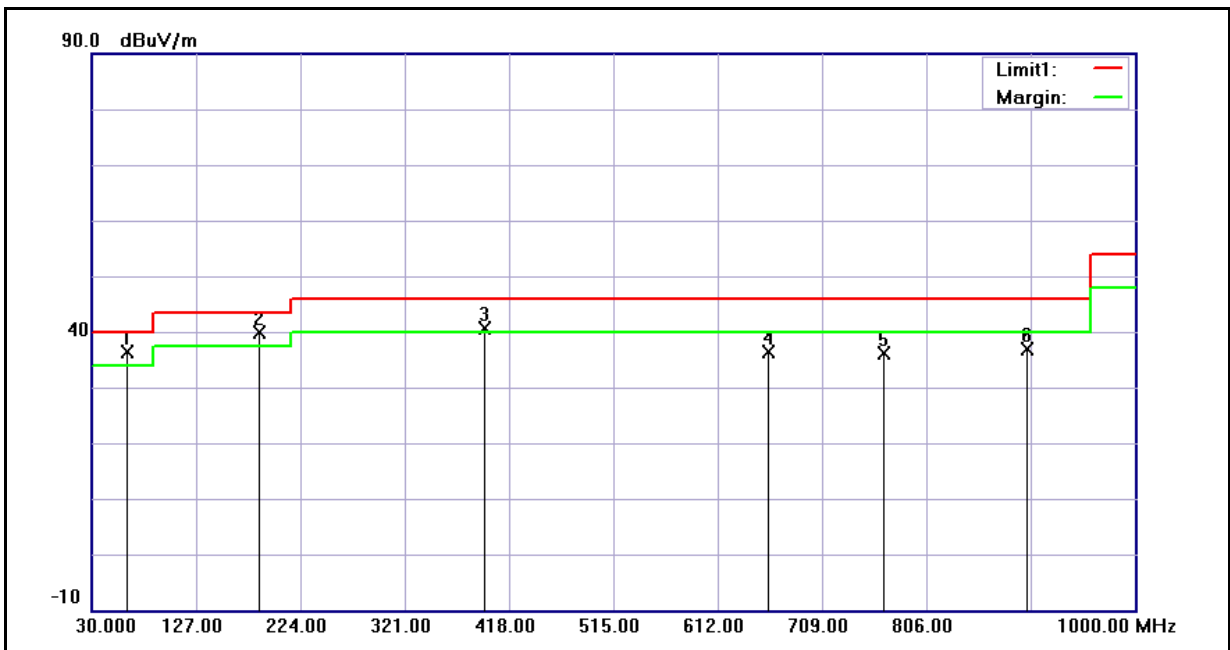
| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|--------|
| 1 | 68.0000 | 40.48 | -15.38 | 25.10 | 40.00 | -14.90 | QP |
| 2 | 171.0000 | 44.42 | -15.62 | 28.80 | 43.50 | -14.70 | QP |
| 3 | 366.5000 | 42.99 | -8.46 | 34.53 | 46.00 | -11.47 | QP |
| 4 | 432.0000 | 37.51 | -8.16 | 29.35 | 46.00 | -16.65 | QP |
| 5 | 766.5000 | 32.77 | -1.90 | 30.87 | 46.00 | -15.13 | QP |
| 6 | 829.5000 | 34.88 | -1.08 | 33.80 | 46.00 | -12.20 | QP |

| | | | |
|---------------|-------------------|----------------------|--------------|
| Standard: | FCC Part 15C | Test Distance: | 3m |
| Test item: | Radiated Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 1 | Date: | 2010/10/01 |
| Ant.Polar.: | Vertical | Test By: | Gary Wu |
| Ant. Used: | Internal Ant. | | |



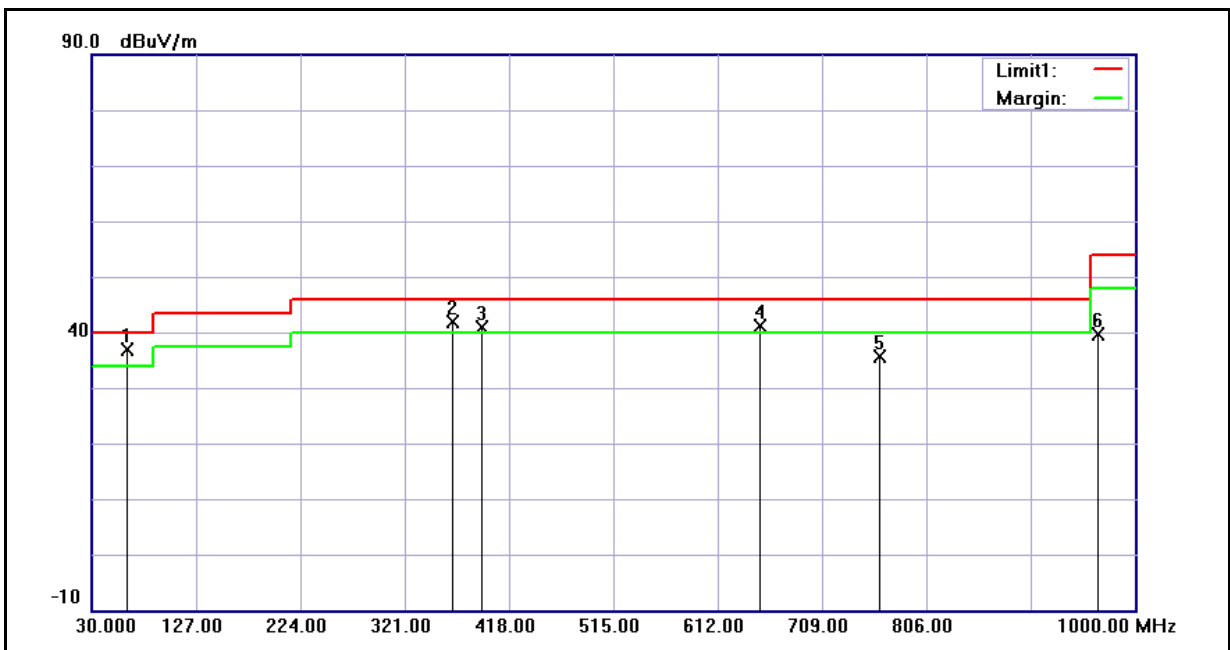
| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|--------|
| 1 | 106.0000 | 42.72 | -13.82 | 28.90 | 43.50 | -14.60 | QP |
| 2 | 174.0000 | 50.16 | -15.60 | 34.56 | 43.50 | -8.94 | QP |
| 3 | 366.5000 | 38.99 | -8.46 | 30.53 | 46.00 | -15.47 | QP |
| 4 | 654.5000 | 35.19 | -4.00 | 31.19 | 46.00 | -14.81 | QP |
| 5 | 766.0000 | 34.67 | -1.91 | 32.76 | 46.00 | -13.24 | QP |
| 6 | 879.0000 | 33.32 | -0.37 | 32.95 | 46.00 | -13.05 | QP |

| | | | |
|---------------|-------------------|----------------------|--------------|
| Standard: | FCC Part 15C | Test Distance: | 3m |
| Test item: | Radiated Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 1 | Date: | 2010/09/18 |
| Ant.Polar.: | Horizontal | Test By: | Gary Wu |
| Ant. Used: | External Ant. | | |



| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|--------|
| 1 | 63.5000 | 50.17 | -13.76 | 36.41 | 40.00 | -3.59 | QP |
| 2 | 187.0000 | 54.13 | -14.33 | 39.80 | 43.50 | -3.70 | QP |
| 3 | 395.0000 | 49.11 | -8.49 | 40.62 | 46.00 | -5.38 | QP |
| 4 | 659.0000 | 40.43 | -3.95 | 36.48 | 46.00 | -9.52 | QP |
| 5 | 766.5000 | 37.97 | -1.90 | 36.07 | 46.00 | -9.93 | QP |
| 6 | 900.0000 | 36.64 | 0.21 | 36.85 | 46.00 | -9.15 | QP |

| | | | |
|---------------|-------------------|----------------------|--------------|
| Standard: | FCC Part 15C | Test Distance: | 3m |
| Test item: | Radiated Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 1 | Date: | 2010/09/18 |
| Ant.Polar.: | Vertical | Test By: | Gary Wu |
| Ant. Used: | External Ant. | | |



| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|--------|
| 1 | 63.5000 | 50.57 | -13.76 | 36.81 | 40.00 | -3.19 | QP |
| 2 | 366.5000 | 50.38 | -8.46 | 41.92 | 46.00 | -4.08 | QP |
| 3 | 393.0000 | 49.46 | -8.49 | 40.97 | 46.00 | -5.03 | QP |
| 4 | 651.0000 | 45.29 | -4.05 | 41.24 | 46.00 | -4.76 | QP |
| 5 | 763.0000 | 37.58 | -1.96 | 35.62 | 46.00 | -10.38 | QP |
| 6 | 966.5000 | 38.38 | 1.20 | 39.58 | 54.00 | -14.42 | QP |

Above 1GHz

| | | | |
|---------------|-------------------|----------------------|--------------|
| Standard: | FCC Part 15C | Test Distance: | 3m |
| Test item: | Radiated Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 2 | Date: | 2010/10/01 |
| Frequency: | 2412MHz | Test By: | Gary Wu |
| Ant. Used: | Internal Ant. | | |

| Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark | Ant.Polar. H / V |
|-----------------|----------------|----------------------|-----------------|----------------|-------------|--------|------------------|
| 1658.000 | 46.48 | -3.00 | 43.48 | 74.00 | -30.52 | peak | H |
| 3884.000 | 38.22 | 4.88 | 43.10 | 74.00 | -30.90 | peak | H |
| 6642.000 | 35.95 | 13.31 | 49.26 | 74.00 | -24.74 | peak | H |
| 1658.000 | 49.96 | -3.00 | 46.96 | 74.00 | -27.04 | peak | V |
| 2995.000 | 44.33 | 2.28 | 46.61 | 74.00 | -27.39 | peak | V |
| 3324.000 | 44.67 | 3.02 | 47.69 | 74.00 | -26.31 | peak | V |

| | | | |
|---------------|-------------------|----------------------|--------------|
| Standard: | FCC Part 15C | Test Distance: | 3m |
| Test item: | Radiated Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 2 | Date: | 2010/10/01 |
| Frequency: | 2437MHz | Test By: | Gary Wu |
| Ant. Used: | Internal Ant. | | |

| Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark | Ant.Polar. H / V |
|-----------------|----------------|----------------------|-----------------|----------------|-------------|--------|------------------|
| 1658.000 | 47.11 | -3.00 | 44.11 | 74.00 | -29.89 | peak | H |
| 2995.000 | 41.89 | 2.28 | 44.17 | 74.00 | -29.83 | peak | H |
| 5802.000 | 36.60 | 10.46 | 47.06 | 74.00 | -26.94 | peak | H |
| 1658.000 | 49.27 | -3.00 | 46.27 | 74.00 | -27.73 | peak | V |
| 2988.000 | 45.73 | 2.25 | 47.98 | 74.00 | -26.02 | peak | V |
| 5648.000 | 37.08 | 10.22 | 47.30 | 74.00 | -26.70 | peak | V |

| | | | |
|---------------|-------------------|----------------------|--------------|
| Standard: | FCC Part 15C | Test Distance: | 3m |
| Test item: | Radiated Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 2 | Date: | 2010/10/01 |
| Frequency: | 2462MHz | Test By: | Gary Wu |
| Ant. Used: | Internal Ant. | | |

| Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark | Ant.Polar. H / V |
|--------------------|-------------------|-------------------------|--------------------|-------------------|----------------|--------|---------------------|
| 1658.000 | 46.37 | -3.00 | 43.37 | 74.00 | -30.63 | peak | H |
| 2995.000 | 41.06 | 2.28 | 43.34 | 74.00 | -30.66 | peak | H |
| 6551.000 | 36.65 | 13.05 | 49.70 | 74.00 | -24.30 | peak | H |
| 1994.000 | 48.29 | -1.81 | 46.48 | 74.00 | -27.52 | peak | V |
| 3002.000 | 45.08 | 2.30 | 47.38 | 74.00 | -26.62 | peak | V |
| 6320.000 | 37.32 | 12.13 | 49.45 | 74.00 | -24.55 | peak | V |

| | | | |
|---------------|-------------------|----------------------|--------------|
| Standard: | FCC Part 15C | Test Distance: | 3m |
| Test item: | Radiated Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 2 | Date: | 2010/09/18 |
| Frequency: | 2412MHz | Test By: | Gary Wu |
| Ant. Used: | External Ant. | | |

| Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark | Ant.Polar. H / V |
|--------------------|-------------------|-------------------------|--------------------|-------------------|----------------|--------|---------------------|
| 1658.000 | 47.45 | -3.00 | 44.45 | 74.00 | -29.55 | peak | H |
| 2988.000 | 40.63 | 2.25 | 42.88 | 74.00 | -31.12 | peak | H |
| 4824.000 | 35.75 | 7.92 | 43.67 | 74.00 | -30.33 | peak | H |
| 5277.000 | 36.78 | 9.32 | 46.10 | 74.00 | -27.90 | peak | H |
| 6971.000 | 35.58 | 14.32 | 49.90 | 74.00 | -24.10 | peak | H |
| 7236.000 | 34.72 | 15.03 | 49.75 | 74.00 | -24.25 | peak | H |
| 1497.000 | 46.33 | -3.58 | 42.75 | 74.00 | -31.25 | peak | V |
| 1665.000 | 57.08 | -2.98 | 54.10 | 74.00 | -19.90 | peak | V |
| 1665.000 | 33.00 | -2.98 | 30.02 | 54.00 | -23.98 | AVG | V |
| 2988.000 | 44.60 | 2.25 | 46.85 | 74.00 | -27.15 | peak | V |
| 3331.000 | 42.15 | 3.03 | 45.18 | 74.00 | -28.82 | peak | V |
| 4824.000 | 36.45 | 7.92 | 44.37 | 74.00 | -29.63 | peak | V |
| 7236.000 | 34.89 | 15.03 | 49.92 | 74.00 | -24.08 | peak | V |

| | | | |
|---------------|-------------------|----------------------|--------------|
| Standard: | FCC Part 15C | Test Distance: | 3m |
| Test item: | Radiated Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 2 | Date: | 2010/09/18 |
| Frequency: | 2437MHz | Test By: | Gary Wu |
| Ant. Used: | External Ant. | | |

| Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark | Ant.Polar. H / V |
|--------------------|-------------------|-------------------------|--------------------|-------------------|----------------|--------|---------------------|
| 1658.000 | 46.45 | -3.00 | 43.45 | 74.00 | -30.55 | peak | H |
| 2449.000 | 40.91 | 0.02 | 40.93 | 74.00 | -33.07 | peak | H |
| 3002.000 | 41.25 | 2.30 | 43.55 | 74.00 | -30.45 | peak | H |
| 4874.000 | 35.56 | 8.09 | 43.65 | 74.00 | -30.35 | peak | H |
| 6299.000 | 34.86 | 12.03 | 46.89 | 74.00 | -27.11 | peak | H |
| 7311.000 | 33.89 | 15.23 | 49.12 | 74.00 | -24.88 | peak | H |
| 1658.000 | 50.21 | -3.00 | 47.21 | 74.00 | -26.79 | peak | V |
| 2001.000 | 50.69 | -1.79 | 48.90 | 74.00 | -25.10 | peak | V |
| 2995.000 | 44.11 | 2.28 | 46.39 | 74.00 | -27.61 | peak | V |
| 4874.000 | 35.33 | 8.09 | 43.42 | 74.00 | -30.58 | peak | V |
| 6663.000 | 36.76 | 13.39 | 50.15 | 74.00 | -23.85 | peak | V |
| 7311.000 | 34.69 | 15.23 | 49.92 | 74.00 | -24.08 | peak | V |

| | | | |
|---------------|-------------------|----------------------|--------------|
| Standard: | FCC Part 15C | Test Distance: | 3m |
| Test item: | Radiated Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 2 | Date: | 2010/09/18 |
| Frequency: | 2462MHz | Test By: | Gary Wu |
| Ant. Used: | External Ant. | | |

| Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark | Ant.Polar. H / V |
|--------------------|-------------------|-------------------------|--------------------|-------------------|----------------|--------|---------------------|
| 1658.000 | 47.07 | -3.00 | 44.07 | 74.00 | -29.93 | peak | H |
| 2995.000 | 40.90 | 2.28 | 43.18 | 74.00 | -30.82 | peak | H |
| 4367.000 | 38.15 | 6.45 | 44.60 | 74.00 | -29.40 | peak | H |
| 4924.000 | 37.17 | 8.25 | 45.42 | 74.00 | -28.58 | peak | H |
| 6999.000 | 36.31 | 14.41 | 50.72 | 74.00 | -23.28 | peak | H |
| 7386.000 | 33.98 | 15.42 | 49.40 | 74.00 | -24.60 | peak | H |
| 1665.000 | 48.49 | -2.98 | 45.51 | 74.00 | -28.49 | peak | V |
| 3002.000 | 44.22 | 2.30 | 46.52 | 74.00 | -27.48 | peak | V |
| 3324.000 | 41.49 | 3.02 | 44.51 | 74.00 | -29.49 | peak | V |
| 4924.000 | 36.06 | 8.25 | 44.31 | 74.00 | -29.69 | peak | V |
| 6313.000 | 35.20 | 12.10 | 47.30 | 74.00 | -26.70 | peak | V |
| 7386.000 | 34.18 | 15.42 | 49.60 | 74.00 | -24.40 | peak | V |

| | | | |
|---------------|-------------------|----------------------|--------------|
| Standard: | FCC Part 15C | Test Distance: | 3m |
| Test item: | Radiated Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 3 | Date: | 2010/10/01 |
| Frequency: | 2412MHz | Test By: | Gary Wu |
| Ant. Used: | Internal Ant. | | |

| Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark | Ant.Polar. H / V |
|-----------------|----------------|----------------------|-----------------|----------------|-------------|--------|------------------|
| 1658.000 | 47.01 | -3.00 | 44.01 | 74.00 | -29.99 | peak | H |
| 3002.000 | 41.72 | 2.30 | 44.02 | 74.00 | -29.98 | peak | H |
| 6978.000 | 36.67 | 14.35 | 51.02 | 74.00 | -22.98 | peak | H |
| 1658.000 | 48.38 | -3.00 | 45.38 | 74.00 | -28.62 | peak | V |
| 2988.000 | 43.29 | 2.25 | 45.54 | 74.00 | -28.46 | peak | V |
| 6964.000 | 36.66 | 14.30 | 50.96 | 74.00 | -23.04 | peak | V |

| | | | |
|---------------|-------------------|----------------------|--------------|
| Standard: | FCC Part 15C | Test Distance: | 3m |
| Test item: | Radiated Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 3 | Date: | 2010/10/01 |
| Frequency: | 2437MHz | Test By: | Gary Wu |
| Ant. Used: | Internal Ant. | | |

| Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark | Ant.Polar. H / V |
|-----------------|----------------|----------------------|-----------------|----------------|-------------|--------|------------------|
| 1658.000 | 45.85 | -3.00 | 42.85 | 74.00 | -31.15 | peak | H |
| 3996.000 | 38.52 | 5.31 | 43.83 | 74.00 | -30.17 | peak | H |
| 6866.000 | 36.82 | 14.01 | 50.83 | 74.00 | -23.17 | peak | H |
| 1665.000 | 51.72 | -2.98 | 48.74 | 74.00 | -25.26 | peak | V |
| 3002.000 | 44.07 | 2.30 | 46.37 | 74.00 | -27.63 | peak | V |
| 3324.000 | 43.94 | 3.02 | 46.96 | 74.00 | -27.04 | peak | V |

| | | | |
|---------------|-------------------|----------------------|--------------|
| Standard: | FCC Part 15C | Test Distance: | 3m |
| Test item: | Radiated Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 3 | Date: | 2010/10/01 |
| Frequency: | 2462MHz | Test By: | Gary Wu |
| Ant. Used: | Internal Ant. | | |

| Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark | Ant.Polar. H / V |
|--------------------|-------------------|-------------------------|--------------------|-------------------|----------------|--------|---------------------|
| 1658.000 | 46.41 | -3.00 | 43.41 | 74.00 | -30.59 | peak | H |
| 3506.000 | 39.81 | 3.43 | 43.24 | 74.00 | -30.76 | peak | H |
| 6817.000 | 36.27 | 13.85 | 50.12 | 74.00 | -23.88 | peak | H |
| 1658.000 | 48.52 | -3.00 | 45.52 | 74.00 | -28.48 | peak | V |
| 2995.000 | 43.73 | 2.28 | 46.01 | 74.00 | -27.99 | peak | V |
| 6670.000 | 36.40 | 13.40 | 49.80 | 74.00 | -24.20 | peak | V |

| | | | |
|---------------|-------------------|----------------------|--------------|
| Standard: | FCC Part 15C | Test Distance: | 3m |
| Test item: | Radiated Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 3 | Date: | 2010/10/01 |
| Frequency: | 2412MHz | Test By: | Gary Wu |
| Ant. Used: | External Ant. | | |

| Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark | Ant.Polar. H / V |
|-----------------|----------------|----------------------|-----------------|----------------|-------------|--------|------------------|
| 1665.000 | 48.51 | -2.98 | 45.53 | 74.00 | -28.47 | peak | H |
| 4829.000 | 40.18 | 7.94 | 48.12 | 74.00 | -25.88 | peak | H |
| 6985.000 | 36.95 | 14.36 | 51.31 | 74.00 | -22.69 | peak | H |
| 1665.000 | 54.89 | -2.98 | 51.91 | 74.00 | -22.09 | peak | V |
| 4822.000 | 46.28 | 7.91 | 54.19 | 74.00 | -19.81 | peak | V |
| 4822.000 | 37.79 | 7.91 | 45.70 | 54.00 | -8.30 | AVG | V |
| 7055.000 | 37.24 | 14.56 | 51.80 | 74.00 | -22.20 | peak | V |

| | | | |
|---------------|-------------------|----------------------|--------------|
| Standard: | FCC Part 15C | Test Distance: | 3m |
| Test item: | Radiated Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 3 | Date: | 2010/10/01 |
| Frequency: | 2437MHz | Test By: | Gary Wu |
| Ant. Used: | External Ant. | | |

| Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark | Ant.Polar. H / V |
|-----------------|----------------|----------------------|-----------------|----------------|-------------|--------|------------------|
| 1658.000 | 46.80 | -3.00 | 43.80 | 74.00 | -30.20 | peak | H |
| 4871.000 | 43.81 | 8.07 | 51.88 | 74.00 | -22.12 | peak | H |
| 6712.000 | 36.70 | 13.53 | 50.23 | 74.00 | -23.77 | peak | H |
| 1658.000 | 43.08 | -3.00 | 40.08 | 74.00 | -33.92 | peak | V |
| 4871.000 | 46.21 | 8.07 | 54.28 | 74.00 | -19.72 | peak | V |
| 4871.000 | 40.08 | 8.07 | 48.15 | 54.00 | -5.85 | AVG | V |
| 6999.000 | 35.35 | 14.41 | 49.76 | 74.00 | -24.24 | peak | V |

| | | | |
|---------------|-------------------|----------------------|--------------|
| Standard: | FCC Part 15C | Test Distance: | 3m |
| Test item: | Radiated Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 3 | Date: | 2010/10/01 |
| Frequency: | 2462MHz | Test By: | Gary Wu |
| Ant. Used: | External Ant. | | |

| Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark | Ant.Polar. H / V |
|--------------------|-------------------|-------------------------|--------------------|-------------------|----------------|--------|---------------------|
| 1658.000 | 46.94 | -3.00 | 43.94 | 74.00 | -30.06 | peak | H |
| 4927.000 | 42.55 | 8.26 | 50.81 | 74.00 | -23.19 | peak | H |
| 7216.000 | 36.54 | 14.98 | 51.52 | 74.00 | -22.48 | AVG | H |
| 1658.000 | 53.35 | -3.00 | 50.35 | 74.00 | -23.65 | peak | V |
| 4920.000 | 50.77 | 8.24 | 59.01 | 74.00 | -14.99 | peak | V |
| 4920.000 | 43.08 | 8.24 | 51.32 | 54.00 | -2.68 | AVG | V |
| 6796.000 | 35.84 | 13.79 | 49.63 | 74.00 | -24.37 | peak | V |

| | | | |
|---------------|-------------------|----------------------|--------------|
| Standard: | FCC Part 15B | Test Distance: | 3m |
| Test item: | Radiated Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 4 | Date: | 2010/10/01 |
| Frequency: | 2437MHz | Test By: | Gary Wu |
| Ant. Used: | Internal Ant. | | |

| Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Peak Limit (dBuV/m) | AVG. Limit (dBuV/m) | Margin (dB) | Remark | Ant.Polar. H / V |
|-----------------|----------------|----------------------|-----------------|---------------------|---------------------|-------------|--------|------------------|
| 1658.000 | 48.55 | -3.00 | 45.55 | 74.00 | 54.00 | -28.45 | peak | H |
| 3989.000 | 39.65 | 5.29 | 44.94 | 74.00 | 54.00 | -29.06 | peak | H |
| 6754.000 | 36.49 | 13.66 | 50.15 | 74.00 | 54.00 | -23.85 | peak | H |
| 1665.000 | 48.88 | -2.98 | 45.90 | 74.00 | 54.00 | -28.10 | peak | V |
| 3002.000 | 44.51 | 2.30 | 46.81 | 74.00 | 54.00 | -27.19 | peak | V |
| 6726.000 | 36.53 | 13.57 | 50.10 | 74.00 | 54.00 | -23.90 | peak | V |

| | | | |
|---------------|-------------------|----------------------|--------------|
| Standard: | FCC Part 15B | Test Distance: | 3m |
| Test item: | Radiated Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 4 | Date: | 2010/09/18 |
| Frequency: | 2437MHz | Test By: | Gary Wu |
| Ant. Used: | External Ant. | | |

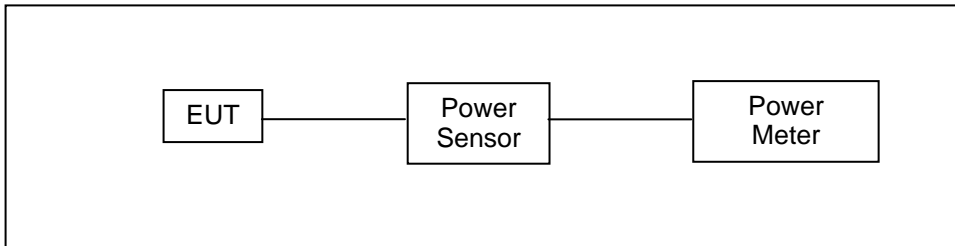
| Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Peak Limit (dBuV/m) | AVG. Limit (dBuV/m) | Margin (dB) | Remark | Ant.Polar. H / V |
|-----------------|----------------|----------------------|-----------------|---------------------|---------------------|-------------|--------|------------------|
| 1210.000 | 47.64 | -5.18 | 42.46 | 74.00 | 54.00 | -31.54 | peak | H |
| 1665.000 | 47.70 | -2.98 | 44.72 | 74.00 | 54.00 | -29.28 | peak | H |
| 2988.000 | 41.07 | 2.25 | 43.32 | 74.00 | 54.00 | -30.68 | peak | H |
| 3884.000 | 38.62 | 4.88 | 43.50 | 74.00 | 54.00 | -30.50 | peak | H |
| 5312.000 | 36.49 | 9.43 | 45.92 | 74.00 | 54.00 | -28.08 | peak | H |
| 5921.000 | 36.87 | 10.64 | 47.51 | 74.00 | 54.00 | -26.49 | peak | H |
| 1665.000 | 52.54 | -2.98 | 49.56 | 74.00 | 54.00 | -24.44 | peak | V |
| 2001.000 | 50.20 | -1.79 | 48.41 | 74.00 | 54.00 | -25.59 | peak | V |
| 2995.000 | 43.37 | 2.28 | 45.65 | 74.00 | 54.00 | -28.35 | peak | V |
| 3667.000 | 40.08 | 4.04 | 44.12 | 74.00 | 54.00 | -29.88 | peak | V |
| 4969.000 | 37.51 | 8.40 | 45.91 | 74.00 | 54.00 | -28.09 | peak | V |
| 6208.000 | 35.10 | 11.65 | 46.75 | 74.00 | 54.00 | -27.25 | peak | V |

6 Maximum Conducted Output Power Measurement

6.1. Limit

For systems using digital modulation in the 2400-2483.5MHz, the limit for peak output power is 30dBm.

6.2. Test Setup



6.3. Test Instruments

| Equipment | Manufacturer | Model Number | Serial Number | Cal. Date | Remark |
|--------------------------------|--------------|--------------|---------------|------------|--------|
| Single Channel PK Power Sensor | Agilent | N1911A | MY45101619 | 07/19/2010 | (1) |
| Wideband Power Meter | Agilent | N1921A | MY45241957 | 07/19/2010 | (1) |
| Test Site | ATL | TE06 | TE06 | N.C.R. | ----- |

Remark: (1) Calibration period 1 year. (2) Calibration period 2 years.

NOTE: N.C.R. = No Calibration Request.

6.4. Test Procedure

The tests below are run with the EUT's transmitter set at high power in TX mode. The EUT is needed to force selection of output power level and channel number. While testing, EUT was set to transmit continuously. Remove the Subjective device's antenna and connect the RF output port to power sensor. The maximum peak output power shall not exceed 1 watt.

Use a direct connection between the antenna port of transmitter and the power sensor, for prevent the power sensor input attenuation 40-50 dB. Set the RBW Bandwidth of the emission or use a channel power meter mode.

For antennas with gains of 6 dBi or less, maximum allowed transmitter output is 1 watt (+30 dBm). For antennas with gains greater than 6 dBi, transmitter output level must be decreased by an amount equal to (GAIN - 6)/3 dBm.

The antenna port of the EUT was connected to the input of a power sensor. Power was read directly and cable loss correction was added to the reading to obtain power at the EUT antenna terminals.

6.5. Test Result

| Model Number | DM300 | | | | | | |
|---------------|--------------------------------|-----------------|---------------|-------|--------------|--------------|-------------|
| Test Item | Maximum Conducted Output Power | | | | | | |
| Test Mode | Mode 2: IEEE 802.11b Link Mode | | | | | | |
| Date of Test | 09/18/2010 | | | | Test Site | TE06 | |
| Ant. Port | Data Rate | Frequency (MHz) | Average Power | | Peak Power | | Limit (dBm) |
| | | | (dBm) | (W) | (dBm) | (W) | |
| Internal Ant. | 1M | 2412 | 7.75 | 0.006 | 11.47 | 0.014 | < 30 |
| | | 2437 | 8.00 | 0.006 | 11.90 | 0.015 | < 30 |
| | | 2462 | 7.50 | 0.006 | 11.21 | 0.013 | < 30 |
| | 2M | 2412 | 7.72 | 0.006 | 11.47 | 0.014 | < 30 |
| | | 2437 | 8.04 | 0.006 | 11.87 | 0.015 | < 30 |
| | | 2462 | 7.52 | 0.006 | 11.24 | 0.013 | < 30 |
| | 5.5M | 2412 | 7.69 | 0.006 | 11.39 | 0.014 | < 30 |
| | | 2437 | 7.98 | 0.006 | 11.94 | 0.016 | < 30 |
| | | 2462 | 7.50 | 0.006 | 11.24 | 0.013 | < 30 |
| | 11M | 2412 | 7.66 | 0.006 | 11.36 | 0.014 | < 30 |
| | | 2437 | 8.15 | 0.007 | 11.76 | 0.015 | < 30 |
| | | 2462 | 7.50 | 0.006 | 11.26 | 0.013 | < 30 |
| External Ant. | 1M | 2412 | 11.61 | 0.014 | 14.74 | 0.030 | < 30 |
| | | 2437 | 12.33 | 0.017 | 16.11 | 0.041 | < 30 |
| | | 2462 | 12.30 | 0.017 | 16.09 | 0.041 | < 30 |
| | 2M | 2412 | 11.44 | 0.014 | 14.65 | 0.029 | < 30 |
| | | 2437 | 12.35 | 0.017 | 16.08 | 0.041 | < 30 |
| | | 2462 | 12.32 | 0.017 | 16.15 | 0.041 | < 30 |
| | 5.5M | 2412 | 11.33 | 0.014 | 14.54 | 0.028 | < 30 |
| | | 2437 | 12.20 | 0.017 | 16.03 | 0.040 | < 30 |
| | | 2462 | 12.15 | 0.016 | 16.08 | 0.041 | < 30 |
| | 11M | 2412 | 11.33 | 0.014 | 14.83 | 0.030 | < 30 |
| | | 2437 | 12.37 | 0.017 | 16.15 | 0.041 | < 30 |
| | | 2462 | 12.28 | 0.017 | 16.22 | 0.042 | < 30 |

| Model Number | DM300 | | | | | | |
|---------------|--------------------------------|-----------------|---------------|-------|--------------|--------------|-------------|
| Test Item | Maximum Conducted Output Power | | | | | | |
| Test Mode | Mode 3: IEEE 802.11g Link Mode | | | | | | |
| Date of Test | 09/18/2010 | | | | Test Site | TE06 | |
| Ant. Port | Data Rate | Frequency (MHz) | Average Power | | Peak Power | | Limit (dBm) |
| | | | (dBm) | (W) | (dBm) | (W) | |
| Internal Ant. | 6M | 2412 | 7.73 | 0.006 | 16.13 | 0.041 | < 30 |
| | | 2437 | 8.16 | 0.007 | 15.59 | 0.036 | < 30 |
| | | 2462 | 7.77 | 0.006 | 14.80 | 0.030 | < 30 |
| | 9M | 2412 | 7.64 | 0.006 | 16.33 | 0.043 | < 30 |
| | | 2437 | 8.12 | 0.006 | 15.74 | 0.037 | < 30 |
| | | 2462 | 7.72 | 0.006 | 14.83 | 0.030 | < 30 |
| | 12M | 2412 | 7.61 | 0.006 | 16.21 | 0.042 | < 30 |
| | | 2437 | 8.13 | 0.007 | 15.64 | 0.037 | < 30 |
| | | 2462 | 7.72 | 0.006 | 14.73 | 0.030 | < 30 |
| | 18M | 2412 | 7.78 | 0.006 | 16.45 | 0.044 | < 30 |
| | | 2437 | 8.11 | 0.006 | 15.82 | 0.038 | < 30 |
| | | 2462 | 7.67 | 0.006 | 14.91 | 0.031 | < 30 |
| | 24M | 2412 | 7.69 | 0.006 | 16.20 | 0.042 | < 30 |
| | | 2437 | 8.07 | 0.006 | 15.64 | 0.037 | < 30 |
| | | 2462 | 7.65 | 0.006 | 14.80 | 0.030 | < 30 |
| | 36M | 2412 | 7.54 | 0.006 | 16.32 | 0.043 | < 30 |
| | | 2437 | 8.02 | 0.006 | 15.73 | 0.037 | < 30 |
| | | 2462 | 7.61 | 0.006 | 14.89 | 0.031 | < 30 |
| | 48M | 2412 | 7.57 | 0.006 | 16.36 | 0.043 | < 30 |
| | | 2437 | 7.94 | 0.006 | 15.82 | 0.038 | < 30 |
| | | 2462 | 7.63 | 0.006 | 14.97 | 0.031 | < 30 |
| | 54M | 2412 | 7.55 | 0.006 | 16.31 | 0.043 | < 30 |
| | | 2437 | 7.92 | 0.006 | 15.76 | 0.038 | < 30 |
| | | 2462 | 7.60 | 0.006 | 14.98 | 0.031 | < 30 |

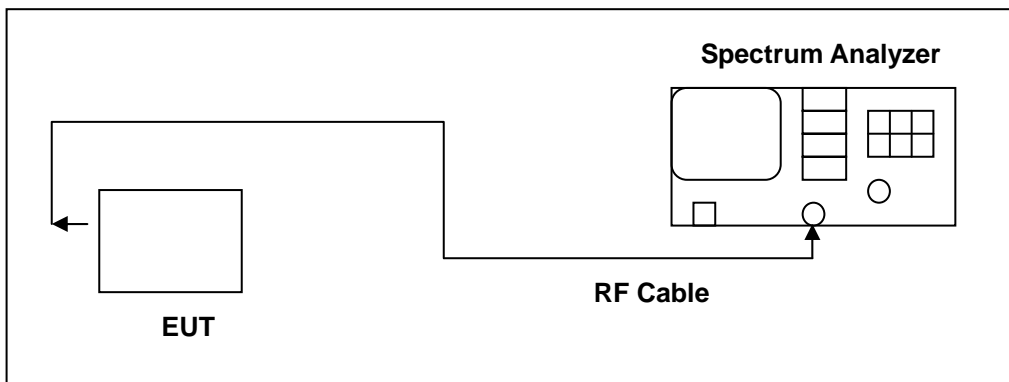
| Model Number | DM300 | | | | | | |
|---------------|--------------------------------|-----------------|---------------|-------|--------------|--------------|-------------|
| Test Item | Maximum Conducted Output Power | | | | | | |
| Test Mode | Mode 3: IEEE 802.11g Link Mode | | | | | | |
| Date of Test | 09/18/2010 | | | | Test Site | TE06 | |
| Ant. Port | Data Rate | Frequency (MHz) | Average Power | | Peak Power | | Limit (dBm) |
| | | | (dBm) | (W) | (dBm) | (W) | |
| External Ant. | 6M | 2412 | 11.60 | 0.014 | 19.57 | 0.091 | < 30 |
| | | 2437 | 12.51 | 0.018 | 20.04 | 0.101 | < 30 |
| | | 2462 | 12.63 | 0.018 | 20.19 | 0.104 | < 30 |
| | 9M | 2412 | 11.50 | 0.014 | 19.63 | 0.092 | < 30 |
| | | 2437 | 12.52 | 0.018 | 20.08 | 0.102 | < 30 |
| | | 2462 | 12.55 | 0.018 | 20.15 | 0.104 | < 30 |
| | 12M | 2412 | 11.45 | 0.014 | 19.45 | 0.088 | < 30 |
| | | 2437 | 12.52 | 0.018 | 19.92 | 0.098 | < 30 |
| | | 2462 | 12.60 | 0.018 | 20.13 | 0.103 | < 30 |
| | 18M | 2412 | 11.44 | 0.014 | 19.69 | 0.093 | < 30 |
| | | 2437 | 12.51 | 0.018 | 20.06 | 0.101 | < 30 |
| | | 2462 | 12.54 | 0.018 | 20.31 | 0.107 | < 30 |
| | 24M | 2412 | 11.40 | 0.014 | 19.50 | 0.089 | < 30 |
| | | 2437 | 12.41 | 0.017 | 19.99 | 0.100 | < 30 |
| | | 2462 | 12.55 | 0.018 | 20.16 | 0.104 | < 30 |
| | 36M | 2412 | 11.32 | 0.014 | 19.52 | 0.090 | < 30 |
| | | 2437 | 12.35 | 0.017 | 19.96 | 0.099 | < 30 |
| | | 2462 | 12.51 | 0.018 | 20.22 | 0.105 | < 30 |
| | 48M | 2412 | 10.59 | 0.011 | 19.06 | 0.081 | < 30 |
| | | 2437 | 11.83 | 0.015 | 19.52 | 0.090 | < 30 |
| | | 2462 | 12.05 | 0.016 | 19.80 | 0.095 | < 30 |
| | 54M | 2412 | 10.75 | 0.012 | 19.13 | 0.082 | < 30 |
| | | 2437 | 11.83 | 0.015 | 19.55 | 0.090 | < 30 |
| | | 2462 | 12.10 | 0.016 | 19.72 | 0.094 | < 30 |

7 6dB RF Bandwidth Measurement

7.1. Limit

Systems using digital modulation techniques may operate in the 2400–2483.5 MHz bands. The minimum 6 dB band-width shall be at least 500 kHz.

7.2. Test Setup



7.3. Test Instruments

| Equipment | Manufacturer | Model Number | Serial Number | Cal. Date | Remark |
|-------------------|--------------|--------------|---------------|------------|--------|
| Spectrum Analyzer | Agilent | E4445A | MY46181986 | 05/14/2009 | (2) |
| Test Site | ATL | TE06 | TE06 | N.C.R. | ----- |

Remark: (1) Calibration period 1 year. (2) Calibration period 2 years.

NOTE: N.C.R. = No Calibration Request.

7.4. Test Procedure

The EUT was setup to ANSI C63.4, 2003; tested to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

The antenna port of the EUT was connected to the input of a spectrum analyzer. Analyzer RES BW was set to 100 kHz. For each RF output channel investigated, the spectrum analyzer center frequency was set to the channel carrier. A peak output reading was taken, a DISPLAY line was drawn 6 dB lower than peak level. The 6 dB bandwidth was determined from where the channel output spectrum intersected the display line.

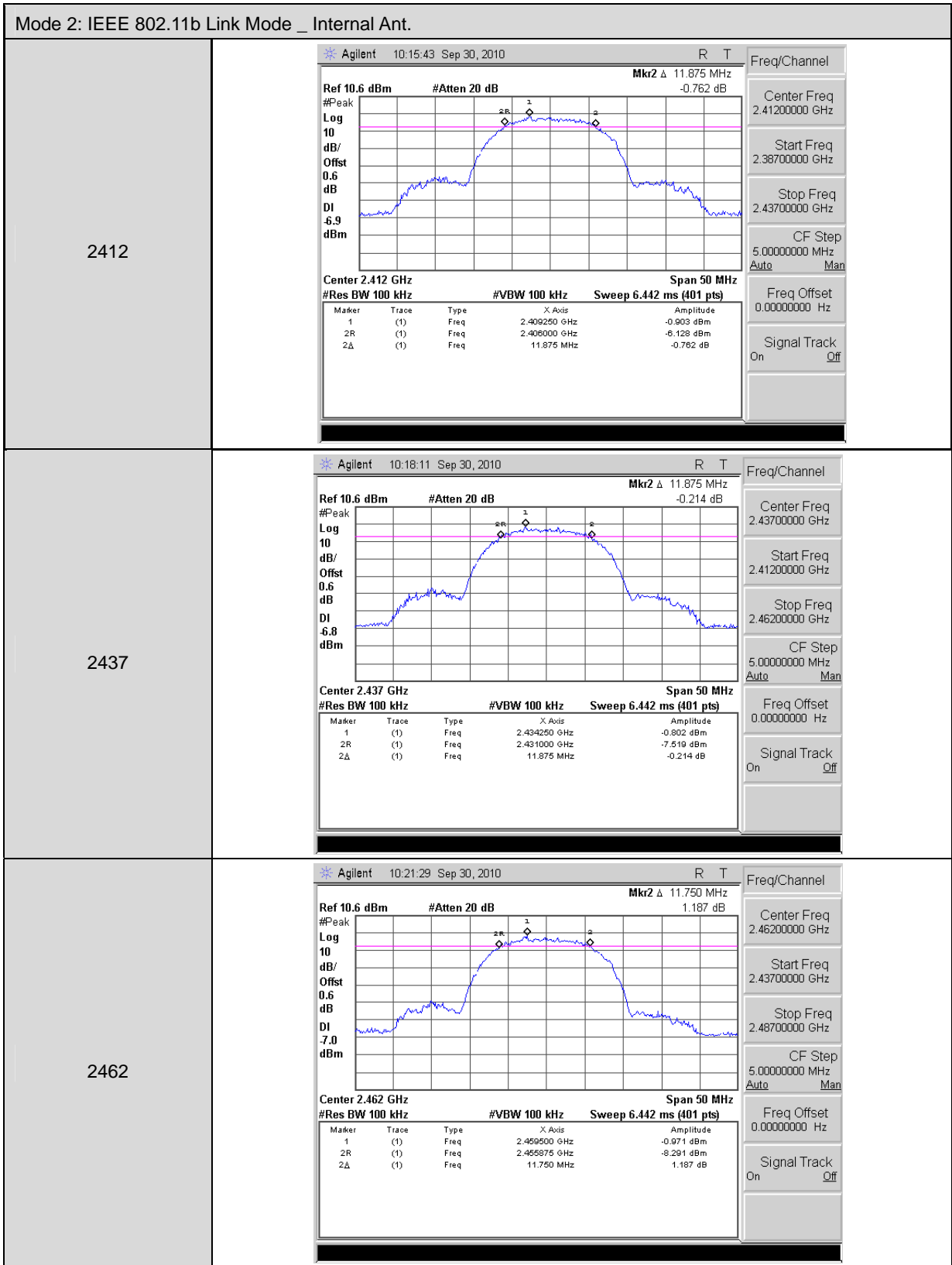
The test was performed at 3 channels (Channel 1, 6, 11)

7.5. Test Result

| | | | |
|---------------|--------------------------------|-------------------|-------------|
| Model Number | DM300 | | |
| Test Item | 6dB RF Bandwidth | | |
| Test Mode | Mode 2: IEEE 802.11b Link Mode | | |
| Date of Test | 09/20/2010, 09/30/2010 | Test Site | TE06 |
| Ant. Port | Frequency (MHz) | Measurement (kHz) | Limit (kHz) |
| Internal Ant. | 2412 | 11875 | > 500 |
| | 2437 | 11875 | > 500 |
| | 2462 | 11750 | > 500 |
| External Ant. | 2412 | 12750 | > 500 |
| | 2437 | 12500 | > 500 |
| | 2462 | 12500 | > 500 |

| | | | |
|---------------|--------------------------------|-------------------|-------------|
| Model Number | DM300 | | |
| Test Item | 6dB RF Bandwidth | | |
| Test Mode | Mode 3: IEEE 802.11g Link Mode | | |
| Date of Test | 09/20/2010, 09/30/2010 | Test Site | TE06 |
| Ant. Port | Frequency (MHz) | Measurement (kHz) | Limit (kHz) |
| Internal Ant. | 2412 | 16625 | > 500 |
| | 2437 | 16625 | > 500 |
| | 2462 | 16625 | > 500 |
| External Ant. | 2412 | 16625 | > 500 |
| | 2437 | 16625 | > 500 |
| | 2462 | 16625 | > 500 |

7.6. Test Graphs



Mode 2: IEEE 802.11b Link Mode _ External Ant.

| <p>2412</p> | <p>Agilent 15:08:55 Sep 20, 2010</p> <p>Ref 10.6 dBm #Atten 10 dB Mkr2 Δ 12.750 MHz 0.388 dB</p> <p>Center 2.412 GHz Span 50 MHz</p> <table border="1"> <thead> <tr> <th>Marker</th> <th>Trace</th> <th>Type</th> <th>X Axis</th> <th>Amplitude</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>(1)</td> <td>Freq</td> <td>2.410500 GHz</td> <td>0.226 dBm</td> </tr> <tr> <td>2R</td> <td>(1)</td> <td>Freq</td> <td>2.405500 GHz</td> <td>-5.463 dBm</td> </tr> <tr> <td>2Δ</td> <td>(1)</td> <td>Freq</td> <td>12.750 MHz</td> <td>0.388 dB</td> </tr> </tbody> </table> | Marker | Trace | Type | X Axis | Amplitude | 1 | (1) | Freq | 2.410500 GHz | 0.226 dBm | 2R | (1) | Freq | 2.405500 GHz | -5.463 dBm | 2Δ | (1) | Freq | 12.750 MHz | 0.388 dB |
|-------------|---|--------|--------------|------------|--------|-----------|---|-----|------|--------------|-----------|----|-----|------|--------------|------------|----|-----|------|------------|----------|
| Marker | Trace | Type | X Axis | Amplitude | | | | | | | | | | | | | | | | | |
| 1 | (1) | Freq | 2.410500 GHz | 0.226 dBm | | | | | | | | | | | | | | | | | |
| 2R | (1) | Freq | 2.405500 GHz | -5.463 dBm | | | | | | | | | | | | | | | | | |
| 2Δ | (1) | Freq | 12.750 MHz | 0.388 dB | | | | | | | | | | | | | | | | | |
| <p>2437</p> | <p>Agilent 15:09:50 Sep 20, 2010</p> <p>Ref 10.6 dBm #Atten 10 dB Mkr2 Δ 12.500 MHz 0.789 dB</p> <p>Center 2.437 GHz Span 50 MHz</p> <table border="1"> <thead> <tr> <th>Marker</th> <th>Trace</th> <th>Type</th> <th>X Axis</th> <th>Amplitude</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>(1)</td> <td>Freq</td> <td>2.439000 GHz</td> <td>1.549 dBm</td> </tr> <tr> <td>2R</td> <td>(1)</td> <td>Freq</td> <td>2.430500 GHz</td> <td>-4.731 dBm</td> </tr> <tr> <td>2Δ</td> <td>(1)</td> <td>Freq</td> <td>12.500 MHz</td> <td>0.789 dB</td> </tr> </tbody> </table> | Marker | Trace | Type | X Axis | Amplitude | 1 | (1) | Freq | 2.439000 GHz | 1.549 dBm | 2R | (1) | Freq | 2.430500 GHz | -4.731 dBm | 2Δ | (1) | Freq | 12.500 MHz | 0.789 dB |
| Marker | Trace | Type | X Axis | Amplitude | | | | | | | | | | | | | | | | | |
| 1 | (1) | Freq | 2.439000 GHz | 1.549 dBm | | | | | | | | | | | | | | | | | |
| 2R | (1) | Freq | 2.430500 GHz | -4.731 dBm | | | | | | | | | | | | | | | | | |
| 2Δ | (1) | Freq | 12.500 MHz | 0.789 dB | | | | | | | | | | | | | | | | | |
| <p>2462</p> | <p>Agilent 15:11:42 Sep 20, 2010</p> <p>Ref 10.6 dBm #Atten 10 dB Mkr2 Δ 12.500 MHz 0.227 dB</p> <p>Center 2.462 GHz Span 50 MHz</p> <table border="1"> <thead> <tr> <th>Marker</th> <th>Trace</th> <th>Type</th> <th>X Axis</th> <th>Amplitude</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>(1)</td> <td>Freq</td> <td>2.462125 GHz</td> <td>1.904 dBm</td> </tr> <tr> <td>2R</td> <td>(1)</td> <td>Freq</td> <td>2.45750 GHz</td> <td>-5.08 dBm</td> </tr> <tr> <td>2Δ</td> <td>(1)</td> <td>Freq</td> <td>12.500 MHz</td> <td>0.227 dB</td> </tr> </tbody> </table> | Marker | Trace | Type | X Axis | Amplitude | 1 | (1) | Freq | 2.462125 GHz | 1.904 dBm | 2R | (1) | Freq | 2.45750 GHz | -5.08 dBm | 2Δ | (1) | Freq | 12.500 MHz | 0.227 dB |
| Marker | Trace | Type | X Axis | Amplitude | | | | | | | | | | | | | | | | | |
| 1 | (1) | Freq | 2.462125 GHz | 1.904 dBm | | | | | | | | | | | | | | | | | |
| 2R | (1) | Freq | 2.45750 GHz | -5.08 dBm | | | | | | | | | | | | | | | | | |
| 2Δ | (1) | Freq | 12.500 MHz | 0.227 dB | | | | | | | | | | | | | | | | | |

Mode 3: IEEE 802.11g Link Mode _ Internal Ant.

| <p>2412</p> | <p>Agilent 10:25:00 Sep 30, 2010</p> <p>Ref 10.6 dBm #Atten 20 dB Mkr2 Δ 16.625 MHz 4.35 dB</p> <p>Center 2.412 GHz Span 50 MHz #Res BW 100 kHz #VBW 100 kHz Sweep 6.442 ms (401 pts)</p> <table border="1"> <thead> <tr> <th>Marker</th> <th>Trace</th> <th>Type</th> <th>X Axis</th> <th>Amplitude</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>(1)</td> <td>Freq</td> <td>2.405750 GHz</td> <td>-2.98 dBm</td> </tr> <tr> <td>2R</td> <td>(1)</td> <td>Freq</td> <td>2.403625 GHz</td> <td>-12.68 dBm</td> </tr> <tr> <td>2Δ</td> <td>(1)</td> <td>Freq</td> <td>16.625 MHz</td> <td>4.35 dB</td> </tr> </tbody> </table> <p>Center Freq: 2.41200000 GHz Start Freq: 2.38700000 GHz Stop Freq: 2.43700000 GHz CF Step: 5.00000000 MHz Freq Offset: 0.00000000 Hz Signal Track: On</p> | Marker | Trace | Type | X Axis | Amplitude | 1 | (1) | Freq | 2.405750 GHz | -2.98 dBm | 2R | (1) | Freq | 2.403625 GHz | -12.68 dBm | 2Δ | (1) | Freq | 16.625 MHz | 4.35 dB |
|-------------|--|--------|--------------|------------|--------|-----------|---|-----|------|--------------|------------|----|-----|------|--------------|------------|----|-----|------|------------|----------|
| Marker | Trace | Type | X Axis | Amplitude | | | | | | | | | | | | | | | | | |
| 1 | (1) | Freq | 2.405750 GHz | -2.98 dBm | | | | | | | | | | | | | | | | | |
| 2R | (1) | Freq | 2.403625 GHz | -12.68 dBm | | | | | | | | | | | | | | | | | |
| 2Δ | (1) | Freq | 16.625 MHz | 4.35 dB | | | | | | | | | | | | | | | | | |
| <p>2437</p> | <p>Agilent 10:24:06 Sep 30, 2010</p> <p>Ref 10.6 dBm #Atten 20 dB Mkr2 Δ 16.625 MHz 5.077 dB</p> <p>Center 2.437 GHz Span 50 MHz #Res BW 100 kHz #VBW 100 kHz Sweep 6.442 ms (401 pts)</p> <table border="1"> <thead> <tr> <th>Marker</th> <th>Trace</th> <th>Type</th> <th>X Axis</th> <th>Amplitude</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>(1)</td> <td>Freq</td> <td>2.430750 GHz</td> <td>-2.238 dBm</td> </tr> <tr> <td>2R</td> <td>(1)</td> <td>Freq</td> <td>2.428625 GHz</td> <td>-12.57 dBm</td> </tr> <tr> <td>2Δ</td> <td>(1)</td> <td>Freq</td> <td>16.625 MHz</td> <td>5.077 dB</td> </tr> </tbody> </table> <p>Center Freq: 2.43700000 GHz Start Freq: 2.41200000 GHz Stop Freq: 2.46200000 GHz CF Step: 5.00000000 MHz Freq Offset: 0.00000000 Hz Signal Track: On</p> | Marker | Trace | Type | X Axis | Amplitude | 1 | (1) | Freq | 2.430750 GHz | -2.238 dBm | 2R | (1) | Freq | 2.428625 GHz | -12.57 dBm | 2Δ | (1) | Freq | 16.625 MHz | 5.077 dB |
| Marker | Trace | Type | X Axis | Amplitude | | | | | | | | | | | | | | | | | |
| 1 | (1) | Freq | 2.430750 GHz | -2.238 dBm | | | | | | | | | | | | | | | | | |
| 2R | (1) | Freq | 2.428625 GHz | -12.57 dBm | | | | | | | | | | | | | | | | | |
| 2Δ | (1) | Freq | 16.625 MHz | 5.077 dB | | | | | | | | | | | | | | | | | |
| <p>2462</p> | <p>Agilent 10:22:43 Sep 30, 2010</p> <p>Ref 10.6 dBm #Atten 20 dB Mkr2 Δ 16.625 MHz 3.074 dB</p> <p>Center 2.462 GHz Span 50 MHz #Res BW 100 kHz #VBW 100 kHz Sweep 6.442 ms (401 pts)</p> <table border="1"> <thead> <tr> <th>Marker</th> <th>Trace</th> <th>Type</th> <th>X Axis</th> <th>Amplitude</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>(1)</td> <td>Freq</td> <td>2.468250 GHz</td> <td>-4.011 dBm</td> </tr> <tr> <td>2R</td> <td>(1)</td> <td>Freq</td> <td>2.463625 GHz</td> <td>-12.53 dBm</td> </tr> <tr> <td>2Δ</td> <td>(1)</td> <td>Freq</td> <td>16.625 MHz</td> <td>3.074 dB</td> </tr> </tbody> </table> <p>Center Freq: 2.46200000 GHz Start Freq: 2.43700000 GHz Stop Freq: 2.48700000 GHz CF Step: 5.00000000 MHz Freq Offset: 0.00000000 Hz Signal Track: On</p> | Marker | Trace | Type | X Axis | Amplitude | 1 | (1) | Freq | 2.468250 GHz | -4.011 dBm | 2R | (1) | Freq | 2.463625 GHz | -12.53 dBm | 2Δ | (1) | Freq | 16.625 MHz | 3.074 dB |
| Marker | Trace | Type | X Axis | Amplitude | | | | | | | | | | | | | | | | | |
| 1 | (1) | Freq | 2.468250 GHz | -4.011 dBm | | | | | | | | | | | | | | | | | |
| 2R | (1) | Freq | 2.463625 GHz | -12.53 dBm | | | | | | | | | | | | | | | | | |
| 2Δ | (1) | Freq | 16.625 MHz | 3.074 dB | | | | | | | | | | | | | | | | | |

Mode 3: IEEE 802.11g Link Mode _ External Ant.

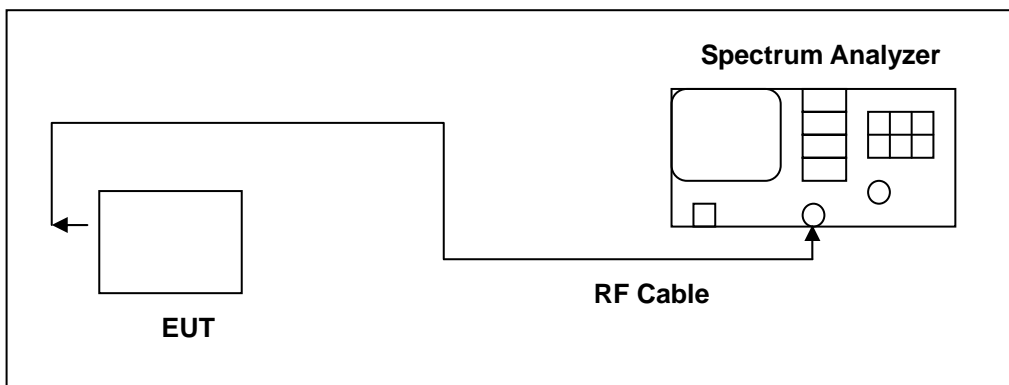
| <p>2412</p> | <p>Agilent 11:33:54 Sep 30, 2010</p> <p>Ref 10.6 dBm #Atten 20 dB Mkr2 Δ 16.625 MHz -8.101 dB</p> <p>Center 2.412 GHz Span 50 MHz</p> <table border="1"> <thead> <tr> <th>Marker</th> <th>Trace</th> <th>Type</th> <th>X Axis</th> <th>Amplitude</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>(1)</td> <td>Freq</td> <td>2.407000 GHz</td> <td>0.181 dBm</td> </tr> <tr> <td>2R</td> <td>(1)</td> <td>Freq</td> <td>2.403750 GHz</td> <td>-4.088 dBm</td> </tr> <tr> <td>2Δ</td> <td>(1)</td> <td>Freq</td> <td>16.625 MHz</td> <td>-8.101 dB</td> </tr> </tbody> </table> <p>Center 2.412 GHz #Res BW 100 kHz #VBW 100 kHz Sweep 6.442 ms (401 pts)</p> | Marker | Trace | Type | X Axis | Amplitude | 1 | (1) | Freq | 2.407000 GHz | 0.181 dBm | 2R | (1) | Freq | 2.403750 GHz | -4.088 dBm | 2Δ | (1) | Freq | 16.625 MHz | -8.101 dB |
|-------------|---|--------|--------------|------------|--------|-----------|---|-----|------|--------------|-----------|----|-----|------|--------------|------------|----|-----|------|------------|-----------|
| Marker | Trace | Type | X Axis | Amplitude | | | | | | | | | | | | | | | | | |
| 1 | (1) | Freq | 2.407000 GHz | 0.181 dBm | | | | | | | | | | | | | | | | | |
| 2R | (1) | Freq | 2.403750 GHz | -4.088 dBm | | | | | | | | | | | | | | | | | |
| 2Δ | (1) | Freq | 16.625 MHz | -8.101 dB | | | | | | | | | | | | | | | | | |
| <p>2437</p> | <p>Agilent 11:35:13 Sep 30, 2010</p> <p>Ref 10.6 dBm #Atten 20 dB Mkr2 Δ 16.625 MHz 4.522 dB</p> <p>Center 2.437 GHz Span 50 MHz</p> <table border="1"> <thead> <tr> <th>Marker</th> <th>Trace</th> <th>Type</th> <th>X Axis</th> <th>Amplitude</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>(1)</td> <td>Freq</td> <td>2.430750 GHz</td> <td>1.221 dBm</td> </tr> <tr> <td>2R</td> <td>(1)</td> <td>Freq</td> <td>2.428825 GHz</td> <td>-7.996 dBm</td> </tr> <tr> <td>2Δ</td> <td>(1)</td> <td>Freq</td> <td>16.625 MHz</td> <td>4.522 dB</td> </tr> </tbody> </table> <p>Center 2.437 GHz #Res BW 100 kHz #VBW 100 kHz Sweep 6.442 ms (401 pts)</p> | Marker | Trace | Type | X Axis | Amplitude | 1 | (1) | Freq | 2.430750 GHz | 1.221 dBm | 2R | (1) | Freq | 2.428825 GHz | -7.996 dBm | 2Δ | (1) | Freq | 16.625 MHz | 4.522 dB |
| Marker | Trace | Type | X Axis | Amplitude | | | | | | | | | | | | | | | | | |
| 1 | (1) | Freq | 2.430750 GHz | 1.221 dBm | | | | | | | | | | | | | | | | | |
| 2R | (1) | Freq | 2.428825 GHz | -7.996 dBm | | | | | | | | | | | | | | | | | |
| 2Δ | (1) | Freq | 16.625 MHz | 4.522 dB | | | | | | | | | | | | | | | | | |
| <p>2462</p> | <p>Agilent 11:36:26 Sep 30, 2010</p> <p>Ref 10.6 dBm #Atten 20 dB Mkr2 Δ 16.625 MHz -8.813 dB</p> <p>Center 2.462 GHz Span 50 MHz</p> <table border="1"> <thead> <tr> <th>Marker</th> <th>Trace</th> <th>Type</th> <th>X Axis</th> <th>Amplitude</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>(1)</td> <td>Freq</td> <td>2.465750 GHz</td> <td>1.181 dBm</td> </tr> <tr> <td>2R</td> <td>(1)</td> <td>Freq</td> <td>2.463750 GHz</td> <td>-2.83 dBm</td> </tr> <tr> <td>2Δ</td> <td>(1)</td> <td>Freq</td> <td>16.625 MHz</td> <td>-8.813 dB</td> </tr> </tbody> </table> <p>Center 2.462 GHz #Res BW 100 kHz #VBW 100 kHz Sweep 6.442 ms (401 pts)</p> | Marker | Trace | Type | X Axis | Amplitude | 1 | (1) | Freq | 2.465750 GHz | 1.181 dBm | 2R | (1) | Freq | 2.463750 GHz | -2.83 dBm | 2Δ | (1) | Freq | 16.625 MHz | -8.813 dB |
| Marker | Trace | Type | X Axis | Amplitude | | | | | | | | | | | | | | | | | |
| 1 | (1) | Freq | 2.465750 GHz | 1.181 dBm | | | | | | | | | | | | | | | | | |
| 2R | (1) | Freq | 2.463750 GHz | -2.83 dBm | | | | | | | | | | | | | | | | | |
| 2Δ | (1) | Freq | 16.625 MHz | -8.813 dB | | | | | | | | | | | | | | | | | |

8 Maximum Power Density Measurement

8.1. Limit

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

8.2. Test Setup



8.3. Test Instruments

| Equipment | Manufacturer | Model Number | Serial Number | Cal. Date | Remark |
|-------------------|--------------|--------------|---------------|------------|--------|
| Spectrum Analyzer | Agilent | E4445A | MY46181986 | 05/14/2009 | (2) |
| Test Site | ATL | TE06 | TE06 | N.C.R. | ----- |

Remark: (1) Calibration period 1 year. (2) Calibration period 2 years.

NOTE: N.C.R. = No Calibration Request.

8.4. Test Procedure

The EUT was setup to ANSI C63.4, 2003; tested to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

The spectrum analyzer RES BW was set to 3 kHz. The START and STOP frequencies were set to the band edges of the maximum output pass band. If there is no clear maximum amplitude in any given portion of the band, it may be necessary to make measurements at a number of bands defined by several START and STOP frequency pairs. The specification calls for a 1 second interval at each 3 kHz bandwidth; total SWEEP TIME is calculated as follows:

$$\text{SWEEP TIME (SEC)} = (\text{Fstop, kHz} - \text{Fstart, kHz}) / 3 \text{ kHz}$$

Antenna output of the EUT was coupled directly to spectrum analyzer; if an external attenuator and/or cable was used, these losses are compensated for with the analyzer OFFSET function.

8.5. Test Result

| | | | |
|---------------|--------------------------------|-------------------|-------------|
| Model Number | DM300 | | |
| Test Item | Maximum Power Density | | |
| Test Mode | Mode 2: IEEE 802.11b Link Mode | | |
| Date of Test | 09/20/2010, 09/30/2010 | Test Site | TE06 |
| Ant. Port | Frequency (MHz) | Measurement (dBm) | Limit (dBm) |
| Internal Ant. | 2412 | -16.20 | < 8 |
| | 2437 | -16.00 | < 8 |
| | 2462 | -17.22 | < 8 |
| External Ant. | 2412 | -13.85 | < 8 |
| | 2437 | -12.53 | < 8 |
| | 2462 | -12.66 | < 8 |

| | | | |
|---------------|--------------------------------|-------------------|-------------|
| Model Number | DM300 | | |
| Test Item | Maximum Power Density | | |
| Test Mode | Mode 3: IEEE 802.11g Link Mode | | |
| Date of Test | 09/20/2010, 09/30/2010 | Test Site | TE06 |
| Ant. Port | Frequency (MHz) | Measurement (dBm) | Limit (dBm) |
| Internal Ant. | 2412 | -16.92 | < 8 |
| | 2437 | -15.66 | < 8 |
| | 2462 | -15.84 | < 8 |
| External Ant. | 2412 | -12.93 | < 8 |
| | 2437 | -12.47 | < 8 |
| | 2462 | -11.64 | < 8 |

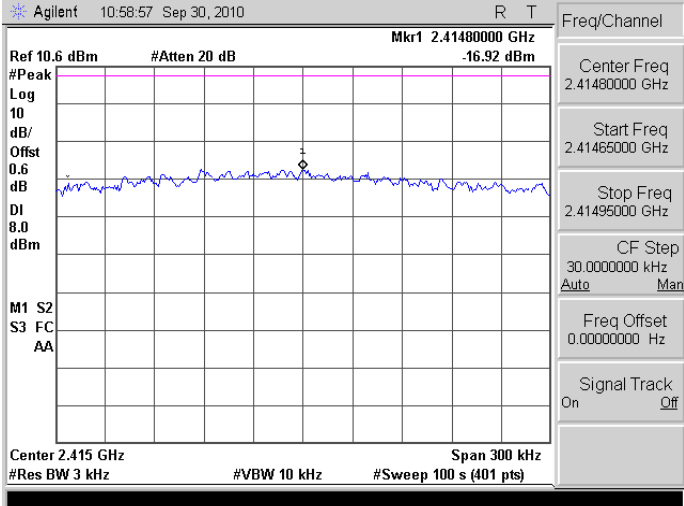
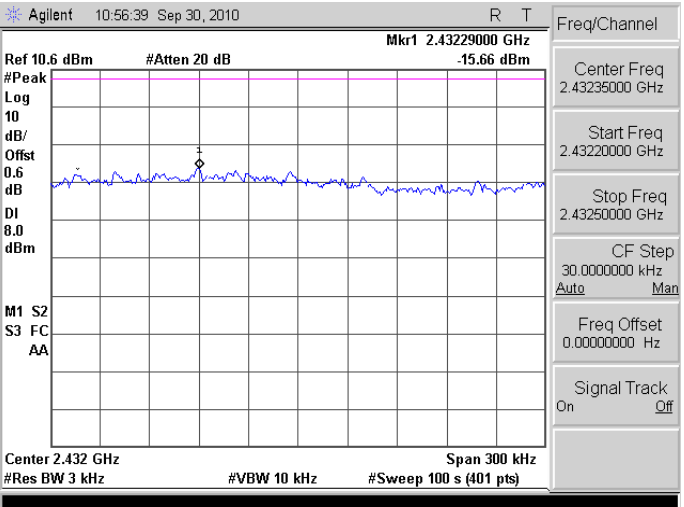
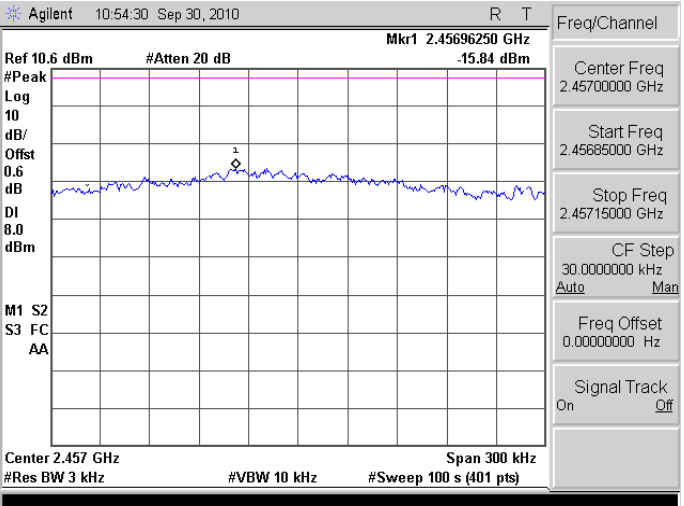
8.6. Test Graphs

| Mode 2: IEEE 802.11b Link Mode _ Internal Ant. | |
|--|---|
| 2412 | <p>Agilent 10:47:39 Sep 30, 2010 R T</p> <p>Ref 10.6 dBm #Atten 20 dB Mkr1 2.41265000 GHz -16.2 dBm</p> <p>#Peak Log 10 dB/Offst 0.6 dB DI 8.0 dBm</p> <p>M1 S2 S3 FC AA</p> <p>Center 2.413 GHz Span 300 kHz #Res BW 3 kHz #VBW 10 kHz #Sweep 100 s (401 pts)</p> <p>Freq/Channel: Center Freq 2.41265000 GHz, Start Freq 2.41250000 GHz, Stop Freq 2.41280000 GHz, CF Step 30.0000000 kHz, Freq Offset 0.00000000 Hz, Signal Track Off</p> |
| 2437 | <p>Agilent 10:50:03 Sep 30, 2010 R T</p> <p>Ref 10.6 dBm #Atten 20 dB Mkr1 2.43765000 GHz -16 dBm</p> <p>#Peak Log 10 dB/Offst 0.6 dB DI 8.0 dBm</p> <p>M1 S2 S3 FC AA</p> <p>Center 2.438 GHz Span 300 kHz #Res BW 3 kHz #VBW 10 kHz #Sweep 100 s (401 pts)</p> <p>Freq/Channel: Center Freq 2.43765000 GHz, Start Freq 2.43750000 GHz, Stop Freq 2.43780000 GHz, CF Step 30.0000000 kHz, Freq Offset 0.00000000 Hz, Signal Track Off</p> |
| 2462 | <p>Agilent 10:52:11 Sep 30, 2010 R T</p> <p>Ref 10.6 dBm #Atten 20 dB Mkr1 2.46265025 GHz -17.22 dBm</p> <p>#Peak Log 10 dB/Offst 0.6 dB DI 8.0 dBm</p> <p>M1 S2 S3 FC AA</p> <p>Center 2.463 GHz Span 300 kHz #Res BW 3 kHz #VBW 10 kHz #Sweep 100 s (401 pts)</p> <p>Freq/Channel: Center Freq 2.46260000 GHz, Start Freq 2.46245000 GHz, Stop Freq 2.46275000 GHz, CF Step 30.0000000 kHz, Freq Offset 0.00000000 Hz, Signal Track Off</p> |

Mode 2: IEEE 802.11b Link Mode _ External Ant.

| | |
|-------------|---|
| <p>2412</p> | <p>Agilent 15:45:41 Sep 20, 2010 R T</p> <p>Ref 10.6 dBm #Atten 10 dB Mkr1 2.41407525 GHz -13.85 dBm</p> <p>#Peak Log 10 dB/Offst 10.6 dB</p> <p>M1 S2 S3 FC AA</p> <p>Center 2.414 GHz Span 300 kHz #Res BW 3 kHz #VBW 10 kHz #Sweep 100 s (401 pts)</p> <p>Freq/Channel Center Freq 2.41410000 GHz Start Freq 2.41395000 GHz Stop Freq 2.41425000 GHz CF Step 30.0000000 kHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off</p> |
| <p>2437</p> | <p>Agilent 15:48:44 Sep 20, 2010 R T</p> <p>Ref 10.6 dBm #Atten 10 dB Mkr1 2.43907475 GHz -12.53 dBm</p> <p>#Peak Log 10 dB/Offst 10.6 dB</p> <p>M1 S2 S3 FC AA</p> <p>Center 2.439 GHz Span 300 kHz #Res BW 3 kHz #VBW 10 kHz #Sweep 100 s (401 pts)</p> <p>Freq/Channel Center Freq 2.43905000 GHz Start Freq 2.43890000 GHz Stop Freq 2.43920000 GHz CF Step 30.0000000 kHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off</p> |
| <p>2462</p> | <p>Agilent 15:53:24 Sep 20, 2010 R T</p> <p>Ref 10.6 dBm #Atten 10 dB Mkr1 2.46112250 GHz -12.66 dBm</p> <p>#Peak Log 10 dB/Offst 10.6 dB</p> <p>M1 S2 S3 FC AA</p> <p>Center 2.461 GHz Span 300 kHz #Res BW 3 kHz #VBW 10 kHz #Sweep 100 s (401 pts)</p> <p>Freq/Channel Center Freq 2.46110000 GHz Start Freq 2.46095000 GHz Stop Freq 2.46125000 GHz CF Step 30.0000000 kHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off</p> |

Mode 3: IEEE 802.11g Link Mode_ Internal Ant.

| | |
|-------------|--|
| <p>2412</p> |  |
| <p>2437</p> |  |
| <p>2462</p> |  |

Mode 3: IEEE 802.11g Link Mode_ External Ant.

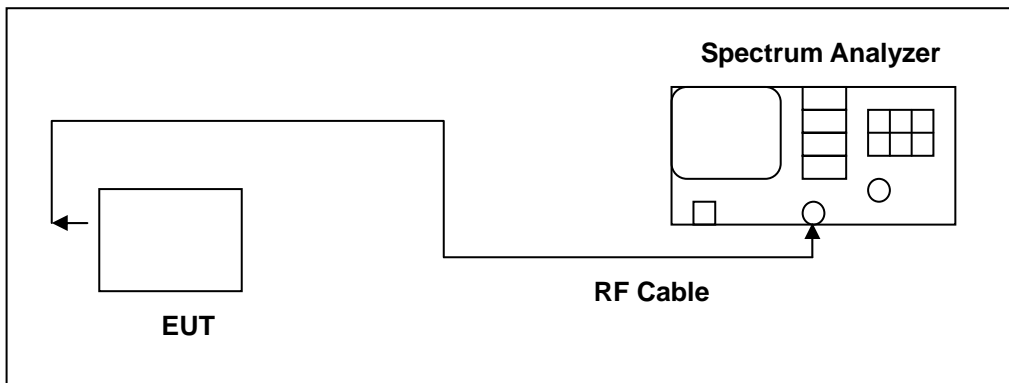
| | |
|------|--|
| 2412 | <p>Agilent 11:21:30 Sep 30, 2010 R T</p> <p>Ref 10.6 dBm #Atten 20 dB Mkr1 2.41073200 GHz -12.93 dBm</p> <p>#Peak Log 10 dB/ Offst 0.6 dB DI 8.0 dBm</p> <p>M1 S2 S3 FC AA</p> <p>Center 2.411 GHz Span 300 kHz #Res BW 3 kHz #VBW 10 kHz #Sweep 100 s (401 pts)</p> <p>Freq/Channel Center Freq 2.41075000 GHz Start Freq 2.41060000 GHz Stop Freq 2.41090000 GHz CF Step 30.0000000 kHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off</p> |
| 2437 | <p>Agilent 11:26:31 Sep 30, 2010 R T</p> <p>Ref 10.6 dBm #Atten 20 dB Mkr1 2.44044600 GHz -12.47 dBm</p> <p>#Peak Log 10 dB/ Offst 0.6 dB DI 8.0 dBm</p> <p>M1 S2 S3 FC AA</p> <p>Center 2.44 GHz Span 300 kHz #Res BW 3 kHz #VBW 10 kHz #Sweep 100 s (401 pts)</p> <p>Freq/Channel Center Freq 2.44035000 GHz Start Freq 2.44020000 GHz Stop Freq 2.44050000 GHz CF Step 30.0000000 kHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off</p> |
| 2462 | <p>Agilent 11:29:30 Sep 30, 2010 R T</p> <p>Ref 10.6 dBm #Atten 20 dB Mkr1 2.45508825 GHz -11.64 dBm</p> <p>#Peak Log 10 dB/ Offst 0.6 dB DI 8.0 dBm</p> <p>M1 S2 S3 FC AA</p> <p>Center 2.455 GHz Span 300 kHz #Res BW 3 kHz #VBW 10 kHz #Sweep 100 s (401 pts)</p> <p>Freq/Channel Center Freq 2.45505000 GHz Start Freq 2.45490000 GHz Stop Freq 2.45520000 GHz CF Step 30.0000000 kHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off</p> |

9 Out of Band Conducted Emissions Measurement

9.1. Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated 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

9.2. Test Setup



9.3. Test Instruments

| Equipment | Manufacturer | Model Number | Serial Number | Cal. Date | Remark |
|-------------------|--------------|--------------|---------------|------------|--------|
| Spectrum Analyzer | Agilent | E4445A | MY46181986 | 05/14/2009 | (2) |
| Test Site | ATL | TE06 | TE06 | N.C.R. | ----- |

Remark: (1) Calibration period 1 year. (2) Calibration period 2 years.

NOTE: N.C.R. = No Calibration Request.

9.4. Test Procedure

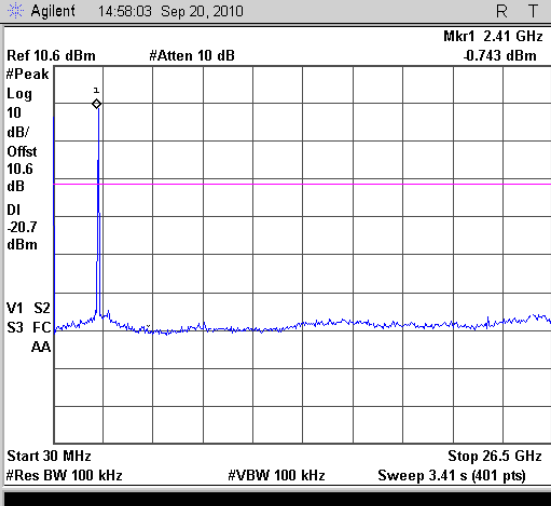
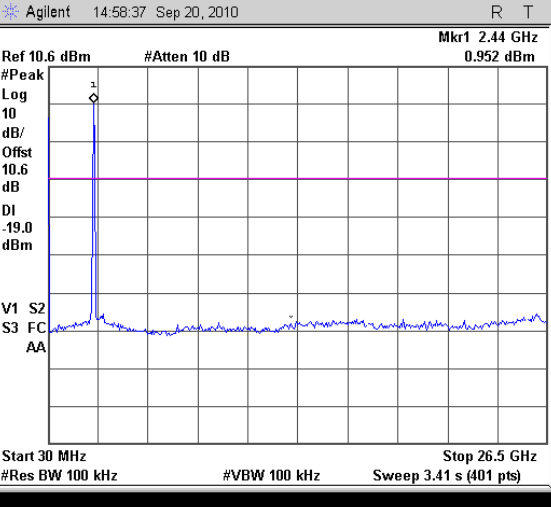
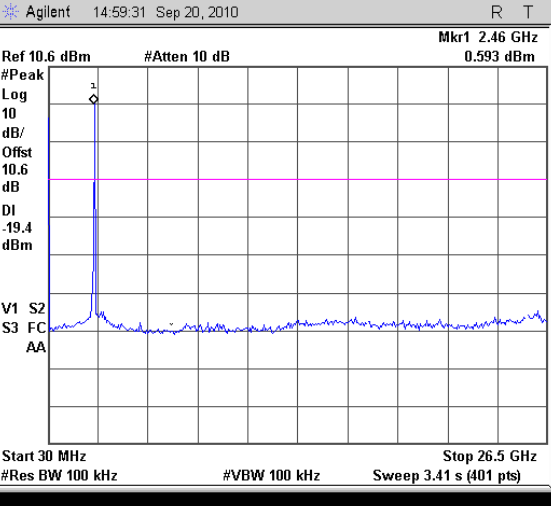
In any 100 kHz bandwidth outside the EUT pass band, the RF power produced by the modulation products of the spreading sequence, the information sequence, and the carrier frequency shall be at least 20 dB below that of the maximum in-band 100 kHz emission, antenna output of the EUT was coupled directly to spectrum analyzer; if an external attenuator and/or cable was used, these losses are compensated for with the analyzer OFFSET function.

All other types of emissions from the EUT shall meet the general limits for radiated frequencies outside the pass band. The test was performed at 3 channels (Channel 1, 6, 11)

9.5. Test Graphs

| Mode 2: IEEE 802.11b Link Mode _ Internal Ant. | |
|--|---|
| 2412 | <p>Agilent 11:06:26 Sep 30, 2010 R T</p> <p>Ref 10.6 dBm #Atten 20 dB Mkr1 2.41 GHz 2.123 dBm</p> <p>#Peak Log 10 dB/Offst 0.6 dB DI -22.1 dBm V1 S2 S3 FC AA</p> <p>Start 30 MHz Stop 26.5 GHz #Res BW 100 kHz #VBW 100 kHz Sweep 3.41 s (401 pts)</p> <p>Freq/Channel: Center Freq 13.2650000 GHz, Start Freq 30.0000000 MHz, Stop Freq 26.5000000 GHz, CF Step 2.64700000 GHz Auto Man, Freq Offset 0.00000000 Hz, Signal Track On Off</p> |
| 2437 | <p>Agilent 11:05:53 Sep 30, 2010 R T</p> <p>Ref 10.6 dBm #Atten 20 dB Mkr1 2.44 GHz 3.089 dBm</p> <p>#Peak Log 10 dB/Offst 0.6 dB DI -23.1 dBm V1 S2 S3 FC AA</p> <p>Start 30 MHz Stop 26.5 GHz #Res BW 100 kHz #VBW 100 kHz Sweep 3.41 s (401 pts)</p> <p>Freq/Channel: Center Freq 13.2650000 GHz, Start Freq 30.0000000 MHz, Stop Freq 26.5000000 GHz, CF Step 2.64700000 GHz Auto Man, Freq Offset 0.00000000 Hz, Signal Track On Off</p> |
| 2462 | <p>Agilent 11:05:24 Sep 30, 2010 R T</p> <p>Ref 10.6 dBm #Atten 20 dB Mkr1 2.46 GHz 4.947 dBm</p> <p>#Peak Log 10 dB/Offst 0.6 dB DI -24.9 dBm V1 S2 S3 FC AA</p> <p>Start 30 MHz Stop 26.5 GHz #Res BW 100 kHz #VBW 100 kHz Sweep 3.41 s (401 pts)</p> <p>Freq/Channel: Center Freq 13.2650000 GHz, Start Freq 30.0000000 MHz, Stop Freq 26.5000000 GHz, CF Step 2.64700000 GHz Auto Man, Freq Offset 0.00000000 Hz, Signal Track On Off</p> |

Mode 2: IEEE 802.11b Link Mode _ External Ant.

| | |
|-------------|--|
| <p>2412</p> |  <p>Agilent 14:58:03 Sep 20, 2010 R T</p> <p>Ref 10.6 dBm #Atten 10 dB Mkr1 2.41 GHz -0.743 dBm</p> <p>#Peak Log 10 dB/Offst 10.6 dB DI -20.7 dBm V1 S2 S3 FC AA</p> <p>Start 30 MHz Stop 26.5 GHz #Res BW 100 kHz #VBW 100 kHz Sweep 3.41 s (401 pts)</p> <p>Freq/Channel Center Freq 13.2650000 GHz Start Freq 30.0000000 MHz Stop Freq 26.5000000 GHz CF Step 2.64700000 GHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off</p> |
| <p>2437</p> |  <p>Agilent 14:58:37 Sep 20, 2010 R T</p> <p>Ref 10.6 dBm #Atten 10 dB Mkr1 2.44 GHz -0.952 dBm</p> <p>#Peak Log 10 dB/Offst 10.6 dB DI -19.0 dBm V1 S2 S3 FC AA</p> <p>Start 30 MHz Stop 26.5 GHz #Res BW 100 kHz #VBW 100 kHz Sweep 3.41 s (401 pts)</p> <p>Freq/Channel Center Freq 13.2650000 GHz Start Freq 30.0000000 MHz Stop Freq 26.5000000 GHz CF Step 2.64700000 GHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off</p> |
| <p>2462</p> |  <p>Agilent 14:59:31 Sep 20, 2010 R T</p> <p>Ref 10.6 dBm #Atten 10 dB Mkr1 2.46 GHz -0.593 dBm</p> <p>#Peak Log 10 dB/Offst 10.6 dB DI -19.4 dBm V1 S2 S3 FC AA</p> <p>Start 30 MHz Stop 26.5 GHz #Res BW 100 kHz #VBW 100 kHz Sweep 3.41 s (401 pts)</p> <p>Freq/Channel Center Freq 13.2650000 GHz Start Freq 30.0000000 MHz Stop Freq 26.5000000 GHz CF Step 2.64700000 GHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off</p> |

Mode 3: IEEE 802.11g Link Mode _ Internal Ant.

| | |
|-------------|--|
| <p>2412</p> | |
| <p>2437</p> | |
| <p>2462</p> | |

Mode 3: IEEE 802.11g Link Mode _ External Ant.

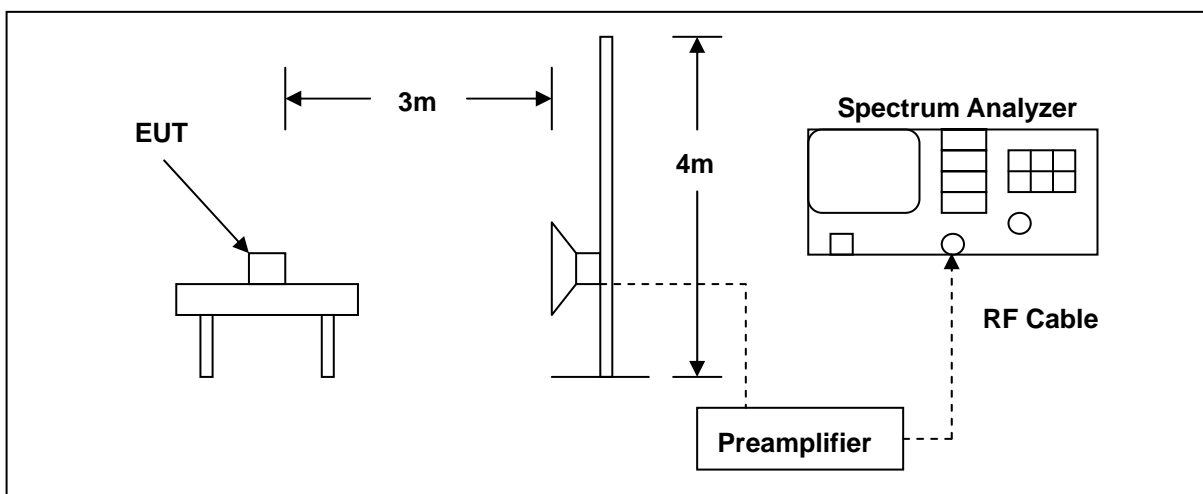
| | |
|-------------|---|
| <p>2412</p> | <p>Agilent 11:17:29 Sep 30, 2010 R T</p> <p>Ref 10.6 dBm #Atten 20 dB Mkr1 2.41 GHz -0.376 dBm</p> <p>#Peak Log 10 dB/Offst 0.6 dB DI -20.4 dBm</p> <p>V1 S2 S3 FC AA</p> <p>Start 30 MHz Stop 26.5 GHz #Res BW 100 kHz #VBW 100 kHz Sweep 3.41 s (401 pts)</p> <p>Freq/Channel Center Freq 13.2650000 GHz Start Freq 30.0000000 MHz Stop Freq 26.5000000 GHz CF Step 2.64700000 GHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off</p> |
| <p>2437</p> | <p>Agilent 11:18:03 Sep 30, 2010 R T</p> <p>Ref 10.6 dBm #Atten 20 dB Mkr1 2.44 GHz -0.44 dBm</p> <p>#Peak Log 10 dB/Offst 0.6 dB DI -20.4 dBm</p> <p>V1 S2 S3 FC AA</p> <p>Start 30 MHz Stop 26.5 GHz #Res BW 100 kHz #VBW 100 kHz Sweep 3.41 s (401 pts)</p> <p>Freq/Channel Center Freq 13.2650000 GHz Start Freq 30.0000000 MHz Stop Freq 26.5000000 GHz CF Step 2.64700000 GHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off</p> |
| <p>2462</p> | <p>Agilent 11:18:32 Sep 30, 2010 R T</p> <p>Ref 10.6 dBm #Atten 20 dB Mkr1 2.46 GHz -0.207 dBm</p> <p>#Peak Log 10 dB/Offst 0.6 dB DI -19.8 dBm</p> <p>V1 S2 S3 FC AA</p> <p>Start 30 MHz Stop 26.5 GHz #Res BW 100 kHz #VBW 100 kHz Sweep 3.41 s (401 pts)</p> <p>Freq/Channel Center Freq 13.2650000 GHz Start Freq 30.0000000 MHz Stop Freq 26.5000000 GHz CF Step 2.64700000 GHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off</p> |

10 Band Edges Measurement

10.1.Limit

In any 100 kHz bandwidth outside the intentional radiation frequency band, the radio frequency power shall be at least 20 dB below the highest level of the radiated power. In addition, radiated emissions which fall in the restricted bands must also comply with the radiated emission limits.

10.2.Test Setup



10.3.Test Instruments

| Equipment | Manufacturer | Model Number | Serial Number | Cal. Date | Remark |
|-------------------|--------------------------------|--------------|---------------|------------|--------|
| Spectrum Analyzer | Agilent | E4408B | MY45107753 | 06/24/2010 | (1) |
| Pre Amplifier | Agilent | 8449B | 3008A02237 | 02/24/2010 | (1) |
| Horn Antenna | SCHWARZBECK MESS-ELEKTRONIK | 9120D | 9120D-550 | 06/29/2010 | (1) |
| Test Site | ATL | TE06 | TE06 | N.C.R. | ----- |

Remark: ⁽¹⁾ Calibration period 1 year. ⁽²⁾ Calibration period 2 years.

NOTE: N.C.R. = No Calibration Request.

10.4. Test Procedure

The EUT was setup to ANSI C63.4, 2003; tested to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

The emissions on the harmonics frequencies, the limits, and the margin of compliance are presented. These tests were made when the transmitter was in full radiated power. The additional test was performed to show compliance with the requirement at the band-edge frequency 2483.5 MHz and up to 2500 MHz and at 2390.0 MHz.

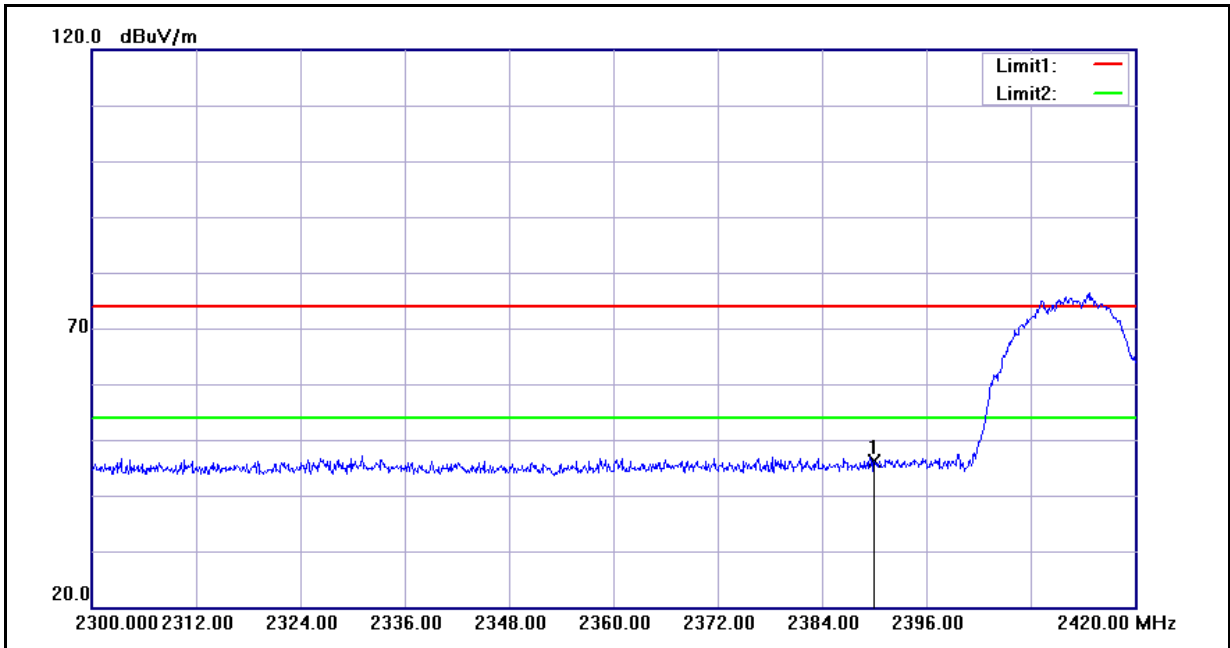
The transmitter was configured with the worst case antenna and setup to transmit at the highest channel. Then the field strength was measured at 2483.5 MHz.

The transmitter was then configured with the worst case antenna and setup to transmit at the lowest channel. Then the field strength was measured at 2390.0 MHz. These tests were performed at 4 different bit rates.

For measurements the resolution bandwidth is set to 1 MHz, and then the video bandwidth is set to 1 MHz for peak measurements and 10 Hz for average measurements.

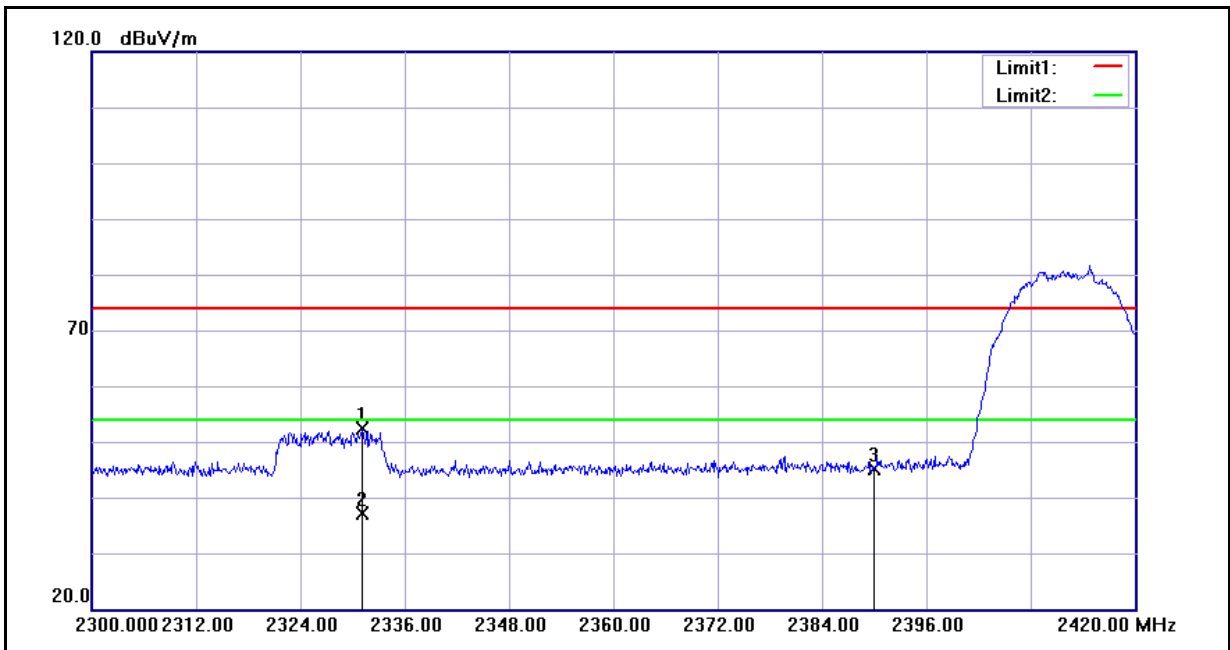
10.5.Test Result

| | | | |
|---------------|-------------------|----------------------|---------------|
| Standard: | FCC Part 15C | Test Distance: | 3m |
| Test item: | Radiated Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 2 | Date: | 2010/10/01 |
| Frequency: | 2412 MHz | Test By: | Gary Wu |
| Ant.Polar.: | Horizontal | Ant. Used: | Internal Ant. |



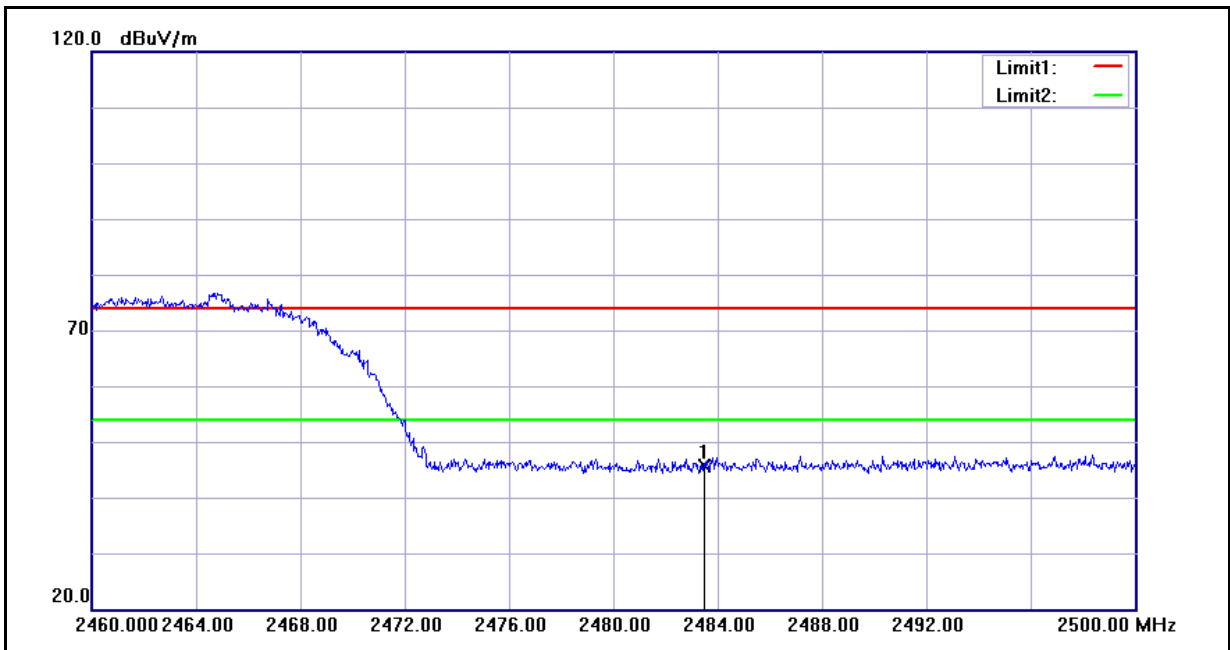
| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|--------|
| 1 | 2390.000 | 46.36 | -0.22 | 46.14 | 74.00 | -27.86 | peak |

| | | | |
|---------------|-------------------|----------------------|---------------|
| Standard: | FCC Part 15C | Test Distance: | 3m |
| Test item: | Radiated Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 2 | Date: | 2010/10/01 |
| Frequency: | 2412 MHz | Test By: | Gary Wu |
| Ant.Polar.: | Vertical | Ant. Used: | Internal Ant. |



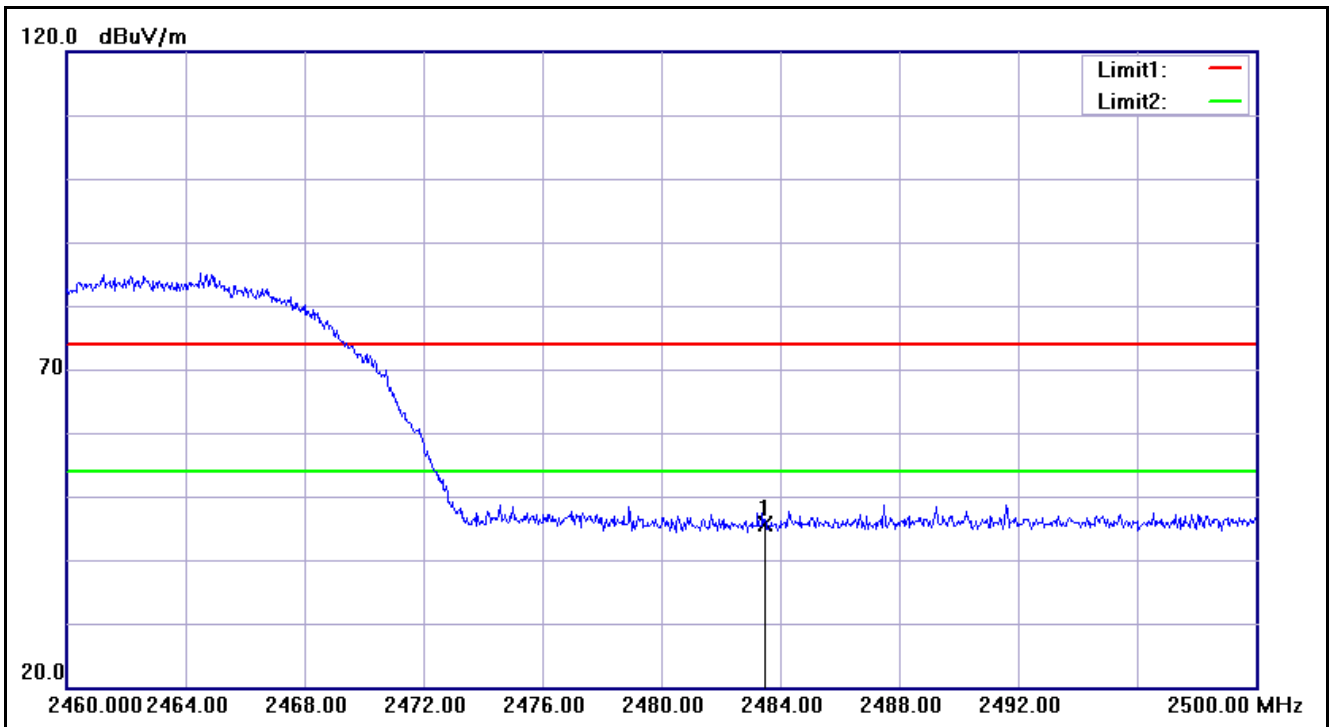
| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|--------|
| 1 | 2331.080 | 52.83 | -0.45 | 52.38 | 74.00 | -21.62 | peak |
| 2 | 2331.080 | 37.57 | -0.45 | 37.12 | 74.00 | -36.88 | AVG |
| 3 | 2390.000 | 45.46 | -0.22 | 45.24 | 74.00 | -28.76 | peak |

| | | | |
|---------------|-------------------|----------------------|---------------|
| Standard: | FCC Part 15C | Test Distance: | 3m |
| Test item: | Radiated Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 2 | Date: | 2010/10/01 |
| Frequency: | 2462 MHz | Test By: | Gary Wu |
| Ant.Polar.: | Horizontal | Ant. Used: | Internal Ant. |



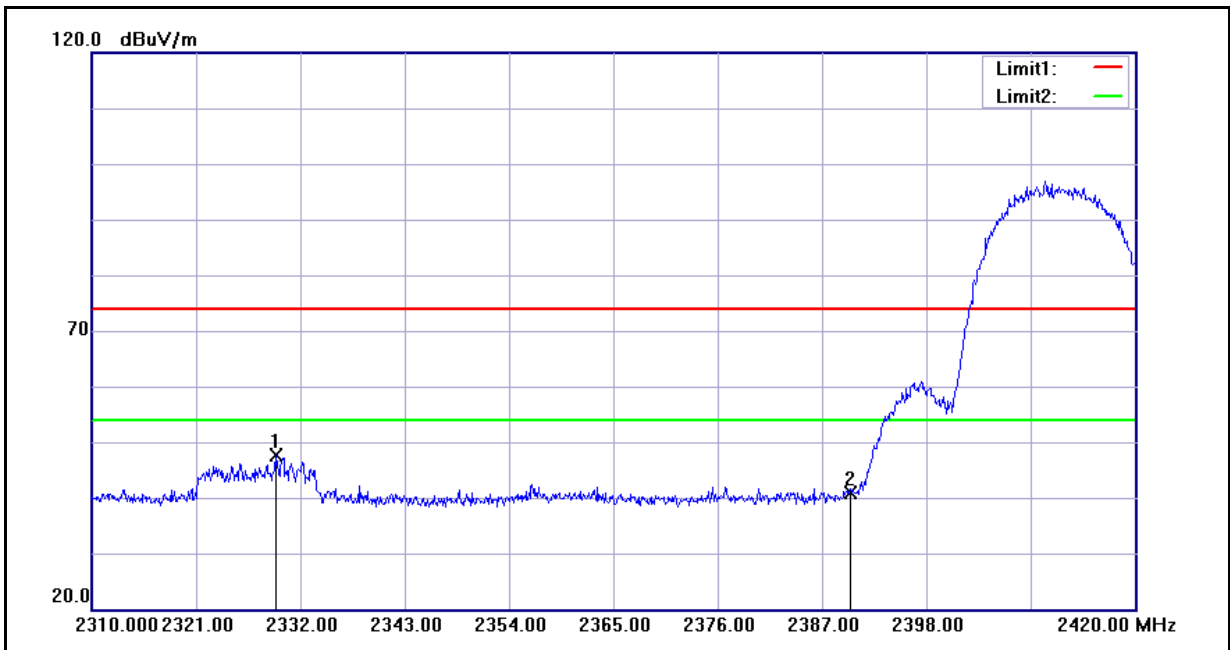
| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|--------|
| 1 | 2483.500 | 45.36 | 0.16 | 45.52 | 74.00 | -28.48 | peak |

| | | | |
|---------------|-------------------|----------------------|---------------|
| Standard: | FCC Part 15C | Test Distance: | 3m |
| Test item: | Radiated Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 2 | Date: | 2010/10/01 |
| Frequency: | 2462 MHz | Test By: | Gary Wu |
| Ant.Polar.: | Vertical | Ant. Used: | Internal Ant. |



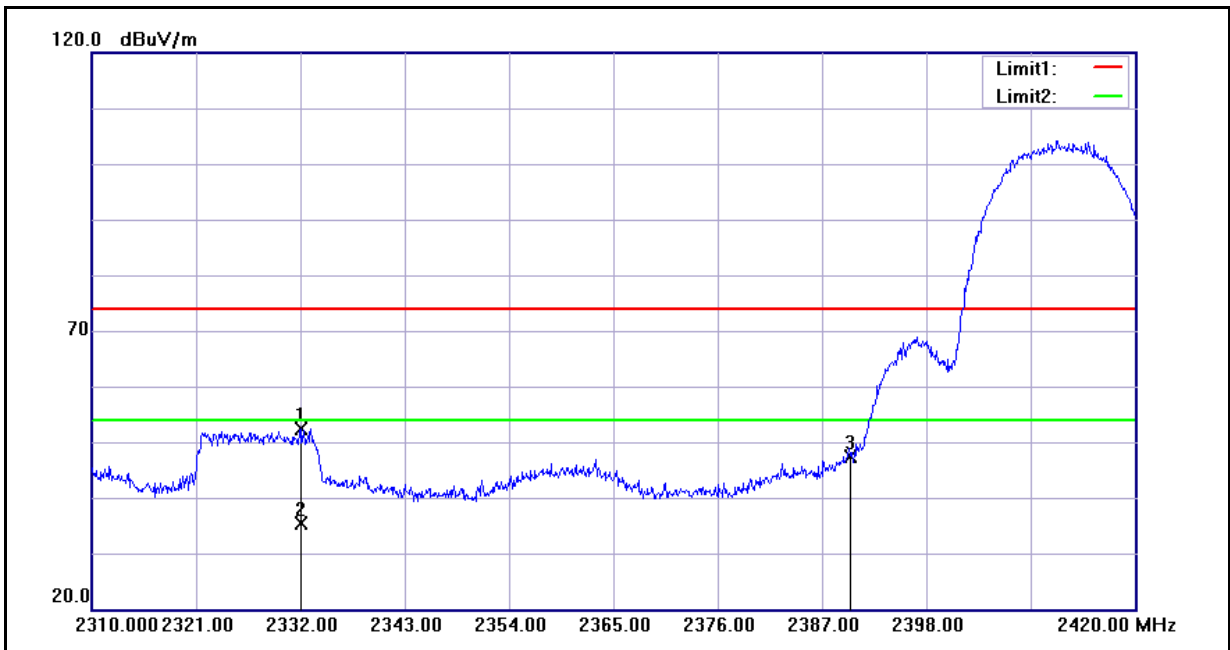
| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|--------|
| 1 | 2483.500 | 45.38 | 0.16 | 45.54 | 74.00 | -28.46 | peak |

| | | | |
|---------------|-------------------|----------------------|---------------|
| Standard: | FCC Part 15C | Test Distance: | 3m |
| Test item: | Radiated Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 2 | Date: | 2010/09/15 |
| Frequency: | 2412 MHz | Test By: | Gary Wu |
| Ant.Polar.: | Horizontal | Ant. Used: | External Ant. |



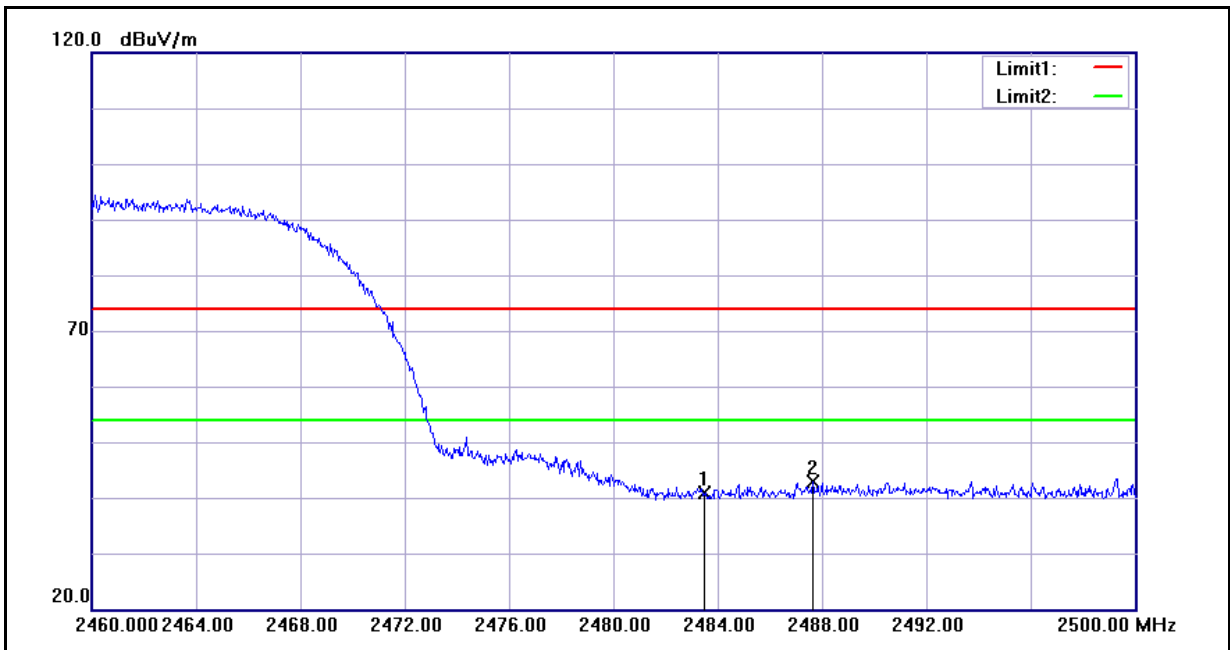
| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|--------|
| 1 | 2329.360 | 48.16 | -0.45 | 47.71 | 74.00 | -26.29 | peak |
| 2 | 2390.000 | 41.07 | -0.22 | 40.85 | 74.00 | -33.15 | peak |

| | | | |
|---------------|-------------------|----------------------|---------------|
| Standard: | FCC Part 15C | Test Distance: | 3m |
| Test item: | Radiated Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 2 | Date: | 2010/09/15 |
| Frequency: | 2412 MHz | Test By: | Gary Wu |
| Ant.Polar.: | Vertical | Ant. Used: | External Ant. |



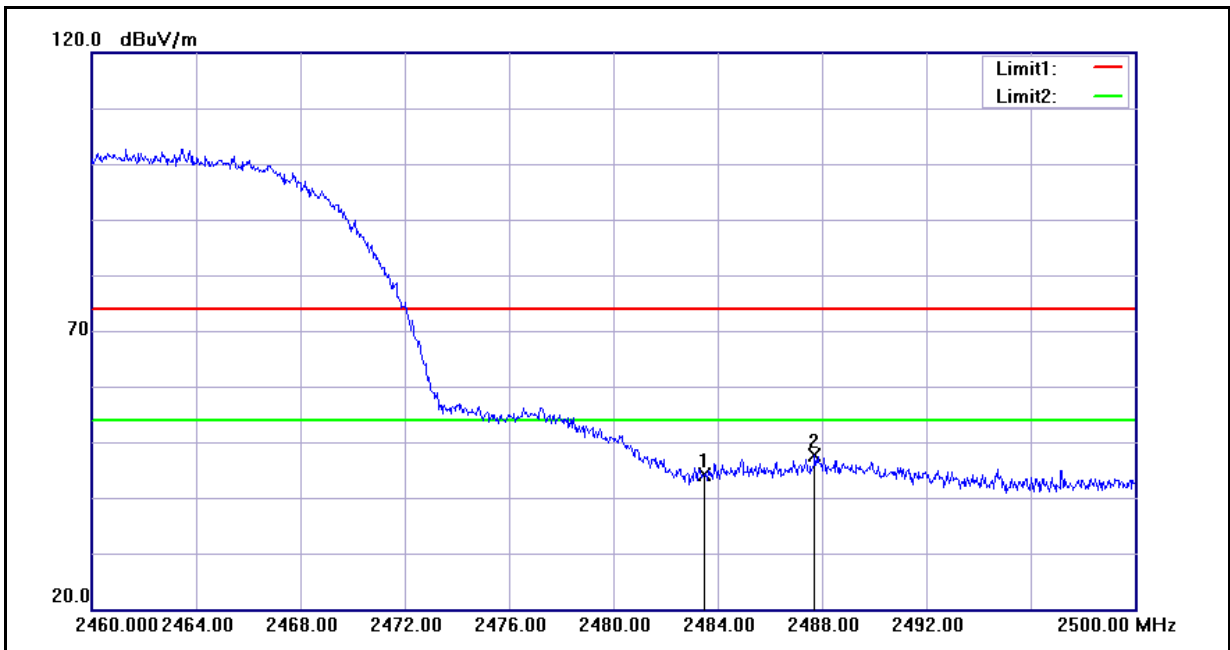
| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|--------|
| 1 | 2332.000 | 52.94 | -0.45 | 52.49 | 74.00 | -21.51 | peak |
| 2 | 2332.000 | 35.88 | -0.45 | 35.43 | 54.00 | -18.57 | AVG |
| 3 | 2390.000 | 47.50 | -0.22 | 47.28 | 74.00 | -26.72 | peak |

| | | | |
|---------------|-------------------|----------------------|---------------|
| Standard: | FCC Part 15C | Test Distance: | 3m |
| Test item: | Radiated Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 2 | Date: | 2010/09/15 |
| Frequency: | 2462 MHz | Test By: | Gary Wu |
| Ant.Polar.: | Horizontal | Ant. Used: | External Ant. |



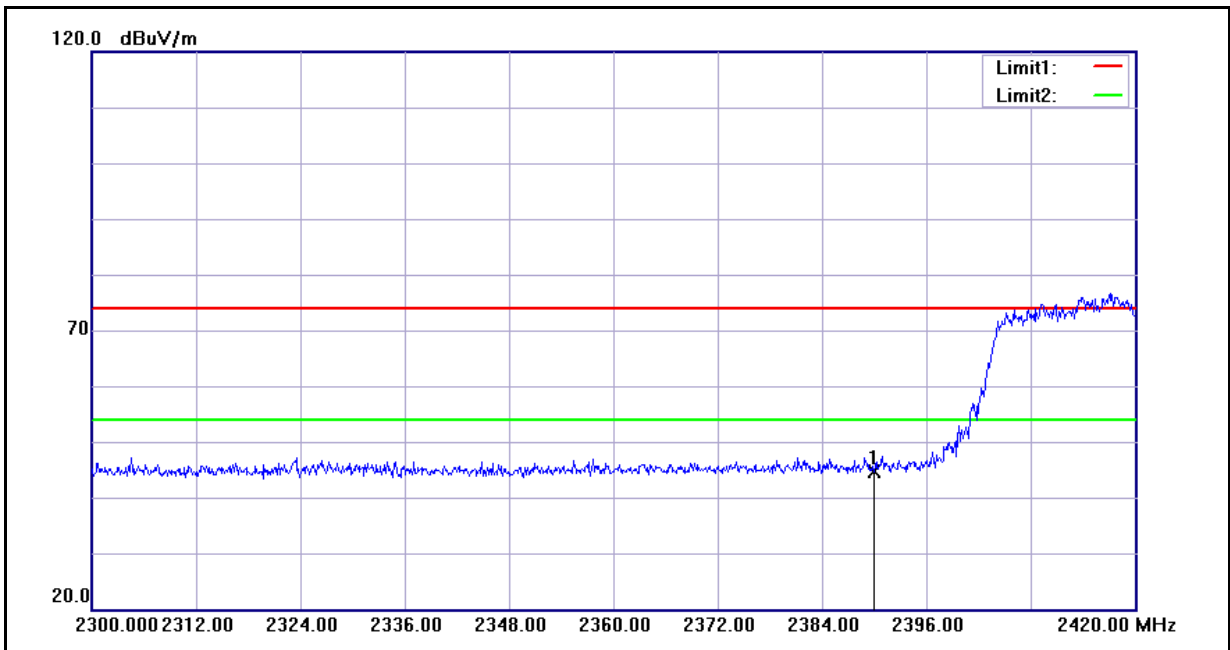
| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|--------|
| 1 | 2483.500 | 40.83 | 0.16 | 40.99 | 74.00 | -33.01 | peak |
| 2 | 2487.640 | 42.64 | 0.18 | 42.82 | 74.00 | -31.18 | peak |

| | | | |
|---------------|-------------------|----------------------|---------------|
| Standard: | FCC Part 15C | Test Distance: | 3m |
| Test item: | Radiated Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 2 | Date: | 2010/09/15 |
| Frequency: | 2462 MHz | Test By: | Gary Wu |
| Ant.Polar.: | Vertical | Ant. Used: | External Ant. |



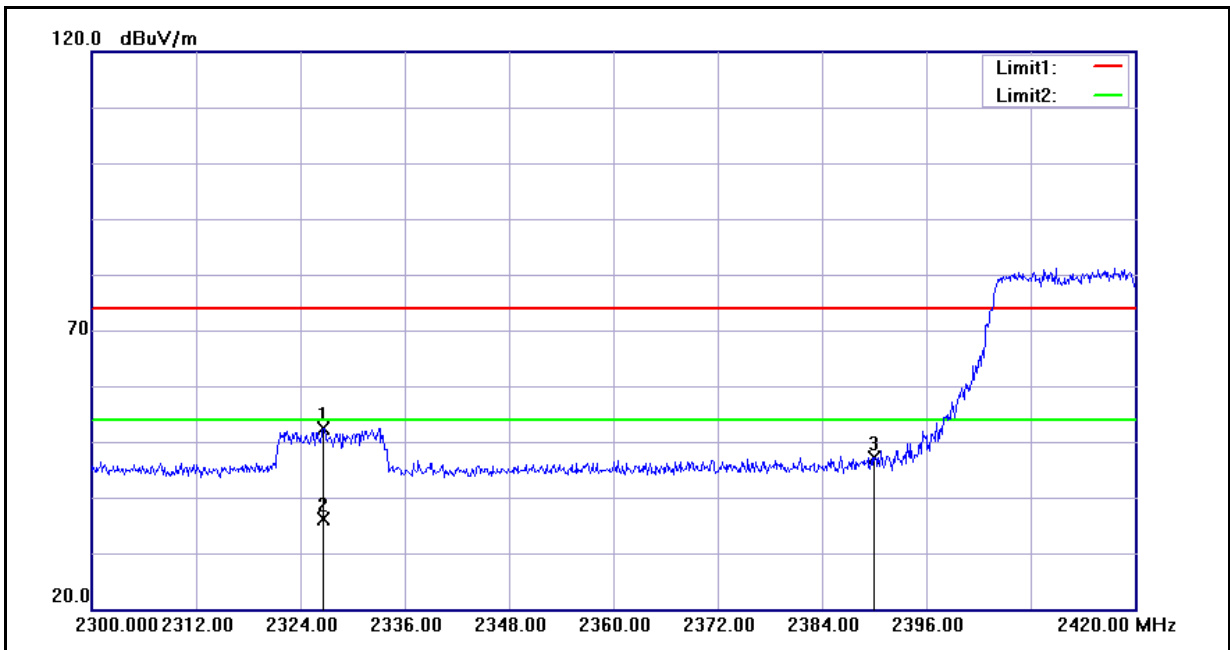
| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|--------|
| 1 | 2483.500 | 43.87 | 0.16 | 44.03 | 74.00 | -29.97 | peak |
| 2 | 2487.720 | 47.33 | 0.18 | 47.51 | 74.00 | -26.49 | peak |

| | | | |
|---------------|-------------------|----------------------|---------------|
| Standard: | FCC Part 15C | Test Distance: | 3m |
| Test item: | Radiated Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 3 | Date: | 2010/10/01 |
| Frequency: | 2412 MHz | Test By: | Gary Wu |
| Ant.Polar.: | Horizontal | Ant. Used: | Internal Ant. |



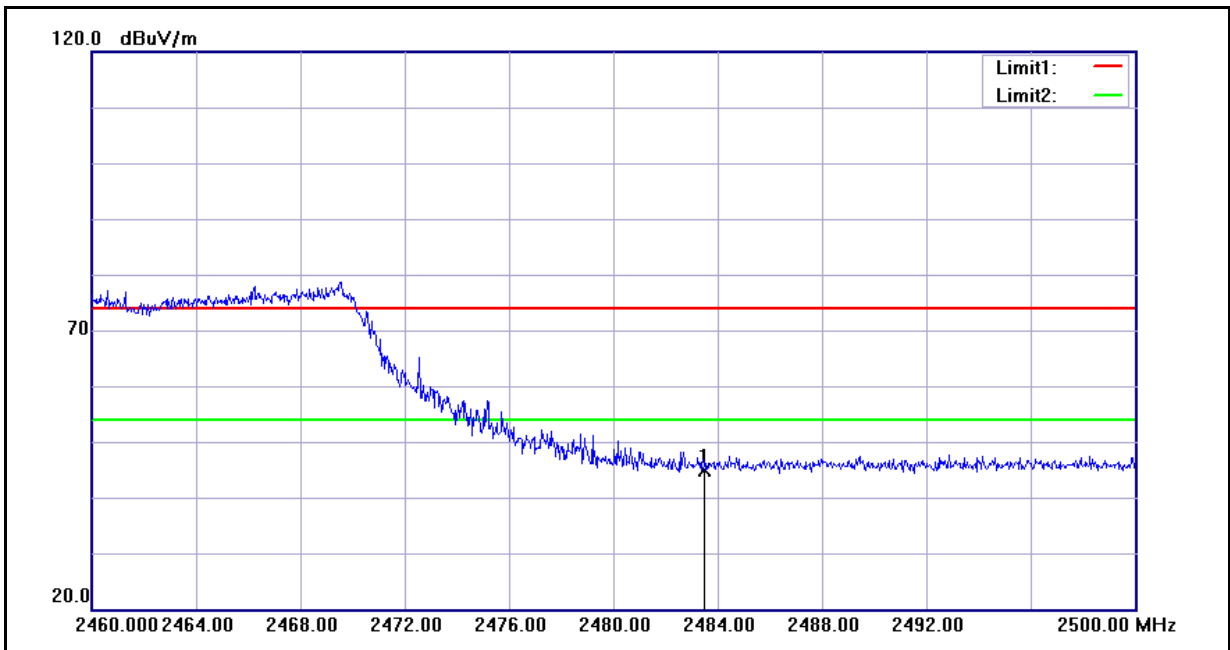
| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|--------|
| 1 | 2390.000 | 44.89 | -0.22 | 44.67 | 74.00 | -29.33 | peak |

| | | | |
|---------------|-------------------|----------------------|---------------|
| Standard: | FCC Part 15C | Test Distance: | 3m |
| Test item: | Radiated Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 3 | Date: | 2010/10/01 |
| Frequency: | 2412 MHz | Test By: | Gary Wu |
| Ant.Polar.: | Vertical | Ant. Used: | Internal Ant. |



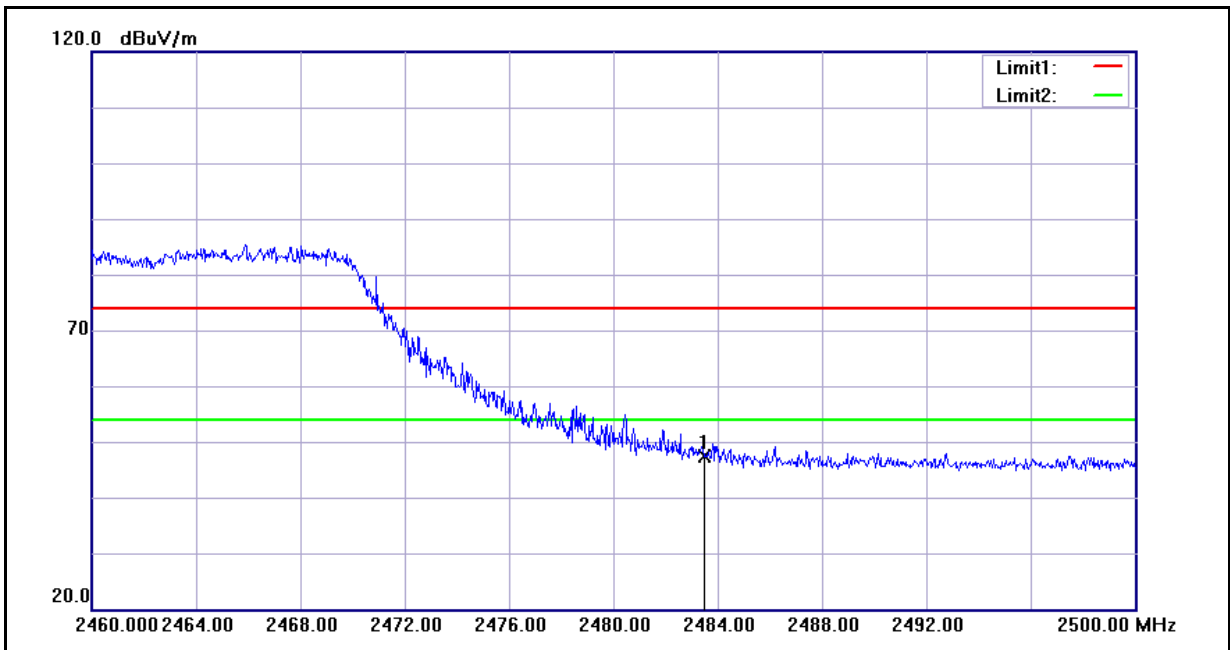
| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|--------|
| 1 | 2326.640 | 52.95 | -0.47 | 52.48 | 74.00 | -21.52 | peak |
| 2 | 2326.640 | 36.51 | -0.47 | 36.04 | 74.00 | -37.96 | AVG |
| 3 | 2390.000 | 47.39 | -0.22 | 47.17 | 74.00 | -26.83 | peak |

| | | | |
|---------------|-------------------|----------------------|---------------|
| Standard: | FCC Part 15C | Test Distance: | 3m |
| Test item: | Radiated Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 3 | Date: | 2010/10/01 |
| Frequency: | 2462 MHz | Test By: | Gary Wu |
| Ant.Polar.: | Horizontal | Ant. Used: | Internal Ant. |



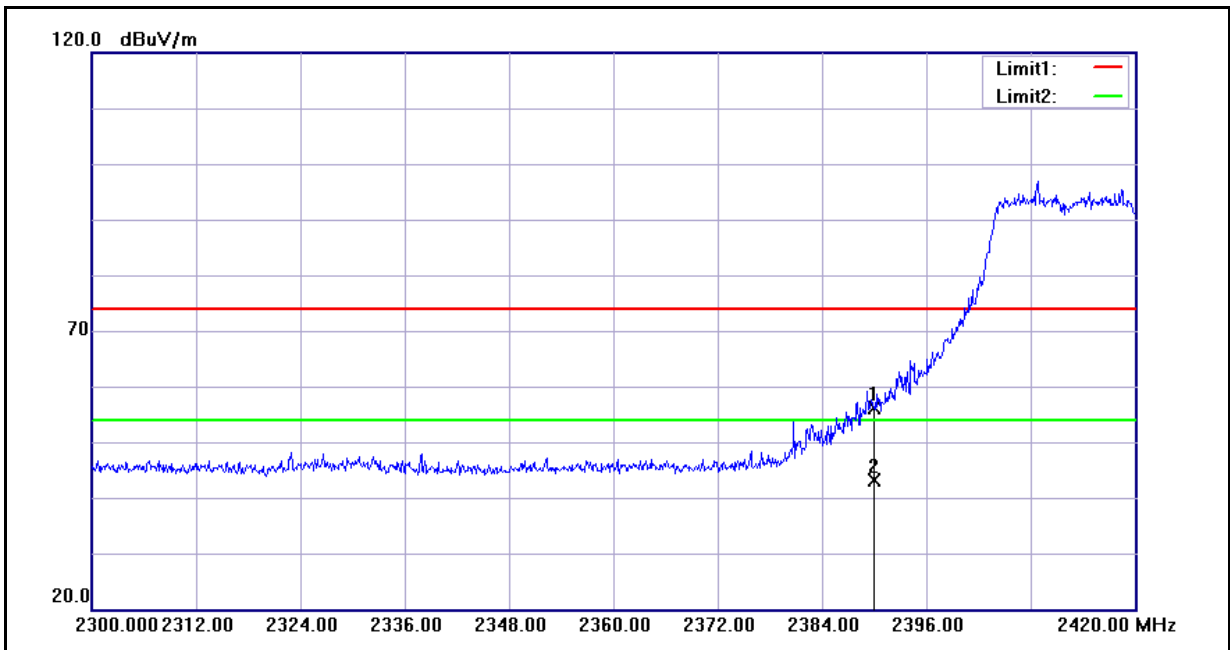
| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|--------|
| 1 | 2483.500 | 44.63 | 0.16 | 44.79 | 74.00 | -29.21 | peak |

| | | | |
|---------------|-------------------|----------------------|---------------|
| Standard: | FCC Part 15C | Test Distance: | 3m |
| Test item: | Radiated Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 3 | Date: | 2010/10/01 |
| Frequency: | 2462 MHz | Test By: | Gary Wu |
| Ant.Polar.: | Vertical | Ant. Used: | Internal Ant. |



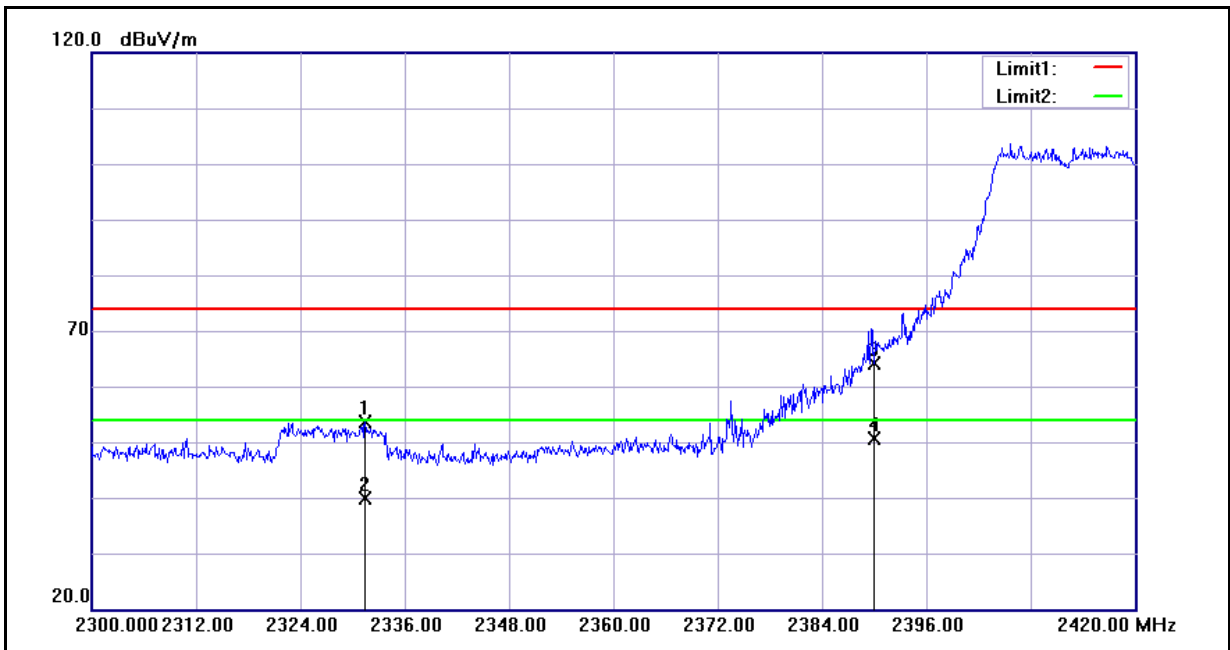
| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|--------|
| 1 | 2483.500 | 47.29 | 0.16 | 47.45 | 74.00 | -26.55 | peak |

| | | | |
|---------------|-------------------|----------------------|---------------|
| Standard: | FCC Part 15C | Test Distance: | 3m |
| Test item: | Radiated Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 3 | Date: | 2010/10/01 |
| Frequency: | 2412 MHz | Test By: | Gary Wu |
| Ant.Polar.: | Horizontal | Ant. Used: | External Ant. |



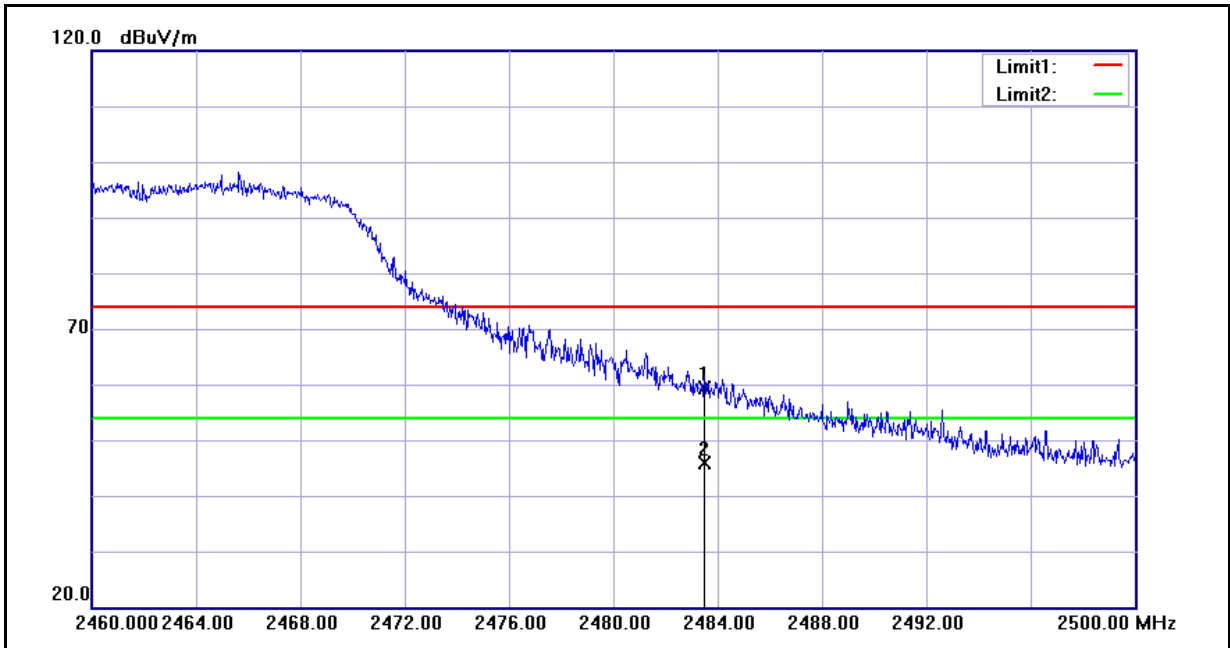
| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|--------|
| 1 | 2390.000 | 56.30 | -0.22 | 56.08 | 74.00 | -17.92 | peak |
| 2 | 2390.000 | 43.46 | -0.22 | 43.24 | 54.00 | -10.76 | AVG |

| | | | |
|---------------|-------------------|----------------------|---------------|
| Standard: | FCC Part 15C | Test Distance: | 3m |
| Test item: | Radiated Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 3 | Date: | 2010/10/01 |
| Frequency: | 2412 MHz | Test By: | Gary Wu |
| Ant.Polar.: | Vertical | Ant. Used: | External Ant. |



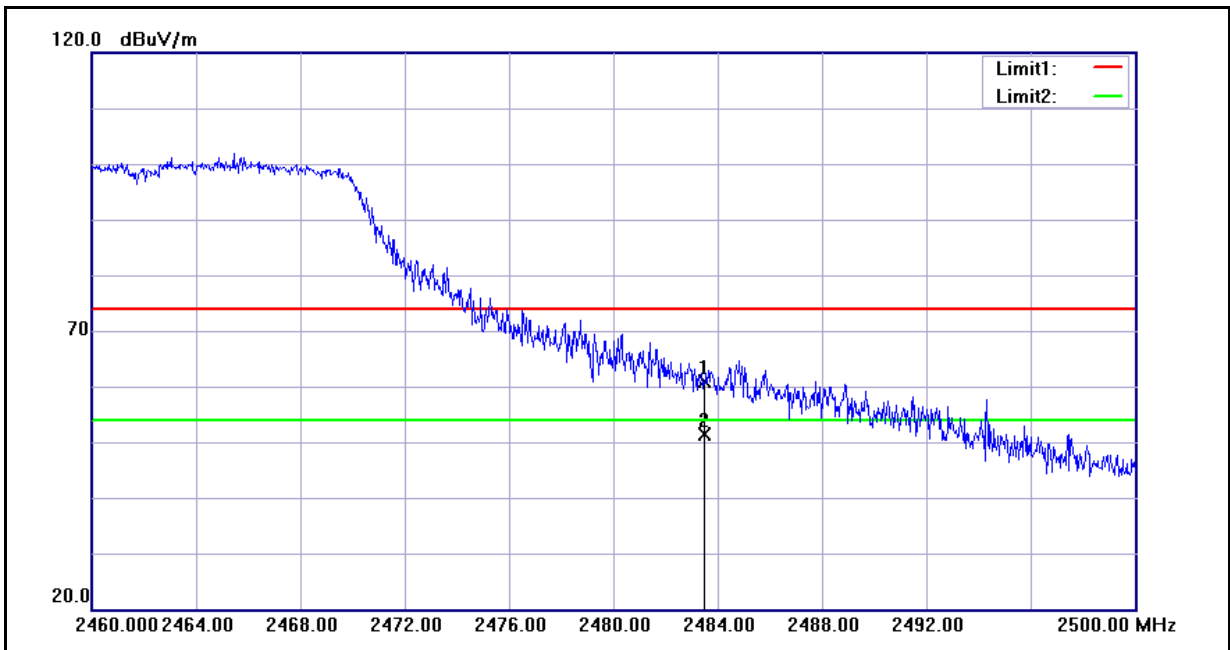
| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|--------|
| 1 | 2331.440 | 53.96 | -0.45 | 53.51 | 74.00 | -20.49 | peak |
| 2 | 2331.440 | 40.39 | -0.45 | 39.94 | 54.00 | -14.06 | AVG |
| 3 | 2390.000 | 64.37 | -0.22 | 64.15 | 74.00 | -9.85 | peak |
| 4 | 2390.000 | 50.92 | -0.22 | 50.70 | 54.00 | -3.30 | AVG |

| | | | |
|---------------|-------------------|----------------------|---------------|
| Standard: | FCC Part 15C | Test Distance: | 3m |
| Test item: | Radiated Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 3 | Date: | 2010/10/01 |
| Frequency: | 2462 MHz | Test By: | Gary Wu |
| Ant.Polar.: | Horizontal | Ant. Used: | External Ant. |



| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|--------|
| 1 | 2483.500 | 59.34 | 0.16 | 59.50 | 74.00 | -14.50 | peak |
| 2 | 2483.500 | 45.60 | 0.16 | 45.76 | 54.00 | -8.24 | AVG |

| | | | |
|---------------|-------------------|----------------------|---------------|
| Standard: | FCC Part 15C | Test Distance: | 3m |
| Test item: | Radiated Emission | Power: | AC 120V/60Hz |
| Model Number: | DM300 | Temp.(°C)/Hum.(%RH): | 26(°C)/60%RH |
| Mode: | Mode 3 | Date: | 2010/10/01 |
| Frequency: | 2462 MHz | Test By: | Gary Wu |
| Ant.Polar.: | Vertical | Ant. Used: | External Ant. |



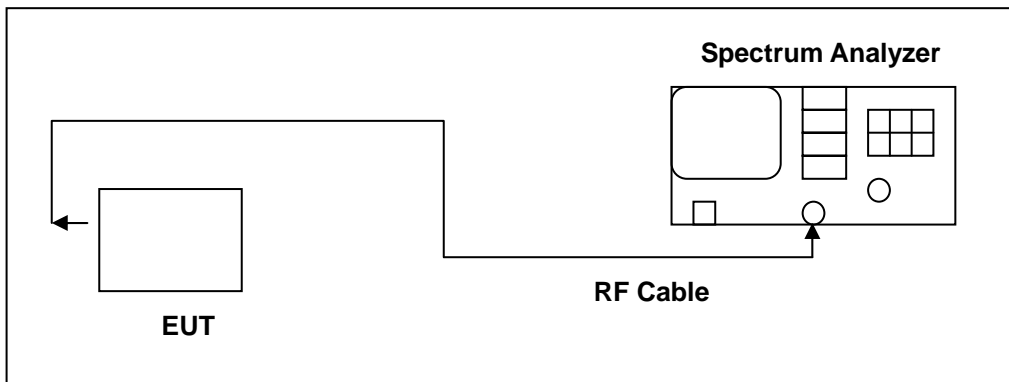
| No. | Frequency (MHz) | Reading (dBuV) | Correct Factor(dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|----------------------|-----------------|----------------|-------------|--------|
| 1 | 2483.500 | 60.74 | 0.16 | 60.90 | 74.00 | -13.10 | peak |
| 2 | 2483.500 | 51.10 | 0.16 | 51.26 | 54.00 | -2.74 | AVG |

11 99 % Occupied Bandwidth Measurement

11.1.Limit

N/A

11.2.Test Setup



11.3.Test Instruments

| Equipment | Manufacturer | Model Number | Serial Number | Cal. Date | Remark |
|-------------------|--------------|--------------|---------------|------------|--------|
| Spectrum Analyzer | Agilent | E4445A | MY46181986 | 05/14/2009 | (2) |
| Test Site | ATL | TE06 | TE06 | N.C.R. | ----- |

Remark: (1) Calibration period 1 year. (2) Calibration period 2 years.

NOTE: N.C.R. = No Calibration Request.

11.4.Test Procedure

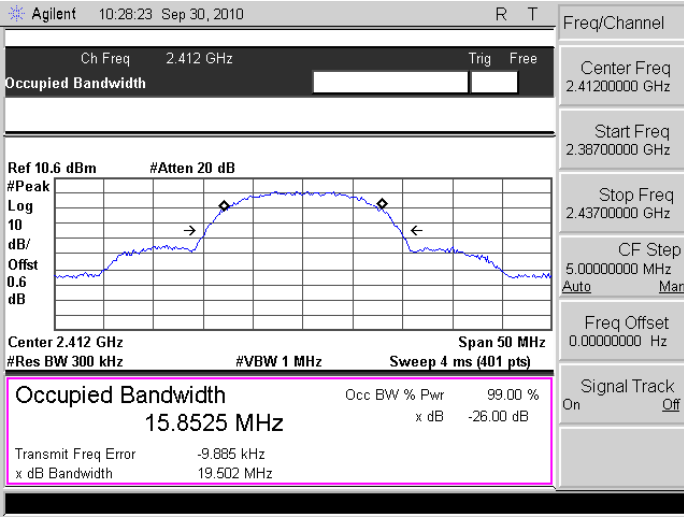
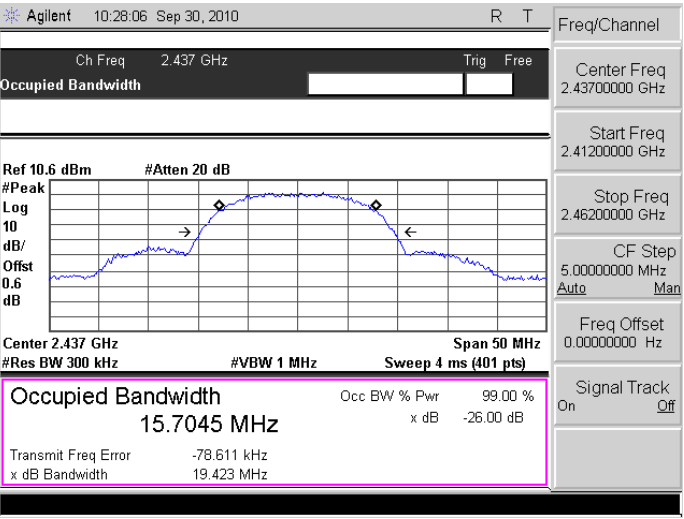
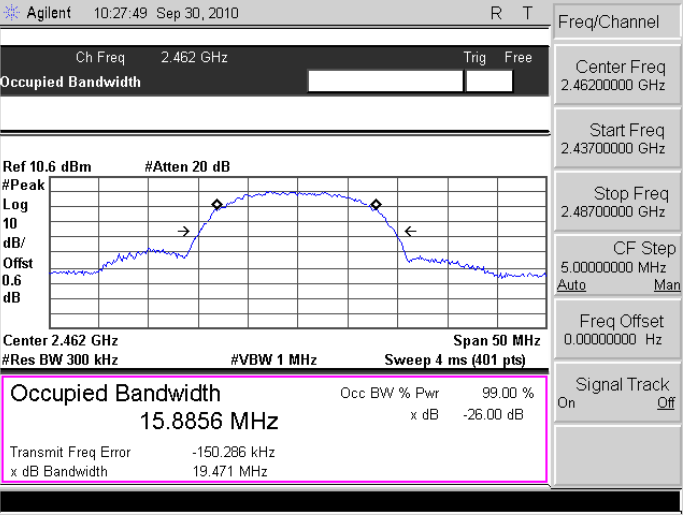
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled.

11.5.Test Result

| | | | |
|---------------|--------------------------------|-------------------|-------------|
| Model Number | DM300 | | |
| Test Item | 99 % Occupied Bandwidth | | |
| Test Mode | Mode 2: IEEE 802.11b Link Mode | | |
| Date of Test | 09/20/2010, 09/30/2010 | Test Site | TE06 |
| Ant. Port | Frequency (MHz) | Measurement (kHz) | Limit (kHz) |
| Internal Ant. | 2412 | 15852.5 | ----- |
| | 2437 | 15704.5 | ----- |
| | 2462 | 15885.6 | ----- |
| External Ant. | 2412 | 15575.6 | ----- |
| | 2437 | 15598.9 | ----- |
| | 2462 | 15585.6 | ----- |

| | | | |
|---------------|--------------------------------|-------------------|-------------|
| Model Number | DM300 | | |
| Test Item | 99 % Occupied Bandwidth | | |
| Test Mode | Mode 3: IEEE 802.11g Link Mode | | |
| Date of Test | 09/20/2010, 09/30/2010 | Test Site | TE06 |
| Ant. Port | Frequency (MHz) | Measurement (kHz) | Limit (kHz) |
| Internal Ant. | 2412 | 17298.7 | ----- |
| | 2437 | 17362.2 | ----- |
| | 2462 | 17412.2 | ----- |
| External Ant. | 2412 | 17222.1 | ----- |
| | 2437 | 17191.4 | ----- |
| | 2462 | 17240.1 | ----- |

11.6. Test Graphs

| Mode 2: IEEE 802.11b Link Mode _ Internal Ant. | |
|--|--|
| 2412 |  |
| 2437 |  |
| 2462 |  |

| Mode 2: IEEE 802.11b Link Mode _ External Ant. | |
|--|---|
| 2412 | <p>Agilent 15:41:17 Sep 20, 2010 R T</p> <p>Ch Freq 2.412 GHz Trig Free</p> <p>Center Freq 2.41200000 GHz</p> <p>Start Freq 2.38700000 GHz</p> <p>Stop Freq 2.43700000 GHz</p> <p>CF Step 5.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Ref 10.6 dBm #Atten 10 dB</p> <p>#Peak Log 10 dB/Offst 10.6 dB</p> <p>Center 2.412 GHz Span 50 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 4 ms (401 pts)</p> <p>Occupied Bandwidth Occ BW % Pwr 99.00 %</p> <p>15.5756 MHz x dB -26.00 dB</p> <p>Transmit Freq Error -32.006 kHz</p> <p>x dB Bandwidth 19.422 MHz</p> |
| 2437 | <p>Agilent 15:40:59 Sep 20, 2010 R T</p> <p>Ch Freq 2.437 GHz Trig Free</p> <p>Center Freq 2.43700000 GHz</p> <p>Start Freq 2.41200000 GHz</p> <p>Stop Freq 2.46200000 GHz</p> <p>CF Step 5.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Ref 10.6 dBm #Atten 10 dB</p> <p>#Peak Log 10 dB/Offst 10.6 dB</p> <p>Center 2.437 GHz Span 50 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 4 ms (401 pts)</p> <p>Occupied Bandwidth Occ BW % Pwr 99.00 %</p> <p>15.5989 MHz x dB -26.00 dB</p> <p>Transmit Freq Error -18.736 kHz</p> <p>x dB Bandwidth 19.451 MHz</p> |
| 2462 | <p>Agilent 15:41:35 Sep 20, 2010 R T</p> <p>Ch Freq 2.462 GHz Trig Free</p> <p>Center Freq 2.46200000 GHz</p> <p>Start Freq 2.43700000 GHz</p> <p>Stop Freq 2.48700000 GHz</p> <p>CF Step 5.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Ref 10.6 dBm #Atten 10 dB</p> <p>#Peak Log 10 dB/Offst 10.6 dB</p> <p>Center 2.462 GHz Span 50 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 4 ms (401 pts)</p> <p>Occupied Bandwidth Occ BW % Pwr 99.00 %</p> <p>15.5856 MHz x dB -26.00 dB</p> <p>Transmit Freq Error -7.446 kHz</p> <p>x dB Bandwidth 19.363 MHz</p> |

| Mode 3: IEEE 802.11g Link Mode _ Internal Ant. | |
|--|--|
| 2412 | <p>Agilent 10:26:44 Sep 30, 2010 R T</p> <p>Ch Freq 2.412 GHz Trig Free</p> <p>Center Freq 2.41200000 GHz</p> <p>Start Freq 2.38700000 GHz</p> <p>Stop Freq 2.43700000 GHz</p> <p>CF Step 5.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Ref 10.6 dBm #Atten 20 dB</p> <p>#Peak Log 10 dB/ Offst 0.6 dB</p> <p>Center 2.412 GHz Span 50 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 4 ms (401 pts)</p> <p>Occupied Bandwidth Occ BW % Pwr 99.00 %</p> <p>17.2987 MHz x dB -26.00 dB</p> <p>Transmit Freq Error -23.432 kHz</p> <p>x dB Bandwidth 25.165 MHz</p> |
| 2437 | <p>Agilent 10:27:10 Sep 30, 2010 R T</p> <p>Ch Freq 2.437 GHz Trig Free</p> <p>Center Freq 2.43700000 GHz</p> <p>Start Freq 2.41200000 GHz</p> <p>Stop Freq 2.46200000 GHz</p> <p>CF Step 5.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Ref 10.6 dBm #Atten 20 dB</p> <p>#Peak Log 10 dB/ Offst 0.6 dB</p> <p>Center 2.437 GHz Span 50 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 4 ms (401 pts)</p> <p>Occupied Bandwidth Occ BW % Pwr 99.00 %</p> <p>17.3622 MHz x dB -26.00 dB</p> <p>Transmit Freq Error -94.726 kHz</p> <p>x dB Bandwidth 25.878 MHz</p> |
| 2462 | <p>Agilent 10:27:31 Sep 30, 2010 R T</p> <p>Ch Freq 2.462 GHz Trig Free</p> <p>Center Freq 2.46200000 GHz</p> <p>Start Freq 2.43700000 GHz</p> <p>Stop Freq 2.48700000 GHz</p> <p>CF Step 5.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Ref 10.6 dBm #Atten 20 dB</p> <p>#Peak Log 10 dB/ Offst 0.6 dB</p> <p>Center 2.462 GHz Span 50 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 4 ms (401 pts)</p> <p>Occupied Bandwidth Occ BW % Pwr 99.00 %</p> <p>17.4122 MHz x dB -26.00 dB</p> <p>Transmit Freq Error -134.913 kHz</p> <p>x dB Bandwidth 26.551 MHz</p> |

Mode 3: IEEE 802.11g Link Mode _ External Ant.

| | |
|-------------|---|
| <p>2412</p> | <p>Agilent 11:31:40 Sep 30, 2010</p> <p>Ch Freq 2.412 GHz</p> <p>Center Freq 2.41200000 GHz</p> <p>Start Freq 2.38700000 GHz</p> <p>Stop Freq 2.43700000 GHz</p> <p>CF Step 5.00000000 MHz</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track Off</p> <p>Ref 10.6 dBm #Atten 20 dB</p> <p>#Peak Log 10 dB/ Offst 0.6 dB</p> <p>Center 2.412 GHz Span 50 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 4 ms (401 pts)</p> <p>Occupied Bandwidth 17.2221 MHz</p> <p>Occ BW % Pwr 99.00 % x dB -26.00 dB</p> <p>Transmit Freq Error -13.932 kHz x dB Bandwidth 25.363 MHz</p> |
| <p>2437</p> | <p>Agilent 11:31:58 Sep 30, 2010</p> <p>Ch Freq 2.437 GHz</p> <p>Center Freq 2.43700000 GHz</p> <p>Start Freq 2.41200000 GHz</p> <p>Stop Freq 2.46200000 GHz</p> <p>CF Step 5.00000000 MHz</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track Off</p> <p>Ref 10.6 dBm #Atten 20 dB</p> <p>#Peak Log 10 dB/ Offst 0.6 dB</p> <p>Center 2.437 GHz Span 50 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 4 ms (401 pts)</p> <p>Occupied Bandwidth 17.1914 MHz</p> <p>Occ BW % Pwr 99.00 % x dB -26.00 dB</p> <p>Transmit Freq Error -28.753 kHz x dB Bandwidth 25.193 MHz</p> |
| <p>2462</p> | <p>Agilent 11:32:18 Sep 30, 2010</p> <p>Ch Freq 2.462 GHz</p> <p>Center Freq 2.46200000 GHz</p> <p>Start Freq 2.43700000 GHz</p> <p>Stop Freq 2.48700000 GHz</p> <p>CF Step 5.00000000 MHz</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track Off</p> <p>Ref 10.6 dBm #Atten 20 dB</p> <p>#Peak Log 10 dB/ Offst 0.6 dB</p> <p>Center 2.462 GHz Span 50 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 4 ms (401 pts)</p> <p>Occupied Bandwidth 17.2401 MHz</p> <p>Occ BW % Pwr 99.00 % x dB -26.00 dB</p> <p>Transmit Freq Error -35.602 kHz x dB Bandwidth 25.770 MHz</p> |

12 Antenna Measurement

12.1.Limit

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

12.2.Antenna Connector Construction

The antenna used in this product's internal antenna port is **PIFA antenna**. And the maximum Gain of this antenna is only **2.3 dBi**.

The antenna used in this product's external antenna port is **External antenna**. And the maximum Gain of this antenna is only **2.0 dBi**.