

**FCC PART 15C REPORT FOR CERTIFICATION**  
**On Behalf of**

**Soundlab Technology Company Limited**

**Soundbar**

**Model Number: Klipsch Cinema 800 Sound bar**

**FCC ID: 2ATKO-BAR800**

|               |                                                                     |
|---------------|---------------------------------------------------------------------|
| Prepared for: | Soundlab Technology Company Limited                                 |
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|               |                                                                     |
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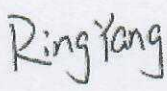
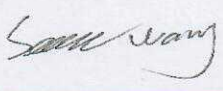
|                 |                       |
|-----------------|-----------------------|
| Report Number:  | ESTE-R2008098         |
| Date of Test:   | Jul. 14~Aug. 18, 2020 |
| Date of Report: | Aug. 19, 2020         |

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## EST Technology Co., Ltd.

|                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                       |                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------------|
| <b>Applicant:</b>                                                                                                                                                                                 | Soundlab Technology Company Limited                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                       |                       |
| <b>Address:</b>                                                                                                                                                                                   | No.101,202,Building 1, Microlab Industrial Park, No.2 Baozi South Road, Kengzi, Pingshan District, ShenZhen, China                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                       |                       |
| <b>Manufacturer:</b>                                                                                                                                                                              | Klipsch Group Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                       |                       |
| <b>Address:</b>                                                                                                                                                                                   | 3502 Woodview Trace, Indianapolis, IN 46268                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                       |                       |
| <b>E.U.T:</b>                                                                                                                                                                                     | Soundbar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                       |                       |
| <b>Model Number:</b>                                                                                                                                                                              | Klipsch Cinema 800 Sound bar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                       |                       |
| <b>Power Supply:</b>                                                                                                                                                                              | AC 100~240V, 50/60Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                       |                       |
| <b>Trade Name:</b>                                                                                                                                                                                | Klipsch                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>Serial No.:</b>                                                                                                    | -----                 |
| <b>Date of Receipt:</b>                                                                                                                                                                           | Jul. 14, 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Date of Test:</b>                                                                                                  | Jul. 14~Aug. 18, 2020 |
| <b>Test Specification:</b>                                                                                                                                                                        | FCC Part 15 Subpart C (15.247)<br>ANSI C63.10:2013<br>FCC KDB 558074 D01 15.247 Meas Guidance v05r02<br>FCC KDB 662911 D01 Multiple Transmitter Output v02r01                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                       |                       |
| <b>Test Result:</b>                                                                                                                                                                               | <p>The device described above is tested by EST Technology Co., Ltd. The measurement results were contained in this test report and EST Technology Co., Ltd. was assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliance with the FCC Rules and Regulations Part 15 Subpart C requirements.</p> <p>This report applies to above tested sample only and shall not be reproduced in part without written approval of EST Technology Co., Ltd.</p> |                                                                                                                       |                       |
| <b>Prepared by:</b>                                                                                                                                                                               | <b>Reviewed by:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Date:</b> Aug. 19, 2020<br><b>Approved by:</b>                                                                     |                       |
| <br>_____<br>Ring Yang / Assistant                                                                             | <br>_____<br>Seven Wang / Engineer                                                                                                                                                                                                                                                                                                                                                                                                                         | <br>_____<br>Iceman Hu / Manager |                       |
| <b>Other Aspects:</b>                                                                                                                                                                             | None.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                       |                       |
| Abbreviations: OK/P=passed    fail/F=failed    n.a/N=not applicable    E.U.T=equipment under tested                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                       |                       |
| This test report is based on a single evaluation of one sample of above mentioned products ,It is not permitted to be duplicated in extracts without written approval of EST Technology Co., Ltd. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                       |                       |



## 1. GENERAL INFORMATION

### 1.1. Description of Device (EUT)

|                         |   |                                                                                                                                               |
|-------------------------|---|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Product Name            | : | Soundbar                                                                                                                                      |
| Model Number            | : | Klipsch Cinema 800 Sound bar                                                                                                                  |
| Software Version        | : | V28                                                                                                                                           |
| Hardware Version        | : | V1.0.                                                                                                                                         |
| Operation frequency     | : | 2412MHz~2462MHz<br>2422MHz~2452MHz                                                                                                            |
| Number of channel       | : | IEEE 802.11b: 11 Channels<br>IEEE 802.11g: 11 Channels<br>IEEE 802.11n HT20: 11 Channels<br>IEEE 802.11n HT40: 7 Channels                     |
| Max Output Power (PEAK) | : | IEEE 802.11b:15.71dBm<br>IEEE 802.11g:18.86dBm<br>IEEE 802.11n HT20:19.27dBm<br>IEEE 802.11n HT40:19.86dBm                                    |
| Modulation Type         | : | IEEE 802.11b mode: DSSS(CCK,QPSK, BPSK)<br>IEEE 802.11g mode: OFDM (BPSK/QPSK/16QAM/64QAM)<br>IEEE 802.11n mode: OFDM (BPSK/QPSK/16QAM/64QAM) |
| Sample Type             | : | Prototype production                                                                                                                          |

**Note:**

For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

### 1.2. Antenna Information

| Ant No.                                                                                 | Brand | Model Name | Antenna Type | Connector | Gain (dBi) |
|-----------------------------------------------------------------------------------------|-------|------------|--------------|-----------|------------|
| 1                                                                                       | N/A   | N/A        | Internal     | N/A       | 2.34       |
| 2                                                                                       | N/A   | N/A        | Internal     | N/A       | 2.34       |
| Only one antenna transmission is supported, Simultaneous transmission is not supported. |       |            |              |           |            |

## 2. SUMMARY OF TEST

### 2.1. Summary of test result

| Report Section | Description of Test Item                  | FCC Standard Section          | Results |
|----------------|-------------------------------------------|-------------------------------|---------|
| 3              | 6dB Bandwidth                             | 15.247(a)(2)                  | PASS    |
| 4              | Maximum Peak Output Power                 | 15.247(b)(3)                  | PASS    |
| 5              | Power Spectral Density                    | 15.247(e)                     | PASS    |
| 6              | Conducted Band Edge                       | 15.247(d)                     | PASS    |
| 7              | Conducted Spurious Emissions              | 15.247(d)                     | PASS    |
| 8              | Radiated Spurious Emissions and Band Edge | 15.205<br>15.209<br>15.247(d) | PASS    |
| 9              | AC Power Line Conducted Emissions         | 15.207                        | PASS    |
| 10             | Antenna Requirement                       | 15.203                        | PASS    |

Note:

(1) "N/A" denotes test is not applicable in this test report

## 2.2. Test Facilities

EMC Lab : Certificated by CNAS, CHINA  
Registration No.: L5288  
This Certificate is valid until: November 12, 2023

Certificated by FCC, USA  
Designation Number: CN1215  
This Certificate is valid until: January 31, 2022

Certificated by A2LA, USA  
Registration No.: 4366.01  
This Certificate is valid until: January 31, 2022

Certificated by Industry Canada  
CAB identifier No.: CN0035  
This Certificate is valid until: January 31, 2022

Certificated by VCCI, Japan  
Registration No.: C-14103; T-20073; R-13663;  
R-20103; G-20097  
Date of registration: Apr. 20, 2020  
This Certificate is valid until: Apr. 19, 2023

Certificated by TUV Rheinland, Germany  
Registration No.: UA 50413872 0001  
Date of registration: July 31, 2018

Certificated by Intertek  
Registration No.: 2011-RTL-L2-64  
Date of registration: November 08, 2018

Name of Firm : EST Technology Co., Ltd.

Site Location : Chilingxiang, Qishantou, Santun, Houjie, Dongguan, Guangdong, China

### 2.3. Measurement uncertainty

| Test Item                                                  | Uncertainty                       |
|------------------------------------------------------------|-----------------------------------|
| Uncertainty for Conduction emission test                   | $\pm 3.48\text{dB}$               |
| Uncertainty for spurious emissions test<br>(30MHz-1GHz)    | $\pm 4.60\text{ dB(Polarize: H)}$ |
|                                                            | $\pm 4.68\text{ dB(Polarize: V)}$ |
| Uncertainty for spurious emissions test<br>(1GHz to 25GHz) | $\pm 4.96\text{dB}$               |
| Uncertainty for radio frequency                            | $7 \times 10^{-8}$                |
| Uncertainty for conducted RF Power                         | 0.20dB                            |
| Uncertainty for Power density test                         | 0.26dB                            |

Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

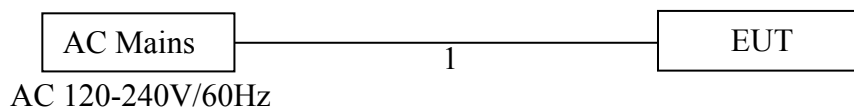
### 2.4. Assistant equipment used for test

| Item | Equipment | Brand | Model Name/Type No. | FCC ID | Series No. |
|------|-----------|-------|---------------------|--------|------------|
| -    | -         | -     | -                   | -      | -          |

| Item | Shielded Type | Ferrite Core | Length | Note     |
|------|---------------|--------------|--------|----------|
| 1    | NO            | NO           | 1.5m   | AC Cable |

### 2.5. Block Diagram

For radiated emissions test: EUT was placed on a turn table, which is 0.8 (or 1.5) meter high above ground. EUT was beset into 2.4G WIFI test mode by software before test.



(EUT: Soundbar)



## 2.6. Test Mode

The test mode was selected for the final test as listed below.

| Test Item                               | Mode              | Date Rate | Test Channel    |
|-----------------------------------------|-------------------|-----------|-----------------|
| 6dB Bandwidth                           | IEEE 802.11b      | 1Mbps     | Low/Middle/High |
|                                         | IEEE 802.11g      | 6Mbps     | Low/Middle/High |
|                                         | IEEE 802.11n HT20 | MCS8      | Low/Middle/High |
|                                         | IEEE 802.11n HT40 | MCS8      | Low/Middle/High |
| Maximum Peak Output Power               | IEEE 802.11b      | 1Mbps     | Low/Middle/High |
|                                         | IEEE 802.11g      | 6Mbps     | Low/Middle/High |
|                                         | IEEE 802.11n HT20 | MCS8      | Low/Middle/High |
|                                         | IEEE 802.11n HT40 | MCS8      | Low/Middle/High |
| Power Spectral Density                  | IEEE 802.11b      | 1Mbps     | Low/Middle/High |
|                                         | IEEE 802.11g      | 6Mbps     | Low/Middle/High |
|                                         | IEEE 802.11n HT20 | MCS8      | Low/Middle/High |
|                                         | IEEE 802.11n HT40 | MCS8      | Low/Middle/High |
| Conducted Band Edge                     | IEEE 802.11b      | 1Mbps     | Low/ High       |
|                                         | IEEE 802.11g      | 6Mbps     | Low/ High       |
|                                         | IEEE 802.11n HT20 | MCS8      | Low/ High       |
|                                         | IEEE 802.11n HT40 | MCS8      | Low/ High       |
| Conducted Spurious Emissions            | IEEE 802.11b      | 1Mbps     | Low/Middle/High |
|                                         | IEEE 802.11g      | 6Mbps     | Low/Middle/High |
|                                         | IEEE 802.11n HT20 | MCS8      | Low/Middle/High |
|                                         | IEEE 802.11n HT40 | MCS8      | Low/Middle/High |
| Radiated Spurious Emissions(Below 1GHz) | IEEE 802.11b      | 1Mbps     | Low/Middle/High |
|                                         | IEEE 802.11g      | 6Mbps     | Low/Middle/High |
|                                         | IEEE 802.11n HT20 | MCS8      | Low/Middle/High |
|                                         | IEEE 802.11n HT40 | MCS8      | Low/Middle/High |
| Radiated Spurious Emissions(Above 1GHz) | IEEE 802.11b      | 1Mbps     | Low/Middle/High |
|                                         | IEEE 802.11g      | 6Mbps     | Low/Middle/High |
|                                         | IEEE 802.11n HT20 | MCS8      | Low/Middle/High |
|                                         | IEEE 802.11n HT40 | MCS8      | Low/Middle/High |
| Radiated Band Edge                      | IEEE 802.11b      | 1Mbps     | Low/Middle/High |
|                                         | IEEE 802.11g      | 6Mbps     | Low/Middle/High |
|                                         | IEEE 802.11n HT20 | MCS8      | Low/Middle/High |
|                                         | IEEE 802.11n HT40 | MCS8      | Low/Middle/High |
| AC Power Line Conducted Emissions       | IEEE 802.11b      | 1Mbps     | Low/Middle/High |
|                                         | IEEE 802.11g      | 6Mbps     | Low/Middle/High |
|                                         | IEEE 802.11n HT20 | MCS8      | Low/Middle/High |
|                                         | IEEE 802.11n HT40 | MCS8      | Low/Middle/High |

Note:

1. In radiated measurement, the EUT had been pre-scan on the positioned of each 3 axis(X,Y,Z), the worst case was found when positioned on **X-plane**.

## 2.7. Power Setting of Test Software

| Software Name             | SecureCRT 5.50 |      |      |
|---------------------------|----------------|------|------|
| Frequency(MHz)            | 2412           | 2437 | 2462 |
| IEEE 802.11b Setting      | 13             | 13   | 13   |
| IEEE 802.11g Setting      | 13             | 13   | 13   |
| IEEE 802.11n HT20 Setting | 13             | 13   | 13   |
| Frequency(MHz)            | 2422           | 2437 | 2452 |
| IEEE 802.11n HT40 Setting | 13             | 13   | 13   |

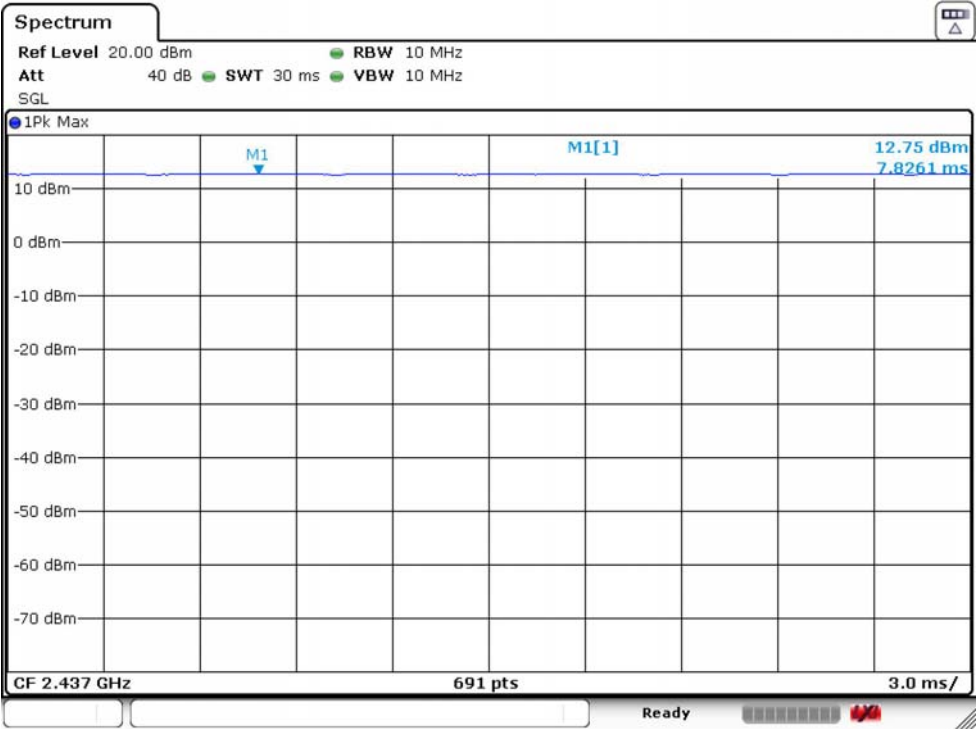
## 2.8. Duty Cycle

|                   |          |                   |                |              |             |
|-------------------|----------|-------------------|----------------|--------------|-------------|
| Temperature       | 24.7℃    | Relative Humidity | 53%            | Test Voltage | 120V/60Hz   |
| Mode              | Fre(MHz) | On time(ms)       | Total Time(ms) | Duty Cycle   | Duty Factor |
| IEEE 802.11b      | 2437     | 1.00000           | 1.00000        | 100.00%      | 0.00        |
| IEEE 802.11g      | 2437     | 1.40000           | 1.40870        | 99.38%       | 0.00        |
| IEEE 802.11n HT20 | 2437     | 1.31014           | 1.32174        | 99.12%       | 0.00        |
| IEEE 802.11n HT40 | 2437     | 0.65217           | 0.66670        | 97.82%       | 0.10        |

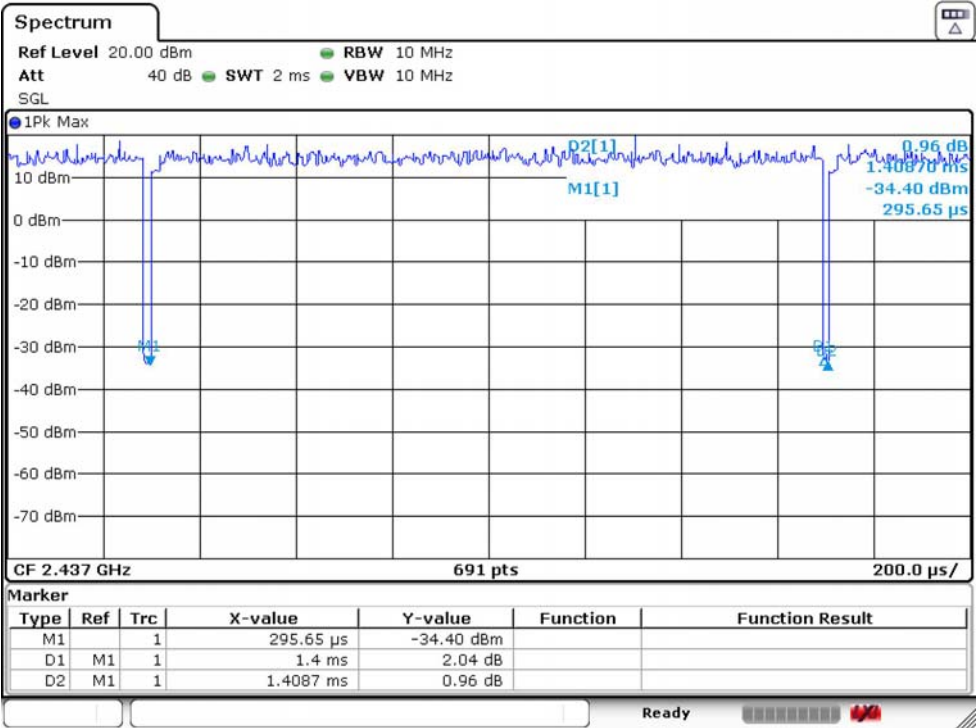
Note:

1. If duty cycle <98 %, the conducted average output power and average power spectral density should be add duty factor.
2. If duty cycle  $\geq$ 98 %,the EUT is consider to be transmitting continuously,the conducted average output power and average power spectral density no need to add duty factor(consider to be zero).
3. The conducted peak output power and peak power spectral density no need to consider duty factor.
4. The on-time time is transmission duration(T).

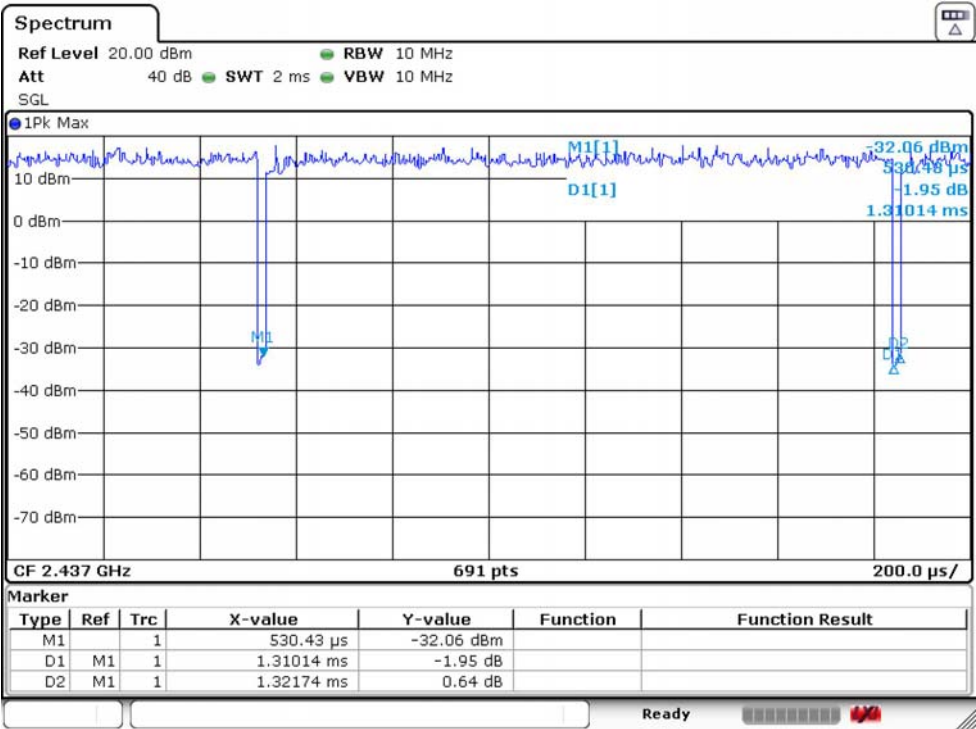
IEEE 802.11b 2437MHz



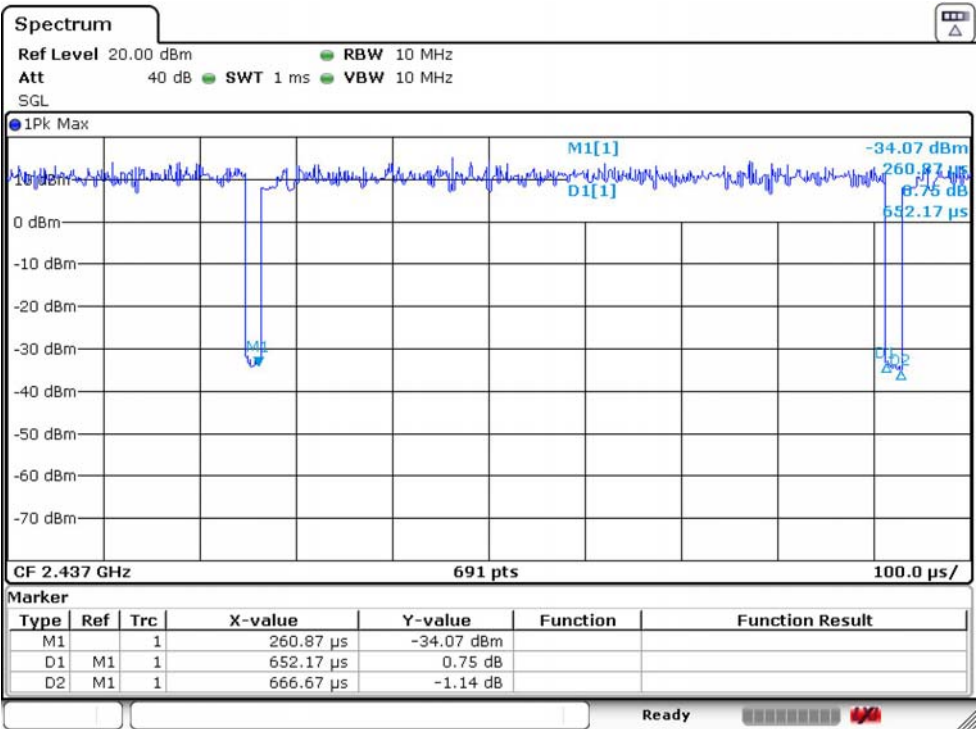
IEEE 802.11g 2437MHz



IEEE 802.11n HT20 2437MHz



IEEE 802.11n HT40 2437MHz



## 2.9. Channel List

| IEEE 802.11b/802.11g/802.11n HT20 |                    |         |                    |         |                    |
|-----------------------------------|--------------------|---------|--------------------|---------|--------------------|
| Channel                           | Frequency<br>(MHz) | Channel | Frequency<br>(MHz) | Channel | Frequency<br>(MHz) |
| 1                                 | 2412               | 6       | 2437               | 11      | 2462               |
| 2                                 | 2417               | 7       | 2442               |         |                    |
| 3                                 | 2422               | 8       | 2447               |         |                    |
| 4                                 | 2427               | 9       | 2452               |         |                    |
| 5                                 | 2432               | 10      | 2457               |         |                    |
| IEEE 802.11n HT40                 |                    |         |                    |         |                    |
| Channel                           | Frequency<br>(MHz) | Channel | Frequency<br>(MHz) | Channel | Frequency<br>(MHz) |
| 3                                 | 2422               | 6       | 2437               | 9       | 2452               |
| 4                                 | 2427               | 7       | 2442               |         |                    |
| 5                                 | 2432               | 8       | 2447               |         |                    |

## 2.10. Test Equipment List

| For conducted emission test |                 |              |            |                  |            |           |
|-----------------------------|-----------------|--------------|------------|------------------|------------|-----------|
| Equipment                   | Manufacturer    | Model No.    | Serial No. | Calibration Body | Last Cal.  | Next Cal. |
| EMI Test Receiver           | Rohde & Schwarz | ESHS30       | EST-E001   | LISAI            | June 13,20 | 1 Year    |
| Artificial Mains Network    | Rohde & Schwarz | ENV216       | EST-E002   | LISAI            | June 13,20 | 1 Year    |
| Pulse Limiter               | Rohde & Schwarz | ESH3-Z2      | EST-E078   | LISAI            | June 13,20 | 1 Year    |
| Test Software               | Audix           | e3-6.111221a | N/A        | N/A              | N/A        | N/A       |

| For radiated emission test(9kHz-30MHz) |                 |              |            |                  |            |           |
|----------------------------------------|-----------------|--------------|------------|------------------|------------|-----------|
| Equipment                              | Manufacturer    | Model No.    | Serial No. | Calibration Body | Last Cal.  | Next Cal. |
| EMI Test Receiver                      | Rohde & Schwarz | ESR7         | EST-E047   | LISAI            | June 13,20 | 1 Year    |
| Active Loop Antenna                    | SCHWARZB ECK    | FMZB 1519B   | EST-E054   | LISAI            | June 13,20 | 1 Year    |
| Test Software                          | Audix           | e3-6.111221a | N/A        | N/A              | N/A        | N/A       |
| 9kHz-30MHz Cable                       | N/A             | EST-001      | N/A        | N/A              | N/A        | N/A       |

| For radiated emissions test (30MHz-1000MHz) |                 |              |            |                  |            |           |
|---------------------------------------------|-----------------|--------------|------------|------------------|------------|-----------|
| Equipment                                   | Manufacturer    | Model No.    | Serial No. | Calibration Body | Last Cal.  | Next Cal. |
| EMI Test Receiver                           | Rohde & Schwarz | ESR7         | EST-E047   | LISAI            | June 13,20 | 1 Year    |
| Bilog Antenna                               | Teseq           | CBL 6111D    | EST-E034   | LISAI            | June 13,20 | 1 Year    |
| Test Software                               | Audix           | e3-6.111221a | N/A        | N/A              | N/A        | N/A       |
| 30-1000MHz Cable                            | N/A             | EST-002      | N/A        | N/A              | N/A        | N/A       |

| For radiated emission test(Above 1000MHz) |                 |              |            |                  |            |           |
|-------------------------------------------|-----------------|--------------|------------|------------------|------------|-----------|
| Equipment                                 | Manufacturer    | Model No.    | Serial No. | Calibration Body | Last Cal.  | Next Cal. |
| Horn Antenna                              | SCHWARZB ECK    | BBHA9120D    | EST-E031   | LISAI            | June 13,20 | 1 Year    |
| Signal Amplifier                          | SCHWARZB ECK    | BBV9718      | EST-E032   | LISAI            | June 13,20 | 1 Year    |
| Spectrum Analyzer                         | Rohde & Schwarz | FSV40        | EST-E069   | LISAI            | June 13,20 | 1 Year    |
| Test Software                             | Audix           | e3-6.111221a | N/A        | N/A              | N/A        | N/A       |
| Above 1GHz Cable                          | N/A             | EST-003      | N/A        | N/A              | N/A        | N/A       |

| For connect EUT antenna terminal test |                 |           |            |                  |            |           |
|---------------------------------------|-----------------|-----------|------------|------------------|------------|-----------|
| Equipment                             | Manufacturer    | Model No. | Serial No. | Calibration Body | Last Cal.  | Next Cal. |
| Spectrum Analyzer                     | Rohde & Schwarz | FSV40     | EST-E069   | LISAI            | June 13,20 | 1 Year    |

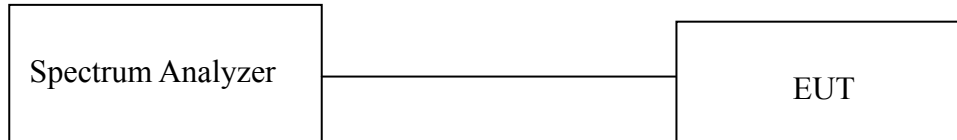


### 3. 6dB BANDWIDTH

#### 3.1. Limit

Systems using digital modulation techniques operate in the 2400-2483.5 MHz, the minimum 6 dB bandwidth shall be at least 500 kHz.

#### 3.2. Test Setup



#### 3.3. Spectrum Analyzer Setting

##### 6dB Bandwidth

| Spectrum Parameters | Setting                                                 |
|---------------------|---------------------------------------------------------|
| RBW                 | 100KHz                                                  |
| VBW                 | 300KHz                                                  |
| Span                | 40MHz(20MHz Bandwidth mode)/80MHz(40MHz Bandwidth mode) |
| Sweep Time          | Auto                                                    |
| Detector            | Peak                                                    |
| Trace Mode          | Max Hold                                                |

##### 99% Occupied Bandwidth

| Spectrum Parameters | Setting                                                 |
|---------------------|---------------------------------------------------------|
| RBW                 | 300KHz(20MHz Bandwidth mode)/1MHz(40MHz Bandwidth mode) |
| VBW                 | 1MHz(20MHz Bandwidth mode)/3MHz(40MHz Bandwidth mode)   |
| Span                | 40MHz(20MHz Bandwidth mode)/80MHz(40MHz Bandwidth mode) |
| Sweep Time          | Auto                                                    |
| Detector            | Peak                                                    |
| Trace Mode          | Max Hold                                                |

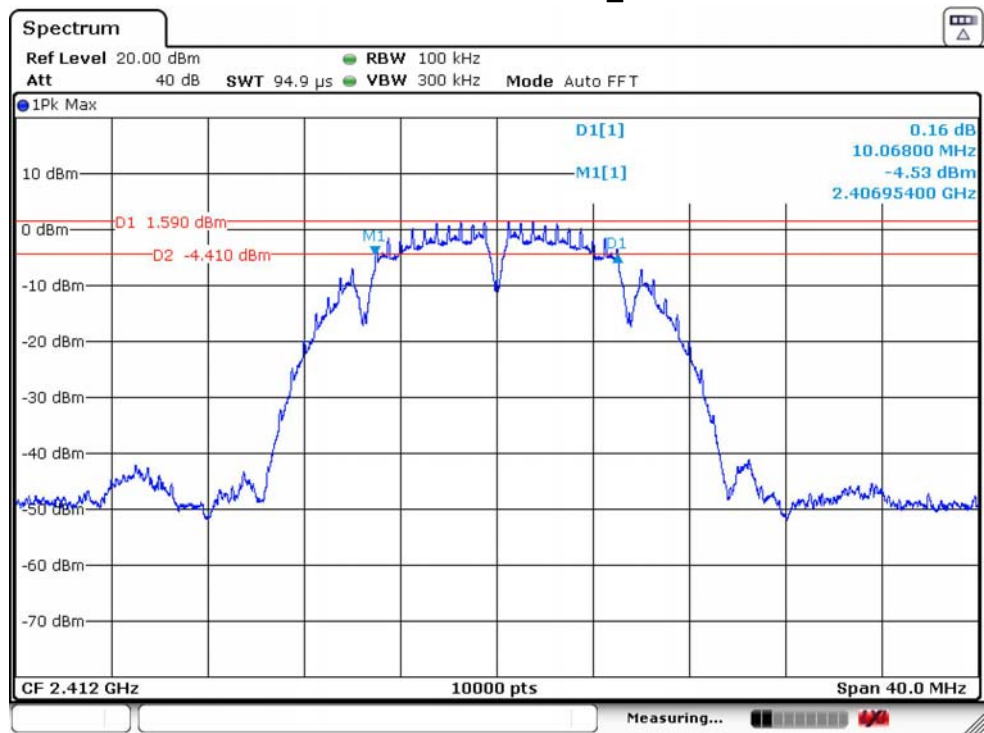
#### 3.4. Test Procedure

- Connect EUT antenna terminal to the spectrum analyzer with RF cable.
- Spectrum analyzer setting parameters in accordance with section 3.3.
- Set the EUT transmit continuously with maximum output power.
- Allow trace to stabilize, measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.
- Repeat above procedures until all modes and channels were measured.
- Record the results in the test report.

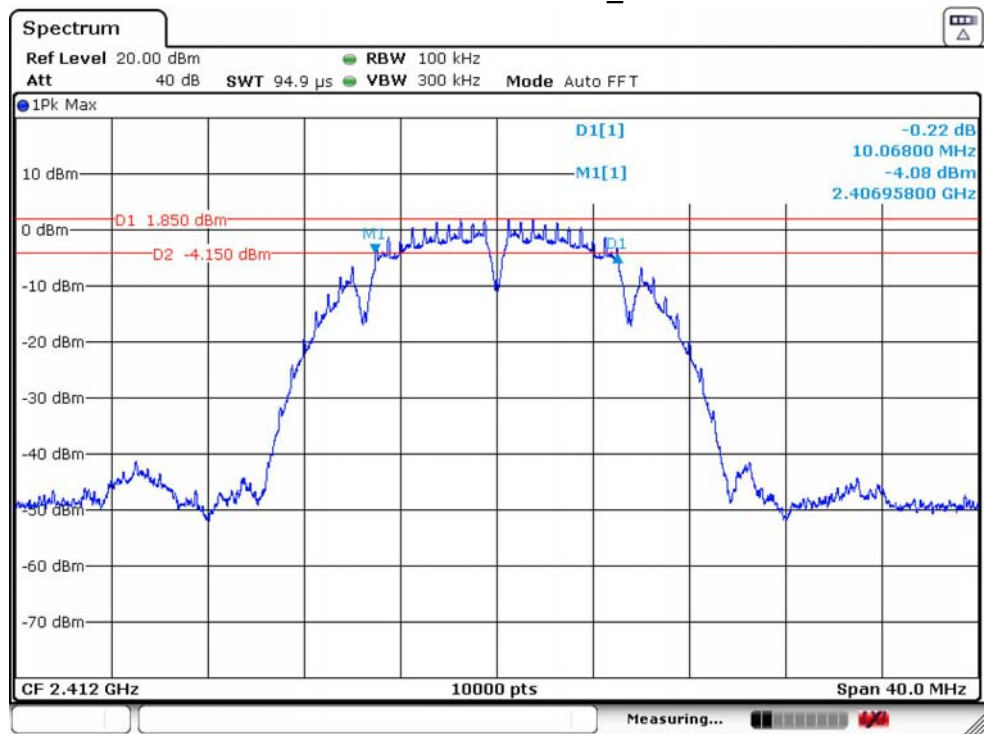
## 3.5. Test Result

| Temperature          | 24.7℃      | Relative Humidity   | 53%    | Test Voltage | 120V/60Hz |
|----------------------|------------|---------------------|--------|--------------|-----------|
| Mode                 | Freq (MHz) | 6dB Bandwidth (MHz) |        | Limit (MHz)  | Result    |
|                      |            | ANT 1               | ANT 2  |              |           |
| IEEE 802.11b         | 2412       | 10.068              | 10.068 | $\geq 0.5$   | PASS      |
|                      | 2437       | 10.068              | 10.072 | $\geq 0.5$   | PASS      |
|                      | 2462       | 10.064              | 10.056 | $\geq 0.5$   | PASS      |
| IEEE 802.11g         | 2412       | 16.360              | 16.356 | $\geq 0.5$   | PASS      |
|                      | 2437       | 16.352              | 16.348 | $\geq 0.5$   | PASS      |
|                      | 2462       | 16.352              | 16.352 | $\geq 0.5$   | PASS      |
| IEEE 802.11n<br>HT20 | 2412       | 17.568              | 17.580 | $\geq 0.5$   | PASS      |
|                      | 2437       | 17.568              | 17.564 | $\geq 0.5$   | PASS      |
|                      | 2462       | 17.572              | 17.568 | $\geq 0.5$   | PASS      |
| IEEE 802.11n<br>HT40 | 2422       | 36.248              | 36.256 | $\geq 0.5$   | PASS      |
|                      | 2437       | 35.832              | 36.104 | $\geq 0.5$   | PASS      |
|                      | 2452       | 36.056              | 36.272 | $\geq 0.5$   | PASS      |

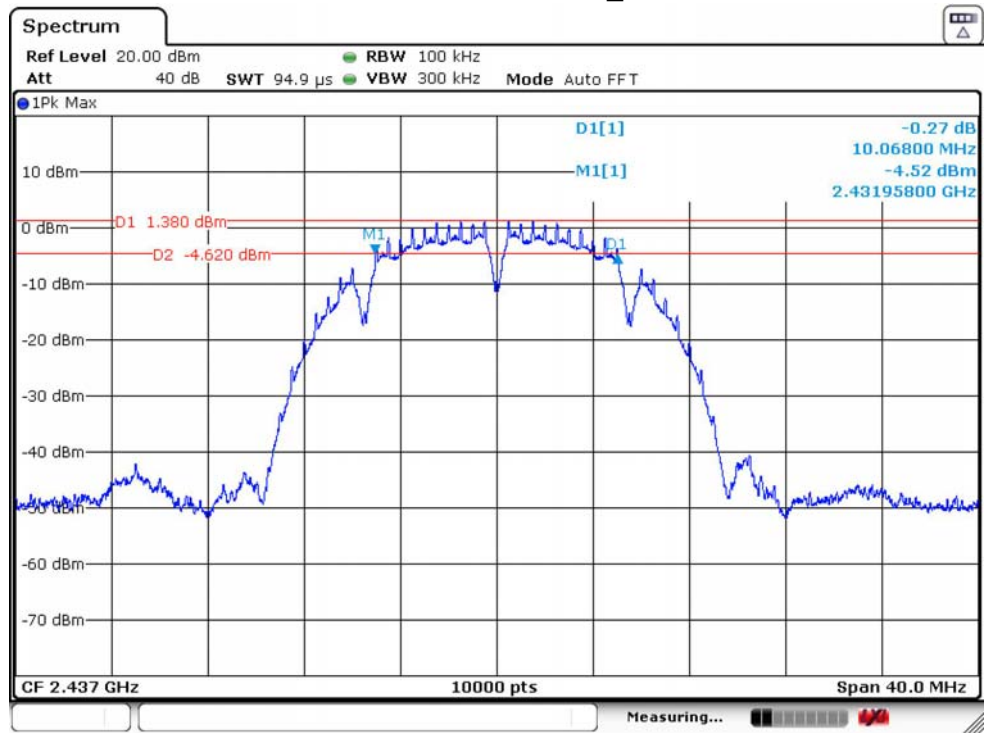
IEEE 802.11b 2412MHz\_ANT 1



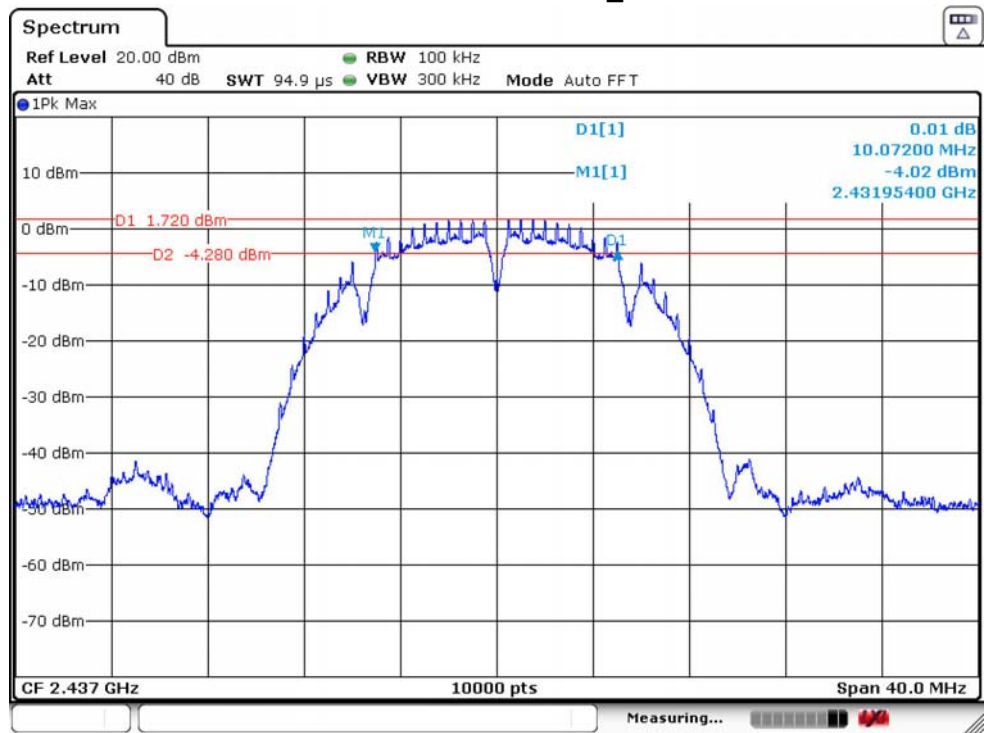
IEEE 802.11b 2412MHz\_ANT 2



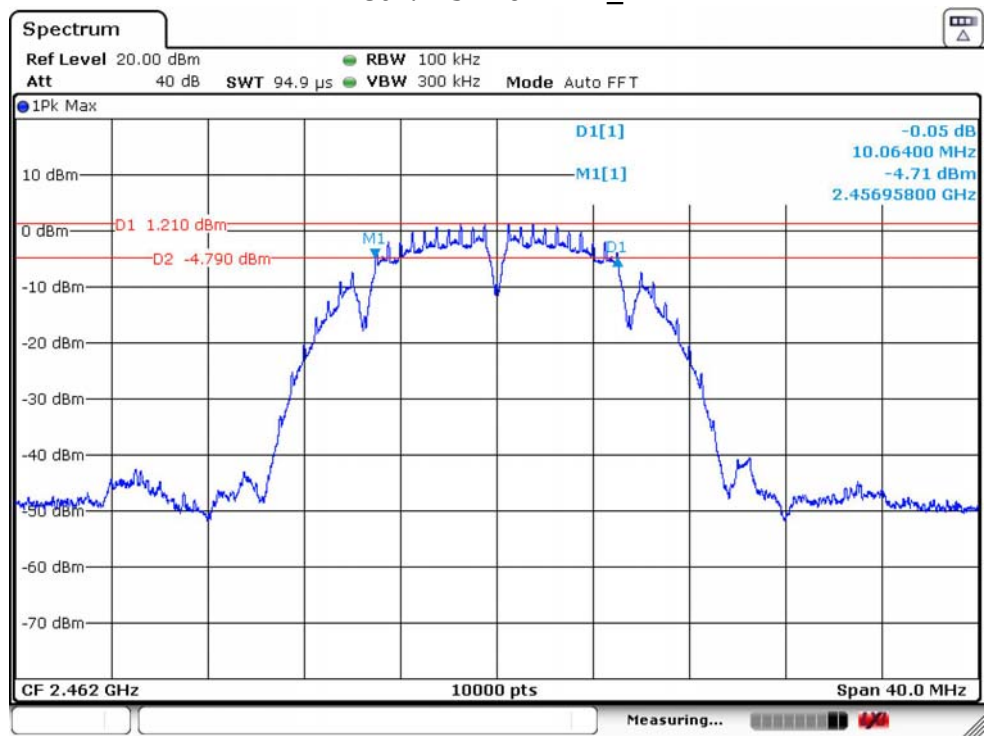
IEEE 802.11b 2437MHz\_ANT 1



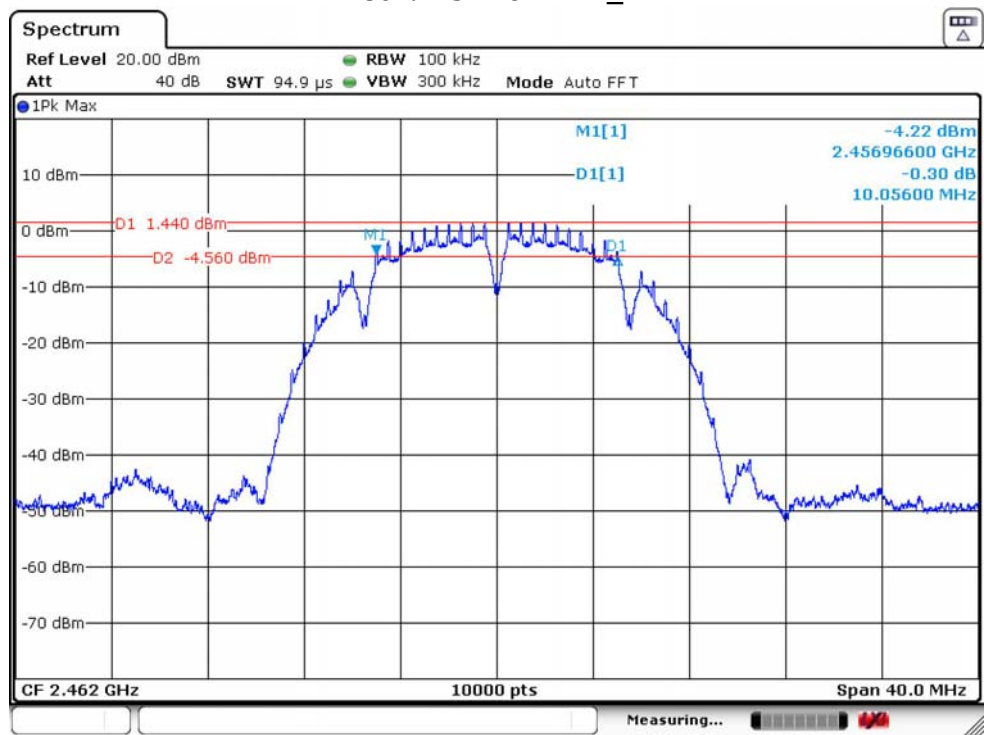
IEEE 802.11b 2437MHz\_ANT 2



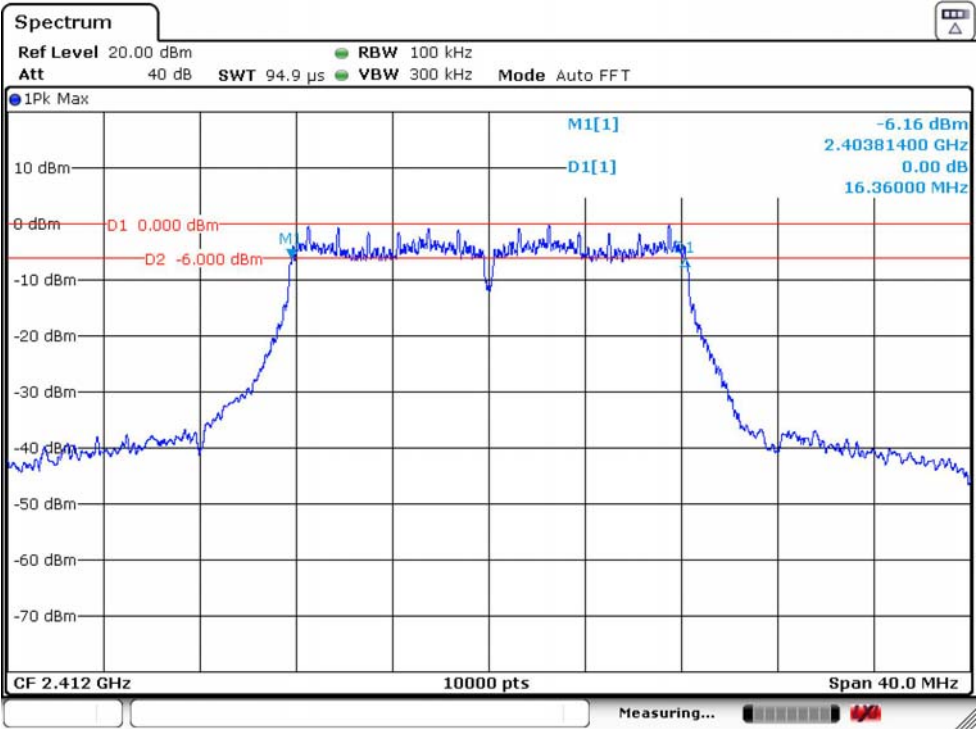
IEEE 802.11b 2462MHz\_ANT 1



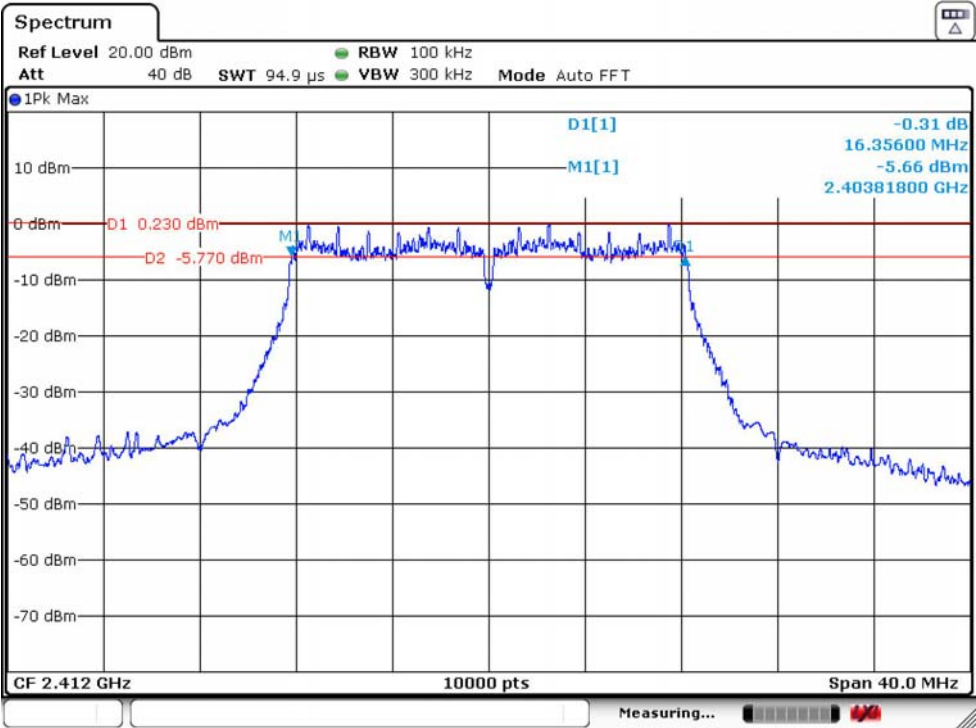
IEEE 802.11b 2462MHz\_ANT 2



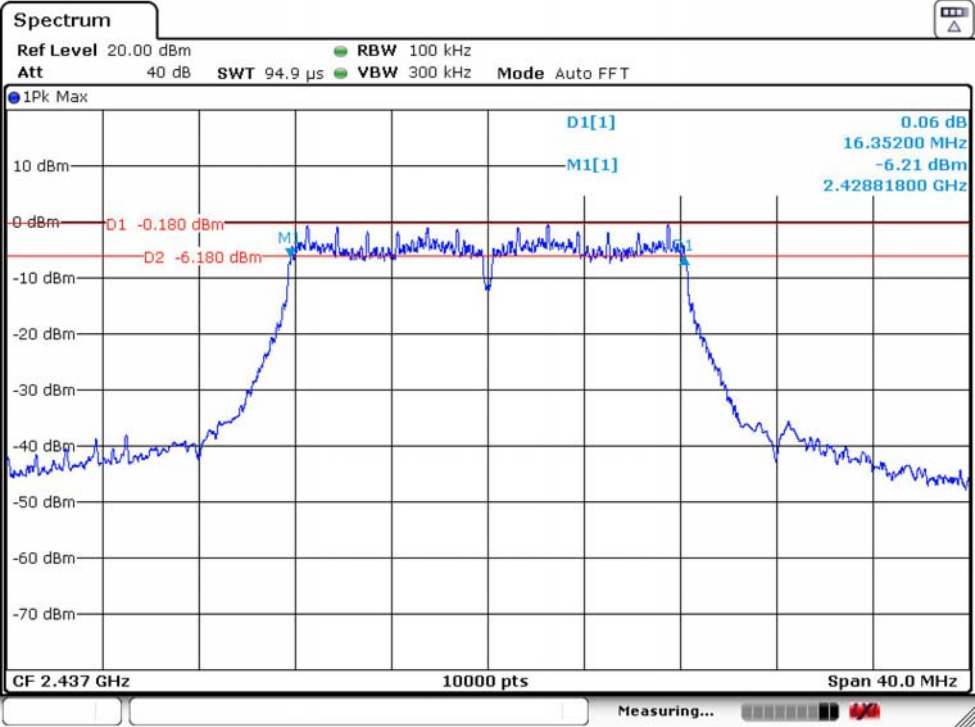
IEEE 802.11g 2412MHz\_ANT 1



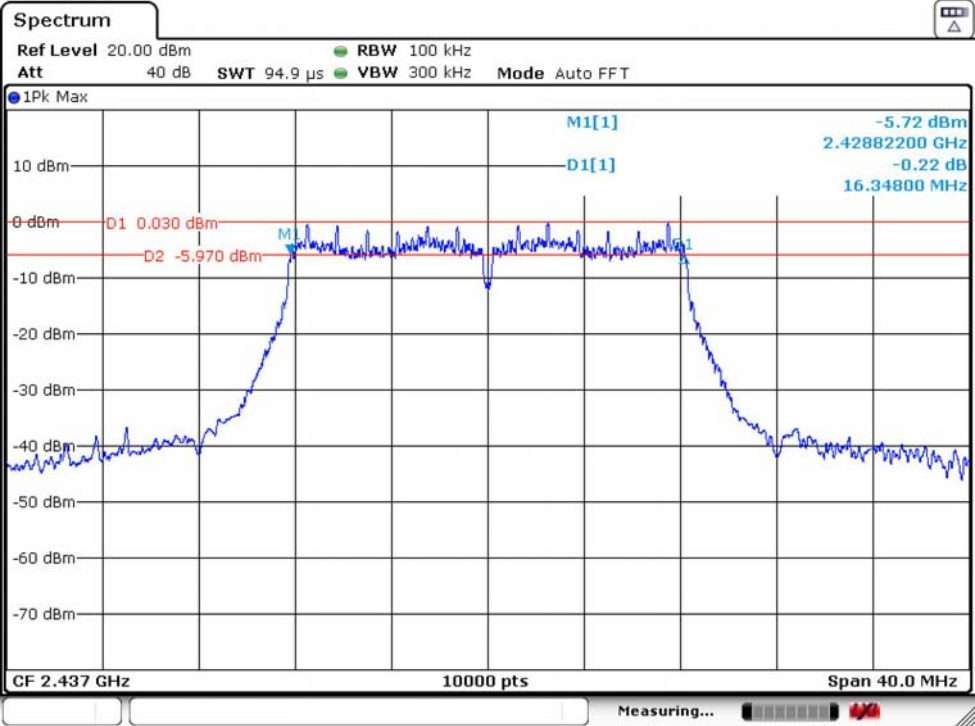
IEEE 802.11g 2412MHz\_ANT 2



IEEE 802.11g 2437MHz\_ANT 1

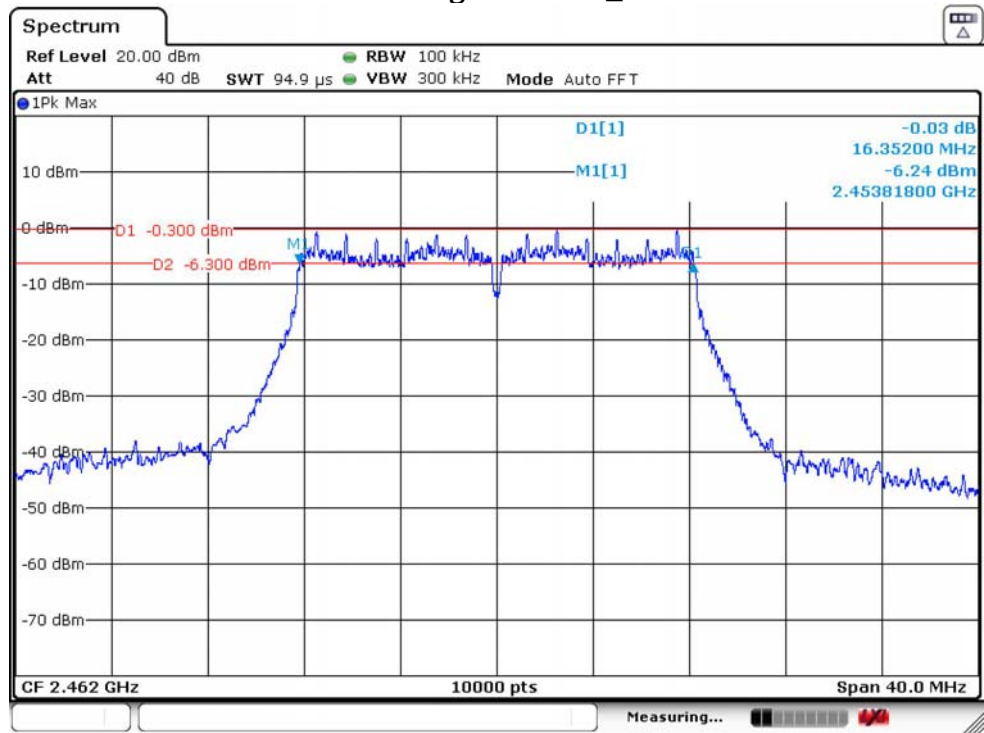


IEEE 802.11g 2437MHz\_ANT 2

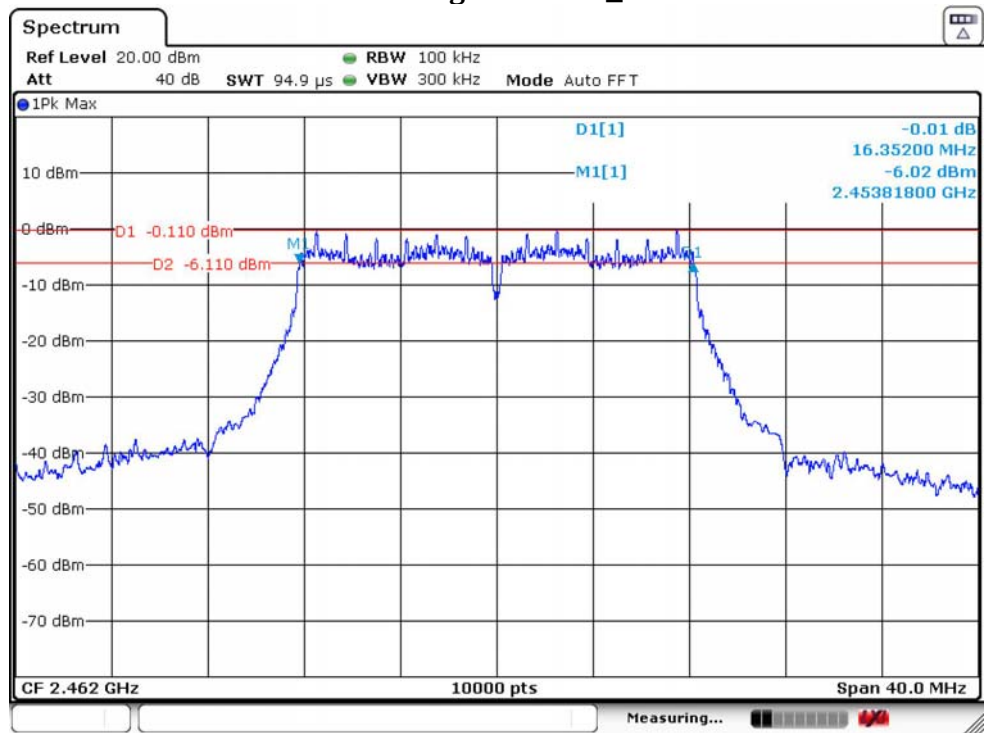




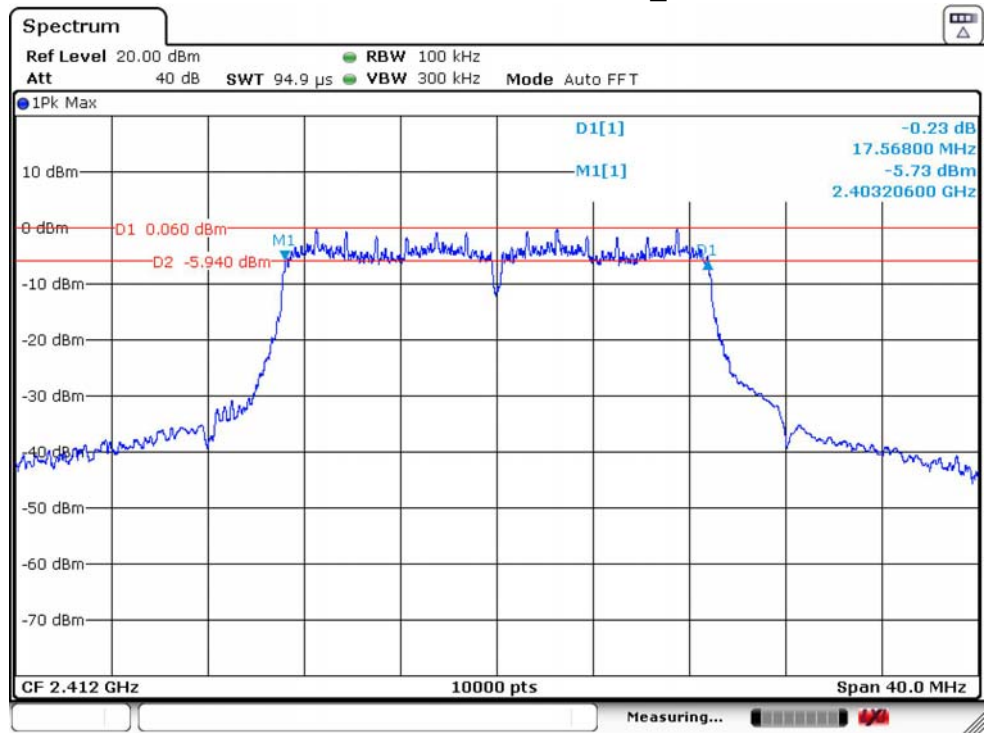
IEEE 802.11g 2462MHz\_ANT 1



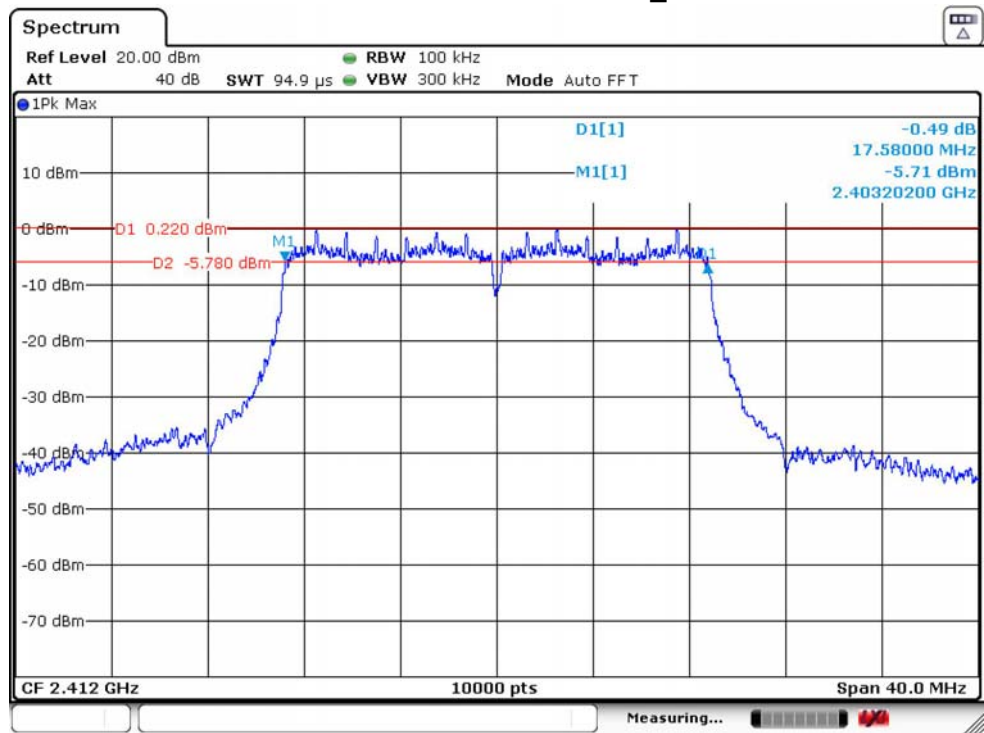
IEEE 802.11g 2462MHz\_ANT 2



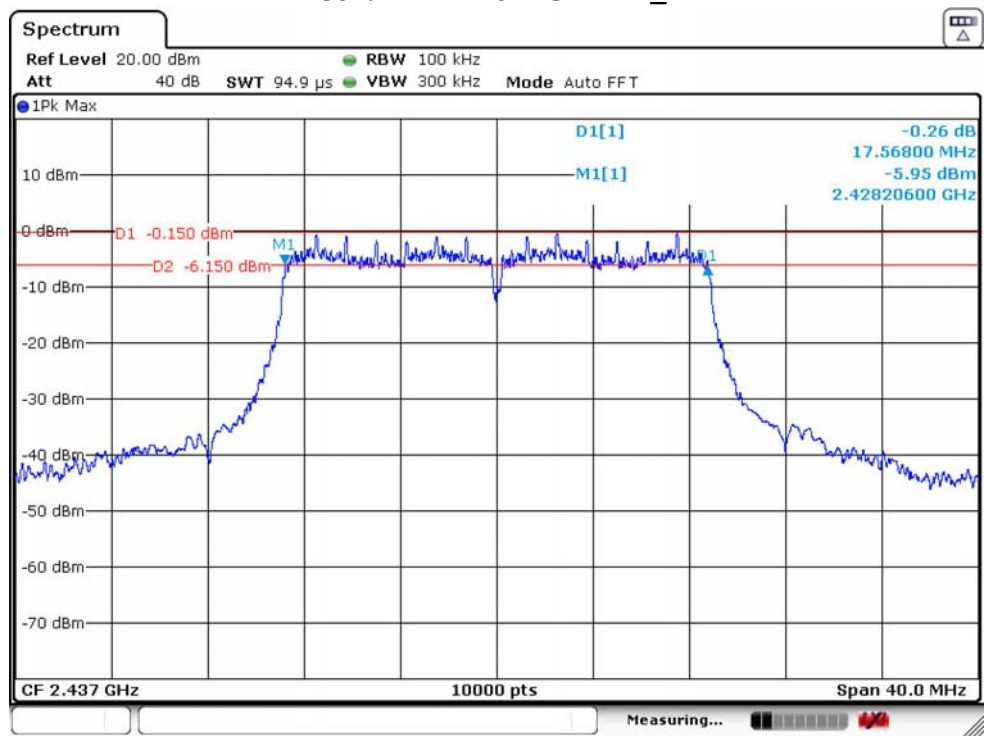
IEEE 802.11n HT20 2412MHz\_ANT 1



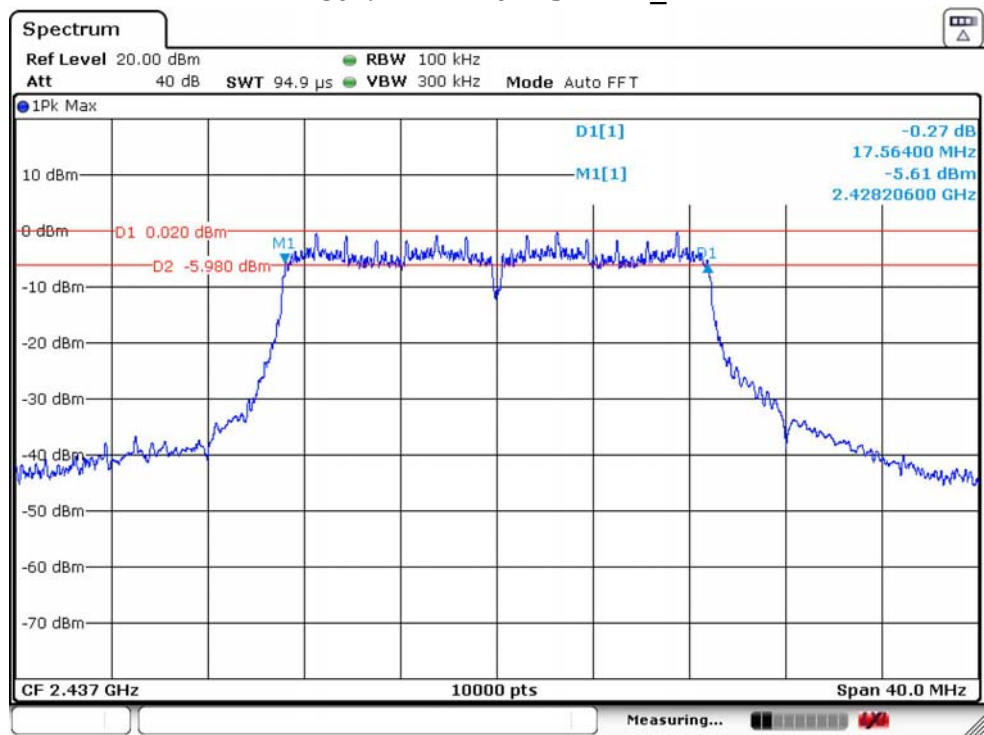
IEEE 802.11n HT20 2412MHz\_ANT 2



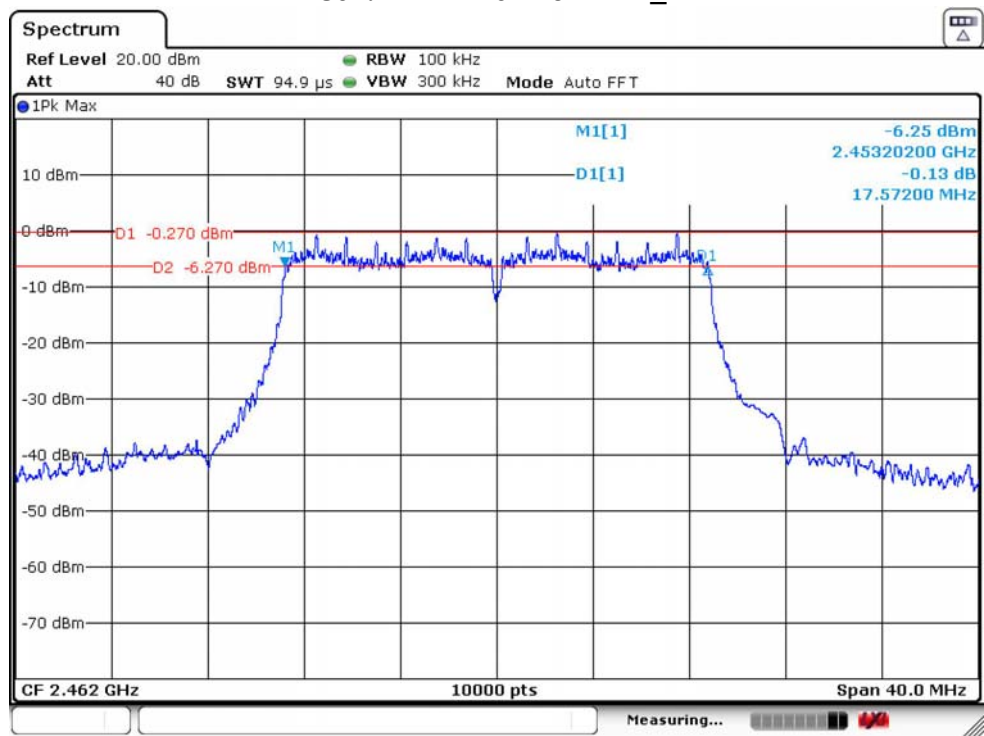
IEEE 802.11n HT20 2437MHz\_ANT 1



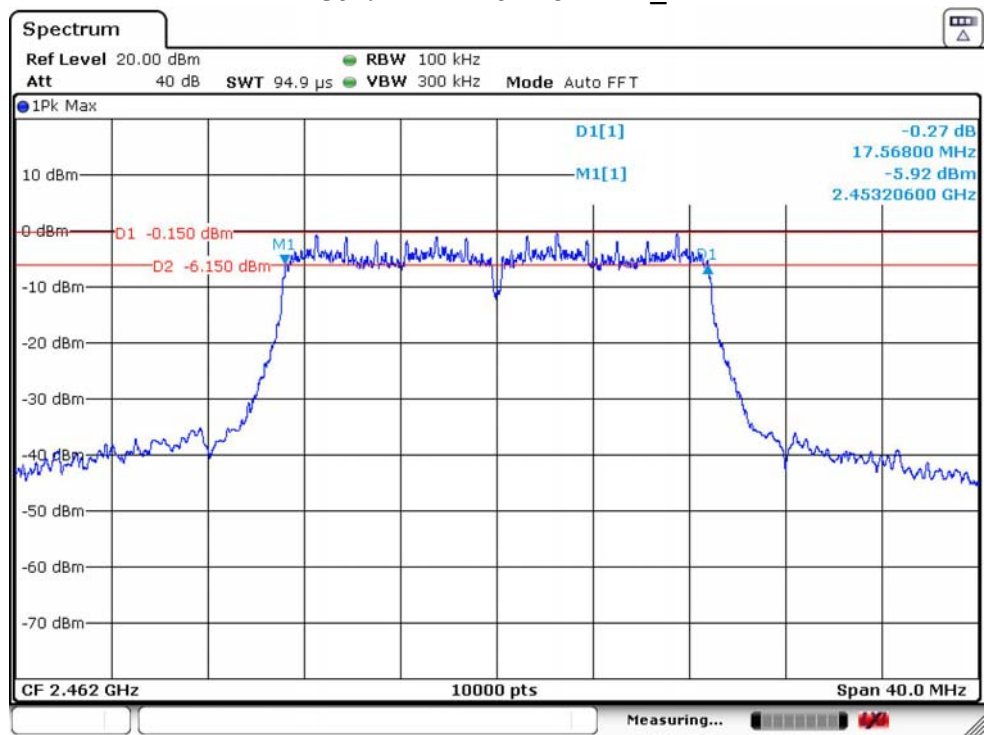
IEEE 802.11n HT20 2437MHz\_ANT 2



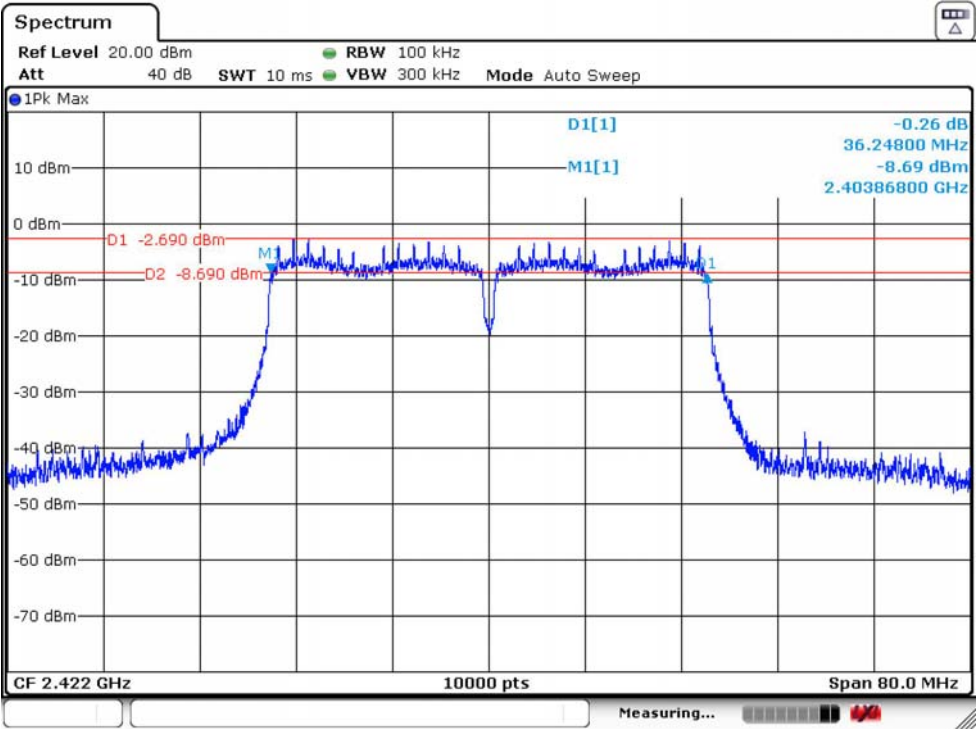
IEEE 802.11n HT20 2462MHz\_ANT 1



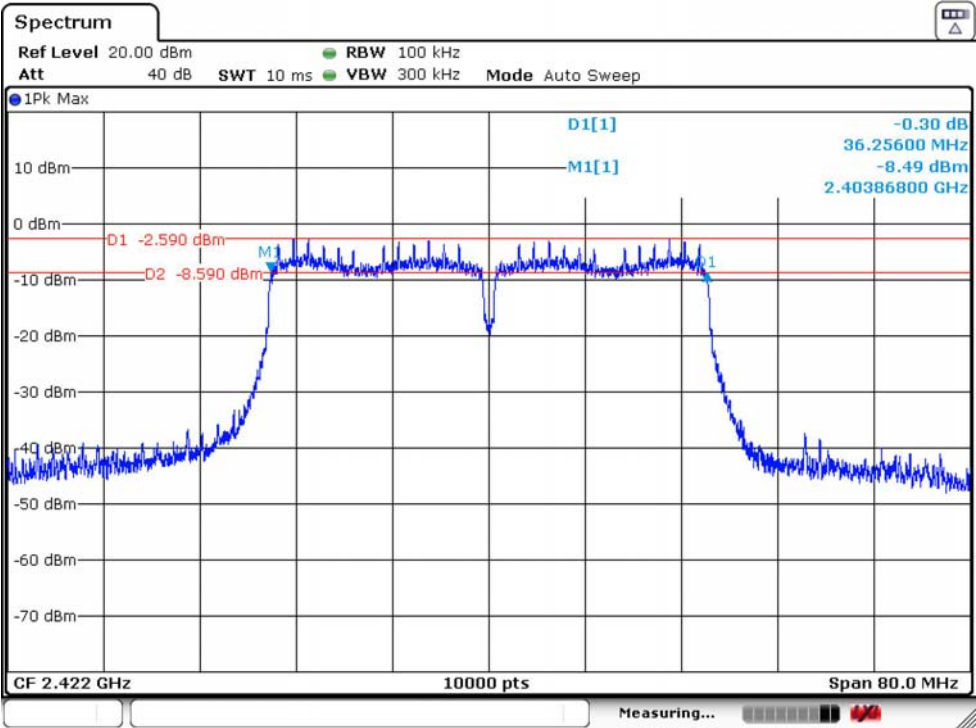
IEEE 802.11n HT20 2462MHz\_ANT 2



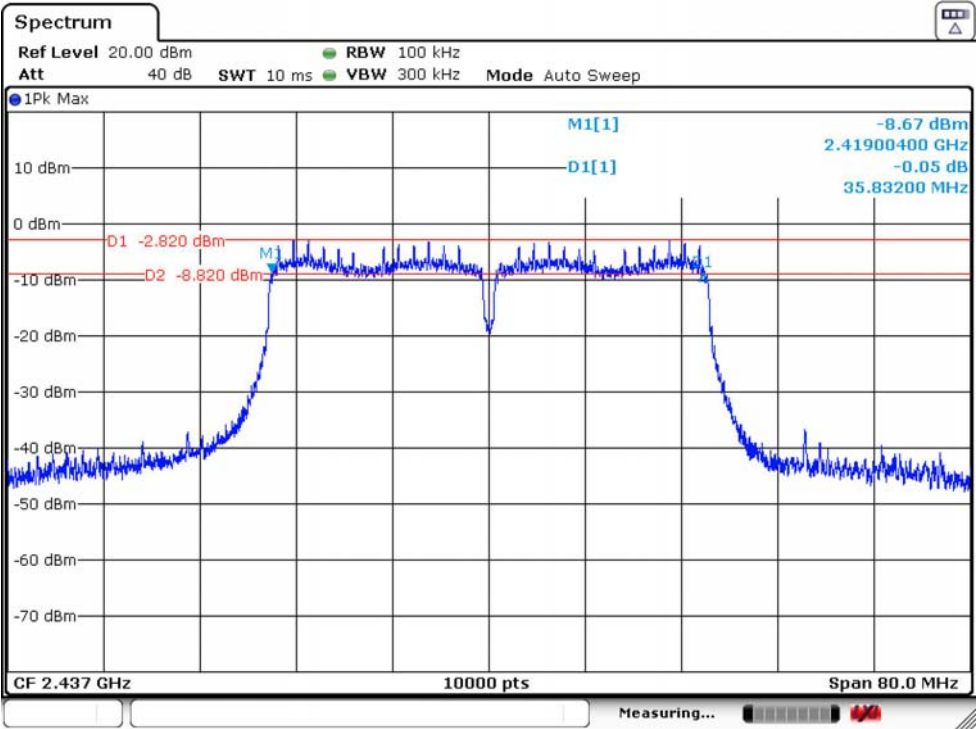
IEEE 802.11n HT40 2422MHz\_ANT 1



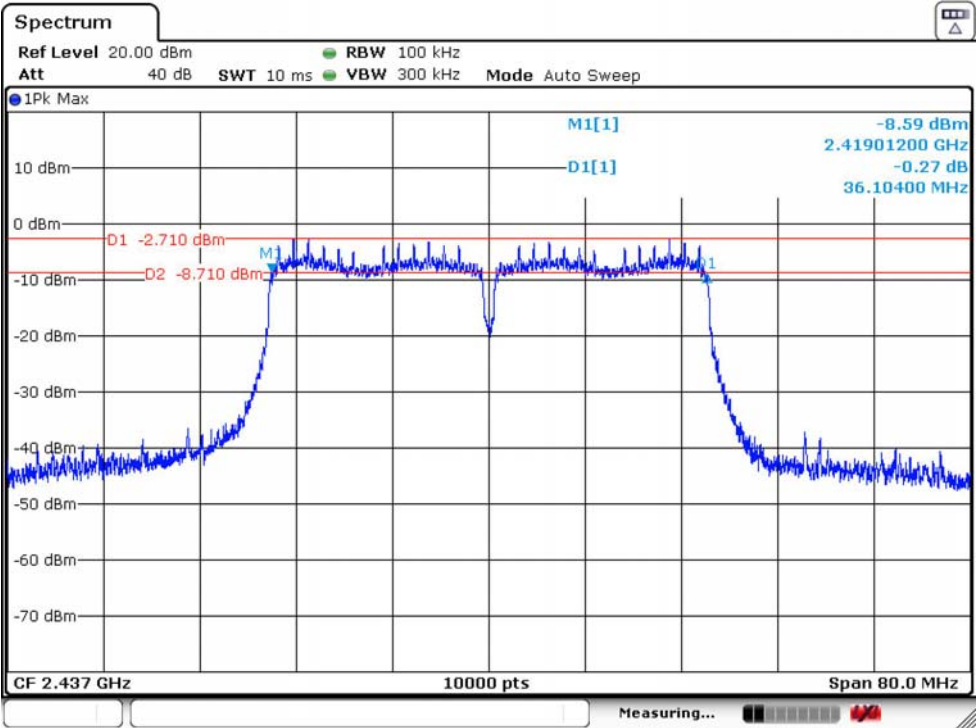
IEEE 802.11n HT40 2422MHz\_ANT 2



IEEE 802.11n HT40 2437MHz\_ANT 1

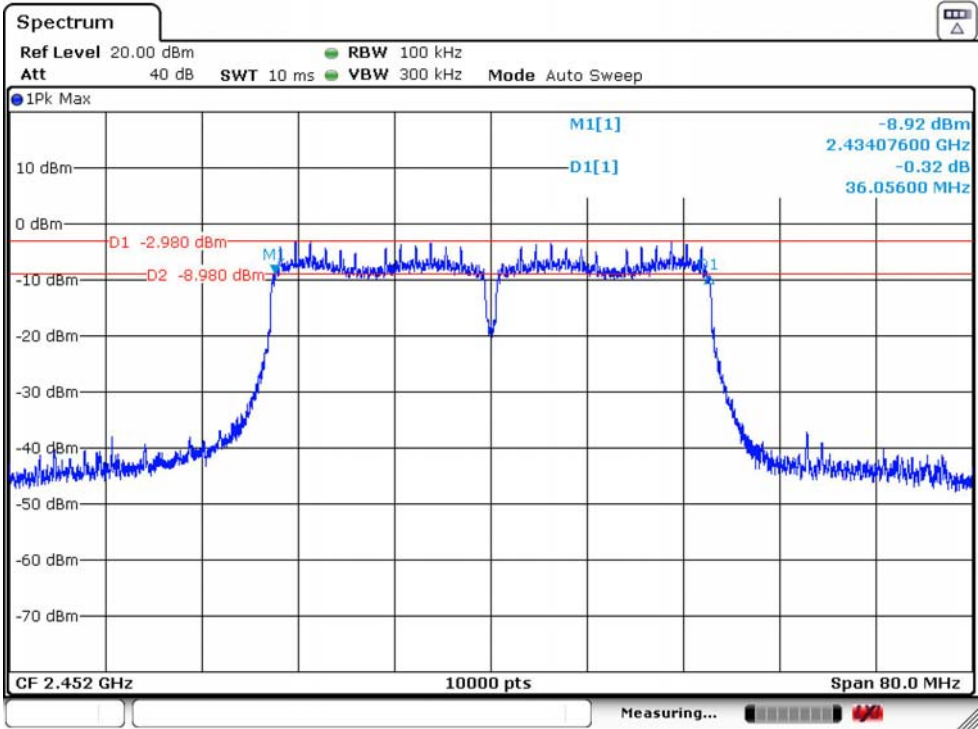


IEEE 802.11n HT40 2437MHz\_ANT 2

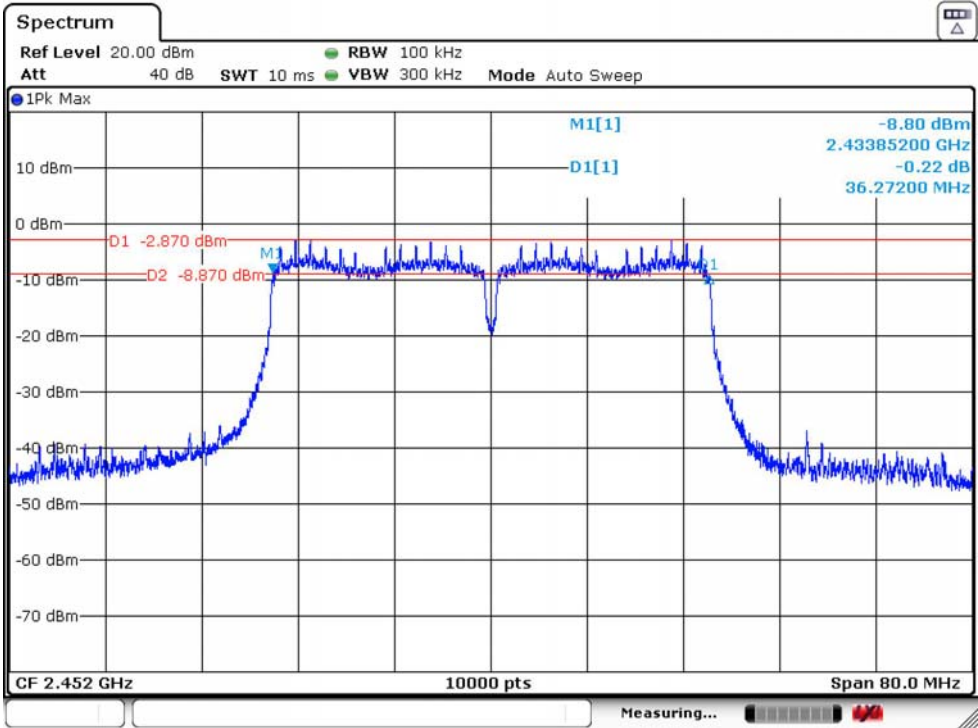




IEEE 802.11n HT40 2452MHz\_ANT 1



IEEE 802.11n HT40 2452MHz\_ANT 2





## 4. MAXIMUM PEAK OUTPUT POWER

### 4.1. Limit

For systems using digital modulation in 2400-2483.5MHz, the maximum peak output power is 1 Watt(30dBm).

### 4.2. Test Setup



### 4.3. Spectrum Analyzer Setting

| Spectrum Parameters | Setting                                                 |
|---------------------|---------------------------------------------------------|
| RBW                 | 1MHz                                                    |
| VBW                 | 3MHz                                                    |
| Span                | 40MHz(20MHz Bandwidth mode)/80MHz(40MHz Bandwidth mode) |
| Sweep Time          | Auto                                                    |
| Detector            | Peak                                                    |
| Trace Mode          | Max Hold                                                |

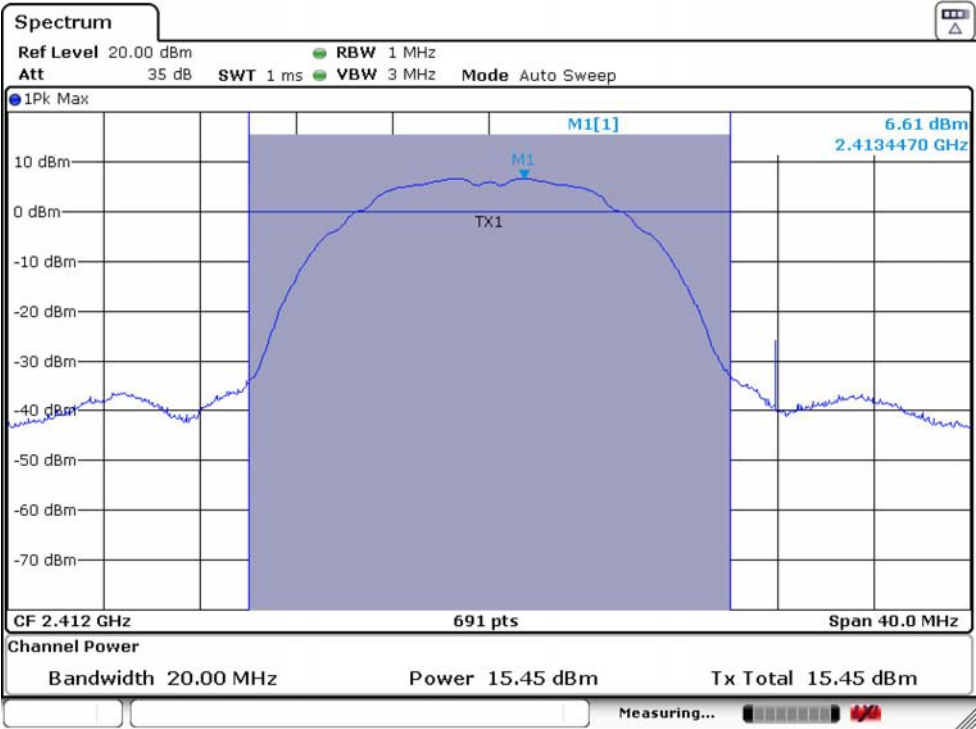
### 4.4. Test Procedure

- Connect EUT antenna terminal to the spectrum analyzer with RF cable.
- Spectrum analyzer setting parameters in accordance with section 4.3.
- Set the EUT transmit continuously with maximum output power.
- Use the channel power function to measure maximum peak output power, allow trace to stabilize, save test pictures.
- Repeat above procedures until all modes and channels were measured.
- Record the results in the test report.

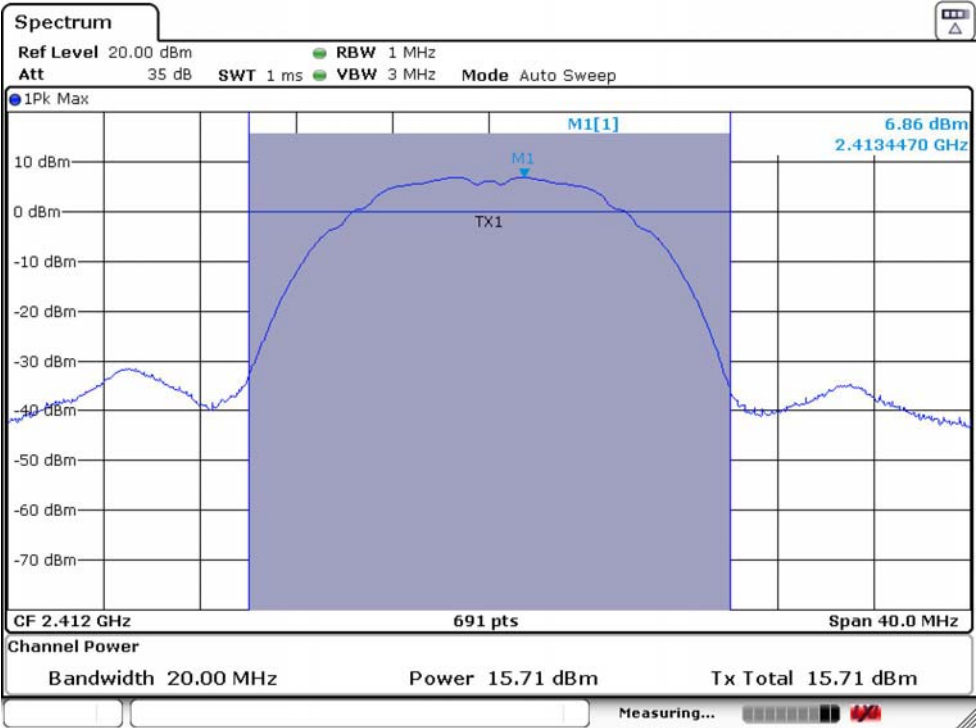
## 4.5. Test Result

| Temperature             | 24.7℃         | Relative Humidity          |       | 53%                 |        |                                      | Test Voltage |       | 120V/60Hz |
|-------------------------|---------------|----------------------------|-------|---------------------|--------|--------------------------------------|--------------|-------|-----------|
| Mode                    | Freq<br>(MHz) | Peak Output Power<br>(dBm) |       | Output Power<br>(W) |        | Max Peak<br>Output<br>Power<br>(dBm) | Limit        |       | Result    |
|                         |               | ANT 1                      | ANT 2 | ANT 1               | ANT 2  |                                      | W            | dBm   |           |
| IEEE<br>802.11b         | 2412          | 15.45                      | 15.71 | 0.0351              | 0.0372 | 15.71                                | 1.0000       | 30.00 | PASS      |
|                         | 2437          | 15.21                      | 15.38 | 0.0332              | 0.0345 | 15.38                                | 1.0000       | 30.00 | PASS      |
|                         | 2462          | 14.82                      | 14.87 | 0.0303              | 0.0307 | 14.87                                | 1.0000       | 30.00 | PASS      |
| IEEE<br>802.11g         | 2412          | 18.73                      | 18.86 | 0.0746              | 0.0769 | 18.86                                | 1.0000       | 30.00 | PASS      |
|                         | 2437          | 18.50                      | 18.56 | 0.0708              | 0.0718 | 18.56                                | 1.0000       | 30.00 | PASS      |
|                         | 2462          | 18.12                      | 18.02 | 0.0649              | 0.0634 | 18.12                                | 1.0000       | 30.00 | PASS      |
| IEEE<br>802.11n<br>HT20 | 2412          | 19.00                      | 19.27 | 0.0794              | 0.0845 | 19.27                                | 1.0000       | 30.00 | PASS      |
|                         | 2437          | 18.89                      | 19.01 | 0.0774              | 0.0796 | 19.01                                | 1.0000       | 30.00 | PASS      |
|                         | 2462          | 18.56                      | 18.62 | 0.0718              | 0.0728 | 18.62                                | 1.0000       | 30.00 | PASS      |
| IEEE<br>802.11n<br>HT40 | 2422          | 19.79                      | 19.86 | 0.0953              | 0.0968 | 19.86                                | 1.0000       | 30.00 | PASS      |
|                         | 2437          | 19.74                      | 19.85 | 0.0942              | 0.0966 | 19.85                                | 1.0000       | 30.00 | PASS      |
|                         | 2452          | 19.64                      | 19.65 | 0.0920              | 0.0923 | 19.65                                | 1.0000       | 30.00 | PASS      |

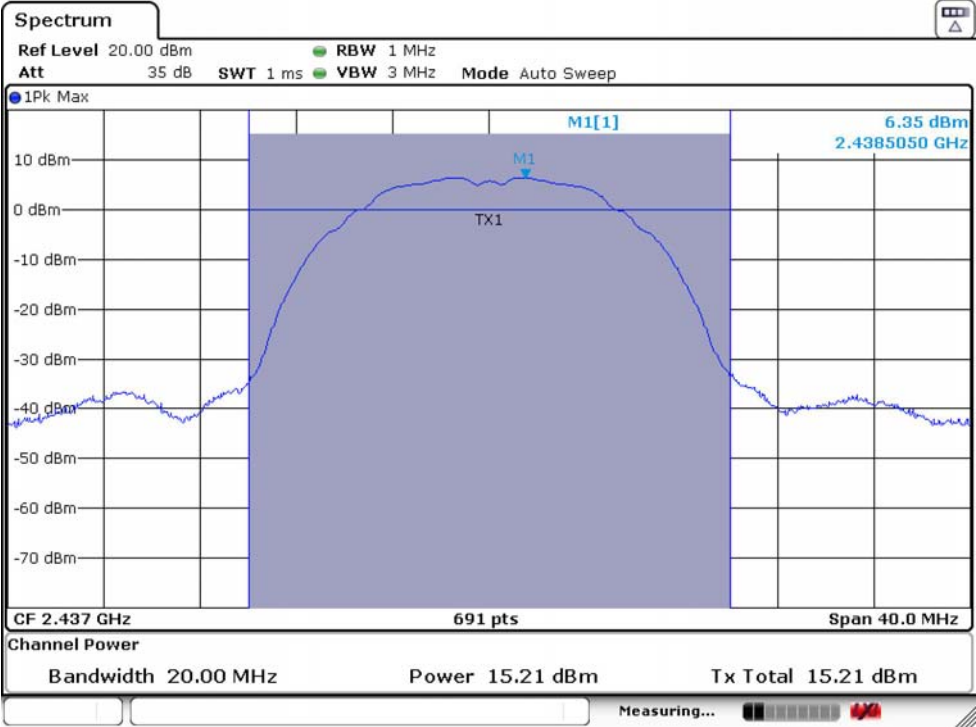
IEEE 802.11b 2412MHz\_ANT 1



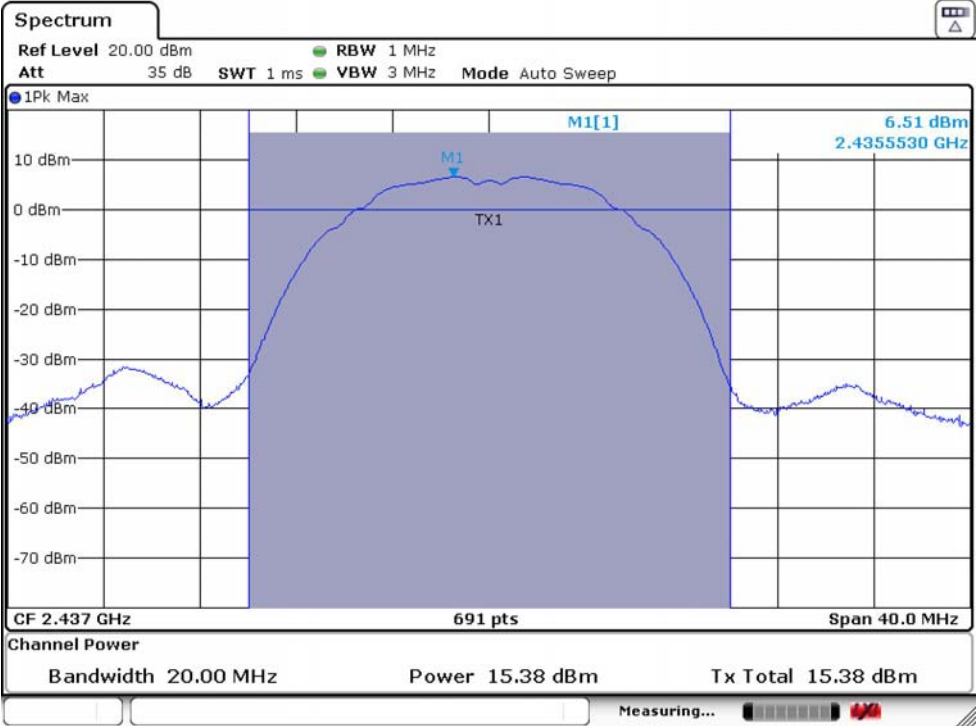
IEEE 802.11b 2412MHz\_ANT 2



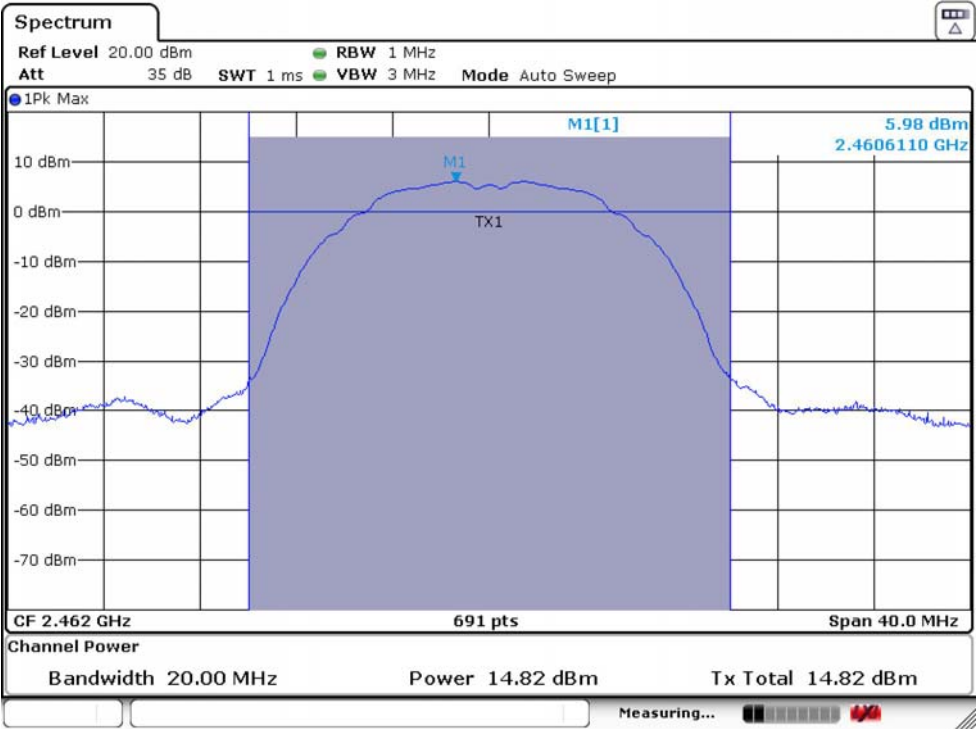
IEEE 802.11b 2437MHz\_ANT 1



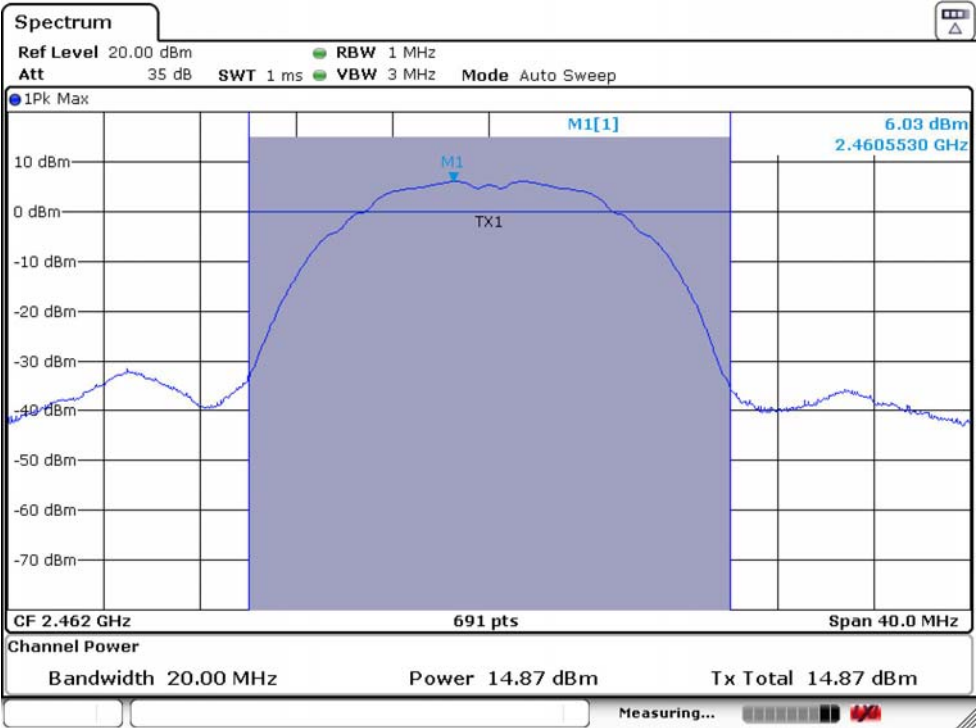
IEEE 802.11b 2437MHz\_ANT 2



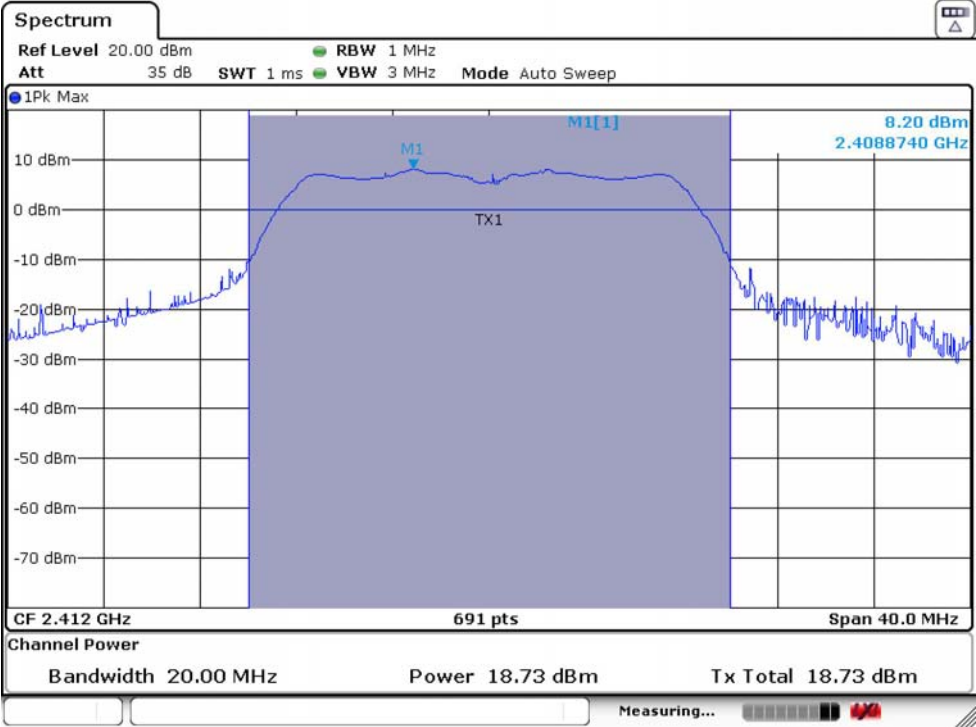
IEEE 802.11b 2462MHz\_ANT 1



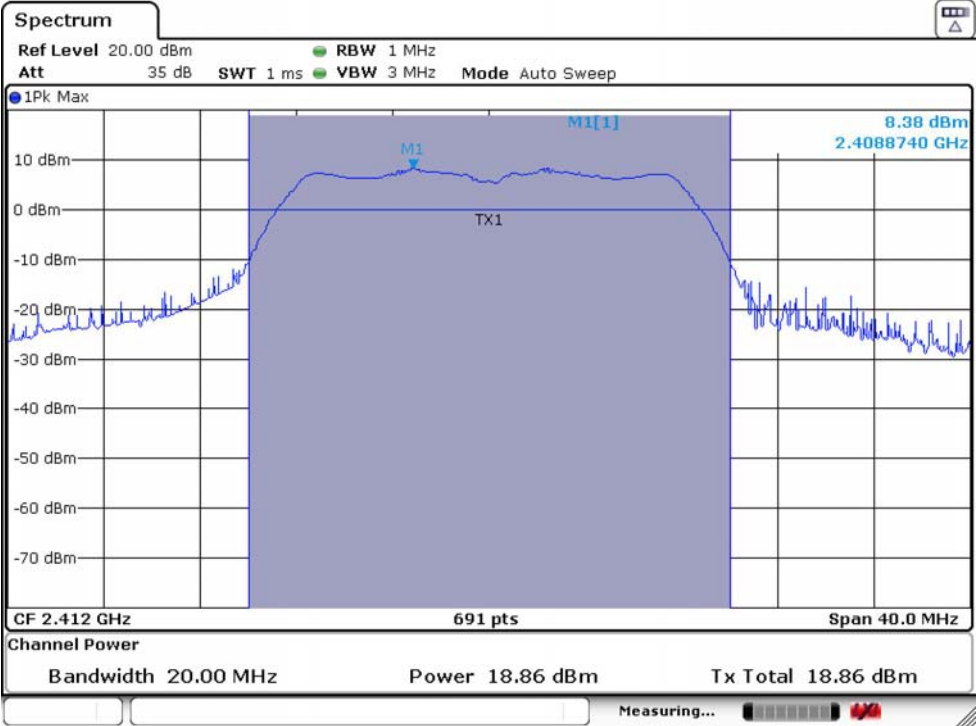
IEEE 802.11b 2462MHz\_ANT 2



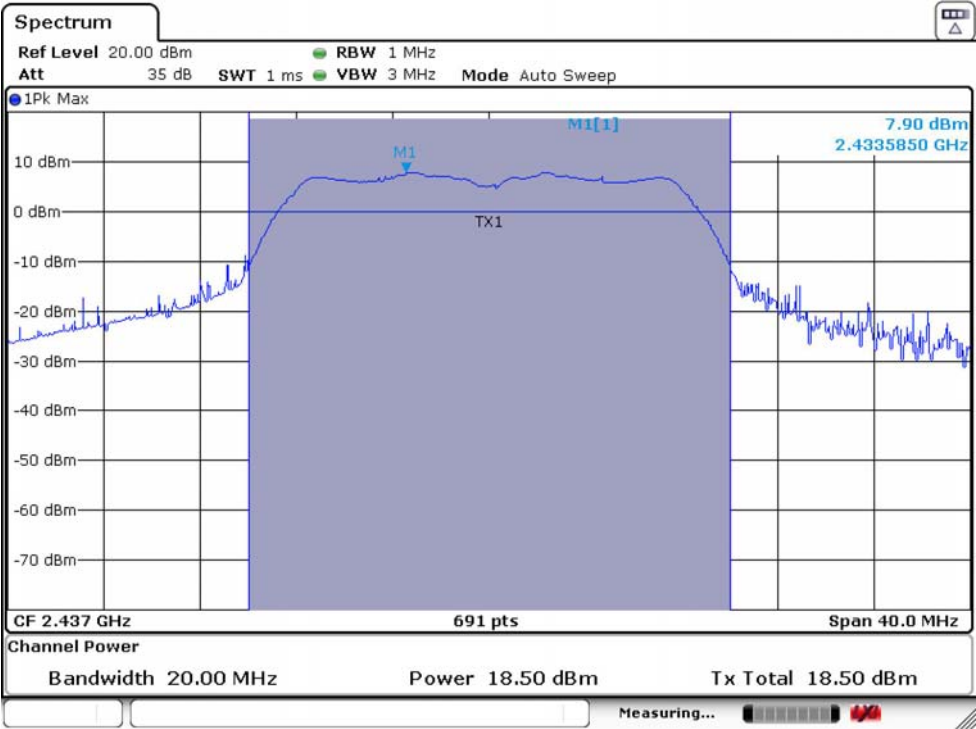
IEEE 802.11g 2412MHz\_ANT 1



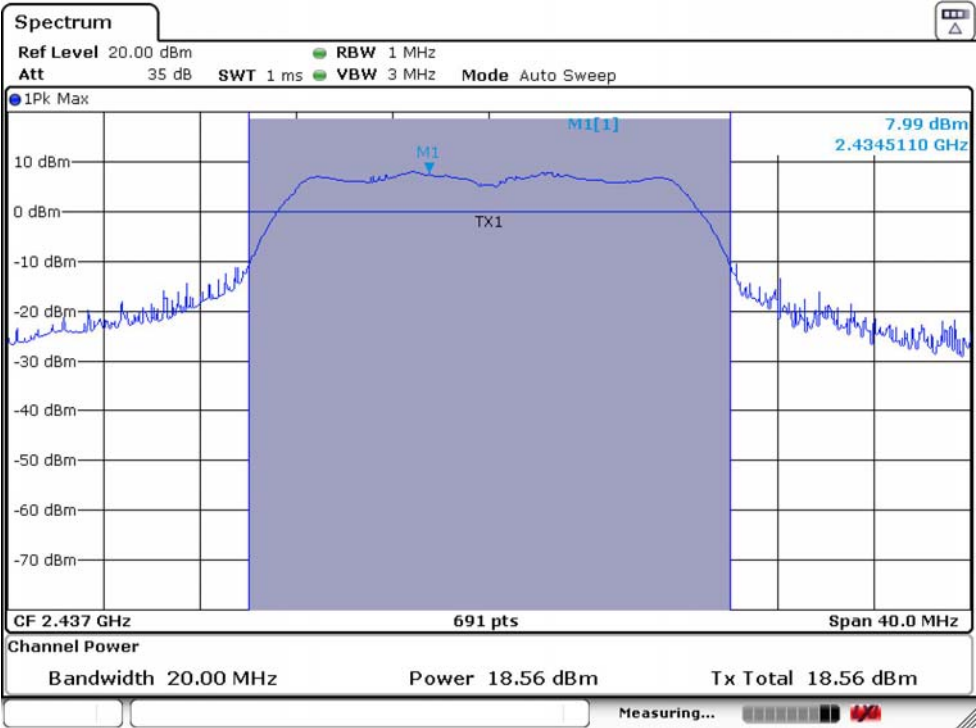
IEEE 802.11g 2412MHz\_ANT 2



IEEE 802.11g 2437MHz\_ANT 1

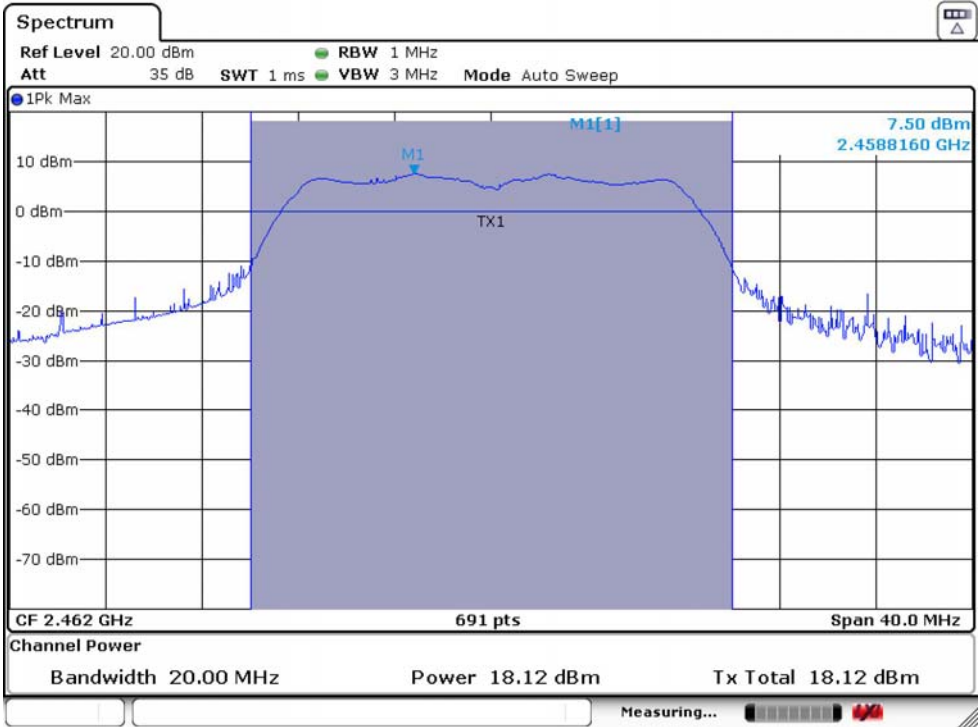


IEEE 802.11g 2437MHz\_ANT 2

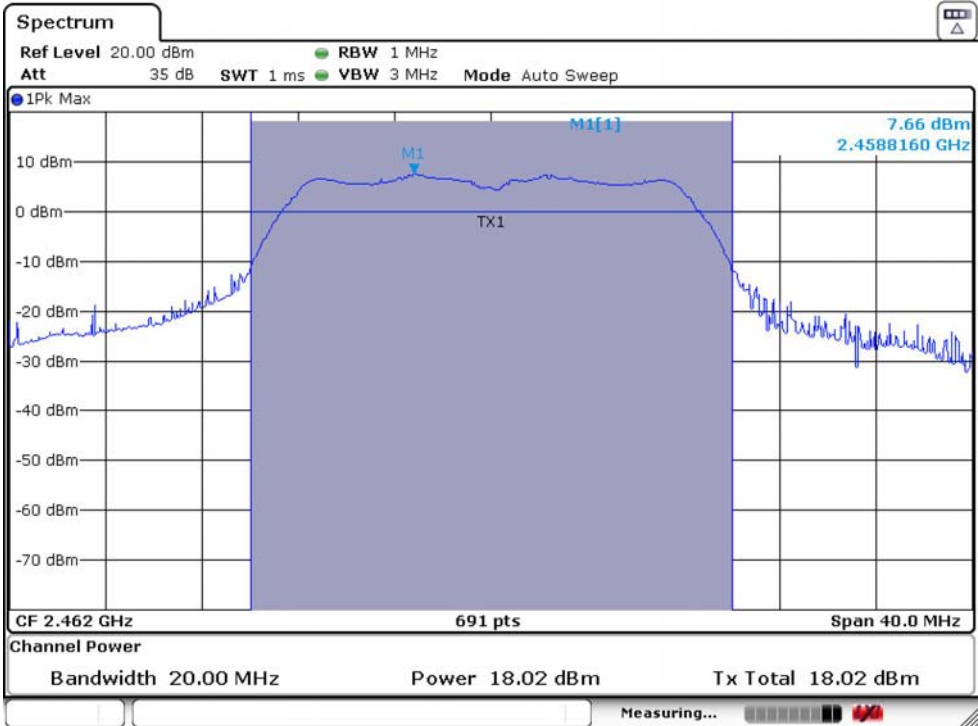




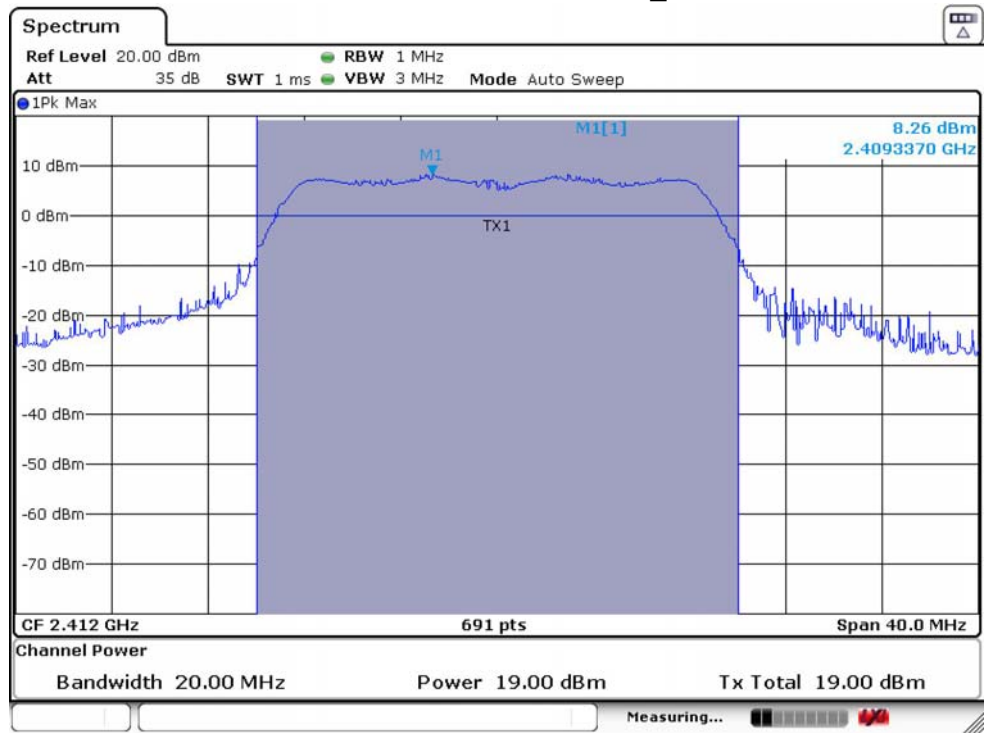
IEEE 802.11g 2462MHz\_ANT 1



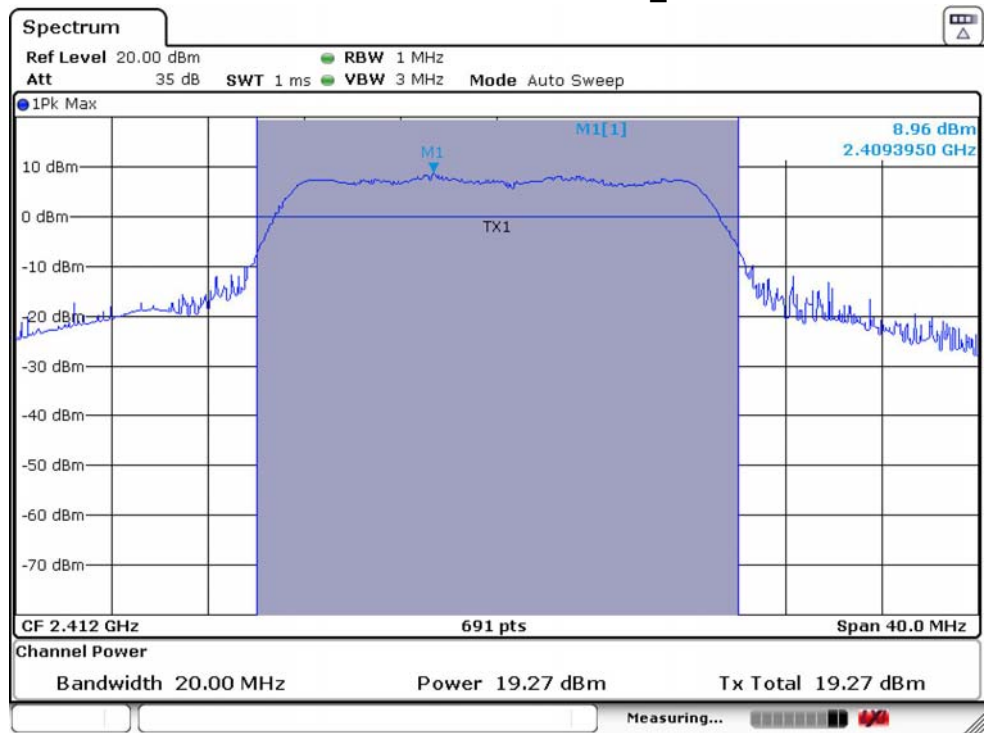
IEEE 802.11g 2462MHz\_ANT 2



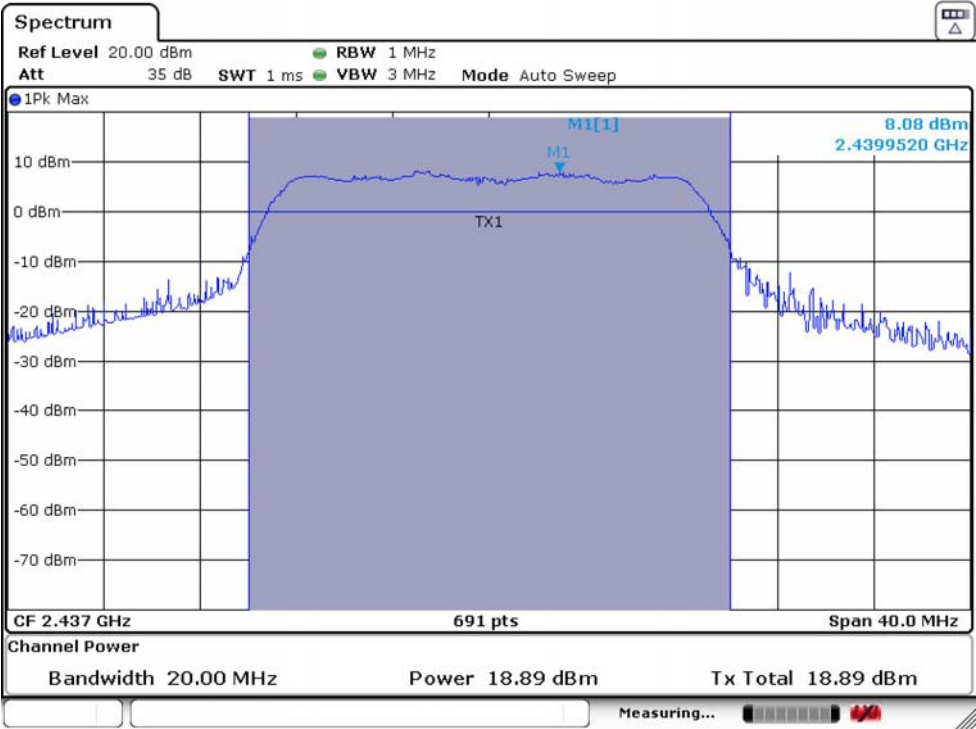
IEEE 802.11n HT20 2412MHz\_ANT 1



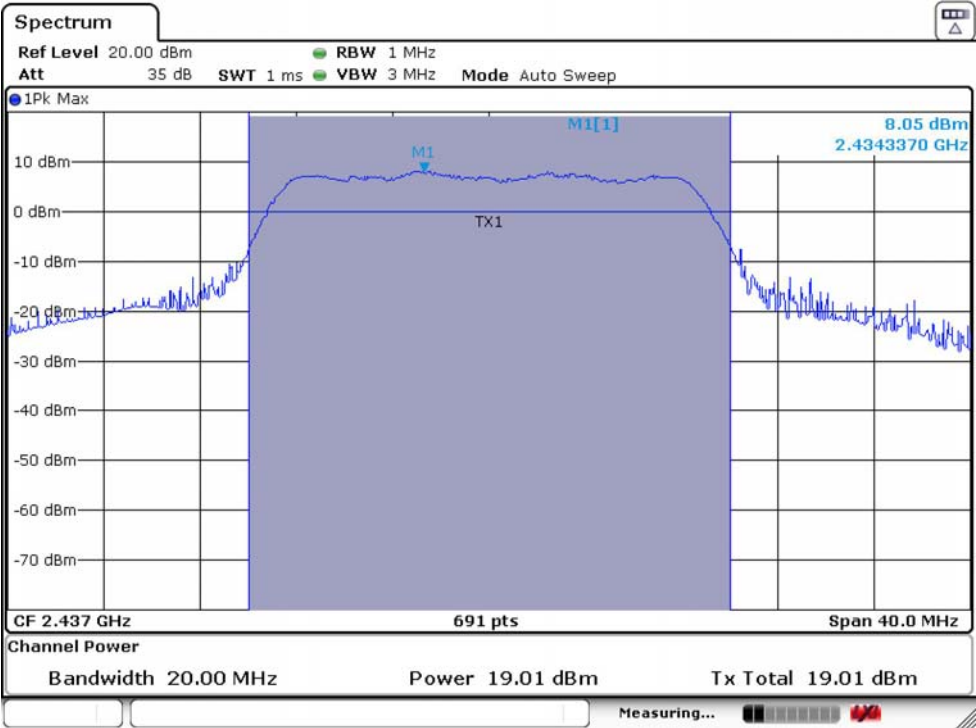
IEEE 802.11n HT20 2412MHz\_ANT 2



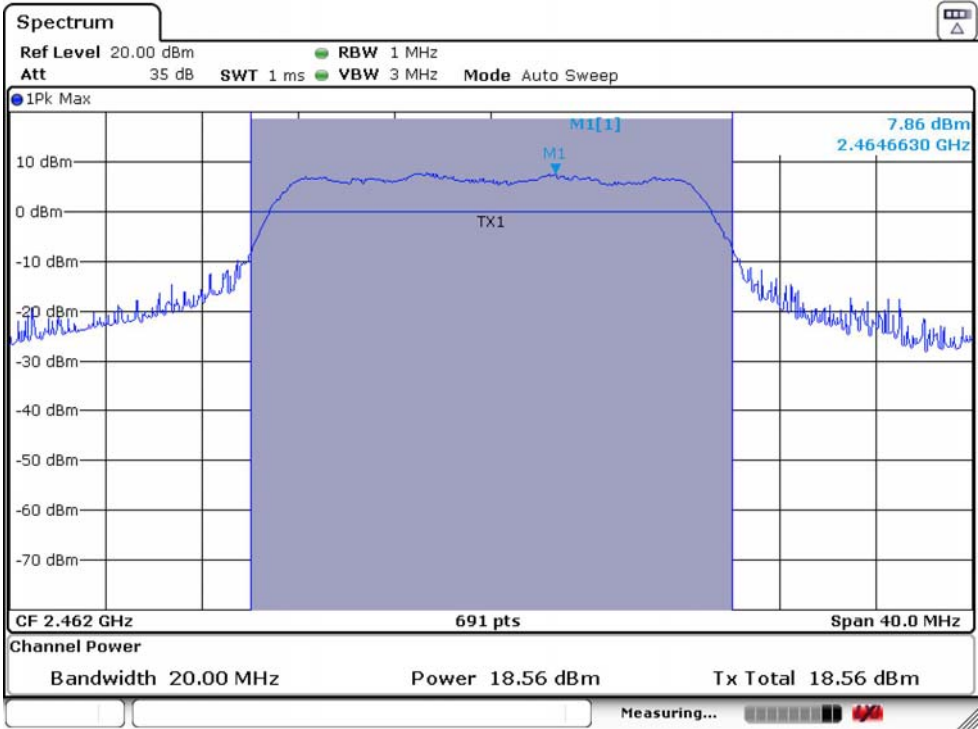
IEEE 802.11n HT20 2437MHz\_ANT 1



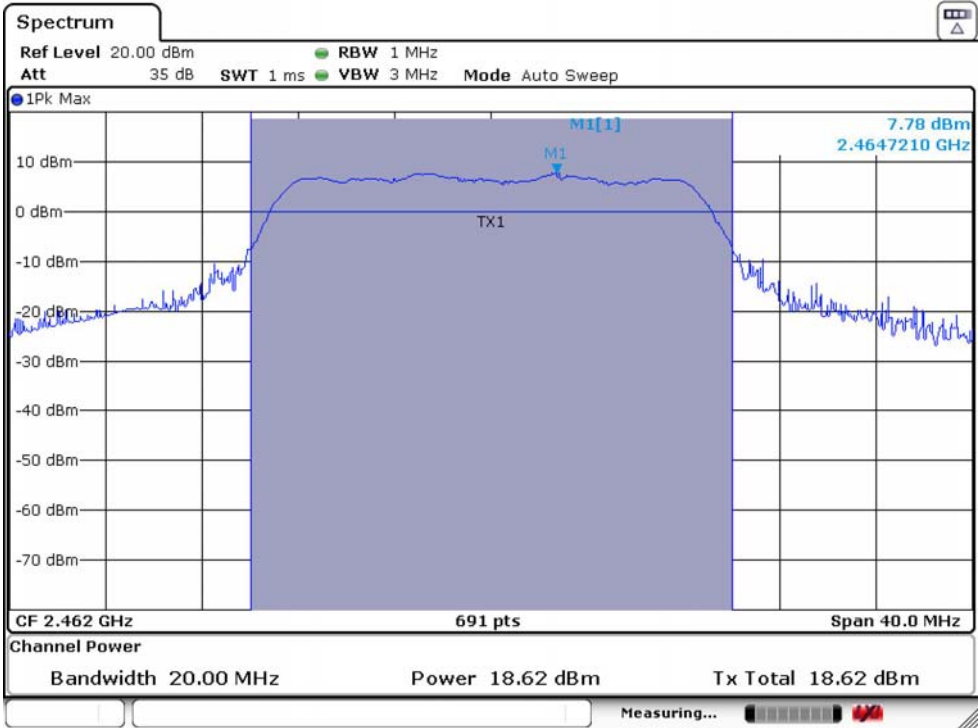
IEEE 802.11n HT20 2437MHz\_ANT 2



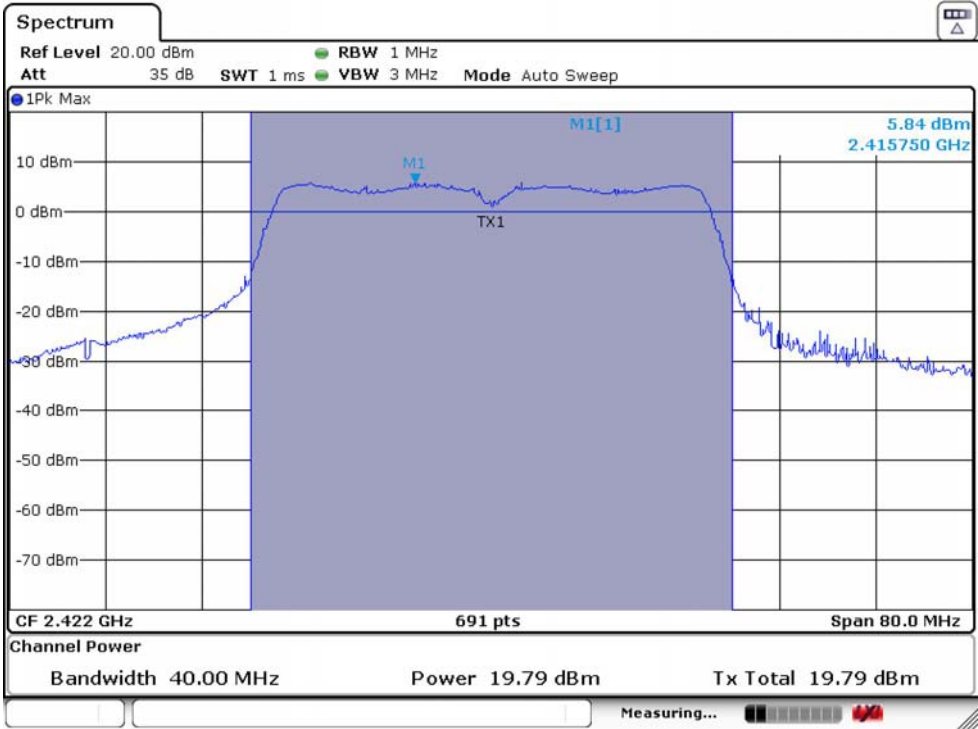
IEEE 802.11n HT20 2462MHz\_ANT 1



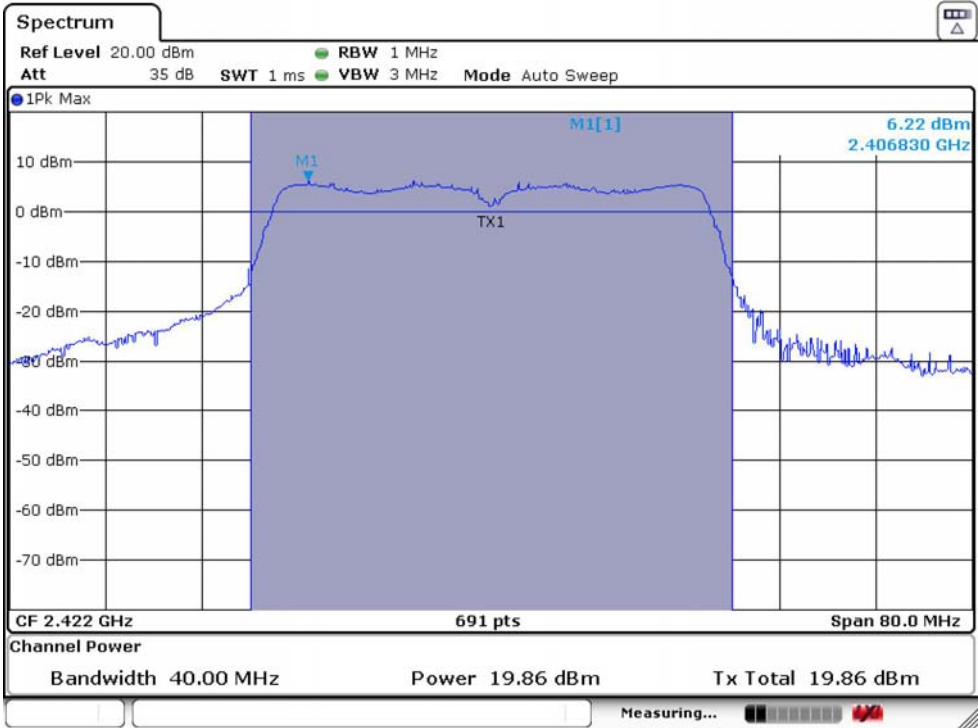
IEEE 802.11n HT20 2462MHz\_ANT 2



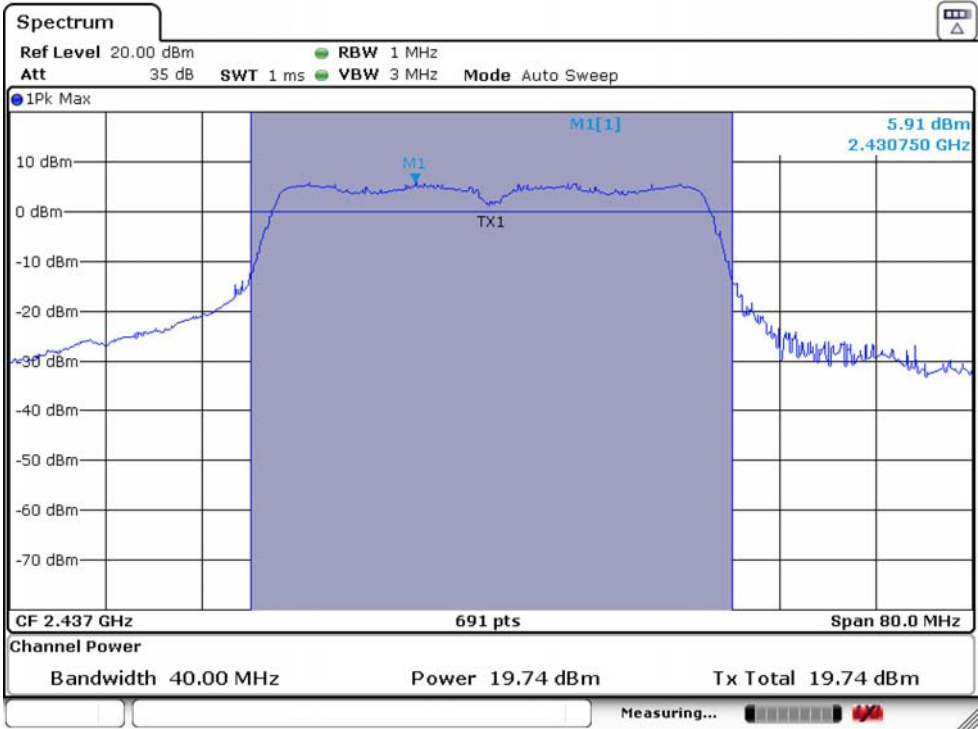
IEEE 802.11n HT40 2422MHz\_ANT 1



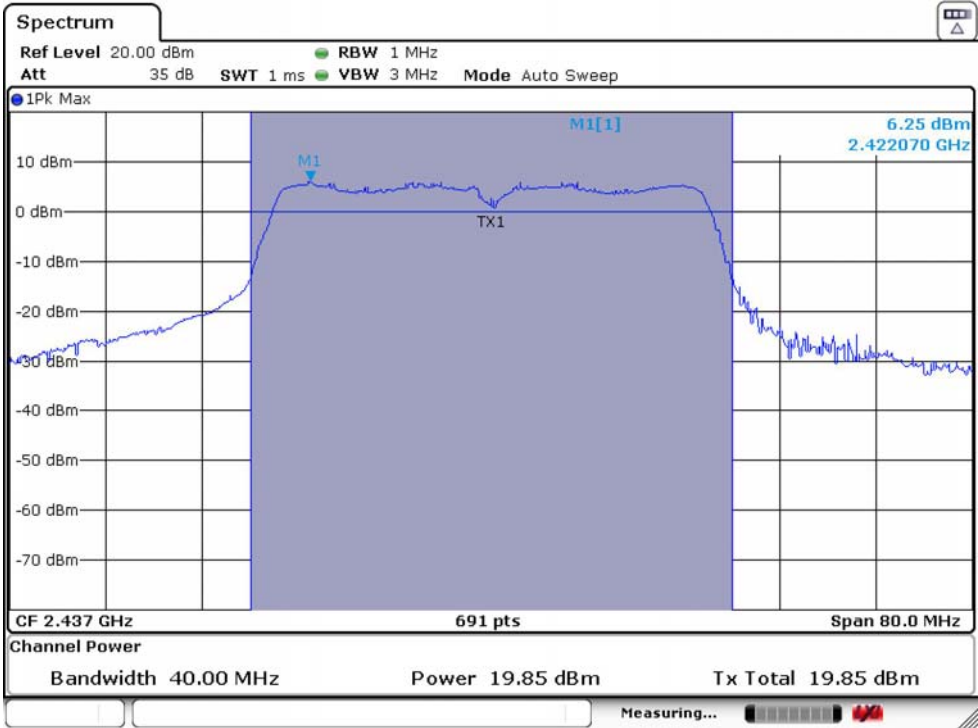
IEEE 802.11n HT40 2422MHz\_ANT 2



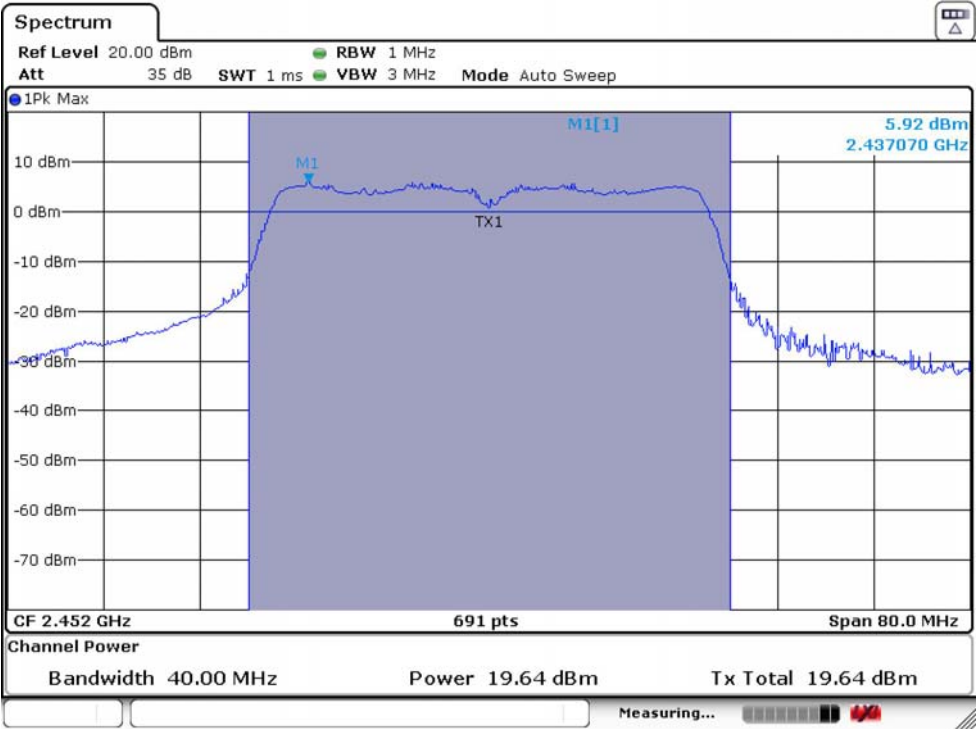
IEEE 802.11n HT40 2437MHz\_ANT 1



IEEE 802.11n HT40 2437MHz\_ANT 2



IEEE 802.11n HT40 2452MHz\_ANT 1



IEEE 802.11n HT40 2452MHz\_ANT 2

