# FCCRadio Test Report

## FCC ID:2AEU7-LONDON

**This report concerns (check one):☒Original Grant ☐Class II Change**

| | | |
|---|---|---|
| **Project No.** | : | 1504C209 |
| **Equipment** | : | Marshall London |
| **Model Name** | : | KB-1501 |
| **Applicant** | : | Zound Industries Smartphones AB |
| **Address** | : | Torsgatan 2, 111 23 Stockholm, Sweden |

| | | |
|---|---|---|
| **Date of Receipt** | : | Apr. 22, 2015 |
| **Date of Test** | : | Apr. 22, 2015 ~ May 25, 2015 |
| **Issued Date** | : | May 26, 2015 |
| **Tested by** | : | BTL Inc. |

Testing Engineer : _____
(David Mao)

**Technical Manager** : _____
(Leo Hung)

**Authorized Signatory** : _____
(Steven Lu)


**BTL INC.**

No.3,Jinshagang 1st Road, Shixia,Dalang Town, Dongguan, Guangdong, China.
TEL: +86-769-8318-3000FAX: +86-769-8319-6000

## Declaration

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## REPORT ISSUED HISTORY

| Issued No. | Description | Issued Date |
|---|---|---|
| BTL-FCCP-4-1504C209 | Original Issue. | May. 27, 2015 |

## 1. CERTIFICATION

| | | |
|---|---|---|
| Equipment | : | Marshall London |
| Brand Name | : | Marshall |
| Model Name | : | KB-1501 |
| Applicant | : | Zound Industries Smartphones AB |
| Manufacturer | : | Zound Industries Smartphones AB |
| Address | : | Torsgatan 2, 111 23 Stockholm, Sweden |
| Factory | : | Huizhou BYD Electronics Co., Ltd. |
| Address | : | Xiangshui River, Economic Development Zone, Daya Bay, Huizhou, Guangdong, 516083, P.R.China |
| Date of Test | : | Apr. 22, 2015 ~ May 25, 2015 |
| Test Sample | : | ENGINEERING SAMPLE |
| Standard(s) | : | FCC Part15, Subpart E(15.407) / ANSI C63.4: 2009<br>FCC KDB 789033 D02 General UNII Test Procedures New Rules v01. |

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.
The test data, data evaluation, and equipment configuration contained in our test report (Ref No. BTL-FCCP-4-1504C209) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of TAF according to the ISO-17025 quality assessment standard and technical standard(s).

## 2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

| FCC Part15, Subpart E | | | |
|---|---|---|---|
| Standard(s) Section | Test Item | Judgment | Remark |
| FCC | | | |
| 15.207 | AC Power Line Conducted Emissions | N/A | |
| 15.407(a) | 26dB Spectrum Bandwidth | PASS | |
| 15.407(a) | Maximum Conducted Output Power | PASS | |
| 15.407(a) | Power Spectral Density | PASS | |
| 15.407(a) | Radiated Emissions | PASS | |
| 15.407(b) | Band Edge Emissions | PASS | |
| 15.407(g) | Frequency Stability | PASS | |
| 15.203 | Antenna Requirements | PASS | |

NOTE:

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

## 2.1 TEST FACILITY

The test facilities used to collect the test data in this report is **DG-C02/DG-CB03**at the location of No.3,Jinshagang 1st Road, Shixia, Dalang Town, Dongguan, Guangdong, China.
BTL's test firm number for FCC: 319330

## 2.2 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimatedfor tests performed on the EUT as specified in CISPR 16-4-2. The BTL measurement uncertainty is less than the CISPR 16-4-2 $U_{cispr}$ requirement.

The reported uncertainty of measurement **y** ±**U**, where expanded uncertainty **U** is based on astandard uncertainty multiplied by a coverage factor of **k=2**, providing a level of confidence of approximately **95**%.

A. Conducted Measurement :

| Test Site | Method | Measurement Frequency Range | U, (dB) | Note |
|---|---|---|---|---|
| DG-C02 | CISPR | 150 KHz~30MHz | 1.94 | |

B. Radiated Measurement :

| Test Site | Method | Measurement Frequency Range | Ant. H / V | U, (dB) | Note |
|---|---|---|---|---|---|
| DG-CB03 | CISPR | 9KHz~30MHz | V | 3.79 | |
| | | 9KHz~30MHz | H | 3.57 | |
| | | 30MHz~200MHz | V | 3.82 | |
| | | 30MHz~200MHz | H | 3.60 | |
| | | 200MHz~ 1,000MHz | V | 3.86 | |
| | | 200MHz~ 1,000MHz | H | 3.94 | |
| | | 1GHz~18GHz | V | 3.12 | |
| | | 1GHz~18GHz | H | 3.68 | |
| | | 18GHz~40GHz | V | 4.15 | |
| | | 18GHz~40GHz | H | 4.14 | |

Note: Unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.

# 3. GENERAL INFORMATION

## 3.1 GENERAL DESCRIPTION OF EUT

| | | |
|---|---|---|
| Equipment | Marshall London | |
| Brand Name | Marshall | |
| Model Name | KB-1501 | |
| Mode Different | NA | |
| Product Description | Operation Frequency | UNII-1: 5150-5250MHz<br>UNII-3: 5725-5850MHz |
| | Modulation Type | OFDM |
| | Bit Rate of Transmitter | 150Mbps |
| Output Power | Output Power (Max.)for UNII-1 | 802.11a:12.16dBm<br>802.11n (20M): 12.17dBm<br>802.11n (40M): 12.20dBm |
| | Output Power (Max.)for UNII-3 | 802.11a:11.96dBm<br>802.11n (20M): 11.95dBm<br>802.11n (40M): 12.25dBm |
| Power Source | #1 DC voltage supplied from AC adapter.<br>Manufacturer/Model: BYD/BUUS050100-B01<br>#2 Supplied from Li-ion battery.<br>Manufacturer/Model: BYD/M62 | |
| Power Rating | #1 I/P: AC 100-240V 50/60Hz 200mA O/P: DC 5V 1A<br>#2 DC 3.8V 2500mAh | |

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

2. Channel List:

| UNII-1 | | UNII-1 | |
|---|---|---|---|
| Channel | Frequency (MHz) | Channel | Frequency (MHz) |
| 36 | 5180 | 38 | 5190 |
| 40 | 5200 | 46 | 5230 |
| 44 | 5220 | | |
| 48 | 5240 | | |

| UNII-3 | | UNII-3 | |
|---|---|---|---|
| Channel | Frequency (MHz) | Channel | Frequency (MHz) |
| 149 | 5745 | 151 | 5755 |
| 153 | 5765 | 159 | 5795 |
| 157 | 5785 | | |
| 161 | 5805 | | |
| 165 | 5825 | | |

3. Antenna Specification:

| Brand | Model Name | Antenna Type | Connector | Gain (dBi) |
|---|---|---|---|---|
| SPEED | LF4701Q-EU | Internal | N/A | 0.0 |

## 3.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

| Pretest Test Mode | Description |
|---|---|
| Mode 1 | TX A Mode/ CH36, CH40, CH48 (UNII-1) |
| Mode 2 | TX N20 Mode/ CH36, CH40, CH48 (UNII-1) |
| Mode 3 | TX N40 Mode/ CH38, CH46 (UNII-1) |
| Mode 4 | TX A Mode / CH149,CH157,CH165 (UNII-3) |
| Mode 5 | TX N20 Mode / CH149,CH157,CH165 (UNII-3) |
| Mode 6 | TX N40 Mode / CH151,CH159 (UNII-3) |
| Mode 7 | TX Mode |

The EUT system operated these modes were found to be the worst case during the pre-scanning test as following:

| **For Conducted Test** | |
|---|---|
| Final Test Mode | Description |
| Mode 7 | TX Mode |

| **For Radiated Test** | |
|---|---|
| Final Test Mode | Description |
| Mode 1 | TX A Mode/ CH36, CH40, CH48 (UNII-1) |
| Mode 2 | TX N20 Mode/ CH36, CH40, CH48 (UNII-1) |
| Mode 3 | TX N40 Mode/ CH38, CH46 (UNII-1) |
| Mode 4 | TX A Mode / CH149,CH157,CH165 (UNII-3) |
| Mode 5 | TX N20 Mode / CH149,CH157,CH165 (UNII-3) |
| Mode 6 | TX N40 Mode / CH151,CH159 (UNII-3) |

Note:
(1) For radiated below 1GHz test, the 802.11a mode is found to be the worst case and recorded.
(2) Both adapter and battery are evaluated, operated the battery is the worst and recorded as below test data.
(3) The EUT is considered a portable unit, it was pre-tested on the positioned of each 3 axis. The worst case was found positioned on X-plane. Therefore only the test data of this X-plane was used for radiated emission measurement test.

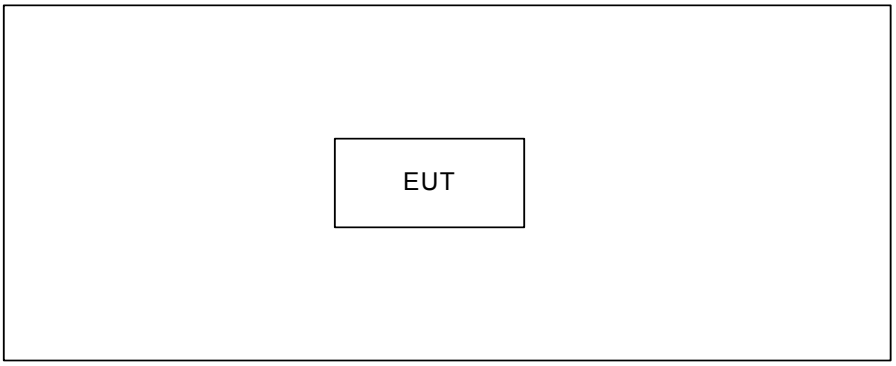
### 3.3 TABLE OF PARAMETERS OF TEST SOFTWARE SETTING

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product

| UNII-1 | | | |
|---|---|---|---|
| Test Software Version | QRCT | | |
| Frequency (MHz) | 5180 | 5200 | 5240 |
| A Mode | 11.5 | 12 | 12 |
| Frequency (MHz) | 5180 | 5200 | 5240 |
| N20 Mode | 11.5 | 12 | 12 |
| Frequency (MHz) | 5190 | 5230 | |
| N40 Mode | 13 | 14 | |

| UNII-3 | | | |
|---|---|---|---|
| Test Software Version | QRCT | | |
| Frequency (MHz) | 5745 | 5785 | 5825 |
| A Mode | 12 | 12 | 12 |
| Frequency (MHz) | 5745 | 5785 | 5825 |
| N20 Mode | 12 | 12 | 12 |
| Frequency (MHz) | 5755 | 5795 | |
| N40 Mode | 14 | 14 | |

## 3.4BLOCKDIAGRAMSHOWINGTHECONFIGURATIONOFSYSTEMTESTED




## 3.5DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

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

| Item | Shielded Type | Ferrite Core | Length | Note |
|---|---|---|---|---|
| - | - | - | - | |

# 4.EMC EMISSION TEST

## 4.1 CONDUCTED EMISSION MEASUREMENT

### 4.1.1 POWER LINE CONDUCTED EMISSION (Frequency Range 150kHz-30MHz)

| FREQUENCY (MHz) | Class A (dBuV) | | Class B (dBuV) | |
|---|---|---|---|---|
| | Quasi-peak | Average | Quasi-peak | Average |
| 0.15 -0.5 | 79.00 | 66.00 | 66 - 56 * | 56 - 46 * |
| 0.50 -5.0 | 73.00 | 60.00 | 56.00 | 46.00 |
| 5.0 -30.0 | 73.00 | 60.00 | 60.00 | 50.00 |

Note:

(1) The tighter limit applies at the band edges.

(2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

(3) The test result calculated as following:
Measurement Value = Reading Level + Correct Factor
Correct Factor = Insertion Loss + Cable Loss + Attenuator Factor(if use)
Margin Level = Measurement Value - Limit Value

### 4.1.2 TEST PROCEDURE

a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipmentspowered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.

b. Interconnecting cables that hang closer than 40 cm to the groundplane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

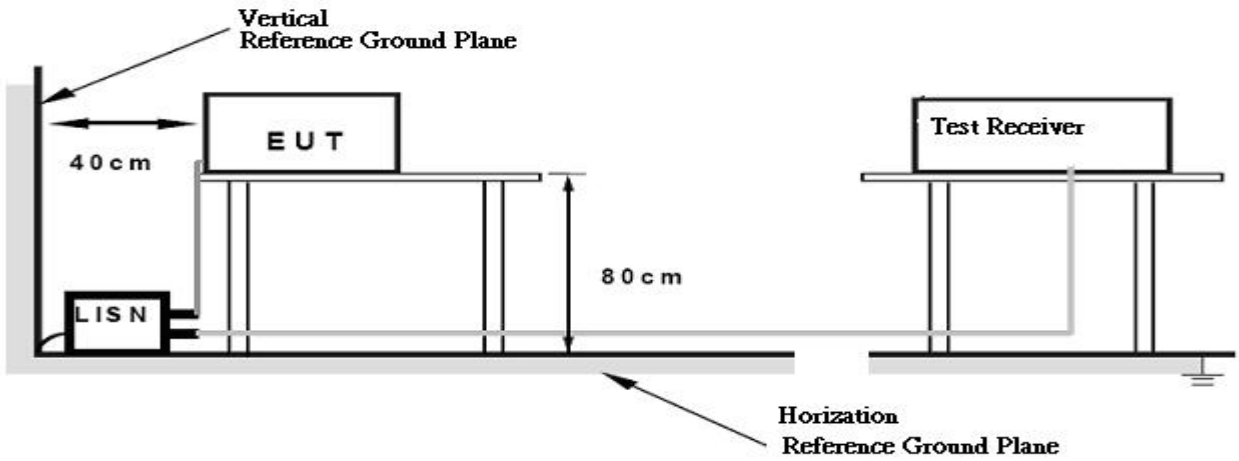
d. LISN at least 80 cm from nearest part of EUT chassis.

e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

### 4.1.3DEVIATIONFROMTESTSTANDARD

No deviation

### 4.1.4 TESTSETUP




### 4.1.5EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it).The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.
The EUT was programmed to be in continuously transmitting/TX Mode mode.

### 4.1.6EUT TEST CONDITIONS

N/A

### 4.1.7 TEST RESULTS

Please refer to the Attachment A.

Remark:

(1) All readings are QP Mode value unless otherwise stated AVG in column of『Note』. If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits,the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform。In this case, a " * " marked in AVG Mode column of Interference Voltage Measured。

(2) Measuring frequency range from 150kHz to 30MHz。

## 4.2 RADIATED EMISSION MEASUREMENT

### 4.2.1 RADIATED EMISSION LIMITS

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

| Frequencies (MHz) | Field Strength (micorvolts/meter) | Measurement Distance (meters) |
|---|---|---|
| 0.009~0.490 | 2400/F(kHz) | 300 |
| 0.490~1.705 | 24000/F(kHz) | 30 |
| 1.705~30.0 | 30 | 30 |
| 30~88 | 100 | 3 |
| 88~216 | 150 | 3 |
| 216~960 | 200 | 3 |
| Above 960 | 500 | 3 |

Note:

(1) The limit for radiated test was performed according to FCC PART 15C.

(2) The tighter limit applies at the band edges.

(3) The test result calculated as following:

Measurement Value = Reading Level + Correct Factor

Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain(if use)

Margin Level = Measurement Value - Limit Value

LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

| Frequencies (MHz) | EIRP Limit (dBm) | Equivalent Field Strength at 3m (dBμV/m) |
|---|---|---|
| 5150-5250 | -27 | 68.3 |
| 5250-5350 | -27 | 68.3 |
| 5470-5725 | -27 | 68.3 |
| 5725-5850 | -27 (beyond 10MHz of the bandedge) | 68.3 |
| | -17 (within 10 MHz of band edge) | 78.3 |

Note: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength: $E = \frac{1000000\sqrt{30P}}{3}$ μV/m, where P is the eirp (Watts)

### 4.2.2 TESTPROCEDURE

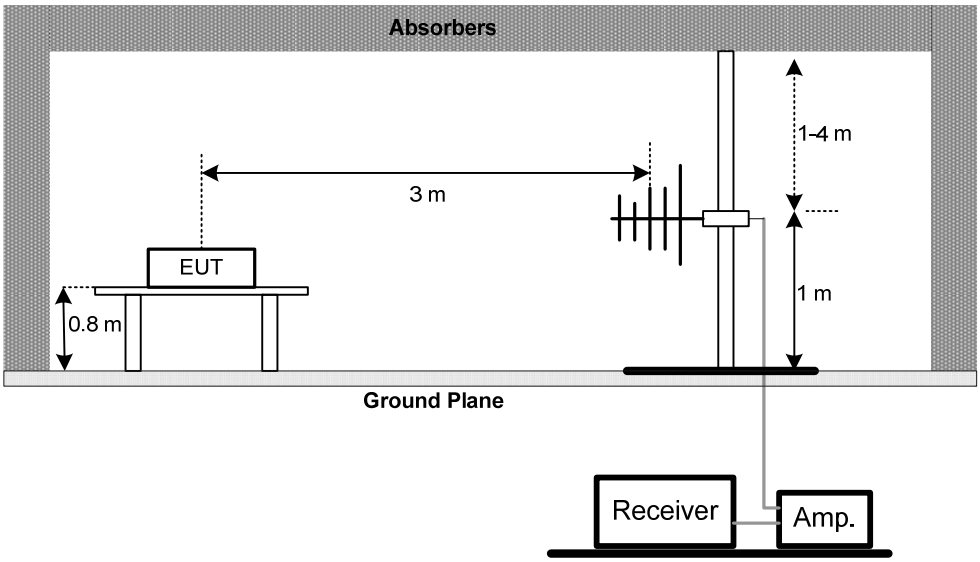
a. The measuring distance of at 3m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

### 4.2.3DEVIATIONFROMTESTSTANDARD

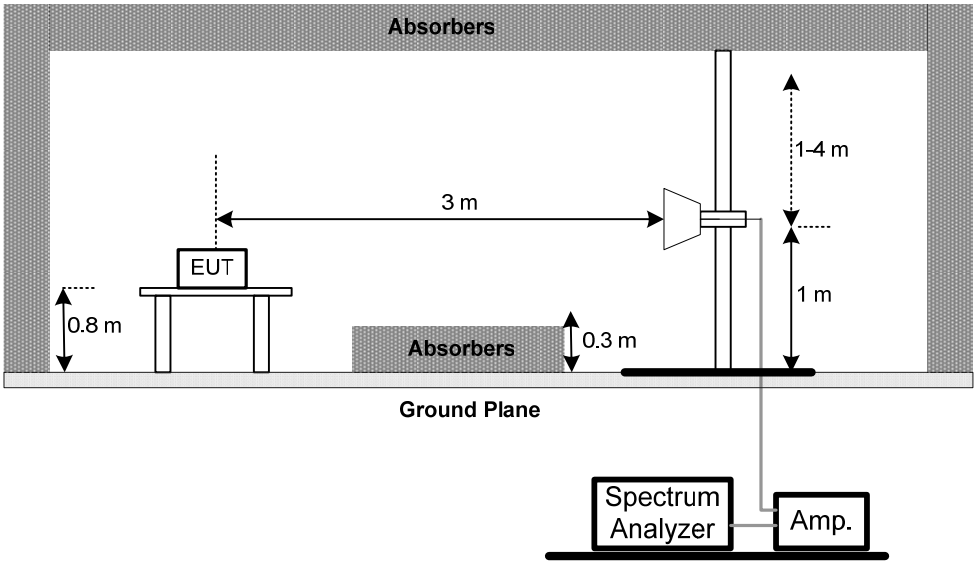
Temperature: 25°CRelative Humidity: 55%Test Voltage: AC 120V/60Hz

### 4.2.4 TESTSETUP

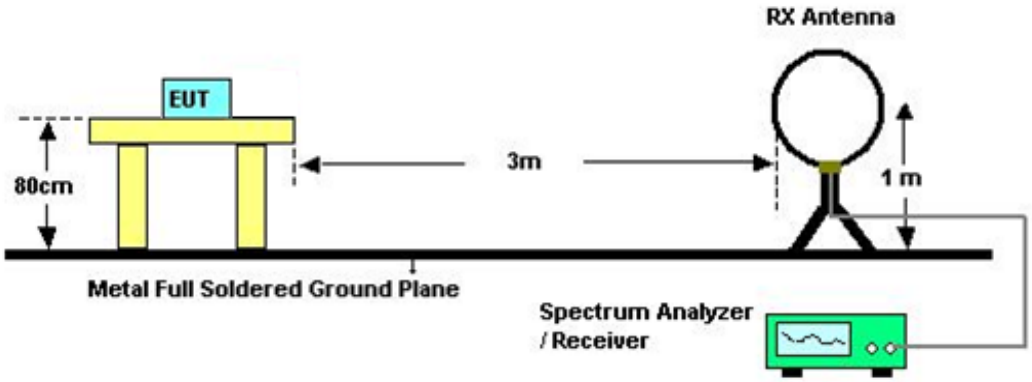
**(A) Radiated Emission Test Set-Up Frequency Below 1GHz**



**(B) Radiated Emission Test Set-Up Frequency Above 1 GHz**




**(C) Radiated emissions below 30MHz**




### 4.2.5EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 4.1.5Unless otherwise a special operating condition is specified in the follows during the testing.

### 4.2.6EUT TEST CONDITIONS

Temperature: 28°CRelative Humidity: 60%  Test Voltage: DC 3.8V

### 4.2.7 TEST RESULTS (9K TO 30MHz)

Please refer to the Attachment B

Remark:

(1) The amplitude of spurious emissions which are attenuated by more than 20 dB below the permissible value has no need to be reported.
(2) Distance extrapolation factor = 40 log (specific distance / test distance) (dB);
(3) Limit line = specific limits (dBuV) + distance extrapolation factor.

### 4.2.8 TEST RESULTS(30 TO 1000 MHz)

Please refer to the Attachment C.

Remark:

(1) Reading in which marked as QP or Peak means measurements by using are Quasi-Peak Mode or Peak Modewith Detector BW=120kHz；SPA setting in RBW=120kHz, VBW =120kHz, Swp. Time = 0.3 sec./MHz。
(2) All readings are Peak unless otherwise stated QP in column of『Note』. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn‘t perform。
(3) Measuring frequency range from 30MHz to 1000MHz。
(4) If the peak scan value lower limit more than 20dB, then this signal data does not show in table。

### 4.2.9 TEST RESULTS (ABOVE1000 MHz)

Please refer to the Attachment D.

Remark:

(1) Spectrum Setting: 30MHz – 1000MHz , RBW= 100kHz, VBW=100kHz, Sweep time = 200 ms. 1GHz- 40GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
(2) All readings are Peak unless otherwise stated AV in column of『Note』. Peak denotes that the Peak reading compliance with the AV Limits and then AV Mode measurement didn‘t perform.
(3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。
(4) Data of measurement within this frequency range shown “ * ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
(5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
(6) EUT Orthogonal Axes:
“X” - denotes Laid on Table；”Y” - denotes Vertical Stand；”Z” - denotes Side Stand
(7) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.
(8) No limit:This is fundamental signal, the judgment is not applicable.
For fundamental signal judgment was referred to Peak output test.

## 5.26dB SPECTRUM BANDWIDTH

### 5.1APPLIED PROCEDURES / LIMIT

| FCC Part15, Subpart E | | | |
|---|---|---|---|
| Test Item | Limit | Frequency Range (MHz) | Result |
| Bandwidth | 26 dB Bandwidth | 5150-5250 | PASS |
| | Minimum 500kHz 6dB Bandwidth | 5725-5850 | PASS |

### 5.1.1TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,

b.

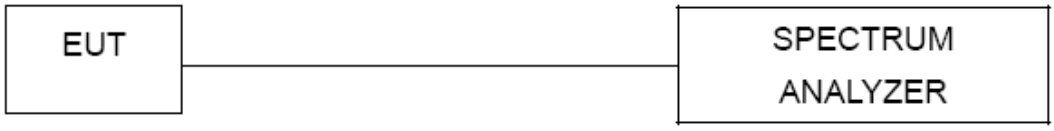
| Spectrum Parameters | Setting |
|---|---|
| Attenuation | Auto |
| Span Frequency | > 26dB Bandwidth |
| RBW | 300 kHz |
| VBW | 1000 kHz |
| Detector | Peak |
| Trace | Max Hold |
| Sweep Time | Auto |

c. Measured the spectrum width with power higher than 26dB below carrier

### 5.1.2DEVIATION FROM STANDARD

No deviation.

### 5.1.3TEST SETUP




### 5.1.4EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.1.5 Unless otherwise a special operating condition is specified in the follows during the testing.

### 5.1.5EUT TEST CONDITIONS

Temperature: 28°CRelative Humidity: 60%  Test Voltage: DC 3.8V

### 5.1.6TEST RESULTS

Please refer to the Attachment E.

# 6.MAXIMUM CONDUCTED OUTPUT POWER

## 6.1APPLIED PROCEDURES / LIMIT

| FCC Part15, Subpart E | | | |
|---|---|---|---|
| Test Item | Limit | Frequency Range (MHz) | Result |
| Conducted Output Power | Fixed:1 Watt (30dBm)<br>Mobile and portable: 250mW (24dBm) | 5150-5250 | PASS |
| | 1 Watt (30dBm) | 5725-5850 | PASS |
| Note: The maximum e.i.r.p at anyelevation angle above 30 degrees as measured from the horizon must not exceed 125mW(21dBm) | | | |

### 6.1.1TEST PROCEDURE

a. The EUT was directly connected to the power meter and antenna output port as show in the block diagram below,

b.

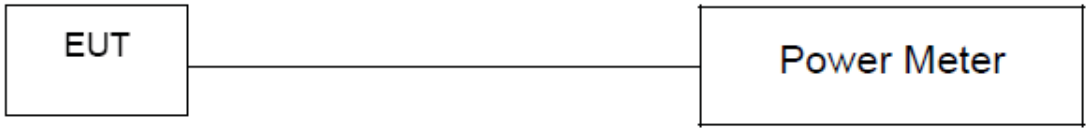
| Spectrum Parameter | Setting |
|---|---|
| Attenuation | Auto |
| Span Frequency | Encompass the entire emissions bandwidth (EBW) ofthe signal |
| RBW | = 1MHz. |
| VBW | ⩾ 3MHz. |
| Detector | RMS |
| Trace | Max Hold |
| Sweep Time | auto |

c. Test was performed in accordance with method of KDB 789033 D02.

### 6.1.2DEVIATION FROM STANDARD

No deviation.

### 6.1.3TEST SETUP




### 6.1.4EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.1.5 Unless otherwise a special operating condition is specified in the follows during the testing.

### 6.1.5EUT TEST CONDITIONS

Temperature: 28°CRelative Humidity: 60%  Test Voltage: DC 3.8V

### 6.1.6TEST RESULTS

Please refer to the Attachment F.

# 7.ANTENNA CONDUCTED SPURIOUS EMISSION

## 7.1APPLIED PROCEDURES / LIMIT

| FCC Part15, Subpart E | | | |
|---|---|---|---|
| Test Item | Limit | Frequency Range (MHz) | Result |
| Antenna conducted Spurious Emission | -27dBm/MHz | 5150-5250 | PASS |
| | Below -17dBm/MHz within 10MHz of band edge, below -27dBm/MHz beyond 10MHz of the band edge | 5725-5850 | PASS |

### 7.1.1TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,

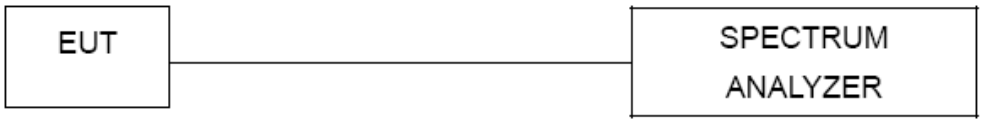
b.

| Spectrum Parameter | Setting |
|---|---|
| Attenuation | Auto |
| RBW | 1000kHz |
| VBW | 1000kHz |
| Trace | Max Hold |
| Sweep Time | Auto |

### 7.1.2DEVIATION FROM STANDARD

No deviation.

### 7.1.3TEST SETUP




### 7.1.4EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.1.5 Unless otherwise a special operating condition is specified in the follows during the testing.

### 7.1.5EUT TEST CONDITIONS

Temperature: 28°CRelative Humidity: 60%  Test Voltage: DC 3.8V

### 7.1.6TEST RESULTS

**Please refer to the Attachment G.**

# 8.POWER SPECTRAL DENSITY TEST

## 8.1APPLIED PROCEDURES / LIMIT

| FCC Part15, Subpart E | | | |
|---|---|---|---|
| Test Item | Limit | Frequency Range (MHz) | Result |
| Power Spectral Density | Other then Mobile and portable:17dBm/MHz<br>Mobile and portable:11dBm/MHz | 5150-5250 | PASS |
| | 30dBm/500kHz | 5725-5850 | PASS |

### 8.1.1 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,

b.

| Spectrum Parameter | Setting |
|---|---|
| Attenuation | Auto |
| Span Frequency | Encompass the entire emissions bandwidth (EBW) ofthe signal |
| RBW | = 1MHz. |
| VBW | ≥ 3MHz. |
| Detector | RMS |
| Trace | Max Hold |
| Sweep Time | Auto |

Note:

1.For UNII-3, according to KDB publication 789033 D02 General UNII Test Procedures New Rules v01, section II.F.5., it is acceptable to set RBW at 1MHz and VBW at 3MHz if the spectrum analyzer does not have 500kHz RBW.

2.The value measured with RBW=1MHz is to be added with 10log(500kHz/1MHz) which is -3dB. For example, if the measured value is +10dBm using RBW=1MHz (that is +10dBm/MHz), then the converted value will be +7dBm/500kHz.

### 8.1.1DEVIATION FROM STANDARD

No deviation.

### 8.1.2TEST SETUP

### 8.1.3EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.1.5 Unless otherwise a special operating condition is specified in the follows during the testing.

### 8.1.4EUT TEST CONDITIONS

Temperature: 28°CRelative Humidity: 60%  Test Voltage: DC 3.8V

### 8.1.5TEST RESULTS

**Please refer to the Attachment H.**

# 9.FREQUENCY STABILITY MEASUREMENT

## 9.1APPLIED PROCEDURES / LIMIT

| FCC Part15, Subpart E | | | |
|---|---|---|---|
| Test Item | Limit | Frequency Range (MHz) | Result |
| FSpecified in the user's manualSpecified in the user's manualrequency Stability | Specifiedin the user's manual | 5150-5250 | PASS |
| | | 5725-5850 | PASS |

### 9.1.1TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,

b.

| Spectrum Parameter | Setting |
|---|---|
| Attenuation | Auto |
| Span Frequency | Entire absence of modulation emissionsbandwidth |
| RBW | 10 kHz |
| VBW | 10kHz |
| Sweep Time | Auto |

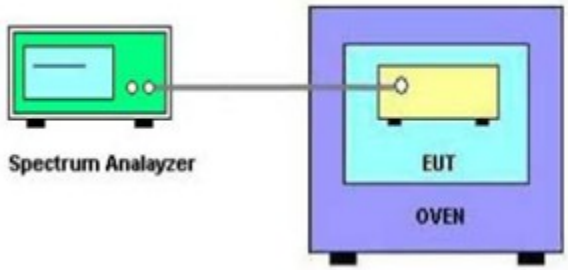
c. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value.

d. User manual temperature is-10°C~55°C.

### 9.1.2DEVIATION FROM STANDARD

No deviation.

### 9.1.3TEST SETUP




### 9.1.4EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.1.5 Unless otherwise a special operating condition is specified in the follows during the testing.

### 9.1.5EUT TEST CONDITIONS

Temperature: 25°CRelative Humidity: 55%Test Voltage: AC 120V/60Hz

### 9.1.6TEST RESULTS

**Please refer to the Attachment I.**

## 10. MEASUREMENT INSTRUMENTS LIST

| Conducted Emission Measurement | | | | | |
|---|---|---|---|---|---|
| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated until |
| 1 | LISN | EMCO | 3816/2 | 00052765 | Mar. 28, 2016 |
| 2 | LISN | R&S | ENV216 | 101447 | Mar. 28, 2016 |
| 3 | Test Cable | N/A | C_17 | N/A | Mar. 13, 2016 |
| 4 | EMI TEST RECEIVER | R&S | ESCS30 | 833364/017 | Mar. 28, 2016 |
| 5 | 50Ω Terminator | SHX | TF2-3G-A | 08122902 | Mar. 28, 2016 |
| 6 | Measurement Software | Farad | EZ-EMC Ver.NB-03A1-01 | N/A | N/A |

| Radiated Emission Measurement | | | | | |
|---|---|---|---|---|---|
| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated until |
| 1 | Antenna | Schwarbeck | VULB9160 | 9160-3232 | Mar. 28, 2016 |
| 2 | Amplifier | HP | 8447D | 2944A09673 | Nov. 17, 2015 |
| 3 | Receiver | AGILENT | N9038A | MY52130039 | Sep. 30, 2015 |
| 4 | Test Cable | N/A | C-01_CB03 | N/A | Jul. 01, 2015 |
| 5 | Controller | CT | SC100 | N/A | N/A |
| 6 | Antenna | ETS | 3115 | 00075789 | Mar. 28, 2016 |
| 7 | Amplifier | Agilent | 8449B | 3008A02274 | Nov. 02, 2015 |
| 8 | Receiver | AGILENT | N9038A | MY52130039 | Sep. 30, 2015 |
| 9 | Test Cable | N/A | C-68 | N/A | Jul. 01, 2015 |
| 10 | Controller | CT | SC100 | N/A | N/A |
| 11 | Broad-Band Horn Antenna | Schwarzbeck | BBHA 9170 | 9170319 | Mar. 28, 2016 |
| 12 | Microwave Preamplifier With Adaptor | EMC INSTRUMENT | EMC2654045 | 980039 & HA01 | Mar. 28, 2016 |
| 13 | Active Loop Antenna | R&S | HFH2-Z2 | 830749/020 | Aug. 16, 2015 |
| 14 | Measurement Software | Farad | EZ-EMC Ver.NB-03A1-01 | N/A | N/A |

| Spectrum BandwidthMeasurement | | | | | |
|---|---|---|---|---|---|
| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated until |
| 1 | Spectrum Analyzer | R&S | FSP 40 | 100185 | Nov. 02, 2015 |

| Maximum Conducted Output Power Measurement | | | | | |
|---|---|---|---|---|---|
| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated until |
| 1 | power Meter | ANRITSU | ML2495A | 1128009 | Mar. 28, 2016 |
| 2 | Pulse Power Sensor | ANRITSU | MA 2411B | 1027500 | Mar. 28, 2016 |

| Antenna Conducted Spurious Emission Measurement | | | | | |
|---|---|---|---|---|---|
| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated until |
| 1 | Spectrum Analyzer | R&S | FSP 40 | 100185 | Nov. 02, 2015 |

| Power Spectral Density Measurement | | | | | |
|---|---|---|---|---|---|
| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated until |
| 1 | Spectrum Analyzer | R&S | FSP 40 | 100185 | Nov. 02, 2015 |

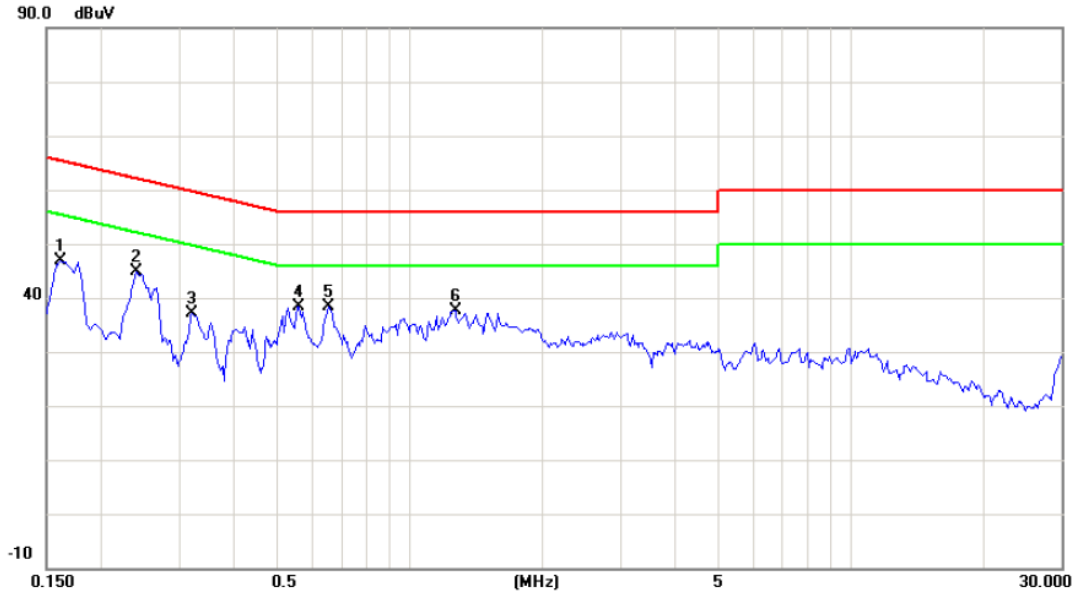
| Frequency Stability Measurement | | | | | |
|---|---|---|---|---|---|
| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated until |
| 1 | Spectrum Analyzer | R&S | FSP 40 | 100185 | Nov. 02, 2015 |

Remark: ”N/A” denotes no model name, serial no. or calibration specified.
All calibration period of equipment list is one year.

# ATTACHMENTA -CONDUCTED EMISSION

| Test Mode : | TX MODE |
|---|---|

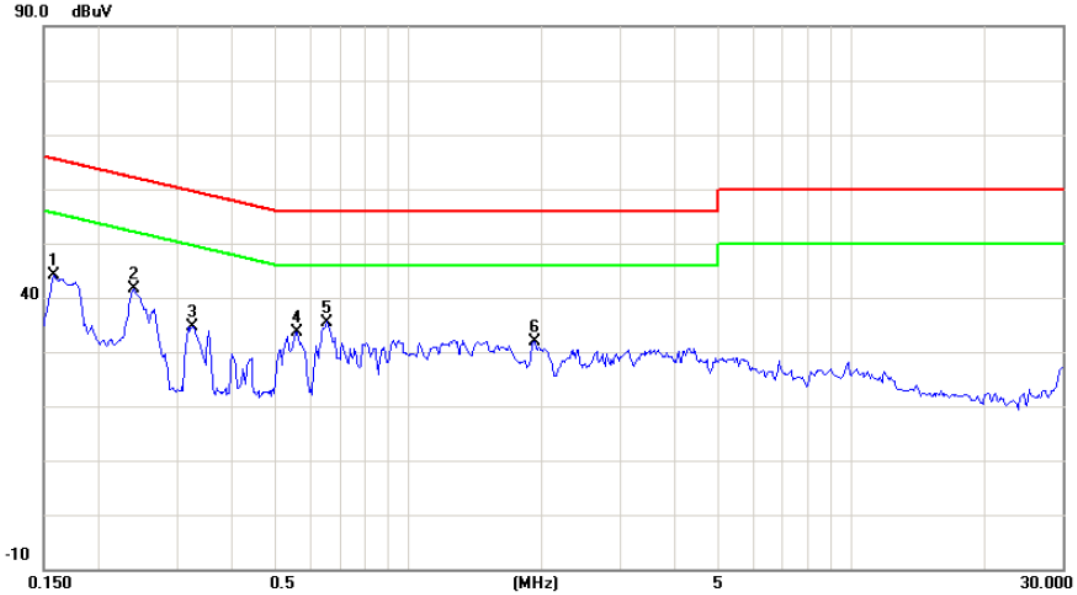
**Line**




| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Margin | | |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB | dBuV | dBuV | dB | Detector | Comment |
| 1 | | 0.1617 | 37.12 | 9.66 | 46.78 | 65.38 | -18.60 | peak | |
| 2 | * | 0.2398 | 35.24 | 9.71 | 44.95 | 62.10 | -17.15 | peak | |
| 3 | | 0.3215 | 27.40 | 9.75 | 37.15 | 59.67 | -22.52 | peak | |
| 4 | | 0.5601 | 28.62 | 9.82 | 38.44 | 56.00 | -17.56 | peak | |
| 5 | | 0.6540 | 28.52 | 9.85 | 38.37 | 56.00 | -17.63 | peak | |
| 6 | | 1.2670 | 27.72 | 9.92 | 37.64 | 56.00 | -18.36 | peak | |

| Test Mode : | TX MODE |
|---|---|

## Neutral




| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Margin | | |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB | dBuV | dBuV | dB | Detector | Comment |
| 1 | | 0.1577 | 34.46 | 9.57 | 44.03 | 65.58 | -21.55 | peak | |
| 2 | * | 0.2398 | 32.10 | 9.60 | 41.70 | 62.10 | -20.40 | peak | |
| 3 | | 0.3256 | 25.14 | 9.61 | 34.75 | 59.56 | -24.81 | peak | |
| 4 | | 0.5601 | 24.02 | 9.65 | 33.67 | 56.00 | -22.33 | peak | |
| 5 | | 0.6542 | 25.85 | 9.65 | 35.50 | 56.00 | -20.50 | peak | |
| 6 | | 1.9273 | 21.96 | 9.85 | 31.81 | 56.00 | -24.19 | peak | |

# ATTACHMENTB -RADIATED EMISSION (9KHZ TO 30MHZ)

| Test Mode: | TX MODE |
|---|---|

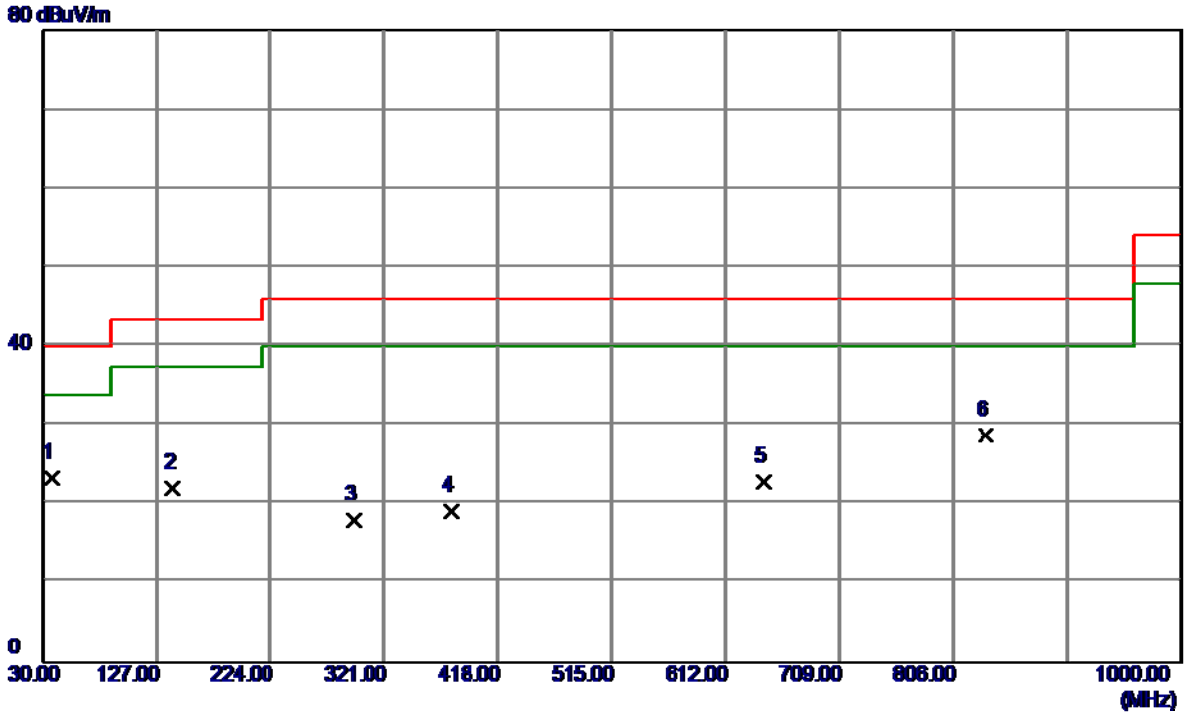
| Frequency (MHz) | Ant 0°/90° | Read level dBuV/m | Factor (dB) | Measured(FS) (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Note |
|---|---|---|---|---|---|---|---|
| 0.0085 | 0° | 12.86 | 25.0283 | 37.8883 | 129.0158 | -91.1275 | AVG |
| 0.0085 | 0° | 14.39 | 25.0283 | 39.4183 | 149.0158 | -109.5975 | PEAK |
| 0.0236 | 0° | 8.03 | 24.0720 | 32.1020 | 120.1460 | -88.0440 | AVG |
| 0.0236 | 0° | 10.85 | 24.0720 | 34.9220 | 140.1460 | -105.2240 | PEAK |
| 0.0338 | 0° | 5.58 | 23.4260 | 29.0060 | 117.0259 | -88.0199 | AVG |
| 0.0338 | 0° | 7.16 | 23.4260 | 30.5860 | 137.0259 | -106.4399 | PEAK |
| 0.0485 | 0° | 2.38 | 22.4950 | 24.8750 | 113.8894 | -89.0144 | AVG |
| 0.0485 | 0° | 4.17 | 22.4950 | 26.6650 | 133.8894 | -107.2244 | PEAK |
| 0.4963 | 0° | 20.38 | 19.8089 | 40.1889 | 73.6893 | -33.5005 | QP |
| 1.7239 | 0° | 23.55 | 19.5276 | 43.0776 | 69.5400 | -26.4624 | QP |

| Frequency (MHz) | Ant 0°/90° | Read level dBuV/m | Factor (dB) | Measured(FS) (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Note |
|---|---|---|---|---|---|---|---|
| 0.0077 | 90° | 11.08 | 24.3000 | 35.3800 | 129.8744 | -94.4944 | AVG |
| 0.0077 | 90° | 13.52 | 24.3000 | 37.8200 | 149.8744 | -112.0544 | PEAK |
| 0.0139 | 90° | 9.87 | 24.3000 | 34.1700 | 124.7439 | -90.5739 | AVG |
| 0.0139 | 90° | 11.06 | 24.3000 | 35.3600 | 144.7439 | -109.3839 | PEAK |
| 0.0336 | 90° | 7.36 | 23.4387 | 30.7987 | 117.0774 | -86.2788 | AVG |
| 0.0336 | 90° | 8.97 | 23.4387 | 32.4087 | 137.0774 | -104.6688 | PEAK |
| 0.0452 | 90° | 5.28 | 22.7040 | 27.9840 | 114.5015 | -86.5175 | AVG |
| 0.0452 | 90° | 7.19 | 22.7040 | 29.8940 | 134.5015 | -104.6075 | PEAK |
| 0.4988 | 90° | 19.36 | 19.8029 | 39.1629 | 73.6457 | -34.4828 | QP |
| 1.7739 | 90° | 22.83 | 19.5226 | 42.3526 | 69.5400 | -27.1874 | QP |

# ATTACHMENTC -RADIATED EMISSION (30MHZ TO 1000MHZ)

| Test Mode: | UNII-1/TX A Mode 5180MHz |
|---|---|

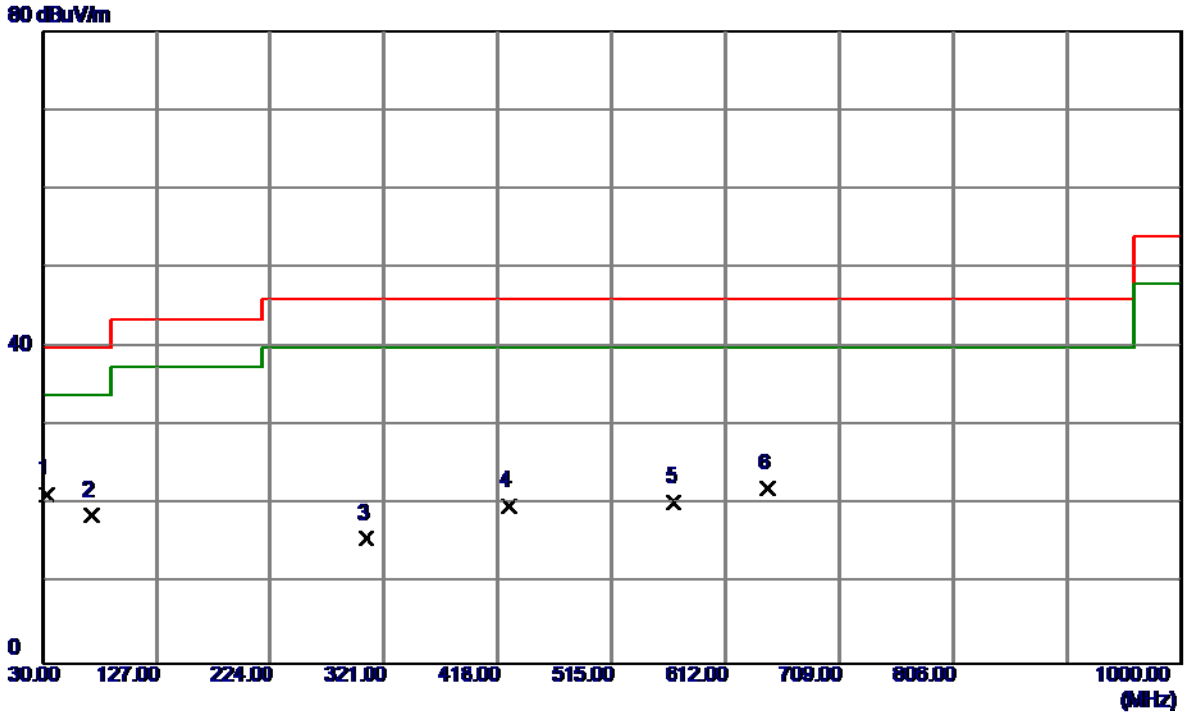
**Vertical**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 37.7599 | 37.63 | -14.28 | 23.35 | 40.00 | -16.65 | Peak | |
| 2 | 141.5500 | 34.92 | -12.89 | 22.03 | 43.50 | -21.47 | Peak | |
| 3 | 294.8100 | 28.77 | -10.66 | 18.11 | 46.00 | -27.89 | Peak | |
| 4 | 378.2300 | 29.04 | -9.87 | 19.17 | 46.00 | -26.83 | Peak | |
| 5 | 644.0100 | 27.76 | -4.85 | 22.91 | 46.00 | -23.09 | Peak | |
| 6 | 834.1300 | 31.28 | -2.45 | 28.83 | 46.00 | -17.17 | Peak | |

| Test Mode: | UNII-1/TX A Mode 5180MHz |
|---|---|

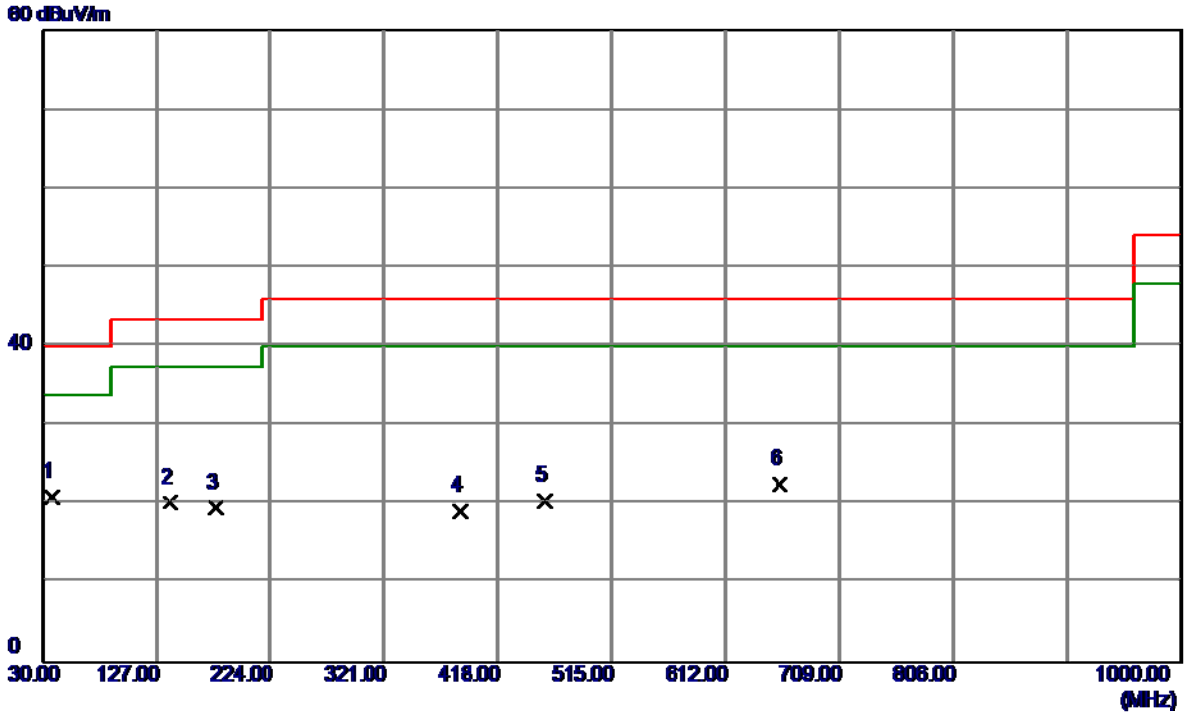
**Horizontal**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 32.9100 | 36.34 | -14.98 | 21.36 | 40.00 | -18.64 | Peak | |
| 2 | 71.7100 | 34.91 | -16.27 | 18.64 | 40.00 | -21.36 | Peak | |
| 3 | 305.4800 | 26.34 | -10.58 | 15.76 | 46.00 | -30.24 | Peak | |
| 4 | 427.7000 | 28.21 | -8.34 | 19.87 | 46.00 | -26.13 | Peak | |
| 5 | 568.3500 | 27.42 | -7.16 | 20.26 | 46.00 | -25.74 | Peak | |
| 6 | 647.8900 | 26.66 | -4.63 | 22.03 | 46.00 | -23.97 | Peak | |

| Test Mode: | UNII-1/TX A Mode 5200MHz |
|---|---|

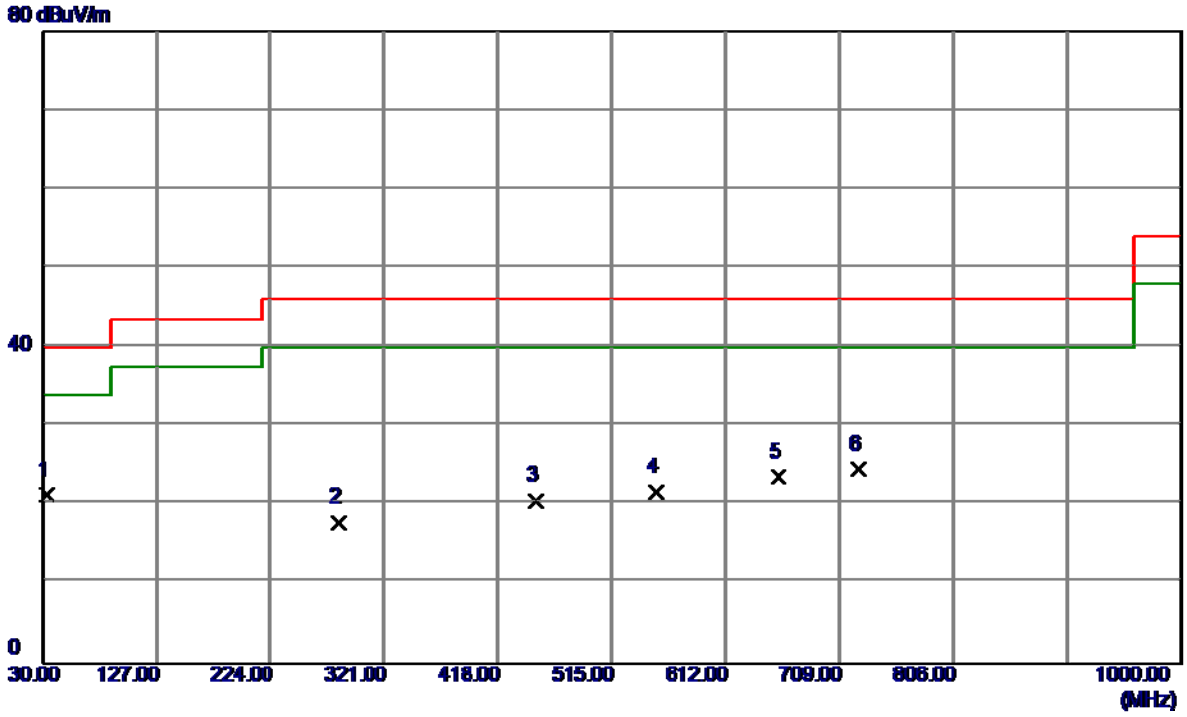
**Vertical**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 37.7599 | 35.27 | -14.28 | 20.99 | 40.00 | -19.01 | Peak | |
| 2 | 138.6400 | 33.09 | -12.85 | 20.24 | 43.50 | -23.26 | Peak | |
| 3 | 177.4400 | 32.10 | -12.50 | 19.60 | 43.50 | -23.90 | Peak | |
| 4 | 385.9900 | 28.67 | -9.50 | 19.17 | 46.00 | -26.83 | Peak | |
| 5 | 457.7700 | 28.73 | -8.22 | 20.51 | 46.00 | -25.49 | Peak | |
| 6 | 658.5600 | 27.04 | -4.45 | 22.59 | 46.00 | -23.41 | Peak | |

| Test Mode: | UNII-1/TX A Mode 5200MHz |
|---|---|

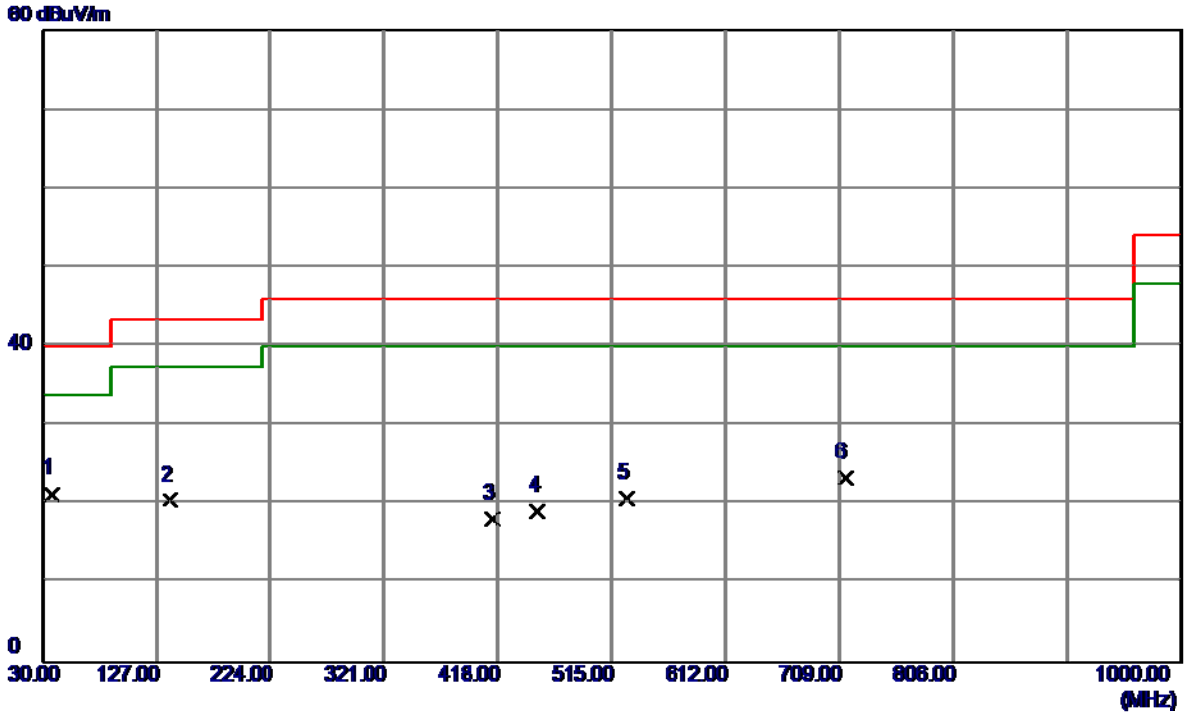
**Horizontal**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 32.9100 | 36.18 | -14.98 | 21.20 | 40.00 | -18.80 | Peak | |
| 2 | 282.2000 | 29.40 | -11.69 | 17.71 | 46.00 | -28.29 | Peak | |
| 3 | 450.0100 | 28.47 | -7.95 | 20.52 | 46.00 | -25.48 | Peak | |
| 4 | 552.8300 | 28.65 | -7.06 | 21.59 | 46.00 | -24.41 | Peak | |
| 5 | 657.5900 | 27.99 | -4.46 | 23.53 | 46.00 | -22.47 | Peak | |
| 6 | 725.4900 | 28.62 | -4.10 | 24.52 | 46.00 | -21.48 | Peak | |

| Test Mode: | UNII-1/TX A Mode 5240MHz |
|---|---|

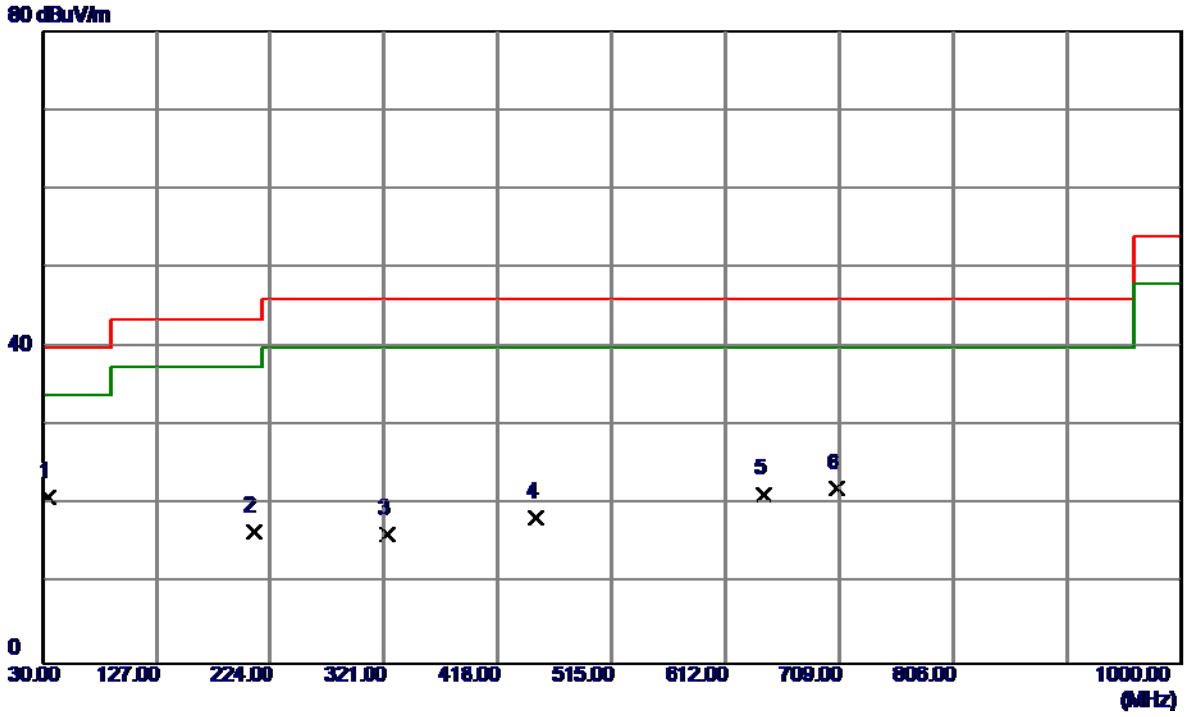
**Vertical**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 37.7599 | 35.64 | -14.28 | 21.36 | 40.00 | -18.64 | Peak | |
| 2 | 138.6400 | 33.41 | -12.85 | 20.56 | 43.50 | -22.94 | Peak | |
| 3 | 414.1200 | 26.81 | -8.57 | 18.24 | 46.00 | -27.76 | Peak | |
| 4 | 451.9500 | 27.16 | -8.02 | 19.14 | 46.00 | -26.86 | Peak | |
| 5 | 527.6100 | 28.97 | -8.23 | 20.74 | 46.00 | -25.26 | Peak | |
| 6 | 713.8500 | 27.57 | -4.14 | 23.43 | 46.00 | -22.57 | Peak | |

| Test Mode: | UNII-1/TX A Mode 5240MHz |
|---|---|

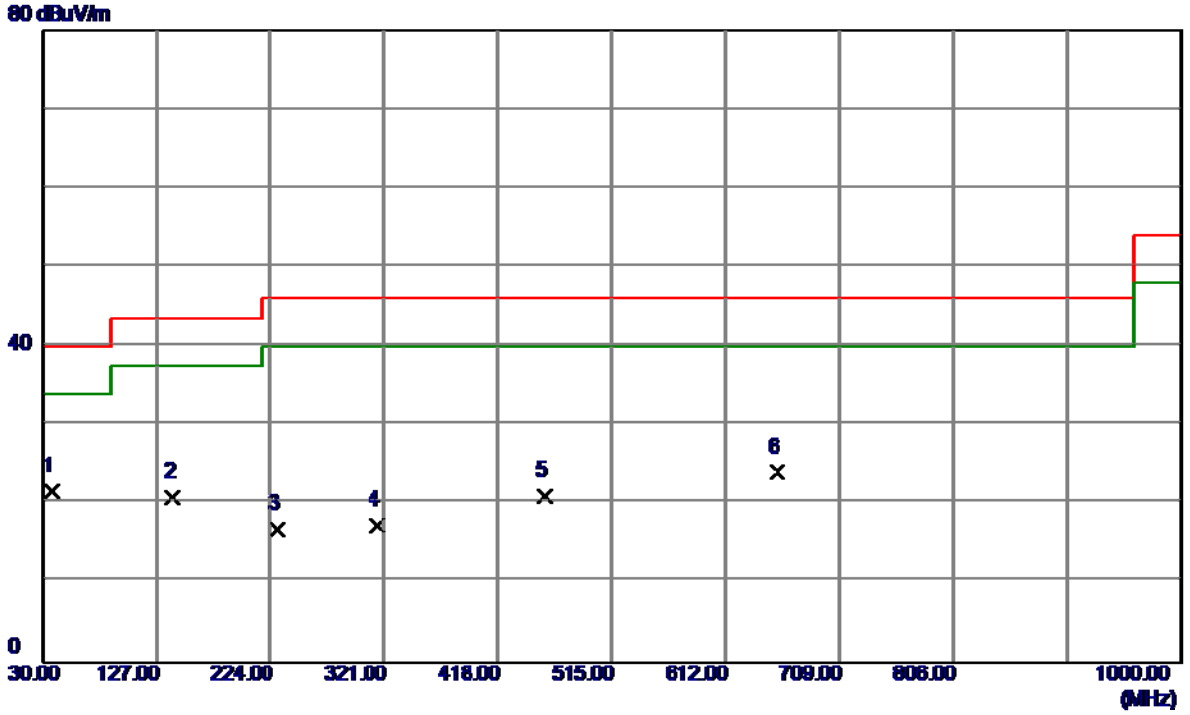
**Horizontal**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 33.8800 | 35.62 | -14.65 | 20.97 | 40.00 | -19.03 | Peak | |
| 2 | 209.4500 | 31.57 | -14.92 | 16.65 | 43.50 | -26.85 | Peak | |
| 3 | 323.9100 | 27.12 | -10.85 | 16.27 | 46.00 | -29.73 | Peak | |
| 4 | 450.0100 | 26.41 | -7.95 | 18.46 | 46.00 | -27.54 | Peak | |
| 5 | 644.0100 | 26.21 | -4.85 | 21.36 | 46.00 | -24.64 | Peak | |
| 6 | 707.0600 | 26.32 | -4.17 | 22.15 | 46.00 | -23.85 | Peak | |

| Test Mode: | UNII-3/TX A Mode 5745MHz |
|---|---|

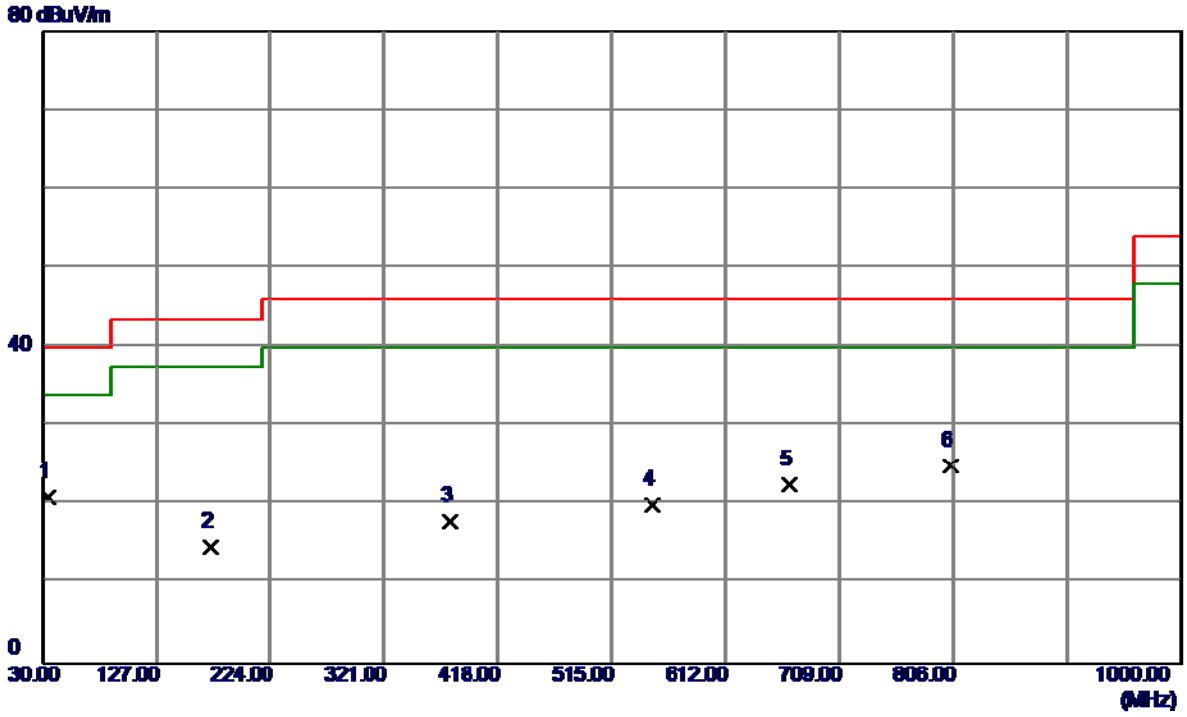
**Vertical**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 37.7599 | 35.95 | -14.28 | 21.67 | 40.00 | -18.33 | Peak | |
| 2 | 141.5500 | 33.64 | -12.89 | 20.75 | 43.50 | -22.75 | Peak | |
| 3 | 230.7900 | 30.67 | -13.82 | 16.85 | 46.00 | -29.15 | Peak | |
| 4 | 315.1800 | 27.93 | -10.72 | 17.21 | 46.00 | -28.79 | Peak | |
| 5 | 457.7700 | 29.24 | -8.22 | 21.02 | 46.00 | -24.98 | Peak | |
| 6 | 656.6200 | 28.48 | -4.47 | 24.01 | 46.00 | -21.99 | Peak | |

| Test Mode: | UNII-3/TX A Mode 5745MHz |
|---|---|

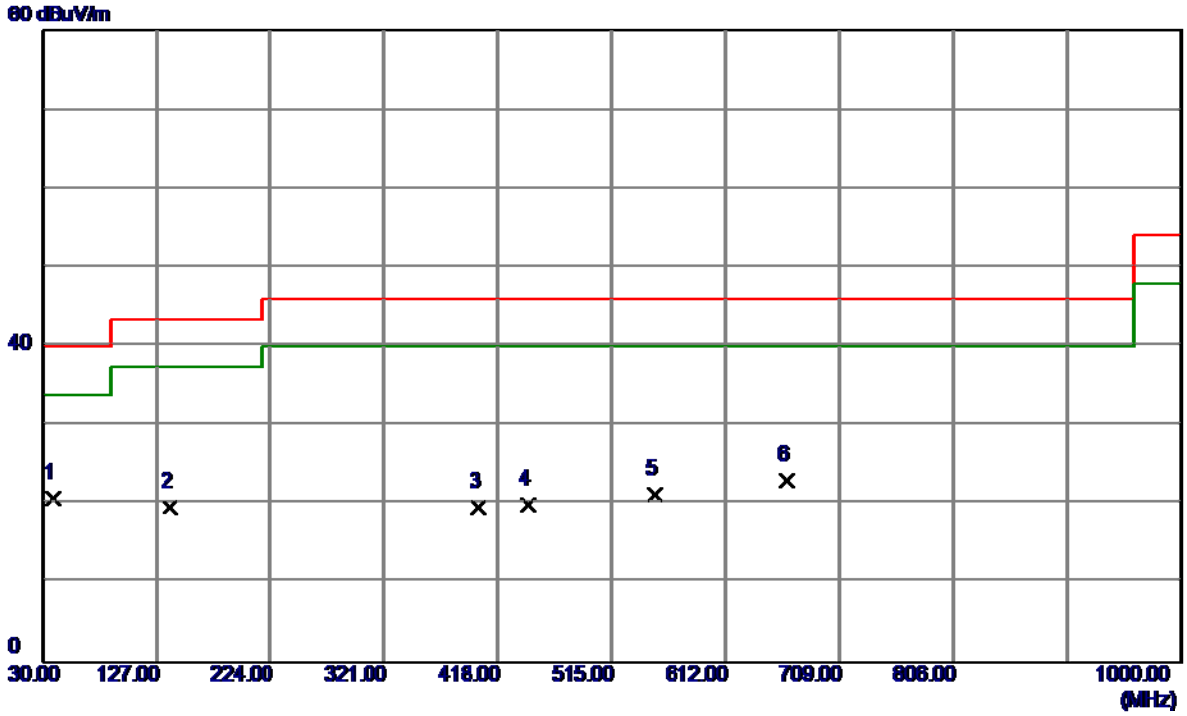
**Horizontal**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 33.8800 | 35.55 | -14.65 | 20.90 | 40.00 | -19.10 | Peak | |
| 2 | 173.5600 | 27.14 | -12.44 | 14.70 | 43.50 | -28.80 | Peak | |
| 3 | 377.2600 | 27.80 | -9.92 | 17.88 | 46.00 | -28.12 | Peak | |
| 4 | 549.9200 | 27.11 | -7.04 | 20.07 | 46.00 | -25.93 | Peak | |
| 5 | 667.2900 | 26.94 | -4.40 | 22.54 | 46.00 | -23.46 | Peak | |
| 6 | 804.0600 | 27.47 | -2.47 | 25.00 | 46.00 | -21.00 | Peak | |

| Test Mode: | UNII-3/TX A Mode 5785MHz |
|---|---|

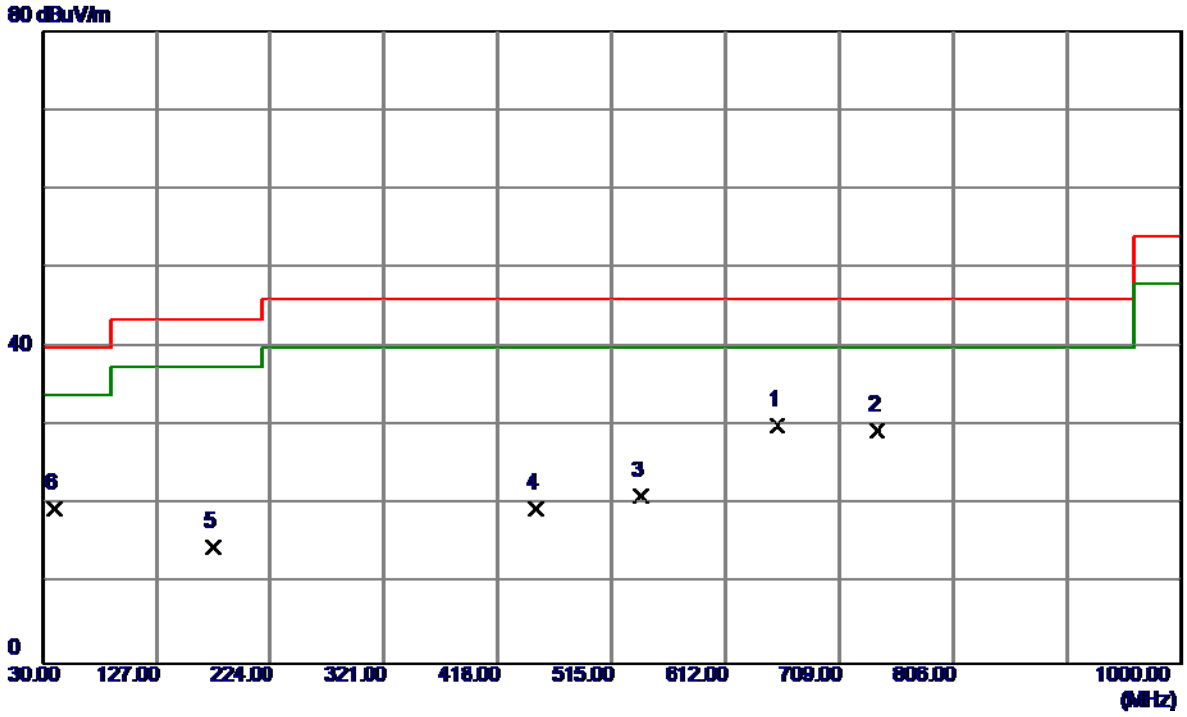
**Vertical**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 38.7300 | 34.99 | -14.15 | 20.84 | 40.00 | -19.16 | Peak | |
| 2 | 138.6400 | 32.59 | -12.85 | 19.74 | 43.50 | -23.76 | Peak | |
| 3 | 401.5100 | 28.40 | -8.79 | 19.61 | 46.00 | -26.39 | Peak | |
| 4 | 444.1900 | 28.03 | -8.05 | 19.98 | 46.00 | -26.02 | Peak | |
| 5 | 551.8600 | 28.30 | -7.05 | 21.25 | 46.00 | -24.75 | Peak | |
| 6 | 664.3800 | 27.43 | -4.42 | 23.01 | 46.00 | -22.99 | Peak | |

| Test Mode: | UNII-3/TX A Mode 5785MHz |
|---|---|

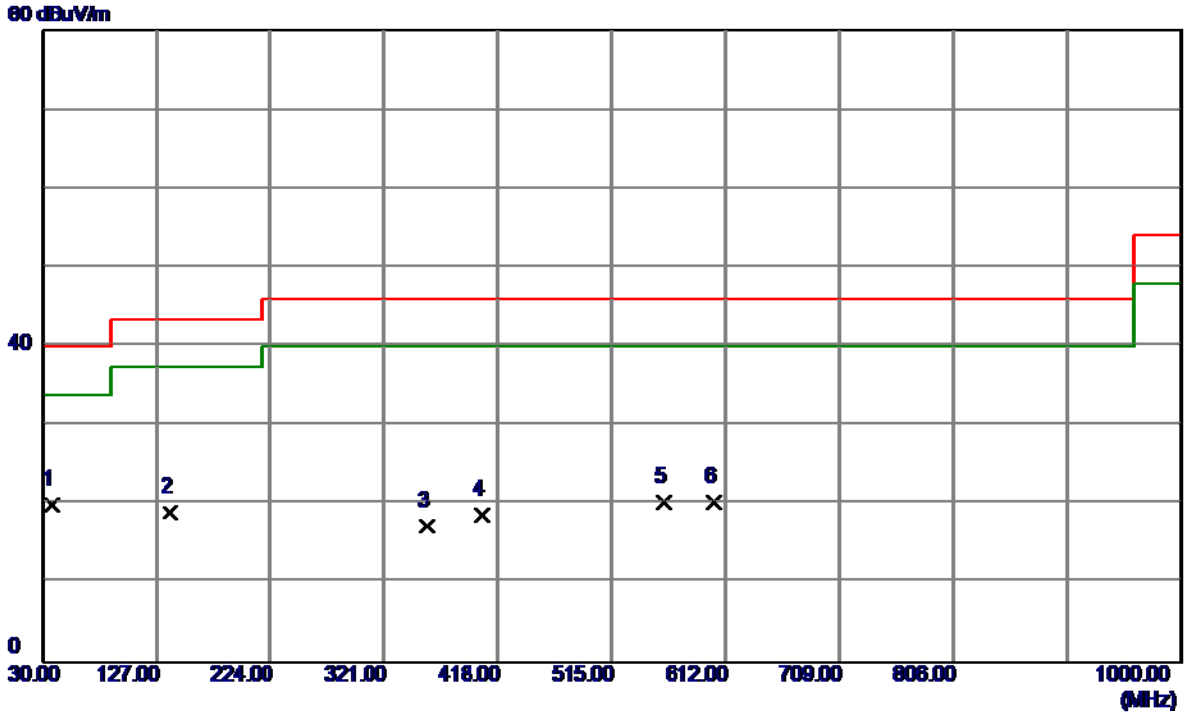
**Horizontal**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 656.6200 | 34.55 | -4.47 | 30.08 | 46.00 | -15.92 | Peak | |
| 2 | 741.0100 | 33.49 | -4.04 | 29.45 | 46.00 | -16.55 | Peak | |
| 3 | 540.2199 | 28.63 | -7.56 | 21.07 | 46.00 | -24.93 | Peak | |
| 4 | 450.0100 | 27.52 | -7.95 | 19.57 | 46.00 | -26.43 | Peak | |
| 5 | 175.5000 | 27.15 | -12.47 | 14.68 | 43.50 | -28.82 | Peak | |
| 6 | 39.7000 | 33.53 | -14.00 | 19.53 | 40.00 | -20.47 | Peak | |

| Test Mode: | UNII-3/TX A Mode 5825MHz |
|---|---|

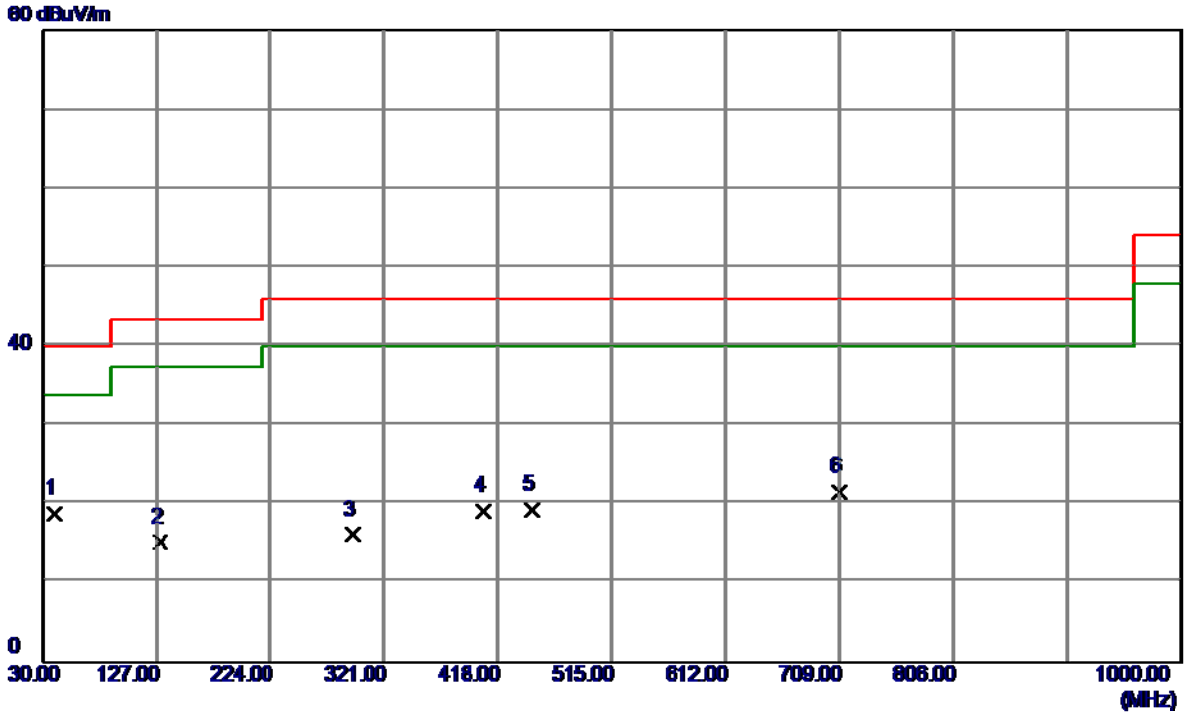
Vertical




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 37.7599 | 34.24 | -14.28 | 19.96 | 40.00 | -20.04 | Peak | |
| 2 | 138.6400 | 31.90 | -12.85 | 19.05 | 43.50 | -24.45 | Peak | |
| 3 | 357.8599 | 28.07 | -10.86 | 17.21 | 46.00 | -28.79 | Peak | |
| 4 | 405.3900 | 27.44 | -8.73 | 18.71 | 46.00 | -27.29 | Peak | |
| 5 | 559.6200 | 27.46 | -7.10 | 20.36 | 46.00 | -25.64 | Peak | |
| 6 | 602.3000 | 27.62 | -7.23 | 20.39 | 46.00 | -25.61 | Peak | |

| Test Mode: | UNII-3/TX A Mode 5825MHz |
|---|---|

**Horizontal**

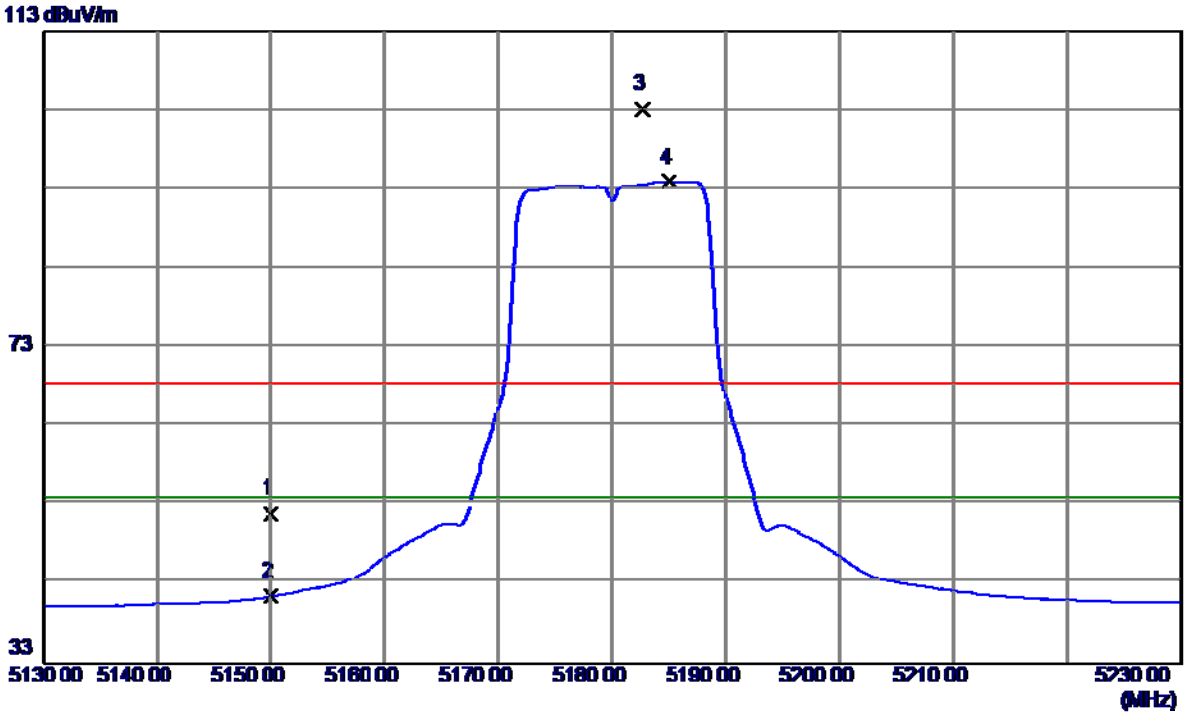



| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 39.7000 | 32.83 | -14.00 | 18.83 | 40.00 | -21.17 | Peak | |
| 2 | 129.9100 | 27.84 | -12.69 | 15.15 | 43.50 | -28.35 | Peak | |
| 3 | 293.8400 | 26.90 | -10.69 | 16.21 | 46.00 | -29.79 | Peak | |
| 4 | 406.3599 | 27.88 | -8.71 | 19.17 | 46.00 | -26.83 | Peak | |
| 5 | 447.1000 | 27.35 | -8.00 | 19.35 | 46.00 | -26.65 | Peak | |
| 6 | 709.0000 | 25.78 | -4.16 | 21.62 | 46.00 | -24.38 | Peak | |

# ATTACHMENTD -RADIATED EMISSION (ABOVE 1000MHZ)

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-1/ TX A Mode 5180MHz |

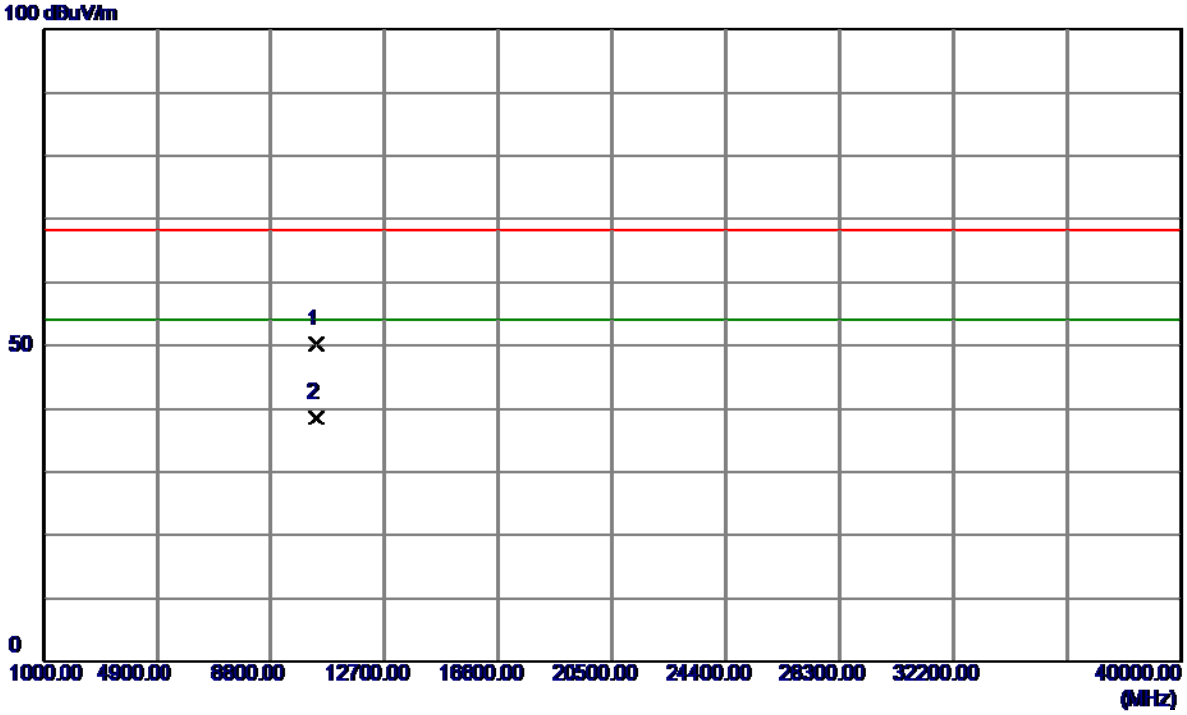
**Vertical**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5150.0000 | 11.59 | 40.22 | 51.81 | 68.30 | -16.49 | Peak | |
| 2 | 5150.0000 | 1.20 | 40.22 | 41.42 | 54.00 | -12.58 | AVG | |
| 3 | 5182.7000 | 62.80 | 40.29 | 103.09 | 68.30 | 34.79 | Peak | no limit |
| 4 | 5185.0000 | 53.59 | 40.29 | 93.88 | 54.00 | 39.88 | AVG | no limit |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-1/ TX A Mode 5180MHz |

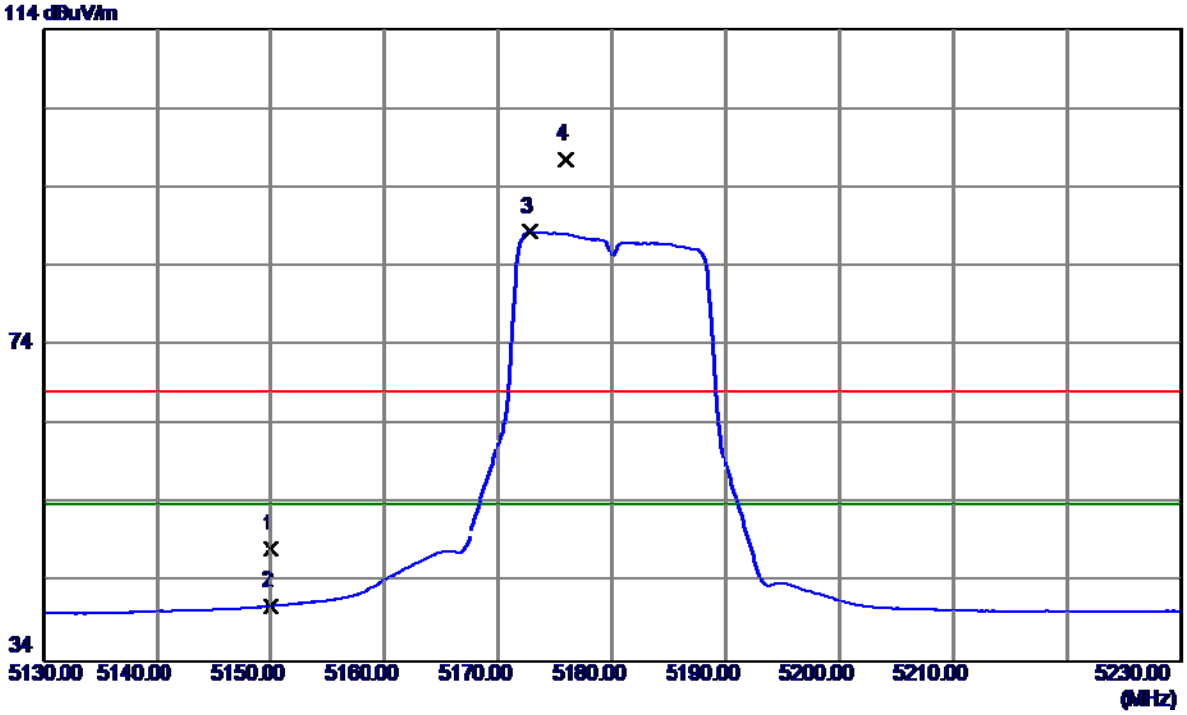
**Vertical**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 10360.0500 | 36.28 | 13.86 | 50.14 | 68.30 | -18.16 | Peak | |
| 2 | 10360.0500 | 24.70 | 13.86 | 38.56 | 54.00 | -15.44 | AVG | |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-1/ TX A Mode 5180MHz |

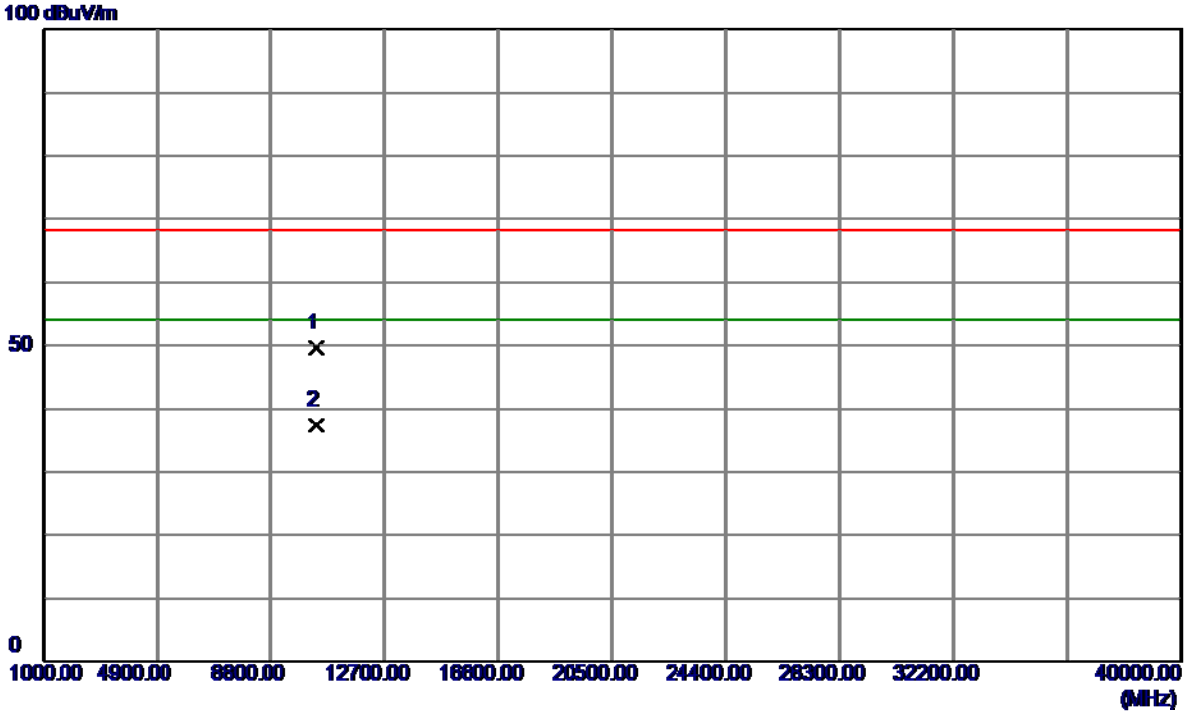
**Horizontal**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5150.0000 | 8.01 | 40.22 | 48.23 | 68.30 | -20.07 | Peak | |
| 2 | 5150.0000 | 0.85 | 40.22 | 41.07 | 54.00 | -12.93 | AVG | |
| 3 | 5172.8000 | 48.06 | 40.27 | 88.33 | 54.00 | 34.33 | AVG | no limit |
| 4 | 5175.9000 | 57.32 | 40.27 | 97.59 | 68.30 | 29.29 | Peak | no limit |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-1/ TX A Mode 5180MHz |

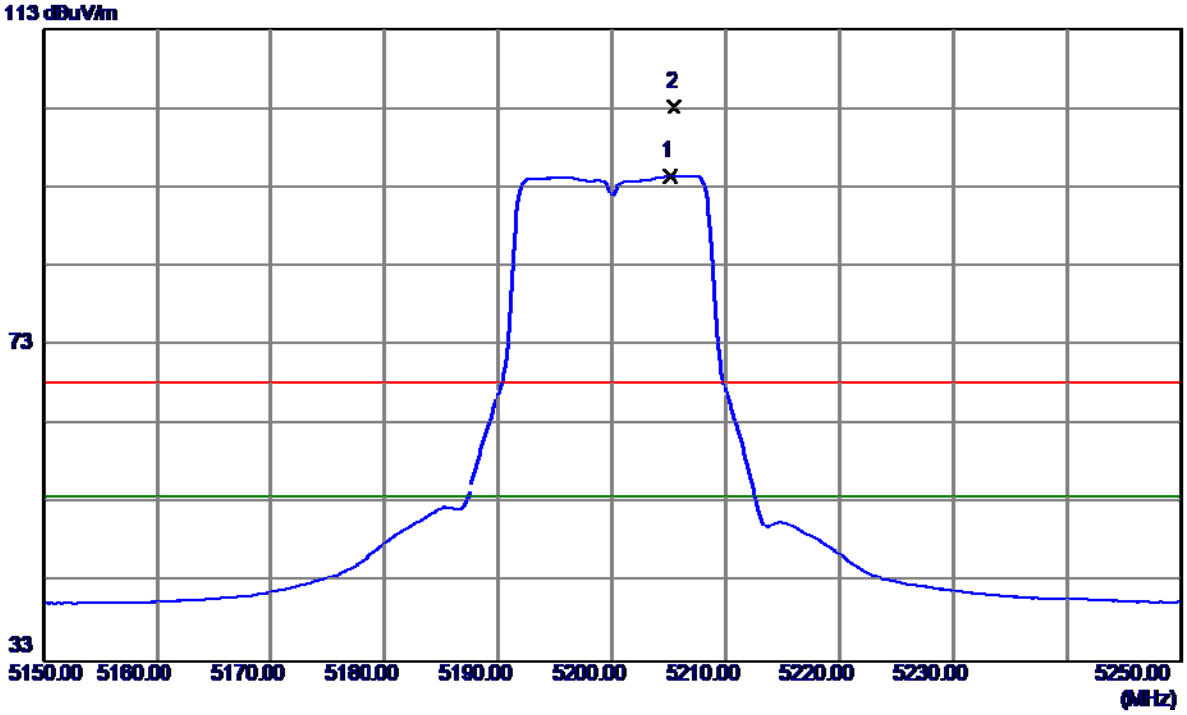
**Horizontal**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 10360.3500 | 35.68 | 13.86 | 49.54 | 68.30 | -18.76 | Peak | |
| 2 | 10360.3500 | 23.50 | 13.86 | 37.36 | 54.00 | -16.64 | AVG | |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-1/ TX A Mode 5200MHz |

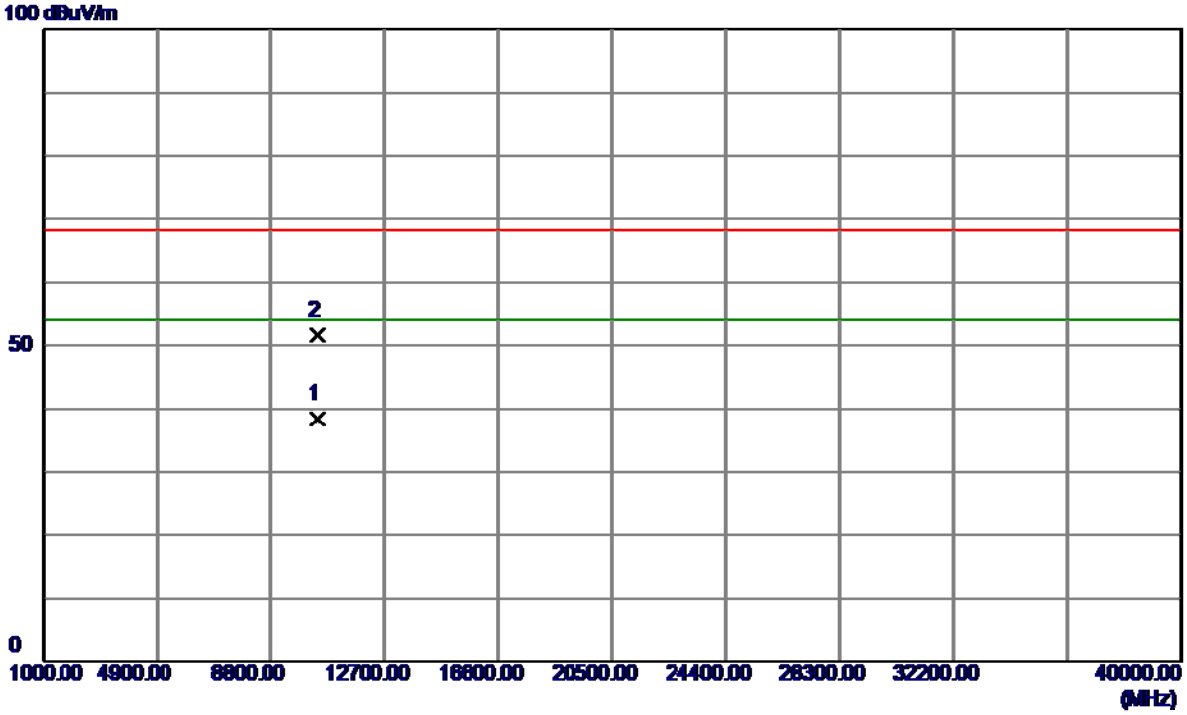
**Vertical**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5205.1000 | 54.10 | 40.33 | 94.43 | 54.00 | 40.43 | AVG | no limit |
| 2 | 5205.5000 | 62.95 | 40.34 | 103.29 | 68.30 | 34.99 | Peak | no limit |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-1/ TX A Mode 5200MHz |

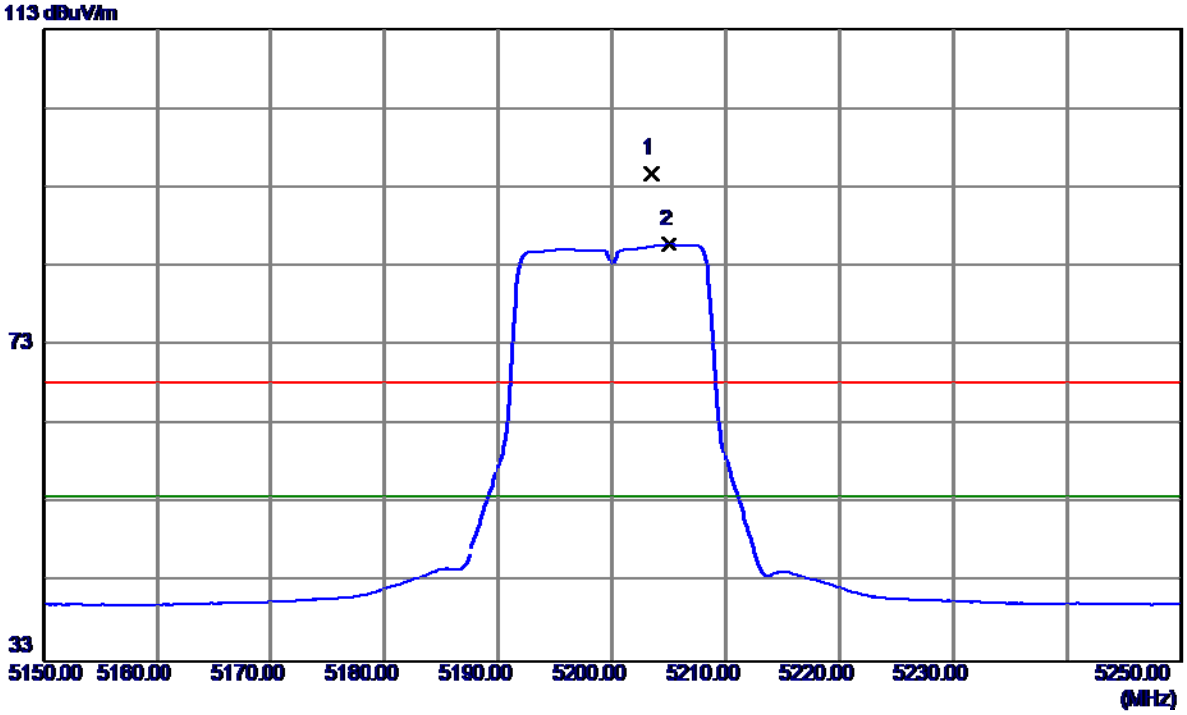
**Vertical**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 10400.2500 | 24.51 | 13.80 | 38.31 | 54.00 | -15.69 | AVG | |
| 2 | 10400.3099 | 37.89 | 13.80 | 51.69 | 68.30 | -16.61 | Peak | |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-1/ TX A Mode 5200MHz |

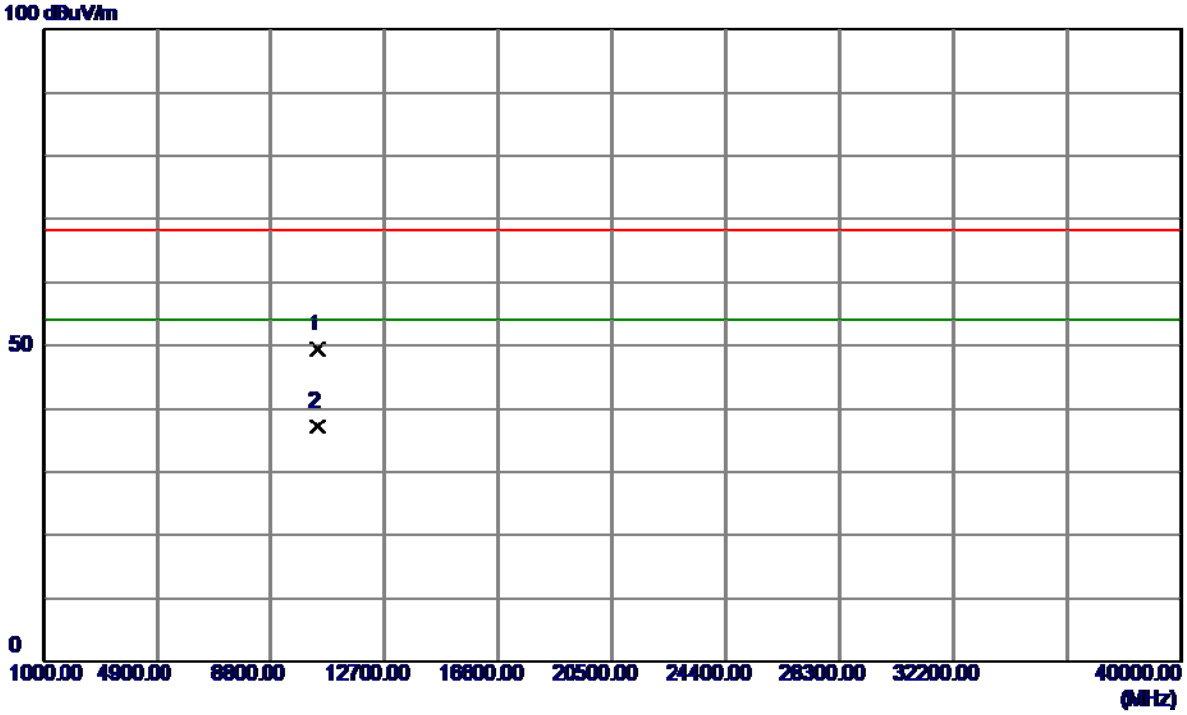
**Horizontal**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5203.4000 | 54.42 | 40.33 | 94.75 | 68.30 | 26.45 | Peak | no limit |
| 2 | 5205.0000 | 45.42 | 40.33 | 85.75 | 54.00 | 31.75 | AVG | no limit |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-1/ TX A Mode 5200MHz |

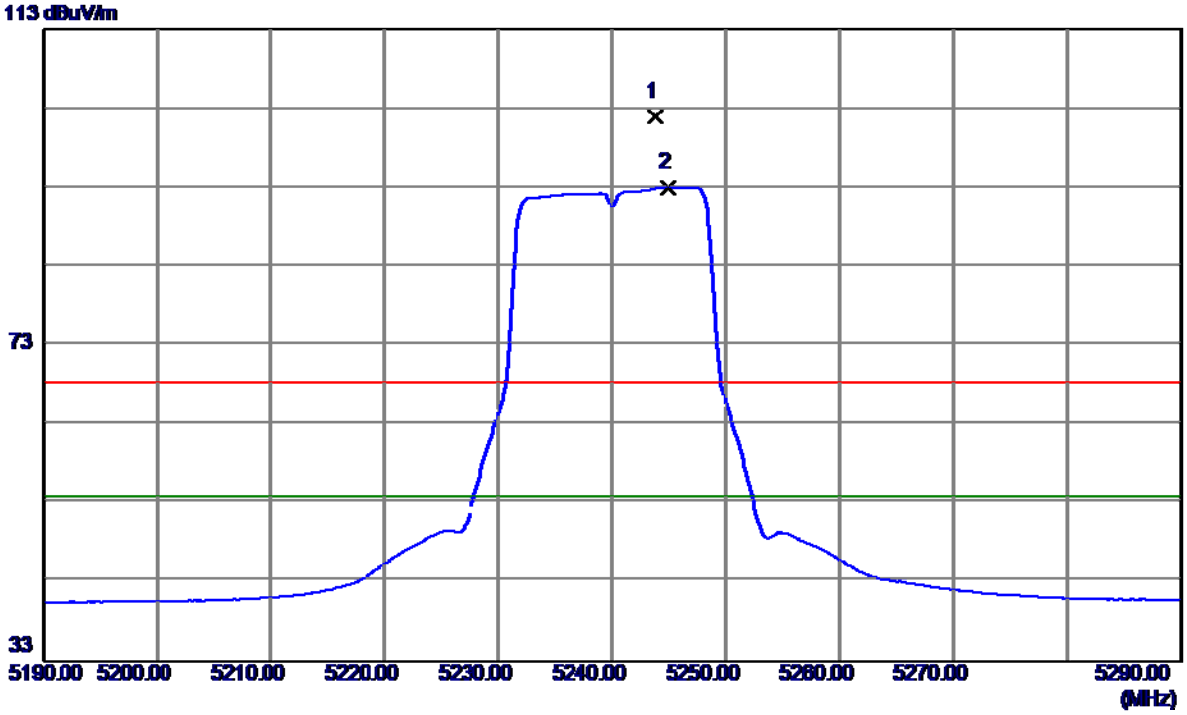
**Horizontal**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 10400.0500 | 35.53 | 13.80 | 49.33 | 68.30 | -18.97 | Peak | |
| 2 | 10400.1600 | 23.48 | 13.80 | 37.28 | 54.00 | -16.72 | AVG | |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-1/ TX A Mode 5240MHz |

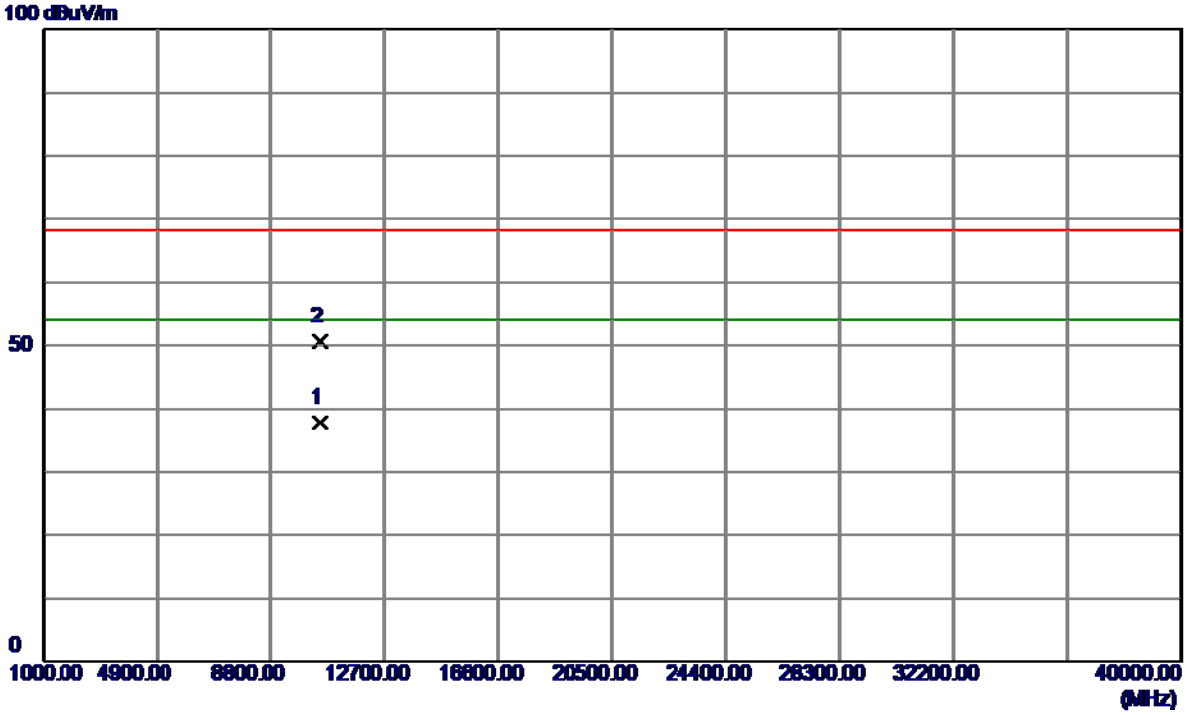
**Vertical**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5243.8000 | 61.49 | 40.42 | 101.91 | 68.30 | 33.61 | Peak | no limit |
| 2 | 5244.9000 | 52.62 | 40.42 | 93.04 | 54.00 | 39.04 | AVG | no limit |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-1/ TX A Mode 5240MHz |

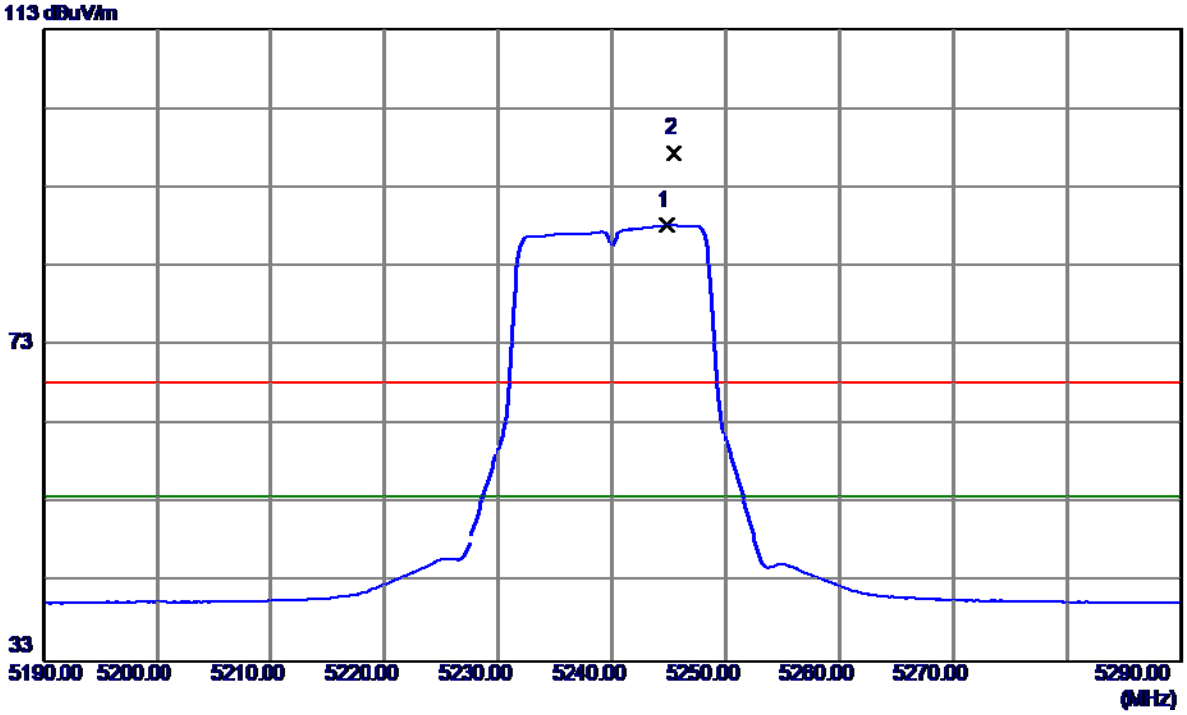
**Vertical**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 10480.0300 | 24.17 | 13.69 | 37.86 | 54.00 | -16.14 | AVG | |
| 2 | 10480.1800 | 36.86 | 13.69 | 50.55 | 68.30 | -17.75 | Peak | |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-1/ TX A Mode 5240MHz |

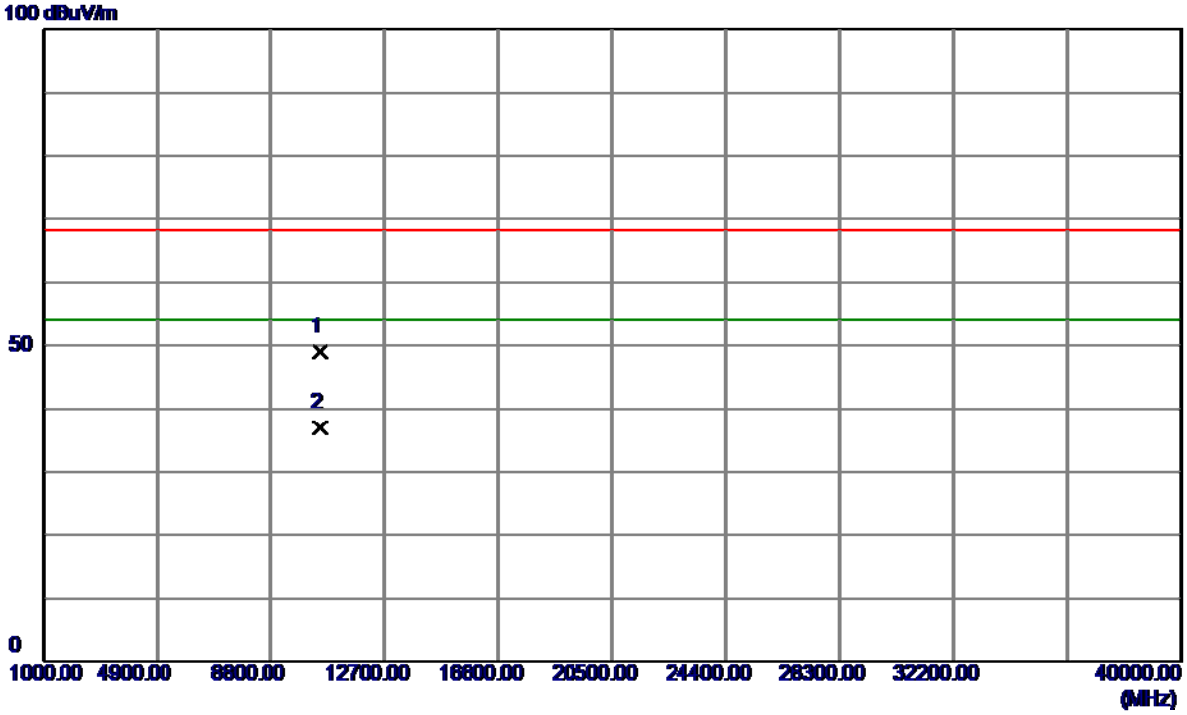
**Horizontal**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5244.8000 | 47.77 | 40.42 | 88.19 | 54.00 | 34.19 | AVG | no limit |
| 2 | 5245.4000 | 56.92 | 40.42 | 97.34 | 68.30 | 29.04 | Peak | no limit |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-1/ TX A Mode 5240MHz |

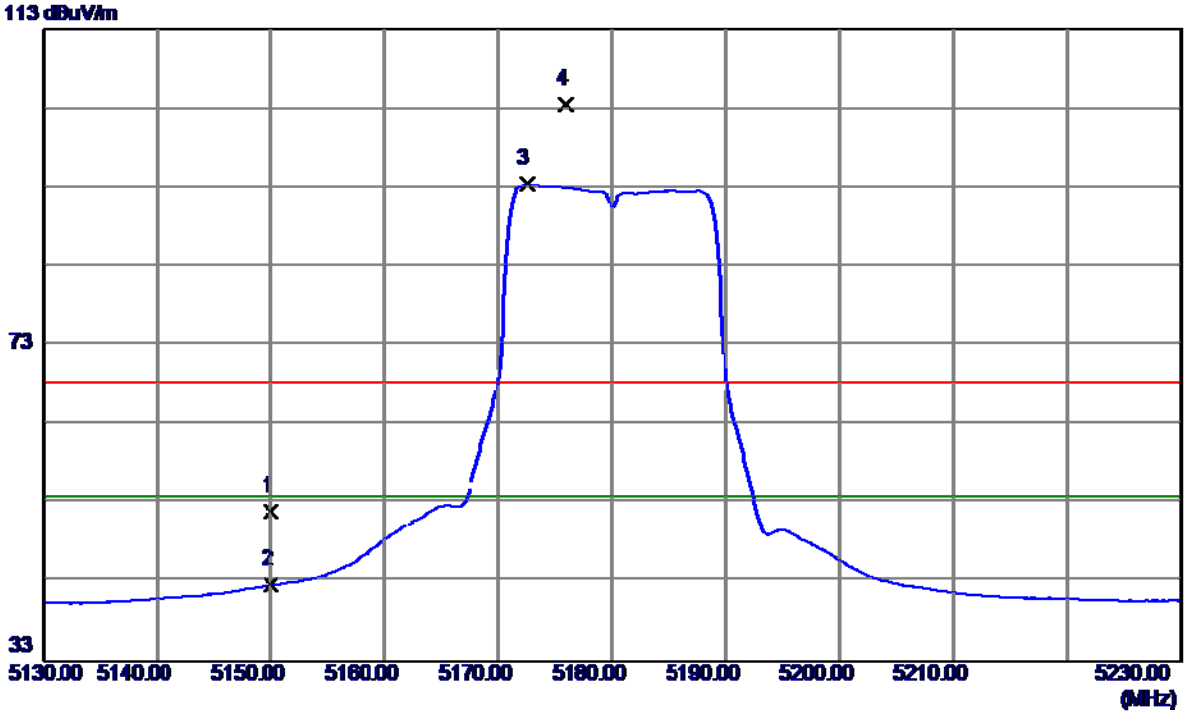
**Horizontal**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 10480.0000 | 35.34 | 13.69 | 49.03 | 68.30 | -19.27 | Peak | |
| 2 | 10480.0000 | 23.29 | 13.69 | 36.98 | 54.00 | -17.02 | AVG | |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-1/ TX N20 Mode 5180MHz |

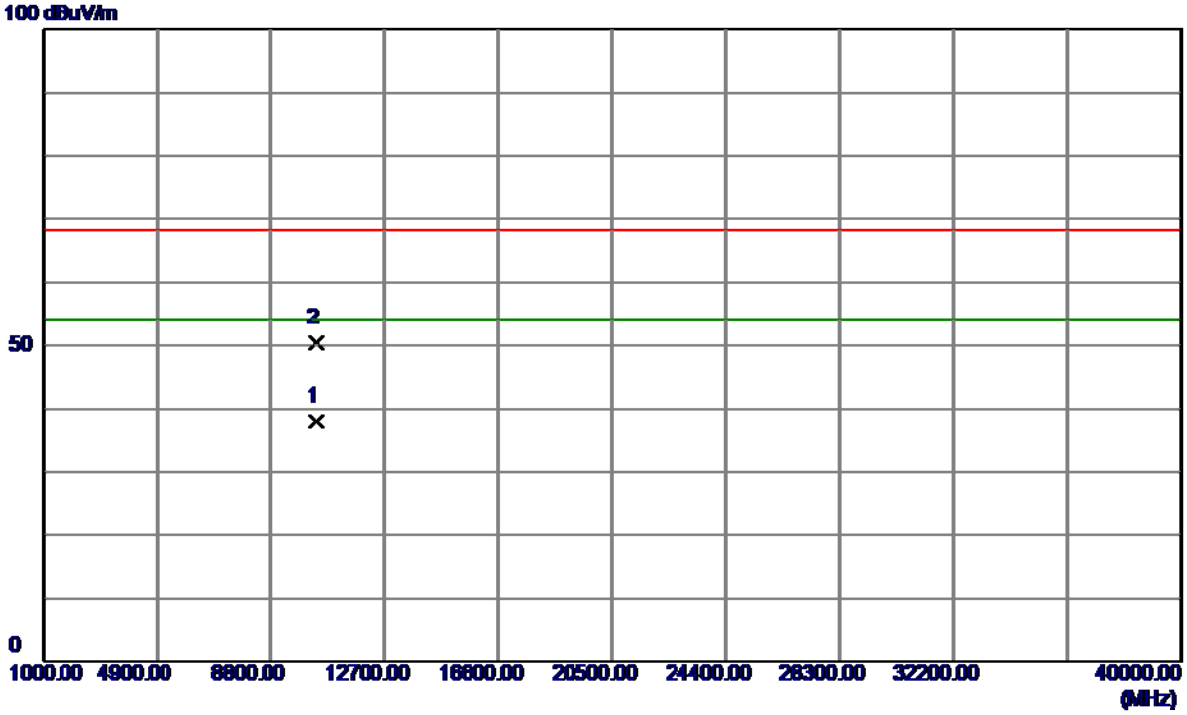
**Vertical**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5150.0000 | 11.84 | 40.22 | 52.06 | 68.30 | -16.24 | Peak | |
| 2 | 5150.0000 | 2.47 | 40.22 | 42.69 | 54.00 | -11.31 | AVG | |
| 3 | 5172.5000 | 53.13 | 40.27 | 93.40 | 54.00 | 39.40 | AVG | no limit |
| 4 | 5175.9000 | 63.31 | 40.27 | 103.58 | 68.30 | 35.28 | Peak | no limit |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-1/ TX N20 Mode 5180MHz |

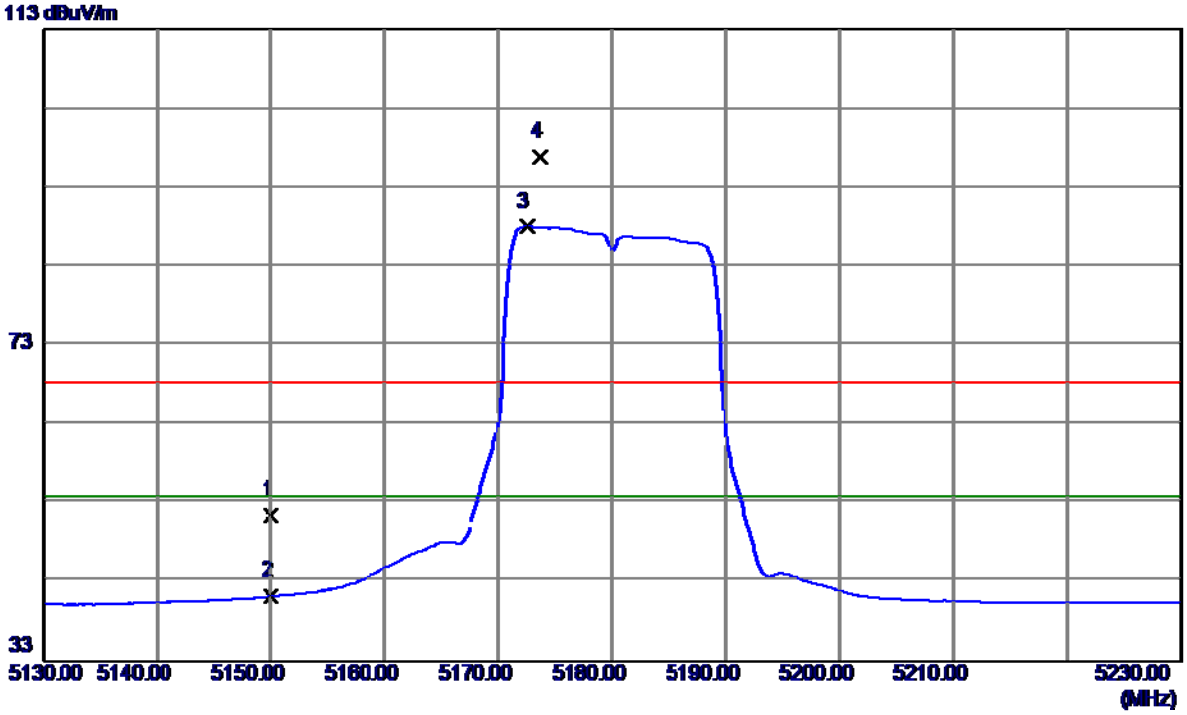
**Vertical**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 10360.0500 | 24.15 | 13.86 | 38.01 | 54.00 | -15.99 | AVG | |
| 2 | 10360.1500 | 36.53 | 13.86 | 50.39 | 68.30 | -17.91 | Peak | |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-1/ TX N20 Mode 5180MHz |

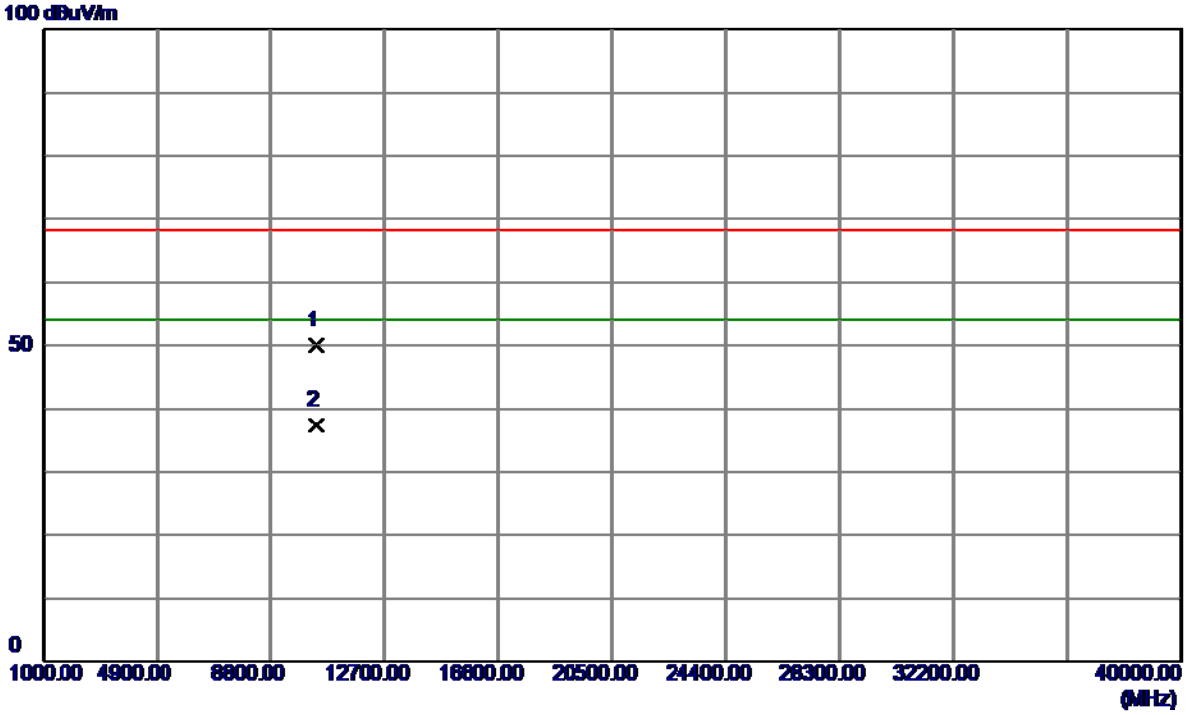
**Horizontal**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5150.0000 | 11.31 | 40.22 | 51.53 | 68.30 | -16.77 | Peak | |
| 2 | 5150.0000 | 1.03 | 40.22 | 41.25 | 54.00 | -12.75 | AVG | |
| 3 | 5172.5000 | 47.77 | 40.27 | 88.04 | 54.00 | 34.04 | AVG | no limit |
| 4 | 5173.7000 | 56.52 | 40.27 | 96.79 | 68.30 | 28.49 | Peak | no limit |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-1/ TX N20 Mode 5180MHz |

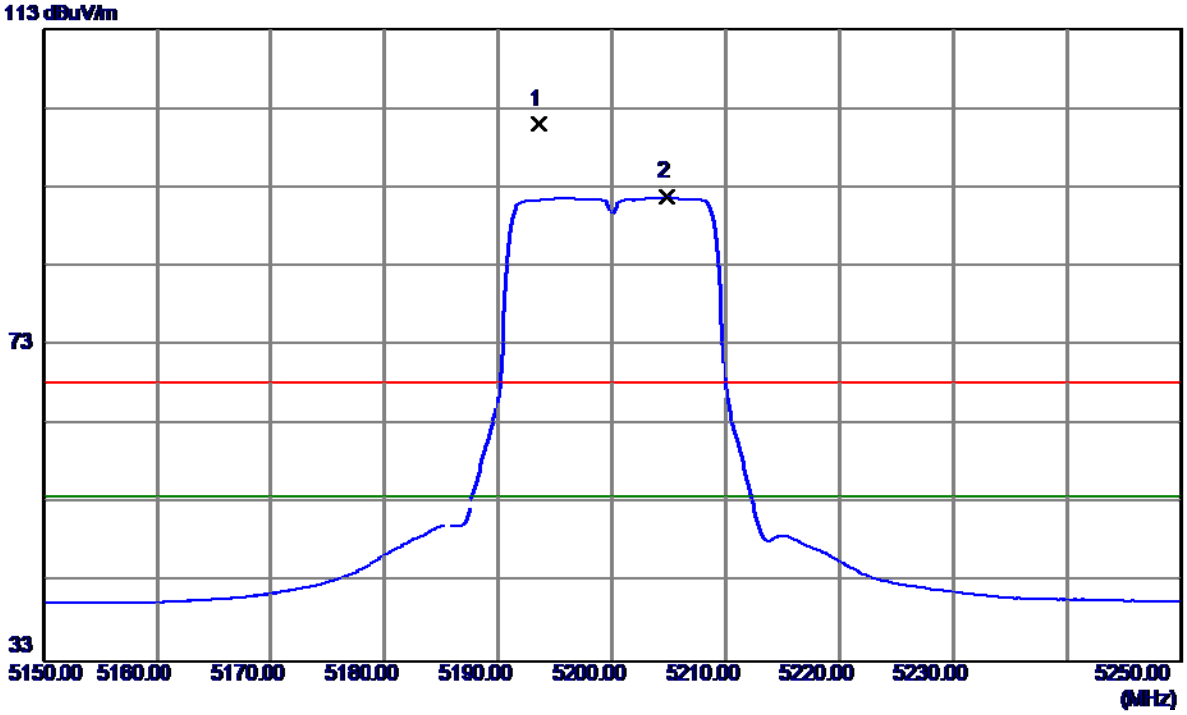
**Horizontal**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 10361.3099 | 36.18 | 13.85 | 50.03 | 68.30 | -18.27 | Peak | |
| 2 | 10361.2000 | 23.50 | 13.86 | 37.36 | 54.00 | -16.64 | AVG | |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-1/ TX N20 Mode 5200MHz |

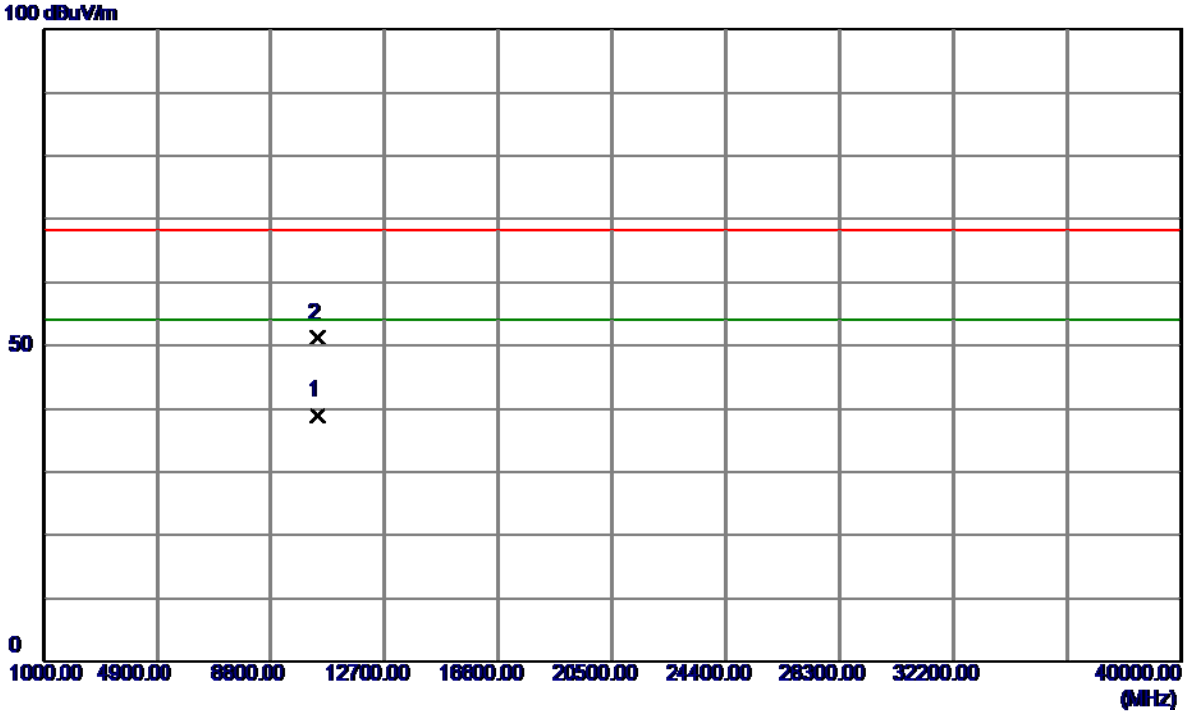
**Vertical**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5193.6000 | 60.68 | 40.31 | 100.99 | 68.30 | 32.69 | Peak | no limit |
| 2 | 5204.8000 | 51.48 | 40.33 | 91.81 | 54.00 | 37.81 | AVG | no limit |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-1/ TX N20 Mode 5200MHz |

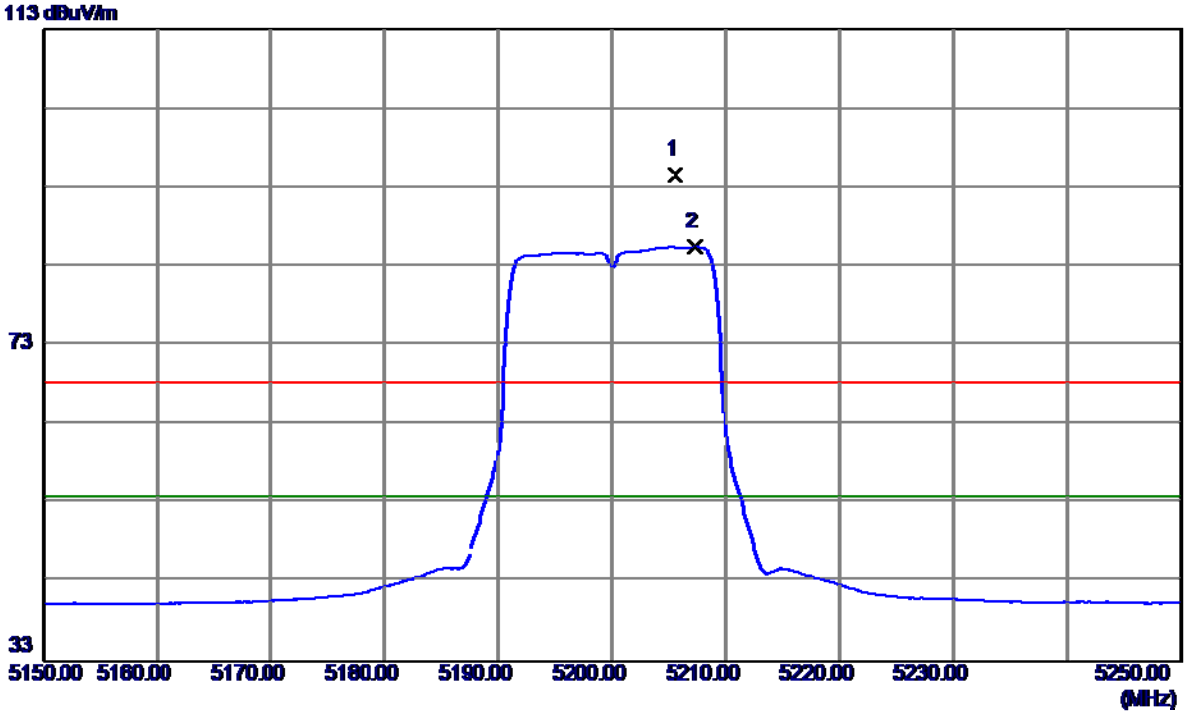
**Vertical**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 10400.5000 | 25.21 | 13.80 | 39.01 | 54.00 | -14.99 | AVG | |
| 2 | 10400.5800 | 37.49 | 13.80 | 51.29 | 68.30 | -17.01 | Peak | |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-1/ TX N20 Mode 5200MHz |

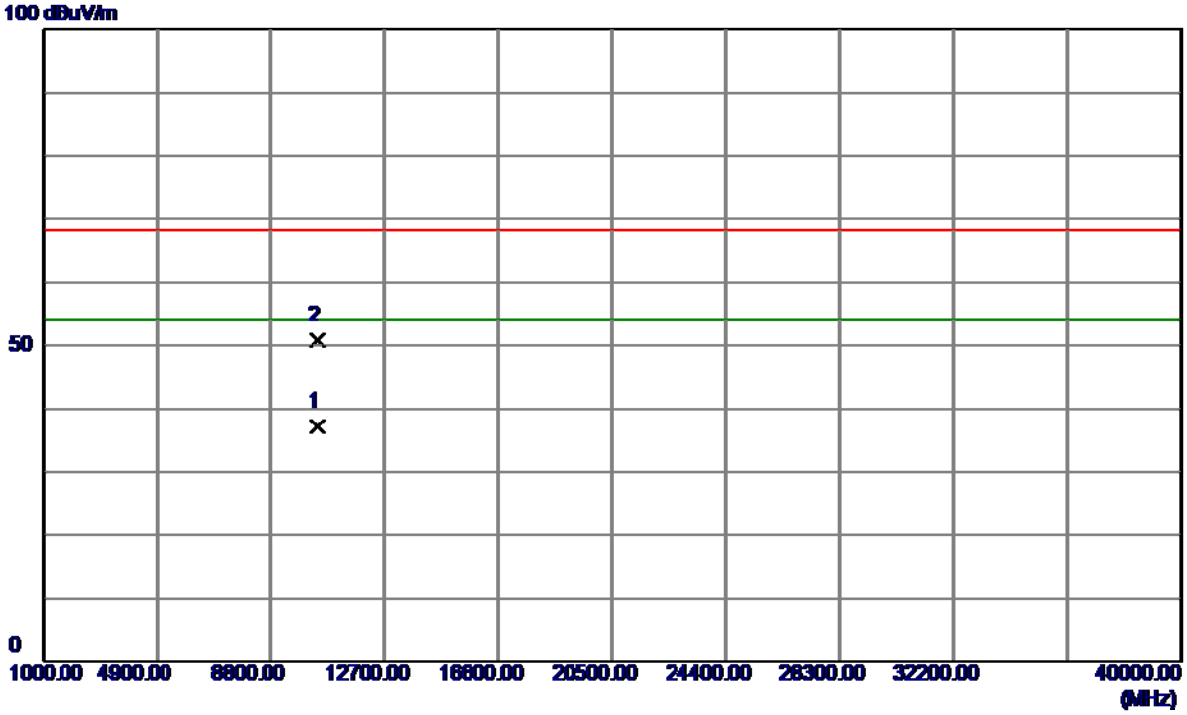
**Horizontal**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5205.6000 | 54.27 | 40.34 | 94.61 | 68.30 | 26.31 | Peak | no limit |
| 2 | 5207.3000 | 45.09 | 40.34 | 85.43 | 54.00 | 31.43 | AVG | no limit |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-1/ TX N20 Mode 5200MHz |

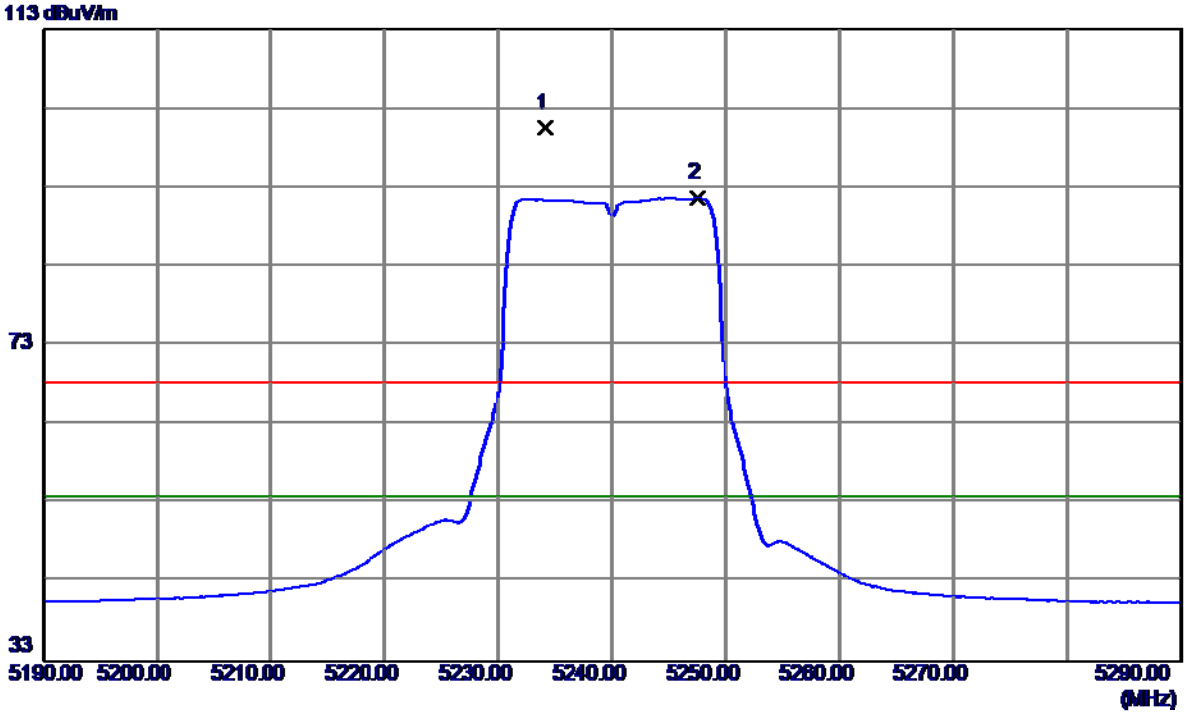
**Horizontal**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 10400.6400 | 23.42 | 13.80 | 37.22 | 54.00 | -16.78 | AVG | |
| 2 | 10400.8700 | 36.94 | 13.80 | 50.74 | 68.30 | -17.56 | Peak | |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-1/ TX N20 Mode 5240MHz |

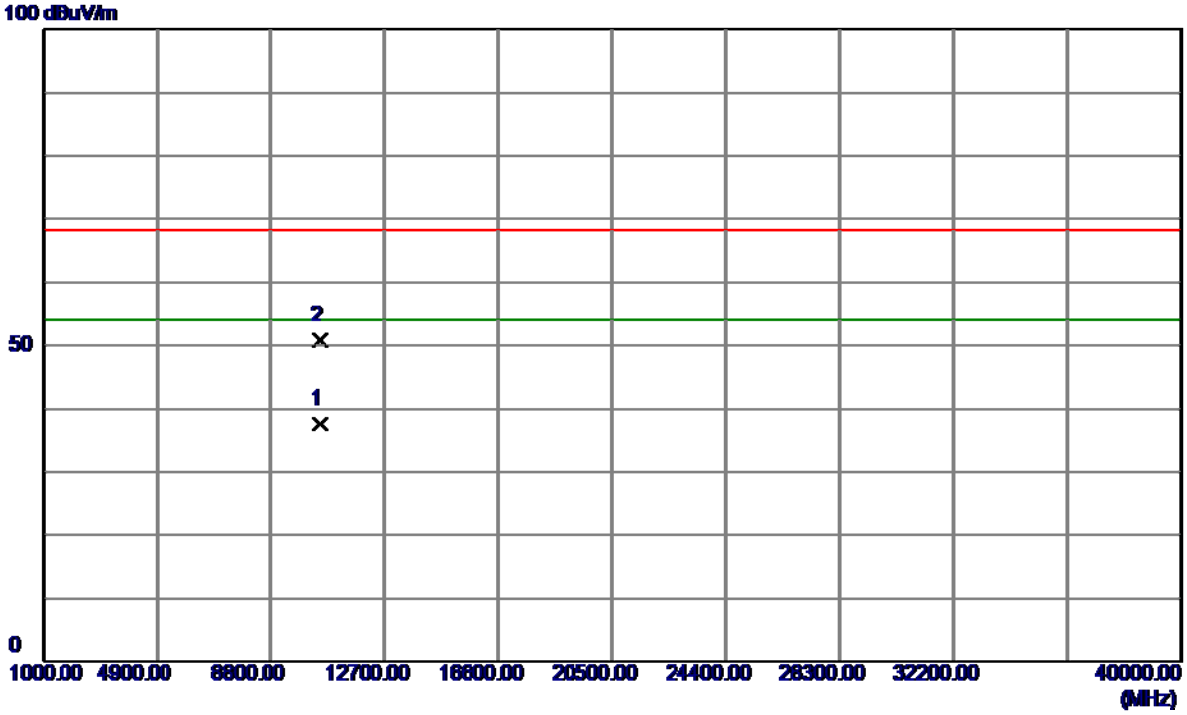
**Vertical**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5234.1000 | 60.16 | 40.40 | 100.56 | 68.30 | 32.26 | Peak | no limit |
| 2 | 5247.6000 | 51.27 | 40.42 | 91.69 | 54.00 | 37.69 | AVG | no limit |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-1/ TX N20 Mode 5240MHz |

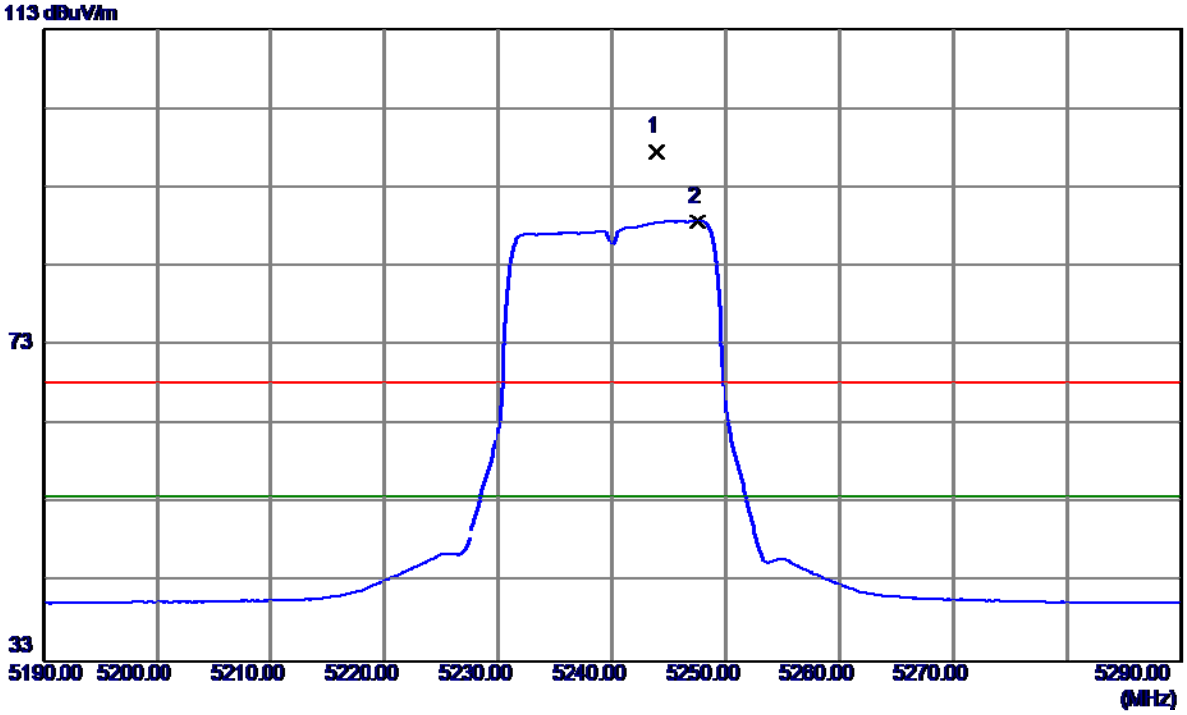
**Vertical**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 10481.0599 | 23.95 | 13.69 | 37.64 | 54.00 | -16.36 | AVG | |
| 2 | 10481.1800 | 37.19 | 13.69 | 50.88 | 68.30 | -17.42 | Peak | |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-1/ TX N20 Mode 5240MHz |

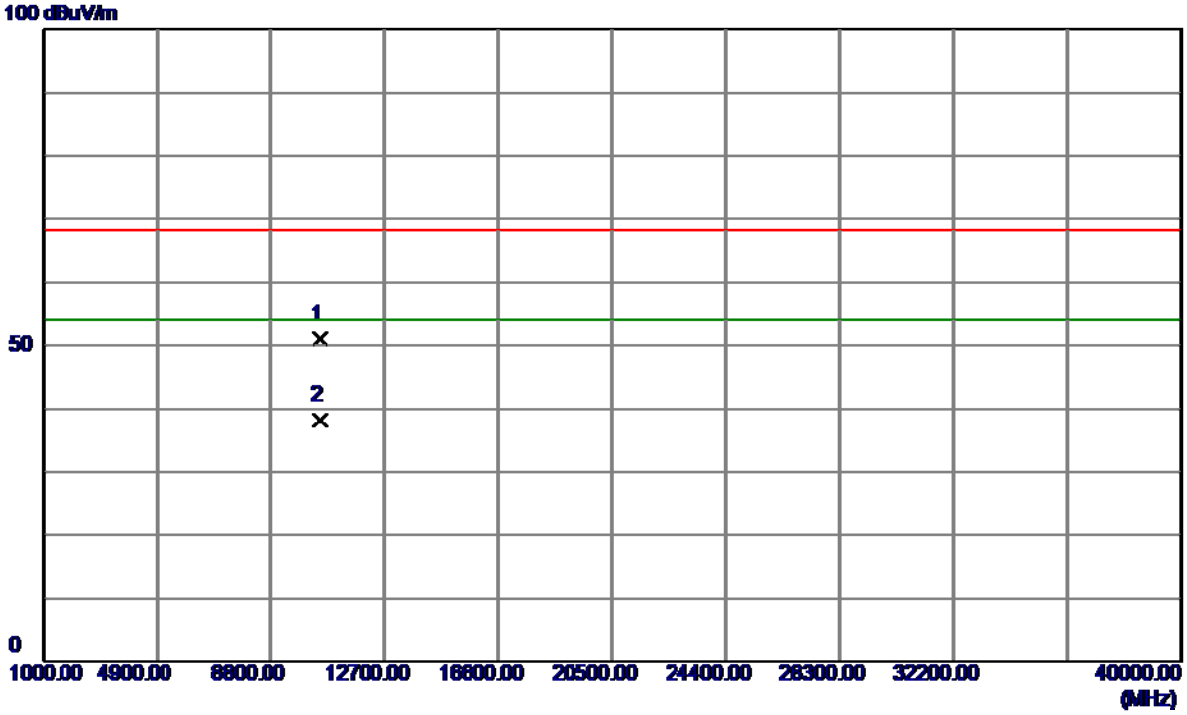
**Horizontal**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5243.9000 | 57.12 | 40.42 | 97.54 | 68.30 | 29.24 | Peak | no limit |
| 2 | 5247.6000 | 48.31 | 40.42 | 88.73 | 54.00 | 34.73 | AVG | no limit |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-1/ TX N20 Mode 5240MHz |

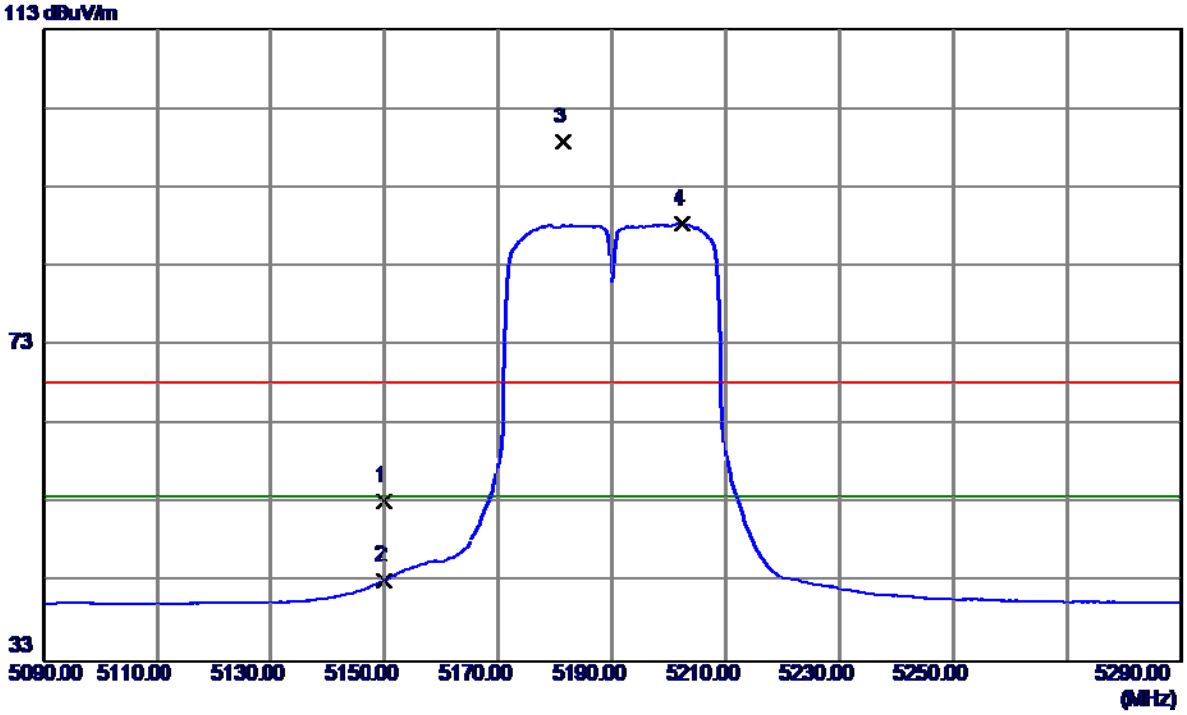
**Horizontal**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 10480.7900 | 37.29 | 13.69 | 50.98 | 68.30 | -17.32 | Peak | |
| 2 | 10480.9300 | 24.48 | 13.69 | 38.17 | 54.00 | -15.83 | AVG | |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-1/ TX N40 Mode 5190MHz |

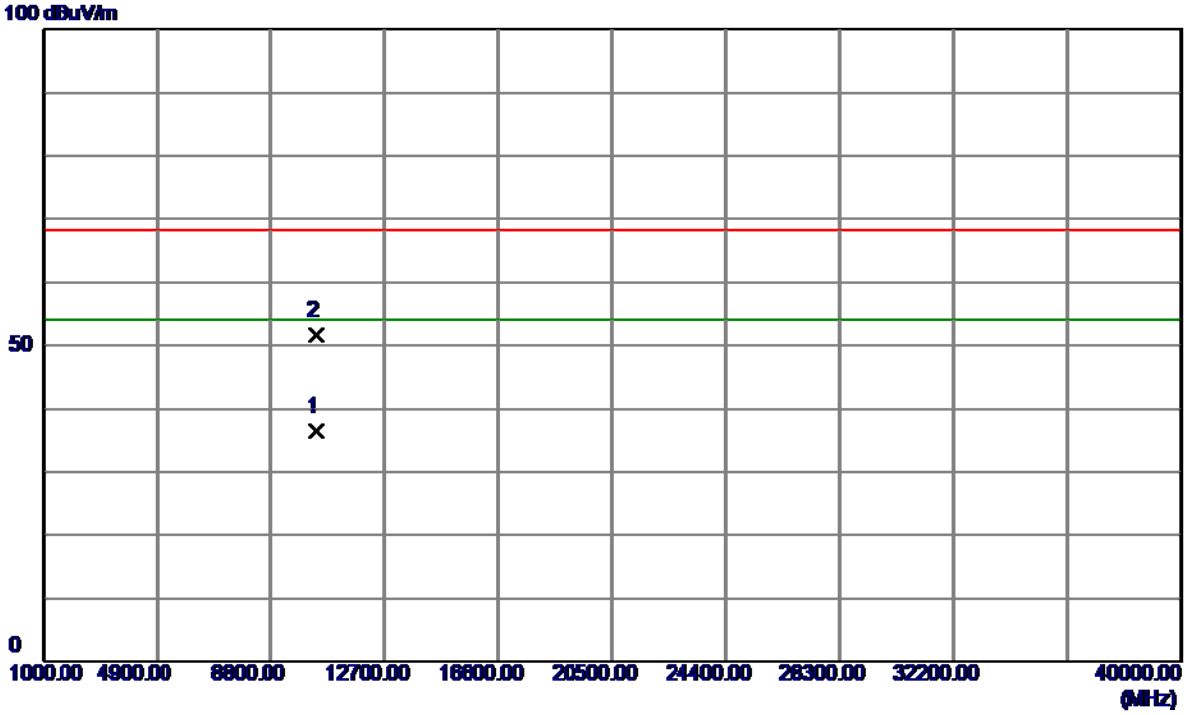
**Vertical**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5150.0000 | 13.06 | 40.22 | 53.28 | 68.30 | -15.02 | Peak | |
| 2 | 5150.0000 | 3.03 | 40.22 | 43.25 | 54.00 | -10.75 | AVG | |
| 3 | 5181.4000 | 58.45 | 40.28 | 98.73 | 68.30 | 30.43 | Peak | no limit |
| 4 | 5202.4000 | 48.01 | 40.33 | 88.34 | 54.00 | 34.34 | AVG | no limit |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-1/ TX N40 Mode 5190MHz |

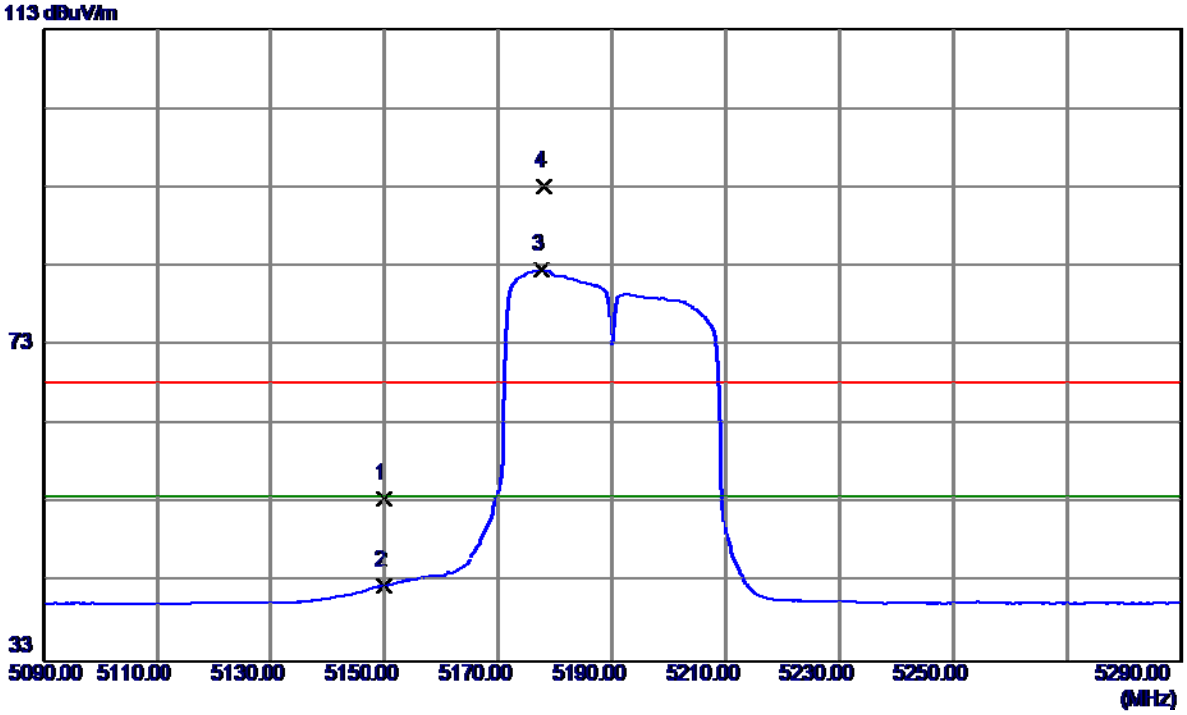
**Vertical**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 10380.2800 | 22.63 | 13.83 | 36.46 | 54.00 | -17.54 | AVG | |
| 2 | 10380.3900 | 37.75 | 13.83 | 51.58 | 68.30 | -16.72 | Peak | |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-1/ TX N40 Mode 5190MHz |

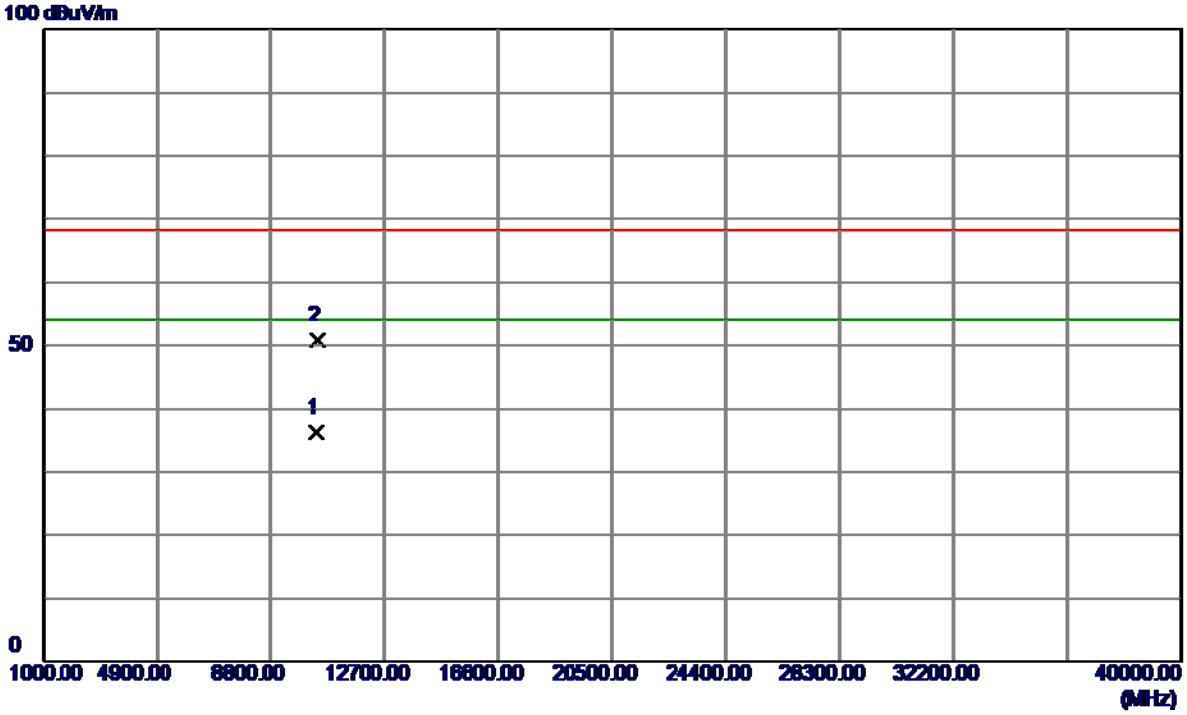
**Horizontal**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5150.0000 | 13.48 | 40.22 | 53.70 | 68.30 | -14.60 | Peak | |
| 2 | 5150.0000 | 2.34 | 40.22 | 42.56 | 54.00 | -11.44 | AVG | |
| 3 | 5177.6000 | 42.28 | 40.28 | 82.56 | 54.00 | 28.56 | AVG | no limit |
| 4 | 5178.0000 | 52.91 | 40.28 | 93.19 | 68.30 | 24.89 | Peak | no limit |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-1/ TX N40 Mode 5190MHz |

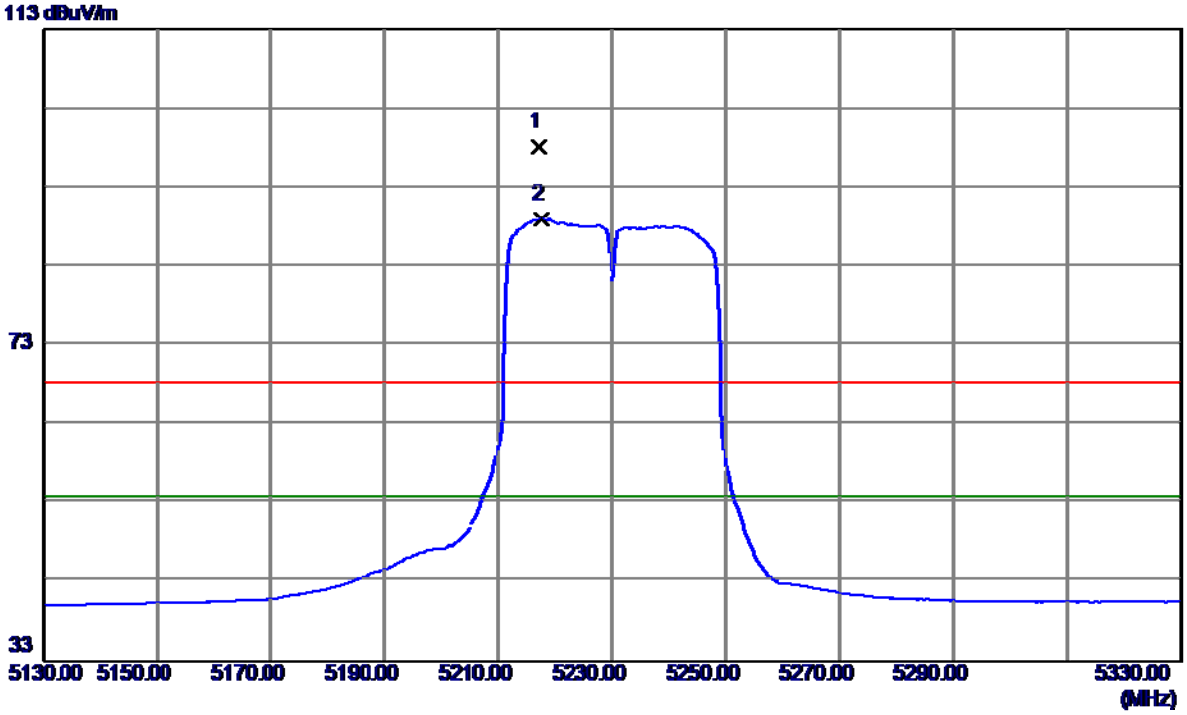
**Horizontal**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 10381.5800 | 22.42 | 13.83 | 36.25 | 54.00 | -17.75 | AVG | |
| 2 | 10382.1600 | 37.05 | 13.83 | 50.88 | 68.30 | -17.42 | Peak | |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-1/ TX N40 Mode 5230MHz |

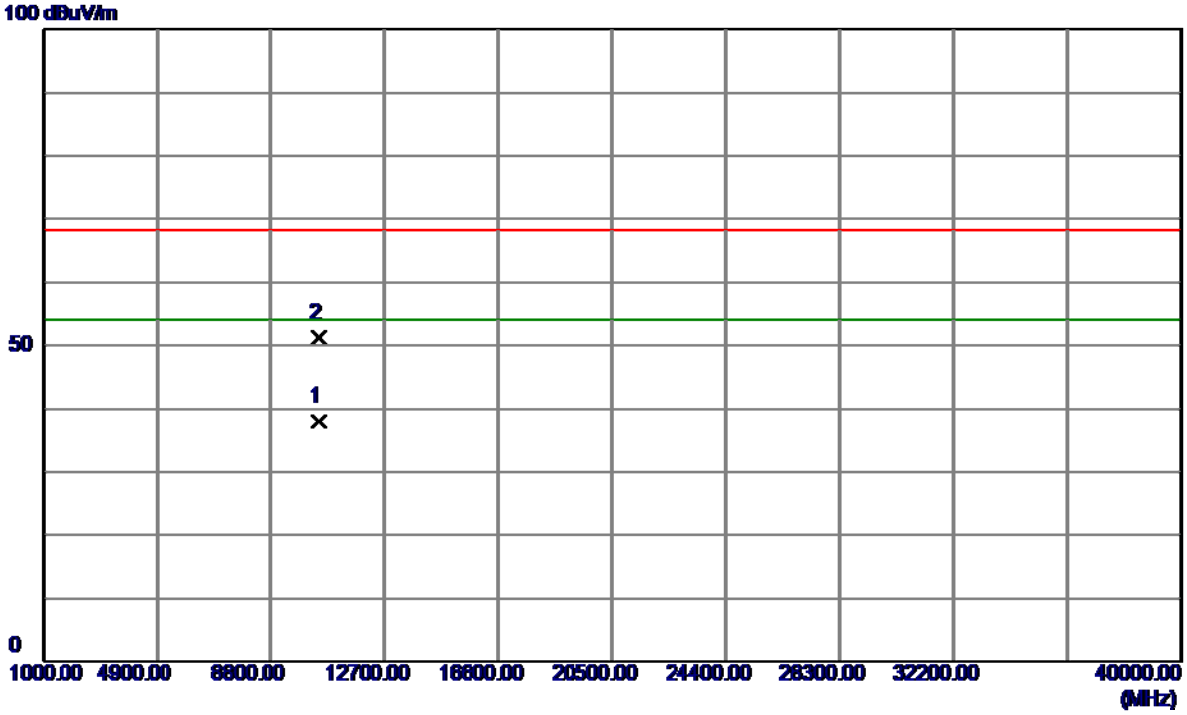
**Vertical**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5217.2000 | 57.68 | 40.36 | 98.04 | 68.30 | 29.74 | Peak | no limit |
| 2 | 5217.6000 | 48.62 | 40.36 | 88.98 | 54.00 | 34.98 | AVG | no limit |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-1/ TX N40 Mode 5230MHz |

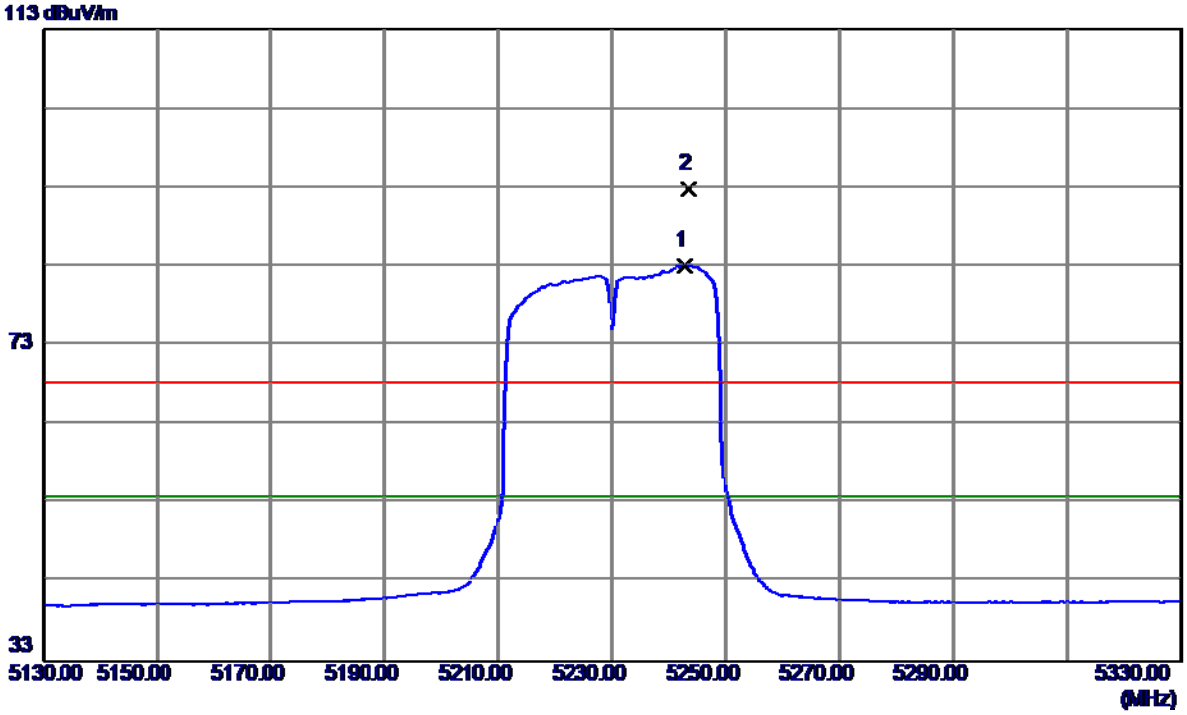
**Vertical**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 10463.1500 | 24.27 | 13.72 | 37.99 | 54.00 | -16.01 | AVG | |
| 2 | 10463.6700 | 37.46 | 13.71 | 51.17 | 68.30 | -17.13 | Peak | |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-1/ TX N40 Mode 5230MHz |

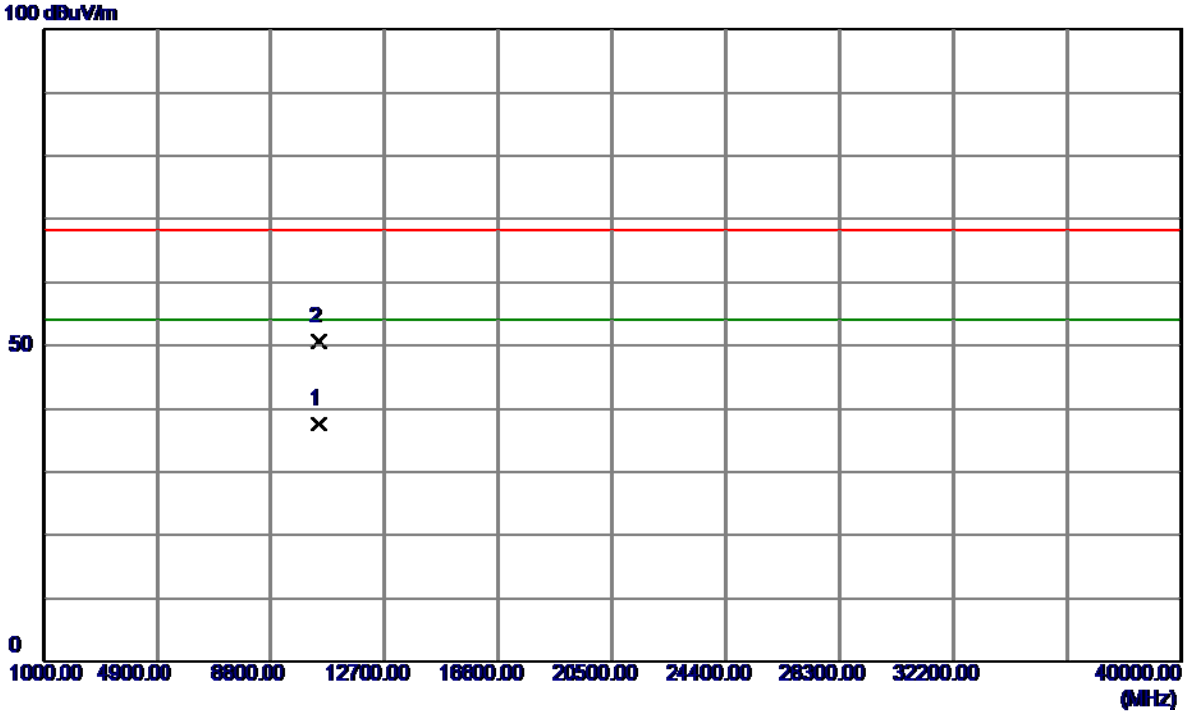
**Horizontal**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5242.8000 | 42.74 | 40.41 | 83.15 | 54.00 | 29.15 | AVG | no limit |
| 2 | 5243.6000 | 52.49 | 40.42 | 92.91 | 68.30 | 24.61 | Peak | no limit |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-1/ TX N40 Mode 5230MHz |

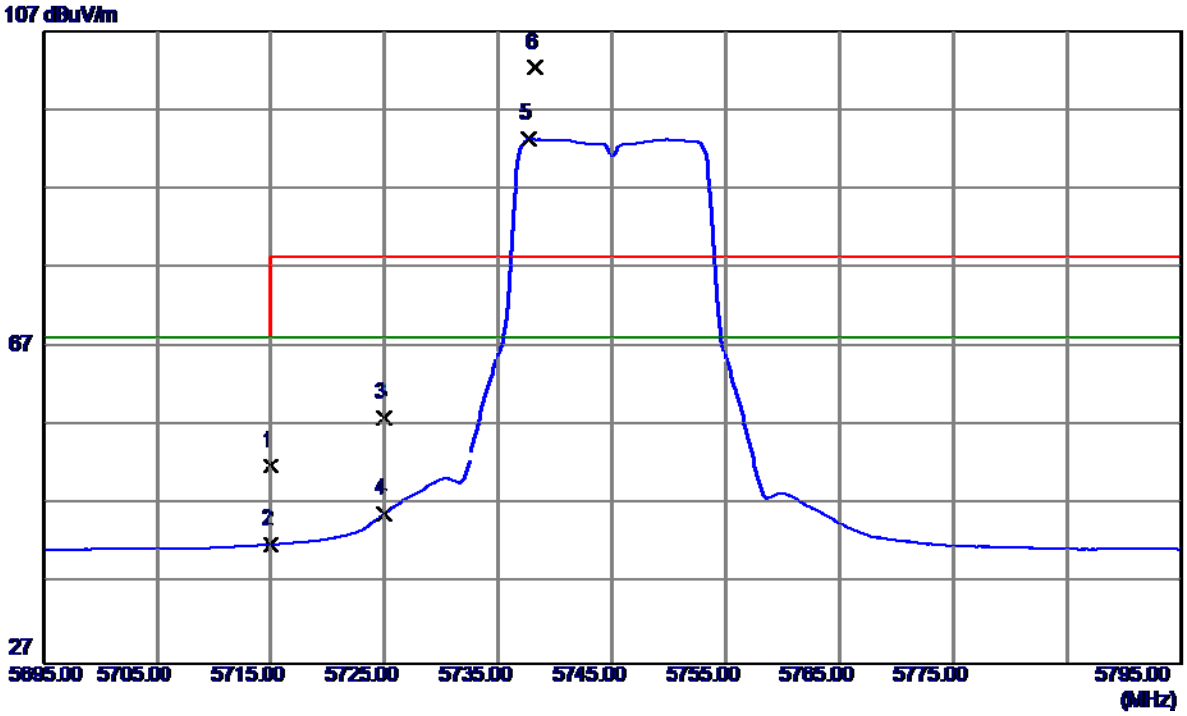
**Horizontal**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 10461.5800 | 23.89 | 13.72 | 37.61 | 54.00 | -16.39 | AVG | |
| 2 | 10461.7200 | 36.83 | 13.72 | 50.55 | 68.30 | -17.75 | Peak | |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-3/TX A Mode 5745MHz |

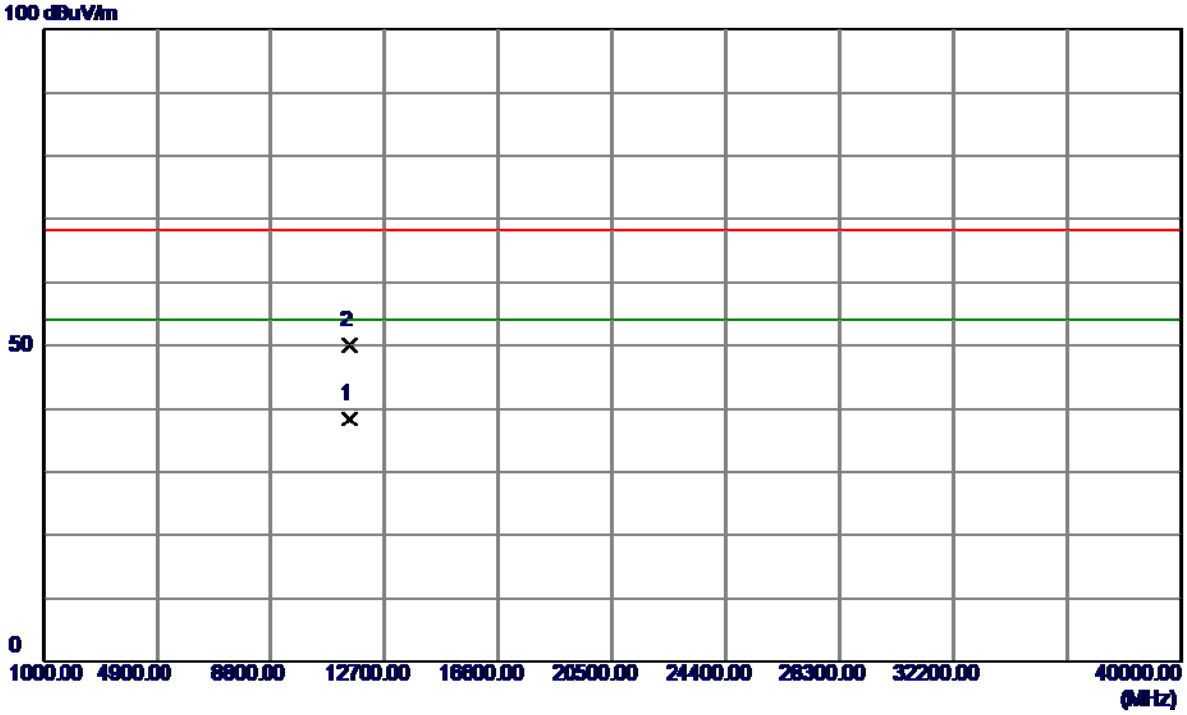
**Vertical**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5715.0000 | 10.69 | 41.25 | 51.94 | 68.30 | -16.36 | Peak | |
| 2 | 5715.0000 | 0.82 | 41.25 | 42.07 | 68.30 | -26.23 | AVG | |
| 3 | 5725.0000 | 16.78 | 41.27 | 58.05 | 78.30 | -20.25 | Peak | |
| 4 | 5725.0000 | 4.64 | 41.27 | 45.91 | 68.30 | -22.39 | AVG | |
| 5 | 5737.7000 | 52.13 | 41.28 | 93.41 | 68.30 | 25.11 | AVG | no limit |
| 6 | 5738.2000 | 61.08 | 41.28 | 102.36 | 78.30 | 24.06 | Peak | no limit |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-3/TX A Mode 5745MHz |

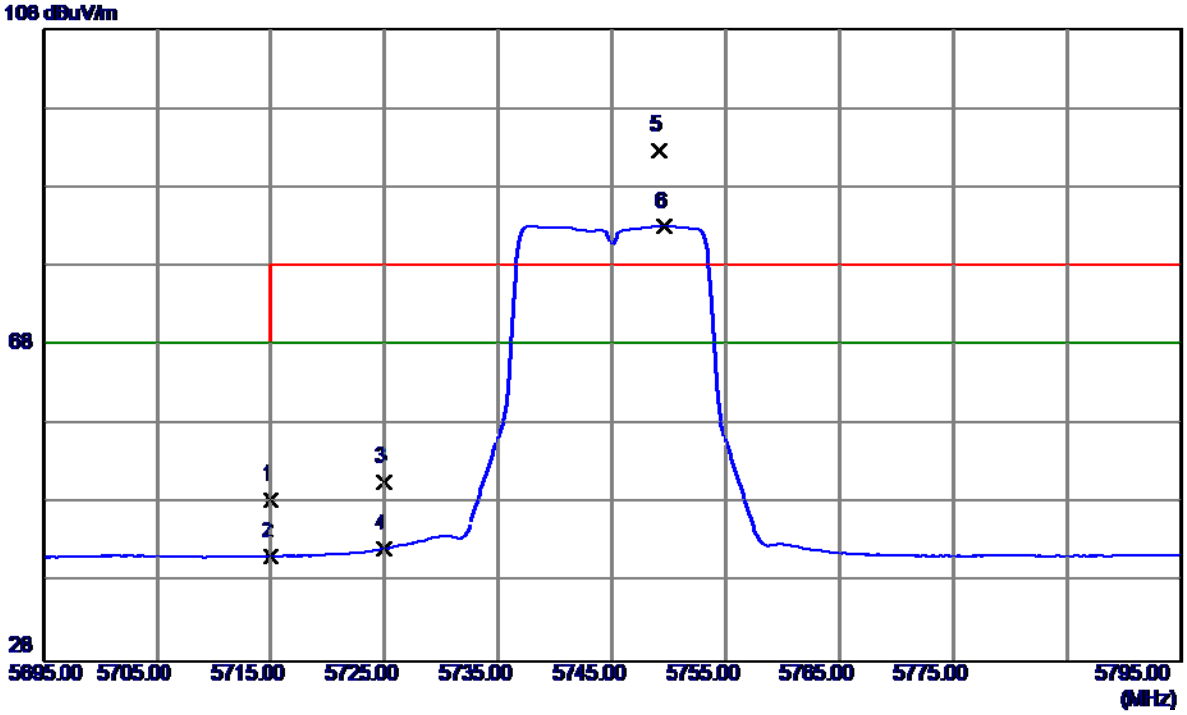
**Vertical**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 11491.3500 | 21.42 | 16.91 | 38.33 | 54.00 | -15.67 | AVG | |
| 2 | 11491.3600 | 33.11 | 16.91 | 50.02 | 68.30 | -18.28 | Peak | |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-3/TX A Mode 5745MHz |

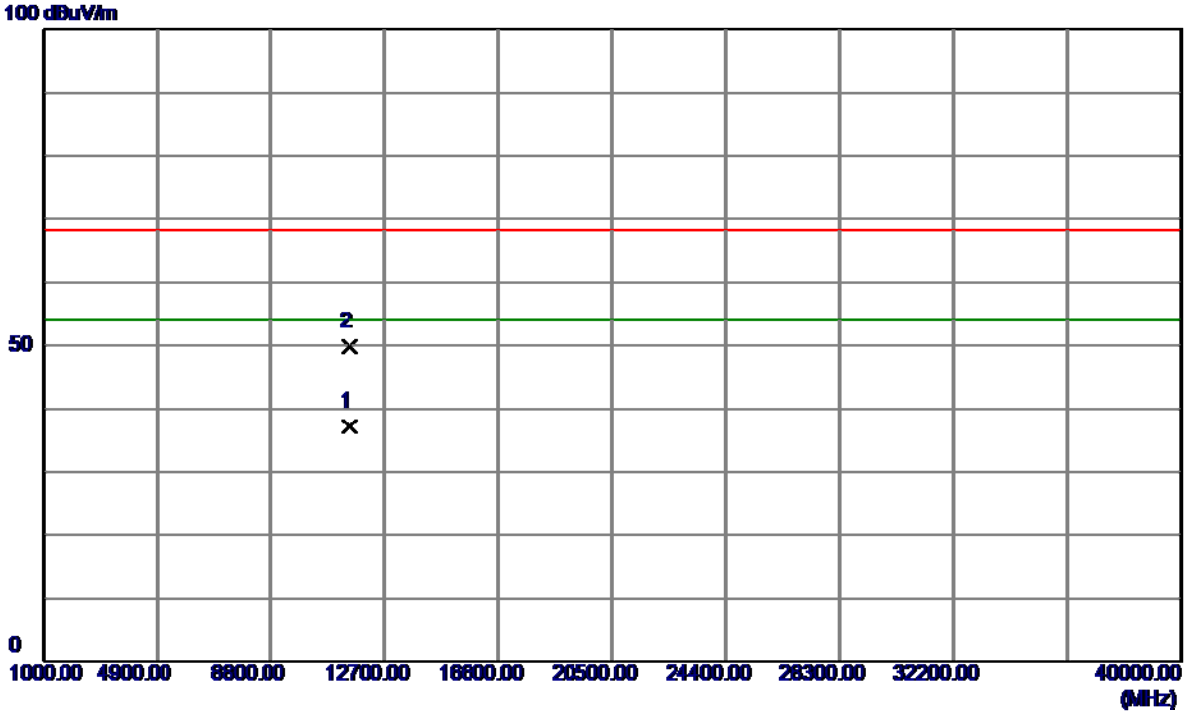
**Horizontal**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5715.0000 | 7.21 | 41.25 | 48.46 | 68.30 | -19.84 | Peak | |
| 2 | 5715.0000 | 0.05 | 41.25 | 41.30 | 68.30 | -27.00 | AVG | |
| 3 | 5725.0000 | 9.48 | 41.27 | 50.75 | 78.30 | -27.55 | Peak | |
| 4 | 5725.0000 | 0.93 | 41.27 | 42.20 | 68.30 | -26.10 | AVG | |
| 5 | 5749.1000 | 51.41 | 41.30 | 92.71 | 78.30 | 14.41 | Peak | no limit |
| 6 | 5749.6000 | 41.79 | 41.30 | 83.09 | 68.30 | 14.79 | AVG | no limit |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-3/TX A Mode 5745MHz |

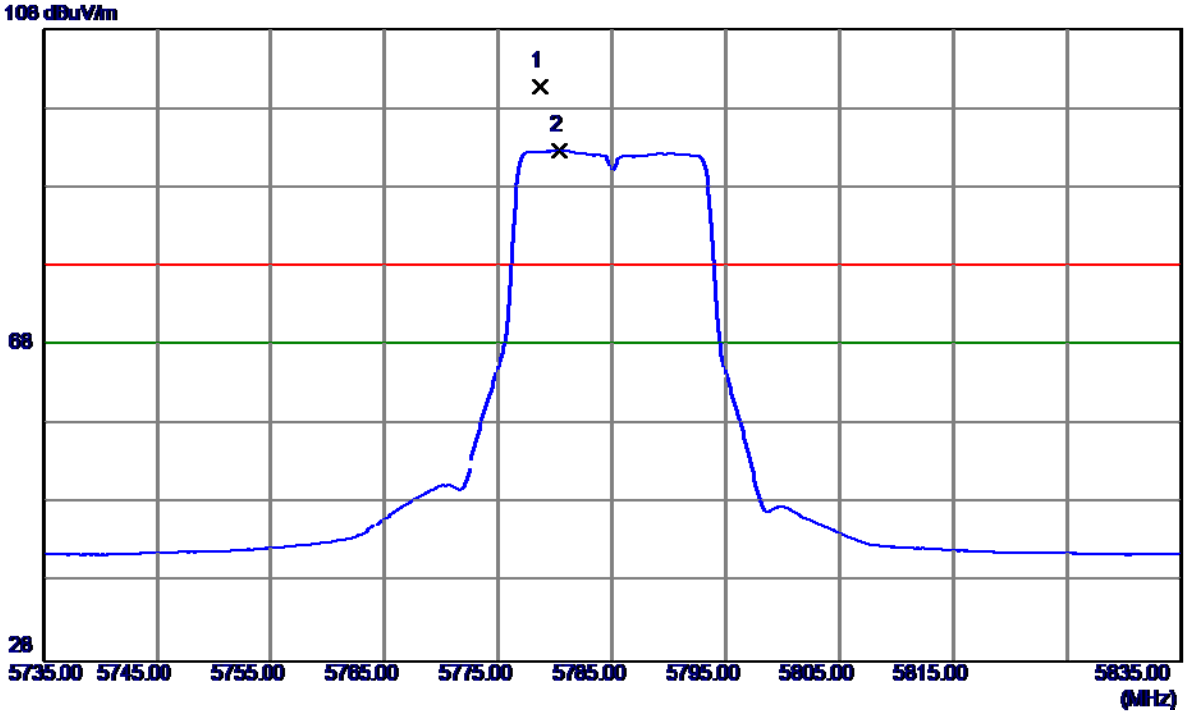
**Horizontal**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 11490.6500 | 20.33 | 16.91 | 37.24 | 54.00 | -16.76 | AVG | |
| 2 | 11490.8700 | 32.97 | 16.91 | 49.88 | 68.30 | -18.42 | Peak | |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-3/TX A Mode 5785MHz |

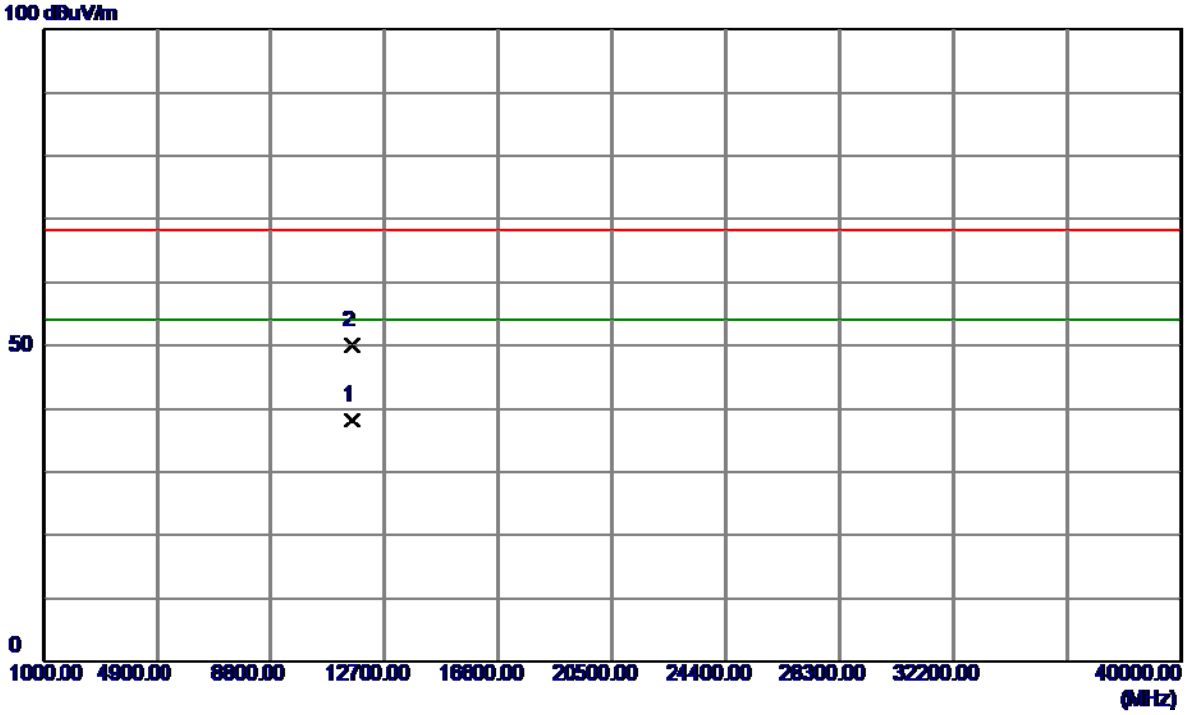
**Vertical**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5778.7000 | 59.47 | 41.34 | 100.81 | 78.30 | 22.51 | Peak | no limit |
| 2 | 5780.3000 | 51.31 | 41.34 | 92.65 | 68.30 | 24.35 | AVG | no limit |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-3/TX A Mode 5785MHz |

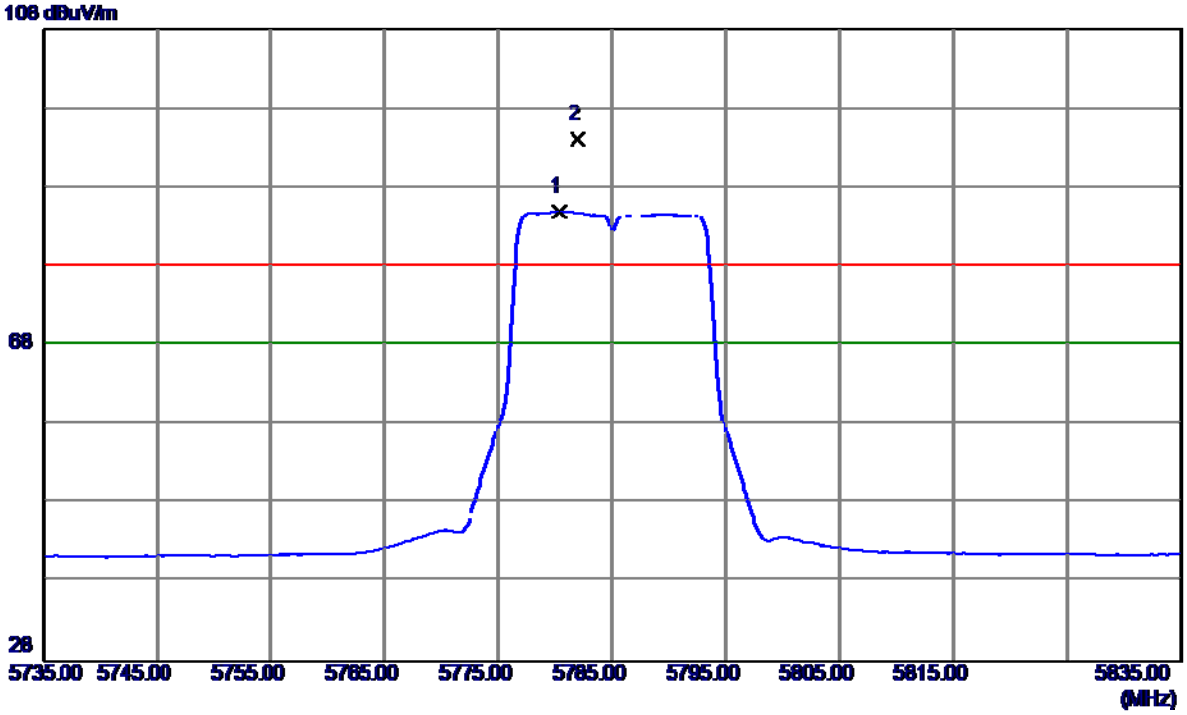
**Vertical**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 11571.3500 | 21.09 | 17.05 | 38.14 | 54.00 | -15.86 | AVG | |
| 2 | 11571.5199 | 32.92 | 17.05 | 49.97 | 68.30 | -18.33 | Peak | |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-3/TX A Mode 5785MHz |

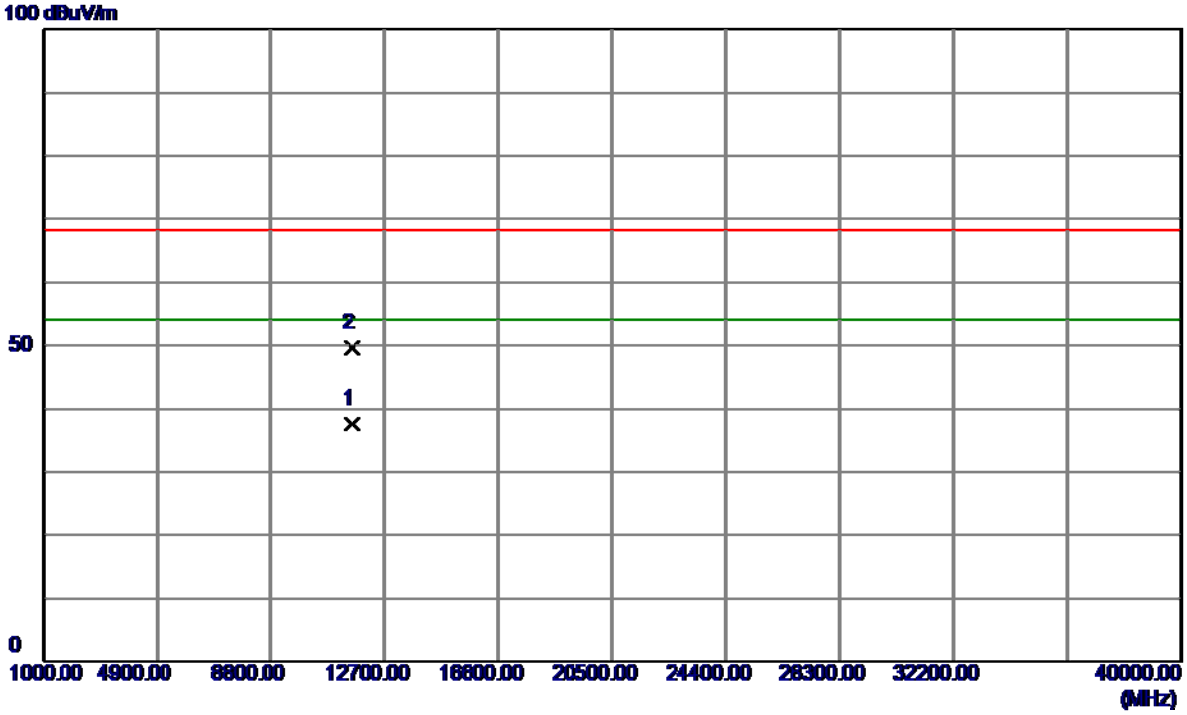
**Horizontal**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5780.3000 | 43.65 | 41.34 | 84.99 | 68.30 | 16.69 | AVG | no limit |
| 2 | 5782.0000 | 52.68 | 41.34 | 94.02 | 78.30 | 15.72 | Peak | no limit |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-3/TX A Mode 5785MHz |

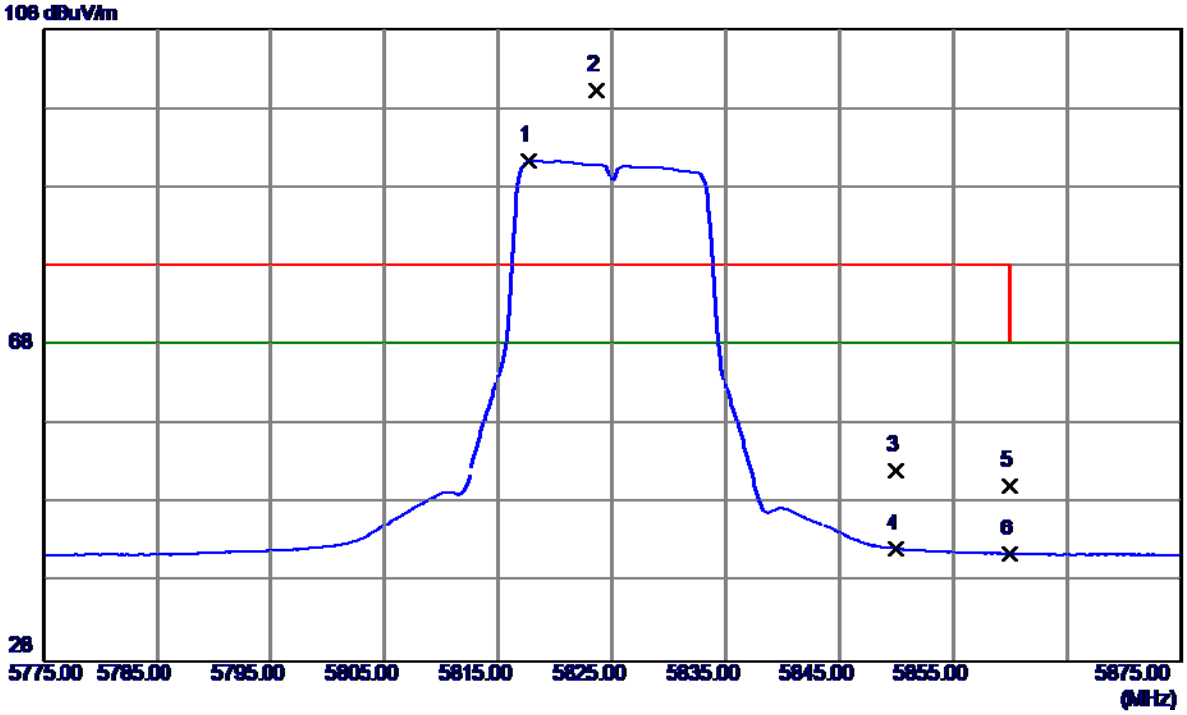
**Horizontal**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 11570.2800 | 20.64 | 17.05 | 37.69 | 54.00 | -16.31 | AVG | |
| 2 | 11570.3300 | 32.62 | 17.05 | 49.67 | 68.30 | -18.63 | Peak | |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-3/TX A Mode 5825MHz |

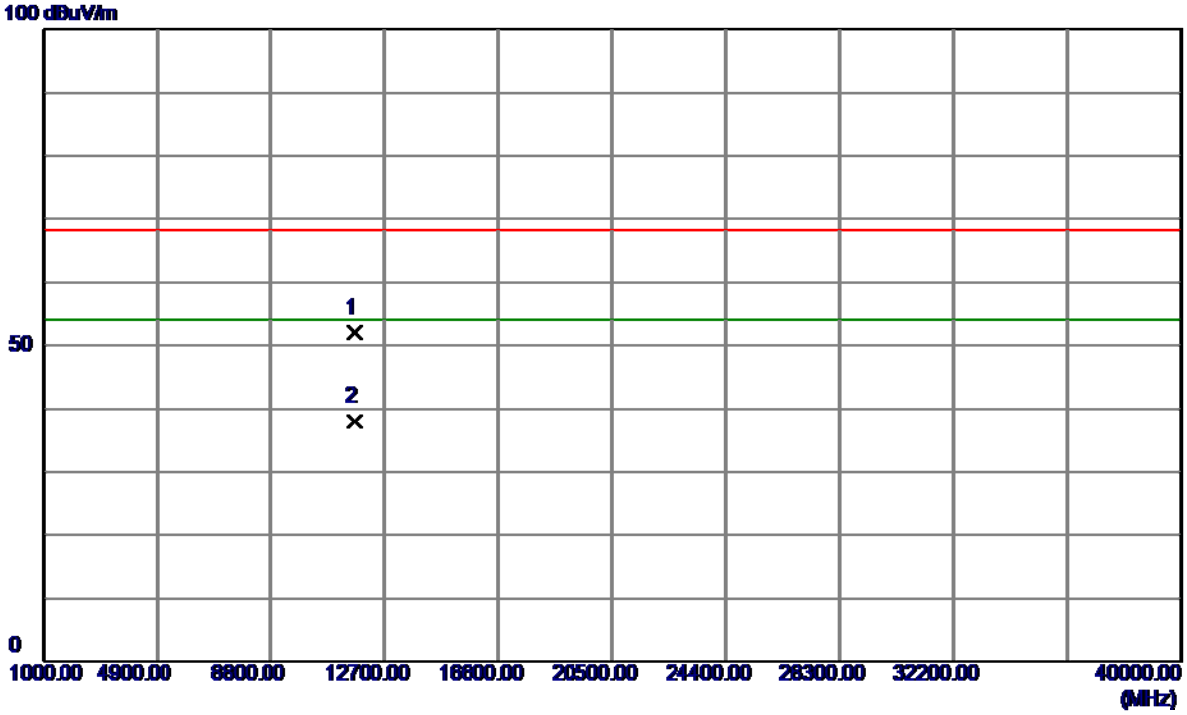
**Vertical**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5817.7000 | 49.93 | 41.39 | 91.32 | 68.30 | 23.02 | AVG | no limit |
| 2 | 5823.7000 | 58.97 | 41.40 | 100.37 | 78.30 | 22.07 | Peak | no limit |
| 3 | 5850.0000 | 10.65 | 41.44 | 52.09 | 78.30 | -26.21 | Peak | |
| 4 | 5850.0000 | 0.85 | 41.44 | 42.29 | 68.30 | -26.01 | AVG | |
| 5 | 5860.0000 | 8.81 | 41.45 | 50.26 | 78.30 | -28.04 | Peak | |
| 6 | 5860.0000 | 0.19 | 41.45 | 41.64 | 68.30 | -26.66 | AVG | |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-3/TX A Mode 5825MHz |

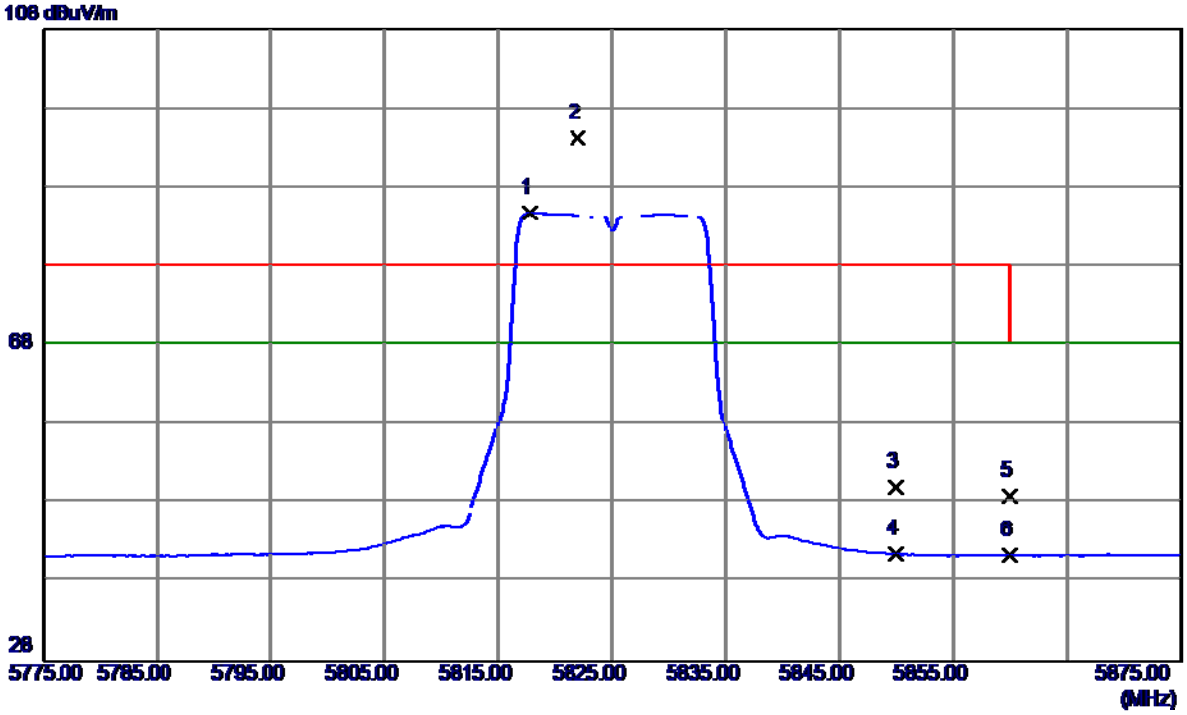
**Vertical**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 11650.0000 | 34.80 | 17.17 | 51.97 | 68.30 | -16.33 | Peak | |
| 2 | 11650.0000 | 20.74 | 17.17 | 37.91 | 54.00 | -16.09 | AVG | |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-3/TX A Mode 5825MHz |

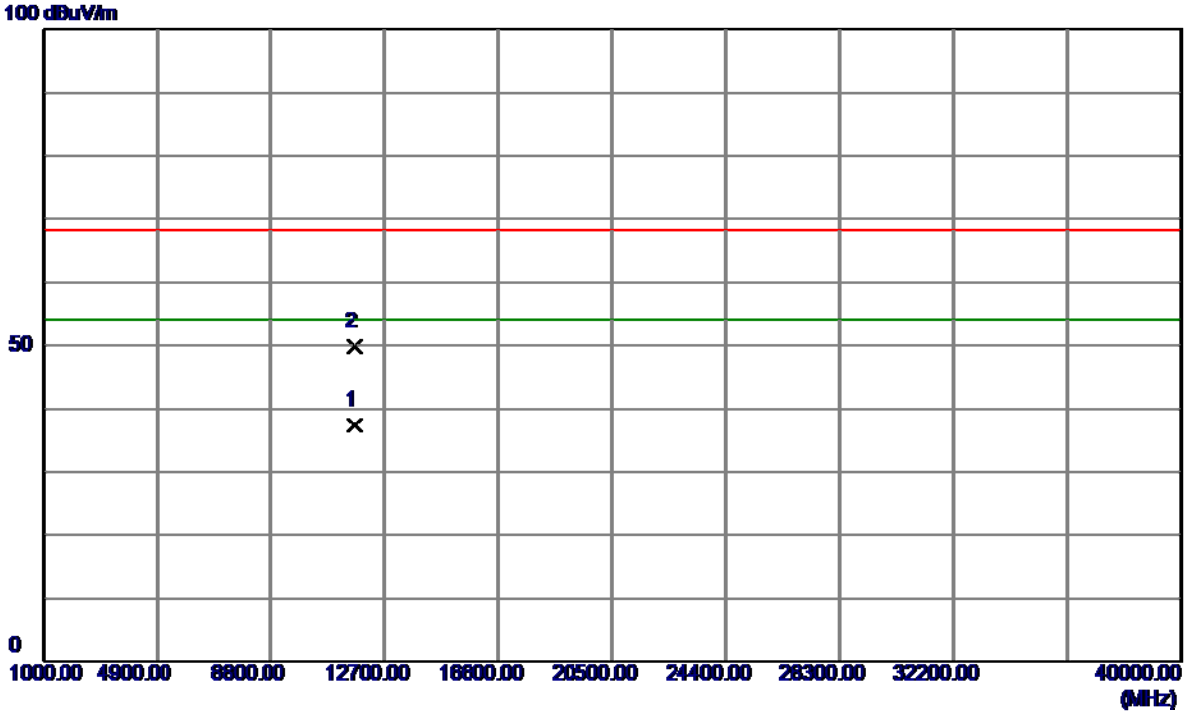
**Horizontal**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5817.8000 | 43.47 | 41.39 | 84.86 | 68.30 | 16.56 | AVG | no limit |
| 2 | 5822.0000 | 52.81 | 41.40 | 94.21 | 78.30 | 15.91 | Peak | no limit |
| 3 | 5850.0000 | 8.71 | 41.44 | 50.15 | 78.30 | -28.15 | Peak | |
| 4 | 5850.0000 | 0.16 | 41.44 | 41.60 | 68.30 | -26.70 | AVG | |
| 5 | 5860.0000 | 7.54 | 41.45 | 48.99 | 78.30 | -29.31 | Peak | |
| 6 | 5860.0000 | -0.03 | 41.45 | 41.42 | 68.30 | -26.88 | AVG | |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-3/TX A Mode 5825MHz |

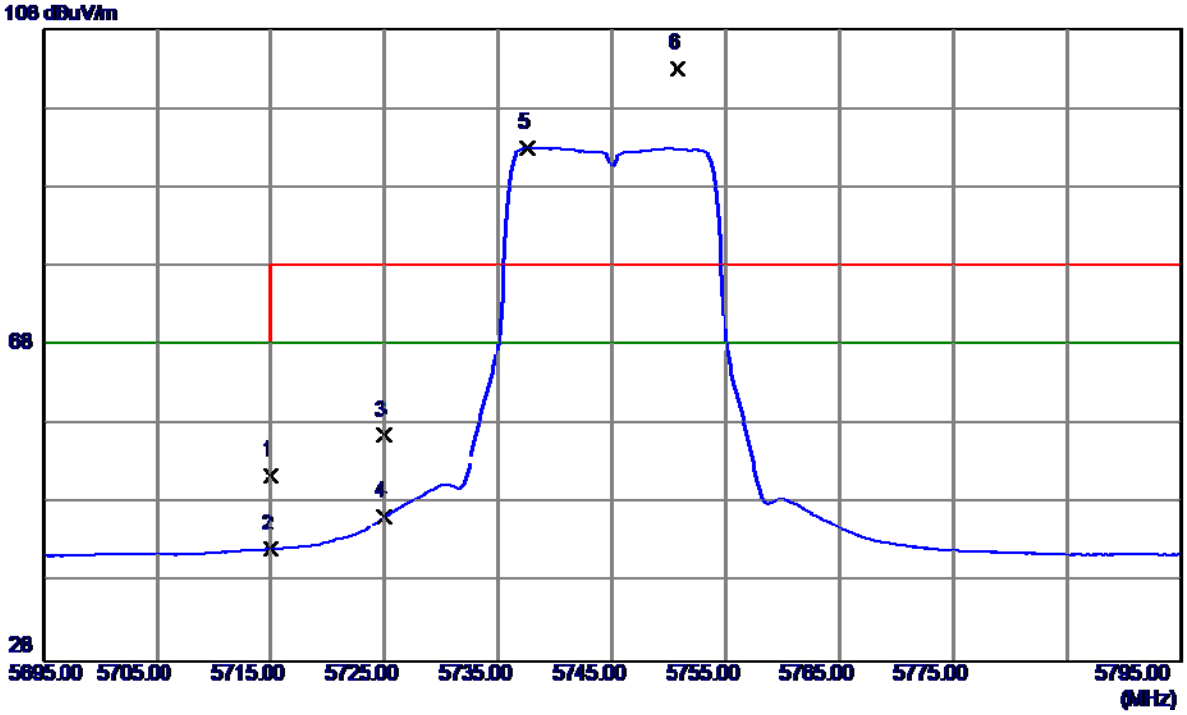
**Horizontal**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 11650.0300 | 20.24 | 17.17 | 37.41 | 54.00 | -16.59 | AVG | |
| 2 | 11650.2800 | 32.71 | 17.17 | 49.88 | 68.30 | -18.42 | Peak | |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-3/TX N20 Mode 5745MHz |

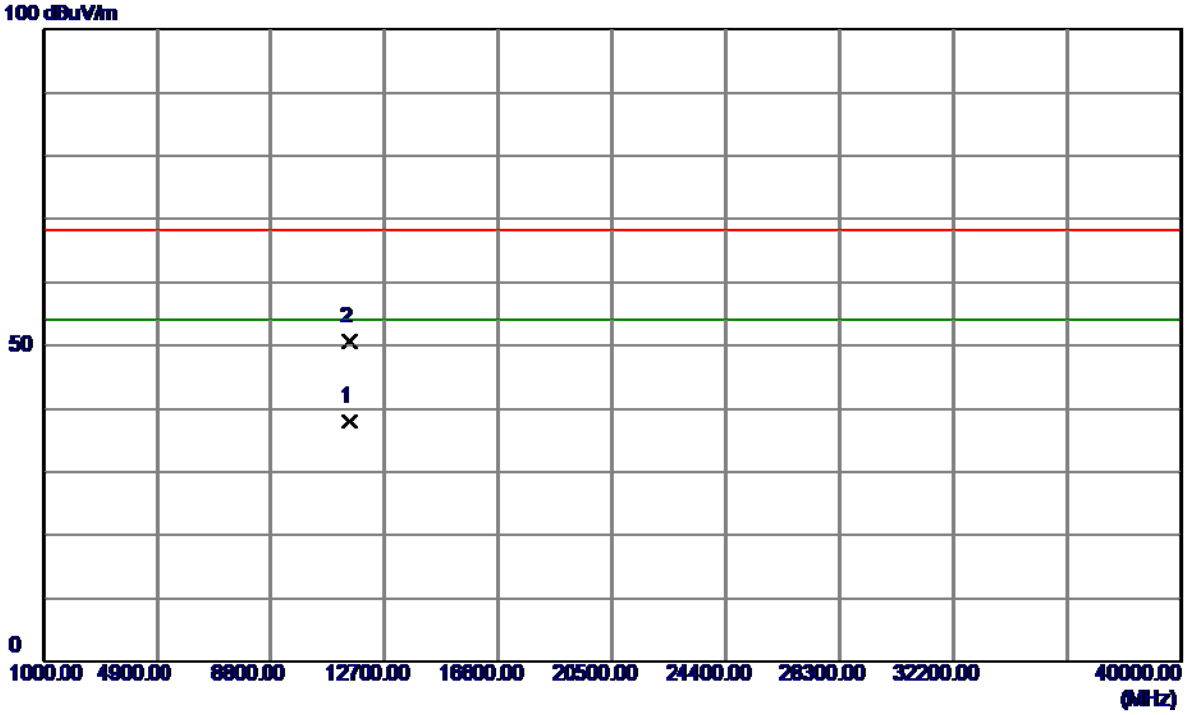
**Vertical**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5715.0000 | 10.28 | 41.25 | 51.53 | 68.30 | -16.77 | Peak | |
| 2 | 5715.0000 | 0.98 | 41.25 | 42.23 | 68.30 | -26.07 | AVG | |
| 3 | 5725.0000 | 15.32 | 41.27 | 56.59 | 78.30 | -21.71 | Peak | |
| 4 | 5725.0000 | 5.09 | 41.27 | 46.36 | 68.30 | -21.94 | AVG | |
| 5 | 5737.6000 | 51.74 | 41.28 | 93.02 | 68.30 | 24.72 | AVG | no limit |
| 6 | 5750.8000 | 61.69 | 41.30 | 102.99 | 78.30 | 24.69 | Peak | no limit |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-3/TX N20 Mode 5745MHz |

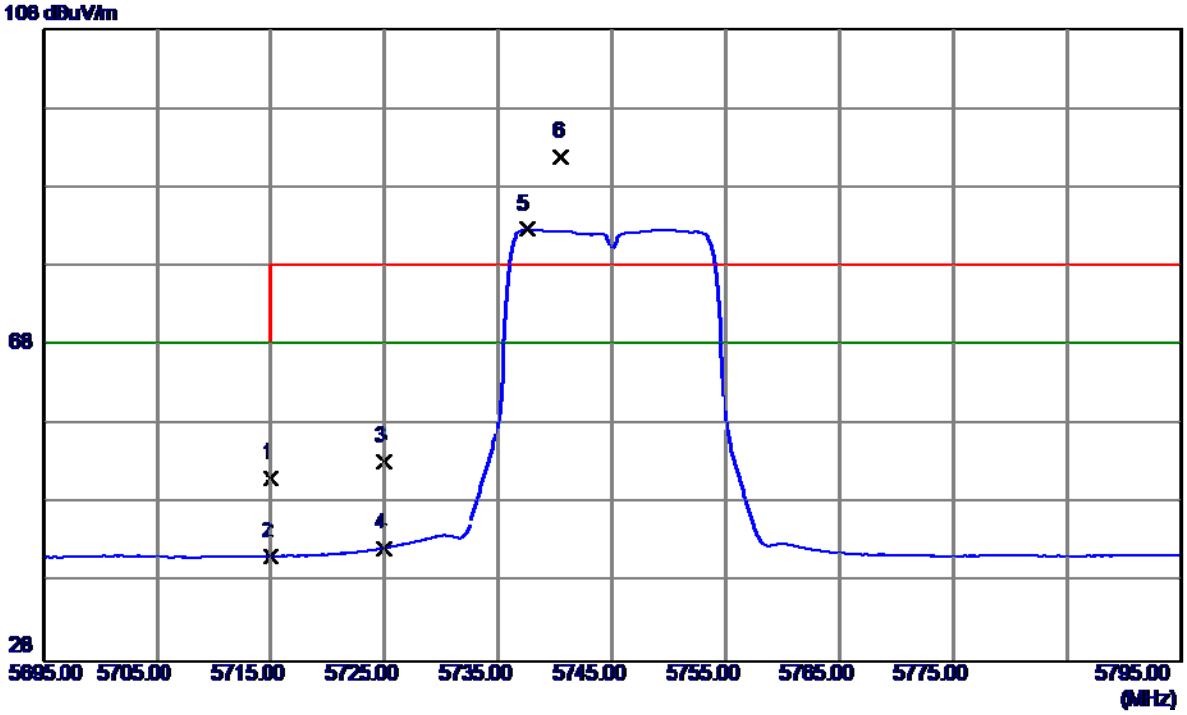
**Vertical**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 11490.2800 | 21.04 | 16.91 | 37.95 | 54.00 | -16.05 | AVG | |
| 2 | 11490.3099 | 33.72 | 16.91 | 50.63 | 68.30 | -17.67 | Peak | |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-3/TX N20 Mode 5745MHz |

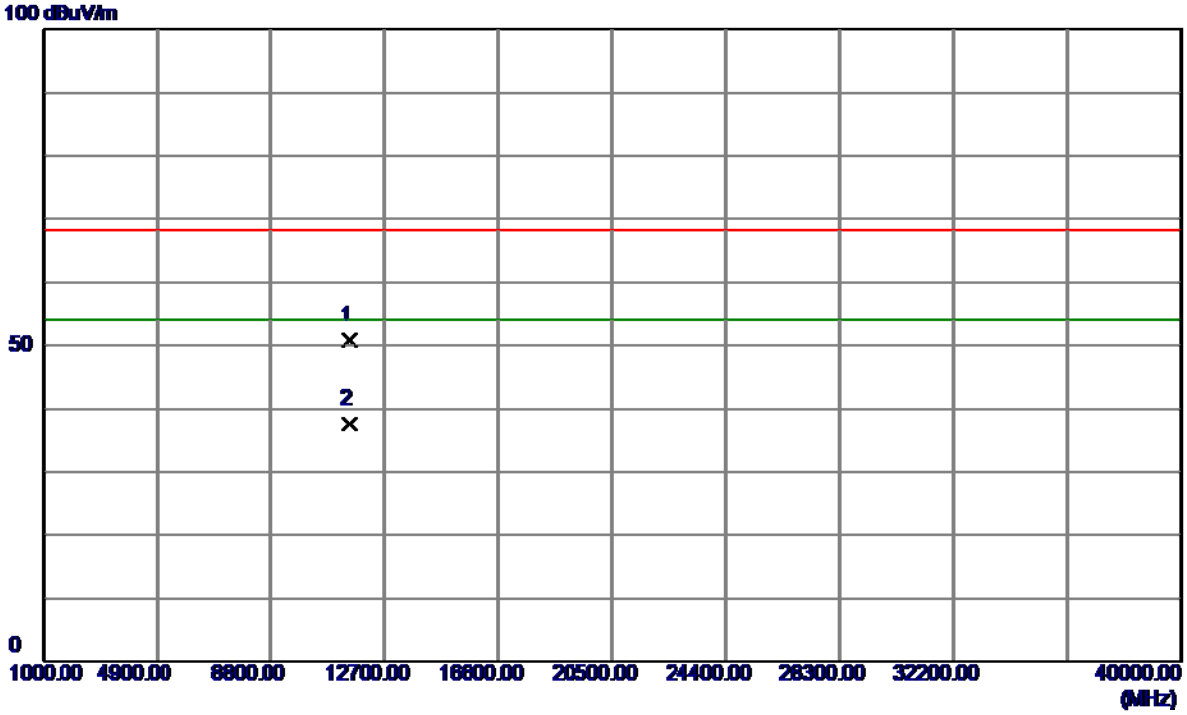
**Horizontal**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5715.0000 | 9.97 | 41.25 | 51.22 | 68.30 | -17.08 | Peak | |
| 2 | 5715.0000 | 0.05 | 41.25 | 41.30 | 68.30 | -27.00 | AVG | |
| 3 | 5725.0000 | 12.08 | 41.27 | 53.35 | 78.30 | -24.95 | Peak | |
| 4 | 5725.0000 | 1.05 | 41.27 | 42.32 | 68.30 | -25.98 | AVG | |
| 5 | 5737.5000 | 41.38 | 41.28 | 82.66 | 68.30 | 14.36 | AVG | no limit |
| 6 | 5740.5000 | 50.47 | 41.29 | 91.76 | 78.30 | 13.46 | Peak | no limit |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-3/TX N20 Mode 5745MHz |

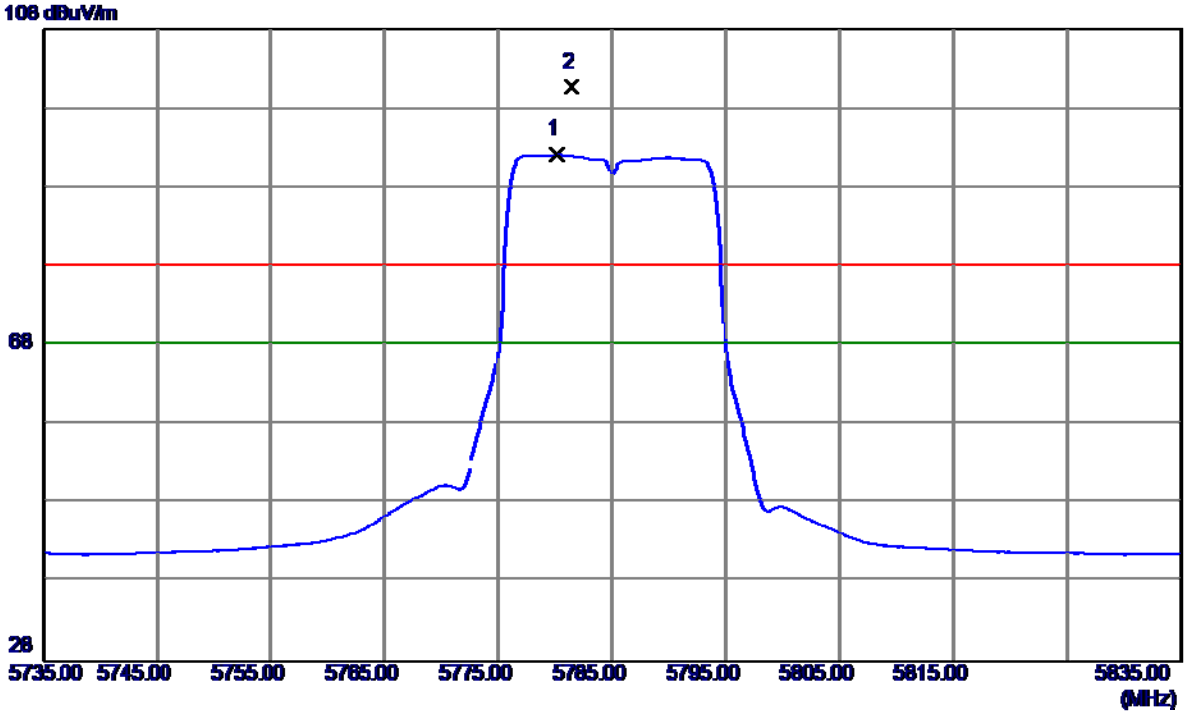
**Horizontal**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 11489.6800 | 33.91 | 16.91 | 50.82 | 68.30 | -17.48 | Peak | |
| 2 | 11490.0500 | 20.64 | 16.91 | 37.55 | 54.00 | -16.45 | AVG | |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-3/TX N20 Mode 5785MHz |

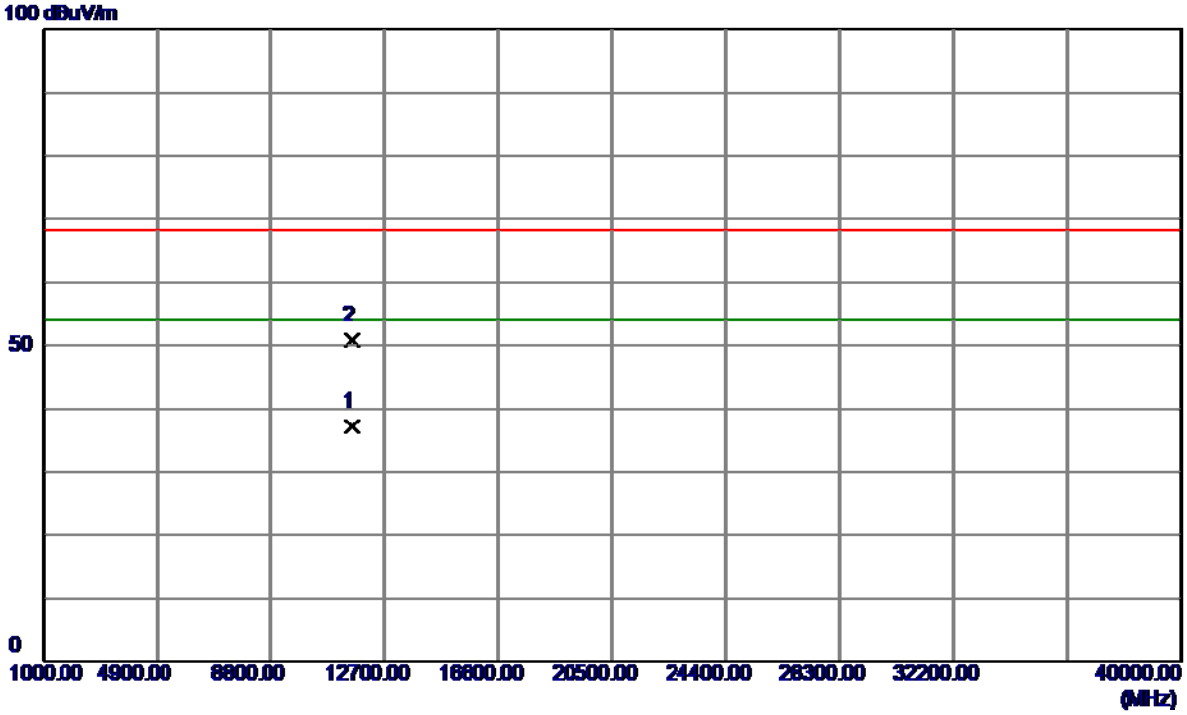
**Vertical**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5780.1000 | 50.78 | 41.34 | 92.12 | 68.30 | 23.82 | AVG | no limit |
| 2 | 5781.4000 | 59.38 | 41.34 | 100.72 | 78.30 | 22.42 | Peak | no limit |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-3/TX N20 Mode 5785MHz |

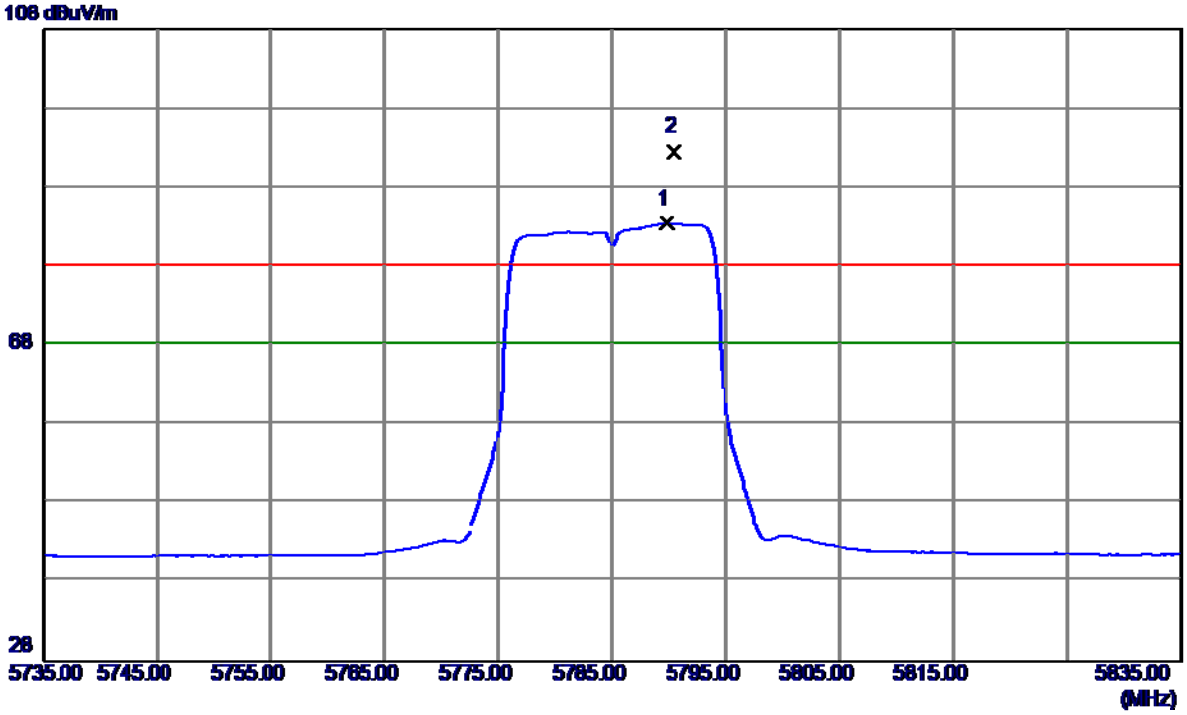
**Vertical**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 11570.3900 | 20.14 | 17.05 | 37.19 | 54.00 | -16.81 | AVG | |
| 2 | 11570.5500 | 33.83 | 17.05 | 50.88 | 68.30 | -17.42 | Peak | |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-3/TX N20 Mode 5785MHz |

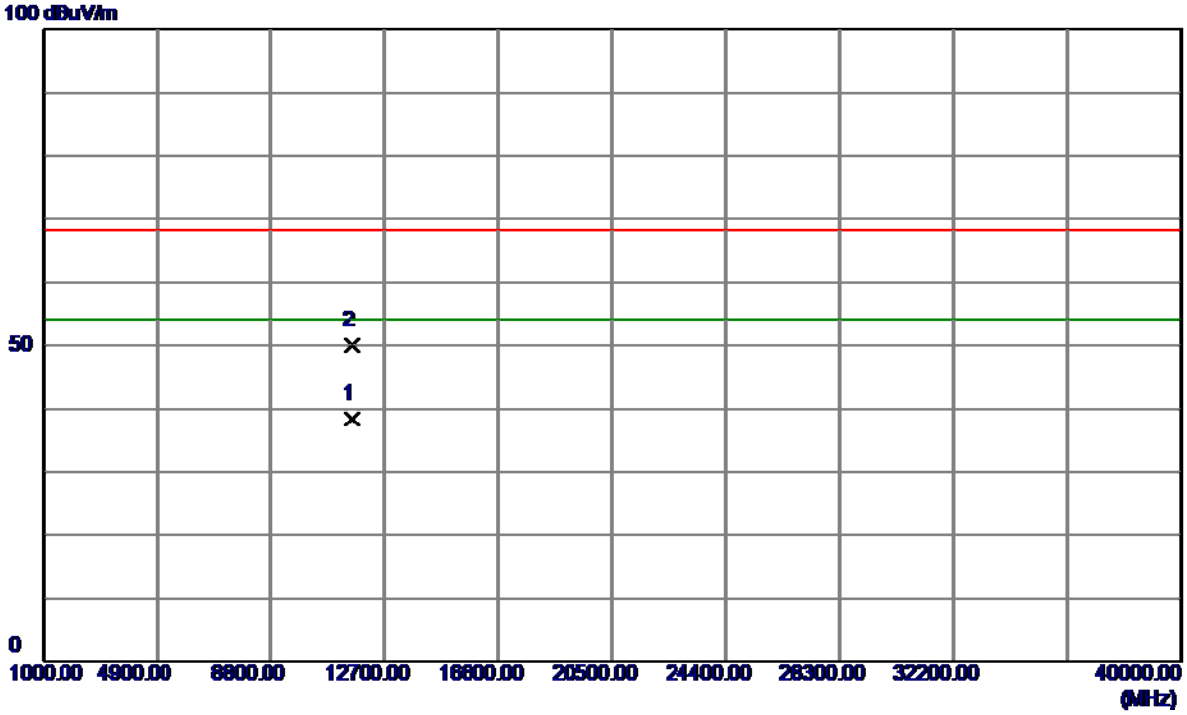
**Horizontal**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5789.8000 | 42.09 | 41.35 | 83.44 | 68.30 | 15.14 | AVG | no limit |
| 2 | 5790.4000 | 51.12 | 41.35 | 92.47 | 78.30 | 14.17 | Peak | no limit |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-3/TX N20 Mode 5785MHz |

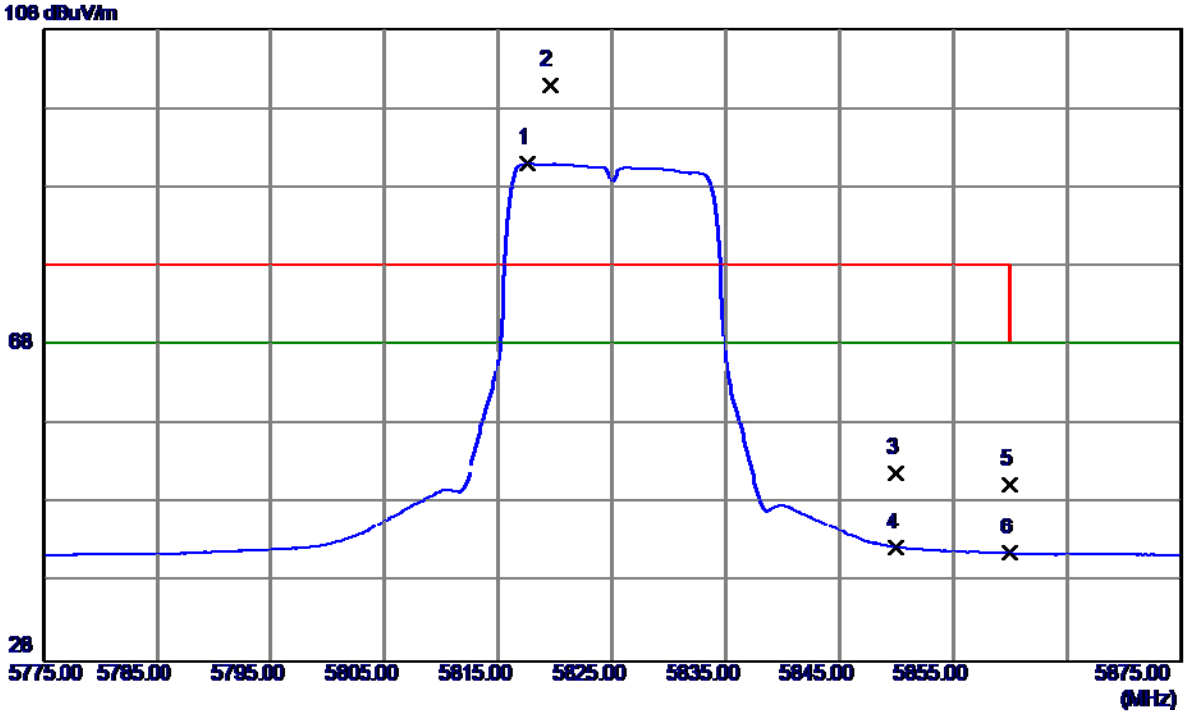
**Horizontal**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 11571.3900 | 21.28 | 17.05 | 38.33 | 54.00 | -15.67 | AVG | |
| 2 | 11571.5199 | 32.86 | 17.05 | 49.91 | 68.30 | -18.39 | Peak | |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-3/TX N20 Mode 5825MHz |

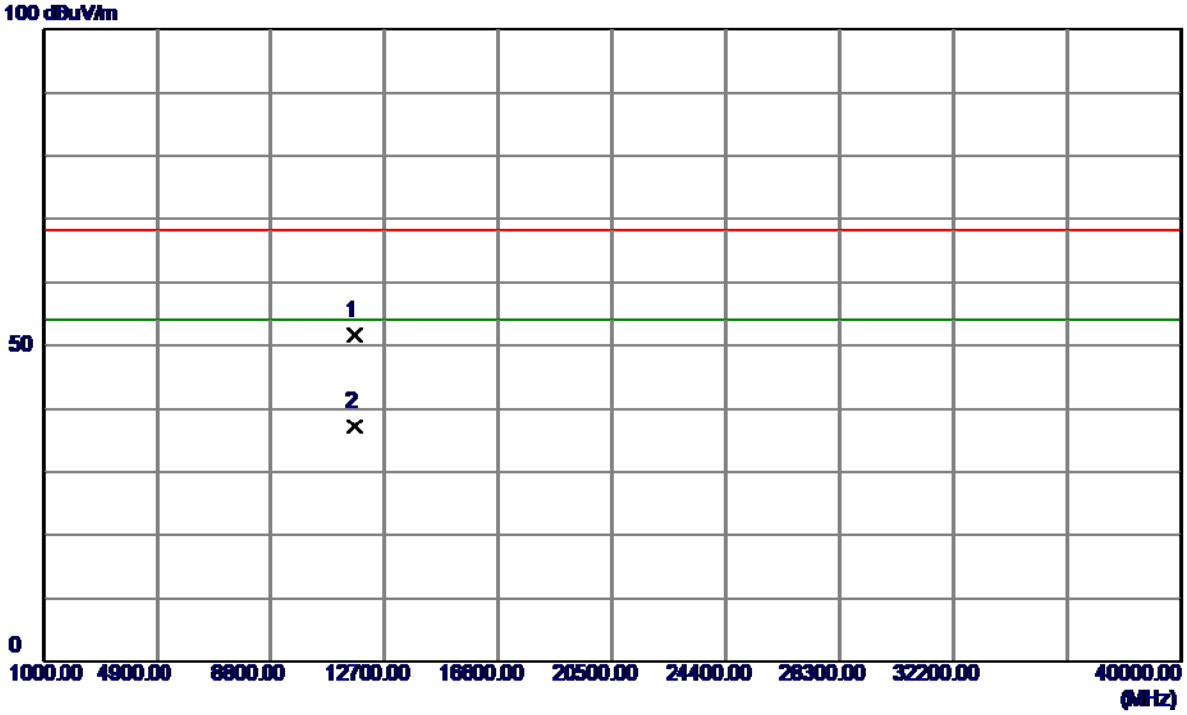
**Vertical**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5817.6000 | 49.63 | 41.39 | 91.02 | 68.30 | 22.72 | AVG | no limit |
| 2 | 5819.5000 | 59.62 | 41.39 | 101.01 | 78.30 | 22.71 | Peak | no limit |
| 3 | 5850.0000 | 10.35 | 41.44 | 51.79 | 78.30 | -26.51 | Peak | |
| 4 | 5850.0000 | 1.00 | 41.44 | 42.44 | 68.30 | -25.86 | AVG | |
| 5 | 5860.0000 | 8.91 | 41.45 | 50.36 | 78.30 | -27.94 | Peak | |
| 6 | 5860.0000 | 0.29 | 41.45 | 41.74 | 68.30 | -26.56 | AVG | |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-3/TX N20 Mode 5825MHz |

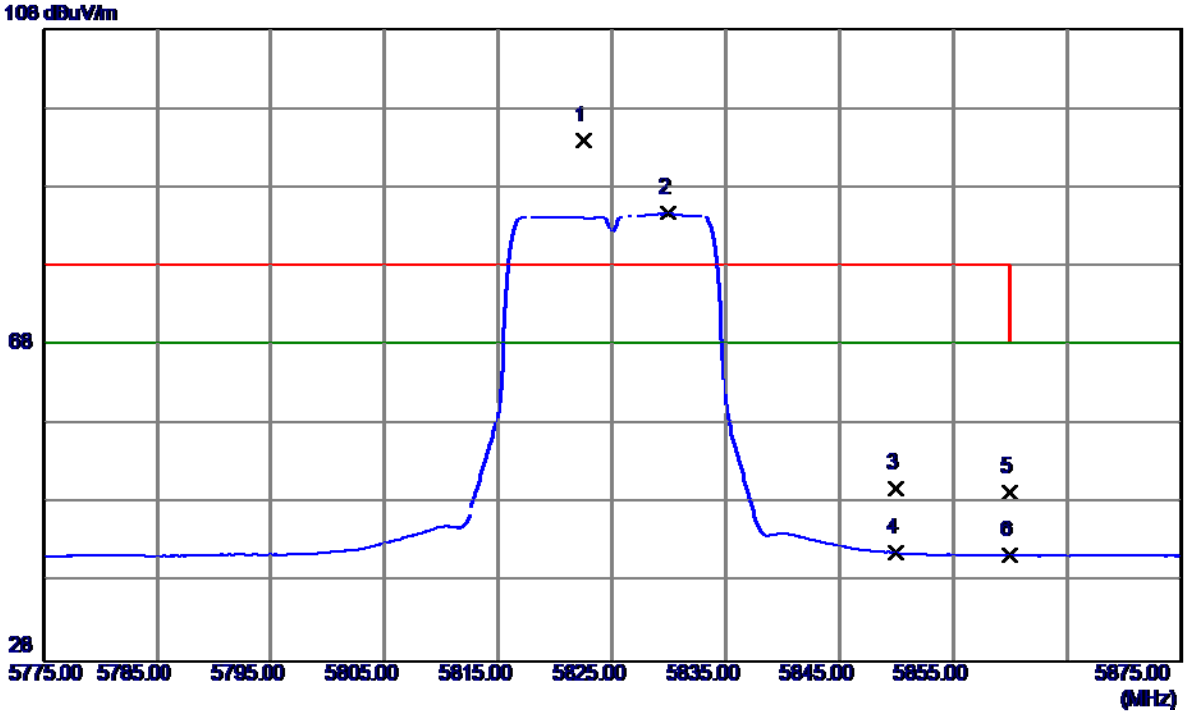
**Vertical**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 11650.0000 | 34.44 | 17.17 | 51.61 | 68.30 | -16.69 | Peak | |
| 2 | 11650.0000 | 20.05 | 17.17 | 37.22 | 54.00 | -16.78 | AVG | |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-3/TX N20 Mode 5825MHz |

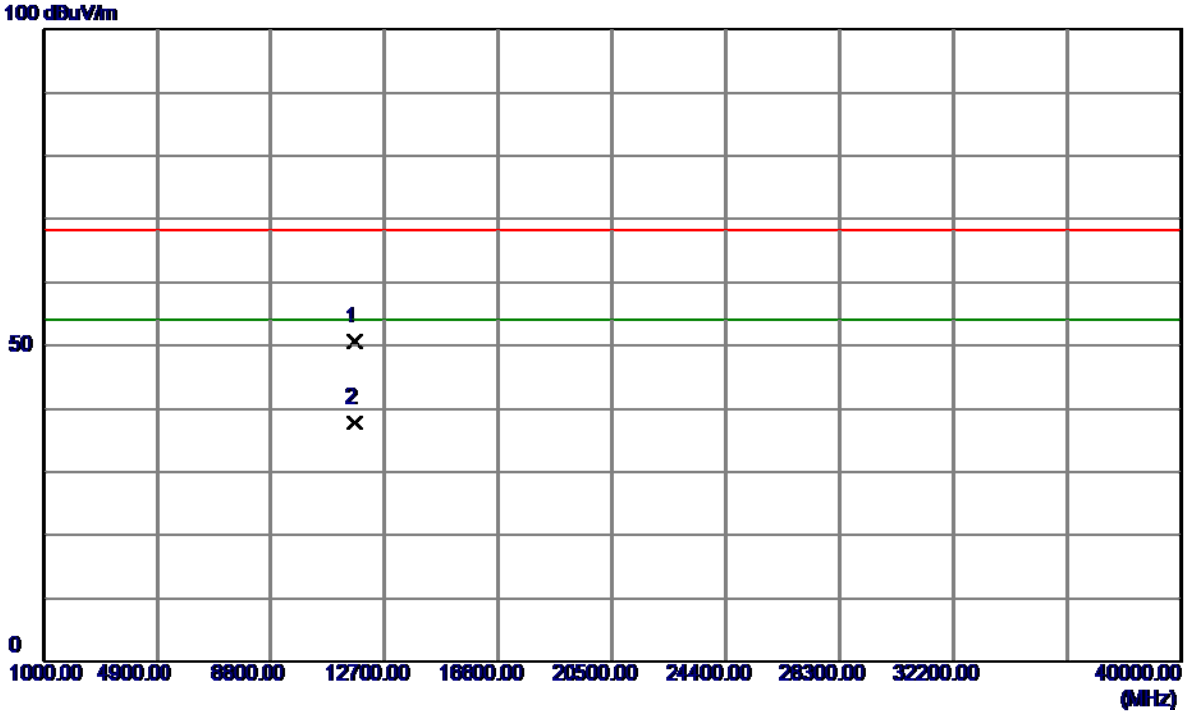
**Horizontal**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5822.6000 | 52.48 | 41.40 | 93.88 | 78.30 | 15.58 | Peak | no limit |
| 2 | 5829.9000 | 43.35 | 41.41 | 84.76 | 68.30 | 16.46 | AVG | no limit |
| 3 | 5850.0000 | 8.45 | 41.44 | 49.89 | 78.30 | -28.41 | Peak | |
| 4 | 5850.0000 | 0.27 | 41.44 | 41.71 | 68.30 | -26.59 | AVG | |
| 5 | 5860.0000 | 8.03 | 41.45 | 49.48 | 78.30 | -28.82 | Peak | |
| 6 | 5860.0000 | 0.03 | 41.45 | 41.48 | 68.30 | -26.82 | AVG | |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-3/TX N20 Mode 5825MHz |

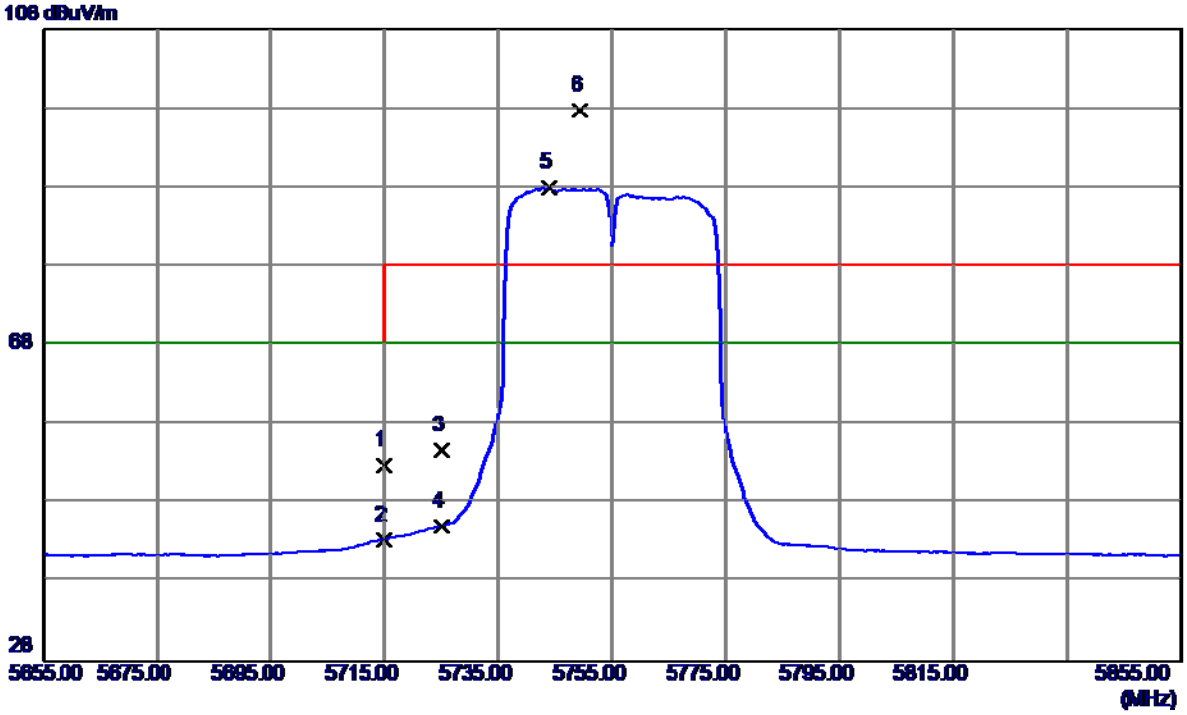
**Horizontal**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 11651.0800 | 33.46 | 17.18 | 50.64 | 68.30 | -17.66 | Peak | |
| 2 | 11651.1800 | 20.71 | 17.18 | 37.89 | 54.00 | -16.11 | AVG | |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-3/TX N40 Mode 5755MHz |

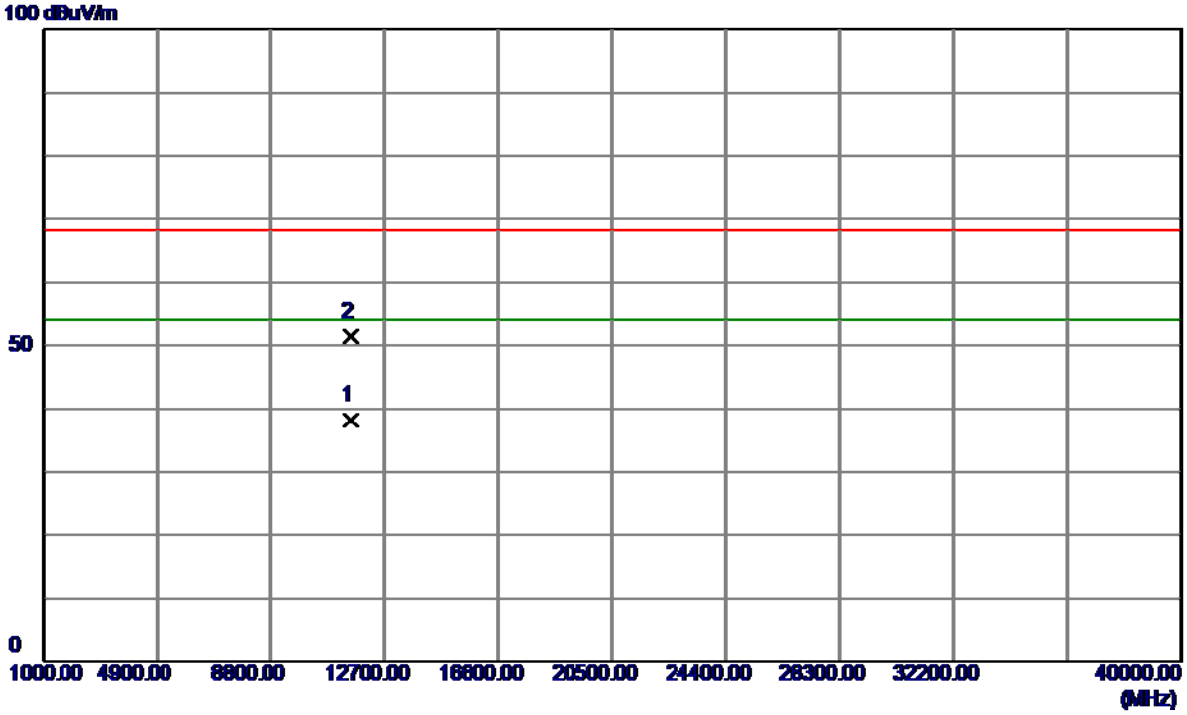
**Vertical**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5715.0000 | 11.62 | 41.25 | 52.87 | 68.30 | -15.43 | Peak | |
| 2 | 5715.0000 | 2.14 | 41.25 | 43.39 | 68.30 | -24.91 | AVG | |
| 3 | 5725.0000 | 13.38 | 41.27 | 54.65 | 78.30 | -23.65 | Peak | |
| 4 | 5725.0000 | 3.80 | 41.27 | 45.07 | 68.30 | -23.23 | AVG | |
| 5 | 5743.8000 | 46.65 | 41.29 | 87.94 | 68.30 | 19.64 | AVG | no limit |
| 6 | 5749.4000 | 56.46 | 41.30 | 97.76 | 78.30 | 19.46 | Peak | no limit |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-3/TX N40 Mode 5755MHz |

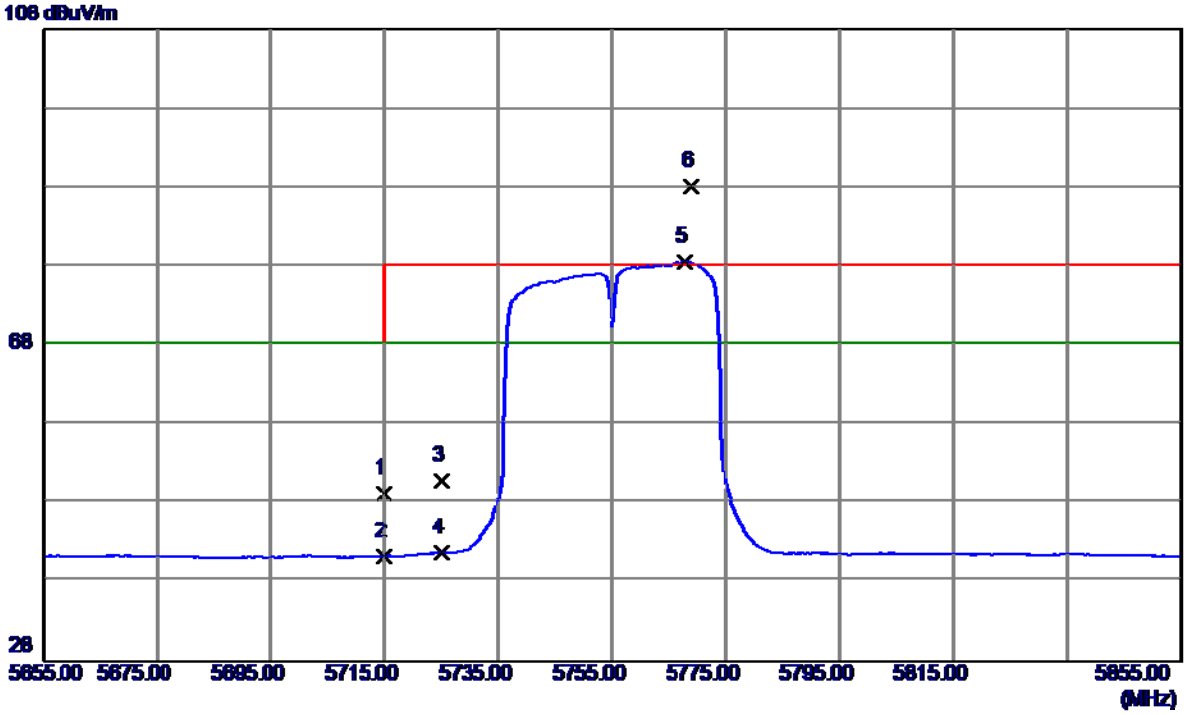
**Vertical**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 11511.5599 | 21.32 | 16.95 | 38.27 | 54.00 | -15.73 | AVG | |
| 2 | 11511.7800 | 34.38 | 16.95 | 51.33 | 68.30 | -16.97 | Peak | |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-3/TX N40 Mode 5755MHz |

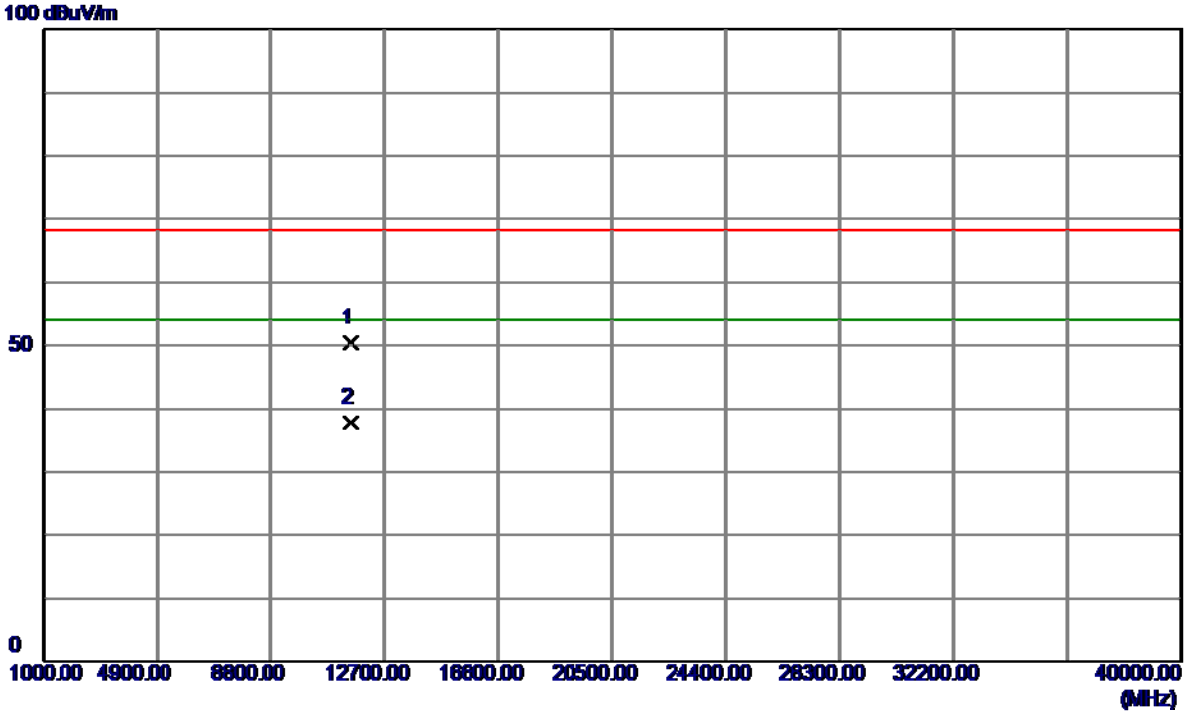
**Horizontal**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5715.0000 | 8.04 | 41.25 | 49.29 | 68.30 | -19.01 | Peak | |
| 2 | 5715.0000 | 0.06 | 41.25 | 41.31 | 68.30 | -26.99 | AVG | |
| 3 | 5725.0000 | 9.56 | 41.27 | 50.83 | 78.30 | -27.47 | Peak | |
| 4 | 5725.0000 | 0.47 | 41.27 | 41.74 | 68.30 | -26.56 | AVG | |
| 5 | 5767.8000 | 37.24 | 41.32 | 78.56 | 68.30 | 10.26 | AVG | no limit |
| 6 | 5769.0000 | 46.91 | 41.33 | 88.24 | 78.30 | 9.94 | Peak | no limit |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-3/TX N40 Mode 5755MHz |

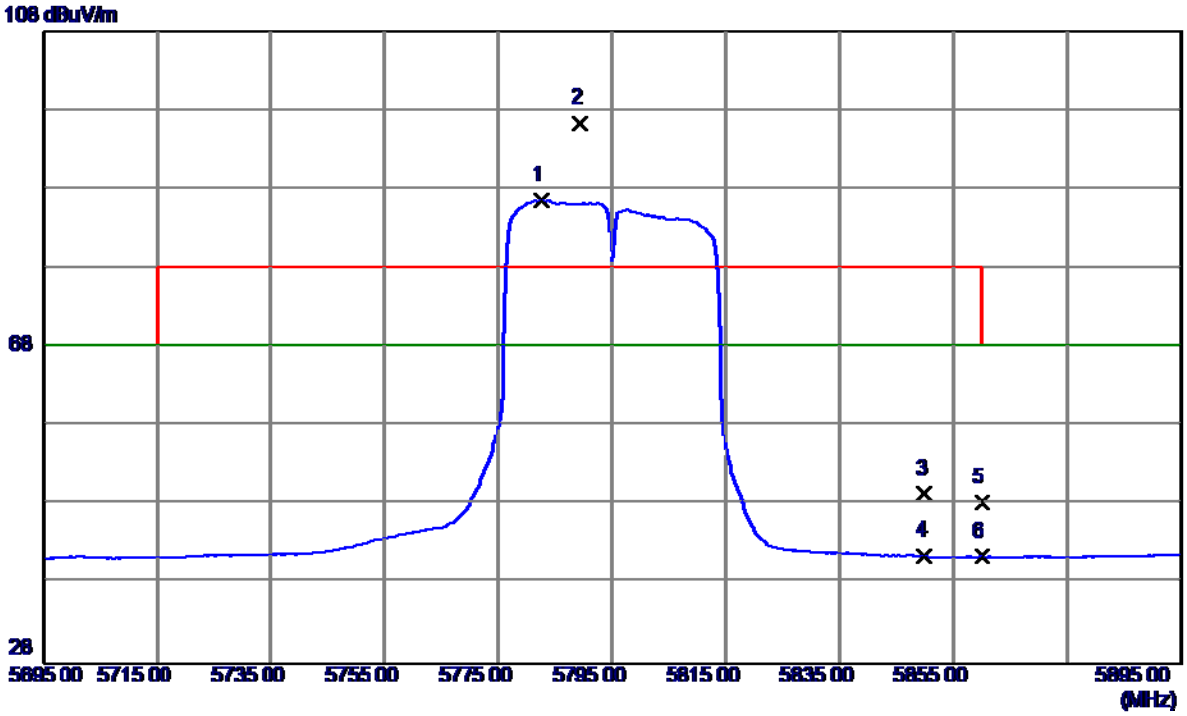
**Horizontal**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 11509.2500 | 33.41 | 16.95 | 50.36 | 68.30 | -17.94 | Peak | |
| 2 | 11510.0300 | 20.86 | 16.95 | 37.81 | 54.00 | -16.19 | AVG | |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-3/TX N40 Mode 5795MHz |

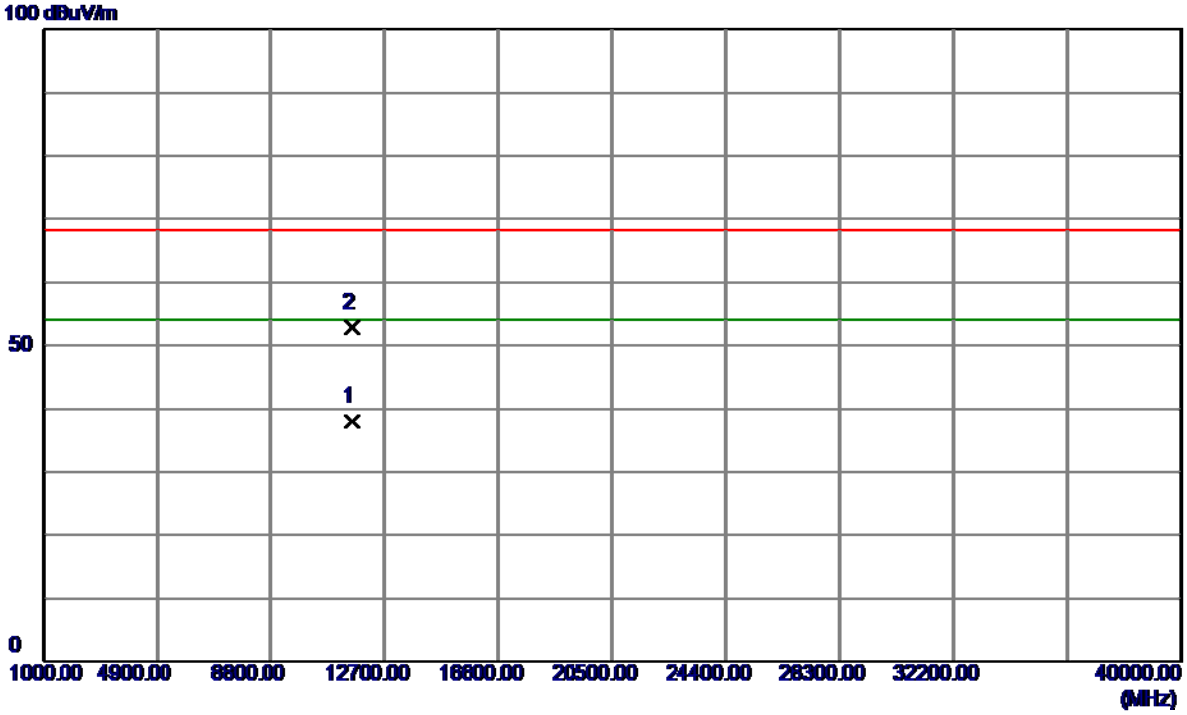
**Vertical**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5782.6000 | 45.25 | 41.34 | 86.59 | 68.30 | 18.29 | AVG | no limit |
| 2 | 5789.4000 | 55.03 | 41.35 | 96.38 | 78.30 | 18.08 | Peak | no limit |
| 3 | 5850.0000 | 7.94 | 41.44 | 49.38 | 78.30 | -28.92 | Peak | |
| 4 | 5850.0000 | 0.12 | 41.44 | 41.56 | 68.30 | -26.74 | AVG | |
| 5 | 5860.0000 | 6.82 | 41.45 | 48.27 | 78.30 | -30.03 | Peak | |
| 6 | 5860.0000 | 0.07 | 41.45 | 41.52 | 68.30 | -26.78 | AVG | |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-3/TX N40 Mode 5795MHz |

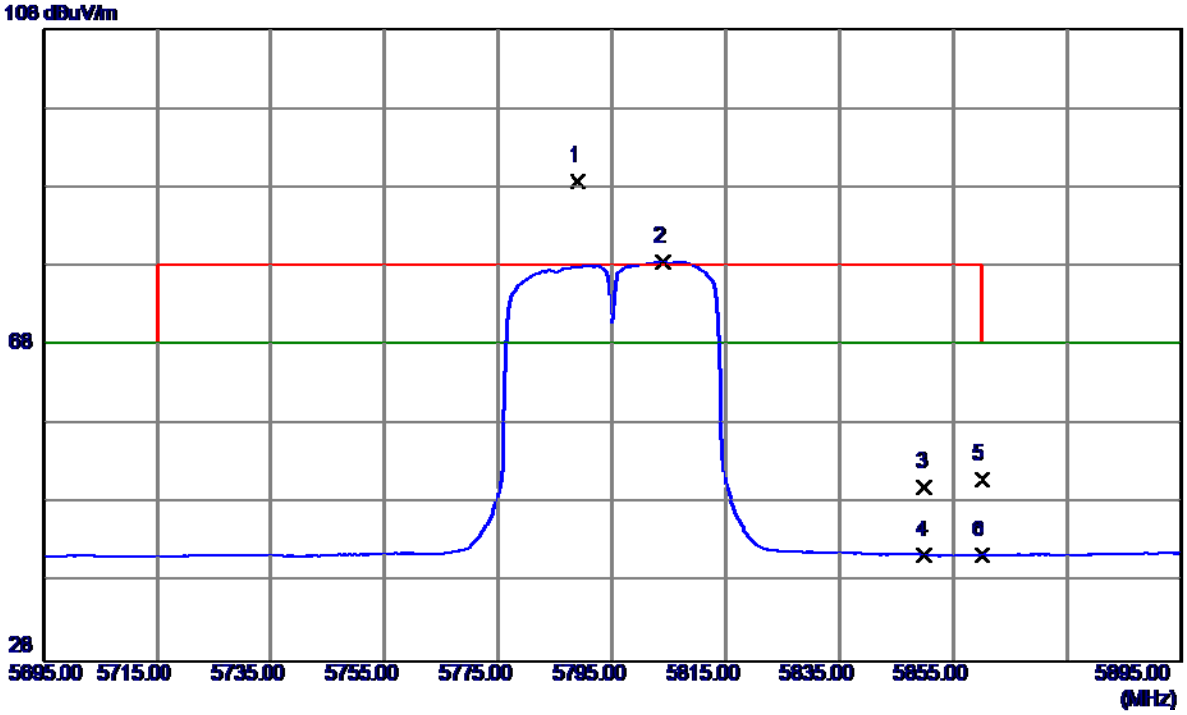
**Vertical**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 11590.3099 | 20.96 | 17.08 | 38.04 | 54.00 | -15.96 | AVG | |
| 2 | 11590.8700 | 35.63 | 17.08 | 52.71 | 68.30 | -15.59 | Peak | |

| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-3/TX N40 Mode 5795MHz |

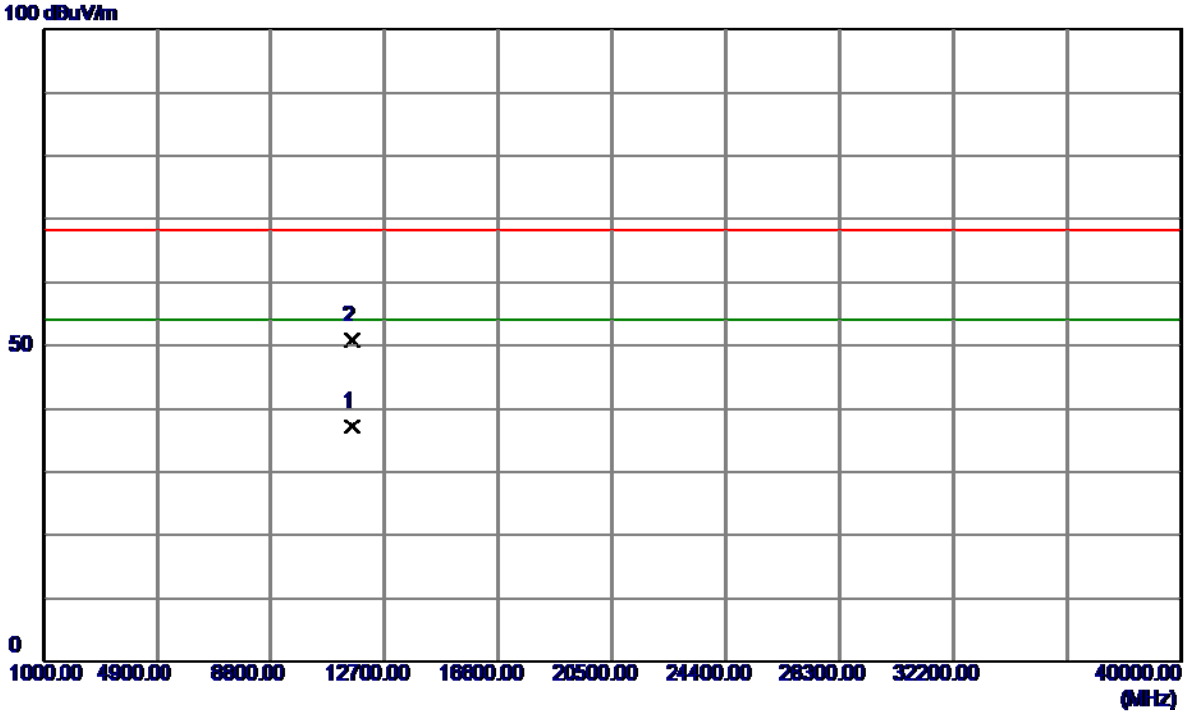
**Horizontal**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 5789.0000 | 47.49 | 41.35 | 88.84 | 78.30 | 10.54 | Peak | no limit |
| 2 | 5803.8000 | 37.26 | 41.37 | 78.63 | 68.30 | 10.33 | AVG | no limit |
| 3 | 5850.0000 | 8.69 | 41.44 | 50.13 | 78.30 | -28.17 | Peak | |
| 4 | 5850.0000 | 0.05 | 41.44 | 41.49 | 68.30 | -26.81 | AVG | |
| 5 | 5860.0000 | 9.65 | 41.45 | 51.10 | 78.30 | -27.20 | Peak | |
| 6 | 5860.0000 | 0.02 | 41.45 | 41.47 | 68.30 | -26.83 | AVG | |

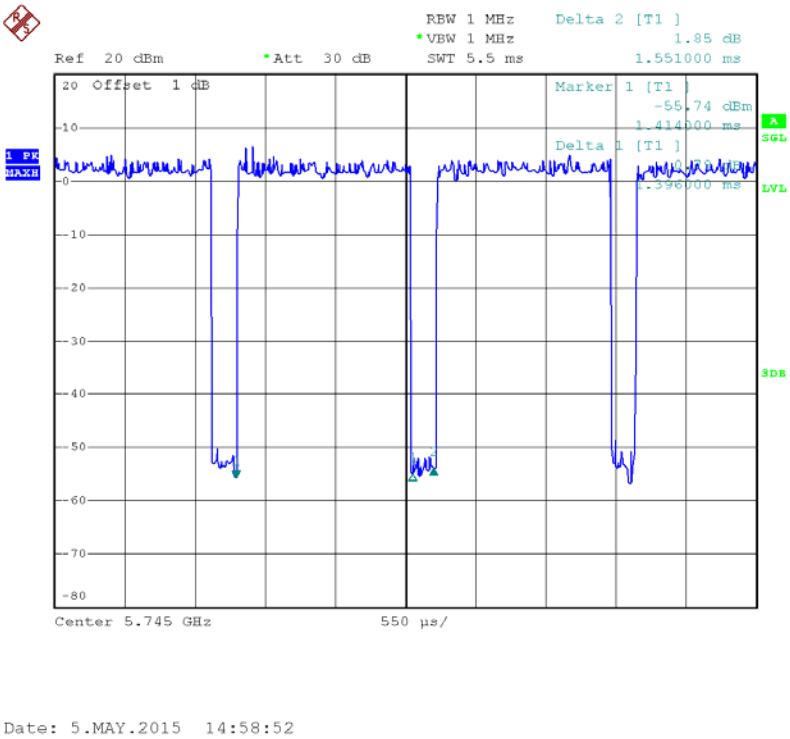
| | |
|---|---|
| Orthogonal Axis: | X |
| Test Mode: | UNII-3/TX N40 Mode 5795MHz |

**Horizontal**




| No. | Freq. | Reading Level | Correct Factor | Measure ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|
| | MHz | dBuV/m | dB | dBuV/m | dBuV/m | dB | Detector | Comment |
| 1 | 11591.3099 | 20.10 | 17.08 | 37.18 | 54.00 | -16.82 | AVG | |
| 2 | 11591.5800 | 33.67 | 17.08 | 50.75 | 68.30 | -17.55 | Peak | |

## TX A Mode_DUTY CYCLE




Duty cycle: TX DUTYMHz

Duty cycle = $T_{ON}$ /$T_{Total}$

$T_{ON}$:1.40msec

$T_{Total}$:1.55msec

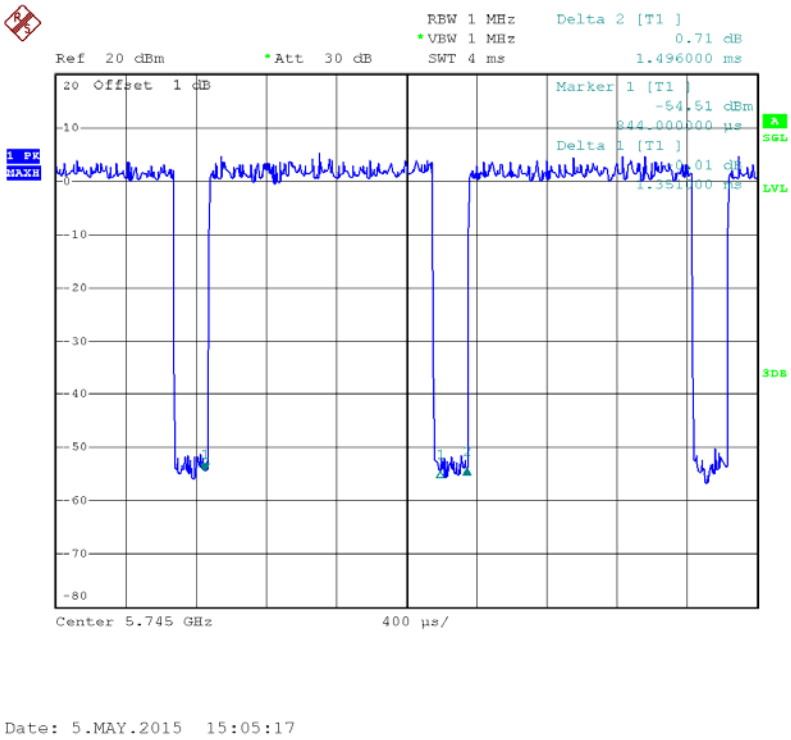
Duty cycle: 90.32%

Duty Factor= 10 log(1/Duty cycle)

Duty Factor =0.44

Note: The EUT was programmed to be in countinously transmitting mode and the transmit duty cycle is not less than 98 %, so, the output power and power density should be cacluated asOutput Power = Measured power + Ducy factor
Power Spectral Density = Measured density + Duty factor

## TX N20 Mode_DUTY CYCLE




Duty cycle: TX DUTYMHz

Duty cycle = $T_{ON}$ /$T_{Total}$

$T_{ON}$:1.35msec

$T_{Total}$:1.50msec

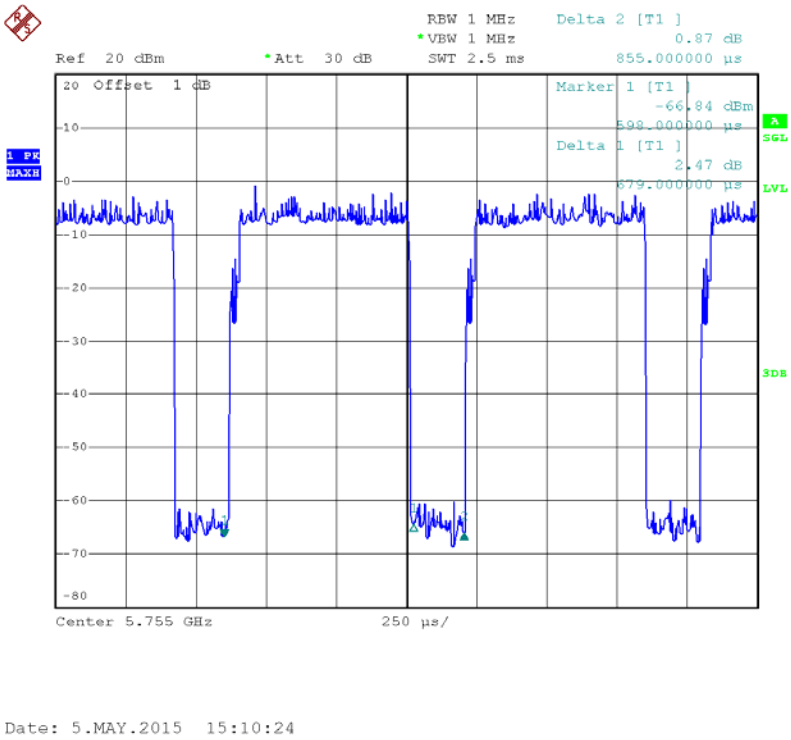
Duty cycle: 90.00%

Duty Factor= 10 log(1/Duty cycle)

Duty Factor =0.46

Note: The EUT was programmed to be in countinously transmitting mode and the transmit duty cycle is not less than 98 %, so, the output power and power density should be cacluated asOutput Power = Measured power + Ducy factor
Power Spectral Density = Measured density + Duty factor

## TX N40 Mode_DUTY CYCLE




Duty cycle: TX DUTYMHz

Duty cycle = $T_{ON}$ /$T_{Total}$

$T_{ON}$:0.68msec

$T_{Total}$:0.86msec

Duty cycle: 79.07%

Duty Factor= 10 log(1/Duty cycle)

Duty Factor =1.02

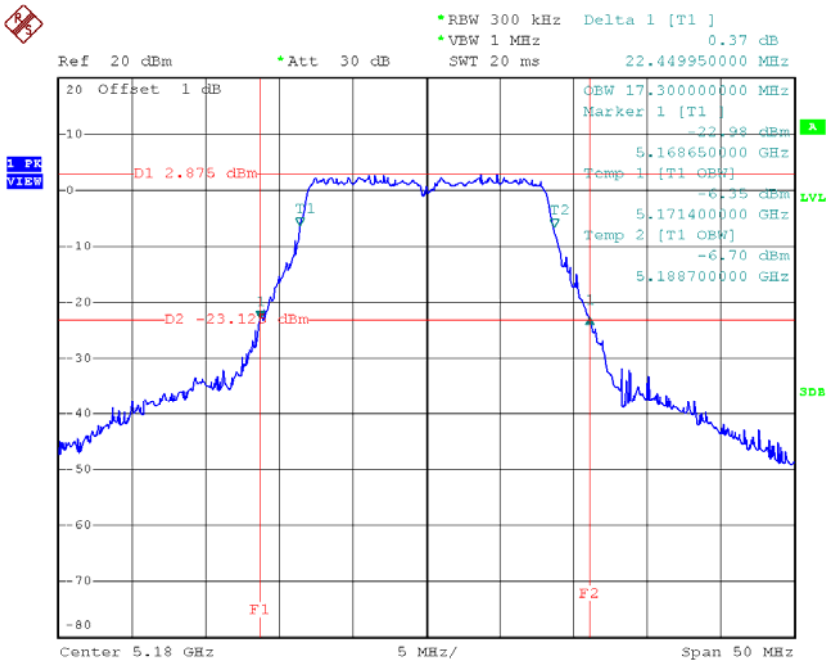
Note: The EUT was programmed to be in countinously transmitting mode and the transmit duty cycle is not less than 98 %, so, the output power and power density should be cacluated asOutput Power = Measured power + Ducy factor
Power Spectral Density = Measured density + Duty factor

# ATTACHMENTE -BANDWIDTH

| Test Mode: UNII-1/TX A Mode_CH36/CH40/CH48 |
|---|

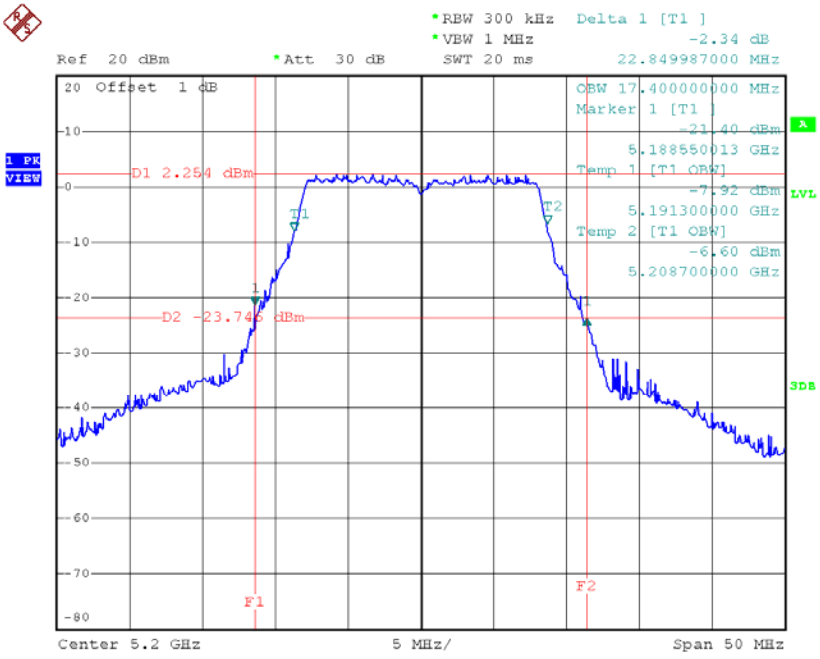
| Channel | Frequency (MHz) | 26dB Bandwidth (MHz) | 99% Occupied Bandwidth (MHz) |
|---|---|---|---|
| CH36 | 5180 | 22.45 | 17.30 |
| CH40 | 5200 | 22.85 | 17.40 |
| CH48 | 5240 | 22.24 | 17.30 |

**TX CH36**



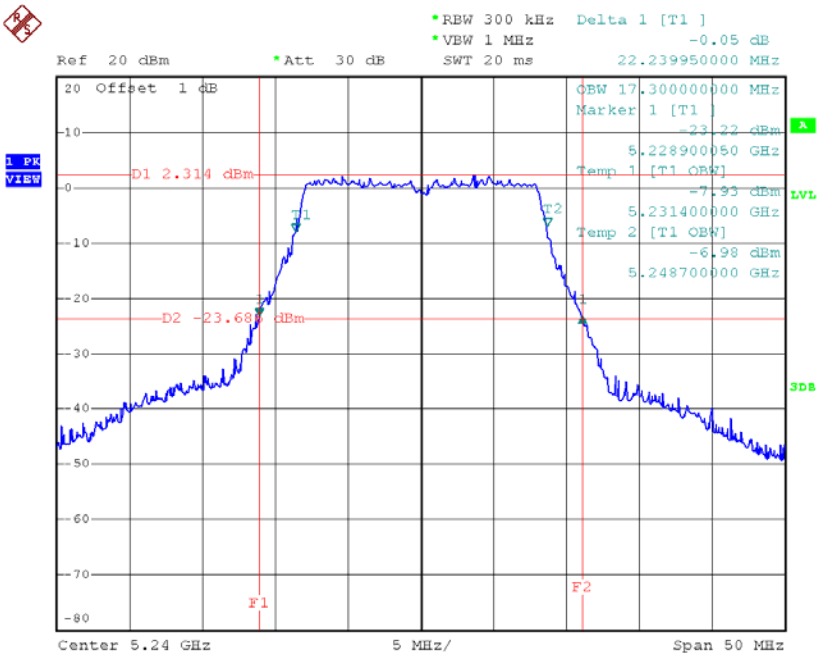

Date: 5.MAY.2015 14:54:36

## TX CH40




Date: 5.MAY.2015 14:55:57

## TX CH48

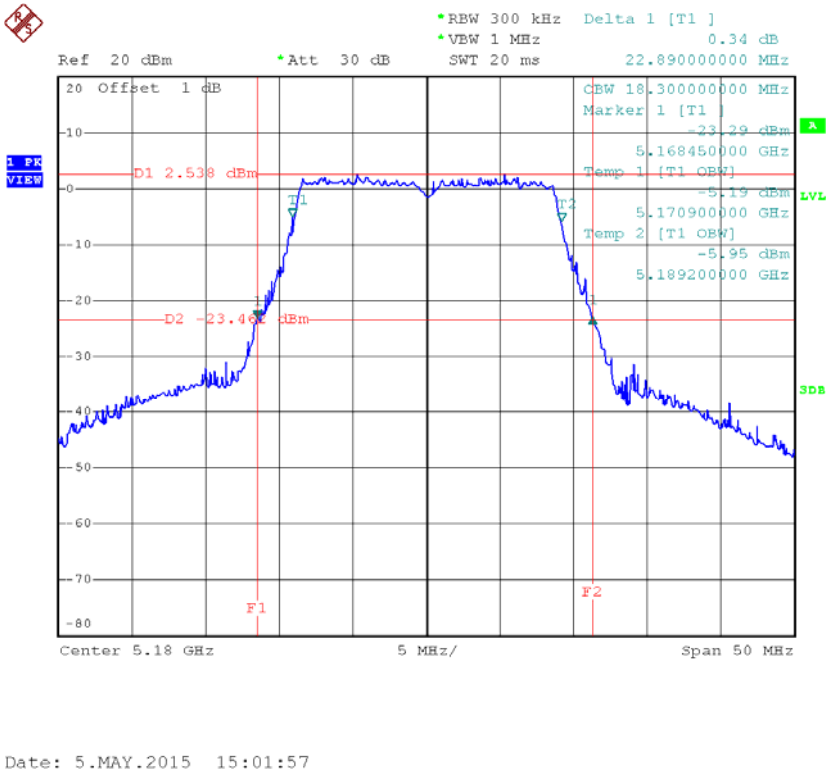



Date: 5.MAY.2015 14:57:07

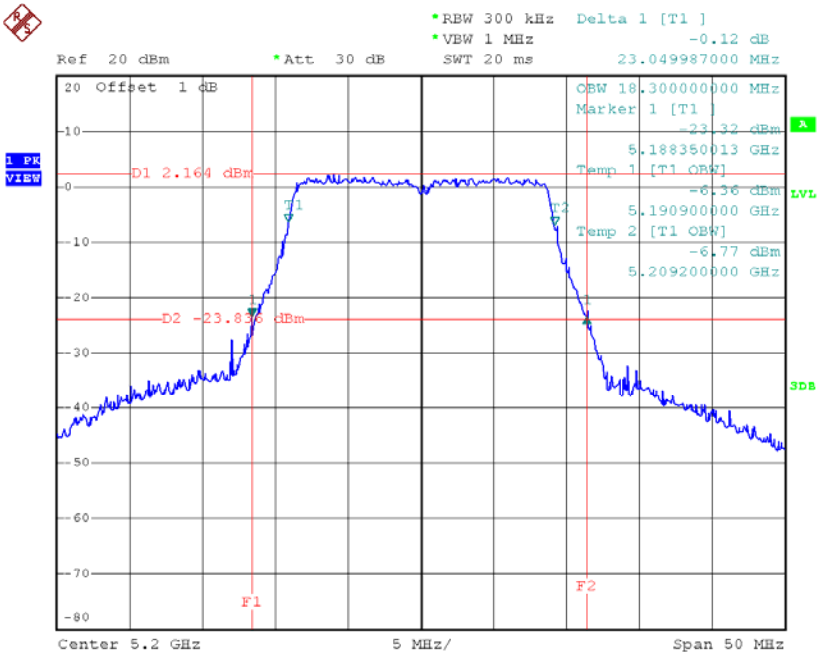
| Test Mode: UNII-1/TXN20 Mode_CH36/CH40/CH48 |
|---|

| Channel | Frequency (MHz) | 26dB Bandwidth (MHz) | 99% Occupied Bandwidth (MHz) |
|---|---|---|---|
| CH36 | 5180 | 22.89 | 18.30 |
| CH40 | 5200 | 23.05 | 18.30 |
| CH48 | 5240 | 22.85 | 18.30 |

**TX CH36**

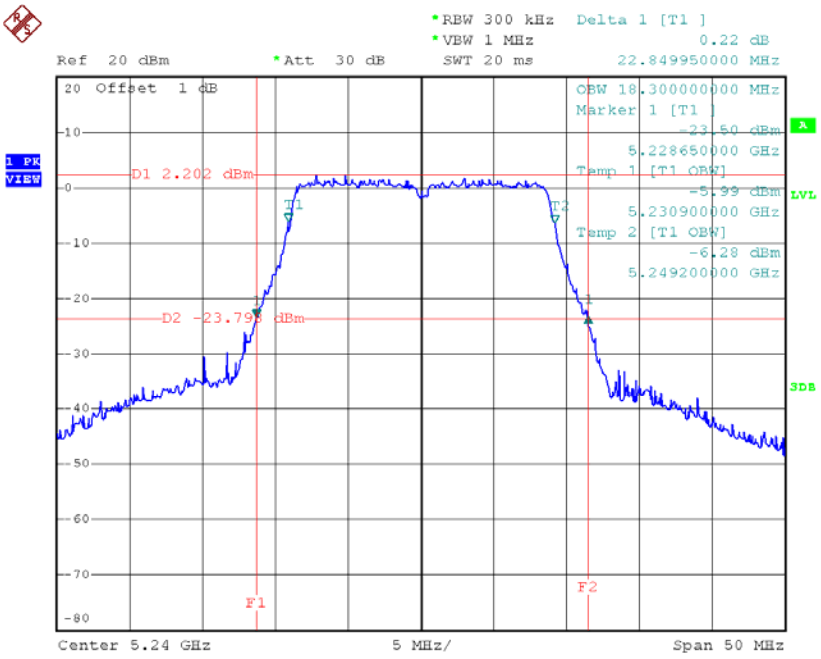


## TX CH40




Date: 5.MAY.2015 15:03:29

## TX CH48

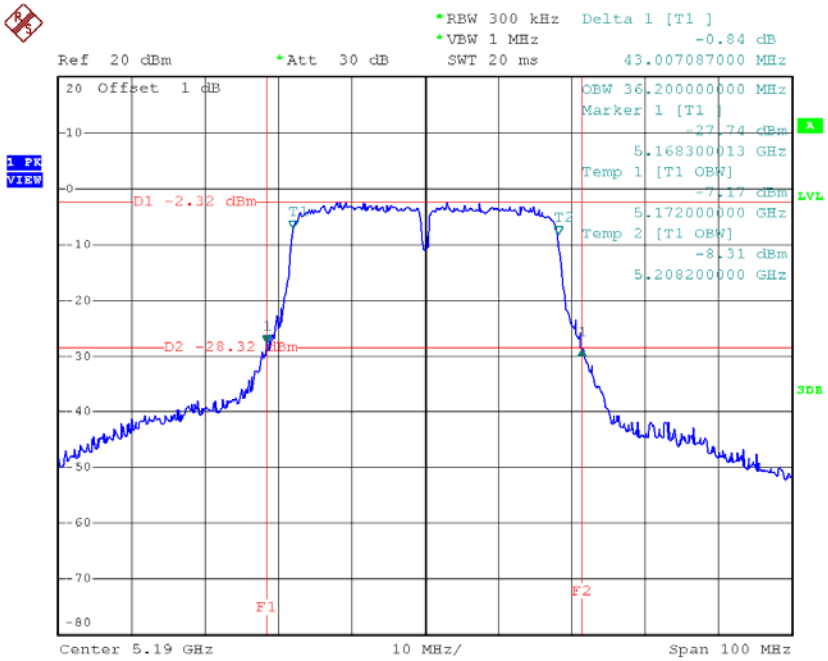



Date: 5.MAY.2015 15:03:59

| Test Mode: UNII-1/TX N40 Mode_CH38/CH46 |
|---|

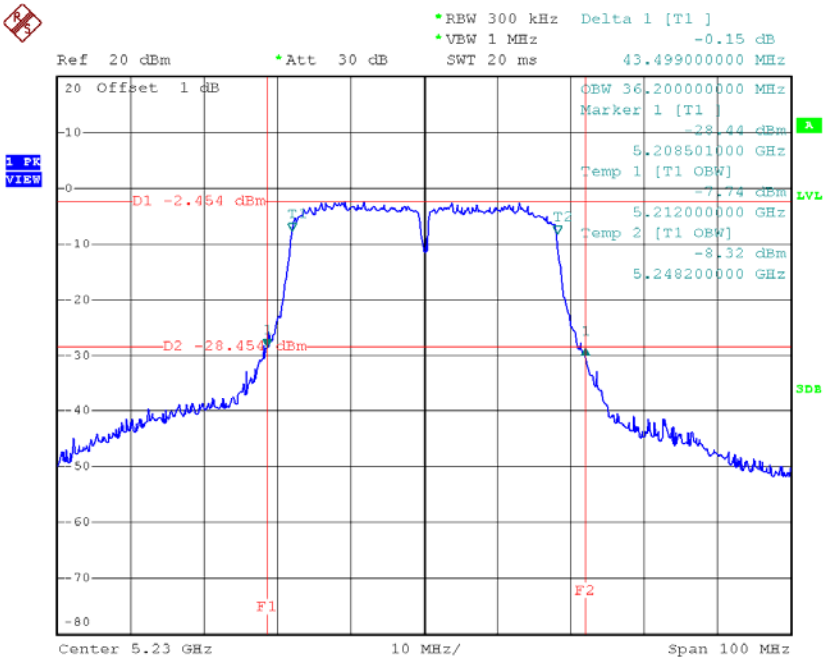
| Channel | Frequency (MHz) | 26dB Bandwidth (MHz) | 99% Occupied Bandwidth (MHz) |
|---|---|---|---|
| CH38 | 5190 | 43.01 | 36.20 |
| CH46 | 5230 | 43.50 | 36.20 |

## TX CH38




Date: 5.MAY.2015 15:08:23

## TX CH46

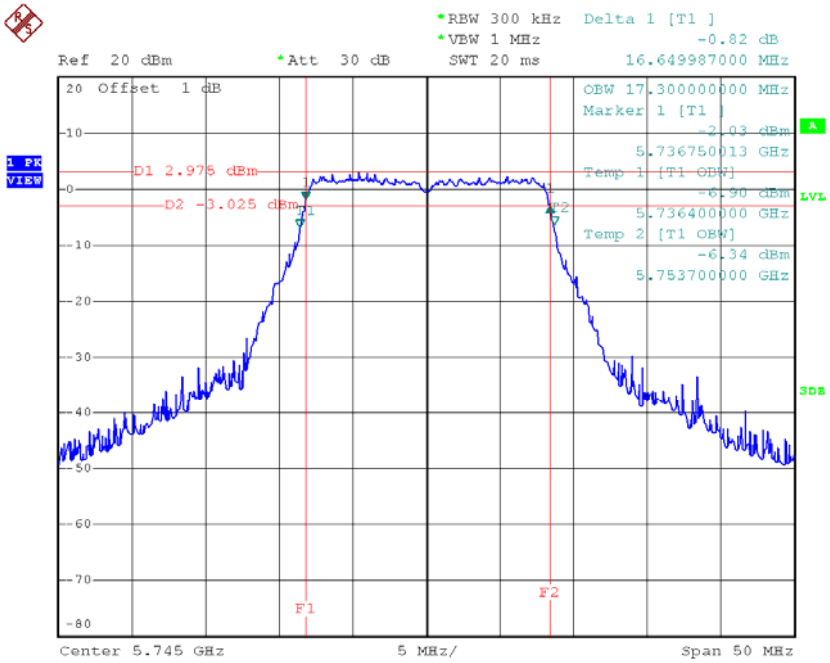



Date: 5.MAY.2015 15:09:13

| Test Mode: UNII-3/ TX A Mode_CH149/CH157/CH165 |
|---|

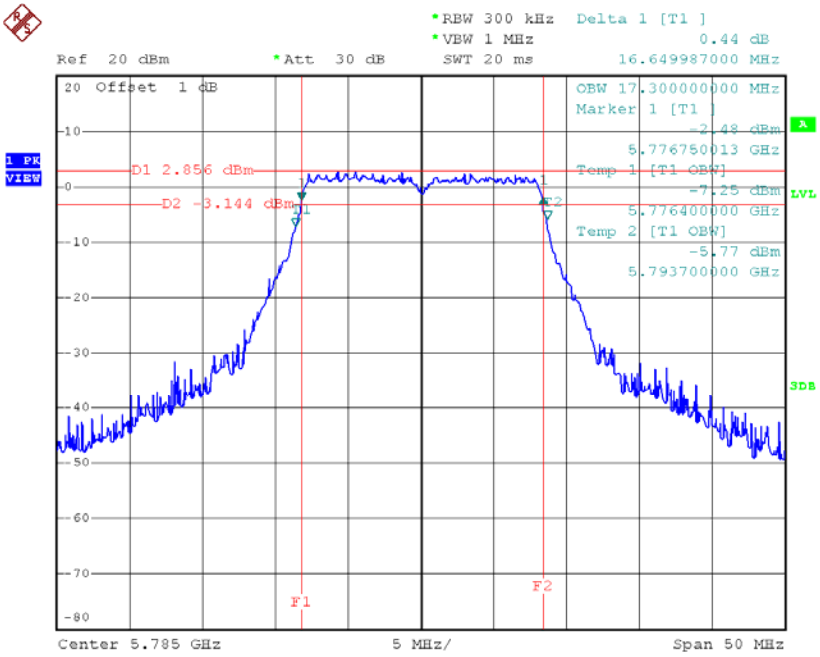
| Channel | Frequency (MHz) | 6dB Bandwidth (MHz) | 99% Occupied Bandwidth (MHz) | Limit (kHz) |
|---|---|---|---|---|
| CH149 | 5745 | 16.65 | 17.30 | >=500 |
| CH157 | 5785 | 16.65 | 17.30 | >=500 |
| CH165 | 5825 | 16.75 | 17.40 | >=500 |

**TX CH 149**



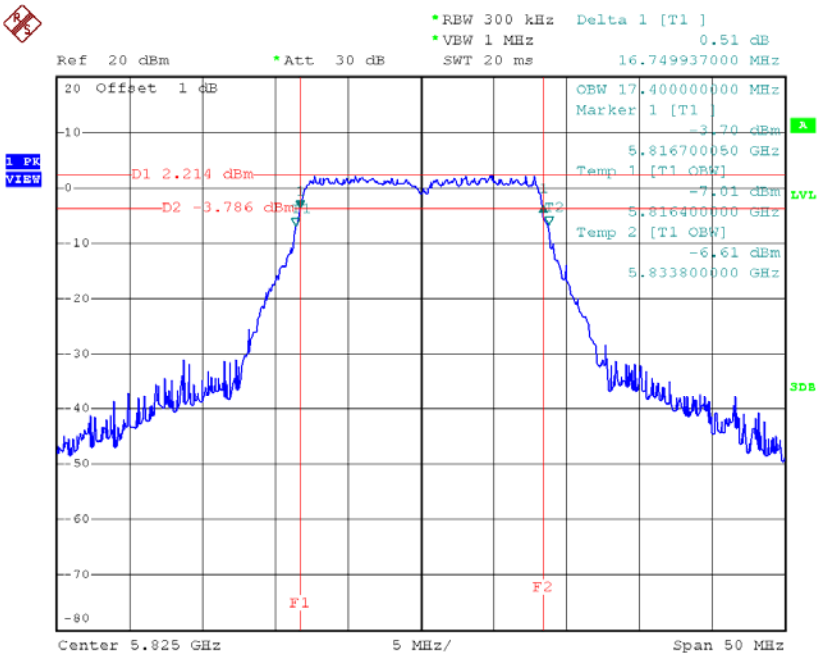

Date: 5.MAY.2015 14:58:12

## TX CH 157




Date: 5.MAY.2015 14:59:42

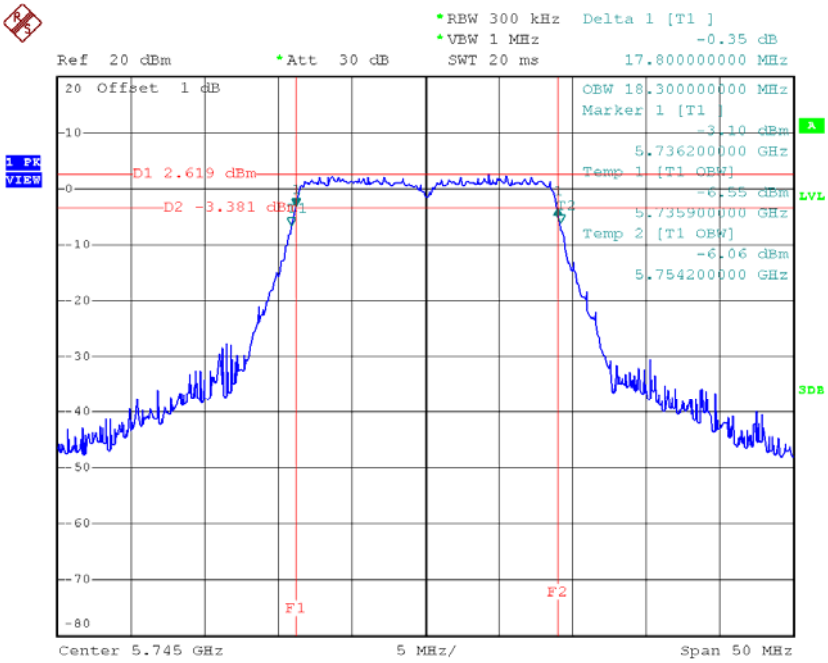
## TX CH 165




Date: 5.MAY.2015 15:00:36

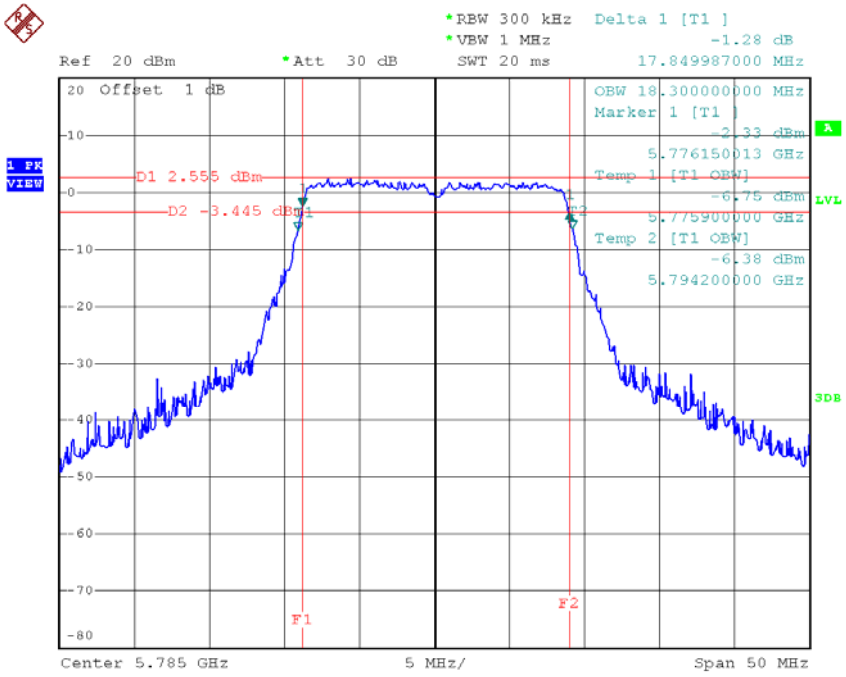
| Test Mode: UNII-3/ TX N20 Mode_CH149/CH157/CH165 | | | | |
|---|---|---|---|---|
| Channel | Frequency (MHz) | 6dB Bandwidth (MHz) | 99% Occupied Bandwidth (MHz) | Limit (kHz) |
| CH149 | 5745 | 17.80 | 18.30 | >=500 |
| CH157 | 5785 | 17.85 | 18.30 | >=500 |
| CH165 | 5825 | 17.75 | 18.30 | >=500 |

**TX CH 149**



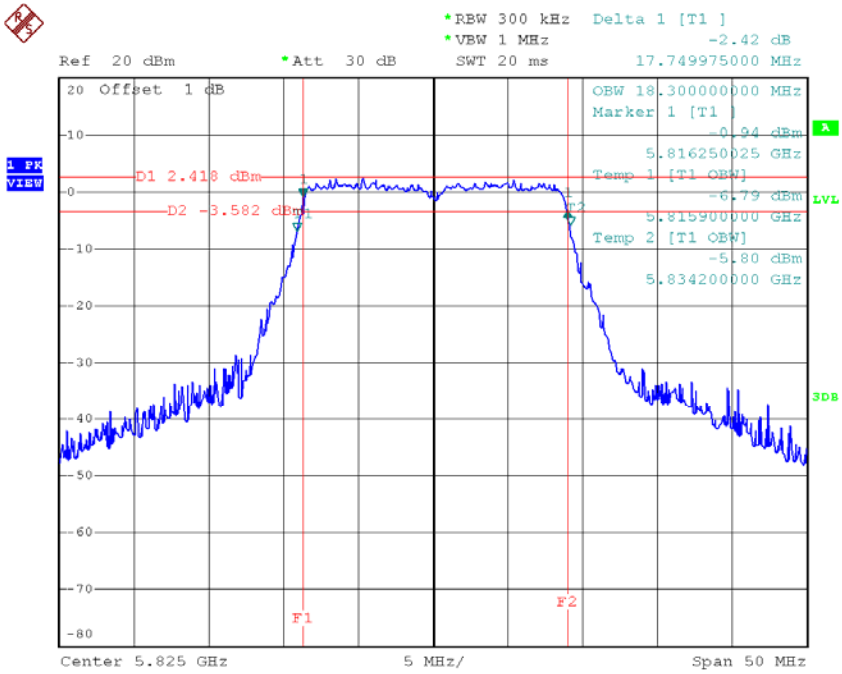

Date: 5.MAY.2015 15:04:42

## TX CH 157




Date: 5.MAY.2015 15:05:48

## TX CH 165

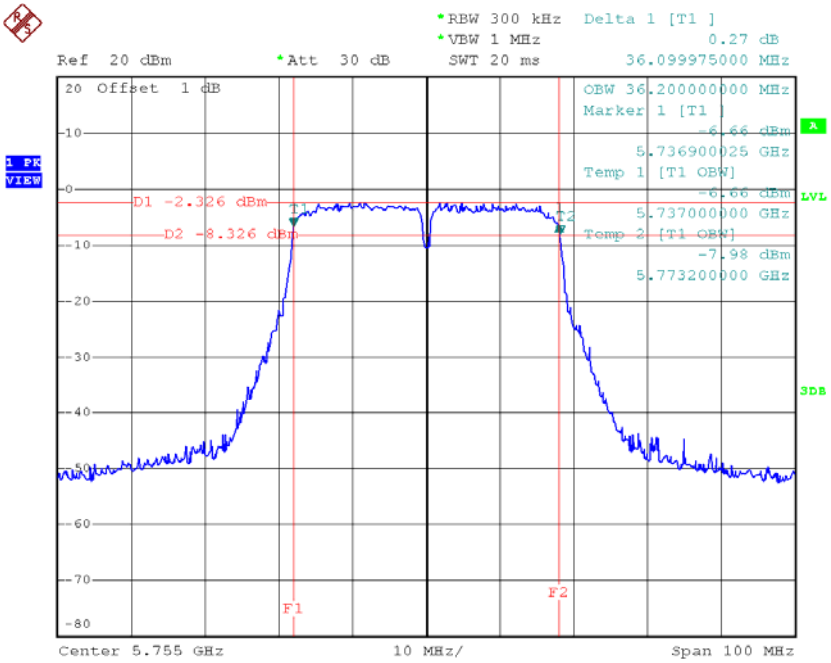



Date: 5.MAY.2015 15:06:23

| Test Mode: UNII-3/ TX N40 Mode_CH151/CH159 |
|---|

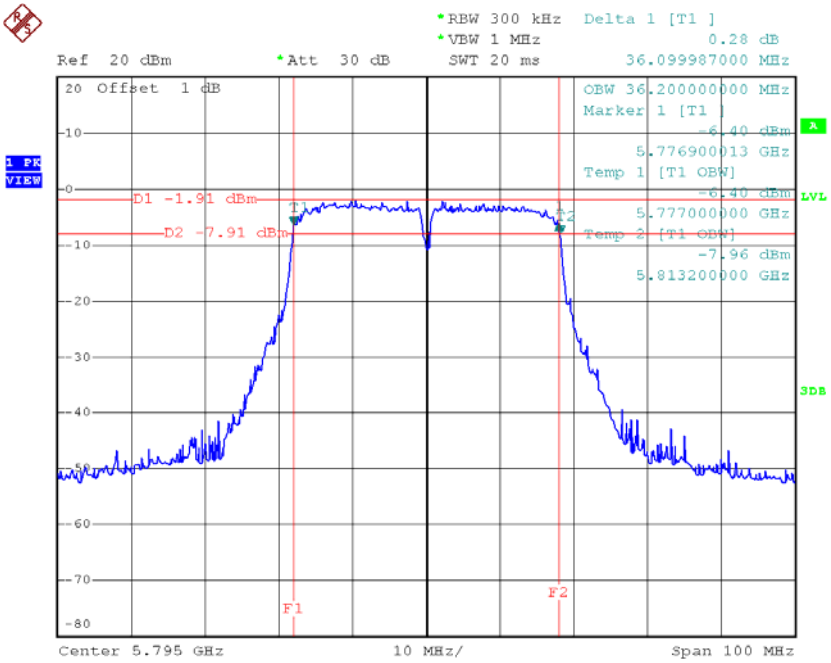
| Channel | Frequency (MHz) | 6dB Bandwidth (MHz) | 99% Occupied Bandwidth (MHz) | Limit (kHz) |
|---|---|---|---|---|
| CH151 | 5755 | 36.10 | 36.20 | >=500 |
| CH159 | 5795 | 36.10 | 36.20 | >=500 |

## TX CH 151




Date: 5.MAY.2015 15:09:56

## TX CH 159




Date: 5.MAY.2015 15:10:49

# ATTACHMENTF - MAXIMUM OUTPUT POWER

| Test Mode: UNII-1/TX A Mode | | | | | | |
|---|---|---|---|---|---|---|
| Channel | Frequency (MHz) | Output Power (dBm) | Duty Factor (dBm) | Output Power+Duty Factor (dBm) | Limit (dBm) | Limit (Watt) |
| CH36 | 5180 | 11.72 | 0.44 | 12.16 | 24.00 | 0.25 |
| CH40 | 5200 | 11.35 | 0.44 | 11.79 | 24.00 | 0.25 |
| CH48 | 5240 | 11.12 | 0.44 | 11.56 | 24.00 | 0.25 |

| Test Mode: UNII-1/TX N20 Mode | | | | | | |
|---|---|---|---|---|---|---|
| Channel | Frequency (MHz) | Output Power (dBm) | Duty Factor (dBm) | Output Power+Duty Factor (dBm) | Limit (dBm) | Limit (Watt) |
| CH36 | 5180 | 11.71 | 0.46 | 12.17 | 24.00 | 0.25 |
| CH40 | 5200 | 11.47 | 0.46 | 11.93 | 24.00 | 0.25 |
| CH48 | 5240 | 11.14 | 0.46 | 11.60 | 24.00 | 0.25 |

| Test Mode: UNII-1/TX N40 Mode | | | | | | |
|---|---|---|---|---|---|---|
| Channel | Frequency (MHz) | Output Power (dBm) | Duty Factor (dBm) | Output Power+Duty Factor (dBm) | Limit (dBm) | Limit (Watt) |
| CH38 | 5190 | 11.18 | 1.02 | 12.20 | 24.00 | 0.25 |
| CH46 | 5230 | 11.17 | 1.02 | 12.19 | 24.00 | 0.25 |

| Test Mode: UNII-3/ TX A Mode | | | | | | |
|---|---|---|---|---|---|---|
| Channel | Frequency (MHz) | Output Power (dBm) | Duty Factor (dBm) | Output Power+Duty Factor (dBm) | Limit (dBm) | Limit (Watt) |
| CH149 | 5745 | 11.25 | 0.44 | 11.69 | 30.00 | 1.00 |
| CH157 | 5785 | 11.52 | 0.44 | 11.96 | 30.00 | 1.00 |
| CH165 | 5825 | 11.22 | 0.44 | 11.66 | 30.00 | 1.00 |

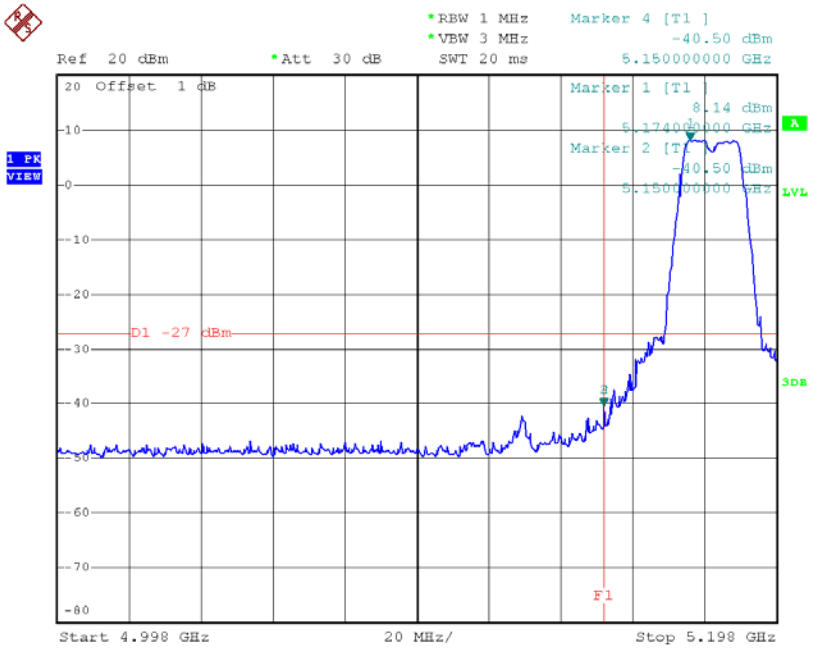
| Test Mode: UNII-3/TX N20 Mode | | | | | | |
|---|---|---|---|---|---|---|
| Channel | Frequency (MHz) | Output Power (dBm) | Duty Factor (dBm) | Output Power+Duty Factor (dBm) | Limit (dBm) | Limit (Watt) |
| CH149 | 5745 | 11.15 | 0.46 | 11.61 | 30.00 | 1.00 |
| CH157 | 5785 | 11.49 | 0.46 | 11.95 | 30.00 | 1.00 |
| CH165 | 5825 | 11.30 | 0.46 | 11.76 | 30.00 | 1.00 |

| Test Mode: UNII-3/ TX N40 Mode | | | | | | |
|---|---|---|---|---|---|---|
| Channel | Frequency (MHz) | Output Power (dBm) | Duty Factor (dBm) | Output Power+Duty Factor (dBm) | Limit (dBm) | Limit (Watt) |
| CH151 | 5755 | 11.08 | 1.02 | 12.10 | 30.00 | 1.00 |
| CH159 | 5795 | 11.23 | 1.02 | 12.25 | 30.00 | 1.00 |

# ATTACHMENTG - ANTENNA CONDUCTED SPURIOUS EMISSION

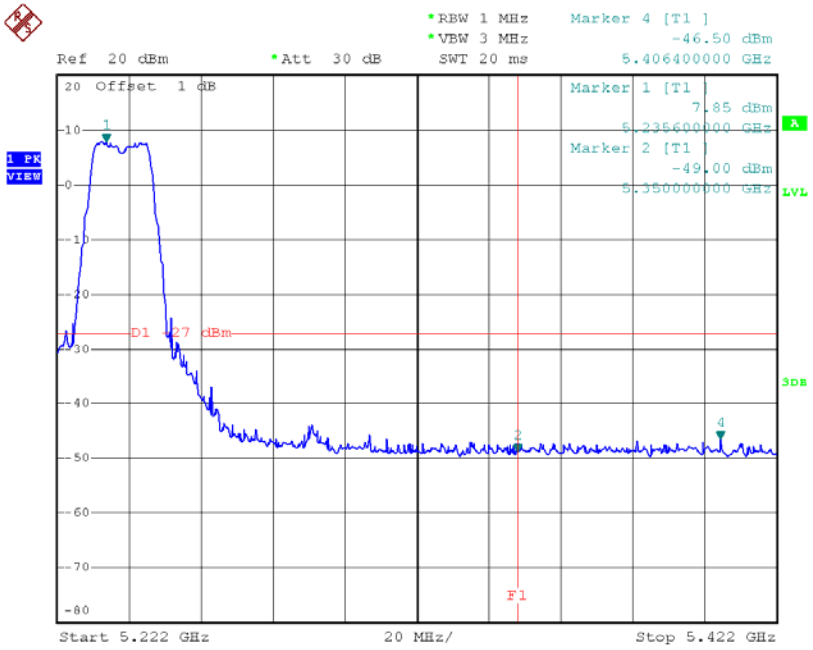
| Test Mode: | UNII-1/TX A Mode |
|---|---|

**TX mode CH36**




Date: 5.MAY.2015 14:54:53

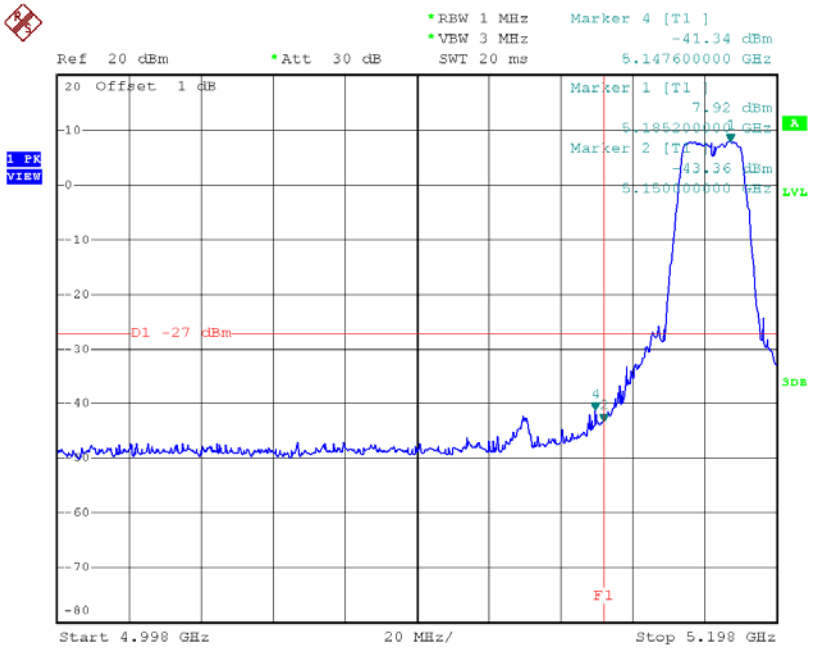
**TX modeCH48**




Date: 5.MAY.2015 14:57:24

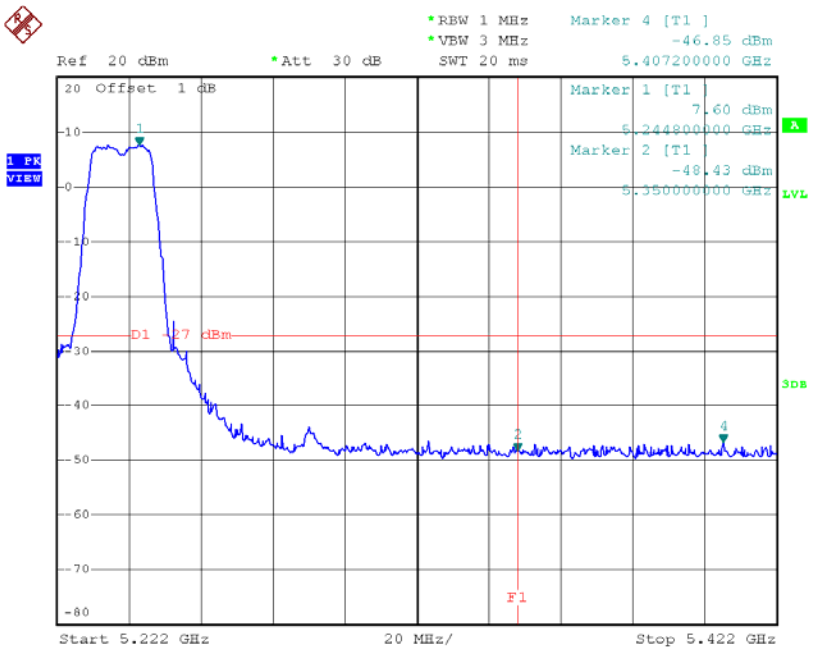
| Test Mode: | UNII-1/TX N20 Mode |
|---|---|

**TX mode CH36**




Date: 5.MAY.2015 15:02:14

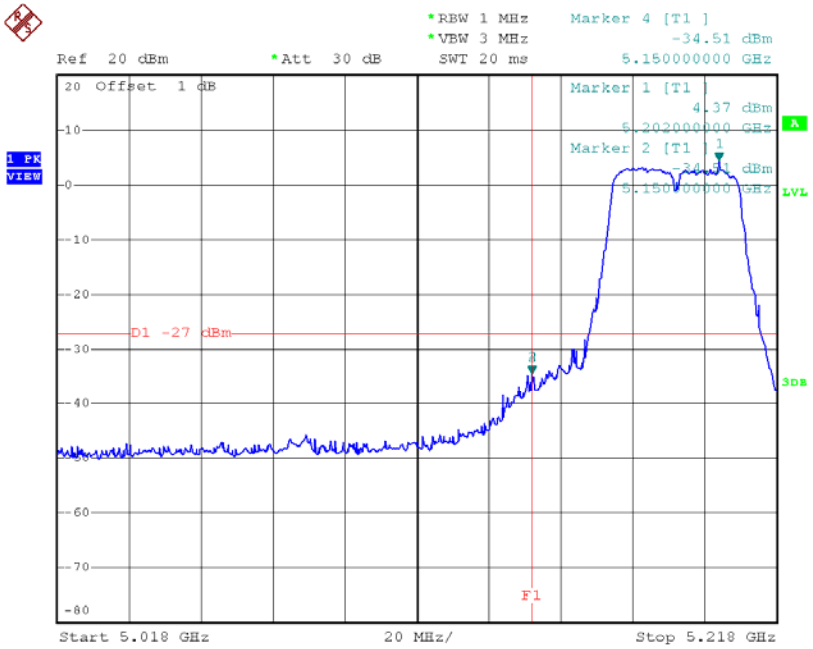
**TX modeCH48**




Date: 5.MAY.2015 15:04:16

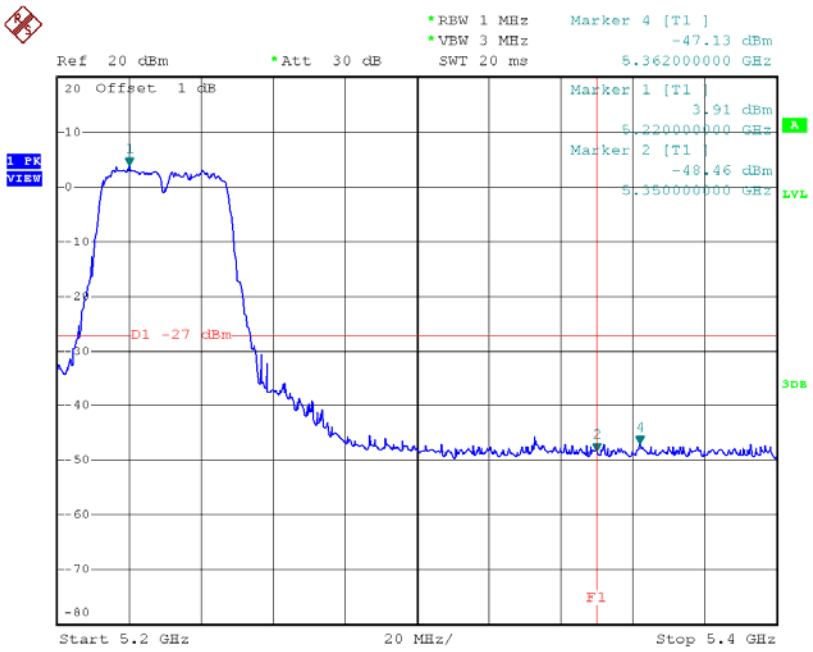
| Test Mode: | UNII-1/TX N40 Mode |
|---|---|

**TX mode CH38**




Date: 5.MAY.2015 15:08:40

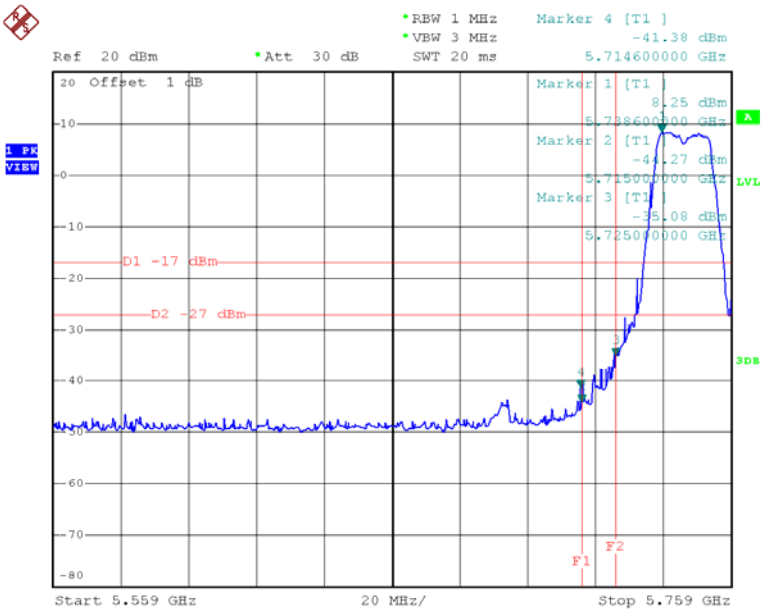
**TX modeCH46**




Date: 5.MAY.2015 15:09:30

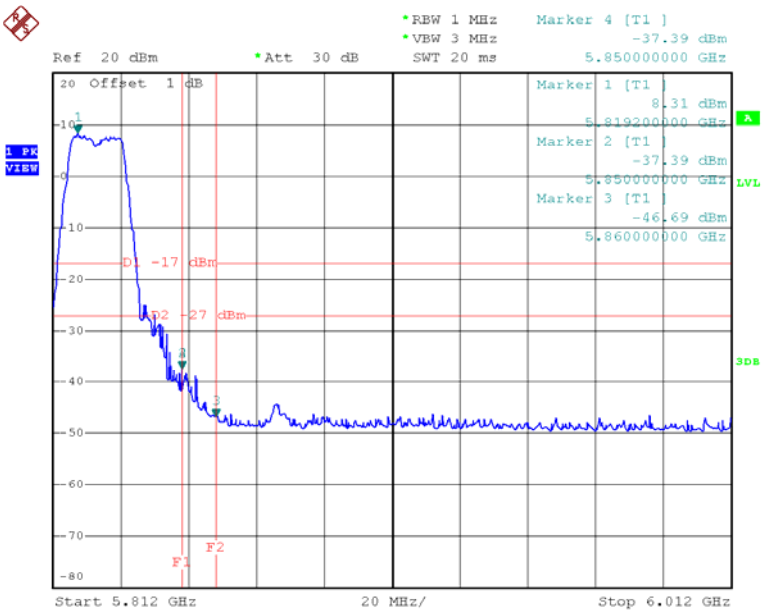
| Test Mode: | UNII-3/TX A Mode |
|---|---|

## TX A Mode CH149




Date: 5.MAY.2015 14:58:29

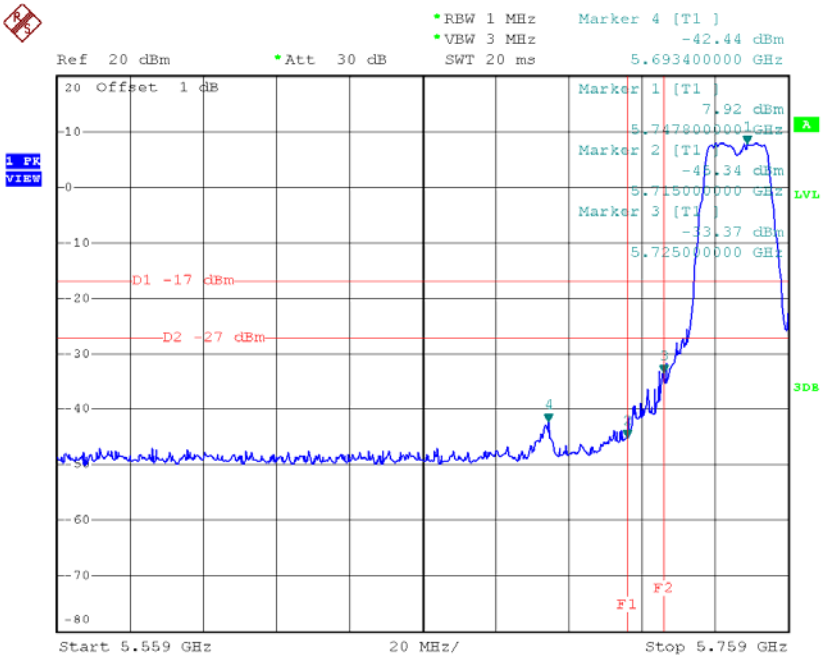
## TX A Mode CH165




Date: 5.MAY.2015 15:00:53

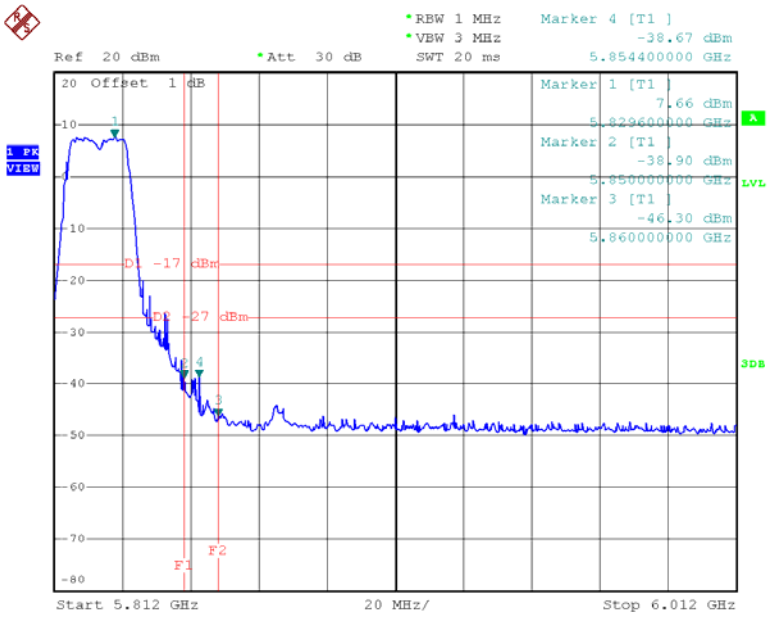
| Test Mode: | UNII-3/TX N20 Mode |
|---|---|

**TX HT20 mode CH149**




Date: 5.MAY.2015 15:04:59

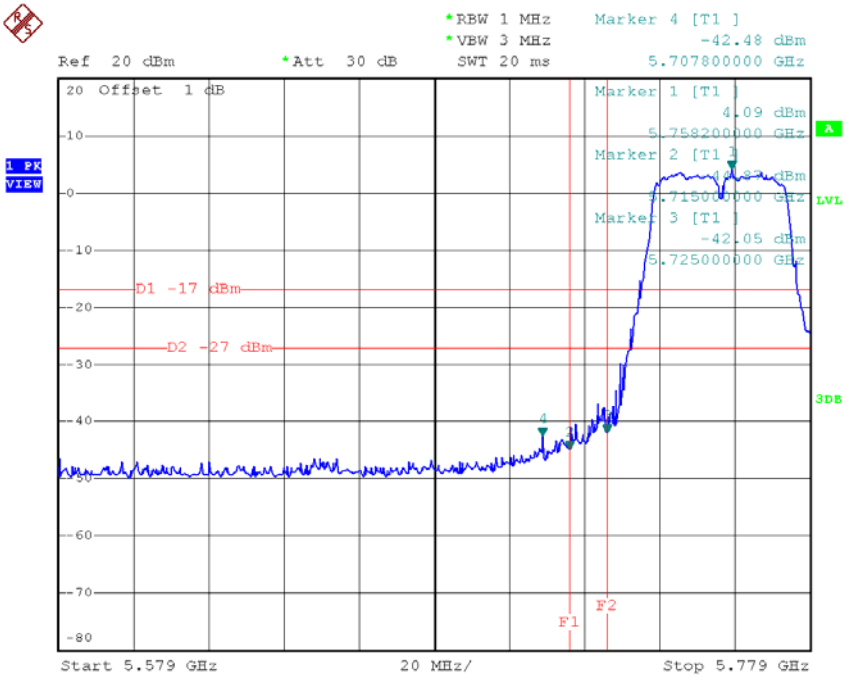
**TX HT20 mode CH165**




Date: 5.MAY.2015 15:06:39

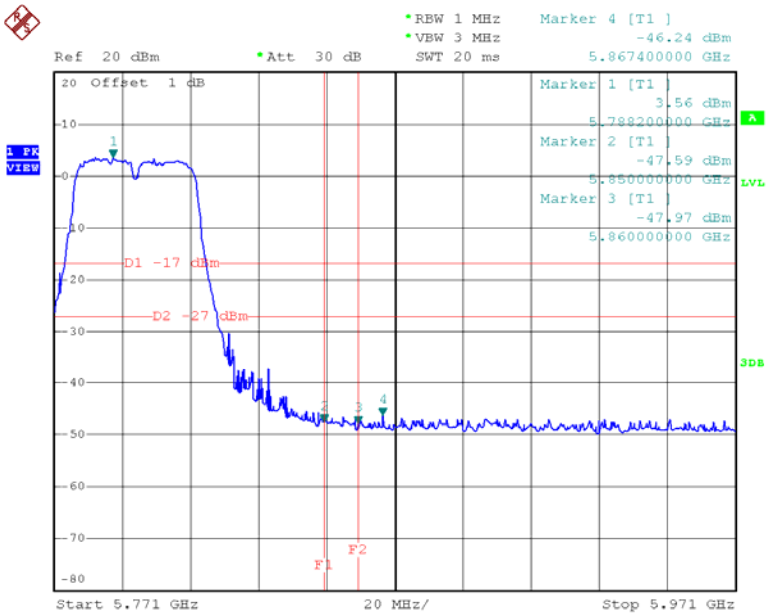
| Test Mode: | UNII-3/TX N40 Mode |
|---|---|

**UNII-3/TX HT40 mode CH151**




Date: 5.MAY.2015 15:10:14

**UNII-3/TX HT40 mode CH159**



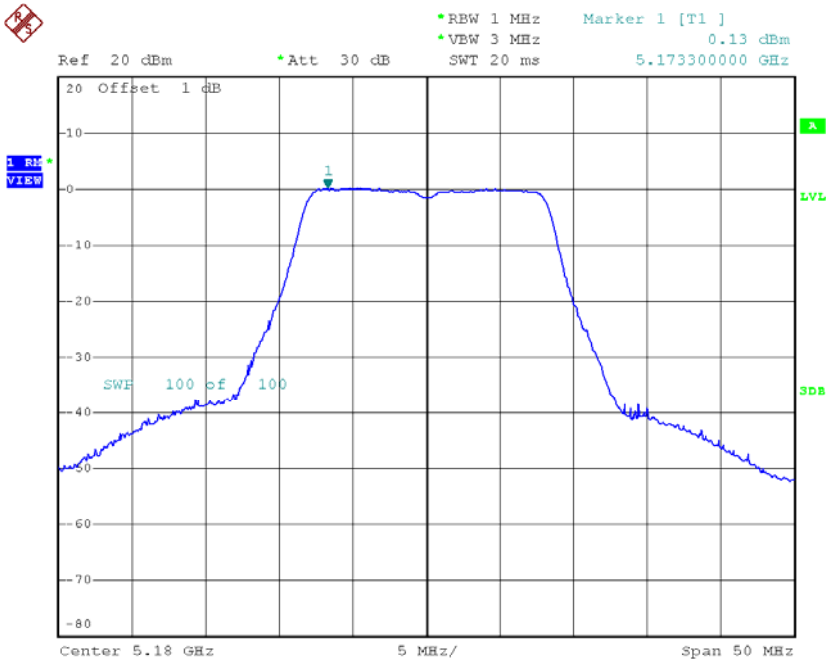

Date: 5.MAY.2015 15:11:06

# ATTACHMENTH - POWER SPECTRAL DENSITY

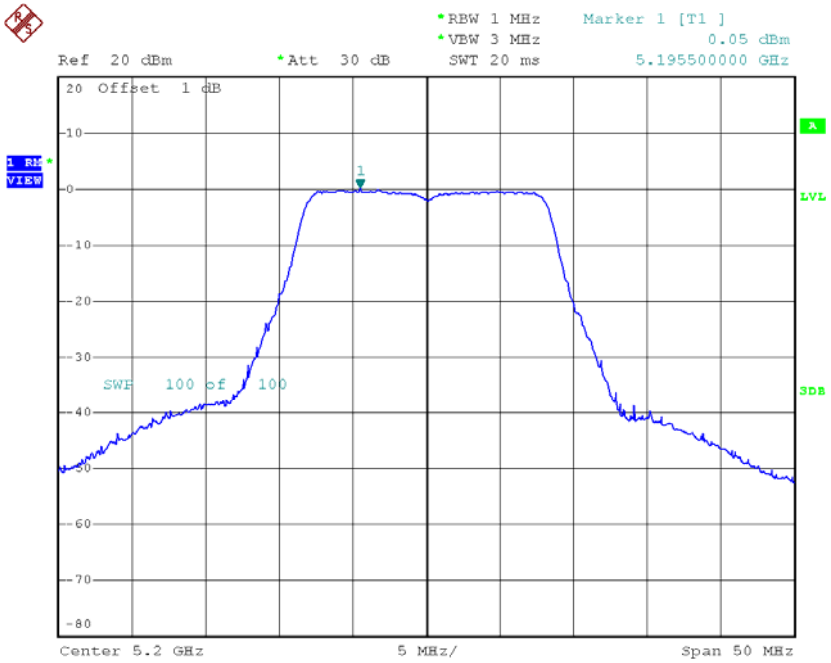
| Test Mode: UNII-1/ TX A Mode_CH36/CH40/CH48 |
|---|

| Channel | Frequency (MHz) | Power Density (dBm/MHz) | Duty Factor (dBm/MHz) | Power Density+Duty Factor (dBm/MHz) | Limit (dBm/MHz) |
|---|---|---|---|---|---|
| CH36 | 5180 | 0.13 | 0.44 | 0.57 | 11.00 |
| CH40 | 5200 | 0.05 | 0.44 | 0.49 | 11.00 |
| CH48 | 5240 | -0.44 | 0.44 | 0.00 | 11.00 |

**CH36**

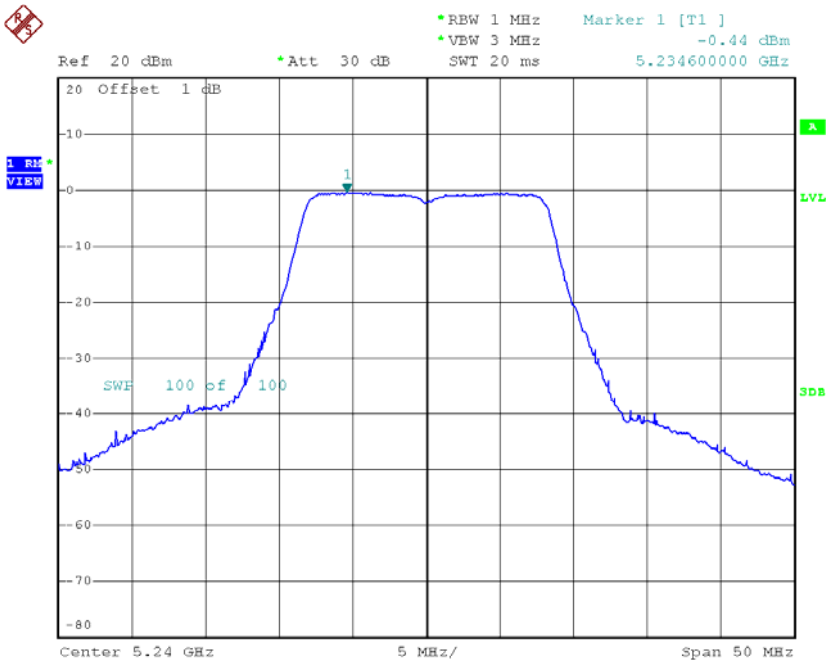


## CH40




Date: 5.MAY.2015 14:56:06

## CH48

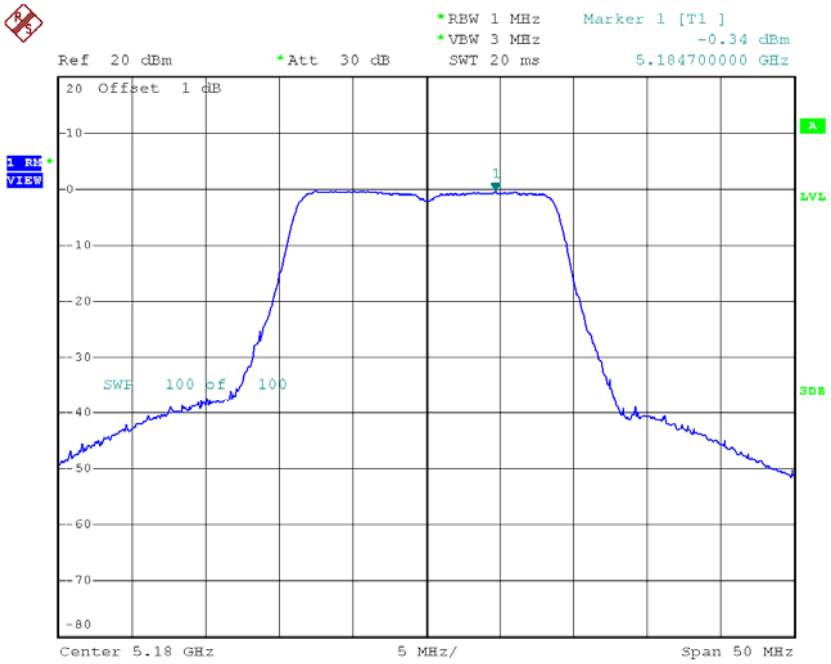



Date: 5.MAY.2015 14:57:16

| Test Mode: UNII-1/TX N20 Mode_CH36/CH40/CH48 |
|---|

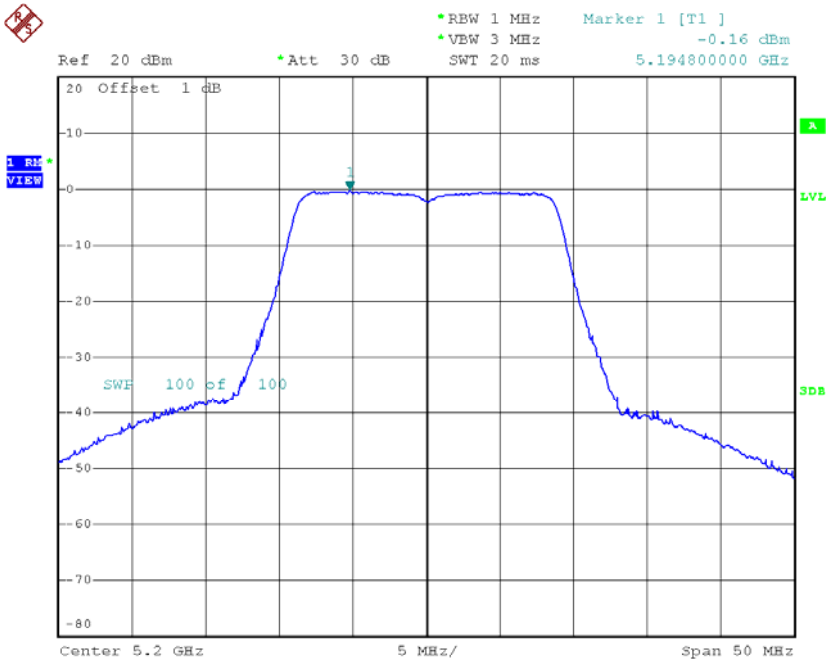
| Channel | Frequency (MHz) | Power Density (dBm/MHz) | Duty Factor (dBm/MHz) | Power Density+Duty Factor (dBm/MHz) | Limit (dBm/MHz) |
|---|---|---|---|---|---|
| CH36 | 5180 | -0.34 | 0.46 | 0.12 | 11.00 |
| CH40 | 5200 | -0.16 | 0.46 | 0.30 | 11.00 |
| CH48 | 5240 | -0.58 | 0.46 | -0.12 | 11.00 |

**CH36**



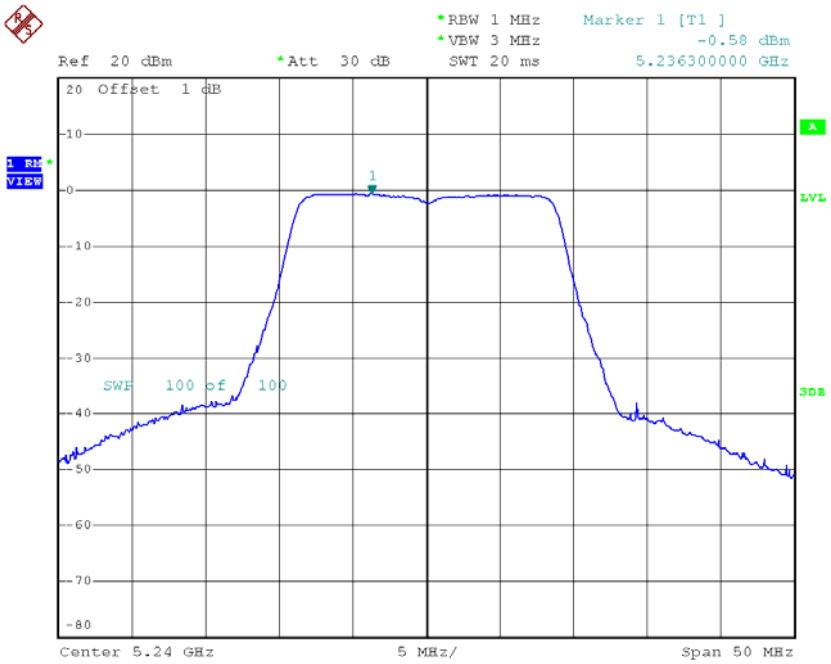

Date: 5.MAY.2015 15:02:07

## CH40




Date: 5.MAY.2015 15:03:38

## CH48

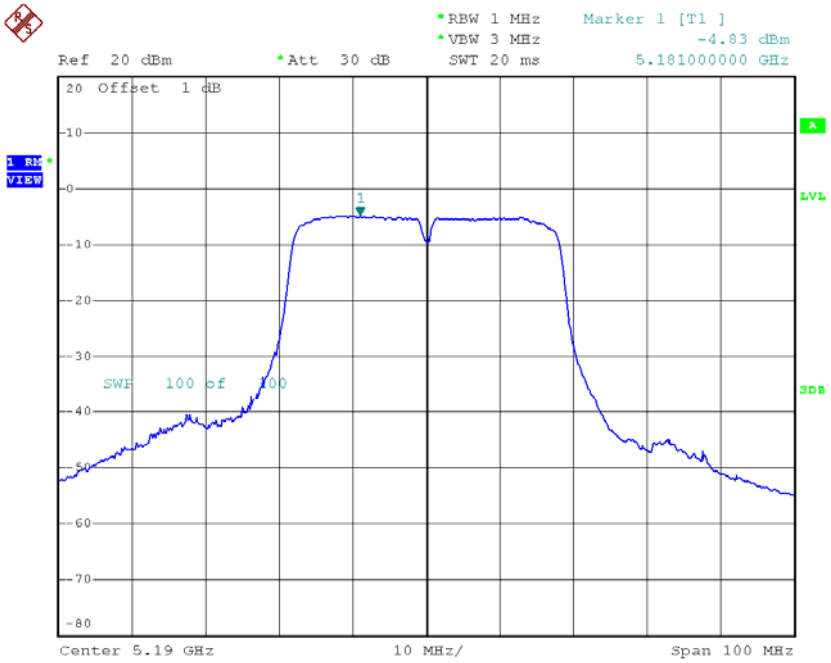



Date: 5.MAY.2015 15:04:09

| Test Mode: UNII-1/TX N40 Mode_CH38/CH46 |
|---|

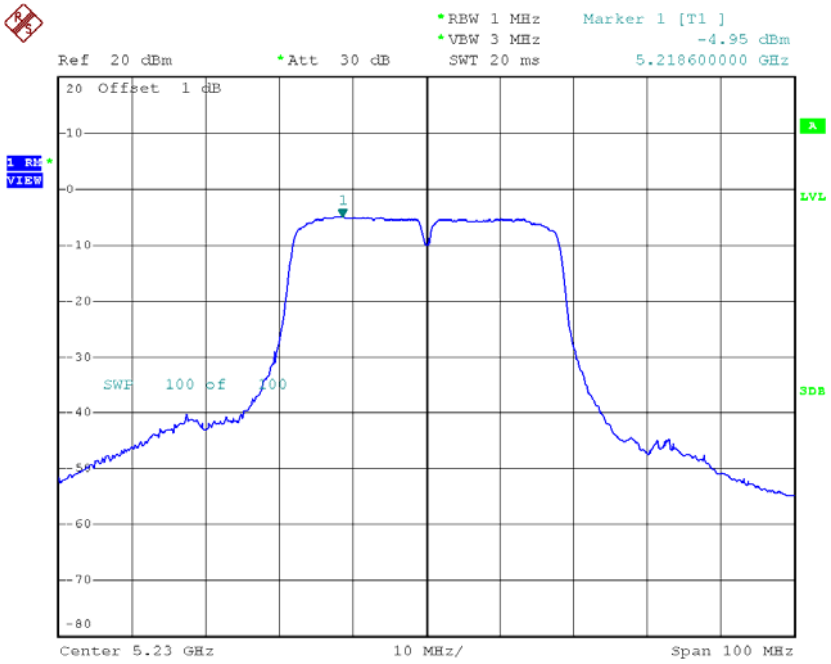
| Channel | Frequency (MHz) | Power Density (dBm/MHz) | Duty Factor (dBm/MHz) | Power Density+Duty Factor (dBm/MHz) | Limit (dBm/MHz) |
|---|---|---|---|---|---|
| CH38 | 5190 | -4.83 | 1.02 | -3.81 | 11.00 |
| CH46 | 5230 | -4.95 | 1.02 | -3.93 | 11.00 |

## CH38




Date: 5.MAY.2015 15:08:32

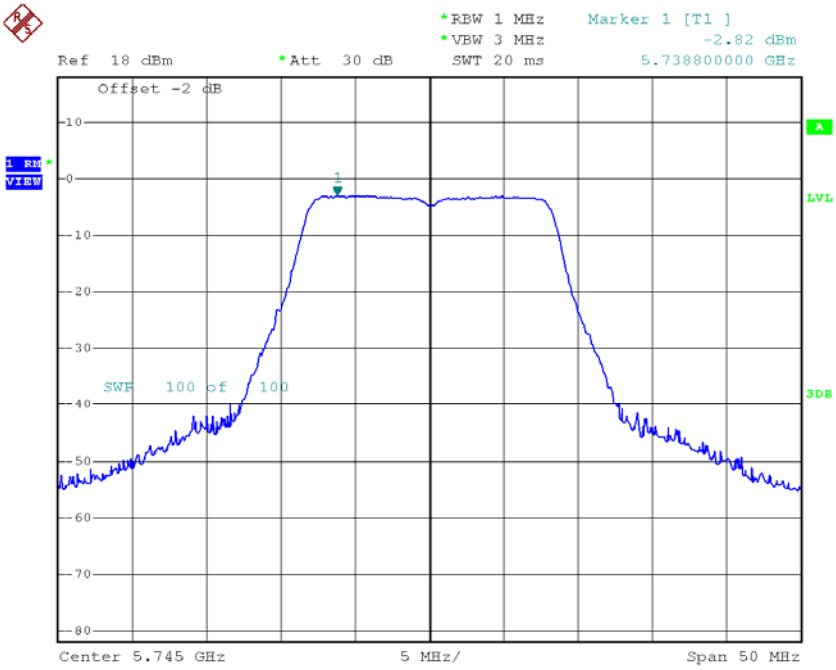
## CH46




Date: 5.MAY.2015 15:09:23

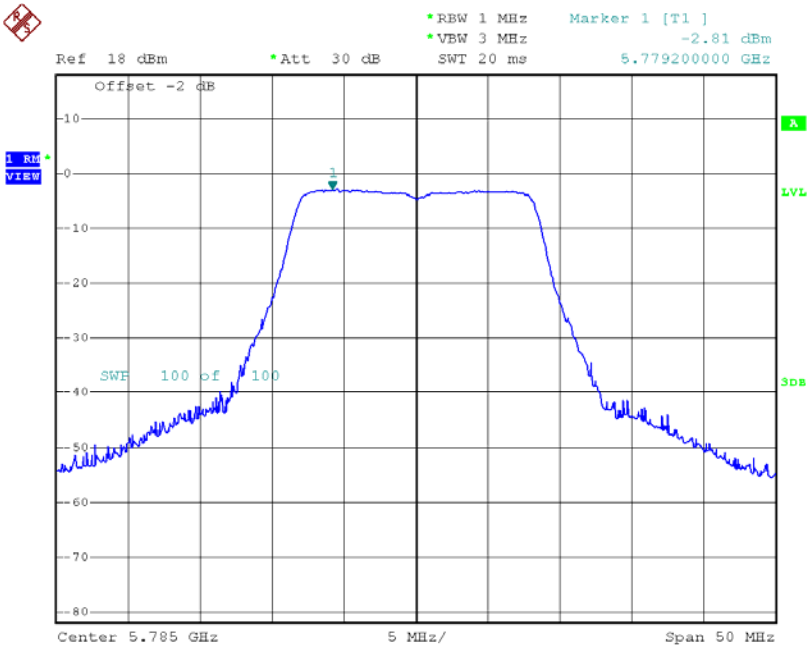
| Test Mode: UNII-3/TX A Mode_CH149/CH157/CH165 | | | | | |
|---|---|---|---|---|---|
| Channel | Frequency (MHz) | Power Density (dBm/MHz) | Duty Factor (dBm/MHz) | Power Density+Duty Factor (dBm/MHz) | Limit (dBm/MHz) |
| CH149 | 5745 | -2.82 | 0.44 | -2.38 | 30.00 |
| CH157 | 5785 | -2.81 | 0.44 | -2.37 | 30.00 |
| CH165 | 5825 | -3.21 | 0.44 | -2.77 | 30.00 |

**TX CH149**



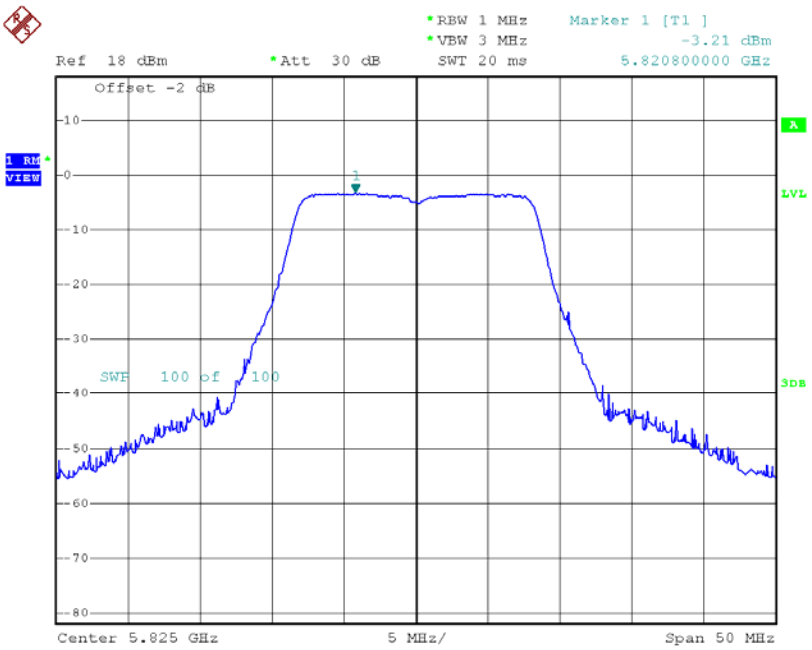

Date: 5.MAY.2015 14:58:21

## TX CH157




Date: 5.MAY.2015 14:59:51

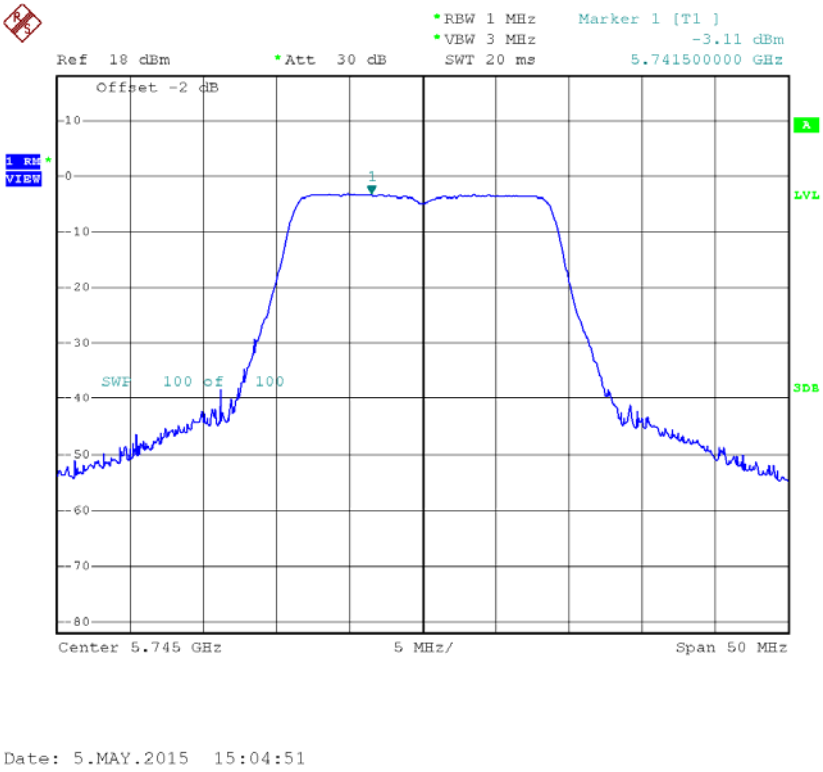
## TX CH165



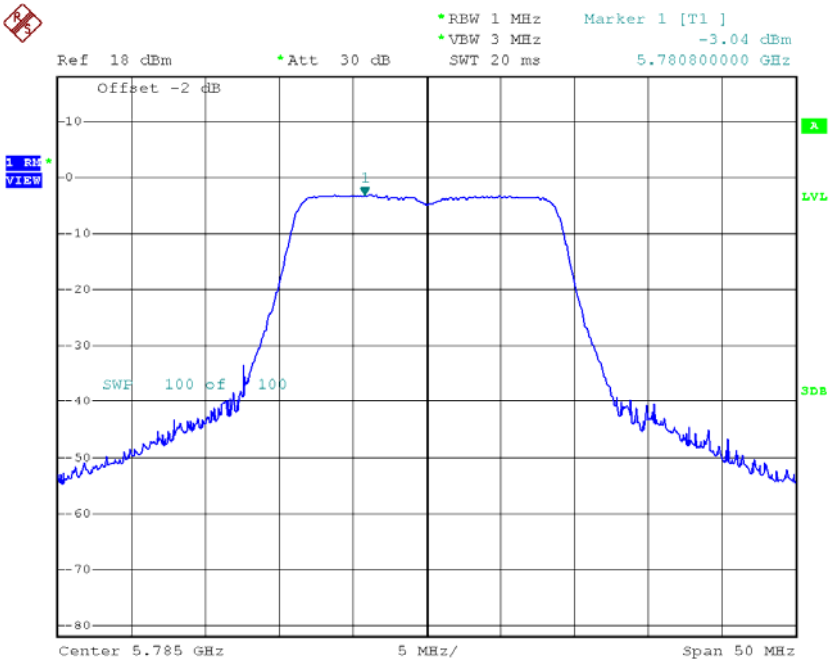

Date: 5.MAY.2015 15:00:45

| Test Mode: UNII-3/ TX N20 Mode_CH149/CH157/CH165 | | | | | |
|---|---|---|---|---|---|
| Channel | Frequency (MHz) | Power Density (dBm/MHz) | Duty Factor (dBm/MHz) | Power Density+Duty Factor (dBm/MHz) | Limit (dBm/MHz) |
| CH149 | 5745 | -3.11 | 0.46 | -2.65 | 30.00 |
| CH157 | 5785 | -3.04 | 0.46 | -2.58 | 30.00 |
| CH165 | 5825 | -3.48 | 0.46 | -3.02 | 30.00 |

**TX CH149**

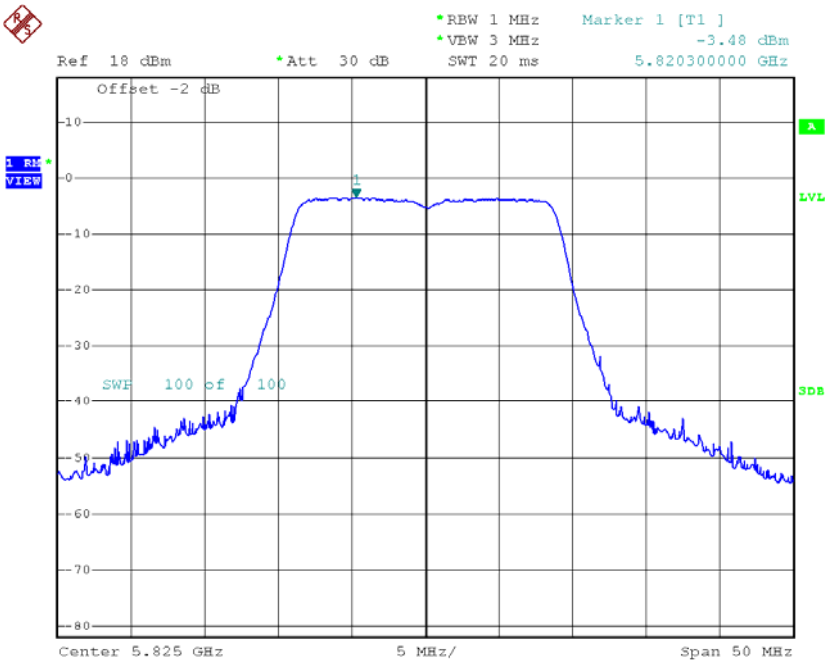


## TX CH157




Date: 5.MAY.2015 15:05:57

## TX CH165

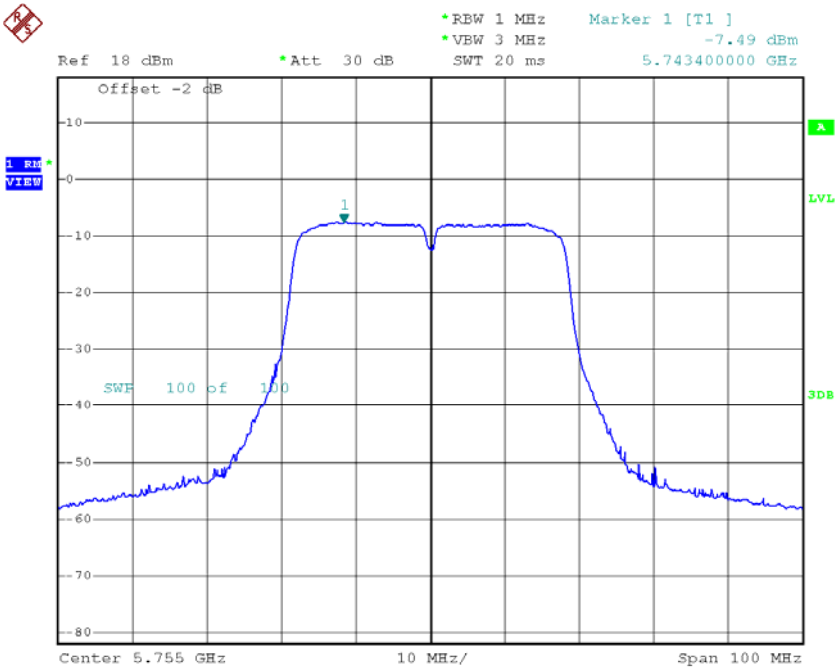



Date: 5.MAY.2015 15:06:32

| Test Mode: UNII-3/ TX N40 Mode_CH151/CH159 |
|---|

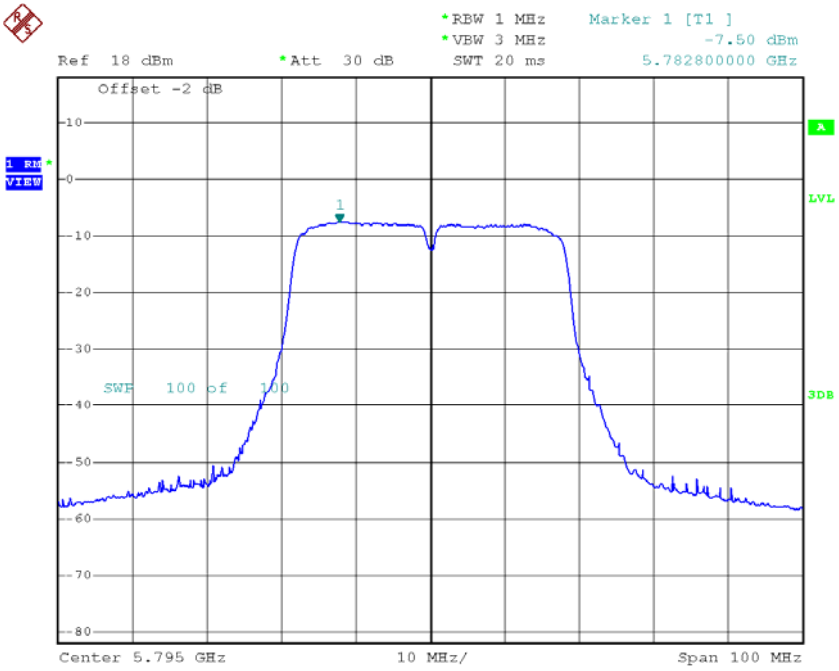
| Channel | Frequency (MHz) | Power Density (dBm/MHz) | Duty Factor (dBm/MHz) | Power Density+Duty Factor (dBm/MHz) | Limit (dBm/MHz) |
|---|---|---|---|---|---|
| CH151 | 5755 | -7.49 | 1.02 | -6.47 | 30.00 |
| CH159 | 5795 | -7.50 | 1.02 | -6.48 | 30.00 |

## TX CH151




Date: 5.MAY.2015 15:10:06

## TX CH159




Date: 5.MAY.2015 15:10:58

# ATTACHMENTI-FREQUENCY STABILITY

| Test Mode: | UNII-1 |
|---|---|

**Voltage vs. Frequency Stability**

| Voltage | Measurement Frequency (MHz) |
|---|---|
| (V) | 5180.0000 |
| 132 | 5180.054810 |
| 120 | 5180.054810 |
| 108 | 5180.054800 |
| Max. Deviation (MHz) | 0.054810 |
| Max. Deviation (ppm) | 10.58 |

**Temperature vs. Frequency Stability**

| Temperature | Measurement Frequency (MHz) |
|---|---|
| (℃) | 5180.0000 |
| -10 | 5180.054810 |
| 5 | 5180.054811 |
| 15 | 5180.054809 |
| 25 | 5180.054810 |
| 35 | 5180.054808 |
| 45 | 5180.054810 |
| 55 | 5180.054812 |
| Max. Deviation (MHz) | 0.054812 |
| Max. Deviation (ppm) | 10.581467 |

| Test Mode: | UNII-3 |
|---|---|

**Voltage vs. Frequency Stability**

| Voltage | Measurement Frequency (MHz) |
|---|---|
| (V) | 5745.0000 |
| 132 | 5745.059887 |
| 120 | 5745.059887 |
| 108 | 5745.059887 |
| Max. Deviation (MHz) | 0.059887 |
| Max. Deviation (ppm) | 10.42 |

**Temperature vs. Frequency Stability**

| Temperature | Measurement Frequency (MHz) |
|---|---|
| (℃) | 5745.0000 |
| -10 | 5745.059884 |
| 5 | 5745.059886 |
| 15 | 5745.059883 |
| 25 | 5745.059887 |
| 35 | 5745.059888 |
| 45 | 5745.059887 |
| 55 | 5745.059882 |
| Max. Deviation (MHz) | 0.059888 |
| Max. Deviation (ppm) | 10.424369 |