



# FCC Test Report

for

## 47 CFR Part 15 Subpart C

**Equipment** : Notebook PC  
**Trade Name** : MTC; GETAC  
**Model No.** : B300  
**FCC ID** : MAU301  
**Filing Type** : Certification  
**Applicant** : **MiTAC Technology Corp.**  
9th. FL., No.75, Ming Sheng E. Rd., Sec.3, Taipei, Taiwan

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- The data shown in this test report were carried out on Nov. 17, 2007 at **Sporton International Inc. LAB.**
- Report No.: FR7O1819-02B, Report Version: Rev. 01.

Roy Wu  
Manager

**SPORTON International Inc.**

**No. 52, Hwa Ya 1<sup>st</sup> Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.**



# Table of Contents

History of this test report ..... ii

**1. General Description of Equipment under Test..... 1**

    1.1 Applicant..... 1

    1.2 Manufacturer ..... 1

    1.3 Basic Description of Equipment under Test..... 1

    1.4 Feature of Equipment under Test ..... 2

    1.5 Specification of Notebook..... 3

**2. Test Configuration of Equipment under Test..... 4**

    2.1 Test Manner ..... 4

    2.2 Test Mode ..... 5

    2.3 Ancillary Equipment List ..... 6

    2.4 Connection Diagram of Test System ..... 6

**3. RF Utility..... 7**

**4. General Information of Test ..... 8**

    4.1 Test Voltage ..... 8

    4.2 Standard for Methods of Measurement ..... 8

    4.3 Test Compliance ..... 8

    4.4 Frequency Range ..... 8

    4.5 Test Distance ..... 8

**5. Test Data and Test Result..... 9**

    5.1 List of Measurements and Examinations..... 9

    5.2 6dB Bandwidth Measurement ..... 10

    5.3 Power Spectral Density Measurement ..... 29

    5.4 Band Edges Measurement ..... 49

    5.5 Peak Output Power Measurement ..... 68

    5.6 Conducted Emission..... 71

    5.7 Radiated Emission Measurement..... 74

    5.8 Antenna Requirements..... 148

**6. List of Measuring Equipments..... 149**

**7. Uncertainty Evaluation..... 150**

**Appendix A. External Photographs of EUT**

**Appendix B. Internal Photographs of EUT**

**Appendix C. Photographs of Setup**



History of this test report

Report Issue Date: Mar. 26, 2008

| Report No.   | Description  |
|--------------|--|
| FR7O1819-02B | Update original Sporton Report No. FR7O1819-D issued on Nov. 28, 2007 for FCC ID change. In addition, add photographs of GSM module. |
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## 1. General Description of Equipment under Test

### 1.1 Applicant

**MiTAC Technology Corp.**

9th. FL., No.75, Ming Sheng E. Rd., Sec.3, Taipei, Taiwan

### 1.2 Manufacturer

**GeTAC Technology(Kunshan) LTD.**

No.269, 2nd Road, Export Processing Zone, Changjiang South Road, Kunshan, Jiangsu, P.R.C

### 1.3 Basic Description of Equipment under Test

|                   |                           |   |
|-------------------|---------------------------|---|
| <b>Equipment</b>  |                           | Notebook PC   |
| <b>Trade Name</b> |                           | MTC; GETAC  |
| <b>Model Name</b> |                           | B300  |
| <b>FCC ID</b>     |                           | MAU301  |
| <b>AC Adapter</b> | <b>Brand Name</b>         | Delta   |
|                   | <b>Model Name</b>         | ADP-90SB BB   |
|                   | <b>Power Rating</b>       | I/P : 100-240Vac, 1.5A, 50-60Hz; O/P : 19Vdc, 4.74A |
|                   | <b>AC Power Cord Type</b> | 1.73meter shielded with ferrite core                |
| <b>Battery</b>    | <b>Brand Name</b>         | SAYNO   |
|                   | <b>Model Name</b>         | BP3S3P2550(P)                                       |
|                   | <b>Rating</b>             | 10.8Vdc, 7.65Ah                                     |
|                   | <b>Type</b>               | Li-ion  |

Remark: Above EUT's information was declared by manufacturer. Please refer to the specifications of manufacturer or User's Manual for more detailed features description.



1.4 Feature of Equipment under Test

| Product Feature & Specification                       |   |  |               |
|---|---|--|---------------|
| 1. Type of Modulation                                 | WLAN : DSSS / OFDM<br>Bluetooth : GFSK  |  |               |
| 2. Number of Channels                                 | 802.11a : 8 (Band I and II) / 5 Channels (Band III)<br>802.11b/g : 11 Channels<br>802.11n : 36-48 Channels, 149-165 Channels<br>Bluetooth : 79 Channels   |  |               |
| 3. Frequency Band                                     | 802.11a : 5150 ~ 5350MHz (Band I,II) / 5725MHz ~ 5850MHz (Band III)<br>802.11b/g : 2400MHz ~ 2483.5MHz<br>802.11n : 5150 ~ 5350MHz (Band I,II) / 5725MHz ~ 5850MHz (Band III)<br>Bluetooth : 2400MHz ~ 2483.5MHz  |  |               |
| 4. Carrier Frequency of each channel                  | 802.11a,11n Band I : 5000+n*5 MHz, n=36, 40, 44, 48<br>802.11a,11n Band II : 5000+n*5 MHz, n=52, 56, 60, 64<br>802.11a,11n Band III : 5000+n*5 MHz, n=149, 153, 157, 161, 165<br>802.11b/g : 2412MHz+(n-1)*5MHz, n=1~11<br>Bluetooth : 2402MHz+n*1MHz, n=0~78   |  |               |
| 5. Channel Spacing                                    | 802.11a : 5 MHz<br>802.11b/g : 5 MHz<br>Bluetooth : 1 MHz   |  |               |
| 6. Maximum Output Power to Antenna (Normal Condition) | 802.11b : 14.66 dBm<br>802.11g : 21.66 dBm<br>802.11a : 16.98 dBm (Band I) / 17.86 dBm (Band II) / 21.09 dBm (Band III)<br>802.11n (g) : 23.94 dBm<br>802.11n (a) : 16.77 dBm (Band I, BW 20M)<br>16.84 dBm (Band I, BW 40M)<br>19.55 dBm (Band II, BW 20M)<br>16.81 dBm (Band II, BW 40M)<br>24.83 dBm (Band III, BW 20M)<br>21.89 dBm (Band III, BW 40M)<br>Bluetooth : -0.21 dBm |  |               |
| 7. HW Version :                                       | R01   |  |               |
| 8. Type of Antenna Connector                          | N/A   |  |               |
| 9. Antenna Type                                       | WLAN : PIFA Antenna<br>Bluetooth : PIFA Antenna   |  |               |
| 10. Antenna Gain                                      | WLAN : 1.55 dBi<br>Bluetooth : -1.09 dBi  |  |               |
| 11. Function Type                                     | Transmitter   |  | Transceiver V |

**1.5 Specification of Notebook**

|                  | <b>Mode 1 (E100)</b>  | <b>Mode 2 (E100N)</b>   |
|------------------|---|---|
| <b>LCD</b>       | L5S30348P01, 13.1" XGA, ESPON                                 | Sanyo Panel + Sunlight readable<br>L5S30348P01, 13.3", EPSON, |
| <b>CPU</b>       | L7300   | L7500   |
| <b>ODD</b>       | SUPER MULIT DVD R9 DEVICE;UJ850UPK-AG,CS FW:1.6,W/O BEZEL,KME |   |
| <b>HDD</b>       | MHY2080BH,2.5",80GB,5400RPM,SATA,<br>FUJITSU                  | MHY2120BH,2.5",120GB,5400RPM,SAT<br>A,FUJITSU                 |
| <b>Memory</b>    | 1GB,HYS64T128021EDL-3S-B2,QIMON<br>DA                         | HYMP512S64CP8-Y5,DDR2 667<br>1G,HYNIX (x 2)                   |
| <b>Battery</b>   | BP3S3P2550(P)<br>LI-ION,10.8V/7.65AH,BQ20z90,PAN,9CELLS,3S3P  |   |
| <b>ADP</b>       | Delta ADP-90SB BB   | Delta ADP-90SB BB   |
| <b>MDC</b>       | RD02-D330,AZALIA,BILLIONTON                                   |   |
| <b>WLAN</b>      | Intel wireless 4965 802.11a/g/n (MOW1)                        | Intel wireless 4965 802.11a/g/n (MOW2)                        |
| <b>Bluetooth</b> | Billionton GUBTCR42M  |   |
| <b>GPS</b>       | ET313,GPS ENGINE BOARD,GLOBALSAT,GPI                          |   |



## 2. Test Configuration of Equipment under Test

### 2.1 Test Manner

- a. The EUT has been associated with peripherals pursuant to ANSI C63.4-2003 and configuration operated in a manner tended to maximize its emission characteristics in a typical application.
- b. Power table for each modes are as below:

802.11b

| Channel | Frequency (MHz) | Data Rate (Mbps) |       |       |       |
|---------|-----------------|------------------|-------|-------|-------|
|         |                 | 1                | 2     | 5.5   | 11    |
| CH 01   | 2412 MHz        | 14.30            | 14.06 | 14.21 | 14.25 |
| CH 06   | 2437 MHz        | 14.10            | 14.33 | 14.52 | 14.44 |
| CH 11   | 2462 MHz        | 14.18            | 14.66 | 14.35 | 14.05 |

802.11g

| Channel | Frequency (MHz) | Data Rate (Mbps) |       |       |       |       |       |       |       |
|---------|-----------------|------------------|-------|-------|-------|-------|-------|-------|-------|
|         |                 | 6                | 9     | 12    | 18    | 24    | 36    | 48    | 54    |
| CH 01   | 2412 MHz        | 20.50            | 20.72 | 21.32 | 20.89 | 21.15 | 21.06 | 20.70 | 20.10 |
| CH 06   | 2437 MHz        | 20.67            | 20.49 | 20.58 | 20.52 | 20.78 | 20.24 | 20.84 | 20.85 |
| CH 11   | 2462 MHz        | 21.66            | 21.09 | 21.34 | 21.12 | 21.25 | 21.00 | 20.74 | 20.71 |

802.11a

| Channel | Frequency (MHz) | Data Rate (Mbps) |       |       |       |       |       |       |       |
|---------|-----------------|------------------|-------|-------|-------|-------|-------|-------|-------|
|         |                 | 6                | 9     | 12    | 18    | 24    | 36    | 48    | 54    |
| CH 149  | 5745 MHz        | 20.57            | 21.09 | 20.85 | 21.03 | 20.82 | 20.73 | 20.68 | 18.59 |
| CH 157  | 5785 MHz        | 20.61            | 20.35 | 20.17 | 19.93 | 19.91 | 20.42 | 20.07 | 18.37 |
| CH 165  | 5825 MHz        | 20.54            | 20.35 | 20.79 | 20.78 | 20.97 | 20.23 | 20.03 | 18.44 |

802.11n(g) (BW 20M)

| Channel | Frequency (MHz) | Data Rate (Mbps) |       |       |       |       |       |       |       |
|---------|-----------------|------------------|-------|-------|-------|-------|-------|-------|-------|
|         |                 | 6                | 9     | 12    | 18    | 24    | 36    | 48    | 54    |
| CH 01   | 2412 MHz        | 22.31            | 22.99 | 22.57 | 22.80 | 22.60 | 22.67 | 22.96 | 22.95 |
| CH 06   | 2437 MHz        | 22.42            | 22.76 | 22.88 | 23.02 | 23.00 | 22.82 | 23.06 | 22.86 |
| CH 11   | 2462 MHz        | 23.99            | 23.60 | 23.32 | 23.24 | 23.80 | 23.24 | 23.94 | 23.66 |



802.11n(a) (20M)

| Channel | Frequency (MHz) | Data Rate (Mbps) |       |       |       |       |       |       |
|---------|-----------------|------------------|-------|-------|-------|-------|-------|-------|
|         |                 | 6                | 9     | 12    | 18    | 24    | 36    | 48    |
| CH 149  | 5745 MHz        | 24.18            | 24.05 | 24.51 | 24.4  | 24.76 | 24.83 | 24.55 |
| CH 157  | 5785 MHz        | 23.98            | 24.14 | 24.26 | 24.37 | 24.55 | 24.48 | 24.63 |
| CH 165  | 5825 MHz        | 23.89            | 23.85 | 23.85 | 24.18 | 24.07 | 23.89 | 23.89 |

802.11n(a) (40M)

| Channel | Frequency (MHz) | Data Rate (Mbps) |       |       |       |       |       |       |       |
|---------|-----------------|------------------|-------|-------|-------|-------|-------|-------|-------|
|         |                 | 6                | 9     | 12    | 18    | 24    | 36    | 48    | 54    |
| CH 151  | 5755 MHz        | 21.76            | 21.86 | 21.79 | 21.86 | 21.85 | 21.74 | 21.82 | 21.89 |
| CH 159  | 5795 MHz        | 21.87            | 21.71 | 21.57 | 21.46 | 21.74 | 21.76 | 21.75 | 21.68 |

c. The highest RF output power's test modes were chosen for testing .

2.2 Test Mode

| Application                         |   |                               |                       |
|-------------------------------------|---|-------------------------------|-----------------------|
| Radiated Emission /<br>RF Conducted | <b>802.11b</b>                                      | <b>802.11g</b>                | <b>802.11a</b>        |
|                                     | Mode1:CH01_2412MHz                                  | Mode4:CH01_2412MHz            | Mode 7: CH149_5745MHz |
|                                     | Mode2:CH06_2437MHz                                  | Mode5:CH06_2437MHz            | Mode 8: CH157_5785MHz |
|                                     | Mode3:CH11_2462MHz                                  | Mode6:CH11_2462MHz            | Mode 9: CH165_5825MHz |
|                                     | <b>802.11n(g)</b>                                   | <b>802.11n(a)</b>             |                       |
|                                     | Mode 10: CH01_2412 MHz(BW 20M)                      | Mode13: CH149_5745MHz(BW 20M) |                       |
|                                     | Mode 11: CH06_2437 MHz(BW 20M)                      | Mode14: CH157_5785MHz(BW 20M) |                       |
|                                     | Mode 12: CH11_2462 MHz(BW 20M)                      | Mode15: CH165_5825MHz(BW 20M) |                       |
|                                     |   | Mode16: CH151_5755MHz(BW 40M) |                       |
|                                     |   | Mode17: CH159_5795MHz(BW 40M) |                       |
|                                     | <b>Co-location</b>                                  |                               |                       |
|                                     | Mode 18 : 802.11n(a) (BW 20M) Tx_Ch165 + BT Tx_Ch78 |                               |                       |
| Conducted Emission                  | Mode 1: BT Link + WLAN Link + Adapter               |                               |                       |

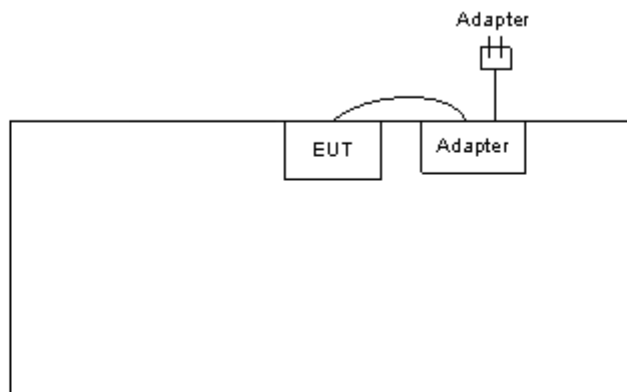


### 2.3 Ancillary Equipment List

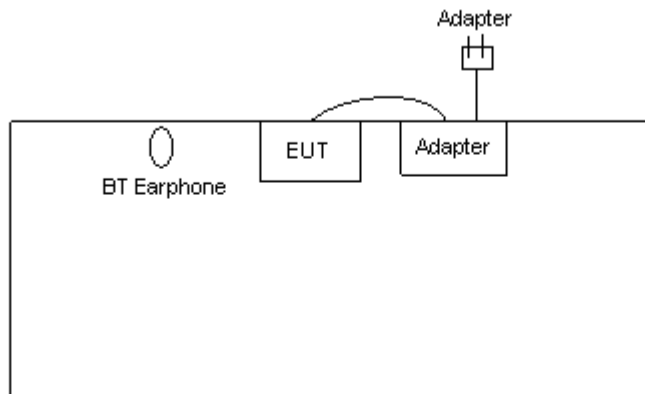
| Item | Equipment          | Trade Name | Model Name | FCC ID    | Data Cable | Power Cord |
|------|--------------------|------------|------------|-----------|------------|------------|
| 1.   | Bluetooth Earphone | Engotech   | ET-BH111   | PQY471087 | N/A        | N/A        |

### 2.4 Connection Diagram of Test System

<Radiated Emission>



<Conducted Emission>





### **3. RF Utility**

The programmed RF Utility is installed in EUT to provide channel selection, power level, data rate and the application type. RF Utility can send transmitting signal for all testing.



## **4. General Information of Test**

Test Site Location : No. 52, Hwa Ya 1<sup>st</sup> Rd., Hwa Ya Technology Park,  
Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.  
TEL : 886-3-327-3456  
FAX : 886-3-328-4978

Test Site No : CO04-HY, 03CH04-HY

### **4.1 Test Voltage**

AC 120V / 60Hz

### **4.2 Standard for Methods of Measurement**

ANSI C63.4-2003

### **4.3 Test Compliance**

47 CFR Part 15 Subpart C

### **4.4 Frequency Range**

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

### **4.5 Test Distance**

The test distance of radiated emission from antenna to EUT is 3 m.



## 5. Test Data and Test Result

### 5.1 List of Measurements and Examinations

The Emission Mode: Wireless LAN

| FCC Rule               | Description of Test                      | Result |
|------------------------|--|--------|
| 15.207                 | Conducted Emission                       | Pass   |
| 15.247(a)(2)           | 6dB Bandwidth                            | Pass   |
| 15.247(b)              | Maximum Peak Output Power                | Pass   |
| 15.209(a)              | Radiated Emission                        | Pass   |
| 15.247 (c)             | 100kHz Bandwidth of Frequency Band Edges | Pass   |
| 15.247(d)              | Power Spectral Density                   | Pass   |
| 15.203<br>15.247(b)(4) | Antenna Requirement                      | Pass   |

## 5.2 6dB Bandwidth Measurement

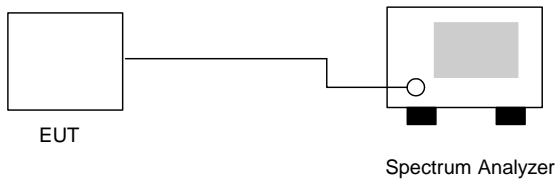
### 5.2.1 Measuring Instruments :

As described in chapter 6 of this test report.

### 5.2.2 Test Procedure :

1. The transmitter output was connected to the spectrum analyzer directly.
2. Set RBW of spectrum analyzer to 100kHz and VBW to 100kHz.
3. The 6 dB bandwidth is defined as the frequency range where the power is higher than the peak power minus 6dB.

### 5.2.3 Test Setup Layout :



### 5.2.4 Test Result :

- Application Type : WLAN 802.11b/g
- Temperature : 25~26
- Relative Humidity : 49~51%
- Test Engineer : Ken

#### 802.11b

| Channel | Frequency<br>( MHz ) | 6dB Emission bandwidth<br>( MHz ) | Limits<br>( MHz ) | Plot<br>Ref. No. |
|---------|----------------------|-----------------------------------|-------------------|------------------|
| 01      | 2412                 | 13.08                             | > 0.5MHz          | Mode 1           |
| 06      | 2437                 | 13.04                             | > 0.5MHz          | Mode 2           |
| 11      | 2462                 | 13.08                             | > 0.5MHz          | Mode 3           |

#### 802.11g

| Channel | Frequency<br>( MHz ) | 6dB Emission bandwidth<br>( MHz ) | Limits<br>( MHz ) | Plot<br>Ref. No. |
|---------|----------------------|-----------------------------------|-------------------|------------------|
| 01      | 2412                 | 16.36                             | > 0.5MHz          | Mode 4           |
| 06      | 2437                 | 16.36                             | > 0.5MHz          | Mode 5           |
| 11      | 2462                 | 16.36                             | > 0.5MHz          | Mode 6           |



• 802.11a

| Channel | Frequency<br>( MHz ) | 6dB Emission bandwidth<br>( MHz ) | Limits<br>( MHz ) | Plot<br>Ref. No. |
|---------|----------------------|-----------------------------------|-------------------|------------------|
| 149     | 5745                 | 16.36                             | > 0.5MHz          | Mode 7           |
| 157     | 5785                 | 16.36                             | > 0.5MHz          | Mode 8           |
| 165     | 5825                 | 16.36                             | > 0.5MHz          | Mode 9           |

• 802.11n(g)\_BW 20M

| Channel | Frequency<br>( MHz ) | 6dB Emission bandwidth<br>( MHz ) | Limits<br>( MHz ) | Plot<br>Ref. No. |
|---------|----------------------|-----------------------------------|-------------------|------------------|
| 01      | 2412                 | 17.56                             | > 0.5MHz          | Mode 10          |
| 06      | 2437                 | 17.60                             | > 0.5MHz          | Mode 11          |
| 11      | 2462                 | 17.52                             | > 0.5MHz          | Mode 12          |

• 802.11n(a)\_BW 20M

| Channel | Frequency<br>( MHz ) | 6dB Emission bandwidth<br>( MHz ) | Limits<br>( MHz ) | Plot<br>Ref. No. |
|---------|----------------------|-----------------------------------|-------------------|------------------|
| 149     | 5745                 | 17.60                             | > 0.5MHz          | Mode 13          |
| 157     | 5785                 | 17.56                             | > 0.5MHz          | Mode 14          |
| 165     | 5825                 | 17.56                             | > 0.5MHz          | Mode 15          |

• 802.11n(a)\_BW 40M

| Channel | Frequency<br>( MHz ) | 6dB Emission bandwidth<br>( MHz ) | Limits<br>( MHz ) | Plot<br>Ref. No. |
|---------|----------------------|-----------------------------------|-------------------|------------------|
| 151     | 5755                 | 34.32                             | > 0.5MHz          | Mode 16          |
| 159     | 5795                 | 34.40                             | > 0.5MHz          | Mode 17          |



5.2.5 6dB Bandwidth

Mode 1

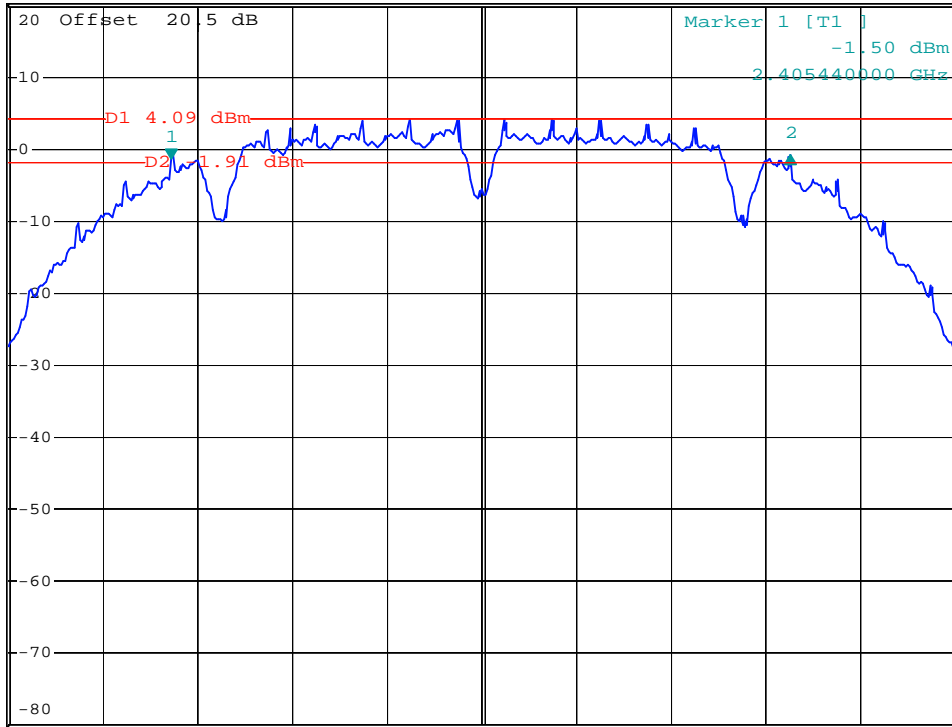


\*RBW 100 kHz Delta 2 [T1 ]
\*VBW 100 kHz 0.70 dB
\*SWT 500 ms 13.08000000 MHz

Ref 20 dBm

\*Att 20 dB

1 PK VIEW



Center 2.412 GHz

2 MHz/

Span 20 MHz

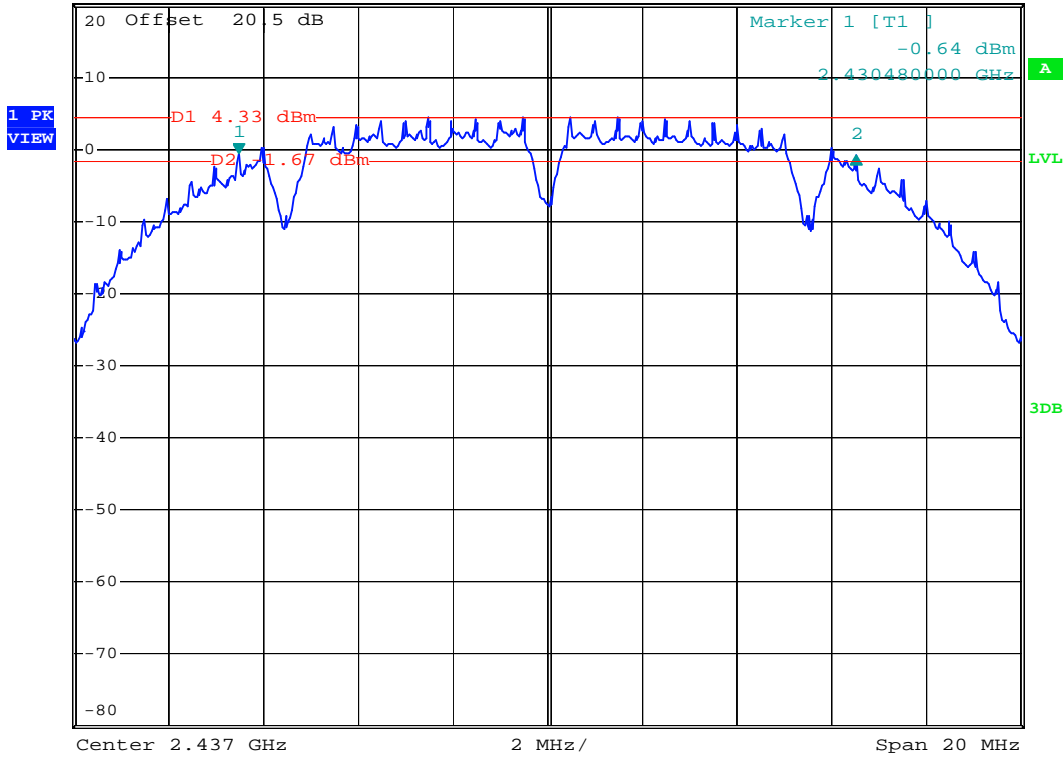
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Mode 2



\*RBW 100 kHz    Delta 2 [T1 ]  
 \*VBW 100 kHz    -0.18 dB  
 \*Att 20 dB       \*SWT 500 ms       13.04000000 MHz  
 Ref 20 dBm    Offset 20    5 dB



Date: 5.NOV.2007 20:04:00





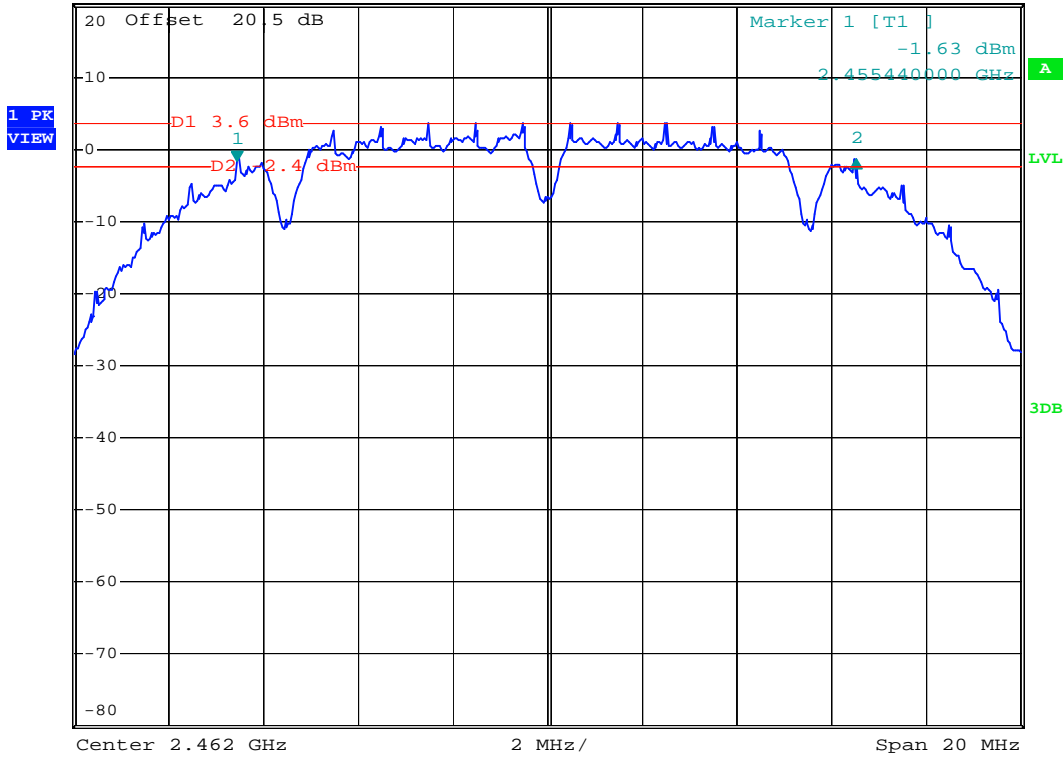
Mode 3



\*RBW 100 kHz Delta 2 [T1 ]  
 \*VBW 100 kHz 0.19 dB  
 \*SWT 500 ms 13.08000000 MHz

Ref 20 dBm

\*Att 20 dB



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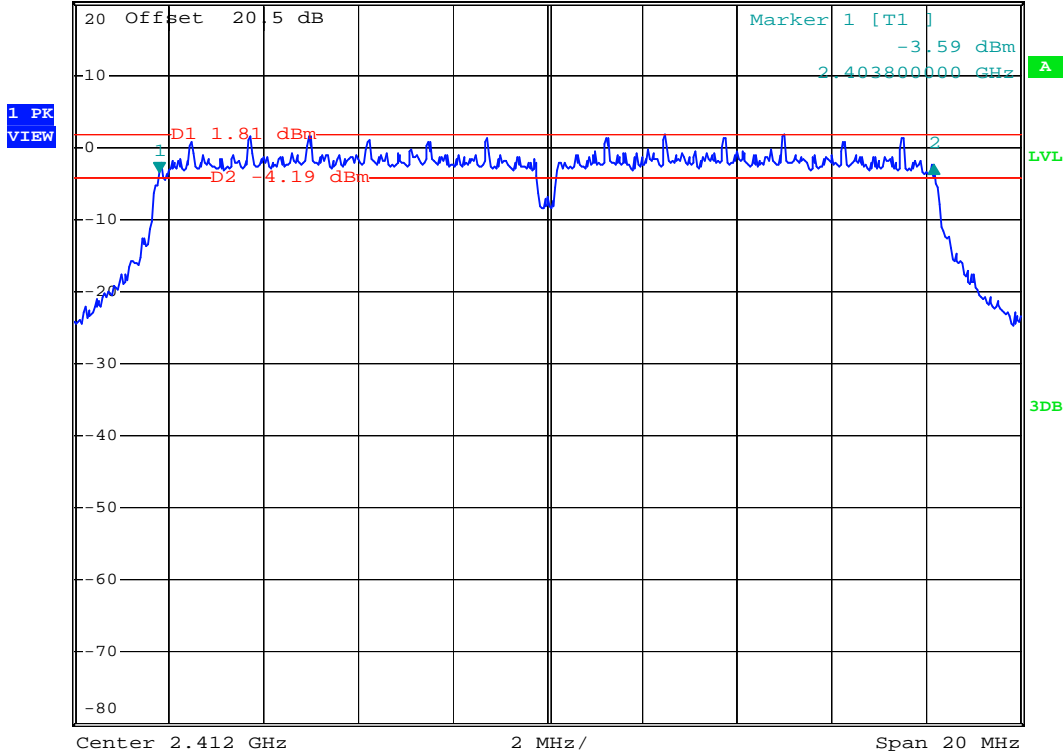
Mode 4



\*RBW 100 kHz Delta 2 [T1 ]  
 \*VBW 100 kHz 1.13 dB  
 \*SWT 500 ms 16.36000000 MHz

Ref 20 dBm

\*Att 20 dB



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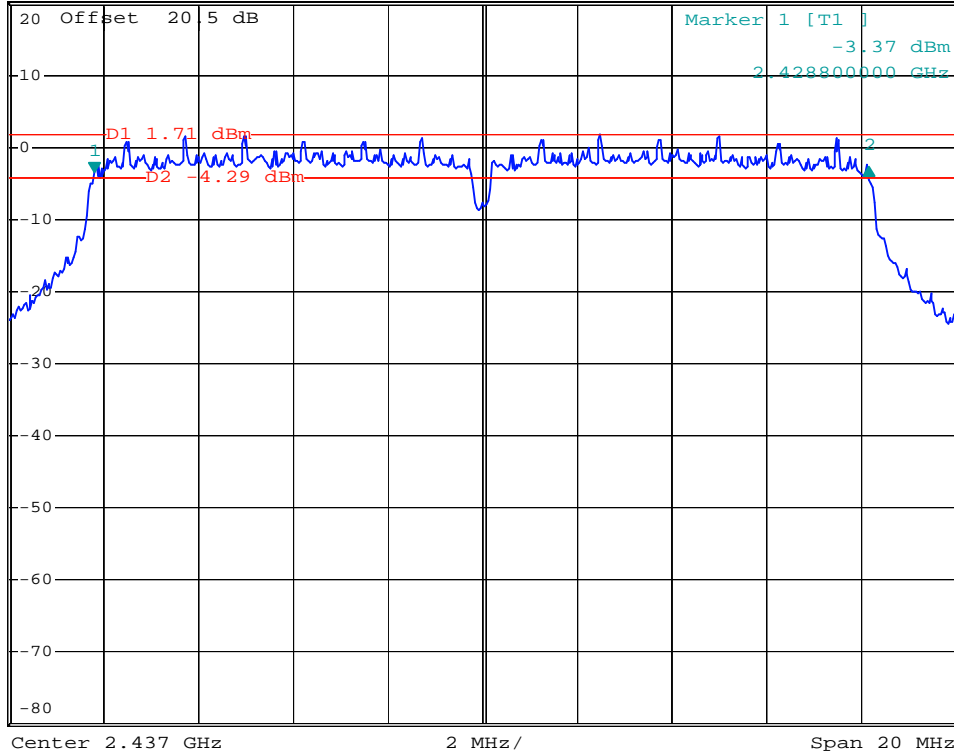
Mode 5



\*RBW 100 kHz Delta 2 [T1 ]  
 \*VBW 100 kHz 0.65 dB  
 \*SWT 500 ms 16.36000000 MHz

Ref 20 dBm

\*Att 20 dB



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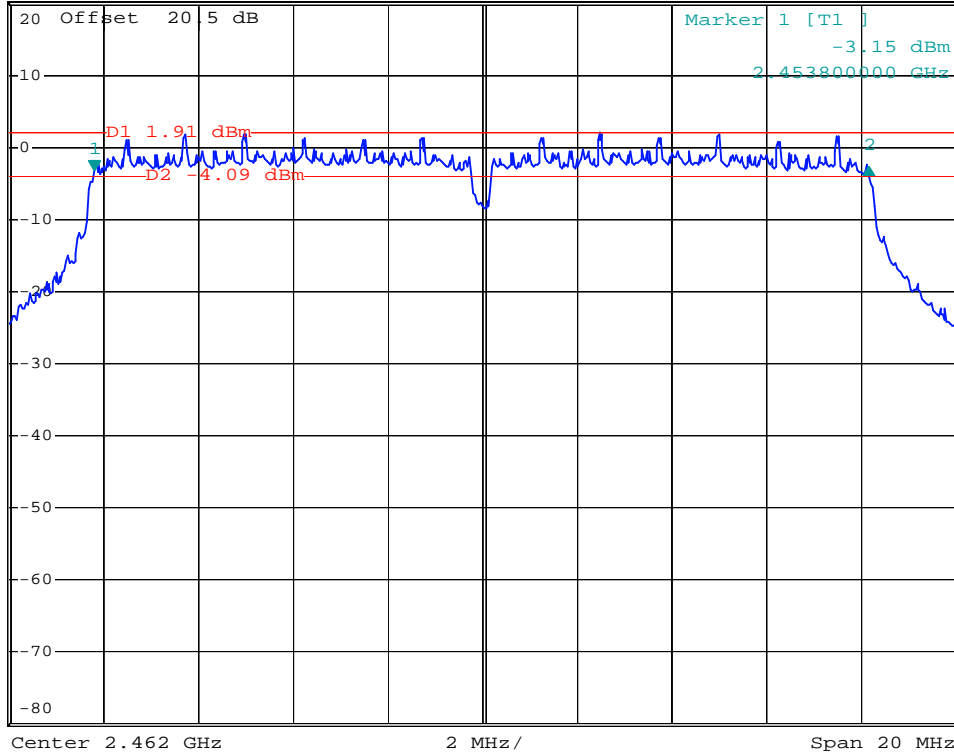
Mode 6



\*RBW 100 kHz Delta 2 [T1 ]  
\*VBW 100 kHz 0.45 dB  
\*SWT 500 ms 16.36000000 MHz

Ref 20 dBm

\*Att 20 dB



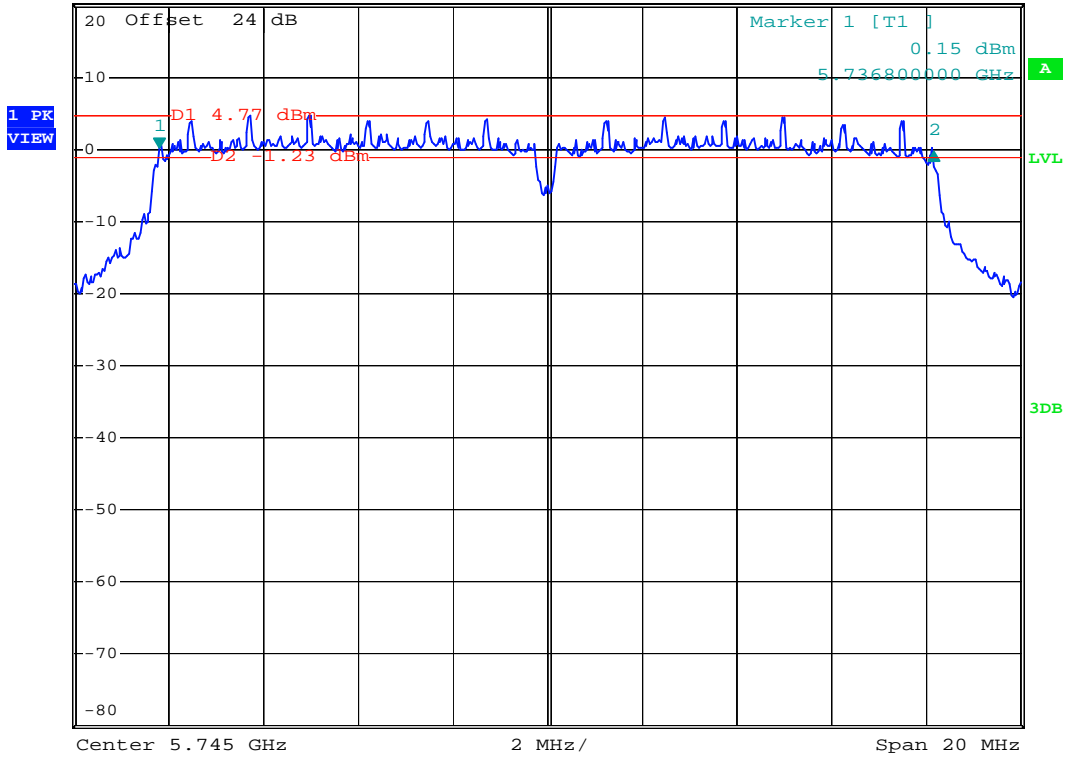
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Mode 7



\*RBW 100 kHz    Delta 2 [T1 ]  
 \*VBW 100 kHz    -0.60 dB  
 \*SWT 500 ms    16.36000000 MHz  
 Ref 20 dBm    \*Att 20 dB



Date: 5.NOV.2007 23:00:27



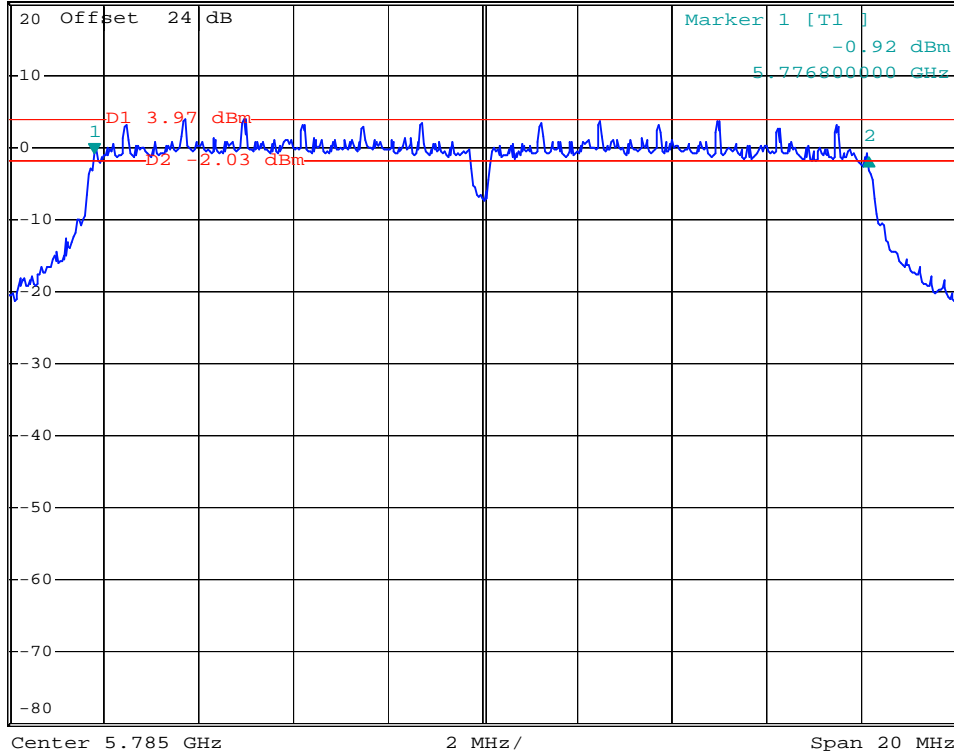
Mode 8



\*RBW 100 kHz Delta 2 [T1 ]  
 \*VBW 100 kHz -0.41 dB  
 \*SWT 500 ms 16.36000000 MHz

Ref 20 dBm

\*Att 20 dB



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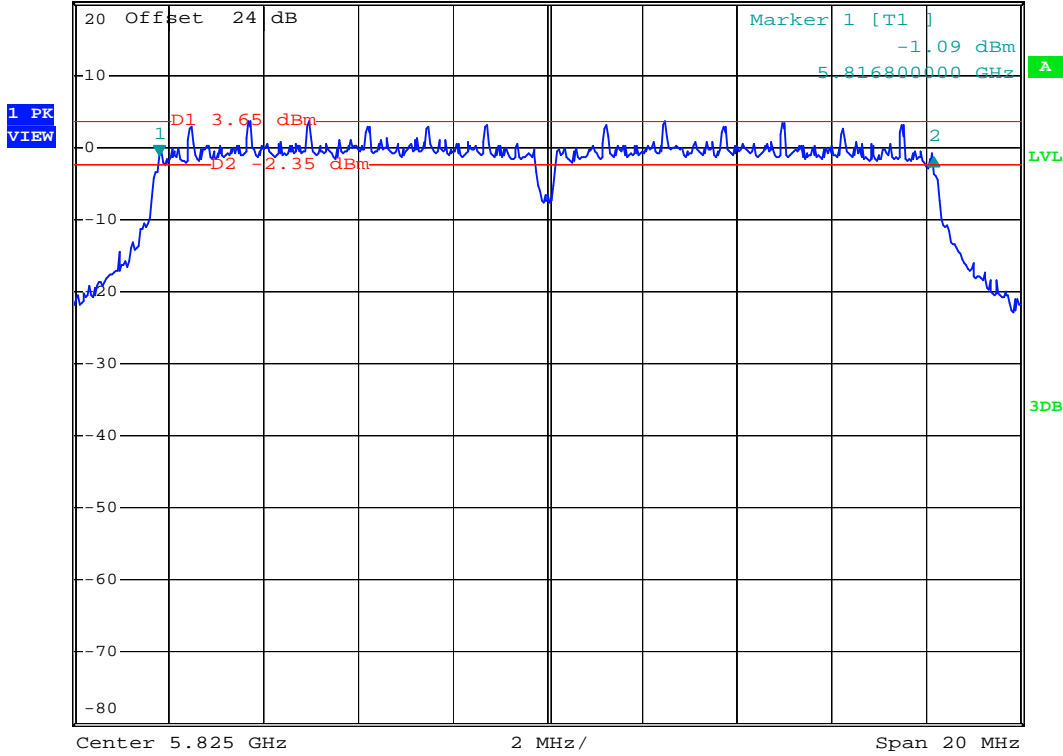
Mode 9



\*RBW 100 kHz Delta 2 [T1 ]  
 \*VBW 100 kHz -0.28 dB  
 \*SWT 500 ms 16.36000000 MHz

Ref 20 dBm

\*Att 20 dB



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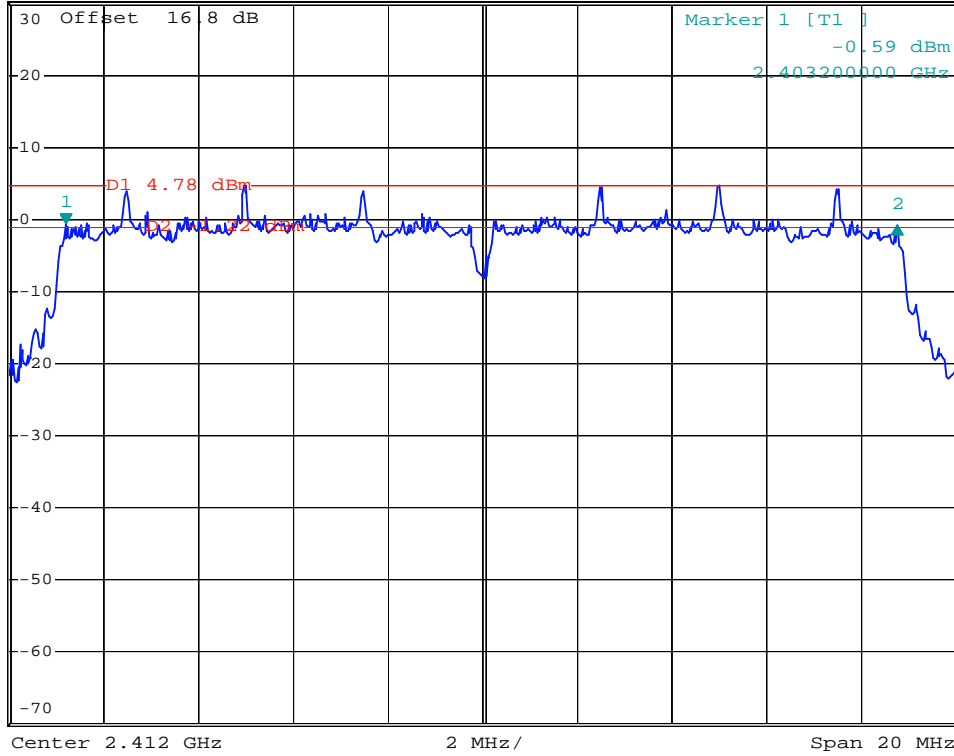
Mode 10



\*RBW 100 kHz Delta 2 [T1 ]  
 \*VBW 100 kHz -0.31 dB  
 \*SWT 500 ms 17.56000000 MHz

Ref 30 dBm

\*Att 30 dB



Date: 10.NOV.2007 03:00:18





Mode 11

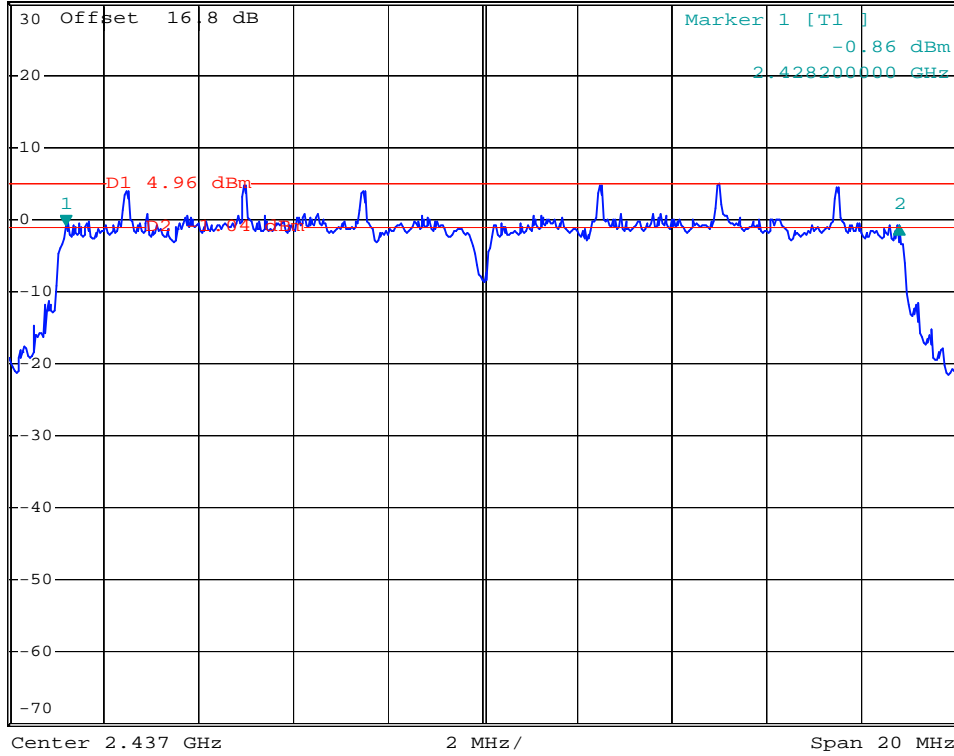


\*RBW 100 kHz Delta 2 [T1 ]  
 \*VBW 100 kHz -0.05 dB  
 \*SWT 500 ms 17.60000000 MHz

Ref 30 dBm

\*Att 30 dB

1 PK VIEW



Date: 10.NOV.2007 02:59:14



Mode 12

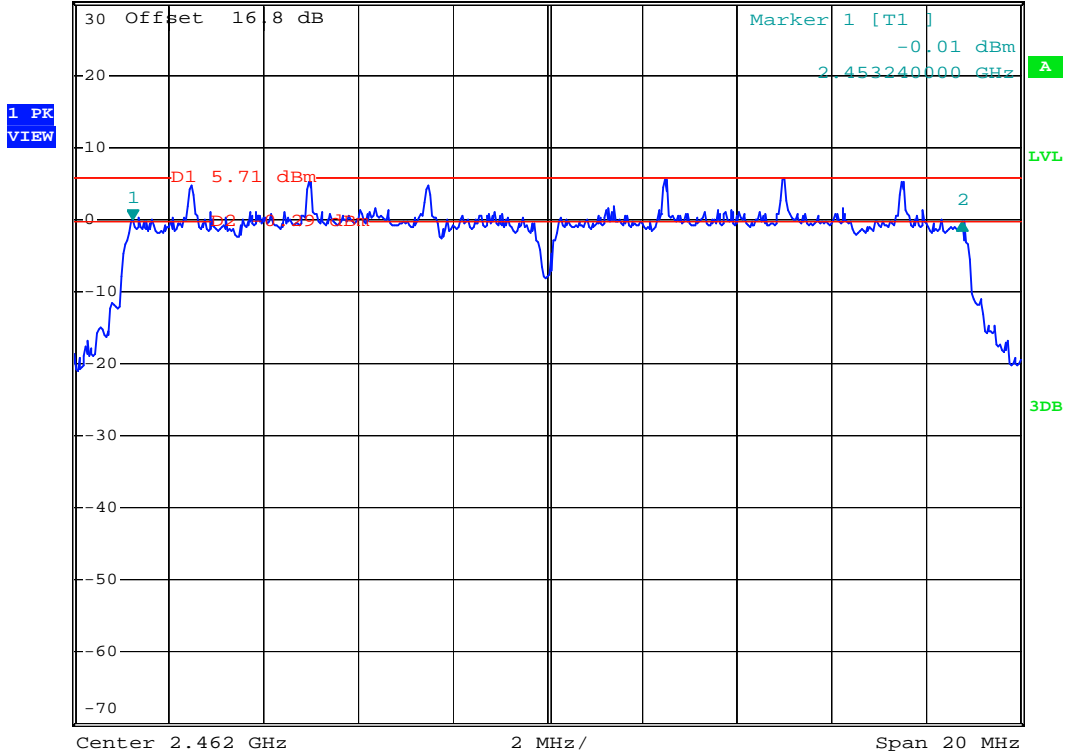


\*RBW 100 kHz Delta 2 [T1 ]  
\*VBW 100 kHz -0.26 dB  
\*SWT 500 ms 17.52000000 MHz

Ref 30 dBm

\*Att 30 dB

17.52000000 MHz



Date: 10.NOV.2007 03:01:57



Mode 13

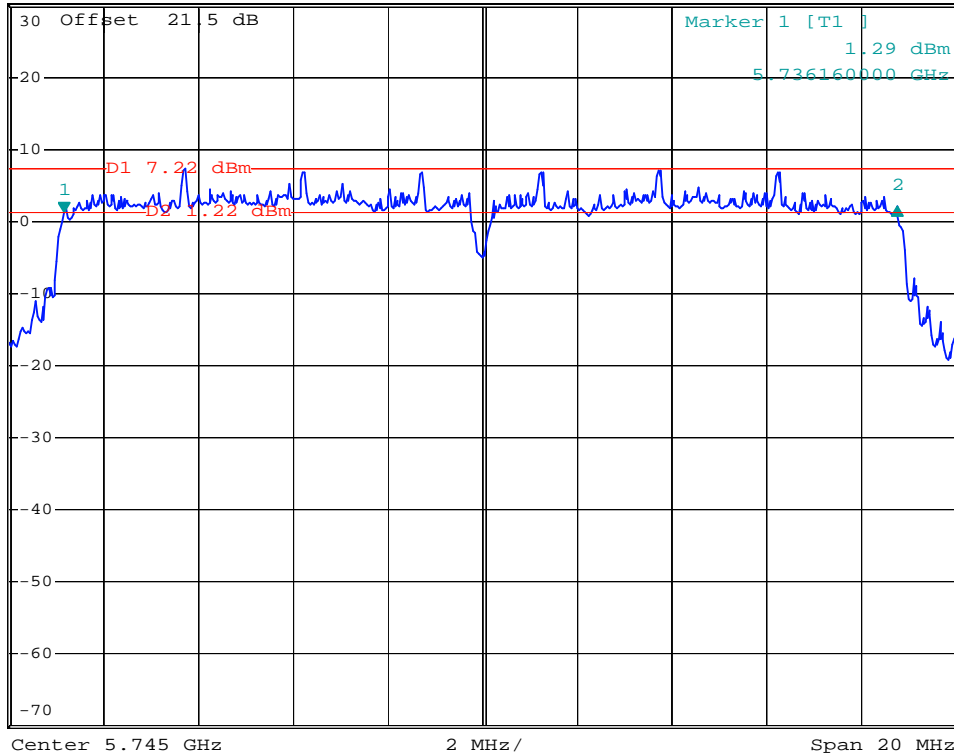


\*RBW 100 kHz Delta 2 [T1 ]  
 \*VBW 100 kHz 0.70 dB  
 \*SWT 500 ms 17.60000000 MHz

Ref 30 dBm

\*Att 30 dB

1 PK VIEW



Date: 27.NOV.2007 04:25:47



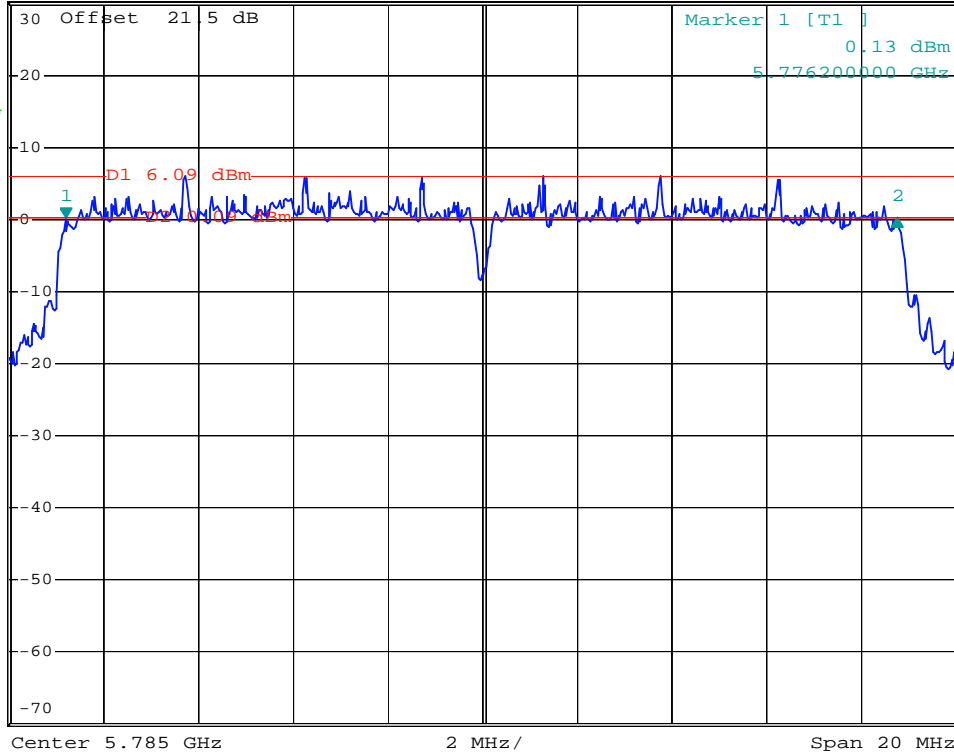
Mode 14



\*RBW 100 kHz Delta 2 [T1 ]  
\*VBW 100 kHz 0.02 dB  
\*SWT 500 ms 17.56000000 MHz

Ref 30 dBm

\*Att 30 dB



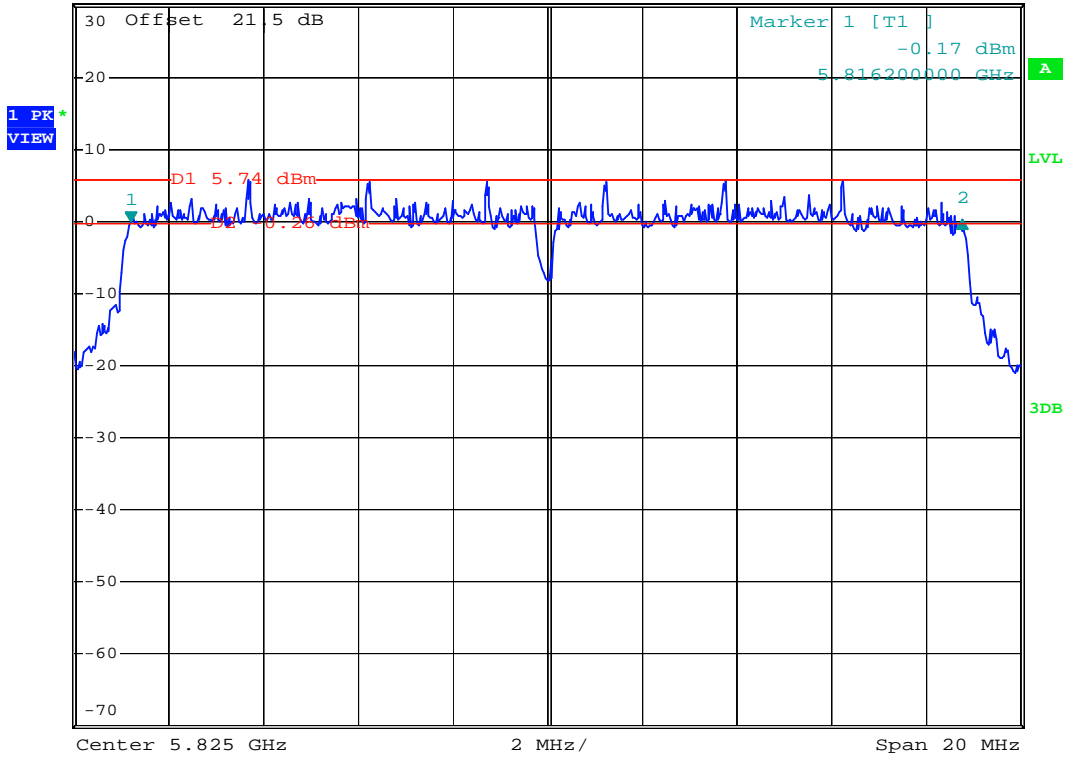
Date: 10.NOV.2007 01:38:10



Mode 15



\*RBW 100 kHz    Delta 2 [T1 ]  
 \*VBW 100 kHz    0.28 dB  
 \*SWT 500 ms    17.56000000 MHz  
 Ref 30 dBm    \*Att 30 dB



Date: 10.NOV.2007 01:47:17



Mode 16

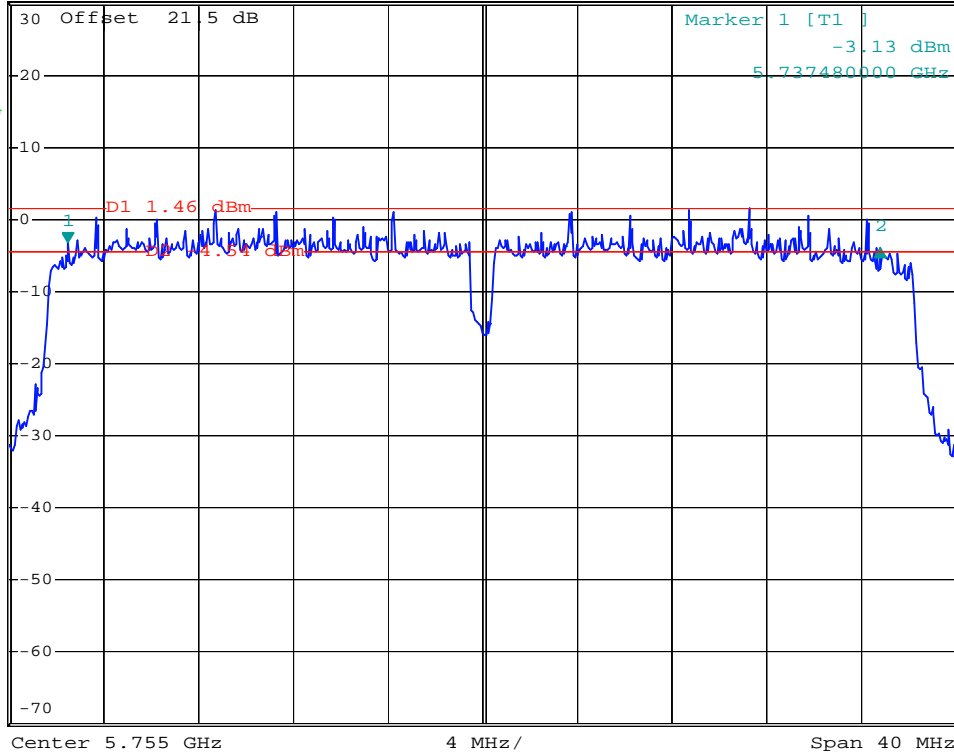


\*RBW 100 kHz Delta 2 [T1 ]  
 \*VBW 100 kHz -0.93 dB  
 \*SWT 500 ms 34.32000000 MHz

Ref 30 dBm

\*Att 30 dB

1 PK\*  
VIEW



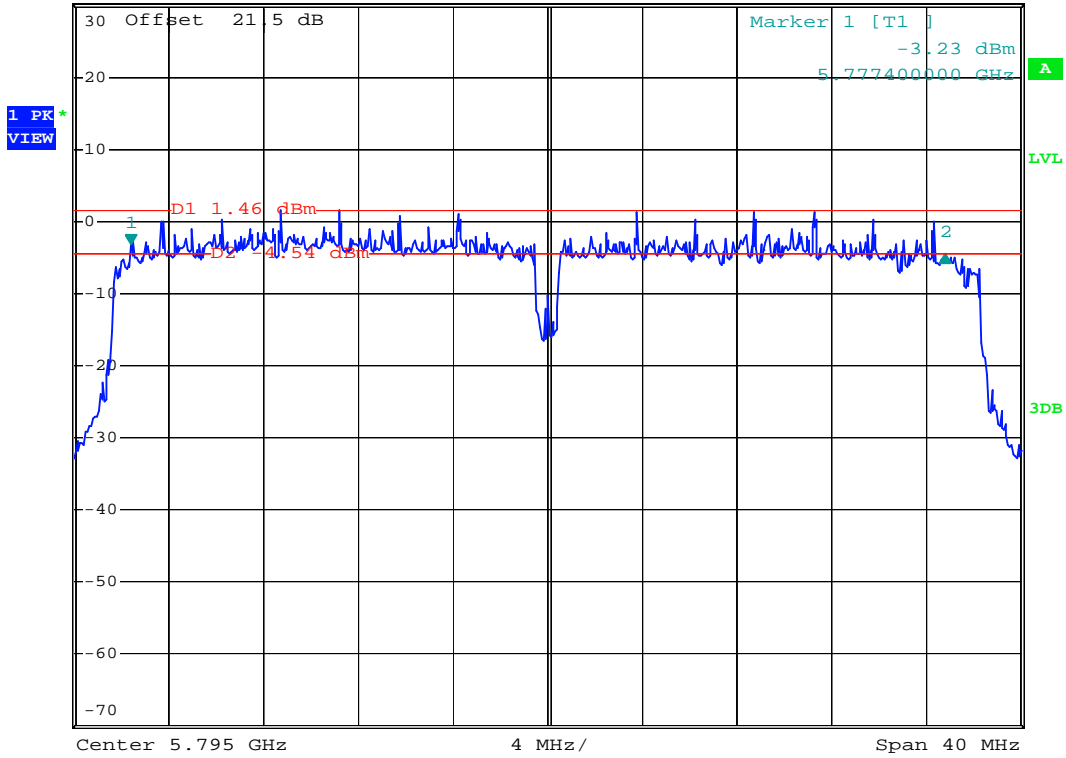
Date: 10.NOV.2007 02:25:31



Mode 17



Ref 30 dBm      \*Att 30 dB      \*RBW 100 kHz      Delta 2 [T1 ]  
 \*VBW 100 kHz      -1.23 dB  
 \*SWT 500 ms      34.40000000 MHz



Date: 10.NOV.2007 02:24:04

### 5.3 Power Spectral Density Measurement

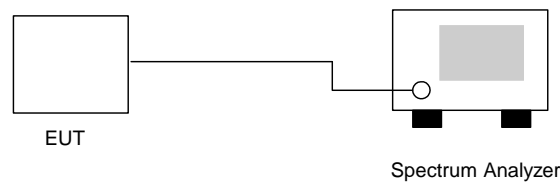
#### 5.3.1 Measuring Instruments :

As described in chapter 6 of this test report.

#### 5.3.2 Test Procedure :

1. The transmitter output was connected to spectrum analyzer directly.
2. The spectrum analyzer's resolution bandwidth was set at 3kHz RBW and 30kHz VBW as that of the fundamental frequency. Set the sweep time= $\text{span}/3\text{kHz}$ .
3. The power spectral density was measured and recorded.
4. The sweep time is allowed to be longer than  $\text{span}/3\text{kHz}$  for a full response of the mixer in the spectrum analyzer.

#### 5.3.3 Test Setup Layout :







5.3.4 Test Result :

- Application Type : 802.11b/g
- Temperature : 25~26
- Relative Humidity : 49~51%
- Test Enginner : Ken

802.11b

| Channel | Frequency (MHz) | Power Spectral Density (dBm) | Limits (dBm ) | Plot Ref. No. |
|---------|-----------------|------------------------------|---------------|---------------|
| 01      | 2412            | -10.75                       | 8             | Mode 1        |
| 06      | 2437            | -11.60                       | 8             | Mode 2        |
| 11      | 2462            | -9.20                        | 8             | Mode 3        |

802.11g

| Channel | Frequency (MHz) | Power Spectral Density (dBm) | Limits (dBm ) | Plot Ref. No. |
|---------|-----------------|------------------------------|---------------|---------------|
| 01      | 2412            | -10.70                       | 8             | Mode 4        |
| 06      | 2437            | -11.08                       | 8             | Mode 5        |
| 11      | 2462            | -10.60                       | 8             | Mode 6        |

802.11a

| Channel | Frequency (MHz) | Power Spectral Density (dBm) | Limits (dBm ) | Plot Ref. No. |
|---------|-----------------|------------------------------|---------------|---------------|
| 149     | 5745            | -9.35                        | 8             | Mode 7        |
| 157     | 5785            | -10.23                       | 8             | Mode 8        |
| 165     | 5825            | -10.07                       | 8             | Mode 9        |

802.11n(g) BW 20M

| Channel | Frequency (MHz) | Power Spectral Density (dBm) | Limits (dBm ) | Plot Ref. No. |
|---------|-----------------|------------------------------|---------------|---------------|
| 01      | 2412            | -12.26                       | 8             | Mode 10       |
| 06      | 2437            | -12.38                       | 8             | Mode 11       |
| 11      | 2462            | -10.98                       | 8             | Mode 12       |



802.11n(a)\_BW 20M

| Channel | Frequency<br>(MHz) | Power Spectral Density<br>(dBm) | Limits<br>(dBm ) | Plot<br>Ref. No. |
|---------|--------------------|---------------------------------|------------------|------------------|
| 149     | 5745               | -8.82                           | 8                | Mode 13          |
| 157     | 5785               | -8.31                           | 8                | Mode 14          |
| 165     | 5825               | -8.80                           | 8                | Mode 15          |

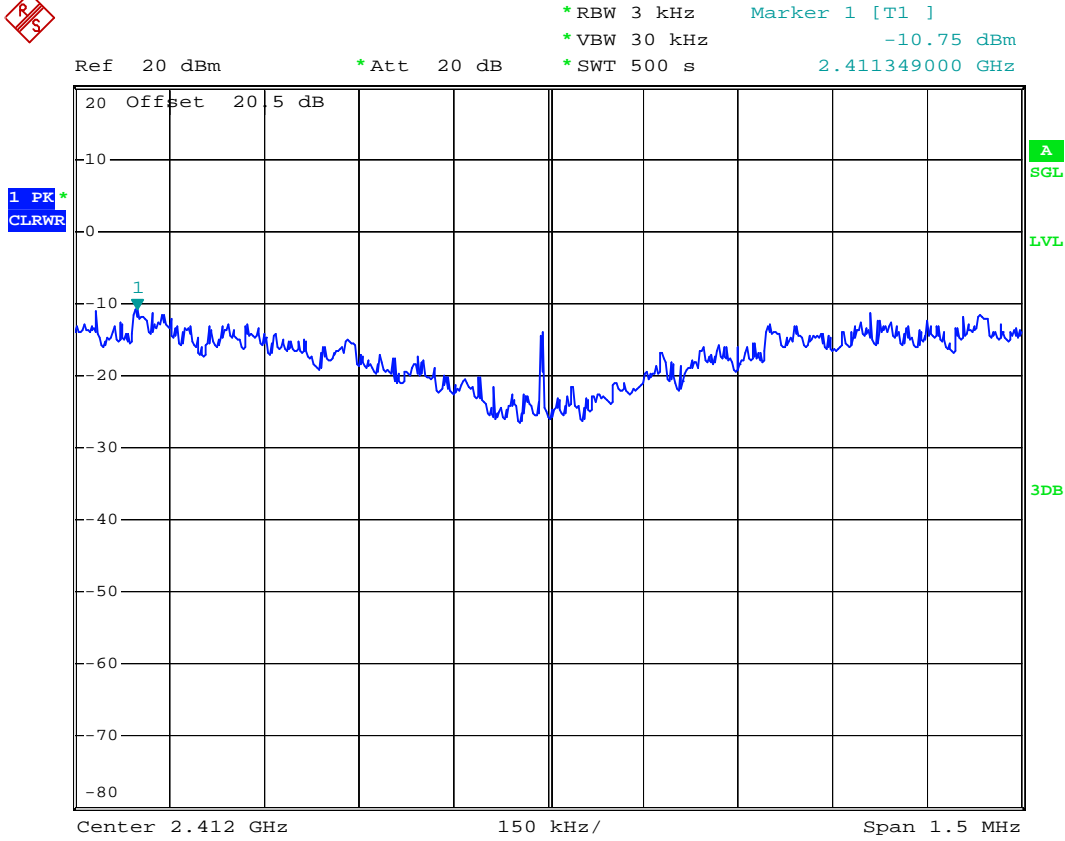
802.11n(a)\_BW 40M

| Channel | Frequency<br>(MHz) | Power Spectral Density<br>(dBm) | Limits<br>(dBm ) | Plot<br>Ref. No. |
|---------|--------------------|---------------------------------|------------------|------------------|
| 151     | 5755               | -14.07                          | 8                | Mode 16          |
| 159     | 5795               | -13.44                          | 8                | Mode 17          |



5.3.5 Power Spectral Density

Mode 1



Date: 5.NOV.2007 20:46:31



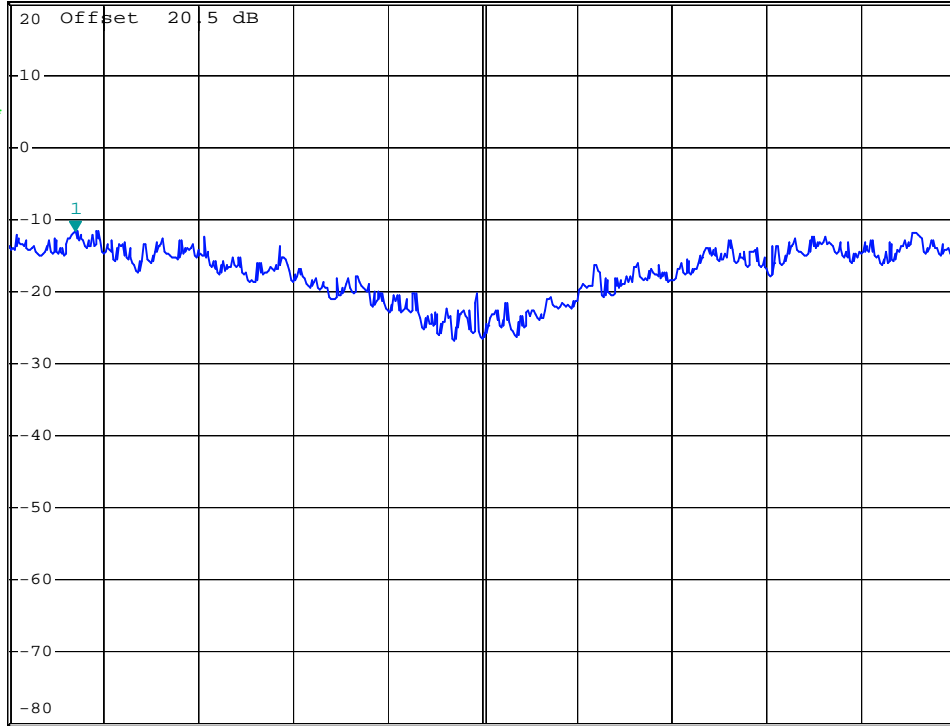
Mode 2



\*RBW 3 kHz    Marker 1 [T1 ]  
\*VBW 30 kHz    -11.60 dBm  
\*SWT 500 s    2.436355000 GHz

Ref 20 dBm

\*Att 20 dB



Center 2.437 GHz

150 kHz/

Span 1.5 MHz

Date: 5.NOV.2007 21:16:16



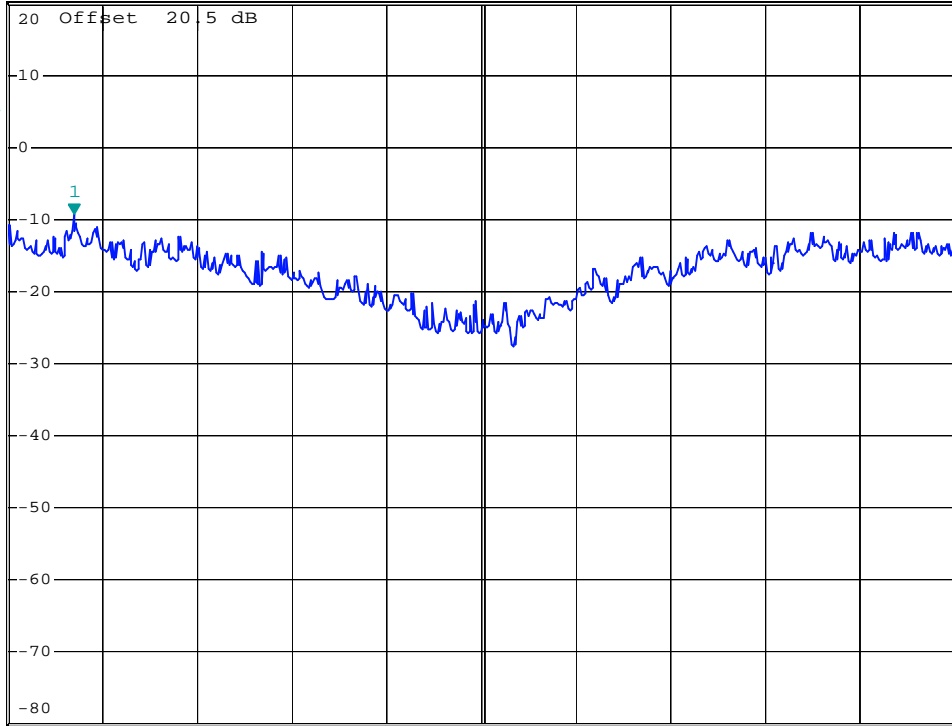
Mode 3



\*RBW 3 kHz      Marker 1 [T1 ]  
\*VBW 30 kHz      -9.20 dBm  
\*SWT 500 s      2.461355000 GHz

Ref 20 dBm

\*Att 20 dB



Center 2.462 GHz

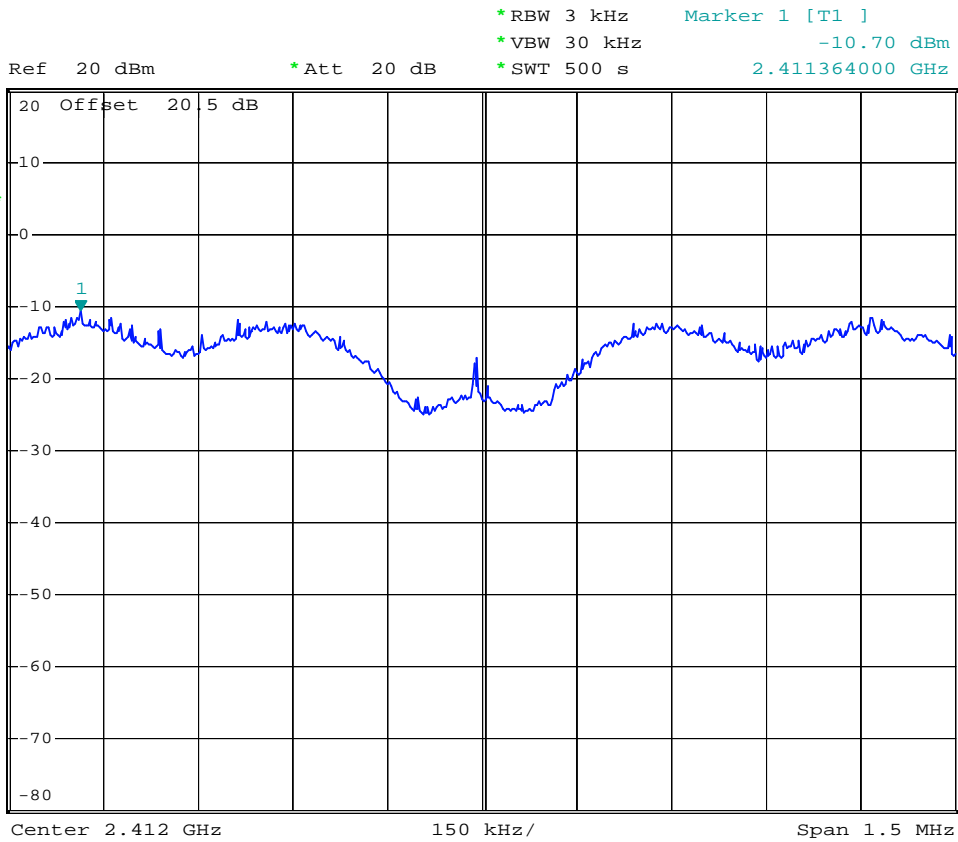
150 kHz/

Span 1.5 MHz

Date: 5.NOV.2007 21:25:59



Mode 4



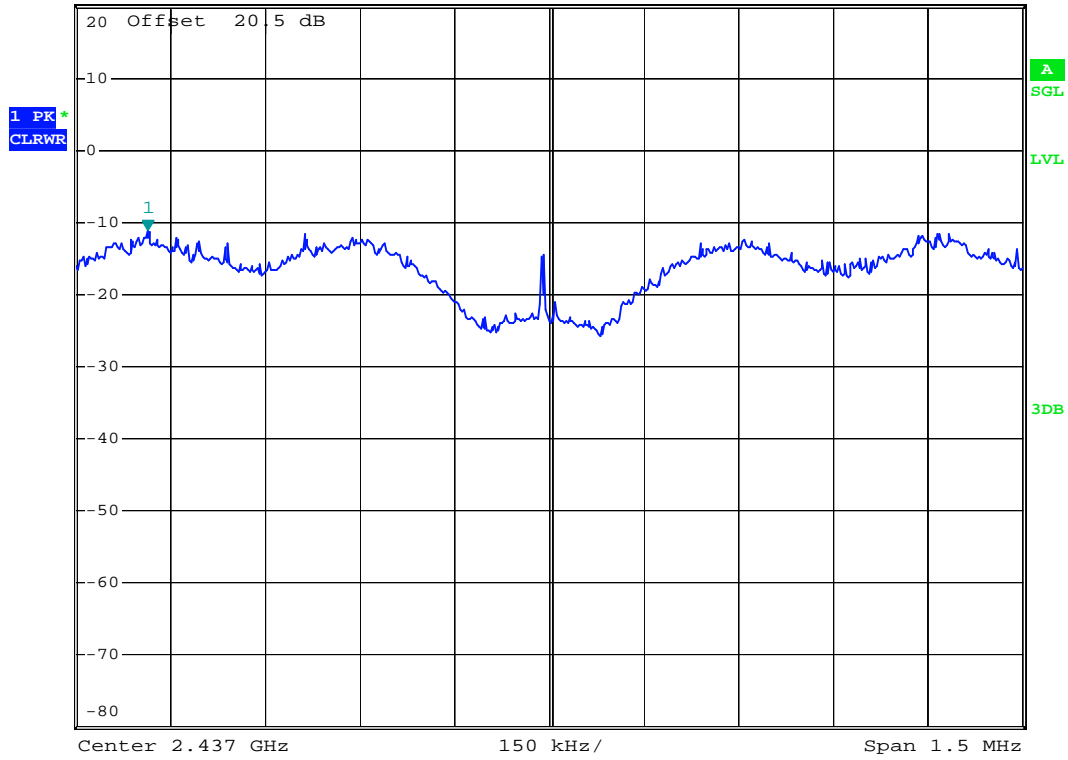
Date: 5.NOV.2007 20:56:13



Mode 5



Ref 20 dBm      \*Att 20 dB      \*RBW 3 kHz      Marker 1 [T1]      -11.08 dBm  
\*VBW 30 kHz      \*SWT 500 s      2.436364000 GHz



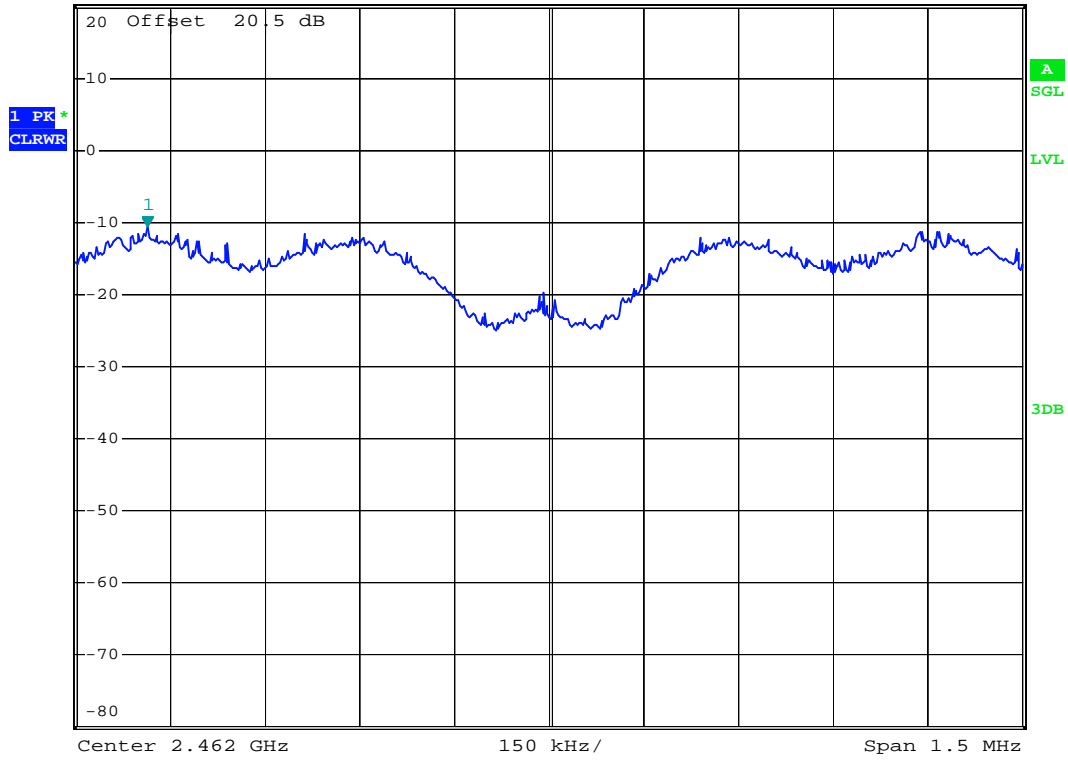
Date: 5.NOV.2007 21:06:40



Mode 6



Ref 20 dBm      \*Att 20 dB      \*RBW 3 kHz      Marker 1 [T1]      -10.60 dBm  
\*VBW 30 kHz      \*SWT 500 s      2.461364000 GHz



Date: 5.NOV.2007 21:35:56





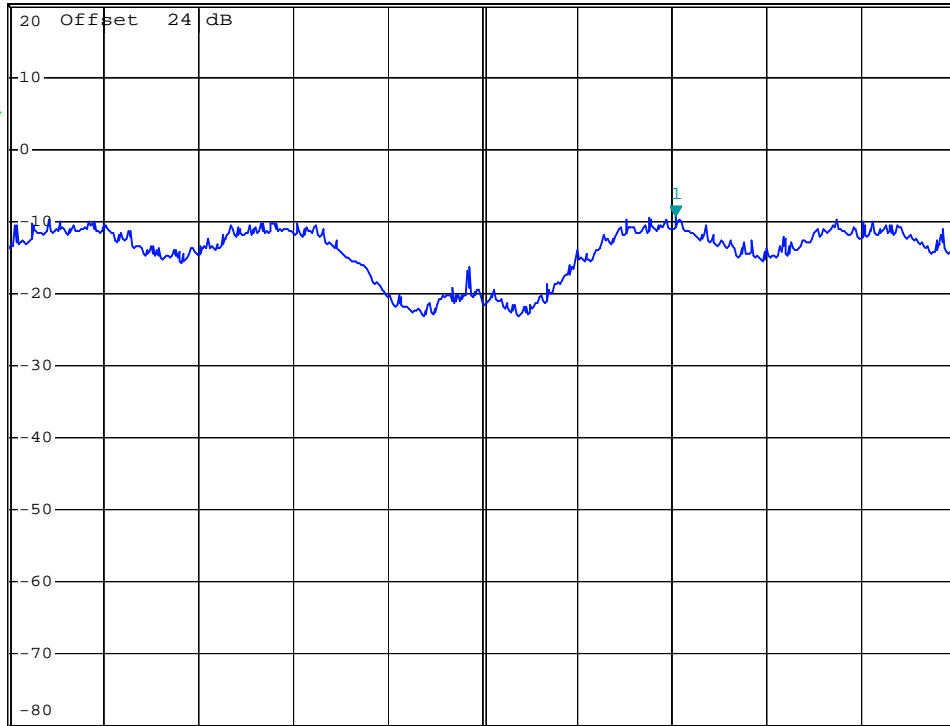
Mode 7



\*RBW 3 kHz      Marker 1 [T1 ]  
 \*VBW 30 kHz      -9.35 dBm  
 \*SWT 500 s      5.745306000 GHz

Ref 20 dBm

\*Att 20 dB



Center 5.745 GHz

150 kHz/

Span 1.5 MHz

Date: 5.NOV.2007 21:52:32



Mode 8

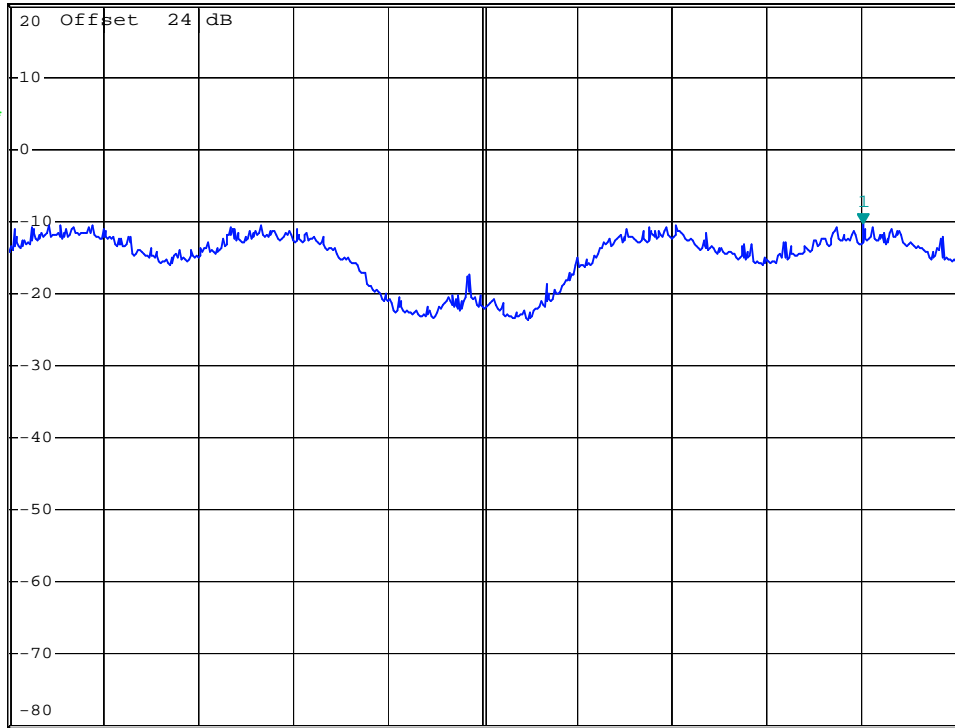


\*RBW 3 kHz    Marker 1 [T1 ]  
\*VBW 30 kHz    -10.23 dBm  
\*SWT 500 s    5.785603000 GHz

Ref 20 dBm

\*Att 20 dB

1 PK\*  
CLRWR



Center 5.785 GHz

150 kHz/

Span 1.5 MHz

Date: 5.NOV.2007 22:02:18



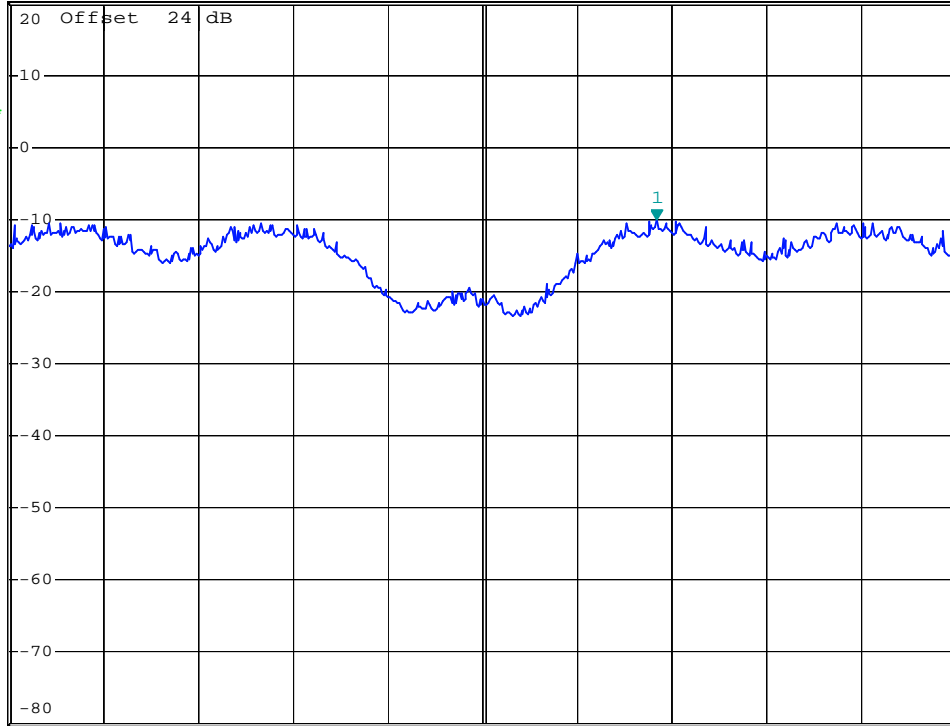
Mode 9



\*RBW 3 kHz      Marker 1 [T1 ]  
\*VBW 30 kHz      -10.07 dBm  
\*SWT 500 s      5.825276000 GHz

Ref 20 dBm

\*Att 20 dB



Center 5.825 GHz

150 kHz/

Span 1.5 MHz

Date: 5.NOV.2007 22:12:51



Mode 10

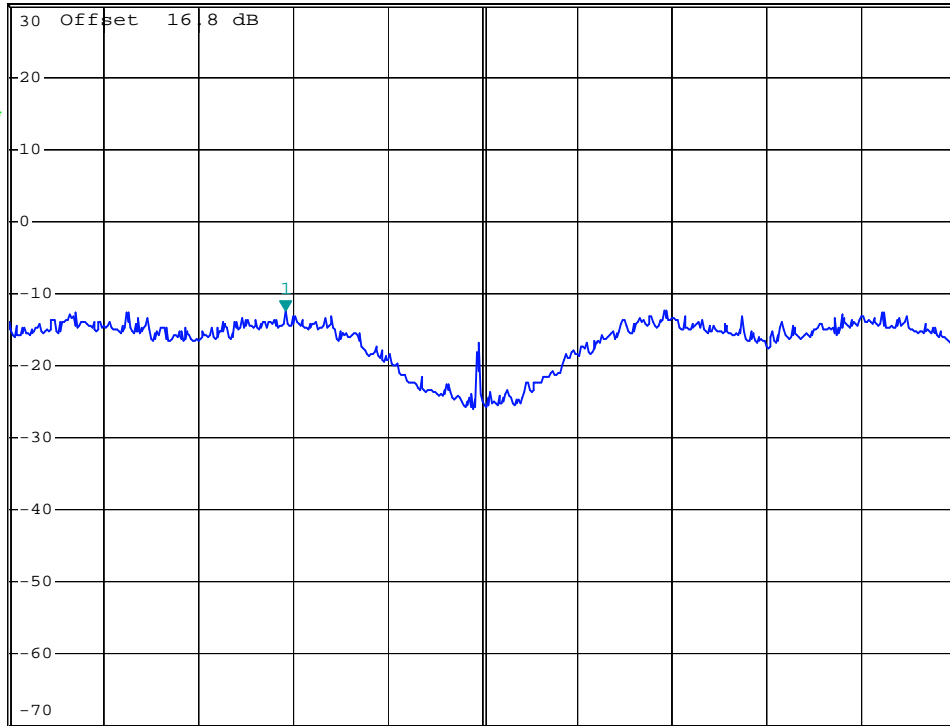


\*RBW 3 kHz      Marker 1 [T1 ]  
\*VBW 30 kHz      -12.26 dBm  
\*SWT 500 s      2.411688000 GHz

Ref 30 dBm

\*Att 30 dB

1 PK\*  
CLRWR



Center 2.412 GHz

150 kHz/

Span 1.5 MHz

Date: 10.NOV.2007 00:03:45



Mode 11

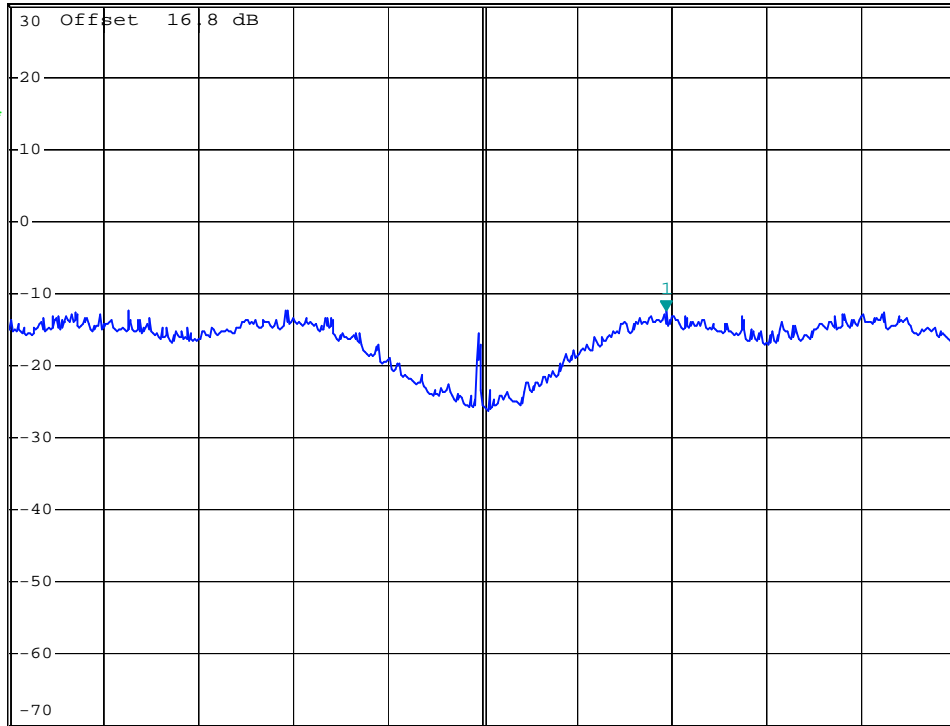


\*RBW 3 kHz      Marker 1 [T1 ]  
\*VBW 30 kHz      -12.38 dBm  
\*SWT 500 s      2.437291000 GHz

Ref 30 dBm

\*Att 30 dB

1 PK\*  
CLRWR



Center 2.437 GHz

150 kHz/

Span 1.5 MHz

Date: 10.NOV.2007 00:13:22



Mode 12

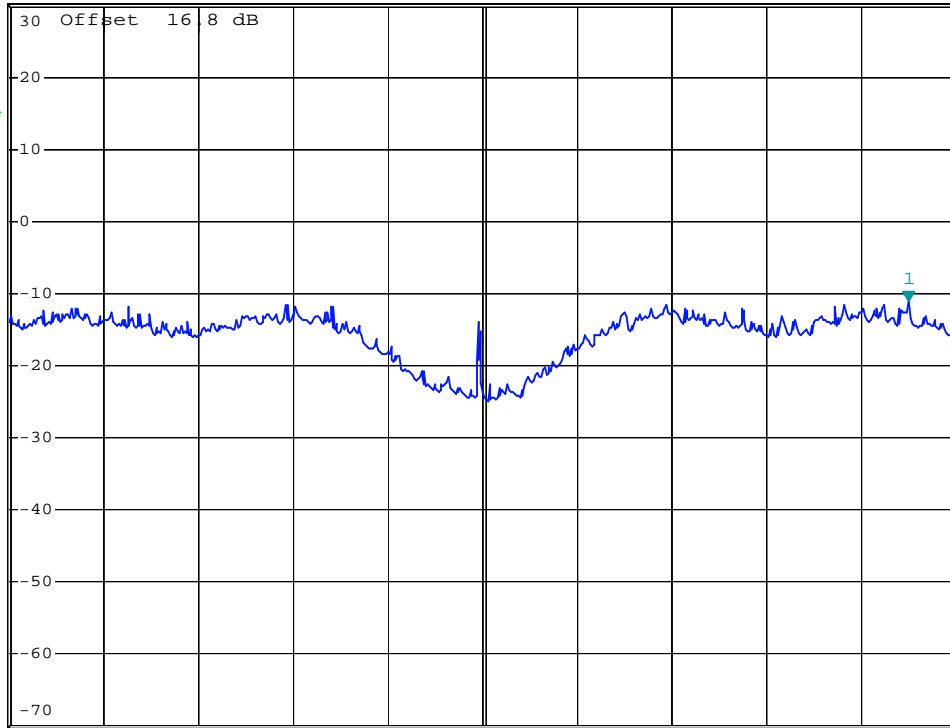


\*RBW 3 kHz Marker 1 [T1 ]  
\*VBW 30 kHz -10.98 dBm  
\*SWT 500 s 2.462675000 GHz

Ref 30 dBm

\*Att 30 dB

1 PK\*  
CLRWR



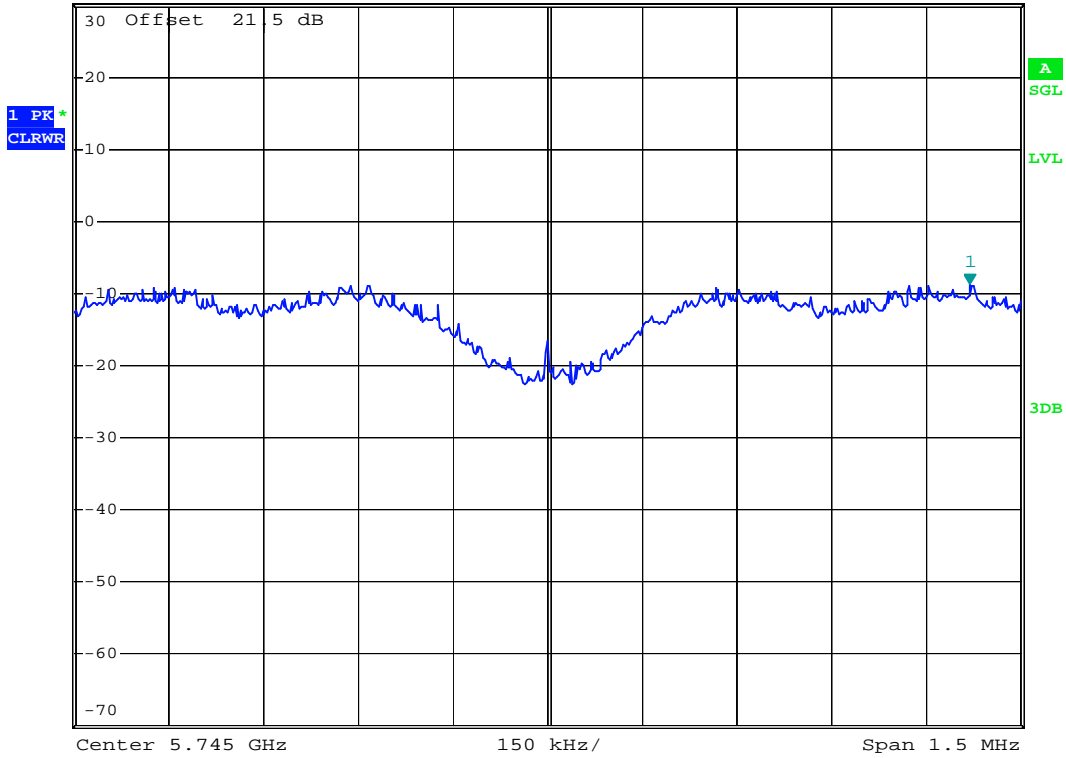
Date: 10.NOV.2007 00:22:34



Mode 13



Ref 30 dBm      \*Att 30 dB      \*RBW 3 kHz      Marker 1 [T1 ]  
\*VBW 30 kHz      -8.82 dBm  
\*SWT 500 s      5.745669000 GHz



Date: 10.NOV.2007 00:57:56



Mode 14

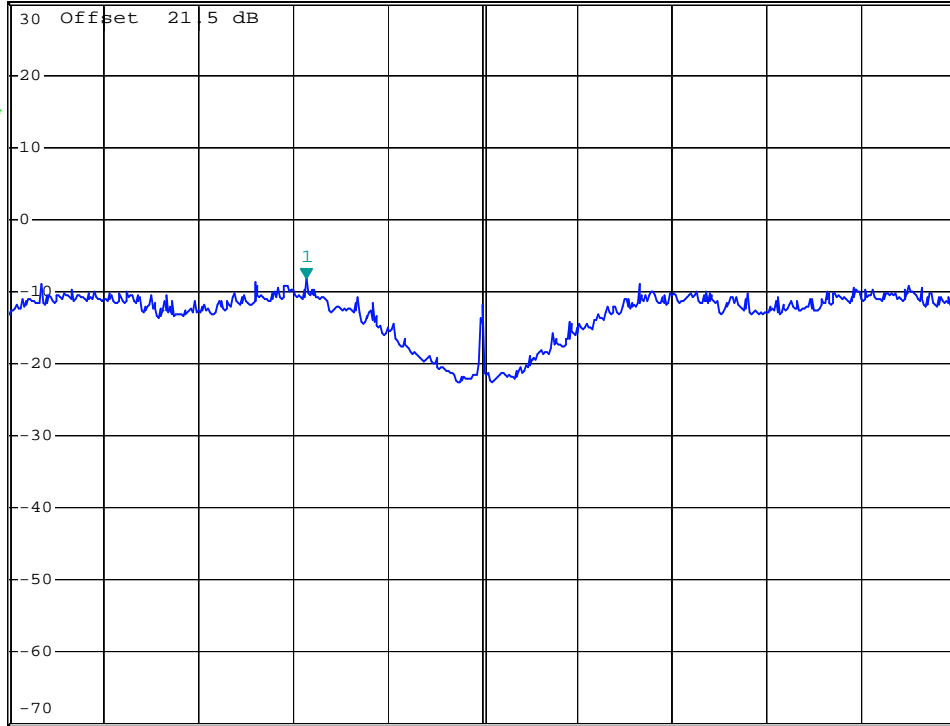


\*RBW 3 kHz    Marker 1 [T1 ]  
\*VBW 30 kHz    -8.31 dBm  
\*SWT 500 s    5.784721000 GHz

Ref 30 dBm

\*Att 30 dB

1 PK\*  
CLRWR



Center 5.785 GHz

150 kHz/

Span 1.5 MHz

Date: 10.NOV.2007 01:07:16





Mode 15

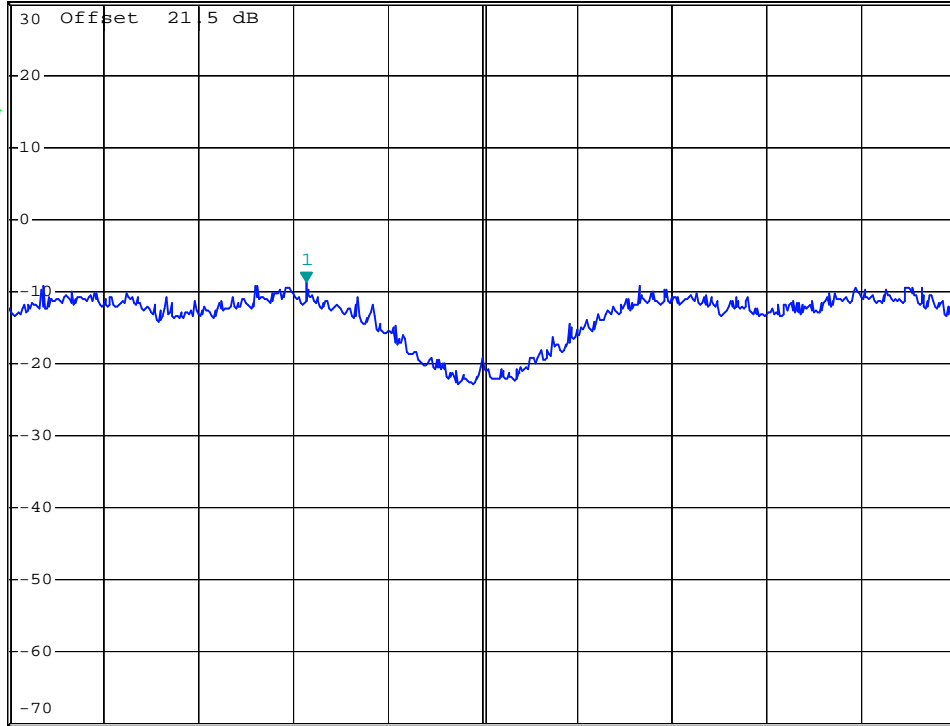


\*RBW 3 kHz Marker 1 [T1 ]  
\*VBW 30 kHz -8.80 dBm  
\*SWT 500 s 5.824721000 GHz

Ref 30 dBm

\*Att 30 dB

1 PK\*  
CLRWR



Center 5.825 GHz 150 kHz/ Span 1.5 MHz

Date: 10.NOV.2007 01:17:37



Mode 16

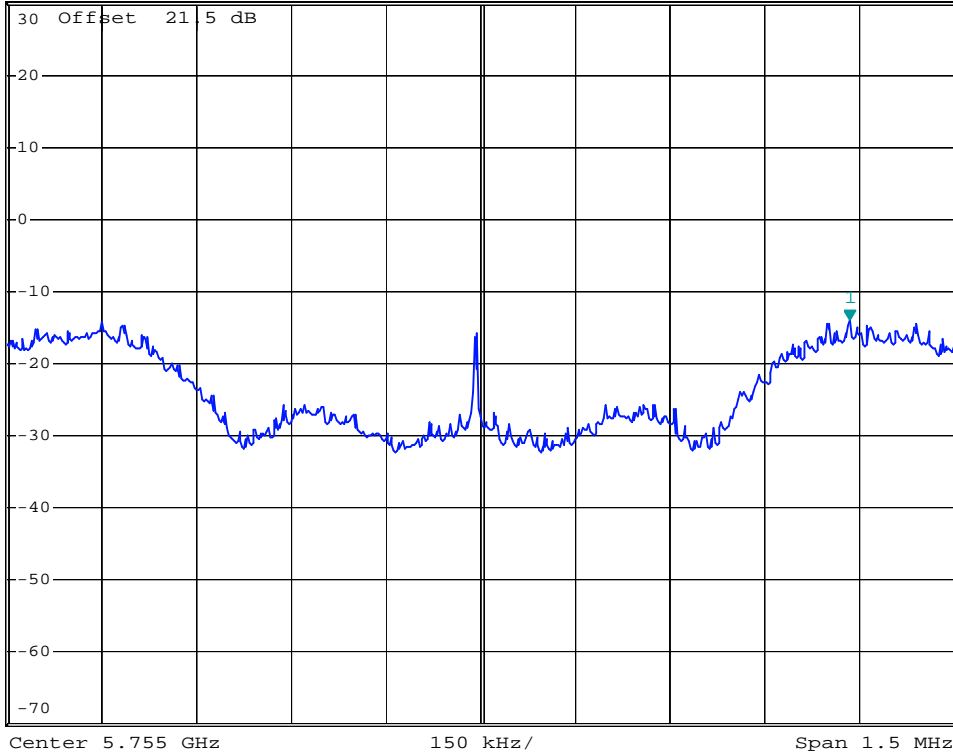


\*RBW 3 kHz    Marker 1 [T1 ]  
\*VBW 30 kHz    -14.07 dBm  
\*SWT 500 s    5.755585000 GHz

Ref 30 dBm

\*Att 30 dB

1 PK\*  
CLRWR



Date: 10.NOV.2007 02:04:12



Mode 17

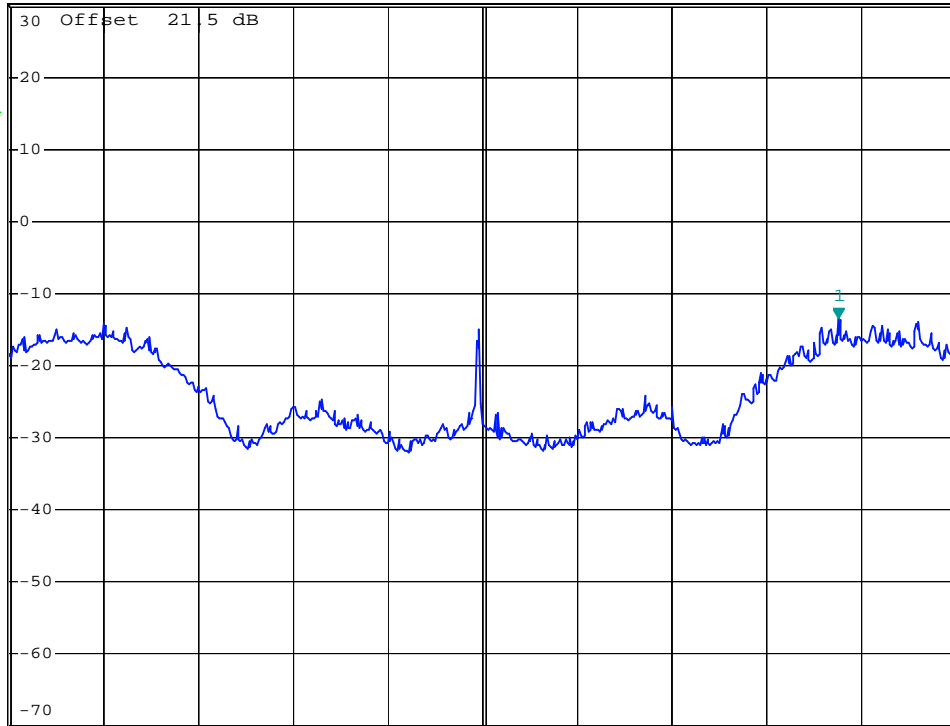


\*RBW 3 kHz      Marker 1 [T1 ]  
\*VBW 30 kHz      -13.44 dBm  
\*SWT 500 s      5.795564000 GHz

Ref 30 dBm

\*Att 30 dB

1 PK\*  
CLRWR



Center 5.795 GHz

150 kHz/

Span 1.5 MHz

Date: 10.NOV.2007 02:14:01



## 5.4 Band Edges Measurement

### 5.4.1 Measuring Instruments :

As described in chapter 6 of this test report.

### 5.4.2 Test Procedure :

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

### 5.4.3 Test Result :

- Application Type : WLAN 802.11b/g
- Temperature : 25~26
- Relative Humidity : 49~51%
- Test Engineer : Ken
  
- Test Result in WLAN lower band (802.11b/g) : PASS
- Test Result in WLAN higher band (802.11b/g) : PASS
- Test Result in WLAN lower band (802.11a Band III) : PASS
- Test Result in WLAN higher band (802.11a Band III) : PASS
- Test Result in WLAN lower band (802.11n<g>\_BW 20M) : PASS
- Test Result in WLAN higher band (802.11n<g>\_BW 20M) : PASS
- Test Result in WLAN lower band (802.11n<a>\_BW 20M) : PASS
- Test Result in WLAN higher band (802.11n<a>\_BW 20M) : PASS
- Test Result in WLAN lower band (802.11n<a>\_BW 40M) : PASS
- Test Result in WLAN higher band (802.11n<a>\_BW 40M) : PASS



5.4.4 Note on Band Edge Emission :

>WLAN 802.11b

CH01 (Horizontal)

| Frequency<br>( MHz ) | Level<br>( dBuV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBuV/m ) | Read<br>Level<br>( dBuV ) | Antenna<br>Factor<br>( dB ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Remark  |
|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-----------------------------|-------------------------|----------------------------|----------------------|-------------------------|---------|
| 2390.000             | 51.57               | -22.43                  | 74.00                       | 53.54                     | 28.07                       | 3.74                    | 33.78                      | 100                  | 0                       | Peak    |
| 2390.000             | 38.29               | -15.71                  | 54.00                       | 40.26                     | 28.07                       | 3.74                    | 33.78                      | 100                  | 38                      | Average |

CH01 (Vertical)

| Frequency<br>( MHz ) | Level<br>( dBuV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBuV/m ) | Read<br>Level<br>( dBuV ) | Antenna<br>Factor<br>( dB ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Remark  |
|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-----------------------------|-------------------------|----------------------------|----------------------|-------------------------|---------|
| 2390.000             | 47.81               | -26.19                  | 74.00                       | 49.78                     | 28.07                       | 3.74                    | 33.78                      | 100                  | 0                       | Peak    |
| 2390.000             | 34.50               | -19.50                  | 54.00                       | 36.47                     | 28.07                       | 3.74                    | 33.78                      | 100                  | 97                      | Average |

CH11 (Horizontal)

| Frequency<br>( MHz ) | Level<br>( dBuV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBuV/m ) | Read<br>Level<br>( dBuV ) | Antenna<br>Factor<br>( dB ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Remark  |
|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-----------------------------|-------------------------|----------------------------|----------------------|-------------------------|---------|
| 2483.500             | 53.38               | -20.62                  | 74.00                       | 55.08                     | 28.26                       | 3.84                    | 33.80                      | 100                  | 0                       | Peak    |
| 2483.500             | 38.90               | -15.10                  | 54.00                       | 40.60                     | 28.26                       | 3.84                    | 33.80                      | 100                  | 32                      | Average |

CH11 (Vertical)

| Frequency<br>( MHz ) | Level<br>( dBuV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBuV/m ) | Read<br>Level<br>( dBuV ) | Antenna<br>Factor<br>( dB ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Remark  |
|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-----------------------------|-------------------------|----------------------------|----------------------|-------------------------|---------|
| 2483.500             | 49.44               | -24.56                  | 74.00                       | 51.14                     | 28.26                       | 3.84                    | 33.80                      | 100                  | 0                       | Peak    |
| 2483.500             | 35.75               | -18.25                  | 54.00                       | 37.45                     | 28.26                       | 3.84                    | 33.80                      | 100                  | 105                     | Average |



>WLAN 802.11g

CH01 (Horizontal)

| Frequency<br>( MHz ) | Level<br>( dBuV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBuV/m ) | Read<br>Level<br>( dBuV ) | Antenna<br>Factor<br>( dB ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Remark  |
|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-----------------------------|-------------------------|----------------------------|----------------------|-------------------------|---------|
| 2390.000             | 59.77               | -14.23                  | 74.00                       | 61.74                     | 28.07                       | 3.74                    | 33.78                      | 100                  | 0                       | Peak    |
| 2390.000             | 35.01               | -18.99                  | 54.00                       | 36.98                     | 28.07                       | 3.74                    | 33.78                      | 100                  | 36                      | Average |

CH01 (Vertical)

| Frequency<br>( MHz ) | Level<br>( dBuV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBuV/m ) | Read<br>Level<br>( dBuV ) | Antenna<br>Factor<br>( dB ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Remark  |
|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-----------------------------|-------------------------|----------------------------|----------------------|-------------------------|---------|
| 2390.000             | 55.52               | -18.48                  | 74.00                       | 57.49                     | 28.07                       | 3.74                    | 33.78                      | 100                  | 0                       | Peak    |
| 2390.000             | 32.51               | -21.49                  | 54.00                       | 34.48                     | 28.07                       | 3.74                    | 33.78                      | 100                  | 96                      | Average |

CH11 (Horizontal)

| Frequency<br>( MHz ) | Level<br>( dBuV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBuV/m ) | Read<br>Level<br>( dBuV ) | Antenna<br>Factor<br>( dB ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Remark  |
|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-----------------------------|-------------------------|----------------------------|----------------------|-------------------------|---------|
| 2483.500             | 62.13               | -11.87                  | 74.00                       | 63.83                     | 28.26                       | 3.84                    | 33.80                      | 100                  | 0                       | Peak    |
| 2483.500             | 35.81               | -18.19                  | 54.00                       | 37.51                     | 28.26                       | 3.84                    | 33.80                      | 142                  | 35                      | Average |

CH11 (Vertical)

| Frequency<br>( MHz ) | Level<br>( dBuV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBuV/m ) | Read<br>Level<br>( dBuV ) | Antenna<br>Factor<br>( dB ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Remark  |
|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-----------------------------|-------------------------|----------------------------|----------------------|-------------------------|---------|
| 2483.500             | 58.88               | -15.12                  | 74.00                       | 60.58                     | 28.26                       | 3.84                    | 33.80                      | 100                  | 0                       | Peak    |
| 2483.500             | 34.55               | -19.45                  | 54.00                       | 36.25                     | 28.26                       | 3.84                    | 33.80                      | 100                  | 107                     | Average |



>WLAN 802.11a

CH0149 (Horizontal)

| Frequency<br>( MHz ) | Level<br>( dBuV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBuV/m ) | Read<br>Level<br>( dBuV ) | Antenna<br>Factor<br>( dB ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Remark  |
|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-----------------------------|-------------------------|----------------------------|----------------------|-------------------------|---------|
| 5348.000             | 52.43               | -21.57                  | 74.00                       | 46.96                     | 33.62                       | 6.00                    | 34.15                      | 100                  | 0                       | Peak    |
| 5348.000             | 39.31               | -14.69                  | 54.00                       | 33.84                     | 33.62                       | 6.00                    | 34.15                      | 100                  | 340                     | Average |

CH0149 (Vertical)

| Frequency<br>( MHz ) | Level<br>( dBuV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBuV/m ) | Read<br>Level<br>( dBuV ) | Antenna<br>Factor<br>( dB ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Remark  |
|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-----------------------------|-------------------------|----------------------------|----------------------|-------------------------|---------|
| 5582.000             | 52.68               | -21.32                  | 74.00                       | 46.89                     | 33.85                       | 6.01                    | 34.08                      | 100                  | 0                       | Peak    |
| 5582.000             | 40.17               | -13.83                  | 54.00                       | 34.38                     | 33.85                       | 6.01                    | 34.08                      | 120                  | 177                     | Average |

CH165 (Horizontal)

| Frequency<br>( MHz ) | Level<br>( dBuV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBuV/m ) | Read<br>Level<br>( dBuV ) | Antenna<br>Factor<br>( dB ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Remark  |
|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-----------------------------|-------------------------|----------------------------|----------------------|-------------------------|---------|
| 6958.000             | 52.68               | -21.32                  | 74.00                       | 43.76                     | 35.10                       | 6.34                    | 32.52                      | 100                  | 0                       | Peak    |
| 6958.000             | 40.50               | -13.50                  | 54.00                       | 31.58                     | 35.10                       | 6.34                    | 32.52                      | 100                  | 9                       | Average |

CH165 (Vertical)

| Frequency<br>( MHz ) | Level<br>( dBuV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBuV/m ) | Read<br>Level<br>( dBuV ) | Antenna<br>Factor<br>( dB ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Remark  |
|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-----------------------------|-------------------------|----------------------------|----------------------|-------------------------|---------|
| 6982.000             | 53.23               | -20.77                  | 74.00                       | 44.21                     | 35.17                       | 6.35                    | 32.50                      | 100                  | 0                       | Peak    |
| 6982.000             | 40.65               | -13.35                  | 54.00                       | 31.63                     | 35.17                       | 6.35                    | 32.50                      | 127                  | 8                       | Average |



> WLAN 802.11n(g)\_BW 20M

CH01 (Horizontal)

| Frequency<br>( MHz ) | Level<br>( dBuV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBuV/m ) | Read<br>Level<br>( dBuV ) | Antenna<br>Factor<br>( dB ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Remark  |
|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-----------------------------|-------------------------|----------------------------|----------------------|-------------------------|---------|
| 2390.000             | 55.34               | -18.66                  | 74.00                       | 57.31                     | 28.07                       | 3.74                    | 33.78                      | 100                  | 0                       | Peak    |
| 2390.000             | 37.50               | -16.50                  | 54.00                       | 39.47                     | 28.07                       | 3.74                    | 33.78                      | 100                  | 99                      | Average |

CH01 (Vertical)

| Frequency<br>( MHz ) | Level<br>( dBuV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBuV/m ) | Read<br>Level<br>( dBuV ) | Antenna<br>Factor<br>( dB ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Remark  |
|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-----------------------------|-------------------------|----------------------------|----------------------|-------------------------|---------|
| 2390.000             | 56.43               | -17.57                  | 74.00                       | 58.40                     | 28.07                       | 3.74                    | 33.78                      | 100                  | 0                       | Peak    |
| 2390.000             | 38.44               | -15.66                  | 54.00                       | 40.41                     | 28.07                       | 3.74                    | 33.78                      | 100                  | 101                     | Average |

CH11 (Horizontal)

| Frequency<br>( MHz ) | Level<br>( dBuV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBuV/m ) | Read<br>Level<br>( dBuV ) | Antenna<br>Factor<br>( dB ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Remark  |
|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-----------------------------|-------------------------|----------------------------|----------------------|-------------------------|---------|
| 2483.500             | 60.47               | -13.53                  | 74.00                       | 62.17                     | 28.26                       | 3.84                    | 33.80                      | 100                  | 0                       | Peak    |
| 2483.500             | 41.73               | -12.27                  | 54.00                       | 43.43                     | 28.26                       | 3.84                    | 33.80                      | 103                  | 203                     | Average |

CH11 (Vertical)

| Frequency<br>( MHz ) | Level<br>( dBuV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBuV/m ) | Read<br>Level<br>( dBuV ) | Antenna<br>Factor<br>( dB ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Remark  |
|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-----------------------------|-------------------------|----------------------------|----------------------|-------------------------|---------|
| 2483.500             | 63.11               | -10.89                  | 74.00                       | 64.81                     | 28.26                       | 3.84                    | 33.80                      | 100                  | 0                       | Peak    |
| 2483.500             | 42.58               | -11.42                  | 54.00                       | 44.28                     | 28.26                       | 3.84                    | 33.80                      | 100                  | 103                     | Average |





> WLAN 802.11n(a)\_BW 20M

CH0149 (Horizontal)

| Frequency<br>( MHz ) | Level<br>( dBuV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBuV/m ) | Read<br>Level<br>( dBuV ) | Antenna<br>Factor<br>( dB ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Remark  |
|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-----------------------------|-------------------------|----------------------------|----------------------|-------------------------|---------|
| 5670.000             | 55.52               | -18.48                  | 74.00                       | 49.66                     | 33.90                       | 6.02                    | 34.07                      | 100                  | 0                       | Peak    |
| 5670.000             | 42.24               | -11.76                  | 54.00                       | 36.38                     | 33.90                       | 6.02                    | 34.07                      | 100                  | 344                     | Average |

CH0149 (Vertical)

| Frequency<br>( MHz ) | Level<br>( dBuV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBuV/m ) | Read<br>Level<br>( dBuV ) | Antenna<br>Factor<br>( dB ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Remark  |
|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-----------------------------|-------------------------|----------------------------|----------------------|-------------------------|---------|
| 5588.000             | 52.15               | -21.85                  | 74.00                       | 46.36                     | 33.85                       | 6.01                    | 34.08                      | 100                  | 0                       | Peak    |
| 5588.000             | 39.84               | -14.16                  | 54.00                       | 34.05                     | 33.85                       | 6.01                    | 34.08                      | 100                  | 324                     | Average |

CH165 (Horizontal)

| Frequency<br>( MHz ) | Level<br>( dBuV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBuV/m ) | Read<br>Level<br>( dBuV ) | Antenna<br>Factor<br>( dB ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Remark  |
|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-----------------------------|-------------------------|----------------------------|----------------------|-------------------------|---------|
| 6910.000             | 52.45               | -21.55                  | 74.00                       | 43.66                     | 35.03                       | 6.33                    | 32.56                      | 100                  | 0                       | Peak    |
| 6910.000             | 39.48               | -14.52                  | 54.00                       | 30.69                     | 35.03                       | 6.33                    | 32.56                      | 100                  | 305                     | Average |

CH165 (Vertical)

| Frequency<br>( MHz ) | Level<br>( dBuV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBuV/m ) | Read<br>Level<br>( dBuV ) | Antenna<br>Factor<br>( dB ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Remark  |
|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-----------------------------|-------------------------|----------------------------|----------------------|-------------------------|---------|
| 6894.000             | 53.03               | -20.97                  | 74.00                       | 44.29                     | 34.99                       | 6.33                    | 32.58                      | 100                  | 0                       | Peak    |
| 6894.000             | 40.12               | -13.88                  | 54.00                       | 31.38                     | 34.99                       | 6.33                    | 32.58                      | 102                  | 4                       | Average |



> WLAN 802.11n(g)\_BW 40M

CH0151 (Horizontal)

| Frequency<br>( MHz ) | Level<br>( dBuV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBuV/m ) | Read<br>Level<br>( dBuV ) | Antenna<br>Factor<br>( dB ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Remark  |
|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-----------------------------|-------------------------|----------------------------|----------------------|-------------------------|---------|
| 5558.000             | 52.07               | -21.93                  | 74.00                       | 46.31                     | 33.83                       | 6.01                    | 34.09                      | 100                  | 0                       | Peak    |
| 5558.000             | 38.01               | -15.99                  | 54.00                       | 32.25                     | 33.83                       | 6.01                    | 34.09                      | 100                  | 304                     | Average |

CH0151 (Vertical)

| Frequency<br>( MHz ) | Level<br>( dBuV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBuV/m ) | Read<br>Level<br>( dBuV ) | Antenna<br>Factor<br>( dB ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Remark  |
|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-----------------------------|-------------------------|----------------------------|----------------------|-------------------------|---------|
| 5622.000             | 51.99               | -22.10                  | 74.00                       | 46.18                     | 33.87                       | 6.02                    | 34.08                      | 100                  | 0                       | Peak    |
| 5622.000             | 38.32               | -15.68                  | 54.00                       | 32.51                     | 33.87                       | 6.02                    | 34.08                      | 100                  | 327                     | Average |

CH159 (Horizontal)

| Frequency<br>( MHz ) | Level<br>( dBuV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBuV/m ) | Read<br>Level<br>( dBuV ) | Antenna<br>Factor<br>( dB ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Remark  |
|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-----------------------------|-------------------------|----------------------------|----------------------|-------------------------|---------|
| 6964.000             | 53.88               | -20.12                  | 74.00                       | 44.93                     | 35.13                       | 6.34                    | 32.52                      | 100                  | 0                       | Peak    |
| 6964.000             | 40.59               | -13.41                  | 54.00                       | 31.64                     | 35.13                       | 6.34                    | 32.52                      | 100                  | 303                     | Average |

CH159 (Vertical)

| Frequency<br>( MHz ) | Level<br>( dBuV/m ) | Over<br>Limit<br>( dB ) | Limit<br>Line<br>( dBuV/m ) | Read<br>Level<br>( dBuV ) | Antenna<br>Factor<br>( dB ) | Cable<br>Loss<br>( dB ) | Preamp<br>Factor<br>( dB ) | Ant<br>Pos<br>( cm ) | Table<br>Pos<br>( deg ) | Remark  |
|----------------------|---------------------|-------------------------|-----------------------------|---------------------------|-----------------------------|-------------------------|----------------------------|----------------------|-------------------------|---------|
| 6686.000             | 53.32               | -20.68                  | 74.00                       | 45.27                     | 34.54                       | 6.26                    | 32.75                      | 100                  | 0                       | Peak    |
| 6686.000             | 39.41               | -14.59                  | 54.00                       | 31.36                     | 34.54                       | 6.26                    | 32.75                      | 100                  | 327                     | Average |



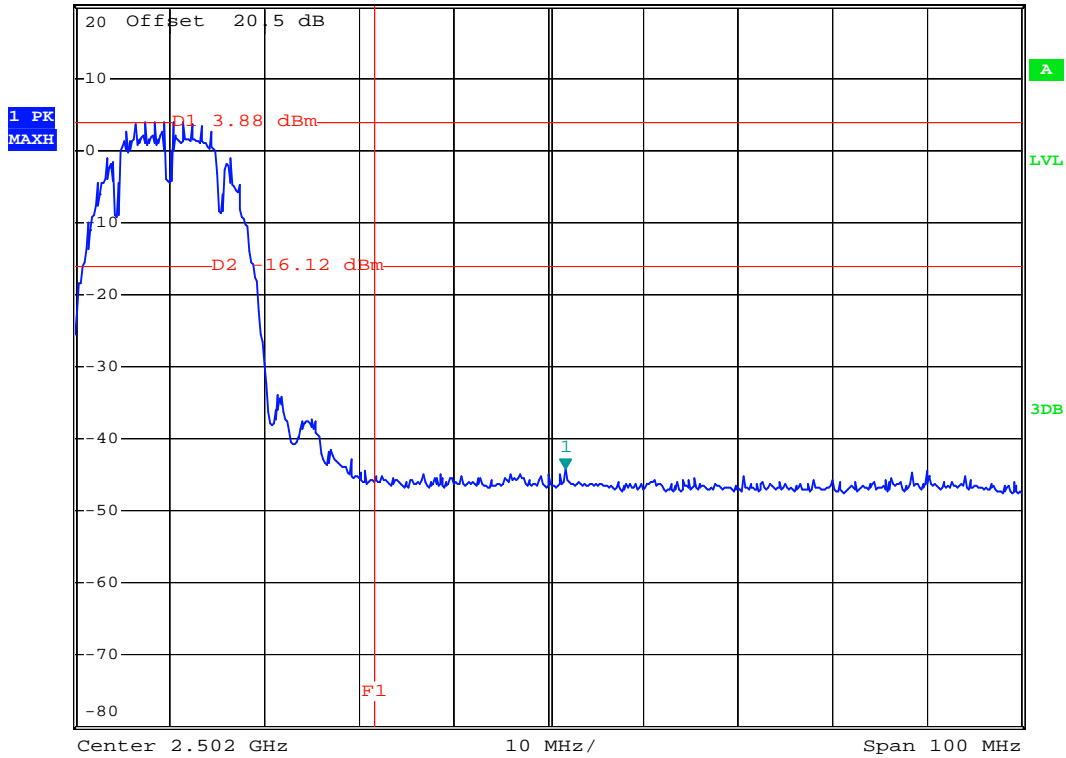


WLAN 802.11b

CH11



Ref 20 dBm      \*Att 20 dB      \*RBW 100 kHz      Marker 1 [T1 ]  
\*VBW 100 kHz      -44.14 dBm  
\*SWT 500 ms      2.503800000 GHz



Date: 5.NOV.2007 22:24:56

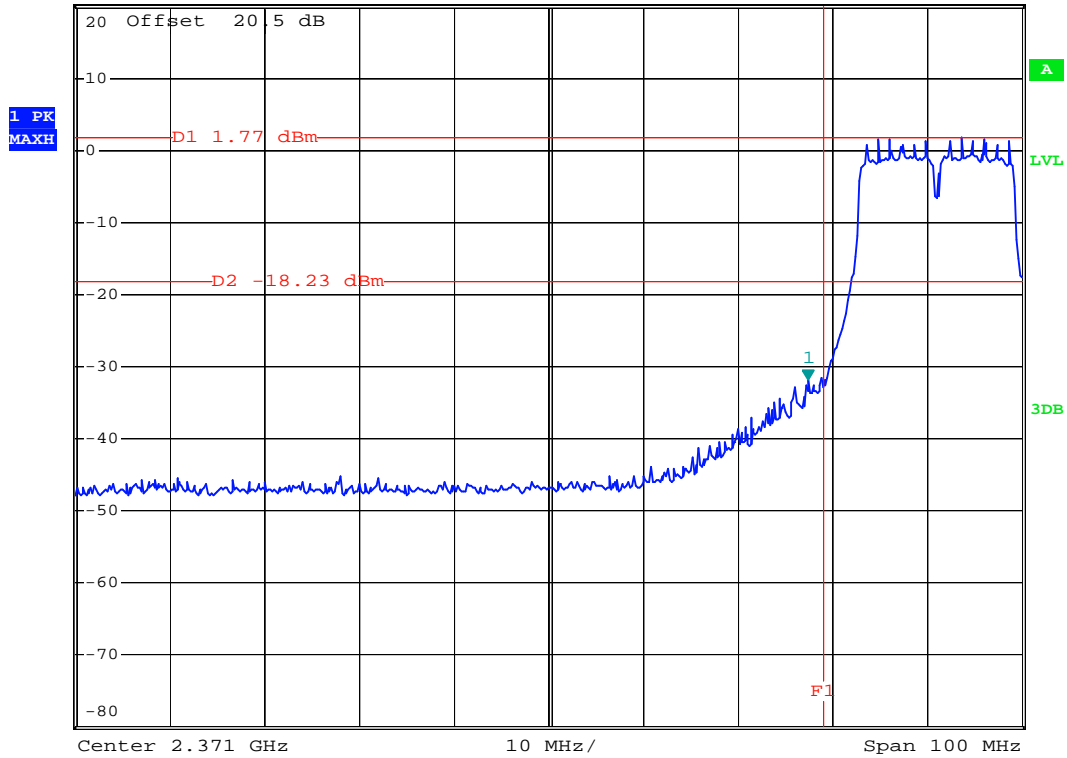


WLAN 802.11g

CH01



Ref 20 dBm      \*Att 20 dB      \*RBW 100 kHz      Marker 1 [T1 ]  
\*VBW 100 kHz      -31.88 dBm  
\*SWT 500 ms      2.398400000 GHz



Date: 5.NOV.2007 20:17:42



WLAN 802.11g

CH11

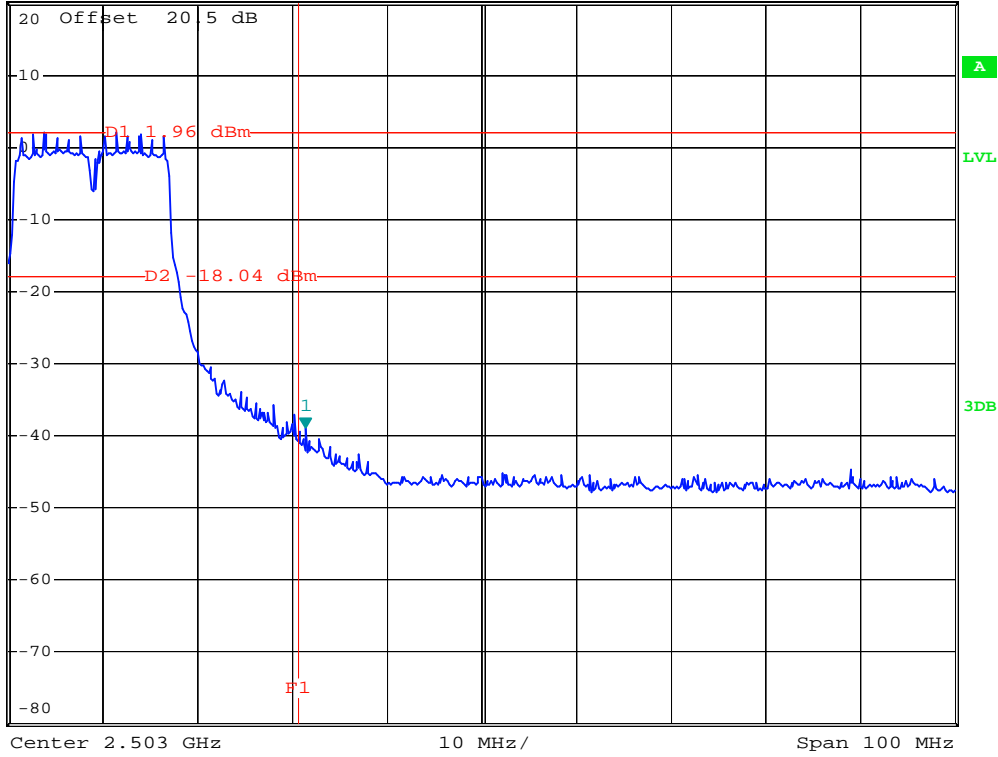


\*RBW 100 kHz Marker 1 [T1 ]  
\*VBW 100 kHz -39.04 dBm  
\*SWT 500 ms 2.484400000 GHz

Ref 20 dBm

\*Att 20 dB

1 PK  
MAXH



Date: 5.NOV.2007 20:19:40



WLAN 802.11a

CH0149

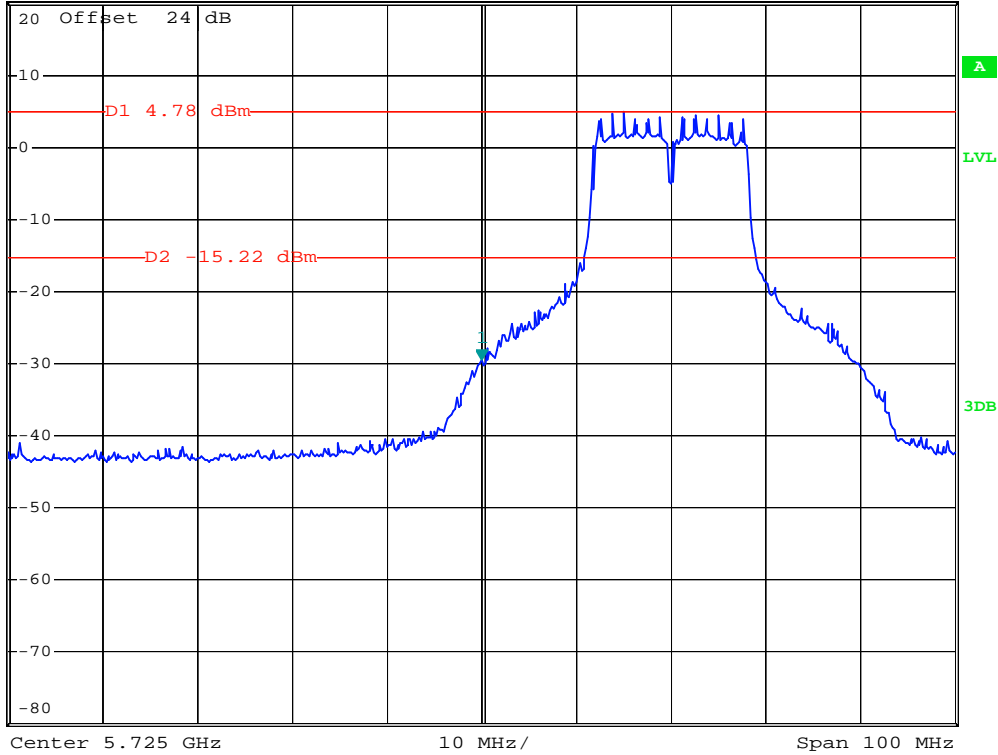


\*RBW 100 kHz    Marker 1 [T1 ]  
 \*VBW 100 kHz                    -29.55 dBm  
 \*SWT 500 ms                      5.725000000 GHz

Ref 20 dBm

\*Att 20 dB

1 PK  
MAXH



Date: 5.NOV.2007 22:58:53



CH165

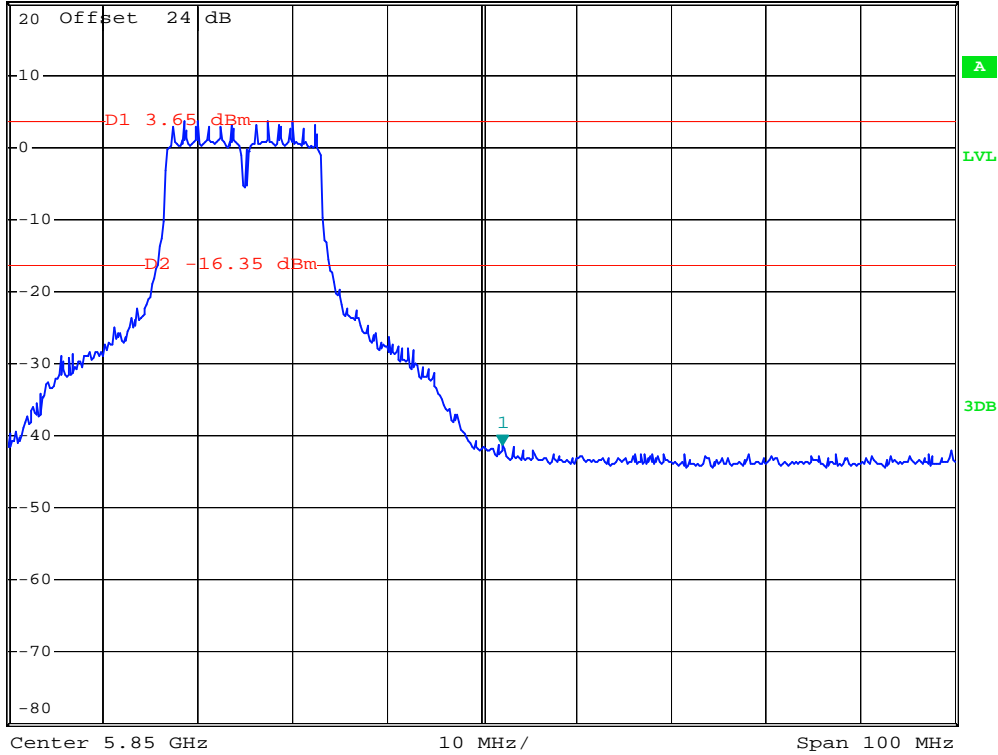


\*RBW 100 kHz Marker 1 [T1 ]  
\*VBW 100 kHz -41.24 dBm  
\*SWT 500 ms 5.85220000 GHz

Ref 20 dBm

\*Att 20 dB

1. PK  
MAXH



Date: 5.NOV.2007 22:55:16







CH11



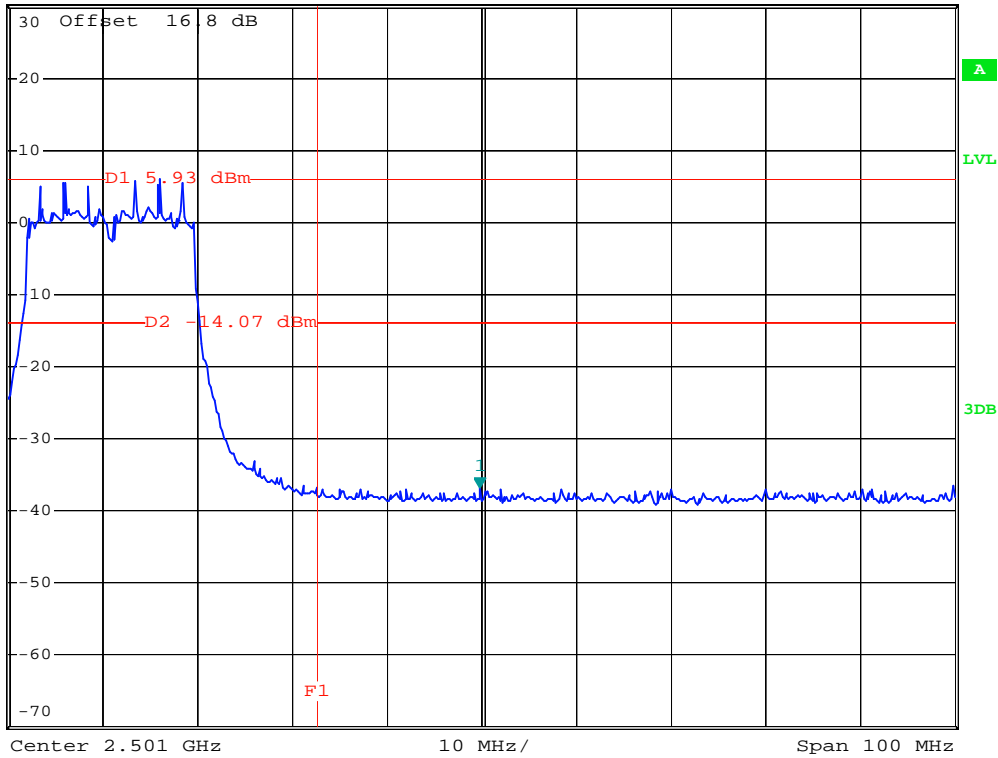
\*RBW 100 kHz Marker 1 [T1 ]  
\*VBW 100 kHz -36.74 dBm  
\*SWT 500 ms 2.500800000 GHz

Ref 30 dBm

\*Att 30 dB

2.500800000 GHz

1. PK  
MAXH



Date: 10.NOV.2007 00:34:38



WLAN 802.11n(a)\_BW 20M

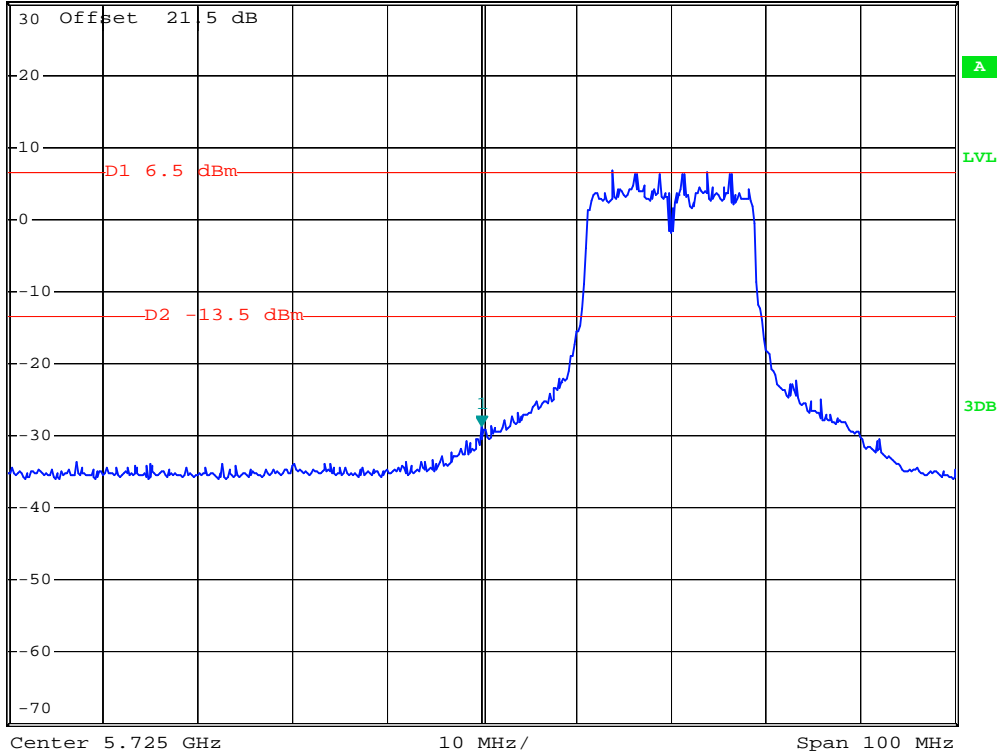
CH149



\*RBW 100 kHz Marker 1 [T1 ]  
\*VBW 100 kHz -28.72 dBm  
\*SWT 500 ms 5.72500000 GHz

Ref 30 dBm \*Att 30 dB

1 PK  
MAXH



Date: 10.NOV.2007 01:31:07



CH165

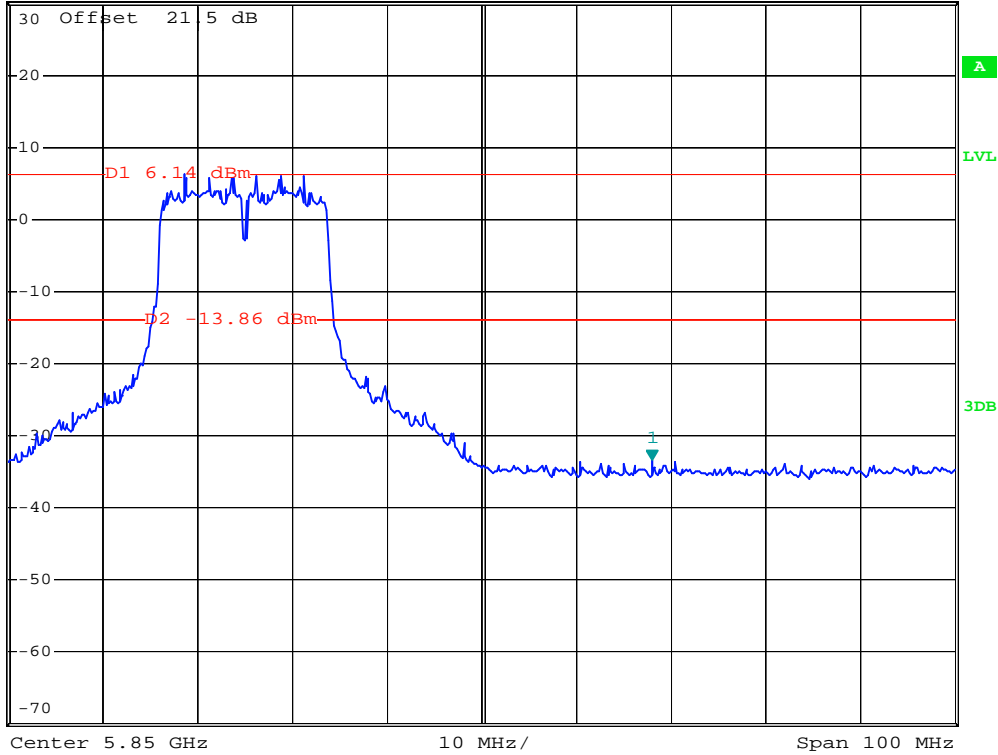


\*RBW 100 kHz Marker 1 [T1 ]  
\*VBW 100 kHz -33.50 dBm  
\*SWT 500 ms 5.868000000 GHz

Ref 30 dBm

\*Att 30 dB

1. PK  
MAXH



Date: 10.NOV.2007 01:27:40



WLAN 802.11n(a)\_BW 40M

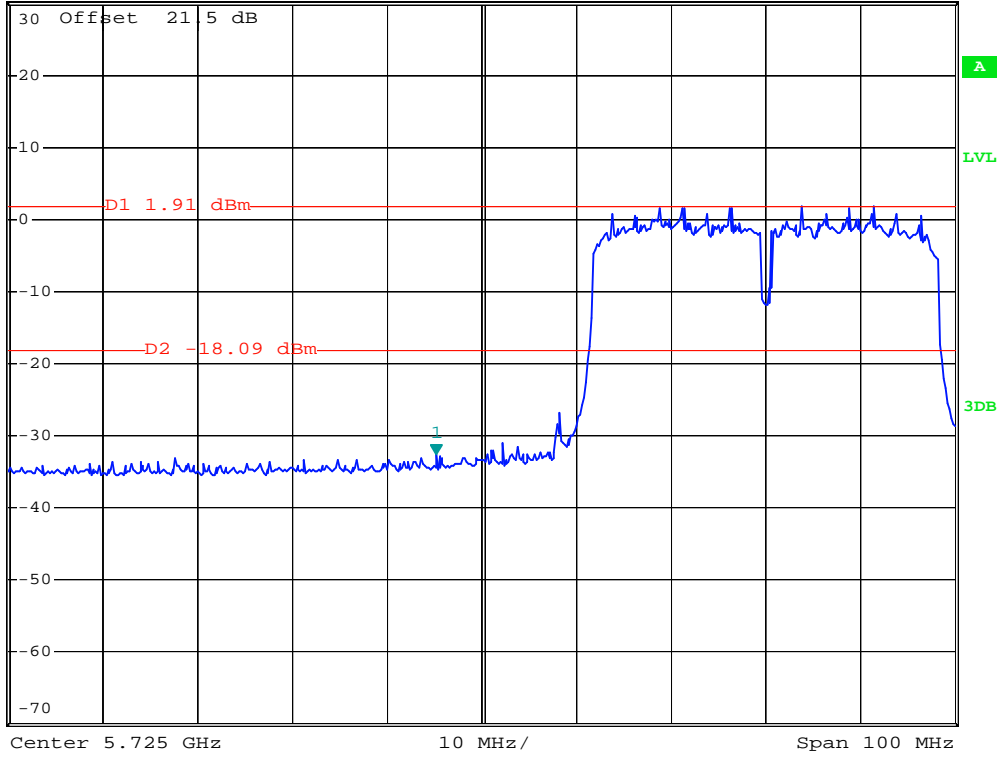
CH151



\*RBW 100 kHz    Marker 1 [T1 ]  
 \*VBW 100 kHz                    -32.73 dBm  
 \*SWT 500 ms                      5.720200000 GHz

Ref 30 dBm                    \*Att 30 dB

1 PK  
MAXH



Date: 10.NOV.2007 02:39:17



CH159

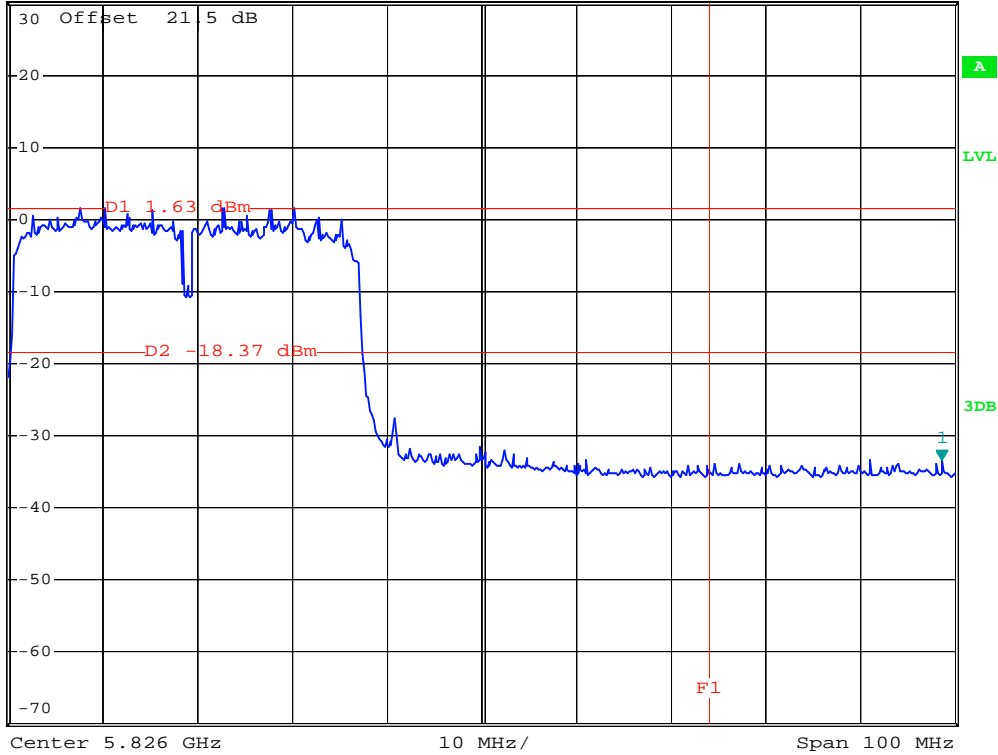


\*RBW 100 kHz Marker 1 [T1 ]  
\*VBW 100 kHz -33.43 dBm  
\*SWT 500 ms 5.874600000 GHz

Ref 30 dBm

\*Att 30 dB

1. PK  
MAXH



Date: 10.NOV.2007 02:45:14

## 5.5 Peak Output Power Measurement

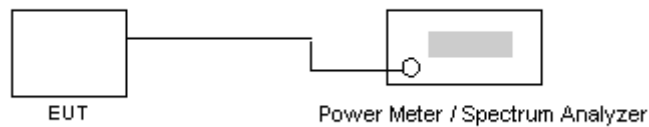
### 5.5.1 Measuring Instruments :

As described in chapter 6 of this test report.

### 5.5.2 Test Procedure :

1. The antenna port ( RF output ) of the EUT was connected to the input ( RF input ) of a power meter for WLAN measurement. The power is equal to the reading level on power meter plus cable loss at the EUT antenna terminal.
2. The antenna port(RF output) of the EUT was connected to the input (RF input) of a spectrum analyzer for BT measurement. The cable loss has been offset before testing.

### 5.5.3 Test Setup Layout :





5.5.4 Test Result :

- Application Type : WLAN 802.11b/g
- Temperature : 25~26
- Relative Humidity : 49~51%
- Test Enginner : Ken

**WLAN 802.11b**

| Channel | Frequency (MHz) | Measured Output Power (dBm) | Limits (Watt/dBm ) |
|---------|-----------------|-----------------------------|--------------------|
| 01      | 2412            | 14.06                       | 1W/30 dBm          |
| 06      | 2437            | 14.33                       | 1W/30 dBm          |
| 11      | 2462            | 14.66                       | 1W/30 dBm          |

**WLAN 802.11g**

| Channel | Frequency (MHz) | Measured Output Power (dBm) | Limits (Watt/dBm ) |
|---------|-----------------|-----------------------------|--------------------|
| 01      | 2412            | 20.50                       | 1W/30 dBm          |
| 06      | 2437            | 20.67                       | 1W/30 dBm          |
| 11      | 2462            | 21.66                       | 1W/30 dBm          |

**WLAN 802.11a**

| Channel | Frequency (MHz) | Measured Output Power (dBm) | Limits (Watt/dBm ) |
|---------|-----------------|-----------------------------|--------------------|
| 149     | 5745            | 21.09                       | 1W/30 dBm          |
| 157     | 5785            | 20.35                       | 1W/30 dBm          |
| 165     | 5825            | 20.35                       | 1W/30 dBm          |

**WLAN 802.11n(g) BW 20M**

| Channel | Frequency (MHz) | Measured Output Power (dBm) | Limits (Watt/dBm ) |
|---------|-----------------|-----------------------------|--------------------|
| 01      | 2412            | 22.96                       | 1W/30 dBm          |
| 06      | 2437            | 23.06                       | 1W/30 dBm          |
| 11      | 2462            | 23.94                       | 1W/30 dBm          |





WLAN 802.11n(a) BW 20M

| Channel | Frequency<br>(MHz) | Measured Output Power<br>(dBm) | Limits<br>(Watt/dBm ) |
|---------|--------------------|--------------------------------|-----------------------|
| 149     | 5745               | 24.83                          | 1W/30 dBm             |
| 157     | 5785               | 24.48                          | 1W/30 dBm             |
| 165     | 5825               | 23.89                          | 1W/30 dBm             |

WLAN 802.11n(a) BW 40M

| Channel | Frequency<br>(MHz) | Measured Output Power<br>(dBm) | Limits<br>(Watt/dBm ) |
|---------|--------------------|--------------------------------|-----------------------|
| 151     | 5755               | 21.89                          | 1W/30 dBm             |
| 159     | 5795               | 21.68                          | 1W/30 dBm             |



## 5.6 Conducted Emission

### 5.6.1 Measuring Instruments

As described in chapter 6 of this test Report.

The receiver setting :

|                  |  |
|------------------|--|
| 150 KHz ~ 30 MHz | Detector : Quasi – Peak and Average<br>Bandwidth : 9 KHz |
|------------------|--|

### 5.6.2 Test Procedures :

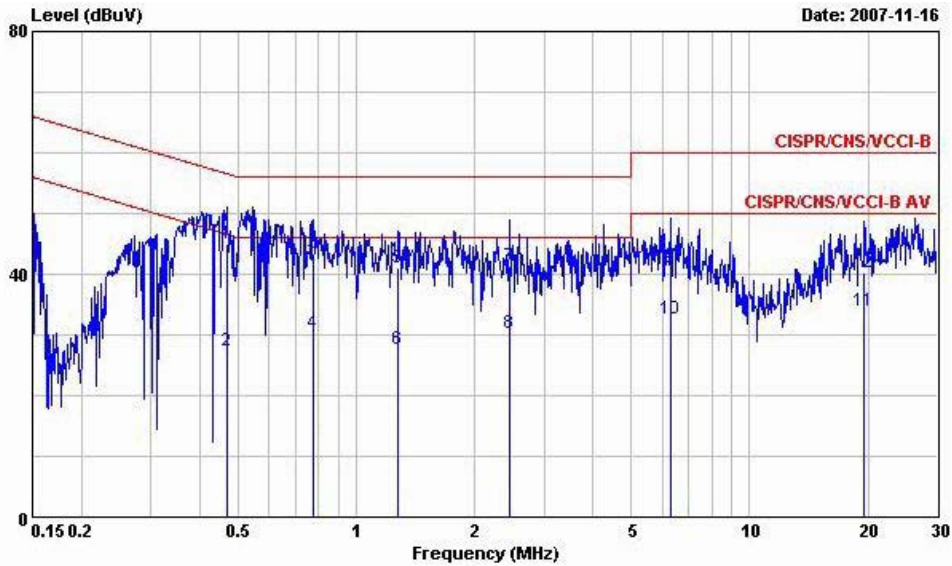
- a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- b. Connect EUT to the power port of a line impedance stabilization network (LISN).
- c. All the support units are connected to the other LISN.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



5.6.3 Test Data

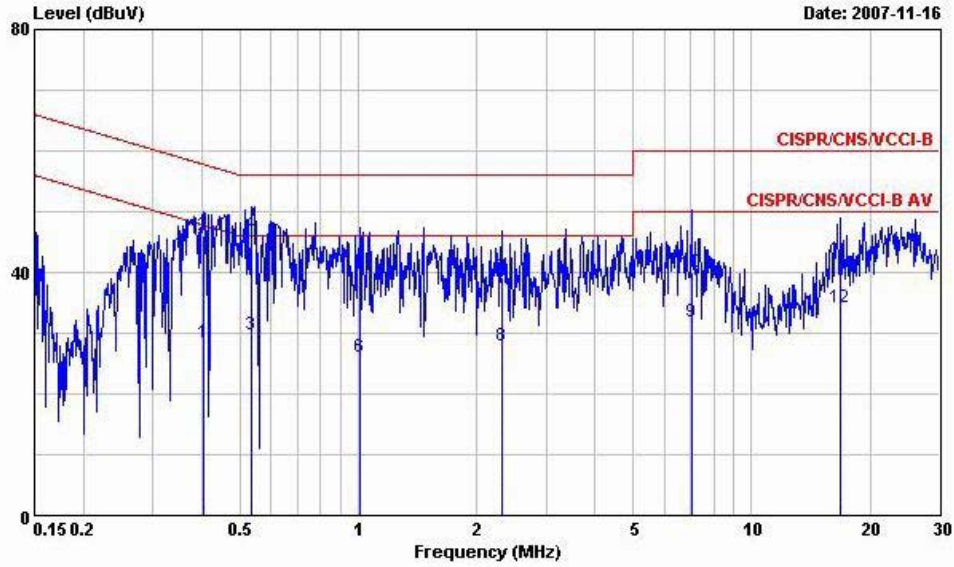
- Temperature : 25~26
- Relative Humidity : 49~51%
- Test Enginner : Ken
- Test Mode : Mode 1

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



Site : C004-HY  
 Condition : CISPR/CNS/VCCI-B LISN 200704 99041 LINE  
 EUT : N/B  
 POWER: 120V/60Hz  
 Model : FR7O1819  
 Memo : WLAN Link+BT Link+Adaptor

|    | Freq       | Level | Over   | Limit | Read  | LISN   | Cable |         |
|----|------------|-------|--------|-------|-------|--------|-------|---------|
|    | MHz        | dBuV  | Limit  | Line  | Level | Factor | Loss  | Remark  |
|    |            |       | dB     | dBuV  | dBuV  | dB     | dB    |         |
| 1  | @0.4686110 | 45.06 | -11.48 | 56.54 | 44.28 | 0.10   | 0.68  | QP      |
| 2  | @0.4686110 | 27.40 | -19.14 | 46.54 | 26.62 | 0.10   | 0.68  | Average |
| 3  | @0.7751940 | 43.30 | -12.70 | 56.00 | 42.68 | 0.10   | 0.52  | QP      |
| 4  | @0.7751940 | 30.23 | -15.77 | 46.00 | 29.61 | 0.10   | 0.52  | Average |
| 5  | @ 1.280    | 41.04 | -14.96 | 56.00 | 40.50 | 0.10   | 0.44  | QP      |
| 6  | @ 1.280    | 27.56 | -18.44 | 46.00 | 27.02 | 0.10   | 0.44  | Average |
| 7  | @ 2.460    | 41.28 | -14.72 | 56.00 | 40.78 | 0.10   | 0.40  | QP      |
| 8  | @ 2.460    | 30.33 | -15.67 | 46.00 | 29.83 | 0.10   | 0.40  | Average |
| 9  | @ 6.290    | 41.15 | -18.85 | 60.00 | 40.73 | 0.15   | 0.27  | QP      |
| 10 | @ 6.290    | 32.76 | -17.24 | 50.00 | 32.34 | 0.15   | 0.27  | Average |
| 11 | @ 19.530   | 33.87 | -16.13 | 50.00 | 33.59 | 0.23   | 0.05  | Average |
| 12 | @ 19.530   | 40.17 | -19.83 | 60.00 | 39.89 | 0.23   | 0.05  | QP      |



Site : C004-HY  
 Condition : CISPR/CNS/VCCI-B LISN 200704 99041 NEUTRAL  
 EUT : N/B  
 POWER: 120V/60Hz  
 Model : FR7O1819  
 Memo : WLAN Link+BT Link+Adaptor

|               | Over  | Limit  | Read  | LISN  | Cable  |      |         |
|---------------|-------|--------|-------|-------|--------|------|---------|
| Freq          | Level | Limit  | Line  | Level | Factor | Loss |         |
| MHz           | dBuV  | dB     | dBuV  | dBuV  | dB     | dB   |         |
| 1 @ 0.4040020 | 28.40 | -19.37 | 47.77 | 27.57 | 0.10   | 0.73 | Average |
| 2 @ 0.4040020 | 46.07 | -11.70 | 57.77 | 45.24 | 0.10   | 0.73 | QP      |
| 3 @ 0.5349810 | 29.63 | -16.37 | 46.00 | 28.89 | 0.10   | 0.64 | Average |
| 4 @ 0.5349810 | 46.41 | -9.59  | 56.00 | 45.67 | 0.10   | 0.64 | QP      |
| 5 @ 1.010     | 40.07 | -15.93 | 56.00 | 39.53 | 0.10   | 0.44 | QP      |
| 6 @ 1.010     | 26.15 | -19.85 | 46.00 | 25.61 | 0.10   | 0.44 | Average |
| 7 @ 2.310     | 39.29 | -16.71 | 56.00 | 38.76 | 0.12   | 0.41 | QP      |
| 8 @ 2.310     | 28.02 | -17.98 | 46.00 | 27.49 | 0.12   | 0.41 | Average |
| 9 @ 7.020     | 31.84 | -18.16 | 50.00 | 31.32 | 0.26   | 0.26 | Average |
| 10 @ 7.020    | 40.10 | -19.90 | 60.00 | 39.58 | 0.26   | 0.26 | QP      |
| 11 @ 16.840   | 41.99 | -18.01 | 60.00 | 41.59 | 0.30   | 0.10 | QP      |
| 12 @ 16.840   | 34.32 | -15.68 | 50.00 | 33.92 | 0.30   | 0.10 | Average |



## 5.7 Radiated Emission Measurement

### 5.7.1 Measuring Instruments

As described in chapter 6 of this Report.

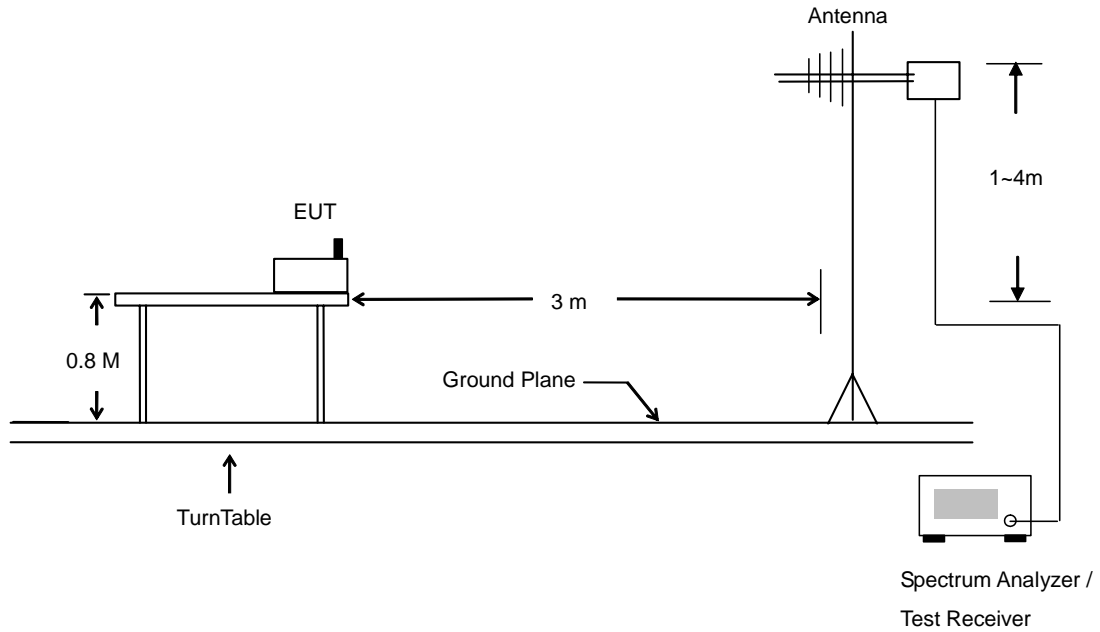
The spectrum analyzer setting :

|               |  |
|---------------|--|
| 30 ~ 1000 MHz | Detector : Quasi – Peak<br>Bandwidth : 120 KHz   |
| 1 ~ 25 GHz    | Detector : Peak and Average<br>Bandwidth : 1 MHz |

### 5.7.2 Test Procedures

- a. The EUT was placed on a rotatable table top 0.8 meter above ground.
- b. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
- c. The table was rotated 360 degrees to determine the position of the highest radiation.
- d. The antenna is a broadband antenna and its height is varied between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
- e. For each suspected emission, the EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
- f. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
- g. For testing below 1GHz, If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the quasi-peak method and reported.
- h. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

5.7.3 Typical Test Setup Layout of Radiated Emission

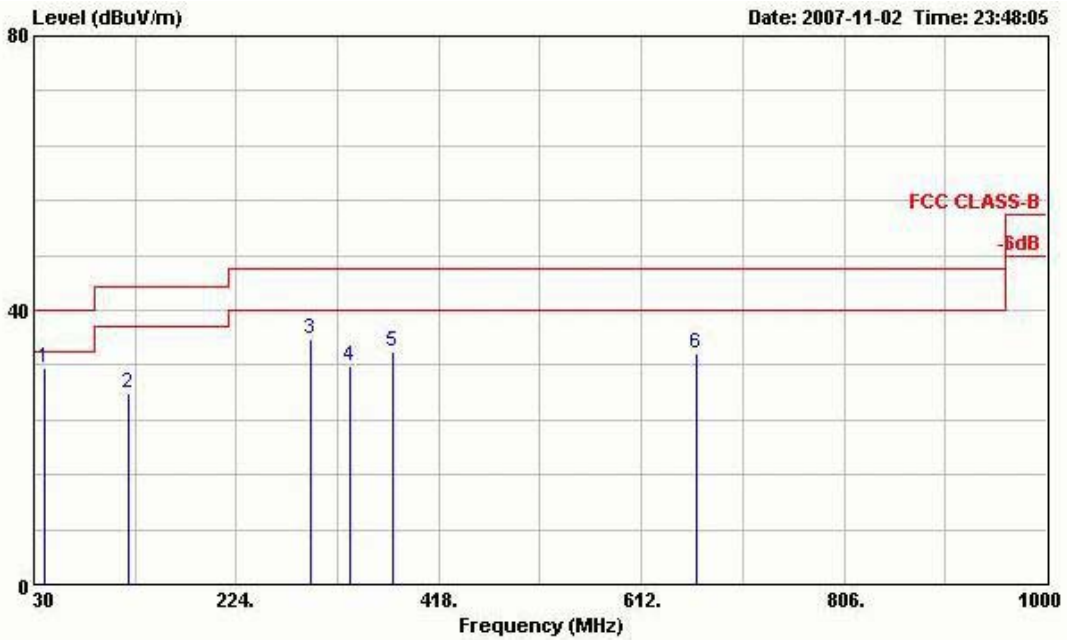




5.7.4 Test Data

- Temperature : 25~26
- Relating Humidity : 49~51%
- Test Enginner : Derek
- Test Mode : Mode 1
- Polarization : Horizontal

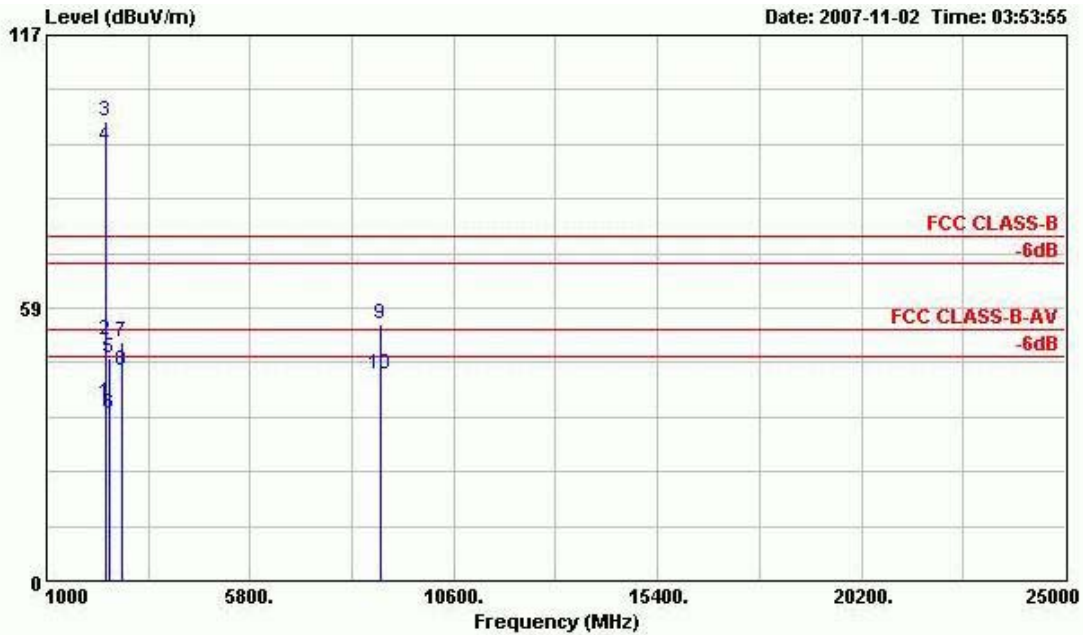
The test that passed at minimum margin was marked by the frame in the following table.



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m ANT2724 HORIZONTAL  
 EUT : N/B  
 POWER : 120Vac/60Hz  
 MODEL : FR 701819  
 MEMO : 11b Tx\_CH01;2412MHz  
 Data Rate: 2

|   | Freq    | Level  | Over Limit | Limit Line | ReadAntenna Level | Antenna Factor | Cable Loss | Preamp | Ant Pos | Table Pos | Remark |
|---|---------|--------|------------|------------|-------------------|----------------|------------|--------|---------|-----------|--------|
|   | MHz     | dBuV/m | dB         | dBuV/m     | dBuV              | dB/m           | dB         | dB     | cm      | deg       |        |
| 1 | 40.260  | 31.66  | -8.34      | 40.00      | 45.86             | 11.46          | 0.97       | 26.64  | 100     | 147       | Peak   |
| 2 | 120.180 | 28.01  | -15.49     | 43.50      | 42.18             | 10.74          | 1.47       | 26.39  | ---     | ---       | Peak   |
| 3 | 295.410 | 35.77  | -10.23     | 46.00      | 46.96             | 12.33          | 2.22       | 25.75  | ---     | ---       | Peak   |
| 4 | 332.900 | 31.93  | -14.07     | 46.00      | 42.09             | 13.45          | 2.35       | 25.95  | ---     | ---       | Peak   |
| 5 | 374.200 | 33.91  | -12.09     | 46.00      | 42.78             | 14.88          | 2.49       | 26.24  | ---     | ---       | Peak   |
| 6 | 665.400 | 33.72  | -12.28     | 46.00      | 37.24             | 20.06          | 3.45       | 27.02  | ---     | ---       | Peak   |





Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m HF-ANT-6903 HORIZONTAL  
 EUT : N/B  
 POWER : 120Vac/60Hz  
 MODEL : FR 701819  
 MEMO : 11b Tx\_CH01;2412MHz  
 Data Rate: 2

|     | Freq     | Level  | Over   | Limit  | ReadAntenna | Cable | Preamp | Ant   | Table |             |
|-----|----------|--------|--------|--------|-------------|-------|--------|-------|-------|-------------|
|     | MHz      | dBuV/m | dB     | dBuV/m | Level       | Loss  | Factor | Pos   | Pos   | Remark      |
|     |          |        |        |        | dBuV        | dB    | dB     | cm    | deg   |             |
| 1   | 2390.000 | 38.29  | -15.71 | 54.00  | 40.26       | 28.07 | 3.74   | 33.78 | 100   | 38 Average  |
| 2   | 2390.000 | 51.57  | -22.43 | 74.00  | 53.54       | 28.07 | 3.74   | 33.78 | 100   | 0 Peak      |
| 3 X | 2412.000 | 98.60  |        |        | 100.51      | 28.11 | 3.76   | 33.78 | 100   | 0 Peak      |
| 4 @ | 2412.000 | 93.14  |        |        | 95.05       | 28.11 | 3.76   | 33.78 | 100   | 38 Average  |
| 5   | 2492.000 | 47.91  | -26.09 | 74.00  | 49.57       | 28.30 | 3.84   | 33.80 | 100   | 0 Peak      |
| 6   | 2492.000 | 35.90  | -18.10 | 54.00  | 37.56       | 28.30 | 3.84   | 33.80 | 100   | 38 Average  |
| 7   | 2782.000 | 51.37  | -22.63 | 74.00  | 51.89       | 29.38 | 4.14   | 34.03 | 100   | 0 Peak      |
| 8   | 2782.000 | 45.22  | -8.78  | 54.00  | 45.74       | 29.38 | 4.14   | 34.03 | 100   | 196 Average |
| 9   | 8853.000 | 55.15  | -18.85 | 74.00  | 44.71       | 37.92 | 7.20   | 34.68 | 100   | 0 Peak      |
| 10  | 8853.000 | 44.14  | -9.86  | 54.00  | 33.70       | 37.92 | 7.20   | 34.68 | 100   | 131 Average |

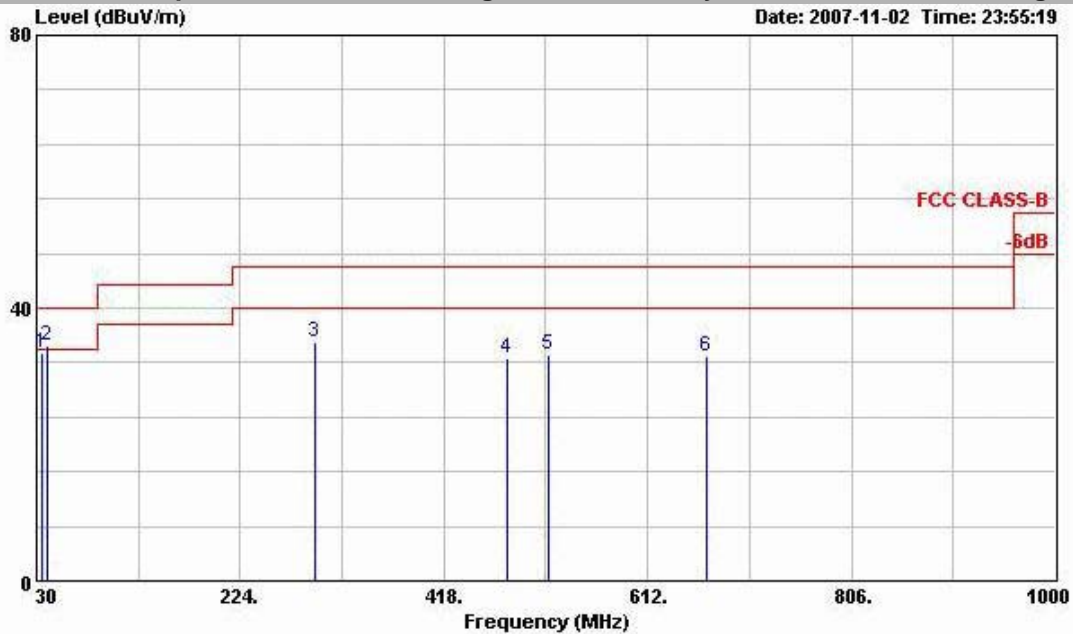
Remark: #3 and #4 Fundamental Signal





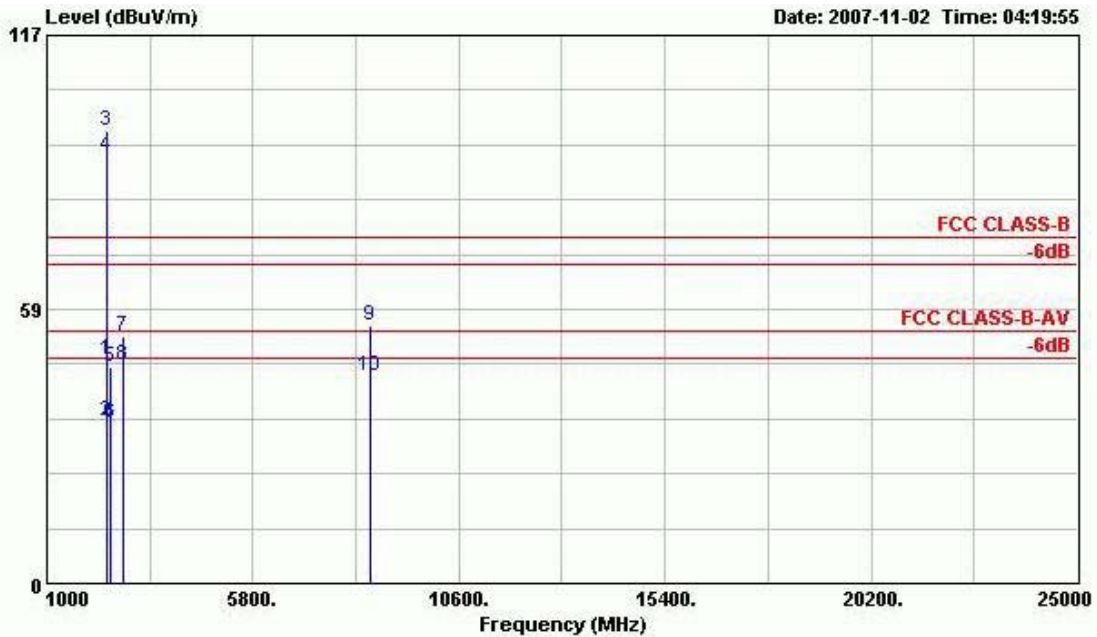
- Polarization : Vertical

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



Site : 03CHO4-HY  
 Condition: FCC CLASS-B 3m ANT2724 VERTICAL  
 EUT : N/B  
 POWER : 120Vac/60Hz  
 MODEL : FR 701819  
 MEMO : 11b Tx\_CH01;2412MHz  
 Data Rate: 2

|   | Freq    | Level  | Over Limit | Limit Line | ReadAntenna Level | Antenna Factor | Cable Loss | Preamp Factor | Ant Pos | Table Pos | Remark |
|---|---------|--------|------------|------------|-------------------|----------------|------------|---------------|---------|-----------|--------|
|   | MHz     | dBuV/m | dB         | dBuV/m     | dBuV              | dB/m           | dB         | dB            | cm      | deg       |        |
| 1 | 35.130  | 33.37  | -6.63      | 40.00      | 42.82             | 16.29          | 0.91       | 26.65         | ---     | ---       | Peak   |
| 2 | 39.450  | 34.49  | -5.51      | 40.00      | 48.35             | 11.82          | 0.96       | 26.64         | 100     | 154       | Peak   |
| 3 | 295.410 | 34.91  | -11.09     | 46.00      | 46.10             | 12.33          | 2.22       | 25.75         | ---     | ---       | Peak   |
| 4 | 478.500 | 32.63  | -13.37     | 46.00      | 40.14             | 16.65          | 2.77       | 26.94         | ---     | ---       | Peak   |
| 5 | 517.700 | 33.06  | -12.94     | 46.00      | 39.82             | 17.43          | 2.88       | 27.07         | ---     | ---       | Peak   |
| 6 | 668.200 | 32.86  | -13.14     | 46.00      | 36.37             | 20.06          | 3.45       | 27.02         | ---     | ---       | Peak   |



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m HF-ANT-6903 VERTICAL  
 EUT : N/B  
 POWER : 120Vac/60Hz  
 MODEL : FR 701819  
 MEMO : 11b Tx\_CH01;2412MHz  
 Data Rate: 2

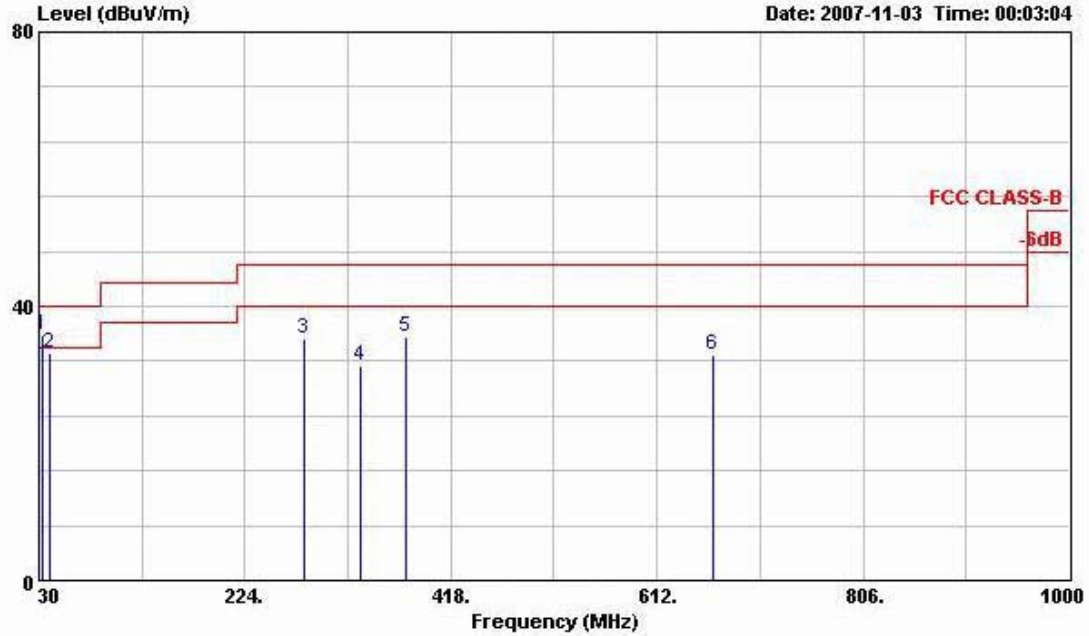
|     | Freq     | Level  | Over   | Limit  | ReadAntenna | Cable | Preamp | Ant   | Table |             |
|-----|----------|--------|--------|--------|-------------|-------|--------|-------|-------|-------------|
|     | MHz      | dBuV/m | dB     | dBuV/m | dBuV        | Loss  | Factor | Pos   | Pos   | Remark      |
|     |          |        |        |        |             | dB    | dB     | cm    | deg   |             |
| 1   | 2390.000 | 47.81  | -26.19 | 74.00  | 49.78       | 28.07 | 3.74   | 33.78 | 100   | 0 Peak      |
| 2   | 2390.000 | 34.50  | -19.50 | 54.00  | 36.47       | 28.07 | 3.74   | 33.78 | 100   | 97 Average  |
| 3 X | 2412.000 | 96.71  |        |        | 98.62       | 28.11 | 3.76   | 33.78 | 100   | 0 Peak      |
| 4 @ | 2412.000 | 91.21  |        |        | 93.12       | 28.11 | 3.76   | 33.78 | 100   | 97 Average  |
| 5   | 2492.000 | 46.28  | -27.72 | 74.00  | 47.94       | 28.30 | 3.84   | 33.80 | 100   | 0 Peak      |
| 6   | 2492.000 | 34.19  | -19.81 | 54.00  | 35.85       | 28.30 | 3.84   | 33.80 | 100   | 97 Average  |
| 7   | 2782.000 | 52.61  | -21.39 | 74.00  | 53.13       | 29.38 | 4.14   | 34.03 | 100   | 0 Peak      |
| 8   | 2782.000 | 46.42  | -7.58  | 54.00  | 46.94       | 29.38 | 4.14   | 34.03 | 100   | 179 Average |
| 9   | 8517.000 | 55.13  | -18.87 | 74.00  | 45.01       | 37.52 | 7.02   | 34.42 | 100   | 0 Peak      |
| 10  | 8517.000 | 44.31  | -9.69  | 54.00  | 34.19       | 37.52 | 7.02   | 34.42 | 100   | 198 Average |

Remark: #3 and #4 Fundamental Signal



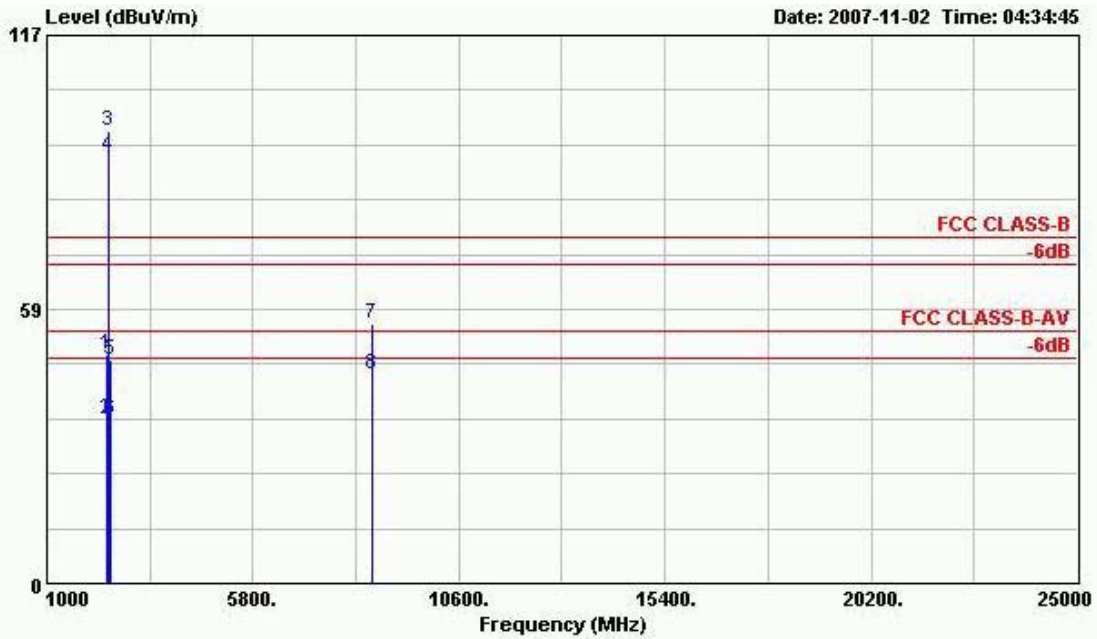
- Test Mode : Mode 2
- Polarization : Horizontal

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



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m ANT2724 HORIZONTAL  
 EUT : N/B  
 POWER : 120Vac/60Hz  
 MODEL : FR 701819  
 MEMO : 11b Tx\_CH06:2437MHz  
 Data Rate: 2

|   | Freq    | Level  | Over   | Limit  | ReadAntenna | Cable | Preamp | Ant   | Table | Remark   |      |
|---|---------|--------|--------|--------|-------------|-------|--------|-------|-------|----------|------|
|   | MHz     | dBuV/m | Limit  | Line   | Level       | Loss  | Factor | Pos   | Pos   |          |      |
|   |         |        | dB     | dBuV/m | dBuV        | dB    | dB     | cm    | deg   |          |      |
| 1 | 33.780  | 35.85  | -4.15  | 40.00  | 45.29       | 16.31 | 0.91   | 26.66 | 100   | 132 Peak |      |
| 2 | 39.450  | 33.22  | -6.78  | 40.00  | 47.08       | 11.82 | 0.96   | 26.64 | ---   | ---      | Peak |
| 3 | 278.940 | 35.19  | -10.81 | 46.00  | 46.41       | 12.42 | 2.16   | 25.80 | ---   | ---      | Peak |
| 4 | 332.200 | 31.22  | -14.78 | 46.00  | 41.38       | 13.45 | 2.35   | 25.95 | ---   | ---      | Peak |
| 5 | 374.900 | 35.42  | -10.58 | 46.00  | 44.25       | 14.92 | 2.49   | 26.24 | ---   | ---      | Peak |
| 6 | 665.400 | 32.79  | -13.21 | 46.00  | 36.31       | 20.06 | 3.45   | 27.02 | ---   | ---      | Peak |



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m HF-ANT-6903 HORIZONTAL  
 EUT : N/B  
 POWER : 120Vac/60Hz  
 MODEL : FR 701819  
 MEMO : 11b Tx\_CH06:2437MHz  
 Data Rate: 2

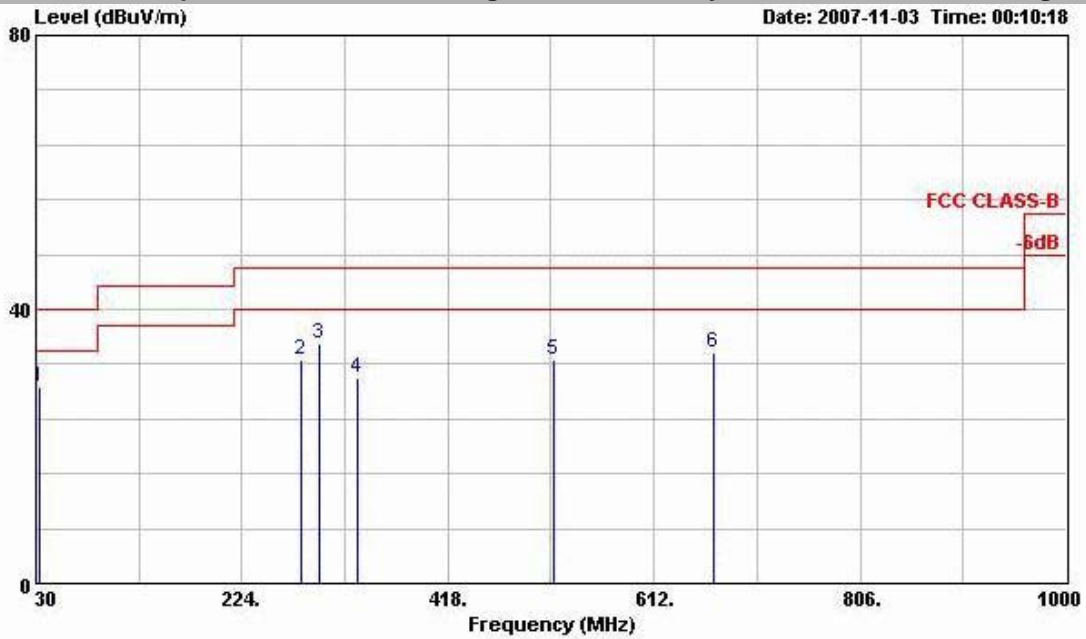
|     | Freq     | Level  | Over   | Limit  | ReadAntenna | Cable | Preamp | Ant   | Table |             |
|-----|----------|--------|--------|--------|-------------|-------|--------|-------|-------|-------------|
|     | MHz      | dBuV/m | dB     | dBuV/m | dBuV        | dB/m  | dB     | dB    | cm    | deg         |
| 1   | 2390.000 | 48.73  | -25.27 | 74.00  | 50.70       | 28.07 | 3.74   | 33.78 | 100   | 0 Peak      |
| 2   | 2390.000 | 34.87  | -19.13 | 54.00  | 36.84       | 28.07 | 3.74   | 33.78 | 100   | 38 Average  |
| 3 X | 2437.000 | 96.70  |        |        | 98.51       | 28.19 | 3.79   | 33.79 | 100   | 0 Peak      |
| 4 @ | 2437.000 | 91.10  |        |        | 92.91       | 28.19 | 3.79   | 33.79 | 100   | 38 Average  |
| 5   | 2484.000 | 47.75  | -26.25 | 74.00  | 49.45       | 28.26 | 3.84   | 33.80 | 100   | 0 Peak      |
| 6   | 2484.000 | 35.15  | -18.85 | 54.00  | 36.85       | 28.26 | 3.84   | 33.80 | 100   | 38 Average  |
| 7   | 8574.000 | 55.33  | -18.67 | 74.00  | 45.13       | 37.60 | 7.06   | 34.46 | 100   | 0 Peak      |
| 8   | 8574.000 | 44.73  | -9.27  | 54.00  | 34.53       | 37.60 | 7.06   | 34.46 | 100   | 154 Average |

Remark: #3 and #4 Fundamental Signal



- Polarization : Vertical

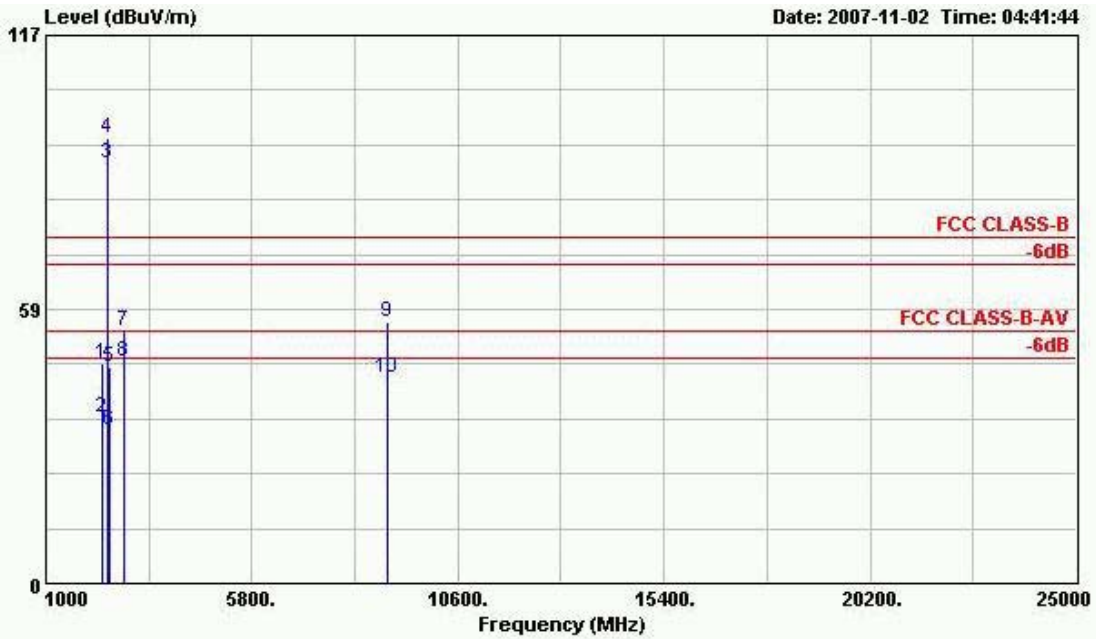
The test that passed at minimum margin was marked by the frame in the following table.



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m ANT2724 VERTICAL  
 EUT : N/B  
 POWER : 120Vac/60Hz  
 MODEL : FR 701819  
 MEMO : 11b Tx\_CH06:2437MHz  
 Data Rate: 2

|   | Freq    | Level  | Over   | Limit  | ReadAntenna | Cable  | Preamp | Ant    | Table | Remark |      |
|---|---------|--------|--------|--------|-------------|--------|--------|--------|-------|--------|------|
|   | MHz     | dBuV/m | Limit  | Line   | Level       | Factor | Loss   | Factor | Pos   | Pos    |      |
|   |         |        | dB     | dBuV/m | dBuV        | dB/m   | dB     | dB     | cm    | deg    |      |
| 1 | 32.970  | 28.74  | -11.26 | 40.00  | 38.18       | 16.33  | 0.90   | 26.66  | ---   | ---    | Peak |
| 2 | 280.290 | 32.65  | -13.35 | 46.00  | 43.87       | 12.41  | 2.17   | 25.80  | ---   | ---    | Peak |
| 3 | 296.220 | 35.08  | -10.92 | 46.00  | 46.26       | 12.33  | 2.23   | 25.74  | 100   | 214    | Peak |
| 4 | 332.900 | 29.94  | -16.06 | 46.00  | 40.10       | 13.45  | 2.35   | 25.95  | ---   | ---    | Peak |
| 5 | 517.700 | 32.53  | -13.47 | 46.00  | 39.29       | 17.43  | 2.88   | 27.07  | ---   | ---    | Peak |
| 6 | 668.200 | 33.75  | -12.25 | 46.00  | 37.26       | 20.06  | 3.45   | 27.02  | ---   | ---    | Peak |





Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m HF-ANT-6903 VERTICAL  
 EUT : N/B  
 POWER : 120Vac/60Hz  
 MODEL : FR 701819  
 MEMO : 11b Tx\_CH06:2437MHz  
 Data Rate: 2

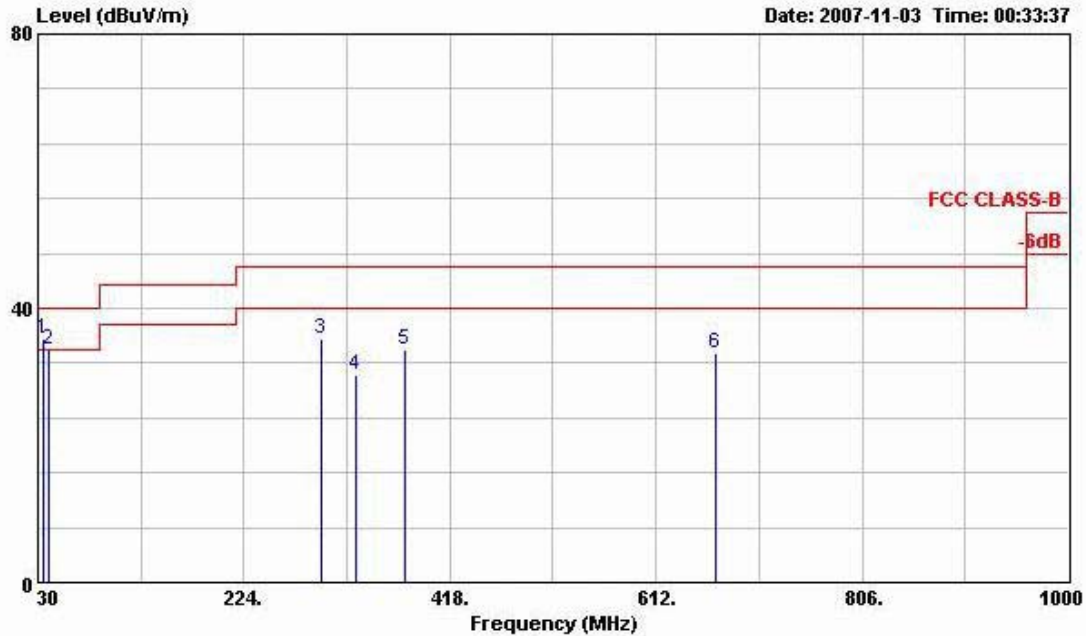
|     | Freq     | Level  | Over   | Limit  | ReadAntenna | Cable | Preamp | Ant   | Table |             |
|-----|----------|--------|--------|--------|-------------|-------|--------|-------|-------|-------------|
|     | MHz      | dBuV/m | Limit  | Line   | Level       | Loss  | Factor | Pos   | Pos   | Remark      |
|     |          |        | dB     | dBuV/m | dBuV        | dB    | dB     | cm    | deg   |             |
| 1   | 2324.000 | 47.00  | -27.00 | 74.00  | 49.18       | 27.92 | 3.66   | 33.77 | 100   | 0 Peak      |
| 2   | 2324.000 | 35.49  | -18.51 | 54.00  | 37.67       | 27.92 | 3.66   | 33.77 | 100   | 95 Average  |
| 3 @ | 2437.000 | 89.62  |        |        | 91.43       | 28.19 | 3.79   | 33.79 | 100   | 95 Average  |
| 4 X | 2437.000 | 95.24  |        |        | 97.05       | 28.19 | 3.79   | 33.79 | 100   | 0 Peak      |
| 5   | 2500.000 | 46.18  | -27.82 | 74.00  | 47.84       | 28.30 | 3.84   | 33.80 | 100   | 0 Peak      |
| 6   | 2500.000 | 32.79  | -21.21 | 54.00  | 34.45       | 28.30 | 3.84   | 33.80 | 100   | 95 Average  |
| 7   | 2836.000 | 53.71  | -20.29 | 74.00  | 54.03       | 29.57 | 4.19   | 34.07 | 100   | 0 Peak      |
| 8   | 2836.000 | 47.19  | -6.81  | 54.00  | 47.51       | 29.57 | 4.19   | 34.07 | 100   | 97 Average  |
| 9   | 8961.000 | 55.96  | -18.04 | 74.00  | 45.42       | 38.04 | 7.26   | 34.76 | 100   | 0 Peak      |
| 10  | 8961.000 | 44.01  | -9.99  | 54.00  | 33.47       | 38.04 | 7.26   | 34.76 | 100   | 167 Average |

Remark: #3 and #4 Fundamental Signal



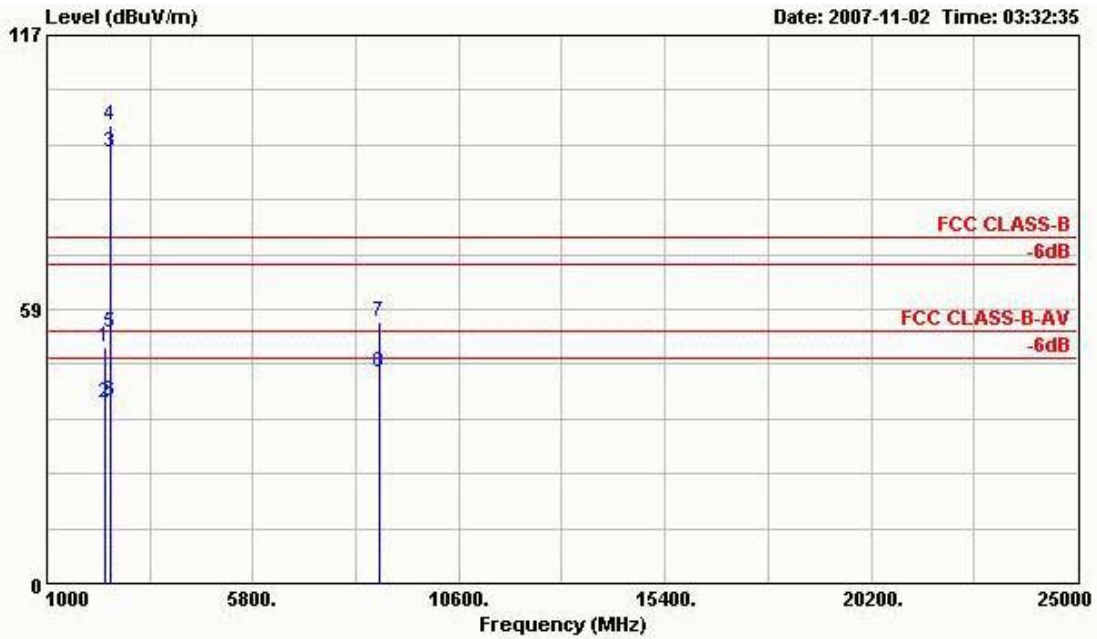
- Test Mode : Mode 3
- Polarization : Horizontal

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



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m ANT2724 HORIZONTAL  
 EUT : N/B  
 POWER : 120Vac/60Hz  
 MODEL : FR 701819  
 MEMO : 11b Tx\_CH11;2462MHz  
 Data Rate: 2

|   | Freq    | Level  | Over Limit | Limit Line | ReadAntenna Level | Antenna Factor | Cable Loss | Preamp Factor | Ant Pos | Table Pos | Remark |
|---|---------|--------|------------|------------|-------------------|----------------|------------|---------------|---------|-----------|--------|
|   | MHz     | dBuV/m | dB         | dBuV/m     | dBuV              | dB/m           | dB         | dB            | cm      | deg       |        |
| 1 | 34.590  | 35.57  | -4.43      | 40.00      | 45.03             | 16.29          | 0.91       | 26.66         | 100     | 167       | Peak   |
| 2 | 39.450  | 33.95  | -6.05      | 40.00      | 47.81             | 11.82          | 0.96       | 26.64         | ---     | ---       | Peak   |
| 3 | 296.220 | 35.42  | -10.58     | 46.00      | 46.60             | 12.33          | 2.23       | 25.74         | ---     | ---       | Peak   |
| 4 | 330.100 | 30.37  | -15.63     | 46.00      | 40.62             | 13.35          | 2.34       | 25.93         | ---     | ---       | Peak   |
| 5 | 374.900 | 34.01  | -11.99     | 46.00      | 42.84             | 14.92          | 2.49       | 26.24         | ---     | ---       | Peak   |
| 6 | 668.200 | 33.34  | -12.66     | 46.00      | 36.85             | 20.06          | 3.45       | 27.02         | ---     | ---       | Peak   |



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m HF-ANT-6903 HORIZONTAL  
 EUT : N/B  
 POWER : 120Vac/60Hz  
 MODEL : FR 701819  
 MEMO : 11b Tx\_CH11;2462MHz  
 Data Rate: 2

|     | Freq     | Level  | Over   | Limit  | ReadAntenna | Cable | Preamp | Ant   | Table |             |
|-----|----------|--------|--------|--------|-------------|-------|--------|-------|-------|-------------|
|     | MHz      | dBuV/m | dB     | dBuV/m | Level       | Loss  | Factor | Pos   | Pos   | Remark      |
|     |          |        |        |        | dBuV        | dB    | dB     | cm    | deg   |             |
| 1   | 2340.000 | 50.26  | -23.74 | 74.00  | 52.38       | 27.96 | 3.69   | 33.77 | 100   | 0 Peak      |
| 2   | 2340.000 | 38.43  | -15.57 | 54.00  | 40.55       | 27.96 | 3.69   | 33.77 | 100   | 32 Average  |
| 3 @ | 2462.000 | 92.15  |        |        | 93.90       | 28.22 | 3.81   | 33.79 | 100   | 32 Average  |
| 4 X | 2462.000 | 97.70  |        |        | 99.45       | 28.22 | 3.81   | 33.79 | 100   | 0 Peak      |
| 5   | 2483.500 | 53.38  | -20.62 | 74.00  | 55.08       | 28.26 | 3.84   | 33.80 | 100   | 0 Peak      |
| 6   | 2483.500 | 38.90  | -15.10 | 54.00  | 40.60       | 28.26 | 3.84   | 33.80 | 100   | 32 Average  |
| 7   | 8742.000 | 55.73  | -18.27 | 74.00  | 45.40       | 37.78 | 7.15   | 34.60 | 100   | 0 Peak      |
| 8   | 8742.000 | 45.05  | -8.95  | 54.00  | 34.72       | 37.78 | 7.15   | 34.60 | 100   | 199 Average |

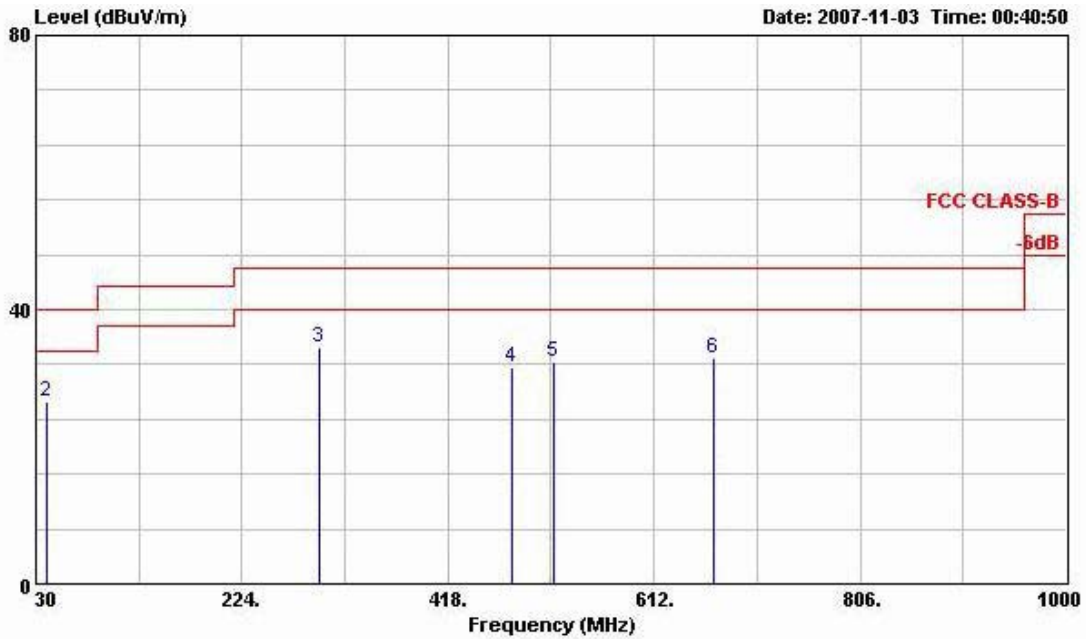
Remark: #3 and #4 Fundamental Signal





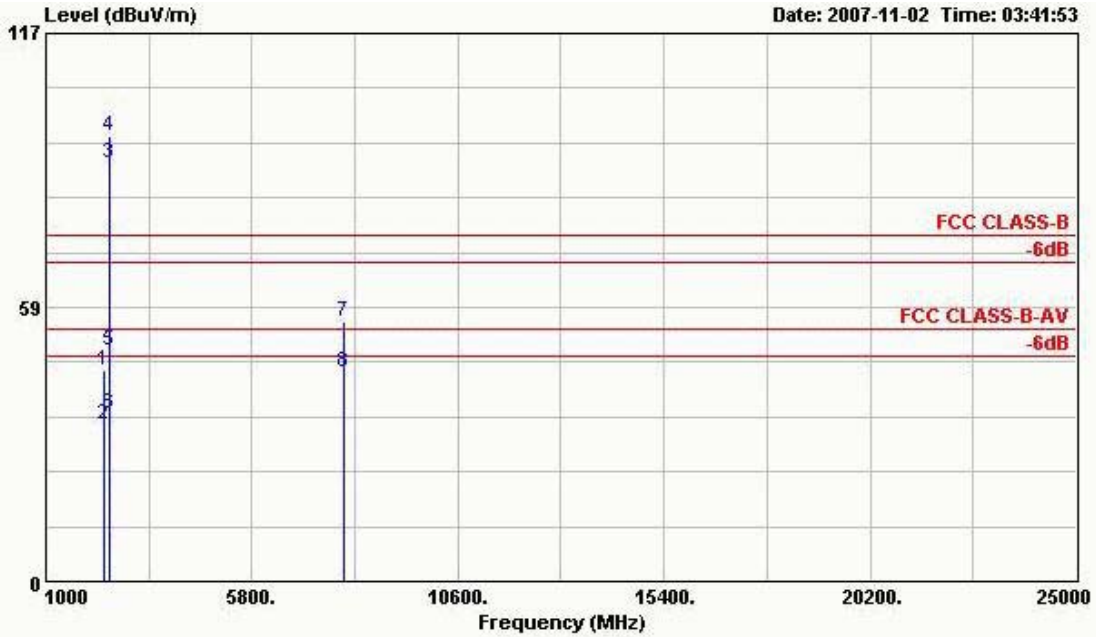
- Polarization : Vertical

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



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m ANT2724 VERTICAL  
 EUT : N/B  
 POWER : 120Vac/60Hz  
 MODEL : FR 701819  
 MEMO : 11b Tx\_CH11;2462MHz  
 Data Rate: 2

|   | Freq    | Level  | Over   | Limit  | ReadAntenna | Cable  | Preamp | Ant    | Table |     |        |
|---|---------|--------|--------|--------|-------------|--------|--------|--------|-------|-----|--------|
|   | MHz     | dBuV/m | Limit  | Line   | Level       | Factor | Loss   | Factor | Pos   | Pos | Remark |
|   |         |        | dB     | dBuV/m | dBuV        | dB/m   | dB     | dB     | cm    | deg |        |
| 1 | 30.540  | 27.44  | -12.56 | 40.00  | 36.88       | 16.36  | 0.87   | 26.67  | ---   | --- | Peak   |
| 2 | 40.260  | 26.58  | -13.42 | 40.00  | 40.78       | 11.46  | 0.97   | 26.64  | ---   | --- | Peak   |
| 3 | 297.300 | 34.48  | -11.52 | 46.00  | 45.66       | 12.32  | 2.23   | 25.74  | 100   | 198 | Peak   |
| 4 | 478.500 | 31.71  | -14.29 | 46.00  | 39.22       | 16.65  | 2.77   | 26.94  | ---   | --- | Peak   |
| 5 | 517.700 | 32.35  | -13.65 | 46.00  | 39.11       | 17.43  | 2.88   | 27.07  | ---   | --- | Peak   |
| 6 | 668.200 | 32.93  | -13.07 | 46.00  | 36.44       | 20.06  | 3.45   | 27.02  | ---   | --- | Peak   |



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m HF-ANT-6903 VERTICAL  
 EUT : N/B  
 POWER : 120Vac/60Hz  
 MODEL : FR 701819  
 MEMO : 11b Tx\_CH11;2462MHz  
 Data Rate: 2

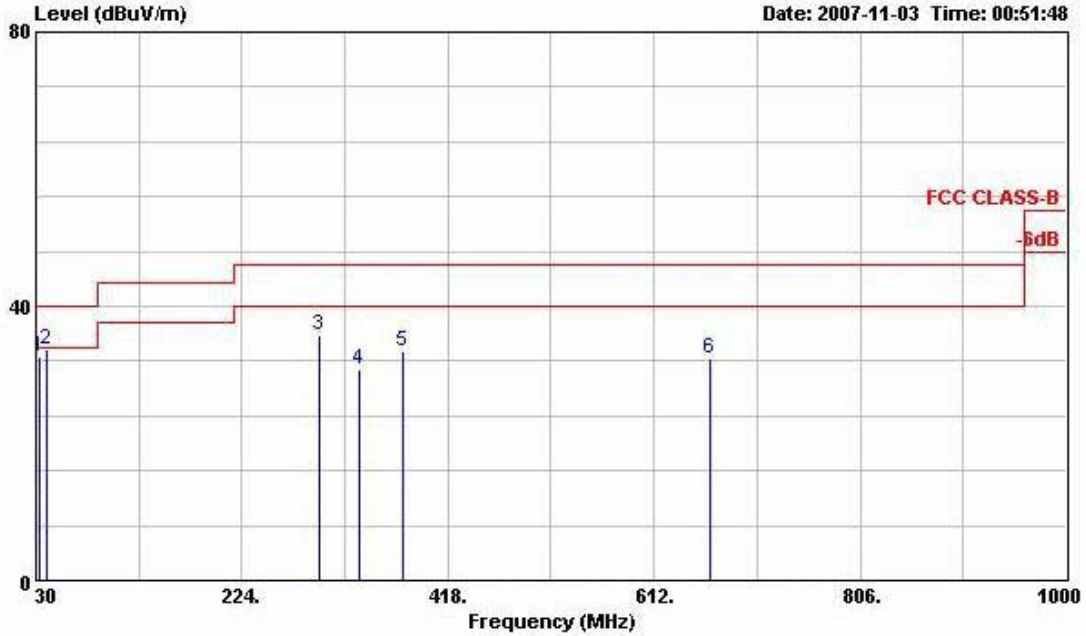
|     | Freq     | Level  | Over   | Limit  | ReadAntenna | Cable | Preamp | Ant   | Table |             |
|-----|----------|--------|--------|--------|-------------|-------|--------|-------|-------|-------------|
|     | MHz      | dBuV/m | dB     | dBuV/m | Level       | Loss  | Factor | Pos   | Pos   | Remark      |
|     |          |        |        |        | dBV         | dB    | dB     | cm    | deg   |             |
| 1   | 2340.000 | 45.08  | -28.92 | 74.00  | 47.20       | 27.96 | 3.69   | 33.77 | 100   | 0 Peak      |
| 2   | 2340.000 | 33.31  | -20.69 | 54.00  | 35.43       | 27.96 | 3.69   | 33.77 | 100   | 106 Average |
| 3 @ | 2462.000 | 89.40  |        |        | 91.15       | 28.22 | 3.81   | 33.79 | 100   | 106 Average |
| 4 X | 2462.000 | 94.90  |        |        | 96.65       | 28.22 | 3.81   | 33.79 | 100   | 0 Peak      |
| 5   | 2483.500 | 49.44  | -24.56 | 74.00  | 51.14       | 28.26 | 3.84   | 33.80 | 100   | 0 Peak      |
| 6   | 2483.500 | 35.75  | -18.25 | 54.00  | 37.45       | 28.26 | 3.84   | 33.80 | 100   | 106 Average |
| 7   | 7953.000 | 55.24  | -18.76 | 74.00  | 45.36       | 36.76 | 6.74   | 33.62 | 100   | 0 Peak      |
| 8   | 7953.000 | 44.71  | -9.29  | 54.00  | 34.83       | 36.76 | 6.74   | 33.62 | 100   | 185 Average |

Remark: #3 and #4 Fundamental Signal



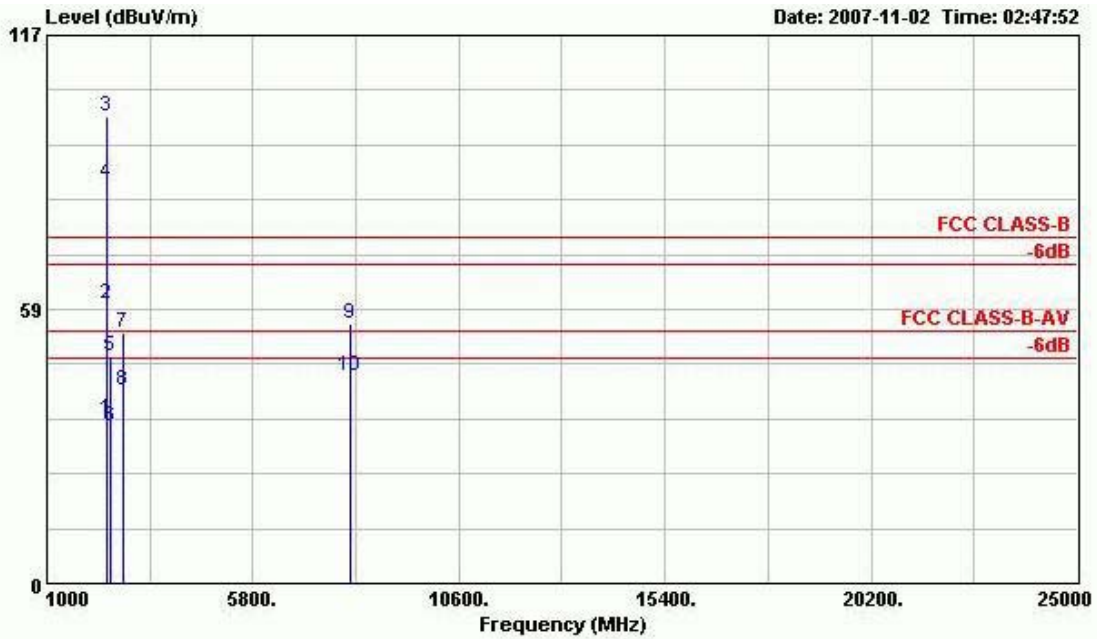
- Test Mode : Mode 4
- Polarization : Horizontal

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



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m ANT2724 HORIZONTAL  
 EUT : N/B  
 POWER : 120Vac/60Hz  
 MODEL : FR 701819  
 MEMO : 11g Tx\_CH01;2412MHz  
 Data Rate: 6

|   | Freq    | Level  | Over Limit | Limit Line | ReadAntenna Level | Antenna Factor | Cable Loss | Preamp Factor | Ant Pos | Table Pos | Remark |
|---|---------|--------|------------|------------|-------------------|----------------|------------|---------------|---------|-----------|--------|
|   | MHz     | dBuV/m | dB         | dBuV/m     | dBuV              | dB/m           | dB         | dB            | cm      | deg       |        |
| 1 | 34.050  | 32.76  | -7.24      | 40.00      | 42.20             | 16.31          | 0.91       | 26.66         | ---     | ---       | Peak   |
| 2 | 39.450  | 33.73  | -6.27      | 40.00      | 47.59             | 11.82          | 0.96       | 26.64         | 100     | 154       | Peak   |
| 3 | 296.220 | 35.83  | -10.17     | 46.00      | 47.01             | 12.33          | 2.23       | 25.74         | ---     | ---       | Peak   |
| 4 | 335.000 | 30.75  | -15.25     | 46.00      | 40.85             | 13.51          | 2.35       | 25.97         | ---     | ---       | Peak   |
| 5 | 374.900 | 33.41  | -12.59     | 46.00      | 42.24             | 14.92          | 2.49       | 26.24         | ---     | ---       | Peak   |
| 6 | 665.400 | 32.40  | -13.60     | 46.00      | 35.92             | 20.06          | 3.45       | 27.02         | ---     | ---       | Peak   |



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m HF-ANT-6903 HORIZONTAL  
 EUT : N/B  
 POWER : 120Vac/60Hz  
 MODEL : FR 701819  
 MEMO : 11g Tx\_CH01;2412MHz  
 Data Rate:6

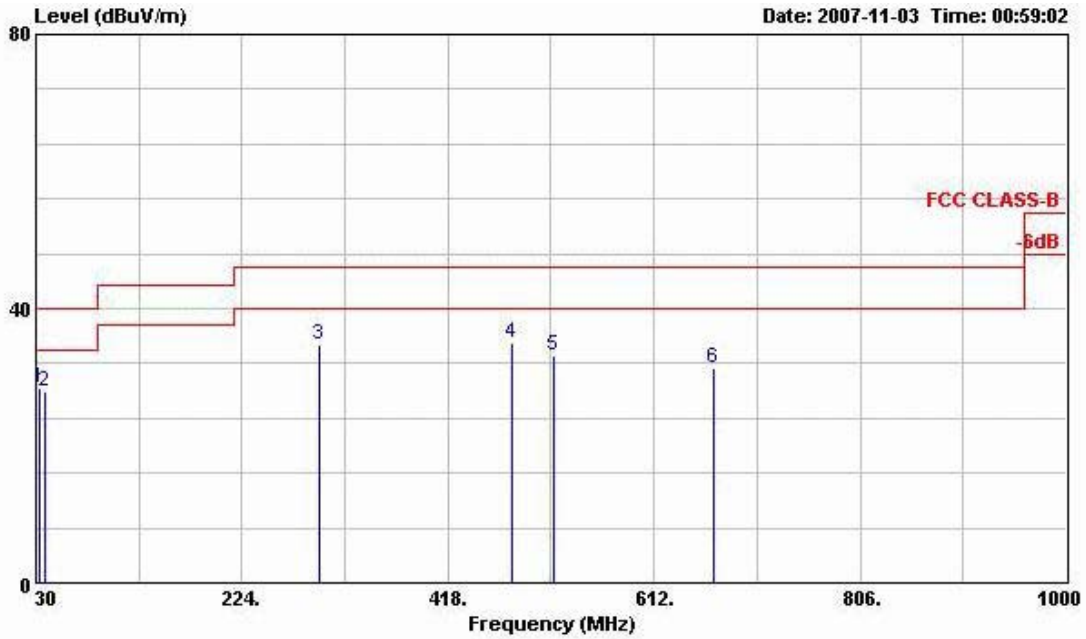
|     | Freq     | Level  | Over   | Limit  | ReadAntenna | Cable | Preamp | Ant   | Table | Remark      |
|-----|----------|--------|--------|--------|-------------|-------|--------|-------|-------|-------------|
|     | MHz      | dBuV/m | dB     | dBuV/m | dBuV        | Loss  | Factor | Pos   | Pos   |             |
|     |          |        |        |        | dB/m        | dB    | dB     | cm    | deg   |             |
| 1   | 2390.000 | 35.01  | -18.99 | 54.00  | 36.98       | 28.07 | 3.74   | 33.78 | 100   | 36 Average  |
| 2   | 2390.000 | 59.77  | -14.23 | 74.00  | 61.74       | 28.07 | 3.74   | 33.78 | 100   | 0 Peak      |
| 3 X | 2412.000 | 99.60  |        |        | 101.51      | 28.11 | 3.76   | 33.78 | 100   | 0 Peak      |
| 4 @ | 2412.000 | 85.27  |        |        | 87.18       | 28.11 | 3.76   | 33.78 | 100   | 36 Average  |
| 5   | 2484.000 | 48.43  | -25.57 | 74.00  | 50.13       | 28.26 | 3.84   | 33.80 | 100   | 0 Peak      |
| 6   | 2484.000 | 33.37  | -20.63 | 54.00  | 35.07       | 28.26 | 3.84   | 33.80 | 100   | 36 Average  |
| 7   | 2782.000 | 53.57  | -20.43 | 74.00  | 54.09       | 29.38 | 4.14   | 34.03 | 100   | 0 Peak      |
| 8   | 2782.000 | 41.30  | -12.70 | 54.00  | 41.82       | 29.38 | 4.14   | 34.03 | 125   | 190 Average |
| 9   | 8049.000 | 55.56  | -18.44 | 74.00  | 45.54       | 36.87 | 6.78   | 33.64 | 100   | 0 Peak      |
| 10  | 8049.000 | 44.35  | -9.65  | 54.00  | 34.33       | 36.87 | 6.78   | 33.64 | 100   | 137 Average |

Remark: #3 and #4 Fundamental Signal



- Polarization : Vertical

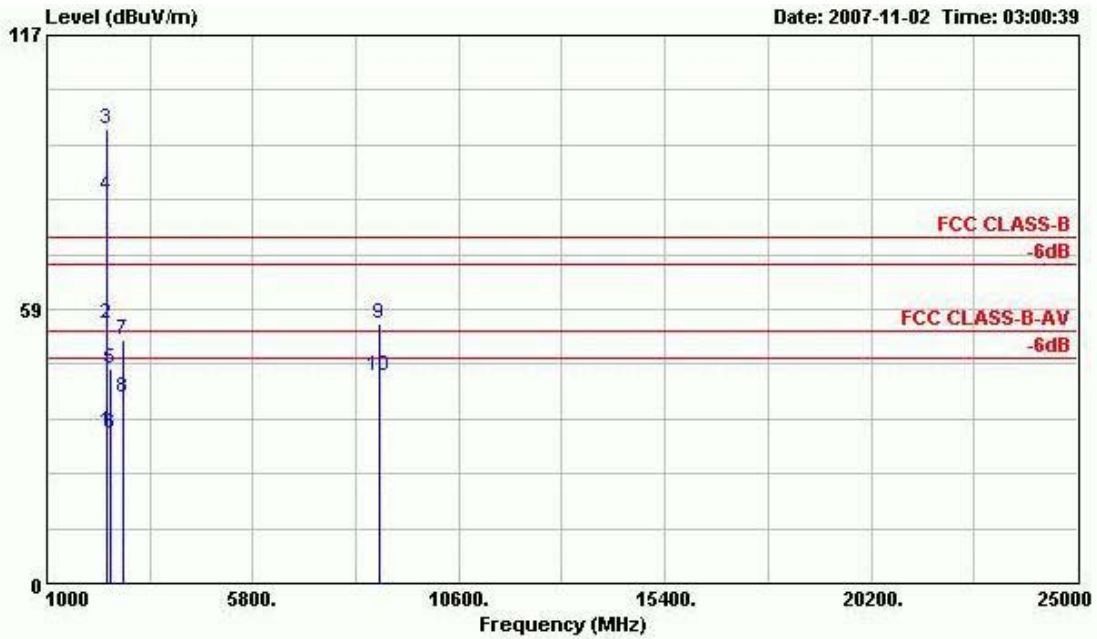
The test that passed at minimum margin was marked by the frame in the following table.



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m ANT2724 VERTICAL  
 EUT : N/B  
 POWER : 120Vac/60Hz  
 MODEL : FR 701819  
 MEMO : 11g Tx\_CH01;2412MHz  
 Data Rate: 6

|   | Freq    | Level  | Over   | Limit  | ReadAntenna | Cable | Preamp | Ant   | Table | Remark   |
|---|---------|--------|--------|--------|-------------|-------|--------|-------|-------|----------|
|   | MHz     | dBuV/m | Limit  | Line   | Level       | Loss  | Factor | Pos   | Pos   |          |
|   |         |        | dB     | dBuV/m | dBuV        | dB    | dB     | cm    | deg   |          |
| 1 | 33.780  | 28.50  | -11.50 | 40.00  | 37.94       | 16.31 | 0.91   | 26.66 | ---   | Peak     |
| 2 | 39.180  | 27.78  | -12.22 | 40.00  | 40.75       | 12.71 | 0.96   | 26.64 | ---   | Peak     |
| 3 | 296.490 | 34.73  | -11.27 | 46.00  | 45.92       | 12.33 | 2.23   | 25.74 | ---   | Peak     |
| 4 | 478.500 | 34.99  | -11.01 | 46.00  | 42.50       | 16.65 | 2.77   | 26.94 | 100   | 277 Peak |
| 5 | 517.700 | 33.25  | -12.75 | 46.00  | 40.01       | 17.43 | 2.88   | 27.07 | ---   | Peak     |
| 6 | 668.200 | 31.40  | -14.60 | 46.00  | 34.91       | 20.06 | 3.45   | 27.02 | ---   | Peak     |





Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m HF-ANT-6903 VERTICAL  
 EUT : N/B  
 POWER : 120Vac/60Hz  
 MODEL : FR 701819  
 MEMO : 11g Tx\_CH01;2412MHz  
 Data Rate:6

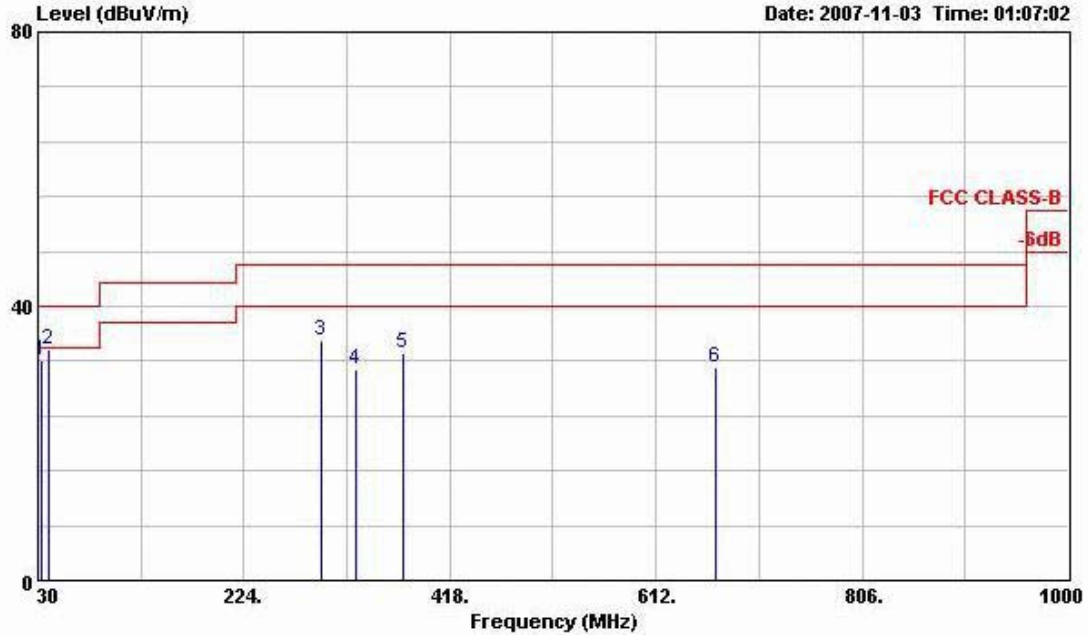
|     | Freq     | Level  | Over   | Limit  | ReadAntenna | Cable | Preamp | Ant   | Table |             |
|-----|----------|--------|--------|--------|-------------|-------|--------|-------|-------|-------------|
|     | MHz      | dBuV/m | Limit  | Line   | Level       | Loss  | Factor | Pos   | Pos   | Remark      |
|     |          |        | dB     | dBuV/m | dBuV        | dB    | dB     | cm    | deg   |             |
| 1   | 2390.000 | 32.51  | -21.49 | 54.00  | 34.48       | 28.07 | 3.74   | 33.78 | 100   | 96 Average  |
| 2   | 2390.000 | 55.52  | -18.48 | 74.00  | 57.49       | 28.07 | 3.74   | 33.78 | 100   | 0 Peak      |
| 3 X | 2412.000 | 97.12  |        |        | 99.03       | 28.11 | 3.76   | 33.78 | 100   | 0 Peak      |
| 4 @ | 2412.000 | 82.66  |        |        | 84.57       | 28.11 | 3.76   | 33.78 | 100   | 96 Average  |
| 5   | 2492.000 | 45.94  | -28.06 | 74.00  | 47.60       | 28.30 | 3.84   | 33.80 | 100   | 0 Peak      |
| 6   | 2492.000 | 31.94  | -22.06 | 54.00  | 33.60       | 28.30 | 3.84   | 33.80 | 100   | 96 Average  |
| 7   | 2782.000 | 51.99  | -22.01 | 74.00  | 52.51       | 29.38 | 4.14   | 34.03 | 100   | 0 Peak      |
| 8   | 2782.000 | 39.65  | -14.35 | 54.00  | 40.17       | 29.38 | 4.14   | 34.03 | 124   | 193 Average |
| 9   | 8757.000 | 55.35  | -18.65 | 74.00  | 45.00       | 37.80 | 7.15   | 34.60 | 100   | 0 Peak      |
| 10  | 8757.000 | 44.17  | -9.83  | 54.00  | 33.82       | 37.80 | 7.15   | 34.60 | 100   | 112 Average |

Remark: #3 and #4 Fundamental Signal



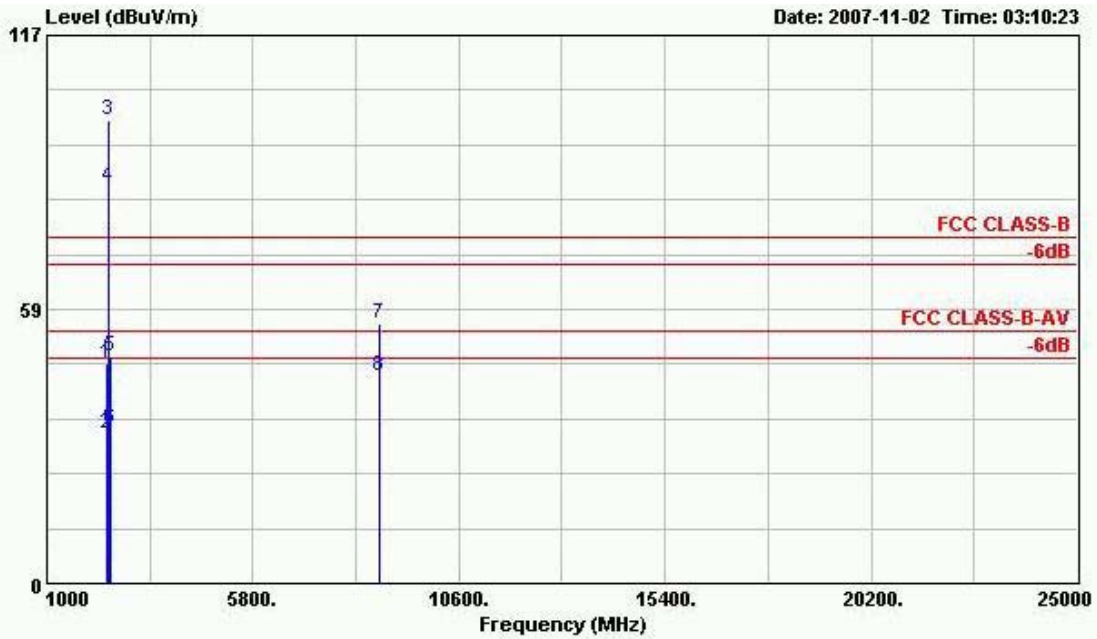
- Test Mode : Mode 5
- Polarization : Horizontal

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



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m ANT2724 HORIZONTAL  
 EUT : N/B  
 POWER : 120Vac/60Hz  
 MODEL : FR 701819  
 MEMO : 11g Tx\_CH06;2437MHz  
 Data Rate: 6

|   | Freq    | Level  | Over Limit | Limit Line | ReadAntenna Level | Antenna Factor | Cable Loss | Preamp Factor | Ant Pos | Table Pos | Remark |
|---|---------|--------|------------|------------|-------------------|----------------|------------|---------------|---------|-----------|--------|
|   | MHz     | dBuV/m | dB         | dBuV/m     | dBuV              | dB/m           | dB         | dB            | cm      | deg       |        |
| 1 | 33.780  | 32.18  | -7.82      | 40.00      | 41.62             | 16.31          | 0.91       | 26.66         | ---     | ---       | Peak   |
| 2 | 39.450  | 33.78  | -6.22      | 40.00      | 47.64             | 11.82          | 0.96       | 26.64         | 100     | 166       | Peak   |
| 3 | 296.220 | 34.90  | -11.10     | 46.00      | 46.08             | 12.33          | 2.23       | 25.74         | ---     | ---       | Peak   |
| 4 | 330.100 | 30.66  | -15.34     | 46.00      | 40.91             | 13.35          | 2.34       | 25.93         | ---     | ---       | Peak   |
| 5 | 374.200 | 33.22  | -12.78     | 46.00      | 42.09             | 14.88          | 2.49       | 26.24         | ---     | ---       | Peak   |
| 6 | 668.200 | 30.97  | -15.03     | 46.00      | 34.48             | 20.06          | 3.45       | 27.02         | ---     | ---       | Peak   |



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m HF-ANT-6903 HORIZONTAL  
 EUT : N/B  
 POWER : 120Vac/60Hz  
 MODEL : FR 701819  
 MEMO : 11g Tx\_CH06;2437MHz  
 Data Rate:6

|     | Freq     | Level  | Over   | Limit  | ReadAntenna | Cable | Preamp | Ant   | Table |             |
|-----|----------|--------|--------|--------|-------------|-------|--------|-------|-------|-------------|
|     | MHz      | dBuV/m | dB     | dBuV/m | Level       | Loss  | Factor | Pos   | Pos   | Remark      |
|     |          |        |        |        | dBuV        | dB    | dB     | cm    | deg   |             |
| 1   | 2390.000 | 47.13  | -26.87 | 74.00  | 49.10       | 28.07 | 3.74   | 33.78 | 100   | 0 Peak      |
| 2   | 2390.000 | 31.92  | -22.08 | 54.00  | 33.89       | 28.07 | 3.74   | 33.78 | 100   | 40 Average  |
| 3 X | 2437.000 | 99.04  |        |        | 100.85      | 28.19 | 3.79   | 33.79 | 100   | 0 Peak      |
| 4 @ | 2437.000 | 84.52  |        |        | 86.33       | 28.19 | 3.79   | 33.79 | 100   | 40 Average  |
| 5   | 2484.000 | 48.62  | -25.38 | 74.00  | 50.32       | 28.26 | 3.84   | 33.80 | 100   | 0 Peak      |
| 6   | 2484.000 | 33.13  | -20.87 | 54.00  | 34.83       | 28.26 | 3.84   | 33.80 | 100   | 40 Average  |
| 7   | 8754.000 | 55.59  | -18.41 | 74.00  | 45.24       | 37.80 | 7.15   | 34.60 | 100   | 0 Peak      |
| 8   | 8754.000 | 44.09  | -9.91  | 54.00  | 33.74       | 37.80 | 7.15   | 34.60 | 100   | 197 Average |

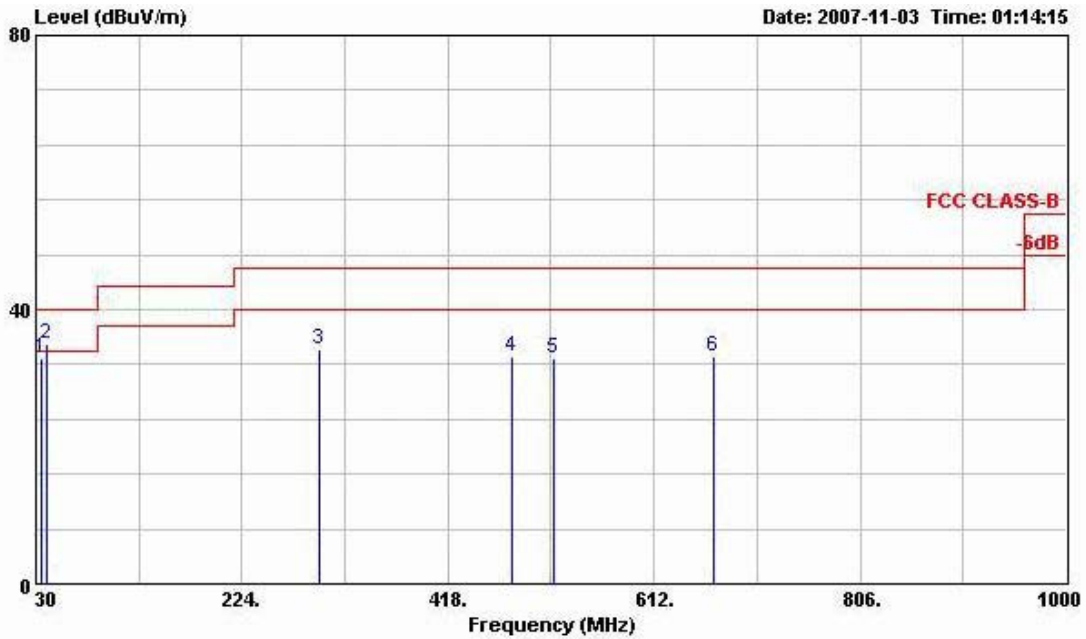
Remark: #3 and #4 Fundamental Signal





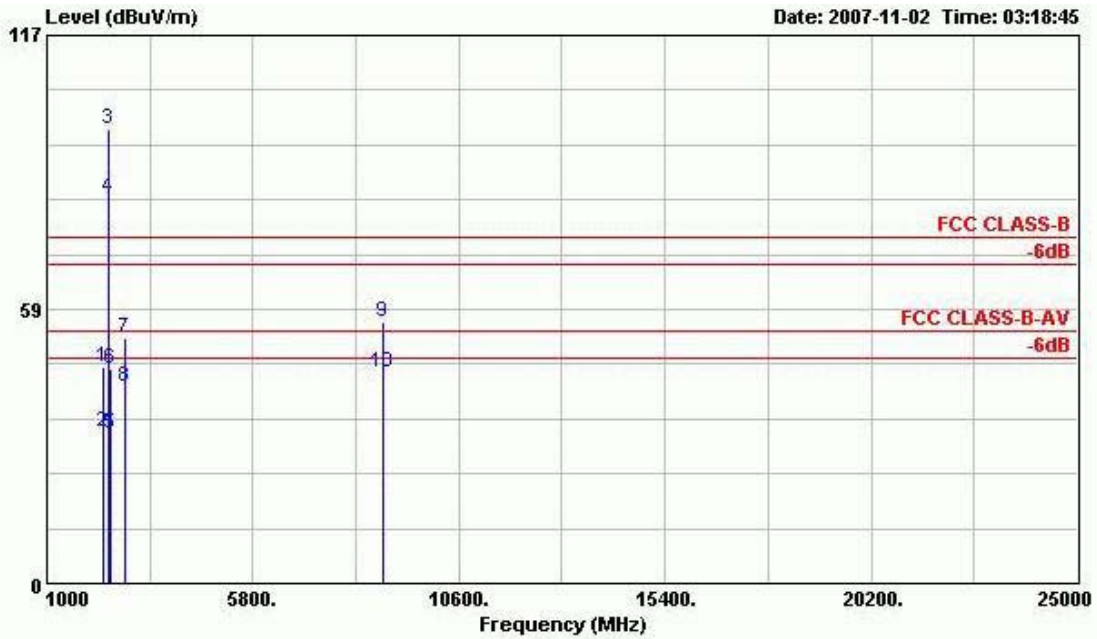
- Polarization : Vertical

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



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m ANT2724 VERTICAL  
 EUT : N/B  
 POWER : 120Vac/60Hz  
 MODEL : FR 701819  
 MEMO : 11g Tx\_CH06;2437MHz  
 Data Rate: 6

|   | Freq    | Level  | Over   | Limit  | ReadAntenna | Cable | Preamp | Ant   | Table | Remark |      |
|---|---------|--------|--------|--------|-------------|-------|--------|-------|-------|--------|------|
|   | MHz     | dBuV/m | dB     | dBuV/m | dBuV        | dB    | dB     | cm    | deg   |        |      |
| 1 | 35.130  | 32.98  | -7.02  | 40.00  | 42.43       | 16.29 | 0.91   | 26.65 | ---   | ---    | Peak |
| 2 | 39.450  | 35.01  | -4.99  | 40.00  | 48.87       | 11.82 | 0.96   | 26.64 | 100   | 187    | Peak |
| 3 | 297.570 | 34.28  | -11.72 | 46.00  | 45.46       | 12.32 | 2.23   | 25.74 | ---   | ---    | Peak |
| 4 | 478.500 | 33.12  | -12.88 | 46.00  | 40.63       | 16.65 | 2.77   | 26.94 | ---   | ---    | Peak |
| 5 | 517.700 | 32.99  | -13.01 | 46.00  | 39.75       | 17.43 | 2.88   | 27.07 | ---   | ---    | Peak |
| 6 | 668.200 | 33.21  | -12.79 | 46.00  | 36.72       | 20.06 | 3.45   | 27.02 | ---   | ---    | Peak |



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m HF-ANT-6903 VERTICAL  
 EUT : N/B  
 POWER : 120Vac/60Hz  
 MODEL : FR 701819  
 MEMO : 11g Tx\_CH06;2437MHz  
 Data Rate: 6

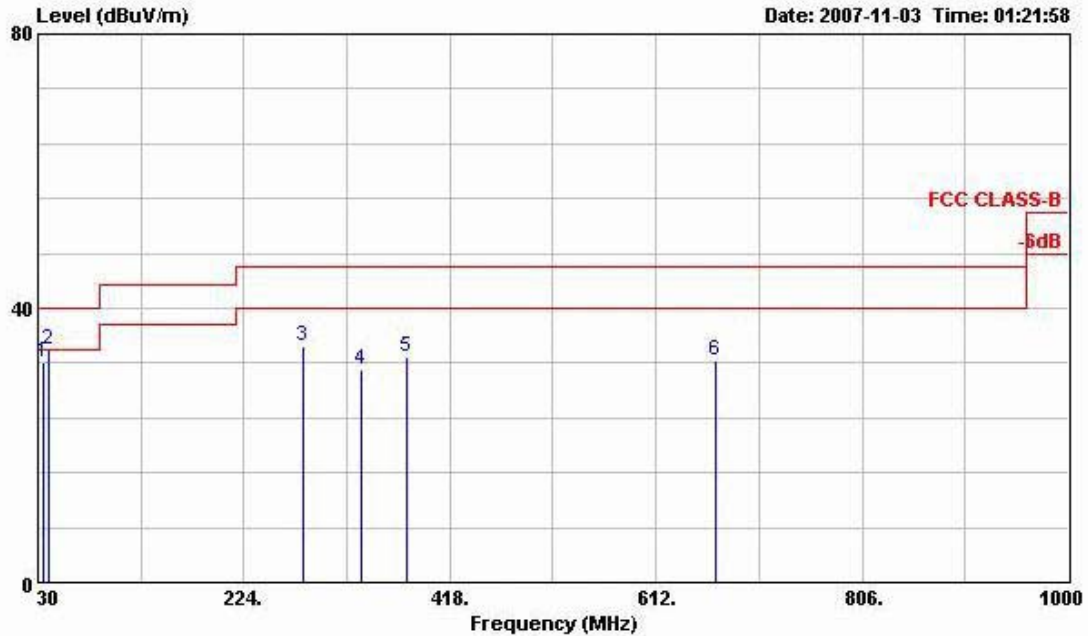
|     | Freq     | Level  | Over   | Limit  | ReadAntenna | Cable | Preamp | Ant   | Table |             |
|-----|----------|--------|--------|--------|-------------|-------|--------|-------|-------|-------------|
|     | MHz      | dBuV/m | dB     | dBuV/m | dBuV        | Loss  | Factor | Pos   | Pos   | Remark      |
|     |          |        |        |        |             | dB    | dB     | cm    | deg   |             |
| 1   | 2326.000 | 46.14  | -27.86 | 74.00  | 48.32       | 27.92 | 3.66   | 33.77 | 100   | 0 Peak      |
| 2   | 2326.000 | 32.20  | -21.80 | 54.00  | 34.38       | 27.92 | 3.66   | 33.77 | 100   | 99 Average  |
| 3 X | 2437.000 | 96.83  |        |        | 98.64       | 28.19 | 3.79   | 33.79 | 100   | 0 Peak      |
| 4 @ | 2437.000 | 82.42  |        |        | 84.23       | 28.19 | 3.79   | 33.79 | 100   | 99 Average  |
| 5   | 2486.000 | 31.93  | -22.07 | 54.00  | 33.63       | 28.26 | 3.84   | 33.80 | 100   | 99 Average  |
| 6   | 2486.000 | 45.91  | -28.09 | 74.00  | 47.61       | 28.26 | 3.84   | 33.80 | 100   | 0 Peak      |
| 7   | 2836.000 | 52.16  | -21.84 | 74.00  | 52.48       | 29.57 | 4.19   | 34.07 | 100   | 0 Peak      |
| 8   | 2836.000 | 42.03  | -11.97 | 54.00  | 42.35       | 29.57 | 4.19   | 34.07 | 100   | 96 Average  |
| 9   | 8841.000 | 55.68  | -18.32 | 74.00  | 45.24       | 37.90 | 7.20   | 34.66 | 100   | 0 Peak      |
| 10  | 8841.000 | 45.14  | -8.86  | 54.00  | 34.70       | 37.90 | 7.20   | 34.66 | 100   | 171 Average |

Remark: #3 and #4 Fundamental Signal



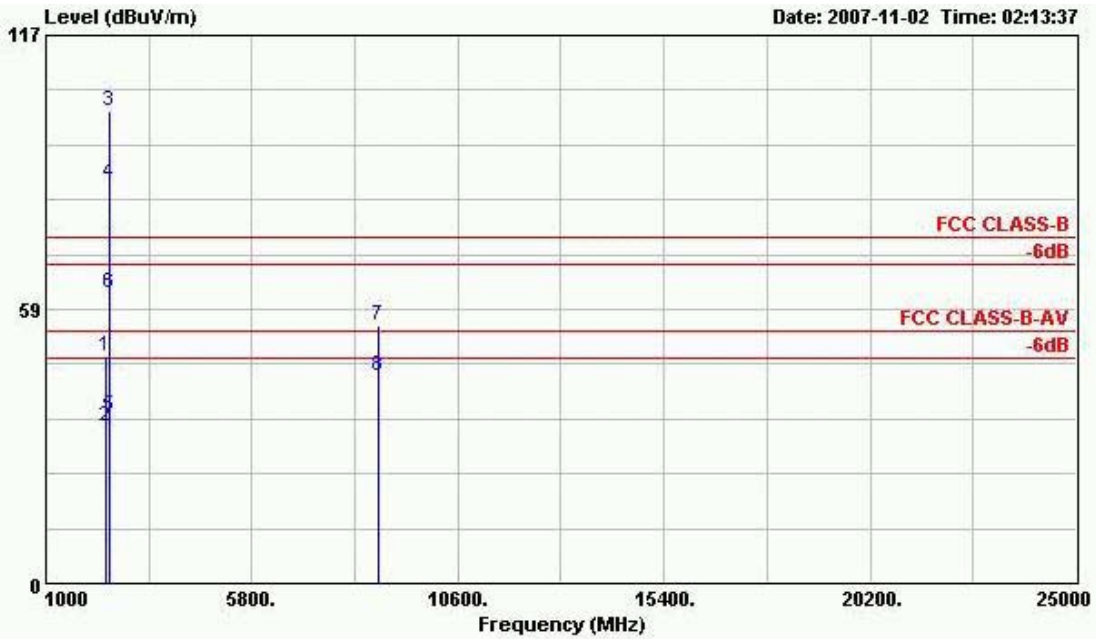
- Test Mode : Mode 6
- Polarization : Horizontal

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



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m ANT2724 HORIZONTAL  
 EUT : N/B  
 POWER : 120Vac/60Hz  
 MODEL : FR 701819  
 MEMO : 11g Tx\_CH11;2462MHz  
 Data Rate: 6

|   | Freq    | Level  | Over Limit | Limit Line | ReadAntenna Level | Antenna Factor | Cable Loss | Preamp Factor | Ant Pos | Table Pos | Remark |
|---|---------|--------|------------|------------|-------------------|----------------|------------|---------------|---------|-----------|--------|
|   | MHz     | dBuV/m | dB         | dBuV/m     | dBuV              | dB/m           | dB         | dB            | cm      | deg       |        |
| 1 | 34.590  | 32.03  | -7.97      | 40.00      | 41.49             | 16.29          | 0.91       | 26.66         | ---     | ---       | Peak   |
| 2 | 39.450  | 34.05  | -5.95      | 40.00      | 47.91             | 11.82          | 0.96       | 26.64         | 100     | 175       | Peak   |
| 3 | 280.020 | 34.54  | -11.46     | 46.00      | 45.76             | 12.41          | 2.17       | 25.80         | ---     | ---       | Peak   |
| 4 | 335.000 | 31.12  | -14.88     | 46.00      | 41.22             | 13.51          | 2.35       | 25.97         | ---     | ---       | Peak   |
| 5 | 377.000 | 32.77  | -13.23     | 46.00      | 41.54             | 14.98          | 2.49       | 26.25         | ---     | ---       | Peak   |
| 6 | 668.200 | 32.39  | -13.61     | 46.00      | 35.90             | 20.06          | 3.45       | 27.02         | ---     | ---       | Peak   |



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m HF-ANT-6903 HORIZONTAL  
 EUT : N/B  
 POWER : 120Vac/60Hz  
 MODEL : FR 701819  
 MEMO : 11g Tx\_CH11;2462MHz  
 Data Rate: 6

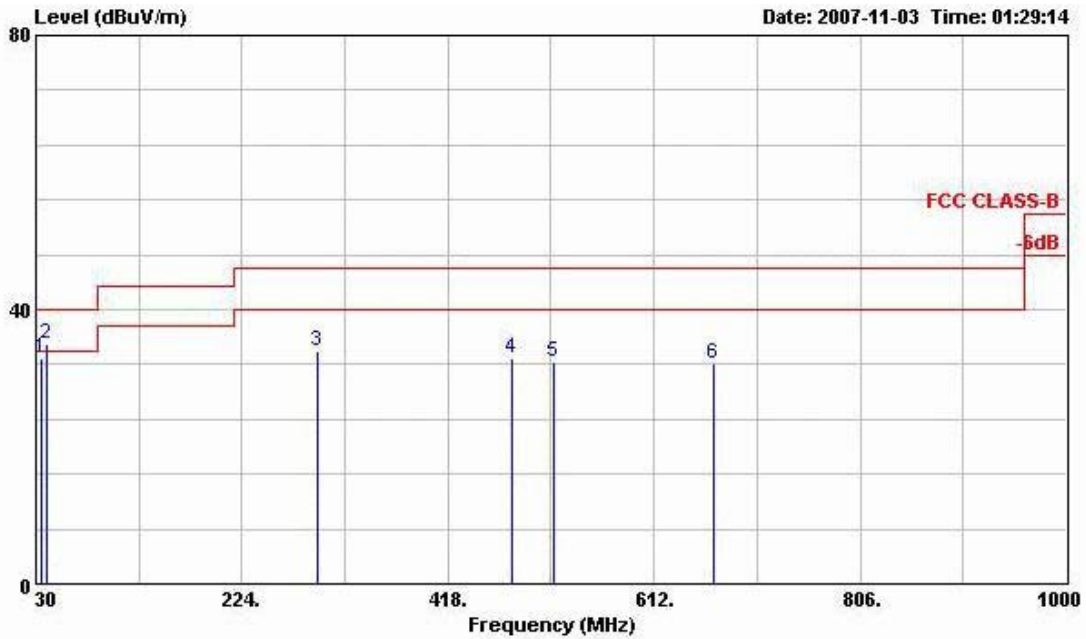
|     | Freq     | Level  | Over   | Limit  | ReadAntenna | Cable | Preamp | Ant | Table |         |
|-----|----------|--------|--------|--------|-------------|-------|--------|-----|-------|---------|
|     | MHz      | dBUV/m | Limit  | Line   | Level       | Loss  | Factor | Pos | Pos   | Remark  |
|     |          |        | dB     | dBUV/m | dBuV        | dB    | dB     | cm  | deg   |         |
| 1   | 2382.000 | 48.46  | -25.54 | 74.00  | 50.46       | 28.03 | 33.78  | --- | ---   | Peak    |
| 2   | 2382.000 | 33.63  | -20.37 | 54.00  | 35.63       | 28.03 | 33.78  | 142 | 35    | Average |
| 3 X | 2462.000 | 100.78 |        |        | 102.54      | 28.22 | 33.80  | 100 | 0     | Peak    |
| 4 @ | 2462.000 | 85.42  |        |        | 87.17       | 28.22 | 33.79  | 142 | 35    | Average |
| 5   | 2483.500 | 35.81  | -18.19 | 54.00  | 37.51       | 28.26 | 33.80  | 142 | 35    | Average |
| 6   | 2483.500 | 62.13  | -11.87 | 74.00  | 63.83       | 28.26 | 33.80  | 100 | 0     | Peak    |
| 7   | 8745.000 | 55.11  | -18.89 | 74.00  | 44.76       | 37.80 | 34.60  | 100 | 0     | Peak    |
| 8   | 8745.000 | 44.41  | -9.59  | 54.00  | 34.06       | 37.80 | 34.60  | 100 | 119   | Average |

Remark: #3 and #4 Fundamental Signal



- Polarization : Vertical

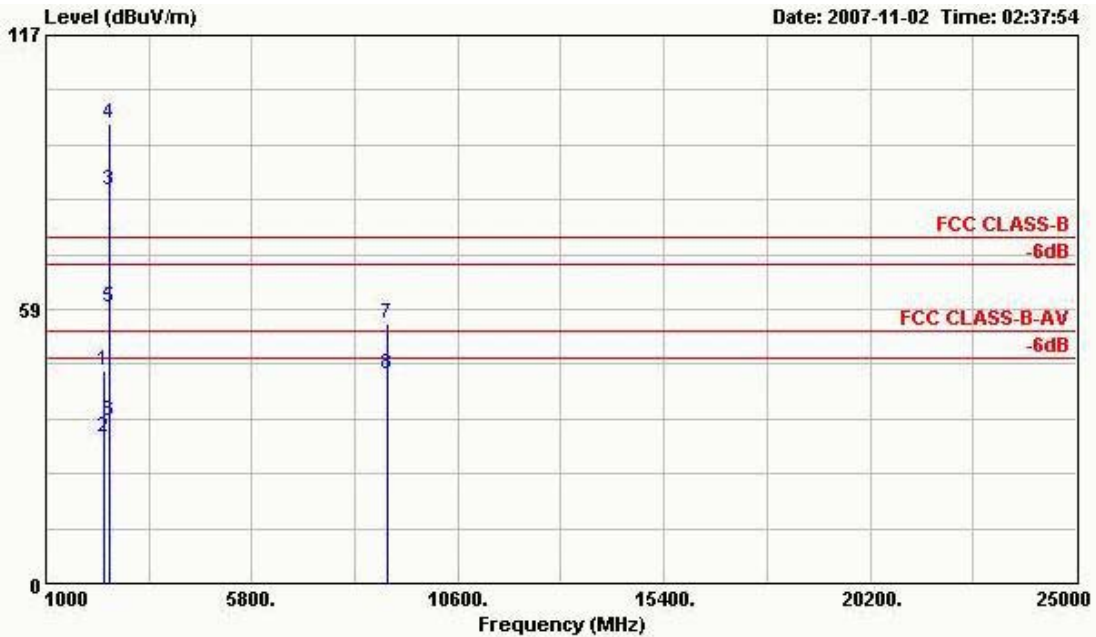
The test that passed at minimum margin was marked by the frame in the following table.



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m ANT2724 VERTICAL  
 EUT : N/B  
 POWER : 120Vac/60Hz  
 MODEL : FR 701819  
 MEMO : 11g Tx\_CH11;2462MHz  
 Data Rate: 6

|   | Freq    | Level  | Over   | Limit  | ReadAntenna | Cable | Preamp | Ant   | Table |        |      |
|---|---------|--------|--------|--------|-------------|-------|--------|-------|-------|--------|------|
|   | MHz     | dBuV/m | dB     | dBuV/m | dBuV        | Loss  | Factor | Pos   | Pos   | Remark |      |
|   |         |        |        |        |             | dB    | dB     | cm    | deg   |        |      |
| 1 | 35.130  | 32.88  | -7.12  | 40.00  | 42.33       | 16.29 | 0.91   | 26.65 | ---   | ---    | Peak |
| 2 | 39.450  | 34.92  | -5.08  | 40.00  | 48.78       | 11.82 | 0.96   | 26.64 | 100   | 191    | Peak |
| 3 | 295.410 | 34.01  | -11.99 | 46.00  | 45.20       | 12.33 | 2.22   | 25.75 | ---   | ---    | Peak |
| 4 | 478.500 | 32.79  | -13.21 | 46.00  | 40.30       | 16.65 | 2.77   | 26.94 | ---   | ---    | Peak |
| 5 | 517.700 | 32.28  | -13.72 | 46.00  | 39.04       | 17.43 | 2.88   | 27.07 | ---   | ---    | Peak |
| 6 | 668.200 | 32.14  | -13.86 | 46.00  | 35.65       | 20.06 | 3.45   | 27.02 | ---   | ---    | Peak |





Site :03CH04-HY  
 Condition:FCC CLASS-B 3m HF-ANT-6903 VERTICAL  
 EUT :N/B  
 POWER :120Vac/60Hz  
 MODEL :FR 701819  
 MEMO :11g Tx\_CH11;2462MHz  
 Data Rate:6

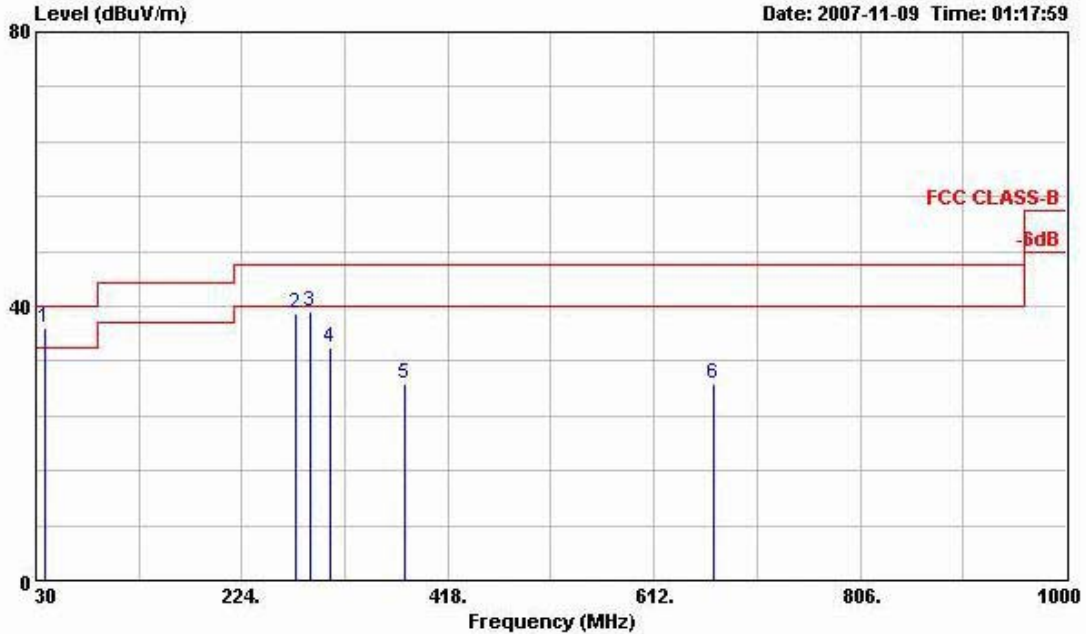
|     | Freq     | Level  | Over   | Limit  | ReadAntenna | Cable | Preamp | Ant   | Table |             |
|-----|----------|--------|--------|--------|-------------|-------|--------|-------|-------|-------------|
|     | MHz      | dBuV/m | dB     | dBuV/m | Level       | Loss  | Factor | Pos   | Pos   | Remark      |
|     |          |        |        |        | dBuV        | dB    | dB     | cm    | deg   |             |
| 1   | 2334.000 | 45.53  | -28.47 | 74.00  | 47.69       | 27.92 | 3.69   | 33.77 | 100   | 0 Peak      |
| 2   | 2334.000 | 31.36  | -22.64 | 54.00  | 33.52       | 27.92 | 3.69   | 33.77 | 100   | 107 Average |
| 3 @ | 2462.000 | 83.76  |        |        | 85.51       | 28.22 | 3.81   | 33.79 | 100   | 107 Average |
| 4 X | 2462.000 | 98.26  |        |        | 100.02      | 28.22 | 3.81   | 33.80 | 100   | 0 Peak      |
| 5   | 2483.500 | 58.88  | -15.12 | 74.00  | 60.58       | 28.26 | 3.84   | 33.80 | 100   | 0 Peak      |
| 6   | 2483.500 | 34.55  | -19.45 | 54.00  | 36.25       | 28.26 | 3.84   | 33.80 | 100   | 107 Average |
| 7   | 8946.000 | 55.42  | -18.58 | 74.00  | 44.91       | 38.02 | 7.25   | 34.76 | 100   | 0 Peak      |
| 8   | 8946.000 | 44.57  | -9.43  | 54.00  | 34.06       | 38.02 | 7.25   | 34.76 | 100   | 164 Average |

Remark: #3 and #4 Fundamental Signal



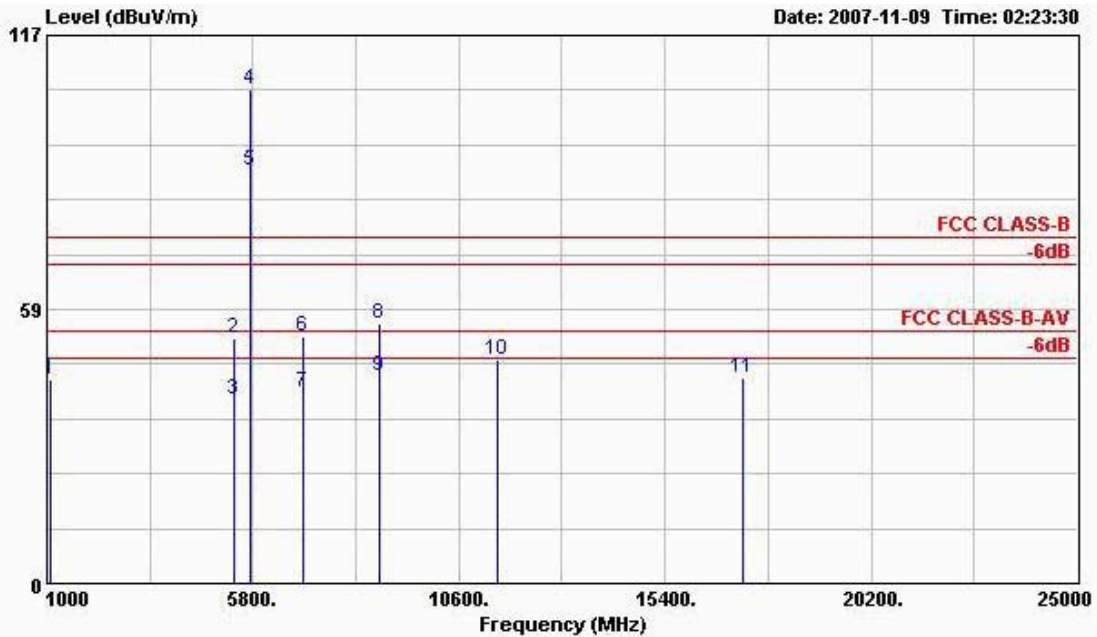
- Test Mode : Mode 7
- Polarization : Horizontal

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



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m ANT2724 HORIZONTAL  
 EUT : N/B  
 POWER : 120Vac/60Hz  
 MODEL : FR 701819  
 MEMO : 11a Tx\_Ch149;5745MHz  
 Data Rate: 9

|   | Freq    | Level  | Over Limit | Limit Line | ReadAntenna Level | Antenna Factor | Cable Loss | Preamp Factor | Ant Pos | Table Pos | Remark |
|---|---------|--------|------------|------------|-------------------|----------------|------------|---------------|---------|-----------|--------|
|   | MHz     | dBuV/m | dB         | dBuV/m     | dBuV              | dB/m           | dB         | dB            | cm      | deg       |        |
| 1 | 38.370  | 36.78  | -3.22      | 40.00      | 51.39             | 12.71          | 0.95       | 28.27         | 100     | 174       | Peak   |
| 2 | 274.890 | 38.88  | -7.12      | 46.00      | 51.94             | 12.44          | 2.15       | 27.65         | ---     | ---       | Peak   |
| 3 | 287.580 | 39.13  | -6.87      | 46.00      | 52.19             | 12.37          | 2.19       | 27.63         | ---     | ---       | Peak   |
| 4 | 307.700 | 34.02  | -11.98     | 46.00      | 46.83             | 12.58          | 2.27       | 27.66         | ---     | ---       | Peak   |
| 5 | 377.000 | 28.57  | -17.43     | 46.00      | 39.23             | 14.98          | 2.49       | 28.14         | ---     | ---       | Peak   |
| 6 | 668.200 | 28.71  | -17.29     | 46.00      | 34.30             | 20.06          | 3.45       | 29.10         | ---     | ---       | Peak   |



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m HF-ANT-6903 HORIZONTAL  
 EUT : N/B  
 POWER : 120Vac/60Hz  
 MODEL : FR 701819  
 MEMO : 11a Tx\_Ch149;5745MHz  
 Data Rate: 9

|     | Freq      | Level  | Over   | Limit  | ReadAntenna | Cable  | Preamp | Ant   | Table |             |
|-----|-----------|--------|--------|--------|-------------|--------|--------|-------|-------|-------------|
|     | MHz       | dBuV/m | Limit  | Line   | Level       | Loss   | Factor | Pos   | Pos   | Remark      |
|     |           |        | dB     | dBuV/m | dBuV        | dB     | dB     | cm    | deg   |             |
| 1   | 1100.000  | 43.41  | -30.59 | 74.00  | 51.07       | 24.27  | 2.34   | 34.26 | 100   | 0 Peak      |
| 2   | 5348.000  | 52.43  | -21.57 | 74.00  | 46.96       | 33.62  | 6.00   | 34.15 | 100   | 0 Peak      |
| 3   | 5348.000  | 39.31  | -14.69 | 54.00  | 33.84       | 33.62  | 6.00   | 34.15 | 100   | 340 Average |
| 4 X | 5745.000  | 105.28 |        |        | 99.36       | 33.94  | 6.02   | 34.05 | 100   | 0 Peak      |
| 5 @ | 5745.000  | 88.12  |        |        | 82.20       | 33.94  | 6.02   | 34.05 | 100   | 340 Average |
| 6   | 6974.000  | 52.73  | -21.27 | 74.00  | 43.77       | 35.13  | 6.35   | 32.52 | 100   | 0 Peak      |
| 7   | 6974.000  | 40.64  | -13.36 | 54.00  | 31.68       | 35.13  | 6.35   | 32.52 | 100   | 340 Average |
| 8   | 8742.000  | 55.33  | -18.67 | 74.00  | 45.00       | 37.78  | 7.15   | 34.60 | 100   | 0 Peak      |
| 9   | 8742.000  | 44.31  | -9.69  | 54.00  | 33.98       | 37.78  | 7.15   | 34.60 | 100   | 175 Average |
| 10  | 11492.000 | 47.64  | -26.36 | 74.00  | 85.82       | -11.73 | 7.84   | 34.30 | 100   | 0 Peak      |
| 11  | 17232.000 | 43.96  | -30.04 | 74.00  | 79.40       | -11.07 | 9.42   | 33.80 | 100   | 0 Peak      |

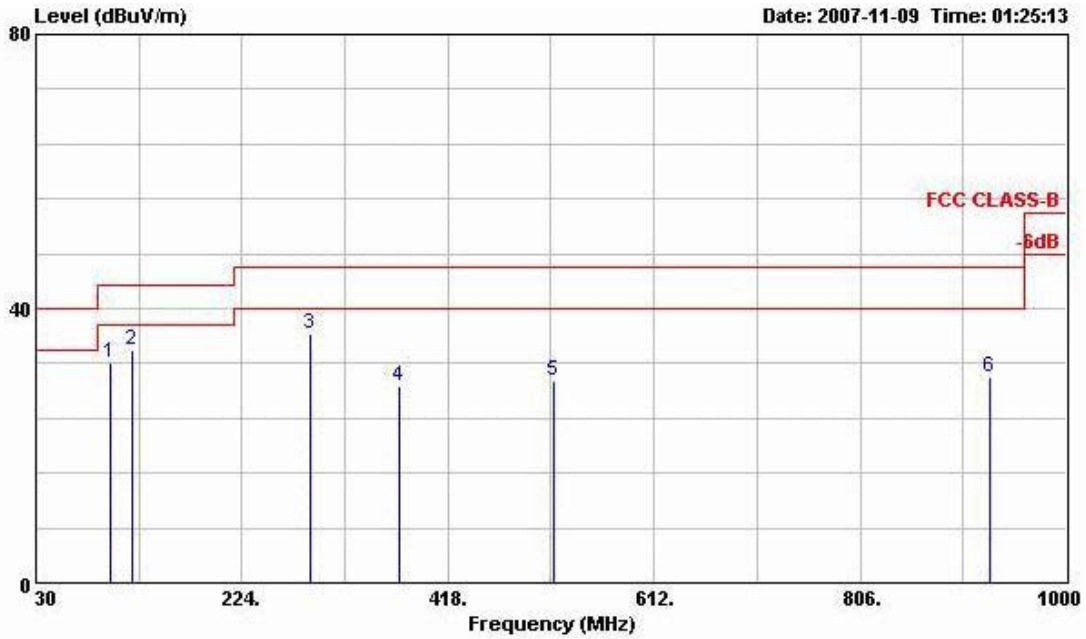
Remark: #4 and #5 Fundamental Signal





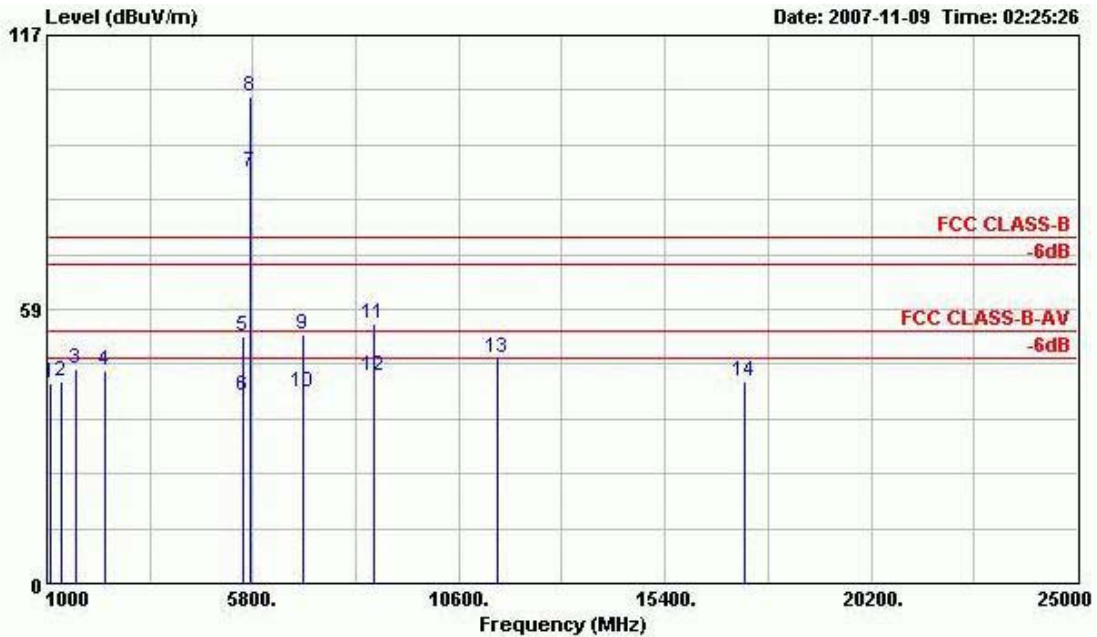
- Polarization : Vertical

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



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m ANT2724 VERTICAL  
 EUT : N/B  
 POWER : 120Vac/60Hz  
 MODEL : FR 701819  
 MEMO : 11a Tx\_Ch149;5745MHz  
 Data Rate: 9

|   | Freq    | Level  | Over Limit | Limit Line | ReadAntenna Level | Antenna Factor | Cable Loss | Preamp Factor | Ant Pos | Table Pos | Remark |
|---|---------|--------|------------|------------|-------------------|----------------|------------|---------------|---------|-----------|--------|
|   | MHz     | dBUV/m | dB         | dBUV/m     | dBuV              | dB/m           | dB         | dB            | cm      | deg       |        |
| 1 | 99.930  | 32.08  | -11.42     | 43.50      | 50.95             | 7.95           | 1.38       | 28.20         | ---     | ---       | Peak   |
| 2 | 120.180 | 33.86  | -9.64      | 43.50      | 49.77             | 10.74          | 1.47       | 28.12         | 100     | 155       | Peak   |
| 3 | 288.660 | 36.23  | -9.77      | 46.00      | 49.29             | 12.37          | 2.20       | 27.62         | ---     | ---       | Peak   |
| 4 | 372.100 | 28.62  | -17.38     | 46.00      | 39.43             | 14.81          | 2.48       | 28.11         | ---     | ---       | Peak   |
| 5 | 517.700 | 29.45  | -16.55     | 46.00      | 38.16             | 17.43          | 2.88       | 29.02         | ---     | ---       | Peak   |
| 6 | 928.600 | 29.99  | -16.01     | 46.00      | 30.54             | 24.23          | 3.97       | 28.74         | ---     | ---       | Peak   |



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m HF-ANT-6903 VERTICAL  
 EUT : N/B  
 POWER : 120Vac/60Hz  
 MODEL : FR 701819  
 MEMO : 11a Tx\_Ch149;5745MHz  
 Data Rate: 9

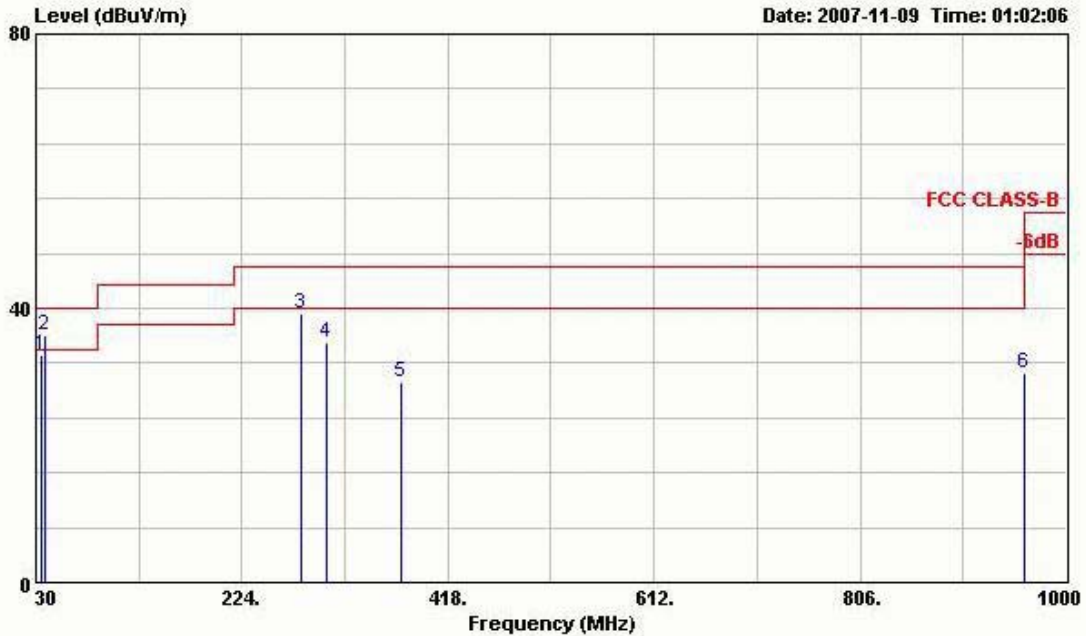
|     | Freq      | Level  | Over   | Limit  | ReadAntenna | Cable  | Preamp | Ant   | Table |             |
|-----|-----------|--------|--------|--------|-------------|--------|--------|-------|-------|-------------|
|     | MHz       | dBuV/m | Limit  | Line   | Level       | Loss   | Factor | Pos   | Pos   | Remark      |
|     |           |        | dB     | dBuV/m | dBuV        | dB     | dB     | cm    | deg   |             |
| 1   | 1084.000  | 42.85  | -31.15 | 74.00  | 50.59       | 24.22  | 2.34   | 34.30 | 100   | 0 Peak      |
| 2   | 1332.000  | 42.99  | -31.01 | 74.00  | 49.44       | 24.90  | 2.60   | 33.95 | 100   | 0 Peak      |
| 3   | 1662.000  | 45.76  | -28.24 | 74.00  | 50.56       | 25.93  | 2.97   | 33.70 | 100   | 0 Peak      |
| 4   | 2334.000  | 45.55  | -28.45 | 74.00  | 47.71       | 27.92  | 3.69   | 33.77 | 100   | 0 Peak      |
| 5   | 5582.000  | 52.68  | -21.32 | 74.00  | 46.89       | 33.85  | 6.01   | 34.08 | 100   | 0 Peak      |
| 6   | 5582.000  | 40.17  | -13.83 | 54.00  | 34.38       | 33.85  | 6.01   | 34.08 | 120   | 177 Average |
| 7 @ | 5745.000  | 87.80  |        |        | 81.88       | 33.94  | 6.02   | 34.05 | 120   | 177 Average |
| 8 X | 5745.000  | 103.85 |        |        | 97.93       | 33.94  | 6.02   | 34.05 | 100   | 0 Peak      |
| 9   | 6974.000  | 52.95  | -21.05 | 74.00  | 43.99       | 35.13  | 6.35   | 32.52 | 100   | 0 Peak      |
| 10  | 6974.000  | 40.63  | -13.37 | 54.00  | 31.67       | 35.13  | 6.35   | 32.52 | 120   | 177 Average |
| 11  | 8622.000  | 55.54  | -18.46 | 74.00  | 45.32       | 37.64  | 7.08   | 34.50 | 100   | 0 Peak      |
| 12  | 8622.000  | 44.36  | -9.64  | 54.00  | 34.14       | 37.64  | 7.08   | 34.50 | 100   | 214 Average |
| 13  | 11493.000 | 47.97  | -26.03 | 74.00  | 86.15       | -11.73 | 7.84   | 34.30 | 100   | 0 Peak      |
| 14  | 17238.000 | 42.93  | -31.07 | 74.00  | 78.40       | -11.11 | 9.44   | 33.80 | 100   | 0 Peak      |

Remark: #7 and #8 Fundamental Signal



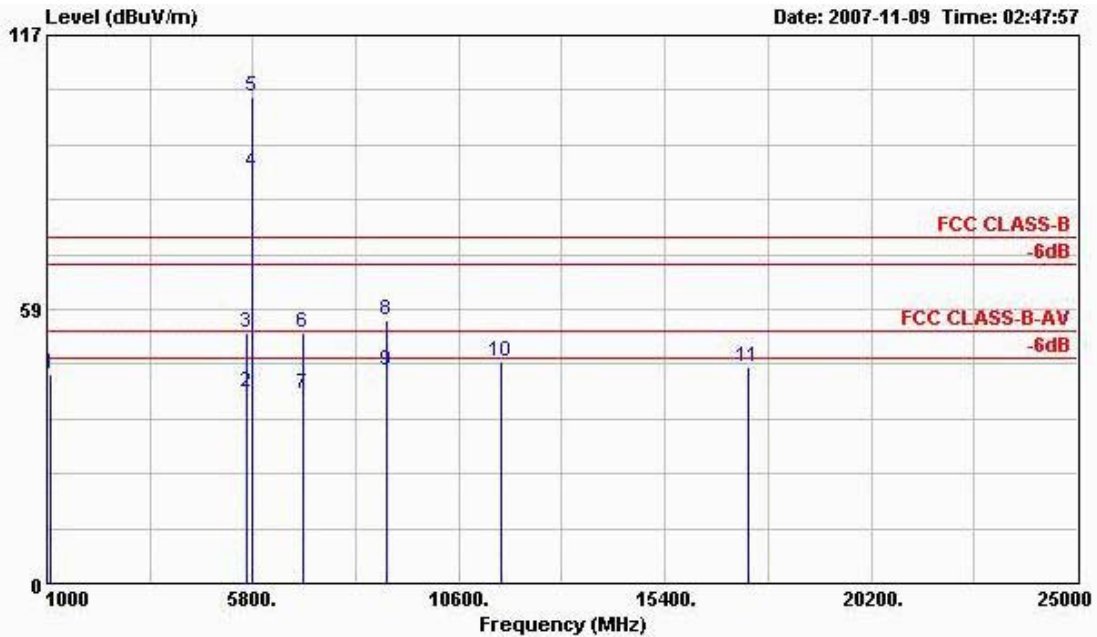
- Test Mode : Mode 8
- Polarization : Horizontal

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



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m ANT2724 HORIZONTAL  
 EUT : N/B  
 POWER : 120Vac/60Hz  
 MODEL : FR 701819  
 MOME : 11a Tx\_Ch157;5785MHz  
 Data Rate: 9

|     | Freq    | Level  | Over Limit | Limit Line | ReadAntenna Level | Antenna Factor | Cable Loss | Preamp Factor | Ant Pos | Table Pos | Remark |
|-----|---------|--------|------------|------------|-------------------|----------------|------------|---------------|---------|-----------|--------|
|     | MHz     | dBuV/m | dB         | dBuV/m     | dBuV              | dB/m           | dB         | dB            | cm      | deg       |        |
| 1   | 35.130  | 33.22  | -6.78      | 40.00      | 44.28             | 16.29          | 0.91       | 28.26         | ---     | ---       | Peak   |
| 2 ! | 38.370  | 35.97  | -4.03      | 40.00      | 50.58             | 12.71          | 0.95       | 28.27         | 100     | 146       | Peak   |
| 3   | 279.210 | 39.29  | -6.71      | 46.00      | 52.35             | 12.42          | 2.16       | 27.64         | ---     | ---       | Peak   |
| 4   | 304.200 | 34.89  | -11.11     | 46.00      | 47.79             | 12.48          | 2.25       | 27.63         | ---     | ---       | Peak   |
| 5   | 374.200 | 29.28  | -16.72     | 46.00      | 40.03             | 14.88          | 2.49       | 28.12         | ---     | ---       | Peak   |
| 6   | 960.100 | 30.47  | -23.53     | 54.00      | 30.13             | 25.04          | 3.99       | 28.68         | ---     | ---       | Peak   |



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m HF-ANT-6903 HORIZONTAL  
 EUT : N/B  
 POWER : 120Vac/60Hz  
 MODEL : FR 701819  
 MOME : 11a Tx\_Ch157;5785MHz  
 Data Rate: 9

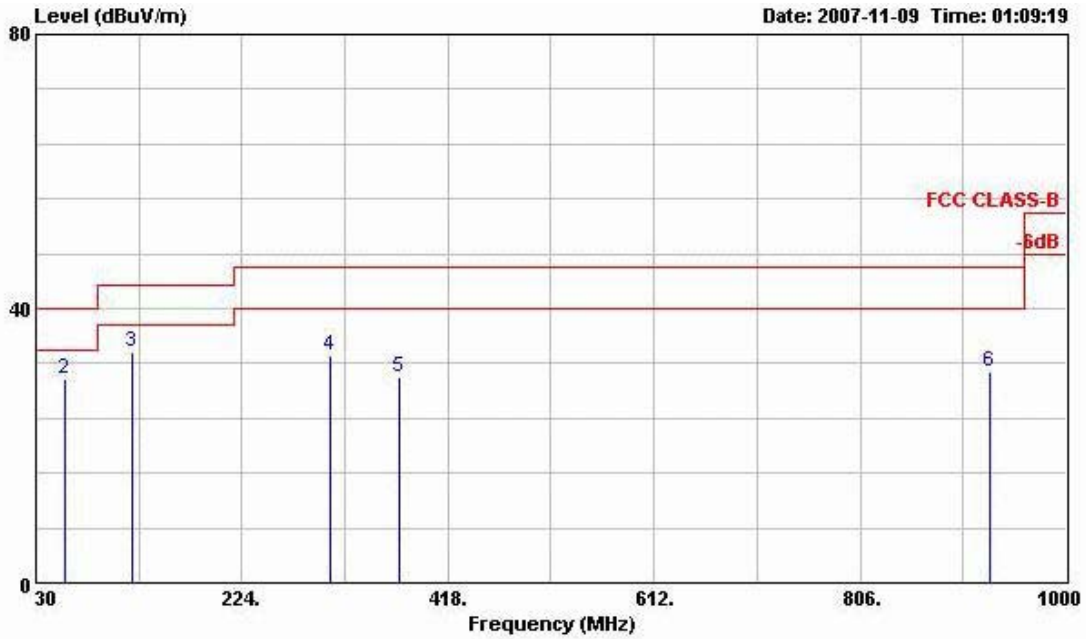
|     | Freq      | Level  | Over   | Limit  | ReadAntenna | Cable  | Preamp | Ant   | Table |             |
|-----|-----------|--------|--------|--------|-------------|--------|--------|-------|-------|-------------|
|     | MHz       | dBuV/m | Limit  | Line   | Level       | Loss   | Factor | Pos   | Pos   | Remark      |
|     |           |        | dB     | dBuV/m | dBuV        | dB     | dB     | cm    | deg   |             |
| 1   | 1094.000  | 44.60  | -29.40 | 74.00  | 52.26       | 24.27  | 2.34   | 34.26 | 100   | 0 Peak      |
| 2   | 5662.000  | 40.60  | -13.40 | 54.00  | 34.76       | 33.89  | 6.02   | 34.07 | 117   | 340 Average |
| 3   | 5662.000  | 53.48  | -20.52 | 74.00  | 47.64       | 33.89  | 6.02   | 34.07 | 100   | 0 Peak      |
| 4 @ | 5785.000  | 87.74  |        |        | 81.79       | 33.97  | 6.02   | 34.04 | 117   | 340 Average |
| 5 X | 5785.000  | 103.97 |        |        | 98.02       | 33.97  | 6.02   | 34.04 | 100   | 0 Peak      |
| 6   | 6950.000  | 53.57  | -20.43 | 74.00  | 44.67       | 35.10  | 6.34   | 32.54 | 100   | 0 Peak      |
| 7   | 6950.000  | 40.40  | -13.60 | 54.00  | 31.50       | 35.10  | 6.34   | 32.54 | 117   | 340 Average |
| 8   | 8934.000  | 56.20  | -17.80 | 74.00  | 45.67       | 38.02  | 7.25   | 34.74 | 100   | 0 Peak      |
| 9   | 8934.000  | 45.47  | -8.53  | 54.00  | 34.94       | 38.02  | 7.25   | 34.74 | 100   | 257 Average |
| 10  | 11574.000 | 47.39  | -26.61 | 74.00  | 85.36       | -11.49 | 7.85   | 34.33 | 100   | 0 Peak      |
| 11  | 17358.000 | 46.30  | -27.70 | 74.00  | 82.13       | -11.61 | 9.54   | 33.76 | 100   | 0 Peak      |

Remark: #4 and #5 Fundamental Signal



- Polarization : Vertical

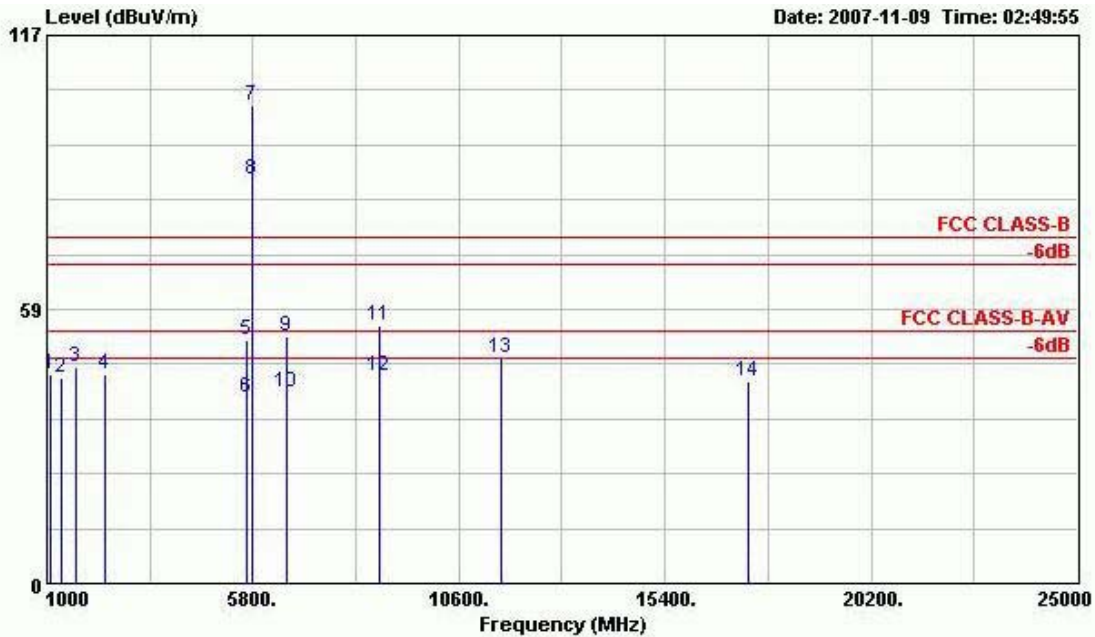
The test that passed at minimum margin was marked by the frame in the following table.



Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m ANT2724 VERTICAL  
 EUT : N/B  
 POWER : 120Vac/60Hz  
 MODEL : FR 701819  
 MOME : 11a Tx\_Ch157;5785MHz  
 Data Rate: 9

|   | Freq    | Level  | Over Limit | Limit Line | ReadAntenna Level | Antenna Factor | Cable Loss | Preamp Factor | Ant Pos | Table Pos | Remark |
|---|---------|--------|------------|------------|-------------------|----------------|------------|---------------|---------|-----------|--------|
|   | MHz     | dBuV/m | dB         | dBuV/m     | dBuV              | dB/m           | dB         | dB            | cm      | deg       |        |
| 1 | 30.540  | 29.95  | -10.05     | 40.00      | 40.97             | 16.36          | 0.87       | 28.25         | ---     | ---       | Peak   |
| 2 | 57.540  | 29.79  | -10.21     | 40.00      | 52.50             | 4.49           | 1.09       | 28.28         | ---     | ---       | Peak   |
| 3 | 120.180 | 33.76  | -9.74      | 43.50      | 49.67             | 10.74          | 1.47       | 28.12         | 100     | 168       | Peak   |
| 4 | 307.700 | 33.27  | -12.73     | 46.00      | 46.08             | 12.58          | 2.27       | 27.66         | ---     | ---       | Peak   |
| 5 | 372.100 | 29.87  | -16.13     | 46.00      | 40.68             | 14.81          | 2.48       | 28.11         | ---     | ---       | Peak   |
| 6 | 928.600 | 30.77  | -15.23     | 46.00      | 31.32             | 24.23          | 3.97       | 28.74         | ---     | ---       | Peak   |





Site : 03CH04-HY  
 Condition: FCC CLASS-B 3m HF-ANT-6903 VERTICAL  
 EUT : N/B  
 POWER : 120Vac/60Hz  
 MODEL : FR 701819  
 MOME : 11a Tx\_Ch157;5785MHz  
 Data Rate: 9

|     | Freq      | Level  | Over   | Limit  | ReadAntenna | Cable  | Preamp | Ant   | Table |             |
|-----|-----------|--------|--------|--------|-------------|--------|--------|-------|-------|-------------|
|     | MHz       | dBuV/m | Limit  | Line   | Level       | Loss   | Factor | Pos   | Pos   | Remark      |
|     |           |        | dB     | dBuV/m | dBuV        | dB     | dB     | cm    | deg   |             |
| 1   | 1084.000  | 44.70  | -29.30 | 74.00  | 52.44       | 24.22  | 2.34   | 34.30 | 100   | 0 Peak      |
| 2   | 1334.000  | 43.97  | -30.03 | 74.00  | 50.42       | 24.90  | 2.60   | 33.95 | 100   | 0 Peak      |
| 3   | 1662.000  | 46.02  | -27.98 | 74.00  | 50.82       | 25.93  | 2.97   | 33.70 | 100   | 0 Peak      |
| 4   | 2334.000  | 44.74  | -29.26 | 74.00  | 46.90       | 27.92  | 3.69   | 33.77 | 100   | 0 Peak      |
| 5   | 5662.000  | 51.95  | -22.05 | 74.00  | 46.11       | 33.89  | 6.02   | 34.07 | 100   | 0 Peak      |
| 6   | 5662.000  | 39.75  | -14.25 | 54.00  | 33.91       | 33.89  | 6.02   | 34.07 | 146   | 9 Average   |
| 7 X | 5785.000  | 102.10 |        |        | 96.15       | 33.97  | 6.02   | 34.04 | 100   | 0 Peak      |
| 8 @ | 5785.000  | 86.39  |        |        | 80.44       | 33.97  | 6.02   | 34.04 | 146   | 9 Average   |
| 9   | 6588.000  | 52.90  | -21.10 | 74.00  | 45.14       | 34.37  | 6.23   | 32.84 | 100   | 0 Peak      |
| 10  | 6588.000  | 40.92  | -13.08 | 54.00  | 33.16       | 34.37  | 6.23   | 32.84 | 146   | 9 Average   |
| 11  | 8742.000  | 54.99  | -19.01 | 74.00  | 44.66       | 37.78  | 7.15   | 34.60 | 100   | 0 Peak      |
| 12  | 8742.000  | 44.21  | -9.79  | 54.00  | 33.88       | 37.78  | 7.15   | 34.60 | 100   | 138 Average |
| 13  | 11568.000 | 47.96  | -26.04 | 74.00  | 85.92       | -11.49 | 7.85   | 34.32 | 100   | 0 Peak      |
| 14  | 17358.000 | 42.92  | -31.08 | 74.00  | 78.75       | -11.61 | 9.54   | 33.76 | 100   | 0 Peak      |

Remark: #7 and #8 Fundamental Signal